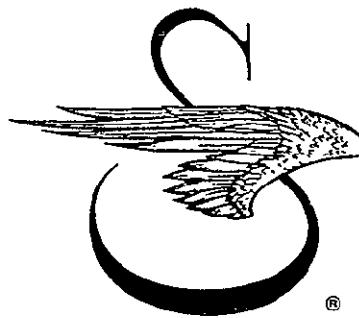


*M. J. [unclear]*

(NASA-CR-144965) RSRA SIXTH SCALE WIND N76-20125  
TUNNEL TEST. TABULATED BALANCE DATA, VOLUME  
2 Final Report, Mar. - Nov. 1974 (Sikorsky  
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TITLE RSRA SIXTH SCALE WIND TUNNEL TEST  
TABULATED BALANCE DATA - FINAL REPORT VOLUME II

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This document is applicable to the following aircraft model(s) and contract(s)

|             |            |
|-------------|------------|
| MODEL       | CONTRACT   |
| S-72 (RSRA) | NAS1-13000 |

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REVISIONS CONTINUED ON NEXT PAGE

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### TABULATED BALANCE DATA

This volume contains summaries of all the force and moment data acquired during Phase I and Phase II of the RSRA Sixth Scale Wind Tunnel Test. This data includes and supplements the data presented in curve form in Volume I of this report.

Included in each summary are the model configuration (see Volume I for nomenclature), wing and empennage incidences and deflections, and recorded balance data. The first group of data in each summary presents the force and moment data in full scale parametric form, the dynamic pressure and velocity in the test section, and the powered nacelle fan speed.

The second and third groups of data are the balance data in non-dimensional coefficient form. The wind axis coefficient data corresponds to the parametric data divided by the wing area for forces and divided by the product of the wing area and wing span or mean aerodynamic chord for moments. The stability axis data resolves the wind axis data with respect to the angle of yaw (see Volume I for data reduction equations.)

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P.2

RUN 5 CONFIG F P B T BT

| PT. NO. | 1W ALPHA DEG | - DELF PSI DEG | - DELA CLBAR SQ-FT | - IHT CDBAR SQ-FT | 0 DELF CPMBAR CU-FT | 0 DELR CYMBAR CU-FT | 0 DELR CRMBAR CU-FT | 0 DELSB Q PSF | 0 V KNOTS | RPM    |    |
|---------|--------------|----------------|--------------------|-------------------|---------------------|---------------------|---------------------|---------------|-----------|--------|----|
| 14      | .0           | .0             | 6.9                | 14.64             | -265.               | -3.                 | 261.                | 4.43          | 8.47      | 50.08  | 0. |
| 15      | .0           | .0             | 7.1                | 13.76             | -255.               | 30.                 | 299.                | 1.65          | 19.31     | 75.76  | 0. |
| 16      | .0           | .0             | 7.4                | 13.47             | -255.               | 30.                 | 278.                | 1.38          | 34.64     | 101.74 | 0. |
| 17      | .0           | .0             | 7.4                | 13.34             | -250.               | 35.                 | 282.                | .68           | 50.29     | 122.90 | 0. |
| 18      | .0           | .0             | 7.0                | 13.30             | -260.               | 30.                 | 302.                | .64           | 64.04     | 139.00 | 0. |
| 19      | .0           | .0             | 6.8                | 13.04             | -247.               | 29.                 | 290.                | .43           | 79.93     | 155.69 | 0. |
| 20      | .0           | .0             | 6.7                | 12.63             | -243.               | 26.                 | 282.                | .11           | 97.14     | 172.11 | 0. |
| 21      | .0           | .0             | 6.1                | 13.23             | -253.               | 27.                 | 316.                | 1.31          | 35.56     | 103.08 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD    | CPM    | CYM    | CRM   | CY    |
|------|-------|-------|-------|--------|--------|-------|-------|
| 14   | .00   | .0186 | .0396 | -.0854 | -.0002 | .0158 | .0120 |
| 15   | .00   | .0191 | .0372 | -.0823 | .0018  | .0181 | .0045 |
| 16   | .00   | .0199 | .0364 | -.0821 | .0018  | .0168 | .0037 |
| 17   | .00   | .0199 | .0361 | -.0807 | .0021  | .0170 | .0018 |
| 18   | .00   | .0188 | .0360 | -.0839 | .0018  | .0182 | .0017 |
| 19   | .00   | .0185 | .0352 | -.0796 | .0017  | .0175 | .0012 |
| 20   | .00   | .0180 | .0341 | -.0783 | .0016  | .0171 | .0003 |
| 21   | .00   | .0164 | .0358 | -.0814 | .0016  | .0191 | .0035 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB   | CPMB   | CYMR   | CRMB  | CYB   |
|------|-------|-------|-------|--------|--------|-------|-------|
| 14   | .00   | .0186 | .0396 | -.0854 | -.0002 | .0158 | .0120 |
| 15   | .00   | .0191 | .0372 | -.0823 | .0018  | .0181 | .0045 |
| 16   | .00   | .0199 | .0364 | -.0821 | .0018  | .0168 | .0037 |
| 17   | .00   | .0199 | .0361 | -.0807 | .0021  | .0170 | .0018 |
| 18   | .00   | .0188 | .0360 | -.0839 | .0018  | .0182 | .0017 |
| 19   | .00   | .0185 | .0352 | -.0796 | .0017  | .0175 | .0012 |
| 20   | .00   | .0180 | .0341 | -.0783 | .0016  | .0171 | .0003 |
| 21   | .00   | .0164 | .0358 | -.0814 | .0016  | .0191 | .0035 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P3

RUN 7 CONFIG F P B 7 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELTA Q PSF | V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------|-----|
| 7       | -0.0      | 0.0           | 7.0         | 12.12       | -210.        | 2.           | 6.           | 4.08        | 83.81       | 159.51  | 0.  |
| 8       | -20.1     | 0.0           | -86.7       | 29.74       | 1898.        | -140.        | 78.          | 6.46        | 83.27       | 158.97  | 0.  |
| 9       | -15.2     | 0.0           | -74.6       | 20.23       | 1642.        | -45.         | 1.           | 1.38        | 82.41       | 158.14  | 0.  |
| 10      | -9.7      | 0.0           | -49.1       | 15.56       | 1050.        | -56.         | 11.          | 2.76        | 79.86       | 155.61  | 0.  |
| 11      | -5.2      | 0.0           | -23.0       | 12.32       | 460.         | -38.         | 17.          | 4.43        | 79.70       | 155.45  | 0.  |
| 12      | 0.0       | 0.0           | 7.2         | 12.26       | -213.        | 4.           | 11.          | 4.39        | 78.45       | 154.20  | 0.  |
| 13      | 5.1       | 0.0           | 34.3        | 15.35       | -801.        | 39.          | 18.          | 3.24        | 78.27       | 154.01  | 0.  |
| 14      | 10.0      | 0.0           | 59.8        | 21.28       | -1348.       | 57.          | 23.          | 1.80        | 80.11       | 155.86  | 0.  |
| 15      | 15.0      | 0.0           | 72.2        | 35.65       | -1591.       | 28.          | 12.          | 2.62        | 80.50       | 156.25  | 0.  |
| 16      | 20.0      | 0.0           | 76.6        | 47.43       | -1523.       | 41.          | 48.          | 1.34        | 80.54       | 156.29  | 0.  |
| 17      | 24.1      | 0.0           | 75.0        | 55.80       | -1457.       | 18.          | 22.          | 3.02        | 80.10       | 155.85  | 0.  |
| 18      | 0.0       | 0.0           | 6.5         | 12.37       | -208.        | 6.           | 19.          | 4.30        | 80.00       | 155.75  | 0.  |

| PT.# | PSI    | CL      | CD    | CPM     | CYM     | CRM    | CY    |
|------|--------|---------|-------|---------|---------|--------|-------|
| 7    | -0.01  | 0.188   | 0.328 | -0.677  | 0.001   | 0.004  | 0.110 |
| 8    | -20.08 | -0.2343 | 0.804 | 0.6118  | -0.0084 | 0.0047 | 0.175 |
| 9    | -15.18 | -0.2017 | 0.547 | 0.5293  | -0.0027 | 0.0001 | 0.037 |
| 10   | -9.67  | -0.1326 | 0.420 | 0.3385  | -0.0034 | 0.0007 | 0.075 |
| 11   | -5.21  | -0.0621 | 0.333 | 0.1484  | -0.0023 | 0.0010 | 0.120 |
| 12   | 0.00   | 0.0194  | 0.331 | -0.0686 | 0.0002  | 0.0007 | 0.119 |
| 13   | 5.07   | 0.0928  | 0.415 | -0.2581 | 0.0023  | 0.0011 | 0.087 |
| 14   | 9.97   | 0.1617  | 0.575 | -0.4347 | 0.0035  | 0.0014 | 0.049 |
| 15   | 15.04  | 0.1951  | 0.963 | -0.5129 | 0.0017  | 0.0007 | 0.071 |
| 16   | 20.01  | 0.2069  | 1.282 | -0.4912 | 0.0025  | 0.0029 | 0.036 |
| 17   | 24.10  | 0.2027  | 1.508 | -0.4697 | 0.0011  | 0.0013 | 0.082 |
| 18   | 0.00   | 0.0177  | 0.334 | -0.0671 | 0.0003  | 0.0011 | 0.116 |

| PT.# | PSI    | CLB     | CDB   | CPMB    | CYMB    | CRMB   | CYB   |
|------|--------|---------|-------|---------|---------|--------|-------|
| 7    | -0.01  | 0.188   | 0.328 | -0.677  | 0.001   | 0.004  | 0.110 |
| 8    | -20.08 | -0.2343 | 0.804 | 0.6118  | -0.0084 | 0.0047 | 0.175 |
| 9    | -15.18 | -0.2017 | 0.547 | 0.5293  | -0.0027 | 0.0001 | 0.037 |
| 10   | -9.67  | -0.1326 | 0.420 | 0.3385  | -0.0034 | 0.0007 | 0.075 |
| 11   | -5.21  | -0.0621 | 0.333 | 0.1484  | -0.0023 | 0.0010 | 0.120 |
| 12   | 0.00   | 0.0194  | 0.331 | -0.0686 | 0.0002  | 0.0007 | 0.119 |
| 13   | 5.07   | 0.0928  | 0.415 | -0.2581 | 0.0023  | 0.0011 | 0.087 |
| 14   | 9.97   | 0.1617  | 0.575 | -0.4347 | 0.0035  | 0.0014 | 0.049 |
| 15   | 15.04  | 0.1951  | 0.963 | -0.5129 | 0.0017  | 0.0007 | 0.071 |
| 16   | 20.01  | 0.2069  | 1.282 | -0.4912 | 0.0025  | 0.0029 | 0.036 |
| 17   | 24.10  | 0.2027  | 1.508 | -0.4697 | 0.0011  | 0.0013 | 0.082 |
| 18   | 0.00   | 0.0177  | 0.334 | -0.0671 | 0.0003  | 0.0011 | 0.116 |

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RUN 8 CONFIG F P B T BT

| PT. NO. | - DELF    |         | - DELA      |             | - IHT        |              | O DELE       |             | O DELR |           | O DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|-----------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | O V KNOTS |         |  |     |
| 8       | .0        | .0      | 7.4         | 12.40       | -215.        | -3.          | 18.          | 4.29        | 81.81  | 157.59    | 0.      |  |     |
| 9       | .0        | .0      | 7.0         | 12.59       | -215.        | -3.          | -5.          | 4.01        | 78.99  | 154.77    | 0.      |  |     |
| 10      | .0        | -20.0   | 3.7         | 46.45       | -117.        | 769.         | 11.          | -121.22     | 78.85  | 154.63    | 0.      |  |     |
| 11      | .0        | -15.0   | 4.6         | 29.53       | -132.        | 356.         | -9.          | -82.72      | 79.69  | 155.47    | 0.      |  |     |
| 12      | .0        | -10.0   | 5.8         | 18.94       | -184.        | 85.          | -15.         | -47.58      | 78.68  | 154.46    | 0.      |  |     |
| 14      | .0        | -1      | 7.5         | 12.39       | -213.        | -5.          | 17.          | 4.46        | 79.49  | 155.26    | 0.      |  |     |
| 15      | .0        | 5.0     | 7.8         | 14.47       | -220.        | 22.          | 10.          | 28.75       | 78.91  | 154.68    | 0.      |  |     |
| 16      | .0        | 10.0    | 5.7         | 18.20       | -181.        | -106.        | 20.          | 55.01       | 79.46  | 155.23    | 0.      |  |     |
| 18      | .0        | 20.1    | 3.0         | 43.08       | -186.        | -799.        | 46.          | 126.97      | 79.49  | 155.26    | 0.      |  |     |
| 19      | .0        | 2.5     | 7.6         | 12.88       | -213.        | 20.          | 20.          | 15.94       | 79.72  | 155.49    | 0.      |  |     |
| 20      | .0        | .0      | 6.8         | 12.35       | -192.        | -5.          | 5.           | 5.34        | 79.07  | 154.84    | 0.      |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. | PSI    | CL    | CD    | CPH    | CYM    | CRM    | CY     |
|-----|--------|-------|-------|--------|--------|--------|--------|
| 8   | .00    | .0199 | .0335 | -.4155 | -.0002 | .0011  | .0116  |
| 9   | .00    | .0190 | .0340 | -.4153 | -.0002 | -.0003 | .0108  |
| 10  | -20.00 | .0101 | .1255 | -.2257 | .0464  | .0006  | -.3276 |
| 11  | -15.00 | .0126 | .0798 | -.2553 | .0215  | -.0005 | -.2236 |
| 12  | -10.00 | .0158 | .0512 | -.3554 | .0051  | -.0009 | -.1286 |
| 14  | -1     | .0202 | .0335 | -.4129 | -.0003 | .0010  | .0120  |
| 15  | 5.00   | .0212 | .0391 | -.4265 | .0013  | .0006  | .0777  |
| 16  | 10.00  | .0155 | .0492 | -.3508 | -.0064 | .0012  | .1487  |
| 18  | 20.10  | .0081 | .1164 | -.3591 | -.0483 | .0027  | .3432  |
| 19  | 2.50   | .0206 | .0348 | -.4113 | .0012  | .0012  | .0431  |
| 20  | .00    | .0184 | .0334 | -.3709 | -.0003 | .0003  | .0144  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|-----|--------|-------|--------|--------|--------|--------|--------|
| 8   | .00    | .0199 | .0335  | -.4155 | -.0002 | .0011  | .0116  |
| 9   | .00    | .0190 | .0340  | -.4153 | -.0002 | -.0003 | .0108  |
| 10  | -20.00 | .0101 | .0053  | -.2190 | .0464  | .0030  | -.3508 |
| 11  | -15.00 | .0126 | .0189  | -.2421 | .0215  | .0016  | -.2366 |
| 12  | -10.00 | .0158 | .0280  | -.3450 | .0051  | .0011  | -.1356 |
| 14  | -1     | .0202 | .0335  | -.4129 | -.0003 | .0010  | .0120  |
| 15  | 5.00   | .0212 | .0322  | -.4232 | .0013  | -.0006 | .0808  |
| 16  | 10.00  | .0155 | .0225  | -.3386 | -.0064 | -.0007 | .1550  |
| 18  | 20.10  | .0081 | -.0092 | -.3066 | -.0483 | -.0013 | .3623  |
| 19  | 2.50   | .0206 | .0329  | -.4092 | .0012  | .0006  | .0446  |
| 20  | .00    | .0184 | .0334  | -.3709 | -.0003 | .0003  | .0144  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P. 5

RUN 9 CONFIG F P R T RT

| PT. NO. | ALPHA DEG | DELTA PSI | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-----------|-----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| 6       | 10.0      | .0        | 59.3        | 21.23       | -1307.       | 69.          | 11.          | 1.27        | 80.74 | 156.50  | 0.  |
| 7       | 10.0      | -20.0     | 56.5        | 63.21       | -1286.       | 1037.        | -131.        | -134.93     | 79.98 | 156.74  | 0.  |
| 8       | 10.0      | -15.0     | 56.8        | 46.22       | -1246.       | 700.         | -117.        | -101.62     | 79.65 | 156.41  | 0.  |
| 9       | 10.0      | -10.0     | 59.2        | 32.55       | -1346.       | 411.         | -115.        | -65.82      | 80.12 | 156.87  | 0.  |
| 10      | 10.0      | -5.0      | 61.1        | 23.35       | -1407.       | 147.         | -57.         | -29.05      | 80.91 | 156.66  | 0.  |
| 11      | 10.0      | -2.5      | 59.9        | 21.85       | -1348.       | 92.          | -30.         | -13.44      | 80.84 | 156.60  | 0.  |
| 12      | 10.0      | .0        | 59.8        | 21.31       | -1339.       | 75.          | -1.          | 1.35        | 80.61 | 156.36  | 0.  |
| 13      | 10.0      | 2.5       | 59.1        | 21.48       | -1325.       | 35.          | 20.          | 15.65       | 80.95 | 156.70  | 0.  |
| 14      | 10.0      | 5.0       | 59.0        | 23.76       | -1327.       | -56.         | 41.          | 32.94       | 80.66 | 156.41  | 0.  |
| 15      | 10.0      | 10.0      | 57.1        | 33.01       | -1286.       | -405.        | 77.          | 70.65       | 80.56 | 156.31  | 0.  |
| 16      | 10.0      | 15.0      | 57.6        | 43.81       | -1299.       | -625.        | 147.         | 99.83       | 81.01 | 156.75  | 0.  |
| 17      | 10.0      | 20.2      | 56.3        | 60.77       | -1283.       | -946.        | 193.         | 134.89      | 80.64 | 156.38  | 0.  |
| 18      | 10.0      | .0        | 59.6        | 21.32       | -1323.       | 80.          | 11.          | 1.14        | 80.90 | 156.65  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | .00    | .1603 | .0574 | -.4213 | .0042  | .0007  | .0034  |
| 7    | -20.00 | .1528 | .1708 | -.4145 | .0626  | -.0079 | -.3647 |
| 8    | -15.00 | .1536 | .1249 | -.4017 | .0423  | -.0071 | -.2746 |
| 9    | -10.00 | .1599 | .0880 | -.4338 | .0248  | -.0069 | -.1779 |
| 10   | -5.00  | .1652 | .0631 | -.4536 | .0089  | -.0034 | -.0785 |
| 11   | -2.50  | .1619 | .0591 | -.4346 | .0056  | -.0018 | -.0363 |
| 12   | .00    | .1616 | .0576 | -.4317 | .0045  | -.0000 | .0037  |
| 13   | 2.50   | .1598 | .0581 | -.4271 | .0021  | .0012  | .0423  |
| 14   | 5.00   | .1596 | .0642 | -.4279 | -.0034 | .0025  | .0890  |
| 15   | 10.00  | .1544 | .0892 | -.4145 | -.0245 | .0046  | .1910  |
| 16   | 15.00  | .1557 | .1184 | -.4187 | -.0378 | .0089  | .2698  |
| 17   | 20.20  | .1522 | .1642 | -.4137 | -.0572 | .0117  | .3646  |
| 18   | .00    | .1610 | .0576 | -.4265 | .0048  | .0007  | .0031  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | .00    | .1603 | .0574 | -.4213 | .0042  | .0007  | .0034  |
| 7    | -20.00 | .1528 | .0352 | -.3748 | .0626  | .0193  | -.4012 |
| 8    | -15.00 | .1536 | .0492 | -.3780 | .0423  | .0127  | -.2977 |
| 9    | -10.00 | .1599 | .0556 | -.4207 | .0248  | .0073  | -.1905 |
| 10   | -5.00  | .1652 | .0560 | -.4503 | .0089  | .0040  | -.0837 |
| 11   | -2.50  | .1619 | .0574 | -.4338 | .0056  | .0017  | -.0389 |
| 12   | .00    | .1616 | .0576 | -.4317 | .0045  | -.0000 | .0037  |
| 13   | 2.50   | .1598 | .0561 | -.4264 | .0021  | -.0023 | .0448  |
| 14   | 5.00   | .1596 | .0562 | -.4251 | -.0034 | -.0046 | .0943  |
| 15   | 10.00  | .1544 | .0545 | -.4038 | -.0245 | -.0090 | .2036  |
| 16   | 15.00  | .1557 | .0442 | -.3920 | -.0378 | -.0118 | .2913  |
| 17   | 20.20  | .1522 | .0276 | -.3664 | -.0572 | -.0159 | .3989  |
| 18   | .00    | .1610 | .0576 | -.4265 | .0048  | .0007  | .0031  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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PG

RUN 10 CONFIG F P B T BT

| PT. No. | IW ALPHA DEG | - DELF PSI DEG | - DELA CLBAR SQ=FT | CDBAR SQ=FT | IHT CPMBAR CU=FT | O DELE CYMBAR CU=FT | O DELR CRMBAR CU=FT | O DELSB CYBAR SQ=FT | O DELSB Q PSF | O V KNOTS | RPM |
|---------|--------------|----------------|--------------------|-------------|------------------|---------------------|---------------------|---------------------|---------------|-----------|-----|
| 6       | -10.0        | 0              | -50.1              | 14.38       | 1059.            | -143.               | 1.                  | -.30                | 80.01         | 155.77    | 0.  |
| 7       | -10.0        | -20.0          | -25.9              | 49.40       | 446.             | 1051.               | -156.               | -134.62             | 79.71         | 155.46    | 0.  |
| 8       | -10.0        | -15.0          | -35.5              | 34.86       | 688.             | 732.                | -82.                | -99.01              | 79.89         | 155.64    | 0.  |
| 9       | -10.0        | -10.0          | -41.0              | 23.82       | 876.             | 376.                | -18.                | -63.24              | 80.53         | 156.28    | 0.  |
| 10      | -10.0        | -5.0           | -46.8              | 17.60       | 1005.            | 126.                | -16.                | -33.63              | 80.22         | 155.97    | 0.  |
| 11      | -10.0        | -2.5           | -48.0              | 15.63       | 1026.            | 12.                 | 5.                  | -17.85              | 80.36         | 156.11    | 0.  |
| 12      | -10.0        | 0              | -49.5              | 14.40       | 1022.            | -136.               | -13.                | .68                 | 80.50         | 156.25    | 0.  |
| 13      | -10.0        | 2.5            | -49.1              | 14.44       | 992.             | -255.               | -14.                | 17.11               | 81.23         | 156.97    | 0.  |
| 14      | -10.0        | 5.0            | -46.6              | 15.95       | 939.             | -393.               | -4.                 | 35.04               | 80.89         | 156.63    | 0.  |
| 15      | -10.0        | 10.0           | -41.1              | 21.15       | 776.             | -645.               | -2.                 | 68.75               | 80.96         | 156.71    | 0.  |
| 16      | -10.0        | 14.9           | -32.9              | 32.13       | 553.             | -981.               | 88.                 | 106.16              | 80.60         | 156.35    | 0.  |
| 17      | -10.0        | 19.6           | -21.7              | 48.20       | 228.             | -1346.              | -12.                | 143.39              | 81.06         | 156.80    | 0.  |
| 18      | -10.0        | 0              | -49.3              | 14.29       | 1040.            | -146.               | -13.                | .55                 | 80.71         | 156.45    | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM   | CYM    | CRM    | CY     |
|------|--------|--------|-------|-------|--------|--------|--------|
| 6    | .00    | -.1355 | .0389 | .3414 | -.0086 | .0000  | -.0008 |
| 7    | -20.00 | -.0701 | .1335 | .1438 | .0635  | -.0094 | -.3638 |
| 8    | -15.00 | -.0959 | .0942 | .2217 | .0442  | -.0050 | -.2676 |
| 9    | -10.00 | -.1125 | .0644 | .2824 | .0227  | -.0011 | -.1709 |
| 10   | -5.00  | -.1264 | .0476 | .3240 | .0076  | -.0010 | -.0909 |
| 11   | -2.50  | -.1298 | .0422 | .3308 | .0007  | .0003  | -.0482 |
| 12   | .00    | -.1337 | .0389 | .3295 | -.0082 | -.0008 | .0018  |
| 13   | 2.50   | -.1326 | .0390 | .3199 | -.0154 | -.0008 | .0462  |
| 14   | 5.00   | -.1259 | .0431 | .3027 | -.0237 | -.0002 | .0947  |
| 15   | 10.00  | -.1112 | .0571 | .2500 | -.0389 | -.0001 | .1858  |
| 16   | 14.90  | -.0888 | .0868 | .1781 | -.0593 | .0053  | .2869  |
| 17   | 19.60  | -.0586 | .1303 | .0736 | -.0813 | -.0007 | .3875  |
| 18   | .00    | -.1332 | .0386 | .3351 | -.0088 | -.0008 | .0015  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR   | CPMB  | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|-------|--------|--------|--------|
| 6    | .00    | -.1355 | .0389 | .3414 | -.0086 | .0000  | -.0008 |
| 7    | -20.00 | -.0701 | .0004 | .1523 | .0635  | -.0181 | -.3876 |
| 8    | -15.00 | -.0959 | .0214 | .2209 | .0442  | -.0156 | -.2829 |
| 9    | -10.00 | -.1125 | .0336 | .2791 | .0227  | -.0103 | -.1795 |
| 10   | -5.00  | -.1264 | .0394 | .3232 | .0076  | -.0063 | -.0947 |
| 11   | -2.50  | -.1298 | .0401 | .3304 | .0007  | -.0024 | -.0500 |
| 12   | .00    | -.1337 | .0389 | .3295 | -.0082 | -.0008 | .0018  |
| 13   | 2.50   | -.1326 | .0370 | .3194 | -.0154 | .0018  | .0479  |
| 14   | 5.00   | -.1259 | .0346 | .3015 | -.0237 | .0047  | .0981  |
| 15   | 10.00  | -.1112 | .0239 | .2461 | -.0389 | .0080  | .1929  |
| 16   | 14.90  | -.0888 | .0098 | .1794 | -.0593 | .0137  | .2996  |
| 17   | 19.60  | -.0586 | .0079 | .0680 | -.0813 | .0040  | .4088  |
| 18   | .00    | -.1332 | .0386 | .3351 | -.0088 | -.0008 | .0015  |

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RUN 11 CONFIG F P R T BT

| PT. No. | DELTA ALPHA DEG | DELTA PSI DEG | DELTA CL BAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM |
|---------|-----------------|---------------|--------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------|---------------|-----|
| 2       | 0               | 0             | 30.3               | 14.02             | -900.              | 0.                 | 6.                 | 4.86              | 80.52       | 156.28        | 0.  |
| 3       | -20.0           | 0             | -78.3              | 22.73             | 1590.              | -98.               | -23.               | 4.77              | 80.63       | 156.38        | 0.  |
| 4       | -15.0           | 0             | -50.0              | 16.09             | 937.               | -110.              | 3.                 | 4.17              | 80.10       | 155.85        | 0.  |
| 5       | -10.0           | 0             | -23.8              | 12.44             | 354.               | -65.               | 32.                | 2.38              | 80.24       | 155.99        | 0.  |
| 6       | -5.0            | 0             | 3.9                | 12.16             | -274.              | -38.               | 8.                 | 2.75              | 80.56       | 156.31        | 0.  |
| 7       | -2.5            | 0             | 17.0               | 12.57             | -564.              | -30.               | 9.                 | 1.77              | 80.90       | 156.65        | 0.  |
| 8       | 0               | 0             | 30.9               | 13.53             | -877.              | -11.               | 21.                | 2.31              | 81.13       | 156.87        | 0.  |
| 9       | 2.5             | 0             | 43.4               | 15.43             | -1141.             | 13.                | 22.                | 1.64              | 80.81       | 156.55        | 0.  |
| 10      | 5.0             | 0             | 54.9               | 19.01             | -1380.             | 32.                | 23.                | .75               | 81.24       | 156.98        | 0.  |
| 11      | 10.0            | 0             | 71.0               | 32.78             | -1746.             | 30.                | 36.                | .68               | 80.47       | 156.23        | 0.  |
| 12      | 15.0            | 0             | 75.5               | 43.66             | -1766.             | -21.               | -36.               | 2.07              | 80.81       | 156.56        | 0.  |
| 13      | 20.0            | 0             | 69.6               | 52.09             | -1490.             | -106.              | -130.              | 5.51              | 81.01       | 156.75        | 0.  |
| 14      | 24.0            | 0             | 71.2               | 60.99             | -1485.             | -91.               | -105.              | 5.01              | 80.86       | 156.60        | 0.  |
| 15      | 0               | 0             | 30.5               | 13.79             | -864.              | -13.               | 9.                 | 2.46              | 80.43       | 156.17        | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | .0819  | .0379 | -.2901 | .0000  | .0004  | .0131 |
| 3    | -20.00 | -.2117 | .0614 | .5126  | -.0059 | -.0014 | .0129 |
| 4    | -14.99 | -.1350 | .0435 | .3020  | -.0066 | .0002  | .0113 |
| 5    | -10.00 | -.0643 | .0336 | .1140  | -.0039 | .0019  | .0064 |
| 6    | -4.99  | .0104  | .0329 | -.0883 | -.0023 | .0005  | .0074 |
| 7    | -2.50  | .0458  | .0340 | -.1817 | -.0018 | .0006  | .0048 |
| 8    | .01    | .0834  | .0366 | -.2827 | -.0007 | .0013  | .0062 |
| 9    | 2.51   | .1173  | .0417 | -.3678 | .0008  | .0013  | .0044 |
| 10   | 5.01   | .1484  | .0514 | -.4449 | .0019  | .0014  | .0020 |
| 11   | 9.99   | .1919  | .0886 | -.5629 | .0018  | .0022  | .0018 |
| 12   | 15.00  | .2042  | .1180 | -.5695 | -.0013 | -.0022 | .0056 |
| 13   | 20.00  | .1880  | .1408 | -.4805 | -.0064 | -.0079 | .0149 |
| 14   | 24.00  | .1923  | .1648 | -.4789 | -.0055 | -.0064 | .0135 |
| 15   | .01    | .0824  | .0373 | -.2784 | -.0008 | .0005  | .0066 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | .0819  | .0379 | -.2901 | .0000  | .0004  | .0131 |
| 3    | -20.00 | -.2117 | .0614 | .5126  | -.0059 | -.0014 | .0129 |
| 4    | -14.99 | -.1350 | .0435 | .3020  | -.0066 | .0002  | .0113 |
| 5    | -10.00 | -.0643 | .0336 | .1140  | -.0039 | .0019  | .0064 |
| 6    | -4.99  | .0104  | .0329 | -.0883 | -.0023 | .0005  | .0074 |
| 7    | -2.50  | .0458  | .0340 | -.1817 | -.0018 | .0006  | .0048 |
| 8    | .01    | .0834  | .0366 | -.2827 | -.0007 | .0013  | .0062 |
| 9    | 2.51   | .1173  | .0417 | -.3678 | .0008  | .0013  | .0044 |
| 10   | 5.01   | .1484  | .0514 | -.4449 | .0019  | .0014  | .0020 |
| 11   | 9.99   | .1919  | .0886 | -.5629 | .0018  | .0022  | .0018 |
| 12   | 15.00  | .2042  | .1180 | -.5695 | -.0013 | -.0022 | .0056 |
| 13   | 20.00  | .1880  | .1408 | -.4805 | -.0064 | -.0079 | .0149 |
| 14   | 24.00  | .1923  | .1648 | -.4789 | -.0055 | -.0064 | .0135 |
| 15   | .01    | .0824  | .0373 | -.2784 | -.0008 | .0005  | .0066 |

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RUN 12 CONFIG F P R T BT

| PT. No. | ALPHA DEG | DELTA PSI DEG | DELTA CIBAR SQ-FT | IHT CDBAR SQ-FT | 10 DELE CPMBAR CU-FT | 0 DELR CYMBAR CU-FT | 0 DELR CYBAR SQ-FT | 0 DELSB Q PSF | 0 V KNOTS | RPM    |    |
|---------|-----------|---------------|-------------------|-----------------|----------------------|---------------------|--------------------|---------------|-----------|--------|----|
| 2       | 0         | 0             | 53.0              | 18.26           | -1533.               | 18.                 | 35.                | 1.24          | 79.60     | 155.35 | 0. |
| 3       | -20.0     | 0             | 53.3              | 18.43           | 854.                 | -78.                | 17.                | 2.93          | 80.30     | 156.05 | 0. |
| 4       | -15.0     | 0             | 24.6              | 13.68           | 201.                 | -91.                | 40.                | 4.08          | 80.17     | 155.92 | 0. |
| 5       | -10.0     | 0             | 2.3               | 12.29           | 403.                 | -49.                | 9.                 | 1.44          | 80.21     | 155.96 | 0. |
| 6       | -5.0      | 0             | 27.3              | 14.06           | -972.                | -26.                | 20.                | 2.77          | 80.00     | 155.75 | 0. |
| 7       | -2.5      | 0             | 41.1              | 15.14           | -1283.               | -10.                | 9.                 | 2.60          | 80.34     | 156.09 | 0. |
| 8       | 0         | 0             | 53.5              | 18.43           | -1543.               | 28.                 | 34.                | 1.87          | 80.15     | 155.89 | 0. |
| 9       | 2.5       | 0             | 40.2              | 24.46           | -1689.               | 49.                 | 23.                | .85           | 80.41     | 156.16 | 0. |
| 10      | 5.0       | 0             | 65.7              | 31.06           | -1795.               | 27.                 | 23.                | .75           | 81.32     | 157.06 | 0. |
| 11      | 10.0      | 0             | 71.6              | 41.80           | -1865.               | 20.                 | -12.               | .80           | 81.13     | 156.86 | 0. |
| 12      | 15.0      | 0             | 66.2              | 48.96           | -1558.               | -68.                | -24.               | 3.26          | 81.52     | 157.26 | 0. |
| 13      | 20.0      | 0             | 69.2              | 59.87           | -1594.               | -60.                | -59.               | 4.35          | 81.41     | 157.14 | 0. |
| 14      | 24.0      | 0             | 75.6              | 69.63           | -1731.               | -74.                | -33.               | 5.79          | 81.17     | 156.91 | 0. |
| 15      | 0         | 0             | 53.3              | 18.35           | -1538.               | 26.                 | 35.                | 1.27          | 80.41     | 156.15 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | .1433  | .0493 | -.4942 | .0011  | .0021  | .0034 |
| 3    | -20.01 | -.1440 | .0498 | .2752  | -.0047 | .0011  | .0079 |
| 4    | -15.01 | -.0665 | .0370 | .0648  | -.0055 | .0024  | .0110 |
| 5    | -10.01 | .0061  | .0332 | -.1298 | -.0030 | .0006  | .0039 |
| 6    | -5.00  | .0739  | .0380 | -.3135 | -.0016 | .0012  | .0075 |
| 7    | -2.51  | .1112  | .0409 | -.4135 | -.0006 | .0005  | .0068 |
| 8    | 0.01   | .1446  | .0498 | -.4973 | .0017  | .0020  | .0051 |
| 9    | 2.50   | .1626  | .0661 | -.5446 | .0030  | .0014  | .0023 |
| 10   | 4.99   | .1775  | .0840 | -.5788 | .0016  | .0014  | .0020 |
| 11   | 10.00  | .1936  | .1130 | -.6013 | .0012  | -.0007 | .0022 |
| 12   | 15.00  | .1788  | .1323 | -.5022 | -.0041 | -.0015 | .0088 |
| 13   | 20.00  | .1871  | .1618 | -.5140 | -.0036 | -.0035 | .0118 |
| 14   | 24.01  | .2044  | .1882 | -.5581 | -.0045 | -.0020 | .0157 |
| 15   | 0.00   | .1441  | .0496 | -.4957 | .0016  | .0021  | .0034 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | .1433  | .0493 | -.4942 | .0011  | .0021  | .0034 |
| 3    | -20.01 | -.1440 | .0498 | .2752  | -.0047 | .0011  | .0079 |
| 4    | -15.01 | -.0665 | .0370 | .0648  | -.0055 | .0024  | .0110 |
| 5    | -10.01 | .0061  | .0332 | -.1298 | -.0030 | .0006  | .0039 |
| 6    | -5.00  | .0739  | .0380 | -.3135 | -.0016 | .0012  | .0075 |
| 7    | -2.51  | .1112  | .0409 | -.4135 | -.0006 | .0005  | .0068 |
| 8    | 0.01   | .1446  | .0498 | -.4973 | .0017  | .0020  | .0051 |
| 9    | 2.50   | .1626  | .0661 | -.5446 | .0030  | .0014  | .0023 |
| 10   | 4.99   | .1775  | .0840 | -.5788 | .0016  | .0014  | .0020 |
| 11   | 10.00  | .1936  | .1130 | -.6013 | .0012  | -.0007 | .0022 |
| 12   | 15.00  | .1788  | .1323 | -.5022 | -.0041 | -.0015 | .0088 |
| 13   | 20.00  | .1871  | .1618 | -.5140 | -.0036 | -.0035 | .0118 |
| 14   | 24.01  | .2044  | .1882 | -.5581 | -.0045 | -.0020 | .0157 |
| 15   | 0.00   | .1441  | .0496 | -.4957 | .0016  | .0021  | .0034 |



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RUN 13 CONFIG F P R T BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CIBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA IHT CU-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA DELSR Q PSF | DELTA DELSB Q PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|-----------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|---------------|-----|
| 2       | 0         | 0             | -46.4             | 14.99             | 1339.           | -24.               | -16.               | -16.               | 2.75              | 80.53             | 156.29            | 0.            |     |
| 3       | -20.0     | 0             | -85.7             | 56.15             | 2049.           | -71.               | -71.               | 51.                | 3.90              | 81.23             | 156.97            | 0.            |     |
| 4       | -15.0     | 0             | -82.1             | 42.30             | 2025.           | -71.               | -5.                | -5.                | 2.20              | 80.35             | 156.10            | 0.            |     |
| 5       | -10.0     | 0             | -78.9             | 34.13             | 2030.           | -23.               | -5.                | -5.                | 2.73              | 79.92             | 155.67            | 0.            |     |
| 6       | -5.0      | 0             | -74.8             | 19.19             | 1992.           | -40.               | -17.               | -17.               | 3.50              | 80.74             | 156.49            | 0.            |     |
| 7       | -2.5      | 0             | -60.5             | 16.45             | 1660.           | -40.               | -17.               | -17.               | 3.41              | 80.90             | 156.65            | 0.            |     |
| 8       | 0         | 0             | -46.3             | 14.93             | 1337.           | -21.               | -15.               | -15.               | 2.74              | 80.94             | 156.69            | 0.            |     |
| 9       | 2.5       | 0             | -31.7             | 13.98             | 997.            | 0.                 | -14.               | -14.               | 1.53              | 80.25             | 156.00            | 0.            |     |
| 10      | 5.0       | 0             | -17.3             | 13.75             | 680.            | 9.                 | -14.               | -14.               | 2.13              | 79.84             | 155.61            | 0.            |     |
| 11      | 10.0      | 0             | 11.6              | 13.91             | 75.             | -11.               | -13.               | -13.               | 1.27              | 80.57             | 156.32            | 0.            |     |
| 12      | 15.0      | 0             | 39.3              | 17.67             | -483.           | -74.               | -37.               | -37.               | 4.45              | 80.45             | 156.19            | 0.            |     |
| 13      | 20.0      | 0             | 64.4              | 23.70             | -981.           | -1.                | -12.               | -12.               | 1.01              | 80.65             | 156.39            | 0.            |     |
| 14      | 24.0      | 0             | 76.1              | 37.35             | -1294.          | -44.               | -71.               | -71.               | 2.83              | 80.69             | 156.44            | 0.            |     |
| 15      | -7.5      | 0             | -85.9             | 23.66             | 2228.           | -82.               | -19.               | -19.               | 3.95              | 80.24             | 155.99            | 0.            |     |
| 16      | -5.0      | 0             | -74.9             | 19.09             | 1979.           | -36.               | -17.               | -17.               | 3.03              | 79.92             | 155.66            | 0.            |     |
| 17      | 0         | 0             | -46.4             | 14.93             | 1344.           | -19.               | -3.                | -3.                | 2.73              | 79.94             | 155.68            | 0.            |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | -.1255 | .0405 | .4318  | -.0015 | -.0009 | .0074 |
| 3    | -20.00 | -.2316 | .1518 | .6605  | -.0043 | .0031  | .0105 |
| 4    | -15.00 | -.2219 | .1143 | .6530  | -.0043 | -.0003 | .0060 |
| 5    | -10.00 | -.2132 | .0922 | .6544  | -.0014 | -.0003 | .0074 |
| 6    | -5.00  | -.2021 | .0519 | .6423  | -.0024 | -.0011 | .0095 |
| 7    | -2.50  | -.1635 | .0445 | .5350  | -.0024 | -.0010 | .0092 |
| 8    | .01    | -.1251 | .0403 | .4309  | -.0013 | -.0009 | .0074 |
| 9    | 2.50   | -.0857 | .0378 | .3215  | -.0000 | -.0008 | .0041 |
| 10   | 5.00   | -.0466 | .0372 | .2193  | .0006  | -.0009 | .0058 |
| 11   | 9.98   | .0313  | .0376 | .0241  | -.0007 | -.0008 | .0034 |
| 12   | 15.00  | .1061  | .0478 | -.1558 | -.0044 | -.0022 | .0120 |
| 13   | 20.00  | .1740  | .0641 | -.3161 | -.0001 | -.0007 | .0027 |
| 14   | 24.01  | .2057  | .1009 | -.4170 | -.0026 | -.0043 | .0076 |
| 15   | -7.50  | -.2322 | .0639 | .7184  | -.0050 | -.0011 | .0107 |
| 16   | -5.02  | -.2024 | .0516 | .6380  | -.0022 | -.0010 | .0082 |
| 17   | .00    | -.1255 | .0403 | .4332  | -.0011 | -.0002 | .0074 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | COB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | -.1255 | .0405 | .4318  | -.0015 | -.0009 | .0074 |
| 3    | -20.00 | -.2316 | .1518 | .6605  | -.0043 | .0031  | .0105 |
| 4    | -15.00 | -.2219 | .1143 | .6530  | -.0043 | -.0003 | .0060 |
| 5    | -10.00 | -.2132 | .0922 | .6544  | -.0014 | -.0003 | .0074 |
| 6    | -5.00  | -.2021 | .0519 | .6423  | -.0024 | -.0011 | .0095 |
| 7    | -2.50  | -.1635 | .0445 | .5350  | -.0024 | -.0010 | .0092 |
| 8    | .01    | -.1251 | .0403 | .4309  | -.0013 | -.0009 | .0074 |
| 9    | 2.50   | -.0857 | .0378 | .3215  | -.0000 | -.0008 | .0041 |
| 10   | 5.00   | -.0466 | .0372 | .2193  | .0006  | -.0009 | .0058 |
| 11   | 9.98   | .0313  | .0376 | .0241  | -.0007 | -.0008 | .0034 |
| 12   | 15.00  | .1061  | .0478 | -.1558 | -.0044 | -.0022 | .0120 |
| 13   | 20.00  | .1740  | .0641 | -.3161 | -.0001 | -.0007 | .0027 |
| 14   | 24.01  | .2057  | .1009 | -.4170 | -.0026 | -.0043 | .0076 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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PTD

RUN 14 CONFIG F P R T BT

| PT. NO. | ALPHA DEG | DELTA   |             | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
|         |           | PSI DEG | CIBAR SQ-FT |             |              |              |              |             |       |         |     |
| 2       | 0         | 0       | -18.9       | 12.64       | 553          | -14          | -3           | 2.49        | 79.32 | 155.08  | 0   |
| 3       | -20       | 0       | -90.7       | 45.03       | 2087         | -48          | -15          | 1.14        | 80.46 | 156.21  | 0   |
| 4       | -15       | 0       | -83.1       | 32.04       | 1985         | -43          | -8           | 4.06        | 79.66 | 155.41  | 0   |
| 5       | -10       | 0       | -75.1       | 19.08       | 1835         | -63          | -7           | 3.59        | 79.74 | 155.49  | 0   |
| 6       | -5        | 0       | -47.5       | 14.77       | 1196         | -35          | 7            | 3.32        | 79.94 | 155.69  | 0   |
| 7       | -2.5      | 0       | -33.0       | 12.82       | 867          | -28          | 7            | 3.16        | 80.97 | 156.74  | 0   |
| 8       | 0         | 0       | -18.7       | 12.32       | 540          | -14          | -16          | 3.19        | 80.09 | 155.84  | 0   |
| 9       | 2.5       | 0       | -3.5        | 12.34       | 203          | 4            | -13          | 1.27        | 80.78 | 156.53  | 0   |
| 10      | 5         | 0       | 9.8         | 13.21       | -86          | 10           | -25          | 1.36        | 80.43 | 156.18  | 0   |
| 11      | 10        | 0       | 37.5        | 15.86       | -674         | -16          | -13          | 1.60        | 80.93 | 156.68  | 0   |
| 12      | 15        | 0       | 62.2        | 22.93       | -1174        | -51          | -13          | 3.54        | 80.88 | 156.62  | 0   |
| 13      | 20        | 0       | 73.8        | 37.86       | -1463        | -38          | -95          | 2.65        | 80.93 | 156.67  | 0   |
| 14      | 24        | 0       | 80.5        | 48.34       | -1556        | -82          | -57          | 4.23        | 81.37 | 157.11  | 0   |
| 15      | -0        | 0       | -18.8       | 12.34       | 556          | -20          | -3           | 2.37        | 80.65 | 156.40  | 0   |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | -.0510 | .0341 | .1784  | -.0008 | -.0002 | .0067 |
| 3    | -20.00 | -.2453 | .1217 | .6729  | -.0029 | -.0009 | .0031 |
| 4    | -15.01 | -.2245 | .0866 | .6399  | -.0026 | -.0005 | .0110 |
| 5    | -10.00 | -.2029 | .0516 | .5916  | -.0038 | -.0004 | .0097 |
| 6    | -5.02  | -.1283 | .0399 | .3855  | -.0021 | .0004  | .0090 |
| 7    | -2.51  | -.0891 | .0347 | .2797  | -.0017 | .0005  | .0085 |
| 8    | 0.00   | -.0507 | .0333 | .1741  | -.0008 | -.0010 | .0086 |
| 9    | 2.50   | -.0095 | .0334 | .0654  | .0002  | -.0008 | .0034 |
| 10   | 4.99   | .0264  | .0357 | -.0277 | .0006  | -.0015 | .0037 |
| 11   | 10.00  | .1014  | .0429 | -.2172 | -.0010 | -.0008 | .0043 |
| 12   | 15.00  | .1682  | .0620 | -.3784 | -.0031 | -.0008 | .0096 |
| 13   | 20.00  | .1996  | .1023 | -.4717 | -.0023 | -.0058 | .0072 |
| 14   | 24.00  | .2175  | .1306 | -.5018 | -.0050 | -.0035 | .0114 |
| 15   | -0.01  | -.0508 | .0334 | .1793  | -.0012 | -.0002 | .0064 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYB    | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | -.0510 | .0341 | .1784  | -.0008 | -.0002 | .0067 |
| 3    | -20.00 | -.2453 | .1217 | .6729  | -.0029 | -.0009 | .0031 |
| 4    | -15.01 | -.2245 | .0866 | .6399  | -.0026 | -.0005 | .0110 |
| 5    | -10.00 | -.2029 | .0516 | .5916  | -.0038 | -.0004 | .0097 |
| 6    | -5.02  | -.1283 | .0399 | .3855  | -.0021 | .0004  | .0090 |
| 7    | -2.51  | -.0891 | .0347 | .2797  | -.0017 | .0005  | .0085 |
| 8    | 0.00   | -.0507 | .0333 | .1741  | -.0008 | -.0010 | .0086 |
| 9    | 2.50   | -.0095 | .0334 | .0654  | .0002  | -.0008 | .0034 |
| 10   | 4.99   | .0264  | .0357 | -.0277 | .0006  | -.0015 | .0037 |
| 11   | 10.00  | .1014  | .0429 | -.2172 | -.0010 | -.0008 | .0043 |
| 12   | 15.00  | .1682  | .0620 | -.3784 | -.0031 | -.0008 | .0096 |
| 13   | 20.00  | .1996  | .1023 | -.4717 | -.0023 | -.0058 | .0072 |
| 14   | 24.00  | .2175  | .1306 | -.5018 | -.0050 | -.0035 | .0114 |
| 15   | -0.01  | -.0508 | .0334 | .1793  | -.0012 | -.0002 | .0064 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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*PH*

RUN 15 CONFIG F P A T BT

| PT. # | 1W ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CPMBAR CU-FT | O DELE CYMBAR CU-FT | 10 DELR CRMBAR CU-FT | O DELSB CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|-------|--------------|---------------|-------------------|-------------------|------------------|---------------------|----------------------|---------------------|-------|---------|-----|
| 2     | 0            | 0             | 31.3              | 14.09             | 922.             | -6.                 | 9.                   | 2.30                | 80.09 | 155.85  |     |
| 3     | 20.0         | 0             | 76.7              | 23.57             | 1509.            | -108.               | -1.                  | 5.58                | 79.98 | 155.73  |     |
| 4     | 15.0         | 0             | 48.8              | 16.09             | 890.             | -88.                | 5.                   | 3.20                | 80.93 | 156.68  |     |
| 6     | 5.0          | 0             | 4.6               | 12.36             | -335.            | -37.                | 7.                   | 3.28                | 80.04 | 155.79  |     |
| 7     | 2.5          | 0             | 18.8              | 12.63             | -669.            | -26.                | -4.                  | 3.16                | 80.73 | 156.48  |     |
| 8     | 0            | 0             | 31.1              | 13.79             | -918.            | -9.                 | 9.                   | 2.32                | 80.77 | 156.51  |     |
| 9     | 2.5          | 0             | 44.4              | 15.71             | -1211.           | 8.                  | 23.                  | 1.14                | 80.34 | 156.09  |     |
| 10    | 5.0          | 0             | 57.4              | 18.12             | -1489.           | 11.                 | 23.                  | 1.14                | 80.35 | 156.10  |     |
| 11    | 10.0         | 0             | 82.2              | 27.60             | -2027.           | 11.                 | 24.                  | 1.02                | 80.07 | 155.81  |     |
| 12    | 15.0         | 0             | 89.5              | 41.69             | -2149.           | -64.                | -49.                 | 4.39                | 80.01 | 155.75  |     |
| 13    | 20.0         | 0             | 95.4              | 54.45             | -2220.           | -16.                | -11.                 | 3.48                | 80.36 | 156.10  |     |
| 14    | 24.0         | 0             | 87.6              | 62.18             | -1959.           | -90.                | -92.                 | 7.47                | 80.66 | 156.40  |     |
| 15    | 10.0         | 0             | 23.4              | 12.97             | 289.             | -75.                | 5.                   | 3.64                | 80.59 | 156.33  |     |
| 16    | 0            | 0             | 31.4              | 14.10             | 922.             | -12.                | 21.                  | 2.42                | 80.28 | 156.02  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. # | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|-------|--------|--------|-------|--------|--------|--------|-------|
| 2     | .00    | .0845  | .0381 | -.2974 | -.0004 | .0006  | .0062 |
| 3     | -19.99 | -.2074 | .0637 | .4865  | -.0065 | -.0000 | .0151 |
| 4     | -14.99 | -.0613 | .0432 | .8401  | -.0049 | .0004  | .0084 |
| 6     | -5.00  | .0125  | .0334 | -.1081 | -.0022 | .0004  | .0089 |
| 7     | -2.50  | .0509  | .0341 | -.2157 | -.0016 | -.0003 | .0086 |
| 8     | .01    | .0840  | .0373 | -.2960 | -.0005 | .0005  | .0063 |
| 9     | 2.51   | .1201  | .0425 | -.3904 | .0005  | .0014  | .0031 |
| 10    | 5.00   | .1552  | .0490 | -.4802 | .0007  | .0014  | .0031 |
| 11    | 9.99   | .2221  | .0746 | -.6533 | .0007  | .0014  | .0028 |
| 12    | 15.01  | .2419  | .1127 | -.6929 | -.0038 | -.0030 | .0119 |
| 13    | 19.99  | .2578  | .1472 | -.7156 | -.0010 | -.0007 | .0094 |
| 14    | 23.98  | .2368  | .1680 | -.6315 | -.0054 | -.0056 | .0202 |
| 15    | -10.00 | -.0631 | .0351 | .0931  | -.0045 | .0003  | .0098 |
| 16    | .01    | .0850  | .0381 | -.2972 | -.0007 | .0013  | .0065 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. # | ALPHA  | CLB    | CLB   | CPMB   | CYMB   | CRMB   | CYB   |
|-------|--------|--------|-------|--------|--------|--------|-------|
| 2     | .00    | .0845  | .0381 | -.2974 | -.0004 | .0006  | .0062 |
| 3     | -19.99 | -.2074 | .0637 | .4865  | -.0065 | -.0000 | .0151 |
| 4     | -14.99 | -.0613 | .0432 | .8401  | -.0049 | .0004  | .0084 |
| 6     | -5.00  | .0125  | .0334 | -.1081 | -.0022 | .0004  | .0089 |
| 7     | -2.50  | .0509  | .0341 | -.2157 | -.0016 | -.0003 | .0086 |
| 8     | .01    | .0840  | .0373 | -.2960 | -.0005 | .0005  | .0063 |
| 9     | 2.51   | .1201  | .0425 | -.3904 | .0005  | .0014  | .0031 |
| 10    | 5.00   | .1552  | .0490 | -.4802 | .0007  | .0014  | .0031 |
| 11    | 9.99   | .2221  | .0746 | -.6533 | .0007  | .0014  | .0028 |
| 12    | 15.01  | .2419  | .1127 | -.6929 | -.0038 | -.0030 | .0119 |
| 13    | 19.99  | .2578  | .1472 | -.7156 | -.0010 | -.0007 | .0094 |
| 14    | 23.98  | .2368  | .1680 | -.6315 | -.0054 | -.0056 | .0202 |
| 15    | -10.00 | -.0631 | .0351 | .0931  | -.0045 | .0003  | .0098 |
| 16    | .01    | .0850  | .0381 | -.2972 | -.0007 | .0013  | .0065 |

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*PT*

RUN 16 CONFIG F P R T BT

| PT. NO. | 1W ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | IHT CDBAR SQ-FT | DELE CPMBAR CU-FT | DELR CYMBAR CU-FT | DELSB CRMBAR CU-FT | DELSB Q PSF | O V KNOTS | RPM    |   |
|---------|--------------|---------------|-------------------|-----------------|-------------------|-------------------|--------------------|-------------|-----------|--------|---|
| 2       | 0            | 0             | 45.7              | 18.43           | -1382             | 0                 | 10                 | 1.99        | 80.26     | 156.02 | 0 |
| 3       | -20.0        | 0             | 52.6              | 22.01           | 772               | -93               | 26                 | 4.67        | 80.23     | 155.98 | 0 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPH    | CYM    | CRM   | CY    |
|------|--------|--------|-------|--------|--------|-------|-------|
| 2    | 0.00   | .1236  | .0498 | -.4456 | .0000  | .0006 | .0054 |
| 3    | -20.00 | -.1421 | .0595 | .2490  | -.0056 | .0015 | .0126 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|--------|-------|--------|--------|-------|-------|
| 2    | 0.00   | .1236  | .0498 | -.4456 | .0000  | .0006 | .0054 |
| 3    | -20.00 | -.1421 | .0595 | .2490  | -.0056 | .0015 | .0126 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P. 13

RUN 17 CONFIG F P B T BT

| PT. NO. | IW | - DELF<br>ALPHA<br>DEG | - DELA<br>PSI<br>DEG | - IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 20 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM   |        |    |
|---------|----|------------------------|----------------------|-------------------------|--------------------------|----------------------------|----------------------------|---------------|-----------------|-------|--------|----|
| 2       |    | .0                     | .0                   | 45.2                    | 18.16                    | -1368.                     | 5.                         | 9.            | 2.70            | 79.60 | 155.33 | 0. |
| 3       |    | -20.0                  | .0                   | -52.5                   | 21.66                    | 786.                       | -94.                       | -11.          | 4.72            | 79.46 | 155.21 | 0. |
| 5       |    | -15.0                  | .0                   | -27.9                   | 16.81                    | 252.                       | -85.                       | 29.           | 3.47            | 79.53 | 155.28 | 0. |
| 6       |    | -10.0                  | .0                   | -8                      | 15.40                    | -408.                      | -58.                       | 20.           | 2.67            | 79.23 | 154.97 | 0. |
| 7       |    | -5.1                   | .0                   | 21.0                    | 16.23                    | -861.                      | -34.                       | 20.           | 2.86            | 79.91 | 155.65 | 0. |
| 8       |    | -1                     | .0                   | 44.8                    | 18.23                    | -1368.                     | 2.                         | 21.           | 2.21            | 80.00 | 155.75 | 0. |
| 9       |    | 5.0                    | .0                   | 73.8                    | 23.49                    | -2038.                     | 28.                        | 11.           | 1.15            | 79.83 | 155.57 | 0. |
| 10      |    | 9.9                    | .0                   | 99.7                    | 35.52                    | -2639.                     | 18.                        | 23.           | 1.54            | 79.73 | 155.48 | 0. |
| 11      |    | 15.1                   | .0                   | 105.5                   | 50.14                    | -2707.                     | -10.                       | -37.          | 2.81            | 80.15 | 155.89 | 0. |
| 12      |    | 19.9                   | .0                   | 107.3                   | 62.64                    | -2682.                     | 5.                         | -12.          | 1.96            | 80.03 | 155.78 | 0. |
| 13      |    | 24.0                   | .0                   | 98.0                    | 70.99                    | -2403.                     | -117.                      | -188.         | 10.88           | 80.19 | 155.93 | 0. |
| 14      |    | .1                     | .0                   | 45.0                    | 18.46                    | -1376.                     | 6.                         | 21.           | 2.42            | 80.12 | 155.86 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .1220  | .0491 | -.4411 | .0003  | .0005  | .0073 |
| 3    | -20.02 | -.4760 | .0536 | 2.5123 | -.0089 | -.0049 | .0122 |
| 5    | -15.01 | -.0754 | .0454 | .0812  | -.0051 | .0018  | .0094 |
| 6    | -9.97  | -.0021 | .0416 | -.1314 | -.0035 | .0012  | .0072 |
| 7    | -5.08  | .0568  | .0439 | -.2775 | -.0020 | .0012  | .0077 |
| 8    | -.08   | .1211  | .0493 | -.4410 | .0001  | .0013  | .0060 |
| 9    | 5.03   | .1994  | .0635 | -.6572 | .0017  | .0007  | .0031 |
| 10   | 9.89   | .2694  | .0960 | -.8509 | .0011  | .0014  | .0042 |
| 11   | 15.10  | .2853  | .1355 | -.8726 | -.0006 | -.0022 | .0076 |
| 12   | 19.94  | .2901  | .1693 | -.8646 | .0003  | -.0007 | .0053 |
| 13   | 24.04  | .2649  | .1919 | -.7747 | -.0071 | -.0113 | .0294 |
| 14   | .07    | .1215  | .0499 | -.4437 | .0004  | .0013  | .0066 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .1220  | .0491 | -.4411 | .0003  | .0005  | .0073 |
| 3    | -20.02 | -.4760 | .0536 | 2.5123 | -.0089 | -.0049 | .0122 |
| 5    | -15.01 | -.0754 | .0454 | .0812  | -.0051 | .0018  | .0094 |
| 6    | -9.97  | -.0021 | .0416 | -.1314 | -.0035 | .0012  | .0072 |
| 7    | -5.08  | .0568  | .0439 | -.2775 | -.0020 | .0012  | .0077 |
| 8    | -.08   | .1211  | .0493 | -.4410 | .0001  | .0013  | .0060 |
| 9    | 5.03   | .1994  | .0635 | -.6572 | .0017  | .0007  | .0031 |
| 10   | 9.89   | .2694  | .0960 | -.8509 | .0011  | .0014  | .0042 |
| 11   | 15.10  | .2853  | .1355 | -.8726 | -.0006 | -.0022 | .0076 |
| 12   | 19.94  | .2901  | .1693 | -.8646 | .0003  | -.0007 | .0053 |
| 13   | 24.04  | .2649  | .1919 | -.7747 | -.0071 | -.0113 | .0294 |
| 14   | .07    | .1215  | .0499 | -.4437 | .0004  | .0013  | .0066 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P-14

RUN 18 CONFIG F P B T BY

| IW      | DELTA     | DELA    | IHT         | 0 DELE      | -10 DELR     | 0 DELSB      | 0            | RPM         |        |        |         |     |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|--------|---------|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELPSF | Q PSF  | V KNOTS | RPM |
| 2       | .0        | .0      | -21.7       | 14.08       | 673.         | -27.         | -22.         | 3.35        | 53.83  | 127.22 | 0.      |     |
| 3       | .0        | .0      | -21.7       | 13.80       | 660.         | -27.         | -23.         | 4.47        | 56.45  | 130.34 | 0.      |     |
| 4       | .0        | .0      | -21.5       | 13.77       | 672.         | -23.         | -22.         | 3.75        | 55.37  | 129.05 | 0.      |     |
| 5       | -20.1     | .0      | -100.5      | 44.17       | 2375.        | -109.        | -11.         | 4.93        | 55.29  | 128.95 | 0.      |     |
| 6       | -15.1     | .0      | -97.3       | 26.25       | 2352.        | -88.         | 8.           | 4.49        | 55.44  | 129.14 | 0.      |     |
| 7       | -10.2     | .0      | -75.7       | 20.43       | 1877.        | -73.         | -6.          | 3.07        | 55.40  | 129.09 | 0.      |     |
| 8       | -5.1      | .0      | -50.9       | 16.43       | 1319.        | -45.         | -7.          | 4.60        | 54.84  | 128.43 | 0.      |     |
| 9       | -1        | .0      | -21.8       | 13.88       | 672.         | -27.         | -5.          | 3.58        | 55.14  | 128.78 | 0.      |     |
| 10      | 5.0       | .0      | 8.6         | 14.20       | -5.          | -8.          | -3.          | 2.77        | 55.27  | 128.94 | 0.      |     |
| 11      | 9.9       | .0      | 35.4        | 16.97       | -576.        | -22.         | -19.         | 2.21        | 55.37  | 129.06 | 0.      |     |
| 12      | 15.0      | .0      | 54.0        | 29.39       | -995.        | -36.         | -18.         | 3.37        | 55.66  | 129.39 | 0.      |     |
| 13      | 19.9      | .0      | 62.6        | 40.54       | -1106.       | -58.         | -69.         | 4.18        | 55.38  | 129.07 | 0.      |     |
| 14      | 23.9      | .0      | 61.4        | 48.58       | -1026.       | -67.         | -51.         | 4.27        | 55.05  | 128.67 | 0.      |     |
| 15      | -1        | .0      | -21.6       | 13.77       | 660.         | -25.         | -4.          | 3.28        | 55.11  | 128.75 | 0.      |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | -.0587 | .0381 | .2169  | -.0016 | -.0013 | .0091 |
| 3    | .00    | -.0587 | .0373 | .2127  | -.0016 | -.0014 | .0121 |
| 4    | .00    | -.0580 | .0372 | .2168  | -.0014 | -.0013 | .0101 |
| 5    | -20.14 | -.2715 | .1194 | .7657  | -.0066 | -.0007 | .0133 |
| 6    | -15.13 | -.2630 | .0709 | .7581  | -.0053 | .0005  | .0121 |
| 7    | -10.17 | -.2046 | .0552 | .6051  | -.0044 | -.0003 | .0083 |
| 8    | -5.14  | -.1377 | .0444 | .4251  | -.0027 | -.0004 | .0124 |
| 9    | -.09   | -.0589 | .0375 | .2165  | -.0016 | -.0003 | .0097 |
| 10   | 4.96   | .0233  | .0384 | -.0017 | -.0005 | -.0002 | .0075 |
| 11   | 9.88   | .0956  | .0459 | -.1856 | -.0013 | -.0011 | .0060 |
| 12   | 14.97  | .1461  | .0794 | -.3207 | -.0021 | -.0011 | .0091 |
| 13   | 19.94  | .1692  | .1096 | -.3564 | -.0035 | -.0042 | .0113 |
| 14   | 23.88  | .1660  | .1313 | -.3307 | -.0041 | -.0031 | .0115 |
| 15   | -.09   | -.0583 | .0372 | .2127  | -.0015 | -.0003 | .0089 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | -.0587 | .0381 | .2169  | -.0016 | -.0013 | .0091 |
| 3    | .00    | -.0587 | .0373 | .2127  | -.0016 | -.0014 | .0121 |
| 4    | .00    | -.0580 | .0372 | .2168  | -.0014 | -.0013 | .0101 |
| 5    | -20.14 | -.2715 | .1194 | .7657  | -.0066 | -.0007 | .0133 |
| 6    | -15.13 | -.2630 | .0709 | .7581  | -.0053 | .0005  | .0121 |
| 7    | -10.17 | -.2046 | .0552 | .6051  | -.0044 | -.0003 | .0083 |
| 8    | -5.14  | -.1377 | .0444 | .4251  | -.0027 | -.0004 | .0124 |
| 9    | -.09   | -.0589 | .0375 | .2165  | -.0016 | -.0003 | .0097 |
| 10   | 4.96   | .0233  | .0384 | -.0017 | -.0005 | -.0002 | .0075 |
| 11   | 9.88   | .0956  | .0459 | -.1856 | -.0013 | -.0011 | .0060 |
| 12   | 14.97  | .1461  | .0794 | -.3207 | -.0021 | -.0011 | .0091 |
| 13   | 19.94  | .1692  | .1096 | -.3564 | -.0035 | -.0042 | .0113 |
| 14   | 23.88  | .1660  | .1313 | -.3307 | -.0041 | -.0031 | .0115 |
| 15   | -.09   | -.0583 | .0372 | .2127  | -.0015 | -.0003 | .0089 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 19 CONFIG F P B T BT

| IW<br>PT.<br>NO. | - DELF<br>ALPHA<br>DEG | - DELF<br>PSI<br>DEG | - DELA<br>CLBAR<br>SQ-FT | - IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELS<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>DELSB<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM |
|------------------|------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------|------------------------|-----------------|-----|
| 3                | .0                     | .0                   | 4.2                      | 13.34                   | -146.                     | -42.                      | -99.                      | 1.37                | 9.91                   | 54.20           | 0.  |
| 4                | .0                     | .0                   | 4.4                      | 13.25                   | -156.                     | -26.                      | -5.                       | 3.57                | 20.02                  | 77.16           | 0.  |
| 5                | .0                     | .0                   | 5.8                      | 12.94                   | -159.                     | -10.                      | -4.                       | 3.29                | 35.17                  | 102.51          | 0.  |
| 6                | .0                     | .0                   | 6.4                      | 12.42                   | -169.                     | -6.                       | -4.                       | 3.21                | 52.05                  | 125.06          | 0.  |
| 7                | .0                     | .0                   | 6.2                      | 12.24                   | -167.                     | 1.                        | -4.                       | 2.84                | 66.01                  | 141.16          | 0.  |
| 8                | .0                     | .0                   | 6.4                      | 12.01                   | -180.                     | -1.                       | 9.                        | 2.28                | 82.02                  | 157.76          | 0.  |
| 9                | .0                     | .0                   | 6.6                      | 11.91                   | -175.                     | 1.                        | 27.                       | 2.54                | 96.61                  | 171.62          | 0.  |
| 10               | .0                     | .0                   | 6.2                      | 12.00                   | -171.                     | -1.                       | 8.                        | 2.54                | 83.21                  | 158.91          | 0.  |
| 11               | .0                     | .0                   | 6.4                      | 12.10                   | -182.                     | -3.                       | -4.                       | 2.97                | 66.51                  | 141.68          | 0.  |
| 12               | .0                     | .0                   | 6.5                      | 12.44                   | -174.                     | -8.                       | -4.                       | 3.27                | 52.06                  | 125.06          | 0.  |
| 13               | .0                     | .0                   | 6.1                      | 12.79                   | -170.                     | -14.                      | -5.                       | 3.67                | 34.39                  | 101.35          | 0.  |
| 14               | .0                     | .0                   | 5.7                      | 13.26                   | -167.                     | -25.                      | -56.                      | 3.44                | 18.83                  | 74.81           | 0.  |
| 15               | .0                     | .0                   | 4.7                      | 14.01                   | -156.                     | -32.                      | -115.                     | 3.49                | 8.77                   | 50.98           | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD    | CPM    | CYM    | CRM    | CY    |
|------|-------|-------|-------|--------|--------|--------|-------|
| 3    | .00   | .0115 | .0361 | -.0471 | -.0026 | -.0060 | .0037 |
| 4    | .00   | .0120 | .0358 | -.0503 | -.0016 | -.0003 | .0097 |
| 5    | .00   | .0156 | .0350 | -.0513 | -.0006 | -.0003 | .0089 |
| 6    | .00   | .0173 | .0336 | -.0546 | -.0004 | -.0002 | .0087 |
| 7    | .00   | .0166 | .0331 | -.0538 | .0000  | -.0002 | .0077 |
| 8    | .00   | .0174 | .0325 | -.0579 | -.0001 | .0005  | .0062 |
| 9    | .00   | .0178 | .0322 | -.0563 | .0001  | .0016  | .0069 |
| 10   | .00   | .0168 | .0324 | -.0550 | -.0001 | .0005  | .0069 |
| 11   | .00   | .0174 | .0327 | -.0587 | -.0002 | -.0002 | .0080 |
| 12   | .00   | .0175 | .0336 | -.0560 | -.0005 | -.0003 | .0088 |
| 13   | .00   | .0164 | .0346 | -.0549 | -.0009 | -.0003 | .0099 |
| 14   | .00   | .0155 | .0358 | -.0539 | -.0015 | -.0034 | .0093 |
| 15   | .00   | .0329 | .0503 | -.0699 | -.0074 | -.0278 | .0172 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|-------|-------|-------|--------|--------|--------|-------|
| 3    | .00   | .0115 | .0361 | -.0471 | -.0026 | -.0060 | .0037 |
| 4    | .00   | .0120 | .0358 | -.0503 | -.0016 | -.0003 | .0097 |
| 5    | .00   | .0156 | .0350 | -.0513 | -.0006 | -.0003 | .0089 |
| 6    | .00   | .0173 | .0336 | -.0546 | -.0004 | -.0002 | .0087 |
| 7    | .00   | .0166 | .0331 | -.0538 | .0000  | -.0002 | .0077 |
| 8    | .00   | .0174 | .0325 | -.0579 | -.0001 | .0005  | .0062 |
| 9    | .00   | .0178 | .0322 | -.0563 | .0001  | -.0016 | .0069 |
| 10   | .00   | .0168 | .0324 | -.0550 | -.0001 | .0005  | .0069 |
| 11   | .00   | .0174 | .0327 | -.0587 | -.0002 | -.0002 | .0080 |
| 12   | .00   | .0175 | .0336 | -.0560 | -.0005 | -.0003 | .0088 |
| 13   | .00   | .0164 | .0346 | -.0549 | -.0009 | -.0003 | .0099 |
| 14   | .00   | .0155 | .0358 | -.0539 | -.0015 | -.0034 | .0093 |
| 15   | .00   | .0329 | .0503 | -.0699 | -.0074 | -.0278 | .0172 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 20 CONFIG F P B T BT

| IW<br>PT.<br>NO. | - DELF<br>ALPHA<br>DEG | - DELF<br>PSI<br>DEG | - DELA<br>CLBAR<br>SQ-FT | - IHT<br>CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>KNOTS | RPM |
|------------------|------------------------|----------------------|--------------------------|-------------------------|-----------------|---------------------------|---------------------------|---------------------------|----------|------------|-----|
| 3                | .0                     | .0                   | 2.8                      | 13.24                   | -165.           | -29.                      | -1.                       | .44                       | 7.75     | 47.92      | 0.  |
| 4                | .0                     | .0                   | 4.5                      | 12.70                   | -160.           | -23.                      | -5.                       | 3.63                      | 19.72    | 76.56      | 0.  |
| 5                | .0                     | .0                   | 5.8                      | 12.54                   | -159.           | -5.                       | -5.                       | 3.63                      | 34.72    | 101.84     | 0.  |
| 6                | .0                     | .0                   | 6.4                      | 12.11                   | -169.           | -3.                       | -3.                       | 2.03                      | 52.12    | 125.14     | 0.  |
| 7                | .0                     | .0                   | 6.3                      | 12.20                   | -175.           | 2.                        | -3.                       | 2.29                      | 66.80    | 142.01     | 0.  |
| 8                | .0                     | .0                   | 6.3                      | 11.84                   | -173.           | -1.                       | 8.                        | 3.11                      | 82.11    | 157.83     | 0.  |
| 9                | .0                     | .0                   | 6.2                      | 11.70                   | -175.           | 2.                        | -13.                      | 2.27                      | 96.25    | 171.26     | 0.  |
| 10               | .0                     | .0                   |                          | 11.81                   |                 | -2.                       |                           | 2.38                      | 82.95    | 158.66     | 0.  |
| 11               | .0                     | .0                   | 6.8                      | 12.03                   | -174.           | -4.                       | 26.                       | 2.57                      | 66.20    | 141.35     | 0.  |
| 12               | .0                     | .0                   | 6.7                      | 11.88                   | -182.           | -3.                       | -4.                       | 2.82                      | 82.23    | 157.95     | 0.  |
| 13               | .0                     | .0                   | 6.6                      | 12.17                   | -181.           | -6.                       | -6.                       | 4.55                      | 53.16    | 126.40     | 0.  |
| 14               | .0                     | .0                   | 6.2                      | 12.82                   | -181.           | -13.                      | -5.                       | 3.73                      | 35.62    | 103.16     | 0.  |
| 15               | .0                     | .0                   | 5.6                      | 13.07                   | -169.           | -20.                      | -52.                      | 3.22                      | 20.09    | 77.29      | 0.  |
| 16               | .0                     | .0                   | 5.0                      | 13.88                   | -172.           | -25.                      | -117.                     | 3.18                      | 8.56     | 50.35      | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM     | CY    |
|------|-------|--------|--------|--------|--------|---------|-------|
| 3    | .00   | .0075  | .0358  | -.0533 | -.0017 | -.0000  | .0012 |
| 4    | .00   | .0123  | .0343  | -.0517 | -.0014 | -.0003  | .0098 |
| 5    | .00   | .0157  | .0339  | -.0511 | -.0003 | -.0003  | .0098 |
| 6    | .00   | .0173  | .0327  | -.0544 | -.0002 | -.0002  | .0055 |
| 7    | .00   | .0170  | .0330  | -.0563 | .0001  | -.0002  | .0062 |
| 8    | .00   | .0170  | .0320  | -.0558 | -.0001 | .0005   | .0084 |
| 9    | .00   | .0169  | .0316  | -.0565 | .0001  | -.0008  | .0061 |
| 10   | .00   |        | .0319  |        | -.0001 |         | .0064 |
| 11   | .00   | .0185  | .0325  | -.0561 | -.0002 | .0016   | .0070 |
| 12   | .00   | .0181  | .0321  | -.0586 | -.0002 | -.0002  | .0076 |
| 13   | .00   | .0177  | .0329  | -.0584 | -.0003 | -.0003  | .0123 |
| 14   | .00   | .0167  | .0346  | -.0584 | -.0008 | -.0003  | .0101 |
| 15   | .00   | .0151  | .0353  | -.0546 | -.0012 | -.0032  | .0087 |
| 16   | .00   | 1.7261 | -.0184 | -.5638 | .0000  | -1.9363 | .0000 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB    | CYB   |
|------|-------|--------|--------|--------|--------|---------|-------|
| 3    | .00   | .0075  | .0358  | -.0533 | -.0017 | -.0000  | .0012 |
| 4    | .00   | .0123  | .0343  | -.0517 | -.0014 | -.0003  | .0098 |
| 5    | .00   | .0157  | .0339  | -.0511 | -.0003 | -.0003  | .0098 |
| 6    | .00   | .0173  | .0327  | -.0544 | -.0002 | -.0002  | .0055 |
| 7    | .00   | .0170  | .0330  | -.0563 | .0001  | -.0002  | .0062 |
| 8    | .00   | .0170  | .0320  | -.0558 | -.0001 | .0005   | .0084 |
| 9    | .00   | .0169  | .0316  | -.0565 | .0001  | -.0008  | .0061 |
| 10   | .00   |        | .0319  |        | -.0001 |         | .0064 |
| 11   | .00   | .0185  | .0325  | -.0561 | -.0002 | .0016   | .0070 |
| 12   | .00   | .0181  | .0321  | -.0586 | -.0002 | -.0002  | .0076 |
| 13   | .00   | .0177  | .0329  | -.0584 | -.0003 | -.0003  | .0123 |
| 14   | .00   | .0167  | .0346  | -.0584 | -.0008 | -.0003  | .0101 |
| 15   | .00   | .0151  | .0353  | -.0546 | -.0012 | -.0032  | .0087 |
| 16   | .00   | 1.7261 | -.0184 | -.5638 | .0000  | -1.9363 | .0000 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 21 CONFIG F P B T BT

| IW      | - DELF    | - DELA  | - IHT       | 0 DELE      | -20 DELR     | 0 DELSB      | 0            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | -33.3       | 17.97       | 1155.        | -19.         | -22.         | 3.35        | 55.87 | 129.64  | 0. |
| 3       | -20.0     | .0      | -112.0      | 51.34       | 2755.        | -72.         | -9.          | 3.91        | 56.58 | 130.48  | 0. |
| 4       | -16.0     | .0      | -119.9      | 37.22       | 3041.        | -109.        | -12.         | 5.46        | 56.14 | 129.96  | 0. |
| 5       | -10.0     | .0      | -92.8       | 26.70       | 2421.        | -72.         | 27.          | 3.73        | 56.64 | 130.54  | 0. |
| 6       | -5.1      | .0      | -65.7       | 21.24       | 1766.        | -47.         | -7.          | 4.69        | 55.17 | 128.80  | 0. |
| 7       | -.3       | .0      | -39.6       | 18.25       | 1181.        | -14.         | 13.          | 3.32        | 55.33 | 128.99  | 0. |
| 8       | 5.0       | .0      | -6.3        | 17.24       | 421.         | 7.           | 15.          | 2.21        | 55.37 | 129.05  | 0. |
| 9       | 10.0      | .0      | 24.2        | 18.83       | -276.        | 3.           | -36.         | 2.08        | 55.81 | 129.56  | 0. |
| 10      | 15.2      | .0      | 44.7        | 29.63       | -729.        | -19.         | -36.         | 2.04        | 55.13 | 128.75  | 0. |
| 11      | 20.1      | .0      | 47.6        | 38.18       | -679.        | -59.         | -17.         | 3.70        | 55.31 | 128.97  | 0. |
| 12      | 23.9      | .0      | 46.2        | 45.25       | -562.        | -79.         | -15.         | 5.04        | 55.44 | 129.13  | 0. |
| 13      | .0        | .0      | -38.2       | 17.89       | 1133.        | -16.         | -4.          | 3.35        | 55.88 | 129.64  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | -.1035 | .0486 | .3723  | -.0011 | -.0013 | .0091 |
| 3    | -20.01 | -.3027 | .1388 | .8882  | -.0043 | -.0005 | .0106 |
| 4    | -16.00 | -.3240 | .1006 | .9805  | -.0066 | -.0007 | .0148 |
| 5    | -10.03 | -.2509 | .0722 | .7805  | -.0044 | .0017  | .0101 |
| 6    | -5.12  | -.1776 | .0574 | .5695  | -.0028 | -.0004 | .0127 |
| 7    | -.30   | -.1069 | .0493 | .3807  | -.0008 | .0008  | .0090 |
| 8    | 5.00   | -.0170 | .0466 | .1357  | .0004  | .0009  | .0060 |
| 9    | 9.97   | .0653  | .0509 | -.0888 | .0002  | -.0022 | .0056 |
| 10   | 15.20  | .1207  | .0801 | -.2349 | -.0012 | -.0021 | .0055 |
| 11   | 20.07  | .1287  | .1032 | -.2188 | -.0036 | -.0010 | .0100 |
| 12   | 23.91  | .1250  | .1223 | -.1811 | -.0048 | -.0009 | .0136 |
| 13   | .01    | -.1032 | .0484 | .3653  | -.0010 | -.0003 | .0091 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | -.1035 | .0486 | .3723  | -.0011 | -.0013 | .0091 |
| 3    | -20.01 | -.3027 | .1388 | .8882  | -.0043 | -.0005 | .0106 |
| 4    | -16.00 | -.3240 | .1006 | .9805  | -.0066 | -.0007 | .0148 |
| 5    | -10.03 | -.2509 | .0722 | .7805  | -.0044 | .0017  | .0101 |
| 6    | -5.12  | -.1776 | .0574 | .5695  | -.0028 | -.0004 | .0127 |
| 7    | -.30   | -.1069 | .0493 | .3807  | -.0008 | .0008  | .0090 |
| 8    | 5.00   | -.0170 | .0466 | .1357  | .0004  | .0009  | .0060 |
| 9    | 9.97   | .0653  | .0509 | -.0888 | .0002  | -.0022 | .0056 |
| 10   | 15.20  | .1207  | .0801 | -.2349 | -.0012 | -.0021 | .0055 |
| 11   | 20.07  | .1287  | .1032 | -.2188 | -.0036 | -.0010 | .0100 |
| 12   | 23.91  | .1250  | .1223 | -.1811 | -.0048 | -.0009 | .0136 |
| 13   | .01    | -.1032 | .0484 | .3653  | -.0010 | -.0003 | .0091 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 22 CONFIG F P B T BT

| IW      | - DELF    | - DELA  | - IHT       | 0 DELE      | 0 DELR       | 10 DELSB     | 0            | RPM         |          |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|----------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DLSB PSF | V KNOTS |    |
| 5       | .0        | .0      |             | 12.85       |              | 234.         |              | -3.39       | 55.32    | 128.98  | 0. |
| 6       | .0        | -20.0   | .5          | 48.00       | -62.         | 1005.        | -32.         | -125.17     | 55.84    | 129.61  | 0. |
| 7       | .0        | -15.0   | 3.8         | 31.49       | -101.        | 604.         | -30.         | -89.39      | 56.06    | 129.86  | 0. |
| 8       | .0        | -10.0   | 6.6         | 20.06       | -174.        | 307.         | -50.         | -54.88      | 55.93    | 129.70  | 0. |
| 9       | .0        | -5.0    | 7.3         | 15.10       | -203.        | 223.         | -49.         | -27.76      | 55.46    | 129.15  | 0. |
| 10      | .0        | .0      | 5.6         | 12.74       | -173.        | 240.         | -30.         | -3.49       | 55.61    | 129.34  | 0. |
| 11      | .0        | 5.0     | 5.8         | 13.70       | -170.        | 219.         | -36.         | 22.07       | 56.34    | 130.19  | 0. |
| 12      | .0        | 10.1    | 3.6         | 17.38       | -65.         | -318.        | -1232.       | 63.91       | 55.59    | 129.31  | 0. |
| 13      | .0        | 15.0    |             | 26.06       |              | -195.        |              | 82.83       | 56.09    | 129.90  | 0. |
| 14      | .0        | 15.0    | 1.5         | 25.91       | -67.         | -194.        | -6.          | 81.62       | 56.17    | 130.00  | 0. |
| 15      | .0        | 20.1    | .1          | 41.65       | -93.         | -609.        | -13.         | 122.62      | 56.06    | 129.87  | 0. |
| 16      | .0        | .0      | 6.4         | 12.70       | -149.        | 212.         | 4.           | -2.86       | 55.89    | 129.67  | 0. |
| 17      | .0        | -2.5    | 6.7         | 13.87       | -160.        | 241.         | -14.         | -16.19      | 55.33    | 129.00  | 0. |
| 18      | .0        | 2.5     | 6.3         | 13.15       | -173.        | 223.         | -45.         | 10.24       | 55.22    | 128.87  | 0. |
| 19      | .0        | 10.0    | 3.1         | 17.37       | -100.        | 94.          | -31.         | 49.08       | 55.73    | 129.48  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 5    | .00    |        | .0347 |        | .0141  |        | -.0092 |
| 6    | -20.00 | .0013  | .1297 | -.0199 | .0607  | -.0019 | -.3383 |
| 7    | -15.00 | .0103  | .0851 | -.0326 | .0365  | -.0018 | -.2416 |
| 8    | -10.00 | .0178  | .0542 | -.0562 | .0185  | -.0030 | -.1483 |
| 9    | -5.00  | .0196  | .0408 | -.0654 | .0135  | -.0029 | -.0750 |
| 10   | .00    | .0151  | .0344 | -.0558 | .0145  | -.0018 | -.0094 |
| 11   | 5.00   | .0158  | .0370 | -.0549 | .0132  | -.0022 | .0596  |
| 12   | 10.10  | .0098  | .0470 | -.0209 | -.0192 | -.0744 | .1727  |
| 13   | 15.00  |        | .0704 | 3.4792 | -.0118 | .0096  | .2239  |
| 14   | 15.00  | .0040  | .0700 | -.0215 | -.0117 | -.0004 | .2206  |
| 15   | 20.10  | -.0002 | .1126 | -.0300 | -.0368 | -.0008 | .3314  |
| 16   | .00    | .0173  | .0343 | -.0482 | .0128  | .0002  | -.0077 |
| 17   | -2.50  | .0180  | .0375 | -.0514 | .0146  | -.0009 | -.0438 |
| 18   | 2.50   | .0169  | .0355 | -.0558 | .0134  | -.0027 | .0277  |
| 19   | 10.00  | .0083  | .0470 | -.0322 | .0057  | -.0019 | .1326  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 5    | .00    |        | .0347  |        | .0141  |        | -.0092 |
| 6    | -20.00 | .0013  | .0056  | -.0152 | .0607  | -.0005 | -.3623 |
| 7    | -15.00 | .0103  | .0194  | -.0290 | .0365  | -.0002 | -.2554 |
| 8    | -10.00 | .0178  | .0275  | -.0525 | .0185  | -.0011 | -.1555 |
| 9    | -5.00  | .0196  | .0341  | -.0638 | .0135  | -.0019 | -.0783 |
| 10   | .00    | .0151  | .0344  | -.0558 | .0145  | -.0018 | -.0094 |
| 11   | 5.00   | .0158  | .0317  | -.0557 | .0132  | -.0031 | .0627  |
| 12   | 10.10  | .0098  | .0158  | -.0906 | -.0192 | -.0740 | .1783  |
| 13   | 15.00  |        | .0098  |        | -.0118 |        | .2345  |
| 14   | 15.00  | .0040  | .0103  | -.0213 | -.0117 | -.0014 | .2312  |
| 15   | 20.10  | -.0002 | -.0087 | -.0296 | -.0368 | -.0027 | .3499  |
| 16   | .00    | .0173  | .0343  | -.0482 | .0128  | .0002  | -.0077 |
| 17   | -2.50  | .0180  | .0355  | -.0512 | .0146  | -.0005 | -.0454 |
| 18   | 2.50   | .0169  | .0343  | -.0564 | .0134  | -.0032 | .0292  |
| 19   | 10.00  | .0083  | .0231  | -.0334 | .0057  | -.0029 | .1388  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 19

RUN 23 CONFIG F P B T BT

| IW<br>PT,<br>NO, | - DELF<br>ALPHA<br>DEG | - DELA<br>PSI<br>DEG | - IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 20<br>CYMBAR<br>CU-FT | DELSB<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>V<br>KNOTS | RPM |
|------------------|------------------------|----------------------|-------------------------|--------------------------|---------------------------|-----------------------|--------------------------|---------------------|----------|-----------------|-----|
| 3                | .0                     | .0                   | 5.7                     | 13.80                    | -127.                     | 469.                  | -42.                     | -9.45               | 54.08    | 127.51          | 0.  |
| 4                | .0                     | .0                   | 5.6                     | 13.62                    | -127.                     | 476.                  | -41.                     | -8.77               | 55.95    | 129.74          | 0.  |
| 5                | .0                     | -20.0                | 1.2                     | 50.96                    | -66.                      | 1229.                 | -26.                     | -131.31             | 55.15    | 128.79          | 0.  |
| 6                | .0                     | -15.0                | 3.5                     | 34.11                    | -105.                     | 848.                  | -42.                     | -95.07              | 55.36    | 129.04          | 0.  |
| 7                | .0                     | -10.0                | 6.6                     | 21.96                    | -160.                     | 530.                  | -59.                     | -61.92              | 55.40    | 129.08          | 0.  |
| 8                | .0                     | -5.0                 | 6.9                     | 16.21                    | -188.                     | 425.                  | -76.                     | -33.33              | 55.70    | 129.43          | 0.  |
| 9                | .0                     | -2.5                 | 6.4                     | 15.13                    | -162.                     | 484.                  | -60.                     | -22.11              | 55.31    | 128.98          | 0.  |
| 10               | .0                     | .0                   | 5.8                     | 13.74                    | -151.                     | 464.                  | -58.                     | -9.64               | 55.45    | 129.14          | 0.  |
| 11               | .0                     | 2.5                  | 5.2                     | 13.52                    | -141.                     | 426.                  | -54.                     | 4.19                | 56.04    | 129.84          | 0.  |
| 12               | .0                     | 5.0                  | 4.9                     | 14.47                    | -139.                     | 430.                  | -46.                     | 16.51               | 55.51    | 129.22          | 0.  |
| 13               | .0                     | 10.0                 | 2.0                     | 17.64                    | -64.                      | 302.                  | -77.                     | 44.70               | 55.56    | 129.27          | 0.  |
| 14               | .0                     | 15.0                 | -.2                     | 25.62                    | -14.                      | 38.                   | -67.                     | 76.93               | 55.17    | 128.81          | 0.  |
| 16               | .0                     | 20.0                 | -1.1                    | 40.33                    | -26.                      | -397.                 | -60.                     | 117.32              | 55.69    | 129.42          | 0.  |
| 17               | .0                     | .0                   | 6.2                     | 13.59                    | -141.                     | 471.                  | -57.                     | -9.45               | 55.90    | 129.68          | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 3    | .00    | .0154  | .0373 | -.0408 | .0283  | -.0025 | -.0255 |
| 4    | .00    | .0151  | .0368 | -.0410 | .0287  | -.0025 | -.0237 |
| 5    | -20.00 | .0032  | .1377 | -.0214 | .0743  | -.0015 | -.3549 |
| 6    | -15.00 | .0095  | .0922 | -.0339 | .0512  | -.0026 | -.2569 |
| 7    | -10.00 | .0179  | .0594 | -.0517 | .0320  | -.0036 | -.1673 |
| 8    | -5.00  | .0187  | .0438 | -.0607 | .0257  | -.0046 | -.0901 |
| 9    | -2.50  | .0172  | .0409 | -.0523 | .0292  | -.0036 | -.0598 |
| 10   | .00    | .0156  | .0371 | -.0486 | .0281  | -.0035 | -.0261 |
| 11   | 2.50   | .0141  | .0365 | -.0454 | .0257  | -.0033 | .0113  |
| 12   | 5.00   | .0133  | .0391 | -.0450 | .0259  | -.0028 | .0446  |
| 13   | 10.00  | .0055  | .0477 | -.0208 | .0183  | -.0047 | .1208  |
| 14   | 15.00  | -.0052 | .1166 | -.0069 | -.0766 | -.0066 | .3174  |
| 16   | 20.00  | -.0030 | .1090 | -.0065 | -.0240 | -.0036 | .3171  |
| 17   | .00    | .0168  | .0367 | -.0456 | .0284  | -.0035 | -.0255 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | .0154  | .0373  | -.0408 | .0283  | -.0025 | -.0255 |
| 4    | .00    | .0151  | .0368  | -.0410 | .0287  | -.0025 | -.0237 |
| 5    | -20.00 | .0032  | .0075  | -.0173 | .0743  | -.0001 | -.3806 |
| 6    | -15.00 | .0095  | .0222  | -.0292 | .0512  | -.0008 | -.2721 |
| 7    | -10.00 | .0179  | .0293  | -.0476 | .0320  | -.0018 | -.1751 |
| 8    | -5.00  | .0187  | .0358  | -.0583 | .0257  | -.0036 | -.0936 |
| 9    | -2.50  | .0172  | .0382  | -.0514 | .0292  | -.0032 | -.0615 |
| 10   | .00    | .0156  | .0371  | -.0486 | .0281  | -.0035 | -.0261 |
| 11   | 2.50   | .0141  | .0360  | -.0462 | .0257  | -.0036 | .0129  |
| 12   | 5.00   | .0133  | .0350  | -.0461 | .0259  | -.0035 | .0479  |
| 13   | 10.00  | .0055  | .0259  | -.0248 | .0183  | -.0053 | .1273  |
| 14   | 15.00  | -.0052 | .0005  | -.0186 | -.0766 | -.0067 | .3381  |
| 16   | 20.00  | -.0030 | -.0066 | -.0127 | -.0240 | -.0038 | .3352  |
| 17   | .00    | .0168  | .0367  | -.0456 | .0284  | -.0035 | -.0255 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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*P-50*

RUN 24 CONFIG F P B T BT

| IW      | - DELF    | - DELA  | - IHT       | 0 DELE      | 0 DELR       | -10 DELSB    | 0            |             |             |           |     |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|-----------|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | 0 V KNOTS | RPM |
| 2       | .0        | .0      | 7.0         | 12.52       | -179.        | -190.        | 25.          | 8.00        | 55.38       | 129.06    | 0.  |
| 3       | .0        | -20.0   | -7          | 44.86       | -48.         | 951.         | 1254.        | -128.20     | 55.00       | 128.61    | 0.  |
| 4       | .0        | -15.0   | 3.3         | 30.93       | -271.        | 242.         | 163.         | -78.62      | 56.02       | 129.82    | 0.  |
| 5       | .0        | -10.0   | 6.8         | 18.23       | -164.        | -85.         | -9.          | -46.60      | 55.48       | 129.18    | 0.  |
| 6       | .0        | -5.0    |             | 13.89       |              | -164.        |              | -17.32      | 55.64       | 129.37    | 0.  |
| 7       | .0        | -2.5    | 8.0         | 12.82       | -208.        | -189.        | 23.          | -4.03       | 55.74       | 129.49    | 0.  |
| 8       | .0        | .0      |             | 12.46       |              | -186.        |              | 8.36        | 55.82       | 129.58    | 0.  |
| 9       | .0        | 2.5     | 7.8         | 13.23       | -219.        | -151.        | 11.          | 20.85       | 55.55       | 129.26    | 0.  |
| 10      | .0        | 5.0     | 7.4         | 14.60       | -216.        | -149.        | 19.          | 33.40       | 55.58       | 129.30    | 0.  |
| 11      | .0        | 10.0    | 5.6         | 18.70       | -162.        | -295.        | 23.          | 60.39       | 55.68       | 129.41    | 0.  |
| 12      | .0        | 15.0    | 3.7         | 28.26       | -129.        | -584.        | 29.          | 93.15       | 55.99       | 129.78    | 0.  |
| 13      | .0        | 20.0    | 2.3         | 44.81       | -149.        | -981.        | 2.           | 133.38      | 55.65       | 129.38    | 0.  |
| 14      | .0        | .0      | 7.2         | 12.48       | -170.        | -196.        | 42.          | 8.25        | 55.72       | 129.46    | 0.  |
| 15      | .0        | -5.0    | 8.6         | 13.87       | -202.        | -170.        | 8.           | -17.01      | 55.27       | 128.93    | 0.  |
| 16      | .0        | .0      | 7.3         | 12.56       | -208.        | -197.        | 7.           | 8.41        | 55.09       | 128.71    | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0190  | .0338 | -.0578 | -.0115 | .0015  | .0216  |
| 3    | -20.00 | -.0018 | .1212 | -.0155 | .0574  | .0757  | -.3465 |
| 4    | -15.00 | .0089  | .0836 | -.0872 | .0146  | .0099  | -.2125 |
| 5    | -10.00 | .0183  | .0493 | -.0528 | -.0052 | -.0005 | -.1259 |
| 6    | -5.00  |        | .0375 |        | -.0099 |        | -.0468 |
| 7    | -2.50  | .0215  | .0346 | -.0672 | -.0114 | .0014  | -.0109 |
| 8    | .00    |        | .0337 |        | -.0112 |        | .0226  |
| 9    | 2.50   | .0211  | .0358 | -.0708 | -.0091 | .0007  | .0563  |
| 10   | 5.00   | .0201  | .0395 | -.0697 | -.0090 | .0011  | .0903  |
| 11   | 10.00  | .0150  | .0506 | -.0522 | -.0178 | .0014  | .1632  |
| 12   | 15.00  | .0099  | .0764 | -.0416 | -.0353 | .0018  | .2518  |
| 13   | 20.00  | .0062  | .1211 | -.0482 | -.0593 | .0001  | .3605  |
| 14   | .00    | .0193  | .0337 | -.0548 | -.0119 | .0025  | .0223  |
| 15   | -5.00  | .0233  | .0375 | -.0650 | -.0102 | .0005  | -.0460 |
| 16   | .00    | .0197  | .0339 | -.0671 | -.0119 | .0004  | .0227  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .0190  | .0338  | -.0578 | -.0115 | .0015  | .0216  |
| 3    | -20.00 | -.0018 | -.0052 | -.1534 | .0574  | .0721  | -.3670 |
| 4    | -15.00 | .0089  | .0255  | -.0979 | .0146  | .0138  | -.2269 |
| 5    | -10.00 | .0183  | .0265  | -.0515 | -.0052 | .0012  | -.1326 |
| 6    | -5.00  |        | .0333  |        | -.0099 |        | -.0499 |
| 7    | -2.50  | .0215  | .0341  | -.0674 | -.0114 | .0019  | -.0124 |
| 8    | .00    |        | .0337  |        | -.0112 |        | .0226  |
| 9    | 2.50   | .0211  | .0333  | -.0705 | -.0091 | .0001  | .0579  |
| 10   | 5.00   | .0201  | .0314  | -.0689 | -.0090 | -.0000 | .0934  |
| 11   | 10.00  | .0150  | .0213  | -.0501 | -.0178 | -.0004 | .1695  |
| 12   | 15.00  | .0099  | .0083  | -.0377 | -.0353 | -.0003 | .2630  |
| 13   | 20.00  | .0062  | -.0101 | -.0450 | -.0593 | -.0030 | .3801  |
| 14   | .00    | .0193  | .0337  | -.0548 | -.0119 | .0025  | .0223  |
| 15   | -5.00  | .0233  | .0333  | -.0650 | -.0102 | .0015  | -.0491 |
| 16   | .00    | .0197  | .0339  | -.0671 | -.0119 | .0004  | .0227  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 25 CONFIG F P B T BT

| PT. NO. | ALPHA DEG | - DELF PSI DEG | - DELA CLBAR SQ-FT | - IHT CDBAR SQ-FT | 0 DELE CPMBAR CU-FT | 0 DELR CYMBAR CU-FT | -20 DELSB CRMBAR CU-FT | 0 CYBAR SQ-FT | 0 PSF | 0 V KNOTS | RPM |
|---------|-----------|----------------|--------------------|-------------------|---------------------|---------------------|------------------------|---------------|-------|-----------|-----|
| 2       | .0        | .0             | 6.3                | 13.26             | -173.               | -396.               | 18.                    | 13.62         | 55.01 | 128.63    | 0.  |
| 3       | .0        | -20.0          | -1.7               | 42.90             | 21.                 | 336.                | 50.                    | -110.16       | 55.63 | 129.36    | 0.  |
| 4       | .0        | -15.0          | 1.9                | 28.23             | -46.                | -33.                | 33.                    | -72.99        | 55.12 | 128.75    | 0.  |
| 5       | .0        | -10.0          | 6.1                | 18.41             | -145.               | -239.               | 2.                     | -41.74        | 55.25 | 128.91    | 0.  |
| 6       | .0        | -5.0           | 7.1                | 13.96             | -178.               | 409.                |                        | -38.73        | 55.41 | 129.09    | 0.  |
| 7       | .0        | -2.5           | 6.7                |                   |                     |                     | 17.                    | .42           | 56.23 | 130.05    | 0.  |
| 8       | .0        | .0             | 6.8                | 13.39             | -186.               | -376.               | 36.                    | 13.37         | 55.27 | 128.94    | 0.  |
| 9       | .0        | 2.5            | 6.7                | 14.26             | -197.               | -341.               | 6.                     | 25.50         | 55.43 | 129.13    | 0.  |
| 10      | .0        | 5.0            | 6.9                | 15.61             | -209.               | -353.               | -3.                    | 37.00         | 55.51 | 129.22    | 0.  |
| 11      | .0        | 10.0           | 5.8                | 20.32             | -177.               | -502.               | 15.                    | 66.18         | 55.90 | 129.68    | 0.  |
| 12      | .0        | 15.0           | 3.8                | 30.97             | -122.               | -819.               | 38.                    | 101.21        | 55.53 | 129.24    | 0.  |
| 13      | .0        | 20.0           | 2.5                | 47.10             | -144.               | -1167.              | 14.                    | 138.36        | 55.32 | 128.99    | 0.  |
| 14      | .0        | -5.0           | 7.2                | 14.32             | -166.               | -330.               | 3.                     | -13.24        | 55.84 | 129.61    | 0.  |
| 15      | .0        | -2.5           | 6.5                | 13.66             | -171.               | -363.               | 17.                    | .06           | 56.10 | 129.92    | 0.  |
| 16      | .0        | .0             | 6.8                | 13.46             | -186.               | -376.               | 36.                    | 13.47         | 54.88 | 128.47    | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0169  | .0358 | -.0558 | -.0239 | .0011  | .0368  |
| 3    | -20.00 | -.0045 | .1159 | .0068  | .0203  | .0030  | -.2977 |
| 4    | -15.00 | .0050  | .0763 | -.0149 | -.0020 | .0020  | -.1973 |
| 5    | -10.00 | .0164  | .0498 | -.0467 | -.0144 | .0001  | -.1128 |
| 6    | -5.00  | .0193  | .0377 | -.0574 | .0247  |        | -.1047 |
| 7    | -2.50  | .0180  |       |        |        | .0010  | .0011  |
| 8    | .00    | .0184  | .0362 | -.0599 | -.0227 | .0022  | .0361  |
| 9    | 2.50   | .0180  | .0385 | -.0634 | -.0206 | .0003  | .0689  |
| 10   | 5.00   | .0187  | .0422 | -.0673 | -.0213 | -.0002 | .1000  |
| 11   | 10.00  | .0157  | .0549 | -.0570 | -.0303 | .0009  | .1789  |
| 12   | 15.00  | .0102  | .0837 | -.0392 | -.0494 | .0023  | .2735  |
| 13   | 20.00  | .0067  | .1273 | -.0466 | -.0705 | .0009  | .3739  |
| 14   | -5.00  | .0194  | .0387 | -.0535 | -.0199 | .0002  | -.0358 |
| 15   | -2.50  | .0176  | .0369 | -.0550 | -.0219 | .0010  | .0002  |
| 16   | .00    | .0185  | .0364 | -.0600 | -.0227 | .0022  | .0364  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .0169  | .0358  | -.0558 | -.0239 | .0011  | .0368  |
| 3    | -20.00 | -.0045 | .0066  | -.0008 | .0203  | .0024  | -.3194 |
| 4    | -15.00 | .0050  | .0224  | -.0171 | -.0020 | .0026  | -.2103 |
| 5    | -10.00 | .0164  | .0293  | -.0461 | -.0144 | .0016  | -.1198 |
| 6    | -5.00  | .0193  | .0284  | -.1030 | .0247  |        | -.1076 |
| 7    | -2.50  | .0180  |        |        |        | .0027  | -.0444 |
| 8    | .00    | .0184  | .0362  | -.0599 | -.0227 | .0022  | .0361  |
| 9    | 2.50   | .0180  | .0355  | -.0632 | -.0206 | -.0002 | .0705  |
| 10   | 5.00   | .0187  | .0333  | -.0671 | -.0213 | -.0013 | .1033  |
| 11   | 10.00  | .0157  | .0229  | -.0553 | -.0303 | -.0010 | .1857  |
| 12   | 15.00  | .0102  | .0097  | -.0347 | -.0494 | .0003  | .2859  |
| 13   | 20.00  | .0067  | -.0089 | -.0421 | -.0705 | -.0022 | .3949  |
| 14   | -5.00  | .0194  | .0354  | -.0534 | -.0199 | .0010  | -.0390 |
| 15   | -2.50  | .0176  | .0369  | -.0552 | -.0219 | .0015  | -.0015 |
| 16   | .00    | .0185  | .0364  | -.0600 | -.0227 | .0022  | .0364  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 22

RUN 26 CONFIG F P B T BT

| IW      | - DELF    |         | - DELA      |             | - IHT        |              | 0 DELE       |             | 0 DELR |         | 0 DELSB |  | 15 |  |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|----|--|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF    | V KNOTS | RPM     |  |    |  |
| 2       | .0        | .0      | 7.2         | 14.73       | -207.        | -46.         | -23.         | 3.97        | 54.91  | 128.51  | 0.      |  |    |  |
| 3       | -20.0     | .0      | -92.3       | 35.12       | 2096.        | -48.         | 67.          | 1.67        | 55.14  | 128.78  | 0.      |  |    |  |
| 4       | -15.0     | .0      | -75.1       | 22.58       | 1668.        | -107.        | -14.         | 6.74        | 55.61  | 129.34  | 0.      |  |    |  |
| 5       | -10.0     | .0      | -50.3       | 17.48       | 1102.        | -116.        | 9.           | 4.47        | 55.60  | 129.33  | 0.      |  |    |  |
| 6       | -5.0      | .0      | -20.9       | 15.09       | 436.         | -71.         | -8.          | 5.25        | 55.16  | 128.81  | 0.      |  |    |  |
| 7       | -2.5      | .0      | -6.8        | 14.03       | 117.         | -65.         | 11.          | 4.86        | 55.33  | 129.01  | 0.      |  |    |  |
| 8       | .0        | .0      | 7.5         | 14.58       | -202.        | -45.         | -5.          | 4.04        | 54.87  | 128.46  | 0.      |  |    |  |
| 9       | 2.5       | .0      | 20.3        | 15.43       | -486.        | -16.         | -3.          | 2.29        | 54.97  | 128.57  | 0.      |  |    |  |
| 10      | 5.0       | .0      | 33.9        | 17.26       | -770.        | -1.          | -2.          | 2.17        | 55.05  | 128.67  | 0.      |  |    |  |
| 11      | 10.0      | .0      | 60.5        | 24.36       | -1360.       | -13.         | -18.         | .99         | 55.29  | 128.96  | 0.      |  |    |  |
| 12      | 15.0      | .0      | 78.2        | 37.80       | -1735.       | -166.        | -371.        | 6.13        | 55.02  | 128.64  | 0.      |  |    |  |
| 13      | 20.0      | .0      | 84.4        | 50.94       | -1877.       | -103.        | -264.        | 2.35        | 54.99  | 128.61  | 0.      |  |    |  |
| 14      | 24.0      | .0      | 80.6        | 59.64       | -1667.       | -61.         | -15.         | 4.13        | 55.20  | 128.85  | 0.      |  |    |  |
| 15      | .0        | .0      | 6.4         | 14.81       | -197.        | -43.         | -22.         | 3.48        | 54.85  | 128.43  | 0.      |  |    |  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CU    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0196  | .0398 | -.0669 | -.0027 | -.0014 | .0107 |
| 3    | -19.99 | -.2495 | .0949 | .6756  | -.0029 | .0040  | .0045 |
| 4    | -15.00 | -.2030 | .0610 | .5376  | -.0065 | -.0008 | .0182 |
| 5    | -10.00 | -.1360 | .0472 | .3554  | -.0070 | .0006  | .0121 |
| 6    | -5.00  | -.0564 | .0408 | .1406  | -.0043 | -.0005 | .0142 |
| 7    | -2.51  | -.0184 | .0379 | .0377  | -.0039 | .0006  | .0131 |
| 8    | .00    | .0202  | .0394 | -.0651 | -.0027 | -.0003 | .0109 |
| 9    | 2.51   | .0548  | .0417 | -.1566 | -.0009 | -.0002 | .0062 |
| 10   | 5.00   | .0917  | .0466 | -.2482 | -.0001 | -.0001 | .0059 |
| 11   | 10.00  | .1634  | .0658 | -.4385 | -.0008 | -.0011 | .0027 |
| 12   | 15.00  | .2112  | .1022 | -.5592 | -.0100 | -.0224 | .0166 |
| 13   | 20.00  | .2281  | .1374 | -.6052 | -.0062 | -.0159 | .0064 |
| 14   | 23.99  | .2179  | .1612 | -.5374 | -.0037 | -.0009 | .0112 |
| 15   | .00    | .0172  | .0400 | -.0637 | -.0026 | -.0013 | .0094 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0196  | .0398 | -.0669 | -.0027 | -.0014 | .0107 |
| 3    | -19.99 | -.2495 | .0949 | .6756  | -.0029 | .0040  | .0045 |
| 4    | -15.00 | -.2030 | .0610 | .5376  | -.0065 | -.0008 | .0182 |
| 5    | -10.00 | -.1360 | .0472 | .3554  | -.0070 | .0006  | .0121 |
| 6    | -5.00  | -.0564 | .0408 | .1406  | -.0043 | -.0005 | .0142 |
| 7    | -2.51  | -.0184 | .0379 | .0377  | -.0039 | .0006  | .0131 |
| 8    | .00    | .0202  | .0394 | -.0651 | -.0027 | -.0003 | .0109 |
| 9    | 2.51   | .0548  | .0417 | -.1566 | -.0009 | -.0002 | .0062 |
| 10   | 5.00   | .0917  | .0466 | -.2482 | -.0001 | -.0001 | .0059 |
| 11   | 10.00  | .1634  | .0658 | -.4385 | -.0008 | -.0011 | .0027 |
| 12   | 15.00  | .2112  | .1022 | -.5592 | -.0100 | -.0224 | .0166 |
| 13   | 20.00  | .2281  | .1374 | -.6052 | -.0062 | -.0159 | .0064 |
| 14   | 23.99  | .2179  | .1612 | -.5374 | -.0037 | -.0009 | .0112 |
| 15   | .00    | .0172  | .0400 | -.0637 | -.0026 | -.0013 | .0094 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 23

RUN 27 CONFIG F P B T BT

| PT. NO. | Iw ALPHA DEG | - DELF  |             | - DELA      |              | - IHT        |              | 0 DELE      |       | 0 DELR  |  | 0 DELSB |  | 35 |    | RPM |
|---------|--------------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--|---------|--|----|----|-----|
|         |              | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |  |         |  |    |    |     |
| 2       | .0           | .0      | 6.6         | 20.14       | -195.        | -64.         | -5.          | 3.82        | 53.45 | 126.76  |  |         |  |    | 0. |     |
| 3       | -20.0        | .0      | -91.4       | 40.65       | 2098.        | -142.        | 111.         | 5.92        | 54.70 | 128.26  |  |         |  |    | 0. |     |
| 4       | -15.0        | .0      | -73.3       | 26.81       | 1644.        | -100.        | -10.         | 4.81        | 55.89 | 129.67  |  |         |  |    | 0. |     |
| 5       | -10.0        | .0      | -49.3       | 22.74       | 1074.        | -124.        | 9.           | 4.77        | 55.68 | 129.43  |  |         |  |    | 0. |     |
| 6       | -5.0         | .0      | -20.3       | 20.25       | 405.         | -65.         | -7.          | 4.17        | 55.54 | 129.26  |  |         |  |    | 0. |     |
| 7       | -2.5         | .0      | -7.1        | 19.26       | 110.         | -78.         | -7.          | 5.21        | 55.55 | 129.26  |  |         |  |    | 0. |     |
| 8       | .0           | .0      | 6.7         | 19.95       | -201.        | -60.         | -9.          | 6.93        | 54.60 | 128.14  |  |         |  |    | 0. |     |
| 9       | 2.5          | .0      | 18.2        | 19.90       | -441.        | -20.         | 14.          | 3.38        | 55.46 | 129.16  |  |         |  |    | 0. |     |
| 10      | 5.0          | .0      | 30.8        | 21.67       | -721.        | -2.          | -2.          | 2.35        | 55.17 | 128.82  |  |         |  |    | 0. |     |
| 11      | 10.0         | .0      | 58.3        | 29.27       | -1358.       | -30.         | -19.         | 2.89        | 55.44 | 129.14  |  |         |  |    | 0. |     |
| 12      | 15.0         | .0      | 75.3        |             |              |              | -18.         | 3.83        | 56.94 | 130.89  |  |         |  |    | 0. |     |
| 13      | 20.0         | .0      | 84.9        | 54.07       | -1888.       | -38.         | -34.         | 3.60        | 55.81 | 129.57  |  |         |  |    | 0. |     |
| 14      | 24.0         | .0      | 84.1        | 64.38       | -1843.       | -73.         | -33.         | 4.71        | 55.02 | 128.63  |  |         |  |    | 0. |     |
| 15      | 15.0         | .0      | 76.6        | 42.12       | -1785.       | -66.         | -71.         | 3.33        | 55.30 | 128.97  |  |         |  |    | 0. |     |
| 16      | -.0          | .0      | 11.0        | 19.53       | -422.        | -54.         | -7.          | 5.43        | 55.16 | 128.81  |  |         |  |    | 0. |     |
| 17      | -.0          | .0      | 5.9         | 19.65       | -181.        | -59.         | -23.         | 4.46        | 55.03 | 128.65  |  |         |  |    | 0. |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0179  | .0544 | -.0628 | -.0039 | -.0003 | .0103 |
| 3    | -19.99 | -.2470 | .1099 | .6765  | -.0086 | .0067  | .0160 |
| 4    | -15.00 | -.1982 | .0725 | .5300  | -.0060 | -.0006 | .0130 |
| 5    | -10.00 | -.1331 | .0615 | .3463  | -.0075 | .0005  | .0129 |
| 6    | -5.00  | -.0550 | .0547 | .1306  | -.0039 | -.0004 | .0113 |
| 7    | -2.50  | -.0192 | .0521 | .0355  | -.0047 | -.0004 | .0141 |
| 8    | .00    | .0180  | .0539 | -.0650 | -.0036 | -.0005 | .0187 |
| 9    | 2.50   | .0491  | .0538 | -.1421 | -.0012 | .0008  | .0091 |
| 10   | 5.00   | .0833  | .0586 | -.2324 | -.0001 | -.0001 | .0063 |
| 11   | 10.01  | .1575  | .0791 | -.4377 | -.0018 | -.0012 | .0078 |
| 12   | 14.99  | .2036  |       |        |        | -.0011 | .0103 |
| 13   | 19.99  | .2296  | .1461 | -.6087 | -.0023 | -.0021 | .0097 |
| 14   | 23.99  | .2272  | .1740 | -.5941 | -.0044 | -.0020 | .0127 |
| 15   | 15.00  | .2070  | .1138 | -.5756 | -.0040 | -.0043 | .0090 |
| 16   | -.00   | .0298  | .0528 | -.1360 | -.0033 | -.0004 | .0147 |
| 17   | -.00   | .0160  | .0531 | -.0584 | -.0036 | -.0014 | .0120 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0179  | .0544 | -.0628 | -.0039 | -.0003 | .0103 |
| 3    | -19.99 | -.2470 | .1099 | .6765  | -.0086 | .0067  | .0160 |
| 4    | -15.00 | -.1982 | .0725 | .5300  | -.0060 | -.0006 | .0130 |
| 5    | -10.00 | -.1331 | .0615 | .3463  | -.0075 | .0005  | .0129 |
| 6    | -5.00  | -.0550 | .0547 | .1306  | -.0039 | -.0004 | .0113 |
| 7    | -2.50  | -.0192 | .0521 | .0355  | -.0047 | -.0004 | .0141 |
| 8    | .00    | .0180  | .0539 | -.0650 | -.0036 | -.0005 | .0187 |
| 9    | 2.50   | .0491  | .0538 | -.1421 | -.0012 | .0008  | .0091 |
| 10   | 5.00   | .0833  | .0586 | -.2324 | -.0001 | -.0001 | .0063 |
| 11   | 10.01  | .1575  | .0791 | -.4377 | -.0018 | -.0012 | .0078 |
| 12   | 14.99  | .2036  |       |        |        | -.0011 | .0103 |
| 13   | 19.99  | .2296  | .1461 | -.6087 | -.0023 | -.0021 | .0097 |
| 14   | 23.99  | .2272  | .1740 | -.5941 | -.0044 | -.0020 | .0127 |
| 15   | 15.00  | .2070  | .1138 | -.5756 | -.0040 | -.0043 | .0090 |
| 16   | -.00   | .0298  | .0528 | -.1360 | -.0033 | -.0004 | .0147 |
| 17   | -.00   | .0160  | .0531 | -.0584 | -.0036 | -.0014 | .0120 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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*RJY*

RUN 28 CONFIG F P B T BT

| IW      | - DELF    | - DELA  | - IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 35           | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 6       | -0        | 10.0    | 5.1         | 30.42       | 62.          | -289.        | -8.          | 59.33       | 55.01 | 128.63  | 0. |
| 7       | -20.0     | 9.9     | -74.8       | 54.20       | 1950.        | -1012.       | 233.         | 103.67      | 54.84 | 128.42  | 0. |
| 8       | -15.0     | 10.0    | -63.9       | 38.36       | 1595.        | -1072.       | 41.          | 96.52       | 54.63 | 128.18  | 0. |
| 9       | -10.0     | 10.0    | -39.8       | 31.54       | 1063.        | -660.        | 39.          | 75.45       | 55.35 | 129.04  | 0. |
| 10      | -5.0      | 10.0    | -17.6       | 29.54       | 563.         | -400.        | 0.           | 62.44       | 55.10 | 128.73  | 0. |
| 11      | -2.5      | 10.0    | -5.8        | 29.70       | 295.         | -340.        | -12.         | 61.09       | 54.48 | 128.00  | 0. |
| 12      | .0        | 10.0    | 4.8         | 30.33       | 74.          | -291.        | -8.          | 58.78       | 55.69 | 129.43  | 0. |
| 13      | 2.5       | 10.0    | 15.5        | 32.08       | -148.        | -290.        | 11.          | 61.09       | 54.81 | 128.39  | 0. |
| 14      | 5.0       | 10.0    | 27.3        | 34.45       | -405.        | -373.        | 8.           | 65.46       | 54.95 | 128.56  | 0. |
| 15      | 10.0      | 10.0    | 54.2        | 42.36       | -1027.       | -627.        | 22.          | 77.58       | 54.71 | 128.27  | 0. |
| 16      | 15.0      | 10.0    | 76.1        | 58.23       | -1595.       | -922.        | -24.         | 88.30       | 54.70 | 128.26  | 0. |
| 17      | 20.0      | 9.9     | 85.2        | 71.27       | -1783.       | -1003.       | -104.        | 91.63       | 54.98 | 128.59  | 0. |
| 18      | 24.0      | 9.9     | 86.6        | 80.01       | -1779.       | -855.        | -112.        | 92.18       | 54.99 | 128.60  | 0. |
| 19      | 5.0       | 10.0    | 27.4        | 34.58       | -399.        | -373.        | 9.           | 65.58       | 54.44 | 127.95  | 0. |
| 20      | .0        | 10.0    | 4.3         | 30.11       | 85.          | -291.        | -60.         | 59.29       | 55.22 | 128.87  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 6    | -0.00  | .0138  | .0822 | .0201  | -.0175 | -.0005 | .1603 |
| 7    | -19.99 | -.2021 | .1465 | .6288  | -.0611 | .0141  | .2802 |
| 8    | -15.00 | -.1727 | .1037 | .5142  | -.0648 | .0025  | .2609 |
| 9    | -10.01 | -.1074 | .0852 | .3428  | -.0399 | .0024  | .2039 |
| 10   | -5.00  | -.0475 | .0798 | .1815  | -.0242 | .0000  | .1688 |
| 11   | -2.50  | -.0157 | .0803 | .0952  | -.0205 | -.0007 | .1651 |
| 12   | .01    | .0130  | .0820 | .0240  | -.0175 | -.0005 | .1589 |
| 13   | 2.51   | .0419  | .0867 | -.0477 | -.0175 | .0007  | .1651 |
| 14   | 5.00   | .0738  | .0931 | -.1305 | -.0225 | .0005  | .1769 |
| 15   | 10.01  | .1465  | .1145 | -.3311 | -.0379 | .0013  | .2097 |
| 16   | 15.00  | .2057  | .1574 | -.5142 | -.0557 | -.0014 | .2387 |
| 17   | 20.00  | .2303  | .1926 | -.5749 | -.0606 | -.0063 | .2476 |
| 18   | 23.99  | .2342  | .2162 | -.5735 | -.0517 | -.0067 | .2491 |
| 19   | 5.00   | .0740  | .0934 | -.1286 | -.0225 | .0005  | .1772 |
| 20   | .00    | .0117  | .0814 | .0274  | -.0176 | -.0036 | .1602 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CLD   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 6    | -0.00  | .0138  | .0530 | .0193  | -.0175 | .0002  | .1722 |
| 7    | -19.99 | -.2021 | .0959 | .6323  | -.0611 | .0342  | .3013 |
| 8    | -15.00 | -.1727 | .0566 | .5086  | -.0648 | .0192  | .2750 |
| 9    | -10.01 | -.1074 | .0484 | .3398  | -.0399 | .0135  | .2156 |
| 10   | -5.00  | -.0475 | .0492 | .1788  | -.0242 | .0059  | .1801 |
| 11   | -2.50  | -.0157 | .0502 | .0930  | -.0205 | .0024  | .1766 |
| 12   | .01    | .0130  | .0530 | .0232  | -.0175 | .0003  | .1707 |
| 13   | 2.51   | .0419  | .0566 | -.0464 | -.0175 | -.0009 | .1777 |
| 14   | 5.00   | .0738  | .0608 | -.1280 | -.0225 | -.0038 | .1904 |
| 15   | 10.01  | .1465  | .0762 | -.3248 | -.0379 | -.0095 | .2264 |
| 16   | 15.00  | .2057  | .1133 | -.5076 | -.0557 | -.0182 | .2624 |
| 17   | 20.00  | .2303  | .1470 | -.5721 | -.0606 | -.0248 | .2772 |
| 18   | 23.99  | .2342  | .1700 | -.5711 | -.0517 | -.0252 | .2827 |
| 19   | 5.00   | .0740  | .0611 | -.1261 | -.0225 | -.0037 | .1908 |
| 20   | .00    | .0117  | .0522 | .0236  | -.0176 | -.0027 | .1720 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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*ps*

RUN 29 CONFIG F P B T BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------|---------------|-----|
| 2       | .0        | 10.0          | 3.2               | 36.31             | 99.                | -242.              | 14.                | 56.79             | 55.13       | 128.77        | 0.  |
| 3       | -20.0     | 10.0          | -76.3             | 58.46             | 1982.              | -943.              | 153.               | 99.26             | 55.22       | 128.87        | 0.  |
| 4       | -15.0     | 9.9           | -60.4             | 43.65             | 1543.              | -928.              | 98.                | 92.06             | 55.36       | 129.04        | 0.  |
| 5       | -10.0     | 9.9           | -39.9             | 37.22             | 1059.              | -594.              | 26.                | 74.10             | 54.38       | 127.88        | 0.  |
| 6       | -5.0      | 9.9           | -16.9             | 34.99             | 532.               | -396.              | -159.              | 62.48             | 54.58       | 128.11        | 0.  |
| 7       | -2.5      | 9.9           | -5.4              | 34.86             | 269.               | -311.              | -7.                | 57.14             | 54.85       | 128.44        | 0.  |
| 8       | .0        | 9.9           | 3.3               | 36.71             | 85.                | -251.              | -3.                | 57.15             | 54.36       | 127.85        | 0.  |
| 9       | 2.5       | 9.9           | 15.0              | 37.68             | -151.              | -258.              | 31.                | 58.79             | 55.16       | 128.81        | 0.  |
| 10      | 5.0       | 9.9           | 26.0              | 40.49             | -402.              | -347.              | 12.                | 63.62             | 54.50       | 128.03        | 0.  |
| 11      | 10.0      | 10.0          | 51.0              | 48.02             | -1016.             | -618.              | -11.               | 75.47             | 55.16       | 128.80        | 0.  |
| 12      | 15.0      | 10.0          | 75.8              | 63.50             | -1673.             | -849.              | -41.               | 84.52             | 54.93       | 128.53        | 0.  |
| 13      | 20.0      | 10.0          | 86.8              | 77.64             | -1958.             | -956.              | -231.              | 90.61             | 54.48       | 127.99        | 0.  |
| 14      | 24.0      | 10.0          | 88.3              | 86.47             | -1941.             | -837.              | -167.              | 91.66             | 55.00       | 128.62        | 0.  |
| 15      | .0        | 10.0          | 4.0               | 36.25             | 79.                | -252.              | -5.                | 58.09             | 54.83       | 128.41        | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0087  | .0981 | .0319  | -.0146 | .0008  | .1535 |
| 3    | -20.00 | -.2062 | .1580 | .6391  | -.0570 | .0093  | .2683 |
| 4    | -15.00 | -.1634 | .1180 | .4973  | -.0561 | .0059  | .2488 |
| 5    | -10.00 | -.1077 | .1006 | .3414  | -.0359 | .0016  | .2003 |
| 6    | -5.00  | -.0455 | .0946 | .1715  | -.0239 | -.0096 | .1689 |
| 7    | -2.50  | -.0147 | .0942 | .0867  | -.0188 | -.0004 | .1544 |
| 8    | .00    | .0088  | .0992 | .0273  | -.0151 | -.0002 | .1545 |
| 9    | 2.50   | .0406  | .1018 | -.0485 | -.0156 | .0019  | .1589 |
| 10   | 5.00   | .0702  | .1094 | -.1298 | -.0210 | .0007  | .1720 |
| 11   | 9.99   | .1378  | .1298 | -.3276 | -.0373 | -.0007 | .2040 |
| 12   | 15.00  | .2048  | .1716 | -.5393 | -.0513 | -.0025 | .2284 |
| 13   | 19.99  | .2347  | .2098 | -.6313 | -.0578 | -.0139 | .2449 |
| 14   | 23.99  | .2386  | .2337 | -.6257 | -.0506 | -.0101 | .2477 |
| 15   | .00    | .0108  | .0980 | .0255  | -.0152 | -.0003 | .1570 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0087  | .0699 | .0322  | -.0146 | .0019  | .1682 |
| 3    | -20.00 | -.2062 | .1088 | .6379  | -.0570 | .0300  | .2917 |
| 4    | -15.00 | -.1634 | .0732 | .4953  | -.0561 | .0219  | .2654 |
| 5    | -10.00 | -.1077 | .0645 | .3378  | -.0359 | .0126  | .2146 |
| 6    | -5.00  | -.0455 | .0640 | .1600  | -.0239 | -.0039 | .1826 |
| 7    | -2.50  | -.0147 | .0661 | .0850  | -.0188 | .0024  | .1684 |
| 8    | .00    | .0088  | .0710 | .0268  | -.0151 | .0007  | .1693 |
| 9    | 2.50   | .0406  | .0729 | -.0461 | -.0156 | .0003  | .1741 |
| 10   | 5.00   | .0702  | .0781 | -.1272 | -.0210 | -.0035 | .1883 |
| 11   | 9.99   | .1378  | .0922 | -.3232 | -.0373 | -.0114 | .2235 |
| 12   | 15.00  | .2048  | .1291 | -.5333 | -.0513 | -.0200 | .2549 |
| 13   | 19.99  | .2347  | .1639 | -.6346 | -.0578 | -.0344 | .2777 |
| 14   | 23.99  | .2386  | .1869 | -.6255 | -.0506 | -.0304 | .2847 |
| 15   | .00    | .0108  | .0691 | .0248  | -.0152 | .0005  | .1717 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 26

RUN 30 CONFIG F P B T BT

| IW      | - DELF    | - DELA  | - IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 55           |             |        |            |     |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|------------|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELPSF | 55 V KNOTS | RPM |
| 2       | .0        | .0      | 5.6         | 26.28       | -185.        | -17.         | -3.          | 2.02        | 53.97  | 127.38     | 0.  |
| 3       | -20.0     | .0      | -95.3       | 47.23       | 2255.        | -115.        | 23.          | 5.19        | 55.12  | 128.75     | 0.  |
| 4       | -15.0     | .0      | -73.0       | 32.62       | 1662.        | -46.         | 11.          | 3.35        | 54.91  | 128.51     | 0.  |
| 5       | -10.0     | .0      | -49.0       | 29.61       | 1079.        | -80.         | 11.          | 3.49        | 55.66  | 129.40     | 0.  |
| 6       | -5.0      | .0      | -21.0       | 26.48       | 424.         | -19.         | -6.          | 3.64        | 55.26  | 128.92     | 0.  |
| 7       | -2.5      | .0      | -7.3        | 25.02       | 113.         | -33.         | -6.          | 4.37        | 55.34  | 129.03     | 0.  |
| 8       | -.0       | .0      | 5.5         | 25.55       | -184.        | -10.         | -4.          | 3.15        | 55.17  | 128.82     | 0.  |
| 9       | 2.5       | .0      | 15.6        | 25.75       | -397.        | 9.           | -2.          | 1.61        | 54.93  | 128.54     | 0.  |
| 10      | 5.0       | .0      | 29.5        | 27.76       | -707.        | 54.          | 16.          | 1.49        | 55.04  | 128.66     | 0.  |
| 11      | 10.0      | .0      | 56.9        | 35.97       | -1376.       | 4.           | -1.          | 1.72        | 55.53  | 129.24     | 0.  |
| 12      | 15.0      | .0      | 77.7        | 47.57       | -1846.       | 15.          | 17.          | 1.36        | 55.04  | 128.66     | 0.  |
| 13      | 20.0      | .0      | 85.4        | 59.78       | -2014.       | -37.         | -35.         | 2.10        | 55.06  | 128.68     | 0.  |
| 14      | 24.0      | .0      | 86.0        | 69.87       | -2045.       | -64.         | -50.         | 4.97        | 54.88  | 128.47     | 0.  |
| 15      | .0        | .0      | 5.1         | 25.77       | -181.        | -3.          | -21.         | 2.84        | 55.22  | 128.88     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0150  | .0710 | -.0597 | -.0010 | -.0002 | .0055 |
| 3    | -20.00 | -.2576 | .1276 | .7270  | -.0070 | .0014  | .0140 |
| 4    | -15.01 | -.1972 | .0882 | .5357  | -.0028 | .0006  | .0091 |
| 5    | -10.00 | -.1324 | .0800 | .3480  | -.0048 | .0007  | .0094 |
| 6    | -5.01  | -.0566 | .0716 | .1367  | -.0012 | -.0003 | .0098 |
| 7    | -2.50  | -.0199 | .0676 | .0364  | -.0020 | -.0004 | .0118 |
| 8    | -.00   | .0149  | .0691 | -.0594 | -.0006 | -.0002 | .0085 |
| 9    | 2.50   | .0422  | .0696 | -.1280 | .0005  | -.0001 | .0044 |
| 10   | 5.00   | .0796  | .0750 | -.2280 | .0033  | .0010  | .0040 |
| 11   | 10.00  | .1537  | .0972 | -.4437 | .0003  | -.0001 | .0046 |
| 12   | 15.00  | .2099  | .1286 | -.5952 | .0009  | .0010  | .0037 |
| 13   | 20.00  | .2309  | .1616 | -.6492 | -.0022 | -.0021 | .0057 |
| 14   | 23.99  | .2379  | .1888 | -.6593 | -.0039 | -.0030 | .0134 |
| 15   | .00    | .0138  | .0696 | -.0585 | -.0002 | -.0013 | .0077 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | COB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0150  | .0710 | -.0597 | -.0010 | -.0002 | .0055 |
| 3    | -20.00 | -.2576 | .1276 | .7270  | -.0070 | .0014  | .0140 |
| 4    | -15.01 | -.1972 | .0882 | .5357  | -.0028 | .0006  | .0091 |
| 5    | -10.00 | -.1324 | .0800 | .3480  | -.0048 | .0007  | .0094 |
| 6    | -5.01  | -.0566 | .0716 | .1367  | -.0012 | -.0003 | .0098 |
| 7    | -2.50  | -.0199 | .0676 | .0364  | -.0020 | -.0004 | .0118 |
| 8    | -.00   | .0149  | .0691 | -.0594 | -.0006 | -.0002 | .0085 |
| 9    | 2.50   | .0422  | .0696 | -.1280 | .0005  | -.0001 | .0044 |
| 10   | 5.00   | .0796  | .0750 | -.2280 | .0033  | .0010  | .0040 |
| 11   | 10.00  | .1537  | .0972 | -.4437 | .0003  | -.0001 | .0046 |
| 12   | 15.00  | .2099  | .1286 | -.5952 | .0009  | .0010  | .0037 |
| 13   | 20.00  | .2309  | .1616 | -.6492 | -.0022 | -.0021 | .0057 |
| 14   | 23.99  | .2379  | .1888 | -.6593 | -.0039 | -.0030 | .0134 |
| 15   | .00    | .0138  | .0696 | -.0585 | -.0002 | -.0013 | .0077 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

~~SER-72811~~  
R27

RUN 31 CONFIG F P B T

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------------|-----|
| 2       | .0        | .0            | 8.3         | 10.98       | -221.        | 23.          | 17.          | .69         | 54.48       | 128.01        | 0.  |
| 3       | .0        | .0            | 8.0         | 10.94       | -225.        | 24.          | -3.          | 2.41        | 55.05       | 128.68        | 0.  |
| 4       | -20.0     | .0            | -91.7       | 30.69       | 1981.        | -37.         | 11.          | 2.73        | 54.94       | 128.54        | 0.  |
| 5       | -15.0     | .0            | -75.1       | 18.54       | 1636.        | -28.         | -23.         | 2.60        | 54.95       | 128.55        | 0.  |
| 6       | -10.0     | .0            | -49.1       | 13.22       | 1070.        | -10.         | -2.          | 1.00        | 54.52       | 128.04        | 0.  |
| 7       | -5.0      | .0            | -21.4       | 10.65       | 432.         | -4.          | -6.          | 3.66        | 54.96       | 128.57        | 0.  |
| 8       | -2.5      | .0            | -6.6        | 10.15       | 109.         | 11.          | -23.         | 3.54        | 54.82       | 128.41        | 0.  |
| 9       | .0        | .0            | 8.2         | 10.76       | -236.        | 23.          | -4.          | 3.10        | 54.91       | 128.51        | 0.  |
| 10      | 2.5       | .0            | 22.0        | 11.87       | -534.        | 30.          | -1.          | 1.05        | 55.03       | 128.65        | 0.  |
| 11      | 5.0       | .0            | 36.3        | 13.89       | -825.        | 40.          | -20.         | 2.62        | 54.54       | 128.06        | 0.  |
| 12      | 10.0      | .0            | 61.4        | 21.10       | -1367.       | 30.          | 18.          | .00         | 55.12       | 128.76        | 0.  |
| 13      | 15.0      | .0            | 75.1        | 34.77       | -1651.       | -15.         | -36.         | 1.75        | 54.58       | 128.12        | 0.  |
| 14      | 20.0      | .0            | 81.9        | 46.70       | -1731.       | -25.         | 0.           | .12         | 54.73       | 128.30        | 0.  |
| 15      | 24.0      | .0            | 75.7        | 54.41       | -1480.       | -76.         | -86.         | 4.60        | 54.85       | 128.44        | 0.  |
| 16      | -0.0      | .0            | 7.9         | 10.67       | -219.        | 26.          | -2.          | 1.84        | 55.69       | 129.43        | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0224  | .0297 | -.0711 | .0014  | .0010  | .0019 |
| 3    | .00    | .0216  | .0296 | -.0725 | .0015  | -.0002 | .0065 |
| 4    | -20.00 | -.2479 | .0829 | .6386  | -.0022 | .0007  | .0074 |
| 5    | -15.00 | -.2031 | .0501 | .5273  | -.0017 | -.0014 | .0070 |
| 6    | -10.00 | -.1327 | .0357 | .3449  | -.0006 | -.0001 | .0027 |
| 7    | -5.00  | -.0577 | .0288 | .1394  | -.0002 | -.0003 | .0099 |
| 8    | -2.50  | -.0177 | .0274 | .0352  | .0006  | -.0014 | .0096 |
| 9    | .00    | .0222  | .0291 | -.0759 | .0014  | -.0002 | .0084 |
| 10   | 2.50   | .0593  | .0321 | -.1721 | .0018  | -.0001 | .0028 |
| 11   | 5.00   | .0980  | .0375 | -.2660 | .0024  | -.0012 | .0071 |
| 12   | 10.00  | .1660  | .0570 | -.4407 | .0018  | .0011  | .0000 |
| 13   | 15.00  | .2030  | .0940 | -.5323 | -.0009 | -.0022 | .0047 |
| 14   | 19.99  | .2215  | .1262 | -.5579 | -.0015 | .0000  | .0003 |
| 15   | 23.99  | .2046  | .1470 | -.4772 | -.0046 | -.0052 | .0124 |
| 16   | -.00   | .0212  | .0288 | -.0706 | .0016  | -.0001 | .0050 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0224  | .0297 | -.0711 | .0014  | .0010  | .0019 |
| 3    | .00    | .0216  | .0296 | -.0725 | .0015  | -.0002 | .0065 |
| 4    | -20.00 | -.2479 | .0829 | .6386  | -.0022 | .0007  | .0074 |
| 5    | -15.00 | -.2031 | .0501 | .5273  | -.0017 | -.0014 | .0070 |
| 6    | -10.00 | -.1327 | .0357 | .3449  | -.0006 | -.0001 | .0027 |
| 7    | -5.00  | -.0577 | .0288 | .1394  | -.0002 | -.0003 | .0099 |
| 8    | -2.50  | -.0177 | .0274 | .0352  | .0006  | -.0014 | .0096 |
| 9    | .00    | .0222  | .0291 | -.0759 | .0014  | -.0002 | .0084 |
| 10   | 2.50   | .0593  | .0321 | -.1721 | .0018  | -.0001 | .0028 |
| 11   | 5.00   | .0980  | .0375 | -.2660 | .0024  | -.0012 | .0071 |
| 12   | 10.00  | .1660  | .0570 | -.4407 | .0018  | .0011  | .0000 |
| 13   | 15.00  | .2030  | .0940 | -.5323 | -.0009 | -.0022 | .0047 |
| 14   | 19.99  | .2215  | .1262 | -.5579 | -.0015 | .0000  | .0003 |
| 15   | 23.99  | .2046  | .1470 | -.4772 | -.0046 | -.0052 | .0124 |
| 16   | -.00   | .0212  | .0288 | -.0706 | .0016  | -.0001 | .0050 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

~~SER 72011~~  
P. 2

RUN 32 CONFIG F P B T

| IW<br>PT.<br>NO. | - DELF<br>ALPHA<br>DEG | - DELA<br>PSI<br>DEG | - IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>DELSB<br>PSF | 0<br>V<br>KNOTS | RPM |
|------------------|------------------------|----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|-------------------|-----------------|-----|
| 2                | .0                     | .0                   | 8.0                     | 8.13                     | -214.                     | 51.                        | 111.                 | -2.04               | 53.47             | 126.78          | 0.  |
| 3                | .0                     | -20.0                | 5.4                     | 40.56                    | -207.                     | 873.                       | 80.                  | -129.94             | 53.37             | 126.67          | 0.  |
| 4                | .0                     | -15.0                | 6.6                     | 24.56                    | -217.                     | 403.                       | 51.                  | -87.82              | 53.45             | 126.76          | 0.  |
| 5                | .0                     | -10.0                | 8.8                     | 14.36                    | -259.                     | 124.                       | 69.                  | -55.86              | 53.30             | 126.57          | 0.  |
| 6                | .0                     | -5.0                 | 9.6                     | 9.64                     | -272.                     | 45.                        | 89.                  | -26.38              | 53.20             | 126.45          | 0.  |
| 7                | .0                     | -2.5                 | 8.8                     | 8.55                     | -256.                     | 70.                        | 90.                  | -15.31              | 53.41             | 126.71          | 0.  |
| 8                | .0                     | .0                   | 8.1                     | 8.11                     | -239.                     | 48.                        | 94.                  | -2.17               | 53.38             | 126.67          | 0.  |
| 9                | .0                     | 2.5                  | 8.2                     | 8.57                     | -243.                     | 62.                        | 120.                 | .95                 | 53.41             | 126.70          | 0.  |
| 10               | .0                     | 5.0                  | 8.0                     | 9.78                     | -230.                     | 66.                        | 112.                 | 23.97               | 53.16             | 126.40          | 0.  |
| 11               | .0                     | 10.0                 | 6.5                     | 13.82                    | -183.                     | -84.                       | 139.                 | 52.28               | 53.96             | 127.36          | 0.  |
| 12               | .0                     | 15.0                 | 4.3                     | 23.02                    | -154.                     | -365.                      | 135.                 | 83.98               | 55.29             | 128.95          | 0.  |
| 13               | .0                     | 19.9                 | 3.0                     | 39.72                    | -165.                     | -329.                      | 168.                 | 124.51              | 55.18             | 128.83          | 0.  |
| 14               | .0                     | .0                   | 8.1                     | 8.24                     | -209.                     | 40.                        | 88.                  | -.37                | 55.25             | 128.91          | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|-------|--------|--------|-------|--------|
| 2    | .00    | .0216 | .0220 | -.0691 | .0031  | .0067 | -.0055 |
| 3    | -20.00 | .0145 | .1096 | -.0668 | .0527  | .0049 | -.3512 |
| 4    | -15.00 | .0178 | .0664 | -.0700 | .0244  | .0031 | -.2373 |
| 5    | -10.00 | .0239 | .0388 | -.0835 | .0075  | .0042 | -.1510 |
| 6    | -5.00  | .0259 | .0261 | -.0876 | .0027  | .0054 | -.0713 |
| 7    | -2.50  | .0239 | .0231 | -.0824 | .0042  | .0055 | -.0414 |
| 8    | .00    | .0220 | .0219 | -.0772 | .0029  | .0056 | -.0059 |
| 9    | 2.50   | .0222 | .0232 | -.0785 | .0037  | .0072 | .0269  |
| 10   | 5.00   | .0216 | .0264 | -.0741 | .0040  | .0068 | .0648  |
| 11   | 10.00  | .0177 | .0373 | -.0588 | -.0051 | .0084 | .1413  |
| 12   | 15.00  | .0116 | .0622 | -.0497 | -.0221 | .0082 | .2270  |
| 13   | 19.90  | .0082 | .1073 | -.0532 | -.0501 | .0102 | .3365  |
| 14   | .00    | .0218 | .0223 | -.0675 | .0024  | .0053 | -.0010 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .0216 | .0220  | -.0691 | .0031  | .0067 | -.0055 |
| 3    | -20.00 | .0145 | -.0177 | -.0716 | .0527  | .0089 | -.3675 |
| 4    | -15.00 | .0178 | .0024  | -.0718 | .0244  | .0064 | -.2464 |
| 5    | -10.00 | .0239 | .0119  | -.0861 | .0075  | .0069 | -.1554 |
| 6    | -5.00  | .0259 | .0197  | -.0898 | .0027  | .0068 | -.0733 |
| 7    | -2.50  | .0239 | .0213  | -.0836 | .0042  | .0061 | -.0423 |
| 8    | .00    | .0220 | .0219  | -.0772 | .0029  | .0056 | -.0059 |
| 9    | 2.50   | .0222 | .0220  | -.0767 | .0037  | .0066 | .0279  |
| 10   | 5.00   | .0216 | .0207  | -.0707 | .0040  | .0055 | .0668  |
| 11   | 10.00  | .0177 | .0121  | -.0501 | -.0051 | .0063 | .1456  |
| 12   | 15.00  | .0116 | .0011  | -.0367 | -.0221 | .0055 | .2353  |
| 13   | 19.90  | .0082 | -.0142 | -.0314 | -.0501 | .0061 | .3529  |
| 14   | .00    | .0218 | .0223  | -.0675 | .0024  | .0053 | -.0010 |

SIKORSKY RSPA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P. 29

RUN 33 CONFIG F P R T2

| IW      | - DELF    |         | - DELA      |             | - IHT         |              | - DELE       |             | - DELR |         | - DELSR |  | -  | dPM |
|---------|-----------|---------|-------------|-------------|---------------|--------------|--------------|-------------|--------|---------|---------|--|----|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SO-FT | CDBAR SO-FT | CPM BAR CU-FT | CYMRAP CU-FT | CRMBAR CU-FT | CYBAR SO-FT | Q PSF  | V KNOTS |         |  |    |     |
| 6       | -0.0      | .0      | 1.7         | 0.00        | -72.          | 43.          | -3.          | 2.45        | 52.75  | 125.92  |         |  | 0. |     |
| 7       | -20.0     | .0      | -13.5       | 12.47       | -402.         | 55.          | -39.         | 1.09        | 53.27  | 126.55  |         |  | 0. |     |
| 8       | -15.0     | .0      | -9.2        | 10.07       | -361.         | 28.          | -23.         | 2.45        | 52.81  | 125.99  |         |  | 0. |     |
| 9       | -15.0     | .0      | -8.8        | 9.87        | -358.         | 17.          | 1.           | -55         | 55.34  | 129.04  |         |  | 0. |     |
| 10      | -10.0     | .0      | -5.6        | 8.51        | -270.         | 23.          | -5.          | 2.90        | 55.13  | 128.79  |         |  | 0. |     |
| 11      | -5.0      | .0      | -2.0        | 8.42        | -172.         | 37.          | -1.          | .49         | 55.52  | 129.24  |         |  | 0. |     |
| 12      | -2.5      | .0      | .2          | 8.39        | -123.         | 47.          | -4.          | 3.15        | 55.40  | 129.10  |         |  | 0. |     |
| 13      | .0        | .0      | 1.7         | 8.93        | -73.          | 36.          | -3.          | 2.45        | 55.57  | 129.30  |         |  | 0. |     |
| 14      | 2.5       | .0      | 3.1         | 9.24        | -13.          | 40.          | -1.          | .67         | 55.80  | 129.57  |         |  | 0. |     |
| 15      | 5.0       | .0      | 4.9         | 10.19       | 45.           | 58.          | 14.          | 3.66        | 54.93  | 129.54  |         |  | 0. |     |
| 16      | 10.0      | .0      | 8.3         | 11.15       | 159.          | 55.          | -2.          | 3.26        | 55.43  | 129.13  |         |  | 0. |     |
| 17      | 15.0      | .0      | 12.4        | 13.20       | 278.          | 13.          | -18.         | 1.23        | 55.34  | 129.03  |         |  | 0. |     |
| 18      | 20.0      | .0      | 15.6        | 15.91       | 392.          | -3.          | 18.          | .86         | 55.49  | 129.20  |         |  | 0. |     |
| 19      | 24.0      | .0      | 18.0        | 18.89       | 475.          | -36.         | -15.         | 4.50        | 56.04  | 129.86  |         |  | 0. |     |
| 20      | -0.0      | .0      | 1.4         | 8.83        | -74.          | 48.          | 13.          | 3.40        | 56.16  | 130.00  |         |  | 0. |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CY <sub>M</sub> | CR <sub>M</sub> | CY     |
|------|--------|--------|-------|--------|-----------------|-----------------|--------|
| 6    | -0.00  | .0047  | .0243 | -.0232 | .0026           | -.0002          | .0066  |
| 7    | -19.98 | -.0364 | .0337 | -.1296 | .0033           | -.0023          | .0029  |
| 8    | -15.01 | -.0248 | .0272 | -.1163 | .0017           | -.0014          | .0066  |
| 9    | -15.01 | -.0238 | .0267 | -.1154 | .0010           | .0001           | -.0015 |
| 10   | -9.99  | -.0151 | .0230 | -.0899 | .0014           | -.0003          | .0078  |
| 11   | -5.02  | -.0055 | .0227 | -.0554 | .0022           | -.0000          | .0013  |
| 12   | -2.52  | .0004  | .0227 | -.0396 | .0029           | -.0003          | .0085  |
| 13   | .00    | .0046  | .0241 | -.0236 | .0021           | -.0002          | .0066  |
| 14   | 2.48   | .0083  | .0250 | -.0041 | .0024           | -.0000          | .0018  |
| 15   | 5.01   | .0134  | .0276 | .0144  | .0035           | .0009           | .0099  |
| 16   | 9.98   | .0223  | .0301 | .0512  | .0033           | -.0001          | .0088  |
| 17   | 15.01  | .0334  | .0357 | .0897  | .0008           | -.0011          | .0033  |
| 18   | 20.03  | .0422  | .0430 | .1265  | -.0002          | .0011           | .0023  |
| 19   | 24.00  | .0486  | .0511 | .1533  | -.0021          | -.0009          | .0122  |
| 20   | -.01   | .0038  | .0239 | -.0237 | .0029           | .0008           | .0092  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CD <sub>B</sub> | CPM <sub>B</sub> | CY <sub>M<sub>B</sub></sub> | CR <sub>M<sub>B</sub></sub> | CY <sub>B</sub> |
|------|--------|--------|-----------------|------------------|-----------------------------|-----------------------------|-----------------|
| 6    | -0.00  | .0047  | .0243           | -.0232           | .0026                       | -.0002                      | .0066           |
| 7    | -19.98 | -.0364 | .0337           | -.1296           | .0033                       | -.0023                      | .0029           |
| 8    | -15.01 | -.0248 | .0272           | -.1163           | .0017                       | -.0014                      | .0066           |
| 9    | -15.01 | -.0238 | .0267           | -.1154           | .0010                       | .0001                       | -.0015          |
| 10   | -9.99  | -.0151 | .0230           | -.0899           | .0014                       | -.0003                      | .0078           |
| 11   | -5.02  | -.0055 | .0227           | -.0554           | .0022                       | -.0000                      | .0013           |
| 12   | -2.52  | .0004  | .0227           | -.0396           | .0029                       | -.0003                      | .0085           |
| 13   | .00    | .0046  | .0241           | -.0236           | .0021                       | -.0002                      | .0066           |
| 14   | 2.48   | .0083  | .0250           | -.0041           | .0024                       | -.0000                      | .0018           |
| 15   | 5.01   | .0134  | .0276           | .0144            | .0035                       | .0009                       | .0099           |
| 16   | 9.98   | .0223  | .0301           | .0512            | .0033                       | -.0001                      | .0088           |
| 17   | 15.01  | .0334  | .0357           | .0897            | .0008                       | -.0011                      | .0033           |
| 18   | 20.03  | .0422  | .0430           | .1265            | -.0002                      | .0011                       | .0023           |
| 19   | 24.00  | .0486  | .0511           | .1533            | -.0021                      | -.0009                      | .0122           |
| 20   | -.01   | .0038  | .0239           | -.0237           | .0029                       | .0008                       | .0092           |

SIKORSKY, RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SR-72011  
P. 30

RUN 35 CONFIG F P B T2

| IK      | - DELF    | - DELA  | - IHT       | - DELE      | - DELR       | - DELSB      | -            | -           | RPM   |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SO-FT | COBAR SO-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | O PSF | V KNOTS |    |
| 2       | .0        | .0      | 2.3         | 8.95        | -71.         | 31.          | -4.          | 2.82        | 55.51 | 129.23  | 0. |
| 3       | .0        | -20.0   | -9          | 32.53       | 16.          | -676.        | 50.          | -81.47      | 55.44 | 129.15  | 0. |
| 4       | .0        | -15.0   | 1.2         | 21.06       | -38.         | -528.        | 10.          | -57.87      | 55.98 | 129.78  | 0. |
| 5       | .0        | -10.0   | 2.5         | 13.86       | -71.         | -375.        | -16.         | -37.94      | 55.76 | 129.52  | 0. |
| 6       | .0        | -5.0    | 3.0         | 10.71       | -93.         | -169.        | 18.          | -17.21      | 55.24 | 128.90  | 0. |
| 7       | .0        | -2.5    | 1.9         | 9.73        | -102.        | -62.         | -20.         | -7.37       | 55.50 | 129.21  | 0. |
| 8       | .0        | .0      | 2.1         | 9.14        | -95.         | 44.          | -3.          | 2.04        | 55.21 | 128.87  | 0. |
| 9       | .0        | 2.5     | 1.8         | 9.63        | -81.         | 136.         | -1.          | 13.12       | 55.30 | 128.97  | 0. |
| 10      | .0        | 5.0     | 1.9         | 10.29       | -75.         | 224.         | -12.         | 22.66       | 55.47 | 129.18  | 0. |
| 11      | .0        | 10.0    | 2.0         | 13.41       | -40.         | 413.         | -4.          | 41.21       | 55.46 | 129.17  | 0. |
| 12      | .0        | 15.0    | .7          | 19.99       | -18.         | 573.         | -35.         | 61.02       | 55.60 | 129.33  | 0. |
| 13      | .0        | 20.0    | -.0         | 31.76       | -6.          | 726.         | -2.          | 84.22       | 55.86 | 129.64  | 0. |
| 14      | .0        | .0      | 1.9         | 9.06        | -85.         | 38.          | -3.          | 2.63        | 55.64 | 129.38  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0063  | .0242 | -.0220 | .0019  | -.0002 | .0076  |
| 3    | -20.00 | -.0025 | .0879 | .0052  | -.0408 | .0030  | -.2202 |
| 4    | -15.00 | .0031  | .0569 | -.0124 | -.0319 | .0006  | -.1564 |
| 5    | -10.00 | .0067  | .0375 | -.0229 | -.0226 | -.0010 | -.1025 |
| 6    | -5.00  | .0081  | .0290 | -.0298 | -.0102 | .0011  | -.0465 |
| 7    | -2.50  | .0053  | .0263 | -.0330 | -.0037 | -.0012 | -.0199 |
| 8    | .00    | .0058  | .0247 | -.0305 | .0027  | -.0002 | .0055  |
| 9    | 2.50   | .0049  | .0260 | -.0260 | .0082  | -.0001 | .0355  |
| 10   | 5.00   | .0051  | .0278 | -.0242 | .0135  | -.0007 | .0612  |
| 11   | 10.00  | .0053  | .0362 | -.0159 | .0249  | -.0003 | .1114  |
| 12   | 15.00  | .0020  | .0540 | -.0059 | .0346  | -.0021 | .1649  |
| 13   | 20.00  | -.0001 | .0858 | -.0018 | .0439  | -.0001 | .2276  |
| 14   | .00    | .0052  | .0245 | -.0273 | .0023  | -.0002 | .0071  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR   | CPMB   | CYMR   | CPMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0063  | .0242 | -.0229 | .0019  | -.0002 | .0076  |
| 3    | -20.00 | -.0025 | .0069 | -.0006 | -.0408 | .0025  | -.2370 |
| 4    | -15.00 | .0031  | .0143 | -.0128 | -.0319 | .0012  | -.1658 |
| 5    | -10.00 | .0067  | .0190 | -.0216 | -.0226 | -.0002 | -.1075 |
| 6    | -5.00  | .0081  | .0248 | -.0372 | -.0102 | .0016  | -.0489 |
| 7    | -2.50  | .0053  | .0254 | -.0327 | -.0037 | -.0010 | -.0210 |
| 8    | .00    | .0058  | .0247 | -.0305 | .0027  | -.0002 | .0055  |
| 9    | 2.50   | .0049  | .0244 | -.0260 | .0082  | -.0003 | .0366  |
| 10   | 5.00   | .0051  | .0223 | -.0244 | .0135  | -.0011 | .0634  |
| 11   | 10.00  | .0053  | .0163 | -.0159 | .0249  | -.0008 | .1160  |
| 12   | 15.00  | .0020  | .0093 | -.0086 | .0346  | -.0023 | .1733  |
| 13   | 20.00  | -.0001 | .0024 | -.0020 | .0439  | -.0003 | .2432  |
| 14   | .00    | .0052  | .0245 | -.0273 | .0023  | -.0002 | .0071  |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

472011  
P 31

RUN 36 CONFIG F P B T2

| IW      | - DELF    |         | - DELA      |             | - IHT        |              | - DELE       |             | - DELR |         | - DELSB |  | -  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|----|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAP SQ-FT | Q PSF  | V KNOTS |         |  |    |     |
| 6       | 10.0      | .0      | 9.2         | 11.19       | 173.         | 31.          | 17.          | 1.04        | 55.85  | 129.63  |         |  | 0. |     |
| 7       | 10.0      | -20.0   | 4.9         | 41.62       | 228.         | -447.        | 81.          | -96.22      | 54.66  | 128.22  |         |  | 0. |     |
| 8       | 10.0      | -15.0   | 7.8         | 30.01       | 176.         | -271.        | 46.          | -74.30      | 55.06  | 128.69  |         |  | 0. |     |
| 9       | 10.0      | -10.0   | 7.5         | 20.09       | 144.         | -148.        | 15.          | -51.65      | 55.27  | 128.93  |         |  | 0. |     |
| 10      | 10.0      | -5.0    | 8.7         | 13.63       | 144.         | -7.          | 29.          | -26.82      | 55.75  | 129.50  |         |  | 0. |     |
| 11      | 10.0      | -2.5    | 8.8         | 11.45       | 177.         | 4.           | -4.          | -14.01      | 55.90  | 129.69  |         |  | 0. |     |
| 12      | 10.0      | .0      | 9.3         | 10.86       | 152.         | 42.          | -1.          | 1.34        | 55.93  | 129.71  |         |  | 0. |     |
| 13      | 10.0      | -2.5    | 9.1         | 11.58       | 178.         | 11.          | 13.          | -13.36      | 55.83  | 129.60  |         |  | 0. |     |
| 14      | 10.0      | 2.5     | 8.6         | 11.34       | 166.         | 54.          | -11.         | 14.53       | 56.02  | 129.82  |         |  | 0. |     |
| 15      | 10.0      | 5.0     | 8.1         | 13.47       | 174.         | 86.          | 18.          | 27.52       | 55.70  | 129.45  |         |  | 0. |     |
| 16      | 10.0      | 10.0    | 7.0         | 20.20       | 171.         | 202.         | -55.         | 53.48       | 55.60  | 129.33  |         |  | 0. |     |
| 17      | 10.0      | 15.0    | 7.6         | 28.65       | 179.         | 363.         | -41.         | 74.03       | 55.63  | 129.36  |         |  | 0. |     |
| 18      | 10.0      | 20.0    | 7.3         | 41.27       | 201.         | 517.         | -67.         | 96.07       | 55.31  | 128.98  |         |  | 0. |     |
| 19      | 10.0      | .0      | 9.2         | 11.12       | 178.         | 33.          | 17.          | .74         | 55.28  | 128.94  |         |  | 0. |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM   | CYM    | CRM    | CY     |
|------|--------|-------|-------|-------|--------|--------|--------|
| 6    | .00    | .0249 | .0302 | .0559 | .0019  | .0010  | .0028  |
| 7    | -20.00 | .0132 | .1125 | .0734 | -.0270 | .0049  | -.2600 |
| 8    | -15.00 | .0211 | .0811 | .0569 | -.0164 | .0028  | -.2008 |
| 9    | -10.00 | .0202 | .0543 | .0463 | -.0090 | .0009  | -.1396 |
| 10   | -5.00  | .0236 | .0368 | .0464 | -.0004 | .0018  | -.0725 |
| 11   | -2.50  | .0238 | .0310 | .0570 | .0002  | -.0002 | -.0379 |
| 12   | .00    | .0251 | .0293 | .0490 | .0025  | -.0000 | .0036  |
| 13   | -2.50  | .0246 | .0313 | .0574 | .0006  | .0008  | -.0361 |
| 14   | 2.50   | .0233 | .0306 | .0534 | .0033  | -.0006 | .0393  |
| 15   | 5.00   | .0218 | .0364 | .0561 | .0052  | .0011  | .0744  |
| 16   | 10.00  | .0190 | .0546 | .0550 | .0122  | -.0033 | .1446  |
| 17   | 15.00  | .0205 | .0774 | .0576 | .0219  | -.0025 | .2001  |
| 18   | 20.00  | .0199 | .1115 | .0649 | .0312  | -.0040 | .2596  |
| 19   | .00    | .0250 | .0300 | .0575 | .0020  | .0010  | .0020  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLR   | CDR   | CPMB  | CYMP   | CRMB   | CYB    |
|------|--------|-------|-------|-------|--------|--------|--------|
| 6    | .00    | .0249 | .0302 | .0559 | .0019  | .0010  | .0028  |
| 7    | -20.00 | .0132 | .0163 | .0600 | -.0270 | -.0001 | -.2829 |
| 8    | -15.00 | .0211 | .0261 | .0511 | -.0164 | -.0001 | -.2150 |
| 9    | -10.00 | .0202 | .0291 | .0447 | -.0090 | -.0006 | -.1469 |
| 10   | -5.00  | .0236 | .0304 | .0454 | -.0004 | .0010  | -.0754 |
| 11   | -2.50  | .0238 | .0293 | .0570 | .0002  | -.0007 | -.0392 |
| 12   | .00    | .0251 | .0293 | .0490 | .0025  | -.0000 | .0036  |
| 13   | -2.50  | .0246 | .0297 | .0572 | .0006  | .0003  | -.0375 |
| 14   | 2.50   | .0233 | .0289 | .0532 | .0033  | -.0002 | .0406  |
| 15   | 5.00   | .0218 | .0297 | .0564 | .0052  | .0020  | .0773  |
| 16   | 10.00  | .0190 | .0285 | .0511 | .0122  | -.0015 | .1519  |
| 17   | 15.00  | .0205 | .0228 | .0521 | .0219  | .0004  | .2133  |
| 18   | 20.00  | .0199 | .0156 | .0536 | .0312  | .0004  | .2822  |
| 19   | .00    | .0250 | .0300 | .0575 | .0020  | .0010  | .0020  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 32

RUN 37 CONFIG F P B T2

| IW      | - DELF    |         | - DELA      | - IHT       | - DELE       |              | - DELR       |             | - DELSR |         | - | PPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|---------|---------|---|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CPBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF     | V KNOTS |   |     |
| 6       | -10.0     | .0      | -4.7        | 9.01        | -276.        | 7.           | 19.          | -1.05       | 55.35   | 129.03  |   | 0.  |
| 7       | -10.0     | -20.0   | -2.4        | 35.31       | -285.        | -686.        | -24.         | -84.36      | 54.87   | 128.46  |   | 0.  |
| 8       | -10.0     | -15.0   | -.5         | 23.77       | -347.        | -533.        | -6.          | -62.50      | 55.76   | 129.51  |   | 0.  |
| 9       | -10.0     | -10.0   | .2          | 16.12       | -361.        | -359.        | -1.          | -40.54      | 55.12   | 128.75  |   | 0.  |
| 10      | -10.0     | -5.0    | -2.2        | 11.13       | -326.        | -168.        | -13.         | -21.51      | 55.44   | 129.14  |   | 0.  |
| 11      | -10.0     | .0      | -2.8        | 8.37        | -315.        | -25.         | -3.          | 1.71        | 55.71   | 129.45  |   | 0.  |
| 12      | -10.0     | 2.5     | -4.2        | 9.29        | -302.        | 197.         | 7.           | 13.50       | 55.51   | 129.21  |   | 0.  |
| 13      | -10.0     | 5.0     | -3.1        | 10.34       | -290.        | 159.         | -69.         | 26.05       | 55.98   | 129.77  |   | 0.  |
| 14      | -10.0     | 10.1    | -1.3        | 15.21       | -361.        | 367.         | -79.         | 45.51       | 55.54   | 129.25  |   | 0.  |
| 15      | -10.0     | 15.0    | .7          | 24.43       | -349.        | 530.         | -11.         | 69.57       | 55.68   | 129.41  |   | 0.  |
| 16      | -10.0     | 20.0    | -.3         | 38.73       | -325.        | 694.         | -15.         | 94.26       | 55.19   | 128.83  |   | 0.  |
| 17      | -10.0     | .0      | -4.9        | 8.92        | -273.        | 11.          | -1.          | .79         | 55.97   | 129.76  |   | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .00    | -.0126 | .0243 | -.0889 | .0004  | .0012  | -.0028 |
| 7    | -20.00 | -.0066 | .0954 | -.0917 | -.0414 | -.0015 | -.2280 |
| 8    | -15.00 | -.0014 | .0643 | -.1117 | -.0322 | -.0004 | -.1689 |
| 9    | -10.00 | .0006  | .0436 | -.1163 | -.0217 | -.0001 | -.1096 |
| 10   | -5.00  | -.0060 | .0301 | -.1051 | -.0102 | -.0008 | -.0581 |
| 11   | .00    | -.0077 | .0226 | -.1016 | -.0015 | -.0002 | .0046  |
| 12   | 2.50   | -.0112 | .0251 | -.0973 | .0065  | .0004  | .0365  |
| 13   | 5.00   | -.0084 | .0279 | -.0936 | .0096  | -.0041 | .0704  |
| 14   | 10.10  | -.0036 | .0411 | -.1164 | .0222  | -.0048 | .1230  |
| 15   | 15.00  | .0018  | .0660 | -.1127 | .0320  | -.0007 | .1880  |
| 16   | 20.00  | -.0007 | .1047 | -.1048 | .0419  | -.0009 | .2547  |
| 17   | .00    | -.0133 | .0241 | -.0879 | .0006  | -.0001 | .0021  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR   | CPMR   | CYMP   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .00    | -.0126 | .0243 | -.0889 | .0004  | .0012  | -.0028 |
| 7    | -20.00 | -.0066 | .0113 | -.0835 | -.0414 | .0045  | -.2469 |
| 8    | -15.00 | -.0014 | .0181 | -.1074 | -.0322 | .0051  | -.1798 |
| 9    | -10.00 | .0006  | .0238 | -.1145 | -.0217 | .0037  | -.1155 |
| 10   | -5.00  | -.0060 | .0249 | -.1044 | -.0102 | .0009  | -.0605 |
| 11   | .00    | -.0077 | .0226 | -.1016 | -.0015 | -.0002 | .0046  |
| 12   | 2.50   | -.0112 | .0235 | -.0971 | .0065  | -.0004 | .0376  |
| 13   | 5.00   | -.0084 | .0217 | -.0951 | .0096  | -.0057 | .0726  |
| 14   | 10.10  | -.0036 | .0188 | -.1191 | .0222  | -.0085 | .1283  |
| 15   | 15.00  | .0018  | .0149 | -.1097 | .0320  | -.0061 | .1987  |
| 16   | 20.00  | -.0007 | .0108 | -.1001 | .0419  | -.0076 | .2752  |
| 17   | .00    | -.0133 | .0241 | -.0879 | .0006  | -.0001 | .0021  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P. 33

RUN 38 CONFIG F P T2

| IW      | - DELF    | - DELA  | - IHT       | - DELE      | - DELP       | - DELSR      | -            | -           | RPM   |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | 3.1         | 5.31        | -91.         | 41.          | -20.         | 1.95        | 55.79 | 129.55  | 0. |
| 3       | -20.0     | .0      | -13.0       | 9.51        | -418.        | 46.          | -17.         | .06         | 55.93 | 129.71  | 0. |
| 4       | -15.1     | .0      | -8.1        | 6.80        | -378.        | 14.          | -1.          | .42         | 56.21 | 130.04  | 0. |
| 5       | -10.0     | .0      | -4.1        | 5.38        | -303.        | 8.           | -1.          | .48         | 56.36 | 130.22  | 0. |
| 6       | -5.0      | .0      | -.6         | 5.07        | -185.        | 32.          | -20.         | 1.76        | 56.21 | 130.05  | 0. |
| 7       | .0        | .0      | 1.9         | 5.27        | -45.         | 41.          | -37.         | 2.24        | 56.17 | 129.99  | 0. |
| 8       | 2.5       | .0      | 5.3         | 5.62        | -40.         | 48.          | -19.         | 1.58        | 56.09 | 129.90  | 0. |
| 9       | 5.0       | .0      | 6.7         | 6.16        | 33.          | 62.          | -34.         | .00         | 56.54 | 130.43  | 0. |
| 10      | 10.0      | .0      | 11.4        | 7.35        | 131.         | 73.          | 1.           | -1.22       | 56.01 | 129.80  | 0. |
| 11      | 15.0      | .0      | 15.4        | 9.38        | 251.         | 38.          | -17.         | -.79        | 55.88 | 129.65  | 0. |
| 12      | 20.0      | .0      | 19.2        | 12.10       | 346.         | -20.         | -35.         | -.48        | 56.28 | 130.12  | 0. |
| 13      | 24.0      | .0      | 21.7        | 15.11       | 444.         | -74.         | -119.        | 2.72        | 56.41 | 130.27  | 0. |
| 14      | .0        | .0      | 3.2         | 5.21        | -94.         | 43.          | -18.         | .61         | 55.97 | 129.76  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0085  | .0144 | -.0292 | .0025  | -.0012 | .0053  |
| 3    | -20.02 | -.0351 | .0257 | -.1348 | .0028  | -.0011 | .0002  |
| 4    | -15.06 | -.0218 | .0184 | -.1220 | .0008  | -.0001 | .0011  |
| 5    | -10.02 | -.0112 | .0145 | -.0976 | .0005  | -.0001 | .0013  |
| 6    | -5.02  | -.0017 | .0137 | -.0598 | .0019  | -.0012 | .0047  |
| 7    | .01    | .0051  | .0142 | -.0143 | .0025  | -.0023 | .0061  |
| 8    | 2.51   | .0143  | .0152 | -.0128 | .0029  | -.0011 | .0043  |
| 9    | 5.03   | .0181  | .0166 | .0105  | .0038  | -.0021 | .0000  |
| 10   | 10.00  | .0397  | .0199 | .0423  | .0044  | .0000  | -.0033 |
| 11   | 14.99  | .0416  | .0253 | .0809  | .0023  | -.0010 | -.0021 |
| 12   | 19.98  | .0519  | .0327 | .1116  | -.0012 | -.0021 | -.0013 |
| 13   | 23.96  | .0587  | .0408 | .1433  | -.0045 | -.0072 | .0073  |
| 14   | .00    | .0087  | .0141 | -.0304 | .0026  | -.0011 | .0016  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMR   | CYMP   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0085  | .0144 | -.0292 | .0025  | -.0012 | .0053  |
| 3    | -20.02 | -.0351 | .0257 | -.1348 | .0028  | -.0011 | .0002  |
| 4    | -15.06 | -.0218 | .0184 | -.1220 | .0008  | -.0001 | .0011  |
| 5    | -10.02 | -.0112 | .0145 | -.0976 | .0005  | -.0001 | .0013  |
| 6    | -5.02  | -.0017 | .0137 | -.0598 | .0019  | -.0012 | .0047  |
| 7    | .01    | .0051  | .0142 | -.0143 | .0025  | -.0023 | .0061  |
| 8    | 2.51   | .0143  | .0152 | -.0128 | .0029  | -.0011 | .0043  |
| 9    | 5.03   | .0181  | .0166 | .0105  | .0038  | -.0021 | .0000  |
| 10   | 10.00  | .0397  | .0199 | .0423  | .0044  | .0000  | -.0033 |
| 11   | 14.99  | .0416  | .0253 | .0809  | .0023  | -.0010 | -.0021 |
| 12   | 19.98  | .0519  | .0327 | .1116  | -.0012 | -.0021 | -.0013 |
| 13   | 23.96  | .0587  | .0408 | .1433  | -.0045 | -.0072 | .0073  |
| 14   | .00    | .0087  | .0141 | -.0304 | .0026  | -.0011 | .0016  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

REV 72011  
P. 34

RUN 39 CONFIG F P T2

| IW      | - DELF    |         | - DELA      |             | - INT        |              | - DELE       |             | - DELR       |             | - DFLSR |         |     |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------------|-------------|---------|---------|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMVAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | CRMBAR CU-FT | CYBAR SQ-FT | 0 PSF   | V KNOTS | RPM |
| 2       | .0        | .0      | 3.4         | 5.25        | -89.         | 48.          | -2.          | 1.35        | 55.62        | 129.34      |         | 0.      |     |
| 3       | .0        | -20.0   | 6.7         | 25.65       | -32.         | -678.        | 17.          | -75.74      | 55.72        | 129.46      |         | 0.      |     |
| 4       | .0        | -15.0   | 6.7         | 14.76       | -82.         | -541.        | -27.         | -50.96      | 56.16        | 129.97      |         | 0.      |     |
| 5       | .0        | -10.1   | 5.6         | 8.39        | -104.        | -368.        | -37.         | -31.71      | 55.97        | 129.76      |         | 0.      |     |
| 6       | .0        | -5.0    | 4.2         | 6.31        | -116.        | -180.        | -19.         | -14.71      | 55.35        | 129.03      |         | 0.      |     |
| 7       | .0        | -2.5    | 3.8         | 5.42        | -107.        | -106.        | -72.         | -7.42       | 55.58        | 129.29      |         | 0.      |     |
| 8       | .0        | .0      | 3.3         | 5.30        | -101.        | 40.          | -19.         | .98         | 55.65        | 129.37      |         | 0.      |     |
| 9       | .0        | 2.5     | 3.4         | 5.83        | -105.        | 156.         | -15.         | 10.27       | 55.40        | 129.08      |         | 0.      |     |
| 10      | .0        | 5.0     | 3.8         | 5.20        | -99.         | 247.         | -4.          | 16.16       | 55.45        | 129.15      |         | 0.      |     |
| 11      | .0        | 10.0    | 5.2         | 8.20        | -90.         | 436.         | -51.         | 35.39       | 55.93        | 129.70      |         | 0.      |     |
| 12      | .0        | 15.0    | 6.2         | 14.56       | -70.         | 592.         | -16.         | 55.83       | 55.52        | 129.22      |         | 0.      |     |
| 13      | .0        | 20.0    | 8.4         | 24.78       | -93.         | 644.         | -41.         | 79.05       | 55.46        | 129.15      |         | 0.      |     |
| 14      | .0        | .0      | 3.3         | 5.22        | -83.         | 43.          | -1.          | .97         | 56.04        | 129.83      |         | 0.      |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .0093 | .0142 | -.0286 | .0029  | -.0001 | .0036  |
| 3    | -20.00 | .0182 | .0693 | -.0103 | -.0410 | .0010  | -.2047 |
| 4    | -15.00 | .0181 | .0399 | -.0264 | -.0327 | -.0017 | -.1377 |
| 5    | -10.10 | .0151 | .0227 | -.0336 | -.0222 | -.0022 | -.0857 |
| 6    | -5.00  | .0114 | .0170 | -.0373 | -.0109 | -.0012 | -.0398 |
| 7    | -2.50  | .0102 | .0146 | -.0344 | -.0064 | -.0044 | -.0200 |
| 8    | .00    | .0090 | .0143 | -.0326 | .0024  | -.0011 | .0026  |
| 9    | 2.50   | .0091 | .0157 | -.0340 | .0094  | -.0009 | .0278  |
| 10   | 5.00   | .0103 | .0168 | -.0320 | .0149  | -.0002 | .0437  |
| 11   | 10.00  | .0140 | .0222 | -.0291 | .0263  | -.0031 | .0956  |
| 12   | 15.00  | .0166 | .0393 | -.0225 | .0358  | -.0010 | .1509  |
| 13   | 20.00  | .0227 | .0670 | -.0298 | .0389  | -.0024 | .2136  |
| 14   | .00    | .0089 | .0141 | -.0268 | .0026  | -.0001 | .0026  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDR    | CPMB   | CYMP   | CRMB   | CYR    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .0093 | .0142  | -.0286 | .0029  | -.0001 | .0036  |
| 3    | -20.00 | .0182 | -.0052 | -.0116 | -.0410 | .0016  | -.2161 |
| 4    | -15.00 | .0181 | .0027  | -.0232 | -.0327 | -.0003 | -.1433 |
| 5    | -10.10 | .0151 | .0072  | -.0310 | -.0222 | -.0011 | -.0883 |
| 6    | -5.00  | .0114 | .0135  | -.0366 | -.0109 | -.0006 | -.0411 |
| 7    | -2.50  | .0102 | .0137  | -.0333 | -.0064 | -.0041 | -.0207 |
| 8    | .00    | .0090 | .0143  | -.0326 | .0024  | -.0011 | .0026  |
| 9    | 2.50   | .0091 | .0145  | -.0342 | .0094  | -.0012 | .0284  |
| 10   | 5.00   | .0103 | .0129  | -.0320 | .0149  | -.0008 | .0450  |
| 11   | 10.00  | .0140 | .0052  | -.0315 | .0263  | -.0040 | .0980  |
| 12   | 15.00  | .0166 | -.0012 | -.0230 | .0358  | -.0020 | .1559  |
| 13   | 20.00  | .0227 | -.0105 | -.0325 | .0389  | -.0042 | .2236  |
| 14   | .00    | .0089 | .0141  | -.0268 | .0026  | -.0001 | .0026  |

SIKORSKY RSRA 1/6-SCALE MODEL TEST  
AERODYNAMIC DATA

SFR 79011  
P 35

RUN 40 CONFIG F T2

| IW      | - DELF    |         | - DELA      |             | - IHT        |              | - DELE       |             | - DELR      |        | - DFLSB |     |  |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|--------|---------|-----|--|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | CRBAR SQ-FT | Q PSF  | V KNOTS | RPM |  |
| 16      | .0        | .0      | -1.6        | 2.70        | -47.         | 11.          | -1.          | .62         | 54.88       | 128.46 | 0.      |     |  |
| 17      | -20.0     | .0      | -14.5       | 0.03        | -477.        | 56.          | -19.         | .56         | 55.16       | 128.79 | 0.      |     |  |
| 18      | -14.9     | .0      | -94.9       | 4.29        | 3560.        | -26.         | 457.         | .43         | 54.99       | 128.50 | 0.      |     |  |
| 19      | -10.0     | .0      | -139.6      | 3.62        | 6204.        | 15.          | 175.         | .31         | 55.27       | 128.93 | 0.      |     |  |
| 20      | -15.0     | .0      | -10.6       | 5.44        | -380.        | 5.           | -19.         | .81         | 54.92       | 128.50 | 0.      |     |  |
| 21      | -10.0     | .0      | -6.1        | 3.69        | -307.        | 6.           | -3.          | 1.42        | 55.06       | 128.68 | 0.      |     |  |
| 22      | -5.0      | .0      | -3.1        | 3.25        | -176.        | 26.          | -20.         | 1.30        | 54.95       | 128.55 | 0.      |     |  |
| 23      | -2.5      | .0      | -1.5        | 3.01        | -122.        | 29.          | 15.          | 1.87        | 54.55       | 128.07 | 0.      |     |  |
| 24      | -0.0      | .0      | -.8         | 3.06        | -55.         | 33.          | -19.         | 1.31        | 54.71       | 128.25 | 0.      |     |  |
| 25      | 2.5       | .0      | -.9         | 3.14        | -2.          | 33.          | -19.         | 1.19        | 54.44       | 127.94 | 0.      |     |  |
| 26      | 5.0       | .0      | 1.6         | 3.51        | 66.          | 28.          | -18.         | .62         | 54.94       | 128.53 | 0.      |     |  |
| 27      | 10.0      | .0      | 5.9         | 3.86        | 186.         | 15.          | 17.          | .61         | 55.42       | 129.10 | 0.      |     |  |
| 28      | 15.0      | .0      | 11.2        | 5.32        | 295.         | 1.           | -0.          | 1.55        | 55.02       | 128.62 | 0.      |     |  |
| 29      | 20.0      | .0      | 16.5        | 7.07        | 421.         | -19.         | -35.         | 2.23        | 54.89       | 128.47 | 0.      |     |  |
| 30      | 24.0      | .0      | 22.1        | 11.19       | 517.         | -22.         | -52.         | 2.18        | 54.82       | 128.38 | 0.      |     |  |
| 31      | -0.0      | .0      | -1.3        | 3.07        | -66.         | 34.          | -54.         | 1.05        | 55.00       | 128.60 | 0.      |     |  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 16   | .00    | -.0017 | .0073 | -.0151 | .0007  | -.0000 | .0017 |
| 17   | -20.00 | -.0392 | .0217 | -.1539 | .0034  | -.0011 | .0015 |
| 18   | -14.89 | -.2565 | .0116 | 1.1477 | -.0016 | .0276  | .0012 |
| 19   | -9.99  | -.3772 | .0008 | 2.0002 | .0009  | .0106  | .0008 |
| 20   | -14.99 | -.0287 | .0147 | -.1256 | .0003  | -.0012 | .0022 |
| 21   | -10.00 | -.0164 | .0100 | -.0989 | .0003  | -.0002 | .0038 |
| 22   | -5.00  | -.0084 | .0088 | -.0567 | .0015  | -.0012 | .0035 |
| 23   | -2.50  | -.0042 | .0081 | -.0392 | .0018  | .0009  | .0051 |
| 24   | -.01   | -.0022 | .0083 | -.0176 | .0020  | -.0012 | .0035 |
| 25   | 2.50   | .0023  | .0085 | -.0008 | .0020  | -.0012 | .0032 |
| 26   | 4.99   | .0042  | .0085 | .0212  | .0017  | -.0011 | .0017 |
| 27   | 9.98   | .0161  | .0104 | .0600  | .0009  | .0010  | .0017 |
| 28   | 15.00  | .0302  | .0144 | .0950  | .0001  | -.0000 | .0042 |
| 29   | 19.95  | .0445  | .0215 | .1359  | -.0012 | -.0021 | .0060 |
| 30   | 23.98  | .0597  | .0302 | .1667  | -.0013 | -.0031 | .0059 |
| 31   | -.01   | -.0034 | .0083 | -.0213 | .0020  | -.0033 | .0028 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CLD   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 16   | .00    | -.0017 | .0073 | -.0151 | .0007  | -.0000 | .0017 |
| 17   | -20.00 | -.0392 | .0217 | -.1539 | .0034  | -.0011 | .0015 |
| 18   | -14.89 | -.2565 | .0116 | 1.1477 | -.0016 | .0276  | .0012 |
| 19   | -9.99  | -.3772 | .0008 | 2.0002 | .0009  | .0106  | .0008 |
| 20   | -14.99 | -.0287 | .0147 | -.1256 | .0003  | -.0012 | .0022 |
| 21   | -10.00 | -.0164 | .0100 | -.0989 | .0003  | -.0002 | .0038 |
| 22   | -5.00  | -.0084 | .0088 | -.0567 | .0015  | -.0012 | .0035 |
| 23   | -2.50  | -.0042 | .0081 | -.0392 | .0018  | .0009  | .0051 |
| 24   | -.01   | -.0022 | .0083 | -.0176 | .0020  | -.0012 | .0035 |
| 25   | 2.50   | .0023  | .0085 | -.0008 | .0020  | -.0012 | .0032 |
| 26   | 4.99   | .0042  | .0085 | .0212  | .0017  | -.0011 | .0017 |
| 27   | 9.98   | .0161  | .0104 | .0600  | .0009  | .0010  | .0017 |
| 28   | 15.00  | .0302  | .0144 | .0950  | .0001  | -.0000 | .0042 |
| 29   | 19.95  | .0445  | .0215 | .1359  | -.0012 | -.0021 | .0060 |
| 30   | 23.98  | .0597  | .0302 | .1667  | -.0013 | -.0031 | .0059 |
| 31   | -.01   | -.0034 | .0083 | -.0213 | .0020  | -.0033 | .0028 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 36

RUN 41 CONFIG F T2

| PT. NO. | - DELF       |            | - DELA         |                | - IHT           |                 | - DELE          |                | - DELR |        | - DFLSB |  | V<br>KNOTS | RPM |
|---------|--------------|------------|----------------|----------------|-----------------|-----------------|-----------------|----------------|--------|--------|---------|--|------------|-----|
|         | ALPHA<br>DEG | PSI<br>DEG | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | PSF    |        |         |  |            |     |
| 6       | .0           | .0         | .1             | 3.06           | -52.            | 26.             | -1.             | .98            | 55.41  | 129.09 | 0.      |  |            |     |
| 7       | .0           | -20.0      | 3.1            | 9.16           | -98.            | -540.           | 62.             | -32.24         | 55.90  | 129.66 | 0.      |  |            |     |
| 8       | .0           | -15.0      | 2.7            | 5.69           | -126.           | -393.           | 17.             | -22.78         | 55.48  | 129.17 | 0.      |  |            |     |
| 9       | .0           | -10.0      | 2.6            | 3.49           | -114.           | -254.           | 17.             | -14.04         | 55.33  | 128.90 | 0.      |  |            |     |
| 10      | .0           | -5.0       | 1.0            | 3.14           | -101.           | -138.           | -9.             | -5.34          | 55.52  | 129.21 | 0.      |  |            |     |
| 11      | .0           | -2.5       | .4             | 3.21           | -97.            | -58.            | -7.             | -1.95          | 55.81  | 129.56 | 0.      |  |            |     |
| 12      | .0           | .0         | -.0            | 3.06           | -93.            | 33.             | -18.            | .55            | 55.87  | 129.63 | 0.      |  |            |     |
| 13      | .0           | 2.5        | .6             | 3.38           | -77.            | 111.            | -29.            | 4.99           | 55.30  | 128.96 | 0.      |  |            |     |
| 14      | .0           | 5.0        | 1.6            | 3.41           | -99.            | 179.            | -19.            | 9.21           | 55.47  | 129.15 | 0.      |  |            |     |
| 15      | .0           | 10.0       | 3.1            | 3.75           | -89.            | 309.            | -26.            | 17.96          | 55.37  | 129.04 | 0.      |  |            |     |
| 16      | .0           | 15.0       | 4.0            | 6.05           | -73.            | -0.             | -1443.          | 42.95          | 55.92  | 129.60 | 0.      |  |            |     |
| 17      | .0           | 20.0       | 3.9            | 10.34          | -96.            | 556.            | -87.            | 37.92          | 56.06  | 129.86 | 0.      |  |            |     |
| 18      | .0           | 15.0       | 4.2            | 6.20           | -97.            | 445.            | -56.            | 27.88          | 55.23  | 128.87 | 0.      |  |            |     |
| 19      | .0           | .0         | .1             | 3.21           | -66.            | 45.             | -19.            | 1.34           | 55.84  | 129.59 | 0.      |  |            |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .00    | .0003  | .0083 | -.0167 | .0016  | -.0001 | .0027  |
| 7    | -20.00 | .0083  | .0248 | -.0316 | -.0326 | .0037  | -.0871 |
| 8    | -15.00 | .0074  | .0154 | -.0405 | -.0238 | .0010  | -.0616 |
| 9    | -10.00 | .0072  | .0094 | -.0367 | -.0154 | .0010  | -.0379 |
| 10   | -5.00  | .0028  | .0085 | -.0325 | -.0083 | -.0005 | -.0144 |
| 11   | -2.50  | .0010  | .0087 | -.0314 | -.0035 | -.0004 | -.0053 |
| 12   | .00    | -.0001 | .0083 | -.0299 | .0020  | -.0011 | .0015  |
| 13   | 2.50   | .0016  | .0091 | -.0249 | .0067  | -.0018 | .0135  |
| 14   | 5.00   | .0044  | .0092 | -.0321 | .0108  | -.0012 | .0249  |
| 15   | 10.00  | .0084  | .0101 | -.0287 | .0187  | -.0016 | .0486  |
| 16   | 15.00  | .0109  | .0164 | -.0236 | -.0000 | -.0872 | .1161  |
| 17   | 20.00  | .0107  | .0279 | -.0310 | .0336  | -.0053 | .1025  |
| 18   | 15.00  | .0113  | .0167 | -.0312 | .0269  | -.0034 | .0753  |
| 19   | .00    | .0002  | .0087 | -.0213 | .0027  | -.0012 | .0036  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR    | CPMB   | CYMR   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | .0003  | .0083  | -.0167 | .0016  | -.0001 | .0027  |
| 7    | -20.00 | .0083  | -.0067 | -.0365 | -.0326 | .0055  | -.0903 |
| 8    | -15.00 | .0074  | -.0012 | -.0405 | -.0238 | .0029  | -.0634 |
| 9    | -10.00 | .0072  | .0027  | -.0371 | -.0154 | .0022  | -.0390 |
| 10   | -5.00  | .0028  | .0072  | -.0321 | -.0083 | .0000  | -.0151 |
| 11   | -2.50  | .0010  | .0084  | -.0313 | -.0035 | -.0001 | -.0057 |
| 12   | .00    | -.0001 | .0083  | -.0299 | .0020  | -.0011 | .0015  |
| 13   | 2.50   | .0016  | .0085  | -.0253 | .0067  | -.0020 | .0139  |
| 14   | 5.00   | .0044  | .0070  | -.0325 | .0108  | -.0017 | .0256  |
| 15   | 10.00  | .0084  | .0015  | -.0297 | .0187  | -.0025 | .0496  |
| 16   | 15.00  | .0109  | -.0144 | -.1438 | -.0000 | -.0853 | .1163  |
| 17   | 20.00  | .0107  | -.0090 | -.0388 | .0336  | -.0070 | .1058  |
| 18   | 15.00  | .0113  | -.0034 | -.0348 | .0269  | -.0048 | .0771  |
| 19   | .00    | .0002  | .0087  | -.0213 | .0027  | -.0012 | .0036  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-720H  
Dingy

RUN 42 CONFIG F T2

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|-------------|-------|---------|-----|
| 3       | .0        | .0      | .9          | 4.12        | -50.          | 19.         | -0.           | .38         | 8.92  | 51.41   | 0.  |
| 4       | .0        | .0      | .9          | 3.63        | -50.          | 36.         | -0.           | .34         | 20.11 | 77.33   | 0.  |
| 5       | .0        | .0      | -.1         | 3.47        | -50.          | 39.         | -1.           | .47         | 35.87 | 103.54  | 0.  |
| 6       | .0        | .0      | .1          | 3.13        | -54.          | 37.         | -0.           | .39         | 52.28 | 125.33  | 0.  |
| 7       | .0        | .0      | -.3         | 3.05        | -53.          | 34.         | -0.           | .36         | 66.25 | 141.40  | 0.  |
| 8       | .0        | .0      | -.1         | 2.83        | -51.          | 31.         | -2.           | 1.97        | 83.17 | 158.86  | 0.  |
| 9       | .0        | .0      | -.8         | 2.89        | -51.          | 28.         | -4.           | 3.33        | 95.11 | 170.21  | 0.  |
| 10      | .0        | .0      | -.7         | 3.18        | -55.          | 25.         | -31.          | 3.37        | 36.35 | 104.23  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI | CL     | CD    | CPM    | CYM   | CRM    | CY    |
|------|-----|--------|-------|--------|-------|--------|-------|
| 3    | .00 | .0024  | .0111 | -.0189 | .0011 | -.0000 | .0010 |
| 4    | .00 | .0024  | .0098 | -.0189 | .0022 | -.0000 | .0009 |
| 5    | .00 | -.0003 | .0094 | -.0186 | .0023 | -.0000 | .0013 |
| 6    | .00 | .0004  | .0095 | -.0175 | .0023 | -.0000 | .0011 |
| 7    | .00 | -.0008 | .0083 | -.0172 | .0021 | -.0000 | .0010 |
| 8    | .00 | -.0003 | .0077 | -.0164 | .0018 | -.0002 | .0053 |
| 9    | .00 | -.0021 | .0078 | -.0165 | .0017 | -.0003 | .0090 |
| 10   | .00 | -.0018 | .0086 | -.0179 | .0015 | -.0019 | .0091 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI | CLB    | CDR   | CPMB   | CYMB  | CRMB   | CYR   |
|------|-----|--------|-------|--------|-------|--------|-------|
| 3    | .00 | .0024  | .0111 | -.0189 | .0011 | -.0000 | .0010 |
| 4    | .00 | .0024  | .0098 | -.0189 | .0022 | -.0000 | .0009 |
| 5    | .00 | -.0003 | .0094 | -.0186 | .0023 | -.0000 | .0013 |
| 6    | .00 | .0004  | .0095 | -.0175 | .0023 | -.0000 | .0011 |
| 7    | .00 | -.0008 | .0083 | -.0172 | .0021 | -.0000 | .0010 |
| 8    | .00 | -.0003 | .0077 | -.0164 | .0018 | -.0002 | .0053 |
| 9    | .00 | -.0021 | .0078 | -.0165 | .0017 | -.0003 | .0090 |
| 10   | .00 | -.0018 | .0086 | -.0179 | .0015 | -.0019 | .0091 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 43 CONFIG F P B W T2

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | - DELE      | - DELR        | - DELSR      | -            | -           | RPM   |         |
|---------|-----------|---------|-------------|-------------|---------------|--------------|--------------|-------------|-------|---------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CPBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | 0 PSF | V KNOTS |
| 8       | .0        | .0      | 50.7        | 13.55       | -224.         | 41.          | 15.          | 1.92        | 55.07 | 128.71  |
| 9       | -20.0     | .0      | -182.4      | 107.70      | -694.         | -84.         | -131.        | 10.30       | 54.26 | 127.73  |
| 10      | -15.0     | .0      | -163.5      | 78.67       | -616.         | -13.         | -185.        | 4.04        | 54.82 | 128.40  |
| 11      | -10.0     | .0      | -195.4      | 23.07       | -620.         | 29.          | 8.           | 5.44        | 55.06 | 128.69  |
| 12      | -5.0      | .0      | -77.4       | 14.52       | -463.         | 37.          | -24.         | 3.96        | 55.10 | 128.73  |
| 13      | -2.5      | .1      | -14.0       | 12.94       | -342.         | 41.          | 30.          | 3.65        | 55.06 | 128.69  |
| 14      | .0        | .1      | 50.5        | 13.37       | -210.         | 34.          | -20.         | 1.55        | 54.99 | 128.60  |
| 15      | 2.5       | .1      | 118.3       | 16.00       | -40.          | 36.          | 32.          | 2.67        | 54.83 | 128.41  |
| 16      | 5.0       | .1      | 182.4       | 20.43       | 138.          | 35.          | 15.          | 1.61        | 55.01 | 128.63  |
| 17      | 10.0      | .1      | 305.1       | 34.18       | 546.          | 30.          | 67.          | 2.05        | 54.80 | 128.38  |
| 18      | 15.0      | .1      | 397.1       | 54.36       | 993.          | -5.          | 33.          | .38         | 54.20 | 127.66  |
| 19      | 20.0      | .1      | 395.1       | 95.24       | 1128.         | -29.         | 67.          | -1.55       | 54.87 | 128.46  |
| 20      | 24.0      | .1      | 356.9       | 128.41      | 1204.         | -28.         | 122.         | 2.73        | 54.97 | 128.58  |
| 21      | -7.5      | .1      | -139.7      | 17.75       | -549.         | 33.          | -9.          | 6.00        | 55.10 | 128.73  |
| 22      | .0        | .1      | 47.6        | 13.83       | -200.         | 57.          | -5.          | 3.81        | 54.56 | 128.08  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 8    | .00    | .1370  | .0366 | -.0723 | .0025  | .0009  | .0052  |
| 9    | -20.02 | -.4930 | .2911 | -.2237 | -.0051 | -.0079 | .0278  |
| 10   | -15.00 | -.4420 | .2126 | -.1987 | -.0008 | -.0112 | .0109  |
| 11   | -10.00 | -.5282 | .0624 | -.1998 | .0017  | .0005  | .0147  |
| 12   | -4.99  | -.2091 | .0392 | -.1494 | .0022  | -.0014 | .0107  |
| 13   | -2.50  | -.0378 | .0350 | -.1102 | .0025  | .0018  | .0099  |
| 14   | -.01   | .1364  | .0361 | -.0677 | .0021  | -.0012 | .0042  |
| 15   | 2.50   | .3198  | .0432 | -.0128 | .0022  | .0019  | .0072  |
| 16   | 5.00   | .4930  | .0552 | .0445  | .0021  | .0009  | .0044  |
| 17   | 10.00  | .8247  | .0924 | .1762  | .0018  | .0041  | .0055  |
| 18   | 15.01  | 1.0733 | .1469 | .3200  | -.0003 | .0020  | .0010  |
| 19   | 20.00  | 1.0679 | .2574 | .3636  | -.0018 | .0041  | -.0042 |
| 20   | 24.00  | .9646  | .3470 | .3882  | -.0017 | .0074  | .0074  |
| 21   | -7.50  | -.3775 | .0480 | -.1770 | .0020  | -.0006 | .0162  |
| 22   | -.00   | .1287  | .0374 | -.0645 | .0034  | -.0003 | .0103  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 8    | .00    | .1370  | .0366 | -.0723 | .0025  | .0009  | .0052  |
| 9    | -20.02 | -.4930 | .2911 | -.2237 | -.0051 | -.0079 | .0278  |
| 10   | -15.00 | -.4420 | .2126 | -.1987 | -.0008 | -.0112 | .0109  |
| 11   | -10.00 | -.5282 | .0624 | -.1998 | .0017  | .0005  | .0147  |
| 12   | -4.99  | -.2091 | .0392 | -.1494 | .0022  | -.0014 | .0107  |
| 13   | -2.50  | -.0378 | .0349 | -.1101 | .0025  | .0018  | .0099  |
| 14   | -.01   | .1364  | .0361 | -.0677 | .0021  | -.0012 | .0042  |
| 15   | 2.50   | .3198  | .0432 | -.0128 | .0022  | .0019  | .0073  |
| 16   | 5.00   | .4930  | .0552 | .0445  | .0021  | .0009  | .0044  |
| 17   | 10.00  | .8247  | .0924 | .1762  | .0018  | .0041  | .0057  |
| 18   | 15.01  | 1.0733 | .1469 | .3200  | -.0003 | .0021  | .0013  |
| 19   | 20.00  | 1.0679 | .2574 | .3636  | -.0018 | .0042  | -.0037 |
| 20   | 24.00  | .9646  | .3470 | .3883  | -.0017 | .0075  | .0080  |
| 21   | -7.50  | -.3775 | .0480 | -.1770 | .0020  | -.0006 | .0163  |
| 22   | -.00   | .1287  | .0374 | -.0645 | .0034  | -.0003 | .0104  |

SIKOPSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 44 CONFIG F P R W T2

| IW      | O DELF    |         | O DELA      |             | O IHT        |              | - DELE       |             | - DELR |         | - DELSP |  | - |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|---|--|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | V KNOTS |         |  |   |  |     |
| 7       | .0        | .0      | 46.2        | 13.88       | -227.        | 40.          | -23.         | 3.85        | 54.85  | 128.44  |         |  |   |  | 0.  |
| 8       | .0        | -20.0   | 66.9        | 40.69       | -247.        | -645.        | 29.          | -97.78      | 54.59  | 128.12  |         |  |   |  | 0.  |
| 9       | .0        | -15.0   | 60.6        | 27.25       | -272.        | -522.        | 8.           | -70.14      | 55.32  | 128.99  |         |  |   |  | 0.  |
| 10      | .0        | -10.0   | 52.2        | 18.89       | -273.        | -359.        | -16.         | -44.93      | 55.04  | 128.66  |         |  |   |  | 0.  |
| 11      | .0        | -5.0    | 49.2        | 15.35       | -266.        | -183.        | 2.           | -23.00      | 54.50  | 128.02  |         |  |   |  | 0.  |
| 12      | .0        | -2.5    | 47.2        | 14.16       | -255.        | -61.         | -12.         | -9.64       | 54.77  | 128.34  |         |  |   |  | 0.  |
| 13      | .0        | .0      | 48.2        | 13.70       | -243.        | 52.          | 31.          | 3.23        | 54.90  | 128.49  |         |  |   |  | 0.  |
| 14      | .0        | 2.5     | 47.3        | 14.79       | -249.        | 165.         | -9.          | 15.47       | 54.84  | 128.43  |         |  |   |  | 0.  |
| 15      | .0        | 5.0     | 47.5        | 16.02       | -251.        | 280.         | -12.         | 28.75       | 54.98  | 128.50  |         |  |   |  | 0.  |
| 16      | .0        | 10.0    | 53.9        | 19.86       | -274.        | 452.         | -59.         | 51.73       | 54.99  | 128.60  |         |  |   |  | 0.  |
| 17      | .0        | 15.0    | 59.4        | 28.14       | -293.        | 593.         | -95.         | 75.82       | 54.99  | 128.60  |         |  |   |  | 0.  |
| 18      | .0        | 20.0    | 70.5        | 42.43       | -299.        | 694.         | -6.          | 104.15      | 54.56  | 128.08  |         |  |   |  | 0.  |
| 19      | .0        | .0      | 46.1        | 13.75       | -219.        | 35.          | -22.         | 3.48        | 54.87  | 128.46  |         |  |   |  | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 7    | .00    | .1250 | .0375 | -.0731 | .0024  | -.0014 | .0104  |
| 8    | -20.00 | .1808 | .1100 | -.0795 | -.0389 | .0017  | -.2643 |
| 9    | -15.00 | .1638 | .0737 | -.0878 | -.0316 | .0005  | -.1896 |
| 10   | -10.00 | .1412 | .0510 | -.0882 | -.0217 | -.0010 | -.1214 |
| 11   | -5.00  | .1330 | .0415 | -.0857 | -.0111 | .0001  | -.0622 |
| 12   | -2.50  | .1275 | .0383 | -.0821 | -.0037 | -.0007 | -.0261 |
| 13   | .00    | .1303 | .0370 | -.0782 | .0031  | .0019  | .0087  |
| 14   | 2.50   | .1279 | .0400 | -.0802 | .0009  | -.0006 | .0418  |
| 15   | 5.00   | .1283 | .0433 | -.0811 | .0169  | -.0008 | .0777  |
| 16   | 10.00  | .1456 | .0537 | -.0882 | .0273  | -.0036 | .1308  |
| 17   | 15.00  | .1604 | .0760 | -.0944 | .0358  | -.0057 | .2049  |
| 18   | 20.00  | .1905 | .1147 | -.0963 | .0419  | -.0003 | .2815  |
| 19   | .00    | .1246 | .0372 | -.0707 | .0021  | -.0013 | .0094  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDR   | CPMB   | CYMR   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 7    | .00    | .1250 | .0375 | -.0731 | .0024  | -.0014 | .0104  |
| 8    | -20.00 | .1808 | .0125 | -.0779 | -.0389 | .0067  | -.2860 |
| 9    | -15.00 | .1638 | .0218 | -.0855 | -.0316 | .0047  | -.2022 |
| 10   | -10.00 | .1412 | .0291 | -.0859 | -.0217 | .0019  | -.1285 |
| 11   | -5.00  | .1330 | .0359 | -.0855 | -.0111 | .0015  | -.0656 |
| 12   | -2.50  | .1275 | .0371 | -.0818 | -.0037 | -.0001 | -.0277 |
| 13   | .00    | .1303 | .0370 | -.0782 | .0031  | .0019  | .0087  |
| 14   | 2.50   | .1279 | .0381 | -.0803 | .0009  | -.0012 | .0435  |
| 15   | 5.00   | .1283 | .0363 | -.0811 | .0169  | -.0021 | .0812  |
| 16   | 10.00  | .1456 | .0285 | -.0902 | .0273  | -.0064 | .1470  |
| 17   | 15.00  | .1604 | .0202 | -.0991 | .0358  | -.0101 | .2176  |
| 18   | 20.00  | .1905 | .0110 | -.0910 | .0419  | -.0065 | .3037  |
| 19   | .00    | .1246 | .0372 | -.0707 | .0021  | -.0013 | .0094  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 45 CONFIG F P R W N T2

| PT. NO. | W     | DELTA | DELTA | DELTA | DELTA  | DELTA  | DELTA  | DELTA | DELTA | DELTA  | DELTA | RPM |
|---------|-------|-------|-------|-------|--------|--------|--------|-------|-------|--------|-------|-----|
|         | ALPHA | PSI   | CIBAR | CDBAR | CPMBAR | CYMBAR | CRMBAR | CYBAR | DELSB | Q      | V     |     |
|         | DEG   | DFG   | SQ-FT | SQ-FT | CU-FT  | CU-FT  | CU-FT  | SQ-FT | PSF   |        | KNOTS |     |
| 3       | .0    | .0    | 78.9  | 21.66 | -234.  | 47.    | 103.   | 3.40  | 9.01  | 51.67  | 0.    |     |
| 4       | .0    | .0    | 80.0  | 20.80 | -230.  | 35.    | 45.    | 3.25  | 19.90 | 76.92  | 0.    |     |
| 5       | .0    | .0    | 79.4  | 20.28 | -233.  | 36.    | -5.    | 3.71  | 34.86 | 102.05 | 0.    |     |
| 6       | .0    | .0    | 77.8  | 20.61 | -224.  | 34.    | -5.    | 3.69  | 51.75 | 124.69 | 0.    |     |
| 7       | .0    | .0    | 79.7  | 19.94 | -219.  | 33.    | 10.    | 3.56  | 65.99 | 141.13 | 0.    |     |
| 8       | -.0   | .0    | 73.5  | 21.30 | -229.  | 86.    | -75.   | 3.46  | 81.75 | 157.50 | 0.    |     |
| 9       | .0    | .0    | 77.2  | 19.47 | -215.  | 34.    | 18.    | 4.32  | 82.85 | 158.57 | 0.    |     |
| 10      | .0    | .0    | 79.4  | 19.93 | -207.  | 21.    | -7.    | 5.17  | 96.16 | 171.19 | 0.    |     |
| 11      | .0    | .0    | 79.0  | 19.94 | -208.  | 18.    | -53.   | 5.15  | 84.06 | 159.75 | 0.    |     |
| 12      | .0    | .0    | 78.8  | 20.07 | -208.  | 19.    | -34.   | 4.37  | 67.86 | 143.15 | 0.    |     |
| 13      | .0    | .0    | 77.2  | 21.03 | -218.  | 16.    | -61.   | 4.38  | 52.84 | 126.01 | 0.    |     |
| 14      | .0    | .0    | 77.7  | 20.74 | -221.  | 22.    | -106.  | 3.98  | 38.48 | 107.28 | 0.    |     |
| 15      | .0    | .0    | 79.0  | 20.97 | -212.  | 26.    | -47.   | 3.41  | 22.97 | 82.67  | 0.    |     |
| 16      | .0    | .0    | 79.5  | 21.60 | -202.  | 26.    | -4.    | 3.23  | 10.55 | 55.91  | 0.    |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD    | CPM    | CYM   | CRM    | CY    |
|------|-------|-------|-------|--------|-------|--------|-------|
| 3    | .00   | .2132 | .0585 | -.0755 | .0028 | .0062  | .0092 |
| 4    | .00   | .2162 | .0562 | -.0740 | .0021 | .0027  | .0088 |
| 5    | .00   | .2145 | .0548 | -.0751 | .0022 | -.0003 | .0100 |
| 6    | .00   | .2103 | .0557 | -.0722 | .0021 | -.0003 | .0100 |
| 7    | .00   | .2155 | .0539 | -.0705 | .0020 | .0006  | .0096 |
| 8    | -.00  | .1986 | .0576 | -.0737 | .0052 | -.0046 | .0093 |
| 9    | .00   | .2086 | .0526 | -.0692 | .0021 | .0011  | .0117 |
| 10   | .00   | .2145 | .0539 | -.0667 | .0013 | -.0004 | .0140 |
| 11   | .00   | .2136 | .0539 | -.0670 | .0011 | -.0032 | .0139 |
| 12   | .00   | .2129 | .0542 | -.0672 | .0012 | -.0021 | .0118 |
| 13   | .00   | .2087 | .0568 | -.0703 | .0010 | -.0037 | .0118 |
| 14   | .00   | .2100 | .0561 | -.0712 | .0014 | -.0064 | .0108 |
| 15   | .00   | .2135 | .0567 | -.0682 | .0016 | -.0028 | .0092 |
| 16   | .00   | .2289 | .0634 | -.0584 | .0022 | -.0142 | .0130 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB   | CPMB   | CYMB  | CRMB   | CYB   |
|------|-------|-------|-------|--------|-------|--------|-------|
| 3    | .00   | .2132 | .0585 | -.0755 | .0028 | .0062  | .0092 |
| 4    | .00   | .2162 | .0562 | -.0740 | .0021 | .0027  | .0088 |
| 5    | .00   | .2145 | .0548 | -.0751 | .0022 | -.0003 | .0100 |
| 6    | .00   | .2103 | .0557 | -.0722 | .0021 | -.0003 | .0100 |
| 7    | .00   | .2155 | .0539 | -.0705 | .0020 | .0006  | .0096 |
| 8    | -.00  | .1986 | .0576 | -.0737 | .0052 | -.0046 | .0093 |
| 9    | .00   | .2086 | .0526 | -.0692 | .0021 | .0011  | .0117 |
| 10   | .00   | .2145 | .0539 | -.0667 | .0013 | -.0004 | .0140 |
| 11   | .00   | .2136 | .0539 | -.0670 | .0011 | -.0032 | .0139 |
| 12   | .00   | .2129 | .0542 | -.0672 | .0012 | -.0021 | .0118 |
| 13   | .00   | .2087 | .0568 | -.0703 | .0010 | -.0037 | .0118 |
| 14   | .00   | .2100 | .0561 | -.0712 | .0014 | -.0064 | .0108 |
| 15   | .00   | .2135 | .0567 | -.0682 | .0016 | -.0028 | .0092 |
| 16   | .00   | .2289 | .0634 | -.0584 | .0022 | -.0142 | .0130 |



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RUN 46 CONFIG F P B W N T2

| PT. No. | ALPHA DEG | O DELF PSI DEG | O DELA CIBAR SQ-FT | O INT CDBAR SQ-FT | - DELE CPMBAR CU-FT | - DELR CYMBAR CU-FT | - DELSB CRMBAR CU-FT | Q PSF | V KNOTS | RPM    |    |
|---------|-----------|----------------|--------------------|-------------------|---------------------|---------------------|----------------------|-------|---------|--------|----|
| 8       | 0         | 0              | 78.1               | 20.25             | -228.               | 22.                 | -40.                 | 3.80  | 55.53   | 129.25 | 0. |
| 9       | -20.0     | 0              | 24.7               | 22.80             | -214.               | 2.                  | 1.                   | -43   | 55.36   | 129.04 | 0. |
| 10      | -20.0     | 0              | -255.0             | 110.64            | -698.               | 82.                 | -330.                | -2.05 | 54.96   | 128.54 | 0. |
| 11      | -15.0     | 0              | -285.2             | 62.05             | -763.               | 64.                 | -59.                 | 2.96  | 55.27   | 128.93 | 0. |
| 12      | -10.0     | 0              | -189.5             | 32.38             | -677.               | 57.                 | -96.                 | 5.08  | 55.66   | 129.39 | 0. |
| 13      | -5.0      | 0              | -54.8              | 19.82             | -498.               | 38.                 | 8.                   | 5.78  | 56.00   | 129.80 | 0. |
| 14      | -2.6      | 0              | 11.0               | 18.45             | -345.               | 32.                 | 28.                  | 4.47  | 56.14   | 129.96 | 0. |
| 15      | 0         | 0              | 78.9               | 20.22             | -207.               | 19.                 | 29.                  | 4.00  | 56.14   | 129.97 | 0. |
| 16      | 2.5       | 0              | 148.0              | 24.41             | -41.                | 11.                 | 66.                  | 2.49  | 56.12   | 129.94 | 0. |
| 17      | 5.0       | 0              | 215.5              | 31.27             | 114.                | 21.                 | 65.                  | 4.06  | 56.20   | 130.04 | 0. |
| 18      | 10.0      | 0              | 339.5              | 50.22             | 484.                | 7.                  | 68.                  | 3.30  | 55.82   | 129.58 | 0. |
| 19      | 15.0      | 0              | 414.3              | 78.13             | 788.                | -2.                 | 52.                  | 2.94  | 55.60   | 129.32 | 0. |
| 20      | 20.1      | 0              | 414.6              | 112.09            | 996.                | -35.                | -17.                 | 4.67  | 55.44   | 129.13 | 0. |
| 21      | 24.0      | 0              | 423.2              | 157.36            | 1121.               | -29.                | -259.                | 7.22  | 55.21   | 128.86 | 0. |
| 22      | 12.6      | 0              | 395.0              | 63.26             | 673.                | 21.                 | 69.                  | 2.02  | 55.54   | 129.26 | 0. |
| 23      | 17.5      | 0              | 419.1              | 94.09             | 916.                | -45.                | -17.                 | 6.16  | 55.84   | 129.61 | 0. |
| 24      | 22.5      | 0              | 423.2              | 138.62            | 1052.               | 56.                 | 88.                  | 2.39  | 55.50   | 129.20 | 0. |
| 25      | 24.0      | 0              | 418.0              | 157.43            | 1082.               | 96.                 | -16.                 | 2.22  | 55.19   | 128.83 | 0. |
| 26      | 25.0      | 0              | 428.7              | 175.52            | 1140.               | 133.                | -210.                | 2.47  | 55.06   | 128.68 | 0. |
| 27      | 26.0      | 0              | 451.1              | 196.20            | 1121.               | 36.                 | -209.                | 2.10  | 55.12   | 128.75 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 8    | 0.01   | .2112  | .0547 | -.0734 | .0013  | -.0024 | .0103  |
| 9    | -20.01 | .0667  | .0616 | -.0689 | .0001  | .0081  | -.0012 |
| 10   | -20.01 | -.6892 | .2990 | -.2251 | .0050  | -.0200 | -.0055 |
| 11   | -15.01 | -.7709 | .1677 | -.2458 | .0039  | -.0035 | .0080  |
| 12   | -10.00 | -.5121 | .0875 | -.2183 | .0034  | -.0058 | .0137  |
| 13   | -5.01  | -.1480 | .0536 | -.1606 | .0023  | .0005  | .0156  |
| 14   | -2.56  | .0296  | .0499 | -.1111 | .0019  | .0017  | .0121  |
| 15   | 0.03   | .2131  | .0546 | -.0667 | .0011  | .0018  | .0108  |
| 16   | 2.50   | .4000  | .0660 | -.0132 | .0006  | .0040  | .0067  |
| 17   | 5.05   | .5823  | .0845 | .0367  | .0013  | .0039  | .0110  |
| 18   | 10.07  | .9175  | .1357 | .1561  | .0004  | .0041  | .0089  |
| 19   | 14.98  | 1.1197 | .2112 | .2541  | -.0001 | .0031  | .0079  |
| 20   | 20.06  | 1.1206 | .3030 | .3212  | -.0021 | -.0010 | .0126  |
| 21   | 24.03  | 1.1437 | .4253 | .3615  | -.0017 | -.0157 | .0195  |
| 22   | 12.59  | 1.0675 | .1710 | .2170  | .0013  | .0042  | .0055  |
| 23   | 17.53  | 1.1326 | .2543 | .2952  | -.0027 | -.0011 | .0167  |
| 24   | 22.48  | 1.1439 | .3747 | .3391  | .0034  | .0053  | .0065  |
| 25   | 24.01  | 1.1298 | .4255 | .3489  | .0058  | -.0010 | .0060  |
| 26   | 24.95  | 1.1857 | .4744 | .3677  | .0080  | -.0127 | .0067  |
| 27   | 25.98  | 1.2192 | .5303 | .3615  | .0022  | -.0127 | .0057  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 8    | 0.01   | .2112  | .0547 | -.0734 | .0013  | -.0024 | .0103  |
| 9    | -20.01 | .0667  | .0616 | -.0689 | .0001  | .0081  | -.0012 |
| 10   | -20.01 | -.6892 | .2990 | -.2251 | .0050  | -.0200 | -.0055 |
| 11   | -15.01 | -.7709 | .1677 | -.2458 | .0039  | -.0035 | .0080  |
| 12   | -10.00 | -.5121 | .0875 | -.2183 | .0034  | -.0058 | .0137  |
| 13   | -5.01  | -.1480 | .0536 | -.1606 | .0023  | .0005  | .0156  |
| 14   | -2.56  | .0296  | .0499 | -.1111 | .0019  | .0017  | .0121  |
| 15   | 0.03   | .2131  | .0546 | -.0667 | .0011  | .0018  | .0108  |
| 16   | 2.50   | .4000  | .0660 | -.0132 | .0006  | .0040  | .0067  |
| 17   | 5.05   | .5823  | .0845 | .0367  | .0013  | .0039  | .0110  |
| 18   | 10.07  | .9175  | .1357 | .1561  | .0004  | .0041  | .0089  |
| 19   | 14.98  | 1.1197 | .2112 | .2541  | -.0001 | .0031  | .0079  |
| 20   | 20.06  | 1.1206 | .3030 | .3212  | -.0021 | -.0010 | .0126  |
| 21   | 24.03  | 1.1437 | .4253 | .3615  | -.0017 | -.0157 | .0195  |
| 22   | 12.59  | 1.0675 | .1710 | .2170  | .0013  | .0042  | .0055  |
| 23   | 17.53  | 1.1326 | .2543 | .2952  | -.0027 | -.0011 | .0167  |
| 24   | 22.48  | 1.1439 | .3747 | .3391  | .0034  | .0053  | .0065  |
| 25   | 24.01  | 1.1298 | .4255 | .3489  | .0058  | -.0010 | .0060  |
| 26   | 24.95  | 1.1857 | .4744 | .3677  | .0080  | -.0127 | .0067  |
| 27   | 25.98  | 1.2192 | .5303 | .3615  | .0022  | -.0127 | .0057  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 47 CONFIG F P R W N T2

| IW<br>PT.<br>NO. | O<br>ALPHA<br>DEG | DELE       | O DELA         | O IHT          | - DELE           | - DELR         | - DELSB          | V<br>KNOTS | RPM   |                |          |
|------------------|-------------------|------------|----------------|----------------|------------------|----------------|------------------|------------|-------|----------------|----------|
|                  |                   | PSI<br>DEG | CLBAR<br>SQ-FT | COBAR<br>SQ-FT | CPM BAR<br>CU-FT | CYBAR<br>CU-FT | CRM BAR<br>CU-FT |            |       | CYBAR<br>SQ-FT | Q<br>PSF |
| 6                | 0                 | 0          | 81.3           | 20.54          | -223.            | 39.            | 12.              | 4.25       | 55.32 | 128.99         | 0.       |
| 7                | 0                 | -20.0      | 95.4           | 45.07          | -269.            | -579.          | 23.              | -91.92     | 55.22 | 128.87         | 0.       |
| 8                | 0                 | -15.0      | 92.6           | 32.51          | -286.            | -493.          | 18.              | -65.56     | 55.33 | 129.01         | 0.       |
| 9                | 0                 | -10.1      | 83.0           | 24.24          | -262.            | -347.          | 5.               | -40.22     | 55.56 | 129.28         | 0.       |
| 10               | 0                 | -5.0       | 82.1           | 21.06          | -241.            | -165.          | 11.              | -18.70     | 55.39 | 129.07         | 0.       |
| 11               | 0                 | -2.5       | 81.1           | 20.38          | -242.            | -74.           | 11.              | -7.89      | 55.24 | 128.89         | 0.       |
| 12               | 0                 | 0          | 81.2           | 20.25          | -241.            | 35.            | 13.              | 3.49       | 55.62 | 129.35         | 0.       |
| 13               | 0                 | -2.5       | 79.9           | 20.41          | -226.            | -82.           | -23.             | -8.73      | 55.41 | 129.10         | 0.       |
| 14               | 0                 | -5.0       | 82.8           | 21.07          | -224.            | -166.          | -7.              | -18.27     | 55.37 | 129.05         | 0.       |
| 15               | 0                 | 2.5        | 80.9           | 21.02          | -240.            | 134.           | -17.             | 15.33      | 55.34 | 129.02         | 0.       |
| 16               | 0                 | 5.0        | 83.0           | 20.13          | -262.            | 191.           | 8.               | 26.47      | 55.73 | 129.48         | 0.       |
| 17               | 0                 | 10.0       | 83.1           | 25.19          | -258.            | 401.           | -34.             | 47.58      | 55.77 | 129.53         | 0.       |
| 18               | 0                 | 15.0       | 90.6           | 33.48          | -303.            | 522.           | 18.              | 70.23      | 55.10 | 128.73         | 0.       |
| 19               | 0                 | 20.0       | 96.5           | 46.03          | -326.            | 594.           | -29.             | 94.49      | 55.45 | 129.14         | 0.       |
| 20               | 0                 | 0          | 80.2           | 19.93          | -226.            | 33.            | 30.              | 3.65       | 55.94 | 129.72         | 0.       |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYH    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | 0.00   | .2197 | .0555 | -.0719 | .0024  | .0007  | .0115  |
| 7    | -20.00 | .2577 | .1218 | -.0866 | -.0350 | .0014  | -.2484 |
| 8    | -15.00 | .2502 | .0879 | -.0923 | -.0298 | .0011  | -.1772 |
| 9    | -10.10 | .2242 | .0655 | -.0845 | -.0210 | .0003  | -.1087 |
| 10   | -5.00  | .2220 | .0569 | -.0777 | -.0100 | .0007  | -.0505 |
| 11   | -2.50  | .2192 | .0551 | -.0780 | -.0045 | .0007  | -.0213 |
| 12   | 0.00   | .2195 | .0547 | -.0777 | .0021  | .0008  | .0094  |
| 13   | -2.50  | .2159 | .0552 | -.0728 | -.0050 | -.0014 | -.0236 |
| 14   | -5.00  | .2238 | .0569 | -.0723 | -.0100 | -.0004 | -.0494 |
| 15   | 2.50   | .2186 | .0568 | -.0775 | .0081  | -.0010 | .0414  |
| 16   | 5.00   | .2243 | .0544 | -.0844 | .0115  | .0005  | .0715  |
| 17   | 10.00  | .2245 | .0681 | -.0833 | .0242  | -.0021 | .1286  |
| 18   | 15.00  | .2447 | .0905 | -.0976 | .0316  | .0011  | .1898  |
| 19   | 20.00  | .2608 | .1244 | -.1050 | .0359  | -.0017 | .2554  |
| 20   | 0.00   | .2167 | .0539 | -.0730 | .0020  | .0018  | .0099  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | COB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | 0.00   | .2197 | .0555 | -.0719 | .0024  | .0007  | .0115  |
| 7    | -20.00 | .2577 | .0291 | -.0839 | -.0350 | .0069  | -.2752 |
| 8    | -15.00 | .2502 | .0388 | -.0906 | -.0298 | .0065  | -.1940 |
| 9    | -10.10 | .2242 | .0453 | -.0835 | -.0210 | .0031  | -.1185 |
| 10   | -5.00  | .2220 | .0523 | -.0777 | -.0100 | .0019  | -.0553 |
| 11   | -2.50  | .2192 | .0541 | -.0781 | -.0045 | .0013  | -.0237 |
| 12   | 0.00   | .2195 | .0547 | -.0777 | .0021  | .0008  | .0094  |
| 13   | -2.50  | .2159 | .0541 | -.0724 | -.0050 | -.0008 | -.0260 |
| 14   | -5.00  | .2238 | .0524 | -.0718 | -.0100 | .0008  | -.0542 |
| 15   | 2.50   | .2186 | .0549 | -.0776 | .0081  | -.0017 | .0439  |
| 16   | 5.00   | .2243 | .0479 | -.0838 | .0115  | -.0009 | .0760  |
| 17   | 10.00  | .2245 | .0446 | -.0839 | .0242  | -.0047 | .1385  |
| 18   | 15.00  | .2447 | .0380 | -.0928 | .0316  | -.0037 | .2068  |
| 19   | 20.00  | .2608 | .0291 | -.1018 | .0359  | -.0084 | .2826  |
| 20   | 0.00   | .2167 | .0539 | -.0730 | .0020  | .0018  | .0099  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 48 CONFIG F P R W N T2

| PT. No. | ALPHA DEG | DELTA PSI DFG | DELTA CIBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------|---------|-----|
| 2       | 0         | 0             | 77.6              | 20.68             | -233.              | 37.                | -45.               | 2.66              | 23.04       | 82.81   | 0.  |
| 3       | 12.0      | 0             | 381.3             | 59.36             | 621.               | -18.               | 41.                | 2.23              | 22.90       | 82.55   | 0.  |
| 4       | 14.0      | 0             | 414.2             | 71.54             | 754.               | -7.                | 169.               | 2.24              | 22.81       | 82.39   | 0.  |
| 5       | 16.0      | 0             | 416.9             | 84.19             | 816.               | 3.                 | -0.                | 3.75              | 22.73       | 82.25   | 0.  |
| 6       | 18.1      | 0             | 419.3             | 97.27             | 919.               | 16.                | 43.                | 3.43              | 22.85       | 82.46   | 0.  |
| 7       | 20.1      | 0             | 421.2             | 111.96            | 1008.              | 31.                | 129.               | 3.75              | 22.71       | 82.21   | 0.  |
| 8       | 22.0      | 0             | 420.8             | 129.97            | 1069.              | 38.                | 129.               | 2.25              | 22.73       | 82.24   | 0.  |
| 9       | 24.1      | 0             | 422.0             | 154.80            | 1137.              | 32.                | 1.                 | 2.27              | 22.54       | 81.90   | 0.  |
| 10      | 26.1      | 0             | 412.8             | 202.76            | 1063.              | 31.                | -250.              | 9.16              | 27.68       | 82.16   | 0.  |
| 11      | 0         | 0             | 77.2              | 20.93             | -233.              | 69.                | -5.                | 3.86              | 22.92       | 82.59   | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD    | CPM    | CYM    | CRM    | CY    |
|------|-------|-------|-------|--------|--------|--------|-------|
| 2    | 0.0   | .2098 | .0559 | -.0752 | .0022  | -.0027 | .0072 |
| 3    | 12.01 | .0306 | .1604 | .2002  | -.0011 | .0025  | .0060 |
| 4    | 13.96 | .1194 | .1934 | .2431  | -.0004 | .0102  | .0061 |
| 5    | 15.99 | .1266 | .2276 | .2630  | .0002  | -.0000 | .0101 |
| 6    | 18.08 | .1333 | .2629 | .2962  | .0010  | .0026  | .0093 |
| 7    | 20.06 | .1383 | .3026 | .3250  | .0019  | .0078  | .0101 |
| 8    | 21.97 | .1372 | .3513 | .3447  | .0023  | .0078  | .0061 |
| 9    | 24.09 | .1406 | .4184 | .3667  | .0019  | .0001  | .0061 |
| 10   | 26.05 | .1156 | .5480 | .3425  | .0019  | -.0151 | .0248 |
| 11   | .03   | .2086 | .0566 | -.0750 | .0041  | -.0003 | .0104 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CLD   | CPMB   | CYMB   | CRMB   | CYB   |
|------|-------|-------|-------|--------|--------|--------|-------|
| 2    | 0.0   | .2098 | .0559 | -.0752 | .0022  | -.0027 | .0072 |
| 3    | 12.01 | .0306 | .1604 | .2002  | -.0011 | .0025  | .0060 |
| 4    | 13.96 | .1194 | .1934 | .2431  | -.0004 | .0102  | .0061 |
| 5    | 15.99 | .1266 | .2276 | .2630  | .0002  | -.0000 | .0101 |
| 6    | 18.08 | .1333 | .2629 | .2962  | .0010  | .0026  | .0093 |
| 7    | 20.06 | .1383 | .3026 | .3250  | .0019  | .0078  | .0101 |
| 8    | 21.97 | .1372 | .3513 | .3447  | .0023  | .0078  | .0061 |
| 9    | 24.09 | .1406 | .4184 | .3667  | .0019  | .0001  | .0061 |
| 10   | 26.05 | .1156 | .5480 | .3425  | .0019  | -.0151 | .0248 |
| 11   | .03   | .2086 | .0566 | -.0750 | .0041  | -.0003 | .0104 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 49 CONFIG F P R W N T2

| PT. No. | TW ALPHA DEG | D DELF PSI DFG | n DELA CIBAR SQ-FT | O IHT CDBAR SQ-FT | CPMBAR CU-FT | - DELE CYMBAR CU-FT | - DELR CRMBAR CU-FT | CYBAR SQ-FT | - DELSB Q PSF | V KNOTS | RPM |
|---------|--------------|----------------|--------------------|-------------------|--------------|---------------------|---------------------|-------------|---------------|---------|-----|
| 1       | 0            | 0              | 81.1               | 20.20             | -223.        | 41.                 | -24.                | 3.95        | 51.71         | 124.64  | 0.  |
| 2       | 12.1         | 0              | 385.6              | 60.00             | 634.         | 6.                  | 74.                 | 2.85        | 51.45         | 124.33  | 0.  |
| 3       | 14.0         | 0              | 416.1              | 72.59             | 739.         | -4.                 | 94.                 | 1.12        | 51.48         | 124.36  | 0.  |
| 4       | 16.1         | 0              | 419.6              | 84.59             | 830.         | 19.                 | 112.                | 4.22        | 51.60         | 124.51  | 0.  |
| 5       | 18.0         | 0              | 420.0              | 97.53             | 922.         | 25.                 | 113.                | 4.22        | 51.70         | 124.63  | 0.  |
| 6       | 20.0         | 0              | 417.7              | 111.33            | 1010.        | -2.                 | 151.                | 2.58        | 51.55         | 124.45  | 0.  |
| 7       | 20.0         | 0              | 491.7              | 131.86            | 1189.        | *2.                 | 178.                | 3.03        | 43.79         | 114.69  | 0.  |
| 8       | 22.0         | 0              | 423.4              | 131.44            | 1070.        | 38.                 | 76.                 | 2.98        | 51.48         | 124.35  | 0.  |
| 9       | 22.0         | 0              | 422.7              | 131.30            | 1078.        | 47.                 | 20.                 | 2.90        | 51.67         | 124.58  | 0.  |
| 10      | 24.0         | 0              | 423.4              | 155.99            | 1124.        | 55.                 | 57.                 | 1.59        | 51.56         | 124.45  | 0.  |
| 11      | 26.0         | 0              | 441.6              | 186.76            | 1159.        | 157.                | -225.               | 1.32        | 51.45         | 124.32  | 0.  |
| 12      | -0           | 0              | 77.5               | 20.57             | -227.        | 54.                 | -23.                | 3.75        | 51.78         | 124.72  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD    | CPM    | CYM    | CRM    | CY    |
|------|-------|-------|-------|--------|--------|--------|-------|
| 1    | .03   | .2191 | .0546 | -.0718 | .0025  | -.0014 | .0107 |
| 2    | 12.07 | .0422 | .1621 | .2043  | .0004  | .0045  | .0077 |
| 3    | 14.05 | .1247 | .1962 | .2384  | -.0003 | .0067  | .0030 |
| 4    | 16.05 | .1341 | .2286 | .2677  | .0011  | .0068  | .0114 |
| 5    | 18.05 | .1374 | .2636 | .2972  | .0015  | .0068  | .0114 |
| 6    | 19.99 | .1290 | .3009 | .3255  | -.0001 | .0091  | .0070 |
| 7    | 19.99 | .3290 | .3564 | .3832  | -.0001 | .0107  | .0082 |
| 8    | 21.98 | .1443 | .3552 | .3450  | .0023  | .0046  | .0080 |
| 9    | 21.98 | .1425 | .3549 | .3474  | .0028  | .0012  | .0078 |
| 10   | 24.01 | .1443 | .4216 | .3622  | .0033  | .0035  | .0043 |
| 11   | 26.02 | .1935 | .5048 | .3736  | .0095  | -.0136 | .0036 |
| 12   | -.02  | .2095 | .0556 | -.0732 | .0033  | -.0014 | .0101 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|-------|-------|-------|--------|--------|--------|-------|
| 1    | .03   | .2191 | .0546 | -.0718 | .0025  | -.0014 | .0107 |
| 2    | 12.07 | .0422 | .1621 | .2043  | .0004  | .0045  | .0077 |
| 3    | 14.05 | .1247 | .1962 | .2384  | -.0003 | .0067  | .0030 |
| 4    | 16.05 | .1341 | .2286 | .2677  | .0011  | .0068  | .0114 |
| 5    | 18.05 | .1374 | .2636 | .2972  | .0015  | .0068  | .0114 |
| 6    | 19.99 | .1290 | .3009 | .3255  | -.0001 | .0091  | .0070 |
| 7    | 19.99 | .3290 | .3564 | .3832  | -.0001 | .0107  | .0082 |
| 8    | 21.98 | .1443 | .3552 | .3450  | .0023  | .0046  | .0080 |
| 9    | 21.98 | .1425 | .3549 | .3474  | .0028  | .0012  | .0078 |
| 10   | 24.01 | .1443 | .4216 | .3622  | .0033  | .0035  | .0043 |
| 11   | 26.02 | .1935 | .5048 | .3736  | .0095  | -.0136 | .0036 |
| 12   | -.02  | .2095 | .0556 | -.0732 | .0033  | -.0014 | .0101 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 50 CONFIG F P R W N T2

| PT. NO. | W<br>ALPHA<br>DEG | DELTA<br>PSI<br>DFG | DELTA<br>CIBAR<br>SQ-FT | DELTA<br>CDBAR<br>SQ-FT | IHT<br>CPMBAR<br>CU-FT | DELE<br>CYMBAR<br>CU-FT | DELTA<br>CRMBAR<br>CU-FT | DELTA<br>CYBAR<br>SQ-FT | DELTA<br>Q<br>PSF | V<br>KNOTS | RPM |
|---------|-------------------|---------------------|-------------------------|-------------------------|------------------------|-------------------------|--------------------------|-------------------------|-------------------|------------|-----|
| 1       | 0                 | 0                   | 79.1                    | 19.91                   | -220.                  | 35.                     | 6.                       | 3.42                    | 93.73             | 168.96     | 0.  |
| 2       | 12.0              | 0                   | 393.0                   | 59.89                   | 627.                   | 11.                     | 81.                      | 3.10                    | 94.52             | 169.69     | 0.  |
| 3       | 14.0              | 0                   | 411.4                   | 72.23                   | 719.                   | 26.                     | 101.                     | 3.86                    | 94.52             | 169.68     | 0.  |
| 4       | 16.0              | 0                   | 408.3                   | 84.16                   | 799.                   | 9.                      | 51.                      | 3.97                    | 94.39             | 169.56     | 0.  |
| 5       | 18.0              | 0                   | 411.1                   | 97.14                   | 908.                   | 3.                      | 133.                     | 4.66                    | 94.56             | 169.71     | 0.  |
| 6       | 20.1              | 0                   | 404.2                   | 111.63                  | 961.                   | 2.                      | 83.                      | 5.03                    | 94.83             | 169.96     | 0.  |
| 7       | 22.0              | 0                   | 407.9                   | 132.40                  | 1018.                  | 24.                     | 42.                      | 3.38                    | 94.72             | 169.85     | 0.  |
| 8       | 24.0              | 0                   | 405.6                   | 155.87                  | 1065.                  | 77.                     | 63.                      | 3.21                    | 94.51             | 169.65     | 0.  |
| 9       | 26.1              | 0                   | 433.4                   | 186.11                  | 1136.                  | 148.                    | -101.                    | 2.46                    | 94.11             | 169.29     | 0.  |
| 10      | 0                 | 0                   | 76.7                    | 19.73                   | -211.                  | 40.                     | -5.                      | 4.15                    | 95.31             | 170.40     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD    | CPM    | CYM   | CRM    | CY    |
|------|-------|-------|-------|--------|-------|--------|-------|
| 1    | 0     | .2137 | .0538 | -.0709 | .0021 | .0004  | .0092 |
| 2    | 12.05 | .0350 | .1619 | .2023  | .0007 | .0049  | .0084 |
| 3    | 13.98 | .1118 | .1952 | .2319  | .0016 | .0061  | .0104 |
| 4    | 16.00 | .1036 | .2275 | .2575  | .0005 | .0031  | .0107 |
| 5    | 17.99 | .1111 | .2626 | .2927  | .0002 | .0081  | .0126 |
| 6    | 20.09 | .0926 | .3017 | .3099  | .0001 | .0050  | .0136 |
| 7    | 22.03 | .1023 | .3578 | .3284  | .0015 | .0025  | .0091 |
| 8    | 24.04 | .0963 | .4213 | .3434  | .0046 | .0038  | .0087 |
| 9    | 26.06 | .1714 | .5030 | .3662  | .0090 | -.0061 | .0067 |
| 10   | 0     | .2072 | .0533 | -.0679 | .0024 | -.0003 | .0112 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB   | CPMB   | CYMB  | CRMB   | CYB   |
|------|-------|-------|-------|--------|-------|--------|-------|
| 1    | 0     | .2137 | .0538 | -.0709 | .0021 | .0004  | .0092 |
| 2    | 12.05 | .0350 | .1619 | .2023  | .0007 | .0049  | .0084 |
| 3    | 13.98 | .1118 | .1952 | .2319  | .0016 | .0061  | .0104 |
| 4    | 16.00 | .1036 | .2275 | .2575  | .0005 | .0031  | .0107 |
| 5    | 17.99 | .1111 | .2626 | .2927  | .0002 | .0081  | .0126 |
| 6    | 20.09 | .0926 | .3017 | .3099  | .0001 | .0050  | .0136 |
| 7    | 22.03 | .1023 | .3578 | .3284  | .0015 | .0025  | .0091 |
| 8    | 24.04 | .0963 | .4213 | .3434  | .0046 | .0038  | .0087 |
| 9    | 26.06 | .1714 | .5030 | .3662  | .0090 | -.0061 | .0067 |
| 10   | 0     | .2072 | .0533 | -.0679 | .0024 | -.0003 | .0112 |

RUN 51 CONFIG F P R W N T2

| PT. No. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPHBAR CU-FT | CYBAR CU-FT | CRHBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|--------------|-------------|--------------|-------------|-------------|---------|-----|
| 9       | 10.0      | 0.0           | 341.4       | 50.60       | 485.         | 25.         | 86.          | 1.65        | 55.88       | 129.65  | 0.  |
| 10      | 10.0      | -20.0         | 328.5       | 71.91       | 460.         | -543.       | -24.         | -78.64      | 55.44       | 129.14  | 0.  |
| 11      | 10.0      | -15.0         | 344.0       | 61.95       | 404.         | -458.       | 2.           | -58.56      | 55.79       | 129.54  | 0.  |
| 12      | 10.0      | -10.0         | 343.2       | 55.00       | 425.         | -319.       | 26.          | -36.34      | 56.15       | 129.97  | 0.  |
| 13      | 10.0      | -5.0          | 339.5       | 51.51       | 455.         | -135.       | -12.         | -16.66      | 56.04       | 129.84  | 0.  |
| 14      | 10.0      | -2.5          | 341.7       | 50.82       | 455.         | -45.        | 1.           | -7.87       | 55.87       | 129.64  | 0.  |
| 15      | 10.0      | 0.0           | 341.7       | 50.86       | 456.         | 38.         | 33.          | 2.07        | 55.98       | 129.77  | 0.  |
| 16      | 10.0      | 2.5           | 343.9       | 51.15       | 466.         | 105.        | 51.          | 12.16       | 55.74       | 129.49  | 0.  |
| 17      | 10.0      | 5.0           | 343.5       | 52.05       | 465.         | 195.        | 20.          | 23.02       | 55.78       | 129.54  | 0.  |
| 18      | 10.0      | 10.0          | 338.3       | 55.51       | 460.         | 350.        | 60.          | 40.26       | 55.84       | 129.61  | 0.  |
| 19      | 10.0      | 15.0          | 322.2       | 60.04       | 481.         | 447.        | 181.         | 58.86       | 55.90       | 129.68  | 0.  |
| 20      | 10.0      | 20.0          | 303.2       | 70.98       | 492.         | 536.        | 139.         | 81.18       | 56.06       | 129.86  | 0.  |
| 21      | 10.0      | 0.0           | 341.8       | 50.49       | 481.         | 22.         | 34.          | 1.89        | 55.88       | 129.66  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM   | CYM    | CRM    | CY     |
|------|--------|-------|-------|-------|--------|--------|--------|
| 9    | .00    | .9227 | .1368 | .1563 | .0015  | .0052  | .0044  |
| 10   | -20.00 | .8878 | .1943 | .1483 | -.0328 | -.0014 | -.2126 |
| 11   | -15.00 | .9297 | .1674 | .1303 | -.0276 | .0001  | -.1583 |
| 12   | -10.00 | .9276 | .1486 | .1369 | -.0193 | .0016  | -.0982 |
| 13   | -5.00  | .9177 | .1392 | .1466 | -.0082 | -.0007 | -.0450 |
| 14   | -2.50  | .9235 | .1373 | .1468 | -.0027 | .0001  | -.0213 |
| 15   | .00    | .9234 | .1375 | .1469 | .0023  | .0020  | .0056  |
| 16   | 2.50   | .9294 | .1382 | .1503 | .0063  | .0031  | .0329  |
| 17   | 5.00   | .9283 | .1407 | .1499 | .0118  | .0012  | .0622  |
| 18   | 10.00  | .9144 | .1500 | .1484 | .0211  | .0036  | .1088  |
| 19   | 15.00  | .8708 | .1623 | .1550 | .0270  | .0109  | .1591  |
| 20   | 20.00  | .8194 | .1918 | .1587 | .0324  | .0064  | .2194  |
| 21   | .00    | .9237 | .1365 | .1551 | .0013  | .0020  | .0051  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB  | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|-------|--------|--------|--------|
| 9    | .00    | .9227 | .1368 | .1563 | .0015  | .0052  | .0044  |
| 10   | -20.00 | .8878 | .1095 | .1420 | -.0328 | -.0109 | -.2664 |
| 11   | -15.00 | .9297 | .1205 | .1256 | -.0276 | -.0082 | -.1964 |
| 12   | -10.00 | .9276 | .1292 | .1334 | -.0193 | -.0029 | -.1226 |
| 13   | -5.00  | .9177 | .1347 | .1464 | -.0082 | -.0081 | -.0570 |
| 14   | -2.50  | .9235 | .1363 | .1467 | -.0027 | -.0011 | -.0273 |
| 15   | .00    | .9234 | .1375 | .1469 | .0023  | .0020  | .0056  |
| 16   | 2.50   | .9294 | .1367 | .1509 | .0063  | .0043  | .0389  |
| 17   | 5.00   | .9283 | .1347 | .1499 | .0118  | .0086  | .0743  |
| 18   | 10.00  | .9144 | .1287 | .1494 | .0211  | .0084  | .1333  |
| 19   | 15.00  | .8708 | .1153 | .1648 | .0270  | .0181  | .1958  |
| 20   | 20.00  | .8194 | .1048 | .1645 | .0324  | .0181  | .2720  |
| 21   | .00    | .9237 | .1365 | .1551 | .0013  | .0020  | .0051  |

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RUN 52 CONFIG F P R W N T2

| IW<br>PT.<br>No. | D DELF<br>ALPHA<br>DEG | O DELA     |                | O IHT          |                 | - DELE          |                 | - DELR         |          | DELSE      |    | RPM |
|------------------|------------------------|------------|----------------|----------------|-----------------|-----------------|-----------------|----------------|----------|------------|----|-----|
|                  |                        | PSI<br>DFG | CLBAR<br>SQ-FT | COBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS |    |     |
| 6                | 18.0                   | .0         | 429.5          | 98.28          | 913.            | -1.             | 122.            | 2.64           | 55.41    | 129.10     | 0. |     |
| 7                | 18.0                   | -20.0      | 462.3          | 115.97         | 982.            | -344.           | -285.           | -68.04         | 55.73    | 129.47     | 0. |     |
| 8                | 18.0                   | -15.0      | 440.1          | 108.11         | 960.            | -337.           | -517.           | -45.98         | 55.87    | 129.63     | 0. |     |
| 9                | 18.0                   | -10.1      | 427.1          | 101.18         | 876.            | -241.           | -362.           | -28.12         | 56.22    | 130.05     | 0. |     |
| 11               | 18.0                   | -7.5       | 425.8          | 98.37          | 880.            | 256.            | 732.            | -17.80         | 55.70    | 129.43     | 0. |     |
| 12               | 18.0                   | .0         | 425.0          | 98.08          | 877.            | 1.              | 18.             | 2.39           | 55.57    | 129.28     | 0. |     |
| 13               | 18.0                   | -5.0       | 426.2          | 98.56          | 881.            | -137.           | -150.           | -12.59         | 55.72    | 129.46     | 0. |     |
| 14               | 18.0                   | 7.5        | 423.8          | 97.43          | 890.            | 56.             | 245.            | 10.78          | 55.93    | 129.70     | 0. |     |
| 15               | 18.0                   | 5.0        | 423.8          | 97.61          | 896.            | 128.            | 370.            | 18.90          | 56.05    | 129.85     | 0. |     |
| 16               | 18.0                   | 10.0       | 424.7          | 101.19         | 947.            | 239.            | 464.            | 34.98          | 55.90    | 129.67     | 0. |     |
| 17               | 18.0                   | 15.0       | 430.0          | 106.47         | 1032.           | 303.            | 600.            | 51.65          | 56.06    | 129.86     | 0. |     |
| 18               | 18.0                   | 20.0       | 447.5          | 114.03         | 1073.           | 306.            | 344.            | 71.49          | 55.66    | 129.38     | 0. |     |
| 19               | 18.0                   | -2.5       | 424.8          | 98.25          | 871.            | -69.            | -121.           | -6.75          | 55.55    | 129.26     | 0. |     |
| 20               | 18.0                   | .0         | 422.4          | 97.17          | 882.            | -7.             | 69.             | 2.13           | 56.09    | 129.89     | 0. |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM   | CYM    | CRM    | CY     |
|------|--------|--------|-------|-------|--------|--------|--------|
| 6    | .00    | 1.1608 | .2656 | .2942 | -.0000 | .0074  | .0071  |
| 7    | -20.00 | 1.2495 | .3134 | .3167 | -.0208 | -.0172 | -.1839 |
| 8    | -15.00 | 1.1896 | .2922 | .3094 | -.0204 | -.0312 | -.1243 |
| 9    | -10.10 | 1.1544 | .2734 | .2825 | -.0146 | -.0218 | -.0760 |
| 11   | -2.50  | 1.1509 | .2659 | .2838 | .0154  | .0442  | -.0481 |
| 12   | .00    | 1.1486 | .2651 | .2828 | .0001  | .0011  | .0065  |
| 13   | -5.00  | 1.1518 | .2664 | .2841 | -.0083 | -.0090 | -.0340 |
| 14   | 2.50   | 1.1453 | .2633 | .2871 | .0034  | .0148  | .0291  |
| 15   | 5.00   | 1.1454 | .2638 | .2888 | .0077  | .0224  | .0511  |
| 16   | 10.00  | 1.1478 | .2735 | .3053 | .0145  | .0281  | .0945  |
| 17   | 15.00  | 1.1622 | .2878 | .3329 | .0183  | .0363  | .1396  |
| 18   | 20.00  | 1.2095 | .3082 | .3461 | .0185  | .0208  | .1932  |
| 19   | -2.50  | 1.1482 | .2655 | .2807 | -.0041 | -.0073 | -.0182 |
| 20   | .00    | 1.1416 | .2626 | .2843 | -.0004 | .0042  | .0057  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR   | CPMB  | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|-------|--------|--------|--------|
| 6    | .00    | 1.1608 | .2656 | .2942 | -.0000 | .0074  | .0071  |
| 7    | -20.00 | 1.2495 | .2312 | .3290 | -.0208 | -.0366 | -.2804 |
| 8    | -15.00 | 1.1896 | .2498 | .3421 | -.0204 | -.0452 | -.1959 |
| 9    | -10.10 | 1.1544 | .2558 | .2987 | -.0146 | -.0308 | -.1230 |
| 11   | -2.50  | 1.1509 | .2635 | .2731 | .0154  | .0418  | -.0597 |
| 12   | .00    | 1.1486 | .2651 | .2828 | .0001  | .0011  | .0065  |
| 13   | -5.00  | 1.1518 | .2624 | .2872 | -.0083 | -.0137 | -.0572 |
| 14   | 2.50   | 1.1453 | .2618 | .2902 | .0034  | .0171  | .0406  |
| 15   | 5.00   | 1.1454 | .2583 | .2981 | .0077  | .0270  | .0740  |
| 16   | 10.00  | 1.1478 | .2528 | .3268 | .0145  | .0376  | .1408  |
| 17   | 15.00  | 1.1622 | .2416 | .3717 | .0183  | .0512  | .2096  |
| 18   | 20.00  | 1.2095 | .2231 | .3632 | .0185  | .0418  | .2873  |
| 19   | -2.50  | 1.1482 | .2645 | .2821 | -.0041 | -.0096 | -.0298 |
| 20   | .00    | 1.1416 | .2626 | .2843 | -.0004 | .0042  | .0057  |

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RUN 53 CONFIG F P R W N T2

| PT. NO. | ALPHA DEG | D DELF PSI DEG | n DELA CIBAR SQ-FT | O IHT CDBAR SQ-FT | - DELE CPMBAR CU-FT | - DELR CYMBAR CU-FT | - DELSB CRMBAR CU-FT | - DELSB CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-----------|----------------|--------------------|-------------------|---------------------|---------------------|----------------------|---------------------|-------|---------|-----|
| 6       | -10.0     | 0              | -185.2             | 32.07             | -657.               | 14.                 | -118.                | 7.29                | 55.58 | 129.29  | 0.  |
| 7       | -10.0     | -20.0          | -143.3             | 57.11             | -785.               | -493.               | -6.                  | -93.02              | 55.66 | 129.39  | 0.  |
| 8       | -10.0     | -15.0          | -158.0             | 46.71             | -723.               |                     |                      | -60.10              | 55.71 | 129.45  | 0.  |
| 9       | -10.0     | -10.0          | -175.2             | 39.37             | -747.               | -266.               | -73.                 | -40.25              | 55.26 | 128.91  | 0.  |
| 10      | -10.0     | -5.0           | -186.6             | 33.31             | -734.               | -110.               | 5.                   | -17.98              | 55.70 | 129.43  | 0.  |
| 11      | -10.0     | -2.5           | -180.7             | 31.94             | -681.               | -76.                | -2.                  | -6.81               | 55.98 | 129.77  | 0.  |
| 12      | -10.0     | -15.1          | -158.8             | 47.18             | -768.               | -381.               | -3.                  | -65.85              | 55.66 | 129.38  | 0.  |
| 13      | -10.0     | 0              | -183.7             | 31.97             | -679.               | 55.                 | 6.                   | 6.06                | 55.92 | 129.78  | 0.  |
| 14      | -10.0     | 2.5            | -184.5             | 33.18             | -687.               | 92.                 | -168.                | 15.46               | 55.54 | 129.24  | 0.  |
| 15      | -10.0     | 5.0            | -177.9             | 34.34             | -674.               | 158.                | -85.                 | 27.11               | 55.78 | 129.53  | 0.  |
| 16      | -10.0     | 10.0           | -171.5             | 39.84             | -715.               | 294.                | -138.                | 50.12               | 55.93 | 129.70  | 0.  |
| 17      | -10.0     | 15.0           | -165.5             | 47.68             | -775.               | 413.                | -115.                | 72.53               | 55.89 | 129.65  | 0.  |
| 18      | -10.0     | 20.0           | -152.7             | 59.79             | -774.               | 544.                | -43.                 | 96.25               | 55.46 | 129.15  | 0.  |
| 19      | -10.0     | 0              | -184.5             | 32.61             | -657.               | 56.                 | -6.                  | 3.30                | 55.78 | 129.52  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL      | CD     | CPM     | CYM     | CRM     | CY      |
|------|--------|---------|--------|---------|---------|---------|---------|
| 6    | 0.00   | -0.5006 | 0.0867 | -0.2117 | 0.0008  | -0.0071 | 0.0197  |
| 7    | -20.00 | -0.3872 | 0.1544 | -0.2530 | -0.0298 | -0.0004 | -0.2514 |
| 8    | -15.00 | -0.4270 | 0.1262 | -0.2330 |         |         | -0.1624 |
| 9    | -10.00 | -0.4736 | 0.1064 | -0.2408 | -0.0161 | -0.0044 | -0.1088 |
| 10   | -5.00  | -0.5043 | 0.0900 | -0.2366 | -0.0066 | 0.0003  | -0.0486 |
| 11   | -2.50  | -0.4885 | 0.0863 | -0.2195 | -0.0046 | -0.0001 | -0.0184 |
| 12   | -15.10 | -0.4293 | 0.1275 | -0.2475 | -0.0230 | -0.0002 | -0.1780 |
| 13   | 0.00   | -0.4963 | 0.0864 | -0.2189 | 0.0033  | 0.0004  | 0.0164  |
| 14   | 2.50   | -0.4987 | 0.0897 | -0.2214 | 0.0056  | -0.0102 | 0.0418  |
| 15   | 5.00   | -0.4807 | 0.0928 | -0.2173 | 0.0095  | -0.0051 | 0.0733  |
| 16   | 10.00  | -0.4634 | 0.1077 | -0.2304 | 0.0178  | -0.0083 | 0.1355  |
| 17   | 15.00  | -0.4472 | 0.1289 | -0.2497 | 0.0249  | -0.0070 | 0.1960  |
| 18   | 20.00  | -0.4126 | 0.1616 | -0.2494 | 0.0328  | -0.0026 | 0.2601  |
| 19   | 0.00   | -0.5040 | 0.0881 | -0.2117 | 0.0034  | -0.0004 | 0.0089  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB     | CDB    | CPMB    | CYMB    | CRMB    | CYB     |
|------|--------|---------|--------|---------|---------|---------|---------|
| 6    | 0.00   | -0.5006 | 0.0867 | -0.2117 | 0.0008  | -0.0071 | 0.0197  |
| 7    | -20.00 | -0.3872 | 0.0586 | -0.2370 | -0.0298 | 0.0160  | -0.2891 |
| 8    | -15.00 | -0.4270 | 0.0797 | -0.1786 |         |         | -0.1897 |
| 9    | -10.00 | -0.4736 | 0.0858 | -0.2331 | -0.0161 | 0.0035  | -0.1257 |
| 10   | -5.00  | -0.5043 | 0.0854 | -0.2359 | -0.0066 | 0.0042  | -0.0563 |
| 11   | -2.50  | -0.4885 | 0.0854 | -0.2193 | -0.0046 | 0.0017  | -0.0222 |
| 12   | -15.10 | -0.4293 | 0.0765 | -0.2387 | -0.0230 | 0.0120  | -0.2051 |
| 13   | 0.00   | -0.4963 | 0.0864 | -0.2189 | 0.0033  | 0.0004  | 0.0164  |
| 14   | 2.50   | -0.4987 | 0.0877 | -0.2235 | 0.0056  | -0.0120 | 0.0457  |
| 15   | 5.00   | -0.4807 | 0.0860 | -0.2189 | 0.0095  | -0.0087 | 0.0811  |
| 16   | 10.00  | -0.4634 | 0.0824 | -0.2347 | 0.0178  | -0.0157 | 0.1522  |
| 17   | 15.00  | -0.4472 | 0.0735 | -0.2508 | 0.0249  | -0.0189 | 0.2228  |
| 18   | 20.00  | -0.4126 | 0.0624 | -0.2390 | 0.0328  | -0.0185 | 0.2998  |
| 19   | 0.00   | -0.5040 | 0.0881 | -0.2117 | 0.0034  | -0.0004 | 0.0089  |



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RUN 54 CONFIG F P R W N T2

| PT. NO. | INW<br>ALPHA<br>- DEG | DELTA<br>PSI<br>DEG | DELTA<br>CLBAR<br>SQ-FT | INT<br>CDBAR<br>SQ-FT | DELE<br>CPMBAR<br>CU-FT | DELR<br>CYMBAR<br>CU-FT | DELSB<br>CRMBAR<br>CU-FT | DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM |
|---------|-----------------------|---------------------|-------------------------|-----------------------|-------------------------|-------------------------|--------------------------|-------------------------|----------|------------|-----|
| 6       | -15.0                 | .0                  | -229.2                  | 74.68                 | -648.                   | -162.                   | 527.                     | 13.46                   | 55.92    | 129.70     | 0.  |
| 7       | -15.0                 | .0                  | -230.7                  | 74.92                 | -646.                   | -175.                   | 473.                     | 13.49                   | 56.06    | 129.86     | 0.  |
| 8       | -15.0                 | .0                  | -233.0                  | 75.66                 | -652.                   | -177.                   | 477.                     | 13.61                   | 55.57    | 129.28     | 0.  |
| 9       | -15.0                 | -20.0               | -214.5                  | 93.33                 | -674.                   | -576.                   | 327.                     | -80.70                  | 56.35    | 130.20     | 0.  |
| 10      | -15.0                 | -15.0               | -218.2                  | 85.90                 | -755.                   | -509.                   | 373.                     | -57.42                  | 56.00    | 129.79     | 0.  |
| 11      | -15.0                 | -10.0               | -226.1                  | 76.06                 | -811.                   | -488.                   | 528.                     | -24.60                  | 56.08    | 129.88     | 0.  |
| 12      | -15.0                 | -5.0                | -223.1                  | 73.65                 | -727.                   | -379.                   | 616.                     | -1.09                   | 56.01    | 129.79     | 0.  |
| 13      | -15.0                 | -7.5                | -225.8                  | 73.98                 | -670.                   | -291.                   | 544.                     | 5.47                    | 56.10    | 129.90     | 0.  |
| 14      | -15.0                 | .1                  | -223.8                  | 73.64                 | -639.                   | -167.                   | 401.                     | 13.28                   | 56.43    | 130.29     | 0.  |
| 15      | -15.0                 | 7.5                 | -230.8                  | 74.97                 | -621.                   | -84.                    | 269.                     | 20.24                   | 56.20    | 130.02     | 0.  |
| 16      | -15.0                 | 5.0                 | -231.1                  | 75.37                 | -613.                   | 13.                     | 501.                     | 26.70                   | 56.26    | 130.09     | 0.  |
| 17      | -15.0                 | 10.0                | -259.0                  | 65.85                 | -760.                   | 304.                    | -198.                    | 45.95                   | 56.26    | 130.10     | 0.  |
| 18      | -15.0                 | 15.0                | -246.0                  | 77.03                 | -730.                   | 351.                    | -259.                    | 71.75                   | 56.31    | 130.15     | 0.  |
| 19      | -15.0                 | 20.0                | -236.9                  | 89.90                 | -707.                   | 428.                    | -138.                    | 97.76                   | 55.86    | 129.61     | 0.  |
| 20      | -15.0                 | 10.0                | -263.3                  | 66.35                 | -767.                   | 290.                    | -268.                    | 47.47                   | 56.26    | 130.09     | 0.  |
| 21      | -15.0                 | .0                  | -268.4                  | 61.48                 | -641.                   | 6.                      | -12.                     | 5.85                    | 56.44    | 130.31     | 0.  |
| 22      | -15.0                 | .0                  | -269.5                  | 61.65                 | -657.                   | 10.                     | -46.                     | 5.81                    | 56.29    | 130.13     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPH    | CYH    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .00    | -.6195 | .2018 | -.2088 | -.0098 | .0318  | .0364  |
| 7    | .00    | -.6241 | .2025 | -.2083 | -.0106 | .0286  | .0365  |
| 8    | .00    | -.6296 | .2045 | -.2101 | -.0107 | .0288  | .0368  |
| 9    | -20.00 | -.5797 | .2523 | -.2173 | -.0348 | .0198  | -.2181 |
| 10   | -15.00 | -.5897 | .2322 | -.2435 | -.0308 | .0225  | -.1552 |
| 11   | -10.00 | -.6111 | .2056 | -.2613 | -.0295 | .0319  | -.0665 |
| 12   | -5.00  | -.6030 | .1990 | -.2344 | -.0229 | .0372  | -.0030 |
| 13   | -2.50  | -.6102 | .1999 | -.2159 | -.0176 | .0329  | .0148  |
| 14   | .10    | -.6048 | .1990 | -.2059 | -.0101 | .0242  | .0359  |
| 15   | 2.50   | -.6238 | .2026 | -.2003 | -.0051 | .0163  | .0547  |
| 16   | 5.00   | -.6246 | .2037 | -.1976 | .0008  | .0303  | .0722  |
| 17   | 10.00  | -.7001 | .1780 | -.2449 | .0184  | -.0120 | .1242  |
| 18   | 15.00  | -.6648 | .2082 | -.2354 | .0212  | -.0156 | .1939  |
| 19   | 20.00  | -.6403 | .2430 | -.2279 | .0258  | -.0084 | .2642  |
| 20   | 10.00  | -.7117 | .1793 | -.2473 | .0175  | -.0162 | .1283  |
| 21   | .00    | -.7253 | .1662 | -.2067 | .0004  | -.0007 | .0158  |
| 22   | .00    | -.7283 | .1666 | -.2117 | .0006  | -.0028 | .0157  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 6    | .00    | -.6195 | .2018 | -.2088 | -.0098 | .0318 | .0364  |
| 7    | .00    | -.6241 | .2025 | -.2083 | -.0106 | .0286 | .0365  |
| 8    | .00    | -.6296 | .2045 | -.2101 | -.0107 | .0288 | .0368  |
| 9    | -20.00 | -.5797 | .1620 | -.2403 | -.0348 | .0326 | -.2915 |
| 10   | -15.00 | -.5897 | .1838 | -.2664 | -.0308 | .0336 | -.2102 |
| 11   | -10.00 | -.6111 | .1908 | -.2670 | -.0295 | .0399 | -.1013 |
| 12   | -5.00  | -.6030 | .1980 | -.2509 | -.0229 | .0409 | -.0204 |
| 13   | -2.50  | -.6102 | .2004 | -.2234 | -.0176 | .0346 | .0060  |
| 14   | .10    | -.6048 | .1990 | -.2057 | -.0101 | .0242 | .0362  |
| 15   | 2.50   | -.6238 | .2000 | -.1963 | -.0051 | .0146 | .0635  |
| 16   | 5.00   | -.6246 | .1966 | -.1827 | .0008  | .0269 | .0897  |

|    |       |        |       |        |       |        |       |
|----|-------|--------|-------|--------|-------|--------|-------|
| 17 | 10.00 | -.7001 | .1536 | -.2523 | .0184 | -.0198 | .1533 |
| 18 | 15.00 | -.6648 | .1506 | -.2490 | .0212 | -.0265 | .2414 |
| 19 | 20.00 | -.6403 | .1374 | -.2294 | .0258 | -.0225 | .3316 |
| 20 | 10.00 | -.7117 | .1542 | -.2586 | .0175 | -.0240 | .1576 |
| 21 | .00   | -.7253 | .1662 | -.2067 | .0004 | -.0007 | .0158 |
| 22 | .00   | -.7283 | .1666 | -.2117 | .0006 | -.0028 | .0157 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 50

RUN 55 CONFIG F P R W N T2

| IW<br>PT.<br>NO. | DELTA<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CIBAR<br>SQ-FT | DELTA<br>CDBAR<br>SQ-FT | DELTA<br>CPMBAR<br>CU-FT | DELTA<br>CYMBAR<br>CU-FT | DELTA<br>CRMBAR<br>CU-FT | DELTA<br>CYBAR<br>SQ-FT | DELTA<br>Q<br>PSF | DELTA<br>V<br>KNOTS | RPM |
|------------------|-----------------------|---------------------|-------------------------|-------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------|---------------------|-----|
| 2                | 0                     | 0                   | 80.7                    | 19.94                   | -224.                    | 20.                      | -25.                     | 5.67                    | 55.26             | 128.91              | 0.  |
| 3                | -15.0                 | 0                   | -269.0                  | 61.41                   | -649.                    | 7.                       | -44.                     | 4.53                    | 55.64             | 129.36              | 0.  |
| 4                | -15.0                 | -20.0               | -232.2                  | 86.55                   | -681.                    | -304.                    | 133.                     | -92.35                  | 55.22             | 128.86              | 0.  |
| 5                | -15.0                 | -15.0               | -252.4                  | 71.63                   | -748.                    | -335.                    | 97.                      | -59.21                  | 55.06             | 128.67              | 0.  |
| 6                | -15.0                 | -10.0               | -260.2                  | 64.77                   | -746.                    | -299.                    | 51.                      | -34.63                  | 55.37             | 129.04              | 0.  |
| 7                | -15.0                 | -5.0                | -269.0                  | 61.62                   | -680.                    | -208.                    | 26.                      | -12.85                  | 55.39             | 129.06              | 0.  |
| 8                | -15.0                 | -2.5                | -322.7                  | 74.10                   | -790.                    | -131.                    | -141.                    | -2.89                   | 47.09             | 119.01              | 0.  |
| 10               | -15.0                 | 2.5                 | -269.9                  | 61.53                   | -681.                    | 123.                     | -178.                    | 12.99                   | 55.87             | 129.63              | 0.  |
| 11               | -15.0                 | -2.5                | -271.6                  | 61.61                   | -672.                    | -106.                    | -66.                     | -2.89                   | 55.48             | 129.17              | 0.  |
| 12               | -15.0                 | 0                   | -275.8                  | 62.19                   | -676.                    | 12.                      | -153.                    | 5.46                    | 54.85             | 128.42              | 0.  |
| 13               | -15.0                 | 5.0                 | -267.7                  | 62.31                   | -688.                    | 197.                     | -197.                    | 25.44                   | 55.58             | 129.28              | 0.  |
| 14               | -15.0                 | 10.0                | -263.9                  | 66.10                   | -771.                    | 302.                     | -235.                    | 45.95                   | 55.22             | 128.87              | 0.  |
| 15               | -15.0                 | 15.0                | -241.3                  | 77.81                   | -688.                    | 345.                     | -63.                     | 75.13                   | 55.41             | 129.08              | 0.  |
| 16               | -15.0                 | 20.0                | -236.0                  | 89.22                   | -698.                    | 419.                     | -196.                    | 99.42                   | 55.44             | 129.12              | 0.  |
| 17               | -15.0                 | 0                   | -270.5                  | 61.30                   | -626.                    | -4.                      | -84.                     | 6.70                    | 55.43             | 129.11              | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .2182  | .0539 | -.0721 | .0012  | -.0015 | .0153  |
| 3    | .00    | -.7271 | .1660 | -.2092 | .0004  | -.0027 | .0122  |
| 4    | -20.00 | -.6276 | .2339 | -.2194 | -.0183 | .0080  | -.2496 |
| 5    | -15.00 | -.6823 | .1936 | -.2412 | -.0202 | .0059  | -.1600 |
| 6    | -10.00 | -.7034 | .1750 | -.2406 | -.0181 | .0031  | -.0936 |
| 7    | -5.00  | -.7272 | .1666 | -.2191 | -.0126 | .0016  | -.0347 |
| 8    | -2.50  | -.8722 | .2003 | -.2546 | -.0079 | -.0085 | -.0078 |
| 10   | 2.50   | -.7294 | .1663 | -.2194 | .0074  | -.0107 | .0351  |
| 11   | -2.50  | -.7341 | .1665 | -.2167 | -.0064 | -.0040 | -.0078 |
| 12   | .00    | -.7454 | .1681 | -.2180 | .0007  | -.0092 | .0148  |
| 13   | 5.00   | -.7236 | .1684 | -.2217 | .0119  | -.0119 | .0687  |
| 14   | 10.00  | -.7133 | .1787 | -.2484 | .0182  | -.0142 | .1242  |
| 15   | 15.00  | -.6522 | .2103 | -.2218 | .0208  | -.0038 | .2030  |
| 16   | 20.00  | -.6379 | .2411 | -.2249 | .0253  | -.0118 | .2687  |
| 17   | .00    | -.7311 | .1657 | -.2020 | -.0003 | -.0051 | .0181  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .2182  | .0539 | -.0721 | .0012  | -.0015 | .0153  |
| 3    | .00    | -.7271 | .1660 | -.2092 | .0004  | -.0027 | .0122  |
| 4    | -20.00 | -.6276 | .1339 | -.2208 | -.0183 | .0217  | -.3147 |
| 5    | -15.00 | -.6823 | .1453 | -.2410 | -.0202 | .0174  | -.2049 |
| 6    | -10.00 | -.7034 | .1560 | -.2398 | -.0181 | .0109  | -.1227 |
| 7    | -5.00  | -.7272 | .1629 | -.2190 | -.0126 | .0052  | -.0492 |
| 8    | -2.50  | -.8722 | .1997 | -.2523 | -.0079 | -.0064 | -.0166 |
| 10   | 2.50   | -.7294 | .1646 | -.2217 | .0074  | -.0125 | .0424  |
| 11   | -2.50  | -.7341 | .1660 | -.2155 | -.0064 | -.0022 | -.0151 |
| 12   | .00    | -.7454 | .1681 | -.2180 | .0007  | -.0092 | .0148  |
| 13   | 5.00   | -.7236 | .1617 | -.2264 | .0119  | -.0155 | .0832  |
| 14   | 10.00  | -.7133 | .1543 | -.2578 | .0182  | -.0221 | .1535  |

|    |       |        |       |        |        |        |       |
|----|-------|--------|-------|--------|--------|--------|-------|
| 15 | 15.00 | -.6522 | .1503 | -.2195 | .0208  | -.0145 | .2507 |
| 16 | 20.00 | -.6379 | .1342 | -.2329 | .0253  | -.0256 | .3352 |
| 17 | .00   | -.7311 | .1657 | -.2020 | -.0003 | -.0051 | .0181 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 57

RUN 57 CONFIG F P A W N T2

| 1W<br>PT.<br>No. | DELTA<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CLBAR<br>SQ-FT | DELTA<br>CDBAR<br>SQ-FT | DELTA<br>CPM BAR<br>CU-FT | DELTA<br>CYM BAR<br>CU-FT | DELTA<br>CRM BAR<br>CU-FT | DELTA<br>CYBAR<br>SQ-FT | DELTA<br>DELSB<br>Q<br>PSF | DELTA<br>V<br>KNOTS | RPM |
|------------------|-----------------------|---------------------|-------------------------|-------------------------|---------------------------|---------------------------|---------------------------|-------------------------|----------------------------|---------------------|-----|
| 2                | 0                     | 0                   | 116.8                   | 22.13                   | -271.                     | 24.                       | 63.                       | 5.42                    | 55.34                      | 129.01              | 0.  |
| 3                | -20.0                 | 0                   | -226.6                  | 112.86                  | -656.                     | -121.                     | 13.                       | 9.89                    | 55.11                      | 128.72              | 0.  |
| 4                | -15.0                 | 0                   | -207.8                  | 69.66                   | -653.                     | -167.                     | 258.                      | 13.07                   | 54.47                      | 127.97              | 0.  |
| 5                | -10.0                 | 0                   | -149.4                  | 29.35                   | -721.                     | 27.                       | 25.                       | 5.31                    | 55.20                      | 128.84              | 0.  |
| 6                | -5.0                  | 0                   | -15.9                   | 19.13                   | -549.                     | 25.                       | 9.                        | 5.62                    | 55.18                      | 128.81              | 0.  |
| 7                | -2.5                  | 0                   | 51.2                    | 19.01                   | -407.                     | 18.                       | 62.                       | 5.68                    | 55.17                      | 128.80              | 0.  |
| 8                | -0                    | 0                   | 116.8                   | 22.38                   | -270.                     | 15.                       | 47.                       | 4.94                    | 54.51                      | 128.02              | 0.  |
| 9                | 2.5                   | 0                   | 185.8                   | 28.18                   | -95.                      | 12.                       | 66.                       | 4.69                    | 54.44                      | 127.93              | 0.  |
| 10               | 5.0                   | 0                   | 252.3                   | 35.81                   | 67.                       | 21.                       | 84.                       | 4.62                    | 54.54                      | 128.05              | 0.  |
| 11               | 10.0                  | 0                   | 375.4                   | 56.44                   | 430.                      | 26.                       | 86.                       | 3.54                    | 54.92                      | 128.51              | 0.  |
| 12               | 15.0                  | 0                   | 449.4                   | 85.12                   | 722.                      | 1.                        | 124.                      | 1.25                    | 54.59                      | 128.11              | 0.  |
| 13               | 20.0                  | 0                   | 428.2                   | 118.69                  | 901.                      | -17.                      | 18.                       | 3.17                    | 54.82                      | 128.38              | 0.  |
| 14               | 24.0                  | 0                   | 432.8                   | 164.79                  | 1030.                     | 42.                       | -16.                      | 3.04                    | 54.85                      | 128.41              | 0.  |
| 15               | 12.5                  | 0                   | 433.5                   | 81.85                   | 606.                      | 48.                       | 86.                       | 1.90                    | 55.59                      | 129.29              | 0.  |
| 16               | 17.5                  | 0                   | 439.2                   | 101.19                  | 833.                      | 22.                       | 53.                       | 5.51                    | 54.97                      | 128.56              | 0.  |
| 17               | -0                    | 0                   | 114.0                   | 22.48                   | -263.                     | 28.                       | -24.                      | 5.34                    | 55.49                      | 129.18              | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | .3156  | .0598 | -.0872 | .0014  | .0038  | .0146 |
| 3    | -20.00 | -.6124 | .3050 | -.2116 | -.0073 | .0008  | .0267 |
| 4    | -15.00 | -.5615 | .1883 | -.2104 | -.0101 | .0156  | .0353 |
| 5    | -10.00 | -.4039 | .0793 | -.2325 | .0016  | .0015  | .0143 |
| 6    | -5.00  | -.0430 | .0517 | -.1769 | .0015  | .0005  | .0152 |
| 7    | -2.50  | .1383  | .0514 | -.1311 | .0011  | .0038  | .0154 |
| 8    | -0.00  | .3157  | .0605 | -.0869 | .0009  | .0028  | .0133 |
| 9    | 2.50   | .5023  | .0761 | -.0307 | .0007  | .0040  | .0127 |
| 10   | 5.00   | .6818  | .0968 | .0216  | .0013  | .0051  | .0125 |
| 11   | 9.99   | .10147 | .1525 | .1387  | .0016  | .0052  | .0096 |
| 12   | 15.00  | .12147 | .2301 | .2326  | .0001  | .0075  | .0034 |
| 13   | 19.99  | .11573 | .3208 | .2905  | -.0010 | .0011  | .0086 |
| 14   | 24.00  | .11698 | .4454 | .3321  | .0025  | -.0010 | .0082 |
| 15   | 12.50  | .11715 | .2212 | .1953  | .0029  | .0052  | .0051 |
| 16   | 17.50  | .11870 | .2735 | .2685  | .0013  | .0082  | .0149 |
| 17   | -0.00  | .3082  | .0608 | -.0847 | .0017  | -.0015 | .0144 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYR   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | .3156  | .0598 | -.0872 | .0014  | .0038  | .0146 |
| 3    | -20.00 | -.6124 | .3050 | -.2116 | -.0073 | .0008  | .0267 |
| 4    | -15.00 | -.5615 | .1883 | -.2104 | -.0101 | .0156  | .0353 |
| 5    | -10.00 | -.4039 | .0793 | -.2325 | .0016  | .0015  | .0143 |
| 6    | -5.00  | -.0430 | .0517 | -.1769 | .0015  | .0005  | .0152 |
| 7    | -2.50  | .1383  | .0514 | -.1311 | .0011  | .0038  | .0154 |
| 8    | -0.00  | .3157  | .0605 | -.0869 | .0009  | .0028  | .0133 |
| 9    | 2.50   | .5023  | .0761 | -.0307 | .0007  | .0040  | .0127 |
| 10   | 5.00   | .6818  | .0968 | .0216  | .0013  | .0051  | .0125 |
| 11   | 9.99   | .10147 | .1525 | .1387  | .0016  | .0052  | .0096 |
| 12   | 15.00  | .12147 | .2301 | .2326  | .0001  | .0075  | .0034 |
| 13   | 19.99  | .11573 | .3208 | .2905  | -.0010 | .0011  | .0086 |
| 14   | 24.00  | .11698 | .4454 | .3321  | .0025  | -.0010 | .0082 |
| 15   | 12.50  | .11715 | .2212 | .1953  | .0029  | .0052  | .0051 |
| 16   | 17.50  | .11870 | .2735 | .2685  | .0013  | .0082  | .0149 |
| 17   | -0.00  | .3082  | .0608 | -.0847 | .0017  | -.0015 | .0144 |

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RUN 58 CONFIG F P A W N T2

| PT. No. | IW ALPHA DEG | O DELF PSI DEG | S DELA CIBAR SQ-FT | O IHT CDBAR SQ-FT | - DELE CYMBAR CU-FT | - DELR CRMBAR CU-FT | - DELSB CYBAR SQ-FT | Q PSF  | V KNOTS | RPM    |    |
|---------|--------------|----------------|--------------------|-------------------|---------------------|---------------------|---------------------|--------|---------|--------|----|
| 2       | 0            | 0              | 114.2              | 22.18             | -278.               | 17.                 | -6.                 | 5.04   | 54.70   | 128.25 | 0. |
| 3       | 0            | -20.0          | 117.7              | 45.86             | -336.               | -550.               | -61.                | -89.53 | 54.60   | 128.12 | 0. |
| 4       | 0            | -15.0          | 129.8              | 34.25             | -367.               | -499.               | 17.                 | -66.59 | 54.69   | 128.22 | 0. |
| 5       | 0            | -10.0          | 120.4              | 26.20             | -323.               | -362.               | -11.                | -40.67 | 54.52   | 128.03 | 0. |
| 6       | 0            | -5.0           | 117.5              | 23.11             | -308.               | -189.               | -34.                | -16.61 | 54.97   | 128.56 | 0. |
| 7       | 0            | -2.5           | 117.1              | 22.46             | -296.               | -87.                | 14.                 | -5.95  | 54.95   | 128.54 | 0. |
| 9       | 0            | 0              | 115.9              | 22.28             | -294.               | 13.                 | 12.                 | 4.26   | 55.17   | 128.80 | 0. |
| 10      | 0            | 2.5            | 116.6              | 22.84             | -293.               | 112.                | 30.                 | 14.97  | 55.28   | 128.93 | 0. |
| 11      | 0            | 5.0            | 117.1              | 23.58             | -295.               | 213.                | -1.                 | 25.42  | 55.35   | 129.01 | 0. |
| 12      | 0            | 10.0           | 119.3              | 26.80             | -307.               | 394.                | 34.                 | 45.35  | 55.28   | 128.93 | 0. |
| 13      | 0            | 15.0           | 119.7              | 34.25             | -352.               | 512.                | -43.                | 68.45  | 55.19   | 128.82 | 0. |
| 14      | 0            | 20.0           | 123.6              | 47.20             | -333.               | 589.                | 31.                 | 93.72  | 54.63   | 128.15 | 0. |
| 15      | 0            | 0              | 116.7              | 22.57             | -270.               | 14.                 | 46.                 | 5.56   | 54.56   | 128.07 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | Cy     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .3088 | .0599 | -.0898 | .0010  | -.0004 | .0136  |
| 3    | -20.00 | .3180 | .1239 | -.1082 | -.0332 | -.0037 | -.2420 |
| 4    | -15.00 | .3508 | .0926 | -.1183 | -.0302 | .0010  | -.1800 |
| 5    | -10.00 | .3253 | .0708 | -.1040 | -.0218 | -.0006 | -.1099 |
| 6    | -5.00  | .3177 | .0625 | -.0994 | -.0114 | -.0020 | -.0449 |
| 7    | -2.50  | .3164 | .0607 | -.0954 | -.0053 | .0008  | -.0161 |
| 9    | .00    | .3133 | .0602 | -.0947 | .0008  | .0007  | .0115  |
| 10   | 2.50   | .3152 | .0617 | -.0944 | .0068  | .0018  | .0405  |
| 11   | 5.00   | .3164 | .0637 | -.0953 | .0128  | -.0001 | .0687  |
| 12   | 10.00  | .3225 | .0724 | -.0989 | .0238  | .0021  | .1226  |
| 13   | 15.00  | .3236 | .0926 | -.1135 | .0309  | -.0026 | .1850  |
| 14   | 20.00  | .3340 | .1276 | -.1073 | .0356  | .0019  | .2533  |
| 15   | .00    | .3154 | .0610 | -.0869 | .0009  | .0028  | .0150  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .3088 | .0599 | -.0898 | .0010  | -.0004 | .0136  |
| 3    | -20.00 | .3180 | .0333 | -.0949 | -.0332 | .0035  | -.2698 |
| 4    | -15.00 | .3508 | .0426 | -.1156 | -.0302 | .0067  | -.1978 |
| 5    | -10.00 | .3253 | .0505 | -.1018 | -.0218 | .0028  | -.1206 |
| 6    | -5.00  | .3177 | .0583 | -.0981 | -.0114 | -.0004 | -.0502 |
| 7    | -2.50  | .3164 | .0599 | -.0955 | -.0053 | .0016  | -.0187 |
| 9    | .00    | .3133 | .0602 | -.0947 | .0008  | .0007  | .0115  |
| 10   | 2.50   | .3152 | .0599 | -.0939 | .0068  | .0011  | .0431  |
| 11   | 5.00   | .3164 | .0575 | -.0949 | .0128  | -.0016 | .0740  |
| 12   | 10.00  | .3225 | .0499 | -.0955 | .0238  | -.0012 | .1333  |
| 13   | 15.00  | .3236 | .0413 | -.1132 | .0309  | -.0080 | .2027  |
| 14   | 20.00  | .3340 | .0328 | -.0973 | .0356  | -.0052 | .2817  |
| 15   | .00    | .3154 | .0610 | -.0869 | .0009  | .0028  | .0150  |

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RUN 59 CONFIG F P R W N T2

| PT. No. | ALPHA DEG | O DELF PSI DEG | IN DELA CIBAR SQ-FT | O IHT CDBAR SQ-FT | - DELE CPMBAR CU-FT | - DELR CYMBAR CU-FT | - DELR CRMBAR CU-FT | - DELSB Q CYBAR SQ-FT | - V PSF KNOTS | RPM    |    |
|---------|-----------|----------------|---------------------|-------------------|---------------------|---------------------|---------------------|-----------------------|---------------|--------|----|
| 2       | 0         | 0              | 160.2               | 25.55             | -337.               | 25.                 | 34.                 | 1.43                  | 54.87         | 128.44 | 0. |
| 3       | 0         | -20.0          | 149.8               | 47.41             | -344.               | -541.               | -22.                | -86.76                | 55.09         | 128.70 | 0. |
| 4       | 0         | -15.0          | 161.7               | 36.45             | -410.               | -494.               | -63.                | -64.14                | 54.76         | 128.31 | 0. |
| 5       | 0         | -10.0          | 157.5               | 33.25             | -671.               | -145.               | 409.                | -45.49                | 54.67         | 128.20 | 0. |
| 6       | 0         | -5.0           | 158.5               | 26.30             | -361.               | -199.               | 15.                 | -17.24                | 54.92         | 128.50 | 0. |
| 7       | 0         | -2.5           | 156.9               | 25.92             | -355.               | -92.                | 54.                 | -5.15                 | 54.87         | 128.43 | 0. |
| 8       | 0         | 0              | 159.3               | 26.56             | -364.               | 22.                 | 30.                 | 4.55                  | 53.96         | 127.36 | 0. |
| 9       | 0         | 2.5            | 156.8               | 26.92             | -367.               | 127.                | 26.                 | 14.59                 | 54.39         | 127.86 | 0. |
| 10      | 0         | 5.0            | 159.7               | 27.74             | -364.               | 230.                | 80.                 | 24.33                 | 53.62         | 126.96 | 0. |
| 11      | 0         | 10.0           | 153.1               | 29.44             | -352.               | 401.                | 16.                 | 43.68                 | 55.06         | 128.66 | 0. |
| 12      | 0         | 15.0           | 149.9               | 36.25             | -351.               | 504.                | 93.                 | 65.47                 | 54.84         | 128.41 | 0. |
| 13      | 0         | 20.0           | 143.6               | 48.79             | -332.               | 583.                | 30.                 | 91.12                 | 54.21         | 127.66 | 0. |
| 14      | 0         | -10.0          | 159.4               | 29.13             | -360.               | -364.               | 48.                 | -38.71                | 54.91         | 128.48 | 0. |
| 15      | 0         | 0              | 156.3               | 26.28             | -348.               | 13.                 | 45.                 | 6.07                  | 55.03         | 128.63 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .4331 | .0690 | -.1087 | .0015  | .0020  | .0039  |
| 3    | -20.00 | .4048 | .1281 | -.1110 | -.0327 | -.0013 | -.2345 |
| 4    | -15.00 | .4370 | .0985 | -.1321 | -.0298 | -.0038 | -.1733 |
| 5    | -10.00 | .4256 | .0899 | -.2162 | -.0088 | .0247  | -.1229 |
| 6    | -5.00  | .4283 | .0711 | -.1164 | -.0120 | .0009  | -.0466 |
| 7    | -2.50  | .4242 | .0701 | -.1145 | -.0056 | .0033  | -.0139 |
| 8    | .00    | .4306 | .0718 | -.1175 | .0013  | .0018  | .0123  |
| 9    | 2.50   | .4236 | .0728 | -.1184 | .0077  | .0015  | .0394  |
| 10   | 5.00   | .4317 | .0750 | -.1172 | .0139  | .0048  | .0658  |
| 11   | 10.00  | .4137 | .0796 | -.1135 | .0242  | .0010  | .1181  |
| 12   | 15.00  | .4052 | .0980 | -.1132 | .0304  | .0056  | .1769  |
| 13   | 20.00  | .3880 | .1319 | -.1071 | .0352  | .0018  | .2463  |
| 14   | -10.00 | .4308 | .0787 | -.1161 | -.0220 | .0029  | -.1046 |
| 15   | .00    | .4225 | .0710 | -.1123 | .0008  | .0027  | .0164  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .4331 | .0690 | -.1087 | .0015  | .0020  | .0039  |
| 3    | -20.00 | .4048 | .0398 | -.1017 | -.0327 | .0059  | -.2642 |
| 4    | -15.00 | .4370 | .0501 | -.1223 | -.0298 | .0028  | -.1930 |
| 5    | -10.00 | .4256 | .0670 | -.2359 | -.0088 | .0314  | -.1367 |
| 6    | -5.00  | .4283 | .0667 | -.1164 | -.0120 | .0028  | -.0526 |
| 7    | -2.50  | .4242 | .0694 | -.1152 | -.0056 | .0042  | -.0170 |
| 8    | .00    | .4306 | .0718 | -.1175 | .0013  | .0018  | .0123  |
| 9    | 2.50   | .4236 | .0710 | -.1179 | .0077  | .0006  | .0426  |
| 10   | 5.00   | .4317 | .0689 | -.1145 | .0139  | .0029  | .0721  |
| 11   | 10.00  | .4137 | .0578 | -.1109 | .0242  | -.0027 | .1301  |
| 12   | 15.00  | .4052 | .0486 | -.1015 | .0304  | -.0001 | .1963  |
| 13   | 20.00  | .3880 | .0392 | -.0973 | .0352  | -.0052 | .2766  |
| 14   | -10.00 | .4308 | .0593 | -.1170 | -.0220 | .0066  | -.1168 |
| 15   | .00    | .4225 | .0710 | -.1123 | .0008  | .0027  | .0164  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 60 CONFIG F P R W N T2

| PT. NO. | W | ALPHA DEG | DELTA PSI DEG | DELTA CIBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CU-FT | DELE CYMBAR CU-FT | DELR CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM |
|---------|---|-----------|---------------|-------------------|-------------------|-----------|-------------------|-------------------|-------------|-------------|---------|-----|
| 2       |   | 0         | 0             | 157.1             | 26.47             | -334.     | 14.               | 64.               | 5.52        | 54.31       | 127.77  | 0.  |
| 3       |   | -20.0     | 0             | -203.8            | 105.04            | -760.     | -110.             | 250.              | 6.77        | 54.84       | 128.39  | 0.  |
| 4       |   | -15.0     | 0             | -182.7            | 66.34             | -726.     | -171.             | 438.              | 9.60        | 55.00       | 128.59  | 0.  |
| 5       |   | -10.0     | 0             | -119.2            | 28.43             | -798.     | 15.               | -59.              | 3.23        | 54.79       | 128.34  | 0.  |
| 6       |   | -5.0      | 0             | 16.1              | 20.64             | -608.     | 12.               | 45.               | 5.29        | 54.77       | 128.32  | 0.  |
| 7       |   | -2.5      | 0             | 83.4              | 21.73             | -473.     | 8.                | 28.               | 5.12        | 55.17       | 128.80  | 0.  |
| 8       |   | 0         | 0             | 156.6             | 26.48             | -323.     | 5.                | 29.               | 5.25        | 55.11       | 128.72  | 0.  |
| 9       |   | 2.5       | 0             | 225.8             | 33.07             | -172.     | 5.                | 30.               | 5.21        | 54.88       | 128.46  | 0.  |
| 10      |   | 5.0       | 0             | 296.1             | 42.19             | -8.       | 5.                | 50.               | 3.56        | 54.54       | 128.04  | 0.  |
| 11      |   | 10.0      | 0             | 419.6             | 64.80             | 360.      | 18.               | 51.               | 2.87        | 54.69       | 128.23  | 0.  |
| 12      |   | 15.0      | 0             | 473.4             | 91.38             | 700.      | -2.               | 88.               | 2.49        | 54.77       | 128.32  | 0.  |
| 13      |   | 20.0      | 0             | 442.2             | 126.77            | 862.      | 6.                | 71.               | 1.80        | 54.76       | 128.30  | 0.  |
| 14      |   | 24.0      | 0             | 441.9             | 174.24            | 937.      | 44.               | -52.              | 2.63        | 54.41       | 127.88  | 0.  |
| 15      |   | 0         | 0             | 154.4             | 26.70             | -322.     | 5.                | -6.               | 4.90        | 54.92       | 128.50  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | .4245  | .0715 | -.1077 | .0009  | .0039  | .0149 |
| 3    | -20.00 | -.5507 | .2839 | -.2450 | -.0066 | .0151  | .0183 |
| 4    | -15.00 | -.4937 | .1793 | -.2340 | -.0103 | .0265  | .0259 |
| 5    | -10.01 | -.3222 | .0768 | -.2572 | .0009  | -.0036 | .0087 |
| 6    | -5.00  | .0435  | .0558 | -.1959 | .0007  | .0027  | .0143 |
| 7    | -2.51  | .2254  | .0587 | -.1525 | .0005  | .0017  | .0139 |
| 8    | .01    | .4233  | .0716 | -.1041 | .0003  | .0017  | .0142 |
| 9    | 2.51   | .6103  | .0894 | -.0553 | .0003  | .0018  | .0141 |
| 10   | 5.01   | .8002  | .1140 | -.0024 | .0003  | .0030  | .0096 |
| 11   | 9.99   | 1.1340 | .1751 | .1161  | .0011  | .0031  | .0077 |
| 12   | 15.01  | 1.2795 | .2470 | .2255  | -.0001 | .0053  | .0067 |
| 13   | 20.01  | 1.1951 | .3426 | .2779  | .0003  | .0043  | .0049 |
| 14   | 24.00  | 1.1944 | .4709 | .3021  | .0027  | -.0031 | .0071 |
| 15   | .00    | .4174  | .0722 | -.1037 | .0003  | -.0004 | .0132 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | .4245  | .0715 | -.1077 | .0009  | .0039  | .0149 |
| 3    | -20.00 | -.5507 | .2839 | -.2450 | -.0066 | .0151  | .0183 |
| 4    | -15.00 | -.4937 | .1793 | -.2340 | -.0103 | .0265  | .0259 |
| 5    | -10.01 | -.3222 | .0768 | -.2572 | .0009  | -.0036 | .0087 |
| 6    | -5.00  | .0435  | .0558 | -.1959 | .0007  | .0027  | .0143 |
| 7    | -2.51  | .2254  | .0587 | -.1525 | .0005  | .0017  | .0139 |
| 8    | .01    | .4233  | .0716 | -.1041 | .0003  | .0017  | .0142 |
| 9    | 2.51   | .6103  | .0894 | -.0553 | .0003  | .0018  | .0141 |
| 10   | 5.01   | .8002  | .1140 | -.0024 | .0003  | .0030  | .0096 |
| 11   | 9.99   | 1.1340 | .1751 | .1161  | .0011  | .0031  | .0077 |
| 12   | 15.01  | 1.2795 | .2470 | .2255  | -.0001 | .0053  | .0067 |
| 13   | 20.01  | 1.1951 | .3426 | .2779  | .0003  | .0043  | .0049 |
| 14   | 24.00  | 1.1944 | .4709 | .3021  | .0027  | -.0031 | .0071 |
| 15   | .00    | .4174  | .0722 | -.1037 | .0003  | -.0004 | .0132 |

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RUN 61 CONFIG F P R W N T2

| PT. No. | 1W ALPHA DEG | 15 DELF PSI DEG | 10 DELA CIBAR SQ-FT | 0 IHT CDBAR SQ-FT | CPMBAR CU-FT | - DELE CYMBAR CU-FT | - DELR CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM |
|---------|--------------|-----------------|---------------------|-------------------|--------------|---------------------|---------------------|-------------|-------------|---------|-----|
| 8       | -0.0         | 0.0             | 434.2               | 77.58             | -248.        | 26.                 | -122.               | 13.13       | 55.01       | 128.61  | 0.  |
| 9       | -20.0        | 0.0             | 31.9                | 51.00             | -926.        | 1.                  | -86.                | 7.21        | 55.72       | 129.46  | 0.  |
| 10      | -15.0        | 0.0             | 75.6                | 42.44             | -882.        | 20.                 | -14.                | -1.78       | 55.45       | 129.13  | 0.  |
| 11      | -10.0        | 0.0             | 212.2               | 42.17             | -840.        | 21.                 | 29.                 | 3.32        | 55.39       | 129.07  | 0.  |
| 12      | -5.0         | 0.0             | 334.1               | 57.10             | -586.        | -20.                | -10.                | 6.59        | 55.31       | 129.97  | 0.  |
| 13      | -2.5         | 0.0             | 327.8               | 66.54             | -412.        | -2.                 | -33.                | 10.86       | 55.85       | 129.60  | 0.  |
| 14      | 0.0          | 0.0             | 426.8               | 76.36             | -256.        | 19.                 | -171.               | 11.40       | 55.86       | 129.62  | 0.  |
| 15      | 2.5          | 0.0             | 385.3               | 87.01             | -118.        | -39.                | 478.                | -6.87       | 55.56       | 129.26  | 0.  |
| 16      | 5.0          | 0.0             | 339.5               | 99.71             | -58.         | 24.                 | 137.                | 2.82        | 55.51       | 129.20  | 0.  |
| 17      | 10.0         | 0.0             | 335.7               | 136.30            | 141.         | -78.                | -108.               | 4.01        | 55.15       | 128.77  | 0.  |
| 18      | 15.0         | 0.0             | 371.7               | 202.98            | 284.         | 80.                 | -282.               | 7.45        | 55.31       | 128.96  | 0.  |
| 19      | 20.0         | 0.0             | 367.6               | 248.15            | 520.         | 33.                 | 35.                 | 2.52        | 55.43       | 129.10  | 0.  |
| 20      | 0.0          | 0.0             | 430.2               | 77.22             | -249.        | 17.                 | -172.               | 12.14       | 55.57       | 129.27  | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 8    | -0.00  | 1.1734 | .2097 | -.0801 | .0016  | -.0074 | .0355  |
| 9    | -20.00 | -.0861 | .1378 | -.2984 | .0001  | -.0052 | .0195  |
| 10   | -15.00 | .2043  | .1147 | -.2843 | .0012  | -.0008 | -.0048 |
| 11   | -10.00 | .5736  | .1140 | -.2707 | .0013  | .0017  | .0090  |
| 12   | -5.00  | .9028  | .1543 | -.1891 | -.0012 | -.0006 | .0178  |
| 13   | -2.50  | 1.0482 | .1798 | -.1328 | -.0001 | -.0020 | .0293  |
| 14   | 0.00   | 1.1534 | .2064 | -.0826 | .0011  | -.0103 | .0308  |
| 15   | 2.51   | 1.0413 | .2352 | -.0379 | -.0023 | .0289  | -.0186 |
| 16   | 5.00   | .9176  | .2695 | -.0186 | .0014  | .0083  | .0076  |
| 17   | 10.01  | .9072  | .3684 | .0454  | -.0047 | -.0065 | .0109  |
| 18   | 15.01  | 1.0046 | .5486 | .0917  | .0048  | -.0170 | .0201  |
| 19   | 20.01  | .9934  | .6707 | .1676  | .0020  | .0021  | .0068  |
| 20   | 0.00   | 1.1626 | .2087 | -.0804 | .0010  | -.0104 | .0328  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 8    | -0.00  | 1.1734 | .2097 | -.0801 | .0016  | -.0074 | .0355  |
| 9    | -20.00 | -.0861 | .1378 | -.2984 | .0001  | -.0052 | .0195  |
| 10   | -15.00 | .2043  | .1147 | -.2843 | .0012  | -.0008 | -.0048 |
| 11   | -10.00 | .5736  | .1140 | -.2707 | .0013  | .0017  | .0090  |
| 12   | -5.00  | .9028  | .1543 | -.1891 | -.0012 | -.0006 | .0178  |
| 13   | -2.50  | 1.0482 | .1798 | -.1328 | -.0001 | -.0020 | .0293  |
| 14   | 0.00   | 1.1534 | .2064 | -.0826 | .0011  | -.0103 | .0308  |
| 15   | 2.51   | 1.0413 | .2352 | -.0379 | -.0023 | .0289  | -.0186 |
| 16   | 5.00   | .9176  | .2695 | -.0186 | .0014  | .0083  | .0076  |
| 17   | 10.01  | .9072  | .3684 | .0454  | -.0047 | -.0065 | .0109  |
| 18   | 15.01  | 1.0046 | .5486 | .0917  | .0048  | -.0170 | .0201  |
| 19   | 20.01  | .9934  | .6707 | .1676  | .0020  | .0021  | .0068  |
| 20   | 0.00   | 1.1626 | .2087 | -.0804 | .0010  | -.0104 | .0328  |

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RUN 62 CONFIG F P R W N T2

| IW<br>PT.<br>NO. | 15<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | IN<br>CLBAR<br>SQ-FT | DELA<br>CDBAR<br>SQ-FT | O<br>CDBAR<br>SQ-FT | IHT<br>CPMBAR<br>CU-FT | -<br>CYMBAR<br>CU-FT | DELE<br>CRMBAR<br>CU-FT | DEL<br>CYBAR<br>SQ-FT | DELSB<br>Q<br>PSF | V<br>KNOTS | RPM |
|------------------|--------------------|---------------------|----------------------|------------------------|---------------------|------------------------|----------------------|-------------------------|-----------------------|-------------------|------------|-----|
| 2                | 0                  | 0                   | 431.9                | 77.33                  | -271.               | 23.                    | -156.                | 12.98                   | 55.36                 | 129.03            | 0.         |     |
| 3                | 0                  | -20.0               | 393.5                | 89.37                  | -80.                | -485.                  | -477.                | -64.82                  | 54.76                 | 128.31            | 0.         |     |
| 4                | 0                  | -15.0               | 374.4                | 82.47                  | -188.               | -317.                  | -579.                | -36.12                  | 55.36                 | 129.03            | 0.         |     |
| 5                | 0                  | -10.0               | 402.7                | 77.78                  | -342.               | -168.                  | -266.                | -19.87                  | 54.87                 | 128.45            | 0.         |     |
| 6                | 0                  | -5.0                | 418.1                | 75.12                  | -242.               | -149.                  | -344.                | -1.80                   | 55.35                 | 129.01            | 0.         |     |
| 7                | 0                  | -2.5                | 423.6                | 76.45                  | -264.               | -76.                   | -375.                | 5.81                    | 55.08                 | 128.69            | 0.         |     |
| 8                | 0                  | 0                   | 432.8                | 77.74                  | -288.               | 33.                    | -177.                | 13.44                   | 54.48                 | 127.97            | 0.         |     |
| 9                | 0                  | 2.5                 | 430.4                | 78.03                  | -309.               | 128.                   | -130.                | 19.25                   | 54.87                 | 128.45            | 0.         |     |
| 12               | 0                  | 5.0                 | 434.6                | 78.26                  | -293.               | 203.                   | 25.                  | 23.43                   | 55.25                 | 128.89            | 0.         |     |
| 13               | 0                  | 10.0                | 394.3                | 76.08                  | -200.               | 308.                   | 372.                 | 28.55                   | 55.47                 | 129.16            | 0.         |     |
| 14               | 0                  | 15.0                | 405.6                | 81.63                  | -162.               | 425.                   | 298.                 | 49.46                   | 54.90                 | 128.47            | 0.         |     |
| 15               | 0                  | 20.0                | 381.6                | 88.28                  | -77.                | 489.                   | 370.                 | 69.79                   | 55.30                 | 128.95            | 0.         |     |
| 16               | 0                  | 0                   | 421.1                | 76.71                  | -262.               | 32.                    | -159.                | 15.15                   | 55.54                 | 129.24            | 0.         |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL      | CD     | CPM     | CYM     | CRM     | CY      |
|------|--------|---------|--------|---------|---------|---------|---------|
| 2    | 0.00   | 1.1672  | 0.2090 | -0.0873 | 0.0014  | -0.0094 | 0.0351  |
| 3    | -20.00 | 1.0634  | 0.2415 | -0.0258 | -0.0293 | -0.0288 | -0.1752 |
| 4    | -15.00 | 1.0118  | 0.2229 | -0.0606 | -0.0191 | -0.0350 | -0.0976 |
| 5    | -10.00 | 1.0885  | 0.2102 | -0.1103 | -0.0101 | -0.0160 | -0.0537 |
| 6    | -5.00  | 1.1300  | 0.2030 | -0.0781 | -0.0090 | -0.0208 | -0.0022 |
| 7    | -2.50  | 1.1450  | 0.2066 | -0.0852 | -0.0046 | -0.0226 | 0.0157  |
| 8    | 0.00   | 1.1697  | 0.2101 | -0.0929 | 0.0020  | -0.0107 | 0.0363  |
| 9    | 2.50   | 24.1899 | 3.8228 | 2.1903  | 9.5153  | 67.2267 | 1.5510  |
| 12   | 5.00   | 1.1746  | 0.2115 | -0.0946 | 0.0123  | 0.0015  | 0.0633  |
| 13   | 10.00  | 1.0657  | 0.2056 | -0.0645 | 0.0186  | 0.0225  | 0.0772  |
| 14   | 15.00  | 1.0963  | 0.2206 | -0.0521 | 0.0257  | 0.0180  | 0.1337  |
| 15   | 20.00  | 1.0314  | 0.2386 | -0.0250 | 0.0296  | 0.0224  | 0.1886  |
| 16   | 0.00   | 1.1381  | 0.2073 | -0.0846 | 0.0019  | -0.0096 | 0.0409  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB     | CDB     | CPMB    | CYMB    | CRMB    | CYB     |
|------|--------|---------|---------|---------|---------|---------|---------|
| 2    | 0.00   | 1.1672  | 0.2090  | -0.0873 | 0.0014  | -0.0094 | 0.0351  |
| 3    | -20.00 | 1.0634  | 0.1667  | 0.0286  | -0.0293 | -0.0254 | -0.2475 |
| 4    | -15.00 | 1.0118  | 0.1899  | -0.0100 | -0.0191 | -0.0308 | -0.1522 |
| 5    | -10.00 | 1.0885  | 0.1976  | -0.0937 | -0.0101 | -0.0122 | -0.0895 |
| 6    | -5.00  | 1.1300  | 0.2020  | -0.0681 | -0.0090 | -0.0194 | -0.0199 |
| 7    | -2.50  | 1.1450  | 0.2071  | -0.0799 | -0.0046 | -0.0219 | 0.0066  |
| 8    | 0.00   | 1.1697  | 0.2101  | -0.0929 | 0.0020  | -0.0107 | 0.0363  |
| 9    | 2.50   | 24.1899 | -1.9774 | *****   | 9.5153  | 51.7883 | 3.6207  |
| 12   | 5.00   | 1.1746  | 0.2052  | -0.0935 | 0.0123  | -0.0001 | 0.0816  |
| 13   | 10.00  | 1.0657  | 0.1890  | -0.0425 | 0.0186  | 0.0200  | 0.1119  |
| 14   | 15.00  | 1.0963  | 0.1783  | -0.0254 | 0.0257  | 0.0149  | 0.1864  |
| 15   | 20.00  | 1.0314  | 0.1593  | 0.0175  | 0.0296  | 0.0194  | 0.2591  |
| 16   | 0.00   | 1.1381  | 0.2073  | -0.0846 | 0.0019  | -0.0096 | 0.0409  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 57

RUN 63 CONFIG F P R W N T2

| IW<br>PT.<br>NO. | ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 25 DELTA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | - DELE<br>CPMBAR<br>CU-FT | - DELR<br>CYMBAR<br>CU-FT | - DELR<br>CRMBAR<br>CU-FT | - DELR<br>CYBAR<br>SQ-FT | DELSB<br>Q<br>PSF | -<br>V<br>KNOTS | RPM |
|------------------|--------------|---------------------|----------------------------|-------------------------|---------------------------|---------------------------|---------------------------|--------------------------|-------------------|-----------------|-----|
| 2                | 0            | 0                   | 559.9                      | 110.84                  | -524.                     | 27.                       | 50.                       | 2.75                     | 54.54             | 128.06          | 0.  |
| 3                | 0            | -20.0               | 478.7                      | 112.33                  | -201.                     | -379.                     | -670.                     | -53.89                   | 53.98             | 127.39          | 0.  |
| 4                | 0            | -15.0               | 455.2                      | 110.12                  | -435.                     | -189.                     | -1029.                    | -24.17                   | 53.98             | 127.38          | 0.  |
| 5                | 0            | -10.0               | 494.5                      | 106.59                  | -384.                     | -187.                     | -839.                     | -8.12                    | 54.14             | 127.57          | 0.  |
| 6                | 0            | -5.0                | 528.9                      | 108.37                  | -454.                     | -96.                      | -121.                     | 2.22                     | 55.25             | 128.90          | 0.  |
| 7                | 0            | -2.5                | 559.2                      | 111.09                  | -547.                     | -84.                      | -62.                      | -1.98                    | 55.19             | 128.82          | 0.  |
| 8                | 0            | 0                   | 542.6                      | 111.95                  | -555.                     | 23.                       | -24.                      | 5.14                     | 55.00             | 128.60          | 0.  |
| 9                | 0            | 2.5                 | 558.6                      | 111.57                  | -548.                     | 95.                       | 108.                      | 9.05                     | 55.35             | 129.02          | 0.  |
| 10               | 0            | 5.0                 | 554.5                      | 111.00                  | -531.                     | 179.                      | 175.                      | 13.48                    | 55.35             | 129.01          | 0.  |
| 11               | 0            | 10.0                | 537.3                      | 107.82                  | -442.                     | 275.                      | 319.                      | 25.89                    | 55.65             | 129.37          | 0.  |
| 12               | 0            | 15.0                | 518.2                      | 111.41                  | -364.                     | 372.                      | 530.                      | 40.97                    | 55.37             | 129.04          | 0.  |
| 13               | 0            | 20.0                | 485.2                      | 116.11                  | -236.                     | 387.                      | 630.                      | 61.87                    | 54.90             | 128.48          | 0.  |
| 14               | 0            | 0                   | 560.9                      | 111.51                  | -535.                     | 3.                        | -44.                      | 7.40                     | 55.23             | 128.87          | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.5133 | .2996 | -.1689 | .0016  | .0030  | .0074  |
| 3    | -20.00 | 1.2938 | .3036 | -.0647 | -.0229 | -.0405 | -.1456 |
| 4    | -15.00 | 1.2304 | .2976 | -.1402 | -.0114 | -.0621 | -.0653 |
| 5    | -10.00 | 1.3364 | .2881 | -.1239 | -.0113 | -.0507 | -.0219 |
| 6    | -5.00  | 1.4293 | .2929 | -.1465 | -.0058 | -.0073 | .0060  |
| 7    | -2.50  | 1.5113 | .3003 | -.1763 | -.0051 | -.0037 | -.0053 |
| 8    | 0.00   | 1.5205 | .3026 | -.1789 | .0014  | -.0045 | .0139  |
| 9    | 2.50   | 1.5096 | .3015 | -.1767 | .0057  | .0065  | .0245  |
| 10   | 5.00   | 1.4985 | .3000 | -.1711 | .0108  | .0105  | .0364  |
| 11   | 10.00  | 1.4521 | .2914 | -.1425 | .0166  | .0193  | .0700  |
| 12   | 15.00  | 1.4005 | .3011 | -.1175 | .0225  | .0320  | .1107  |
| 13   | 20.00  | 1.3113 | .3138 | -.0761 | .0234  | .0381  | .1672  |
| 14   | 0.00   | 1.5160 | .3014 | -.1725 | .0002  | -.0027 | .0200  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDL   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.5133 | .2996 | -.1689 | .0016  | .0030  | .0074  |
| 3    | -20.00 | 1.2938 | .2351 | .0135  | -.0229 | -.0339 | -.2411 |
| 4    | -15.00 | 1.2304 | .2704 | -.0492 | -.0114 | -.0532 | -.1405 |
| 5    | -10.00 | 1.3364 | .2798 | -.0748 | -.0113 | -.0458 | -.0719 |
| 6    | -5.00  | 1.4293 | .2923 | -.1425 | -.0058 | -.0049 | -.0197 |
| 7    | -2.50  | 1.5113 | .2997 | -.1752 | -.0051 | -.0023 | -.0185 |
| 8    | 0.00   | 1.5205 | .3026 | -.1789 | .0014  | -.0015 | -.0139 |
| 9    | 2.50   | 1.5096 | .3002 | -.1750 | .0057  | .0051  | .0376  |
| 10   | 5.00   | 1.4985 | .2957 | -.1656 | .0108  | .0077  | .0626  |
| 11   | 10.00  | 1.4521 | .2747 | -.1223 | .0166  | .0143  | .1197  |
| 12   | 15.00  | 1.4005 | .2620 | -.0690 | .0225  | .0252  | .1852  |
| 13   | 20.00  | 1.3113 | .2373 | -.0017 | .0234  | .0308  | .2648  |
| 14   | 0.00   | 1.5160 | .3014 | -.1725 | .0002  | -.0027 | .0200  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 58

RUN 64 CONFIG F P R W N T2

| PT. No. | 15 DELF ALPHA DEG | 25 DELA PSI DFG | 0 IHT CIBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | - DELE CYMBAR CU-FT | - DELR CRMBAR CU-FT | - DELSB CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-------------------|-----------------|-------------------|-------------|--------------|---------------------|---------------------|---------------------|-------|---------|-----|
| 2       | 0                 | 0               | 477.4             | 105.59      | -506.        | -85.                | .733.               | -14.47              | 55.55 | 129.25  | 0.  |
| 3       | -20.0             | 0               | 44.4              | 64.73       | -1296.       | 66.                 | 13.                 | 1.96                | 55.69 | 129.42  | 0.  |
| 4       | -15.0             | 0               | 182.5             | 57.98       | -1328.       | 85.                 | -34.                | -0.36               | 56.37 | 130.22  | 0.  |
| 5       | -10.0             | 0               | 323.0             | 66.63       | -1175.       | 65.                 | 42.                 | -4.01               | 56.03 | 129.82  | 0.  |
| 6       | -5.0              | 0               | 450.9             | 86.49       | -891.        | -20.                | 47.                 | 3.30                | 55.81 | 129.56  | 0.  |
| 7       | -2.5              | 0               | 426.4             | 98.09       | -725.        | 5.                  | -24.                | 5.10                | 56.16 | 129.98  | 0.  |
| 8       | -0                | 0               | 541.5             | 112.05      | -547.        | -0.                 | 30.                 | 3.80                | 55.52 | 129.22  | 0.  |
| 10      | 5.0               | 0               | 369.6             | 125.91      | -241.        | 24.                 | -2.                 | 2.20                | 55.74 | 129.48  | 0.  |
| 11      | 10.0              | 0               | 385.2             | 173.03      | -44.         | 12.                 | -313.               | 1.53                | 55.82 | 129.57  | 0.  |
| 12      | 15.0              | 0               | 388.3             | 231.00      | 110.         | 25.                 | -211.               | 2.34                | 55.34 | 129.00  | 0.  |
| 13      | 20.0              | 0               | 405.5             | 283.79      | 347.         | 92.                 | -70.                | -1.47               | 55.61 | 129.32  | 0.  |
| 14      | -0                | 0               | 555.8             | 111.55      | -538.        | -5.                 | 13.                 | 3.62                | 56.45 | 130.32  | 0.  |
| 15      | 2.5               | 0               | 426.9             | 115.56      | -310.        | -38.                | 579.                | -10.81              | 56.40 | 130.25  | 0.  |
| 16      | 5.0               | 0               | 375.2             | 126.76      | -224.        | 20.                 | 223.                | 1.94                | 56.08 | 129.88  | 0.  |
| 17      | -0                | 0               | 555.3             | 111.51      | -519.        | -7.                 | 63.                 | 4.48                | 56.22 | 130.05  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.2904 | .2854 | -.1631 | -.0051 | .0443  | -.0391 |
| 3    | -20.00 | .1199  | .1750 | -.4178 | .0040  | .0008  | .0053  |
| 4    | -15.00 | .4932  | .1567 | -.4283 | .0051  | -.0020 | -.0010 |
| 5    | -10.00 | .8729  | .1801 | -.3787 | .0039  | .0025  | -.0108 |
| 6    | -5.00  | 1.2187 | .2337 | -.2873 | -.0012 | .0028  | .0089  |
| 7    | -2.50  | 1.3632 | .2651 | -.2337 | .0003  | -.0015 | .0138  |
| 8    | -0.00  | 1.5175 | .3028 | -.1762 | -.0000 | .0018  | .0103  |
| 10   | 4.99   | .9989  | .3403 | -.0778 | .0015  | -.0001 | .0059  |
| 11   | 10.00  | 1.0410 | .4676 | -.0141 | .0007  | -.0189 | .0041  |
| 12   | 15.00  | 1.0495 | .6243 | .0354  | .0015  | -.0127 | .0063  |
| 13   | 20.00  | 1.0959 | .7670 | .1118  | .0055  | -.0042 | -.0040 |
| 14   | -0.00  | 1.5020 | .3015 | -.1735 | -.0003 | .0008  | .0098  |
| 15   | 2.50   | 1.1539 | .3123 | -.0998 | -.0023 | .0350  | -.0292 |
| 16   | 4.99   | 1.0140 | .3426 | -.0722 | .0012  | .0135  | .0053  |
| 17   | -0.00  | 1.5009 | .3014 | -.1674 | -.0005 | .0038  | .0121  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.2904 | .2854 | -.1631 | -.0051 | .0443  | -.0391 |
| 3    | -20.00 | .1199  | .1750 | -.4178 | .0040  | .0008  | .0053  |
| 4    | -15.00 | .4932  | .1567 | -.4283 | .0051  | -.0020 | -.0010 |
| 5    | -10.00 | .8729  | .1801 | -.3787 | .0039  | .0025  | -.0108 |
| 6    | -5.00  | 1.2187 | .2337 | -.2873 | -.0012 | .0028  | .0089  |
| 7    | -2.50  | 1.3632 | .2651 | -.2337 | .0003  | -.0015 | .0138  |
| 8    | -0.00  | 1.5175 | .3028 | -.1762 | -.0000 | .0018  | .0103  |
| 10   | 4.99   | .9989  | .3403 | -.0778 | .0015  | -.0001 | .0059  |
| 11   | 10.00  | 1.0410 | .4676 | -.0141 | .0007  | -.0189 | .0041  |
| 12   | 15.00  | 1.0495 | .6243 | .0354  | .0015  | -.0127 | .0063  |
| 13   | 20.00  | 1.0959 | .7670 | .1118  | .0055  | -.0042 | -.0040 |
| 14   | -0.00  | 1.5020 | .3015 | -.1735 | -.0003 | .0008  | .0098  |
| 15   | 2.50   | 1.1539 | .3123 | -.0998 | -.0023 | .0350  | -.0292 |
| 16   | 4.99   | 1.0140 | .3426 | -.0722 | .0012  | .0135  | .0053  |
| 17   | -0.00  | 1.5009 | .3014 | -.1674 | -.0005 | .0038  | .0121  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 59

RUN 65 CONFIG F P A W N T2

| PT. NO. | IW ALPHA DEG | DELTA PSI DEG | 25 DELTA CIBAR SQ-FT | 0 DELTA CDBAR SQ-FT | IHT CPMBAR CU-FT | - DELE CYMBAR CU-FT | - DELR CRMBAR CU-FT | - DELSB CYBAR SQ-FT | PSF   | V KNOTS | RPM |
|---------|--------------|---------------|----------------------|---------------------|------------------|---------------------|---------------------|---------------------|-------|---------|-----|
| 2       | 0            | 0             | 551.6                | 111.15              | -526.            | -17.                | 79.                 | 4.81                | 22.68 | 82.15   | 0.  |
| 3       | -10.0        | 0             | 324.0                | 68.02               | -1194.           | 90.                 | 51.                 | -4.64               | 22.73 | 82.25   | 0.  |
| 4       | -7.5         | 0             | 383.8                | 76.07               | -1052.           | 49.                 | 87.                 | -1.63               | 23.05 | 82.83   | 0.  |
| 5       | -5.0         | 0             | 445.2                | 87.41               | -893.            | 11.                 | 84.                 | .30                 | 22.90 | 82.56   | 0.  |
| 6       | -2.5         | 0             | 499.3                | 99.02               | -714.            | -9.                 | 80.                 | 3.27                | 22.91 | 82.58   | 0.  |
| 7       | 0            | 0             | 549.3                | 111.19              | -526.            | -4.                 | 37.                 | 4.63                | 22.80 | 82.38   | 0.  |
| 8       | 2.5          | 0             | 434.2                | 113.72              | -231.            | -28.                | 986.                | -11.16              | 22.89 | 82.53   | 0.  |
| 9       | 5.0          | 0             | 371.6                | 125.62              | -226.            | 33.                 | 167.                | 1.48                | 22.99 | 82.72   | 0.  |
| 10      | -10.0        | 0             | 319.5                | 67.23               | -1176.           | 79.                 | 83.                 | -4.77               | 52.12 | 125.13  | 0.  |
| 11      | -7.0         | 0             | 399.3                | 78.81               | -1027.           | 42.                 | 78.                 | -1.72               | 51.63 | 124.54  | 0.  |
| 12      | -5.0         | 0             | 444.9                | 87.38               | -898.            | 5.                  | 73.                 | .99                 | 51.68 | 124.59  | 0.  |
| 13      | -2.5         | 0             | 501.1                | 98.79               | -719.            | 0.                  | 86.                 | 4.92                | 51.91 | 124.88  | 0.  |
| 14      | 0            | 0             | 531.0                | 110.49              | -496.            | 60.                 | 102.                | 8.18                | 51.61 | 124.51  | 0.  |
| 15      | 5.0          | 0             | 349.2                | 125.61              | -226.            | 14.                 | 92.                 | 1.18                | 51.80 | 124.74  | 0.  |
| 16      | 2.5          | 0             | 423.4                | 114.53              | -398.            | -36.                | 347.                | -8.05               | 51.64 | 124.54  | 0.  |
| 17      | -10.0        | 0             | 311.3                | 67.85               | -1178.           | 63.                 | 102.                | -5.08               | 93.86 | 169.06  | 0.  |
| 18      | -7.5         | 0             | 371.6                | 76.05               | -1051.           | 24.                 | 72.                 | -.25                | 94.99 | 170.10  | 0.  |
| 19      | -5.0         | 0             | 426.9                | 85.65               | -880.            | -2.                 | 111.                | .61                 | 95.43 | 170.52  | 0.  |
| 20      | -2.5         | 0             | 462.4                | 94.86               | -691.            | -30.                | 196.                | -1.50               | 95.14 | 170.25  | 0.  |
| 21      | 0            | 0             | 463.7                | 103.87              | -463.            | -14.                | 75.                 | 5.87                | 94.52 | 169.67  | 0.  |
| 22      | 2.5          | 0             | 417.1                | 113.76              | -316.            | -26.                | 594.                | -1.04               | 94.75 | 169.88  | 0.  |
| 23      | 5.0          | 0             | 365.2                | 126.23              | -241.            | .8.                 | 161.                | 3.68                | 94.48 | 169.63  | 0.  |
| 24      | -2.5         | 0             | 427.2                | 94.65               | -676.            | -91.                | 227.                | -1.79               | 95.04 | 170.15  | 0.  |
| 25      | 0            | 0             | 444.5                | 105.47              | -505.            | -86.                | 62.                 | -.97                | 95.17 | 170.28  | 0.  |
| 26      | -2.5         | 0             | 422.8                | 93.90               | -669.            | -97.                | 247.                | -2.89               | 95.59 | 170.67  | 0.  |
| 27      | -5.0         | 0             | 380.4                | 83.69               | -848.            | -65.                | 184.                | -1.46               | 95.77 | 170.83  | 0.  |
| 28      | -2.5         | 0             | 429.1                | 94.88               | -668.            | -93.                | 299.                | -2.19               | 94.88 | 170.00  | 0.  |
| 29      | 0            | 0             | 455.5                | 105.33              | -474.            | -136.               | 96.                 | -3.49               | 52.66 | 125.78  | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CRM    | -CYM   | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | 0.00   | 1.4908 | .3004 | -.1697 | -.0010 | .0048 | .0130  |
| 3    | -10.00 | .8756  | .1838 | -.3850 | .0054  | .0031 | -.0126 |
| 4    | -7.51  | 1.0373 | .2056 | -.3392 | .0030  | .0052 | -.0044 |
| 5    | -5.00  | 1.2032 | .2362 | -.2880 | .0007  | .0051 | .0008  |
| 6    | -2.50  | 1.3495 | .2676 | -.2300 | -.0006 | .0048 | .0088  |
| 7    | 0.01   | 1.4847 | .3005 | -.1690 | -.0002 | .0022 | .0125  |
| 8    | 2.50   | 1.1735 | .3073 | -.0744 | -.0017 | .0596 | -.0302 |
| 9    | 5.00   | 1.0043 | .3395 | -.0730 | .0020  | .0101 | .0040  |
| 10   | -9.99  | .8634  | .1817 | -.3792 | .0048  | .0050 | -.0129 |
| 11   | -7.00  | 1.0791 | .2130 | -.3312 | .0025  | .0047 | -.0046 |
| 12   | -5.00  | 1.2023 | .2362 | -.2895 | .0003  | .0044 | .0027  |
| 13   | -2.51  | 1.3544 | .2670 | -.2317 | .0000  | .0052 | .0133  |
| 14   | 0.00   | 1.4352 | .2986 | -.1598 | .0036  | .0062 | .0221  |
| 15   | 5.00   | .9979  | .3395 | -.0727 | .0008  | .0056 | .0032  |
| 16   | 2.50   | 1.1443 | .3095 | -.1283 | -.0022 | .0209 | -.0218 |
| 17   | -10.01 | .8413  | .1834 | -.3799 | .0038  | .0062 | -.0137 |
| 18   | -7.51  | 1.0043 | .2055 | -.3389 | .0014  | .0043 | -.0007 |
| 19   | -5.00  | 1.1538 | .2315 | -.2838 | -.0001 | .0067 | .0016  |
| 20   | -2.50  | 1.2498 | .2564 | -.2227 | -.0018 | .0118 | -.0041 |
| 21   | -0.00  | 1.2532 | .2807 | -.1492 | -.0008 | .0045 | .0159  |

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|    |       |        |       |        |        |       |        |
|----|-------|--------|-------|--------|--------|-------|--------|
| 22 | 2.51  | 1.1272 | .3061 | -.1019 | -.0016 | .0359 | -.0028 |
| 23 | 5.00  | .9870  | .3411 | -.0778 | .0005  | .0097 | .0099  |
| 24 | -2.50 | 1.1546 | .2558 | -.2181 | -.0055 | .0137 | -.0048 |
| 25 | .00   | 1.2013 | .2851 | -.1629 | -.0052 | .0038 | -.0026 |
| 26 | -2.50 | 1.1426 | .2538 | -.2156 | -.0058 | .0149 | -.0078 |
| 27 | -5.01 | 1.0280 | .2262 | -.2733 | -.0039 | .0111 | -.0039 |
| 28 | -2.51 | 1.1597 | .2564 | -.2154 | -.0056 | .0181 | -.0059 |
| 29 | .00   | 1.2311 | .2847 | -.1530 | -.0082 | .0058 | -.0094 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYA    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | 1.4908 | .3004 | -.1697 | -.0010 | .0048 | .0130  |
| 3    | -10.00 | .8756  | .1838 | -.3850 | .0054  | .0031 | -.0126 |
| 4    | -7.51  | 1.0373 | .2056 | -.3392 | .0030  | .0052 | -.0044 |
| 5    | -5.00  | 1.2032 | .2362 | -.2880 | .0007  | .0051 | .0008  |
| 6    | -2.50  | 1.3495 | .2676 | -.2300 | -.0006 | .0048 | .0088  |
| 7    | -.01   | 1.4847 | .3005 | -.1690 | -.0002 | .0022 | .0125  |
| 8    | 2.50   | 1.1735 | .3073 | -.0744 | -.0017 | .0596 | -.0302 |
| 9    | 5.00   | 1.0043 | .3395 | -.0730 | .0020  | .0101 | .0040  |
| 10   | -9.99  | .8634  | .1817 | -.3792 | .0048  | .0050 | -.0129 |
| 11   | -7.00  | 1.0791 | .2130 | -.3312 | .0025  | .0047 | -.0046 |
| 12   | -5.00  | 1.2023 | .2362 | -.2895 | .0003  | .0044 | .0027  |
| 13   | -2.51  | 1.3544 | .2670 | -.2317 | .0000  | .0052 | .0133  |
| 14   | .00    | 1.4352 | .2986 | -.1598 | .0036  | .0062 | .0221  |
| 15   | 5.00   | .9979  | .3395 | -.0727 | .0008  | .0056 | .0032  |
| 16   | 2.50   | 1.1443 | .3095 | -.1283 | -.0022 | .0209 | -.0218 |
| 17   | -10.01 | .8413  | .1834 | -.3799 | .0038  | .0062 | -.0137 |
| 18   | -7.51  | 1.0043 | .2055 | -.3389 | .0014  | .0043 | -.0007 |
| 19   | -5.00  | 1.1538 | .2315 | -.2838 | -.0001 | .0067 | .0016  |
| 20   | -2.50  | 1.2498 | .2564 | -.2227 | -.0018 | .0118 | -.0041 |
| 21   | -.00   | 1.2532 | .2807 | -.1492 | -.0008 | .0045 | .0159  |
| 22   | 2.51   | 1.1272 | .3061 | -.1019 | -.0016 | .0359 | -.0028 |
| 23   | 5.00   | .9870  | .3411 | -.0778 | .0005  | .0097 | .0099  |
| 24   | -2.50  | 1.1546 | .2558 | -.2181 | -.0055 | .0137 | -.0048 |
| 25   | .00    | 1.2013 | .2851 | -.1629 | -.0052 | .0038 | -.0026 |
| 26   | -2.50  | 1.1426 | .2538 | -.2156 | -.0058 | .0149 | -.0078 |
| 27   | -5.01  | 1.0280 | .2262 | -.2733 | -.0039 | .0111 | -.0039 |
| 28   | -2.51  | 1.1597 | .2564 | -.2154 | -.0056 | .0181 | -.0059 |
| 29   | .00    | 1.2311 | .2847 | -.1530 | -.0082 | .0058 | -.0094 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 66 CONFIG F P R W N T2

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 25 DELF<br>PSI<br>DEG | 25 DELA<br>CIBAR<br>SQ-FT | 0 DELA<br>CDBAR<br>SQ-FT | 0 IHT<br>CPMBAR<br>CU-FT | - DELE<br>CYMBAR<br>CU-FT | - DELR<br>CRMBAR<br>CU-FT | - DELS<br>CYBAR<br>SQ-FT | DELSB<br>Q<br>PSF | V<br>KNOTS | RPM |
|------------------|-------------------------|-----------------------|---------------------------|--------------------------|--------------------------|---------------------------|---------------------------|--------------------------|-------------------|------------|-----|
| 2                | 0                       | 0                     | 471.5                     | 110.43                   | -529.                    | -41.                      | -161.                     | 1.97                     | 91.71             | 167.07     | 0.  |
| 3                | -10.0                   | 0                     | 311.9                     | 67.33                    | -1173.                   | 28.                       | 86.                       | -2.01                    | 94.68             | 169.83     | 0.  |
| 4                | -7.5                    | 0                     | 354.9                     | 76.00                    | -1043.                   | -26.                      | 132.                      | -5.65                    | 94.67             | 169.82     | 0.  |
| 5                | -5.0                    | 0                     | 405.1                     | 86.66                    | -864.                    | -84.                      | 349.                      | -7.93                    | 94.92             | 170.05     | 0.  |
| 6                | -2.5                    | 0                     | 447.7                     | 98.37                    | -706.                    | -120.                     | 248.                      | -7.74                    | 94.13             | 169.32     | 0.  |
| 7                | 0                       | 0                     | 464.0                     | 111.19                   | -519.                    | -51.                      | 104.                      | -1.15                    | 94.39             | 169.56     | 0.  |
| 8                | 2.5                     | 0                     | 463.8                     | 124.15                   | -340.                    | -59.                      | 166.                      | -1.20                    | 93.99             | 169.19     | 0.  |
| 9                | 5.0                     | 0                     | 434.0                     | 133.01                   | -201.                    | -45.                      | -561.                     | 13.52                    | 93.73             | 168.94     | 0.  |
| 10               | 0                       | 0                     | 450.6                     | 110.54                   | -507.                    | -66.                      | 125.                      | -2.26                    | 94.83             | 169.96     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.2742 | .2984 | -.1704 | -.0025 | -.0097 | .0053  |
| 3    | -10.00 | .8430  | .1820 | -.3783 | .0017  | .0052  | -.0054 |
| 4    | -7.50  | .9592  | .2054 | -.3364 | -.0015 | .0080  | -.0153 |
| 5    | -5.00  | 1.0948 | .2342 | -.2787 | -.0050 | .0211  | -.0214 |
| 6    | -2.50  | 1.2101 | .2659 | -.2275 | -.0072 | .0150  | -.0209 |
| 7    | 0.00   | 1.2271 | .3005 | -.1674 | -.0031 | .0063  | -.0031 |
| 8    | 2.50   | 1.3074 | .3355 | -.1095 | -.0035 | .0100  | -.0032 |
| 9    | 5.00   | 1.1730 | .3595 | -.0650 | -.0027 | -.0339 | .0365  |
| 10   | 0.00   | 1.2177 | .2988 | -.1634 | -.0040 | .0076  | -.0061 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.2742 | .2984 | -.1704 | -.0025 | -.0097 | .0053  |
| 3    | -10.00 | .8430  | .1820 | -.3783 | .0017  | .0052  | -.0054 |
| 4    | -7.50  | .9592  | .2054 | -.3364 | -.0015 | .0080  | -.0153 |
| 5    | -5.00  | 1.0948 | .2342 | -.2787 | -.0050 | .0211  | -.0214 |
| 6    | -2.50  | 1.2101 | .2659 | -.2275 | -.0072 | .0150  | -.0209 |
| 7    | 0.00   | 1.2271 | .3005 | -.1674 | -.0031 | .0063  | -.0031 |
| 8    | 2.50   | 1.3074 | .3355 | -.1095 | -.0035 | .0100  | -.0032 |
| 9    | 5.00   | 1.1730 | .3595 | -.0650 | -.0027 | -.0339 | .0365  |
| 10   | 0.00   | 1.2177 | .2988 | -.1634 | -.0040 | .0076  | -.0061 |

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RUN 67 CONFIG F P R W N T2

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | PSI<br>DFG | 25 DELA<br>CLBAR<br>SQ-FT | 18 IHT<br>CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | - DELE<br>CYMBAR<br>CU-FT | - DELR<br>CRMBAR<br>CU-FT | - DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM |
|------------------|-------------------------|------------|---------------------------|--------------------------|-----------------|---------------------------|---------------------------|---------------------------|----------|------------|-----|
| 2                | 0                       | 0          | 544.9                     | 133.51                   | -593.           | 5.                        | 307.                      | -1.33                     | 53.98    | 127.41     | 0.  |
| 4                | -20.0                   | 0          | 102.3                     | 73.18                    | -1475.          | 74.                       | 64.                       | -4.96                     | 55.58    | 129.31     | 0.  |
| 5                | -15.0                   | 0          | 262.1                     | 70.63                    | -1549.          | 114.                      | 11.                       | -5.22                     | 55.51    | 129.23     | 0.  |
| 6                | -10.0                   | 0          | 389.0                     | 82.64                    | -1363.          | 76.                       | 61.                       | -4.86                     | 55.39    | 129.09     | 0.  |
| 7                | -5.0                    | 0          | 498.9                     | 104.49                   | -1027.          | 2.                        | 16.                       | 1.11                      | 55.38    | 129.08     | 0.  |
| 8                | -2.0                    | 0          | 524.2                     | 120.46                   | -785.           | -109.                     | 331.                      | -10.20                    | 55.11    | 128.76     | 0.  |
| 9                | 0                       | 0          | 521.2                     | 131.58                   | -625.           | -50.                      | 196.                      | -3.74                     | 55.63    | 129.36     | 0.  |
| 10               | 2.5                     | 0          | 536.8                     | 147.06                   | -446.           | -49.                      | 144.                      | -3.33                     | 55.25    | 128.92     | 0.  |
| 11               | 5.0                     | 0          | 400.2                     | 147.85                   | -340.           | -2.                       | 119.                      | 3.69                      | 55.41    | 129.11     | 0.  |
| 12               | 10.0                    | 0          | 391.3                     | 207.06                   | -176.           | -66.                      | -229.                     | -.06                      | 55.02    | 128.65     | 0.  |
| 13               | 15.0                    | 0          | 416.4                     | 255.32                   | 62.             | 63.                       | -88.                      | -1.05                     | 55.06    | 128.69     | 0.  |
| 14               | 20.0                    | 0          | 420.8                     | 305.59                   | 302.            | 103.                      | 35.                       | -1.30                     | 55.16    | 128.80     | 0.  |
| 15               | 0                       | 0          | 520.6                     | 132.35                   | -626.           | -49.                      | 214.                      | -3.51                     | 55.37    | 129.06     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | -.3249 | .2561 | 1.6681 | .0031  | -.0042 | .0002  |
| 4    | -20.01 | .2766  | .1978 | -.4754 | .0045  | .0038  | -.0134 |
| 5    | -14.99 | .7084  | .1909 | -.4993 | .0069  | .0007  | -.0141 |
| 6    | -10.01 | 1.0514 | .2233 | -.4393 | .0046  | .0037  | -.0131 |
| 7    | -5.02  | 1.3485 | .2824 | -.3312 | .0001  | .0010  | .0030  |
| 8    | -1.99  | 1.4169 | .3256 | -.2531 | -.0066 | .0200  | -.0276 |
| 9    | .01    | 1.4085 | .3556 | -.2016 | -.0030 | .0119  | -.0101 |
| 10   | 2.50   | 1.4508 | .3975 | -.1438 | -.0030 | .0087  | -.0090 |
| 11   | 5.02   | 1.0816 | .3996 | -.1097 | -.0001 | .0072  | .0100  |
| 12   | 10.02  | 1.0577 | .5596 | -.0567 | -.0040 | -.0138 | -.0002 |
| 13   | 14.99  | 1.1255 | .6900 | .0200  | .0038  | -.0053 | -.0028 |
| 14   | 20.03  | 1.1372 | .8259 | .0972  | .0062  | .0021  | -.0035 |
| 15   | .01    | 1.4069 | .3577 | -.2019 | -.0030 | .0130  | -.0095 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | -.3249 | .2561 | 1.6681 | .0031  | -.0042 | .0002  |
| 4    | -20.01 | .2766  | .1978 | -.4754 | .0045  | .0038  | -.0134 |
| 5    | -14.99 | .7084  | .1909 | -.4993 | .0069  | .0007  | -.0141 |
| 6    | -10.01 | 1.0514 | .2233 | -.4393 | .0046  | .0037  | -.0131 |
| 7    | -5.02  | 1.3485 | .2824 | -.3312 | .0001  | .0010  | .0030  |
| 8    | -1.99  | 1.4169 | .3256 | -.2531 | -.0066 | .0200  | -.0276 |
| 9    | .01    | 1.4085 | .3556 | -.2016 | -.0030 | .0119  | -.0101 |
| 10   | 2.50   | 1.4508 | .3975 | -.1438 | -.0030 | .0087  | -.0090 |
| 11   | 5.02   | 1.0816 | .3996 | -.1097 | -.0001 | .0072  | .0100  |
| 12   | 10.02  | 1.0577 | .5596 | -.0567 | -.0040 | -.0138 | -.0002 |
| 13   | 14.99  | 1.1255 | .6900 | .0200  | .0038  | -.0053 | -.0028 |
| 14   | 20.03  | 1.1372 | .8259 | .0972  | .0062  | .0021  | -.0035 |
| 15   | .01    | 1.4069 | .3577 | -.2019 | -.0030 | .0130  | -.0095 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 68 CONFIG F P R W N T2

| PT. NO. | 15 DELF ALPHA DEG | PSI DEG | 25 DELA CLBAR SQ-FT | 18 DELA CDBAR SQ-FT | IHT CPMBAR CU-FT | - DELE CYMBAR CU-FT | - DELR CRMBAR CU-FT | - DELSB CYBAR SQ-FT | PSF   | V KNOTS | RPM |
|---------|-------------------|---------|---------------------|---------------------|------------------|---------------------|---------------------|---------------------|-------|---------|-----|
| 2       | 0                 | 0       | 520.9               | 132.56              | -653             | -44                 | 89                  | -1.78               | 55.57 | 129.30  | 0   |
| 3       | 0                 | -20.0   | 500.2               | 135.58              | -205             | -258                | -902                | -36.23              | 55.76 | 129.52  | 0   |
| 4       | 0                 | -15.0   | 530.0               | 137.41              | -890             | 15                  | -316                | -26.96              | 55.85 | 129.63  | 0   |
| 5       | 0                 | -10.0   | 517.8               | 128.23              | -540             | -241                | -436                | -13.19              | 55.79 | 129.54  | 0   |
| 6       | 0                 | -5.0    | 513.2               | 130.56              | -680             | 195                 | 735                 | -20.07              | 56.17 | 130.00  | 0   |
| 7       | 0                 | -2.5    | 520.3               | 132.12              | -674             | -127                | -46                 | -4.39               | 55.85 | 129.63  | 0   |
| 8       | 0                 | 0       | 523.9               | 132.57              | -650             | -56                 | 92                  | -4.15               | 55.81 | 129.58  | 0   |
| 9       | 0                 | 2.5     | 529.3               | 131.35              | -622             | 15                  | 403                 | -2.20               | 55.83 | 129.60  | 0   |
| 10      | 0                 | 5.0     | 534.2               | 128.87              | -626             | 38                  | 388                 | -1.83               | 55.86 | 129.64  | 0   |
| 11      | 0                 | 10.0    | 524.0               | 126.95              | -458             | 119                 | 872                 | 3.17                | 55.94 | 129.73  | 0   |
| 12      | 0                 | 15.0    | 495.8               | 127.48              | -254             | 185                 | 1203                | 16.96               | 56.23 | 130.07  | 0   |
| 13      | 0                 | 20.0    | 477.4               | 132.71              | -160             | 247                 | 1065                | 34.76               | 55.95 | 129.74  | 0   |
| 14      | 0                 | -15.0   | 528.5               | 130.55              | -362             | -245                | -816                | -19.64              | 55.68 | 129.43  | 0   |
| 15      | 0                 | -5.0    | 519.8               | 131.43              | -627             | -193                | -234                | -6.01               | 55.57 | 129.29  | 0   |
| 16      | 0                 | 0       | 517.0               | 131.61              | -650             | -58                 | 4                   | -3.17               | 55.88 | 129.66  | 0   |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.4078 | .3583 | -.2107 | -.0027 | .0054  | -.0048 |
| 3    | -20.00 | 1.3518 | .3664 | -.0662 | -.0156 | -.0545 | -.0979 |
| 4    | -15.00 | 1.4325 | .3714 | -.2868 | .0009  | -.0191 | -.0729 |
| 5    | -10.00 | 1.3995 | .3466 | -.1740 | -.0145 | -.0264 | -.0356 |
| 6    | -5.00  | 1.3871 | .3529 | -.2193 | .0118  | .0444  | -.0543 |
| 7    | -2.50  | 1.4062 | .3571 | -.2172 | -.0077 | -.0028 | -.0119 |
| 8    | .00    | 1.4159 | .3583 | -.2096 | -.0034 | .0056  | -.0112 |
| 9    | 2.50   | 1.4306 | .3550 | -.2004 | .0009  | .0243  | -.0059 |
| 10   | 5.00   | 1.4437 | .3483 | -.2019 | .0023  | .0234  | -.0049 |
| 11   | 10.00  | 1.4161 | .3431 | -.1477 | .0072  | .0527  | .0086  |
| 12   | 15.00  | 1.3399 | .3446 | -.0817 | .0112  | .0726  | .0458  |
| 13   | 20.00  | 1.2903 | .3587 | -.0517 | .0149  | .0643  | .0940  |
| 14   | -15.00 | 1.4283 | .3528 | -.1167 | -.0148 | -.0493 | -.0531 |
| 15   | -5.00  | 1.4050 | .3552 | -.2020 | -.0117 | -.0141 | -.0162 |
| 16   | .00    | 1.3973 | .3557 | -.2095 | -.0035 | .0002  | -.0086 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.4078 | .3583 | -.2107 | -.0027 | .0054  | -.0048 |
| 3    | -20.00 | 1.3518 | .3105 | .0377  | -.0156 | -.0469 | -.2178 |
| 4    | -15.00 | 1.4325 | .3397 | -.2505 | .0009  | -.0044 | -.1669 |
| 5    | -10.00 | 1.3995 | .3350 | -.1468 | -.0145 | -.0203 | -.0956 |
| 6    | -5.00  | 1.3871 | .3467 | -.2392 | .0118  | .0478  | -.0849 |
| 7    | -2.50  | 1.4062 | .3562 | -.2163 | -.0077 | -.0010 | -.0275 |
| 8    | .00    | 1.4159 | .3583 | -.2096 | -.0034 | .0056  | -.0112 |
| 9    | 2.50   | 1.4306 | .3549 | -.1945 | .0009  | .0227  | .0096  |
| 10   | 5.00   | 1.4437 | .3474 | -.1902 | .0023  | .0280  | .0256  |
| 11   | 10.00  | 1.4161 | .3364 | -.0964 | .0072  | .0470  | .0683  |
| 12   | 15.00  | 1.3399 | .3208 | .0219  | .0112  | .0662  | .1338  |
| 13   | 20.00  | 1.2903 | .3046 | .0694  | .0149  | .0571  | .2114  |
| 14   | -15.00 | 1.4283 | .3269 | -.0443 | -.0148 | -.0419 | -.1430 |
| 15   | -5.00  | 1.4050 | .3524 | -.1947 | -.0117 | -.0107 | -.0473 |
| 16   | .00    | 1.3973 | .3557 | -.2095 | -.0035 | .0002  | -.0086 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 69 CONFIG F P R W N T2

| PT. NO. | IW ALPHA DEG | 15 DELK PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | O IHT CU-FT | - DELE CYMBAR CU-FT | - DELR CRMBAR CU-FT | - DELSB Q SQ-FT | - V KNOTS | RPM    |    |
|---------|--------------|-----------------|-------------------|-------------------|-------------|---------------------|---------------------|-----------------|-----------|--------|----|
| 2       | 0            | 0               | 328.0             | 65.24             | -178.       | 103.                | -91.                | 2.64            | 55.43     | 129.13 | 0. |
| 3       | -20.0        | 0               | -68.8             | 51.15             | -843.       | -22.                | -122.               | 7.98            | 55.89     | 129.67 | 0. |
| 4       | -15.0        | 0               | 19.1              | 37.99             | -767.       | 31.                 | -68.                | -1.04           | 55.54     | 129.26 | 0. |
| 5       | -10.0        | 0               | 136.6             | 33.08             | -698.       | 38.                 | 40.                 | -2.87           | 55.85     | 129.62 | 0. |
| 6       | -5.0         | 0               | 249.6             | 45.73             | -449.       | -13.                | 109.                | -3.11           | 55.80     | 129.56 | 0. |
| 7       | -2.5         | 0               | 291.1             | 54.65             | -313.       | -43.                | 51.                 | .43             | 55.97     | 129.76 | 0. |
| 8       | 0            | 0               | 329.1             | 66.72             | -158.       | -21.                | 125.                | -1.48           | 55.29     | 128.96 | 0. |
| 9       | 2.5          | 0               | 360.3             | 78.60             | -13.        | 3.                  | 125.                | -2.69           | 55.66     | 129.39 | 0. |
| 10      | 5.0          | 0               | 341.9             | 90.95             | 46.         | -54.                | -199.               | 6.78            | 55.30     | 128.97 | 0. |
| 11      | 10.0         | 0               | 350.9             | 121.96            | 215.        | -3.                 | -1.                 | 1.71            | 55.74     | 129.49 | 0. |
| 12      | 15.0         | 0               | 350.4             | 186.28            | 381.        | 93.                 | -228.               | .18             | 55.35     | 129.03 | 0. |
| 13      | 20.0         | 0               | 367.7             | 231.43            | 598.        | 56.                 | -70.                | -1.97           | 55.46     | 129.16 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .8866  | .1763 | -.0574 | .0062  | -.0055 | .0071  |
| 3    | -20.00 | -.1860 | .1382 | -.2717 | -.0014 | -.0074 | .0216  |
| 4    | -15.00 | .0516  | .1027 | -.2472 | .0019  | -.0041 | -.0028 |
| 5    | -10.00 | .3693  | .0894 | -.2249 | .0023  | .0024  | -.0077 |
| 6    | -4.98  | .6745  | .1236 | -.1449 | -.0008 | .0066  | -.0084 |
| 7    | -2.49  | .7868  | .1477 | -.1010 | -.0026 | .0031  | .0012  |
| 8    | 0.00   | .8894  | .1803 | -.0508 | -.0013 | .0075  | -.0040 |
| 9    | 2.48   | .9739  | .2124 | -.0043 | .0002  | .0075  | -.0073 |
| 10   | 5.04   | .9241  | .2458 | .0147  | -.0033 | -.0120 | .0183  |
| 11   | 10.00  | .8402  | .3296 | .0694  | -.0002 | -.0001 | .0046  |
| 12   | 14.99  | .9470  | .5035 | .1230  | .0056  | -.0137 | .0005  |
| 13   | 20.00  | .8776  | .1828 | -.4188 | .0004  | .0011  | -.0015 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .8866  | .1763 | -.0574 | .0062  | -.0055 | .0071  |
| 3    | -20.00 | -.1860 | .1382 | -.2717 | -.0014 | -.0074 | .0216  |
| 4    | -15.00 | .0516  | .1027 | -.2472 | .0019  | -.0041 | -.0028 |
| 5    | -10.00 | .3693  | .0894 | -.2249 | .0023  | .0024  | -.0077 |
| 6    | -4.98  | .6745  | .1236 | -.1449 | -.0008 | .0066  | -.0084 |
| 7    | -2.49  | .7868  | .1477 | -.1010 | -.0026 | .0031  | .0012  |
| 8    | 0.00   | .8894  | .1803 | -.0508 | -.0013 | .0075  | -.0040 |
| 9    | 2.48   | .9739  | .2124 | -.0043 | .0002  | .0075  | -.0073 |
| 10   | 5.04   | .9241  | .2458 | .0147  | -.0033 | -.0120 | .0183  |
| 11   | 10.00  | .8402  | .3296 | .0694  | -.0002 | -.0001 | .0046  |
| 12   | 14.99  | .9470  | .5035 | .1230  | .0056  | -.0137 | .0005  |
| 13   | 20.00  | .8776  | .1828 | -.4188 | .0004  | .0011  | -.0015 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 65

RUN 70 CONFIG F P R W N T2

| PT. NO. | 15 DELF ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA INT CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM |
|---------|-------------------|---------------|-------------------|-------------------|------------------------|--------------------|--------------------|-------------------|-------------|---------------|-----|
| 2       | 0                 | 0             | 326.0             | 66.86             | -176.                  | 3.                 | -1.                | 1.10              | 55.59       | 129.32        | 0.  |
| 4       | 0                 | -15.0         | 311.9             | 77.49             | -674.                  | -87.               | 365.               | -53.84            | 56.19       | 130.02        | 0.  |
| 5       | 0                 | -10.0         | 314.5             | 72.69             | -620.                  | 37.                | 561.               | -39.06            | 56.16       | 129.98        | 0.  |
| 7       | 0                 | -2.5          | 325.3             | 66.70             | -172.                  | -96.               | 14.                | -7.50             | 55.86       | 129.63        | 0.  |
| 8       | 0                 | -20.0         | 297.8             | 77.76             | 36.                    | -472.              | -434.              | -60.47            | 56.33       | 130.18        | 0.  |
| 9       | 0                 | -5.0          | 324.9             | 66.38             | -154.                  | -188.              | 40.                | -13.35            | 56.13       | 129.95        | 0.  |
| 10      | 0                 | -2.5          | 324.3             | 66.47             | -163.                  | -119.              | -17.               | -7.31             | 55.91       | 129.69        | 0.  |
| 11      | 0                 | 0             | 325.0             | 66.32             | -175.                  | 3.                 | 20.                | -1.89             | 55.94       | 129.72        | 0.  |
| 12      | 0                 | 2.5           | 327.2             | 65.94             | -150.                  | 78.                | 250.               | 5.72              | 55.98       | 129.77        | 0.  |
| 13      | 0                 | 5.0           | 328.7             | 65.17             | -134.                  | 142.               | 297.               | 11.79             | 55.76       | 129.51        | 0.  |
| 14      | 0                 | 10.0          | 323.6             | 64.13             | -44.                   | 272.               | 535.               | 23.38             | 56.24       | 130.08        | 0.  |
| 15      | 0                 | 15.0          | 307.1             | 70.57             | -181.                  | 481.               | 972.               | 36.08             | 55.60       | 129.32        | 0.  |
| 16      | 0                 | 20.0          | 281.2             | 78.63             | -141.                  | 499.               | 829.               | 55.09             | 56.02       | 129.82        | 0.  |
| 17      | 0                 | -15.0         | 311.8             | 69.88             | -87.                   | -436.              | -354.              | -45.20            | 56.07       | 129.87        | 0.  |
| 18      | 0                 | -10.0         | 318.9             | 66.29             | -121.                  | -341.              | -158.              | -27.91            | 56.02       | 129.81        | 0.  |
| 19      | 0                 | 0             | 324.6             | 65.73             | -152.                  | -19.               | 157.               | -55               | 55.94       | 129.72        | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .8097 | .2121 | -.6032 | .0066  | -.0687 | -.1608 |
| 4    | -15.00 | .8430 | .2094 | -.2173 | -.0053 | .0220  | -.1455 |
| 5    | -10.00 | .8740 | .1775 | -.7634 | -.0018 | -.0146 | -.0355 |
| 7    | -2.50  | .8792 | .1803 | -.0553 | -.0058 | .0009  | -.0203 |
| 8    | -20.00 | .8050 | .2102 | .0115  | -.0285 | -.0262 | -.1634 |
| 9    | -5.00  | .8782 | .1794 | -.0496 | -.0114 | -.0024 | -.0361 |
| 10   | -2.50  | .8765 | .1796 | -.0526 | -.0072 | -.0010 | -.0198 |
| 11   | .00    | .8784 | .1792 | -.0564 | -.0002 | .0012  | -.0051 |
| 12   | 2.50   | .8842 | .1782 | -.0482 | .0047  | .0151  | .0155  |
| 13   | 5.00   | .8882 | .1761 | -.0433 | .0086  | .0179  | .0319  |
| 14   | 10.00  | .8745 | .1733 | -.0141 | .0164  | .0323  | .0632  |
| 15   | 15.00  | .8301 | .1907 | -.0582 | .0291  | .0587  | .0975  |
| 16   | 20.00  | .7599 | .2125 | -.0453 | .0301  | .0501  | .1489  |
| 17   | -15.00 | .8428 | .1889 | -.0281 | -.0263 | -.0214 | -.1222 |
| 18   | -10.00 | .8619 | .1792 | -.0389 | -.0206 | -.0096 | -.0754 |
| 19   | .00    | .8772 | .1776 | -.0489 | -.0011 | .0095  | -.0015 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .8097 | .1439 | -.4405 | .0066  | -.0257 | -.2239 |
| 4    | -15.00 | .8430 | .1644 | -.2404 | -.0053 | .0319  | -.1949 |
| 5    | -10.00 | .8740 | .1737 | -.7536 | -.0018 | -.0021 | -.0509 |
| 7    | -2.50  | .8792 | .1792 | -.0554 | -.0058 | .0013  | -.0282 |
| 8    | -20.00 | .8050 | .1412 | .0589  | -.0285 | -.0253 | -.2257 |
| 9    | -5.00  | .8782 | .1756 | -.0482 | -.0114 | -.0016 | -.0517 |
| 10   | -2.50  | .8765 | .1786 | -.0523 | -.0072 | -.0006 | -.0279 |
| 11   | .00    | .8784 | .1792 | -.0564 | -.0002 | .0012  | -.0051 |
| 12   | 2.50   | .8842 | .1774 | -.0447 | .0047  | .0147  | .0233  |
| 13   | 5.00   | .8882 | .1727 | -.0348 | .0086  | .0172  | .0472  |
| 14   | 10.00  | .8745 | .1596 | .0162  | .0164  | .0313  | .0924  |
| 15   | 15.00  | .8301 | .1588 | .0253  | .0291  | .0539  | .1438  |
| 16   | 20.00  | .7599 | .1484 | .0492  | .0301  | .0441  | .2128  |

|    |        |       |       |        |        |        |        |
|----|--------|-------|-------|--------|--------|--------|--------|
| 17 | -15.00 | .8428 | .1506 | .0026  | -.0263 | -.0193 | -.1671 |
| 18 | -10.00 | .8619 | .1633 | -.0294 | -.0206 | -.0081 | -.1055 |
| 19 | .00    | .8772 | .1776 | -.0489 | -.0011 | .0095  | -.0015 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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PG 6

RUN 71 CONFIG F P R W N T2

| IW<br>PT.<br>NO. | IS<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | n DELTA<br>CLBAR<br>SQ-FT | O IHT<br>CDBAR<br>SQ-FT | - DELE<br>CPMBAR<br>CU-FT | - DELR<br>CYMBAR<br>CU-FT | - DELSB<br>CRMBAR<br>CU-FT | -<br>CYBAR<br>SQ-FT | -<br>Q<br>PSF | -<br>V<br>KNOTS | RPM |
|------------------|--------------------|---------------------|---------------------------|-------------------------|---------------------------|---------------------------|----------------------------|---------------------|---------------|-----------------|-----|
| 6                | 4.0                | .0                  | 340.2                     | 83.80                   | 42.                       | -79.                      | -38.                       | 3.80                | 56.47         | 130.35          | 0.  |
| 7                | 4.0                | -20.0               | 350.0                     | 98.40                   | 360.                      | -435.                     | -604.                      | -51.80              | 56.36         | 130.21          | 0.  |
| 8                | 4.0                | -15.0               | 371.4                     | 93.80                   | -63.                      | -317.                     | -197.                      | -39.65              | 56.27         | 130.11          | 0.  |
| 9                | 4.0                | -10.0               | 371.4                     | 87.82                   | 98.                       | -316.                     | -349.                      | -24.02              | 56.29         | 130.13          | 0.  |
| 10               | 4.0                | -3.6                | 343.6                     | 90.02                   | 31.                       | -96.                      | 66.                        | -7.42               | 56.02         | 129.81          | 0.  |
| 11               | 4.0                | -5.0                | 365.7                     | 86.15                   | 87.                       | -144.                     | -75.                       | -13.71              | 56.63         | 130.54          | 0.  |
| 12               | 4.0                | -2.5                | 359.8                     | 87.20                   | 50.                       | -98.                      | -135.                      | -7.36               | 56.01         | 129.80          | 0.  |
| 13               | 4.0                | .0                  | 366.8                     | 87.50                   | 56.                       | -24.                      | 191.                       | -0.73               | 55.97         | 129.76          | 0.  |
| 14               | 4.0                | 2.5                 | 336.4                     | 84.02                   | 15.                       | 18.                       | 16.                        | 11.84               | 56.38         | 130.23          | 0.  |
| 15               | 4.0                | 5.0                 | 342.8                     | 84.79                   | 56.                       | 93.                       | 177.                       | 17.83               | 56.17         | 129.99          | 0.  |
| 16               | 4.0                | 10.0                | 346.4                     | 86.49                   | 208.                      | 272.                      | 708.                       | 20.33               | 56.12         | 129.93          | 0.  |
| 17               | 4.0                | 15.0                | 347.7                     | 89.19                   | 424.                      | 303.                      | 1025.                      | 31.49               | 56.58         | 130.47          | 0.  |
| 18               | 4.0                | 20.0                | 351.3                     | 97.37                   | 478.                      | 380.                      | 880.                       | 48.03               | 56.39         | 130.24          | 0.  |
| 19               | 4.0                | .0                  | 340.4                     | 84.33                   | 32.                       | -77.                      | -73.                       | 4.19                | 56.15         | 129.97          | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .00    | .9195  | .2265 | .0136  | -.0048 | -.0023 | .0103  |
| 7    | -20.00 | .9459  | .2659 | .1159  | -.0263 | -.0365 | -.1400 |
| 8    | -15.00 | .90038 | .2535 | -.0205 | -.0192 | -.0119 | -.1072 |
| 9    | -10.00 | .90038 | .2374 | .0315  | -.0191 | -.0211 | -.0649 |
| 10   | -3.60  | .9826  | .2433 | .0100  | -.0058 | .0040  | -.0201 |
| 11   | -5.00  | .9883  | .2328 | .0281  | -.0087 | -.0045 | -.0371 |
| 12   | -2.50  | .9725  | .2357 | .0162  | -.0059 | -.0082 | -.0199 |
| 13   | .00    | .9914  | .2365 | .0181  | -.0014 | .0115  | -.0020 |
| 14   | 2.50   | .9091  | .2271 | .0049  | .0011  | .0010  | .0320  |
| 15   | 5.00   | .9266  | .2291 | .0182  | .0056  | .0107  | .0482  |
| 16   | 10.00  | .9361  | .2337 | .0671  | .0164  | .0428  | .0550  |
| 17   | 15.00  | .9396  | .2411 | .1368  | .0183  | .0619  | .0851  |
| 18   | 20.00  | .9496  | .2632 | .1541  | .0230  | .0582  | .1298  |
| 19   | .00    | .9199  | .2279 | .0104  | -.0047 | -.0044 | .0113  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .00    | .9195  | .2265 | .0136  | -.0048 | -.0023 | .0103  |
| 7    | -20.00 | .9459  | .2017 | .1757  | -.0263 | -.0417 | -.2228 |
| 8    | -15.00 | .90038 | .2169 | -.0032 | -.0192 | -.0105 | -.1694 |
| 9    | -10.00 | .90038 | .2224 | .0506  | -.0191 | -.0218 | -.1053 |
| 10   | -3.60  | .9826  | .2415 | .0086  | -.0058 | .0038  | -.0354 |
| 11   | -5.00  | .9883  | .2287 | .0301  | -.0087 | -.0050 | -.0573 |
| 12   | -2.50  | .9725  | .2346 | .0181  | -.0059 | -.0083 | -.0302 |
| 13   | .00    | .9914  | .2365 | .0181  | -.0014 | .0115  | -.0020 |
| 14   | 2.50   | .9091  | .2255 | .0051  | .0011  | .0010  | .0419  |
| 15   | 5.00   | .9266  | .2241 | .0231  | .0056  | .0110  | .0681  |
| 16   | 10.00  | .9361  | .2206 | .1059  | .0164  | .0443  | .0949  |
| 17   | 15.00  | .9396  | .2106 | .2180  | .0183  | .0664  | .1448  |
| 18   | 20.00  | .9496  | .2025 | .2422  | .0230  | .0598  | .2123  |
| 19   | .00    | .9199  | .2279 | .0104  | -.0047 | -.0044 | .0113  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 67

RUN 72 CONFIG F P R W N T2

| 1W<br>PT.<br>NO. | 15<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | n DELTA<br>CL BAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | - DELE<br>CYMBAR<br>CU-FT | - DELR<br>CRMBAR<br>CU-FT | - DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM |
|------------------|--------------------|---------------------|----------------------------|-------------------------|-----------------|---------------------------|---------------------------|---------------------------|----------|------------|-----|
| 6                | -10.0              | 0                   | 135.1                      | 34.10                   | -684.           | 26.                       | 96.                       | -5.58                     | 56.16    | 129.98     | 0.  |
| 8                | -10.0              | -15.0               | 141.2                      | 46.58                   | -674.           | -380.                     | -116.                     | -64.26                    | 56.67    | 130.58     | 0.  |
| 9                | -10.0              | -10.1               | 148.5                      | 38.78                   | -709.           | -292.                     | -107.                     | -42.78                    | 56.06    | 129.86     | 0.  |
| 10               | -10.0              | -5.0                | 118.6                      | 37.16                   | -771.           | -270.                     | 78.                       | -25.73                    | 55.88    | 129.65     | 0.  |
| 11               | -10.0              | -2.6                | 132.7                      | 34.75                   | -703.           | -87.                      | 56.                       | -16.03                    | 56.12    | 129.93     | 0.  |
| 12               | -10.0              | 0                   | 131.3                      | 34.14                   | -712.           | 54.                       | 101.                      | -7.83                     | 56.13    | 129.94     | 0.  |
| 13               | -10.0              | 2.5                 | 131.5                      | 33.69                   | -684.           | 125.                      | 104.                      | 6.51                      | 56.52    | 130.39     | 0.  |
| 14               | -10.0              | 5.0                 | 128.2                      | 34.99                   | -678.           | 201.                      | 64.                       | 19.42                     | 56.13    | 129.95     | 0.  |
| 15               | -10.0              | 10.0                | 120.9                      | 39.97                   | -685.           | 316.                      | 67.                       | 42.57                     | 56.34    | 130.19     | 0.  |
| 16               | -10.0              | 15.0                | 106.4                      | 48.51                   | -648.           | 394.                      | 164.                      | 64.71                     | 56.48    | 130.35     | 0.  |
| 17               | -10.0              | 20.0                | 97.2                       | 60.85                   | -586.           | 490.                      | 228.                      | 84.12                     | 56.66    | 130.56     | 0.  |
| 18               | -10.0              | -20.0               | 125.6                      | 57.16                   | -579.           | -488.                     | -119.                     | -83.30                    | 56.31    | 130.15     | 0.  |

| PT.# | COEFFICIENT<br>PSI | FORM<br>CL | - WIND<br>CD | AXIS<br>CPM | CYM    | CRM    | CY     |
|------|--------------------|------------|--------------|-------------|--------|--------|--------|
| 6    | .00                | .3653      | .0922        | -.2206      | .0015  | .0058  | -.0151 |
| 8    | -15.00             | .3817      | .1259        | -.2172      | -.0230 | -.0070 | -.1737 |
| 9    | -10.10             | .4013      | .1048        | -.2287      | -.0177 | -.0065 | -.1156 |
| 10   | -5.00              | .3205      | .1004        | -.2486      | -.0163 | .0047  | -.0695 |
| 11   | -2.60              | .3587      | .0939        | -.2267      | -.0052 | .0034  | -.0433 |
| 12   | .00                | .3548      | .0923        | -.2297      | .0033  | .0061  | -.0212 |
| 13   | 2.50               | .3553      | .0911        | -.2204      | .0076  | .0063  | .0176  |
| 14   | 5.00               | .3464      | .0946        | -.2187      | .0121  | .0039  | .0525  |
| 15   | 10.00              | .3269      | .1080        | -.2209      | .0191  | .0041  | .1150  |
| 16   | 15.00              | .2875      | .1311        | -.2089      | .0238  | .0099  | .1749  |
| 17   | 20.00              | .2626      | .1644        | -.1889      | .0296  | .0138  | .2273  |
| 18   | -20.00             | .3393      | .1545        | -.1867      | -.0295 | -.0072 | -.2251 |

| PT.# | COEFFICIENT<br>PSI | FORM<br>CL | - STABILITY<br>CDB | AXIS<br>CPMB | CYMB   | CRMB   | CYB    |
|------|--------------------|------------|--------------------|--------------|--------|--------|--------|
| 6    | .00                | .3653      | .0922              | -.2206       | .0015  | .0058  | -.0151 |
| 8    | -15.00             | .3817      | .0764              | -.2000       | -.0230 | .0038  | -.2004 |
| 9    | -10.10             | .4013      | .0828              | -.2191       | -.0177 | .0012  | -.1323 |
| 10   | -5.00              | .3205      | .0939              | -.2499       | -.0163 | .0068  | -.0781 |
| 11   | -2.60              | .3587      | .0918              | -.2272       | -.0052 | .0053  | -.0475 |
| 12   | .00                | .3548      | .0923              | -.2297       | .0033  | .0061  | -.0212 |
| 13   | 2.50               | .3553      | .0902              | -.2187       | .0076  | .0045  | .0216  |
| 14   | 5.00               | .3464      | .0896              | -.2160       | .0121  | .0003  | .0606  |
| 15   | 10.00              | .3269      | .0863              | -.2137       | .0191  | -.0032 | .1321  |
| 16   | 15.00              | .2875      | .0811              | -.1879       | .0238  | -.0006 | .2030  |
| 17   | 20.00              | .2626      | .0763              | -.1522       | .0296  | .0008  | .2700  |
| 18   | -20.00             | .3393      | .0677              | -.1622       | -.0295 | .0053  | -.2645 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 6P

RUN 73 CONFIG F P R W N T2

| PT. NO. | TW ALPHA DEG | IO DELF PSI DEG | 0 DELA CLBAR SQ-FT | 0 IHT CDBAR SQ-FT | - DELE CPMBAR CU-FT | - DELR CYMBAR CU-FT | - DELSB CRMBAR CU-FT | Q CYBAR SQ-FT | V PSF | RPM    |    |
|---------|--------------|-----------------|--------------------|-------------------|---------------------|---------------------|----------------------|---------------|-------|--------|----|
| 2       | 0            | 0               | 281.3              | 42.52             | -131.               | 7.                  | 22.                  | 3.87          | 56.27 | 130.10 | 0. |
| 3       | -20.0        | 0               | -163.8             | 61.77             | -798.               | -7.                 | -136.                | 7.19          | 56.88 | 130.82 | 0. |
| 4       | -15.0        | 0               | -75.1              | 38.27             | -718.               | 7.                  | 59.                  | 4.06          | 57.01 | 130.97 | 0. |
| 5       | -10.0        | 0               | 33.0               | 24.44             | -690.               | 23.                 | 60.                  | 4.51          | 56.70 | 130.61 | 0. |
| 6       | -5.0         | 0               | 160.1              | 27.90             | -451.               | 23.                 | 57.                  | 3.76          | 57.01 | 130.97 | 0. |
| 7       | -2.5         | 0               | 221.3              | 34.12             | -288.               | 25.                 | 41.                  | 4.90          | 56.96 | 130.91 | 0. |
| 8       | 0            | 0               | 277.4              | 42.39             | -129.               | 10.                 | 40.                  | 5.19          | 57.13 | 131.11 | 0. |
| 9       | 2.5          | 0               | 327.2              | 52.54             | 31.                 | 30.                 | 10.                  | 6.61          | 57.21 | 131.20 | 0. |
| 10      | 5.0          | 0               | 354.1              | 64.92             | 150.                | 55.                 | 90.                  | 5.25          | 57.06 | 131.02 | 0. |
| 11      | 10.0         | 0               | 342.3              | 90.54             | 342.                | -5.                 | 84.                  | 2.45          | 56.97 | 130.92 | 0. |
| 12      | 15.0         | 0               | 357.6              | 151.01            | 451.                | -86.                | -204.                | 0.48          | 56.96 | 130.91 | 0. |
| 13      | 20.0         | 0               | 385.7              | 198.67            | 703.                | 39.                 | -239.                | 6.20          | 56.58 | 130.46 | 0. |
| 14      | 0            | 0               | 276.0              | 42.61             | -127.               | 23.                 | 58.                  | 5.54          | 57.19 | 131.18 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .7603  | .1149 | -.0423 | .0004  | -.0013 | .0105  |
| 3    | -20.00 | -.4426 | .1669 | -.2572 | -.0004 | -.0082 | .0194  |
| 4    | -15.02 | -.2029 | .1034 | -.2316 | .0004  | -.0036 | .0110  |
| 5    | -10.01 | .0893  | .0661 | -.2224 | .0014  | -.0036 | .0122  |
| 6    | -4.98  | .4327  | .0754 | -.1454 | .0014  | -.0034 | .0102  |
| 7    | -2.49  | .5982  | .0922 | -.0927 | .0015  | -.0025 | .0133  |
| 8    | 0.01   | .7496  | .1146 | -.0417 | .0006  | -.0024 | .0140  |
| 9    | 2.53   | .8843  | .1420 | .0100  | .0018  | .0006  | .0179  |
| 10   | 5.01   | .9571  | .1755 | .0484  | .0033  | -.0054 | .0142  |
| 11   | 9.98   | .9252  | .2447 | .1104  | -.0003 | .0051  | .0066  |
| 12   | 15.01  | .9664  | .4081 | .1454  | -.0052 | -.0123 | -.0013 |
| 13   | 20.04  | 1.0423 | .5369 | .2268  | .0023  | -.0144 | .0168  |
| 14   | 0.01   | .7460  | .1152 | -.0408 | .0014  | -.0035 | .0150  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .7603  | .1149 | -.0423 | .0004  | -.0013 | .0105  |
| 3    | -20.00 | -.4426 | .1669 | -.2572 | -.0004 | -.0082 | .0194  |
| 4    | -15.02 | -.2029 | .1034 | -.2316 | .0004  | -.0036 | .0110  |
| 5    | -10.01 | .0893  | .0661 | -.2224 | .0014  | -.0036 | .0122  |
| 6    | -4.98  | .4327  | .0754 | -.1454 | .0014  | -.0034 | .0102  |
| 7    | -2.49  | .5982  | .0922 | -.0927 | .0015  | -.0025 | .0133  |
| 8    | 0.01   | .7496  | .1146 | -.0417 | .0006  | -.0024 | .0140  |
| 9    | 2.53   | .8843  | .1420 | .0100  | .0018  | .0006  | .0179  |
| 10   | 5.01   | .9571  | .1755 | .0484  | .0033  | -.0054 | .0142  |
| 11   | 9.98   | .9252  | .2447 | .1104  | -.0003 | .0051  | .0066  |
| 12   | 15.01  | .9664  | .4081 | .1454  | -.0052 | -.0123 | -.0013 |
| 13   | 20.04  | 1.0423 | .5369 | .2268  | .0023  | -.0144 | .0168  |
| 14   | 0.01   | .7460  | .1152 | -.0408 | .0014  | -.0035 | .0150  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 69

RUN 74 CONFIG F P R W N T2

| IW<br>PT.<br>NO. | 10 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DFG | 0 DELA<br>CIBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | - DELE<br>CPMBAR<br>CU-FT | - DELR<br>CYMBAR<br>CU-FT | - DELR<br>CRMBAR<br>CU-FT | - DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM |
|------------------|-------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------|------------|-----|
| 2                | 0                       | 0                    | 278.0                    | 42.94                   | -136.                     | 6.                        | -23.                      | 4.77                      | 57.09    | 131.06     | 0.  |
| 3                | 0                       | -20.0                | 248.9                    | 58.18                   | -10.                      | -554.                     | -198.                     | -72.41                    | 56.92    | 130.86     | 0.  |
| 4                | 0                       | -15.0                | 263.6                    | 56.58                   | -662.                     | -194.                     | 378.                      | -59.72                    | 57.27    | 131.27     | 0.  |
| 5                | 0                       | -10.0                | 267.8                    | 51.08                   | -612.                     | -0.                       | 526.                      | -39.66                    | 57.37    | 131.39     | 0.  |
| 6                | 0                       | -5.0                 | 277.4                    | 43.18                   | -126.                     | -159.                     | -104.                     | -12.16                    | 57.15    | 131.13     | 0.  |
| 7                | 0                       | -2.6                 | 278.5                    | 42.91                   | -124.                     | -91.                      | -63.                      | -2.93                     | 56.94    | 130.88     | 0.  |
| 8                | 0                       | 0                    | 275.7                    | 42.35                   | -130.                     | 21.                       | -23.                      | 4.97                      | 57.55    | 131.59     | 0.  |
| 9                | 0                       | 2.5                  | 275.6                    | 43.18                   | -136.                     | 121.                      | -12.                      | 13.20                     | 57.05    | 131.01     | 0.  |
| 10               | 0                       | 5.0                  | 277.8                    | 43.72                   | -128.                     | 232.                      | 72.                       | 22.34                     | 56.27    | 130.09     | 0.  |
| 11               | 0                       | 9.9                  | 261.8                    | 43.86                   | -80.                      | 374.                      | 169.                      | 34.71                     | 55.65    | 129.36     | 0.  |
| 12               | 0                       | 15.0                 | 261.9                    | 49.13                   | -69.                      | 506.                      | 186.                      | 56.21                     | 55.81    | 129.56     | 0.  |
| 13               | 0                       | 19.9                 | 240.2                    | 57.71                   | -16.                      | 571.                      | 179.                      | 76.09                     | 56.14    | 129.94     | 0.  |
| 14               | 0                       | -10.0                | 267.1                    | 43.47                   | -80.                      | -335.                     | -120.                     | -29.98                    | 55.90    | 129.66     | 0.  |
| 15               | 0                       | -15.0                | 253.2                    | 48.16                   | -29.                      | -461.                     | -267.                     | -49.18                    | 55.97    | 129.74     | 0.  |
| 16               | 0                       | 2.5                  | 275.6                    | 43.50                   | -137.                     | 134.                      | 7.                        | 13.28                     | 55.92    | 129.68     | 0.  |
| 17               | 0                       | 0                    | 276.9                    | 43.28                   | -119.                     | 30.                       | 10.                       | 5.50                      | 55.78    | 129.52     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPH    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .7513 | .1161 | -.0437 | .0004  | -.0014 | .0129  |
| 3    | -20.00 | .6727 | .1572 | -.0033 | -.0334 | -.0119 | -.1957 |
| 4    | -15.00 | .7124 | .1529 | -.2133 | -.0117 | .0228  | -.1614 |
| 5    | -10.00 | .7238 | .1381 | -.1974 | -.0000 | .0318  | -.1072 |
| 6    | -5.00  | .7496 | .1167 | -.0406 | -.0096 | -.0063 | -.0329 |
| 7    | -2.60  | .7528 | .1160 | -.0399 | -.0055 | -.0038 | -.0079 |
| 8    | 0.00   | .7451 | .1145 | -.0420 | .0012  | -.0014 | .0134  |
| 9    | 2.50   | .7448 | .1167 | -.0438 | .0073  | -.0007 | .0357  |
| 10   | 5.00   | .7508 | .1182 | -.0413 | .0140  | .0043  | .0604  |
| 11   | 9.90   | .7076 | .1185 | -.0259 | .0226  | .0102  | .0938  |
| 12   | 15.00  | .7078 | .1328 | -.0223 | .0306  | .0112  | .1519  |
| 13   | 19.90  | .6491 | .1560 | -.0051 | .0345  | .0108  | .2056  |
| 14   | -10.00 | .7219 | .1175 | -.0259 | -.0203 | -.0072 | -.0810 |
| 15   | -15.00 | .6843 | .1302 | -.0093 | -.0278 | -.0161 | -.1329 |
| 16   | 2.50   | .7449 | .1176 | -.0442 | .0081  | .0004  | .0359  |
| 17   | 0.00   | .7485 | .1170 | -.0384 | .0018  | .0006  | .0149  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMR   | CRMB   | CYR    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .7513 | .1161 | -.0437 | .0004  | -.0014 | .0129  |
| 3    | -20.00 | .6727 | .0804 | .0188  | -.0334 | -.0110 | -.2378 |
| 4    | -15.00 | .7124 | .1057 | -.2377 | -.0117 | .0324  | -.1956 |
| 5    | -10.00 | .7238 | .1172 | -.2239 | -.0000 | .0378  | -.1296 |
| 6    | -5.00  | .7496 | .1134 | -.0375 | -.0096 | -.0056 | -.0430 |
| 7    | -2.60  | .7528 | .1155 | -.0389 | -.0055 | -.0035 | -.0132 |
| 8    | 0.00   | .7451 | .1145 | -.0420 | .0012  | -.0014 | .0134  |
| 9    | 2.50   | .7448 | .1150 | -.0439 | .0073  | -.0011 | .0407  |
| 10   | 5.00   | .7508 | .1124 | -.0392 | .0140  | .0037  | .0705  |
| 11   | 9.90   | .7076 | .1006 | -.0160 | .0226  | .0092  | .1129  |
| 12   | 15.00  | .7078 | .0887 | -.0060 | .0306  | .0097  | .1812  |
| 13   | 19.90  | .6491 | .0763 | .0150  | .0345  | .0099  | .2466  |
| 14   | -10.00 | .7219 | .1016 | -.0188 | -.0203 | -.0063 | -.1003 |
| 15   | -15.00 | .6843 | .0911 | .0134  | -.0278 | -.0151 | -.1622 |
| 16   | 2.50   | .7449 | .1159 | -.0440 | .0081  | .0000  | .0410  |
| 17   | 0.00   | .7485 | .1170 | -.0384 | .0018  | .0006  | .0149  |

RUN 75 CONFIG F P A W N T2

| 1W<br>PT.<br>NO. | 10<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 5 DELTA<br>CI BAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | - DELE<br>CYMBAR<br>CU-FT | - DELR<br>CRMBAR<br>CU-FT | - DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM |
|------------------|--------------------|---------------------|----------------------------|-------------------------|-----------------|---------------------------|---------------------------|---------------------------|----------|------------|-----|
| 2                | 0                  | 0                   | 320.8                      | 50.62                   | -205.           | 10.                       | -23.                      | 4.84                      | 56.28    | 130.10     | 0.  |
| 3                | 0                  | -20.0               | 280.9                      | 63.09                   | -55.            | -561.                     | -354.                     | -67.51                    | 55.50    | 129.19     | 0.  |
| 4                | 0                  | -15.1               | 302.5                      | 54.72                   | -126.           | -493.                     | -201.                     | -50.24                    | 55.66    | 129.38     | 0.  |
| 5                | 0                  | -10.0               | 312.1                      | 50.49                   | -188.           | -346.                     | -181.                     | -28.97                    | 55.74    | 129.47     | 0.  |
| 6                | 0                  | -5.0                | 315.1                      | 50.20                   | -215.           | -174.                     | -133.                     | -10.40                    | 56.03    | 129.81     | 0.  |
| 7                | 0                  | -2.5                | 315.6                      | 50.32                   | -223.           | -70.                      | -168.                     | -2.07                     | 55.88    | 129.63     | 0.  |
| 8                | 0                  | 0                   | 318.2                      | 50.40                   | -223.           | 24.                       | -95.                      | 5.88                      | 55.64    | 129.35     | 0.  |
| 9                | 0                  | 2.5                 | 317.8                      | 50.78                   | -223.           | 140.                      | -18.                      | 13.91                     | 55.83    | 129.57     | 0.  |
| 10               | 0                  | 5.0                 | 315.6                      | 50.46                   | -211.           | 237.                      | 63.                       | 20.61                     | 56.03    | 129.82     | 0.  |
| 11               | 0                  | 10.0                | 300.9                      | 50.26                   | -143.           | 373.                      | 246.                      | 32.85                     | 56.00    | 129.77     | 0.  |
| 12               | 0                  | 15.0                | 295.8                      | 55.09                   | -134.           | 500.                      | 136.                      | 53.62                     | 56.35    | 130.19     | 0.  |
| 13               | 0                  | 20.0                | 274.7                      | 63.12                   | -52.            | 595.                      | 190.                      | 73.55                     | 56.13    | 129.93     | 0.  |
| 14               | 0                  | 0                   | 316.6                      | 50.42                   | -212.           | 39.                       | -41.                      | 5.01                      | 55.72    | 129.45     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM     | CYM     | CRM     | CY      |
|------|--------|--------|--------|---------|---------|---------|---------|
| 2    | 0.00   | 0.8670 | 0.1368 | -0.0660 | 0.0006  | -0.0014 | 0.0131  |
| 3    | -20.00 | 0.7593 | 0.1705 | -0.0179 | -0.0339 | -0.0214 | -0.1825 |
| 4    | -15.10 | 0.8176 | 0.1479 | -0.0405 | -0.0298 | -0.0122 | -0.1358 |
| 5    | -10.00 | 0.8434 | 0.1365 | -0.0607 | -0.0209 | -0.0109 | -0.0783 |
| 6    | -5.00  | 0.8517 | 0.1357 | -0.0693 | -0.0105 | -0.0081 | -0.0281 |
| 7    | -2.50  | 0.8529 | 0.1360 | -0.0718 | -0.0042 | -0.0101 | -0.0056 |
| 8    | 0.00   | 0.8601 | 0.1362 | -0.0718 | 0.0014  | -0.0057 | 0.0159  |
| 9    | 2.50   | 0.8588 | 0.1372 | -0.0719 | 0.0085  | -0.0011 | 0.0376  |
| 10   | 5.00   | 0.8529 | 0.1364 | -0.0680 | 0.0143  | 0.0038  | 0.0557  |
| 11   | 10.00  | 0.8133 | 0.1358 | -0.0459 | 0.0225  | 0.0149  | 0.0888  |
| 12   | 15.00  | 0.7993 | 0.1489 | -0.0432 | 0.0302  | 0.0082  | 0.1449  |
| 13   | 20.00  | 0.7425 | 0.1706 | -0.0168 | 0.0359  | 0.0115  | 0.1988  |
| 14   | 0.00   | 0.8556 | 0.1363 | -0.0682 | 0.0024  | -0.0025 | 0.0135  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB    | CYMB    | CRMB    | CYB     |
|------|--------|--------|--------|---------|---------|---------|---------|
| 2    | 0.00   | 0.8670 | 0.1368 | -0.0660 | 0.0006  | -0.0014 | 0.0131  |
| 3    | -20.00 | 0.7593 | 0.0975 | 0.0224  | -0.0339 | -0.0189 | -0.2299 |
| 4    | -15.10 | 0.8176 | 0.1072 | -0.0221 | -0.0298 | -0.0097 | -0.1698 |
| 5    | -10.00 | 0.8434 | 0.1207 | -0.0496 | -0.0209 | -0.0088 | -0.1009 |
| 6    | -5.00  | 0.8517 | 0.1327 | -0.0653 | -0.0105 | -0.0069 | -0.0399 |
| 7    | -2.50  | 0.8529 | 0.1356 | -0.0694 | -0.0042 | -0.0095 | -0.0116 |
| 8    | 0.00   | 0.8601 | 0.1362 | -0.0718 | 0.0014  | -0.0057 | 0.0159  |
| 9    | 2.50   | 0.8588 | 0.1355 | -0.0721 | 0.0085  | -0.0017 | 0.0436  |
| 10   | 5.00   | 0.8529 | 0.1310 | -0.0659 | 0.0143  | 0.0027  | 0.0674  |
| 11   | 10.00  | 0.8133 | 0.1183 | -0.0314 | 0.0225  | 0.0131  | 0.1111  |
| 12   | 15.00  | 0.7993 | 0.1061 | -0.0303 | 0.0302  | 0.0058  | 0.1786  |
| 13   | 20.00  | 0.7425 | 0.0919 | 0.0053  | 0.0359  | 0.0097  | 0.2453  |
| 14   | 0.00   | 0.8556 | 0.1363 | -0.0682 | 0.0024  | -0.0025 | 0.0135  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 71

RUN 76 CONFIG F P R W N T2

| PT. NO. | 1W ALPHA DEG | 10 DELF PSI DEG | 5 DELA CLBAR SQ-FT | 0 IHT CDBAR SQ-FT | CPMBAR CU-FT | - DELE CYMBAR CU-FT | DEL R CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM |
|---------|--------------|-----------------|--------------------|-------------------|--------------|---------------------|--------------------|-------------|-------------|---------|-----|
| 2       | 0            | 0               | 313.1              | 50.20             | -206.        | 33.                 | -41.               | 4.90        | 56.33       | 130.17  | 0.  |
| 3       | -20.1        | 0               | 136.4              | 59.18             | -862.        | -30.                | -88.               | 8.33        | 56.44       | 130.29  | 0.  |
| 4       | -15.0        | 0               | 42.8               | 36.93             | -795.        | 19.                 | -92.               | 3.14        | 56.45       | 130.30  | 0.  |
| 6       | -10.0        | 0               | 71.6               | 26.98             | -755.        | 37.                 | -4.                | 2.11        | 56.46       | 130.31  | 0.  |
| 7       | -5.0         | 0               | 201.8              | 33.45             | -508.        | 39.                 | 30.                | 2.72        | 56.33       | 130.16  | 0.  |
| 8       | -2.5         | 0               | 258.8              | 40.27             | -357.        | 28.                 | 31.                | 2.41        | 56.56       | 130.44  | 0.  |
| 9       | 0            | 0               | 315.6              | 49.80             | -195.        | 28.                 | -5.                | 4.29        | 56.42       | 130.27  | 0.  |
| 10      | 2.6          | 0               | 363.6              | 60.45             | -32.         | 41.                 | -23.               | 5.68        | 56.40       | 130.24  | 0.  |
| 11      | 5.0          | 0               | 397.2              | 72.20             | 131.         | 83.                 | -40.               | 5.91        | 56.51       | 130.37  | 0.  |
| 12      | 10.0         | 0               | 352.4              | 98.12             | 288.         | 15.                 | 50.                | 3.28        | 56.16       | 129.96  | 0.  |
| 13      | 15.0         | 0               | 367.9              | 158.37            | 401.         | -91.                | 0.                 | -2.36       | 56.34       | 130.16  | 0.  |
| 14      | 20.0         | 0               | 387.2              | 204.37            | 633.         | 51.                 | -173.              | -3.64       | 56.20       | 130.00  | 0.  |
| 15      | 0            | 0               | 311.0              | 49.54             | -197.        | 44.                 | -23.               | 4.62        | 56.73       | 130.63  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0      | .8461  | .1357 | -.0663 | .0020  | -.0025 | .0132  |
| 3    | -20.05 | -.3688 | .1599 | -.2778 | -.0018 | -.0053 | .0225  |
| 4    | -14.98 | .1961  | .0811 | -.0572 | .0015  | -.0003 | .0067  |
| 6    | -10.03 | .1935  | .0729 | -.2435 | .0022  | -.0002 | .0057  |
| 7    | -5.02  | .5455  | .0904 | -.1637 | .0024  | .0018  | .0074  |
| 8    | -2.53  | .6995  | .1088 | -.1151 | .0017  | .0019  | .0065  |
| 9    | .03    | .8530  | .1346 | -.0627 | .0017  | -.0003 | .0116  |
| 10   | 2.55   | .9826  | .1634 | -.0105 | .0025  | -.0014 | .0153  |
| 11   | 5.02   | 1.0735 | .1951 | .0422  | .0050  | -.0024 | .0160  |
| 12   | 10.03  | .9524  | .2652 | .0928  | .0009  | .0030  | .0089  |
| 13   | 15.01  | .9944  | .4280 | .1293  | -.0055 | .0000  | -.0064 |
| 14   | 20.02  | 1.0464 | .5523 | .2042  | .0031  | -.0105 | -.0098 |
| 15   | 0      | .8406  | .1339 | -.0635 | .0027  | -.0014 | .0125  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYB    | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0      | .8461  | .1357 | -.0663 | .0020  | -.0025 | .0132  |
| 3    | -20.05 | -.3688 | .1599 | -.2778 | -.0018 | -.0053 | .0225  |
| 4    | -14.98 | .1961  | .0811 | -.0572 | .0015  | -.0003 | .0067  |
| 6    | -10.03 | .1935  | .0729 | -.2435 | .0022  | -.0002 | .0057  |
| 7    | -5.02  | .5455  | .0904 | -.1637 | .0024  | .0018  | .0074  |
| 8    | -2.53  | .6995  | .1088 | -.1151 | .0017  | .0019  | .0065  |
| 9    | .03    | .8530  | .1346 | -.0627 | .0017  | -.0003 | .0116  |
| 10   | 2.55   | .9826  | .1634 | -.0105 | .0025  | -.0014 | .0153  |
| 11   | 5.02   | 1.0735 | .1951 | .0422  | .0050  | -.0024 | .0160  |
| 12   | 10.03  | .9524  | .2652 | .0928  | .0009  | .0030  | .0089  |
| 13   | 15.01  | .9944  | .4280 | .1293  | -.0055 | .0000  | -.0064 |
| 14   | 20.02  | 1.0464 | .5523 | .2042  | .0031  | -.0105 | -.0098 |
| 15   | 0      | .8406  | .1339 | -.0635 | .0027  | -.0014 | .0125  |

SIKORSKY RSRA 1/6 SCALF MODEL TEST  
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RUN 02 CONFIG F P B W1 T2

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | -           | RPM   |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | -0        | .0      | 358.5       | 47.72       | -163.        | 10.          | 68.          | .36         | 56.71 | 130.62  | 0. |
| 3       | -20.0     | .0      | -116.9      | 20.73       | -851.        | 18.          | -65.         | 5.97        | 56.48 | 130.34  | 0. |
| 4       | -15.0     | .0      | 3.1         | 15.45       | -794.        | 12.          | -13.         | 6.44        | 56.57 | 130.44  | 0. |
| 5       | -10.0     | .0      | 129.3       | 18.78       | -693.        | 25.          | 29.          | 2.96        | 56.36 | 130.20  | 0. |
| 6       | -5.0      | .0      | 253.0       | 30.84       | -467.        | 24.          | 64.          | 3.13        | 56.55 | 130.43  | 0. |
| 7       | -2.5      | .0      | 309.5       | 38.81       | -328.        | 11.          | 49.          | 2.00        | 56.31 | 130.13  | 0. |
| 8       | -0        | .0      | 355.5       | 47.32       | -165.        | 11.          | 30.          | 2.81        | 56.99 | 130.93  | 0. |
| 9       | 2.5       | .0      | 387.2       | 57.87       | -8.          | 23.          | 66.          | 2.30        | 56.35 | 130.18  | 0. |
| 10      | 5.0       | .0      | 376.3       | 69.01       | 143.         | 25.          | 192.         | -2.07       | 56.07 | 129.86  | 0. |
| 11      | 10.0      | .0      | 287.4       | 98.42       | 251.         | 31.          | 122.         | -1.22       | 55.75 | 129.47  | 0. |
| 12      | 15.0      | .0      | 257.4       | 160.19      | 242.         | 151.         | -415.        | 8.24        | 56.24 | 130.05  | 0. |
| 13      | 20.0      | .0      | 264.8       | 195.87      | 479.         | 133.         | -154.        | 1.02        | 56.53 | 130.38  | 0. |
| 14      | -0        | .0      | 354.4       | 48.43       | -184.        | 41.          | 31.          | 2.41        | 56.49 | 130.35  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CY <sup>M</sup> | CRM    | CY     |
|------|--------|--------|-------|--------|-----------------|--------|--------|
| 2    | -0.00  | .9688  | .1290 | -.0527 | .0006           | .0041  | .0010  |
| 3    | -20.01 | -.3161 | .0560 | -.2744 | .0011           | -.0039 | .0161  |
| 4    | -15.03 | .0085  | .0418 | -.2560 | .0007           | -.0008 | .0174  |
| 5    | -10.02 | .3494  | .0507 | -.2233 | .0015           | .0017  | .0080  |
| 6    | -5.01  | .6837  | .0833 | -.1506 | .0015           | .0038  | .0085  |
| 7    | -2.52  | .8365  | .1049 | -.1058 | .0007           | .0029  | .0054  |
| 8    | -.02   | .9608  | .1279 | -.0533 | .0007           | .0018  | .0076  |
| 9    | 2.49   | 1.0465 | .1564 | -.0026 | .0014           | .0040  | .0062  |
| 10   | 4.98   | 1.0171 | .1865 | .0462  | .0015           | .0116  | -.0056 |
| 11   | 9.98   | .7767  | .2660 | .0810  | .0019           | .0074  | -.0033 |
| 12   | 14.97  | .6956  | .4329 | .0770  | .0001           | -.0251 | .0223  |
| 13   | 19.98  | .7157  | .5294 | .1544  | .0001           | -.0003 | .0028  |
| 14   | -.02   | .9580  | .1309 | -.0594 | .0024           | .0019  | .0065  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMR   | CY <sup>M</sup> | CRMB   | CYB    |
|------|--------|--------|-------|--------|-----------------|--------|--------|
| 2    | -0.00  | .9688  | .1290 | -.0527 | .0006           | .0041  | .0010  |
| 3    | -20.01 | -.3161 | .0560 | -.2744 | .0011           | -.0039 | .0161  |
| 4    | -15.03 | .0085  | .0418 | -.2560 | .0007           | -.0008 | .0174  |
| 5    | -10.02 | .3494  | .0507 | -.2233 | .0015           | .0017  | .0080  |
| 6    | -5.01  | .6837  | .0833 | -.1506 | .0015           | .0038  | .0085  |
| 7    | -2.52  | .8365  | .1049 | -.1058 | .0007           | .0029  | .0054  |
| 8    | -.02   | .9608  | .1279 | -.0533 | .0007           | .0018  | .0076  |
| 9    | 2.49   | 1.0465 | .1564 | -.0026 | .0014           | .0040  | .0062  |
| 10   | 4.98   | 1.0171 | .1865 | .0462  | .0015           | .0116  | -.0056 |
| 11   | 9.98   | .7767  | .2660 | .0810  | .0019           | .0074  | -.0033 |
| 12   | 14.97  | .6956  | .4329 | .0770  | .0001           | -.0251 | .0223  |
| 13   | 19.98  | .7157  | .5294 | .1544  | .0001           | -.0003 | .0028  |
| 14   | -.02   | .9580  | .1309 | -.0594 | .0024           | .0019  | .0065  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 84 CONFIG F P R W I T2

| IW<br>PT.<br>NO. | IS<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 25 DELTA<br>CIBAR<br>SQ-FT | DELTA<br>CDBAR<br>SQ-FT | DELTA<br>CPMBAR<br>CU-FT | DELTA<br>CYMBAR<br>CU-FT | DELTA<br>CRMBAR<br>CU-FT | DELTA<br>CYBAR<br>SQ-FT | DELTA<br>Q<br>PSF | DELTA<br>V<br>KNOTS | RPM |
|------------------|--------------------|---------------------|----------------------------|-------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------|---------------------|-----|
| 2                | 0                  | 0                   | 567.9                      | 97.38                   | -647.                    | 11.                      | 87.                      | .43                     | 55.41             | 129.09              | 0.  |
| 3                | -20                | 0                   | 54.6                       | 32.30                   | -1452.                   | 96.                      | 22.                      | -1.83                   | 55.74             | 129.47              | 0.  |
| 4                | -15                | 0                   | 191.7                      | 39.46                   | -1281.                   | 69.                      | 54.                      | -.55                    | 55.46             | 129.14              | 0.  |
| 5                | -10                | 0                   | 320.6                      | 53.04                   | -1099.                   | 74.                      | 38.                      | -2.02                   | 55.70             | 129.43              | 0.  |
| 6                | -5                 | 0                   | 446.7                      | 72.93                   | -880.                    | 42.                      | 85.                      | 1.28                    | 55.91             | 129.67              | 0.  |
| 7                | -2.5               | 0                   | 506.2                      | 84.65                   | -769.                    | 34.                      | 88.                      | -.98                    | 55.80             | 129.54              | 0.  |
| 8                | 0                  | 0                   | 562.8                      | 96.63                   | -647.                    | 22.                      | 49.                      | 2.63                    | 55.66             | 129.38              | 0.  |
| 9                | 2.5                | 0                   | 604.3                      | 107.52                  | -514.                    | 9.                       | 34.                      | .49                     | 55.44             | 129.12              | 0.  |
| 10               | 5                  | 0                   | 464.4                      | 108.38                  | -325.                    | 114.                     | -392.                    | 9.73                    | 55.66             | 129.37              | 0.  |
| 11               | 10                 | 0                   | 318.1                      | 152.22                  | -535.                    | -133.                    | 386.                     | -6.60                   | 55.73             | 129.45              | 0.  |
| 12               | 15                 | 0                   | 287.0                      | 201.60                  | -738.                    | 55.                      | -297.                    | 4.16                    | 55.62             | 129.32              | 0.  |
| 13               | 20                 | 0                   | 298.1                      | 244.82                  | -958.                    | 38.                      | -226.                    | 2.33                    | 55.63             | 129.34              | 0.  |
| 14               | 0                  | 0                   | 562.0                      | 96.78                   | -647.                    | 10.                      | 17.                      | .42                     | 56.27             | 130.09              | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.5349 | .2632 | -.2087 | .0007  | .0052  | .0012  |
| 3    | -20.01 | .1474  | .0873 | -.4681 | .0058  | .0013  | -.0050 |
| 4    | -15.02 | .5181  | .1066 | -.4129 | .0042  | .0082  | -.0015 |
| 5    | -10.01 | .8665  | .1434 | -.3544 | .0045  | .0023  | -.0055 |
| 6    | -5.02  | 1.2073 | .1971 | -.2836 | .0025  | .0051  | .0035  |
| 7    | -2.52  | 1.3681 | .2288 | -.2479 | .0021  | .0053  | -.0026 |
| 8    | 0.00   | 1.5211 | .2612 | -.2085 | .0013  | .0030  | .0071  |
| 9    | 2.48   | 1.6332 | .2906 | -.1657 | .0005  | .0021  | .0013  |
| 10   | 5.00   | 1.2551 | .2929 | -.1047 | .0069  | -.0237 | .0263  |
| 11   | 9.99   | .8598  | .4114 | -.1726 | -.0080 | .0233  | -.0178 |
| 12   | 14.99  | .7756  | .5449 | -.2380 | .0033  | -.0179 | .0113  |
| 13   | 19.99  | .8056  | .6617 | -.3089 | .0023  | -.0136 | .0063  |
| 14   | 0.00   | 1.5190 | .2616 | -.2087 | .0006  | .0010  | .0011  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.5349 | .2632 | -.2087 | .0007  | .0052  | .0012  |
| 3    | -20.01 | .1474  | .0873 | -.4681 | .0058  | .0013  | -.0050 |
| 4    | -15.02 | .5181  | .1066 | -.4129 | .0042  | .0032  | -.0015 |
| 5    | -10.01 | .8665  | .1434 | -.3544 | .0045  | .0023  | -.0055 |
| 6    | -5.02  | 1.2073 | .1971 | -.2836 | .0025  | .0051  | .0035  |
| 7    | -2.52  | 1.3681 | .2288 | -.2479 | .0021  | .0053  | -.0026 |
| 8    | 0.00   | 1.5211 | .2612 | -.2085 | .0013  | .0030  | .0071  |
| 9    | 2.48   | 1.6332 | .2906 | -.1657 | .0005  | .0021  | .0013  |
| 10   | 5.00   | 1.2551 | .2929 | -.1047 | .0069  | -.0237 | .0263  |
| 11   | 9.99   | .8598  | .4114 | -.1726 | -.0080 | .0233  | -.0178 |
| 12   | 14.99  | .7756  | .5449 | -.2380 | .0033  | -.0179 | .0113  |
| 13   | 19.99  | .8056  | .6617 | -.3089 | .0023  | -.0136 | .0063  |
| 14   | 0.00   | 1.5190 | .2616 | -.2087 | .0006  | .0010  | .0011  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 85 CONFIG F P R W1 T2

| PT. NO. | 15 DELF ALPHA DEG | 30 DELA PSI DEG | 0 IHT CDBAR SQ-FT | - DELE CPMBAR CU-FT | - DELR CYNBAR CU-FT | - DELR CRMBAR CU-FT | - DELSB Q CYBAR SQ-FT | - V PSF | RPM    |
|---------|-------------------|-----------------|-------------------|---------------------|---------------------|---------------------|-----------------------|---------|--------|
| 2       | 0                 | 0               | 604.8             | 110.19              | -771.               | 23.                 | 21.                   | 55.80   | 129.55 |
| 3       | -20.0             | 0               | 79.3              | 38.90               | -1591.              | 47.                 | 26.                   | 55.96   | 129.74 |
| 4       | -15.0             | 0               | 230.7             | 48.08               | -1416.              | 40.                 | -3.                   | 55.71   | 129.44 |
| 5       | -10.0             | 0               | 361.6             | 63.32               | -1224.              | 58.                 | 50.                   | 55.95   | 129.73 |
| 6       | -5.0              | 0               | 482.6             | 85.25               | -1011.              | 37.                 | 44.                   | 55.67   | 129.40 |
| 7       | -2.5              | 0               | 553.4             | 98.08               | -894.               | 17.                 | 11.                   | 55.17   | 128.80 |
| 8       | 0                 | 0               | 606.4             | 109.75              | -762.               | 22.                 | 32.                   | 55.35   | 129.02 |
| 9       | 2.5               | 0               | 648.1             | 120.85              | -622.               | 14.                 | 33.                   | 55.36   | 129.03 |
| 10      | 5.0               | 0               | 532.0             | 125.95              | -447.               | -218.               | 1312.                 | 55.85   | 129.61 |
| 11      | 10.0              | 0               | 349.0             | 173.14              | -662.               | -242.               | 406.                  | 55.67   | 129.39 |
| 12      | 15.0              | 0               | 376.1             | 222.81              | -838.               | 192.                | -456.                 | 55.48   | 129.16 |
| 13      | 20.0              | 0               | 301.2             | 253.80              | -1018.              | 67.                 | -103.                 | 55.72   | 129.45 |
| 14      | 0                 | 0               | 608.5             | 110.34              | -757.               | 17.                 | 32.                   | 55.46   | 129.14 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.6345 | .2978 | -.2484 | .0014  | -.0012 | .0071  |
| 3    | -19.98 | .2684  | .1051 | -.5130 | .0028  | -.0016 | .0104  |
| 4    | -14.99 | .6236  | .1300 | -.4566 | .0024  | -.0002 | .0043  |
| 5    | -10.00 | .9772  | .1711 | -.3945 | .0035  | .0030  | .0035  |
| 6    | -5.00  | 1.3204 | .2304 | -.3259 | .0023  | .0026  | .0147  |
| 7    | -2.52  | 1.4958 | .2651 | -.2881 | .0010  | .0007  | .0125  |
| 8    | 0.02   | 1.6389 | .2966 | -.2457 | .0013  | .0019  | .0068  |
| 9    | 2.48   | 1.7515 | .3266 | -.2006 | .0008  | .0020  | .0048  |
| 10   | 5.00   | 1.4377 | .3404 | -.1442 | -.0132 | .0792  | -.0809 |
| 11   | 10.00  | .9431  | .4679 | -.2134 | -.0146 | .0245  | -.0255 |
| 12   | 14.98  | .8813  | .6022 | -.2702 | .0116  | -.0275 | .0236  |
| 13   | 19.99  | .8141  | .6859 | -.3282 | .0041  | -.0062 | .0131  |
| 14   | 0.00   | 1.6445 | .2982 | -.2440 | .0010  | .0019  | .0063  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.6345 | .2978 | -.2484 | .0014  | -.0012 | .0071  |
| 3    | -19.98 | .2684  | .1051 | -.5130 | .0028  | -.0016 | .0104  |
| 4    | -14.99 | .6236  | .1300 | -.4566 | .0024  | -.0002 | .0043  |
| 5    | -10.00 | .9772  | .1711 | -.3945 | .0035  | .0030  | .0035  |
| 6    | -5.00  | 1.3204 | .2304 | -.3259 | .0023  | .0026  | .0147  |
| 7    | -2.52  | 1.4958 | .2651 | -.2881 | .0010  | .0007  | .0125  |
| 8    | 0.02   | 1.6389 | .2966 | -.2457 | .0013  | .0019  | .0068  |
| 9    | 2.48   | 1.7515 | .3266 | -.2006 | .0008  | .0020  | .0048  |
| 10   | 5.00   | 1.4377 | .3404 | -.1442 | -.0132 | .0792  | -.0809 |
| 11   | 10.00  | .9431  | .4679 | -.2134 | -.0146 | .0245  | -.0255 |
| 12   | 14.98  | .8813  | .6022 | -.2702 | .0116  | -.0275 | .0236  |
| 13   | 19.99  | .8141  | .6859 | -.3282 | .0041  | -.0062 | .0131  |
| 14   | 0.00   | 1.6445 | .2982 | -.2440 | .0010  | .0019  | .0063  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 87 CONFIG F P R W I N T 2

| IW<br>PT.<br>NO. | 15<br>ALPHA<br>DEG | DELTA<br>PSI<br>DFG | 30 DELTA<br>CLBAR<br>SQ-FT | 0 INT<br>CDBAR<br>SQ-FT | CPM BAR<br>CU-FT | DELE<br>CYM BAR<br>CU-FT | DEL R<br>CRM BAR<br>CU-FT | DELSB<br>CYBAR<br>SQ-FT | DEL S<br>Q<br>PSF | V<br>KNOTS | RPM |
|------------------|--------------------|---------------------|----------------------------|-------------------------|------------------|--------------------------|---------------------------|-------------------------|-------------------|------------|-----|
| 2                | 0                  | 0                   | 0                          | -6.82                   | 0                | 0                        | 0                         | 0                       | 45.39             | 116.80     | 0   |
| 3                | 0                  | 0                   | 510.3                      | 116.86                  | -593             | -118                     | 896                       | -27.57                  | 53.99             | 127.40     | 0   |
| 4                | -20.0              | 0                   | 84.1                       | 70.93                   | -1481            | 53                       | -60                       | 2.53                    | 53.76             | 127.12     | 0   |
| 5                | -15.0              | 0                   | 228.0                      | 67.91                   | -1502            | 78                       | 5                         | -2.46                   | 54.04             | 127.46     | 0   |
| 6                | -10.0              | 0                   | 372.9                      | 77.56                   | -1342            | 60                       | 56                        | -4.95                   | 53.90             | 127.29     | 0   |
| 7                | -5.0               | 0                   | 506.0                      | 99.51                   | -1039            | 7                        | 27                        | 5.65                    | 53.70             | 127.05     | 0   |
| 8                | -2.5               | 0                   | 566.1                      | 112.20                  | -857             | -11                      | -3                        | 2.29                    | 53.63             | 126.97     | 0   |
| 9                | 0                  | 0                   | 611.8                      | 123.77                  | -650             | -10                      | -20                       | 1.65                    | 53.62             | 126.96     | 0   |
| 10               | 2.5                | 0                   | 521.6                      | 132.13                  | -418             | -191                     | 1367                      | -35.23                  | 53.28             | 126.54     | 0   |
| 11               | 5.0                | 0                   | 383.7                      | 133.11                  | -265             | 10                       | -106                      | -2.27                   | 54.01             | 127.42     | 0   |
| 12               | 10.0               | 0                   | 380.7                      | 178.60                  | -23              | 61                       | 146                       | -4.42                   | 53.99             | 127.39     | 0   |
| 13               | 15.0               | 0                   | 399.2                      | 236.37                  | 108              | 38                       | -144                      | 1.64                    | 53.84             | 127.21     | 0   |
| 14               | 20.0               | 0                   | 413.2                      | 293.97                  | 306              | 108                      | -163                      | -4.07                   | 53.59             | 126.91     | 0   |
| 15               | 0                  | 0                   | 512.5                      | 116.78                  | -582             | -112                     | 946                       | -26.62                  | 54.14             | 127.58     | 0   |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD      | CPM     | CYM     | CRM     | CY      |
|------|--------|--------|---------|---------|---------|---------|---------|
| 2    | 0.00   | 0.0000 | -0.0184 | 0.0000  | 0.0000  | 0.0000  | 0.0000  |
| 3    | 0.00   | 1.3793 | 0.3158  | -0.1912 | -0.0071 | 0.0541  | -0.0745 |
| 4    | -20.00 | 0.2272 | 0.1917  | -0.4776 | 0.0032  | -0.0036 | 0.0068  |
| 5    | -15.00 | 0.6163 | 0.1835  | -0.4842 | 0.0047  | 0.0003  | -0.0066 |
| 6    | -9.99  | 1.0078 | 0.2096  | -0.4327 | 0.0036  | 0.0034  | -0.0026 |
| 7    | -5.02  | 1.3675 | 0.2690  | -0.3350 | 0.0004  | 0.0016  | 0.0153  |
| 8    | -2.50  | 1.5301 | 0.3032  | -0.2763 | -0.0007 | -0.0002 | 0.0062  |
| 9    | 0.00   | 1.6535 | 0.3345  | -0.2097 | -0.0006 | -0.0012 | 0.0045  |
| 10   | 2.50   | 1.4097 | 0.3571  | -0.1349 | -0.0116 | 0.0825  | -0.0952 |
| 11   | 5.00   | 1.0371 | 0.3598  | -0.0855 | 0.0006  | -0.0064 | -0.0061 |
| 12   | 9.99   | 1.0289 | 0.4827  | -0.0076 | 0.0037  | 0.0088  | -0.0119 |
| 13   | 15.00  | 1.0790 | 0.6388  | 0.0349  | 0.0023  | -0.0087 | 0.0044  |
| 14   | 20.01  | 1.1167 | 0.7945  | 0.0988  | 0.0065  | -0.0099 | -0.0110 |
| 15   | 0.00   | 1.3851 | 0.3156  | -0.1878 | -0.0068 | 0.0572  | -0.0719 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CPB     | CPMB    | CYMB    | CRMB    | CYB     |
|------|--------|--------|---------|---------|---------|---------|---------|
| 2    | 0.00   | 0.0000 | -0.0184 | 0.0000  | 0.0000  | 0.0000  | 0.0000  |
| 3    | 0.00   | 1.3793 | 0.3158  | -0.1912 | -0.0071 | 0.0541  | -0.0745 |
| 4    | -20.00 | 0.2272 | 0.1917  | -0.4776 | 0.0032  | -0.0036 | 0.0068  |
| 5    | -15.00 | 0.6163 | 0.1835  | -0.4842 | 0.0047  | 0.0003  | -0.0066 |
| 6    | -9.99  | 1.0078 | 0.2096  | -0.4327 | 0.0036  | 0.0034  | -0.0026 |
| 7    | -5.02  | 1.3675 | 0.2690  | -0.3350 | 0.0004  | 0.0016  | 0.0153  |
| 8    | -2.50  | 1.5301 | 0.3032  | -0.2763 | -0.0007 | -0.0002 | 0.0062  |
| 9    | 0.00   | 1.6535 | 0.3345  | -0.2097 | -0.0006 | -0.0012 | 0.0045  |
| 10   | 2.50   | 1.4097 | 0.3571  | -0.1349 | -0.0116 | 0.0825  | -0.0952 |
| 11   | 5.00   | 1.0371 | 0.3598  | -0.0855 | 0.0006  | -0.0064 | -0.0061 |
| 12   | 9.99   | 1.0289 | 0.4827  | -0.0076 | 0.0037  | 0.0088  | -0.0119 |
| 13   | 15.00  | 1.0790 | 0.6388  | 0.0349  | 0.0023  | -0.0087 | 0.0044  |
| 14   | 20.01  | 1.1167 | 0.7945  | 0.0988  | 0.0065  | -0.0099 | -0.0110 |
| 15   | 0.00   | 1.3851 | 0.3156  | -0.1878 | -0.0068 | 0.0572  | -0.0719 |

RUN 88 CONFIG F P R W I N T 2

| IW<br>PT.<br>NO. | ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CLBAR<br>SQ-FT | DELTA<br>CDBAR<br>SQ-FT | IHT<br>CPHBAR<br>CU-FT | DELE<br>CYMBAR<br>CU-FT | DELTA<br>CRMBAR<br>CU-FT | DELTA<br>CYBAR<br>SQ-FT | DELSB<br>Q<br>PSF | V<br>KNOTS | RPM |
|------------------|--------------|---------------------|-------------------------|-------------------------|------------------------|-------------------------|--------------------------|-------------------------|-------------------|------------|-----|
| 2                | 0            | 0                   | 133.7                   | 23.76                   | -273.                  | 31.                     | 29.                      | 4.89                    | 54.32             | 127.80     | 0.  |
| 3                | -20.0        | 0                   | -214.0                  | 109.87                  | -696.                  | -63.                    | 39.                      | 6.21                    | 54.32             | 127.79     | 0.  |
| 4                | -15.0        | 0                   | -200.6                  | 67.07                   | -684.                  | -121.                   | 259.                     | 11.55                   | 54.83             | 128.41     | 0.  |
| 5                | -10.0        | 0                   | -136.7                  | 29.39                   | -739.                  | 80.                     | -24.                     | 3.54                    | 54.88             | 128.46     | 0.  |
| 6                | -5.0         | 0                   | -3.7                    | 19.28                   | -560.                  | 48.                     | -42.                     | 4.35                    | 54.76             | 128.32     | 0.  |
| 7                | -2.5         | 0                   | 61.0                    | 19.80                   | -424.                  | 32.                     | -7.                      | 5.09                    | 54.86             | 128.44     | 0.  |
| 8                | 0            | 0                   | 133.8                   | 23.56                   | -262.                  | 33.                     | 29.                      | 5.10                    | 54.73             | 128.28     | 0.  |
| 9                | 2.5          | 0                   | 200.4                   | 29.22                   | -107.                  | 28.                     | -5.                      | 4.81                    | 55.30             | 128.96     | 0.  |
| 10               | 5.0          | 0                   | 271.6                   | 38.16                   | 72.                    | 29.                     | 14.                      | 3.84                    | 54.93             | 128.52     | 0.  |
| 11               | 10.0         | 0                   | 392.1                   | 60.16                   | 452.                   | 35.                     | 33.                      | 3.03                    | 55.03             | 128.64     | 0.  |
| 12               | 15.0         | 0                   | 452.9                   | 88.93                   | 776.                   | 20.                     | 123.                     | 2.48                    | 54.96             | 128.56     | 0.  |
| 13               | 20.0         | 0                   | 436.5                   | 124.55                  | 962.                   | 39.                     | 178.                     | 2.50                    | 54.56             | 128.08     | 0.  |
| 14               | 0            | 0                   | 130.2                   | 23.47                   | -266.                  | 34.                     | -24.                     | 4.80                    | 55.34             | 129.01     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | .3613  | .0642 | -.0879 | .0018  | .0018  | .0132 |
| 3    | -19.99 | -.5783 | .2970 | -.2245 | -.0038 | .0024  | .0168 |
| 4    | -14.99 | -.5421 | .1813 | -.2204 | -.0073 | .0156  | .0312 |
| 5    | -9.99  | -.3695 | .0794 | -.2384 | .0048  | -.0015 | .0096 |
| 6    | -4.99  | -.0100 | .0521 | -.1806 | .0029  | -.0025 | .0118 |
| 7    | -2.49  | .1649  | .0535 | -.1368 | .0019  | -.0004 | .0138 |
| 8    | -.00   | .3618  | .0637 | -.0844 | .0020  | .0017  | .0138 |
| 9    | 2.50   | .5417  | .0790 | -.0345 | .0017  | -.0003 | .0130 |
| 10   | 5.00   | .7345  | .1031 | .0233  | .0018  | .0008  | .0104 |
| 11   | 9.99   | 1.0598 | .1626 | .1456  | .0021  | .0020  | .0082 |
| 12   | 15.01  | 1.2239 | .2403 | .2500  | .0012  | .0074  | .0067 |
| 13   | 20.00  | 1.1798 | .3366 | .3101  | .0023  | .0108  | .0067 |
| 14   | .00    | .3519  | .0634 | -.0858 | .0021  | -.0014 | .0130 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDL   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | .3613  | .0642 | -.0879 | .0018  | .0018  | .0132 |
| 3    | -19.99 | -.5783 | .2970 | -.2245 | -.0038 | .0024  | .0168 |
| 4    | -14.99 | -.5421 | .1813 | -.2204 | -.0073 | .0156  | .0312 |
| 5    | -9.99  | -.3695 | .0794 | -.2384 | .0048  | -.0015 | .0096 |
| 6    | -4.99  | -.0100 | .0521 | -.1806 | .0029  | -.0025 | .0118 |
| 7    | -2.49  | .1649  | .0535 | -.1368 | .0019  | -.0004 | .0138 |
| 8    | -.00   | .3618  | .0637 | -.0844 | .0020  | .0017  | .0138 |
| 9    | 2.50   | .5417  | .0790 | -.0345 | .0017  | -.0003 | .0130 |
| 10   | 5.00   | .7345  | .1031 | .0233  | .0018  | .0008  | .0104 |
| 11   | 9.99   | 1.0598 | .1626 | .1456  | .0021  | .0020  | .0082 |
| 12   | 15.01  | 1.2239 | .2403 | .2500  | .0012  | .0074  | .0067 |
| 13   | 20.00  | 1.1798 | .3366 | .3101  | .0023  | .0108  | .0067 |
| 14   | .00    | .3519  | .0634 | -.0858 | .0021  | -.0014 | .0130 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 89 CONFIG F P B W I N T 2

| PT. NO. | ALPHA DEG | DELTA PSI DEG | S DELTA CLBAR SQ-FT | S DELTA CD BAR SQ-FT | O IHT CPMBAR CU-FT | - DELE CYMBAR CU-FT | - DELR CRMBAR QU-FT | DELTA CYBAR SQ-FT | DELTA DELSB Q PSF | V KNOTS | RPM |
|---------|-----------|---------------|---------------------|----------------------|--------------------|---------------------|---------------------|-------------------|-------------------|---------|-----|
| 2       | 0         | 0             | 133.2               | 23.78                | -264.              | 30.                 | 30.                 | 4.63              | 54.44             | 127.95  | 0.  |
| 3       | 0         | -20.0         | 146.3               | 48.85                | -346.              | -567.               | -58.                | -93.63            | 54.32             | 127.80  | 0.  |
| 4       | 0         | -15.0         | 140.8               | 47.10                | -1119.             | -157.               | 643.                | -75.98            | 54.47             | 127.98  | 0.  |
| 5       | 0         | -10.0         | 134.0               | 45.54                | -1453.             | 433.                | 1667.               | -63.41            | 54.31             | 127.79  | 0.  |
| 6       | 0         | -5.0          | 135.7               | 24.73                | -288.              | -180.               | -10.                | -17.41            | 54.79             | 128.36  | 0.  |
| 7       | 0         | 0             | 133.2               | 23.76                | -285.              | 30.                 | 12.                 | 4.82              | 54.46             | 127.97  | 0.  |
| 8       | 0         | -2.5          | 133.0               | 24.23                | -281.              | -75.                | -37.                | -6.39             | 54.38             | 127.86  | 0.  |
| 9       | 0         | 2.5           | 134.2               | 24.49                | -289.              | 143.                | 28.                 | 15.69             | 54.50             | 128.01  | 0.  |
| 10      | 0         | 5.0           | 133.4               | 25.45                | -303.              | 244.                | 28.                 | 26.12             | 55.18             | 128.82  | 0.  |
| 11      | 0         | 10.0          | 132.9               | 28.58                | -305.              | 434.                | 8.                  | 46.07             | 55.23             | 128.88  | 0.  |
| 12      | 0         | 15.0          | 132.9               | 36.12                | -331.              | 546.                | -3.                 | 68.94             | 55.14             | 128.78  | 0.  |
| 13      | 0         | 20.0          | 130.7               | 48.67                | -327.              | 606.                | -35.                | 94.70             | 55.11             | 128.74  | 0.  |
| 14      | 0         | 0             | 130.9               | 23.85                | -271.              | 27.                 | -24.                | 5.45              | 55.05             | 128.67  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .3600 | .0643 | -.0850 | .0018  | .0018  | .0125  |
| 3    | -20.00 | .3954 | .1320 | -.1116 | -.0342 | -.0035 | -.2531 |
| 4    | -15.00 | .3805 | .1273 | -.3608 | -.0095 | .0388  | -.2054 |
| 5    | -10.00 | .3621 | .1231 | -.4685 | .0262  | .1007  | -.1714 |
| 6    | -5.00  | .3669 | .0668 | -.0928 | -.0108 | -.0006 | -.0471 |
| 7    | 0.00   | .3601 | .0642 | -.0918 | .0018  | .0007  | .0130  |
| 8    | -2.50  | .3595 | .0655 | -.0907 | -.0046 | -.0022 | -.0173 |
| 9    | 2.50   | .3627 | .0662 | -.0932 | .0086  | .0047  | .0424  |
| 10   | 5.00   | .3606 | .0688 | -.0976 | .0148  | .0017  | .0706  |
| 11   | 10.00  | .3592 | .0772 | -.0982 | .0262  | .0005  | .1245  |
| 12   | 15.00  | .3592 | .0976 | -.1066 | .0330  | -.0002 | .1863  |
| 13   | 20.00  | .3531 | .1315 | -.1054 | .0366  | -.0021 | .2559  |
| 14   | 0.00   | .3539 | .0645 | -.0873 | .0016  | -.0015 | .0147  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .3600 | .0643 | -.0850 | .0018  | .0018  | .0125  |
| 3    | -20.00 | .3954 | .0371 | -.0984 | -.0342 | .0039  | -.2830 |
| 4    | -15.00 | .3805 | .0695 | -.4022 | -.0095 | .0551  | -.2314 |
| 5    | -10.00 | .3621 | .0913 | -.5550 | .0262  | .1185  | -.1902 |
| 6    | -5.00  | .3669 | .0625 | -.0922 | -.0108 | .0009  | -.0527 |
| 7    | 0.00   | .3601 | .0642 | -.0918 | .0018  | .0007  | .0130  |
| 8    | -2.50  | .3595 | .0647 | -.0901 | -.0046 | -.0015 | -.0201 |
| 9    | 2.50   | .3627 | .0643 | -.0927 | .0086  | .0009  | .0453  |
| 10   | 5.00   | .3606 | .0623 | -.0964 | .0148  | .0001  | .0763  |
| 11   | 10.00  | .3592 | .0543 | -.0963 | .0262  | -.0028 | .1361  |
| 12   | 15.00  | .3592 | .0458 | -.1031 | .0330  | -.0053 | .2053  |
| 13   | 20.00  | .3531 | .0356 | -.1028 | .0366  | -.0087 | .2855  |
| 14   | 0.00   | .3539 | .0645 | -.0873 | .0016  | -.0015 | .0147  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 90 CONFIG F P R W I N T 2

| PT. NO. | ALPHA DEG | S DELF PSI DEG | n DELA CIBAR SQ-FT | 0 IHT COBAR SQ-FT | - DELE CYM BAR CU-FT | " DELR CRM BAR CU-FT | " DELSB CYBAR SQ-FT | " V PSF | RPM   |        |    |
|---------|-----------|----------------|--------------------|-------------------|----------------------|----------------------|---------------------|---------|-------|--------|----|
| 2       | 0.0       | 0.0            | 91.7               | 20.96             | -214.                | 24.                  | -41.                | 5.09    | 55.50 | 129.21 | 0. |
| 3       | 0.0       | -20.0          | 116.0              | 47.45             | -298.                | -582.                | 17.                 | -95.36  | 54.94 | 128.54 | 0. |
| 4       | 0.0       | -15.0          | 108.9              | 42.81             | -906.                | -222.                | 573.                | -75.25  | 55.05 | 128.66 | 0. |
| 5       | 0.0       | -10.0          | 100.4              | 40.28             | -1234.               | 309.                 | 1363.               | -60.49  | 55.64 | 129.37 | 0. |
| 6       | 0.0       | -5.0           | 95.6               | 21.97             | -246.                | -163.                | -90.                | -17.15  | 56.03 | 129.83 | 0. |
| 7       | 0.0       | -2.5           | 93.1               | 20.87             | -232.                | -74.                 | -7.                 | -5.97   | 56.48 | 130.36 | 0. |
| 8       | 0.0       | 0.0            | 92.9               | 20.94             | -233.                | 32.                  | 45.                 | 5.29    | 56.00 | 129.79 | 0. |
| 9       | 0.0       | 2.5            | 93.6               | 21.91             | -245.                | 148.                 | 15.                 | 17.26   | 54.07 | 127.50 | 0. |
| 10      | 0.0       | 5.0            | 96.5               | 22.99             | -247.                | 240.                 | 24.                 | 26.74   | 53.88 | 127.28 | 0. |
| 11      | 0.0       | 10.0           | 97.6               | 26.37             | -266.                | 432.                 | -40.                | 47.48   | 53.81 | 127.19 | 0. |
| 12      | 0.0       | 15.0           | 101.3              | 34.30             | -303.                | 550.                 | 12.                 | 71.17   | 53.51 | 126.82 | 0. |
| 13      | 0.0       | 20.0           | 98.0               | 46.31             | -320.                | 611.                 | -169.               | 95.01   | 54.10 | 127.54 | 0. |
| 14      | 0.0       | -15.0          | 108.4              | 33.90             | -292.                | -509.                | 30.                 | -66.81  | 53.89 | 127.28 | 0. |
| 15      | 0.0       | -10.0          | 102.8              | 25.47             | -258.                | -358.                | -4.                 | -40.79  | 54.45 | 127.95 | 0. |
| 16      | 0.0       | -20.0          | 114.3              | 46.93             | -304.                | -580.                | 10.                 | -94.18  | 54.22 | 127.68 | 0. |
| 17      | 0.0       | -15.0          | 108.8              | 38.17             | -611.                | -385.                | 269.                | -71.43  | 54.32 | 127.79 | 0. |
| 18      | 0.0       | -10.0          | 100.5              | 25.44             | -269.                | -354.                | -60.                | -40.83  | 54.14 | 127.58 | 0. |
| 19      | 0.0       | 0.0            | 93.4               | 21.39             | -241.                | 25.                  | -4.                 | 2.86    | 53.54 | 126.86 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .2478 | .0567 | -.0691 | .0014  | -.0025 | .0138  |
| 3    | -20.00 | .3135 | .1282 | -.0961 | -.0352 | .0010  | -.2577 |
| 4    | -15.00 | .2944 | .1157 | -.2920 | -.0134 | .0346  | -.2034 |
| 5    | -10.00 | .2712 | .1089 | -.3980 | .0187  | .0823  | -.1635 |
| 6    | -5.00  | .2584 | .0594 | -.0793 | -.0098 | -.0064 | -.0463 |
| 7    | -2.50  | .2516 | .0564 | -.0749 | -.0045 | -.0084 | -.0161 |
| 8    | 0.00   | .2511 | .0566 | -.0750 | .0019  | .0027  | .0143  |
| 9    | 2.50   | .2529 | .0592 | -.0791 | .0089  | .0009  | .0467  |
| 10   | 5.00   | .2608 | .0621 | -.0798 | .0145  | .0044  | .0723  |
| 11   | 10.00  | .2638 | .0713 | -.0856 | .0261  | -.0024 | .1283  |
| 12   | 15.00  | .2737 | .0927 | -.0977 | .0332  | .0007  | .1924  |
| 13   | 20.00  | .2648 | .1252 | -.1031 | .0369  | -.0102 | .2568  |
| 14   | -15.00 | .2930 | .0916 | -.0942 | -.0307 | .0018  | -.1806 |
| 15   | -10.00 | .2778 | .0688 | -.0832 | -.0216 | -.0002 | -.1103 |
| 16   | -20.00 | .3088 | .1268 | -.0979 | -.0350 | .0006  | -.2545 |
| 17   | -15.00 | .2941 | .1032 | -.1971 | -.0232 | .0163  | -.1931 |
| 18   | -10.00 | .2717 | .0688 | -.0868 | -.0214 | -.0036 | -.1104 |
| 19   | 0.00   | .2524 | .0578 | -.0777 | .0015  | -.0002 | .0077  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .2478 | .0567 | -.0691 | .0014  | -.0025 | .0138  |
| 3    | -20.00 | .3135 | .0319 | -.0921 | -.0352 | .0071  | -.2861 |
| 4    | -15.00 | .2944 | .0588 | -.3300 | -.0134 | .0476  | -.2265 |
| 5    | -10.00 | .2712 | .0787 | -.4685 | .0187  | .0941  | -.1800 |
| 6    | -5.00  | .2584 | .0551 | -.0765 | -.0098 | -.0041 | -.0514 |
| 7    | -2.50  | .2516 | .0556 | -.0747 | -.0045 | .0002  | -.0186 |
| 8    | 0.00   | .2511 | .0566 | -.0750 | .0019  | .0027  | .0143  |
| 9    | 2.50   | .2529 | .0571 | -.0788 | .0089  | .0002  | .0492  |
| 10   | 5.00   | .2608 | .0556 | -.0788 | .0145  | .0001  | .0774  |

|    |        |       |       |        |        |        |        |
|----|--------|-------|-------|--------|--------|--------|--------|
| 11 | 10.00  | .2638 | .0478 | -.0866 | .0261  | -.0052 | .1388  |
| 12 | 15.00  | .2737 | .0395 | -.0933 | .0332  | -.0040 | .2098  |
| 13 | 20.00  | .2648 | .0293 | -.1155 | .0369  | -.0162 | .2842  |
| 14 | -15.00 | .2930 | .0415 | -.0935 | -.0307 | .0063  | -.1982 |
| 15 | -10.00 | .2778 | .0486 | -.0817 | -.0216 | .0025  | -.1206 |
| 16 | -20.00 | .3088 | .0317 | -.0930 | -.0350 | .0069  | -.2826 |
| 17 | -15.00 | .2941 | .0494 | -.2129 | -.0232 | .0253  | -.2132 |
| 18 | -10.00 | .2717 | .0485 | -.0822 | -.0214 | -.0007 | -.1207 |
| 19 | 0.00   | .2524 | .0578 | -.0777 | .0015  | -.0002 | .0077  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 91 CONFIG F P R W I N T 2

| 1W<br>PT.<br>NO. | 5 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 IHT<br>CPMBAR<br>CU-FT | - DELE<br>CYMBAR<br>CU-FT | - DELR<br>CRMBAR<br>CU-FT | - DELSB<br>CYBAR<br>SQ-FT | -<br>Q<br>PSF | -<br>V<br>KNOTS | RPM |
|------------------|------------------------|----------------------|--------------------------|-------------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|-----|
| 2                | 0                      | 0                    | 90.9                     | 21.37                   | -219.                    | 19.                       | -5.                       | 3.69                      | 53.57         | 126.90          | 0.  |
| 3                | -20.0                  | 0                    | -228.3                   | 113.00                  | -639.                    | -76.                      | -12.                      | 5.40                      | 53.64         | 126.98          | 0.  |
| 4                | -15.0                  | -1                   | -219.5                   | 72.45                   | -614.                    | -165.                     | 459.                      | 12.87                     | 53.71         | 127.07          | 0.  |
| 5                | -10.0                  | -1                   | -169.8                   | 32.09                   | -663.                    | 61.                       | 66.                       | 2.92                      | 53.60         | 126.93          | 0.  |
| 6                | -5.0                   | -1                   | -43.2                    | 19.76                   | -497.                    | 23.                       | 47.                       | 4.73                      | 53.24         | 126.50          | 0.  |
| 7                | -2.5                   | 0                    | 25.7                     | 18.39                   | -348.                    | 14.                       | 47.                       | 5.06                      | 53.90         | 127.29          | 0.  |
| 8                | 0                      | 0                    | 92.3                     | 21.05                   | -197.                    | 12.                       | 29.                       | 5.04                      | 54.11         | 127.55          | 0.  |
| 9                | 2.5                    | -1                   | 161.2                    | 25.62                   | -36.                     | 23.                       | 14.                       | 4.18                      | 54.56         | 128.09          | 0.  |
| 10               | 5.0                    | -1                   | 231.6                    | 33.17                   | 136.                     | 22.                       | 16.                       | 3.50                      | 54.50         | 128.02          | 0.  |
| 11               | 10.0                   | -1                   | 361.5                    | 54.61                   | 530.                     | 30.                       | 109.                      | 3.03                      | 53.88         | 127.27          | 0.  |
| 12               | 15.0                   | -1                   | 423.0                    | 83.64                   | 820.                     | 5.                        | 111.                      | 2.15                      | 53.97         | 127.38          | 0.  |
| 13               | 20.0                   | 0                    | 421.6                    | 118.57                  | 1009.                    | 24.                       | 162.                      | .89                       | 53.88         | 127.27          | 0.  |
| 14               | 24.0                   | 0                    | 429.5                    | 161.48                  | 1117.                    | 28.                       | 107.                      | -6.9                      | 54.03         | 127.45          | 0.  |
| 15               | 0                      | 0                    | 90.0                     | 21.16                   | -208.                    | 27.                       | -6.                       | 4.76                      | 54.43         | 127.93          | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .2456  | .0578 | -.0706 | .0012  | -.0003 | .0100  |
| 3    | -20.00 | -.6169 | .3054 | -.2062 | -.0046 | -.0007 | .0146  |
| 4    | -15.00 | -.5933 | .1958 | -.1980 | -.0099 | .0278  | .0348  |
| 5    | -9.99  | -.4588 | .0867 | -.2137 | .0037  | .0040  | .0079  |
| 6    | -5.00  | -.1167 | .0534 | -.1603 | .0014  | .0028  | .0128  |
| 7    | -2.49  | .0695  | .0497 | -.1120 | .0009  | .0028  | .0137  |
| 8    | .00    | .2494  | .0569 | -.0635 | .0007  | .0018  | .0136  |
| 9    | 2.51   | .4356  | .0693 | -.0117 | .0014  | .0009  | .0113  |
| 10   | 5.01   | .6260  | .0897 | .0438  | .0013  | .0010  | .0095  |
| 11   | 10.00  | .9770  | .1476 | .1709  | .0018  | .0066  | .0082  |
| 12   | 15.00  | 1.1433 | .2260 | .2643  | .0003  | .0067  | .0058  |
| 13   | 20.01  | 1.1395 | .3205 | .3253  | .0015  | .0098  | .0024  |
| 14   | 24.00  | 1.1607 | .4364 | .3601  | .0017  | .0065  | -.0019 |
| 15   | .00    | .2431  | .0572 | -.0672 | .0016  | -.0004 | .0129  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .2456  | .0578 | -.0706 | .0012  | -.0003 | .0100  |
| 3    | -20.00 | -.6169 | .3054 | -.2062 | -.0046 | -.0007 | .0146  |
| 4    | -15.00 | -.5933 | .1959 | -.1982 | -.0099 | .0278  | .0345  |
| 5    | -9.99  | -.4588 | .0867 | -.2137 | .0037  | .0041  | .0077  |
| 6    | -5.00  | -.1167 | .0534 | -.1603 | .0014  | .0029  | .0127  |
| 7    | -2.49  | .0695  | .0497 | -.1120 | .0009  | .0028  | .0137  |
| 8    | .00    | .2494  | .0569 | -.0635 | .0007  | .0018  | .0136  |
| 9    | 2.51   | .4356  | .0693 | -.0117 | .0014  | .0009  | .0112  |
| 10   | 5.01   | .6260  | .0897 | .0437  | .0013  | .0010  | .0093  |
| 11   | 10.00  | .9770  | .1476 | .1708  | .0018  | .0065  | .0079  |
| 12   | 15.00  | 1.1433 | .2261 | .2642  | .0003  | .0066  | .0054  |
| 13   | 20.01  | 1.1395 | .3205 | .3253  | .0015  | .0098  | .0024  |
| 14   | 24.00  | 1.1607 | .4364 | .3601  | .0017  | .0065  | -.0019 |
| 15   | .00    | .2431  | .0572 | -.0672 | .0016  | -.0004 | .0129  |

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STKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

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P 80

RUN 95 CONFIG F P R W I N T 2

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| 3       | .0        | .0      | -121.0      | 21.84       | -360.        | 18.          | -94.         | 5.72        | 56.03 | 129.81  | 0.  |
| 4       | -20.0     | .0      | -237.3      | 154.92      | -595.        | 18.          | -191.        | .54         | 56.29 | 130.11  | 0.  |
| 5       | -15.0     | .0      | -215.7      | 122.92      | -535.        | 73.          | 52.          | 8.05        | 56.31 | 130.13  | 0.  |
| 6       | -10.2     | .0      | -201.2      | 90.07       | -536.        | 90.          | -3.          | 1.44        | 56.78 | 130.69  | 0.  |
| 7       | -5.1      | .0      | -203.9      | 47.79       | -464.        | -88.         | 323.         | 3.95        | 55.99 | 129.76  | 0.  |
| 8       | -.0       | .0      | -117.5      | 22.43       | -350.        | 15.          | -61.         | 7.31        | 55.90 | 129.66  | 0.  |
| 9       | 5.0       | .0      | -15.4       | 19.80       | -41.         | 29.          | -23.         | 5.86        | 55.21 | 128.84  | 0.  |
| 10      | 10.1      | .0      | 157.3       | 27.36       | 319.         | 17.          | 16.          | 2.72        | 55.17 | 128.79  | 0.  |
| 11      | 15.0      | .0      | 294.7       | 45.37       | 706.         | -13.         | 35.          | 2.85        | 55.01 | 128.60  | 0.  |
| 12      | 20.1      | .0      | 418.7       | 73.08       | 1127.        | -26.         | 71.          | 1.50        | 54.50 | 127.99  | 0.  |
| 13      | 23.9      | .0      | 460.2       | 103.05      | 1347.        | -43.         | 72.          | 2.30        | 54.90 | 128.46  | 0.  |
| 14      | -.0       | .0      | -116.1      | 24.04       | -341.        | 14.          | -97.         | 7.04        | 55.18 | 128.81  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 3    | .03    | -.3269 | .0590 | -.1160 | .0011  | -.0057 | .0154 |
| 4    | -19.98 | -.6414 | .4187 | -.1919 | .0011  | -.0115 | .0015 |
| 5    | -15.00 | -.5829 | .3319 | -.1726 | .0044  | .0032  | .0217 |
| 6    | -10.23 | -.5438 | .2434 | -.1730 | .0054  | -.0002 | .0039 |
| 7    | -5.10  | -.5510 | .1292 | -.1495 | -.0053 | .0195  | .0107 |
| 8    | -.02   | -.3176 | .0606 | -.1127 | .0009  | -.0037 | .0198 |
| 9    | 5.03   | .0416  | .0535 | -.0132 | .0017  | -.0014 | .0158 |
| 10   | 10.08  | .4250  | .0739 | .1025  | .0010  | .0010  | .0073 |
| 11   | 15.00  | .7965  | .1226 | .2276  | -.0008 | .0021  | .0077 |
| 12   | 20.06  | 1.1317 | .1975 | .3634  | -.0016 | .0043  | .0041 |
| 13   | 23.91  | 1.2437 | .2785 | .4342  | -.0026 | .0043  | .0062 |
| 14   | -.01   | -.3136 | .0650 | -.1098 | .0008  | -.0058 | .0190 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMR   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 3    | .03    | -.3269 | .0590 | -.1160 | .0011  | -.0057 | .0154 |
| 4    | -19.98 | -.6414 | .4187 | -.1919 | .0011  | -.0115 | .0015 |
| 5    | -15.00 | -.5829 | .3319 | -.1726 | .0044  | .0032  | .0217 |
| 6    | -10.23 | -.5438 | .2434 | -.1730 | .0054  | -.0002 | .0039 |
| 7    | -5.10  | -.5510 | .1292 | -.1495 | -.0053 | .0195  | .0107 |
| 8    | -.02   | -.3176 | .0606 | -.1127 | .0009  | -.0037 | .0198 |
| 9    | 5.03   | .0416  | .0535 | -.0132 | .0017  | -.0014 | .0158 |
| 10   | 10.08  | .4250  | .0739 | .1025  | .0010  | .0010  | .0073 |
| 11   | 15.00  | .7965  | .1226 | .2276  | -.0008 | .0021  | .0077 |
| 12   | 20.06  | 1.1317 | .1975 | .3634  | -.0016 | .0043  | .0041 |
| 13   | 23.91  | 1.2437 | .2785 | .4342  | -.0026 | .0043  | .0062 |
| 14   | -.01   | -.3136 | .0650 | -.1098 | .0008  | -.0058 | .0190 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 81

RUN 96 CONFIG F P B W1 N T2

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | -           | -     | RPM     |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | 0 PSF | V KNOTS |    |
| 5       | .0        | .0      | -116.1      | 22.00       | -327.        | 11.          | -44.         | 6.61        | 55.12 | 128.73  | 0. |
| 6       | .0        | -20.0   | -74.1       | 48.63       | -304.        | -540.        | 7.           | -91.23      | 55.15 | 128.76  | 0. |
| 7       | .0        | -15.0   | -88.8       | 35.98       | -372.        | -422.        | -21.         | -68.07      | 55.75 | 129.48  | 0. |
| 8       | .0        | -10.0   | -101.0      | 27.32       | -345.        | -296.        | -31.         | -42.71      | 55.51 | 129.19  | 0. |
| 9       | .0        | -5.0    | -110.5      | 23.31       | -322.        | -152.        | -57.         | -16.18      | 55.80 | 129.54  | 0. |
| 10      | .0        | .0      | -114.9      | 22.43       | -352.        | 12.          | -95.         | 6.89        | 55.87 | 129.61  | 0. |
| 11      | .0        | 5.0     | -115.0      | 24.04       | -362.        | 180.         | -68.         | 29.26       | 55.66 | 129.36  | 0. |
| 13      | .0        | 15.0    | -94.6       | 36.53       | -407.        | 449.         | -96.         | 72.15       | 55.99 | 129.76  | 0. |
| 14      | .0        | 10.0    | -107.1      | 28.63       | -357.        | 303.         | -119.        | 51.04       | 55.86 | 129.60  | 0. |
| 15      | .0        | 20.0    | -75.3       | 48.26       | -362.        | 544.         | -114.        | 94.69       | 55.94 | 129.70  | 0. |
| 16      | .0        | .0      | -114.3      | 22.66       | -319.        | 8.           | -26.         | 6.56        | 55.57 | 129.26  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CY*    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 5    | .00    | -.3137 | .0595 | -.1054 | .0007  | -.0026 | .0179  |
| 6    | -20.00 | -.2003 | .1314 | -.0979 | -.0326 | .0004  | -.2466 |
| 7    | -15.00 | -.2399 | .0972 | -.1201 | -.0255 | -.0013 | -.1840 |
| 8    | -10.00 | -.2731 | .0738 | -.1111 | -.0179 | -.0019 | -.1154 |
| 9    | -5.00  | -.2986 | .0670 | -.1038 | -.0092 | -.0034 | -.0437 |
| 10   | .00    | -.3106 | .0606 | -.1136 | .0007  | -.0058 | .0186  |
| 11   | 5.00   | -.3108 | .0650 | -.1168 | .0108  | -.0041 | .0791  |
| 13   | 15.00  | -.2556 | .0987 | -.1312 | .0271  | -.0058 | .1950  |
| 14   | 10.00  | -.2895 | .0774 | -.1152 | .0183  | -.0072 | .1379  |
| 15   | 20.00  | -.2035 | .1304 | -.1168 | .0328  | -.0069 | .2559  |
| 16   | .00    | -.3088 | .0613 | -.1028 | .0005  | -.0016 | .0177  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 5    | .00    | -.3137 | .0595 | -.1054 | .0007  | -.0026 | .0179  |
| 6    | -20.00 | -.2003 | .0387 | -.0927 | -.0326 | .0067  | -.2767 |
| 7    | -15.00 | -.2399 | .0461 | -.1142 | -.0255 | .0046  | -.2029 |
| 8    | -10.00 | -.2731 | .0526 | -.1077 | -.0179 | .0018  | -.1265 |
| 9    | -5.00  | -.2986 | .0589 | -.1018 | -.0092 | -.0017 | -.0491 |
| 10   | .00    | -.3106 | .0606 | -.1136 | .0007  | -.0058 | .0186  |
| 11   | 5.00   | -.3108 | .0578 | -.1183 | .0108  | -.0060 | .0845  |
| 13   | 15.00  | -.2556 | .0446 | -.1348 | .0271  | -.0120 | .2140  |
| 14   | 10.00  | -.2895 | .0521 | -.1201 | -.0183 | -.0108 | .1493  |
| 15   | 20.00  | -.2035 | .0346 | -.1223 | .0328  | -.0140 | .2851  |
| 16   | .00    | -.3088 | .0613 | -.1028 | .0005  | -.0016 | .0177  |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

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PAJ

RUN 99 CONFIG F P B W1 N T2 L

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 8       | .0        | .0      | 301.7       | 65.82       | -221.        | 6.           | -158.        | 2.89        | 56.57 | 130.45  | 0. |
| 9       | -20.0     | .0      | -102.2      | 66.68       | -1061.       | 2.           | -67.         | 6.29        | 54.74 | 128.27  | 0. |
| 10      | -15.0     | .0      | -7.6        | 44.60       | -1070.       | 9.           | -117.        | 5.40        | 54.90 | 128.47  | 0. |
| 11      | -10.0     | .0      | 115.2       | 42.76       | -814.        | -6.          | 37.          | -.62        | 54.56 | 128.06  | 0. |
| 12      | -5.0      | .0      | 238.0       | 50.30       | -498.        | -40.         | -34.         | -.81        | 54.88 | 128.44  | 0. |
| 13      | -2.5      | .0      | 312.3       | 56.52       | -327.        | 1.           | -3.          | 2.24        | 54.70 | 128.23  | 0. |
| 14      | -.0       | .0      | 299.5       | 64.97       | -208.        | 18.          | -59.         | 4.58        | 55.09 | 128.69  | 0. |
| 15      | 2.5       | .0      | 312.0       | 75.40       | -53.         | 12.          | -22.         | 3.95        | 55.15 | 128.77  | 0. |
| 16      | 5.0       | .0      | 312.9       | 88.14       | 62.          | 23.          | 83.          | 5.57        | 55.09 | 128.69  | 0. |
| 17      | 10.0      | .0      | 319.3       | 122.31      | 265.         | 28.          | 33.          | 4.08        | 55.13 | 128.74  | 0. |
| 18      | 15.0      | .0      | 362.5       | 187.97      | 489.         | 67.          | -266.        | 5.03        | 54.82 | 128.37  | 0. |
| 19      | 20.0      | .0      | 396.8       | 237.34      | 742.         | 34.          | 141.         | 1.43        | 54.96 | 128.53  | 0. |
| 20      | -.0       | .0      | 299.9       | 65.25       | -211.        | 19.          | -110.        | 4.52        | 55.71 | 129.43  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 8    | .00    | .8153  | .1779 | -.0713 | .0004  | -.0095 | .0078  |
| 9    | -20.00 | -.2761 | .1802 | -.3421 | .0001  | -.0041 | .0170  |
| 10   | -14.99 | -.0206 | .1205 | -.3451 | .0006  | -.0071 | .0146  |
| 11   | -9.99  | .3113  | .1156 | -.2625 | -.0004 | .0022  | -.0017 |
| 12   | -5.00  | .6431  | .1359 | -.1605 | -.0024 | -.0021 | -.0022 |
| 13   | -2.49  | .8440  | .1528 | -.1055 | .0000  | -.0002 | .0061  |
| 14   | -.02   | .8095  | .1756 | -.0669 | .0011  | -.0035 | .0124  |
| 15   | 2.49   | .8434  | .2038 | -.0169 | .0007  | -.0013 | .0107  |
| 16   | 4.99   | .8457  | .2382 | .0199  | .0014  | .0050  | .0150  |
| 17   | 10.00  | .8631  | .3306 | .0853  | .0017  | .0020  | .0110  |
| 18   | 15.00  | .9797  | .5080 | .1576  | .0040  | -.0161 | .0136  |
| 19   | 19.99  | 1.0724 | .6414 | .2392  | .0020  | .0085  | .0039  |
| 20   | -.00   | .8104  | .1763 | -.0679 | .0012  | -.0066 | .0122  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMR   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 8    | .00    | .8153  | .1779 | -.0713 | .0004  | -.0095 | .0078  |
| 9    | -20.00 | -.2761 | .1802 | -.3421 | .0001  | -.0041 | .0170  |
| 10   | -14.99 | -.0206 | .1205 | -.3451 | .0006  | -.0071 | .0146  |
| 11   | -9.99  | .3113  | .1156 | -.2625 | -.0004 | .0022  | -.0017 |
| 12   | -5.00  | .6431  | .1359 | -.1605 | -.0024 | -.0021 | -.0022 |
| 13   | -2.49  | .8440  | .1528 | -.1055 | .0000  | -.0002 | .0061  |
| 14   | -.02   | .8095  | .1756 | -.0669 | .0011  | -.0035 | .0124  |
| 15   | 2.49   | .8434  | .2038 | -.0169 | .0007  | -.0013 | .0107  |
| 16   | 4.99   | .8457  | .2382 | .0199  | .0014  | .0050  | .0150  |
| 17   | 10.00  | .8631  | .3306 | .0853  | .0017  | .0020  | .0110  |
| 18   | 15.00  | .9797  | .5080 | .1576  | .0040  | -.0161 | .0136  |
| 19   | 19.99  | 1.0724 | .6414 | .2392  | .0020  | .0085  | .0039  |
| 20   | -.00   | .8104  | .1763 | -.0679 | .0012  | -.0066 | .0122  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 83

RUN 100 CONFIG F P R W I N T 2 L

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | - DELE      | - DELR       | - DFLSB      | -            | PPM         |           |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-----------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CPBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DFLSB PSF | V KNOTS |    |
| 5       | .0        | .0      | 304.1       | 65.69       | -204.        | 19.          | 27.          | 6.43        | 54.55     | 128.05  | 0. |
| 6       | .0        | -20.0   | 320.0       | 86.06       | -15.         | -615.        | -227.        | -83.13      | 54.71     | 128.24  | 0. |
| 7       | .0        | -15.0   | 332.0       | 74.22       | -58.         | -472.        | -263.        | -57.11      | 54.70     | 128.23  | 0. |
| 8       | .0        | -10.0   | 340.8       | 74.08       | -626.        | -75.         | 424.         | -44.21      | 54.86     | 128.42  | 0. |
| 9       | .0        | -5.0    | 312.7       | 66.01       | -211.        | -239.        | -77.         | -20.03      | 55.27     | 128.90  | 0. |
| 10      | .0        | -2.5    | 305.0       | 65.55       | -224.        | -140.        | -76.         | -10.40      | 55.04     | 128.63  | 0. |
| 11      | .0        | .0      | 303.7       | 66.02       | -234.        | 11.          | -164.        | 4.64        | 58.03     | 128.62  | 0. |
| 12      | .0        | 2.5     | 311.1       | 66.60       | -209.        | 142.         | 53.          | 16.59       | 55.03     | 128.62  | 0. |
| 13      | .0        | 5.0     | 323.1       | 67.92       | -191.        | 272.         | 148.         | 27.94       | 54.87     | 128.42  | 0. |
| 14      | .0        | 10.0    | 339.8       | 67.23       | -67.         | 397.         | 273.         | 35.59       | 54.75     | 128.29  | 0. |
| 15      | .0        | 15.0    | 325.5       | 73.75       | -31.         | 517.         | 269.         | 58.85       | 54.82     | 128.37  | 0. |
| 16      | .0        | 20.0    | 313.2       | 84.35       | -12.         | 670.         | 125.         | 86.28       | 54.72     | 128.25  | 0. |
| 17      | .0        | .0      | 297.8       | 65.43       | -223.        | 5.           | -198.        | 3.28        | 54.96     | 128.54  | 0. |
| 18      | .0        | -10.0   | 328.4       | 68.68       | -169.        | -402.        | -486.        | -39.58      | 55.16     | 128.78  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 5    | .00    | .8218 | .1775 | -.0657 | .0011  | .0017  | .0174  |
| 6    | -20.00 | .8649 | .2326 | -.0047 | -.0371 | -.0137 | -.2247 |
| 7    | -15.00 | .8973 | .2006 | -.0186 | -.0285 | -.0159 | -.1543 |
| 8    | -10.00 | .9211 | .2002 | -.2018 | -.0045 | .0256  | -.1195 |
| 9    | -5.00  | .8450 | .1784 | -.0681 | -.0145 | -.0047 | -.0541 |
| 10   | -2.50  | .8244 | .1772 | -.0722 | -.0084 | -.0046 | -.0281 |
| 11   | .00    | .8207 | .1784 | -.0754 | .0007  | -.0099 | .0125  |
| 12   | 2.50   | .8407 | .1800 | -.0674 | .0086  | .0032  | .0448  |
| 13   | 5.00   | .8732 | .1836 | -.0616 | .0164  | .0090  | .0755  |
| 14   | 10.00  | .9185 | .1817 | -.0217 | .0240  | .0165  | .0962  |
| 15   | 15.00  | .8798 | .1993 | -.0100 | .0312  | .0163  | .1590  |
| 16   | 20.00  | .8465 | .2280 | -.0038 | .0405  | .0075  | .2332  |
| 17   | .00    | .8050 | .1768 | -.0720 | .0003  | -.0120 | .0089  |
| 18   | -10.00 | .8875 | .1856 | -.0544 | -.0243 | -.0294 | -.1070 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 5    | .00    | .8218 | .1775 | -.0657 | .0011  | .0017  | .0174  |
| 6    | -20.00 | .8649 | .1413 | .0206  | -.0371 | -.0126 | -.2909 |
| 7    | -15.00 | .8973 | .1536 | .0041  | -.0285 | -.0144 | -.2012 |
| 8    | -10.00 | .9211 | .1763 | -.2225 | -.0045 | .0318  | -.1526 |
| 9    | -5.00  | .8450 | .1730 | -.0656 | -.0145 | -.0035 | -.0696 |
| 10   | -2.50  | .8244 | .1758 | -.0710 | -.0084 | -.0040 | -.0358 |
| 11   | .00    | .8207 | .1784 | -.0754 | .0007  | -.0099 | .0125  |
| 12   | 2.50   | .8407 | .1779 | -.0666 | .0086  | .0026  | .0527  |
| 13   | 5.00   | .8732 | .1762 | -.0572 | .0164  | .0079  | .0913  |
| 14   | 10.00  | .9185 | .1622 | -.0060 | .0240  | .0156  | .1264  |
| 15   | 15.00  | .8798 | .1511 | .0129  | .0312  | .0152  | .2054  |
| 16   | 20.00  | .8465 | .1340 | .0102  | .0405  | .0068  | .2973  |
| 17   | .00    | .8050 | .1768 | -.0720 | .0003  | -.0120 | .0089  |
| 18   | -10.00 | .8875 | .1641 | -.0262 | -.0243 | -.0271 | -.1377 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

Pf4

RUN 101 CONFIG F P B W1 N T2 L

| IW      | 15 DELF   | 25 DELA | 0 IHT       | - DELE      | - DELR       | - DFLSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | 473.7       | 106.57      | -459.        | 126.         | -647.        | 34.06       | 54.51 | 128.01  | 0. |
| 3       | -20.0     | .0      | 36.8        | 74.65       | -1487.       | 34.          | 43.          | -3.59       | 54.96 | 128.54  | 0. |
| 4       | -15.0     | .0      | 174.2       | 67.28       | -1548.       | 32.          | 57.          | -2.03       | 55.38 | 129.04  | 0. |
| 5       | -10.0     | .0      | 311.7       | 74.89       | -1252.       | 4.           | 180.         | -1.56       | 54.74 | 128.27  | 0. |
| 6       | -5.0      | .0      | 461.9       | 91.54       | -922.        | -38.         | 68.          | 2.00        | 54.62 | 128.14  | 0. |
| 7       | -2.5      | .0      | 522.0       | 101.93      | -699.        | -40.         | 72.          | -1.19       | 54.12 | 127.54  | 0. |
| 8       | -.0       | .0      | 458.3       | 104.59      | -467.        | 103.         | -923.        | 29.83       | 54.70 | 128.23  | 0. |
| 9       | 2.5       | .0      | 370.9       | 109.41      | -269.        | -9.          | 68.          | 2.87        | 54.59 | 128.09  | 0. |
| 10      | 5.0       | .0      | 368.6       | 124.95      | -150.        | 19.          | 157.         | 3.63        | 54.47 | 127.95  | 0. |
| 11      | 10.0      | .0      | 375.3       | 176.67      | 32.          | 46.          | 108.         | -2.81       | 54.50 | 127.99  | 0. |
| 12      | 15.0      | .0      | 393.3       | 232.40      | 229.         | 88.          | -304.        | 5.50        | 54.46 | 127.94  | 0. |
| 13      | 20.0      | .0      | 421.4       | 284.07      | 427.         | 22.          | -54.         | -1.82       | 54.17 | 127.59  | 0. |
| 14      | -.0       | .0      | 459.8       | 105.03      | -473.        | 114.         | -836.        | 29.80       | 54.65 | 128.16  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.2802 | .2880 | -.1480 | .0076  | -.0391 | .0920  |
| 3    | -19.99 | .0994  | .2018 | -.4793 | .0020  | .0026  | -.0097 |
| 4    | -15.00 | .4707  | .1818 | -.4989 | .0019  | .0034  | -.0055 |
| 5    | -10.00 | .8424  | .2024 | -.4038 | .0002  | .0109  | -.0042 |
| 6    | -4.99  | 1.2483 | .2474 | -.2972 | -.0023 | .0041  | .0054  |
| 7    | -2.49  | 1.4108 | .2755 | -.2254 | -.0024 | .0043  | -.0005 |
| 8    | -.01   | 1.2386 | .2827 | -.1507 | .0062  | -.0558 | .0806  |
| 9    | 2.50   | 1.0132 | .2957 | -.0867 | -.0006 | .0041  | .0078  |
| 10   | 5.00   | .9963  | .3377 | -.0483 | .0011  | .0095  | .0098  |
| 11   | 10.00  | 1.0143 | .4775 | .0103  | .0028  | .0065  | -.0076 |
| 12   | 15.01  | 1.0629 | .6281 | .0738  | .0053  | -.0183 | .0149  |
| 13   | 20.00  | 1.1390 | .7678 | .1377  | .0013  | -.0033 | -.0022 |
| 14   | -.00   | 1.2428 | .2839 | -.1525 | .0069  | -.0505 | .0805  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMR   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.2802 | .2880 | -.1480 | .0076  | -.0391 | .0920  |
| 3    | -19.99 | .0994  | .2018 | -.4793 | .0020  | .0026  | -.0097 |
| 4    | -15.00 | .4707  | .1818 | -.4989 | .0019  | .0034  | -.0055 |
| 5    | -10.00 | .8424  | .2024 | -.4038 | .0002  | .0109  | -.0042 |
| 6    | -4.99  | 1.2483 | .2474 | -.2972 | -.0023 | .0041  | .0054  |
| 7    | -2.49  | 1.4108 | .2755 | -.2254 | -.0024 | .0043  | -.0005 |
| 8    | -.01   | 1.2386 | .2827 | -.1507 | .0062  | -.0558 | .0806  |
| 9    | 2.50   | 1.0132 | .2957 | -.0867 | -.0006 | .0041  | .0078  |
| 10   | 5.00   | .9963  | .3377 | -.0483 | .0011  | .0095  | .0098  |
| 11   | 10.00  | 1.0143 | .4775 | .0103  | .0028  | .0065  | -.0076 |
| 12   | 15.01  | 1.0629 | .6281 | .0738  | .0053  | -.0183 | .0149  |
| 13   | 20.00  | 1.1390 | .7678 | .1377  | .0013  | -.0033 | -.0022 |
| 14   | -.00   | 1.2428 | .2839 | -.1525 | .0069  | -.0505 | .0805  |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011

P 85

RUN 104 CONFIG F P R W1 T2 L

| IW      | 15 DELF   | 25 DELA | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | RPM       |         |        |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-----------|---------|--------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR SQ-FT | CYBAR PSF | V KNOTS |        |    |
| 2       | .0        | .0      | 580.7       | 104.65      | -560.        | -4.          | 106.         | 1.01      | 54.08   | 127.50 | 0. |
| 3       | -20.0     | .0      | 41.1        | 48.69       | -1335.       | 74.          | -4.          | 1.70      | 54.18   | 127.62 | 0. |
| 4       | -15.0     | .0      | 187.3       | 48.85       | -1306.       | 54.          | 66.          | 2.23      | 55.08   | 128.70 | 0. |
| 5       | -10.0     | .0      | 332.6       | 60.57       | -1145.       | 47.          | 115.         | 4.46      | 55.01   | 128.61 | 0. |
| 6       | -5.0      | .0      | 464.2       | 80.05       | -888.        | 14.          | 118.         | 4.25      | 54.54   | 128.05 | 0. |
| 7       | -2.5      | .0      | 522.2       | 91.61       | -733.        | -17.         | 51.          | 1.25      | 54.72   | 128.26 | 0. |
| 8       | .0        | .0      | 574.4       | 103.58      | -553.        | -12.         | 53.          | -.25      | 55.02   | 128.62 | 0. |
| 9       | 2.5       | .0      | 620.2       | 115.24      | -343.        | 7.           | 127.         | -1.88     | 54.47   | 127.97 | 0. |
| 10      | 5.0       | .0      | 506.6       | 122.86      | -194.        | -135.        | 1198.        | -29.97    | 54.67   | 128.20 | 0. |
| 11      | 10.0      | .0      | 342.2       | 152.19      | -145.        | 37.          | 158.         | 1.56      | 54.72   | 128.26 | 0. |
| 12      | 15.0      | .0      | 316.5       | 209.99      | -182.        | 74.          | -250.        | 4.32      | 54.44   | 127.92 | 0. |
| 13      | 20.0      | .0      | 332.1       | 257.45      | -161.        | 36.          | -124.        | 1.82      | 54.37   | 127.84 | 0. |
| 14      | -.0       | .0      | 580.2       | 104.64      | -558.        | 20.          | 34.          | 1.45      | 53.93   | 127.32 | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.5696 | .2828 | -.1806 | -.0002 | .0064  | .0027  |
| 3    | -20.00 | .1111  | .1316 | -.4302 | .0045  | -.0002 | .0046  |
| 4    | -15.00 | .5061  | .1320 | -.4209 | .0033  | .0040  | .0060  |
| 5    | -9.99  | .8988  | .1637 | -.3693 | .0028  | .0070  | .0121  |
| 6    | -5.00  | 1.2546 | .2163 | -.2863 | .0008  | .0071  | .0115  |
| 7    | -2.50  | 1.4114 | .2476 | -.2363 | -.0010 | .0031  | .0034  |
| 8    | .00    | 1.5525 | .2799 | -.1782 | -.0007 | .0032  | -.0007 |
| 9    | 2.49   | 1.6762 | .3115 | -.1107 | .0004  | .0076  | -.0051 |
| 10   | 4.99   | 1.3691 | .3321 | -.0626 | -.0001 | .0724  | -.0810 |
| 11   | 10.00  | .9248  | .4113 | -.0467 | .0022  | .0096  | .0042  |
| 12   | 14.99  | .8554  | .5675 | -.0587 | .0045  | -.0151 | .0117  |
| 13   | 19.99  | .8975  | .6958 | -.0518 | .0022  | -.0075 | .0049  |
| 14   | -.00   | 1.5681 | .2828 | -.1798 | .0012  | .0021  | .0039  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.5696 | .2828 | -.1806 | -.0002 | .0064  | .0027  |
| 3    | -20.00 | .1111  | .1316 | -.4302 | .0045  | -.0002 | .0046  |
| 4    | -15.00 | .5061  | .1320 | -.4209 | .0033  | .0040  | .0060  |
| 5    | -9.99  | .8988  | .1637 | -.3693 | .0028  | .0070  | .0121  |
| 6    | -5.00  | 1.2546 | .2163 | -.2863 | .0008  | .0071  | .0115  |
| 7    | -2.50  | 1.4114 | .2476 | -.2363 | -.0010 | .0031  | .0034  |
| 8    | .00    | 1.5525 | .2799 | -.1782 | -.0007 | .0032  | -.0007 |
| 9    | 2.49   | 1.6762 | .3115 | -.1107 | .0004  | .0076  | -.0051 |
| 10   | 4.99   | 1.3691 | .3321 | -.0626 | -.0001 | .0724  | -.0810 |
| 11   | 10.00  | .9248  | .4113 | -.0467 | .0022  | .0096  | .0042  |
| 12   | 14.99  | .8554  | .5675 | -.0587 | .0045  | -.0151 | .0117  |
| 13   | 19.99  | .8975  | .6958 | -.0518 | .0022  | -.0075 | .0049  |
| 14   | -.00   | 1.5681 | .2828 | -.1798 | .0012  | .0021  | .0039  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 86

RUN 105 CONFIG F2 P 8 W1 T2

| IW      | 15 DELF   | 25 DELA | 0 IHT       | - DELE      | - DELR       | - DFLSR      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 7       | -0        | .0      | 579.7       | 95.50       | -668.        | 7.           | 133.         | -5.34       | 53.60 | 126.93  | 0. |
| 8       | -20.0     | .0      | 66.9        | 31.61       | -1209.       | 80.          | -5.          | 2.42        | 55.00 | 128.61  | 0. |
| 9       | -15.0     | .0      | 205.2       | 37.56       | -1177.       | 89.          | 68.          | 1.43        | 54.93 | 128.52  | 0. |
| 10      | -10.0     | .0      | 344.5       | 51.66       | -1097.       | 63.          | 149.         | -3.08       | 54.17 | 127.61  | 0. |
| 11      | -5.0      | .0      | 472.3       | 72.42       | -925.        | 40.          | 108.         | -.25        | 53.90 | 127.28  | 0. |
| 12      | -2.5      | .0      | 530.9       | 83.77       | -809.        | 40.          | 128.         | -1.89       | 53.98 | 127.38  | 0. |
| 13      | .0        | .0      | 576.6       | 94.83       | -662.        | 22.          | 183.         | -3.95       | 54.37 | 127.85  | 0. |
| 14      | 2.5       | .0      | 610.5       | 105.23      | -503.        | -4.          | 94.          | -4.88       | 54.50 | 128.00  | 0. |
| 15      | 5.0       | .0      | 441.3       | 108.32      | -290.        | 29.          | 211.         | -.43        | 55.29 | 128.94  | 0. |
| 16      | 10.0      | .0      | 384.1       | 164.47      | -413.        | -121.        | 37.          | -2.78       | 55.12 | 128.74  | 0. |
| 17      | 15.0      | .0      | 319.3       | 216.08      | -531.        | 202.         | -650.        | 12.06       | 55.36 | 129.03  | 0. |
| 18      | 20.0      | .0      | 317.8       | 256.72      | -517.        | 25.          | -124.        | -2.30       | 54.89 | 128.46  | 0. |
| 19      | -0        | .0      | 571.4       | 94.43       | -668.        | 17.          | 58.          | -4.89       | 55.70 | 129.43  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 7    | -0.00  | 1.5668 | .2581 | -.2155 | .0004  | .0081  | -.0144 |
| 8    | -20.00 | .1809  | .0854 | -.3897 | .0049  | -.0003 | .0065  |
| 9    | -14.99 | .5547  | .1015 | -.3795 | .0054  | .0041  | .0039  |
| 10   | -10.00 | .9311  | .1396 | -.3538 | .0038  | .0090  | -.0083 |
| 11   | -5.00  | 1.2764 | .1957 | -.2981 | .0024  | .0065  | -.0007 |
| 12   | -2.50  | 1.4350 | .2264 | -.2608 | .0024  | .0078  | -.0051 |
| 13   | .00    | 1.5584 | .2563 | -.2133 | .0013  | .0111  | -.0107 |
| 14   | 2.51   | 1.6501 | .2844 | -.1621 | -.0002 | .0057  | -.0132 |
| 15   | 4.99   | 1.1927 | .2928 | -.0936 | .0018  | .0127  | -.0012 |
| 16   | 10.00  | 1.0381 | .4445 | -.1332 | -.0073 | .0022  | -.0075 |
| 17   | 15.01  | .8629  | .5840 | -.1712 | .0122  | -.0393 | .0326  |
| 18   | 20.00  | .8590  | .6938 | -.1666 | .0015  | -.0075 | -.0062 |
| 19   | -0.00  | 1.5443 | .2552 | -.2155 | .0011  | .0035  | -.0132 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 7    | -0.00  | 1.5668 | .2581 | -.2155 | .0004  | .0081  | -.0144 |
| 8    | -20.00 | .1809  | .0854 | -.3897 | .0049  | -.0003 | .0065  |
| 9    | -14.99 | .5547  | .1015 | -.3795 | .0054  | .0041  | .0039  |
| 10   | -10.00 | .9311  | .1396 | -.3538 | .0038  | .0090  | -.0083 |
| 11   | -5.00  | 1.2764 | .1957 | -.2981 | .0024  | .0065  | -.0007 |
| 12   | -2.50  | 1.4350 | .2264 | -.2608 | .0024  | .0078  | -.0051 |
| 13   | .00    | 1.5584 | .2563 | -.2133 | .0013  | .0111  | -.0107 |
| 14   | 2.51   | 1.6501 | .2844 | -.1621 | -.0002 | .0057  | -.0132 |
| 15   | 4.99   | 1.1927 | .2928 | -.0936 | .0018  | .0127  | -.0012 |
| 16   | 10.00  | 1.0381 | .4445 | -.1332 | -.0073 | .0022  | -.0075 |
| 17   | 15.01  | .8629  | .5840 | -.1712 | .0122  | -.0393 | .0326  |
| 18   | 20.00  | .8590  | .6938 | -.1666 | .0015  | -.0075 | -.0062 |
| 19   | -0.00  | 1.5443 | .2552 | -.2155 | .0011  | .0035  | -.0132 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

PA7

RUN 106 CONFIG F P R W I N T B T

| PT. NO. | IW    | 15 DELF   |         | 0 DELA      |             | 0 IHT        |              | 0 DELE       |             | 0 DELR |        | 0 DFLSB |  | 0 V | RPM |
|---------|-------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|--------|---------|--|-----|-----|
|         |       | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF    | KNOTS  |         |  |     |     |
| 6       |       | .0        | .0      | 301.4       | 62.13       | -115.        | 18.          | 159.         | 2.47        | 53.69  | 127.04 | 0.      |  |     |     |
| 7       | -20.0 | .0        | -155.2  | 73.08       | 1264.       | -75.         | 22.          | 6.05         | 53.47       | 126.77 | 0.     |         |  |     |     |
| 8       | -15.0 | .0        | -46.3   | 46.28       | 733.        | -45.         | 23.          | 6.51         | 53.36       | 126.65 | 0.     |         |  |     |     |
| 9       | -10.0 | .0        | 89.1    | 38.84       | 354.        | -19.         | 65.          | 3.53         | 54.07       | 127.49 | 0.     |         |  |     |     |
| 10      | -5.0  | .0        | 238.0   | 44.47       | 304.        | 1.           | 143.         | .19          | 54.17       | 127.62 | 0.     |         |  |     |     |
| 11      | -2.5  | .0        | 286.2   | 51.09       | 188.        | 7.           | 42.          | -4.33        | 54.26       | 127.73 | 0.     |         |  |     |     |
| 12      | .0    | .0        | 296.3   | 60.99       | -111.       | 13.          | 177.         | .88          | 54.31       | 127.78 | 0.     |         |  |     |     |
| 13      | 2.5   | .0        | 314.2   | 71.24       | -303.       | 45.          | 231.         | -.19         | 54.46       | 127.96 | 0.     |         |  |     |     |
| 14      | 5.0   | .0        | 323.3   | 85.38       | -400.       | 54.          | 139.         | 3.90         | 54.15       | 127.58 | 0.     |         |  |     |     |
| 15      | 10.0  | -.1       | 350.8   | 123.85      | -766.       | 15.          | 74.          | .82          | 54.26       | 127.72 | 0.     |         |  |     |     |
| 16      | 15.0  | -.1       | 414.6   | 200.74      | -1162.      | 60.          | -193.        | -.75         | 54.19       | 127.63 | 0.     |         |  |     |     |
| 17      | 20.0  | -.1       | 453.2   | 268.05      | -1411.      | 154.         | 93.          | -3.36        | 53.79       | 127.15 | 0.     |         |  |     |     |
| 18      | -.0   | .0        | 294.4   | 62.08       | -88.        | 20.          | 89.          | .25          | 54.00       | 127.41 | 0.     |         |  |     |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .00    | .8147  | .1679 | -.0371 | .0011  | .0096  | .0067  |
| 7    | -20.01 | -.4195 | .1975 | .4077  | -.0045 | .0014  | .0164  |
| 8    | -14.99 | -.1250 | .1251 | .2362  | -.0027 | .0014  | .0176  |
| 9    | -10.01 | .2408  | .1050 | .1143  | -.0011 | .0039  | .0095  |
| 10   | -5.02  | .6432  | .1202 | .0981  | .0000  | .0086  | .0005  |
| 11   | -2.49  | .7735  | .1381 | .0605  | .0004  | .0025  | -.0117 |
| 12   | .01    | .8007  | .1648 | -.0356 | .0008  | .0107  | .0024  |
| 13   | 2.49   | .8493  | .1925 | -.0976 | .0027  | .0140  | -.0005 |
| 14   | 5.00   | .8737  | .2307 | -.1319 | .0033  | .0084  | .0105  |
| 15   | 9.99   | .9480  | .3347 | -.2469 | .0009  | .0044  | .0022  |
| 16   | 14.98  | 1.1206 | .5425 | -.3745 | .0036  | -.0117 | -.0020 |
| 17   | 20.00  | 1.2249 | .7245 | -.4549 | .0003  | .0056  | -.0091 |
| 18   | -.00   | .7956  | .1678 | -.0282 | .0012  | .0054  | .0007  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .00    | .8147  | .1679 | -.0371 | .0011  | .0096  | .0067  |
| 7    | -20.01 | -.4195 | .1975 | .4077  | -.0045 | .0014  | .0164  |
| 8    | -14.99 | -.1250 | .1251 | .2362  | -.0027 | .0014  | .0176  |
| 9    | -10.01 | .2408  | .1050 | .1143  | -.0011 | .0039  | .0095  |
| 10   | -5.02  | .6432  | .1202 | .0981  | .0000  | .0086  | .0005  |
| 11   | -2.49  | .7735  | .1381 | .0605  | .0004  | .0025  | -.0117 |
| 12   | .01    | .8007  | .1648 | -.0356 | .0008  | .0107  | .0024  |
| 13   | 2.49   | .8493  | .1925 | -.0976 | .0027  | .0140  | -.0005 |
| 14   | 5.00   | .8737  | .2307 | -.1319 | .0033  | .0084  | .0105  |
| 15   | 9.99   | .9480  | .3347 | -.2469 | .0009  | .0045  | .0016  |
| 16   | 14.98  | 1.1206 | .5425 | -.3744 | .0036  | -.0116 | -.0030 |
| 17   | 20.00  | 1.2249 | .7244 | -.4549 | .0003  | .0058  | -.0103 |
| 18   | -.00   | .7956  | .1678 | -.0282 | .0012  | .0054  | .0007  |

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RUN JOB CONFIG F P B W I N T B T

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------|-----|
| 2       | 0         | 0             | 294.3       | 62.31       | -147.        | 7.           | 32.          | 2.64        | 55.55       | 129.27  | 0.  |
| 3       | 0         | -20.0         | 271.6       | 86.20       | 494.         | 1187.        | -349.        | -114.36     | 54.99       | 128.59  | 0.  |
| 4       | 0         | -15.0         | 283.8       | 73.37       | 467.         | 797.         | -344.        | -77.02      | 55.42       | 129.10  | 0.  |
| 5       | 0         | -10.0         | 300.4       | 63.51       | 320.         | 332.         | -400.        | -40.33      | 55.83       | 129.60  | 0.  |
| 6       | 0         | -5.0          | 304.7       | 62.46       | 3.           | 85.          | -61.         | -18.90      | 55.51       | 129.21  | 0.  |
| 7       | 0         | -2.5          | 296.6       | 62.35       | -117.        | 49.          | 37.          | -9.31       | 55.99       | 129.79  | 0.  |
| 8       | 0         | 0             | 294.9       | 62.48       | -141.        | 15.          | 49.          | 2.57        | 55.71       | 129.45  | 0.  |
| 9       | 0         | 2.5           | 296.3       | 62.35       | -91.         | 9.           | 174.         | 10.46       | 55.71       | 129.46  | 0.  |
| 10      | 0         | 5.0           | 303.7       | 62.61       | 61.          | -18.         | 310.         | 16.75       | 54.71       | 128.26  | 0.  |
| 11      | 0         | 10.0          | 298.4       | 63.79       | 313.         | -407.        | 424.         | 43.70       | 55.03       | 128.64  | 0.  |
| 12      | 0         | 15.0          | 279.6       | 70.16       | 382.         | -846.        | 617.         | 79.27       | 55.65       | 129.38  | 0.  |
| 13      | 0         | 20.0          | 255.1       | 81.92       | 427.         | -1316.       | 625.         | 120.58      | 55.00       | 128.61  | 0.  |
| 14      | 0         | 0             | 296.4       | 62.80       | -120.        | 15.          | 106.         | .31         | 54.67       | 128.21  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .7953 | .1684 | -.0473 | .0004  | .0019  | .0071  |
| 3    | -20.00 | .7339 | .2330 | .1592  | .0717  | -.0211 | -.3091 |
| 4    | -15.00 | .7670 | .1983 | .1506  | .0481  | -.0208 | -.2082 |
| 5    | -10.00 | .8119 | .1717 | .1032  | .0201  | -.0242 | -.1090 |
| 6    | -5.00  | .8236 | .1688 | .0009  | .0051  | -.0037 | -.0511 |
| 7    | -2.50  | .8016 | .1685 | -.0378 | .0030  | .0022  | -.0252 |
| 8    | .00    | .7971 | .1689 | -.0456 | .0009  | .0030  | .0069  |
| 9    | 2.50   | .8007 | .1685 | -.0295 | .0006  | .0105  | .0283  |
| 10   | 5.00   | .8208 | .1692 | .0197  | -.0011 | .0187  | .0453  |
| 11   | 10.00  | .8066 | .1724 | .1008  | -.0246 | .0256  | .1181  |
| 12   | 15.00  | .7556 | .1896 | .1230  | -.0511 | .0373  | .2142  |
| 13   | 20.00  | .6895 | .2214 | .1376  | -.0795 | .0378  | .3259  |
| 14   | .00    | .8011 | .1697 | -.0385 | .0009  | .0064  | .0008  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .7953 | .1684 | -.0473 | .0004  | .0019  | .0071  |
| 3    | -20.00 | .7339 | .1126 | .1881  | .0717  | -.0300 | -.3703 |
| 4    | -15.00 | .7670 | .1374 | .1742  | .0481  | -.0274 | -.2526 |
| 5    | -10.00 | .8119 | .1500 | .1241  | .0201  | -.0272 | -.1373 |
| 6    | -5.00  | .8236 | .1637 | .0026  | .0051  | -.0037 | -.0657 |
| 7    | -2.50  | .8016 | .1672 | -.0383 | .0030  | .0025  | -.0325 |
| 8    | .00    | .7971 | .1689 | -.0456 | .0009  | .0030  | .0069  |
| 9    | 2.50   | .8007 | .1671 | -.0270 | .0006  | .0103  | .0356  |
| 10   | 5.00   | .8208 | .1646 | .0283  | -.0011 | .0190  | .0599  |
| 11   | 10.00  | .8066 | .1492 | .1231  | -.0246 | .0285  | .1464  |
| 12   | 15.00  | .7556 | .1274 | .1705  | -.0511 | .0420  | .2562  |
| 13   | 20.00  | .6895 | .0960 | .1985  | -.0795 | .0443  | .3821  |
| 14   | .00    | .8011 | .1697 | -.0385 | .0009  | .0064  | .0008  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

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RUN 110 CONFIG F P A W I T BT

| PT. NO. | IW ALPHA DEG | IS DELF PSI DFG | O DELA CLBAR SQ-FT | O IHT CDBAR SQ-FT | O DELE CPMBAR CU-FT | O DELR CYMBAR CU-FT | O DELSB CRMBAR CU-FT | O DELSB CYBAR SQ-FT | O DELSB Q PSF | O V KNOTS | RPM |
|---------|--------------|-----------------|--------------------|-------------------|---------------------|---------------------|----------------------|---------------------|---------------|-----------|-----|
| 6       | 0            | 0               | 353.1              | 51.05             | 304.                | 15.                 | 89.                  | 7.12                | 54.61         | 128.14    | 0.  |
| 7       | -20.0        | 0               | -194.2             | 40.79             | 1693.               | -9.                 | -72.                 | -8.64               | 55.22         | 128.86    | 0.  |
| 8       | -15.0        | 0               | -61.2              | 26.37             | 1254.               | -67.                | 52.                  | 8.92                | 55.40         | 129.08    | 0.  |
| 9       | -10.0        | 0               | 76.9               | 25.52             | 934.                | -37.                | 40.                  | 6.89                | 55.40         | 129.07    | 0.  |
| 10      | -5.0         | 0               | 224.4              | 35.21             | 596.                | -14.                | 47.                  | 3.59                | 54.96         | 128.55    | 0.  |
| 11      | -2.5         | 0               | 289.9              | 42.38             | 458.                | 1.                  | 33.                  | 1.86                | 55.06         | 128.67    | 0.  |
| 12      | 0            | 0               | 350.1              | 50.76             | 302.                | 18.                 | 104.                 | 6.1                 | 55.44         | 129.12    | 0.  |
| 13      | 2.5          | 0               | 396.7              | 61.66             | 24.                 | 7.                  | 87.                  | 1.36                | 54.93         | 128.52    | 0.  |
| 14      | 5.0          | 0               | 389.7              | 74.58             | -485.               | 33.                 | 85.                  | 3.34                | 55.08         | 128.69    | 0.  |
| 15      | 10.0         | 0               | 333.1              | 110.01            | -1111.              | -22.                | 279.                 | .92                 | 55.36         | 129.02    | 0.  |
| 16      | 15.0         | 0               | 333.7              | 186.63            | -2006.              | 248.                | -617.                | 7.60                | 55.15         | 128.76    | 0.  |
| 17      | 20.0         | 0               | 331.6              | 235.20            | -2252.              | 110.                | -474.                | 2.66                | 55.09         | 128.70    | 0.  |
| 18      | -0           | 0               | 351.4              | 51.12             | 306.                | 9.                  | 50.                  | 1.72                | 55.38         | 129.04    | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .01    | .9544  | .1380 | .0979  | .0009  | .0054  | -.0003 |
| 7    | -19.98 | -.5250 | .1102 | .5457  | -.0005 | -.0044 | .0233  |
| 8    | -14.96 | -.1655 | .0713 | .4042  | -.0040 | .0031  | .0241  |
| 9    | -10.04 | .2077  | .0690 | .3011  | -.0022 | .0024  | .0186  |
| 10   | -5.00  | .6065  | .0952 | .1922  | -.0008 | .0029  | .0097  |
| 11   | -2.55  | .7836  | .1146 | .1475  | .0000  | .0020  | .0050  |
| 12   | .01    | .9462  | .1372 | .0974  | .0011  | .0063  | .0017  |
| 13   | 2.48   | .0723  | .1666 | .0076  | .0004  | .0052  | .0037  |
| 14   | 4.99   | .0531  | .2016 | -.1564 | .0020  | .0051  | .0090  |
| 15   | 9.99   | .9004  | .2973 | -.3581 | -.0013 | .0169  | .0025  |
| 16   | 14.95  | .9019  | .5044 | -.6468 | .0150  | -.0372 | .0205  |
| 17   | 20.04  | .8961  | .6357 | -.7260 | .0067  | -.0287 | .0072  |
| 18   | -.01   | .9497  | .1382 | .0986  | .0005  | .0030  | .0047  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .01    | .9544  | .1380 | .0979  | .0009  | .0054  | -.0003 |
| 7    | -19.98 | -.5250 | .1102 | .5457  | -.0005 | -.0044 | .0233  |
| 8    | -14.96 | -.1655 | .0713 | .4042  | -.0040 | .0031  | .0241  |
| 9    | -10.04 | .2077  | .0690 | .3011  | -.0022 | .0024  | .0186  |
| 10   | -5.00  | .6065  | .0952 | .1922  | -.0008 | .0029  | .0097  |
| 11   | -2.55  | .7836  | .1146 | .1475  | .0000  | .0020  | .0050  |
| 12   | .01    | .9462  | .1372 | .0974  | .0011  | .0063  | .0017  |
| 13   | 2.48   | .0723  | .1666 | .0076  | .0004  | .0052  | .0037  |
| 14   | 4.99   | .0531  | .2016 | -.1564 | .0020  | .0051  | .0090  |
| 15   | 9.99   | .9004  | .2973 | -.3581 | -.0013 | .0169  | .0025  |
| 16   | 14.95  | .9019  | .5044 | -.6468 | .0150  | -.0372 | .0205  |
| 17   | 20.04  | .8961  | .6357 | -.7260 | .0067  | -.0287 | .0072  |
| 18   | -.01   | .9497  | .1382 | .0986  | .0005  | .0030  | .0047  |

RUN 111 CONFIG F P R W1, T BT

| PT. NO. | TW ALPHA DEG | IS DELF PSI DEG | G DELA CLBAR SQ-FT | O IHT CDBAR SQ-FT | O DELE CPMBAR CU-FT | O DELR CYMBAR CU-FT | O DELSB CRMBAR CU-FT | O V CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|--------------|-----------------|--------------------|-------------------|---------------------|---------------------|----------------------|-----------------|-------|---------|-----|
| 5       | 0            | 0               | 349.1              | 50.60             | 303.                | -3.                 | 104.                 | .37             | 55.79 | 129.53  | 0.  |
| 6       | 0            | -20.0           | 329.3              | 82.58             | 68.                 | 1121.               | 23.                  | -139.24         | 55.48 | 129.17  | 0.  |
| 7       | 0            | -15.0           | 326.2              | 65.30             | 188.                | 630.                | -105.                | -94.31          | 55.70 | 129.42  | 0.  |
| 8       | 0            | -10.0           | 346.8              | 64.68             | 441.                | 626.                | 778.                 | -67.66          | 55.43 | 129.10  | 0.  |
| 9       | 0            | -5.0            | 349.7              | 51.82             | 248.                | 100.                | 18.                  | -27.18          | 56.14 | 129.94  | 0.  |
| 10      | 0            | -2.5            | 347.7              | 50.75             | 282.                | 54.                 | 119.                 | -13.44          | 56.29 | 130.12  | 0.  |
| 11      | 0            | 0               | 350.6              | 51.12             | 274.                | -6.                 | 103.                 | 1.35            | 55.54 | 129.24  | 0.  |
| 12      | 0            | 2.5             | 348.4              | 51.13             | 245.                | -19.                | 110.                 | 13.14           | 55.73 | 129.45  | 0.  |
| 13      | 0            | 5.0             | 343.9              | 51.02             | 208.                | -29.                | 172.                 | 25.77           | 56.04 | 129.82  | 0.  |
| 14      | 0            | 10.0            | 331.1              | 52.71             | 162.                | -268.               | 47.                  | 56.96           | 55.92 | 129.68  | 0.  |
| 15      | 0            | 15.0            | 329.8              | 62.00             | 84.                 | -748.               | 293.                 | 100.16          | 56.15 | 129.95  | 0.  |
| 16      | 0            | 20.0            | 315.5              | 77.08             | -34.                | -1222.              | 109.                 | 142.83          | 55.71 | 129.43  | 0.  |
| 17      | 0            | -10.1           | 343.6              | 60.61             | -156.               | 468.                | 471.                 | -63.66          | 55.76 | 129.49  | 0.  |
| 18      | 0            | -10.0           | 341.3              | 55.02             | 215.                | 233.                | 24.                  | -54.38          | 56.31 | 130.14  | 0.  |
| 19      | 0            | 0               | 348.0              | 50.46             | 275.                | -14.                | 102.                 | 1.03            | 56.16 | 129.97  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 5    | .00    | .9436 | .1368 | .0977  | -.0002 | .0063  | .0010  |
| 6    | -20.00 | .8899 | .2232 | .0218  | .0677  | .0014  | -.3763 |
| 7    | -15.00 | .8815 | .1765 | .0608  | .0381  | -.0064 | -.2549 |
| 8    | -10.00 | .9373 | .1748 | -.1422 | .0378  | .0470  | -.1829 |
| 9    | -5.00  | .9451 | .1401 | .0799  | .0060  | .0011  | -.0735 |
| 10   | -2.50  | .9398 | .1372 | .0908  | .0032  | .0072  | -.0363 |
| 11   | .00    | .9476 | .1381 | .0884  | -.0004 | .0062  | .0036  |
| 12   | 2.50   | .9416 | .1382 | .0790  | -.0012 | .0067  | .0365  |
| 13   | 5.00   | .9295 | .1379 | .0672  | -.0017 | .0104  | .0697  |
| 14   | 10.00  | .8947 | .1425 | .0521  | -.0162 | .0029  | .1539  |
| 15   | 15.00  | .8914 | .1676 | .0270  | -.0452 | .0177  | .2707  |
| 16   | 20.00  | .8526 | .2083 | -.0110 | -.0738 | .0066  | .3860  |
| 17   | -10.10 | .9285 | .1638 | -.0504 | .0282  | .0285  | -.1721 |
| 18   | -10.00 | .9224 | .1487 | .0695  | .0141  | -.0015 | -.1470 |
| 19   | .00    | .9404 | .1364 | .0888  | -.0009 | .0062  | .0028  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 5    | .00    | .9436 | .1368 | .0977  | -.0002 | .0063  | .0010  |
| 6    | -20.00 | .8899 | .0803 | .0179  | .0677  | -.0001 | -.4301 |
| 7    | -15.00 | .8815 | .1042 | .0675  | .0381  | -.0091 | -.2920 |
| 8    | -10.00 | .9373 | .1402 | -.1837 | .0378  | .0509  | -.2106 |
| 9    | -5.00  | .9451 | .1331 | .0790  | .0060  | -.0002 | -.0854 |
| 10   | -2.50  | .9398 | .1354 | .0890  | .0032  | .0064  | -.0423 |
| 11   | .00    | .9476 | .1381 | .0884  | -.0004 | .0062  | .0036  |
| 12   | 2.50   | .9416 | .1365 | .0805  | -.0012 | .0073  | .0415  |
| 13   | 5.00   | .9295 | .1313 | .0718  | -.0017 | .0115  | .0815  |
| 14   | 10.00  | .8947 | .1134 | .0539  | -.0162 | .0045  | .1764  |
| 15   | 15.00  | .8914 | .0914 | .0507  | -.0452 | .0184  | .3050  |
| 16   | 20.00  | .8526 | .0630 | .0017  | -.0738 | .0055  | .4341  |
| 17   | -10.10 | .9285 | .1309 | -.0764 | .0282  | .0297  | -.1982 |
| 18   | -10.00 | .9224 | .1208 | .0697  | .0141  | -.0097 | -.1707 |
| 19   | .00    | .9404 | .1364 | .0888  | -.0009 | .0062  | .0028  |

RUN 112 CONFIG F P B W L T BT

| PT. NO. | 1W ALPHA DEG | 15 DELF PSI DEG | 0 DELA CLBAR SQ-FT | 0 DELA CDBAR SQ-FT | 0 IHT CPMBAR CU-FT | 5 DELE CYMBAR CU-FT | 0 DELR CRMBAR CU-FT | 0 DELSB CYBAR SQ-FT | 0 DELSB Q PSF | 0 V KNOTS | RPM |
|---------|--------------|-----------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------|-----------|-----|
| 2       | 0            | 0               | 375.4              | 53.24              | -480.              | 4.                  | 36.                 | -0.79               | 55.94         | 129.70    | 0.  |
| 3       | -20.0        | 0               | -166.4             | 31.19              | 986.               | -58.                | 30.                 | 9.62                | 56.30         | 130.13    | 0.  |
| 4       | -15.0        | 0               | -34.7              | 21.82              | 471.               | -87.                | 31.                 | 9.65                | 56.47         | 130.33    | 0.  |
| 5       | -10.0        | 0               | 106.9              | 22.74              | 115.               | -29.                | 113.                | 4.36                | 56.27         | 130.08    | 0.  |
| 6       | -5.0         | 0               | 249.7              | 34.45              | -216.              | 1.                  | 95.                 | 5.15                | 56.21         | 130.01    | 0.  |
| 7       | -2.5         | 0               | 316.0              | 43.32              | -341.              | -5.                 | 119.                | 1.03                | 56.11         | 129.90    | 0.  |
| 8       | -0           | 0               | 376.7              | 53.39              | -480.              | 15.                 | 68.                 | .73                 | 55.95         | 129.71    | 0.  |
| 9       | 2.5          | 0               | 409.7              | 64.14              | -731.              | 13.                 | 49.                 | 2.04                | 56.69         | 130.58    | 0.  |
| 10      | 5.0          | 0               | 403.5              | 78.99              | -1120.             | 19.                 | -38.                | 3.53                | 56.01         | 129.78    | 0.  |
| 11      | 10.1         | 0               | 339.5              | 118.33             | -1687.             | 0.                  | 188.                | 1.03                | 56.37         | 130.19    | 0.  |
| 12      | 15.0         | 0               | 329.5              | 177.07             | -2424.             | 228.                | -363.               | 6.43                | 56.18         | 129.98    | 0.  |
| 13      | 20.0         | 0               | 330.2              | 240.42             | -2318.             | 156.                | -223.               | 7.65                | 56.13         | 129.92    | 0.  |
| 14      | 0            | 0               | 371.2              | 52.91              | -469.              | 21.                 | 67.                 | .77                 | 57.17         | 131.14    | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.0147 | .1439 | -.1546 | .0002  | .0022  | -.0021 |
| 3    | -19.99 | -.4497 | .0843 | .3180  | -.0035 | .0018  | .0260  |
| 4    | -15.00 | -.0937 | .0590 | .1517  | -.0052 | .0019  | .0261  |
| 5    | -10.02 | .2889  | .0615 | .0369  | -.0018 | .0068  | .0118  |
| 6    | -4.99  | .6749  | .0931 | -.0696 | .0001  | .0058  | .0139  |
| 7    | -2.54  | .8540  | .1171 | -.1099 | -.0003 | .0072  | .0028  |
| 8    | -0.1   | 1.0180 | .1443 | -.1549 | .0009  | .0041  | .0020  |
| 9    | 2.53   | 1.1074 | .1733 | -.2356 | .0008  | .0030  | .0055  |
| 10   | 5.01   | 1.0904 | .2135 | -.3611 | .0012  | -.0023 | .0095  |
| 11   | 10.07  | .9174  | .3198 | -.5437 | .0000  | .0114  | .0028  |
| 12   | 15.04  | .8904  | .5326 | -.7814 | .0138  | -.0220 | .0174  |
| 13   | 19.99  | .8925  | .6498 | -.7474 | .0094  | -.0135 | .0207  |
| 14   | .02    | 1.0031 | .1430 | -.1512 | .0012  | .0040  | .0021  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.0147 | .1439 | -.1546 | .0002  | .0022  | -.0021 |
| 3    | -19.99 | -.4497 | .0843 | .3180  | -.0035 | .0018  | .0260  |
| 4    | -15.00 | -.0937 | .0590 | .1517  | -.0052 | .0019  | .0261  |
| 5    | -10.02 | .2889  | .0615 | .0369  | -.0018 | .0068  | .0118  |
| 6    | -4.99  | .6749  | .0931 | -.0696 | .0001  | .0058  | .0139  |
| 7    | -2.54  | .8540  | .1171 | -.1099 | -.0003 | .0072  | .0028  |
| 8    | -0.1   | 1.0180 | .1443 | -.1549 | .0009  | .0041  | .0020  |
| 9    | 2.53   | 1.1074 | .1733 | -.2356 | .0008  | .0030  | .0055  |
| 10   | 5.01   | 1.0904 | .2135 | -.3611 | .0012  | -.0023 | .0095  |
| 11   | 10.07  | .9174  | .3198 | -.5437 | .0000  | .0114  | .0028  |
| 12   | 15.04  | .8904  | .5326 | -.7814 | .0138  | -.0220 | .0174  |
| 13   | 19.99  | .8925  | .6498 | -.7474 | .0094  | -.0135 | .0207  |
| 14   | .02    | 1.0031 | .1430 | -.1512 | .0012  | .0040  | .0021  |

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RUN 113 CONFIG F P B W I T B T

| PT. NO. | IW ALPHA DEG | 15 DELF PSI DEG | 0 DELA CLBAR SQ=FT | 0 IHT CDBAR SQ=FT | 10 DELE CPMBAR CU=FT | 0 DELR CYMBAR CU=FT | 0 DELR CRMBAR CU=FT | 0 DELR CYBAR SQ=FT | 0 DELS8 Q PSF | 0 V KNOTS | RPM   |
|---------|--------------|-----------------|--------------------|-------------------|----------------------|---------------------|---------------------|--------------------|---------------|-----------|-------|
| 2       | 0            | 0               | 391.7              | 56.67             | -1014.               | 29.                 | 52.                 | -42                | 56.40         | 130.24    | 0.    |
| 3       | -20.0        | 0               | -141.5             | 27.13             | 334.                 | -53.                | 62.                 | 10.07              | 57.17         | 131.15    | 0.    |
| 4       | -15.0        | 0               | -12.5              | 19.60             | -130.                | -60.                | 86.                 | 8.68               | 56.13         | 129.92    | 0.    |
| 5       | -9.9         | 0               | 133.0              | 23.32             | -542.                | -12.                | 44.                 | 5.12               | 54.58         | 128.08    | 0.    |
| 6       | -5.0         | 0               | 270.8              | 36.83             | -834.                | 19.                 | 48.                 | 2.83               | 55.29         | 128.93    | 0.    |
| 7       | -2.5         | 0               | 335.2              | 45.96             | -923.                | 23.                 | 102.                | 2.15               | 55.49         | 129.16    | 360.  |
| 8       | 0            | 0               | 390.1              | 56.12             | -1009.               | 36.                 | 104.                | .68                | 55.49         | 129.16    | 1260. |
| 9       | 2.5          | 0               | 426.0              | 67.89             | -1196.               | 25.                 | 120.                | 2.21               | 55.60         | 129.29    | 0.    |
| 10      | 5.1          | 0               | 413.3              | 83.99             | -1486.               | 43.                 | 86.                 | 1.97               | 55.31         | 128.94    | 0.    |
| 11      | 10.0         | 0               | 350.0              | 128.20            | -2047.               | 12.                 | 210.                | 1.17               | 55.19         | 128.81    | 0.    |
| 12      | 15.0         | 0               | 311.2              | 199.90            | -2500.               | 74.                 | -350.               | 4.05               | 55.51         | 129.18    | 0.    |
| 13      | 20.0         | 0               | 322.4              | 245.29            | -2364.               | 77.                 | -245.               | 3.51               | 55.27         | 128.89    | 0.    |
| 14      | 0            | 0               | 390.5              | 56.28             | -997.                | 33.                 | 84.                 | 2.19               | 56.04         | 129.81    | 0.    |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.0586 | .1532 | -.3269 | .0018  | .0031  | -.0011 |
| 3    | -20.00 | -.3824 | .0733 | .1077  | -.0032 | .0037  | .0272  |
| 4    | -15.05 | -.0338 | .0530 | -.0421 | -.0037 | .0052  | .0235  |
| 5    | -9.94  | .3596  | .0630 | -.1748 | -.0007 | .0027  | .0138  |
| 6    | -4.98  | .7320  | .0995 | -.2688 | .0012  | .0029  | .0077  |
| 7    | -2.48  | .9060  | .1242 | -.2974 | .0014  | .0061  | .0058  |
| 8    | 0.03   | 1.0544 | .1517 | -.3251 | .0022  | .0063  | .0018  |
| 9    | 2.49   | 1.1514 | .1835 | -.3855 | .0015  | .0072  | .0060  |
| 10   | 5.05   | 1.1169 | .2270 | -.4790 | .0026  | .0052  | .0053  |
| 11   | 9.98   | .9460  | .3465 | -.6599 | .0007  | .0127  | .0032  |
| 12   | 14.97  | .8412  | .5403 | -.8059 | .0045  | -.0211 | .0109  |
| 13   | 19.97  | .8714  | .6630 | -.7623 | .0047  | -.0148 | .0095  |
| 14   | 0.00   | 1.0554 | .1521 | -.3214 | .0020  | .0051  | .0059  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.0586 | .1532 | -.3269 | .0018  | .0031  | -.0011 |
| 3    | -20.00 | -.3824 | .0733 | .1077  | -.0032 | .0037  | .0272  |
| 4    | -15.05 | -.0338 | .0530 | -.0421 | -.0037 | .0052  | .0235  |
| 5    | -9.94  | .3596  | .0630 | -.1748 | -.0007 | .0027  | .0138  |
| 6    | -4.98  | .7320  | .0995 | -.2688 | .0012  | .0029  | .0077  |
| 7    | -2.48  | .9060  | .1242 | -.2974 | .0014  | .0061  | .0058  |
| 8    | 0.03   | 1.0544 | .1517 | -.3251 | .0022  | .0063  | .0018  |
| 9    | 2.49   | 1.1514 | .1835 | -.3855 | .0015  | .0072  | .0060  |
| 10   | 5.05   | 1.1169 | .2270 | -.4790 | .0026  | .0052  | .0053  |
| 11   | 9.98   | .9460  | .3465 | -.6599 | .0007  | .0127  | .0032  |
| 12   | 14.97  | .8412  | .5403 | -.8059 | .0045  | -.0211 | .0109  |
| 13   | 19.97  | .8714  | .6630 | -.7623 | .0047  | -.0148 | .0095  |
| 14   | 0.00   | 1.0554 | .1521 | -.3214 | .0020  | .0051  | .0059  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 114 CONFIG F P B W I, T B T

| PT. NO. | IW ALPHA DEG | 15 DELF PSI DFG | 0 DELA CLBAR SQ-FT | 0 IHT CDBAR SQ-FT | -9 DELE CPMBAR CU-FT | 0 DELR CRMBAR CU-FT | 0 DELSB CYBAR SQ-FT | Q PSF | 0 V KNOTS | RPM    |    |
|---------|--------------|-----------------|--------------------|-------------------|----------------------|---------------------|---------------------|-------|-----------|--------|----|
| 2       | 0            | 0               | 300.6              | 51.17             | 1538.                | -22.                | 99.                 | 1.78  | 57.28     | 131.26 | 0. |
| 3       | -20.1        | 0               | -192.2             | 60.39             | 1890.                | -16.                | 31.                 | 9.16  | 55.77     | 129.48 | 0. |
| 4       | -15.1        | 0               | -84.7              | 46.03             | 1907.                | -81.                | 51.                 | 9.55  | 54.94     | 128.51 | 0. |
| 5       | -10.0        | 0               | 56.0               | 41.22             | 1529.                | 24.                 | 98.                 | 3.88  | 55.34     | 128.98 | 0. |
| 6       | -5.0         | 0               | 179.3              | 44.36             | 1736.                | -12.                | 84.                 | 2.29  | 55.10     | 128.70 | 0. |
| 7       | -2.5         | 0               | 240.6              | 45.10             | 1733.                | -24.                | 14.                 | 2.85  | 54.90     | 128.46 | 0. |
| 8       | 0            | 0               | 300.9              | 51.42             | 1534.                | -16.                | 85.                 | 2.16  | 55.12     | 128.71 | 0. |
| 9       | 2.6          | 0               | 342.6              | 59.68             | 1252.                | 5.                  | 49.                 | 3.72  | 54.99     | 128.57 | 0. |
| 10      | 5.1          | 0               | 344.7              | 71.32             | 650.                 | 25.                 | 177.                | 5.56  | 54.98     | 128.55 | 0. |
| 11      | 10.0         | 0               | 282.0              | 102.09            | -87.                 | -9.                 | 119.                | 2.31  | 54.64     | 128.14 | 0. |
| 13      | 20.0         | 0               | 315.0              | 213.23            | -1478.               | 120.                | -209.               | 2.88  | 55.55     | 129.22 | 0. |
| 14      | 15.0         | 0               | 277.7              | 159.34            | -806.                | 201.                | 72.                 | 7.09  | 55.27     | 128.90 | 0. |
| 15      | -10.0        | 0               | 55.8               | 41.40             | 1554.                | 4.                  | 40.                 | 2.70  | 55.51     | 129.18 | 0. |
| 16      | -12.6        | 0               | -9.1               | 41.74             | 1597.                | -14.                | 58.                 | 5.87  | 55.74     | 129.45 | 0. |
| 17      | -7.6         | 0               | 118.4              | 42.39             | 1558.                | 20.                 | 47.                 | 2.55  | 56.11     | 129.88 | 0. |
| 18      | -5.0         | 0               | 178.0              | 44.13             | 1691.                | -3.                 | 83.                 | 2.19  | 56.01     | 129.77 | 0. |
| 19      | -15.0        | 0               | -78.6              | 45.28             | 1874.                | -103.               | 50.                 | 9.54  | 55.36     | 129.00 | 0. |
| 20      | -0           | 0               | 300.0              | 51.15             | 1533.                | -3.                 | 86.                 | 1.05  | 55.26     | 128.88 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .8125  | .1383 | .4959  | -.0013 | .0060  | .0048  |
| 3    | -20.07 | -.5194 | .1632 | .6092  | -.0010 | .0019  | .0248  |
| 4    | -15.09 | -.2289 | .1244 | .6147  | -.0049 | .0031  | .0258  |
| 5    | -10.02 | .1512  | .1114 | .4929  | .0014  | .0059  | .0105  |
| 6    | -5.05  | .4845  | .1199 | .5597  | -.0008 | .0051  | .0062  |
| 7    | -2.47  | .6503  | .1219 | .5587  | -.0015 | .0008  | .0077  |
| 8    | .01    | .8131  | .1390 | .4946  | -.0010 | .0051  | .0058  |
| 9    | 2.57   | .9259  | .1613 | .4037  | .0003  | .0029  | .0100  |
| 10   | 5.07   | .9316  | .1928 | .2096  | .0015  | .0107  | -.0015 |
| 11   | 9.99   | .7620  | .2759 | -.0280 | -.0005 | -.0012 | .0062  |
| 13   | 19.98  | .8514  | .5763 | -.4766 | .0073  | -.0126 | .0078  |
| 14   | 15.01  | .7504  | .4307 | -.2599 | .0122  | -.0043 | .0192  |
| 15   | -9.98  | .1509  | .1119 | .5010  | .0002  | -.0024 | .0073  |
| 16   | -12.55 | -.0245 | .1128 | .5149  | -.0008 | .0035  | .0159  |
| 17   | -7.58  | .3199  | .1146 | .5022  | .0012  | .0029  | .0069  |
| 18   | -5.00  | .4810  | .1193 | .5451  | -.0002 | .0050  | .0059  |
| 19   | -14.98 | -.2124 | .1224 | .6040  | -.0062 | .0030  | .0258  |
| 20   | -.03   | .8109  | .1382 | .4942  | -.0002 | .0052  | .0028  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .8125  | .1383 | .4959  | -.0013 | .0060  | .0048  |
| 3    | -20.07 | -.5194 | .1632 | .6092  | -.0010 | .0019  | .0248  |
| 4    | -15.09 | -.2289 | .1244 | .6147  | -.0049 | .0031  | .0258  |
| 5    | -10.02 | .1512  | .1114 | .4929  | .0014  | .0059  | .0105  |
| 6    | -5.05  | .4845  | .1199 | .5597  | -.0008 | .0051  | .0062  |
| 7    | -2.47  | .6503  | .1219 | .5587  | -.0015 | .0008  | .0077  |
| 8    | .01    | .8131  | .1390 | .4946  | -.0010 | .0051  | .0058  |
| 9    | 2.57   | .9259  | .1613 | .4037  | .0003  | .0029  | .0100  |
| 10   | 5.07   | .9316  | .1928 | .2096  | .0015  | .0107  | -.0015 |
| 11   | 9.99   | .7620  | .2759 | -.0280 | -.0005 | -.0012 | .0062  |
| 13   | 19.98  | .8514  | .5763 | -.4766 | .0073  | -.0126 | .0078  |
| 14   | 15.01  | .7504  | .4307 | -.2599 | .0122  | -.0043 | .0192  |
| 15   | -9.98  | .1509  | .1119 | .5010  | .0002  | -.0024 | .0073  |
| 16   | -12.55 | -.0245 | .1128 | .5149  | -.0008 | .0035  | .0159  |
| 17   | -7.58  | .3199  | .1146 | .5022  | .0012  | .0029  | .0069  |
| 18   | -5.00  | .4810  | .1193 | .5451  | -.0002 | .0050  | .0059  |
| 19   | -14.98 | -.2124 | .1224 | .6040  | -.0062 | .0030  | .0258  |
| 20   | -.03   | .8109  | .1382 | .4942  | -.0002 | .0052  | .0028  |

RUN 115 CONFIG F P 8 W1 T BT

| 1W<br>PT.<br>NO. | IS DELF<br>ALPHA<br>DEG | DELTA<br>PSI<br>DFG | O DELA<br>CLBAR<br>SQ-FT | O IHT<br>CDBAR<br>SQ-FT | -S DELE<br>CPMBAR<br>CU-FT | O DELR<br>CYMBAR<br>CU-FT | O DELSB<br>CRMBAR<br>CU-FT | O<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM |
|------------------|-------------------------|---------------------|--------------------------|-------------------------|----------------------------|---------------------------|----------------------------|---------------------|----------|------------|-----|
| 2                | 0                       | 0                   | 325.0                    | 50.08                   | 825.                       | 8.                        | 122.                       | 7.18                | 55.63    | 129.33     | 0.  |
| 3                | -20.0                   | 0                   | -187.7                   | 50.54                   | 1703.                      | -31.                      | 34.                        | 7.85                | 55.97    | 129.72     | 0.  |
| 4                | -15.0                   | 0                   | -69.1                    | 35.92                   | 1524.                      | -108.                     | 69.                        | 8.34                | 56.36    | 130.19     | 0.  |
| 5                | -10.1                   | 0                   | 56.2                     | 27.99                   | 1460.                      | -23.                      | 79.                        | 4.16                | 55.72    | 129.43     | 0.  |
| 6                | -5.0                    | 0                   | 198.0                    | 35.79                   | 1137.                      | 2.                        | 66.                        | 1.95                | 55.83    | 129.56     | 0.  |
| 7                | -2.5                    | 0                   | 264.7                    | 42.51                   | 996.                       | 13.                       | 70.                        | -0.37               | 55.71    | 129.42     | 0.  |
| 8                | -0                      | 0                   | 325.8                    | 50.07                   | 823.                       | 11.                       | 140.                       | 0.00                | 55.56    | 129.24     | 0.  |
| 9                | 2.5                     | 0                   | 364.2                    | 58.79                   | 529.                       | -5.                       | 49.                        | 2.86                | 55.89    | 129.63     | 0.  |
| 10               | 5.1                     | 0                   | 361.2                    | 72.67                   | -36.                       | 19.                       | -55.                       | 3.16                | 56.03    | 129.79     | 0.  |
| 11               | 10.0                    | 0                   | 303.8                    | 103.75                  | -657.                      | -5.                       | 205.                       | 1.02                | 56.67    | 130.55     | 0.  |
| 12               | 15.2                    | 0                   | 293.8                    | 172.55                  | -1507.                     | 142.                      | -463.                      | 6.19                | 56.65    | 130.51     | 0.  |
| 13               | 20.0                    | 0                   | 319.6                    | 220.98                  | -1896.                     | 151.                      | -16.                       | 4.77                | 56.40    | 130.22     | 0.  |
| 14               | 0                       | 0                   | 320.9                    | 49.67                   | 795.                       | -3.                       | 69.                        | -0.18               | 56.04    | 129.80     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .8784  | .1354 | .2659  | .0005  | .0074  | -.0005 |
| 3    | -20.00 | -.5072 | .1366 | .5490  | -.0019 | .0021  | .0212  |
| 4    | -15.04 | -.1867 | .0971 | .4912  | -.0065 | .0041  | .0225  |
| 5    | -10.13 | .1520  | .0757 | .4705  | -.0014 | .0048  | .0112  |
| 6    | -4.97  | .5350  | .0967 | .3666  | .0001  | .0040  | .0053  |
| 7    | -2.46  | .7153  | .1149 | .3210  | .0008  | .0042  | -.0010 |
| 8    | -0.02  | .8806  | .1353 | .2652  | .0007  | .0084  | .0000  |
| 9    | 2.52   | .9842  | .1589 | .1706  | -.0003 | .0030  | .0077  |
| 10   | 5.14   | .9762  | .1964 | -.0116 | .0012  | -.0033 | .0085  |
| 11   | 10.02  | .8212  | .2804 | -.2117 | -.0003 | .0124  | .0028  |
| 12   | 15.18  | .7939  | .4664 | -.4859 | .0086  | -.0280 | .0167  |
| 13   | 20.01  | .8638  | .5972 | -.6112 | .0091  | -.0010 | .0129  |
| 14   | .02    | .8672  | .1343 | .2564  | -.0002 | .0042  | -.0005 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .8784  | .1354 | .2659  | .0005  | .0074  | -.0005 |
| 3    | -20.00 | -.5072 | .1366 | .5490  | -.0019 | .0021  | .0212  |
| 4    | -15.04 | -.1867 | .0971 | .4912  | -.0065 | .0041  | .0225  |
| 5    | -10.13 | .1520  | .0757 | .4705  | -.0014 | .0048  | .0112  |
| 6    | -4.97  | .5350  | .0967 | .3666  | .0001  | .0040  | .0053  |
| 7    | -2.46  | .7153  | .1149 | .3210  | .0008  | .0042  | -.0010 |
| 8    | -0.02  | .8806  | .1353 | .2652  | .0007  | .0084  | .0000  |
| 9    | 2.52   | .9842  | .1589 | .1706  | -.0003 | .0030  | .0077  |
| 10   | 5.14   | .9762  | .1964 | -.0116 | .0012  | -.0033 | .0085  |
| 11   | 10.02  | .8212  | .2804 | -.2117 | -.0003 | .0124  | .0028  |
| 12   | 15.18  | .7939  | .4664 | -.4859 | .0086  | -.0280 | .0167  |
| 13   | 20.01  | .8638  | .5972 | -.6112 | .0091  | -.0010 | .0129  |
| 14   | .02    | .8672  | .1343 | .2564  | -.0002 | .0042  | -.0005 |

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RUN 116 CONFIG F P R W I T BT

| PT. NO. | TW<br>ALPHA<br>DEG | DELTA<br>PSI<br>DFG | DELTA<br>CLBAR<br>SQ-FT | DELTA<br>CDBAR<br>SQ-FT | IHT<br>CPM BAR<br>CU-FT | DELE<br>CYM BAR<br>CU-FT | DEL R<br>CRM BAR<br>CU-FT | DELSB<br>CYBAR<br>SQ-FT | DEL S<br>Q<br>PSF | V<br>KNOTS | RPM |
|---------|--------------------|---------------------|-------------------------|-------------------------|-------------------------|--------------------------|---------------------------|-------------------------|-------------------|------------|-----|
| 6       | 0                  | 0                   | 53.6                    | 17.21                   | -427.                   | 25.                      | 31.                       | 2.22                    | 56.70             | 130.59     | 0.  |
| 7       | -20.0              | 0                   | -277.1                  | 117.27                  | 1789.                   | -267.                    | 216.                      | 21.28                   | 54.92             | 128.47     | 0.  |
| 8       | -15.0              | 0                   | -238.6                  | 80.84                   | 1064.                   | -84.                     | 133.                      | 11.78                   | 55.24             | 128.86     | 0.  |
| 9       | -10.0              | 0                   | -220.7                  | 30.22                   | 255.                    | -8.                      | 745.                      | 5.53                    | 55.46             | 129.12     | 0.  |
| 10      | -5.0               | 0                   | -87.5                   | 18.63                   | -165.                   | -10.                     | 24.                       | 7.55                    | 54.63             | 128.13     | 0.  |
| 11      | -2.5               | 0                   | -17.3                   | 15.98                   | -296.                   | 4.                       | 63.                       | 5.16                    | 55.48             | 129.14     | 0.  |
| 12      | 0                  | 0                   | 53.8                    | 17.28                   | -426.                   | 26.                      | 29.                       | 4.85                    | 54.84             | 128.38     | 0.  |
| 13      | 2.5                | 0                   | 129.4                   | 20.63                   | -504.                   | 40.                      | 118.                      | 4.52                    | 55.01             | 128.59     | 0.  |
| 14      | 5.0                | 0                   | 203.8                   | 26.97                   | -585.                   | 63.                      | 69.                       | 1.87                    | 54.60             | 128.10     | 0.  |
| 15      | 10.0               | 0                   | 335.8                   | 44.93                   | -859.                   | 115.                     | 70.                       | 1.12                    | 54.74             | 128.26     | 0.  |
| 16      | 15.0               | 0                   | 433.3                   | 75.80                   | -1177.                  | 168.                     | 71.                       | -1.36                   | 54.91             | 128.47     | 0.  |
| 17      | 20.0               | 0                   | 453.3                   | 126.54                  | -1485.                  | 34.                      | 212.                      | .19                     | 54.82             | 128.36     | 0.  |
| 18      | 15.0               | 0                   | 433.8                   | 75.74                   | -1181.                  | 204.                     | 0.                        | -1.99                   | 54.86             | 128.41     | 0.  |
| 19      | 0                  | 0                   | 53.8                    | 17.20                   | -406.                   | 23.                      | 64.                       | 4.70                    | 55.12             | 128.72     | 0.  |
| 20      | -15.0              | 0                   | -275.4                  | 70.49                   | 1019.                   | -116.                    | 657.                      | 13.07                   | 55.27             | 128.90     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | Cy     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | 0.00   | .1448  | .0465 | -.1375 | .0015  | .0019  | .0060  |
| 7    | -20.00 | -.7490 | .3170 | .5769  | -.0161 | .0131  | .0575  |
| 8    | -15.00 | -.6450 | .2185 | .3431  | -.0051 | .0081  | .0318  |
| 9    | -10.01 | -.5965 | .0817 | .0823  | -.0005 | -.0027 | .0149  |
| 10   | -5.00  | -.2365 | .0504 | -.0530 | -.0006 | .0014  | .0204  |
| 11   | -2.50  | -.0469 | .0432 | -.0954 | .0002  | .0038  | .0139  |
| 12   | 0.00   | .1454  | .0467 | -.1373 | .0016  | .0018  | .0131  |
| 13   | 2.50   | .3496  | .0558 | -.1625 | .0024  | .0071  | .0122  |
| 14   | 5.00   | .5508  | .0729 | -.1887 | .0038  | .0042  | .0051  |
| 15   | 10.00  | .9076  | .1214 | -.2769 | .0069  | .0042  | .0030  |
| 16   | 15.00  | 1.1710 | .2049 | -.3795 | .0101  | .0043  | -.0037 |
| 17   | 19.99  | 1.2251 | .3420 | -.4788 | .0020  | .0128  | .0005  |
| 18   | 15.00  | 1.1724 | .2047 | -.3808 | .0123  | .0000  | -.0054 |
| 19   | 0.00   | .1455  | .0465 | -.1309 | .0014  | .0039  | .0127  |
| 20   | -15.00 | -.7442 | .1905 | .3285  | -.0070 | .0397  | .0353  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | 0.00   | .1448  | .0465 | -.1375 | .0015  | .0019  | .0060  |
| 7    | -20.00 | -.7490 | .3170 | .5769  | -.0161 | .0131  | .0575  |
| 8    | -15.00 | -.6450 | .2185 | .3431  | -.0051 | .0081  | .0318  |
| 9    | -10.01 | -.5965 | .0817 | .0823  | -.0005 | -.0027 | .0149  |
| 10   | -5.00  | -.2365 | .0504 | -.0530 | -.0006 | .0014  | .0204  |
| 11   | -2.50  | -.0469 | .0432 | -.0954 | .0002  | .0038  | .0139  |
| 12   | 0.00   | .1454  | .0467 | -.1373 | .0016  | .0018  | .0131  |
| 13   | 2.50   | .3496  | .0558 | -.1625 | .0024  | .0071  | .0122  |
| 14   | 5.00   | .5508  | .0729 | -.1887 | .0038  | .0042  | .0051  |
| 15   | 10.00  | .9076  | .1214 | -.2769 | .0069  | .0042  | .0030  |
| 16   | 15.00  | 1.1710 | .2049 | -.3795 | .0101  | .0043  | -.0037 |
| 17   | 19.99  | 1.2251 | .3420 | -.4788 | .0020  | .0128  | .0005  |
| 18   | 15.00  | 1.1724 | .2047 | -.3808 | .0123  | .0000  | -.0054 |
| 19   | 0.00   | .1455  | .0465 | -.1309 | .0014  | .0039  | .0127  |
| 20   | -15.00 | -.7442 | .1905 | .3285  | -.0070 | .0397  | .0353  |

RUN 117 CONFIG F P R W I T BT

| PT. NO. | ALPHA DEG | O DELF PSI DFG | O DELA CLBAR SQ-FT | O IHT CDBAR SQ-FT | O DELE CPMBAR CU-FT | O DELR CYMBAR CU-FT | O DELSB CRMBAR CU-FT | O DELSB Q CYBAR SQ-FT | O V KNOTS | RPM    |    |
|---------|-----------|----------------|--------------------|-------------------|---------------------|---------------------|----------------------|-----------------------|-----------|--------|----|
| 2       | 0         | 0              | 54.0               | 17.86             | -405.               | 22.                 | 31.                  | 3.78                  | 54.11     | 127.52 | 0. |
| 3       | 0         | -20.0          | 77.5               | 56.12             | -628.               | 848.                | 71.                  | -136.90               | 53.77     | 127.11 | 0. |
| 4       | 0         | -15.0          | 70.7               | 36.32             | -474.               | 336.                | -125.                | -94.47                | 54.23     | 127.66 | 0. |
| 5       | 0         | -10.0          | 61.5               | 24.17             | -437.               | 79.                 | -63.                 | -56.50                | 55.11     | 128.71 | 0. |
| 6       | 0         | -5.0           | 56.1               | 18.23             | -370.               | -589.               | -1775.               | -7.06                 | 54.50     | 127.99 | 0. |
| 7       | 0         | -5.0           | 56.1               | 18.98             | -416.               | 15.                 | -10.                 | -24.62                | 54.80     | 128.34 | 0. |
| 8       | 0         | -2.5           | 54.2               | 18.37             | -405.               | 35.                 | -36.                 | -10.65                | 54.71     | 128.24 | 0. |
| 9       | 0         | 0              | 53.7               | 17.78             | -403.               | 20.                 | 49.                  | 3.30                  | 54.75     | 128.28 | 0. |
| 10      | 0         | 2.5            | 54.7               | 18.54             | -430.               | 61.                 | 28.                  | 19.77                 | 54.63     | 128.14 | 0. |
| 11      | 0         | 5.0            | 57.6               | 19.80             | -439.               | 71.                 | 29.                  | 34.09                 | 54.66     | 128.17 | 0. |
| 12      | 0         | 10.0           | 63.6               | 24.52             | -511.               | -53.                | 88.                  | 64.34                 | 54.74     | 128.27 | 0. |
| 13      | 0         | 15.0           | 70.6               | 34.85             | -564.               | -555.               | -682.                | 108.66                | 54.36     | 127.82 | 0. |
| 14      | 0         | 20.0           | 80.3               | 52.90             | -687.               | -777.               | 181.                 | 142.74                | 54.75     | 128.28 | 0. |
| 15      | 0         | 0              | 54.4               | 18.00             | -380.               | 14.                 | 13.                  | 3.77                  | 54.26     | 127.70 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CO    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .1459 | .0483 | -.1304 | .0013  | .0019  | .0102  |
| 3    | -20.00 | .2094 | .1517 | -.2025 | .0512  | .0043  | -.3700 |
| 4    | -15.00 | .1910 | .0982 | -.1527 | .0203  | -.0076 | -.2553 |
| 5    | -10.00 | .1663 | .0653 | -.1409 | .0048  | -.0038 | -.1527 |
| 6    | -5.00  | .1517 | .0493 | -.1193 | -.0356 | -.1072 | -.0191 |
| 7    | -5.00  | .1516 | .0513 | -.1342 | .0009  | -.0006 | -.0665 |
| 8    | -2.50  | .1464 | .0497 | -.1306 | .0021  | -.0022 | -.0288 |
| 9    | .00    | .1452 | .0480 | -.1300 | .0012  | .0030  | .0089  |
| 10   | 2.50   | .1478 | .0501 | -.1386 | .0037  | .0017  | .0534  |
| 11   | 5.00   | .1556 | .0535 | -.1414 | .0043  | .0017  | .0921  |
| 12   | 10.00  | .1719 | .0663 | -.1648 | -.0032 | .0053  | .1739  |
| 13   | 15.00  | .1909 | .0942 | -.1820 | -.0335 | -.0412 | .2937  |
| 14   | 20.00  | .2162 | .1430 | -.2215 | -.0469 | .0109  | .3858  |
| 15   | .00    | .1469 | .0486 | -.1226 | .0008  | .0008  | .0102  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1459 | .0483  | -.1304 | .0013  | .0019  | .0102  |
| 3    | -20.00 | .2094 | .0153  | -.1979 | .0512  | .0170  | -.3996 |
| 4    | -15.00 | .1910 | .0284  | -.1369 | .0203  | .0001  | -.2721 |
| 5    | -10.00 | .1663 | .0377  | -.1352 | .0048  | .0009  | -.1618 |
| 6    | -5.00  | .1517 | .0474  | -.0688 | -.0356 | -.1048 | -.0233 |
| 7    | -5.00  | .1516 | .0453  | -.1334 | .0009  | .0016  | -.0708 |
| 8    | -2.50  | .1464 | .0484  | -.1300 | .0021  | -.0011 | -.0309 |
| 9    | .00    | .1452 | .0480  | -.1300 | .0012  | .0030  | .0089  |
| 10   | 2.50   | .1478 | .0477  | -.1380 | .0037  | .0005  | .0556  |
| 11   | 5.00   | .1556 | .0452  | -.1400 | .0043  | -.0006 | .0965  |
| 12   | 10.00  | .1719 | .0349  | -.1573 | -.0032 | -.0001 | .1828  |
| 13   | 15.00  | .1909 | -.0146 | -.2328 | -.0335 | -.0486 | .3081  |
| 14   | 20.00  | .2162 | .0018  | -.1880 | -.0469 | -.0040 | .4114  |
| 15   | .00    | .1469 | .0486  | -.1226 | .0008  | .0008  | .0102  |



SIKOROKY NSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
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RUN 118 CONFIG F P B W T BT

| IW<br>PT.<br>NO. | ALPHA<br>DEG | DELTA<br>PSI<br>DFG | DELTA<br>CLBAR<br>SQ-FT | IHT<br>CDBAR<br>SQ-FT | DELE<br>CRMBAR<br>CU-FT | DELE<br>CYMBAR<br>CU-FT | DELE<br>CRMBAR<br>CU-FT | DELE<br>CYBAR<br>SQ-FT | DELSB<br>Q<br>PSF | V<br>KNOTS | RPM |
|------------------|--------------|---------------------|-------------------------|-----------------------|-------------------------|-------------------------|-------------------------|------------------------|-------------------|------------|-----|
| 3                | 0            | 0                   | 55.7                    | 17.30                 | -393.                   | 28.                     | 47.                     | 4.62                   | 54.62             | 128.13     | 0.  |
| 4                | 0            | -20.0               | 83.7                    | 53.92                 | -547.                   | 752.                    | -62.                    | -136.34                | 54.49             | 127.98     | 0.  |
| 5                | 0            | -15.0               | 72.4                    | 36.18                 | -461.                   | 349.                    | -68.                    | -94.71                 | 54.56             | 128.06     | 0.  |
| 6                | 0            | -10.0               | 63.3                    | 24.08                 | -442.                   | 84.                     | -98.                    | -56.18                 | 54.81             | 128.36     | 0.  |
| 7                | 0            | -5.0                | 57.1                    | 18.55                 | -437.                   | 29.                     | -97.                    | -24.41                 | 55.26             | 128.90     | 0.  |
| 8                | 0            | -2.5                | 57.4                    | 17.87                 | -408.                   | 27.                     | 15.                     | -8.49                  | 54.59             | 128.10     | 0.  |
| 9                | 0            | 0                   | 57.2                    | 17.22                 | -410.                   | 22.                     | 64.                     | 4.94                   | 55.13             | 128.74     | 0.  |
| 10               | 0            | 2.5                 | 54.9                    | 18.06                 | -447.                   | 60.                     | 28.                     | 19.65                  | 54.77             | 128.31     | 0.  |
| 11               | 0            | 5.0                 | 59.4                    | 19.62                 | -457.                   | 69.                     | 119.                    | 33.42                  | 54.22             | 127.65     | 0.  |
| 12               | 0            | 10.0                | 61.8                    | 23.92                 | -512.                   | -49.                    | 90.                     | 64.58                  | 54.59             | 128.10     | 0.  |
| 13               | 0            | 15.0                | 70.4                    | 34.58                 | -596.                   | -350.                   | 147.                    | 101.66                 | 54.48             | 127.97     | 0.  |
| 14               | 0            | 20.0                | 74.6                    | 52.09                 | -682.                   | -804.                   | 154.                    | 140.95                 | 54.77             | 128.30     | 0.  |
| 15               | 0            | 0                   | 57.6                    | 17.60                 | -393.                   | 27.                     | -47.                    | 4.67                   | 54.72             | 128.25     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPH    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 3    | 0.00   | .1504 | .0467 | -.1265 | .0017  | .0029  | .0125  |
| 4    | -20.00 | .2263 | .1457 | -.1765 | .0454  | -.0037 | -.3685 |
| 5    | -15.00 | .1956 | .0978 | -.1487 | .0211  | -.0041 | -.2560 |
| 6    | -10.00 | .1710 | .0651 | -.1424 | .0050  | -.0059 | -.1518 |
| 7    | -5.00  | .1544 | .0501 | -.1409 | .0017  | -.0059 | -.0660 |
| 8    | -2.50  | .1550 | .0483 | -.1315 | .0016  | .0009  | -.0229 |
| 9    | 0.00   | .1546 | .0465 | -.1323 | .0013  | .0039  | .0134  |
| 10   | 2.50   | .1485 | .0488 | -.1441 | .0036  | .0017  | .0531  |
| 11   | 5.00   | .1605 | .0530 | -.1474 | .0042  | .0072  | .0903  |
| 12   | 10.00  | .1670 | .0647 | -.1651 | -.0030 | .0054  | .1745  |
| 13   | 15.00  | .1904 | .0935 | -.1920 | -.0212 | .0089  | .2748  |
| 14   | 20.00  | .2016 | .1408 | -.2198 | -.0485 | .0093  | .3809  |
| 15   | 0.00   | .1556 | .0476 | -.1266 | .0016  | .0029  | .0126  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 3    | 0.00   | .1504 | .0467 | -.1265 | .0017  | .0029  | .0125  |
| 4    | -20.00 | .2263 | .0103 | -.1589 | .0454  | .0078  | -.3961 |
| 5    | -15.00 | .1956 | .0279 | -.1378 | .0211  | .0033  | -.2726 |
| 6    | -10.00 | .1710 | .0376 | -.1347 | .0050  | -.0012 | -.1609 |
| 7    | -5.00  | .1544 | .0442 | -.1376 | .0017  | -.0035 | -.0701 |
| 8    | -2.50  | .1550 | .0472 | -.1315 | .0016  | .0020  | -.0250 |
| 9    | 0.00   | .1546 | .0465 | -.1323 | .0013  | .0039  | .0134  |
| 10   | 2.50   | .1485 | .0464 | -.1436 | .0036  | .0005  | .0552  |
| 11   | 5.00   | .1605 | .0449 | -.1435 | .0042  | .0048  | .0946  |
| 12   | 10.00  | .1670 | .0332 | -.1575 | -.0030 | -.0001 | .1831  |
| 13   | 15.00  | .1904 | .0188 | -.1731 | -.0212 | -.0008 | .2896  |
| 14   | 20.00  | .2016 | .0014 | -.1894 | -.0485 | -.0054 | .4061  |
| 15   | 0.00   | .1556 | .0476 | -.1266 | .0016  | .0029  | .0126  |

ORIGINAL PAGE IS  
OF POOR QUALITY

RUN 119 CONFIG F P R W T BT

| PT. NO. | ALPHA DEG | DELTA PSI DFG | DELTA CIBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------|---------------|-----|
| 2       | 0         | 0             | 339.4             | 49.28             | 133                | 15                 | 89                 | 19                | 54.57       | 128.08        | 0   |
| 3       | 0         | -20           | 325.4             | 78.86             | -9                 | 1136               | -100               | -140.28           | 54.30       | 127.75        | 0   |
| 4       | 0         | -15           | 326.4             | 64.15             | 201                | 638                | 320                | -88.91            | 54.14       | 127.56        | 0   |
| 5       | 0         | -10           | 339.5             | 54.01             | 56                 | 238                | 37                 | -55.48            | 54.58       | 128.09        | 0   |
| 6       | 0         | -5            | 344.7             | 50.78             | 81                 | 81                 | 84                 | 27.84             | 54.45       | 127.93        | 0   |
| 7       | 0         | -2.5          | 341.7             | 50.64             | 93                 | 59                 | 32                 | -14.74            | 54.76       | 128.29        | 0   |
| 8       | 0         | 0             | 342.1             | 50.18             | 108                | 19                 | 73                 | -1.50             | 54.60       | 128.11        | 0   |
| 9       | 0         | 2.5           | 337.1             | 50.59             | 42                 | 40                 | 98                 | 13.27             | 54.43       | 127.90        | 0   |
| 10      | 0         | 4.9           | 330.1             | 49.65             | 47                 | -83                | -318               | 29.86             | 54.98       | 128.56        | 0   |
| 11      | 0         | 10            | 327.0             | 51.94             | 42                 | -198               | 200                | 56.67             | 54.58       | 128.08        | 0   |
| 12      | 0         | 15            | 317.4             | 60.02             | 24                 | -361               | 438                | 84.23             | 54.39       | 127.86        | 0   |
| 13      | 0         | 20            | 311.6             | 75.77             | -87                | -1281              | 234                | 144.06            | 54.51       | 128.00        | 0   |
| 14      | 0         | 0             | 336.1             | 50.78             | 76                 | 31                 | 67                 | 3.45              | 54.27       | 127.71        | 0   |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .9174 | .1332 | .0430  | .0009  | .0053  | .0005  |
| 3    | -20.00 | .8795 | .2131 | -.0030 | .0686  | -.0060 | -.3791 |
| 4    | -15.00 | .8822 | .1734 | .0649  | .0385  | .0193  | -.2403 |
| 5    | -10.00 | .9174 | .1460 | .0180  | .0144  | .0023  | -.1499 |
| 6    | -5.00  | .9315 | .1373 | .0260  | .0049  | .0051  | -.0752 |
| 7    | -2.50  | .9236 | .1369 | .0300  | .0036  | .0020  | -.0398 |
| 8    | 0.00   | .9245 | .1356 | .0347  | .0011  | .0044  | -.0040 |
| 9    | 2.50   | .9110 | .1367 | .0136  | .0024  | .0059  | .0359  |
| 10   | 4.90   | .8920 | .1342 | .0150  | -.0050 | -.0192 | .0807  |
| 11   | 10.00  | .8838 | .1404 | .0136  | -.0119 | .0121  | .1532  |
| 12   | 15.00  | .8578 | .1622 | .0078  | -.0218 | .0264  | .2277  |
| 13   | 20.00  | .8421 | .2048 | -.0279 | -.0774 | .0141  | .3893  |
| 14   | 0.00   | .9082 | .1372 | .0247  | .0019  | .0040  | .0093  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .9174 | .1332 | .0430  | .0009  | .0053  | .0005  |
| 3    | -20.00 | .8795 | .0699 | .0082  | .0686  | -.0055 | -.4293 |
| 4    | -15.00 | .8822 | .1049 | .0358  | .0385  | .0155  | -.2771 |
| 5    | -10.00 | .9174 | .1176 | .0156  | .0144  | .0016  | -.1731 |
| 6    | -5.00  | .9315 | .1301 | .0235  | .0049  | .0046  | -.0870 |
| 7    | -2.50  | .9236 | .1350 | .0295  | .0036  | .0017  | -.0458 |
| 8    | 0.00   | .9245 | .1356 | .0347  | .0011  | .0044  | -.0040 |
| 9    | 2.50   | .9110 | .1350 | .0150  | .0024  | .0061  | .0418  |
| 10   | 4.90   | .8920 | .1268 | .0062  | -.0050 | -.0189 | .0919  |
| 11   | 10.00  | .8838 | .1115 | .0247  | -.0119 | .0123  | .1753  |
| 12   | 15.00  | .8578 | .0975 | .0442  | -.0218 | .0269  | .2620  |
| 13   | 20.00  | .8421 | .0586 | -.0003 | -.0774 | .0115  | .4360  |
| 14   | 0.00   | .9082 | .1372 | .0247  | .0019  | .0040  | .0093  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 99

RUN 120 CONFIG F P R W T BT

| PT. NO. | IS DELTA ALPHA DEG | DELTA PSI DFG | O DELTA CLBAR SQ-FT | O DELTA CD BAR SQ-FT | O IHT CPM BAR CU-FT | O DELE CYM BAR CU-FT | O DELR CRM BAR CU-FT | O DELSB Q PSF | O V KNOTS | RPM    |   |
|---------|--------------------|---------------|---------------------|----------------------|---------------------|----------------------|----------------------|---------------|-----------|--------|---|
| 2       | 0                  | 0             | 338.9               | 50.02                | 100                 | 1                    | 103                  | 3.00          | 54.50     | 127.99 | 0 |
| 3       | -20.0              | 0             | -197.8              | 36.65                | 1639                | -1                   | -8                   | 3.63          | 54.37     | 127.83 | 0 |
| 4       | -15.0              | 0             | -70.0               | 25.43                | 1111                | -33                  | -65                  | 5.28          | 54.23     | 127.67 | 0 |
| 5       | -10.0              | 0             | 70.4                | 24.31                | 760                 | 0                    | 100                  | 3.50          | 54.45     | 127.93 | 0 |
| 6       | -5.0               | 0             | 215.7               | 33.42                | 417                 | -30                  | 100                  | 3.78          | 54.98     | 128.57 | 0 |
| 7       | -2.5               | 0             | 281.3               | 41.11                | 266                 | -7                   | 119                  | 3.37          | 54.61     | 128.12 | 0 |
| 8       | 0                  | 0             | 340.1               | 50.05                | 98                  | 5                    | 121                  | 3.00          | 54.47     | 127.95 | 0 |
| 9       | 2.5                | 0             | 308.7               | 55.74                | 2607                | -43                  | 46                   | 6.19          | 54.52     | 128.02 | 0 |
| 10      | 5.0                | 0             | 398.7               | 77.33                | -597                | 31                   | 214                  | -0.06         | 54.24     | 127.68 | 0 |
| 11      | 10.0               | 0             | 329.9               | 110.08               | -1212               | -16                  | 52                   | 2.30          | 54.68     | 128.21 | 0 |
| 12      | 15.0               | 0             | 312.8               | 175.35               | -2028               | 113                  | -358                 | 11.62         | 54.50     | 127.99 | 0 |
| 13      | 20.0               | 0             | 329.2               | 229.56               | -2169               | 75                   | 179                  | 1.57          | 54.23     | 127.67 | 0 |
| 14      | 2.5                | 0             | 381.0               | 61.95                | -199                | 12                   | -22                  | 3.67          | 53.80     | 127.16 | 0 |
| 15      | 0                  | 0             | 336.5               | 50.26                | 101                 | 3                    | 68                   | 2.13          | 54.45     | 127.93 | 0 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .9158  | .1352 | .0322  | -.0000 | .0062  | .0081  |
| 3    | -19.99 | -.5345 | .0991 | .5284  | -.0001 | -.0005 | .0098  |
| 4    | -15.02 | -.1892 | .0687 | .3581  | -.0020 | -.0039 | .0143  |
| 5    | -10.00 | .1903  | .0657 | .2450  | .0000  | .0061  | .0095  |
| 6    | -5.00  | .5829  | .0903 | .1344  | -.0018 | .0060  | .0102  |
| 7    | -2.49  | .7602  | .1111 | .0858  | -.0004 | .0072  | .0091  |
| 8    | 0.00   | .9192  | .1353 | .0316  | .0003  | .0073  | .0081  |
| 9    | 2.51   | .8343  | .1506 | .8405  | -.0026 | .0028  | .0167  |
| 10   | 5.01   | .0777  | .2090 | -.1923 | .0019  | .0130  | -.0002 |
| 11   | 10.00  | .8917  | .2975 | -.3908 | -.0010 | .0031  | .0062  |
| 12   | 15.01  | .8455  | .4739 | -.6540 | .0069  | -.0216 | .0314  |
| 13   | 20.00  | .8896  | .6204 | -.6992 | .0045  | .0108  | .0042  |
| 14   | 2.51   | .0296  | .1674 | -.0641 | .0007  | -.0013 | .0099  |
| 15   | 0.00   | .9094  | .1358 | .0326  | .0002  | .0041  | .0057  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CLD   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .9158  | .1352 | .0322  | -.0000 | .0062  | .0081  |
| 3    | -19.99 | -.5345 | .0991 | .5284  | -.0001 | -.0005 | .0098  |
| 4    | -15.02 | -.1892 | .0687 | .3581  | -.0020 | -.0039 | .0143  |
| 5    | -10.00 | .1903  | .0657 | .2450  | .0000  | .0061  | .0095  |
| 6    | -5.00  | .5829  | .0903 | .1344  | -.0018 | .0060  | .0102  |
| 7    | -2.49  | .7602  | .1111 | .0858  | -.0004 | .0072  | .0091  |
| 8    | 0.00   | .9192  | .1353 | .0316  | .0003  | .0073  | .0081  |
| 9    | 2.51   | .8343  | .1506 | .8405  | -.0026 | .0028  | .0167  |
| 10   | 5.01   | .0777  | .2090 | -.1923 | .0019  | .0130  | -.0002 |
| 11   | 10.00  | .8917  | .2975 | -.3908 | -.0010 | .0031  | .0062  |
| 12   | 15.01  | .8455  | .4739 | -.6540 | .0069  | -.0216 | .0314  |
| 13   | 20.00  | .8896  | .6204 | -.6992 | .0045  | .0108  | .0042  |
| 14   | 2.51   | .0296  | .1674 | -.0641 | .0007  | -.0013 | .0099  |
| 15   | 0.00   | .9094  | .1358 | .0326  | .0002  | .0041  | .0057  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P. 100

RUN 132 CONFIG F P B W1 NP1 T BT.

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSB      | 0            | PPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 5       | .0        | .0      | 349.1       | 66.88       | -16.         | 37.          | 49.          | 2.52        | 55.34 | 129.00  | 4040.  |
| 6       | .0        | .0      | 333.3       | -8.09       | -434.        | 44.          | 242.         | 2.71        | 55.33 | 128.99  | 15190. |
| 7       | -8.1      | .0      | 108.5       | -24.59      | -573.        | 66.          | 30.          | 3.15        | 55.18 | 128.82  | 15170. |
| 8       | -4.1      | .0      | 237.0       | -20.06      | -488.        | 61.          | 84.          | 2.48        | 54.97 | 128.56  | 15190. |
| 9       | .0        | .0      | 329.4       | -7.60       | -461.        | 34.          | 14.          | 3.03        | 55.12 | 128.74  | 15210. |
| 10      | 5.0       | .0      | 374.8       | 18.09       | -421.        | 29.          | 105.         | .56         | 54.91 | 128.49  | 15180. |
| 11      | 10.0      | .0      | 403.4       | 60.12       | -538.        | 41.          | 280.         | .55         | 55.29 | 128.94  | 15230. |
| 12      | 15.0      | .0      | 489.1       | 130.01      | -791.        | 225.         | -407.        | .44         | 54.75 | 128.30  | 15210. |
| 13      | 20.0      | .0      | 555.7       | 202.34      | -948.        | 132.         | -213.        | 3.32        | 54.40 | 127.87  | 15220. |
| 14      | .0        | .0      | 328.4       | -7.05       | -445.        | 38.          | 104.         | 1.42        | 55.18 | 128.81  | 15160. |
| 15      | .0        | .0      | 346.3       | 67.01       | -2.          | 35.          | 31.          | 3.06        | 55.69 | 129.41  | 4070.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY    |
|------|-------|--------|--------|--------|-------|--------|-------|
| 5    | .01   | .9434  | .1808  | -.0051 | .0023 | .0030  | .0068 |
| 6    | .01   | .9008  | -.0219 | -.1398 | .0026 | .0146  | .0073 |
| 7    | -8.07 | .2932  | -.0665 | -.1848 | .0040 | .0018  | .0085 |
| 8    | -4.07 | .6404  | -.0542 | -.1572 | .0037 | .0051  | .0067 |
| 9    | .01   | .8903  | -.0205 | -.1487 | .0020 | .0008  | .0082 |
| 10   | 4.96  | 1.0129 | .0489  | -.1357 | .0018 | .0064  | .0015 |
| 11   | 10.01 | 1.0902 | .1625  | -.1736 | .0024 | .0169  | .0015 |
| 12   | 15.00 | 1.3218 | .3514  | -.2551 | .0136 | -.0246 | .0012 |
| 13   | 20.01 | 1.5018 | .5469  | -.3055 | .0080 | -.0129 | .0090 |
| 14   | .00   | .8875  | -.0190 | -.1434 | .0023 | .0063  | .0038 |
| 15   | .00   | .9359  | .1811  | -.0007 | .0021 | .0019  | .0083 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB   |
|------|-------|--------|--------|--------|-------|--------|-------|
| 5    | .01   | .9434  | .1808  | -.0051 | .0023 | .0030  | .0068 |
| 6    | .01   | .9008  | -.0219 | -.1398 | .0026 | .0146  | .0073 |
| 7    | -8.07 | .2932  | -.0665 | -.1848 | .0040 | .0018  | .0085 |
| 8    | -4.07 | .6404  | -.0542 | -.1572 | .0037 | .0051  | .0067 |
| 9    | .01   | .8903  | -.0205 | -.1487 | .0020 | .0008  | .0082 |
| 10   | 4.96  | 1.0129 | .0489  | -.1357 | .0018 | .0064  | .0015 |
| 11   | 10.01 | 1.0902 | .1625  | -.1736 | .0024 | .0169  | .0015 |
| 12   | 15.00 | 1.3218 | .3514  | -.2551 | .0136 | -.0246 | .0012 |
| 13   | 20.01 | 1.5018 | .5469  | -.3055 | .0080 | -.0129 | .0090 |
| 14   | .00   | .8875  | -.0190 | -.1434 | .0023 | .0063  | .0038 |
| 15   | .00   | .9359  | .1811  | -.0007 | .0021 | .0019  | .0083 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 101

RUN 133 CONFIG F P R W1 NP1 T RT

| IW      | 15 DELF   | 25 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSB      | 0            | 0           | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 2       | .0        | .0      | 534.8       | 115.32      | 139.         | -6.          | 133.         | -1.13       | 51.42 | 124.28  | 4140.  |
| 3       | .0        | .0      | 486.2       | -13.43      | -337.        | -16.         | 589.         | -14.25      | 52.58 | 125.69  | 18230. |
| 4       | -8.0      | .0      | 272.5       | -31.82      | -104.        | 71.          | 240.         | -.52        | 52.65 | 125.77  | 18210. |
| 5       | -4.0      | .0      | 401.6       | -22.06      | -275.        | 48.          | 183.         | .26         | 52.95 | 126.14  | 18210. |
| 6       | -.0       | .0      | 477.4       | -5.18       | -372.        | 3.           | 289.         | -7.74       | 55.45 | 129.13  | 18230. |
| 7       | 5.0       | .0      | 460.6       | 19.72       | -515.        | 19.          | 13.          | 4.91        | 55.56 | 129.26  | 18130. |
| 8       | 10.0      | .0      | 465.5       | 73.73       | -582.        | 125.         | -178.        | 4.80        | 55.37 | 129.04  | 18190. |
| 9       | 15.0      | .0      | 546.7       | 144.05      | -868.        | 270.         | -264.        | 2.65        | 55.19 | 128.81  | 18270. |
| 10      | 20.0      | -.1     | 620.0       | 226.58      | -1151.       | 244.         | -362.        | 7.91        | 55.14 | 128.75  | 18280. |
| 11      | -.0       | -.1     | 481.7       | -3.92       | -366.        | -5.          | 400.         | -6.89       | 54.85 | 128.42  | 18170. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4453 | .3117  | .0448  | -.0003 | .0081  | -.0030 |
| 3    | .00   | 1.3141 | -.0363 | -.1087 | -.0009 | .0356  | -.0385 |
| 4    | -8.02 | .7365  | -.0860 | -.0336 | .0043  | .0145  | -.0014 |
| 5    | -4.01 | 1.0853 | -.0596 | -.0887 | .0029  | .0110  | .0007  |
| 6    | -.00  | 1.2903 | -.0140 | -.1198 | .0002  | .0175  | -.0209 |
| 7    | 4.99  | 1.2449 | .0533  | -.1662 | .0012  | .0008  | .0133  |
| 8    | 9.98  | 1.2582 | .1993  | -.1877 | .0075  | -.0107 | .0130  |
| 9    | 14.98 | 1.4776 | .3893  | -.2797 | .0163  | -.0159 | .0072  |
| 10   | 20.00 | 1.6756 | .6124  | -.3710 | .0147  | -.0219 | .0214  |
| 11   | -.00  | 1.3019 | -.0106 | -.1180 | -.0003 | .0242  | -.0186 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4453 | .3117  | .0448  | -.0003 | .0081  | -.0030 |
| 3    | .00   | 1.3141 | -.0363 | -.1087 | -.0009 | .0356  | -.0385 |
| 4    | -8.02 | .7365  | -.0860 | -.0336 | .0043  | .0145  | -.0014 |
| 5    | -4.01 | 1.0853 | -.0596 | -.0887 | .0029  | .0110  | .0007  |
| 6    | -.00  | 1.2903 | -.0140 | -.1198 | .0002  | .0175  | -.0209 |
| 7    | 4.99  | 1.2449 | .0533  | -.1662 | .0012  | .0008  | .0133  |
| 8    | 9.98  | 1.2582 | .1993  | -.1877 | .0075  | -.0107 | .0130  |
| 9    | 14.98 | 1.4776 | .3893  | -.2797 | .0163  | -.0159 | .0072  |
| 10   | 20.00 | 1.6756 | .6124  | -.3708 | .0147  | -.0218 | .0203  |
| 11   | -.00  | 1.3019 | -.0106 | -.1182 | -.0003 | .0242  | -.0186 |

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SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011  
P 102

RUN 134 CONFIG F P R W1 NP T BT

| IW      | 15 DELF   | 25 DELA | 0 IHT       | 0 DELE      | 0 DELR        | 0 DFLSB      | 0             | 0           | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|---------------|--------------|---------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 531.2       | 111.80      | 300.          | -15.         | 124.          | -.25        | 54.91 | 128.48  | 4050.  |
| 3       | .0        | .0      | 528.6       | -6.27       | 256.          | 48.          | 102.          | 1.90        | 55.53 | 129.23  | 18480. |
| 4       | -8.0      | .0      | 274.7       | -34.83      | 313.          | 85.          | 199.          | -2.12       | 54.58 | 128.10  | 18480. |
| 5       | -4.0      | .0      | 409.2       | -24.29      | 134.          | 92.          | 139.          | 2.19        | 54.38 | 127.86  | 18560. |
| 6       | -0.0      | .0      | 531.7       | -5.86       | 254.          | 51.          | 68.           | 2.25        | 54.41 | 127.89  | 18490. |
| 7       | 5.0       | .0      | 455.2       | 16.20       | -320.         | 39.          | 123.          | 3.03        | 53.98 | 127.38  | 18540. |
| 8       | 10.0      | .0      | 475.4       | 68.03       | -543.         | 83.          | -162.         | 5.15        | 54.87 | 128.44  | 18510. |
| 9       | 15.0      | .0      | 551.7       | 140.59      | -854.         | 269.         | -371.         | 3.96        | 54.99 | 128.58  | 18540. |
| 10      | 20.0      | .0      | 623.7       | 225.64      | -1132.        | 357.         | -286.         | 2.20        | 54.17 | 127.61  | 18530. |
| 11      | -0.0      | .0      | 527.6       | -2.78       | 256.          | 46.          | 140.          | 1.37        | 54.82 | 128.38  | 18450. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4358 | .3022  | .0967  | -.0009 | .0075  | -.0007 |
| 3    | .00   | 1.4288 | -.0169 | .0826  | .0029  | .0062  | .0051  |
| 4    | -8.00 | .7425  | -.0941 | .1009  | .0051  | .0120  | -.0057 |
| 5    | -4.01 | 1.1059 | -.0656 | .0433  | .0056  | .0084  | .0059  |
| 6    | -.00  | 1.4370 | -.0158 | .0818  | .0031  | .0041  | .0061  |
| 7    | 5.00  | 1.2303 | .0438  | -.1062 | .0024  | .0074  | .0082  |
| 8    | 10.01 | 1.2849 | .1839  | -.1751 | .0050  | -.0098 | .0139  |
| 9    | 14.98 | 1.4911 | .3800  | -.2753 | .0163  | -.0224 | .0107  |
| 10   | 20.00 | 1.6856 | .6098  | -.3650 | .0215  | -.0173 | .0059  |
| 11   | -.00  | 1.4258 | -.0075 | .0826  | .0028  | .0084  | .0037  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4358 | .3022  | .0967  | -.0009 | .0075  | -.0007 |
| 3    | .00   | 1.4288 | -.0169 | .0826  | .0029  | .0062  | .0051  |
| 4    | -8.00 | .7425  | -.0941 | .1009  | .0051  | .0120  | -.0057 |
| 5    | -4.01 | 1.1059 | -.0656 | .0433  | .0056  | .0084  | .0059  |
| 6    | -.00  | 1.4370 | -.0158 | .0818  | .0031  | .0041  | .0061  |
| 7    | 5.00  | 1.2303 | .0438  | -.1062 | .0024  | .0074  | .0082  |
| 8    | 10.01 | 1.2849 | .1839  | -.1751 | .0050  | -.0098 | .0139  |
| 9    | 14.98 | 1.4911 | .3800  | -.2753 | .0163  | -.0224 | .0107  |
| 10   | 20.00 | 1.6856 | .6098  | -.3650 | .0215  | -.0173 | .0059  |
| 11   | -.00  | 1.4258 | -.0075 | .0826  | .0028  | .0084  | .0037  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 103

RUN 138 CONFIG F P R W1 N#2 T BT

| IW      | 15 DELF   | 25 DELA | 0 IHT       | 0 DEL'E     | 0 DELR       | 0 DFLSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 532.9       | 116.29      | 74.          | 7.           | 69.          | 2.02        | 54.07 | 127.49  | 4130.  |
| 3       | .0        | .0      | 524.2       | 114.70      | 52.          | 0.           | 83.          | 4.04        | 54.83 | 128.40  | 4100.  |
| 4       | .0        | .0      | 450.7       | -7.07       | -295.        | -133.        | 699.         | -10.82      | 55.11 | 128.73  | 18730. |
| 5       | -8.0      | .0      | 265.6       | -23.11      | 118.         | 72.          | 130.         | 6.44        | 55.05 | 128.66  | 18600. |
| 6       | -4.0      | .0      | 396.9       | -12.30      | -32.         | 50.          | 108.         | 9.08        | 55.51 | 129.20  | 18670. |
| 7       | -0        | .0      | 443.4       | -3.78       | -376.        | -92.         | 568.         | -7.97       | 55.60 | 129.30  | 18750. |
| 8       | 5.0       | .0      | 432.0       | 18.08       | -478.        | -69.         | 275.         | 5.48        | 55.28 | 128.92  | 18810. |
| 9       | 10.0      | .0      | 472.5       | 74.22       | -542.        | 102.         | -3.          | 5.69        | 55.08 | 128.68  | 18730. |
| 10      | 15.0      | .0      | 544.6       | 144.54      | -821.        | 216.         | -247.        | 6.23        | 55.27 | 128.90  | 18750. |
| 11      | 20.0      | .0      | 615.9       | 222.90      | -1155.       | 92.          | 36.          | 5.55        | 55.24 | 128.87  | 18700. |
| 12      | -0        | .0      | 444.2       | -2.32       | -415.        | -45.         | 548.         | -8.58       | 55.96 | 129.73  | 18640. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4402 | .3143  | .0238  | .0004  | .0042  | .0054  |
| 3    | .00   | 1.4168 | .3100  | .0169  | .0000  | .0050  | .0109  |
| 4    | .00   | 1.2181 | -.0191 | -.0952 | -.0080 | .0422  | -.0292 |
| 5    | -8.00 | .7178  | -.0625 | .0379  | .0044  | .0078  | .0174  |
| 6    | -4.01 | 1.0726 | -.0332 | -.0102 | .0030  | .0066  | .0245  |
| 7    | -0.00 | 1.1983 | -.0102 | -.1212 | -.0056 | .0343  | -.0215 |
| 8    | 5.00  | 1.1674 | .0489  | -.1542 | -.0042 | .0166  | .0148  |
| 9    | 10.00 | 1.2770 | .2006  | -.1746 | .0062  | -.0002 | .0154  |
| 10   | 14.99 | 1.4720 | .3906  | -.2646 | .0130  | -.0149 | .0168  |
| 11   | 19.99 | 1.6646 | .6024  | -.3722 | .0056  | .0022  | .0150  |
| 12   | -0.00 | 1.2005 | -.0063 | -.1336 | -.0027 | .0331  | -.0232 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMB   | CYMR   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4402 | .3143  | .0238  | .0004  | .0042  | .0054  |
| 3    | .00   | 1.4168 | .3100  | .0169  | .0000  | .0050  | .0109  |
| 4    | .00   | 1.2181 | -.0191 | -.0952 | -.0080 | .0422  | -.0292 |
| 5    | -8.00 | .7178  | -.0625 | .0379  | .0044  | .0078  | .0174  |
| 6    | -4.01 | 1.0726 | -.0332 | -.0102 | .0030  | .0066  | .0245  |
| 7    | -0.00 | 1.1983 | -.0102 | -.1212 | -.0056 | .0343  | -.0215 |
| 8    | 5.00  | 1.1674 | .0489  | -.1542 | -.0042 | .0166  | .0148  |
| 9    | 10.00 | 1.2770 | .2006  | -.1746 | .0062  | -.0002 | .0154  |
| 10   | 14.99 | 1.4720 | .3906  | -.2646 | .0130  | -.0149 | .0168  |
| 11   | 19.99 | 1.6646 | .6024  | -.3722 | .0056  | .0022  | .0150  |
| 12   | -0.00 | 1.2005 | -.0063 | -.1336 | -.0027 | .0331  | -.0232 |

RUN 140 CONFIG F P B W1 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSB      | 0            |             |       |         |        |  |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|--|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |  |
| 2       | .0        | .0      | 558.5       | 126.43      | 79.          | -5.          | 122.         | 1.68        | 54.85 | 128.41  | 4300.  |  |
| 3       | .0        | .0      | 473.9       | -6.62       | -416.        | -33.         | 730.         | -24.15      | 55.43 | 129.11  | 19160. |  |
| 4       | -8.0      | .0      | 293.5       | -23.00      | 92.          | 133.         | 190.         | 1.04        | 55.51 | 129.20  | 19140. |  |
| 5       | -4.0      | .0      | 430.3       | -12.58      | -20.         | 139.         | 205.         | 3.20        | 55.34 | 129.01  | 19140. |  |
| 6       | -0        | .0      | 482.8       | -3.62       | -381.        | -25.         | 822.         | -23.15      | 55.02 | 128.62  | 19190. |  |
| 7       | 5.0       | .0      | 433.8       | 16.99       | -586.        | 30.          | 178.         | -.31        | 54.53 | 128.04  | 19110. |  |
| 8       | 10.0      | .0      | 493.8       | 78.31       | -506.        | 224.         | 14.          | 6.78        | 54.75 | 128.29  | 19240. |  |
| 9       | 15.0      | .0      | 552.1       | 143.33      | -850.        | 247.         | -197.        | 3.70        | 54.32 | 127.78  | 19160. |  |
| 10      | 20.0      | .0      | 641.5       | 230.05      | -1074.       | 272.         | 19.          | 7.76        | 54.42 | 127.89  | 19190. |  |
| 11      | .0        | .0      | 476.5       | -1.78       | -363.        | -23.         | 841.         | -23.73      | 54.98 | 128.58  | 19110. |  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.5094 | .3417  | .0255  | -.0003 | .0073  | .0045  |
| 3    | .00   | 1.2808 | -.0179 | -.1342 | -.0020 | .0441  | -.0653 |
| 4    | -8.00 | .7931  | -.0622 | .0298  | .0080  | .0115  | .0028  |
| 5    | -4.00 | 1.1629 | -.0340 | -.0065 | .0084  | .0124  | .0087  |
| 6    | -.00  | 1.3050 | -.0098 | -.1229 | -.0015 | .0496  | -.0626 |
| 7    | 5.00  | 1.1725 | .0459  | -.1888 | .0018  | .0107  | -.0008 |
| 8    | 9.99  | 1.3345 | .2116  | -.1630 | .0135  | .0008  | .0183  |
| 9    | 14.99 | 1.4921 | .3874  | -.2741 | .0149  | -.0119 | .0100  |
| 10   | 20.01 | 1.7336 | .6217  | -.3464 | .0164  | .0012  | .0210  |
| 11   | .00   | 1.2878 | -.0048 | -.1172 | -.0014 | .0508  | -.0641 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.5094 | .3417  | .0255  | -.0003 | .0073  | .0045  |
| 3    | .00   | 1.2808 | -.0179 | -.1342 | -.0020 | .0441  | -.0653 |
| 4    | -8.00 | .7931  | -.0622 | .0298  | .0080  | .0115  | .0028  |
| 5    | -4.00 | 1.1629 | -.0340 | -.0065 | .0084  | .0124  | .0087  |
| 6    | -.00  | 1.3050 | -.0098 | -.1229 | -.0015 | .0496  | -.0626 |
| 7    | 5.00  | 1.1725 | .0459  | -.1888 | .0018  | .0107  | -.0008 |
| 8    | 9.99  | 1.3345 | .2116  | -.1630 | .0135  | .0008  | .0183  |
| 9    | 14.99 | 1.4921 | .3874  | -.2741 | .0149  | -.0119 | .0100  |
| 10   | 20.01 | 1.7336 | .6217  | -.3464 | .0164  | .0012  | .0210  |
| 11   | .00   | 1.2878 | -.0048 | -.1172 | -.0014 | .0508  | -.0641 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P105

RUN 141 CONFIG F P R W1 NP1 T BT

| IW      | 12 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSB      | 0            | 0           | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 512.1       | 113.88      | 52.          | -2.          | 145.         | -2.06       | 54.60 | 128.12  | 4180.  |
| 3       | .0        | .0      | 495.3       | -6.76       | -243.        | 60.          | 165.         | -4.42       | 54.67 | 128.21  | 18720. |
| 4       | -8.0      | .0      | 250.9       | -27.56      | -111.        | 115.         | 142.         | .12         | 54.55 | 128.06  | 18660. |
| 5       | -4.0      | .0      | 388.0       | -17.93      | -214.        | 109.         | 175.         | 1.43        | 54.64 | 128.16  | 18720. |
| 6       | -.0       | .0      | 499.5       | -4.31       | -143.        | 77.          | 140.         | 1.12        | 54.68 | 128.21  | 18730. |
| 7       | 5.0       | .0      | 497.2       | 11.22       | -405.        | 33.          | -1.          | .81         | 54.44 | 127.93  | 18730. |
| 8       | 10.0      | .0      | 485.2       | 59.63       | -444.        | 45.          | 340.         | .69         | 54.14 | 127.57  | 18730. |
| 9       | 15.0      | .0      | 566.2       | 131.66      | -749.        | 140.         | -144.        | 5.22        | 54.12 | 127.53  | 18720. |
| 10      | 20.0      | .1      | 630.0       | 216.19      | -1124.       | 186.         | -40.         | 2.13        | 54.26 | 127.71  | 18770. |
| 11      | .0        | .1      | 487.2       | -3.43       | -175.        | 86.          | -19.         | -1.18       | 54.66 | 128.19  | 18740. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.3840 | .3078  | .0168  | -.0001 | .0087  | -.0056 |
| 3    | .00   | 1.3385 | -.0183 | -.0784 | .0036  | .0100  | -.0120 |
| 4    | -8.01 | .6780  | -.0745 | -.0358 | .0069  | .0086  | .0003  |
| 5    | -4.00 | 1.0487 | -.0485 | -.0691 | .0066  | .0106  | .0039  |
| 6    | -.01  | 1.3499 | -.0116 | -.0460 | .0046  | .0085  | .0030  |
| 7    | 5.00  | 1.3437 | .0303  | -.1307 | .0020  | -.0000 | .0022  |
| 8    | 10.00 | 1.3114 | .1612  | -.1431 | .0027  | .0205  | .0019  |
| 9    | 14.99 | 1.5302 | .3558  | -.2415 | .0085  | -.0087 | .0141  |
| 10   | 19.99 | 1.7027 | .5843  | -.3622 | .0112  | -.0024 | .0058  |
| 11   | .00   | 1.3168 | -.0093 | -.0564 | .0052  | -.0012 | -.0032 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.3840 | .3078  | .0168  | -.0001 | .0087  | -.0056 |
| 3    | .00   | 1.3385 | -.0183 | -.0784 | .0036  | .0100  | -.0120 |
| 4    | -8.01 | .6780  | -.0745 | -.0358 | .0069  | .0086  | .0003  |
| 5    | -4.00 | 1.0487 | -.0485 | -.0691 | .0066  | .0106  | .0039  |
| 6    | -.01  | 1.3499 | -.0116 | -.0460 | .0046  | .0085  | .0030  |
| 7    | 5.00  | 1.3437 | .0303  | -.1307 | .0020  | -.0000 | .0022  |
| 8    | 10.00 | 1.3114 | .1612  | -.1431 | .0027  | .0205  | .0019  |
| 9    | 14.99 | 1.5302 | .3558  | -.2415 | .0085  | -.0087 | .0141  |
| 10   | 19.99 | 1.7027 | .5843  | -.3622 | .0112  | -.0026 | .0068  |
| 11   | .00   | 1.3168 | -.0093 | -.0564 | .0052  | -.0012 | -.0032 |

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OF POOR QUALITY

RUN 142 CONFIG F P R W1 NP1 T BT

| IW      | 12 DELF   | 30 DELA | 5 IHT       | 0 DELE      | 0 DELR       | 0 DELSR      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 541.6       | 118.44      | 19.          | -1.          | 176.         | 2.08        | 54.17 | 127.61  | 4220.  |
| 3       | .0        | .0      | 530.3       | -7.26       | -191.        | 91.          | 29.          | 5.49        | 54.01 | 127.41  | 18700. |
| 4       | -8.0      | .0      | 277.4       | -29.81      | -206.        | 139.         | 175.         | 1.37        | 54.52 | 128.03  | 18750. |
| 5       | -4.0      | .0      | 412.6       | -18.03      | -253.        | 117.         | 121.         | 2.12        | 54.52 | 128.03  | 18730. |
| 6       | -.0       | .0      | 526.0       | -2.75       | -164.        | 88.          | 276.         | 7.14        | 54.39 | 127.87  | 18720. |
| 7       | 5.0       | .0      | 517.9       | 14.80       | -443.        | -27.         | 799.         | -3.73       | 54.79 | 128.34  | 18700. |
| 8       | 10.0      | .0      | 477.2       | 62.46       | -522.        | 63.          | -36.         | 1.31        | 54.57 | 128.08  | 18680. |
| 9       | 15.0      | .0      | 570.4       | 136.67      | -746.        | 280.         | -108.        | 6.73        | 54.70 | 128.23  | 18770. |
| 10      | 20.0      | .0      | 635.9       | 224.06      | -1142.       | 199.         | -139.        | 3.44        | 55.42 | 129.09  | 18720. |
| 11      | -.0       | .0      | 512.3       | -.71        | -158.        | 74.          | -45.         | 7.81        | 54.98 | 128.57  | 18760. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4639 | .3201  | .0061  | -.0001 | .0106  | .0056  |
| 3    | .00   | 1.4334 | -.0196 | -.0616 | .0055  | .0017  | .0148  |
| 4    | -8.00 | .7498  | -.0806 | -.0665 | .0084  | .0106  | .0037  |
| 5    | -4.00 | 1.1150 | -.0487 | -.0817 | .0071  | .0073  | .0057  |
| 6    | -.01  | 1.4216 | -.0074 | -.0529 | .0053  | .0167  | .0193  |
| 7    | 5.00  | 1.3997 | .0400  | -.1427 | -.0017 | .0483  | -.0101 |
| 8    | 9.99  | 1.2898 | .1688  | -.1682 | .0038  | -.0022 | .0035  |
| 9    | 14.99 | 1.5416 | .3694  | -.2404 | .0169  | -.0065 | .0182  |
| 10   | 19.99 | 1.7187 | .6056  | -.3682 | .0120  | -.0084 | .0093  |
| 11   | -.00  | 1.3846 | -.0019 | -.0511 | .0044  | -.0027 | .0211  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4639 | .3201  | .0061  | -.0001 | .0106  | .0056  |
| 3    | .00   | 1.4334 | -.0196 | -.0616 | .0055  | .0017  | .0148  |
| 4    | -8.00 | .7498  | -.0806 | -.0665 | .0084  | .0106  | .0037  |
| 5    | -4.00 | 1.1150 | -.0487 | -.0817 | .0071  | .0073  | .0057  |
| 6    | -.01  | 1.4216 | -.0074 | -.0529 | .0053  | .0167  | .0193  |
| 7    | 5.00  | 1.3997 | .0400  | -.1427 | -.0017 | .0483  | -.0101 |
| 8    | 9.99  | 1.2898 | .1688  | -.1682 | .0038  | -.0022 | .0035  |
| 9    | 14.99 | 1.5416 | .3694  | -.2404 | .0169  | -.0065 | .0182  |
| 10   | 19.99 | 1.7187 | .6056  | -.3682 | .0120  | -.0084 | .0093  |
| 11   | -.00  | 1.3846 | -.0019 | -.0511 | .0044  | -.0027 | .0211  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

10107

RUN 145 CONFIG F P R W N P I T B T

| IW<br>PT.<br>No. | ALPHA<br>DEG | DELTA<br>PSI<br>DFG | 30 DELTA<br>CLBAR<br>SQ-FT | 5<br>CDBAR<br>SQ-FT | IHT<br>CPMBAR<br>CU-FT | -10 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0 DELSB<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|--------------|---------------------|----------------------------|---------------------|------------------------|-----------------------------|---------------------------|---------------------|---------------------|-----------------|--------|
| 2                | 0            | 0                   | 472.9                      | 125.62              | 1393.                  | 38.                         | 34.                       | 1.37                | 54.69               | 128.24          | 4200.  |
| 3                | 0            | 0                   | 428.0                      | -6.78               | 1982.                  | 146.                        | 49.                       | 3.23                | 54.87               | 128.46          | 19510. |
| 4                | -8.0         | 0                   | 180.3                      | -21.57              | 1951.                  | 189.                        | 163.                      | -3.27               | 55.29               | 128.96          | 19620. |
| 5                | -4.0         | 0                   | 308.2                      | -16.06              | 1946.                  | 191.                        | 161.                      | -1.91               | 55.19               | 128.84          | 19530. |
| 6                | 0            | 0                   | 429.8                      | -7.01               | 1993.                  | 152.                        | 120.                      | 3.62                | 54.56               | 128.09          | 19670. |
| 7                | 5.0          | 0                   | 471.7                      | 7.32                | 1237.                  | 4.                          | 463.                      | -7.94               | 55.35               | 129.03          | 19690. |
| 8                | 10.0         | 0                   | 447.6                      | 49.56               | 790.                   | 121.                        | 176.                      | 1.68                | 54.73               | 128.29          | 19720. |
| 9                | 15.0         | 0                   | 537.3                      | 122.25              | 522.                   | 356.                        | 249.                      | 1.93                | 54.64               | 128.18          | 19650. |
| 10               | 20.0         | 0                   | 618.0                      | 194.93              | 35.                    | 274.                        | 159.                      | 1.74                | 54.73               | 128.28          | 19690. |
| 11               | 0            | 0                   | 424.7                      | -6.64               | 1960.                  | 139.                        | 59.                       | 5.34                | 55.46               | 129.17          | 19700. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM   | CYM   | CRM    | CY     |
|------|-------|--------|--------|-------|-------|--------|--------|
| 2    | 0.00  | 1.2782 | .3395  | .4490 | .0023 | .0020  | .0037  |
| 3    | 0.00  | 1.1567 | -.0183 | .6390 | .0088 | .0030  | .0087  |
| 4    | -8.01 | .4874  | -.0583 | .6289 | .0114 | .0099  | -.0088 |
| 5    | -4.04 | .8329  | -.0434 | .6274 | .0115 | .0097  | -.0052 |
| 6    | 0.01  | 1.1615 | -.0189 | .6426 | .0092 | .0072  | .0098  |
| 7    | 5.00  | 1.2748 | .0198  | .3987 | .0003 | .0279  | -.0215 |
| 8    | 9.99  | 1.2096 | .1339  | .2546 | .0073 | .0106  | .0045  |
| 9    | 14.99 | 1.4521 | .3304  | .1682 | .0215 | -.0150 | .0052  |
| 10   | 20.03 | 1.6702 | .5268  | .0112 | .0165 | -.0096 | .0047  |
| 11   | 0.03  | 1.1478 | -.0179 | .6320 | .0084 | -.0036 | .0144  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB  | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|-------|-------|--------|--------|
| 2    | 0.00  | 1.2782 | .3395  | .4490 | .0023 | .0020  | .0037  |
| 3    | 0.00  | 1.1567 | -.0183 | .6390 | .0088 | .0030  | .0087  |
| 4    | -8.01 | .4874  | -.0583 | .6289 | .0114 | .0099  | -.0088 |
| 5    | -4.04 | .8329  | -.0434 | .6274 | .0115 | .0097  | -.0052 |
| 6    | 0.01  | 1.1615 | -.0189 | .6426 | .0092 | .0072  | .0098  |
| 7    | 5.00  | 1.2748 | .0198  | .3987 | .0003 | .0279  | -.0215 |
| 8    | 9.99  | 1.2096 | .1339  | .2546 | .0073 | .0106  | .0045  |
| 9    | 14.99 | 1.4521 | .3304  | .1682 | .0215 | -.0150 | .0052  |
| 10   | 20.03 | 1.6702 | .5268  | .0112 | .0165 | -.0096 | .0047  |
| 11   | 0.03  | 1.1478 | -.0179 | .6320 | .0084 | -.0036 | .0144  |

RUN 146 CONFIG F P R W N P I T R T

| 1W<br>PT.<br>NO. | 12<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 30<br>C1BAR<br>SQ-FT | DELA<br>CDBAR<br>SQ-FT | 5<br>IHT<br>CU-FT | -5<br>DELE<br>CYMBAR<br>CU-FT | 0<br>DELTA<br>CRMBAR<br>QU-FT | 0<br>CYBAR<br>SQ-FT | DELTA<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|--------------------|---------------------|----------------------|------------------------|-------------------|-------------------------------|-------------------------------|---------------------|-------------------|-----------------|--------|
| 2                | 0                  | 0                   | 266.1                | 119.97                 | 12401.            | 34.                           | 70.                           | .44                 | 54.62             | 128.16          | 4210.  |
| 3                | 0                  | 0                   | 466.4                | -7.07                  | 799.              | 172.                          | 44.                           | 7.45                | 54.83             | 128.42          | 19190. |
| 4                | -8.0               | 0                   | 221.0                | -25.48                 | 839.              | 174.                          | 128.                          | -2.54               | 55.04             | 128.66          | 19220. |
| 5                | -4.0               | 0                   | 355.4                | -18.21                 | 781.              | 193.                          | 74.                           | -1.74               | 54.68             | 128.23          | 19260. |
| 6                | 0                  | 0                   | 467.2                | -6.50                  | 824.              | 169.                          | -25.                          | 6.16                | 54.76             | 128.33          | 19240. |
| 7                | 5.1                | 0                   | 486.7                | 7.19                   | 259.              | 11.                           | 661.                          | -6.41               | 54.70             | 128.26          | 19290. |
| 8                | 10.0               | 1                   | 483.8                | 64.43                  | 189.              | 260.                          | -182.                         | 4.02                | 55.03             | 128.65          | 19340. |
| 9                | 15.2               | 0                   | 565.5                | 134.58                 | -242.             | 365.                          | -266.                         | 2.99                | 54.76             | 128.32          | 19430. |
| 10               | 20.0               | 0                   | 628.7                | 203.61                 | -704.             | 275.                          | -70.                          | -4.49               | 55.26             | 128.91          | 19450. |
| 11               | 5.1                | 0                   | 491.3                | 10.64                  | 351.              | 48.                           | 679.                          | -6.13               | 56.13             | 129.95          | 19440. |
| 12               | -0                 | 0                   | 474.8                | -5.62                  | 799.              | 159.                          | 99.                           | 4.60                | 55.49             | 129.20          | 19480. |
| 13               | 2.5                | 0                   | 487.8                | .01                    | 498.              | 28.                           | 552.                          | -12.74              | 55.87             | 129.64          | 19390. |
| 14               | 0                  | 0                   | 499.3                | 120.63                 | 672.              | 25.                           | 106.                          | -4.43               | 55.05             | 128.67          | 4230.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | 0.00  | .7193  | .3242  | 3.9981 | .0021 | .0043  | .0012  |
| 3    | 0.00  | 1.2606 | -.0191 | .2575  | .0104 | .0026  | .0201  |
| 4    | -8.00 | .5974  | -.0689 | .2704  | .0105 | .0077  | -.0069 |
| 5    | -4.00 | .9606  | -.0492 | .2518  | .0117 | .0044  | -.0047 |
| 6    | .03   | 1.2628 | -.0176 | .2656  | .0102 | -.0015 | .0166  |
| 7    | 5.05  | 1.3154 | .0194  | .0833  | .0006 | .0399  | -.0173 |
| 8    | 10.04 | 1.3076 | .1741  | .0609  | .0157 | -.0170 | .0109  |
| 9    | 15.23 | 1.5285 | .3637  | -.0781 | .0220 | -.0161 | .0081  |
| 10   | 19.99 | 1.6792 | .5503  | -.2268 | .0166 | -.0042 | -.0013 |
| 11   | 5.06  | 1.3277 | .0288  | .1132  | .0029 | .0410  | -.0166 |
| 12   | -.04  | 1.2832 | -.0152 | .2577  | .0096 | .0060  | .0124  |
| 13   | 2.49  | 1.3183 | .0000  | .1606  | .0017 | .0333  | -.0344 |
| 14   | .01   | 1.3495 | .3260  | .2165  | .0015 | .0064  | -.0012 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | 0.00  | .7193  | .3242  | 3.9981 | .0021 | .0043  | .0012  |
| 3    | 0.00  | 1.2606 | -.0191 | .2575  | .0104 | .0026  | .0201  |
| 4    | -8.00 | .5974  | -.0689 | .2704  | .0105 | .0077  | -.0069 |
| 5    | -4.00 | .9606  | -.0492 | .2518  | .0117 | .0044  | -.0047 |
| 6    | .03   | 1.2628 | -.0176 | .2656  | .0102 | -.0015 | .0166  |
| 7    | 5.05  | 1.3154 | .0194  | .0833  | .0006 | .0399  | -.0173 |
| 8    | 10.04 | 1.3076 | .1741  | .0609  | .0157 | -.0110 | .0112  |
| 9    | 15.23 | 1.5285 | .3637  | -.0781 | .0220 | -.0161 | .0081  |
| 10   | 19.99 | 1.6792 | .5503  | -.2268 | .0166 | -.0042 | -.0013 |
| 11   | 5.06  | 1.3277 | .0288  | .1132  | .0029 | .0410  | -.0166 |
| 12   | -.04  | 1.2832 | -.0152 | .2577  | .0096 | .0060  | .0124  |
| 13   | 2.49  | 1.3183 | .0000  | .1606  | .0017 | .0333  | -.0344 |
| 14   | .01   | 1.3495 | .3260  | .2165  | .0015 | .0064  | -.0012 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 109

RUN 147 CONFIG F P R W N P I T B T

| PT. No. | IW ALPHA DEG | 12 DELF PSI DEG | 30 DELA CLBAR SQ-FT | 5 IHT CDBAR SQ-FT | 0 DELE CPMBAR CU-FT | 0 DELR CYMBAR CU-FT | 0 DELSB CRMBAR CU-FT | 0 DELSB CYBAR SQ-FT | Q PSF | V KNOTS | RPM   |
|---------|--------------|-----------------|---------------------|-------------------|---------------------|---------------------|----------------------|---------------------|-------|---------|-------|
| 2       | 0            | 0               | 529.1               | 119.32            | 4                   | 2                   | 138                  | 1.04                | 55.48 | 129.17  | 4240  |
| 3       | 0            | 0               | 508.5               | -62.82            | -283                | 93                  | 97                   | 7.53                | 54.74 | 128.30  | 22940 |
| 4       | -8.0         | 0               | 252.7               | -85.14            | -306                | 226                 | 218                  | -3.95               | 55.13 | 128.76  | 23030 |
| 5       | -4.0         | 0               | 388.8               | -75.01            | -359                | 136                 | 135                  | 3.51                | 55.28 | 128.94  | 22970 |
| 6       | 0            | 0               | 512.1               | -62.27            | -280                | 81                  | 271                  | 9.12                | 54.92 | 128.51  | 22960 |
| 7       | 5.0          | 0               | 493.8               | -44.54            | -627                | 12                  | 19                   | 1.30                | 54.87 | 128.45  | 22960 |
| 8       | 10.0         | 0               | 500.1               | 5.10              | -615                | 73                  | 247                  | 1.18                | 54.87 | 128.46  | 23100 |
| 9       | 15.0         | 0               | 611.6               | 88.25             | -927                | 287                 | -108                 | 4.96                | 54.26 | 127.71  | 23080 |
| 10      | 20.0         | 0               | 687.1               | 172.36            | -1176               | 260                 | 1                    | 3.73                | 53.89 | 127.27  | 23080 |
| 11      | 2.5          | 0               | 509.6               | -54.91            | -540                | -79                 | 504                  | -6.61               | 54.59 | 128.12  | 22980 |
| 12      | 0            | 0               | 506.9               | -59.41            | -325                | 71                  | 96                   | 7.56                | 55.00 | 128.60  | 22890 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | 1.4299 | .3225  | .0014  | .0001  | .0084  | .0028  |
| 3    | 0.00  | 1.3743 | -.1698 | -.0912 | .0056  | .0058  | .0203  |
| 4    | -7.99 | .6830  | -.2301 | -.0987 | .0137  | .0132  | -.0107 |
| 5    | -4.00 | 1.0508 | -.2027 | -.1158 | .0082  | .0081  | .0095  |
| 6    | 0.00  | 1.3841 | -.1683 | -.0903 | .0049  | .0164  | .0246  |
| 7    | 5.02  | 1.3346 | -.1204 | -.2020 | .0007  | -.0011 | .0035  |
| 8    | 10.00 | 1.3516 | .0138  | -.1984 | .0044  | .0149  | .0032  |
| 9    | 15.00 | 1.6530 | .2385  | -.2988 | .0174  | -.0065 | .0134  |
| 10   | 20.03 | 1.8569 | .4658  | -.3792 | .0157  | .0000  | .0101  |
| 11   | 2.51  | 1.3774 | -.1484 | -.1740 | -.0048 | .0305  | -.0179 |
| 12   | 0.01  | 1.3701 | -.1606 | -.1048 | .0043  | .0058  | .0204  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | 1.4299 | .3225  | .0014  | .0001  | .0084  | .0028  |
| 3    | 0.00  | 1.3743 | -.1698 | -.0912 | .0056  | .0058  | .0203  |
| 4    | -7.99 | .6830  | -.2301 | -.0987 | .0137  | .0132  | -.0107 |
| 5    | -4.00 | 1.0508 | -.2027 | -.1158 | .0082  | .0081  | .0095  |
| 6    | 0.00  | 1.3841 | -.1683 | -.0903 | .0049  | .0164  | .0246  |
| 7    | 5.02  | 1.3346 | -.1204 | -.2020 | .0007  | -.0011 | .0035  |
| 8    | 10.00 | 1.3516 | .0138  | -.1984 | .0044  | .0149  | .0032  |
| 9    | 15.00 | 1.6530 | .2385  | -.2988 | .0174  | -.0065 | .0134  |
| 10   | 20.03 | 1.8569 | .4658  | -.3792 | .0157  | .0000  | .0101  |
| 11   | 2.51  | 1.3774 | -.1484 | -.1740 | -.0048 | .0305  | -.0179 |
| 12   | 0.01  | 1.3701 | -.1606 | -.1048 | .0043  | .0058  | .0204  |

RUN 150 CONFIG F P R W2 NP1 T BT

| IW<br>PT.<br>No. | IS DELF<br>ALPHA<br>DEG | PSI<br>DEG | n DELA<br>CLBAR<br>SQ-FT | o DELA<br>CDBAR<br>SQ-FT | o IHT<br>CPMBAR<br>CU-FT | o DELE<br>CYMBAR<br>CU-FT | o DELR<br>CRMBAR<br>CU-FT | o DELSB<br>CYBAR<br>SQ-FT | o<br>PSF | o<br>KNOTS | RPM    |
|------------------|-------------------------|------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|----------|------------|--------|
| 3                | 0                       | 0          | 347.3                    | 70.84                    | 67.                      | 26.                       | 136.                      | 2.08                      | 55.81    | 129.56.    | 4080.  |
| 4                | 0                       | 0          | 332.5                    | -6.96                    | -352.                    | 22.                       | 155.                      | 1.78                      | 55.57    | 129.27     | 15460. |
| 5                | -8.0                    | 0          | 116.1                    | -24.35                   | -443.                    | 53.                       | 86.                       | .73                       | 55.80    | 129.55     | 15410. |
| 6                | -4.0                    | 0          | 233.0                    | -19.32                   | -400.                    | 59.                       | 104.                      | -.36                      | 56.07    | 129.86     | 15460. |
| 7                | 0                       | 0          | 326.0                    | -5.30                    | -358.                    | 20.                       | -54.                      | 2.01                      | 56.03    | 129.81     | 15440. |
| 8                | 5.0                     | 0          | 431.1                    | 30.21                    | -211.                    | 14.                       | 189.                      | 2.44                      | 55.74    | 129.47     | 15480. |
| 10               | 15.0                    | 0          | 492.1                    | 135.49                   | -639.                    | 115.                      | -192.                     | -.43                      | 55.60    | 129.29     | 15500. |
| 11               | 20.0                    | 0          | 570.4                    | 208.84                   | -833.                    | 189.                      | -209.                     | 5.11                      | 55.29    | 128.92     | 15420. |
| 12               | 10.1                    | 0          | 442.2                    | 75.20                    | -277.                    | 115.                      | 52.                       | 1.54                      | 55.31    | 128.96     | 15420. |
| 13               | 2.5                     | 0          | 381.1                    | 7.03                     | -385.                    | 4.                        | 104.                      | .49                       | 55.75    | 129.48     | 15520. |
| 14               | 7.5                     | 0          | 444.8                    | 53.18                    | -245.                    | 48.                       | 157.                      | .80                       | 55.44    | 129.11     | 15540. |
| 15               | 0                       | 0          | 333.9                    | -4.61                    | -344.                    | 17.                       | 346.                      | 1.53                      | 55.69    | 129.41     | 15510. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 3    | 00    | .9386  | .1914  | .0217  | .0016  | .0082  | .0056  |
| 4    | 00    | .8986  | -.0188 | -.1133 | .0013  | .0093  | .0048  |
| 5    | -8.00 | .3139  | -.0658 | -.1427 | .0032  | .0052  | .0020  |
| 6    | -4.01 | .6297  | -.0522 | -.1291 | .0035  | .0063  | -.0010 |
| 7    | -.03  | .8810  | -.0143 | -.1154 | .0012  | -.0033 | .0054  |
| 8    | 5.02  | .2054  | .2013  | .2380  | .0075  | -.0115 | -.0022 |
| 10   | 14.97 | 1.3301 | .3662  | -.2061 | .0069  | -.0116 | -.0012 |
| 11   | 20.04 | 1.5417 | .5644  | -.2687 | .0114  | -.0126 | .0138  |
| 12   | 10.06 | 1.1951 | .2032  | -.0892 | .0070  | .0031  | .0042  |
| 13   | 2.46  | 1.0301 | .0190  | -.1240 | -.0002 | .0063  | .0013  |
| 14   | 7.50  | 1.2022 | .1437  | -.0790 | .0029  | .0095  | .0022  |
| 15   | .02   | .9024  | -.0125 | -.1109 | .0010  | .0209  | .0041  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 3    | 00    | .9386  | .1914  | .0217  | .0016  | .0082  | .0056  |
| 4    | 00    | .8986  | -.0188 | -.1133 | .0013  | .0093  | .0048  |
| 5    | -8.00 | .3139  | -.0658 | -.1427 | .0032  | .0052  | .0020  |
| 6    | -4.01 | .6297  | -.0522 | -.1291 | .0035  | .0063  | -.0010 |
| 7    | -.03  | .8810  | -.0143 | -.1154 | .0012  | -.0033 | .0054  |
| 8    | 5.02  | .2054  | .2013  | .2380  | .0075  | -.0115 | -.0022 |
| 10   | 14.97 | 1.3301 | .3662  | -.2061 | .0069  | -.0116 | -.0012 |
| 11   | 20.04 | 1.5417 | .5644  | -.2687 | .0114  | -.0126 | .0138  |
| 12   | 10.06 | 1.1951 | .2032  | -.0892 | .0070  | .0031  | .0042  |
| 13   | 2.46  | 1.0301 | .0190  | -.1240 | -.0002 | .0063  | .0013  |
| 14   | 7.50  | 1.2022 | .1437  | -.0790 | .0029  | .0095  | .0022  |
| 15   | .02   | .9024  | -.0125 | -.1109 | .0010  | .0209  | .0041  |

RUN 151 CONFIG F P R W2 NP1 T BT

| PT. NO. | 15 DELF<br>ALPHA<br>DEG | 25 DELA<br>PSI<br>DEG | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | DELE<br>CYMBAR<br>CU-FT | DELR<br>CRMBAR<br>CU-FT | DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM    |
|---------|-------------------------|-----------------------|----------------|----------------|-----------------|-------------------------|-------------------------|-------------------------|----------|------------|--------|
| 2       | 0                       | 0                     | 515.0          | 116.48         | 150.            | 14.                     | 123.                    | -2.29                   | 56.64    | 130.52     | 4330.  |
| 3       | 0                       | 0                     | 513.9          | 116.33         | 154.            | 8.                      | 162.                    | -5.05                   | 55.98    | 129.75     | 4310.  |
| 4       | 0                       | 0                     | 469.4          | -2.92          | -382.           | -5.                     | 53.                     | -14.47                  | 55.08    | 128.69     | 18680. |
| 5       | -8.0                    | 0                     | 266.5          | -18.99         | 0.              | 154.                    | 222.                    | -7.87                   | 55.85    | 129.61     | 18430. |
| 6       | -4.0                    | 0                     | 394.9          | -11.65         | -144.           | 135.                    | 114.                    | -6.30                   | 55.68    | 129.40     | 18580. |
| 7       | 0                       | 0                     | 451.8          | 2.45           | -435.           | 31.                     | -77.                    | -7.18                   | 55.95    | 129.72     | 18580. |
| 8       | 5.0                     | 0                     | 527.7          | 37.94          | -476.           | -59.                    | -32.                    | -2.31                   | 55.93    | 129.70     | 18510. |
| 9       | 10.0                    | 0                     | 499.7          | 85.36          | -241.           | 260.                    | -3.                     | 5.56                    | 55.10    | 128.71     | 18640. |
| 10      | 15.0                    | 0                     | 565.9          | 158.53         | -769.           | 96.                     | -70.                    | -1.42                   | 55.05    | 128.65     | 18610. |
| 11      | 20.0                    | 0                     | 646.0          | 238.26         | -1065.          | 247.                    | -247.                   | 5.61                    | 54.63    | 128.15     | 18570. |
| 12      | 7.5                     | 0                     | 491.8          | 65.76          | -164.           | 140.                    | 210.                    | 2.17                    | 54.99    | 128.58     | 18530. |
| 13      | 2.5                     | 0                     | 417.3          | 12.29          | 2721.           | -166.                   | -11.                    | -5.48                   | 55.98    | 129.76     | 18570. |
| 14      | 0                       | 0                     | 455.9          | 1.90           | -420.           | 27.                     | 95.                     | -6.22                   | 55.32    | 128.98     | 18520. |
| 15      | 2.5                     | 0                     | 517.3          | 16.48          | -342.           | 14.                     | 500.                    | -6.07                   | 54.97    | 128.56     | 18530. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | 1.3920 | .3148  | .0483  | .0008  | .0074  | -.0062 |
| 3    | 0.00  | 1.3890 | .3144  | .0496  | .0005  | .0098  | -.0137 |
| 4    | 0.00  | 1.2687 | -.0079 | -.1230 | -.0003 | .0032  | -.0391 |
| 5    | -8.01 | .7203  | -.0513 | -.0000 | .0093  | .0134  | -.0213 |
| 6    | -4.00 | 1.0674 | -.0315 | -.0463 | .0081  | .0069  | -.0170 |
| 7    | 0.01  | 1.2210 | .0066  | -.1404 | .0019  | -.0047 | -.0194 |
| 8    | 4.98  | 1.4263 | .1025  | -.1533 | -.0036 | -.0020 | -.0063 |
| 9    | 9.99  | 1.3505 | .2307  | -.0778 | .0157  | -.0002 | .0150  |
| 10   | 15.00 | 1.5295 | .4285  | -.2480 | .0058  | -.0042 | -.0038 |
| 11   | 19.97 | 1.7459 | .6439  | -.3434 | .0149  | -.0149 | .0152  |
| 12   | 7.49  | 1.3292 | .1777  | -.0528 | .0084  | .0127  | .0059  |
| 13   | 2.50  | 1.1279 | .0332  | .8773  | -.0100 | -.0007 | -.0148 |
| 14   | 0.01  | 1.2320 | .0051  | -.1354 | .0016  | .0058  | -.0168 |
| 15   | 2.49  | 1.3981 | .0445  | -.1104 | .0009  | .0302  | -.0164 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | 1.3920 | .3148  | .0483  | .0008  | .0074  | -.0062 |
| 3    | 0.00  | 1.3890 | .3144  | .0496  | .0005  | .0098  | -.0137 |
| 4    | 0.00  | 1.2687 | -.0079 | -.1230 | -.0003 | .0032  | -.0391 |
| 5    | -8.01 | .7203  | -.0513 | -.0000 | .0093  | .0134  | -.0213 |
| 6    | -4.00 | 1.0674 | -.0315 | -.0463 | .0081  | .0069  | -.0170 |
| 7    | 0.01  | 1.2210 | .0066  | -.1404 | .0019  | -.0047 | -.0194 |
| 8    | 4.98  | 1.4263 | .1025  | -.1533 | -.0036 | -.0020 | -.0063 |
| 9    | 9.99  | 1.3505 | .2307  | -.0778 | .0157  | -.0002 | .0150  |
| 10   | 15.00 | 1.5295 | .4285  | -.2480 | .0058  | -.0042 | -.0038 |
| 11   | 19.97 | 1.7459 | .6439  | -.3434 | .0149  | -.0149 | .0152  |
| 12   | 7.49  | 1.3292 | .1777  | -.0528 | .0084  | .0127  | .0059  |
| 13   | 2.50  | 1.1279 | .0332  | .8773  | -.0100 | -.0007 | -.0148 |
| 14   | 0.01  | 1.2320 | .0051  | -.1354 | .0016  | .0058  | -.0168 |
| 15   | 2.49  | 1.3981 | .0445  | -.1104 | .0009  | .0302  | -.0164 |

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RUN 153 CONFIG F P R W3 NPI T BT

| PT. NO. | 15 DELF<br>ALPHA<br>DEG | 25 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELS<br>CYMBAR<br>CU-FT | 0 DELSB<br>CRMBAR<br>CU-FT | 0 DELS<br>CYBAR<br>SQ-FT | 0 DELS<br>Q<br>PSF | 0 DELS<br>V<br>KNOTS | RPM   |
|---------|-------------------------|-----------------------|-------------------------|--------------------------|---------------------------|---------------------------|----------------------------|--------------------------|--------------------|----------------------|-------|
| 2       | 0                       | 0                     | 509.4                   | 116.69                   | .95                       | -2                        | 66                         | 2.10                     | 56.70              | 130.60               | 4320  |
| 3       | 0                       | 0                     | 495.1                   | 76.48                    | -228                      | 124                       | -10                        | 7.79                     | 56.40              | 130.26               | 19290 |
| 4       | -8.0                    | 0                     | 252.7                   | -30.70                   | -155                      | 149                       | 36                         | -67                      | 56.10              | 129.90               | 19390 |
| 5       | -4.0                    | 0                     | 383.6                   | -20.58                   | -255                      | 125                       | 33                         | .91                      | 55.89              | 129.65               | 19380 |
| 6       | 0                       | 0                     | 489.3                   | -6.03                    | -168                      | 146                       | -62                        | 7.45                     | 55.78              | 129.52               | 19410 |
| 7       | 5.0                     | 0                     | 533.4                   | 24.36                    | -462                      | 102                       | -263                       | 3.47                     | 55.93              | 129.69               | 19440 |
| 8       | 10.0                    | 0                     | 498.0                   | 74.02                    | -228                      | 298                       | 32                         | 5.66                     | 55.35              | 129.01               | 19450 |
| 9       | 15.0                    | 0                     | 562.5                   | 148.12                   | -759                      | 126                       | -122                       | -61                      | 55.48              | 129.15               | 19380 |
| 10      | 2.5                     | 0                     | 517.1                   | 11.03                    | -332                      | 112                       | 194                        | -1.96                    | 55.67              | 129.39               | 19430 |
| 11      | -0                      | 0                     | 494.2                   | -4.35                    | -105                      | 158                       | 114                        | 5.94                     | 55.67              | 129.39               | 19440 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | 1.3769 | .3154  | .0307  | -.0001 | .0040  | .0057  |
| 3    | 0.00  | 1.3381 | -.0175 | -.0737 | .0075  | -.0006 | .0211  |
| 4    | -8.00 | .6830  | -.0830 | -.0499 | .0090  | .0022  | -.0018 |
| 5    | -4.00 | 1.0367 | -.0556 | -.0821 | .0075  | .0020  | .0025  |
| 6    | 0.00  | 1.3224 | -.0163 | -.0543 | .0088  | -.0037 | .0201  |
| 7    | 5.01  | 1.4415 | .0658  | -.1491 | .0061  | -.0159 | .0094  |
| 8    | 10.01 | 1.3459 | .2000  | -.0734 | .0180  | .0019  | .0153  |
| 9    | 15.00 | 1.5203 | .4003  | -.2448 | .0076  | -.0074 | -.0017 |
| 10   | 2.48  | 1.3975 | .0298  | -.1070 | .0068  | .0117  | -.0053 |
| 11   | -0.00 | 1.3355 | -.0118 | -.0339 | .0095  | .0069  | .0160  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | 1.3769 | .3154  | .0307  | -.0001 | .0040  | .0057  |
| 3    | 0.00  | 1.3381 | -.0175 | -.0737 | .0075  | -.0006 | .0211  |
| 4    | -8.00 | .6830  | -.0830 | -.0499 | .0090  | .0022  | -.0018 |
| 5    | -4.00 | 1.0367 | -.0556 | -.0821 | .0075  | .0020  | .0025  |
| 6    | 0.00  | 1.3224 | -.0163 | -.0543 | .0088  | -.0037 | .0201  |
| 7    | 5.01  | 1.4415 | .0658  | -.1491 | .0061  | -.0159 | .0094  |
| 8    | 10.01 | 1.3459 | .2000  | -.0734 | .0180  | .0019  | .0153  |
| 9    | 15.00 | 1.5203 | .4003  | -.2448 | .0076  | -.0074 | -.0017 |
| 10   | 2.48  | 1.3975 | .0298  | -.1070 | .0068  | .0117  | -.0053 |
| 11   | -0.00 | 1.3355 | -.0118 | -.0339 | .0095  | .0069  | .0160  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 113

RUN 154 CONFIG F P R W3 NPI T BT

| 1W<br>PT.<br>NO. | 15<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 30<br>CLBAR<br>SQ-FT | DELA<br>CD<br>SQ-FT | 0<br>CDBAR<br>SQ-FT | IHT<br>CPMBAR<br>CU-FT | 0<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | DELTA<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM |
|------------------|--------------------|---------------------|----------------------|---------------------|---------------------|------------------------|----------------------|----------------------|---------------------|-------------------|-----------------|-----|
| 2                | 0                  | 0                   | 541.7                | 127.98              | 108.                | 17.                    | 52.                  | -24.                 | 55.74               | 129.47            | 4310            |     |
| 3                | 0                  | 0                   | 509.6                | -6.82               | -162.               | 125.                   | 12.                  | 4.28                 | 55.69               | 129.42            | 1994            |     |
| 4                | -8.0               | 0                   | 277.9                | -29.84              | -33.                | 167.                   | 166.                 | -5.85                | 55.91               | 129.68            | 1987            |     |
| 5                | -4.0               | 0                   | 408.0                | -18.93              | -159.               | 136.                   | 109.                 | -2.77                | 55.38               | 129.05            | 1994            |     |
| 6                | 0                  | 0                   | 514.8                | -4.58               | -102.               | 129.                   | 200.                 | 6.16                 | 55.88               | 129.64            | 2005            |     |
| 7                | 2.5                | 0                   | 537.9                | 11.85               | -296.               | 93.                    | 250.                 | -5.51                | 55.65               | 129.37            | 2012            |     |
| 8                | 5.0                | 0                   | 554.4                | 24.47               | -323.               | 110.                   | -74.                 | 4.42                 | 55.47               | 129.15            | 2002            |     |
| 9                | 10.0               | 0                   | 498.8                | 75.88               | -298.               | 276.                   | -249.                | 5.30                 | 55.26               | 128.90            | 2002            |     |
| 10               | 15.0               | 0                   | 566.7                | 153.47              | -830.               | 115.                   | -294.                | -2.19                | 55.94               | 129.70            | 2004            |     |
| 11               | 20.0               | 0                   | 649.2                | 235.94              | -1096.              | 255.                   | -242.                | 3.96                 | 55.96               | 129.72            | 1997            |     |
| 12               | 0                  | 0                   | 509.2                | 1.20                | -149.               | 151.                   | 110.                 | 7.80                 | 56.76               | 130.67            | 1973            |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | 0.00  | 1.4639 | .3459  | .0349  | .0010 | .0032  | -.0007 |
| 3    | 0.00  | 1.3772 | -.0184 | -.0523 | .0075 | .0007  | .0116  |
| 4    | -7.99 | .7511  | -.0807 | -.0108 | .0101 | .0100  | -.0158 |
| 5    | -3.99 | 1.1027 | -.0512 | -.0512 | .0082 | .0066  | -.0075 |
| 6    | 0.00  | 1.3912 | -.0124 | -.0329 | .0078 | .0121  | .0166  |
| 7    | 2.50  | 1.4538 | .0320  | -.0953 | .0056 | .0151  | -.0149 |
| 8    | 5.00  | 1.4984 | .0661  | -.1040 | .0067 | -.0045 | .0120  |
| 9    | 10.00 | 1.3481 | .2051  | -.0960 | .0166 | -.0150 | .0143  |
| 10   | 15.01 | 1.5316 | .4148  | -.2677 | .0069 | -.0178 | -.0059 |
| 11   | 20.01 | 1.7546 | .6377  | -.3535 | .0154 | -.0146 | .0107  |
| 12   | 0.00  | 1.3763 | .0033  | -.0480 | .0091 | .0066  | .0211  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | 0.00  | 1.4639 | .3459  | .0349  | .0010 | .0032  | -.0007 |
| 3    | 0.00  | 1.3772 | -.0184 | -.0523 | .0075 | .0007  | .0116  |
| 4    | -7.99 | .7511  | -.0807 | -.0108 | .0101 | .0100  | -.0158 |
| 5    | -3.99 | 1.1027 | -.0512 | -.0512 | .0082 | .0066  | -.0075 |
| 6    | 0.00  | 1.3912 | -.0124 | -.0329 | .0078 | .0121  | .0166  |
| 7    | 2.50  | 1.4538 | .0320  | -.0953 | .0056 | .0151  | -.0149 |
| 8    | 5.00  | 1.4984 | .0661  | -.1040 | .0067 | -.0045 | .0120  |
| 9    | 10.00 | 1.3481 | .2051  | -.0960 | .0166 | -.0150 | .0143  |
| 10   | 15.01 | 1.5316 | .4148  | -.2677 | .0069 | -.0178 | -.0059 |
| 11   | 20.01 | 1.7546 | .6377  | -.3535 | .0154 | -.0146 | .0107  |
| 12   | 0.00  | 1.3763 | .0033  | -.0480 | .0091 | .0066  | .0211  |

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OF POOR QUALITY

RUN 156 CONFIG F P R W4 NPI T BT

| PT. NO. | ALPHA DEG | 15 DELF PSI DEG | 30 DELA CLBAR 50-FT | 5 INT CDBAR 50-FT | 0 DELE CPMBAR CU-FT | 0 DELR CYMBAR CU-FT | 0 DELSB CRMBAR CU-FT | 0 DELS Q SQ-FT | 0 V KNOTS | RPM    |        |
|---------|-----------|-----------------|---------------------|-------------------|---------------------|---------------------|----------------------|----------------|-----------|--------|--------|
| 2       | 0         | 0               | 564.6               | 130.52            | 112                 | 18                  | 110                  | -4.98          | 56.07     | 129.86 | 4320.  |
| 3       | 0         | 0               | 524.3               | -6.49             | -271                | 113                 | 102                  | 1.65           | 55.64     | 129.36 | 20650. |
| 4       | -8.0      | 0               | 298.2               | -35.78            | -34                 | 167                 | 289                  | -7.82          | 56.19     | 130.01 | 20660. |
| 5       | -4.0      | 0               | 429.2               | -25.18            | -157                | 113                 | 222                  | -9.37          | 55.98     | 129.76 | 20820. |
| 6       | -0        | 0               | 521.0               | -2.36             | -211                | 158                 | 113                  | 6.57           | 55.97     | 129.75 | 20520. |
| 7       | 2.5       | 0               | 578.1               | 10.55             | -181                | 147                 | -20                  | 2.20           | 55.65     | 129.36 | 20580. |
| 8       | 5.0       | 0               | 615.4               | 27.89             | -316                | 107                 | 89                   | -2.45          | 55.60     | 129.31 | 20580. |
| 9       | 10.0      | 0               | 519.2               | 80.44             | -310                | 262                 | 63                   | 11.58          | 55.32     | 128.97 | 20600. |
| 10      | 15.0      | 0               | 570.0               | 150.55            | -761                | 145                 | -421                 | 1.36           | 55.30     | 128.95 | 20440. |
| 11      | 20.0      | 0               | 665.1               | 232.08            | -1069               | 258                 | -212                 | 5.55           | 54.58     | 128.09 | 20490. |
| 12      | -0        | 0               | 518.4               | -6.80             | -237                | 146                 | -59                  | 5.97           | 55.96     | 129.74 | 20670. |
| 14      | 5.0       | 0               | 545.8               | 28.43             | -192                | 110                 | 1185                 | -7.61          | 55.94     | 129.71 | 20560. |
| 15      | 7.5       | 0               | 492.2               | 49.74             | -378                | 103                 | -104                 | -1.41          | 55.46     | 129.14 | 20600. |
| 16      | 2.5       | 0               | 488.4               | 4.42              | 2138                | 133                 | 563                  | -5.32          | 55.69     | 129.42 | 20630. |
| 17      | 2.5       | 0               | 545.3               | 11.26             | -435                | 81                  | 392                  | -8.98          | 55.78     | 129.52 | 20570. |
| 18      | 5.0       | 0               | 591.3               | 28.93             | -450                | 46                  | 445                  | -8.79          | 55.44     | 129.12 | 20540. |
| 19      | -2.2      | 0               | 517.6               | -5.07             | -248                | 149                 | 79                   | 6.50           | 55.57     | 129.27 | 20570. |
| 20      | 2.5       | 0               | 540.9               | 13.18             | -451                | 70                  | 266                  | -6.15          | 55.97     | 129.75 | 20510. |
| 21      | 4.5       | 0               | 584.8               | 26.65             | -437                | 75                  | 529                  | -7.10          | 55.66     | 129.38 | 20520. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | 0.00  | 1.5260 | .3528  | .0360  | .0011 | .0066  | -.0135 |
| 3    | 0.00  | 1.4170 | -.0175 | -.0873 | .0068 | .0062  | .0045  |
| 4    | -8.01 | .8061  | -.0967 | -.0109 | .0101 | .0175  | -.0211 |
| 5    | -4.00 | 1.1599 | -.0681 | -.0505 | .0068 | .0134  | -.0253 |
| 6    | -0.01 | 1.4080 | -.0064 | -.0680 | .0095 | .0068  | .0178  |
| 7    | 2.49  | 1.5624 | .0285  | -.0582 | .0089 | -.0012 | .0060  |
| 8    | 5.01  | 1.6632 | .0754  | -.1017 | .0065 | .0054  | -.0066 |
| 9    | 10.00 | 1.4032 | .2174  | -.0998 | .0158 | .0038  | .0313  |
| 10   | 15.00 | 1.5404 | .4069  | -.2453 | .0087 | -.0254 | .0037  |
| 11   | 20.00 | 1.7975 | .6272  | -.3446 | .0156 | -.0128 | .0150  |
| 12   | -0.00 | 1.4324 | .0213  | .7323  | .0025 | .0106  | .0259  |
| 14   | 5.00  | 1.4751 | .0768  | -.0618 | .0066 | .0716  | -.0206 |
| 15   | 7.50  | 1.3302 | .1344  | -.1217 | .0062 | -.0063 | -.0038 |
| 16   | 2.51  | 1.3201 | .0119  | .6893  | .0080 | .0340  | -.0144 |
| 17   | 2.51  | 1.4739 | .0304  | -.1401 | .0049 | .0237  | -.0243 |
| 18   | 5.01  | 1.5981 | .0782  | -.1452 | .0028 | .0269  | -.0237 |
| 19   | -1.19 | 1.3988 | -.0137 | -.0801 | .0090 | .0048  | .0176  |
| 20   | 2.59  | 1.4618 | .0356  | -.1453 | .0043 | .0161  | -.0166 |
| 21   | 4.48  | 1.5806 | .0720  | -.1408 | .0045 | .0320  | -.0192 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | 0.00  | 1.5260 | .3528  | .0360  | .0011 | .0066  | -.0135 |
| 3    | 0.00  | 1.4170 | -.0175 | -.0873 | .0068 | .0062  | .0045  |
| 4    | -8.01 | .8061  | -.0967 | -.0109 | .0101 | .0175  | -.0211 |
| 5    | -4.00 | 1.1599 | -.0681 | -.0505 | .0068 | .0134  | -.0253 |
| 6    | -0.01 | 1.4080 | -.0064 | -.0680 | .0095 | .0068  | .0178  |
| 7    | 2.49  | 1.5624 | .0285  | -.0582 | .0089 | -.0012 | .0060  |
| 8    | 5.01  | 1.6632 | .0754  | -.1017 | .0065 | .0054  | -.0066 |
| 9    | 10.00 | 1.4032 | .2174  | -.0998 | .0158 | .0038  | .0313  |
| 10   | 15.00 | 1.5404 | .4069  | -.2453 | .0087 | -.0254 | .0037  |
| 11   | 20.00 | 1.7975 | .6272  | -.3446 | .0156 | -.0128 | .0150  |
| 12   | -0.00 | 1.4324 | .0213  | .7323  | .0025 | .0106  | .0259  |
| 14   | 5.00  | 1.4751 | .0768  | -.0618 | .0066 | .0716  | -.0206 |
| 15   | 7.50  | 1.3302 | .1344  | -.1217 | .0062 | -.0063 | -.0038 |
| 16   | 2.51  | 1.3201 | .0119  | .6893  | .0080 | .0340  | -.0144 |
| 17   | 2.51  | 1.4739 | .0304  | -.1401 | .0049 | .0237  | -.0243 |
| 18   | 5.01  | 1.5981 | .0782  | -.1452 | .0028 | .0269  | -.0237 |
| 19   | -1.19 | 1.3988 | -.0137 | -.0801 | .0090 | .0048  | .0176  |
| 20   | 2.59  | 1.4618 | .0356  | -.1453 | .0043 | .0161  | -.0166 |
| 21   | 4.48  | 1.5806 | .0720  | -.1408 | .0045 | .0320  | -.0192 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 115

RUN 157 CONFIG F P R W3 NPI T BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | 3D DELTA CLBAR SQ-FT | 5 IHT CDBAR SQ-FT | 0 DELE CPMBAR CU-FT | 0 DELE CYMBAR CU-FT | 0 DELR CRMBAR CU-FT | 0 DELSB Q SQ-FT | 0 V PSF | RPM    |
|---------|-----------|---------------|----------------------|-------------------|---------------------|---------------------|---------------------|-----------------|---------|--------|
| 2       | 0.0       | 0.0           | 0.0                  | -6.82             | 0.0                 | 0.0                 | 0.0                 | 0.00            | 46.27   | 117.95 |
| 3       | 0.0       | 0.0           | 570.1                | 132.32            | 131.0               | 13.0                | 231.0               | -3.07           | 55.40   | 129.08 |
| 4       | 0.0       | 0.0           | 549.4                | -2.79             | -90.0               | 57.0                | 208.0               | 0.31            | 55.79   | 129.54 |
| 5       | -8.0      | 0.0           | 307.0                | -30.11            | 35.0                | 158.0               | 175.0               | 0.62            | 55.12   | 128.75 |
| 6       | -4.0      | 0.0           | 439.0                | -18.05            | -67.0               | 114.0               | 106.0               | -0.37           | 54.88   | 128.46 |
| 8       | 2.5       | 0.0           | 543.8                | 14.60             | -127.0              | 142.0               | 631.0               | 0.74            | 55.23   | 128.87 |
| 9       | 5.0       | 0.0           | 562.4                | 33.61             | -441.0              | 75.0                | -287.0              | 4.60            | 54.82   | 128.39 |
| 10      | -0.0      | 0.0           | 536.4                | 1.29              | -152.0              | 131.0               | 5.0                 | 9.69            | 55.17   | 128.81 |
| 11      | 7.5       | 0.0           | 498.9                | 60.23             | -177.0              | 231.0               | 293.0               | 10.19           | 54.80   | 128.36 |
| 12      | 10.0      | 0.0           | 510.9                | 85.03             | -295.0              | 295.0               | -218.0              | 10.35           | 54.95   | 128.54 |
| 13      | 15.0      | 0.0           | 600.1                | 163.52            | -602.0              | 297.0               | -357.0              | 9.43            | 54.56   | 128.08 |
| 14      | 20.0      | 0.0           | 670.3                | 242.46            | -1017.0             | 301.0               | 20.0                | 11.23           | 54.32   | 127.78 |
| 15      | -0.0      | 0.0           | 453.2                | 1.66              | -452.0              | 31.0                | -213.0              | 3.90            | 55.93   | 129.71 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD      | CPH     | CYM    | CRM     | CY      |
|------|-------|--------|---------|---------|--------|---------|---------|
| 2    | 0.00  | 0.0000 | -0.0184 | 0.0000  | 0.0000 | 0.0000  | 0.0000  |
| 3    | 0.00  | 1.5408 | 0.3576  | 0.0423  | 0.0008 | 0.0140  | -0.0083 |
| 4    | 0.00  | 1.4847 | -0.0075 | -0.0289 | 0.0035 | 0.0126  | 0.0008  |
| 5    | -8.00 | 0.8298 | -0.0814 | 0.0112  | 0.0095 | 0.0106  | 0.0017  |
| 6    | -4.00 | 1.5168 | -0.0021 | 0.1941  | 0.0042 | 0.0169  | 0.0044  |
| 8    | 2.50  | 1.4698 | 0.0395  | -0.0408 | 0.0085 | 0.0381  | 0.0020  |
| 9    | 4.98  | 1.5200 | 0.0908  | -0.1422 | 0.0045 | -0.0173 | 0.0124  |
| 10   | -0.00 | 1.4498 | 0.0035  | -0.0491 | 0.0079 | 0.0003  | 0.0262  |
| 11   | 7.51  | 1.3484 | 0.1628  | -0.0569 | 0.0140 | 0.0177  | 0.0276  |
| 12   | 10.00 | 1.3807 | 0.2298  | -0.0950 | 0.0178 | -0.0131 | 0.0280  |
| 13   | 14.99 | 1.6218 | 0.4419  | -0.1942 | 0.0179 | -0.0216 | 0.0255  |
| 14   | 19.98 | 1.8116 | 0.6553  | -0.3279 | 0.0182 | 0.0012  | 0.0303  |
| 15   | -0.00 | 1.2249 | 0.0045  | -0.1456 | 0.0019 | -0.0129 | 0.0105  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB     | CPMB    | CYMB   | CRMB    | CYB     |
|------|-------|--------|---------|---------|--------|---------|---------|
| 2    | 0.00  | 0.0000 | -0.0184 | 0.0000  | 0.0000 | 0.0000  | 0.0000  |
| 3    | 0.00  | 1.5408 | 0.3576  | 0.0423  | 0.0008 | 0.0140  | -0.0083 |
| 4    | 0.00  | 1.4847 | -0.0075 | -0.0289 | 0.0035 | 0.0126  | 0.0008  |
| 5    | -8.00 | 0.8298 | -0.0814 | 0.0112  | 0.0095 | 0.0106  | 0.0017  |
| 6    | -4.00 | 1.5168 | -0.0021 | 0.1941  | 0.0042 | 0.0169  | 0.0044  |
| 8    | 2.50  | 1.4698 | 0.0395  | -0.0408 | 0.0085 | 0.0381  | 0.0020  |
| 9    | 4.98  | 1.5200 | 0.0908  | -0.1422 | 0.0045 | -0.0173 | 0.0124  |
| 10   | -0.00 | 1.4498 | 0.0035  | -0.0491 | 0.0079 | 0.0003  | 0.0262  |
| 11   | 7.51  | 1.3484 | 0.1628  | -0.0569 | 0.0140 | 0.0177  | 0.0276  |
| 12   | 10.00 | 1.3807 | 0.2298  | -0.0950 | 0.0178 | -0.0131 | 0.0280  |
| 13   | 14.99 | 1.6218 | 0.4419  | -0.1942 | 0.0179 | -0.0216 | 0.0255  |
| 14   | 19.98 | 1.8116 | 0.6553  | -0.3279 | 0.0182 | 0.0012  | 0.0303  |
| 15   | -0.00 | 1.2249 | 0.0045  | -0.1456 | 0.0019 | -0.0129 | 0.0105  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 116

RUN 158 CONFIG F P R W3 NPI T BT

| 1W<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 5 IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELR<br>CYBAR<br>SQ-FT | 0 DELSB<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|-----------------------|-------------------------|--------------------------|---------------------------|---------------------------|---------------------------|--------------------------|---------------------|-----------------|--------|
| 6                | 0                       | 0                     | 545.2                   | 132.58                   | 101.                      | -22.                      | 137.                      | 1.65                     | 55.65               | 129.37          | 4330.  |
| 7                | 0                       | 0                     | 512.0                   | -5.09                    | -418.                     | 7.                        | 455.                      | -16.41                   | 55.82               | 129.58          | 20440. |
| 8                | 0                       | -15.0                 | 458.8                   | 9.88                     | 549.                      | 1069.                     | -269.                     | -108.89                  | 55.72               | 129.45          | 20210. |
| 9                | 0                       | -10.0                 | 489.3                   | -1.16                    | 329.                      | 504.                      | -68.                      | -57.12                   | 55.82               | 129.57          | 20270. |
| 10               | 0                       | -5.0                  | 518.9                   | -4.65                    | -95.                      | 196.                      | -78.                      | -21.09                   | 55.40               | 129.08          | 20270. |
| 11               | 0                       | 0                     | 503.4                   | -2.00                    | -415.                     | 86.                       | 283.                      | -3.56                    | 55.58               | 129.28          | 20270. |
| 12               | 0                       | 5.0                   | 507.3                   | -4.54                    | -212.                     | -59.                      | 496.                      | 21.29                    | 55.68               | 129.41          | 20410. |
| 13               | 0                       | 10.0                  | 493.2                   | -3.44                    | 26.                       | -404.                     | 670.                      | 66.97                    | 54.89               | 128.47          | 20330. |
| 14               | 0                       | 15.0                  | 463.4                   | 4.69                     | 199.                      | -1048.                    | 495.                      | 119.74                   | 54.79               | 128.36          | 20280. |
| 15               | 0                       | 0                     | 526.8                   | -3.64                    | -258.                     | 52.                       | 408.                      | -14.51                   | 54.72               | 128.26          | 20260. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | 0.00   | 1.5275 | .3583  | .0326  | -.0013 | .0083  | .0045  |
| 7    | 0.00   | 1.4000 | -.0138 | -.1346 | .0004  | .0275  | -.0444 |
| 8    | -15.00 | 1.2399 | .0267  | .1769  | .0645  | -.0163 | -.2943 |
| 9    | -10.00 | 1.3225 | -.0031 | .1059  | .0304  | -.0041 | -.1544 |
| 10   | -5.00  | 1.4025 | -.0126 | -.0308 | .0118  | -.0097 | -.0570 |
| 11   | 0.00   | 1.3605 | -.0054 | -.1338 | .0052  | .0171  | -.0096 |
| 12   | 5.00   | 1.3711 | -.0123 | -.0683 | -.0036 | .0300  | .0575  |
| 13   | 10.00  | 1.3329 | -.0093 | .0084  | -.0244 | .0405  | .1810  |
| 14   | 15.00  | 1.2525 | .0127  | .0642  | -.0633 | .0299  | .3236  |
| 15   | 0.00   | 1.4237 | -.0099 | -.0833 | .0031  | .0246  | -.0392 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | 0.00   | 1.5275 | .3583  | .0326  | -.0013 | .0083  | .0045  |
| 7    | 0.00   | 1.4000 | -.0138 | -.1346 | .0004  | .0275  | -.0444 |
| 8    | -15.00 | 1.2399 | -.0507 | .1934  | .0645  | -.0243 | -.2911 |
| 9    | -10.00 | 1.3225 | -.0300 | .1081  | .0304  | -.0075 | -.1515 |
| 10   | -5.00  | 1.4025 | -.0175 | -.0284 | .0118  | -.0042 | -.0557 |
| 11   | 0.00   | 1.3605 | -.0054 | -.1338 | .0052  | .0171  | -.0096 |
| 12   | 5.00   | 1.3711 | -.0173 | -.0541 | -.0036 | .0287  | .0562  |
| 13   | 10.00  | 1.3329 | -.0407 | .0460  | -.0244 | .0401  | .1766  |
| 14   | 15.00  | 1.2525 | -.0719 | .1035  | -.0633 | .0320  | .3158  |
| 15   | 0.00   | 1.4237 | -.0099 | -.0833 | .0031  | .0246  | -.0392 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 159 CONFIG F P R W3 NPI T BT

| IW<br>PT.<br>NO. | IS DELE<br>ALPHA<br>DEG | PSI<br>DEG | O DELA<br>CLBAR<br>SQ-FT | O IHT<br>CDBAR<br>SQ-FT | O DELE<br>CPMBAR<br>CU-FT | O DELR<br>CYMBAR<br>CU-FT | O DELSB<br>CRMBAR<br>CU-FT | O<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM  |
|------------------|-------------------------|------------|--------------------------|-------------------------|---------------------------|---------------------------|----------------------------|---------------------|----------|------------|------|
| 3                | 0                       | 0          | 349.7                    | 71.07                   | 86                        | 34                        | 190                        | 98                  | 55.83    | 129.59     | 4070 |
| 4                | 0                       | -15.0      | 311.0                    | 85.28                   | 167                       | 775                       | -230                       | -81.87              | 55.92    | 129.69     | 3940 |
| 5                | 0                       | -10.0      | 333.0                    | 78.11                   | 22                        | 403                       | -71                        | -51.43              | 55.44    | 129.13     | 3990 |
| 6                | 0                       | -5.0       | 342.6                    | 74.73                   | -37                       | 214                       | -7                         | -24.59              | 55.55    | 129.25     | 4040 |
| 7                | 0                       | 0          | 360.1                    | 71.80                   | 40                        | 30                        | 138                        | 92                  | 55.65    | 129.38     | 4080 |
| 8                | 0                       | 5.0        | 348.0                    | 71.61                   | -13                       | -45                       | 155                        | 29.83               | 55.28    | 128.93     | 4100 |
| 9                | 0                       | 10.0       | 346.0                    | 73.20                   | -81                       | -293                      | 182                        | 62.41               | 55.35    | 129.01     | 4120 |
| 10               | 0                       | 15.0       | 310.4                    | 79.16                   | 25                        | -744                      | 278                        | 90.99               | 55.33    | 129.00     | 4040 |
| 11               | 0                       | 0          | 353.5                    | 71.99                   | 84                        | 24                        | 192                        | 1.24                | 55.04    | 128.65     | 4060 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 3    | 0.00   | .9451 | .1921 | .0277  | .0021  | .0145  | .0026  |
| 4    | -15.00 | .8405 | .2305 | .0539  | .0468  | -.0139 | -.2213 |
| 5    | -10.00 | .9000 | .2111 | .0071  | .0243  | -.0043 | -.1390 |
| 6    | -5.00  | .9260 | .2020 | -.0119 | .0129  | -.0004 | -.0665 |
| 7    | 0.00   | .9463 | .1940 | .0129  | .0018  | .0083  | .0025  |
| 8    | 5.00   | .9406 | .1935 | -.0041 | -.0027 | .0094  | .0806  |
| 9    | 10.00  | .9351 | .1978 | -.0262 | -.0177 | .0110  | .1687  |
| 10   | 15.00  | .8389 | .2139 | .0081  | -.0450 | .0168  | .2459  |
| 11   | 0.00   | .9554 | .1946 | .0271  | .0015  | .0116  | .0033  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 3    | 0.00   | .9451 | .1921 | .0277  | .0021  | .0145  | .0026  |
| 4    | -15.00 | .8405 | .1650 | .0714  | .0468  | -.0161 | -.2736 |
| 5    | -10.00 | .9000 | .1836 | .0109  | .0243  | -.0044 | -.1737 |
| 6    | -5.00  | .9260 | .1954 | -.0117 | .0129  | -.0002 | -.0839 |
| 7    | 0.00   | .9463 | .1940 | .0129  | .0018  | .0083  | .0025  |
| 8    | 5.00   | .9406 | .1857 | .0003  | -.0027 | .0093  | .0972  |
| 9    | 10.00  | .9351 | .1654 | -.0156 | -.0177 | .0099  | .2006  |
| 10   | 15.00  | .8389 | .1427 | .0312  | -.0450 | .0186  | .2931  |
| 11   | 0.00   | .9554 | .1946 | .0271  | .0015  | .0116  | .0033  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 160 CONFIG F P R W3 NP1 T BT

| 1W<br>PT.# | 15<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | n DELTA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------|--------------------|---------------------|---------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 2          | .0                 | .0                  | 351.1                     | 71.62                   | 84.                       | 30.                       | 102.                      | 2.09                      | 55.35         | 129.02          | 4070.  |
| 3          | .0                 | .0                  | 340.2                     | -9.55                   | -340.                     | -2.                       | 158.                      | -.12                      | 55.35         | 129.03          | 16000. |
| 4          | .0                 | -15.0               | 305.8                     | 8.75                    | 167.                      | 631.                      | -104.                     | -103.98                   | 55.79         | 129.54          | 15900. |
| 5          | .0                 | -10.0               | 320.2                     | -1.88                   | -69.                      | 231.                      | -152.                     | -60.84                    | 55.76         | 129.51          | 15890. |
| 6          | .0                 | -5.0                | 339.9                     | -4.97                   | -342.                     | 663.                      | 1424.                     | -46.07                    | 55.16         | 128.80          | 15870. |
| 7          | .0                 | .0                  | 336.3                     | -7.72                   | -395.                     | 7.                        | 0.                        | -.31                      | 55.57         | 129.29          | 16040. |
| 8          | .0                 | 5.0                 | 328.2                     | -9.07                   | -280.                     | 50.                       | 105.                      | 30.95                     | 55.80         | 129.56          | 16010. |
| 9          | .0                 | 10.0                | 319.0                     | -5.69                   | -60.                      | -137.                     | 378.                      | 68.44                     | 55.79         | 129.54          | 16030. |
| 10         | .0                 | 15.0                | 302.7                     | 4.49                    | -21.                      | -545.                     | 323.                      | 112.79                    | 55.69         | 129.42          | 15910. |
| 11         | .0                 | .0                  | 336.7                     | -7.74                   | -340.                     | -21.                      | -19.                      | .92                       | 55.71         | 129.45          | 16000. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .9490 | .1936  | .0272  | .0018  | .0062  | .0057  |
| 3    | .00    | .9194 | -.0258 | -.1096 | -.0001 | .0095  | -.0003 |
| 4    | -15.00 | .8265 | .0237  | .0540  | .0381  | -.0063 | -.2810 |
| 5    | -10.00 | .8653 | -.0051 | -.0222 | .0139  | -.0092 | -.1644 |
| 6    | -5.00  | .9186 | .0134  | -.1103 | .0401  | .0860  | .1245  |
| 7    | .00    | .9089 | -.0209 | -.1274 | .0004  | .0000  | -.0000 |
| 8    | 5.00   | .8870 | -.0245 | -.0902 | .0030  | .0063  | .0836  |
| 9    | 10.00  | .8621 | -.0154 | -.0193 | -.0083 | .0228  | .1850  |
| 10   | 15.00  | .8180 | .0121  | -.0067 | -.0329 | .0195  | .3048  |
| 11   | .00    | .9100 | -.0209 | -.1097 | -.0012 | -.0011 | .0025  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .9490 | .1936  | .0272  | .0018  | .0062  | .0057  |
| 3    | .00    | .9194 | -.0258 | -.1096 | -.0001 | .0095  | -.0003 |
| 4    | -15.00 | .8265 | -.0502 | .0609  | .0381  | -.0087 | -.2775 |
| 5    | -10.00 | .8653 | -.0337 | -.0133 | .0139  | -.0083 | -.1610 |
| 6    | -5.00  | .9186 | -.0243 | -.1501 | .0401  | .0875  | -.1229 |
| 7    | .00    | .9089 | -.0209 | -.1274 | .0004  | .0000  | -.0000 |
| 8    | 5.00   | .8870 | -.0317 | -.0869 | .0030  | .0048  | .0812  |
| 9    | 10.00  | .8621 | -.0474 | .0022  | -.0083 | .0219  | .1795  |
| 10   | 15.00  | .8180 | -.0675 | .0206  | -.0329 | .0185  | .2975  |
| 11   | .00    | .9100 | -.0209 | -.1097 | -.0012 | -.0011 | .0025  |

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RUN 161 CONFIG F P R W3 NP1 T BT

| PT. NO. | ALPHA DEG | 15 DELF PSI DEG | 0 DELA CLBAR SQ-FT | 0 IHT CDBAR SQ-FT | 0 DELE CPMBAR CU-FT | 0 DELR CRMBAR CU-FT | 0 DELSB CYBAR SQ-FT | Q PSF   | V KNOTS | RPM    |        |
|---------|-----------|-----------------|--------------------|-------------------|---------------------|---------------------|---------------------|---------|---------|--------|--------|
| 2       | 0         | 0               | 354.6              | 72.37             | 75.                 | 36.                 | 122.                | 1.42    | 55.00   | 128.61 | 4060.  |
| 3       | 0         | 0               | 333.1              | -100.21           | -661.               | -56.                | 44.                 | 6.94    | 54.99   | 128.60 | 23020. |
| 4       | 0         | -15.0           | 302.8              | -79.94            | -44.                | 547.                | -223.               | -127.72 | 55.24   | 128.89 | 22780. |
| 5       | 0         | -9.9            | 321.6              | -94.34            | -258.               | 104.                | 39.                 | -74.19  | 55.42   | 129.11 | 23070. |
| 6       | 0         | -5.0            | 335.3              | -101.78           | -597.               | -15.                | -13.                | -36.36  | 54.90   | 128.49 | 23190. |
| 7       | 0         | 0               | 336.8              | -101.90           | -699.               | 13.                 | 152.                | 4.89    | 55.07   | 128.69 | 23210. |
| 8       | 0         | 5.0             | 326.6              | -96.98            | -638.               | -30.                | 160.                | 46.31   | 54.95   | 128.55 | 23070. |
| 9       | 0         | 10.0            | 323.0              | -90.59            | -362.               | -158.               | 377.                | 89.27   | 54.95   | 128.55 | 23230. |
| 10      | 0         | 15.0            | 309.0              | -77.22            | -238.               | -546.               | 534.                | 141.02  | 55.22   | 128.87 | 23290. |
| 11      | 0         | 0               | 334.1              | -93.30            | -609.               | -58.                | 168.                | 6.24    | 55.14   | 128.77 | 23090. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .9582 | .1956  | .0243  | .0022  | .0073  | .0038  |
| 3    | .00    | .9003 | -.2708 | -.2132 | -.0034 | .0027  | .0188  |
| 4    | -15.00 | .8184 | -.2160 | -.0142 | .0331  | -.0134 | -.3452 |
| 5    | -9.90  | .8692 | -.2550 | -.0833 | .0063  | .0024  | -.2005 |
| 6    | -5.00  | .9063 | -.2751 | -.1924 | -.0009 | -.0008 | -.0983 |
| 7    | .00    | .9103 | -.2754 | -.2253 | .0008  | .0092  | .0132  |
| 8    | 5.00   | .8827 | -.2621 | -.2057 | -.0018 | .0097  | .1252  |
| 9    | 10.00  | .8730 | -.2448 | -.1164 | -.0096 | .0228  | .2413  |
| 10   | 15.00  | .8351 | -.2087 | -.0768 | -.0330 | .0322  | .3811  |
| 11   | .00    | .9029 | -.2522 | -.1965 | -.0035 | .0101  | .0169  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .9582 | .1956  | .0243  | .0022  | .0073  | .0038  |
| 3    | .00    | .9003 | -.2708 | -.2132 | -.0034 | .0027  | .0188  |
| 4    | -15.00 | .8184 | -.2984 | .0049  | .0331  | -.0123 | -.2771 |
| 5    | -9.90  | .8692 | -.2858 | -.0843 | .0063  | .0050  | -.1535 |
| 6    | -5.00  | .9063 | -.2826 | -.1913 | -.0009 | .0024  | -.0738 |
| 7    | .00    | .9103 | -.2754 | -.2253 | .0008  | .0092  | .0132  |
| 8    | 5.00   | .8827 | -.2721 | -.2004 | -.0018 | .0083  | .1017  |
| 9    | 10.00  | .8730 | -.2832 | -.0936 | -.0096 | .0186  | .1949  |
| 10   | 15.00  | .8351 | -.3006 | -.0294 | -.0330 | .0274  | .3138  |
| 11   | .00    | .9029 | -.2522 | -.1965 | -.0035 | .0101  | .0169  |

RUN 162 CONFIG F P R W3 NPI T BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | O DELA SQ-FT | O IHT CU-FT | O DELE CU-FT | O DELR CU-FT | O DELSB SQ-FT | O V KNOTS | RPM    |
|---------|-----------|---------------|--------------|-------------|--------------|--------------|---------------|-----------|--------|
| 2       | 0         | 0             | 351.2        | 71.43       | 84.          | 36.          | 156.          | 55.30     | 4060.  |
| 3       | 0         | 0             | 345.6        | -12.86      | -368.        | -707.        | 128.          | 54.73     | 23040. |
| 4       | 0         | -15.0         | 309.6        | 1.36        | -33.         | 50.          | -466.         | 55.28     | 22980. |
| 5       | 0         | -10.0         | 336.1        | -8.86       | -233.        | -395.        | -32.          | 54.70     | 23000. |
| 6       | 0         | -5.0          | 353.3        | -12.57      | -467.        | -613.        | 122.          | 55.08     | 23050. |
| 7       | 0         | 1             | 348.3        | -13.11      | -421.        | -668.        | 376.          | 55.42     | 23020. |
| 8       | 0         | 5.0           | 336.2        | -12.32      | -346.        | -729.        | 279.          | 55.41     | 22980. |
| 9       | 0         | 10.1          | 320.5        | -7.82       | -215.        | -1026.       | 292.          | 55.37     | 22970. |
| 10      | 0         | 15.0          | 297.3        | 2.35        | -100.        | -1419.       | 221.          | 55.34     | 22990. |
| 11      | 0         | 0             | 102.9        | -12.02      | 11758.       | -676.        | 163.          | 55.64     | 23050. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .9491 | .1930  | .0270  | .0022  | .0094  | .0027  |
| 3    | 0.00   | .9341 | -.0347 | -.1185 | -.0427 | .0077  | .0301  |
| 4    | -15.00 | .8366 | .0037  | -.0106 | .0030  | -.0281 | -.2602 |
| 5    | -10.00 | .9085 | -.0239 | -.0750 | -.0239 | -.0019 | -.1515 |
| 6    | -5.00  | .9549 | -.0340 | -.1505 | -.0370 | .0074  | -.0739 |
| 7    | 1.0    | .9414 | -.0354 | -.1356 | -.0404 | .0227  | .0226  |
| 8    | 5.00   | .9085 | -.0333 | -.1115 | -.0441 | .0169  | .1203  |
| 9    | 10.10  | .8663 | -.0211 | -.0694 | -.0620 | .0176  | .2341  |
| 10   | 15.00  | .8036 | .0063  | -.0322 | -.0857 | .0183  | .3579  |
| 11   | 0.00   | .2782 | -.0325 | 3.7906 | -.0408 | .0099  | .0233  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .9491 | .1930  | .0270  | .0022  | .0094  | .0027  |
| 3    | 0.00   | .9341 | -.0347 | -.1185 | -.0427 | .0077  | .0301  |
| 4    | -15.00 | .8366 | -.0641 | .0288  | .0030  | -.0267 | -.2522 |
| 5    | -10.00 | .9085 | -.0500 | -.0720 | -.0239 | .0005  | -.1450 |
| 6    | -5.00  | .9549 | -.0403 | -.1534 | -.0370 | .0098  | -.0706 |
| 7    | 1.0    | .9414 | -.0355 | -.1354 | -.0404 | .0226  | .0225  |
| 8    | 5.00   | .9085 | -.0437 | -.1032 | -.0441 | .0150  | .1169  |
| 9    | 10.10  | .8663 | -.0620 | -.0517 | -.0620 | .0151  | .2267  |
| 10   | 15.00  | .8036 | -.0869 | -.0126 | -.0857 | .0113  | .3472  |
| 11   | 0.00   | .2782 | -.0325 | 3.7906 | -.0408 | .0099  | .0233  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 163 CONFIG F P A W3 NP1 T BT

| PT. NO. | 1W ALPHA DEG | 15 DELF PSI DEG | n DELA CIBAR SQ-FT | 0 IHT CDBAR SQ-FT | 0 DELE CPMBAR CU-FT | 0 DELR CRMBAR CU-FT | 0 DELSB CYBAR SQ-FT | 0 V PSF | 0 V KNOTS | RPM    |        |
|---------|--------------|-----------------|--------------------|-------------------|---------------------|---------------------|---------------------|---------|-----------|--------|--------|
| 2       | 2.5          | .0              | 380.8              | 88.43             | 183.                | 27.                 | -36.                | .80     | 55.33     | 128.99 | 4060.  |
| 3       | 2.5          | .0              | 398.9              | -3.19             | -312.               | 31.                 | 68.                 | 1.78    | 55.48     | 129.18 | 16930. |
| 4       | 2.5          | -15.0           | 371.2              | 13.28             | 185.                | 598.                | -763.               | -100.32 | 55.69     | 129.42 | 16990. |
| 5       | 2.5          | -10.0           | 391.1              | 2.56              | -36.                | 154.                | -275.               | -58.72  | 55.29     | 128.95 | 16960. |
| 6       | 2.5          | -5.0            | 395.2              | -1.53             | -383.               | 48.                 | -224.               | -27.41  | 55.43     | 129.12 | 16920. |
| 7       | 2.5          | .0              | 397.6              | -2.39             | -391.               | 52.                 | 155.                | 1.85    | 55.38     | 129.05 | 16930. |
| 8       | 2.5          | 5.0             | 388.8              | -3.62             | -318.               | 37.                 | 272.                | 31.22   | 55.21     | 128.86 | 16910. |
| 9       | 2.5          | 10.1            | 377.9              | -.42              | -92.                | -124.               | 403.                | 68.06   | 55.01     | 128.62 | 16940. |
| 10      | 2.5          | 15.0            | 368.6              | 9.01              | 66.                 | -580.               | 511.                | 111.34  | 54.64     | 128.18 | 16950. |
| 11      | 2.5          | .0              | 393.7              | -3.12             | -402.               | -37.                | -21.                | 3.35    | 54.92     | 128.51 | 16880. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPH    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0292 | .2390  | .0590  | .0016  | -.0022 | .0022  |
| 3    | .00    | 1.0781 | -.0086 | -.1005 | .0019  | .0041  | .0048  |
| 4    | -15.00 | 1.0033 | .0359  | .0595  | .0361  | -.0461 | -.2711 |
| 5    | -10.00 | 1.0569 | .0069  | -.0117 | .0093  | -.0166 | -.1587 |
| 6    | -5.00  | 1.0682 | -.0041 | -.1236 | .0029  | -.0135 | -.0741 |
| 7    | .00    | 1.0745 | -.0064 | -.1260 | .0031  | .0094  | .0050  |
| 8    | 5.00   | 1.0507 | -.0098 | -.1025 | .0022  | .0164  | .0844  |
| 9    | 10.10  | 1.0215 | -.0011 | -.0296 | -.0075 | .0243  | .1839  |
| 10   | 15.00  | .9961  | .0243  | .0213  | -.0351 | .0309  | .3009  |
| 11   | .00    | 1.0641 | -.0084 | -.1297 | -.0022 | -.0043 | .0091  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0292 | .2390  | .0590  | .0016  | -.0022 | .0022  |
| 3    | .00    | 1.0781 | -.0086 | -.1005 | .0019  | .0041  | .0048  |
| 4    | -15.00 | 1.0033 | -.0358 | .1214  | .0361  | -.0474 | -.2711 |
| 5    | -10.00 | 1.0569 | -.0209 | .0039  | .0093  | -.0160 | -.1575 |
| 6    | -5.00  | 1.0682 | -.0106 | -.1168 | .0029  | -.0114 | -.0734 |
| 7    | .00    | 1.0745 | -.0064 | -.1260 | .0031  | .0094  | .0050  |
| 8    | 5.00   | 1.0507 | -.0171 | -.0945 | .0022  | .0147  | .0832  |
| 9    | 10.10  | 1.0215 | -.0335 | -.0063 | -.0075 | .0230  | .1809  |
| 10   | 15.00  | .9961  | -.0547 | .0634  | -.0351 | .0308  | .2969  |
| 11   | .00    | 1.0641 | -.0084 | -.1297 | -.0022 | -.0043 | .0091  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 164 CONFIG F P R W3 NP1 T BT

| IW<br>PT.<br>NO. | ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CLBAR<br>SQ=FT | DELTA<br>CDBAR<br>SQ=FT | IHT<br>CPM <sub>BAR</sub><br>CU=FT | DELE<br>CYM <sub>BAR</sub><br>CU=FT | DELRL<br>CRM <sub>BAR</sub><br>CU=FT | DELSB<br>CYBAR<br>SQ=FT | DELSS<br>Q<br>PSF | Q<br>V<br>KNOTS | RPM   |
|------------------|--------------|---------------------|-------------------------|-------------------------|------------------------------------|-------------------------------------|--------------------------------------|-------------------------|-------------------|-----------------|-------|
| 3                | 0            | 0                   | 353.3                   | 71.67                   | 79.                                | 41.                                 | 139.                                 | .43                     | 55.35             | 129.02          | 4070. |
| 4                | -8.0         | 0                   | 138.3                   | 51.06                   | -286.                              | 10.                                 | 100.                                 | 3.73                    | 54.87             | 128.44          | 3940. |
| 5                | -4.0         | 0                   | 248.6                   | 58.24                   | -151.                              | 17.                                 | 86.                                  | 1.55                    | 55.08             | 128.70          | 3990. |
| 6                | 0            | 0                   | 303.4                   | 73.78                   | -65.                               | -32.                                | -5.                                  | 3.85                    | 54.86             | 128.43          | 4070. |
| 7                | 0            | 0                   | 351.0                   | 71.84                   | 58.                                | 33.                                 | 123.                                 | .06                     | 55.10             | 128.72          | 4070. |
| 8                | 2.5          | 0                   | 377.8                   | 87.26                   | 150.                               | 16.                                 | 196.                                 | -2.05                   | 54.95             | 128.54          | 4050. |
| 9                | 5.0          | 0                   | 382.6                   | 104.80                  | 198.                               | -7.                                 | 213.                                 | -1.06                   | 54.85             | 128.42          | 4040. |
| 10               | 10.0         | 0                   | 413.7                   | 153.83                  | -147.                              | 35.                                 | -192.                                | .18                     | 55.34             | 129.00          | 4050. |
| 11               | 15.0         | 0                   | 484.7                   | 217.20                  | -488.                              | 95.                                 | 35.                                  | .93                     | 55.02             | 128.62          | 4190. |
| 12               | 20.0         | 0                   | 492.1                   | 280.24                  | -1034.                             | 118.                                | 194.                                 | -1.05                   | 54.90             | 128.47          | 4180. |
| 13               | 0            | 0                   | 351.3                   | 71.93                   | 56.                                | 31.                                 | 190.                                 | .73                     | 55.77             | 129.52          | 4080. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 3    | 0.00  | .9547  | .1937 | .0253  | .0025  | .0084  | .0012  |
| 4    | -8.00 | .3739  | .1380 | -.0921 | .0006  | .0060  | .0101  |
| 5    | -4.02 | .6718  | .1574 | -.0486 | .0010  | .0052  | .0042  |
| 6    | 0.02  | .8199  | .1994 | -.0209 | -.0019 | -.0003 | .0104  |
| 7    | 0.02  | .9486  | .1942 | .0188  | .0020  | .0074  | .0002  |
| 8    | 2.48  | 1.0211 | .2358 | .0485  | .0010  | .0119  | -.0055 |
| 9    | 4.98  | 1.0340 | .2832 | .0639  | -.0004 | .0129  | -.0029 |
| 10   | 9.97  | 1.1182 | .4158 | -.0475 | .0021  | -.0116 | -.0005 |
| 11   | 15.00 | 1.3101 | .5870 | -.1574 | .0057  | .0021  | .0025  |
| 12   | 19.98 | 1.3299 | .7574 | -.3332 | .0071  | .0117  | -.0029 |
| 13   | 0.01  | .9495  | .1944 | .0182  | .0019  | .0115  | .0020  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 3    | 0.00  | .9547  | .1937 | .0253  | .0025  | .0084  | .0012  |
| 4    | -8.00 | .3739  | .1380 | -.0921 | .0006  | .0060  | .0101  |
| 5    | -4.02 | .6718  | .1574 | -.0486 | .0010  | .0052  | .0042  |
| 6    | 0.02  | .8199  | .1994 | -.0209 | -.0019 | -.0003 | .0104  |
| 7    | 0.02  | .9486  | .1942 | .0188  | .0020  | .0074  | .0002  |
| 8    | 2.48  | 1.0211 | .2358 | .0485  | .0010  | .0119  | -.0055 |
| 9    | 4.98  | 1.0340 | .2832 | .0639  | -.0004 | .0129  | -.0029 |
| 10   | 9.97  | 1.1182 | .4158 | -.0475 | .0021  | -.0116 | -.0005 |
| 11   | 15.00 | 1.3101 | .5870 | -.1574 | .0057  | .0021  | .0025  |
| 12   | 19.98 | 1.3299 | .7574 | -.3332 | .0071  | .0117  | -.0029 |
| 13   | 0.01  | .9495  | .1944 | .0182  | .0019  | .0115  | .0020  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 165 CONFIG F P R W3 NPI T BT

| PT. NO. | TW<br>ALPHA<br>DEG | 15 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELSB<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM    |
|---------|--------------------|-----------------------|--------------------------|-------------------------|---------------------------|---------------------------|----------------------------|---------------------|----------|------------|--------|
| 7       | -0                 | 0                     | 341.3                    | 69.90                   | 62                        | 31                        | 34                         | 24                  | 57.11    | 131.08     | 4130.  |
| 8       | -0                 | 0                     | 344.6                    | 70.38                   | 77                        | 17                        | 143                        | -2.82               | 55.58    | 129.28     | 4090.  |
| 9       | -0                 | 0                     | 333.4                    | -6.56                   | -380                      | 1                         | 244                        | .74                 | 55.46    | 129.13     | 15780. |
| 10      | -8.0               | 0                     | 116.8                    | -27.12                  | -476                      | 68                        | 105                        | -3.1                | 55.73    | 129.45     | 15830. |
| 11      | -4.1               | 0                     | 235.0                    | -21.78                  | -443                      | 36                        | 159                        | -1.11               | 55.40    | 129.07     | 15830. |
| 12      | .1                 | 0                     | 329.8                    | -6.52                   | -410                      | -5                        | 84                         | 2.52                | 55.32    | 128.97     | 15890. |
| 13      | 2.4                | 0                     | 388.2                    | 5.29                    | -395                      | -24                       | 299                        | 1.30                | 54.90    | 128.47     | 15880. |
| 14      | 5.0                | 0                     | 429.9                    | 19.72                   | -383                      | -22                       | 54                         | 1.17                | 55.25    | 128.88     | 15920. |
| 15      | 10.1               | 0                     | 437.2                    | 74.07                   | -270                      | 138                       | -19                        | 3.15                | 56.20    | 130.00     | 15650. |
| 16      | 20.0               | 0                     | 563.7                    | 209.73                  | -837                      | 130                       | 70                         | 3.15                | 56.25    | 130.06     | 15670. |
| 17      | .0                 | 0                     | 333.0                    | -5.14                   | -393                      | -18                       | 277                        | 1.90                | 55.56    | 129.25     | 15660. |
| 18      | 15.0               | 0                     | 496.0                    | 133.10                  | -558                      | 214                       | -189                       | 4.03                | 56.58    | 130.45     | 15680. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 7    | -0.01 | .9225  | .1889  | .0200  | .0019  | .0021  | -.0006 |
| 8    | -0.01 | .9314  | .1902  | .0247  | .0010  | .0086  | -.0076 |
| 9    | -0.01 | .9010  | -.0177 | -.1224 | .0001  | .0147  | .0020  |
| 10   | -8.00 | .3155  | -.0733 | -.1534 | .0041  | .0063  | -.0008 |
| 11   | -4.06 | .6352  | .0589  | -.1429 | .0022  | .0096  | -.0030 |
| 12   | .09   | .8914  | -.0176 | -.1322 | -.0003 | .0051  | .0068  |
| 13   | 2.44  | 1.0491 | .0143  | -.1273 | -.0014 | .0180  | .0035  |
| 14   | 5.05  | 1.1620 | .0533  | -.1234 | -.0013 | -.0032 | .0032  |
| 15   | 10.07 | 1.1815 | .2002  | -.0871 | .0084  | -.0012 | .0085  |
| 16   | 20.01 | 1.5235 | .5668  | -.2698 | .0079  | .0042  | .0085  |
| 17   | .02   | .9000  | -.0139 | -.1267 | -.0011 | .0167  | .0051  |
| 18   | 14.96 | 1.3404 | .3597  | -.1799 | .0129  | -.0114 | .0109  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 7    | -0.01 | .9225  | .1889  | .0200  | .0019  | .0021  | -.0006 |
| 8    | -0.01 | .9314  | .1902  | .0247  | .0010  | .0086  | -.0076 |
| 9    | -0.01 | .9010  | -.0177 | -.1224 | .0001  | .0147  | .0020  |
| 10   | -8.00 | .3155  | -.0733 | -.1534 | .0041  | .0063  | -.0008 |
| 11   | -4.06 | .6352  | .0589  | -.1429 | .0022  | .0096  | -.0030 |
| 12   | .09   | .8914  | -.0176 | -.1322 | -.0003 | .0051  | .0068  |
| 13   | 2.44  | 1.0491 | .0143  | -.1273 | -.0014 | .0180  | .0035  |
| 14   | 5.05  | 1.1620 | .0533  | -.1234 | -.0013 | -.0032 | .0032  |
| 15   | 10.07 | 1.1815 | .2002  | -.0871 | .0084  | -.0012 | .0085  |
| 16   | 20.01 | 1.5235 | .5668  | -.2698 | .0079  | .0042  | .0085  |
| 17   | .02   | .9000  | -.0139 | -.1267 | -.0011 | .0167  | .0051  |
| 18   | 14.96 | 1.3404 | .3597  | -.1799 | .0129  | -.0114 | .0109  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 166 CONFIG F P R W3 NPI T BT

| IW<br>PT.<br>NO. | ALPHA<br>DEG | DELTA PSI<br>DEG | DELTA CLBAR<br>SQ-FT | DELTA CDBAR<br>SQ-FT | DELTA CPMBAR<br>CU-FT | DELTA CYNBAR<br>CU-FT | DELTA CRMBAR<br>CU-FT | DELTA CYBAR<br>SQ-FT | DELTA Q<br>PSF | DELTA V<br>KNOTS | RPM    |
|------------------|--------------|------------------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|----------------------|----------------|------------------|--------|
| 2                | 0            | 0                | 344.8                | 70.49                | 76.                   | 22.                   | 140.                  | -0.61                | 55.77          | 129.49           | 4100.  |
| 3                | 0            | 0                | 323.4                | -98.70               | -692.                 | -80.                  | 151.                  | 4.52                 | 55.77          | 129.50           | 22980. |
| 4                | -8.0         | 0                | 107.2                | -119.26              | -828.                 | 27.                   | 185.                  | 3.74                 | 55.62          | 129.33           | 23050. |
| 5                | -4.0         | 0                | 222.8                | -113.62              | -775.                 | -45.                  | 81.                   | 4.11                 | 55.54          | 129.23           | 23050. |
| 6                | 0            | 0                | 321.3                | -98.14               | -666.                 | -79.                  | 76.                   | 8.56                 | 55.70          | 129.42           | 22970. |
| 7                | 5.1          | 0                | 441.9                | -69.35               | -595.                 | -59.                  | 132.                  | 6.20                 | 56.05          | 129.83           | 23070. |
| 8                | 10.1         | 0                | 471.1                | -14.10               | -426.                 | 148.                  | 84.                   | 4.37                 | 56.09          | 129.87           | 23040. |
| 9                | 15.0         | 0                | 537.4                | 49.33                | -630.                 | 239.                  | -158.                 | 8.67                 | 55.77          | 129.50           | 22970. |
| 10               | 20.0         | 0                | 617.3                | 129.64               | -753.                 | 171.                  | 86.                   | 3.84                 | 56.79          | 130.69           | 22940. |
| 11               | 0            | 0                | 324.5                | -97.87               | -647.                 | 17.                   | 115.                  | 6.65                 | 54.81          | 128.36           | 23000. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|-------|--------|--------|--------|--------|--------|
| 2    | 0.00  | .9318 | .1905  | .0246  | .0013  | .0084  | -.0017 |
| 3    | 0.00  | .8740 | -.2668 | -.2230 | -.0049 | .0091  | .0122  |
| 4    | -7.98 | .2898 | -.3223 | -.2670 | .0016  | .0112  | .0101  |
| 5    | -4.01 | .6023 | -.3071 | -.2500 | -.0027 | .0049  | .0111  |
| 6    | .02   | .8683 | -.2652 | -.2148 | -.0048 | .0046  | .0231  |
| 7    | 5.07  | .1943 | -.1874 | -.1919 | -.0036 | .0080  | .0168  |
| 8    | 10.05 | .2733 | -.0381 | -.1372 | .0089  | .0051  | .0118  |
| 9    | 14.99 | .4525 | .1333  | -.2032 | .0144  | -.0096 | .0234  |
| 10   | 20.04 | .6682 | .3504  | -.2426 | .0103  | .0052  | .0104  |
| 11   | .01   | .8771 | -.2645 | -.2087 | .0010  | .0070  | .0180  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|-------|--------|--------|--------|--------|--------|
| 2    | 0.00  | .9318 | .1905  | .0246  | .0013  | .0084  | -.0017 |
| 3    | 0.00  | .8740 | -.2668 | -.2230 | -.0049 | .0091  | .0122  |
| 4    | -7.98 | .2898 | -.3223 | -.2670 | .0016  | .0112  | .0101  |
| 5    | -4.01 | .6023 | -.3071 | -.2500 | -.0027 | .0049  | .0111  |
| 6    | .02   | .8683 | -.2652 | -.2148 | -.0048 | .0046  | .0231  |
| 7    | 5.07  | .1943 | -.1874 | -.1919 | -.0036 | .0080  | .0168  |
| 8    | 10.05 | .2733 | -.0381 | -.1372 | .0089  | .0051  | .0118  |
| 9    | 14.99 | .4525 | .1333  | -.2032 | .0144  | -.0096 | .0234  |
| 10   | 20.04 | .6682 | .3504  | -.2426 | .0103  | .0052  | .0104  |
| 11   | .01   | .8771 | -.2645 | -.2087 | .0010  | .0070  | .0180  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P/25

RUN 167 CONFIG F P R W3 NPI T BT

| PT. NO. | IS ALPHA DEG | DELTA PSI DEG | O DELA CIBAR SQ-FT | O DELA CDBAR SQ-FT | O IHT CPMBAR CU-FT | O DELE CYMBAR CU-FT | O DELR CRMBAR CU-FT | O DELSB CYBAR SQ-FT | O DELSB Q PSF | O V KNOTS | RPM   |
|---------|--------------|---------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------|-----------|-------|
| 2       | 0            | 0             | 342.9              | 70.09              | 52                 | 33                  | 159                 | 1.29                | 55.47         | 129.14    | 4090  |
| 3       | 0            | 0             | 336.4              | -14.02             | -386               | -695                | 234                 | 7.89                | 55.67         | 129.38    | 23030 |
| 4       | -8.0         | 0             | 116.7              | -33.38             | -555               | -538                | 188                 | 11.80               | 55.69         | 129.40    | 22920 |
| 5       | -4.0         | 0             | 234.9              | -26.93             | -526               | -588                | 242                 | 11.15               | 56.20         | 130.00    | 22990 |
| 6       | 0            | 0             | 335.5              | -12.77             | -403               | -660                | 162                 | 9.13                | 55.99         | 129.75    | 23000 |
| 7       | 2.7          | 0             | 384.0              | 1.74               | -351               | -723                | -64                 | 10.35               | 55.28         | 128.91    | 23040 |
| 8       | 5.0          | 0             | 410.1              | 16.74              | -301               | -724                | -219                | 11.66               | 55.79         | 129.52    | 23020 |
| 9       | 10.0         | 0             | 433.7              | 69.07              | -272               | -477                | -567                | 11.64               | 55.33         | 128.97    | 23020 |
| 10      | 15.0         | 0             | 508.2              | 133.35             | -588               | -281                | -628                | 9.72                | 55.75         | 129.46    | 23040 |
| 11      | 20.0         | 0             | 548.4              | 201.39             | -937               | -26                 | -376                | 8.03                | 56.39         | 130.22    | 22910 |
| 12      | 0            | 0             | 332.8              | -13.43             | -407               | -665                | 94                  | 7.94                | 55.78         | 129.51    | 22960 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | .9266  | .1894  | .0168  | .0020  | .0096  | -.0035 |
| 3    | 0.00  | .9091  | -.0379 | -.1245 | -.0420 | .0141  | .0213  |
| 4    | -8.03 | .3153  | -.0902 | -.1791 | -.0325 | .0114  | .0319  |
| 5    | -3.99 | .6349  | -.0728 | -.1696 | -.0355 | .0146  | .0301  |
| 6    | .07   | .9067  | -.0345 | -.1300 | -.0399 | .0098  | .0247  |
| 7    | 2.68  | 1.0400 | .0047  | -.1131 | -.0437 | -.0039 | .0280  |
| 8    | 5.03  | 1.1083 | .0453  | -.0971 | -.0437 | -.0132 | .0315  |
| 9    | 10.00 | 1.1720 | .1867  | -.0877 | -.0288 | -.0343 | .0314  |
| 10   | 14.99 | 1.3734 | .3604  | -.1897 | -.0170 | -.0379 | .0263  |
| 11   | 19.97 | 1.4822 | .5443  | -.3020 | -.0016 | -.0227 | .0217  |
| 12   | .01   | .8996  | -.0363 | -.1313 | -.0402 | .0057  | .0215  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | .9266  | .1894  | .0168  | .0020  | .0096  | -.0035 |
| 3    | 0.00  | .9091  | -.0379 | -.1245 | -.0420 | .0141  | .0213  |
| 4    | -8.03 | .3153  | -.0902 | -.1791 | -.0325 | .0114  | .0319  |
| 5    | -3.99 | .6349  | -.0728 | -.1696 | -.0355 | .0146  | .0301  |
| 6    | .07   | .9067  | -.0345 | -.1300 | -.0399 | .0098  | .0247  |
| 7    | 2.68  | 1.0400 | .0047  | -.1131 | -.0437 | -.0039 | .0280  |
| 8    | 5.03  | 1.1083 | .0453  | -.0971 | -.0437 | -.0132 | .0315  |
| 9    | 10.00 | 1.1720 | .1867  | -.0877 | -.0288 | -.0343 | .0314  |
| 10   | 14.99 | 1.3734 | .3604  | -.1897 | -.0170 | -.0379 | .0263  |
| 11   | 19.97 | 1.4822 | .5443  | -.3020 | -.0016 | -.0227 | .0217  |
| 12   | .01   | .8996  | -.0363 | -.1313 | -.0402 | .0057  | .0215  |

RUN 168 CONFIG F P R W3 NP1 T BT

| IW<br>PT.<br>NO. | 15<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | Q DELTA<br>CLBAR<br>SQ-FT | Q DELTA<br>CDBAR<br>SQ-FT | Q IHT<br>CPMBAR<br>CU-FT | S DELE<br>CYMBAR<br>CU-FT | Q DELR<br>GRMBAR<br>CU-FT | Q DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | Q<br>V<br>KNOTS | RPM    |
|------------------|--------------------|---------------------|---------------------------|---------------------------|--------------------------|---------------------------|---------------------------|---------------------------|----------|-----------------|--------|
| 2                | 0                  | 0                   | 359.3                     | 71.74                     | -484.                    | 24.                       | 121.                      | 0.00                      | 56.21    | 130.00          | 4120.  |
| 3                | 0                  | 0                   | 441.9                     | 89.81                     | -595.                    | 29.                       | 148.                      | 0.00                      | 45.70    | 117.21          | 4120.  |
| 4                | 0                  | 0                   | 359.6                     | 72.13                     | -490.                    | 33.                       | 70.                       | 0.06                      | 54.99    | 128.56          | 4080.  |
| 5                | 0                  | 0                   | 344.3                     | -7.42                     | -988.                    | -4.                       | -55.                      | 1.67                      | 54.93    | 128.49          | 15920. |
| 6                | -8.0               | 0                   | 143.8                     | -30.66                    | -1196.                   | 56.                       | 88.                       | 0.19                      | 54.75    | 128.28          | 15880. |
| 7                | -4.0               | 0                   | 258.4                     | -22.40                    | -1139.                   | 34.                       | 102.                      | 2.55                      | 54.77    | 128.30          | 15910. |
| 8                | 0                  | 0                   | 347.4                     | -6.56                     | -986.                    | -11.                      | 345.                      | 2.88                      | 55.56    | 129.24          | 15950. |
| 9                | 2.5                | 0                   | 405.4                     | 7.14                      | -955.                    | -18.                      | 153.                      | 4.88                      | 55.18    | 128.78          | 15930. |
| 10               | 5.0                | 0                   | 450.9                     | 22.41                     | -898.                    | -6.                       | 313.                      | 1.59                      | 55.53    | 129.21          | 15960. |
| 11               | 10.0               | 0                   | 453.3                     | 74.83                     | -853.                    | 136.                      | 120.                      | 2.44                      | 55.80    | 129.52          | 15950. |
| 13               | 20.1               | 0                   | 565.4                     | 214.61                    | -1142.                   | 119.                      | 69.                       | 1.88                      | 56.17    | 129.96          | 15920. |
| 14               | 0                  | 0                   | 353.5                     | -6.44                     | -938.                    | 9.                        | 248.                      | 2.71                      | 55.38    | 129.03          | 15850. |
| 15               | 15.0               | 0                   | 494.4                     | 138.43                    | -1104.                   | 164.                      | -311.                     | 2.49                      | 56.16    | 129.94          | 15870. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | .9711  | .1939  | -.1560 | .0014  | .0073  | .0000  |
| 3    | 0.00  | 1.1944 | .2427  | -.1919 | .0018  | .0090  | .0000  |
| 4    | 0.00  | .9719  | .1949  | -.1578 | .0020  | .0043  | .0002  |
| 5    | 0.00  | .9305  | -.0201 | -.3186 | -.0002 | -.0033 | .0045  |
| 6    | -8.00 | .3887  | -.0829 | -.3857 | .0034  | .0053  | .0005  |
| 7    | -3.99 | .6983  | -.0605 | -.3672 | .0021  | .0062  | .0069  |
| 8    | 0.02  | .9390  | -.0177 | -.3178 | -.0006 | .0208  | .0078  |
| 9    | 2.55  | 1.0956 | .0193  | -.3077 | -.0011 | .0092  | .0132  |
| 10   | 5.04  | 1.2187 | .0606  | -.2895 | -.0004 | .0189  | .0043  |
| 11   | 10.00 | 1.2250 | .2022  | -.2752 | .0082  | .0073  | .0066  |
| 13   | 20.09 | 1.5282 | .5800  | -.3682 | .0072  | .0042  | .0051  |
| 14   | 0.03  | .9554  | -.0174 | -.3026 | .0005  | .0150  | -.0073 |
| 15   | 14.96 | 1.3363 | .3741  | -.3559 | .0099  | -.0188 | .0067  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | .9711  | .1939  | -.1560 | .0014  | .0073  | .0000  |
| 3    | 0.00  | 1.1944 | .2427  | -.1919 | .0018  | .0090  | .0000  |
| 4    | 0.00  | .9719  | .1949  | -.1578 | .0020  | .0043  | .0002  |
| 5    | 0.00  | .9305  | -.0201 | -.3186 | -.0002 | -.0033 | .0045  |
| 6    | -8.00 | .3887  | -.0829 | -.3857 | .0034  | .0053  | .0005  |
| 7    | -3.99 | .6983  | -.0605 | -.3672 | .0021  | .0062  | .0069  |
| 8    | 0.02  | .9390  | -.0177 | -.3178 | -.0006 | .0208  | .0078  |
| 9    | 2.55  | 1.0956 | .0193  | -.3077 | -.0011 | .0092  | .0132  |
| 10   | 5.04  | 1.2187 | .0606  | -.2895 | -.0004 | .0189  | .0043  |
| 11   | 10.00 | 1.2250 | .2022  | -.2752 | .0082  | .0073  | .0066  |
| 13   | 20.09 | 1.5282 | .5800  | -.3682 | .0072  | .0042  | .0051  |
| 14   | 0.03  | .9554  | -.0174 | -.3026 | .0005  | .0150  | -.0073 |
| 15   | 14.96 | 1.3363 | .3741  | -.3559 | .0099  | -.0188 | .0067  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 169 CONFIG F P R W3 NPI T BT

| 1W<br>PT.<br>No. | IS<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CLBAR<br>SQ-FT | DELTA<br>CDBAR<br>SQ-FT | DELTA<br>CPM BAR<br>CU-FT | DELTA<br>CYM BAR<br>CU-FT | DELTA<br>CRM BAR<br>CU-FT | DELTA<br>CYB BAR<br>SQ-FT | DELTA<br>Q<br>PSF | DELTA<br>V<br>KNOTS | RPM    |
|------------------|--------------------|---------------------|-------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------------|---------------------|--------|
| 2                | 0.0                | 0.0                 | 370.4                   | 73.29                   | -917.                     | 85.                       | 71.                       | -1.28                     | 55.76             | 129.47              | 4110.  |
| 3                | 0.0                | 0.0                 | 367.5                   | -7.02                   | -1359.                    | 73.                       | 300.                      | -3.85                     | 55.80             | 129.53              | 16090. |
| 4                | -8.0               | 0.0                 | 164.5                   | -31.91                  | -1742.                    | 90.                       | 90.                       | -1.42                     | 55.29             | 128.92              | 16050. |
| 5                | -4.0               | 0.0                 | 274.4                   | -23.51                  | -1632.                    | 102.                      | 125.                      | -1.12                     | 54.78             | 128.31              | 16050. |
| 6                | -0.0               | 0.0                 | 368.3                   | -6.95                   | -1373.                    | 65.                       | 212.                      | -2.88                     | 55.67             | 129.37              | 16160. |
| 7                | 2.5                | 0.0                 | 415.3                   | 7.94                    | -1296.                    | -4.                       | -49.                      | -3.02                     | 55.20             | 128.81              | 16170. |
| 8                | 5.1                | 0.0                 | 409.0                   | 26.98                   | -1277.                    | -9.                       | -125.                     | 3.07                      | 55.56             | 129.23              | 16160. |
| 9                | 10.0               | 0.0                 | 458.0                   | 77.21                   | -1311.                    | 155.                      | -280.                     | 2.93                      | 55.73             | 129.44              | 16200. |
| 10               | 15.1               | 0.0                 | 506.0                   | 146.47                  | -1376.                    | 137.                      | -122.                     | .86                       | 55.72             | 129.42              | 16190. |
| 11               | 20.0               | 0.0                 | 552.4                   | 212.54                  | -957.                     | 251.                      | -360.                     | 1.27                      | 56.41             | 130.23              | 16200. |
| 12               | -0.0               | 0.0                 | 368.8                   | -6.62                   | -1367.                    | 42.                       | 126.                      | -3.31                     | 55.51             | 129.17              | 16200. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | 1.0011 | .1981  | -.2957 | .0051  | .0043  | -.0035 |
| 3    | 0.00  | .9933  | -.0190 | -.4382 | .0044  | .0181  | -.0104 |
| 4    | -7.97 | .4446  | -.0862 | -.5615 | .0055  | .0054  | -.0038 |
| 5    | -3.97 | .7416  | -.0636 | -.5261 | .0062  | .0076  | -.0030 |
| 6    | -0.02 | .9953  | -.0188 | -.4427 | .0040  | .0128  | -.0078 |
| 7    | 2.53  | 1.1225 | .0214  | -.4179 | -.0003 | -.0030 | -.0082 |
| 8    | 5.09  | 1.1054 | .0729  | -.4117 | -.0005 | -.0075 | .0083  |
| 9    | 10.03 | 1.2378 | .2087  | -.4225 | .0094  | -.0169 | .0079  |
| 10   | 15.05 | 1.3675 | .3959  | -.4436 | .0083  | -.0074 | .0023  |
| 11   | 20.02 | 1.4929 | .5744  | -.3085 | .0152  | -.0218 | .0034  |
| 12   | -0.01 | .9968  | -.0179 | -.4408 | .0025  | .0076  | -.0090 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | 1.0011 | .1981  | -.2957 | .0051  | .0043  | -.0035 |
| 3    | 0.00  | .9933  | -.0190 | -.4382 | .0044  | .0181  | -.0104 |
| 4    | -7.97 | .4446  | -.0862 | -.5615 | .0055  | .0054  | -.0038 |
| 5    | -3.97 | .7416  | -.0636 | -.5261 | .0062  | .0076  | -.0030 |
| 6    | -0.02 | .9953  | -.0188 | -.4427 | .0040  | .0128  | -.0078 |
| 7    | 2.53  | 1.1225 | .0214  | -.4179 | -.0003 | -.0030 | -.0082 |
| 8    | 5.09  | 1.1054 | .0729  | -.4117 | -.0005 | -.0075 | .0083  |
| 9    | 10.03 | 1.2378 | .2087  | -.4225 | .0094  | -.0169 | .0079  |
| 10   | 15.05 | 1.3675 | .3959  | -.4436 | .0083  | -.0074 | .0023  |
| 11   | 20.02 | 1.4929 | .5744  | -.3085 | .0152  | -.0218 | .0034  |
| 12   | -0.01 | .9968  | -.0179 | -.4408 | .0025  | .0076  | -.0090 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 170 CONFIG F P R W3 NP1 T BT

| PT. NO. | W ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CPMBAR CU-FT | -5 DELE CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA DELSB Q PSF | DELTA V KNOTS | RPM    |
|---------|-------------|---------------|-------------------|-------------------|------------------|----------------------|--------------------|-------------------|-------------------|---------------|--------|
| 2       | 0           | 0             | 318.2             | 69.68             | 732.             | 40.                  | 122.               | -1.03             | 56.01             | 129.76        | 4120.  |
| 3       | 0           | 0             | 309.2             | -8.06             | 457.             | -4.                  | 199.               | -3.48             | 54.89             | 128.44        | 15730. |
| 4       | -7.9        | 0             | 90.1              | -22.13            | 397.             | 99.                  | 156.               | .12               | 55.68             | 129.37        | 15690. |
| 5       | -3.9        | 0             | 203.8             | -19.17            | 397.             | 78.                  | 126.               | -2.45             | 55.60             | 129.28        | 15760. |
| 6       | -0          | 0             | 303.9             | -7.91             | 450.             | 7.                   | 107.               | -2.38             | 55.78             | 129.49        | 15770. |
| 7       | 2.6         | 0             | 367.8             | 4.73              | 452.             | -56.                 | 229.               | -1.53             | 55.51             | 129.17        | 15780. |
| 8       | 5.0         | 0             | 355.7             | 20.06             | 641.             | 17.                  | 157.               | .86               | 55.43             | 129.08        | 15800. |
| 9       | 10.0        | 0             | 406.4             | 66.59             | 450.             | 116.                 | -105.              | 1.94              | 56.05             | 129.81        | 15760. |
| 10      | 15.0        | 0             | 466.7             | 123.37            | -42.             | 149.                 | 0.                 | -2.14             | 55.80             | 129.51        | 15790. |
| 11      | 20.0        | 0             | 550.1             | 191.20            | -293.            | 174.                 | 18.                | 1.95              | 55.85             | 129.57        | 15770. |
| 12      | 0           | 0             | 301.7             | -6.27             | 387.             | 69.                  | 124.               | -1.47             | 55.74             | 129.45        | 15740. |
| 13      | 5.0         | 0             | 384.6             | 19.47             | 440.             | -60.                 | -104.              | -1.17             | 55.43             | 129.08        | 15740. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | .8600  | .1883  | .2361  | .0024  | .0074  | -.0028 |
| 3    | 0.00  | .8356  | -.0218 | .1475  | -.0002 | .0120  | -.0094 |
| 4    | -7.93 | .2435  | -.0598 | .1281  | .0060  | .0094  | .0003  |
| 5    | -3.95 | .5508  | -.0518 | .1280  | .0047  | .0076  | -.0066 |
| 6    | -0.04 | .8213  | -.0214 | .1450  | .0004  | .0065  | -.0064 |
| 7    | 2.56  | .9941  | .0128  | .1456  | -.0034 | .0138  | -.0041 |
| 8    | 5.01  | .9612  | .0542  | .2067  | .0011  | .0095  | .0023  |
| 9    | 10.02 | 1.0984 | .1800  | .1449  | .0070  | -.0063 | .0053  |
| 10   | 14.99 | 1.2614 | .3334  | -.0136 | .0090  | .0000  | -.0058 |
| 11   | 20.01 | 1.4868 | .5167  | -.0943 | .0105  | .0011  | .0053  |
| 12   | .03   | .8154  | -.0169 | .1247  | .0042  | .0075  | -.0040 |
| 13   | 5.00  | 1.0393 | .0526  | .1419  | -.0036 | -.0063 | -.0032 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | .8600  | .1883  | .2361  | .0024  | .0074  | -.0028 |
| 3    | 0.00  | .8356  | -.0218 | .1475  | -.0002 | .0120  | -.0094 |
| 4    | -7.93 | .2435  | -.0598 | .1281  | .0060  | .0094  | .0003  |
| 5    | -3.95 | .5508  | -.0518 | .1280  | .0047  | .0076  | -.0066 |
| 6    | -0.04 | .8213  | -.0214 | .1450  | .0004  | .0065  | -.0064 |
| 7    | 2.56  | .9941  | .0128  | .1456  | -.0034 | .0138  | -.0041 |
| 8    | 5.01  | .9612  | .0542  | .2067  | .0011  | .0095  | .0023  |
| 9    | 10.02 | 1.0984 | .1800  | .1449  | .0070  | -.0063 | .0053  |
| 10   | 14.99 | 1.2614 | .3334  | -.0136 | .0090  | .0000  | -.0058 |
| 11   | 20.01 | 1.4868 | .5167  | -.0943 | .0105  | .0011  | .0053  |
| 12   | .03   | .8154  | -.0169 | .1247  | .0042  | .0075  | -.0040 |
| 13   | 5.00  | 1.0393 | .0526  | .1419  | -.0036 | -.0063 | -.0032 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 171 CONFIG F P R W3 NPI T BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | O DELA CLBAR SQ-FT | O DELA CDBAR SQ-FT | O IHT CPMBAR CU-FT | -9 DELE CYMBAR CU-FT | O DELR CRMBAR CU-FT | O DELSB Q PSF | O V KNOTS | RPM    |        |
|---------|-----------|---------------|--------------------|--------------------|--------------------|----------------------|---------------------|---------------|-----------|--------|--------|
| 2       | 0         | 0             | 293.4              | 72.42              | 1437.              | 31.                  | 91.                 | -2.04         | 55.04     | 128.62 | 4080.  |
| 3       | 0         | 0             | 293.6              | 72.46              | 1438.              | 31.                  | 91.                 | -2.04         | 55.01     | 128.58 | 4090.  |
| 4       | 0         | 0             | 293.8              | 72.21              | 1435.              | 33.                  | 159.                | -.62          | 55.21     | 128.82 | 4100.  |
| 5       | 0         | 0             | 293.4              | 72.12              | 1433.              | 33.                  | 159.                | -.62          | 55.28     | 128.89 | 4090.  |
| 6       | 0         | 0             | 264.3              | -15.63             | 1181.              | 81.                  | 84.                 | 2.08          | 55.66     | 129.35 | 16890. |
| 7       | 0         | 0             | 264.7              | -5.76              | 1195.              | 88.                  | 122.                | .18           | 55.61     | 129.29 | 15960. |
| 8       | -8.0      | 0             | 48.7               | -16.89             | 1317.              | 107.                 | 19.                 | -.61          | 55.48     | 129.14 | 15930. |
| 9       | -4.0      | 0             | 157.7              | -13.60             | 1285.              | 134.                 | 134.                | 3.29          | 55.98     | 129.72 | 15930. |
| 10      | 0         | 0             | 260.0              | -4.69              | 1183.              | 88.                  | 85.                 | .91           | 56.06     | 129.82 | 15910. |
| 11      | 2.5       | 0             | 320.9              | 4.43               | 1153.              | 63.                  | -142.               | 1.84          | 55.55     | 129.22 | 15990. |
| 12      | 5.0       | 0             | 323.1              | 19.17              | 1440.              | 2.                   | 104.                | .86           | 55.27     | 128.89 | 15970. |
| 13      | 10.0      | 0             | 371.6              | 61.45              | 1193.              | 67.                  | -228.               | 1.84          | 55.56     | 129.22 | 15940. |
| 14      | 15.0      | 0             | 451.7              | 116.43             | 712.               | 161.                 | -36.                | 4.74          | 55.38     | 129.02 | 15990. |
| 15      | 20.0      | 0             | 524.5              | 179.92             | 417.               | 166.                 | 1.                  | 3.23          | 55.87     | 129.59 | 16020. |
| 16      | 0         | 0             | 264.6              | -6.18              | 1219.              | 95.                  | 154.                | 3.16          | 55.03     | 128.61 | 15950. |
| 17      | 5.0       | 0             | 325.9              | 20.09              | 1314.              | 91.                  | 295.                | 4.65          | 54.97     | 128.53 | 15930. |
| 18      | 5.0       | 0             | 323.2              | 20.02              | 1312.              | 95.                  | 329.                | 3.70          | 55.30     | 128.92 | 15910. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM   | CYM   | CRM    | CY     |
|------|-------|--------|--------|-------|-------|--------|--------|
| 2    | 0.00  | .7930  | .1957  | .4632 | .0019 | .0055  | -.0055 |
| 3    | 0.00  | .7934  | .1958  | .4635 | .0019 | .0055  | -.0055 |
| 4    | 0.00  | .7940  | .1952  | .4626 | .0020 | .0096  | -.0017 |
| 5    | 0.00  | .7931  | .1949  | .4620 | .0020 | .0096  | -.0017 |
| 6    | 0.00  | .7144  | -.0422 | .3807 | .0049 | .0051  | .0056  |
| 7    | 0.00  | .7154  | -.0156 | .3853 | .0053 | .0074  | .0005  |
| 8    | -7.98 | .1318  | -.0456 | .4246 | .0064 | .0011  | -.0017 |
| 9    | -3.98 | .4263  | -.0367 | .4142 | .0081 | .0081  | .0089  |
| 10   | 0.01  | .7027  | -.0127 | .3813 | .0053 | .0052  | .0025  |
| 11   | 2.51  | .8673  | .0120  | .3719 | .0038 | -.0086 | .0050  |
| 12   | 4.99  | .8734  | .0518  | .4643 | .0001 | .0063  | .0023  |
| 13   | 10.00 | 1.0043 | .1661  | .3846 | .0040 | -.0138 | .0050  |
| 14   | 15.01 | 1.2207 | .3147  | .2297 | .0097 | -.0022 | .0128  |
| 15   | 20.00 | 1.4175 | .4863  | .1346 | .0100 | .0000  | .0087  |
| 16   | 0.00  | .7152  | -.0167 | .3930 | .0058 | .0093  | .0085  |
| 17   | 4.98  | .8809  | .0543  | .4237 | .0055 | .0178  | .0126  |
| 18   | 4.98  | .8735  | .0541  | .4230 | .0057 | .0199  | .0100  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB    | CPMB  | CYMB  | CRMB   | CYB    |
|------|-------|-------|--------|-------|-------|--------|--------|
| 2    | 0.00  | .7930 | .1957  | .4632 | .0019 | .0055  | -.0055 |
| 3    | 0.00  | .7934 | .1958  | .4635 | .0019 | .0055  | -.0055 |
| 4    | 0.00  | .7940 | .1952  | .4626 | .0020 | .0096  | -.0017 |
| 5    | 0.00  | .7931 | .1949  | .4620 | .0020 | .0096  | -.0017 |
| 6    | 0.00  | .7144 | -.0422 | .3807 | .0049 | .0051  | .0056  |
| 7    | 0.00  | .7154 | -.0156 | .3853 | .0053 | .0074  | .0005  |
| 8    | -7.98 | .1318 | -.0456 | .4246 | .0064 | .0011  | -.0017 |
| 9    | -3.98 | .4263 | -.0367 | .4142 | .0081 | .0081  | .0089  |
| 10   | 0.01  | .7027 | -.0127 | .3813 | .0053 | .0052  | .0025  |
| 11   | 2.51  | .8673 | .0120  | .3719 | .0038 | -.0086 | .0050  |
| 12   | 4.99  | .8734 | .0518  | .4643 | .0001 | .0063  | .0023  |

|    |       |        |        |       |       |        |       |
|----|-------|--------|--------|-------|-------|--------|-------|
| 13 | 10.00 | 1.0043 | .1661  | .3846 | .0040 | -.0138 | .0050 |
| 14 | 15.01 | 1.2207 | .3147  | .2297 | .0097 | -.0022 | .0128 |
| 15 | 20.00 | 1.4175 | .4863  | .1346 | .0100 | .0000  | .0087 |
| 16 | 0.00  | .7152  | -.0167 | .3930 | .0058 | .0093  | .0085 |
| 17 | 4.98  | .8809  | .0543  | .4237 | .0055 | .0178  | .0126 |
| 18 | 4.98  | .8735  | .0541  | .4230 | .0057 | .0199  | .0100 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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↓  
RUN 173 CONFIG F P R W4 NPI T BT

| PT. NO. | IW ALPHA DEG | DELTA PSI DEG | 30' DELTA CLBAR SQ-FT | 0' DELTA CDBAR SQ-FT | IHT CPMBAR CU-FT | I DELE CYMBAR CU-FT | 0' DELTA CRMBAR CU-FT | 0' DELTA CYBAR SQ-FT | DELTA Q PSF | 0' DELTA V KNOTS | RPM    |
|---------|--------------|---------------|-----------------------|----------------------|------------------|---------------------|-----------------------|----------------------|-------------|------------------|--------|
| 7       | 0.0          | 0.0           | 564.5                 | 129.40               | 111.             | 17.                 | 170.                  | -0.95                | 57.56       | 131.57           | 4470.  |
| 8       | 0.0          | 0.0           | 507.5                 | -6.86                | -457.            | 4.                  | 814.                  | -20.99               | 55.34       | 128.97           | 20350. |
| 9       | -8.0         | 0.0           | 310.4                 | -30.46               | 47.              | 162.                | 55.                   | -1.41                | 55.48       | 129.14           | 20180. |
| 10      | -4.0         | 0.0           | 442.6                 | -22.01               | -62.             | 113.                | 259.                  | 3.27                 | 55.13       | 128.72           | 20310. |
| 11      | 0.0          | 0.0           | 523.8                 | -3.33                | -220.            | 117.                | 30.                   | 17.31                | 55.69       | 129.38           | 20290. |
| 12      | 2.5          | 0.0           | 527.1                 | 10.43                | -588.            | 65.                 | 305.                  | -6.46                | 55.35       | 128.98           | 20280. |
| 13      | 5.0          | 0.0           | 580.4                 | 26.06                | -505.            | 26.                 | 672.                  | -8.47                | 55.48       | 129.13           | 20280. |
| 14      | 10.0         | 0.0           | 495.1                 | 76.54                | -300.            | 229.                | -164.                 | 9.47                 | 55.04       | 128.61           | 20270. |
| 15      | 15.0         | 0.0           | 565.0                 | 147.74               | -785.            | 136.                | -284.                 | 7.44                 | 54.91       | 128.45           | 20260. |
| 16      | 20.1         | 0.0           | 647.5                 | 228.30               | -992.            | 263.                | 19.                   | 8.31                 | 54.53       | 128.00           | 20360. |
| 17      | 0.0          | 0.0           | 493.4                 | 2.78                 | -428.            | 120.                | 243.                  | -0.24                | 55.83       | 129.55           | 20240. |
| 18      | -0.1         | 0.0           | 478.9                 | 3.73                 | -425.            | 117.                | 50.                   | 0.72                 | 56.65       | 130.51           | 20310. |
| 19      | 2.4          | 0.0           | 537.1                 | 17.32                | -392.            | 109.                | 22.                   | -3.99                | 56.30       | 130.10           | 20310. |
| 20      | 4.7          | 0.0           | 519.3                 | 31.20                | -263.            | 98.                 | 1205.                 | -5.30                | 56.52       | 130.36           | 20410. |
| 21      | 7.5          | 0.0           | 647.4                 | 60.20                | -188.            | 131.                | -89.                  | 3.03                 | 56.16       | 129.94           | 20190. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD      | CPH     | CYH    | CRM     | CY      |
|------|-------|--------|---------|---------|--------|---------|---------|
| 7    | 0.00  | 1.5257 | 0.3497  | 0.0358  | 0.0010 | 0.0102  | -0.0026 |
| 8    | 0.00  | 1.3716 | -0.0185 | -0.1472 | 0.0002 | 0.0492  | -0.0567 |
| 9    | -8.00 | 0.8389 | -0.0823 | 0.0152  | 0.0098 | 0.0033  | -0.0038 |
| 10   | -4.00 | 1.1963 | -0.0595 | -0.0199 | 0.0068 | 0.0156  | 0.0089  |
| 11   | 0.01  | 1.4157 | -0.0090 | -0.0708 | 0.0071 | 0.0018  | 0.0468  |
| 12   | 2.49  | 1.4246 | 0.0282  | -0.1897 | 0.0039 | 0.0184  | -0.0175 |
| 13   | 5.00  | 1.5688 | 0.0704  | -0.1629 | 0.0016 | 0.0406  | -0.0229 |
| 14   | 9.99  | 1.3381 | 0.2069  | -0.0966 | 0.0138 | -0.0099 | 0.0256  |
| 15   | 15.00 | 1.5271 | 0.3993  | -0.2532 | 0.0082 | -0.0171 | 0.0201  |
| 16   | 20.07 | 1.7499 | 0.6170  | -0.3199 | 0.0159 | 0.0012  | 0.0225  |
| 17   | 0.00  | 1.3336 | 0.0075  | -0.1380 | 0.0072 | 0.0147  | -0.0007 |
| 18   | -0.11 | 1.2943 | 0.0101  | -0.1370 | 0.0071 | 0.0030  | 0.0020  |
| 19   | 2.45  | 1.4517 | 0.0468  | -0.1262 | 0.0066 | 0.0013  | -0.0108 |
| 20   | 4.72  | 1.4036 | 0.0843  | -0.0849 | 0.0059 | 0.0728  | -0.0143 |
| 21   | 7.50  | 1.2633 | 0.1627  | -0.0607 | 0.0079 | -0.0054 | 0.0082  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB     | CPMB    | CYMB   | CRMB    | CYB     |
|------|-------|--------|---------|---------|--------|---------|---------|
| 7    | 0.00  | 1.5257 | 0.3497  | 0.0358  | 0.0010 | 0.0102  | -0.0026 |
| 8    | 0.00  | 1.3716 | -0.0185 | -0.1472 | 0.0002 | 0.0492  | -0.0567 |
| 9    | -8.00 | 0.8389 | -0.0823 | 0.0152  | 0.0098 | 0.0033  | -0.0038 |
| 10   | -4.00 | 1.1963 | -0.0595 | -0.0199 | 0.0068 | 0.0156  | 0.0089  |
| 11   | 0.01  | 1.4157 | -0.0090 | -0.0708 | 0.0071 | 0.0018  | 0.0468  |
| 12   | 2.49  | 1.4246 | 0.0282  | -0.1897 | 0.0039 | 0.0184  | -0.0175 |
| 13   | 5.00  | 1.5688 | 0.0704  | -0.1629 | 0.0016 | 0.0406  | -0.0229 |
| 14   | 9.99  | 1.3381 | 0.2069  | -0.0966 | 0.0138 | -0.0099 | 0.0256  |
| 15   | 15.00 | 1.5271 | 0.3993  | -0.2532 | 0.0082 | -0.0171 | 0.0201  |
| 16   | 20.07 | 1.7499 | 0.6170  | -0.3199 | 0.0159 | 0.0012  | 0.0225  |
| 17   | 0.00  | 1.3336 | 0.0075  | -0.1380 | 0.0072 | 0.0147  | -0.0007 |
| 18   | -0.11 | 1.2943 | 0.0101  | -0.1370 | 0.0071 | 0.0030  | 0.0020  |
| 19   | 2.45  | 1.4517 | 0.0468  | -0.1262 | 0.0066 | 0.0013  | -0.0108 |
| 20   | 4.72  | 1.4036 | 0.0843  | -0.0849 | 0.0059 | 0.0728  | -0.0143 |
| 21   | 7.50  | 1.2633 | 0.1627  | -0.0607 | 0.0079 | -0.0054 | 0.0082  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 174 CONFIG F P B W4 NP1 T BT

| PT. NO. | IW ALPHA DEG | 15 DELF PSI DEG | 40 DELA CIBAR SQ-FT | 0 IHT CDBAR SQ-FT | 1 DELE CPMBAR CU-FT | 0 DELR CRMBAR CU-FT | 0 DELSB CYBAR SQ-FT | 0 Q PSF | 0 V KNOTS | RPM    |        |
|---------|--------------|-----------------|---------------------|-------------------|---------------------|---------------------|---------------------|---------|-----------|--------|--------|
| 2       | 0            | 0               | 592.8               | 150.72            | 107.                | -12.                | 142.                | -2.26   | 55.84     | 129.56 | 4440.  |
| 3       | 0            | 0               | 565.4               | -6.27             | 32.                 | 76.                 | 146.                | -4.41   | 55.59     | 129.27 | 21630. |
| 4       | -8.0         | 0               | 322.4               | -29.90            | 53.                 | 170.                | 436.                | -9.77   | 55.46     | 129.12 | 21640. |
| 5       | -4.0         | 0               | 442.6               | -19.36            | -98.                | 93.                 | 443.                | -15.02  | 55.34     | 128.97 | 21550. |
| 6       | 0            | 0               | 516.0               | -70.              | -306.               | 76.                 | 359.                | -10.58  | 56.03     | 129.79 | 21640. |
| 7       | 2.5          | 0               | 544.8               | 8.98              | -369.               | 103.                | 39.                 | 3.68    | 55.57     | 129.24 | 21590. |
| 8       | 4.9          | 0               | 517.6               | 27.17             | -361.               | 98.                 | 780.                | -8.33   | 55.23     | 128.84 | 21620. |
| 9       | 10.1         | 0               | 496.0               | 76.55             | -381.               | 221.                | -214.               | 9.51    | 55.85     | 129.57 | 21560. |
| 10      | 15.1         | 0               | 581.2               | 149.32            | -697.               | 318.                | -142.               | 5.75    | 55.14     | 128.73 | 21670. |
| 11      | 20.0         | 0               | 643.8               | 228.92            | -1220.              | 301.                | 734.                | 4.66    | 55.52     | 129.18 | 21650. |
| 12      | 0            | 0               | 481.8               | -01.              | -391.               | 121.                | 130.                | -7.35   | 56.08     | 129.84 | 21580. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPH    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | 1.6020 | .4073  | .0344  | -.0007 | .0086  | -.0061 |
| 3    | 0.00  | 1.5281 | -.0169 | .0104  | .0046  | .0088  | -.0119 |
| 4    | -8.00 | .8715  | -.0808 | .0169  | .0103  | .0263  | -.0264 |
| 5    | -4.03 | 1.1963 | -.0523 | -.0316 | .0056  | .0268  | -.0406 |
| 6    | -.01  | 1.3947 | -.0019 | -.0987 | .0046  | .0217  | -.0286 |
| 7    | 2.49  | 1.4724 | .0243  | -.1191 | .0062  | .0024  | -.0099 |
| 8    | 4.90  | 1.3988 | .0734  | -.1164 | .0059  | .0471  | -.0225 |
| 9    | 10.14 | 1.3406 | .2069  | -.1229 | .0133  | -.0129 | .0257  |
| 10   | 15.09 | 1.5707 | .4036  | -.2247 | .0192  | -.0086 | .0155  |
| 11   | 19.97 | 1.7401 | .6187  | -.3934 | .0182  | -.0021 | .0126  |
| 12   | .01   | 1.3023 | -.0000 | -.1260 | .0073  | .0079  | -.0199 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPHB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00  | 1.6020 | .4073  | .0344  | -.0007 | .0086  | -.0061 |
| 3    | 0.00  | 1.5281 | -.0169 | .0104  | .0046  | .0088  | -.0119 |
| 4    | -8.00 | .8715  | -.0808 | .0169  | .0103  | .0263  | -.0264 |
| 5    | -4.03 | 1.1963 | -.0523 | -.0316 | .0056  | .0268  | -.0406 |
| 6    | -.01  | 1.3947 | -.0019 | -.0987 | .0046  | .0217  | -.0286 |
| 7    | 2.49  | 1.4724 | .0243  | -.1191 | .0062  | .0024  | -.0099 |
| 8    | 4.90  | 1.3988 | .0734  | -.1164 | .0059  | .0471  | -.0225 |
| 9    | 10.14 | 1.3406 | .2069  | -.1229 | .0133  | -.0129 | .0257  |
| 10   | 15.09 | 1.5707 | .4036  | -.2247 | .0192  | -.0086 | .0155  |
| 11   | 19.97 | 1.7401 | .6187  | -.3934 | .0182  | -.0021 | .0126  |
| 12   | .01   | 1.3023 | -.0000 | -.1260 | .0073  | .0079  | -.0199 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 175 CONFIG F P R W4 NP1 T BT

| PT. NO. | 15 DELF<br>ALPHA<br>DEG | 15 DELF<br>PSI<br>DEG | 40 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 1 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>KNOTS | RPM    |
|---------|-------------------------|-----------------------|---------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------|------------|--------|
| 2       | 0.0                     | 0.0                   | 495.4                     | -7.29                   | -185.                     | 68.                       | -540.                     | 26.19                     | 55.42    | 129.07     | 21260. |
| 3       | -4.1                    | 0.0                   | 452.5                     | -16.63                  | 41.                       | 99.                       | -66.                      | -2.90                     | 55.22    | 128.85     | 20990. |
| 4       | -0.0                    | 0.0                   | 543.3                     | 1.75                    | -36.                      | 91.                       | 23.                       | -18.07                    | 54.68    | 128.19     | 21100. |
| 5       | 2.4                     | 0.0                   | 534.1                     | 12.75                   | -476.                     | 90.                       | 11.                       | -10.10                    | 54.96    | 128.53     | 21170. |
| 6       | 4.9                     | 0.0                   | 542.7                     | 20.73                   | -501.                     | 76.                       | 29.                       | 6.60                      | 54.72    | 128.25     | 21160. |
| 7       | -0.0                    | 0.0                   | 498.6                     | 29.32                   | -193.                     | 145.                      | 164.                      | -3.38                     | 84.77    | 160.39     | 24050. |
| 8       | -4.1                    | 0.0                   | 421.5                     | 16.56                   | -219.                     | 171.                      | 232.                      | -1.21                     | 84.27    | 159.90     | 23820. |
| 9       | -0.2                    | 0.0                   | 505.4                     | 36.17                   | -193.                     | 190.                      | 123.                      | -6.17                     | 83.93    | 159.56     | 24190. |
| 10      | 2.5                     | 0.0                   | 549.5                     | 46.41                   | -270.                     | 158.                      | 184.                      | -10.37                    | 84.12    | 159.74     | 24070. |
| 11      | 5.1                     | 0.0                   | 567.0                     | 58.16                   | -457.                     | 96.                       | 411.                      | -8.67                     | 34.10    | 159.72     | 23940. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD      | CPM     | CYM    | CRM     | CY      |
|------|-------|--------|---------|---------|--------|---------|---------|
| 2    | 0.00  | 1.3390 | -0.0197 | -0.0596 | 0.0041 | -0.0326 | 0.0708  |
| 3    | -4.10 | 1.2230 | -0.0449 | 0.0132  | 0.0060 | -0.0040 | -0.0078 |
| 4    | -0.03 | 1.4683 | 0.0047  | -0.0115 | 0.0055 | 0.0014  | -0.0488 |
| 5    | 2.43  | 1.4435 | 0.0345  | -0.1535 | 0.0054 | 0.0007  | -0.0273 |
| 6    | 4.89  | 1.4666 | 0.0560  | -0.1616 | 0.0046 | 0.0018  | 0.0178  |
| 7    | -0.01 | 1.3475 | 0.0792  | -0.0623 | 0.0087 | 0.0099  | -0.0091 |
| 8    | -4.09 | 1.1393 | 0.0448  | -0.0705 | 0.0103 | 0.0140  | -0.0033 |
| 9    | -0.18 | 1.3660 | 0.0978  | -0.0621 | 0.0115 | 0.0074  | -0.0167 |
| 10   | 2.51  | 1.4852 | 0.1254  | -0.0872 | 0.0095 | 0.0111  | -0.0280 |
| 11   | 5.07  | 1.5325 | 0.1572  | -0.1475 | 0.0058 | 0.0248  | -0.0234 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CD <sub>B</sub> | CPM <sub>B</sub> | CYM <sub>B</sub> | CRM <sub>B</sub> | CY <sub>B</sub> |
|------|-------|--------|-----------------|------------------|------------------|------------------|-----------------|
| 2    | 0.00  | 1.3390 | -0.0197         | -0.0596          | 0.0041           | -0.0326          | 0.0708          |
| 3    | -4.10 | 1.2230 | -0.0449         | 0.0132           | 0.0060           | -0.0040          | -0.0078         |
| 4    | -0.03 | 1.4683 | 0.0047          | -0.0115          | 0.0055           | 0.0014           | -0.0488         |
| 5    | 2.43  | 1.4435 | 0.0345          | -0.1535          | 0.0054           | 0.0007           | -0.0273         |
| 6    | 4.89  | 1.4666 | 0.0560          | -0.1616          | 0.0046           | 0.0018           | 0.0178          |
| 7    | -0.01 | 1.3475 | 0.0792          | -0.0623          | 0.0087           | 0.0099           | -0.0091         |
| 8    | -4.09 | 1.1393 | 0.0448          | -0.0705          | 0.0103           | 0.0140           | -0.0033         |
| 9    | -0.18 | 1.3660 | 0.0978          | -0.0621          | 0.0115           | 0.0074           | -0.0167         |
| 10   | 2.51  | 1.4852 | 0.1254          | -0.0872          | 0.0095           | 0.0111           | -0.0280         |
| 11   | 5.07  | 1.5325 | 0.1572          | -0.1475          | 0.0058           | 0.0248           | -0.0234         |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 176 CONFIG F P R W4 NPI T BT

| 1W<br>PT.<br>NO. | 15<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 40 DELA<br>CLBAR<br>SQ-FT | 10<br>CDBAR<br>SQ-FT | IHT<br>CPM BAR<br>CU-FT | 1 DELE<br>CYNBAR<br>CU-FT | 0 DELR<br>CRM BAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | DEL SB<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|--------------------|---------------------|---------------------------|----------------------|-------------------------|---------------------------|----------------------------|---------------------|--------------------|-----------------|--------|
| 2                | 0                  | 0                   | 603.4                     | 152.54               | 36.                     | 59.                       | -233.                      | 3.03                | 55.08              | 128.67          | 4430.  |
| 3                | 0                  | 0                   | 542.8                     | -5.96                | -295.                   | 190.                      | -586.                      | 33.94               | 55.31              | 128.95          | 21950. |
| 4                | -8.0               | 0                   | 341.8                     | -42.63               | -9.                     | 179.                      | 141.                       | .37                 | 54.90              | 128.46          | 22140. |
| 5                | -4.0               | 0                   | 414.4                     | -28.61               | -516.                   | 182.                      | 71.                        | .38                 | 54.09              | 127.49          | 22220. |
| 6                | 0                  | 0                   | 495.1                     | -9.62                | -637.                   | 143.                      | 177.                       | 1.32                | 54.34              | 127.80          | 22180. |
| 7                | 2.7                | 0                   | 543.1                     | 7.42                 | -632.                   | 183.                      | -75.                       | 3.40                | 54.17              | 127.59          | 22270. |
| 8                | 5.2                | 0                   | 598.8                     | 21.66                | -660.                   | 172.                      | 251.                       | 1.71                | 53.80              | 127.15          | 22370. |
| 9                | 10.0               | 0                   | 519.7                     | 78.45                | -343.                   | 112.                      | -147.                      | 5.94                | 53.89              | 127.25          | 22310. |
| 10               | 15.0               | 0                   | 579.2                     | 145.05               | -801.                   | 197.                      | -308.                      | -.13                | 53.39              | 126.65          | 22280. |
| 11               | -0                 | 0                   | 480.1                     | 147.88               | -301.                   | 12.                       | 14.                        | -10.80              | 83.93              | 159.56          | 4770.  |
| 12               | -0                 | 0                   | 472.0                     | 29.31                | -565.                   | 114.                      | 4.                         | 2.87                | 84.29              | 159.92          | 24240. |
| 14               | 5.0                | 0                   | 577.3                     | 63.96                | -608.                   | 84.                       | 244.                       | -2.79               | 84.35              | 159.97          | 24100. |
| 15               | 9.9                | 0                   | 515.7                     | 124.94               | -234.                   | 17.                       | 69.                        | .40                 | 84.44              | 160.06          | 24190. |
| 16               | 15.0               | 0                   | 568.4                     | 183.94               | -870.                   | 236.                      | 69.                        | 1.18                | 83.48              | 159.11          | 24250. |
| 17               | 2.6                | 0                   | 539.0                     | 49.93                | -502.                   | 110.                      | 117.                       | -2.49               | 84.83              | 160.44          | 24330. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | 0.00  | 1.6307 | .4123  | .0117  | .0036 | -.0140 | .0082  |
| 3    | 0.00  | 1.4670 | -.0161 | -.0952 | .0115 | -.0354 | .0917  |
| 4    | -8.00 | .9239  | -.1152 | -.0029 | .0108 | .0085  | .0010  |
| 5    | -3.95 | 1.1199 | -.0773 | -.1665 | .0110 | .0043  | .0010  |
| 6    | .03   | 1.3380 | -.0260 | -.2054 | .0086 | .0107  | .0036  |
| 7    | 2.68  | 1.4678 | .0201  | -.2036 | .0111 | -.0045 | .0092  |
| 8    | 5.22  | 1.6184 | .0585  | -.2127 | .0104 | .0151  | .0046  |
| 9    | 9.95  | 1.4047 | .2120  | -.1104 | .0068 | -.0089 | .0161  |
| 10   | 15.02 | 1.5655 | .3920  | -.2583 | .0119 | -.0186 | -.0003 |
| 11   | -.02  | 1.2975 | .3997  | -.0970 | .0007 | .0008  | -.0292 |
| 12   | -.02  | 1.4055 | .1217  | -.4209 | .0051 | .0071  | -.0047 |
| 14   | 4.97  | 1.5603 | .1729  | -.1959 | .0051 | .0147  | -.0075 |
| 15   | 9.92  | 1.3938 | .3377  | -.0756 | .0011 | -.0042 | .0011  |
| 16   | 15.05 | 1.5362 | .4971  | -.2804 | .0142 | .0042  | .0032  |
| 17   | 2.62  | 1.4567 | .1349  | -.1618 | .0067 | .0071  | -.0067 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | 0.00  | 1.6307 | .4123  | .0117  | .0036 | -.0140 | .0082  |
| 3    | 0.00  | 1.4670 | -.0161 | -.0952 | .0115 | -.0354 | .0917  |
| 4    | -8.00 | .9239  | -.1152 | -.0029 | .0108 | .0085  | .0010  |
| 5    | -3.95 | 1.1199 | -.0773 | -.1665 | .0110 | .0043  | .0010  |
| 6    | .03   | 1.3380 | -.0260 | -.2054 | .0086 | .0107  | .0036  |
| 7    | 2.68  | 1.4678 | .0201  | -.2036 | .0111 | -.0045 | .0092  |
| 8    | 5.22  | 1.6184 | .0585  | -.2127 | .0104 | .0151  | .0046  |
| 9    | 9.95  | 1.4047 | .2120  | -.1104 | .0068 | -.0089 | .0161  |
| 10   | 15.02 | 1.5655 | .3920  | -.2583 | .0119 | -.0186 | -.0003 |
| 11   | -.02  | 1.2975 | .3997  | -.0970 | .0007 | .0008  | -.0292 |
| 12   | -.02  | 1.4055 | .1217  | -.4209 | .0051 | .0071  | -.0047 |
| 14   | 4.97  | 1.5603 | .1729  | -.1959 | .0051 | .0147  | -.0075 |
| 15   | 9.92  | 1.3938 | .3377  | -.0756 | .0011 | -.0042 | .0011  |
| 16   | 15.05 | 1.5362 | .4971  | -.2804 | .0142 | .0042  | .0032  |
| 17   | 2.62  | 1.4567 | .1349  | -.1618 | .0067 | .0071  | -.0067 |

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RUN 177 CONFIG F P R W4 NPI T BT

| PT. NO. | IW ALPHA DEG | IS DELF PSI DEG | 3Q DELA CLBAR SQ-FT | O INT CDBAR SQ-FT | I DELE CPMBAR CU-FT | O DELR CRMBAR CU-FT | O DELSB CYBAR SQ-FT | O DELSB Q PSF | O V KNOTS | RPM    |       |
|---------|--------------|-----------------|---------------------|-------------------|---------------------|---------------------|---------------------|---------------|-----------|--------|-------|
| 2       | 0.0          | 0.0             | 517.9               | 122.49            | 113.                | 25.                 | 37.                 | -1.05         | 55.09     | 128.69 | 4300. |
| 3       | 0.0          | 0.0             | 487.0               | 110.12            | -62.                | 6.                  | 208.                | -10.96        | 55.02     | 128.60 | 7200. |
| 4       | -8.0         | 0.0             | 299.0               | 79.56             | -173.               | 85.                 | -16.                | -1.18         | 54.81     | 128.36 | 7190. |
| 5       | -4.0         | 0.0             | 384.8               | 93.22             | -166.               | 69.                 | 138.                | -9.23         | 54.63     | 128.13 | 7180. |
| 6       | 2.4          | 0.0             | 485.2               | 111.45            | -70.                | -0.                 | 279.                | -11.55        | 54.87     | 128.42 | 7190. |
| 7       | 2.4          | 0.0             | 532.9               | 123.55            | -17.                | -24.                | 208.                | -10.72        | 54.33     | 127.79 | 7110. |
| 8       | 5.0          | 0.0             | 500.6               | 138.56            | -124.               | -113.               | -406.               | -5.07         | 54.41     | 127.88 | 7210. |
| 9       | 9.9          | 0.0             | 459.2               | 199.97            | -130.               | 35.                 | -218.               | 4.29          | 54.05     | 127.44 | 7170. |
| 10      | 15.1         | 0.0             | 512.2               | 253.59            | -668.               | 10.                 | 37.                 | -3.60         | 53.94     | 127.31 | 7220. |
| 11      | 20.1         | 0.0             | 539.7               | 318.25            | -1336.              | 102.                | 269.                | -0.82         | 53.97     | 127.34 | 7180. |
| 12      | -0.0         | 0.0             | 478.9               | 110.19            | -87.                | -12.                | 31.                 | -10.55        | 54.56     | 128.05 | 7240. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00  | 1.3998 | .3310 | .0363  | .0015  | .0022  | -.0028 |
| 3    | 0.00  | 1.3161 | .2976 | -.0201 | .0004  | .0125  | -.0296 |
| 4    | -8.01 | .8080  | .2150 | -.0557 | .0051  | -.0009 | -.0032 |
| 5    | -4.00 | 1.0401 | .2519 | -.0534 | .0042  | .0083  | -.0249 |
| 6    | .23   | 1.3114 | .3012 | -.0227 | -.0000 | .0169  | -.0312 |
| 7    | 2.42  | 1.4404 | .3339 | -.0056 | -.0015 | .0126  | -.0290 |
| 8    | 4.98  | 1.3528 | .3745 | -.0398 | -.0068 | -.0245 | -.0137 |
| 9    | 9.93  | 1.2411 | .5404 | -.0420 | .0021  | -.0131 | .0116  |
| 10   | 15.06 | 1.3844 | .6854 | -.2153 | .0006  | .0022  | -.0097 |
| 11   | 20.05 | 1.4587 | .8601 | -.4307 | .0062  | .0163  | -.0022 |
| 12   | -0.00 | 1.2942 | .2978 | -.0279 | -.0007 | .0019  | -.0285 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00  | 1.3998 | .3310 | .0363  | .0015  | .0022  | -.0028 |
| 3    | 0.00  | 1.3161 | .2976 | -.0201 | .0004  | .0125  | -.0296 |
| 4    | -8.01 | .8080  | .2150 | -.0557 | .0051  | -.0009 | -.0032 |
| 5    | -4.00 | 1.0401 | .2519 | -.0534 | .0042  | .0083  | -.0249 |
| 6    | .23   | 1.3114 | .3012 | -.0227 | -.0000 | .0169  | -.0312 |
| 7    | 2.42  | 1.4404 | .3339 | -.0056 | -.0015 | .0126  | -.0290 |
| 8    | 4.98  | 1.3528 | .3745 | -.0398 | -.0068 | -.0245 | -.0137 |
| 9    | 9.93  | 1.2411 | .5404 | -.0420 | .0021  | -.0131 | .0116  |
| 10   | 15.06 | 1.3844 | .6854 | -.2153 | .0006  | .0022  | -.0097 |
| 11   | 20.05 | 1.4587 | .8601 | -.4307 | .0062  | .0163  | -.0022 |
| 12   | -0.00 | 1.2942 | .2978 | -.0279 | -.0007 | .0019  | -.0285 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 178 CONFIG F P R W4 N1 T BT

| PT. NO. | IS DELF ALPHA DEG | 30 DELA PSI DEG | 0 IHT CLBAR SQ-FT | 1 DELE CDBAR SQ-FT | 0 DELR CPMBAR CU-FT | 0 DELSB CYBAR SQ-FT | 0 V PSF | RPM   |       |        |        |
|---------|-------------------|-----------------|-------------------|--------------------|---------------------|---------------------|---------|-------|-------|--------|--------|
| 6       | .0                | 5.0             | 475.0             | 122.57             | 117.                | -184.               | 301.    | 13.39 | 53.95 | 127.33 | 4030.  |
| 7       | .0                | 5.0             | 464.0             | -6.59              | -156.               | -9.                 | 372.    | 19.94 | 55.35 | 129.00 | 19760. |
| 8       | -8.0              | 5.0             | 246.1             | -27.31             | -217.               | -55.                | 191.    | 35.67 | 54.81 | 128.36 | 19710. |
| 9       | -4.0              | 5.0             | 362.2             | -19.02             | -289.               | -26.                | 276.    | 27.81 | 55.00 | 128.59 | 19820. |
| 10      | .1                | 5.0             | 467.8             | -3.96              | -142.               | -13.                | 354.    | 22.18 | 54.97 | 128.56 | 19860. |
| 11      | 2.4               | 5.0             | 518.8             | 8.65               | -81.                | -38.                | 468.    | 17.61 | 54.54 | 128.04 | 19840. |
| 12      | 4.9               | 5.0             | 566.2             | 24.56              | -71.                | -64.                | 586.    | 16.65 | 54.84 | 128.39 | 19790. |
| 13      | 8.0               | 5.0             | 477.5             | 60.33              | -87.                | 113.                | 395.    | 30.37 | 54.40 | 127.87 | 19810. |
| 14      | 10.0              | 5.0             | 503.5             | 87.39              | -135.               | 21.                 | 187.    | 30.57 | 54.83 | 128.38 | 19840. |
| 15      | 15.0              | 5.0             | 555.2             | 147.53             | -562.               | 168.                | 228.    | 18.10 | 54.20 | 127.62 | 19820. |
| 16      | 19.9              | 5.0             | 629.0             | 257.91             | -1199.              | 253.                | 408.    | 9.31  | 54.18 | 127.60 | 19840. |
| 17      | .0                | 5.0             | 465.1             | -2.59              | -173.               | 7.                  | 351.    | 24.81 | 55.05 | 128.65 | 19990. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM   | CY    |
|------|-------|--------|--------|--------|--------|-------|-------|
| 6    | .00   | 1.2838 | .3313  | .0378  | -.0111 | .0182 | .0362 |
| 7    | .00   | 1.2540 | -.0178 | -.0504 | -.0005 | .0225 | .0539 |
| 8    | -7.96 | .6651  | -.0738 | -.0699 | -.0033 | .0116 | .0964 |
| 9    | -4.03 | .9788  | -.0514 | -.0931 | -.0016 | .0187 | .0752 |
| 10   | .06   | 1.2643 | -.0107 | -.0457 | -.0008 | .0214 | .0600 |
| 11   | 2.41  | 1.4022 | .0234  | -.0262 | -.0023 | .0283 | .0476 |
| 12   | 4.95  | 1.5357 | .0664  | -.0227 | -.0039 | .0354 | .0450 |
| 13   | 8.04  | 1.2905 | .1630  | -.0279 | .0068  | .0239 | .0821 |
| 14   | 9.97  | 1.3608 | .2362  | -.0434 | .0013  | .0113 | .0826 |
| 15   | 15.03 | 1.5005 | .3987  | -.1813 | .0102  | .0138 | .0489 |
| 16   | 19.93 | 1.6999 | .6971  | -.3866 | .0153  | .0246 | .0252 |
| 17   | -.00  | 1.2569 | -.0070 | -.0558 | .0004  | .0212 | .0671 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|-------|--------|--------|--------|--------|-------|-------|
| 6    | .00   | 1.2838 | .3268  | .0462  | -.0111 | .0187 | .0650 |
| 7    | .00   | 1.2540 | -.0225 | -.0397 | -.0005 | .0215 | .0521 |
| 8    | -7.96 | .6651  | -.0820 | -.0642 | -.0033 | .0104 | .0896 |
| 9    | -4.03 | .9788  | -.0578 | -.0849 | -.0016 | .0151 | .0704 |
| 10   | .06   | 1.2643 | -.0159 | -.0356 | -.0008 | .0205 | .0588 |
| 11   | 2.41  | 1.4022 | .0191  | -.0129 | -.0023 | .0277 | .0495 |
| 12   | 4.95  | 1.5357 | .0622  | -.0061 | -.0039 | .0349 | .0506 |
| 13   | 8.04  | 1.2905 | .1552  | -.0167 | .0068  | .0233 | .0960 |
| 14   | 9.97  | 1.3608 | .2280  | -.0380 | .0013  | .0105 | .1030 |
| 15   | 15.03 | 1.5005 | .3929  | -.1742 | .0102  | .0107 | .0836 |
| 16   | 19.93 | 1.6999 | .6922  | -.3736 | .0153  | .0182 | .0861 |
| 17   | -.00  | 1.2569 | -.0128 | -.0457 | .0004  | .0282 | .0662 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P136

RUN 179 CONFIG F P R W4 NPI T BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | 30 DELTA CLBAR SQ-FT | 0 DELTA CD BAR SQ-FT | 0 IHT CPMBAR CU-FT | 1 DELE CYMBAR CU-FT | 0 DELR CRMBAR CU-FT | 0 DELSB CYBAR SQ-FT | 0 DELSB Q PSF | 0 V KNOTS | RPM    |
|---------|-----------|---------------|----------------------|----------------------|--------------------|---------------------|---------------------|---------------------|---------------|-----------|--------|
| 6       | 0         | 15.1          | 440.4                | 130.01               | 496.               | -1136.              | 369.                | 82.57               | 54.66         | 128.18    | 4100.  |
| 7       | 0         | 15.1          | 418.3                | -7.16                | 574.               | -1031.              | 512.                | 119.87              | 54.11         | 127.52    | 20560. |
| 8       | -8.0      | 15.1          | 204.1                | -23.59               | 179.               | -983.               | 293.                | 138.11              | 54.44         | 127.92    | 20640. |
| 9       | -4.0      | 15.1          | 321.5                | -14.13               | 277.               | -1030.              | 393.                | 129.90              | 54.70         | 128.23    | 20610. |
| 10      | 0         | 15.1          | 418.4                | -1.99                | 540.               | -1044.              | 523.                | 118.89              | 54.56         | 128.06    | 20640. |
| 11      | 2.5       | 15.0          | 474.5                | 8.46                 | 700.               | -1018.              | 680.                | 113.50              | 54.29         | 127.74    | 20650. |
| 12      | 5.0       | 15.0          | 510.3                | 27.17                | 844.               | -860.               | 1035.               | 103.83              | 54.62         | 128.14    | 20670. |
| 13      | 10.0      | 15.0          | 485.7                | 83.57                | 139.               | -362.               | 715.                | 88.81               | 53.89         | 127.26    | 20670. |
| 14      | 14.9      | 14.9          | 539.1                | 134.34               | -235.              | 30.                 | 627.                | 67.65               | 53.93         | 127.30    | 20640. |
| 15      | 19.9      | 14.9          | 610.2                | 210.19               | -430.              | -73.                | 1042.               | 41.11               | 53.20         | 126.42    | 20620. |
| 16      | 0         | 14.9          | 415.7                | -1.81                | 605.               | -1055.              | 634.                | 113.88              | 54.17         | 127.60    | 20840. |
| 17      | 5.0       | 14.9          | 504.6                | 18.11                | 879.               | -933.               | 1005.               | 97.14               | 53.76         | 127.10    | 20810. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM   | CY    |
|------|-------|--------|--------|--------|--------|-------|-------|
| 6    | 0.00  | 1.1902 | .3514  | .1600  | -.0686 | .0223 | .2232 |
| 7    | 0.00  | 1.1306 | -.0193 | .1851  | -.0623 | .0310 | .3240 |
| 8    | -8.01 | .5516  | -.0638 | .0578  | -.0594 | .0177 | .3733 |
| 9    | -3.95 | .8689  | -.0382 | .0894  | -.0622 | .0238 | .3511 |
| 10   | 0.03  | 1.1307 | -.0054 | .1740  | -.0630 | .0316 | .3213 |
| 11   | 2.46  | 1.2825 | .0229  | .2258  | -.0615 | .0411 | .3068 |
| 12   | 5.05  | 1.3791 | .0734  | .2720  | -.0520 | .0625 | .2806 |
| 13   | 10.01 | 1.3127 | .2259  | .0041  | -.0219 | .0432 | .2400 |
| 14   | 14.91 | 1.4570 | .3631  | -.0757 | .0018  | .0379 | .1828 |
| 15   | 19.92 | 1.6492 | .5681  | -.1386 | -.0044 | .0629 | .1111 |
| 16   | 0.00  | 1.1236 | -.0049 | .1950  | -.0637 | .0383 | .3078 |
| 17   | 5.04  | 1.3638 | .0489  | .2835  | -.0564 | .0687 | .2625 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|-------|--------|--------|--------|--------|-------|-------|
| 6    | 0.00  | 1.1902 | .2807  | .1855  | -.0686 | .0293 | .3073 |
| 7    | 0.00  | 1.1306 | -.1034 | .2219  | -.0623 | .0390 | .3076 |
| 8    | -8.01 | .5516  | -.1592 | .0805  | -.0594 | .0159 | .3436 |
| 9    | -3.95 | .8689  | -.1287 | .1195  | -.0622 | .0273 | .3289 |
| 10   | 0.03  | 1.1307 | -.0893 | .2120  | -.0630 | .0390 | .3087 |
| 11   | 2.46  | 1.2825 | -.0577 | .2750  | -.0615 | .0506 | .3021 |
| 12   | 5.05  | 1.3791 | -.0021 | .3494  | -.0520 | .0786 | .2901 |
| 13   | 10.01 | 1.3127 | .1557  | .0638  | -.0219 | .0419 | .2905 |
| 14   | 14.91 | 1.4570 | .3035  | -.0210 | .0018  | .0329 | .2704 |
| 15   | 19.92 | 1.6492 | .5201  | -.0471 | -.0044 | .0541 | .2541 |
| 16   | 0.00  | 1.1236 | -.0842 | .2411  | -.0637 | .0464 | .2961 |
| 17   | 5.04  | 1.3638 | -.0205 | .3576  | -.0564 | .0724 | .2663 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P137

RUN 180 CONFIG F P B W5 NP1 T BT

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | PSI<br>DEG | 30 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | 1 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|------------|---------------------------|-------------------------|-----------------|---------------------------|---------------------------|---------------------------|----------|-----------------|--------|
| 5                | .0                      | .0         | 542.0                     | 122.78                  | 110.            | 33.                       | 53.                       | -.37                      | 55.44    | 129.11          | 4300.  |
| 7                | .0                      | .0         | 503.4                     | -6.38                   | -348.           | 29.                       | 129.                      | -4.35                     | 54.82    | 128.36          | 20330. |
| 8                | -8.0                    | .0         | 281.7                     | -36.20                  | -63.            | 127.                      | 110.                      | -2.13                     | 54.46    | 127.94          | 20260. |
| 9                | -4.0                    | .0         | 393.3                     | -23.86                  | -310.           | 118.                      | 127.                      | -1.93                     | 54.70    | 128.22          | 20230. |
| 10               | .0                      | .0         | 499.7                     | -5.40                   | -365.           | 37.                       | 163.                      | -4.31                     | 55.33    | 128.98          | 20310. |
| 11               | 2.6                     | .0         | 554.1                     | 7.72                    | -340.           | 18.                       | 194.                      | -1.72                     | 55.41    | 129.07          | 20280. |
| 12               | 5.1                     | .0         | 598.1                     | 19.26                   | -321.           | -15.                      | 217.                      | -6.60                     | 55.23    | 128.86          | 20400. |
| 13               | 7.5                     | .0         | 488.1                     | 52.15                   | -125.           | 98.                       | -56.                      | 4.66                      | 55.53    | 129.20          | 20350. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 5    | .01   | 1.4649 | .3318  | .0354  | .0020  | .0032  | -.0010 |
| 7    | .01   | 1.3604 | -.0173 | -.1124 | .0017  | .0078  | -.0118 |
| 8    | -8.01 | .7614  | -.0978 | -.0202 | .0077  | .0067  | -.0057 |
| 9    | -4.05 | 1.0630 | -.0645 | -.0999 | .0071  | .0077  | -.0052 |
| 10   | .01   | 1.3506 | -.0146 | -.1176 | .0022  | .0098  | -.0116 |
| 11   | 2.57  | 1.4974 | .0209  | -.1097 | .0011  | .0117  | -.0047 |
| 12   | 5.10  | 1.6165 | .0520  | -.1036 | -.0009 | .0131  | -.0178 |
| 13   | 7.49  | 1.3193 | .1409  | -.0402 | .0059  | -.0034 | .0126  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 5    | .01   | 1.4649 | .3318  | .0354  | .0020  | .0032  | -.0010 |
| 7    | .01   | 1.3604 | -.0173 | -.1124 | .0017  | .0078  | -.0118 |
| 8    | -8.01 | .7614  | -.0978 | -.0202 | .0077  | .0067  | -.0057 |
| 9    | -4.05 | 1.0630 | -.0645 | -.0999 | .0071  | .0077  | -.0052 |
| 10   | .01   | 1.3506 | -.0146 | -.1176 | .0022  | .0098  | -.0116 |
| 11   | 2.57  | 1.4974 | .0209  | -.1097 | .0011  | .0117  | -.0047 |
| 12   | 5.10  | 1.6165 | .0520  | -.1036 | -.0009 | .0131  | -.0178 |
| 13   | 7.49  | 1.3193 | .1409  | -.0402 | .0059  | -.0034 | .0126  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 13 P

RUN 181 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 1 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 541.7       | 122.98      | 100.         | 15.          | 93.          | -4.36       | 55.50 | 129.17  | 4300.  |
| 3       | .0        | .0      | 487.5       | -6.39       | -388.        | 53.          | 76.          | -4.56       | 55.23 | 128.86  | 20160. |
| 4       | -4.0      | .0      | 413.2       | -24.19      | -118.        | 117.         | 65.          | 3.21        | 55.21 | 128.84  | 20260. |
| 5       | -0        | .0      | 490.4       | -5.94       | -459.        | 27.          | 219.         | -6.89       | 55.37 | 129.02  | 20330. |
| 6       | 2.5       | .0      | 547.9       | 6.30        | -430.        | 10.          | 218.         | -7.39       | 55.32 | 128.96  | 20440. |
| 7       | 5.0       | .0      | 565.0       | 17.39       | -484.        | -31.         | 501.         | -11.93      | 55.41 | 129.06  | 20380. |
| 8       | 7.5       | .0      | 480.5       | 40.93       | -493.        | -92.         | 40.          | -6.54       | 55.25 | 128.88  | 20400. |
| 9       | -8.0      | .0      | 281.6       | -35.82      | -65.         | 117.         | 88.          | -.12        | 55.21 | 128.83  | 20390. |
| 10      | -4.1      | .0      | 377.2       | -22.12      | -461.        | 113.         | 131.         | -5.59       | 55.45 | 129.11  | 20380. |
| 11      | -0        | .0      | 467.2       | -5.24       | -559.        | 75.          | 198.         | -4.56       | 55.34 | 128.98  | 20440. |
| 12      | 2.5       | .0      | 496.4       | 5.81        | -661.        | 94.          | 103.         | 1.10        | 55.60 | 129.29  | 20460. |
| 13      | 5.0       | .0      | 542.7       | 19.46       | -671.        | 90.          | 231.         | -4.90       | 55.60 | 129.29  | 20470. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|-------|--------|--------|--------|--------|-------|--------|
| 2    | .00   | 1.4640 | .3324  | .0322  | .0009  | .0056 | -.0118 |
| 3    | .00   | 1.3177 | -.0173 | -.1252 | .0032  | .0046 | -.0123 |
| 4    | -4.00 | 1.1167 | -.0654 | -.0379 | .0071  | .0039 | .0087  |
| 5    | -.01  | 1.3253 | -.0161 | -.1478 | .0017  | .0132 | -.0186 |
| 6    | 2.51  | 1.4807 | .0170  | -.1388 | .0006  | .0132 | -.0200 |
| 7    | 4.99  | 1.5270 | .0470  | -.1560 | -.0019 | .0303 | -.0322 |
| 8    | 7.49  | 1.2985 | .1106  | -.1590 | -.0055 | .0024 | -.0177 |
| 9    | -8.00 | .7610  | -.0968 | -.0209 | .0071  | .0053 | -.0003 |
| 10   | -4.06 | 1.0196 | -.0598 | -.1485 | .0068  | .0079 | -.0151 |
| 11   | -.01  | 1.2627 | -.0142 | -.1801 | .0046  | .0120 | -.0123 |
| 12   | 2.52  | 1.3416 | .0157  | -.2133 | .0057  | .0062 | .0030  |
| 13   | 5.04  | 1.4666 | .0526  | -.2162 | .0055  | .0140 | -.0132 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|-------|--------|--------|--------|--------|-------|--------|
| 2    | .00   | 1.4640 | .3324  | .0322  | .0009  | .0056 | -.0118 |
| 3    | .00   | 1.3177 | -.0173 | -.1252 | .0032  | .0046 | -.0123 |
| 4    | -4.00 | 1.1167 | -.0654 | -.0379 | .0071  | .0039 | .0087  |
| 5    | -.01  | 1.3253 | -.0161 | -.1478 | .0017  | .0132 | -.0186 |
| 6    | 2.51  | 1.4807 | .0170  | -.1388 | .0006  | .0132 | -.0200 |
| 7    | 4.99  | 1.5270 | .0470  | -.1560 | -.0019 | .0303 | -.0322 |
| 8    | 7.49  | 1.2985 | .1106  | -.1590 | -.0055 | .0024 | -.0177 |
| 9    | -8.00 | .7610  | -.0968 | -.0209 | .0071  | .0053 | -.0003 |
| 10   | -4.06 | 1.0196 | -.0598 | -.1485 | .0068  | .0079 | -.0151 |
| 11   | -.01  | 1.2627 | -.0142 | -.1801 | .0046  | .0120 | -.0123 |
| 12   | 2.52  | 1.3416 | .0157  | -.2133 | .0057  | .0062 | .0030  |
| 13   | 5.04  | 1.4666 | .0526  | -.2162 | .0055  | .0140 | -.0132 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 182 CONFIG F P B W5 NP1 T BT

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 1 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>DELSB<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|-----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|------------------------|-----------------|--------|
| 2                | .0                      | .0                    | 545.4                   | 125.52                   | 58.                       | 19.                        | 36.                  | -.68                | 55.37                  | 129.01          | 4350.  |
| 3                | .0                      | .0                    | 539.8                   | -6.47                    | -63.                      | 69.                        | 74.                  | -2.48               | 54.91                  | 128.47          | 19810. |
| 4                | -8.0                    | .0                    | 291.2                   | -28.76                   | 67.                       | 133.                       | 108.                 | -1.36               | 55.26                  | 128.89          | 19840. |
| 5                | -4.1                    | .0                    | 420.4                   | -18.59                   | -61.                      | 132.                       | 70.                  | .18                 | 55.31                  | 128.95          | 19810. |
| 6                | .0                      | .0                    | 541.7                   | -3.58                    | -30.                      | 92.                        | 70.                  | -.37                | 55.38                  | 129.04          | 19840. |
| 7                | 2.5                     | .0                    | 585.7                   | 6.87                     | 50.                       | 56.                        | 107.                 | -2.26               | 55.78                  | 129.51          | 19830. |
| 8                | 5.0                     | .0                    | 509.5                   | 27.73                    | -475.                     | -46.                       | -332.                | -4.10               | 54.79                  | 128.34          | 19930. |
| 9                | 7.5                     | .0                    | 484.0                   | 55.41                    | -313.                     | 208.                       | 67.                  | 3.77                | 55.09                  | 128.69          | 19840. |
| 10               | 10.1                    | .0                    | 492.3                   | 76.00                    | -321.                     | 221.                       | -179.                | 5.32                | 55.07                  | 128.66          | 19970. |
| 11               | -8.0                    | -.1                   | 292.7                   | -29.63                   | 49.                       | 181.                       | 97.                  | -4.28               | 54.87                  | 128.44          | 19890. |
| 12               | -4.1                    | -.1                   | 415.8                   | -20.91                   | -35.                      | 165.                       | 94.                  | -2.65               | 55.20                  | 128.82          | 19910. |
| 13               | .0                      | -.1                   | 538.8                   | -5.74                    | -8.                       | 115.                       | 76.                  | -1.43               | 54.89                  | 128.46          | 19930. |
| 14               | 2.4                     | -.1                   | 588.2                   | 5.62                     | 56.                       | 75.                        | 129.                 | -1.60               | 55.18                  | 128.80          | 19960. |
| 15               | 5.0                     | -.1                   | 507.9                   | 29.07                    | -437.                     | -32.                       | -330.                | -2.05               | 54.96                  | 128.54          | 19850. |
| 16               | 9.9                     | -.1                   | 491.6                   | 78.84                    | -512.                     | 64.                        | -48.                 | -1.55               | 54.85                  | 128.40          | 19890. |
| 17               | 3.4                     | -.1                   | 534.5                   | 16.09                    | -77.                      | 61.                        | 874.                 | -19.43              | 54.70                  | 128.22          | 19860. |

## \*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4740 | .3392  | .0188  | .0011  | .0022  | -.0018 |
| 3    | .00   | 1.4589 | -.0175 | -.0204 | .0042  | .0045  | -.0067 |
| 4    | -7.99 | .7871  | -.0777 | .0216  | .0080  | .0065  | -.0037 |
| 5    | -4.08 | 1.1361 | -.0502 | -.0198 | .0080  | .0042  | .0005  |
| 6    | .02   | 1.4640 | -.0097 | -.0098 | .0055  | .0043  | -.0010 |
| 7    | 2.55  | 1.5829 | .0186  | .0160  | .0034  | .0064  | -.0061 |
| 8    | 5.04  | 1.3771 | .0749  | -.1531 | -.0028 | -.0201 | -.0111 |
| 9    | 7.51  | 1.3081 | .1498  | -.1008 | .0126  | .0041  | .0102  |
| 10   | 10.09 | 1.3305 | .2054  | -.1034 | .0134  | -.0108 | .0144  |
| 11   | -7.98 | .7910  | -.0801 | .0158  | .0109  | .0059  | -.0116 |
| 12   | -4.07 | 1.1239 | -.0565 | -.0112 | .0100  | .0057  | -.0072 |
| 13   | .00   | 1.4562 | -.0155 | -.0026 | .0069  | .0046  | -.0039 |
| 14   | 2.41  | 1.5898 | .0152  | .0180  | .0045  | .0078  | -.0043 |
| 15   | 5.05  | 1.3726 | .0786  | -.1409 | -.0020 | -.0199 | -.0055 |
| 16   | 9.93  | 1.3285 | .2131  | -.1649 | .0039  | -.0029 | -.0042 |
| 17   | 3.43  | 1.4445 | .0435  | -.0249 | .0037  | .0528  | -.0525 |

## \*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4740 | .3392  | .0188  | .0011  | .0022  | -.0018 |
| 3    | .00   | 1.4589 | -.0175 | -.0204 | .0042  | .0045  | -.0067 |
| 4    | -7.99 | .7871  | -.0777 | .0216  | .0080  | .0065  | -.0037 |
| 5    | -4.08 | 1.1361 | -.0502 | -.0198 | .0080  | .0042  | .0005  |
| 6    | .02   | 1.4640 | -.0097 | -.0098 | .0055  | .0043  | -.0010 |
| 7    | 2.55  | 1.5829 | .0186  | .0160  | .0034  | .0064  | -.0061 |
| 8    | 5.04  | 1.3771 | .0749  | -.1531 | -.0028 | -.0201 | -.0111 |
| 9    | 7.51  | 1.3081 | .1498  | -.1008 | .0126  | .0041  | .0102  |
| 10   | 10.09 | 1.3305 | .2054  | -.1034 | .0134  | -.0108 | .0144  |
| 11   | -7.98 | .7910  | -.0801 | .0158  | .0109  | .0059  | -.0114 |
| 12   | -4.07 | 1.1239 | -.0565 | -.0113 | .0100  | .0057  | -.0071 |
| 13   | .00   | 1.4562 | -.0155 | -.0026 | .0069  | .0046  | -.0038 |
| 14   | 2.41  | 1.5898 | -.0152 | .0180  | .0045  | .0078  | -.0044 |
| 15   | 5.05  | 1.3726 | .0786  | -.1407 | -.0020 | -.0199 | -.0057 |
| 16   | 9.93  | 1.3285 | .2131  | -.1649 | .0039  | -.0029 | -.0046 |
| 17   | 3.43  | 1.4445 | .0434  | -.0254 | .0037  | .0528  | -.0526 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 183 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 1 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 548.8       | 125.93      | 56.          | 24.          | -1.          | 1.11        | 55.36 | 129.01  | 4340.  |
| 3       | .0        | .0      | 542.3       | -5.32       | -26.         | 84.          | 88.          | -6.8        | 55.28 | 128.92  | 19680. |
| 4       | -8.0      | .0      | 293.0       | -27.41      | 75.          | 156.         | 109.         | -2.16       | 55.26 | 128.89  | 19830. |
| 5       | -4.0      | .0      | 420.4       | -18.62      | -54.         | 124.         | 109.         | -2.41       | 55.11 | 128.72  | 19760. |
| 6       | -0.0      | .0      | 539.7       | -3.97       | -13.         | 89.          | 88.          | .31         | 55.04 | 128.63  | 19830. |
| 7       | 2.4       | .0      | 544.9       | 8.51        | -298.        | -0.          | 373.         | -18.93      | 55.07 | 128.68  | 19830. |
| 8       | 2.4       | .0      | 545.8       | 7.99        | -320.        | -7.          | 416.         | -22.54      | 54.55 | 128.05  | 19900. |
| 9       | 5.1       | .0      | 505.6       | 27.12       | -418.        | -26.         | -348.        | -.55        | 55.58 | 129.28  | 19910. |
| 10      | 2.4       | .0      | 589.4       | 6.45        | 77.          | 67.          | 87.          | .80         | 55.16 | 128.77  | 20000. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPN    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4833 | .3404  | .0179  | .0014  | -.0001 | .0030  |
| 3    | .00   | 1.4655 | -.0144 | -.0083 | .0051  | .0053  | -.0018 |
| 4    | -7.98 | .7919  | -.0741 | .0240  | .0094  | .0066  | -.0058 |
| 5    | -4.02 | 1.1362 | -.0503 | -.0173 | .0075  | .0066  | -.0065 |
| 6    | -.00  | 1.4567 | -.0107 | -.0042 | .0054  | .0053  | .0008  |
| 7    | 2.43  | 1.4726 | .0230  | -.0962 | -.0000 | .0225  | -.0512 |
| 8    | 2.43  | 1.4752 | .0216  | -.1032 | -.0004 | .0251  | -.0609 |
| 9    | 5.07  | 1.3665 | .0733  | -.1348 | -.0016 | -.0210 | -.0015 |
| 10   | 2.43  | 1.5930 | .0174  | .0247  | .0040  | .0053  | .0022  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4833 | .3404  | .0179  | .0014  | -.0001 | .0030  |
| 3    | .00   | 1.4655 | -.0144 | -.0083 | .0051  | .0053  | -.0018 |
| 4    | -7.98 | .7919  | -.0741 | .0240  | .0094  | .0066  | -.0058 |
| 5    | -4.02 | 1.1362 | -.0503 | -.0173 | .0075  | .0066  | -.0065 |
| 6    | -.00  | 1.4587 | -.0107 | -.0042 | .0054  | .0053  | .0008  |
| 7    | 2.43  | 1.4726 | .0230  | -.0962 | -.0000 | .0225  | -.0512 |
| 8    | 2.43  | 1.4752 | .0216  | -.1032 | -.0004 | .0251  | -.0609 |
| 9    | 5.07  | 1.3665 | .0733  | -.1348 | -.0016 | -.0210 | -.0015 |
| 10   | 2.43  | 1.5930 | .0174  | .0247  | .0040  | .0053  | .0022  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SBR-72011  
P 141

RUN 184 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 5 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 6       | 2.5       | .1      | 525.8       | 140.49      | 165.         | 69.          | 834.         | -18.65      | 54.97 | 128.54  | 4090.  |
| 7       | 2.5       | .1      | 590.8       | 2.43        | 87.          | 65.          | 91.          | -1.55       | 55.02 | 128.61  | 19810. |
| 8       | 2.5       | -14.9   | 470.6       | 22.65       | 704.         | 1074.        | -1348.       | -104.91     | 55.30 | 128.94  | 19800. |
| 9       | 2.5       | -9.9    | 501.3       | 18.65       | 116.         | 704.         | -564.        | -63.45      | 55.19 | 128.81  | 19690. |
| 10      | 2.5       | -4.9    | 591.5       | 6.46        | -22.         | 163.         | -151.        | -36.62      | 54.79 | 128.34  | 19870. |
| 11      | 2.5       | .1      | 590.9       | 5.87        | 83.          | 79.          | 93.          | -3.16       | 54.94 | 128.52  | 19910. |
| 12      | 2.5       | 5.1     | 516.4       | 4.71        | 79.          | 15.          | 850.         | 17.07       | 54.88 | 128.44  | 20000. |
| 13      | 2.5       | 10.3    | 502.9       | 10.88       | 358.         | -399.        | 836.         | 58.92       | 54.51 | 128.01  | 19940. |
| 14      | 2.5       | 15.1    | 489.1       | 20.02       | 339.         | -909.        | 758.         | 109.24      | 54.35 | 127.81  | 19940. |
| 15      | 2.5       | .1      | 589.4       | 5.00        | 129.         | 66.          | 93.          | -2.30       | 54.75 | 128.29  | 20020. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .10    | 1.4210 | .3797 | .0531  | .0042  | .0504  | -.0504 |
| 7    | .10    | 1.5967 | .0066 | .0281  | .0039  | .0055  | -.0042 |
| 8    | -14.90 | 1.2720 | .0612 | .2269  | .0649  | -.0815 | -.2835 |
| 9    | -9.90  | 1.3549 | .0504 | .0375  | .0425  | -.0341 | -.1715 |
| 10   | -4.90  | 1.5986 | .0175 | -.0072 | .0098  | -.0091 | -.0990 |
| 11   | .10    | 1.5971 | .0159 | .0269  | .0048  | .0056  | -.0085 |
| 12   | 5.10   | 1.3956 | .0127 | .0254  | .0009  | .0513  | .0461  |
| 13   | 10.30  | 1.3591 | .0294 | .1154  | -.0241 | .0505  | .1593  |
| 14   | 15.10  | 1.3220 | .0541 | .1092  | -.0549 | .0458  | .2952  |
| 15   | .10    | 1.5931 | .0135 | .0417  | .0040  | .0056  | -.0062 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .10    | 1.4210 | .3798  | .0535  | .0042  | .0504  | -.0497 |
| 7    | .10    | 1.5967 | .0066  | .0282  | .0039  | .0055  | -.0042 |
| 8    | -14.90 | 1.2720 | -.0141 | .3315  | .0649  | -.0897 | -.2897 |
| 9    | -9.90  | 1.3549 | .0200  | .0684  | .0425  | -.0348 | -.1776 |
| 10   | -4.90  | 1.5986 | .0089  | -.0030 | .0098  | -.0090 | -.1001 |
| 11   | .10    | 1.5971 | .0159  | .0269  | .0048  | .0056  | -.0085 |
| 12   | 5.10   | 1.3956 | .0086  | .0498  | .0009  | .0516  | .0471  |
| 13   | 10.30  | 1.3591 | .0003  | .1619  | -.0241 | .0536  | .1619  |
| 14   | 15.10  | 1.3220 | -.0250 | .1693  | -.0549 | .0495  | .2991  |
| 15   | .10    | 1.5931 | .0135  | .0417  | .0040  | .0056  | -.0062 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P142

RUN 185 CONFIG F P B W5 NP1 T BT

| PT. NO. | IW | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 9 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|---------|----|-------------------------|-----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|---------------|-----------------|--------|
| 2       |    | .0                      | .0                    | 568.5                   | 126.91                   | -428.                     | -1.                        | 0.                   | -.25                | 54.75         | 128.29          | 4290.  |
| 3       |    | .0                      | .0                    | 569.3                   | -6.16                    | -804.                     | 17.                        | 54.                  | -.68                | 54.92         | 128.49          | 19680. |
| 4       |    | -8.0                    | .0                    | 322.9                   | -30.65                   | -762.                     | 82.                        | 72.                  | -.56                | 54.87         | 128.43          | 19700. |
| 5       |    | -3.9                    | .0                    | 456.9                   | -18.63                   | -886.                     | 47.                        | 70.                  | -.18                | 55.33         | 128.98          | 19750. |
| 6       |    | -.0                     | .0                    | 564.5                   | -2.65                    | -764.                     | 28.                        | 53.                  | -.18                | 55.51         | 129.20          | 19830. |
| 7       |    | 2.5                     | .0                    | 617.6                   | 8.64                     | -654.                     | 26.                        | 70.                  | .50                 | 55.03         | 128.63          | 19900. |
| 8       |    | 5.0                     | .0                    | 532.6                   | 31.91                    | -1003.                    | -107.                      | -331.                | -4.72               | 54.88         | 128.44          | 19950. |
| 9       |    | 9.9                     | -.1                   | 511.5                   | 84.07                    | -811.                     | 140.                       | -52.                 | 5.12                | 55.17         | 128.79          | 19870. |
| 10      |    | 15.0                    | -.1                   | 598.0                   | 153.80                   | -1000.                    | 254.                       | -354.                | 6.28                | 54.24         | 127.68          | 19970. |
| 11      |    | .0                      | -.1                   | 566.9                   | -4.75                    | -788.                     | 51.                        | 56.                  | .06                 | 54.93         | 128.51          | 20080. |
| 12      |    | 2.5                     | -.1                   | 615.4                   | 13.48                    | -667.                     | 39.                        | 95.                  | -2.83               | 55.34         | 128.99          | 19530. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.5366 | .3430  | -.1381 | -.0001 | .0000  | -.0007 |
| 3    | .00   | 1.5387 | -.0166 | -.2591 | .0011  | .0032  | -.0018 |
| 4    | -8.00 | .8726  | -.0828 | -.2455 | .0050  | .0043  | -.0015 |
| 5    | -3.88 | 1.2349 | -.0503 | -.2856 | .0029  | .0042  | -.0005 |
| 6    | -.01  | 1.5257 | -.0072 | -.2464 | .0017  | .0032  | -.0005 |
| 7    | 2.53  | 1.6692 | .0233  | -.2109 | .0016  | .0042  | .0013  |
| 8    | 5.00  | 1.4395 | .0863  | -.3232 | -.0065 | -.0200 | -.0127 |
| 9    | 9.94  | 1.3824 | .2272  | -.2613 | .0085  | -.0031 | .0139  |
| 10   | 14.97 | 1.6161 | .4157  | -.3223 | .0154  | -.0214 | .0170  |
| 11   | .01   | 1.5320 | -.0128 | -.2540 | .0031  | .0034  | .0002  |
| 12   | 2.52  | 1.6634 | .0364  | -.2151 | .0023  | .0057  | -.0077 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.5366 | .3430  | -.1381 | -.0001 | .0000  | -.0007 |
| 3    | .00   | 1.5387 | -.0166 | -.2591 | .0011  | .0032  | -.0018 |
| 4    | -8.00 | .8726  | -.0828 | -.2455 | .0050  | .0043  | -.0015 |
| 5    | -3.88 | 1.2349 | -.0503 | -.2856 | .0029  | .0042  | -.0005 |
| 6    | -.01  | 1.5257 | -.0072 | -.2464 | .0017  | .0032  | -.0005 |
| 7    | 2.53  | 1.6692 | .0233  | -.2109 | .0016  | .0042  | .0013  |
| 8    | 5.00  | 1.4395 | .0863  | -.3232 | -.0065 | -.0200 | -.0127 |
| 9    | 9.94  | 1.3824 | .2272  | -.2613 | .0085  | -.0031 | .0135  |
| 10   | 14.97 | 1.6161 | .4157  | -.3221 | .0154  | -.0213 | .0162  |
| 11   | .01   | 1.5320 | -.0128 | -.2540 | .0031  | .0035  | .0002  |
| 12   | 2.52  | 1.6634 | .0364  | -.2152 | .0023  | .0058  | -.0077 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 143

RUN 186 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | -5 DELE     | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 586.6       | 130.48      | -1000.       | 34.          | 19.          | -1.30       | 55.22 | 128.85  | 4310.  |
| 3       | .0        | .0      | 605.3       | -6.69       | -1645.       | -17.         | 34.          | 1.63        | 54.45 | 127.93  | 20260. |
| 4       | -8.0      | .0      | 356.6       | -37.01      | -1668.       | 89.          | 74.          | -2.23       | 54.89 | 128.46  | 20400. |
| 5       | -3.9      | .0      | 488.2       | -21.23      | -1768.       | 30.          | 53.          | -.43        | 55.14 | 128.76  | 20230. |
| 6       | -.0       | .0      | 602.4       | -3.42       | -1614.       | -5.          | 53.          | -.31        | 55.00 | 128.59  | 20330. |
| 7       | 2.5       | .0      | 641.0       | 9.83        | -1447.       | -33.         | 88.          | -1.22       | 55.81 | 129.55  | 20320. |
| 8       | 5.0       | .0      | 544.2       | 30.49       | -1529.       | -49.         | -347.        | -1.66       | 55.52 | 129.21  | 20480. |
| 9       | 10.0      | .0      | 523.9       | 81.39       | -1393.       | 119.         | -175.        | .86         | 55.51 | 129.19  | 20370. |
| 10      | -.0       | .0      | 599.5       | -3.52       | -1598.       | 17.          | 87.          | -.06        | 55.64 | 129.35  | 20440. |
| 11      | 2.5       | .0      | 648.7       | 7.88        | -1466.       | 6.           | 106.         | -.31        | 54.78 | 128.33  | 20430. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.5854 | .3526  | -.3223 | .0020  | .0012  | -.0035 |
| 3    | .00   | 1.6359 | -.0181 | -.5302 | -.0010 | .0020  | .0044  |
| 4    | -7.97 | .9638  | -.1000 | -.5376 | .0054  | .0045  | -.0060 |
| 5    | -3.94 | 1.3193 | -.0574 | -.5700 | .0018  | .0032  | -.0012 |
| 6    | -.03  | 1.6282 | -.0092 | -.5205 | -.0003 | .0032  | -.0008 |
| 7    | 2.51  | 1.7325 | .0266  | -.4664 | -.0020 | .0053  | -.0033 |
| 8    | 5.04  | 1.4708 | .0824  | -.4929 | -.0029 | -.0210 | -.0045 |
| 9    | 9.95  | 1.4159 | .2200  | -.4489 | .0072  | -.0106 | .0023  |
| 10   | -.01  | 1.6204 | -.0095 | -.5150 | .0010  | .0053  | -.0002 |
| 11   | 2.54  | 1.7531 | .0213  | -.4726 | .0004  | .0064  | -.0008 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.5854 | .3526  | -.3223 | .0020  | .0012  | -.0035 |
| 3    | .00   | 1.6359 | -.0181 | -.5302 | -.0010 | .0020  | .0044  |
| 4    | -7.97 | .9638  | -.1000 | -.5376 | .0054  | .0045  | -.0060 |
| 5    | -3.94 | 1.3193 | -.0574 | -.5700 | .0018  | .0032  | -.0012 |
| 6    | -.03  | 1.6282 | -.0092 | -.5205 | -.0003 | .0032  | -.0008 |
| 7    | 2.51  | 1.7325 | .0266  | -.4664 | -.0020 | .0053  | -.0033 |
| 8    | 5.04  | 1.4708 | .0824  | -.4929 | -.0029 | -.0210 | -.0045 |
| 9    | 9.95  | 1.4159 | .2200  | -.4489 | .0072  | -.0106 | .0023  |
| 10   | -.01  | 1.6204 | -.0095 | -.5150 | .0010  | .0053  | -.0002 |
| 11   | 2.54  | 1.7531 | .0213  | -.4726 | .0004  | .0064  | -.0008 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 144

RUN 101 000000 P B W5 NP1 T BT

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | -9 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>DELSB<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|-----------------------|-------------------------|---------------------------|---------------------------|----------------------------|----------------------|---------------------|-------------------|-----------------|--------|
| 2                | .0                      | .0                    | 519.6                   | 126.46                    | 928.                      | 27.                        | 1.                   | -.81                | 54.42             | 127.89          | 4280.  |
| 3                | .0                      | .0                    | 500.0                   | -5.83                     | 1280.                     | 107.                       | 58.                  | -3.66               | 54.01             | 127.41          | 19570. |
| 4                | -8.0                    | .0                    | 249.9                   | -20.09                    | 1332.                     | 127.                       | 54.                  | -.87                | 54.90             | 128.48          | 19580. |
| 5                | -4.0                    | .0                    | 376.5                   | -12.14                    | 1294.                     | 151.                       | 89.                  | -.68                | 54.98             | 128.56          | 19560. |
| 6                | .0                      | .0                    | 498.8                   | -.61                      | 1292.                     | 125.                       | 71.                  | .00                 | 54.90             | 128.47          | 19590. |
| 7                | 2.5                     | .0                    | 549.0                   | 6.92                      | 1330.                     | 92.                        | 76.                  | -4.59               | 54.95             | 128.53          | 19650. |
| 8                | 5.0                     | .0                    | 488.9                   | 27.31                     | 556.                      | -10.                       | -387.                | -2.68               | 54.69             | 128.22          | 19660. |
| 9                | 10.0                    | .0                    | 471.0                   | 73.81                     | 344.                      | 131.                       | -55.                 | 2.61                | 54.86             | 128.42          | 19650. |
| 10               | 2.5                     | .0                    | 549.5                   | 5.60                      | 1340.                     | 98.                        | 92.                  | -3.17               | 54.79             | 128.34          | 19790. |
| 11               | 15.0                    | -.1                   | 553.0                   | 141.21                    | 221.                      | 292.                       | -265.                | 6.29                | 54.19             | 127.62          | 19780. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM   | CYM    | CRM    | CY     |
|------|-------|--------|--------|-------|--------|--------|--------|
| 2    | .00   | 1.4042 | .3418  | .2992 | .0016  | .0001  | -.0022 |
| 3    | .00   | 1.3514 | -.0158 | .4126 | .0065  | .0035  | -.0099 |
| 4    | -7.99 | .6754  | -.0543 | .4294 | .0077  | .0033  | -.0023 |
| 5    | -4.03 | 1.0175 | -.0328 | .4173 | .0091  | .0054  | -.0018 |
| 6    | .00   | 1.3481 | -.0017 | .4164 | .0076  | .0043  | .0000  |
| 7    | 2.48  | 1.4838 | .0187  | .4287 | .0056  | .0046  | -.0124 |
| 8    | 5.00  | 1.3212 | .0738  | .1793 | -.0006 | -.0234 | -.0072 |
| 9    | 9.99  | 1.2730 | .1995  | .1108 | .0079  | -.0033 | .0070  |
| 10   | 2.53  | 1.4852 | .0151  | .4320 | .0059  | .0056  | -.0086 |
| 11   | 15.00 | 1.4945 | .3816  | .0712 | .0177  | -.0160 | .0170  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB  | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|-------|--------|--------|--------|
| 2    | .00   | 1.4042 | .3418  | .2992 | .0016  | .0001  | -.0022 |
| 3    | .00   | 1.3514 | -.0158 | .4126 | .0065  | .0035  | -.0099 |
| 4    | -7.99 | .6754  | -.0543 | .4294 | .0077  | .0033  | -.0023 |
| 5    | -4.03 | 1.0175 | -.0328 | .4173 | .0091  | .0054  | -.0018 |
| 6    | .00   | 1.3481 | -.0017 | .4164 | .0076  | .0043  | .0000  |
| 7    | 2.48  | 1.4838 | .0187  | .4287 | .0056  | .0046  | -.0124 |
| 8    | 5.00  | 1.3212 | .0738  | .1793 | -.0006 | -.0234 | -.0072 |
| 9    | 9.99  | 1.2730 | .1995  | .1108 | .0079  | -.0033 | .0070  |
| 10   | 2.53  | 1.4852 | .0151  | .4320 | .0059  | .0056  | -.0086 |
| 11   | 15.00 | 1.4945 | .3817  | .0714 | .0177  | -.0160 | .0163  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P145

RUN 188 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |
| 2       | -0.0      | .0      | 475.8       | 137.17      | 1321.        | 7.           | 30.          | 4.63        | 54.50 | 128.01  | 4310.  |
| 3       | .0        | .0      | 501.6       | 132.85      | 1435.        | -8.          | 32.          | 2.03        | 55.34 | 129.00  | 4330.  |
| 4       | .0        | .0      | 505.8       | 133.58      | 1428.        | -24.         | 33.          | 1.85        | 55.26 | 128.90  | 4340.  |
| 5       | .0        | .0      | 466.9       | -6.59       | 2296.        | 74.          | 108.         | -1.31       | 54.77 | 128.32  | 20130. |
| 6       | -8.0      | .0      | 216.7       | -20.81      | 2251.        | 93.          | 124.         | .00         | 54.63 | 128.16  | 20210. |
| 7       | -4.0      | .0      | 345.0       | -15.74      | 2265.        | 125.         | 109.         | -1.99       | 54.72 | 128.26  | 20240. |
| 8       | -0.0      | .0      | 466.4       | -6.28       | 2269.        | 79.          | 107.         | -.50        | 54.44 | 127.94  | 20220. |
| 9       | 2.5       | .0      | 520.0       | .19         | 2262.        | 44.          | 109.         | -2.37       | 54.55 | 128.07  | 20250. |
| 10      | 4.9       | .0      | 457.8       | 17.95       | 1397.        | -19.         | -378.        | .32         | 53.93 | 127.31  | 20220. |
| 11      | 10.0      | .0      | 463.7       | 69.07       | 820.         | 82.          | 72.          | .06         | 53.58 | 126.89  | 20230. |
| 12      | 15.0      | .0      | 544.9       | 132.11      | 804.         | 206.         | -253.        | 9.41        | 53.94 | 127.32  | 20300. |
| 13      | 2.4       | .0      | 520.7       | .80         | 2312.        | 62.          | 128.         | -2.63       | 54.42 | 127.90  | 20300. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM   | CYM    | CRM    | CY     |
|------|-------|--------|--------|-------|--------|--------|--------|
| 2    | -.02  | 1.2860 | .3707  | .4259 | .0004  | .0018  | .0125  |
| 3    | .00   | 1.3556 | .3590  | .4627 | -.0005 | .0020  | .0055  |
| 4    | .00   | 1.3671 | .3610  | .4605 | -.0015 | .0020  | .0050  |
| 5    | .00   | 1.2618 | -.0178 | .7402 | .0045  | .0065  | -.0035 |
| 6    | -8.00 | .5857  | -.0563 | .7257 | .0056  | .0075  | .0000  |
| 7    | -4.05 | .9324  | -.0425 | .7304 | .0075  | .0066  | -.0054 |
| 8    | -.04  | 1.2606 | -.0170 | .7315 | .0047  | .0065  | -.0014 |
| 9    | 2.51  | 1.4053 | .0005  | .7293 | .0027  | .0066  | -.0064 |
| 10   | 4.92  | 1.2373 | .0485  | .4503 | -.0012 | -.0228 | .0009  |
| 11   | 10.02 | 1.2532 | .1867  | .2644 | .0050  | .0044  | .0002  |
| 12   | 15.01 | 1.4726 | .3571  | .2593 | .0124  | -.0153 | .0254  |
| 13   | 2.43  | 1.4073 | .0022  | .7452 | .0037  | .0077  | -.0071 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB  | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|-------|--------|--------|--------|
| 2    | -.02  | 1.2860 | .3707  | .4259 | .0004  | .0018  | .0125  |
| 3    | .00   | 1.3556 | .3590  | .4627 | -.0005 | .0020  | .0055  |
| 4    | .00   | 1.3671 | .3610  | .4605 | -.0015 | .0020  | .0050  |
| 5    | .00   | 1.2618 | -.0178 | .7402 | .0045  | .0065  | -.0035 |
| 6    | -8.00 | .5857  | -.0563 | .7257 | .0056  | .0075  | .0000  |
| 7    | -4.05 | .9324  | -.0425 | .7304 | .0075  | .0066  | -.0054 |
| 8    | -.04  | 1.2606 | -.0170 | .7315 | .0047  | .0065  | -.0014 |
| 9    | 2.51  | 1.4053 | .0005  | .7293 | .0027  | .0066  | -.0064 |
| 10   | 4.92  | 1.2373 | .0485  | .4503 | -.0012 | -.0228 | .0009  |
| 11   | 10.02 | 1.2532 | .1867  | .2644 | .0050  | .0044  | .0002  |
| 12   | 15.01 | 1.4726 | .3571  | .2593 | .0124  | -.0153 | .0254  |
| 13   | 2.43  | 1.4073 | .0022  | .7452 | .0037  | .0077  | -.0071 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 146

RUN 189 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 10 DELR      | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 574.4       | 130.80      | -509.        | 9.           | 2.           | -1.49       | 54.78 | 128.34  | 4350.  |
| 3       | .0        | .0      | 584.1       | -6.84       | -1035.       | 3.           | 52.          | .56         | 54.84 | 128.41  | 20040. |
| 4       | -8.0      | .0      | 332.0       | -33.26      | -955.        | 75.          | 73.          | -1.25       | 54.41 | 127.90  | 20070. |
| 5       | -4.0      | .0      | 470.0       | -20.86      | -1092.       | 53.          | 69.          | 1.84        | 53.82 | 127.19  | 20060. |
| 6       | -1.1      | .0      | 578.5       | -5.49       | -1009.       | 19.          | 71.          | .44         | 54.25 | 127.71  | 20120. |
| 7       | 2.4       | .0      | 629.6       | 4.85        | -896.        | 17.          | 110.         | -2.15       | 53.91 | 127.31  | 20100. |
| 8       | 5.0       | .0      | 541.7       | 28.40       | -1098.       | -50.         | -379.        | .32         | 53.78 | 127.14  | 20170. |
| 9       | 10.0      | .0      | 523.4       | 81.31       | -996.        | 57.          | -106.        | -4.44       | 53.74 | 127.09  | 20130. |
| 10      | 14.9      | .0      | 608.0       | 150.36      | -1086.       | 265.         | -287.        | 2.08        | 54.10 | 127.53  | 20230. |
| 11      | 2.5       | .0      | 577.6       | 9.26        | -1080.       | -28.         | 502.         | -22.22      | 54.73 | 128.28  | 20230. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.5524 | .3535  | -.1641 | .0005  | .0001  | -.0040 |
| 3    | .00   | 1.5786 | -.0185 | -.3337 | .0002  | .0032  | .0015  |
| 4    | -8.01 | .8973  | -.0899 | -.3078 | .0045  | .0044  | -.0034 |
| 5    | -4.04 | 1.2702 | -.0564 | -.3521 | .0032  | .0042  | .0050  |
| 6    | -.08  | 1.5634 | -.0148 | -.3254 | .0011  | .0043  | .0012  |
| 7    | 2.44  | 1.7016 | .0131  | -.2889 | .0010  | .0067  | -.0058 |
| 8    | 5.00  | 1.4640 | .0768  | -.3540 | -.0030 | -.0229 | .0009  |
| 9    | 9.98  | 1.4145 | .2198  | -.3210 | .0034  | -.0064 | -.0120 |
| 10   | 14.94 | 1.6433 | .4064  | -.3501 | .0160  | -.0173 | .0056  |
| 11   | 2.54  | 1.5610 | .0250  | -.3482 | -.0017 | .0303  | -.0601 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLH    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.5524 | .3535  | -.1641 | .0005  | .0001  | -.0040 |
| 3    | .00   | 1.5786 | -.0185 | -.3337 | .0002  | .0032  | .0015  |
| 4    | -8.01 | .8973  | -.0899 | -.3078 | .0045  | .0044  | -.0034 |
| 5    | -4.04 | 1.2702 | -.0564 | -.3521 | .0032  | .0042  | .0050  |
| 6    | -.08  | 1.5634 | -.0148 | -.3254 | .0011  | .0043  | .0012  |
| 7    | 2.44  | 1.7016 | .0131  | -.2889 | .0010  | .0067  | -.0058 |
| 8    | 5.00  | 1.4640 | .0768  | -.3540 | -.0030 | -.0229 | .0009  |
| 9    | 9.98  | 1.4145 | .2198  | -.3210 | .0034  | -.0064 | -.0120 |
| 10   | 14.94 | 1.6433 | .4064  | -.3501 | .0160  | -.0173 | .0056  |
| 11   | 2.54  | 1.5610 | .0250  | -.3482 | -.0017 | .0303  | -.0601 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 147

RUN 190 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 20 DELR      | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 595.6       | 135.71      | -1044.       | 34.          | 38.          | -1.45       | 54.02 | 127.43  | 4290.  |
| 3       | .0        | .0      | 609.7       | -5.89       | -2033.       | -19.         | 52.          | .68         | 54.73 | 128.27  | 20610. |
| 4       | -8.0      | .0      | 358.7       | -36.78      | -1939.       | 63.          | 93.          | -2.30       | 54.70 | 128.24  | 20540. |
| 5       | -3.9      | .0      | 493.0       | -23.47      | -2027.       | 57.          | 67.          | 2.44        | 54.50 | 128.00  | 20590. |
| 6       | -0.0      | .0      | 600.6       | -5.29       | -1899.       | 32.          | 73.          | -1.56       | 54.61 | 128.13  | 20540. |
| 7       | 2.5       | .0      | 588.1       | 7.72        | -1798.       | -6.          | 589.         | -21.66      | 54.88 | 128.46  | 20580. |
| 8       | 5.1       | .0      | 545.9       | 28.31       | -1716.       | -32.         | -263.        | -5.20       | 54.35 | 127.82  | 20580. |
| 9       | 10.0      | .0      | 543.3       | 86.34       | -1496.       | 111.         | 1173.        | -7.16       | 54.71 | 128.25  | 20650. |
| 10      | 15.0      | .0      | 619.5       | 148.63      | -1506.       | 316.         | -270.        | 2.97        | 53.99 | 127.38  | 20780. |
| 11      | 2.5       | .0      | 649.3       | 6.94        | -1769.       | 72.          | 108.         | -1.37       | 54.60 | 128.12  | 20830. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.6097 | .3668  | -.3365 | .0020  | .0023  | -.0039 |
| 3    | .00   | 1.6479 | -.0159 | -.6554 | -.0011 | .0032  | .0019  |
| 4    | -8.01 | .9696  | -.0994 | -.6253 | .0038  | .0056  | -.0062 |
| 5    | -3.93 | 1.3324 | -.0634 | -.6534 | .0034  | .0041  | .0066  |
| 6    | -.04  | 1.6231 | -.0143 | -.6121 | .0019  | .0044  | -.0042 |
| 7    | 2.49  | 1.5893 | .0209  | -.5798 | -.0004 | .0356  | -.0585 |
| 8    | 5.12  | 1.4754 | .0765  | -.5531 | -.0019 | -.0159 | -.0141 |
| 9    | 10.00 | 1.4683 | .2333  | -.4822 | .0067  | .0709  | -.0194 |
| 10   | 14.95 | 1.6743 | .4017  | -.4857 | .0191  | -.0163 | .0080  |
| 11   | 2.46  | 1.7549 | .0187  | -.5703 | .0044  | .0065  | -.0037 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.6097 | .3668  | -.3365 | .0020  | .0023  | -.0039 |
| 3    | .00   | 1.6479 | -.0159 | -.6554 | -.0011 | .0032  | .0019  |
| 4    | -8.01 | .9696  | -.0994 | -.6253 | .0038  | .0056  | -.0062 |
| 5    | -3.93 | 1.3324 | -.0634 | -.6534 | .0034  | .0041  | .0066  |
| 6    | -.04  | 1.6231 | -.0143 | -.6121 | .0019  | .0044  | -.0042 |
| 7    | 2.49  | 1.5893 | .0209  | -.5798 | -.0004 | .0356  | -.0585 |
| 8    | 5.12  | 1.4754 | .0765  | -.5531 | -.0019 | -.0159 | -.0141 |
| 9    | 10.00 | 1.4683 | .2333  | -.4822 | .0067  | .0709  | -.0194 |
| 10   | 14.95 | 1.6743 | .4017  | -.4857 | .0191  | -.0163 | .0080  |
| 11   | 2.46  | 1.7549 | .0187  | -.5703 | .0044  | .0065  | -.0037 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P148

RUN 191 CONF16 F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | -10 DELR     | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 517.1       | 127.63      | 980.         | 4.           | 1.           | -.43        | 55.70 | 129.43  | 4360.  |
| 3       | .0        | .0      | 485.6       | -6.37       | 1542.        | 106.         | 39.          | -3.44       | 55.50 | 129.19  | 19810. |
| 4       | -8.0      | .0      | 265.5       | -26.12      | 866.         | -36.         | 32.          | 1.94        | 54.53 | 128.03  | 19730. |
| 5       | -4.0      | .0      | 395.8       | -18.75      | 761.         | -53.         | 33.          | 1.81        | 54.49 | 127.98  | 19860. |
| 6       | .0        | .0      | 513.7       | -6.57       | 865.         | -68.         | -40.         | 3.45        | 54.25 | 127.70  | 19890. |
| 7       | 2.4       | .0      | 562.2       | 2.70        | 924.         | -85.         | -19.         | .82         | 54.19 | 127.63  | 19960. |
| 8       | 4.9       | .0      | 490.8       | 23.33       | 187.         | -172.        | -505.        | 1.89        | 53.96 | 127.35  | 19980. |
| 9       | 9.9       | .0      | 493.8       | 78.41       | 249.         | -9.          | -164.        | 4.35        | 54.04 | 127.45  | 19820. |
| 10      | 15.0      | .0      | 566.1       | 145.18      | -139.        | 184.         | -305.        | 8.04        | 54.22 | 127.66  | 19790. |
| 11      | .0        | .0      | 513.3       | 34.94       | 844.         | 75.          | -94.         | 4.10        | 54.81 | 128.37  | 19790. |
| 12      | 2.5       | .0      | 564.0       | 6.58        | 967.         | -59.         | -1.          | 1.13        | 54.34 | 127.81  | 19720. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.3976 | .3450  | .3158  | .0002  | .0000  | -.0012 |
| 3    | .00   | 1.3125 | -.0172 | .4973  | .0064  | .0024  | -.0093 |
| 4    | -7.99 | .7175  | -.0706 | .2792  | -.0022 | .0019  | .0052  |
| 5    | -4.02 | 1.0698 | -.0507 | .2452  | -.0032 | .0020  | .0049  |
| 6    | .00   | 1.3883 | -.0178 | .2790  | -.0041 | -.0024 | .0093  |
| 7    | 2.44  | 1.5195 | .0073  | .2978  | -.0051 | -.0011 | .0022  |
| 8    | 4.94  | 1.3266 | .0631  | .0602  | -.0104 | -.0305 | .0051  |
| 9    | 9.95  | 1.3345 | .2119  | .0804  | -.0006 | -.0099 | .0118  |
| 10   | 15.04 | 1.5301 | .3924  | -.0449 | .0111  | -.0184 | .0217  |
| 11   | .01   | 1.3873 | .0944  | .2721  | .0045  | -.0057 | .0111  |
| 12   | 2.46  | 1.5244 | .0178  | .3118  | -.0036 | -.0001 | .0030  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.3976 | .3450  | .3158  | .0002  | .0000  | -.0012 |
| 3    | .00   | 1.3125 | -.0172 | .4973  | .0064  | .0024  | -.0093 |
| 4    | -7.99 | .7175  | -.0706 | .2792  | -.0022 | .0019  | .0052  |
| 5    | -4.02 | 1.0698 | -.0507 | .2452  | -.0032 | .0020  | .0049  |
| 6    | .00   | 1.3883 | -.0178 | .2790  | -.0041 | -.0024 | .0093  |
| 7    | 2.44  | 1.5195 | .0073  | .2978  | -.0051 | -.0011 | .0022  |
| 8    | 4.94  | 1.3266 | .0631  | .0602  | -.0104 | -.0305 | .0051  |
| 9    | 9.95  | 1.3345 | .2119  | .0804  | -.0006 | -.0099 | .0118  |
| 10   | 15.04 | 1.5301 | .3924  | -.0449 | .0111  | -.0184 | .0217  |
| 11   | .01   | 1.3873 | .0944  | .2721  | .0045  | -.0057 | .0111  |
| 12   | 2.46  | 1.5244 | .0178  | .3118  | -.0036 | -.0001 | .0030  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P149

RUN 192 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | -20 DELR     | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 523.9       | 129.50      | 1014.        | -5.          | 17.          | .06         | 55.18 | 128.81  | 4340.  |
| 4       | -.0       | .0      | 490.8       | -7.26       | 1655.        | 123.         | 75.          | -2.39       | 54.10 | 127.52  | 20060. |
| 5       | -8.0      | .0      | 245.9       | -21.29      | 1498.        | 157.         | 132.         | -4.54       | 54.79 | 128.35  | 19880. |
| 6       | -4.0      | .0      | 373.2       | -12.85      | 1509.        | 148.         | 92.          | -2.72       | 55.11 | 128.73  | 19690. |
| 7       | .0        | .0      | 493.8       | -1.55       | 1653.        | 113.         | 38.          | -2.13       | 54.40 | 127.88  | 19610. |
| 8       | 2.5       | .0      | 543.4       | 6.87        | 1672.        | 99.          | 111.         | -3.86       | 54.64 | 128.18  | 19720. |
| 9       | 5.0       | .0      | 471.9       | 26.01       | 803.         | -20.         | -439.        | -4.36       | 54.64 | 128.17  | 19780. |
| 10      | 10.0      | .0      | 486.2       | 80.85       | 425.         | 47.          | -69.         | -3.82       | 54.37 | 127.84  | 19740. |
| 11      | 15.0      | .0      | 559.0       | 145.81      | 244.         | 285.         | -214.        | 5.99        | 54.59 | 128.10  | 19690. |
| 12      | -.0       | .0      | 492.8       | -2.11       | 1580.        | 132.         | 55.          | -1.63       | 54.40 | 127.89  | 19840. |
| 13      | 2.5       | .0      | 539.1       | 5.98        | 1632.        | 119.         | 111.         | -4.61       | 54.68 | 128.23  | 19810. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM   | CYM    | CRM    | CY     |
|------|-------|--------|--------|-------|--------|--------|--------|
| 2    | .00   | 1.4159 | .3500  | .3268 | -.0003 | .0011  | .0002  |
| 4    | -.01  | 1.3263 | -.0196 | .5335 | .0074  | .0045  | -.0065 |
| 5    | -8.00 | .6647  | -.0576 | .4831 | .0095  | .0080  | -.0123 |
| 6    | -3.98 | 1.0087 | -.0347 | .4866 | .0090  | .0056  | -.0074 |
| 7    | .04   | 1.3346 | -.0042 | .5331 | .0068  | .0023  | -.0058 |
| 8    | 2.49  | 1.4686 | .0186  | .5391 | .0059  | .0067  | -.0104 |
| 9    | 4.97  | 1.2755 | .0703  | .2589 | -.0012 | -.0265 | -.0118 |
| 10   | 9.98  | 1.3141 | .2185  | .1369 | .0029  | -.0042 | -.0103 |
| 11   | 14.97 | 1.5107 | .3941  | .0786 | .0172  | -.0129 | .0162  |
| 12   | -.02  | 1.3320 | -.0057 | .5094 | .0080  | .0034  | -.0044 |
| 13   | 2.47  | 1.4570 | .0162  | .5262 | .0072  | .0067  | -.0125 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB  | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|-------|--------|--------|--------|
| 2    | .00   | 1.4159 | .3500  | .3268 | -.0003 | .0011  | .0002  |
| 4    | -.01  | 1.3263 | -.0196 | .5335 | .0074  | .0045  | -.0065 |
| 5    | -8.00 | .6647  | -.0576 | .4831 | .0095  | .0080  | -.0123 |
| 6    | -3.98 | 1.0087 | -.0347 | .4866 | .0090  | .0056  | -.0074 |
| 7    | .04   | 1.3346 | -.0042 | .5331 | .0068  | .0023  | -.0058 |
| 8    | 2.49  | 1.4686 | .0186  | .5391 | .0059  | .0067  | -.0104 |
| 9    | 4.97  | 1.2755 | .0703  | .2589 | -.0012 | -.0265 | -.0118 |
| 10   | 9.98  | 1.3141 | .2185  | .1369 | .0029  | -.0042 | -.0103 |
| 11   | 14.97 | 1.5107 | .3941  | .0786 | .0172  | -.0129 | .0162  |
| 12   | -.02  | 1.3320 | -.0057 | .5094 | .0080  | .0034  | -.0044 |
| 13   | 2.47  | 1.4570 | .0162  | .5262 | .0072  | .0067  | -.0125 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 150

RUN 193 CONFIG F F B W5 NP1 T BT

| PT. NO. | IW ALPHA DEG | 15 DELF PSI DEG | 30 DELA CLBAR SQ-FT | 0 IHT CDBAR SQ-FT | 0 DELE CPMBAR CU-FT | -20 DELR CRMBAR CU-FT | 0 DELSB CYBAR SQ-FT | 0 Q PSF | 0 V KNOTS | RPM    |        |
|---------|--------------|-----------------|---------------------|-------------------|---------------------|-----------------------|---------------------|---------|-----------|--------|--------|
| 2       | .0           | .0              | 503.8               | 132.31            | 1472.               | 4.                    | 35.                 | 1.21    | 53.60     | 126.93 | 4260.  |
| 3       | .0           | .0              | 501.3               | 131.72            | 1468.               | 1.                    | 34.                 | 1.06    | 54.55     | 128.07 | 4290.  |
| 4       | .0           | .0              | 459.2               | -7.07             | 2681.               | 173.                  | 111.                | -2.71   | 53.99     | 127.40 | 20550. |
| 6       | -8.0         | .0              | 212.9               | -19.93            | 2405.               | 177.                  | 146.                | -2.25   | 54.59     | 128.12 | 20570. |
| 7       | -4.0         | .0              | 338.7               | -14.03            | 2497.               | 190.                  | 165.                | -3.92   | 54.72     | 128.28 | 20540. |
| 8       | .0           | .0              | 458.8               | -4.25             | 2620.               | 133.                  | 75.                 | -3.47   | 54.94     | 128.53 | 20670. |
| 9       | 2.5          | .0              | 514.7               | 2.62              | 2643.               | 106.                  | 128.                | -3.98   | 54.75     | 128.31 | 20700. |
| 10      | 5.1          | .0              | 448.7               | 21.42             | 1560.               | -32.                  | -295.               | -3.21   | 55.27     | 128.92 | 20650. |
| 11      | 10.0         | .0              | 460.7               | 68.53             | 822.                | 163.                  | -35.                | .68     | 55.30     | 128.96 | 20730. |
| 12      | 15.0         | .0              | 552.7               | 137.50            | 750.                | 260.                  | -246.               | 4.07    | 55.26     | 128.91 | 20800. |
| 13      | .0           | .0              | 361.1               | -8.61             | 1607.               | 93.                   | 36.                 | -.44    | 54.53     | 128.05 | 20830. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM   | CYM    | CRM    | CY     |
|------|-------|--------|--------|-------|--------|--------|--------|
| 2    | .00   | 1.3617 | .3576  | .4746 | .0003  | .0021  | .0033  |
| 3    | .00   | 1.3549 | .3560  | .4732 | .0001  | .0021  | .0029  |
| 4    | .00   | 1.2410 | -.0191 | .8644 | .0104  | .0067  | -.0073 |
| 6    | -8.03 | .5753  | -.0539 | .7753 | .0107  | .0088  | -.0061 |
| 7    | -4.04 | .9154  | -.0379 | .8050 | .0115  | .0100  | -.0106 |
| 8    | .03   | 1.2401 | -.0115 | .8447 | .0080  | .0045  | -.0094 |
| 9    | 2.52  | 1.3910 | .0071  | .8521 | .0064  | .0077  | -.0108 |
| 10   | 5.09  | 1.2128 | .0579  | .5029 | -.0020 | -.0178 | -.0087 |
| 11   | 10.05 | 1.2452 | .1852  | .2651 | .0098  | -.0021 | .0018  |
| 12   | 15.04 | 1.4937 | .3716  | .2418 | .0157  | -.0149 | .0110  |
| 13   | .01   | .9758  | -.0233 | .5181 | .0056  | .0022  | -.0012 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB  | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|-------|--------|--------|--------|
| 2    | .00   | 1.3617 | .3576  | .4746 | .0003  | .0021  | .0033  |
| 3    | .00   | 1.3549 | .3560  | .4732 | .0001  | .0021  | .0029  |
| 4    | .00   | 1.2410 | -.0191 | .8644 | .0104  | .0067  | -.0073 |
| 6    | -8.03 | .5753  | -.0539 | .7753 | .0107  | .0088  | -.0061 |
| 7    | -4.04 | .9154  | -.0379 | .8050 | .0115  | .0100  | -.0106 |
| 8    | .03   | 1.2401 | -.0115 | .8447 | .0080  | .0045  | -.0094 |
| 9    | 2.52  | 1.3910 | .0071  | .8521 | .0064  | .0077  | -.0108 |
| 10   | 5.09  | 1.2128 | .0579  | .5029 | -.0020 | -.0178 | -.0087 |
| 11   | 10.05 | 1.2452 | .1852  | .2651 | .0098  | -.0021 | .0018  |
| 12   | 15.04 | 1.4937 | .3716  | .2418 | .0157  | -.0149 | .0110  |
| 13   | .01   | .9758  | -.0233 | .5181 | .0056  | .0022  | -.0012 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 151

RUN 194 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | .30 DELA | 0 IHT       | 0 DELE      | -20 DELR     | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0       | 510.5       | 134.43      | 1478.        | 10.          | 36.          | -.37        | 54.81 | 128.38  | 0.     |
| 3       | .0        | .0       | 460.1       | -6.27       | 2657.        | 154.         | 110.         | -2.21       | 54.01 | 127.43  | 20540. |
| 4       | 15.0      | .0       | 548.7       | 134.41      | 739.         | 265.         | -177.        | 4.39        | 55.08 | 128.70  | 20630. |
| 5       | -.0       | .0       | 418.6       | -6.90       | 1749.        | 10.          | 522.         | -21.03      | 54.75 | 128.31  | 20650. |
| 6       | -.0       | .0       | 461.4       | -4.91       | 2637.        | 121.         | 92.          | -2.14       | 54.17 | 127.61  | 20700. |
| 7       | -.0       | .0       | 458.4       | -4.30       | 2630.        | 117.         | 70.          | .81         | 54.75 | 128.31  | 20840. |
| 8       | .0        | .0       | 356.1       | -8.61       | 1568.        | 104.         | 11.          | 4.82        | 55.10 | 128.73  | 20820. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM   | CYM   | CRM    | CY     |
|------|-------|--------|--------|-------|-------|--------|--------|
| 2    | .00   | 1.3798 | .3633  | .4765 | .0006 | .0022  | -.0010 |
| 3    | .00   | 1.2436 | -.0170 | .8566 | .0093 | .0067  | -.0060 |
| 4    | 15.00 | 1.4829 | .3633  | .2383 | .0160 | -.0107 | .0119  |
| 5    | -.01  | 1.1313 | -.0187 | .5639 | .0006 | .0315  | -.0568 |
| 6    | -.00  | 1.2470 | -.0133 | .8501 | .0073 | .0056  | -.0058 |
| 7    | -.04  | 1.2389 | -.0116 | .8478 | .0071 | .0042  | .0022  |
| 8    | .02   | .9625  | -.0233 | .5056 | .0063 | .0007  | .0130  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB  | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|-------|-------|--------|--------|
| 2    | .00   | 1.3798 | .3633  | .4765 | .0006 | .0022  | -.0010 |
| 3    | .00   | 1.2436 | -.0170 | .8566 | .0093 | .0067  | -.0060 |
| 4    | 15.00 | 1.4829 | .3633  | .2383 | .0160 | -.0107 | .0119  |
| 5    | -.01  | 1.1313 | -.0187 | .5639 | .0006 | .0315  | -.0568 |
| 6    | -.00  | 1.2470 | -.0133 | .8501 | .0073 | .0056  | -.0058 |
| 7    | -.04  | 1.2389 | -.0116 | .8478 | .0071 | .0042  | .0022  |
| 8    | .02   | .9625  | -.0233 | .5056 | .0063 | .0007  | .0130  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 152

RUN 195 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 10 DELSB     | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 6       | .0        | .0      | 555.6       | 130.08      | 229.         | 303.         | 12.          | -9.10       | 54.67 | 128.21  | 4310.  |
| 7       | .0        | .0      | 541.8       | -6.53       | 138.         | 376.         | 47.          | -9.15       | 55.10 | 128.73  | 19570. |
| 8       | .0        | -15.0   | 437.4       | 12.92       | 666.         | 1297.        | -354.        | -117.23     | 55.39 | 129.06  | 19540. |
| 9       | .0        | -10.0   | 460.7       | 1.85        | 492.         | 725.         | -373.        | -63.09      | 54.91 | 128.50  | 19580. |
| 10      | .0        | -5.0    | 470.7       | -2.18       | 243.         | 413.         | -530.        | -18.27      | 54.83 | 128.40  | 19500. |
| 11      | .0        | -2.5    | 476.5       | -1.48       | 97.          | 399.         | -475.        | .06         | 54.63 | 128.17  | 19570. |
| 12      | .0        | .0      | 476.0       | -.71        | -34.         | 366.         | -426.        | 16.47       | 55.01 | 128.61  | 19530. |
| 13      | .0        | 2.5     | 482.0       | -1.87       | -216.        | 329.         | -357.        | 32.08       | 55.11 | 128.73  | 19640. |
| 14      | .0        | 5.0     | 528.3       | -3.02       | 40.          | 226.         | 167.         | 26.28       | 55.23 | 128.88  | 19610. |
| 15      | .0        | 10.0    | 458.1       | .60         | 299.         | -192.        | 471.         | 53.68       | 55.09 | 128.71  | 19540. |
| 16      | .0        | 15.0    | 437.1       | 8.99        | 332.         | -192.        | 449.         | 107.00      | 54.73 | 128.28  | 19560. |
| 17      | .0        | .0      | 491.2       | -.12        | -262.        | 305.         | 497.         | -28.27      | 54.59 | 128.11  | 19590. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | 1.5016 | .3516  | .0740  | .0183  | .0007  | -.0246 |
| 7    | .00    | 1.4643 | -.0177 | .0444  | .0227  | .0028  | -.0247 |
| 8    | -15.00 | 1.1822 | .0349  | .2146  | .0783  | -.0214 | -.3168 |
| 9    | -10.00 | 1.2452 | .0050  | .1586  | .0438  | -.0225 | -.1705 |
| 10   | -5.00  | 1.2722 | -.0059 | .0785  | .0250  | -.0320 | -.0494 |
| 11   | -2.50  | 1.2878 | -.0040 | .0313  | .0241  | -.0287 | .0002  |
| 12   | .00    | 1.2866 | -.0019 | -.0110 | .0221  | -.0257 | .0445  |
| 13   | 2.50   | 1.3027 | -.0051 | -.0698 | .0199  | -.0216 | .0867  |
| 14   | 5.00   | 1.4278 | -.0082 | .0128  | .0136  | .0101  | .0710  |
| 15   | 10.00  | 1.2380 | .0016  | .0965  | -.0116 | .0284  | .1451  |
| 16   | 15.00  | 1.1812 | .0243  | .1070  | -.0463 | .0271  | .2892  |
| 17   | .00    | 1.3276 | -.0003 | -.0843 | .0184  | .0300  | -.0764 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | 1.5016 | .3516  | .0740  | .0183  | .0007  | -.0246 |
| 7    | .00    | 1.4643 | -.0177 | .0444  | .0227  | .0028  | -.0247 |
| 8    | -15.00 | 1.1822 | -.0487 | .2369  | .0783  | -.0311 | -.3150 |
| 9    | -10.00 | 1.2452 | -.0248 | .1771  | .0438  | -.0274 | -.1688 |
| 10   | -5.00  | 1.2722 | -.0102 | .0931  | .0250  | -.0332 | -.0487 |
| 11   | -2.50  | 1.2878 | -.0040 | .0379  | .0241  | -.0289 | .0003  |
| 12   | .00    | 1.2866 | -.0019 | -.0110 | .0221  | -.0257 | .0445  |
| 13   | 2.50   | 1.3027 | -.0089 | -.0748 | .0199  | -.0221 | .0864  |
| 14   | 5.00   | 1.4278 | -.0143 | .0174  | .0136  | .0103  | .0700  |
| 15   | 10.00  | 1.2380 | -.0237 | .1215  | -.0116 | .0312  | .1431  |
| 16   | 15.00  | 1.1812 | -.0517 | .1409  | -.0463 | .0314  | .2856  |
| 17   | .00    | 1.3276 | -.0003 | -.0843 | .0184  | .0300  | -.0764 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 153

RUN 196 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 20 DELSB     | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 550.0       | 129.76      | 287.         | 620.         | 3.           | -16.36      | 55.39 | 129.07  | 4330.  |
| 3       | .0        | .0      | 545.5       | -7.07       | 229.         | 719.         | 60.          | -19.03      | 54.42 | 127.92  | 19800. |
| 4       | .0        | -15.0   | 440.0       | 12.87       | 677.         | 1587.        | -321.        | -125.98     | 55.48 | 129.19  | 19850. |
| 5       | .0        | -10.0   | 462.7       | .56         | 528.         | 1047.        | -375.        | -74.20      | 54.95 | 128.55  | 19800. |
| 6       | .0        | -5.0    | 466.5       | -3.66       | 283.         | 708.         | -441.        | -27.41      | 55.55 | 129.26  | 19820. |
| 7       | .0        | -2.5    | 472.2       | -3.74       | 171.         | 725.         | -531.        | -9.11       | 54.97 | 128.57  | 19780. |
| 8       | .0        | .0      | 471.0       | -4.04       | 36.          | 673.         | -450.        | 8.76        | 55.21 | 128.85  | 19800. |
| 9       | .0        | 2.5     | 479.8       | -3.87       | -86.         | 589.         | -326.        | 22.47       | 55.48 | 129.18  | 19780. |
| 10      | .0        | 5.0     | 528.4       | -5.49       | 156.         | 504.         | 122.         | 20.29       | 55.23 | 128.87  | 19820. |
| 11      | .0        | 10.0    | 459.9       | -2.51       | 366.         | 98.          | 421.         | 47.49       | 55.38 | 129.05  | 19820. |
| 12      | .0        | 15.0    | 433.8       | 5.14        | 433.         | -480.        | 467.         | 100.89      | 55.27 | 128.92  | 19820. |
| 13      | .0        | .0      | 489.8       | -1.57       | -182.        | 626.         | 450.         | -36.02      | 55.13 | 128.76  | 19820. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.4865 | .3507  | .0926  | .0375  | .0002  | -.0442 |
| 3    | .00    | 1.4742 | -.0191 | .0738  | .0434  | .0036  | -.0514 |
| 4    | -15.00 | 1.1892 | .0348  | .2184  | .0959  | -.0194 | -.3405 |
| 5    | -10.00 | 1.2505 | .0015  | .1702  | .0632  | -.0227 | -.2005 |
| 6    | -5.00  | 1.2607 | -.0099 | .0911  | .0428  | -.0266 | -.0741 |
| 7    | -2.50  | 1.2761 | -.0101 | .0551  | .0438  | -.0321 | -.0246 |
| 8    | .00    | 1.2729 | -.0109 | .0116  | .0407  | -.0272 | .0237  |
| 9    | 2.50   | 1.2968 | -.0105 | -.0278 | .0356  | -.0197 | .0607  |
| 10   | 5.00   | 1.4281 | -.0148 | .0503  | .0304  | .0074  | .0548  |
| 11   | 10.00  | 1.2431 | -.0068 | .1179  | .0059  | .0254  | .1283  |
| 12   | 15.00  | 1.1723 | .0139  | .1396  | -.0290 | .0282  | .2727  |
| 13   | .00    | 1.3238 | -.0042 | -.0588 | .0378  | .0272  | -.0974 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.4865 | .3507  | .0926  | .0375  | .0002  | -.0442 |
| 3    | .00    | 1.4742 | -.0191 | .0738  | .0434  | .0036  | -.0514 |
| 4    | -15.00 | 1.1892 | -.0549 | .2377  | .0959  | -.0294 | -.3378 |
| 5    | -10.00 | 1.2505 | -.0335 | .1887  | .0632  | -.0279 | -.1977 |
| 6    | -5.00  | 1.2607 | -.0163 | .1032  | .0428  | -.0280 | -.0729 |
| 7    | -2.50  | 1.2761 | -.0112 | .0625  | .0438  | -.0325 | -.0242 |
| 8    | .00    | 1.2729 | -.0109 | .0116  | .0407  | -.0272 | .0237  |
| 9    | 2.50   | 1.2968 | -.0131 | -.0323 | .0356  | -.0199 | .0602  |
| 10   | 5.00   | 1.4281 | -.0196 | .0535  | .0304  | .0082  | .0533  |
| 11   | 10.00  | 1.2431 | -.0291 | .1397  | .0059  | .0289  | .1252  |
| 12   | 15.00  | 1.1723 | -.0575 | .1739  | -.0290 | .0340  | .2669  |
| 13   | .00    | 1.3238 | -.0042 | -.0588 | .0378  | .0272  | -.0974 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

P 154

RUN 197 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR        | -10 DELSB    | 0             |             |       |         |        |
|---------|-----------|---------|-------------|-------------|---------------|--------------|---------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 555.4       | 128.87      | 223.          | -212.        | 63.           | 6.05        | 55.16 | 128.78  | 4320.  |
| 3       | .0        | .0      | 540.3       | -6.80       | 200.          | -151.        | 100.          | 4.07        | 55.26 | 128.92  | 19710. |
| 4       | .0        | -15.0   | 436.1       | 7.16        | 785.          | 747.         | -292.         | -103.60     | 54.91 | 128.49  | 19690. |
| 5       | .0        | -10.0   | 463.7       | -1.68       | 586.          | 188.         | -300.         | -50.17      | 54.87 | 128.44  | 19690. |
| 6       | .0        | -5.0    | 470.2       | -5.41       | 262.          | -74.         | -442.         | -4.16       | 54.86 | 128.44  | 19720. |
| 7       | .0        | .0      | 476.3       | -4.02       | -23.          | -99.         | -406.         | 29.30       | 55.11 | 128.73  | 19700. |
| 8       | .0        | 2.5     | 489.6       | -3.08       | -151.         | -113.        | -304.         | 43.22       | 54.62 | 128.15  | 19720. |
| 9       | .0        | 5.0     | 535.6       | -2.51       | 96.           | -263.        | 183.          | 39.58       | 55.25 | 128.90  | 19700. |
| 10      | .0        | 10.0    | 463.6       | .30         | 238.          | -670.        | 558.          | 67.95       | 54.89 | 128.48  | 19710. |
| 11      | .0        | 15.0    | 441.7       | 9.20        | 289.          | -1200.       | 525.          | 118.84      | 55.24 | 128.88  | 19780. |
| 12      | .0        | -2.5    | 499.5       | -1.18       | -279.         | -172.        | 472.          | -31.70      | 54.80 | 128.37  | 19750. |
| 13      | .0        | .0      | 491.2       | -1.55       | -232.         | -232.        | 582.          | -14.25      | 54.98 | 128.58  | 19730. |

## \*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.5010 | .3483  | .0720  | -.0128 | .0038  | .0164  |
| 3    | .00    | 1.4603 | -.0184 | .0645  | -.0091 | .0060  | .0110  |
| 4    | -15.00 | 1.1787 | .0194  | .2531  | .0451  | -.0176 | -.2800 |
| 5    | -10.00 | 1.2532 | -.0045 | .1890  | .0113  | -.0181 | -.1356 |
| 6    | -5.00  | 1.2708 | -.0146 | .0844  | -.0045 | -.0267 | -.0112 |
| 7    | .00    | 1.2874 | -.0109 | -.0075 | -.0060 | -.0245 | .0792  |
| 8    | 2.50   | 1.3233 | -.0083 | -.0487 | -.0068 | -.0184 | .1168  |
| 9    | 5.00   | 1.4475 | -.0068 | .0308  | -.0159 | .0111  | .1070  |
| 10   | 10.00  | 1.2529 | .0008  | .0767  | -.0405 | .0337  | .1836  |
| 11   | 15.00  | 1.1938 | .0249  | .0931  | -.0725 | .0317  | .3212  |
| 12   | -2.50  | 1.3500 | -.0032 | -.0900 | -.0104 | .0285  | -.0857 |
| 13   | .00    | 1.3275 | -.0042 | -.0748 | -.0140 | .0352  | -.0385 |

## \*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.5010 | .3483  | .0720  | -.0128 | .0038  | .0164  |
| 3    | .00    | 1.4603 | -.0184 | .0645  | -.0091 | .0060  | .0110  |
| 4    | -15.00 | 1.1787 | -.0541 | .2688  | .0451  | -.0293 | -.2754 |
| 5    | -10.00 | 1.2532 | -.0281 | .2030  | .0113  | -.0240 | -.1327 |
| 6    | -5.00  | 1.2708 | -.0155 | .0966  | -.0045 | -.0280 | -.0099 |
| 7    | .00    | 1.2874 | -.0109 | -.0075 | -.0060 | -.0245 | .0792  |
| 8    | 2.50   | 1.3233 | -.0134 | -.0529 | -.0068 | -.0187 | .1163  |
| 9    | 5.00   | 1.4475 | -.0161 | .0359  | -.0159 | .0115  | .1060  |
| 10   | 10.00  | 1.2529 | -.0312 | .1069  | -.0405 | .0357  | .1810  |
| 11   | 15.00  | 1.1938 | -.0595 | .1339  | -.0725 | .0352  | .3166  |
| 12   | -2.50  | 1.3500 | -.0070 | -.0966 | -.0104 | .0292  | -.0855 |
| 13   | .00    | 1.3275 | -.0042 | -.0748 | -.0140 | .0352  | -.0385 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 155

RUN 198 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | -20 DELSB    | 0            |             |       |         |        |  |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|--|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CRMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |  |
| 2       | .0        | .0      | 551.1       | 128.98      | 252.         | -447.        | 56.          | 11.44       | 55.07 | 128.68  | 4310.  |  |
| 3       | .0        | .0      | 542.0       | -7.03       | 247.         | -394.        | 92.          | 10.47       | 55.00 | 128.61  | 19860. |  |
| 4       | .0        | -15.0   | 434.4       | 4.96        | 826.         | 470.         | -279.        | -96.51      | 55.31 | 128.97  | 19840. |  |
| 5       | .0        | -10.1   | 459.6       | -4.92       | 646.         | -17.         | -365.        | -43.33      | 54.80 | 128.36  | 19820. |  |
| 6       | .0        | -5.0    | 469.8       | -5.39       | 307.         | -295.        | -442.        | .92         | 55.42 | 129.10  | 19860. |  |
| 7       | .0        | -2.5    | 474.3       | -4.08       | 146.         | -347.        | -441.        | 19.01       | 55.20 | 128.85  | 19840. |  |
| 8       | .0        | .0      | 478.1       | -4.20       | 12.          | -326.        | -413.        | 35.09       | 55.14 | 128.76  | 19900. |  |
| 9       | .0        | 2.5     | 480.7       | -3.94       | -117.        | -361.        | -323.        | 48.27       | 55.68 | 129.41  | 19950. |  |
| 10      | .0        | 5.0     | 480.2       | -3.47       | 56.          | -528.        | 512.         | 26.66       | 55.45 | 129.13  | 19920. |  |
| 11      | .0        | 10.0    | 461.9       | -.62        | 280.         | -967.        | 525.         | 75.02       | 55.35 | 129.01  | 19850. |  |
| 12      | .0        | 15.0    | 433.2       | 9.70        | 289.         | -1457.       | 595.         | 123.96      | 55.32 | 128.98  | 19870. |  |
| 13      | .0        | .0      | 487.2       | -3.46       | -169.        | -473.        | 518.         | -8.42       | 55.41 | 129.09  | 19950. |  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.4894 | .3486  | .0812  | -.0270 | .0034  | .0309  |
| 3    | .00    | 1.4647 | -.0190 | .0796  | -.0238 | .0056  | .0283  |
| 4    | -15.00 | 1.1741 | .0134  | .2662  | .0284  | -.0168 | -.2608 |
| 5    | -10.10 | 1.2421 | -.0133 | .2082  | -.0010 | -.0220 | -.1171 |
| 6    | -5.00  | 1.2696 | -.0146 | .0989  | -.0178 | -.0267 | .0025  |
| 7    | -2.50  | 1.2820 | -.0110 | .0469  | -.0210 | -.0266 | .0514  |
| 8    | .00    | 1.2920 | -.0114 | .0038  | -.0197 | -.0250 | .0948  |
| 9    | 2.50   | 1.2992 | -.0107 | -.0378 | -.0218 | -.0195 | .1304  |
| 10   | 5.00   | 1.2977 | -.0094 | .0180  | -.0319 | .0310  | .0721  |
| 11   | 10.00  | 1.2483 | -.0017 | .0902  | -.0584 | .0317  | .2028  |
| 12   | 15.00  | 1.1707 | .0262  | .0931  | -.0880 | .0360  | .3350  |
| 13   | .00    | 1.3166 | -.0093 | -.0545 | -.0286 | .0313  | -.0228 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.4894 | .3486  | .0812  | -.0270 | .0034  | .0309  |
| 3    | .00    | 1.4647 | -.0190 | .0796  | -.0238 | .0056  | .0283  |
| 4    | -15.00 | 1.1741 | -.0549 | .2804  | .0284  | -.0292 | -.2554 |
| 5    | -10.10 | 1.2421 | -.0337 | .2256  | -.0010 | -.0286 | -.1129 |
| 6    | -5.00  | 1.2696 | -.0143 | .1110  | -.0178 | -.0282 | .0038  |
| 7    | -2.50  | 1.2820 | -.0088 | .0531  | -.0210 | -.0270 | .0518  |
| 8    | .00    | 1.2920 | -.0114 | .0038  | -.0197 | -.0250 | .0948  |
| 9    | 2.50   | 1.2992 | -.0164 | -.0423 | -.0218 | -.0198 | .1299  |
| 10   | 5.00   | 1.2977 | -.0156 | .0324  | -.0319 | .0311  | .0710  |
| 11   | 10.00  | 1.2483 | -.0370 | .1183  | -.0584 | .0342  | .1994  |
| 12   | 15.00  | 1.1707 | -.0618 | .1398  | -.0880 | .0393  | .3303  |
| 13   | .00    | 1.3166 | -.0093 | -.0545 | -.0286 | .0313  | -.0228 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 156

RUN 199 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR        | 0 DELSB     | 0             | 0           | 0     | RPM     |        |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 2       | .0        | .0      | 553.0       | 127.64      | 220.          | 39.         | 55.           | -2.03       | 55.30 | 128.96  | 4310.  |
| 3       | .0        | .0      | 543.0       | -7.17       | 238.          | 123.        | 92.           | -3.28       | 55.02 | 128.62  | 20030. |
| 4       | .0        | .0      | 541.7       | -6.88       | 252.          | 119.        | 128.          | -4.19       | 55.32 | 128.99  | 20120. |
| 5       | .0        | -15.0   | 437.3       | 6.04        | 724.          | 978.        | -275.         | -109.54     | 55.48 | 129.17  | 20210. |
| 6       | .0        | -10.0   | 459.2       | -6.69       | 624.          | 437.        | -311.         | -56.83      | 54.97 | 128.56  | 20290. |
| 7       | .0        | -5.0    | 466.9       | -9.78       | 286.          | 166.        | -465.         | -10.42      | 55.27 | 128.92  | 20270. |
| 8       | .0        | -2.5    | 472.5       | -9.25       | 83.           | 146.        | -463.         | 8.89        | 55.18 | 128.82  | 20350. |
| 9       | .0        | .0      | 476.8       | -9.29       | -44.          | 112.        | -398.         | 23.91       | 55.27 | 128.92  | 20300. |
| 10      | .0        | 2.5     | 486.7       | -9.58       | -85.          | 130.        | -331.         | 37.46       | 54.75 | 128.30  | 20360. |
| 11      | .0        | 5.0     | 478.1       | -11.65      | 27.           | -20.        | 583.          | 14.42       | 55.28 | 128.93  | 20370. |
| 12      | .0        | 10.0    | 463.3       | -6.81       | 266.          | -407.       | 524.          | 61.18       | 55.34 | 129.01  | 20350. |
| 13      | .0        | 15.0    | 434.8       | 2.66        | 380.          | -1041.      | 536.          | 114.03      | 55.32 | 128.98  | 20370. |
| 14      | .0        | .0      | 485.1       | -7.21       | -125.         | 63.         | 534.          | -22.59      | 55.63 | 129.35  | 20310. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.4945 | .3450  | .0711  | .0024  | .0033  | -.0055 |
| 3    | .00    | 1.4676 | -.0194 | .0767  | .0074  | .0056  | -.0089 |
| 4    | .00    | 1.4639 | -.0186 | .0813  | .0072  | .0077  | -.0113 |
| 5    | -15.00 | 1.1819 | .0163  | .2334  | .0590  | -.0166 | -.2961 |
| 6    | -10.00 | 1.2410 | -.0181 | .2012  | .0264  | -.0188 | -.1536 |
| 7    | -5.00  | 1.2620 | -.0264 | .0923  | .0100  | -.0281 | -.0282 |
| 8    | -2.50  | 1.2771 | -.0250 | .0268  | .0088  | -.0280 | .0240  |
| 9    | .00    | 1.2887 | -.0251 | -.0143 | .0067  | -.0241 | .0646  |
| 10   | 2.50   | 1.3154 | -.0259 | -.0275 | .0079  | -.0200 | .1012  |
| 11   | 5.00   | 1.2922 | -.0315 | .0087  | -.0012 | .0352  | .0390  |
| 12   | 10.00  | 1.2522 | -.0184 | .0858  | -.0246 | .0317  | .1654  |
| 13   | 15.00  | 1.1750 | .0072  | .1225  | -.0629 | .0324  | .3082  |
| 14   | .00    | 1.3111 | -.0195 | -.0404 | .0038  | .0322  | -.0611 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.4945 | .3450  | .0711  | .0024  | .0033  | -.0055 |
| 3    | .00    | 1.4676 | -.0194 | .0767  | .0074  | .0056  | -.0089 |
| 4    | .00    | 1.4639 | -.0186 | .0813  | .0072  | .0077  | -.0113 |
| 5    | -15.00 | 1.1819 | -.0612 | .2484  | .0590  | -.0274 | -.2901 |
| 6    | -10.00 | 1.2410 | -.0446 | .2156  | .0264  | -.0251 | -.1481 |
| 7    | -5.00  | 1.2620 | -.0288 | .1051  | .0100  | -.0295 | -.0257 |
| 8    | -2.50  | 1.2771 | -.0239 | .0333  | .0088  | -.0282 | .0251  |
| 9    | .00    | 1.2887 | -.0251 | -.0143 | .0067  | -.0241 | .0646  |
| 10   | 2.50   | 1.3154 | -.0303 | -.0321 | .0079  | -.0202 | .1000  |
| 11   | 5.00   | 1.2922 | -.0348 | .0252  | -.0012 | .0352  | .0361  |
| 12   | 10.00  | 1.2522 | -.0470 | .1140  | -.0246 | .0340  | .1596  |
| 13   | 15.00  | 1.1750 | -.0732 | .1632  | -.0629 | .0372  | .2995  |
| 14   | .00    | 1.3111 | -.0195 | -.0404 | .0038  | .0322  | -.0611 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

~~SER-72011~~  
P157

RUN 200 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | 0           | 0     |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NC. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 548.1       | 127.13      | 222.         | 49.          | 37.          | -1.71       | 55.69 | 129.41  | 4330.  |
| 3       | .0        | .0      | 542.5       | -6.63       | 221.         | 124.         | 74.          | -3.16       | 55.06 | 128.68  | 20020. |
| 4       | -8.0      | .0      | 283.5       | -29.64      | 329.         | 155.         | 111.         | -3.69       | 55.39 | 129.06  | 20050. |
| 5       | -4.0      | .0      | 420.6       | -20.94      | 176.         | 156.         | 128.         | -3.70       | 55.24 | 128.89  | 20070. |
| 6       | -.0       | .0      | 538.9       | -6.87       | 227.         | 121.         | 92.          | -3.33       | 55.32 | 128.98  | 20070. |
| 7       | 2.5       | .0      | 589.4       | 3.56        | 305.         | 94.          | 128.         | -5.02       | 55.61 | 129.32  | 20110. |
| 8       | 5.1       | .0      | 512.6       | 24.71       | -258.        | -23.         | -470.        | -3.39       | 55.30 | 128.96  | 20190. |
| 9       | 10.0      | .0      | 505.0       | 76.71       | -338.        | 143.         | -175.        | .25         | 55.48 | 129.17  | 20200. |
| 10      | 15.1      | .0      | 586.3       | 147.02      | -452.        | 279.         | -228.        | 4.54        | 55.56 | 129.26  | 20230. |
| 11      | 20.0      | .0      | 662.5       | 226.45      | -871.        | 279.         | -207.        | 7.76        | 55.74 | 129.47  | 20270. |
| 12      | -.0       | .0      | 537.5       | -7.36       | 244.         | 126.         | 91.          | -2.58       | 55.50 | 129.19  | 20240. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4814 | .3436  | .0717  | .0029  | .0022  | -.0046 |
| 3    | .00   | 1.4662 | -.0179 | .0714  | .0075  | .0045  | -.0085 |
| 4    | -8.01 | .7663  | -.0801 | .1061  | .0094  | .0067  | -.0100 |
| 5    | -3.99 | 1.1367 | -.0566 | .0569  | .0094  | .0078  | -.0100 |
| 6    | -.03  | 1.4564 | -.0186 | .0732  | .0073  | .0055  | -.0090 |
| 7    | 2.53  | 1.5929 | .0096  | .0982  | .0057  | .0077  | -.0136 |
| 8    | 5.12  | 1.3855 | .0668  | -.0830 | -.0014 | -.0284 | -.0092 |
| 9    | 10.00 | 1.3649 | .2073  | -.1089 | .0087  | -.0106 | .0007  |
| 10   | 15.08 | 1.5846 | .3974  | -.1456 | .0169  | -.0137 | .0123  |
| 11   | 20.00 | 1.7905 | .6120  | -.2806 | .0168  | -.0125 | .0210  |
| 12   | -.04  | 1.4526 | -.0199 | .0787  | .0076  | .0055  | -.0070 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4814 | .3436  | .0717  | .0029  | .0022  | -.0046 |
| 3    | .00   | 1.4662 | -.0179 | .0714  | .0075  | .0045  | -.0085 |
| 4    | -8.01 | .7663  | -.0801 | .1061  | .0094  | .0067  | -.0100 |
| 5    | -3.99 | 1.1367 | -.0566 | .0569  | .0094  | .0078  | -.0100 |
| 6    | -.03  | 1.4564 | -.0186 | .0732  | .0073  | .0055  | -.0090 |
| 7    | 2.53  | 1.5929 | .0096  | .0982  | .0057  | .0077  | -.0136 |
| 8    | 5.12  | 1.3855 | .0668  | -.0830 | -.0014 | -.0284 | -.0092 |
| 9    | 10.00 | 1.3649 | .2073  | -.1089 | .0087  | -.0106 | .0007  |
| 10   | 15.08 | 1.5846 | .3974  | -.1456 | .0169  | -.0137 | .0123  |
| 11   | 20.00 | 1.7905 | .6120  | -.2806 | .0168  | -.0125 | .0210  |
| 12   | -.04  | 1.4526 | -.0199 | .0787  | .0076  | .0055  | -.0070 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 158

RUN-201 CONFIG F P B W5 NP1 T BT L

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | 0           | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 5       | .0        | .0      | 543.0       | 133.52      | 300.         | 48.          | 20.          | -2.38       | 55.73 | 129.47  | 4330.  |
| 6       | .0        | .0      | 538.0       | -6.75       | 255.         | 120.         | 75.          | -3.40       | 55.06 | 128.67  | 20430. |
| 7       | -8.0      | .0      | 280.8       | -27.68      | 349.         | 117.         | 119.         | 2.10        | 55.11 | 128.73  | 20400. |
| 8       | -3.9      | .0      | 418.6       | -18.87      | 252.         | 118.         | 105.         | .37         | 54.99 | 128.59  | 20440. |
| 9       | .0        | .0      | 536.5       | -6.44       | 284.         | 130.         | 93.          | -3.61       | 54.70 | 128.25  | 20530. |
| 10      | 2.6       | .0      | 581.3       | 2.51        | 343.         | 81.          | 110.         | -3.11       | 54.72 | 128.28  | 20520. |
| 11      | 5.1       | .0      | 547.7       | 24.59       | -247.        | 68.          | -125.        | 2.58        | 55.36 | 129.03  | 20540. |
| 12      | 10.9      | .0      | 477.6       | 68.13       | -81.         | 197.         | -90.         | 4.86        | 55.32 | 128.97  | 20630. |
| 13      | 15.1      | .0      | 568.5       | 142.27      | -349.        | 228.         | -229.        | 5.43        | 55.18 | 128.80  | 20640. |
| 14      | .0        | .0      | 431.6       | -9.92       | -387.        | 36.          | -62.         | 7.18        | 54.56 | 128.08  | 20670. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 5    | .04   | 1.4676 | .3609  | .0966  | .0029 | .0012  | -.0064 |
| 6    | .04   | 1.4540 | -.0182 | .0821  | .0072 | .0045  | -.0092 |
| 7    | -7.98 | .7590  | -.0748 | .1124  | .0071 | .0072  | .0057  |
| 8    | -3.94 | 1.1313 | -.0510 | .0813  | .0071 | .0064  | .0010  |
| 9    | .02   | 1.4501 | -.0174 | .0915  | .0078 | .0056  | -.0098 |
| 10   | 2.56  | 1.5710 | .0068  | .1104  | .0049 | .0066  | -.0084 |
| 11   | 5.07  | 1.4802 | .0665  | -.0795 | .0041 | -.0075 | .0070  |
| 12   | 10.05 | 1.2909 | .1841  | -.0261 | .0119 | -.0055 | .0131  |
| 13   | 15.06 | 1.5365 | .3845  | -.1126 | .0138 | -.0139 | .0147  |
| 14   | .04   | 1.1665 | -.0268 | -.1247 | .0022 | -.0038 | .0194  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 5    | .04   | 1.4676 | .3609  | .0966  | .0029 | .0012  | -.0064 |
| 6    | .04   | 1.4540 | -.0182 | .0821  | .0072 | .0045  | -.0092 |
| 7    | -7.98 | .7590  | -.0748 | .1124  | .0071 | .0072  | .0057  |
| 8    | -3.94 | 1.1313 | -.0510 | .0813  | .0071 | .0064  | .0010  |
| 9    | .02   | 1.4501 | -.0174 | .0915  | .0078 | .0056  | -.0098 |
| 10   | 2.56  | 1.5710 | .0068  | .1104  | .0049 | .0066  | -.0084 |
| 11   | 5.07  | 1.4802 | .0665  | -.0795 | .0041 | -.0075 | .0070  |
| 12   | 10.05 | 1.2909 | .1841  | -.0261 | .0119 | -.0055 | .0131  |
| 13   | 15.06 | 1.5365 | .3845  | -.1126 | .0138 | -.0139 | .0147  |
| 14   | .04   | 1.1665 | -.0268 | -.1247 | .0022 | -.0038 | .0194  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 159

RUN 202 CONFIG F P B W5 NP1 T BT L

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR        | 0 DELSB      | 0            |             |       |         |   |        |
|---------|-----------|---------|-------------|-------------|---------------|--------------|--------------|-------------|-------|---------|---|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | Q KNOTS | V | RPM    |
| 2       | .0        | .0      | 543.0       | 132.84      | 290.          | 39.          | 19.          | -1.10       | 55.81 | 129.56  |   | 4300.  |
| 3       | .0        | .0      | 547.8       | 133.81      | 294.          | 45.          | 17.          | .61         | 55.39 | 129.06  |   | 4300.  |
| 4       | .0        | .0      | 545.4       | 133.54      | 296.          | 41.          | 18.          | -.83        | 55.63 | 129.34  |   | 4310.  |
| 5       | .0        | .0      | 545.5       | 133.55      | 296.          | 41.          | 18.          | -.43        | 55.62 | 129.33  |   | 4310.  |
| 6       | .0        | .0      | 531.8       | -48.91      | 106.          | 72.          | 55.          | -1.61       | 55.11 | 128.73  |   | 22900. |
| 7       | -8.0      | .0      | 272.3       | -68.41      | 232.          | 126.         | 122.         | .93         | 55.05 | 128.66  |   | 23100. |
| 8       | -4.0      | .0      | 413.9       | -58.78      | 122.          | 121.         | 86.          | 1.93        | 54.76 | 128.31  |   | 23130. |
| 9       | .0        | .0      | 528.4       | -45.15      | 147.          | 96.          | 92.          | -3.34       | 55.10 | 128.72  |   | 23080. |
| 10      | 2.5       | .0      | 579.2       | -34.32      | 216.          | 63.          | 106.         | -1.84       | 55.67 | 129.39  |   | 23080. |
| 11      | 5.0       | .0      | 532.0       | -13.05      | -432.         | 60.          | 16.          | 1.66        | 55.31 | 128.97  |   | 23130. |
| 12      | 10.0      | .0      | 482.8       | 33.23       | -159.         | 205.         | -109.        | 5.92        | 55.21 | 128.85  |   | 23090. |
| 13      | 15.0      | .0      | 570.9       | 108.25      | -418.         | 192.         | -191.        | 6.19        | 56.14 | 129.94  |   | 23180. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | 1.4677 | .3590  | .0936  | .0024 | .0011  | -.0030 |
| 3    | .00   | 1.4806 | .3616  | .0948  | .0027 | .0010  | .0017  |
| 4    | .00   | 1.4741 | .3609  | .0955  | .0025 | .0011  | -.0012 |
| 5    | .00   | 1.4743 | .3610  | .0956  | .0025 | .0011  | -.0012 |
| 6    | .00   | 1.4374 | -.1322 | .0341  | .0044 | .0033  | -.0043 |
| 7    | -8.04 | .7360  | -.1849 | .0748  | .0076 | .0073  | .0025  |
| 8    | -3.99 | 1.1186 | -.1589 | .0395  | .0073 | .0052  | .0052  |
| 9    | .02   | 1.4280 | -.1220 | .0475  | .0058 | .0056  | -.0090 |
| 10   | 2.47  | 1.5654 | -.0928 | .0697  | .0038 | .0064  | -.0050 |
| 11   | 5.00  | 1.4377 | -.0353 | -.1392 | .0036 | .0010  | .0045  |
| 12   | 10.04 | 1.3050 | .0898  | -.0514 | .0124 | -.0066 | .0160  |
| 13   | 14.98 | 1.5430 | .2926  | -.1348 | .0116 | -.0115 | .0167  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | 1.4677 | .3590  | .0936  | .0024 | .0011  | -.0030 |
| 3    | .00   | 1.4806 | .3616  | .0948  | .0027 | .0010  | .0017  |
| 4    | .00   | 1.4741 | .3609  | .0955  | .0025 | .0011  | -.0012 |
| 5    | .00   | 1.4743 | .3610  | .0956  | .0025 | .0011  | -.0012 |
| 6    | .00   | 1.4374 | -.1322 | .0341  | .0044 | .0033  | -.0043 |
| 7    | -8.04 | .7360  | -.1849 | .0748  | .0076 | .0073  | .0025  |
| 8    | -3.99 | 1.1186 | -.1589 | .0395  | .0073 | .0052  | .0052  |
| 9    | .02   | 1.4280 | -.1220 | .0475  | .0058 | .0056  | -.0090 |
| 10   | 2.47  | 1.5654 | -.0928 | .0697  | .0038 | .0064  | -.0050 |
| 11   | 5.00  | 1.4377 | -.0353 | -.1392 | .0036 | .0010  | .0045  |
| 12   | 10.04 | 1.3050 | .0898  | -.0514 | .0124 | -.0066 | .0160  |
| 13   | 14.98 | 1.5430 | .2926  | -.1348 | .0116 | -.0115 | .0167  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 160

RUN 203 CONFIG F P B W5 NP1 T BT L

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | PSI<br>DEG | 30 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|------------|---------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------|-----------------|--------|
| 2                | .0                      | .0         | 542.3                     | 133.36                  | 311.                      | 44.                       | 73.                       | -2.58                     | 55.49    | 129.17          | 4350.  |
| 3                | .0                      | .0         | 531.8                     | 44.35                   | 239.                      | -559.                     | 76.                       | 9.57                      | 54.81    | 128.37          | 22970. |
| 4                | -8.0                    | .0         | 287.4                     | 18.75                   | 379.                      | -542.                     | 183.                      | 16.54                     | 55.00    | 128.60          | 22960. |
| 5                | -4.0                    | .0         | 415.4                     | 28.71                   | 282.                      | -546.                     | 83.                       | 15.21                     | 54.88    | 128.45          | 23000. |
| 6                | .1                      | .0         | 531.5                     | 45.11                   | 268.                      | -552.                     | 112.                      | 9.07                      | 54.85    | 128.42          | 23010. |
| 7                | 2.5                     | .0         | 578.6                     | 54.72                   | 344.                      | -573.                     | 115.                      | 6.77                      | 55.39    | 129.05          | 22940. |
| 8                | 5.0                     | .0         | 495.0                     | 74.82                   | -130.                     | -619.                     | -625.                     | 7.39                      | 54.87    | 128.44          | 22950. |
| 9                | 10.0                    | .0         | 455.6                     | 123.16                  | -86.                      | -347.                     | -483.                     | 14.59                     | 55.09    | 128.70          | 23030. |
| 10               | 15.0                    | .0         | 539.9                     | 186.06                  | -315.                     | -206.                     | -457.                     | 9.48                      | 55.36    | 129.02          | 23060. |
| 11               | .0                      | .0         | 487.6                     | 47.28                   | -160.                     | -574.                     | 449.                      | -10.01                    | 55.49    | 129.17          | 23000. |
| 12               | .0                      | .0         | 530.1                     | 46.99                   | 316.                      | -545.                     | 93.                       | 8.68                      | 55.73    | 129.46          | 22970. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | .00   | 1.4656 | .3604 | .1003  | .0027  | .0044  | -.0070 |
| 3    | .00   | 1.4372 | .1199 | .0769  | -.0338 | .0046  | .0259  |
| 4    | -7.97 | .7768  | .0507 | .1221  | -.0328 | .0110  | .0447  |
| 5    | -4.00 | 1.1228 | .0776 | .0909  | -.0330 | .0050  | .0411  |
| 6    | .10   | 1.4364 | .1219 | .0864  | -.0333 | .0068  | .0245  |
| 7    | 2.47  | 1.5638 | .1479 | .1110  | -.0346 | .0069  | .0183  |
| 8    | 5.01  | 1.3378 | .2022 | -.0419 | -.0374 | -.0377 | .0200  |
| 9    | 9.99  | 1.2312 | .3329 | -.0277 | -.0210 | -.0292 | .0394  |
| 10   | 15.01 | 1.4591 | .5029 | -.1015 | -.0125 | -.0276 | .0256  |
| 11   | -.00  | 1.3180 | .1278 | -.0517 | -.0347 | .0271  | -.0270 |
| 12   | .01   | 1.4328 | .1270 | .1020  | -.0329 | .0056  | .0235  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | .00   | 1.4656 | .3604 | .1003  | .0027  | .0044  | -.0070 |
| 3    | .00   | 1.4372 | .1199 | .0769  | -.0338 | .0046  | .0259  |
| 4    | -7.97 | .7768  | .0507 | .1221  | -.0328 | .0110  | .0447  |
| 5    | -4.00 | 1.1228 | .0776 | .0909  | -.0330 | .0050  | .0411  |
| 6    | .10   | 1.4364 | .1219 | .0864  | -.0333 | .0068  | .0245  |
| 7    | 2.47  | 1.5638 | .1479 | .1110  | -.0346 | .0069  | .0183  |
| 8    | 5.01  | 1.3378 | .2022 | -.0419 | -.0374 | -.0377 | .0200  |
| 9    | 9.99  | 1.2312 | .3329 | -.0277 | -.0210 | -.0292 | .0394  |
| 10   | 15.01 | 1.4591 | .5029 | -.1015 | -.0125 | -.0276 | .0256  |
| 11   | -.00  | 1.3180 | .1278 | -.0517 | -.0347 | .0271  | -.0270 |
| 12   | .01   | 1.4328 | .1270 | .1020  | -.0329 | .0056  | .0235  |



KORSKY RSRA 1/6 SCALE MODEL TEST  
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P 161

RUN 204 CONFIG F P B W5 NPI T BT L

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>KNOTS | RPM   |
|------------------|-------------------------|-----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|----------|------------|-------|
| 2                | .0                      | .0                    | 540.6                   | 133.39                   | 304.                      | 27.                        | 56.                  | -2.00               | 54.44    | 127.92     | 4340. |
| 3                | .0                      | .0                    | 544.7                   | 118.87                   | 340.                      | 26.                        | 75.                  | -3.25               | 54.56    | 128.07     | 7500. |
| 4                | -7.9                    | .0                    | 319.6                   | 88.83                    | -35.                      | -1.                        | 32.                  | 1.86                | 54.98    | 128.56     | 7290. |
| 5                | -4.0                    | .0                    | 436.5                   | 100.97                   | 119.                      | -13.                       | 50.                  | 2.19                | 54.51    | 128.00     | 7230. |
| 6                | -.0                     | .0                    | 538.1                   | 117.15                   | 327.                      | 20.                        | 56.                  | -2.72               | 55.02    | 128.61     | 7320. |
| 7                | 2.5                     | .0                    | 591.4                   | 128.42                   | 477.                      | 37.                        | 93.                  | -4.40               | 54.98    | 128.57     | 7320. |
| 8                | 5.0                     | .0                    | 436.0                   | 144.26                   | 217.                      | 24.                        | 110.                 | -4.41               | 54.81    | 128.36     | 7170. |
| 9                | 10.0                    | .0                    | 442.7                   | 185.84                   | -34.                      | 124.                       | -108.                | 4.58                | 55.01    | 128.60     | 7330. |
| 10               | 15.0                    | .0                    | 503.7                   | 248.84                   | -310.                     | 112.                       | -161.                | 2.13                | 54.38    | 127.84     | 7260. |
| 11               | -.0                     | .0                    | 541.5                   | 118.11                   | 329.                      | 22.                        | 53.                  | -.19                | 54.73    | 128.27     | 7270. |
| 12               | 2.5                     | .0                    | 590.8                   | 128.80                   | 475.                      | 41.                        | 92.                  | -2.81               | 54.48    | 127.97     | 7220. |
| 13               | 5.0                     | .0                    | 429.7                   | 142.82                   | 230.                      | 17.                        | 202.                 | -8.00               | 54.94    | 128.51     | 7160. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | .00   | 1.4611 | .3605 | .0980  | .0016  | .0034  | -.0054 |
| 3    | .00   | 1.4721 | .3213 | .1097  | .0015  | .0045  | -.0088 |
| 4    | -7.94 | .8637  | .2401 | -.0113 | -.0001 | .0019  | .0050  |
| 5    | -4.01 | 1.1797 | .2729 | .0369  | -.0008 | .0030  | .0059  |
| 6    | -.03  | 1.4543 | .3166 | .1053  | .0012  | .0034  | -.0074 |
| 7    | 2.54  | 1.5983 | .3471 | .1538  | .0023  | .0056  | -.0119 |
| 8    | 5.03  | 1.1784 | .3899 | .0701  | .0015  | .0067  | -.0119 |
| 9    | 9.99  | 1.1964 | .5023 | -.0109 | .0075  | -.0065 | .0124  |
| 10   | 14.97 | 1.3614 | .6725 | -.1001 | .0067  | -.0097 | .0058  |
| 11   | -.05  | 1.4636 | .3192 | .1059  | .0013  | .0032  | -.0005 |
| 12   | 2.47  | 1.5967 | .3481 | .1532  | .0025  | .0056  | -.0076 |
| 13   | 4.98  | 1.1615 | .3860 | .0743  | .0010  | .0122  | -.0216 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | .00   | 1.4611 | .3605 | .0980  | .0016  | .0034  | -.0054 |
| 3    | .00   | 1.4721 | .3213 | .1097  | .0015  | .0045  | -.0088 |
| 4    | -7.94 | .8637  | .2401 | -.0113 | -.0001 | .0019  | .0050  |
| 5    | -4.01 | 1.1797 | .2729 | .0369  | -.0008 | .0030  | .0059  |
| 6    | -.03  | 1.4543 | .3166 | .1053  | .0012  | .0034  | -.0074 |
| 7    | 2.54  | 1.5983 | .3471 | .1538  | .0023  | .0056  | -.0119 |
| 8    | 5.03  | 1.1784 | .3899 | .0701  | .0015  | .0067  | -.0119 |
| 9    | 9.99  | 1.1964 | .5023 | -.0109 | .0075  | -.0065 | .0124  |
| 10   | 14.97 | 1.3614 | .6725 | -.1001 | .0067  | -.0097 | .0058  |
| 11   | -.05  | 1.4636 | .3192 | .1059  | .0013  | .0032  | -.0005 |
| 12   | 2.47  | 1.5967 | .3481 | .1532  | .0025  | .0056  | -.0076 |
| 13   | 4.98  | 1.1615 | .3860 | .0743  | .0010  | .0122  | -.0216 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 205 CONFIG F P B W5 NP1 T BT L

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI UEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |       |
| 2       | .0        | .0      | 536.9       | 132.69      | 295.         | 33.          | 21.          | -2.61       | 54.83 | 128.38  | 4330. |
| 3       | -8.0      | .0      | 319.7       | 102.77      | -25.         | -5.          | 11.          | 3.85        | 54.89 | 128.46  | 4150. |
| 4       | -3.9      | .0      | 441.1       | 116.13      | 75.          | -1.          | 30.          | 3.61        | 54.67 | 128.20  | 4240. |
| 5       | -1        | .0      | 536.4       | 132.65      | 301.         | 32.          | 39.          | -2.55       | 54.83 | 128.39  | 4330. |
| 6       | 2.5       | .0      | 582.0       | 142.47      | 463.         | 38.          | 75.          | -4.03       | 54.89 | 128.46  | 4370. |
| 7       | 5.1       | .0      | 423.8       | 158.04      | 228.         | 49.          | 112.         | -5.52       | 54.27 | 127.71  | 3990. |
| 8       | 10.0      | .0      | 410.8       | 206.16      | -159.        | 47.          | -87.         | -3.45       | 54.23 | 127.67  | 3880. |
| 9       | 15.0      | .0      | 485.3       | 260.59      | -336.        | -41.         | -70.         | -4.45       | 54.32 | 127.77  | 4020. |
| 10      | -1        | .0      | 535.0       | 132.78      | 274.         | 29.          | 19.          | -1.36       | 55.06 | 128.66  | 4330. |
| 11      | 2.6       | .0      | 587.3       | 144.13      | 463.         | 36.          | 57.          | -3.66       | 54.93 | 128.50  | 4390. |
| 12      | 3.0       | .0      | 510.0       | 146.89      | 390.         | 81.          | 903.         | -22.68      | 55.13 | 128.74  | 4080. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | .00   | 1.4511 | .3586 | .0952  | .0020  | .0013  | -.0071 |
| 3    | -8.00 | .8642  | .2778 | -.0080 | -.0003 | .0007  | .0104  |
| 4    | -3.93 | 1.1923 | .3139 | .0242  | -.0000 | .0018  | .0098  |
| 5    | -.06  | 1.4497 | .3585 | .0970  | .0019  | .0023  | -.0069 |
| 6    | 2.50  | 1.5728 | .3851 | .1493  | .0023  | .0045  | -.0109 |
| 7    | 5.10  | 1.1454 | .4271 | .0736  | .0030  | .0068  | -.0149 |
| 8    | 10.00 | 1.1102 | .5572 | -.0511 | .0029  | -.0053 | -.0093 |
| 9    | 15.03 | 1.3117 | .7043 | -.1084 | -.0025 | -.0043 | -.0120 |
| 10   | -.05  | 1.4458 | .3589 | .0884  | .0018  | .0012  | -.0037 |
| 11   | 2.58  | 1.5872 | .3895 | .1492  | .0022  | .0034  | -.0099 |
| 12   | 2.98  | 1.3783 | .3970 | .1258  | .0049  | .0546  | -.0613 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | .00   | 1.4511 | .3586 | .0952  | .0020  | .0013  | -.0071 |
| 3    | -8.00 | .8642  | .2778 | -.0080 | -.0003 | .0007  | .0104  |
| 4    | -3.93 | 1.1923 | .3139 | .0242  | -.0000 | .0018  | .0098  |
| 5    | -.06  | 1.4497 | .3585 | .0970  | .0019  | .0023  | -.0069 |
| 6    | 2.50  | 1.5728 | .3851 | .1493  | .0023  | .0045  | -.0109 |
| 7    | 5.10  | 1.1454 | .4271 | .0736  | .0030  | .0068  | -.0149 |
| 8    | 10.00 | 1.1102 | .5572 | -.0511 | .0029  | -.0053 | -.0093 |
| 9    | 15.03 | 1.3117 | .7043 | -.1084 | -.0025 | -.0043 | -.0120 |
| 10   | -.05  | 1.4458 | .3589 | .0884  | .0018  | .0012  | -.0037 |
| 11   | 2.58  | 1.5872 | .3895 | .1492  | .0022  | .0034  | -.0099 |
| 12   | 2.98  | 1.3783 | .3970 | .1258  | .0049  | .0546  | -.0613 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
 AERODYNAMIC DATA

P 163

RUN 206 CONFIG F P B W5 NP1 T BT L

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|-----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|----------|-----------------|--------|
| 6                | .0                      | .0                    | 538.6                   | 132.61                   | 318.                      | 14.                        | 54.                  | -1.16               | 55.61    | 129.32          | 4350.  |
| 7                | .0                      | .0                    | 526.5                   | -49.50                   | 163.                      | 59.                        | 104.                 | .37                 | 55.79    | 129.53          | 22930. |
| 8                | .0                      | -15.0                 | 462.6                   | -29.29                   | 637.                      | 933.                       | -83.                 | -131.71             | 55.48    | 129.16          | 23070. |
| 9                | .0                      | -10.0                 | 441.2                   | -36.42                   | 337.                      | 515.                       | -15.                 | -72.44              | 55.68    | 129.40          | 23070. |
| 10               | .0                      | -5.0                  | 463.7                   | -43.55                   | 240.                      | 71.                        | -458.                | -19.90              | 55.46    | 129.14          | 23050. |
| 11               | .0                      | .0                    | 470.1                   | -43.72                   | 6.                        | 59.                        | -400.                | 26.24               | 55.42    | 129.10          | 23000. |
| 12               | .0                      | 2.5                   | 471.8                   | -42.65                   | -158.                     | 121.                       | -369.                | 44.55               | 55.59    | 129.30          | 22960. |
| 13               | .0                      | 5.0                   | 474.9                   | -43.23                   | -295.                     | 72.                        | -120.                | 58.71               | 55.29    | 128.94          | 23020. |
| 14               | .0                      | 10.0                  | 504.9                   | -41.81                   | 143.                      | -302.                      | 194.                 | 87.61               | 55.56    | 129.26          | 23050. |
| 15               | .0                      | 15.1                  | 477.6                   | -29.02                   | 136.                      | -817.                      | 265.                 | 140.96              | 55.72    | 129.45          | 23000. |
| 16               | .0                      | .0                    | 479.6                   | -41.08                   | -177.                     | 21.                        | 443.                 | -21.10              | 55.85    | 129.60          | 23040. |
| 17               | .0                      | .0                    | 485.0                   | -39.26                   | -173.                     | 45.                        | 443.                 | -20.32              | 55.66    | 129.38          | 23010. |

## \*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | 1.4556 | .3584  | .1024  | .0009  | .0032  | -.0031 |
| 7    | .00    | 1.4230 | -.1338 | .0525  | .0036  | .0063  | .0010  |
| 8    | -15.00 | 1.2503 | -.0792 | .2054  | .0564  | -.0050 | -.3560 |
| 9    | -10.00 | 1.1923 | -.0984 | .1087  | .0311  | -.0009 | -.1958 |
| 10   | -5.00  | 1.2532 | -.1177 | .0775  | .0043  | -.0277 | -.0538 |
| 11   | .00    | 1.2705 | -.1182 | .0021  | .0036  | -.0242 | .0709  |
| 12   | 2.50   | 1.2750 | -.1153 | -.0508 | .0073  | -.0223 | .1204  |
| 13   | 5.00   | 1.2835 | -.1168 | -.0950 | .0044  | -.0073 | .1587  |
| 14   | 10.00  | 1.3645 | -.1130 | .0461  | -.0182 | .0117  | .2368  |
| 15   | 15.10  | 1.2907 | -.0784 | .0437  | -.0493 | .0160  | .3810  |
| 16   | .00    | 1.2962 | -.1110 | -.0572 | .0012  | .0268  | -.0570 |
| 17   | .00    | 1.3108 | -.1061 | -.0559 | .0027  | .0268  | -.0549 |

## \*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | 1.4556 | .3584  | .1024  | .0009  | .0032  | -.0031 |
| 7    | .00    | 1.4230 | -.1338 | .0525  | .0036  | .0063  | .0010  |
| 8    | -15.00 | 1.2503 | -.1690 | .2053  | .0564  | -.0149 | -.3232 |
| 9    | -10.00 | 1.1923 | -.1311 | .1080  | .0311  | -.0045 | -.1756 |
| 10   | -5.00  | 1.2532 | -.1220 | .0902  | .0043  | -.0288 | -.0433 |
| 11   | .00    | 1.2705 | -.1182 | .0021  | .0036  | -.0242 | .0709  |
| 12   | 2.50   | 1.2750 | -.1204 | -.0560 | .0073  | -.0227 | .1152  |
| 13   | 5.00   | 1.2835 | -.1303 | -.0981 | .0044  | -.0088 | .1478  |
| 14   | 10.00  | 1.3645 | -.1526 | .0563  | -.0182 | .0130  | .2135  |
| 15   | 15.10  | 1.2907 | -.1754 | .0645  | -.0493 | .0176  | .3472  |
| 16   | .00    | 1.2962 | -.1110 | -.0572 | .0012  | .0268  | -.0570 |
| 17   | .00    | 1.3108 | -.1061 | -.0559 | .0027  | .0268  | -.0549 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 164

RUN 207 CONFIG F P B W5 NP1 T BT L

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>DELSB<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|-----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|-------------------|-----------------|--------|
| 2                | .0                      | .0                    | 543.8                   | 134.07                   | 298.                      | 24.                        | 21.                  | -2.42               | 54.79             | 128.36          | 4310.  |
| 3                | .0                      | .0                    | 532.2                   | 44.72                    | 277.                      | -574.                      | 74.                  | 10.40               | 55.37             | 129.04          | 23040. |
| 5                | .0                      | -15.0                 | 483.8                   | 57.16                    | 634.                      | 475.                       | -109.                | -102.42             | 54.78             | 128.34          | 23020. |
| 6                | .0                      | -10.0                 | 521.2                   | 48.05                    | 446.                      | -109.                      | -38.                 | -62.32              | 54.77             | 128.33          | 23030. |
| 7                | .0                      | -5.0                  | 535.5                   | 45.72                    | 295.                      | -449.                      | 5.                   | -23.17              | 55.28             | 128.94          | 23010. |
| 8                | .0                      | -2.5                  | 536.7                   | 44.86                    | 316.                      | -492.                      | 37.                  | -5.57               | 55.01             | 128.62          | 22990. |
| 9                | .0                      | .0                    | 529.9                   | 43.27                    | 339.                      | -587.                      | 56.                  | 10.93               | 55.17             | 128.81          | 23040. |
| 10               | .0                      | 2.5                   | 524.4                   | 43.08                    | 278.                      | -629.                      | 134.                 | 28.33               | 55.06             | 128.68          | 23060. |
| 11               | .0                      | 5.0                   | 522.4                   | 42.44                    | 264.                      | -671.                      | 150.                 | 44.34               | 54.70             | 128.25          | 23050. |
| 12               | .0                      | 10.1                  | 508.4                   | 44.95                    | 181.                      | -1119.                     | 126.                 | 88.16               | 55.21             | 128.86          | 23010. |
| 13               | .0                      | 15.1                  | 480.3                   | 54.02                    | 142.                      | -1640.                     | 157.                 | 136.28              | 54.97             | 128.56          | 22980. |
| 14               | .0                      | .0                    | 533.2                   | 45.82                    | 403.                      | -571.                      | 108.                 | 11.83               | 55.01             | 128.61          | 23000. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM   | CYM    | CRM    | CY     |
|------|--------|--------|-------|-------|--------|--------|--------|
| 2    | .00    | 1.4697 | .3624 | .0962 | .0015  | .0013  | -.0066 |
| 3    | .00    | 1.4383 | .1209 | .0892 | -.0347 | .0045  | .0281  |
| 5    | -15.00 | 1.3077 | .1545 | .2043 | .0287  | -.0066 | -.2768 |
| 6    | -10.00 | 1.4087 | .1299 | .1439 | -.0066 | -.0023 | -.1684 |
| 7    | -5.00  | 1.4472 | .1236 | .0951 | -.0271 | .0003  | -.0626 |
| 8    | -2.50  | 1.4504 | .1213 | .1019 | -.0297 | .0022  | -.0151 |
| 9    | .00    | 1.4322 | .1170 | .1093 | -.0355 | .0034  | .0295  |
| 10   | 2.50   | 1.4174 | .1164 | .0895 | -.0380 | .0081  | .0766  |
| 11   | 5.00   | 1.4118 | .1147 | .0852 | -.0406 | .0090  | .1198  |
| 12   | 10.10  | 1.3740 | .1215 | .0582 | -.0676 | .0076  | .2383  |
| 13   | 15.10  | 1.2981 | .1460 | .0459 | -.0991 | .0095  | .3683  |
| 14   | .00    | 1.4410 | .1238 | .1300 | -.0345 | .0065  | .0320  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB  | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|-------|--------|--------|--------|
| 2    | .00    | 1.4697 | .3624 | .0962 | .0015  | .0013  | -.0066 |
| 3    | .00    | 1.4383 | .1209 | .0892 | -.0347 | .0045  | .0281  |
| 5    | -15.00 | 1.3077 | .0772 | .2064 | .0287  | -.0163 | -.3075 |
| 6    | -10.00 | 1.4087 | .0985 | .1438 | -.0066 | -.0069 | -.1885 |
| 7    | -5.00  | 1.4472 | .1176 | .0946 | -.0271 | -.0013 | -.0732 |
| 8    | -2.50  | 1.4504 | .1205 | .1013 | -.0297 | .0014  | -.0204 |
| 9    | .00    | 1.4322 | .1170 | .1093 | -.0355 | .0034  | .0295  |
| 10   | 2.50   | 1.4174 | .1130 | .0913 | -.0380 | .0088  | .0816  |
| 11   | 5.00   | 1.4118 | .1038 | .0891 | -.0406 | .0104  | .1294  |
| 12   | 10.10  | 1.3740 | .0776 | .0644 | -.0676 | .0094  | .2560  |
| 13   | 15.10  | 1.2981 | .0445 | .0575 | -.0991 | .0114  | .3937  |
| 14   | .00    | 1.4410 | .1238 | .1300 | -.0345 | .0065  | .0320  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 208 CONFIG F P B W5 NP1 T BT L

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM   |
|------------------|-------------------------|-----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|---------------|-----------------|-------|
| 2                | .0                      | .0                    | 541.1                   | 133.46                   | 284.                      | 18.                        | 73.                  | -2.34               | 55.39         | 129.07          | 4370. |
| 3                | .0                      | .0                    | 545.0                   | 118.90                   | 323.                      | 24.                        | 109.                 | -2.84               | 55.09         | 128.71          | 7300. |
| 4                | .0                      | -15.0                 | 497.5                   | 128.42                   | 313.                      | 949.                       | -111.                | -92.18              | 54.66         | 128.19          | 7220. |
| 5                | .0                      | -10.0                 | 529.4                   | 125.44                   | -41.                      | 645.                       | 363.                 | -66.80              | 54.92         | 128.51          | 7140. |
| 7                | .0                      | -5.0                  | 548.3                   | 122.02                   | 276.                      | 200.                       | 73.                  | -32.91              | 54.86         | 128.44          | 7150. |
| 8                | .0                      | -2.5                  | 546.7                   | 120.13                   | 308.                      | 120.                       | 90.                  | -18.60              | 55.29         | 128.95          | 7330. |
| 9                | .0                      | .0                    | 542.7                   | 119.94                   | 320.                      | 16.                        | 90.                  | -2.58               | 55.55         | 129.26          | 7150. |
| 10               | .0                      | 2.5                   | 542.6                   | 119.28                   | 288.                      | 19.                        | 240.                 | 10.46               | 55.39         | 129.06          | 7070. |
| 11               | .0                      | 5.0                   | 535.1                   | 116.47                   | 264.                      | -102.                      | 131.                 | 24.27               | 55.45         | 129.13          | 7300. |
| 12               | .0                      | 10.0                  | 517.1                   | 117.09                   | 255.                      | -454.                      | 174.                 | 58.52               | 55.24         | 128.89          | 7250. |
| 13               | .0                      | 15.1                  | 484.8                   | 122.86                   | 227.                      | -981.                      | 195.                 | 98.66               | 55.34         | 129.01          | 7170. |
| 14               | .0                      | .0                    | 547.0                   | 120.45                   | 333.                      | 21.                        | 90.                  | -1.67               | 55.16         | 128.79          | 7160. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.4624 | .3607 | .0917  | .0011  | .0044  | -.0063 |
| 3    | .00    | 1.4729 | .3213 | .1042  | .0014  | .0066  | -.0077 |
| 4    | -15.00 | 1.3445 | .3471 | .1010  | .0573  | -.0067 | -.2491 |
| 5    | -10.00 | 1.4309 | .3390 | -.0132 | .0390  | .0219  | -.1805 |
| 7    | -5.00  | 1.4820 | .3298 | .0891  | .0121  | .0044  | -.0889 |
| 8    | -2.50  | 1.4775 | .3247 | .0993  | .0072  | .0054  | -.0503 |
| 9    | .00    | 1.4669 | .3242 | .1030  | .0010  | .0055  | -.0070 |
| 10   | 2.50   | 1.4665 | .3224 | .0927  | .0012  | .0145  | .0283  |
| 11   | 5.00   | 1.4463 | .3148 | .0850  | -.0062 | .0079  | .0656  |
| 12   | 10.00  | 1.3975 | .3165 | .0821  | -.0274 | .0105  | .1582  |
| 13   | 15.10  | 1.3102 | .3321 | .0731  | -.0593 | .0118  | .2667  |
| 14   | .00    | 1.4785 | .3255 | .1073  | .0013  | .0054  | -.0045 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.4624 | .3607 | .0917  | .0011  | .0044  | -.0063 |
| 3    | .00    | 1.4729 | .3213 | .1042  | .0014  | .0066  | -.0077 |
| 4    | -15.00 | 1.3446 | .2704 | .1069  | .0573  | -.0114 | -.3308 |
| 5    | -10.00 | 1.4309 | .3023 | -.0334 | .0390  | .0220  | -.2369 |
| 7    | -5.00  | 1.4820 | .3207 | .0867  | .0121  | .0029  | -.1175 |
| 8    | -2.50  | 1.4775 | .3222 | .0979  | .0072  | .0046  | -.0645 |
| 9    | .00    | 1.4669 | .3242 | .1030  | .0010  | .0055  | -.0070 |
| 10   | 2.50   | 1.4665 | .3208 | .0960  | .0012  | .0152  | .0424  |
| 11   | 5.00   | 1.4463 | .3078 | .0883  | -.0062 | .0093  | .0929  |
| 12   | 10.00  | 1.3975 | .2840 | .0906  | -.0274 | .0130  | .2109  |
| 13   | 15.10  | 1.3102 | .2507 | .0870  | -.0593 | .0149  | .3443  |
| 14   | .00    | 1.4785 | .3255 | .1073  | .0013  | .0054  | -.0045 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 209 CONFIG F P B W5 NP1 T BT L

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |       |  |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|--|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM   |  |
| 2       | .0        | .0      | 546.5       | 134.62      | 307.         | 28.          | 56.          | -2.17       | 54.90 | 128.49  | 4330. |  |
| 3       | .0        | -15.0   | 492.9       | 141.83      | 352.         | 957.         | -118.        | -86.58      | 54.96 | 128.56  | 4180. |  |
| 5       | .0        | -5.0    | 547.7       | 137.05      | 277.         | 228.         | -2.          | -30.72      | 54.56 | 128.08  | 4310. |  |
| 6       | .0        | -2.5    | 545.7       | 135.29      | 305.         | 141.         | 33.          | -15.89      | 54.87 | 128.45  | 4340. |  |
| 7       | .0        | .0      | 547.6       | 135.17      | 292.         | 46.          | 72.          | -1.18       | 54.72 | 128.27  | 4340. |  |
| 8       | .0        | 2.5     | 540.5       | 133.37      | 261.         | -30.         | 47.          | 12.62       | 54.79 | 128.35  | 4330. |  |
| 9       | .0        | 5.0     | 537.7       | 132.07      | 238.         | -66.         | 82.          | 23.95       | 54.76 | 128.32  | 4340. |  |
| 10      | .0        | 10.0    | 514.2       | 131.52      | 261.         | -460.        | 129.         | 56.08       | 54.91 | 128.49  | 4340. |  |
| 11      | .0        | 15.1    | 487.3       | 138.03      | 275.         | -1026.       | 187.         | 96.42       | 54.66 | 128.19  | 4330. |  |
| 12      | .0        | .0      | 546.9       | 135.06      | 303.         | 37.          | 56.          | -2.19       | 54.54 | 128.05  | 4330. |  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.4771 | .3638 | .0990  | .0017  | .0034  | -.0059 |
| 3    | -15.00 | 1.3323 | .3833 | .1135  | .0578  | -.0072 | -.2340 |
| 4    | -10.00 | 1.4300 | .3880 | -.0782 | .0482  | .0379  | -.1835 |
| 5    | -5.00  | 1.4803 | .3704 | .0893  | .0138  | -.0001 | -.0830 |
| 6    | -2.50  | 1.4748 | .3656 | .0982  | .0085  | .0020  | -.0430 |
| 7    | .00    | 1.4801 | .3653 | .0942  | .0028  | .0044  | -.0032 |
| 8    | 2.50   | 1.4608 | .3604 | .0842  | -.0018 | .0028  | .0341  |
| 9    | 5.00   | 1.4533 | .3569 | .0766  | -.0040 | .0049  | .0647  |
| 10   | 10.00  | 1.3896 | .3554 | .0841  | -.0278 | .0078  | .1516  |
| 11   | 15.10  | 1.3171 | .3730 | .0886  | -.0620 | .0113  | .2606  |
| 12   | .00    | 1.4782 | .3650 | .0976  | .0022  | .0034  | -.0059 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.4771 | .3638 | .0990  | .0017  | .0034  | -.0059 |
| 3    | -15.00 | 1.3323 | .3093 | .1195  | .0578  | -.0124 | -.3256 |
| 4    | -10.00 | 1.4300 | .3501 | -.1123 | .0482  | .0399  | -.2483 |
| 5    | -5.00  | 1.4803 | .3617 | .0890  | .0138  | -.0016 | -.1151 |
| 6    | -2.50  | 1.4748 | .3634 | .0977  | .0085  | .0012  | -.0589 |
| 7    | .00    | 1.4801 | .3653 | .0942  | .0028  | .0044  | -.0032 |
| 8    | 2.50   | 1.4608 | .3586 | .0848  | -.0018 | .0035  | .0499  |
| 9    | 5.00   | 1.4533 | .3499 | .0786  | -.0040 | .0062  | .0957  |
| 10   | 10.00  | 1.3896 | .3236 | .0901  | -.0278 | .0104  | .2113  |
| 11   | 15.10  | 1.3171 | .2919 | .1014  | -.0620 | .0153  | .3491  |
| 12   | .00    | 1.4782 | .3650 | .0976  | .0022  | .0034  | -.0059 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 167

RUN 210 CONFIG F P B W5 NP1 T BT L

| IW      | 15 DELF   | 30 DELA | 0 IHT       | -9 DELE     | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 502.9       | 140.55      | 1529.        | 10.          | 55.          | -1.86       | 54.89 | 128.47  | 4340.  |
| 3       | .0        | .0      | 461.2       | -5.30       | 2353.        | 151.         | 165.         | -5.37       | 55.22 | 128.87  | 20370. |
| 4       | .0        | -15.0   | 417.1       | 13.33       |              |              |              | -119.27     | 54.66 | 128.21  | 20490. |
| 5       | -8.0      | .0      | 213.8       | -17.64      | 2310.        | 124.         | -192.        | 1.68        | 54.68 | 128.23  | 20420. |
| 6       | -4.0      | .0      | 342.7       | -12.53      | 2404.        | 130.         | 120.         | 2.49        | 54.68 | 128.22  | 20490. |
| 7       | .1        | .0      | 461.0       | -3.41       | 2445.        | 128.         | 109.         | -2.49       | 54.79 | 128.35  | 20500. |
| 8       | 2.5       | .0      | 509.9       | 2.99        | 2495.        | 99.          | 90.          | -1.49       | 54.72 | 128.27  | 20510. |
| 9       | 5.0       | .0      | 456.3       | 23.06       | 1496.        | 45.          | -510.        | -2.05       | 54.92 | 128.51  | 20390. |
| 10      | 10.0      | .0      | 442.6       | 66.75       | 1008.        | 174.         | -107.        | 2.36        | 54.93 | 128.52  | 20370. |
| 11      | 15.1      | .0      | 524.1       | 135.52      | 857.         | 201.         | -213.        | 7.69        | 54.93 | 128.51  | 20370. |
| 12      | .0        | .0      | 460.5       | -7.79       | 2380.        | 92.          | 88.          | .75         | 54.58 | 128.11  | 20410. |
| 13      | 2.5       | .0      | 476.6       | 6.74        | 2023.        | 129.         | 294.         | -24.54      | 54.41 | 127.91  | 20550. |
| 14      | 2.4       | .0      | 470.9       | 7.97        | 1963.        | 130.         | 395.         | -23.17      | 55.14 | 128.77  | 20440. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM   | CYM   | CRM    | CY     |
|------|-------|--------|--------|-------|-------|--------|--------|
| 2    | .00   | 1.3592 | .3799  | .4930 | .0006 | .0033  | -.0050 |
| 3    | .00   | 1.2465 | -.0143 | .7586 | .0091 | .0099  | -.0145 |
| 4    | .00   | 1.1274 | .0360  |       |       |        | -.3224 |
| 5    | -8.00 | .5778  | -.0477 | .7447 | .0075 | .0116  | .0045  |
| 6    | -4.05 | .9263  | -.0339 | .7751 | .0078 | .0073  | .0067  |
| 7    | .09   | 1.2460 | -.0092 | .7883 | .0077 | .0066  | -.0067 |
| 8    | 2.48  | 1.3781 | .0081  | .8043 | .0060 | .0054  | -.0040 |
| 9    | 5.01  | 1.2334 | .0623  | .4822 | .0027 | -.0308 | -.0055 |
| 10   | 10.02 | 1.1962 | .1804  | .3250 | .0105 | -.0065 | .0064  |
| 11   | 15.07 | 1.4164 | .3663  | .2764 | .0121 | -.0129 | .0208  |
| 12   | .01   | 1.2445 | -.0021 | .7673 | .0055 | .0053  | .0020  |
| 13   | 2.52  | 1.2881 | .0182  | .6523 | .0078 | .0178  | -.0663 |
| 14   | 2.41  | 1.2727 | .0215  | .6328 | .0078 | .0238  | -.0626 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB  | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|-------|-------|--------|--------|
| 2    | .00   | 1.3592 | .3799  | .4930 | .0006 | .0033  | -.0050 |
| 3    | .00   | 1.2465 | -.0143 | .7586 | .0091 | .0099  | -.0145 |
| 4    | .00   | 1.1274 | -.0490 |       |       |        | -.3206 |
| 5    | -8.00 | .5778  | -.0477 | .7447 | .0075 | .0116  | .0045  |
| 6    | -4.05 | .9263  | -.0339 | .7751 | .0078 | .0073  | .0067  |
| 7    | .09   | 1.2460 | -.0092 | .7883 | .0077 | .0066  | -.0067 |
| 8    | 2.48  | 1.3781 | .0081  | .8043 | .0060 | .0054  | -.0040 |
| 9    | 5.01  | 1.2334 | .0623  | .4822 | .0027 | -.0308 | -.0055 |
| 10   | 10.02 | 1.1962 | .1804  | .3250 | .0105 | -.0065 | .0064  |
| 11   | 15.07 | 1.4164 | .3663  | .2764 | .0121 | -.0129 | .0208  |
| 12   | .01   | 1.2445 | -.0021 | .7673 | .0055 | .0053  | .0020  |
| 13   | 2.52  | 1.2881 | .0182  | .6523 | .0078 | .0178  | -.0663 |
| 14   | 2.41  | 1.2727 | .0215  | .6328 | .0078 | .0238  | -.0626 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P168

RUN 211 CONFIG F P B W5 NP1 T BT L

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 9 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 2       | .0        | .0      | 590.0       | 139.49      | -833.        | 35.          | 57.          | -2.17       | 53.48 | 126.78  | 4280.  |
| 3       | .0        | .0      | 596.8       | -6.03       | -1568.       | -59.         | 88.          | 2.04        | 53.34 | 126.62  | 20290. |
| 4       | -8.0      | .0      | 354.4       | -35.52      | -1682.       | 29.          | 102.         | 4.69        | 53.04 | 126.25  | 20320. |
| 5       | -4.0      | .0      | 487.7       | -22.47      | -1714.       | -36.         | 66.          | 4.15        | 53.34 | 126.61  | 20430. |
| 6       | -.0       | .0      | 601.8       | -5.68       | -1571.       | -61.         | 89.          | 2.45        | 52.75 | 125.90  | 20410. |
| 7       | 2.4       | .0      | 644.4       | 8.38        | -1381.       | -57.         | 124.         | 2.75        | 53.25 | 126.51  | 20420. |
| 8       | 5.0       | .0      | 539.5       | 27.79       | -1361.       | -42.         | -347.        | .06         | 53.13 | 126.36  | 20320. |
| 9       | 10.0      | .0      | 515.6       | 76.18       | -1141.       | 195.         | -58.         | 6.03        | 53.07 | 126.28  | 20390. |
| 10      | 15.0      | .0      | 600.2       | 156.67      | -1218.       | 192.         | -291.        | 6.75        | 53.46 | 126.75  | 20410. |
| 11      | -.0       | .0      | 592.0       | -2.09       | -1448.       | 27.          | 142.         | 1.13        | 54.17 | 127.62  | 20340. |
| 12      | 2.4       | .0      | 640.5       | 11.55       | -1310.       | 26.          | 123.         | .81         | 54.60 | 128.13  | 20330. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.5946 | .3770  | -.2684 | .0021  | .0034  | -.0059 |
| 3    | .00   | 1.6128 | -.0163 | -.5056 | -.0035 | .0053  | .0055  |
| 4    | -8.00 | .9578  | -.0960 | -.5424 | .0018  | .0061  | .0127  |
| 5    | -4.01 | 1.3182 | -.0607 | -.5526 | -.0022 | .0040  | .0112  |
| 6    | -.02  | 1.6265 | -.0154 | -.5065 | -.0037 | .0054  | .0066  |
| 7    | 2.45  | 1.7416 | .0227  | -.4452 | -.0035 | .0075  | .0074  |
| 8    | 4.95  | 1.4581 | .0751  | -.4388 | -.0026 | -.0209 | .0002  |
| 9    | 9.99  | 1.3934 | .2059  | -.3677 | .0118  | -.0035 | .0163  |
| 10   | 14.97 | 1.6222 | .4234  | -.3927 | .0116  | -.0176 | .0183  |
| 11   | -.03  | 1.6000 | -.0056 | -.4670 | .0016  | .0086  | .0031  |
| 12   | 2.44  | 1.7310 | .0312  | -.4222 | .0016  | .0074  | .0022  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.5946 | .3770  | -.2684 | .0021  | .0034  | -.0059 |
| 3    | .00   | 1.6128 | -.0163 | -.5056 | -.0035 | .0053  | .0055  |
| 4    | -8.00 | .9578  | -.0960 | -.5424 | .0018  | .0061  | .0127  |
| 5    | -4.01 | 1.3182 | -.0607 | -.5526 | -.0022 | .0040  | .0112  |
| 6    | -.02  | 1.6265 | -.0154 | -.5065 | -.0037 | .0054  | .0066  |
| 7    | 2.45  | 1.7416 | .0227  | -.4452 | -.0035 | .0075  | .0074  |
| 8    | 4.95  | 1.4581 | .0751  | -.4388 | -.0026 | -.0209 | .0002  |
| 9    | 9.99  | 1.3934 | .2059  | -.3677 | .0118  | -.0035 | .0163  |
| 10   | 14.97 | 1.6222 | .4234  | -.3927 | .0116  | -.0176 | .0183  |
| 11   | -.03  | 1.6000 | -.0056 | -.4670 | .0016  | .0086  | .0031  |
| 12   | 2.44  | 1.7310 | .0312  | -.4222 | .0016  | .0074  | .0022  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 169

RUN 212 CONFIG F P B W5 NP1 T BT L

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>DELSB<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|-----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|-------------------|-----------------|--------|
| 9                | -0                      | 5.0                   | 542.3                   | 134.49                   | 399.                      | -85.                       | 119.                 | 24.63               | 54.50             | 128.01          | 4330.  |
| 10               | -0                      | 5.0                   | 530.5                   | -6.19                    | 255.                      | 5.                         | 225.                 | 36.25               | 55.44             | 129.13          | 20260. |
| 11               | -8.0                    | 5.0                   | 291.4                   | -23.02                   | 192.                      | -108.                      | 56.                  | 53.45               | 55.77             | 129.52          | 20190. |
| 12               | -4.0                    | 5.0                   | 419.6                   | -15.48                   | 206.                      | -40.                       | 122.                 | 45.15               | 55.90             | 129.68          | 20270. |
| 13               | .0                      | 5.0                   | 532.1                   | -3.34                    | 301.                      | 8.                         | 230.                 | 35.31               | 54.90             | 128.49          | 20190. |
| 14               | 2.5                     | 5.0                   | 506.8                   | 8.29                     | 627.                      | -5.                        | 921.                 | 17.73               | 55.14             | 128.77          | 20200. |
| 15               | 5.0                     | 5.0                   | 461.0                   | 27.13                    | 158.                      | -34.                       | 665.                 | 24.52               | 55.02             | 128.63          | 20360. |
| 16               | 10.0                    | 5.0                   | 502.5                   | 82.37                    | -83.                      | 58.                        | 292.                 | 33.51               | 54.79             | 128.36          | 20230. |
| 17               | 15.0                    | 5.0                   | 568.9                   | 145.61                   | -230.                     | 272.                       | 57.                  | 27.45               | 54.72             | 128.27          | 20210. |
| 18               | .0                      | 5.0                   | 519.9                   | -3.83                    | 561.                      | 43.                        | 232.                 | 35.09               | 55.14             | 128.78          | 20310. |
| 19               | 2.5                     | 5.0                   | 505.5                   | 8.07                     | 800.                      | 45.                        | 894.                 | 17.67               | 54.76             | 128.33          | 20370. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM   | CY    |
|------|-------|--------|--------|--------|--------|-------|-------|
| 9    | -0.00 | 1.4657 | .3635  | .1288  | -.0052 | .0072 | .0666 |
| 10   | -0.00 | 1.4336 | -.0167 | .0821  | .0003  | .0136 | .0980 |
| 11   | -8.01 | .7876  | -.0622 | .0618  | -.0065 | .0034 | .1445 |
| 12   | -4.03 | 1.1340 | -.0418 | .0663  | -.0024 | .0074 | .1220 |
| 13   | .01   | 1.4381 | -.0090 | .0970  | .0005  | .0139 | .0954 |
| 14   | 2.50  | 1.3696 | .0224  | .2023  | -.0003 | .0557 | .0479 |
| 15   | 5.00  | 1.2458 | .0733  | .0510  | -.0020 | .0402 | .0663 |
| 16   | 9.99  | 1.3580 | .2226  | -.0268 | .0035  | .0176 | .0906 |
| 17   | 14.99 | 1.5376 | .3935  | -.0742 | .0164  | .0034 | .0742 |
| 18   | .02   | 1.4051 | -.0104 | .1810  | .0026  | .0140 | .0948 |
| 19   | 2.52  | 1.3663 | .0218  | .2580  | .0027  | .0540 | .0477 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|-------|--------|--------|--------|--------|-------|-------|
| 9    | -0.00 | 1.4657 | .3563  | .1316  | -.0052 | .0093 | .0981 |
| 10   | -0.00 | 1.4336 | -.0252 | .0881  | .0003  | .0149 | .0961 |
| 11   | -8.01 | .7876  | -.0746 | .0631  | -.0065 | .0044 | .1385 |
| 12   | -4.03 | 1.1340 | -.0524 | .0695  | -.0024 | .0084 | .1179 |
| 13   | .01   | 1.4381 | -.0174 | .1031  | .0005  | .0154 | .0943 |
| 14   | 2.50  | 1.3696 | .0181  | .2275  | -.0003 | .0588 | .0497 |
| 15   | 5.00  | 1.2458 | .0673  | .0696  | -.0020 | .0409 | .0724 |
| 16   | 9.99  | 1.3580 | .2138  | -.0185 | .0035  | .0171 | .1097 |
| 17   | 14.99 | 1.5376 | .3855  | -.0725 | .0164  | .0022 | .1084 |
| 18   | .02   | 1.4051 | -.0186 | .1869  | .0026  | .0169 | .0936 |
| 19   | 2.52  | 1.3663 | .0175  | .2823  | .0027  | .0580 | .0495 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 213 CONF16 F P B W5 NP1 T BT L

| PT. NO. | 1W ALPHA DEG | 15 DELF DEG | 30 DELA SQ-FT | 0 IHT CDBAR SQ-FT | 0 DELE CPMBAR CU-FT | 0 DELR CYMBAR CU-FT | 0 DELSB CRMBAR CU-FT | 0 DELSB CYBAR SQ-FT | 0 PSF | 0 V KNOTS | 0 RPM  |
|---------|--------------|-------------|---------------|-------------------|---------------------|---------------------|----------------------|---------------------|-------|-----------|--------|
| 6       | .0           | 15.1        | 486.2         | 142.38            | 667.                | -1010.              | 164.                 | 93.78               | 55.03 | 128.64    | 4340.  |
| 7       | .0           | 15.2        | 480.2         | -6.86             | 584.                | -875.               | 202.                 | 139.54              | 54.72 | 128.27    | 21260. |
| 8       | -8.0         | 15.2        | 254.0         | -19.99            | 206.                | -843.               | 81.                  | 170.03              | 54.59 | 128.12    | 21260. |
| 9       | -4.0         | 15.2        | 377.8         | -10.96            | 346.                | -897.               | 106.                 | 154.30              | 55.06 | 128.68    | 21350. |
| 10      | .0           | 15.2        | 479.0         | -1.99             | 594.                | -906.               | 220.                 | 139.16              | 54.78 | 128.35    | 21250. |
| 11      | 2.5          | 15.2        | 518.1         | 7.95              | 850.                | -892.               | 343.                 | 123.91              | 54.76 | 128.32    | 21230. |
| 12      | 5.0          | 15.2        | 563.0         | 21.04             | 996.                | -885.               | 594.                 | 113.75              | 54.56 | 128.08    | 21230. |
| 13      | 10.1         | 15.2        | 489.5         | 82.29             | 62.                 | -120.               | 655.                 | 96.51               | 55.03 | 128.63    | 21210. |
| 14      | 10.1         | 15.0        | 486.8         | 82.56             | 102.                | -192.               | 611.                 | 96.53               | 55.05 | 128.66    | 21190. |
| 15      | 15.0         | 14.9        | 551.9         | 136.54            | -11.                | 24.                 | 584.                 | 71.01               | 55.12 | 128.74    | 21330. |
| 16      | 5.0          | 15.2        | 564.8         | 22.39             | 987.                | -874.               | 555.                 | 114.53              | 55.38 | 129.05    | 21310. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM   | CY    |
|------|-------|--------|--------|--------|--------|-------|-------|
| 6    | .01   | 1.3141 | .3848  | .2151  | -.0610 | .0099 | .2534 |
| 7    | .01   | 1.2979 | -.0185 | .1881  | -.0529 | .0122 | .3774 |
| 8    | -7.98 | .7134  | -.0540 | .0664  | -.0509 | .0049 | .4595 |
| 9    | -3.99 | 1.0211 | -.0296 | .1117  | -.0542 | .0064 | .4170 |
| 10   | .01   | 1.2945 | -.0054 | .1916  | -.0547 | .0133 | .3761 |
| 11   | 2.54  | 1.4002 | .0215  | .2740  | -.0539 | .0207 | .3349 |
| 12   | 5.04  | 1.5215 | .0569  | .3212  | -.0535 | .0359 | .3074 |
| 13   | 10.05 | 1.3229 | .2224  | .0199  | -.0072 | .0395 | .2608 |
| 14   | 10.05 | 1.3157 | .2231  | .0350  | -.0116 | .0369 | .2609 |
| 15   | 15.03 | 1.4915 | .3690  | -.0035 | .0015  | .0353 | .1919 |
| 16   | 5.01  | 1.5264 | .0605  | .3181  | -.0528 | .0335 | .3095 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB  | CYMB   | CRMB  | CYB   |
|------|-------|--------|--------|-------|--------|-------|-------|
| 6    | .01   | 1.3141 | .3051  | .2215 | -.0610 | .0201 | .3453 |
| 7    | .01   | 1.2979 | -.1173 | .1986 | -.0529 | .0210 | .3592 |
| 8    | -7.98 | .7134  | -.1731 | .0710 | -.0509 | .0080 | .4291 |
| 9    | -3.99 | 1.0211 | -.1384 | .1167 | -.0542 | .0117 | .3945 |
| 10   | .01   | 1.2945 | -.1042 | .2036 | -.0547 | .0223 | .3614 |
| 11   | 2.54  | 1.4002 | -.0675 | .2934 | -.0539 | .0335 | .3287 |
| 12   | 5.04  | 1.5215 | -.0261 | .3603 | -.0535 | .0504 | .3116 |
| 13   | 10.05 | 1.3229 | .1459  | .0748 | -.0072 | .0391 | .3102 |
| 14   | 10.05 | 1.3157 | .1476  | .0831 | -.0116 | .0373 | .3099 |
| 15   | 15.03 | 1.4915 | .3069  | .0452 | .0015  | .0339 | .2807 |
| 16   | 5.01  | 1.5264 | -.0232 | .3539 | -.0528 | .0480 | .3146 |

SIKORSKI RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 214 CONFIG F P B W5 NP1 T BT L

| IV<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 2                | .0                      | .0                   | 357.7                    | 80.99                   | 198.                      | 53.                       | 106.                      | 2.16                      | 53.68         | 127.04          | 4040.  |
| 3                | .0                      | .0                   | 357.5                    | 80.94                   | 198.                      | 53.                       | 106.                      | 2.16                      | 53.71         | 127.08          | 4030.  |
| 4                | .0                      | .0                   | 358.1                    | 80.81                   | 203.                      | 46.                       | 123.                      | .87                       | 54.65         | 128.21          | 4080.  |
| 5                | .0                      | .0                   | 341.4                    | -6.59                   | -269.                     | 53.                       | 65.                       | 5.39                      | 54.31         | 127.80          | 16170. |
| 6                | -8.0                    | .0                   | 115.1                    | -25.71                  | -296.                     | 75.                       | 84.                       | 2.56                      | 54.55         | 128.08          | 16180. |
| 7                | -4.0                    | .0                   | 243.0                    | -19.16                  | -259.                     | 53.                       | 103.                      | 3.21                      | 54.12         | 127.57          | 16080. |
| 8                | .0                      | .0                   | 341.0                    | -3.85                   | -252.                     | 39.                       | 99.                       | 6.02                      | 54.32         | 127.81          | 16160. |
| 9                | 2.5                     | .0                   | 396.6                    | 10.51                   | -250.                     | 35.                       | 67.                       | 4.01                      | 54.38         | 127.89          | 16130. |
| 10               | 5.1                     | .0                   | 448.6                    | 25.60                   | -199.                     | 57.                       | 50.                       | 4.33                      | 54.27         | 127.76          | 16140. |
| 11               | 10.0                    | -.1                  | 440.7                    | 75.45                   | -78.                      | 153.                      | -88.                      | 4.56                      | 54.48         | 128.01          | 16200. |
| 12               | 10.0                    | -.1                  | 507.8                    | 87.83                   | -89.                      | 177.                      | -102.                     | 5.26                      | 47.28         | 119.25          | 16200. |
| 13               | 15.0                    | -.1                  | 495.9                    | 133.58                  | -266.                     | 174.                      | -225.                     | 3.51                      | 55.28         | 128.96          | 16160. |
| 14               | 15.0                    | -.1                  | 499.1                    | 134.11                  | -259.                     | 158.                      | -278.                     | 2.22                      | 55.17         | 128.82          | 16240. |
| 15               | -.0                     | -.1                  | 343.5                    | -2.44                   | -256.                     | 15.                       | 64.                       | 7.27                      | 54.35         | 127.84          | 16290. |
| 16               | 7.5                     | -.1                  | 401.4                    | 48.83                   | -28.                      | 34.                       | 214.                      | -.68                      | 55.19         | 128.85          | 16300. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI   | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .9667  | .2189  | .0638  | .0032 | .0064  | .0058  |
| 3    | .00   | .9662  | .2188  | .0638  | .0032 | .0064  | .0058  |
| 4    | .00   | .9679  | .2184  | .0653  | .0028 | .0074  | .0024  |
| 5    | .00   | .9227  | -.0178 | -.0867 | .0032 | .0039  | .0146  |
| 6    | -8.04 | .3110  | -.0695 | -.0955 | .0045 | .0051  | .0069  |
| 7    | -4.00 | .6567  | -.0518 | -.0835 | .0032 | .0062  | .0087  |
| 8    | .01   | .9215  | -.0104 | -.0814 | .0024 | .0060  | .0163  |
| 9    | 2.51  | 1.0718 | .0284  | -.0807 | .0021 | .0040  | .0108  |
| 10   | 5.06  | 1.2125 | .0692  | -.0640 | .0035 | .0030  | .0117  |
| 11   | 9.97  | 1.1910 | .2039  | -.0250 | .0093 | -.0053 | .0123  |
| 12   | 9.97  | 1.3724 | .2374  | -.0289 | .0107 | -.0062 | .0142  |
| 13   | 15.01 | 1.3402 | .3610  | -.0857 | .0105 | -.0136 | .0095  |
| 14   | 15.01 | 1.3489 | .3625  | -.0834 | .0095 | -.0168 | .0060  |
| 15   | -.02  | .9284  | -.0066 | -.0825 | .0009 | .0039  | .0197  |
| 16   | 7.54  | 1.0849 | .1320  | -.0089 | .0020 | .0129  | -.0018 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI   | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .9667  | .2189  | .0638  | .0032 | .0064  | .0058  |
| 3    | .00   | .9662  | .2188  | .0638  | .0032 | .0064  | .0058  |
| 4    | .00   | .9679  | .2184  | .0653  | .0028 | .0074  | .0024  |
| 5    | .00   | .9227  | -.0178 | -.0867 | .0032 | .0039  | .0146  |
| 6    | -8.04 | .3110  | -.0695 | -.0955 | .0045 | .0051  | .0069  |
| 7    | -4.00 | .6567  | -.0518 | -.0835 | .0032 | .0062  | .0087  |
| 8    | .01   | .9215  | -.0104 | -.0814 | .0024 | .0060  | .0163  |
| 9    | 2.51  | 1.0718 | .0284  | -.0807 | .0021 | .0040  | .0108  |
| 10   | 5.06  | 1.2125 | .0692  | -.0640 | .0035 | .0030  | .0117  |
| 11   | 9.97  | 1.1910 | .2039  | -.0250 | .0093 | -.0053 | .0120  |
| 12   | 9.97  | 1.3724 | .2374  | -.0288 | .0107 | -.0061 | .0138  |
| 13   | 15.01 | 1.3402 | .3610  | -.0856 | .0105 | -.0135 | .0089  |
| 14   | 15.01 | 1.3489 | .3625  | -.0833 | .0095 | -.0167 | .0054  |
| 15   | -.02  | .9284  | -.0065 | -.0825 | .0009 | .0039  | .0197  |
| 16   | 7.54  | 1.0849 | .1320  | -.0090 | .0020 | .0129  | -.0021 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 215 CONFIG F P B WS NP1 T BT L

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 1                | .0                      | -.1                  | 344.0                    | -2.46                   | -266.                     | 1.                        | 62.                       | 5.86                      | 54.64         | 128.19          | 16340. |
| 2                | .0                      | -15.1                | 324.8                    | 16.32                   | 145.                      | 493.                      | -5.                       | -120.99                   | 54.79         | 128.37          | 16340. |
| 3                | .0                      | -10.1                | 330.3                    | 3.16                    | 51.                       | 124.                      | 52.                       | -73.43                    | 54.97         | 128.59          | 16340. |
| 4                | .0                      | -5.1                 | 338.1                    | -1.18                   | -209.                     | -14.                      | 5.                        | -32.57                    | 55.01         | 128.63          | 16330. |
| 5                | .0                      | -2.6                 | 344.2                    | -2.05                   | -285.                     | -24.                      | 49.                       | -12.76                    | 54.47         | 127.99          | 16310. |
| 6                | .0                      | 2.4                  | 342.3                    | -1.64                   | -302.                     | 1.                        | 98.                       | 4.58                      | 55.03         | 128.66          | 16290. |
| 7                | .0                      | 2.4                  | 338.3                    | -1.21                   | -276.                     | 66.                       | 153.                      | 20.78                     | 55.25         | 128.92          | 16290. |
| 8                | .0                      | 4.9                  | 342.9                    | -1.66                   | -160.                     | 106.                      | 177.                      | 38.35                     | 54.54         | 128.07          | 16340. |
| 9                | .0                      | 9.9                  | 329.4                    | 1.95                    | 29.                       | -124.                     | 213.                      | 80.04                     | 54.82         | 128.41          | 16330. |
| 10               | .0                      | 15.0                 | 334.4                    | 12.66                   | -85.                      | -477.                     | 137.                      | 130.49                    | 55.21         | 128.87          | 16290. |
| 11               | .0                      | -.1                  | 342.3                    | -2.91                   | -317.                     | 28.                       | 114.                      | 6.93                      | 54.59         | 128.13          | 16350. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 1    | -.10   | .9296 | -.0066 | -.0858 | .0001  | .0037  | .0158  |
| 2    | -15.10 | .8777 | .0441  | .0468  | .0298  | -.0003 | -.3270 |
| 3    | -10.10 | .8927 | .0085  | .0165  | .0075  | .0031  | -.1908 |
| 4    | -5.10  | .9138 | -.0032 | -.0673 | -.0008 | .0003  | -.0880 |
| 5    | -2.60  | .9302 | -.0055 | -.0920 | -.0014 | .0030  | -.0345 |
| 6    | -.10   | .9250 | -.0044 | -.0973 | .0001  | .0059  | .0124  |
| 7    | 2.40   | .9143 | -.0033 | -.0889 | .0040  | .0092  | .0562  |
| 8    | 4.90   | .9268 | -.0045 | -.0517 | .0064  | .0107  | .1037  |
| 9    | 9.90   | .8902 | .0053  | .0095  | -.0075 | .0129  | .2163  |
| 10   | 15.00  | .9038 | .0342  | -.0273 | -.0288 | .0083  | .3527  |
| 11   | -.10   | .9251 | -.0079 | -.1021 | .0017  | .0069  | .0187  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 1    | -.10   | .9296 | -.0066 | -.0858 | .0001  | .0038  | .0159  |
| 2    | -15.10 | .8777 | -.0430 | .0456  | .0298  | -.0026 | -.3272 |
| 3    | -10.10 | .8927 | -.0266 | .0133  | .0075  | .0025  | -.1969 |
| 4    | -5.10  | .9138 | -.0110 | -.0672 | -.0008 | .0014  | -.0874 |
| 5    | -2.60  | .9302 | -.0071 | -.0926 | -.0014 | .0037  | -.0342 |
| 6    | -.10   | .9250 | -.0044 | -.0973 | .0001  | .0060  | .0124  |
| 7    | 2.40   | .9143 | -.0056 | -.0867 | .0040  | .0085  | .0560  |
| 8    | 4.90   | .9268 | -.0134 | -.0466 | .0064  | .0099  | .1029  |
| 9    | 9.90   | .8902 | -.0322 | .0212  | -.0075 | .0130  | .2140  |
| 10   | 15.00  | .9038 | -.0586 | -.0149 | -.0288 | .0067  | .3494  |
| 11   | -.10   | .9251 | -.0078 | -.1022 | .0017  | .0069  | .0187  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 173

RUN 216 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | 5 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 380.3       | 74.52       | -477.        | 55.          | 73.          | -2.41       | 55.21 | 128.87  | 4110.  |
| 3       | .0        | .0      | 376.7       | -6.78       | -896.        | 37.          | 163.         | -3.82       | 55.28 | 128.95  | 15860. |
| 4       | -8.1      | .0      | 146.0       | -30.70      | -1204.       | 86.          | 53.          | -.18        | 55.27 | 128.94  | 15810. |
| 5       | -4.1      | .0      | 268.5       | -23.50      | -1099.       | 67.          | 53.          | -.55        | 55.35 | 129.04  | 15830. |
| 6       | -.1       | .0      | 374.6       | -6.19       | -896.        | 33.          | 179.         | -2.22       | 55.14 | 128.78  | 15810. |
| 7       | 2.5       | .0      | 414.9       | 8.70        | -933.        | 5.           | 105.         | .31         | 55.22 | 128.88  | 15800. |
| 8       | 5.1       | .0      | 474.3       | 24.88       | -881.        | 21.          | 68.          | 2.49        | 54.74 | 128.31  | 15790. |
| 9       | 10.0      | .0      | 472.2       | 79.63       | -856.        | 142.         | -124.        | 2.58        | 55.50 | 129.21  | 15830. |
| 10      | 15.0      | .0      | 527.0       | 141.96      | -1081.       | 193.         | -296.        | 4.03        | 55.73 | 129.48  | 15850. |
| 11      | -.0       | .0      | 376.7       | -4.65       | -920.        | 29.          | 162.         | -3.02       | 55.24 | 128.90  | 15810. |
| 12      | 7.4       | .0      | 433.3       | 49.03       | -809.        | 24.          | 140.         | .99         | 55.24 | 128.90  | 15830. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | 1.0279 | .2014  | -.1539 | .0033 | .0044  | -.0065 |
| 3    | .00   | 1.0181 | -.0183 | -.2888 | .0022 | .0098  | -.0103 |
| 4    | -8.05 | .3946  | -.0830 | -.3882 | .0052 | .0032  | -.0005 |
| 5    | -4.11 | .7258  | -.0635 | -.3544 | .0041 | .0032  | -.0015 |
| 6    | -.08  | 1.0125 | -.0167 | -.2889 | .0020 | .0108  | -.0060 |
| 7    | 2.48  | 1.1213 | .0235  | -.3008 | .0003 | .0063  | .0008  |
| 8    | 5.08  | 1.2818 | .0672  | -.2840 | .0013 | .0041  | .0067  |
| 9    | 10.01 | 1.2762 | .2152  | -.2759 | .0086 | -.0075 | .0070  |
| 10   | 14.98 | 1.4244 | .3837  | -.3486 | .0117 | -.0179 | .0109  |
| 11   | -.03  | 1.0182 | -.0126 | -.2967 | .0017 | .0098  | -.0082 |
| 12   | 7.43  | 1.1712 | .1325  | -.2607 | .0014 | .0084  | .0027  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | 1.0279 | .2014  | -.1539 | .0033 | .0044  | -.0065 |
| 3    | .00   | 1.0181 | -.0183 | -.2888 | .0022 | .0098  | -.0103 |
| 4    | -8.05 | .3946  | -.0830 | -.3882 | .0052 | .0032  | -.0005 |
| 5    | -4.11 | .7258  | -.0635 | -.3544 | .0041 | .0032  | -.0015 |
| 6    | -.08  | 1.0125 | -.0167 | -.2889 | .0020 | .0108  | -.0060 |
| 7    | 2.48  | 1.1213 | .0235  | -.3008 | .0003 | .0063  | .0008  |
| 8    | 5.08  | 1.2818 | .0672  | -.2840 | .0013 | .0041  | .0067  |
| 9    | 10.01 | 1.2762 | .2152  | -.2759 | .0086 | -.0075 | .0070  |
| 10   | 14.98 | 1.4244 | .3837  | -.3486 | .0117 | -.0179 | .0109  |
| 11   | -.03  | 1.0182 | -.0126 | -.2967 | .0017 | .0098  | -.0082 |
| 12   | 7.43  | 1.1712 | .1325  | -.2607 | .0014 | .0084  | .0027  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 174

RUN 217 CONFIG F P 6 W5 NP1 T BT

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | 9 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDRAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 395.8       | 77.82       | -987.        | 69.          | 72.          | -1.97       | 55.38 | 129.07  | 4120.  |
| 3       | .0        | .0      | 383.2       | -6.39       | -1482.       | 75.          | 87.          | .86         | 55.17 | 128.81  | 16130. |
| 4       | -8.0      | .0      | 168.9       | -33.59      | -1860.       | 95.          | 54.          | -.86        | 55.23 | 128.88  | 16110. |
| 5       | -4.1      | .0      | 291.2       | -23.89      | -1701.       | 86.          | 52.          | .06         | 55.29 | 128.96  | 16050. |
| 6       | -.0       | .0      | 393.6       | -5.67       | -1423.       | 56.          | 161.         | -3.26       | 55.41 | 129.10  | 16110. |
| 7       | 2.5       | .0      | 428.6       | 9.05        | -1413.       | 27.          | 123.         | -.55        | 55.61 | 129.34  | 16100. |
| 8       | 5.0       | .0      | 481.5       | 25.25       | -1350.       | 40.          | 103.         | 2.16        | 55.32 | 128.99  | 16090. |
| 9       | 7.5       | .0      | 455.3       | 52.93       | -1370.       | 3.           | 122.         | 1.67        | 55.11 | 128.74  | 16100. |
| 10      | 10.0      | .0      | 486.5       | 82.31       | -1393.       | 150.         | -158.        | 3.36        | 55.72 | 129.46  | 16130. |
| 11      | 15.1      | .0      | 538.4       | 151.91      | -1432.       | 189.         | -330.        | 5.91        | 55.92 | 129.70  | 16140. |
| 12      | -.0       | .0      | 380.8       | -4.37       | -1474.       | 43.          | 66.          | 3.24        | 55.66 | 129.39  | 16120. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | 1.0698 | .2103  | -.3183 | .0042 | .0044  | -.0053 |
| 3    | .00   | 1.0356 | -.0173 | -.4779 | .0046 | .0052  | .0023  |
| 4    | -8.00 | .4565  | -.0908 | -.5995 | .0057 | .0033  | -.0023 |
| 5    | -4.08 | .7871  | -.0646 | -.5483 | .0052 | .0032  | .0002  |
| 6    | -.01  | 1.0636 | -.0153 | -.4588 | .0034 | .0098  | -.0088 |
| 7    | 2.50  | 1.1583 | .0245  | -.4556 | .0017 | .0074  | -.0015 |
| 8    | 5.04  | 1.3013 | .0682  | -.4352 | .0024 | .0062  | .0058  |
| 9    | 7.49  | 1.2305 | .1431  | -.4416 | .0002 | .0074  | .0045  |
| 10   | 10.01 | 1.3148 | .2225  | -.4490 | .0091 | -.0096 | .0091  |
| 11   | 15.05 | 1.4551 | .4106  | -.4618 | .0114 | -.0200 | .0160  |
| 12   | -.00  | 1.0291 | -.0118 | -.4751 | .0026 | .0040  | .0088  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | 1.0698 | .2103  | -.3183 | .0042 | .0044  | -.0053 |
| 3    | .00   | 1.0356 | -.0173 | -.4779 | .0046 | .0052  | .0023  |
| 4    | -8.00 | .4565  | -.0908 | -.5995 | .0057 | .0033  | -.0023 |
| 5    | -4.08 | .7871  | -.0646 | -.5483 | .0052 | .0032  | .0002  |
| 6    | -.01  | 1.0636 | -.0153 | -.4588 | .0034 | .0098  | -.0088 |
| 7    | 2.50  | 1.1583 | .0245  | -.4556 | .0017 | .0074  | -.0015 |
| 8    | 5.04  | 1.3013 | .0682  | -.4352 | .0024 | .0062  | .0058  |
| 9    | 7.49  | 1.2305 | .1431  | -.4416 | .0002 | .0074  | .0045  |
| 10   | 10.01 | 1.3148 | .2225  | -.4490 | .0091 | -.0096 | .0091  |
| 11   | 15.05 | 1.4551 | .4106  | -.4618 | .0114 | -.0200 | .0160  |
| 12   | -.00  | 1.0291 | -.0118 | -.4751 | .0026 | .0040  | .0088  |

SIKORSKY RSRA-1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P. 175

RUN 218 CONFIG F P B W5 NP1 T BT

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 9 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 2                | .0                     | .0                   | 97.1                     | 35.63                   | -1522.                    | 54.                       | 17.                       | .00                       | 56.15         | 129.96          | 3570.  |
| 3                | .0                     | .0                   | 97.8                     | 36.09                   | -1540.                    | 76.                       | 31.                       | 2.97                      | 55.09         | 128.71          | 3550.  |
| 4                | .0                     | .0                   | 95.8                     | -7.02                   | -1621.                    | 68.                       | 49.                       | 2.34                      | 55.43         | 129.12          | 11830. |
| 5                | -8.0                   | .0                   | -146.4                   | -1.37                   | -2188.                    | 80.                       | -62.                      | 5.16                      | 54.75         | 128.30          | 11820. |
| 6                | -3.9                   | .0                   | -27.6                    | -8.71                   | -1876.                    | 49.                       | -4.                       | 2.79                      | 55.01         | 128.61          | 11850. |
| 7                | -0                     | .0                   | 94.8                     | -6.88                   | -1614.                    | 67.                       | 33.                       | 1.72                      | 55.34         | 129.00          | 11830. |
| 8                | 2.6                    | .0                   | 179.5                    | -1.60                   | -1536.                    | 87.                       | 51.                       | 1.29                      | 55.44         | 129.12          | 11890. |
| 9                | 5.1                    | .0                   | 263.1                    | 7.48                    | -1468.                    | 90.                       | 35.                       | -.12                      | 55.31         | 128.96          | 11860. |
| 10               | 7.5                    | .0                   | 340.4                    | 22.05                   | -1369.                    | 78.                       | 88.                       | -.68                      | 55.40         | 129.07          | 11870. |
| 11               | 10.1                   | .0                   | 414.3                    | 38.99                   | -1188.                    | 44.                       | 54.                       | -1.36                     | 55.01         | 128.61          | 11880. |
| 12               | 15.0                   | .0                   | 528.0                    | 80.45                   | -1034.                    | 19.                       | 87.                       | -.43                      | 55.47         | 129.15          | 11890. |
| 13               | 20.0                   | .0                   | 558.1                    | 138.82                  | -880.                     | -12.                      | 53.                       | 1.84                      | 55.64         | 129.35          | 11910. |
| 14               | .1                     | .0                   | 96.4                     | -6.83                   | -1612.                    | 71.                       | 15.                       | 2.09                      | 55.29         | 128.94          | 11880. |
| 15               | 12.5                   | .0                   | 483.6                    | 57.93                   | -1138.                    | 42.                       | 105.                      | -1.64                     | 55.94         | 129.71          | 11870. |
| 16               | 17.6                   | .0                   | 543.2                    | 108.51                  | -1017.                    | 19.                       | 86.                       | 2.86                      | 56.01         | 129.79          | 11890. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .2625  | .0963  | -.4906 | .0033  | .0010  | .0000  |
| 3    | .00   | .2643  | .0976  | -.4966 | .0046  | .0019  | .0080  |
| 4    | .00   | .2589  | -.0190 | -.5225 | .0041  | .0030  | .0063  |
| 5    | -8.00 | -.3956 | -.0037 | -.7055 | .0048  | -.0037 | .0140  |
| 6    | -3.94 | -.0745 | -.0235 | -.6047 | .0030  | -.0003 | .0075  |
| 7    | -.01  | .2561  | -.0186 | -.5202 | .0040  | .0020  | .0047  |
| 8    | 2.56  | .4852  | -.0043 | -.4953 | .0052  | .0031  | .0035  |
| 9    | 5.06  | .7111  | .0202  | -.4733 | .0054  | .0021  | -.0003 |
| 10   | 7.55  | .9201  | .0596  | -.4413 | .0047  | .0053  | -.0018 |
| 11   | 10.06 | 1.1196 | .1054  | -.3831 | .0027  | .0032  | -.0037 |
| 12   | 14.97 | 1.4270 | .2174  | -.3333 | .0012  | .0053  | -.0012 |
| 13   | 19.99 | 1.5085 | .3752  | -.2836 | -.0008 | .0032  | .0050  |
| 14   | .06   | .2606  | -.0185 | -.5197 | .0043  | .0009  | .0057  |
| 15   | 12.46 | 1.3069 | .1566  | -.3669 | .0025  | .0063  | -.0044 |
| 16   | 17.56 | 1.4682 | .2933  | -.3278 | .0011  | .0052  | .0077  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | COB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .2625  | .0963  | -.4906 | .0033  | .0010  | .0000  |
| 3    | .00   | .2643  | .0976  | -.4966 | .0046  | .0019  | .0080  |
| 4    | .00   | .2589  | -.0190 | -.5225 | .0041  | .0030  | .0063  |
| 5    | -8.00 | -.3956 | -.0037 | -.7055 | .0048  | -.0037 | .0140  |
| 6    | -3.94 | -.0745 | -.0235 | -.6047 | .0030  | -.0003 | .0075  |
| 7    | -.01  | .2561  | -.0186 | -.5202 | .0040  | .0020  | .0047  |
| 8    | 2.56  | .4852  | -.0043 | -.4953 | .0052  | .0031  | .0035  |
| 9    | 5.06  | .7111  | .0202  | -.4733 | .0054  | .0021  | -.0003 |
| 10   | 7.55  | .9201  | .0596  | -.4413 | .0047  | .0053  | -.0018 |
| 11   | 10.06 | 1.1196 | .1054  | -.3831 | .0027  | .0032  | -.0037 |
| 12   | 14.97 | 1.4270 | .2174  | -.3333 | .0012  | .0053  | -.0012 |
| 13   | 19.99 | 1.5085 | .3752  | -.2836 | -.0008 | .0032  | .0050  |
| 14   | .06   | .2606  | -.0185 | -.5197 | .0043  | .0009  | .0057  |
| 15   | 12.46 | 1.3069 | .1566  | -.3669 | .0025  | .0063  | -.0044 |
| 16   | 17.56 | 1.4682 | .2933  | -.3278 | .0011  | .0052  | .0077  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 176

RUN 219 CONFIG F P B W5 NP1 Y BT -

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 5 DELE<br>COBAR<br>SQ-FT | 0 DELR<br>CPMVAR<br>CU-FT | 0 DELSB<br>CYMVAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>KNOTS | 0<br>V | RPM    |
|------------------|------------------------|----------------------|-------------------------|--------------------------|---------------------------|----------------------------|---------------------|----------|------------|--------|--------|
| 2                | .0                     | .0                   | 78.9                    | 33.15                    | -1064.                    | 43.                        | -53.                | .00      | 55.00      | 128.59 | 3560.  |
| 3                | .0                     | .0                   | 76.5                    | -6.74                    | -1142.                    | 57.                        | -73.                | 1.61     | 54.99      | 128.58 | 11420. |
| 4                | -8.0                   | .0                   | -164.8                  | 1.02                     | -1655.                    | 39.                        | -40.                | 2.86     | 54.85      | 128.41 | 11410. |
| 5                | -4.1                   | .0                   | -47.8                   | -7.21                    | -1380.                    | 43.                        | 12.                 | 3.88     | 55.37      | 129.03 | 11460. |
| 6                | .0                     | .0                   | 79.5                    | -6.67                    | -1123.                    | 67.                        | 49.                 | 3.21     | 55.26      | 128.90 | 11420. |
| 7                | 2.5                    | .0                   | 160.7                   | -2.02                    | -1070.                    | 78.                        | -19.                | .99      | 55.02      | 128.62 | 11440. |
| 8                | 5.0                    | .0                   | 241.8                   | 5.31                     | -1018.                    | 84.                        | 2.                  | -1.73    | 55.06      | 128.67 | 11450. |
| 9                | 10.1                   | .0                   | 399.1                   | 30.73                    | -907.                     | 90.                        | 18.                 | -.68     | 55.42      | 129.09 | 11470. |
| 10               | 15.0                   | .0                   | 518.3                   | 73.39                    | -778.                     | 45.                        | 140.                | .37      | 55.35      | 129.00 | 11470. |
| 11               | 17.5                   | .0                   | 535.0                   | 101.33                   | -847.                     | 55.                        | 52.                 | -.67     | 55.60      | 129.30 | 11480. |
| 12               | 20.0                   | .0                   | 553.6                   | 134.78                   | -825.                     | 45.                        | 35.                 | .25      | 55.55      | 129.23 | 11480. |
| 13               | .0                     | .0                   | 75.8                    | -6.63                    | -1132.                    | 70.                        | -92.                | 3.34     | 55.13      | 128.75 | 11420. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .2132  | .0896  | -.3429 | .0026 | -.0032 | .0000  |
| 3    | .00   | .2067  | -.0182 | -.3683 | .0034 | -.0044 | .0044  |
| 4    | -7.97 | -.4455 | .0028  | -.5336 | .0023 | -.0024 | .0077  |
| 5    | -4.07 | -.1291 | -.0195 | -.4448 | .0026 | .0007  | .0105  |
| 6    | .04   | .2148  | -.0180 | -.3620 | .0040 | .0029  | .0087  |
| 7    | 2.55  | .4343  | -.0055 | -.3449 | .0047 | -.0011 | .0027  |
| 8    | 5.00  | .6536  | .0143  | -.3281 | .0051 | .0001  | -.0047 |
| 9    | 10.05 | 1.0787 | .0830  | -.2923 | .0055 | .0011  | -.0018 |
| 10   | 15.00 | 1.4009 | .1983  | -.2509 | .0027 | .0085  | .0010  |
| 11   | 17.53 | 1.4459 | .2739  | -.2731 | .0033 | .0032  | -.0018 |
| 12   | 20.01 | 1.4962 | .3643  | -.2661 | .0027 | .0021  | .0007  |
| 13   | .03   | .2048  | -.0179 | -.3648 | .0042 | -.0056 | .0090  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .2132  | .0896  | -.3429 | .0026 | -.0032 | .0000  |
| 3    | .00   | .2067  | -.0182 | -.3683 | .0034 | -.0044 | .0044  |
| 4    | -7.97 | -.4455 | .0028  | -.5336 | .0023 | -.0024 | .0077  |
| 5    | -4.07 | -.1291 | -.0195 | -.4448 | .0026 | .0007  | .0105  |
| 6    | .04   | .2148  | -.0180 | -.3620 | .0040 | .0029  | .0087  |
| 7    | 2.55  | .4343  | -.0055 | -.3449 | .0047 | -.0011 | .0027  |
| 8    | 5.00  | .6536  | .0143  | -.3281 | .0051 | .0001  | -.0047 |
| 9    | 10.05 | 1.0787 | .0830  | -.2923 | .0055 | .0011  | -.0018 |
| 10   | 15.00 | 1.4009 | .1983  | -.2509 | .0027 | .0085  | .0010  |
| 11   | 17.53 | 1.4459 | .2739  | -.2731 | .0033 | .0032  | -.0018 |
| 12   | 20.01 | 1.4962 | .3643  | -.2661 | .0027 | .0021  | .0007  |
| 13   | .03   | .2048  | -.0179 | -.3648 | .0042 | -.0056 | .0090  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 1.77

RUN 220 CONFIG F P B W5 NP1 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 5 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |
| 2       | .0        | .0      | 81.2        | 33.41       | -1062.       | 68.          | 33.          | 1.59        | 55.60 | 129.30  | 3580.  |
| 3       | .0        | .0      | 79.1        | -6.68       | -1139.       | 77.          | 32.          | 2.14        | 55.62 | 129.33  | 11520. |
| 4       | 15.0      | .0      | 522.6       | 74.80       | -806.        | 49.          | 88.          | -3.43       | 55.63 | 129.34  | 11510. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM   | CY     |
|------|-------|--------|--------|--------|-------|-------|--------|
| 2    | .00   | .2193  | .0903  | -.3423 | .0041 | .0020 | .0043  |
| 3    | .00   | .2137  | -.0180 | -.3672 | .0046 | .0019 | .0058  |
| 4    | 14.98 | 1.4125 | .2021  | -.2597 | .0030 | .0053 | -.0093 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYB   | CRMB  | CYB    |
|------|-------|--------|--------|--------|-------|-------|--------|
| 2    | .00   | .2193  | .0903  | -.3423 | .0041 | .0020 | .0043  |
| 3    | .00   | .2137  | -.0180 | -.3672 | .0046 | .0019 | .0058  |
| 4    | 14.98 | 1.4125 | .2021  | -.2597 | .0030 | .0053 | -.0093 |

RUN 221 CONFIG F P B W5 NP1 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | -5 DELE     | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 33.0        | 31.47       | 212.         | 31.          | -35.         | .06         | 55.51 | 129.20  | 3590.  |
| 3       | .0        | .0      | 32.7        | -6.55       | 160.         | 51.          | -23.         | 4.36        | 55.50 | 129.18  | 11210. |
| 4       | -8.0      | .0      | -217.6      | 7.94        | -88.         | -1.          | -23.         | 3.37        | 55.59 | 129.29  | 11260. |
| 5       | -4.0      | .0      | -94.0       | -3.70       | -45.         | 28.          | -24.         | 4.19        | 55.35 | 129.00  | 11260. |
| 6       | -0        | .0      | 33.7        | -6.78       | 168.         | 42.          | 49.          | 2.92        | 54.75 | 128.29  | 11290. |
| 7       | 2.5       | .0      | 112.7       | -3.62       | 230.         | 56.          | -2.          | 2.16        | 55.25 | 128.88  | 11190. |
| 8       | 5.1       | .0      | 199.9       | 1.78        | 288.         | 86.          | -54.         | 1.11        | 55.28 | 128.92  | 11470. |
| 9       | 9.9       | .0      | 353.4       | 22.10       | 408.         | 42.          | 122.         | .92         | 55.42 | 129.08  | 11420. |
| 10      | 15.0      | .0      | 485.7       | 56.24       | 342.         | 30.          | 193.         | -.49        | 55.16 | 128.78  | 11390. |
| 11      | 17.5      | .0      | 511.8       | 81.09       | 173.         | 53.          | 70.          | -.74        | 55.04 | 128.63  | 11220. |
| 12      | 20.0      | .0      | 535.6       | 111.55      | -10.         | 45.          | 88.          | -.43        | 55.16 | 128.77  | 11140. |
| 13      | .0        | .0      | 33.6        | -4.98       | 159.         | 39.          | -4.          | 3.07        | 55.54 | 129.23  | 11150  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .0891  | .0851  | .0685  | .0019  | -.0021 | .0002  |
| 3    | .00   | .0883  | -.0177 | .0517  | .0031  | -.0014 | .0118  |
| 4    | -8.02 | -.5881 | .0215  | -.0285 | -.0001 | -.0014 | .0091  |
| 5    | -3.99 | -.2541 | -.0100 | -.0146 | .0017  | -.0014 | .0113  |
| 6    | -.01  | .0910  | -.0183 | .0542  | .0025  | .0030  | .0079  |
| 7    | 2.47  | .3046  | -.0098 | .0743  | .0034  | -.0001 | .0058  |
| 8    | 5.14  | .5404  | .0048  | .0928  | .0052  | -.0032 | .0030  |
| 9    | 9.92  | .9552  | .0597  | .1314  | .0025  | .0074  | .0025  |
| 10   | 14.97 | 1.3126 | .1520  | .1103  | .0018  | .0117  | -.0013 |
| 11   | 17.47 | 1.3832 | .2192  | .0558  | .0032  | .0043  | -.0020 |
| 12   | 19.98 | 1.4476 | .3015  | -.0032 | .0027  | .0053  | -.0012 |
| 13   | .01   | .0908  | -.0135 | .0514  | .0024  | -.0002 | .0083  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .0891  | .0851  | .0685  | .0019  | -.0021 | .0002  |
| 3    | .00   | .0883  | -.0177 | .0517  | .0031  | -.0014 | .0118  |
| 4    | -8.02 | -.5881 | .0215  | -.0285 | -.0001 | -.0014 | .0091  |
| 5    | -3.99 | -.2541 | -.0100 | -.0146 | .0017  | -.0014 | .0113  |
| 6    | -.01  | .0910  | -.0183 | .0542  | .0025  | .0030  | .0079  |
| 7    | 2.47  | .3046  | -.0098 | .0743  | .0034  | -.0001 | .0058  |
| 8    | 5.14  | .5404  | .0048  | .0928  | .0052  | -.0032 | .0030  |
| 9    | 9.92  | .9552  | .0597  | .1314  | .0025  | .0074  | .0025  |
| 10   | 14.97 | 1.3126 | .1520  | .1103  | .0018  | .0117  | -.0013 |
| 11   | 17.47 | 1.3832 | .2192  | .0558  | .0032  | .0043  | -.0020 |
| 12   | 19.98 | 1.4476 | .3015  | -.0032 | .0027  | .0053  | -.0012 |
| 13   | .01   | .0908  | -.0135 | .0514  | .0024  | -.0002 | .0083  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 179

RUN 222 CONFIG F P B W5 NP1 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | -9 DELE     | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 16.8        | 32.67       | 762.         | 32.          | 104.         | .37         | 55.44 | 129.11  | 3560.  |
| 3       | .0        | .0      | 16.2        | -6.96       | 697.         | 41.          | 136.         | 2.38        | 55.93 | 129.69  | 11600. |
| 4       | -8.0      | .0      | -240.8      | 10.96       | 627.         | 27.          | 101.         | 2.91        | 55.06 | 128.65  | 11660. |
| 5       | -4.0      | .0      | -110.4      | -3.27       | 534.         | 29.          | 99.          | 4.17        | 55.34 | 128.99  | 11670. |
| 6       | -1.1      | .0      | 15.6        | -6.71       | 684.         | 47.          | 151.         | 4.41        | 55.65 | 129.36  | 11650. |
| 7       | 2.5       | .0      | 95.9        | -3.71       | 744.         | 56.          | 138.         | 1.04        | 55.85 | 129.59  | 11640. |
| 8       | 5.0       | .0      | 178.9       | 1.04        | 809.         | 74.          | 139.         | .12         | 55.56 | 129.26  | 11650. |
| 9       | 10.0      | .0      | 336.0       | 19.59       | 915.         | 35.          | 177.         | -2.16       | 55.25 | 128.89  | 11650. |
| 10      | 14.9      | .0      | 467.5       | 51.26       | 860.         | 30.          | 298.         | -1.72       | 55.34 | 128.99  | 11670. |
| 11      | 17.5      | .0      | 489.2       | 74.26       | 668.         | 51.          | 280.         | -2.09       | 55.45 | 129.11  | 11740. |
| 12      | 19.9      | .0      | 516.6       | 102.33      | 502.         | 73.          | 211.         | -2.41       | 55.02 | 128.61  | 11640. |
| 13      | -1.0      | .0      | 16.2        | -2.24       | 621.         | 53.          | 119.         | 2.27        | 55.51 | 129.19  | 11660. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM   | CYM   | CRM   | CY     |
|------|-------|--------|--------|-------|-------|-------|--------|
| 2    | .00   | .0453  | .0883  | .2457 | .0020 | .0063 | .0010  |
| 3    | .00   | .0437  | -.0188 | .2248 | .0025 | .0082 | .0064  |
| 4    | -8.02 | -.6507 | .0296  | .2020 | .0016 | .0061 | .0079  |
| 5    | -4.03 | -.2984 | -.0088 | .1723 | .0018 | .0060 | .0113  |
| 6    | -.05  | .0422  | -.0181 | .2204 | .0028 | .0091 | .0119  |
| 7    | 2.49  | .2593  | -.0100 | .2397 | .0034 | .0083 | .0028  |
| 8    | 5.00  | .4835  | .0028  | .2609 | .0044 | .0084 | .0003  |
| 9    | 9.96  | .9080  | .0529  | .2949 | .0021 | .0107 | -.0058 |
| 10   | 14.88 | 1.2634 | .1385  | .2774 | .0018 | .0180 | -.0047 |
| 11   | 17.53 | 1.3223 | .2007  | .2153 | .0031 | .0169 | -.0056 |
| 12   | 19.92 | 1.3963 | .2766  | .1617 | .0044 | .0127 | -.0065 |
| 13   | -.03  | .0437  | -.0061 | .2001 | .0032 | .0072 | .0061  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB  | CYMB  | CRMB  | CYB    |
|------|-------|--------|--------|-------|-------|-------|--------|
| 2    | .00   | .0453  | .0883  | .2457 | .0020 | .0063 | .0010  |
| 3    | .00   | .0437  | -.0188 | .2248 | .0025 | .0082 | .0064  |
| 4    | -8.02 | -.6507 | .0296  | .2020 | .0016 | .0061 | .0079  |
| 5    | -4.03 | -.2984 | -.0088 | .1723 | .0018 | .0060 | .0113  |
| 6    | -.05  | .0422  | -.0181 | .2204 | .0028 | .0091 | .0119  |
| 7    | 2.49  | .2593  | -.0100 | .2397 | .0034 | .0083 | .0028  |
| 8    | 5.00  | .4835  | .0028  | .2609 | .0044 | .0084 | .0003  |
| 9    | 9.96  | .9080  | .0529  | .2949 | .0021 | .0107 | -.0058 |
| 10   | 14.88 | 1.2634 | .1385  | .2774 | .0018 | .0180 | -.0047 |
| 11   | 17.53 | 1.3223 | .2007  | .2153 | .0031 | .0169 | -.0056 |
| 12   | 19.92 | 1.3963 | .2766  | .1617 | .0044 | .0127 | -.0065 |
| 13   | -.03  | .0437  | -.0061 | .2001 | .0032 | .0072 | .0061  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 180

RUN 223 CONFIG F P R W5 NP1 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | -9 DELE     | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | -0.0      | .0      | 21.0        | 34.42       | 744.         | 120.         | -163.        | 3.40        | 55.06 | 128.69  | 3610.  |
| 3       | .0        | .0      | 8.9         | -6.53       | 692.         | 38.          | -194.        | 1.90        | 55.54 | 129.23  | 11500. |
| 4       | -8.0      | .0      | -245.6      | 11.38       | 626.         | 9.           | -219.        | 5.65        | 55.46 | 129.13  | 11530. |
| 5       | -4.1      | .0      | -118.5      | -2.66       | 511.         | 23.          | -164.        | 4.82        | 55.80 | 129.54  | 11520. |
| 6       | .0        | .0      | 11.0        | -7.95       | 680.         | 50.          | -126.        | 3.78        | 55.82 | 129.55  | 11660. |
| 7       | 2.5       | .0      | 93.4        | -6.36       | 752.         | 56.          | -161.        | 1.92        | 54.92 | 128.49  | 11570. |
| 8       | 5.0       | .0      | 172.5       | -1.54       | 806.         | 40.          | -144.        | 2.61        | 54.76 | 128.30  | 11590. |
| 9       | 10.0      | .0      | 331.9       | 17.03       | 914.         | 39.          | -54.         | .81         | 54.80 | 128.34  | 11610. |
| 10      | 15.0      | .0      | 464.1       | 49.32       | 873.         | 41.          | -53.         | -.50        | 54.47 | 127.96  | 11690. |
| 11      | 20.0      | .0      | 511.0       | 102.86      | 494.         | 68.          | -0.          | -2.25       | 54.57 | 128.07  | 11450. |
| 12      | .0        | .0      | 11.4        | -7.19       | 683.         | 43.          | -199.        | 3.30        | 54.71 | 128.24  | 11500. |
| 13      | 7.5       | .0      | 253.3       | 6.83        | 860.         | 31.          | -53.         | .74         | 55.15 | 128.77  | 11520. |
| 14      | 12.4      | .0      | 405.0       | 30.63       | 931.         | 25.          | -17.         | -1.11       | 55.02 | 128.62  | 11620. |
| 15      | .0        | .0      | 10.4        | -7.17       | 672.         | 42.          | -144.        | 3.57        | 55.41 | 129.07  | 11480. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM   | CYM   | CRM    | CY     |
|------|-------|--------|--------|-------|-------|--------|--------|
| 2    | -.01  | .0567  | .0930  | .2397 | .0073 | -.0098 | .0092  |
| 3    | .00   | .0241  | -.0177 | .2230 | .0023 | -.0117 | .0051  |
| 4    | -7.99 | -.6639 | .0308  | .2020 | .0005 | -.0133 | .0153  |
| 5    | -4.08 | -.3204 | -.0072 | .1648 | .0014 | -.0099 | .0130  |
| 6    | .04   | .0298  | -.0215 | .2192 | .0030 | -.0076 | .0102  |
| 7    | 2.53  | .2524  | -.0172 | .2425 | .0034 | -.0097 | .0052  |
| 8    | 4.97  | .4662  | -.0042 | .2599 | .0024 | -.0087 | .0071  |
| 9    | 9.97  | .8970  | .0460  | .2948 | .0024 | -.0032 | .0022  |
| 10   | 14.97 | 1.2543 | .1333  | .2815 | .0025 | -.0032 | -.0014 |
| 11   | 20.01 | 1.3811 | .2780  | .1594 | .0041 | -.0000 | -.0061 |
| 12   | .03   | .0309  | -.0194 | .2203 | .0026 | -.0120 | .0089  |
| 13   | 7.52  | .6845  | .0185  | .2772 | .0019 | -.0032 | .0020  |
| 14   | 12.44 | 1.0945 | .0828  | .3000 | .0015 | -.0010 | -.0030 |
| 15   | .00   | .0280  | -.0194 | .2166 | .0026 | -.0087 | .0096  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB  | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|-------|-------|--------|--------|
| 2    | -.01  | .0567  | .0930  | .2397 | .0073 | -.0098 | .0092  |
| 3    | .00   | .0241  | -.0177 | .2230 | .0023 | -.0117 | .0051  |
| 4    | -7.99 | -.6639 | .0308  | .2020 | .0005 | -.0133 | .0153  |
| 5    | -4.08 | -.3204 | -.0072 | .1648 | .0014 | -.0099 | .0130  |
| 6    | .04   | .0298  | -.0215 | .2192 | .0030 | -.0076 | .0102  |
| 7    | 2.53  | .2524  | -.0172 | .2425 | .0034 | -.0097 | .0052  |
| 8    | 4.97  | .4662  | -.0042 | .2599 | .0024 | -.0087 | .0071  |
| 9    | 9.97  | .8970  | .0460  | .2948 | .0024 | -.0032 | .0022  |
| 10   | 14.97 | 1.2543 | .1333  | .2815 | .0025 | -.0032 | -.0014 |
| 11   | 20.01 | 1.3811 | .2780  | .1594 | .0041 | -.0000 | -.0061 |
| 12   | .03   | .0309  | -.0194 | .2203 | .0026 | -.0120 | .0089  |
| 13   | 7.52  | .6845  | .0185  | .2772 | .0019 | -.0032 | .0020  |
| 14   | 12.44 | 1.0945 | .0828  | .3000 | .0015 | -.0010 | -.0030 |
| 15   | .00   | .0280  | -.0194 | .2166 | .0026 | -.0087 | .0096  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P181

RUN 224 CONFIG F P B W5 NP1 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 58.8        | 31.34       | -420.        | 66.          | 32.          | 1.94        | 56.12 | 129.91  | 3600.  |
| 3       | .0        | .0      | 57.2        | -5.97       | -501.        | 65.          | 49.          | 2.55        | 56.02 | 129.79  | 11140. |
| 4       | -8.0      | .0      | -182.5      | 4.27        | -880.        | 34.          | 9.           | 4.79        | 56.13 | 129.92  | 11230. |
| 5       | -4.0      | .0      | -65.4       | -5.40       | -744.        | 54.          | -25.         | 5.23        | 56.02 | 129.79  | 11300. |
| 6       | .0        | .0      | 57.3        | -5.54       | -495.        | 77.          | 64.          | 4.07        | 56.12 | 129.91  | 11170. |
| 7       | 2.5       | .0      | 135.5       | -2.63       | -415.        | 81.          | 33.          | .97         | 56.39 | 130.23  | 11260. |
| 8       | 5.0       | .0      | 219.2       | 4.45        | -364.        | 98.          | 16.          | 1.02        | 56.58 | 130.46  | 11250. |
| 9       | 10.0      | .0      | 377.5       | 25.98       | -294.        | 67.          | 121.         | -1.51       | 56.52 | 130.38  | 11270. |
| 10      | 15.0      | .0      | 506.4       | 63.49       | -344.        | 65.          | 156.         | -2.61       | 56.11 | 129.90  | 11240. |
| 11      | 17.5      | .0      | 527.6       | 90.44       | -453.        | 75.          | 173.         | -1.71       | 55.92 | 129.67  | 11330. |
| 12      | 19.9      | .0      | 546.8       | 122.97      | -538.        | 70.          | 122.         | -1.29       | 55.67 | 129.38  | 11280. |
| 13      | -0        | .0      | 56.8        | -7.77       | -499.        | 73.          | 48.          | 3.02        | 56.46 | 130.31  | 11460. |
| 14      | 7.4       | .0      | 294.4       | 13.34       | -342.        | 75.          | 17.          | .06         | 56.22 | 130.02  | 11240. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .1589  | .0847  | -.1354 | .0040 | .0019  | .0053  |
| 3    | .00   | .1545  | -.0161 | -.1615 | .0039 | .0029  | .0069  |
| 4    | -7.97 | -.4932 | .0116  | -.2836 | .0021 | .0005  | .0130  |
| 5    | -3.97 | -.1767 | -.0146 | -.2399 | .0032 | -.0015 | .0141  |
| 6    | .02   | .1549  | -.0150 | -.1597 | .0047 | .0039  | .0110  |
| 7    | 2.45  | .3662  | -.0071 | -.1337 | .0049 | .0020  | .0026  |
| 8    | 5.02  | .5925  | .0120  | -.1173 | .0059 | .0010  | .0028  |
| 9    | 10.04 | 1.0201 | .0702  | -.0947 | .0040 | .0073  | -.0041 |
| 10   | 15.02 | 1.3685 | .1716  | -.1108 | .0039 | .0094  | -.0071 |
| 11   | 17.48 | 1.4260 | .2444  | -.1461 | .0045 | .0105  | -.0046 |
| 12   | 19.91 | 1.4778 | .3324  | -.1736 | .0042 | .0073  | -.0035 |
| 13   | -.01  | .1536  | -.0210 | -.1607 | .0044 | .0029  | .0082  |
| 14   | 7.42  | .7958  | .0360  | -.1103 | .0046 | .0010  | .0002  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .1589  | .0847  | -.1354 | .0040 | .0019  | .0053  |
| 3    | .00   | .1545  | -.0161 | -.1615 | .0039 | .0029  | .0069  |
| 4    | -7.97 | -.4932 | .0116  | -.2836 | .0021 | .0005  | .0130  |
| 5    | -3.97 | -.1767 | -.0146 | -.2399 | .0032 | -.0015 | .0141  |
| 6    | .02   | .1549  | -.0150 | -.1597 | .0047 | .0039  | .0110  |
| 7    | 2.45  | .3662  | -.0071 | -.1337 | .0049 | .0020  | .0026  |
| 8    | 5.02  | .5925  | .0120  | -.1173 | .0059 | .0010  | .0028  |
| 9    | 10.04 | 1.0201 | .0702  | -.0947 | .0040 | .0073  | -.0041 |
| 10   | 15.02 | 1.3685 | .1716  | -.1108 | .0039 | .0094  | -.0071 |
| 11   | 17.48 | 1.4260 | .2444  | -.1461 | .0045 | .0105  | -.0046 |
| 12   | 19.91 | 1.4778 | .3324  | -.1736 | .0042 | .0073  | -.0035 |
| 13   | -.01  | .1536  | -.0210 | -.1607 | .0044 | .0029  | .0082  |
| 14   | 7.42  | .7958  | .0360  | -.1103 | .0046 | .0010  | .0002  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 182

RUN 225 CONFIG F P B W5 NP1 T BT

| IW<br>PT.<br>NO. | DELTA<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CLBAR<br>SQ-FT | DELTA<br>CDBAR<br>SQ-FT | DELTA<br>CPMBAR<br>CU-FT | DELTA<br>CYMBAR<br>CU-FT | DELTA<br>CRMBAR<br>CU-FT | DELTA<br>CYBAR<br>SQ-FT | DELTA<br>Q<br>PSF | DELTA<br>V<br>KNOTS | RPM    |
|------------------|-----------------------|---------------------|-------------------------|-------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------|---------------------|--------|
| 2                | .0                    | .0                  | 56.4                    | 31.52                   | -451.                    | 65.                      | -73.                     | 2.50                    | 55.79             | 129.53              | 3620.  |
| 3                | .0                    | .0                  | 52.5                    | -146.17                 | -734.                    | -47.                     | 67.                      | 2.65                    | 55.22             | 128.85              | 23120. |
| 4                | -8.0                  | .0                  | -221.6                  | -132.17                 | -1283.                   | 53.                      | 8.                       | 5.83                    | 54.93             | 128.50              | 22960. |
| 5                | -4.0                  | .0                  | -87.0                   | -141.79                 | -1019.                   | -5.                      | 24.                      | 7.47                    | 55.18             | 128.81              | 23070. |
| 6                | -0.0                  | .0                  | 51.2                    | -144.92                 | -742.                    | -42.                     | 44.                      | 7.39                    | 54.83             | 128.39              | 23110. |
| 7                | 2.4                   | .0                  | 138.9                   | -140.15                 | -636.                    | -47.                     | -5.                      | 4.83                    | 54.98             | 128.58              | 23090. |
| 8                | 4.9                   | .0                  | 232.9                   | -135.27                 | -564.                    | -17.                     | 68.                      | 3.44                    | 54.52             | 128.02              | 23110. |
| 9                | 9.9                   | .0                  | 405.4                   | -112.65                 | -422.                    | 4.                       | 124.                     | -4.44                   | 54.81             | 128.37              | 23140. |
| 10               | 14.9                  | .0                  | 548.1                   | -71.64                  | -362.                    | 84.                      | 161.                     | -3.44                   | 54.48             | 127.97              | 23020. |
| 11               | 17.5                  | .0                  | 587.5                   | -41.72                  | -441.                    | 77.                      | 142.                     | -3.69                   | 54.43             | 127.91              | 23030. |
| 12               | 20.0                  | .0                  | 618.0                   | -5.91                   | -495.                    | 62.                      | 159.                     | -2.06                   | 54.55             | 128.05              | 23150. |
| 14               | 7.5                   | .0                  | 321.4                   | -122.13                 | -505.                    | 1.                       | 209.                     | 2.60                    | 55.09             | 128.70              | 23320. |
| 15               | 12.5                  | .0                  | 491.6                   | -92.12                  | -338.                    | 60.                      | 230.                     | -2.91                   | 54.94             | 128.52              | 23310. |
| 16               | .0                    | .0                  | 55.4                    | -137.91                 | -750.                    | -43.                     | 43.                      | 7.12                    | 55.46             | 129.14              | 23250. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .1525  | .0852  | -.1453 | .0039  | -.0044 | .0068  |
| 3    | .00   | .1418  | -.3950 | -.2366 | -.0028 | .0040  | .0072  |
| 4    | -7.99 | -.5988 | -.3572 | -.4138 | .0032  | .0005  | .0158  |
| 5    | -4.02 | -.2352 | -.3832 | -.3284 | -.0003 | .0014  | .0202  |
| 6    | -.04  | .1384  | -.3917 | -.2391 | -.0025 | .0026  | .0200  |
| 7    | 2.44  | .3753  | -.3788 | -.2050 | -.0029 | -.0003 | .0131  |
| 8    | 4.94  | .6294  | -.3656 | -.1819 | -.0010 | .0041  | .0093  |
| 9    | 9.95  | 1.0956 | -.3044 | -.1360 | .0002  | .0075  | -.0012 |
| 10   | 14.93 | 1.4814 | -.1936 | -.1166 | .0051  | .0097  | -.0093 |
| 11   | 17.49 | 1.5878 | -.1128 | -.1423 | .0046  | .0086  | -.0100 |
| 12   | 20.03 | .1424  | -.3787 | .9909  | -.0057 | .0014  | .0195  |
| 14   | 7.49  | .8687  | -.3301 | -.1628 | .0000  | .0126  | .0070  |
| 15   | 12.49 | 1.3285 | -.2490 | -.1091 | .0036  | .0139  | -.0079 |
| 16   | .04   | .1497  | -.3727 | -.2417 | -.0026 | .0026  | .0193  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .1525  | .0852  | -.1453 | .0039  | -.0044 | .0068  |
| 3    | .00   | .1418  | -.3950 | -.2366 | -.0028 | .0040  | .0072  |
| 4    | -7.99 | -.5988 | -.3572 | -.4138 | .0032  | .0005  | .0158  |
| 5    | -4.02 | -.2352 | -.3832 | -.3284 | -.0003 | .0014  | .0202  |
| 6    | -.04  | .1384  | -.3917 | -.2391 | -.0025 | .0026  | .0200  |
| 7    | 2.44  | .3753  | -.3788 | -.2050 | -.0029 | -.0003 | .0131  |
| 8    | 4.94  | .6294  | -.3656 | -.1819 | -.0010 | .0041  | .0093  |
| 9    | 9.95  | 1.0956 | -.3044 | -.1360 | .0002  | .0075  | -.0012 |
| 10   | 14.93 | 1.4814 | -.1936 | -.1166 | .0051  | .0097  | -.0093 |
| 11   | 17.49 | 1.5878 | -.1128 | -.1423 | .0046  | .0086  | -.0100 |
| 12   | 20.03 | .1424  | -.3787 | .9909  | -.0057 | .0014  | .0195  |
| 14   | 7.49  | .8687  | -.3301 | -.1628 | .0000  | .0126  | .0070  |
| 15   | 12.49 | 1.3285 | -.2490 | -.1091 | .0036  | .0139  | -.0079 |
| 16   | .04   | .1497  | -.3727 | -.2417 | -.0026 | .0026  | .0193  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 226 CONFIG F P B W5 NP1 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 58.8        | 32.42       | -459.        | 62.          | -53.         | .55         | 55.83 | 129.57  | 3630.  |
| 3       | .0        | .0      | 59.4        | 31.94       | -458.        | 70.          | -73.         | 2.11        | 54.78 | 128.33  | 3600.  |
| 4       | .0        | .0      | 55.1        | -59.24      | -639.        | -622.        | 1.           | 13.19       | 55.51 | 129.20  | 23060. |
| 6       | -4.0      | .0      | -74.7       | -56.92      | -812.        | -577.        | 35.          | 11.83       | 55.30 | 128.94  | 23030. |
| 7       | -8.0      | .0      | -197.2      | -46.83      | -952.        | -533.        | 51.          | 11.32       | 55.09 | 128.69  | 22990. |
| 8       | -0        | .0      | 55.2        | -57.44      | -644.        | -612.        | 18.          | 13.36       | 55.07 | 128.68  | 23010. |
| 9       | 2.4       | .0      | 137.2       | -53.63      | -578.        | -627.        | -32.         | 12.73       | 55.13 | 128.74  | 23010. |
| 10      | 5.0       | .0      | 222.4       | -46.00      | -531.        | -611.        | -98.         | 11.36       | 55.50 | 129.18  | 23000. |
| 11      | 7.4       | .0      | 305.1       | -36.26      | -485.        | -580.        | -149.        | 9.67        | 54.93 | 128.51  | 23050. |
| 12      | 9.9       | .0      | 386.9       | -22.35      | -430.        | -574.        | -93.         | 8.47        | 55.12 | 128.73  | 22980. |
| 14      | 17.6      | .0      | 547.4       | 46.57       | -501.        | -419.        | -212.        | -.37        | 54.88 | 128.44  | 22930. |
| 15      | 19.9      | .0      | 573.2       | 79.96       | -598.        | -374.        | -286.        | -.94        | 54.32 | 127.78  | 23060. |
| 16      | -0        | .0      | 56.8        | -52.77      | -641.        | -602.        | -69.         | 13.19       | 55.77 | 129.51  | 23050. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .1590  | .0876  | -.1481 | .0038  | -.0032 | .0015  |
| 3    | .00   | .1607  | .0863  | -.1477 | .0043  | -.0044 | .0057  |
| 4    | .00   | -.5365 | -.1217 | 1.3561 | -.0365 | .0042  | .0293  |
| 6    | -4.00 | -.2019 | -.1538 | -.2618 | -.0349 | .0021  | .0320  |
| 7    | -8.00 | -.5329 | -.1266 | -.3068 | -.0322 | .0031  | .0306  |
| 8    | -.04  | .1492  | -.1553 | -.2077 | -.0370 | .0011  | .0361  |
| 9    | 2.40  | .3707  | -.1450 | -.1863 | -.0379 | -.0019 | .0344  |
| 10   | 4.95  | .6010  | -.1243 | -.1712 | -.0369 | -.0059 | .0307  |
| 11   | 7.40  | .8246  | -.0980 | -.1563 | -.0350 | -.0090 | .0261  |
| 12   | 9.95  | 1.4150 | .0440  | -.0528 | -.0296 | -.0108 | .0040  |
| 14   | 17.56 | 1.4794 | .1259  | -.1617 | -.0253 | -.0128 | -.0010 |
| 15   | 19.95 | 1.5491 | .2161  | -.1929 | -.0226 | -.0172 | -.0025 |
| 16   | -.02  | .1535  | -.1426 | -.2067 | -.0363 | -.0042 | .0357  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYS    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .1590  | .0876  | -.1481 | .0038  | -.0032 | .0015  |
| 3    | .00   | .1607  | .0863  | -.1477 | .0043  | -.0044 | .0057  |
| 4    | .00   | -.5365 | -.1217 | 1.3561 | -.0365 | .0042  | .0293  |
| 6    | -4.00 | -.2019 | -.1538 | -.2618 | -.0349 | .0021  | .0320  |
| 7    | -8.00 | -.5329 | -.1266 | -.3068 | -.0322 | .0031  | .0306  |
| 8    | -.04  | .1492  | -.1553 | -.2077 | -.0370 | .0011  | .0361  |
| 9    | 2.40  | .3707  | -.1450 | -.1863 | -.0379 | -.0019 | .0344  |
| 10   | 4.95  | .6010  | -.1243 | -.1712 | -.0369 | -.0059 | .0307  |
| 11   | 7.40  | .8246  | -.0980 | -.1563 | -.0350 | -.0090 | .0261  |
| 12   | 9.95  | 1.4150 | .0440  | -.0528 | -.0296 | -.0108 | .0040  |
| 14   | 17.56 | 1.4794 | .1259  | -.1617 | -.0253 | -.0128 | -.0010 |
| 15   | 19.95 | 1.5491 | .2161  | -.1929 | -.0226 | -.0172 | -.0025 |
| 16   | -.02  | .1535  | -.1426 | -.2067 | -.0363 | -.0042 | .0357  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA.

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P 184

RUN 227 CONFIG F P B W5 NP1 T BT

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 DELA<br>COBAR<br>SQ-FT | 0 IHT<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM   |
|------------------|------------------------|----------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|-------|
| 2                | .0                     | .0                   | 59.4                     | 31.45                    | -448.                    | 58.                       | 68.                       | 2.63                      | 54.59         | 128.11          | 3560. |
| 3                | .0                     | .0                   | 59.9                     | 31.34                    | -444.                    | 59.                       | 102.                      | 2.99                      | 54.75         | 128.30          | 3570. |
| 4                | -19.5                  | .0                   | -319.3                   | 147.03                   | 188.                     | -136.                     | 49.                       | 9.37                      | 55.24         | 128.88          | 3900. |
| 5                | -16.0                  | .0                   | -280.0                   | 118.40                   | -34.                     | -51.                      | 315.                      | 9.68                      | 54.91         | 128.48          | 3850. |
| 6                | -12.0                  | .0                   | -266.8                   | 63.96                    | -421.                    | -30.                      | 145.                      | 5.94                      | 55.58         | 129.28          | 3770. |
| 7                | -8.0                   | .0                   | -170.7                   | 42.41                    | -561.                    | 18.                       | 132.                      | 4.10                      | 55.64         | 129.35          | 3610. |
| 8                | -4.0                   | .0                   | -60.9                    | 31.97                    | -571.                    | 35.                       | 49.                       | 2.01                      | 55.96         | 129.73          | 3550. |
| 9                | .0                     | .0                   | 60.8                     | 31.46                    | -440.                    | 69.                       | 136.                      | 2.08                      | 55.77         | 129.50          | 3610. |
| 10               | 2.4                    | .0                   | 136.3                    | 34.85                    | -368.                    | 82.                       | 173.                      | .85                       | 55.86         | 129.61          | 3670. |
| 11               | 5.0                    | .0                   | 214.9                    | 41.82                    | -338.                    | 97.                       | 156.                      | .49                       | 55.85         | 129.60          | 3770. |
| 12               | 10.0                   | .0                   | 372.0                    | 65.09                    | -306.                    | 79.                       | 279.                      | -.92                      | 55.76         | 129.49          | 3950. |
| 13               | 15.0                   | .0                   | 509.3                    | 103.53                   | -343.                    | 77.                       | 211.                      | -3.33                     | 55.29         | 128.93          | 4150. |
| 14               | 20.0                   | .0                   | 530.0                    | 163.23                   | -618.                    | 59.                       | 246.                      | -3.78                     | 55.04         | 128.63          | 4210. |
| 15               | -19.5                  | .0                   | -320.9                   | 148.24                   | 188.                     | -127.                     | 71.                       | 7.76                      | 54.90         | 128.46          | 3910. |
| 16               | -16.0                  | .0                   | -276.0                   | 117.16                   | -68.                     | -53.                      | 367.                      | 8.22                      | 55.52         | 129.21          | 3870. |
| 17               | -14.0                  | .0                   | -280.0                   | 92.46                    | -214.                    | -133.                     | 379.                      | 11.43                     | 55.42         | 129.08          | 3830. |
| 18               | -12.0                  | .0                   | -263.7                   | 63.82                    | -405.                    | -32.                      | 126.                      | 6.89                      | 55.83         | 129.57          | 3770. |
| 19               | -9.9                   | .0                   | -222.3                   | 49.99                    | -568.                    | -2.                       | 109.                      | 6.51                      | 55.95         | 129.71          | 3640. |
| 20               | -8.1                   | .0                   | -173.6                   | 42.61                    | -578.                    | 17.                       | 131.                      | 4.20                      | 56.01         | 129.79          | 3600. |
| 21               | -3.9                   | .0                   | -55.9                    | 32.28                    | -559.                    | 46.                       | 134.                      | 3.30                      | 55.74         | 129.47          | 3560. |
| 22               | .0                     | .0                   | 61.2                     | 31.77                    | -439.                    | 80.                       | 120.                      | 1.53                      | 55.64         | 129.35          | 3620. |
| 23               | 2.5                    | .0                   | 136.1                    | 35.45                    | -372.                    | 90.                       | 172.                      | 2.02                      | 55.68         | 129.40          | 3690. |
| 24               | 5.0                    | .0                   | 216.2                    | 42.46                    | -340.                    | 101.                      | 122.                      | -.12                      | 55.68         | 129.40          | 3770. |
| 25               | -12.0                  | .0                   | -272.3                   | 60.16                    | -447.                    | -18.                      | 129.                      | 5.91                      | 55.34         | 128.99          | 3670. |
| 26               | -10.0                  | .0                   | -224.2                   | 50.41                    | -562.                    | -1.                       | 61.                       | 4.61                      | 55.43         | 129.11          | 3630. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .1606  | .0850 | -.1443 | .0035  | .0041 | .0073  |
| 3    | .00    | .1618  | .0847 | -.1431 | .0036  | .0062 | .0081  |
| 4    | -19.48 | -.8628 | .3974 | .0607  | -.0082 | .0030 | .0253  |
| 5    | -16.01 | -.7568 | .3200 | -.0109 | -.0031 | .0190 | .0262  |
| 6    | -12.03 | -.7211 | .1729 | -.1356 | -.0018 | .0088 | .0161  |
| 7    | -8.01  | -.4613 | .1146 | -.1809 | .0011  | .0080 | .0111  |
| 8    | -4.05  | -.1646 | .0864 | -.1841 | .0021  | .0030 | .0054  |
| 9    | .04    | .1643  | .0850 | -.1418 | .0042  | .0082 | .0056  |
| 10   | 2.45   | .3683  | .0942 | -.1186 | .0049  | .0104 | .0023  |
| 11   | 4.96   | .5808  | .1130 | -.1090 | .0059  | .0094 | .0013  |
| 12   | 9.97   | 1.0054 | .1759 | -.0985 | .0048  | .0168 | -.0025 |
| 13   | 15.00  | 1.3764 | .2798 | -.1106 | .0047  | .0127 | -.0090 |
| 14   | 19.96  | 1.4325 | .4412 | -.1993 | .0036  | .0148 | -.0102 |
| 15   | -19.49 | -.8673 | .4006 | .0505  | -.0077 | .0043 | .0210  |
| 16   | -16.00 | -.7459 | .3166 | -.0218 | -.0032 | .0221 | .0222  |
| 17   | -14.04 | -.7568 | .2499 | -.0691 | -.0080 | .0229 | .0309  |
| 18   | -12.02 | -.7127 | .1725 | -.1305 | -.0019 | .0076 | .0186  |
| 19   | -9.90  | -.6007 | .1351 | -.1833 | -.0001 | .0066 | .0176  |
| 20   | -8.06  | -.4693 | .1152 | -.1864 | .0010  | .0079 | .0113  |
| 21   | -3.90  | -.1512 | .0872 | -.1803 | .0028  | .0081 | .0089  |
| 22   | .02    | .1655  | .0859 | -.1415 | .0043  | .0072 | .0041  |
| 23   | 2.46   | .3678  | .0958 | -.1199 | .0055  | .0104 | .0055  |
| 24   | 4.98   | .5843  | .1148 | -.1096 | .0061  | .0074 | -.0003 |



|    |        |        |       |        |        |       |       |
|----|--------|--------|-------|--------|--------|-------|-------|
| 25 | -11.99 | -.7358 | .1626 | -.1441 | -.0011 | .0078 | .0160 |
| 26 | -9.99  | .1632  | .0891 | 1.0292 | .0036  | .0092 | .0059 |

SEP-7  
PLTS

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT, # | ALPHA  | CLB    | COB   | CPMB   | CYMB   | CRMB  | CYB    |
|-------|--------|--------|-------|--------|--------|-------|--------|
| 2     | .00    | .1606  | .0850 | -.1443 | .0035  | .0041 | .0073  |
| 3     | .00    | .1618  | .0847 | -.1431 | .0036  | .0062 | .0081  |
| 4     | -19.48 | -.8628 | .3974 | .0607  | -.0082 | .0030 | .0253  |
| 5     | -16.01 | -.7568 | .3200 | -.0109 | -.0031 | .0190 | .0262  |
| 6     | -12.03 | -.7211 | .1729 | -.1356 | -.0018 | .0088 | .0161  |
| 7     | -8.01  | -.4613 | .1146 | -.1809 | .0011  | .0080 | .0111  |
| 8     | -4.05  | -.1646 | .0864 | -.1841 | .0021  | .0030 | .0054  |
| 9     | .04    | .1643  | .0850 | -.1418 | .0042  | .0082 | .0056  |
| 10    | 2.45   | .3683  | .0942 | -.1186 | .0049  | .0104 | .0023  |
| 11    | 4.96   | .5808  | .1130 | -.1090 | .0059  | .0094 | .0013  |
| 12    | 9.97   | 1.0054 | .1759 | -.0985 | .0048  | .0168 | -.0025 |
| 13    | 15.00  | 1.3764 | .2798 | -.1106 | .0047  | .0127 | -.0090 |
| 14    | 19.96  | 1.4325 | .4412 | -.1993 | .0036  | .0148 | -.0102 |
| 15    | -19.49 | -.8673 | .4006 | .0605  | -.0077 | .0043 | .0210  |
| 16    | -16.00 | -.7459 | .3166 | -.0218 | -.0032 | .0221 | .0222  |
| 17    | -14.04 | -.7568 | .2499 | -.0691 | -.0080 | .0229 | .0309  |
| 18    | -12.02 | -.7127 | .1725 | -.1305 | -.0019 | .0076 | .0186  |
| 19    | -9.90  | -.6007 | .1351 | -.1833 | -.0001 | .0066 | .0176  |
| 20    | -8.06  | -.4693 | .1152 | -.1864 | .0010  | .0079 | .0113  |
| 21    | -3.90  | -.1512 | .0872 | -.1803 | .0028  | .0081 | .0089  |
| 22    | .02    | .1655  | .0859 | -.1415 | .0048  | .0072 | .0041  |
| 23    | 2.46   | .3678  | .0958 | -.1199 | .0055  | .0104 | .0055  |
| 24    | 4.98   | .5843  | .1148 | -.1096 | .0061  | .0074 | -.0003 |
| 25    | -11.99 | -.7358 | .1626 | -.1441 | -.0011 | .0078 | .0160  |
| 26    | -9.99  | .1632  | .0891 | 1.0292 | .0036  | .0092 | .0059  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 186

RUN.228 CONFIG F\_P B W5 NP1 T BT

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM   |
|------------------|------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|-------|
| 3                | .0                     | .0                   | 61.2                     | 32.07                   | -438.                     | 71.                       | 226.                      | 2.29                      | 54.95         | 128.54          | 3600. |
| 4                | .0                     | -15.0                | 73.8                     | 49.80                   | -464.                     | 318.                      | 189.                      | -94.83                    | 55.21         | 128.85          | 3450. |
| 5                | .0                     | -10.0                | 69.0                     | 39.66                   | -488.                     | 181.                      | 227.                      | -62.86                    | 55.39         | 129.05          | 3510. |
| 6                | .0                     | -5.0                 | 64.8                     | 34.15                   | -459.                     | 73.                       | 240.                      | -29.79                    | 55.12         | 128.74          | 3560. |
| 7                | .0                     | .0                   | 61.2                     | 32.09                   | -460.                     | 77.                       | 188.                      | 3.07                      | 55.42         | 129.09          | 3610. |
| 8                | .0                     | 2.5                  | 61.1                     | 32.47                   | -475.                     | 95.                       | 200.                      | 17.64                     | 55.42         | 129.10          | 3630. |
| 9                | .0                     | 5.0                  | 64.0                     | 33.62                   | -493.                     | 96.                       | 217.                      | 33.31                     | 55.12         | 128.74          | 3660. |
| 10               | .0                     | 10.1                 | 69.7                     | 38.39                   | -578.                     | -51.                      | 262.                      | 66.27                     | 55.10         | 128.72          | 3700. |
| 11               | .0                     | 15.1                 | 70.7                     | 47.59                   | -595.                     | -209.                     | 250.                      | 99.02                     | 55.42         | 129.09          | 3750. |
| 12               | .0                     | .0                   | 62.3                     | 32.29                   | -456.                     | 83.                       | 172.                      | 2.96                      | 55.19         | 128.82          | 3630. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|-------|--------|--------|-------|--------|
| 3    | .00    | .1654 | .0867 | -.1412 | .0043  | .0137 | .0062  |
| 4    | -15.00 | .1995 | .1346 | -.1495 | .0192  | .0114 | -.2563 |
| 5    | -10.00 | .1866 | .1072 | -.1574 | .0109  | .0137 | -.1699 |
| 6    | -5.00  | .1752 | .0923 | -.1479 | .0044  | .0145 | -.0805 |
| 7    | .00    | .1654 | .0867 | -.1484 | .0047  | .0114 | .0083  |
| 8    | 2.50   | .1650 | .0878 | -.1532 | .0057  | .0121 | .0477  |
| 9    | 5.00   | .1729 | .0909 | -.1590 | .0058  | .0131 | .0900  |
| 10   | 10.10  | .1884 | .1038 | -.1864 | -.0031 | .0158 | .1791  |
| 11   | 15.10  | .1912 | .1286 | -.1917 | -.0126 | .0151 | .2676  |
| 12   | .00    | .1684 | .0873 | -.1470 | .0050  | .0104 | .0080  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|-------|--------|--------|-------|--------|
| 3    | .00    | .1654 | .0867 | -.1412 | .0043  | .0137 | .0062  |
| 4    | -15.00 | .1995 | .0633 | -.1601 | .0192  | .0183 | -.2825 |
| 5    | -10.00 | .1866 | .0759 | -.1678 | .0109  | .0187 | -.1860 |
| 6    | -5.00  | .1752 | .0849 | -.1541 | .0044  | .0169 | -.0883 |
| 7    | .00    | .1654 | .0867 | -.1484 | .0047  | .0114 | .0083  |
| 8    | 2.50   | .1650 | .0856 | -.1502 | .0057  | .0108 | .0515  |
| 9    | 5.00   | .1729 | .0826 | -.1523 | .0058  | .0104 | .0976  |
| 10   | 10.10  | .1884 | .0706 | -.1686 | -.0031 | .0094 | .1946  |
| 11   | 15.10  | .1912 | .0541 | -.1639 | -.0126 | .0052 | .2920  |
| 12   | .00    | .1684 | .0873 | -.1470 | .0050  | .0104 | .0080  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P17

RUN 229 CONFIG F P B W5 NP1 T BT

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 2                | .0                     | .0                   | 55.2                     | 31.57                   | -464.                     | 70.                       | -161.                     | 1.93                      | 54.83         | 128.40          | 3580.  |
| 3                | .0                     | -2.5                 | 57.1                     | 32.47                   | -439.                     | 76.                       | -132.                     | -13.88                    | 54.99         | 128.59          | 3580.  |
| 4                | .0                     | -14.9                | 69.1                     | -39.24                  | -695.                     | -428.                     | -153.                     | -118.49                   | 55.14         | 128.77          | 23070. |
| 5                | .0                     | -10.0                | 60.2                     | -51.07                  | -694.                     | -604.                     | -137.                     | -70.92                    | 55.10         | 128.72          | 23020. |
| 6                | .0                     | -5.0                 | 55.7                     | -57.22                  | -654.                     | -663.                     | -118.                     | -26.59                    | 55.22         | 128.86          | 23070. |
| 7                | .0                     | -2.5                 | 53.3                     | -57.70                  | -652.                     | -636.                     | -123.                     | -7.69                     | 54.92         | 128.51          | 23070. |
| 8                | .0                     | .0                   | 53.3                     | -56.32                  | -648.                     | -603.                     | -88.                      | 13.56                     | 55.03         | 128.64          | 22960. |
| 9                | .0                     | 2.5                  | 54.5                     | -54.24                  | -641.                     | -552.                     | -116.                     | 33.60                     | 55.15         | 128.78          | 22990. |
| 10               | .0                     | 5.0                  | 56.3                     | -51.92                  | -651.                     | -566.                     | -71.                      | 54.59                     | 55.16         | 128.79          | 23050. |
| 11               | .0                     | 10.1                 | 59.3                     | -45.30                  | -723.                     | -738.                     | -49.                      | 94.60                     | 55.35         | 129.01          | 23000. |
| 12               | .0                     | 15.0                 | 62.0                     | -32.42                  | -758.                     | -910.                     | -44.                      | 140.60                    | 55.63         | 129.34          | 23050. |
| 13               | .0                     | .0                   | 53.2                     | -53.23                  | -636.                     | -587.                     | -105.                     | 13.57                     | 55.22         | 128.86          | 23030. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1492 | .0853  | -.1495 | .0042  | -.0098 | .0052  |
| 3    | -2.50  | .1542 | .0878  | -.1415 | .0046  | -.0080 | -.0375 |
| 4    | -14.90 | .1867 | -.1061 | -.2241 | -.0259 | -.0092 | -.3203 |
| 5    | -10.00 | .1626 | -.1380 | -.2237 | -.0365 | -.0083 | -.1917 |
| 6    | -5.00  | .1506 | -.1547 | -.2109 | -.0401 | -.0071 | -.0719 |
| 7    | -2.50  | .1441 | -.1559 | -.2102 | -.0384 | -.0074 | -.0208 |
| 8    | .00    | .1440 | -.1522 | -.2090 | -.0364 | -.0053 | .0366  |
| 9    | 2.50   | .1474 | -.1466 | -.2065 | -.0333 | -.0070 | .0908  |
| 10   | 5.00   | .1522 | -.1403 | -.2100 | -.0342 | -.0043 | .1475  |
| 11   | 10.10  | .1601 | -.1224 | -.2330 | -.0446 | -.0030 | .2557  |
| 12   | 15.00  | .1677 | -.0876 | -.2442 | -.0550 | -.0027 | .3800  |
| 13   | .00    | .1437 | -.1439 | -.2051 | -.0355 | -.0063 | .0367  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1492 | .0853  | -.1495 | .0042  | -.0098 | .0052  |
| 3    | -2.50  | .1542 | .0860  | -.1395 | .0046  | -.0068 | -.0413 |
| 4    | -14.90 | .1867 | -.1852 | -.2037 | -.0259 | .0019  | -.2820 |
| 5    | -10.00 | .1626 | -.1693 | -.2126 | -.0365 | -.0008 | -.1646 |
| 6    | -5.00  | .1506 | -.1604 | -.2067 | -.0401 | -.0037 | -.0580 |
| 7    | -2.50  | .1441 | -.1567 | -.2083 | -.0384 | -.0057 | -.0139 |
| 8    | .00    | .1440 | -.1522 | -.2090 | -.0364 | -.0053 | .0366  |
| 9    | 2.50   | .1474 | -.1504 | -.2080 | -.0333 | -.0087 | .0843  |
| 10   | 5.00   | .1522 | -.1527 | -.2112 | -.0342 | -.0077 | .1347  |
| 11   | 10.10  | .1601 | -.1656 | -.2321 | -.0446 | -.0106 | .2301  |
| 12   | 15.00  | .1677 | -.1834 | -.2396 | -.0550 | -.0145 | .3442  |
| 13   | .00    | .1437 | -.1439 | -.2051 | -.0355 | -.0063 | .0367  |

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OF POOR QUALITY

RUN 230 CONFIG F P B WS NP1 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 57.0        | 31.76       | -465.        | 66.          | -20.         | 1.79        | 55.04 | 128.65  | 3590.  |
| 3       | .0        | .0      | 55.9        | -5.54       | -525.        | 64.          | 14.          | 2.85        | 54.96 | 128.56  | 11050. |
| 4       | .0        | -15.0   | 71.5        | 14.71       | -529.        | 269.         | -7.          | -110.69     | 54.47 | 127.97  | 11020. |
| 5       | .0        | -10.0   | 63.8        | 9.80        |              |              |              | -81.11      | 54.59 | 128.12  | 11130. |
| 6       | .0        | -5.0    | 58.9        | -4.76       | -511.        | 23.          | -22.         | -33.26      | 54.69 | 128.23  | 11180. |
| 7       | .0        | -2.4    | 56.8        | -5.23       | -535.        | 460.         | 619.         | -27.71      | 54.21 | 127.66  | 11070. |
| 8       | .0        | .0      | 56.3        | -5.33       | -518.        | 67.          | 31.          | 3.42        | 54.71 | 128.26  | 10990. |
| 9       | .0        | 2.6     | 56.1        | -4.95       | -553.        | 278.         | 119.         | 18.54       | 54.40 | 127.88  | 11080. |
| 10      | .0        | 5.0     | 60.4        | -4.15       | -571.        | 101.         | 78.          | 40.37       | 54.52 | 128.02  | 11140. |
| 11      | .0        | 10.1    | 65.0        | 2.06        | -650.        | 22.          | 7.           | 76.05       | 54.83 | 128.39  | 11020. |
| 12      | .0        | 15.2    | 68.6        | 12.98       | -708.        | -153.        | 65.          | 115.17      | 54.75 | 128.30  | 11030. |
| 13      | .0        | .0      | 55.5        | -5.39       | -518.        | 58.          | -5.          | 3.85        | 54.90 | 128.48  | 11060. |

\*\*\* COEFFICIENT FORM -- WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1541 | .0858  | -.1499 | .0040  | -.0012 | .0049  |
| 3    | .00    | .1511 | -.0150 | -.1693 | .0039  | .0008  | .0077  |
| 4    | -15.00 | .1934 | .0397  | -.1706 | .0162  | -.0004 | -.2992 |
| 5    | -10.00 | .1724 | .0265  |        |        |        | -.2192 |
| 6    | -5.00  | .1593 | -.0129 | -.1647 | .0014  | -.0013 | -.0899 |
| 7    | -2.40  | .1536 | -.0141 | -.1724 | .0278  | .0374  | -.0749 |
| 8    | .00    | .1522 | -.0144 | -.1671 | .0040  | .0019  | .0093  |
| 9    | 2.60   | .1516 | -.0134 | -.1782 | .0168  | .0072  | .0501  |
| 10   | 5.00   | .1632 | -.0112 | -.1841 | .0061  | .0042  | .1091  |
| 11   | 10.10  | .1757 | .0056  | -.2095 | .0013  | .0004  | .2055  |
| 12   | 15.20  | .1853 | .0351  | -.2283 | -.0092 | .0039  | .3113  |
| 13   | .00    | .1499 | -.0146 | -.1669 | .0035  | -.0003 | .0104  |

\*\*\* COEFFICIENT FORM -- STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1541 | .0858  | -.1499 | .0040  | -.0012 | .0049  |
| 3    | .00    | .1511 | -.0150 | -.1693 | .0039  | .0008  | .0077  |
| 4    | -15.00 | .1934 | -.0394 | -.1641 | .0162  | .0079  | -.2992 |
| 5    | -10.00 | .1724 | -.0122 |        |        |        | -.2205 |
| 6    | -5.00  | .1593 | -.0207 | -.1634 | .0014  | .0014  | -.0884 |
| 7    | -2.40  | .1536 | -.0173 | -.1806 | .0278  | .0387  | -.0742 |
| 8    | .00    | .1522 | -.0144 | -.1671 | .0040  | .0019  | .0093  |
| 9    | 2.60   | .1516 | -.0156 | -.1763 | .0168  | .0057  | .0494  |
| 10   | 5.00   | .1632 | -.0207 | -.1815 | .0061  | .0012  | .1077  |
| 11   | 10.10  | .1757 | -.0307 | -.2058 | .0013  | -.0065 | .2033  |
| 12   | 15.20  | .1853 | -.0481 | -.2148 | -.0092 | -.0075 | .3095  |
| 13   | .00    | .1499 | -.0146 | -.1669 | .0035  | -.0003 | .0104  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P. 189

RUN 231 CONFIG F P B W5 NP1 T BT

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 DELA<br>CDBAR<br>SQ-FT | 0 IHT<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|----------|-----------------|--------|
| 2                | .0                     | .0                   | 60.2                     | 32.19                    | -463.                    | 52.                       | 154.                      | 3.09                      | 55.10    | 128.72          | 3610.  |
| 3                | .0                     | .0                   | 55.5                     | -146.76                  | -725.                    | -68.                      | 132.                      | 6.52                      | 55.41    | 129.10          | 23070. |
| 4                | .0                     | -15.0                | 69.4                     | -119.50                  | -764.                    | 141.                      | 119.                      | -153.62                   | 55.28    | 128.94          | 23160. |
| 5                | .0                     | -10.0                | 62.3                     | -134.71                  | -758.                    | -60.                      | 179.                      | -97.11                    | 54.97    | 128.57          | 23220. |
| 6                | .0                     | -4.9                 | 56.1                     | -140.45                  | -719.                    | -115.                     | 150.                      | -42.32                    | 55.62    | 129.34          | 23300. |
| 7                | .0                     | -2.5                 | 54.4                     | -143.30                  | -753.                    | 267.                      | 639.                      | -29.54                    | 55.50    | 129.21          | 23340. |
| 8                | .0                     | .0                   | 56.6                     | -141.06                  | -751.                    | -12.                      | 166.                      | 7.33                      | 55.29    | 128.96          | 23030. |
| 9                | .0                     | 2.6                  | 57.2                     | -138.37                  | -772.                    | 72.                       | 186.                      | 31.43                     | 55.70    | 129.44          | 23100. |
| 10               | .0                     | 5.0                  | 60.9                     | -135.91                  | -806.                    | 101.                      | 220.                      | 57.42                     | 55.53    | 129.24          | 23010. |
| 11               | .0                     | 10.0                 | 66.4                     | -127.50                  | -879.                    | 41.                       | 256.                      | 107.03                    | 55.73    | 129.47          | 23050. |
| 12               | .0                     | 15.2                 | 69.4                     | -112.47                  | -937.                    | -115.                     | 313.                      | 161.09                    | 55.76    | 129.51          | 22970. |
| 13               | .0                     | -2.4                 | 56.8                     | -138.67                  | -749.                    | 245.                      | 675.                      | -27.14                    | 55.47    | 129.17          | 23070. |
| 14               | .0                     | .0                   | 56.4                     | -139.58                  | -782.                    | -30.                      | 233.                      | 8.52                      | 55.53    | 129.25          | 23100. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1628 | .0870  | -.1493 | .0032  | .0093 | .0084  |
| 3    | .00    | .1500 | -.3967 | -.2338 | -.0041 | .0080 | .0176  |
| 4    | -15.00 | .1877 | -.3230 | -.2463 | .0085  | .0072 | -.4152 |
| 5    | -10.00 | .1684 | -.3641 | -.2442 | -.0036 | .0108 | -.2625 |
| 6    | -4.90  | .1516 | -.3796 | -.2318 | -.0070 | .0090 | -.1144 |
| 7    | -2.50  | .1471 | -.3873 | -.2428 | .0161  | .0386 | -.0793 |
| 8    | .00    | .1530 | -.3812 | -.2420 | -.0007 | .0100 | .0198  |
| 9    | 2.60   | .1545 | -.3740 | -.2490 | .0043  | .0112 | .0850  |
| 10   | 5.00   | .1646 | -.3673 | -.2598 | .0061  | .0133 | .1552  |
| 11   | 10.00  | .1796 | -.3446 | -.2832 | .0025  | .0155 | .2893  |
| 12   | 15.20  | .1875 | -.3040 | -.3021 | -.0070 | .0189 | .4354  |
| 13   | -2.40  | .1536 | -.3748 | -.2413 | .0148  | .0408 | -.0734 |
| 14   | .00    | .1523 | -.3772 | -.2520 | -.0018 | .0141 | .0232  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1628 | .0870  | -.1493 | .0032  | .0093 | .0084  |
| 3    | .00    | .1500 | -.3967 | -.2338 | -.0041 | .0080 | .0176  |
| 4    | -15.00 | .1877 | -.4198 | -.2478 | .0085  | .0189 | -.3169 |
| 5    | -10.00 | .1684 | -.4043 | -.2506 | -.0036 | .0186 | -.1949 |
| 6    | -4.90  | .1516 | -.3880 | -.2351 | -.0070 | .0127 | -.0814 |
| 7    | -2.50  | .1471 | -.3904 | -.2516 | .0161  | .0406 | -.0622 |
| 8    | .00    | .1530 | -.3812 | -.2420 | -.0007 | .0100 | .0198  |
| 9    | 2.60   | .1545 | -.3774 | -.2460 | .0043  | .0091 | .0678  |
| 10   | 5.00   | .1646 | -.3795 | -.2526 | .0061  | .0090 | .1224  |
| 11   | 10.00  | .1796 | -.3898 | -.2645 | .0025  | .0060 | .2247  |
| 12   | 15.20  | .1875 | -.4079 | -.2648 | -.0070 | .0034 | .3399  |
| 13   | -2.40  | .1536 | -.3775 | -.2503 | .0148  | .0427 | -.0575 |
| 14   | .00    | .1523 | -.3772 | -.2520 | -.0018 | .0141 | .0232  |

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SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

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P 190

RUN 232 CONFIG F P B NP1 T PT

| IW      | - DELF    | - DELA  | - IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | -9.1        | 27.45       | -720.        | 85.          | 16.          | 1.51        | 54.11 | 127.55  | 3520.  |
| 3       | .0        | .0      | -16.2       | -6.02       | -810.        | 81.          | 12.          | 4.44        | 54.49 | 127.99  | 10560. |
| 4       | -8.0      | .0      | -92.8       | 3.49        | -1023.       | 42.          | 10.          | 4.63        | 55.19 | 128.83  | 10540. |
| 5       | -4.1      | .0      | -57.8       | -2.67       | -903.        | 67.          | -7.          | 4.69        | 55.21 | 128.86  | 10530. |
| 6       | -0        | .0      | -17.1       | -6.31       | -812.        | 76.          | 31.          | 3.22        | 54.99 | 128.59  | 10520. |
| 7       | 2.5       | .0      | 12.2        | -6.36       | -829.        | 87.          | 15.          | 2.10        | 55.25 | 128.90  | 10590. |
| 8       | 5.1       | .0      | 42.3        | -4.80       | -893.        | 100.         | 53.          | .12         | 55.17 | 128.81  | 10550. |
| 9       | 10.0      | .0      | 102.1       | 1.38        | -1061.       | 120.         | 71.          | -.81        | 54.98 | 128.57  | 10540. |
| 10      | 14.9      | .0      | 152.8       | 21.85       | -1073.       | 97.          | 53.          | -1.72       | 55.38 | 129.05  | 10590. |
| 11      | 17.6      | .0      | 177.3       | 33.70       | -1050.       | 90.          | 70.          | -1.80       | 54.99 | 128.59  | 10520. |
| 12      | 19.8      | .0      | 194.1       | 44.76       | -985.        | 71.          | 52.          | -1.35       | 55.41 | 129.09  | 10580. |
| 13      | -0        | .0      | -16.7       | -6.32       | -817.        | 75.          | 14.          | 2.61        | 54.88 | 128.46  | 10570. |
| 14      | -0        | .0      | -8.5        | 27.11       | -691.        | 75.          | 50.          | 2.34        | 55.38 | 129.05  | 3570.  |
| 15      | 10.0      | .0      | 97.5        | 35.20       | -1047.       | 123.         | 54.          | -1.48       | 55.15 | 128.78  | 3500.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | -.0247 | .0742  | -.2321 | .0051 | .0010  | .0041  |
| 3    | .00   | -.0438 | -.0187 | -.2639 | .0049 | .0007  | .0120  |
| 4    | -8.00 | -.2507 | .0094  | -.3298 | .0026 | .0006  | .0125  |
| 5    | -4.13 | -.1563 | -.0072 | -.2912 | .0040 | -.0004 | .0127  |
| 6    | -.04  | -.0461 | -.0171 | -.2617 | .0046 | .0019  | .0087  |
| 7    | 2.54  | .0330  | -.0172 | -.2674 | .0053 | .0009  | .0057  |
| 8    | 5.07  | .1143  | -.0130 | -.2880 | .0060 | .0032  | .0003  |
| 9    | 9.95  | .2760  | .0037  | -.3422 | .0073 | .0043  | -.0022 |
| 10   | 14.95 | .4130  | .0591  | -.3459 | .0058 | .0032  | -.0047 |
| 11   | 17.55 | .4792  | .0911  | -.3385 | .0054 | .0043  | -.0049 |
| 12   | 19.83 | .5247  | .1210  | -.3176 | .0043 | .0032  | -.0037 |
| 13   | -.01  | -.0451 | -.0171 | -.2633 | .0045 | .0009  | .0070  |
| 14   | -.01  | -.0231 | .0733  | -.2229 | .0045 | .0030  | .0063  |
| 15   | 9.98  | .2635  | .0951  | -.3376 | .0074 | .0032  | -.0040 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMR   | CYMR  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | -.0247 | .0742  | -.2321 | .0051 | .0010  | .0041  |
| 3    | .00   | -.0438 | -.0187 | -.2639 | .0049 | .0007  | .0120  |
| 4    | -8.00 | -.2507 | .0094  | -.3298 | .0026 | .0006  | .0125  |
| 5    | -4.13 | -.1563 | -.0072 | -.2912 | .0040 | -.0004 | .0127  |
| 6    | -.04  | -.0461 | -.0171 | -.2617 | .0046 | .0019  | .0087  |
| 7    | 2.54  | .0330  | -.0172 | -.2674 | .0053 | .0009  | .0057  |
| 8    | 5.07  | .1143  | -.0130 | -.2880 | .0060 | .0032  | .0003  |
| 9    | 9.95  | .2760  | .0037  | -.3422 | .0073 | .0043  | -.0022 |
| 10   | 14.95 | .4130  | .0591  | -.3459 | .0058 | .0032  | -.0047 |
| 11   | 17.55 | .4792  | .0911  | -.3385 | .0054 | .0043  | -.0049 |
| 12   | 19.83 | .5247  | .1210  | -.3176 | .0043 | .0032  | -.0037 |
| 13   | -.01  | -.0451 | -.0171 | -.2633 | .0045 | .0009  | .0070  |
| 14   | -.01  | -.0231 | .0733  | -.2229 | .0045 | .0030  | .0063  |
| 15   | 9.98  | .2635  | .0951  | -.3376 | .0074 | .0032  | -.0040 |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

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P 198

RUN 233 CONFIG F P H NP1 T RT

| PT. NO. | IW | - DELF    |         | - DELA      |             | - IHT        |              | O DELE       |             | O DELR |           | O DFLSR |  | PPM |
|---------|----|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|-----------|---------|--|-----|
|         |    | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | O PSF  | O V KNOTS |         |  |     |
| 2       |    | .0        | .0      | -235.9      | 27.08       | 10762.       | 79.          | 32.          | 2.64        | 55.51  | 129.20    | 3560.   |  |     |
| 3       |    | .0        | .0      | -29.4       | -146.03     | -1051.       | 31.          | 62.          | 6.51        | 54.98  | 128.59    | 22990.  |  |     |
| 4       |    | -8.0      | .0      | -133.9      | -133.79     | -1436.       | 62.          | 6.           | 6.71        | 54.87  | 128.45    | 23040.  |  |     |
| 5       |    | -4.0      | .0      | -85.6       | -142.65     | -1179.       | 48.          | 61.          | 6.80        | 54.63  | 128.17    | 23050.  |  |     |
| 6       |    | -0        | .0      | -29.6       | -145.63     | -1057.       | 34.          | 79.          | 6.94        | 54.97  | 128.58    | 23080.  |  |     |
| 7       |    | 2.5       | .0      | 7.1         | -144.79     | -1055.       | 29.          | 47.          | 4.82        | 55.12  | 128.76    | 23050.  |  |     |
| 8       |    | 5.0       | .0      | 44.4        | -142.87     | -1084.       | 49.          | 102.         | 3.46        | 55.19  | 128.84    | 23080.  |  |     |
| 9       |    | 10.0      | .0      | 120.4       | -136.37     | -1163.       | 108.         | 106.         | -3.37       | 55.07  | 128.69    | 23070.  |  |     |
| 10      |    | 15.0      | .0      | 189.8       | -115.77     | -1138.       | 101.         | 89.          | -2.61       | 54.85  | 128.43    | 23060.  |  |     |
| 11      |    | 19.8      | .0      | 250.3       | -90.69      | -980.        | 183.         | 228.         | -6.19       | 55.02  | 128.63    | 23010.  |  |     |
| 12      |    | -0        | .0      | -30.0       | -146.17     | -1067.       | 8.           | 60.          | 8.29        | 54.67  | 128.21    | 23040.  |  |     |
| 13      |    | -0        | .0      | -8.9        | 27.22       | -690.        | 86.          | 14.          | 2.39        | 55.61  | 129.32    | 3560.   |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM   | CY     |
|------|-------|--------|--------|--------|-------|-------|--------|
| 2    | .00   | -.6375 | .0732  | 3.4695 | .0047 | .0019 | .0071  |
| 3    | .00   | -.0794 | -.3947 | -.3390 | .0018 | .0038 | .0176  |
| 4    | -8.02 | -.3619 | -.3616 | -.4630 | .0037 | .0004 | .0181  |
| 5    | -4.01 | -.2314 | -.3855 | -.3800 | .0029 | .0037 | .0184  |
| 6    | -.02  | -.0800 | -.3936 | -.3407 | .0020 | .0048 | .0188  |
| 7    | 2.53  | .0193  | -.3913 | -.3401 | .0018 | .0029 | .0130  |
| 8    | 4.97  | .1199  | -.3861 | -.3493 | .0030 | .0062 | .0093  |
| 9    | 9.97  | .3254  | -.3686 | -.3748 | .0065 | .0064 | -.0010 |
| 10   | 14.98 | .5130  | -.3129 | -.3669 | .0061 | .0054 | -.0070 |
| 11   | 19.80 | .6766  | -.2451 | -.3159 | .0110 | .0138 | -.0167 |
| 12   | -.01  | -.0812 | -.3951 | -.3439 | .0005 | .0036 | .0224  |
| 13   | -.01  | -.0242 | .0736  | -.2254 | .0052 | .0009 | .0065  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMB   | CYMB  | CRMB  | CYB    |
|------|-------|--------|--------|--------|-------|-------|--------|
| 2    | .00   | -.6375 | .0732  | 3.4695 | .0047 | .0019 | .0071  |
| 3    | .00   | -.0794 | -.3947 | -.3390 | .0018 | .0038 | .0176  |
| 4    | -8.02 | -.3619 | -.3616 | -.4630 | .0037 | .0004 | .0181  |
| 5    | -4.01 | -.2314 | -.3855 | -.3800 | .0029 | .0037 | .0184  |
| 6    | -.02  | -.0800 | -.3936 | -.3407 | .0020 | .0048 | .0188  |
| 7    | 2.53  | .0193  | -.3913 | -.3401 | .0018 | .0029 | .0130  |
| 8    | 4.97  | .1199  | -.3861 | -.3493 | .0030 | .0062 | .0093  |
| 9    | 9.97  | .3254  | -.3686 | -.3748 | .0065 | .0064 | -.0010 |
| 10   | 14.98 | .5130  | -.3129 | -.3669 | .0061 | .0054 | -.0070 |
| 11   | 19.80 | .6766  | -.2451 | -.3159 | .0110 | .0138 | -.0167 |
| 12   | -.01  | -.0812 | -.3951 | -.3439 | .0005 | .0036 | .0224  |
| 13   | -.01  | -.0242 | .0736  | -.2254 | .0052 | .0009 | .0065  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P192

RUN 234 CONFIG F P R N P I T R T

| IW      | - DELF    |         | - DELA      |             | - IHT         |              | O DELF       |             | O DELR |         | O DELSR |  | O     | PPM |
|---------|-----------|---------|-------------|-------------|---------------|--------------|--------------|-------------|--------|---------|---------|--|-------|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | V KNOTS |         |  |       |     |
| 1       | -0.0      | .0      | -8.8        | 27.45       | -700.         | 78.          | -3.          | 2.28        | 55.23  | 128.87  |         |  | 3570. |     |
| 2       | -8.0      | .0      | -74.6       | 38.20       | -692.         | 40.          | 31.          | 2.10        | 55.16  | 128.78  |         |  | 3770. |     |
| 3       | -4.0      | .0      | -46.1       | 31.13       | -667.         | 62.          | 13.          | 2.84        | 55.26  | 128.90  |         |  | 3630. |     |
| 4       | -0.0      | .0      | -8.4        | 27.18       | -694.         | 83.          | 15.          | 1.96        | 55.70  | 129.43  |         |  | 3550. |     |
| 6       | 5.1       | .0      | 43.9        | 28.54       | -844.         | 108.         | 53.          | -0.74       | 55.48  | 129.16  |         |  | 3520. |     |
| 7       | 10.0      | .0      | 98.4        | 35.53       | -1062.        | 130.         | 89.          | -2.82       | 55.66  | 129.38  |         |  | 3510. |     |
| 8       | 15.1      | .0      | 141.4       | 56.82       | -1160.        | 116.         | 35.          | .49         | 55.68  | 129.40  |         |  | 3560. |     |
| 9       | 19.8      | .0      | 174.6       | 78.44       | -1098.        | 101.         | 52.          | -1.16       | 55.81  | 129.56  |         |  | 3630. |     |
| 10      | -0.0      | .0      | -8.4        | 27.52       | -712.         | 80.          | 32.          | 2.79        | 55.42  | 129.10  |         |  | 3560. |     |
| 11      | 2.6       | .0      | 17.4        | 27.28       | -750.         | 90.          | 52.          | .37         | 55.53  | 129.22  |         |  | 3550. |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL      | CD    | CPM    | CYM   | CRM    | CY     |
|------|-------|---------|-------|--------|-------|--------|--------|
| 1    | -0.01 | -0.0237 | .0742 | -.2256 | .0047 | -.0002 | .0062  |
| 2    | -8.05 | -.2017  | .1032 | -.2231 | .0024 | .0019  | .0057  |
| 3    | -4.03 | -.1245  | .0841 | -.2152 | .0037 | .0008  | .0077  |
| 4    | -0.01 | -.0226  | .0735 | -.2237 | .0050 | .0009  | .0053  |
| 6    | 5.08  | .1185   | .0771 | -.2721 | .0066 | .0032  | -.0020 |
| 7    | 10.04 | .2660   | .0960 | -.3423 | .0079 | .0054  | -.0076 |
| 8    | 15.07 | .3822   | .1536 | -.3741 | .0070 | .0021  | .0013  |
| 9    | 19.81 | .4718   | .2120 | -.3539 | .0061 | .0031  | -.0031 |
| 10   | -0.00 | -.0228  | .0744 | -.2296 | .0048 | .0019  | .0073  |
| 11   | 2.56  | .0469   | .0737 | -.2447 | .0054 | .0031  | .0010  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB     | CDR   | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|---------|-------|--------|-------|--------|--------|
| 1    | -0.01 | -0.0237 | .0742 | -.2256 | .0047 | -.0002 | .0062  |
| 2    | -8.05 | -.2017  | .1032 | -.2231 | .0024 | .0019  | .0057  |
| 3    | -4.03 | -.1245  | .0841 | -.2152 | .0037 | .0008  | .0077  |
| 4    | -0.01 | -.0226  | .0735 | -.2237 | .0050 | .0009  | .0053  |
| 6    | 5.08  | .1185   | .0771 | -.2721 | .0066 | .0032  | -.0020 |
| 7    | 10.04 | .2660   | .0960 | -.3423 | .0079 | .0054  | -.0076 |
| 8    | 15.07 | .3822   | .1536 | -.3741 | .0070 | .0021  | .0013  |
| 9    | 19.81 | .4718   | .2120 | -.3539 | .0061 | .0031  | -.0031 |
| 10   | -0.00 | -.0228  | .0744 | -.2296 | .0048 | .0019  | .0073  |
| 11   | 2.56  | .0469   | .0737 | -.2447 | .0054 | .0031  | .0010  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P193

RUN 235 CONFIG F P R NPL T RT

| IW      | - DELF    | - DELA  | - IHT       | DELE        | O DELR       | O DFLSB      | O            | PPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | PPM    |
| 2       | .0        | .0      | 27.3        | 31.40       | -1736.       | 105.         | 15.          | 2.09        | 55.40 | 129.07  | 3550.  |
| 3       | .0        | .0      | 18.5        | -7.10       | -1840.       | 100.         | 32.          | 2.31        | 56.01 | 129.80  | 11350. |
| 4       | -8.0      | .0      | -52.8       | -2.99       | -2202.       | 80.          | 11.          | 3.73        | 55.66 | 129.38  | 11380. |
| 5       | -4.0      | .0      | -20.0       | -7.47       | -1994.       | 89.          | -6.          | 3.78        | 54.96 | 128.55  | 11410. |
| 6       | -.0       | .0      | 18.2        | -7.17       | -1850.       | 95.          | 15.          | 2.34        | 55.32 | 128.97  | 11390. |
| 7       | 2.5       | .0      | 43.7        | -4.15       | -1798.       | 112.         | 68.          | 1.78        | 55.63 | 129.35  | 11400. |
| 8       | 5.0       | .0      | 71.1        | 1.97        | -1823.       | 115.         | 34.          | .86         | 55.19 | 128.82  | 11420. |
| 9       | 10.0      | .0      | 118.1       | 15.52       | -1692.       | 108.         | 35.          | .25         | 55.32 | 128.97  | 11410. |
| 10      | 15.0      | .0      | 153.9       | 30.44       | -1230.       | 30.          | -18.         | 2.52        | 55.40 | 129.06  | 11370. |
| 11      | 20.0      | .0      | 192.7       | 52.58       | -1000.       | 305.         | 173.         | -6.00       | 55.68 | 129.40  | 11380. |
| 12      | -.0       | .0      | 18.3        | -7.31       | -1864.       | 96.          | 14.          | 2.52        | 55.51 | 129.19  | 11380. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .0738  | .0849  | -.5597 | .0063 | .0009  | .0056  |
| 3    | .00   | .0501  | -.0192 | -.5961 | .0061 | .0019  | .0062  |
| 4    | -8.00 | -.1427 | -.0081 | -.7101 | .0048 | .0007  | .0101  |
| 5    | -3.96 | -.0541 | -.0202 | -.6428 | .0054 | -.0003 | .0102  |
| 6    | -.00  | .0491  | -.0194 | -.5993 | .0057 | .0009  | .0063  |
| 7    | 2.49  | .1182  | -.0112 | -.5796 | .0068 | .0041  | .0048  |
| 8    | 5.05  | .1921  | .0053  | -.5877 | .0070 | .0021  | .0023  |
| 9    | 10.04 | .3193  | .0419  | -.5455 | .0066 | .0021  | .0007  |
| 10   | 15.01 | .4160  | .0823  | -.3965 | .0018 | -.0011 | .0068  |
| 11   | 20.00 | .5208  | .1421  | -.3223 | .0184 | .0104  | -.0162 |
| 12   | -.00  | .0495  | -.0198 | -.6008 | .0058 | .0009  | .0068  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .0738  | .0849  | -.5597 | .0063 | .0009  | .0056  |
| 3    | .00   | .0501  | -.0192 | -.5961 | .0061 | .0019  | .0062  |
| 4    | -8.00 | -.1427 | -.0081 | -.7101 | .0048 | .0007  | .0101  |
| 5    | -3.96 | -.0541 | -.0202 | -.6428 | .0054 | -.0003 | .0102  |
| 6    | -.00  | .0491  | -.0194 | -.5993 | .0057 | .0009  | .0063  |
| 7    | 2.49  | .1182  | -.0112 | -.5796 | .0068 | .0041  | .0048  |
| 8    | 5.05  | .1921  | .0053  | -.5877 | .0070 | .0021  | .0023  |
| 9    | 10.04 | .3193  | .0419  | -.5455 | .0066 | .0021  | .0007  |
| 10   | 15.01 | .4160  | .0823  | -.3965 | .0018 | -.0011 | .0068  |
| 11   | 20.00 | .5208  | .1421  | -.3223 | .0184 | .0104  | -.0162 |
| 12   | -.00  | .0495  | -.0198 | -.6008 | .0058 | .0009  | .0068  |

C.3

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011  
P194

RUN 236 CONFIG F P B NP1 T RT

| IW      | - DELF    | - DELA  | - IHT       | DELE        | 0 DELR       | 0 DFLSB      | 0            | 0           | 0     | 0       | 0      |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | PPM    |
| 2       | .0        | .0      | -63.9       | 29.44       | 879.         | 29.          | -5.          | 4.06        | 55.37 | 129.03  | 3550.  |
| 3       | .0        | .0      | -72.4       | -6.92       | 772.         | 34.          | 12.          | 4.37        | 55.39 | 129.05  | 10980. |
| 4       | -8.0      | .0      | -158.1      | 13.27       | 828.         | -27.         | 4.           | 7.65        | 54.74 | 128.28  | 11050. |
| 6       | -4.0      | .0      | -116.2      | 1.73        | 763.         | 21.          | -27.         | 6.16        | 55.26 | 128.90  | 10880. |
| 7       | -0.0      | .0      | -72.7       | -7.11       | 778.         | 36.          | 11.          | 5.25        | 55.11 | 128.73  | 11020. |
| 8       | 2.5       | .0      | -43.0       | -9.45       | 726.         | 46.          | -4.          | 3.89        | 55.12 | 128.73  | 11030. |
| 9       | 5.1       | .0      | -12.1       | -10.60      | 649.         | 58.          | -2.          | 2.47        | 55.14 | 128.75  | 11050. |
| 10      | 10.0      | .0      | 49.2        | -8.03       | 457.         | 87.          | 70.          | -.62        | 55.28 | 128.92  | 10970. |
| 11      | 15.0      | .0      | 113.5       | 1.77        | 215.         | 68.          | 87.          | -1.71       | 55.65 | 129.36  | 10980. |
| 12      | 20.0      | .0      | 174.2       | 19.32       | -66.         | 134.         | 87.          | -1.41       | 55.57 | 129.27  | 10990. |
| 13      | -0.0      | .0      | -71.1       | -6.19       | 760.         | 41.          | 11.          | 4.82        | 55.78 | 129.51  | 10960. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | -.1727 | .0796  | .2834  | .0017  | -.0003 | .0110  |
| 3    | .00   | -.1956 | -.0187 | .2490  | .0021  | .0007  | .0118  |
| 4    | -8.01 | -.3116 | .0074  | 1.7134 | -.0003 | -.0005 | .0140  |
| 6    | -4.02 | -.3141 | .0047  | .2461  | .0012  | -.0016 | .0167  |
| 7    | -.02  | -.1966 | -.0192 | .2508  | .0022  | .0007  | .0142  |
| 8    | 2.51  | -.1162 | -.0256 | .2342  | .0028  | -.0003 | .0105  |
| 9    | 5.09  | -.0327 | -.0287 | .2094  | .0035  | -.0001 | .0067  |
| 10   | 10.02 | .1329  | -.0217 | .1473  | .0052  | .0043  | -.0017 |
| 11   | 15.01 | .3069  | .0048  | .0692  | .0041  | .0053  | -.0046 |
| 12   | 19.98 | .4709  | .0522  | -.0212 | .0001  | .0052  | -.0038 |
| 13   | -.00  | -.1921 | -.0167 | .2451  | .0025  | .0007  | .0130  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDP    | CPMB   | CYMR   | CRMB   | CYR    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | -.1727 | .0796  | .2834  | .0017  | -.0003 | .0110  |
| 3    | .00   | -.1956 | -.0187 | .2490  | .0021  | .0007  | .0118  |
| 4    | -8.01 | -.3116 | .0074  | 1.7134 | -.0003 | -.0005 | .0140  |
| 6    | -4.02 | -.3141 | .0047  | .2461  | .0012  | -.0016 | .0167  |
| 7    | -.02  | -.1966 | -.0192 | .2508  | .0022  | .0007  | .0142  |
| 8    | 2.51  | -.1162 | -.0256 | .2342  | .0028  | -.0003 | .0105  |
| 9    | 5.09  | -.0327 | -.0287 | .2094  | .0035  | -.0001 | .0067  |
| 10   | 10.02 | .1329  | -.0217 | .1473  | .0052  | .0043  | -.0017 |
| 11   | 15.01 | .3069  | .0048  | .0692  | .0041  | .0053  | -.0046 |
| 12   | 19.98 | .4709  | .0522  | -.0212 | .0001  | .0052  | -.0038 |
| 13   | -.00  | -.1921 | -.0167 | .2451  | .0025  | .0007  | .0130  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P195

RUN 237 CONFIG F P R NP1 T RT

| IW      | - DELF    | - DELA  | - IHT       | 0 DELE      | 0 DELR       | 0 DELSR      | 0            | 0           | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 5       | .0        | .0      | -7.5        | 26.53       | -677.        | 53.          | 13.          | 3.38        | 55.39 | 129.05  | 3570.  |
| 6       | .0        | .0      | -15.2       | -6.78       | -780.        | 48.          | -5.          | 3.86        | 55.53 | 129.22  | 10610. |
| 7       | .0        | -15.0   | -22.4       | 12.17       | -549.        | 357.         | -34.         | -99.78      | 55.65 | 129.35  | 10630. |
| 8       | .0        | -10.0   | -17.7       | .33         | -729.        | 159.         | -24.         | -63.69      | 55.36 | 129.01  | 10620. |
| 9       | .0        | -5.0    | -14.9       | -4.76       | -792.        | 78.          | -8.          | -29.00      | 55.44 | 129.10  | 10610. |
| 10      | .0        | -2.5    | -14.6       | -6.00       | -790.        | 69.          | -10.         | -11.94      | 55.65 | 129.36  | 10600. |
| 11      | .0        | .0      | -14.4       | -6.76       | -811.        | 50.          | 9.           | 6.55        | 55.66 | 129.37  | 10600. |
| 12      | .0        | 2.5     | -15.2       | -5.57       | -835.        | 45.          | -14.         | 21.49       | 55.33 | 128.98  | 10600. |
| 13      | .0        | 5.0     | -15.7       | -3.78       | -848.        | 43.          | 18.          | 38.23       | 55.51 | 129.19  | 10590. |
| 14      | .0        | 10.0    | -19.3       | 1.96        | -756.        | -95.         | 46.          | 72.43       | 55.59 | 129.29  | 10560. |
| 15      | .0        | 15.0    | -25.9       | 12.63       | -635.        | -360.        | 95.          | 108.82      | 55.72 | 129.44  | 10560. |
| 16      | .0        | .0      | -15.0       | -6.04       | -810.        | 54.          | -5.          | 3.95        | 55.23 | 128.86  | 10600. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 5    | .00    | -.0202 | .0717  | -.2182 | .0032  | .0008  | -.0001 |
| 6    | .00    | -.0411 | -.0183 | -.2543 | .0029  | -.0003 | .0104  |
| 7    | -15.00 | -.0606 | .0329  | -.1769 | .0215  | -.0020 | -.2697 |
| 8    | -10.00 | -.0480 | .0009  | -.2351 | .0096  | -.0014 | -.1721 |
| 9    | -5.00  | -.0402 | -.0129 | -.2553 | .0047  | -.0005 | -.0784 |
| 10   | -2.50  | -.0395 | -.0162 | -.2548 | .0042  | -.0006 | -.0323 |
| 11   | .00    | -.0388 | -.0183 | -.2616 | .0030  | .0006  | .0177  |
| 12   | 2.50   | -.0412 | -.0150 | -.2692 | .0027  | -.0008 | .0581  |
| 13   | 5.00   | -.0423 | -.0102 | -.2734 | .0026  | .0011  | .1033  |
| 14   | 10.00  | -.0521 | .0053  | -.2437 | -.0057 | .0028  | .1958  |
| 15   | 15.00  | -.0701 | .0341  | -.2046 | -.0218 | .0057  | .2941  |
| 16   | .00    | -.0405 | -.0163 | -.2610 | .0033  | -.0003 | .0107  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 5    | .00    | -.0202 | .0717  | -.2182 | .0032  | .0008  | .0001  |
| 6    | .00    | -.0411 | -.0183 | -.2543 | .0029  | -.0003 | .0104  |
| 7    | -15.00 | -.0606 | -.0383 | -.1680 | .0215  | .0066  | -.2690 |
| 8    | -10.00 | -.0480 | -.0292 | -.2302 | .0096  | .0063  | -.1696 |
| 9    | -5.00  | -.0402 | -.0197 | -.2541 | .0047  | .0037  | -.0770 |
| 10   | -2.50  | -.0395 | -.0176 | -.2544 | .0042  | .0015  | -.0315 |
| 11   | .00    | -.0388 | -.0183 | -.2616 | .0030  | .0006  | .0177  |
| 12   | 2.50   | -.0412 | -.0176 | -.2691 | .0027  | -.0031 | .0574  |
| 13   | 5.00   | -.0423 | -.0192 | -.2719 | .0026  | -.0034 | .1020  |
| 14   | 10.00  | -.0521 | -.0289 | -.2374 | -.0057 | -.0052 | .1937  |
| 15   | 15.00  | -.0701 | -.0435 | -.1896 | -.0218 | -.0044 | .2929  |
| 16   | .00    | -.0405 | -.0163 | -.2610 | .0033  | -.0003 | .0107  |

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OF POOR QUALITY

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 19.6

RUN 23R CONFIG F P R W5 NP1 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSR      | 0            | 0           | 0     | RPM     |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 55.6        | 30.83       | -469.        | 34.          | -4.          | 3.19        | 55.61 | 129.31  | 3620.  |
| 3       | .0        | .0      | 55.2        | -6.88       | -534.        | 29.          | -5.          | 3.67        | 55.65 | 129.35  | 11260. |
| 4       | .0        | -15.0   | 68.7        | 12.61       | -562.        | 231.         | 11.          | -109.27     | 55.58 | 129.27  | 11260. |
| 6       | .0        | -5.0    | 58.6        | -5.79       | -550.        | -4.          | 13.          | -32.26      | 55.22 | 128.85  | 11270. |
| 7       | .0        | -2.5    | 56.8        | -5.96       | -550.        | 26.          | -6.          | -15.37      | 55.64 | 129.34  | 11370. |
| 8       | .0        | .0      | 55.4        | -6.15       | -565.        | 43.          | 13.          | 3.11        | 55.79 | 129.52  | 11230. |
| 9       | .0        | 2.5     | 55.8        | -5.89       | -580.        | 70.          | -14.         | 21.74       | 55.93 | 129.68  | 11260. |
| 10      | .0        | 5.0     | 59.8        | -3.71       | -614.        | 91.          | 17.          | 39.10       | 55.76 | 129.48  | 11340. |
| 11      | .0        | 10.0    | 64.4        | 1.46        | -678.        | -15.         | 19.          | 75.40       | 55.75 | 129.47  | 11220. |
| 12      | .0        | 15.0    | 70.5        | 12.69       | -737.        | -180.        | 33.          | 114.40      | 55.77 | 129.50  | 11180. |
| 13      | .0        | .0      | 55.9        | -6.13       | -550.        | 39.          | -39.         | 3.83        | 56.03 | 129.80  | 11250. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1504 | .0833  | -.1512 | .0021  | -.0002 | .0086  |
| 3    | .00    | .1493 | -.0186 | -.1723 | .0017  | -.0003 | .0099  |
| 4    | -15.00 | .1857 | .0341  | -.1812 | .0140  | .0006  | -.2953 |
| 6    | -5.00  | .1584 | -.0157 | -.1774 | -.0003 | .0008  | -.0872 |
| 7    | -2.50  | .1535 | -.0161 | -.1786 | .0016  | -.0004 | -.0415 |
| 8    | .00    | .1497 | -.0166 | -.1821 | .0026  | .0008  | .0084  |
| 9    | 2.50   | .1508 | -.0159 | -.1869 | .0042  | -.0008 | .0588  |
| 10   | 5.00   | .1616 | -.0100 | -.1981 | .0055  | .0010  | .1057  |
| 11   | 10.00  | .1742 | .0039  | -.2187 | -.0009 | .0012  | .2038  |
| 12   | 15.00  | .1905 | .0343  | -.2375 | -.0109 | .0020  | .3092  |
| 13   | .00    | .1510 | -.0166 | -.1773 | .0024  | -.0024 | .0104  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1504 | .0833  | -.1512 | .0021  | -.0002 | .0086  |
| 3    | .00    | .1493 | -.0186 | -.1723 | .0017  | -.0003 | .0099  |
| 4    | -15.00 | .1857 | -.0439 | -.1759 | .0140  | .0094  | -.2940 |
| 6    | -5.00  | .1584 | -.0232 | -.1771 | -.0003 | .0037  | -.0855 |
| 7    | -2.50  | .1535 | -.0179 | -.1783 | .0016  | .0011  | -.0408 |
| 8    | .00    | .1497 | -.0166 | -.1821 | .0026  | .0008  | .0084  |
| 9    | 2.50   | .1508 | -.0185 | -.1869 | .0042  | -.0024 | .0580  |
| 10   | 5.00   | .1616 | -.0102 | -.1969 | .0055  | -.0022 | .1044  |
| 11   | 10.00  | .1742 | -.0317 | -.2143 | -.0009 | -.0060 | .2013  |
| 12   | 15.00  | .1905 | -.0473 | -.2266 | -.0109 | -.0097 | .3075  |
| 13   | .00    | .1510 | -.0166 | -.1773 | .0024  | -.0024 | .0104  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P196A

RUN 239 CONFIG F P 8 W5 NP1 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLPAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |
| 6       | 9.9       | .0      | 363.8       | 64.05       | -302.        | 84.          | 70.          | -1.34       | 55.93 | 129.68  | 4000.  |
| 7       | 9.9       | .0      | 380.6       | -5.69       | -322.        | 82.          | 69.          | .43         | 55.77 | 129.50  | 14700. |
| 8       | 9.9       | -15.0   | 374.1       | 13.33       | -412.        | -81.         | -39.         | -105.75     | 55.34 | 128.98  | 14700. |
| 9       | 9.9       | -10.0   | 382.0       | 2.78        | -478.        | -120.        | -28.         | -68.01      | 55.40 | 129.06  | 14690. |
| 10      | 9.9       | -5.0    | 382.4       | -3.45       | -393.        | -30.         | -3.          | -36.21      | 55.60 | 129.29  | 14700. |
| 11      | 9.9       | -2.5    | 381.8       | -5.04       | -360.        | 33.          | 75.          | -18.63      | 55.77 | 129.49  | 14680. |
| 12      | 9.9       | .0      | 381.8       | -5.51       | -335.        | 90.          | 121.         | .12         | 55.97 | 129.73  | 14680. |
| 13      | 9.9       | 2.5     | 380.3       | -5.14       | -333.        | 137.         | 104.         | 17.29       | 55.77 | 129.49  | 14700. |
| 14      | 9.9       | 5.0     | 380.7       | -2.95       | -353.        | 179.         | 111.         | 34.56       | 55.40 | 129.06  | 14660. |
| 15      | 9.9       | 10.0    | 374.1       | 3.46        | -405.        | 233.         | 172.         | 68.69       | 55.60 | 129.29  | 14660. |
| 16      | 9.9       | 14.9    | 363.9       | 14.13       | -383.        | 47.          | 151.         | 106.45      | 55.52 | 129.19  | 14640. |
| 17      | 9.9       | .0      | 380.7       | -5.95       | -308.        | 78.          | 105.         | -1.53       | 55.61 | 129.31  | 14670. |
| 18      | 9.9       | .0      | 383.6       | -6.02       | -312.        | 85.          | 106.         | -1.05       | 55.19 | 128.81  | 14680. |
| 19      | 9.9       | -15.0   | 370.4       | 12.46       | -412.        | -62.         | -59.         | -103.80     | 55.66 | 129.36  | 14720. |
| 20      | 9.9       | -10.0   | 379.3       | 1.57        | -471.        | -117.        | 4.           | -68.14      | 55.19 | 128.80  | 14700. |
| 21      | 9.9       | -5.0    | 382.3       | -3.85       | -385.        | -51.         | 31.          | -35.97      | 55.40 | 129.05  | 14710. |
| 22      | .0        | .0      | 57.3        | -5.45       | -526.        | 33.          | 13.          | 3.24        | 55.65 | 129.35  | 11090. |
| 23      | -8.0      | .0      | -185.9      | 3.63        | -966.        | -5.          | -10.         | 5.71        | 55.51 | 129.18  | 11190. |
| 24      | -4.0      | .0      | -67.0       | -5.09       | -775.        | 22.          | -8.          | 5.33        | 55.60 | 129.29  | 11070. |
| 25      | .0        | .0      | 55.4        | -5.06       | -541.        | 29.          | -3.          | 2.45        | 55.57 | 129.26  | 11130. |
| 26      | 5.1       | .0      | 222.7       | 4.00        | -388.        | 70.          | -1.          | 1.11        | 55.03 | 128.61  | 11150. |
| 27      | 10.0      | .0      | 375.6       | 25.30       | -314.        | 67.          | 88.          | -4.49       | 55.26 | 128.89  | 11150. |
| 28      | 15.0      | .0      | 507.0       | 63.06       | -381.        | 69.          | 159.         | -2.48       | 54.86 | 128.40  | 11090. |
| 29      | .0        | .0      | 56.2        | -5.88       | -529.        | 34.          | 13.          | 3.19        | 55.56 | 129.24  | 11040. |
| 30      | 20.1      | .0      | 543.9       | 126.24      | -549.        | 87.          | 159.         | -1.31       | 54.68 | 128.19  | 11110. |
| 31      | .0        | -10.0   | 61.8        | 3.86        | -889.        | 60.          | 353.         | -68.44      | 55.39 | 129.04  | 11220. |
| 32      | .0        | -10.0   | 61.9        | 1.20        | -550.        | 60.          | 38.          | -68.58      | 55.28 | 128.91  | 11060. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | .9831  | .1731  | -.0972 | .0051  | .0042  | -.0036 |
| 7    | .00    | 1.0285 | -.0154 | -.1039 | .0049  | .0042  | .0012  |
| 8    | -15.00 | 1.0112 | .0360  | -.1329 | -.0049 | -.0024 | -.2858 |
| 9    | -10.00 | 1.0323 | .0075  | -.1539 | -.0072 | -.0017 | -.1838 |
| 10   | -5.00  | 1.0336 | -.0093 | -.1268 | -.0018 | -.0002 | -.0979 |
| 11   | -2.50  | 1.0319 | -.0136 | -.1159 | .0020  | .0045  | -.0504 |
| 12   | .00    | 1.0319 | -.0149 | -.1081 | .0054  | .0073  | .0003  |
| 13   | 2.50   | 1.0278 | -.0139 | -.1075 | .0083  | .0063  | .0467  |
| 14   | 5.00   | 1.0289 | -.0080 | -.1139 | .0108  | .0067  | .0934  |
| 15   | 10.00  | 1.0110 | .0093  | -.1307 | .0141  | .0104  | .1856  |
| 16   | 14.90  | .9834  | .0382  | -.1234 | .0028  | .0091  | .2877  |
| 17   | .00    | 1.0288 | -.0161 | -.0994 | .0047  | .0064  | -.0041 |
| 18   | .00    | 1.0368 | -.0163 | -.1005 | .0051  | .0064  | -.0028 |
| 19   | -15.00 | 1.0011 | .0337  | -.1327 | -.0037 | -.0036 | -.2806 |
| 20   | -10.00 | 1.0251 | .0042  | -.1520 | -.0071 | .0002  | -.1842 |
| 21   | -5.00  | 1.0332 | -.0104 | -.1242 | -.0031 | .0019  | -.0972 |
| 22   | .01    | .1549  | -.0147 | -.1694 | .0020  | .0008  | .0088  |
| 23   | -7.99  | -.5025 | .0098  | -.3114 | -.0093 | -.0006 | .0154  |
| 24   | -4.04  | -.1810 | -.0137 | -.2499 | .0013  | -.0005 | .0144  |
| 25   | .02    | .1497  | -.0161 | -.1743 | .0017  | -.0002 | .0066  |
| 26   | 5.08   | .6020  | .0108  | -.1251 | .0042  | -.0001 | .0030  |

|    |        |        |        |        |       |       |        |
|----|--------|--------|--------|--------|-------|-------|--------|
| 27 | 9.99   | 1.0153 | .0684  | -.1014 | .0041 | .0053 | -.0013 |
| 28 | 14.97  | 1.3704 | .1704  | -.1227 | .0042 | .0096 | -.0067 |
| 29 | .00    | .1518  | -.0159 | -.1706 | .0021 | .0008 | .0086  |
| 30 | 20.07  | 1.4700 | .3412  | -.1771 | .0052 | .0096 | -.0035 |
| 31 | .01    | .1671  | .0104  | -.2867 | .0036 | .0213 | -.1850 |
| 32 | -10.00 | .1674  | .0032  | -.1802 | .0036 | .0023 | -.1854 |

SF4-720  
P197

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLR    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | .9831  | .1731  | -.0972 | .0051  | .0042  | -.0036 |
| 7    | .00    | 1.0285 | -.0154 | -.1039 | .0049  | .0042  | .0012  |
| 8    | -15.00 | 1.0112 | -.0395 | -.1250 | -.0049 | .0042  | -.2854 |
| 9    | -10.00 | 1.0323 | -.0246 | -.1500 | -.0072 | .0034  | -.1823 |
| 10   | -5.00  | 1.0336 | -.0178 | -.1262 | -.0018 | .0019  | -.0967 |
| 11   | -2.50  | 1.0319 | -.0158 | -.1169 | .0020  | .0055  | -.0497 |
| 12   | .00    | 1.0319 | -.0149 | -.1081 | .0054  | .0073  | .0003  |
| 13   | 2.50   | 1.0278 | -.0159 | -.1059 | .0083  | .0054  | .0461  |
| 14   | 5.00   | 1.0289 | -.0161 | -.1104 | .0108  | .0048  | .0923  |
| 15   | 10.00  | 1.0110 | -.0232 | -.1190 | .0141  | .0059  | .1844  |
| 16   | 14.90  | .9834  | -.0374 | -.1067 | .0028  | .0028  | .2878  |
| 17   | .00    | 1.0288 | -.0161 | -.0994 | .0047  | .0064  | -.0041 |
| 18   | .00    | 1.0368 | -.0163 | -.1005 | .0051  | .0064  | -.0028 |
| 19   | -15.00 | 1.0011 | -.0404 | -.1232 | -.0037 | .0030  | -.2797 |
| 20   | -10.00 | 1.0251 | -.0280 | -.1499 | -.0071 | .0052  | -.1821 |
| 21   | -5.00  | 1.0332 | -.0189 | -.1246 | -.0031 | .0039  | -.0959 |
| 22   | .01    | .1549  | -.0147 | -.1694 | .0020  | .0008  | .0088  |
| 23   | -7.99  | -.5025 | .0098  | -.3114 | -.0003 | -.0006 | .0154  |
| 24   | -4.04  | -.1810 | -.0137 | -.2499 | .0013  | -.0005 | .0144  |
| 25   | .02    | .1497  | -.0161 | -.1743 | .0017  | -.0002 | .0066  |
| 26   | 5.08   | .6020  | .0108  | -.1251 | .0042  | -.0001 | .0030  |
| 27   | 9.99   | 1.0153 | .0684  | -.1014 | .0041  | .0053  | -.0013 |
| 28   | 14.97  | 1.3704 | .1704  | -.1227 | .0042  | .0096  | -.0067 |
| 29   | .00    | .1518  | -.0159 | -.1706 | .0021  | .0008  | .0086  |
| 30   | 20.07  | 1.4700 | .3412  | -.1771 | .0052  | .0096  | -.0035 |
| 31   | .01    | .1671  | -.0220 | -.3021 | .0036  | .0303  | -.1840 |
| 32   | -10.00 | .1674  | -.0291 | -.1796 | .0036  | .0081  | -.1831 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P198

RUN 240 CONFIG F P B W5 NP1 T BT

| PT. NO. | ALPHA DEG | PSI DEG | CLPAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|---------------|--------------|---------------|-------------|-------|---------|--------|
| 2       | .0        | .0      | -119.6      | 33.82       | -899.         | 48.          | -22.          | 3.78        | 54.98 | 128.57  | 3350.  |
| 3       | .0        | .0      | -115.7      | 34.27       | -858.         | 53.          | 13.           | 3.26        | 55.30 | 128.93  | 3390.  |
| 4       | .0        | .0      | -120.5      | -6.53       | -956.         | 51.          | -7.           | 5.50        | 55.73 | 129.45  | 11710. |
| 5       | .0        | -15.1   | -98.9       | 15.03       | -838.         | 212.         | -47.          | -106.96     | 55.64 | 129.34  | 11780. |
| 7       | .0        | -5.0    | -113.9      | -5.15       | -922.         | 10.          | -25.          | -30.99      | 55.62 | 129.32  | 11780. |
| 8       | .0        | -2.5    | -117.7      | -6.31       | -923.         | 24.          | -36.          | -13.04      | 55.90 | 129.64  | 11790. |
| 9       | .0        | .0      | -120.7      | -5.64       | -958.         | 63.          | -25.          | 5.96        | 56.03 | 129.80  | 11680. |
| 10      | .0        | 2.5     | -120.0      | -5.16       | -975.         | 96.          | -4.           | 21.98       | 55.95 | 129.70  | 11710. |
| 11      | .0        | 5.0     | -117.0      | -3.63       | -989.         | 111.         | 20.           | 39.53       | 55.49 | 129.16  | 11700. |
| 12      | .0        | 10.0    | -111.3      | 3.20        | -1010.        | 43.          | 42.           | 76.02       | 55.43 | 129.09  | 11730. |
| 13      | .0        | 14.9    | -102.2      | 15.03       | -944.         | -96.         | 69.           | 111.91      | 56.01 | 129.77  | 11710. |
| 15      | .0        | .0      | -120.2      | -5.23       | -949.         | 58.          | -23.          | 4.52        | 55.81 | 129.54  | 11720. |
| 16      | .0        | -15.0   | -97.3       | 15.83       | -839.         | 198.         | -25.          | -106.96     | 55.64 | 129.34  | 11790. |
| 17      | .0        | -12.5   | -100.9      | 8.79        | -894.         | 126.         | 3.            | -87.48      | 55.64 | 129.34  | 11710. |
| 18      | .0        | -10.0   | -106.5      | 2.23        | -920.         | 46.          | -15.          | -68.69      | 55.74 | 129.46  | 11710. |
| 19      | .0        | -7.5    | -112.1      | -1.80       | -933.         | -5.          | -6.           | -50.53      | 55.76 | 129.48  | 11720. |
| 20      | .0        | .0      | -121.8      | -5.72       | -948.         | 45.          | -58.          | 4.87        | 55.94 | 129.70  | 11690. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.3232 | .0914  | -.2900 | .0029  | -.0014 | .0102  |
| 3    | .00    | -.3126 | .0926  | -.2767 | .0032  | .0008  | .0088  |
| 4    | .00    | -.3257 | -.0177 | -.3082 | .0031  | -.0004 | .0149  |
| 5    | -15.10 | -.2672 | .0406  | -.2702 | .0128  | -.0028 | -.2891 |
| 7    | -5.00  | -.3077 | -.0139 | -.2971 | .0006  | -.0015 | -.0838 |
| 8    | -2.50  | -.3180 | -.0171 | -.2974 | .0015  | -.0022 | -.0352 |
| 9    | .00    | -.3263 | -.0153 | -.3090 | .0038  | -.0015 | .0161  |
| 10   | 2.50   | -.3244 | -.0139 | -.3143 | .0058  | -.0002 | .0594  |
| 11   | 5.00   | -.3161 | -.0098 | -.3189 | .0067  | .0012  | .1068  |
| 12   | 10.00  | -.3007 | .0087  | -.3255 | .0026  | .0025  | .2055  |
| 13   | 14.90  | -.2762 | .0406  | -.3042 | -.0058 | .0042  | .3025  |
| 15   | .00    | -.3248 | -.0141 | -.3060 | .0035  | -.0014 | .0122  |
| 16   | -15.00 | -.2630 | .0428  | -.2705 | .0119  | -.0015 | -.2891 |
| 17   | -12.50 | -.2727 | .0237  | -.2882 | .0076  | .0002  | -.2364 |
| 18   | -10.00 | -.2877 | .0060  | -.2965 | .0028  | -.0009 | -.1857 |
| 19   | -7.50  | -.3029 | -.0049 | -.3006 | -.0003 | -.0004 | -.1366 |
| 20   | .00    | -.3292 | -.0155 | -.3055 | .0027  | -.0035 | .0132  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.3232 | .0914  | -.2900 | .0029  | -.0014 | .0102  |
| 3    | .00    | -.3126 | .0926  | -.2767 | .0032  | .0008  | .0088  |
| 4    | .00    | -.3257 | -.0177 | -.3082 | .0031  | -.0004 | .0149  |
| 5    | -15.10 | -.2672 | -.0364 | -.2569 | .0128  | .0105  | -.2896 |
| 7    | -5.00  | -.3077 | -.0212 | -.2953 | .0006  | .0033  | -.0822 |
| 8    | -2.50  | -.3180 | -.0186 | -.2966 | .0015  | .0002  | -.0345 |
| 9    | .00    | -.3263 | -.0153 | -.3090 | .0038  | -.0015 | .0161  |
| 10   | 2.50   | -.3244 | -.0165 | -.3141 | .0058  | -.0028 | .0587  |
| 11   | 5.00   | -.3161 | -.0191 | -.3171 | .0067  | -.0041 | .1056  |
| 12   | 10.00  | -.3007 | -.0273 | -.3182 | .0026  | -.0082 | .2038  |
| 13   | 14.90  | -.2762 | -.0389 | -.2881 | -.0058 | -.0107 | .3027  |
| 15   | .00    | -.3248 | -.0141 | -.3060 | .0035  | -.0014 | .0122  |
| 16   | -15.00 | -.2630 | -.0338 | -.2591 | .0119  | .0117  | -.2903 |
| 17   | -12.50 | -.2727 | -.0282 | -.2815 | .0076  | .0119  | -.2359 |
| 18   | -10.00 | -.2877 | -.0264 | -.2911 | .0028  | .0088  | -.1839 |
| 19   | -7.50  | -.3029 | -.0227 | -.2978 | -.0003 | .0070  | -.1347 |
| 20   | .00    | -.3292 | -.0155 | -.3055 | .0027  | -.0035 | .0132  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P199

RUN 241 CONFIG F P R W5 NP1 T BT

| IW      | -α DELF   | α DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |           |        |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-----------|--------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF KNOTS | RPM    |        |
| 2       | .0        | .0      | -118.1      | 34.41       | -889.        | 55.          | -4.          | 3.48        | 54.74     | 128.28 | 3360.  |
| 3       | .0        | .0      | -120.8      | -5.89       | -958.        | 66.          | 12.          | 4.26        | 56.00     | 129.77 | 11690. |
| 4       | -8.0      | .0      | -329.5      | 25.28       | -1035.       | 9.           | -9.          | 5.28        | 55.52     | 129.19 | 11740. |
| 5       | -4.0      | .0      | -237.5      | 4.76        | -1044.       | 45.          | -44.         | 6.19        | 55.62     | 129.32 | 11790. |
| 6       | -.0       | .0      | -120.1      | -5.93       | -953.        | 63.          | 12.          | 4.15        | 55.78     | 129.51 | 11750. |
| 7       | 2.4       | .0      | -44.8       | -8.57       | -894.        | 80.          | -4.          | 3.58        | 56.07     | 129.85 | 11750. |
| 8       | 5.0       | .0      | 37.2        | -7.37       | -850.        | 99.          | 16.          | 1.82        | 56.18     | 129.98 | 11710. |
| 9       | 10.0      | .0      | 202.7       | 2.36        | -762.        | 114.         | 18.          | -.43        | 55.21     | 128.83 | 11750. |
| 10      | 14.9      | .0      | 359.4       | 29.44       | -624.        | -112.        | 106.         | -3.59       | 55.11     | 128.71 | 11770. |
| 11      | -.0       | .0      | -120.5      | -6.33       | -946.        | 60.          | -3.          | 2.59        | 55.28     | 128.91 | 11720. |
| 12      | 20.1      | .0      | 495.3       | 76.37       | -486.        | 120.         | 140.         | -3.21       | 55.15     | 128.76 | 11690. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | -.3191 | .0930  | -.2865 | .0033 | -.0003 | .0094  |
| 3    | .00   | -.3265 | -.0159 | -.3087 | .0040 | .0007  | .0115  |
| 4    | -8.03 | -.8905 | .0683  | -.3336 | .0005 | -.0006 | .0143  |
| 5    | -3.99 | -.6420 | .0129  | -.3366 | .0027 | -.0027 | .0167  |
| 6    | -.04  | -.3246 | -.0160 | -.3072 | .0038 | .0007  | .0112  |
| 7    | 2.41  | -.1210 | -.0232 | -.2883 | .0049 | -.0002 | .0097  |
| 8    | 4.96  | .1005  | -.0199 | -.2742 | .0060 | .0009  | .0049  |
| 9    | 10.03 | .5478  | .0064  | -.2457 | .0069 | .0011  | -.0012 |
| 10   | 14.93 | .9713  | .0796  | -.2012 | .0067 | .0064  | -.0097 |
| 11   | -.03  | -.3258 | -.0171 | -.3048 | .0036 | -.0002 | .0070  |
| 12   | 20.06 | 1.3387 | .2064  | -.1567 | .0072 | .0085  | -.0087 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | -.3191 | .0930  | -.2865 | .0033 | -.0003 | .0094  |
| 3    | .00   | -.3265 | -.0159 | -.3087 | .0040 | .0007  | .0115  |
| 4    | -8.03 | -.8905 | .0683  | -.3336 | .0005 | -.0006 | .0143  |
| 5    | -3.99 | -.6420 | .0129  | -.3366 | .0027 | -.0027 | .0167  |
| 6    | -.04  | -.3246 | -.0160 | -.3072 | .0038 | .0007  | .0112  |
| 7    | 2.41  | -.1210 | -.0232 | -.2883 | .0049 | -.0002 | .0097  |
| 8    | 4.96  | .1005  | -.0199 | -.2742 | .0060 | .0009  | .0049  |
| 9    | 10.03 | .5478  | .0064  | -.2457 | .0069 | .0011  | -.0012 |
| 10   | 14.93 | .9713  | .0796  | -.2012 | .0067 | .0064  | -.0097 |
| 11   | -.03  | -.3258 | -.0171 | -.3048 | .0036 | -.0002 | .0070  |
| 12   | 20.06 | 1.3387 | .2064  | -.1567 | .0072 | .0085  | -.0087 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P.200

RUN 242 CONFIG F P B W5 NP1 T BT

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR        | 0 DFLSB      | 0            | 0           | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|---------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | -115.8      | 34.42       | -883.         | 72.          | -21.         | 3.12        | 55.59 | 129.29  | 3360.  |
| 3       | .0        | .0      | -123.1      | -6.29       | -974.         | 79.          | -22.         | 3.76        | 55.21 | 128.83  | 11660. |
| 4       | -8.0      | .0      | -332.4      | 24.98       | -1079.        | 28.          | -82.         | 6.34        | 54.82 | 128.37  | 11530. |
| 5       | -3.9      | .0      | -239.0      | 2.22        | -1087.        | 74.          | -45.         | 6.48        | 54.70 | 128.23  | 11970. |
| 6       | .1        | .0      | -120.1      | -7.51       | -963.         | 81.          | -6.          | 4.49        | 55.34 | 128.99  | 11770. |
| 7       | 2.4       | .0      | -46.8       | -8.48       | -913.         | 101.         | -3.          | 2.78        | 55.12 | 128.73  | 11680. |
| 8       | 5.0       | .0      | 36.1        | -8.48       | -875.         | 109.         | 16.          | 1.48        | 55.10 | 128.70  | 11770. |
| 9       | 10.0      | .0      | 201.2       | 1.68        | -771.         | 127.         | 35.          | .50         | 55.00 | 128.59  | 11740. |
| 10      | 15.2      | .0      | 370.8       | 30.89       | -641.         | 117.         | 89.          | -2.38       | 54.41 | 127.88  | 11790. |
| 11      | 20.0      | .0      | 501.1       | 76.78       | -561.         | 122.         | 178.         | -2.20       | 54.21 | 127.64  | 11760. |
| 12      | -.0       | .0      | -123.0      | -2.97       | -972.         | 128.         | -61.         | 6.15        | 54.81 | 128.35  | 11660. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | -.3129 | .0930  | -.2847 | .0043 | -.0013 | .0084  |
| 3    | .00   | -.3328 | -.0170 | -.3140 | .0048 | -.0013 | .0102  |
| 4    | -8.00 | -.8983 | .0675  | -.3478 | .0017 | -.0049 | .0171  |
| 5    | -3.93 | -.6459 | .0060  | -.3504 | .0045 | -.0027 | .0175  |
| 6    | .06   | -.3245 | -.0203 | -.3104 | .0049 | -.0003 | .0121  |
| 7    | 2.41  | -.1265 | -.0229 | -.2944 | .0061 | -.0002 | .0075  |
| 8    | 5.00  | .0975  | -.0229 | -.2820 | .0066 | .0010  | .0040  |
| 9    | 9.99  | .5438  | .0046  | -.2485 | .0077 | .0021  | .0013  |
| 10   | 15.15 | 1.0021 | .0835  | -.2067 | .0071 | .0054  | -.0064 |
| 11   | 20.01 | 1.3543 | .2075  | -.1808 | .0074 | .0108  | -.0059 |
| 12   | -.01  | -.3323 | -.0080 | -.3134 | .0077 | -.0037 | .0166  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | -.3129 | .0930  | -.2847 | .0043 | -.0013 | .0084  |
| 3    | .00   | -.3328 | -.0170 | -.3140 | .0048 | -.0013 | .0102  |
| 4    | -8.00 | -.8983 | .0675  | -.3478 | .0017 | -.0049 | .0171  |
| 5    | -3.93 | -.6459 | .0060  | -.3504 | .0045 | -.0027 | .0175  |
| 6    | .06   | -.3245 | -.0203 | -.3104 | .0049 | -.0003 | .0121  |
| 7    | 2.41  | -.1265 | -.0229 | -.2944 | .0061 | -.0002 | .0075  |
| 8    | 5.00  | .0975  | -.0229 | -.2820 | .0066 | .0010  | .0040  |
| 9    | 9.99  | .5438  | .0046  | -.2485 | .0077 | .0021  | .0013  |
| 10   | 15.15 | 1.0021 | .0835  | -.2067 | .0071 | .0054  | -.0064 |
| 11   | 20.01 | 1.3543 | .2075  | -.1808 | .0074 | .0108  | -.0059 |
| 12   | -.01  | -.3323 | -.0080 | -.3134 | .0077 | -.0037 | .0166  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 201

RUN 243 CONFIG F P B W5 NP1 T2

| IW      | DELTA     | DELTA   | THT         | DELE        | DELRL        | DFLSR        |              |             | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 6       | .0        | .0      | 49.2        | 27.58       | -263.        | 54.          | 47.          | 4.59        | 54.94 | 128.52  | 3610.  |
| 7       | -8.0      | .0      | -170.1      | 38.08       | -816.        | 74.          | 25.          | 6.11        | 55.18 | 128.80  | 3580.  |
| 8       | -4.0      | .0      | -62.7       | 28.18       | -593.        | 54.          | -8.          | 5.24        | 55.22 | 128.85  | 3560.  |
| 9       | .0        | .0      | 50.3        | 28.00       | -258.        | 55.          | 47.          | 4.76        | 55.15 | 128.76  | 3630.  |
| 10      | 2.6       | .0      | 123.8       | 30.97       | -31.         | 50.          | 16.          | 1.41        | 55.44 | 129.11  | 3710.  |
| 11      | 5.0       | .0      | 191.4       | 36.59       | 187.         | 50.          | 33.          | 2.04        | 55.19 | 128.82  | 3800.  |
| 12      | 10.0      | .0      | 330.8       | 56.56       | 682.         | 28.          | 53.          | -.12        | 54.75 | 128.29  | 3990.  |
| 13      | 15.0      | .0      | 448.8       | 86.83       | 1150.        | 28.          | 53.          | .56         | 54.75 | 128.29  | 4200.  |
| 14      | 20.0      | .0      | 460.3       | 133.35      | 1377.        | 20.          | 124.         | -.87        | 54.51 | 128.00  | 4260.  |
| 15      | .0        | .0      | 50.5        | 28.06       | -260.        | 50.          | 48.          | 3.54        | 54.89 | 128.46  | 3630.  |
| 16      | .0        | .0      | 46.9        | -6.59       | -318.        | 50.          | 30.          | 4.03        | 54.88 | 128.45  | 10780. |
| 17      | -8.0      | .0      | -182.9      | 3.97        | -930.        | 46.          | 25.          | 5.76        | 55.02 | 128.61  | 10690. |
| 18      | -4.1      | .0      | -73.0       | -5.17       | -658.        | 49.          | -24.         | 4.34        | 54.97 | 128.55  | 10640. |
| 19      | .0        | .0      | 49.5        | -5.71       | -280.        | 45.          | 14.          | 2.68        | 54.64 | 128.17  | 10610. |
| 20      | 2.5       | .0      | 123.0       | -4.25       | -51.         | 48.          | 33.          | 2.29        | 55.00 | 128.59  | 10740. |
| 21      | 4.9       | .0      | 197.0       | 1.48        | 184.         | 48.          | 34.          | 1.80        | 54.78 | 128.33  | 10740. |
| 22      | 10.0      | .0      | 338.4       | 19.26       | 698.         | 32.          | 106.         | -.12        | 54.89 | 128.46  | 10770. |
| 23      | 15.0      | .0      | 457.9       | 50.66       | 1170.        | 27.          | 53.          | 2.14        | 54.23 | 127.67  | 10720. |
| 24      | 20.0      | .0      | 478.7       | 96.66       | 1431.        | 49.          | 125.         | .88         | 54.38 | 127.85  | 10690. |
| 25      | .0        | .0      | 50.5        | -6.80       | -277.        | 43.          | 48.          | 4.29        | 54.77 | 128.32  | 10720. |
| 26      | .0        | .0      | 44.2        | -146.95     | -426.        | -6.          | 79.          | 7.06        | 54.99 | 128.58  | 22930. |
| 27      | -8.0      | .0      | -220.4      | -132.94     | -1163.       | 44.          | 74.          | 8.08        | 55.23 | 128.88  | 22900. |
| 28      | -4.0      | .0      | -89.5       | -140.99     | -807.        | 31.          | 93.          | 8.14        | 55.25 | 128.90  | 23070. |
| 29      | .1        | .0      | 43.7        | -144.01     | -413.        | 21.          | 97.          | 7.41        | 54.67 | 128.21  | 23050. |
| 30      | 2.5       | .0      | 127.1       | -141.86     | -164.        | 18.          | 65.          | 5.90        | 54.31 | 127.78  | 23000. |
| 31      | 5.0       | .0      | 209.4       | -136.13     | 97.          | 19.          | 103.         | 4.07        | 54.45 | 127.94  | 22970. |
| 32      | 10.0      | .0      | 369.9       | -117.83     | 649.         | 12.          | 142.         | 2.90        | 54.04 | 127.45  | 22940. |
| 33      | 15.0      | .0      | 498.4       | -84.70      | 1143.        | 25.          | 125.         | .44         | 54.19 | 127.63  | 23000. |
| 34      | 20.0      | .0      | 551.6       | -36.91      | 1470.        | 54.          | 126.         | .76         | 54.04 | 127.45  | 23060. |
| 35      | .0        | .0      | 45.2        | -143.89     | -432.        | 4.           | 116.         | 7.13        | 54.43 | 127.92  | 22970. |
| 36      | .0        | .0      | 50.6        | -56.65      | -329.        | -567.        | 126.         | 12.86       | 54.55 | 128.06  | 23020. |
| 37      | -8.0      | .0      | -192.6      | -46.76      | -981.        | -514.        | 189.         | 14.58       | 54.21 | 127.65  | 22990. |
| 38      | -4.1      | .0      | -76.8       | -55.66      | -690.        | -531.        | 158.         | 13.43       | 54.29 | 127.75  | 23030. |
| 39      | .0        | .0      | 49.9        | -55.57      | -328.        | -552.        | 86.          | 14.99       | 55.44 | 129.12  | 23070. |
| 40      | 2.4       | .0      | 127.2       | -51.66      | -109.        | -560.        | 91.          | 12.59       | 55.20 | 128.83  | 23040. |
| 41      | 5.0       | .0      | 204.0       | -45.18      | 148.         | -539.        | 24.          | 11.20       | 55.66 | 129.38  | 22970. |
| 42      | 10.0      | .0      | 350.5       | -26.36      | 662.         | -528.        | -41.         | 10.62       | 55.19 | 128.82  | 23040. |
| 43      | 15.1      | .0      | 476.0       | 7.50        | 1148.        | -507.        | -89.         | 6.05        | 55.16 | 128.78  | 23000. |
| 44      | 20.0      | .0      | 503.3       | 54.32       | 1382.        | -436.        | -299.        | 2.54        | 55.04 | 128.64  | 22990. |
| 45      | .0        | .0      | 47.9        | -54.84      | -337.        | -544.        | 90.          | 12.99       | 54.82 | 128.38  | 23050. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|-------|--------|-------|--------|--------|
| 6    | .01   | .1330  | .0745 | -.0847 | .0032 | .0028  | .0124  |
| 7    | -8.03 | -.4597 | .1029 | -.2632 | .0045 | .0015  | .0165  |
| 8    | -3.97 | -.1696 | .0762 | -.1911 | .0033 | -.0005 | .0142  |
| 9    | .01   | .1358  | .0757 | -.0832 | .0033 | .0028  | .0129  |
| 10   | 2.61  | .3346  | .0837 | -.0100 | .0030 | .0010  | .0038  |
| 11   | 4.96  | .5174  | .0989 | .0601  | .0030 | .0020  | .0055  |
| 12   | 10.01 | .8941  | .1529 | .2199  | .0017 | .0032  | -.0003 |
| 13   | 14.99 | 1.2130 | .2347 | .3707  | .0017 | .0032  | .0015  |

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|    |       |        |        |        |        |        |        |
|----|-------|--------|--------|--------|--------|--------|--------|
| 14 | 20.03 | 1.2441 | .3604  | .4440  | .0012  | .0075  | -.0024 |
| 15 | .02   | .1365  | .0758  | -.0839 | .0030  | .0029  | .0096  |
| 16 | .02   | .1267  | -.0178 | -.1024 | .0030  | .0018  | .0109  |
| 17 | -8.03 | -.4945 | .0107  | -.3000 | .0028  | .0015  | .0156  |
| 18 | -4.07 | -.1973 | -.0140 | -.2120 | .0029  | -.0015 | .0117  |
| 19 | .04   | .1337  | -.0154 | -.0933 | .0027  | .0009  | .0072  |
| 20 | 2.54  | .3324  | -.0115 | -.0166 | .0029  | .0020  | .0062  |
| 21 | 4.94  | .5324  | .0040  | .0592  | .0029  | .0020  | .0049  |
| 22 | 9.96  | .9147  | .0521  | .2250  | .0019  | .0064  | -.0003 |
| 23 | 15.01 | 1.2376 | .1369  | .3772  | .0016  | .0032  | .0058  |
| 24 | 20.01 | 1.2938 | .2613  | .4614  | .0029  | .0075  | .0024  |
| 25 | .00   | .1365  | -.0184 | -.0894 | .0026  | .0029  | .0116  |
| 26 | .00   | .1194  | -.3972 | -.1373 | -.0004 | .0048  | .0191  |
| 27 | -7.98 | -.5956 | -.3593 | -.3750 | .0027  | .0045  | .0218  |
| 28 | -3.99 | -.2420 | -.3810 | -.2603 | .0019  | .0056  | .0220  |
| 29 | .05   | .1181  | -.3892 | -.1331 | .0013  | .0059  | .0200  |
| 30 | 2.51  | .3435  | -.3834 | -.0529 | .0011  | .0039  | .0159  |
| 31 | 4.96  | .5659  | -.3679 | .0299  | .0006  | .0062  | .0110  |
| 32 | 9.98  | .9997  | -.3185 | .2092  | .0007  | .0086  | .0078  |
| 33 | 15.04 | 1.3471 | -.2289 | .3685  | .0015  | .0076  | .0012  |
| 34 | 20.03 | 1.4907 | -.0998 | .4768  | .0033  | .0076  | .0020  |
| 35 | -.01  | .1223  | -.3889 | -.1394 | .0003  | .0070  | .0193  |
| 36 | -.01  | .1368  | -.1531 | -.1057 | -.0343 | .0076  | .0348  |
| 37 | -7.97 | -.5206 | -.1264 | -.3162 | -.0310 | .0114  | .0394  |
| 38 | -4.05 | -.2074 | -.1504 | -.2252 | -.0321 | .0096  | .0363  |
| 39 | -.02  | .1348  | -.1502 | -.1057 | -.0334 | .0052  | .0405  |
| 40 | 2.44  | .3438  | -.1396 | -.0321 | -.0339 | .0055  | .0340  |
| 41 | 5.01  | .5513  | -.1221 | .0476  | -.0326 | .0015  | .0303  |
| 42 | 10.01 | .9473  | -.0712 | .2135  | -.0319 | -.0025 | .0287  |
| 43 | 15.07 | 1.2866 | .0203  | .3702  | -.0307 | -.0054 | .0164  |
| 44 | 20.02 | 1.3602 | .1468  | .4456  | -.0263 | -.0180 | .0069  |
| 45 | -.00  | .1294  | -.1482 | -.1087 | -.0328 | .0054  | .0351  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 6    | .01   | .1330  | .0745  | -.0847 | .0032  | .0028  | .0124  |
| 7    | -8.03 | -.4597 | .1029  | -.2632 | .0045  | .0015  | .0165  |
| 8    | -3.97 | -.1696 | .0762  | -.1911 | .0033  | -.0005 | .0142  |
| 9    | .01   | .1358  | .0757  | -.0832 | .0033  | .0028  | .0129  |
| 10   | 2.61  | .3346  | .0837  | -.0100 | .0030  | .0010  | .0038  |
| 11   | 4.96  | .5174  | .0989  | .0601  | .0030  | .0020  | .0055  |
| 12   | 10.01 | .8941  | .1529  | .2199  | .0017  | .0032  | -.0003 |
| 13   | 14.99 | 1.2130 | .2347  | .3707  | .0017  | .0032  | .0015  |
| 14   | 20.03 | 1.2441 | .3604  | .4440  | .0012  | .0075  | -.0024 |
| 15   | .02   | .1365  | .0758  | -.0839 | .0030  | .0029  | .0096  |
| 16   | .02   | .1267  | -.0178 | -.1024 | .0030  | .0018  | .0109  |
| 17   | -8.03 | -.4945 | .0107  | -.3000 | .0028  | .0015  | .0156  |
| 18   | -4.07 | -.1973 | -.0140 | -.2120 | .0029  | -.0015 | .0117  |
| 19   | .04   | .1337  | -.0154 | -.0933 | .0027  | .0009  | .0072  |
| 20   | 2.54  | .3324  | -.0115 | -.0166 | .0029  | .0020  | .0062  |
| 21   | 4.94  | .5324  | .0040  | .0592  | .0029  | .0020  | .0049  |
| 22   | 9.96  | .9147  | .0521  | .2250  | .0019  | .0064  | -.0003 |
| 23   | 15.01 | 1.2376 | .1369  | .3772  | .0016  | .0032  | .0058  |
| 24   | 20.01 | 1.2938 | .2613  | .4614  | .0029  | .0075  | .0024  |
| 25   | .00   | .1365  | -.0184 | -.0894 | .0026  | .0029  | .0116  |
| 26   | .00   | .1194  | -.3972 | -.1373 | -.0004 | .0048  | .0191  |
| 27   | -7.98 | -.5956 | -.3593 | -.3750 | .0027  | .0045  | .0218  |
| 28   | -3.99 | -.2420 | -.3810 | -.2603 | .0019  | .0056  | .0220  |
| 29   | .05   | .1181  | -.3892 | -.1331 | .0013  | .0059  | .0200  |
| 30   | 2.51  | .3435  | -.3834 | -.0529 | .0011  | .0039  | .0159  |
| 31   | 4.96  | .5659  | -.3679 | .0299  | .0006  | .0062  | .0110  |
| 32   | 9.98  | .9997  | -.3185 | .2092  | .0007  | .0086  | .0078  |
| 33   | 15.04 | 1.3471 | -.2289 | .3685  | .0015  | .0076  | .0012  |
| 34   | 20.03 | 1.4907 | -.0998 | .4768  | .0033  | .0076  | .0020  |
| 35   | -.01  | .1223  | -.3889 | -.1394 | .0003  | .0070  | .0193  |
| 36   | -.01  | .1368  | -.1531 | -.1057 | -.0343 | .0076  | .0348  |
| 37   | -7.97 | -.5206 | -.1264 | -.3162 | -.0310 | .0114  | .0394  |
| 38   | -4.05 | -.2074 | -.1504 | -.2252 | -.0321 | .0096  | .0363  |
| 39   | -.02  | .1348  | -.1502 | -.1057 | -.0334 | .0052  | .0405  |
| 40   | 2.44  | .3438  | -.1396 | -.0321 | -.0339 | .0055  | .0340  |
| 41   | 5.01  | .5513  | -.1221 | .0476  | -.0326 | .0015  | .0303  |
| 42   | 10.01 | .9473  | -.0712 | .2135  | -.0319 | -.0025 | .0287  |
| 43   | 15.07 | 1.2866 | .0203  | .3702  | -.0307 | -.0054 | .0164  |
| 44   | 20.02 | 1.3602 | .1468  | .4456  | -.0263 | -.0180 | .0069  |
| 45   | -.00  | .1294  | -.1482 | -.1087 | -.0328 | .0054  | .0351  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 203

RUN 244 CONFIG F P R W5 NP1 T2

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 7       | .0        | .0      | 51.6        | 28.14       | -262.        | 34.          | -5.          | 3.91        | 54.83 | 128.39  | 3620.  |
| 8       | .0        | -15.0   | 66.1        | 41.20       | -297.        | -482.        | 69.          | -75.47      | 54.93 | 128.52  | 3450.  |
| 9       | .0        | -10.0   | 58.2        | 32.94       | -311.        | -337.        | 42.          | -48.32      | 55.28 | 128.92  | 3520.  |
| 10      | .0        | -5.0    | 53.8        | 29.36       | -280.        | -164.        | 54.          | -22.21      | 55.05 | 128.66  | 3570.  |
| 11      | .0        | .0      | 50.6        | 28.40       | -267.        | 27.          | -20.         | 1.98        | 54.94 | 128.52  | 3630.  |
| 12      | .0        | 2.5     | 50.4        | 29.33       | -258.        | 143.         | -27.         | 16.72       | 54.40 | 127.87  | 3660.  |
| 13      | .0        | 5.0     | 51.2        | 30.23       | -271.        | 237.         | -29.         | 30.14       | 54.59 | 128.11  | 3680.  |
| 14      | .0        | 10.0    | 55.1        | 33.61       | -281.        | 390.         | -53.         | 52.78       | 54.99 | 128.59  | 3740.  |
| 15      | .0        | 15.0    | 59.3        | 41.98       | -318.        | 518.         | -50.         | 79.34       | 54.78 | 128.34  | 3800.  |
| 16      | .0        | .0      | 48.9        | 28.55       | -272.        | 39.          | 13.          | 4.11        | 54.67 | 128.21  | 3620.  |
| 17      | .0        | .0      | 44.1        | -63.85      | -389.        | -497.        | 110.         | 10.94       | 54.79 | 128.35  | 22940. |
| 18      | .0        | .0      | 43.6        | -62.82      | -379.        | -576.        | 19.          | 12.93       | 54.79 | 128.34  | 23030. |
| 19      | .0        | -15.0   | 59.4        | -46.12      | -411.        | -1172.       | 53.          | -96.11      | 54.79 | 128.36  | 22920. |
| 20      | .0        | -10.0   | 53.5        | -48.07      | -755.        | -766.        | 554.         | -64.91      | 54.84 | 128.41  | 23050. |
| 21      | .0        | -5.1    | 48.9        | -56.85      | -373.        | -795.        | 56.          | -23.36      | 54.55 | 128.06  | 22910. |
| 22      | .0        | -2.5    | 50.1        | -57.35      | -370.        | -674.        | 51.          | -4.49       | 54.62 | 128.15  | 23010. |
| 23      | .0        | .0      | 48.0        | -57.95      | -377.        | -546.        | 35.          | 14.72       | 54.39 | 127.87  | 23030. |
| 24      | .0        | 2.4     | 48.7        | -57.16      | -355.        | -446.        | 8.           | 32.12       | 54.61 | 128.14  | 22960. |
| 25      | .0        | 5.0     | 50.7        | -55.55      | -373.        | -318.        | 52.          | 49.75       | 54.70 | 128.25  | 23050. |
| 26      | .0        | 10.0    | 52.2        | -50.72      | -376.        | -151.        | 17.          | 83.87       | 54.43 | 127.91  | 23090. |
| 27      | .0        | 15.0    | 54.0        | -39.51      | -398.        | -23.         | -8.          | 120.07      | 54.75 | 128.30  | 23030. |
| 28      | .0        | -10.0   | 52.2        | -52.96      | -414.        | -968.        | 86.          | -58.22      | 54.76 | 128.32  | 23000. |
| 29      | .0        | .0      | 45.6        | -59.80      | -368.        | 116.         | 1367.        | -5.34       | 54.85 | 128.42  | 23120. |
| 30      | .0        | .0      | 42.0        | -145.91     | -465.        | 8.           | 60.          | 8.14        | 54.85 | 128.43  | 23060. |
| 31      | .0        | -15.0   | 55.7        | -126.60     | -469.        | -642.        | 75.          | -130.23     | 54.72 | 128.27  | 23140. |
| 32      | .0        | -10.0   | 50.1        | -131.11     | -915.        | -172.        | 654.         | -89.60      | 54.82 | 128.39  | 22980. |
| 33      | .0        | -5.0    | 43.2        | -143.08     | -463.        | -235.        | 70.          | -38.07      | 55.03 | 128.64  | 22920. |
| 34      | .0        | -2.5    | 41.7        | -144.80     | -450.        | -114.        | 80.          | -13.84      | 54.64 | 128.18  | 22950. |
| 35      | .0        | .0      | 42.6        | -143.32     | -467.        | 23.          | 61.          | 7.49        | 55.04 | 128.66  | 23080. |
| 36      | .0        | 2.5     | 43.1        | -145.77     | -478.        | 163.         | 63.          | 30.45       | 54.38 | 127.86  | 23050. |
| 37      | .0        | 5.0     | 44.9        | -143.73     | -479.        | 281.         | 33.          | 53.31       | 54.31 | 127.78  | 22990. |
| 38      | .0        | 10.0    | 49.5        | -136.91     | -481.        | 492.         | 20.          | 97.00       | 54.33 | 127.80  | 22960. |
| 39      | .0        | 15.0    | 53.5        | -123.11     | -508.        | 638.         | 18.          | 142.84      | 54.45 | 127.94  | 22930. |
| 40      | .0        | -10.0   | 48.8        | -138.06     | -514.        | -462.        | 94.          | -80.90      | 54.53 | 128.05  | 22970. |
| 41      | .0        | .0      | 44.6        | -144.33     | -483.        | 11.          | 97.          | 7.89        | 54.43 | 127.93  | 23020. |
| 42      | .0        | .0      | 49.1        | -6.61       | -335.        | 48.          | -8.          | 6.04        | 54.15 | 127.59  | 10570. |
| 43      | .0        | -15.0   | 63.7        | 7.60        | -344.        | -537.        | 27.          | -87.13      | 54.15 | 127.58  | 10540. |
| 44      | .0        | -10.0   | 59.7        | -2.10       | -357.        | -386.        | 87.          | -55.81      | 54.20 | 127.64  | 10630. |
| 45      | .0        | -5.0    | 54.9        | -6.28       | -330.        | -183.        | 59.          | -25.82      | 53.83 | 127.21  | 10690. |
| 46      | .0        | -2.5    | 52.4        | -5.49       | -331.        | -78.         | 7.           | -11.01      | 55.41 | 129.08  | 10640. |
| 47      | .0        | .0      | 50.6        | -6.66       | -325.        | 39.          | -42.         | 5.35        | 55.41 | 129.08  | 10660. |
| 48      | .0        | 2.5     | 53.1        | -5.70       | -314.        | 164.         | 20.          | 20.12       | 55.53 | 129.23  | 10630. |
| 49      | .0        | 5.0     | 50.3        | -4.83       | -321.        | 259.         | -17.         | 34.02       | 55.27 | 128.92  | 10620. |
| 50      | .0        | 10.0    | 57.2        | -.06        | -340.        | 450.         | -16.         | 64.89       | 54.49 | 127.99  | 10600. |
| 51      | .0        | 15.0    | 61.6        | 8.93        | -386.        | 592.         | -36.         | 94.98       | 54.66 | 128.19  | 10610. |
| 52      | .0        | .0      | 52.2        | -7.34       | -314.        | 45.          | -7.          | 5.84        | 54.84 | 128.41  | 10770. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 7    | .00    | .1395 | .0761 | -.0846 | .0021  | -.0003 | .0106  |
| 8    | -15.00 | .1787 | .1113 | -.0957 | -.0201 | .0042  | -.2040 |

SEP-700  
P 204

|    |        |       |        |        |        |        |        |
|----|--------|-------|--------|--------|--------|--------|--------|
| 9  | -10.00 | .1572 | .0890  | -.1002 | -.0203 | .0025  | -.1306 |
| 10 | -5.00  | .1454 | .0793  | -.0904 | -.0099 | .0032  | -.0600 |
| 11 | .00    | .1367 | .0768  | -.0860 | .0016  | -.0012 | .0054  |
| 12 | 2.50   | .1362 | .0793  | -.0832 | .0087  | -.0017 | .0452  |
| 13 | 5.00   | .1385 | .0817  | -.0873 | .0143  | -.0018 | .0815  |
| 14 | 10.00  | .1488 | .0908  | -.0906 | .0236  | -.0032 | .1426  |
| 15 | 15.00  | .1603 | .1135  | -.1026 | .0313  | -.0030 | .2144  |
| 16 | .00    | .1322 | .0772  | -.0875 | .0024  | .0008  | .0111  |
| 17 | .00    | .1193 | -.1726 | -.1253 | -.0300 | .0066  | .0296  |
| 18 | .00    | .1178 | -.1698 | -.1221 | -.0348 | .0011  | .0350  |
| 19 | -15.00 | .1606 | -.1246 | -.1324 | -.0708 | .0032  | -.2598 |
| 20 | -10.00 | .1445 | -.1299 | -.2435 | -.0463 | .0335  | -.1754 |
| 21 | -5.10  | .1323 | -.1577 | -.1202 | -.0480 | .0034  | -.0631 |
| 22 | -2.50  | .1355 | -.1550 | -.1193 | -.0407 | .0031  | -.0121 |
| 23 | .00    | .1298 | -.1566 | -.1214 | -.0370 | .0021  | .0398  |
| 24 | 2.40   | .1316 | -.1545 | -.1145 | -.0269 | .0005  | .0868  |
| 25 | 5.00   | .1369 | -.1501 | -.1202 | -.0192 | .0032  | .1345  |
| 26 | 10.00  | .1411 | -.1371 | -.1211 | -.0091 | .0010  | .2267  |
| 27 | 15.00  | .1460 | -.1068 | -.1283 | -.0014 | -.0005 | .3245  |
| 28 | -10.00 | .1411 | -.1431 | -.1335 | -.0584 | .0052  | -.1574 |
| 29 | .00    | .1232 | -.1616 | -.1186 | .0070  | .0826  | -.0144 |
| 30 | .00    | .1136 | -.3944 | -.1498 | .0005  | .0036  | .0220  |
| 31 | -15.00 | .1505 | -.3421 | -.1512 | -.0388 | .0045  | -.3520 |
| 32 | -10.00 | .1354 | -.3543 | -.2949 | -.0104 | .0395  | -.2422 |
| 33 | -5.00  | .1168 | -.3867 | -.1492 | -.0142 | .0042  | -.1029 |
| 34 | -2.50  | .1128 | -.3913 | -.1479 | -.0069 | .0048  | -.0374 |
| 35 | .00    | .1150 | -.3874 | -.1504 | .0014  | .0037  | .0202  |
| 36 | 2.50   | .1164 | -.3940 | -.1541 | .0098  | .0038  | .0823  |
| 37 | 5.00   | .1213 | -.3884 | -.1544 | .0170  | .0020  | .1441  |
| 38 | 10.00  | .1338 | -.3700 | -.1551 | .0297  | .0012  | .2622  |
| 39 | 15.00  | .1446 | -.3327 | -.1636 | .0385  | .0011  | .3860  |
| 40 | -10.00 | .1320 | -.3731 | -.1658 | -.0279 | .0057  | -.2186 |
| 41 | .00    | .1205 | -.3901 | -.1556 | .0007  | .0658  | .0213  |
| 42 | .00    | .1328 | -.0179 | -.1081 | .0029  | -.0005 | .0163  |
| 43 | -15.00 | .1722 | .0205  | -.1108 | -.0324 | .0016  | -.2355 |
| 44 | -10.00 | .1613 | -.0057 | -.1152 | -.0233 | .0053  | -.1508 |
| 45 | -5.00  | .1484 | -.0170 | -.1091 | -.0111 | .0035  | -.0698 |
| 46 | -2.50  | .1416 | -.0148 | -.1066 | -.0047 | .0004  | -.0297 |
| 47 | .00    | .1367 | -.0180 | -.1047 | .0024  | -.0025 | .0145  |
| 48 | 2.50   | .1435 | -.0154 | -.1012 | .0099  | .0012  | .0544  |
| 49 | 5.00   | .1358 | -.0131 | -.1036 | .0156  | -.0010 | .0920  |
| 50 | 10.00  | .1546 | -.0002 | -.1097 | .0272  | -.0010 | .1754  |
| 51 | 15.00  | .1665 | .0241  | -.1244 | .0357  | -.0022 | .2567  |
| 52 | .00    | .1410 | -.0198 | -.1011 | .0027  | -.0004 | .0158  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 7    | .00    | .1395 | .0761  | -.0846 | .0021  | -.0003 | .0106  |
| 8    | -15.00 | .1787 | .0545  | -.0982 | -.0291 | .0087  | -.2259 |
| 9    | -10.00 | .1572 | .0649  | -.1010 | -.0203 | .0058  | -.1441 |
| 10   | -5.00  | .1454 | .0738  | -.0915 | -.0099 | .0047  | -.0667 |
| 11   | .00    | .1367 | .0768  | -.0860 | .0016  | -.0012 | .0054  |
| 12   | 2.50   | .1362 | .0772  | -.0835 | .0087  | -.0023 | .0486  |
| 13   | 5.00   | .1385 | .0743  | -.0878 | .0143  | -.0032 | .0815  |
| 14   | 10.00  | .1488 | .0646  | -.0922 | .0236  | -.0061 | .1563  |
| 15   | 15.00  | .1603 | .0538  | -.1032 | .0313  | -.0079 | .2366  |
| 16   | .00    | .1322 | .0772  | -.0875 | .0024  | .0008  | .0111  |
| 17   | .00    | .1193 | -.1726 | -.1253 | -.0300 | .0066  | .0296  |
| 18   | .00    | .1178 | -.1698 | -.1221 | -.0348 | .0011  | .0350  |
| 19   | -15.00 | .1606 | -.1879 | -.1323 | -.0708 | .0096  | -.2184 |
| 20   | -10.00 | .1445 | -.1585 | -.2709 | -.0463 | .0409  | -.1591 |
| 21   | -5.10  | .1323 | -.1587 | -.1213 | -.0480 | .0054  | -.0492 |

|    |        |       |        |        |        |        |        |
|----|--------|-------|--------|--------|--------|--------|--------|
| 22 | -2.50  | .1355 | -.1554 | -.1200 | -.0407 | .0041  | -.0053 |
| 23 | .00    | .1298 | -.1566 | -.1214 | -.0330 | .0021  | .0398  |
| 24 | 2.40   | .1316 | -.1580 | -.1143 | -.0269 | -.0004 | .0802  |
| 25 | 5.00   | .1369 | -.1613 | -.1182 | -.0192 | .0012  | .1208  |
| 26 | 10.00  | .1411 | -.1745 | -.1183 | -.0091 | -.0030 | .1993  |
| 27 | 15.00  | .1460 | -.1875 | -.1246 | -.0014 | -.0067 | .2856  |
| 28 | -10.00 | .1411 | -.1684 | -.1363 | -.0594 | .0095  | -.1300 |
| 29 | .00    | .1232 | -.1616 | -.1186 | .0070  | .0826  | -.0144 |
| 30 | .00    | .1136 | -.3944 | -.1498 | .0005  | .0036  | .0220  |
| 31 | -15.00 | .1505 | -.4219 | -.1523 | -.0388 | .0117  | -.2509 |
| 32 | -10.00 | .1354 | -.3911 | -.3272 | -.0104 | .0486  | -.1767 |
| 33 | -5.00  | .1168 | -.3942 | -.1506 | -.0142 | .0067  | -.0686 |
| 34 | -2.50  | .1128 | -.3926 | -.1489 | -.0069 | .0060  | -.0202 |
| 35 | .00    | .1150 | -.3874 | -.1504 | .0014  | .0037  | .0202  |
| 36 | 2.50   | .1164 | -.3972 | -.1531 | .0098  | .0025  | .0649  |
| 37 | 5.00   | .1213 | -.3996 | -.1529 | .0170  | -.0006 | .1095  |
| 38 | 10.00  | .1338 | -.4101 | -.1516 | .0297  | -.0039 | .1936  |
| 39 | 15.00  | .1446 | -.4217 | -.1565 | .0385  | -.0069 | .2863  |
| 40 | -10.00 | .1320 | -.4055 | -.1685 | -.0279 | .0110  | -.1502 |
| 41 | .00    | .1205 | -.3901 | -.1556 | .0007  | .0058  | .0213  |
| 42 | .00    | .1328 | -.0179 | -.1081 | .0029  | -.0005 | .0163  |
| 43 | -15.00 | .1722 | -.0414 | -.1092 | -.0324 | .0069  | -.2327 |
| 44 | -10.00 | .1613 | -.0319 | -.1183 | -.0233 | .0089  | -.1475 |
| 45 | -5.00  | .1484 | -.0230 | -.1104 | -.0111 | .0053  | -.0680 |
| 46 | -2.50  | .1416 | -.0161 | -.1066 | -.0047 | .0013  | -.0291 |
| 47 | .00    | .1367 | -.0180 | -.1047 | .0024  | -.0025 | .0145  |
| 48 | 2.50   | .1435 | -.0178 | -.1008 | .0099  | .0004  | .0537  |
| 49 | 5.00   | .1358 | -.0211 | -.1037 | .0156  | -.0027 | .0905  |
| 50 | 10.00  | .1546 | -.0308 | -.1089 | .0272  | -.0045 | .1726  |
| 51 | 15.00  | .1665 | -.0434 | -.1231 | .0357  | -.0081 | .2541  |
| 52 | .00    | .1410 | -.0198 | -.1011 | .0027  | -.0004 | .0158  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 245 CONFIG F P B W5 NP1 T2

| IW<br>PT.<br>NO. | -9 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | - DELE<br>CPMBAR<br>CU-FT | - DELR<br>CYMBAR<br>CU-FT | - DELSB<br>CRMBAR<br>CU-FT | - DELSB<br>CYBAR<br>SQ-FT | -<br>O<br>PSF | -<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|----------------------------|---------------------------|---------------|-----------------|--------|
| 4                | .0                      | .0                   | -143.8                   | 32.26                   | -436.                     | 38.                       | -60.                       | 4.91                      | 54.10         | 127.55          | 3290.  |
| 5                | .0                      | .0                   | -141.4                   | 32.10                   | -431.                     | 39.                       | -23.                       | 4.03                      | 55.00         | 128.62          | 3310.  |
| 6                | .0                      | .0                   | -143.9                   | -6.88                   | -499.                     | 36.                       | -25.                       | 5.56                      | 54.57         | 128.12          | 11340. |
| 7                | .0                      | -15.0                | -120.0                   | 11.50                   | -509.                     | -437.                     | 61.                        | -95.11                    | 54.87         | 128.47          | 11410. |
| 9                | .0                      | -5.0                 | -140.1                   | -6.02                   | -491.                     | -134.                     | 39.                        | -30.36                    | 54.53         | 128.06          | 11350. |
| 10               | .0                      | -2.5                 | -145.8                   | -6.45                   | -496.                     | -53.                      | 64.                        | -10.86                    | 54.60         | 128.15          | 11330. |
| 11               | .0                      | .0                   | -148.5                   | -7.21                   | -494.                     | 39.                       | -9.                        | 7.20                      | 54.85         | 128.45          | 11370. |
| 12               | .0                      | 2.5                  | -147.7                   | -5.63                   | -494.                     | 133.                      | -4.                        | 22.86                     | 55.42         | 129.13          | 11320. |
| 13               | .0                      | 5.0                  | -143.3                   | -4.27                   | -490.                     | 214.                      | 4.                         | 37.69                     | 55.22         | 128.89          | 11320. |
| 14               | .0                      | 10.0                 | -134.0                   | 2.71                    | -490.                     | 351.                      | -29.                       | 71.09                     | 54.87         | 128.47          | 11300. |
| 15               | .0                      | 15.0                 | -120.6                   | 13.77                   | -516.                     | 505.                      | -52.                       | 101.90                    | 54.89         | 128.49          | 11310. |
| 16               | .0                      | -10.0                | -133.7                   | .54                     | -529.                     | -270.                     | 63.                        | -62.16                    | 54.75         | 128.33          | 11350. |
| 17               | .0                      | .0                   | -145.8                   | -7.28                   | -483.                     | 39.                       | 12.                        | 4.49                      | 54.60         | 128.15          | 11330. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 4    | .00    | -.3886 | .0872  | -.1406 | .0023  | -.0036 | .0133  |
| 5    | .00    | -.3822 | .0867  | -.1389 | .0023  | -.0014 | .0109  |
| 6    | .00    | -.4025 | -.0186 | -.1610 | .0022  | -.0015 | .0150  |
| 7    | -15.00 | -.3243 | .0311  | -.1641 | -.0264 | .0037  | -.2570 |
| 9    | -5.00  | -.3787 | -.0163 | -.1583 | -.0081 | .0023  | -.0821 |
| 10   | -2.50  | -.3942 | -.0174 | -.1598 | -.0032 | .0039  | -.0293 |
| 11   | .00    | -.4015 | -.0195 | -.1594 | .0023  | -.0006 | .0195  |
| 12   | 2.50   | -.3993 | -.0152 | -.1594 | .0080  | -.0003 | .0618  |
| 13   | 5.00   | -.3874 | -.0115 | -.1579 | .0129  | .0003  | .1019  |
| 14   | 10.00  | -.3620 | .0073  | -.1579 | .0212  | -.0017 | .1921  |
| 15   | 15.00  | -.3259 | .0372  | -.1664 | .0305  | -.0031 | .2754  |
| 16   | -10.00 | -.3613 | .0015  | -.1705 | -.0163 | .0038  | -.1680 |
| 17   | .00    | -.3941 | -.0197 | -.1558 | .0024  | .0007  | .0121  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 4    | .00    | -.3886 | .0872  | -.1406 | .0023  | -.0036 | .0133  |
| 5    | .00    | -.3822 | .0867  | -.1389 | .0023  | -.0014 | .0109  |
| 6    | .00    | -.4025 | -.0186 | -.1610 | .0022  | -.0015 | .0150  |
| 7    | -15.00 | -.3243 | -.0368 | -.1636 | -.0264 | .0116  | -.2563 |
| 9    | -5.00  | -.3787 | -.0234 | -.1588 | -.0081 | .0049  | -.0803 |
| 10   | -2.50  | -.3942 | -.0187 | -.1606 | -.0032 | .0052  | -.0285 |
| 11   | .00    | -.4015 | -.0195 | -.1594 | .0023  | -.0006 | .0195  |
| 12   | 2.50   | -.3993 | -.0179 | -.1593 | .0080  | -.0016 | .0611  |
| 13   | 5.00   | -.3874 | -.0204 | -.1571 | .0129  | -.0023 | .1005  |
| 14   | 10.00  | -.3620 | -.0263 | -.1571 | .0212  | -.0069 | .1905  |
| 15   | 15.00  | -.3259 | -.0357 | -.1650 | .0305  | -.0111 | .2756  |
| 16   | -10.00 | -.3613 | -.0279 | -.1714 | -.0163 | .0093  | -.1657 |
| 17   | .00    | -.3941 | -.0197 | -.1558 | .0024  | .0007  | .0121  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 246 CONFIG F P B W5 NP1 T2

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | -           | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 1       | .0        | .0      | -147.5      | -6.94       | -492.        | 42.          | -7.          | 5.24        | 55.24 | 128.91  | 11310. |
| 2       | -8.0      | .0      | -349.9      | 26.26       | -970.        | 56.          | -45.         | 5.88        | 55.07 | 128.71  | 11350. |
| 3       | -4.0      | .0      | -260.4      | 4.78        | -806.        | 39.          | -28.         | 6.92        | 55.14 | 128.80  | 11310. |
| 4       | .0        | .0      | -143.1      | -6.94       | -482.        | 39.          | 26.          | 7.00        | 55.94 | 129.74  | 11360. |
| 5       | 2.5       | .0      | -72.9       | -10.04      | -270.        | 36.          | 48.          | 3.82        | 55.25 | 128.93  | 11320. |
| 6       | 5.0       | .0      | 4.1         | -10.52      | -19.         | 42.          | 31.          | 4.08        | 55.12 | 128.77  | 11310. |
| 7       | 5.0       | .0      | 4.8         | -11.28      | -22.         | 48.          | 37.          | 4.76        | 47.27 | 119.24  | 11310. |
| 8       | 10.0      | .0      | 160.5       | -3.86       | 506.         | 43.          | -19.         | 2.54        | 54.92 | 128.53  | 11330. |
| 9       | 15.0      | .0      | 314.5       | 15.36       | 1063.        | 19.          | 124.         | .37         | 54.87 | 128.47  | 11380. |
| 10      | 20.0      | .0      | 451.6       | 46.51       | 1613.        | 38.          | 124.         | -.75        | 54.83 | 128.42  | 11410. |
| 11      | -.0       | .0      | -146.4      | -6.74       | -492.        | 49.          | 26.          | 7.26        | 54.91 | 128.52  | 11280. |
| 12      | 10.0      | .0      | 158.7       | -4.09       | 499.         | 48.          | 33.          | 3.06        | 55.65 | 129.40  | 11390. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 1    | .00   | -.3986 | -.0188 | -.1587 | .0025 | -.0004 | .0142  |
| 2    | -8.01 | -.9458 | .0710  | -.3129 | .0034 | -.0027 | .0159  |
| 3    | -3.98 | -.7038 | .0129  | -.2598 | .0023 | -.0017 | .0187  |
| 4    | .00   | -.3868 | -.0188 | -.1552 | .0024 | .0016  | .0189  |
| 5    | 2.51  | -.1971 | -.0271 | -.0872 | .0022 | .0029  | .0103  |
| 6    | 5.02  | .0111  | -.0284 | -.0060 | .0025 | .0019  | .0110  |
| 7    | 5.02  | .0129  | -.0305 | -.0070 | .0029 | .0022  | .0129  |
| 8    | 10.03 | .4337  | -.0104 | .1632  | .0026 | -.0012 | .0069  |
| 9    | 15.02 | .8500  | .0415  | .3426  | .0011 | .0075  | .0010  |
| 10   | 20.00 | 1.2206 | .1257  | .5200  | .0023 | .0075  | -.0020 |
| 11   | -.00  | -.3958 | -.0182 | -.1586 | .0030 | .0016  | .0196  |
| 12   | 10.01 | .4288  | -.0111 | .1608  | .0029 | .0020  | .0083  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | COB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 1    | .00   | -.3986 | -.0188 | -.1587 | .0025 | -.0004 | .0142  |
| 2    | -8.01 | -.9458 | .0710  | -.3129 | .0034 | -.0027 | .0159  |
| 3    | -3.98 | -.7038 | .0129  | -.2598 | .0023 | -.0017 | .0187  |
| 4    | .00   | -.3868 | -.0188 | -.1552 | .0024 | .0016  | .0189  |
| 5    | 2.51  | -.1971 | -.0271 | -.0872 | .0022 | .0029  | .0103  |
| 6    | 5.02  | .0111  | -.0284 | -.0060 | .0025 | .0019  | .0110  |
| 7    | 5.02  | .0129  | -.0305 | -.0070 | .0029 | .0022  | .0129  |
| 8    | 10.03 | .4337  | -.0104 | .1632  | .0026 | -.0012 | .0069  |
| 9    | 15.02 | .8500  | .0415  | .3426  | .0011 | .0075  | .0010  |
| 10   | 20.00 | 1.2206 | .1257  | .5200  | .0023 | .0075  | -.0020 |
| 11   | -.00  | -.3958 | -.0182 | -.1586 | .0030 | .0016  | .0196  |
| 12   | 10.01 | .4288  | -.0111 | .1608  | .0029 | .0020  | .0083  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 247 CONFIG. F P B W5 NP1 T2

| PT. NO. | 15. DELF<br>ALPHA<br>DEG | PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | - DELE<br>CYMBAR<br>CU-FT | - DELR<br>CRMBAR<br>CU-FT | - DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM    |
|---------|--------------------------|------------|--------------------------|-------------------------|-----------------|---------------------------|---------------------------|---------------------------|----------|------------|--------|
| 2       | .0                       | .0         | 367.2                    | 67.86                   | -181.           | 28.                       | 17.                       | .68                       | 54.89    | 128.49     | 4070.  |
| 3       | .0                       | .0         | 353.4                    | -6.70                   | -305.           | 30.                       | 84.                       | 2.02                      | 55.66    | 129.40     | 15360. |
| 4       | -8.0                     | .0         | 140.8                    | -27.64                  | -1068.          | 52.                       | 66.                       | 1.77                      | 55.75    | 129.51     | 15350. |
| 5       | -4.0                     | .0         | 256.4                    | -20.37                  | -681.           | 39.                       | 33.                       | 1.22                      | 55.90    | 129.68     | 15380. |
| 6       | .0                       | .0         | 350.7                    | -5.57                   | -326.           | 22.                       | 88.                       | -.55                      | 55.73    | 129.48     | 15410. |
| 7       | 2.5                      | .0         | 402.9                    | 7.10                    | -104.           | -1.                       | 89.                       | -2.02                     | 55.75    | 129.51     | 15470. |
| 8       | 5.0                      | .0         | 418.2                    | 21.66                   | 71.             | -9.                       | -190.                     | -1.60                     | 55.51    | 129.23     | 15470. |
| 9       | 10.0                     | .0         | 425.6                    | 71.71                   | 317.            | 159.                      | -123.                     | 1.71                      | 55.62    | 129.36     | 15470. |
| 10      | 15.0                     | .0         | 470.6                    | 122.49                  | 734.            | 167.                      | -440.                     | 7.28                      | 55.21    | 128.87     | 15500. |
| 11      | 20.0                     | .0         | 516.2                    | 182.59                  | 1059.           | 115.                      | -227.                     | 5.00                      | 55.21    | 128.87     | 15480. |
| 12      | .0                       | .0         | 355.6                    | -5.23                   | -313.           | 4.                        | 107.                      | -2.01                     | 55.89    | 129.67     | 15240. |

## \*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI   | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .9923  | .1834  | -.0584 | .0017  | .0010  | .0018  |
| 3    | .00   | .9550  | -.0181 | -.0984 | .0018  | .0051  | .0055  |
| 4    | -7.97 | .3804  | -.0747 | -.3443 | .0031  | .0040  | .0048  |
| 5    | -3.96 | .6930  | -.0550 | -.2196 | .0024  | .0020  | .0033  |
| 6    | .04   | .9478  | -.0151 | -.1050 | .0013  | .0053  | -.0015 |
| 7    | 2.53  | 1.0890 | .0192  | -.0335 | -.0000 | .0054  | -.0054 |
| 8    | 5.02  | 1.1303 | .0586  | .0230  | -.0005 | -.0115 | -.0043 |
| 9    | 10.05 | 1.1502 | .1938  | .1022  | .0096  | -.0074 | .0046  |
| 10   | 15.04 | 1.2720 | .3311  | .2366  | .0101  | -.0266 | .0197  |
| 11   | 20.03 | 1.3950 | .4935  | .3415  | .0070  | -.0137 | .0135  |
| 12   | .03   | .9611  | -.0141 | -.1008 | .0002  | .0064  | -.0054 |

## \*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI   | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .9923  | .1834  | -.0584 | .0017  | .0010  | .0018  |
| 3    | .00   | .9550  | -.0181 | -.0984 | .0018  | .0051  | .0055  |
| 4    | -7.97 | .3804  | -.0747 | -.3443 | .0031  | .0040  | .0048  |
| 5    | -3.96 | .6930  | -.0550 | -.2196 | .0024  | .0020  | .0033  |
| 6    | .04   | .9478  | -.0151 | -.1050 | .0013  | .0053  | -.0015 |
| 7    | 2.53  | 1.0890 | .0192  | -.0335 | -.0000 | .0054  | -.0054 |
| 8    | 5.02  | 1.1303 | .0586  | .0230  | -.0005 | -.0115 | -.0043 |
| 9    | 10.05 | 1.1502 | .1938  | .1022  | .0096  | -.0074 | .0046  |
| 10   | 15.04 | 1.2720 | .3311  | .2366  | .0101  | -.0266 | .0197  |
| 11   | 20.03 | 1.3950 | .4935  | .3415  | .0070  | -.0137 | .0135  |
| 12   | .03   | .9611  | -.0141 | -.1008 | .0002  | .0064  | -.0054 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P.209

RUN: 248 CONFIG F P B W5 NP1 T2

| PT. NO. | 15 DELF ALPHA DEG | 0 DELA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSE Q PSF | V KNOTS | RPM    |
|---------|-------------------|----------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------|--------|
| 1       | .0                | .0             | 355.4       | -5.71       | -316.        | 15.          | 141.         | -2.43       | 56.15       | 129.98  | 15360. |
| 2       | .0                | -15.0          | 328.5       | 3.45        | -183.        | -701.        | -255.        | -76.14      | 56.02       | 129.82  | 15360. |
| 3       | .0                | -9.9           | 340.2       | -4.41       | -266.        | -481.        | -169.        | -47.04      | 55.77       | 129.53  | 15410. |
| 4       | .0                | -5.0           | 347.3       | -6.06       | -317.        | -240.        | -188.        | -18.76      | 55.93       | 129.72  | 15450. |
| 5       | .0                | -2.5           | 352.9       | -6.01       | -323.        | -91.         | -73.         | -6.66       | 55.75       | 129.50  | 15440. |
| 6       | .0                | .0             | 345.4       | -5.39       | -344.        | 15.          | 33.          | 1.78        | 55.63       | 129.36  | 15440. |
| 7       | .0                | 2.5            | 346.4       | -5.46       | -325.        | 158.         | 123.         | 12.40       | 55.75       | 129.51  | 15410. |
| 8       | .0                | 5.0            | 342.3       | -6.32       | -280.        | 295.         | 234.         | 23.62       | 55.82       | 129.59  | 15390. |
| 9       | .0                | 10.0           | 331.8       | -3.27       | -223.        | 502.         | 343.         | 50.81       | 56.32       | 130.18  | 15410. |
| 12      | .0                | 15.0           | 316.4       | 4.81        | -197.        | 719.         | 367.         | 77.82       | 56.08       | 129.89  | 15380. |
| 13      | .0                | .0             | 357.9       | -5.38       | -284.        | -1.          | 122.         | -.67        | 55.91       | 129.69  | 15450. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 1    | .00    | .9605 | -.0154 | -.1019 | .0009  | .0085  | -.0066 |
| 2    | -15.00 | .8879 | .0093  | -.0589 | -.0423 | -.0154 | -.2058 |
| 3    | -9.90  | .9195 | -.0119 | -.0859 | -.0291 | -.0102 | -.1271 |
| 4    | -5.00  | .9387 | -.0164 | -.1022 | -.0145 | -.0114 | -.0507 |
| 5    | -2.50  | .9537 | -.0162 | -.1041 | -.0055 | -.0044 | -.0180 |
| 6    | .00    | .9336 | -.0146 | -.1109 | .0009  | .0020  | .0048  |
| 7    | 2.50   | .9363 | -.0147 | -.1047 | .0096  | .0074  | .0335  |
| 8    | 5.00   | .9250 | -.0171 | -.0903 | .0178  | .0141  | .0638  |
| 12   | 15.00  | .8550 | .0130  | -.0635 | .0434  | .0222  | .2103  |
| 13   | .00    | .9672 | -.0145 | -.0915 | -.0001 | .0074  | -.0018 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 1    | .00    | .9605 | -.0154 | -.1019 | .0009  | .0085  | -.0066 |
| 2    | -15.00 | .8879 | -.0445 | -.0355 | -.0423 | -.0120 | -.2011 |
| 3    | -9.90  | .9195 | -.0337 | -.0752 | -.0291 | -.0073 | -.1232 |
| 4    | -5.00  | .9387 | -.0208 | -.0965 | -.0145 | -.0096 | -.0491 |
| 5    | -2.50  | .9537 | -.0170 | -.1029 | -.0055 | -.0035 | -.0173 |
| 6    | .00    | .9336 | -.0146 | -.1109 | .0009  | .0020  | .0048  |
| 7    | 2.50   | .9363 | -.0162 | -.1029 | .0096  | .0065  | .0328  |
| 8    | 5.00   | .9250 | -.0226 | -.0633 | .0178  | .0126  | .0621  |
| 12   | 15.00  | .8550 | -.0421 | -.0306 | .0434  | .0183  | .2065  |
| 13   | .00    | .9672 | -.0145 | -.0915 | -.0001 | .0074  | -.0018 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 210

RUN 250 CONFIG F P B W5 NP1 T2

| PT. NO. | ALPHA DEG | 15 DELF PSI DEG | 30 DELA CLBAR SQ-FT | 0 IHT CDBAR SQ-FT | CPMBAR CU-FT | - DELE CYMBAR CU-FT | - DELR CRMBAR CU-FT | - DELSB CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|-----------------|---------------------|-------------------|--------------|---------------------|---------------------|---------------------|-------|---------|--------|
| 2       | .0        | .0              | 585.3               | 127.01            | -606.        | 7.                  | 72.                 | -1.95               | 55.96 | 129.75  | 4390.  |
| 3       | .0        | .0              | 581.4               | -6.82             | -774.        | 30.                 | 118.                | 2.12                | 56.14 | 129.96  | 19960. |
| 4       | -8.0      | .0              | 362.7               | -36.44            | -1701.       | 65.                 | 156.                | .24                 | 55.80 | 129.56  | 20030. |
| 5       | -4.0      | .0              | 475.2               | -22.82            | -1256.       | 8.                  | 81.                 | 3.52                | 56.16 | 129.99  | 20010. |
| 6       | -.0       | .0              | 585.6               | -6.52             | -775.        | 25.                 | 169.                | 2.67                | 56.08 | 129.89  | 20060. |
| 7       | 2.5       | .0              | 630.4               | 5.04              | -471.        | 13.                 | 82.                 | 3.83                | 56.04 | 129.84  | 20040. |
| 8       | 5.0       | .0              | 524.8               | 22.24             | -335.        | 3.                  | -294.               | -1.28               | 55.74 | 129.49  | 19990. |
| 9       | 10.0      | .0              | 501.6               | 73.83             | -41.         | 116.                | -200.               | 12.53               | 55.21 | 128.85  | 20000. |
| 10      | 15.0      | .0              | 566.5               | 138.53            | 356.         | 108.                | -232.               | 10.85               | 54.93 | 128.52  | 19960. |
| 11      | -.0       | .0              | 580.6               | -8.03             | -783.        | 17.                 | 118.                | 2.69                | 55.66 | 129.39  | 19970. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI   | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | 1.5819 | .3433  | -.1953 | .0004 | .0043  | -.0053 |
| 3    | .00   | 1.5713 | -.0184 | -.2494 | .0018 | .0071  | .0057  |
| 4    | -7.98 | .9803  | -.0985 | -.5485 | .0039 | .0094  | .0007  |
| 5    | -4.03 | 1.2842 | -.0617 | -.4050 | .0005 | .0049  | .0095  |
| 6    | -.01  | 1.5827 | -.0176 | -.2499 | .0015 | .0102  | .0072  |
| 7    | 2.50  | 1.7039 | .0136  | -.1517 | .0008 | .0050  | .0104  |
| 8    | 5.03  | 1.4183 | .0601  | -.1080 | .0002 | -.0178 | -.0035 |
| 9    | 10.03 | 1.3556 | .1995  | -.0132 | .0070 | -.0121 | .0339  |
| 10   | 15.00 | 1.5311 | .3744  | .1146  | .0065 | -.0140 | .0293  |
| 11   | -.03  | 1.5693 | -.0217 | -.2524 | .0010 | .0072  | .0073  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI   | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | 1.5819 | .3433  | -.1953 | .0004 | .0043  | -.0053 |
| 3    | .00   | 1.5713 | -.0184 | -.2494 | .0018 | .0071  | .0057  |
| 4    | -7.98 | .9803  | -.0985 | -.5485 | .0039 | .0094  | .0007  |
| 5    | -4.03 | 1.2842 | -.0617 | -.4050 | .0005 | .0049  | .0095  |
| 6    | -.01  | 1.5827 | -.0176 | -.2499 | .0015 | .0102  | .0072  |
| 7    | 2.50  | 1.7039 | .0136  | -.1517 | .0008 | .0050  | .0104  |
| 8    | 5.03  | 1.4183 | .0601  | -.1080 | .0002 | -.0178 | -.0035 |
| 9    | 10.03 | 1.3556 | .1995  | -.0132 | .0070 | -.0121 | .0339  |
| 10   | 15.00 | 1.5311 | .3744  | .1146  | .0065 | -.0140 | .0293  |
| 11   | -.03  | 1.5693 | -.0217 | -.2524 | .0010 | .0072  | .0073  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 2/11

RUN 251 CONFIG F P B W5 NP1 T2

| IW      | 15 DELF   | 30 DELA | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | -           | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 1       | -0        | .0      | 581.6       | -5.72       | -793.        | 11.          | 135.         | 2.93        | 55.73 | 129.47  | 19930. |
| 2       | -0        | -15.0   | 494.2       | 1.76        | -545.        | -601.        | -642.        | -66.59      | 55.50 | 129.20  | 19950. |
| 3       | -0        | -10.0   | 509.7       | -7.06       | -652.        | -473.        | -624.        | -31.42      | 55.41 | 129.09  | 19860. |
| 4       | -0        | -5.0    | 510.0       | -9.12       | -762.        | -252.        | -583.        | .00         | 55.43 | 129.12  | 19930. |
| 5       | -0        | -2.5    | 506.3       | -7.71       | -788.        | -71.         | -526.        | 14.45       | 55.89 | 129.65  | 19880. |
| 6       | -0        | .0      | 516.7       | -6.78       | -808.        | 89.          | -309.        | 23.97       | 55.71 | 129.44  | 19940. |
| 7       | -0        | 2.5     | 575.4       | -11.00      | -791.        | 163.         | 194.         | 10.99       | 55.47 | 129.16  | 19880. |
| 8       | -0        | 5.0     | 570.3       | -10.47      | -756.        | 300.         | 283.         | 26.97       | 55.44 | 129.13  | 19930. |
| 9       | -0        | 10.0    | 502.6       | -6.65       | -616.        | 485.         | 798.         | 38.22       | 55.70 | 129.43  | 19920. |
| 10      | -0        | 15.0    | 478.6       | -.74        | -554.        | 644.         | 880.         | 69.16       | 55.51 | 129.21  | 20020. |
| 11      | -0        | .0      | 509.1       | -9.85       | -800.        | -79.         | 636.         | -18.93      | 55.41 | 129.09  | 20070. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 1    | .00    | 1.5720 | -.0155 | -.2557 | .0006  | .0082  | .0079  |
| 2    | -15.00 | 1.3357 | .0047  | -.1757 | -.0363 | -.0388 | -.1800 |
| 3    | -10.00 | 1.3775 | -.0191 | -.2101 | -.0286 | -.0377 | -.0849 |
| 4    | -5.00  | 1.3784 | -.0246 | -.2456 | -.0152 | -.0352 | .0000  |
| 5    | -2.50  | 1.3683 | -.0208 | -.2541 | -.0043 | -.0318 | .0390  |
| 6    | .00    | 1.3964 | -.0183 | -.2605 | .0054  | -.0186 | .0648  |
| 7    | 2.50   | 1.5551 | -.0297 | -.2551 | .0098  | .0117  | .0297  |
| 8    | 5.00   | 1.5413 | -.0283 | -.2436 | .0181  | .0171  | .0729  |
| 9    | 10.00  | 1.3585 | -.0180 | -.1985 | .0293  | .0482  | .1033  |
| 10   | 15.00  | 1.2935 | -.0020 | -.1786 | .0389  | .0532  | .1869  |
| 11   | .00    | 1.3758 | -.0266 | -.2578 | -.0048 | .0384  | -.0512 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 1    | .00    | 1.5720 | -.0155 | -.2557 | .0006  | .0082  | .0079  |
| 2    | -15.00 | 1.3357 | -.0422 | -.1159 | -.0363 | -.0289 | -.1750 |
| 3    | -10.00 | 1.3775 | -.0336 | -.1718 | -.0286 | -.0302 | -.0803 |
| 4    | -5.00  | 1.3784 | -.0245 | -.2282 | -.0152 | -.0311 | .0022  |
| 5    | -2.50  | 1.3683 | -.0191 | -.2464 | -.0043 | -.0297 | .0399  |
| 6    | .00    | 1.3964 | -.0183 | -.2605 | .0054  | -.0186 | .0648  |
| 7    | 2.50   | 1.5551 | -.0310 | -.2521 | .0098  | .0096  | .0284  |
| 8    | 5.00   | 1.5413 | -.0346 | -.2347 | .0181  | .0130  | .0701  |
| 9    | 10.00  | 1.3585 | -.0357 | -.1505 | .0293  | .0410  | .0986  |
| 10   | 15.00  | 1.2935 | -.0505 | -.0987 | .0389  | .0426  | .1800  |
| 11   | .00    | 1.3758 | -.0266 | -.2578 | -.0048 | .0384  | -.0512 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 2/2

RUN 252 CONFIG F P 8 W5 NP1 T2 L

| IW      | 15 DELF   | 30 DELA | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 5       | .0        | .0      | 571.7       | 131.38      | -494.        | 22.          | 106.         | -2.71       | 56.50 | 130.37  | 4420.  |
| 6       | .0        | .0      | 574.0       | 132.45      | -498.        | 28.          | 54.          | -.93        | 55.22 | 128.85  | 4390.  |
| 7       | .0        | .0      | 568.1       | -6.49       | -656.        | 21.          | 104.         | .24         | 55.70 | 129.43  | 20300. |
| 8       | -8.0      | .0      | 351.0       | -32.25      | -1627.       | -0.          | 92.          | 6.88        | 55.93 | 129.69  | 20240. |
| 9       | -5.0      | .0      | 439.5       | -24.16      | -1296.       | -4.          | 77.          | 6.05        | 55.72 | 129.44  | 20270. |
| 10      | -2.5      | .0      | 506.3       | -14.29      | -979.        | -6.          | 116.         | 3.52        | 56.09 | 129.88  | 20260. |
| 11      | .0        | .0      | 570.7       | -6.03       | -664.        | 21.          | 86.          | 1.79        | 55.16 | 128.79  | 20370. |
| 12      | 2.5       | .0      | 553.5       | 3.09        | -388.        | -35.         | 568.         | -20.73      | 55.05 | 128.66  | 20370. |
| 13      | 5.0       | .0      | 508.0       | 21.50       | -247.        | 25.          | -511.        | -.25        | 54.94 | 128.52  | 20320. |
| 14      | 10.1      | .0      | 472.6       | 67.07       | 138.         | 196.         | -93.         | 9.04        | 55.01 | 128.60  | 20320. |
| 15      | 15.0      | .0      | 532.7       | 130.57      | 472.         | 106.         | -320.        | 7.21        | 54.78 | 128.32  | 20370. |
| 16      | .0        | .0      | 563.4       | -6.61       | -649.        | 6.           | 119.         | 2.57        | 55.67 | 129.38  | 20400. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 5    | .03   | 1.5450 | .3551  | -.1593 | .0013  | .0064  | -.0073 |
| 6    | .03   | 1.5513 | .3580  | -.1606 | .0017  | .0033  | -.0025 |
| 7    | .03   | 1.5354 | -.0175 | -.2114 | .0012  | .0063  | .0007  |
| 8    | -7.99 | .9486  | -.0872 | -.5244 | -.0000 | .0056  | .0186  |
| 9    | -4.99 | 1.1878 | -.0653 | -.4177 | -.0002 | .0047  | .0164  |
| 10   | -2.47 | 1.3684 | -.0386 | -.3155 | -.0004 | .0070  | .0095  |
| 11   | .04   | 1.5425 | -.0163 | -.2141 | .0012  | .0052  | .0048  |
| 12   | 2.53  | 1.4960 | .0083  | -.1251 | -.0021 | .0343  | -.0560 |
| 13   | 5.02  | 1.3729 | .0581  | -.0796 | .0015  | -.0309 | -.0007 |
| 14   | 10.05 | 1.2772 | .1813  | .0445  | .0118  | -.0056 | .0244  |
| 15   | 15.03 | 1.4397 | .3529  | .1520  | .0064  | -.0193 | .0195  |
| 16   | .03   | 1.5228 | -.0179 | -.2092 | .0004  | .0072  | .0069  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 5    | .03   | 1.5450 | .3551  | -.1593 | .0013  | .0064  | -.0073 |
| 6    | .03   | 1.5513 | .3580  | -.1606 | .0017  | .0033  | -.0025 |
| 7    | .03   | 1.5354 | -.0175 | -.2114 | .0012  | .0063  | .0007  |
| 8    | -7.99 | .9486  | -.0872 | -.5244 | -.0000 | .0056  | .0186  |
| 9    | -4.99 | 1.1878 | -.0653 | -.4177 | -.0002 | .0047  | .0164  |
| 10   | -2.47 | 1.3684 | -.0386 | -.3155 | -.0004 | .0070  | .0095  |
| 11   | .04   | 1.5425 | -.0163 | -.2141 | .0012  | .0052  | .0048  |
| 12   | 2.53  | 1.4960 | .0083  | -.1251 | -.0021 | .0343  | -.0560 |
| 13   | 5.02  | 1.3729 | .0581  | -.0796 | .0015  | -.0309 | -.0007 |
| 14   | 10.05 | 1.2772 | .1813  | .0445  | .0118  | -.0056 | .0244  |
| 15   | 15.03 | 1.4397 | .3529  | .1520  | .0064  | -.0193 | .0195  |
| 16   | .03   | 1.5228 | -.0179 | -.2092 | .0004  | .0072  | .0069  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 2/3

RUN 253 CONFIG F P B W5 NP1 T2 L

| IW      | 15 DELF   | 30 DELA | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | -           | -     | RPM     |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 1       | .0        | .0      | 564.2       | -44.03      | -675.        | -6.          | 115.         | 5.40        | 55.47 | 129.16  | 23170. |
| 2       | -8.0      | .0      | 344.5       | -71.76      | -1679.       | -24.         | 87.          | 10.14       | 55.42 | 129.09  | 23320. |
| 3       | -4.0      | .0      | 458.7       | -60.92      | -1200.       | -25.         | 74.          | 8.59        | 55.53 | 129.23  | 23360. |
| 4       | .1        | .0      | 563.9       | -47.63      | -681.        | -13.         | 64.          | 4.95        | 55.03 | 128.63  | 23380. |
| 5       | 2.5       | .0      | 549.5       | -34.85      | -454.        | -38.         | 494.         | -17.92      | 55.14 | 128.76  | 23440. |
| 6       | 5.0       | .0      | 539.1       | -16.47      | -213.        | 38.          | 33.          | 2.73        | 54.94 | 128.53  | 23450. |
| 7       | 10.0      | .0      | 475.3       | 26.33       | 100.         | 128.         | -147.        | 10.10       | 54.95 | 128.53  | 23480. |
| 8       | 15.1      | .0      | 542.7       | 93.01       | 463.         | 152.         | -321.        | 8.67        | 54.63 | 128.15  | 23480. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 1    | .03   | 1.5247 | -.1190 | -.2175 | -.0004 | .0070  | .0146  |
| 2    | -7.96 | .9311  | -.1940 | -.5412 | -.0015 | .0053  | .0274  |
| 3    | -3.99 | 1.2397 | -.1646 | -.3869 | -.0015 | .0045  | .0232  |
| 4    | .07   | 1.5241 | -.1287 | -.2196 | -.0008 | .0039  | .0134  |
| 5    | 2.49  | 1.4850 | -.0942 | -.1463 | -.0023 | .0299  | -.0484 |
| 6    | 5.04  | 1.4569 | -.0445 | -.0685 | .0023  | .0020  | .0074  |
| 7    | 10.03 | 1.2846 | .0712  | .0321  | .0077  | -.0089 | .0273  |
| 8    | 15.08 | .5736  | -.1753 | 2.4645 | -.0037 | -.0107 | .0311  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 1    | .03   | 1.5247 | -.1190 | -.2175 | -.0004 | .0070  | .0146  |
| 2    | -7.96 | .9311  | -.1940 | -.5412 | -.0015 | .0053  | .0274  |
| 3    | -3.99 | 1.2397 | -.1646 | -.3869 | -.0015 | .0045  | .0232  |
| 4    | .07   | 1.5241 | -.1287 | -.2196 | -.0008 | .0039  | .0134  |
| 5    | 2.49  | 1.4850 | -.0942 | -.1463 | -.0023 | .0299  | -.0484 |
| 6    | 5.04  | 1.4569 | -.0445 | -.0685 | .0023  | .0020  | .0074  |
| 7    | 10.03 | 1.2846 | .0712  | .0321  | .0077  | -.0089 | .0273  |
| 8    | 15.08 | .5736  | -.1753 | 2.4645 | -.0037 | -.0107 | .0311  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 214

RUN 254 CONFIG F P B W5 NP1 T2 L

| PT. NO. | IW | 15 DELF<br>ALPHA DEG | 30 DELA<br>PSI DEG | 0 IHT<br>CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | DELE<br>CYMBAR CU-FT | DELR<br>CRMBAR CU-FT | DELSB<br>CYBAR SQ-FT | Q<br>PSF | V<br>KNOTS | RPM    |
|---------|----|----------------------|--------------------|----------------------|-------------|--------------|----------------------|----------------------|----------------------|----------|------------|--------|
| 1       |    | .0                   | .0                 | 508.3                | 45.70       | -646.        | -628.                | 502.                 | -3.87                | 54.60    | 128.11     | 22980. |
| 2       |    | -8.0                 | .0                 | 352.8                | 16.58       | -1509.       | -595.                | 47.                  | 22.46                | 56.43    | 130.28     | 22960. |
| 3       |    | -4.0                 | .0                 | 469.9                | 30.08       | -1092.       | -595.                | 20.                  | 21.27                | 55.89    | 129.65     | 22950. |
| 4       |    | .0                   | .0                 | 510.0                | 46.93       | -650.        | -617.                | 566.                 | -6.13                | 55.58    | 129.28     | 22970. |
| 5       |    | 2.6                  | .0                 | 553.5                | 60.54       | -380.        | -625.                | 493.                 | -10.41               | 56.29    | 130.11     | 22990. |
| 6       |    | 5.0                  | .0                 | 496.7                | 73.52       | -192.        | -529.                | -562.                | 8.53                 | 55.93    | 129.68     | 22980. |
| 7       |    | 10.0                 | .0                 | 450.4                | 127.37      | 76.          | -395.                | -465.                | 16.37                | 55.36    | 129.01     | 22960. |
| 8       |    | 15.0                 | .0                 | 511.6                | 177.93      | 454.         | -278.                | -617.                | 13.95                | 55.19    | 128.82     | 22970. |
| 9       |    | .0                   | .0                 | 507.7                | 46.99       | -656.        | -629.                | 547.                 | -8.52                | 55.97    | 129.74     | 22980. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 1    | .05   | 1.3738 | .1235 | -.2083 | -.0380 | .0303  | -.0105 |
| 2    | -7.97 | .9535  | .0448 | -.4866 | -.0360 | .0028  | .0607  |
| 3    | -3.96 | 1.2701 | .0813 | -.3520 | -.0359 | .0012  | .0575  |
| 4    | .00   | 1.3784 | .1268 | -.2094 | -.0373 | .0342  | -.0166 |
| 5    | 2.57  | 1.4959 | .1636 | -.1226 | -.0378 | .0298  | -.0281 |
| 6    | 5.02  | 1.3424 | .1987 | -.0620 | -.0319 | -.0340 | .0230  |
| 7    | 10.03 | 1.2173 | .3437 | .0246  | -.0238 | -.0281 | .0442  |
| 8    | 15.03 | 1.3827 | .4809 | .1465  | -.0168 | -.0373 | .0377  |
| 9    | .03   | 1.3722 | .1270 | -.2115 | -.0380 | .0331  | -.0230 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 1    | .05   | 1.3738 | .1235 | -.2083 | -.0380 | .0303  | -.0105 |
| 2    | -7.97 | .9535  | .0448 | -.4866 | -.0360 | .0028  | .0607  |
| 3    | -3.96 | 1.2701 | .0813 | -.3520 | -.0359 | .0012  | .0575  |
| 4    | .00   | 1.3784 | .1268 | -.2094 | -.0373 | .0342  | -.0166 |
| 5    | 2.57  | 1.4959 | .1636 | -.1226 | -.0378 | .0298  | -.0281 |
| 6    | 5.02  | 1.3424 | .1987 | -.0620 | -.0319 | -.0340 | .0230  |
| 7    | 10.03 | 1.2173 | .3437 | .0246  | -.0238 | -.0281 | .0442  |
| 8    | 15.03 | 1.3827 | .4809 | .1465  | -.0168 | -.0373 | .0377  |
| 9    | .03   | 1.3722 | .1270 | -.2115 | -.0380 | .0331  | -.0230 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 215

RUN 255 CONFIG F P B W5 NP1 T2 L

| IW      | 15 DELF   | 30 DELA | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | RPM         |       |         |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |       |
| 1       | .0        | .0      | 569.5       | 131.40      | -493.        | 24.          | 55.          | -2.26       | 55.84 | 129.58  | 4390. |
| 2       | -8.0      | .0      | 364.6       | 96.97       | -1324.       | -16.         | 46.          | 3.34        | 56.18 | 129.98  | 4220. |
| 3       | -4.9      | .0      | 447.9       | 108.61      | -1032.       | -9.          | 31.          | 2.68        | 55.83 | 129.57  | 4280. |
| 4       | .0        | .0      | 567.5       | 130.94      | -496.        | 45.          | 87.          | -.30        | 55.84 | 129.59  | 4390. |
| 5       | 2.5       | .0      | 617.3       | 143.86      | -196.        | 14.          | 128.         | -4.57       | 55.21 | 128.84  | 4440. |
| 6       | 5.0       | .0      | 445.6       | 158.08      | -134.        | 24.          | 38.          | -2.66       | 55.16 | 128.77  | 4090. |
| 7       | 10.0      | .0      | 391.9       | 204.17      | 134.         | 11.          | -69.         | -1.67       | 55.13 | 128.73  | 3940. |
| 8       | 15.0      | .0      | 415.5       | 244.31      | 531.         | 66.          | -89.         | 4.28        | 54.95 | 128.52  | 4050. |
| 9       | -.0       | .0      | 565.9       | 131.22      | -503.        | 21.          | 74.          | -2.77       | 55.34 | 128.99  | 4360. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 1    | .03   | 1.5393 | .3551 | -.1589 | .0015  | .0033  | -.0061 |
| 2    | -8.00 | .9853  | .2621 | -.4268 | -.0010 | .0028  | .0090  |
| 3    | -4.95 | 1.2105 | .2935 | -.3327 | -.0006 | .0018  | .0073  |
| 4    | .01   | 1.5337 | .3539 | -.1580 | .0027  | .0053  | -.0008 |
| 5    | 2.54  | 1.6685 | .3888 | -.0631 | .0008  | .0077  | -.0123 |
| 6    | 5.05  | 1.2042 | .4273 | -.0431 | .0014  | .0023  | -.0072 |
| 7    | 10.02 | 1.0593 | .5518 | .0431  | .0007  | -.0042 | -.0045 |
| 8    | 15.01 | 1.1228 | .6603 | .1711  | .0040  | -.0054 | .0116  |
| 9    | -.02  | 1.5294 | .3547 | -.1623 | .0013  | .0044  | -.0075 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 1    | .03   | 1.5393 | .3551 | -.1589 | .0015  | .0033  | -.0061 |
| 2    | -8.00 | .9853  | .2621 | -.4268 | -.0010 | .0028  | .0090  |
| 3    | -4.95 | 1.2105 | .2935 | -.3327 | -.0006 | .0018  | .0073  |
| 4    | .01   | 1.5337 | .3539 | -.1580 | .0027  | .0053  | -.0008 |
| 5    | 2.54  | 1.6685 | .3888 | -.0631 | .0008  | .0077  | -.0123 |
| 6    | 5.05  | 1.2042 | .4273 | -.0431 | .0014  | .0023  | -.0072 |
| 7    | 10.02 | 1.0593 | .5518 | .0431  | .0007  | -.0042 | -.0045 |
| 8    | 15.01 | 1.1228 | .6603 | .1711  | .0040  | -.0054 | .0116  |
| 9    | -.02  | 1.5294 | .3547 | -.1623 | .0013  | .0044  | -.0075 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 216

RUN 256 CONFIG F P B W5 NP1 T2 L

| IW      | 15 DELF   | 30 DELA | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | RPM         |       |         |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |       |
| 8       | .0        | 15.0    | 564.9       | 127.26      | -690.        | 150.         | -522.        | -3.43       | 55.55 | 129.24  | 4380. |
| 9       | .0        | .0      | 510.9       | 137.98      | -224.        | -357.        | -846.        | -45.03      | 55.82 | 129.57  | 4230. |
| 10      | .0        | 4.9     | 549.9       | 133.52      | -481.        | -273.        | -724.        | -34.48      | 55.62 | 129.33  | 4300. |
| 11      | .0        | 9.9     | 566.0       | 130.26      | -631.        | -85.         | -575.        | -20.60      | 55.72 | 129.44  | 4350. |
| 12      | .0        | 12.5    | 566.1       | 128.30      | -671.        | 20.          | -566.        | -13.91      | 55.83 | 129.57  | 4370. |
| 13      | .0        | 15.0    | 567.3       | 127.57      | -721.        | 163.         | -489.        | -3.80       | 55.64 | 129.34  | 4390. |
| 14      | .0        | 17.5    | 564.7       | 126.70      | -748.        | 280.         | -459.        | 4.91        | 55.46 | 129.14  | 4400. |
| 15      | .0        | 20.0    | 557.5       | 124.93      | -759.        | 391.         | -455.        | 11.57       | 55.66 | 129.37  | 4400. |
| 16      | .0        | 25.0    | 537.3       | 127.15      | -760.        | 555.         | -348.        | 25.76       | 55.80 | 129.54  | 4410. |
| 17      | .0        | 30.0    | 506.4       | 132.02      | -741.        | 590.         | -362.        | 27.96       | 55.32 | 128.97  | 4380. |
| 18      | .0        | 10.0    | 565.2       | 130.60      | -627.        | -94.         | -598.        | -22.42      | 55.16 | 128.78  | 4330. |
| 19      | .0        | 15.0    | 565.7       | 127.88      | -718.        | 150.         | -523.        | -3.39       | 55.32 | 128.97  | 4370. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI   | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 8    | 15.00 | 1.5268 | .3440 | -.2224 | .0091  | -.0315 | -.0093 |
| 9    | .00   | 1.3807 | .3729 | -.0723 | -.0216 | -.0511 | -.1217 |
| 10   | 4.90  | 1.4863 | .3609 | -.1549 | -.0165 | -.0438 | -.0932 |
| 11   | 9.90  | 1.5297 | .3521 | -.2033 | -.0051 | -.0347 | -.0557 |
| 12   | 12.50 | 1.5299 | .3468 | -.2163 | .0012  | -.0342 | -.0376 |
| 13   | 15.00 | 1.5331 | .3448 | -.2325 | .0099  | -.0295 | -.0103 |
| 14   | 17.50 | 1.5263 | .3424 | -.2410 | .0169  | -.0277 | .0133  |
| 15   | 20.00 | 1.5067 | .3377 | -.2448 | .0236  | -.0275 | .0313  |
| 16   | 25.00 | 1.4521 | .3437 | -.2451 | .0335  | -.0210 | .0696  |
| 17   | 30.00 | 1.3687 | .3568 | -.2388 | .0357  | -.0219 | .0756  |
| 18   | 10.00 | 1.5275 | .3530 | -.2020 | -.0057 | -.0361 | -.0606 |
| 19   | 15.00 | 1.5290 | .3456 | -.2314 | .0091  | -.0316 | -.0092 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI   | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 8    | 15.00 | 1.5268 | .3345 | -.2586 | .0091  | -.0413 | .0805  |
| 9    | .00   | 1.3807 | .3729 | -.0723 | -.0216 | -.0511 | -.1217 |
| 10   | 4.90  | 1.4863 | .3675 | -.1744 | -.0165 | -.0461 | -.0619 |
| 11   | 9.90  | 1.5297 | .3564 | -.2322 | -.0051 | -.0408 | .0060  |
| 12   | 12.50 | 1.5299 | .3466 | -.2508 | .0012  | -.0422 | .0387  |
| 13   | 15.00 | 1.5331 | .3356 | -.2655 | .0099  | -.0399 | .0797  |
| 14   | 17.50 | 1.5263 | .3224 | -.2744 | .0169  | -.0401 | .1161  |
| 15   | 20.00 | 1.5067 | .3064 | -.2803 | .0236  | -.0416 | .1453  |
| 16   | 25.00 | 1.4521 | .2816 | -.2696 | .0335  | -.0385 | .2089  |
| 17   | 30.00 | 1.3687 | .2706 | -.2651 | .0357  | -.0414 | .2445  |
| 18   | 10.00 | 1.5275 | .3581 | -.2325 | -.0057 | -.0422 | .0019  |
| 19   | 15.00 | 1.5290 | .3361 | -.2673 | .0091  | -.0418 | .0810  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 217

RUN 257 CONFIG F P B W5 NP1 T2 L

| IW      | 15 DELF   | 30 DELA | 0 IHT       | - DELE      | - DELR       | - DELSB     | -            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|-------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYBAR SQ-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 1       | .0        | 15.0    | 565.1       | -10.66      | -858.        | -15.        | -491.        | -75         | 54.82 | 128.38  | 20210. |
| 2       | .0        | 15.0    | 508.2       | -10.93      | -920.        | 61.         | -946.        | 22.46       | 54.60 | 128.11  | 20230. |
| 3       | .0        | .0      | 501.8       | 6.14        | -308.        | -658.       | -873.        | -76.26      | 54.94 | 128.52  | 20220. |
| 5       | .0        | 10.0    | 493.7       | -9.77       | -767.        | -262.       | -1214.       | -4.35       | 54.83 | 128.39  | 20290. |
| 6       | .0        | 12.5    | 499.6       | -11.28      | -855.        | -98.        | -1084.       | 12.73       | 54.60 | 128.12  | 20380. |
| 7       | .0        | 15.0    | 502.1       | -10.89      | -903.        | 69.         | -1010.       | 24.89       | 55.02 | 128.62  | 20340. |
| 8       | .0        | 17.5    | 505.5       | -11.12      | -970.        | 234.        | -892.        | 35.97       | 54.73 | 128.27  | 20330. |
| 9       | .0        | 20.0    | 564.5       | -8.66       | -930.        | 322.        | -376.        | 28.48       | 54.90 | 128.47  | 20240. |
| 10      | .0        | 25.0    | 542.7       | -5.91       | -901.        | 585.        | -292.        | 53.15       | 54.67 | 128.20  | 20310. |
| 11      | .0        | 30.0    | 505.5       | 3.94        | -853.        | 741.        | -264.        | 80.01       | 54.96 | 128.55  | 20160. |
| 12      | .0        | 5.0     | 496.3       | -2.05       | -535.        | -497.       | -1058.       | -37.46      | 54.57 | 128.08  | 20250. |
| 13      | .0        | 15.0    | 505.5       | -9.98       | -906.        | 51.         | -983.        | 25.90       | 54.57 | 128.09  | 20270. |
| 14      | .0        | 20.0    | 510.0       | -7.86       | -1000.       | 380.        | -813.        | 49.89       | 54.90 | 128.47  | 20310. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI   | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 1    | 15.00 | 1.5273 | -.0288 | -.2766 | -.0009 | -.0296 | -.0020 |
| 2    | 15.00 | 1.3735 | -.0295 | -.2966 | .0037  | -.0571 | .0607  |
| 3    | .00   | 1.3562 | .0166  | -.0994 | -.0397 | -.0528 | -.2061 |
| 5    | 10.00 | 1.3344 | -.0264 | -.2474 | -.0158 | -.0733 | -.0118 |
| 6    | 12.50 | 1.3503 | -.0305 | -.2758 | -.0059 | -.0655 | .0344  |
| 7    | 15.00 | 1.3570 | -.0294 | -.2911 | .0042  | -.0610 | .0673  |
| 8    | 17.50 | 1.3663 | -.0301 | -.3127 | .0141  | -.0539 | .0972  |
| 9    | 20.00 | 1.5257 | -.0234 | -.2997 | .0195  | -.0227 | .0770  |
| 10   | 25.00 | 1.4667 | -.0160 | -.2906 | .0354  | -.0177 | .1436  |
| 11   | 30.00 | 1.3662 | .0106  | -.2749 | .0448  | -.0159 | .2163  |
| 12   | 5.00  | 1.3414 | -.0055 | -.1724 | -.0300 | -.0639 | -.1012 |
| 13   | 15.00 | 1.3661 | -.0270 | -.2922 | .0031  | -.0594 | .0700  |
| 14   | 20.00 | 1.3783 | -.0212 | -.3223 | .0230  | -.0491 | .1348  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI   | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 1    | 15.00 | 1.5273 | -.0273 | -.3082 | -.0009 | -.0421 | -.0094 |
| 2    | 15.00 | 1.3735 | -.0443 | -.3657 | .0037  | -.0696 | .0509  |
| 3    | .00   | 1.3562 | .0166  | -.0994 | -.0397 | -.0528 | -.2061 |
| 5    | 10.00 | 1.3344 | -.0239 | -.3119 | -.0158 | -.0803 | -.0162 |
| 6    | 12.50 | 1.3503 | -.0372 | -.3452 | -.0059 | -.0751 | .0269  |
| 7    | 15.00 | 1.3570 | -.0459 | -.3657 | .0042  | -.0731 | .0573  |
| 8    | 17.50 | 1.3663 | -.0580 | -.3850 | .0141  | -.0691 | .0836  |
| 9    | 20.00 | 1.5257 | -.0484 | -.3231 | .0195  | -.0406 | .0642  |
| 10   | 25.00 | 1.4667 | -.0754 | -.3031 | .0354  | -.0391 | .1233  |
| 11   | 30.00 | 1.3662 | -.0994 | -.2804 | .0448  | -.0396 | .1924  |
| 12   | 5.00  | 1.3414 | .0033  | -.2016 | -.0300 | -.0665 | -.1013 |
| 13   | 15.00 | 1.3661 | -.0442 | -.3646 | .0031  | -.0716 | .0606  |
| 14   | 20.00 | 1.3783 | -.0663 | -.3926 | .0230  | -.0668 | .1193  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 258 CONFIG F P B W5 NP1 12 L

| IW      | 15 DELF   | 30 DELA | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 1       | .0        | 15.0    | 502.3       | -46.53      | -893.        | -127.        | 81.          | -15.70      | 54.90 | 128.47  | 22940. |
| 2       | .0        | .0      | 501.9       | -30.29      | -322.        | -743.        | -939.        | -82.72      | 54.77 | 128.32  | 23100. |
| 3       | .0        | 5.0     | 494.7       | -42.23      | -566.        | -580.        | -1037.       | -42.67      | 54.37 | 127.84  | 23270. |
| 4       | .0        | 9.9     | 498.6       | -49.75      | -792.        | -333.        | -1053.       | -3.92       | 54.79 | 128.35  | 23460. |
| 5       | .0        | 12.5    | 503.9       | -51.37      | -879.        | -183.        | -992.        | 9.39        | 54.77 | 128.32  | 23510. |
| 6       | .0        | 15.0    | 502.0       | -47.95      | -937.        | -4.          | -1050.       | 26.96       | 54.84 | 128.40  | 23310. |
| 7       | .0        | 17.5    | 499.7       | -45.48      | -998.        | 181.         | -945.        | 41.68       | 54.92 | 128.50  | 23180. |
| 8       | .0        | 20.0    | 495.0       | -48.06      | -931.        | 257.         | 152.         | 14.67       | 54.79 | 128.34  | 23120. |
| 9       | .0        | 25.0    | 540.9       | -40.74      | -939.        | 554.         | -285.        | 60.89       | 54.99 | 128.58  | 23140. |
| 10      | .0        | 30.0    | 510.4       | -33.29      | -887.        | 770.         | -193.        | 92.47       | 54.48 | 127.98  | 23250. |
| 11      | .0        | 15.0    | 501.1       | -48.96      | -916.        | -120.        | 68.          | -17.52      | 54.82 | 128.38  | 23350. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI   | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 1    | 15.00 | 1.3574 | -.1257 | -.2880 | -.0076 | .0049  | -.0424 |
| 2    | .00   | 1.3563 | -.0819 | -.1039 | -.0449 | -.0567 | -.2236 |
| 3    | 5.00  | 1.3369 | -.1141 | -.1824 | -.0350 | -.0626 | -.1153 |
| 4    | 9.90  | 1.3475 | -.1344 | -.2553 | -.0201 | -.0636 | -.0106 |
| 5    | 12.50 | 1.3619 | -.1388 | -.2833 | -.0111 | -.0599 | .0254  |
| 6    | 15.00 | 1.3568 | -.1296 | -.3020 | -.0002 | -.0634 | .0729  |
| 7    | 17.50 | 1.3505 | -.1229 | -.3216 | .0110  | -.0571 | .1127  |
| 8    | 20.00 | 1.3379 | -.1299 | -.3002 | .0155  | .0092  | .0397  |
| 9    | 25.00 | 1.4619 | -.1101 | -.3026 | .0335  | -.0172 | .1646  |
| 10   | 30.00 | 1.3795 | -.0900 | -.2858 | .0465  | -.0116 | .2499  |
| 11   | 15.00 | 1.3543 | -.1323 | -.2953 | -.0072 | .0041  | -.0474 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI   | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 1    | 15.00 | 1.3574 | -.1104 | -.2713 | -.0076 | -.0093 | -.0737 |
| 2    | .00   | 1.3563 | -.0819 | -.1039 | -.0449 | -.0567 | -.2236 |
| 3    | 5.00  | 1.3369 | -.1036 | -.2109 | -.0350 | -.0654 | -.1249 |
| 4    | 9.90  | 1.3475 | -.1306 | -.3101 | -.0201 | -.0709 | -.0336 |
| 5    | 12.50 | 1.3619 | -.1410 | -.3461 | -.0111 | -.0700 | -.0054 |
| 6    | 15.00 | 1.3568 | -.1441 | -.3796 | -.0002 | -.0759 | .0367  |
| 7    | 17.50 | 1.3505 | -.1512 | -.3986 | .0110  | -.0726 | .0703  |
| 8    | 20.00 | 1.3379 | -.1356 | -.2651 | .0155  | -.0107 | -.0074 |
| 9    | 25.00 | 1.4619 | -.1695 | -.3131 | .0335  | -.0397 | .1023  |
| 10   | 30.00 | 1.3795 | -.2033 | -.2784 | .0465  | -.0370 | .1710  |
| 11   | 15.00 | 1.3543 | -.1155 | -.2795 | -.0072 | -.0104 | -.0801 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 2/9

RUN 259 CONFIG F P B W5 NP1 T2 L

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | - DELE<br>CDBAR<br>SQ-FT | - DELR<br>CPMBAR<br>CU-FT | - DELSB<br>CYBAR<br>SQ-FT | -<br>Q<br>PSF | -<br>V<br>KNOTS | RPM   |        |        |
|------------------|-------------------------|-----------------------|-------------------------|--------------------------|---------------------------|---------------------------|---------------|-----------------|-------|--------|--------|
| 1                | .0                      | 15.0                  | 504.6                   | 42.85                    | -826.                     | -593.                     | 18.           | -9.73           | 54.94 | 128.52 | 23090. |
| 2                | .0                      | .0                    | 518.4                   | 58.33                    | -310.                     | -1142.                    | -931.         | -50.45          | 54.55 | 128.06 | 22950. |
| 3                | .0                      | 5.0                   | 550.8                   | 51.03                    | -547.                     | -1036.                    | -773.         | -33.63          | 55.00 | 128.59 | 23000. |
| 4                | .0                      | 10.0                  | 569.6                   | 47.45                    | -743.                     | -797.                     | -687.         | -11.31          | 54.83 | 128.39 | 23090. |
| 5                | .0                      | 12.5                  | 569.7                   | 46.72                    | -808.                     | -663.                     | -642.         | -.06            | 54.99 | 128.57 | 23040. |
| 6                | .0                      | 15.0                  | 560.4                   | 44.14                    | -834.                     | -527.                     | -553.         | 9.98            | 55.28 | 128.92 | 23020. |
| 7                | .0                      | 17.5                  | 498.5                   | 43.94                    | -864.                     | -388.                     | 18.           | 2.09            | 55.48 | 129.16 | 23000. |
| 8                | .0                      | 20.0                  | 493.6                   | 42.52                    | -845.                     | -258.                     | 24.           | 14.79           | 55.29 | 128.93 | 22990. |
| 9                | .0                      | 25.0                  | 535.9                   | 48.36                    | -873.                     | -41.                      | -413.         | 54.96           | 55.22 | 128.85 | 23090. |
| 10               | .0                      | 30.0                  | 502.0                   | 55.22                    | -826.                     | 83.                       | -379.         | 79.54           | 54.82 | 128.37 | 23040. |
| 11               | .0                      | 15.0                  | 502.3                   | 48.17                    | -877.                     | -551.                     | -66.          | -10.61          | 54.89 | 128.46 | 23040. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI   | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 1    | 15.00 | 1.3638 | .1158 | -.2663 | -.0358 | .0011  | -.0263 |
| 2    | .00   | 1.4012 | .1576 | -.1001 | -.0690 | -.0562 | -.1364 |
| 3    | 5.00  | 1.4886 | .1379 | -.1765 | -.0626 | -.0467 | -.0909 |
| 4    | 10.00 | 1.5394 | .1282 | -.2394 | -.0482 | -.0415 | -.0306 |
| 5    | 12.50 | 1.5397 | .1263 | -.2604 | -.0400 | -.0388 | -.0002 |
| 6    | 15.00 | 1.5145 | .1193 | -.2689 | -.0318 | -.0334 | .0270  |
| 7    | 17.50 | 1.3473 | .1188 | -.2787 | -.0235 | .0011  | .0056  |
| 8    | 20.00 | 1.3341 | .1149 | -.2724 | -.0156 | .0014  | .0400  |
| 9    | 25.00 | 1.4483 | .1307 | -.2813 | -.0025 | -.0249 | .1485  |
| 10   | 30.00 | 1.3568 | .1492 | -.2664 | .0050  | -.0229 | .2150  |
| 11   | 15.00 | 1.3575 | .1302 | -.2826 | -.0333 | -.0040 | -.0287 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI   | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 1    | 15.00 | 1.3638 | .1187 | -.2556 | -.0358 | -.0119 | .0047  |
| 2    | .00   | 1.4012 | .1576 | -.1001 | -.0690 | -.0562 | -.1364 |
| 3    | 5.00  | 1.4886 | .1453 | -.1976 | -.0626 | -.0494 | -.0785 |
| 4    | 10.00 | 1.5394 | .1316 | -.2744 | -.0482 | -.0487 | -.0077 |
| 5    | 12.50 | 1.5397 | .1233 | -.2991 | -.0400 | -.0484 | .0273  |
| 6    | 15.00 | 1.5145 | .1082 | -.3060 | -.0318 | -.0453 | .0571  |
| 7    | 17.50 | 1.3473 | .1115 | -.2639 | -.0235 | -.0147 | .0412  |
| 8    | 20.00 | 1.3341 | .0942 | -.2531 | -.0156 | -.0162 | .0770  |
| 9    | 25.00 | 1.4483 | .0553 | -.3112 | -.0025 | -.0450 | .1900  |
| 10   | 30.00 | 1.3568 | .0211 | -.2917 | .0050  | -.0448 | .2608  |
| 11   | 15.00 | 1.3575 | .1332 | -.2784 | -.0333 | -.0176 | .0062  |

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OF POOR QUALITY

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 220

RUN 260 CONFIG F P B W5 NP1 T2 L

| PT. NO. | ALPHA DEG | 15 DELF PSI DEG | 0 DELA CLBAR SQ-FT | 0 IHT CDBAR SQ-FT | CPMBAR CU-FT | - DELE CYMBAR CU-FT | - DELR CRMBAR CU-FT | - DELSB CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|-----------------|--------------------|-------------------|--------------|---------------------|---------------------|---------------------|-------|---------|--------|
| 2       | .0        | .0              | 358.8              | 74.75             | -125.        | 12.                 | 17.                 | .43                 | 55.06 | 128.66  | 4080.  |
| 3       | .0        | .0              | 335.6              | -6.45             | -283.        | 18.                 | -25.                | 5.85                | 55.36 | 129.02  | 15980. |
| 4       | .0        | -15.0           | 334.4              | 6.07              | -132.        | -751.               | -203.               | -88.17              | 54.17 | 127.60  | 15980. |
| 5       | .0        | -10.0           | 333.5              | -2.43             | -204.        | -521.               | -109.               | -54.48              | 54.46 | 127.95  | 15940. |
| 6       | .0        | -5.0            | 334.3              | -6.36             | -252.        | -261.               | -113.               | -24.53              | 54.71 | 128.25  | 16010. |
| 7       | .0        | -2.5            | 336.1              | -6.40             | -277.        | -141.               | -59.                | -8.97               | 54.70 | 128.24  | 15950. |
| 8       | .0        | .0              | 336.1              | -6.10             | -291.        | 17.                 | -26.                | 6.55                | 55.09 | 128.71  | 15990. |
| 9       | .0        | 2.5             | 334.1              | -6.47             | -294.        | 179.                | 6.                  | 20.25               | 55.32 | 128.98  | 16040. |
| 10      | .0        | 5.0             | 332.9              | -5.10             | -277.        | 321.                | 129.                | 29.89               | 55.39 | 129.05  | 16040. |
| 11      | .0        | 10.0            | 332.0              | -2.44             | -208.        | 566.                | 131.                | 59.00               | 55.02 | 128.62  | 15990. |
| 12      | .0        | 15.0            | 335.3              | 6.88              | -203.        | 803.                | -23.                | 90.55               | 55.07 | 128.68  | 15990. |
| 13      | .0        | .0              | 337.0              | -6.32             | -292.        | -2.                 | -22.                | 3.35                | 54.84 | 128.40  | 16010. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .9697 | .2020  | -.0402 | .0007  | .0010  | .0012  |
| 3    | .00    | .9071 | -.0174 | -.0911 | .0011  | -.0015 | .0158  |
| 4    | -15.00 | .9037 | .0164  | -.0426 | -.0454 | -.0122 | -.2383 |
| 5    | -10.00 | .9014 | -.0066 | -.0656 | -.0315 | -.0066 | -.1472 |
| 6    | -5.00  | .9035 | -.0172 | -.0811 | -.0170 | -.0068 | -.0663 |
| 7    | -2.50  | .9083 | -.0173 | -.0894 | -.0085 | -.0036 | -.0242 |
| 8    | .00    | .9083 | -.0165 | -.0938 | .0010  | -.0016 | .0177  |
| 9    | 2.50   | .9029 | -.0175 | -.0946 | .0108  | .0004  | .0547  |
| 10   | 5.00   | .8996 | -.0138 | -.0892 | .0194  | .0078  | .0808  |
| 11   | 10.00  | .8972 | -.0066 | -.0672 | .0342  | .0079  | .1595  |
| 12   | 15.00  | .9061 | .0186  | -.0656 | .0485  | -.0014 | .2447  |
| 13   | .00    | .9108 | -.0171 | -.0942 | -.0001 | -.0013 | .0091  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .9697 | .2020  | -.0402 | .0007  | .0010  | .0012  |
| 3    | .00    | .9071 | -.0174 | -.0911 | .0011  | -.0015 | .0158  |
| 4    | -15.00 | .9037 | -.0461 | -.0241 | -.0454 | -.0098 | -.2344 |
| 5    | -10.00 | .9014 | -.0322 | -.0585 | -.0315 | -.0043 | -.1438 |
| 6    | -5.00  | .9035 | -.0229 | -.0776 | -.0170 | -.0055 | -.0645 |
| 7    | -2.50  | .9083 | -.0184 | -.0885 | -.0085 | -.0028 | -.0235 |
| 8    | .00    | .9083 | -.0165 | -.0938 | .0010  | -.0016 | .0177  |
| 9    | 2.50   | .9029 | -.0199 | -.0944 | .0108  | -.0004 | .0539  |
| 10   | 5.00   | .8996 | -.0208 | -.0852 | .0194  | .0063  | .0793  |
| 11   | 10.00  | .8972 | -.0343 | -.0588 | .0342  | .0056  | .1559  |
| 12   | 15.00  | .9061 | -.0457 | -.0652 | .0485  | -.0045 | .2412  |
| 13   | .00    | .9108 | -.0171 | -.0942 | -.0001 | -.0013 | .0091  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SEF  
F

RUN 261 CONFIG F P B W5 NP1 T2 L

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>.CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | - DELE<br>CYMBAR<br>CU-FT | - DELR<br>CRMBAR<br>CU-FT | - DELSB<br>CYBAR<br>SQ-FT | 0<br>PSF | V<br>KNOTS | RPM    |
|------------------|-------------------------|----------------------|---------------------------|-------------------------|-----------------|---------------------------|---------------------------|---------------------------|----------|------------|--------|
| 2                | .0                      | .0                   | .0                        | -6.82                   | 0.              | 0.                        | 0.                        | .00                       | 46.14    | 117.78     | 0.     |
| 3                | .0                      | .0                   | 363.2                     | 76.56                   | -123.           | 17.                       | 53.                       | -.19                      | 54.58    | 128.09     | 4110.  |
| 4                | .0                      | .0                   | 337.5                     | -5.95                   | -284.           | 10.                       | -23.                      | 4.47                      | 54.83    | 128.39     | 15790. |
| 5                | -8.0                    | .0                   | 139.5                     | -24.86                  | -1049.          | 58.                       | 66.                       | 2.28                      | 55.20    | 128.83     | 15790. |
| 6                | -4.0                    | .0                   | 248.7                     | -17.94                  | -658.           | 34.                       | 27.                       | 5.13                      | 55.13    | 128.75     | 15770. |
| 7                | -0                      | .0                   | 336.6                     | -3.99                   | -274.           | 7.                        | 66.                       | 3.38                      | 55.44    | 129.12     | 15780. |
| 8                | 2.5                     | .0                   | 376.5                     | 8.58                    | -68.            | 19.                       | 12.                       | 4.74                      | 55.38    | 129.05     | 15800. |
| 9                | 5.0                     | .0                   | 396.9                     | 24.58                   | 113.            | 42.                       | 346.                      | 4.00                      | 55.38    | 129.04     | 15810. |
| 10               | 10.0                    | .0                   | 403.1                     | 71.02                   | 415.            | 175.                      | -53.                      | .74                       | 55.19    | 128.82     | 15800. |
| 11               | 15.0                    | .0                   | 438.1                     | 119.27                  | 808.            | 96.                       | -177.                     | .31                       | 54.66    | 128.18     | 15800. |
| 12               | -0                      | .0                   | 336.7                     | -3.77                   | -281.           | 9.                        | -6.                       | 4.76                      | 55.11    | 128.73     | 15810. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .0000  | -.0184 | .0000  | .0000 | .0000  | .0000  |
| 3    | .00   | .9815  | .2069  | -.0395 | .0010 | .0032  | -.0005 |
| 4    | .00   | .9122  | -.0161 | -.0916 | .0006 | -.0014 | .0121  |
| 5    | -8.01 | .3770  | -.0672 | -.3381 | .0035 | .0040  | .0062  |
| 6    | -4.01 | .6721  | -.0485 | -.2121 | .0021 | .0017  | .0139  |
| 7    | -.00  | .9096  | -.0108 | -.0882 | .0004 | .0040  | .0091  |
| 8    | 2.52  | 1.0175 | .0232  | -.0220 | .0012 | .0007  | .0128  |
| 9    | 5.00  | 1.0727 | .0664  | .0366  | .0026 | .0209  | .0108  |
| 10   | 10.01 | 1.0894 | .1919  | .1339  | .0105 | -.0032 | .0020  |
| 11   | 14.99 | 1.1841 | .3224  | .2604  | .0058 | -.0107 | .0008  |
| 12   | -.01  | .9100  | -.0102 | -.0907 | .0005 | -.0004 | .0129  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .0000  | -.0184 | .0000  | .0000 | .0000  | -.0000 |
| 3    | .00   | .9815  | .2069  | -.0395 | .0010 | .0032  | -.0005 |
| 4    | .00   | .9122  | -.0161 | -.0916 | .0006 | -.0014 | .0121  |
| 5    | -8.01 | .3770  | -.0672 | -.3381 | .0035 | .0040  | .0062  |
| 6    | -4.01 | .6721  | -.0485 | -.2121 | .0021 | .0017  | .0139  |
| 7    | -.00  | .9096  | -.0108 | -.0882 | .0004 | .0040  | .0091  |
| 8    | 2.52  | 1.0175 | .0232  | -.0220 | .0012 | .0007  | .0128  |
| 9    | 5.00  | 1.0727 | .0664  | .0366  | .0026 | .0209  | .0108  |
| 10   | 10.01 | 1.0894 | .1919  | .1339  | .0105 | -.0032 | .0020  |
| 11   | 14.99 | 1.1841 | .3224  | .2604  | .0058 | -.0107 | .0008  |
| 12   | -.01  | .9100  | -.0102 | -.0907 | .0005 | -.0004 | .0129  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SEP-72  
P 22

RUN 262 CONFIG F P B NP1 T2

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM   |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------|---------------|-------|
| 6       | 0         | 0             | -25.3             | 22.85             | -285.              | 30.                | 15.                | 2.11              | 54.88       | 128.46        | 3540. |
| 7       | -8.0      | 0             | -71.9             | 34.64             | -718.              | 45.                | -4.                | 2.59              | 55.19       | 128.82        | 3790. |
| 8       | -4.0      | 0             | -53.4             | 26.60             | -553.              | 38.                | 14.                | 2.68              | 54.59       | 128.11        | 3610. |
| 9       | 0         | 0             | -24.9             | 23.27             | -270.              | 27.                | 15.                | 1.67              | 55.05       | 128.66        | 3550. |
| 10      | 2.5       | 0             | -7.4              | 22.15             | -97.               | 51.                | 14.                | 3.06              | 55.74       | 129.48        | 3550. |
| 11      | 10.0      | 0             | 45.9              | 25.19             | 417.               | 58.                | 34.                | .98               | 55.64       | 129.36        | 3540. |
| 12      | 15.0      | 0             | 78.7              | 33.03             | 727.               | 41.                | 18.                | -1.46             | 55.88       | 129.64        | 3570. |
| 13      | 0         | 0             | -25.5             | 23.17             | -273.              | 36.                | -3.                | 2.27              | 55.59       | 129.29        | 3560. |
| 14      | 5.0       | 0             | 10.1              | 22.62             | 81.                | 54.                | 34.                | .55               | 55.60       | 129.31        | 3550. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|-------|--------|-------|--------|--------|
| 6    | .01   | -.0685 | .0618 | -.0919 | .0018 | .0009  | .0057  |
| 7    | -8.00 | -.1942 | .0936 | -.2316 | .0027 | -.0003 | .0070  |
| 8    | -3.98 | -.1443 | .0719 | -.1781 | .0023 | .0008  | .0073  |
| 9    | .00   | -.0673 | .0629 | -.0871 | .0017 | .0009  | .0045  |
| 10   | 2.51  | -.0200 | .0599 | -.0311 | .0031 | .0008  | .0083  |
| 11   | 9.99  | .1240  | .0681 | .1343  | .0035 | .0021  | .0026  |
| 12   | 15.02 | .2126  | .0893 | .2345  | .0025 | .0011  | -.0040 |
| 13   | .01   | -.0690 | .0626 | -.0881 | .0022 | -.0002 | .0061  |
| 14   | 4.99  | .0273  | .0611 | .0262  | .0033 | .0021  | .0015  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|-------|--------|-------|--------|--------|
| 6    | .01   | -.0685 | .0618 | -.0919 | .0018 | .0009  | .0057  |
| 7    | -8.00 | -.1942 | .0936 | -.2316 | .0027 | -.0003 | .0070  |
| 8    | -3.98 | -.1443 | .0719 | -.1781 | .0023 | .0008  | .0073  |
| 9    | .00   | -.0673 | .0629 | -.0871 | .0017 | .0009  | .0045  |
| 10   | 2.51  | -.0200 | .0599 | -.0311 | .0031 | .0008  | .0083  |
| 11   | 9.99  | .1240  | .0681 | .1343  | .0035 | .0021  | .0026  |
| 12   | 15.02 | .2126  | .0893 | .2345  | .0025 | .0011  | -.0040 |
| 13   | .01   | -.0690 | .0626 | -.0881 | .0022 | -.0002 | .0061  |
| 14   | 4.99  | .0273  | .0611 | .0262  | .0033 | .0021  | .0015  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SEP-  
P

RUN 263 CONFIG F P B NP1 T2

| IW<br>PT.<br>NO. | - DELF<br>ALPHA<br>DEG | - DELA<br>PSI<br>DEG | - IHT<br>CLBAR<br>SQ-FT | - DELE<br>CDBAR<br>SQ-FT | - DELR<br>CPMBAR<br>CU-FT | - DELS<br>CYMBAR<br>CU-FT | - DELSB<br>CRMBAR<br>CU-FT | -<br>CYBAR<br>SQ-FT | -<br>Q<br>PSF | -<br>V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|-------------------------|--------------------------|---------------------------|---------------------------|----------------------------|---------------------|---------------|-----------------|--------|
| 1                | .0                     | .0                   | -32.2                   | -6.82                    | -323.                     | 37.                       | 31.                        | 2.63                | 55.78         | 129.52          | 10050. |
| 2                | -8.0                   | .0                   | -95.6                   | 3.52                     | -906.                     | 59.                       | 12.                        | 3.03                | 55.17         | 128.80          | 10080. |
| 3                | -4.0                   | .0                   | -66.8                   | -3.63                    | -622.                     | 36.                       | -5.                        | 3.10                | 54.98         | 128.58          | 10040. |
| 4                | .0                     | .0                   | -32.7                   | -5.80                    | -324.                     | 42.                       | 16.                        | 1.41                | 55.57         | 129.27          | 9950.  |
| 5                | 2.5                    | .0                   | -13.2                   | -7.71                    | -137.                     | 53.                       | 14.                        | 2.94                | 55.54         | 129.24          | 10020. |
| 6                | 5.0                    | .0                   | 7.8                     | -6.86                    | 48.                       | 60.                       | 51.                        | 1.42                | 55.08         | 128.69          | 9980.  |
| 7                | 10.0                   | .0                   | 49.3                    | -5.56                    | 410.                      | 55.                       | 51.                        | 1.28                | 55.68         | 129.41          | 10070. |
| 8                | 15.0                   | .0                   | 90.5                    | 2.55                     | 775.                      | 50.                       | 53.                        | .62                 | 55.15         | 128.78          | 10110. |
| 9                | -.0                    | .0                   | -33.9                   | -7.25                    | -320.                     | 39.                       | 32.                        | 2.52                | 55.34         | 129.00          | 10080. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY    |
|------|-------|--------|--------|--------|-------|--------|-------|
| 1    | .00   | -.0870 | -.0184 | -.1042 | .0023 | .0019  | .0071 |
| 2    | -7.98 | -.2584 | .0095  | -.2920 | .0036 | .0007  | .0082 |
| 3    | -4.01 | -.1806 | -.0098 | -.2007 | .0022 | -.0003 | .0084 |
| 4    | .01   | -.0883 | -.0157 | -.1044 | .0025 | .0009  | .0038 |
| 5    | 2.51  | -.0357 | -.0209 | -.0443 | .0032 | .0009  | .0080 |
| 6    | 5.01  | .0209  | -.0185 | .0155  | .0036 | .0031  | .0038 |
| 7    | 10.02 | .1333  | -.0150 | .1322  | .0033 | .0031  | .0035 |
| 8    | 15.01 | .2447  | .0069  | .2498  | .0030 | .0032  | .0017 |
| 9    | -.00  | -.0915 | -.0196 | -.1033 | .0023 | .0019  | .0068 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB   |
|------|-------|--------|--------|--------|-------|--------|-------|
| 1    | .00   | -.0870 | -.0184 | -.1042 | .0023 | .0019  | .0071 |
| 2    | -7.98 | -.2584 | .0095  | -.2920 | .0036 | .0007  | .0082 |
| 3    | -4.01 | -.1806 | -.0098 | -.2007 | .0022 | -.0003 | .0084 |
| 4    | .01   | -.0883 | -.0157 | -.1044 | .0025 | .0009  | .0038 |
| 5    | 2.51  | -.0357 | -.0209 | -.0443 | .0032 | .0009  | .0080 |
| 6    | 5.01  | .0209  | -.0185 | .0155  | .0036 | .0031  | .0038 |
| 7    | 10.02 | .1333  | -.0150 | .1322  | .0033 | .0031  | .0035 |
| 8    | 15.01 | .2447  | .0069  | .2498  | .0030 | .0032  | .0017 |
| 9    | -.00  | -.0915 | -.0196 | -.1033 | .0023 | .0019  | .0068 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SAP-7d  
P 2

RUN 264 CONFIG F P B NP1 T2

| IW      | - DELF    | - DELA  | - IHT       | - DELE      | - DELR       | - DELSB      | -            | -           | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 1       | -0        | .0      | -51.4       | -146.50     | -473.        | 34.          | 63.          | 5.02        | 55.64 | 129.37  | 23020. |
| 2       | -8.0      | .0      | -143.1      | -134.97     | -1153.       | 49.          | 82.          | 3.58        | 55.13 | 128.76  | 22980. |
| 3       | -4.0      | .0      | -98.3       | -145.83     | -814.        | 38.          | 62.          | 6.32        | 54.43 | 127.92  | 22910. |
| 4       | .0        | .0      | -51.1       | -149.97     | -476.        | 18.          | 81.          | 5.90        | 54.86 | 128.44  | 23040. |
| 5       | 2.5       | .0      | -21.8       | -149.70     | -269.        | 23.          | 62.          | 7.33        | 55.32 | 128.99  | 23000. |
| 6       | 5.0       | .0      | 8.3         | -147.80     | -63.         | 26.          | 103.         | 3.73        | 54.83 | 128.41  | 23030. |
| 7       | 10.0      | .0      | 66.1        | -139.31     | 348.         | 55.          | 103.         | 2.64        | 55.40 | 129.09  | 22930. |
| 8       | 15.0      | .0      | 125.6       | -132.48     | 770.         | 55.          | 122.         | .61         | 55.40 | 129.08  | 23030. |
| 9       | .0        | .0      | -50.3       | -144.99     | -476.        | 26.          | 97.          | 6.15        | 55.38 | 129.06  | 23110. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM   | CY    |
|------|-------|--------|--------|--------|-------|-------|-------|
| 1    | -0.00 | -.1388 | -.3960 | -.1526 | .0020 | .0038 | .0136 |
| 2    | -7.99 | -.3868 | -.3648 | -.3718 | .0030 | .0049 | .0097 |
| 3    | -3.99 | -.2657 | -.3941 | -.2625 | .0023 | .0037 | .0171 |
| 4    | .01   | -.1382 | -.4053 | -.1535 | .0011 | .0049 | .0159 |
| 5    | 2.51  | -.0589 | -.4046 | -.0866 | .0014 | .0037 | .0198 |
| 6    | 5.01  | .0224  | -.3995 | -.0204 | .0016 | .0062 | .0101 |
| 7    | 10.00 | .1787  | -.3765 | .1121  | .0033 | .0062 | .0071 |
| 8    | 15.00 | .3394  | -.3581 | .2484  | .0033 | .0074 | .0017 |
| 9    | .00   | -.1360 | -.3919 | -.1535 | .0016 | .0059 | .0166 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB  | CYB   |
|------|-------|--------|--------|--------|-------|-------|-------|
| 1    | -0.00 | -.1388 | -.3960 | -.1526 | .0020 | .0038 | .0136 |
| 2    | -7.99 | -.3868 | -.3648 | -.3718 | .0030 | .0049 | .0097 |
| 3    | -3.99 | -.2657 | -.3941 | -.2625 | .0023 | .0037 | .0171 |
| 4    | .01   | -.1382 | -.4053 | -.1535 | .0011 | .0049 | .0159 |
| 5    | 2.51  | -.0589 | -.4046 | -.0866 | .0014 | .0037 | .0198 |
| 6    | 5.01  | .0224  | -.3995 | -.0204 | .0016 | .0062 | .0101 |
| 7    | 10.00 | .1787  | -.3765 | .1121  | .0033 | .0062 | .0071 |
| 8    | 15.00 | .3394  | -.3581 | .2484  | .0033 | .0074 | .0017 |
| 9    | .00   | -.1360 | -.3919 | -.1535 | .0016 | .0059 | .0166 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 265 CONFIG F P B NP1 T2

| IW      | - DELF    | - DELA  | - IHT       | - DELE      | - DELR       | - DELSB      | -            | -           | -     | -       | -      | - |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|---|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |   |
| 6       | .0        | .0      | -25.4       | 23.85       | -233.        | 44.          | 14.          | 2.88        | 54.32 | 127.78  | 3550.  |   |
| 7       | .0        | .0      | -33.7       | -6.65       | -299.        | 40.          | 14.          | 3.17        | 54.79 | 128.35  | 10000. |   |
| 8       | .0        | -15.0   | -33.0       | 8.51        | -314.        | -402.        | -283.        | -81.17      | 54.60 | 128.12  | 10060. |   |
| 9       | .0        | -10.0   | -33.8       | -.60        | -320.        | -279.        | -206.        | -52.65      | 54.73 | 128.28  | 9980.  |   |
| 10      | .0        | -5.0    | -33.9       | -4.79       | -333.        | -112.        | -99.         | -26.96      | 54.46 | 127.96  | 10050. |   |
| 11      | .0        | -2.5    | -34.2       | -5.94       | -348.        | -24.         | -64.         | -12.35      | 54.06 | 127.48  | 10050. |   |
| 12      | .0        | .0      | -33.5       | -6.74       | -332.        | 44.          | 16.          | 1.82        | 54.22 | 127.67  | 10040. |   |
| 13      | .0        | 2.5     | -33.5       | -5.91       | -326.        | 114.         | 98.          | 17.43       | 54.91 | 128.50  | 10030. |   |
| 14      | .0        | 5.0     | -33.6       | -4.48       | -334.        | 187.         | 141.         | 30.86       | 54.08 | 127.50  | 10020. |   |
| 15      | .0        | 10.0    | -35.2       | .22         | -300.        | 328.         | 277.         | 56.65       | 54.78 | 128.33  | 10000. |   |
| 16      | .0        | 15.0    | -37.1       | 8.64        | -283.        | 450.         | 405.         | 84.05       | 54.88 | 128.45  | 10000. |   |
| 17      | .0        | .0      | -33.6       | -6.61       | -330.        | 44.          | 33.          | 2.54        | 53.68 | 127.02  | 9990.  |   |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | -.0686 | .0645  | -.0750 | .0026  | .0009  | .0078  |
| 7    | .00    | -.0911 | -.0180 | -.0965 | .0024  | .0008  | .0086  |
| 8    | -15.00 | -.0892 | .0230  | -.1012 | -.0243 | -.0171 | -.2194 |
| 9    | -10.00 | -.0914 | -.0016 | -.1031 | -.0169 | -.0125 | -.1423 |
| 10   | -5.00  | -.0915 | -.0129 | -.1073 | -.0068 | -.0060 | -.0729 |
| 11   | -2.50  | -.0924 | -.0160 | -.1121 | -.0015 | -.0039 | -.0334 |
| 12   | .00    | -.0904 | -.0182 | -.1069 | .0027  | .0009  | .0049  |
| 13   | 2.50   | -.0906 | -.0160 | -.1058 | .0069  | .0059  | .0471  |
| 14   | 5.00   | -.0909 | -.0121 | -.1076 | .0113  | .0085  | .0834  |
| 15   | 10.00  | -.0951 | .0006  | -.0967 | .0198  | .0167  | .1531  |
| 16   | 15.00  | -.1003 | .0234  | -.0912 | .0272  | .0245  | .2272  |
| 17   | .00    | -.0907 | -.0179 | -.1063 | .0027  | .0020  | .0069  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | -.0686 | .0645  | -.0750 | .0026  | .0009  | .0078  |
| 7    | .00    | -.0911 | -.0180 | -.0965 | .0024  | .0008  | .0086  |
| 8    | -15.00 | -.0892 | -.0348 | -.0740 | -.0243 | -.0116 | -.2178 |
| 9    | -10.00 | -.0914 | -.0264 | -.0899 | -.0169 | -.0089 | -.1398 |
| 10   | -5.00  | -.0915 | -.0193 | -.1041 | -.0068 | -.0042 | -.0714 |
| 11   | -2.50  | -.0924 | -.0175 | -.1111 | -.0015 | -.0029 | -.0326 |
| 12   | .00    | -.0904 | -.0182 | -.1069 | .0027  | .0009  | .0049  |
| 13   | 2.50   | -.0906 | -.0180 | -.1043 | .0069  | .0051  | .0464  |
| 14   | 5.00   | -.0909 | -.0194 | -.1032 | .0113  | .0067  | .0820  |
| 15   | 10.00  | -.0951 | -.0261 | -.0796 | .0198  | .0133  | .1509  |
| 16   | 15.00  | -.1003 | -.0365 | -.0541 | .0272  | .0192  | .2254  |
| 17   | .00    | -.0907 | -.0179 | -.1063 | .0027  | .0020  | .0069  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 266 CONFIG F P B NP T2

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM   |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------------|-------|
| 2       | .0        | .0            | -13.0       | 21.82       | -175.        | 33.          | 15.          | 2.00        | 54.55       | 128.07        | 3420. |
| 3       | .0        | .0            | -21.2       | -6.72       | -234.        | 31.          | 50.          | 2.57        | 54.36       | 127.83        | 9580. |
| 4       | .0        | -15.0         | -23.4       | 7.92        | -217.        | -413.        | -334.        | -78.11      | 54.21       | 127.66        | 9530. |
| 5       | .0        | -10.0         | -17.6       | -7.76       | -191.        | -245.        | -199.        | -49.40      | 54.96       | 128.55        | 9590. |
| 6       | .0        | -5.0          | -15.8       | -4.78       | -216.        | -126.        | -59.         | -25.33      | 55.13       | 128.75        | 9570. |
| 7       | .0        | -2.5          | -17.8       | -5.53       | -232.        | -15.         | 9.           | -11.64      | 55.29       | 128.94        | 9560. |
| 8       | .0        | .0            | -21.1       | -5.70       | -237.        | 35.          | 49.          | 2.38        | 55.88       | 129.64        | 9530. |
| 9       | .0        | 2.5           | -22.1       | -4.88       | -233.        | 109.         | 97.          | 16.77       | 55.04       | 128.65        | 9510. |
| 10      | .0        | 5.0           | -22.3       | -3.32       | -228.        | 188.         | 170.         | 29.96       | 55.38       | 129.05        | 9510. |
| 11      | .0        | 10.0          | -24.6       | .09         | -191.        | 351.         | 284.         | 55.74       | 55.56       | 129.26        | 9550. |
| 12      | .0        | 15.0          | -26.5       | 7.97        | -173.        | 483.         | 446.         | 79.34       | 55.69       | 129.41        | 9550. |
| 13      | .0        | .0            | -20.5       | -6.08       | -225.        | 38.          | 31.          | 2.76        | 55.50       | 129.19        | 9550. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0350 | .0590  | -.0564 | .0020  | .0009  | .0054  |
| 3    | .00    | -.0573 | -.0182 | -.0755 | .0019  | .0030  | .0069  |
| 4    | -15.00 | -.0633 | .0214  | -.0699 | -.0250 | -.0202 | -.2111 |
| 5    | -10.00 | -.0477 | -.0021 | -.0617 | -.0148 | -.0120 | -.1335 |
| 6    | -5.00  | -.0428 | -.0129 | -.0695 | -.0076 | -.0036 | -.0685 |
| 7    | -2.50  | -.0480 | -.0149 | -.0749 | -.0009 | .0006  | -.0315 |
| 8    | .00    | -.0571 | -.0154 | -.0765 | .0021  | .0030  | .0064  |
| 9    | 2.50   | -.0597 | -.0132 | -.0752 | .0066  | .0059  | .0453  |
| 10   | 5.00   | -.0603 | -.0090 | -.0734 | .0113  | .0102  | .0810  |
| 11   | 10.00  | -.0666 | .0002  | -.0614 | .0212  | .0172  | .1506  |
| 12   | 15.00  | -.0717 | .0216  | -.0558 | .0292  | .0270  | .2144  |
| 13   | .00    | -.0555 | -.0164 | -.0725 | .0023  | .0019  | .0075  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0350 | .0590  | -.0564 | .0020  | .0009  | .0054  |
| 3    | .00    | -.0573 | -.0182 | -.0755 | .0019  | .0030  | .0069  |
| 4    | -15.00 | -.0633 | -.0342 | -.0395 | -.0250 | -.0161 | -.2094 |
| 5    | -10.00 | -.0477 | -.0253 | -.0495 | -.0148 | -.0098 | -.1311 |
| 6    | -5.00  | -.0428 | -.0189 | -.0676 | -.0076 | -.0024 | -.0671 |
| 7    | -2.50  | -.0480 | -.0163 | -.0749 | -.0009 | .0012  | -.0308 |
| 8    | .00    | -.0571 | -.0154 | -.0765 | .0021  | .0030  | .0064  |
| 9    | 2.50   | -.0597 | -.0152 | -.0738 | .0066  | .0053  | .0447  |
| 10   | 5.00   | -.0603 | -.0160 | -.0684 | .0113  | .0090  | .0799  |
| 11   | 10.00  | -.0666 | -.0260 | -.0445 | .0212  | .0149  | .1484  |
| 12   | 15.00  | -.0717 | -.0349 | -.0165 | .0292  | .0233  | .2127  |
| 13   | .00    | -.0555 | -.0164 | -.0725 | .0023  | .0019  | .0075  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 267 CONFIG F P B NP T2

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM   |
|---------|-----------|---------------|-------------|-------------|---------------|--------------|--------------|-------------|-------------|---------------|-------|
| 2       | .0        | .0            | -15.7       | 22.15       | -193.         | 31.          | -40.         | 3.45        | 54.36       | 127.84        | 3400. |
| 3       | -8.0      | .0            | -47.1       | 28.71       | -593.         | 46.          | 30.          | 3.08        | 55.32       | 128.98        | 3560. |
| 5       | .0        | .0            | -12.9       | 21.52       | -182.         | 38.          | -3.          | 2.65        | 55.30       | 128.96        | 3430. |
| 6       | 2.5       | .0            | 1.0         | 21.37       | -38.          | 45.          | 32.          | 2.93        | 54.70       | 128.24        | 3410. |
| 7       | 5.0       | .0            | 11.4        | 21.48       | 87.           | 57.          | 32.          | 3.08        | 55.31       | 128.96        | 3420. |
| 8       | 10.0      | .0            | 40.2        | 23.71       | 392.          | 58.          | 35.          | -.37        | 55.12       | 128.74        | 3420. |
| 9       | 15.0      | .0            | 68.9        | 31.55       | 686.          | 69.          | 35.          | -.62        | 55.20       | 128.84        | 3480. |
| 10      | -4.0      | .0            | -29.2       | 24.25       | -390.         | 35.          | 32.          | 2.41        | 55.15       | 128.78        | 3500. |
| 11      | .0        | .0            | -12.6       | 21.70       | -186.         | 35.          | 15.          | 2.34        | 55.22       | 128.86        | 3430. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|-------|--------|-------|--------|--------|
| 2    | .00   | -.0424 | .0599 | -.0623 | .0019 | -.0024 | .0093  |
| 3    | -8.00 | -.1274 | .0776 | -.1912 | .0028 | .0018  | .0083  |
| 5    | .01   | -.0350 | .0582 | -.0587 | .0023 | -.0002 | .0072  |
| 6    | 2.52  | .0026  | .0578 | -.0123 | .0027 | .0019  | .0079  |
| 7    | 5.01  | .0307  | .0581 | .0282  | .0035 | .0019  | .0083  |
| 8    | 10.02 | .1087  | .0641 | .1263  | .0035 | .0021  | -.0010 |
| 9    | 15.01 | .1863  | .0853 | .2211  | .0042 | .0021  | -.0017 |
| 10   | -4.01 | -.0790 | .0655 | -.1258 | .0021 | .0019  | .0065  |
| 11   | .00   | -.0340 | .0587 | -.0598 | .0021 | .0009  | .0063  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|-------|--------|-------|--------|--------|
| 2    | .00   | -.0424 | .0599 | -.0623 | .0019 | -.0024 | .0093  |
| 3    | -8.00 | -.1274 | .0776 | -.1912 | .0028 | .0018  | .0083  |
| 5    | .01   | -.0350 | .0582 | -.0587 | .0023 | -.0002 | .0072  |
| 6    | 2.52  | .0026  | .0578 | -.0123 | .0027 | .0019  | .0079  |
| 7    | 5.01  | .0307  | .0581 | .0282  | .0035 | .0019  | .0083  |
| 8    | 10.02 | .1087  | .0641 | .1263  | .0035 | .0021  | -.0010 |
| 9    | 15.01 | .1863  | .0853 | .2211  | .0042 | .0021  | -.0017 |
| 10   | -4.01 | -.0790 | .0655 | -.1258 | .0021 | .0019  | .0065  |
| 11   | .00   | -.0340 | .0587 | -.0598 | .0021 | .0009  | .0063  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 268 CONFIG F P B NP T2

| IW      | - DELF    | - DELA  | - IHT       | - DELE      | - DELR       | - DELSB      | -            |             |       | RPM     |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |       |
| 1       | .0        | .0      | -17.0       | -6.76       | -222.        | 33.          | 49.          | 2.46        | 55.29 | 128.95  | 9690. |
| 2       | -8.0      | .0      | -64.6       | -.47        | -708.        | 44.          | 14.          | 2.22        | 55.24 | 128.89  | 9730. |
| 3       | -4.0      | .0      | -45.5       | -5.03       | -480.        | 39.          | 31.          | 2.77        | 55.28 | 128.93  | 9770. |
| 4       | .0        | .0      | -21.4       | -7.25       | -235.        | 36.          | 13.          | 3.39        | 55.31 | 128.97  | 9780. |
| 5       | 2.5       | .0      | -6.7        | -7.27       | -91.         | 52.          | 31.          | 3.91        | 54.92 | 128.51  | 9660. |
| 6       | 5.0       | .0      | 10.3        | -7.75       | 72.          | 55.          | 68.          | 2.91        | 55.01 | 128.61  | 9770. |
| 7       | 10.0      | .0      | 44.7        | -4.77       | 405.         | 60.          | 35.          | .44         | 54.72 | 128.27  | 9710. |
| 8       | 15.0      | .0      | 83.1        | 1.36        | 758.         | 61.          | 53.          | -2.23       | 55.01 | 128.61  | 9780. |
| 9       | -.0       | .0      | -20.4       | -6.92       | -229.        | 34.          | 49.          | 2.85        | 54.95 | 128.54  | 9710. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM   | CY     |
|------|-------|--------|--------|--------|-------|-------|--------|
| 1    | .00   | -.0461 | -.0183 | -.0716 | .0020 | .0030 | .0067  |
| 2    | -8.00 | -.1745 | -.0013 | -.2283 | .0026 | .0008 | .0060  |
| 3    | -3.99 | -.1231 | -.0136 | -.1546 | .0024 | .0019 | .0075  |
| 4    | .01   | -.0578 | -.0196 | -.0757 | .0022 | .0008 | .0092  |
| 5    | 2.51  | -.0180 | -.0197 | -.0293 | .0031 | .0019 | .0106  |
| 6    | 5.01  | .0278  | -.0209 | .0232  | .0034 | .0041 | .0079  |
| 7    | 10.01 | .1208  | -.0129 | .1307  | .0036 | .0021 | .0012  |
| 8    | 15.00 | .2245  | .0037  | .2445  | .0037 | .0032 | -.0060 |
| 9    | -.01  | -.0550 | -.0187 | -.0738 | .0021 | .0030 | .0077  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB  | CYB    |
|------|-------|--------|--------|--------|-------|-------|--------|
| 1    | .00   | -.0461 | -.0183 | -.0716 | .0020 | .0030 | .0067  |
| 2    | -8.00 | -.1745 | -.0013 | -.2283 | .0026 | .0008 | .0060  |
| 3    | -3.99 | -.1231 | -.0136 | -.1546 | .0024 | .0019 | .0075  |
| 4    | .01   | -.0578 | -.0196 | -.0757 | .0022 | .0008 | .0092  |
| 5    | 2.51  | -.0180 | -.0197 | -.0293 | .0031 | .0019 | .0106  |
| 6    | 5.01  | .0278  | -.0209 | .0232  | .0034 | .0041 | .0079  |
| 7    | 10.01 | .1208  | -.0129 | .1307  | .0036 | .0021 | .0012  |
| 8    | 15.00 | .2245  | .0037  | .2445  | .0037 | .0032 | -.0060 |
| 9    | -.01  | -.0550 | -.0187 | -.0738 | .0021 | .0030 | .0077  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 269 CONFIG F P B NP T2

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | DELA CDBAR SQ-FT | IHT CPMBAR CU-FT | DELE CYMBAR CU-FT | DEL R CRMBAR CU-FT | DELSB Q SQ-FT | V PSF | RPM    |        |
|---------|-----------|---------------|-------------|------------------|------------------|-------------------|--------------------|---------------|-------|--------|--------|
| 1       | -0.0      | .0            | -38.1       | -152.05          | -393.            | 39.               | 66.                | 3.70          | 55.18 | 128.83 | 23000. |
| 2       | -8.0      | .0            | -115.5      | -142.74          | -985.            | 73.               | 81.                | 4.02          | 55.08 | 128.71 | 23050. |
| 3       | -4.0      | .0            | -76.5       | -147.91          | -684.            | 48.               | 119.               | 2.41          | 55.17 | 128.81 | 22910. |
| 4       | -0.0      | .0            | -38.3       | -148.24          | -397.            | 49.               | 82.                | 4.61          | 55.43 | 129.11 | 22940. |
| 5       | 2.5       | .0            | -12.6       | -152.68          | -211.            | 53.               | 84.                | 3.27          | 55.22 | 128.86 | 22970. |
| 6       | 5.0       | .0            | 12.3        | -150.33          | -28.             | 61.               | 104.               | 1.54          | 55.33 | 129.00 | 22950. |
| 7       | 10.0      | .0            | 65.1        | -148.50          | 360.             | 57.               | 106.               | -1.36         | 55.06 | 128.68 | 23020. |
| 8       | 15.0      | .0            | 119.9       | -138.23          | 764.             | 63.               | 141.               | -2.78         | 55.18 | 128.83 | 22980. |
| 9       | .0        | .0            | -36.7       | -148.27          | -394.            | 45.               | 120.               | 2.66          | 55.06 | 128.68 | 22940. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM   | CY     |
|------|-------|--------|--------|--------|-------|-------|--------|
| 1    | -.01  | -.1031 | -.4109 | -.1266 | .0023 | .0040 | .0100  |
| 2    | -7.99 | -.3120 | -.3858 | -.3176 | .0044 | .0049 | .0109  |
| 3    | -3.99 | -.2067 | -.3998 | -.2206 | .0029 | .0072 | .0065  |
| 4    | -.01  | -.1034 | -.4006 | -.1280 | .0030 | .0049 | .0125  |
| 5    | 2.51  | -.0342 | -.4126 | -.0680 | .0032 | .0051 | .0088  |
| 6    | 5.01  | .0331  | -.4063 | -.0090 | .0037 | .0063 | .0042  |
| 7    | 9.99  | .1759  | -.4013 | .1161  | .0034 | .0064 | -.0037 |
| 8    | 15.01 | .3240  | -.3736 | .2464  | .0038 | .0085 | -.0075 |
| 9    | .01   | -.0991 | -.4007 | -.1272 | .0027 | .0072 | .0072  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB  | CYB    |
|------|-------|--------|--------|--------|-------|-------|--------|
| 1    | -.01  | -.1031 | -.4109 | -.1266 | .0023 | .0040 | .0100  |
| 2    | -7.99 | -.3120 | -.3858 | -.3176 | .0044 | .0049 | .0109  |
| 3    | -3.99 | -.2067 | -.3998 | -.2206 | .0029 | .0072 | .0065  |
| 4    | -.01  | -.1034 | -.4006 | -.1280 | .0030 | .0049 | .0125  |
| 5    | 2.51  | -.0342 | -.4126 | -.0680 | .0032 | .0051 | .0088  |
| 6    | 5.01  | .0331  | -.4063 | -.0090 | .0037 | .0063 | .0042  |
| 7    | 9.99  | .1759  | -.4013 | .1161  | .0034 | .0064 | -.0037 |
| 8    | 15.01 | .3240  | -.3736 | .2464  | .0038 | .0085 | -.0075 |
| 9    | .01   | -.0991 | -.4007 | -.1272 | .0027 | .0072 | .0072  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 230

RUN 270 CONFIG F P B N W5 T2 .

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | - DELE      | - DELR       | - DFLSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 5       | .0        | .0      | 318.4       | 63.68       | -225.        | 115.         | 109.         | -3.68       | 55.61 | 129.32  | 0. |
| 6       | .0        | -20.0   | 304.8       | 75.39       | -22.         | -446.        | -432.        | -62.27      | 55.75 | 129.48  | 0. |
| 7       | .0        | -15.0   | 321.9       | 67.39       | -78.         | -356.        | -355.        | -43.91      | 55.78 | 129.51  | 0. |
| 8       | .0        | -10.0   | 331.7       | 69.04       | -611.        | 24.          | 246.         | -31.27      | 55.56 | 129.25  | 0. |
| 9       | .0        | -5.0    | 328.7       | 62.28       | -221.        | -115.        | -280.        | -6.00       | 55.64 | 129.35  | 0. |
| 10      | .0        | -2.5    | 324.8       | 61.98       | -211.        | -41.         | -207.        | .61         | 55.86 | 129.61  | 0. |
| 11      | .0        | .0      | 326.7       | 62.18       | -213.        | 28.          | -80.         | 7.82        | 55.29 | 128.94  | 0. |
| 12      | .0        | 2.5     | 331.4       | 62.57       | -206.        | 86.          | 23.          | 10.61       | 55.21 | 128.84  | 0. |
| 13      | .0        | 5.0     | 335.0       | 61.09       | -192.        | 170.         | 53.          | 16.91       | 55.39 | 129.06  | 0. |
| 14      | .0        | 10.0    | 333.5       | 60.91       | -102.        | 276.         | 234.         | 27.16       | 55.44 | 129.12  | 0. |
| 15      | .0        | 15.0    | 306.0       | 65.69       | -54.         | 410.         | 366.         | 41.02       | 55.47 | 129.15  | 0. |
| 16      | .0        | 20.0    | 287.6       | 74.35       | 20.          | 508.         | 519.         | 61.61       | 55.01 | 128.60  | 0. |
| 17      | .0        | .0      | 313.6       | 63.22       | -211.        | 110.         | 56.          | -3.07       | 55.54 | 129.23  | 0. |
| 18      | .0        | -10.0   | 342.1       | 62.42       | -129.        | -202.        | -167.        | -28.90      | 55.75 | 129.48  | 0. |
| 19      | .0        | .0      | 310.9       | 62.73       | -246.        | 29.          | 52.          | .12         | 55.21 | 128.84  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 5    | .00    | .8606 | .1721 | -.0726 | .0069  | .0066  | -.0099 |
| 6    | -20.00 | .8238 | .2038 | -.0073 | -.0269 | -.0261 | -.1683 |
| 7    | -15.00 | .8699 | .1821 | -.0252 | -.0215 | -.0214 | -.1187 |
| 8    | -10.00 | .8965 | .1866 | -.1968 | .0015  | .0149  | -.0845 |
| 9    | -5.00  | .8882 | .1683 | -.0713 | -.0070 | -.0169 | -.0162 |
| 10   | -2.50  | .8778 | .1675 | -.0682 | -.0025 | -.0125 | .0016  |
| 11   | .00    | .8829 | .1681 | -.0688 | .0017  | -.0048 | .0211  |
| 12   | 2.50   | .8956 | .1691 | -.0663 | .0052  | .0014  | .0287  |
| 13   | 5.00   | .9055 | .1651 | -.0618 | .0103  | .0032  | .0457  |
| 14   | 10.00  | .9013 | .1646 | -.0330 | .0167  | .0142  | .0734  |
| 15   | 15.00  | .8270 | .1775 | -.0174 | .0248  | .0221  | .1109  |
| 16   | 20.00  | .7773 | .2009 | .0066  | .0307  | .0313  | .1665  |
| 17   | .00    | .8477 | .1709 | -.0679 | .0066  | .0034  | -.0083 |
| 18   | -10.00 | .9247 | .1687 | -.0416 | -.0122 | -.0101 | -.0781 |
| 19   | .00    | .8403 | .1697 | -.0793 | .0017  | .0032  | .0003  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMP   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 5    | .00    | .8606 | .1721 | -.0726 | .0069  | .0066  | -.0099 |
| 6    | -20.00 | .8238 | .1336 | .0410  | -.0269 | -.0240 | -.2280 |
| 7    | -15.00 | .8699 | .1450 | .0054  | -.0215 | -.0195 | -.1619 |
| 8    | -10.00 | .8965 | .1690 | -.2077 | .0015  | .0211  | -.1158 |
| 9    | -5.00  | .8882 | .1662 | -.0631 | -.0070 | -.0157 | -.0309 |
| 10   | -2.50  | .8778 | .1674 | -.0652 | -.0025 | -.0119 | -.0057 |
| 11   | .00    | .8829 | .1681 | -.0688 | .0017  | -.0048 | .0211  |
| 12   | 2.50   | .8956 | .1677 | -.0659 | .0052  | .0008  | .0361  |
| 13   | 5.00   | .9055 | .1605 | -.0601 | .0103  | .0022  | .0600  |
| 14   | 10.00  | .9013 | .1493 | -.0193 | .0167  | .0129  | .1010  |
| 15   | 15.00  | .8270 | .1426 | .0130  | .0248  | .0205  | .1532  |
| 16   | 20.00  | .7773 | .1315 | .0636  | .0307  | .0299  | .2254  |
| 17   | .00    | .8477 | .1709 | -.0679 | .0066  | .0034  | -.0083 |
| 18   | -10.00 | .9247 | .1525 | -.0316 | -.0122 | -.0096 | -.1063 |
| 19   | .00    | .8403 | .1697 | -.0793 | .0017  | .0032  | .0003  |

SIKOPSKY RSPA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 231

RUN 271 CONFIG F P B M W5 T2

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | PPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CPBAR SQ-FT | CPMBAP CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 7       | .0        | .0      | 308.8       | 62.95       | -247.        | 43.          | -3.          | 2.10        | 55.06 | 128.66  | 0. |
| 8       | .0        | .0      | 306.5       | 62.43       | -245.        | 43.          | -3.          | 2.09        | 55.47 | 129.15  | 0. |
| 9       | -20.0     | .0      | -83.7       | 53.32       | -887.        | -1.          | -47.         | 13.02       | 55.21 | 128.84  | 0. |
| 10      | -15.0     | .0      | 6.7         | 37.95       | -785.        | 42.          | -8.          | 3.73        | 55.67 | 129.38  | 0. |
| 11      | -10.0     | .0      | 122.0       | 35.19       | -761.        | 70.          | 15.          | 1.24        | 55.07 | 128.67  | 0. |
| 12      | -5.1      | .0      | 253.5       | 43.14       | -497.        | 51.          | 17.          | .49         | 55.11 | 128.72  | 0. |
| 13      | .1        | .0      | 331.5       | 63.20       | -199.        | 110.         | 15.          | 1.77        | 55.82 | 129.56  | 0. |
| 14      | 2.6       | .0      | 353.5       | 75.43       | -87.         | 126.         | 155.         | .61         | 56.05 | 129.82  | 0. |
| 15      | 5.0       | .0      | 349.3       | 91.75       | -26.         | 119.         | 222.         | 3.22        | 56.02 | 129.79  | 0. |
| 16      | 10.0      | .0      | 325.2       | 131.04      | 92.          | 54.          | 245.         | -3.05       | 55.83 | 129.57  | 0. |
| 17      | 15.0      | .0      | 353.2       | 178.77      | 306.         | -2.          | -34.         | -.48        | 56.35 | 130.18  | 0. |
| 18      | 20.0      | .0      | 385.1       | 231.74      | 545.         | 126.         | -34.         | .91         | 55.93 | 129.69  | 0. |
| 19      | -5.1      | .0      | 253.9       | 43.23       | -489.        | 62.          | 52.          | .43         | 55.55 | 129.24  | 0. |
| 20      | -.0       | .0      | 330.9       | 63.19       | -195.        | 109.         | -1.          | .98         | 55.52 | 129.20  | 0. |
| 21      | -7.5      | .0      | 188.4       | 37.89       | -623.        | 77.          | 32.          | 1.71        | 55.68 | 129.40  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 7    | .02    | .8346  | .1701 | -.0796 | .0026  | -.0002 | .0057  |
| 8    | .02    | .8284  | .1687 | -.0791 | .0026  | -.0002 | .0056  |
| 9    | -20.00 | -.2262 | .1441 | -.2859 | -.0001 | -.0028 | .0352  |
| 10   | -14.96 | .0181  | .1026 | -.2532 | .0025  | -.0005 | .0101  |
| 11   | -9.99  | .3297  | .0951 | -.2454 | .0042  | .0009  | .0033  |
| 12   | -5.05  | .6850  | .1166 | -.1603 | .0031  | .0010  | .0013  |
| 13   | .09    | .8958  | .1708 | -.0640 | .0066  | .0009  | .0048  |
| 14   | 2.55   | .9553  | .2039 | -.0281 | .0076  | .0094  | .0016  |
| 15   | 5.01   | .9440  | .2480 | -.0085 | .0072  | .0134  | .0087  |
| 16   | 10.02  | .8788  | .3542 | .0297  | .0033  | .0148  | -.0082 |
| 17   | 14.99  | .9545  | .4832 | .0988  | -.0001 | -.0021 | -.0013 |
| 18   | 20.01  | 1.0407 | .6263 | .1757  | .0076  | -.0021 | .0025  |
| 19   | -5.06  | .6863  | .1168 | -.1577 | .0037  | .0031  | .0012  |
| 20   | -.01   | .8943  | .1708 | -.0630 | .0066  | -.0001 | .0027  |
| 21   | -7.51  | .5093  | .1024 | -.2007 | .0046  | .0019  | .0046  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 7    | .02    | .8346  | .1701 | -.0796 | .0026  | -.0002 | .0057  |
| 8    | .02    | .8284  | .1687 | -.0791 | .0026  | -.0002 | .0056  |
| 9    | -20.00 | -.2262 | .1441 | -.2859 | -.0001 | -.0028 | .0352  |
| 10   | -14.96 | .0181  | .1026 | -.2532 | .0025  | -.0005 | .0101  |
| 11   | -9.99  | .3297  | .0951 | -.2454 | .0042  | .0009  | .0033  |
| 12   | -5.05  | .6850  | .1166 | -.1603 | .0031  | .0010  | .0013  |
| 13   | .09    | .8958  | .1708 | -.0640 | .0066  | .0009  | .0048  |
| 14   | 2.55   | .9553  | .2039 | -.0281 | .0076  | .0094  | .0016  |
| 15   | 5.01   | .9440  | .2480 | -.0085 | .0072  | .0134  | .0087  |
| 16   | 10.02  | .8788  | .3542 | .0297  | .0033  | .0148  | -.0082 |
| 17   | 14.99  | .9545  | .4832 | .0988  | -.0001 | -.0021 | -.0013 |
| 18   | 20.01  | 1.0407 | .6263 | .1757  | .0076  | -.0021 | .0025  |
| 19   | -5.06  | .6863  | .1168 | -.1577 | .0037  | .0031  | .0012  |
| 20   | -.01   | .8943  | .1708 | -.0630 | .0066  | -.0001 | .0027  |
| 21   | -7.51  | .5093  | .1024 | -.2007 | .0046  | .0019  | .0046  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 232

RUN 272 CONFIG F P B M W5 T2

| IW      | 15 DELF   | 10 DELA | 0 JHT       | - DELE      | - DELR       | - DFLSR     | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|-------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMVAR CU-FT | CYVAR CU-FT | CRMVAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | 380.3       | 79.16       | -340.        | 96.         | 219.         | -6.67       | 55.19 | 128.82  | 0. |
| 3       | -20.0     | .0      | -44.1       | 52.59       | -998.        | 9.          | -59.         | 10.85       | 56.21 | 130.02  | 0. |
| 4       | -15.0     | .0      | 61.6        | 44.69       | -957.        | 47.         | 32.          | 1.28        | 55.87 | 129.62  | 0. |
| 5       | -10.0     | .0      | 192.8       | 45.00       | -899.        | 65.         | -3.          | 1.40        | 56.03 | 129.81  | 0. |
| 6       | -5.0      | .0      | 330.0       | 56.19       | -630.        | 41.         | 51.          | .61         | 55.68 | 129.40  | 0. |
| 7       | .0        | .0      | 397.6       | 79.47       | -307.        | 68.         | 70.          | .12         | 55.64 | 129.34  | 0. |
| 8       | 2.5       | .0      | 431.1       | 90.24       | -150.        | 68.         | 68.          | 1.09        | 56.13 | 129.93  | 0. |
| 9       | 5.0       | -.1     | 419.9       | 104.65      | -63.         | 59.         | 341.         | -9.07       | 55.93 | 129.69  | 0. |
| 10      | 10.0      | -.1     | 384.7       | 146.75      | 91.          | 1.          | -152.        | -2.25       | 55.95 | 129.71  | 0. |
| 11      | 15.0      | -.1     | 369.6       | 198.01      | 196.         | 27.         | -67.         | 2.99        | 55.88 | 129.62  | 0. |
| 12      | 19.9      | -.1     | 394.2       | 250.28      | 428.         | 113.        | -66.         | 3.00        | 55.55 | 129.23  | 0. |
| 13      | .0        | -.1     | 397.4       | 70.25       | -320.        | 79.         | 1.           | 1.03        | 55.99 | 129.76  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|------|--------|--------|-------|--------|-------|--------|--------|
| 2    | .00    | 1.0278 | .2139 | -.1096 | .0058 | .0132  | -.0180 |
| 3    | -20.01 | -.1192 | .1421 | -.3219 | .0005 | -.0036 | .0293  |
| 4    | -15.00 | .1664  | .1208 | -.3084 | .0028 | .0019  | .0035  |
| 5    | -10.01 | .5212  | .1216 | -.2899 | .0040 | -.0002 | .0038  |
| 6    | -4.99  | .8919  | .1519 | -.2032 | .0025 | .0031  | .0017  |
| 7    | .02    | 1.0746 | .2148 | -.0991 | .0041 | .0042  | .0003  |
| 8    | 2.49   | 1.1652 | .2439 | -.0483 | .0041 | .0041  | .0030  |
| 9    | 4.99   | 1.1349 | .2828 | -.0203 | .0036 | .0206  | -.0245 |
| 10   | 9.99   | 1.0398 | .3966 | .0293  | .0000 | -.0092 | -.0061 |
| 11   | 14.96  | .9989  | .5376 | .0631  | .0016 | -.0041 | .0081  |
| 12   | 19.95  | 1.0655 | .6764 | .1380  | .0068 | -.0040 | .0081  |
| 13   | .01    | 1.0739 | .2142 | -.1032 | .0047 | .0001  | .0028  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMR  | CRMB   | CYB    |
|------|--------|--------|-------|--------|-------|--------|--------|
| 2    | .00    | 1.0278 | .2139 | -.1096 | .0058 | .0132  | -.0180 |
| 3    | -20.01 | -.1192 | .1421 | -.3219 | .0005 | -.0036 | .0293  |
| 4    | -15.00 | .1664  | .1208 | -.3084 | .0028 | .0019  | .0035  |
| 5    | -10.01 | .5212  | .1216 | -.2899 | .0040 | -.0002 | .0038  |
| 6    | -4.99  | .8919  | .1519 | -.2032 | .0025 | .0031  | .0017  |
| 7    | .02    | 1.0746 | .2148 | -.0991 | .0041 | .0042  | .0003  |
| 8    | 2.49   | 1.1652 | .2439 | -.0483 | .0041 | .0041  | .0030  |
| 9    | 4.99   | 1.1349 | .2828 | -.0204 | .0036 | .0206  | -.0250 |
| 10   | 9.99   | 1.0398 | .3966 | .0294  | .0000 | -.0092 | -.0068 |
| 11   | 14.96  | .9989  | .5376 | .0632  | .0016 | -.0041 | .0071  |
| 12   | 19.95  | 1.0655 | .6764 | .1381  | .0068 | -.0040 | .0069  |
| 13   | .01    | 1.0739 | .2142 | -.1032 | .0047 | .0001  | .0024  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 233

RUN 273 CONFIG F P R N W5 T2

| IW      | 15 DELF   | 10 DELA | 0 IHT       | - DELE      | - DELR        | - DELSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|---------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CPBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 3       | .0        | .0      | 379.2       | 79.60       | -355.         | 99.          | 202.         | -5.56       | 54.57 | 128.07  | 0. |
| 4       | .0        | -19.9   | 358.3       | 88.58       | -93.          | -423.        | -533.        | -54.76      | 54.99 | 128.58  | 0. |
| 5       | .0        | -14.9   | 383.7       | 86.29       | -592.         | -186.        | -156.        | -40.21      | 55.15 | 128.77  | 0. |
| 7       | .0        | -4.9    | 395.9       | 75.97       | -329.         | -107.        | -339.        | .00         | 55.65 | 129.36  | 0. |
| 8       | .0        | .1      | 386.0       | 77.69       | -345.         | 24.          | -118.        | 7.25        | 54.95 | 128.53  | 0. |
| 9       | .0        | 2.6     | 390.4       | 77.02       | -350.         | 110.         | -43.         | 10.76       | 55.39 | 129.05  | 0. |
| 10      | .0        | 5.1     | 396.6       | 75.09       | -316.         | 194.         | 137.         | 15.27       | 55.55 | 129.23  | 0. |
| 11      | .0        | 10.1    | 394.5       | 75.07       | -199.         | 282.         | 341.         | 20.87       | 55.49 | 129.17  | 0. |
| 12      | .0        | 15.1    | 363.7       | 80.53       | -303.         | 442.         | 831.         | 30.61       | 55.42 | 129.09  | 0. |
| 13      | .0        | 20.1    | 337.9       | 86.26       | -72.          | 443.         | 672.         | 53.29       | 55.23 | 128.86  | 0. |
| 14      | .0        | -14.9   | 383.5       | 90.32       | -1006.        | -15.         | 114.         | -43.41      | 55.56 | 129.25  | 0. |
| 15      | .0        | -9.9    | 392.5       | 85.84       | -906.         | 213.         | 523.         | -29.69      | 55.52 | 129.21  | 0. |
| 16      | .0        | -2.4    | 385.0       | 77.13       | -339.         | -48.         | -222.        | 3.48        | 55.72 | 129.45  | 0. |
| 17      | .0        | -14.9   | 378.9       | 81.17       | -148.         | -363.        | -458.        | -34.98      | 55.61 | 129.31  | 0. |
| 18      | .0        | -9.9    | 390.7       | 75.94       | -238.         | -260.        | -416.        | -15.35      | 55.94 | 129.70  | 0. |
| 19      | .0        | .1      | 385.5       | 77.30       | -343.         | 26.          | -117.        | 7.41        | 55.60 | 129.30  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 3    | .00    | 1.0248 | .2151 | -.1145 | .0060  | .0122  | -.0150 |
| 4    | -19.90 | .9683  | .2394 | -.0301 | -.0256 | -.0322 | -.1480 |
| 5    | -14.90 | 1.0371 | .2332 | -.1907 | -.0112 | -.0094 | -.1087 |
| 7    | -4.90  | 1.0700 | .2053 | -.1062 | -.0065 | -.0205 | .0000  |
| 8    | .10    | 1.0431 | .2100 | -.1111 | .0014  | -.0071 | .0196  |
| 9    | 2.60   | 1.0553 | .2082 | -.1128 | .0067  | -.0026 | .0291  |
| 10   | 5.10   | 1.0719 | .2029 | -.1017 | .0117  | .0082  | .0413  |
| 11   | 10.10  | 1.0662 | .2029 | -.0640 | .0171  | .0206  | .0564  |
| 12   | 15.10  | .9828  | .2177 | -.0977 | .0267  | .0502  | .0827  |
| 13   | 20.10  | .9132  | .2331 | -.0232 | .0268  | .0406  | .1440  |
| 14   | -14.90 | 1.0365 | .2441 | -.3243 | -.0009 | .0069  | -.1173 |
| 15   | -9.90  | 1.0607 | .2320 | -.2920 | .0129  | .0316  | -.0803 |
| 16   | -2.40  | 1.0405 | .2085 | -.1092 | -.0029 | -.0134 | .0094  |
| 17   | -14.90 | 1.0240 | .2194 | -.0478 | -.0219 | -.0277 | -.0945 |
| 18   | -9.90  | 1.0559 | .2052 | -.0767 | -.0157 | -.0251 | -.0415 |
| 19   | .10    | 1.0418 | .2089 | -.1107 | .0016  | -.0071 | .0200  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 3    | .00    | 1.0248 | .2151 | -.1145 | .0060  | .0122  | -.0150 |
| 4    | -19.90 | .9683  | .1744 | .0305  | -.0256 | -.0283 | -.2209 |
| 5    | -14.90 | 1.0371 | .1972 | -.1713 | -.0112 | .0001  | -.1652 |
| 7    | -4.90  | 1.0700 | .2046 | -.0964 | -.0065 | -.0187 | -.0176 |
| 8    | .10    | 1.0431 | .2099 | -.1111 | .0014  | -.0072 | .0200  |
| 9    | 2.60   | 1.0553 | .2066 | -.1133 | .0067  | -.0035 | .0385  |
| 10   | 5.10   | 1.0719 | .1984 | -.0974 | .0117  | .0065  | .0592  |
| 11   | 10.10  | 1.0662 | .1898 | -.0437 | .0171  | .0182  | .0913  |
| 12   | 15.10  | .9828  | .1884 | -.0242 | .0267  | .0436  | .1368  |
| 13   | 20.10  | .9132  | .1691 | .0530  | .0268  | .0366  | .2156  |
| 14   | -14.90 | 1.0365 | .2055 | -.3228 | -.0009 | .0223  | -.1764 |
| 15   | -9.90  | 1.0607 | .2147 | -.3167 | .0129  | .0406  | -.1191 |
| 16   | -2.40  | 1.0405 | .2087 | -.1060 | -.0029 | -.0125 | .0006  |
| 17   | -14.90 | 1.0240 | .1875 | -.0980 | -.0219 | -.0244 | -.1480 |
| 18   | -9.90  | 1.0559 | .1950 | -.0524 | -.0157 | -.0223 | -.0763 |
| 19   | .10    | 1.0418 | .2089 | -.1108 | .0016  | -.0071 | .0204  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 234

RUN 274 CONFIG F P B N W5 T2

| IW      | 15 DELF   | 30 DELA | 0 IHT       | - DELE      | - DELR        | - DELSB     | -             | PPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | 430.9       | 111.21      | -601.         | 38.         | 105.          | .25         | 55.37 | 129.03  | 0. |
| 3       | .0        | -20.0   | 449.4       | 123.12      | -289.         | -275.       | -1070.        | -41.25      | 55.49 | 129.18  | 0. |
| 4       | .0        | -15.0   | 479.7       | 117.88      | -330.         | -267.       | -843.         | -18.44      | 55.24 | 128.88  | 0. |
| 5       | .0        | -15.0   | 471.2       | 117.30      | -366.         | -247.       | -1024.        | -17.34      | 55.40 | 129.06  | 0. |
| 6       | .0        | -10.1   | 493.5       | 113.85      | -472.         | -209.       | -779.         | -4.47       | 55.64 | 129.35  | 0. |
| 7       | .0        | -5.0    | 501.7       | 113.34      | -567.         | -74.        | -620.         | 13.25       | 55.28 | 128.92  | 0. |
| 8       | .0        | -2.5    | 497.6       | 113.96      | -610.         | 39.         | -640.         | 18.88       | 55.57 | 129.27  | 0. |
| 9       | .0        | .0      | 498.9       | 115.18      | -636.         | 178.        | -501.         | 21.98       | 55.32 | 128.97  | 0. |
| 10      | .0        | 2.5     | 492.3       | 113.94      | -663.         | 269.        | -527.         | 26.73       | 55.81 | 129.55  | 0. |
| 11      | .0        | 5.0     | 469.4       | 113.04      | -622.         | 241.        | -135.         | 21.13       | 55.95 | 129.71  | 0. |
| 12      | .0        | 10.0    | 506.4       | 113.76      | -456.         | 240.        | 608.          | 6.15        | 55.42 | 129.09  | 0. |
| 13      | .0        | 15.0    | 453.0       | 115.84      | -415.         | 321.        | 986.          | 15.69       | 55.80 | 129.54  | 0. |
| 14      | .0        | 19.9    | 428.1       | 118.80      | -215.         | 304.        | 1045.         | 44.09       | 56.02 | 129.79  | 0. |
| 15      | .0        | 2.5     | 491.5       | 113.77      | -552.         | 41.         | 682.          | -17.06      | 56.52 | 130.38  | 0. |
| 16      | .0        | .0      | 462.7       | 115.91      | -609.         | 41.         | 395.          | -13.77      | 56.41 | 130.25  | 0. |
| 17      | .0        | .0      | 467.9       | 116.32      | -611.         | 37.         | 447.          | -13.96      | 56.37 | 130.21  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.1645 | .3006 | -.1937 | .0023  | .0063  | .0007  |
| 3    | -20.00 | 1.2147 | .3327 | -.0932 | -.0166 | -.0646 | -.1115 |
| 4    | -15.00 | 1.2964 | .3186 | -.1065 | -.0162 | -.0509 | -.0498 |
| 5    | -15.00 | 1.2734 | .3170 | -.1181 | -.0149 | -.0618 | -.0469 |
| 6    | -10.10 | 1.3338 | .3077 | -.1523 | -.0126 | -.0471 | -.0121 |
| 7    | -5.00  | 1.3560 | .3063 | -.1827 | -.0045 | -.0375 | .0358  |
| 8    | -2.50  | 1.3450 | .3080 | -.1967 | .0024  | -.0387 | .0510  |
| 9    | .00    | 1.3482 | .3113 | -.2051 | .0108  | -.0302 | .0594  |
| 10   | 2.50   | 1.3305 | .3080 | -.2138 | .0163  | -.0319 | .0722  |
| 11   | 5.00   | 1.2688 | .3055 | -.2005 | .0145  | -.0082 | .0571  |
| 12   | 10.00  | 1.3687 | .3075 | -.1470 | .0145  | .0367  | .0166  |
| 13   | 15.00  | 1.2242 | .3131 | -.1337 | .0104  | .0595  | .0424  |
| 14   | 19.90  | 1.1571 | .3211 | -.0693 | .0183  | .0631  | .1192  |
| 15   | 2.50   | 1.3284 | .3075 | -.1779 | .0025  | .0412  | -.0461 |
| 16   | .00    | 1.2504 | .3133 | -.1962 | .0024  | .0239  | -.0372 |
| 17   | .00    | 1.2645 | .3144 | -.1971 | .0022  | .0270  | -.0377 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR   | CPMB   | CYMP   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.1645 | .3006 | -.1937 | .0023  | .0063  | .0007  |
| 3    | -20.00 | 1.2147 | .2742 | .0310  | -.0166 | -.0547 | -.2190 |
| 4    | -15.00 | 1.2964 | .2947 | -.0322 | -.0162 | -.0440 | -.1309 |
| 5    | -15.00 | 1.2734 | .2939 | -.0282 | -.0149 | -.0540 | -.1277 |
| 6    | -10.10 | 1.3338 | .3088 | -.1056 | -.0126 | -.0413 | -.0661 |
| 7    | -5.00  | 1.3560 | .3083 | -.1645 | -.0045 | -.0343 | .0088  |
| 8    | -2.50  | 1.3450 | .3099 | -.1875 | .0024  | -.0370 | .0375  |
| 9    | .00    | 1.3482 | .3113 | -.2051 | .0108  | -.0302 | .0594  |
| 10   | 2.50   | 1.3305 | .3045 | -.2211 | .0163  | -.0336 | .0857  |
| 11   | 5.00   | 1.2688 | .2903 | -.2036 | .0145  | -.0114 | .0836  |
| 12   | 10.00  | 1.3687 | .2998 | -.1106 | .0145  | .0313  | .0700  |
| 13   | 15.00  | 1.2242 | .2913 | -.0465 | .0104  | .0510  | .1223  |
| 14   | 19.90  | 1.1571 | .2610 | .0509  | .0183  | .0549  | .2217  |
| 15   | 2.50   | 1.3284 | .3092 | -.1681 | .0025  | .0397  | -.0326 |
| 16   | .00    | 1.2504 | .3133 | -.1962 | .0024  | .0239  | -.0372 |
| 17   | .00    | 1.2645 | .3144 | -.1971 | .0022  | .0270  | -.0377 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P. 235

RUN 275 CONFIG F P B N W5 T2

| IW      | 15 DELF   | 30 DELA | 0 IHT       | - DELE      | - DELR        | - DELSB      | -            | -           | -     | RPM     |    |
|---------|-----------|---------|-------------|-------------|---------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | 425.8       | 111.99      | -621.         | 51.          | 70.          | -.37        | 55.57 | 129.27  | 0. |
| 3       | .0        | -20.0   | 444.0       | 123.40      | -273.         | -277.        | -974.        | -39.66      | 55.49 | 129.17  | 0. |
| 4       | .0        | -15.0   | 473.6       | 117.82      | -380.         | -244.        | -881.        | -19.47      | 55.30 | 128.94  | 0. |
| 5       | .0        | -10.0   | 496.3       | 120.64      | -983.         | 98.          | -113.        | -11.70      | 55.33 | 128.98  | 0. |
| 6       | .0        | -10.0   | 489.2       | 113.68      | -531.         | -180.        | -886.        | -3.90       | 55.10 | 128.70  | 0. |
| 7       | .0        | -5.1    | 500.6       | 113.30      | -577.         | -74.         | -614.        | 11.46       | 55.29 | 128.93  | 0. |
| 8       | .0        | -2.5    | 495.4       | 114.28      | -616.         | 41.          | -693.        | 17.95       | 55.42 | 129.09  | 0. |
| 9       | .0        | .0      | 504.3       | 115.26      | -632.         | 166.         | -410.        | 19.82       | 55.33 | 128.98  | 0. |
| 10      | .0        | 2.5     | 493.5       | 114.11      | -656.         | 274.         | -477.        | 25.67       | 55.46 | 129.14  | 0. |
| 11      | .0        | 5.0     | 475.6       | 113.44      | -630.         | 254.         | -135.        | 20.22       | 54.91 | 128.48  | 0. |
| 12      | .0        | 2.5     | 471.2       | 113.58      | -608.         | 197.         | -232.        | 14.50       | 55.22 | 128.85  | 0. |
| 13      | .0        | 10.0    | 480.3       | 112.84      | -434.         | 254.         | 842.         | .68         | 55.35 | 129.01  | 0. |
| 14      | .0        | 15.0    | 454.9       | 115.26      | -326.         | 306.         | 928.         | 17.16       | 55.19 | 128.81  | 0. |
| 15      | .0        | 20.0    | 425.8       | 118.31      | -228.         | 314.         | 1036.        | 44.70       | 55.71 | 129.43  | 0. |
| 16      | .0        | .0      | 471.5       | 117.23      | -638.         | 48.          | 421.         | -13.53      | 55.12 | 128.74  | 0. |
| 17      | .0        | 2.5     | 493.4       | 114.38      | -606.         | 56.          | 694.         | -18.70      | 55.74 | 129.47  | 0. |
| 18      | .0        | 5.0     | 491.9       | 113.23      | -549.         | 140.         | 723.         | -12.91      | 55.40 | 129.07  | 0. |
| 19      | .0        | .0      | 499.9       | 116.23      | -624.         | -52.         | 658.         | -21.84      | 55.36 | 129.01  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.1508 | .3027 | -.2001 | .0031  | .0042  | -.0010 |
| 3    | -20.00 | 1.1999 | .3335 | -.0880 | -.0167 | -.0589 | -.1072 |
| 4    | -15.00 | 1.2800 | .3184 | -.1223 | -.0147 | -.0532 | -.0526 |
| 5    | -10.00 | 1.3413 | .3261 | -.3168 | .0059  | -.0068 | -.0316 |
| 6    | -10.00 | 1.3222 | .3072 | -.1709 | -.0109 | -.0535 | -.0105 |
| 7    | -5.10  | 1.3529 | .3062 | -.1859 | -.0045 | -.0371 | .0310  |
| 8    | -2.50  | 1.3390 | .3089 | -.1985 | .0025  | -.0419 | .0485  |
| 9    | .00    | 1.3629 | .3115 | -.2037 | .0100  | -.0248 | .0536  |
| 10   | 2.50   | 1.3338 | .3084 | -.2114 | .0165  | -.0288 | .0694  |
| 11   | 5.00   | 1.2854 | .3066 | -.2031 | .0154  | -.0082 | .0547  |
| 12   | 2.50   | 1.2736 | .3070 | -.1960 | .0119  | -.0140 | .0392  |
| 13   | 10.00  | 1.2980 | .3050 | -.1400 | .0153  | .0509  | .0018  |
| 14   | 15.00  | 1.2295 | .3115 | -.1050 | .0185  | .0560  | .0464  |
| 15   | 20.00  | 1.1507 | .3198 | -.0736 | .0190  | .0626  | .1208  |
| 16   | .00    | 1.2742 | .3168 | -.2057 | .0029  | .0255  | -.0366 |
| 17   | 2.50   | 1.3334 | .3091 | -.1953 | .0034  | .0419  | -.0505 |
| 18   | 5.00   | 1.3295 | .3060 | -.1771 | .0084  | .0437  | -.0349 |
| 19   | .00    | 1.3511 | .3141 | -.2013 | -.0031 | .0397  | -.0590 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.1508 | .3027 | -.2001 | .0031  | .0042  | -.0010 |
| 3    | -20.00 | 1.1999 | .2764 | -.0253 | -.0167 | -.0496 | -.2152 |
| 4    | -15.00 | 1.2800 | .2938 | -.0443 | -.0147 | -.0454 | -.1336 |
| 5    | -10.00 | 1.3413 | .3156 | -.3056 | .0059  | .0036  | -.0880 |
| 6    | -10.00 | 1.3222 | .3007 | -.1185 | -.0109 | -.0471 | -.0640 |
| 7    | -5.10  | 1.3529 | .3078 | -.1674 | -.0045 | -.0338 | .0035  |
| 8    | -2.50  | 1.3390 | .3107 | -.1885 | .0025  | -.0402 | .0349  |
| 9    | .00    | 1.3629 | .3115 | -.2037 | .0100  | -.0248 | .0536  |
| 10   | 2.50   | 1.3338 | .3051 | -.2179 | .0165  | -.0305 | .0828  |
| 11   | 5.00   | 1.2854 | .3006 | -.2061 | .0154  | -.0115 | .0813  |
| 12   | 2.50   | 1.2736 | .3050 | -.1991 | .0119  | -.0156 | .0526  |
| 13   | 10.00  | 1.2980 | .3090 | -.0905 | .0153  | .0455  | .0550  |
| 14   | 15.00  | 1.2295 | .2897 | -.0236 | .0185  | .0490  | .1258  |
| 15   | 20.00  | 1.1507 | .2588 | .0457  | .0190  | .0541  | .2233  |
| 16   | .00    | 1.2742 | .3168 | -.2057 | .0029  | .0255  | -.0366 |
| 17   | 2.50   | 1.3334 | .3110 | -.1853 | .0034  | .0403  | -.0360 |
| 18   | 5.00   | 1.3295 | .3079 | -.1560 | .0034  | .0406  | -.0090 |
| 19   | .00    | 1.3511 | .3141 | -.2013 | -.0031 | .0397  | -.0590 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 236

RUN 276 CONFIG F P R N W5 T2

| IW      | 15 DELF   | 30 DELA | 0 IHT       | - DELE      | - DELR       | - DFLSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | 432.0       | 113.62      | -643.        | 50.          | 17.          | .44         | 54.68 | 128.22  | 0. |
| 3       | .0        | -20.0   | 449.2       | 124.49      | -257.        | -270.        | -987.        | -40.34      | 55.40 | 129.07  | 0. |
| 4       | .0        | -15.1   | 476.3       | 119.00      | -365.        | -266.        | -909.        | -21.61      | 55.18 | 128.81  | 0. |
| 5       | .0        | -10.1   | 494.5       | 113.89      | -513.        | -181.        | -746.        | -.55        | 55.78 | 129.51  | 0. |
| 6       | .0        | -5.0    | 505.1       | 114.24      | -560.        | -75.         | -580.        | 11.73       | 55.48 | 129.16  | 0. |
| 7       | .0        | -2.5    | 499.1       | 115.05      | -608.        | 47.          | -618.        | 16.77       | 55.66 | 129.38  | 0. |
| 8       | .0        | .0      | 501.2       | 115.36      | -633.        | 165.         | -461.        | 18.77       | 55.34 | 129.00  | 0. |
| 9       | .0        | 2.5     | 494.1       | 114.39      | -648.        | 275.         | -529.        | 25.05       | 55.34 | 128.99  | 0. |
| 10      | .0        | -2.5    | 499.9       | 114.76      | -598.        | 45.          | -551.        | 16.60       | 55.39 | 129.06  | 0. |
| 11      | .0        | .0      | 499.8       | 115.92      | -632.        | 186.         | -538.        | 22.00       | 55.13 | 128.75  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.1676 | .3071 | -.2074 | .0030  | .0010  | .0012  |
| 3    | -20.00 | 1.2141 | .3365 | -.0828 | -.0163 | -.0596 | -.1090 |
| 4    | -15.10 | 1.2873 | .3216 | -.1176 | -.0161 | -.0549 | -.0584 |
| 5    | -10.10 | 1.3364 | .3078 | -.1655 | -.0109 | -.0451 | -.0015 |
| 6    | -5.00  | 1.3651 | .3088 | -.1805 | -.0045 | -.0350 | .0317  |
| 7    | -2.50  | 1.3489 | .3110 | -.1961 | .0028  | -.0374 | .0453  |
| 8    | .00    | 1.3547 | .3118 | -.2039 | .0100  | -.0279 | .0507  |
| 9    | 2.50   | 1.3355 | .3092 | -.2089 | .0166  | -.0320 | .0677  |
| 10   | -2.50  | 1.3512 | .3102 | -.1928 | .0027  | -.0333 | .0449  |
| 11   | .00    | 1.3508 | .3133 | -.2037 | .0112  | -.0325 | .0595  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR   | CPMB   | CYMR   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.1676 | .3071 | -.2074 | .0030  | .0010  | .0012  |
| 3    | -20.00 | 1.2141 | .2785 | .0316  | -.0163 | -.0507 | -.2180 |
| 4    | -15.10 | 1.2873 | .2951 | -.0368 | -.0161 | -.0473 | -.1405 |
| 5    | -10.10 | 1.3364 | .3027 | -.1206 | -.0109 | -.0389 | -.0557 |
| 6    | -5.00  | 1.3651 | .3104 | -.1635 | -.0045 | -.0319 | .0045  |
| 7    | -2.50  | 1.3489 | .3126 | -.1872 | .0028  | -.0357 | .0317  |
| 8    | .00    | 1.3547 | .3118 | -.2039 | .0100  | -.0279 | .0507  |
| 9    | 2.50   | 1.3355 | .3059 | -.2162 | .0166  | -.0337 | .0812  |
| 10   | -2.50  | 1.3512 | .3118 | -.1848 | .0027  | -.0317 | .0312  |
| 11   | .00    | 1.3508 | .3133 | -.2037 | .0112  | -.0325 | .0595  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P. 237

RUN 277 CONFIG F P B N W5 T2

| PT. NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | DELE<br>CDBAR<br>SQ-FT | DELR<br>CPMBAR<br>CU-FT | DFLSR<br>CYMBAR<br>CU-FT | PSF    | V<br>KNOTS | RPM   |        |    |
|---------|-------------------------|-----------------------|-------------------------|------------------------|-------------------------|--------------------------|--------|------------|-------|--------|----|
| 2       | .0                      | .0                    | 431.3                   | 112.86                 | -622.                   | 39.                      | 19.    | -86        | 55.24 | 128.88 | 0. |
| 3       | .0                      | -20.1                 | 452.4                   | 123.63                 | -260.                   | -308.                    | -1048. | -45.31     | 55.79 | 129.53 | 0. |
| 4       | .0                      | -15.0                 | 471.4                   | 258.52                 | -513.                   | 9392.                    | -902.  | -17.25     | 56.07 | 129.86 | 0. |
| 5       | .0                      | -15.1                 | 475.4                   | 117.92                 | -334.                   | -256.                    | -931.  | -20.01     | 55.84 | 129.59 | 0. |
| 6       | .0                      | -10.0                 | 501.5                   | 114.31                 | -479.                   | -197.                    | -761.  | -3.24      | 55.75 | 129.49 | 0. |
| 7       | .0                      | -5.0                  | 502.6                   | 113.32                 | -569.                   | -40.                     | -580.  | 14.60      | 55.78 | 129.52 | 0. |
| 8       | .0                      | -2.5                  | 504.5                   | 116.01                 | -620.                   | 48.                      | -590.  | 17.01      | 55.08 | 128.69 | 0. |
| 9       | .0                      | .0                    | 500.2                   | 116.18                 | -664.                   | 189.                     | -540.  | 21.61      | 54.85 | 128.42 | 0. |
| 10      | .0                      | 2.5                   | 500.9                   | 115.35                 | -664.                   | 282.                     | -392.  | 26.22      | 55.35 | 129.01 | 0. |
| 11      | .0                      | 5.0                   | 475.7                   | 113.54                 | -643.                   | 255.                     | -134.  | 19.21      | 55.32 | 128.98 | 0. |
| 12      | .0                      | 5.0                   | 543.7                   | 116.12                 | -602.                   | 173.                     | 345.   | -1.42      | 55.19 | 128.82 | 0. |
| 13      | .0                      | 10.1                  | 484.9                   | 114.88                 | -484.                   | 262.                     | 859.   | -1.11      | 55.19 | 128.82 | 0. |
| 14      | .0                      | 15.0                  | 453.9                   | 116.32                 | -389.                   | 312.                     | 975.   | 15.96      | 55.51 | 129.19 | 0. |
| 15      | .0                      | 20.0                  | 435.3                   | 121.75                 | -275.                   | 328.                     | 1101.  | 45.84      | 55.43 | 129.11 | 0. |
| 16      | .0                      | 2.5                   | 507.2                   | 117.21                 | -614.                   | 69.                      | 708.   | -17.79     | 55.71 | 129.43 | 0. |
| 17      | .0                      | .0                    | 515.7                   | 119.18                 | -650.                   | -42.                     | 694.   | -22.90     | 55.34 | 129.01 | 0. |
| 18      | .0                      | .0                    | 501.2                   | 116.94                 | -639.                   | -29.                     | 652.   | -22.70     | 55.98 | 129.76 | 0. |
| 19      | .0                      | -2.6                  | 472.9                   | 118.09                 | -640.                   | -54.                     | 417.   | -19.44     | 56.08 | 129.87 | 0. |
| 20      | .0                      | -5.0                  | 472.0                   | 116.81                 | -620.                   | -121.                    | 253.   | -20.09     | 56.11 | 129.91 | 0. |
| 21      | .0                      | -10.0                 | 496.9                   | 114.78                 | -457.                   | -187.                    | -869.  | -1.59      | 55.77 | 129.51 | 0. |
| 22      | .0                      | .0                    | 497.4                   | 115.63                 | -660.                   | 190.                     | -562.  | 21.18      | 56.14 | 129.94 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.1657 | .3050 | -.2005 | .0024  | .0011  | -.0023 |
| 3    | -20.10 | 1.2227 | .3341 | -.0837 | -.0186 | -.0633 | -.1225 |
| 4    | -15.00 | 1.2741 | .6987 | -.1654 | .5673  | -.0545 | -.0466 |
| 5    | -15.10 | 1.2848 | .3187 | -.1076 | -.0155 | -.0562 | -.0541 |
| 6    | -10.00 | 1.3553 | .3089 | -.1545 | -.0119 | -.0459 | -.0088 |
| 7    | -5.00  | 1.3583 | .3063 | -.1834 | -.0024 | -.0350 | .0394  |
| 8    | -2.50  | 1.3635 | .3135 | -.2000 | .0029  | -.0356 | .0460  |
| 9    | .00    | 1.3520 | .3140 | -.2141 | .0114  | -.0326 | .0584  |
| 10   | 2.50   | 1.3539 | .3118 | -.2141 | .0170  | -.0237 | .0709  |
| 11   | 5.00   | 1.2857 | .3069 | -.2074 | .0154  | -.0081 | .0519  |
| 12   | 5.00   | 1.4696 | .3138 | -.1940 | .0104  | .0208  | -.0038 |
| 13   | 10.10  | 1.3105 | .3105 | -.1562 | .0158  | -.0519 | -.0030 |
| 14   | 15.00  | 1.2266 | .3144 | -.1254 | .0188  | .0589  | .0431  |
| 15   | 20.00  | 1.1765 | .3291 | -.0887 | .0198  | .0665  | .1239  |
| 16   | 2.50   | 1.3708 | .3168 | -.1978 | .0042  | .0428  | -.0481 |
| 17   | .00    | 1.3937 | .3221 | -.2094 | -.0025 | .0419  | -.0619 |
| 18   | .00    | 1.3547 | .3161 | -.2060 | -.0017 | .0394  | -.0613 |
| 19   | -2.60  | 1.2782 | .3191 | -.2062 | -.0033 | .0252  | -.0525 |
| 20   | -5.00  | 1.2756 | .3157 | -.1998 | -.0073 | .0153  | -.0543 |
| 21   | -10.00 | 1.3431 | .3102 | -.1472 | -.0113 | -.0525 | -.0043 |
| 22   | .00    | .0000  | .0000 | .0000  | .0000  | .0000  | .0000  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.1657 | .3050 | -.2005 | .0024  | .0011  | -.0023 |
| 3    | -20.10 | 1.2227 | .2713 | .0381  | -.0186 | -.0540 | -.2303 |
| 4    | -15.00 | 1.2741 | .6626 | -.0842 | .5673  | -.0445 | -.2267 |
| 5    | -15.10 | 1.2848 | .2934 | -.0254 | -.0155 | -.0490 | -.1356 |
| 6    | -10.00 | 1.3553 | .3027 | -.1093 | -.0119 | -.0402 | -.0625 |
| 7    | -5.00  | 1.3583 | .3085 | -.1663 | -.0024 | -.0319 | .0125  |
| 8    | -2.50  | 1.3635 | .3153 | -.1915 | .0029  | -.0340 | .0322  |
| 9    | .00    | 1.3520 | .3140 | -.2141 | .0114  | -.0326 | .0584  |
| 10   | 2.50   | 1.3539 | .3084 | -.2195 | .0170  | -.0254 | .0845  |
| 11   | 5.00   | 1.2857 | .3011 | -.2194 | .0154  | -.0115 | .0796  |
| 12   | 5.00   | 1.4696 | .3130 | -.1836 | .0104  | .0175  | .0237  |
| 13   | 10.10  | 1.3105 | .3061 | -.1049 | .0158  | .0459  | .0517  |
| 14   | 15.00  | 1.2266 | .2923 | -.0393 | .0188  | .0508  | .1234  |
| 15   | 20.00  | 1.1765 | .2665 | .0396  | .0198  | .0568  | .2294  |
| 16   | 2.50   | 1.3708 | .3186 | -.1872 | .0042  | .0411  | -.0342 |
| 17   | .00    | 1.3937 | .3221 | -.2094 | -.0025 | .0419  | -.0619 |
| 18   | .00    | 1.3547 | .3161 | -.2050 | -.0017 | .0394  | -.0613 |
| 19   | -2.60  | 1.2782 | .3164 | -.2121 | -.0033 | .0252  | -.0670 |
| 20   | -5.00  | 1.2756 | .3077 | -.2062 | -.0073 | .0185  | -.0817 |
| 21   | -10.00 | 1.3431 | .3047 | -.0961 | -.0113 | -.0469 | -.0593 |
| 22   | .00    | .0000  | .0000 | .0000  | .0000  | .0000  | .0000  |

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OF POOR QUALITY

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AEROODYNAMIC DATA

SER-72011  
P 238

RUN 278 CONFIG F P B N W5 T2

| IW      | 15 DELF   | 30 DELA | 0 IHT       | - DELE      | - DELR       | - DFLSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | 437.3       | 113.51      | -611.        | 52.          | 104.         | .80         | 55.32 | 128.98  | 0. |
| 3       | -20.0     | .0      | 57.1        | 75.16       | -1451.       | 129.         | -72.         | .98         | 55.88 | 129.64  | 0. |
| 4       | -14.9     | .0      | 201.0       | 71.63       | -1574.       | 106.         | -17.         | -.43        | 55.58 | 129.29  | 0. |
| 5       | -10.1     | .0      | 336.7       | 79.77       | -1346.       | 94.          | 37.          | -.87        | 55.08 | 128.70  | 0. |
| 6       | -5.0      | .0      | 468.1       | 96.86       | -1041.       | 82.          | 113.         | -4.51       | 55.11 | 128.72  | 0. |
| 7       | .0        | .0      | 542.2       | 119.89      | -636.        | 189.         | -97.         | 6.81        | 55.06 | 128.67  | 0. |
| 8       | 2.4       | .0      | 546.0       | 132.00      | -424.        | 120.         | 125.         | -1.54       | 55.14 | 128.76  | 0. |
| 9       | 4.9       | .0      | 500.4       | 142.41      | -323.        | 51.          | -801.        | 8.30        | 54.99 | 128.58  | 0. |
| 10      | 9.9       | .0      | 379.9       | 183.79      | -173.        | 142.         | 248.         | -2.96       | 55.18 | 128.81  | 0. |
| 11      | 14.9      | .0      | 415.3       | 241.29      | 20.          | 25.          | -70.         | -1.80       | 54.84 | 128.40  | 0. |
| 12      | 20.0      | .0      | 421.3       | 298.35      | 201.         | 71.          | -72.         | -2.31       | 54.49 | 127.98  | 0. |
| 13      | -.0       | .0      | 540.5       | 119.89      | -644.        | 200.         | -77.         | 5.68        | 55.21 | 128.84  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|------|--------|--------|-------|--------|-------|--------|--------|
| 2    | .00    | 1.1820 | .3068 | -.1970 | .0032 | .0063  | .0022  |
| 3    | -20.01 | .1544  | .2031 | -.4677 | .0078 | -.0043 | .0026  |
| 4    | -14.94 | .5432  | .1936 | -.5074 | .0064 | -.0010 | -.0012 |
| 5    | -10.07 | .9100  | .2156 | -.4339 | .0057 | .0022  | -.0023 |
| 6    | -5.05  | 1.2652 | .2618 | -.3355 | .0049 | .0068  | -.0122 |
| 7    | .04    | 1.4654 | .3240 | -.2052 | .0114 | -.0058 | .0184  |
| 8    | 2.44   | 1.4758 | .3567 | -.1367 | .0073 | .0075  | -.0042 |
| 9    | 4.95   | 1.3525 | .3849 | -.1041 | .0031 | -.0484 | .0224  |
| 10   | 9.92   | 1.0267 | .4967 | -.0557 | .0086 | .0150  | -.0080 |
| 11   | 14.94  | 1.1224 | .6521 | .0066  | .0015 | -.0042 | -.0049 |
| 12   | 20.01  | 1.1386 | .8063 | .0648  | .0043 | -.0043 | -.0063 |
| 13   | -.05   | 1.4609 | .3240 | -.2075 | .0121 | -.0047 | .0153  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLH    | CDB   | CPMB   | CYMP  | CRMB   | CYB    |
|------|--------|--------|-------|--------|-------|--------|--------|
| 2    | .00    | 1.1820 | .3068 | -.1970 | .0032 | .0063  | .0022  |
| 3    | -20.01 | .1544  | .2031 | -.4677 | .0078 | -.0043 | .0026  |
| 4    | -14.94 | .5432  | .1936 | -.5074 | .0064 | -.0010 | -.0012 |
| 5    | -10.07 | .9100  | .2156 | -.4339 | .0057 | .0022  | -.0023 |
| 6    | -5.05  | 1.2652 | .2618 | -.3355 | .0049 | .0068  | -.0122 |
| 7    | .04    | 1.4654 | .3240 | -.2052 | .0114 | -.0058 | .0184  |
| 8    | 2.44   | 1.4758 | .3567 | -.1367 | .0073 | .0075  | -.0042 |
| 9    | 4.95   | 1.3525 | .3849 | -.1041 | .0031 | -.0484 | .0224  |
| 10   | 9.92   | 1.0267 | .4967 | -.0557 | .0086 | .0150  | -.0080 |
| 11   | 14.94  | 1.1224 | .6521 | .0066  | .0015 | -.0042 | -.0049 |
| 12   | 20.01  | 1.1386 | .8063 | .0648  | .0043 | -.0043 | -.0063 |
| 13   | -.05   | 1.4609 | .3240 | -.2075 | .0121 | -.0047 | .0153  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SF

RUN 279 CONFIG F P B N W5 T2

| IW<br>PT.<br>NO. | 10 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 IHT<br>CPMBAR<br>CU-FT | - DELE<br>CYMBAR<br>CU-FT | - DELR<br>CRMBAR<br>CU-FT | - DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM |
|------------------|-------------------------|----------------------|-------------------------|-------------------------|--------------------------|---------------------------|---------------------------|---------------------------|----------|------------|-----|
| 2                | .0                      | .0                   | 274.2                   | 42.20                   | -184.                    | 63.                       | 34.                       | .93                       | 54.80    | 128.37     | 0.  |
| 3                | -20.0                   | .0                   | -188.5                  | 65.47                   | -873.                    | 57.                       | -91.                      | 8.71                      | 54.75    | 128.31     | 0.  |
| 4                | -15.0                   | .0                   | -103.0                  | 41.71                   | -781.                    | 68.                       | -42.                      | 2.82                      | 54.29    | 127.71     | 0.  |
| 5                | -10.0                   | .0                   | 11.7                    | 28.30                   | -760.                    | 77.                       | -24.                      | 3.42                      | 53.75    | 127.12     | 0.  |
| 6                | -5.0                    | .0                   | 149.6                   | 30.50                   | -491.                    | 77.                       | -6.                       | 4.12                      | 54.55    | 128.06     | 0.  |
| 7                | -.0                     | .0                   | 272.4                   | 41.80                   | -181.                    | 73.                       | 31.                       | 3.59                      | 55.02    | 128.63     | 0.  |
| 8                | 2.5                     | .0                   | 323.7                   | 54.01                   | -51.                     | 95.                       | 17.                       | 1.13                      | 54.49    | 128.00     | 0.  |
| 9                | 5.1                     | .0                   | 354.3                   | 65.55                   | 94.                      | 78.                       | 142.                      | -2.03                     | 55.50    | 129.20     | 0.  |
| 10               | 10.1                    | .0                   | 390.1                   | 95.60                   | 323.                     | 32.                       | -140.                     | .18                       | 55.42    | 129.10     | 0.  |
| 11               | 15.0                    | .0                   | 408.2                   | 157.71                  | 442.                     | -80.                      | -332.                     | -1.78                     | 55.36    | 129.02     | 0.  |
| 12               | 20.0                    | .0                   | 413.9                   | 203.21                  | 629.                     | 61.                       | -209.                     | 3.75                      | 55.42    | 129.09     | 0.  |
| 13               | 24.0                    | .0                   | 423.2                   | 250.96                  | 774.                     | 122.                      | -193.                     | -.74                      | 55.44    | 129.12     | 0.  |
| 14               | .0                      | .0                   | 271.6                   | 42.46                   | -184.                    | 74.                       | -39.                      | 2.99                      | 54.66    | 128.20     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .7411  | .1141 | -.0594 | .0038  | .0021  | .0025  |
| 3    | -20.03 | -.5095 | .1769 | -.2815 | .0034  | -.0055 | .0235  |
| 4    | -14.99 | -.2782 | .1127 | -.2518 | .0041  | -.0025 | .0076  |
| 5    | -10.00 | .0317  | .0765 | -.2452 | .0046  | -.0015 | .0092  |
| 6    | -4.98  | .4042  | .0824 | -.1582 | .0046  | -.0004 | .0111  |
| 7    | -.03   | .7362  | .1130 | -.0583 | .0044  | .0019  | .0097  |
| 8    | 2.53   | .8748  | .1460 | -.0165 | .0057  | .0010  | .0030  |
| 9    | 5.07   | .9575  | .1772 | .0303  | .0047  | .0085  | -.0055 |
| 10   | 10.05  | 1.0542 | .2584 | .1042  | .0019  | -.0085 | .0005  |
| 11   | 14.98  | 1.1034 | .4262 | .1426  | -.0048 | -.0201 | -.0048 |
| 12   | 20.03  | 1.1186 | .5492 | .2027  | .0037  | -.0126 | .0101  |
| 13   | 23.97  | 1.1438 | .6783 | .2496  | .0074  | -.0116 | -.0020 |
| 14   | .02    | .7340  | .1147 | -.0595 | .0045  | -.0024 | .0081  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .7411  | .1141 | -.0594 | .0038  | .0021  | .0025  |
| 3    | -20.03 | -.5095 | .1769 | -.2815 | .0034  | -.0055 | .0235  |
| 4    | -14.99 | -.2782 | .1127 | -.2518 | .0041  | -.0025 | .0076  |
| 5    | -10.00 | .0317  | .0765 | -.2452 | .0046  | -.0015 | .0092  |
| 6    | -4.98  | .4042  | .0824 | -.1582 | .0046  | -.0004 | .0111  |
| 7    | -.03   | .7362  | .1130 | -.0583 | .0044  | .0019  | .0097  |
| 8    | 2.53   | .8748  | .1460 | -.0165 | .0057  | .0010  | .0030  |
| 9    | 5.07   | .9575  | .1772 | .0303  | .0047  | .0085  | -.0055 |
| 10   | 10.05  | 1.0542 | .2584 | .1042  | .0019  | -.0085 | .0005  |
| 11   | 14.98  | 1.1034 | .4262 | .1426  | -.0048 | -.0201 | -.0048 |
| 12   | 20.03  | 1.1186 | .5492 | .2027  | .0037  | -.0126 | .0101  |
| 13   | 23.97  | 1.1438 | .6783 | .2496  | .0074  | -.0116 | -.0020 |
| 14   | .02    | .7340  | .1147 | -.0595 | .0045  | -.0024 | .0081  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 280 CONFIG F P B N W5 T2

| IW      | 10 DELF   | 0 DELA  | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 1       | .0        | .0      | 271.9       | 42.51       | -186.        | 75.          | -4.          | 3.36        | 54.74 | 128.29  | 0. |
| 2       | .0        | -20.0   | 270.9       | 62.40       | -137.        | -526.        | 42.          | -87.61      | 55.33 | 128.99  | 0. |
| 3       | .0        | -15.0   | 270.8       | 50.97       | -129.        | -407.        | -38.         | -61.55      | 55.01 | 128.62  | 0. |
| 4       | .0        | -10.0   | 269.6       | 44.81       | -135.        | -265.        | -15.         | -37.74      | 54.70 | 128.24  | 0. |
| 5       | .0        | -5.0    | 274.1       | 42.60       | -164.        | -122.        | 11.          | -15.93      | 55.19 | 128.82  | 0. |
| 6       | .0        | -2.5    | 271.1       | 42.16       | -177.        | -28.         | -33.         | -6.45       | 55.45 | 129.14  | 0. |
| 7       | .0        | .0      | 274.6       | 42.10       | -192.        | 65.          | 15.          | 2.29        | 54.96 | 128.55  | 0. |
| 8       | .0        | 2.5     | 274.7       | 41.98       | -192.        | 151.         | 67.          | 10.63       | 55.10 | 128.72  | 0. |
| 9       | .0        | 5.0     | 274.6       | 42.70       | -201.        | 241.         | 68.          | 20.47       | 55.08 | 128.69  | 0. |
| 10      | .0        | 10.0    | 261.1       | 44.41       | -180.        | 374.         | 110.         | 38.33       | 55.10 | 128.72  | 0. |
| 11      | .0        | 15.0    | 264.9       | 51.07       | -221.        | 512.         | 83.          | 62.78       | 55.02 | 128.62  | 0. |
| 12      | .0        | 20.0    | 245.9       | 60.89       | -199.        | 609.         | 82.          | 84.11       | 55.20 | 128.84  | 0. |
| 13      | .0        | .0      | 276.2       | 42.54       | -180.        | 62.          | 67.          | 2.61        | 54.92 | 128.50  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 1    | .00    | .7348 | .1149 | -.0600 | .0045  | -.0003 | .0091  |
| 2    | -20.00 | .7323 | .1687 | -.0443 | -.0318 | .0025  | -.2368 |
| 3    | -15.00 | .7320 | .1378 | -.0415 | -.0246 | -.0023 | -.1663 |
| 4    | -10.00 | .7286 | .1211 | -.0435 | -.0160 | -.0009 | -.1020 |
| 5    | -5.00  | .7409 | .1151 | -.0528 | -.0074 | .0007  | -.0430 |
| 6    | -2.50  | .7326 | .1139 | -.0571 | -.0017 | -.0020 | -.0174 |
| 7    | .00    | .7421 | .1138 | -.0618 | .0039  | .0009  | .0062  |
| 8    | 2.50   | .7423 | .1135 | -.0618 | .0091  | .0040  | .0287  |
| 9    | 5.00   | .7423 | .1154 | -.0649 | .0146  | .0041  | .0553  |
| 10   | 10.00  | .7056 | .1200 | -.0580 | .0226  | .0067  | .1036  |
| 11   | 15.00  | .7159 | .1380 | -.0712 | .0309  | .0050  | .1697  |
| 12   | 20.00  | .6645 | .1646 | -.0643 | .0368  | .0050  | .2273  |
| 13   | .00    | .7465 | .1150 | -.0582 | .0037  | .0041  | .0070  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 1    | .00    | .7348 | .1149 | -.0600 | .0045  | -.0003 | .0091  |
| 2    | -20.00 | .7323 | .0771 | -.0462 | -.0318 | .0052  | -.2803 |
| 3    | -15.00 | .7320 | .0898 | -.0369 | -.0246 | -.0002 | -.1964 |
| 4    | -10.00 | .7286 | .1014 | -.0420 | -.0160 | .0005  | -.1216 |
| 5    | -5.00  | .7409 | .1109 | -.0529 | -.0074 | .0015  | -.0530 |
| 6    | -2.50  | .7326 | .1131 | -.0566 | -.0017 | -.0015 | -.0224 |
| 7    | .00    | .7421 | .1138 | -.0618 | .0039  | .0009  | .0062  |
| 8    | 2.50   | .7423 | .1121 | -.0608 | .0091  | .0035  | .0337  |
| 9    | 5.00   | .7423 | .1101 | -.0627 | .0146  | .0030  | .0652  |
| 10   | 10.00  | .7056 | .1001 | -.0509 | .0226  | .0047  | .1229  |
| 11   | 15.00  | .7159 | .0892 | -.0618 | .0309  | .0014  | .1997  |
| 12   | 20.00  | .6645 | .0765 | -.0513 | .0368  | .0005  | .2700  |
| 13   | .00    | .7465 | .1150 | -.0582 | .0037  | .0041  | .0070  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 281 CONFIG F P B N W5 T2

| PT. NO. | IW ALPHA DEG | 15 DELF PSI DEG | 30 DELA CLBAR SQ-FT | 0 IHT CDBAR SQ-FT | CPM BAR CU-FT | - DELE CYM BAR CU-FT | - DELR CRM BAR CU-FT | - DELSB CYB BAR SQ-FT | Q PSF | - V KNOTS | RPM |
|---------|--------------|-----------------|---------------------|-------------------|---------------|----------------------|----------------------|-----------------------|-------|-----------|-----|
| 2       | .0           | .0              | 502.0               | 116.67            | -640.         | 156.                 | -505.                | 24.13                 | 55.20 | 128.83    | 0.  |
| 3       | -20.0        | .0              | 65.0                | 74.75             | -1448.        | 108.                 | -4.                  | 1.66                  | 55.43 | 129.11    | 0.  |
| 4       | -15.0        | .0              | 208.1               | 72.04             | -1577.        | 72.                  | 15.                  | 1.36                  | 54.99 | 128.59    | 0.  |
| 5       | -10.1        | .0              | 345.8               | 80.71             | -1355.        | 48.                  | 45.                  | 4.46                  | 54.95 | 128.53    | 0.  |
| 6       | -5.0         | .0              | 482.4               | 99.08             | -1037.        | 40.                  | 52.                  | .94                   | 54.54 | 128.05    | 0.  |
| 7       | .0           | .0              | 552.0               | 122.66            | -633.         | 166.                 | -81.                 | 8.49                  | 54.96 | 128.55    | 0.  |
| 8       | 2.6          | .0              | 533.3               | 134.61            | -396.         | 53.                  | 106.                 | -1.17                 | 55.48 | 129.16    | 0.  |
| 9       | 5.0          | .0              | 490.7               | 145.99            | -233.         | -10.                 | 856.                 | -16.20                | 55.31 | 128.97    | 0.  |
| 10      | 10.0         | .0              | 380.2               | 185.26            | -157.         | 100.                 | 349.                 | -5.83                 | 56.07 | 129.87    | 0.  |
| 11      | -2.5         | .0              | 530.9               | 109.08            | -846.         | 41.                  | 141.                 | -.56                  | 55.24 | 128.88    | 0.  |
| 12      | .0           | .0              | 546.0               | 121.89            | -644.         | 164.                 | -115.                | 7.52                  | 55.25 | 128.90    | 0.  |
| 13      | .0           | .0              | 547.9               | 121.97            | -643.         | 164.                 | -118.                | 8.31                  | 54.11 | 127.53    | 0.  |
| 14      | .0           | .0              | 544.7               | 121.37            | -635.         | 178.                 | -119.                | 9.04                  | 53.87 | 127.25    | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.3567 | .3153 | -.2062 | .0094  | -.0305 | .0652  |
| 3    | -20.01 | .1758  | .2020 | -.4667 | .0065  | -.0002 | .0045  |
| 4    | -14.98 | .5624  | .1947 | -.5083 | .0043  | .0009  | .0037  |
| 5    | -10.09 | .9346  | .2181 | -.4368 | .0029  | .0027  | .0121  |
| 6    | -4.98  | 1.3037 | .2678 | -.3345 | .0024  | .0031  | .0025  |
| 7    | .03    | 1.4918 | .3315 | -.2041 | .0100  | -.0049 | .0229  |
| 8    | 2.57   | 1.4413 | .3638 | -.1276 | .0032  | .0064  | -.0032 |
| 9    | 4.96   | 1.3261 | .3946 | -.0752 | -.0006 | .0517  | -.0438 |
| 10   | 10.00  | 1.0275 | .5007 | -.0506 | .0060  | .0211  | -.0158 |
| 11   | -2.47  | 1.4349 | .2948 | -.2727 | .0024  | .0085  | -.0015 |
| 12   | .00    | 1.4758 | .3294 | -.2075 | .0099  | -.0069 | .0203  |
| 13   | .00    | 1.4809 | .3297 | -.2074 | .0099  | -.0071 | .0225  |
| 14   | .00    | 1.4722 | .3280 | -.2048 | .0107  | -.0072 | .0244  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CL3    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.3567 | .3153 | -.2062 | .0094  | -.0305 | .0652  |
| 3    | -20.01 | .1758  | .2020 | -.4667 | .0065  | -.0002 | .0045  |
| 4    | -14.98 | .5624  | .1947 | -.5083 | .0043  | .0009  | .0037  |
| 5    | -10.09 | .9346  | .2181 | -.4368 | .0029  | .0027  | .0121  |
| 6    | -4.98  | 1.3037 | .2678 | -.3345 | .0024  | .0031  | .0025  |
| 7    | .03    | 1.4918 | .3315 | -.2041 | .0100  | -.0049 | .0229  |
| 8    | 2.57   | 1.4413 | .3638 | -.1276 | .0032  | .0064  | -.0032 |
| 9    | 4.96   | 1.3261 | .3946 | -.0752 | -.0006 | .0517  | -.0438 |
| 10   | 10.00  | 1.0275 | .5007 | -.0506 | .0060  | .0211  | -.0158 |
| 11   | -2.47  | 1.4349 | .2948 | -.2727 | .0024  | .0085  | -.0015 |
| 12   | .00    | 1.4758 | .3294 | -.2075 | .0099  | -.0069 | .0203  |
| 13   | .00    | 1.4809 | .3297 | -.2074 | .0099  | -.0071 | .0225  |
| 14   | .00    | 1.4722 | .3280 | -.2048 | .0107  | -.0072 | .0244  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 283 CONFIG F P B N W5 T2

| IW      | 15 DELF   | 30 DELA | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | 419.1       | 112.14      | -619.        | 50.          | 16.          | .86         | 55.54 | 129.24  | 0. |
| 3       | -20.0     | .0      | 76.8        | 73.74       | -1472.       | 92.          | -16.         | 7.04        | 55.66 | 129.38  | 0. |
| 4       | -15.0     | .0      | 209.1       | 72.71       | -1599.       | 56.          | -6.          | 2.93        | 54.70 | 128.24  | 0. |
| 5       | -10.0     | .0      | 347.6       | 80.85       | -1357.       | 43.          | 10.          | 4.26        | 55.21 | 128.84  | 0. |
| 6       | -5.0      | .0      | 482.6       | 98.39       | -1051.       | 40.          | 69.          | .86         | 55.28 | 128.93  | 0. |
| 7       | -.1       | .0      | 545.6       | 120.28      | -635.        | 148.         | -13.         | 10.43       | 55.21 | 128.84  | 0. |
| 8       | 2.5       | .0      | 519.2       | 134.23      | -478.        | 41.          | -15.         | -1.91       | 55.21 | 128.84  | 0. |
| 9       | 5.1       | .0      | 475.8       | 145.79      | -285.        | 28.          | 694.         | -12.97      | 55.44 | 129.11  | 0. |
| 10      | 10.0      | .0      | 408.8       | 183.64      | -119.        | 53.          | -297.        | -2.59       | 55.17 | 128.79  | 0. |
| 11      | .0        | .0      | 543.9       | 120.17      | -632.        | 135.         | -12.         | 9.35        | 55.39 | 129.05  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|------|--------|--------|-------|--------|-------|--------|--------|
| 2    | .00    | 1.1327 | .3031 | -.1994 | .0030 | .0010  | .0023  |
| 3    | -20.01 | .2077  | .1993 | -.4746 | .0056 | -.0010 | .0190  |
| 4    | -15.02 | .5651  | .1965 | -.5156 | .0034 | -.0004 | .0079  |
| 5    | -10.01 | .9395  | .2185 | -.4375 | .0026 | .0006  | .0115  |
| 6    | -5.03  | 1.3044 | .2659 | -.3388 | .0024 | .0042  | .0023  |
| 7    | -.05   | 1.4747 | .3251 | -.2047 | .0089 | -.0008 | .0282  |
| 8    | 2.48   | 1.4033 | .3628 | -.1542 | .0025 | -.0009 | -.0052 |
| 9    | 5.05   | 1.2859 | .3940 | -.0918 | .0017 | .0419  | -.0350 |
| 10   | 9.99   | 1.1048 | .4963 | -.0385 | .0032 | -.0179 | -.0070 |
| 11   | .00    | 1.4700 | .3248 | -.2038 | .0082 | -.0007 | .0253  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB  | CRMB   | CYB    |
|------|--------|--------|-------|--------|-------|--------|--------|
| 2    | .00    | 1.1327 | .3031 | -.1994 | .0030 | .0010  | .0023  |
| 3    | -20.01 | .2077  | .1993 | -.4746 | .0056 | -.0010 | .0190  |
| 4    | -15.02 | .5651  | .1965 | -.5156 | .0034 | -.0004 | .0079  |
| 5    | -10.01 | .9395  | .2185 | -.4375 | .0026 | .0006  | .0115  |
| 6    | -5.03  | 1.3044 | .2659 | -.3388 | .0024 | .0042  | .0023  |
| 7    | -.05   | 1.4747 | .3251 | -.2047 | .0089 | -.0008 | .0282  |
| 8    | 2.48   | 1.4033 | .3628 | -.1542 | .0025 | -.0009 | -.0052 |
| 9    | 5.05   | 1.2859 | .3940 | -.0918 | .0017 | .0419  | -.0350 |
| 10   | 9.99   | 1.1048 | .4963 | -.0385 | .0032 | -.0179 | -.0070 |
| 11   | .00    | 1.4700 | .3248 | -.2038 | .0082 | -.0007 | .0253  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 284 CONFIG F P B N W5 T2

| IW      | 15 DELF   | 40 DELA | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | 459.4       | 133.35      | -738.        | 66.          | 1.           | -79         | 56.03 | 129.81  | 0. |
| 3       | -20.0     | .0      | 116.3       | 90.89       | -1685.       | 80.          | -11.         | 4.68        | 55.36 | 129.02  | 0. |
| 4       | -15.0     | .0      | 252.2       | 89.39       | -1751.       | 41.          | -1.          | .67         | 55.59 | 129.29  | 0. |
| 5       | -10.0     | .0      | 389.8       | 99.34       | -1520.       | 40.          | 45.          | 3.65        | 56.01 | 129.78  | 0. |
| 6       | -5.0      | .0      | 527.1       | 121.37      | -1227.       | 52.          | 50.          | 1.09        | 56.13 | 129.93  | 0. |
| 7       | -2.5      | .0      | 578.6       | 132.54      | -1045.       | 56.          | 72.          | -1.41       | 55.65 | 129.36  | 0. |
| 8       | .0        | .0      | 587.5       | 142.09      | -785.        | 150.         | -98.         | 8.67        | 55.78 | 129.51  | 0. |
| 9       | 2.5       | .0      | 524.0       | 152.52      | -576.        | 5.           | 608.         | -16.58      | 55.88 | 129.63  | 0. |
| 10      | 5.0       | .0      | 440.1       | 161.93      | -431.        | -34.         | 93.          | -6.93       | 56.01 | 129.78  | 0. |
| 11      | 10.0      | .0      | 409.1       | 219.51      | -279.        | 127.         | -396.        | -.55        | 56.23 | 130.04  | 0. |
| 12      | -.0       | .0      | 585.1       | 141.70      | -791.        | 145.         | -133.        | 9.41        | 56.08 | 129.87  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CRM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.2415 | .3604 | -.2378 | .0040  | .0001  | -.0021 |
| 3    | -20.01 | .3144  | .2456 | -.5432 | .0049  | -.0006 | .0126  |
| 4    | -14.98 | .6816  | .2416 | -.5645 | .0025  | -.0001 | .0018  |
| 5    | -10.00 | 1.0536 | .2685 | -.4900 | .0024  | .0027  | .0099  |
| 6    | -5.02  | 1.4246 | .3280 | -.3955 | .0032  | .0030  | .0030  |
| 7    | -2.55  | 1.5639 | .3582 | -.3368 | .0034  | .0043  | -.0038 |
| 8    | .00    | 1.5877 | .3840 | -.2532 | .0091  | -.0059 | .0234  |
| 9    | 2.45   | 1.4163 | .4122 | -.1856 | .0003  | .0367  | -.0448 |
| 10   | 5.01   | 1.1894 | .4376 | -.1391 | -.0021 | .0056  | -.0187 |
| 11   | 10.02  | 1.1057 | .5933 | -.0898 | .0077  | -.0239 | -.0015 |
| 12   | -.02   | 1.5813 | .3830 | -.2549 | .0088  | -.0080 | .0254  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.2415 | .3604 | -.2378 | .0040  | .0001  | -.0021 |
| 3    | -20.01 | .3144  | .2456 | -.5432 | .0049  | -.0006 | .0126  |
| 4    | -14.98 | .6816  | .2416 | -.5645 | .0025  | -.0001 | .0018  |
| 5    | -10.00 | 1.0536 | .2685 | -.4900 | .0024  | .0027  | .0099  |
| 6    | -5.02  | 1.4246 | .3280 | -.3955 | .0032  | .0030  | .0030  |
| 7    | -2.55  | 1.5639 | .3582 | -.3368 | .0034  | .0043  | -.0038 |
| 8    | .00    | 1.5877 | .3840 | -.2532 | .0091  | -.0059 | .0234  |
| 9    | 2.45   | 1.4163 | .4122 | -.1856 | .0003  | .0367  | -.0448 |
| 10   | 5.01   | 1.1894 | .4376 | -.1391 | -.0021 | .0056  | -.0187 |
| 11   | 10.02  | 1.1057 | .5933 | -.0898 | .0077  | -.0239 | -.0015 |
| 12   | -.02   | 1.5813 | .3830 | -.2549 | .0088  | -.0080 | .0254  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 285 CONFIG F P B N W5 T2

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | 71.3        | 21.07       | -259.        | 50.          | -39.         | 3.49        | 55.66 | 129.37  | 0. |
| 4       | -20.0     | .0      | -230.3      | 119.08      | -737.        | 62.          | 157.         | 7.85        | 55.52 | 129.20  | 0. |
| 5       | -15.0     | .0      | -231.6      | 75.06       | -726.        | -61.         | 360.         | 11.66       | 55.50 | 129.18  | 0. |
| 6       | -10.1     | .0      | -179.8      | 34.23       | -728.        | 86.          | -44.         | 4.78        | 55.56 | 129.25  | 0. |
| 7       | -5.0      | .0      | -58.0       | 21.98       | -540.        | 51.          | -43.         | 5.22        | 55.52 | 129.20  | 0. |
| 8       | .0        | .0      | 75.5        | 21.11       | -242.        | 60.          | -24.         | 4.85        | 55.46 | 129.14  | 0. |
| 9       | 2.5       | .0      | 139.0       | 24.95       | -93.         | 56.          | -39.         | 3.69        | 55.40 | 129.06  | 0. |
| 10      | 5.1       | .0      | 207.8       | 31.38       | 92.          | 69.          | -20.         | 3.03        | 55.12 | 128.73  | 0. |
| 11      | 10.0      | .0      | 329.3       | 49.51       | 457.         | 41.          | 51.          | 2.39        | 55.69 | 129.40  | 0. |
| 12      | 15.0      | .0      | 407.9       | 80.11       | 731.         | 36.          | 69.          | 2.39        | 55.69 | 129.40  | 0. |
| 13      | 20.0      | .0      | 439.3       | 121.07      | 982.         | 48.          | 122.         | 2.38        | 55.86 | 129.60  | 0. |
| 14      | 24.0      | .0      | 425.9       | 178.01      | 1037.        | 163.         | 309.         | -6.77       | 55.82 | 129.55  | 0. |
| 15      | -0        | .0      | 71.5        | 21.12       | -251.        | 49.          | -58.         | 4.79        | 56.21 | 130.01  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.6470 | .3291 | .6403  | .0012  | -.0046 | .0107  |
| 4    | -19.98 | -.6225 | .3218 | -.2376 | .0037  | .0095  | .0212  |
| 5    | -14.98 | -.6259 | .2029 | -.2340 | -.0037 | .0217  | .0315  |
| 6    | -10.05 | -.4860 | .0925 | -.2348 | .0052  | -.0026 | .0129  |
| 7    | -4.98  | -.1569 | .0594 | -.1741 | .0031  | -.0026 | .0141  |
| 8    | .04    | .2041  | .0571 | -.0781 | .0036  | -.0014 | .0131  |
| 9    | 2.48   | .3757  | .0674 | -.0300 | .0034  | -.0024 | .0100  |
| 10   | 5.08   | .5617  | .0848 | .0296  | .0041  | -.0012 | .0082  |
| 11   | 10.03  | .8899  | .1338 | .1474  | .0025  | .0031  | .0064  |
| 12   | 15.00  | 1.1025 | .2165 | .2358  | .0022  | .0042  | .0064  |
| 13   | 20.00  | 1.1873 | .3272 | .3167  | .0029  | .0074  | .0064  |
| 14   | 24.01  | 1.1511 | .4811 | .3344  | .0099  | .0187  | -.0183 |
| 15   | -.01   | .1933  | .0571 | -.0810 | .0030  | -.0035 | .0129  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.6470 | .3291 | .6403  | .0012  | -.0046 | .0107  |
| 4    | -19.98 | -.6225 | .3218 | -.2376 | .0037  | .0095  | .0212  |
| 5    | -14.98 | -.6259 | .2029 | -.2340 | -.0037 | .0217  | .0315  |
| 6    | -10.05 | -.4860 | .0925 | -.2348 | .0052  | -.0026 | .0129  |
| 7    | -4.98  | -.1569 | .0594 | -.1741 | .0031  | -.0026 | .0141  |
| 8    | .04    | .2041  | .0571 | -.0781 | .0036  | -.0014 | .0131  |
| 9    | 2.48   | .3757  | .0674 | -.0300 | .0034  | -.0024 | .0100  |
| 10   | 5.08   | .5617  | .0848 | .0296  | .0041  | -.0012 | .0082  |
| 11   | 10.03  | .8899  | .1338 | .1474  | .0025  | .0031  | .0064  |
| 12   | 15.00  | 1.1025 | .2165 | .2358  | .0022  | .0042  | .0064  |
| 13   | 20.00  | 1.1873 | .3272 | .3167  | .0029  | .0074  | .0064  |
| 14   | 24.01  | 1.1511 | .4811 | .3344  | .0099  | .0187  | -.0183 |
| 15   | -.01   | .1933  | .0571 | -.0810 | .0030  | -.0035 | .0129  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 286 CONFIG F P B N W5 T2

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | - DELE<br>CPMBAR<br>CU-FT | - DELR<br>CYMBAR<br>CU-FT | - DELSB<br>CRMBAR<br>CU-FT | -<br>CYBAR<br>SQ-FT | -<br>Q<br>PSF | -<br>V<br>KNOTS | RPM |
|------------------|------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|----------------------------|---------------------|---------------|-----------------|-----|
| 1                | -0                     | .0                   | 72.9                     | 21.40                   | -250.                     | 48.                       | -56.                       | 3.19                | 55.61         | 129.31          | 0.  |
| 2                | -0                     | -20.0                | 98.3                     | 46.59                   | -232.                     | -529.                     | 28.                        | -91.41              | 55.63         | 129.34          | 0.  |
| 3                | -0                     | -15.0                | 90.4                     | 40.88                   | -823.                     | -199.                     | 431.                       | -73.64              | 55.56         | 129.25          | 0.  |
| 4                | -0                     | -10.0                | 83.8                     | 26.26                   | -234.                     | -305.                     | -0.                        | -41.63              | 55.56         | 129.25          | 0.  |
| 5                | -0                     | -5.0                 | 75.6                     | 22.75                   | -240.                     | -135.                     | -66.                       | -17.76              | 55.62         | 129.32          | 0.  |
| 6                | -0                     | -2.5                 | 74.7                     | 21.91                   | -242.                     | -44.                      | -29.                       | -6.63               | 55.45         | 129.13          | 0.  |
| 7                | -0                     | .0                   | 71.9                     | 21.36                   | -256.                     | 47.                       | -41.                       | 5.20                | 55.68         | 129.39          | 0.  |
| 8                | -0                     | 2.5                  | 74.3                     | 22.29                   | -270.                     | 145.                      | -85.                       | 16.36               | 55.38         | 129.03          | 0.  |
| 9                | -0                     | 5.0                  | 76.2                     | 23.21                   | -277.                     | 238.                      | -89.                       | 27.44               | 55.87         | 129.61          | 0.  |
| 10               | -0                     | 10.0                 | 80.1                     | 27.32                   | -312.                     | 405.                      | -71.                       | 47.89               | 56.12         | 129.91          | 0.  |
| 11               | -0                     | 15.0                 | 86.3                     | 34.73                   | -360.                     | 517.                      | -80.                       | 71.29               | 55.76         | 129.48          | 0.  |
| 12               | -0                     | 20.0                 | 88.9                     | 56.76                   | -1060.                    | 661.                      | 379.                       | 90.21               | 56.23         | 130.03          | 0.  |
| 13               | -0                     | -15.0                | 93.6                     | 34.63                   | -250.                     | -434.                     | -51.                       | -67.41              | 55.84         | 129.57          | 0.  |
| 14               | -0                     | .0                   | 72.5                     | 21.67                   | -260.                     | 47.                       | -93.                       | 4.48                | 55.55         | 129.24          | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 1    | .00    | .1969 | .0578 | -.0805 | .0029  | -.0034 | .0086  |
| 2    | -20.00 | .2656 | .1259 | -.0747 | -.0319 | .0017  | -.2471 |
| 3    | -15.00 | .2659 | .1105 | -.2655 | -.0120 | .0260  | -.1990 |
| 4    | -10.00 | .2264 | .0710 | -.0755 | -.0184 | -.0000 | -.1125 |
| 5    | -5.00  | .2042 | .0615 | -.0775 | -.0082 | -.0040 | -.0480 |
| 6    | -2.50  | .2019 | .0592 | -.0779 | -.0027 | -.0018 | -.0179 |
| 7    | .00    | .1943 | .0577 | -.0825 | .0028  | -.0025 | .0141  |
| 8    | 2.50   | .2008 | .0603 | -.0872 | .0088  | -.0051 | .0442  |
| 9    | 5.00   | .2059 | .0627 | -.0894 | .0144  | -.0054 | .0742  |
| 10   | 10.00  | .2164 | .0738 | -.1005 | .0244  | -.0043 | .1294  |
| 11   | 15.00  | .2331 | .0939 | -.1161 | .0313  | -.0048 | .1927  |
| 12   | 20.00  | .2401 | .1534 | -.3418 | .0399  | .0229  | .2438  |
| 13   | -15.00 | .2529 | .0936 | -.0806 | -.0262 | -.0031 | -.1822 |
| 14   | .00    | .1958 | .0586 | -.0838 | .0028  | -.0056 | .0121  |

\*\*\*\* COEFFICIENT FORM .. STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 1    | .00    | .1969 | .0578 | -.0805 | .0029  | -.0034 | .0086  |
| 2    | -20.00 | .2656 | .0334 | -.0732 | -.0319 | .0064  | -.2753 |
| 3    | -15.00 | .2659 | .0550 | -.2924 | -.0120 | .0381  | -.2209 |
| 4    | -10.00 | .2264 | .0503 | -.0744 | -.0184 | .0024  | -.1232 |
| 5    | -5.00  | .2042 | .0571 | -.0753 | -.0082 | -.0027 | -.0532 |
| 6    | -2.50  | .2019 | .0584 | -.0774 | -.0027 | -.0011 | -.0205 |
| 7    | .00    | .1943 | .0577 | -.0825 | .0028  | -.0025 | .0141  |
| 8    | 2.50   | .2008 | .0583 | -.0883 | .0088  | -.0058 | .0468  |
| 9    | 5.00   | .2059 | .0560 | -.0916 | .0144  | -.0068 | .0794  |
| 10   | 10.00  | .2164 | .0501 | -.1030 | .0244  | -.0075 | .1403  |
| 11   | 15.00  | .2331 | .0405 | -.1188 | .0313  | -.0103 | .2104  |
| 12   | 20.00  | .2401 | .0603 | -.2790 | .0399  | -.0005 | .2817  |
| 13   | -15.00 | .2529 | .0430 | -.0736 | -.0262 | .0009  | -.2003 |
| 14   | .00    | .1958 | .0586 | -.0838 | .0028  | -.0056 | .0121  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 287 CONFIG F P B N W5 T2

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 10 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | - DELE<br>CDBAR<br>SQ-FT | - DELR<br>CPMBAR<br>CU-FT | - DELSB<br>CYMBAR<br>CU-FT | -<br>CRMBAR<br>CU-FT | -<br>CYBAR<br>SQ-FT | -<br>Q<br>PSF | -<br>V<br>KNOTS | RPM |
|------------------|------------------------|-----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|---------------|-----------------|-----|
| 2                | .0                     | .0                    | 139.6                   | 27.53                    | -348.                     | 28.                        | -35.                 | .00                 | 55.21         | 128.84          | 0.  |
| 3                | .0                     | -20.0                 | 158.7                   | 51.19                    | -274.                     | -540.                      | 31.                  | -92.73              | 55.06         | 128.66          | 0.  |
| 4                | .0                     | -15.0                 | 150.9                   | 37.66                    | -297.                     | -446.                      | -18.                 | -65.89              | 55.57         | 129.26          | 0.  |
| 5                | .0                     | -10.0                 | 146.9                   | 36.41                    | -752.                     | 21.                        | 747.                 | -50.12              | 55.60         | 129.29          | 0.  |
| 6                | .0                     | -5.0                  | 145.4                   | 28.25                    | -327.                     | -157.                      | -26.                 | -18.26              | 55.23         | 128.85          | 0.  |
| 7                | .0                     | -2.5                  | 143.6                   | 27.76                    | -327.                     | -62.                       | -17.                 | -7.75               | 55.36         | 129.01          | 0.  |
| 8                | .0                     | .0                    | 140.3                   | 27.69                    | -348.                     | 47.                        | -39.                 | 2.78                | 55.21         | 128.84          | 0.  |
| 9                | .0                     | 2.5                   | 140.2                   | 27.97                    | -352.                     | 142.                       | -39.                 | 13.86               | 55.05         | 128.65          | 0.  |
| 10               | .0                     | 5.0                   | 140.5                   | 28.52                    | -357.                     | 237.                       | 35.                  | 23.73               | 55.26         | 128.89          | 0.  |
| 11               | .0                     | 10.0                  | 139.5                   | 31.04                    | -357.                     | 410.                       | 56.                  | 43.29               | 55.40         | 129.06          | 0.  |
| 12               | .0                     | 15.0                  | 141.7                   | 37.41                    | -375.                     | 526.                       | 16.                  | 67.04               | 55.08         | 128.68          | 0.  |
| 13               | .0                     | 20.0                  | 138.4                   | 53.31                    | -619.                     | 586.                       | 133.                 | 91.28               | 55.49         | 129.16          | 0.  |
| 14               | .0                     | -10.8                 | 144.7                   | 30.79                    | -286.                     | -341.                      | -29.                 | -43.14              | 55.75         | 129.47          | 0.  |
| 15               | .0                     | .0                    | 139.3                   | 27.41                    | -334.                     | 36.                        | -22.                 | 3.32                | 55.36         | 129.01          | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .3773 | .0744 | -.1120 | .0017  | -.0021 | .0000  |
| 3    | -20.00 | .4290 | .1384 | -.0882 | -.0326 | .0019  | -.2506 |
| 4    | -15.00 | .4078 | .1018 | -.0958 | -.0269 | -.0011 | -.1781 |
| 5    | -10.00 | .3969 | .0984 | -.2423 | .0013  | .0451  | -.1355 |
| 6    | -5.00  | .3929 | .0764 | -.1054 | -.0095 | -.0016 | -.0493 |
| 7    | -2.50  | .3881 | .0750 | -.1053 | -.0037 | -.0010 | -.0210 |
| 8    | .00    | .3791 | .0748 | -.1120 | .0028  | -.0023 | .0075  |
| 9    | 2.50   | .3789 | .0756 | -.1136 | .0086  | -.0024 | .0375  |
| 10   | 5.00   | .3797 | .0771 | -.1150 | .0143  | .0021  | .0641  |
| 11   | 10.00  | .3769 | .0839 | -.1151 | .0248  | .0034  | .1170  |
| 12   | 15.00  | .3829 | .1011 | -.1208 | .0318  | .0010  | .1812  |
| 13   | 20.00  | .3742 | .1441 | -.1996 | .0354  | .0080  | .2467  |
| 14   | -10.80 | .3910 | .0832 | -.0921 | -.0206 | -.0018 | -.1166 |
| 15   | .00    | .3765 | .0741 | -.1077 | .0022  | -.0013 | .0090  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .3773 | .0744 | -.1120 | .0017  | -.0021 | .0000  |
| 3    | -20.00 | .4290 | .0438 | -.0863 | -.0326 | .0075  | -.2829 |
| 4    | -15.00 | .4078 | .0520 | -.0909 | -.0269 | .0036  | -.1984 |
| 5    | -10.00 | .3969 | .0733 | -.2806 | .0013  | .0523  | -.1505 |
| 6    | -5.00  | .3929 | .0717 | -.1043 | -.0095 | .0001  | -.0558 |
| 7    | -2.50  | .3881 | .0740 | -.1050 | -.0037 | -.0002 | -.0242 |
| 8    | .00    | .3791 | .0748 | -.1120 | .0028  | -.0023 | .0075  |
| 9    | 2.50   | .3789 | .0739 | -.1141 | .0086  | -.0033 | .0407  |
| 10   | 5.00   | .3797 | .0712 | -.1136 | .0143  | .0002  | .0706  |
| 11   | 10.00  | .3769 | .0622 | -.1102 | .0248  | -.0004 | .1298  |
| 12   | 15.00  | .3829 | .0505 | -.1153 | .0318  | -.0050 | .2012  |
| 13   | 20.00  | .3742 | .0506 | -.1728 | .0354  | -.0053 | .2812  |
| 14   | -10.80 | .3910 | .0598 | -.0886 | -.0206 | .0015  | -.1302 |
| 15   | .00    | .3765 | .0741 | -.1077 | .0022  | -.0013 | .0090  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 288 CONFIG F P B N W5 T2

| IW      | 0 DELF    | 10 DELA | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 1       | .0        | .0      | 139.6       | 27.19       | -332.        | 39.          | -4.          | 3.02        | 55.36 | 129.01  | 0. |
| 2       | -20.0     | .0      | -206.7      | 110.21      | -784.        | 36.          | 15.          | 1.10        | 55.61 | 129.30  | 0. |
| 3       | -15.0     | .0      | -180.2      | 76.73       | -734.        | 5.           | 141.         | 6.86        | 56.08 | 129.85  | 0. |
| 4       | -10.0     | .0      | -127.4      | 30.28       | -838.        | 35.          | -81.         | 5.90        | 55.43 | 129.08  | 0. |
| 5       | -5.0      | .0      | 1.3         | 23.66       | -620.        | 43.          | 11.          | 4.15        | 55.77 | 129.49  | 0. |
| 6       | .0        | .0      | 138.6       | 27.35       | -342.        | 46.          | -22.         | 3.16        | 54.89 | 128.46  | 0. |
| 7       | 5.0       | .0      | 273.6       | 40.06       | -3.          | 55.          | 17.          | 1.05        | 55.38 | 129.03  | 0. |
| 8       | 10.0      | .0      | 400.9       | 61.24       | 362.         | 24.          | 69.          | 1.04        | 55.43 | 129.09  | 0. |
| 9       | 15.0      | .0      | 458.2       | 92.63       | 622.         | 8.           | -0.          | 1.16        | 55.99 | 129.75  | 0. |
| 10      | 20.1      | .0      | 480.7       | 142.38      | 839.         | 4.           | 123.         | 1.42        | 55.31 | 128.95  | 0. |
| 11      | -15.0     | .0      | -233.8      | 60.59       | -866.        | 59.          | -76.         | 3.25        | 55.55 | 129.23  | 0. |
| 12      | 24.0      | .0      | 455.3       | 204.49      | 899.         | 10.          | 273.         | -9.22       | 55.80 | 129.53  | 0. |
| 13      | .0        | .0      | 138.3       | 27.25       | -340.        | 41.          | 29.          | 3.76        | 57.06 | 131.01  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|------|--------|--------|-------|--------|-------|--------|--------|
| 1    | .00    | .3773  | .0735 | -.1069 | .0024 | -.0002 | .0081  |
| 2    | -19.99 | -.5585 | .2979 | -.2526 | .0022 | .0009  | .0030  |
| 3    | -15.00 | -.4872 | .2074 | -.2365 | .0003 | .0085  | .0186  |
| 4    | -9.99  | -.3443 | .0818 | -.2701 | .0021 | -.0049 | .0159  |
| 5    | -4.98  | .0036  | .0640 | -.1998 | .0026 | .0007  | .0112  |
| 6    | -.04   | .3746  | .0739 | -.1104 | .0028 | -.0013 | .0086  |
| 7    | 5.01   | .7394  | .1083 | -.0010 | .0033 | .0010  | .0028  |
| 8    | 10.04  | 1.0835 | .1655 | .1168  | .0015 | .0042  | .0028  |
| 9    | 15.02  | 1.2385 | .2504 | .2007  | .0005 | -.0000 | .0031  |
| 10   | 20.07  | 1.2991 | .3848 | .2705  | .0002 | .0074  | .0038  |
| 11   | -14.98 | -.6320 | .1638 | -.2791 | .0036 | -.0046 | .0088  |
| 12   | 24.03  | 1.2305 | .5527 | .2897  | .0006 | .0165  | -.0249 |
| 13   | .00    | .3738  | .0736 | -.1095 | .0025 | .0018  | .0102  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB  | CRMB   | CYB    |
|------|--------|--------|-------|--------|-------|--------|--------|
| 1    | .00    | .3773  | .0735 | -.1069 | .0024 | -.0002 | .0081  |
| 2    | -19.99 | -.5585 | .2979 | -.2526 | .0022 | .0009  | .0030  |
| 3    | -15.00 | -.4872 | .2074 | -.2365 | .0003 | .0085  | .0186  |
| 4    | -9.99  | -.3443 | .0818 | -.2701 | .0021 | -.0049 | .0159  |
| 5    | -4.98  | .0036  | .0640 | -.1998 | .0026 | .0007  | .0112  |
| 6    | -.04   | .3746  | .0739 | -.1104 | .0028 | -.0013 | .0086  |
| 7    | 5.01   | .7394  | .1083 | -.0010 | .0033 | .0010  | .0028  |
| 8    | 10.04  | 1.0835 | .1655 | .1168  | .0015 | .0042  | .0028  |
| 9    | 15.02  | 1.2385 | .2504 | .2007  | .0005 | -.0000 | .0031  |
| 10   | 20.07  | 1.2991 | .3848 | .2705  | .0002 | .0074  | .0038  |
| 11   | -14.98 | -.6320 | .1638 | -.2791 | .0036 | -.0046 | .0088  |
| 12   | 24.03  | 1.2305 | .5527 | .2897  | .0006 | .0165  | -.0249 |
| 13   | .00    | .3738  | .0736 | -.1095 | .0025 | .0018  | .0102  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 289 CONFIG F P B N W5 T2

| IW      | S DELF    | O DELA  | O IHT       | - DELE      | - DELR       | - DELSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | 185.9       | 30.62       | -198.        | 34.          | 0.           | .00         | 54.89 | 128.45  | 0. |
| 3       | -20.0     | .0      | -256.7      | 76.64       | -869.        | 66.          | -95.         | 3.31        | 55.56 | 129.24  | 0. |
| 4       | -15.0     | .0      | -175.7      | 48.40       | -778.        | 54.          | -62.         | 4.60        | 55.52 | 129.19  | 0. |
| 5       | -10.0     | .0      | -75.9       | 25.84       | -736.        | 67.          | -40.         | 2.99        | 55.89 | 129.63  | 0. |
| 6       | -5.0      | .0      | 52.5        | 23.01       | -491.        | 62.          | -5.          | 3.49        | 55.66 | 129.36  | 0. |
| 7       | .0        | .0      | 180.1       | 30.77       | -213.        | 46.          | -21.         | 3.05        | 55.85 | 129.59  | 0. |
| 8       | 5.0       | .0      | 300.5       | 48.99       | 113.         | 62.          | 34.          | 1.61        | 55.04 | 128.63  | 0. |
| 9       | 10.0      | .0      | 383.8       | 76.50       | 392.         | 53.          | 35.          | -.86        | 55.58 | 129.27  | 0. |
| 10      | 15.0      | .0      | 400.1       | 112.75      | 580.         | 42.          | 69.          | 1.22        | 55.97 | 129.72  | 0. |
| 11      | 20.0      | .0      | 404.2       | 176.07      | 769.         | 19.          | 173.         | -6.07       | 55.59 | 129.28  | 0. |
| 12      | 24.0      | .0      | 403.4       | 216.27      | 931.         | 51.          | 35.          | .24         | 56.04 | 129.80  | 0. |
| 13      | -15.0     | .0      | -178.5      | 48.37       | -770.        | 63.          | -93.         | 2.80        | 55.87 | 129.61  | 0. |
| 14      | .0        | .0      | 179.8       | 31.20       | -216.        | 40.          | -21.         | 3.05        | 55.77 | 129.49  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|------|--------|--------|-------|--------|-------|--------|--------|
| 2    | .00    | .5024  | .0828 | -.0639 | .0021 | .0000  | .0000  |
| 3    | -19.98 | -.6937 | .2071 | -.2801 | .0040 | -.0057 | .0089  |
| 4    | -14.98 | -.4748 | .1308 | -.2510 | .0032 | -.0037 | .0124  |
| 5    | -10.00 | -.2050 | .0698 | -.2374 | .0041 | -.0024 | .0081  |
| 6    | -4.98  | .1420  | .0622 | -.1584 | .0037 | -.0003 | .0094  |
| 7    | .01    | .4867  | .0832 | -.0686 | .0028 | -.0013 | .0082  |
| 8    | 5.03   | .8121  | .1324 | .0365  | .0037 | .0020  | .0043  |
| 9    | 10.01  | 1.0372 | .2068 | .1263  | .0032 | .0021  | -.0023 |
| 10   | 15.02  | 1.0814 | .3047 | .1869  | .0025 | .0042  | .0033  |
| 11   | 20.02  | 1.0924 | .4759 | .2479  | .0012 | .0105  | -.0164 |
| 12   | 24.03  | 1.0901 | .5845 | .3001  | .0031 | .0021  | .0007  |
| 13   | -14.99 | -.4824 | .1307 | -.2482 | .0038 | -.0056 | .0076  |
| 14   | .01    | .4858  | .0843 | -.0696 | .0024 | -.0013 | .0083  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB  | CRMB   | CYB    |
|------|--------|--------|-------|--------|-------|--------|--------|
| 2    | .00    | .5024  | .0828 | -.0639 | .0021 | .0000  | .0000  |
| 3    | -19.98 | -.6937 | .2071 | -.2801 | .0040 | -.0057 | .0089  |
| 4    | -14.98 | -.4748 | .1308 | -.2510 | .0032 | -.0037 | .0124  |
| 5    | -10.00 | -.2050 | .0698 | -.2374 | .0041 | -.0024 | .0081  |
| 6    | -4.98  | .1420  | .0622 | -.1584 | .0037 | -.0003 | .0094  |
| 7    | .01    | .4867  | .0832 | -.0686 | .0028 | -.0013 | .0082  |
| 8    | 5.03   | .8121  | .1324 | .0365  | .0037 | .0020  | .0043  |
| 9    | 10.01  | 1.0372 | .2068 | .1263  | .0032 | .0021  | -.0023 |
| 10   | 15.02  | 1.0814 | .3047 | .1869  | .0025 | .0042  | .0033  |
| 11   | 20.02  | 1.0924 | .4759 | .2479  | .0012 | .0105  | -.0164 |
| 12   | 24.03  | 1.0901 | .5845 | .3001  | .0031 | .0021  | .0007  |
| 13   | -14.99 | -.4824 | .1307 | -.2482 | .0038 | -.0056 | .0076  |
| 14   | .01    | .4858  | .0843 | -.0696 | .0024 | -.0013 | .0083  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 290 CONFIG F P B N W5 T2

| IW<br>PT.<br>NO. | ALPHA<br>DEG | DELTA<br>PSI | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | DELSB<br>PSF | DELTA<br>V<br>KNOTS | RPM |
|------------------|--------------|--------------|----------------|----------------|-----------------|-----------------|-----------------|----------------|--------------|---------------------|-----|
| 4                | .0           | .0           | 182.4          | 29.90          | -213.           | 37.             | -22.            | 3.71           | 55.95        | 129.70              | 0.  |
| 5                | .0           | .0           | 183.8          | 30.18          | -215.           | 37.             | -22.            | 3.74           | 55.52        | 129.21              | 0.  |
| 6                | .0           | .0           | 183.3          | 30.06          | -214.           | 37.             | -22.            | 3.73           | 55.69        | 129.40              | 0.  |
| 7                | .0           | -20.0        | 190.5          | 52.27          | -142.           | -512.           | 9.              | -86.28         | 54.96        | 128.53              | 0.  |
| 8                | .0           | -15.0        | 194.1          | 41.29          | -177.           | -422.           | -38.            | -63.60         | 54.58        | 128.07              | 0.  |
| 9                | .0           | -10.0        | 188.9          | 34.47          | -196.           | -288.           | -61.            | -39.54         | 55.13        | 128.73              | 0.  |
| 10               | .0           | -5.0         | 186.8          | 32.11          | -197.           | -134.           | -34.            | -16.91         | 54.79        | 128.33              | 0.  |
| 11               | .0           | -2.5         | 186.2          | 31.52          | -205.           | -44.            | -13.            | -6.29          | 54.70        | 128.22              | 0.  |
| 12               | .0           | -1.0         | 185.4          | 31.02          | -209.           | 43.             | -3.             | 4.22           | 54.92        | 128.48              | 0.  |
| 13               | .0           | 2.5          | 182.3          | 31.07          | -223.           | 134.            | -10.            | 12.87          | 55.57        | 129.25              | 0.  |
| 14               | .0           | 5.0          | 183.7          | 31.80          | -228.           | 211.            | 11.             | 18.42          | 55.47        | 129.14              | 0.  |
| 15               | .0           | 10.0         | 183.8          | 34.21          | -240.           | 391.            | 31.             | 41.27          | 55.38        | 129.03              | 0.  |
| 16               | .0           | 15.0         | 181.2          | 40.03          | -258.           | 498.            | 36.             | 63.86          | 55.10        | 128.70              | 0.  |
| 17               | .0           | 20.0         | 174.2          | 51.47          | -279.           | 550.            | 25.             | 88.42          | 55.09        | 128.69              | 0.  |
| 18               | .0           | .0           | 182.8          | 30.95          | -192.           | 38.             | -5.             | 3.98           | 55.58        | 129.27              | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 4    | .00    | .4930 | .0808 | -.0687 | .0022  | -.0013 | .0100  |
| 5    | .00    | .4968 | .0816 | -.0692 | .0023  | -.0013 | .0101  |
| 6    | .00    | .4953 | .0813 | -.0690 | .0023  | -.0013 | .0101  |
| 7    | -20.00 | .5148 | .1413 | -.0458 | -.0309 | .0005  | -.2332 |
| 8    | -15.00 | .5247 | .1116 | -.0572 | -.0255 | -.0023 | -.1719 |
| 9    | -10.00 | .5106 | .0932 | -.0632 | -.0174 | -.0037 | -.1069 |
| 10   | -5.00  | .5048 | .0868 | -.0637 | -.0081 | -.0020 | -.0457 |
| 11   | -2.50  | .5031 | .0852 | -.0661 | -.0027 | -.0008 | -.0170 |
| 12   | -1.0   | .5011 | .0838 | -.0675 | .0026  | -.0002 | .0114  |
| 13   | 2.50   | .4926 | .0840 | -.0718 | .0081  | -.0006 | .0348  |
| 14   | 5.00   | .4965 | .0859 | -.0735 | .0127  | .0006  | .0498  |
| 15   | 10.00  | .4969 | .0925 | -.0775 | .0236  | .0019  | .1115  |
| 16   | 15.00  | .4898 | .1082 | -.0832 | .0301  | .0022  | .1726  |
| 17   | 20.00  | .4709 | .1391 | -.0898 | .0332  | .0015  | .2390  |
| 18   | .00    | .4941 | .0837 | -.0619 | .0023  | -.0003 | .0108  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 4    | .00    | .4930 | .0808 | -.0687 | .0022  | -.0013 | .0100  |
| 5    | .00    | .4968 | .0816 | -.0692 | .0023  | -.0013 | .0101  |
| 6    | .00    | .4953 | .0813 | -.0690 | .0023  | -.0013 | .0101  |
| 7    | -20.00 | .5148 | .0526 | -.0440 | -.0309 | .0035  | -.2675 |
| 8    | -15.00 | .5247 | .0631 | -.0520 | -.0255 | .0005  | -.1950 |
| 9    | -10.00 | .5106 | .0731 | -.0588 | -.0174 | -.0016 | -.1215 |
| 10   | -5.00  | .5048 | .0824 | -.0625 | -.0081 | -.0010 | -.0531 |
| 11   | -2.50  | .5031 | .0844 | -.0658 | -.0027 | -.0002 | -.0207 |
| 12   | -1.0   | .5011 | .0839 | -.0675 | .0026  | -.0002 | .0113  |
| 13   | 2.50   | .4926 | .0824 | -.0719 | .0081  | -.0012 | .0384  |
| 14   | 5.00   | .4965 | .0813 | -.0729 | .0127  | -.0006 | .0571  |
| 15   | 10.00  | .4969 | .0716 | -.0746 | .0236  | -.0007 | .1260  |
| 16   | 15.00  | .4898 | .0596 | -.0773 | .0301  | -.0020 | .1948  |
| 17   | 20.00  | .4709 | .0485 | -.0816 | .0332  | -.0044 | .2722  |
| 18   | .00    | .4941 | .0837 | -.0619 | .0023  | -.0003 | .0108  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 291 CONFIG F P B N W5 T2

| IW  | -9 DELF | 0 DELA | 0 IHT  | - DELE | - DELR | - DELSB | -      | RpM    |       |        |    |
|-----|---------|--------|--------|--------|--------|---------|--------|--------|-------|--------|----|
| PT. | ALPHA   | PSI    | CLBAR  | CDBAR  | CPMBAR | CYMBAR  | CRMBAR | CYBAR  |       |        |    |
| NO. | DEG     | DEG    | SQ-FT  | SQ-FT  | CU-FT  | CU-FT   | CU-FT  | SQ-FT  |       |        |    |
|     |         |        | PSF    | PSF    | CU-FT  | CU-FT   | CU-FT  | PSF    |       |        |    |
|     |         |        |        |        |        |         |        | KNOTS  |       |        |    |
| 2   | .0      | .0     | -105.5 | 226.17 | -619.  | 13800.  | -38.   | 2.41   | 55.11 | 128.70 | 0. |
| 3   | .0      | -20.0  | -61.8  | 52.63  | -266.  | -463.   | 3.     | -90.33 | 55.14 | 128.74 | 0. |
| 4   | .0      | -15.0  | -72.5  | 40.71  | -299.  | -383.   | -35.   | -65.82 | 55.43 | 129.09 | 0. |
| 5   | .0      | -15.0  | -72.4  | 40.64  | -299.  | -382.   | -35.   | -65.72 | 55.51 | 129.19 | 0. |
| 6   | .0      | -15.0  | -73.1  | 41.17  | -302.  | -386.   | -35.   | -66.40 | 54.95 | 128.52 | 0. |
| 7   | .0      | -15.0  | -72.8  | 40.93  | -301.  | -384.   | -35.   | -66.10 | 55.20 | 128.81 | 0. |
| 8   | .0      | -10.0  | -90.8  | 31.47  | -348.  | -241.   | -2.    | -43.60 | 55.08 | 128.67 | 0. |
| 9   | .0      | -5.0   | -99.9  | 27.20  | -351.  | -109.   | 5.     | -21.00 | 55.96 | 129.71 | 0. |
| 10  | .0      | -2.5   | -101.9 | 26.57  | -372.  | -36.    | -40.   | -6.16  | 55.29 | 128.93 | 0. |
| 11  | .0      | .0     | -104.2 | 25.93  | -385.  | 51.     | -24.   | 5.62   | 55.75 | 129.47 | 0. |
| 12  | .0      | 2.5    | -360.8 | 27.17  | 12672. | 132.    | -17.   | 16.92  | 55.55 | 129.23 | 0. |
| 13  | .0      | 5.0    | -101.7 | 28.32  | -407.  | 220.    | -87.   | 28.12  | 55.35 | 129.00 | 0. |
| 14  | .0      | 10.0   | -93.9  | 31.94  | -437.  | 335.    | -68.   | 49.11  | 55.63 | 129.32 | 0. |
| 15  | .0      | 15.0   | -81.9  | 40.99  | -499.  | 438.    | -133.  | 71.85  | 55.18 | 128.80 | 0. |
| 16  | .0      | 20.0   | -66.9  | 53.05  | -485.  | 512.    | -90.   | 95.20  | 55.53 | 129.21 | 0. |
| 17  | .0      | -15.0  | -73.8  | 40.73  | -286.  | -399.   | -36.   | -65.80 | 55.13 | 128.73 | 0. |
| 18  | .0      | .0     | -102.5 | 26.64  | -366.  | 47.     | -61.   | 6.82   | 55.44 | 129.11 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.2851 | .6113 | -.1997 | .8335  | -.0023 | .0065  |
| 3    | -20.00 | -.1671 | .1422 | -.0858 | -.0280 | .0002  | -.2441 |
| 4    | -15.00 | -.1958 | .1100 | -.0965 | -.0231 | -.0021 | -.1779 |
| 5    | -15.00 | -.1955 | .1098 | -.0964 | -.0231 | -.0021 | -.1776 |
| 6    | -15.00 | -.1975 | .1113 | -.0974 | -.0233 | -.0021 | -.1794 |
| 7    | -15.00 | -.1967 | .1106 | -.0969 | -.0232 | -.0021 | -.1786 |
| 8    | -10.00 | -.2455 | .0850 | -.1121 | -.0146 | -.0001 | -.1178 |
| 9    | -5.00  | -.2699 | .0735 | -.1131 | -.0066 | .0003  | -.0568 |
| 10   | -2.50  | -.2753 | .0718 | -.1199 | -.0022 | -.0024 | -.0167 |
| 11   | .00    | -.2815 | .0701 | -.1240 | .0031  | -.0015 | .0152  |
| 12   | 2.50   | -.9751 | .0734 | 4.0855 | .0080  | -.0010 | .0457  |
| 13   | 5.00   | -.2748 | .0765 | -.1313 | .0133  | -.0053 | .0760  |
| 14   | 10.00  | -.2537 | .0863 | -.1408 | .0202  | -.0041 | .1327  |
| 15   | 15.00  | -.2213 | .1108 | -.1609 | .0265  | -.0081 | .1942  |
| 16   | 20.00  | -.1808 | .1434 | -.1562 | .0309  | -.0055 | .2573  |
| 17   | -15.00 | -.1994 | .1101 | -.0923 | -.0241 | -.0022 | -.1778 |
| 18   | .00    | -.2771 | .0720 | -.1181 | .0028  | -.0037 | .0184  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.2851 | .6113 | -.1997 | .8335  | -.0023 | .0065  |
| 3    | -20.00 | -.1671 | .0497 | -.0809 | -.0280 | .0057  | -.2781 |
| 4    | -15.00 | -.1958 | .0600 | -.0903 | -.0231 | .0027  | -.2004 |
| 5    | -15.00 | -.1955 | .0599 | -.0902 | -.0231 | .0027  | -.2001 |
| 6    | -15.00 | -.1975 | .0608 | -.0911 | -.0233 | .0027  | -.2022 |
| 7    | -15.00 | -.1967 | .0604 | -.0907 | -.0232 | .0027  | -.2013 |
| 8    | -10.00 | -.2455 | .0632 | -.1103 | -.0146 | .0035  | -.1309 |
| 9    | -5.00  | -.2699 | .0683 | -.1128 | -.0066 | .0022  | -.0630 |
| 10   | -2.50  | -.2753 | .0710 | -.1192 | -.0022 | -.0014 | -.0198 |
| 11   | .00    | -.2815 | .0701 | -.1240 | .0031  | -.0015 | .0152  |
| 12   | 2.50   | -.9751 | .0714 | 4.0813 | .0080  | .0325  | .0489  |
| 13   | 5.00   | -.2748 | .0696 | -.1332 | .0133  | -.0074 | .0824  |
| 14   | 10.00  | -.2537 | .0618 | -.1425 | .0202  | -.0086 | .1458  |
| 15   | 15.00  | -.2213 | .0565 | -.1665 | .0265  | -.0156 | .2163  |
| 16   | 20.00  | -.1808 | .0463 | -.1567 | .0309  | -.0152 | .2909  |
| 17   | -15.00 | -.1994 | .0600 | -.0861 | -.0241 | .0024  | -.2003 |
| 18   | .00    | -.2771 | .0720 | -.1181 | .0028  | -.0037 | .0184  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA.

RUN 292 CONFIG F P B N W5 T2

| IN<br>PT.<br>NO. | -9 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | - DELE<br>CYMBAR<br>CU-FT | - DELR<br>CRMBAR<br>CU-FT | - DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM |
|------------------|-------------------------|----------------------|--------------------------|-------------------------|-----------------|---------------------------|---------------------------|---------------------------|----------|------------|-----|
| 2                | .0                      | .0                   | -104.7                   | 25.70                   | -366.           | 59.                       | -24.                      | 5.56                      | 55.73    | 129.45     | 0.  |
| 3                | -20.0                   | .0                   | -228.6                   | 154.66                  | -679.           | 70.                       | -140.                     | .49                       | 55.64    | 129.33     | 0.  |
| 4                | -15.0                   | .0                   | -227.9                   | 126.18                  | -628.           | 137.                      | -10.                      | 4.62                      | 55.34    | 128.98     | 0.  |
| 5                | -10.0                   | .0                   | -195.5                   | 87.47                   | -587.           | 136.                      | -35.                      | .18                       | 55.93    | 129.68     | 0.  |
| 6                | -5.0                    | .0                   | -220.4                   | 41.49                   | -571.           | 50.                       | -100.                     | 7.86                      | 55.50    | 129.17     | 0.  |
| 7                | -2.5                    | .0                   | -163.5                   | 32.39                   | -485.           | 57.                       | -9.                       | 6.65                      | 55.31    | 128.94     | 0.  |
| 8                | .0                      | .0                   | -101.9                   | 25.92                   | -369.           | 65.                       | -8.                       | 6.23                      | 55.22    | 128.84     | 0.  |
| 9                | 2.5                     | .0                   | -43.3                    | 23.46                   | -222.           | 74.                       | 11.                       | 5.49                      | 55.20    | 128.81     | 0.  |
| 10               | 5.0                     | .0                   | 19.3                     | 23.40                   | -58.            | 77.                       | 31.                       | 3.81                      | 55.41    | 129.07     | 0.  |
| 11               | 10.0                    | .0                   | 152.3                    | 30.76                   | 312.            | 88.                       | -3.                       | 4.61                      | 55.45    | 129.12     | 0.  |
| 12               | 15.0                    | .0                   | 281.5                    | 46.66                   | 696.            | 40.                       | 70.                       | 3.21                      | 55.16    | 128.77     | 0.  |
| 13               | 20.0                    | .0                   | 400.6                    | 72.06                   | 1119.           | 24.                       | 71.                       | 3.53                      | 55.07    | 128.66     | 0.  |
| 14               | 24.0                    | .0                   | 458.3                    | 106.22                  | 1343.           | 28.                       | 72.                       | 3.40                      | 55.06    | 128.65     | 0.  |
| 15               | -5.0                    | .0                   | -222.3                   | 41.06                   | -576.           | 36.                       | -83.                      | 7.89                      | 55.24    | 128.87     | 0.  |
| 16               | -.0                     | .0                   | -105.7                   | 25.60                   | -372.           | 64.                       | -43.                      | 6.31                      | 55.58    | 129.26     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM   | CRM    | CY    |
|------|--------|--------|-------|--------|-------|--------|-------|
| 2    | .00    | -.2829 | .0695 | -.1161 | .0036 | -.0015 | .0150 |
| 3    | -20.01 | -.6180 | .4180 | -.2190 | .0042 | -.0085 | .0013 |
| 4    | -14.99 | -.6158 | .3410 | -.2026 | .0083 | -.0006 | .0125 |
| 5    | -10.00 | -.5284 | .2364 | -.1893 | .0082 | -.0021 | .0005 |
| 6    | -5.00  | -.5957 | .1121 | -.1839 | .0030 | -.0060 | .0212 |
| 7    | -2.50  | -.4419 | .0876 | -.1565 | .0034 | -.0006 | .0180 |
| 8    | .03    | -.2754 | .0701 | -.1190 | .0039 | -.0005 | .0168 |
| 9    | 2.49   | -.1171 | .0634 | -.0714 | .0045 | .0007  | .0148 |
| 10   | 5.02   | .0521  | .0632 | -.0186 | .0047 | .0019  | .0103 |
| 11   | 10.03  | .4116  | .0831 | .1006  | .0053 | -.0002 | .0125 |
| 12   | 15.00  | .7609  | .1261 | .2245  | .0024 | .0042  | .0087 |
| 13   | 19.98  | 1.0828 | .1948 | .3609  | .0014 | .0043  | .0095 |
| 14   | 23.99  | 1.2387 | .2871 | .4331  | .0017 | .0044  | .0092 |
| 15   | -5.00  | -.6009 | .1110 | -.1857 | .0022 | -.0050 | .0213 |
| 16   | -.01   | -.2858 | .0692 | -.1200 | .0038 | -.0026 | .0171 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB  | CRMB   | CYB   |
|------|--------|--------|-------|--------|-------|--------|-------|
| 2    | .00    | -.2829 | .0695 | -.1161 | .0036 | -.0015 | .0150 |
| 3    | -20.01 | -.6180 | .4180 | -.2190 | .0042 | -.0085 | .0013 |
| 4    | -14.99 | -.6158 | .3410 | -.2026 | .0083 | -.0006 | .0125 |
| 5    | -10.00 | -.5284 | .2364 | -.1893 | .0082 | -.0021 | .0005 |
| 6    | -5.00  | -.5957 | .1121 | -.1839 | .0030 | -.0060 | .0212 |
| 7    | -2.50  | -.4419 | .0876 | -.1565 | .0034 | -.0006 | .0180 |
| 8    | .03    | -.2754 | .0701 | -.1190 | .0039 | -.0005 | .0168 |
| 9    | 2.49   | -.1171 | .0634 | -.0714 | .0045 | .0007  | .0148 |
| 10   | 5.02   | .0521  | .0632 | -.0186 | .0047 | .0019  | .0103 |
| 11   | 10.03  | .4116  | .0831 | .1006  | .0053 | -.0002 | .0125 |
| 12   | 15.00  | .7609  | .1261 | .2245  | .0024 | .0042  | .0087 |
| 13   | 19.98  | 1.0828 | .1948 | .3609  | .0014 | .0043  | .0095 |
| 14   | 23.99  | 1.2387 | .2871 | .4331  | .0017 | .0044  | .0092 |
| 15   | -5.00  | -.6009 | .1110 | -.1857 | .0022 | -.0050 | .0213 |
| 16   | -.01   | -.2858 | .0692 | -.1200 | .0038 | -.0026 | .0171 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 293 CONFIG F P B N W5 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | .0          | -6.82       | 0.           | 0.           | 0.           | .00         | 45.80 | 117.34  | 0. |
| 3       | .0        | .0      | 79.3        | 25.22       | -320.        | 41.          | 18.          | .00         | 54.69 | 128.22  | 0. |
| 4       | -20.0     | .0      | -287.4      | 133.85      | 669.         | -126.        | 68.          | 9.14        | 54.77 | 128.31  | 0. |
| 5       | -15.0     | .0      | -246.7      | 89.77       | 243.         | -7.          | 267.         | 7.39        | 54.87 | 128.43  | 0. |
| 6       | -10.0     | .0      | -188.4      | 39.49       | -100.        | -36.         | -50.         | 8.00        | 55.37 | 129.03  | 0. |
| 7       | -5.0      | .0      | -59.6       | 26.81       | -266.        | 2.           | 9.           | 5.40        | 55.49 | 129.16  | 0. |
| 8       | -.0       | .0      | 83.4        | 25.48       | -279.        | 47.          | 14.          | 3.15        | 55.42 | 129.09  | 0. |
| 9       | 5.0       | .0      | 225.8       | 36.63       | -373.        | 64.          | 34.          | .80         | 55.48 | 129.15  | 0. |
| 10      | 10.0      | .0      | 369.8       | 58.70       | -567.        | 34.          | 105.         | 1.30        | 55.12 | 128.72  | 0. |
| 11      | 15.0      | .0      | 476.1       | 96.65       | -809.        | 66.          | -36.         | 2.11        | 55.00 | 128.59  | 0. |
| 12      | 20.0      | -.1     | 517.7       | 157.09      | -1009.       | 119.         | -31.         | -.06        | 54.41 | 127.87  | 0. |
| 13      | 24.0      | -.1     | 503.7       | 217.44      | -1059.       | 184.         | 334.         | -6.41       | 55.27 | 128.91  | 0. |
| 14      | .0        | -.1     | 84.0        | 25.86       | -310.        | 51.          | -4.          | 3.64        | 55.21 | 128.84  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .0000  | -.0184 | .0000  | .0000  | .0000  | .0000  |
| 3    | .00    | .2144  | .0682  | -.1031 | .0025  | .0011  | .0000  |
| 4    | -19.99 | -.7767 | .3618  | .2156  | -.0076 | .0041  | .0247  |
| 5    | -14.99 | -.6667 | .2426  | .0784  | -.0004 | .0161  | .0200  |
| 6    | -9.96  | -.5093 | .1067  | -.0322 | -.0022 | -.0030 | .0216  |
| 7    | -5.00  | -.1609 | .0724  | -.0857 | .0001  | .0005  | .0146  |
| 8    | -.03   | .2255  | .0689  | -.0900 | .0028  | .0008  | .0085  |
| 9    | 4.96   | .6103  | .0990  | -.1203 | .0038  | .0021  | .0022  |
| 10   | 10.02  | .9995  | .1586  | -.1828 | .0020  | .0063  | .0035  |
| 11   | 14.97  | 1.2867 | .2612  | -.2608 | .0040  | -.0022 | .0057  |
| 12   | 20.01  | 1.3991 | .4246  | -.3252 | .0072  | -.0019 | -.0002 |
| 13   | 24.00  | 1.3613 | .5877  | -.3415 | .0111  | .0202  | -.0173 |
| 14   | .00    | .2271  | .0699  | -.0998 | .0031  | -.0002 | .0098  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .0000  | -.0184 | .0000  | .0000  | .0000  | .0000  |
| 3    | .00    | .2144  | .0682  | -.1031 | .0025  | .0011  | .0000  |
| 4    | -19.99 | -.7767 | .3618  | .2156  | -.0076 | .0041  | .0247  |
| 5    | -14.99 | -.6667 | .2426  | .0784  | -.0004 | .0161  | .0200  |
| 6    | -9.96  | -.5093 | .1067  | -.0322 | -.0022 | -.0030 | .0216  |
| 7    | -5.00  | -.1609 | .0724  | -.0857 | .0001  | .0005  | .0146  |
| 8    | -.03   | .2255  | .0689  | -.0900 | .0028  | .0008  | .0085  |
| 9    | 4.96   | .6103  | .0990  | -.1203 | .0038  | .0021  | .0022  |
| 10   | 10.02  | .9995  | .1586  | -.1828 | .0020  | .0063  | .0035  |
| 11   | 14.97  | 1.2867 | .2612  | -.2608 | .0040  | -.0022 | .0057  |
| 12   | 20.01  | 1.3991 | .4246  | -.3252 | .0072  | -.0018 | -.0009 |
| 13   | 24.00  | 1.3613 | .5876  | -.3417 | .0111  | .0203  | -.0184 |
| 14   | .00    | .2271  | .0699  | -.0998 | .0031  | -.0002 | .0097  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 294 CONFIG F P B N W5 T BT

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM |
|------------------|------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|-----|
| 2                | .0                     | .0                   | 83.6                     | 26.09                   | -321.                     | 48.                       | 18.                       | .00                       | 54.93         | 128.51          | 0.  |
| 3                | .0                     | -19.9                | 109.6                    | 60.60                   | -660.                     | 920.                      | 59.                       | -132.30                   | 55.31         | 128.95          | 0.  |
| 4                | .0                     | -14.9                | 106.9                    | 47.66                   | -846.                     | 637.                      | 234.                      | -96.07                    | 55.49         | 129.17          | 0.  |
| 5                | .0                     | -9.9                 | 98.5                     | 33.90                   | -416.                     | 285.                      | 54.                       | -58.43                    | 55.67         | 129.39          | 0.  |
| 6                | .0                     | -5.0                 | 90.4                     | 28.03                   | -331.                     | 117.                      | 40.                       | -27.08                    | 55.48         | 129.16          | 0.  |
| 7                | .0                     | -2.4                 | 84.2                     | 26.79                   | -316.                     | 87.                       | 11.                       | -13.24                    | 55.58         | 129.27          | 0.  |
| 8                | .0                     | .1                   | 83.5                     | 26.37                   | -323.                     | 70.                       | 16.                       | 3.97                      | 54.97         | 128.56          | 0.  |
| 9                | .0                     | 2.6                  | 84.3                     | 26.73                   | -327.                     | 59.                       | 10.                       | 18.06                     | 55.46         | 129.14          | 0.  |
| 10               | .0                     | 5.1                  | 85.1                     | 27.95                   | -351.                     | 21.                       | -29.                      | 33.04                     | 55.26         | 128.90          | 0.  |
| 11               | .0                     | 10.2                 | 94.3                     | 32.81                   | -481.                     | -190.                     | -31.                      | 64.45                     | 55.44         | 129.11          | 0.  |
| 12               | .0                     | 15.1                 | 101.2                    | 42.54                   | -618.                     | -429.                     | -34.                      | 96.42                     | 55.22         | 128.85          | 0.  |
| 13               | .0                     | 20.1                 | 110.9                    | 60.81                   | -777.                     | -932.                     | 6.                        | 140.60                    | 55.00         | 128.58          | 0.  |
| 14               | .0                     | .1                   | 85.3                     | 26.05                   | -298.                     | 59.                       | 35.                       | 2.91                      | 55.06         | 128.66          | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .2260 | .0705 | -.1034 | .0029  | .0011  | .0000  |
| 3    | -19.90 | .2963 | .1638 | -.2128 | .0555  | .0036  | -.3576 |
| 4    | -14.90 | .2890 | .1288 | -.2729 | .0385  | .0141  | -.2597 |
| 5    | -9.90  | .2662 | .0916 | -.1342 | .0172  | .0033  | -.1579 |
| 6    | -5.00  | .2443 | .0758 | -.1066 | .0071  | .0024  | -.0732 |
| 7    | -2.40  | .2277 | .0724 | -.1018 | .0052  | .0007  | -.0358 |
| 8    | .10    | .2258 | .0713 | -.1040 | .0042  | .0010  | .0107  |
| 9    | 2.60   | .2278 | .0722 | -.1053 | .0036  | .0006  | .0488  |
| 10   | 5.10   | .2301 | .0755 | -.1133 | .0013  | -.0017 | .0893  |
| 11   | 10.20  | .2548 | .0887 | -.1551 | -.0115 | -.0019 | .1742  |
| 12   | 15.10  | .2734 | .1150 | -.1991 | -.0259 | -.0021 | .2606  |
| 13   | 20.10  | .2998 | .1643 | -.2505 | -.0563 | .0004  | .3800  |
| 14   | .10    | .2305 | .0704 | -.0962 | .0036  | .0021  | .0079  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .2260 | .0705 | -.1034 | .0029  | .0011  | .0000  |
| 3    | -19.90 | .2963 | .0317 | -.2065 | .0555  | .0170  | -.3920 |
| 4    | -14.90 | .2890 | .0574 | -.2831 | .0385  | .0269  | -.2841 |
| 5    | -9.90  | .2662 | .0630 | -.1352 | .0172  | .0076  | -.1714 |
| 6    | -5.00  | .2443 | .0691 | -.1073 | .0071  | .0041  | -.0795 |
| 7    | -2.40  | .2277 | .0708 | -.1019 | .0052  | .0015  | -.0388 |
| 8    | .10    | .2258 | .0713 | -.1040 | .0042  | .0009  | .0108  |
| 9    | 2.60   | .2278 | .0699 | -.1051 | .0036  | -.0003 | .0520  |
| 10   | 5.10   | .2301 | .0673 | -.1136 | .0013  | -.0036 | .0957  |
| 11   | 10.20  | .2548 | .0563 | -.1544 | -.0115 | -.0070 | .1872  |
| 12   | 15.10  | .2734 | .0428 | -.1950 | -.0259 | -.0117 | .2816  |
| 13   | 20.10  | .2998 | .0231 | -.2343 | -.0563 | -.0158 | .4134  |
| 14   | .10    | .2305 | .0704 | -.0962 | .0036  | .0021  | .0080  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 295 CONFIG F P B N W5 T BT

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | 321.0       | 66.47       | -248.        | 115.         | 148.         | -4.85       | 54.77 | 128.31  | 0. |
| 3       | -20.0     | .0      | -153.0      | 68.96       | 980.         | -130.        | -21.         | 9.27        | 54.78 | 128.32  | 0. |
| 4       | -15.0     | .0      | -40.6       | 46.25       | 417.         | -31.         | 44.          | 4.05        | 55.48 | 129.16  | 0. |
| 5       | -10.0     | .0      | 87.0        | 40.50       | 81.          | 6.           | 14.          | 1.98        | 55.10 | 128.71  | 0. |
| 6       | -4.9      | .0      | 235.2       | 46.80       | 3.           | -3.          | 67.          | 2.10        | 55.09 | 128.70  | 0. |
| 7       | .0        | .0      | 331.0       | 65.74       | -187.        | 62.          | 108.         | -1.98       | 55.13 | 128.75  | 0. |
| 8       | 5.0       | .0      | 369.7       | 97.74       | -392.        | 81.          | 124.         | -1.73       | 55.28 | 128.92  | 0. |
| 9       | 10.0      | .0      | 359.0       | 149.96      | -687.        | 33.          | 158.         | -.19        | 55.19 | 128.81  | 0. |
| 10      | 15.0      | .0      | 408.3       | 201.51      | -1252.       | 15.          | 142.         | -1.68       | 54.81 | 128.36  | 0. |
| 11      | 20.0      | -.1     | 452.6       | 267.19      | -1566.       | 93.          | 57.          | -1.50       | 54.54 | 128.03  | 0. |
| 12      | -0        | -1      | 331.6       | 66.24       | -203.        | 70.          | 111.         | -1.81       | 54.64 | 128.16  | 0. |
| 13      | 24.0      | -1      | 472.3       | 351.51      | -1585.       | 284.         | 120.         | -16.33      | 54.27 | 127.72  | 0. |
| 14      | .0        | -1      | 330.0       | 116.22      | -258.        | 154.         | 110.         | -1.50       | 54.65 | 128.17  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .8676  | .1796 | -.0800 | .0070  | .0089  | -.0131 |
| 3    | -19.99 | -.4135 | .1864 | .3159  | -.0079 | -.0013 | .0250  |
| 4    | -14.98 | -.1097 | .1250 | .1345  | -.0019 | .0027  | .0110  |
| 5    | -10.03 | .2351  | .1095 | .0262  | .0003  | .0008  | .0053  |
| 6    | -4.94  | .6356  | .1265 | .0009  | -.0002 | .0041  | .0057  |
| 7    | .05    | .8945  | .1777 | -.0604 | .0038  | .0065  | -.0053 |
| 8    | 4.97   | .9992  | .2642 | -.1264 | .0049  | .0075  | -.0047 |
| 9    | 10.05  | .9702  | .4053 | -.2215 | .0020  | .0096  | -.0005 |
| 10   | 15.00  | 1.1036 | .5446 | -.4036 | .0009  | .0086  | -.0045 |
| 11   | 19.99  | 1.2233 | .7221 | -.5048 | .0056  | .0034  | -.0041 |
| 12   | -.00   | .8961  | .1790 | -.0654 | .0042  | .0067  | -.0049 |
| 13   | 23.98  | 1.2764 | .9500 | -.5110 | .0172  | .0073  | -.0443 |
| 14   | .01    | .8919  | .3141 | -.0831 | .0093  | .0067  | -.0040 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .8676  | .1796 | -.0800 | .0070  | .0089  | -.0131 |
| 3    | -19.99 | -.4135 | .1864 | .3159  | -.0079 | -.0013 | .0250  |
| 4    | -14.98 | -.1097 | .1250 | .1345  | -.0019 | .0027  | .0110  |
| 5    | -10.03 | .2351  | .1095 | .0262  | .0003  | .0008  | .0053  |
| 6    | -4.94  | .6356  | .1265 | .0009  | -.0002 | .0041  | .0057  |
| 7    | .05    | .8945  | .1777 | -.0604 | .0038  | .0065  | -.0053 |
| 8    | 4.97   | .9992  | .2642 | -.1264 | .0049  | .0075  | -.0047 |
| 9    | 10.05  | .9702  | .4053 | -.2215 | .0020  | .0096  | -.0005 |
| 10   | 15.00  | 1.1036 | .5446 | -.4036 | .0009  | .0086  | -.0045 |
| 11   | 19.99  | 1.2233 | .7221 | -.5048 | .0056  | .0036  | -.0053 |
| 12   | -.00   | .8961  | .1790 | -.0655 | .0042  | .0067  | -.0052 |
| 13   | 23.98  | 1.2764 | .9499 | -.5110 | .0172  | .0074  | -.0459 |
| 14   | .01    | .8919  | .3141 | -.0832 | .0093  | .0067  | -.0046 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 296 CONFIG F P B N W5 T BT

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0 INT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>V<br>KNOTS | RPM |
|------------------|-------------------------|-----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|----------|-----------------|-----|
| 2                | .0                      | .0                    | 423.2                   | 115.90                   | -410.                     | 44.                        | 16.                  | 1.26                | 54.08    | 127.50          | 0.  |
| 3                | -20.0                   | .0                    | -13.2                   | 93.12                    | 471.                      | -2.                        | 49.                  | 1.74                | 54.95    | 128.54          | 0.  |
| 4                | -15.0                   | .0                    | 139.0                   | 80.39                    | 76.                       | 15.                        | 17.                  | .25                 | 54.81    | 128.36          | 0.  |
| 5                | -10.0                   | .0                    | 288.6                   | 85.01                    | -1.                       | -25.                       | 62.                  | 4.69                | 55.21    | 128.84          | 0.  |
| 6                | -4.9                    | .0                    | 431.9                   | 99.49                    | -5.                       | -22.                       | 86.                  | 1.18                | 54.87    | 128.43          | 0.  |
| 7                | -.0                     | .0                    | 495.7                   | 123.15                   | -278.                     | 13.                        | 204.                 | -7.09               | 54.79    | 128.34          | 0.  |
| 8                | 5.0                     | .0                    | 465.4                   | 145.99                   | -624.                     | 47.                        | 233.                 | -.94                | 54.28    | 127.73          | 0.  |
| 9                | 10.0                    | .0                    | 421.8                   | 192.95                   | -717.                     | 184.                       | 284.                 | -.19                | 54.53    | 128.03          | 0.  |
| 10               | 14.9                    | .0                    | 451.2                   | 255.88                   | -1269.                    | 8.                         | 107.                 | -.81                | 54.35    | 127.82          | 0.  |
| 11               | -5.0                    | .0                    | 431.6                   | 99.20                    | -3.                       | -18.                       | 101.                 | 2.72                | 55.11    | 128.72          | 0.  |
| 12               | .0                      | .0                    | 525.1                   | 122.29                   | -216.                     | 92.                        | -28.                 | 8.39                | 54.78    | 128.34          | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.1438 | .3132 | -.1321 | .0026  | .0010  | .0034  |
| 3    | -20.01 | -.0356 | .2517 | .1520  | -.0001 | .0030  | .0047  |
| 4    | -15.02 | .3757  | .2173 | .0246  | .0009  | .0010  | .0007  |
| 5    | -10.04 | .7800  | .2298 | -.0002 | -.0015 | .0037  | .0127  |
| 6    | -4.93  | 1.1674 | .2689 | -.0016 | -.0013 | .0052  | .0032  |
| 7    | -.02   | 1.3396 | .3328 | -.0898 | .0008  | .0123  | -.0192 |
| 8    | 4.99   | 1.2579 | .3946 | -.2011 | .0028  | .0141  | -.0025 |
| 9    | 9.97   | 1.1400 | .5215 | -.2311 | .0111  | .0172  | -.0005 |
| 10   | 14.93  | 1.2195 | .6916 | -.4090 | .0005  | .0065  | -.0022 |
| 11   | -5.01  | 1.1666 | .2681 | -.0010 | -.0011 | .0061  | .0074  |
| 12   | .05    | 1.4193 | .3305 | -.0697 | .0055  | -.0017 | .0227  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.1438 | .3132 | -.1321 | .0026  | .0010  | .0034  |
| 3    | -20.01 | -.0356 | .2517 | .1520  | -.0001 | .0030  | .0047  |
| 4    | -15.02 | .3757  | .2173 | .0246  | .0009  | .0010  | .0007  |
| 5    | -10.04 | .7800  | .2298 | -.0002 | -.0015 | .0037  | .0127  |
| 6    | -4.93  | 1.1674 | .2689 | -.0016 | -.0013 | .0052  | .0032  |
| 7    | -.02   | 1.3396 | .3328 | -.0898 | .0008  | .0123  | -.0192 |
| 8    | 4.99   | 1.2579 | .3946 | -.2011 | .0028  | .0141  | -.0025 |
| 9    | 9.97   | 1.1400 | .5215 | -.2311 | .0111  | .0172  | -.0005 |
| 10   | 14.93  | 1.2195 | .6916 | -.4090 | .0005  | .0065  | -.0022 |
| 11   | -5.01  | 1.1666 | .2681 | -.0010 | -.0011 | .0061  | .0074  |
| 12   | .05    | 1.4193 | .3305 | -.0697 | .0055  | -.0017 | .0227  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 298 CONFIG F P B NP1 W5 T BT

| PT. NO. | 15 DELF   |         | 30 DELA     |             | 0 IHT        |              | 0 DELE       |             | 0 DELR |         | 0 DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | V KNOTS |         |  |     |
| 2       | .0        | .0      | 559.8       | 128.15      | 16.          | -2.          | 111.         | -2.88       | 54.35  | 127.81  | 4270.   |  |     |
| 3       | -8.0      | .0      | 504.2       | 123.11      | -205.        | 52.          | 63.          | 4.30        | 54.71  | 128.26  | 4100.   |  |     |
| 4       | -8.0      | .0      | 336.6       | 95.81       | -199.        | -10.         | 68.          | .80         | 55.49  | 129.18  | 4090.   |  |     |
| 5       | -4.0      | .0      | 453.0       | 109.73      | -161.        | 4.           | 52.          | .37         | 55.48  | 129.15  | 4190.   |  |     |
| 6       | -.0       | .0      | 553.0       | 127.06      | 1.           | 10.          | 72.          | -2.26       | 55.83  | 129.57  | 4310.   |  |     |
| 7       | 2.5       | .0      | 609.2       | 139.94      | 142.         | 16.          | 91.          | -2.77       | 55.33  | 128.97  | 4370.   |  |     |
| 8       | 5.0       | .0      | 458.0       | 158.78      | 22.          | 21.          | 159.         | -1.17       | 55.23  | 128.85  | 4010.   |  |     |
| 9       | 10.0      | .0      | 459.7       | 212.35      | -411.        | 196.         | -386.        | 4.10        | 55.63  | 129.33  | 3990.   |  |     |
| 10      | .0        | .0      | 559.2       | 128.73      | 1.           | 5.           | 127.         | -3.44       | 55.50  | 129.18  | 4320.   |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | .00   | 1.5130 | .3463 | .0051  | -.0001 | .0067  | -.0078 |
| 3    | -8.02 | 1.3628 | .3327 | -.0661 | .0031  | .0038  | .0116  |
| 4    | -7.99 | .9096  | .2589 | -.0640 | -.0006 | .0041  | .0022  |
| 5    | -3.99 | 1.2243 | .2966 | -.0519 | .0002  | .0031  | .0010  |
| 6    | -.01  | 1.4947 | .3434 | .0002  | .0006  | .0044  | -.0061 |
| 7    | 2.51  | 1.6465 | .3782 | .0458  | .0010  | .0055  | -.0075 |
| 8    | 5.02  | 1.2377 | .4291 | .0071  | .0013  | .0096  | -.0032 |
| 9    | 10.01 | 1.2425 | .5739 | -.1324 | .0118  | -.0233 | .0111  |
| 10   | .01   | 1.5114 | .3479 | .0003  | .0003  | .0076  | -.0093 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | .00   | 1.5130 | .3463 | .0051  | -.0001 | .0067  | -.0078 |
| 3    | -8.02 | 1.3628 | .3327 | -.0661 | .0031  | .0038  | .0116  |
| 4    | -7.99 | .9096  | .2589 | -.0640 | -.0006 | .0041  | .0022  |
| 5    | -3.99 | 1.2243 | .2966 | -.0519 | .0002  | .0031  | .0010  |
| 6    | -.01  | 1.4947 | .3434 | .0002  | .0006  | .0044  | -.0061 |
| 7    | 2.51  | 1.6465 | .3782 | .0458  | .0010  | .0055  | -.0075 |
| 8    | 5.02  | 1.2377 | .4291 | .0071  | .0013  | .0096  | -.0032 |
| 9    | 10.01 | 1.2425 | .5739 | -.1324 | .0118  | -.0233 | .0111  |
| 10   | .01   | 1.5114 | .3479 | .0003  | .0003  | .0076  | -.0093 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 299 CONFIG F P H NP1 W5 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | 0           | 0     | RPM     |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |       |
| 3       | -0.0      | .0      | 61.5        | 33.60       | -496.        | 75.          | 311.         | .00         | 6.24  | 42.96   | 1350. |
| 4       | -0.0      | .0      | 60.7        | 33.01       | -493.        | 43.          | 0.           | .00         | 9.15  | 52.07   | 1630. |
| 5       | -8.0      | .0      | -169.8      | 42.20       | -609.        | 9.           | 101.         | 2.97        | 9.17  | 52.12   | 1610. |
| 6       | -4.0      | .0      | -59.0       | 33.12       | -605.        | 48.          | 105.         | 1.50        | 9.06  | 51.82   | 1580. |
| 7       | -0.0      | .0      | 59.7        | 32.48       | -465.        | 99.          | -2.          | 1.48        | 9.22  | 52.26   | 1640. |
| 8       | 2.5       | .0      | 142.7       | 36.51       | -371.        | 62.          | 104.         | .73         | 9.28  | 52.43   | 1640. |
| 9       | 5.0       | .0      | 221.9       | 43.87       | -350.        | 115.         | 215.         | -1.50       | 9.07  | 51.84   | 1690. |
| 10      | 10.0      | .0      | 371.9       | 65.86       | -304.        | 86.          | 315.         | -3.67       | 9.28  | 52.44   | 1780. |
| 11      | 15.0      | .0      | 491.7       | 107.94      | -350.        | 120.         | 423.         | -5.57       | 9.18  | 52.15   | 1840. |
| 13      | -0.0      | .0      | 60.0        | 32.09       | -488.        | 137.         | 206.         | 2.95        | 9.25  | 52.35   | 1620. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|-------|--------|-------|--------|--------|
| 3    | -.01  | .1663  | .0908 | -.1598 | .0045 | .0188  | .0000  |
| 4    | -.01  | .1640  | .0892 | -.1590 | .0026 | .0000  | .0000  |
| 5    | -8.01 | -.4588 | .1140 | -.1962 | .0005 | .0061  | .0080  |
| 6    | -4.02 | -.1595 | .0895 | -.1951 | .0029 | .0063  | .0041  |
| 7    | -0.00 | .1615  | .0878 | -.1499 | .0060 | -.0001 | .0040  |
| 8    | 2.53  | .3856  | .0987 | -.1195 | .0037 | .0063  | .0020  |
| 9    | 4.99  | .5999  | .1186 | -.1130 | .0069 | .0130  | -.0041 |
| 10   | 10.00 | 1.0052 | .1780 | -.0980 | .0052 | .0190  | -.0099 |
| 11   | 14.98 | 1.3290 | .2917 | -.1127 | .0073 | .0256  | -.0150 |
| 13   | -0.00 | .1622  | .0867 | -.1572 | .0083 | .0124  | .0080  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|-------|--------|-------|--------|--------|
| 3    | -.01  | .1663  | .0908 | -.1598 | .0045 | .0188  | .0000  |
| 4    | -.01  | .1640  | .0892 | -.1590 | .0026 | .0000  | .0000  |
| 5    | -8.01 | -.4588 | .1140 | -.1962 | .0005 | .0061  | .0080  |
| 6    | -4.02 | -.1595 | .0895 | -.1951 | .0029 | .0063  | .0041  |
| 7    | -0.00 | .1615  | .0878 | -.1499 | .0060 | -.0001 | .0040  |
| 8    | 2.53  | .3856  | .0987 | -.1195 | .0037 | .0063  | .0020  |
| 9    | 4.99  | .5999  | .1186 | -.1130 | .0069 | .0130  | -.0041 |
| 10   | 10.00 | 1.0052 | .1780 | -.0980 | .0052 | .0190  | -.0099 |
| 11   | 14.98 | 1.3290 | .2917 | -.1127 | .0073 | .0256  | -.0150 |
| 13   | -0.00 | .1622  | .0867 | -.1572 | .0083 | .0124  | .0080  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 302 CONFIG F P B NP3 W5 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSR      | 0            | 0           | RPM   |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | 75.1        | 33.01       | -430.        | 58.          | 16.          | 1.96        | 53.79 | 127.16  | 0. |
| 3       | -8.0      | .0      | -148.0      | 51.87       | -388.        | -14.         | 26.          | 5.19        | 55.75 | 129.49  | 0. |
| 4       | -4.0      | .0      | -38.2       | 37.63       | -387.        | 40.          | -4.          | 2.43        | 54.57 | 128.09  | 0. |
| 5       | -.0       | .0      | 74.3        | 33.25       | -434.        | 57.          | 17.          | .94         | 54.43 | 127.92  | 0. |
| 6       | 2.5       | .0      | 151.7       | 37.37       | -370.        | 70.          | 88.          | .62         | 54.59 | 128.11  | 0. |
| 7       | 5.0       | .0      | 225.8       | 45.97       | -334.        | 76.          | 71.          | -.75        | 54.78 | 128.34  | 0. |
| 8       | 10.0      | .0      | 375.8       | 73.21       | -355.        | 44.          | 54.          | -.50        | 54.18 | 127.62  | 0. |
| 9       | 15.0      | .0      | 480.3       | 118.36      | -552.        | 56.          | 72.          | -.38        | 54.07 | 127.48  | 0. |
| 10      | 20.0      | .0      | 502.4       | 182.20      | -835.        | 104.         | 178.         | -1.51       | 54.20 | 127.63  | 0. |
| 12      | 10.0      | .0      | 375.5       | 74.06       | -361.        | 48.          | 125.         | .06         | 54.45 | 127.94  | 0. |
| 13      | 12.0      | .0      | 434.2       | 89.13       | -399.        | 54.          | 162.         | -1.95       | 54.02 | 127.43  | 0. |
| 14      | 15.0      | .0      | 475.1       | 118.85      | -564.        | 87.          | 71.          | .50         | 54.30 | 127.76  | 0. |
| 15      | 17.5      | .0      | 491.0       | 150.95      | -756.        | 84.          | 161.         | -.63        | 54.13 | 127.56  | 0. |
| 16      | 20.0      | .0      | 500.8       | 182.37      | -832.        | 103.         | 160.         | -1.06       | 54.40 | 127.88  | 0. |
| 17      | -.0       | .0      | 76.4        | 34.03       | -426.        | 64.          | 33.          | 1.87        | 54.54 | 128.05  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | .00   | .2029  | .0892 | -.1385 | .0035  | .0009  | .0053  |
| 3    | -8.01 | -.4001 | .1402 | -.1251 | -.0008 | .0016  | .0140  |
| 4    | -4.00 | -.1033 | .1017 | -.1247 | .0024  | -.0002 | .0066  |
| 5    | -.02  | .2009  | .0899 | -.1398 | .0034  | .0010  | .0025  |
| 6    | 2.48  | .4099  | .1010 | -.1194 | .0042  | .0053  | .0017  |
| 7    | 5.00  | .6104  | .1242 | -.1076 | .0046  | .0043  | -.0020 |
| 8    | 9.98  | 1.0157 | .1979 | -.1144 | .0027  | .0033  | -.0014 |
| 9    | 14.98 | 1.2982 | .3199 | -.1779 | .0034  | .0043  | -.0010 |
| 10   | 19.99 | 1.3577 | .4924 | -.2693 | .0063  | .0108  | -.0041 |
| 12   | 9.99  | 1.0148 | .2002 | -.1162 | .0029  | .0075  | .0002  |
| 13   | 12.00 | 1.1736 | .2409 | -.1287 | .0033  | .0098  | -.0053 |
| 14   | 14.98 | 1.2841 | .3212 | -.1817 | .0053  | .0043  | .0014  |
| 15   | 17.50 | 1.3271 | .4080 | -.2437 | .0051  | .0097  | -.0017 |
| 16   | 19.99 | 1.3535 | .4929 | -.2684 | .0062  | .0097  | -.0029 |
| 17   | -.01  | .2064  | .0920 | -.1374 | .0039  | .0020  | .0051  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR   | CPMB   | CYMB   | CRMB   | CYR    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | .00   | .2029  | .0892 | -.1385 | .0035  | .0009  | .0053  |
| 3    | -8.01 | -.4001 | .1402 | -.1251 | -.0008 | .0016  | .0140  |
| 4    | -4.00 | -.1033 | .1017 | -.1247 | .0024  | -.0002 | .0066  |
| 5    | -.02  | .2009  | .0899 | -.1398 | .0034  | .0010  | .0025  |
| 6    | 2.48  | .4099  | .1010 | -.1194 | .0042  | .0053  | .0017  |
| 7    | 5.00  | .6104  | .1242 | -.1076 | .0046  | .0043  | -.0020 |
| 8    | 9.98  | 1.0157 | .1979 | -.1144 | .0027  | .0033  | -.0014 |
| 9    | 14.98 | 1.2982 | .3199 | -.1779 | .0034  | .0043  | -.0010 |
| 10   | 19.99 | 1.3577 | .4924 | -.2693 | .0063  | .0108  | -.0041 |
| 12   | 9.99  | 1.0148 | .2002 | -.1162 | .0029  | .0075  | .0002  |
| 13   | 12.00 | 1.1736 | .2409 | -.1287 | .0033  | .0098  | -.0053 |
| 14   | 14.98 | 1.2841 | .3212 | -.1817 | .0053  | .0043  | .0014  |
| 15   | 17.50 | 1.3271 | .4080 | -.2437 | .0051  | .0097  | -.0017 |
| 16   | 19.99 | 1.3535 | .4929 | -.2684 | .0062  | .0097  | -.0029 |
| 17   | -.01  | .2064  | .0920 | -.1374 | .0039  | .0020  | .0051  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P259

RUN 303 CONFIG F P B NP4 W5 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSR      | 0            | 0           | 0     | RPM     |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |
| 2       | .0        | .0      | 75.3        | 33.42       | -423.        | 41.          | 16.          | 1.44        | 54.54 | 128.06  |
| 3       | -8.0      | .0      | -149.0      | 51.88       | -377.        | -18.         | 10.          | 4.34        | 54.89 | 128.47  |
| 4       | -4.0      | .0      | -40.5       | 37.97       | -417.        | 27.          | 33.          | 1.24        | 56.12 | 128.74  |
| 5       | -0        | .0      | 75.2        | 33.83       | -442.        | 60.          | 67.          | 2.80        | 54.66 | 128.19  |
| 6       | 2.5       | .0      | 151.5       | 37.17       | -365.        | 74.          | 87.          | .49         | 56.37 | 129.04  |
| 7       | 5.0       | .0      | 228.9       | 45.20       | -318.        | 87.          | 89.          | -.74        | 56.03 | 128.64  |
| 8       | 10.1      | .0      | 378.0       | 70.82       | -357.        | 59.          | 159.         | -.93        | 55.08 | 128.70  |
| 9       | 12.5      | .0      | 443.3       | 88.86       | -404.        | 68.          | 160.         | -.50        | 54.74 | 128.29  |
| 10      | 15.0      | .0      | 463.1       | 117.12      | -591.        | 82.          | 176.         | 1.49        | 55.00 | 128.59  |
| 11      | 17.5      | .0      | 488.6       | 151.94      | -780.        | 71.          | 232.         | -1.57       | 54.23 | 127.67  |
| 12      | 20.0      | .0      | 494.9       | 181.88      | -867.        | 87.          | 195.         | -2.56       | 54.60 | 128.12  |
| 13      | 15.0      | .0      | 467.2       | 118.32      | -591.        | 84.          | 106.         | -.31        | 54.91 | 128.49  |
| 14      | -0        | .0      | 73.9        | 34.36       | -429.        | 55.          | 51.          | .99         | 55.20 | 128.84  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|-------|--------|-------|--------|--------|-------|--------|
| 2    | .00   | .2036  | .0903 | -.1362 | .0025  | .0010 | .0039  |
| 3    | -7.99 | -.4028 | .1402 | -.1215 | -.0011 | .0006 | .0117  |
| 4    | -3.99 | -.1094 | .1026 | -.1346 | .0016  | .0020 | .0033  |
| 5    | -.02  | .2033  | .0914 | -.1425 | .0036  | .0041 | .0076  |
| 6    | 2.54  | .4094  | .1005 | -.1176 | .0045  | .0053 | .0013  |
| 7    | 5.02  | .6186  | .1222 | -.1024 | .0052  | .0054 | -.0020 |
| 8    | 10.09 | 1.0216 | .1914 | -.1152 | .0035  | .0096 | -.0025 |
| 9    | 12.47 | 1.1980 | .2402 | -.1304 | .0041  | .0096 | -.0013 |
| 10   | 14.97 | 1.2515 | .3165 | -.1906 | .0050  | .0106 | .0040  |
| 11   | 17.50 | 1.3206 | .4106 | -.2513 | .0043  | .0140 | -.0042 |
| 12   | 19.96 | 1.3375 | .4916 | -.2794 | .0052  | .0118 | -.0069 |
| 13   | 15.01 | 1.2626 | .3198 | -.1904 | .0051  | .0064 | -.0008 |
| 14   | -.03  | .1999  | .0929 | -.1381 | .0033  | .0031 | .0027  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR   | CPMB   | CYMR   | CRMB  | CYB    |
|------|-------|--------|-------|--------|--------|-------|--------|
| 2    | .00   | .2036  | .0903 | -.1362 | .0025  | .0010 | .0039  |
| 3    | -7.99 | -.4028 | .1402 | -.1215 | -.0011 | .0006 | .0117  |
| 4    | -3.99 | -.1094 | .1026 | -.1346 | .0016  | .0020 | .0033  |
| 5    | -.02  | .2033  | .0914 | -.1425 | .0036  | .0041 | .0076  |
| 6    | 2.54  | .4094  | .1005 | -.1176 | .0045  | .0053 | .0013  |
| 7    | 5.02  | .6186  | .1222 | -.1024 | .0052  | .0054 | -.0020 |
| 8    | 10.09 | 1.0216 | .1914 | -.1152 | .0035  | .0096 | -.0025 |
| 9    | 12.47 | 1.1980 | .2402 | -.1304 | .0041  | .0096 | -.0013 |
| 10   | 14.97 | 1.2515 | .3165 | -.1906 | .0050  | .0106 | .0040  |
| 11   | 17.50 | 1.3206 | .4106 | -.2513 | .0043  | .0140 | -.0042 |
| 12   | 19.96 | 1.3375 | .4916 | -.2794 | .0052  | .0118 | -.0069 |
| 13   | 15.01 | 1.2626 | .3198 | -.1904 | .0051  | .0064 | -.0008 |
| 14   | -.03  | .1999  | .0929 | -.1381 | .0033  | .0031 | .0027  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

A 260

RUN 304 CONFIG F P B NP4 W5 T BT

| IW      | O DELF    |         | O DELA      | O IHT       | O DELE       |              | O DELR       |             | O DFLSB |         | O | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|---------|---------|---|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF     | V KNOTS |   |     |
| 2       | .0        | .0      | 75.0        | 34.36       | -434.        | 54.          | 18.          | .13         | 54.46   | 127.96  |   | 0.  |
| 3       | .0        | -15.0   | 78.8        | 54.33       | -532.        | 492.         | 108.         | -97.14      | 54.60   | 128.12  |   | 0.  |
| 4       | .0        | -10.0   | 79.7        | 43.39       | -522.        | 275.         | 24.          | -64.06      | 54.66   | 128.20  |   | 0.  |
| 5       | .0        | -5.0    | 75.8        | 37.50       | -495.        | 139.         | 51.          | -30.94      | 54.50   | 128.00  |   | 0.  |
| 6       | .0        | -2.5    | 73.7        | 35.48       | -456.        | 108.         | 49.          | -15.39      | 55.13   | 128.75  |   | 0.  |
| 7       | .0        | .0      | 75.9        | 34.82       | -434.        | 58.          | 53.          | .12         | 54.76   | 128.31  |   | 0.  |
| 8       | .0        | 2.5     | 76.2        | 35.53       | -457.        | 60.          | 27.          | 15.95       | 54.02   | 127.43  |   | 0.  |
| 9       | .0        | 5.0     | 76.5        | 36.67       | -464.        | 31.          | -14.         | 32.72       | 54.34   | 127.81  |   | 0.  |
| 10      | .0        | 10.0    | 77.1        | 40.70       | -544.        | -151.        | 12.          | 63.42       | 54.46   | 127.96  |   | 0.  |
| 11      | .0        | 15.0    | 81.6        | 51.57       | -637.        | -474.        | 42.          | 101.56      | 54.94   | 128.53  |   | 0.  |
| 12      | .0        | .0      | 74.7        | 34.47       | -409.        | 64.          | 52.          | 1.06        | 54.78   | 128.33  |   | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .2026 | .0929 | -.1399 | .0032  | .0011  | .0003  |
| 3    | -15.00 | .2130 | .1468 | -.1715 | .0297  | .0065  | -.2625 |
| 4    | -10.00 | .2155 | .1173 | -.1683 | .0166  | .0015  | -.1731 |
| 5    | -5.00  | .2049 | .1014 | -.1596 | .0084  | .0031  | -.0836 |
| 6    | -2.50  | .1993 | .0959 | -.1469 | .0065  | .0030  | -.0416 |
| 7    | .00    | .2052 | .0941 | -.1400 | .0035  | .0032  | .0003  |
| 8    | 2.50   | .2059 | .0960 | -.1474 | .0036  | .0016  | .0431  |
| 9    | 5.00   | .2068 | .0991 | -.1495 | .0018  | -.0008 | .0884  |
| 10   | 10.00  | .2083 | .1100 | -.1753 | -.0091 | .0007  | .1714  |
| 11   | 15.00  | .2206 | .1394 | -.2053 | -.0286 | .0026  | .2745  |
| 12   | .00    | .2020 | .0932 | -.1318 | .0039  | .0031  | .0029  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDR   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .2026 | .0929 | -.1399 | .0032  | .0011  | .0003  |
| 3    | -15.00 | .2130 | .0735 | -.1747 | .0297  | .0146  | -.2917 |
| 4    | -10.00 | .2155 | .0853 | -.1671 | .0166  | .0070  | -.1909 |
| 5    | -5.00  | .2049 | .0936 | -.1604 | .0084  | .0057  | -.0922 |
| 6    | -2.50  | .1993 | .0940 | -.1474 | .0065  | .0042  | -.0457 |
| 7    | .00    | .2052 | .0941 | -.1400 | .0035  | .0032  | .0003  |
| 8    | 2.50   | .2059 | .0941 | -.1469 | .0036  | .0004  | .0473  |
| 9    | 5.00   | .2068 | .0910 | -.1494 | .0018  | -.0033 | .0968  |
| 10   | 10.00  | .2083 | .0784 | -.1719 | -.0091 | -.0050 | .1880  |
| 11   | 15.00  | .2206 | .0632 | -.1947 | -.0286 | -.0075 | .3013  |
| 12   | .00    | .2020 | .0932 | -.1318 | .0039  | .0031  | .0029  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 26/

RUN 305 CONFIG F P B NP1 W5 T BT

| IW      | 0 DELF    | 0 DELA  | -10 IHT     | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM   |
| 2       | .0        | .0      | 64.0        | 33.01       | -511.        | 63.          | -533.        | .75         | 54.63 | 128.16  | 3550. |
| 3       | .0        | -15.0   | 73.3        | 54.26       | -430.        | 277.         | -711.        | -97.73      | 54.72 | 128.27  | 3410. |
| 4       | .0        | -10.0   | 73.7        | 42.78       | -505.        | 198.         | -513.        | -64.88      | 54.45 | 127.94  | 3470. |
| 5       | .0        | -5.0    | 66.2        | 36.76       | -517.        | 117.         | -561.        | -32.77      | 53.85 | 127.22  | 3500. |
| 6       | .0        | -2.5    | 64.9        | 34.43       | -499.        | 89.          | -501.        | -15.90      | 54.64 | 128.17  | 3540. |
| 7       | .0        | .0      | 66.4        | 33.55       | -523.        | 70.          | -515.        | .68         | 54.70 | 128.25  | 3570. |
| 8       | .0        | 2.5     | 64.1        | 33.46       | -562.        | 92.          | -519.        | 16.70       | 55.09 | 128.70  | 3590. |
| 9       | .0        | 5.0     | 63.6        | 34.48       | -599.        | 77.          | -501.        | 31.53       | 55.21 | 128.85  | 3620. |
| 10      | .0        | 10.0    | 69.0        | 39.58       | -740.        | -66.         | -501.        | 66.27       | 54.69 | 128.23  | 3670. |
| 11      | .0        | 15.0    | 71.3        | 48.88       | -848.        | -226.        | -383.        | 97.63       | 55.30 | 128.96  | 3710. |
| 12      | .0        | .0      | 65.5        | 33.15       | -498.        | 67.          | -533.        | 2.05        | 54.82 | 128.39  | 3570. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .1729 | .0892 | -.1648 | .0038  | -.0322 | .0020  |
| 3    | -15.00 | .1981 | .1467 | -.1386 | .0167  | -.0429 | -.2641 |
| 4    | -10.00 | .1991 | .1156 | -.1629 | .0120  | -.0310 | -.1753 |
| 5    | -5.00  | .1790 | .0994 | -.1665 | .0071  | -.0339 | -.0886 |
| 6    | -2.50  | .1753 | .0931 | -.1609 | .0054  | -.0303 | -.0430 |
| 7    | .00    | .1796 | .0907 | -.1687 | .0042  | -.0311 | .0019  |
| 8    | 2.50   | .1731 | .0904 | -.1811 | .0056  | -.0313 | .0451  |
| 9    | 5.00   | .1720 | .0932 | -.1930 | .0046  | -.0302 | .0852  |
| 10   | 10.00  | .1866 | .1070 | -.2386 | -.0040 | -.0302 | .1791  |
| 11   | 15.00  | .1926 | .1321 | -.2732 | -.0136 | -.0231 | .2639  |
| 12   | .00    | .1770 | .0896 | -.1605 | .0041  | -.0322 | .0055  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .1729 | .0892 | -.1648 | .0038  | -.0322 | .0020  |
| 3    | -15.00 | .1981 | .0729 | -.0742 | .0167  | -.0347 | -.2932 |
| 4    | -10.00 | .1991 | .0833 | -.1316 | .0120  | -.0252 | -.1928 |
| 5    | -5.00  | .1790 | .0912 | -.1501 | .0071  | -.0310 | -.0969 |
| 6    | -2.50  | .1753 | .0911 | -.1536 | .0054  | -.0289 | -.0470 |
| 7    | .00    | .1796 | .0907 | -.1687 | .0042  | -.0311 | .0019  |
| 8    | 2.50   | .1731 | .0884 | -.1882 | .0056  | -.0328 | .0490  |
| 9    | 5.00   | .1720 | .0854 | -.2064 | .0046  | -.0333 | .0930  |
| 10   | 10.00  | .1866 | .0741 | -.2631 | -.0040 | -.0376 | .1950  |
| 11   | 15.00  | .1926 | .0590 | -.2959 | -.0136 | -.0356 | .2891  |
| 12   | .00    | .1770 | .0896 | -.1605 | .0041  | -.0322 | .0055  |

RUN 306 CONFIG F P R NP1 W5 T BT

| IW      | 0 DELF    | 0 DELA  | -10 IHT     | 0 DELE      | 0 DELR        | 0 DFLSB      | 0             |             |       |         |       |
|---------|-----------|---------|-------------|-------------|---------------|--------------|---------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM   |
| 5       | .0        | .0      | 64.2        | 33.10       | -495.         | 58.          | -538.         | -.06        | 54.04 | 127.46  | 3560. |
| 6       | .0        | .0      | 65.4        | 32.77       | -497.         | 68.          | -512.         | 2.35        | 45.18 | 128.82  | 3580. |
| 7       | -8.0      | .0      | -168.9      | 43.81       | -582.         | -90.         | -513.         | 3.02        | 55.34 | 129.01  | 3590. |
| 8       | -4.0      | .0      | -54.9       | 33.44       | -607.         | -16.         | -513.         | 4.42        | 55.51 | 129.21  | 3540. |
| 9       | -.0       | .0      | 63.1        | 32.79       | -503.         | 68.          | -491.         | .31         | 55.35 | 129.02  | 3590. |
| 10      | 2.6       | .0      | 142.2       | 36.85       | -436.         | 116.         | -542.         | .43         | 55.43 | 129.12  | 3660. |
| 11      | 5.0       | .0      | 218.4       | 43.59       | -406.         | 165.         | -506.         | .49         | 55.61 | 129.32  | 3740. |
| 12      | 10.0      | .0      | 372.9       | 66.48       | -408.         | 210.         | -349.         | -1.48       | 55.42 | 129.10  | 3940. |
| 13      | 15.1      | .0      | 517.8       | 105.04      | -426.         | 260.         | -314.         | -1.06       | 55.55 | 129.25  | 4190. |
| 14      | 20.0      | .0      | 528.5       | 165.57      | -597.         | 247.         | 17.           | -1.10       | 55.89 | 129.66  | 4270. |
| 15      | .0        | .0      | 64.3        | 32.60       | -502.         | 79.          | -472.         | 2.56        | 55.78 | 129.53  | 3590. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 5    | .01   | .1736  | .0895 | -.1597 | .0035  | -.0325 | -.0002 |
| 6    | .01   | .1767  | .0886 | -.1591 | .0041  | -.0309 | .0063  |
| 7    | -7.97 | -.4566 | .1184 | -.1875 | -.0054 | -.0310 | .0082  |
| 8    | -3.99 | -.1483 | .0904 | -.1958 | -.0010 | -.0310 | .0119  |
| 9    | -.01  | .1705  | .0886 | -.1621 | .0041  | -.0296 | .0008  |
| 10   | 2.60  | .3843  | .0996 | -.1406 | .0070  | -.0328 | .0012  |
| 11   | 5.02  | .5902  | .1178 | -.1309 | .0100  | -.0305 | .0013  |
| 12   | 10.02 | 1.0079 | .1797 | -.1315 | .0127  | -.0211 | -.0040 |
| 13   | 15.06 | 1.3995 | .2863 | -.1374 | .0157  | -.0189 | -.0053 |
| 14   | 19.97 | 1.4284 | .4475 | -.1926 | .0149  | .0010  | -.0030 |
| 15   | .05   | .1737  | .0881 | -.1619 | .0048  | -.0285 | .0069  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR   | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 5    | .01   | .1736  | .0895 | -.1597 | .0035  | -.0325 | -.0002 |
| 6    | .01   | .1767  | .0886 | -.1591 | .0041  | -.0309 | .0063  |
| 7    | -7.97 | -.4566 | .1184 | -.1875 | -.0054 | -.0310 | .0082  |
| 8    | -3.99 | -.1483 | .0904 | -.1958 | -.0010 | -.0310 | .0119  |
| 9    | -.01  | .1705  | .0886 | -.1621 | .0041  | -.0296 | .0008  |
| 10   | 2.60  | .3843  | .0996 | -.1406 | .0070  | -.0328 | .0012  |
| 11   | 5.02  | .5902  | .1178 | -.1309 | .0100  | -.0305 | .0013  |
| 12   | 10.02 | 1.0079 | .1797 | -.1315 | .0127  | -.0211 | -.0040 |
| 13   | 15.06 | 1.3995 | .2863 | -.1374 | .0157  | -.0189 | -.0053 |
| 14   | 19.97 | 1.4284 | .4475 | -.1926 | .0149  | .0010  | -.0030 |
| 15   | .05   | .1737  | .0881 | -.1619 | .0048  | -.0285 | .0069  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 263

RUN 307 CONFIG F P B NP1 W5 T BT

| IW      | 0 DELF    | 0 DELA  | -20 IHT     | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM   |
| 3       | .0        | .0      | 52.4        | 40.89       | -494.        | 58.          | -1134.       | -1.11       | 55.45 | 129.13  | 3630. |
| 4       | -8.0      | .0      | -172.9      | 51.75       | -542.        | -184.        | -1037.       | .42         | 56.12 | 129.93  | 3590. |
| 5       | -4.0      | .0      | -64.2       | 41.97       | -584.        | -69.         | -1055.       | .99         | 55.19 | 128.82  | 3540. |

|    |      |    |       |        |       |      |        |       |       |        |       |
|----|------|----|-------|--------|-------|------|--------|-------|-------|--------|-------|
| 6  | -.1  | .0 | 51.5  | 40.51  | -478. | 51.  | -1075. | -1.04 | 55.81 | 129.56 | 3610. |
| 7  | 2.5  | .0 | 130.3 | 44.48  | -411. | 133. | -1086. | -.86  | 55.28 | 128.93 | 3680. |
| 8  | 5.0  | .0 | 206.5 | 50.75  | -391. | 207. | -1056. | -2.07 | 55.86 | 129.62 | 3770. |
| 9  | 10.0 | .0 | 356.2 | 71.89  | -392. | 334. | -965.  | -4.13 | 56.10 | 129.90 | 3960. |
| 10 | 15.1 | .0 | 506.7 | 111.27 | -430. | 481. | -971.  | -5.80 | 55.82 | 129.57 | 4220. |
| 11 | 20.0 | .0 | 520.2 | 166.41 | -574. | 421. | -345.  | -4.96 | 56.35 | 130.19 | 4300. |
| 12 | -.0  | .0 | 52.0  | 40.82  | -487. | 56.  | -1083. | -1.66 | 55.34 | 129.00 | 3610. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI   | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 3    | .00   | .1416  | .1105 | -.1593 | .0035  | -.0685 | -.0030 |
| 4    | -8.01 | -.4674 | .1399 | -.1748 | -.0111 | -.0626 | .0011  |
| 5    | -4.02 | -.1735 | .1134 | -.1882 | -.0042 | -.0637 | .0027  |
| 6    | -.08  | .1392  | .1095 | -.1541 | .0031  | -.0649 | -.0028 |
| 7    | 2.46  | .3521  | .1202 | -.1325 | .0080  | -.0656 | -.0023 |
| 8    | 4.96  | .5580  | .1372 | -.1260 | .0125  | -.0638 | -.0056 |
| 9    | 9.97  | .9627  | .1943 | -.1265 | .0202  | -.0583 | -.0112 |
| 10   | 15.08 | 1.3696 | .3007 | -.1385 | .0291  | -.0586 | -.0157 |
| 11   | 19.97 | 1.4060 | .4497 | -.1850 | .0254  | -.0208 | -.0134 |
| 12   | -.01  | .1406  | .1103 | -.1569 | .0034  | -.0654 | -.0045 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI   | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 3    | .00   | .1416  | .1105 | -.1593 | .0035  | -.0685 | -.0030 |
| 4    | -8.01 | -.4674 | .1399 | -.1748 | -.0111 | -.0626 | .0011  |
| 5    | -4.02 | -.1735 | .1134 | -.1882 | -.0042 | -.0637 | .0027  |
| 6    | -.08  | .1392  | .1095 | -.1541 | .0031  | -.0649 | -.0028 |
| 7    | 2.46  | .3521  | .1202 | -.1325 | .0080  | -.0656 | -.0023 |
| 8    | 4.96  | .5580  | .1372 | -.1260 | .0125  | -.0638 | -.0056 |
| 9    | 9.97  | .9627  | .1943 | -.1265 | .0202  | -.0583 | -.0112 |
| 10   | 15.08 | 1.3696 | .3007 | -.1385 | .0291  | -.0586 | -.0157 |
| 11   | 19.97 | 1.4060 | .4497 | -.1850 | .0254  | -.0208 | -.0134 |
| 12   | -.01  | .1406  | .1103 | -.1569 | .0034  | -.0654 | -.0045 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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A. 264

RUN 308 CONFIG F P 8 W5 NP1 T BT

| PT. NO. | INW | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | -20 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELR<br>CYBAR<br>SQ-FT | 0 DELSB<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM   |
|---------|-----|------------------------|----------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------------|---------------------|-----------------|-------|
| 1       |     | -0.0                   | .0                   | 52.2                     | 41.23                     | -503.                     | 62.                       | -1132.                    | -75                      | 54.71               | 128.25          | 3610. |
| 2       |     | -0.0                   | -15.0                | 61.8                     | 62.55                     | -236.                     | 368.                      | -975.                     | -99.94                   | 55.15               | 128.77          | 3470. |
| 3       |     | -0.0                   | -10.0                | 59.2                     | 55.41                     | -737.                     | 456.                      | -482.                     | -72.32                   | 55.58               | 129.28          | 3520. |
| 4       |     | -0.0                   | -5.0                 | 55.2                     | 44.07                     | -423.                     | 108.                      | -1103.                    | -32.73                   | 55.58               | 129.28          | 3570. |
| 5       |     | -0.0                   | -2.5                 | 53.4                     | 41.97                     | -440.                     | 76.                       | -1097.                    | -16.89                   | 55.87               | 129.63          | 3590. |
| 6       |     | -0.0                   | .0                   | 51.2                     | 40.63                     | -499.                     | 58.                       | -1074.                    | -1.28                    | 55.83               | 129.58          | 3620. |
| 7       |     | -0.0                   | 2.5                  | 50.6                     | 40.67                     | -574.                     | 81.                       | -1105.                    | 14.14                    | 55.42               | 129.10          | 3640. |
| 8       |     | -0.0                   | 5.0                  | 51.8                     | 41.26                     | -653.                     | 48.                       | -1094.                    | 28.62                    | 55.94               | 129.71          | 3670. |
| 9       |     | -0.0                   | 10.0                 | 57.1                     | 45.83                     | -862.                     | -100.                     | -1035.                    | 62.60                    | 55.88               | 129.64          | 3720. |
| 10      |     | -0.0                   | 15.0                 | 64.2                     | 56.01                     | -1070.                    | -260.                     | -966.                     | 94.76                    | 55.47               | 129.15          | 3770. |
| 11      |     | -0.0                   | -10.0                | 59.4                     | 50.34                     | -372.                     | 189.                      | -1061.                    | -63.70                   | 55.88               | 129.64          | 3540. |
| 12      |     | -0.0                   | .0                   | 51.6                     | 40.49                     | -500.                     | 65.                       | -1068.                    | -.12                     | 56.23               | 130.05          | 3630. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 1    | .00    | .1410 | .1114 | -.1621 | .0037  | -.0684 | -.0020 |
| 2    | -15.00 | .1670 | .1691 | -.0761 | .0222  | -.0589 | -.2701 |
| 3    | -10.00 | .1601 | .1497 | -.2375 | .0275  | -.0291 | -.1955 |
| 4    | -5.00  | .1491 | .1191 | -.1363 | .0065  | -.0666 | -.0885 |
| 5    | -2.50  | .1445 | .1134 | -.1420 | .0046  | -.0663 | -.0456 |
| 6    | .00    | .1385 | .1098 | -.1610 | .0035  | -.0649 | -.0035 |
| 7    | 2.50   | .1368 | .1099 | -.1850 | .0049  | -.0667 | .0382  |
| 8    | 5.00   | .1400 | .1115 | -.2104 | .0029  | -.0661 | .0774  |
| 9    | 10.00  | .1542 | .1239 | -.2778 | -.0061 | -.0625 | .1692  |
| 10   | 15.00  | .1734 | .1514 | -.3450 | -.0157 | -.0583 | .2561  |
| 11   | -10.00 | .1605 | .1360 | -.1201 | .0114  | -.0641 | -.1722 |
| 12   | .00    | .1394 | .1094 | -.1611 | .0039  | -.0645 | -.0003 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 1    | .00    | .1410 | .1114 | -.1621 | .0037  | -.0684 | -.0020 |
| 2    | -15.00 | .1670 | .0930 | -.0082 | .0222  | -.0532 | -.3048 |
| 3    | -10.00 | .1601 | .1134 | -.2068 | .0275  | -.0209 | -.2186 |
| 4    | -5.00  | .1491 | .1109 | -.1046 | .0065  | -.0641 | -.0985 |
| 5    | -2.50  | .1445 | .1113 | -.1264 | .0046  | -.0650 | -.0506 |
| 6    | .00    | .1385 | .1098 | -.1610 | .0035  | -.0649 | -.0035 |
| 7    | 2.50   | .1368 | .1081 | -.2004 | .0049  | -.0682 | .0430  |
| 8    | 5.00   | .1400 | .1043 | -.2405 | .0029  | -.0693 | .0868  |
| 9    | 10.00  | .1542 | .0924 | -.3317 | -.0061 | -.0707 | .1882  |
| 10   | 15.00  | .1734 | .0796 | -.4141 | -.0157 | -.0731 | .2867  |
| 11   | -10.00 | .1605 | .1039 | -.0586 | .0114  | -.0592 | -.1932 |
| 12   | .00    | .1394 | .1094 | -.1611 | .0039  | -.0645 | -.0003 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AFRODYNAMIC DATA

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D 265

RUN 309 CONFIG F P H W5 NP1 T PT

| IW      | Q DELF    | Q DELA  | 10 INT      | Q DELF      | Q DELR       | Q DFLSB      | Q            | V           | PPM   |        |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|--------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLPAR SQ-FT | CPBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  |       |
| 2       | .0        | .0      | 65.1        | 32.93       | -493.        | 56.          | 542.         | .00         | 55.42 | 129.10 | 3590. |
| 3       | .0        | -15.0   | 74.2        | 52.22       | -746.        | 333.         | 501.         | -96.65      | 56.29 | 130.12 | 3440. |
| 4       | .0        | -10.0   | 70.7        | 41.07       | -658.        | 208.         | 571.         | -62.88      | 56.29 | 130.12 | 3500. |
| 5       | .0        | -5.0    | 66.2        | 34.87       | -561.        | 91.          | 564.         | -29.07      | 56.12 | 129.92 | 3550. |
| 6       | .0        | -2.5    | 65.9        | 33.85       | -518.        | 94.          | 519.         | -14.59      | 55.34 | 129.00 | 3560. |
| 7       | .0        | .0      | 65.6        | 32.71       | -483.        | 75.          | 567.         | 2.25        | 56.08 | 129.87 | 3590. |
| 8       | .0        | 2.5     | 65.5        | 33.35       | -473.        | 76.          | 541.         | 18.32       | 56.17 | 129.97 | 3620. |
| 9       | .0        | 5.0     | 65.0        | 34.87       | -467.        | 64.          | 488.         | 33.44       | 56.12 | 129.92 | 3640. |
| 10      | .0        | 10.0    | 72.6        | 39.91       | -496.        | -77.         | 508.         | 67.01       | 56.07 | 129.86 | 3700. |
| 11      | .0        | 15.0    | 73.8        | 50.31       | -470.        | -272.        | 482.         | 100.99      | 55.72 | 129.45 | 3750. |
| 12      | .0        | .0      | 66.1        | 32.95       | -474.        | 67.          | 574.         | 2.52        | 55.36 | 129.02 | 3590. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL    | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|-------|--------|--------|-------|--------|
| 2    | .00    | .1760 | .0890 | -.1588 | .0034  | .0327 | .0000  |
| 3    | -15.00 | .2006 | .1411 | -.2407 | .0201  | .0303 | -.2612 |
| 4    | -10.00 | .1912 | .1110 | -.2122 | .0126  | .0345 | -.1699 |
| 5    | -5.00  | .1788 | .0942 | -.1810 | .0055  | .0341 | -.0786 |
| 6    | -2.50  | .1780 | .0915 | -.1670 | .0057  | .0314 | -.0394 |
| 7    | .00    | .1772 | .0884 | -.1556 | .0045  | .0343 | .0061  |
| 8    | 2.50   | .1770 | .0901 | -.1523 | .0046  | .0327 | .0405  |
| 9    | 5.00   | .1758 | .0942 | -.1505 | .0038  | .0295 | .0904  |
| 10   | 10.00  | .1961 | .1079 | -.1598 | -.0047 | .0307 | .1811  |
| 11   | 15.00  | .1994 | .1360 | -.1517 | -.0165 | .0291 | .2730  |
| 12   | .00    | .1787 | .0891 | -.1529 | .0040  | .0347 | .0068  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB   | CDR   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|-------|--------|--------|-------|--------|
| 2    | .00    | .1760 | .0890 | -.1588 | .0034  | .0327 | .0000  |
| 3    | -15.00 | .2006 | .0684 | -.2744 | .0201  | .0410 | -.2889 |
| 4    | -10.00 | .1912 | .0707 | -.2410 | .0126  | .0409 | -.1867 |
| 5    | -5.00  | .1788 | .0870 | -.1962 | .0055  | .0369 | -.0865 |
| 6    | -2.50  | .1780 | .0897 | -.1742 | .0057  | .0327 | -.0434 |
| 7    | .00    | .1772 | .0884 | -.1556 | .0045  | .0343 | .0061  |
| 8    | 2.50   | .1770 | .0879 | -.1445 | .0046  | .0314 | .0534  |
| 9    | 5.00   | .1758 | .0860 | -.1362 | .0038  | .0269 | .0983  |
| 10   | 10.00  | .1961 | .0746 | -.1288 | -.0047 | .0250 | .1971  |
| 11   | 15.00  | .1994 | .0603 | -.1061 | -.0165 | .0207 | .2989  |
| 12   | .00    | .1787 | .0891 | -.1529 | .0040  | .0347 | .0068  |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011

RUN 310 CONFIG F P B W5 NP1 T RT

P 266

| IW      | 0 DELF    | 0 DELA  | 10 IHT      | 0 DELF      | 0 DELR       | 0 DFLSR      | 0            | 0           | 0     | 0       |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLPAR SQ-FT | CDPAR SQ-FT | CPMPAR CU-FT | CYMPAR CU-FT | CRMPAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM   |
| 1       | .0        | .0      | 64.3        | 32.84       | -479.        | 67.          | 535.         | 1.46        | 56.00 | 129.77  | 3600. |
| 2       | .0        | .0      | 66.3        | 32.73       | -470.        | 59.          | 545.         | .00         | 55.16 | 128.78  | 3570. |
| 3       | -8.0      | .0      | -166.2      | 43.33       | -580.        | 63.          | 497.         | 6.85        | 53.18 | 128.81  | 3570. |
| 4       | -4.2      | .0      | -59.4       | 33.21       | -587.        | 61.          | 514.         | 5.76        | 55.58 | 129.28  | 3520. |
| 5       | .1        | .0      | 69.9        | 33.11       | -466.        | 68.          | 558.         | 3.96        | 55.06 | 128.67  | 3590. |
| 6       | 2.4       | .0      | 139.6       | 36.63       | -401.        | 45.          | 560.         | 1.17        | 55.25 | 128.89  | 3640. |
| 7       | 5.1       | .0      | 221.8       | 43.92       | -385.        | 23.          | 559.         | .86         | 55.38 | 129.04  | 3740. |
| 8       | 10.0      | .0      | 371.0       | 66.17       | -397.        | -30.         | 526.         | .68         | 55.24 | 128.88  | 3930. |
| 9       | 15.0      | .0      | 503.5       | 103.89      | -431.        | -120.        | 539.         | -.49        | 55.70 | 129.42  | 4140. |
| 10      | -1.1      | .0      | 63.8        | 32.48       | -461.        | 62.          | 573.         | 3.07        | 55.45 | 129.12  | 3570. |
| 11      | 20.0      | .0      | 525.6       | 166.43      | -663.        | -99.         | 276.         | .91         | 56.25 | 130.07  | 4280. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|-------|--------|-------|--------|--------|-------|--------|
| 1    | .00   | .1737  | .0888 | -.1544 | .0040  | .0323 | .0039  |
| 2    | .00   | .1791  | .0884 | -.1516 | .0030  | .0329 | .0000  |
| 3    | -8.00 | -.4491 | .1171 | -.1870 | .0038  | .0300 | .0185  |
| 4    | -4.20 | -.1604 | .0898 | -.1893 | .0037  | .0311 | .0156  |
| 5    | .08   | .1889  | .0895 | -.1503 | .0041  | .0337 | .0107  |
| 6    | 2.43  | .3773  | .0990 | -.1293 | .0027  | .0338 | .0032  |
| 7    | 5.08  | .5996  | .1187 | -.1242 | .0014  | .0338 | .0023  |
| 8    | 10.00 | 1.0026 | .1788 | -.1247 | -.0018 | .0318 | .0018  |
| 9    | 15.00 | 1.3608 | .2808 | -.1391 | -.0073 | .0326 | -.0013 |
| 10   | -1.10 | .1725  | .0878 | -.1487 | .0037  | .0346 | .0083  |
| 11   | 19.99 | 1.4205 | .4498 | -.2138 | -.0060 | .0167 | .0025  |

\*\*\* COEFFICIENT FORM - STARTLITY AXIS

| PT.# | ALPHA | CLB    | CDP   | CPMB   | CYMP   | CRMB  | CYB    |
|------|-------|--------|-------|--------|--------|-------|--------|
| 1    | .00   | .1737  | .0888 | -.1544 | .0040  | .0323 | .0039  |
| 2    | .00   | .1791  | .0884 | -.1516 | .0030  | .0329 | .0000  |
| 3    | -8.00 | -.4491 | .1171 | -.1870 | .0038  | .0300 | .0185  |
| 4    | -4.20 | -.1604 | .0898 | -.1893 | .0037  | .0311 | .0156  |
| 5    | .08   | .1889  | .0895 | -.1503 | .0041  | .0337 | .0107  |
| 6    | 2.43  | .3773  | .0990 | -.1293 | .0027  | .0338 | .0032  |
| 7    | 5.08  | .5996  | .1187 | -.1242 | .0014  | .0338 | .0023  |
| 8    | 10.00 | 1.0026 | .1788 | -.1247 | -.0018 | .0318 | .0018  |
| 9    | 15.00 | 1.3608 | .2808 | -.1391 | -.0073 | .0326 | -.0013 |
| 10   | -1.10 | .1725  | .0878 | -.1487 | .0037  | .0346 | .0083  |
| 11   | 19.99 | 1.4205 | .4498 | -.2138 | -.0060 | .0167 | .0025  |

SIKORSKY RSRA 1/6 SCALF MODFL TEST  
AERODYNAMIC DATA

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P 267

RUN 311 CONFIG F P B W5 NP1 T BT

IW 0 DELF 0 DELA 20 IHT 0 DELE 0 DELR 0 DFLSB 0

| PT. NO. | ALPHA DEG | PSI DEG | CLRAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMPAR CU-FT | CRMPAR CU-FT | CYBAP SQ-FT | Q PSF | V KNOTS | PPM   |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| 3       | .0        | .0      | 49.2        | 39.75       | -477.        | 78.          | 1107.        | 3.47        | 54.91 | 128.48  | 3540. |
| 4       | -8.0      | .0      | -184.3      | 51.56       | -571.        | 161.         | 1056.        | 8.64        | 55.17 | 128.79  | 3570. |
| 5       | -4.0      | .0      | -70.6       | 40.33       | -595.        | 121.         | 1084.        | 6.35        | 55.80 | 129.54  | 3500. |
| 7       | 2.5       | .0      | 123.7       | 42.92       | -406.        | 32.          | 1148.        | 2.51        | 55.57 | 129.26  | 3620. |
| 8       | 5.1       | .0      | 204.7       | 50.04       | -384.        | -25.         | 1155.        | 1.29        | 55.30 | 128.95  | 3700. |
| 9       | 10.0      | .0      | 354.8       | 71.96       | -403.        | -168.        | 1152.        | .68         | 55.51 | 129.19  | 3910. |
| 10      | 15.1      | .0      | 500.2       | 109.84      | -448.        | -320.        | 1162.        | 2.72        | 55.02 | 128.61  | 4120. |
| 11      | 20.0      | .0      | 518.2       | 165.82      | -539.        | -298.        | 604.         | 3.15        | 55.17 | 129.97  | 4290. |
| 12      | -.0       | .0      | 49.7        | 39.91       | -491.        | 76.          | 1164.        | 4.60        | 55.49 | 129.17  | 3570. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM   | CY    |
|------|-------|--------|-------|--------|--------|-------|-------|
| 3    | .00   | .1330  | .1074 | -.1537 | .0047  | .0669 | .0094 |
| 4    | -7.99 | -.4982 | .1393 | -.1842 | .0097  | .0638 | .0234 |
| 5    | -4.02 | .1314  | .1103 | 1.0822 | .0029  | .0674 | .0112 |
| 7    | 2.51  | .3342  | .1160 | -.1308 | .0019  | .0693 | .0068 |
| 8    | 5.11  | .5533  | .1353 | -.1238 | -.0015 | .0698 | .0035 |
| 9    | 10.01 | .9590  | .1945 | -.1300 | -.0101 | .0696 | .0018 |
| 10   | 15.07 | 1.3519 | .2969 | -.1443 | -.0194 | .0702 | .0074 |
| 11   | 20.02 | 1.4006 | .4482 | -.1739 | -.0190 | .0365 | .0085 |
| 12   | -.01  | .1343  | .1079 | -.1583 | .0046  | .0703 | .0124 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB   | CYMP   | CRMB  | CYB   |
|------|-------|--------|-------|--------|--------|-------|-------|
| 3    | .00   | .1330  | .1074 | -.1537 | .0047  | .0669 | .0094 |
| 4    | -7.99 | -.4982 | .1393 | -.1842 | .0097  | .0638 | .0234 |
| 5    | -4.02 | .1314  | .1103 | 1.0822 | .0029  | .0674 | .0112 |
| 7    | 2.51  | .3342  | .1160 | -.1308 | .0019  | .0693 | .0068 |
| 8    | 5.11  | .5533  | .1353 | -.1238 | -.0015 | .0698 | .0035 |
| 9    | 10.01 | .9590  | .1945 | -.1300 | -.0101 | .0696 | .0018 |
| 10   | 15.07 | 1.3519 | .2969 | -.1443 | -.0194 | .0702 | .0074 |
| 11   | 20.02 | 1.4006 | .4482 | -.1739 | -.0190 | .0365 | .0085 |
| 12   | -.01  | .1343  | .1079 | -.1583 | .0046  | .0703 | .0124 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 312 CONFIG F P B W5 NP1 T BT

P 268

| IW      | 0 DELF    | 0 DELA  | PO INT      | 0 DELF      | 0 DELR       | 0 DELSB      | 0            | 0           | 0     | 0       |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM   |
| 1       | -0.0      | .0      | 49.0        | 39.76       | -489.        | 75.          | 1121.        | 3.46        | 55.09 | 128.69  | 3560. |
| 2       | -0.0      | -15.0   | 61.0        | 57.71       | -1000.       | 355.         | 1082.        | -94.39      | 55.65 | 129.36  | 3390. |
| 3       | -0.0      | -10.0   | 53.0        | 47.18       | -814.        | 207.         | 1143.        | -59.84      | 56.19 | 129.99  | 3460. |
| 4       | -0.0      | -5.0    | 50.9        | 41.15       | -629.        | 93.          | 1165.        | -26.62      | 55.92 | 129.67  | 3520. |
| 5       | -0.0      | -2.5    | 49.0        | 40.14       | -552.        | 93.          | 1104.        | -12.50      | 55.59 | 129.29  | 3540. |
| 6       | -0.0      | .0      | 48.9        | 39.71       | -502.        | 72.          | 1146.        | 4.23        | 55.55 | 129.24  | 3560. |
| 7       | -0.0      | 2.5     | 48.9        | 40.26       | -450.        | 71.          | 1103.        | 19.32       | 55.71 | 129.43  | 3590. |
| 8       | -0.0      | 5.0     | 50.4        | 41.44       | -425.        | 57.          | 1115.        | 33.42       | 56.05 | 129.83  | 3610. |
| 9       | -0.0      | 10.0    | 56.8        | 47.59       | -392.        | -81.         | 1125.        | 67.38       | 55.16 | 128.77  | 3660. |
| 10      | -0.0      | 15.0    | 58.2        | 55.01       | -303.        | -279.        | 1047.        | 98.77       | 56.11 | 129.90  | 3710. |
| 11      | -0.0      | .0      | 48.5        | 39.60       | -484.        | 74.          | 1111.        | 3.25        | 55.62 | 129.33  | 3560. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|-------|--------|--------|-------|--------|
| 1    | -0.01  | .1324 | .1075 | -.1575 | .0045  | .0677 | .0004  |
| 2    | -15.00 | .1649 | .1560 | -.3253 | .0215  | .0653 | -.2551 |
| 3    | -10.00 | .1433 | .1275 | -.2625 | .0125  | .0691 | -.1617 |
| 4    | -5.00  | .1376 | .1112 | -.2028 | .0056  | .0703 | -.0720 |
| 5    | -2.50  | .1325 | .1095 | -.1778 | .0056  | .0667 | -.0338 |
| 6    | .00    | .1322 | .1073 | -.1618 | .0043  | .0692 | .0114  |
| 7    | 2.50   | .1323 | .1088 | -.1449 | .0043  | .0666 | .0522  |
| 8    | 5.00   | .1363 | .1120 | -.1370 | .0035  | .0674 | .0903  |
| 9    | 10.00  | .1536 | .1286 | -.1263 | -.0049 | .0679 | .1821  |
| 10   | 15.00  | .1572 | .1511 | -.0976 | -.0168 | .0632 | .2669  |
| 11   | .00    | .1310 | .1070 | -.1560 | .0044  | .0671 | .0088  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDR   | CPMR   | CYMP   | CPMB  | CYB    |
|------|--------|-------|-------|--------|--------|-------|--------|
| 1    | -0.01  | .1324 | .1075 | -.1575 | .0045  | .0677 | .0004  |
| 2    | -15.00 | .1649 | .0843 | -.4048 | .0215  | .0789 | -.2860 |
| 3    | -10.00 | .1433 | .0974 | -.3227 | .0125  | .0766 | -.1815 |
| 4    | -5.00  | .1376 | .1045 | -.2349 | .0056  | .0734 | -.0814 |
| 5    | -2.50  | .1325 | .1069 | -.1932 | .0056  | .0681 | -.0395 |
| 6    | .00    | .1322 | .1073 | -.1618 | .0043  | .0692 | .0114  |
| 7    | 2.50   | .1323 | .1064 | -.1292 | .0043  | .0654 | .0569  |
| 8    | 5.00   | .1363 | .1037 | -.1050 | .0035  | .0649 | .0908  |
| 9    | 10.00  | .1536 | .0949 | -.0611 | -.0049 | .0628 | .2018  |
| 10   | 15.00  | .1572 | .0765 | -.0065 | -.0168 | .0563 | .2971  |
| 11   | .00    | .1310 | .1070 | -.1560 | .0044  | .0671 | .0088  |

RUN 313 CONFIG F P R W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 20 INT      | C DFLF      | C DELR       | 0 DFLSR      | 0            |             |       |         |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLPAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | QPM   |
| 2       | .0        | .0      | 524.6       | 134.95      | 49.          | -95.         | 1204.        | -6.61       | 55.12 | 128.73  | 4280. |
| 3       | .0        | -15.0   | 446.9       | 139.94      | -231.        | 918.         | 710.         | -79.41      | 55.25 | 128.88  | 4090. |
| 4       | .0        | -10.0   | 484.7       | 133.27      | -105.        | 411.         | 1023.        | -46.58      | 55.72 | 129.44  | 4180. |
| 5       | .0        | -5.0    | 513.1       | 132.95      | -86.         | 102.         | 1118.        | -28.88      | 56.15 | 129.94  | 4270. |
| 6       | .0        | -2.5    | 521.4       | 134.68      | -11.         | 19.          | 1157.        | -18.36      | 56.29 | 128.92  | 4270. |
| 7       | .0        | .0      | 524.3       | 134.64      | 77.          | -113.        | 1161.        | -3.94       | 55.30 | 128.94  | 4290. |
| 8       | .0        | 2.5     | 520.8       | 133.95      | 131.         | -230.        | 1175.        | 7.64        | 55.30 | 128.94  | 4290. |
| 9       | .0        | 5.0     | 510.1       | 133.00      | 195.         | -305.        | 1199.        | 20.16       | 55.09 | 128.69  | 4300. |
| 10      | .0        | 10.0    | 496.4       | 130.78      | 340.         | -733.        | 1162.        | 53.13       | 55.34 | 128.98  | 4310. |
| 11      | .0        | 15.0    | 470.8       | 135.51      | 416.         | -1315.       | 1215.        | 81.93       | 55.67 | 129.38  | 4320. |
| 12      | .0        | .0      | 517.3       | 132.90      | 102.         | -134.        | 1178.        | -1.94       | 56.07 | 129.84  | 4290. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | 1.4178 | .3647 | .0159  | -.0057 | .0727 | -.0179 |
| 3    | -15.00 | 1.2077 | .3782 | -.0744 | .0554  | .0429 | -.2146 |
| 4    | -10.00 | 1.3100 | .3602 | -.0337 | .0248  | .0618 | -.1259 |
| 5    | -5.00  | 1.3867 | .3593 | -.0278 | .0061  | .0675 | -.0780 |
| 6    | -2.50  | 1.4091 | .3640 | -.0036 | .0012  | .0699 | -.0496 |
| 7    | .00    | 1.4169 | .3639 | .0249  | -.0068 | .0701 | -.0107 |
| 8    | 2.50   | 1.4076 | .3620 | .0422  | -.0139 | .0710 | .0206  |
| 9    | 5.00   | 1.4030 | .3595 | .0630  | -.0194 | .0724 | .0545  |
| 10   | 10.00  | 1.3416 | .3534 | .1095  | -.0443 | .0702 | .1436  |
| 11   | 15.00  | 1.2723 | .3662 | .1343  | -.0704 | .0734 | .2214  |
| 12   | .00    | 1.3980 | .3592 | .0328  | -.0001 | .0711 | -.0053 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDP   | CPMR   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | 1.4178 | .3647 | .0159  | -.0057 | .0727 | -.0179 |
| 3    | -15.00 | 1.2077 | .3604 | -.1313 | .0554  | .0450 | -.3056 |
| 4    | -10.00 | 1.3100 | .3327 | -.0907 | .0248  | .0619 | -.1868 |
| 5    | -5.00  | 1.3867 | .3511 | -.0593 | .0061  | .0677 | -.1092 |
| 6    | -2.50  | 1.4091 | .3615 | -.0199 | .0012  | .0698 | -.0655 |
| 7    | .00    | 1.4169 | .3639 | .0249  | -.0068 | .0701 | -.0107 |
| 8    | 2.50   | 1.4076 | .3608 | .0588  | -.0139 | .0713 | .0365  |
| 9    | 5.00   | 1.4030 | .3573 | .0966  | -.0184 | .0732 | .0857  |
| 10   | 10.00  | 1.3416 | .3230 | .1731  | -.0443 | .0727 | .2030  |
| 11   | 15.00  | 1.2723 | .2961 | .2315  | -.0704 | .0774 | .3090  |
| 12   | .00    | 1.3980 | .3592 | .0328  | -.0001 | .0711 | -.0053 |

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SIKORSKY RSRA 1/6-SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 270

RUN 314 CONFIG F P R W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 20 IHT      | 0 DELE      | 0 DELR       | 0 DFLSB      | 0            | 0           | RPM   |         |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |       |
| 2       | .0        | .0      | 520.0       | 133.87      | 90.          | -128.        | 1160.        | -2.96       | 55.31 | 128.95  | 4270. |
| 3       | -8.0      | .0      | 306.7       | 105.37      | -182.        | -17.         | 1144.        | 3.80        | 54.72 | 128.24  | 4080. |
| 4       | -4.0      | .0      | 420.3       | 118.71      | -100.        | -64.         | 1195.        | .91         | 55.88 | 129.62  | 4210. |
| 5       | -1.1      | .0      | 514.1       | 132.39      | 89.          | -124.        | 1139.        | -2.70       | 55.48 | 129.15  | 4270. |
| 6       | 2.6       | .0      | 575.1       | 144.80      | 234.         | -210.        | 1125.        | -2.04       | 55.21 | 128.82  | 4350. |
| 7       | 5.0       | .0      | 432.3       | 155.85      | 120.         | -188.        | 431.         | 1.58        | 55.95 | 129.70  | 4090. |
| 8       | 10.0      | .0      | 422.8       | 209.31      | -429.        | -188.        | 191.         | 2.15        | 55.58 | 129.26  | 3860. |
| 9       | 15.0      | .0      | 491.7       | 261.79      | -692.        | -234.        | 224.         | -3.20       | 56.45 | 130.28  | 4030. |
| 10      | 20.0      | .0      | 525.4       | 330.88      | -1366.       | -40.         | 329.         | 4.31        | 56.12 | 129.90  | 4190. |
| 11      | .0        | .0      | 521.5       | 134.26      | 80.          | -136.        | 1157.        | -3.39       | 56.32 | 130.13  | 4330. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|-------|--------|-------|--------|--------|-------|--------|
| 2    | .00   | 1.4055 | .3618 | .0289  | -.0077 | .0701 | -.0080 |
| 3    | -7.96 | .8290  | .2848 | -.0587 | -.0010 | .0691 | .0103  |
| 4    | -3.99 | 1.1359 | .3208 | -.0322 | -.0039 | .0722 | .0025  |
| 5    | -.07  | 1.3895 | .3578 | .0286  | -.0075 | .0688 | -.0073 |
| 6    | 2.58  | 1.5544 | .3913 | .0756  | -.0127 | .0680 | -.0055 |
| 7    | 4.96  | 1.1683 | .4212 | .0388  | -.0114 | .0261 | .0043  |
| 8    | 9.98  | 1.1427 | .5657 | -.1384 | -.0114 | .0115 | .0058  |
| 9    | 15.03 | 1.3290 | .7075 | -.2232 | -.0142 | .0135 | -.0086 |
| 10   | 19.98 | 1.4200 | .8943 | -.4405 | -.0024 | .0109 | .0116  |
| 11   | .03   | 1.4096 | .3629 | .0257  | -.0082 | .0699 | -.0092 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR   | CPMB   | CYMP   | CRMB  | CYB    |
|------|-------|--------|-------|--------|--------|-------|--------|
| 2    | .00   | 1.4055 | .3618 | .0289  | -.0077 | .0701 | -.0080 |
| 3    | -7.96 | .8290  | .2848 | -.0587 | -.0010 | .0691 | .0103  |
| 4    | -3.99 | 1.1359 | .3208 | -.0322 | -.0039 | .0722 | .0025  |
| 5    | -.07  | 1.3895 | .3578 | .0286  | -.0075 | .0688 | -.0073 |
| 6    | 2.58  | 1.5544 | .3913 | .0756  | -.0127 | .0680 | -.0055 |
| 7    | 4.96  | 1.1683 | .4212 | .0388  | -.0114 | .0261 | .0043  |
| 8    | 9.98  | 1.1427 | .5657 | -.1384 | -.0114 | .0115 | .0058  |
| 9    | 15.03 | 1.3290 | .7075 | -.2232 | -.0142 | .0135 | -.0086 |
| 10   | 19.98 | 1.4200 | .8943 | -.4405 | -.0024 | .0109 | .0116  |
| 11   | .03   | 1.4096 | .3629 | .0257  | -.0082 | .0699 | -.0092 |

SIKORSKY RSRA 1/6 SCALF MODFL TEST  
AERODYNAMIC DATA

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P 271

RUN 315 CONFIG F P H W5 NP1 T BT

| IW      | 15 DELF   | 30 DELA | 10 INT      | 0 DCLE      | 0 DELP       | 0 DFLSR      | 0            |             |       |         |       |  |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|--|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CPBAR SQ-FT | CPMBAR CU-FT | CYMRAP CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM   |  |
| 1       | .0        | .0      | 543.4       | 128.40      | 13.          | -78.         | 508.         | -3.42       | 55.75 | 129.47  | 4340. |  |
| 2       | -8.0      | .0      | 326.8       | 96.87       | -231.        | -46.         | 559.         | 1.98        | 55.15 | 128.75  | 4150. |  |
| 3       | -4.1      | .0      | 439.4       | 110.16      | -163.        | -50.         | 561.         | -.25        | 55.34 | 128.98  | 4240. |  |
| 4       | -.1       | .0      | 541.6       | 128.31      | 11.          | -79.         | 507.         | -2.93       | 55.86 | 129.60  | 4360. |  |
| 5       | 2.6       | .0      | 599.1       | 141.44      | 186.         | -100.        | 540.         | -2.44       | 55.92 | 129.67  | 4440. |  |
| 6       | 5.0       | .0      | 444.4       | 157.76      | -1.          | -33.         | 68.          | 1.66        | 55.52 | 129.19  | 4140. |  |
| 7       | 10.0      | .0      | 424.5       | 211.45      | -285.        | 25.          | 103.         | 1.65        | 55.89 | 129.63  | 4120. |  |
| 8       | 15.0      | .0      | 495.2       | 263.26      | -635.        | -75.         | 209.         | -2.32       | 55.79 | 129.51  | 4140. |  |
| 9       | 19.9      | .0      | 523.5       | 328.70      | -1376.       | 17.          | 191.         | -.55        | 55.75 | 129.46  | 4180. |  |
| 10      | -.0       | .0      | 550.5       | 130.63      | 31.          | -70.         | 563.         | -2.52       | 55.42 | 129.08  | 4340. |  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|-------|--------|-------|--------|--------|-------|--------|
| 1    | .00   | 1.4687 | .3470 | .0043  | -.0047 | .0307 | -.0092 |
| 2    | -8.01 | .8833  | .2618 | -.0745 | -.0028 | .0338 | .0053  |
| 3    | -4.07 | 1.1875 | .2977 | -.0525 | -.0030 | .0339 | -.0067 |
| 4    | -.08  | 1.4639 | .3468 | .0034  | -.0048 | .0306 | -.0079 |
| 5    | 2.57  | 1.6193 | .3823 | .0599  | -.0060 | .0326 | -.0066 |
| 6    | 5.01  | 1.2010 | .4264 | -.0004 | -.0020 | .0041 | .0045  |
| 7    | 10.01 | 1.1472 | .5715 | -.0917 | .0015  | .0062 | .0044  |
| 8    | 15.01 | 1.3384 | .7115 | -.2047 | -.0045 | .0126 | -.0063 |
| 9    | 19.90 | 1.4148 | .8884 | -.4435 | .0010  | .0115 | -.0015 |
| 10   | -.04  | 1.4878 | .3531 | .0101  | -.0042 | .0340 | -.0068 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDP   | CPMB   | CYMP   | CRMB  | CYB    |
|------|-------|--------|-------|--------|--------|-------|--------|
| 1    | .00   | 1.4687 | .3470 | .0043  | -.0047 | .0307 | -.0092 |
| 2    | -8.01 | .8833  | .2618 | -.0745 | -.0028 | .0338 | .0053  |
| 3    | -4.07 | 1.1875 | .2977 | -.0525 | -.0030 | .0339 | -.0067 |
| 4    | -.08  | 1.4639 | .3468 | .0034  | -.0048 | .0306 | -.0079 |
| 5    | 2.57  | 1.6193 | .3823 | .0599  | -.0060 | .0326 | -.0066 |
| 6    | 5.01  | 1.2010 | .4264 | -.0004 | -.0020 | .0041 | .0045  |
| 7    | 10.01 | 1.1472 | .5715 | -.0917 | .0015  | .0062 | .0044  |
| 8    | 15.01 | 1.3384 | .7115 | -.2047 | -.0045 | .0126 | -.0063 |
| 9    | 19.90 | 1.4148 | .8884 | -.4435 | .0010  | .0115 | -.0015 |
| 10   | -.04  | 1.4878 | .3531 | .0101  | -.0042 | .0340 | -.0068 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 316 CONFIG F P P W5 NP1 T BT

P 272

| PT. NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 10 THT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>SQ-FT | 0<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | V<br>KNOTS | RPM   |
|---------|-------------------------|-----------------------|--------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|---------------|------------|-------|
| 2       | .0                      | .0                    | 548.8                    | 130.08                   | 36.                       | -91.                       | 574.                 | -2.73               | 56.08         | 129.86     | 4370. |
| 3       | .0                      | -15.0                 | 492.5                    | 139.81                   | -487.                     | 1995.                      | 622.                 | -87.62              | 56.26         | 130.06     | 4180. |
| 4       | .0                      | -10.0                 | 526.8                    | 128.64                   | -71.                      | 450.                       | 467.                 | -54.55              | 56.26         | 130.07     | 4260. |
| 5       | .0                      | -5.0                  | 540.3                    | 128.10                   | -24.                      | 126.                       | 482.                 | -23.94              | 56.21         | 130.01     | 4320. |
| 6       | .0                      | -2.5                  | 544.3                    | 129.10                   | 6.                        | 46.                        | 485.                 | -14.71              | 56.02         | 129.79     | 4340. |
| 7       | .0                      | .0                    | 546.0                    | 128.26                   | 31.                       | -78.                       | 557.                 | -3.10               | 56.02         | 129.78     | 4350. |
| 8       | .0                      | 2.5                   | 547.7                    | 128.57                   | 23.                       | -188.                      | 534.                 | 8.69                | 55.68         | 129.38     | 4370. |
| 9       | .0                      | 5.0                   | 537.4                    | 125.62                   | 57.                       | -260.                      | 599.                 | 17.00               | 56.32         | 130.14     | 4380. |
| 10      | .0                      | 10.0                  | 516.9                    | 122.92                   | 153.                      | -650.                      | 620.                 | 52.17               | 56.54         | 130.39     | 4390. |
| 11      | .0                      | 15.0                  | 493.0                    | 128.07                   | 217.                      | -1209.                     | 638.                 | 82.68               | 55.62         | 129.31     | 4370. |
| 12      | .0                      | .0                    | 546.8                    | 128.34                   | 34.                       | -73.                       | 543.                 | -2.39               | 55.63         | 129.32     | 4350. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | 1.4832 | .3516 | .0115  | -.0055 | .0346 | -.0074 |
| 3    | -15.00 | 1.3311 | .3779 | -.1570 | .0661  | .0376 | -.2368 |
| 4    | -10.00 | 1.4237 | .3477 | -.0228 | .0272  | .0282 | -.1474 |
| 5    | -5.00  | 1.4602 | .3462 | -.0078 | .0076  | .0291 | -.0647 |
| 6    | -2.50  | 1.4710 | .3489 | .0019  | .0028  | .0293 | -.0398 |
| 7    | .00    | 1.4756 | .3466 | .0101  | -.0047 | .0337 | -.0084 |
| 8    | 2.50   | 1.4802 | .3475 | .0075  | -.0113 | .0323 | .0275  |
| 9    | 5.00   | 1.4525 | .3395 | .0185  | -.0157 | .0362 | .0459  |
| 10   | 10.00  | 1.3970 | .3322 | .0494  | -.0393 | .0375 | .1410  |
| 11   | 15.00  | 1.3324 | .3486 | .0701  | -.0730 | .0385 | .2235  |
| 12   | .00    | 1.4778 | .3469 | .0110  | -.0044 | .0328 | -.0065 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLR    | CDH   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | 1.4832 | .3516 | .0115  | -.0055 | .0346 | -.0074 |
| 3    | -15.00 | 1.3311 | .3073 | -.2037 | .0661  | .0439 | -.3269 |
| 4    | -10.00 | 1.4237 | .3166 | -.0487 | .0272  | .0285 | -.2058 |
| 5    | -5.00  | 1.4602 | .3392 | -.0213 | .0076  | .0291 | -.0948 |
| 6    | -2.50  | 1.4710 | .3468 | -.0050 | .0028  | .0292 | -.0550 |
| 7    | .00    | 1.4756 | .3466 | .0101  | -.0047 | .0337 | -.0084 |
| 8    | 2.50   | 1.4802 | .3461 | .0150  | -.0113 | .0323 | .0387  |
| 9    | 5.00   | 1.4525 | .3342 | .0353  | -.0157 | .0364 | .0755  |
| 10   | 10.00  | 1.3970 | .3025 | .0835  | -.0393 | .0385 | .1968  |
| 11   | 15.00  | 1.3324 | .2785 | .1211  | -.0730 | .0406 | .3064  |
| 12   | .00    | 1.4778 | .3469 | .0110  | -.0044 | .0328 | -.0065 |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011

RUN 317 CONFIG F P R W5 NPI T BT

A 273

| PT. NO. | 15 DELF<br>ALPHA DEG | 30 DELA<br>PSI | -10 IHT<br>CLBAR | 0 DFLE<br>CDBAR | 0 DELP<br>CPBAR | 0 DFLE<br>CYMBAR | 0 DELP<br>CRMBAR | 0 DFLE<br>CYBAR | 0 DFLE |        |       |
|---------|----------------------|----------------|------------------|-----------------|-----------------|------------------|------------------|-----------------|--------|--------|-------|
|         |                      |                |                  |                 |                 |                  |                  |                 | Q      | V      | RPM   |
|         |                      |                | 50-FT            | 50-FT           | CU-FT           | CU-FT            | CU-FT            | 50-FT           | PSF    | KNOTS  |       |
| 2       | .0                   | .0             | 540.3            | 127.39          | -21.            | 110.             | -409.            | -2.96           | 55.30  | 130.12 | 4370. |
| 3       | .0                   | -15.0          | 461.4            | 132.65          | 367.            | 1153.            | -719.            | -79.97          | 55.04  | 128.62 | 4140. |
| 4       | .0                   | -10.0          | 521.5            | 127.69          | 148.            | 607.             | -469.            | -54.49          | 54.95  | 128.51 | 4230. |
| 5       | .0                   | -5.0           | 533.7            | 126.42          | 24.             | 329.             | -537.            | -22.25          | 55.11  | 128.71 | 4290. |
| 6       | .0                   | -2.5           | 533.9            | 127.05          | -6.             | 241.             | -493.            | -13.26          | 55.51  | 129.17 | 4300. |
| 7       | .0                   | .0             | 535.7            | 126.49          | -27.            | 96.              | -432.            | -2.20           | 55.76  | 129.47 | 4330. |
| 8       | .0                   | 2.5            | 540.4            | 127.26          | -73.            | 28.              | -389.            | 8.04            | 55.25  | 128.87 | 4340. |
| 9       | .0                   | 5.0            | 534.0            | 125.61          | -91.            | -66.             | -355.            | 22.17           | 55.46  | 129.11 | 4340. |
| 10      | .0                   | 10.0           | 523.9            | 125.72          | -101.           | -454.            | -310.            | 54.27           | 54.86  | 128.41 | 4350. |
| 11      | .0                   | 14.8           | 490.1            | 130.57          | -232.           | -975.            | -262.            | 88.31           | 54.74  | 128.26 | 4340. |
| 12      | .0                   | 15.0           | 491.5            | 129.26          | -242.           | -959.            | -256.            | 88.83           | 55.37  | 129.01 | 4340. |
| 13      | .0                   | .0             | 542.6            | 127.65          | 5.              | 125.             | -400.            | -3.00           | 55.12  | 128.71 | 4320. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.4604 | .3443 | -.0068 | .0067  | -.0247 | -.0090 |
| 3    | -15.00 | 1.2469 | .3595 | .1182  | .0696  | -.0434 | -.2148 |
| 4    | -10.00 | 1.4095 | .3451 | .0477  | .0367  | -.0283 | -.1473 |
| 5    | -5.00  | 1.4423 | .3417 | .0277  | .0199  | -.0324 | -.0601 |
| 6    | -2.50  | 1.4429 | .3434 | -.0019 | .0146  | -.0298 | -.0358 |
| 7    | .00    | 1.4478 | .3419 | -.0087 | .0058  | -.0261 | -.0059 |
| 8    | 2.50   | 1.4605 | .3439 | -.0235 | .0017  | -.0235 | .0242  |
| 9    | 5.00   | 1.4433 | .3395 | -.0292 | -.0040 | -.0214 | .0599  |
| 10   | 10.00  | 1.4160 | .3398 | -.0327 | -.0274 | -.0187 | .1467  |
| 11   | 14.80  | 1.3490 | .3529 | -.0740 | -.0589 | -.0158 | .2387  |
| 12   | 15.00  | 1.3285 | .3493 | -.0779 | -.0579 | -.0154 | .2401  |
| 13   | .00    | 1.4665 | .3450 | .0015  | .0076  | -.0242 | -.0092 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR   | CPMB   | CYMR   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.4604 | .3443 | -.0068 | .0067  | -.0247 | -.0090 |
| 3    | -15.00 | 1.2469 | .2974 | .1744  | .0696  | -.0477 | -.3086 |
| 4    | -10.00 | 1.4095 | .3141 | .0734  | .0367  | -.0295 | -.2052 |
| 5    | -5.00  | 1.4423 | .3351 | .0228  | .0199  | -.0324 | -.0898 |
| 6    | -2.50  | 1.4429 | .3415 | .0051  | .0146  | -.0297 | -.0598 |
| 7    | .00    | 1.4478 | .3419 | -.0087 | .0058  | -.0261 | -.0059 |
| 8    | 2.50   | 1.4605 | .3425 | -.0290 | .0017  | -.0237 | .0392  |
| 9    | 5.00   | 1.4433 | .3399 | -.0391 | -.0040 | -.0218 | .0894  |
| 10   | 10.00  | 1.4160 | .3090 | -.0496 | -.0274 | -.0195 | .2037  |
| 11   | 14.80  | 1.3490 | .2798 | -.0941 | -.0589 | -.0189 | .3212  |
| 12   | 15.00  | 1.3285 | .2749 | -.0967 | -.0579 | -.0187 | .3227  |
| 13   | .00    | 1.4665 | .3450 | .0015  | .0076  | -.0242 | -.0092 |

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SIKORSKY RSRA 1/6 SCALE MODFL TFST  
AERODYNAMIC DATA

SER-72011

RUN 318 CONFIG F P R WS NP1 T BT

P 274

| IW      | 15 DELF   | 30 DELA | -10 IHT     | 0 DELE      | 0 DELR       | 0 DFLSB      | 0            | 0           | RPM   |         |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLRAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |       |
| 2       | .0        | .0      | 544.6       | 128.20      | -3.          | 128.         | -398.        | -2.45       | 55.60 | 129.28  | 4350. |
| 3       | -8.0      | .0      | 323.3       | 94.99       | -225.        | 4.           | -495.        | 3.99        | 55.53 | 129.20  | 4160. |
| 4       | -4.0      | .0      | 435.9       | 108.55      | -171.        | 56.          | -442.        | 1.55        | 55.10 | 128.69  | 4200. |
| 5       | .0        | .0      | 546.6       | 128.52      | -3.          | 97.          | -402.        | -1.86       | 55.06 | 128.65  | 4340. |
| 6       | 2.5       | .0      | 592.2       | 139.49      | 134.         | 144.         | -363.        | -1.71       | 55.69 | 129.39  | 4400. |
| 7       | 5.1       | .0      | 441.7       | 154.63      | 23.          | 123.         | 39.          | -4.24       | 55.47 | 129.13  | 4030. |
| 8       | 10.0      | .0      | 423.2       | 207.44      | -345.        | 57.          | 19.          | -1.67       | 55.13 | 128.73  | 3950. |
| 9       | 15.0      | .0      | 477.8       | 256.59      | -768.        | 155.         | 0.           | -1.55       | 55.25 | 128.87  | 4100. |
| 10      | 20.0      | .0      | 516.1       | 325.30      | -1377.       | 218.         | 16.          | -6.24       | 55.15 | 128.75  | 4150. |
| 11      | .0        | .0      | 537.7       | 127.40      | -2.          | 92.          | -397.        | -2.01       | 55.83 | 129.55  | 4350. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|-------|--------|-------|--------|--------|
| 2    | .00   | 1.4719 | .3465 | -.0011 | .0077 | -.0240 | -.0066 |
| 3    | -8.01 | .8737  | .2567 | -.0725 | .0002 | -.0299 | .0108  |
| 4    | -3.96 | 1.1780 | .2934 | -.0550 | .0034 | -.0267 | .0042  |
| 5    | .03   | 1.4773 | .3474 | -.0010 | .0059 | -.0243 | -.0050 |
| 6    | 2.54  | 1.6006 | .3770 | .0432  | .0087 | -.0220 | -.0046 |
| 7    | 5.05  | 1.1937 | .4179 | .0075  | .0074 | .0023  | -.0115 |
| 8    | 10.04 | 1.1437 | .5606 | -.1114 | .0034 | .0011  | -.0045 |
| 9    | 15.04 | 1.2913 | .6935 | -.2477 | .0093 | .0000  | -.0015 |
| 10   | 20.01 | 1.3949 | .8792 | -.4438 | .0131 | .0010  | -.0169 |
| 11   | .04   | 1.4533 | .3443 | -.0007 | .0056 | -.0240 | -.0054 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR   | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|-------|--------|-------|--------|--------|
| 2    | .00   | 1.4719 | .3465 | -.0011 | .0077 | -.0240 | -.0066 |
| 3    | -8.01 | .8737  | .2567 | -.0725 | .0002 | -.0299 | .0108  |
| 4    | -3.96 | 1.1780 | .2934 | -.0550 | .0034 | -.0267 | .0042  |
| 5    | .03   | 1.4773 | .3474 | -.0010 | .0059 | -.0243 | -.0050 |
| 6    | 2.54  | 1.6006 | .3770 | .0432  | .0087 | -.0220 | -.0046 |
| 7    | 5.05  | 1.1937 | .4179 | .0075  | .0074 | .0023  | -.0115 |
| 8    | 10.04 | 1.1437 | .5606 | -.1114 | .0034 | .0011  | -.0045 |
| 9    | 15.04 | 1.2913 | .6935 | -.2477 | .0093 | .0000  | -.0015 |
| 10   | 20.01 | 1.3949 | .8792 | -.4438 | .0131 | .0010  | -.0169 |
| 11   | .04   | 1.4533 | .3443 | -.0007 | .0056 | -.0240 | -.0054 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

RUN 319 CONFIG F P B W5 NP1 T BT

P 27 S

| IW      | 15 DELF   | 30 DELA | -18 IHT     | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | 0           | 0          | RPM        |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|------------|------------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLRAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELPSF PSF | DELV KNOTS |       |
| 2       | .0        | .0      | 530.1       | 131.11      | 29.          | 207.         | -768.        | -3.45       | 55.22      | 128.83     | 4340. |
| 3       | -8.0      | .0      | 313.8       | 99.68       | -243.        | -6.          | -881.        | 2.83        | 55.28      | 128.90     | 4150. |
| 4       | -4.0      | .0      | 428.7       | 113.58      | -164.        | 75.          | -853.        | 4.89        | 55.01      | 128.59     | 4240. |
| 5       | -.0       | .0      | 535.5       | 131.80      | 9.           | 159.         | -767.        | -1.35       | 55.46      | 129.11     | 4370. |
| 6       | 2.5       | .0      | 485.7       | 141.14      | 127.         | 232.         | 323.         | -22.41      | 55.17      | 128.77     | 4070. |
| 7       | 5.0       | .0      | 435.3       | 155.71      | 68.          | 194.         | -150.        | -8.26       | 55.28      | 128.90     | 4060. |
| 8       | 10.0      | .0      | 419.0       | 208.51      | -349.        | 109.         | -104.        | -2.66       | 55.11      | 128.70     | 3970. |
| 9       | 15.0      | .0      | 478.4       | 259.97      | -787.        | 171.         | -157.        | -2.72       | 55.18      | 128.78     | 4110. |
| 10      | 20.0      | .0      | 511.1       | 325.08      | -1362.       | 308.         | -89.         | -9.04       | 55.76      | 129.47     | 4170. |
| 11      | .0        | .0      | 533.3       | 131.74      | 16.          | 160.         | -766.        | -1.72       | 55.53      | 129.20     | 4370. |
| 12      | 2.5       | .0      | 475.5       | 138.48      | 114.         | 236.         | 320.         | -23.78      | 56.16      | 129.94     | 4100. |
| 13      | 2.5       | .0      | 488.4       | 142.37      | 140.         | 232.         | 328.         | -22.48      | 54.40      | 127.86     | 4070. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | .00   | 1.4328 | .3543 | .0095  | .0125  | -.0464 | -.0093 |
| 3    | -8.00 | .8481  | .2694 | -.0784 | -.0003 | -.0532 | .0077  |
| 4    | -4.01 | 1.1586 | .3070 | -.0529 | .0045  | -.0515 | .0132  |
| 5    | -.00  | 1.4472 | .3562 | .0028  | .0096  | -.0463 | -.0037 |
| 6    | 2.50  | 1.3128 | .3814 | .0409  | .0140  | .0195  | -.0606 |
| 7    | 5.00  | 1.1765 | .4208 | .0219  | .0117  | -.0091 | -.0223 |
| 8    | 10.00 | 1.1325 | .5635 | -.1126 | .0066  | -.0063 | -.0072 |
| 9    | 15.03 | 1.2929 | .7026 | -.2536 | .0103  | -.0095 | -.0073 |
| 10   | 20.01 | 1.3814 | .8786 | -.4391 | .0186  | -.0054 | -.0244 |
| 11   | .00   | 1.4413 | .3561 | .0053  | .0097  | -.0462 | -.0046 |
| 12   | 2.49  | 1.2850 | .3743 | .0366  | .0143  | .0193  | -.0643 |
| 13   | 2.50  | 1.3199 | .3848 | .0450  | .0140  | .0198  | -.0608 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | .00   | 1.4328 | .3543 | .0095  | .0125  | -.0464 | -.0093 |
| 3    | -8.00 | .8481  | .2694 | -.0784 | -.0003 | -.0532 | .0077  |
| 4    | -4.01 | 1.1586 | .3070 | -.0529 | .0045  | -.0515 | .0132  |
| 5    | -.00  | 1.4472 | .3562 | .0028  | .0096  | -.0463 | -.0037 |
| 6    | 2.50  | 1.3128 | .3814 | .0409  | .0140  | .0195  | -.0606 |
| 7    | 5.00  | 1.1765 | .4208 | .0219  | .0117  | -.0091 | -.0223 |
| 8    | 10.00 | 1.1325 | .5635 | -.1126 | .0066  | -.0063 | -.0072 |
| 9    | 15.03 | 1.2929 | .7026 | -.2536 | .0103  | -.0095 | -.0073 |
| 10   | 20.01 | 1.3814 | .8786 | -.4391 | .0186  | -.0054 | -.0244 |
| 11   | .00   | 1.4413 | .3561 | .0053  | .0097  | -.0462 | -.0046 |
| 12   | 2.49  | 1.2850 | .3743 | .0366  | .0143  | .0193  | -.0643 |
| 13   | 2.50  | 1.3199 | .3848 | .0450  | .0140  | .0198  | -.0608 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P. 276

RUN 320 CONFIG F P B WS NP1 T 0T

| IW      | 15 DELF   | 30 DELA | -18 IHT     | 0 DELE      | 0 DELR       | 0 DFLSB      | 0            | RPM         |       |         |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMPAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |       |
| 2       | .0        | .0      | 533.1       | 131.84      | 27.          | 167.         | -768.        | -2.28       | 55.32 | 128.96  | 4360. |
| 3       | .0        | .0      | 646.0       | 161.22      | 33.          | 202.         | -930.        | -2.76       | 45.65 | 117.14  | 4360. |
| 4       | .0        | -15.0   | 452.8       | 136.52      | 516.         | 1248.        | -985.        | -77.09      | 54.75 | 128.27  | 4170. |
| 5       | .0        | -10.0   | 512.9       | 131.38      | 238.         | 704.         | -801.        | -51.65      | 54.68 | 128.19  | 4250. |
| 6       | .0        | -5.0    | 525.9       | 130.53      | 74.          | 438.         | -803.        | -24.80      | 54.94 | 128.50  | 4310. |
| 7       | .0        | -2.5    | 528.0       | 131.19      | 46.          | 296.         | -776.        | -12.75      | 55.31 | 128.94  | 4340. |
| 8       | .0        | .0      | 528.0       | 130.52      | -5.          | 159.         | -731.        | -1.10       | 55.57 | 129.25  | 4360. |
| 9       | .0        | 2.5     | 533.8       | 131.28      | -73.         | 96.          | -685.        | 8.14        | 55.27 | 128.89  | 4380. |
| 10      | .0        | 5.0     | 528.9       | 129.90      | -112.        | 14.          | -703.        | 21.08       | 55.27 | 128.89  | 4380. |
| 11      | .0        | 10.0    | 512.0       | 127.68      | -194.        | -404.        | -687.        | 53.43       | 55.40 | 129.05  | 4390. |
| 12      | .0        | 15.0    | 492.1       | 133.27      | -417.        | -878.        | -517.        | 87.32       | 55.28 | 128.90  | 4360. |
| 13      | .0        | .0      | 530.0       | 130.60      | 7.           | 110.         | -752.        | -12.08      | 55.55 | 129.22  | 4360. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.4407 | .3563 | .0087  | .0101  | -.0464 | -.0062 |
| 3    | .00    | 1.7460 | .4357 | .0105  | .0122  | -.0562 | -.0075 |
| 4    | -15.00 | 1.2238 | .3690 | .1665  | .0754  | -.0595 | -.2083 |
| 5    | -10.00 | 1.3862 | .3551 | .0769  | .0425  | -.0484 | -.1396 |
| 6    | -5.00  | 1.4214 | .3528 | .0238  | .0265  | -.0485 | -.0670 |
| 7    | -2.50  | 1.4271 | .3546 | .0147  | .0179  | -.0469 | -.0345 |
| 8    | .00    | 1.4271 | .3528 | -.0016 | .0096  | -.0441 | -.0030 |
| 9    | 2.50   | 1.4428 | .3548 | -.0236 | .0058  | -.0414 | .0220  |
| 10   | 5.00   | 1.4294 | .3511 | -.0361 | .0009  | -.0425 | .0570  |
| 11   | 10.00  | 1.3839 | .3451 | -.0625 | -.0244 | -.0415 | .1444  |
| 12   | 15.00  | 1.3300 | .3602 | -.1345 | -.0530 | -.0312 | .2360  |
| 13   | .00    | 1.4324 | .3530 | .0022  | .0066  | -.0454 | -.0326 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| T.# | PSI    | CLB    | CDP   | CPMB   | CYMP   | CRMB   | CYB    |
|-----|--------|--------|-------|--------|--------|--------|--------|
| 2   | .00    | 1.4407 | .3563 | .0087  | .0101  | -.0464 | -.0062 |
| 3   | .00    | 1.7460 | .4357 | .0105  | .0122  | -.0562 | -.0075 |
| 4   | -15.00 | 1.2238 | .3021 | .2433  | .0754  | -.0655 | -.2971 |
| 5   | -10.00 | 1.3862 | .3253 | .1207  | .0425  | -.0502 | -.1904 |
| 6   | -5.00  | 1.4214 | .3456 | .0463  | .0265  | -.0487 | -.0977 |
| 7   | -2.50  | 1.4271 | .3527 | .0257  | .0179  | -.0470 | -.0500 |
| 8   | .00    | 1.4271 | .3528 | -.0016 | .0096  | -.0441 | -.0030 |
| 9   | 2.50   | 1.4428 | .3535 | -.0333 | .0058  | -.0415 | .0375  |
| 10  | 5.00   | 1.4294 | .3447 | -.0558 | .0009  | -.0429 | .0875  |
| 11  | 10.00  | 1.3839 | .3146 | -.1001 | -.0244 | -.0429 | .2024  |
| 12  | 15.00  | 1.3300 | .2864 | -.1731 | -.0530 | -.0367 | .3215  |
| 13  | .00    | 1.4324 | .3530 | .0022  | .0066  | -.0454 | -.0326 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 321 CONFIG F P R W5 NP1 T BT

P277

| IW      | 0 DELF    | 0 DELA  | 0 THT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | 0           | 0     | 0       | 0    | 0 |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|------|---|
| PT. NO. | ALPHA DEG | PSI DEG | CLPAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM  |   |
| 2       | .0        | .0      | 67.0        | 30.13       | -486.        | 52.          | 50.          | 1.54        | 55.48 | 129.14  | 357  |   |
| 3       | .0        | .0      | 66.0        | -13.26      | -578.        | 58.          | 15.          | 2.09        | 56.40 | 129.05  | 1215 |   |
| 4       | -8.0      | .0      | -175.5      | -4.27       | -1011.       | 8.           | 27.          | 4.65        | 54.96 | 128.52  | 1211 |   |
| 5       | -4.0      | .0      | -54.9       | -12.30      | -797.        | 35.          | 65.          | 4.10        | 54.82 | 128.36  | 1209 |   |
| 6       | -4.0      | .0      | 65.9        | -12.79      | -571.        | 55.          | 15.          | 1.60        | 55.37 | 129.02  | 1211 |   |
| 7       | 2.5       | .0      | 147.3       | -9.21       | -490.        | 72.          | 17.          | .31         | 55.00 | 128.57  | 1214 |   |
| 8       | 5.0       | .0      | 226.0       | -2.82       | -438.        | 90.          | 36.          | -.99        | 55.16 | 128.76  | 1214 |   |
| 9       | 10.0      | .0      | 383.2       | 19.26       | -394.        | 83.          | 54.          | -1.48       | 55.07 | 128.66  | 1211 |   |
| 10      | 15.0      | .0      | 501.9       | 57.16       | -456.        | 37.          | 122.         | -.92        | 55.65 | 129.35  | 1212 |   |
| 11      | 20.0      | .0      | 540.2       | 118.31      | -601.        | 83.          | 53.          | -.31        | 54.86 | 128.40  | 1213 |   |
| 12      | 20.0      | .0      | 536.7       | 118.00      | -530.        | 66.          | 88.          | -.49        | 55.28 | 128.91  | 1212 |   |
| 13      | .0        | .0      | 66.0        | -13.05      | -583.        | 64.          | 50.          | 2.23        | 54.89 | 128.44  | 1215 |   |
| 14      | 2.4       | .0      | 143.1       | -9.62       | -510.        | 80.          | 35.          | .69         | 54.58 | 128.07  | 1213 |   |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM   | CY     |
|------|-------|--------|--------|--------|-------|-------|--------|
| 2    | .00   | .1810  | .0814  | -.1567 | .0031 | .0030 | .0041  |
| 3    | .00   | .1784  | -.0358 | -.1864 | .0035 | .0009 | .0057  |
| 4    | -8.01 | -.4743 | -.0115 | -.3260 | .0005 | .0016 | .0126  |
| 5    | -4.00 | -.1484 | -.0332 | -.2571 | .0021 | .0039 | .0111  |
| 6    | -.00  | .1781  | -.0346 | -.1840 | .0033 | .0009 | .0043  |
| 7    | 2.51  | .3982  | -.0249 | -.1580 | .0044 | .0010 | .0008  |
| 8    | 5.00  | .6107  | -.0076 | -.1413 | .0054 | .0022 | -.0027 |
| 9    | 10.01 | 1.0357 | .0521  | -.1270 | .0050 | .0032 | -.0040 |
| 10   | 14.99 | 1.3566 | .1545  | -.1460 | .0022 | .0074 | -.0025 |
| 11   | 20.01 | 1.4601 | .3108  | -.1936 | .0050 | .0032 | -.0008 |
| 12   | 20.01 | 1.4506 | .3189  | -.1707 | .0040 | .0053 | -.0013 |
| 13   | .01   | .1782  | -.0353 | -.1880 | .0038 | .0030 | .0060  |
| 14   | 2.42  | .3868  | -.0260 | -.1644 | .0048 | .0021 | .0019  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMB   | CYMR  | CRMB  | CYB    |
|------|-------|--------|--------|--------|-------|-------|--------|
| 2    | .00   | .1810  | .0814  | -.1567 | .0031 | .0030 | .0041  |
| 3    | .00   | .1784  | -.0358 | -.1864 | .0035 | .0009 | .0057  |
| 4    | -8.01 | -.4743 | -.0115 | -.3260 | .0005 | .0016 | .0126  |
| 5    | -4.00 | -.1484 | -.0332 | -.2571 | .0021 | .0039 | .0111  |
| 6    | -.00  | .1781  | -.0346 | -.1840 | .0033 | .0009 | .0043  |
| 7    | 2.51  | .3982  | -.0249 | -.1580 | .0044 | .0010 | .0008  |
| 8    | 5.00  | .6107  | -.0076 | -.1413 | .0054 | .0022 | -.0027 |
| 9    | 10.01 | 1.0357 | .0521  | -.1270 | .0050 | .0032 | -.0040 |
| 10   | 14.99 | 1.3566 | .1545  | -.1460 | .0022 | .0074 | -.0025 |
| 11   | 20.01 | 1.4601 | .3108  | -.1936 | .0050 | .0032 | -.0008 |
| 12   | 20.01 | 1.4506 | .3189  | -.1707 | .0040 | .0053 | -.0013 |
| 13   | .01   | .1782  | -.0353 | -.1880 | .0038 | .0030 | .0060  |
| 14   | 2.42  | .3868  | -.0260 | -.1644 | .0048 | .0021 | .0019  |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

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RUN 322 CONFIG F P H W5 NP1 T BT

*P 278*

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLAR SQ-FT | DELTA COBAR SQ-FT | DELTA IHT CU-FT | DELTA 2 CPMBAR CU-FT | DELTA DELE CYMBAR CU-FT | DELTA 0 CRMBAR CU-FT | DELTA 0 DELR CYBAR SQ-FT | DELTA 0 DELSR PSF | DELTA 0 V KNOTS | RPM    |
|---------|-----------|---------------|------------------|-------------------|-----------------|----------------------|-------------------------|----------------------|--------------------------|-------------------|-----------------|--------|
| 2       | .0        | .0            | 71.9             | 30.75             | -677.           | 30.                  | 0.                      | 0.                   | .00                      | 54.07             | 127.46          | 3540.  |
| 3       | .0        | .0            | 73.9             | -6.51             | -761.           | 34.                  | 51.                     | 51.                  | 1.86                     | 55.00             | 128.57          | 11230. |
| 4       | -8.0      | .0            | -162.1           | 1.10              | -1202.          | -2.                  | 26.                     | 26.                  | 5.48                     | 55.35             | 128.99          | 11300. |
| 5       | -4.0      | .0            | -46.0            | -5.96             | -983.           | 15.                  | 29.                     | 29.                  | 3.81                     | 55.50             | 129.17          | 11200. |
| 6       | .0        | .0            | 74.4             | -5.92             | -765.           | 39.                  | 32.                     | 32.                  | 2.21                     | 55.47             | 129.13          | 11230. |
| 7       | 2.5       | .0            | 155.1            | -1.08             | -687.           | 70.                  | 69.                     | 69.                  | .55                      | 55.36             | 129.00          | 11170. |
| 8       | 5.0       | .0            | 234.2            | 5.23              | -663.           | 87.                  | 71.                     | 71.                  | -1.11                    | 55.35             | 128.99          | 11290. |
| 9       | 10.0      | .0            | 386.9            | 27.48             | -637.           | 107.                 | 104.                    | 104.                 | -.73                     | 55.88             | 129.61          | 11300. |
| 10      | 15.0      | .0            | 505.0            | 68.95             | -620.           | 61.                  | 123.                    | 123.                 | -.87                     | 55.09             | 128.68          | 11230. |
| 11      | 20.0      | .0            | 535.9            | 128.01            | -650.           | 77.                  | 106.                    | 106.                 | -1.81                    | 54.67             | 128.18          | 11210. |
| 12      | .0        | .0            | 74.0             | -5.35             | -766.           | 48.                  | 15.                     | 15.                  | 1.66                     | 55.54             | 129.21          | 11240. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|-------|--------|--------|--------|--------|-------|--------|
| 2    | .00   | .1944  | .0831  | -.2182 | .0018  | .0000 | .0000  |
| 3    | .00   | .1997  | -.0176 | -.2454 | .0020  | .0031 | .0050  |
| 4    | -7.99 | -.4380 | .0030  | -.3874 | -.0001 | .0015 | .0148  |
| 5    | -3.98 | -.1242 | -.0161 | -.3168 | .0009  | .0018 | .0103  |
| 6    | .02   | .2011  | -.0160 | -.2465 | .0024  | .0019 | .0060  |
| 7    | 2.50  | .4193  | -.0029 | -.2215 | .0042  | .0042 | .0015  |
| 8    | 5.00  | .6330  | .0141  | -.2138 | .0053  | .0043 | -.0030 |
| 9    | 10.04 | 1.0456 | .0743  | -.2055 | .0065  | .0063 | -.0020 |
| 10   | 15.01 | 1.3649 | .1863  | -.2027 | .0037  | .0074 | -.0023 |
| 11   | 20.00 | 1.4483 | .3460  | -.2097 | .0047  | .0064 | -.0049 |
| 12   | .01   | .2000  | -.0144 | -.2468 | .0029  | .0009 | .0045  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMB   | CYMB   | CRMB  | CYB    |
|------|-------|--------|--------|--------|--------|-------|--------|
| 2    | .00   | .1944  | .0831  | -.2182 | .0018  | .0000 | .0000  |
| 3    | .00   | .1997  | -.0176 | -.2454 | .0020  | .0031 | .0050  |
| 4    | -7.99 | -.4380 | .0030  | -.3874 | -.0001 | .0015 | .0148  |
| 5    | -3.98 | -.1242 | -.0161 | -.3168 | .0009  | .0018 | .0103  |
| 6    | .02   | .2011  | -.0160 | -.2465 | .0024  | .0019 | .0060  |
| 7    | 2.50  | .4193  | -.0029 | -.2215 | .0042  | .0042 | .0015  |
| 8    | 5.00  | .6330  | .0141  | -.2138 | .0053  | .0043 | -.0030 |
| 9    | 10.04 | 1.0456 | .0743  | -.2055 | .0065  | .0063 | -.0020 |
| 10   | 15.01 | 1.3649 | .1863  | -.2027 | .0037  | .0074 | -.0023 |
| 11   | 20.00 | 1.4483 | .3460  | -.2097 | .0047  | .0064 | -.0049 |
| 12   | .01   | .2000  | -.0144 | -.2468 | .0029  | .0009 | .0045  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

RUN 323 CONFIG F P B W5 N1 T BT

P279

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | -6 DELE     | 0 DELR       | 0 DFLSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 30.9        | 31.10       | 328.         | 40.          | 35.          | .00.        | 54.74 | 128.27  | 3560.  |
| 3       | .0        | .0      | 38.9        | -6.70       | 278.         | 37.          | 33.          | 1.73        | 55.10 | 128.70  | 11370. |
| 4       | -8.0      | .0      | -209.3      | 7.07        | 86.          | 2.           | 9.           | 4.81        | 54.51 | 127.99  | 11360. |
| 5       | -4.0      | .0      | -83.5       | -4.18       | 112.         | 20.          | -6.          | 4.19        | 54.53 | 128.02  | 11360. |
| 6       | -0        | .0      | 37.7        | -6.74       | 274.         | 39.          | -21.         | 2.75        | 54.51 | 127.99  | 11370. |
| 7       | 2.5       | .0      | 119.0       | -3.97       | 351.         | 56.          | 35.          | .69         | 54.61 | 128.11  | 11350. |
| 8       | 5.0       | .0      | 197.2       | 1.47        | 406.         | 85.          | 70.          | -.12        | 55.10 | 128.70  | 11350. |
| 9       | 10.0      | .0      | 352.3       | 20.32       | 481.         | 83.          | 37.          | -1.88       | 54.49 | 127.97  | 11340. |
| 10      | 15.0      | .0      | 475.7       | 55.18       | 372.         | 51.          | 89.          | -.75        | 54.60 | 128.10  | 11330. |
| 11      | 20.0      | .0      | 531.2       | 109.49      | 3.           | 125.         | 107.         | -2.78       | 53.92 | 127.28  | 11390. |
| 12      | .0        | .0      | 39.7        | -6.99       | 253.         | 39.          | 32.          | 2.81        | 54.62 | 128.12  | 11400. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM   | CYM   | CRM    | CY     |
|------|-------|--------|--------|-------|-------|--------|--------|
| 2    | .00   | .1077  | .0840  | .1058 | .0024 | .0021  | .0000  |
| 3    | .00   | .1050  | -.0181 | .0895 | .0023 | .0020  | .0047  |
| 4    | -8.02 | -.5657 | .0191  | .0278 | .0001 | .0006  | .0130  |
| 5    | -3.99 | -.2256 | -.0113 | .0361 | .0012 | -.0004 | .0113  |
| 6    | -.01  | .1020  | -.0182 | .0884 | .0023 | -.0013 | .0074  |
| 7    | 2.50  | .3216  | -.0107 | .1133 | .0034 | .0021  | .0019  |
| 8    | 4.99  | .5330  | .0040  | .1307 | .0051 | .0043  | -.0003 |
| 9    | 9.99  | .9522  | .0549  | .1549 | .0050 | .0022  | -.0051 |
| 10   | 15.01 | 1.2856 | .1491  | .1199 | .0031 | .0054  | -.0020 |
| 11   | 20.00 | 1.4357 | .2959  | .0009 | .0075 | .0065  | -.0075 |
| 12   | .00   | .1074  | -.0189 | .0816 | .0023 | .0019  | .0076  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| T.# | ALPHA | CLB    | CDR    | CPMB  | CYMB  | CRMB   | CYB    |
|-----|-------|--------|--------|-------|-------|--------|--------|
| 2   | .00   | .1077  | .0840  | .1058 | .0024 | .0021  | .0000  |
| 3   | .00   | .1050  | -.0181 | .0895 | .0023 | .0020  | .0047  |
| 4   | -8.02 | -.5657 | .0191  | .0278 | .0001 | .0006  | .0130  |
| 5   | -3.99 | -.2256 | -.0113 | .0361 | .0012 | -.0004 | .0113  |
| 6   | -.01  | .1020  | -.0182 | .0884 | .0023 | -.0013 | .0074  |
| 7   | 2.50  | .3216  | -.0107 | .1133 | .0034 | .0021  | .0019  |
| 8   | 4.99  | .5330  | .0040  | .1307 | .0051 | .0043  | -.0003 |
| 9   | 9.99  | .9522  | .0549  | .1549 | .0050 | .0022  | -.0051 |
| 10  | 15.01 | 1.2856 | .1491  | .1199 | .0031 | .0054  | -.0020 |
| 11  | 20.00 | 1.4357 | .2959  | .0009 | .0075 | .0065  | -.0075 |
| 12  | .00   | .1074  | -.0189 | .0816 | .0023 | .0019  | .0076  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

RUN 324 CONFIG F P R W5 NP1 T BT

P 2 A D

| IW      | 0 DELF    | 0 DELA  | 0 INT       | -4 DELE     | 0 DELR       | 0 DELSR      | 0            | V           | RPM   |        |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|--------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMRAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  |        |
| 2       | .0        | .0      | 48.0        | 30.95       | 57.          | 47.          | 0.           | .00         | 54.63 | 128.14 | 3580.  |
| 3       | .0        | .0      | 48.9        | -6.74       | 7.           | 38.          | 36.          | .06         | 54.36 | 127.82 | 11260. |
| 4       | -8.0      | .0      | -196.8      | 5.90        | -270.        | 7.           | -11.         | 6.42        | 55.18 | 128.80 | 11260. |
| 5       | -4.0      | .0      | -75.4       | -4.76       | -185.        | 21.          | 10.          | 5.03        | 54.89 | 128.45 | 11300. |
| 6       | -0.0      | .0      | 50.5        | -6.86       | 4.           | 48.          | 86.          | 2.13        | 54.46 | 127.94 | 11320. |
| 7       | 2.5       | .0      | 129.0       | -3.62       | 78.          | 73.          | 33.          | 1.74        | 54.96 | 128.53 | 11280. |
| 8       | 5.0       | .0      | 209.5       | 2.70        | 134.         | 96.          | 53.          | .44         | 54.62 | 128.13 | 11250. |
| 9       | 10.0      | .0      | 365.4       | 27.95       | 196.         | 118.         | 125.         | -.81        | 54.65 | 128.16 | 11230. |
| 10      | 15.0      | .0      | 490.0       | 57.43       | 100.         | 62.          | 142.         | -.81        | 54.49 | 127.97 | 11250. |
| 11      | 20.0      | .0      | 532.9       | 113.87      | -225.        | 92.          | 106.         | -2.61       | 54.78 | 128.32 | 11260. |
| 12      | -0.0      | .0      | 54.4        | 27.08       | -337.        | 61.          | 51.          | 1.44        | 54.56 | 128.06 | 11290. |
| 13      | -0.0      | .0      | 49.0        | -6.51       | -10.         | 45.          | 49.          | 3.40        | 54.18 | 127.60 | 11270. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .1298  | .0836  | .0183  | .0029 | .0000  | .0000  |
| 3    | .00   | .1321  | -.0182 | .0023  | .0023 | .0021  | .0002  |
| 4    | -8.01 | -.5319 | .0159  | -.0871 | .0004 | -.0007 | .0174  |
| 5    | -4.01 | -.2038 | -.0129 | -.0596 | .0013 | .0006  | .0136  |
| 6    | -.01  | .1366  | -.0185 | .0011  | .0029 | .0052  | .0057  |
| 7    | 2.51  | .3486  | -.0098 | .0250  | .0044 | .0020  | .0047  |
| 8    | 4.98  | .5661  | .0073  | .0433  | .0058 | .0032  | .0012  |
| 9    | 10.00 | .9875  | .0620  | .0630  | .0071 | .0075  | -.0022 |
| 10   | 14.99 | 1.3243 | .1552  | .0322  | .0038 | .0086  | -.0022 |
| 11   | 19.99 | 1.4403 | .3078  | -.0726 | .0056 | .0064  | -.0071 |
| 12   | -.00  | .1469  | .0732  | -.1087 | .0037 | .0031  | .0039  |
| 13   | -.01  | .1325  | -.0176 | -.0032 | .0027 | .0030  | .0092  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | COB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .1298  | .0836  | .0183  | .0029 | .0000  | .0000  |
| 3    | .00   | .1321  | -.0182 | .0023  | .0023 | .0021  | .0002  |
| 4    | -8.01 | -.5319 | .0159  | -.0871 | .0004 | -.0007 | .0174  |
| 5    | -4.01 | -.2038 | -.0129 | -.0596 | .0013 | .0006  | .0136  |
| 6    | -.01  | .1366  | -.0185 | .0011  | .0029 | .0052  | .0057  |
| 7    | 2.51  | .3486  | -.0098 | .0250  | .0044 | .0020  | .0047  |
| 8    | 4.98  | .5661  | .0073  | .0433  | .0058 | .0032  | .0012  |
| 9    | 10.00 | .9875  | .0620  | .0630  | .0071 | .0075  | -.0022 |
| 10   | 14.99 | 1.3243 | .1552  | .0322  | .0038 | .0086  | -.0022 |
| 11   | 19.99 | 1.4403 | .3078  | -.0726 | .0056 | .0064  | -.0071 |
| 12   | -.00  | .1469  | .0732  | -.1087 | .0037 | .0031  | .0039  |
| 13   | -.01  | .1325  | -.0176 | -.0032 | .0027 | .0030  | .0092  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 325 CONFIG F P 8 W5 NP1 T BT

SER-72011

*PJA*

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | -2 DELE     | 0 DELR       | 0 DFLSB      | 0            | 0           | 0     | 0       | 0      | 0 |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|---|
| PT. NO. | ALPHA DEG | PSI DEG | CLRAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |   |
| 2       | .0        | .0      | 59.1        | 31.09       | -226.        | 31.          | 0.           | 0.          | 54.57 | 128.07  | 3580.  |   |
| 3       | .0        | .0      | 57.9        | -7.03       | -281.        | 23.          | -0.          | .06         | 55.08 | 128.68  | 11350. |   |
| 4       | -8.0      | .0      | -186.1      | 3.21        | -609.        | -17.         | 10.          | 4.59        | 54.92 | 128.49  | 11400. |   |
| 5       | -3.9      | .0      | -60.4       | -6.02       | -470.        | 6.           | 45.          | 5.14        | 54.97 | 128.54  | 11360. |   |
| 6       | -0.0      | .0      | 56.4        | -7.20       | -285.        | 29.          | 15.          | 2.41        | 55.09 | 128.69  | 11400. |   |
| 7       | 2.5       | .0      | 140.5       | -3.52       | -201.        | 56.          | 51.          | 2.25        | 54.55 | 128.05  | 11400. |   |
| 8       | 5.0       | .0      | 219.0       | 3.11        | -144.        | 79.          | 18.          | -0.31       | 54.63 | 128.14  | 11360. |   |

|    |      |    |       |        |       |      |      |       |       |        |        |  |
|----|------|----|-------|--------|-------|------|------|-------|-------|--------|--------|--|
| 9  | 10.0 | .0 | 379.2 | 24.59  | -112. | 76.  | 107. | -0.94 | 54.57 | 128.07 | 11350. |  |
| 10 | 15.0 | .0 | 496.8 | 60.97  | -237. | 84.  | 88.  | -3.30 | 55.73 | 129.45 | 11340. |  |
| 11 | 20.1 | .0 | 535.1 | 120.97 | -450. | 113. | 86.  | -2.37 | 56.00 | 129.76 | 11430. |  |
| 12 | .0   | .0 | 61.1  | -7.19  | -286. | 30.  | 49.  | 2.85  | 55.05 | 128.65 | 11440. |  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .1596  | .0840  | -.0727 | .0019  | .0000  | -.0003 |
| 3    | .00   | .1566  | -.0190 | -.0906 | .0014  | -.0000 | .0002  |
| 4    | -8.02 | -.5029 | .0087  | -.1965 | -.0010 | .0006  | .0124  |
| 5    | -3.92 | -.1632 | -.0163 | -.1516 | .0003  | .0027  | .0139  |
| 6    | -.05  | .1523  | -.0195 | -.0918 | .0017  | .0009  | .0065  |
| 7    | 2.49  | .3798  | -.0095 | -.0647 | .0034  | .0031  | .0061  |
| 8    | 5.00  | .5920  | .0084  | -.0465 | .0048  | .0011  | -.0008 |
| 9    | 9.96  | 1.0249 | .0665  | -.0362 | .0046  | .0065  | -.0025 |
| 10   | 14.97 | 1.3428 | .1648  | -.0764 | .0050  | .0053  | -.0089 |
| 11   | 20.06 | 1.4462 | .3269  | -.1450 | .0068  | .0052  | -.0064 |
| 12   | .00   | .1651  | -.0194 | -.0924 | .0018  | .0030  | .0077  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CPMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .1596  | .0840  | -.0727 | .0019  | .0000  | -.0003 |
| 3    | .00   | .1566  | -.0190 | -.0906 | .0014  | -.0000 | .0002  |
| 4    | -8.02 | -.5029 | .0087  | -.1965 | -.0010 | .0006  | .0124  |
| 5    | -3.92 | -.1632 | -.0163 | -.1516 | .0003  | .0027  | .0139  |
| 6    | -.05  | .1523  | -.0195 | -.0918 | .0017  | .0009  | .0065  |
| 7    | 2.49  | .3798  | -.0095 | -.0647 | .0034  | .0031  | .0061  |
| 8    | 5.00  | .5920  | .0084  | -.0465 | .0048  | .0011  | -.0008 |
| 9    | 9.96  | 1.0249 | .0665  | -.0362 | .0046  | .0065  | -.0025 |
| 10   | 14.97 | 1.3428 | .1648  | -.0764 | .0050  | .0053  | -.0089 |
| 11   | 20.06 | 1.4462 | .3269  | -.1450 | .0068  | .0052  | -.0064 |
| 12   | .00   | .1651  | -.0194 | -.0924 | .0018  | .0030  | .0077  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

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RUN 326 CONFIG F P B W5 NP1 TSBT

| IW      | Q DELF    | Q DELA  | Q IHT       | Q DELE      | Q DELR       | Q DELSB      | Q           | V     | RPM   |        |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|-------------|-------|-------|--------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CPBAR SQ-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS |        |        |
| 2       | .0        | .0      | 60.8        | 32.48       | -537.        | 21.          | 32.         | 2.74  | 54.66 | 128.18 | 7590.  |
| 3       | .0        | .0      | 70.5        | -7.03       | -607.        | 14.          | 13.         | 3.76  | 55.27 | 128.91 | 11580. |
| 4       | -8.0      | .0      | -177.7      | 1.43        | -841.        | -38.         | 42.         | 6.44  | 54.51 | 128.00 | 11580. |
| 5       | -4.0      | .0      | -52.2       | -7.02       | -774.        | -19.         | 27.         | 5.41  | 54.78 | 128.33 | 11580. |
| 6       | .0        | .0      | 71.8        | -7.01       | -613.        | 10.          | 14.         | 3.27  | 54.16 | 127.59 | 11520. |
| 7       | 2.5       | .0      | 153.4       | -3.23       | -532.        | 26.          | 16.         | 1.73  | 54.99 | 128.57 | 11570. |
| 8       | 5.0       | .0      | 235.1       | 3.88        | -483.        | 41.          | 35.         | .31   | 54.74 | 128.28 | 11570. |
| 9       | 10.0      | .0      | 391.4       | 26.23       | -519.        | 39.          | 88.         | -.25  | 55.11 | 128.72 | 11660. |
| 10      | 15.0      | .0      | 515.0       | 64.55       | -628.        | 48.          | 124.        | -1.68 | 54.74 | 128.28 | 11570. |
| 11      | 20.0      | .0      | 541.4       | 125.49      | -585.        | 69.          | 140.        | -1.42 | 55.09 | 128.69 | 11590. |
| 12      | .0        | .0      | 72.8        | -6.78       | -601.        | 27.          | 12.         | 4.22  | 54.87 | 128.43 | 11520. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM   | CY-    |
|------|-------|--------|--------|--------|--------|-------|--------|
| 2    | .00   | .1886  | .0878  | -.1732 | .0013  | .0019 | .0074  |
| 3    | .00   | .1906  | -.0190 | -.1957 | .0008  | .0008 | .0102  |
| 4    | -8.00 | -.4802 | .0039  | -.2712 | -.0023 | .0025 | .0174  |
| 5    | -4.00 | -.1412 | -.0190 | -.2497 | -.0012 | .0016 | .0146  |
| 6    | .00   | .1942  | -.0189 | -.1977 | .0006  | .0008 | .0088  |
| 7    | 2.51  | .4146  | -.0087 | -.1715 | .0016  | .0009 | .0047  |
| 8    | 5.00  | .6354  | .0105  | -.1556 | .0025  | .0021 | .0008  |
| 9    | 10.01 | 1.0578 | .0709  | -.1672 | .0023  | .0053 | -.0007 |
| 10   | 15.01 | 1.3919 | .1745  | -.2023 | .0029  | .0075 | -.0045 |
| 11   | 20.00 | 1.4632 | .3392  | -.1887 | .0041  | .0085 | -.0038 |
| 12   | .00   | .1968  | -.0193 | -.1938 | .0016  | .0007 | .0114  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMB   | CYMR   | CRMB  | CYB    |
|------|-------|--------|--------|--------|--------|-------|--------|
| 2    | .00   | .1886  | .0878  | -.1732 | .0013  | .0019 | .0074  |
| 3    | .00   | .1906  | -.0190 | -.1957 | .0008  | .0008 | .0102  |
| 4    | -8.00 | -.4802 | .0039  | -.2712 | -.0023 | .0025 | .0174  |
| 5    | -4.00 | -.1412 | -.0190 | -.2497 | -.0012 | .0016 | .0146  |
| 6    | .00   | .1942  | -.0189 | -.1977 | .0006  | .0008 | .0088  |
| 7    | 2.51  | .4146  | -.0087 | -.1715 | .0016  | .0009 | .0047  |
| 8    | 5.00  | .6354  | .0105  | -.1556 | .0025  | .0021 | .0008  |
| 9    | 10.01 | 1.0578 | .0709  | -.1672 | .0023  | .0053 | -.0007 |
| 10   | 15.01 | 1.3919 | .1745  | -.2023 | .0029  | .0075 | -.0045 |
| 11   | 20.00 | 1.4632 | .3392  | -.1887 | .0041  | .0085 | -.0038 |
| 12   | .00   | .1968  | -.0193 | -.1938 | .0016  | .0007 | .0114  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

*P 2A3*

RUN 327 CONFIG F P R W5 NP1 T5BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELF      | 0 DELP       | 0 DFLSR      | 0            | 0           | 0     |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |
| 2       | .0        | .0      | 69.4        | 32.33       | -548.        | 20.          | 18.          | .00         | 54.94 | 128.51  | 3600.  |
| 3       | .0        | .0      | 71.3        | -7.09       | -645.        | 16.          | 53.          | .06         | 54.60 | 128.11  | 11550. |
| 4       | .0        | -15.0   | 82.7        | 14.87       | -824.        | 449.         | 48.          | -118.57     | 53.98 | 127.37  | 11600. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM   | CRM   | CY     |
|------|--------|-------|--------|--------|-------|-------|--------|
| 2    | .00    | .1875 | .0874  | -.1767 | .0012 | .0011 | .0000  |
| 3    | .00    | .1928 | -.0192 | -.2079 | .0010 | .0032 | .0002  |
| 4    | -15.00 | .2234 | .0402  | -.2656 | .0271 | .0029 | -.3204 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDL    | CPMB   | CYMB  | CPMB  | CYB    |
|------|--------|-------|--------|--------|-------|-------|--------|
| 2    | .00    | .1875 | .0874  | -.1767 | .0012 | .0011 | .0000  |
| 3    | .00    | .1928 | -.0192 | -.2079 | .0010 | .0032 | .0002  |
| 4    | -15.00 | .2234 | -.0445 | -.2604 | .0271 | .0157 | -.3199 |

*P J F Y*

RUN 328 CONFIG F P R W5 NP1 T5BT

| IW      | 0 DELF    | 0 DELA  | 0 JHT       | 0 DELE      | 0 DELP       | 0 DFLSB      | 0            | 0           | 0     | 0       |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | PPM    |
| 2       | .0        | .0      | 70.9        | 32.84       | -553.        | 25.          | 31.          | 3.02        | 55.19 | 128.82  | 3610.  |
| 3       | .0        | .0      | 71.0        | -7.01       | -639.        | 21.          | 30.          | 3.96        | 55.06 | 128.67  | 11510. |
| 4       | .0        | -15.0   | 81.6        | 16.29       | -779.        | 449.         | 45.          | -114.08     | 55.18 | 128.81  | 11430. |
| 5       | .0        | -10.0   | 81.0        | 2.23        | -754.        | 232.         | 55.          | -74.16      | 54.20 | 127.64  | 11610. |
| 6       | .0        | -5.0    | 73.4        | -4.83       | -647.        | 99.          | 19.          | -33.82      | 54.89 | 128.46  | 11550. |
| 7       | .0        | -2.5    | 71.4        | -5.80       | -621.        | 70.          | 15.          | -16.75      | 54.51 | 128.01  | 11450. |
| 8       | .0        | .0      | 71.3        | -7.14       | -653.        | 34.          | 32.          | 3.29        | 53.87 | 127.24  | 11560. |
| 9       | .0        | 2.5     | 72.5        | -7.07       | -660.        | 17.          | 70.          | 23.73       | 54.97 | 128.56  | 11590. |
| 10      | .0        | 5.0     | 74.5        | -4.37       | -720.        | -13.         | 11.          | 42.45       | 54.00 | 127.40  | 11560. |
| 11      | .0        | 10.0    | 80.8        | 2.09        | -861.        | -181.        | 40.          | 82.10       | 54.35 | 127.82  | 11490. |
| 12      | .0        | 15.0    | 88.2        | 14.13       | -983.        | -396.        | 120.         | 124.33      | 53.87 | 127.26  | 11570. |
| 13      | .0        | 15.0    | 85.7        | 13.26       | -952.        | -383.        | 99.          | 120.42      | 53.59 | 129.29  | 11550. |
| 14      | .0        | .0      | 72.4        | -7.07       | -616.        | 23.          | 31.          | 3.85        | 54.01 | 127.41  | 11530. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1915 | .0888  | -.1784 | .0015  | .0019 | .0082  |
| 3    | .00    | .1920 | -.0189 | -.2059 | .0013  | .0018 | .0107  |
| 4    | -15.00 | .2206 | .0440  | -.2512 | .0271  | .0027 | -.3083 |
| 5    | -10.00 | .2188 | .0060  | -.2432 | .0140  | .0033 | -.2004 |
| 6    | -5.00  | .1985 | -.0131 | -.2085 | .0060  | .0011 | -.0914 |
| 7    | -2.50  | .1931 | -.0157 | -.2003 | .0042  | .0009 | -.0453 |
| 8    | .00    | .1926 | -.0193 | -.2104 | .0020  | .0019 | .0089  |
| 9    | 2.50   | .1958 | -.0191 | -.2127 | .0010  | .0042 | .0641  |
| 10   | 5.00   | .2013 | -.0118 | -.2352 | -.0008 | .0006 | .1147  |
| 11   | 10.00  | .2183 | .0057  | -.2777 | -.0109 | .0024 | .2219  |
| 12   | 15.00  | .2383 | .0382  | -.3170 | -.0239 | .0073 | .3360  |
| 13   | 15.00  | .2317 | .0358  | -.3068 | -.0231 | .0060 | .3255  |
| 14   | .00    | .1957 | -.0191 | -.1985 | .0014  | .0019 | .0104  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1915 | .0888  | -.1784 | .0015  | .0019  | .0082  |
| 3    | .00    | .1920 | -.0189 | -.2059 | .0013  | .0018  | .0107  |
| 4    | -15.00 | .2206 | -.0376 | -.2463 | .0271  | .0149  | -.3092 |
| 5    | -10.00 | .2188 | -.0290 | -.2426 | .0140  | .0112  | -.1984 |
| 6    | -5.00  | .1985 | -.0210 | -.2082 | .0060  | .0046  | -.0899 |
| 7    | -2.50  | .1931 | -.0176 | -.2003 | .0042  | .0025  | -.0445 |
| 8    | .00    | .1926 | -.0193 | -.2104 | .0020  | .0019  | .0089  |
| 9    | 2.50   | .1958 | -.0219 | -.2115 | .0010  | .0024  | .0632  |
| 10   | 5.00   | .2013 | -.0218 | -.2340 | -.0008 | -.0032 | .1133  |
| 11   | 10.00  | .2183 | -.0331 | -.2712 | -.0109 | -.0067 | .2195  |
| 12   | 15.00  | .2383 | -.0505 | -.2960 | -.0239 | -.0084 | .3344  |
| 13   | 15.00  | .2317 | -.0500 | -.2880 | -.0231 | -.0092 | .3236  |
| 14   | .00    | .1957 | -.0191 | -.1985 | .0014  | .0019  | .0104  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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*P2A5*

RUN 329 CONFIG F P R W5 NP1 T5BT

| JW      | -9 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSB      | 0            |             |       | RPM     |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 3       | .0        | .0      | -112.1      | 36.92       | -1087.       | 40.          | -5.          | 4.10        | 55.60 | 129.32  | 3350.  |
| 4       | .0        | .0      | -111.7      | -6.86       | -1164.       | 33.          | 64.          | 5.33        | 54.95 | 128.55  | 12080. |
| 5       | -8.0      | .0      | -305.2      | 32.64       | -1135.       | -66.         | 321.         | 8.91        | 54.65 | 128.19  | 12030. |
| 6       | -4.0      | .0      | -239.7      | 2.89        | -1264.       | 30.          | 8.           | 6.49        | 54.57 | 128.09  | 12040. |
| 7       | -1.1      | .0      | -117.8      | -6.50       | -1194.       | 29.          | 11.          | 5.69        | 54.53 | 128.04  | 12030. |
| 8       | 4.9       | .0      | 45.6        | -7.60       | -1114.       | 63.          | 16.          | 1.93        | 54.82 | 128.39  | 12070. |
| 9       | 10.0      | .0      | 216.3       | 3.83        | -1056.       | 50.          | 71.          | -.68        | 55.16 | 128.80  | 12040. |
| 10      | 15.0      | .0      | 372.4       | 31.22       | -825.        | 90.          | 70.          | .56         | 55.23 | 128.88  | 12080. |
| 11      | 20.0      | .0      | 512.3       | 74.51       | -557.        | 118.         | 107.         | -1.38       | 54.18 | 127.63  | 12100. |
| 12      | -.0       | .0      | -115.4      | -6.86       | -1171.       | 34.          | 31.          | 3.17        | 54.74 | 128.29  | 12060. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 3    | .00   | -.3030 | .0998  | -.3503 | .0024  | -.0003 | .0111  |
| 4    | .00   | -.3019 | -.0185 | -.3753 | .0020  | .0039  | .0144  |
| 5    | -7.97 | -.8250 | .0882  | -.3660 | -.0040 | .0194  | .0241  |
| 6    | -4.01 | -.6479 | .0078  | -.4076 | .0018  | .0005  | .0175  |
| 7    | -.08  | -.3184 | -.0176 | -.3849 | .0018  | .0006  | .0154  |
| 8    | 4.94  | .1232  | -.0205 | -.3593 | .0038  | .0010  | .0052  |
| 9    | 10.04 | .5845  | .0103  | -.3405 | .0030  | .0043  | -.0018 |
| 10   | 15.02 | 1.0066 | .0844  | -.2660 | .0055  | .0042  | .0015  |
| 11   | 20.00 | 1.3847 | .2014  | -.1795 | .0071  | .0065  | -.0037 |
| 12   | -.01  | -.3119 | -.0185 | -.3776 | .0021  | .0019  | .0086  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 3    | .00   | -.3030 | .0998  | -.3503 | .0024  | -.0003 | .0111  |
| 4    | .00   | -.3019 | -.0185 | -.3753 | .0020  | .0039  | .0144  |
| 5    | -7.97 | -.8250 | .0882  | -.3660 | -.0040 | .0194  | .0241  |
| 6    | -4.01 | -.6479 | .0078  | -.4076 | .0018  | .0005  | .0175  |
| 7    | -.08  | -.3184 | -.0176 | -.3849 | .0018  | .0006  | .0154  |
| 8    | 4.94  | .1232  | -.0205 | -.3593 | .0038  | .0010  | .0052  |
| 9    | 10.04 | .5845  | .0103  | -.3405 | .0030  | .0043  | -.0018 |
| 10   | 15.02 | 1.0066 | .0844  | -.2660 | .0055  | .0042  | .0015  |
| 11   | 20.00 | 1.3847 | .2014  | -.1795 | .0071  | .0065  | -.0037 |
| 12   | -.01  | -.3119 | -.0185 | -.3776 | .0021  | .0019  | .0086  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 286

RUN 330 CONFIG F P B W5 NP1 TSBT

| I#      | 15 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSR      | 0            | 0           | 0     | RPM     |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMPAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 352.0       | 71.97       | 30.          | 52.          | 104.         | .74         | 55.18 | 128.82  | 4080.  |
| 3       | .0        | .0      | 346.8       | -8.21       | -392.        | 33.          | 104.         | 1.74        | 54.92 | 128.50  | 16110. |
| 4       | -8.0      | .0      | 113.7       | -29.30      | -219.        | 119.         | 53.          | -.06        | 55.21 | 128.85  | 16070. |
| 5       | -4.0      | .0      | 246.8       | -22.44      | -315.        | -5.          | 66.          | 2.77        | 55.36 | 129.03  | 16230. |
| 6       | -.0       | .0      | 345.2       | -7.54       | -392.        | 33.          | 137.         | 1.72        | 55.51 | 129.20  | 16190. |
| 7       | 2.7       | .0      | 407.3       | 6.89        | -426.        | -8.          | 122.         | .56         | 55.19 | 128.83  | 16170. |
| 8       | 5.0       | .0      | 428.2       | 21.36       | -390.        | -102.        | -159.        | .87         | 55.12 | 128.75  | 16160. |
| 9       | 10.1      | .0      | 458.3       | 75.99       | -384.        | 143.         | -16.         | -2.34       | 55.30 | 128.95  | 16200. |
| 10      | 15.0      | .0      | 529.4       | 138.88      | -572.        | 122.         | -106.        | -1.18       | 54.75 | 128.30  | 16130. |
| 11      | 20.0      | .0      | 584.5       | 209.03      | -928.        | 135.         | -69.         | 4.70        | 55.82 | 129.56  | 16160. |
| 12      | .0        | .0      | 346.5       | -7.52       | -417.        | 13.          | 122.         | .49         | 55.10 | 128.72  | 16070. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .9513  | .1945  | .9098  | .0032  | .0063  | .0020  |
| 3    | .00   | .9374  | -.0222 | -.1265 | .0020  | .0063  | .0047  |
| 4    | -8.00 | .3074  | -.0792 | -.0706 | .0072  | .0032  | -.0002 |
| 5    | -3.96 | .6669  | -.0607 | -.1016 | -.0003 | .0040  | .0075  |
| 6    | -.00  | .9329  | -.0204 | -.1263 | .0020  | .0083  | .0046  |
| 7    | 2.65  | 1.1009 | .0186  | -.1374 | -.0005 | .0074  | .0015  |
| 8    | 4.99  | 1.1574 | .0577  | -.1258 | -.0061 | -.0096 | .0023  |
| 9    | 10.06 | 1.2387 | .2054  | -.1238 | .0086  | -.0010 | -.0063 |
| 10   | 15.04 | 1.4309 | .3753  | -.1845 | .0074  | -.0064 | -.0032 |
| 11   | 19.97 | 1.5798 | .5649  | -.2992 | .0082  | -.0041 | .0127  |
| 12   | .00   | .9366  | -.0203 | -.1344 | .0008  | .0074  | .0013  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .9513  | .1945  | .0098  | .0032  | .0063  | .0020  |
| 3    | .00   | .9374  | -.0222 | -.1265 | .0020  | .0063  | .0047  |
| 4    | -8.00 | .3074  | -.0792 | -.0706 | .0072  | .0032  | -.0002 |
| 5    | -3.96 | .6669  | -.0607 | -.1016 | -.0003 | .0040  | .0075  |
| 6    | -.00  | .9329  | -.0204 | -.1263 | .0020  | .0083  | .0046  |
| 7    | 2.65  | 1.1009 | .0186  | -.1374 | -.0005 | .0074  | .0015  |
| 8    | 4.99  | 1.1574 | .0577  | -.1258 | -.0061 | -.0096 | .0023  |
| 9    | 10.06 | 1.2387 | .2054  | -.1238 | .0086  | -.0010 | -.0063 |
| 10   | 15.04 | 1.4309 | .3753  | -.1845 | .0074  | -.0064 | -.0032 |
| 11   | 19.97 | 1.5798 | .5649  | -.2992 | .0082  | -.0041 | .0127  |
| 12   | .00   | .9366  | -.0203 | -.1344 | .0008  | .0074  | .0013  |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011

PJA7

RUN 331 CONFIG F P R W5 NP1 T5BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSR      | 0            | 0           | 0     | RPM     |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CPBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 541.8       | 124.52      | 126.         | -5.          | 74.          | -3.65       | 55.93 | 129.70  | 4340.  |
| 3       | .0        | .0      | 542.4       | 124.49      | 128.         | -9.          | 92.          | -2.39       | 54.24 | 127.68  | 4280.  |
| 4       | .0        | .0      | 549.6       | 124.62      | 102.         | -8.          | 109.         | -2.95       | 55.39 | 129.06  | 4340.  |
| 5       | .0        | .0      | 535.3       | -7.32       | 206.         | 116.         | 131.         | -5.91       | 54.71 | 128.26  | 19830. |
| 6       | -8.0      | .0      | 286.5       | -27.28      | 150.         | 239.         | 112.         | -4.12       | 55.35 | 129.02  | 19900. |
| 7       | -4.0      | .0      | 418.8       | -16.19      | 120.         | 150.         | 112.         | -4.20       | 55.22 | 128.85  | 19820. |
| 8       | -1        | .0      | 530.2       | -2.14       | 243.         | 132.         | 130.         | -6.02       | 55.42 | 129.09  | 20000. |
| 9       | 2.6       | .0      | 545.9       | 12.29       | 131.         | 15.          | -537.        | 7.68        | 54.98 | 128.57  | 19910. |
| 10      | 5.0       | .0      | 524.5       | 31.83       | -293.        | -184.        | -298.        | 2.15        | 55.57 | 129.28  | 20010. |
| 11      | 10.1      | .0      | 521.7       | 91.83       | -386.        | 163.         | -35.         | -.80        | 55.32 | 128.98  | 20150. |
| 12      | 15.0      | .0      | 582.4       | 155.00      | -563.        | 102.         | -122.        | 1.72        | 55.59 | 129.29  | 19970. |
| 13      | 20.0      | .0      | 644.6       | 234.11      | -1033.       | 183.         | 106.         | -.56        | 54.65 | 128.17  | 19910. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4642 | .3365  | .0405  | -.0003 | .0045  | -.0009 |
| 3    | .00   | 1.4658 | .3364  | .0412  | -.0005 | .0056  | -.0065 |
| 4    | .00   | 1.4853 | .3368  | .0329  | -.0005 | .0066  | -.0000 |
| 5    | .00   | 1.4469 | -.0198 | .0666  | .0070  | .0079  | -.0160 |
| 6    | -8.02 | .7743  | -.0737 | .0484  | .0144  | .0068  | -.0111 |
| 7    | -4.00 | 1.1319 | -.0438 | .0388  | .0091  | .0067  | -.0113 |
| 8    | -.05  | 1.4330 | -.0058 | .0784  | .0000  | .0079  | -.0163 |
| 9    | 2.62  | 1.4753 | .0332  | .0423  | .0009  | -.0324 | .0208  |
| 10   | 5.01  | 1.4176 | .0860  | -.0946 | -.0111 | -.0180 | .0058  |
| 11   | 10.06 | 1.4101 | .2482  | -.1243 | .0009  | -.0021 | -.0022 |
| 12   | 14.97 | 1.5742 | .4189  | -.1815 | .0062  | -.0074 | .0046  |
| 13   | 19.98 | 1.7421 | .6327  | -.3331 | .0111  | .0064  | -.0015 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMR   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | 1.4642 | .3365  | .0405  | -.0003 | .0045  | -.0009 |
| 3    | .00   | 1.4658 | .3364  | .0412  | -.0005 | .0056  | -.0065 |
| 4    | .00   | 1.4853 | .3368  | .0329  | -.0005 | .0066  | -.0000 |
| 5    | .00   | 1.4469 | -.0198 | .0666  | .0070  | .0079  | -.0160 |
| 6    | -8.02 | .7743  | -.0737 | .0484  | .0144  | .0068  | -.0111 |
| 7    | -4.00 | 1.1319 | -.0438 | .0388  | .0091  | .0067  | -.0113 |
| 8    | -.05  | 1.4330 | -.0058 | .0784  | .0000  | .0079  | -.0163 |
| 9    | 2.62  | 1.4753 | .0332  | .0423  | .0009  | -.0324 | .0208  |
| 10   | 5.01  | 1.4176 | .0860  | -.0946 | -.0111 | -.0180 | .0058  |
| 11   | 10.06 | 1.4101 | .2482  | -.1243 | .0009  | -.0021 | -.0022 |
| 12   | 14.97 | 1.5742 | .4189  | -.1815 | .0062  | -.0074 | .0046  |
| 13   | 19.98 | 1.7421 | .6327  | -.3331 | .0111  | .0064  | -.0015 |

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RUN 332 CONFIG F P B W5 NP1 T6 BT

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYNBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>V<br>KNOTS | RPM    |        |
|------------------|-------------------------|-----------------------|-------------------------|--------------------------|---------------------------|----------------------------|---------------------|----------|-----------------|--------|--------|
| 6                | .0                      | .0                    | 527.0                   | 122.73                   | 494.                      | -29.                       | 34.                 | .98      | 55.56           | 129.26 | 4310.  |
| 7                | .0                      | .0                    | 523.4                   | -8.42                    | 552.                      | 98.                        | 78.                 | -6.46    | 55.34           | 129.00 | 20090. |
| 8                | -8.0                    | .0                    | 271.5                   | -34.43                   | 559.                      | 95.                        | 70.                 | -.06     | 55.59           | 129.30 | 20080. |
| 9                | -4.0                    | .0                    | 404.5                   | -25.39                   | 493.                      | 113.                       | 73.                 | -1.61    | 54.95           | 128.54 | 20140. |
| 10               | .0                      | .0                    | 524.7                   | -8.49                    | 593.                      | 87.                        | 148.                | -5.45    | 55.05           | 128.65 | 20080. |
| 11               | 2.6                     | .0                    | 550.4                   | 7.16                     | 336.                      | 41.                        | -291.               | 8.67     | 55.00           | 128.60 | 20120. |
| 12               | 5.1                     | .0                    | 518.5                   | 26.82                    | -286.                     | -17.                       | -343.               | -3.97    | 55.83           | 129.58 | 20050. |
| 13               | 10.0                    | .0                    | 525.8                   | 91.88                    | -568.                     | 184.                       | -50.                | -4.82    | 55.18           | 128.80 | 20080. |
| 14               | 15.1                    | .0                    | 604.8                   | 158.20                   | -1029.                    | 170.                       | -87.                | -2.57    | 55.59           | 129.29 | 20150. |
| 15               | 20.0                    | .0                    | 666.6                   | 235.77                   | -1579.                    | 212.                       | 70.                 | -1.04    | 55.56           | 129.25 | 20170. |
| 16               | .0                      | .0                    | 528.3                   | -6.53                    | 579.                      | 92.                        | 129.                | -4.39    | 55.14           | 128.77 | 20060. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|-----|-------|--------|--------|--------|--------|--------|--------|
| 6   | .02   | 1.4243 | .3317  | .1591  | -.0017 | .0020  | .0027  |
| 7   | .02   | 1.4146 | -.0228 | .1779  | .0059  | .0047  | -.0173 |
| 8   | -8.02 | .7339  | -.0930 | .1804  | .0058  | .0042  | -.0002 |
| 9   | -3.98 | 1.0932 | -.0686 | .1589  | .0068  | .0044  | -.0044 |
| 10  | .01   | 1.4182 | -.0229 | .1911  | .0052  | .0089  | -.0147 |
| 11  | 2.61  | 1.4874 | .0193  | .1083  | .0025  | -.0176 | .0234  |
| 12  | 5.05  | 1.4014 | .0725  | -.0921 | -.0010 | -.0207 | -.0107 |
| 13  | 10.01 | 1.4212 | .2483  | -.1832 | .0111  | -.0030 | -.0130 |
| 14  | 15.06 | 1.6346 | .4276  | -.3318 | .0103  | -.0052 | -.0070 |
| 15  | 19.97 | 1.8016 | .6372  | -.5090 | .0128  | .0042  | -.0028 |
| 16  | .00   | 1.4279 | -.0177 | .1866  | .0056  | .0078  | -.0119 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|-----|-------|--------|--------|--------|--------|--------|--------|
| 6   | .02   | 1.4243 | .3317  | .1591  | -.0017 | .0020  | .0027  |
| 7   | .02   | 1.4146 | -.0228 | .1779  | .0059  | .0047  | -.0173 |
| 8   | -8.02 | .7339  | -.0930 | .1804  | .0058  | .0042  | -.0002 |
| 9   | -3.98 | 1.0932 | -.0686 | .1589  | .0068  | .0044  | -.0044 |
| 10  | .01   | 1.4182 | -.0229 | .1911  | .0052  | .0089  | -.0147 |
| 11  | 2.61  | 1.4874 | .0193  | .1083  | .0025  | -.0176 | .0234  |
| 12  | 5.05  | 1.4014 | .0725  | -.0921 | -.0010 | -.0207 | -.0107 |
| 13  | 10.01 | 1.4212 | .2483  | -.1832 | .0111  | -.0030 | -.0130 |
| 14  | 15.06 | 1.6346 | .4276  | -.3318 | .0103  | -.0052 | -.0070 |
| 15  | 19.97 | 1.8016 | .6372  | -.5090 | .0128  | .0042  | -.0028 |
| 16  | .00   | 1.4279 | -.0177 | .1366  | .0056  | .0078  | -.0119 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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PDF9

RUN 333 CONFIG F P R W5 NP1 T6 BT

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | 0           | 0     | RPM     |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLRAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 3       | .0        | .0      | 346.0       | 70.48       | 207.         | -1.          | 67.          | 2.51        | 55.57 | 129.26  | 4110.  |
| 4       | .0        | .0      | 346.2       | -5.80       | -111.        | 11.          | 90.          | -2.45       | 55.55 | 129.24  | 15770. |
| 2       | .0        | .0      | 345.4       | 70.50       | 207.         | -17.         | 52.          | .06         | 55.71 | 129.43  | 4110.  |
| 3       | .0        | .0      | 341.8       | -6.00       | -149.        | 2.           | 109.         | -2.53       | 55.15 | 128.77  | 15580. |
| 4       | -8.0      | .0      | 103.9       | -26.73      | 64.          | 29.          | 49.          | 2.36        | 54.96 | 128.54  | 15510. |
| 5       | -4.0      | .0      | 231.9       | -20.48      | -59.         | 12.          | 32.          | 1.85        | 55.17 | 128.79  | 15650. |
| 6       | .0        | .0      | 335.9       | -6.06       | -155.        | -4.          | 54.          | -1.59       | 55.54 | 129.24  | 15560. |
| 7       | .0        | .0      | 342.7       | -5.51       | -157.        | -5.          | 107.         | -1.06       | 54.81 | 128.37  | 15490. |
| 8       | 2.7       | .0      | 403.5       | 8.38        | -307.        | -32.         | 108.         | -1.99       | 54.71 | 128.24  | 15660. |
| 9       | 5.1       | .0      | 393.7       | 27.20       | -367.        | -2.          | 121.         | .49         | 55.80 | 129.53  | 15600. |
| 10      | 10.0      | .0      | 463.2       | 82.09       | -707.        | 151.         | 37.          | -2.55       | 54.80 | 128.34  | 15620. |
| 11      | 15.1      | .0      | 538.2       | 146.46      | -1127.       | 132.         | -210.        | -1.79       | 55.17 | 128.79  | 15710. |
| 12      | 20.0      | .0      | 600.1       | 219.15      | -1515.       | 137.         | -35.         | .92         | 55.43 | 129.09  | 15580. |
| 13      | .0        | .0      | 340.1       | -6.26       | -172.        | -11.         | 73.          | -1.06       | 54.42 | 127.90  | 15670. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 3    | .00   | .9353  | .1905  | .0668  | -.0000 | .0040  | .0068  |
| 4    | .00   | .9358  | -.0157 | -.0359 | .0007  | .0055  | -.0066 |
| 2    | .00   | .9336  | .1905  | .0668  | -.0010 | .0031  | .0002  |
| 3    | .00   | .9239  | -.0162 | -.0480 | .0001  | .0066  | -.0068 |
| 4    | -8.00 | .2809  | -.0722 | .0205  | .0017  | .0029  | .0064  |
| 5    | -3.99 | .6268  | -.0553 | -.0191 | .0007  | .0020  | .0050  |
| 6    | .00   | .9079  | -.0164 | -.0499 | -.0003 | .0033  | -.0043 |
| 7    | .00   | .9263  | -.0149 | -.0506 | -.0003 | .0065  | -.0029 |
| 8    | 2.68  | 1.0905 | .0227  | -.0999 | -.0019 | .0066  | -.0054 |
| 9    | 5.07  | 1.0641 | .0735  | -.1184 | -.0001 | .0073  | .0013  |
| 10   | 10.03 | 1.2520 | .2219  | -.2281 | .0001  | .0022  | -.0069 |
| 11   | 15.05 | 1.4546 | .3958  | -.3634 | .0000  | -.0127 | -.0048 |
| 12   | 19.97 | 1.6217 | .5923  | -.4886 | .0003  | -.0021 | .0025  |
| 13   | .01   | .9193  | -.0169 | -.0555 | -.0007 | .0044  | -.0029 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CPMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 3    | .00   | .9353  | .1905  | .0668  | -.0000 | .0040  | .0068  |
| 4    | .00   | .9358  | -.0157 | -.0359 | .0007  | .0055  | -.0066 |
| 2    | .00   | .9336  | .1905  | .0668  | -.0010 | .0031  | .0002  |
| 3    | .00   | .9239  | -.0162 | -.0480 | .0001  | .0066  | -.0068 |
| 4    | -8.00 | .2809  | -.0722 | .0205  | .0017  | .0029  | .0064  |
| 5    | -3.99 | .6268  | -.0553 | -.0191 | .0007  | .0020  | .0050  |
| 6    | .00   | .9079  | -.0164 | -.0499 | -.0003 | .0033  | -.0043 |
| 7    | .00   | .9263  | -.0149 | -.0506 | -.0003 | .0065  | -.0029 |
| 8    | 2.68  | 1.0905 | .0227  | -.0999 | -.0019 | .0066  | -.0054 |
| 9    | 5.07  | 1.0641 | .0735  | -.1184 | -.0001 | .0073  | .0013  |
| 10   | 10.03 | 1.2520 | .2219  | -.2281 | .0001  | .0022  | -.0069 |
| 11   | 15.05 | 1.4546 | .3958  | -.3634 | .0000  | -.0127 | -.0048 |
| 12   | 19.97 | 1.6217 | .5923  | -.4886 | .0003  | -.0021 | .0025  |
| 13   | .01   | .9193  | -.0169 | -.0555 | -.0007 | .0044  | -.0029 |

C. 4

RUN 334 CONFIG F P R W5 NP1 T6 BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | 0 PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 67.8        | 31.63       | -61.8        | 30.          | 35.          | .12         | 54.96 | 128.54  | 3570.  |
| 3       | .0        | .0      | 68.9        | -5.65       | -686.        | 32.          | 31.          | 2.88        | 55.51 | 129.19  | 11360. |
| 4       | -8.0      | .0      | -186.0      | 3.75        | -745.        | -29.         | -12.         | 6.91        | 55.22 | 128.86  | 11260. |
| 5       | -4.0      | .0      | -60.1       | -5.58       | -767.        | 0.           | 45.          | 5.24        | 55.27 | 128.92  | 11340. |
| 6       | -.1       | .0      | 65.9        | -6.01       | -682.        | 31.          | 12.          | 4.61        | 55.42 | 129.09  | 11300. |
| 7       | 5.0       | .0      | 233.7       | 5.36        | -721.        | 85.          | -1.          | 1.17        | 55.10 | 128.71  | 11270. |
| 8       | 10.1      | .0      | 401.8       | 29.23       | -888.        | 77.          | 140.         | -.12        | 55.23 | 128.86  | 11320. |
| 9       | 15.0      | .0      | 537.0       | 69.50       | -1120.       | 61.          | 212.         | -.68        | 54.89 | 128.45  | 11330. |
| 12      | 20.0      | .0      | 562.4       | 132.27      | -1123.       | 76.          | 123.         | .37         | 54.96 | 128.54  | 11310. |
| 13      | 20.0      | .0      | 557.5       | 131.92      | -1052.       | 84.          | 105.         | .68         | 55.21 | 128.84  | 11250. |
| 14      | -.0       | .0      | 69.9        | -6.28       | -657.        | 30.          | -6.          | 4.36        | 54.63 | 128.16  | 11270. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .1832  | .0855  | -.1994 | .0018  | .0021  | .0003  |
| 3    | .00   | .1861  | -.0153 | -.2212 | .0019  | .0019  | .0078  |
| 4    | -8.02 | -.5027 | .0101  | -.2403 | -.0017 | -.0007 | .0187  |
| 5    | -4.02 | -.1623 | -.0151 | -.2471 | .0000  | .0027  | .0142  |
| 6    | -.08  | .1781  | -.0163 | -.2197 | .0019  | .0007  | .0125  |
| 7    | 4.98  | .6317  | .0145  | -.2324 | .0052  | -.0001 | .0032  |
| 8    | 10.05 | 1.0859 | .0790  | -.2862 | .0047  | .0085  | -.0003 |
| 9    | 15.01 | 1.7960 | .4200  | -.5807 | .0068  | .0076  | -.0020 |
| 12   | 19.95 | 1.5199 | .3575  | -.3621 | .0046  | .0075  | .0010  |
| 13   | 20.02 | 1.5067 | .3565  | -.3390 | .0051  | .0064  | .0018  |
| 14   | -.01  | .1888  | -.0170 | -.2119 | .0018  | -.0003 | .0118  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .1832  | .0855  | -.1994 | .0018  | .0021  | .0003  |
| 3    | .00   | .1861  | -.0153 | -.2212 | .0019  | .0019  | .0078  |
| 4    | -8.02 | -.5027 | .0101  | -.2403 | -.0017 | -.0007 | .0187  |
| 5    | -4.02 | -.1623 | -.0151 | -.2471 | .0000  | .0027  | .0142  |
| 6    | -.08  | .1781  | -.0163 | -.2197 | .0019  | .0007  | .0125  |
| 7    | 4.98  | .6317  | .0145  | -.2324 | .0052  | -.0001 | .0032  |
| 8    | 10.05 | 1.0859 | .0790  | -.2862 | .0047  | .0085  | -.0003 |
| 9    | 15.01 | 1.7960 | .4200  | -.5807 | .0068  | .0076  | -.0020 |
| 12   | 19.95 | 1.5199 | .3575  | -.3621 | .0046  | .0075  | .0010  |
| 13   | 20.02 | 1.5067 | .3565  | -.3390 | .0051  | .0064  | .0018  |
| 14   | -.01  | .1888  | -.0170 | -.2119 | .0018  | -.0003 | .0118  |

SIKORSKY RSRA 1/6 SCALF MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 291

RUN 335 CONFIG F P R W5 NP1 T6 BT

| IW  | -9 DELF | 0 DELA | 0 IHT  | 0 DELE | 0 DELR | 0 DELSB | 0      | 0     | 0     | 0      |        |
|-----|---------|--------|--------|--------|--------|---------|--------|-------|-------|--------|--------|
| PT. | ALPHA   | PSI    | CLBAR  | CDBAR  | CPMBAR | CYMBAR  | CRMBAR | CYBAR | PSF   | V      | RPM    |
| NO. | DEG     | DEG    | SQ-FT  | SQ-FT  | CU-FT  | CU-FT   | CU-FT  | SQ-FT | PSF   | KNOTS  |        |
| 2   | .0      | .0     | -115.4 | 35.78  | -1335. | 40.     | 34.    | .56   | 55.20 | 128.83 | 3310.  |
| 3   | .0      | .0     | -116.5 | -6.80  | -1396. | 48.     | 48.    | 4.10  | 54.80 | 128.35 | 11960. |
| 4   | -8.0    | .0     | -297.7 | 41.71  | -1068. | -62.    | 161.   | 8.58  | 55.19 | 128.82 | 11980. |
| 5   | -4.0    | .0     | -241.3 | 2.87   | -1373. | 15.     | -25.   | 5.04  | 55.44 | 129.12 | 11980. |
| 6   | .0      | .0     | -115.6 | -6.61  | -1377. | 46.     | 46.    | 4.03  | 55.28 | 128.92 | 12000. |
| 7   | 5.1     | .0     | 50.5   | -7.24  | -1423. | 93.     | 69.    | 1.04  | 55.49 | 129.18 | 11990. |
| 8   | 10.0    | .0     | 210.1  | 4.49   | -1477. | 101.    | 70.    | -.06  | 55.44 | 129.12 | 12000. |
| 9   | 15.0    | .0     | 381.5  | 34.35  | -1350. | 83.     | 89.    | -.94  | 54.40 | 127.88 | 12010. |
| 10  | 20.0    | .0     | 519.9  | 78.87  | -1042. | 108.    | 142.   | -1.88 | 54.39 | 127.87 | 11990. |
| 11  | .0      | .0     | -110.1 | -6.00  | -1303. | 44.     | 64.    | 4.49  | 55.32 | 128.98 | 12020. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | -.3118 | .0967  | -.4305 | .0024  | .0021  | .0015  |
| 3    | .00   | -.3148 | -.0184 | -.4499 | .0029  | .0029  | .0111  |
| 4    | -8.00 | -.8045 | .1116  | -.3418 | -.0037 | .0097  | .0232  |
| 5    | -3.99 | -.6521 | .0078  | -.4427 | .0009  | -.0015 | .0136  |
| 6    | .01   | -.3125 | -.0179 | -.4438 | .0028  | .0028  | .0133  |
| 7    | 5.06  | .1365  | -.0196 | -.4587 | .0056  | .0042  | .0028  |
| 8    | 10.01 | .5921  | .0121  | -.4748 | .0061  | .0042  | -.0002 |
| 9    | 15.03 | 1.0311 | .0928  | -.4352 | .0050  | .0054  | -.0025 |
| 10   | 20.04 | 1.4052 | .2132  | -.3360 | .0065  | .0086  | -.0051 |
| 11   | .01   | -.2975 | -.0162 | -.4196 | .0027  | .0039  | .0121  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CLD    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | -.3118 | .0967  | -.4305 | .0024  | .0021  | .0015  |
| 3    | .00   | -.3148 | -.0184 | -.4499 | .0029  | .0029  | .0111  |
| 4    | -8.00 | -.8045 | .1116  | -.3418 | -.0037 | .0097  | .0232  |
| 5    | -3.99 | -.6521 | .0078  | -.4427 | .0009  | -.0015 | .0136  |
| 6    | .01   | -.3125 | -.0179 | -.4438 | .0028  | .0028  | .0133  |
| 7    | 5.06  | .1365  | -.0196 | -.4587 | .0056  | .0042  | .0028  |
| 8    | 10.01 | .5921  | .0121  | -.4748 | .0061  | .0042  | -.0002 |
| 9    | 15.03 | 1.0311 | .0928  | -.4352 | .0050  | .0054  | -.0025 |
| 10   | 20.04 | 1.4052 | .2132  | -.3360 | .0065  | .0086  | -.0051 |
| 11   | .01   | -.2975 | -.0162 | -.4196 | .0027  | .0039  | .0121  |

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SIKORSKY RSPA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

*P 292*

RUN 336 CONFIG F P B W5 NP1 T6 BT

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSR      | 0            | 0           | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 2       | .0        | .0      | 348.2       | 70.46       | 111.         | 26.          | 35.          | .19         | 54.81 | 128.36  | 4060.  |
| 3       | .0        | .0      | 337.8       | -5.21       | -223.        | 58.          | 89.          | -.50        | 55.02 | 128.62  | 15580. |
| 4       | -8.0      | .0      | 106.8       | -24.81      | 91.          | 28.          | 33.          | 1.42        | 55.04 | 128.65  | 15480. |
| 5       | -4.1      | .0      | 234.2       | -19.47      | -65.         | 0.           | 16.          | 1.00        | 54.74 | 128.28  | 15580. |
| 6       | -1        | .0      | 335.8       | -4.83       | -226.        | 66.          | 124.         | .13         | 54.48 | 127.97  | 15560. |
| 7       | 2.7       | .0      | 404.2       | 11.01       | -393.        | 48.          | 109.         | -1.38       | 54.19 | 127.63  | 15610. |
| 8       | 5.0       | .0      | 431.5       | 25.92       | -519.        | 23.          | -216.        | .00         | 53.94 | 127.33  | 15610. |
| 9       | 10.0      | .0      | 467.2       | 77.74       | -734.        | 161.         | -90.         | 2.01        | 54.35 | 127.81  | 15590. |
| 10      | 15.0      | .0      | 542.7       | 147.12      | -1177.       | 44.          | -53.         | -3.84       | 54.12 | 127.54  | 15640. |
| 11      | 20.0      | .0      | 600.6       | 219.09      | -1494.       | 200.         | -124.        | 3.00        | 54.58 | 128.09  | 15570. |
| 12      | -0        | .0      | 336.4       | -3.02       | -230.        | 73.          | 68.          | 2.43        | 54.69 | 128.23  | 15550. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .9411  | .1994  | .0350  | .0016 | .0021  | .0005  |
| 3    | .00   | .9129  | -.0141 | -.0720 | .0035 | .0054  | -.0013 |
| 4    | -8.03 | .2886  | -.0671 | .0293  | .0017 | .0020  | .0038  |
| 5    | -4.09 | .6329  | -.0526 | -.0210 | .0000 | .0010  | .0027  |
| 6    | -.07  | .9075  | -.0131 | -.0728 | .0040 | .0075  | .0003  |
| 7    | 2.73  | 1.0925 | .0298  | -.1268 | .0029 | .0066  | -.0037 |
| 8    | 5.01  | 1.1663 | .0701  | -.1672 | .0014 | -.0130 | .0000  |
| 9    | 9.96  | 1.2626 | .2101  | -.2365 | .0007 | -.0055 | .0054  |
| 10   | 14.99 | 1.4668 | .3976  | -.3794 | .0026 | -.0032 | -.0104 |
| 11   | 19.98 | 1.6233 | .5921  | -.4817 | .0121 | -.0075 | .0081  |
| 12   | -.01  | .9091  | -.0082 | -.0770 | .0044 | .0041  | .0066  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .9411  | .1994  | .0350  | .0016 | .0021  | .0005  |
| 3    | .00   | .9129  | -.0141 | -.0720 | .0035 | .0054  | -.0013 |
| 4    | -8.03 | .2886  | -.0671 | .0293  | .0017 | .0020  | .0038  |
| 5    | -4.09 | .6329  | -.0526 | -.0210 | .0000 | .0010  | .0027  |
| 6    | -.07  | .9075  | -.0131 | -.0728 | .0040 | .0075  | .0003  |
| 7    | 2.73  | 1.0925 | .0298  | -.1268 | .0029 | .0066  | -.0037 |
| 8    | 5.01  | 1.1663 | .0701  | -.1672 | .0014 | -.0130 | .0000  |
| 9    | 9.96  | 1.2626 | .2101  | -.2365 | .0007 | -.0055 | .0054  |
| 10   | 14.99 | 1.4668 | .3976  | -.3794 | .0026 | -.0032 | -.0104 |
| 11   | 19.98 | 1.6233 | .5921  | -.4817 | .0121 | -.0075 | .0081  |
| 12   | -.01  | .9091  | -.0082 | -.0770 | .0044 | .0041  | .0066  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 293

RUN 337 CONFIG F P B W5 NP1 T7 BT

| PT. NO. | IW | 15 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|---------|----|-------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 2       |    | .0                      | .0                   | 351.6                    | 70.37                   | -9.                       | 47.                       | 67.                       | 2.68                      | 54.75         | 128.31          | 4040.  |
| 3       |    | .0                      | .0                   | 342.4                    | -6.92                   | -398.                     | 80.                       | 86.                       | .86                       | 55.72         | 129.46          | 15890. |
| 4       |    | -8.0                    | .0                   | 106.0                    | -29.24                  | 46.                       | 46.                       | 63.                       | 3.67                      | 55.64         | 129.36          | 15910. |
| 5       |    | -4.0                    | .0                   | 239.4                    | -24.58                  | -170.                     | 21.                       | 85.                       | 3.23                      | 53.73         | 127.08          | 15890. |
| 6       |    | .0                      | .0                   | 340.5                    | -8.51                   | -392.                     | 72.                       | 72.                       | -.37                      | 54.54         | 128.05          | 15900. |
| 7       |    | 2.5                     | .0                   | 408.3                    | 5.59                    | -554.                     | 91.                       | 89.                       | .44                       | 54.13         | 127.56          | 15920. |
| 8       |    | 5.0                     | .0                   | 436.0                    | 22.37                   | -710.                     | 46.                       | -159.                     | .50                       | 55.04         | 128.65          | 15930. |
| 9       |    | 10.0                    | .0                   | 476.8                    | 77.05                   | -1034.                    | 157.                      | 70.                       | 1.37                      | 54.69         | 128.23          | 15860. |
| 10      |    | 15.0                    | .0                   | 550.0                    | 145.71                  | -1518.                    | 39.                       | 124.                      | -3.29                     | 54.94         | 128.52          | 15880. |
| 11      |    | 20.1                    | .0                   | 616.3                    | 222.10                  | -1969.                    | 167.                      | -70.                      | 2.83                      | 55.28         | 128.93          | 15930. |
| 12      |    | .0                      | .0                   | 342.8                    | -7.05                   | -392.                     | 71.                       | 87.                       | 1.18                      | 54.87         | 128.44          | 15960. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .9503  | .1902  | -.0030 | .0028 | .0041  | .0072  |
| 3    | .00   | .9253  | -.0187 | -.1282 | .0048 | .0052  | .0023  |
| 4    | -8.03 | .2866  | -.0790 | .0149  | .0028 | .0038  | .0099  |
| 5    | -4.03 | .6471  | -.0664 | -.0549 | .0013 | .0052  | .0087  |
| 6    | -.01  | .9202  | -.0230 | -.1263 | .0043 | .0043  | -.0010 |
| 7    | 2.52  | 1.1034 | .0151  | -.1786 | .0055 | .0054  | .0012  |
| 8    | 5.00  | 1.1783 | .0605  | -.2289 | .0028 | -.0096 | .0013  |
| 9    | 9.97  | 1.2886 | .2082  | -.3333 | .0095 | .0042  | .0037  |
| 10   | 14.98 | 1.4863 | .3938  | -.4894 | .0024 | .0075  | -.0089 |
| 11   | 20.05 | 1.6657 | .6003  | -.6348 | .0101 | -.0042 | .0077  |
| 12   | .01   | .9265  | -.0190 | -.1264 | .0043 | .0052  | .0032  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .9503  | .1902  | -.0030 | .0028 | .0041  | .0072  |
| 3    | .00   | .9253  | -.0187 | -.1282 | .0048 | .0052  | .0023  |
| 4    | -8.03 | .2866  | -.0790 | .0149  | .0028 | .0038  | .0099  |
| 5    | -4.03 | .6471  | -.0664 | -.0549 | .0013 | .0052  | .0087  |
| 6    | -.01  | .9202  | -.0230 | -.1263 | .0043 | .0043  | -.0010 |
| 7    | 2.52  | 1.1034 | .0151  | -.1786 | .0055 | .0054  | .0012  |
| 8    | 5.00  | 1.1783 | .0605  | -.2289 | .0028 | -.0096 | .0013  |
| 9    | 9.97  | 1.2886 | .2082  | -.3333 | .0095 | .0042  | .0037  |
| 10   | 14.98 | 1.4863 | .3938  | -.4894 | .0024 | .0075  | -.0089 |
| 11   | 20.05 | 1.6657 | .6003  | -.6348 | .0101 | -.0042 | .0077  |
| 12   | .01   | .9265  | -.0190 | -.1264 | .0043 | .0052  | .0032  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 294

RUN 338 CONFIG F P H W5 NP1 T7 BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | 0           | 0     | 0       |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | PPM    |
| 2       | .0        | .0      | 546.4       | 126.30      | 368.         | 2.           | 90.          | -.75        | 54.55 | 128.06  | 4290.  |
| 3       | .0        | .0      | 536.4       | -6.69       | 374.         | 108.         | 134.         | -6.86       | 54.14 | 127.58  | 19970. |
| 4       | -8.1      | .0      | 282.0       | -27.01      | 534.         | 124.         | 123.         | -.18        | 55.32 | 128.99  | 19900. |
| 5       | -4.0      | .0      | 416.8       | -10.00      | 445.         | 85.          | 111.         | -3.11       | 54.82 | 128.40  | 20100. |
| 6       | -2.0      | .0      | 533.0       | -2.50       | 484.         | 105.         | 111.         | -5.04       | 55.42 | 129.10  | 20120. |
| 7       | 2.5       | .0      | 594.2       | 10.03       | 425.         | 102.         | 163.         | -5.53       | 55.47 | 129.17  | 20120. |
| 8       | 5.0       | .0      | 491.3       | 39.23       | -373.        | 71.          | 280.         | -2.56       | 55.80 | 129.55  | 19880. |
| 9       | 10.0      | .0      | 535.0       | 87.26       | -670.        | 285.         | -145.        | 8.79        | 55.40 | 129.07  | 20140. |
| 10      | 15.0      | .0      | 611.8       | 162.88      | -1438.       | 232.         | -35.         | -1.36       | 55.09 | 128.71  | 19990. |
| 11      | 19.9      | .0      | 683.3       | 247.47      | -2025.       | 277.         | 1.           | 4.30        | 56.23 | 130.05  | 20000. |
| 12      | -.0       | .0      | 525.3       | -3.82       | 467.         | 119.         | 128.         | -4.49       | 55.34 | 129.00  | 19880. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | 1.4768 | .3413  | .1188  | .0001 | .0054  | -.0020 |
| 3    | .00   | 1.4496 | -.0181 | .1206  | .0065 | .0081  | -.0185 |
| 4    | -8.06 | .7621  | -.0754 | .1723  | .0075 | .0074  | -.0005 |
| 5    | -4.03 | 1.1265 | -.0535 | .1434  | .0051 | .0067  | -.0084 |
| 6    | -.03  | 1.4406 | -.0068 | .1560  | .0063 | .0067  | -.0136 |
| 7    | 2.50  | 1.6060 | .0271  | .1370  | .0062 | .0099  | -.0149 |
| 8    | 4.99  | 1.3280 | .1060  | -.1202 | .0043 | .0169  | -.0069 |
| 9    | 9.95  | 1.4460 | .2358  | -.2190 | .0172 | -.0088 | .0238  |
| 10   | 14.95 | 1.6535 | .4402  | -.4635 | .0140 | -.0021 | -.0037 |
| 11   | 19.93 | 1.8466 | .6688  | -.6528 | .0168 | .0000  | .0116  |
| 12   | -.00  | 1.4197 | -.0103 | .1506  | .0072 | .0077  | -.0121 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | 1.4768 | .3413  | .1188  | .0001 | .0054  | -.0020 |
| 3    | .00   | 1.4496 | -.0181 | .1206  | .0065 | .0081  | -.0185 |
| 4    | -8.06 | .7621  | -.0754 | .1723  | .0075 | .0074  | -.0005 |
| 5    | -4.03 | 1.1265 | -.0535 | .1434  | .0051 | .0067  | -.0084 |
| 6    | -.03  | 1.4406 | -.0068 | .1560  | .0063 | .0067  | -.0136 |
| 7    | 2.50  | 1.6060 | .0271  | .1370  | .0062 | .0099  | -.0149 |
| 8    | 4.99  | 1.3280 | .1060  | -.1202 | .0043 | .0169  | -.0069 |
| 9    | 9.95  | 1.4460 | .2358  | -.2190 | .0172 | -.0088 | .0238  |
| 10   | 14.95 | 1.6535 | .4402  | -.4635 | .0140 | -.0021 | -.0037 |
| 11   | 19.93 | 1.8466 | .6688  | -.6528 | .0168 | .0000  | .0116  |
| 12   | -.00  | 1.4197 | -.0103 | .1506  | .0072 | .0077  | -.0121 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 295

RUN 339 CONFIG F P R W5 NP1 T7 RT

| PT. NO. | ALPHA DEG | PSI DEG | CLPAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DFLSB 0 PSF | 0 V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|-----------|--------|
| 2       | .0        | .0      | 76.7        | 33.36       | -759.        | 33.          | 12.          | 4.37        | 54.54       | 128.07    | 3570.  |
| 3       | .0        | .0      | 77.7        | -6.57       | -829.        | 44.          | 30.          | 3.63        | 55.31       | 128.98    | 11300. |
| 4       | -8.0      | .0      | -177.6      | 2.65        | -829.        | -2.          | 6.           | 6.40        | 55.37       | 129.04    | 11350. |
| 5       | -4.0      | .0      | -53.1       | -6.77       | -868.        | 14.          | 11.          | 4.31        | 54.52       | 128.03    | 11310. |
| 6       | -0        | .0      | 74.9        | -6.77       | -814.        | 42.          | -4.          | 3.32        | 55.35       | 129.02    | 11290. |
| 7       | 2.5       | .0      | 162.8       | -2.60       | -846.        | 62.          | 69.          | .93         | 55.19       | 128.82    | 11350. |
| 8       | 5.0       | .0      | 244.4       | 4.98        | -964.        | 81.          | 71.          | -.43        | 54.82       | 128.39    | 11300. |
| 9       | 10.0      | .0      | 413.2       | 28.85       | -1223.       | 80.          | 161.         | -1.12       | 54.52       | 128.03    | 11320. |
| 10      | 15.0      | .0      | 552.7       | 79.38       | -1535.       | 85.          | 232.         | -1.51       | 54.29       | 127.75    | 11320. |
| 11      | 19.9      | .0      | 575.7       | 135.67      | -1591.       | 78.          | 125.         | 1.07        | 54.36       | 127.84    | 11280. |
| 12      | 19.9      | .0      | 614.3       | 145.08      | -1698.       | 84.          | 133.         | 1.14        | 50.94       | 123.68    | 11350. |
| 13      | 19.9      | .0      | 587.2       | 138.14      | -1714.       | 90.          | 106.         | -1.62       | 54.59       | 128.11    | 11320. |
| 14      | .0        | .0      | 78.2        | -5.41       | -827.        | 46.          | 65.          | 4.09        | 54.96       | 128.56    | 11280. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .2072  | .0902  | -.2446 | .0020  | .0007  | .0118  |
| 3    | .00   | .2101  | -.0178 | -.2654 | .0027  | .0018  | .0098  |
| 4    | -8.00 | -.4801 | .0072  | -.2672 | -.0001 | .0004  | .0173  |
| 5    | -4.05 | -.1434 | -.0183 | -.2797 | .0009  | .0007  | .0117  |
| 6    | -.04  | .2024  | -.0183 | -.2626 | .0025  | -.0003 | .0090  |
| 7    | 2.51  | .4400  | -.0070 | -.2727 | .0037  | .0042  | .0025  |
| 8    | 4.96  | .6605  | .0135  | -.3107 | .0049  | .0043  | -.0012 |
| 9    | 9.99  | 1.1167 | .0780  | -.3944 | .0048  | .0097  | -.0030 |
| 10   | 14.98 | 1.4938 | .1902  | -.4949 | .0052  | .0140  | -.0041 |
| 11   | 19.93 | 1.5559 | .3667  | -.5129 | .0047  | .0075  | .0029  |
| 12   | 19.93 | 1.6604 | .3921  | -.5473 | .0050  | .0081  | .0031  |
| 13   | 19.94 | 1.5871 | .3733  | -.5527 | .0054  | .0064  | -.0044 |
| 14   | .01   | .2113  | -.0146 | -.2666 | .0028  | .0039  | .0111  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .2072  | .0902  | -.2446 | .0020  | .0007  | .0118  |
| 3    | .00   | .2101  | -.0178 | -.2654 | .0027  | .0018  | .0098  |
| 4    | -8.00 | -.4801 | .0072  | -.2672 | -.0001 | .0004  | .0173  |
| 5    | -4.05 | -.1434 | -.0183 | -.2797 | .0009  | .0007  | .0117  |
| 6    | -.04  | .2024  | -.0183 | -.2626 | .0025  | -.0003 | .0090  |
| 7    | 2.51  | .4400  | -.0070 | -.2727 | .0037  | .0042  | .0025  |
| 8    | 4.96  | .6605  | .0135  | -.3107 | .0049  | .0043  | -.0012 |
| 9    | 9.99  | 1.1167 | .0780  | -.3944 | .0048  | .0097  | -.0030 |
| 10   | 14.98 | 1.4938 | .1902  | -.4949 | .0052  | .0140  | -.0041 |
| 11   | 19.93 | 1.5559 | .3667  | -.5129 | .0047  | .0075  | .0029  |
| 12   | 19.93 | 1.6604 | .3921  | -.5473 | .0050  | .0081  | .0031  |
| 13   | 19.94 | 1.5871 | .3733  | -.5527 | .0054  | .0064  | -.0044 |
| 14   | .01   | .2113  | -.0146 | -.2666 | .0028  | .0039  | .0111  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 296

RUN 340 CONFIG F P R W5 NP1 T7 BT

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLRAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | -89.3       | 38.16       | -1423.       | 43.          | 31.          | 3.35        | 54.83 | 128.40  | 3330.  |
| 3       | .0        | .0      | -94.6       | -6.86       | -1495.       | 36.          | 15.          | 2.17        | 55.05 | 128.66  | 12260. |
| 4       | -8.0      | .0      | -328.9      | 21.07       | -1205.       | 15.          | -27.         | 5.31        | 54.51 | 128.03  | 12320. |
| 6       | -0        | .0      | -94.3       | -6.72       | -1496.       | 34.          | 33.          | 1.86        | 55.02 | 128.62  | 12280. |
| 7       | 2.5       | .0      | -12.4       | -7.96       | -1538.       | 46.          | 18.          | -5.55       | 55.62 | 129.35  | 12280. |
| 8       | 5.0       | .0      | 70.5        | -6.16       | -1630.       | 65.          | 3.           | -2.83       | 55.46 | 129.15  | 12360. |
| 9       | 9.9       | .0      | 240.0       | 6.60        | -1797.       | 76.          | 38.          | -4.76       | 55.15 | 128.78  | 12340. |
| 10      | 14.9      | .0      | 404.9       | 40.27       | -1841.       | 83.          | 89.          | -2.55       | 54.82 | 128.39  | 12170. |
| 11      | 20.0      | .0      | 536.5       | 85.30       | -1523.       | 83.          | 70.          | -2.30       | 54.91 | 128.49  | 12200. |
| 12      | -4.1      | .0      | -223.4      | 2.55        | -1440.       | 32.          | 46.          | 4.20        | 55.15 | 128.78  | 12170. |
| 13      | 14.9      | .0      | 405.5       | 40.08       | -1895.       | 75.          | 107.         | -3.53       | 54.94 | 128.54  | 12150. |
| 14      | 20.0      | .0      | 538.9       | 85.81       | -1506.       | 76.          | 123.         | -3.30       | 54.65 | 128.18  | 12180. |
| 15      | -0        | .0      | -96.2       | -6.45       | -1489.       | 55.          | -21.         | 2.62        | 54.68 | 128.23  | 12150. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | -.2415 | .1031  | -.4580 | .0026  | .0019  | .0091  |
| 3    | .00   | -.2557 | -.0185 | -.4819 | .0022  | .0009  | .0059  |
| 4    | -8.02 | -.6032 | .0086  | 1.3307 | -.0008 | .0006  | .0122  |
| 6    | -.05  | -.2549 | -.0182 | -.4822 | .0020  | .0020  | .0050  |
| 7    | 2.48  | -.0335 | -.0215 | -.4958 | .0028  | .0011  | -.0015 |
| 8    | 4.99  | .1907  | -.0166 | -.5254 | .0039  | .0002  | -.0076 |
| 9    | 9.93  | .6486  | .0178  | -.5795 | .0046  | .0023  | -.0129 |
| 10   | 14.93 | 1.0944 | .1088  | -.5934 | .0050  | .0054  | -.0069 |
| 11   | 20.02 | 1.4501 | .2305  | -.4910 | .0050  | .0042  | -.0062 |
| 12   | -4.05 | -.6038 | .0069  | -.4673 | .0020  | .0028  | .0114  |
| 13   | 14.94 | 1.0960 | .1083  | -.6109 | .0046  | .0064  | -.0096 |
| 14   | 20.02 | 1.4566 | .2319  | -.4856 | .0046  | .0075  | -.0089 |
| 15   | -.01  | -.2601 | -.0174 | -.4892 | .0033  | -.0013 | .0071  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMR   | CYMP   | CRMR   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | -.2415 | .1031  | -.4580 | .0026  | .0019  | .0091  |
| 3    | .00   | -.2557 | -.0185 | -.4819 | .0022  | .0009  | .0059  |
| 4    | -8.02 | -.6032 | .0086  | 1.3307 | -.0008 | .0006  | .0122  |
| 6    | -.05  | -.2549 | -.0182 | -.4822 | .0020  | .0020  | .0050  |
| 7    | 2.48  | -.0335 | -.0215 | -.4958 | .0028  | .0011  | -.0015 |
| 8    | 4.99  | .1907  | -.0166 | -.5254 | .0039  | .0002  | -.0076 |
| 9    | 9.93  | .6486  | .0178  | -.5795 | .0046  | .0023  | -.0129 |
| 10   | 14.93 | 1.0944 | .1088  | -.5934 | .0050  | .0054  | -.0069 |
| 11   | 20.02 | 1.4501 | .2305  | -.4910 | .0050  | .0042  | -.0062 |
| 12   | -4.05 | -.6038 | .0069  | -.4673 | .0020  | .0028  | .0114  |
| 13   | 14.94 | 1.0960 | .1083  | -.6109 | .0046  | .0064  | -.0096 |
| 14   | 20.02 | 1.4566 | .2319  | -.4856 | .0046  | .0075  | -.0089 |
| 15   | -.01  | -.2601 | -.0174 | -.4892 | .0033  | -.0013 | .0071  |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

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P 297

RUN 341 CONFIG F P B W5 N01 TP BT

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSR      | 0            | 0           | 0     | RPM     |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 2       | .0        | .0      | -118.2      | 35.58       | -102.7       | 48.          | -2.7         | 3.55        | 53.77 | 127.13  | 3290.  |
| 3       | .0        | .0      | -122.4      | -7.47       | -106.2       | 41.          | 13.          | 3.60        | 55.82 | 129.57  | 12130. |
| 4       | -8.0      | .0      | -340.0      | 21.66       | -88.7        | 11.          | -29.         | 6.53        | 55.30 | 128.95  | 12200. |
| 5       | -4.0      | .0      | -247.1      | 1.87        | -106.8       | 18.          | 28.          | 4.87        | 55.28 | 128.94  | 12110. |
| 6       | .0        | .0      | -123.1      | -7.66       | -106.7       | 51.          | -2.          | 1.91        | 55.17 | 128.80  | 12110. |
| 7       | 2.5       | .0      | -39.6       | -9.54       | -102.3       | 62.          | 16.          | .92         | 55.78 | 129.53  | 12130. |
| 8       | 5.0       | .0      | 39.6        | -8.38       | -97.6        | 93.          | 16.          | 1.09        | 56.34 | 130.19  | 12110. |
| 9       | 10.0      | .0      | 206.7       | 1.90        | -93.7        | 97.          | 36.          | -.87        | 55.11 | 128.74  | 12170. |
| 10      | 15.0      | .0      | 360.1       | 30.17       | -79.1        | 76.          | 52.          | -2.01       | 56.00 | 129.79  | 12170. |
| 11      | 19.9      | .0      | 503.3       | 73.54       | -52.8        | 93.          | 87.          | -1.91       | 55.25 | 128.91  | 12190. |
| 12      | .0        | .0      | -119.8      | -7.84       | -104.7       | 48.          | -22.         | 3.93        | 55.42 | 129.11  | 12150. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | -.3194 | .0962  | -.3299 | .0029 | -.0014 | .0096  |
| 3    | .00   | -.3309 | -.0202 | -.3423 | .0025 | .0008  | .0097  |
| 4    | -8.00 | -.9190 | .0585  | -.2846 | .0007 | -.0017 | .0176  |
| 5    | -4.04 | -.6678 | .0051  | -.3442 | .0011 | .0017  | .0132  |
| 6    | .02   | -.3327 | -.0207 | -.3427 | .0031 | -.0001 | .0052  |
| 7    | 2.50  | -.1069 | -.0258 | -.3299 | .0038 | .0010  | .0025  |
| 8    | 4.95  | .1071  | -.0226 | -.3146 | .0056 | .0010  | .0029  |
| 9    | 10.00 | .5587  | .0051  | -.3007 | .0059 | .0022  | -.0023 |
| 10   | 14.96 | .9732  | .0815  | -.2551 | .0046 | .0032  | -.0054 |
| 11   | 19.95 | 1.3602 | .1988  | -.1704 | .0056 | .0053  | -.0052 |
| 12   | .01   | -.3238 | -.0212 | -.3374 | .0029 | -.0014 | .0106  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | -.3194 | .0962  | -.3299 | .0029 | -.0014 | .0096  |
| 3    | .00   | -.3309 | -.0202 | -.3423 | .0025 | .0008  | .0097  |
| 4    | -8.00 | -.9190 | .0585  | -.2846 | .0007 | -.0017 | .0176  |
| 5    | -4.04 | -.6678 | .0051  | -.3442 | .0011 | .0017  | .0132  |
| 6    | .02   | -.3327 | -.0207 | -.3427 | .0031 | -.0001 | .0052  |
| 7    | 2.50  | -.1069 | -.0258 | -.3299 | .0038 | .0010  | .0025  |
| 8    | 4.95  | .1071  | -.0226 | -.3146 | .0056 | .0010  | .0029  |
| 9    | 10.00 | .5587  | .0051  | -.3007 | .0059 | .0022  | -.0023 |
| 10   | 14.96 | .9732  | .0815  | -.2551 | .0046 | .0032  | -.0054 |
| 11   | 19.95 | 1.3602 | .1988  | -.1704 | .0056 | .0053  | -.0052 |
| 12   | .01   | -.3238 | -.0212 | -.3374 | .0029 | -.0014 | .0106  |

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STKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

*P 298*

RUN 355 CONFIG F P R W5 NP1 TA BT

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSR      | -            |           |           |        |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-----------|-----------|--------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR SQ-FT | CYBAR PSF | Q V KNOTS | RPM    |        |
| 5       | -0        | .0      | 548.3       | 128.10      | 426.         | -64.         | 91.          | -2.83     | 55.36     | 129.02 | 4320.  |
| 6       | -.1       | .0      | 545.3       | -3.07       | 540.         | 40.          | 178.         | -.31      | 54.61     | 128.13 | 19900. |
| 7       | -8.0      | .0      | 292.3       | -29.59      | 707.         | 58.          | 139.         | 1.94      | 54.46     | 127.95 | 20310. |
| 8       | -4.0      | .0      | 424.4       | -19.55      | 548.         | 59.          | 106.         | -.25      | 55.12     | 128.74 | 20210. |
| 9       | -.0       | .0      | 539.9       | -4.12       | 505.         | 40.          | 106.         | -1.41     | 55.56     | 129.26 | 20150. |
| 10      | 2.6       | .0      | 597.1       | 5.72        | 503.         | 36.          | 141.         | -1.29     | 55.41     | 129.08 | 20200. |
| 11      | 5.1       | .0      | 522.0       | 28.95       | -83.         | -28.         | -366.        | -1.05     | 55.40     | 129.08 | 20180. |
| 12      | 10.0      | .0      | 516.9       | 87.14       | -224.        | 255.         | -194.        | 6.51      | 55.97     | 129.75 | 20160. |
| 13      | 15.0      | .0      | 579.8       | 155.30      | -534.        | 157.         | -156.        | -.61      | 55.87     | 129.63 | 20220. |
| 14      | 20.0      | .0      | 658.1       | 237.52      | -873.        | 209.         | -69.         | 3.24      | 55.70     | 129.42 | 20220. |
| 15      | -.1       | .0      | 536.7       | -4.15       | 513.         | 41.          | 124.         | -2.55     | 56.02     | 129.81 | 20160. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYI'   | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 5    | -.03  | 1.4818 | .3462  | .1373  | -.0039 | .0055  | -.0077 |
| 6    | -.08  | 1.4737 | -.0083 | .1741  | .0024  | .0107  | -.0008 |
| 7    | -8.00 | .7901  | -.0800 | .2278  | .0035  | .0084  | .0052  |
| 8    | -4.01 | 1.1470 | -.0528 | .1766  | .0035  | .0064  | -.0007 |
| 9    | -.01  | 1.4591 | -.0111 | .1627  | .0024  | .0064  | -.0038 |
| 10   | 2.57  | 1.6138 | .0154  | .1623  | .0022  | .0085  | -.0035 |
| 11   | 5.07  | 1.4108 | .0783  | -.0266 | -.0017 | -.0221 | -.0028 |
| 12   | 10.03 | 1.3971 | .2355  | -.0723 | .0154  | -.0117 | .0176  |
| 13   | 15.00 | 1.5671 | .4197  | -.1723 | .0095  | -.0094 | -.0016 |
| 14   | 19.96 | 1.7785 | .6419  | -.2815 | .0126  | -.0042 | .0088  |
| 15   | -.05  | 1.4506 | -.0112 | .1654  | .0025  | .0075  | -.0069 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | COB    | CPMB   | CYMP   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 5    | -.03  | 1.4818 | .3462  | .1373  | -.0039 | .0055  | -.0077 |
| 6    | -.08  | 1.4737 | -.0083 | .1741  | .0024  | .0107  | -.0008 |
| 7    | -8.00 | .7901  | -.0800 | .2278  | .0035  | .0084  | .0052  |
| 8    | -4.01 | 1.1470 | -.0528 | .1766  | .0035  | .0064  | -.0007 |
| 9    | -.01  | 1.4591 | -.0111 | .1627  | .0024  | .0064  | -.0038 |
| 10   | 2.57  | 1.6138 | .0154  | .1623  | .0022  | .0085  | -.0035 |
| 11   | 5.07  | 1.4108 | .0783  | -.0266 | -.0017 | -.0221 | -.0028 |
| 12   | 10.03 | 1.3971 | .2355  | -.0723 | .0154  | -.0117 | .0176  |
| 13   | 15.00 | 1.5671 | .4197  | -.1723 | .0095  | -.0094 | -.0016 |
| 14   | 19.96 | 1.7785 | .6419  | -.2815 | .0126  | -.0042 | .0088  |
| 15   | -.05  | 1.4506 | -.0112 | .1654  | .0025  | .0075  | -.0069 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

D 299

RUN 356 CONFIG F P B W5 NP1 TR BT

| IW      | 15 DELF   | 0 DELA  | 0 THT       | 0 DELE      | 0 DELR        | 0 DFLSB      | V            | RPM         |       |        |        |
|---------|-----------|---------|-------------|-------------|---------------|--------------|--------------|-------------|-------|--------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLPAR SQ-FT | CDBAR SQ-FT | CPMRRAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  |        |
| 2       | .0        | .0      | 346.6       | 69.90       | 277.          | 13.          | 83.          | 2.92        | 55.94 | 129.71 | 4080.  |
| 3       | .0        | .0      | 337.3       | -5.12       | -75.          | 61.          | 51.          | .86         | 55.37 | 129.04 | 15490. |
| 4       | -7.9      | .0      | 110.2       | -24.04      | 163.          | 11.          | 67.          | 1.22        | 55.92 | 129.69 | 15560. |
| 5       | -3.9      | .0      | 236.1       | -17.85      | 11.           | 22.          | 27.          | 5.18        | 55.85 | 129.60 | 15600. |
| 6       | .1        | .0      | 336.6       | -3.58       | -60.          | 58.          | 15.          | 1.65        | 55.88 | 129.64 | 15550. |
| 7       | 2.5       | .0      | 389.7       | 8.86        | -102.         | 38.          | 36.          | -1.52       | 55.88 | 129.64 | 15620. |
| 8       | 5.1       | .0      | 415.2       | 24.25       | -44.          | -27.         | -242.        | -.06        | 55.99 | 129.77 | 15660. |
| 9       | 10.1      | .0      | 445.4       | 75.78       | -104.         | 104.         | -71.         | 2.16        | 55.18 | 128.80 | 15580. |
| 10      | 15.1      | .0      | 506.8       | 139.65      | -380.         | 81.          | -191.        | -2.33       | 55.61 | 129.31 | 15720. |
| 11      | 20.0      | .0      | 568.2       | 208.20      | -645.         | 112.         | -69.         | 3.69        | 55.44 | 129.11 | 15690. |
| 12      | .0        | .0      | 337.9       | -4.93       | -77.          | 69.          | 34.          | .99         | 55.23 | 128.87 | 15760. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .9366  | .1889  | .0894  | .0008  | .0050  | .0079  |
| 3    | .00   | .9117  | -.0138 | -.0240 | .0037  | .0031  | .0023  |
| 4    | -7.94 | .2978  | -.0650 | .0525  | .0006  | .0041  | .0033  |
| 5    | -3.91 | .6382  | -.0493 | .0035  | .0013  | .0016  | .0140  |
| 6    | .06   | .9097  | -.0097 | -.0195 | .0035  | .0009  | .0044  |
| 7    | 2.54  | 1.0532 | .0239  | -.0328 | .0023  | .0022  | -.0041 |
| 8    | 5.08  | 1.1221 | .0655  | -.0143 | -.0016 | -.0146 | -.0002 |
| 9    | 10.06 | 1.2038 | .2048  | -.0336 | .0063  | -.0043 | .0058  |
| 10   | 15.13 | 1.3698 | .3774  | -.1227 | .0049  | -.0115 | -.0063 |
| 11   | 20.00 | 1.5357 | .5627  | -.2080 | .0067  | -.0042 | .0100  |
| 12   | .02   | .9133  | -.0133 | -.0248 | .0041  | .0020  | .0027  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMB   | CYMB   | CPMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .9366  | .1889  | .0894  | .0008  | .0050  | .0079  |
| 3    | .00   | .9117  | -.0138 | -.0240 | .0037  | .0031  | .0023  |
| 4    | -7.94 | .2978  | -.0650 | .0525  | .0006  | .0041  | .0033  |
| 5    | -3.91 | .6382  | -.0493 | .0035  | .0013  | .0016  | .0140  |
| 6    | .06   | .9097  | -.0097 | -.0195 | .0035  | .0009  | .0044  |
| 7    | 2.54  | 1.0532 | .0239  | -.0328 | .0023  | .0022  | -.0041 |
| 8    | 5.08  | 1.1221 | .0655  | -.0143 | -.0016 | -.0146 | -.0002 |
| 9    | 10.06 | 1.2038 | .2048  | -.0336 | .0063  | -.0043 | .0058  |
| 10   | 15.13 | 1.3698 | .3774  | -.1227 | .0049  | -.0115 | -.0063 |
| 11   | 20.00 | 1.5357 | .5627  | -.2080 | .0067  | -.0042 | .0100  |
| 12   | .02   | .9133  | -.0133 | -.0248 | .0041  | .0020  | .0027  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 300

RUN 357 CONFIG F P R W5 NP1 TA BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSR      | -            |             |       |         |      |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM  |
| 2       | .0        | .0      | 56.3        | 30.68       | -321.        | 28.          | 14.          | 2.72        | 56.29 | 130.12  | 356  |
| 3       | .0        | .0      | 57.1        | 30.95       | -315.        | 28.          | -6.          | 4.35        | 55.65 | 129.36  | 357  |
| 4       | .0        | .0      | 59.5        | -8.70       | -360.        | 27.          | 48.          | 3.96        | 55.01 | 128.61  | 1143 |
| 5       | -8.0      | .0      | -187.0      | 3.32        | -491.        | -17.         | 5.           | 7.10        | 55.14 | 128.75  | 1143 |
| 6       | -4.0      | .0      | -65.5       | -7.02       | -482.        | 5.           | 60.          | 6.67        | 55.14 | 128.76  | 1142 |
| 7       | .1        | .0      | 63.2        | -8.33       | -342.        | 23.          | 49.          | 3.68        | 54.69 | 128.22  | 1144 |
| 8       | 2.5       | .0      | 141.1       | -4.79       | -320.        | 35.          | -4.          | 3.93        | 54.63 | 128.14  | 1143 |
| 9       | 5.0       | .0      | 222.5       | 1.85        | -295.        | 52.          | 68.          | 2.10        | 55.11 | 128.72  | 1147 |
| 10      | 9.9       | .0      | 383.7       | 23.74       | -290.        | 74.          | 70.          | 1.18        | 54.75 | 128.29  | 1156 |
| 11      | 15.0      | .0      | 511.6       | 60.65       | -286.        | 20.          | 177.         | .00         | 54.85 | 128.42  | 1148 |
| 12      | 19.9      | .0      | 542.7       | 120.82      | -367.        | 47.          | 53.          | .56         | 54.84 | 128.40  | 1148 |
| 13      | .1        | .0      | 63.5        | -7.94       | -348.        | 20.          | 48.          | 3.46        | 55.13 | 128.74  | 1142 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|-------|--------|--------|--------|--------|--------|-------|
| 2    | .00   | .1523  | .0829  | -.1034 | .0017  | .0008  | .0074 |
| 3    | .00   | .1544  | .0837  | -.1015 | .0017  | -.0003 | .0117 |
| 4    | .00   | .1607  | -.0235 | -.1188 | .0016  | .0029  | .0107 |
| 5    | -7.96 | -.5054 | .0090  | -.1584 | -.0010 | .0003  | .0192 |
| 6    | -3.96 | -.1770 | -.0190 | -.1553 | .0003  | .0036  | .0180 |
| 7    | .06   | .1709  | -.0225 | -.1101 | .0014  | .0029  | .0099 |
| 8    | 2.47  | .3814  | -.0130 | -.1031 | .0021  | -.0003 | .0106 |
| 9    | 4.98  | .6015  | .0050  | -.0950 | .0032  | .0041  | .0057 |
| 10   | 9.94  | 1.0370 | .0642  | -.0935 | .0044  | .0042  | .0032 |
| 11   | 14.95 | 1.3827 | .1639  | -.0923 | .0012  | .0107  | .0000 |
| 12   | 19.94 | 1.4668 | .3265  | -.1183 | .0028  | .0032  | .0015 |
| 13   | .06   | .1717  | -.0215 | -.1121 | .0012  | .0029  | .0094 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|-------|--------|--------|--------|--------|--------|-------|
| 2    | .00   | .1523  | .0829  | -.1034 | .0017  | .0008  | .0074 |
| 3    | .00   | .1544  | .0837  | -.1015 | .0017  | -.0003 | .0117 |
| 4    | .00   | .1607  | -.0235 | -.1188 | .0016  | .0029  | .0107 |
| 5    | -7.96 | -.5054 | .0090  | -.1584 | -.0010 | .0003  | .0192 |
| 6    | -3.96 | -.1770 | -.0190 | -.1553 | .0003  | .0036  | .0180 |
| 7    | .06   | .1709  | -.0225 | -.1101 | .0014  | .0029  | .0099 |
| 8    | 2.47  | .3814  | -.0130 | -.1031 | .0021  | -.0003 | .0106 |
| 9    | 4.98  | .6015  | .0050  | -.0950 | .0032  | .0041  | .0057 |
| 10   | 9.94  | 1.0370 | .0642  | -.0935 | .0044  | .0042  | .0032 |
| 11   | 14.95 | 1.3827 | .1639  | -.0923 | .0012  | .0107  | .0000 |
| 12   | 19.94 | 1.4668 | .3265  | -.1183 | .0028  | .0032  | .0015 |
| 13   | .06   | .1717  | -.0215 | -.1121 | .0012  | .0029  | .0094 |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011

P 301

RUN 358 CONFIG F P B W5 NP1 T8 BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSR      | -            | -           | -     | -       |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 62.3        | 31.41       | -270.        | 24.          | -2.          | 1.67        | 55.03 | 128.63  | 3570.  |
| 3       | .0        | .0      | 63.1        | -8.28       | -348.        | 21.          | 31.          | 2.96        | 55.29 | 128.94  | 11390. |
| 4       | -8.0      | .0      | -187.3      | 3.18        | -653.        | -22.         | -11.         | 6.39        | 54.95 | 128.53  | 11360. |
| 5       | -4.0      | .0      | -66.3       | -7.38       | -553.        | -2.          | -26.         | 5.36        | 55.24 | 128.88  | 11350. |
| 6       | -.0       | -15.0   | 74.7        | 12.95       | -564.        | 381.         | 57.          | -114.00     | 55.55 | 129.24  | 11500. |
| 7       | -.0       | -10.0   | 71.2        | .97         | -538.        | 181.         | -5.          | -72.92      | 54.56 | 128.07  | 11410. |
| 8       | -.0       | -5.0    | 64.0        | -6.71       | -435.        | 67.          | -1.          | -34.78      | 54.56 | 128.07  | 11500. |
| 9       | -.0       | -2.5    | 62.2        | -8.24       | -376.        | 59.          | -4.          | -17.17      | 54.56 | 128.07  | 11510. |
| 10      | -.0       | .0      | 59.9        | -7.71       | -378.        | 30.          | -23.         | 3.86        | 54.71 | 128.24  | 11340. |
| 11      | -.0       | 2.5     | 62.6        | -7.17       | -422.        | 34.          | -14.         | 21.76       | 54.48 | 127.97  | 11340. |
| 12      | -.0       | 5.0     | 62.3        | -6.19       | -448.        | 22.          | -1.          | 39.05       | 55.57 | 129.27  | 11410. |
| 13      | -.0       | 10.0    | 67.4        | -.34        | -548.        | -135.        | -2.          | 78.11       | 55.17 | 128.79  | 11370. |
| 14      | -.0       | -15.0   | 73.4        | 11.25       | -656.        | -319.        | 64.          | 116.90      | 55.25 | 128.88  | 11350. |
| 15      | -.0       | .0      | 60.6        | -7.27       | -372.        | 24.          | -23.         | 4.31        | 55.28 | 128.93  | 11360. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .1683  | .0849  | -.0899 | .0015  | -.0001 | .0045  |
| 3    | .00    | .1704  | -.0224 | -.1121 | .0012  | .0019  | .0080  |
| 4    | .00    | -.5061 | .0086  | -.2107 | -.0013 | -.0007 | .0173  |
| 5    | .00    | -.1792 | -.0200 | -.1782 | -.0001 | -.0015 | .0145  |
| 6    | -15.00 | .2019  | .0350  | -.1820 | .0230  | .0034  | -.3091 |
| 7    | -10.00 | .1925  | .0026  | -.1735 | .0109  | -.0003 | -.1971 |
| 8    | -5.00  | .1728  | -.0181 | -.1402 | .0041  | -.0000 | -.0940 |
| 9    | -2.50  | .1682  | -.0223 | -.1212 | .0036  | -.0002 | -.0464 |
| 10   | .00    | .1619  | -.0208 | -.1210 | .0018  | -.0014 | .0104  |
| 11   | 2.50   | .1691  | -.0194 | -.1360 | .0020  | -.0009 | .0588  |
| 12   | 5.00   | .1684  | -.0167 | -.1444 | .0013  | -.0001 | .1055  |
| 13   | 10.00  | .1821  | -.0009 | -.1766 | -.0002 | -.0001 | .2111  |
| 14   | 15.00  | .1984  | .0304  | -.2116 | -.0193 | .0039  | .3160  |
| 15   | .00    | .1637  | -.0197 | -.1201 | .0015  | -.0014 | .0117  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDP    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .1683  | .0849  | -.0899 | .0015  | -.0001 | .0045  |
| 3    | .00    | .1704  | -.0224 | -.1121 | .0012  | .0019  | .0080  |
| 4    | .00    | -.5061 | .0086  | -.2107 | -.0013 | -.0007 | .0173  |
| 5    | .00    | -.1792 | -.0200 | -.1782 | -.0001 | -.0015 | .0145  |
| 6    | -15.00 | .2019  | -.0463 | -.1805 | .0230  | .0122  | -.3066 |
| 7    | -10.00 | .1925  | -.0318 | -.1706 | .0109  | .0054  | -.1945 |
| 8    | -5.00  | .1728  | -.0263 | -.1397 | .0041  | .0023  | -.0920 |
| 9    | -2.50  | .1682  | -.0243 | -.1210 | .0036  | .0008  | -.0454 |
| 10   | .00    | .1619  | -.0208 | -.1210 | .0018  | -.0014 | .0104  |
| 11   | 2.50   | .1691  | -.0219 | -.1361 | .0020  | -.0020 | .0579  |
| 12   | 5.00   | .1684  | -.0259 | -.1439 | .0013  | -.0024 | .1037  |
| 13   | 10.00  | .1821  | -.0377 | -.1740 | -.0002 | -.0059 | .2077  |
| 14   | 15.00  | .1984  | -.0528 | -.1989 | -.0193 | -.0066 | .3130  |
| 15   | .00    | .1637  | -.0197 | -.1201 | .0015  | -.0014 | .0117  |

RUN 359 CONFIG F P R W5 NP1 T RT

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELP       | 0 DFLSR      | 0            | 0           | 0     | 0       | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLPAR SQ-FT | CDPAP SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 347.6       | 68.89       | 100.         | 33.          | 69.          | .99         | 55.15 | 128.77  | 4020.  |
| 3       | .0        | .0      | 355.1       | -8.34       | -171.        | 61.          | 33.          | 2.31        | 54.61 | 128.13  | 15530. |
| 4       | -8.0      | .0      | 119.1       | -27.67      | -271.        | 6.           | 33.          | 1.17        | 55.17 | 128.80  | 15610. |
| 5       | -4.0      | .0      | 241.9       | -20.56      | -258.        | 9.           | 16.          | 1.30        | 54.93 | 128.51  | 15590. |
| 6       | -0.0      | .0      | 340.5       | -6.52       | -225.        | 43.          | 108.         | -1.80       | 54.96 | 128.55  | 15640. |
| 7       | 2.5       | .0      | 401.3       | 6.47        | -265.        | 19.          | 72.          | .13         | 54.07 | 127.48  | 15670. |
| 8       | 4.9       | .0      | 410.1       | 22.48       | -87.         | 79.          | 445.         | .06         | 54.41 | 127.90  | 15590. |
| 9       | 10.0      | .0      | 441.4       | 72.04       | -135.        | 101.         | 35.          | .75         | 54.15 | 127.57  | 15600. |
| 10      | 15.0      | .0      | 516.4       | 140.27      | -474.        | 128.         | -176.        | -1.30       | 54.99 | 128.58  | 15640. |
| 11      | 20.0      | .0      | 572.1       | 211.20      | -863.        | 123.         | -106.        | .93         | 54.80 | 128.35  | 15610. |
| 12      | -0.0      | .0      | 342.6       | -5.00       | -214.        | 47.          | 123.         | -.74        | 55.39 | 129.06  | 15590. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .9395  | .1862  | .0322  | .0020 | .0042  | .0027  |
| 3    | .00   | .9596  | -.0225 | -.0553 | .0037 | .0020  | .0062  |
| 4    | -8.01 | .3218  | -.0748 | -.0875 | .0004 | .0020  | .0032  |
| 5    | -4.04 | .6538  | -.0556 | -.0833 | .0005 | .0009  | .0035  |
| 6    | -0.04 | .9203  | -.0176 | -.0725 | .0026 | .0065  | -.0049 |
| 7    | 2.54  | 1.0845 | .0175  | -.0856 | .0012 | .0043  | .0003  |
| 8    | 4.92  | 1.1083 | .0607  | -.0279 | .0048 | .0269  | .0002  |
| 9    | 9.99  | 1.1930 | .1971  | -.0435 | .0061 | .0021  | .0020  |
| 10   | 15.01 | 1.3955 | .3791  | -.1529 | .0077 | -.0106 | -.0035 |
| 11   | 19.99 | 1.5625 | .5708  | -.2781 | .0074 | -.0064 | .0025  |
| 12   | -.01  | .9260  | -.0135 | -.0691 | .0028 | .0075  | -.0020 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CPMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .9395  | .1862  | .0322  | .0020 | .0042  | .0027  |
| 3    | .00   | .9596  | -.0225 | -.0553 | .0037 | .0020  | .0062  |
| 4    | -8.01 | .3218  | -.0748 | -.0875 | .0004 | .0020  | .0032  |
| 5    | -4.04 | .6538  | -.0556 | -.0833 | .0005 | .0009  | .0035  |
| 6    | -0.04 | .9203  | -.0176 | -.0725 | .0026 | .0065  | -.0049 |
| 7    | 2.54  | 1.0845 | .0175  | -.0856 | .0012 | .0043  | .0003  |
| 8    | 4.92  | 1.1083 | .0607  | -.0279 | .0048 | .0269  | .0002  |
| 9    | 9.99  | 1.1930 | .1971  | -.0435 | .0061 | .0021  | .0020  |
| 10   | 15.01 | 1.3955 | .3791  | -.1529 | .0077 | -.0106 | -.0035 |
| 11   | 19.99 | 1.5625 | .5708  | -.2781 | .0074 | -.0064 | .0025  |
| 12   | -.01  | .9260  | -.0135 | -.0691 | .0028 | .0075  | -.0020 |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011

P 3 03

RUN 360 CONFIG F P B W5 NP1 T RT

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | -5 DELE     | 0 DELR        | 0 DELSB     | 0             |             |       |         |        |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |
| 2       | .0        | .0      | 327.7       | 70.40       | 789.          | 44.         | 35.           | .19         | 54.55 | 128.07  | 4060.  |
| 3       | .0        | .0      | 326.0       | -8.73       | 697.          | 95.         | 31.           | 3.43        | 54.58 | 128.10  | 15660. |
| 5       | -3.9      | .0      | 213.3       | -18.82      | 657.          | 15.         | 13.           | 2.78        | 55.22 | 128.87  | 15580. |
| 6       | -8.0      | .0      | 89.2        | -22.78      | 652.          | 30.         | 65.           | 2.13        | 56.09 | 129.89  | 15570. |
| 7       | .0        | .0      | 322.7       | -7.94       | 699.          | 89.         | 15.           | 2.58        | 54.18 | 127.62  | 15480. |
| 8       | 2.5       | .0      | 370.8       | 4.13        | 502.          | 35.         | 35.           | .82         | 53.82 | 127.19  | 15540. |
| 9       | 4.9       | .0      | 383.5       | 20.69       | 679.          | 83.         | 429.          | -.75        | 54.27 | 127.74  | 15540. |
| 10      | 10.0      | .0      | 416.0       | 68.66       | 629.          | 98.         | -37.          | 1.69        | 54.41 | 127.89  | 15560. |
| 11      | 15.0      | .0      | 496.8       | 135.49      | 184.          | 135.        | -303.         | -1.88       | 54.38 | 127.85  | 15600. |
| 12      | 20.0      | .0      | 576.2       | 200.98      | -237.         | 174.        | -35.          | 1.31        | 54.48 | 127.98  | 15540. |
| 13      | .0        | .0      | 319.8       | -7.33       | 709.          | 86.         | 49.           | 2.86        | 54.73 | 128.28  | 15610. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .8856  | .1903  | .2542  | .0026 | .0021  | .0005  |
| 3    | .00   | .2340  | -.0599 | 1.3272 | .0006 | .0051  | .0051  |
| 5    | -3.94 | .5764  | -.0509 | .2119  | .0009 | .0008  | .0075  |
| 6    | -7.96 | .2411  | -.0616 | .2102  | .0018 | .0040  | .0057  |
| 7    | .04   | .8721  | -.0190 | .2252  | .0054 | .0009  | .0070  |
| 8    | 2.45  | 1.0021 | .0112  | .1619  | .0021 | .0021  | .0022  |
| 9    | 4.95  | 1.0365 | .0559  | .2160  | .0050 | .0259  | -.0020 |
| 10   | 9.96  | 1.1244 | .1856  | .1998  | .0059 | -.0022 | .0046  |
| 11   | 14.97 | 1.3427 | .3662  | .0595  | .0082 | -.0183 | -.0051 |
| 12   | 19.99 | 1.5572 | .5432  | -.0765 | .0105 | -.0021 | .0035  |
| 13   | .03   | .8642  | -.0198 | .2285  | .0052 | .0030  | .0077  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMR   | CYMR  | CRM B  | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .8856  | .1903  | .2542  | .0026 | .0021  | .0005  |
| 3    | .00   | .2340  | -.0599 | 1.3272 | .0006 | .0051  | .0051  |
| 5    | -3.94 | .5764  | -.0509 | .2119  | .0009 | .0008  | .0075  |
| 6    | -7.96 | .2411  | -.0616 | .2102  | .0018 | .0040  | .0057  |
| 7    | .04   | .8721  | -.0190 | .2252  | .0054 | .0009  | .0070  |
| 8    | 2.45  | 1.0021 | .0112  | .1619  | .0021 | .0021  | .0022  |
| 9    | 4.95  | 1.0365 | .0559  | .2160  | .0050 | .0259  | -.0020 |
| 10   | 9.96  | 1.1244 | .1856  | .1998  | .0059 | -.0022 | .0046  |
| 11   | 14.97 | 1.3427 | .3662  | .0595  | .0082 | -.0183 | -.0051 |
| 12   | 19.99 | 1.5572 | .5432  | -.0765 | .0105 | -.0021 | .0035  |
| 13   | .03   | .8642  | -.0198 | .2285  | .0052 | .0030  | .0077  |



RUN 361 CONFIG F P B W5 NP1 T BT

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | -9 DELE     | 0 DELR       | 0 DFLSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLRAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 306.2       | 70.80       | 1337.        | 15.          | 88.          | .31         | 54.80 | 128.36  | 4020.  |
| 3       | .0        | .0      | 290.8       | -7.05       | 1336.        | 58.          | 54.          | -.99        | 54.81 | 128.37  | 15580. |
| 4       | -8.0      | .0      | 50.9        | -18.52      | 1408.        | 27.          | 49.          | 2.18        | 54.74 | 128.29  | 15520. |
| 5       | -4.0      | .0      | 181.2       | -15.01      | 1438.        | 20.          | 32.          | 2.29        | 54.98 | 128.57  | 15530. |
| 6       | .0        | .0      | 294.0       | -4.13       | 1346.        | 51.          | 56.          | -1.89       | 54.10 | 127.53  | 15480. |
| 7       | 2.4       | .0      | 350.6       | 6.39        | 1271.        | 22.          | 109.         | -2.43       | 54.59 | 128.12  | 15550. |
| 8       | 5.0       | .0      | 333.8       | 21.75       | 1475.        | 47.          | 194.         | 1.00        | 54.59 | 128.12  | 15560. |
| 9       | 10.0      | .0      | 396.2       | 66.85       | 1150.        | 52.          | -35.         | -.43        | 54.90 | 128.48  | 15600. |
| 10      | 15.0      | .0      | 466.7       | 124.98      | 636.         | 211.         | -300.        | 2.04        | 55.05 | 128.66  | 15660. |
| 11      | 19.9      | .0      | 538.4       | 187.69      | 273.         | 192.         | -159.        | 1.37        | 54.78 | 128.33  | 15690. |
| 12      | -.0       | .0      | 291.0       | -4.95       | 1479.        | 70.          | 53.          | .25         | 54.62 | 128.15  | 15690. |
| 13      | .0        | .0      | 291.4       | -4.18       | 1350.        | 57.          | 126.         | -1.07       | 54.20 | 127.64  | 15750. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM   | CYM   | CRM    | CY     |
|------|-------|--------|--------|-------|-------|--------|--------|
| 2    | .00   | .8276  | .1914  | .4312 | .0009 | .0053  | .0008  |
| 3    | .00   | .7860  | -.0190 | .4307 | .0035 | .0033  | -.0027 |
| 4    | -7.99 | .1619  | -.0501 | .4538 | .0016 | .0030  | .0059  |
| 5    | -4.00 | .4898  | -.0406 | .4635 | .0012 | .0019  | .0062  |
| 6    | .02   | .7946  | -.0112 | .4341 | .0031 | .0034  | -.0051 |
| 7    | 2.43  | .9477  | .0173  | .4099 | .0014 | .0066  | -.0066 |
| 8    | 4.98  | .9021  | .0598  | .4755 | .0028 | .0117  | .0027  |
| 9    | 9.98  | 1.0707 | .1807  | .3706 | .0032 | -.0021 | -.0012 |
| 10   | 14.96 | 1.2615 | .3378  | .2051 | .0127 | -.0181 | .0055  |
| 11   | 19.92 | 1.4551 | .5073  | .0882 | .0116 | -.0096 | .0037  |
| 12   | -.02  | .7865  | -.0134 | .4769 | .0042 | .0032  | .0007  |
| 13   | .00   | .7874  | -.0113 | .4352 | .0034 | .0076  | -.0029 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB  | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|-------|-------|--------|--------|
| 2    | .00   | .8276  | .1914  | .4312 | .0009 | .0053  | .0008  |
| 3    | .00   | .7860  | -.0190 | .4307 | .0035 | .0033  | -.0027 |
| 4    | -7.99 | .1619  | -.0501 | .4538 | .0016 | .0030  | .0059  |
| 5    | -4.00 | .4898  | -.0406 | .4635 | .0012 | .0019  | .0062  |
| 6    | .02   | .7946  | -.0112 | .4341 | .0031 | .0034  | -.0051 |
| 7    | 2.43  | .9477  | .0173  | .4099 | .0014 | .0066  | -.0066 |
| 8    | 4.98  | .9021  | .0598  | .4755 | .0028 | .0117  | .0027  |
| 9    | 9.98  | 1.0707 | .1807  | .3706 | .0032 | -.0021 | -.0012 |
| 10   | 14.96 | 1.2615 | .3378  | .2051 | .0127 | -.0181 | .0055  |
| 11   | 19.92 | 1.4551 | .5073  | .0882 | .0116 | -.0096 | .0037  |
| 12   | -.02  | .7865  | -.0134 | .4769 | .0042 | .0032  | .0007  |
| 13   | .00   | .7874  | -.0113 | .4352 | .0034 | .0076  | -.0029 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SRR-72011

P 305

RUN 362 CONFIG F P R W5 NP1 T BT

| IW      | -9 DELF   | 0 DELA  | 0 INT       | -9 DELE     | 0 DELR       | 0 DFLSB      | 0            |             |       |         |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM   |
| 2       | .0        | .0      | -164.2      | 36.04       | 308.         | 51.          | -3.          | 2.13        | 54.42 | 127.92  | 3320  |
| 3       | .0        | .0      | -162.7      | 35.64       | 305.         | 50.          | -3.          | 2.11        | 54.93 | 128.51  | 3310  |
| 4       | .0        | .0      | -170.1      | -47.21      | 219.         | 9.           | -42.         | 5.00        | 53.86 | 127.24  | 16110 |
| 5       | -8.0      | .0      | -394.2      | -9.67       | 221.         | -1.          | 6.           | 6.86        | 54.61 | 128.14  | 16200 |
| 6       | -4.1      | .0      | -296.2      | -31.60      | 152.         | -10.         | -11.         | 7.12        | 54.09 | 127.52  | 16090 |
| 7       | .0        | .0      | -165.9      | -45.37      | 240.         | 2.           | 11.          | 5.79        | 54.16 | 127.60  | 16300 |
| 8       | 2.5       | .0      | -84.3       | -48.94      | 280.         | 19.          | -40.         | 4.17        | 54.73 | 128.28  | 16390 |
| 9       | 5.0       | .0      | .8          | -49.89      | 356.         | 53.          | -3.          | 3.31        | 54.53 | 128.05  | 16440 |
| 10      | 9.9       | .0      | 165.4       | -42.23      | 474.         | 47.          | 36.          | -1.19       | 54.47 | 127.97  | 16350 |
| 11      | 15.0      | .0      | 343.2       | -21.09      | 562.         | 88.          | 72.          | -3.46       | 54.20 | 127.65  | 16290 |
| 12      | 20.0      | .0      | 502.0       | 14.44       | 566.         | 130.         | 124.         | -3.89       | 54.26 | 127.72  | 16290 |
| 13      | -.0       | .0      | -170.9      | -44.62      | 246.         | 8.           | -77.         | 3.96        | 54.21 | 127.65  | 16350 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL      | CD     | CPM   | CRM    | CY     |
|------|-------|---------|--------|-------|--------|--------|
| 2    | .00   | -.4437  | .0974  | .0993 | .0031  | -.0002 |
| 3    | .00   | -.4396  | .0963  | .0984 | .0030  | -.0002 |
| 4    | .00   | -.4596  | -.1276 | .0706 | .0006  | -.0026 |
| 5    | -8.00 | -1.0653 | -.0261 | .0712 | -.0000 | .0004  |
| 6    | -4.05 | -.8004  | -.0854 | .0489 | -.0006 | -.0006 |
| 7    | .02   | -.4484  | -.1226 | .0775 | .0001  | .0006  |
| 8    | 2.48  | -.2278  | -.1323 | .0902 | .0011  | -.0024 |
| 9    | 4.98  | -.0021  | -.1348 | .1148 | .0032  | -.0002 |
| 10   | 9.92  | .4471   | -.1141 | .1529 | .0028  | .0022  |
| 11   | 15.02 | .9275   | -.0570 | .1810 | .0053  | .0044  |
| 12   | 19.98 | 1.3567  | .0390  | .1824 | .0079  | .0075  |
| 13   | -.04  | -.4620  | -.1206 | .0793 | .0005  | -.0046 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB     | CDR    | CPMB  | CYMB   | CRMB   | CYB    |
|------|-------|---------|--------|-------|--------|--------|--------|
| 2    | .00   | -.4437  | .0974  | .0993 | .0031  | -.0002 | .0058  |
| 3    | .00   | -.4396  | .0963  | .0984 | .0030  | -.0002 | .0057  |
| 4    | .00   | -.4596  | -.1276 | .0706 | .0006  | -.0026 | .0135  |
| 5    | -8.00 | -1.0653 | -.0261 | .0712 | -.0000 | .0004  | .0185  |
| 6    | -4.05 | -.8004  | -.0854 | .0489 | -.0006 | -.0006 | .0192  |
| 7    | .02   | -.4484  | -.1226 | .0775 | .0001  | .0006  | .0156  |
| 8    | 2.48  | -.2278  | -.1323 | .0902 | .0011  | -.0024 | .0113  |
| 9    | 4.98  | -.0021  | -.1348 | .1148 | .0032  | -.0002 | .0089  |
| 10   | 9.92  | .4471   | -.1141 | .1529 | .0028  | .0022  | -.0032 |
| 11   | 15.02 | .9275   | -.0570 | .1810 | .0053  | .0044  | -.0093 |
| 12   | 19.98 | 1.3567  | .0390  | .1824 | .0079  | .0075  | -.0105 |
| 13   | -.04  | -.4620  | -.1206 | .0793 | .0005  | -.0046 | .0107  |

ORIGINAL PAGE IS  
OF POOR QUALITY

RUN 363 CONFIG F P R W5 NP1 T BT

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | -5 DELE     | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | 0 PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | -147.5      | 34.87       | -210.        | 46.          | -59.         | 4.34        | 54.18 | 127.62  | 3300.  |
| 3       | .0        | .0      | -150.0      | -6.69       | -270.        | 38.          | -4.          | 3.29        | 53.79 | 127.16  | 11650. |
| 4       | -8.0      | .0      | -333.9      | 39.55       | -272.        | -37.         | 364.         | 6.85        | 54.19 | 127.63  | 11620. |
| 5       | -4.0      | .0      | -270.0      | 4.28        | -374.        | 10.          | 8.           | 6.29        | 54.70 | 128.24  | 11710. |
| 6       | .0        | .0      | -149.6      | -6.28       | -263.        | 22.          | -22.         | 3.25        | 53.41 | 126.70  | 11570. |
| 7       | 2.5       | .0      | -67.2       | -9.98       | -213.        | 46.          | 15.          | 2.33        | 54.05 | 127.47  | 11670. |
| 8       | 5.0       | .0      | 12.3        | -9.46       | -145.        | 77.          | -55.         | .76         | 54.01 | 127.42  | 11670. |
| 9       | 10.0      | .0      | 177.3       | -1.15       | -63.         | 99.          | -18.         | .44         | 54.08 | 127.50  | 11670. |
| 10      | 15.0      | .0      | 346.2       | 22.89       | -53.         | 82.          | 72.          | -.82        | 54.05 | 127.46  | 11690. |
| 11      | 20.0      | .0      | 496.5       | 61.20       | -52.         | 96.          | 108.         | -1.90       | 53.89 | 127.27  | 11700. |
| 12      | .0        | .0      | -140.0      | -4.57       | -269.        | 39.          | -39.         | 3.97        | 56.56 | 130.45  | 11660. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | -.3986 | .0942  | -.0677 | .0028  | -.0036 | .0117  |
| 3    | .00   | -.4055 | -.0181 | -.0870 | .0023  | -.0003 | .0089  |
| 4    | -7.97 | -.9025 | .1069  | -.0878 | -.0022 | .0220  | .0185  |
| 5    | -3.97 | -.7298 | .0116  | -.1207 | .0006  | .0005  | .0170  |
| 6    | .04   | -.4043 | -.0170 | -.0849 | .0013  | -.0013 | .0088  |
| 7    | 2.51  | -.1815 | -.0270 | -.0688 | .0028  | .0009  | .0063  |
| 8    | 4.98  | .0332  | -.0256 | -.0469 | .0046  | -.0033 | .0020  |
| 9    | 10.00 | .4793  | -.0031 | -.0202 | .0060  | -.0011 | .0012  |
| 10   | 15.04 | .9355  | .0619  | -.0172 | .0049  | .0043  | -.0022 |
| 11   | 19.98 | 1.3418 | .1654  | -.0167 | .0058  | .0065  | -.0051 |
| 12   | .01   | -.4026 | -.0123 | -.0868 | .0024  | -.0024 | .0107  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | -.3986 | .0942  | -.0677 | .0028  | -.0036 | .0117  |
| 3    | .00   | -.4055 | -.0181 | -.0870 | .0023  | -.0003 | .0089  |
| 4    | -7.97 | -.9025 | .1069  | -.0878 | -.0022 | .0220  | .0185  |
| 5    | -3.97 | -.7298 | .0116  | -.1207 | .0006  | .0005  | .0170  |
| 6    | .04   | -.4043 | -.0170 | -.0849 | .0013  | -.0013 | .0088  |
| 7    | 2.51  | -.1815 | -.0270 | -.0688 | .0028  | .0009  | .0063  |
| 8    | 4.98  | .0332  | -.0256 | -.0469 | .0046  | -.0033 | .0020  |
| 9    | 10.00 | .4793  | -.0031 | -.0202 | .0060  | -.0011 | .0012  |
| 10   | 15.04 | .9355  | .0619  | -.0172 | .0049  | .0043  | -.0022 |
| 11   | 19.98 | 1.3418 | .1654  | -.0167 | .0058  | .0065  | -.0051 |
| 12   | .01   | -.4026 | -.0123 | -.0868 | .0024  | -.0024 | .0107  |

SIKORSKY RSPA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 307

RUN 364 CONFIG F P R W5 N01 T RT

| PT. NO. | ALPHA DEG | PSI DEG | CLRAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 2       | .0        | .0      | -97.3       | 36.40       | -1460.       | 36.          | -40.         | 3.31        | 54.52 | 128.03  | 3280.  |
| 3       | .0        | .0      | -103.5      | -6.88       | -1564.       | 30.          | -59.         | 4.03        | 54.11 | 127.54  | 11850. |
| 4       | -8.0      | .0      | -320.4      | 19.98       | -1640.       | 5.           | 8.           | 5.85        | 54.69 | 128.24  | 11840. |
| 5       | -4.0      | .0      | -221.6      | 1.67        | -1651.       | 17.          | -8.          | 5.19        | 55.17 | 128.81  | 11820. |
| 6       | .0        | .0      | -100.5      | -6.09       | -1532.       | 29.          | -6.          | 4.49        | 54.66 | 128.20  | 11840. |
| 7       | 2.5       | .0      | -21.8       | -6.89       | -1487.       | 49.          | -21.         | 2.82        | 54.43 | 127.93  | 11870. |
| 8       | 5.0       | .0      | 50.6        | -4.79       | -1423.       | 86.          | 51.          | 1.55        | 54.98 | 128.58  | 11840. |
| 9       | 10.0      | .0      | 222.0       | 12.24       | -1346.       | 115.         | 53.          | -.12        | 54.87 | 128.45  | 11810. |
| 10      | 15.0      | .0      | 378.3       | 43.77       | -1071.       | 58.          | 71.          | -1.43       | 54.78 | 128.35  | 11850. |
| 11      | 20.0      | .0      | 504.4       | 81.78       | -623.        | 72.          | 141.         | -1.74       | 54.83 | 128.40  | 11650. |
| 12      | .0        | .0      | -100.8      | -6.20       | -1530.       | 35.          | -41.         | 4.80        | 55.07 | 128.69  | 11770. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | -.2629 | .0984  | -.4708 | .0022 | -.0024 | .0090  |
| 3    | .00   | -.2797 | -.0186 | -.5041 | .0018 | -.0036 | .0109  |
| 4    | -7.99 | -.8659 | .0540  | -.5286 | .0003 | .0005  | .0158  |
| 5    | -3.97 | -.5989 | .0045  | -.5324 | .0010 | -.0005 | .0140  |
| 6    | .03   | -.2715 | -.0165 | -.4940 | .0018 | -.0003 | .0121  |
| 7    | 2.49  | -.0589 | -.0186 | -.4795 | .0030 | -.0013 | .0076  |
| 8    | 5.00  | .1612  | -.0130 | -.4586 | .0052 | .0031  | .0042  |
| 9    | 10.01 | .6001  | .0331  | -.4341 | .0069 | .0032  | -.0003 |
| 10   | 15.05 | 1.0224 | .1183  | -.3454 | .0035 | .0043  | -.0039 |
| 11   | 19.96 | 1.3632 | .2210  | -.2008 | .0043 | .0085  | -.0047 |
| 12   | .03   | -.2726 | -.0167 | -.4934 | .0021 | -.0025 | .0132  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | -.2629 | .0984  | -.4708 | .0022 | -.0024 | .0090  |
| 3    | .00   | -.2797 | -.0186 | -.5041 | .0018 | -.0036 | .0109  |
| 4    | -7.99 | -.8659 | .0540  | -.5286 | .0003 | .0005  | .0158  |
| 5    | -3.97 | -.5989 | .0045  | -.5324 | .0010 | -.0005 | .0140  |
| 6    | .03   | -.2715 | -.0165 | -.4940 | .0018 | -.0003 | .0121  |
| 7    | 2.49  | -.0589 | -.0186 | -.4795 | .0030 | -.0013 | .0076  |
| 8    | 5.00  | .1612  | -.0130 | -.4586 | .0052 | .0031  | .0042  |
| 9    | 10.01 | .6001  | .0331  | -.4341 | .0069 | .0032  | -.0003 |
| 10   | 15.05 | 1.0224 | .1183  | -.3454 | .0035 | .0043  | -.0039 |
| 11   | 19.96 | 1.3632 | .2210  | -.2008 | .0043 | .0085  | -.0047 |
| 12   | .03   | -.2726 | -.0167 | -.4934 | .0021 | -.0025 | .0132  |

RUN 365 CONFIG F P H W5 NP1 T BT

| IW      | α DELF    | 0 DELA  | 0 THT       | 9 DELE      | 0 DELR       | 0 DFLSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | -84.2       | 41.43       | -1888.       | 29.          | -3.          | 2.24        | 54.81 | 128.39  | 3310.  |
| 3       | .0        | .0      | -86.9       | -6.31       | -1959.       | 34.          | -4.          | 3.50        | 55.41 | 129.10  | 12360. |
| 4       | -8.0      | .0      | -305.2      | 16.53       | -2105.       | -0.          | -12.         | 7.10        | 54.22 | 127.67  | 12250. |
| 5       | -4.1      | .0      | -208.4      | -1.10       | -2151.       | 23.          | 8.           | 6.51        | 54.94 | 128.53  | 12350. |
| 6       | -.0       | .0      | -89.3       | -5.19       | -1959.       | 44.          | -41.         | 4.83        | 54.96 | 128.56  | 12310. |
| 7       | 2.4       | .0      | -9.3        | -3.74       | -1881.       | 57.          | -3.          | 2.61        | 54.81 | 128.38  | 12320. |
| 8       | 5.0       | .0      | 70.5        | .62         | -1806.       | 99.          | -20.         | 2.35        | 55.10 | 128.72  | 12330. |
| 9       | 9.9       | .0      | 227.5       | 19.02       | -1594.       | 114.         | 18.          | -.37        | 55.28 | 128.94  | 12310. |
| 10      | 15.0      | .0      | 375.4       | 48.15       | -1170.       | 20.          | 53.          | -.80        | 55.48 | 129.18  | 12300. |
| 11      | 20.0      | .0      | 503.3       | 85.55       | -455.        | -160.        | 141.         | -4.79       | 54.80 | 128.37  | 12290. |
| 12      | -.0       | .0      | -87.7       | -4.02       | -1956.       | 43.          | -23.         | 4.03        | 54.98 | 128.58  | 12350. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | -.2276 | .1120  | -.6088 | .0018  | -.0002 | .0060  |
| 3    | .00   | -.2348 | -.0170 | -.6316 | .0020  | -.0003 | .0095  |
| 4    | -8.01 | -.8248 | .0447  | -.6786 | -.0000 | -.0007 | .0192  |
| 5    | -4.07 | -.5632 | -.0003 | -.6934 | .0014  | .0005  | .0176  |
| 6    | -.03  | -.2413 | -.0140 | -.6315 | .0027  | -.0025 | .0131  |
| 7    | 2.44  | -.0251 | -.0101 | -.6064 | .0034  | -.0002 | .0071  |
| 8    | 4.97  | .1905  | .0017  | -.5822 | .0060  | -.0012 | .0063  |
| 9    | 9.95  | .6147  | .0514  | -.5137 | .0069  | .0011  | -.0010 |
| 10   | 15.00 | 1.0146 | .1301  | -.3771 | .0012  | .0032  | -.0022 |
| 11   | 20.01 | 1.3602 | .2312  | -.1466 | .0097  | .0085  | -.0129 |
| 12   | -.03  | -.2369 | -.0109 | -.6306 | .0026  | -.0014 | .0109  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMB   | CYMR   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | -.2276 | .1120  | -.6088 | .0018  | -.0002 | .0060  |
| 3    | .00   | -.2348 | -.0170 | -.6316 | .0020  | -.0003 | .0095  |
| 4    | -8.01 | -.8248 | .0447  | -.6786 | -.0000 | -.0007 | .0192  |
| 5    | -4.07 | -.5632 | -.0003 | -.6934 | .0014  | .0005  | .0176  |
| 6    | -.03  | -.2413 | -.0140 | -.6315 | .0027  | -.0025 | .0131  |
| 7    | 2.44  | -.0251 | -.0101 | -.6064 | .0034  | -.0002 | .0071  |
| 8    | 4.97  | .1905  | .0017  | -.5822 | .0060  | -.0012 | .0063  |
| 9    | 9.95  | .6147  | .0514  | -.5137 | .0069  | .0011  | -.0010 |
| 10   | 15.00 | 1.0146 | .1301  | -.3771 | .0012  | .0032  | -.0022 |
| 11   | 20.01 | 1.3602 | .2312  | -.1466 | .0097  | .0085  | -.0129 |
| 12   | -.03  | -.2369 | -.0109 | -.6306 | .0026  | -.0014 | .0109  |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

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P 309

RUN 366 CONFIG F P B W5 NP1 T BT

| IW      | 7.5 DELF  | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSR      | 0            | 0           | 0     | 0       | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 262.9       | 49.76       | -1177.       | 35.          | 37.          | -.38        | 53.64 | 127.00  | 3770.  |
| 3       | .0        | .0      | 261.2       | 49.02       | -1167.       | 35.          | 68.          | 1.17        | 55.51 | 129.23  | 3820.  |
| 4       | .0        | .0      | 268.1       | -6.78       | -1383.       | 35.          | 70.          | .37         | 55.22 | 128.88  | 13350. |
| 5       | -8.0      | .0      | 14.4        | -18.63      | -1935.       | 51.          | 49.          | 1.97        | 55.29 | 128.97  | 13380. |
| 6       | -4.0      | .0      | 142.8       | -15.77      | -1677.       | 33.          | 33.          | 1.46        | 55.81 | 129.58  | 13380. |
| 7       | .1        | .0      | 272.6       | -5.55       | -1362.       | 42.          | 85.          | 2.66        | 55.08 | 128.72  | 13370. |
| 8       | 2.6       | .0      | 343.2       | 4.65        | -1238.       | 53.          | 104.         | .31         | 55.61 | 129.34  | 13330. |
| 9       | 5.0       | .0      | 421.8       | 17.28       | -1178.       | 67.          | 125.         | -1.43       | 54.71 | 128.27  | 13380. |
| 10      | 10.0      | .0      | 505.1       | 57.50       | -1172.       | 54.          | 178.         | -2.12       | 54.72 | 128.29  | 13410. |
| 11      | 15.1      | .0      | 539.8       | 124.30      | -1296.       | 33.          | 141.         | -.87        | 55.00 | 128.61  | 13380. |
| 12      | 19.9      | .0      | 618.1       | 203.24      | -823.        | 40.          | -17.         | 1.55        | 55.01 | 128.63  | 13550. |
| 13      | -.0       | .0      | 262.8       | -6.76       | -1375.       | 22.          | 70.          | .25         | 55.03 | 128.66  | 13380. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .7105  | .1345  | -.3794 | .0021 | .0022  | -.0010 |
| 3    | .00   | .7058  | .1325  | -.3763 | .0021 | .0041  | .0032  |
| 4    | .00   | .7247  | -.0183 | -.4457 | .0021 | .0042  | .0010  |
| 5    | -8.01 | .0390  | -.0504 | -.6239 | .0031 | .0030  | .0053  |
| 6    | -4.00 | .3859  | -.0426 | -.5408 | .0020 | .0020  | .0040  |
| 7    | .07   | .7368  | -.0150 | -.4392 | .0026 | .0051  | .0072  |
| 8    | 2.57  | .9276  | .0126  | -.3993 | .0032 | .0063  | .0008  |
| 9    | 5.02  | 1.1400 | .0467  | -.3799 | .0041 | .0076  | -.0039 |
| 10   | 10.04 | 1.3652 | .1554  | -.3777 | .0033 | .0108  | -.0057 |
| 11   | 15.11 | 1.4590 | .3359  | -.4178 | .0020 | .0085  | -.0023 |
| 12   | 19.94 | 1.6705 | .5493  | -.2654 | .0024 | -.0010 | .0042  |
| 13   | -.01  | .7103  | -.0183 | -.4433 | .0013 | .0042  | .0007  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMB   | CYMR  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .7105  | .1345  | -.3794 | .0021 | .0022  | -.0010 |
| 3    | .00   | .7058  | .1325  | -.3763 | .0021 | .0041  | .0032  |
| 4    | .00   | .7247  | -.0183 | -.4457 | .0021 | .0042  | .0010  |
| 5    | -8.01 | .0390  | -.0504 | -.6239 | .0031 | .0030  | .0053  |
| 6    | -4.00 | .3859  | -.0426 | -.5408 | .0020 | .0020  | .0040  |
| 7    | .07   | .7368  | -.0150 | -.4392 | .0026 | .0051  | .0072  |
| 8    | 2.57  | .9276  | .0126  | -.3993 | .0032 | .0063  | .0008  |
| 9    | 5.02  | 1.1400 | .0467  | -.3799 | .0041 | .0076  | -.0039 |
| 10   | 10.04 | 1.3652 | .1554  | -.3777 | .0033 | .0108  | -.0057 |
| 11   | 15.11 | 1.4590 | .3359  | -.4178 | .0020 | .0085  | -.0023 |
| 12   | 19.94 | 1.6705 | .5493  | -.2654 | .0024 | -.0010 | .0042  |
| 13   | -.01  | .7103  | -.0183 | -.4433 | .0013 | .0042  | .0007  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 310

RUN 367 CONFIG F P B W5 NP1 T BT

| PT. NO. | 7.5 DELF<br>ALPHA DEG | PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 5 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELSB<br>CRMBAR<br>SQ-FT | 0<br>CYBAR<br>PSF | 0<br>Q<br>KNOTS | V<br>KNOTS | RPM    |
|---------|-----------------------|------------|--------------------------|-------------------------|---------------------------|---------------------------|----------------------------|-------------------|-----------------|------------|--------|
| 2       | .0                    | .0         | 244.4                    | 46.32                   | -758.                     | 6.                        | 53.                        | .12               | 55.00           | 128.63     | 3830.  |
| 3       | .0                    | .0         | 252.0                    | -7.11                   | -937.                     | 18.                       | 50.                        | 2.68              | 54.66           | 128.22     | 12990. |
| 4       | -7.9                  | .0         | -6.7                     | -16.01                  | -1348.                    | 9.                        | 10.                        | 4.66              | 54.82           | 128.41     | 12940. |
| 5       | -4.1                  | .0         | 121.4                    | -14.61                  | -1229.                    | 0.                        | 67.                        | 2.61              | 54.78           | 128.36     | 12950. |
| 6       | .1                    | .0         | 252.2                    | -5.85                   | -909.                     | 16.                       | 52.                        | 1.31              | 54.64           | 128.19     | 12970. |
| 7       | 2.6                   | .0         | 327.2                    | 3.70                    | -796.                     | 36.                       | 70.                        | .06               | 55.01           | 128.64     | 12970. |
| 8       | 5.1                   | .0         | 407.7                    | 15.67                   | -718.                     | 57.                       | 125.                       | -1.36             | 54.93           | 128.54     | 12980. |
| 9       | 10.0                  | .0         | 497.9                    | 52.53                   | -844.                     | 65.                       | 198.                       | -1.45             | 54.07           | 127.51     | 13000. |
| 10      | 15.0                  | .0         | 540.1                    | 116.75                  | -1051.                    | 29.                       | 176.                       | -1.67             | 55.16           | 128.81     | 13000. |
| 11      | 20.0                  | .0         | 627.5                    | 200.64                  | -1041.                    | 60.                       | -175.                      | 1.05              | 55.39           | 129.08     | 13010. |
| 12      | .1                    | .0         | 250.7                    | -6.31                   | -927.                     | 14.                       | 68.                        | 2.18              | 54.70           | 128.27     | 13080. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .6604  | .1252  | -.2444 | .0004 | .0032  | .0003  |
| 3    | .00   | .6812  | -.0192 | -.3020 | .0011 | .0030  | .0072  |
| 4    | -7.93 | -.0180 | -.0433 | -.4345 | .0005 | .0006  | .0126  |
| 5    | -4.10 | .3281  | -.0395 | -.3963 | .0000 | .0040  | .0071  |
| 6    | .06   | .6817  | -.0158 | -.2931 | .0010 | .0031  | .0035  |
| 7    | 2.58  | .8843  | .0100  | -.2568 | .0022 | .0043  | .0002  |
| 8    | 5.07  | 1.0910 | .0424  | -.2313 | .0035 | .0075  | -.0037 |
| 9    | 10.01 | 1.3456 | .1420  | -.2722 | .0039 | .0120  | -.0039 |
| 10   | 15.04 | 1.4597 | .3155  | -.3389 | .0018 | .0106  | -.0045 |
| 11   | 19.99 | 1.6961 | .5423  | -.3357 | .0036 | -.0106 | .0028  |
| 12   | .05   | .6774  | -.0171 | -.2988 | .0008 | .0041  | .0059  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|-------|--------|--------|--------|-------|--------|--------|
| 2    | .00   | .6604  | .1252  | -.2444 | .0004 | .0032  | .0003  |
| 3    | .00   | .6812  | -.0192 | -.3020 | .0011 | .0030  | .0072  |
| 4    | -7.93 | -.0180 | -.0433 | -.4345 | .0005 | .0006  | .0126  |
| 5    | -4.10 | .3281  | -.0395 | -.3963 | .0000 | .0040  | .0071  |
| 6    | .06   | .6817  | -.0158 | -.2931 | .0010 | .0031  | .0035  |
| 7    | 2.58  | .8843  | .0100  | -.2568 | .0022 | .0043  | .0002  |
| 8    | 5.07  | 1.0910 | .0424  | -.2313 | .0035 | .0075  | -.0037 |
| 9    | 10.01 | 1.3456 | .1420  | -.2722 | .0039 | .0120  | -.0039 |
| 10   | 15.04 | 1.4597 | .3155  | -.3389 | .0018 | .0106  | -.0045 |
| 11   | 19.99 | 1.6961 | .5423  | -.3357 | .0036 | -.0106 | .0028  |
| 12   | .05   | .6774  | -.0171 | -.2988 | .0008 | .0041  | .0059  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 311

RUN 36R CONFIG F P R W5 NP1 T BT

| PT. NO. | 7.5 DELF<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 0 DELA         |                | 0 THT           |                 | 0 DELE          |                | 0 DELR   |            | 0 DELSB |  | RPM |
|---------|--------------------------|---------------------|----------------|----------------|-----------------|-----------------|-----------------|----------------|----------|------------|---------|--|-----|
|         |                          |                     | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS |         |  |     |
| 2       | .0                       | .0                  | 221.6          | 44.89          | -108.           | 0.              | 35.             | .06            | 54.72    | 128.29     | 3820.   |  |     |
| 3       | .0                       | .0                  | 225.2          | -7.95          | -234.           | 7.              | 49.             | 3.10           | 55.03    | 128.65     | 12870.  |  |     |
| 4       | -8.0                     | .0                  | -38.2          | -13.18         | -483.           | -18.            | 46.             | 4.22           | 54.05    | 127.49     | 12890.  |  |     |
| 5       | -3.9                     | .0                  | 99.5           | -13.20         | -440.           | -13.            | 29.             | 4.22           | 54.92    | 128.52     | 12870.  |  |     |
| 6       | .1                       | .0                  | 226.7          | -6.03          | -219.           | -2.             | 51.             | .92            | 55.41    | 129.11     | 12860.  |  |     |
| 7       | 2.6                      | .0                  | 305.1          | 1.96           | -85.            | 31.             | 50.             | 2.29           | 54.95    | 128.56     | 12880.  |  |     |
| 8       | 5.0                      | .0                  | 380.4          | 12.76          | 10.             | 47.             | 107.            | -.56           | 54.50    | 128.02     | 12880.  |  |     |
| 9       | 10.0                     | .0                  | 474.4          | 47.57          | -129.           | 43.             | 161.            | -1.00          | 54.41    | 127.92     | 12900.  |  |     |
| 10      | 15.0                     | .0                  | 526.0          | 104.64         | -423.           | 47.             | 211.            | -1.79          | 55.17    | 128.82     | 12940.  |  |     |
| 11      | 19.9                     | .0                  | 609.8          | 182.56         | -685.           | 125.            | -227.           | .86            | 55.38    | 129.07     | 12960.  |  |     |
| 12      | .0                       | .0                  | 227.0          | -7.09          | -231.           | 5.              | 68.             | 2.56           | 54.65    | 128.21     | 12920.  |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .5990  | .1213  | -.0348 | .0000  | .0021  | .0002  |
| 3    | .00   | .6087  | -.0190 | -.0754 | .0004  | .0030  | .0084  |
| 4    | -8.01 | -.1033 | -.0356 | -.1558 | -.0011 | .0028  | .0114  |
| 5    | -3.93 | .2689  | -.0357 | -.1418 | -.0008 | .0017  | .0114  |
| 6    | .05   | .6126  | -.0163 | -.0707 | -.0001 | .0031  | .0025  |
| 7    | 2.60  | .8246  | .0053  | -.0274 | .0019  | .0030  | .0062  |
| 8    | 5.00  | 1.0281 | .0345  | .0033  | .0028  | .0065  | -.0015 |
| 9    | 9.99  | 1.2822 | .1286  | -.0417 | .0026  | .0097  | -.0027 |
| 10   | 14.99 | 1.4215 | .2828  | -.1364 | .0029  | .0128  | -.0048 |
| 11   | 19.92 | 1.6482 | .4934  | -.2208 | .0076  | -.0137 | .0023  |
| 12   | .02   | .6136  | -.0192 | -.0745 | .0003  | .0041  | .0069  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .5990  | .1213  | -.0348 | .0000  | .0021  | .0002  |
| 3    | .00   | .6087  | -.0190 | -.0754 | .0004  | .0030  | .0084  |
| 4    | -8.01 | -.1033 | -.0356 | -.1558 | -.0011 | .0028  | .0114  |
| 5    | -3.93 | .2689  | -.0357 | -.1418 | -.0008 | .0017  | .0114  |
| 6    | .05   | .6126  | -.0163 | -.0707 | -.0001 | .0031  | .0025  |
| 7    | 2.60  | .8246  | .0053  | -.0274 | .0019  | .0030  | .0062  |
| 8    | 5.00  | 1.0281 | .0345  | .0033  | .0028  | .0065  | -.0015 |
| 9    | 9.99  | 1.2822 | .1286  | -.0417 | .0026  | .0097  | -.0027 |
| 10   | 14.99 | 1.4215 | .2828  | -.1364 | .0029  | .0128  | -.0048 |
| 11   | 19.92 | 1.6482 | .4934  | -.2208 | .0076  | -.0137 | .0023  |
| 12   | .02   | .6136  | -.0192 | -.0745 | .0003  | .0041  | .0069  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 312

RUN 369 CONFIG F P B W5 NP1 T BT

| PT. NO. | 7.5 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | -5 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DFLSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>SQ-FT | 0<br>CYBAR<br>PSF | 0<br>V<br>KNOTS | RPM    |        |
|---------|--------------------------|----------------------|-------------------------|---------------------------|---------------------------|----------------------------|----------------------|-------------------|-----------------|--------|--------|
| 2       | .0                       | .0                   | 199.9                   | 44.70                     | 541.                      | 2.                         | 17.                  | .19               | 55.20           | 128.86 | 3840.  |
| 3       | .0                       | .0                   | 202.7                   | -5.70                     | 486.                      | 2.                         | 15.                  | 2.23              | 54.93           | 128.53 | 12790. |
| 4       | -8.0                     | .0                   | -69.2                   | -7.04                     | 367.                      | -28.                       | -10.                 | 5.84              | 54.86           | 128.46 | 12760. |
| 5       | -4.0                     | .0                   | 67.1                    | -10.06                    | 338.                      | -16.                       | -25.                 | 4.90              | 54.97           | 128.59 | 12750. |
| 6       | .0                       | .0                   | 201.1                   | -5.64                     | 485.                      | 1.                         | 15.                  | 2.17              | 55.00           | 128.61 | 12840. |
| 7       | 2.6                      | .0                   | 280.1                   | 1.01                      | 614.                      | 27.                        | 52.                  | 1.18              | 54.65           | 128.21 | 12810. |
| 8       | 5.0                      | .0                   | 351.7                   | 10.86                     | 702.                      | 50.                        | 53.                  | .25               | 54.55           | 128.09 | 12800. |
| 9       | 10.1                     | .0                   | 444.3                   | 43.96                     | 542.                      | 42.                        | 123.                 | -.06              | 55.11           | 128.75 | 12810. |
| 10      | 15.1                     | .0                   | 503.8                   | 101.43                    | 252.                      | 29.                        | 125.                 | -1.19             | 54.47           | 127.98 | 12810. |
| 11      | 20.0                     | .0                   | 602.1                   | 176.87                    | -109.                     | 127.                       | -282.                | .37               | 54.99           | 128.61 | 12800. |
| 12      | .0                       | .0                   | 198.1                   | -5.31                     | 484.                      | 7.                         | 32.                  | 2.23              | 54.99           | 128.61 | 12800. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .5402  | .1208  | .1743  | .0001  | .0010  | .0005  |
| 3    | .00   | .5477  | -.0154 | .1566  | .0001  | .0009  | .0060  |
| 4    | -8.02 | -.1872 | -.0190 | .1183  | -.0017 | -.0006 | .0158  |
| 5    | -4.04 | .1814  | -.0272 | .1091  | -.0010 | -.0015 | .0132  |
| 6    | .01   | .5435  | -.0152 | .1563  | .0000  | .0009  | .0059  |
| 7    | 2.59  | .7570  | .0027  | .1978  | .0017  | .0031  | .0032  |
| 8    | 4.96  | .9506  | .0293  | .2262  | .0030  | .0032  | .0007  |
| 9    | 10.07 | 1.2008 | .1188  | .1747  | .0026  | .0074  | -.0002 |
| 10   | 15.13 | 1.3615 | .2741  | .0811  | .0018  | .0075  | -.0032 |
| 11   | 20.00 | 1.6272 | .4780  | -.0353 | .0077  | -.0170 | .0010  |
| 12   | .00   | .5355  | -.0144 | .1559  | .0004  | .0020  | .0060  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR    | CPMR   | CYMB   | CRMB   | CYB    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 2    | .00   | .5402  | .1208  | .1743  | .0001  | .0010  | .0005  |
| 3    | .00   | .5477  | -.0154 | .1566  | .0001  | .0009  | .0060  |
| 4    | -8.02 | -.1872 | -.0190 | .1183  | -.0017 | -.0006 | .0158  |
| 5    | -4.04 | .1814  | -.0272 | .1091  | -.0010 | -.0015 | .0132  |
| 6    | .01   | .5435  | -.0152 | .1563  | .0000  | .0009  | .0059  |
| 7    | 2.59  | .7570  | .0027  | .1978  | .0017  | .0031  | .0032  |
| 8    | 4.96  | .9506  | .0293  | .2262  | .0030  | .0032  | .0007  |
| 9    | 10.07 | 1.2008 | .1188  | .1747  | .0026  | .0074  | -.0002 |
| 10   | 15.13 | 1.3615 | .2741  | .0811  | .0018  | .0075  | -.0032 |
| 11   | 20.00 | 1.6272 | .4780  | -.0353 | .0077  | -.0170 | .0010  |
| 12   | .00   | .5355  | -.0144 | .1559  | .0004  | .0020  | .0060  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

P 313

RUN 370 CONFIG F P B W5 NP1 T BT

| IW      | 7.5 DELF  | 0 DELA  | 0 IHT       | -9 DELE     | .0 DELR      | 0 DELSR      | 0            |             |       | RPM       |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|-----------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | 0 PSF | 0 V KNOTS |        |
| 2       | .0        | .0      | 179.8       | 46.66       | 1130.        | 20.          | 18.          | .06         | 54.78 | 128.35    | 3880.  |
| 3       | .0        | .0      | 178.4       | -6.67       | 1168.        | 22.          | 32.          | 2.49        | 54.68 | 128.24    | 12980. |
| 4       | -8.1      | .0      | -97.8       | -3.47       | 1141.        | -18.         | 7.           | 6.12        | 55.06 | 128.70    | 12990. |
| 5       | -4.0      | .0      | 41.6        | -8.11       | 1094.        | -1.          | -42.         | 4.32        | 55.20 | 128.86    | 12960. |
| 6       | -0        | .0      | 175.0       | -5.37       | 1175.        | 24.          | -4.          | 3.37        | 54.63 | 128.18    | 12960. |
| 7       | 2.5       | .0      | 254.8       | .66         | 1296.        | 49.          | 15.          | 2.43        | 54.71 | 128.27    | 12960. |
| 8       | 5.0       | .0      | 326.9       | 9.36        | 1388.        | 66.          | 52.          | .75         | 54.71 | 128.28    | 12980. |
| 9       | 10.0      | .0      | 427.2       | 40.85       | 1182.        | 35.          | 124.         | 1.19        | 54.56 | 128.09    | 12990. |
| 10      | 15.0      | .0      | 484.5       | 95.02       | 830.         | 26.          | 157.         | 1.48        | 55.26 | 128.93    | 13010. |
| 11      | 20.0      | .0      | 584.3       | 169.44      | 497.         | 138.         | -229.        | 1.55        | 54.96 | 128.57    | 13120. |
| 12      | .0        | .0      | 174.0       | -5.89       | 1160.        | 12.          | 14.          | 2.86        | 54.74 | 128.31    | 13010. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM   | CYM    | CRM    | CY    |
|------|-------|--------|--------|-------|--------|--------|-------|
| 2    | .00   | .4859  | .1261  | .3642 | .0012  | .0011  | .0002 |
| 3    | .00   | .4821  | -.0180 | .3767 | .0013  | .0020  | .0067 |
| 4    | -8.06 | -.2643 | -.0094 | .3679 | -.0011 | .0004  | .0166 |
| 5    | -4.01 | .1124  | -.0219 | .3527 | -.0001 | -.0025 | .0117 |
| 6    | -.03  | .4731  | -.0145 | .3789 | .0014  | -.0003 | .0091 |
| 7    | 2.54  | .6886  | .0018  | .4179 | .0030  | .0009  | .0066 |
| 8    | 4.97  | .8835  | .0253  | .4473 | .0040  | .0032  | .0020 |
| 9    | 10.01 | 1.1546 | .1104  | .3811 | .0021  | .0075  | .0032 |
| 10   | 15.03 | 1.3094 | .2568  | .2704 | .0016  | .0095  | .0040 |
| 11   | 19.99 | 1.5791 | .4580  | .1601 | .0083  | -.0138 | .0042 |
| 12   | .00   | .4702  | -.0159 | .3739 | .0007  | .0009  | .0077 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | COB    | CPMB  | CYMB   | CRMB   | CYB   |
|------|-------|--------|--------|-------|--------|--------|-------|
| 2    | .00   | .4859  | .1261  | .3642 | .0012  | .0011  | .0002 |
| 3    | .00   | .4821  | -.0180 | .3767 | .0013  | .0020  | .0067 |
| 4    | -8.06 | -.2643 | -.0094 | .3670 | -.0011 | .0004  | .0166 |
| 5    | -4.01 | .1124  | -.0219 | .3527 | -.0001 | -.0025 | .0117 |
| 6    | -.03  | .4731  | -.0145 | .3789 | .0014  | -.0003 | .0091 |
| 7    | 2.54  | .6886  | .0018  | .4179 | .0030  | .0009  | .0066 |
| 8    | 4.97  | .8835  | .0253  | .4473 | .0040  | .0032  | .0020 |
| 9    | 10.01 | 1.1546 | .1104  | .3811 | .0021  | .0075  | .0032 |
| 10   | 15.03 | 1.3094 | .2568  | .2704 | .0016  | .0095  | .0040 |
| 11   | 19.99 | 1.5791 | .4580  | .1601 | .0083  | -.0138 | .0042 |
| 12   | .00   | .4702  | -.0159 | .3739 | .0007  | .0009  | .0077 |

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OF POOR QUALITY

RUN 371 CONFIG F P P W5 NP1 T BT

| IW      | Q DELF    | Q DELA  | Q IHT       | Q DELE      | Q DELR       | 10 DFLSB     | Q            | V           | RPM   |        |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|--------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  |        |
| 2       | .0        | .0      | 63.1        | 32.05       | -380.        | 263.         | -12.         | -4.87       | 54.57 | 128.11 | 3620.  |
| 3       | .0        | .0      | 63.3        | -7.11       | -445.        | 265.         | -29.         | -5.52       | 54.32 | 127.81 | 11130. |
| 4       | .0        | -15.0   | 75.2        | 17.01       | -523.        | 532.         | 83.          | -122.05     | 54.62 | 128.17 | 11190. |
| 5       | .0        | -10.0   | 71.0        | 3.13        | -533.        | 353.         | 21.          | -80.08      | 54.32 | 127.80 | 5600.  |
| 6       | .0        | -5.0    | 65.2        | -4.08       | -482.        | 240.         | -29.         | -40.86      | 54.19 | 127.65 | 11120. |
| 7       | .0        | -2.5    | 63.3        | -6.26       | -421.        | 263.         | -30.         | -23.61      | 54.98 | 128.60 | 11240. |
| 8       | .0        | .0      | 63.0        | -7.48       | -431.        | 265.         | -66.         | -3.78       | 55.01 | 128.63 | 11210. |
| 9       | .0        | 2.5     | 63.8        | -6.86       | -457.        | 266.         | -6.          | 14.96       | 54.66 | 128.22 | 11200. |
| 10      | .0        | 5.0     | 65.5        | -5.03       | -498.        | 269.         | -47.         | 33.03       | 54.35 | 127.84 | 11180. |
| 11      | .0        | 10.0    | 71.1        | .28         | -564.        | 139.         | 4.           | 71.98       | 55.04 | 128.66 | 11130. |
| 12      | .0        | 15.0    | 77.2        | 11.71       | -643.        | -15.         | 17.          | 112.65      | 54.31 | 127.79 | 11130. |
| 13      | .0        | .0      | 62.4        | -6.24       | -432.        | 263.         | -66.         | -3.72       | 54.90 | 128.50 | 11140. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CY <sup>W</sup> | CRM    | CY     |
|------|--------|-------|--------|--------|-----------------|--------|--------|
| 2    | .00    | .1706 | .0866  | -.1226 | .0159           | -.0007 | -.0132 |
| 3    | .00    | .1711 | -.0192 | -.1436 | .0160           | -.0017 | -.0149 |
| 4    | -15.00 | .2032 | .0460  | -.1686 | .0321           | .0050  | -.3299 |
| 5    | -10.00 | .1919 | .0084  | -.1718 | .0213           | .0013  | -.2164 |
| 6    | -5.00  | .1762 | -.0110 | -.1555 | .0145           | -.0017 | -.1104 |
| 7    | -2.50  | .1711 | -.0169 | -.1357 | .0159           | -.0018 | -.0638 |
| 8    | .00    | .1703 | -.0202 | -.1389 | .0160           | -.0040 | -.0102 |
| 9    | 2.50   | .1723 | -.0185 | -.1474 | .0160           | -.0004 | .0404  |
| 10   | 5.00   | .1770 | -.0136 | -.1605 | .0162           | -.0028 | .0893  |
| 11   | 10.00  | .1923 | .0008  | -.1817 | .0084           | .0002  | .1945  |
| 12   | 15.00  | .2087 | .0316  | -.2073 | -.0009          | .0010  | .3045  |
| 13   | .00    | .1687 | -.0169 | -.1394 | .0159           | -.0040 | -.0101 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDR    | CPMB   | CYB <sup>W</sup> | CRMB   | CYB    |
|------|--------|-------|--------|--------|------------------|--------|--------|
| 2    | .00    | .1706 | .0866  | -.1226 | .0159            | -.0007 | -.0132 |
| 3    | .00    | .1711 | -.0192 | -.1436 | .0160            | -.0017 | -.0149 |
| 4    | -15.00 | .2032 | -.0414 | -.1697 | .0321            | .0130  | -.3305 |
| 5    | -10.00 | .1919 | -.0204 | -.1703 | .0213            | .0068  | -.2146 |
| 6    | -5.00  | .1762 | -.0207 | -.1540 | .0145            | .0008  | -.1090 |
| 7    | -2.50  | .1711 | -.0197 | -.1352 | .0159            | -.0007 | -.0630 |
| 8    | .00    | .1703 | -.0202 | -.1389 | .0160            | -.0040 | -.0102 |
| 9    | 2.50   | .1723 | -.0203 | -.1473 | .0160            | -.0016 | .0396  |
| 10   | 5.00   | .1770 | -.0214 | -.1612 | .0162            | -.0054 | .0877  |
| 11   | 10.00  | .1923 | -.0332 | -.1787 | .0084            | -.0057 | .1917  |
| 12   | 15.00  | .2087 | -.0486 | -.1987 | -.0009           | -.0001 | .3022  |
| 13   | .00    | .1687 | -.0169 | -.1394 | .0159            | -.0040 | -.0101 |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

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P 315

RUN 373 CONFIG F P R W5 NP1 T DT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM   |
| 2       | .0        | .0      | 64.8        | 40.58       | -291.        | 19.          | 50.          | 1.72        | 55.50 | 129.22  | 3670. |
| 3       | -8.1      | .0      | -159.2      | 49.56       | -283.        | -43.         | -31.         | 7.63        | 55.80 | 129.57  | 3710. |
| 4       | -4.0      | .0      | -55.4       | 41.59       | -371.        | -11.         | -6.          | 3.92        | 55.61 | 129.34  | 3680. |
| 5       | -.0       | .0      | 63.9        | 41.02       | -284.        | 30.          | 13.          | 3.54        | 54.92 | 128.52  | 3690. |
| 6       | 2.5       | .0      | 141.3       | 44.11       | -248.        | 51.          | 31.          | 3.44        | 55.41 | 129.10  | 3730. |
| 7       | 5.0       | .0      | 219.6       | 51.02       | -252.        | 70.          | 33.          | 2.28        | 55.23 | 128.89  | 3790. |
| 8       | 10.0      | .0      | 374.8       | 75.12       | -337.        | 83.          | 70.          | .87         | 54.90 | 128.50  | 3970. |
| 9       | -.0       | .0      | 63.6        | 40.37       | -289.        | 33.          | 30.          | 3.73        | 55.68 | 129.43  | 3690. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|-------|--------|-------|--------|--------|--------|-------|
| 2    | .00   | .1751  | .1097 | -.0938 | .0011  | .0030  | .0046 |
| 3    | -8.08 | -.4303 | .1339 | -.0913 | -.0026 | -.0018 | .0206 |
| 4    | -4.04 | -.1498 | .1124 | -.1196 | -.0007 | -.0004 | .0106 |
| 5    | -.01  | .1728  | .1109 | -.0915 | .0018  | .0008  | .0096 |
| 6    | 2.53  | .3819  | .1192 | -.0800 | .0031  | .0019  | .0093 |
| 7    | 4.98  | .5935  | .1379 | -.0812 | .0042  | .0020  | .0062 |
| 8    | 10.01 | 1.0130 | .2030 | -.1088 | .0050  | .0042  | .0023 |
| 9    | -.00  | .1718  | .1091 | -.0932 | .0020  | .0018  | .0101 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR   | CPMB   | CYMB   | CRMB   | CYB   |
|------|-------|--------|-------|--------|--------|--------|-------|
| 2    | .00   | .1751  | .1097 | -.0938 | .0011  | .0030  | .0046 |
| 3    | -8.08 | -.4303 | .1339 | -.0913 | -.0026 | -.0018 | .0206 |
| 4    | -4.04 | -.1498 | .1124 | -.1196 | -.0007 | -.0004 | .0106 |
| 5    | -.01  | .1728  | .1109 | -.0915 | .0018  | .0008  | .0096 |
| 6    | 2.53  | .3819  | .1192 | -.0800 | .0031  | .0019  | .0093 |
| 7    | 4.98  | .5935  | .1379 | -.0812 | .0042  | .0020  | .0062 |
| 8    | 10.01 | 1.0130 | .2030 | -.1088 | .0050  | .0042  | .0023 |
| 9    | -.00  | .1718  | .1091 | -.0932 | .0020  | .0018  | .0101 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 3/6

RUN 374 CONFIG F P R W5 N P1 T2

| IW      | 7.5 DELF  | O DELA  | O IHT       | - DELE      | - DELR       | - DELSB      | -            | -           | -     |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | -3879.2     | 41.12       | -15002.      | 22.          | 233256.      | .00         | 55.66 | 129.39  | 3810.  |
| 3       | -.0       | .0      | 222.8       | -6.64       | -287.        | 26.          | 33.          | 1.35        | 55.64 | 129.36  | 12280. |
| 4       | -8.0      | .0      | -17.2       | -13.37      | -972.        | 36.          | 14.          | 2.13        | 55.98 | 129.75  | 12250. |
| 5       | -4.0      | .0      | 103.4       | -13.37      | -635.        | 28.          | 14.          | 2.13        | 56.03 | 129.81  | 12220. |
| 6       | -.0       | .0      | 219.6       | -6.27       | -266.        | 41.          | 32.          | 2.32        | 55.87 | 129.62  | 12260. |
| 7       | 2.5       | .0      | 282.0       | 1.49        | -23.         | 36.          | 33.          | 1.10        | 55.91 | 129.67  | 12270. |
| 8       | 5.0       | .0      | 353.0       | 11.67       | 221.         | 50.          | 51.          | 1.35        | 55.54 | 129.23  | 12280. |
| 9       | 9.9       | .0      | 420.5       | 41.85       | 577.         | 27.          | 104.         | .00         | 55.94 | 129.69  | 12240. |
| 10      | 14.9      | .0      | 447.2       | 87.37       | 902.         | 49.          | 53.          | -.74        | 55.44 | 129.11  | 12230. |
| 11      | 20.0      | .0      | 503.5       | 158.21      | 1191.        | 47.          | -254.        | 3.58        | 57.03 | 130.97  | 12280. |
| 12      | .0        | .0      | 214.0       | -5.75       | -244.        | 56.          | 31.          | 2.23        | 56.56 | 130.41  | 12310. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL       | CD     | CPM     | CYM   | CRM     | CY     |
|------|-------|----------|--------|---------|-------|---------|--------|
| 2    | .00   | -10.4844 | .1111  | -4.8366 | .0014 | 14.0895 | .0000  |
| 3    | -.02  | .6021    | -.0179 | -.0913  | .0016 | .0020   | .0036  |
| 4    | -8.01 | -.0465   | -.0361 | -.3134  | .0022 | .0008   | .0058  |
| 5    | -3.98 | .2794    | -.0361 | -.2046  | .0017 | .0009   | .0058  |
| 6    | -.01  | .5935    | -.0170 | -.0857  | .0024 | .0019   | .0063  |
| 7    | 2.48  | .7782    | .0051  | -.0076  | .0022 | .0020   | .0030  |
| 8    | 4.99  | .9541    | .0315  | .0713   | .0030 | .0031   | .0036  |
| 9    | 9.94  | 1.1366   | .1131  | .1861   | .0016 | .0063   | .0000  |
| 10   | 14.92 | 1.2087   | .2361  | .2909   | .0030 | .0032   | -.0020 |
| 11   | 20.00 | 1.3607   | .4276  | .3840   | .0028 | -.0154  | .0097  |
| 12   | .01   | .5783    | -.0156 | -.0788  | .0034 | .0019   | .0060  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB      | CDR    | CPMB    | CYMR  | CRMB    | CYB    |
|------|-------|----------|--------|---------|-------|---------|--------|
| 2    | .00   | -10.4844 | .1111  | -4.8366 | .0014 | 14.0895 | .0000  |
| 3    | -.02  | .6021    | -.0179 | -.0913  | .0016 | .0020   | .0036  |
| 4    | -8.01 | -.0465   | -.0361 | -.3134  | .0022 | .0008   | .0058  |
| 5    | -3.98 | .2794    | -.0361 | -.2046  | .0017 | .0009   | .0058  |
| 6    | -.01  | .5935    | -.0170 | -.0857  | .0024 | .0019   | .0063  |
| 7    | 2.48  | .7782    | .0051  | -.0076  | .0022 | .0020   | .0030  |
| 8    | 4.99  | .9541    | .0315  | .0713   | .0030 | .0031   | .0036  |
| 9    | 9.94  | 1.1366   | .1131  | .1861   | .0016 | .0063   | .0000  |
| 10   | 14.92 | 1.2087   | .2361  | .2909   | .0030 | .0032   | -.0020 |
| 11   | 20.00 | 1.3607   | .4276  | .3840   | .0028 | -.0154  | .0097  |
| 12   | .01   | .5783    | -.0156 | -.0788  | .0034 | .0019   | .0060  |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011

P317

RUN 384 CONFIG F P H W5 T2

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | -155.8      | 23.04       | -367.        | 67.          | 12.          | 5.04        | 54.07 | 127.51  | 0. |
| 3       | .0        | .0      | -154.1      | 22.69       | -347.        | 71.          | 11.          | 5.47        | 54.79 | 128.38  | 0. |
| 4       | -20.0     | .0      | -228.6      | 158.59      | -307.        | 47.          | 40.          | 13.54       | 55.08 | 128.71  | 0. |
| 5       | -15.0     | .0      | -217.7      | 126.75      | -288.        | 128.         | 51.          | 9.34        | 55.06 | 128.69  | 0. |
| 6       | -10.1     | .0      | -223.0      | 96.89       | -319.        | 109.         | 325.         | 6.87        | 54.54 | 128.07  | 0. |
| 7       | -5.0      | .0      | -213.1      | 51.45       | -392.        | 44.          | 368.         | 3.88        | 54.42 | 127.93  | 0. |
| 8       | -.0       | .0      | -154.5      | 22.77       | -364.        | 69.          | 27.          | 6.55        | 54.63 | 128.18  | 0. |
| 9       | 5.0       | .0      | -27.4       | 17.81       | -191.        | 77.          | 67.          | 4.96        | 54.28 | 127.77  | 0. |
| 10      | 10.1      | .0      | 106.2       | 19.97       | 63.          | 85.          | 17.          | 1.44        | 54.54 | 128.07  | 0. |
| 11      | 15.0      | .0      | 240.7       | 31.44       | 355.         | 56.          | 89.          | .25         | 54.54 | 128.07  | 0. |
| 12      | 20.1      | .0      | 361.9       | 59.33       | 703.         | 38.          | 107.         | -.81        | 54.42 | 127.93  | 0. |
| 13      | -.0       | .0      | -154.9      | 23.05       | -365.        | 80.          | 47.          | 5.18        | 54.62 | 128.17  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | C <sub>D</sub> | CP <sub>M</sub> | C <sub>Y</sub> | CR <sub>M</sub> | C <sub>Y</sub> |
|------|--------|--------|----------------|-----------------|----------------|-----------------|----------------|
| 2    | .00    | -.4211 | .0623          | -.1133          | .0041          | .0007           | .0136          |
| 3    | .01    | -.4164 | .0613          | -.1118          | .0043          | .0007           | .0148          |
| 4    | -20.00 | -.6178 | .4286          | -.0989          | .0028          | .0024           | .0366          |
| 5    | -15.04 | -.5883 | .3426          | -.0928          | .0078          | .0031           | .0252          |
| 6    | -10.08 | -.6028 | .2619          | -.1028          | .0066          | .0196           | .0186          |
| 7    | -5.00  | -.5760 | .1390          | -.1263          | .0027          | .0222           | .0105          |
| 8    | -.03   | -.4177 | .0615          | -.1174          | .0042          | .0016           | .0177          |
| 9    | 5.02   | -.0739 | .0481          | -.0614          | .0047          | .0040           | .0134          |
| 10   | 10.06  | .2869  | .0540          | .0204           | .0051          | .0010           | .0039          |
| 11   | 14.99  | .6506  | .0850          | .1146           | .0034          | .0054           | .0007          |
| 12   | 20.05  | .9780  | .1360          | .2266           | .0023          | .0064           | -.0022         |
| 13   | -.01   | -.4186 | .0623          | -.1176          | .0048          | .0028           | .0140          |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | C <sub>DB</sub> | CP <sub>MB</sub> | C <sub>Y<sub>B</sub></sub> | CR <sub>MB</sub> | C <sub>Y<sub>B</sub></sub> |
|------|--------|--------|-----------------|------------------|----------------------------|------------------|----------------------------|
| 2    | .00    | -.4211 | .0623           | -.1183           | .0041                      | .0007            | .0136                      |
| 3    | .01    | -.4164 | .0613           | -.1118           | .0043                      | .0007            | .0148                      |
| 4    | -20.00 | -.6178 | .4286           | -.0989           | .0028                      | .0024            | .0366                      |
| 5    | -15.04 | -.5883 | .3426           | -.0928           | .0078                      | .0031            | .0252                      |
| 6    | -10.08 | -.6028 | .2619           | -.1028           | .0066                      | .0196            | .0186                      |
| 7    | -5.00  | -.5760 | .1390           | -.1263           | .0027                      | .0222            | .0105                      |
| 8    | -.03   | -.4177 | .0615           | -.1174           | .0042                      | .0016            | .0177                      |
| 9    | 5.02   | -.0739 | .0481           | -.0614           | .0047                      | .0040            | .0134                      |
| 10   | 10.06  | .2869  | .0540           | .0204            | .0051                      | .0010            | .0039                      |
| 11   | 14.99  | .6506  | .0850           | .1146            | .0034                      | .0054            | .0007                      |
| 12   | 20.05  | .9780  | .1360           | .2266            | .0023                      | .0064            | -.0022                     |
| 13   | -.01   | -.4186 | .0623           | -.1176           | .0048                      | .0028            | .0140                      |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011

P 31F

RUN 385 CONFIG F P B W5 T2

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | -           | RPM   |         |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |
| 2       | .0        | .0      | 52.9        | 16.78       | -249.        | 69.          | 13.          | 3.69        | 54.47 | 128.00  |
| 3       | -20.0     | .0      | -230.6      | 107.35      | -342.        | 18.          | 229.         | 15.41       | 55.04 | 128.67  |
| 4       | -15.1     | .0      | -202.1      | 71.03       | -425.        | 15.          | 287.         | 7.12        | 54.53 | 128.06  |
| 5       | -10.0     | .0      | -193.3      | 25.43       | -488.        | 69.          | 43.          | 5.64        | 54.39 | 127.89  |
| 6       | -4.9      | .0      | -73.4       | 16.54       | -391.        | 60.          | 10.          | 4.84        | 54.92 | 128.53  |
| 7       | .0        | .0      | 53.6        | 16.25       | -247.        | 65.          | 30.          | 3.85        | 54.84 | 128.44  |
| 8       | 5.0       | .0      | 186.8       | 24.52       | -41.         | 75.          | 69.          | 2.25        | 54.47 | 128.00  |
| 9       | 10.0      | .0      | 313.9       | 38.06       | 225.         | 73.          | 53.          | 1.32        | 54.33 | 127.82  |
| 10      | 14.0      | .0      | 420.2       | 61.82       | 482.         | 21.          | 125.         | .57         | 54.05 | 127.49  |
| 11      | 20.0      | .0      | 416.6       | 96.43       | 558.         | -1.          | 228.         | -1.42       | 55.12 | 128.77  |
| 12      | .0        | .0      | 52.1        | 16.74       | -245.        | 68.          | 48.          | 3.80        | 54.61 | 128.16  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .1431  | .0443 | -.0802 | .0042  | .0008 | .0100  |
| 3    | -20.02 | -.6233 | .2901 | -.1101 | .0011  | .0138 | .0416  |
| 4    | -15.13 | -.5462 | .1944 | -.1371 | .0009  | .0174 | .0192  |
| 5    | -10.03 | -.5224 | .0687 | -.1574 | .0042  | .0026 | .0152  |
| 6    | -4.94  | -.1984 | .0447 | -.1259 | .0036  | .0006 | .0131  |
| 7    | .02    | .1448  | .0439 | -.0796 | .0039  | .0018 | .0104  |
| 8    | 4.98   | .5048  | .0663 | -.0133 | .0045  | .0042 | .0061  |
| 9    | 10.04  | .8484  | .1053 | .0727  | .0044  | .0032 | .0036  |
| 10   | 14.92  | 1.1356 | .1671 | .1555  | .0013  | .0076 | .0015  |
| 11   | 19.97  | 1.1260 | .2606 | .1801  | -.0001 | .0138 | -.0038 |
| 12   | .01    | .1408  | .0442 | -.0790 | .0041  | .0029 | .0103  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDP   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .1431  | .0443 | -.0802 | .0042  | .0008 | .0100  |
| 3    | -20.02 | -.6233 | .2901 | -.1101 | .0011  | .0138 | .0416  |
| 4    | -15.13 | -.5462 | .1944 | -.1371 | .0009  | .0174 | .0192  |
| 5    | -10.03 | -.5224 | .0687 | -.1574 | .0042  | .0026 | .0152  |
| 6    | -4.94  | -.1984 | .0447 | -.1259 | .0036  | .0006 | .0131  |
| 7    | .02    | .1448  | .0439 | -.0796 | .0039  | .0018 | .0104  |
| 8    | 4.98   | .5048  | .0663 | -.0133 | .0045  | .0042 | .0061  |
| 9    | 10.04  | .8484  | .1053 | .0727  | .0044  | .0032 | .0036  |
| 10   | 14.92  | 1.1356 | .1671 | .1555  | .0013  | .0076 | .0015  |
| 11   | 19.97  | 1.1260 | .2606 | .1801  | -.0001 | .0138 | -.0038 |
| 12   | .01    | .1408  | .0442 | -.0790 | .0041  | .0029 | .0103  |

RUN 386 CONFIG F P B W5 T2

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            | -           | RPM   |         |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|
| PT. NO. | ALPHA DEG | PSI DEG | CLPAR SQ-FT | CPBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |
| 1       | .0        | .0      | 50.8        | 16.46       | -256.        | 69.          | -5.          | 3.88        | 54.43 | 127.94  |
| 2       | .0        | -20.0   | 73.8        | 48.27       | -260.        | -310.        | 627.         | -107.57     | 54.56 | 128.10  |
| 3       | .0        | -15.0   | 70.6        | 31.38       | -206.        | -458.        | 107.         | -74.61      | 54.56 | 128.10  |
| 4       | .0        | -10.0   | 60.2        | 22.10       | -281.        | -292.        | 52.          | -47.55      | 55.09 | 128.73  |
| 5       | .0        | -2.5    | 54.0        | 16.70       | -285.        | -37.         | 35.          | -9.30       | 54.55 | 128.09  |
| 6       | .0        | .0      | 53.2        | 16.32       | -267.        | 68.          | 48.          | 3.81        | 54.56 | 128.10  |
| 7       | .0        | 2.5     | 53.1        | 17.21       | -252.        | 122.         | 25.          | 3.75        | 54.58 | 128.12  |
| 8       | .0        | 5.0     | 56.1        | 18.66       | -218.        | 266.         | -31.         | 28.68       | 54.52 | 128.05  |
| 9       | .0        | 10.0    | 60.1        | 23.26       | -129.        | 423.         | -75.         | 52.18       | 54.77 | 128.35  |
| 10      | .0        | 15.0    | 65.5        | 31.34       | 27.          | 559.         | -140.        | 76.72       | 54.17 | 127.63  |
| 11      | .0        | 20.0    | 68.6        | 44.77       | 228.         | 621.         | -296.        | 104.31      | 53.16 | 128.81  |
| 12      | .0        | .0      | 52.9        | 16.47       | -265.        | 62.          | 13.          | 3.48        | 54.85 | 128.45  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS -

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 1    | .00    | .1372 | .0445 | -.0825 | .0041  | -.0003 | .0105  |
| 2    | -20.00 | .1993 | .1305 | -.0868 | -.0187 | .0379  | -.2907 |
| 3    | -15.00 | .1907 | .0848 | -.0663 | -.0277 | .0065  | -.2017 |
| 4    | -10.00 | .1627 | .0597 | -.0908 | -.0176 | .0031  | -.1285 |
| 5    | -2.50  | .1460 | .0451 | -.0919 | -.0022 | .0021  | -.0251 |
| 6    | .00    | .1439 | .0441 | -.0861 | .0041  | .0029  | .0103  |
| 7    | 2.50   | .1434 | .0465 | -.0814 | .0074  | .0015  | .0101  |
| 8    | 5.00   | .1516 | .0504 | -.0704 | .0161  | -.0019 | .0775  |
| 9    | 10.00  | .1623 | .0629 | -.0415 | .0255  | -.0045 | .1410  |
| 10   | 15.00  | .1771 | .0847 | .0087  | .0337  | -.0085 | .2073  |
| 11   | 20.00  | .1854 | .1210 | .0734  | .0375  | -.0179 | .2819  |
| 12   | .00    | .1431 | .0445 | -.0854 | .0038  | .0008  | .0094  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 1    | .00    | .1372 | .0445 | -.0825 | .0041  | -.0003 | .0105  |
| 2    | -20.00 | .1993 | .0227 | -.1509 | -.0187 | .0412  | -.3178 |
| 3    | -15.00 | .1907 | .0295 | -.0730 | -.0277 | .0095  | -.2168 |
| 4    | -10.00 | .1627 | .0364 | -.0923 | -.0176 | .0060  | -.1370 |
| 5    | -2.50  | .1460 | .0440 | -.0923 | -.0022 | .0029  | -.0271 |
| 6    | .00    | .1439 | .0441 | -.0861 | .0041  | .0029  | .0103  |
| 7    | 2.50   | .1434 | .0460 | -.0809 | .0074  | .0008  | .0122  |
| 8    | 5.00   | .1516 | .0434 | -.0719 | .0161  | -.0030 | .0816  |
| 9    | 10.00  | .1623 | .0373 | -.0451 | .0255  | -.0058 | .1498  |
| 10   | 15.00  | .1771 | .0279 | -.0033 | .0337  | -.0078 | .2222  |
| 11   | 20.00  | .1854 | .0168 | .0361  | .0375  | -.0121 | .3063  |
| 12   | .00    | .1431 | .0445 | -.0854 | .0038  | .0008  | .0094  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 320

RUN 387 CONFIG F P B W5 T2

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | - DELE      | - DELR       | - DFLSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 1       | -0        | .0      | 374.5       | 52.77       | -198.        | 65.          | 143.         | -.06        | 54.36 | 127.86  | 0. |
| 2       | -20.0     | .0      | -119.9      | 22.20       | -534.        | 98.          | 59.          | 5.04        | 54.76 | 128.34  | 0. |
| 3       | -15.1     | .0      | -5.1        | 18.98       | -571.        | 93.          | 51.          | .93         | 54.90 | 128.50  | 0. |
| 4       | -10.0     | .0      | 127.9       | 22.64       | -514.        | 87.          | 84.          | 1.98        | 55.16 | 128.81  | 0. |
| 5       | -5.0      | .0      | 259.9       | 35.17       | -386.        | 64.          | 86.          | 1.05        | 55.09 | 128.73  | 0. |
| 6       | .1        | .0      | 374.5       | 52.85       | -201.        | 68.          | 88.          | .25         | 54.91 | 128.51  | 0. |
| 7       | 5.0       | .0      | 392.1       | 81.14       | -109.        | 46.          | 194.         | -.99        | 55.27 | 128.94  | 0. |
| 8       | 10.0      | .0      | 350.1       | 114.87      | -70.         | 4.           | 123.         | -1.06       | 55.74 | 129.49  | 0. |
| 9       | 15.1      | .0      | 273.8       | 165.25      | -171.        | 250.         | -418.        | 13.50       | 56.01 | 129.81  | 0. |
| 10      | 20.0      | .0      | 271.5       | 208.81      | -166.        | 192.         | -262.        | 6.66        | 55.24 | 128.90  | 0. |
| 11      | .0        | .0      | 370.8       | 52.13       | -198.        | 64.          | 124.         | -1.41       | 55.46 | 129.16  | 0. |
| 12      | 2.4       | .0      | 416.8       | 65.79       | -137.        | 61.          | 160.         | -1.48       | 55.08 | 128.72  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|------|--------|--------|-------|--------|-------|--------|--------|
| 1    | -.01   | 1.0120 | .1426 | -.0639 | .0039 | .0086  | -.0002 |
| 2    | -19.95 | -.3240 | .0600 | -.1723 | .0059 | .0036  | .0136  |
| 3    | -15.06 | -.0139 | .0513 | -.1841 | .0056 | .0031  | .0025  |
| 4    | -10.04 | .3458  | .0612 | -.1656 | .0052 | .0051  | .0053  |
| 5    | -5.00  | .7023  | .0951 | -.1246 | .0039 | .0052  | .0028  |
| 6    | .05    | 1.0121 | .1428 | -.0648 | .0041 | .0053  | .0007  |
| 7    | 4.97   | 1.0597 | .2193 | -.0350 | .0028 | .0117  | -.0027 |
| 8    | 9.99   | .9463  | .3105 | -.0254 | .0003 | .0074  | -.0053 |
| 9    | 15.08  | .7401  | .4466 | -.0552 | .0151 | -.0252 | .0365  |
| 10   | 19.98  | .7338  | .5644 | -.0536 | .0062 | -.0158 | .0180  |
| 11   | .04    | 1.0020 | .1409 | -.0639 | .0039 | .0075  | -.0038 |
| 12   | 2.43   | 1.1264 | .1778 | -.0441 | .0037 | .0097  | -.0040 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMP  | CRMB   | CYB    |
|------|--------|--------|-------|--------|-------|--------|--------|
| 1    | -.01   | 1.0120 | .1426 | -.0639 | .0039 | .0086  | -.0002 |
| 2    | -19.95 | -.3240 | .0600 | -.1723 | .0059 | .0036  | .0136  |
| 3    | -15.06 | -.0139 | .0513 | -.1841 | .0056 | .0031  | .0025  |
| 4    | -10.04 | .3458  | .0612 | -.1656 | .0052 | .0051  | .0053  |
| 5    | -5.00  | .7023  | .0951 | -.1246 | .0039 | .0052  | .0028  |
| 6    | .05    | 1.0121 | .1428 | -.0648 | .0041 | .0053  | .0007  |
| 7    | 4.97   | 1.0597 | .2193 | -.0350 | .0028 | .0117  | -.0027 |
| 8    | 9.99   | .9463  | .3105 | -.0254 | .0003 | .0074  | -.0053 |
| 9    | 15.08  | .7401  | .4466 | -.0552 | .0151 | -.0252 | .0365  |
| 10   | 19.98  | .7338  | .5644 | -.0536 | .0062 | -.0158 | .0180  |
| 11   | .04    | 1.0020 | .1409 | -.0639 | .0039 | .0075  | -.0038 |
| 12   | 2.43   | 1.1264 | .1778 | -.0441 | .0037 | .0097  | -.0040 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 32/

RUN 368 CONFIG F P R W5 T2

| IW      | 15 DELF   | 30 DELA | 0 IHT       | - DELE      | - DELR       | - DELSB      | -            |             |       |         |     |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SO-FT | CDBAR SO-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SO-FT | Q PSF | V KNOTS | RPM |
| 2       | .0        | .0      | 586.5       | 109.88      | -760.        | 57.          | 127.         | -3.03       | 55.07 | 128.71  | 0.  |
| 3       | -20.0     | .0      | 77.4        | 42.88       | -1217.       | 164.         | 65.          | -5.43       | 55.21 | 128.87  | 0.  |
| 4       | -15.1     | .0      | 210.4       | 50.82       | -1253.       | 119.         | 112.         | -3.38       | 55.40 | 129.10  | 0.  |
| 5       | -9.9      | .0      | 348.6       | 65.51       | -1169.       | 41.          | 102.         | 1.47        | 55.45 | 129.16  | 0.  |
| 6       | -5.1      | .0      | 473.6       | 86.22       | -1017.       | 49.          | 139.         | 1.23        | 55.18 | 128.84  | 0.  |
| 7       | .0        | .0      | 587.2       | 109.88      | -759.        | 54.          | 142.         | -2.21       | 55.55 | 129.27  | 0.  |
| 8       | 2.5       | .0      | 630.8       | 121.16      | -600.        | 44.          | 146.         | -4.83       | 55.01 | 128.63  | 0.  |
| 9       | 5.1       | .0      | 483.9       | 136.93      | -548.        | 25.          | 408.         | -5.85       | 55.31 | 128.99  | 0.  |
| 10      | 10.1      | .0      | 382.4       | 171.40      | -462.        | 53.          | 90.          | -3.75       | 55.46 | 129.15  | 0.  |
| 11      | 15.1      | .0      | 333.8       | 227.81      | -603.        | 215.         | -518.        | 1.94        | 56.16 | 129.98  | 0.  |
| 12      | 20.0      | .0      | 325.3       | 268.09      | -602.        | 83.          | -208.        | 3.00        | 55.64 | 129.37  | 0.  |
| 13      | -0.0      | .0      | 586.5       | 109.89      | -764.        | 46.          | 143.         | -2.82       | 55.50 | 129.21  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|------|--------|--------|-------|--------|-------|--------|--------|
| 2    | .00    | 1.5852 | .2970 | -.2449 | .0035 | .0077  | -.0082 |
| 3    | -19.98 | .2092  | .1159 | -.3923 | .0009 | .0039  | -.0147 |
| 4    | -15.11 | .5687  | .1374 | -.4041 | .0072 | .0068  | -.0091 |
| 5    | -9.93  | .9423  | .1771 | -.3769 | .0025 | .0062  | .0040  |
| 6    | -5.08  | 1.2800 | .2330 | -.3277 | .0030 | .0084  | .0033  |
| 7    | .02    | 1.5870 | .2973 | -.2446 | .0033 | .0086  | -.0060 |
| 8    | 2.54   | 1.7049 | .3275 | -.1933 | .0027 | .0088  | -.0131 |
| 9    | 5.08   | 1.3078 | .3701 | -.1767 | .0015 | .0247  | -.0158 |
| 10   | 10.11  | 1.0335 | .4632 | -.1489 | .0032 | .0054  | -.0101 |
| 11   | 15.07  | .9022  | .6157 | -.1943 | .0130 | -.0313 | .0052  |
| 12   | 19.98  | .8791  | .7246 | -.1940 | .0050 | -.0126 | .0081  |
| 13   | -.01   | 1.5851 | .2957 | -.2463 | .0028 | .0087  | -.0076 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMB  | CRMB   | CYB    |
|------|--------|--------|-------|--------|-------|--------|--------|
| 2    | .00    | 1.5852 | .2970 | -.2449 | .0035 | .0077  | -.0082 |
| 3    | -19.98 | .2092  | .1159 | -.3923 | .0009 | .0039  | -.0147 |
| 4    | -15.11 | .5687  | .1374 | -.4041 | .0072 | .0068  | -.0091 |
| 5    | -9.93  | .9423  | .1771 | -.3769 | .0025 | .0062  | .0040  |
| 6    | -5.08  | 1.2800 | .2330 | -.3277 | .0030 | .0084  | .0033  |
| 7    | .02    | 1.5870 | .2973 | -.2446 | .0033 | .0086  | -.0060 |
| 8    | 2.54   | 1.7049 | .3275 | -.1933 | .0027 | .0088  | -.0131 |
| 9    | 5.08   | 1.3078 | .3701 | -.1767 | .0015 | .0247  | -.0158 |
| 10   | 10.11  | 1.0335 | .4632 | -.1489 | .0032 | .0054  | -.0101 |
| 11   | 15.07  | .9022  | .6157 | -.1943 | .0130 | -.0313 | .0052  |
| 12   | 19.98  | .8791  | .7246 | -.1940 | .0050 | -.0126 | .0081  |
| 13   | -.01   | 1.5851 | .2957 | -.2463 | .0028 | .0087  | -.0076 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 322

RUN 389 CONFIG F P B W5 N T2

| IW      | 15 DELF   | 30 DELA | 0 IHT       | - DELE      | - DELR       | - DFLSB      | -            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | 0 PSF | V KNOTS |    |
| 5       | .0        | .0      | 439.2       | 114.33      | -630.        | 53.          | 139.         | .62         | 55.30 | 128.97  | 0. |
| 6       | -20.0     | .0      | 50.1        | 75.67       | -1479.       | 132.         | 64.          | 2.66        | 55.13 | 128.77  | 0. |
| 7       | -15.0     | .0      | 203.5       | 72.12       | -1601.       | 95.          | 38.          | -1.54       | 55.27 | 128.94  | 0. |
| 8       | -10.0     | .0      | 348.2       | 80.65       | -1369.       | 47.          | 65.          | 2.95        | 55.42 | 129.12  | 0. |
| 9       | -5.1      | .0      | 474.0       | 96.24       | -1059.       | 49.          | 120.         | .55         | 55.92 | 129.70  | 0. |
| 10      | -.1       | .0      | 578.2       | 118.86      | -667.        | 17.          | 142.         | -1.54       | 55.45 | 129.15  | 0. |
| 11      | 2.5       | .0      | 562.5       | 133.03      | -427.        | 28.          | 179.         | -4.41       | 55.59 | 129.31  | 0. |
| 12      | 5.0       | .0      | 440.8       | 143.54      | -350.        | 38.          | 70.          | -.74        | 55.55 | 129.26  | 0. |
| 13      | 10.0      | .0      | 394.8       | 186.64      | -183.        | 108.         | 122.         | -1.82       | 56.09 | 129.90  | 0. |
| 14      | 15.0      | .0      | 438.8       | 250.42      | 12.          | 136.         | -328.        | -2.37       | 56.10 | 129.91  | 0. |
| 16      | 20.0      | .0      | 428.2       | 301.54      | 194.         | 114.         | -52.         | -2.89       | 56.60 | 130.50  | 0. |
| 17      | -.0       | .0      | 578.5       | 110.23      | -669.        | 12.          | 142.         | -2.09       | 55.49 | 129.19  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|------|--------|--------|-------|--------|-------|--------|--------|
| 5    | .02    | 1.1871 | .3090 | -.2031 | .0032 | .0084  | .0017  |
| 6    | -20.00 | .1624  | .2045 | -.4768 | .0080 | .0039  | .0072  |
| 7    | -15.02 | .5499  | .1949 | -.5160 | .0057 | .0023  | -.0042 |
| 8    | -9.98  | .9412  | .2180 | -.4414 | .0028 | .0039  | .0080  |
| 9    | -5.08  | 1.2810 | .2601 | -.3415 | .0030 | .0073  | .0015  |
| 10   | -.09   | 1.5627 | .3212 | -.2150 | .0010 | .0086  | -.0042 |
| 11   | 2.51   | 1.5202 | .3595 | -.1376 | .0017 | .0108  | -.0119 |
| 12   | 5.02   | 1.1913 | .3879 | -.1130 | .0023 | .0043  | -.0020 |
| 13   | 10.04  | 1.0669 | .5044 | -.0591 | .0065 | .0074  | -.0049 |
| 14   | 14.99  | 1.1551 | .8162 | -.6690 | .0080 | .0005  | -.0130 |
| 16   | 19.98  | 1.1574 | .8150 | .0626  | .0069 | -.0031 | -.0078 |
| 17   | -.01   | 1.5635 | .3222 | -.2157 | .0007 | .0086  | -.0056 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMR   | CYMB  | CRMB   | CYB    |
|------|--------|--------|-------|--------|-------|--------|--------|
| 5    | .02    | 1.1871 | .3090 | -.2031 | .0032 | .0084  | .0017  |
| 6    | -20.00 | .1624  | .2045 | -.4768 | .0080 | .0039  | .0072  |
| 7    | -15.02 | .5499  | .1949 | -.5160 | .0057 | .0023  | -.0042 |
| 8    | -9.98  | .9412  | .2180 | -.4414 | .0028 | .0039  | .0080  |
| 9    | -5.08  | 1.2810 | .2601 | -.3415 | .0030 | .0073  | .0015  |
| 10   | -.09   | 1.5627 | .3212 | -.2150 | .0010 | .0086  | -.0042 |
| 11   | 2.51   | 1.5202 | .3595 | -.1376 | .0017 | .0108  | -.0119 |
| 12   | 5.02   | 1.1913 | .3879 | -.1130 | .0023 | .0043  | -.0020 |
| 13   | 10.04  | 1.0669 | .5044 | -.0591 | .0065 | .0074  | -.0049 |
| 14   | 14.99  | 1.1551 | .8162 | -.6690 | .0080 | .0005  | -.0130 |
| 16   | 19.98  | 1.1574 | .8150 | .0626  | .0069 | -.0031 | -.0078 |
| 17   | -.01   | 1.5635 | .3222 | -.2157 | .0007 | .0086  | -.0056 |

SIKORSKY PSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 323

RUN 390 CONFIG F P B W5 N T2

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | - DELF      | - DELR        | - DFLSB     | -            | -           | PPM   |         |    |
|---------|-----------|---------|-------------|-------------|---------------|-------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | 338.6       | 64.45       | -249.         | 49.         | -42.         | 5.85        | 55.28 | 128.96  | 0. |
| 3       | -20.0     | .0      | -80.1       | 53.02       | -906.         | 11.         | 57.          | 13.40       | 55.18 | 128.83  | 0. |
| 4       | -15.0     | .0      | 3.7         | 39.43       | -834.         | 52.         | 30.          | 2.48        | 55.01 | 128.63  | 0. |
| 6       | -5.0      | .0      | 263.5       | 44.46       | -526.         | 56.         | 69.          | .62         | 55.27 | 128.93  | 0. |
| 7       | -10.0     | .0      | 129.5       | 36.66       | -788.         | 69.         | 53.          | -.12        | 55.14 | 128.78  | 0. |
| 8       | .1        | .0      | 359.4       | 64.00       | -233.         | 18.         | 177.         | -2.74       | 55.90 | 129.68  | 0. |
| 9       | 2.6       | .0      | 372.6       | 80.58       | -151.         | 36.         | 159.         | -2.45       | 55.70 | 129.44  | 0. |
| 10      | 5.1       | .0      | 358.3       | 94.02       | -67.          | 27.         | 177.         | -2.77       | 55.39 | 129.08  | 0. |
| 11      | 9.9       | .0      | 339.8       | 136.44      | 59.           | 60.         | 333.         | -5.37       | 55.86 | 129.63  | 0. |
| 12      | 15.0      | .0      | 377.9       | 188.92      | 309.          | 53.         | -140.        | 3.17        | 55.80 | 129.56  | 0. |
| 13      | 20.1      | .0      | 398.0       | 239.82      | 560.          | 64.         | 52.          | -.67        | 55.99 | 129.78  | 0. |
| 14      | .1        | .0      | 361.9       | 65.41       | -236.         | 22.         | 125.         | -1.96       | 55.58 | 129.30  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|------|--------|--------|-------|--------|-------|--------|--------|
| 2    | .00    | .9151  | .1742 | -.0802 | .0030 | -.0026 | .0158  |
| 3    | -19.97 | -.2165 | .1433 | -.2920 | .0007 | .0035  | .0362  |
| 4    | -14.99 | .3448  | .1064 | -.0029 | .0041 | .0031  | .0023  |
| 6    | -5.02  | .7121  | .1202 | -.1696 | .0034 | .0042  | .0017  |
| 7    | -9.99  | .3501  | .0991 | -.2540 | .0042 | .0032  | -.0003 |
| 8    | .06    | .9714  | .1754 | -.0752 | .0011 | .0107  | -.0074 |
| 9    | 2.58   | 1.0071 | .2178 | -.0486 | .0022 | .0096  | -.0066 |
| 10   | 5.05   | .9684  | .2565 | -.0216 | .0016 | .0107  | -.0075 |
| 11   | 9.95   | .9183  | .3688 | .0189  | .0036 | .0201  | -.0145 |
| 12   | 15.04  | 1.0213 | .5106 | .0995  | .0032 | -.0084 | .0086  |
| 13   | 20.05  | 1.0758 | .6482 | .1805  | .0039 | .0031  | -.0018 |
| 14   | .07    | .9780  | .1768 | -.0759 | .0014 | .0075  | -.0053 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMB  | CRMB   | CYB    |
|------|--------|--------|-------|--------|-------|--------|--------|
| 2    | .00    | .9151  | .1742 | -.0802 | .0030 | -.0026 | .0158  |
| 3    | -19.97 | -.2165 | .1433 | -.2920 | .0007 | .0035  | .0362  |
| 4    | -14.99 | .3448  | .1064 | -.0029 | .0041 | .0031  | .0023  |
| 6    | -5.02  | .7121  | .1202 | -.1696 | .0034 | .0042  | .0017  |
| 7    | -9.99  | .3501  | .0991 | -.2540 | .0042 | .0032  | -.0003 |
| 8    | .06    | .9714  | .1754 | -.0752 | .0011 | .0107  | -.0074 |
| 9    | 2.58   | 1.0071 | .2178 | -.0486 | .0022 | .0096  | -.0066 |
| 10   | 5.05   | .9684  | .2565 | -.0216 | .0016 | .0107  | -.0075 |
| 11   | 9.95   | .9183  | .3688 | .0189  | .0036 | .0201  | -.0145 |
| 12   | 15.04  | 1.0213 | .5106 | .0995  | .0032 | -.0084 | .0086  |
| 13   | 20.05  | 1.0758 | .6482 | .1805  | .0039 | .0031  | -.0018 |
| 14   | .07    | .9780  | .1768 | -.0759 | .0014 | .0075  | -.0053 |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

RUN 397 CONFIG F P B N T2

| PT.# | ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CLBAR<br>SQ-FT | IHT<br>CDBAR<br>SQ-FT | DELE<br>CPMBAR<br>CU-FT | DELR<br>CYMBAR<br>CU-FT | DELR<br>CRMBAR<br>CU-FT | DELR<br>CYBAP<br>SQ-FT | DFLSR<br>Q<br>PSF | V<br>KNOTS | RPM |
|------|--------------|---------------------|-------------------------|-----------------------|-------------------------|-------------------------|-------------------------|------------------------|-------------------|------------|-----|
| 2    | .0           | .0                  | -10.6                   | 15.45                 | -234.                   | 56.                     | 36.                     | .00                    | 54.51             | 128.03     | 0.  |
| 3    | -20.0        | .0                  | -68.6                   | 53.83                 | -771.                   | 81.                     | 40.                     | 5.45                   | 55.00             | 128.61     | 0.  |
| 4    | -15.0        | .0                  | -50.9                   | 38.95                 | -653.                   | 48.                     | 49.                     | 1.67                   | 55.17             | 128.82     | 0.  |
| 5    | -10.0        | .0                  | -45.8                   | 24.50                 | -615.                   | -16.                    | 27.                     | 4.11                   | 55.54             | 129.26     | 0.  |
| 6    | -5.0         | .0                  | -34.0                   | 18.07                 | -466.                   | 47.                     | 50.                     | 2.10                   | 55.03             | 128.65     | 0.  |
| 7    | .0           | .0                  | -10.8                   | 14.91                 | -224.                   | 54.                     | 48.                     | 2.99                   | 55.76             | 129.52     | 0.  |
| 8    | 5.1          | .0                  | 13.3                    | 15.85                 | 16.                     | 69.                     | 34.                     | 1.11                   | 55.22             | 128.88     | 0.  |
| 9    | 10.1         | .0                  | 39.0                    | 19.42                 | 274.                    | 57.                     | 52.                     | 1.85                   | 55.11             | 128.74     | 0.  |
| 11   | 20.1         | .0                  | 97.1                    | 39.61                 | 775.                    | 4.                      | 35.                     | 2.10                   | 55.26             | 128.92     | 0.  |
| 12   | .1           | .0                  | -10.6                   | 15.09                 | -230.                   | 63.                     | 32.                     | 2.60                   | 55.06             | 128.69     | 0.  |
| 13   | 15.1         | .0                  | 68.4                    | 27.73                 | 524.                    | 19.                     | 52.                     | 2.10                   | 55.14             | 128.78     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM   | CY    |
|------|--------|--------|-------|--------|--------|-------|-------|
| 2    | .00    | -.0288 | .0418 | -.0754 | .0034  | .0021 | .0000 |
| 3    | -20.01 | -.1854 | .1455 | -.2487 | .0049  | .0024 | .0147 |
| 4    | -14.99 | -.1374 | .1053 | -.2106 | .0029  | .0030 | .0045 |
| 5    | -9.97  | -.1237 | .0662 | -.1981 | -.0010 | .0017 | .0111 |
| 6    | -4.99  | -.0918 | .0488 | -.1502 | .0028  | .0030 | .0057 |
| 7    | .04    | -.0293 | .0403 | -.0721 | .0033  | .0029 | .0081 |
| 8    | 5.05   | .0359  | .0428 | .0052  | .0042  | .0021 | .0030 |
| 9    | 10.06  | .1055  | .0525 | .0883  | .0035  | .0031 | .0050 |
| 11   | 20.05  | .2624  | .1071 | .2498  | .0002  | .0021 | .0057 |
| 12   | .05    | -.0286 | .0408 | -.0740 | .0038  | .0019 | .0070 |
| 13   | 15.06  | .1849  | .0749 | .1689  | .0012  | .0032 | .0057 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR   | CPMR   | CYMB   | CRMB  | CYB   |
|------|--------|--------|-------|--------|--------|-------|-------|
| 2    | .00    | -.0288 | .0418 | -.0754 | .0034  | .0021 | .0000 |
| 3    | -20.01 | -.1854 | .1455 | -.2487 | .0049  | .0024 | .0147 |
| 4    | -14.99 | -.1374 | .1053 | -.2106 | .0029  | .0030 | .0045 |
| 5    | -9.97  | -.1237 | .0662 | -.1981 | -.0010 | .0017 | .0111 |
| 6    | -4.99  | -.0918 | .0488 | -.1502 | .0028  | .0030 | .0057 |
| 7    | .04    | -.0293 | .0403 | -.0721 | .0033  | .0029 | .0081 |
| 8    | 5.05   | .0359  | .0428 | .0052  | .0042  | .0021 | .0030 |
| 9    | 10.06  | .1055  | .0525 | .0883  | .0035  | .0031 | .0050 |
| 11   | 20.05  | .2624  | .1071 | .2498  | .0002  | .0021 | .0057 |
| 12   | .05    | -.0286 | .0408 | -.0740 | .0038  | .0019 | .0070 |
| 13   | 15.06  | .1849  | .0749 | .1689  | .0012  | .0032 | .0057 |

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SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

RUN 392 CONFIG F P R N T2

| IW      | - DELF    |         | - DELA      | - IHT       |              | - DELE       | - DELR       |             | - DELSB |         | - | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|---------|---------|---|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLPAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF     | V KNOTS |   |     |
| 2       | .0        | .0      | -11.5       | 15.24       | -237.        | 53.          | 53.          | .06         | 54.82   | 128.40  |   | 0.  |
| 3       | .0        | -20.0   | -4.1        | 40.08       | -55.         | -408.        | 230.         | -87.72      | 54.95   | 128.55  |   | 0.  |
| 4       | .0        | -15.0   | -5.1        | 30.48       | -335.        | -208.        | 322.         | -65.33      | 55.48   | 129.18  |   | 0.  |
| 5       | .0        | -10.0   | -10.3       | 22.30       | -275.        | -89.         | 316.         | -42.57      | 55.14   | 128.78  |   | 0.  |
| 6       | .0        | -5.0    | -10.7       | 16.75       | -178.        | -60.         | 70.          | -17.43      | 55.31   | 128.98  |   | 0.  |
| 7       | .0        | -2.5    | -10.7       | 15.76       | -222.        | 11.          | 64.          | -5.91       | 54.76   | 128.32  |   | 0.  |
| 8       | .0        | .0      | -10.8       | 14.85       | -238.        | 64.          | 85.          | 2.42        | 54.96   | 128.57  |   | 0.  |
| 9       | .0        | 2.5     | -10.8       | 15.85       | -264.        | 123.         | 74.          | 13.44       | 54.99   | 128.60  |   | 0.  |
| 10      | .0        | 5.0     | -10.7       | 17.06       | -273.        | 179.         | 53.          | 23.27       | 55.49   | 129.19  |   | 0.  |
| 11      | .0        | 10.0    | -12.8       | 21.03       | -287.        | 286.         | 49.          | 44.47       | 55.16   | 128.80  |   | 0.  |
| 12      | .0        | 15.0    | -10.6       | 29.43       | -396.        | 395.         | 152.         | 66.77       | 55.51   | 129.21  |   | 0.  |
| 13      | .0        | 20.0    | -8.3        | 42.22       | -425.        | 450.         | 163.         | 89.37       | 54.58   | 128.11  |   | 0.  |
| 14      | .0        | .0      | -10.6       | 14.88       | -236.        | 62.          | 84.          | 2.38        | 55.77   | 129.53  |   | 0.  |
| 15      | .0        | 2.5     | -11.0       | 15.91       | -260.        | 124.         | 56.          | 13.59       | 55.41   | 129.10  |   | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | -.0311 | .0412 | -.0763 | .0072  | .0032 | .0002  |
| 3    | -20.00 | -.0111 | .1023 | -.0177 | -.0246 | .0139 | -.2371 |
| 4    | -15.00 | -.0138 | .0824 | -.1078 | -.0126 | .0195 | -.1766 |
| 5    | -10.00 | -.0278 | .0603 | -.0888 | -.0054 | .0191 | -.1150 |
| 6    | -5.00  | -.0290 | .0453 | -.0573 | -.0036 | .0042 | -.0471 |
| 7    | -2.50  | -.0289 | .0426 | -.0714 | .0007  | .0039 | -.0160 |
| 8    | .00    | -.0291 | .0401 | -.0766 | .0039  | .0051 | .0065  |
| 9    | 2.50   | -.0291 | .0428 | -.0851 | .0074  | .0045 | .0363  |
| 10   | 5.00   | -.0289 | .0461 | -.0880 | .0108  | .0032 | .0629  |
| 11   | 10.00  | -.0345 | .0568 | -.0926 | .0173  | .0029 | .1202  |
| 12   | 15.00  | -.0287 | .0796 | -.1278 | .0239  | .0002 | .1805  |
| 13   | 20.00  | -.0224 | .1141 | -.1371 | .0272  | .0099 | .2415  |
| 14   | .00    | -.0286 | .0402 | -.0760 | .0037  | .0051 | .0064  |
| 15   | 2.50   | -.0299 | .0430 | -.0839 | .0075  | .0034 | .0367  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR   | CPMB   | CYMR   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0311 | .0412 | -.0763 | .0072  | .0032  | .0002  |
| 3    | -20.00 | -.0111 | .0203 | -.0420 | -.0246 | .0142  | -.2599 |
| 4    | -15.00 | -.0138 | .0336 | -.1312 | -.0126 | .0241  | -.1919 |
| 5    | -10.00 | -.0278 | .0303 | -.1052 | -.0054 | .0217  | -.1238 |
| 6    | -5.00  | -.0290 | .0410 | -.0591 | -.0036 | .0052  | -.0509 |
| 7    | -2.50  | -.0289 | .0419 | -.0722 | .0007  | .0044  | -.0178 |
| 8    | .00    | -.0291 | .0401 | -.0766 | .0039  | .0051  | .0065  |
| 9    | 2.50   | -.0291 | .0412 | -.0839 | .0074  | .0038  | .0382  |
| 10   | 5.00   | -.0289 | .0404 | -.0861 | .0108  | .0017  | .0667  |
| 11   | 10.00  | -.0345 | .0350 | -.0834 | .0173  | -.0001 | .1283  |
| 12   | 15.00  | -.0287 | .0299 | -.1106 | .0239  | .0027  | .1949  |
| 13   | 20.00  | -.0224 | .0242 | -.1107 | .0272  | .0004  | .2660  |
| 14   | .00    | -.0286 | .0402 | -.0760 | .0037  | .0051  | .0064  |
| 15   | 2.50   | -.0299 | .0413 | -.0830 | .0075  | .0027  | .0386  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 394 CONFIG F P B N T RT

| IW      | - DELF    | - DELA  | - IHT       | 0 DELE      | 0 DELR       | 0 DFLSB      | 0            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLPAR SQ-FT | CPBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | .4          | 18.83       | -519.        | 74.          | 68.          | 1.92        | 55.03 | 128.65  | 0. |
| 3       | -20.0     | .0      | -131.4      | 71.09       | 1039.        | -71.         | 75.          | 6.01        | 54.94 | 128.54  | 0. |
| 4       | -15.0     | .0      | -92.3       | 46.06       | 537.         | -25.         | 75.          | 6.42        | 55.14 | 128.78  | 0. |
| 5       | -10.0     | .0      | -68.6       | 28.93       | 56.          | -17.         | 30.          | 2.78        | 55.22 | 128.87  | 0. |
| 6       | -5.0      | .0      | -38.7       | 21.33       | -284.        | 38.          | 63.          | 4.22        | 55.64 | 129.37  | 0. |
| 7       | -0        | .0      | .2          | 18.77       | -528.        | 74.          | 50.          | 2.04        | 55.07 | 128.69  | 0. |
| 8       | 5.0       | .0      | 43.9        | 21.30       | -827.        | 100.         | 85.          | 2.40        | 55.26 | 128.92  | 0. |
| 9       | 10.0      | .0      | 90.0        | 29.31       | -1172.       | 18.          | -178.        | 4.02        | 55.04 | 128.66  | 0. |
| 10      | 15.0      | .0      | 130.1       | 49.46       | -1368.       | 39.          | 122.         | 3.38        | 55.35 | 129.03  | 0. |
| 11      | 20.0      | .0      | 160.0       | 71.56       | -1256.       | -26.         | 53.          | 2.34        | 55.27 | 128.93  | 0. |
| 12      | .0        | .0      | .3          | 18.50       | -515.        | 84.          | 66.          | 3.39        | 55.21 | 128.86  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0011  | .0509 | -.1674 | .0045  | .0041  | .0052 |
| 3    | -19.99 | -.3552 | .1921 | .3350  | -.0043 | .0045  | .0163 |
| 4    | -14.99 | -.2494 | .1245 | .1731  | -.0015 | .0045  | .0174 |
| 5    | -9.98  | -.1853 | .0782 | .0182  | -.0011 | .0018  | .0075 |
| 6    | -4.99  | -.1045 | .0576 | -.0916 | .0023  | .0038  | .0114 |
| 7    | -.01   | .0007  | .0507 | -.1703 | .0045  | .0030  | .0055 |
| 8    | 5.01   | .1186  | .0576 | -.2668 | .0060  | .0052  | .0065 |
| 9    | 10.01  | .2433  | .0702 | -.3778 | .0011  | -.0108 | .0109 |
| 10   | 15.01  | .3517  | .1337 | -.4411 | .0024  | .0074  | .0091 |
| 11   | 20.01  | .4325  | .1934 | -.4049 | -.0016 | .0032  | .0063 |
| 12   | .01    | .0009  | .0500 | -.1661 | .0051  | .0040  | .0092 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYM3   | CRM3   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0011  | .0509 | -.1674 | .0045  | .0041  | .0052 |
| 3    | -19.99 | -.3552 | .1921 | .3350  | -.0043 | .0045  | .0163 |
| 4    | -14.99 | -.2494 | .1245 | .1731  | -.0015 | .0045  | .0174 |
| 5    | -9.98  | -.1853 | .0782 | .0182  | -.0011 | .0018  | .0075 |
| 6    | -4.99  | -.1045 | .0576 | -.0916 | .0023  | .0038  | .0114 |
| 7    | -.01   | .0007  | .0507 | -.1703 | .0045  | .0030  | .0055 |
| 8    | 5.01   | .1186  | .0576 | -.2668 | .0060  | .0052  | .0065 |
| 9    | 10.01  | .2433  | .0702 | -.3778 | .0011  | -.0108 | .0109 |
| 10   | 15.01  | .3517  | .1337 | -.4411 | .0024  | .0074  | .0091 |
| 11   | 20.01  | .4325  | .1934 | -.4049 | -.0016 | .0032  | .0063 |
| 12   | .01    | .0009  | .0500 | -.1661 | .0051  | .0040  | .0092 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

P 327

RUN 395 CONFIG F P P N T RT

| IW      | - DELF    | - DELA  | - JHT       | S DELE      | O DELR       | O DFLSR      | O            |             |       |         |     |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLRAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
| 2       | .0        | .0      | 25.3        | 20.47       | -1239.       | 63.          | 70.          | .56         | 54.81 | 128.38  | 0.  |
| 3       | -20.0     | .0      | -105.7      | 61.08       | 303.         | -43.         | 55.          | 6.90        | 54.83 | 128.41  | 0.  |
| 4       | -15.0     | .0      | -70.2       | 42.36       | -76.         | -20.         | 45.          | 3.75        | 55.35 | 129.03  | 0.  |
| 5       | -10.0     | .0      | -43.9       | 26.48       | -670.        | -14.         | 32.          | 1.67        | 55.08 | 128.71  | 0.  |
| 6       | -5.0      | .0      | -13.0       | 21.03       | -1021.       | 28.          | 48.          | 3.03        | 55.18 | 128.82  | 0.  |
| 7       | -.0       | .0      | 24.6        | 20.39       | -1236.       | 71.          | 68.          | 1.54        | 55.25 | 128.91  | 0.  |
| 8       | 5.0       | .0      | 65.9        | 25.68       | -1486.       | 91.          | 68.          | 1.84        | 55.40 | 129.08  | 0.  |
| 9       | 10.0      | .0      | 105.0       | 41.44       | -1724.       | 96.          | 87.          | .99         | 55.32 | 128.98  | 0.  |
| 10      | 15.0      | .0      | 135.9       | 60.30       | -1622.       | 13.          | 88.          | 2.23        | 54.98 | 128.59  | 0.  |
| 11      | 20.0      | .0      | 152.2       | 77.80       | -1105.       | -59.         | 36.          | 4.26        | 55.16 | 128.80  | 0.  |
| 12      | -.0       | .0      | 24.2        | 20.38       | -1235.       | 68.          | 53.          | -.12        | 55.01 | 128.63  | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | .0683  | .0553  | -.3993 | .0078  | .0042 | .0015  |
| 3    | -20.01 | -.2855 | .1651  | .0975  | -.0026 | .0033 | .0186  |
| 4    | -15.02 | -.1898 | .1145  | -.0246 | -.0012 | .0027 | .0101  |
| 5    | -10.00 | -.1187 | .0716  | -.2159 | -.0008 | .0019 | .0045  |
| 6    | -5.01  | -.0350 | .0568  | -.3293 | .0017  | .0029 | .0082  |
| 7    | -.01   | .0664  | .0551  | -.3986 | .0043  | .0041 | .0042  |
| 8    | 5.00   | .1780  | .0694  | -.4792 | .0055  | .0041 | .0050  |
| 9    | 9.99   | .2837  | .1120  | -.5556 | .0058  | .0053 | .0027  |
| 10   | 14.99  | .3673  | .1630  | -.5228 | .0008  | .0053 | .0060  |
| 11   | 19.99  | .4112  | .2103  | -.3563 | -.0036 | .0022 | .0115  |
| 12   | -.00   | .5478  | -.0527 | .0258  | .0362  | .6588 | -.2054 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR    | CPMB   | CYMR   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | .0683  | .0553  | -.3993 | .0078  | .0042 | .0015  |
| 3    | -20.01 | -.2855 | .1651  | .0975  | -.0026 | .0033 | .0186  |
| 4    | -15.02 | -.1898 | .1145  | -.0246 | -.0012 | .0027 | .0101  |
| 5    | -10.00 | -.1187 | .0716  | -.2159 | -.0008 | .0019 | .0045  |
| 6    | -5.01  | -.0350 | .0568  | -.3293 | .0017  | .0029 | .0082  |
| 7    | -.01   | .0664  | .0551  | -.3986 | .0043  | .0041 | .0042  |
| 8    | 5.00   | .1780  | .0694  | -.4792 | .0055  | .0041 | .0050  |
| 9    | 9.99   | .2837  | .1120  | -.5556 | .0058  | .0053 | .0027  |
| 10   | 14.99  | .3673  | .1630  | -.5228 | .0008  | .0053 | .0060  |
| 11   | 19.99  | .4112  | .2103  | -.3563 | -.0036 | .0022 | .0115  |
| 12   | -.00   | .5478  | -.0527 | .0258  | .0362  | .6588 | -.2054 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 396 CONFIG F P B N T RT

| IW      | - DELF    | - DELA  | - IHT       | -5 DELE     | 0 DELR       | 0 DELSB      | 0            |             |       |         |     |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
| 2       | .0        | .0      | -21.9       | 18.74       | 106.         | 55.          | 35.          | .06         | 55.40 | 129.09  | 0.  |
| 3       | -20.0     | .0      | -143.6      | 80.64       | 1527.        | -37.         | 39.          | 5.78        | 55.37 | 129.05  | 0.  |
| 4       | -15.0     | .0      | -114.1      | 56.13       | 1180.        | -51.         | 7.           | 5.21        | 54.87 | 128.46  | 0.  |
| 5       | -10.0     | .0      | -90.7       | 32.53       | 743.         | -46.         | 48.          | 2.07        | 55.88 | 129.65  | 0.  |
| 6       | -5.0      | .0      | -62.9       | 23.98       | 385.         | 12.          | 11.          | 4.04        | 54.84 | 128.42  | 0.  |
| 7       | .0        | .0      | -21.8       | 18.65       | 108.         | 55.          | 32.          | 2.39        | 55.68 | 129.42  | 0.  |
| 8       | 5.0       | .0      | 21.7        | 19.71       | -196.        | 85.          | 33.          | 2.59        | 55.19 | 128.83  | 0.  |
| 9       | 10.0      | .0      | 68.7        | 25.14       | -558.        | 69.          | 50.          | 3.49        | 55.62 | 129.34  | 0.  |
| 10      | 15.0      | .0      | 118.3       | 37.87       | -891.        | 9.           | 52.          | 1.16        | 55.86 | 129.63  | 0.  |
| 11      | 20.0      | .0      | 155.8       | 62.64       | -954.        | -18.         | 36.          | 6.15        | 55.42 | 129.11  | 0.  |
| 12      | -0.       | .0      | -21.8       | 18.66       | 109.         | 57.          | 31.          | 2.68        | 55.88 | 129.65  | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY    |
|------|--------|--------|-------|--------|--------|-------|-------|
| 2    | .00    | -.0591 | .0506 | .0343  | .0033  | .0021 | .0002 |
| 3    | -19.99 | -.3882 | .2179 | .4923  | -.0023 | .0024 | .0156 |
| 4    | -15.00 | -.3083 | .1517 | .3803  | -.0031 | .0004 | .0141 |
| 5    | -10.00 | -.2451 | .0879 | .2397  | -.0028 | .0029 | .0056 |
| 6    | -4.99  | -.1699 | .0648 | .1243  | .0007  | .0007 | .0109 |
| 7    | .01    | -.0589 | .0504 | .0348  | .0033  | .0019 | .0064 |
| 8    | 5.01   | .0586  | .0533 | -.0631 | .0051  | .0020 | .0070 |
| 9    | 10.01  | .1857  | .0680 | -.1800 | .0042  | .0030 | .0094 |
| 10   | 15.00  | .3196  | .1023 | -.2871 | .0006  | .0031 | .0031 |
| 11   | 19.99  | .4212  | .1693 | -.3076 | -.0011 | .0022 | .0166 |
| 12   | -.00   | -.0588 | .0504 | .0353  | .0035  | .0019 | .0072 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|--------|-------|--------|--------|-------|-------|
| 2    | .00    | -.0591 | .0506 | .0343  | .0033  | .0021 | .0002 |
| 3    | -19.99 | -.3882 | .2179 | .4923  | -.0023 | .0024 | .0156 |
| 4    | -15.00 | -.3083 | .1517 | .3803  | -.0031 | .0004 | .0141 |
| 5    | -10.00 | -.2451 | .0879 | .2397  | -.0028 | .0029 | .0056 |
| 6    | -4.99  | -.1699 | .0648 | .1243  | .0007  | .0007 | .0109 |
| 7    | .01    | -.0589 | .0504 | .0348  | .0033  | .0019 | .0064 |
| 8    | 5.01   | .0586  | .0533 | -.0631 | .0051  | .0020 | .0070 |
| 9    | 10.01  | .1857  | .0680 | -.1800 | .0042  | .0030 | .0094 |
| 10   | 15.00  | .3196  | .1023 | -.2871 | .0006  | .0031 | .0031 |
| 11   | 19.99  | .4212  | .1693 | -.3076 | -.0011 | .0022 | .0166 |
| 12   | -.00   | -.0588 | .0504 | .0353  | .0035  | .0019 | .0072 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

P 329

RUN 397 CONFIG F P B N T BT

| IW      | - DELF    | - DELA  | - IHT       | -9 DELE     | 0 DELR       | 0 DELSB      | 0            |             |       |           |     |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|-----------|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | 0 PSF | 0 V KNOTS | RPM |
| 2       | .0        | .0      | -42.9       | 20.62       | 715.         | 48.          | 17.          | .00         | 55.45 | 129.14    | 0.  |
| 3       | -20.0     | .0      | -151.9      | 91.50       | 1836.        | -35.         | 21.          | 6.07        | 55.55 | 129.26    | 0.  |
| 4       | -15.0     | .0      | -123.8      | 65.82       | 1502.        | -41.         | 7.           | 4.92        | 55.37 | 129.05    | 0.  |
| 5       | -10.0     | .0      | -111.2      | 39.51       | 1306.        | -74.         | 12.          | 3.35        | 54.89 | 128.48    | 0.  |
| 6       | -5.0      | .0      | -84.1       | 27.77       | 992.         | 10.          | 32.          | 2.22        | 55.20 | 128.85    | 0.  |
| 7       | .0        | .0      | -43.3       | 20.90       | 719.         | 55.          | 51.          | 1.86        | 54.90 | 128.49    | 0.  |
| 8       | 5.0       | .0      | 2.4         | 19.83       | 370.         | 02.          | 35.          | .12         | 54.97 | 128.58    | 0.  |
| 9       | 10.0      | .0      | 49.3        | 23.78       | 7.           | 70.          | 53.          | -.31        | 54.99 | 128.59    | 0.  |
| 10      | 15.0      | .0      | 100.7       | 34.70       | -359.        | -2.          | 52.          | 1.79        | 55.16 | 128.80    | 0.  |
| 11      | 20.0      | .0      | 147.9       | 51.81       | -643.        | -2.          | 70.          | 1.95        | 55.78 | 129.54    | 0.  |
| 12      | .0        | .0      | -43.3       | 20.73       | 722.         | 62.          | 32.          | 2.63        | 55.59 | 129.31    | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | -.1159 | .0557 | .2304  | .0029  | .0011 | .0000  |
| 3    | -19.99 | -.4107 | .2473 | .5918  | -.0021 | .0013 | .0164  |
| 4    | -15.00 | -.3346 | .1779 | .4843  | -.0025 | .0004 | .0133  |
| 5    | -9.99  | -.3006 | .1068 | .4210  | -.0045 | .0007 | .0091  |
| 6    | -4.99  | -.2273 | .0740 | .3197  | .0006  | .0019 | .0060  |
| 7    | .01    | -.1169 | .0565 | .2317  | .0033  | .0031 | .0050  |
| 8    | 5.01   | .0065  | .0536 | .1193  | .0055  | .0021 | .0003  |
| 9    | 10.00  | .1332  | .0643 | .0022  | .0042  | .0032 | -.0008 |
| 10   | 15.00  | .2722  | .0938 | -.1158 | -.0001 | .0032 | .0048  |
| 11   | 20.01  | .3998  | .1400 | -.2072 | -.0001 | .0042 | .0053  |
| 12   | .00    | -.1170 | .0560 | .2327  | .0037  | .0019 | .0071  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | -.1159 | .0557 | .2304  | .0029  | .0011 | .0000  |
| 3    | -19.99 | -.4107 | .2473 | .5918  | -.0021 | .0013 | .0164  |
| 4    | -15.00 | -.3346 | .1779 | .4843  | -.0025 | .0004 | .0133  |
| 5    | -9.99  | -.3006 | .1068 | .4210  | -.0045 | .0007 | .0091  |
| 6    | -4.99  | -.2273 | .0740 | .3197  | .0006  | .0019 | .0060  |
| 7    | .01    | -.1169 | .0565 | .2317  | .0033  | .0031 | .0050  |
| 8    | 5.01   | .0065  | .0536 | .1193  | .0055  | .0021 | .0003  |
| 9    | 10.00  | .1332  | .0643 | .0022  | .0042  | .0032 | -.0008 |
| 10   | 15.00  | .2722  | .0938 | -.1158 | -.0001 | .0032 | .0048  |
| 11   | 20.01  | .3998  | .1400 | -.2072 | -.0001 | .0042 | .0053  |
| 12   | .00    | -.1170 | .0560 | .2327  | .0037  | .0019 | .0071  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

P 330

RUN 398 CONFIG F P R N T RT

| IW      | - DELF    | - DELA  | - IHT       | -2.5 DELE   | 0 DELR       | 0 DELSR      | 0            |             |       |         | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |     |
| 3       | .0        | .0      | -10.3       | 18.56       | -243.        | 44.          | 35.          | .00         | 55.25 | 128.91  | 0.  |
| 4       | -10.0     | .0      | -80.1       | 30.59       | 384.         | -38.         | 14.          | 1.96        | 55.56 | 129.28  | 0.  |
| 5       | -5.0      | .0      | -49.9       | 22.42       | 0.           | 5.           | 29.          | 3.57        | 55.27 | 128.93  | 0.  |
| 6       | .0        | .0      | -9.4        | 18.62       | -246.        | 44.          | 50.          | 1.92        | 54.99 | 128.59  | 0.  |
| 7       | 5.0       | .0      | 33.2        | 20.51       | -530.        | 69.          | 34.          | 1.30        | 55.23 | 128.89  | 0.  |
| 8       | 10.0      | .0      | 80.8        | 26.96       | -922.        | 60.          | 52.          | 1.43        | 54.93 | 128.52  | 0.  |
| 9       | .0        | .0      | -10.4       | 18.61       | -246.        | 48.          | 32.          | 2.91        | 54.93 | 128.52  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY    |
|------|--------|--------|-------|--------|--------|-------|-------|
| 3    | .00    | -.0279 | .0502 | -.0784 | .0027  | .0021 | .0000 |
| 4    | -10.00 | -.2166 | .0827 | .1238  | -.0023 | .0008 | .0053 |
| 5    | -4.99  | -.1348 | .0606 | .0001  | .0003  | .0018 | .0097 |
| 6    | .01    | -.0253 | .0503 | -.0794 | .0027  | .0030 | .0052 |
| 7    | 5.00   | .0896  | .0554 | -.1738 | .0042  | .0020 | .0035 |
| 8    | 10.00  | .2183  | .0729 | -.2971 | .0036  | .0031 | .0039 |
| 9    | .00    | -.0280 | .0503 | -.0792 | .0029  | .0019 | .0079 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|--------|-------|--------|--------|-------|-------|
| 3    | .00    | -.0279 | .0502 | -.0784 | .0027  | .0021 | .0000 |
| 4    | -10.00 | -.2166 | .0827 | .1238  | -.0023 | .0008 | .0053 |
| 5    | -4.99  | -.1348 | .0606 | .0001  | .0003  | .0018 | .0097 |
| 6    | .01    | -.0253 | .0503 | -.0794 | .0027  | .0030 | .0052 |
| 7    | 5.00   | .0896  | .0554 | -.1738 | .0042  | .0020 | .0035 |
| 8    | 10.00  | .2183  | .0729 | -.2971 | .0036  | .0031 | .0039 |
| 9    | .00    | -.0280 | .0503 | -.0792 | .0029  | .0019 | .0079 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 399 CONFIG F P R N T RT

| IW      | - DELF    | - DELA  | - IHT       | -5 DELE     | 0 DELR       | 0 DFLSB      | 0            | PPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |    |
| 2       | .0        | .0      | -22.8       | 18.94       | 132.         | 46.          | 53.          | .06         | 55.01 | 128.63  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM   | CYM   | CRM   | CY    |
|------|-------|--------|-------|-------|-------|-------|-------|
| 2    | .00   | -.0618 | .0512 | .0426 | .0028 | .0032 | .0002 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDR   | CPMB  | CYMB  | CRMB  | CYB   |
|------|-------|--------|-------|-------|-------|-------|-------|
| 2    | .00   | -.0618 | .0512 | .0426 | .0028 | .0032 | .0002 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 400 CONFIG F P B W5 N T BT

| IW      | Q DELF    | Q DELA  | Q THT       | -6 DELE     | Q DELR       | Q DELSB      | Q            | RPM         |       |         |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |
| 2       | .0        | .0      | 55.6        | 25.79       | 521.         | 31.          | 18.          | .00         | 53.30 | 126.58  |
| 3       | -20.0     | .0      | -332.0      | 148.45      | 1471.        | -108.        | 287.         | 11.44       | 55.66 | 129.40  |
| 4       | -15.0     | .0      | -306.9      | 91.65       | 1081.        | -159.        | 491.         | 10.71       | 54.72 | 128.28  |
| 5       | -10.0     | .0      | -234.8      | 41.43       | 665.         | -51.         | 7.           | 5.57        | 55.05 | 128.68  |
| 6       | -5.0      | .0      | -91.2       | 28.39       | 584.         | -5.          | 43.          | 6.25        | 55.09 | 128.72  |
| 7       | .0        | .0      | 54.3        | 25.05       | 500.         | 50.          | 29.          | 4.89        | 54.98 | 128.59  |
| 8       | 5.0       | .0      | 206.4       | 36.19       | 407.         | 103.         | 51.          | 1.84        | 55.45 | 129.15  |
| 9       | 10.0      | .0      | 353.2       | 57.69       | 250.         | 113.         | 70.          | .50         | 54.91 | 128.51  |
| 10      | 15.0      | .0      | 449.8       | 95.37       | -90.         | 52.          | 160.         | -.75        | 54.63 | 128.17  |
| 11      | 20.0      | .0      | 502.3       | 144.09      | -551.        | 89.          | 244.         | -3.63       | 55.41 | 129.10  |
| 12      | .0        | .0      | 54.6        | 25.62       | 490.         | 39.          | 30.          | 3.88        | 55.31 | 128.98  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .1503  | .0697 | .1678  | .0019  | .0011 | .0000  |
| 3    | -20.00 | -.8972 | .4012 | .4743  | -.0065 | .0174 | .0309  |
| 4    | -15.00 | -.8296 | .2477 | .3484  | -.0096 | .0297 | .0289  |
| 5    | -10.01 | -.6345 | .1120 | .2145  | -.0031 | .0004 | .0151  |
| 6    | -5.00  | -.2464 | .0767 | .1884  | -.0003 | .0026 | .0169  |
| 7    | .00    | .1467  | .0701 | .1613  | .0030  | .0018 | .0132  |
| 8    | 5.01   | .5578  | .0978 | .1312  | .0062  | .0031 | .0050  |
| 9    | 10.00  | .9546  | .1559 | .0834  | .0068  | .0042 | .0013  |
| 10   | 15.00  | 1.2156 | .2577 | -.0320 | .0032  | .0097 | -.0020 |
| 11   | 20.00  | 1.3575 | .3894 | -.1777 | .0054  | .0147 | -.0098 |
| 12   | .00    | .1476  | .0692 | .1607  | .0024  | .0018 | .0105  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .1503  | .0697 | .1678  | .0019  | .0011 | .0000  |
| 3    | -20.00 | -.8972 | .4012 | .4743  | -.0065 | .0174 | .0309  |
| 4    | -15.00 | -.8296 | .2477 | .3484  | -.0096 | .0297 | .0289  |
| 5    | -10.01 | -.6345 | .1120 | .2145  | -.0031 | .0004 | .0151  |
| 6    | -5.00  | -.2464 | .0767 | .1884  | -.0003 | .0026 | .0169  |
| 7    | .00    | .1467  | .0701 | .1613  | .0030  | .0018 | .0132  |
| 8    | 5.01   | .5578  | .0978 | .1312  | .0062  | .0031 | .0050  |
| 9    | 10.00  | .9546  | .1559 | .0834  | .0068  | .0042 | .0013  |
| 10   | 15.00  | 1.2156 | .2577 | -.0320 | .0032  | .0097 | -.0020 |
| 11   | 20.00  | 1.3575 | .3894 | -.1777 | .0054  | .0147 | -.0098 |
| 12   | .00    | .1476  | .0692 | .1607  | .0024  | .0018 | .0105  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

P 333

RUN 401 CONFIG F P B W5 N T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | -4 DELE     | 0 DELR       | 0 DELSP      | 0            |             |       |         |     |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLRAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
| 2       | .0        | .0      | 65.3        | 25.35       | 230.         | 52.          | 64.          | 4.75        | 55.24 | 128.90  | 0.  |
| 3       | -20.0     | .0      | -328.7      | 140.56      | 1277.        | -165.        | 299.         | 7.99        | 55.03 | 128.64  | 0.  |
| 4       | -15.0     | .0      | -298.8      | 86.81       | 810.         | -125.        | 444.         | 14.59       | 55.12 | 128.75  | 0.  |
| 5       | -10.0     | .0      | -221.4      | 39.03       | 378.         | -25.         | 63.          | 3.70        | 55.26 | 128.92  | 0.  |
| 6       | -5.0      | .0      | -81.8       | 27.12       | 287.         | -1.          | 41.          | 7.40        | 55.21 | 128.87  | 0.  |
| 7       | .0        | .0      | 66.2        | 25.33       | 227.         | 55.          | 82.          | 4.74        | 55.35 | 129.03  | 0.  |
| 8       | 5.0       | .0      | 216.8       | 36.63       | 142.         | 107.         | 67.          | 3.45        | 55.25 | 128.91  | 0.  |
| 9       | 10.0      | .0      | 363.2       | 59.00       | -21.         | 101.         | 88.          | .06         | 55.01 | 128.63  | 0.  |
| 10      | 15.0      | .0      | 478.8       | 95.15       | -303.        | 53.          | 194.         | .31         | 54.90 | 128.40  | 0.  |
| 11      | 20.0      | .0      | 508.3       | 150.44      | -817.        | 97.          | 211.         | -3.04       | 54.89 | 128.48  | 0.  |
| 12      | -.0       | .0      | 64.8        | 25.44       | 219.         | 56.          | 46.          | 5.76        | 55.01 | 128.63  | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .1766  | .0685 | .0742  | .0032  | .0039 | .0128  |
| 3    | -20.02 | -.8884 | .3799 | .4117  | -.0100 | .0180 | .0216  |
| 4    | -15.00 | -.8076 | .2346 | .2611  | -.0076 | .0268 | .0394  |
| 5    | -10.00 | -.5984 | .1055 | .1219  | -.0015 | .0038 | .0100  |
| 6    | -5.01  | -.2211 | .0733 | .0925  | -.0001 | .0025 | .0200  |
| 7    | .01    | .1790  | .0684 | .0731  | .0033  | .0049 | .0128  |
| 8    | 5.00   | .5859  | .0990 | .0459  | .0065  | .0040 | .0093  |
| 9    | 10.00  | .9816  | .1595 | -.0066 | .0061  | .0053 | .0002  |
| 10   | 14.99  | 1.2939 | .2572 | -.0975 | .0032  | .0117 | .0008  |
| 11   | 20.00  | 1.3737 | .4066 | -.2635 | .0059  | .0128 | -.0082 |
| 12   | -.00   | .1752  | .0688 | .0707  | .0034  | .0028 | .0156  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .1766  | .0685 | .0742  | .0032  | .0039 | .0128  |
| 3    | -20.02 | -.8884 | .3799 | .4117  | -.0100 | .0180 | .0216  |
| 4    | -15.00 | -.8076 | .2346 | .2611  | -.0076 | .0268 | .0394  |
| 5    | -10.00 | -.5984 | .1055 | .1219  | -.0015 | .0038 | .0100  |
| 6    | -5.01  | -.2211 | .0733 | .0925  | -.0001 | .0025 | .0200  |
| 7    | .01    | .1790  | .0684 | .0731  | .0033  | .0049 | .0128  |
| 8    | 5.00   | .5859  | .0990 | .0459  | .0065  | .0040 | .0093  |
| 9    | 10.00  | .9816  | .1595 | -.0066 | .0061  | .0053 | .0002  |
| 10   | 14.99  | 1.2939 | .2572 | -.0975 | .0032  | .0117 | .0008  |
| 11   | 20.00  | 1.3737 | .4066 | -.2635 | .0059  | .0128 | -.0082 |
| 12   | -.00   | .1752  | .0688 | .0707  | .0034  | .0028 | .0156  |

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

P 334

RUN 402 CONFIG F P B W5 N T BT

| PT.<br>NO. | IW | 0 DELF       |            | 0 DELA         |                | 0 IHT           |                 | -2 DELE         |                | 0 DELR   |            | 0 DELSB |  | RPM |
|------------|----|--------------|------------|----------------|----------------|-----------------|-----------------|-----------------|----------------|----------|------------|---------|--|-----|
|            |    | ALPHA<br>DEG | PSI<br>DEG | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS |         |  |     |
| 2          |    | .0           | .0         | 70.3           | 25.10          | 108.            | 51.             | 46.             | 5.01           | 55.10    | 128.73     | 0.      |  |     |
| 3          |    | -20.0        | .0         | -322.9         | 137.30         | 1109.           | -161.           | 274.            | 10.55          | 55.19    | 128.84     | 0.      |  |     |
| 4          |    | -15.0        | .0         | -292.3         | 85.11          | 667.            | -120.           | 413.            | 10.91          | 55.59    | 129.32     | 0.      |  |     |
| 5          |    | -10.0        | .0         | -217.6         | 38.38          | 244.            | -5.             | 8.              | 5.07           | 55.12    | 128.76     | 0.      |  |     |
| 6          |    | -5.0         | .0         | -75.5          | 26.30          | 157.            | 5.              | 24.             | 6.78           | 55.28    | 128.94     | 0.      |  |     |
| 7          |    | .0           | .0         | 71.1           | 25.16          | 88.             | 58.             | 65.             | 4.52           | 55.00    | 128.62     | 0.      |  |     |
| 8          |    | 5.0          | .0         | 219.9          | 36.68          | 13.             | 110.            | 85.             | 2.72           | 55.19    | 128.84     | 0.      |  |     |
| 9          |    | 10.0         | .0         | 366.6          | 59.78          | -158.           | 106.            | 88.             | 1.12           | 54.71    | 128.27     | 0.      |  |     |
| 10         |    | 15.0         | .0         | 467.6          | 97.77          | -488.           | 84.             | 141.            | .74            | 54.95    | 128.55     | 0.      |  |     |
| 11         |    | 20.0         | .0         | 515.2          | 154.03         | -902.           | 95.             | 262.            | -1.05          | 55.33    | 129.01     | 0.      |  |     |
| 12         |    | .0           | .0         | 68.6           | 25.26          | 86.             | 56.             | 12.             | 4.43           | 54.65    | 128.19     | 0.      |  |     |

## \*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .1899  | .0678 | .0349  | .0031  | .0028 | .0135  |
| 3    | -19.99 | -.8726 | .3711 | .3575  | -.0097 | .0166 | .0285  |
| 4    | -14.99 | -.7899 | .2300 | .2150  | -.0073 | .0250 | .0295  |
| 5    | -10.00 | -.5882 | .1037 | .0787  | -.0003 | .0005 | .0137  |
| 6    | -5.00  | -.2041 | .0711 | .0507  | .0003  | .0015 | .0183  |
| 7    | .00    | .1922  | .0680 | .0283  | .0035  | .0039 | .0122  |
| 8    | 5.01   | .5944  | .0991 | .0043  | .0066  | .0051 | .0073  |
| 9    | 10.01  | .9908  | .1616 | -.0509 | .0064  | .0053 | .0030  |
| 10   | 15.01  | 1.2637 | .2642 | -.1574 | .0051  | .0085 | .0020  |
| 11   | 20.01  | 1.3924 | .4163 | -.2997 | .0058  | .0159 | -.0028 |
| 12   | .00    | .1855  | .0683 | .0276  | .0034  | .0007 | .0120  |

## \*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CPMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .1899  | .0678 | .0349  | .0031  | .0028 | .0135  |
| 3    | -19.99 | -.8726 | .3711 | .3575  | -.0097 | .0166 | .0285  |
| 4    | -14.99 | -.7899 | .2300 | .2150  | -.0073 | .0250 | .0295  |
| 5    | -10.00 | -.5882 | .1037 | .0787  | -.0003 | .0005 | .0137  |
| 6    | -5.00  | -.2041 | .0711 | .0507  | .0003  | .0015 | .0183  |
| 7    | .00    | .1922  | .0680 | .0283  | .0035  | .0039 | .0122  |
| 8    | 5.01   | .5944  | .0991 | .0043  | .0066  | .0051 | .0073  |
| 9    | 10.01  | .9908  | .1616 | -.0509 | .0064  | .0053 | .0030  |
| 10   | 15.01  | 1.2637 | .2642 | -.1574 | .0051  | .0085 | .0020  |
| 11   | 20.01  | 1.3924 | .4163 | -.2997 | .0058  | .0159 | -.0028 |
| 12   | .00    | .1855  | .0683 | .0276  | .0034  | .0007 | .0120  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 403 CONFIG F P B W5 N T BT

| IW      | Q DELF    | Q DELA  | Q IHT       | Q DELE      | Q DELR        | Q DFLSB      | Q             | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|---------------|--------------|---------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLRAR S0-FT | CPBAR S0-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR S0-FT | PSF   | V KNOTS |    |
| 2       | .0        | .0      | .0          | -6.82       | 0.            | 0.           | 0.            | .00         | 47.09 | 119.01  | 0. |
| 3       | .0        | .0      | 85.8        | 24.98       | -312.         | 38.          | 64.           | 4.74        | 55.38 | 129.06  | 0. |
| 4       | -20.0     | .0      | -312.0      | 133.18      | 685.          | -109.        | 157.          | 8.16        | 55.11 | 128.75  | 0. |
| 5       | -15.0     | .0      | -276.7      | 81.37       | 273.          | -107.        | 434.          | 9.69        | 55.53 | 129.24  | 0. |
| 6       | -10.0     | .0      | -203.1      | 36.15       | -192.         | 5.           | 10.           | 3.81        | 55.49 | 129.20  | 0. |
| 7       | -5.0      | .0      | -58.4       | 25.09       | -262.         | -6.          | 62.           | 5.15        | 55.51 | 129.22  | 0. |
| 8       | -.0       | .0      | 87.3        | 25.29       | -317.         | 37.          | 30.           | 4.00        | 55.30 | 128.97  | 0. |
| 9       | 5.0       | .0      | 238.1       | 37.50       | -399.         | 68.          | 70.           | .31         | 54.96 | 128.56  | 0. |
| 10      | 10.0      | .0      | 385.5       | 60.39       | -592.         | 66.          | 141.          | -.31        | 54.86 | 128.44  | 0. |
| 11      | 15.0      | .0      | 474.7       | 100.07      | -909.         | 39.          | 210.          | -.49        | 55.51 | 129.22  | 0. |
| 12      | 20.0      | .0      | 516.0       | 159.55      | -1187.        | 45.          | 175.          | -.68        | 55.18 | 128.82  | 0. |
| 13      | .0        | .0      | 86.7        | 25.24       | -307.         | 37.          | 83.           | 4.22        | 54.92 | 128.53  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | .0000  | -.0184 | .0000  | .0000  | .0000 | .0000  |
| 3    | .00    | .2320  | .0675  | -.1007 | .0023  | .0039 | .0128  |
| 4    | -19.99 | -.8432 | .3599  | .2207  | -.0066 | .0095 | .0220  |
| 5    | -15.00 | -.7479 | .2199  | .0879  | -.0064 | .0262 | .0262  |
| 6    | -10.01 | -.5488 | .0977  | -.0619 | .0003  | .0006 | .0103  |
| 7    | -5.03  | -.1578 | .0678  | -.0844 | -.0003 | .0037 | .0139  |
| 8    | -.01   | .2361  | .0684  | -.1022 | .0022  | .0018 | .0108  |
| 9    | 4.99   | .6436  | .1014  | -.1285 | .0041  | .0042 | .0008  |
| 10   | 10.00  | 1.0418 | .1632  | -.1909 | .0040  | .0085 | -.0008 |
| 11   | 15.00  | 1.2831 | .2705  | -.2929 | .0023  | .0127 | -.0013 |
| 12   | 20.00  | 1.3945 | .4312  | -.3826 | .0027  | .0106 | -.0018 |
| 13   | .00    | .2343  | .0682  | -.0988 | .0022  | .0050 | .0114  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR    | CPMR   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | .0000  | -.0184 | .0000  | .0000  | .0000 | .0000  |
| 3    | .00    | .2320  | .0675  | -.1007 | .0023  | .0039 | .0128  |
| 4    | -19.99 | -.8432 | .3599  | .2207  | -.0066 | .0095 | .0220  |
| 5    | -15.00 | -.7479 | .2199  | .0879  | -.0064 | .0262 | .0262  |
| 6    | -10.01 | -.5488 | .0977  | -.0619 | .0003  | .0006 | .0103  |
| 7    | -5.03  | -.1578 | .0678  | -.0844 | -.0003 | .0037 | .0139  |
| 8    | -.01   | .2361  | .0684  | -.1022 | .0022  | .0018 | .0108  |
| 9    | 4.99   | .6436  | .1014  | -.1285 | .0041  | .0042 | .0008  |
| 10   | 10.00  | 1.0418 | .1632  | -.1909 | .0040  | .0085 | -.0008 |
| 11   | 15.00  | 1.2831 | .2705  | -.2929 | .0023  | .0127 | -.0013 |
| 12   | 20.00  | 1.3945 | .4312  | -.3826 | .0027  | .0106 | -.0018 |
| 13   | .00    | .2343  | .0682  | -.0988 | .0022  | .0050 | .0114  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 404 CONFIG F P B W5 N T BT

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |    |
| 2       | .0        | .0      | -101.9      | 29.10       | -738.        | 65.          | 29.          | 4.99        | 54.59 | 128.13  | 0. |
| 3       | -20.0     | .0      | -290.5      | 173.43      | 567.         | 2.           | -26.         | 3.81        | 55.40 | 129.08  | 0. |
| 4       | -15.0     | .0      | -276.2      | 135.85      | 235.         | 126.         | 213.         | 7.47        | 55.21 | 128.86  | 0. |
| 5       | -10.0     | .0      | -243.2      | 93.19       | -274.        | 40.          | 128.         | 7.32        | 54.95 | 128.55  | 0. |
| 6       | -5.0      | .0      | -232.1      | 43.49       | -540.        | 30.          | 45.          | 5.20        | 55.06 | 128.68  | 0. |
| 7       | -0.       | .0      | -90.3       | 30.44       | -727.        | 53.          | 29.          | 4.89        | 55.01 | 128.63  | 0. |
| 8       | 5.0       | .0      | 51.3        | 30.02       | -822.        | 59.          | 50.          | 3.84        | 54.90 | 128.49  | 0. |
| 9       | 10.0      | .0      | 201.8       | 42.01       | -1017.       | 66.          | 69.          | 1.80        | 55.00 | 128.61  | 0. |
| 10      | 15.0      | .0      | 355.4       | 69.42       | -1142.       | 71.          | 88.          | 1.43        | 54.64 | 128.18  | 0. |
| 11      | 20.0      | .0      | 482.7       | 107.69      | -1024.       | 63.          | 140.         | 1.35        | 55.34 | 129.02  | 0. |
| 12      | .0        | .0      | -95.6       | 30.34       | -700.        | 56.          | 33.          | 2.04        | 55.13 | 128.77  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM   | CRM    | CY    |
|------|--------|--------|-------|--------|-------|--------|-------|
| 2    | .00    | -.2755 | .0787 | -.2378 | .0039 | .0018  | .0135 |
| 3    | -19.98 | -.8094 | .4687 | .1829  | .0001 | -.0016 | .0103 |
| 4    | -14.99 | -.7465 | .3672 | .0759  | .0076 | .0128  | .0202 |
| 5    | -10.00 | -.6573 | .2519 | -.0882 | .0024 | .0077  | .0198 |
| 6    | -4.99  | -.6274 | .1175 | -.1741 | .0018 | .0027  | .0140 |
| 7    | -.01   | -.2683 | .0823 | -.2345 | .0032 | .0018  | .0132 |
| 8    | 5.00   | .1385  | .0811 | -.2648 | .0036 | .0030  | .0082 |
| 9    | 10.00  | .5455  | .1135 | -.3279 | .0040 | .0042  | .0049 |
| 10   | 15.00  | .9605  | .1876 | -.3683 | .0043 | .0053  | .0039 |
| 11   | 20.01  | 1.3046 | .2911 | -.3300 | .0038 | .0085  | .0037 |
| 12   | .00    | -.2584 | .0820 | -.2257 | .0034 | .0020  | .0055 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMR   | CYMR  | CRMB   | CYB   |
|------|--------|--------|-------|--------|-------|--------|-------|
| 2    | .00    | -.2755 | .0787 | -.2378 | .0039 | .0018  | .0135 |
| 3    | -19.98 | -.8094 | .4687 | .1829  | .0001 | -.0016 | .0103 |
| 4    | -14.99 | -.7465 | .3672 | .0759  | .0076 | .0128  | .0202 |
| 5    | -10.00 | -.6573 | .2519 | -.0882 | .0024 | .0077  | .0198 |
| 6    | -4.99  | -.6274 | .1175 | -.1741 | .0018 | .0027  | .0140 |
| 7    | -.01   | -.2683 | .0823 | -.2345 | .0032 | .0018  | .0132 |
| 8    | 5.00   | .1385  | .0811 | -.2648 | .0036 | .0030  | .0082 |
| 9    | 10.00  | .5455  | .1135 | -.3279 | .0040 | .0042  | .0049 |
| 10   | 15.00  | .9605  | .1876 | -.3683 | .0043 | .0053  | .0039 |
| 11   | 20.01  | 1.3046 | .2911 | -.3300 | .0038 | .0085  | .0037 |
| 12   | .00    | -.2584 | .0820 | -.2257 | .0034 | .0020  | .0055 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 405 CONFIG F P R W5 T BT

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |     |  |  |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|--|--|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |  |  |
| 2       | .0        | .0      | 4239.5      | 26.35       | -15660.      | 21.          | -233591.     | .00         | 54.87 | 128.46  | 0.  |  |  |
| 3       | -20.0     | .0      | 299.3       | 169.88      | 1868.        | -101.        | -163.        | 9.75        | 55.21 | 128.86  | 0.  |  |  |
| 4       | -15.0     | .0      | 262.9       | 132.92      | 1102.        | 60.          | 87.          | 8.71        | 55.14 | 128.77  | 0.  |  |  |
| 5       | -10.0     | .0      | 235.1       | 96.71       | 425.         | 54.          | 197.         | 7.48        | 55.07 | 128.70  | 0.  |  |  |
| 6       | -5.0      | .0      | 213.9       | 53.04       | -307.        | 48.          | 371.         | -6.62       | 55.04 | 128.66  | 0.  |  |  |
| 7       | .0        | .0      | 120.7       | 25.66       | -857.        | 38.          | 64.          | 4.33        | 55.80 | 129.56  | 0.  |  |  |
| 8       | 5.1       | .0      | 12.3        | 22.79       | -1177.       | 65.          | 51.          | 1.17        | 55.28 | 128.95  | 0.  |  |  |
| 9       | 10.0      | .0      | 160.9       | 29.49       | -1416.       | 66.          | 105.         | .18         | 55.29 | 128.96  | 0.  |  |  |
| 10      | 15.0      | .0      | 305.8       | 53.71       | -1516.       | 30.          | 141.         | -1.19       | 55.16 | 128.81  | 0.  |  |  |
| 11      | 20.0      | .0      | 420.6       | 82.87       | -1415.       | 81.          | 158.         | -2.97       | 55.04 | 128.66  | 0.  |  |  |
| 12      | -.0       | .0      | -131.5      | 25.74       | -853.        | 41.          | 46.          | 5.57        | 44.99 | 128.60  | 0.  |  |  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL       | CD    | CPM     | CYM    | CRM      | CY     |
|------|--------|----------|-------|---------|--------|----------|--------|
| 2    | .00    | -11.4581 | .0712 | -5.0485 | .0013  | -14.1097 | .0000  |
| 3    | -19.97 | -.8089   | .4591 | .6023   | -.0061 | -.0098   | .0263  |
| 4    | -14.99 | -.7106   | .3592 | .3552   | .0076  | .0053    | .0235  |
| 5    | -10.04 | -.6353   | .2614 | .1371   | .0033  | .0119    | .0202  |
| 6    | -4.98  | -.5780   | .1473 | -.0991  | .0029  | .0224    | -.0017 |
| 7    | .01    | -.3504   | .0693 | -.2763  | .0023  | .0039    | .0117  |
| 8    | 5.07   | .0334    | .0616 | -.3795  | .0040  | .0031    | .0032  |
| 9    | 9.99   | .4349    | .0797 | -.4566  | .0040  | .0063    | .0005  |
| 10   | 15.04  | .8264    | .1452 | -.4886  | .0018  | .0085    | -.0005 |
| 11   | 20.04  | 1.1367   | .2240 | -.4563  | .0049  | .0095    | -.0080 |
| 12   | -.01   | -.3555   | .0696 | -.2751  | .0025  | .0028    | .0151  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB      | CDR   | CPMB    | CYMB   | CRMB     | CYB    |
|------|--------|----------|-------|---------|--------|----------|--------|
| 2    | .00    | -11.4581 | .0712 | -5.0485 | .0013  | -14.1097 | .0000  |
| 3    | -19.97 | -.8089   | .4591 | .6023   | -.0061 | -.0098   | .0263  |
| 4    | -14.99 | -.7106   | .3592 | .3552   | .0076  | .0053    | .0235  |
| 5    | -10.04 | -.6353   | .2614 | .1371   | .0033  | .0119    | .0202  |
| 6    | -4.98  | -.5780   | .1473 | -.0991  | .0029  | .0224    | -.0017 |
| 7    | .01    | -.3504   | .0693 | -.2763  | .0023  | .0039    | .0117  |
| 8    | 5.07   | .0334    | .0616 | -.3795  | .0040  | .0031    | .0032  |
| 9    | 9.99   | .4349    | .0797 | -.4566  | .0040  | .0063    | .0005  |
| 10   | 15.04  | .8264    | .1452 | -.4886  | .0018  | .0085    | -.0005 |
| 11   | 20.04  | 1.1367   | .2240 | -.4563  | .0049  | .0095    | -.0080 |
| 12   | -.01   | -.3555   | .0696 | -.2751  | .0025  | .0028    | .0151  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 406 CONFIG F P B W5 T BT

| IW      | Q DELF    | Q DELA  | Q IHT       | Q DELE      | Q DELR       | Q DELSB      | Q            | Q           | RPM   |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |    |
| 2       | .0        | .0      | 61.9        | 20.12       | -443.        | 20.          | 87.          | .37         | 55.34 | 129.02  | 0. |
| 3       | -20.0     | .0      | -308.4      | 117.92      | 1784.        | -140.        | 156.         | 8.07        | 55.70 | 129.45  | 0. |
| 4       | -15.0     | .0      | -261.0      | 80.19       | 978.         | 31.          | 185.         | 3.82        | 55.22 | 128.87  | 0. |
| 5       | -10.0     | .0      | -216.4      | 31.15       | 248.         | -12.         | 4.           | 7.64        | 55.27 | 128.94  | 0. |
| 6       | -5.0      | .0      | -81.6       | 20.84       | -174.        | 4.           | 80.          | 5.13        | 55.14 | 128.79  | 0. |
| 7       | -.0       | .0      | 62.1        | 20.15       | -447.        | 30.          | 84.          | 3.15        | 55.20 | 128.85  | 0. |
| 8       | 5.0       | .0      | 212.8       | 30.12       | -657.        | 79.          | 86.          | 2.41        | 55.19 | 128.84  | 0. |
| 9       | 10.0      | .0      | 356.3       | 49.28       | -919.        | 34.          | 89.          | -2.11       | 54.93 | 128.53  | 0. |
| 10      | 15.0      | .0      | 479.0       | 80.46       | -1237.       | 29.          | 160.         | -.81        | 54.73 | 128.29  | 0. |
| 11      | 20.0      | .0      | 476.2       | 132.18      | -1584.       | 146.         | 475.         | .62         | 55.06 | 128.68  | 0. |
| 12      | .0        | .0      | 61.3        | 20.23       | -440.        | 30.          | 84.          | 3.27        | 55.21 | 128.87  | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .1672  | .0544 | -.1427 | .0012  | .0053 | .0010  |
| 3    | -20.00 | -.8334 | .3187 | .5751  | -.0085 | .0094 | .0218  |
| 4    | -14.99 | -.7053 | .2167 | .3152  | .0019  | .0112 | .0103  |
| 5    | -9.99  | -.5849 | .0842 | .0798  | -.0007 | .0002 | .0207  |
| 6    | -5.00  | -.2206 | .0563 | -.0560 | .0002  | .0048 | .0139  |
| 7    | -.00   | .1678  | .0545 | -.1440 | .0018  | .0051 | .0085  |
| 8    | 5.01   | .5751  | .0814 | -.2119 | .0048  | .0052 | .0065  |
| 9    | 10.01  | .9631  | .1332 | -.2962 | .0070  | .0054 | -.0057 |
| 10   | 15.01  | 1.2945 | .2175 | -.3989 | .0018  | .0096 | -.0022 |
| 11   | 20.01  | 1.2871 | .3572 | -.5106 | .0088  | .0287 | .0017  |
| 12   | .01    | .1656  | .0547 | -.1418 | .0018  | .0051 | .0088  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .1672  | .0544 | -.1427 | .0012  | .0053 | .0010  |
| 3    | -20.00 | -.8334 | .3187 | .5751  | -.0085 | .0094 | .0218  |
| 4    | -14.99 | -.7053 | .2167 | .3152  | .0019  | .0112 | .0103  |
| 5    | -9.99  | -.5849 | .0842 | .0798  | -.0007 | .0002 | .0207  |
| 6    | -5.00  | -.2206 | .0563 | -.0560 | .0002  | .0048 | .0139  |
| 7    | -.00   | .1678  | .0545 | -.1440 | .0018  | .0051 | .0085  |
| 8    | 5.01   | .5751  | .0814 | -.2119 | .0048  | .0052 | .0065  |
| 9    | 10.01  | .9631  | .1332 | -.2962 | .0070  | .0054 | -.0057 |
| 10   | 15.01  | 1.2945 | .2175 | -.3989 | .0018  | .0096 | -.0022 |
| 11   | 20.01  | 1.2871 | .3572 | -.5106 | .0088  | .0287 | .0017  |
| 12   | .01    | .1656  | .0547 | -.1418 | .0018  | .0051 | .0088  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

P.339

RUN 407 CONFIG F P R W5 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT      | -9 DELE     | 0 DELR       | 0 DELSB      | 0            |             |       |         |     |
|---------|-----------|---------|------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM |
| 2       | .0        | .0      | 15.4       | 21.59       | 822.         | 36.          | 66.          | 3.59        | 55.07 | 128.70  | 0.  |
| 3       | -20.0     | .0      | -299.8     | 141.60      | 2083.        | -120.        | 407.         | 15.76       | 54.69 | 128.24  | 0.  |
| 4       | -15.0     | .0      | -313.6     | 90.37       | 1902.        | -68.         | 431.         | 5.92        | 54.70 | 128.25  | 0.  |
| 5       | -15.0     | .0      | -300.6     | 90.41       | 1882.        | -64.         | 475.         | 9.11        | 54.98 | 128.59  | 0.  |
| 6       | -10.0     | .0      | -264.4     | 39.99       | 1559.        | 3.           | 45.          | 4.62        | 54.53 | 128.06  | 0.  |
| 7       | -5.0      | .0      | -127.5     | 25.83       | 1085.        | 4.           | 44.          | 5.46        | 54.90 | 128.49  | 0.  |
| 8       | -.0       | .0      | 15.7       | 21.65       | 825.         | 43.          | 48.          | 3.53        | 55.00 | 128.61  | 0.  |
| 9       | 5.0       | .0      | 166.0      | 27.83       | 576.         | 88.          | 69.          | 1.17        | 55.15 | 128.80  | 0.  |
| 10      | 10.0      | .0      | 310.6      | 43.17       | 366.         | 44.          | 124.         | .25         | 54.78 | 128.35  | 0.  |
| 11      | 15.0      | .0      | 429.8      | 68.23       | 2.           | 20.          | 141.         | -.68        | 55.16 | 128.81  | 0.  |
| 12      | 20.0      | .0      | 447.2      | 109.10      | -693.        | 43.          | 228.         | -.99        | 55.32 | 128.90  | 0.  |
| 13      | -.0       | .0      | 13.9       | 21.80       | 830.         | 44.          | 65.          | 4.21        | 55.07 | 128.69  | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .0417  | .0584 | .2650  | .0022  | .0040 | .0097  |
| 3    | -20.01 | -.8101 | .3827 | .6717  | -.0072 | .0246 | .0426  |
| 4    | -15.01 | -.8476 | .2442 | .6130  | -.0041 | .0260 | .0160  |
| 5    | -15.01 | -.8366 | .2444 | .6068  | -.0039 | .0287 | .0246  |
| 6    | -10.01 | -.7147 | .1081 | .5026  | .0002  | .0027 | .0125  |
| 7    | -5.00  | -.3446 | .0698 | .3499  | .0002  | .0027 | .0148  |
| 8    | -.02   | .0425  | .0585 | .2660  | .0026  | .0029 | .0095  |
| 9    | 4.99   | .4485  | .0752 | .1857  | .0053  | .0042 | .0032  |
| 10   | 10.00  | .8394  | .1167 | .1181  | .0026  | .0075 | .0007  |
| 11   | 14.98  | 1.1617 | .1844 | .0005  | .0012  | .0085 | -.0018 |
| 12   | 20.01  | 1.2087 | .2949 | -.2234 | .0026  | .0137 | -.0027 |
| 13   | -.01   | .0377  | .0589 | .2675  | .0026  | .0039 | .0114  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMR   | CYMR   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .0417  | .0584 | .2650  | .0022  | .0040 | .0097  |
| 3    | -20.01 | -.8101 | .3827 | .6717  | -.0072 | .0246 | .0426  |
| 4    | -15.01 | -.8476 | .2442 | .6130  | -.0041 | .0260 | .0160  |
| 5    | -15.01 | -.8366 | .2444 | .6068  | -.0039 | .0287 | .0246  |
| 6    | -10.01 | -.7147 | .1081 | .5026  | .0002  | .0027 | .0125  |
| 7    | -5.00  | -.3446 | .0698 | .3499  | .0002  | .0027 | .0148  |
| 8    | -.02   | .0425  | .0585 | .2660  | .0026  | .0029 | .0095  |
| 9    | 4.99   | .4485  | .0752 | .1857  | .0053  | .0042 | .0032  |
| 10   | 10.00  | .8394  | .1167 | .1181  | .0026  | .0075 | .0007  |
| 11   | 14.98  | 1.1617 | .1844 | .0005  | .0012  | .0085 | -.0018 |
| 12   | 20.01  | 1.2087 | .2949 | -.2234 | .0026  | .0137 | -.0027 |
| 13   | -.01   | .0377  | .0589 | .2675  | .0026  | .0039 | .0114  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 408 CONFIG F P B W5 T BT

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CPBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| 2       | .0        | .0      | 35.4        | 20.45       | 265.         | 49.          | 66.          | 3.61        | 54.76 | 128.34  | 0.  |
| 3       | -20.0     | .0      | -297.1      | 132.70      | 2004.        | -189.        | 283.         | 22.92       | 55.00 | 128.61  | 0.  |
| 4       | -15.0     | .0      | -307.7      | 77.73       | 1716.        | -35.         | 472.         | 7.35        | 55.65 | 129.38  | 0.  |
| 5       | -10.0     | .0      | -242.8      | 36.19       | 956.         | -29.         | 37.          | 8.67        | 54.63 | 128.18  | 0.  |
| 6       | -5.0      | .0      | -108.0      | 23.40       | 518.         | -2.          | 79.          | 6.52        | 54.30 | 127.78  | 0.  |
| 7       | .0        | .0      | 37.0        | 20.73       | 254.         | 53.          | 31.          | 4.18        | 53.83 | 127.21  | 0.  |
| 8       | 5.0       | .0      | 186.4       | 28.43       | 28.          | 84.          | 70.          | -.43        | 55.51 | 129.23  | 0.  |
| 9       | 10.0      | .0      | 330.0       | 45.75       | -200.        | 60.          | 124.         | .06         | 54.55 | 128.09  | 0.  |
| 10      | 15.0      | .0      | 454.7       | 72.59       | -568.        | 40.          | 159.         | -.99        | 54.80 | 128.38  | 0.  |
| 11      | 20.0      | .0      | 466.1       | 118.32      | -1212.       | 70.          | 284.         | .31         | 54.56 | 128.09  | 0.  |
| 12      | .0        | .0      | 33.9        | 20.75       | 262.         | 50.          | 83.          | 4.68        | 54.57 | 128.10  | 0.  |

## \*\*\*\* COEFFICIENT FORM -- WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .0956  | .0553 | .0854  | .0029  | .0040 | .0098  |
| 3    | -20.01 | -.8029 | .3586 | .6461  | -.0114 | .0171 | .0619  |
| 4    | -14.99 | -.8317 | .2101 | .5533  | -.0021 | .0285 | .0199  |
| 5    | -9.99  | -.6563 | .0978 | .3082  | -.0018 | .0023 | .0234  |
| 6    | -4.99  | -.2920 | .0632 | .1671  | -.0001 | .0048 | .0176  |
| 7    | .01    | .0999  | .0560 | .0819  | .0032  | .0019 | .0113  |
| 8    | 5.02   | .5037  | .0768 | .0089  | .0051  | .0042 | -.0012 |
| 9    | 10.00  | .8919  | .1236 | -.0645 | .0037  | .0075 | .0002  |
| 10   | 15.02  | 1.2288 | .1962 | -.1833 | .0024  | .0096 | -.0027 |
| 11   | 20.00  | 1.2599 | .3198 | -.3908 | .0042  | .0172 | .0008  |
| 12   | .00    | .0916  | .0561 | .0845  | .0030  | .0050 | .0127  |

## \*\*\*\* COEFFICIENT FORM -- STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .0956  | .0553 | .0854  | .0029  | .0040 | .0098  |
| 3    | -20.01 | -.8029 | .3586 | .6461  | -.0114 | .0171 | .0619  |
| 4    | -14.99 | -.8317 | .2101 | .5533  | -.0021 | .0285 | .0199  |
| 5    | -9.99  | -.6563 | .0978 | .3082  | -.0018 | .0023 | .0234  |
| 6    | -4.99  | -.2920 | .0632 | .1671  | -.0001 | .0048 | .0176  |
| 7    | .01    | .0999  | .0560 | .0819  | .0032  | .0019 | .0113  |
| 8    | 5.02   | .5037  | .0768 | .0089  | .0051  | .0042 | -.0012 |
| 9    | 10.00  | .8919  | .1236 | -.0645 | .0037  | .0075 | .0002  |
| 10   | 15.02  | 1.2288 | .1962 | -.1833 | .0024  | .0096 | -.0027 |
| 11   | 20.00  | 1.2599 | .3198 | -.3908 | .0042  | .0172 | .0008  |
| 12   | .00    | .0916  | .0561 | .0845  | .0030  | .0050 | .0127  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST.  
AERODYNAMIC DATA

RUN 409 CONFIG F P B W5 T BT

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 5 DELE      | 0 DELR        | 0 DELSB     | 0             | RPM         |       |           |    |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|-------------|-------|-----------|----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | 0 PSF | 0 V KNOTS |    |
| 2       | .0        | .0      | 85.7        | 22.31       | -1133.        | 37.         | 30.           | 3.92        | 54.81 | 128.40    | 0. |
| 3       | .0        | .0      | 101.5       | 27.66       | -1341.        | 44.         | 36.           | 4.63        | 46.31 | 118.00    | 0. |
| 4       | -19.9     | .0      | -280.6      | 114.32      | 1069.         | -104.       | 143.          | 8.04        | 54.21 | 127.67    | 0. |
| 5       | -15.0     | .0      | -258.7      | 66.71       | 269.          | -28.        | 552.          | 8.38        | 54.48 | 127.99    | 0. |
| 6       | -10.0     | .0      | -188.6      | 30.65       | -452.         | -27.        | 74.           | 7.83        | 54.84 | 128.43    | 0. |
| 7       | -5.0      | .0      | -56.0       | 21.21       | -841.         | 12.         | 80.           | 5.00        | 55.15 | 128.79    | 0. |
| 8       | .0        | .0      | 88.1        | 22.45       | -1137.        | 34.         | 84.           | 3.60        | 54.82 | 128.40    | 0. |
| 9       | 5.0       | .0      | 237.4       | 34.24       | -1363.        | 79.         | 88.           | .37         | 54.69 | 128.25    | 0. |
| 10      | 10.0      | .0      | 378.1       | 58.24       | -1595.        | 93.         | 126.          | -1.75       | 54.38 | 127.87    | 0. |
| 11      | 15.0      | .0      | 484.3       | 94.76       | -1671.        | 18.         | 142.          | -.87        | 54.76 | 128.33    | 0. |
| 12      | 20.0      | .0      | 455.5       | 137.24      | -1457.        | 66.         | 264.          | -1.49       | 55.04 | 128.67    | 0. |
| 13      | -.0       | .0      | 86.2        | 22.49       | -1141.        | 31.         | 83.           | 4.16        | 54.82 | 128.40    | 0. |

## \*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .2317  | .0603 | -.3651 | .0022  | .0018 | .0106  |
| 3    | .00    | .2742  | .0747 | -.4322 | .0026  | .0022 | .0125  |
| 4    | -19.95 | -.7584 | .3090 | .3447  | -.0063 | .0086 | .0217  |
| 5    | -14.99 | -.6993 | .1803 | .0867  | -.0017 | .0333 | .0226  |
| 6    | -9.99  | -.5096 | .0828 | -.1458 | -.0016 | .0045 | .0212  |
| 7    | -5.00  | -.1513 | .0573 | -.2711 | .0007  | .0048 | .0135  |
| 8    | .00    | .2382  | .0607 | -.3666 | .0021  | .0051 | .0097  |
| 9    | 5.01   | .6415  | .0925 | -.4396 | .0048  | .0053 | .0010  |
| 10   | 10.02  | 1.0218 | .1574 | -.5142 | .0056  | .0076 | -.0047 |
| 11   | 15.01  | 1.3090 | .2561 | -.5387 | .0011  | .0086 | -.0024 |
| 12   | 20.02  | 1.2311 | .3709 | -.4697 | .0040  | .0159 | -.0040 |
| 13   | -.01   | .2330  | .0608 | -.3678 | .0019  | .0050 | .0113  |

## \*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMR   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .2317  | .0603 | -.3651 | .0022  | .0018 | .0106  |
| 3    | .00    | .2742  | .0747 | -.4322 | .0026  | .0022 | .0125  |
| 4    | -19.95 | -.7584 | .3090 | .3447  | -.0063 | .0086 | .0217  |
| 5    | -14.99 | -.6993 | .1803 | .0867  | -.0017 | .0333 | .0226  |
| 6    | -9.99  | -.5096 | .0828 | -.1458 | -.0016 | .0045 | .0212  |
| 7    | -5.00  | -.1513 | .0573 | -.2711 | .0007  | .0048 | .0135  |
| 8    | .00    | .2382  | .0607 | -.3666 | .0021  | .0051 | .0097  |
| 9    | 5.01   | .6415  | .0925 | -.4396 | .0048  | .0053 | .0010  |
| 10   | 10.02  | 1.0218 | .1574 | -.5142 | .0056  | .0076 | -.0047 |
| 11   | 15.01  | 1.3090 | .2561 | -.5387 | .0011  | .0086 | -.0024 |
| 12   | 20.02  | 1.2311 | .3709 | -.4697 | .0040  | .0159 | -.0040 |
| 13   | -.01   | .2330  | .0608 | -.3678 | .0019  | .0050 | .0113  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

1343

RUN 417 CONFIG F P B W5 T BT

| PT. NO. | 15 DELF   |         | 0 DELA      |             | 0 IHT        |              | 0 DELE       |             | 0 DELR |         | 0 DFLSR |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SO-FT | CDBAR SO-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SO-FT | Q PSF  | V KNOTS |         |  |     |
| 2       | .0        | .0      | 368.2       | 57.44       | 98.          | 16.          | 110.         | .71         | 52.53  | 125.66  | 0.      |  |     |
| 3       | .0        | .0      | 367.6       | 57.50       | 103.         | 13.          | 143.         | -.38        | 54.27  | 127.75  | 0.      |  |     |
| 4       | -20.0     | .0      | -198.6      | 39.67       | 1662.        | -54.         | 36.          | 7.80        | 54.61  | 128.16  | 0.      |  |     |
| 5       | -15.0     | .0      | -62.8       | 29.51       | 1103.        | -31.         | 96.          | 4.87        | 54.61  | 128.16  | 0.      |  |     |
| 6       | -10.0     | .0      | 85.3        | 29.13       | 735.         | -40.         | 79.          | 5.20        | 55.00  | 128.63  | 0.      |  |     |
| 7       | -5.0      | .0      | 233.2       | 30.65       | 403.         | -28.         | 117.         | 4.14        | 55.15  | 128.80  | 0.      |  |     |
| 8       | .0        | .0      | 366.7       | 57.44       | 81.          | 22.          | 123.         | .56         | 54.82  | 128.40  | 0.      |  |     |
| 9       | 2.5       | .0      | 417.7       | 71.31       | -117.        | 40.          | 88.          | .43         | 54.88  | 128.48  | 0.      |  |     |
| 10      | 5.0       | .0      | 401.0       | 90.57       | -245.        | 20.          | 232.         | -.69        | 54.37  | 127.87  | 0.      |  |     |
| 11      | 10.0      | -.1     | 367.4       | 133.60      | -1055.       | 119.         | 107.         | 1.98        | 55.11  | 128.75  | 0.      |  |     |
| 12      | 15.0      | -.1     | 344.8       | 191.18      | -2064.       | 439.         | -366.        | 9.03        | 55.44  | 129.14  | 0.      |  |     |
| 13      | 20.0      | -.1     | 338.1       | 242.49      | -2398.       | 141.         | -172.        | .06         | 55.50  | 129.21  | 0.      |  |     |
| 14      | -.0       | -.1     | 362.7       | 56.91       | 88.          | 24.          | 89.          | 1.17        | 55.20  | 128.86  | 0.      |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .9952  | .1552 | .0315  | .0010  | .0066  | .0019  |
| 3    | .00    | .9936  | .1554 | .0332  | .0008  | .0087  | -.0010 |
| 4    | -19.98 | -.5368 | .1072 | .5357  | -.0032 | .0021  | .0211  |
| 5    | -15.02 | -.1698 | .0798 | .3555  | -.0019 | .0058  | .0131  |
| 6    | -10.04 | .2304  | .0787 | .2369  | -.0024 | .0047  | .0141  |
| 7    | -5.03  | .6302  | .1072 | .1298  | -.0017 | .0070  | .0112  |
| 8    | .01    | .9911  | .1552 | .0261  | .0013  | .0074  | .0015  |
| 9    | 2.46   | 1.1290 | .1927 | -.0379 | .0029  | .0053  | .0012  |
| 10   | 4.98   | 1.0837 | .2448 | -.0790 | .0012  | .0140  | -.0019 |
| 11   | 10.00  | .9929  | .3611 | -.3401 | .0072  | .0065  | .0053  |
| 12   | 15.04  | .9318  | .5167 | -.6655 | .0265  | -.0221 | .0244  |
| 13   | 20.01  | .9139  | .6554 | -.7732 | .0085  | -.0104 | .0002  |
| 14   | -.03   | .9802  | .1538 | .0282  | .0014  | .0053  | .0032  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMR   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .9952  | .1552 | .0315  | .0010  | .0066  | .0019  |
| 3    | .00    | .9936  | .1554 | .0332  | .0008  | .0087  | -.0010 |
| 4    | -19.98 | -.5368 | .1072 | .5357  | -.0032 | .0021  | .0211  |
| 5    | -15.02 | -.1698 | .0798 | .3555  | -.0019 | .0058  | .0131  |
| 6    | -10.04 | .2304  | .0787 | .2369  | -.0024 | .0047  | .0141  |
| 7    | -5.03  | .6302  | .1072 | .1298  | -.0017 | .0070  | .0112  |
| 8    | .01    | .9911  | .1552 | .0261  | .0013  | .0074  | .0015  |
| 9    | 2.46   | 1.1290 | .1927 | -.0379 | .0029  | .0053  | .0012  |
| 10   | 4.98   | 1.0837 | .2448 | -.0790 | .0012  | .0140  | -.0019 |
| 11   | 10.00  | .9929  | .3611 | -.3402 | .0072  | .0066  | .0047  |
| 12   | 15.04  | .9318  | .5167 | -.6653 | .0265  | -.0219 | .0235  |
| 13   | 20.01  | .9139  | .6554 | -.7731 | .0085  | -.0101 | -.0010 |
| 14   | -.03   | .9802  | .1538 | .0282  | .0014  | .0053  | .0029  |

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SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011

P 344

RUN 418 CONFIG F P R W5 T RT

| PT. NO. | TW    | 15 DELF | 30 DELA | 0 IHT  | 0 DELF | 0 DELR | 0 DFLSR | 0     | 0     | RPM    |    |
|---------|-------|---------|---------|--------|--------|--------|---------|-------|-------|--------|----|
|         | ALPHA | PSI     | CLBAR   | COBAR  | CPMBAR | CYMBAR | CRMBAR  | CYBAR | Q     | V      |    |
|         | DEG   | DEG     | SQ-FT   | SQ-FT  | CU-FT  | CU-FT  | CU-FT   | SQ-FT | PSF   | KNOTS  |    |
| 3       | .0    | .0      | 565.4   | 113.96 | 23.    | 15.    | 71.     | -.92  | 55.50 | 129.22 | 0. |
| 4       | -20.0 | .0      | 9.7     | 66.88  | 850.   | 16.    | 94.     | 5.05  | 55.31 | 128.90 | 0. |
| 5       | -15.0 | .0      | 149.9   | 63.50  | 736.   | -57.   | 43.     | 4.58  | 55.07 | 128.71 | 0. |
| 6       | -10.0 | .0      | 299.9   | 71.95  | 479.   | -72.   | 78.     | 5.62  | 55.16 | 128.82 | 0. |
| 7       | -5.0  | .0      | 438.4   | 91.00  | 265.   | -25.   | 85.     | 1.97  | 55.28 | 128.95 | 0. |
| 8       | .0    | .0      | 571.5   | 114.71 | 16.    | 18.    | 125.    | -1.73 | 55.02 | 128.65 | 0. |
| 9       | 2.5   | .0      | 614.4   | 124.10 | -119.  | 39.    | 144.    | -4.00 | 55.42 | 129.12 | 0. |
| 10      | 5.1   | .0      | 479.2   | 142.64 | -478.  | 59.    | 322.    | -6.77 | 55.33 | 129.01 | 0. |
| 11      | 10.0  | .0      | 415.9   | 194.27 | -1290. | 172.   | 84.     | 6.07  | 55.22 | 128.88 | 0. |
| 12      | 15.0  | .0      | 395.4   | 250.27 | -2189. | 352.   | -506.   | 4.47  | 55.62 | 129.35 | 0. |
| 13      | 20.0  | .0      | 384.0   | 308.10 | -2645. | 164.   | -140.   | -6.76 | 55.90 | 129.69 | 0. |
| 14      | -0    | .0      | 570.2   | 114.17 | 26.    | 1.     | 125.    | -1.76 | 54.93 | 128.54 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 3    | .00    | 1.5281 | .3077 | .0074  | .0009  | .0043  | -.0025 |
| 4    | -19.98 | .0262  | .1807 | .2769  | .0010  | .0057  | .0136  |
| 5    | -14.97 | .4051  | .1716 | .2372  | -.0034 | .0026  | .0124  |
| 6    | -9.95  | .8104  | .1945 | .1545  | -.0043 | .0047  | .0152  |
| 7    | -5.04  | 1.1848 | .2459 | .0854  | -.0015 | .0051  | .0053  |
| 8    | .02    | 1.5446 | .3100 | .0052  | .0011  | .0076  | -.0047 |
| 9    | 2.51   | 1.6606 | .3354 | -.0382 | .0023  | .0087  | -.0108 |
| 10   | 5.08   | 1.2951 | .3855 | -.1542 | .0030  | .0104  | -.0183 |
| 11   | 10.04  | 1.1240 | .5250 | -.4158 | .0104  | .0051  | .0188  |
| 12   | 14.99  | 1.0687 | .6764 | -.7056 | .0212  | -.0306 | .0121  |
| 13   | 20.03  | 1.0379 | .8111 | -.8528 | .0099  | -.0085 | -.0183 |
| 14   | -.04   | 1.5411 | .3086 | .0083  | .0000  | .0076  | -.0037 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLR    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 3    | .00    | 1.5281 | .3077 | .0074  | .0009  | .0043  | -.0025 |
| 4    | -19.98 | .0262  | .1807 | .2769  | .0010  | .0057  | .0136  |
| 5    | -14.97 | .4051  | .1716 | .2372  | -.0034 | .0026  | .0124  |
| 6    | -9.95  | .8104  | .1945 | .1545  | -.0043 | .0047  | .0152  |
| 7    | -5.04  | 1.1848 | .2459 | .0854  | -.0015 | .0051  | .0053  |
| 8    | .02    | 1.5446 | .3100 | .0052  | .0011  | .0076  | -.0047 |
| 9    | 2.51   | 1.6606 | .3354 | -.0382 | .0023  | .0087  | -.0108 |
| 10   | 5.08   | 1.2951 | .3855 | -.1542 | .0030  | .0104  | -.0183 |
| 11   | 10.04  | 1.1240 | .5250 | -.4158 | .0104  | .0051  | .0188  |
| 12   | 14.99  | 1.0687 | .6764 | -.7056 | .0212  | -.0306 | .0121  |
| 13   | 20.03  | 1.0379 | .8111 | -.8528 | .0099  | -.0085 | -.0183 |
| 14   | -.04   | 1.5411 | .3086 | .0083  | .0000  | .0076  | -.0037 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P.345

RUN 430 CONFIG T4

| PT. NO. | - DELF    |         | - DELA      |             | - IHT        |              | - DELE       |             | - DELR |         | - DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | V KNOTS |         |  |     |
| 9       | 10.0      | .0      | 3.9         | 6.96        | -115.        | 4.           | 42.          | .37         | 55.77  | 129.53  | 0.      |  |     |
| 10      | 10.0      | -20.1   | 6.6         | 11.75       | -181.        | 264.         | 41.          | -9.61       | 56.61  | 130.51  | 0.      |  |     |
| 11      | 10.0      | -15.0   | 6.8         | 9.26        | -200.        | 126.         | 11.          | -4.55       | 56.19  | 130.01  | 0.      |  |     |
| 12      | 10.0      | -10.0   | 4.0         | 7.92        | -131.        | 96.          | 43.          | -3.27       | 55.93  | 129.71  | 0.      |  |     |
| 13      | 10.0      | -5.1    | 3.6         | 7.17        | -112.        | 83.          | 43.          | -2.66       | 55.59  | 129.30  | 0.      |  |     |
| 14      | 10.0      | -2.5    | 3.7         | 6.60        | -104.        | 48.          | 45.          | -1.39       | 56.26  | 130.10  | 0.      |  |     |
| 15      | 10.0      | .0      | 3.7         | 6.73        | -113.        | 3.           | 42.          | .47         | 55.72  | 129.45  | 0.      |  |     |
| 16      | 10.0      | 2.5     | 3.6         | 6.85        | -101.        | -46.         | 47.          | 2.19        | 55.52  | 129.21  | 0.      |  |     |
| 17      | 10.0      | 5.0     | 3.6         | 7.05        | -98.         | -68.         | 47.          | 3.08        | 55.58  | 129.29  | 0.      |  |     |
| 18      | 10.0      | 10.0    | 4.8         | 8.07        | -126.        | -93.         | 59.          | 4.11        | 55.86  | 129.62  | 0.      |  |     |
| 19      | 10.0      | 14.9    | 6.4         | 10.04       | -178.        | -179.        | 36.          | 7.29        | 55.77  | 129.52  | 0.      |  |     |
| 20      | 10.0      | 20.0    | 7.5         | 12.50       | -205.        | -309.        | 32.          | 11.81       | 54.97  | 128.57  | 0.      |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|-------|--------|--------|-------|--------|
| 9    | .00    | .0105 | .0188 | -.0369 | .0003  | .0025 | .0010  |
| 10   | -20.10 | .0179 | .0318 | -.0584 | .0160  | .0025 | -.0260 |
| 11   | -15.00 | .0183 | .0250 | -.0644 | .0076  | .0007 | -.0123 |
| 12   | -10.00 | .0108 | .0214 | -.0422 | .0058  | .0026 | -.0088 |
| 13   | -5.10  | .0096 | .0194 | -.0362 | .0050  | .0026 | -.0072 |
| 14   | -2.50  | .0099 | .0178 | -.0334 | .0029  | .0027 | -.0038 |
| 15   | .00    | .0100 | .0182 | -.0366 | .0002  | .0026 | .0013  |
| 16   | 2.50   | .0098 | .0185 | -.0326 | -.0028 | .0029 | .0059  |
| 17   | 5.00   | .0098 | .0190 | -.0317 | -.0041 | .0028 | .0083  |
| 18   | 10.00  | .0130 | .0218 | -.0407 | -.0056 | .0036 | .0111  |
| 19   | 14.90  | .0173 | .0271 | -.0574 | -.0108 | .0021 | .0197  |
| 20   | 20.00  | .0203 | .0338 | -.0662 | -.0187 | .0020 | .0319  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 9    | .00    | .0105 | .0188 | -.0369 | .0003  | .0025  | .0010  |
| 10   | -20.10 | .0179 | .0209 | -.0594 | .0160  | .0061  | -.0353 |
| 11   | -15.00 | .0183 | .0210 | -.0631 | .0076  | .0038  | -.0184 |
| 12   | -10.00 | .0108 | .0195 | -.0439 | .0058  | .0039  | -.0124 |
| 13   | -5.10  | .0096 | .0187 | -.0373 | .0050  | .0032  | -.0089 |
| 14   | -2.50  | .0099 | .0177 | -.0340 | .0029  | .0030  | -.0045 |
| 15   | .00    | .0100 | .0182 | -.0366 | .0002  | .0026  | .0013  |
| 16   | 2.50   | .0098 | .0182 | -.0319 | -.0028 | .0026  | .0067  |
| 17   | 5.00   | .0098 | .0182 | -.0303 | -.0041 | .0023  | .0100  |
| 18   | 10.00  | .0130 | .0195 | -.0368 | -.0056 | .0022  | .0147  |
| 19   | 14.90  | .0173 | .0211 | -.0525 | -.0108 | -.0007 | .0260  |
| 20   | 20.00  | .0203 | .0207 | -.0585 | -.0187 | -.0024 | .0316  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

P376

RUN 431 CONFIG T4

| IW<br>PT.<br>NO. | - DELF<br>ALPHA<br>DEG | PSI<br>DEG | - DELA<br>CLBAR<br>SQ-FT | - IHT<br>CDBAR<br>SQ-FT | - DELE<br>CPMBAR<br>CU-FT | - DELR<br>CYMBAR<br>CU-FT | - DELSB<br>CRMBAR<br>CU-FT | -<br>CYBAR<br>SQ-FT | -<br>Q<br>PSF | -<br>V<br>KNOTS | RPM |
|------------------|------------------------|------------|--------------------------|-------------------------|---------------------------|---------------------------|----------------------------|---------------------|---------------|-----------------|-----|
| 7                | -10.0                  | .0         | 1.2                      | 6.09                    | -21.                      | -14.                      | 45.                        | 1.33                | 55.61         | 129.33          | 0.  |
| 8                | -10.0                  | -20.0      | 1.2                      | 12.65                   | 11.                       | 396.                      | -0.                        | -16.35              | 55.29         | 128.95          | 0.  |
| 9                | -10.0                  | -15.0      | 3.4                      | 9.88                    | -81.                      | 305.                      | -24.                       | -12.89              | 55.49         | 129.19          | 0.  |
| 10               | -10.0                  | -10.1      | 3.0                      | 8.01                    | -88.                      | 201.                      | -3.                        | -8.34               | 55.28         | 128.94          | 0.  |
| 11               | -10.0                  | -5.0       | 1.6                      | 6.60                    | -57.                      | 93.                       | 8.                         | -3.41               | 55.58         | 129.30          | 0.  |
| 12               | -10.0                  | -2.5       | 1.1                      | 6.30                    | -41.                      | 36.                       | 26.                        | -.90                | 55.65         | 129.38          | 0.  |
| 13               | -10.0                  | .0         | 1.1                      | 6.18                    | -36.                      | -13.                      | 46.                        | 1.48                | 55.89         | 129.65          | 0.  |
| 14               | -10.0                  | 2.5        | 1.6                      | 6.36                    | -49.                      | -57.                      | 57.                        | 3.67                | 55.39         | 129.06          | 0.  |
| 15               | -10.0                  | 5.0        | 2.3                      | 6.83                    | -56.                      | -113.                     | 74.                        | 6.09                | 55.56         | 129.26          | 0.  |
| 16               | -10.0                  | 10.0       | 4.1                      | 8.24                    | -87.                      | -230.                     | 77.                        | 11.35               | 55.54         | 129.24          | 0.  |
| 17               | -10.0                  | 15.0       | 5.4                      | 10.36                   | -105.                     | -345.                     | 116.                       | 16.37               | 55.34         | 129.00          | 0.  |
| 18               | -10.0                  | 20.0       | -2.1                     | 13.33                   | 82.                       | -357.                     | 44.                        | 15.50               | 55.53         | 129.24          | 0.  |
| 19               | -10.0                  | .0         | 1.3                      | 6.26                    | -36.                      | -9.                       | 39.                        | 1.29                | 55.65         | 129.37          | 0.  |
| 20               | -10.0                  | 15.0       | 5.3                      | 10.24                   | -98.                      | -347.                     | 121.                       | 16.33               | 56.11         | 129.92          | 0.  |
| 21               | -10.0                  | 20.0       | -2.3                     | 13.47                   | 86.                       | -358.                     | 43.                        | 15.43               | 55.57         | 129.27          | 0.  |

## \*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 7    | .00    | .0031  | .0164 | -.0066 | -.0008 | .0027  | .0036  |
| 8    | -20.00 | .0031  | .0342 | .0035  | .0239  | -.0000 | -.0442 |
| 9    | -15.00 | .0092  | .0267 | -.0260 | .0184  | -.0015 | -.0348 |
| 10   | -10.10 | .0081  | .0217 | -.0284 | .0121  | -.0002 | -.0225 |
| 11   | -5.00  | .0043  | .0178 | -.0185 | .0056  | .0005  | -.0092 |
| 12   | -2.50  | .0028  | .0170 | -.0133 | .0021  | .0016  | -.0024 |
| 13   | .00    | .0029  | .0167 | -.0115 | -.0008 | .0028  | .0040  |
| 14   | 2.50   | .0042  | .0172 | -.0156 | -.0034 | .0035  | .0099  |
| 15   | 5.00   | .0063  | .0185 | -.0179 | -.0068 | .0045  | .0165  |
| 16   | 10.00  | .0111  | .0223 | -.0281 | -.0139 | .0047  | .0307  |
| 17   | 15.00  | .0145  | .0280 | -.0339 | -.0209 | .0070  | .0443  |
| 18   | 20.00  | -.0057 | .0360 | .0264  | -.0216 | .0027  | .0419  |
| 19   | .00    | .0036  | .0169 | -.0115 | -.0005 | .0024  | .0035  |
| 20   | 15.00  | .0143  | .0277 | -.0316 | -.0210 | .0073  | .0441  |
| 21   | 20.00  | -.0063 | .0364 | .0278  | -.0216 | .0026  | .0417  |

## \*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 7    | .00    | .0031  | .0164 | -.0066 | -.0008 | .0027  | .0036  |
| 8    | -20.00 | .0031  | .0169 | .0034  | .0239  | -.0002 | -.0532 |
| 9    | -15.00 | .0092  | .0167 | -.0231 | .0184  | -.0001 | -.0406 |
| 10   | -10.10 | .0081  | .0173 | -.0278 | .0121  | .0008  | -.0260 |
| 11   | -5.00  | .0043  | .0170 | -.0186 | .0056  | .0008  | -.0107 |
| 12   | -2.50  | .0028  | .0169 | -.0136 | .0021  | .0017  | -.0032 |
| 13   | .00    | .0029  | .0167 | -.0115 | -.0008 | .0028  | .0040  |
| 14   | 2.50   | .0042  | .0167 | -.0148 | -.0034 | .0033  | .0107  |
| 15   | 5.00   | .0063  | .0169 | -.0157 | -.0068 | .0042  | .0180  |
| 16   | 10.00  | .0111  | .0166 | -.0233 | -.0139 | .0037  | .0341  |
| 17   | 15.00  | .0145  | .0155 | -.0230 | -.0209 | .0051  | .0500  |
| 18   | 20.00  | -.0057 | .0194 | .0297  | -.0216 | .0042  | .0517  |
| 19   | .00    | .0036  | .0169 | -.0115 | -.0005 | .0024  | .0035  |
| 20   | 15.00  | .0143  | .0152 | -.0203 | -.0210 | .0055  | .0498  |
| 21   | 20.00  | -.0063 | .0199 | .0309  | -.0216 | .0042  | .0517  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 410 CONFIG F P B W5 T BT

| PT.<br>NO. | ALPHA<br>DEG | DELTA<br>PSI | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | DFLSB<br>PSF | Q      |    | RPM |
|------------|--------------|--------------|----------------|----------------|-----------------|-----------------|-----------------|----------------|--------------|--------|----|-----|
|            |              |              |                |                |                 |                 |                 |                |              | Q      | V  |     |
| 2          | .0           | .0           | 61.1           | 20.62          | -434.           | 19.             | 70.             | .06            | 54.91        | 128.52 | 0. |     |
| 3          | .0           | -20.0        | 87.3           | 57.83          | -321.           | 860.            | -68.            | -139.17        | 54.70        | 128.27 | 0. |     |
| 4          | .0           | -15.0        | 84.7           | 44.84          | -804.           | 575.            | 191.            | -102.81        | 54.87        | 128.47 | 0. |     |
| 5          | .0           | -9.8         | 71.1           | 27.56          | -405.           | 165.            | -24.            | -58.24         | 55.15        | 128.80 | 0. |     |
| 6          | .0           | -5.0         | 64.2           | 22.04          | -425.           | 72.             | -7.             | -26.96         | 55.35        | 129.04 | 0. |     |
| 7          | .0           | -2.5         | 62.0           | 21.16          | -432.           | 68.             | 25.             | -11.12         | 54.82        | 128.40 | 0. |     |
| 8          | .0           | .0           | 61.4           | 20.54          | -449.           | 38.             | 48.             | 3.81           | 54.58        | 128.11 | 0. |     |
| 9          | .0           | 2.5          | 61.5           | 21.24          | -475.           | 57.             | 41.             | 19.06          | 54.68        | 128.23 | 0. |     |
| 10         | .0           | 5.0          | 64.2           | 22.65          | -485.           | 30.             | 93.             | 33.58          | 54.98        | 128.60 | 0. |     |
| 11         | .0           | 10.0         | 70.6           | 27.78          | -542.           | -110.           | 170.            | 65.22          | 55.10        | 128.74 | 0. |     |
| 12         | .0           | 15.0         | 80.3           | 30.12          | -630.           | -442.           | 269.            | 104.31         | 54.96        | 128.57 | 0. |     |
| 13         | .0           | 20.0         | 90.3           | 35.10          | -741.           | -903.           | 366.            | 141.16         | 54.83        | 128.41 | 0. |     |
| 14         | .0           | .0           | 61.6           | 20.36          | -445.           | 41.             | 66.             | 4.18           | 54.65        | 128.20 | 0. |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .1652 | .0557 | -.1400 | .0011  | .0043  | .0002  |
| 3    | -20.00 | .2360 | .1563 | -.1036 | .0519  | -.0041 | -.3761 |
| 4    | -15.00 | .2290 | .1212 | -.2591 | .0348  | .0116  | -.2779 |
| 5    | -9.80  | .1921 | .0745 | -.1306 | .0100  | -.0015 | -.1574 |
| 6    | -5.00  | .1736 | .0596 | -.1360 | .0043  | -.0004 | -.0729 |
| 7    | -2.50  | .1675 | .0572 | -.1392 | .0041  | .0015  | -.0301 |
| 8    | .00    | .1660 | .0555 | -.1448 | .0023  | .0029  | .0103  |
| 9    | 2.50   | .1662 | .0574 | -.1530 | .0035  | .0025  | .0515  |
| 10   | 5.00   | .1735 | .0612 | -.1565 | .0024  | .0056  | .0908  |
| 11   | 10.00  | .1907 | .0751 | -.1746 | -.0066 | .0102  | .1763  |
| 12   | 15.00  | .2169 | .1030 | -.2059 | -.0267 | .0163  | .2819  |
| 13   | 20.00  | .2440 | .1516 | -.2388 | -.0546 | .0221  | .3815  |
| 14   | .00    | .1665 | .0550 | -.1435 | .0025  | .0040  | .0113  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|-------|--------|--------|-------|--------|
| 2    | .00    | .1652 | .0557 | -.1400 | .0011  | .0043 | .0002  |
| 3    | -20.00 | .2360 | .0176 | -.0897 | .0519  | .0028 | -.4069 |
| 4    | -15.00 | .2290 | .0448 | -.2662 | .0348  | .0238 | -.2998 |
| 5    | -9.80  | .1921 | .0465 | -.1274 | .0100  | .0027 | -.1678 |
| 6    | -5.00  | .1736 | .0530 | -.1362 | .0043  | .0019 | -.0778 |
| 7    | -2.50  | .1675 | .0558 | -.1394 | .0041  | .0027 | -.0325 |
| 8    | .00    | .1660 | .0555 | -.1448 | .0023  | .0029 | .0103  |
| 9    | 2.50   | .1662 | .0551 | -.1523 | .0035  | .0012 | .0540  |
| 10   | 5.00   | .1735 | .0530 | -.1533 | .0024  | .0030 | .0958  |
| 11   | 10.00  | .1907 | .0432 | -.1624 | -.0066 | .0044 | .1867  |
| 12   | 15.00  | .2169 | .0262 | -.1762 | -.0267 | .0057 | .2990  |
| 13   | 20.00  | .2440 | .0113 | -.1837 | -.0546 | .0054 | .4104  |
| 14   | .00    | .1665 | .0550 | -.1435 | .0025  | .0040 | .0113  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 347

RUH 434 CONFIG T4

| PT. NO. | Iw | - DELF<br>ALPHA<br>DEG | PSI<br>DEG | - DELA<br>CLBAR<br>SQ-FT | - IHT<br>CDBAR<br>SQ-FT | - DELE<br>CPMBAR<br>CU-FT | - DELR<br>CYMDAR<br>CU-FT | - DELR<br>CRMBAR<br>CU-FT | - DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM |
|---------|----|------------------------|------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------|------------|-----|
| 2       |    | .0                     | .0         | 2.3                      | 6.35                    | -72.                      | 10.                       | 48.                       | .22                       | 55.64    | 129.37     | 0.  |
| 3       |    | .0                     | -19.9      | 5.7                      | 11.25                   | -102.                     | 279.                      | 22.                       | -11.37                    | 55.21    | 128.86     | 0.  |
| 4       |    | .0                     | -14.9      | 5.7                      | 8.90                    | -144.                     | 178.                      | 12.                       | -7.49                     | 55.37    | 129.04     | 0.  |
| 5       |    | .0                     | -9.9       | 3.9                      | 7.20                    | -113.                     | 87.                       | 26.                       | -3.83                     | 55.38    | 129.05     | 0.  |
| 6       |    | .0                     | -4.9       | 2.4                      | 6.48                    | -80.                      | 29.                       | 28.                       | -1.03                     | 55.19    | 128.83     | 0.  |
| 7       |    | .0                     | -2.4       | 2.2                      | 6.36                    | -72.                      | 13.                       | 35.                       | -.25                      | 55.14    | 128.77     | 0.  |
| 8       |    | .0                     | .1         | 2.2                      | 6.27                    | -65.                      | 6.                        | 49.                       | .23                       | 55.40    | 129.08     | 0.  |
| 9       |    | .0                     | 2.6        | 2.5                      | 6.30                    | -77.                      | 1.                        | 51.                       | .96                       | 55.66    | 129.39     | 0.  |
| 10      |    | .0                     | 5.1        | 3.0                      | 6.50                    | -84.                      | -26.                      | 55.                       | 2.17                      | 55.36    | 129.03     | 0.  |
| 11      |    | .0                     | 10.1       | 4.2                      | 7.63                    | -102.                     | -108.                     | 42.                       | 5.32                      | 54.89    | 128.47     | 0.  |
| 12      |    | .0                     | 15.1       | 2.8                      | 9.29                    | -67.                      | -189.                     | 59.                       | 8.37                      | 55.10    | 128.72     | 0.  |
| 13      |    | .0                     | 20.1       | 1.5                      | 11.98                   | -44.                      | -296.                     | 43.                       | 11.88                     | 55.14    | 128.77     | 0.  |
| 14      |    | .0                     | .1         | 2.4                      | 6.38                    | -59.                      | 4.                        | 49.                       | .12                       | 54.81    | 128.37     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .0063  | .0172 | -.0231 | .0006  | .0029 | .0006  |
| 3    | -19.90 | .0154  | .0304 | -.0329 | .0169  | .0013 | -.0307 |
| 4    | -14.90 | .0155  | .0241 | -.0463 | .0108  | .0007 | -.0202 |
| 5    | -9.90  | .0104  | .0195 | -.0363 | .0052  | .0016 | -.0104 |
| 6    | -4.90  | .0064  | .0175 | -.0257 | .0017  | .0017 | -.0028 |
| 7    | -2.40  | .0060  | .0172 | -.0232 | .0008  | .0021 | -.0007 |
| 8    | .10    | .0059  | .0170 | -.0209 | .0003  | .0030 | .0006  |
| 9    | 2.60   | .0068  | .0170 | -.0247 | .0000  | .0031 | .0026  |
| 10   | 5.10   | .0080  | .0176 | -.0272 | -.0015 | .0033 | .0059  |
| 11   | 10.10  | .0113  | .0206 | -.0329 | -.0065 | .0025 | .0144  |
| 12   | 15.10  | .0074  | .0251 | -.0216 | -.0114 | .0036 | .0226  |
| 13   | 20.10  | .0042  | .0324 | -.0141 | -.0179 | .0026 | .0321  |
| 14   | .10    | -.0682 | .0877 | 1.9521 | -.1116 | .3981 | -.0877 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .0063  | .0172 | -.0231 | .0006  | .0029 | .0006  |
| 3    | -19.90 | .0154  | .0181 | -.0334 | .0169  | .0034 | -.0393 |
| 4    | -14.90 | .0155  | .0180 | -.0457 | .0108  | .0029 | -.0258 |
| 5    | -9.90  | .0104  | .0174 | -.0372 | .0052  | .0027 | -.0136 |
| 6    | -4.90  | .0064  | .0172 | -.0264 | .0017  | .0021 | -.0043 |
| 7    | -2.40  | .0060  | .0172 | -.0237 | .0008  | .0023 | -.0014 |
| 8    | .10    | .0059  | .0169 | -.0209 | .0003  | .0030 | .0006  |
| 9    | 2.60   | .0068  | .0169 | -.0239 | .0000  | .0029 | .0034  |
| 10   | 5.10   | .0080  | .0170 | -.0255 | -.0015 | .0028 | .0074  |
| 11   | 10.10  | .0113  | .0178 | -.0300 | -.0065 | .0014 | .0178  |
| 12   | 15.10  | .0074  | .0183 | -.0159 | -.0114 | .0024 | .0284  |
| 13   | 20.10  | .0042  | .0193 | -.0085 | -.0179 | .0015 | .0413  |
| 14   | .10    | -.0682 | .0878 | 1.9558 | -.1116 | .3987 | -.0875 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 3 4 A

RUN 436 CONFIG T4

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| 2       | .0        | .0      | 2.0         | 6.44        | -67.         | 17.          | 7.           | .25         | 55.03 | 128.65  | 0.  |
| 3       | -30.0     | .0      | -2.3        | 8.21        | 96.          | -8.          | 22.          | 1.35        | 54.49 | 128.00  | 0.  |
| 4       | -25.0     | .0      | -1.9        | 7.26        | 59.          | 29.          | 7.           | .12         | 54.60 | 128.13  | 0.  |
| 5       | -30.1     | .0      | -10.0       | 8.47        | 194.         | -35.         | 523.         | 1.60        | 54.53 | 128.05  | 0.  |
| 6       | -25.0     | .0      | -1.9        | 7.17        | 61.          | 27.          | 14.          | .17         | 54.76 | 128.32  | 0.  |
| 7       | -20.0     | .0      | -.8         | 6.43        | 21.          | -2.          | 23.          | 1.10        | 54.77 | 128.34  | 0.  |
| 8       | -15.0     | .0      | .3          | 6.20        | -11.         | -13.         | 26.          | 1.52        | 54.56 | 128.08  | 0.  |
| 9       | -10.0     | .0      | 1.0         | 6.12        | -34.         | -16.         | 30.          | 1.50        | 54.54 | 128.05  | 0.  |
| 10      | -5.0      | .0      | 1.3         | 6.23        | -44.         | -2.          | 16.          | .64         | 54.65 | 128.19  | 0.  |
| 11      | .0        | .0      | 2.0         | 6.42        | -68.         | 18.          | 19.          | .17         | 54.47 | 127.98  | 0.  |
| 12      | 5.0       | .0      | 2.3         | 6.57        | -83.         | 10.          | 19.          | .23         | 54.80 | 128.37  | 0.  |
| 13      | 10.0      | .0      | 3.2         | 6.69        | -108.        | -1.          | 20.          | .74         | 55.15 | 128.79  | 0.  |
| 14      | 15.0      | .0      | 4.4         | 7.27        | -136.        | -2.          | 8.           | .74         | 54.96 | 128.55  | 0.  |
| 15      | 20.0      | .0      | 5.5         | 8.40        | -175.        | -1.          | 19.          | .63         | 55.94 | 129.73  | 0.  |
| 16      | 25.0      | .0      | 7.1         | 10.21       | -226.        | -12.         | 13.          | 1.26        | 55.81 | 129.56  | 0.  |
| 17      | 30.0      | .0      | 8.0         | 11.49       | -257.        | -39.         | -16.         | 2.63        | 56.14 | 129.96  | 0.  |
| 18      | .0        | .0      | 1.7         | 6.44        | -51.         | 13.          | 24.          | .10         | 55.71 | 129.45  | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0054  | .0174 | -.0216 | .0010  | .0004  | .0007 |
| 3    | -30.00 | -.0063 | .0222 | .0291  | -.0005 | .0014  | .0037 |
| 4    | -24.99 | -.0051 | .0196 | .0190  | .0017  | .0004  | .0003 |
| 5    | -30.09 | -.0270 | .0229 | .0625  | -.0021 | .0316  | .0043 |
| 6    | -25.00 | -.0050 | .0194 | .0198  | .0016  | .0008  | .0004 |
| 7    | -20.00 | -.0020 | .0174 | .0069  | -.0001 | .0014  | .0030 |
| 8    | -15.00 | .0007  | .0168 | -.0035 | -.0008 | .0015  | .0041 |
| 9    | -10.00 | .0028  | .0165 | -.0109 | -.0009 | .0018  | .0041 |
| 10   | -5.01  | .0034  | .0168 | -.0141 | -.0001 | .0010  | .0017 |
| 11   | .01    | .0055  | .0174 | -.0218 | .0011  | .0011  | .0005 |
| 12   | 5.00   | .0063  | .0178 | -.0266 | .0006  | .0011  | .0006 |
| 13   | 9.99   | .0088  | .0181 | -.0349 | -.0001 | .0012  | .0020 |
| 14   | 15.01  | .0119  | .0197 | -.0446 | -.0001 | .0005  | .0020 |
| 15   | 20.00  | .0150  | .0227 | -.0565 | -.0000 | .0011  | .0017 |
| 16   | 25.00  | .0193  | .0276 | -.0728 | -.0007 | .0008  | .0034 |
| 17   | 29.99  | .0215  | .0310 | -.0830 | -.0024 | -.0010 | .0071 |
| 18   | .00    | .0045  | .0174 | -.0164 | .0008  | .0014  | .0003 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0054  | .0174 | -.0216 | .0010  | .0004  | .0007 |
| 3    | -30.00 | -.0063 | .0222 | .0291  | -.0005 | .0014  | .0037 |
| 4    | -24.99 | -.0051 | .0196 | .0190  | .0017  | .0004  | .0003 |
| 5    | -30.09 | -.0270 | .0229 | .0625  | -.0021 | .0316  | .0043 |
| 6    | -25.00 | -.0050 | .0194 | .0198  | .0016  | .0008  | .0004 |
| 7    | -20.00 | -.0020 | .0174 | .0069  | -.0001 | .0014  | .0030 |
| 8    | -15.00 | .0007  | .0168 | -.0035 | -.0008 | .0015  | .0041 |
| 9    | -10.00 | .0028  | .0165 | -.0109 | -.0009 | .0018  | .0041 |
| 10   | -5.01  | .0034  | .0168 | -.0141 | -.0001 | .0010  | .0017 |
| 11   | .01    | .0055  | .0174 | -.0218 | .0011  | .0011  | .0005 |
| 12   | 5.00   | .0063  | .0178 | -.0266 | .0006  | .0011  | .0006 |
| 13   | 9.99   | .0088  | .0181 | -.0349 | -.0001 | .0012  | .0020 |
| 14   | 15.01  | .0119  | .0197 | -.0446 | -.0001 | .0005  | .0020 |
| 15   | 20.00  | .0150  | .0227 | -.0565 | -.0000 | .0011  | .0017 |
| 16   | 25.00  | .0193  | .0276 | -.0728 | -.0007 | .0008  | .0034 |
| 17   | 29.99  | .0215  | .0310 | -.0830 | -.0024 | -.0010 | .0071 |
| 18   | .00    | .0045  | .0174 | -.0164 | .0008  | .0014  | .0003 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 439 CONFIG T3 BT

| PT. NO. | ALPHA DEG | DELTA PSI | DELTA CLBAR | DELTA CDBAR | DELTA CPMBAR | DELTA CYMBAR | DELTA CRMBAR | DELTA CYBAR | DELTA SQ-FT | DELTA PSF | DELTA V KNOTS | RPM |
|---------|-----------|-----------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|-----------|---------------|-----|
| 2       | .1        | .0        | 11.1        | 4.89        | -314.        | -46.         | 21.          | 1.24        | 55.35       | 129.03    | 0.            |     |
| 3       | .1        | -20.0     | 18.4        | 15.55       | -591.        | 1852.        | -315.        | -51.70      | 55.03       | 128.66    | 0.            |     |
| 4       | .1        | -15.0     | 13.8        | 10.52       | -426.        | 1340.        | -198.        | -37.71      | 55.42       | 129.11    | 0.            |     |
| 5       | .1        | -10.0     | 11.1        | 6.77        | -324.        | 772.         | -122.        | -22.01      | 55.67       | 129.41    | 0.            |     |
| 8       | .1        | -2.5      | 10.7        | 4.90        | -310.        | 129.         | -15.         | -3.72       | 55.23       | 128.89    | 0.            |     |
| 9       | .1        | .0        | 11.0        | 4.75        | -330.        | -60.         | 12.          | 1.66        | 55.43       | 129.12    | 0.            |     |
| 10      | .1        | 2.5       | 11.2        | 4.37        | -336.        | -254.        | 36.          | 7.03        | 56.15       | 129.98    | 0.            |     |
| 11      | .1        | 5.0       | 12.0        | 4.27        | -353.        | -481.        | 60.          | 13.54       | 56.10       | 129.91    | 0.            |     |
| 12      | .1        | 10.0      | 14.9        | 4.98        | -455.        | -926.        | 149.         | 26.53       | 55.76       | 129.51    | 0.            |     |
| 13      | .1        | 15.0      | 20.0        | 7.68        | -619.        | -1405.       | 244.         | 40.49       | 54.91       | 128.51    | 0.            |     |
| 14      | .1        | 20.1      | 27.8        | 12.28       | -934.        | -1987.       | 414.         | 57.43       | 55.52       | 129.23    | 0.            |     |
| 15      | .1        | -5.0      | 10.9        | 5.34        | -305.        | 354.         | -47.         | -9.48       | 55.41       | 129.10    | 0.            |     |
| 16      | .1        | .0        | 11.1        | 4.66        | -325.        | -53.         | 27.          | 1.34        | 55.89       | 129.66    | 0.            |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .0300 | .0132 | -.1011 | -.0028 | .0013  | .0033  |
| 3    | -20.00 | .0496 | .0420 | -.1904 | .1119  | -.0191 | -.1397 |
| 4    | -15.00 | .0372 | .0284 | -.1372 | .0810  | -.0120 | -.1019 |
| 5    | -10.00 | .0301 | .0183 | -.1044 | .0466  | -.0074 | -.0595 |
| 8    | -2.50  | .0290 | .0132 | -.0999 | .0078  | -.0009 | -.0100 |
| 9    | .00    | .0297 | .0128 | -.1064 | -.0036 | .0007  | .0045  |
| 10   | 2.50   | .0304 | .0112 | -.1083 | -.0153 | .0022  | .0190  |
| 11   | 5.00   | .0323 | .0115 | -.1137 | -.0291 | .0036  | .0366  |
| 12   | 10.00  | .0404 | .0134 | -.1466 | -.0559 | .0090  | .0717  |
| 13   | 15.00  | .0541 | .0208 | -.1996 | -.0849 | .0148  | .1094  |
| 14   | 20.10  | .0752 | .0332 | -.3011 | -.1200 | .0250  | .1552  |
| 15   | -5.00  | .0296 | .0144 | -.0983 | .0202  | -.0028 | -.0256 |
| 16   | .00    | .0301 | .0126 | -.1048 | -.0032 | .0016  | .0036  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .0300 | .0132  | -.1011 | -.0028 | .0013  | .0033  |
| 3    | -20.00 | .0496 | -.0085 | -.1439 | .1119  | -.0056 | -.1457 |
| 4    | -15.00 | .0372 | .0010  | -.1159 | .0810  | -.0049 | -.1058 |
| 5    | -10.00 | .0301 | .0076  | -.0959 | .0466  | -.0039 | -.0618 |
| 8    | -2.50  | .0290 | .0128  | -.0996 | .0078  | -.0001 | -.0106 |
| 9    | .00    | .0297 | .0128  | -.1064 | -.0036 | .0007  | .0045  |
| 10   | 2.50   | .0304 | .0110  | -.1077 | -.0153 | .0013  | .0195  |
| 11   | 5.00   | .0323 | .0083  | -.1115 | -.0291 | .0017  | .0375  |
| 12   | 10.00  | .0404 | .0007  | -.1360 | -.0559 | .0041  | .0730  |
| 13   | 15.00  | .0541 | -.0084 | -.1722 | -.0849 | .0045  | .1111  |
| 14   | 20.10  | .0752 | -.0224 | -.2365 | -.1200 | .0040  | .1571  |
| 15   | -5.00  | .0296 | .0121  | -.0965 | .0202  | -.0012 | -.0268 |
| 16   | .00    | .0301 | .0126  | -.1048 | -.0032 | .0016  | .0036  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 440 CONF16 T3 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA DELSB Q PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------------|---------------|-----|
| 6       | .0        | .0            | 11.3              | 4.98              | -319.              | -67.               | -5.                | 1.71              | 55.21             | 128.87        | 0.  |
| 7       | -30.0     | .0            | -61.7             | 40.73             | 2326.              | -66.               | 93.                | 2.80              | 55.25             | 128.91        | 0.  |
| 8       | -30.0     | .0            | -62.1             | 40.94             | 2832.              | -21.               | 1.                 | -.44              | 55.60             | 129.33        | 0.  |
| 9       | -25.0     | .0            | -68.1             | 33.73             | 2771.              | -88.               | 52.                | 2.25              | 55.48             | 129.19        | 0.  |
| 10      | -20.0     | .0            | -69.2             | 23.25             | 2507.              | -52.               | 31.                | 1.36              | 55.73             | 129.48        | 0.  |
| 11      | -15.0     | .0            | -69.8             | 10.77             | 2272.              | -74.               | 52.                | 1.96              | 55.07             | 128.70        | 0.  |
| 12      | -10.0     | .0            | -42.3             | 6.88              | 1342.              | -68.               | 19.                | 1.64              | 55.39             | 129.07        | 0.  |
| 13      | -5.0      | .0            | -13.8             | 4.29              | 425.               | -70.               | 49.                | 2.15              | 55.81             | 129.57        | 0.  |
| 14      | .0        | .0            | 11.0              | 4.98              | -325.              | -46.               | 27.                | 1.21              | 55.70             | 129.45        | 0.  |
| 15      | 5.0       | .0            | 35.9              | 7.62              | -1030.             | -50.               | 36.                | 1.53              | 55.38             | 129.07        | 0.  |
| 16      | 10.0      | .0            | 58.4              | 12.09             | -1635.             | -16.               | 26.                | .43               | 55.39             | 129.08        | 0.  |
| 17      | 15.0      | .0            | 62.2              | 25.44             | -1771.             | 18.                | 39.                | -.37              | 55.62             | 129.35        | 0.  |
| 16      | 20.0      | .0            | 66.0              | 35.10             | -1817.             | 65.                | 37.                | -1.89             | 54.92             | 128.52        | 0.  |
| 19      | 25.0      | .0            | 55.9              | 40.91             | -1444.             | 21.                | 24.                | .15               | 55.42             | 129.11        | 0.  |
| 20      | 30.0      | .0            | 55.6              | 48.26             | -1352.             | 58.                | 63.                | -1.85             | 55.24             | 128.89        | 0.  |
| 21      | .0        | .0            | 30.2              | 4.86              | -1588.             | -56.               | 29.                | 1.61              | 55.28             | 128.95        | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. # | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|-------|--------|--------|-------|--------|--------|--------|--------|
| 6     | .00    | .0305  | .0135 | -.1028 | -.0041 | -.0003 | .0046  |
| 7     | -29.99 | -.1667 | .1101 | .9111  | -.0040 | .0056  | .0076  |
| 8     | -30.03 | -.1678 | .1107 | .9131  | -.0013 | .0000  | -.0012 |
| 9     | -24.99 | -.1840 | .0912 | .8934  | -.0053 | .0031  | .0061  |
| 10    | -20.00 | -.1869 | .0629 | .8082  | -.0032 | .0019  | .0037  |
| 11    | -14.99 | -.1888 | .0291 | .7324  | -.0045 | .0032  | .0053  |
| 12    | -10.00 | -.1143 | .0186 | .4326  | -.0041 | .0012  | .0044  |
| 13    | -5.00  | -.0572 | .0116 | .1371  | -.0042 | .0030  | .0058  |
| 14    | .00    | .0298  | .0135 | -.1048 | -.0028 | .0016  | .0033  |
| 15    | 5.01   | .0970  | .0206 | -.3319 | -.0030 | .0022  | .0041  |
| 16    | 10.01  | .1579  | .0327 | -.5271 | -.0010 | .0015  | .0012  |
| 17    | 15.00  | .1681  | .0687 | -.5710 | .0011  | .0024  | -.0010 |
| 18    | 20.00  | .1785  | .0949 | -.5859 | .0039  | .0023  | -.0051 |
| 19    | 25.00  | .1511  | .1106 | -.4656 | .0013  | .0014  | .0004  |
| 20    | 30.00  | .1503  | .1304 | -.4360 | .0035  | .0038  | -.0050 |
| 21    | .01    | .0617  | .0131 | -.5119 | -.0034 | .0018  | .0043  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. # | ALPHA  | CLB    | CDH   | CPMB   | CYMB   | CRMB   | CYB    |
|-------|--------|--------|-------|--------|--------|--------|--------|
| 6     | .00    | .0305  | .0135 | -.1028 | -.0041 | -.0003 | .0046  |
| 7     | -29.99 | -.1667 | .1101 | .9111  | -.0040 | .0056  | .0076  |
| 8     | -30.03 | -.1678 | .1107 | .9131  | -.0013 | .0000  | -.0012 |
| 9     | -24.99 | -.1840 | .0912 | .8934  | -.0053 | .0031  | .0061  |
| 10    | -20.00 | -.1869 | .0629 | .8082  | -.0032 | .0019  | .0037  |
| 11    | -14.99 | -.1888 | .0291 | .7324  | -.0045 | .0032  | .0053  |
| 12    | -10.00 | -.1143 | .0186 | .4326  | -.0041 | .0012  | .0044  |
| 13    | -5.00  | -.0572 | .0116 | .1371  | -.0042 | .0030  | .0058  |
| 14    | .00    | .0298  | .0135 | -.1048 | -.0028 | .0016  | .0033  |
| 15    | 5.01   | .0970  | .0206 | -.3319 | -.0030 | .0022  | .0041  |
| 16    | 10.01  | .1579  | .0327 | -.5271 | -.0010 | .0015  | .0012  |
| 17    | 15.00  | .1681  | .0687 | -.5710 | .0011  | .0024  | -.0010 |
| 18    | 20.00  | .1785  | .0949 | -.5859 | .0039  | .0023  | -.0051 |
| 19    | 25.00  | .1511  | .1106 | -.4656 | .0013  | .0014  | .0004  |
| 20    | 30.00  | .1503  | .1304 | -.4360 | .0035  | .0038  | -.0050 |
| 21    | .01    | .0617  | .0131 | -.5119 | -.0034 | .0018  | .0043  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 441 CONFIG T3 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------------|-----|
| 6       | 10.0      | .0            | 57.9        | 12.56       | -1688.       | -49.         | 29.          | 1.20        | 55.15       | 128.80        | 0.  |
| 7       | 10.0      | -20.0         | 66.9        | 22.93       | -1979.       | 1709.        | -487.        | -45.86      | 54.35       | 127.84        | 0.  |
| 8       | 10.0      | -15.0         | 61.0        | 18.22       | -1815.       | 1271.        | -343.        | -34.56      | 54.84       | 128.43        | 0.  |
| 9       | 10.0      | -10.0         | 55.7        | 14.64       | -1664.       | 723.         | -205.        | -19.52      | 55.06       | 128.69        | 0.  |
| 10      | 10.0      | -5.0          | 57.4        | 12.99       | -1707.       | 304.         | -102.        | -8.02       | 55.62       | 129.36        | 0.  |
| 11      | 10.0      | -2.5          | 57.8        | 12.37       | -1704.       | 134.         | -37.         | -3.75       | 55.50       | 129.21        | 0.  |
| 12      | 10.0      | .0            | 59.1        | 12.12       | -1750.       | -21.         | 20.          | .51         | 54.89       | 128.49        | 0.  |
| 13      | 10.0      | 2.5           | 58.2        | 13.02       | -1727.       | -180.        | 87.          | 4.82        | 55.11       | 128.75        | 0.  |
| 14      | 10.0      | 5.0           | 59.5        | 13.32       | -1777.       | -353.        | 129.         | 9.34        | 54.63       | 128.17        | 0.  |
| 15      | 10.0      | 10.0          | 61.2        | 13.60       | -1834.       | -817.        | 249.         | 22.28       | 55.13       | 128.77        | 0.  |
| 16      | 10.0      | 15.0          | 65.7        | 15.80       | -1952.       | -1263.       | 417.         | 34.46       | 55.51       | 129.23        | 0.  |
| 17      | 10.0      | .0            | 58.5        | 12.10       | -1726.       | -9.          | 19.          | .21         | 55.55       | 129.27        | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | .00    | .1565 | .0340 | -.5441 | -.0030 | .0017  | .0032  |
| 7    | -20.00 | .1807 | .0620 | -.6379 | .1033  | -.0294 | -.1239 |
| 8    | -15.00 | .1648 | .0492 | -.5851 | .0768  | -.0207 | -.0934 |
| 9    | -10.00 | .1506 | .0396 | -.5364 | .0437  | -.0124 | -.0528 |
| 10   | -5.00  | .1551 | .0351 | -.5505 | .0184  | -.0062 | -.0217 |
| 11   | -2.50  | .1563 | .0334 | -.5492 | .0081  | -.0022 | -.0101 |
| 12   | .00    | .1597 | .0328 | -.5642 | -.0013 | .0012  | .0014  |
| 13   | 2.50   | .1574 | .0352 | -.5569 | -.0109 | .0052  | .0130  |
| 14   | 5.00   | .1609 | .0360 | -.5729 | -.0213 | .0078  | .0252  |
| 15   | 10.00  | .1655 | .0368 | -.5914 | -.0494 | .0151  | .0602  |
| 16   | 15.00  | .1776 | .0427 | -.6292 | -.0763 | .0252  | .0931  |
| 17   | .00    | .1581 | .0327 | -.5563 | -.0066 | .0011  | .0006  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | .00    | .1565 | .0340 | -.5441 | -.0030 | .0017  | .0032  |
| 7    | -20.00 | .1807 | .0156 | -.5451 | .1033  | .0134  | -.1377 |
| 8    | -15.00 | .1648 | .0233 | -.5362 | .0768  | .0085  | -.1030 |
| 9    | -10.00 | .1506 | .0298 | -.5166 | .0437  | .0053  | -.0588 |
| 10   | -5.00  | .1551 | .0331 | -.5455 | .0184  | .0029  | -.0247 |
| 11   | -2.50  | .1563 | .0330 | -.5482 | .0081  | .0023  | -.0116 |
| 12   | .00    | .1597 | .0328 | -.5642 | -.0013 | .0012  | .0014  |
| 13   | 2.50   | .1574 | .0346 | -.5551 | -.0109 | .0006  | .0145  |
| 14   | 5.00   | .1609 | .0337 | -.5671 | -.0213 | -.0016 | .0283  |
| 15   | 10.00  | .1655 | .0257 | -.5683 | -.0494 | -.0045 | .0657  |
| 16   | 15.00  | .1776 | .0170 | -.5725 | -.0763 | -.0063 | .1010  |
| 17   | .00    | .1581 | .0327 | -.5563 | -.0066 | .0011  | .0006  |



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SIKORSKY NSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

*P 352*

RUN 442 CONFIG T3 BT

| IW<br>PT.<br>NO. | - DELF<br>ALPHA<br>DEG | - DELA<br>PSI<br>DEG | - IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>DELSB<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM |
|------------------|------------------------|----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|------------------------|-----------------|-----|
| 8                | -10.0                  | .0                   | -43.5                   | 7.03                     | 1366.                     | -82.                       | 14.                  | 1.67                | 54.49                  | 128.01          | 0.  |
| 9                | -10.0                  | -20.0                | -25.5                   | 18.54                    | 803.                      | 1602.                      | -382.                | -43.91              | 54.91                  | 128.51          | 0.  |
| 10               | -10.0                  | -15.0                | -35.1                   | 13.75                    | 1086.                     | 1561.                      | -134.                | -44.97              | 54.79                  | 128.37          | 0.  |
| 11               | -10.0                  | -10.0                | -40.6                   | 9.81                     | 1243.                     | 971.                       | -46.                 | -28.02              | 55.02                  | 128.65          | 0.  |
| 12               | -10.0                  | -5.0                 | -43.3                   | 7.82                     | 1337.                     | 418.                       | 2.                   | -12.30              | 54.58                  | 128.12          | 0.  |
| 13               | -10.0                  | .0                   | -43.3                   | 6.85                     | 1323.                     | -63.                       | 22.                  | 1.96                | 55.08                  | 128.72          | 0.  |
| 14               | -10.0                  | 2.5                  | -43.2                   | 6.36                     | 1324.                     | -343.                      | 9.                   | 9.41                | 54.44                  | 127.95          | 0.  |
| 15               | -10.0                  | 5.0                  | -42.2                   | 6.51                     | 1274.                     | -617.                      | 24.                  | 17.49               | 54.31                  | 127.80          | 0.  |
| 16               | -10.0                  | 10.0                 | -37.7                   | 7.29                     | 1128.                     | -1121.                     | 126.                 | 32.41               | 54.70                  | 128.26          | 0.  |
| 17               | -10.0                  | 15.2                 | -31.0                   | 9.72                     | 922.                      | -1676.                     | 191.                 | 47.80               | 54.91                  | 128.51          | 0.  |
| 18               | -10.0                  | .0                   | -43.4                   | 6.88                     | 1341.                     | -80.                       | 1.                   | 1.55                | 55.10                  | 128.74          | 0.  |
| 19               | -10.0                  | -15.0                | -35.0                   | 13.85                    | 1100.                     | 1475.                      | -114.                | -42.39              | 54.74                  | 128.31          | 0.  |
| 20               | -10.0                  | -2.5                 | -44.0                   | 7.51                     | 1347.                     | 163.                       | 18.                  | -5.03               | 54.66                  | 128.21          | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM   | CYM    | CRM    | CY     |
|------|--------|--------|-------|-------|--------|--------|--------|
| 3    | .00    | -.1175 | .0190 | .4404 | -.0050 | .0008  | .0045  |
| 9    | -20.00 | -.0688 | .0501 | .2590 | .0967  | -.0231 | -.1187 |
| 10   | -15.00 | -.0949 | .0372 | .3502 | .0943  | -.0081 | -.1215 |
| 11   | -10.00 | -.1097 | .0265 | .4007 | .0586  | -.0028 | -.0757 |
| 12   | -5.00  | -.1169 | .0211 | .4310 | .0252  | .0001  | -.0332 |
| 13   | .00    | -.1171 | .0185 | .4264 | -.0050 | .0013  | .0053  |
| 14   | 2.50   | -.1168 | .0172 | .4268 | -.0207 | .0006  | .0254  |
| 15   | 5.00   | -.1140 | .0176 | .4106 | -.0373 | .0015  | .0473  |
| 16   | 10.00  | -.1019 | .0197 | .3636 | -.0677 | .0076  | .0876  |
| 17   | 15.20  | -.0839 | .0263 | .2973 | -.1012 | .0115  | .1292  |
| 18   | .00    | -.1172 | .0186 | .4325 | -.0049 | .0001  | .0642  |
| 19   | -15.00 | -.0945 | .0374 | .3547 | .0891  | -.0069 | -.1146 |
| 20   | -2.50  | -.1189 | .0203 | .4343 | .0099  | .0011  | -.0136 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB  | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|-------|--------|--------|--------|
| 8    | .00    | -.1175 | .0190  | .4404 | -.0050 | .0008  | .0045  |
| 9    | -20.00 | -.0688 | .0501  | .2855 | .0967  | -.0383 | -.1287 |
| 10   | -15.00 | -.0949 | .0403  | .3494 | .0943  | -.0249 | -.1270 |
| 11   | -10.00 | -.1097 | .0129  | .3972 | .0586  | -.0158 | -.0792 |
| 12   | -5.00  | -.1169 | .0181  | .4293 | .0252  | -.0069 | -.0350 |
| 13   | .00    | -.1171 | .0185  | .4264 | -.0050 | .0013  | .0053  |
| 14   | 2.50   | -.1168 | .0161  | .4265 | -.0207 | .0041  | .0262  |
| 15   | 5.00   | -.1140 | .0134  | .4097 | -.0373 | .0082  | .0486  |
| 16   | 10.00  | -.1019 | .0041  | .3651 | -.0677 | .0194  | .0897  |
| 17   | 15.20  | -.0839 | -.0087 | .3030 | -.1012 | .0258  | .1315  |
| 18   | .00    | -.1172 | .0186  | .4325 | -.0049 | .0001  | .0042  |
| 19   | -15.00 | -.0945 | .0964  | .3520 | .0891  | -.0239 | -.1204 |
| 20   | -2.50  | -.1189 | .0197  | .4337 | .0099  | -.0025 | -.0145 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 353

RUN 443 CONFIG T3 BT

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB 0 PSF | V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|---------------|--------------|--------------|-------------|-------------|---------|-----|
| 9       | .0        | 5.0     | 12.4        | 4.79        | -216.         | -514.        | -147.        | 15.46       | 54.44       | 127.96  | 0.  |
| 10      | -30.0     | 5.0     | -70.4       | 44.03       | 2501.         | -674.        | 67.          | 20.47       | 54.01       | 127.44  | 0.  |
| 11      | -25.0     | 5.0     | -70.6       | 35.04       | 2542.         | -677.        | -20.         | 20.30       | 54.05       | 127.49  | 0.  |
| 12      | -20.0     | 5.0     | -79.7       | 20.77       | 2628.         | -700.        | -158.        | 22.26       | 54.64       | 128.19  | 0.  |
| 13      | -15.0     | 5.0     | -69.0       | 11.68       | 2234.         | -761.        | -125.        | 24.06       | 54.29       | 127.78  | 0.  |
| 14      | -10.0     | 5.0     | -40.7       | 7.27        | 1373.         | -720.        | -142.        | 22.46       | 54.64       | 128.19  | 0.  |
| 15      | -5.0      | 5.0     | -12.4       | 4.80        | 521.          | -642.        | -124.        | 19.81       | 54.57       | 128.11  | 0.  |
| 16      | .0        | 5.0     | 12.1        | 4.82        | -223.         | -513.        | -127.        | 15.37       | 55.21       | 128.87  | 0.  |
| 17      | 5.0       | 5.0     | 36.2        | 7.56        | -925.         | -459.        | -87.         | 13.26       | 54.80       | 128.39  | 0.  |
| 18      | 10.0      | 5.0     | 58.7        | 12.97       | -1615.        | -416.        | -57.         | 11.92       | 55.28       | 128.96  | 0.  |
| 19      | 15.0      | 5.0     | 62.5        | 26.57       | -1855.        | -358.        | -81.         | 9.64        | 55.03       | 128.66  | 0.  |
| 20      | 20.0      | 5.0     | 65.8        | 35.18       | -2042.        | -284.        | -70.         | 7.15        | 55.44       | 129.15  | 0.  |
| 21      | 25.0      | 5.0     | 60.9        | 42.43       | -2006.        | -341.        | -149.        | 10.19       | 55.52       | 129.24  | 0.  |
| 22      | 30.0      | 5.0     | 54.6        | 47.97       | -1965.        | -211.        | -40.         | 5.37        | 55.22       | 128.88  | 0.  |
| 23      | -0        | 5.0     | 12.0        | 4.70        | -210.         | -514.        | -126.        | 15.38       | 55.61       | 129.35  | 0.  |
| 24      | -30.0     | 5.0     | -68.6       | 43.05       | 2515.         | -662.        | 94.          | 20.45       | 55.07       | 128.70  | 0.  |
| 25      | -25.0     | 5.0     | -70.5       | 35.04       | 2534.         | -664.        | -2.          | 20.12       | 54.80       | 128.38  | 0.  |
| 26      | -20.0     | 5.0     | -81.8       | 21.27       | 2685.         | -693.        | -151.        | 22.15       | 54.32       | 127.81  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 9    | .00    | .0335  | .0129 | -.0695 | -.0311 | -.0089 | .0418 |
| 10   | -30.00 | -.1902 | .1190 | .8320  | -.0407 | .0041  | .0553 |
| 11   | -25.00 | -.1907 | .0947 | .8197  | -.0409 | -.0012 | .0549 |
| 12   | -20.00 | -.2154 | .0561 | .8474  | -.0423 | -.0095 | .0602 |
| 13   | -15.00 | -.1864 | .0316 | .7204  | -.0460 | -.0076 | .0650 |
| 14   | -10.00 | -.1100 | .0196 | .4427  | -.0435 | -.0085 | .0607 |
| 15   | -5.00  | -.0335 | .0130 | .1681  | -.0388 | -.0075 | .0535 |
| 16   | .00    | .0327  | .0130 | -.0718 | -.0310 | -.0077 | .0415 |
| 17   | 5.01   | .0977  | .0204 | -.2984 | -.0277 | -.0052 | .0358 |
| 18   | 10.01  | .1587  | .0351 | -.5206 | -.0251 | -.0035 | .0322 |
| 19   | 15.00  | .1690  | .0718 | -.5980 | -.0216 | -.0049 | .0260 |
| 20   | 20.01  | .1778  | .0951 | -.6582 | -.0172 | -.0042 | .0193 |
| 21   | 25.00  | .1646  | .1147 | -.6468 | -.0206 | -.0090 | .0275 |
| 22   | 30.00  | .1477  | .1296 | -.6334 | -.0127 | -.0024 | .0145 |
| 23   | -0.01  | .0324  | .0127 | -.0676 | -.0310 | -.0076 | .0416 |
| 24   | -30.00 | -.1855 | .1164 | .8109  | -.0400 | .0057  | .0553 |
| 25   | -25.00 | -.1905 | .0947 | .8169  | -.0401 | -.0001 | .0544 |
| 26   | -20.00 | -.2210 | .0575 | .8655  | -.0419 | -.0091 | .0599 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 9    | .00    | .0335  | .0092 | -.0734 | -.0311 | -.0100 | .0428 |
| 10   | -30.00 | -.1902 | .1137 | .8307  | -.0407 | .0177  | .0655 |
| 11   | -25.00 | -.1907 | .0895 | .8159  | -.0409 | .0122  | .0629 |
| 12   | -20.00 | -.2154 | .0507 | .8397  | -.0423 | .0044  | .0648 |
| 13   | -15.00 | -.1864 | .0258 | .7141  | -.0460 | .0043  | .0675 |
| 14   | -10.00 | -.1100 | .0142 | .4370  | -.0435 | -.0013 | .0622 |
| 15   | -5.00  | -.0335 | .0082 | .1640  | -.0388 | -.0047 | .0545 |
| 16   | .00    | .0327  | .0093 | -.0751 | -.0310 | -.0088 | .0425 |
| 17   | 5.01   | .0977  | .0172 | -.2997 | -.0277 | -.0101 | .0375 |

|    |        |        |       |        |        |        |       |
|----|--------|--------|-------|--------|--------|--------|-------|
| 18 | 10.01  | .1587  | .0321 | -.5203 | -.0251 | -.0120 | .0352 |
| 19 | 15.00  | .1690  | .0692 | -.5980 | -.0216 | -.0147 | .0322 |
| 20 | 20.01  | .1778  | .0930 | -.6577 | -.0172 | -.0150 | .0276 |
| 21 | 25.00  | .1646  | .1118 | -.6485 | -.0206 | -.0195 | .0375 |
| 22 | 30.00  | .1477  | .1279 | -.6321 | -.0127 | -.0128 | .0258 |
| 23 | -0.01  | .0324  | .0090 | -.0708 | -.0310 | -.0087 | .0425 |
| 24 | -30.00 | -.1855 | .1111 | .8104  | -.0400 | .0190  | .0652 |
| 25 | -25.00 | -.1905 | .0896 | .8137  | -.0401 | .0133  | .0625 |
| 26 | -20.00 | -.2210 | .0520 | .8579  | -.0419 | .0051  | .0647 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

P 35y

RUN 444 CONFIG T3 BT

| PT. NO. | INW | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA DELSR PSF | DELTA DELSB Q KNOTS | RPM |
|---------|-----|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-----------------|---------------------|-----|
| 6       |     | -0        | 15.0          | 19.8              | 11.00             | -233.              | -1586.             | 246.               | 48.49             | 54.66           | 128.22              | 0.  |
| 7       |     | -30.0     | 14.7          | -73.8             | 52.20             | 2972.              | -1799.             | 707.               | 56.06             | 54.91           | 128.51              | 0.  |
| 8       |     | -20.0     | 15.0          | -70.7             | 31.74             | 2665.              | -1990.             | 353.               | 63.39             | 55.11           | 128.76              | 0.  |
| 9       |     | -12.0     | 15.1          | -39.1             | 15.26             | 1574.              | -1976.             | 268.               | 63.65             | 55.17           | 128.83              | 0.  |
| 10      |     | -10.0     | 15.1          | -28.0             | 13.97             | 1237.              | -1925.             | 254.               | 61.31             | 55.10           | 128.74              | 0.  |
| 11      |     | -5.0      | 15.0          | -2.6              | 11.45             | 448.               | -1741.             | 247.               | 54.56             | 54.90           | 128.51              | 0.  |
| 12      |     | 0         | 15.0          | 19.9              | 11.08             | -234.              | -1600.             | 261.               | 48.84             | 54.92           | 128.53              | 0.  |
| 13      |     | 7.5       | 15.1          | 57.4              | 220.49            | -443.              | 11929.             | 388.               | 44.51             | 55.50           | 129.21              | 0.  |
| 14      |     | 7.5       | 15.1          | 57.6              | 15.74             | -1317.             | -1510.             | 389.               | 44.41             | 55.27           | 128.94              | 0.  |
| 15      |     | 10.0      | 15.1          | 68.0              | 19.49             | -1641.             | -1440.             | 431.               | 41.67             | 54.84           | 128.43              | 0.  |
| 16      |     | 15.0      | 15.0          | 75.8              | 33.03             | -1990.             | -1293.             | 414.               | 34.73             | 54.78           | 128.35              | 0.  |
| 17      |     | 20.0      | 15.0          | 74.4              | 41.99             | -2049.             | -1081.             | 397.               | 27.61             | 54.71           | 128.28              | 0.  |
| 18      |     | 25.0      | 15.0          | 68.6              | 48.75             | -1994.             | -860.              | 418.               | 20.22             | 54.79           | 128.37              | 0.  |
| 19      |     | 30.0      | 15.0          | 54.1              | 52.13             | -1701.             | -614.              | 508.               | 11.02             | 54.53           | 128.06              | 0.  |
| 20      |     | -0        | 15.1          | 19.7              | 11.16             | -211.              | -1611.             | 257.               | 49.33             | 54.86           | 128.46              | 0.  |
| 21      |     | 2.5       | 15.1          | 33.0              | 12.08             | -604.              | -1590.             | 329.               | 48.15             | 54.57           | 128.11              | 0.  |
| 22      |     | 5.0       | 15.1          | 45.9              | 13.67             | -977.              | -1567.             | 369.               | 46.77             | 54.76           | 128.34              | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY    |
|------|--------|--------|-------|--------|--------|-------|-------|
| 6    | -0.0   | .0536  | .0297 | -.0752 | -.0958 | .0149 | .1311 |
| 7    | -30.00 | -.1995 | .1411 | .9581  | -.1087 | .0427 | .1515 |
| 8    | -20.02 | -.1910 | .0858 | .8592  | -.1202 | .0213 | .1713 |
| 9    | -12.01 | -.1057 | .0412 | .5075  | -.1194 | .0162 | .1720 |
| 10   | -10.01 | -.0758 | .0378 | .3987  | -.1163 | .0154 | .1657 |
| 11   | -5.00  | -.0069 | .0310 | .1445  | -.1052 | .0149 | .1475 |
| 12   | 0.0    | .0539  | .0299 | -.0754 | -.0966 | .0157 | .1320 |
| 13   | 7.64   | .1551  | .0959 | -.1427 | .7205  | .0235 | .1203 |
| 14   | 7.64   | .1556  | .0425 | -.4246 | -.0912 | .0235 | .1200 |
| 15   | 10.01  | .1837  | .0627 | -.5289 | -.0870 | .0261 | .1126 |
| 16   | 15.01  | .2048  | .0893 | -.6414 | -.0784 | .0250 | .0939 |
| 17   | 20.02  | .2010  | .1135 | -.6604 | -.0653 | .0240 | .0746 |
| 18   | 25.03  | .1855  | .1318 | -.6428 | -.0519 | .0253 | .0547 |
| 19   | 30.03  | .1463  | .1409 | -.5483 | -.0371 | .0307 | .0298 |
| 20   | -0.01  | .0533  | .0302 | -.0680 | -.0973 | .0155 | .1333 |
| 21   | 2.50   | .0891  | .0327 | -.1948 | -.0960 | .0199 | .1301 |
| 22   | 5.00   | -.3155 | .3960 | -.5825 | .6076  | .0117 | .1027 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 6    | -0.0   | .0536  | -.0054 | -.0520 | -.0958 | .0107  | .1343 |
| 7    | -30.00 | -.1995 | .0978  | .9845  | -.1087 | .0870  | .1825 |
| 8    | -20.02 | -.1910 | .0383  | .8593  | -.1202 | .0624  | .1877 |
| 9    | -12.01 | -.1057 | -.0052 | .5124  | -.1194 | .0405  | .1768 |
| 10   | -10.01 | -.0758 | -.0069 | .4062  | -.1163 | .0344  | .1698 |
| 11   | -5.00  | -.0069 | -.0084 | .1603  | -.1052 | .0215  | .1504 |
| 12   | 0.0    | .0539  | -.0054 | -.0509 | -.0966 | .0115  | .1352 |
| 13   | 7.64   | .1551  | .5437  | -.1049 | .7205  | .0157  | .2720 |
| 14   | 7.64   | .1556  | .0596  | -.3770 | -.0912 | .0018  | .1270 |
| 15   | 10.01  | .1837  | .0214  | -.4741 | -.0870 | -.0008 | .1225 |
| 16   | 15.01  | .2048  | .0618  | -.5847 | -.0784 | -.0071 | .1138 |

|    |       |        |        |        |        |        |       |
|----|-------|--------|--------|--------|--------|--------|-------|
| 17 | 20.02 | .2010  | .0902  | -.6045 | -.0653 | -.0090 | .1016 |
| 18 | 25.03 | .1855  | .1130  | -.5856 | -.0519 | -.0069 | .0870 |
| 19 | 30.03 | .1463  | .1283  | -.4869 | -.0371 | .0029  | .0654 |
| 20 | -0.01 | .0533  | -.0058 | -.0439 | -.0973 | .0117  | .1366 |
| 21 | 2.50  | .0891  | -.0025 | -.1603 | -.0960 | .0096  | .1341 |
| 22 | 5.00  | -.3155 | .3960  | -.5825 | .6076  | .0117  | .1027 |

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RUN 445 CONFIG T3 BT

| PT. NO. | ALPHA DEG | DELTA PSI DFG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CU-FT | O DELE CYMBAR CU-FT | 10 DELR CRMBAR CU-FT | O DELS8 CYBAR SQ-FT | O DELS8 Q PSF | O V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|-----------|---------------------|----------------------|---------------------|---------------|-----------|-----|
| 6       | 01        | 00            | 35.1              | 7.52              | -1057.    | -42.                | 25.                  | 87                  | 55.01         | 128.63    | 0.  |
| 7       | -29.9     | 00            | -53.5             | 34.80             | 1855.     | -95.                | 86.                  | 2.71                | 55.53         | 129.26    | 0.  |
| 8       | -24.9     | 00            | -51.8             | 27.17             | 1776.     | -115.               | 91.                  | 3.18                | 55.48         | 129.20    | 0.  |
| 9       | -19.9     | 00            | -54.4             | 17.46             | 1737.     | -117.               | 69.                  | 3.44                | 55.77         | 129.53    | 0.  |
| 10      | -14.9     | 00            | -41.6             | 7.16              | 1241.     | -97.                | 61.                  | 2.36                | 55.61         | 129.34    | 0.  |
| 11      | 9.9       | 00            | -12.8             | 5.03              | 371.      | -94.                | 45.                  | 2.07                | 56.12         | 129.94    | 0.  |
| 12      | -5.0      | 00            | 13.8              | 5.06              | -424.     | -63.                | 56.                  | 1.38                | 55.59         | 129.33    | 0.  |
| 13      | 01        | 00            | 35.2              | 7.59              | -1067.    | -48.                | 48.                  | 92                  | 55.87         | 129.65    | 0.  |
| 14      | 5.1       | 00            | 60.5              | 11.77             | -1816.    | -54.                | 52.                  | 1.34                | 56.25         | 130.10    | 0.  |
| 15      | 10.1      | 00            | 78.7              | 19.90             | -2398.    | -28.                | 49.                  | 60                  | 56.40         | 130.27    | 0.  |
| 16      | 15.1      | 00            | 77.5              | 32.72             | -2474.    | 20.                 | 38.                  | -70                 | 56.34         | 130.20    | 0.  |
| 17      | 20.1      | 00            | 79.0              | 42.67             | -2620.    | 74.                 | 52.                  | -2.34               | 56.32         | 130.18    | 0.  |
| 18      | 25.1      | 00            | 67.2              | 49.05             | -2390.    | 28.                 | 22.                  | -1.84               | 55.48         | 129.18    | 0.  |
| 19      | 30.1      | 00            | 65.3              | 56.45             | -2495.    | 62.                 | 87.                  | -1.49               | 55.64         | 129.38    | 0.  |
| 20      | 01        | 00            | 34.5              | 7.57              | -1033.    | -51.                | 54.                  | 84                  | 55.52         | 129.23    | 0.  |
| 21      | 25.1      | 00            | 65.5              | 47.83             | -2343.    | 74.                 | 90.                  | -3.10               | 55.80         | 129.56    | 0.  |
| 22      | 30.1      | 00            | 65.0              | 56.34             | -2485.    | 118.                | 133.                 | -4.26               | 55.30         | 128.97    | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL    | CD   | CPM   | CYM   | CRM  | CY    |
|------|--------|-------|------|-------|-------|------|-------|
| 6    | 08     | 0949  | 0203 | -3408 | -0025 | 0015 | 0024  |
| 7    | -29.89 | -1447 | 0940 | 5982  | -0057 | 0052 | 0073  |
| 8    | -24.91 | -1399 | 0734 | 5725  | -0069 | 0055 | 0086  |
| 9    | -19.94 | -1471 | 0472 | 5600  | -0071 | 0042 | 0093  |
| 10   | -14.90 | -1124 | 0193 | 4000  | -0059 | 0037 | 0064  |
| 11   | -9.95  | -0345 | 0136 | 1197  | -0057 | 0027 | 0056  |
| 12   | -4.97  | 0374  | 0137 | -1366 | -0038 | 0034 | 0037  |
| 13   | 010    | 0950  | 0205 | -3441 | -0029 | 0029 | 0025  |
| 14   | 5.11   | 1634  | 0318 | -5854 | -0033 | 0031 | 0036  |
| 15   | 10.09  | 2126  | 0538 | -7730 | -0017 | 0029 | 0016  |
| 16   | 15.08  | 2095  | 0884 | -7977 | 0012  | 0023 | -0019 |
| 17   | 20.13  | 2134  | 1153 | -8447 | 0045  | 0032 | -0063 |
| 18   | 25.10  | 1815  | 1326 | -7705 | 0017  | 0013 | -0050 |
| 19   | 30.10  | 1765  | 1526 | -8043 | 0037  | 0052 | -0040 |
| 20   | 09     | 0932  | 0205 | -3331 | -0031 | 0033 | 0023  |
| 21   | 25.10  | 1771  | 1293 | -7553 | 0045  | 0054 | -0084 |
| 22   | 30.11  | 1756  | 1523 | -8010 | 0072  | 0080 | -0115 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB   | CD B | CPMB  | CYMB  | CRMB | CYB   |
|------|--------|-------|------|-------|-------|------|-------|
| 6    | 08     | 0949  | 0203 | -3408 | -0025 | 0015 | 0024  |
| 7    | -29.89 | -1447 | 0940 | 5982  | -0057 | 0052 | 0073  |
| 8    | -24.91 | -1399 | 0734 | 5725  | -0069 | 0055 | 0086  |
| 9    | -19.94 | -1471 | 0472 | 5600  | -0071 | 0042 | 0093  |
| 10   | -14.90 | -1124 | 0193 | 4000  | -0059 | 0037 | 0064  |
| 11   | -9.95  | -0345 | 0136 | 1197  | -0057 | 0027 | 0056  |
| 12   | -4.97  | 0374  | 0137 | -1366 | -0038 | 0034 | 0037  |
| 13   | 010    | 0950  | 0205 | -3441 | -0029 | 0029 | 0025  |
| 14   | 5.11   | 1634  | 0318 | -5854 | -0033 | 0031 | 0036  |
| 15   | 10.09  | 2126  | 0538 | -7730 | -0017 | 0029 | 0016  |
| 16   | 15.08  | 2095  | 0884 | -7977 | 0012  | 0023 | -0019 |

|    |       |      |      |       |       |      |       |
|----|-------|------|------|-------|-------|------|-------|
| 17 | 20.13 | 2134 | 1153 | -8447 | 0045  | 0032 | -0063 |
| 18 | 25.10 | 1815 | 1326 | -7705 | 0017  | 0013 | -0050 |
| 19 | 30.10 | 1765 | 1526 | -8043 | 0037  | 0052 | -0040 |
| 20 | 09    | 0932 | 0205 | -3331 | -0031 | 0033 | 0023  |
| 21 | 25.10 | 1771 | 1293 | -7553 | 0045  | 0054 | -0084 |
| 22 | 30.11 | 1756 | 1523 | -8010 | 0072  | 0080 | -0115 |

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| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CIBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CPMBAR CU-FT | O DELE CYMBAR CU-FT | 15 DELR CRMBAR CU-FT | O DELSB CYBAR SQ-FT | DELTA Q PSF | O V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|------------------|---------------------|----------------------|---------------------|-------------|-----------|-----|
| 2.      | 0         | 0             | 41.5              | 9.76              | -1256.           | -21.                | 22.                  | 41                  | 55.88       | 129.66    | 0.  |
| 3.      | -30.0     | 0             | -39.7             | 30.93             | 1420.            | -87.                | 115.                 | 3.21                | 55.97       | 129.76    | 0.  |
| 4.      | -25.0     | 0             | -42.6             | 24.68             | 1486.            | -114.               | 78.                  | 3.59                | 55.95       | 129.74    | 0.  |
| 5.      | -20.0     | 0             | -47.3             | 12.30             | 1462.            | -71.                | 32.                  | 2.68                | 56.45       | 130.33    | 0.  |
| 6.      | -15.0     | 0             | -26.9             | 6.86              | 796.             | -88.                | 49.                  | 2.35                | 55.80       | 129.56    | 0.  |
| 7.      | -10.0     | 0             | 5                 | 5.96              | -31.             | -73.                | 33.                  | 1.92                | 55.75       | 129.50    | 0.  |
| 8.      | -5.0      | 0             | 27.2              | 6.73              | -832.            | -49.                | 44.                  | 1.34                | 56.14       | 129.96    | 0.  |
| 9.      | 0         | 0             | 41.4              | 9.72              | -1261.           | -30.                | 30.                  | 83                  | 56.24       | 130.08    | 0.  |
| 10.     | 5.0       | 0             | 67.7              | 14.45             | -2046.           | -31.                | 33.                  | 1.00                | 56.13       | 129.95    | 0.  |
| 11.     | 10.0      | 0             | 87.6              | 23.56             | -2687.           | -4.                 | 36.                  | 46                  | 56.28       | 130.13    | 0.  |
| 12.     | 15.0      | 0             | 87.6              | 36.71             | -2812.           | 44.                 | 48.                  | -1.14               | 56.36       | 130.22    | 0.  |
| 13.     | 20.0      | 0             | 83.8              | 45.83             | -2804.           | 90.                 | 52.                  | -2.68               | 56.01       | 129.81    | 0.  |
| 14.     | 25.0      | 0             | 71.3              | 52.02             | -2551.           | -6.                 | -16.                 | 1.29                | 55.96       | 129.75    | 0.  |
| 15.     | 30.0      | 0             | 69.3              | 59.85             | -2649.           | 166.                | 129.                 | -6.38               | 56.38       | 130.24    | 0.  |
| 16.     | 0         | 0             | 41.6              | 9.68              | -1264.           | -36.                | 31.                  | 90                  | 55.69       | 129.43    | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 00     | .1122  | .0264 | -.4050 | -.0012 | .0013  | .0011  |
| 3    | -30.02 | -.1074 | .0836 | .4578  | -.0053 | .0069  | .0087  |
| 4    | -24.98 | -.1152 | .0667 | .4791  | -.0069 | .0047  | .0097  |
| 5    | -20.01 | -.1278 | .0332 | .4714  | -.0043 | .0020  | .0073  |
| 6    | -15.01 | -.0726 | .0186 | .2568  | -.0053 | .0030  | .0063  |
| 7    | -10.03 | .0014  | .0161 | -.0101 | -.0044 | .0020  | .0052  |
| 8    | -4.99  | .0736  | .0182 | -.2681 | -.0029 | .0026  | .0036  |
| 9    | .02    | .1118  | .0263 | -.4066 | -.0018 | .0018  | .0022  |
| 10   | 5.01   | .1829  | .0391 | -.6597 | -.0019 | .0020  | .0027  |
| 11   | 9.99   | .2367  | .0637 | -.8664 | -.0002 | .0022  | .0012  |
| 12   | 15.00  | .2368  | .0992 | -.9064 | .0026  | .0029  | -.0031 |
| 13   | 19.99  | .2265  | .1239 | -.9038 | .0054  | .0031  | -.0072 |
| 14   | 25.03  | .1926  | .1406 | -.8225 | -.0004 | -.0010 | .0035  |
| 15   | 30.01  | .1872  | .1618 | -.8540 | .0100  | .0078  | -.0172 |
| 16   | .00    | .1125  | .0261 | -.4075 | -.0022 | .0018  | .0024  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 00     | .1122  | .0264 | -.4050 | -.0012 | .0013  | .0011  |
| 3    | -30.02 | -.1074 | .0836 | .4578  | -.0053 | .0069  | .0087  |
| 4    | -24.98 | -.1152 | .0667 | .4791  | -.0069 | .0047  | .0097  |
| 5    | -20.01 | -.1278 | .0332 | .4714  | -.0043 | .0020  | .0073  |
| 6    | -15.01 | -.0726 | .0186 | .2568  | -.0053 | .0030  | .0063  |
| 7    | -10.03 | .0014  | .0161 | -.0101 | -.0044 | .0020  | .0052  |
| 8    | -4.99  | .0736  | .0182 | -.2681 | -.0029 | .0026  | .0036  |
| 9    | .02    | .1118  | .0263 | -.4066 | -.0018 | .0018  | .0022  |
| 10   | 5.01   | .1829  | .0391 | -.6597 | -.0019 | .0020  | .0027  |
| 11   | 9.99   | .2367  | .0637 | -.8664 | -.0002 | .0022  | .0012  |
| 12   | 15.00  | .2368  | .0992 | -.9064 | .0026  | .0029  | -.0031 |
| 13   | 19.99  | .2265  | .1239 | -.9038 | .0054  | .0031  | -.0072 |
| 14   | 25.03  | .1926  | .1406 | -.8225 | -.0004 | -.0010 | .0035  |
| 15   | 30.01  | .1872  | .1618 | -.8540 | .0100  | .0078  | -.0172 |
| 16   | .00    | .1125  | .0261 | -.4075 | -.0022 | .0018  | .0024  |

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RUN 447 CONFIG T3 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELA CIBAR SQ-FT | INT CDBAR SQ-FT | DELE CPMBAR CU-FT | DELR CYMBAR CU-FT | DELSB Q PSF | V KNOTS | RPM   |        |    |
|---------|-----------|---------------|------------------|-----------------|-------------------|-------------------|-------------|---------|-------|--------|----|
| 2       | 0         | 0             | 47.5             | 11.93           | -1444.            | -23.              | 45.         | 0.45    | 55.65 | 129.39 | 0. |
| 3       | -30.0     | 0             | -32.1            | 28.83           | 1164.             | -63.              | 91.         | 1.74    | 55.87 | 129.65 | 0. |
| 4       | -25.0     | 0             | -29.6            | 22.96           | 1080.             | -103.             | 90.         | 3.17    | 55.97 | 129.76 | 0. |
| 5       | -20.0     | 0             | -43.2            | 12.88           | 1334.             | -125.             | 74.         | 3.32    | 55.99 | 129.79 | 0. |
| 6       | -15.0     | 0             | -22.5            | 8.59            | 671.              | -84.              | 61.         | 2.37    | 55.97 | 129.77 | 0. |
| 7       | -10.0     | 0             | 9.7              | 8.29            | -307.             | -68.              | 48.         | 1.68    | 56.09 | 129.90 | 0. |
| 8       | -5.0      | 0             | 30.0             | 9.43            | -921.             | -52.              | 50.         | 1.43    | 56.47 | 130.35 | 0. |
| 9       | 0         | 0             | 47.2             | 11.74           | -1446.            | -14.              | 49.         | 0.22    | 56.50 | 130.38 | 0. |
| 10      | 5.0       | 0             | 76.3             | 17.31           | -2321.            | -19.              | 48.         | 0.58    | 56.21 | 130.04 | 0. |
| 11      | 10.0      | 0             | 94.7             | 28.23           | -2930.            | 13.               | 45.         | -0.17   | 56.58 | 130.48 | 0. |
| 12      | 15.0      | 0             | 95.8             | 41.17           | -3082.            | 59.               | 75.         | -1.69   | 56.35 | 130.20 | 0. |
| 13      | 20.0      | 0             | 88.3             | 49.76           | -2977.            | 77.               | 53.         | -2.11   | 56.03 | 129.83 | 0. |
| 14      | 25.0      | 0             | 76.4             | 56.52           | -2762.            | -89.              | -48.        | 3.77    | 55.45 | 129.15 | 0. |
| 15      | 30.0      | 0             | 73.5             | 64.54           | -2838.            | 237.              | 195.        | -8.74   | 55.31 | 128.98 | 0. |
| 16      | 0         | 0             | 47.0             | 11.78           | -1430.            | -21.              | 46.         | 0.36    | 55.12 | 128.75 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .1284  | .0322 | -.4657 | -.0014 | .0027  | .0012  |
| 3    | -29.99 | -.0866 | .0779 | .3752  | -.0038 | .0055  | .0047  |
| 4    | -25.00 | -.0799 | .0621 | .3481  | -.0062 | .0055  | .0086  |
| 5    | -20.00 | -.1167 | .0348 | .4302  | -.0076 | .0044  | .0090  |
| 6    | -14.99 | -.0609 | .0232 | .2164  | -.0051 | .0037  | .0064  |
| 7    | -10.01 | .0261  | .0224 | -.0988 | -.0041 | .0029  | .0045  |
| 8    | -5.02  | .0811  | .0255 | -.2968 | -.0032 | .0030  | .0039  |
| 9    | .02    | .1276  | .0317 | -.4661 | -.0009 | .0029  | .0006  |
| 10   | 4.97   | .2061  | .0468 | -.7483 | -.0012 | .0029  | .0016  |
| 11   | 9.99   | .2559  | .0763 | -.9446 | .0008  | .0027  | -.0005 |
| 12   | 15.01  | .2589  | .1113 | -.9935 | .0036  | .0045  | -.0046 |
| 13   | 20.00  | .2387  | .1345 | -.9599 | .0047  | .0032  | -.0057 |
| 14   | 25.02  | .2064  | .1528 | -.8906 | -.0054 | -.0029 | .0102  |
| 15   | 29.98  | .1986  | .1744 | -.9148 | .0143  | .0118  | -.0236 |
| 16   | .00    | .1271  | .0318 | -.4610 | -.0013 | .0028  | .0010  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .1284  | .0322 | -.4657 | -.0014 | .0027  | .0012  |
| 3    | -29.99 | -.0866 | .0779 | .3752  | -.0038 | .0055  | .0047  |
| 4    | -25.00 | -.0799 | .0621 | .3481  | -.0062 | .0055  | .0086  |
| 5    | -20.00 | -.1167 | .0348 | .4302  | -.0076 | .0044  | .0090  |
| 6    | -14.99 | -.0609 | .0232 | .2164  | -.0051 | .0037  | .0064  |
| 7    | -10.01 | .0261  | .0224 | -.0988 | -.0041 | .0029  | .0045  |
| 8    | -5.02  | .0811  | .0255 | -.2968 | -.0032 | .0030  | .0039  |
| 9    | .02    | .1276  | .0317 | -.4661 | -.0009 | .0029  | .0006  |
| 10   | 4.97   | .2061  | .0468 | -.7483 | -.0012 | .0029  | .0016  |
| 11   | 9.99   | .2559  | .0763 | -.9446 | .0008  | .0027  | -.0005 |
| 12   | 15.01  | .2589  | .1113 | -.9935 | .0036  | .0045  | -.0046 |
| 13   | 20.00  | .2387  | .1345 | -.9599 | .0047  | .0032  | -.0057 |
| 14   | 25.02  | .2064  | .1528 | -.8906 | -.0054 | -.0029 | .0102  |
| 15   | 29.98  | .1986  | .1744 | -.9148 | .0143  | .0118  | -.0236 |
| 16   | .00    | .1271  | .0318 | -.4610 | -.0013 | .0028  | .0010  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 448 CONFIG T3 BT

| IW<br>PT. No. | - DELF<br>ALPHA<br>DEG | PSI<br>DFG | - DELA<br>CLBAR<br>SQ-FT | - DELA<br>CDBAR<br>SQ-FT | - IHT<br>CPM BAR<br>CU-FT | O DELE<br>CYM BAR<br>CU-FT | 25 DELR<br>CRM BAR<br>CU-FT | O DELS B<br>CYBAR<br>SQ-FT | O DELS B<br>Q<br>PSF | O<br>V<br>KNOTS | RPM |
|---------------|------------------------|------------|--------------------------|--------------------------|---------------------------|----------------------------|-----------------------------|----------------------------|----------------------|-----------------|-----|
| 2             | 0                      | 0          | 54.6                     | 14.41                    | -1668.                    | -19.                       | 45.                         | .15                        | 54.81                | 128.38          | 0.  |
| 3             | -30.0                  | 0          | -34.3                    | 31.06                    | 1251.                     | -71.                       | 109.                        | 2.11                       | 54.89                | 128.48          | 0.  |
| 4             | -25.0                  | 0          | -40.3                    | 26.41                    | 1428.                     | -114.                      | 75.                         | 3.24                       | 55.16                | 128.80          | 0.  |
| 5             | -20.0                  | 0          | -46.3                    | 16.67                    | 1463.                     | -110.                      | 76.                         | 3.47                       | 55.19                | 128.84          | 0.  |
| 6             | -15.0                  | 0          | -14.5                    | 9.81                     | 433.                      | -87.                       | 67.                         | 2.32                       | 55.53                | 129.24          | 0.  |
| 7             | -10.0                  | 0          | 14.1                     | 10.17                    | -436.                     | -71.                       | 56.                         | 1.71                       | 55.54                | 129.26          | 0.  |
| 8             | -5.0                   | 0          | 35.1                     | 11.46                    | -1079.                    | -45.                       | 62.                         | 1.40                       | 55.19                | 128.83          | 0.  |
| 9             | 0                      | 0          | 53.8                     | 14.04                    | -1650.                    | -15.                       | 50.                         | .19                        | 55.51                | 129.22          | 0.  |
| 10            | 5.0                    | 0          | 85.8                     | 21.04                    | -2629.                    | -34.                       | 62.                         | .82                        | 55.02                | 128.64          | 0.  |
| 11            | 10.0                   | 0          | 111.0                    | 32.63                    | -3149.                    | 4.                         | 53.                         | -.12                       | 55.21                | 128.86          | 0.  |
| 12            | 15.0                   | 0          | 99.0                     | 44.68                    | -3211.                    | 79.                        | 92.                         | -2.08                      | 55.76                | 129.51          | 0.  |
| 13            | 20.0                   | 0          | 92.7                     | 54.17                    | -3146.                    | 115.                       | 45.                         | -4.12                      | 54.60                | 128.14          | 0.  |
| 14            | 25.0                   | 0          | 78.9                     | 60.54                    | -2884.                    | -160.                      | 75.                         | 6.62                       | 54.95                | 128.55          | 0.  |
| 15            | 30.0                   | 0          | 75.2                     | 68.56                    | -2948.                    | 294.                       | 260.                        | -10.63                     | 54.92                | 128.51          | 0.  |
| 16            | -0                     | 0          | 53.7                     | 14.08                    | -1635.                    | -27.                       | 51.                         | .31                        | 55.36                | 129.03          | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM     | CYM    | CRM    | CY     |
|------|--------|--------|-------|---------|--------|--------|--------|
| 2    | 0.00   | .1475  | .0389 | -.5378  | -.0012 | .0027  | .0004  |
| 3    | -29.99 | -.0928 | .0839 | .4034   | -.0043 | .0066  | .0057  |
| 4    | -25.00 | -.1089 | .0714 | .4602   | -.0069 | .0045  | .0088  |
| 5    | -20.02 | -.1251 | .0451 | .4716   | -.0066 | .0046  | .0094  |
| 6    | -15.01 | -.0391 | .0265 | .1395   | -.0052 | .0040  | .0063  |
| 7    | -10.03 | .0382  | .0275 | -.1405  | -.0043 | .0033  | .0046  |
| 8    | -5.00  | .0950  | .0310 | -.3479  | -.0027 | .0038  | .0038  |
| 9    | 0.00   | .1454  | .0380 | -.5319  | -.0009 | .0030  | .0005  |
| 10   | 4.99   | .2320  | .0569 | -.8477  | -.0020 | .0038  | .0022  |
| 11   | 10.02  | .2729  | .0882 | -1.0154 | .0002  | .0032  | -.0003 |
| 12   | 14.98  | .2677  | .1208 | -1.0353 | .0048  | .0056  | -.0056 |
| 13   | 20.00  | .2504  | .1464 | -1.0143 | .0069  | .0027  | -.0111 |
| 14   | 24.98  | .2134  | .1636 | -.9298  | -.0097 | -.0045 | .0179  |
| 15   | 29.98  | .2033  | .1853 | -.9505  | .0178  | .0157  | -.0287 |
| 16   | -0.01  | .1451  | .0381 | -.5271  | -.0016 | .0031  | .0008  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB    | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|---------|--------|--------|--------|
| 2    | 0.00   | .1475  | .0389 | -.5378  | -.0012 | .0027  | .0004  |
| 3    | -29.99 | -.0928 | .0839 | .4034   | -.0043 | .0066  | .0057  |
| 4    | -25.00 | -.1089 | .0714 | .4602   | -.0069 | .0045  | .0088  |
| 5    | -20.02 | -.1251 | .0451 | .4716   | -.0066 | .0046  | .0094  |
| 6    | -15.01 | -.0391 | .0265 | .1395   | -.0052 | .0040  | .0063  |
| 7    | -10.03 | .0382  | .0275 | -.1405  | -.0043 | .0033  | .0046  |
| 8    | -5.00  | .0950  | .0310 | -.3479  | -.0027 | .0038  | .0038  |
| 9    | 0.00   | .1454  | .0380 | -.5319  | -.0009 | .0030  | .0005  |
| 10   | 4.99   | .2320  | .0569 | -.8477  | -.0020 | .0038  | .0022  |
| 11   | 10.02  | .2729  | .0882 | -1.0154 | .0002  | .0032  | -.0003 |
| 12   | 14.98  | .2677  | .1208 | -1.0353 | .0048  | .0056  | -.0056 |
| 13   | 20.00  | .2504  | .1464 | -1.0143 | .0069  | .0027  | -.0111 |
| 14   | 24.98  | .2134  | .1636 | -.9298  | -.0097 | -.0045 | .0179  |
| 15   | 29.98  | .2033  | .1853 | -.9505  | .0178  | .0157  | -.0287 |
| 16   | -0.01  | .1451  | .0381 | -.5271  | -.0016 | .0031  | .0008  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 359

RUN 449 CONFIG T3 RT

| PT. No. | 1W ALPHA DEG | DELTA PSI DEG | DELTA CIBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CPMBAR CU-FT | O DELE CYMBAR CU-FT | 29 DELR CRMBAR CU-FT | O DELSB Q PSF | O V KNOTS | RPM    |    |
|---------|--------------|---------------|-------------------|-------------------|------------------|---------------------|----------------------|---------------|-----------|--------|----|
| 2       | 0            | 0             | 59.6              | 15.91             | -1819.           | -9.                 | 29.                  | -08           | 56.87     | 130.82 | 0. |
| 3       | -30.0        | 0             | -42.3             | 33.27             | 1510.            | -108.               | 99.                  | 3.23          | 55.05     | 128.67 | 0. |
| 4       | -24.9        | 0             | -50.5             | 28.03             | 1742.            | -140.               | 54.                  | 4.03          | 54.82     | 128.40 | 0. |
| 5       | -20.0        | 0             | -37.2             | 12.39             | 1140.            | -121.               | 65.                  | 3.51          | 54.78     | 128.35 | 0. |
| 6       | -15.0        | 0             | -8.6              | 10.73             | 268.             | -95.                | 51.                  | 2.45          | 54.67     | 128.22 | 0. |
| 7       | -10.0        | 0             | 19.3              | 11.54             | -591.            | -71.                | 37.                  | 1.65          | 54.72     | 128.27 | 0. |
| 8       | -5.0         | 0             | 41.2              | 13.29             | -1255.           | -63.                | 47.                  | 1.61          | 54.56     | 128.08 | 0. |
| 9       | -0           | 0             | 59.4              | 15.89             | -1819.           | -12.                | 31.                  | -12           | 55.40     | 129.08 | 0. |
| 10      | 5.0          | 0             | 91.7              | 23.46             | -2811.           | -31.                | 44.                  | .74           | 55.24     | 128.90 | 0. |
| 11      | 10.1         | 0             | 104.1             | 35.36             | -3260.           | 32.                 | 54.                  | -1.39         | 55.41     | 129.09 | 0. |
| 12      | 15.0         | 0             | 104.9             | 48.93             | -3402.           | 90.                 | 74.                  | -3.24         | 54.41     | 127.91 | 0. |
| 13      | 20.0         | 0             | 91.8              | 55.81             | -3148.           | -22.                | -41.                 | .02           | 55.34     | 129.02 | 0. |
| 14      | 25.0         | 0             | 80.3              | 62.96             | -2953.           | -187.               | -104.                | 7.12          | 54.99     | 128.60 | 0. |
| 15      | 30.0         | 0             | 76.1              | 70.75             | -3015.           | 268.                | 219.                 | -9.98         | 55.16     | 128.80 | 0. |
| 16      | 0            | 0             | 60.2              | 16.01             | -1833.           | -12.                | 37.                  | -16           | 54.53     | 128.05 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM     | CYM    | CRM    | CY     |
|------|--------|--------|-------|---------|--------|--------|--------|
| 2    | .00    | .1610  | .0430 | -.5863  | -.0006 | .0018  | -.0002 |
| 3    | -30.01 | -.1144 | .0899 | .4868   | -.0065 | .0060  | .0087  |
| 4    | -24.95 | -.1364 | .0758 | .5616   | -.0085 | .0033  | .0109  |
| 5    | -20.03 | -.1005 | .0335 | .3676   | -.0073 | .0089  | .0095  |
| 6    | -14.98 | -.0232 | .0290 | .0865   | -.0057 | .0031  | .0066  |
| 7    | -10.00 | .0522  | .0312 | -.1904  | -.0043 | .0023  | .0045  |
| 8    | -5.01  | .1112  | .0359 | -.4045  | -.0038 | .0028  | .0043  |
| 9    | -.01   | .1605  | .0429 | -.5864  | -.0007 | .0019  | -.0003 |
| 10   | 4.99   | .2480  | .0634 | -.9061  | -.0019 | .0027  | .0020  |
| 11   | 10.05  | .2814  | .0956 | -1.0511 | .0020  | .0032  | -.0038 |
| 12   | 15.00  | .2835  | .1322 | -1.0969 | .0055  | .0045  | -.0088 |
| 13   | 20.04  | .2482  | .1508 | -1.0148 | -.0014 | -.0025 | .0001  |
| 14   | 25.00  | .2171  | .1702 | -.9521  | -.0113 | -.0063 | .0192  |
| 15   | 30.00  | .2056  | .1912 | -.9719  | .0162  | .0132  | -.0270 |
| 16   | .00    | .1626  | .0433 | -.5909  | -.0008 | .0023  | -.0004 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB    | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|---------|--------|--------|--------|
| 2    | .00    | .1610  | .0430 | -.5863  | -.0006 | .0018  | -.0002 |
| 3    | -30.01 | -.1144 | .0899 | .4868   | -.0065 | .0060  | .0087  |
| 4    | -24.95 | -.1364 | .0758 | .5616   | -.0085 | .0033  | .0109  |
| 5    | -20.03 | -.1005 | .0335 | .3676   | -.0073 | .0039  | .0095  |
| 6    | -14.98 | -.0232 | .0290 | .0865   | -.0057 | .0031  | .0066  |
| 7    | -10.00 | .0522  | .0312 | -.1904  | -.0043 | .0023  | .0045  |
| 8    | -5.01  | .1112  | .0359 | -.4045  | -.0038 | .0028  | .0043  |
| 9    | -.01   | .1605  | .0429 | -.5864  | -.0007 | .0019  | -.0003 |
| 10   | 4.99   | .2480  | .0634 | -.9061  | -.0019 | .0027  | .0020  |
| 11   | 10.05  | .2814  | .0956 | -1.0511 | .0020  | .0032  | -.0038 |
| 12   | 15.00  | .2835  | .1322 | -1.0969 | .0055  | .0045  | -.0088 |
| 13   | 20.04  | .2482  | .1508 | -1.0148 | -.0014 | -.0025 | .0001  |
| 14   | 25.00  | .2171  | .1702 | -.9521  | -.0113 | -.0063 | .0192  |
| 15   | 30.00  | .2056  | .1912 | -.9719  | .0162  | .0132  | -.0270 |
| 16   | .00    | .1626  | .0433 | -.5909  | -.0008 | .0023  | -.0004 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 360

RUN 450 CONFIG T3 BT

| PT. NO. | IW ALPHA DEG. | DELTA PSI DEG. | DELA CL BAR SQ-FT | COBAR SQ-FT | IHT CPMSBAR CU-FT | O DELE CYMBAR CU-FT | -10 DELR CRMBAR CU-FT | O DELS Q PSF | O DELS V KNOTS | RPM    |   |
|---------|---------------|----------------|-------------------|-------------|-------------------|---------------------|-----------------------|--------------|----------------|--------|---|
| 2       | 0             | 0              | 16.1              | 5.54        | 523               | -97                 | 2                     | 2.91         | 55.21          | 128.86 | 0 |
| 3       | -30.0         | 0              | 78.1              | 49.19       | 2691              | -127                | 128                   | 4.68         | 54.96          | 128.56 | 0 |
| 4       | -25.0         | 0              | 85.5              | 42.51       | 2954              | -115                | 36                    | 2.91         | 55.02          | 128.63 | 0 |
| 5       | -20.0         | 0              | 85.6              | 31.87       | 2818              | -96                 | 26                    | 2.56         | 54.99          | 128.60 | 0 |
| 6       | -15.0         | 0              | 93.0              | 17.22       | 2886              | -103                | 41                    | 2.70         | 55.14          | 128.77 | 0 |
| 7       | -10.0         | 0              | 67.3              | 11.89       | 2082              | -99                 | 26                    | 2.49         | 55.47          | 129.17 | 0 |
| 8       | -5.0          | 0              | 44.6              | 7.90        | 1387              | -101                | 37                    | 2.80         | 55.36          | 129.03 | 0 |
| 9       | 0             | 0              | 16.1              | 5.42        | 511               | -97                 | 18                    | 2.68         | 55.58          | 129.29 | 0 |
| 10      | 5.0           | 0              | 8.3               | 6.28        | 209               | -72                 | 27                    | 1.97         | 55.31          | 128.97 | 0 |

|    |      |   |      |       |       |      |    |       |       |        |   |
|----|------|---|------|-------|-------|------|----|-------|-------|--------|---|
| 12 | 15.0 | 0 | 43.1 | 20.02 | -1359 | 13   | 40 | -0.35 | 55.20 | 128.84 | 0 |
| 13 | 20.0 | 0 | 45.5 | 27.30 | -1510 | 13   | 28 | -0.26 | 55.63 | 129.36 | 0 |
| 14 | 25.0 | 0 | 38.6 | 32.91 | -1399 | 19   | 23 | -0.36 | 55.18 | 128.83 | 0 |
| 15 | 30.0 | 0 | 40.5 | 39.50 | -1565 | 19   | 34 | -0.19 | 55.30 | 128.96 | 0 |
| 16 | 0    | 0 | 16.4 | 5.54  | 532   | -106 | 20 | 2.97  | 54.74 | 128.29 | 0 |
| 17 | 10.1 | 0 | 33.2 | 8.39  | -951  | -50  | 18 | 1.47  | 55.12 | 128.75 | 0 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM     | CYM     | CRM    | CY     |
|------|--------|---------|--------|---------|---------|--------|--------|
| 2    | 0.00   | -0.0435 | 0.0150 | 0.1686  | -0.0059 | 0.0001 | 0.0079 |
| 3    | -29.99 | -0.2029 | 0.1330 | 0.8674  | -0.0077 | 0.0077 | 0.0127 |
| 4    | -24.99 | -0.2310 | 0.1149 | 0.9523  | -0.0070 | 0.0022 | 0.0079 |
| 5    | -20.02 | -0.2313 | 0.0861 | 0.9084  | -0.0058 | 0.0016 | 0.0069 |
| 6    | -14.99 | -0.2514 | 0.0465 | 0.9305  | -0.0062 | 0.0025 | 0.0073 |
| 7    | -10.01 | -0.1820 | 0.0321 | 0.6714  | -0.0060 | 0.0016 | 0.0067 |
| 8    | -5.01  | -0.1206 | 0.0214 | 0.4473  | -0.0061 | 0.0022 | 0.0076 |
| 9    | 0.02   | -0.0436 | 0.0146 | 0.1648  | -0.0059 | 0.0011 | 0.0072 |
| 10   | 5.00   | 0.0224  | 0.0170 | -0.0675 | -0.0044 | 0.0016 | 0.0053 |

|    |       |         |        |         |         |        |         |
|----|-------|---------|--------|---------|---------|--------|---------|
| 12 | 15.04 | 0.1166  | 0.0541 | -0.4383 | 0.0008  | 0.0024 | -0.0009 |
| 13 | 20.01 | 0.1229  | 0.0738 | -0.4869 | 0.0008  | 0.0017 | -0.0007 |
| 14 | 25.03 | 0.1042  | 0.0889 | -0.4511 | 0.0012  | 0.0014 | -0.0010 |
| 15 | 30.01 | 0.1093  | 0.1068 | -0.5044 | 0.0012  | 0.0021 | -0.0005 |
| 16 | 0.00  | -0.0443 | 0.0150 | 0.1714  | -0.0064 | 0.0012 | 0.0080  |
| 17 | 10.05 | 0.0896  | 0.0227 | -0.3064 | -0.0030 | 0.0011 | 0.0040  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB    | CYMB    | CRMB   | CYB    |
|------|--------|---------|--------|---------|---------|--------|--------|
| 2    | 0.00   | -0.0435 | 0.0150 | 0.1686  | -0.0059 | 0.0001 | 0.0079 |
| 3    | -29.99 | -0.2029 | 0.1330 | 0.8674  | -0.0077 | 0.0077 | 0.0127 |
| 4    | -24.99 | -0.2310 | 0.1149 | 0.9523  | -0.0070 | 0.0022 | 0.0079 |
| 5    | -20.02 | -0.2313 | 0.0861 | 0.9084  | -0.0058 | 0.0016 | 0.0069 |
| 6    | -14.99 | -0.2514 | 0.0465 | 0.9305  | -0.0062 | 0.0025 | 0.0073 |
| 7    | -10.01 | -0.1820 | 0.0321 | 0.6714  | -0.0060 | 0.0016 | 0.0067 |
| 8    | -5.01  | -0.1206 | 0.0214 | 0.4473  | -0.0061 | 0.0022 | 0.0076 |
| 9    | 0.02   | -0.0436 | 0.0146 | 0.1648  | -0.0059 | 0.0011 | 0.0072 |
| 10   | 5.00   | 0.0224  | 0.0170 | -0.0675 | -0.0044 | 0.0016 | 0.0053 |

|    |       |        |        |         |        |        |         |
|----|-------|--------|--------|---------|--------|--------|---------|
| 12 | 15.04 | 0.1166 | 0.0541 | -0.4383 | 0.0008 | 0.0024 | -0.0009 |
| 13 | 20.01 | 0.1229 | 0.0738 | -0.4869 | 0.0008 | 0.0017 | -0.0007 |
| 14 | 25.03 | 0.1042 | 0.0889 | -0.4511 | 0.0012 | 0.0014 | -0.0010 |

|    |       |         |        |         |         |        |         |
|----|-------|---------|--------|---------|---------|--------|---------|
| 15 | 30.01 | 0.1093  | 0.1068 | -0.5044 | 0.0012  | 0.0021 | -0.0005 |
| 16 | 0.00  | -0.0443 | 0.0150 | 0.1714  | -0.0064 | 0.0012 | 0.0080  |
| 17 | 10.05 | 0.0896  | 0.0227 | -0.3064 | -0.0030 | 0.0011 | 0.0040  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 367

RUN 451 CONFIG T3 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELA CLBAR SQ-FT | CDBAR SQ-FT | IHT CPMBAR CU-FT | DELE CYMBAR CU-FT | DEL5 CRMBAR CU-FT | DEL0 CYBAR SQ-FT | DELSB Q PSF | DEL V KNOTS | RPM |
|---------|-----------|---------------|------------------|-------------|------------------|-------------------|-------------------|------------------|-------------|-------------|-----|
| 2       | 0         | 0             | -28.2            | 7.70        | 896.             | -104.             | 2.                | 2.96             | 54.95       | 128.55      | 0.  |
| 3       | -30.0     | 0             | -78.3            | 53.56       | 2847.            | -138.             | 139.              | 5.16             | 55.34       | 129.01      | 0.  |
| 4       | -25.0     | 0             | -88.3            | 46.36       | 3086.            | -88.              | 50.               | 2.60             | 55.52       | 129.22      | 0.  |
| 5       | -20.0     | 0             | -90.6            | 36.67       | 3014.            | -98.              | 46.               | 2.86             | 55.33       | 129.00      | 0.  |
| 6       | -15.0     | 0             | -104.5           | 21.36       | 3257.            | -87.              | 32.               | 2.34             | 55.59       | 129.31      | 0.  |
| 7       | -10.0     | 0             | -78.8            | 15.67       | 2450.            | -86.              | 23.               | 2.17             | 55.66       | 129.40      | 0.  |
| 8       | -5.0      | 0             | -54.2            | 11.04       | 1692.            | -82.              | 34.               | 2.36             | 54.89       | 128.48      | 0.  |
| 9       | 0         | 0             | -28.0            | 7.50        | 881.             | -110.             | 14.               | 3.08             | 55.42       | 129.11      | 0.  |
| 10      | 5.0       | 0             | -1.5             | 7.43        | 86.              | -58.              | 31.               | 1.60             | 55.23       | 128.88      | 0.  |
| 11      | 10.0      | 0             | 22.8             | 8.54        | -648.            | -34.              | 27.               | .80              | 55.33       | 129.00      | 0.  |
| 12      | 15.0      | 0             | 32.7             | 18.13       | -1031.           | 20.               | 33.               | -.62             | 55.42       | 129.10      | 0.  |
| 13      | 20.0      | 0             | 35.4             | 25.04       | -1190.           | 10.               | 23.               | -.12             | 55.34       | 129.01      | 0.  |
| 14      | 25.0      | 0             | 31.5             | 30.31       | -1169.           | 25.               | 23.               | -.34             | 55.14       | 128.77      | 0.  |
| 15      | 30.0      | 0             | 31.5             | 35.79       | -1280.           | 26.               | 46.               | -.66             | 55.12       | 128.75      | 0.  |
| 16      | 0         | 0             | -28.1            | 7.53        | 889.             | -108.             | 14.               | 2.92             | 54.90       | 128.49      | 0.  |

\*\*\* COEFFICIENT FORM WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | 0.00   | -.0763 | .0208 | .2890  | -.0063 | .0001 | .0080  |
| 3    | -29.98 | -.2115 | .1448 | .9178  | -.0084 | .0084 | .0139  |
| 4    | -24.98 | -.2386 | .1253 | .9948  | -.0053 | .0030 | .0070  |
| 5    | -19.98 | -.2449 | .0991 | .9718  | -.0059 | .0028 | .0077  |
| 6    | -15.01 | -.2824 | .0577 | 1.0500 | -.0053 | .0019 | .0063  |
| 7    | -10.02 | -.2129 | .0423 | .7899  | -.0052 | .0014 | .0059  |
| 8    | -5.00  | -.1464 | .0298 | .5455  | -.0049 | .0021 | .0064  |
| 9    | 0.00   | -.0758 | .0203 | .2842  | -.0067 | .0009 | .0083  |
| 10   | 5.04   | -.0040 | .0201 | .0276  | -.0035 | .0019 | .0043  |
| 11   | 10.03  | .0617  | .0231 | -.2090 | -.0021 | .0016 | .0022  |
| 12   | 15.02  | .0883  | .0490 | -.3325 | .0012  | .0020 | -.0017 |
| 13   | 20.01  | .0958  | .0677 | -.3838 | .0006  | .0014 | -.0003 |
| 14   | 25.01  | .0853  | .0819 | -.3769 | .0015  | .0014 | -.0009 |
| 15   | 30.03  | .0852  | .0967 | -.4128 | .0016  | .0028 | -.0018 |
| 16   | .02    | -.0760 | .0203 | .2866  | -.0065 | .0008 | .0079  |

\*\*\* COEFFICIENT FORM STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | 0.00   | -.0763 | .0208 | .2890  | -.0063 | .0001 | .0080  |
| 3    | -29.98 | -.2115 | .1448 | .9178  | -.0084 | .0084 | .0139  |
| 4    | -24.98 | -.2386 | .1253 | .9948  | -.0053 | .0030 | .0070  |
| 5    | -19.98 | -.2449 | .0991 | .9718  | -.0059 | .0028 | .0077  |
| 6    | -15.01 | -.2824 | .0577 | 1.0500 | -.0053 | .0019 | .0063  |
| 7    | -10.02 | -.2129 | .0423 | .7899  | -.0052 | .0014 | .0059  |
| 8    | -5.00  | -.1464 | .0298 | .5455  | -.0049 | .0021 | .0064  |
| 9    | 0.00   | -.0758 | .0203 | .2842  | -.0067 | .0009 | .0083  |
| 10   | 5.04   | -.0040 | .0201 | .0276  | -.0035 | .0019 | .0043  |
| 11   | 10.03  | .0617  | .0231 | -.2090 | -.0021 | .0016 | .0022  |
| 12   | 15.02  | .0883  | .0490 | -.3325 | .0012  | .0020 | -.0017 |
| 13   | 20.01  | .0958  | .0677 | -.3838 | .0006  | .0014 | -.0003 |
| 14   | 25.01  | .0853  | .0819 | -.3769 | .0015  | .0014 | -.0009 |
| 15   | 30.03  | .0852  | .0967 | -.4128 | .0016  | .0028 | -.0018 |
| 16   | .02    | -.0760 | .0203 | .2866  | -.0065 | .0008 | .0079  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

ASB

RUN 452 CONFIG T3 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | CDBAR SQ-FT | HT CPMBAR CU-FT | DELE CYMBAR CU-FT | 20 DELR CRMBAR CU-FT | DELSB Q PSF | Q V KNOTS | RPM    |   |
|---------|-----------|---------------|-------------------|-------------|-----------------|-------------------|----------------------|-------------|-----------|--------|---|
| 2       | 0         | 0             | 35.0              | 9.62        | 1100            | -99               | 3                    | 3.12        | 55.46     | 129.15 | 0 |
| 3       | 0         | 0             | 35.0              | 9.74        | 1098            | -99               | 7                    | 2.90        | 55.73     | 129.48 | 0 |
| 4       | -30.0     | 0             | -82.6             | 57.16       | 3022            | -122              | 150                  | 5.08        | 55.18     | 128.82 | 0 |
| 5       | -25.0     | 0             | -93.1             | 50.16       | 3266            | -65               | 51                   | 2.21        | 55.54     | 129.24 | 0 |
| 6       | -20.0     | 0             | -96.6             | 40.30       | 3232            | -85               | 43                   | 2.59        | 55.37     | 129.05 | 0 |
| 7       | -15.0     | 0             | -113.2            | 24.81       | 3547            | -59               | 26                   | 1.68        | 55.03     | 128.64 | 0 |
| 8       | -10.0     | 0             | -87.5             | 18.55       | 2725            | -50               | 21                   | 1.17        | 54.92     | 128.50 | 0 |
| 9       | -5.0      | 0             | -59.4             | 12.94       | 1848            | -66               | 37                   | 1.93        | 55.56     | 129.27 | 0 |
| 10      | 0         | 0             | -35.0             | 9.49        | 1091            | -93               | 24                   | 2.80        | 55.64     | 129.36 | 0 |
| 11      | 5.0       | 0             | -7.0              | 8.84        | 245             | -43               | 30                   | 1.39        | 55.28     | 128.93 | 0 |
| 12      | 10.0      | 0             | 20.9              | 9.74        | -594            | -31               | 10                   | 1.03        | 55.44     | 129.13 | 0 |
| 13      | 15.0      | 0             | 31.6              | 18.76       | -1000           | 22                | 39                   | 1.53        | 55.39     | 129.07 | 0 |
| 14      | 20.0      | 0             | 27.1              | 23.84       | -937            | 22                | 33                   | 1.61        | 55.54     | 129.24 | 0 |
| 15      | 25.0      | 0             | 23.9              | 28.70       | -935            | 45                | 45                   | -1.20       | 55.55     | 129.25 | 0 |
| 16      | 30.0      | 0             | 23.5              | 33.17       | -1037           | 35                | 40                   | -1.02       | 55.63     | 129.35 | 0 |
| 17      | 0         | 0             | -35.2             | 9.53        | 1102            | -96               | 14                   | 2.95        | 55.57     | 129.28 | 0 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | 0.00   | -.0947 | .0260 | .3546  | -.0060 | .0002 | .0084  |
| 3    | 0.01   | -.0946 | .0263 | .3541  | -.0060 | .0004 | .0078  |
| 4    | -30.03 | -.2231 | .1545 | .9742  | -.0074 | .0091 | .0137  |
| 5    | -25.02 | -.2515 | .1356 | 1.0529 | -.0039 | .0031 | .0060  |
| 6    | -20.00 | -.2612 | .1089 | 1.0421 | -.0051 | .0026 | .0070  |
| 7    | -15.01 | -.3059 | .0671 | 1.1434 | -.0036 | .0016 | .0045  |
| 8    | -10.00 | -.2364 | .0501 | .8786  | -.0030 | .0013 | .0032  |
| 9    | -5.01  | -.1606 | .0350 | .5959  | -.0040 | .0022 | .0052  |
| 10   | 0.00   | -.0946 | .0256 | .3518  | -.0056 | .0015 | .0076  |
| 11   | 4.99   | -.0189 | .0239 | .0789  | -.0026 | .0018 | .0038  |
| 12   | 9.97   | .0566  | .0263 | -.1915 | -.0019 | .0006 | .0028  |
| 13   | 15.01  | .0854  | .0507 | -.3223 | .0014  | .0024 | -.0014 |
| 14   | 20.01  | .0731  | .0644 | -.3020 | .0013  | .0020 | -.0017 |
| 15   | 24.99  | .0645  | .0776 | -.3013 | .0027  | .0027 | -.0032 |
| 16   | 30.00  | .0635  | .0896 | -.3342 | .0021  | .0024 | -.0028 |
| 17   | 0.00   | -.0951 | .0257 | .3554  | -.0058 | .0008 | .0080  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | 0.00   | -.0947 | .0260 | .3546  | -.0060 | .0002 | .0084  |
| 3    | 0.01   | -.0946 | .0263 | .3541  | -.0060 | .0004 | .0078  |
| 4    | -30.03 | -.2231 | .1545 | .9742  | -.0074 | .0091 | .0137  |
| 5    | -25.02 | -.2515 | .1356 | 1.0529 | -.0039 | .0031 | .0060  |
| 6    | -20.00 | -.2612 | .1089 | 1.0421 | -.0051 | .0026 | .0070  |
| 7    | -15.01 | -.3059 | .0671 | 1.1434 | -.0036 | .0016 | .0045  |
| 8    | -10.00 | -.2364 | .0501 | .8786  | -.0030 | .0013 | .0032  |
| 9    | -5.01  | -.1606 | .0350 | .5959  | -.0040 | .0022 | .0052  |
| 10   | 0.00   | -.0946 | .0256 | .3518  | -.0056 | .0015 | .0076  |
| 11   | 4.99   | -.0189 | .0239 | .0789  | -.0026 | .0018 | .0038  |
| 12   | 9.97   | .0566  | .0263 | -.1915 | -.0019 | .0006 | .0028  |
| 13   | 15.01  | .0854  | .0507 | -.3223 | .0014  | .0024 | -.0014 |
| 14   | 20.01  | .0731  | .0644 | -.3020 | .0013  | .0020 | -.0017 |
| 15   | 24.99  | .0645  | .0776 | -.3013 | .0027  | .0027 | -.0032 |
| 16   | 30.00  | .0635  | .0896 | -.3342 | .0021  | .0024 | -.0028 |
| 17   | 0.00   | -.0951 | .0257 | .3554  | -.0058 | .0008 | .0080  |

SIKORSKY RSRA 1/4 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 363

RUN 453 CONFIG T3 BT

| IW<br>PT. NO. | ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CIBAR<br>SO-FT | DELTA<br>CDBAR<br>SQ-FT | IHT<br>CPM BAR<br>CU-FT | DELTA<br>CYM BAR<br>CU-FT | DELTA<br>CRM BAR<br>CU-FT | DELTA<br>CYB BAR<br>SQ-FT | DELTA<br>PSF | DELTA<br>Q<br>KNOTS | RPM |
|---------------|--------------|---------------------|-------------------------|-------------------------|-------------------------|---------------------------|---------------------------|---------------------------|--------------|---------------------|-----|
| 2             | 0            | 0                   | -38.9                   | 11.67                   | 1220.                   | -121.                     | -13.                      | 3.47                      | 55.46        | 129.15              | 0.  |
| 3             | -30.0        | 0                   | -86.4                   | 61.58                   | 3192.                   | 91.                       | -113.                     | -5.01                     | 55.88        | 129.64              | 0.  |
| 4             | -25.0        | 0                   | -96.1                   | 54.08                   | 3411.                   | -71.                      | 36.                       | 2.38                      | 55.83        | 129.58              | 0.  |
| 5             | -20.0        | 0                   | -100.1                  | 44.35                   | 3368.                   | -89.                      | 26.                       | 2.65                      | 55.76        | 129.51              | 0.  |
| 6             | -15.0        | 0                   | -118.8                  | 28.08                   | 3742.                   | -79.                      | 11.                       | 1.90                      | 56.38        | 130.23              | 0.  |
| 7             | -10.0        | 0                   | -94.2                   | 21.89                   | 2951.                   | -72.                      | 6.                        | 1.55                      | 56.19        | 130.00              | 0.  |
| 8             | -5.0         | 0                   | -65.9                   | 15.47                   | 2056.                   | -86.                      | 22.                       | 2.35                      | 56.24        | 130.07              | 0.  |
| 9             | 0            | 0                   | -39.3                   | 11.48                   | 1219.                   | -109.                     | 2.                        | 3.04                      | 56.42        | 130.28              | 0.  |
| 10            | 5.0          | 0                   | -11.9                   | 10.49                   | 390.                    | -65.                      | 8.                        | 1.78                      | 55.96        | 129.74              | 0.  |
| 11            | 10.0         | 0                   | 16.0                    | 10.91                   | -456.                   | -50.                      | -1.                       | 1.32                      | 56.45        | 130.32              | 0.  |
| 13            | 20.0         | 0                   | 36.0                    | 26.79                   | -1217.                  | 17.                       | 10.                       | -0.43                     | 56.18        | 130.00              | 0.  |
| 14            | 25.0         | 0                   | 26.1                    | 30.95                   | -1023.                  | 29.                       | 10.                       | -0.96                     | 56.05        | 129.85              | 0.  |
| 15            | 30.0         | 0                   | 21.0                    | 34.10                   | -988.                   | 26.                       | 17.                       | -0.74                     | 56.27        | 130.10              | 0.  |
| 16            | 0            | 0                   | -39.9                   | 11.72                   | 1249.                   | -117.                     | -9.                       | 3.12                      | 56.11        | 129.92              | 0.  |
| 17            | 15.1         | 0                   | 11.9                    | 21.15                   | -137.                   | -9.                       | -135.                     | -0.84                     | 56.18        | 129.99              | 0.  |
| 18            | 15.1         | 0                   | 37.3                    | 20.85                   | -1179.                  | 24.                       | 26.                       | -0.88                     | 56.14        | 129.95              | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM     | CYM     | CRM     | CY      |
|------|--------|---------|--------|---------|---------|---------|---------|
| 2    | 0.00   | -0.1052 | 0.0315 | 0.3932  | -0.0073 | -0.0008 | 0.0094  |
| 3    | -30.00 | -0.2335 | 0.1664 | 1.0292  | 0.0055  | -0.0088 | -0.0135 |
| 4    | -25.00 | -0.2596 | 0.1461 | 1.0996  | -0.0043 | 0.0021  | 0.0064  |
| 5    | -20.00 | -0.2705 | 0.1199 | 1.0860  | -0.0054 | 0.0016  | 0.0072  |
| 6    | -15.00 | -0.3212 | 0.0759 | 1.2065  | -0.0048 | 0.0006  | 0.0051  |
| 7    | -10.00 | -0.2547 | 0.0592 | 0.9514  | -0.0044 | 0.0004  | 0.0042  |
| 8    | -5.01  | -0.1782 | 0.0418 | 0.6628  | -0.0052 | 0.0013  | 0.0063  |
| 9    | 0.01   | -0.1063 | 0.0310 | 0.3931  | -0.0066 | 0.0001  | 0.0082  |
| 10   | 5.02   | -0.0322 | 0.0284 | 0.1257  | -0.0039 | 0.0005  | 0.0048  |
| 11   | 10.02  | 0.0432  | 0.0295 | -0.1471 | -0.0030 | -0.0000 | 0.0036  |
| 13   | 20.00  | 0.0972  | 0.0724 | -0.3922 | 0.0010  | 0.0006  | -0.0012 |
| 14   | 25.00  | 0.0704  | 0.0836 | -0.3299 | 0.0017  | 0.0006  | -0.0026 |
| 15   | 30.03  | 0.0569  | 0.0922 | -0.3185 | 0.0015  | 0.0010  | -0.0020 |
| 16   | 0.02   | -0.1078 | 0.0317 | 0.4027  | -0.0071 | -0.0005 | 0.0084  |
| 17   | 15.10  | 0.0321  | 0.0572 | -0.0443 | -0.0006 | -0.0082 | -0.0023 |
| 18   | 15.05  | 0.1008  | 0.0564 | -0.3801 | 0.0015  | 0.0016  | -0.0024 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB    | CYMB    | CRMB    | CYB     |
|------|--------|---------|--------|---------|---------|---------|---------|
| 2    | 0.00   | -0.1052 | 0.0315 | 0.3932  | -0.0073 | -0.0008 | 0.0094  |
| 3    | -30.00 | -0.2335 | 0.1664 | 1.0292  | 0.0055  | -0.0088 | -0.0135 |
| 4    | -25.00 | -0.2596 | 0.1461 | 1.0996  | -0.0043 | 0.0021  | 0.0064  |
| 5    | -20.00 | -0.2705 | 0.1199 | 1.0860  | -0.0054 | 0.0016  | 0.0072  |
| 6    | -15.00 | -0.3212 | 0.0759 | 1.2065  | -0.0048 | 0.0006  | 0.0051  |
| 7    | -10.00 | -0.2547 | 0.0592 | 0.9514  | -0.0044 | 0.0004  | 0.0042  |
| 8    | -5.01  | -0.1782 | 0.0418 | 0.6628  | -0.0052 | 0.0013  | 0.0063  |
| 9    | 0.01   | -0.1063 | 0.0310 | 0.3931  | -0.0066 | 0.0001  | 0.0082  |
| 10   | 5.02   | -0.0322 | 0.0284 | 0.1257  | -0.0039 | 0.0005  | 0.0048  |
| 11   | 10.02  | 0.0432  | 0.0295 | -0.1471 | -0.0030 | -0.0000 | 0.0036  |
| 13   | 20.00  | 0.0972  | 0.0724 | -0.3922 | 0.0010  | 0.0006  | -0.0012 |
| 14   | 25.00  | 0.0704  | 0.0836 | -0.3299 | 0.0017  | 0.0006  | -0.0026 |
| 15   | 30.03  | 0.0569  | 0.0922 | -0.3185 | 0.0015  | 0.0010  | -0.0020 |
| 16   | 0.02   | -0.1078 | 0.0317 | 0.4027  | -0.0071 | -0.0005 | 0.0084  |
| 17   | 15.10  | 0.0321  | 0.0572 | -0.0443 | -0.0006 | -0.0082 | -0.0023 |
| 18   | 15.05  | 0.1008  | 0.0564 | -0.3801 | 0.0015  | 0.0016  | -0.0024 |

|    |       |         |        |         |         |         |         |
|----|-------|---------|--------|---------|---------|---------|---------|
| 13 | 20.00 | 0.0972  | 0.0724 | -0.3922 | 0.0010  | 0.0006  | -0.0012 |
| 14 | 25.00 | 0.0704  | 0.0836 | -0.3299 | 0.0017  | 0.0006  | -0.0026 |
| 15 | 30.03 | 0.0569  | 0.0922 | -0.3185 | 0.0015  | 0.0010  | -0.0020 |
| 16 | 0.02  | -0.1078 | 0.0317 | 0.4027  | -0.0071 | -0.0005 | 0.0084  |
| 17 | 15.10 | 0.0321  | 0.0572 | -0.0443 | -0.0006 | -0.0082 | -0.0023 |
| 18 | 15.05 | 0.1008  | 0.0564 | -0.3801 | 0.0015  | 0.0016  | -0.0024 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 364

RUN 454 CONFIG T3 BT

| IW<br>PT.<br>No. | ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELA<br>CIBAR<br>SQ-FT | IHT<br>CDBAR<br>SQ-FT | DELE<br>CPMBAR<br>CU-FT | DELR<br>CYMBAR<br>CU-FT | DELSB<br>CRMBAR<br>DU-FT | Q<br>CYBAR<br>SQ-FT | V<br>PSF | RPM    |    |
|------------------|--------------|---------------------|------------------------|-----------------------|-------------------------|-------------------------|--------------------------|---------------------|----------|--------|----|
| 10               | 0            | 0                   | 7.1                    | 4.95                  | -190.                   | 209.                    | 118.                     | 55.62               | 55.09    | 128.71 | 0. |
| 11               | 0            | -20.0               | 17.2                   | 17.87                 | -521.                   | 2122.                   | -360.                    | -58.81              | 55.13    | 128.75 | 0. |
| 12               | 0            | -15.0               | 11.3                   | 12.63                 | -339.                   | 1616.                   | -242.                    | -44.91              | 55.17    | 128.81 | 0. |
| 13               | 0            | -10.0               | 7.9                    | 8.37                  | -227.                   | 1062.                   | -165.                    | -29.35              | 55.27    | 128.93 | 0. |
| 14               | 0            | -5.0                | 6.9                    | 5.86                  | -189.                   | 593.                    | -105.                    | -16.48              | 55.19    | 128.83 | 0. |
| 15               | 0            | -2.5                | 6.8                    | 5.20                  | -203.                   | 378.                    | -55.                     | -10.09              | 55.47    | 129.15 | 0. |
| 16               | 0            | 0                   | 7.1                    | 4.92                  | -223.                   | 183.                    | -30.                     | -4.48               | 55.40    | 129.08 | 0. |
| 17               | 0            | 2.5                 | 7.3                    | 4.32                  | -221.                   | 49.                     | -2.                      | 1.95                | 55.37    | 129.04 | 0. |
| 18               | 0            | 5.1                 | 7.7                    | 4.18                  | -236.                   | 284.                    | 31.                      | 8.63                | 55.07    | 128.68 | 0. |
| 19               | 0            | 10.1                | 10.3                   | 4.65                  | -333.                   | -733.                   | 116.                     | 21.87               | 55.41    | 129.09 | 0. |
| 20               | 0            | 15.0                | 15.4                   | 6.73                  | -492.                   | 1196.                   | 184.                     | 35.44               | 55.41    | 129.08 | 0. |
| 21               | 0            | 20.1                | 21.8                   | 10.85                 | -751.                   | -1779.                  | 338.                     | 52.49               | 55.30    | 128.96 | 0. |
| 22               | 0            | 0                   | 7.3                    | 4.84                  | -196.                   | 190.                    | -28.                     | -5.20               | 54.99    | 128.59 | 0. |

| PT.# | PSI    | CL     | CD     | CPH     | CYM     | CRM     | CY      |
|------|--------|--------|--------|---------|---------|---------|---------|
| 10   | 0.00   | 0.191  | 0.134  | -0.0613 | 0.126   | -0.0011 | -0.0152 |
| 11   | -20.00 | 0.0465 | 0.0483 | -0.1680 | 0.1282  | -0.0247 | -0.1589 |
| 12   | -15.00 | 0.0305 | 0.0341 | -0.1093 | 0.0976  | -0.0146 | -0.1214 |
| 13   | -10.00 | 0.0214 | 0.0226 | -0.0732 | 0.0641  | -0.0180 | -0.0793 |
| 14   | -5.00  | 0.0188 | 0.0158 | -0.0611 | 0.0358  | -0.0064 | -0.0445 |
| 15   | -2.50  | 0.0185 | 0.0140 | -0.0656 | 0.0229  | -0.0033 | -0.0273 |
| 16   | 0.00   | 0.0193 | 0.0133 | -0.0718 | 0.0111  | -0.0018 | -0.0121 |
| 17   | 2.50   | 0.0198 | 0.0117 | -0.0713 | -0.0029 | -0.0001 | 0.0053  |
| 18   | 5.10   | 0.0209 | 0.0113 | -0.0759 | 0.0172  | 0.0019  | 0.0233  |
| 19   | 10.10  | 0.0277 | 0.0126 | -0.1074 | -0.0442 | 0.0070  | 0.0591  |
| 20   | 15.00  | 0.0416 | 0.0182 | -0.1587 | -0.0722 | 0.0111  | 0.0958  |
| 21   | 20.10  | 0.0588 | 0.0293 | -0.2420 | -0.1075 | 0.0204  | 0.1419  |
| 22   | 0.00   | 0.0198 | 0.0131 | -0.0633 | 0.0115  | -0.0017 | -0.0140 |

| PT.# | PSI    | CLB    | CDB     | CPMB    | CYMB    | CRMB    | CYB     |
|------|--------|--------|---------|---------|---------|---------|---------|
| 10   | 0.00   | 0.191  | 0.134   | -0.0613 | 0.126   | -0.0011 | -0.0152 |
| 11   | -20.00 | 0.0465 | -0.0092 | -0.1180 | 0.1282  | -0.0096 | -0.1659 |
| 12   | -15.00 | 0.0305 | 0.014   | -0.0852 | 0.0976  | -0.0088 | -0.1261 |
| 13   | -10.00 | 0.0214 | 0.0084  | -0.0627 | 0.0641  | -0.0075 | -0.0820 |
| 14   | -5.00  | 0.0188 | 0.0119  | -0.0579 | 0.0358  | -0.0053 | -0.0458 |
| 15   | -2.50  | 0.0185 | 0.0128  | -0.0647 | 0.0229  | -0.0028 | -0.0279 |
| 16   | 0.00   | 0.0193 | 0.0133  | -0.0718 | 0.0111  | -0.0018 | -0.0121 |
| 17   | 2.50   | 0.0198 | 0.0114  | -0.0713 | -0.0029 | -0.0007 | 0.0058  |
| 18   | 5.10   | 0.0209 | 0.0092  | -0.0747 | 0.0172  | 0.0006  | 0.0242  |
| 19   | 10.10  | 0.0277 | 0.0020  | -0.0992 | -0.0442 | 0.0033  | 0.0604  |
| 20   | 15.00  | 0.0416 | -0.0073 | -0.1378 | -0.0722 | 0.0030  | 0.0972  |
| 21   | 20.10  | 0.0588 | -0.0214 | -0.1895 | -0.1075 | 0.0035  | 0.1433  |
| 22   | 0.00   | 0.0198 | 0.0131  | -0.0633 | 0.0115  | -0.0017 | -0.0140 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 365

RUN 455 CONFIG T3 BT

| 1W<br>PT.<br>NO. | ALPHA<br>DEG | DELTA<br>PSI<br>DEG | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPM BAR<br>CU-FT | CYBAR<br>CU-FT | CRM BAR<br>CU-FT | CYBAR<br>SQ-FT | DELSB<br>PSF | O<br>V<br>KNOTS | RPM |
|------------------|--------------|---------------------|----------------|----------------|------------------|----------------|------------------|----------------|--------------|-----------------|-----|
| 2                | 0            | 0                   | 7.0            | 5.27           | 182.             | 332.           | 20.              | 8.75           | 55.80        | 129.55          | 0.  |
| 3                | 0            | -19.9               | 16.8           | 19.00          | 505.             | 2218.          | 357.             | 61.15          | 55.53        | 129.23          | 0.  |
| 4                | 0            | -14.9               | 11.9           | 13.62          | 341.             | 1737.          | 246.             | 47.91          | 55.20        | 128.84          | 0.  |
| 5                | 0            | -10.0               | 7.9            | 9.26           | 221.             | 1212.          | 155.             | 33.29          | 56.01        | 129.80          | 0.  |
| 6                | 0            | -5.0                | 6.6            | 6.38           | 172.             | 728.           | 108.             | 19.96          | 56.10        | 129.90          | 0.  |
| 7                | 0            | -2.5                | 6.6            | 5.61           | 180.             | 512.           | 70.              | 13.65          | 55.85        | 129.61          | 0.  |
| 8                | 0            | 0                   | 6.9            | 5.10           | 197.             | 317.           | 40.              | 8.19           | 56.11        | 129.92          | 0.  |
| 9                | 0            | 2.6                 | 7.2            | 4.39           | 203.             | 82.            | 13.              | 1.67           | 55.64        | 129.35          | 0.  |
| 10               | 0            | 5.0                 | 7.6            | 4.04           | 211.             | 174.           | 2.               | 5.64           | 55.72        | 129.45          | 0.  |
| 11               | 0            | 10.1                | 10.7           | 4.33           | 331.             | 644.           | 104.             | 19.60          | 55.86        | 129.62          | 0.  |
| 12               | 0            | 15.1                | 14.9           | 6.31           | 475.             | 1108.          | 192.             | 33.16          | 55.92        | 129.69          | 0.  |
| 13               | 0            | 20.0                | 21.6           | 10.34          | 733.             | 1706.          | 320.             | 50.41          | 55.59        | 129.30          | 0.  |
| 14               | 0            | 0                   | 7.0            | 5.24           | 183.             | 338.           | 32.              | 8.83           | 55.63        | 129.35          | 0.  |

\*\*\* COEFFICIENT FORM WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM     | CYM    | CRM     | CY      |
|------|--------|--------|--------|---------|--------|---------|---------|
| 2    | 0.00   | 0.0190 | 0.0142 | -0.0587 | 0.0201 | -0.0012 | -0.0236 |
| 3    | -19.90 | 0.0453 | 0.0513 | -0.1628 | 0.1339 | -0.0216 | -0.1653 |
| 4    | -14.90 | 0.0321 | 0.0368 | -0.1101 | 0.1049 | -0.0149 | -0.1295 |
| 5    | -10.00 | 0.0212 | 0.0250 | -0.0714 | 0.0732 | -0.0093 | -0.0900 |
| 6    | -5.00  | 0.0177 | 0.0172 | -0.0553 | 0.0440 | -0.0065 | -0.0539 |
| 7    | -2.50  | 0.0178 | 0.0152 | -0.0580 | 0.0309 | -0.0042 | -0.0369 |
| 8    | 0.00   | 0.0186 | 0.0138 | -0.0634 | 0.0192 | -0.0024 | -0.0221 |
| 9    | 2.60   | 0.0195 | 0.0119 | -0.0654 | 0.0049 | -0.0008 | -0.0045 |
| 10   | 5.00   | 0.0205 | 0.0109 | -0.0680 | 0.0105 | 0.0001  | 0.0152  |
| 11   | 10.10  | 0.0288 | 0.0117 | -0.1067 | 0.0389 | 0.0063  | 0.0530  |
| 12   | 15.10  | 0.0403 | 0.0171 | -0.1532 | 0.0669 | 0.0116  | 0.0896  |
| 13   | 20.00  | 0.0583 | 0.0280 | -0.2363 | 0.1031 | 0.0194  | 0.1363  |
| 14   | 0.00   | 0.0190 | 0.0142 | -0.0591 | 0.0204 | -0.0019 | -0.0239 |

\*\*\* COEFFICIENT FORM STABILITY AXIS

| PT.# | PSI    | CLB    | CDB     | CPMB    | CYMB   | CRMB    | CYB     |
|------|--------|--------|---------|---------|--------|---------|---------|
| 2    | 0.00   | 0.0190 | 0.0142  | -0.0587 | 0.0201 | -0.0012 | -0.0236 |
| 3    | -19.90 | 0.0453 | -0.0083 | -0.1137 | 0.1339 | -0.0098 | -0.1729 |
| 4    | -14.90 | 0.0321 | 0.0021  | -0.0858 | 0.1049 | -0.0090 | -0.1346 |
| 5    | -10.00 | 0.0212 | 0.0090  | -0.0616 | 0.0732 | -0.0069 | -0.0930 |
| 6    | -5.00  | 0.0177 | 0.0125  | -0.0521 | 0.0440 | -0.0056 | -0.0552 |
| 7    | -2.50  | 0.0178 | 0.0135  | -0.0569 | 0.0309 | -0.0038 | -0.0375 |
| 8    | 0.00   | 0.0186 | 0.0138  | -0.0634 | 0.0192 | -0.0024 | -0.0221 |
| 9    | 2.60   | 0.0195 | 0.0121  | -0.0655 | 0.0049 | -0.0013 | -0.0040 |
| 10   | 5.00   | 0.0205 | 0.0095  | -0.0677 | 0.0105 | -0.0040 | 0.0161  |
| 11   | 10.10  | 0.0288 | 0.0022  | -0.0992 | 0.0389 | 0.0026  | 0.0542  |
| 12   | 15.10  | 0.0403 | -0.0070 | -0.1316 | 0.0669 | 0.0037  | 0.0910  |
| 13   | 20.00  | 0.0583 | -0.0206 | -0.1864 | 0.1031 | 0.0030  | 0.1376  |
| 14   | 0.00   | 0.0190 | 0.0142  | -0.0591 | 0.0204 | -0.0019 | -0.0239 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 366

RUN 456 CONFIG T3 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CIBAR SQ-FT | THT CDBAR SQ-FT | DELE CPMBAR CU-FT | DELR CYMBAR CU-FT | DELSB CRMBAR CU-FT | Q CYBAR SQ-FT | Q PSF | V. KNOTS | RPM |
|---------|-----------|---------------|-------------------|-----------------|-------------------|-------------------|--------------------|---------------|-------|----------|-----|
| 2       | 0         | 0             | 6.2               | 5.69            | -148.             | 457.              | -40.               | -12.20        | 55.65 | 129.37   | 0.  |
| 3       | 0         | -20.0         | 15.7              | 19.97           | -474.             | 2294.             | -358.              | -63.18        | 55.82 | 129.57   | 0.  |
| 4       | 0         | -15.0         | 11.0              | 14.50           | -315.             | 1822.             | -239.              | -50.31        | 55.36 | 129.03   | 0.  |
| 5       | 0         | -9.9          | 7.3               | 9.92            | -194.             | 1297.             | -156.              | -35.65        | 55.42 | 129.09   | 0.  |
| 6       | 0         | -5.0          | 6.2               | 7.13            | -147.             | 848.              | -109.              | -23.26        | 55.68 | 129.40   | 0.  |
| 7       | 0         | -2.5          | 6.1               | 6.21            | -135.             | 636.              | -57.               | -17.45        | 55.61 | 129.32   | 0.  |
| 8       | 0         | 0             | 6.2               | 5.56            | -160.             | 431.              | -47.               | -11.48        | 55.68 | 129.41   | 0.  |
| 9       | 0         | 2.5           | 6.4               | 4.97            | -170.             | 220.              | -22.               | -5.53         | 55.10 | 128.72   | 0.  |
| 10      | 0         | 5.0           | 6.7               | 4.45            | -184.             | -49.              | -7.                | 2.23          | 55.77 | 129.51   | 0.  |
| 11      | 0         | 10.0          | 9.7               | 4.19            | -284.             | -549.             | 81.                | 16.74         | 56.30 | 130.14   | 0.  |
| 12      | 0         | 15.1          | 15.0              | 6.14            | -457.             | -1056.            | 183.               | 31.51         | 55.80 | 129.54   | 0.  |
| 13      | 0         | 20.0          | 20.8              | 10.20           | -697.             | -1695.            | 112.               | 50.24         | 55.35 | 129.01   | 0.  |
| 14      | 0         | 0             | 6.4               | 5.88            | -149.             | 458.              | -40.               | -12.19        | 55.51 | 129.20   | 0.  |
| 15      | 0         | 20.0          | 20.3              | 10.04           | -695.             | -1611.            | 305.               | 47.51         | 55.79 | 129.53   | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM     | CYM     | CRM     | CY      |
|------|--------|--------|--------|---------|---------|---------|---------|
| 2    | 0.00   | 0.168  | 0.154  | -0.0477 | 0.0276  | -0.0024 | -0.0330 |
| 3    | -20.00 | 0.0424 | 0.0540 | -0.1527 | 0.1386  | -0.0216 | -0.1708 |
| 4    | -15.00 | 0.0298 | 0.0392 | -0.1015 | 0.1101  | -0.0144 | -0.1360 |
| 5    | -9.90  | 0.0196 | 0.0268 | -0.0627 | 0.0783  | -0.0094 | -0.0963 |
| 6    | -5.00  | 0.0168 | 0.0193 | -0.0474 | 0.0512  | -0.0066 | -0.0629 |
| 7    | -2.50  | 0.0166 | 0.0168 | -0.0435 | 0.0384  | -0.0035 | -0.0472 |
| 8    | 0.00   | 0.0168 | 0.0150 | -0.0516 | 0.0261  | -0.0029 | -0.0310 |
| 9    | 2.50   | 0.0174 | 0.0134 | -0.0548 | 0.0133  | -0.0013 | -0.0150 |
| 10   | 5.00   | 0.0181 | 0.0120 | -0.0593 | -0.0029 | -0.0004 | 0.0060  |
| 11   | 10.00  | 0.0263 | 0.0113 | -0.0917 | 0.0332  | 0.0049  | 0.0453  |
| 12   | 15.10  | 0.0404 | 0.0166 | -0.1473 | 0.0638  | 0.0110  | 0.0851  |
| 13   | 20.00  | 0.0562 | 0.0276 | -0.2247 | 0.1024  | 0.0067  | 0.1358  |
| 14   | 0.00   | 0.0173 | 0.0159 | -0.0479 | 0.0276  | -0.0024 | -0.0329 |
| 15   | 20.00  | 0.0550 | 0.0271 | -0.2240 | 0.0973  | 0.0184  | 0.1284  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB     | CPMB    | CYMB    | CRMB    | CYB     |
|------|--------|--------|---------|---------|---------|---------|---------|
| 2    | 0.00   | 0.168  | 0.154   | -0.0477 | 0.0276  | -0.0024 | -0.0330 |
| 3    | -20.00 | 0.0424 | -0.0880 | -0.1038 | 0.1386  | -0.0185 | -0.1789 |
| 4    | -15.00 | 0.0298 | 0.0025  | -0.0780 | 0.1101  | -0.0090 | -0.1415 |
| 5    | -9.90  | 0.0196 | 0.0098  | -0.0530 | 0.0783  | -0.0073 | -0.0995 |
| 6    | -5.00  | 0.0168 | 0.0137  | -0.0441 | 0.0512  | -0.0058 | -0.0643 |
| 7    | -2.50  | 0.0166 | 0.0147  | -0.0426 | 0.0384  | -0.0031 | -0.0479 |
| 8    | 0.00   | 0.0168 | 0.0150  | -0.0516 | 0.0261  | -0.0029 | -0.0310 |
| 9    | 2.50   | 0.0174 | 0.0141  | -0.0551 | 0.0133  | -0.0018 | -0.0144 |
| 10   | 5.00   | 0.0181 | 0.0115  | -0.0593 | -0.0029 | -0.0014 | 0.0071  |
| 11   | 10.00  | 0.0263 | 0.0033  | -0.0858 | 0.0332  | 0.0018  | 0.0465  |
| 12   | 15.10  | 0.0404 | -0.0063 | -0.1267 | 0.0638  | 0.0034  | 0.0865  |
| 13   | 20.00  | 0.0562 | -0.0208 | -0.1987 | 0.1024  | -0.0081 | 0.1370  |
| 14   | 0.00   | 0.0173 | 0.0159  | -0.0479 | 0.0276  | -0.0024 | -0.0329 |
| 15   | 20.00  | 0.0550 | -0.0186 | -0.1766 | 0.0973  | 0.0029  | 0.1299  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 367

RUN 457 CONFIG T3 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CIBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CPMBAR CU-FT | DELE CYMBAR CU-FT | DELR CRMBAR CU-FT | 25 CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|------------------|-------------------|-------------------|----------------|-------------|---------|-----|
| 2       | 0         | 0             | 5.7               | 6.80              | -131.            | 579.              | -69.              | -15.22         | 55.78       | 129.52  | 0.  |
| 3       | 0         | -20.0         | 17.2              | 21.17             | -502.            | 2397.             | -394.             | -65.42         | 55.76       | 129.50  | 0.  |
| 4       | 0         | -15.0         | 11.6              | 15.93             | -327.            | 1944.             | -281.             | -53.36         | 55.16       | 128.79  | 0.  |
| 5       | 0         | -10.0         | 7.2               | 11.48             | -197.            | 1438.             | -203.             | -39.09         | 55.08       | 128.69  | 0.  |
| 6       | 0         | -4.9          | 5.9               | 8.55              | -150.            | 995.              | -136.             | -26.75         | 54.98       | 128.57  | 0.  |
| 7       | 0         | -2.5          | 5.6               | 7.51              | -146.            | 770.              | -109.             | -20.51         | 55.14       | 128.76  | 0.  |
| 9       | 0         | 2.5           | 5.8               | 5.73              | -155.            | 324.              | -72.              | -7.91          | 55.38       | 129.05  | 0.  |
| 10      | 0         | 5.0           | 6.1               | 5.31              | -168.            | 66.               | -49.              | -0.85          | 55.20       | 128.83  | 0.  |
| 11      | 0         | 10.1          | 9.3               | 4.93              | -279.            | -443.             | 45.               | 14.07          | 55.10       | 128.72  | 0.  |
| 12      | 0         | 15.1          | 13.2              | 6.47              | -424.            | -942.             | 135.              | 28.29          | 55.42       | 129.10  | 0.  |
| 13      | 0         | 20.0          | 20.1              | 10.17             | -690.            | -1550.            | 240.              | 45.80          | 55.31       | 128.97  | 0.  |
| 14      | 0         | 0             | 5.9               | 6.73              | -138.            | 579.              | -75.              | -15.31         | 55.54       | 129.24  | 0.  |

\*\* COEFFICIENT FORM WIND AXIS

| C.# | PSI    | CL     | CD     | CPM     | CYM     | CRM     | CY      |
|-----|--------|--------|--------|---------|---------|---------|---------|
| 2   | 0.00   | 0.0154 | 0.0184 | -0.0421 | 0.0350  | -0.0042 | -0.0411 |
| 3   | -20.00 | 0.0464 | 0.0572 | -0.1619 | 0.1448  | -0.0238 | -0.1768 |
| 4   | -15.00 | 0.0312 | 0.0430 | -0.1055 | 0.1174  | -0.0170 | -0.1442 |
| 5   | -10.00 | 0.0194 | 0.0310 | -0.0634 | 0.0869  | -0.0122 | -0.1057 |
| 6   | -4.90  | 0.0159 | 0.0231 | -0.0484 | 0.0601  | -0.0082 | -0.0723 |
| 7   | -2.50  | 0.0152 | 0.0203 | -0.0472 | 0.0465  | -0.0066 | -0.0554 |
| 9   | 2.50   | 0.0156 | 0.0155 | -0.0500 | 0.0195  | -0.0043 | -0.0214 |
| 10  | 5.00   | 0.0165 | 0.0143 | -0.0543 | 0.0040  | -0.0029 | -0.0023 |
| 11  | 10.10  | 0.0252 | 0.0133 | -0.0899 | -0.0268 | 0.0027  | 0.0380  |
| 12  | 15.10  | 0.0357 | 0.0175 | -0.1366 | -0.0569 | 0.0082  | 0.0765  |
| 13  | 20.00  | 0.0543 | 0.0275 | -0.2226 | -0.0936 | 0.0145  | 0.1238  |
| 14  | 0.00   | 0.0159 | 0.0182 | -0.0443 | 0.0350  | -0.0045 | -0.0414 |

\*\*\* COEFFICIENT FORM STABILITY AXIS

| PT.# | PSI    | CLB    | CDB     | CPMB    | CYMB    | CRMB    | CYB     |
|------|--------|--------|---------|---------|---------|---------|---------|
| 2    | 0.00   | 0.0154 | 0.0184  | -0.0421 | 0.0350  | -0.0042 | -0.0411 |
| 3    | -20.00 | 0.0464 | 0.0070  | -0.1084 | 0.1448  | -0.0119 | -0.1857 |
| 4    | -15.00 | 0.0312 | 0.0041  | -0.0784 | 0.1174  | -0.0112 | -0.1504 |
| 5    | -10.00 | 0.0194 | 0.0121  | -0.0510 | 0.0869  | -0.0100 | -0.1094 |
| 6    | -4.90  | 0.0159 | 0.0168  | -0.0444 | 0.0601  | -0.0074 | -0.0740 |
| 7    | -2.50  | 0.0152 | 0.0179  | -0.0456 | 0.0465  | -0.0062 | -0.0563 |
| 9    | 2.50   | 0.0156 | 0.0164  | -0.0509 | 0.0195  | -0.0047 | -0.0207 |
| 10   | 5.00   | 0.0165 | 0.0145  | -0.0555 | 0.0040  | -0.0038 | -0.0010 |
| 11   | 10.10  | 0.0252 | 0.0064  | -0.0859 | -0.0268 | -0.0003 | 0.0398  |
| 12   | 15.10  | 0.0357 | 0.0031  | -0.1205 | -0.0569 | 0.0012  | 0.0784  |
| 13   | 20.00  | 0.0543 | -0.0167 | -0.1824 | -0.0936 | -0.0007 | 0.1257  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 368

RUN 458 CONFIG T3 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB PSF | Q KNOTS | V | RPM |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-----------|---------|---|-----|
| 2       | 0         | 0             | 7.6         | 4.52        | -205.        | -264.        | 37.          | 7.03        | 55.57     | 129.27  |   | 0.  |
| 3       | 0         | -20.0         | 14.9        | 13.35       | -453.        | 1624.        | -287.        | -46.65      | 55.62     | 129.33  |   | 0.  |
| 4       | 0         | -15.0         | 10.6        | 9.08        | -306.        | 1151.        | -178.        | -33.39      | 54.74     | 128.29  |   | 0.  |
| 5       | 0         | -10.0         | 7.4         | 5.98        | -209.        | 593.         | -88.         | -17.40      | 54.87     | 128.44  |   | 0.  |
| 6       | 0         | -5.0          | 7.1         | 4.31        | -185.        | 95.          | -29.         | -3.36       | 55.07     | 128.68  |   | 0.  |
| 7       | 0         | -2.5          | 7.1         | 4.23        | -204.        | -94.         | 4.           | 2.03        | 55.38     | 129.05  |   | 0.  |
| 8       | 0         | 0             | 7.7         | 4.39        | -230.        | -261.        | 37.          | 7.03        | 55.60     | 129.30  |   | 0.  |
| 9       | 0         | 2.5           | 7.9         | 4.53        | -237.        | -469.        | 64.          | 13.19       | 55.14     | 128.76  |   | 0.  |
| 10      | 0         | 5.0           | 8.7         | 4.67        | -259.        | -681.        | 82.          | 19.14       | 55.62     | 129.32  |   | 0.  |
| 11      | 0         | 10.0          | 11.8        | 6.00        | -358.        | -1126.       | 138.         | 31.91       | 55.66     | 129.38  |   | 0.  |
| 12      | 0         | 15.0          | 16.8        | 8.96        | -525.        | -1588.       | 252.         | 45.47       | 55.61     | 129.32  |   | 0.  |
| 13      | 0         | 0             | 7.8         | 4.31        | -203.        | -262.        | 48.          | 6.77        | 55.39     | 129.06  |   | 0.  |

\*\*\* COEFFICIENT FORM WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .0207 | .0122 | -.0661 | -.0160 | .0023  | .0190  |
| 3    | -20.00 | .0403 | .0361 | -.1459 | .0981  | -.0173 | -.1261 |
| 4    | -15.00 | .0287 | .0246 | -.0988 | .0695  | -.0168 | -.0903 |
| 5    | -10.00 | .0200 | .0162 | -.0673 | .0358  | -.0053 | -.0470 |
| 6    | -5.00  | .0191 | .0117 | -.0595 | .0058  | -.0017 | -.0091 |
| 7    | -2.50  | .0192 | .0114 | -.0658 | -.0057 | .0002  | .0055  |
| 8    | .00    | .0207 | .0119 | -.0741 | -.0158 | .0023  | .0190  |
| 9    | 2.50   | .0214 | .0122 | -.0765 | -.0283 | .0039  | .0356  |
| 10   | 5.00   | .0235 | .0126 | -.0833 | -.0412 | .0050  | .0517  |
| 11   | 10.00  | .0318 | .0162 | -.1154 | -.0680 | .0083  | .0862  |
| 12   | 15.00  | .0455 | .0242 | -.1693 | -.0959 | .0152  | .1229  |
| 13   | .00    | .0210 | .0116 | -.0654 | -.0158 | .0029  | .0183  |

\*\*\* COEFFICIENT FORM STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .0207 | .0122  | -.0661 | -.0160 | .0023  | .0190  |
| 3    | -20.00 | .0403 | -.0094 | -.1053 | .0981  | -.0089 | -.1308 |
| 4    | -15.00 | .0287 | .0002  | -.0805 | .0695  | -.0056 | -.0935 |
| 5    | -10.00 | .0200 | .0077  | -.0613 | .0358  | -.0031 | -.0491 |
| 6    | -5.00  | .0191 | .0108  | -.0585 | .0058  | -.0008 | -.0101 |
| 7    | -2.50  | .0192 | .0117  | -.0658 | -.0057 | .0008  | .0050  |
| 8    | .00    | .0207 | .0119  | -.0741 | -.0158 | .0023  | .0190  |
| 9    | 2.50   | .0214 | .0107  | -.0755 | -.0283 | .0082  | .0361  |
| 10   | 5.00   | .0235 | .0080  | -.0807 | -.0412 | .0036  | .0526  |
| 11   | 10.00  | .0318 | .0009  | -.1059 | -.0680 | .0044  | .0877  |
| 12   | 15.00  | .0455 | .0086  | -.1423 | -.0959 | .0065  | .1250  |
| 13   | .00    | .0210 | .0116  | -.0654 | -.0158 | .0029  | .0183  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 369

RUN 459 CONFIG T3 BT

| PT. NO. | ALPHA DEG | DELTA |      | DELA        |             | IHT          |              | O DELE       |             | O DELR |    | DELSB |  | V KNOTS | RPM |
|---------|-----------|-------|------|-------------|-------------|--------------|--------------|--------------|-------------|--------|----|-------|--|---------|-----|
|         |           | PSI   | DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF    | Q  |       |  |         |     |
| 2       | 0         | 0     | 7.6  | 4.91        | -199.       | -365.        | 47.          | 9.65         | 54.74       | 128.29 | 0. |       |  |         |     |
| 3       | 0         | -20.0 | 14.3 | 13.23       | -449.       | 1554.        | -277.        | -44.46       | 55.38       | 129.05 | 0. |       |  |         |     |
| 4       | 0         | -15.0 | 9.9  | 8.80        | -294.       | 1041.        | -160.        | -30.25       | 55.57       | 129.27 | 0. |       |  |         |     |
| 5       | 0         | -10.0 | 7.1  | 6.08        | -208.       | 495.         | -78.         | -14.66       | 55.34       | 129.00 | 0. |       |  |         |     |
| 6       | 0         | -5.0  | 6.6  | 4.72        | -191.       | 10.          | -20.         | -.93         | 55.49       | 129.18 | 0. |       |  |         |     |
| 7       | 0         | -2.5  | 6.6  | 4.73        | -199.       | -198.        | 16.          | 5.13         | 55.58       | 129.28 | 0. |       |  |         |     |
| 8       | 0         | 0     | 7.3  | 4.86        | -221.       | -377.        | 45.          | 10.27        | 54.99       | 128.59 | 0. |       |  |         |     |
| 9       | 0         | 2.5   | 7.7  | 5.03        | -235.       | -569.        | 61.          | 15.75        | 55.20       | 128.83 | 0. |       |  |         |     |
| 10      | 0         | 5.0   | 6.6  | 5.45        | -263.       | -791.        | 82.          | 22.07        | 55.18       | 128.81 | 0. |       |  |         |     |
| 11      | 0         | 10.0  | 11.3 | 6.97        | -355.       | -1250.       | 162.         | 35.33        | 55.05       | 128.66 | 0. |       |  |         |     |
| 12      | 0         | 15.3  | 17.3 | 10.31       | -551.       | -1725.       | 270.         | 49.21        | 55.54       | 129.24 | 0. |       |  |         |     |
| 13      | 0         | 0     | 7.4  | 4.72        | -195.       | -354.        | 51.          | 9.31         | 55.38       | 129.05 | 0. |       |  |         |     |

\*\*\* COEFFICIENT FORM WIND AXIS

| PT.# | PSI    | CL    | CD    | CPH    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .0205 | .0133 | -.0642 | -.0221 | .0028  | .0261  |
| 3    | -20.00 | .0386 | .0358 | -.1447 | .0939  | -.0167 | -.1202 |
| 4    | -15.00 | .0269 | .0238 | -.0949 | .0629  | -.0097 | -.0818 |
| 5    | -10.00 | .0192 | .0164 | -.0669 | .0299  | -.0047 | -.0396 |
| 6    | -5.00  | .0178 | .0128 | -.0617 | .0006  | -.0012 | -.0025 |
| 7    | -2.50  | .0180 | .0128 | -.0641 | -.0119 | .0010  | .0139  |
| 8    | .00    | .0197 | .0131 | -.0713 | -.0228 | .0027  | .0278  |
| 9    | 2.50   | .0208 | .0136 | -.0758 | -.0344 | .0037  | .0426  |
| 10   | 5.00   | .0233 | .0147 | -.0846 | -.0478 | .0049  | .0596  |
| 11   | 10.00  | .0305 | .0188 | -.1145 | -.0755 | .0058  | .0955  |
| 12   | 15.30  | .0466 | .0279 | -.1775 | -.1042 | .0163  | .1330  |
| 13   | .00    | .0199 | .0128 | -.0628 | -.0214 | .0031  | .0252  |

\*\*\* COEFFICIENT FORM STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPHB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .0205 | .0133  | -.0642 | -.0221 | .0028  | .0261  |
| 3    | -20.00 | .0386 | -.0077 | -.1052 | .0939  | -.0064 | -.1251 |
| 4    | -15.00 | .0269 | .0017  | -.0782 | .0629  | -.0047 | -.0851 |
| 5    | -10.00 | .0192 | .0093  | -.0615 | .0299  | -.0025 | -.0419 |
| 6    | -5.00  | .0178 | .0125  | -.0609 | .0006  | -.0002 | -.0036 |
| 7    | -2.50  | .0180 | .0134  | -.0643 | -.0119 | .0015  | .0133  |
| 8    | .00    | .0197 | .0131  | -.0713 | -.0228 | .0027  | .0278  |
| 9    | 2.50   | .0208 | .0117  | -.0749 | -.0344 | .0031  | .0431  |
| 10   | 5.00   | .0233 | .0095  | -.0820 | -.0478 | .0035  | .0607  |
| 11   | 10.00  | .0305 | .0019  | -.1036 | -.0755 | .0059  | .0973  |
| 12   | 15.30  | .0466 | -.0084 | -.1481 | -.1042 | .0069  | .1356  |
| 13   | .00    | .0199 | .0128  | -.0628 | -.0214 | .0031  | .0252  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 370

RUN 460 CONFIG T3 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | DELTA V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------------|-----|
| 2       | 0         | 0             | 7.0         | 5.37        | -176.        | -487.        | 60.          | 12.84       | 55.12 | 128.75        | 0.  |
| 3       | 0         | -20.0         | 14.3        | 12.90       | -438.        | 1459.        | -261.        | -41.97      | 55.00 | 128.60        | 0.  |
| 4       | 0         | -15.0         | 9.6         | 8.74        | -278.        | 950.         | -138.        | -27.72      | 55.37 | 129.04        | 0.  |
| 5       | 0         | -10.0         | 6.4         | 5.77        | -167.        | 380.         | -72.         | -11.70      | 55.43 | 129.10        | 0.  |
| 6       | 0         | -5.0          | 6.1         | 4.89        | -160.        | -105.        | 4.           | 2.18        | 55.17 | 128.80        | 0.  |
| 7       | 0         | -2.5          | 6.3         | 5.06        | -185.        | -305.        | 33.          | 7.97        | 55.02 | 128.62        | 0.  |
| 8       | 0         | 0             | 6.8         | 5.48        | -205.        | -486.        | 67.          | 13.12       | 55.49 | 129.17        | 0.  |
| 9       | 0         | 2.5           | 7.5         | 5.47        | -215.        | -690.        | 85.          | 18.84       | 55.63 | 129.35        | 0.  |
| 10      | 0         | 5.0           | 8.3         | 5.96        | -245.        | -904.        | 98.          | 25.00       | 55.76 | 129.50        | 0.  |
| 11      | 0         | 10.1          | 11.0        | 7.81        | -346.        | -1347.       | 187.         | 37.73       | 55.79 | 129.53        | 0.  |
| 12      | 0         | 15.1          | 17.8        | 11.27       | -555.        | -1859.       | 233.         | 52.67       | 55.52 | 129.21        | 0.  |
| 13      | 0         | 0             | 7.3         | 5.29        | -176.        | -491.        | 71.          | 12.88       | 55.23 | 128.87        | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM     | CYM    | CRM     | CY      |
|------|--------|--------|--------|---------|--------|---------|---------|
| 2    | 0.00   | 0.189  | 0.145  | -0.0566 | 0.0294 | 0.0036  | 0.0347  |
| 3    | -20.00 | 0.0387 | 0.0349 | -0.1413 | 0.0881 | -0.0158 | -0.1134 |
| 4    | -15.00 | 0.0260 | 0.0236 | -0.0896 | 0.0574 | -0.0083 | -0.0749 |
| 5    | -10.00 | 0.0174 | 0.0156 | -0.0537 | 0.0230 | -0.0043 | -0.0316 |
| 6    | -5.00  | 0.0164 | 0.0132 | -0.0514 | 0.0063 | 0.0003  | 0.0059  |
| 7    | -2.50  | 0.0171 | 0.0137 | -0.0595 | 0.0184 | 0.0020  | 0.0215  |
| 8    | 0.00   | 0.0184 | 0.0148 | -0.0660 | 0.0294 | 0.0040  | 0.0355  |
| 9    | 2.50   | 0.0202 | 0.0148 | -0.0692 | 0.0417 | 0.0051  | 0.0509  |
| 10   | 5.00   | 0.0226 | 0.0161 | -0.0788 | 0.0546 | 0.0059  | 0.0676  |
| 11   | 10.10  | 0.0298 | 0.0211 | -0.1116 | 0.0813 | 0.0113  | 0.1020  |
| 12   | 15.10  | 0.0481 | 0.0305 | -0.1790 | 0.1123 | 0.0141  | 0.1424  |
| 13   | 0.00   | 0.0197 | 0.0143 | -0.0567 | 0.0296 | 0.0043  | 0.0348  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB     | CPMB    | CYMB   | CRMB    | CYB     |
|------|--------|--------|---------|---------|--------|---------|---------|
| 2    | 0.00   | 0.189  | 0.145   | -0.0566 | 0.0294 | 0.0036  | 0.0347  |
| 3    | -20.00 | 0.0387 | -0.0662 | -0.1038 | 0.0881 | -0.0057 | -0.1185 |
| 4    | -15.00 | 0.0260 | 0.0033  | -0.0750 | 0.0574 | -0.0037 | -0.0785 |
| 5    | -10.00 | 0.0174 | 0.0098  | -0.0489 | 0.0230 | -0.0025 | -0.0339 |
| 6    | -5.00  | 0.0164 | 0.0137  | -0.0514 | 0.0063 | 0.0011  | 0.0047  |
| 7    | -2.50  | 0.0171 | 0.0146  | -0.0600 | 0.0184 | 0.0025  | 0.0209  |
| 8    | 0.00   | 0.0184 | 0.0148  | -0.0660 | 0.0294 | 0.0040  | 0.0355  |
| 9    | 2.50   | 0.0202 | 0.0125  | -0.0680 | 0.0417 | 0.0046  | 0.0515  |
| 10   | 5.00   | 0.0226 | 0.0101  | -0.0757 | 0.0546 | 0.0046  | 0.0687  |
| 11   | 10.10  | 0.0298 | 0.0028  | -0.0992 | 0.0813 | 0.0074  | 0.1041  |
| 12   | 15.10  | 0.0481 | -0.0079 | -0.1531 | 0.1123 | 0.0048  | 0.1454  |
| 13   | 0.00   | 0.0197 | 0.0143  | -0.0567 | 0.0296 | 0.0043  | 0.0348  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 371

RUN 461 CONFIG T3 BT

| PT. NO. | DELTA     |       | DELA  |       | IHT     |        | DELE    |        | DELR  |        | DELSB |       | Q | V | RPM |
|---------|-----------|-------|-------|-------|---------|--------|---------|--------|-------|--------|-------|-------|---|---|-----|
|         | ALPHA DEG | PSI   | CLBAR | CDBAR | CPM BAR | CYBAR  | CRM BAR | CYBAR  | CU-FT | SQ-FT  | PSF   | KNOTS |   |   |     |
| 2       | 0         | 0     | 6.4   | 6.22  | -150.   | -648.  | 80.     | 17.35  | 54.92 | 128.51 | 0.    |       |   |   |     |
| 3       | 0         | -20.0 | 12.4  | 12.30 | -384.   | 1318.  | -244.   | -38.23 | 55.22 | 128.85 | 0.    |       |   |   |     |
| 4       | 0         | -15.0 | 8.4   | 8.85  | -248.   | 850.   | -117.   | -24.88 | 54.96 | 128.55 | 0.    |       |   |   |     |
| 5       | 0         | -10.0 | 5.7   | 6.23  | -160.   | 306.   | -57.    | -9.50  | 55.20 | 128.83 | 0.    |       |   |   |     |
| 6       | 0         | -5.0  | 5.8   | 5.19  | -147.   | -214.  | 15.     | 4.99   | 55.62 | 129.33 | 0.    |       |   |   |     |
| 7       | 0         | -2.5  | 5.9   | 5.56  | -161.   | -430.  | 47.     | 11.43  | 55.78 | 129.52 | 0.    |       |   |   |     |
| 8       | 0         | 0     | 6.5   | 5.98  | -174.   | -633.  | 72.     | 16.96  | 55.64 | 129.35 | 0.    |       |   |   |     |
| 9       | 0         | 2.5   | 6.9   | 6.52  | -196.   | -838.  | 91.     | 22.92  | 55.44 | 129.12 | 0.    |       |   |   |     |
| 10      | 0         | 5.0   | 7.8   | 6.87  | -221.   | -1041. | 109.    | 28.92  | 55.52 | 129.21 | 0.    |       |   |   |     |
| 11      | 0         | 10.0  | 10.9  | 8.83  | -340.   | -1460. | 193.    | 40.76  | 55.05 | 128.65 | 0.    |       |   |   |     |
| 12      | 0         | 15.1  | 17.7  | 12.31 | -559.   | -1924. | 288.    | 54.28  | 55.26 | 128.90 | 0.    |       |   |   |     |
| 13      | 0         | 0     | 6.4   | 6.20  | -154.   | -627.  | 82.     | 16.79  | 55.35 | 129.01 | 0.    |       |   |   |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM     | CYM     | CRM     | CY      |
|------|--------|-------|-------|---------|---------|---------|---------|
| 2    | 0.00   | 0.174 | 0.168 | -0.0485 | -0.0392 | 0.0048  | 0.0469  |
| 3    | -20.00 | 0.335 | 0.332 | -0.1239 | 0.0796  | -0.0147 | -0.1033 |
| 4    | -15.00 | 0.226 | 0.239 | -0.0798 | 0.0513  | -0.0070 | -0.0673 |
| 5    | -10.00 | 0.155 | 0.168 | -0.0517 | 0.0185  | -0.0034 | -0.0257 |
| 6    | -5.00  | 0.156 | 0.140 | -0.0474 | -0.0129 | 0.0009  | 0.0135  |
| 7    | -2.50  | 0.159 | 0.150 | -0.0518 | -0.0260 | 0.0028  | 0.0309  |
| 8    | 0.00   | 0.175 | 0.162 | -0.0561 | -0.0382 | 0.0043  | 0.0458  |
| 9    | 2.50   | 0.185 | 0.176 | -0.0631 | -0.0506 | 0.0065  | 0.0619  |
| 10   | 5.00   | 0.210 | 0.186 | -0.0713 | -0.0629 | 0.0066  | 0.0782  |
| 11   | 10.00  | 0.294 | 0.239 | -0.1096 | -0.0882 | 0.0116  | 0.1102  |
| 12   | 15.10  | 0.477 | 0.333 | -0.1803 | -0.1162 | 0.0174  | 0.1467  |
| 13   | 0.00   | 0.172 | 0.168 | -0.0497 | -0.0379 | 0.0050  | 0.0454  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB     | CPMB    | CYMB    | CRMB    | CYB     |
|------|--------|-------|---------|---------|---------|---------|---------|
| 2    | 0.00   | 0.174 | 0.168   | -0.0485 | -0.0392 | 0.0048  | 0.0469  |
| 3    | -20.00 | 0.335 | 0.0043  | -0.0894 | 0.0796  | -0.0059 | -0.1085 |
| 4    | -15.00 | 0.226 | 0.0056  | -0.0673 | 0.0513  | -0.0029 | -0.0712 |
| 5    | -10.00 | 0.155 | 0.0121  | -0.0477 | 0.0185  | -0.0047 | -0.0282 |
| 6    | -5.00  | 0.156 | 0.0152  | -0.0476 | -0.0129 | 0.0017  | 0.0122  |
| 7    | -2.50  | 0.159 | 0.0164  | -0.0524 | -0.0260 | 0.0043  | 0.0302  |
| 8    | 0.00   | 0.175 | 0.0162  | -0.0561 | -0.0382 | 0.0043  | 0.0458  |
| 9    | 2.50   | 0.185 | 0.0149  | -0.0618 | -0.0506 | 0.0050  | 0.0627  |
| 10   | 5.00   | 0.210 | 0.0117  | -0.0680 | -0.0629 | 0.0064  | 0.0795  |
| 11   | 10.00  | 0.294 | 0.0043  | -0.0971 | -0.0882 | 0.0079  | 0.1126  |
| 12   | 15.10  | 0.477 | -0.0063 | -0.1497 | -0.1162 | 0.0080  | 0.1503  |
| 13   | 0.00   | 0.172 | 0.0168  | -0.0497 | -0.0379 | 0.0050  | 0.0454  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 372

RUN 462 CONFIG

| IW      | DELTA     | DELA    | IHT         | DELE        | DELTA         | DELSB        | Q             | V           | RPM   |        |    |
|---------|-----------|---------|-------------|-------------|---------------|--------------|---------------|-------------|-------|--------|----|
| PT. No. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  |    |
| 2       | .0        | .0      | 4.1         | 17.86       | -118.         | -112.        | 8.            | 3.00        | 55.43 | 129.11 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD    | CPM    | CYM    | CRM   | CY    |
|------|-------|-------|-------|--------|--------|-------|-------|
| 2    | .00   | .0110 | .0483 | -.0379 | -.0068 | .0005 | .0081 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB   | CPMB   | CYMB   | CRMB  | CYB   |
|------|-------|-------|-------|--------|--------|-------|-------|
| 2    | .00   | .0110 | .0483 | -.0379 | -.0068 | .0005 | .0081 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 373

RUN 463 CONFIG T3 BT

| PT. NO. | IW ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CPMBAR CU-FT | DELE CYMBAR CU-FT | DELR CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | 55 V KNOTS | RPM |
|---------|--------------|---------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------|-------------|------------|-----|
| 2       | 0            | 0             | 6.4               | 17.67             | -187.            | -99.              | 11.               | 2.53        | 54.93       | 128.52     | 0.  |
| 3       | -15.0        | 0             | -25.6             | 26.20             | 2115.            | -37.              | 19.               | .83         | 55.12       | 128.74     | 0.  |
| 4       | -10.0        | 0             | -41.4             | 23.28             | 1333.            | -47.              | 26.               | 1.00        | 55.00       | 128.60     | 0.  |
| 5       | -5.0         | 0             | -16.6             | 20.61             | 547.             | -65.              | 48.               | 1.81        | 54.73       | 128.28     | 0.  |
| 6       | 0            | 0             | 6.2               | 17.52             | -190.            | -102.             | 35.               | 2.62        | 55.18       | 128.81     | 0.  |
| 7       | 5.0          | 0             | 29.3              | 20.50             | -909.            | -63.              | 32.               | 1.81        | 55.15       | 128.78     | 0.  |
| 8       | 10.0         | 0             | 52.6              | 25.52             | -1660.           | 32.               | 27.               | -.84        | 55.28       | 128.92     | 0.  |
| 9       | 10.0         | 0             | 52.4              | 25.55             | -1646.           | 25.               | 28.               | -.51        | 55.52       | 129.22     | 0.  |
| 10      | 15.0         | 0             | 65.9              | 37.09             | -2177.           | 76.               | 52.               | -2.13       | 55.49       | 129.18     | 0.  |
| 11      | 0            | 0             | 5.7               | 17.42             | -163.            | -96.              | 28.               | 2.54        | 55.93       | 129.70     | 0.  |

\*\*\* COEFFICIENT FORM WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .0173  | .0478 | -.0602 | -.0060 | .0007 | .0068  |
| 3    | -15.00 | -.1772 | .0708 | .6819  | -.0023 | .0011 | .0022  |
| 4    | -9.99  | -.1119 | .0629 | .4296  | -.0028 | .0016 | .0027  |
| 5    | -4.99  | -.0448 | .0557 | .1763  | -.0039 | .0029 | .0049  |
| 6    | .01    | .0169  | .0474 | -.0612 | -.0062 | .0021 | .0071  |
| 7    | 5.01   | .0791  | .0554 | -.2931 | -.0038 | .0019 | .0049  |
| 8    | 10.01  | .1420  | .0690 | -.5352 | .0019  | .0016 | -.0023 |
| 9    | 10.00  | .1416  | .0690 | -.5307 | .0015  | .0017 | -.0014 |
| 10   | 15.00  | .1780  | .1003 | -.7018 | .0046  | .0031 | -.0058 |
| 11   | .00    | .0154  | .0471 | -.0524 | -.0058 | .0017 | .0069  |

\*\*\* COEFFICIENT FORM STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .0173  | .0478 | -.0602 | -.0060 | .0007 | .0068  |
| 3    | -15.00 | -.1772 | .0708 | .6819  | -.0023 | .0011 | .0022  |
| 4    | -9.99  | -.1119 | .0629 | .4296  | -.0028 | .0016 | .0027  |
| 5    | -4.99  | -.0448 | .0557 | .1763  | -.0039 | .0029 | .0049  |
| 6    | .01    | .0169  | .0474 | -.0612 | -.0062 | .0021 | .0071  |
| 7    | 5.01   | .0791  | .0554 | -.2931 | -.0038 | .0019 | .0049  |
| 8    | 10.01  | .1420  | .0690 | -.5352 | .0019  | .0016 | -.0023 |
| 9    | 10.00  | .1416  | .0690 | -.5307 | .0015  | .0017 | -.0014 |
| 10   | 15.00  | .1780  | .1003 | -.7018 | .0046  | .0031 | -.0058 |
| 11   | .00    | .0154  | .0471 | -.0524 | -.0058 | .0017 | .0069  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P374

RUN 464 CONFIG T3 BT

| PT. No. | ALPHA DEG | DELTA PSI DFG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA DELSB Q PSF | 35 V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------------|------------|-----|
| 2       | 0         | 0             | 7.4               | 11.63             | -208.              | -102.              | 24.                | 2.72              | 54.89             | 128.47     | 0.  |
| 3       | -15.0     | 0             | -48.5             | 19.83             | 2160.              | -65.               | 38.                | 1.64              | 55.01             | 128.61     | 0.  |
| 4       | -10.0     | 0             | -42.9             | 16.14             | 1348.              | -68.               | 31.                | 1.61              | 55.09             | 128.71     | 0.  |
| 5       | -5.0      | 0             | -14.7             | 13.08             | 476.               | -98.               | 48.                | 2.69              | 55.50             | 129.19     | 0.  |
| 6       | 0         | 0             | 7.3               | 11.58             | -213.              | -99.               | 35.                | 2.59              | 54.96             | 128.55     | 0.  |
| 7       | 5.0       | 0             | 30.4              | 14.28             | -916.              | -66.               | 38.                | 1.88              | 54.99             | 128.59     | 0.  |
| 8       | 10.0      | 0             | 53.8              | 19.24             | -1652.             | 2.                 | 29.                | -0.20             | 55.19             | 128.83     | 0.  |
| 9       | 15.0      | 0             | 59.7              | 31.28             | -1955.             | 56.                | 54.                | -1.61             | 54.75             | 128.30     | 0.  |
| 10      | 0         | 0             | 7.0               | 11.44             | -193.              | -102.              | 29.                | 2.59              | 55.29             | 128.94     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | 0.00   | .0199  | .0314 | -.0671 | -.0062 | .0015 | .0073  |
| 3    | -15.00 | -.1852 | .0536 | .6964  | -.0039 | .0023 | .0044  |
| 4    | -10.02 | -.1160 | .0436 | .4345  | -.0041 | .0019 | .0044  |
| 5    | -5.00  | -.0397 | .0354 | .1534  | -.0059 | .0029 | .0073  |
| 6    | 0.01   | .0196  | .0313 | -.0686 | -.0060 | .0021 | .0070  |
| 7    | 5.01   | .0821  | .0386 | -.2952 | -.0040 | .0023 | .0051  |
| 8    | 10.00  | .1454  | .0520 | -.5325 | .0001  | .0018 | -.0005 |
| 9    | 15.00  | .1612  | .0846 | -.6303 | .0034  | .0033 | -.0044 |
| 10   | 0.00   | .0189  | .0309 | -.0622 | -.0062 | .0018 | .0070  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | 0.00   | .0199  | .0314 | -.0671 | -.0062 | .0015 | .0073  |
| 3    | -15.00 | -.1852 | .0536 | .6964  | -.0039 | .0023 | .0044  |
| 4    | -10.02 | -.1160 | .0436 | .4345  | -.0041 | .0019 | .0044  |
| 5    | -5.00  | -.0397 | .0354 | .1534  | -.0059 | .0029 | .0073  |
| 6    | 0.01   | .0196  | .0313 | -.0686 | -.0060 | .0021 | .0070  |
| 7    | 5.01   | .0821  | .0386 | -.2952 | -.0040 | .0023 | .0051  |
| 8    | 10.00  | .1454  | .0520 | -.5325 | .0001  | .0018 | -.0005 |
| 9    | 15.00  | .1612  | .0846 | -.6303 | .0034  | .0033 | -.0044 |
| 10   | 0.00   | .0189  | .0309 | -.0622 | -.0062 | .0018 | .0070  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 465 CONFIG T3 BT

| PT. NO. | IW ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CPMBAR CU-FT | DELE CYMBAR CU-FT | DELR CRMBAR QU-FT | CYBAR SQ-FT | DELSB Q PSF | 15 V KNOTS | RPM |
|---------|--------------|---------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------|-------------|------------|-----|
|         |              |               |                   |                   |                  |                   |                   |             |             |            |     |
| 2       | 0            | 0             | 9.0               | 6.48              | -244.            | -18.              | 20.               | .09         | 55.24       | 128.89     | 0.  |
| 3       | -15.0        | 0             | -69.2             | 13.69             | 2136.            | 15.               | 10.               | -.80        | 55.14       | 128.77     | 0.  |
| 4       | -10.0        | 0             | -42.8             | 9.72              | 1321.            | 17.               | 27.               | -1.05       | 54.99       | 128.59     | 0.  |
| 5       | -5.0         | 0             | -14.1             | 6.64              | 449.             | -5.               | 47.               | -.06        | 54.89       | 128.47     | 0.  |
| 6       | 0            | 0             | 9.1               | 6.56              | -257.            | -12.              | 26.               | -.10        | 54.60       | 128.12     | 0.  |
| 7       | 5.0          | 0             | 32.9              | 9.03              | -964.            | 28.               | 54.               | -.93        | 54.82       | 128.39     | 0.  |
| 8       | 10.0         | 0             | 56.4              | 14.08             | -1686.           | 77.               | 45.               | -2.41       | 54.85       | 128.42     | 0.  |
| 9       | 15.0         | 0             | 59.6              | 26.69             | -1907.           | 127.              | 77.               | -3.95       | 54.83       | 128.39     | 0.  |
| 10      | -0           | 0             | 8.8               | 6.59              | -244.            | -14.              | 20.               | -.01        | 54.94       | 128.53     | 0.  |

\*\*\* COEFFICIENT FORM WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .0242  | .0175 | -.0788 | -.0011 | .0012 | .0002  |
| 3    | -15.01 | -.1869 | .0370 | .6886  | .0009  | .0006 | -.0022 |
| 4    | -10.00 | -.1155 | .0263 | .4257  | .0010  | .0017 | -.0028 |
| 5    | -5.00  | -.0382 | .0179 | .1448  | -.0003 | .0028 | -.0002 |
| 6    | .00    | .0247  | .0177 | -.0829 | -.0007 | .0016 | -.0003 |
| 7    | 5.01   | .0890  | .0244 | -.3107 | .0017  | .0033 | -.0025 |
| 8    | 10.01  | .1526  | .0380 | -.5437 | .0046  | .0027 | -.0065 |
| 9    | 15.00  | .1611  | .0721 | -.6147 | .0077  | .0047 | -.0107 |
| 10   | -.00   | .0238  | .0178 | -.0787 | -.0009 | .0012 | -.0000 |

\*\*\* COEFFICIENT FORM STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | .0242  | .0175 | -.0788 | -.0011 | .0012 | .0002  |
| 3    | -15.01 | -.1869 | .0370 | .6886  | .0009  | .0006 | -.0022 |
| 4    | -10.00 | -.1155 | .0263 | .4257  | .0010  | .0017 | -.0028 |
| 5    | -5.00  | -.0382 | .0179 | .1448  | -.0003 | .0028 | -.0002 |
| 6    | .00    | .0247  | .0177 | -.0829 | -.0007 | .0016 | -.0003 |
| 7    | 5.01   | .0890  | .0244 | -.3107 | .0017  | .0033 | -.0025 |
| 8    | 10.01  | .1526  | .0380 | -.5437 | .0046  | .0027 | -.0065 |
| 9    | 15.00  | .1611  | .0721 | -.6147 | .0077  | .0047 | -.0107 |
| 10   | -.00   | .0238  | .0178 | -.0787 | -.0009 | .0012 | -.0000 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 466 CONFIG T3 BT

| IW<br>PT.<br>NO. | ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CLBAR<br>SQ-FT | DELTA<br>CDBAR<br>SQ-FT | IHT<br>CPMBAR<br>CU-FT | O DELE<br>CYMBAR<br>CU-FT | O DELR<br>CRMBAR<br>CU-FT | O DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM |
|------------------|--------------|---------------------|-------------------------|-------------------------|------------------------|---------------------------|---------------------------|---------------------------|----------|------------|-----|
| 2                | 0            | 0                   | 8.9                     | 6.60                    | 242                    | -9                        | 19                        | 10                        | 55.67    | 129.40     | 0   |
| 3                | 0            | -15.0               | 14.6                    | 15.27                   | -411                   | 1500                      | -199                      | -41.54                    | 55.45    | 129.13     | 0   |
| 4                | 0            | -10.0               | 10.9                    | 11.37                   | -316                   | 990                       | -115                      | -27.58                    | 55.46    | 129.14     | 0   |
| 5                | 0            | -5.0                | 9.6                     | 7.89                    | -276                   | 474                       | -56                       | -13.46                    | 55.73    | 129.47     | 0   |
| 6                | 0            | -2.5                | 9.1                     | 6.93                    | -270                   | 195                       | -24                       | -5.58                     | 55.32    | 128.98     | 0   |
| 7                | 0            | 0                   | 9.0                     | 6.65                    | -270                   | -18                       | 10                        | .29                       | 55.21    | 128.85     | 0   |
| 9                | 0            | 5.0                 | 10.1                    | 6.89                    | -305                   | -488                      | 57                        | 13.58                     | 55.45    | 129.14     | 0   |
| 10               | 0            | 10.1                | 14.1                    | 8.03                    | -445                   | -931                      | 150                       | 26.34                     | 55.73    | 129.46     | 0   |
| 11               | 0            | 15.2                | 19.5                    | 10.92                   | -606                   | -1436                     | 238                       | 40.67                     | 55.48    | 129.17     | 0   |
| 13               | 0            | 2.5                 | 9.4                     | 6.38                    | -265                   | -219                      | 51                        | 5.85                      | 55.87    | 129.63     | 0   |
| 14               | 0            | 0                   | 8.9                     | 6.85                    | -254                   | 6                         | 29                        | -40                       | 55.82    | 129.57     | 0   |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .0240 | .0178 | -.0780 | -.0005 | .0011  | -.0003 |
| 3    | -15.00 | .0394 | .0413 | -.1324 | .0906  | -.0120 | -.1123 |
| 4    | -10.00 | .0294 | .0307 | -.1020 | .0598  | -.0069 | -.0745 |
| 5    | -5.00  | .0259 | .0213 | -.0891 | .0286  | -.0034 | -.0364 |
| 6    | -2.50  | .0247 | .0187 | -.0872 | .0118  | -.0015 | -.0151 |
| 7    | .00    | .0161 | .0044 | .4705  | -.0245 | -.0749 | .0515  |
| 9    | 5.00   | .0272 | .0186 | -.0983 | -.0295 | .0034  | .0367  |
| 10   | 10.10  | .0380 | .0217 | -.1434 | -.0562 | .0091  | .0712  |
| 11   | 15.20  | .0526 | .0295 | -.1955 | -.0868 | .0144  | .1099  |
| 13   | 2.50   | .0253 | .0172 | -.0855 | -.0132 | .0031  | .0158  |
| 14   | .00    | .0241 | .0185 | -.0819 | .0004  | .0017  | -.0011 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .0240 | .0178  | -.0780 | -.0005 | .0011  | -.0003 |
| 3    | -15.00 | .0394 | .0107  | -.1112 | .0906  | -.0051 | -.1191 |
| 4    | -10.00 | .0294 | .0173  | -.0940 | .0598  | -.0035 | -.0788 |
| 5    | -5.00  | .0259 | .0181  | -.0872 | .0286  | -.0019 | -.0381 |
| 6    | -2.50  | .0247 | .0181  | -.0868 | .0118  | -.0007 | -.0159 |
| 7    | .00    | .0161 | .0356  | .6171  | -.0245 | -.1136 | .0374  |
| 9    | 5.00   | .0272 | .0153  | -.0963 | -.0295 | .0018  | .0382  |
| 10   | 10.10  | .0380 | .0088  | -.1327 | -.0562 | .0042  | .0739  |
| 11   | 15.20  | .0526 | -.0005 | -.1684 | -.0868 | .0042  | .1138  |
| 13   | 2.50   | .0253 | .0165  | -.0847 | -.0132 | .0024  | .0165  |
| 14   | .00    | .0241 | .0185  | -.0819 | .0004  | .0017  | -.0011 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 468 CONFIG F P B NP5 W8 T10 BT

| PT. NO. | IW | 0 DELF<br>ALPHA<br>DEG | PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELS<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM    |
|---------|----|------------------------|------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------|------------|--------|
| 2       |    | .0                     | .0         | 64.2                     | 30.34                   | -43.                      | 3.                        | 20.                       | 3.38                      | 53.79    | 127.15     | 3590.  |
| 3       |    | .0                     | .0         | 63.2                     | -6.53                   | -112.                     | -4.                       | 24.                       | 3.62                      | 55.59    | 129.31     | 11180. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD     | CPM    | CYM    | CRM   | CY    |
|------|-------|-------|--------|--------|--------|-------|-------|
| 2    | .00   | .1735 | .0820  | -.0140 | .0002  | .0012 | .0091 |
| 3    | .00   | .1708 | -.0177 | -.0362 | -.0002 | .0015 | .0098 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|-------|-------|--------|--------|--------|-------|-------|
| 2    | .00   | .1735 | .0820  | -.0140 | .0002  | .0012 | .0091 |
| 3    | .00   | .1708 | -.0177 | -.0362 | -.0002 | .0015 | .0098 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 469 CONFIG F P B NP5 W8 T10 BT

| PT. NO. | ALPHA DEG | 0 DELF PSI DEG | 0 DELA CLBAR SQ-FT | 0 IHT CDBAR SQ-FT | 0 DELE CPMBAR CU-FT | 0 DELR CYMBAR CU-FT | 0 DELSB CRMBAR CU-FT | 0 DELS V CYBAR SQ-FT | 0 DELS Q PSI | 0 DELS V KNOTS | RPM    |
|---------|-----------|----------------|--------------------|-------------------|---------------------|---------------------|----------------------|----------------------|--------------|----------------|--------|
| 2       | .0        | .0             | 66.4               | 30.70             | -5.                 | -41.                | -13.                 | 5.60                 | 54.93        | 128.52         | 3620.  |
| 3       | .0        | .0             | 63.1               | -6.72             | -103.               | -44.                | -7.                  | 5.53                 | 55.19        | 128.84         | 11130. |
| 4       | -20.0     | .0             | -386.6             | 112.48            | 651.                | -83.                | -264.                | 1.58                 | 54.47        | 127.97         | 11130. |
| 5       | -15.0     | .0             | -366.2             | 50.84             | 579.                | -111.               | -0.                  | 5.80                 | 55.03        | 128.65         | 11120. |
| 6       | -10.0     | .0             | -249.8             | 15.86             | -1.                 | -55.                | -15.                 | 4.88                 | 55.33        | 129.00         | 11110. |
| 7       | -5.0      | .0             | -93.4              | -3.08             | -275.               | -64.                | -20.                 | 5.55                 | 56.09        | 129.90         | 11130. |
| 8       | .0        | .0             | 61.5               | -6.63             | -83.                | -43.                | -18.                 | 4.93                 | 55.29        | 128.95         | 11120. |
| 9       | 5.0       | .0             | 221.2              | 2.03              | -27.                | -62.                | 8.                   | 4.40                 | 54.48        | 127.99         | 11110. |
| 10      | 10.0      | .0             | 376.9              | 22.16             | -18.                | -65.                | 50.                  | 4.72                 | 55.09        | 128.72         | 11120. |
| 11      | 15.0      | .0             | 516.3              | 55.50             | -167.               | -42.                | 135.                 | 3.40                 | 54.69        | 128.24         | 11120. |
| 12      | 20.0      | .0             | 549.4              | 113.14            | -542.               | 65.                 | 112.                 | 1.66                 | 54.86        | 128.44         | 11110. |
| 13      | .0        | .0             | 61.3               | -6.94             | -79.                | -36.                | 5.                   | 5.03                 | 55.05        | 128.67         | 11130. |
| 14      | -7.5      | .0             | -175.6             | 3.02              | -201.               | -81.                | -6.                  | 6.98                 | 54.80        | 128.36         | 11140. |
| 15      | -2.5      | .0             | -18.5              | -6.71             | -154.               | -54.                | -7.                  | 4.65                 | 54.99        | 128.59         | 11120. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CRM    | CYM    | CRM2   | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1794   | .0830  | -.0017 | -.0025 | -.0008 | .0151 |
| 3    | .00    | .1706   | -.0182 | -.0333 | -.0026 | -.0004 | .0150 |
| 4    | -20.00 | -1.0450 | .3040  | .2099  | -.0050 | -.0160 | .0043 |
| 5    | -15.00 | -.9897  | .1374  | .1867  | -.0067 | -.0000 | .0157 |
| 6    | -10.00 | -.6752  | .0429  | -.0005 | -.0033 | -.0009 | .0132 |
| 7    | -5.00  | -.2525  | -.0083 | -.0888 | -.0039 | -.0012 | .0150 |
| 8    | .00    | .1662   | -.0179 | .0268  | -.0026 | -.0011 | .0133 |
| 9    | 5.00   | .5977   | .0055  | .0087  | -.0037 | .0005  | .0119 |
| 10   | 10.00  | 1.0187  | .0599  | -.0058 | -.0039 | .0030  | .0128 |
| 11   | 15.00  | 1.3954  | .1500  | -.0540 | -.0025 | .0082  | .0092 |
| 12   | 19.99  | 1.4849  | .3058  | -.1747 | .0039  | .0068  | .0045 |
| 13   | .00    | .1656   | -.0188 | -.0256 | -.0022 | .0003  | .0136 |
| 14   | -7.50  | -.4745  | .0082  | -.0648 | .0049  | -.0004 | .0189 |
| 15   | -2.50  | -.0501  | -.0181 | -.0497 | -.0032 | -.0004 | .0126 |

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\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1794   | .0830  | -.0017 | -.0025 | -.0008 | .0151 |
| 3    | .00    | .1706   | -.0182 | -.0333 | -.0026 | -.0004 | .0150 |
| 4    | -20.00 | -1.0450 | .3040  | .2099  | -.0050 | -.0160 | .0043 |
| 5    | -15.00 | -.9897  | .1374  | .1867  | -.0067 | -.0000 | .0157 |
| 6    | -10.00 | -.6752  | .0429  | -.0005 | -.0033 | -.0009 | .0132 |
| 7    | -5.00  | -.2525  | -.0083 | -.0888 | -.0039 | -.0012 | .0150 |
| 8    | .00    | .1662   | -.0179 | .0268  | -.0026 | -.0011 | .0133 |
| 9    | 5.00   | .5977   | .0055  | .0087  | -.0037 | .0005  | .0119 |
| 10   | 10.00  | 1.0187  | .0599  | -.0058 | -.0039 | .0030  | .0128 |
| 11   | 15.00  | 1.3954  | .1500  | -.0540 | -.0025 | .0082  | .0092 |
| 12   | 19.99  | 1.4849  | .3058  | -.1747 | .0039  | .0068  | .0045 |
| 13   | .00    | .1656   | -.0188 | -.0256 | -.0022 | .0003  | .0136 |
| 14   | -7.50  | -.4745  | .0082  | -.0648 | .0049  | -.0004 | .0189 |
| 15   | -2.50  | -.0501  | -.0181 | -.0497 | -.0032 | -.0004 | .0126 |

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SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

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RUN 471 CONFIG F P B NP5 W8 T10 BT

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DFLSB<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>KNOTS | 0<br>V | RPM    |
|------------------|-------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------|------------|--------|--------|
| 2                | .0                      | .0                   | 348.0                    | 64.18                   | 254.                      | -41.                      | 45.                       | 1.08                      | 55.62    | 129.35     |        | 4050.  |
| 3                | .0                      | .0                   | 348.1                    | 64.31                   | 253.                      | -31.                      | 57.                       | .61                       | 55.77    | 129.52     |        | 4060.  |
| 4                | .0                      | .0                   | 347.5                    | 64.18                   | 251.                      | -36.                      | 52.                       | .56                       | 54.91    | 128.49     |        | 4040.  |
| 5                | .0                      | .0                   | 295.7                    | -4.96                   | -160.                     | -60.                      | 458.                      | -4.52                     | 55.72    | 129.46     |        | 16120. |
| 6                | .0                      | .0                   | 304.5                    | -6.37                   | -170.                     | -62.                      | 175.                      | -4.77                     | 55.42    | 129.11     |        | 16050. |
| 7                | .0                      | .0                   | 305.8                    | -6.01                   | -160.                     | -61.                      | 183.                      | -5.56                     | 54.96    | 128.56     |        | 16130. |
| 8                | .0                      | .0                   | 306.0                    | -5.87                   | -162.                     | -43.                      | 159.                      | -5.62                     | 55.13    | 128.76     |        | 15340. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD     | CPM    | CYM    | CRM   | CY     |
|------|-------|-------|--------|--------|--------|-------|--------|
| 2    | .00   | .9405 | .1735  | .0818  | -.0025 | .0027 | .0029  |
| 3    | .00   | .9409 | .1738  | .0815  | -.0019 | .0035 | .0017  |
| 4    | .00   | .9391 | .1735  | .0809  | -.0022 | .0032 | .0015  |
| 5    | .03   | .7992 | -.0134 | -.0543 | -.0036 | .0277 | -.0122 |
| 6    | .00   | .8229 | -.0172 | -.0549 | -.0038 | .0106 | -.0129 |
| 7    | .00   | .8264 | -.0163 | -.0546 | -.0037 | .0111 | -.0150 |
| 8    | .00   | .8271 | -.0159 | -.0524 | -.0026 | .0096 | -.0152 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB    | CPMR   | CYMR   | CRMB  | CYB    |
|------|-------|-------|--------|--------|--------|-------|--------|
| 2    | .00   | .9405 | .1735  | .0818  | -.0025 | .0027 | .0029  |
| 3    | .00   | .9409 | .1738  | .0815  | -.0019 | .0035 | .0017  |
| 4    | .00   | .9391 | .1735  | .0809  | -.0022 | .0032 | .0015  |
| 5    | .03   | .7992 | -.0134 | -.0543 | -.0036 | .0277 | -.0122 |
| 6    | .00   | .8229 | -.0172 | -.0549 | -.0038 | .0106 | -.0129 |
| 7    | .00   | .8264 | -.0163 | -.0546 | -.0037 | .0111 | -.0150 |
| 8    | .00   | .8271 | -.0159 | -.0524 | -.0026 | .0096 | -.0152 |

N432377-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SEP-7-2011  
P 3 PD

RUN 472 CONFIG F P B NP5 W8 T10 BT

| PT. NO. | IW ALPHA DEG | 15 DELF PSI DEG | 0 DELA CLBAR SQ-FT | 0 IHT COBAR SQ-FT | 0 DELE CPMBAR CU-FT | 0 DELR CYMBAR CU-FT | 0 DFLSB CRMBAR CU-FT | 0 CYBAR SQ-FT | 0 PSF | 0 V KNOTS | RPM    |
|---------|--------------|-----------------|--------------------|-------------------|---------------------|---------------------|----------------------|---------------|-------|-----------|--------|
| 2       | .0           | .0              | 355.6              | 66.88             | 251.                | -27.                | 57.                  | 1.06          | 55.47 | 129.16    | 4080.  |
| 3       | .0           | .0              | 300.8              | -6.47             | -256.               | -30.                | 138.                 | -3.20         | 55.32 | 128.98    | 15850. |
| 4       | -20.0        | .0              | -261.1             | 18.16             | 572.                | 34.                 | -42.                 | .50           | 55.66 | 129.38    | 15970. |
| 5       | -15.0        | .0              | -128.4             | -8.54             | 457.                | 53.                 | -38.                 | -1.62         | 55.29 | 128.94    | 15850. |
| 6       | -10.0        | .0              | 49.1               | -24.61            | 114.                | 0.                  | 28.                  | .51           | 55.46 | 129.14    | 15740. |
| 7       | -5.0         | .0              | 202.0              | -20.89            | -113.               | 3.                  | 94.                  | -4.26         | 55.19 | 128.83    | 15770. |
| 8       | .0           | .0              | 301.0              | -7.36             | -234.               | -27.                | 151.                 | -3.41         | 54.96 | 128.56    | 15860. |
| 9       | 2.5          | .0              | 340.8              | 3.67              | -328.               | -49.                | 177.                 | -1.44         | 55.11 | 128.74    | 15940. |
| 10      | 5.0          | .0              | 353.7              | 17.28             | -200.               | -54.                | 254.                 | .06           | 54.65 | 128.18    | 15870. |
| 11      | 10.0         | .0              | 382.1              | 59.61             | -248.               | -116.               | 180.                 | 1.68          | 55.44 | 129.12    | 15850. |
| 12      | 15.0         | .0              | 463.7              | 129.73            | -503.               | -11.                | 29.                  | 2.08          | 55.02 | 128.61    | 15860. |
| 13      | 20.0         | .0              | 544.0              | 195.19            | -809.               | 62.                 | 1.                   | 3.63          | 55.66 | 129.37    | 15930. |
| 14      | -.0          | .0              | 298.9              | -5.89             | -228.               | -36.                | 132.                 | -3.80         | 55.93 | 129.70    | 15810. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9610  | .1807  | .0810  | -.0016 | .0034  | .0029  |
| 3    | .00    | .8131  | -.0175 | -.0825 | -.0018 | .0084  | -.0087 |
| 4    | -20.00 | -.7058 | .0491  | .1846  | .0020  | -.0025 | .0016  |
| 5    | -15.01 | -.3470 | -.0231 | .1473  | .0032  | -.0023 | -.0044 |
| 6    | -10.00 | .1328  | -.0665 | .0369  | .0000  | .0017  | .0014  |
| 7    | -5.01  | .5459  | -.0565 | -.0364 | .0002  | .0057  | -.0115 |
| 8    | -.01   | .8135  | -.0199 | -.0756 | -.0016 | .0091  | -.0092 |
| 9    | 2.50   | .9210  | .0099  | -.1056 | -.0030 | .0107  | -.0039 |
| 10   | 4.99   | .9561  | .0467  | -.0646 | -.0033 | .0153  | .0002  |
| 11   | 10.00  | 1.0327 | .1611  | -.0799 | -.0070 | .0108  | .0045  |
| 12   | 15.00  | 1.2533 | .3506  | -.1621 | -.0006 | .0017  | .0056  |
| 13   | 20.00  | 1.4703 | .5275  | -.2608 | .0037  | .0000  | .0098  |
| 14   | -.00   | .8078  | -.0159 | -.0734 | -.0022 | .0080  | -.0103 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9610  | .1807  | .0810  | -.0016 | .0034  | .0029  |
| 3    | .00    | .8131  | -.0175 | -.0825 | -.0018 | .0084  | -.0087 |
| 4    | -20.00 | -.7058 | .0491  | .1846  | .0020  | -.0025 | .0016  |
| 5    | -15.01 | -.3470 | -.0231 | .1473  | .0032  | -.0023 | -.0044 |
| 6    | -10.00 | .1328  | -.0665 | .0369  | .0000  | .0017  | .0014  |
| 7    | -5.01  | .5459  | -.0565 | -.0364 | .0002  | .0057  | -.0115 |
| 8    | -.01   | .8135  | -.0199 | -.0756 | -.0016 | .0091  | -.0092 |
| 9    | 2.50   | .9210  | .0099  | -.1056 | -.0030 | .0107  | -.0039 |
| 10   | 4.99   | .9561  | .0467  | -.0646 | -.0033 | .0153  | .0002  |
| 11   | 10.00  | 1.0327 | .1611  | -.0799 | -.0070 | .0108  | .0045  |
| 12   | 15.00  | 1.2533 | .3506  | -.1621 | -.0006 | .0017  | .0056  |
| 13   | 20.00  | 1.4703 | .5275  | -.2608 | .0037  | .0000  | .0098  |
| 14   | -.00   | .8078  | -.0159 | -.0734 | -.0022 | .0080  | -.0103 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 476 CONFIG F P B NP5 W8 T10 BT

| PT. NO. | 15 ALPHA DEG | DELTA PSI DEG | 30 DELTA    |             | 0 IHT CU-FT | 0 DELE CU-FT |              | 0 DELR CU-FT |       | 0 DFLSB |        | 0 V KNOTS | RPM |
|---------|--------------|---------------|-------------|-------------|-------------|--------------|--------------|--------------|-------|---------|--------|-----------|-----|
|         |              |               | CLBAR SQ-FT | CDBAR SQ-FT |             | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT  | PSF   |         |        |           |     |
| 3       | .0           | .0            | 556.4       | 123.59      | 353.        | -50.         | 73.          | -3.13        | 56.23 | 130.04  | 4320.  |           |     |
| 4       | .0           | .0            | 456.4       | -7.69       | -40.        | 59.          | 879.         | -41.59       | 55.86 | 129.61  | 19900. |           |     |
| 5       | -20.0        | .0            | -94.0       | -5.02       | 256.        | -16.         | 21.          | -1.57        | 55.79 | 129.52  | 19780. |           |     |
| 6       | -15.0        | .0            | 56.7        | -28.79      | 504.        | -45.         | 37.          | -1.39        | 56.17 | 129.97  | 19900. |           |     |
| 7       | -10.0        | .0            | 227.2       | -31.47      | 382.        | -12.         | 84.          | -1.59        | 55.70 | 129.42  | 19890. |           |     |
| 8       | -10.0        | .0            | 228.7       | -30.77      | 392.        | -15.         | 89.          | -1.28        | 55.78 | 129.51  | 19890. |           |     |
| 9       | -5.0         | .0            | 395.6       | -20.21      | 224.        | 14.          | 101.         | -4.75        | 55.51 | 129.20  | 19900. |           |     |
| 10      | -0           | .0            | 451.3       | -6.58       | -7.         | 52.          | 870.         | -41.69       | 55.70 | 129.42  | 19880. |           |     |
| 11      | 2.5          | .0            | 411.1       | -3.37       | -443.       | -107.        | 237.         | -4.85        | 55.71 | 129.42  | 19900. |           |     |
| 12      | 5.0          | .0            | 416.2       | 13.54       | -454.       | -104.        | 284.         | -3.96        | 55.39 | 129.05  | 19840. |           |     |
| 13      | 10.0         | .0            | 444.7       | 64.03       | -370.       | -121.        | 208.         | -.85         | 56.01 | 129.72  | 19870. |           |     |
| 14      | 15.1         | .0            | 521.6       | 138.74      | -672.       | 57.          | 58.          | .47          | 55.59 | 129.22  | 19880. |           |     |
| 15      | 20.0         | .0            | 598.4       | 211.63      | -782.       | 82.          | 70.          | .25          | 55.39 | 129.04  | 19890. |           |     |
| 16      | .0           | .0            | 450.8       | -5.46       | 51.         | 44.          | 851.         | -41.13       | 55.77 | 129.52  | 19910. |           |     |
| 17      | 2.5          | .0            | 408.8       | -1.45       | -404.       | -110.        | 236.         | -5.12        | 56.09 | 129.22  | 19890. |           |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 3    | .00    | 1.5039 | .3340  | .1140  | -.0030 | .0044 | -.0085 |
| 4    | .00    | 1.2335 | -.0208 | -.0130 | .0035  | .0531 | -.1124 |
| 5    | -19.98 | -.2540 | -.0136 | .0824  | -.0010 | .0013 | -.0042 |
| 6    | -15.00 | .1531  | -.0778 | .1626  | -.0027 | .0023 | -.0038 |
| 7    | -10.00 | .6141  | -.0851 | .1252  | -.0007 | .0051 | -.0043 |
| 8    | -9.99  | .6181  | -.0832 | .1285  | -.0009 | .0054 | -.0035 |
| 9    | -4.98  | 1.0692 | -.0546 | .0723  | .0009  | .0061 | -.0128 |
| 10   | -.00   | 1.2198 | -.0178 | -.0022 | .0031  | .0526 | -.1127 |
| 11   | 2.51   | 1.1111 | -.0091 | -.1429 | -.0064 | .0143 | -.0131 |
| 12   | 5.03   | 1.1248 | .0366  | -.1462 | -.0063 | .0171 | -.0107 |
| 13   | 10.00  | 1.2020 | .1730  | -.1194 | -.0073 | .0126 | -.0023 |
| 14   | 15.06  | 1.4097 | .3750  | -.2166 | .0034  | .0035 | .0013  |
| 15   | 20.00  | 1.6173 | .5720  | -.2521 | .0049  | .0042 | .0007  |
| 16   | .00    | 1.2185 | -.0147 | .0164  | .0027  | .0514 | -.1112 |
| 17   | 2.51   | 1.1049 | -.0039 | -.1302 | -.0066 | .0143 | -.0138 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 3    | .00    | 1.5039 | .3340  | .1140  | -.0030 | .0044 | -.0085 |
| 4    | .00    | 1.2335 | -.0208 | -.0130 | .0035  | .0531 | -.1124 |
| 5    | -19.98 | -.2540 | -.0136 | .0824  | -.0010 | .0013 | -.0042 |
| 6    | -15.00 | .1531  | -.0778 | .1626  | -.0027 | .0023 | -.0038 |
| 7    | -10.00 | .6141  | -.0851 | .1252  | -.0007 | .0051 | -.0043 |
| 8    | -9.99  | .6181  | -.0832 | .1285  | -.0009 | .0054 | -.0035 |
| 9    | -4.98  | 1.0692 | -.0546 | .0723  | .0009  | .0061 | -.0128 |
| 10   | -.00   | 1.2198 | -.0178 | -.0022 | .0031  | .0526 | -.1127 |
| 11   | 2.51   | 1.1111 | -.0091 | -.1429 | -.0064 | .0143 | -.0131 |
| 12   | 5.03   | 1.1248 | .0366  | -.1462 | -.0063 | .0171 | -.0107 |
| 13   | 10.00  | 1.2020 | .1730  | -.1194 | -.0073 | .0126 | -.0023 |
| 14   | 15.06  | 1.4097 | .3750  | -.2166 | .0034  | .0035 | .0013  |
| 15   | 20.00  | 1.6173 | .5720  | -.2521 | .0049  | .0042 | .0007  |
| 16   | .00    | 1.2185 | -.0147 | .0164  | .0027  | .0514 | -.1112 |
| 17   | 2.51   | 1.1049 | -.0039 | -.1302 | -.0066 | .0143 | -.0138 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 477 CONFIG F P B NP5 WA T10 BT

| PT. NO. | IW    | O DELF    |         | O DELA      |             | O IHT                      |                             | O DELE                     |             | O DELR |         | O DELSB |  | RPM |
|---------|-------|-----------|---------|-------------|-------------|----------------------------|-----------------------------|----------------------------|-------------|--------|---------|---------|--|-----|
|         |       | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM <sup>2</sup> BAR CU-FT | CYMB <sup>2</sup> BAR CU-FT | CRM <sup>2</sup> BAR CU-FT | CYBAR SQ-FT | PSF    | V KNOTS |         |  |     |
| 2       | .0    | .0        | .0      | 61.4        | 29.38       | -P.                        | -44.                        | -30.                       | 5.45        | 56.20  | 130.01  | 3580.   |  |     |
| 3       | .0    | .0        | .0      | 57.6        | -7.75       | -130.                      | -36.                        | -35.                       | 4.82        | 56.04  | 129.82  | 11490.  |  |     |
| 4       | -20.0 | .0        | .0      | -373.7      | 107.01      | 604.                       | -25.                        | -173.                      | 2.10        | 55.76  | 129.40  | 11470.  |  |     |
| 5       | -15.0 | .0        | .0      | -330.6      | 57.05       | 506.                       | -209.                       | 318.                       | 9.65        | 56.37  | 130.21  | 11490.  |  |     |
| 6       | -10.0 | .0        | .0      | -244.9      | 15.71       | -65.                       | -88.                        | -42.                       | 7.50        | 56.32  | 130.15  | 11470.  |  |     |
| 7       | -5.0  | .0        | .0      | -92.6       | -3.55       | -322.                      | -65.                        | -79.                       | 6.96        | 56.45  | 130.30  | 11520.  |  |     |
| 8       | .0    | .0        | .0      | 58.2        | -6.76       | -125.                      | -40.                        | -24.                       | 5.29        | 56.65  | 130.54  | 11500.  |  |     |
| 9       | 2.5   | .0        | .0      | 135.1       | -3.87       | -91.                       | -37.                        | 1.                         | 4.19        | 56.34  | 130.17  | 11490.  |  |     |
| 10      | 5.0   | .0        | .0      | 213.5       | 1.64        | -66.                       | -45.                        | -5.                        | 5.32        | 56.08  | 129.87  | 11500.  |  |     |
| 11      | 10.0  | .0        | .0      | 369.1       | 22.04       | -40.                       | -30.                        | 50.                        | 3.79        | 56.02  | 129.70  | 11520.  |  |     |
| 12      | 15.0  | .0        | .0      | 503.1       | 54.14       | -193.                      | 2.                          | 121.                       | 2.03        | 56.00  | 129.77  | 11440.  |  |     |
| 13      | 15.0  | .0        | .0      | 506.1       | 54.50       | -194.                      | 2.                          | 121.                       | 2.04        | 55.66  | 129.37  | 11450.  |  |     |
| 14      | 20.0  | .0        | .0      | 531.1       | 106.61      | -555.                      | 67.                         | 145.                       | 4.47        | 55.84  | 129.58  | 11470.  |  |     |
| 15      | .0    | .0        | .0      | 56.8        | -6.60       | -118.                      | -43.                        | -36.                       | 5.91        | 56.86  | 130.78  | 11500.  |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1659   | .0794  | -.0027 | -.0027 | -.0018 | .0147 |
| 3    | .00    | .1558   | -.0199 | -.0418 | -.0022 | -.0021 | .0130 |
| 4    | -19.99 | -1.0099 | .2892  | .1946  | -.0015 | -.0104 | .0057 |
| 5    | -14.99 | -.8935  | .1542  | .1633  | -.0126 | .0192  | .0261 |
| 6    | -9.99  | -.6618  | .0425  | -.0209 | -.0053 | -.0026 | .0203 |
| 7    | -4.99  | -.2504  | -.0096 | -.1038 | -.0039 | -.0024 | .0188 |
| 8    | .01    | .1573   | -.0183 | -.0402 | -.0024 | -.0014 | .0143 |
| 9    | 2.51   | .3652   | -.0105 | -.0293 | -.0022 | .0001  | .0113 |
| 10   | 5.00   | .5769   | .0044  | -.0212 | -.0027 | -.0003 | .0144 |
| 11   | 10.02  | .9976   | .0596  | -.0158 | -.0018 | .0030  | .0102 |
| 12   | 15.00  | 1.3596  | .1463  | -.0622 | .0001  | .0073  | .0055 |
| 13   | 15.00  | 1.3679  | .1473  | -.0626 | .0001  | .0073  | .0055 |
| 14   | 20.01  | 1.4354  | .2881  | -.1790 | .0040  | .0087  | .0013 |
| 15   | .00    | .1536   | -.0178 | -.0382 | -.0026 | -.0022 | .0160 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1659   | .0794  | -.0027 | -.0027 | -.0018 | .0147 |
| 3    | .00    | .1558   | -.0199 | -.0418 | -.0022 | -.0021 | .0130 |
| 4    | -19.99 | -1.0099 | .2892  | .1946  | -.0015 | -.0104 | .0057 |
| 5    | -14.99 | -.8935  | .1542  | .1633  | -.0126 | .0192  | .0261 |
| 6    | -9.99  | -.6618  | .0425  | -.0209 | -.0053 | -.0026 | .0203 |
| 7    | -4.99  | -.2504  | -.0096 | -.1038 | -.0039 | -.0024 | .0188 |
| 8    | .01    | .1573   | -.0183 | -.0402 | -.0024 | -.0014 | .0143 |
| 9    | 2.51   | .3652   | -.0105 | -.0293 | -.0022 | .0001  | .0113 |
| 10   | 5.00   | .5769   | .0044  | -.0212 | -.0027 | -.0003 | .0144 |
| 11   | 10.02  | .9976   | .0596  | -.0158 | -.0018 | .0030  | .0102 |
| 12   | 15.00  | 1.3596  | .1463  | -.0622 | .0001  | .0073  | .0055 |
| 13   | 15.00  | 1.3679  | .1473  | -.0626 | .0001  | .0073  | .0055 |
| 14   | 20.01  | 1.4354  | .2881  | -.1790 | .0040  | .0087  | .0013 |
| 15   | .00    | .1536   | -.0178 | -.0382 | -.0026 | -.0022 | .0160 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 482 CONFIG F P B NP5 W8 T10 BT

| PT. NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 DELA<br>CDBAR<br>SQ-FT | 0 IHT<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELR<br>CYBAR<br>SQ-FT | 0 DELSB<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|---------|------------------------|----------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|--------------------------|---------------------|-----------------|--------|
| 2       | .0                     | .0                   | 60.5                     | 28.74                    | -12.                     | -48.                      | -36.                      | 5.66                     | 56.77               | 130.67          | 3590.  |
| 3       | .0                     | .0                   | 56.0                     | -6.56                    | -137.                    | -44.                      | -35.                      | 5.00                     | 56.51               | 130.37          | 11390. |
| 4       | .0                     | .0                   | 56.5                     | -6.72                    | -138.                    | -56.                      | -35.                      | 4.91                     | 56.46               | 130.31          | 11130. |
| 5       | .0                     | -20.0                | 76.9                     | 37.57                    | -441.                    | 1289.                     | -43.                      | -174.13                  | 55.98               | 129.74          | 11140. |
| 6       | .0                     | -15.0                | 66.5                     | 17.58                    | -406.                    | 902.                      | -477.                     | -129.48                  | 56.24               | 130.05          | 11140. |
| 7       | .0                     | -10.0                | 65.1                     | 2.30                     | -244.                    | 471.                      | -31.                      | -81.75                   | 56.09               | 129.87          | 11150. |
| 8       | .0                     | -5.0                 | 60.1                     | -4.67                    | -162.                    | 166.                      | 2.                        | -39.07                   | 55.77               | 129.50          | 11150. |
| 9       | .0                     | -2.5                 | 61.2                     | -5.86                    | -110.                    | 59.                       | -28.                      | -18.19                   | 55.87               | 129.61          | 11130. |
| 10      | .0                     | .0                   | 57.8                     | -6.90                    | -129.                    | -62.                      | -53.                      | 5.18                     | 55.92               | 129.68          | 11140. |
| 11      | .0                     | 2.5                  | 56.8                     | -6.29                    | -179.                    | -150.                     | -49.                      | 26.23                    | 55.76               | 129.48          | 11140. |
| 12      | .0                     | 5.0                  | 59.5                     | -4.86                    | -215.                    | -242.                     | -84.                      | 47.33                    | 55.54               | 129.22          | 11140. |
| 13      | .0                     | 10.0                 | 65.0                     | .81                      | -400.                    | -567.                     | -25.                      | 90.91                    | 55.60               | 129.29          | 11140. |
| 14      | .0                     | 15.0                 | 70.1                     | 13.05                    | -540.                    | -889.                     | 20.                       | 134.09                   | 55.92               | 129.68          | 11160. |
| 15      | .0                     | 20.0                 | 74.6                     | 34.73                    | -654.                    | -1502.                    | -2.                       | 186.51                   | 55.49               | 129.16          | 11160. |
| 16      | .0                     | .0                   | 57.4                     | -6.98                    | -112.                    | -62.                      | -59.                      | 5.32                     | 55.95               | 129.71          | 11140. |
| 17      | .0                     | 10.0                 | 65.6                     | .67                      | -393.                    | -572.                     | -38.                      | 90.13                    | 56.16               | 129.96          | 11130. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1636 | .0777  | -.0038 | -.0029 | -.0022 | .0153  |
| 3    | .00    | .1514 | -.0177 | -.0442 | -.0027 | -.0021 | .0135  |
| 4    | .00    | .1527 | -.0182 | -.0444 | -.0034 | -.0021 | .0133  |
| 5    | -20.00 | .2078 | .1015  | -.1423 | .0778  | -.0026 | -.4706 |
| 6    | -15.00 | .1798 | .0475  | -.1309 | .0545  | -.0288 | -.3499 |
| 7    | -10.00 | .1760 | .0062  | -.0787 | .0284  | -.0019 | -.2209 |
| 8    | -5.00  | .1624 | -.0126 | -.0523 | .0100  | .0002  | -.1056 |
| 9    | -2.50  | .1653 | -.0159 | -.0356 | .0036  | -.0017 | -.0492 |
| 10   | .00    | .1563 | -.0187 | -.0416 | -.0038 | -.0032 | .0140  |
| 11   | 2.50   | .1535 | -.0170 | -.0579 | -.0090 | -.0029 | .0709  |
| 12   | 5.00   | .1608 | -.0131 | -.0692 | -.0146 | -.0051 | .1279  |
| 13   | 10.00  | .1757 | .0022  | -.1290 | -.0342 | -.0015 | .2457  |
| 14   | 15.00  | .1895 | .0353  | -.1742 | -.0537 | .0012  | .3624  |
| 15   | 20.00  | .2015 | .0939  | -.2110 | -.0907 | -.0001 | .5041  |
| 16   | .00    | .1550 | -.0189 | -.0362 | -.0037 | -.0035 | .0144  |
| 17   | 10.00  | .1772 | .0018  | -.1267 | -.0345 | -.0023 | .2436  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1636 | .0777  | -.0038 | -.0029 | -.0022 | .0153  |
| 3    | .00    | .1514 | -.0177 | -.0442 | -.0027 | -.0021 | .0135  |
| 4    | .00    | .1527 | -.0182 | -.0444 | -.0034 | -.0021 | .0133  |
| 5    | -20.00 | .2078 | -.0663 | -.1290 | .0778  | .0067  | -.4769 |
| 6    | -15.00 | .1798 | -.0451 | -.0864 | .0545  | -.0215 | -.3503 |
| 7    | -10.00 | .1760 | -.0324 | -.0757 | .0284  | .0007  | -.2186 |
| 8    | -5.00  | .1624 | -.0218 | -.0522 | .0100  | .0010  | -.1041 |
| 9    | -2.50  | .1653 | -.0180 | -.0352 | .0036  | -.0014 | -.0484 |
| 10   | .00    | .1563 | -.0187 | -.0416 | -.0038 | -.0032 | .0140  |
| 11   | 2.50   | .1535 | -.0201 | -.0585 | -.0090 | -.0034 | .0701  |
| 12   | 5.00   | .1608 | -.0243 | -.0713 | -.0146 | -.0062 | .1263  |
| 13   | 10.00  | .1757 | -.0407 | -.1285 | -.0342 | -.0057 | .2423  |
| 14   | 15.00  | .1895 | -.0601 | -.1665 | -.0537 | -.0073 | .3501  |

|    |       |       |        |        |        |        |       |
|----|-------|-------|--------|--------|--------|--------|-------|
| 15 | 20.00 | .2015 | -.0850 | -.1983 | -.0907 | -.0137 | .5056 |
| 16 | .00   | .1550 | -.0189 | -.0362 | -.0037 | -.0035 | .0144 |
| 17 | 10.00 | .1772 | -.0407 | -.1269 | -.0345 | -.0064 | .2402 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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*P 384*

RUN 483 CONFIG F P B NP5 W7 T10 BT

| PT. NO. | 0 DELF<br>ALPHA DEG | 0 DELF<br>PSI DEG | 0 DELA<br>CLBAR SQ-FT | 0 IHT<br>CDBAR SQ-FT | 0 DELE<br>CPMBAR CU-FT | 0 DELR<br>CYMBAR CU-FT | 0 DELR<br>CRMBAR CU-FT | 0 DELSB<br>CYBAR SQ-FT | 0<br>Q PSF | 0<br>V KNOTS | RPM    |
|---------|---------------------|-------------------|-----------------------|----------------------|------------------------|------------------------|------------------------|------------------------|------------|--------------|--------|
| 4       | .0                  | .0                | 58.5                  | 29.27                | -14.                   | -49.                   | -1.                    | 5.63                   | 55.22      | 128.84       | 3540.  |
| 5       | .0                  | .0                | 55.5                  | -6.43                | -126.                  | -52.                   | -12.                   | 4.61                   | 55.65      | 129.36       | 11030. |
| 6       | -20.0               | .0                | -381.6                | 111.90               | 572.                   | -107.                  | -176.                  | 2.93                   | 55.40      | 129.05       | 11040. |
| 7       | -15.0               | .0                | -324.7                | 66.97                | 596.                   | -175.                  | 113.                   | 8.02                   | 54.81      | 128.36       | 11020. |
| 8       | -10.0               | .0                | -247.1                | 15.54                | -59.                   | -98.                   | -16.                   | 5.70                   | 55.40      | 129.06       | 11040. |
| 9       | -5.0                | .0                | -96.3                 | -2.72                | -320.                  | -88.                   | -21.                   | 6.03                   | 55.01      | 128.60       | 11040. |
| 10      | -2.5                | .0                | -21.2                 | -6.02                | -193.                  | -77.                   | -9.                    | 6.08                   | 55.28      | 128.92       | 11040. |
| 11      | -.0                 | .0                | 54.8                  | -6.12                | -121.                  | -65.                   | -7.                    | 5.45                   | 55.22      | 128.85       | 11020. |
| 12      | 2.5                 | .0                | 133.8                 | -3.70                | -76.                   | -48.                   | -5.                    | 4.90                   | 54.96      | 128.54       | 11010. |
| 13      | 5.0                 | .0                | 209.3                 | 2.03                 | -35.                   | -32.                   | 7.                     | 4.54                   | 55.32      | 128.97       | 11040. |
| 14      | 10.0                | .0                | 361.7                 | 22.25                | -38.                   | -3.                    | 34.                    | 1.54                   | 55.20      | 128.83       | 11000. |
| 15      | 15.0                | .0                | 498.5                 | 54.87                | -233.                  | 13.                    | 105.                   | .62                    | 55.32      | 128.97       | 11010. |
| 16      | 20.0                | .0                | 546.3                 | 109.72               | -526.                  | 62.                    | 154.                   | .98                    | 54.56      | 128.05       | 11030. |
| 17      | -.0                 | .0                | 53.7                  | -6.59                | -115.                  | -59.                   | -36.                   | 5.49                   | 54.80      | 128.35       | 11040. |
| 18      | -12.5               | .0                | -315.1                | 31.61                | 288.                   | -112.                  | -33.                   | 7.91                   | 55.01      | 128.60       | 11030. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 4    | .00    | .1582   | .0791  | -.0045 | -.0030 | -.0001 | .0152 |
| 5    | .00    | .1500   | -.0174 | -.0405 | -.0032 | -.0007 | .0125 |
| 6    | -20.00 | -1.0314 | .3024  | .1844  | -.0064 | -.0106 | .0079 |
| 7    | -15.00 | -.8776  | .1810  | .1920  | -.0106 | .0068  | .0217 |
| 8    | -10.00 | -.6678  | .0420  | -.0192 | -.0059 | -.0010 | .0154 |
| 9    | -5.00  | -.2602  | -.0074 | -.1031 | -.0053 | -.0013 | .0163 |
| 10   | -2.50  | -.0572  | -.0163 | -.0622 | -.0046 | -.0005 | .0164 |
| 11   | -.00   | .1482   | -.0165 | -.0389 | -.0039 | -.0004 | .0147 |
| 12   | 2.50   | .3617   | -.0100 | -.0246 | -.0029 | -.0003 | .0132 |
| 13   | 5.00   | .5658   | .0055  | -.0114 | -.0019 | .0004  | .0123 |
| 14   | 9.99   | .9777   | .0601  | -.0123 | -.0002 | .0021  | .0042 |
| 15   | 15.00  | 1.3472  | .1483  | -.0751 | .0008  | .0063  | .0017 |
| 16   | 20.00  | 1.4764  | .2965  | -.1697 | .0037  | .0093  | .0026 |
| 17   | -.01   | .1451   | -.0178 | -.0370 | -.0035 | -.0022 | .0148 |
| 18   | -12.51 | -.8516  | .0854  | .0930  | -.0068 | -.0020 | .0214 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 4    | .00    | .1582   | .0791  | -.0045 | -.0030 | -.0001 | .0152 |
| 5    | .00    | .1500   | -.0174 | -.0405 | -.0032 | -.0007 | .0125 |
| 6    | -20.00 | -1.0314 | .3024  | .1844  | -.0064 | -.0106 | .0079 |
| 7    | -15.00 | -.8776  | .1810  | .1920  | -.0106 | .0068  | .0217 |
| 8    | -10.00 | -.6678  | .0420  | -.0192 | -.0059 | -.0010 | .0154 |
| 9    | -5.00  | -.2602  | -.0074 | -.1031 | -.0053 | -.0013 | .0163 |
| 10   | -2.50  | -.0572  | -.0163 | -.0622 | -.0046 | -.0005 | .0164 |
| 11   | -.00   | .1482   | -.0165 | -.0389 | -.0039 | -.0004 | .0147 |
| 12   | 2.50   | .3617   | -.0100 | -.0246 | -.0029 | -.0003 | .0132 |
| 13   | 5.00   | .5658   | .0055  | -.0114 | -.0019 | .0004  | .0123 |
| 14   | 9.99   | .9777   | .0601  | -.0123 | -.0002 | .0021  | .0042 |
| 15   | 15.00  | 1.3472  | .1483  | -.0751 | .0008  | .0063  | .0017 |
| 16   | 20.00  | 1.4764  | .2965  | -.1697 | .0037  | .0093  | .0026 |
| 17   | -.01   | .1451   | -.0178 | -.0370 | -.0035 | -.0022 | .0148 |
| 18   | -12.51 | -.8516  | .0854  | .0930  | -.0068 | -.0020 | .0214 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 385

RUN 485 CONFIG F P B NP5 W7 T10 BT

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELB<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELS<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 2                | .0                     | .0                   | 59.8                     | 29.90                   | -35.                      | -57.                      | -30.                      | 5.89                      | 57.82         | 131.91          | 3650.  |
| 3                | .0                     | .0                   | 54.9                     | -6.64                   | -134.                     | -62.                      | -24.                      | 5.63                      | 56.26         | 130.08          | 11110. |
| 4                | .0                     | -15.0                | 73.5                     | 17.50                   | -391.                     | 940.                      | -56.                      | -131.28                   | 55.00         | 128.60          | 11110. |
| 5                | .0                     | -10.0                | 64.9                     | 2.19                    | -279.                     | 447.                      | -4.                       | -82.00                    | 55.06         | 128.66          | 11090. |
| 6                | .0                     | -5.0                 | 58.7                     | -4.83                   | -194.                     | 158.                      | 2.                        | -39.55                    | 54.84         | 128.40          | 11130. |
| 7                | .0                     | -2.5                 | 59.7                     | -6.22                   | -156.                     | 63.                       | -12.                      | -17.82                    | 54.74         | 128.28          | 11110. |
| 8                | .0                     | .0                   | 57.8                     | -7.21                   | -146.                     | -60.                      | -19.                      | 5.74                      | 55.00         | 128.59          | 11120. |
| 9                | .0                     | 2.5                  | 56.6                     | -6.55                   | -197.                     | -153.                     | -27.                      | 27.45                     | 54.93         | 128.51          | 11110. |
| 10               | .0                     | 5.0                  | 59.5                     | -5.26                   | -260.                     | -253.                     | -56.                      | 48.70                     | 54.75         | 128.29          | 11130. |
| 11               | .0                     | 10.0                 | 66.7                     | .46                     | -464.                     | -596.                     | -15.                      | 92.98                     | 54.71         | 128.25          | 11140. |
| 12               | .0                     | 15.0                 | 70.2                     | 13.18                   | -588.                     | -932.                     | 10.                       | 137.27                    | 54.87         | 128.43          | 11140. |
| 13               | .0                     | 20.0                 | 78.0                     | 35.55                   | -708.                     | -1572.                    | -6.                       | 190.04                    | 54.79         | 128.34          | 11130. |
| 14               | .0                     | .0                   | 57.6                     | -7.47                   | -131.                     | -60.                      | -19.                      | 5.34                      | 54.21         | 127.65          | 11140. |
| 15               | .0                     | -20.0                | 77.6                     | 38.50                   | -475.                     | 1360.                     | -5.                       | -177.95                   | 54.51         | 128.01          | 11130. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1615 | .0808  | -.0114 | -.0035 | -.0018 | .0159  |
| 3    | .00    | .1484 | -.0179 | -.0433 | -.0037 | -.0015 | .0152  |
| 4    | -15.00 | .1986 | .0473  | -.1260 | .0568  | -.0034 | -.3548 |
| 5    | -10.00 | .1754 | .0059  | -.0898 | .0270  | -.0003 | -.2216 |
| 6    | -5.00  | .1587 | -.0131 | -.0624 | .0096  | .0001  | -.1069 |
| 7    | -2.50  | .1613 | -.0168 | -.0503 | .0038  | -.0007 | -.0482 |
| 8    | .00    | .1562 | -.0195 | -.0471 | -.0036 | -.0011 | .0155  |
| 9    | 2.50   | .1530 | -.0177 | -.0636 | -.0093 | -.0016 | .0742  |
| 10   | 5.00   | .1608 | -.0142 | -.0839 | -.0153 | -.0034 | .1316  |
| 11   | 10.00  | .1802 | .0012  | -.1497 | -.0360 | -.0009 | .2513  |
| 12   | 15.00  | .1896 | .0356  | -.1894 | -.0563 | .0006  | .3710  |
| 13   | 20.00  | .2107 | .0961  | -.2283 | -.0950 | -.0004 | .5136  |
| 14   | .00    | .1557 | -.0202 | -.0423 | -.0036 | -.0011 | .0144  |
| 15   | -20.00 | .2097 | .1040  | -.1531 | .0821  | -.0003 | -.4809 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1615 | .0808  | -.0114 | -.0035 | -.0018 | .0159  |
| 3    | .00    | .1484 | -.0179 | -.0433 | -.0037 | -.0015 | .0152  |
| 4    | -15.00 | .1986 | -.0466 | -.1170 | .0568  | .0029  | -.3549 |
| 5    | -10.00 | .1754 | -.0328 | -.0882 | .0270  | .0027  | -.2193 |
| 6    | -5.00  | .1587 | -.0224 | -.0622 | .0096  | .0011  | -.1053 |
| 7    | -2.50  | .1613 | -.0189 | -.0500 | .0038  | -.0003 | -.0474 |
| 8    | .00    | .1562 | -.0195 | -.0471 | -.0036 | -.0011 | .0155  |
| 9    | 2.50   | .1530 | -.0209 | -.0640 | -.0093 | -.0021 | .0734  |
| 10   | 5.00   | .1608 | -.0257 | -.0852 | -.0153 | -.0047 | .1299  |
| 11   | 10.00  | .1802 | -.0426 | -.1482 | -.0360 | -.0058 | .2477  |
| 12   | 15.00  | .1896 | -.0621 | -.1821 | -.0563 | -.0087 | .3675  |
| 13   | 20.00  | .2107 | -.0862 | -.2151 | -.0950 | -.0151 | .5154  |
| 14   | .00    | .1557 | -.0202 | -.0423 | -.0036 | -.0011 | .0144  |
| 15   | -20.00 | .2097 | -.0675 | -.1433 | .0821  | .0096  | -.4874 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 386

RUN 486 CONFIG F P B NP5 W7 T10 BT

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELB<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 2                | .0                     | .0                   | 61.3                     | 30.68                   | 4.                        | -42.                      | -8.                       | 5.96                      | 54.32         | 127.78          | 3520.  |
| 4                | .0                     | .0                   | 60.0                     | 30.80                   | -3.                       | -41.                      | 5.                        | 5.24                      | 54.58         | 128.09          | 3530.  |
| 5                | .0                     | .0                   | 58.6                     | -6.55                   | -115.                     | -56.                      | -19.                      | 5.50                      | 54.47         | 127.96          | 11090. |
| 6                | .0                     | -20.0                | 75.3                     | 38.86                   | -402.                     | 1367.                     | 5.                        | -177.20                   | 54.84         | 128.41          | 11100. |
| 7                | .0                     | -15.0                | 74.3                     | 18.39                   | -378.                     | 952.                      | -26.                      | -132.66                   | 54.57         | 128.08          | 11070. |
| 8                | .0                     | -10.0                | 64.6                     | 2.82                    | -238.                     | 483.                      | 2.                        | -83.73                    | 54.67         | 128.20          | 11080. |
| 9                | .0                     | -5.0                 | 59.8                     | -4.61                   | -151.                     | 170.                      | 42.                       | -38.69                    | 55.00         | 128.60          | 11080. |
| 11               | .0                     | -2.5                 | 59.1                     | -6.09                   | -124.                     | 74.                       | 5.                        | -17.31                    | 54.57         | 128.08          | 11090. |
| 12               | .0                     | -2.5                 | 59.3                     | -6.09                   | -125.                     | 74.                       | 5.                        | -17.38                    | 54.36         | 127.83          | 11100. |
| 13               | .0                     | -2.5                 | 58.9                     | -6.09                   | -124.                     | 73.                       | 5.                        | -17.24                    | 54.80         | 128.36          | 11080. |
| 14               | .0                     | -2.5                 | 58.1                     | -6.10                   | -118.                     | 74.                       | 10.                       | -16.91                    | 54.87         | 128.45          | 11090. |
| 15               | .0                     | .0                   | 58.0                     | -6.57                   | -115.                     | -63.                      | -7.                       | 5.55                      | 54.84         | 128.41          | 11090. |
| 16               | .0                     | 2.5                  | 57.0                     | -6.05                   | -158.                     | -156.                     | -3.                       | 27.19                     | 54.41         | 127.90          | 11110. |
| 17               | .0                     | 5.0                  | 58.2                     | -4.84                   | -222.                     | -256.                     | -48.                      | 47.21                     | 54.72         | 128.27          | 11050. |
| 18               | .0                     | 10.0                 | 66.5                     | 1.35                    | -412.                     | -595.                     | 20.                       | 93.39                     | 54.73         | 128.27          | 11120. |
| 19               | .0                     | 15.0                 | 72.1                     | 14.24                   | -546.                     | -930.                     | 36.                       | 138.27                    | 54.81         | 128.37          | 11080. |
| 20               | .0                     | 20.0                 | 1.0                      | 36.64                   | 3084.                     | -1582.                    | 118.                      | 190.90                    | 54.59         | 128.11          | 11080. |
| 21               | .0                     | .0                   | 58.8                     | -6.47                   | -84.                      | -60.                      | -6.                       | 4.98                      | 54.95         | 128.54          | 11080. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1655 | .0829  | .0013  | -.0025 | -.0005 | .0161  |
| 4    | .00    | .1621 | .0832  | -.0009 | -.0025 | .0003  | .0142  |
| 5    | .00    | .1583 | -.0177 | -.0372 | -.0034 | -.0011 | .0149  |
| 6    | -20.00 | .2035 | .1050  | -.1295 | .0826  | .0003  | -.4789 |
| 7    | -15.00 | .2008 | .0497  | -.1219 | .0575  | -.0016 | -.3585 |
| 8    | -10.00 | .1747 | .0076  | -.0767 | .0292  | .0001  | -.2263 |
| 9    | -5.00  | .1616 | -.0125 | -.0485 | .0103  | .0025  | -.1046 |
| 11   | -2.50  | .1597 | -.0165 | -.0400 | .0045  | .0003  | -.0468 |
| 12   | -2.50  | .1604 | -.0165 | -.0402 | .0045  | .0003  | -.0470 |
| 13   | -2.50  | .1591 | -.0165 | -.0399 | .0044  | .0003  | -.0466 |
| 14   | -2.50  | .1571 | -.0165 | -.0381 | .0045  | .0006  | -.0457 |
| 15   | .00    | .1567 | -.0178 | -.0370 | -.0038 | -.0004 | .0150  |
| 16   | 2.50   | .1540 | -.0163 | -.0510 | -.0094 | -.0002 | .0735  |
| 17   | 5.00   | .1573 | -.0131 | -.0717 | -.0154 | -.0029 | .1276  |
| 18   | 10.00  | .1797 | .0037  | -.1329 | -.0359 | .0012  | .2524  |
| 19   | 15.00  | .1949 | .0385  | -.1759 | -.0561 | .0022  | .3737  |
| 20   | 20.00  | .0026 | .0990  | .9943  | -.0956 | .0071  | .5160  |
| 21   | .00    | .1589 | -.0175 | -.0270 | -.0036 | -.0004 | .0135  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1655 | .0829  | .0013  | -.0025 | -.0005 | .0161  |
| 4    | .00    | .1621 | .0832  | -.0009 | -.0025 | .0003  | .0142  |
| 5    | .00    | .1583 | -.0177 | -.0372 | -.0034 | -.0011 | .0149  |
| 6    | -20.00 | .2035 | -.0659 | -.1221 | .0826  | .0086  | -.4858 |
| 7    | -15.00 | .2008 | -.0452 | -.1155 | .0575  | .0044  | -.3591 |
| 8    | -10.00 | .1747 | -.0320 | -.0757 | .0292  | .0026  | -.2242 |
| 9    | -5.00  | .1616 | -.0216 | -.0495 | .0103  | .0033  | -.1031 |

|    |       |       |        |        |        |        |        |
|----|-------|-------|--------|--------|--------|--------|--------|
| 11 | -2.50 | .1597 | -.0185 | -.0401 | .0045  | .0006  | -.0460 |
| 12 | -2.50 | .1604 | -.0185 | -.0402 | .0045  | .0006  | -.0462 |
| 13 | -2.50 | .1591 | -.0185 | -.0399 | .0044  | .0006  | -.0458 |
| 14 | -2.50 | .1571 | -.0185 | -.0382 | .0045  | .0009  | -.0449 |
| 15 | .00   | .1567 | -.0178 | -.0370 | -.0038 | -.0004 | .0150  |
| 16 | 2.50  | .1540 | -.0195 | -.0510 | -.0094 | -.0006 | .072   |
| 17 | 5.00  | .1573 | -.0242 | -.0728 | -.0154 | -.0040 | .1259  |
| 18 | 10.00 | .1797 | -.0404 | -.1297 | -.0359 | -.0032 | .2492  |
| 19 | 15.00 | .1949 | -.0600 | -.1668 | -.0561 | -.0065 | .3709  |
| 20 | 20.00 | .0026 | -.0842 | .9469  | -.0956 | .0707  | .5186  |
| 21 | .00   | .1589 | -.0175 | -.0270 | -.0036 | -.0004 | .0135  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 487 CONFIG F P B NP5 W7 T10 BT

| IW  | -9, DELF | 0 DELA | 0 IHT  | 0 DELE | 0 DELR | 0 DELSB | 0      |       |       |        |        |
|-----|----------|--------|--------|--------|--------|---------|--------|-------|-------|--------|--------|
| PT. | ALPHA    | PSI    | CLBAR  | CDBAR  | CPMBAR | CYMBAR  | CRMBAR | CYBAR | Q     | V      | RPM    |
| NO. | DEG      | DEG    | SQ-FT  | SQ-FT  | CU-FT  | CU-FT   | CU-FT. | SQ-FT | PSF   | KNOTS  |        |
| 2   | .0       | .0     | -117.2 | 36.71  | -324.  | -50.    | -39.   | 7.31  | 53.58 | 126.90 | 3300.  |
| 3   | .0       | .0     | -122.4 | -6.44  | -399.  | -55.    | -14.   | 6.35  | 54.21 | 127.66 | 11750. |
| 4   | -20.0    | .0     | -400.8 | 153.40 | 576.   | -46.    | -70.   | 1.86  | 54.42 | 127.90 | 11780. |
| 5   | -20.0    | .0     | -385.2 | 151.36 | 720.   | -28.    | -46.   | 2.13  | 54.80 | 128.36 | 11760. |
| 6   | -15.0    | .0     | -340.7 | 107.35 | 522.   | -38.    | -177.  | -.27  | 54.68 | 128.21 | 11760. |
| 7   | -10.0    | .0     | -298.0 | 64.25  | -191.  | -115.   | -52.   | 6.26  | 55.13 | 128.75 | 11750. |
| 8   | -5.0     | .0     | -275.4 | 9.39   | -435.  | -56.    | -41.   | 7.40  | 55.42 | 129.10 | 11750. |
| 9   | -.0      | .0     | -124.0 | -5.19  | -374.  | -48.    | -9.    | 6.84  | 55.09 | 128.71 | 11750. |
| 10  | 2.5      | .0     | -44.8  | -8.23  | -376.  | -32.    | -6.    | 5.80  | 54.82 | 128.38 | 11740. |
| 11  | 5.0      | .0     | 33.2   | -8.28  | -376.  | -19.    | 7.     | 5.31  | 54.54 | 128.06 | 11740. |
| 12  | 10.0     | .0     | 192.1  | -.42   | -356.  | 14.     | 33.    | 4.72  | 54.57 | 128.09 | 11770. |
| 13  | 15.0     | .0     | 359.7  | 21.86  | -444.  | 31.     | 59.    | 1.25  | 54.37 | 127.85 | 11750. |
| 14  | 20.0     | .0     | 508.6  | 61.98  | -378.  | 50.     | 84.    | 1.68  | 54.09 | 127.52 | 11750. |
| 15  | -.0      | .0     | -122.7 | -5.91  | -359.  | -54.    | -14.   | 6.53  | 54.59 | 128.11 | 11750. |
| 16  | -12.5    | .0     | -337.2 | 87.75  | 208.   | -155.   | -143.  | 6.11  | 54.27 | 127.72 | 11760. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | -.3167  | .0992  | -.1044 | -.0030 | -.0024 | .0198  |
| 3    | .00    | -.3307  | -.0174 | -.1287 | -.0033 | -.0008 | .0172  |
| 4    | -19.97 | -1.0831 | .4146  | .1857  | -.0028 | -.0042 | .0050  |
| 5    | -19.99 | -1.0411 | .4091  | .2321  | -.0017 | -.0028 | .0058  |
| 6    | -15.01 | -.9208  | .2901  | .1682  | -.0023 | -.0107 | -.0007 |
| 7    | -10.01 | -.8054  | .1737  | -.0615 | -.0070 | -.0032 | .0169  |
| 8    | -5.00  | -.7443  | .0254  | -.1403 | -.0034 | -.0025 | .0200  |
| 9    | -.01   | -.3352  | -.0140 | -.1206 | -.0029 | -.0005 | .0185  |
| 10   | 2.49   | -.1211  | -.0222 | -.1211 | -.0020 | -.0004 | .0157  |
| 11   | 4.99   | .0898   | -.0224 | -.1212 | -.0012 | .0004  | .0143  |
| 12   | 9.99   | .5191   | -.0011 | -.1149 | .0009  | .0020  | .0128  |
| 13   | 15.00  | .9722   | .0591  | -.1432 | .0019  | .0036  | .0034  |
| 14   | 20.00  | 1.3746  | .1675  | -.1220 | .0030  | .0051  | .0045  |
| 15   | -.01   | -.3317  | -.0160 | -.1159 | -.0033 | -.0009 | .0177  |
| 16   | -12.51 | -.9114  | .2372  | .0672  | -.0094 | -.0086 | .0165  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | -.3167  | .0992  | -.1044 | -.0030 | -.0024 | .0198  |
| 3    | .00    | -.3307  | -.0174 | -.1287 | -.0033 | -.0008 | .0172  |
| 4    | -19.97 | -1.0831 | .4146  | .1857  | -.0028 | -.0042 | .0050  |
| 5    | -19.99 | -1.0411 | .4091  | .2321  | -.0017 | -.0028 | .0058  |
| 6    | -15.01 | -.9208  | .2901  | .1682  | -.0023 | -.0107 | -.0007 |
| 7    | -10.01 | -.8054  | .1737  | -.0615 | -.0070 | -.0032 | .0169  |
| 8    | -5.00  | -.7443  | .0254  | -.1403 | -.0034 | -.0025 | .0200  |
| 9    | -.01   | -.3352  | -.0140 | -.1206 | -.0029 | -.0005 | .0185  |
| 10   | 2.49   | -.1211  | -.0222 | -.1211 | -.0020 | -.0004 | .0157  |
| 11   | 4.99   | .0898   | -.0224 | -.1212 | -.0012 | .0004  | .0143  |
| 12   | 9.99   | .5191   | -.0011 | -.1149 | .0009  | .0020  | .0128  |
| 13   | 15.00  | .9722   | .0591  | -.1432 | .0019  | .0036  | .0034  |
| 14   | 20.00  | 1.3746  | .1675  | -.1220 | .0030  | .0051  | .0045  |
| 15   | -.01   | -.3317  | -.0160 | -.1159 | -.0033 | -.0009 | .0177  |
| 16   | -12.51 | -.9114  | .2372  | .0672  | -.0094 | -.0086 | .0165  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 488 CONFIG F P B NP5 N7 TIC BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | DELTA SB Q PSF | V KNOTS | RPM    |
|---------|-----------|---------------|-------------|-------------|---------------|-------------|---------------|-------------|----------------|---------|--------|
| 3       | .0        | .0            | 354.0       | 69.47       | 243.          | -61.        | 27.           | 2.53        | 53.91          | 127.30  | 3950.  |
| 4       | .0        | .0            | 335.0       | -6.49       | -51.          | -100.       | 61.           | -1.60       | 54.73          | 128.28  | 15350. |
| 5       | -20.0     | .0            | -283.2      | 20.32       | 359.          | -10.        | 24.           | 5.03        | 54.44          | 127.94  | 15340. |
| 6       | -15.0     | .0            | -140.8      | -8.85       | 424.          | -54.        | -6.           | 3.14        | 54.64          | 128.18  | 15320. |
| 7       | -10.0     | .0            | 38.9        | -24.70      | 166.          | -32.        | 19.           | 2.23        | 54.88          | 128.47  | 15330. |
| 8       | -5.0      | .0            | 202.0       | -21.36      | -13.          | -57.        | 45.           | 1.34        | 54.38          | 127.87  | 15320. |
| 9       | -0        | .0            | 332.1       | -4.77       | -29.          | -116.       | 78.           | -.87        | 54.77          | 128.33  | 15320. |
| 10      | 2.5       | .0            | 389.2       | 6.87        | -18.          | -89.        | 99.           | -3.91       | 54.56          | 128.08  | 15350. |
| 11      | 5.0       | .0            | 382.0       | 25.52       | 132.          | -87.        | 220.          | -1.68       | 54.63          | 128.16  | 15300. |
| 12      | 10.0      | .0            | 417.0       | 66.98       | 101.          | -147.       | 203.          | -.77        | 54.25          | 127.71  | 15330. |
| 13      | 15.0      | .0            | 481.5       | 135.93      | -136.         | -126.       | 108.          | -.67        | 54.02          | 127.44  | 15360. |
| 14      | 20.0      | .0            | 566.4       | 202.93      | -708.         | 55.         | 24.           | 1.83        | 55.23          | 128.87  | 15360. |
| 15      | .0        | .0            | 333.2       | -3.92       | -10.          | -125.       | 73.           | -1.73       | 54.51          | 128.03  | 15320. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | .9569  | .1878  | .0785  | -.0037 | .0016  | .0068  |
| 4    | .00    | .9053  | -.0175 | -.0165 | -.0060 | .0037  | -.0043 |
| 5    | -20.00 | -.7654 | .0549  | .1156  | -.0006 | .0015  | .0136  |
| 6    | -15.00 | -.3806 | -.0239 | .1366  | -.0032 | -.0004 | .0085  |
| 7    | -10.00 | .1052  | -.0668 | .0536  | -.0019 | .0012  | .0060  |
| 8    | -5.00  | .5458  | -.0577 | -.0042 | -.0035 | .0027  | .0036  |
| 9    | -.00   | .8977  | -.0129 | -.0095 | -.0070 | .0047  | -.0024 |
| 10   | 2.49   | 1.0518 | .0186  | -.0058 | -.0054 | .0060  | -.0106 |
| 11   | 4.99   | 1.0325 | .0690  | .0425  | -.0052 | .0133  | -.0046 |
| 12   | 10.00  | 1.1269 | .1808  | .0327  | -.0089 | .0123  | -.0021 |
| 13   | 15.00  | 1.3013 | .3674  | -.0438 | -.0076 | .0065  | -.0018 |
| 14   | 20.00  | 1.5307 | .5485  | -.2283 | .0033  | .0014  | .0049  |
| 15   | .00    | .9004  | -.0106 | -.0031 | -.0076 | .0044  | -.0047 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDL    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | .9569  | .1878  | .0785  | -.0037 | .0016  | .0068  |
| 4    | .00    | .9053  | -.0175 | -.0165 | -.0060 | .0037  | -.0043 |
| 5    | -20.00 | -.7654 | .0549  | .1156  | -.0006 | .0015  | .0136  |
| 6    | -15.00 | -.3806 | -.0239 | .1366  | -.0032 | -.0004 | .0085  |
| 7    | -10.00 | .1052  | -.0668 | .0536  | -.0019 | .0012  | .0060  |
| 8    | -5.00  | .5458  | -.0577 | -.0042 | -.0035 | .0027  | .0036  |
| 9    | -.00   | .8977  | -.0129 | -.0095 | -.0070 | .0047  | -.0024 |
| 10   | 2.49   | 1.0518 | .0186  | -.0058 | -.0054 | .0060  | -.0106 |
| 11   | 4.99   | 1.0325 | .0690  | .0425  | -.0052 | .0133  | -.0046 |
| 12   | 10.00  | 1.1269 | .1808  | .0327  | -.0089 | .0123  | -.0021 |
| 13   | 15.00  | 1.3013 | .3674  | -.0438 | -.0076 | .0065  | -.0018 |
| 14   | 20.00  | 1.5307 | .5485  | -.2283 | .0033  | .0014  | .0049  |
| 15   | .00    | .9004  | -.0106 | -.0031 | -.0076 | .0044  | -.0047 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 491 CONFIG F P B NPS W7 T10 BT IN=-3.5 BETA=0

| PT. NO. | INW   | 15 DELF ALPHA DEG | 3D DELA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELTA DELR PSF | DELTA DELS8 G | DELTA DELS8 V KNOTS | RPM |
|---------|-------|-------------------|-----------------|-------------|-------------|--------------|--------------|--------------|-------------|----------------|---------------|---------------------|-----|
| 2       | .0    | .0                | .0              | 567.9       | 127.21      | 347.         | -61.         | 68.          | -41         | 57.54          | 131.61        | 4310.               |     |
| 3       | .0    | .0                | .0              | 581.1       | 125.72      | 342.         | -59.         | 55.          | -1.01       | 54.07          | 127.51        | 4160.               |     |
| 4       | .0    | .0                | .0              | 546.9       | -5.70       | 121.         | -53.         | 148.         | -2.96       | 53.67          | 127.02        | 19630.              |     |
| 5       | -20.0 | .0                | .0              | -137.1      | -4.64       | 247.         | -24.         | 108.         | -1.53       | 55.51          | 129.23        | 19720.              |     |
| 6       | -15.0 | .0                | .0              | 35.2        | -29.06      | 604.         | 4.           | 83.          | -3.56       | 55.50          | 129.21        | 19650.              |     |
| 7       | -10.0 | .0                | .0              | 222.4       | -30.48      | 529.         | -17.         | 127.         | -2.02       | 55.17          | 128.82        | 19550.              |     |
| 8       | -5.0  | .0                | .0              | 392.5       | -21.41      | 280.         | -15.         | 140.         | -3.77       | 55.40          | 129.09        | 19610.              |     |
| 9       | .0    | .0                | .0              | 508.7       | 1.87        | 90.          | -35.         | 298.         | -21.28      | 55.93          | 129.72        | 19680.              |     |
| 10      | 2.5   | .0                | .0              | 539.5       | 17.59       | -203.        | 9.           | 519.         | -14.80      | 55.26          | 128.92        | 19570.              |     |
| 11      | 5.0   | .0                | .0              | 574.5       | 30.52       | -239.        | -60.         | 577.         | -13.97      | 55.55          | 129.27        | 19630.              |     |
| 12      | 10.0  | .0                | .0              | 400.0       | 77.69       | -195.        | -209.        | 383.         | -6.36       | 55.35          | 129.02        | 19550.              |     |
| 13      | 15.0  | .0                | .0              | 556.0       | 154.21      | -317.        | -111.        | 152.         | .37         | 55.06          | 128.69        | 19560.              |     |
| 14      | 20.0  | .0                | .0              | 632.3       | 227.26      | -648.        | 27.          | 98.          | 1.30        | 54.92          | 128.51        | 19620.              |     |
| 15      | .0    | .0                | .0              | 511.2       | .62         | 84.          | -44.         | 324.         | -21.68      | 55.58          | 129.31        | 19630.              |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.5348 | .3438  | .1120  | -.0037 | .0041 | -.0011 |
| 3    | .00    | 1.5164 | .3398  | .1104  | -.0035 | .0033 | -.0027 |
| 4    | .00    | 1.4782 | -.0154 | .0389  | -.0032 | .0090 | -.0080 |
| 5    | -20.00 | -.3706 | -.0125 | .0795  | -.0015 | .0065 | -.0041 |
| 6    | -15.00 | .0952  | -.0785 | .1949  | .0002  | .0050 | -.0096 |
| 7    | -10.00 | .6011  | -.0824 | .1707  | -.0010 | .0076 | -.0055 |
| 8    | -5.00  | 1.0607 | -.0579 | .0901  | -.0009 | .0085 | -.0102 |
| 9    | .00    | 1.3748 | .0051  | .0292  | -.0021 | .0180 | -.0575 |
| 10   | 2.50   | 1.4580 | .0475  | -.0655 | .0006  | .0314 | -.0400 |
| 11   | 5.00   | 1.5528 | .0825  | -.0771 | -.0036 | .0349 | -.0376 |
| 12   | 10.00  | 1.3135 | .2100  | -.0627 | -.0126 | .0231 | -.0172 |
| 13   | 14.99  | 1.5027 | .4168  | -.1021 | -.0067 | .0092 | .0010  |
| 14   | 20.02  | 1.7090 | .6142  | -.2090 | .0013  | .0053 | .0035  |
| 15   | .00    | 1.3816 | .0017  | .0271  | -.0027 | .0196 | -.0586 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.5348 | .3438  | .1120  | -.0037 | .0041 | -.0011 |
| 3    | .00    | 1.5164 | .3398  | .1104  | -.0035 | .0033 | -.0027 |
| 4    | .00    | 1.4782 | -.0154 | .0389  | -.0032 | .0090 | -.0080 |
| 5    | -20.00 | -.3706 | -.0125 | .0795  | -.0015 | .0065 | -.0041 |
| 6    | -15.00 | .0952  | -.0785 | .1949  | .0002  | .0050 | -.0096 |
| 7    | -10.00 | .6011  | -.0824 | .1707  | -.0010 | .0076 | -.0055 |
| 8    | -5.00  | 1.0607 | -.0579 | .0901  | -.0009 | .0085 | -.0102 |
| 9    | .00    | 1.3748 | .0051  | .0292  | -.0021 | .0180 | -.0575 |
| 10   | 2.50   | 1.4580 | .0475  | -.0655 | .0006  | .0314 | -.0400 |
| 11   | 5.00   | 1.5528 | .0825  | -.0771 | -.0036 | .0349 | -.0376 |
| 12   | 10.00  | 1.3135 | .2100  | -.0627 | -.0126 | .0231 | -.0172 |
| 13   | 14.99  | 1.5027 | .4168  | -.1021 | -.0067 | .0092 | .0010  |
| 14   | 20.02  | 1.7090 | .6142  | -.2090 | .0013  | .0053 | .0035  |
| 15   | .00    | 1.3816 | .0017  | .0271  | -.0027 | .0196 | -.0586 |

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SIKORSKY RSRA, 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 492 CONFIG F P 3 NPE W7 T10 BT IN=0 BETA=0

| IN PT. NO. | DELTA ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM    |
|------------|-----------------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------|---------------|--------|
| 2          | .0              | .0            | 74.2              | 31.83             | 206.               | -39.               | -24.               | 5.57              | 55.64       | 129.37        | 3540.  |
| 4          | .0              | .0            | 75.1              | -6.51             | 69.                | -64.               | 12.                | 4.50              | 55.32       | 128.99        | 11300. |
| 5          | -20.0           | .0            | -398.8            | 106.61            | 878.               | -54.               | -219.              | 4.31              | 55.57       | 129.27        | 11290. |
| 6          | -15.0           | .0            | -337.4            | 61.68             | 632.               | -163.              | 129.               | 7.47              | 55.79       | 129.54        | 11250. |
| 7          | -10.0           | .0            | -250.9            | 12.17             | 198.               | -92.               | -14.               | 4.51              | 55.66       | 129.39        | 11270. |
| 8          | -5.0            | .0            | -86.0             | -4.31             | -60.               | -81.               | -14.               | 5.15              | 54.91       | 128.50        | 11310. |
| 9          | -.0             | .0            | 73.6              | -6.55             | 39.                | -71.               | 19.                | 3.62              | 55.17       | 128.81        | 11270. |
| 10         | 2.5             | .0            | 153.0             | -2.51             | 79.                | -69.               | 26.                | 3.07              | 55.07       | 128.68        | 11260. |
| 11         | 5.0             | .0            | 232.1             | 3.50              | 98.                | -71.               | 38.                | 3.57              | 55.04       | 128.66        | 11290. |
| 12         | 10.0            | .0            | 388.8             | 25.74             | 131.               | -53.               | 70.                | 1.26              | 54.93       | 128.52        | 11310. |
| 13         | 15.0            | .0            | 521.9             | 63.07             | 31.                | -4.                | 111.               | 2.56              | 55.06       | 128.68        | 11260. |
| 14         | 20.0            | .0            | 576.0             | 122.29            | -337.              | 52.                | 117.               | 1.15              | 55.19       | 128.83        | 11290. |
| 15         | -.0             | .0            | 72.1              | -6.16             | 40.                | -70.               | 1.                 | 4.15              | 55.32       | 128.99        | 11260. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .2006   | .0860  | .0664  | -.0024 | -.0015 | .0151 |
| 4    | .00    | .2029   | -.0176 | .0222  | -.0039 | .0007  | .0123 |
| 5    | -20.01 | -1.0778 | .2881  | .2829  | -.0033 | -.0132 | .0117 |
| 6    | -15.00 | -.9119  | .1667  | .2038  | -.0099 | .0078  | .0202 |
| 7    | -10.00 | -.6780  | .0329  | .0639  | -.0056 | -.0008 | .0122 |
| 8    | -5.00  | -.2325  | -.0116 | -.0193 | -.0049 | -.0008 | .0139 |
| 9    | -.01   | .1988   | -.0177 | .0125  | -.0043 | .0011  | .0098 |
| 10   | 2.50   | .4134   | -.0068 | .0254  | -.0042 | .0016  | .0083 |
| 11   | 5.01   | .6272   | .0095  | .0317  | -.0043 | .0023  | .0096 |
| 12   | 9.99   | 1.0508  | .0696  | .0423  | -.0032 | .0042  | .0034 |
| 13   | 15.02  | 1.4104  | .1705  | .0099  | -.0003 | .0067  | .0069 |
| 14   | 20.01  | 1.5567  | .3305  | -.1085 | .0031  | .0071  | .0031 |
| 15   | -.00   | .1949   | -.0167 | .0129  | -.0042 | .0000  | .0112 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .2006   | .0860  | .0664  | -.0024 | -.0015 | .0151 |
| 4    | .00    | .2029   | -.0176 | .0222  | -.0039 | .0007  | .0123 |
| 5    | -20.01 | -1.0778 | .2881  | .2829  | -.0033 | -.0132 | .0117 |
| 6    | -15.00 | -.9119  | .1667  | .2038  | -.0099 | .0078  | .0202 |
| 7    | -10.00 | -.6780  | .0329  | .0639  | -.0056 | -.0008 | .0122 |
| 8    | -5.00  | -.2325  | -.0116 | -.0193 | -.0049 | -.0008 | .0139 |
| 9    | -.01   | .1988   | -.0177 | .0125  | -.0043 | .0011  | .0098 |
| 10   | 2.50   | .4134   | -.0068 | .0254  | -.0042 | .0016  | .0083 |
| 11   | 5.01   | .6272   | .0095  | .0317  | -.0043 | .0023  | .0096 |
| 12   | 9.99   | 1.0508  | .0696  | .0423  | -.0032 | .0042  | .0034 |
| 13   | 15.02  | 1.4104  | .1705  | .0099  | -.0003 | .0067  | .0069 |
| 14   | 20.01  | 1.5567  | .3305  | -.1085 | .0031  | .0071  | .0031 |
| 15   | -.00   | .1949   | -.0167 | .0129  | -.0042 | .0000  | .0112 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 391

RUN 494 CONFIG F P 3 NPS W7 T10 BT IN=5.0 BETA=0

| PT. NO. | IN        | DELTA   | DELTA       | IHT         | DELE         | DELR         | DELSB        | D           | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| NO.     | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSI | V KNOTS |        |
| 2       | .0        | .0      | 84.0        | 32.33       | 500.         | -52.         | -25.         | 5.49        | 55.20 | 128.84  | WM     |
| 4       | -20.0     | .0      | -309.4      | 101.87      | 1282.        | -180.        | 10.          | 11.08       | 55.01 | 128.61  | 11520. |
| 5       | -15.0     | .0      | -324.7      | 52.31       | 905.         | -156.        | 82.          | 11.38       | 55.09 | 128.71  | 11440. |
| 6       | -10.0     | .0      | -240.9      | 4.75        | 746.         | -85.         | -37.         | 7.42        | 55.10 | 128.73  | 11570. |
| 7       | -5.0      | .0      | -79.8       | -7.95       | 582.         | -80.         | -29.         | 7.28        | 54.90 | 128.48  | 11540. |
| 8       | .0        | .0      | 85.3        | -7.25       | 758.         | -53.         | -8.          | 6.04        | 55.07 | 128.68  | 11370. |
| 9       | 2.5       | .0      | 173.2       | -2.26       | 609.         | -45.         | -0.          | 5.46        | 54.73 | 128.28  | 11490. |
| 10      | 5.0       | .0      | 255.5       | 5.55        | 471.         | -39.         | 8.           | 4.29        | 54.79 | 128.35  | 11510. |
| 11      | 10.0      | .0      | 413.0       | 31.54       | 540.         | -18.         | 52.          | 2.31        | 54.54 | 128.06  | 11640. |
| 12      | 15.0      | .0      | 526.0       | 73.46       | 442.         | -14.         | 92.          | 2.42        | 55.77 | 129.52  | 11520. |
| 13      | 20.0      | .0      | 596.2       | 138.20      | -5.          | 71.          | 65.          | .64         | 54.84 | 128.41  | 11460. |
| 14      | .0        | .0      | 83.5        | -5.80       | 762.         | -52.         | -31.         | 6.16        | 55.12 | 128.75  | 11530. |
| 15      | 2.5       | .0      | 169.9       | -2.14       | 586.         | -45.         | -17.         | 4.99        | 55.01 | 128.62  | 11510. |
| 17      | 5.0       | .0      | 255.2       | 6.31        | 454.         | -44.         | 8.           | 3.84        | 54.73 | 128.28  | 11480. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .2270  | .0874  | .1611  | -.0032 | -.0015 | .0148 |
| 4    | -20.01 | -.9984 | .2753  | .4132  | -.0109 | .0006  | .0300 |
| 5    | -14.99 | -.8776 | .1414  | .2916  | -.0094 | .0050  | .0307 |
| 6    | -10.00 | -.6510 | .0128  | .2407  | -.0051 | -.0022 | .0200 |
| 7    | -5.00  | -.2130 | -.0215 | .2200  | -.0048 | -.0018 | .0197 |
| 8    | .00    | .2304  | -.0196 | .2445  | -.0032 | -.0005 | .0163 |
| 9    | 2.52   | .4681  | -.0061 | .1964  | -.0027 | -.0000 | .0147 |
| 10   | 5.01   | .6905  | .0150  | .1518  | -.0023 | .0005  | .0116 |
| 11   | 10.00  | 1.1161 | .0852  | .1740  | -.0011 | .0031  | .0062 |
| 12   | 15.00  | 1.4217 | .1985  | .1426  | -.0009 | .0056  | .0065 |
| 13   | 20.00  | 1.6113 | .3735  | -.0015 | .0043  | .0039  | .0017 |
| 14   | .00    | .2257  | -.0185 | .2458  | -.0031 | -.0019 | .0166 |
| 15   | 2.50   | .4593  | -.0058 | .1889  | -.0027 | -.0010 | .0135 |
| 17   | 5.00   | .6897  | .0184  | .1463  | -.0026 | .0005  | .0104 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .2270  | .0874  | .1611  | -.0032 | -.0015 | .0148 |
| 4    | -20.01 | -.9984 | .2753  | .4132  | -.0109 | .0006  | .0300 |
| 5    | -14.99 | -.8776 | .1414  | .2916  | -.0094 | .0050  | .0307 |
| 6    | -10.00 | -.6510 | .0128  | .2407  | -.0051 | -.0022 | .0200 |
| 7    | -5.00  | -.2130 | -.0215 | .2200  | -.0048 | -.0018 | .0197 |
| 8    | .00    | .2304  | -.0196 | .2445  | -.0032 | -.0005 | .0163 |
| 9    | 2.52   | .4681  | -.0061 | .1964  | -.0027 | -.0000 | .0147 |
| 10   | 5.01   | .6905  | .0150  | .1518  | -.0023 | .0005  | .0116 |
| 11   | 10.00  | 1.1161 | .0852  | .1740  | -.0011 | .0031  | .0062 |
| 12   | 15.00  | 1.4217 | .1985  | .1426  | -.0009 | .0056  | .0065 |
| 13   | 20.00  | 1.6113 | .3735  | -.0015 | .0043  | .0039  | .0017 |
| 14   | .00    | .2257  | -.0185 | .2458  | -.0031 | -.0019 | .0166 |
| 15   | 2.50   | .4593  | -.0058 | .1889  | -.0027 | -.0010 | .0135 |
| 17   | 5.00   | .6897  | .0184  | .1463  | -.0026 | .0005  | .0104 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 392

RUN 496 CONFIG F P B NPS W7 T10 BT IN=5.0 BETA=0

| PT. NO. | IW        | IS DELF | PSI         | CLBAR       | CDBAR        | CPMBAR       | CYMBAR       | CRMBAR      | CYBAR | G      | V      | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|--------|--------|-----|
|         | ALPHA DEG | DEG     | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  |        |     |
| 3       | .0        | .0      | 358.2       | 66.80       | 1005.        | -87.         | 48.          | 3.54        | 55.85 | 129.60 | 3920.  |     |
| 4       | .0        | .0      | 373.1       | -6.41       | 1243.        | -78.         | 62.          | 1.95        | 55.38 | 129.05 | 15390. |     |
| 5       | -20.0     | .0      | -258.8      | -4.14       | 840.         | -5.          | -0.          | .18         | 55.72 | 129.45 | 15480. |     |
| 6       | -15.0     | .0      | -98.6       | -31.59      | 934.         | -95.         | 38.          | 4.28        | 55.50 | 129.19 | 15370. |     |
| 7       | -10.0     | .0      | 67.3        | -34.07      | 1087.        | -137.        | 47.          | 6.19        | 55.19 | 128.83 | 15340. |     |
| 8       | -5.0      | .0      | 225.4       | -26.57      | 1215.        | -130.        | 52.          | 4.01        | 55.22 | 128.86 | 15400. |     |
| 9       | .0        | .0      | 372.2       | -6.43       | 1280.        | -82.         | 48.          | 3.62        | 55.24 | 128.88 | 15350. |     |
| 10      | 2.5       | .0      | 401.6       | 10.28       | 1426.        | -29.         | 112.         | -.06        | 54.98 | 128.57 | 15470. |     |
| 12      | 10.0      | .0      | 486.5       | 89.30       | 1009.        | -62.         | 92.          | 1.64        | 55.51 | 129.20 | 15340. |     |
| 13      | 15.0      | .0      | 549.5       | 166.95      | 694.         | -41.         | 29.          | .98         | 55.64 | 129.35 | 15480. |     |
| 14      | 20.0      | .0      | 634.9       | 245.00      | -50.         | 58.          | -17.         | -.12        | 56.01 | 129.78 | 15350. |     |
| 15      | 5.0       | .0      | 413.7       | 33.78       | 1442.        | -34.         | 121.         | 1.10        | 55.71 | 129.43 | 15330. |     |
| 16      | .0        | .0      | 309.5       | -5.96       | 1304.        | -84.         | 23.          | 4.68        | 55.56 | 129.26 | 15310. |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | .9682  | .1805  | .3239  | -.0052 | .0029  | .0096  |
| 4    | .00    | 1.0083 | -.0173 | .4009  | -.0047 | .0037  | .0053  |
| 5    | -20.00 | -.6994 | -.0112 | .2708  | -.0003 | -.0000 | .0005  |
| 6    | -15.00 | -.2666 | -.0854 | .3010  | -.0057 | .0023  | .0116  |
| 7    | -9.99  | .1818  | -.0921 | .3504  | -.0082 | .0028  | .0167  |
| 8    | -4.99  | .6092  | -.0718 | .3918  | -.0078 | .0032  | .0108  |
| 9    | .00    | 1.0061 | -.0174 | .4126  | -.0049 | .0029  | .0098  |
| 10   | 2.50   | 1.0853 | .0278  | .4599  | -.0017 | .0067  | -.0002 |
| 12   | 10.00  | 1.3149 | .2414  | .3254  | -.0038 | .0056  | .0044  |
| 13   | 15.00  | 1.4852 | .4512  | .2238  | -.0025 | .0017  | .0026  |
| 14   | 20.01  | 1.7159 | .6622  | -.0160 | .0035  | -.0010 | -.0003 |
| 15   | 5.00   | 1.1181 | .0913  | .4648  | -.0020 | .0073  | .0030  |
| 16   | .01    | .9985  | -.0161 | .4205  | -.0051 | .0014  | .0126  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | .9682  | .1805  | .3239  | -.0052 | .0029  | .0096  |
| 4    | .00    | 1.0083 | -.0173 | .4009  | -.0047 | .0037  | .0053  |
| 5    | -20.00 | -.6994 | -.0112 | .2708  | -.0003 | -.0000 | .0005  |
| 6    | -15.00 | -.2666 | -.0854 | .3010  | -.0057 | .0023  | .0116  |
| 7    | -9.99  | .1818  | -.0921 | .3504  | -.0082 | .0028  | .0167  |
| 8    | -4.99  | .6092  | -.0718 | .3918  | -.0078 | .0032  | .0108  |
| 9    | .00    | 1.0061 | -.0174 | .4126  | -.0049 | .0029  | .0098  |
| 10   | 2.50   | 1.0853 | .0278  | .4599  | -.0017 | .0067  | -.0002 |
| 12   | 10.00  | 1.3149 | .2414  | .3254  | -.0038 | .0056  | .0044  |
| 13   | 15.00  | 1.4852 | .4512  | .2238  | -.0025 | .0017  | .0026  |
| 14   | 20.01  | 1.7159 | .6622  | -.0160 | .0035  | -.0010 | -.0003 |
| 15   | 5.00   | 1.1181 | .0913  | .4648  | -.0020 | .0073  | .0030  |
| 16   | .01    | .9985  | -.0161 | .4205  | -.0051 | .0014  | .0126  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 393

RUN 497 CONFIG F P B NP5 W7 T10 BT IN=-3.5 BETA=0

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSD      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 2       | .0        | .0      | 351.4       | 66.85       | 668.         | -101.        | 48.          | 3.59        | 55.59 | 129.29  | 3980.  |
| 3       | .0        | .0      | 346.8       | -7.25       | 638.         | -53.         | 72.          | -1.96       | 55.71 | 129.44  | 15250. |
| 4       | -20.0     | .0      | -277.3      | 10.98       | 634.         | -149.        | 25.          | 6.84        | 55.60 | 129.31  | 15240. |
| 5       | -15.0     | .0      | -125.6      | -19.21      | 869.         | -172.        | 23.          | 8.32        | 55.95 | 129.71  | 15240. |
| 6       | -10.0     | .0      | 44.0        | -27.22      | 769.         | -96.         | 34.          | 3.57        | 56.03 | 129.82  | 15220. |
| 7       | -5.0      | .0      | 206.4       | -22.35      | 602.         | -62.         | 46.          | -.04        | 55.70 | 129.42  | 15240. |
| 8       | .0        | .0      | 344.4       | -6.09       | 623.         | -52.         | 77.          | -1.91       | 55.98 | 129.75  | 15220. |
| 9       | 5.0       | .0      | 391.1       | 27.17       | 759.         | -42.         | 144.         | 1.36        | 55.75 | 129.48  | 15190. |
| 10      | 10.0      | .0      | 440.9       | 85.10       | 603.         | -18.         | 246.         | .16         | 55.18 | 128.80  | 15220. |
| 11      | 15.0      | .0      | 503.5       | 149.00      | 525.         | -76.         | 46.          | 1.54        | 55.44 | 129.10  | 15230. |
| 12      | 20.0      | .0      | 593.5       | 221.60      | 44.          | 62.          | 12.          | 2.52        | 54.95 | 128.53  | 15200. |
| 13      | -0        | .0      | 343.1       | -6.86       | 614.         | -54.         | 60.          | -1.71       | 55.68 | 129.40  | 15210. |
| 14      | 2.5       | .0      | 405.7       | 6.68        | 619.         | -70.         | 6.           | -.51        | 55.16 | 128.78  | 15190. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM   | CYM    | CRM   | CY     |
|------|--------|--------|--------|-------|--------|-------|--------|
| 2    | .00    | .9497  | .1807  | .2154 | -.0061 | .0029 | .0097  |
| 3    | .00    | .9374  | -.0196 | .2057 | -.0032 | .0044 | -.0053 |
| 4    | -20.00 | -.7496 | .0297  | .2043 | -.0090 | .0015 | .0185  |
| 5    | -15.00 | -.3396 | -.0519 | .2802 | -.0104 | .0014 | .0225  |
| 6    | -9.99  | .1189  | -.0736 | .2479 | -.0058 | .0020 | .0096  |
| 7    | -5.00  | .5577  | -.0604 | .1940 | -.0037 | .0028 | -.0001 |
| 8    | .00    | .9308  | -.0165 | .2010 | -.0031 | .0047 | -.0052 |
| 9    | 5.00   | 1.0571 | .0734  | .2447 | -.0026 | .0087 | .0037  |
| 10   | 10.01  | 1.1916 | .2300  | .1942 | -.0011 | .0148 | .0004  |
| 11   | 15.00  | 1.3611 | .4027  | .1694 | -.0046 | .0028 | .0042  |
| 12   | 19.99  | 1.6040 | .5989  | .0141 | .0037  | .0007 | .0068  |
| 13   | -.01   | .9274  | -.0185 | .1978 | -.0033 | .0036 | -.0046 |
| 14   | 2.49   | 1.0966 | .0181  | .1996 | -.0042 | .0004 | -.0014 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB  | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|-------|--------|-------|--------|
| 2    | .00    | .9497  | .1807  | .2154 | -.0061 | .0029 | .0097  |
| 3    | .00    | .9374  | -.0196 | .2057 | -.0032 | .0044 | -.0053 |
| 4    | -20.00 | -.7496 | .0297  | .2043 | -.0090 | .0015 | .0185  |
| 5    | -15.00 | -.3396 | -.0519 | .2802 | -.0104 | .0014 | .0225  |
| 6    | -9.99  | .1189  | -.0736 | .2479 | -.0058 | .0020 | .0096  |
| 7    | -5.00  | .5577  | -.0604 | .1940 | -.0037 | .0028 | -.0001 |
| 8    | .00    | .9308  | -.0165 | .2010 | -.0031 | .0047 | -.0052 |
| 9    | 5.00   | 1.0571 | .0734  | .2447 | -.0026 | .0087 | .0037  |
| 10   | 10.01  | 1.1916 | .2300  | .1942 | -.0011 | .0148 | .0004  |
| 11   | 15.00  | 1.3611 | .4027  | .1694 | -.0046 | .0028 | .0042  |
| 12   | 19.99  | 1.6040 | .5989  | .0141 | .0037  | .0007 | .0068  |
| 13   | -.01   | .9274  | -.0185 | .1978 | -.0033 | .0036 | -.0046 |
| 14   | 2.49   | 1.0966 | .0181  | .1996 | -.0042 | .0004 | -.0014 |

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SIKOPSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 394

RUN 498 CONFIG F P B NPS W7 T10 BT IN=-3.5 BETA=0

| PT. NO. | IW    | 15 DELF<br>ALPHA DEG | 0 DELA<br>PSI DEG | 0 IHT<br>CLBAR SQ-FT | 0 DELE<br>CDBAR SQ-FT | 0 DELR<br>CPMBAR CU-FT | 0 DELSB<br>CYMBAR CU-FT | 0<br>CRM BAR CU-FT | 0<br>CYBAR SQ-FT | 0<br>DELSB PSF | 0<br>V KNOTS | RPM    |
|---------|-------|----------------------|-------------------|----------------------|-----------------------|------------------------|-------------------------|--------------------|------------------|----------------|--------------|--------|
| 2       |       | .0                   | .0                | 351.7                |                       |                        |                         | 50.                | 2.69             | 54.51          | 128.03       | 3960.  |
| 4       |       | .0                   | .0                | 351.0                | 68.35                 | 251.                   | -71.                    | 50.                | 2.40             | 54.96          | 128.55       | 3970.  |
| 5       |       | .0                   | .0                | 338.8                | -6.65                 | -45.                   | -110.                   | 53.                | .56              | 54.47          | 127.97       | 15290. |
| 6       | -20.0 | .0                   | .0                | -283.9               | 20.41                 | 297.                   | 26.                     | -1.                | 3.27             | 54.17          | 127.61       | 15340. |
| 7       | -15.0 | .0                   | .0                | -141.9               | -8.07                 | 381.                   | -32.                    | -14.               | .97              | 54.06          | 127.49       | 15320. |
| 8       | -10.0 | .0                   | .0                | 39.7                 | -25.08                | 152.                   | -41.                    | 32.                | 1.86             | 54.23          | 127.69       | 15310. |
| 9       | -5.0  | .0                   | .0                | 202.1                | -21.18                | 9.                     | -73.                    | 52.                | .81              | 54.43          | 127.92       | 15290. |
| 10      | -0    | .0                   | .0                | 338.3                | -6.38                 | -17.                   | -130.                   | 83.                | .21              | 54.59          | 128.11       | 15330. |
| 11      | 5.0   | .0                   | .0                | 385.9                | 24.61                 | 189.                   | -68.                    | 207.               | .60              | 54.44          | 127.93       | 15320. |
| 12      | 10.0  | .0                   | .0                | 421.6                | 66.99                 | 94.                    | -137.                   | 167.               | -.29             | 54.29          | 127.76       | 15350. |
| 13      | 15.0  | .0                   | .0                | 490.5                | 138.62                | -280.                  | -95.                    | 59.                | .23              | 54.27          | 127.74       | 15330. |
| 14      | 20.0  | .0                   | .0                | 582.4                | 206.48                | -735.                  | 57.                     | 18.                | 1.68             | 53.97          | 127.37       | 15340. |
| 15      | -0    | .0                   | .0                | 340.1                | -5.07                 | -10.                   | -128.                   | 58.                | 1.02             | 54.59          | 128.12       | 15290. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9506  |        |        |        | .0030  | .0073  |
| 4    | .00    | .9488  | .1847  | .0808  | -.0043 | .0030  | .0065  |
| 5    | .00    | .9157  | -.0180 | -.0145 | -.0066 | .0032  | .0015  |
| 6    | -20.00 | -.7674 | .0552  | .0957  | .0015  | -.0001 | .0088  |
| 7    | -15.01 | -.3834 | -.0218 | .1230  | -.0020 | -.0008 | .0026  |
| 8    | -9.99  | .1073  | -.0678 | .0490  | -.0025 | .0020  | .0050  |
| 9    | -5.00  | .5463  | -.0572 | .0030  | -.0044 | .0031  | .0022  |
| 10   | -0     | .9142  | -.0173 | -.0054 | -.0078 | .0050  | .0006  |
| 11   | 4.99   | 1.0429 | .0665  | .0608  | -.0041 | .0125  | .0016  |
| 12   | 10.01  | 1.1393 | .1811  | .0303  | -.0083 | .0101  | -.0008 |
| 13   | 15.00  | 1.3259 | .3747  | -.0902 | -.0058 | .0036  | .0006  |
| 14   | 20.00  | 1.5741 | .5581  | -.2369 | .0035  | .0011  | .0045  |
| 15   | -0     | .9192  | -.0137 | -.0033 | -.0077 | .0035  | .0028  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9506  |        |        |        | .0030  | .0073  |
| 4    | .00    | .9488  | .1847  | .0808  | -.0043 | .0030  | .0065  |
| 5    | .00    | .9157  | -.0180 | -.0145 | -.0066 | .0032  | .0015  |
| 6    | -20.00 | -.7674 | .0552  | .0957  | .0015  | -.0001 | .0088  |
| 7    | -15.01 | -.3834 | -.0218 | .1230  | -.0020 | -.0008 | .0026  |
| 8    | -9.99  | .1073  | -.0678 | .0490  | -.0025 | .0020  | .0050  |
| 9    | -5.00  | .5463  | -.0572 | .0030  | -.0044 | .0031  | .0022  |
| 10   | -0     | .9142  | -.0173 | -.0054 | -.0078 | .0050  | .0006  |
| 11   | 4.99   | 1.0429 | .0665  | .0608  | -.0041 | .0125  | .0016  |
| 12   | 10.01  | 1.1393 | .1811  | .0303  | -.0083 | .0101  | -.0008 |
| 13   | 15.00  | 1.3259 | .3747  | -.0902 | -.0058 | .0036  | .0006  |
| 14   | 20.00  | 1.5741 | .5581  | -.2369 | .0035  | .0011  | .0045  |
| 15   | -0     | .9192  | -.0137 | -.0033 | -.0077 | .0035  | .0028  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 499 CONFIG F P B NP W7 T10 BT IN=-3.5 BETA=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR  | CDBAR  | CPM <sub>BAR</sub> | CYMB <sub>BAR</sub> | CRM <sub>BAR</sub> | CYB <sub>BAR</sub> | Q SQ-FT | V KNOTS | RPM    |
|---------|-----------|---------|--------|--------|--------------------|---------------------|--------------------|--------------------|---------|---------|--------|
| 2       | 0         | .0      | 351.6  | 64.13  | 505.               | -75.                | 53.                | .84                | 54.22   | 127.68  | 3690.  |
| 3       | 0         | .0      | 354.1  | -6.86  | 409.               | -70.                | 39.                | 2.12               | 54.53   | 128.06  | 14680. |
| 4       | -20.0     | .0      | -268.1 | 9.94   | 1087.              | -143.               | 18.                | 10.15              | 54.62   | 128.15  | 14620. |
| 5       | -15.0     | .0      | -129.2 | -10.89 | 1019.              | -59.                | 14.                | 4.74               | 54.89   | 128.48  | 14620. |
| 6       | -10.0     | .0      | 36.5   | -22.12 | 705.               | -26.                | 45.                | 1.34               | 54.93   | 128.53  | 14650. |
| 7       | -5.0      | .0      | 203.9  | -19.61 | 455.               | -31.                | 60.                | -.33               | 54.35   | 127.84  | 14660. |
| 8       | 0         | .0      | 344.1  | -5.14  | 405.               | -70.                | 63.                | 1.53               | 54.78   | 128.35  | 14640. |
| 9       | 2.5       | .0      | 409.1  | 8.68   | 213.               | -77.                | 69.                | 1.98               | 54.41   | 127.91  | 14630. |
| 10      | 5.0       | .0      | 394.3  | 27.23  | 474.               | -21.                | 189.               | 1.38               | 54.27   | 127.73  | 14630. |
| 11      | 10.0      | .0      | 431.4  | 72.61  | 218.               | -83.                | 94.                | 1.95               | 54.24   | 127.70  | 14620. |
| 12      | 15.0      | .0      | 499.0  | 142.26 | -208.              | -111.               | 190.               | 2.01               | 54.32   | 127.79  | 14640. |
| 13      | 20.0      | .0      | 553.9  | 207.40 | -785.              | 83.                 | 7.                 | 4.08               | 54.23   | 127.68  | 14680. |
| 14      | 0         | .0      | 347.1  | -4.80  | 471.               | -58.                | 76.                | 1.56               | 53.91   | 127.30  | 14630. |
| 15      | 2.5       | .0      | 412.0  | 8.55   | 344.               | -60.                | 70.                | 1.83               | 53.90   | 127.29  | 14670. |
| 16      | 5.0       | .0      | 395.0  | 27.31  | 528.               | -22.                | 208.               | 1.28               | 54.10   | 127.54  | 14650. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | .9502  | .1733  | .1629  | -.0045 | .0032 | .0023  |
| 3    | .00    | .9571  | -.0185 | .1317  | -.0042 | .0023 | .0057  |
| 4    | -20.00 | -.7246 | .0269  | .3503  | -.0087 | .0011 | .0274  |
| 5    | -15.00 | -.3491 | -.0294 | .3285  | -.0036 | .0008 | .0128  |
| 6    | -10.00 | .0987  | -.0598 | .2274  | -.0016 | .0027 | .0036  |
| 7    | -5.00  | .5511  | -.0530 | .1467  | -.0019 | .0036 | -.0009 |
| 8    | .00    | .9300  | -.0139 | .1306  | -.0042 | .0038 | .0041  |
| 9    | 2.50   | 1.1057 | .0235  | .0687  | -.0047 | .0042 | .0054  |
| 10   | 5.01   | 1.0656 | .0736  | .1529  | -.0012 | .0114 | .0037  |
| 11   | 10.02  | 1.1660 | .1962  | .0702  | -.0050 | .0057 | .0053  |
| 12   | 15.00  | 1.3485 | .3845  | -.0669 | -.0067 | .0115 | .0054  |
| 13   | 20.00  | 1.4971 | .5605  | -.2531 | .0050  | .0004 | .0110  |
| 14   | .01    | .9381  | -.0130 | .1519  | -.0035 | .0046 | .0042  |
| 15   | 2.51   | 1.1136 | .0231  | .1110  | -.0036 | .0042 | .0050  |
| 16   | 5.00   | 1.0676 | .0738  | .1703  | -.0014 | .0125 | .0035  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | COB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | .9502  | .1733  | .1629  | -.0045 | .0032 | .0023  |
| 3    | .00    | .9571  | -.0185 | .1317  | -.0042 | .0023 | .0057  |
| 4    | -20.00 | -.7246 | .0269  | .3503  | -.0087 | .0011 | .0274  |
| 5    | -15.00 | -.3491 | -.0294 | .3285  | -.0036 | .0008 | .0128  |
| 6    | -10.00 | .0987  | -.0598 | .2274  | -.0016 | .0027 | .0036  |
| 7    | -5.00  | .5511  | -.0530 | .1467  | -.0019 | .0036 | -.0009 |
| 8    | .00    | .9300  | -.0139 | .1306  | -.0042 | .0038 | .0041  |
| 9    | 2.50   | 1.1057 | .0235  | .0687  | -.0047 | .0042 | .0054  |
| 10   | 5.01   | 1.0656 | .0736  | .1529  | -.0012 | .0114 | .0037  |
| 11   | 10.02  | 1.1660 | .1962  | .0702  | -.0050 | .0057 | .0053  |
| 12   | 15.00  | 1.3485 | .3845  | -.0669 | -.0067 | .0115 | .0054  |
| 13   | 20.00  | 1.4971 | .5605  | -.2531 | .0050  | .0004 | .0110  |
| 14   | .01    | .9381  | -.0130 | .1519  | -.0035 | .0046 | .0042  |
| 15   | 2.51   | 1.1136 | .0231  | .1110  | -.0036 | .0042 | .0050  |
| 16   | 5.00   | 1.0676 | .0738  | .1703  | -.0014 | .0125 | .0035  |

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RUN 500 CONFIG F P B NP .W7 T10 BT IN=-3.5 BETA=0

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 IAT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>DELSB<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|------------------------|-----------------|--------|
| 2                | .0                     | .0                   | 43.1                    | 29.40                    | 32.                       | -72.                       | -8.                  | 6.62                | 53.67                  | 127.02          | 3380.  |
| 3                | .0                     | .0                   | 44.0                    | -6.86                    | 82.                       | -21.                       | -15.                 | 6.84                | 54.78                  | 128.35          | 11000. |
| 4                | -20.0                  | .0                   | -376.0                  | 115.09                   | 1337.                     | -158.                      | -11.                 | 9.86                | 54.35                  | 127.83          | 10970. |
| 5                | -15.0                  | .0                   | -321.9                  | 66.34                    | 989.                      | -184.                      | 66.                  | 10.98               | 54.40                  | 127.89          | 10970. |
| 6                | -10.0                  | .0                   | -260.4                  | 14.47                    | 334.                      | -107.                      | -6.                  | 9.56                | 54.38                  | 127.87          | 10980. |
| 7                | -5.0                   | .0                   | -110.7                  |                          | 58.                       |                            | -11.                 | 7.04                | 55.17                  | 128.80          | 10970. |
| 8                | -0                     | .0                   | 42.4                    | -7.13                    | 69.                       | -20.                       | -14.                 | 6.76                | 54.60                  | 128.14          | 10970. |
| 9                | 2.5                    | .0                   | 120.8                   | -4.52                    | 96.                       | -1.                        | -8.                  | 7.03                | 54.62                  | 128.15          | 10970. |
| 10               | 5.0                    | .0                   | 200.0                   | 1.21                     | 91.                       | 16.                        | -7.                  | 7.14                | 54.58                  | 128.11          | 10950. |
| 11               | 10.0                   | .0                   | 359.8                   | 20.50                    | 67.                       | 30.                        | 9.                   | 5.68                | 54.33                  | 127.81          | 10980. |
| 12               | 15.0                   | .0                   | 510.6                   | 54.38                    | -64.                      | 38.                        | 52.                  | 4.57                | 54.42                  | 127.91          | 10980. |
| 13               | 20.0                   | .0                   | 551.8                   | 112.24                   | -466.                     | 42.                        | 154.                 | 2.59                | 54.71                  | 128.26          | 10960. |
| 14               | -0                     | .0                   | 39.6                    | -7.69                    | 58.                       | -15.                       | -40.                 | 7.89                | 54.56                  | 128.08          | 10970. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1165   | .0795  | .0102  | -.0044 | -.0005 | .0179 |
| 3    | .00    | .1190   | -.0185 | .0263  | -.0013 | -.0009 | .0185 |
| 4    | -20.00 | -1.0163 | .3111  | .4311  | -.0095 | -.0006 | .0267 |
| 5    | -15.01 | -.8700  | .1793  | .3190  | -.0111 | .0040  | .0297 |
| 6    | -10.00 | -.7038  | .0391  | .1078  | -.0065 | -.0003 | .0258 |
| 7    | -5.00  | -.2992  |        | .0187  |        | -.0007 | .0190 |
| 8    | -0.00  | .1147   | -.0193 | .0221  | -.0012 | -.0009 | .0183 |
| 9    | 2.49   | .3264   | -.0122 | .0309  | -.0000 | -.0005 | .0190 |
| 10   | 5.01   | .5406   | .0033  | .0292  | .0010  | -.0004 | .0193 |
| 11   | 10.00  | .9724   | .0554  | .0216  | .0018  | .0005  | .0154 |
| 12   | 14.99  | 1.3801  | .1470  | -.0205 | .0023  | .0032  | .0124 |
| 13   | 20.00  | 1.4912  | .3034  | -.1503 | .0025  | .0093  | .0070 |
| 14   | -0.00  | .1069   | -.0208 | .0188  | -.0009 | -.0024 | .0213 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1165   | .0795  | .0102  | -.0044 | -.0005 | .0179 |
| 3    | .00    | .1190   | -.0185 | .0263  | -.0013 | -.0009 | .0185 |
| 4    | -20.00 | -1.0163 | .3111  | .4311  | -.0095 | -.0006 | .0267 |
| 5    | -15.01 | -.8700  | .1793  | .3190  | -.0111 | .0040  | .0297 |
| 6    | -10.00 | -.7038  | .0391  | .1078  | -.0065 | -.0003 | .0258 |
| 7    | -5.00  | -.2992  |        | .0187  |        | -.0007 | .0190 |
| 8    | -0.00  | .1147   | -.0193 | .0221  | -.0012 | -.0009 | .0183 |
| 9    | 2.49   | .3264   | -.0122 | .0309  | -.0000 | -.0005 | .0190 |
| 10   | 5.01   | .5406   | .0033  | .0292  | .0010  | -.0004 | .0193 |
| 11   | 10.00  | .9724   | .0554  | .0216  | .0018  | .0005  | .0154 |
| 12   | 14.99  | 1.3801  | .1470  | -.0205 | .0023  | .0032  | .0124 |
| 13   | 20.00  | 1.4912  | .3034  | -.1503 | .0025  | .0093  | .0070 |
| 14   | -0.00  | .1069   | -.0208 | .0188  | -.0009 | -.0024 | .0213 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 501 CONFIG F P B NP W7 T2 IN=-3.5 BETA=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------|--------|
| 7       | -0        | .0      | 54.0        | 26.96       | -194.        | 55.          | -26.         | 6.52        | 54.52       | 128.04  | 3390.  |
| 8       | -0        | .0      | 53.1        | -13.11      | -252.        | 54.          | -43.         | 5.78        | 54.37       | 127.88  | 11260. |
| 9       | -20.0     | .0      | -326.4      | 94.66       | -973.        | -15.         | -169.        | 5.83        | 53.96       | 127.39  | 11270. |
| 10      | -15.0     | .0      | -277.1      | 50.96       | -759.        | -56.         | 111.         | 6.89        | 54.07       | 127.52  | 11290. |
| 11      | -10.0     | .0      | -232.6      | 4.94        | -699.        | 15.          | -45.         | 5.07        | 54.40       | 127.91  | 11310. |
| 12      | -5.0      | .0      | -96.3       | -9.56       | -566.        | 37.          | -37.         | 4.68        | 54.88       | 128.48  | 11270. |
| 13      | -0        | .0      | 53.9        | -12.82      | -241.        | 60.          | -25.         | 5.89        | 54.35       | 127.86  | 11300. |
| 14      | 2.5       | .0      | 128.5       | -9.77       | -50.         | 49.          | -13.         | 6.20        | 55.35       | 129.05  | 11300. |
| 16      | 10.0      | .0      | 349.2       | 14.40       | 617.         | 19.          | 14.          | 5.26        | 55.46       | 129.18  | 11310. |
| 17      | 15.0      | .0      | 487.8       | 44.77       | 1130.        | -5.          | 58.          | 5.66        | 54.78       | 128.36  | 11280. |
| 18      | 20.0      | .0      | 516.1       | 93.83       | 1328.        | 16.          | 143.         | 3.79        | 54.56       | 128.11  | 11340. |
| 19      | .0        | .0      | 53.0        | -12.53      | -241.        | 51.          | -19.         | 5.71        | 54.66       | 128.23  | 11280. |
| 20      | 5.0       | .0      | 199.4       | -4.63       | 131.         | 33.          | -24.         | 6.96        | 54.82       | 128.42  | 11300. |
| 21      | 17.5      | .0      | 508.7       | 66.88       | 1211.        | -5.          | 59.          | 5.12        | 54.33       | 127.83  | 11300. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 7    | -0.00  | .1459  | .0729  | -.0624 | .0033  | -.0016 | .0176 |
| 8    | -0.00  | .1434  | -.0354 | -.0813 | .0033  | -.0026 | .0156 |
| 9    | -20.00 | -.8821 | .2558  | -.3137 | -.0009 | -.0102 | .0158 |
| 10   | -14.99 | -.7490 | .1377  | -.2446 | -.0034 | .0067  | .0186 |
| 11   | -10.00 | -.6287 | .0134  | -.2254 | .0009  | -.0027 | .0137 |
| 12   | -5.00  | -.2601 | -.0258 | -.1824 | .0022  | -.0022 | .0126 |
| 13   | -0.00  | .1456  | -.0346 | -.0777 | .0036  | -.0015 | .0159 |
| 14   | 2.50   | .3472  | -.0264 | -.0161 | .0029  | -.0008 | .0167 |
| 16   | 10.00  | .9438  | .0389  | .1990  | .0012  | .0009  | .0142 |
| 17   | 15.01  | 1.3183 | .1210  | .3644  | -.0003 | .0035  | .0153 |
| 18   | 20.01  | 1.3949 | .2536  | .4282  | .0010  | .0086  | .0102 |
| 19   | .00    | .1433  | -.0339 | -.0778 | .0031  | -.0012 | .0154 |
| 20   | 4.99   | .5390  | -.0125 | .0421  | .0020  | -.0015 | .0188 |
| 21   | 17.50  | 1.3749 | .1807  | .3905  | -.0003 | .0036  | .0138 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 7    | -0.00  | .1459  | .0729  | -.0624 | .0033  | -.0016 | .0176 |
| 8    | -0.00  | .1434  | -.0354 | -.0813 | .0033  | -.0026 | .0156 |
| 9    | -20.00 | -.8821 | .2558  | -.3137 | -.0009 | -.0102 | .0158 |
| 10   | -14.99 | -.7490 | .1377  | -.2446 | -.0034 | .0067  | .0186 |
| 11   | -10.00 | -.6287 | .0134  | -.2254 | .0009  | -.0027 | .0137 |
| 12   | -5.00  | -.2601 | -.0258 | -.1824 | .0022  | -.0022 | .0126 |
| 13   | -0.00  | .1456  | -.0346 | -.0777 | .0036  | -.0015 | .0159 |
| 14   | 2.50   | .3472  | -.0264 | -.0161 | .0029  | -.0008 | .0167 |
| 16   | 10.00  | .9438  | .0389  | .1990  | .0012  | .0009  | .0142 |
| 17   | 15.01  | 1.3183 | .1210  | .3644  | -.0003 | .0035  | .0153 |
| 18   | 20.01  | 1.3949 | .2536  | .4282  | .0010  | .0086  | .0102 |
| 19   | .00    | .1433  | -.0339 | -.0778 | .0031  | -.0012 | .0154 |
| 20   | 4.99   | .5390  | -.0125 | .0421  | .0020  | -.0015 | .0188 |
| 21   | 17.50  | 1.3749 | .1807  | .3905  | -.0003 | .0036  | .0138 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 398

RUN 503 CONFIG F P B NP5 W7 T2 IN=-3.5 BETA=0

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 2                | .0                     | .0                   | 56.8                     | 29.15                   | -386.                     | 27.                       | -23.                      | 4.43                      | 54.86         | 128.46          | 3530.  |
| 3                | .0                     | .0                   | 52.4                     | -6.74                   | -451.                     | 25.                       | -34.                      | 3.78                      | 55.58         | 129.32          | 10780. |
| 4                | -20.0                  | .0                   | -325.8                   | 111.28                  | -1166.                    | 49.                       | -34.                      | 4.60                      | 55.08         | 128.71          | 10810. |
| 5                | -15.0                  | .0                   | -287.8                   | 65.47                   | -1036.                    | -37.                      | 108.                      | 6.43                      | 55.78         | 129.55          | 10820. |
| 6                | -10.0                  | .0                   | -246.8                   | 16.32                   | -950.                     | 37.                       | -43.                      | 4.40                      | 55.68         | 129.43          | 10780. |
| 7                | -5.0                   | .0                   | -101.3                   | -3.35                   | -810.                     | 27.                       | -29.                      | 3.65                      | 55.35         | 129.05          | 10750. |
| 8                | .0                     | .0                   | 52.6                     | -6.37                   | -457.                     | 24.                       | -39.                      | 3.68                      | 55.61         | 129.35          | 10760. |
| 9                | 2.5                    | .0                   | 127.7                    | -4.17                   | -279.                     | 21.                       | 2.                        | 3.59                      | 55.29         | 128.97          | 10760. |
| 10               | 5.0                    | .0                   | 199.8                    | .87                     | -84.                      | 18.                       | -16.                      | 4.70                      | 55.30         | 128.98          | 10760. |
| 11               | 10.0                   | .0                   | 348.0                    | 18.72                   | 368.                      | 20.                       | 4.                        | 3.31                      | 54.86         | 128.45          | 10750. |
| 12               | 15.0                   | .0                   | 479.9                    | 47.34                   | 862.                      | 0.                        | 64.                       | 2.24                      | 55.26         | 128.93          | 10760. |
| 13               | 20.0                   | .0                   | 511.8                    | 90.16                   | 1196.                     | 12.                       | 123.                      | 2.81                      | 55.36         | 129.05          | 10780. |
| 14               | 10.0                   | .0                   | 342.0                    | 18.63                   | 359.                      | 12.                       | 21.                       | 2.85                      | 56.27         | 130.13          | 10750. |
| 15               | .0                     | .0                   | 51.2                     | -6.43                   | -450.                     | 20.                       | -22.                      | 3.53                      | 55.96         | 129.76          | 10770. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .1535  | .0788  | -.1245 | .0017  | -.0014 | .0120 |
| 3    | .00    | .1417  | -.0182 | -.1453 | .0015  | -.0020 | .0102 |
| 4    | -20.00 | -.8804 | .3008  | -.3758 | .0030  | -.0020 | .0124 |
| 5    | -14.99 | -.7778 | .1770  | -.3339 | -.0022 | .0065  | .0174 |
| 6    | -10.01 | -.6670 | .0441  | -.3063 | .0022  | -.0026 | .0119 |
| 7    | -4.99  | -.2738 | -.0090 | -.2610 | .0017  | -.0018 | .0099 |
| 8    | .01    | .1422  | -.0172 | -.1474 | .0015  | -.0024 | .0099 |
| 9    | 2.51   | .3453  | -.0113 | -.0898 | .0012  | .0001  | .0097 |
| 10   | 5.00   | .5399  | .0023  | -.0270 | .0011  | -.0010 | .0127 |
| 11   | 10.01  | .9407  | .0506  | .1186  | .0012  | .0002  | .0090 |
| 12   | 15.02  | 1.2971 | .1279  | .2778  | .0000  | .0039  | .0061 |
| 13   | 20.00  | 1.3832 | .2437  | .3854  | .0007  | .0074  | .0076 |
| 14   | 10.00  | .9244  | .0503  | .1157  | .0007  | .0013  | .0077 |
| 15   | .00    | .1385  | -.0174 | -.1451 | .0012  | -.0013 | .0095 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .1535  | .0788  | -.1245 | .0017  | -.0014 | .0120 |
| 3    | .00    | .1417  | -.0182 | -.1453 | .0015  | -.0020 | .0102 |
| 4    | -20.00 | -.8804 | .3008  | -.3758 | .0030  | -.0020 | .0124 |
| 5    | -14.99 | -.7778 | .1770  | -.3339 | -.0022 | .0065  | .0174 |
| 6    | -10.01 | -.6670 | .0441  | -.3063 | .0022  | -.0026 | .0119 |
| 7    | -4.99  | -.2738 | -.0090 | -.2610 | .0017  | -.0018 | .0099 |
| 8    | .01    | .1422  | -.0172 | -.1474 | .0015  | -.0024 | .0099 |
| 9    | 2.51   | .3453  | -.0113 | -.0898 | .0012  | .0001  | .0097 |
| 10   | 5.00   | .5399  | .0023  | -.0270 | .0011  | -.0010 | .0127 |
| 11   | 10.01  | .9407  | .0506  | .1186  | .0012  | .0002  | .0090 |
| 12   | 15.02  | 1.2971 | .1279  | .2778  | .0000  | .0039  | .0061 |
| 13   | 20.00  | 1.3832 | .2437  | .3854  | .0007  | .0074  | .0076 |
| 14   | 10.00  | .9244  | .0503  | .1157  | .0007  | .0013  | .0077 |
| 15   | .00    | .1385  | -.0174 | -.1451 | .0012  | -.0013 | .0095 |



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RUN 504 ABORTED



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

10400

RUN 505 CONFIG F P B NP6 W7 T2 IN=-3.5 BETA=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 2       | .0        | .0      | 52.9        | 28.83       | -381.        | 30.          | -24.         | 4.76        | 55.13 | 128.75  | 3540.  |
| 3       | .0        | .0      | 49.6        | -7.74       | -443.        | 38.          | -28.         | 3.85        | 55.47 | 129.16  | 11040. |
| 4       | -20.0     | .0      | -334.6      | 106.28      | -1127.       | 69.          | -183.        | -1.44       | 55.35 | 129.01  | 10880. |
| 5       | -15.0     | .0      | -277.5      | 63.27       | -976.        | -24.         | 70.          | 5.62        | 55.33 | 128.99  | 11000. |
| 6       | -10.0     | .0      | -242.8      | 11.53       | -1023.       | 29.          | -7.          | 3.80        | 55.83 | 129.58  | 10970. |
| 7       | -5.0      | .0      | -100.9      | -3.55       | -805.        | 32.          | -30.         | 4.31        | 55.36 | 129.03  | 10930. |
| 8       | .0        | .0      | 48.0        | -7.27       | -452.        | 29.          | -39.         | 3.41        | 55.23 | 128.87  | 10960. |
| 9       | 2.5       | .0      | 121.6       | -5.19       | -255.        | 37.          | -11.         | 4.24        | 54.84 | 128.41  | 10980. |
| 10      | 5.0       | .0      | 192.7       | -.47        | -90.         | 28.          | -4.          | 4.31        | 55.53 | 129.22  | 11040. |
| 11      | 10.0      | .0      | 334.9       | 17.17       | 383.         | 15.          | 28.          | 2.66        | 55.15 | 128.78  | 11000. |
| 12      | 15.0      | .0      | 464.8       | 44.50       | 877.         | -0.          | 53.          | 2.80        | 54.67 | 128.20  | 11000. |
| 13      | 20.0      | .0      | 499.4       | 86.72       | 1188.        | -8.          | 113.         | 4.19        | 54.71 | 128.25  | 10950. |
| 14      | .0        | .0      | 50.0        | -7.46       | -473.        | 25.          | -23.         | 4.23        | 55.02 | 128.62  | 10970. |
| 15      | 17.5      | .0      | 490.8       | 63.53       | 1026.        | -7.          | 65.          | 3.80        | 54.68 | 128.21  | 10980. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .1430  | .0779  | -.1228 | .0018  | -.0014 | .0129  |
| 3    | .00    | .1341  | -.0209 | -.1427 | .0023  | -.0017 | .0104  |
| 4    | -20.00 | -.9044 | .2872  | -.3634 | .0042  | -.0111 | -.0039 |
| 5    | -15.00 | -.7499 | .1710  | -.3146 | -.0015 | .0042  | .0152  |
| 6    | -10.00 | -.6561 | .0312  | -.3297 | .0018  | -.0004 | .0103  |
| 7    | -5.00  | -.2728 | -.0096 | -.2594 | .0020  | -.0018 | .0116  |
| 8    | .00    | .1297  | -.0197 | -.1458 | .0018  | -.0024 | .0092  |
| 9    | 2.50   | .3287  | -.0140 | -.0821 | .0023  | -.0006 | .0115  |
| 10   | 5.00   | .5209  | -.0013 | -.0291 | .0017  | -.0002 | .0117  |
| 11   | 10.00  | .9052  | .0464  | .1235  | .0009  | .0017  | .0072  |
| 12   | 15.01  | 1.2563 | .1203  | .2829  | -.0000 | .0032  | .0076  |
| 13   | 20.00  | 1.3498 | .2344  | .3830  | -.0005 | .0068  | .0113  |
| 14   | .00    | .1351  | -.0202 | -.1524 | .0015  | -.0014 | .0114  |
| 15   | 17.50  | 1.3264 | .1717  | .3307  | -.0004 | .0039  | .0103  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .1430  | .0779  | -.1228 | .0018  | -.0014 | .0129  |
| 3    | .00    | .1341  | -.0209 | -.1427 | .0023  | -.0017 | .0104  |
| 4    | -20.00 | -.9044 | .2872  | -.3634 | .0042  | -.0111 | -.0039 |
| 5    | -15.00 | -.7499 | .1710  | -.3146 | -.0015 | .0042  | .0152  |
| 6    | -10.00 | -.6561 | .0312  | -.3297 | .0018  | -.0004 | .0103  |
| 7    | -5.00  | -.2728 | -.0096 | -.2594 | .0020  | -.0018 | .0116  |
| 8    | .00    | .1297  | -.0197 | -.1458 | .0018  | -.0024 | .0092  |
| 9    | 2.50   | .3287  | -.0140 | -.0821 | .0023  | -.0006 | .0115  |
| 10   | 5.00   | .5209  | -.0013 | -.0291 | .0017  | -.0002 | .0117  |
| 11   | 10.00  | .9052  | .0464  | .1235  | .0009  | .0017  | .0072  |
| 12   | 15.01  | 1.2563 | .1203  | .2829  | -.0000 | .0032  | .0076  |
| 13   | 20.00  | 1.3498 | .2344  | .3830  | -.0005 | .0068  | .0113  |
| 14   | .00    | .1351  | -.0202 | -.1524 | .0015  | -.0014 | .0114  |
| 15   | 17.50  | 1.3264 | .1717  | .3307  | -.0004 | .0039  | .0103  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 401

RUN 506 CONFIG

| PT. NO. | INW<br>ALPHA<br>DEG | DELF       |                | DELA           |                 | IHT            |                 | DELE           |          | DELR   |        | DELSB |  | V<br>KNOTS | RPM |
|---------|---------------------|------------|----------------|----------------|-----------------|----------------|-----------------|----------------|----------|--------|--------|-------|--|------------|-----|
|         |                     | PSI<br>DEG | CLBAR<br>SQ-FT | CDRBR<br>SQ-FT | CPMBAR<br>CU-FT | CYBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | Q<br>PSF |        |        |       |  |            |     |
| 6       | .0                  | .0         | 38.6           | 30.65          | -70.            | -61.           | -3.             | 6.76           | 55.27    | 128.92 | 3560.  |       |  |            |     |
| 7       | .0                  | .0         | 36.3           | -7.29          | -175.           | -41.           | -8.             | 6.34           | 55.31    | 128.96 | 11280. |       |  |            |     |
| 8       | -20.0               | .0         | -389.5         | 116.79         | 557.            | -57.           | -208.           | 1.82           | 55.44    | 129.10 | 11280. |       |  |            |     |
| 9       | -15.0               | .0         | -325.8         | 72.43          | 507.            | -102.          | 49.             | 6.83           | 55.86    | 129.60 | 11290. |       |  |            |     |
| 10      | -10.0               | .0         | -269.8         | 18.75          | -116.           | -69.           | -18.            | 6.60           | 55.72    | 129.45 | 11240. |       |  |            |     |
| 11      | -5.0                | .0         | -118.9         | -2.27          | -397.           | -75.           | -16.            | 6.62           | 55.73    | 129.45 | 11320. |       |  |            |     |
| 12      | .0                  | .0         | 35.8           | -7.10          | -173.           | -55.           | -2.             | 6.39           | 55.81    | 129.55 | 11280. |       |  |            |     |
| 13      | 2.5                 | .0         | 114.1          | -4.39          | -119.           | -52.           | 17.             | 5.46           | 56.18    | 129.99 | 11270. |       |  |            |     |
| 14      | 5.0                 | .0         | 191.5          | .50            | -102.           | -53.           | 18.             | 5.21           | 56.18    | 129.99 | 11300. |       |  |            |     |
| 15      | 10.0                | .0         | 348.8          | 20.00          | -105.           | -60.           | 38.             | 4.60           | 56.04    | 129.82 | 11260. |       |  |            |     |
| 16      | 15.0                | .0         | 499.3          | 51.95          | -262.           | -39.           | 75.             | 3.03           | 55.45    | 129.12 | 11240. |       |  |            |     |
| 17      | 20.0                | .0         | 556.8          | 104.18         | -534.           | 48.            | 147.            | 2.42           | 55.00    | 128.59 | 11350. |       |  |            |     |
| 18      | .0                  | .0         | 36.0           | -7.04          | -177.           | -59.           | -19.            | 5.72           | 55.82    | 129.56 | 11260. |       |  |            |     |
| 19      | -10.0               | .0         | -272.4         | 16.11          | -206.           | -111.          | -7.             | 6.82           | 55.60    | 129.30 | 11270. |       |  |            |     |
| 20      | -5.0                | .0         | -117.3         | -2.48          | -385.           | -80.           | -23.            | 7.26           | 55.99    | 129.76 | 11340. |       |  |            |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | .01    | .1044   | .0828  | -.0224 | -.0037 | -.0002 | .0183 |
| 7    | .01    | .0980   | -.0197 | -.0563 | -.0037 | -.0005 | .0171 |
| 8    | -20.00 | -1.0528 | .3156  | .1794  | -.0034 | -.0126 | .0049 |
| 9    | -15.00 | -.8804  | .1958  | .1633  | -.0062 | .0030  | .0185 |
| 10   | -10.00 | -.7291  | .0507  | -.0375 | -.0042 | -.0011 | .0178 |
| 11   | -5.00  | -.3213  | -.0061 | -.1279 | -.0045 | -.0010 | .0179 |
| 12   | .01    | .0968   | -.0192 | -.0559 | -.0033 | -.0001 | .0173 |
| 13   | 2.50   | .3082   | -.0119 | -.0384 | -.0031 | .0010  | .0147 |
| 14   | 5.00   | .5176   | .0013  | -.0327 | -.0032 | .0011  | .0141 |
| 15   | 10.00  | .9428   | .0541  | -.0340 | -.0036 | .0023  | .0124 |
| 16   | 15.00  | 1.3494  | .1404  | -.0846 | -.0023 | .0045  | .0082 |
| 17   | 20.00  | 1.5050  | .2816  | -.1726 | .0029  | .0089  | .0065 |
| 18   | .01    | .0973   | -.0190 | -.0570 | -.0036 | -.0011 | .0154 |
| 19   | -10.00 | -.7363  | .0435  | -.0665 | -.0067 | -.0004 | .0184 |
| 20   | -5.00  | -.3171  | -.0067 | -.1242 | -.0048 | -.0014 | .0196 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | .01    | .1044   | .0828  | -.0224 | -.0037 | -.0002 | .0183 |
| 7    | .01    | .0980   | -.0197 | -.0563 | -.0037 | -.0005 | .0171 |
| 8    | -20.00 | -1.0528 | .3156  | .1794  | -.0034 | -.0126 | .0049 |
| 9    | -15.00 | -.8804  | .1958  | .1633  | -.0062 | .0030  | .0185 |
| 10   | -10.00 | -.7291  | .0507  | -.0375 | -.0042 | -.0011 | .0178 |
| 11   | -5.00  | -.3213  | -.0061 | -.1279 | -.0045 | -.0010 | .0179 |
| 12   | .01    | .0968   | -.0192 | -.0559 | -.0033 | -.0001 | .0173 |
| 13   | 2.50   | .3082   | -.0119 | -.0384 | -.0031 | .0010  | .0147 |
| 14   | 5.00   | .5176   | .0013  | -.0327 | -.0032 | .0011  | .0141 |
| 15   | 10.00  | .9428   | .0541  | -.0340 | -.0036 | .0023  | .0124 |
| 16   | 15.00  | 1.3494  | .1404  | -.0846 | -.0023 | .0045  | .0082 |
| 17   | 20.00  | 1.5050  | .2816  | -.1726 | .0029  | .0089  | .0065 |
| 18   | .01    | .0973   | -.0190 | -.0570 | -.0036 | -.0011 | .0154 |
| 19   | -10.00 | -.7363  | .0435  | -.0665 | -.0067 | -.0004 | .0184 |
| 20   | -5.00  | -.3171  | -.0067 | -.1242 | -.0048 | -.0014 | .0196 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 402

RUN 507 CONFIG F P B NPS W7 T22 BT IN=-3.5 BETA=0

| IW<br>PT.<br>NO. | O DELF<br>ALPHA<br>DEG | O DELF<br>PSI<br>DEG | O DELA<br>CLBAR<br>SQ-FT | O DELA<br>CDBAR<br>SQ-FT | O IHT<br>CPMBAR<br>CU-FT | O DELE<br>CYMBAR<br>CU-FT | O DELR<br>CRMBAR<br>CU-FT | O DELSB<br>CYBAR<br>SQ-FT | O<br>Q<br>PSF | O<br>V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 7                | .0                     | .0                   | 34.1                     | 29.00                    | 95.                      | -85.                      | -33.                      | 7.84                      | 56.08         | 129.86          | 3540.  |
| 8                | .0                     | .0                   | 30.9                     | -6.29                    | 24.                      | -85.                      | -15.                      | 6.93                      | 55.57         | 129.26          | 10990. |
| 9                | -20.0                  | .0                   | -384.7                   | 122.76                   | 548.                     | -134.                     | -208.                     | 4.22                      | 55.48         | 129.15          | 11010. |
| 10               | -15.0                  | .0                   | -333.0                   | 73.68                    | 709.                     | -189.                     | 21.                       | 9.66                      | 55.34         | 128.99          | 11010. |
| 11               | -10.0                  | .0                   | -273.8                   | 20.70                    | 101.                     | -128.                     | -12.                      | 10.01                     | 55.11         | 128.72          | 11020. |
| 12               | -5.0                   | .0                   | -124.8                   | -1.14                    | -81.                     | -120.                     | -8.                       | 8.78                      | 55.59         | 129.28          | 1020.  |
| 13               | .0                     | .0                   | 32.1                     | -5.90                    | 9.                       | -97.                      | -22.                      | 8.08                      | 55.36         | 129.02          | -0980. |
| 14               | 2.5                    | .0                   | 112.4                    | -3.88                    | -8.                      | -91.                      | -2.                       | 7.26                      | 55.65         | 129.35          | 11010. |
| 15               | 5.0                    | .0                   | 190.5                    | 1.22                     | -20.                     | -76.                      | -6.                       | 6.49                      | 55.46         | 129.13          | 10980. |
| 16               | 10.0                   | .0                   | 351.4                    | 20.40                    | -50.                     | -67.                      | 32.                       | 6.18                      | 54.77         | 128.31          | 10990. |
| 17               | 15.0                   | .0                   | 497.0                    | 51.87                    | -221.                    | -34.                      | 64.                       | 3.91                      | 55.15         | 128.76          | 10990. |
| 18               | 20.0                   | .0                   | 557.9                    | 106.86                   | -576.                    | 50.                       | 148.                      | 2.10                      | 54.61         | 128.12          | 10970. |
| 19               | -2.5                   | .0                   | -48.5                    | -5.51                    | -13.                     | -110.                     | -31.                      | 9.16                      | 54.65         | 128.17          | 11020. |
| 20               | .0                     | .0                   | 31.2                     | -6.31                    | 13.                      | -92.                      | -26.                      | 7.03                      | 55.43         | 129.10          | 11030. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | .00    | .0922   | .0784  | .0306  | -.0051 | -.0020 | .0212 |
| 8    | .00    | .0836   | -.0170 | .0078  | -.0051 | -.0009 | .0187 |
| 9    | -19.99 | -1.0398 | .3318  | .1765  | -.0081 | -.0125 | .0114 |
| 10   | -15.00 | -.9001  | .1991  | .2287  | -.0114 | .0013  | .0261 |
| 11   | -9.98  | -.7399  | .0559  | .0325  | -.0078 | -.0008 | .0271 |
| 12   | -5.00  | -.3372  | -.0031 | -.0263 | -.0073 | -.0005 | .0237 |
| 13   | .01    | .0868   | -.0159 | .0030  | -.0058 | -.0013 | .0218 |
| 14   | 2.50   | .3038   | -.0105 | -.0025 | -.0055 | -.0001 | .0196 |
| 15   | 5.00   | .5148   | .0033  | -.0065 | -.0046 | -.0004 | .0175 |
| 16   | 10.00  | .9498   | .0551  | -.0162 | -.0040 | .0019  | .0167 |
| 17   | 15.00  | 1.3432  | .1402  | -.0711 | -.0020 | .0038  | .0106 |
| 18   | 20.00  | 1.5079  | .2888  | -.1858 | .0030  | .0090  | .0057 |
| 19   | -2.50  | -.1310  | -.0149 | -.0041 | -.0067 | -.0019 | .0248 |
| 20   | .00    | .0844   | -.0170 | .0040  | -.0055 | -.0016 | .0190 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | .00    | .0922   | .0784  | .0306  | -.0051 | -.0020 | .0212 |
| 8    | .00    | .0836   | -.0170 | .0078  | -.0051 | -.0009 | .0187 |
| 9    | -19.99 | -1.0398 | .3318  | .1765  | -.0081 | -.0125 | .0114 |
| 10   | -15.00 | -.9001  | .1991  | .2287  | -.0114 | .0013  | .0261 |
| 11   | -9.98  | -.7399  | .0559  | .0325  | -.0078 | -.0008 | .0271 |
| 12   | -5.00  | -.3372  | -.0031 | -.0263 | -.0073 | -.0005 | .0237 |
| 13   | .01    | .0868   | -.0159 | .0030  | -.0058 | -.0013 | .0218 |
| 14   | 2.50   | .3038   | -.0105 | -.0025 | -.0055 | -.0001 | .0196 |
| 15   | 5.00   | .5148   | .0033  | -.0065 | -.0046 | -.0004 | .0175 |
| 16   | 10.00  | .9498   | .0551  | -.0162 | -.0040 | .0019  | .0167 |
| 17   | 15.00  | 1.3432  | .1402  | -.0711 | -.0020 | .0038  | .0106 |
| 18   | 20.00  | 1.5079  | .2888  | -.1858 | .0030  | .0090  | .0057 |
| 19   | -2.50  | -.1310  | -.0149 | -.0041 | -.0067 | -.0019 | .0248 |
| 20   | .00    | .0844   | -.0170 | .0040  | -.0055 | -.0016 | .0190 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 403

RUN 508 CONFIG F P B NP7 W7 T22 BT IN=-3.5 BETA=0

| PT.# | ALPHA DEG | O DELF PSI DEG | O DELA CLBAR SQ-FT | O IHT CDBAR SQ-FT | O DELE CPMBAR CU-FT | O DELR CYMBAR CU-FT | O DELR CRMBAR CU-FT | O DELSB CYBAR SQ-FT | O DELSB Q PSF | O DELSB V KNOTS | RPM    |
|------|-----------|----------------|--------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------|-----------------|--------|
| 9    | 0         | 0              | 31.5               | 34.87             | 46.                 | -80.                | -22.                | 8.08                | 55.67         | 129.39          | 3670.  |
| 10   | 0         | 0              | 29.6               | -6.84             | -22.                | -76.                | -4.                 | 7.55                | 55.20         | 128.83          | 11590. |
| 11   | -20.0     | 0              | -377.1             | 123.59            | 709.                | -209.               | -156.               | 8.92                | 54.72         | 128.25          | 11570. |
| 12   | -15.0     | 0              | -322.6             | 75.39             | 969.                | -159.               | 134.                | 9.64                | 54.63         | 128.15          | 11560. |
| 13   | -10.0     | 0              | -261.0             | 23.44             | 428.                | -111.               | -15.                | 8.44                | 55.00         | 128.59          | 11540. |
| 14   | -5.0      | 0              | -121.6             | 3.33              | -22.                | -101.               | -13.                | 8.21                | 54.33         | 127.80          | 11560. |
| 15   | 0         | 0              | 28.1               | -6.95             | -19.                | -76.                | -2.                 | 6.53                | 54.75         | 128.29          | 11570. |
| 16   | 2.5       | 0              | 108.3              | -6.12             | -42.                | -74.                | -1.                 | 6.19                | 54.85         | 128.42          | 11610. |
| 17   | 5.0       | 0              | 189.5              | -1.40             | -63.                | -66.                | 5.                  | 7.51                | 54.70         | 128.24          | 11570. |
| 18   | 10.0      | 0              | 346.7              | 17.31             | -88.                | -67.                | 38.                 | 6.10                | 54.91         | 128.49          | 11560. |
| 19   | 15.0      | 0              | 493.6              | 49.57             | -286.               | -33.                | 88.                 | 3.73                | 54.83         | 128.39          | 11650. |
| 20   | 20.0      | 0              | 544.8              | 105.30            | -648.               | 17.                 | 166.                | 3.24                | 54.59         | 128.11          | 11580. |
| 21   | 0         | 0              | 26.7               | -6.94             | -24.                | -76.                | -27.                | 7.15                | 55.43         | 129.11          | 11560. |
| 22   | 2.5       | 0              | 108.8              | -6.22             | -34.                | -67.                | -19.                | 6.71                | 54.83         | 128.39          | 11550. |
| 23   | -2.5      | 0              | -48.9              | -3.12             | -49.                | -91.                | -24.                | 8.66                | 55.06         | 128.66          | 11550. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD      | CPH     | CYM     | CRM     | CY     |
|------|--------|---------|---------|---------|---------|---------|--------|
| 9    | 0.00   | 0.0851  | 0.0942  | 0.0147  | -0.0049 | -0.0013 | 0.0218 |
| 10   | 0.00   | 0.0801  | -0.0185 | -0.0070 | -0.0046 | -0.0002 | 0.0204 |
| 11   | -20.00 | -1.0192 | 0.3340  | 0.2284  | -0.0126 | -0.0094 | 0.0241 |
| 12   | -15.00 | -0.8718 | 0.2038  | 0.3125  | -0.0096 | 0.0081  | 0.0261 |
| 13   | -10.01 | -0.7054 | 0.0633  | 0.1380  | -0.0067 | -0.0009 | 0.0228 |
| 14   | -5.01  | -0.3286 | 0.0090  | -0.0070 | -0.0061 | -0.0008 | 0.0222 |
| 15   | 0.01   | 0.0758  | -0.0188 | -0.0063 | -0.0046 | -0.0001 | 0.0177 |
| 16   | 2.51   | 0.2927  | -0.0165 | -0.0134 | -0.0044 | -0.0001 | 0.0167 |
| 17   | 5.01   | 0.5123  | -0.0038 | -0.0203 | -0.0040 | 0.0003  | 0.0203 |
| 18   | 9.99   | 0.9370  | 0.0468  | -0.0283 | -0.0040 | 0.0023  | 0.0165 |
| 19   | 14.99  | 1.3341  | 0.1340  | -0.0922 | -0.0020 | 0.0053  | 0.0101 |
| 20   | 20.01  | 1.4725  | 0.2846  | -0.2089 | 0.0010  | 0.0100  | 0.0088 |
| 21   | 0.01   | 0.0722  | -0.0188 | -0.0076 | -0.0046 | -0.0016 | 0.0193 |
| 22   | 2.50   | 0.2939  | -0.0168 | -0.0110 | -0.0041 | -0.0012 | 0.0181 |
| 23   | -2.49  | -0.1321 | -0.0084 | -0.0158 | -0.0055 | -0.0015 | 0.0234 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB     | CPMB    | CYMB    | CRMB    | CYB    |
|------|--------|---------|---------|---------|---------|---------|--------|
| 9    | 0.00   | 0.0851  | 0.0942  | 0.0147  | -0.0049 | -0.0013 | 0.0218 |
| 10   | 0.00   | 0.0801  | -0.0185 | -0.0070 | -0.0046 | -0.0002 | 0.0204 |
| 11   | -20.00 | -1.0192 | 0.3340  | 0.2284  | -0.0126 | -0.0094 | 0.0241 |
| 12   | -15.00 | -0.8718 | 0.2038  | 0.3125  | -0.0096 | 0.0081  | 0.0261 |
| 13   | -10.01 | -0.7054 | 0.0633  | 0.1380  | -0.0067 | -0.0009 | 0.0228 |
| 14   | -5.01  | -0.3286 | 0.0090  | -0.0070 | -0.0061 | -0.0008 | 0.0222 |
| 15   | 0.01   | 0.0758  | -0.0188 | -0.0063 | -0.0046 | -0.0001 | 0.0177 |
| 16   | 2.51   | 0.2927  | -0.0165 | -0.0134 | -0.0044 | -0.0001 | 0.0167 |
| 17   | 5.01   | 0.5123  | -0.0038 | -0.0203 | -0.0040 | 0.0003  | 0.0203 |
| 18   | 9.99   | 0.9370  | 0.0468  | -0.0283 | -0.0040 | 0.0023  | 0.0165 |
| 19   | 14.99  | 1.3341  | 0.1340  | -0.0922 | -0.0020 | 0.0053  | 0.0101 |
| 20   | 20.01  | 1.4725  | 0.2846  | -0.2089 | 0.0010  | 0.0100  | 0.0088 |
| 21   | 0.01   | 0.0722  | -0.0188 | -0.0076 | -0.0046 | -0.0016 | 0.0193 |
| 22   | 2.50   | 0.2939  | -0.0168 | -0.0110 | -0.0041 | -0.0012 | 0.0181 |
| 23   | -2.49  | -0.1321 | -0.0084 | -0.0158 | -0.0055 | -0.0015 | 0.0234 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 404

RUN 509 CONFIG F P B NP7 W7 T10 BT IN=-3.5 BETA=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | DELRO        | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |
| 7       | .0        | .0      | 35.3        | 35.32       | -45.         | -43.         | -14.         | 6.58        | 55.04 | 128.65  | 3650.  |
| 8       | .0        | .0      | 33.8        | -6.82       | -163.        | -52.         | -2.          | 6.33        | 54.36 | 127.84  | 11550. |
| 9       | -20.0     | .0      | -379.0      | 123.48      | 726.         | -99.         | -169.        | 4.81        | 55.02 | 128.62  | 11530. |
| 10      | -15.0     | .0      | -320.3      | 74.27       | 781.         | -141.        | 118.         | 8.81        | 54.66 | 128.19  | 11540. |
| 11      | -10.0     | .0      | -260.9      | 23.64       | 347.         | -70.         | -19.         | 7.08        | 54.65 | 128.19  | 11540. |
| 12      | -5.0      | .0      | -114.2      | 3.15        | -222.        | -74.         | -17.         | 7.18        | 54.72 | 128.27  | 11520. |
| 13      | .0        | .0      | 33.2        | -6.74       | -157.        | -50.         | -8.          | 6.13        | 54.27 | 127.73  | 11570. |
| 14      | 2.5       | .0      | 111.3       | -6.09       | -104.        | -61.         | 6.           | 5.56        | 54.34 | 127.82  | 11540. |
| 15      | 5.0       | .0      | 188.5       | -1.51       | -89.         | -56.         | 12.          | 6.06        | 54.67 | 128.21  | 11500. |
| 16      | 10.0      | .0      | 348.9       | 17.59       | -88.         | -69.         | 44.          | 5.34        | 54.69 | 128.23  | 11540. |
| 17      | 15.0      | .0      | 494.0       | 50.19       | -267.        | -39.         | 94.          | 3.39        | 54.52 | 128.03  | 11530. |
| 18      | 20.0      | .0      | 551.1       | 105.28      | -539.        | -17.         | 163.         | 3.21        | 53.83 | 127.20  | 11510. |
| 19      | -2.5      | .0      | -44.0       | -2.97       | -207.        | -65.         | -15.         | 6.58        | 55.41 | 129.09  | 11540. |
| 20      | .0        | .0      | 32.8        | -6.55       | -134.        | -55.         | -8.          | 6.32        | 55.33 | 129.00  | 11570. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | .00    | .0954   | .0955  | -.0145 | -.0026 | -.0009 | .0178 |
| 8    | .00    | .0913   | -.0184 | -.0526 | -.0031 | -.0001 | .0171 |
| 9    | -19.98 | -1.0244 | .3337  | .2340  | -.0060 | -.0102 | .0130 |
| 10   | -15.00 | -.8655  | .2007  | .2519  | -.0085 | .0071  | .0238 |
| 11   | -9.99  | -.7053  | .0639  | .1118  | -.0042 | -.0011 | .0191 |
| 12   | -5.00  | -.3085  | .0085  | -.0715 | -.0045 | -.0010 | .0194 |
| 13   | .00    | .0896   | -.0182 | -.0505 | -.0030 | -.0005 | .0166 |
| 14   | 2.51   | .3009   | -.0165 | -.0334 | -.0037 | .0003  | .0150 |
| 15   | 5.00   | .5095   | -.0041 | -.0287 | -.0034 | .0007  | .0164 |
| 16   | 10.00  | .9430   | .0475  | -.0283 | -.0042 | .0027  | .0144 |
| 17   | 15.00  | 1.3351  | .1357  | -.0861 | -.0024 | .0057  | .0092 |
| 18   | 20.02  | 1.4893  | .2845  | -.1737 | -.0010 | .0098  | .0087 |
| 19   | -2.50  | -.1189  | -.0080 | -.0668 | -.0039 | -.0009 | .0178 |
| 20   | .00    | .0886   | -.0177 | -.0433 | -.0033 | -.0005 | .0171 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | .00    | .0954   | .0955  | -.0145 | -.0026 | -.0009 | .0178 |
| 8    | .00    | .0913   | -.0184 | -.0526 | -.0031 | -.0001 | .0171 |
| 9    | -19.98 | -1.0244 | .3337  | .2340  | -.0060 | -.0102 | .0130 |
| 10   | -15.00 | -.8655  | .2007  | .2519  | -.0085 | .0071  | .0238 |
| 11   | -9.99  | -.7053  | .0639  | .1118  | -.0042 | -.0011 | .0191 |
| 12   | -5.00  | -.3085  | .0085  | -.0715 | -.0045 | -.0010 | .0194 |
| 13   | .00    | .0896   | -.0182 | -.0505 | -.0030 | -.0005 | .0166 |
| 14   | 2.51   | .3009   | -.0165 | -.0334 | -.0037 | .0003  | .0150 |
| 15   | 5.00   | .5095   | -.0041 | -.0287 | -.0034 | .0007  | .0164 |
| 16   | 10.00  | .9430   | .0475  | -.0283 | -.0042 | .0027  | .0144 |
| 17   | 15.00  | 1.3351  | .1357  | -.0861 | -.0024 | .0057  | .0092 |
| 18   | 20.02  | 1.4893  | .2845  | -.1737 | -.0010 | .0098  | .0087 |
| 19   | -2.50  | -.1189  | -.0080 | -.0668 | -.0039 | -.0009 | .0178 |
| 20   | .00    | .0886   | -.0177 | -.0433 | -.0033 | -.0005 | .0171 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 405

RUN 510 CONFIG F P B NP7 W7 T2 IN=3.5 BETA=0

| PT. NO. | ALPHA DEG | O DELF PSI DEG | O DELA CLBAR SQ-FT | O IHT CDBAR SQ-FT | O DELE CPMBAR CU-FT | O DELR CRMBAR CU-FT | O DELSB CYBAR SQ-FT | O V PSF | O V KNOTS | RPM    |        |
|---------|-----------|----------------|--------------------|-------------------|---------------------|---------------------|---------------------|---------|-----------|--------|--------|
| 7       | 0         | 0              | 46.6               | 33.15             | -353.               | 22.                 | -29.                | 4.51    | 55.45     | 129.14 | 3660.  |
| 8       | 0         | 0              | 45.1               | -.01              | -424.               | 28.                 | -29.                | 4.35    | 56.16     | 129.98 | 10420. |
| 9       | -20.0     | 0              | -311.0             | 115.07            | -985.               | 34.                 | -196.               | 1.29    | 55.28     | 128.93 | 10440. |
| 10      | -15.0     | 0              | -254.0             | 70.01             | -847.               | -29.                | 74.                 | 6.60    | 55.02     | 128.63 | 10450. |
| 11      | -10.0     | 0              | -210.8             | 23.61             | -810.               | 50.                 | -42.                | 4.01    | 55.26     | 128.92 | 10450. |
| 12      | -5.0      | 0              | -93.4              | 7.96              | -656.               | 24.                 | -54.                | 4.82    | 55.10     | 128.72 | 10450. |
| 13      | -2.5      | 0              | -27.9              | 2.35              | -557.               | 29.                 | -37.                | 5.25    | 54.98     | 128.58 | 10470. |
| 14      | 0         | 0              | 45.8               | -.54              | -425.               | 31.                 | -18.                | 5.16    | 54.77     | 128.33 | 10480. |
| 15      | 2.5       | 0              | 118.5              | .08               | -259.               | 21.                 | -16.                | 4.01    | 54.64     | 128.18 | 10470. |
| 16      | 5.0       | 0              | 188.4              | 4.30              | -62.                | 13.                 | -22.                | 4.79    | 54.49     | 128.00 | 10460. |
| 17      | 10.0      | 0              | 333.2              | 21.52             | 380.                | 6.                  | 10.                 | 3.77    | 54.17     | 127.62 | 10440. |
| 18      | 15.0      | 0              | 453.2              | 49.22             | 862.                | 6.                  | 53.                 | 3.70    | 54.27     | 127.73 | 10430. |
| 19      | 20.0      | 0              | 487.2              | 92.45             | 1171.               | 9.                  | 114.                | 3.55    | 53.98     | 127.38 | 10420. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 7    | .00    | .1260  | .0896  | -.1139 | .0013  | -.0018 | .0122 |
| 8    | .00    | .1219  | -.0000 | -.1366 | .0017  | -.0017 | .0117 |
| 9    | -20.00 | -.8405 | .3110  | -.3177 | .0020  | -.0118 | .0035 |
| 10   | -15.00 | -.6864 | .1892  | -.2729 | -.0017 | .0045  | .0178 |
| 11   | -10.00 | -.5698 | .0638  | -.2610 | .0030  | -.0026 | .0108 |
| 12   | -5.00  | -.2524 | .0215  | -.2116 | .0015  | -.0033 | .0130 |
| 13   | -2.50  | -.0755 | .0064  | -.1796 | .0018  | -.0022 | .0142 |
| 14   | .00    | .1239  | -.0015 | -.1370 | .0019  | -.0011 | .0140 |
| 15   | 2.53   | .3204  | .0002  | -.0834 | .0013  | -.0010 | .0108 |
| 16   | 5.00   | .5093  | .0116  | -.0199 | .0008  | -.0013 | .0130 |
| 17   | 10.00  | .9004  | .0582  | .1224  | .0003  | .0006  | .0102 |
| 18   | 15.00  | 1.2247 | .1330  | .2780  | .0004  | .0032  | .0100 |
| 19   | 20.00  | 1.3167 | .2499  | .3775  | .0006  | .0069  | .0096 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 7    | .00    | .1260  | .0896  | -.1139 | .0013  | -.0018 | .0122 |
| 8    | .00    | .1219  | -.0000 | -.1366 | .0017  | -.0017 | .0117 |
| 9    | -20.00 | -.8405 | .3110  | -.3177 | .0020  | -.0118 | .0035 |
| 10   | -15.00 | -.6864 | .1892  | -.2729 | -.0017 | .0045  | .0178 |
| 11   | -10.00 | -.5698 | .0638  | -.2610 | .0030  | -.0026 | .0108 |
| 12   | -5.00  | -.2524 | .0215  | -.2116 | .0015  | -.0033 | .0130 |
| 13   | -2.50  | -.0755 | .0064  | -.1796 | .0018  | -.0022 | .0142 |
| 14   | .00    | .1239  | -.0015 | -.1370 | .0019  | -.0011 | .0140 |
| 15   | 2.53   | .3204  | .0002  | -.0834 | .0013  | -.0010 | .0108 |
| 16   | 5.00   | .5093  | .0116  | -.0199 | .0008  | -.0013 | .0130 |
| 17   | 10.00  | .9004  | .0582  | .1224  | .0003  | .0006  | .0102 |
| 18   | 15.00  | 1.2247 | .1330  | .2780  | .0004  | .0032  | .0100 |
| 19   | 20.00  | 1.3167 | .2499  | .3775  | .0006  | .0069  | .0096 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 406

RUN 522 CONFIG FPB NP7 W7 T11

| PT. NO. | IW<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELA           |                | IHT<br>CPM-FT | DELE<br>CYM-FT | DELR<br>CU-FT | CYBAR<br>SQ-FT | DFLSB    |            | RPM    |
|---------|--------------------|---------------------|----------------|----------------|---------------|----------------|---------------|----------------|----------|------------|--------|
|         |                    |                     | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT |               |                |               |                | Q<br>PSF | V<br>KNOTS |        |
| 7       | .0                 | .0                  | 41.1           | 30.33          | -271.         | 27.            | -16.          | 2.43           | 51.40    | 124.23     | 3530.  |
| 8       | .0                 | .0                  | 40.0           | 30.53          | -272.         | 26.            | 6.            | 1.96           | 37.12    | 105.32     | 3020.  |
| 10      | .0                 | .0                  | 43.3           | 30.69          | -354.         | 24.            | 8.            | 2.38           | 57.19    | 131.16     | 3710.  |
| 11      | .0                 | .0                  | 45.4           | 30.69          | -501.         | 15.            | 14.           | 1.87           | 57.64    | 131.68     | 3720.  |
| 12      | .0                 | .0                  | 45.7           | 31.10          | -536.         | 22.            | -8.           | 1.91           | 55.31    | 128.94     | 3650.  |
| 13      | .0                 | .0                  | 47.8           | 31.16          | -593.         | 19.            | -9.           | 2.40           | 55.40    | 129.05     | 3670.  |
| 14      | .0                 | .0                  | 43.7           | -4.16          | -648.         | 11.            | 20.           | 2.68           | 55.92    | 129.67     | 10690. |
| 15      | .0                 | .0                  | 44.9           | -4.70          | -694.         | 15.            | 14.           | 2.61           | 55.63    | 129.33     | 10790. |
| 16      | .0                 | .0                  | 45.1           | -4.68          | -738.         | 23.            | 15.           | 2.06           | 55.74    | 129.45     | 10720. |
| 17      | .0                 | .0                  | 46.5           | -4.81          | -796.         | 17.            | 9.            | 2.13           | 55.94    | 129.69     | 10780. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD     | CPM    | CYM   | CRM    | CY    |
|------|-------|-------|--------|--------|-------|--------|-------|
| 7    | .00   | .1112 | .0820  | -.0874 | .0016 | -.0009 | .0066 |
| 8    | .00   | .1082 | .0825  | -.0876 | .0016 | .0004  | .0053 |
| 10   | .00   | .1171 | .0829  | -.1141 | .0014 | .0005  | .0064 |
| 11   | .00   | .1228 | .0829  | -.1615 | .0009 | .0009  | .0051 |
| 12   | .00   | .1234 | .0841  | -.1727 | .0014 | -.0005 | .0052 |
| 13   | .00   | .1293 | .0842  | -.1912 | .0011 | -.0005 | .0065 |
| 14   | .00   | .1182 | -.0112 | -.2090 | .0007 | .0012  | .0072 |
| 15   | .00   | .1214 | -.0127 | -.2239 | .0009 | .0009  | .0071 |
| 16   | .00   | .1218 | -.0127 | -.2380 | .0014 | .0009  | .0056 |
| 17   | .00   | .1255 | -.0130 | -.2567 | .0011 | .0005  | .0058 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDR    | CPMB   | CYMB  | CRMB   | CYB   |
|------|-------|-------|--------|--------|-------|--------|-------|
| 7    | .00   | .1112 | .0820  | -.0874 | .0016 | -.0009 | .0066 |
| 8    | .00   | .1082 | .0825  | -.0876 | .0016 | .0004  | .0053 |
| 10   | .00   | .1171 | .0829  | -.1141 | .0014 | .0005  | .0064 |
| 11   | .00   | .1228 | .0829  | -.1615 | .0009 | .0009  | .0051 |
| 12   | .00   | .1234 | .0841  | -.1727 | .0014 | -.0005 | .0052 |
| 13   | .00   | .1293 | .0842  | -.1912 | .0011 | -.0005 | .0065 |
| 14   | .00   | .1182 | -.0112 | -.2090 | .0007 | .0012  | .0072 |
| 15   | .00   | .1214 | -.0127 | -.2239 | .0009 | .0009  | .0071 |
| 16   | .00   | .1218 | -.0127 | -.2380 | .0014 | .0009  | .0056 |
| 17   | .00   | .1255 | -.0130 | -.2567 | .0011 | .0005  | .0058 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 524 CONFIG FPB NP7 W7 T11

| IW      | DELTA     | DELA    | IHT         | DELE        | DELR          | DFLSB       | V             | RPM         |       |        |        |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|-------------|-------|--------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  | RPM    |
| 2       | .0        | .0      | 40.5        | -5.17       | -442.         | 19.         | 4.            | 1.81        | 55.71 | 129.42 | 10840. |
| 3       | -5.0      | .0      | -91.2       | 3.00        | -679.         | 26.         | -30.          | .27         | 55.09 | 128.69 | 10760. |
| 4       | -15.0     | .0      | -303.6      | 43.75       | -937.         | 50.         | -67.          | 1.08        | 54.75 | 128.28 | 10780. |
| 5       | -10.0     | .0      | -207.9      | 19.57       | -849.         | 35.         | -45.          | -1.07       | 55.22 | 128.83 | 10720. |
| 6       | .0        | .0      | 40.0        | -5.02       | -453.         | 16.         | 10.           | 1.72        | 54.92 | 128.48 | 10720. |
| 7       | -5.0      | .0      | -92.8       | 3.15        | -681.         | 26.         | -35.          | .21         | 55.14 | 128.74 | 10800. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|--------|--------|--------|--------|-------|--------|--------|
| 2    | .00    | .1095  | -.0140 | -.1425 | .0012 | .0002  | .0049  |
| 3    | -4.99  | -.2466 | .0081  | -.2189 | .0016 | -.0018 | .0007  |
| 4    | -15.00 | -.8206 | .1182  | -.3020 | .0030 | -.0041 | .0029  |
| 5    | -10.00 | -.5618 | .0529  | -.2738 | .0021 | -.0027 | -.0029 |
| 6    | .00    | .1081  | -.0136 | -.1460 | .0010 | .0006  | .0046  |
| 7    | -5.00  | -.2507 | .0085  | -.2194 | .0016 | -.0021 | .0006  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|--------|--------|--------|--------|-------|--------|--------|
| 2    | .00    | .1095  | -.0140 | -.1425 | .0012 | .0002  | .0049  |
| 3    | -4.99  | -.2466 | .0081  | -.2189 | .0016 | -.0018 | .0007  |
| 4    | -15.00 | -.8206 | .1182  | -.3020 | .0030 | -.0041 | .0029  |
| 5    | -10.00 | -.5618 | .0529  | -.2738 | .0021 | -.0027 | -.0029 |
| 6    | .00    | .1081  | -.0136 | -.1460 | .0010 | .0006  | .0046  |
| 7    | -5.00  | -.2507 | .0085  | -.2194 | .0016 | -.0021 | .0006  |



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P 409

RUN 525 CONFIG

| IW      | DELTA     | DELA    | IHT         | DELE        | DELR         | DELSB        |              |             |       |         |        |  |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|--|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | Rpm    |  |
| 1       | .0        | .0      | 40.4        | -5.73       | -442.        | 22.          | -39.         | 2.24        | 54.29 | 127.73  | 10780. |  |
| 2       | .0        | .0      | 40.6        | -4.74       | -442.        | 14.          | -8.          | 1.41        | 55.62 | 129.31  | 10760. |  |
| 3       | .0        | .0      | 40.0        | -5.09       | -446.        | 21.          | -38.         | 2.20        | 55.75 | 129.47  | 10790. |  |
| 4       | .0        | .0      | 41.2        | -5.25       | -444.        | 17.          | -26.         | 1.68        | 54.89 | 128.45  | 10790. |  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD     | CPM    | CYM   | CRM    | CY    |
|------|-------|-------|--------|--------|-------|--------|-------|
| 1    | .00   | .1091 | -.0155 | -.1424 | .0014 | -.0023 | .0060 |
| 2    | .00   | .1096 | -.0128 | -.1423 | .0008 | -.0005 | .0038 |
| 3    | .00   | .1082 | -.0138 | -.1438 | .0012 | -.0023 | .0059 |
| 4    | .00   | .1112 | -.0142 | -.1432 | .0011 | -.0015 | .0045 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB    | CPMB   | CYMB  | CRMB   | CYB   |
|------|-------|-------|--------|--------|-------|--------|-------|
| 1    | .00   | .1091 | -.0155 | -.1424 | .0014 | -.0023 | .0060 |
| 2    | .00   | .1096 | -.0128 | -.1423 | .0008 | -.0005 | .0038 |
| 3    | .00   | .1082 | -.0138 | -.1438 | .0012 | -.0023 | .0059 |
| 4    | .00   | .1112 | -.0142 | -.1432 | .0011 | -.0015 | .0045 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 410

RUN 526 CONFIG FP8 NP7 W7 T11

| IW      | DELTA     | DELA    | IHT         | DELE        | DELR         | DFLSB        | V            | RPM         |       |        |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|--------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLEAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  |        |
| 2       | .0        | .0      | 40.7        | -5.96       | -435.        | 21.          | -2.          | 1.21        | 55.34 | 128.98 | 10880. |
| 3       | -5.0      | .0      | -92.4       | 2.10        | -684.        | 22.          | -47.         | .14         | 55.39 | 129.04 | 10950. |
| 4       | -5.0      | .0      | -91.3       | 2.79        | -673.        | 25.          | -54.         | .99         | 55.00 | 128.57 | 10850. |
| 5       | -5.0      | .0      | -91.5       | 2.45        | -666.        | 25.          | -60.         | .84         | 55.39 | 129.04 | 10960. |
| 6       | -10.0     | .0      | -208.5      | 18.76       | -840.        | 44.          | -73.         | -1.41       | 55.39 | 129.04 | 10880. |
| 7       | -10.0     | .0      | -208.4      | 19.10       | -840.        | 46.          | -67.         | -1.49       | 55.45 | 129.11 | 10900. |
| 8       | -10.0     | .0      | -207.7      | 19.23       | -841.        | 44.          | -80.         | -.82        | 55.56 | 129.24 | 10870. |
| 9       | -10.0     | .0      | -208.4      | 20.00       | -846.        | 41.          | -74.         | -.92        | 55.35 | 128.99 | 10790. |
| 10      | -15.0     | .0      | -265.9      | 54.66       | -874.        | -117.        | 376.         | 5.93        | 55.74 | 129.45 | 10860. |
| 11      | -15.0     | .0      | -267.8      | 55.33       | -884.        | -126.        | 352.         | 7.01        | 55.54 | 129.22 | 10860. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .1101  | -.0161 | -.1403 | .0013  | -.0001 | .0033  |
| 3    | -5.01  | -.2498 | .0057  | -.2205 | .0013  | -.0028 | .0004  |
| 4    | -5.01  | -.2468 | .0075  | -.2170 | .0015  | -.0033 | .0027  |
| 5    | -5.01  | -.2472 | .0066  | -.2148 | .0015  | -.0036 | .0023  |
| 6    | -10.00 | -.5635 | .0507  | -.2708 | .0027  | -.0044 | -.0038 |
| 7    | -10.00 | -.5632 | .0516  | -.2708 | .0028  | -.0041 | -.0040 |
| 8    | -10.00 | -.5613 | .0520  | -.2712 | .0027  | -.0048 | -.0022 |
| 9    | -10.00 | -.5632 | .0540  | -.2729 | .0025  | -.0045 | -.0025 |
| 10   | -15.01 | -.7186 | .1477  | -.2818 | -.0071 | .0227  | .0160  |
| 11   | -15.01 | -.7237 | .1495  | -.2851 | -.0076 | .0213  | .0190  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .1101  | -.0161 | -.1403 | .0013  | -.0001 | .0033  |
| 3    | -5.01  | -.2498 | .0057  | -.2205 | .0013  | -.0028 | .0004  |
| 4    | -5.01  | -.2468 | .0075  | -.2170 | .0015  | -.0033 | .0027  |
| 5    | -5.01  | -.2472 | .0066  | -.2148 | .0015  | -.0036 | .0023  |
| 6    | -10.00 | -.5635 | .0507  | -.2708 | .0027  | -.0044 | -.0038 |
| 7    | -10.00 | -.5632 | .0516  | -.2708 | .0028  | -.0041 | -.0040 |
| 8    | -10.00 | -.5613 | .0520  | -.2712 | .0027  | -.0048 | -.0022 |
| 9    | -10.00 | -.5632 | .0540  | -.2729 | .0025  | -.0045 | -.0025 |
| 10   | -15.01 | -.7186 | .1477  | -.2818 | -.0071 | .0227  | .0160  |
| 11   | -15.01 | -.7237 | .1495  | -.2851 | -.0076 | .0213  | .0190  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 411

RUN 527 CONFIG FPB NPB W7 TH

| IW<br>PT.<br>NO. | DELTA<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELA<br>CLBAR<br>SQ-FT | IHT<br>CDBAR<br>SQ-FT | DELE<br>CPMBAR<br>CU-FT | DELR<br>CYMBAR<br>CU-FT | DELR<br>CRMBAR<br>CU-FT | DFLSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | PPM    |
|------------------|-----------------------|---------------------|------------------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|----------|------------|--------|
| 2                | .0                    | .0                  | 43.8                   | -6.78                 | -420.                   | 25.                     | -20.                    | 2.23                    | 55.46    | 129.13     | 10510. |
| 3                | .0                    | .0                  | 42.1                   | -6.27                 | -427.                   | 22.                     | -2.                     | 1.73                    | 55.71    | 129.42     | 10610. |
| 5                | -5.0                  | .0                  | -103.1                 | -2.75                 | -766.                   | 31.                     | -42.                    | .82                     | 55.33    | 128.97     | 10610. |
| 6                | -5.0                  | .0                  | -102.2                 | -2.83                 | -756.                   | 32.                     | -47.                    | .47                     | 55.80    | 129.52     | 10640. |
| 7                | -5.0                  | .0                  | -101.6                 | -3.10                 | -754.                   | 36.                     | -29.                    | -.31                    | 55.53    | 129.21     | 10650. |
| 8                | -10.0                 | .0                  | -232.6                 | 16.72                 | -931.                   | 47.                     | -70.                    | .04                     | 55.42    | 129.07     | 10600. |
| 9                | -10.0                 | .0                  | -232.2                 | 17.24                 | -941.                   | 41.                     | -46.                    | -.31                    | 55.68    | 129.38     | 10600. |
| 10               | .0                    | .0                  | 40.7                   | -5.87                 | -430.                   | 23.                     | -26.                    | 2.32                    | 55.20    | 128.82     | 10640. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM   | CRM    | CY     |
|------|--------|--------|--------|--------|-------|--------|--------|
| 2    | .00    | .1183  | -.0183 | -.1353 | .0015 | -.0012 | .0060  |
| 3    | .00    | .1138  | -.0169 | -.1378 | .0013 | -.0001 | .0047  |
| 5    | -5.00  | -.2786 | -.0074 | -.2470 | .0019 | -.0025 | .0022  |
| 6    | -5.00  | -.2762 | -.0077 | -.2437 | .0020 | -.0028 | .0013  |
| 7    | -5.00  | -.2745 | -.0084 | -.2432 | .0022 | -.0017 | -.0008 |
| 8    | -10.00 | -.6288 | .0452  | -.3003 | .0028 | -.0042 | .0001  |
| 9    | -10.00 | -.6275 | .0466  | -.3035 | .0025 | -.0028 | -.0008 |
| 10   | .01    | .1100  | -.0159 | -.1386 | .0014 | -.0016 | .0063  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|--------|--------|--------|--------|-------|--------|--------|
| 2    | .00    | .1183  | -.0183 | -.1353 | .0015 | -.0012 | .0060  |
| 3    | .00    | .1138  | -.0169 | -.1378 | .0013 | -.0001 | .0047  |
| 5    | -5.00  | -.2786 | -.0074 | -.2470 | .0019 | -.0025 | .0022  |
| 6    | -5.00  | -.2762 | -.0077 | -.2437 | .0020 | -.0028 | .0013  |
| 7    | -5.00  | -.2745 | -.0084 | -.2432 | .0022 | -.0017 | -.0008 |
| 8    | -10.00 | -.6288 | .0452  | -.3003 | .0028 | -.0042 | .0001  |
| 9    | -10.00 | -.6275 | .0466  | -.3035 | .0025 | -.0028 | -.0008 |
| 10   | .01    | .1100  | -.0159 | -.1386 | .0014 | -.0016 | .0063  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 407

RUN 523 CONFIG FPB NP7 W7 T11

| IW      | DELTA     | DELA    | IHT         | DELE        | DELR         | DELSB        |              |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |
| 2       | .0        | .0      | 39.3        | -5.26       | -322.        | 16.          | -14.         | 2.11        | 55.46 | 129.12  | 10770. |
| 3       | .0        | .0      | 40.0        | -5.09       | -330.        | 20.          | -3.          | 2.10        | 55.67 | 129.37  | 10720. |
| 4       | -15.0     | .0      | -270.6      | 54.93       | -746.        | -117.        | 376.         | 6.62        | 55.59 | 129.27  | 10780. |
| 5       | -15.0     | .0      | -269.8      | 54.51       | -751.        | -111.        | 384.         | 6.24        | 55.36 | 129.00  | 10770. |
| 6       | -10.0     | .0      | -211.5      | 18.80       | -681.        | 42.          | -69.         | -.64        | 54.86 | 128.41  | 10770. |
| 7       | -10.0     | .0      | -210.4      | 18.70       | -719.        | 41.          | -59.         | -.02        | 54.89 | 128.44  | 10800. |
| 8       | -10.0     | .0      | -207.6      | 18.62       | -740.        | 46.          | -52.         | -.18        | 55.72 | 129.44  | 10760. |
| 9       | -.0       | .0      | 38.0        | -5.14       | -334.        | 21.          | -14.         | 1.97        | 55.34 | 128.98  | 10770. |
| 10      | -.0       | .0      | 38.8        | -5.77       | -331.        | 27.          | 3.           | 2.42        | 55.32 | 128.96  | 10790. |
| 11      | -.0       | .0      | 42.2        | 30.38       | -277.        | 25.          | -26.         | 2.28        | 55.31 | 128.95  | 3640.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .1062  | -.0142 | -.1039 | .0010  | -.0009 | .0057  |
| 3    | .00    | .1080  | -.0137 | -.1062 | .0012  | -.0002 | .0057  |
| 4    | -15.00 | -.7314 | .1485  | -.2405 | -.0071 | .0227  | .0179  |
| 5    | -15.00 | -.7293 | .1473  | -.2422 | -.0067 | .0232  | .0169  |
| 6    | -10.00 | -.5716 | .0508  | -.2197 | .0026  | -.0042 | -.0017 |
| 7    | -10.00 | -.5687 | .0506  | -.2318 | .0025  | -.0036 | -.0001 |
| 8    | -10.00 | -.5611 | .0503  | -.2386 | .0028  | -.0031 | -.0005 |
| 9    | -.00   | .1028  | -.0139 | -.1075 | .0013  | -.0009 | .0053  |
| 10   | -.00   | .1048  | -.0156 | -.1067 | .0016  | .0002  | .0065  |
| 11   | -.00   | .1140  | .0821  | -.0892 | .0015  | -.0016 | .0062  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .1062  | -.0142 | -.1039 | .0010  | -.0009 | .0057  |
| 3    | .00    | .1080  | -.0137 | -.1062 | .0012  | -.0002 | .0057  |
| 4    | -15.00 | -.7314 | .1485  | -.2405 | -.0071 | .0227  | .0179  |
| 5    | -15.00 | -.7293 | .1473  | -.2422 | -.0067 | .0232  | .0169  |
| 6    | -10.00 | -.5716 | .0508  | -.2197 | .0026  | -.0042 | -.0017 |
| 7    | -10.00 | -.5687 | .0506  | -.2318 | .0025  | -.0036 | -.0001 |
| 8    | -10.00 | -.5611 | .0503  | -.2386 | .0028  | -.0031 | -.0005 |
| 9    | -.00   | .1028  | -.0139 | -.1075 | .0013  | -.0009 | .0053  |
| 10   | -.00   | .1048  | -.0156 | -.1067 | .0016  | .0002  | .0065  |
| 11   | -.00   | .1140  | .0821  | -.0892 | .0015  | -.0016 | .0062  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 412

RUN 528 CONFIG FPB NP W7 T11

| IW      | DELTA     | DELA    | IHT         | DELE        | DELR         | DFLSB        | V            | PPM         |       |        |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|--------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  | PPM    |
| 2       | .0        | .0      | 38.7        | -6.49       | -305.        | 9.           | -4.          | 3.27        | 55.87 | 129.60 | 10030. |
| 3       | .0        | .0      | 40.3        | -6.65       | -284.        | 11.          | -27.         | 3.07        | 54.74 | 128.27 | 9990.  |
| 4       | -5.0      | .0      | -97.7       | -3.74       | -555.        | 26.          | -32.         | 1.79        | 54.71 | 128.23 | 9990.  |
| 5       | -10.0     | .0      | -218.9      | 11.75       | -607.        | 24.          | -49.         | .95         | 54.89 | 128.45 | 10060. |
| 6       | -10.0     | .0      | -217.2      | 11.46       | -608.        | 23.          | -62.         | 2.07        | 55.30 | 128.94 | 10010. |
| 7       | -15.0     | .0      | -249.3      | 52.89       | -706.        | -37.         | 127.         | 3.96        | 55.07 | 128.65 | 10040. |
| 8       | -15.0     | .0      | -250.9      | 53.78       | -685.        | -36.         | 160.         | 4.37        | 55.34 | 128.98 | 9980.  |
| 9       | -.0       | .0      | 38.9        | -6.72       | -282.        | 5.           | 3.           | 2.55        | 55.70 | 129.41 | 10030. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .1047  | -.0176 | -.0984 | .0005  | -.0003 | .0088 |
| 3    | .00    | .1090  | -.0180 | -.0916 | .0007  | -.0017 | .0083 |
| 4    | -5.00  | -.2642 | -.0101 | -.1789 | .0016  | -.0020 | .0048 |
| 5    | -10.00 | -.5916 | .0318  | -.1958 | .0015  | -.0029 | .0026 |
| 6    | -10.00 | -.5869 | .0310  | -.1960 | .0014  | -.0038 | .0056 |
| 7    | -15.00 | -.6739 | .1430  | -.2277 | -.0022 | .0077  | .0107 |
| 8    | -15.00 | -.6780 | .1453  | -.2208 | -.0022 | .0097  | .0118 |
| 9    | -.01   | .1052  | -.0182 | -.0911 | .0003  | .0002  | .0069 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .1047  | -.0176 | -.0984 | .0005  | -.0003 | .0088 |
| 3    | .00    | .1090  | -.0180 | -.0916 | .0007  | -.0017 | .0083 |
| 4    | -5.00  | -.2642 | -.0101 | -.1789 | .0016  | -.0020 | .0048 |
| 5    | -10.00 | -.5916 | .0318  | -.1958 | .0015  | -.0029 | .0026 |
| 6    | -10.00 | -.5869 | .0310  | -.1960 | .0014  | -.0038 | .0056 |
| 7    | -15.00 | -.6739 | .1430  | -.2277 | -.0022 | .0077  | .0107 |
| 8    | -15.00 | -.6780 | .1453  | -.2208 | -.0022 | .0097  | .0118 |
| 9    | -.01   | .1052  | -.0182 | -.0911 | .0003  | .0002  | .0069 |

N432409-1

SIKORSKY RSRA 1/6. SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 413

RUN 529 CONFIG. FPB NPS W7 T11

| IW      | DELFL     | DELA    | IHT         | DELE        | DELR         | DELSB        |              |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 48.2        | 25.15       | -367.        | 19.          | 2.           | 3.24        | 54.95 | 128.52  | 3490.  |
| 3       | .0        | .0      | 49.7        | 25.31       | -359.        | 17.          | 20.          | 2.74        | 55.02 | 128.60  | 3490.  |
| 4       | .0        | .0      | 46.1        | -7.21       | -408.        | 20.          | 19.          | 3.48        | 54.83 | 128.37  | 10490. |
| 5       | .0        | .0      | 45.0        | -7.46       | -412.        | 23.          | 1.           | 3.59        | 54.77 | 128.30  | 10470. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD     | CPM    | CYM   | CRM   | CY    |
|------|-------|-------|--------|--------|-------|-------|-------|
| 2    | .00   | .1304 | .0680  | -.1185 | .0011 | .0001 | .0088 |
| 3    | .00   | .1343 | .0684  | -.1157 | .0010 | .0012 | .0074 |
| 4    | .00   | .1245 | -.0195 | -.1314 | .0012 | .0012 | .0094 |
| 5    | .00   | .1216 | -.0202 | -.1329 | .0014 | .0001 | .0097 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB    | CPMB   | CYMB  | CRMB  | CYB   |
|------|-------|-------|--------|--------|-------|-------|-------|
| 2    | .00   | .1304 | .0680  | -.1185 | .0011 | .0001 | .0088 |
| 3    | .00   | .1343 | .0684  | -.1157 | .0010 | .0012 | .0074 |
| 4    | .00   | .1245 | -.0195 | -.1314 | .0012 | .0012 | .0094 |
| 5    | .00   | .1216 | -.0202 | -.1329 | .0014 | .0001 | .0097 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 414

RUN 530 CONFIG F P B W7 T11 IN=0 BETA=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSR      | 0            |             |       |         |     |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
| 7       | .0        | .0      | 36.0        | 13.63       | -230.        | 20.          | 2.           | 3.04        | 53.85 | 127.21  | 0.  |
| 8       | .0        | .0      | 35.5        | 13.26       | -226.        | 24.          | -5.          | 3.59        | 56.32 | 130.14  | 0.  |
| 9       | .0        | .0      | 35.3        | 13.38       | -229.        | 21.          | 14.          | 3.11        | 55.49 | 129.15  | 0.  |
| 10      | .0        | .0      | 36.2        | 13.55       | -230.        | 23.          | 15.          | 2.92        | 50.96 | 123.68  | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD    | CPM    | CYM   | CRM    | CY    |
|------|-------|-------|-------|--------|-------|--------|-------|
| 7    | .01   | .0974 | .0368 | -.0741 | .0012 | .0001  | .0082 |
| 8    | .01   | .0960 | .0358 | -.0727 | .0015 | -.0003 | .0097 |
| 9    | .01   | .0954 | .0362 | -.0737 | .0013 | .0008  | .0084 |
| 10   | .01   | .0978 | .0366 | -.0742 | .0014 | .0009  | .0079 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB   | CPMB   | CYMB  | CRMB   | CYB   |
|------|-------|-------|-------|--------|-------|--------|-------|
| 7    | .01   | .0974 | .0368 | -.0741 | .0012 | .0001  | .0082 |
| 8    | .01   | .0960 | .0358 | -.0727 | .0015 | -.0003 | .0097 |
| 9    | .01   | .0954 | .0362 | -.0737 | .0013 | .0008  | .0084 |
| 10   | .01   | .0978 | .0366 | -.0742 | .0014 | .0009  | .0079 |

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SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011  
PHIS

RUN 532 CONFIG F P B W7 T11 IN=0 BETA=0

| PT. NO. | IW    | O DELF    |         | O DELA      |             | O IHT        |              | O DELE       |             | O DELR |         | O DELSB |  | RPM |
|---------|-------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         |       | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | V KNOTS |         |  |     |
| 2       |       | .0        | .0      | 34.3        | 13.38       | -229.        | 17.          | -3.          | 2.72        | 55.92  | 129.66  | 0.      |  |     |
| 3       |       | .0        | .0      | 35.9        | 13.84       | -233.        | 22.          | 2.           | 3.31        | 54.48  | 127.95  | 0.      |  |     |
| 4       |       | .0        | .0      | 35.1        | 13.50       | -229.        | 22.          | 13.          | 3.26        | 55.39  | 129.03  | 0.      |  |     |
| 5       |       | .0        | .0      | 35.2        | 13.18       | -225.        | 26.          | -4.          | 3.02        | 55.35  | 128.99  | 0.      |  |     |
| 6       |       | .0        | .0      | 36.2        | 13.75       | -234.        | 14.          | 2.           | 3.04        | 54.87  | 128.42  | 0.      |  |     |
| 7       |       | .0        | .0      | 35.4        | 13.23       | -222.        | 34.          | -4.          | 2.86        | 55.68  | 129.38  | 0.      |  |     |
| 8       | -15.0 | .0        | -172.8  | 71.26       | -266.       | -14.         | 48.          | 2.27         | 55.50       | 129.17 | 0.      |         |  |     |
| 9       | -10.0 | .0        | -204.2  | 23.16       | -257.       | 52.          | -32.         | 1.42         | 55.31       | 128.94 | 0.      |         |  |     |
| 10      | -10.0 | .0        | -203.4  | 22.97       | -261.       | 49.          | -26.         | 1.47         | 55.64       | 129.34 | 0.      |         |  |     |
| 11      | -10.0 | .0        | -204.8  | 22.91       | -262.       | 55.          | -50.         | 1.94         | 55.50       | 129.17 | 0.      |         |  |     |
| 12      | -5.0  | .0        | -85.9   | 15.34       | -288.       | 36.          | -27.         | 2.12         | 54.65       | 128.15 | 0.      |         |  |     |
| 13      | -5.0  | .0        | -84.5   | 15.22       | -279.       | 35.          | -21.         | 2.05         | 54.84       | 128.38 | 0.      |         |  |     |
| 14      | -5.0  | .0        | -85.0   | 15.64       | -294.       | 34.          | -22.         | 2.58         | 54.64       | 128.15 | 0.      |         |  |     |
| 15      | 5.0   | .0        | 156.5   | 19.66       | -110.       | 7.           | 21.          | 2.48         | 55.43       | 129.09 | 0.      |         |  |     |
| 16      | 5.0   | .0        | 157.5   | 20.04       | -106.       | -1.          | 39.          | 2.62         | 54.61       | 128.12 | 0.      |         |  |     |
| 18      | -0.0  | .0        | 35.9    | 13.83       | -240.       | 23.          | 14.          | 3.28         | 54.34       | 127.79 | 0.      |         |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0927  | .0362 | -.0738 | .0010  | -.0002 | .0074 |
| 3    | .00    | .0972  | .0374 | -.0752 | .0013  | .0001  | .0090 |
| 4    | .00    | .0950  | .0365 | -.0740 | .0013  | .0008  | .0088 |
| 5    | .00    | .0951  | .0356 | -.0725 | .0016  | -.0002 | .0082 |
| 6    | .00    | .0978  | .0372 | -.0754 | .0008  | .0001  | .0082 |
| 7    | .00    | .0956  | .0357 | -.0715 | .0021  | -.0002 | .0077 |
| 8    | -15.00 | -.4669 | .1926 | -.0858 | -.0008 | .0029  | .0061 |
| 9    | -10.00 | -.5519 | .0626 | -.0828 | .0032  | -.0019 | .0038 |
| 10   | -10.00 | -.5497 | .0621 | -.0842 | .0030  | -.0016 | .0040 |
| 11   | -10.00 | -.5535 | .0619 | -.0845 | .0033  | -.0030 | .0053 |
| 12   | -5.01  | -.2321 | .0415 | -.0929 | .0021  | -.0016 | .0057 |
| 13   | -5.01  | -.2284 | .0411 | -.0899 | .0021  | -.0013 | .0055 |
| 14   | -5.01  | -.2297 | .0423 | -.0948 | .0021  | -.0013 | .0070 |
| 15   | 5.00   | .4230  | .0531 | -.0354 | .0004  | .0013  | .0067 |
| 16   | 5.00   | .4257  | .0542 | -.0343 | -.0001 | .0024  | .0071 |
| 18   | -.00   | .0971  | .0374 | -.0773 | .0014  | .0008  | .0089 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0927  | .0362 | -.0738 | .0010  | -.0002 | .0074 |
| 3    | .00    | .0972  | .0374 | -.0752 | .0013  | .0001  | .0090 |
| 4    | .00    | .0950  | .0365 | -.0740 | .0013  | .0008  | .0088 |
| 5    | .00    | .0951  | .0356 | -.0725 | .0016  | -.0002 | .0082 |
| 6    | .00    | .0978  | .0372 | -.0754 | .0008  | .0001  | .0082 |
| 7    | .00    | .0956  | .0357 | -.0715 | .0021  | -.0002 | .0077 |
| 8    | -15.00 | -.4669 | .1926 | -.0858 | -.0008 | .0029  | .0061 |
| 9    | -10.00 | -.5519 | .0626 | -.0828 | .0032  | -.0019 | .0038 |
| 10   | -10.00 | -.5497 | .0621 | -.0842 | .0030  | -.0016 | .0040 |
| 11   | -10.00 | -.5535 | .0619 | -.0845 | .0033  | -.0030 | .0053 |
| 12   | -5.01  | -.2321 | .0415 | -.0929 | .0021  | -.0016 | .0057 |
| 13   | -5.01  | -.2284 | .0411 | -.0899 | .0021  | -.0013 | .0055 |
| 14   | -5.01  | -.2297 | .0423 | -.0948 | .0021  | -.0013 | .0070 |
| 15   | 5.00   | .4230  | .0531 | -.0354 | .0004  | .0013  | .0067 |
| 16   | 5.00   | .4257  | .0542 | -.0343 | -.0001 | .0024  | .0071 |
| 18   | -.00   | .0971  | .0374 | -.0773 | .0014  | .0008  | .0089 |



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SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

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P 416

RUN 533 CONFIG F P R W7 T11 IN=0 BETA=0

| PT. NO. | IW | 0 DELF<br>ALPHA DEG | 0 DELF<br>PSI DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 DELE<br>COBAR<br>SQ-FT | 0 IHT<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DFLSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V.<br>KNOTS | RPM |
|---------|----|---------------------|-------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------|------------------|-----|
| 2       |    | .0                  | .0                | 35.6                     | 13.62                    | -231.                    | 26.                       | -10.                      | 3.22                      | 55.34         | 128.98           | 0.  |
| 3       |    | .0                  | .0                | 35.4                     | 13.62                    | -234.                    | 22.                       | -4.                       | 3.33                      | 55.27         | 128.90           | 0.  |
| 4       |    | 10.0                | .0                | 273.4                    | 32.64                    | 66.                      | -50.                      | 39.                       | 3.19                      | 55.58         | 129.27           | 0.  |
| 5       |    | 10.0                | .0                | 275.2                    | 32.92                    | 63.                      | -47.                      | 51.                       | 2.83                      | 55.44         | 129.10           | 0.  |
| 6       |    | 15.0                | .0                | 364.3                    | 51.70                    | 315.                     | -34.                      | 58.                       | 1.65                      | 55.09         | 128.68           | 0.  |
| 7       |    | 20.0                | .0                | 381.6                    | 86.57                    | 410.                     | -35.                      | 141.                      | -1.18                     | 54.95         | 128.51           | 0.  |
| 8       |    | 20.0                | .0                | 378.3                    | 86.07                    | 404.                     | -16.                      | 100.                      | -.41                      | 54.74         | 128.26           | 0.  |
| 9       |    | -.0                 | .0                | 35.1                     | 13.77                    | -231.                    | 20.                       | -16.                      | 3.49                      | 54.99         | 128.57           | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | .00   | .0963  | .0368 | -.0746 | .0016  | -.0006 | .0087  |
| 3    | .00   | .0957  | .0368 | -.0755 | .0013  | -.0003 | .0090  |
| 4    | 10.00 | .7388  | .0882 | .0214  | -.0030 | .0023  | .0086  |
| 5    | 10.00 | .7439  | .0890 | .0203  | -.0029 | .0031  | .0076  |
| 6    | 15.00 | .9847  | .1397 | .1015  | -.0020 | .0035  | .0045  |
| 7    | 20.00 | 1.0312 | .2340 | .1322  | -.0021 | .0085  | -.0032 |
| 8    | 20.00 | 1.0224 | .2326 | .1303  | -.0010 | .0061  | -.0011 |
| 9    | -.00  | .0947  | .0372 | -.0745 | .0012  | -.0010 | .0094  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|-------|--------|-------|--------|--------|--------|--------|
| 2    | .00   | .0963  | .0368 | -.0746 | .0016  | -.0006 | .0087  |
| 3    | .00   | .0957  | .0368 | -.0755 | .0013  | -.0003 | .0090  |
| 4    | 10.00 | .7388  | .0882 | .0214  | -.0030 | .0023  | .0086  |
| 5    | 10.00 | .7439  | .0890 | .0203  | -.0029 | .0031  | .0076  |
| 6    | 15.00 | .9847  | .1397 | .1015  | -.0020 | .0035  | .0045  |
| 7    | 20.00 | 1.0312 | .2340 | .1322  | -.0021 | .0085  | -.0032 |
| 8    | 20.00 | 1.0224 | .2326 | .1303  | -.0010 | .0061  | -.0011 |
| 9    | -.00  | .0947  | .0372 | -.0745 | .0012  | -.0010 | .0094  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 417

RUN 534 CONFIG F P B W7 T11 IN=0 BETA=0

| PT. NO. | INW<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CIBAR<br>SQ-FT | DELTA<br>COBAR<br>SQ-FT | DELTA<br>CPHBAR<br>CU-FT | DELTA<br>CYHBAR<br>CU-FT | DELTA<br>CRHBAR<br>CU-FT | DELTA<br>CYBAR<br>SQ-FT | DELTA<br>PSF | DELTA<br>Q<br>KNOTS | DELTA<br>V<br>KNOTS | DELTA<br>RPM |
|---------|---------------------|---------------------|-------------------------|-------------------------|--------------------------|--------------------------|--------------------------|-------------------------|--------------|---------------------|---------------------|--------------|
| 9       | 0.0                 | -5.0                | 41.4                    | 17.22                   | -236.                    | -181.                    | 3.                       | -24.89                  | 54.74        | 128.27              | 0.                  |              |
| 10      | 0.0                 | -5.0                | 42.1                    | 17.53                   | -243.                    | -186.                    | 9.                       | -24.64                  | 54.70        | 128.22              | 0.                  |              |
| 11      | -15.0               | -5.0                | -216.7                  | 69.54                   | -258.                    | -230.                    | 327.                     | -20.45                  | 54.47        | 127.94              | 0.                  |              |
| 12      | -15.0               | -5.0                | -214.4                  | 68.73                   | -258.                    | -234.                    | 283.                     | -20.89                  | 55.11        | 128.70              | 0.                  |              |
| 13      | -10.0               | -5.0                | -197.3                  | 26.37                   | -251.                    | -138.                    | 6.                       | -22.94                  | 54.84        | 128.39              | 0.                  |              |
| 14      | -10.0               | -5.0                | -196.0                  | 26.39                   | -261.                    | -136.                    | 13.                      | -23.43                  | 54.80        | 128.34              | 0.                  |              |
| 15      | -5.0                | -5.0                | -79.3                   | 19.17                   | -278.                    | -160.                    | 16.                      | -25.07                  | 54.72        | 128.25              | 0.                  |              |
| 16      | -5.0                | -5.0                | -78.9                   | 18.84                   | -283.                    | -156.                    | 4.                       | -24.82                  | 54.89        | 128.45              | 0.                  |              |
| 17      | 0.0                 | 0.0                 | 36.4                    | 13.91                   | -234.                    | 16.                      | -22.                     | 3.37                    | 54.94        | 128.51              | 0.                  |              |
| 18      | 10.0                | 0.0                 | 276.0                   | 33.02                   | 62.                      | -42.                     | 10.                      | 3.46                    | 55.13        | 128.73              | 0.                  |              |
| 19      | 10.0                | 0.0                 | 277.3                   | 33.33                   | 63.                      | -50.                     | 22.                      | 3.27                    | 54.88        | 128.44              | 0.                  |              |
| 20      | 15.0                | 0.0                 | 366.7                   | 52.16                   | 316.                     | -35.                     | 29.                      | 2.46                    | 54.99        | 128.56              | 0.                  |              |
| 21      | 20.0                | 0.0                 | 377.4                   | 87.89                   | 364.                     | -12.                     | 76.                      | -.81                    | 54.99        | 128.56              | 0.                  |              |
| 22      | 0.0                 | 0.0                 | 35.5                    | 13.86                   | -234.                    | 14.                      | -45.                     | 3.51                    | 55.29        | 128.93              | 0.                  |              |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 9    | 0.00   | .1118  | .0465 | -.0761 | -.0109 | .0002  | -.0673 |
| 10   | 0.00   | .1137  | .0474 | -.0782 | -.0112 | .0005  | -.0666 |
| 11   | -15.00 | -.5856 | .1879 | -.0832 | -.0139 | .0197  | -.0553 |
| 12   | -15.00 | -.5795 | .1858 | -.0832 | -.0141 | .0171  | -.0565 |
| 13   | -9.99  | -.5331 | .0713 | -.0811 | -.0083 | .0003  | -.0620 |
| 14   | -9.99  | -.5298 | .0713 | -.0841 | -.0082 | .0008  | -.0633 |
| 15   | -4.99  | -.2142 | .0518 | -.0896 | -.0097 | .0010  | -.0677 |
| 16   | -4.99  | -.2132 | .0509 | -.0912 | -.0095 | .0003  | -.0671 |
| 17   | 0.00   | .0983  | .0376 | -.0755 | .0010  | -.0013 | .0091  |
| 18   | 10.01  | .7461  | .0892 | .0200  | -.0025 | .0006  | .0094  |
| 19   | 10.01  | .7493  | .0901 | .0204  | -.0030 | .0013  | .0088  |
| 20   | 15.01  | .9911  | .1410 | .1020  | -.0021 | .0017  | .0066  |
| 21   | 20.00  | 1.0199 | .2375 | .1174  | -.0007 | .0046  | -.0022 |
| 22   | 0.00   | .0959  | .0375 | -.0755 | .0008  | -.0027 | .0095  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 9    | 0.00   | .1118  | .0405 | -.0759 | -.0109 | .0014  | -.0711 |
| 10   | 0.00   | .1137  | .0414 | -.0782 | -.0112 | .0018  | -.0705 |
| 11   | -15.00 | -.5856 | .1824 | -.0921 | -.0139 | .0210  | -.0715 |
| 12   | -15.00 | -.5795 | .1801 | -.0909 | -.0141 | .0184  | -.0725 |
| 13   | -9.99  | -.5331 | .0656 | -.0809 | -.0083 | .0017  | -.0680 |
| 14   | -9.99  | -.5298 | .0655 | -.0842 | -.0082 | .0022  | -.0693 |
| 15   | -4.99  | -.2142 | .0457 | -.0897 | -.0097 | .0025  | -.0720 |
| 16   | -4.99  | -.2132 | .0449 | -.0910 | -.0095 | .0018  | -.0713 |
| 17   | 0.00   | .0983  | .0376 | -.0755 | .0010  | -.0013 | .0091  |
| 18   | 10.01  | .7461  | .0892 | .0200  | -.0025 | .0006  | .0094  |
| 19   | 10.01  | .7493  | .0901 | .0204  | -.0030 | .0013  | .0088  |
| 20   | 15.01  | .9911  | .1410 | .1020  | -.0021 | .0017  | .0066  |
| 21   | 20.00  | 1.0199 | .2375 | .1174  | -.0007 | .0046  | -.0022 |
| 22   | 0.00   | .0959  | .0375 | -.0755 | .0008  | -.0027 | .0095  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 418

RUN 535 CONFIG F P B W7 T11 IN=0 BETA=0

| PT. NO. | O DELF    |         | O DELA      |             | O IHT        |              | O DELE       |             | O DELR       |           | O DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------------|-----------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | CRMBAR SQ-FT | CYBAR PSF | V KNOTS |  |     |
| 2       | .0        | .0      | 35.5        | 13.62       | -233.        | 20.          | -10.         | 3.23        | 54.79        | 128.32    | 0.      |  |     |
| 3       | .0        | .0      | 35.3        | 13.51       | -228.        | 18.          | -10.         | 3.07        | 55.13        | 128.73    | 0.      |  |     |
| 4       | .0        | .0      | 35.5        | 13.62       | -230.        | 18.          | -10.         | 3.09        | 54.83        | 128.37    | 0.      |  |     |
| 5       | .0        | .0      | 36.3        | 13.80       | -231.        | 17.          | 7.           | 3.44        | 55.12        | 128.72    | 0.      |  |     |
| 6       | 5.0       | .0      | 155.9       | 19.69       | -100.        | 1.           | 39.          | 2.56        | 54.92        | 128.49    | 0.      |  |     |
| 7       | 5.0       | .0      | 154.3       | 19.51       | -98.         | 1.           | 27.          | 2.39        | 55.04        | 128.63    | 0.      |  |     |
| 8       | -5.0      | .0      | 83.0        | 15.49       | -263.        | 27.          | -21.         | 2.16        | 55.18        | 128.79    | 0.      |  |     |
| 9       | -5.0      | .0      | 82.4        | 15.35       | -268.        | 29.          | -32.         | 1.91        | 55.34        | 128.98    | 0.      |  |     |
| 10      | -10.0     | .0      | 202.7       | 22.95       | -261.        | 49.          | -32.         | 1.76        | 55.35        | 128.99    | 0.      |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM   | CRM    | CY    |
|------|--------|--------|-------|--------|-------|--------|-------|
| 2    | .00    | .0961  | .0368 | -.0751 | .0012 | -.0006 | .0087 |
| 3    | .00    | .0953  | .0365 | -.0736 | .0011 | -.0006 | .0083 |
| 4    | .00    | .0958  | .0368 | -.0740 | .0011 | -.0006 | .0083 |
| 5    | .00    | .0981  | .0373 | -.0746 | .0010 | .0004  | .0093 |
| 6    | 5.00   | .4212  | .0532 | -.0323 | .0001 | .0023  | .0069 |
| 7    | 5.00   | .4172  | .0527 | -.0315 | .0001 | .0016  | .0065 |
| 8    | -5.00  | -.2243 | .0419 | -.0847 | .0016 | -.0013 | .0058 |
| 9    | -5.00  | -.2227 | .0415 | -.0863 | .0017 | -.0019 | .0052 |
| 10   | -10.00 | -.5477 | .0620 | -.0842 | .0030 | -.0020 | .0048 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB  | CRMB   | CYB   |
|------|--------|--------|-------|--------|-------|--------|-------|
| 2    | .00    | .0961  | .0368 | -.0751 | .0012 | -.0006 | .0087 |
| 3    | .00    | .0953  | .0365 | -.0736 | .0011 | -.0006 | .0083 |
| 4    | .00    | .0958  | .0368 | -.0740 | .0011 | -.0006 | .0083 |
| 5    | .00    | .0981  | .0373 | -.0746 | .0010 | .0004  | .0093 |
| 6    | 5.00   | .4212  | .0532 | -.0323 | .0001 | .0023  | .0069 |
| 7    | 5.00   | .4172  | .0527 | -.0315 | .0001 | .0016  | .0065 |
| 8    | -5.00  | -.2243 | .0419 | -.0847 | .0016 | -.0013 | .0058 |
| 9    | -5.00  | -.2227 | .0415 | -.0863 | .0017 | -.0019 | .0052 |
| 10   | -10.00 | -.5477 | .0620 | -.0842 | .0030 | -.0020 | .0048 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 419

RUN 536 CONFIG F P B W7 T11

IN=0

BETA=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------------|-----|
| 6       | .0        | .0            | 38.9        | 16.32       | -237.        | 25.          | -13.         | 5.83        | 54.13       | 127.56        | 0.  |
| 7       | -20.0     | .0            | -200.2      | 114.88      | -186.        | 32.          | 54.          | 10.55       | 53.79       | 127.15        | 0.  |
| 8       | -15.0     | .0            | -176.9      | 77.58       | -206.        | -27.         | 174.         | 13.25       | 54.43       | 127.92        | 0.  |
| 9       | -10.0     | .0            | -208.4      | 26.16       | -260.        | 42.          | -24.         | 3.42        | 55.85       | 129.60        | 0.  |
| 10      | -5.0      | .0            | -85.8       | 18.25       | -283.        | 32.          | -21.         | 5.87        | 55.31       | 128.97        | 0.  |
| 11      | .0        | .0            | 38.5        | 16.30       | -236.        | 26.          | -2.          | 6.05        | 55.74       | 129.47        | 0.  |
| 12      | 2.5       | .0            | 99.6        | 18.36       | -192.        | 24.          | 17.          | 5.27        | 55.60       | 129.31        | 0.  |
| 13      | 5.0       | .0            | 161.3       | 22.28       | -127.        | 25.          | 7.           | 4.85        | 56.22       | 130.04        | 0.  |
| 14      | 10.0      | .0            | 283.0       | 35.30       | 53.          | 17.          | 44.          | 3.95        | 55.72       | 129.44        | 0.  |
| 15      | 15.0      | .0            | 376.3       | 55.10       | 291.         | -3.          | 57.          | 4.11        | 55.56       | 129.26        | 0.  |
| 17      | 20.0      | .0            | 385.9       | 92.46       | 363.         | -3.          | 76.          | 3.67        | 55.44       | 129.12        | 0.  |
| 18      | -5.0      | .0            | -85.7       | 18.05       | -283.        | 33.          | -8.          | 4.92        | 55.89       | 129.65        | 0.  |
| 19      | .0        | .0            | 38.2        | 16.35       | -235.        | 18.          | 16.          | 5.85        | 56.06       | 129.85        | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 6    | .00    | .1051  | .0441 | -.0766 | .0015  | -.0008 | .0158 |
| 7    | -20.00 | -.5412 | .3105 | -.0600 | .0020  | .0033  | .0285 |
| 8    | -14.99 | -.4781 | .2097 | -.0663 | -.0016 | .0105  | .0358 |
| 9    | -10.00 | -.5632 | .0707 | -.0837 | .0025  | -.0014 | .0092 |
| 10   | -5.00  | -.2319 | .0493 | -.0914 | .0019  | -.0013 | .0159 |
| 11   | .00    | .1040  | .0441 | -.0760 | .0016  | -.0001 | .0164 |
| 12   | 2.50   | .2692  | .0496 | -.0618 | .0015  | .0011  | .0142 |
| 13   | 5.01   | .4361  | .0602 | -.0410 | .0015  | .0004  | .0131 |
| 14   | 10.01  | .7648  | .0954 | .0170  | .0010  | .0027  | .0107 |
| 15   | 15.00  | 1.0171 | .1489 | .0937  | -.0002 | .0035  | .0111 |
| 17   | 20.01  | 1.0430 | .2499 | .1169  | -.0002 | .0046  | .0099 |
| 18   | -5.00  | -.2317 | .0488 | -.0912 | .0020  | -.0005 | .0133 |
| 19   | .00    | .1032  | .0442 | -.0759 | .0011  | .0009  | .0158 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 6    | .00    | .1051  | .0441 | -.0766 | .0015  | -.0008 | .0158 |
| 7    | -20.00 | -.5412 | .3105 | -.0600 | .0020  | .0033  | .0285 |
| 8    | -14.99 | -.4781 | .2097 | -.0663 | -.0016 | .0105  | .0358 |
| 9    | -10.00 | -.5632 | .0707 | -.0837 | .0025  | -.0014 | .0092 |
| 10   | -5.00  | -.2319 | .0493 | -.0914 | .0019  | -.0013 | .0159 |
| 11   | .00    | .1040  | .0441 | -.0760 | .0016  | -.0001 | .0164 |
| 12   | 2.50   | .2692  | .0496 | -.0618 | .0015  | .0011  | .0142 |
| 13   | 5.01   | .4361  | .0602 | -.0410 | .0015  | .0004  | .0131 |
| 14   | 10.01  | .7648  | .0954 | .0170  | .0010  | .0027  | .0107 |
| 15   | 15.00  | 1.0171 | .1489 | .0937  | -.0002 | .0035  | .0111 |
| 17   | 20.01  | 1.0430 | .2499 | .1169  | -.0002 | .0046  | .0099 |
| 18   | -5.00  | -.2317 | .0488 | -.0912 | .0020  | -.0005 | .0133 |
| 19   | .00    | .1032  | .0442 | -.0759 | .0011  | .0009  | .0158 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 420

RUN 537 CONFIG F P B W7 T2 IN=0 BETA=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------|-----|
| 2       | .0        | .0      | 38.8        | 16.31       | -231.        | 22.          | -1.          | 5.72        | 55.41       | 129.09  | 0.  |
| 3       | -20.0     | .0      | -199.2      | 112.48      | -228.        | 9.           | 32.          | 11.51       | 55.35       | 129.00  | 0.  |
| 4       | -15.0     | .0      | -180.4      | 74.17       | -223.        | -48.         | 184.         | 14.92       | 55.64       | 129.36  | 0.  |
| 5       | -10.0     | .0      | -207.9      | 26.25       | -272.        | 47.          | -31.         | 3.96        | 55.39       | 129.05  | 0.  |
| 6       | -5.0      | .0      | -84.8       | 17.99       | -281.        | 29.          | -13.         | 4.90        | 55.87       | 129.63  | 0.  |
| 7       | .0        | .0      | 38.0        | 16.36       | -233.        | 20.          | -7.          | 5.53        | 55.84       | 129.59  | 0.  |
| 8       | 2.5       | .0      | 99.8        | 18.44       | -187.        | 21.          | -6.          | 5.10        | 55.42       | 129.10  | 0.  |
| 9       | 5.0       | .0      | 161.7       | 22.49       | -121.        | 18.          | 2.           | 4.57        | 55.17       | 128.79  | 0.  |
| 10      | 10.0      | .0      | 280.3       | 35.01       | 65.          | 24.          | 21.          | 4.37        | 55.11       | 128.72  | 0.  |
| 11      | 15.0      | .0      | 374.8       | 54.33       | 311.         | -7.          | 40.          | 3.90        | 55.10       | 128.71  | 0.  |
| 12      | 20.0      | .0      | 386.3       | 92.37       | 374.         | 14.          | 71.          | 3.87        | 54.90       | 128.47  | 0.  |
| 13      | -5.0      | .0      | -85.4       | 17.97       | -284.        | 26.          | -30.         | 4.25        | 55.84       | 129.58  | 0.  |
| 14      | .0        | .0      | 37.6        | 16.35       | -235.        | 21.          | -7.          | 5.48        | 55.12       | 128.74  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .1049  | .0441 | -.0745 | .0013  | -.0001 | .0155 |
| 3    | -20.00 | -.5383 | .3040 | -.0735 | .0005  | .0019  | .0311 |
| 4    | -15.00 | -.4875 | .2005 | -.0718 | -.0029 | .0111  | .0403 |
| 5    | -10.00 | -.5618 | .0709 | -.0876 | .0028  | -.0018 | .0107 |
| 6    | -5.00  | -.2292 | .0486 | -.0907 | .0017  | -.0008 | .0132 |
| 7    | .00    | .1028  | .0442 | -.0750 | .0012  | -.0004 | .0149 |
| 8    | 2.50   | .2697  | .0498 | -.0601 | .0012  | -.0003 | .0138 |
| 9    | 5.00   | .4371  | .0608 | -.0389 | .0011  | .0001  | .0123 |
| 10   | 10.00  | .7575  | .0946 | .0211  | .0015  | .0013  | .0118 |
| 11   | 15.00  | 1.0129 | .1468 | .1004  | -.0004 | .0024  | .0105 |
| 12   | 20.00  | 1.0440 | .2496 | .1206  | .0008  | .0043  | .0105 |
| 13   | -5.00  | -.2307 | .0486 | -.0915 | .0016  | -.0018 | .0115 |
| 14   | .00    | .1017  | .0442 | -.0757 | .0013  | -.0004 | .0148 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .1049  | .0441 | -.0745 | .0013  | -.0001 | .0155 |
| 3    | -20.00 | -.5383 | .3040 | -.0735 | .0005  | .0019  | .0311 |
| 4    | -15.00 | -.4875 | .2005 | -.0718 | -.0029 | .0111  | .0403 |
| 5    | -10.00 | -.5618 | .0709 | -.0876 | .0028  | -.0018 | .0107 |
| 6    | -5.00  | -.2292 | .0486 | -.0907 | .0017  | -.0008 | .0132 |
| 7    | .00    | .1028  | .0442 | -.0750 | .0012  | -.0004 | .0149 |
| 8    | 2.50   | .2697  | .0498 | -.0601 | .0012  | -.0003 | .0138 |
| 9    | 5.00   | .4371  | .0608 | -.0389 | .0011  | .0001  | .0123 |
| 10   | 10.00  | .7575  | .0946 | .0211  | .0015  | .0013  | .0118 |
| 11   | 15.00  | 1.0129 | .1468 | .1004  | -.0004 | .0024  | .0105 |
| 12   | 20.00  | 1.0440 | .2496 | .1206  | .0008  | .0043  | .0105 |
| 13   | -5.00  | -.2307 | .0486 | -.0915 | .0016  | -.0018 | .0115 |
| 14   | .00    | .1017  | .0442 | -.0757 | .0013  | -.0004 | .0148 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 421

RUN 538 CONF16 F P B W7 T2

IN=0 BETA=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------------|-----|
| 6       | .0        | .0            | 38.6        | 16.00       | -197.        | 23.          | -31.         | 5.87        | 55.49       | 129.17        | 0.  |
| 7       | .0        | -20.0         | 65.7        | 49.26       | -332.        | -622.        | 161.         | -104.62     | 55.43       | 129.11        | 0.  |
| 8       | .0        | -15.0         | 57.1        | 34.99       | -302.        | -505.        | 105.         | -77.02      | 55.45       | 129.12        | 0.  |
| 9       | .0        | -10.0         | 45.2        | 23.96       | -242.        | -339.        | 64.          | -48.88      | 55.61       | 129.32        | 0.  |
| 10      | .0        | -5.0          | 41.8        | 18.46       | -258.        | -173.        | 17.          | -23.37      | 55.33       | 128.99        | 0.  |
| 11      | .0        | -2.5          | 39.2        | 16.89       | -245.        | -76.         | 10.          | -9.48       | 55.69       | 129.41        | 0.  |
| 12      | .0        | .0            | 38.3        | 16.40       | -236.        | 18.          | -19.         | 6.21        | 55.60       | 129.30        | 0.  |
| 13      | .0        | 2.5           | 38.1        | 17.29       | -237.        | 129.         | -36.         | 19.39       | 55.94       | 129.71        | 0.  |
| 14      | .0        | 5.0           | 41.0        | 18.92       | -225.        | 216.         | -50.         | 31.54       | 56.12       | 129.92        | 0.  |
| 15      | .0        | 10.0          | 46.2        | 23.44       | -281.        | 401.         | -97.         | 55.97       | 55.08       | 128.69        | 0.  |
| 16      | .0        | 15.0          | 54.6        | 32.89       | -329.        | 562.         | -121.        | 80.95       | 55.68       | 129.40        | 0.  |
| 17      | .0        | 20.0          | 59.8        | 47.13       | -362.        | 707.         | -158.        | 108.37      | 55.45       | 129.12        | 0.  |
| 18      | .0        | .0            | 38.4        | 16.52       | -232.        | 24.          | -25.         | 5.80        | 54.98       | 128.56        | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | .00    | .1045 | .0432 | -.0635 | .0014  | -.0019 | .0159  |
| 7    | -20.00 | .1776 | .1331 | -.1070 | -.0376 | .0097  | -.2827 |
| 8    | -15.00 | .1543 | .0946 | -.0974 | -.0305 | .0064  | -.2082 |
| 9    | -10.00 | .1222 | .0648 | -.0781 | -.0205 | .0038  | -.1321 |
| 10   | -5.00  | .1129 | .0499 | -.0832 | -.0104 | .0010  | -.0632 |
| 11   | -2.50  | .1060 | .0457 | -.0791 | -.0046 | .0006  | -.0256 |
| 12   | .00    | .1034 | .0443 | -.0762 | .0011  | -.0012 | .0168  |
| 13   | 2.50   | .1031 | .0467 | -.0764 | .0078  | -.0022 | .0524  |
| 14   | 5.00   | .1109 | .0511 | -.0724 | .0131  | -.0030 | .0853  |
| 15   | 10.00  | .1248 | .0634 | -.0905 | .0242  | -.0059 | .1513  |
| 16   | 15.00  | .1477 | .0889 | -.1061 | .0340  | -.0073 | .2188  |
| 17   | 20.00  | .1616 | .1274 | -.1166 | .0427  | -.0096 | .2929  |
| 18   | .00    | .1039 | .0446 | -.0747 | .0014  | -.0015 | .0157  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | .00    | .1045 | .0432 | -.0635 | .0014  | -.0019 | .0159  |
| 7    | -20.00 | .1776 | .0279 | -.1183 | -.0376 | .0160  | -.3113 |
| 8    | -15.00 | .1543 | .0372 | -.1029 | -.0305 | .0109  | -.2256 |
| 9    | -10.00 | .1222 | .0407 | -.0805 | -.0205 | .0063  | -.1414 |
| 10   | -5.00  | .1129 | .0442 | -.0833 | -.0104 | .0024  | -.0673 |
| 11   | -2.50  | .1060 | .0445 | -.0792 | -.0046 | .0012  | -.0276 |
| 12   | .00    | .1034 | .0443 | -.0762 | .0011  | -.0012 | .0168  |
| 13   | 2.50   | .1031 | .0444 | -.0768 | .0078  | -.0028 | .0544  |
| 14   | 5.00   | .1109 | .0435 | -.0735 | .0131  | -.0042 | .0894  |
| 15   | 10.00  | .1248 | .0360 | -.0946 | .0242  | -.0087 | .1500  |
| 16   | 15.00  | .1477 | .0290 | -.1127 | .0340  | -.0122 | .2344  |
| 17   | 20.00  | .1616 | .0190 | -.1270 | .0427  | -.0165 | .3188  |
| 18   | .00    | .1039 | .0446 | -.0747 | .0014  | -.0015 | .0157  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P422

RUN 540 CONFIG F P B NP5 W7 T10 BT IN=-7 BETA=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELF CLBAR SQ-FT | DELA CDBAR SQ-FT | IHT CPMBAR CU-FT | DELE CYMBAR CU-FT | DELR CRMBAR CU-FT | DELSB CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------|---------|--------|
| 2       | .0        | .0            | 37.3             | 32.05            | -197.            | -25.              | 8.                | 7.48              | 55.41 | 129.08  | 3570.  |
| 3       | .0        | .0            | 29.0             | -6.59            | -359.            | -20.              | -3.               | 6.76              | 55.25 | 128.89  | 11450. |
| 4       | -20.0     | .0            | -388.0           | 124.08           | 318.             | -77.              | -267.             | 4.15              | 53.95 | 127.33  | 11520. |
| 5       | -15.0     | .0            | -329.0           | 76.10            | 264.             | -55.              | 25.               | 5.55              | 53.63 | 126.95  | 11440. |
| 6       | -10.0     | .0            | -269.8           | 23.40            | -245.            | -18.              | -26.              | 4.47              | 55.17 | 128.79  | 11440. |
| 7       | -5.0      | .0            | -122.1           | .19              | -513.            | -27.              | -23.              | 7.21              | 55.74 | 129.47  | 11470. |
| 8       | -0        | .0            | 28.1             | -6.97            | -364.            | -10.              | -20.              | 6.45              | 54.93 | 128.51  | 11470. |
| 9       | 2.5       | .0            | 105.8            | -5.85            | -311.            | -19.              | -7.               | 6.78              | 54.60 | 128.12  | 11470. |
| 10      | 5.0       | .0            | 182.6            | -1.47            | -274.            | -30.              | 6.                | 5.77              | 55.63 | 129.22  | 11480. |
| 11      | 10.0      | .0            | 337.4            | 16.14            | -296.            | -27.              | 39.               | 3.97              | 54.95 | 128.53  | 11470. |
| 12      | 15.0      | .0            | 481.9            | 45.42            | -472.            | 19.               | 82.               | 2.94              | 54.81 | 128.37  | 11440. |
| 13      | 20.0      | .0            | 535.8            | 95.87            | -690.            | 14.               | 186.              | 1.76              | 55.53 | 129.22  | 11440. |
| 14      | -0        | .0            | 26.9             | -7.48            | -351.            | -4.               | -7.               | 5.27              | 54.91 | 128.49  | 11510. |
| 15      | -2.5      | .0            | -49.0            | -5.69            | -439.            | -17.              | -27.              | 6.61              | 54.48 | 127.97  | 11500. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1008   | .0866  | -.0635 | -.0015 | .0005  | .0202 |
| 3    | .00    | .0785   | -.0178 | -.1156 | -.0012 | -.0002 | .0183 |
| 4    | -20.00 | -1.0488 | .3353  | .1026  | -.0046 | -.0161 | .0112 |
| 5    | -15.00 | -.8891  | .2057  | .0852  | -.0033 | -.0015 | .0150 |
| 6    | -10.00 | -.7291  | .0633  | -.0791 | -.0011 | -.0016 | .0121 |
| 7    | -5.01  | -.3299  | .0005  | -.1653 | -.0016 | -.0014 | .0195 |
| 8    | -.00   | .0758   | -.0188 | -.1172 | -.0006 | -.0012 | .0174 |
| 9    | 2.50   | .2858   | -.0158 | -.1002 | -.0011 | -.0005 | .0183 |
| 10   | 4.99   | .4934   | -.0040 | -.0883 | -.0018 | .0004  | .0156 |
| 11   | 10.01  | .9119   | .0436  | -.0953 | -.0017 | .0023  | .0107 |
| 12   | 14.99  | 1.3025  | .1228  | -.1522 | .0011  | .0049  | .0080 |
| 13   | 20.00  | 1.4482  | .2591  | -.2225 | .0008  | .0113  | .0048 |
| 14   | -.01   | .0728   | -.0202 | -.1132 | -.0002 | -.0004 | .0143 |
| 15   | -2.51  | -.1325  | -.0154 | -.1415 | -.0011 | -.0016 | .0179 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1008   | .0866  | -.0635 | -.0015 | .0005  | .0202 |
| 3    | .00    | .0785   | -.0178 | -.1156 | -.0012 | -.0002 | .0183 |
| 4    | -20.00 | -1.0488 | .3353  | .1026  | -.0046 | -.0161 | .0112 |
| 5    | -15.00 | -.8891  | .2057  | .0852  | -.0033 | .0015  | .0150 |
| 6    | -10.00 | -.7291  | .0633  | -.0791 | -.0011 | -.0016 | .0121 |
| 7    | -5.01  | -.3299  | .0005  | -.1653 | -.0016 | -.0014 | .0195 |
| 8    | -.00   | .0758   | -.0188 | -.1172 | -.0006 | -.0012 | .0174 |
| 9    | 2.50   | .2858   | -.0158 | -.1002 | -.0011 | -.0005 | .0183 |
| 10   | 4.99   | .4934   | -.0040 | -.0883 | -.0018 | .0004  | .0156 |
| 11   | 10.01  | .9119   | .0436  | -.0953 | -.0017 | .0023  | .0107 |
| 12   | 14.99  | 1.3025  | .1228  | -.1522 | .0011  | .0049  | .0080 |
| 13   | 20.00  | 1.4482  | .2591  | -.2225 | .0008  | .0113  | .0048 |
| 14   | -.01   | .0728   | -.0202 | -.1132 | -.0002 | -.0004 | .0143 |
| 15   | -2.51  | -.1325  | -.0154 | -.1415 | -.0011 | -.0016 | .0179 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 423

RUN 541 CONFIG F P B NP5 W7 T10 BT IN=-7 BETA=0

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 337.2       | 70.78       | -67.         | -88.         | 68.          | 2.05        | 54.86 | 128.42  | 3990.  |
| 3       | .0        | .0      | 296.6       | -2.81       | -566.        | -114.        | -18.         | 4.65        | 54.95 | 128.54  | 15710. |
| 4       | -20.0     | .0      | -290.5      | 30.14       | 243.         | 242.         | -90.         | -12.62      | 54.51 | 128.01  | 15800. |
| 5       | -15.0     | .0      | -152.2      | .80         | -67.         | 95.          | -63.         | -3.81       | 54.83 | 128.40  | 15780. |
| 6       | -10.0     | .0      | 28.7        | -21.50      | -100.        | 43.          | -4.          | -1.29       | 54.78 | 128.33  | 15780. |
| 7       | -5.0      | .0      | 183.0       | -17.45      | -429.        | -62.         | 66.          | -1.13       | 55.42 | 129.10  | 15730. |
| 8       | -2.5      | .0      | 248.6       | -11.63      | -465.        | -116.        | 88.          | .14         | 55.19 | 128.82  | 15730. |
| 9       | .0        | .0      | 306.5       | -3.83       | -438.        | -127.        | 150.         | -3.15       | 55.46 | 129.14  | 15740. |
| 10      | 2.5       | .0      | 349.2       | 10.42       | -575.        | -77.         | 134.         | .80         | 55.06 | 128.67  | 15750. |
| 11      | 5.0       | .0      | 394.1       | 24.74       | -584.        | -66.         | 156.         | 1.50        | 55.24 | 128.88  | 15750. |
| 12      | 10.0      | .0      | 389.6       | 60.91       | -271.        | -205.        | 234.         | -.53        | 55.24 | 128.88  | 15730. |
| 13      | 15.0      | .0      | 457.8       | 125.91      | -711.        | -136.        | 297.         | 2.61        | 55.27 | 128.91  | 15750. |
| 14      | 20.0      | .0      | 523.7       | 186.96      | -1003.       | 11.          | 77.          | 2.97        | 55.05 | 128.65  | 15680. |
| 16      | 7.5       | .0      | 368.5       | 41.20       | -264.        | -214.        | 201.         | -1.82       | 55.00 | 128.60  | 15770. |
| 17      | -.0       | .0      | 304.8       | -3.10       | -432.        | -142.        | 69.          | -3.32       | 54.68 | 128.21  | 15750. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9114  | .1913  | -.0217 | -.0053 | .0041  | .0055  |
| 3    | .00    | .8016  | -.0076 | -.1826 | -.0069 | -.0011 | .0126  |
| 4    | -20.00 | -.7851 | .0815  | .0785  | .0146  | -.0054 | -.0341 |
| 5    | -15.00 | -.4113 | .0022  | -.0216 | .0057  | -.0038 | -.0103 |
| 6    | -10.00 | .0776  | -.0581 | -.0323 | .0026  | -.0002 | -.0035 |
| 7    | -5.00  | .4946  | -.0472 | -.1384 | -.0037 | .0040  | -.0030 |
| 8    | -2.50  | .6719  | -.0314 | -.1498 | -.0070 | .0053  | .0004  |
| 9    | .00    | .8283  | -.0104 | -.1412 | -.0077 | .0090  | -.0085 |
| 10   | 2.50   | .9437  | .0282  | -.1855 | -.0046 | .0081  | .0022  |
| 11   | 5.00   | 1.0653 | .0669  | -.1884 | -.0040 | .0095  | .0041  |
| 12   | 10.00  | 1.0529 | .1646  | -.0873 | -.0124 | .0141  | -.0014 |
| 13   | 15.02  | 1.2373 | .3403  | -.2294 | -.0082 | .0180  | .0071  |
| 14   | 20.00  | 1.4154 | .5053  | -.3235 | .0007  | .0046  | .0080  |
| 16   | 7.50   | .9961  | .1113  | -.0853 | -.0129 | .0121  | -.0049 |
| 17   | -.00   | .8238  | -.0084 | -.1391 | -.0086 | .0042  | -.0090 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9114  | .1913  | -.0217 | -.0053 | .0041  | .0055  |
| 3    | .00    | .8016  | -.0076 | -.1826 | -.0069 | -.0011 | .0126  |
| 4    | -20.00 | -.7851 | .0815  | .0785  | .0146  | -.0054 | -.0341 |
| 5    | -15.00 | -.4113 | .0022  | -.0216 | .0057  | -.0038 | -.0103 |
| 6    | -10.00 | .0776  | -.0581 | -.0323 | .0026  | -.0002 | -.0035 |
| 7    | -5.00  | .4946  | -.0472 | -.1384 | -.0037 | .0040  | -.0030 |
| 8    | -2.50  | .6719  | -.0314 | -.1498 | -.0070 | .0053  | .0004  |
| 9    | .00    | .8283  | -.0104 | -.1412 | -.0077 | .0090  | -.0085 |
| 10   | 2.50   | .9437  | .0282  | -.1855 | -.0046 | .0081  | .0022  |
| 11   | 5.00   | 1.0653 | .0669  | -.1884 | -.0040 | .0095  | .0041  |
| 12   | 10.00  | 1.0529 | .1646  | -.0873 | -.0124 | .0141  | -.0014 |
| 13   | 15.02  | 1.2373 | .3403  | -.2294 | -.0082 | .0180  | .0071  |
| 14   | 20.00  | 1.4154 | .5053  | -.3235 | .0007  | .0046  | .0080  |
| 16   | 7.50   | .9961  | .1113  | -.0853 | -.0129 | .0121  | -.0049 |
| 17   | -.00   | .8238  | -.0084 | -.1391 | -.0086 | .0042  | -.0090 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 424

RUN 542 CONFIG F P B NP5 W7 T22 BT IN=-7 BETA=0

| IW        | 15 DELF | 0 DELA | 0 IHT  | 0 DELE | 0 DELR | 0 DELSB | 0     |       |       |        |        |
|-----------|---------|--------|--------|--------|--------|---------|-------|-------|-------|--------|--------|
| PT. ALPHA | PSI     | CLBAR  | CDBAR  | CPMBAR | CYMBAR | CRMBAR  | CYBAR | RPM   |       |        |        |
| NO. DEG   | DEG     | SQ-FT  | SQ-FT  | CU-FT  | CU-FT  | CU-FT   | PSF   | V     |       |        |        |
| 6         | .0      | .0     | 334.5  | 70.06  | 91.    | -121.   | 24.   | 4.24  | 54.88 | 128.46 | 3970.  |
| 7         | .0      | .0     | 304.8  | -6.78  | -270.  | -175.   | 103.  | -1.58 | 54.52 | 128.03 | 15800. |
| 8         | -20.0   | .0     | -290.9 | 29.39  | 252.   | 97.     | -57.  | -3.16 | 54.92 | 128.51 | 15820. |
| 9         | -15.0   | .0     | -150.4 | .85    | 4.     | -91.    | -48.  | .47   | 55.04 | 128.64 | 15750. |
| 10        | -10.0   | .0     | 25.5   | -21.73 | -20.   | -44.    | -22.  | 2.47  | 55.10 | 128.72 | 15770. |
| 11        | -5.0    | .0     | 175.0  | -18.69 | -253.  | -131.   | 28.   | .76   | 55.06 | 128.67 | 15760. |
| 12        | -0      | .0     | 296.6  | -4.98  | -314.  | -157.   | 145.  | 1.95  | 54.80 | 128.35 | 15750. |
| 13        | 2.5     | .0     | 343.2  | 8.51   | -493.  | -91.    | 84.   | 3.39  | 55.19 | 128.82 | 15750. |
| 14        | 5.0     | .0     | 396.5  | 23.12  | -498.  | -106.   | 151.  | 3.41  | 54.57 | 128.08 | 15770. |
| 15        | 10.0    | .0     | 395.5  | 60.49  | -372.  | -253.   | 241.  | -.02  | 54.96 | 128.54 | 15810. |
| 16        | 15.0    | .0     | 464.6  | 125.84 | -806.  | -135.   | 294.  | 3.95  | 54.84 | 128.40 | 15790. |
| 17        | 20.0    | .0     | 528.3  | 190.49 | -974.  | -6.     | 54.   | 4.14  | 54.62 | 128.14 | 15770. |
| 18        | .0      | .0     | 304.3  | -4.16  | -274.  | -107.   | 150.  | -2.51 | 55.09 | 128.71 | 15790. |
| 19        | 7.5     | .0     | 368.2  | 39.71  | -194.  | -162.   | 221.  | 1.50  | 55.26 | 128.90 | 15760. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | .9040  | .1894  | .0294  | -.0073 | .0015  | .0115  |
| 7    | .00    | .8237  | -.0183 | -.0871 | -.0106 | .0062  | -.0043 |
| 8    | -20.00 | -.7861 | .0794  | .0813  | .0059  | -.0035 | -.0085 |
| 9    | -15.00 | -.4065 | .0023  | .0014  | -.0055 | -.0029 | .0013  |
| 10   | -10.00 | .0689  | -.0587 | -.0065 | -.0027 | -.0013 | .0067  |
| 11   | -5.00  | .4731  | -.0505 | -.0816 | -.0079 | .0017  | .0021  |
| 12   | -.00   | .8015  | -.0134 | -.1014 | -.0095 | .0088  | .0053  |
| 13   | 2.52   | .9275  | .0230  | -.1588 | -.0055 | .0051  | .0092  |
| 14   | 5.00   | 1.0715 | .0625  | -.1605 | -.0064 | .0091  | .0092  |
| 15   | 10.00  | 1.0689 | .1635  | -.1199 | -.0153 | .0146  | -.0001 |
| 16   | 15.00  | 1.2557 | .3401  | -.2599 | -.0082 | .0177  | .0107  |
| 17   | 20.00  | 1.4279 | .5148  | -.3141 | -.0004 | .0033  | .0112  |
| 18   | .01    | .8225  | -.0112 | -.0884 | -.0065 | .0090  | -.0068 |
| 19   | 7.50   | .9951  | .1073  | -.0626 | -.0098 | .0133  | .0041  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | .9040  | .1894  | .0294  | -.0073 | .0015  | .0115  |
| 7    | .00    | .8237  | -.0183 | -.0871 | -.0106 | .0062  | -.0043 |
| 8    | -20.00 | -.7861 | .0794  | .0813  | .0059  | -.0035 | -.0085 |
| 9    | -15.00 | -.4065 | .0023  | .0014  | -.0055 | -.0029 | .0013  |
| 10   | -10.00 | .0689  | -.0587 | -.0065 | -.0027 | -.0013 | .0067  |
| 11   | -5.00  | .4731  | -.0505 | -.0816 | -.0079 | .0017  | .0021  |
| 12   | -.00   | .8015  | -.0134 | -.1014 | -.0095 | .0088  | .0053  |
| 13   | 2.52   | .9275  | .0230  | -.1588 | -.0055 | .0051  | .0092  |
| 14   | 5.00   | 1.0715 | .0625  | -.1605 | -.0064 | .0091  | .0092  |
| 15   | 10.00  | 1.0689 | .1635  | -.1199 | -.0153 | .0146  | -.0001 |
| 16   | 15.00  | 1.2557 | .3401  | -.2599 | -.0082 | .0177  | .0107  |
| 17   | 20.00  | 1.4279 | .5148  | -.3141 | -.0004 | .0033  | .0112  |
| 18   | .01    | .8225  | -.0112 | -.0884 | -.0065 | .0090  | -.0068 |
| 19   | 7.50   | .9951  | .1073  | -.0626 | -.0098 | .0133  | .0041  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 425

RUN 543 CONFIG F P B NP5 W7 T22 BT IN=-7 BETA=0

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------|------------|--------|
| 2                | .0                     | .0                   | 46.1                     | 32.86                   | -38.                      | -52.                      | -8.                       | 6.18                      | 55.11    | 128.73     | 3600.  |
| 3                | .0                     | .0                   | 37.5                     | -6.34                   | -167.                     | -34.                      | -9.                       | 6.79                      | 54.84    | 128.41     | 11370. |
| 4                | -20.0                  | .0                   | -392.2                   | 122.53                  | 361.                      | -184.                     | -173.                     | 7.74                      | 54.15    | 127.58     | 11370. |
| 5                | -15.0                  | .0                   | -334.3                   | 72.17                   | 369.                      | -98.                      | 52.                       | 6.64                      | 54.07    | 127.48     | 11390. |
| 6                | -10.0                  | .0                   | -267.7                   | 22.42                   | -120.                     | -76.                      | -20.                      | 7.61                      | 53.98    | 127.38     | 11380. |
| 7                | -5.0                   | .0                   | -119.9                   | .29                     | -250.                     | -63.                      | -31.                      | 8.47                      | 54.30    | 127.76     | 11400. |
| 8                | .0                     | .0                   | 37.5                     | -6.24                   | -156.                     | -37.                      | -14.                      | 6.38                      | 55.02    | 128.62     | 11380. |
| 9                | 2.5                    | .0                   | 116.8                    | -4.88                   | -182.                     | -44.                      | 23.                       | 6.37                      | 54.34    | 127.81     | 11370. |
| 10               | 5.0                    | .0                   | 196.4                    | .22                     | -205.                     | -62.                      | 11.                       | 6.69                      | 54.81    | 128.38     | 11350. |
| 11               | 10.0                   | .0                   | 348.0                    | 17.64                   | -289.                     | -54.                      | 56.                       | 5.06                      | 55.00    | 128.60     | 11400. |
| 12               | 15.0                   | .0                   | 495.0                    | 49.27                   | -516.                     | 12.                       | 106.                      | 3.36                      | 54.73    | 128.28     | 11330. |
| 13               | 20.0                   | .0                   | 538.5                    | 103.25                  | -824.                     | 35.                       | 200.                      | 1.67                      | 55.00    | 128.60     | 11360. |
| 14               | 5.0                    | .0                   | 195.1                    | -.59                    | -199.                     | -50.                      | 12.                       | 5.59                      | 54.66    | 128.19     | 11390. |
| 15               | .0                     | .0                   | 36.4                     | -6.53                   | -162.                     | -47.                      | -20.                      | 6.66                      | 54.72    | 128.26     | 11390. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1246   | .0888  | -.0122 | -.0031 | -.0005 | .0167 |
| 3    | .00    | .1013   | -.0171 | -.0538 | -.0021 | -.0005 | .0184 |
| 4    | -20.00 | -1.0600 | .3312  | .1162  | -.0111 | -.0104 | .0209 |
| 5    | -15.00 | -.9035  | .1951  | .1191  | -.0059 | .0031  | .0179 |
| 6    | -9.99  | -.7235  | .0606  | -.0388 | -.0046 | -.0012 | .0206 |
| 7    | -5.00  | -.3241  | .0008  | -.0806 | -.0038 | -.0019 | .0229 |
| 8    | .00    | .1013   | -.0169 | -.0504 | -.0022 | -.0008 | .0172 |
| 9    | 2.50   | .3155   | -.0132 | -.0588 | -.0026 | .0014  | .0172 |
| 10   | 5.00   | .5309   | .0006  | -.0661 | -.0038 | .0007  | .0181 |
| 11   | 10.00  | .9405   | .0477  | -.0933 | -.0033 | .0034  | .0137 |
| 12   | 15.00  | 1.3378  | .1332  | -.1664 | .0007  | .0064  | .0091 |
| 13   | 19.99  | 1.4554  | .2790  | -.2656 | .0021  | .0121  | .0045 |
| 14   | 5.00   | .5272   | -.0016 | -.0642 | -.0030 | .0008  | .0151 |
| 15   | .00    | .0983   | -.0176 | -.0524 | -.0029 | -.0012 | .0180 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1246   | .0888  | -.0122 | -.0031 | -.0005 | .0167 |
| 3    | .00    | .1013   | -.0171 | -.0538 | -.0021 | -.0005 | .0184 |
| 4    | -20.00 | -1.0600 | .3312  | .1162  | -.0111 | -.0104 | .0209 |
| 5    | -15.00 | -.9035  | .1951  | .1191  | -.0059 | .0031  | .0179 |
| 6    | -9.99  | -.7235  | .0606  | -.0388 | -.0046 | -.0012 | .0206 |
| 7    | -5.00  | -.3241  | .0008  | -.0806 | -.0038 | -.0019 | .0229 |
| 8    | .00    | .1013   | -.0169 | -.0504 | -.0022 | -.0008 | .0172 |
| 9    | 2.50   | .3155   | -.0132 | -.0588 | -.0026 | .0014  | .0172 |
| 10   | 5.00   | .5309   | .0006  | -.0661 | -.0038 | .0007  | .0181 |
| 11   | 10.00  | .9405   | .0477  | -.0933 | -.0033 | .0034  | .0137 |
| 12   | 15.00  | 1.3378  | .1332  | -.1664 | .0007  | .0064  | .0091 |
| 13   | 19.99  | 1.4554  | .2790  | -.2656 | .0021  | .0121  | .0045 |
| 14   | 5.00   | .5272   | -.0016 | -.0642 | -.0030 | .0008  | .0151 |
| 15   | .00    | .0983   | -.0176 | -.0524 | -.0029 | -.0012 | .0180 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 426

RUN 544 CONFIG F P B NP5 W7 T22 BT IN=0 BETA=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 63.2        | 30.37       | 256.         | -54.         | -10.         | 7.60        | 54.98 | 128.58  | 3500.  |
| 3       | .0        | .0      | 65.2        | -6.61       | 226.         | -55.         | 15.          | 6.92        | 54.82 | 128.38  | 11150. |
| 4       | -20.0     | .0      | -381.7      | 112.31      | 756.         | -105.        | -178.        | 8.01        | 54.56 | 128.07  | 11150. |
| 5       | -15.0     | .0      | -322.7      | 66.38       | 919.         | -138.        | 92.          | 9.64        | 54.87 | 128.44  | 11140. |
| 6       | -10.0     | .0      | -258.5      | 15.91       | 443.         | -59.         | -0.          | 6.55        | 55.12 | 128.74  | 11140. |
| 7       | -5.0      | .0      | -100.4      | -4.33       | 186.         | -75.         | 0.           | 7.39        | 54.56 | 128.07  | 11110. |
| 8       | -2.5      | .0      | -17.7       | -6.76       | 240.         | -52.         | 8.           | 6.58        | 55.40 | 129.07  | 11120. |
| 9       | -.0       | .0      | 64.4        | -6.74       | 218.         | -60.         | 9.           | 6.86        | 55.12 | 128.74  | 11140. |
| 10      | 2.5       | .0      | 146.6       | -2.56       | 202.         | -49.         | 29.          | 5.72        | 55.41 | 129.09  | 11120. |
| 11      | 5.0       | .0      | 228.2       | 3.74        | 212.         | -57.         | 36.          | 5.30        | 55.44 | 129.12  | 11140. |
| 12      | 10.0      | .0      | 382.3       | 25.62       | 190.         | -60.         | 68.          | 4.67        | 55.17 | 128.81  | 11090. |
| 13      | 15.0      | .0      | 525.0       | 60.94       | -41.         | -26.         | 135.         | 3.43        | 54.54 | 128.06  | 11130. |
| 14      | 20.0      | .0      | 570.2       | 119.58      | -429.        | 62.          | 182.         | .79         | 54.93 | 128.52  | 11100. |
| 15      | -.0       | .0      | 63.3        | -6.43       | 235.         | -56.         | -3.          | 6.89        | 55.39 | 129.06  | 11140. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1709   | .0821  | .0825  | -.0032 | -.0006 | .0205 |
| 3    | .00    | .1762   | -.0179 | .0729  | -.0033 | .0009  | .0187 |
| 4    | -20.00 | -1.0316 | .3035  | .2436  | -.0063 | -.0108 | .0217 |
| 5    | -15.00 | -.8721  | .1794  | .2964  | -.0084 | .0055  | .0261 |
| 6    | -10.00 | -.6986  | .0430  | .1428  | -.0036 | -.0000 | .0177 |
| 7    | -5.00  | -.2715  | -.0117 | .0599  | -.0045 | .0000  | .0200 |
| 8    | -2.51  | -.0478  | -.0183 | .0775  | -.0032 | .0005  | .0178 |
| 9    | -.00   | .1741   | -.0182 | .0703  | -.0036 | .0005  | .0185 |
| 10   | 2.50   | .3962   | -.0069 | .0651  | -.0030 | .0017  | .0155 |
| 11   | 5.01   | .6169   | .0101  | .0683  | -.0034 | .0022  | .0143 |
| 12   | 10.03  | 1.0331  | .0692  | .0613  | -.0036 | .0041  | .0126 |
| 13   | 15.04  | 1.4190  | .1647  | -.0131 | -.0016 | .0082  | .0093 |
| 14   | 20.00  | 1.5412  | .3232  | -.1384 | .0037  | .0110  | .0021 |
| 15   | -.01   | .1711   | -.0174 | .0759  | -.0034 | -.0002 | .0186 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1709   | .0821  | .0825  | -.0032 | -.0006 | .0205 |
| 3    | .00    | .1762   | -.0179 | .0729  | -.0033 | .0009  | .0187 |
| 4    | -20.00 | -1.0316 | .3035  | .2436  | -.0063 | -.0108 | .0217 |
| 5    | -15.00 | -.8721  | .1794  | .2964  | -.0084 | .0055  | .0261 |
| 6    | -10.00 | -.6986  | .0430  | .1428  | -.0036 | -.0000 | .0177 |
| 7    | -5.00  | -.2715  | -.0117 | .0599  | -.0045 | .0000  | .0200 |
| 8    | -2.51  | -.0478  | -.0183 | .0775  | -.0032 | .0005  | .0178 |
| 9    | -.00   | .1741   | -.0182 | .0703  | -.0036 | .0005  | .0185 |
| 10   | 2.50   | .3962   | -.0069 | .0651  | -.0030 | .0017  | .0155 |
| 11   | 5.01   | .6169   | .0101  | .0683  | -.0034 | .0022  | .0143 |
| 12   | 10.03  | 1.0331  | .0692  | .0613  | -.0036 | .0041  | .0126 |
| 13   | 15.04  | 1.4190  | .1647  | -.0131 | -.0016 | .0082  | .0093 |
| 14   | 20.00  | 1.5412  | .3232  | -.1384 | .0037  | .0110  | .0021 |
| 15   | -.01   | .1711   | -.0174 | .0759  | -.0034 | -.0002 | .0186 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 427

RUN 545 CONFIG F P B NP8 W7 T22 BT IN=-7 BETA=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 5       | .0        | .0      | 39.8        | 33.41       | -136.        | -43.         | -28.         | 7.76        | 54.76 | 128.31  | 3600.  |
| 6       | .0        | .0      | 32.9        | -6.65       | -241.        | -22.         | -15.         | 7.52        | 54.66 | 128.20  | 11520. |
| 7       | -20.0     | .0      | -387.7      | 122.59      | 361.         | -115.        | -137.        | 8.31        | 54.80 | 128.36  | 11580. |
| 8       | -15.0     | .0      | -337.1      | 75.16       | 354.         | -92.         | 84.          | 7.65        | 54.76 | 128.31  | 11540. |
| 9       | -10.0     | .0      | -273.5      | 23.98       | -201.        | -76.         | -9.          | 8.04        | 54.51 | 128.01  | 11530. |
| 10      | -5.0      | .0      | -125.6      | -.60        | -360.        | -60.         | -25.         | 8.60        | 54.37 | 127.85  | 11490. |
| 11      | -2.5      | .0      | -48.1       | -5.59       | -298.        | -40.         | -17.         | 7.73        | 54.21 | 127.66  | 11580. |
| 12      | .0        | .0      | 33.4        | -6.90       | -216.        | -16.         | -3.          | 6.80        | 54.23 | 127.68  | 11520. |
| 13      | 2.5       | .0      | 112.3       | -5.86       | -216.        | -18.         | 10.          | 6.70        | 54.37 | 127.85  | 11530. |
| 14      | 5.0       | .0      | 193.8       | -.54        | -218.        | -24.         | 18.          | 5.89        | 54.36 | 127.84  | 11490. |
| 15      | 10.0      | .0      | 343.9       | 17.14       | -308.        | -41.         | 62.          | 6.41        | 54.23 | 127.68  | 11530. |
| 16      | 15.0      | .0      | 484.6       | 46.62       | -230.        | 9.           | 101.         | 5.20        | 53.76 | 127.12  | 11520. |
| 17      | 20.0      | .0      | 535.8       | 100.87      | -842.        | 21.          | 200.         | 3.92        | 53.54 | 126.85  | 11520. |
| 18      | .0        | .0      | 30.7        | -6.94       | -252.        | -14.         | -33.         | 7.39        | 54.40 | 127.89  | 11580. |
| 19      | 15.0      | .0      | 482.2       | 46.26       | -516.        | 23.          | 81.          | 5.53        | 54.86 | 128.44  | 11560. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | .01    | .1075   | .0903  | -.0437 | -.0026 | -.0017 | .0210 |
| 6    | .01    | .0890   | -.0180 | -.0777 | -.0013 | -.0009 | .0203 |
| 7    | -19.99 | -1.0478 | .3313  | .1165  | -.0070 | -.0083 | .0225 |
| 8    | -15.00 | -.9111  | .2031  | .1142  | -.0056 | .0051  | .0207 |
| 9    | -9.99  | -.7391  | .0648  | -.0649 | -.0046 | -.0005 | .0217 |
| 10   | -5.00  | -.3394  | -.0016 | -.1159 | -.0036 | -.0015 | .0233 |
| 11   | -2.49  | -.1301  | -.0151 | -.0960 | -.0024 | -.0010 | .0209 |
| 12   | .00    | .0902   | -.0187 | -.0698 | -.0010 | -.0002 | .0184 |
| 13   | 2.50   | .3034   | -.0159 | -.0697 | -.0011 | .0006  | .0181 |
| 14   | 5.02   | .5238   | -.0015 | -.0703 | -.0015 | .0011  | .0159 |
| 15   | 10.00  | .9293   | .0463  | -.0993 | -.0025 | .0037  | .0173 |
| 16   | 15.00  | 1.3097  | .1260  | -.0740 | .0005  | .0061  | .0140 |
| 17   | 20.00  | 1.4481  | .2726  | -.2713 | .0013  | .0121  | .0106 |
| 18   | .01    | .0830   | -.0188 | -.0811 | -.0008 | -.0020 | .0200 |
| 19   | 15.00  | 1.3032  | .1250  | -.1662 | .0014  | .0049  | .0149 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | .01    | .1075   | .0903  | -.0437 | -.0026 | -.0017 | .0210 |
| 6    | .01    | .0890   | -.0180 | -.0777 | -.0013 | -.0009 | .0203 |
| 7    | -19.99 | -1.0478 | .3313  | .1165  | -.0070 | -.0083 | .0225 |
| 8    | -15.00 | -.9111  | .2031  | .1142  | -.0056 | .0051  | .0207 |
| 9    | -9.99  | -.7391  | .0648  | -.0649 | -.0046 | -.0005 | .0217 |
| 10   | -5.00  | -.3394  | -.0016 | -.1159 | -.0036 | -.0015 | .0233 |
| 11   | -2.49  | -.1301  | -.0151 | -.0960 | -.0024 | -.0010 | .0209 |
| 12   | .00    | .0902   | -.0187 | -.0698 | -.0010 | -.0002 | .0184 |
| 13   | 2.50   | .3034   | -.0159 | -.0697 | -.0011 | .0006  | .0181 |
| 14   | 5.02   | .5238   | -.0015 | -.0703 | -.0015 | .0011  | .0159 |
| 15   | 10.00  | .9293   | .0463  | -.0993 | -.0025 | .0037  | .0173 |
| 16   | 15.00  | 1.3097  | .1260  | -.0740 | .0005  | .0061  | .0140 |
| 17   | 20.00  | 1.4481  | .2726  | -.2713 | .0013  | .0121  | .0106 |
| 18   | .01    | .0830   | -.0188 | -.0811 | -.0008 | -.0020 | .0200 |
| 19   | 15.00  | 1.3032  | .1250  | -.1662 | .0014  | .0049  | .0149 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 546 CONFIG F P B NP8 W7 T22 BT IN=17 BETA=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 15 DELE     | 0 DELR       | 0 DELSB      | 0            | RPM         |        |        |         |     |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|--------|---------|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELPSF | Q PSF  | V KNOTS | RPM |
| 3       | .0        | .0      | 324.9       | 74.66       | -70.         | -118.        | 99.          | .98         | 57.94  | 132.06 | 4120.   |     |
| 5       | .0        | .0      | 299.5       | -5.17       | -379.        | -165.        | 169.         | -2.22       | 54.34  | 127.82 | 15820.  |     |
| 6       | .0        | .0      | 298.1       | -4.56       | -365.        | -169.        | 184.         | -2.01       | 55.28  | 128.94 | 16020.  |     |
| 7       | -20.0     | .0      | -288.8      | 30.01       | 333.         | 132.         | -34.         | -3.17       | 54.87  | 128.45 | 16000.  |     |
| 8       | -15.0     | .0      | -148.9      | .92         | -38.         | -98.         | 0.           | 2.76        | 55.22  | 128.87 | 15990.  |     |
| 9       | -10.0     | .0      | 27.7        | -21.83      | -99.         | -25.         | 32.          | 1.74        | 54.94  | 128.54 | 15980.  |     |
| 10      | -5.0      | .0      | 173.9       | -17.94      | -350.        | -158.        | 110.         | .93         | 55.00  | 128.61 | 15970.  |     |
| 11      | .0        | .0      | 298.7       | -4.37       | -379.        | -185.        | 192.         | -2.22       | 54.64  | 128.18 | 15970.  |     |
| 12      | 2.5       | .0      | 353.1       | 8.22        | -421.        | -113.        | 276.         | -3.66       | 54.57  | 128.09 | 15940.  |     |
| 13      | 5.0       | .0      | 379.1       | 23.19       | -383.        | -265.        | 0.           | -.08        | 54.33  | 127.80 | 15990.  |     |
| 14      | 10.0      | .0      | 391.1       | 61.79       | -374.        | -279.        | 347.         | -1.36       | 55.01  | 128.61 | 15990.  |     |
| 15      | 15.0      | .0      | 451.9       | 122.39      | -771.        | -165.        | 190.         | -.40        | 54.46  | 127.96 | 16010.  |     |
| 16      | 20.0      | .0      | 515.5       | 185.60      | -1025.       | -1.          | 106.         | 2.58        | 54.96  | 128.55 | 16000.  |     |
| 17      | -2.5      | .0      | 240.2       | -12.21      | -368.        | -181.        | 125.         | -.72        | 54.90  | 128.49 | 15950.  |     |
| 18      | .0        | .0      | 297.5       | -4.38       | -341.        | -209.        | 177.         | -2.05       | 55.40  | 129.08 | 15980.  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | .8780  | .2018  | -.0227 | -.0071 | .0060  | .0026  |
| 5    | .00    | .8095  | -.0140 | -.1222 | -.0100 | .0102  | -.0060 |
| 6    | .00    | .8057  | -.0123 | -.1178 | -.0102 | .0111  | -.0054 |
| 7    | -20.00 | -.7806 | .0811  | .1073  | .0079  | -.0021 | -.0086 |
| 8    | -15.00 | -.4023 | .0025  | -.0124 | -.0059 | .0000  | .0074  |
| 9    | -9.99  | .0748  | -.0590 | -.0318 | -.0015 | .0019  | .0047  |
| 10   | -4.99  | .4701  | -.0485 | -.1130 | -.0095 | .0067  | .0025  |
| 11   | .00    | .8074  | -.0118 | -.1222 | -.0112 | .0116  | -.0060 |
| 12   | 2.50   | .9544  | .0222  | -.1358 | -.0068 | .0167  | -.0099 |
| 13   | 5.00   | 1.0246 | .0627  | -.1236 | -.0160 | .0000  | -.0002 |
| 14   | 10.00  | 1.0570 | .1670  | -.1205 | -.0168 | .0210  | -.0037 |
| 15   | 15.01  | 1.2214 | .3308  | -.2487 | -.0100 | .0115  | -.0011 |
| 16   | 20.01  | 1.3932 | .5016  | -.3305 | -.0000 | .0064  | .0070  |
| 17   | -2.50  | .6492  | -.0330 | -.1188 | -.0109 | .0075  | -.0020 |
| 18   | .00    | .8041  | -.0118 | -.1100 | -.0126 | .0107  | -.0055 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | .8780  | .2018  | -.0227 | -.0071 | .0060  | .0026  |
| 5    | .00    | .8095  | -.0140 | -.1222 | -.0100 | .0102  | -.0060 |
| 6    | .00    | .8057  | -.0123 | -.1178 | -.0102 | .0111  | -.0054 |
| 7    | -20.00 | -.7806 | .0811  | .1073  | .0079  | -.0021 | -.0086 |
| 8    | -15.00 | -.4023 | .0025  | -.0124 | -.0059 | .0000  | .0074  |
| 9    | -9.99  | .0748  | -.0590 | -.0318 | -.0015 | .0019  | .0047  |
| 10   | -4.99  | .4701  | -.0485 | -.1130 | -.0095 | .0067  | .0025  |
| 11   | .00    | .8074  | -.0118 | -.1222 | -.0112 | .0116  | -.0060 |
| 12   | 2.50   | .9544  | .0222  | -.1358 | -.0068 | .0167  | -.0099 |
| 13   | 5.00   | 1.0246 | .0627  | -.1236 | -.0160 | .0000  | -.0002 |
| 14   | 10.00  | 1.0570 | .1670  | -.1205 | -.0168 | .0210  | -.0037 |
| 15   | 15.01  | 1.2214 | .3308  | -.2487 | -.0100 | .0115  | -.0011 |
| 16   | 20.01  | 1.3932 | .5016  | -.3305 | -.0000 | .0064  | .0070  |
| 17   | -2.50  | .6492  | -.0330 | -.1188 | -.0109 | .0075  | -.0020 |
| 18   | .00    | .8041  | -.0118 | -.1100 | -.0126 | .0107  | -.0055 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 429

RUN 547 CONFIG F P B NP8 W7 T10 BT IN=17 BETA=0

| PT. NO. | ALPHA DEG | O DELF PSI DEG | O DELA CLBAR SQ-FT | O IHT CDBAR SQ-FT | 15 DELE CPMBAR CU-FT | O DELR CYMBAR CU-FT | O DELR CRMBAR CU-FT | O DELSB CYBAR SQ-FT | O V PSF | RPM    |        |
|---------|-----------|----------------|--------------------|-------------------|----------------------|---------------------|---------------------|---------------------|---------|--------|--------|
| 8       | .0        | .0             | 326.1              | 71.95             | -86.                 | -93.                | 88.                 | -.86                | 55.50   | 129.19 | 3810.  |
| 9       | .0        | .0             | 306.7              | -6.29             | -391.                | -112.               | 145.                | -4.42               | 55.53   | 129.23 | 16040. |
| 10      | -20.0     | .0             | -285.8             | 27.45             | 302.                 | 141.                | -59.                | -2.45               | 55.24   | 128.88 | 15950. |
| 11      | -15.0     | .0             | -149.3             | -.17              | 67.                  | 69.                 | -53.                | -2.37               | 55.52   | 129.22 | 15890. |
| 12      | -10.0     | .0             | 28.8               | -20.72            | -74.                 | 54.                 | 0.                  | -.06                | 55.86   | 129.62 | 15910. |
| 13      | -5.0      | .0             | 183.4              | -19.11            | -373.                | -62.                | 54.                 | -.84                | 55.41   | 129.08 | 16010. |
| 14      | -5.0      | .0             | 181.8              | -18.25            | -364.                | -67.                | 59.                 | -.81                | 55.83   | 129.58 | 15960. |
| 15      | -2.5      | .0             | 245.8              | -13.14            | -397.                | -113.               | 114.                | -2.17               | 55.49   | 129.18 | 15970. |
| 16      | -.0       | .0             | 306.3              | -4.20             | -385.                | -140.               | 174.                | -4.58               | 55.54   | 129.24 | 15940. |
| 17      | 2.5       | .0             | 362.8              | 9.44              | -364.                | -119.               | 275.                | -6.46               | 55.37   | 129.04 | 15950. |
| 18      | 5.0       | .0             | 380.6              | 23.83             | -326.                | -227.               | 21.                 | -3.80               | 55.55   | 129.25 | 15960. |
| 19      | 10.0      | .0             | 388.7              | 61.30             | -233.                | -251.               | 282.                | -2.12               | 55.19   | 128.82 | 15990. |
| 20      | 15.0      | .0             | 443.6              | 121.79            | -601.                | -98.                | 94.                 | .29                 | 55.00   | 128.60 | 16020. |
| 21      | 20.0      | .0             | 513.3              | 182.50            | -1008.               | -30.                | 71.                 | 2.06                | 55.18   | 128.81 | 15990. |
| 22      | 10.0      | .0             | 387.7              | 69.91             | -181.                | -118.               | 377.                | -1.36               | 55.77   | 129.51 | 15980. |
| 23      | .0        | .0             | 303.9              | -3.10             | -381.                | -142.               | 161.                | -4.72               | 56.11   | 129.91 | 15950. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 8    | .00    | .8812  | .1944  | -.0276 | -.0056 | .0053  | -.0023 |
| 9    | .00    | .8288  | -.0170 | -.1261 | -.0067 | .0088  | -.0119 |
| 10   | -20.00 | -.7724 | .0742  | .0975  | .0085  | -.0035 | -.0066 |
| 11   | -15.00 | -.4036 | -.0005 | .0217  | .0041  | -.0032 | -.0064 |
| 12   | -10.01 | .0778  | -.0560 | -.0238 | .0033  | .0000  | -.0002 |
| 13   | -5.01  | .4956  | -.0517 | -.1203 | -.0037 | .0032  | -.0023 |
| 14   | -5.01  | .4912  | -.0493 | -.1172 | -.0041 | .0036  | -.0022 |
| 15   | -2.51  | .6644  | -.0355 | -.1281 | -.0068 | .0069  | -.0059 |
| 16   | -.01   | .8279  | -.0114 | -.1242 | -.0085 | .0105  | -.0124 |
| 17   | 2.49   | .9805  | .0255  | -.1173 | -.0072 | .0166  | -.0175 |
| 18   | 5.00   | 1.0286 | .0644  | -.1051 | -.0137 | .0013  | -.0103 |
| 19   | 10.00  | 1.0507 | .1657  | -.0750 | -.0152 | .0170  | -.0057 |
| 20   | 15.00  | 1.1989 | .3292  | -.1937 | -.0059 | .0057  | .0008  |
| 21   | 20.00  | 1.3874 | .4933  | -.3251 | -.0018 | .0043  | .0056  |
| 22   | 10.00  | 1.0478 | .1889  | -.0582 | -.0071 | .0228  | -.0037 |
| 23   | .00    | .8212  | -.0084 | -.1229 | -.0086 | .0097  | -.0127 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 8    | .00    | .8812  | .1944  | -.0276 | -.0056 | .0053  | -.0023 |
| 9    | .00    | .8288  | -.0170 | -.1261 | -.0067 | .0088  | -.0119 |
| 10   | -20.00 | -.7724 | .0742  | .0975  | .0085  | -.0035 | -.0066 |
| 11   | -15.00 | -.4036 | -.0005 | .0217  | .0041  | -.0032 | -.0064 |
| 12   | -10.01 | .0778  | -.0560 | -.0238 | .0033  | .0000  | -.0002 |
| 13   | -5.01  | .4956  | -.0517 | -.1203 | -.0037 | .0032  | -.0023 |
| 14   | -5.01  | .4912  | -.0493 | -.1172 | -.0041 | .0036  | -.0022 |
| 15   | -2.51  | .6644  | -.0355 | -.1281 | -.0068 | .0069  | -.0059 |
| 16   | -.01   | .8279  | -.0114 | -.1242 | -.0085 | .0105  | -.0124 |
| 17   | 2.49   | .9805  | .0255  | -.1173 | -.0072 | .0166  | -.0175 |
| 18   | 5.00   | 1.0286 | .0644  | -.1051 | -.0137 | .0013  | -.0103 |
| 19   | 10.00  | 1.0507 | .1657  | -.0750 | -.0152 | .0170  | -.0057 |
| 20   | 15.00  | 1.1989 | .3292  | -.1937 | -.0059 | .0057  | .0008  |
| 21   | 20.00  | 1.3874 | .4933  | -.3251 | -.0018 | .0043  | .0056  |
| 22   | 10.00  | 1.0478 | .1889  | -.0582 | -.0071 | .0228  | -.0037 |
| 23   | .00    | .8212  | -.0084 | -.1229 | -.0086 | .0097  | -.0127 |

RUN 548 CONFIG F P B NPB W7 T10 BT IN#7

| PT. NO. | IW    | Q DELF | Q DELA | Q IHT  | Q DELE  | Q DELR | Q DELSS | Q     | V     | RPM    |        |
|---------|-------|--------|--------|--------|---------|--------|---------|-------|-------|--------|--------|
|         | ALPHA | PSI    | CLBAR  | CDBAR  | CPM BAR | CYMBAR | CRMBAR  | CYBAR | PSF   | KNOTS  |        |
|         | DEG   | DEG    | SQ-FT  | SQ-FT  | CU-FT   | CU-FT  | CU-FT   | SQ-FT |       |        |        |
| 3       | 0     | 0      | 55,4   | 33,15  | -176,   | -38,   | 19,     | 8,48  | 55,06 | 128,67 | 3430,  |
| 4       | 0     | 0      | 48,5   | -6,98  | -316,   | -18,   | 22,     | 6,02  | 55,42 | 129,09 | 11610, |
| 5       | -20,0 | 0      | -393,6 | 118,52 | 432,    | -96,   | -128,   | 6,64  | 54,56 | 128,06 | 11610, |
| 6       | -15,0 | 0      | -393,4 | 67,53  | 2978,   | -49,   | 11,     | 5,81  | 54,95 | 128,53 | 11540, |
| 7       | -10,0 | 0      | -252,4 | 20,38  | -295,   | -14,   | 1,      | 5,90  | 55,05 | 128,66 | 11630, |
| 8       | -5,0  | 0      | -103,5 | -1,99  | -543,   | -58,   | -13,    | 8,52  | 55,32 | 128,97 | 11600, |
| 9       | -2,5  | 0      | -28,4  | -5,44  | -415,   | -20,   | 8,      | 7,07  | 55,09 | 128,71 | 11670, |
| 10      | -0,0  | 0      | 49,4   | -7,07  | -332,   | -23,   | 25,     | 7,94  | 54,91 | 128,48 | 11610, |
| 11      | 2,5   | 0      | 126,9  | -5,37  | -263,   | -15,   | 23,     | 5,97  | 54,74 | 128,28 | 11630, |
| 12      | 5,0   | 0      | 203,7  | -4,49  | -215,   | -26,   | 47,     | 6,12  | 55,08 | 128,69 | 11620, |
| 13      | 10,0  | 0      | 351,2  | 18,05  | -249,   | -38,   | 85,     | 4,79  | 55,29 | 128,94 | 11610, |
| 14      | 15,0  | 0      | 491,8  | 49,38  | -448,   | -20,   | 135,    | 3,94  | 54,83 | 128,38 | 11600, |
| 15      | 20,0  | 0      | 525,8  | 100,82 | -722,   | -10,   | 159,    | 1,62  | 54,84 | 128,40 | 11600, |
| 16      | -15,0 | 0      | -378,5 | 50,90  | 326,    | -56,   | -59,    | 6,37  | 56,31 | 130,14 | 11600, |
| 17      | 2,5   | 0      | 122,8  | -4,96  | -282,   | -8,    | 11,     | 5,63  | 55,69 | 129,40 | 11610, |
| 18      | 10,0  | 0      | 349,0  | 18,60  | -261,   | -32,   | 72,     | 5,13  | 55,96 | 129,73 | 11600, |
| 19      | 15,0  | 0      | 489,4  | 50,50  | -457,   | -14,   | 116,    | 3,13  | 55,57 | 129,26 | 11610, |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 3    | 0,00   | ,1498   | ,0896  | -,0566 | -,0023 | ,0011  | ,0229 |
| 4    | 0,00   | ,1312   | -,0189 | -,1017 | -,0011 | ,0013  | ,0163 |
| 5    | -20,01 | -1,0638 | ,3203  | ,1391  | -,0058 | -,0077 | ,0179 |
| 6    | -15,01 | -1,0632 | ,1825  | ,9600  | -,0030 | ,0007  | ,0157 |
| 7    | -10,00 | -,6821  | ,0551  | -,0952 | -,0009 | ,0001  | ,0159 |
| 8    | -5,00  | -,2798  | -,0054 | -,1750 | -,0035 | -,0008 | ,0230 |
| 9    | -2,50  | -,0766  | -,0147 | -,1339 | -,0012 | ,0005  | ,0191 |
| 10   | -0,00  | ,1335   | -,0191 | -,1071 | -,0014 | ,0015  | ,0215 |
| 11   | 2,50   | ,3430   | -,0145 | -,0848 | -,0009 | ,0014  | ,0161 |
| 12   | 4,99   | ,5506   | -,0013 | -,0694 | -,0016 | ,0028  | ,0165 |
| 13   | 10,00  | ,9491   | ,0488  | -,0801 | -,0023 | ,0051  | ,0129 |
| 14   | 15,00  | 1,3291  | ,1335  | -,1443 | -,0012 | ,0081  | ,0106 |
| 15   | 20,00  | 1,4211  | ,2725  | -,2328 | -,0006 | ,0096  | ,0044 |
| 16   | -15,00 | -1,0230 | ,1376  | ,1052  | -,0034 | -,0036 | ,0172 |
| 17   | 2,50   | ,3319   | -,0134 | -,0910 | -,0005 | ,0007  | ,0152 |
| 18   | 10,00  | ,9433   | ,0503  | -,0841 | -,0019 | ,0044  | ,0139 |
| 19   | 14,99  | 1,3227  | ,1365  | -,1473 | -,0009 | ,0070  | ,0085 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 3    | 0,00   | ,1498   | ,0896  | -,0566 | -,0023 | ,0011  | ,0229 |
| 4    | 0,00   | ,1312   | -,0189 | -,1017 | -,0011 | ,0013  | ,0163 |
| 5    | -20,01 | -1,0638 | ,3203  | ,1391  | -,0058 | -,0077 | ,0179 |
| 6    | -15,01 | -1,0632 | ,1825  | ,9600  | -,0030 | ,0007  | ,0157 |
| 7    | -10,00 | -,6821  | ,0551  | -,0952 | -,0009 | ,0001  | ,0159 |
| 8    | -5,00  | -,2798  | -,0054 | -,1750 | -,0035 | -,0008 | ,0230 |
| 9    | -2,50  | -,0766  | -,0147 | -,1339 | -,0012 | ,0005  | ,0191 |
| 10   | -0,00  | ,1335   | -,0191 | -,1071 | -,0014 | ,0015  | ,0215 |
| 11   | 2,50   | ,3430   | -,0145 | -,0848 | -,0009 | ,0014  | ,0161 |
| 12   | 4,99   | ,5506   | -,0013 | -,0694 | -,0016 | ,0028  | ,0165 |
| 13   | 10,00  | ,9491   | ,0488  | -,0801 | -,0023 | ,0051  | ,0129 |
| 14   | 15,00  | 1,3291  | ,1335  | -,1443 | -,0012 | ,0081  | ,0106 |
| 15   | 20,00  | 1,4211  | ,2725  | -,2328 | -,0006 | ,0096  | ,0044 |
| 16   | -15,00 | -1,0230 | ,1376  | ,1052  | -,0034 | -,0036 | ,0172 |
| 17   | 2,50   | ,3319   | -,0134 | -,0910 | -,0005 | ,0007  | ,0152 |
| 18   | 10,00  | ,9433   | ,0503  | -,0841 | -,0019 | ,0044  | ,0139 |
| 19   | 14,99  | 1,3227  | ,1365  | -,1473 | -,0009 | ,0070  | ,0085 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 431

RUN 549 CONFIG F P B NP8 W7 T10 BT IN=13.5 BETA=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 58.9        | 32.33       | -14.         | -34.         | -10.         | 7.81        | 55.69 | 129.41  | 3520.  |
| 3       | .0        | .0      | 57.5        | -7.31       | -114.        | -19.         | -22.         | 8.06        | 55.47 | 129.15  | 11420. |
| 4       | -20.0     | .0      | -390.6      | 110.40      | 659.         | -107.        | -204.        | 7.68        | 55.32 | 128.96  | 11470. |
| 5       | -15.0     | .0      | -337.0      | 63.92       | 440.         | -66.         | -51.         | 7.69        | 55.07 | 128.67  | 11480. |
| 6       | -10.0     | .0      | -251.1      | 16.08       | -70.         | -58.         | -7.          | 7.19        | 55.72 | 129.44  | 11530. |
| 7       | -5.0      | .0      | -96.3       | -3.04       | -319.        | -51.         | -22.         | 6.85        | 55.35 | 129.00  | 11500. |
| 8       | -2.5      | .0      | -18.1       | -6.35       | -198.        | -26.         | -11.         | 7.73        | 55.25 | 128.88  | 11510. |
| 9       | .0        | .0      | 58.1        | -6.96       | -124.        | -26.         | -16.         | 8.00        | 55.66 | 129.36  | 11510. |
| 10      | 2.5       | .0      | 136.0       | -4.27       | -71.         | -12.         | 5.           | 6.08        | 55.69 | 129.41  | 11490. |
| 11      | 5.0       | .0      | 212.7       | 1.37        | -34.         | -20.         | 6.           | 5.74        | 55.82 | 129.56  | 11500. |
| 12      | 10.0      | .0      | 362.6       | 21.20       | -34.         | -17.         | 55.          | 5.10        | 55.41 | 129.07  | 11440. |
| 13      | 15.0      | .0      | 494.2       | 54.03       | -246.        | -0.          | 97.          | 4.06        | 55.91 | 129.66  | 11490. |
| 14      | 20.0      | .0      | 537.9       | 107.62      | -541.        | 39.          | 147.         | 2.84        | 55.26 | 128.89  | 11500. |
| 15      | .0        | .0      | 56.2        | -6.86       | -124.        | -36.         | -9.          | 7.12        | 56.16 | 129.96  | 11540. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1593   | .0874  | -.0046 | -.0020 | -.0006 | .0211 |
| 3    | .01    | .1555   | -.0198 | -.0366 | -.0011 | -.0013 | .0218 |
| 4    | -20.00 | -1.0557 | .2984  | .2126  | -.0065 | -.0123 | .0207 |
| 5    | -15.00 | -.9109  | .1727  | .1418  | -.0040 | -.0031 | .0208 |
| 6    | -10.00 | -.6787  | .0435  | -.0226 | -.0035 | -.0004 | .0194 |
| 7    | -5.00  | -.2602  | -.0082 | -.1029 | -.0031 | -.0014 | .0185 |
| 8    | -2.50  | -.0491  | -.0172 | -.0639 | -.0016 | -.0007 | .0209 |
| 9    | .01    | .1571   | -.0188 | -.0400 | -.0016 | -.0010 | .0216 |
| 10   | 2.51   | .3675   | -.0115 | -.0230 | -.0007 | .0003  | .0164 |
| 11   | 5.01   | .5747   | .0037  | -.0111 | -.0012 | .0004  | .0155 |
| 12   | 10.00  | .9801   | .0573  | -.0111 | -.0010 | .0033  | .0138 |
| 13   | 15.01  | 1.3358  | .1460  | -.0794 | -.0000 | .0059  | .0110 |
| 14   | 20.01  | 1.4537  | .2909  | -.1745 | .0023  | .0089  | .0077 |
| 15   | .01    | .1519   | -.0185 | -.0400 | -.0022 | -.0005 | .0192 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1593   | .0874  | -.0046 | -.0020 | -.0006 | .0211 |
| 3    | .01    | .1555   | -.0198 | -.0366 | -.0011 | -.0013 | .0218 |
| 4    | -20.00 | -1.0557 | .2984  | .2126  | -.0065 | -.0123 | .0207 |
| 5    | -15.00 | -.9109  | .1727  | .1418  | -.0040 | -.0031 | .0208 |
| 6    | -10.00 | -.6787  | .0435  | -.0226 | -.0035 | -.0004 | .0194 |
| 7    | -5.00  | -.2602  | -.0082 | -.1029 | -.0031 | -.0014 | .0185 |
| 8    | -2.50  | -.0491  | -.0172 | -.0639 | -.0016 | -.0007 | .0209 |
| 9    | .01    | .1571   | -.0188 | -.0400 | -.0016 | -.0010 | .0216 |
| 10   | 2.51   | .3675   | -.0115 | -.0230 | -.0007 | .0003  | .0164 |
| 11   | 5.01   | .5747   | .0037  | -.0111 | -.0012 | .0004  | .0155 |
| 12   | 10.00  | .9801   | .0573  | -.0111 | -.0010 | .0033  | .0138 |
| 13   | 15.01  | 1.3358  | .1460  | -.0794 | -.0000 | .0059  | .0110 |
| 14   | 20.01  | 1.4537  | .2909  | -.1745 | .0023  | .0089  | .0077 |
| 15   | .01    | .1519   | -.0185 | -.0400 | -.0022 | -.0005 | .0192 |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 432

RUN 550 CONFIG F P B NP8 W7 T10 BT IN=3.5 BETA=0

| PT. NO. | IW ALPHA DEG | IS DELF PSI DEG | O DELA CLBAR SQ-FT | O DELA CDBAR SQ-FT | O IHT CPMBAR CU-FT | O DELE CYMBAR CU-FT | O DELR CRMBAR CU-FT | O DELSB CYBAR SQ-FT | O DELSB Q PSF | O V KNOTS | RPM    |
|---------|--------------|-----------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------|-----------|--------|
| 2       | 0            | 0               | 335.6              | 68.93              | 257.               | -44.                | 52.                 | 3.85                | 56.99         | 130.93    | 4080.  |
| 3       | 0            | 0               | 328.2              | -6.35              | 17.                | -12.                | 95.                 | -2.29               | 55.96         | 129.72    | 15780. |
| 4       | -20.0        | 0               | -285.7             | 18.62              | 311.               | 32.                 | -1.                 | 5.64                | 54.92         | 128.49    | 15760. |
| 6       | -10.0        | 0               | 36.1               | -26.40             | 172.               | 26.                 | 12.                 | -2.27               | 55.11         | 128.72    | 15830. |
| 7       | -5.0         | 0               | 191.4              | -21.02             | -39.               | -55.                | 47.                 | .25                 | 55.07         | 128.67    | 15740. |
| 8       | -2.5         | 0               | 258.1              | -15.54             | -62.               | -104.               | 58.                 | .39                 | 55.18         | 128.80    | 15800. |
| 9       | -0           | 0               | 319.2              | -7.36              | -38.               | -115.               | 84.                 | -1.36               | 55.17         | 128.79    | 15790. |
| 12      | 2.5          | 0               | 379.7              | 6.90               | 50.                | -89.                | 138.                | -2.07               | 54.85         | 128.40    | 15780. |
| 13      | 5.0          | 0               | 377.4              | 22.43              | 193.               | -92.                | 155.                | -.33                | 54.37         | 127.83    | 15770. |
| 14      | 10.0         | 0               | 405.6              | 62.42              | 74.                | -101.               | 147.                | -.12                | 54.98         | 128.56    | 15780. |
| 15      | 15.0         | 0               | 490.1              | 133.81             | -300.              | -120.               | 249.                | .86                 | 54.45         | 127.92    | 15770. |
| 16      | 20.0         | 0               | 554.3              | 195.16             | -744.              | 81.                 | -17.                | 2.46                | 54.39         | 127.85    | 15770. |
| 17      | -15.0        | 0               | -142.0             | -9.32              | 369.               | -19.                | -47.                | 2.72                | 54.75         | 128.29    | 15820. |
| 18      | -0           | 0               | 320.1              | -7.25              | -59.               | -116.               | 60.                 | -1.08               | 54.90         | 128.46    | 15840. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9071  | .1863  | .0830  | -.0026 | .0031  | .0104  |
| 3    | .00    | .8870  | -.0172 | .0055  | -.0008 | .0058  | -.0062 |
| 4    | -20.01 | -.7723 | .0503  | .1004  | .0019  | -.0001 | .0153  |
| 6    | -10.00 | .0976  | -.0714 | .0554  | .0016  | .0007  | -.0007 |
| 7    | -5.00  | .5174  | -.0568 | -.0125 | -.0033 | .0028  | .0007  |
| 8    | -2.50  | .6974  | -.0420 | -.0199 | -.0063 | .0035  | .0011  |
| 9    | -0.00  | .8628  | -.0199 | -.0122 | -.0070 | .0051  | -.0037 |
| 12   | 2.50   | 1.0261 | .0187  | .0162  | -.0054 | .0083  | -.0056 |
| 13   | 5.00   | 1.0199 | .0606  | .0621  | -.0056 | .0093  | -.0009 |
| 14   | 10.00  | 1.0963 | .1687  | .0240  | -.0061 | .0089  | -.0003 |
| 15   | 15.00  | 1.3245 | .3616  | -.0966 | -.0072 | .0150  | .0023  |
| 16   | 19.99  | 1.4982 | .5274  | -.2398 | .0049  | -.0010 | .0067  |
| 17   | -15.00 | -.3838 | -.0252 | .1190  | -.0011 | -.0028 | .0073  |
| 18   | -0.00  | .8652  | -.0196 | -.0190 | -.0070 | .0036  | -.0029 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9071  | .1863  | .0830  | -.0026 | .0031  | .0104  |
| 3    | .00    | .8870  | -.0172 | .0055  | -.0008 | .0058  | -.0062 |
| 4    | -20.01 | -.7723 | .0503  | .1004  | .0019  | -.0001 | .0153  |
| 6    | -10.00 | .0976  | -.0714 | .0554  | .0016  | .0007  | -.0007 |
| 7    | -5.00  | .5174  | -.0568 | -.0125 | -.0033 | .0028  | .0007  |
| 8    | -2.50  | .6974  | -.0420 | -.0199 | -.0063 | .0035  | .0011  |
| 9    | -0.00  | .8628  | -.0199 | -.0122 | -.0070 | .0051  | -.0037 |
| 12   | 2.50   | 1.0261 | .0187  | .0162  | -.0054 | .0083  | -.0056 |
| 13   | 5.00   | 1.0199 | .0606  | .0621  | -.0056 | .0093  | -.0009 |
| 14   | 10.00  | 1.0963 | .1687  | .0240  | -.0061 | .0089  | -.0003 |
| 15   | 15.00  | 1.3245 | .3616  | -.0966 | -.0072 | .0150  | .0023  |
| 16   | 19.99  | 1.4982 | .5274  | -.2398 | .0049  | -.0010 | .0067  |
| 17   | -15.00 | -.3838 | -.0252 | .1190  | -.0011 | -.0028 | .0073  |
| 18   | -0.00  | .8652  | -.0196 | -.0190 | -.0070 | .0036  | -.0029 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 551 CONFIG F P B NP W7 T10 BT IN=13.5 BETA=0

| IW<br>PT.#<br>NO. | DELTA<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CLBAR<br>SQ-FT | DELTA<br>CDBAR<br>SQ-FT | DELTA<br>IHT<br>CU-FT | DELTA<br>CPMBAR<br>CU-FT | DELTA<br>CYMBAR<br>CU-FT | DELTA<br>CRMBAR<br>CU-FT | DELTA<br>CYBAR<br>SQ-FT | DELTA<br>DELSB<br>PSF | DELTA<br>Q<br>KNOTS | RPM |
|-------------------|-----------------------|---------------------|-------------------------|-------------------------|-----------------------|--------------------------|--------------------------|--------------------------|-------------------------|-----------------------|---------------------|-----|
| 2                 | 0                     | 0                   | 61.5                    | 29.41                   | 204.                  | -36.                     | -28.                     | 8.41                     | 55.19                   | 128.80                | 3210.               |     |
| 3                 | 0                     | 0                   | 61.7                    | 29.53                   | 205.                  | -36.                     | -28.                     | 8.44                     | 55.00                   | 128.58                | 3220.               |     |
| 4                 | 0                     | 0                   | 58.5                    | 28.67                   | 107.                  | -30.                     | -27.                     | 7.56                     | 55.11                   | 128.71                | 11250.              |     |
| 5                 | -20.0                 | 0                   | 390.5                   | 104.20                  | 1305.                 | -128.                    | -227.                    | 3.90                     | 54.74                   | 128.27                | 11240.              |     |
| 6                 | -15.0                 | 0                   | 326.6                   | 57.27                   | 914.                  | -116.                    | -41.                     | 8.44                     | 54.64                   | 128.14                | 11280.              |     |
| 7                 | -10.0                 | 0                   | 240.2                   | 10.72                   | 296.                  | -75.                     | -38.                     | 7.90                     | 55.23                   | 128.85                | 11240.              |     |
| 8                 | -7.5                  | 0                   | 166.7                   | .94                     | 73.                   | -49.                     | -47.                     | 6.79                     | 54.70                   | 128.22                | 11230.              |     |
| 9                 | -5.0                  | 0                   | 92.9                    | -5.21                   | 78.                   | -54.                     | -45.                     | 5.99                     | 54.57                   | 128.07                | 11230.              |     |
| 10                | -5.0                  | 0                   | 91.2                    | -5.07                   | 80.                   | -55.                     | -57.                     | 6.23                     | 55.24                   | 128.87                | 11210.              |     |
| 11                | -2.5                  | 0                   | 13.9                    | -7.56                   | 140.                  | -30.                     | -23.                     | 7.78                     | 55.02                   | 128.60                | 11200.              |     |
| 12                | 0                     | 0                   | 60.0                    | -8.00                   | 105.                  | -38.                     | -34.                     | 7.96                     | 55.07                   | 128.67                | 11190.              |     |
| 13                | 2.5                   | 0                   | 132.3                   | -6.22                   | -30.                  | -71.                     | -23.                     | 5.04                     | 54.76                   | 128.29                | 11210.              |     |
| 14                | 5.0                   | 0                   | 208.9                   | -.74                    | -2.                   | -66.                     | 14.                      | 3.55                     | 54.95                   | 128.52                | 11200.              |     |
| 15                | 10.0                  | 0                   | 359.1                   | 18.17                   | -30.                  | -65.                     | 51.                      | 3.21                     | 54.82                   | 128.37                | 11350.              |     |
| 16                | 15.0                  | 0                   | 497.8                   | 50.75                   | -184.                 | -10.                     | 118.                     | .87                      | 54.83                   | 128.38                | 11220.              |     |
| 17                | 20.0                  | 0                   | 532.2                   | 106.22                  | -541.                 | 44.                      | 153.                     | -.15                     | 54.69                   | 128.21                | 11210.              |     |
| 18                | -7.5                  | 0                   | 166.7                   | 1.27                    | 41.                   | -53.                     | -64.                     | 6.35                     | 54.68                   | 128.20                | 11200.              |     |
| 19                | -5.0                  | 0                   | 94.0                    | -4.80                   | 51.                   | -69.                     | -63.                     | 6.60                     | 54.72                   | 128.24                | 11200.              |     |
| 20                | -2.5                  | 0                   | 17.1                    | -7.56                   | 95.                   | -47.                     | -46.                     | 7.10                     | 54.52                   | 128.00                | 11200.              |     |
| 21                | 0                     | 0                   | 56.5                    | -8.25                   | 85.                   | -55.                     | -51.                     | 8.10                     | 54.95                   | 128.52                | 11220.              |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .1662   | .0795  | .0658  | -.0022 | -.0017 | .0227  |
| 3    | 0.00   | .1668   | .0798  | .0660  | -.0022 | -.0017 | .0228  |
| 4    | 0.00   | .1582   | -.0234 | .0345  | -.0018 | -.0016 | .0204  |
| 5    | -20.00 | -1.0553 | .2816  | .4207  | -.0077 | -.0137 | .0105  |
| 6    | -15.01 | -.8827  | .1548  | .2947  | -.0070 | -.0025 | .0228  |
| 7    | -10.00 | -.6492  | .0290  | .0955  | -.0045 | -.0023 | .0213  |
| 8    | -7.50  | -.4506  | .0025  | .0236  | -.0030 | -.0028 | .0183  |
| 9    | -5.01  | -.2511  | -.0141 | .0251  | -.0032 | -.0027 | .0162  |
| 10   | -5.01  | -.2464  | -.0137 | .0257  | -.0033 | -.0034 | .0168  |
| 11   | -2.50  | -.0375  | -.0204 | .0452  | -.0018 | -.0014 | .0210  |
| 12   | 0.00   | .1622   | -.0216 | .0338  | -.0023 | -.0020 | .0215  |
| 13   | 2.49   | .3575   | -.0168 | -.0096 | -.0043 | -.0014 | .0136  |
| 14   | 5.00   | .5645   | -.0020 | -.0008 | -.0040 | .0009  | .0096  |
| 15   | 10.00  | .9706   | .0491  | -.0097 | -.0039 | .0031  | .0087  |
| 16   | 15.00  | 1.3453  | .1372  | -.0592 | -.0006 | .0071  | .0024  |
| 17   | 19.99  | 1.4384  | .2871  | -.1743 | .0026  | .0093  | -.0004 |
| 18   | -7.51  | -.4559  | .0034  | .0133  | -.0032 | -.0039 | .0172  |
| 19   | -5.00  | -.2541  | -.0130 | .0165  | -.0041 | -.0038 | .0178  |
| 20   | -2.50  | -.0462  | -.0204 | .0306  | -.0029 | -.0028 | .0192  |
| 21   | 0.01   | .1526   | -.0223 | .0275  | -.0033 | -.0031 | .0219  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .1662   | .0795  | .0658  | -.0022 | -.0017 | .0227  |
| 3    | 0.00   | .1668   | .0798  | .0660  | -.0022 | -.0017 | .0228  |
| 4    | 0.00   | .1582   | -.0234 | .0345  | -.0018 | -.0016 | .0204  |
| 5    | -20.00 | -1.0553 | .2816  | .4207  | -.0077 | -.0137 | .0105  |
| 6    | -15.01 | -.8827  | .1548  | .2947  | -.0070 | -.0025 | .0228  |
| 7    | -10.00 | -.6492  | .0290  | .0955  | -.0045 | -.0023 | .0213  |
| 8    | -7.50  | -.4506  | .0025  | .0236  | -.0030 | -.0028 | .0183  |
| 9    | -5.01  | -.2511  | -.0141 | .0251  | -.0032 | -.0027 | .0162  |
| 10   | -5.01  | -.2464  | -.0137 | .0257  | -.0033 | -.0034 | .0168  |
| 11   | -2.50  | -.0375  | -.0204 | .0452  | -.0018 | -.0014 | .0210  |
| 12   | 0.00   | .1622   | -.0216 | .0338  | -.0023 | -.0020 | .0215  |
| 13   | 2.49   | .3575   | -.0168 | -.0096 | -.0043 | -.0014 | .0136  |
| 14   | 5.00   | .5645   | -.0020 | -.0008 | -.0040 | .0009  | .0096  |
| 15   | 10.00  | .9706   | .0491  | -.0097 | -.0039 | .0031  | .0087  |
| 16   | 15.00  | 1.3453  | .1372  | -.0592 | -.0006 | .0071  | .0024  |
| 17   | 19.99  | 1.4384  | .2871  | -.1743 | .0026  | .0093  | -.0004 |
| 18   | -7.51  | -.4559  | .0034  | .0133  | -.0032 | -.0039 | .0172  |
| 19   | -5.00  | -.2541  | -.0130 | .0165  | -.0041 | -.0038 | .0178  |
| 20   | -2.50  | -.0462  | -.0204 | .0306  | -.0029 | -.0028 | .0192  |
| 21   | 0.01   | .1526   | -.0223 | .0275  | -.0033 | -.0031 | .0219  |

ORIGINAL PAGE IS  
OF POOR QUALITY

RUN 552 CONFIG F P B NPS W7 T10 BT IN=-3.5 BETA=0.0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 9       | .0        | .0      | 48.3        | -6.94       | 272.         | 8.           | -490.        | .00         | 56.03 | 129.81  | 0.     |
| 10      | .0        | .0      | 61.0        | 30.49       | 51.          | -31.         | -26.         | 6.64        | 55.79 | 129.52  | 3470.  |
| 11      | .0        | .0      | 61.6        | 30.85       | 51.          | -31.         | -26.         | 6.70        | 55.25 | 128.88  | 3350.  |
| 12      | .0        | .0      | 57.9        | -6.59       | -77.         | -30.         | -26.         | 7.02        | 55.61 | 129.31  | 11220. |
| 13      | -20.0     | .0      | -377.4      | 117.44      | 542.         | -92.         | -133.        | 7.14        | 55.47 | 129.13  | 11210. |
| 14      | -15.0     | .0      | -332.0      | 64.33       | 622.         | -70.         | 37.          | 7.31        | 55.49 | 129.16  | 11230. |
| 15      | -10.0     | .0      | -247.2      | 17.85       | 49.          | -54.         | -33.         | 8.31        | 55.78 | 129.51  | 11220. |
| 16      | -5.0      | .0      | -94.1       | -2.64       | -256.        | -49.         | -35.         | 7.73        | 56.14 | 129.93  | 11230. |
| 17      | -5.0      | .0      | -93.8       | -2.65       | -255.        | -48.         | -35.         | 7.70        | 56.32 | 130.14  | 11220. |
| 18      | -2.5      | .0      | -17.8       | -5.43       | -124.        | -27.         | -39.         | 6.77        | 55.48 | 129.15  | 11210. |
| 19      | .0        | .0      | 57.1        | -6.23       | -73.         | -36.         | -27.         | 7.45        | 56.07 | 129.85  | 11200. |
| 20      | 2.5       | .0      | 134.6       | -3.68       | -35.         | -21.         | -12.         | 5.22        | 56.11 | 129.90  | 11200. |
| 21      | 5.0       | .0      | 214.7       | 2.02        | 10.          | -31.         | 12.          | 5.32        | 55.74 | 129.46  | 11190. |
| 22      | 10.0      | .0      | 362.5       | 21.65       | 8.           | -42.         | 43.          | 4.53        | 56.11 | 129.89  | 11180. |
| 23      | 15.0      | .0      | 498.9       | 54.67       | -195.        | -11.         | 93.          | 3.22        | 55.41 | 129.08  | 11180. |
| 24      | 20.0      | .0      | 540.9       | 107.08      | -472.        | 45.          | 181.         | 2.15        | 55.57 | 129.26  | 11210. |
| 25      | 15.0      | .0      | 500.7       | 54.53       | -193.        | -7.          | 104.         | 2.49        | 55.57 | 129.26  | 11200. |
| 26      | -10.0     | .0      | -251.1      | 18.23       | 55.          | -52.         | -32.         | 7.94        | 55.61 | 129.30  | 11200. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 9    | .01    | .1307   | -.0188 | .0876  | .0005  | -.0296 | .0000 |
| 10   | .01    | .1648   | .0824  | .0163  | -.0019 | -.0016 | .0179 |
| 11   | .01    | .1664   | .0834  | .0165  | -.0019 | -.0016 | .0181 |
| 12   | .01    | .1564   | -.0178 | -.0248 | -.0018 | -.0016 | .0190 |
| 13   | -20.03 | -1.0201 | .3174  | .1748  | -.0056 | -.0080 | .0193 |
| 14   | -14.98 | -.8973  | .1739  | .2005  | -.0043 | .0023  | .0197 |
| 15   | -9.98  | -.6682  | .0482  | .0158  | -.0033 | -.0020 | .0224 |
| 16   | -5.00  | -.2542  | -.0071 | -.0826 | -.0029 | -.0021 | .0209 |
| 17   | -5.00  | -.2534  | -.0072 | -.0824 | -.0029 | -.0021 | .0208 |
| 18   | -2.50  | -.0480  | -.0147 | -.0400 | -.0017 | -.0023 | .0183 |
| 19   | .01    | .1543   | .0168  | -.0237 | -.0022 | -.0016 | .0201 |
| 20   | 2.50   | .3639   | -.0099 | -.0113 | -.0013 | -.0007 | .0141 |
| 21   | 5.01   | .5804   | .0054  | .0033  | -.0019 | .0007  | .0144 |
| 22   | 10.00  | .9798   | .0585  | .0024  | -.0026 | .0026  | .0123 |
| 23   | 15.00  | 1.3485  | .1477  | -.0629 | -.0007 | .0056  | .0087 |
| 24   | 20.00  | 1.4618  | .2894  | -.1522 | .0027  | .0109  | .0058 |
| 25   | 15.02  | 1.3532  | .1474  | -.0621 | -.0004 | .0065  | .0067 |
| 26   | -9.99  | -.6788  | .0493  | .0178  | -.0031 | -.0019 | .0215 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 9    | .01    | .1307   | -.0188 | .0876  | .0005  | -.0296 | .0000 |
| 10   | .01    | .1648   | .0824  | .0163  | -.0019 | -.0016 | .0179 |
| 11   | .01    | .1664   | .0834  | .0165  | -.0019 | -.0016 | .0181 |
| 12   | .01    | .1564   | -.0178 | -.0248 | -.0018 | -.0016 | .0190 |
| 13   | -20.03 | -1.0201 | .3174  | .1748  | -.0056 | -.0080 | .0193 |
| 14   | -14.98 | -.8973  | .1739  | .2005  | -.0043 | .0023  | .0197 |
| 15   | -9.98  | -.6682  | .0482  | .0158  | -.0033 | -.0020 | .0224 |
| 16   | -5.00  | -.2542  | -.0071 | -.0826 | -.0029 | -.0021 | .0209 |
| 17   | -5.00  | -.2534  | -.0072 | -.0824 | -.0029 | -.0021 | .0208 |
| 18   | -2.50  | -.0480  | -.0147 | -.0400 | -.0017 | -.0023 | .0183 |
| 19   | .01    | .1543   | .0168  | -.0237 | -.0022 | -.0016 | .0201 |
| 20   | 2.50   | .3639   | -.0099 | -.0113 | -.0013 | -.0007 | .0141 |
| 21   | 5.01   | .5804   | .0054  | .0033  | -.0019 | .0007  | .0144 |
| 22   | 10.00  | .9798   | .0585  | .0024  | -.0026 | .0026  | .0123 |
| 23   | 15.00  | 1.3485  | .1477  | -.0629 | -.0007 | .0056  | .0087 |
| 24   | 20.00  | 1.4618  | .2894  | -.1522 | .0027  | .0109  | .0058 |
| 25   | 15.02  | 1.3532  | .1474  | -.0621 | -.0004 | .0065  | .0067 |
| 26   | -9.99  | -.6788  | .0493  | .0178  | -.0031 | -.0019 | .0215 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 435

RUN 553 CONFIG F P B NP5 W7 T23 BT IN=-3.5 BETA=0.0

| PT. NO. | 0 DELF    |         | 0 DELA      |             | 0 IHT        |              | 0 DELE       |             | 0 DELR       |             | 0 DELSB |         | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------------|-------------|---------|---------|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | CRMBAR SQ-FT | CYBAR SQ-FT | Q PSF   | V KNOTS |     |
| 5       | .0        | .0      | 58.6        | 31.06       | 104.         | -35.         | -15.         | 7.46        | 55.57        | 129.26      | 3450.   |         |     |
| 6       | .0        | .0      | 56.2        | -6.41       | -20.         | -38.         | -4.          | 7.54        | 55.43        | 129.10      | 11230.  |         |     |
| 7       | -20.0     | .0      | -406.3      | 118.03      | 1078.        | -119.        | -222.        | 5.25        | 55.40        | 129.06      | 11250.  |         |     |
| 8       | -15.0     | .0      | -398.3      | 48.39       | 1323.        | -38.         | -59.         | 5.99        | 55.00        | 128.58      | 11240.  |         |     |
| 9       | -10.0     | .0      | -267.9      | 18.70       | 560.         | -63.         | -32.         | 7.97        | 55.58        | 129.27      | 11250.  |         |     |
| 10      | -5.0      | .0      | -104.4      | -2.71       | 12.          | -50.         | -28.         | 6.68        | 55.59        | 129.28      | 11270.  |         |     |
| 11      | -2.5      | .0      | -24.2       | -5.82       | 13.          | -29.         | -33.         | 6.59        | 55.64        | 129.35      | 11250.  |         |     |
| 12      | .0        | .0      | 55.1        | -6.41       | -9.          | -33.         | -3.          | 7.26        | 55.09        | 128.69      | 11240.  |         |     |
| 13      | 2.5       | .0      | 134.6       | -3.91       | -45.         | -29.         | -1.          | 6.03        | 55.94        | 129.70      | 11240.  |         |     |
| 14      | 5.0       | .0      | 216.1       | 1.98        | -69.         | -32.         | 24.          | 5.41        | 55.85        | 129.59      | 11240.  |         |     |
| 15      | 10.0      | .0      | 375.0       | 22.71       | -245.        | -37.         | 56.          | 4.18        | 55.42        | 129.08      | 11240.  |         |     |
| 16      | 15.0      | .0      | 523.2       | 57.85       | -705.        | 3.           | 111.         | 2.98        | 54.91        | 128.48      | 11220.  |         |     |
| 17      | 20.0      | .0      | 562.5       | 112.34      | -1093.       | 59.          | 203.         | 1.29        | 55.67        | 129.37      | 11220.  |         |     |
| 18      | .0        | .0      | 53.1        | -6.49       | -12.         | -38.         | -21.         | 7.38        | 55.88        | 129.63      | 11270.  |         |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | .00    | .1584   | .0840  | .0337  | -.0021 | -.0009 | .0202 |
| 6    | .00    | .1520   | -.0173 | -.0063 | -.0023 | -.0002 | .0204 |
| 7    | -20.00 | -1.0981 | .3190  | .3475  | -.0072 | -.0134 | .0142 |
| 8    | -15.00 | -1.0765 | .1308  | .4266  | -.0023 | -.0036 | .0162 |
| 9    | -9.97  | -.7239  | .0505  | .1807  | -.0038 | -.0019 | .0215 |
| 10   | -4.99  | -.2821  | -.0073 | .0039  | -.0030 | -.0017 | .0181 |
| 11   | -2.49  | -.0654  | -.0157 | .0043  | -.0018 | -.0020 | .0178 |
| 12   | .01    | .1488   | -.0173 | -.0030 | -.0020 | -.0002 | .0196 |
| 13   | 2.50   | .3638   | -.0106 | -.0145 | -.0018 | -.0001 | .0163 |
| 14   | 5.00   | .5840   | .0053  | -.0221 | -.0019 | .0014  | .0146 |
| 15   | 10.01  | 1.0136  | .0614  | -.0788 | -.0023 | .0034  | .0113 |
| 16   | 15.01  | 1.4141  | .1563  | -.2274 | .0002  | .0067  | .0080 |
| 17   | 20.00  | 1.5203  | .3036  | -.3524 | .0036  | .0123  | .0035 |
| 18   | .00    | .1436   | -.0176 | -.0040 | -.0023 | -.0013 | .0199 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | .00    | .1584   | .0840  | .0337  | -.0021 | -.0009 | .0202 |
| 6    | .00    | .1520   | -.0173 | -.0063 | -.0023 | -.0002 | .0204 |
| 7    | -20.00 | -1.0981 | .3190  | .3475  | -.0072 | -.0134 | .0142 |
| 8    | -15.00 | -1.0765 | .1308  | .4266  | -.0023 | -.0036 | .0162 |
| 9    | -9.97  | -.7239  | .0505  | .1807  | -.0038 | -.0019 | .0215 |
| 10   | -4.99  | -.2821  | -.0073 | .0039  | -.0030 | -.0017 | .0181 |
| 11   | -2.49  | -.0654  | -.0157 | .0043  | -.0018 | -.0020 | .0178 |
| 12   | .01    | .1488   | -.0173 | -.0030 | -.0020 | -.0002 | .0196 |
| 13   | 2.50   | .3638   | -.0106 | -.0145 | -.0018 | -.0001 | .0163 |
| 14   | 5.00   | .5840   | .0053  | -.0221 | -.0019 | .0014  | .0146 |
| 15   | 10.01  | 1.0136  | .0614  | -.0788 | -.0023 | .0034  | .0113 |
| 16   | 15.01  | 1.4141  | .1563  | -.2274 | .0002  | .0067  | .0080 |
| 17   | 20.00  | 1.5203  | .3036  | -.3524 | .0036  | .0123  | .0035 |
| 18   | .00    | .1436   | -.0176 | -.0040 | -.0023 | -.0013 | .0199 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
D 436

RUN 554 CONFIG F P B NP5 W7 T23 BT IN=-3;5 BETA=0.0

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 333.2       | 67.42       | 572.         | -53.         | 51.          | 1.95        | 54.84 | 128.40  | 3990.  |
| 3       | .0        | .0      | 315.0       | -6.88       | 343.         | -103.        | 80.          | -1.84       | 54.17 | 127.60  | 15400. |
| 5       | -20.0     | .0      | -305.0      | 27.87       | 1115.        | 5.           | 13.          | 4.59        | 54.97 | 128.56  | 15430. |
| 6       | -15.0     | .0      | -169.0      | -4.33       | 1295.        | -10.         | -38.         | 1.53        | 55.05 | 128.65  | 15370. |
| 7       | -10.0     | .0      | 14.8        | -23.15      | 942.         | -1.          | 23.          | .56         | 54.71 | 128.24  | 15410. |
| 8       | -5.0      | .0      | 177.7       | -19.54      | 583.         | -74.         | 28.          | 1.05        | 55.40 | 129.07  | 15370. |
| 9       | -2.5      | .0      | 248.9       | -13.74      | 430.         | -135.        | 51.          | 1.49        | 54.73 | 128.27  | 15410. |
| 10      | .0        | .0      | 313.6       | -4.23       | 380.         | -135.        | 72.          | -1.30       | 54.82 | 128.37  | 15360. |
| 11      | 2.5       | .0      | 372.9       | 7.96        | 250.         | -141.        | 122.         | -3.89       | 54.92 | 128.50  | 15390. |
| 12      | 5.0       | .0      | 379.8       | 27.30       | 59.          | -145.        | 189.         | -1.12       | 54.95 | 128.53  | 15370. |
| 13      | 10.0      | .0      | 422.1       | 68.59       | -186.        | -145.        | 184.         | -1.18       | 54.72 | 128.25  | 15400. |
| 14      | 15.0      | .0      | 486.2       | 135.81      | -659.        | -60.         | 95.          | -.31        | 54.44 | 127.92  | 15380. |
| 15      | 20.0      | .0      | 580.0       | 207.77      | -1136.       | 88.          | 36.          | 2.49        | 54.32 | 127.78  | 15410. |
| 16      | .0        | .0      | 314.2       | -4.67       | 397.         | -142.        | 62.          | -2.31       | 54.96 | 128.55  | 15360. |
| 17      | .0        | .0      | 312.1       | -4.68       | 394.         | -141.        | 61.          | -2.30       | 55.33 | 128.98  | 15390. |
| 18      | -15.0     | .0      | -171.1      | -4.48       | 1327.        | 28.          | -34.         | -.73        | 54.65 | 128.17  | 15440. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9006  | .1822  | .1843  | -.0032 | .0031  | .0053  |
| 3    | .00    | .8513  | -.0186 | .1107  | -.0062 | .0048  | -.0050 |
| 5    | -20.02 | -.8243 | .0753  | .3593  | .0003  | .0008  | .0124  |
| 6    | -15.00 | -.4568 | -.0117 | .4175  | -.0006 | -.0023 | .0041  |
| 7    | -10.00 | .0400  | -.0626 | .3037  | -.0001 | .0014  | .0015  |
| 8    | -5.00  | .4804  | -.0528 | .1880  | -.0045 | .0017  | .0028  |
| 9    | -2.50  | .6727  | -.0371 | .1388  | -.0081 | .0031  | .0040  |
| 10   | .02    | .8475  | -.0114 | .1226  | -.0081 | .0044  | -.0035 |
| 11   | 2.51   | 1.0077 | .0215  | .0807  | -.0085 | .0074  | -.0105 |
| 12   | 5.01   | 1.0265 | .0738  | .0191  | -.0088 | .0114  | -.0030 |
| 13   | 10.01  | 1.1407 | .1854  | -.0600 | -.0088 | .0111  | -.0032 |
| 14   | 15.01  | 1.3140 | .3670  | -.2124 | -.0036 | .0057  | -.0008 |
| 15   | 20.00  | 1.5675 | .5615  | -.3662 | .0053  | .0022  | .0067  |
| 16   | .01    | .8491  | -.0126 | .1280  | -.0086 | .0037  | -.0063 |
| 17   | .01    | .8435  | -.0127 | .1272  | -.0085 | .0037  | -.0062 |
| 18   | -14.99 | -.4625 | -.0121 | .4279  | .0017  | -.0021 | -.0020 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9006  | .1822  | .1843  | -.0032 | .0031  | .0053  |
| 3    | .00    | .8513  | -.0186 | .1107  | -.0062 | .0048  | -.0050 |
| 5    | -20.02 | -.8243 | .0753  | .3593  | .0003  | .0008  | .0124  |
| 6    | -15.00 | -.4568 | -.0117 | .4175  | -.0006 | -.0023 | .0041  |
| 7    | -10.00 | .0400  | -.0626 | .3037  | -.0001 | .0014  | .0015  |
| 8    | -5.00  | .4804  | -.0528 | .1880  | -.0045 | .0017  | .0028  |
| 9    | -2.50  | .6727  | -.0371 | .1388  | -.0081 | .0031  | .0040  |
| 10   | .02    | .8475  | -.0114 | .1226  | -.0081 | .0044  | -.0035 |
| 11   | 2.51   | 1.0077 | .0215  | .0807  | -.0085 | .0074  | -.0105 |
| 12   | 5.01   | 1.0265 | .0738  | .0191  | -.0088 | .0114  | -.0030 |
| 13   | 10.01  | 1.1407 | .1854  | -.0600 | -.0088 | .0111  | -.0032 |
| 14   | 15.01  | 1.3140 | .3670  | -.2124 | -.0036 | .0057  | -.0008 |
| 15   | 20.00  | 1.5675 | .5615  | -.3662 | .0053  | .0022  | .0067  |
| 16   | .01    | .8491  | -.0126 | .1280  | -.0086 | .0037  | -.0063 |
| 17   | .01    | .8435  | -.0127 | .1272  | -.0085 | .0037  | -.0062 |
| 18   | -14.99 | -.4625 | -.0121 | .4279  | .0017  | -.0021 | -.0020 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 437

RUN 555 CONFIG F P B NP5 W7 T24 BT JN=-3.5 BETA=0.0

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 5       | .0        | .0      | 335.9       | 67.43       | 632.         | -79.         | 20.          | 3.32        | 54.43 | 127.91  | 3930.  |
| 6       | .0        | .0      | 317.1       | -6.36       | 387.         | -210.        | 46.          | 1.07        | 54.22 | 127.66  | 15190. |
| 7       | -20.0     | .0      | -308.8      | 25.79       | 1298.        | -35.         | 10.          | 5.90        | 54.80 | 128.36  | 15180. |
| 8       | -15.0     | .0      | -166.1      | -3.64       | 1201.        | -79.         | -54.         | 3.37        | 54.55 | 128.06  | 15150. |
| 9       | -10.0     | .0      | 13.0        | -22.21      | 974.         | -36.         | -16.         | 2.30        | 54.84 | 128.41  | 15140. |
| 10      | -5.0      | .0      | 177.5       | -19.80      | 708.         | -158.        | 10.          | 4.98        | 54.25 | 127.70  | 15130. |
| 11      | -2.5      | .0      | 245.6       | -12.95      | 553.         | -231.        | 23.          | 4.29        | 55.01 | 128.61  | 15130. |
| 12      | .0        | .0      | 314.8       | -3.76       | 433.         | -239.        | 57.          | 1.80        | 54.83 | 128.40  | 15170. |
| 13      | 2.5       | .0      | 381.1       | 9.97        | 243.         | -265.        | 108.         | -1.29       | 54.65 | 128.18  | 15100. |
| 14      | 5.0       | .0      | 387.1       | 29.06       | 95.          | -231.        | 166.         | .42         | 54.43 | 127.92  | 15180. |
| 15      | 10.0      | .0      | 435.8       | 73.95       | -354.        | -205.        | 226.         | .42         | 54.34 | 127.81  | 15150. |
| 16      | 15.0      | .0      | 505.8       | 142.75      | -964.        | -84.         | 71.          | 2.31        | 54.08 | 127.50  | 15140. |
| 17      | 20.0      | .0      | 572.3       | 215.73      | -806.        | 43.          | -34.         | 6.17        | 55.02 | 128.62  | 15170. |
| 18      | .0        | .0      | 314.8       | -3.26       | 424.         | -223.        | 45.          | 2.06        | 54.54 | 128.05  | 15160. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 5    | .00    | .9078  | .1822  | .2039  | -.0047 | .0012  | .0090  |
| 6    | .00    | .8569  | -.0172 | .1247  | -.0127 | .0028  | .0029  |
| 7    | -19.99 | -.8347 | .0697  | .4186  | -.0021 | .0006  | .0160  |
| 8    | -15.00 | -.4490 | -.0098 | .3871  | -.0048 | -.0033 | .0091  |
| 9    | -10.00 | .0352  | -.0600 | .3139  | -.0022 | -.0010 | .0062  |
| 10   | -5.00  | .4798  | -.0535 | .2284  | -.0096 | .0006  | .0135  |
| 11   | -2.50  | .6638  | -.0350 | .1784  | -.0140 | .0014  | .0116  |
| 12   | .00    | .8509  | -.0101 | .1397  | -.0144 | .0034  | .0049  |
| 13   | 2.51   | 1.0299 | .0269  | .0782  | -.0160 | .0065  | -.0035 |
| 14   | 5.00   | 1.0462 | .0785  | .0305  | -.0140 | .0100  | .0011  |
| 15   | 10.00  | 1.1779 | .1999  | -.1142 | -.0124 | .0136  | .0011  |
| 16   | 15.00  | 1.3670 | .3858  | -.3109 | -.0051 | .0043  | .0062  |
| 17   | 20.00  | 1.5467 | .5831  | -.2598 | .0026  | -.0021 | .0167  |
| 18   | .00    | .8507  | -.0088 | .1367  | -.0135 | .0027  | .0056  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 5    | .00    | .9078  | .1822  | .2039  | -.0047 | .0012  | .0090  |
| 6    | .00    | .8569  | -.0172 | .1247  | -.0127 | .0028  | .0029  |
| 7    | -19.99 | -.8347 | .0697  | .4186  | -.0021 | .0006  | .0160  |
| 8    | -15.00 | -.4490 | -.0098 | .3871  | -.0048 | -.0033 | .0091  |
| 9    | -10.00 | .0352  | -.0600 | .3139  | -.0022 | -.0010 | .0062  |
| 10   | -5.00  | .4798  | -.0535 | .2284  | -.0096 | .0006  | .0135  |
| 11   | -2.50  | .6638  | -.0350 | .1784  | -.0140 | .0014  | .0116  |
| 12   | .00    | .8509  | -.0101 | .1397  | -.0144 | .0034  | .0049  |
| 13   | 2.51   | 1.0299 | .0269  | .0782  | -.0160 | .0065  | -.0035 |
| 14   | 5.00   | 1.0462 | .0785  | .0305  | -.0140 | .0100  | .0011  |
| 15   | 10.00  | 1.1779 | .1999  | -.1142 | -.0124 | .0136  | .0011  |
| 16   | 15.00  | 1.3670 | .3858  | -.3109 | -.0051 | .0043  | .0062  |
| 17   | 20.00  | 1.5467 | .5831  | -.2598 | .0026  | -.0021 | .0167  |
| 18   | .00    | .8507  | -.0088 | .1367  | -.0135 | .0027  | .0056  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P438

RUN 556 CONFIG F P B NP5 W7 T24 BT IN=-3.5 BETA=0.0

| PT. NO. | IW | 0 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>CU-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM   |        |        |
|---------|----|------------------------|----------------------|-------------------------|--------------------------|---------------------------|---------------------------|---------------|-----------------|-------|--------|--------|
| 2       |    | .0                     | .0                   | 58.1                    | 31.07                    | 154.                      | -55.                      | -27.          | 7.39            | 53.94 | 127.34 | 3090.  |
| 3       |    | .0                     | .0                   | 53.9                    | -6.50                    | 71.                       | -49.                      | -22.          | 7.74            | 53.70 | 127.04 | 11080. |
| 4       |    | -20.0                  | .0                   | -406.9                  | 121.30                   | 1151.                     | -207.                     | -179.         | 8.16            | 54.39 | 127.87 | 11100. |
| 5       |    | -15.0                  | .0                   | -352.8                  | 70.65                    | 1415.                     | -122.                     | 72.           | 8.21            | 54.48 | 127.98 | 11050. |
| 6       |    | -10.0                  | .0                   | -273.9                  | 19.56                    | 648.                      | -91.                      | -17.          | 9.04            | 54.03 | 127.44 | 11060. |
| 7       |    | -5.0                   | .0                   | -109.8                  | -2.72                    | 142.                      | -72.                      | -42.          | 7.69            | 53.74 | 127.10 | 11080. |
| 8       |    | -2.5                   | .0                   | -27.4                   | -6.12                    | 119.                      | -43.                      | -22.          | 7.42            | 54.05 | 127.46 | 11090. |
| 9       |    | .0                     | .0                   | 53.5                    | -6.57                    | 68.                       | -50.                      | -10.          | 7.56            | 54.38 | 127.86 | 11100. |
| 10      |    | 2.5                    | .0                   | 138.1                   | -3.88                    | -29.                      | -43.                      | 5.            | 6.59            | 54.42 | 127.90 | 11080. |
| 11      |    | 5.0                    | .0                   | 221.4                   | 2.48                     | -126.                     | -55.                      | 6.            | 6.01            | 54.57 | 128.09 | 11080. |
| 12      |    | 10.0                   | .0                   | 382.1                   | 23.58                    | -389.                     | -62.                      | 44.           | 5.18            | 54.79 | 128.35 | 11080. |
| 13      |    | 15.0                   | .0                   | 532.6                   | 58.89                    | -892.                     | -15.                      | 105.          | 3.38            | 54.83 | 128.39 | 11060. |
| 14      |    | 20.0                   | .0                   | 566.7                   | 117.88                   | -895.                     | 45.                       | 167.          | 2.50            | 54.46 | 127.95 | 11060. |
| 15      |    | .0                     | .0                   | 51.2                    | -6.67                    | 60.                       | -46.                      | -22.          | 7.67            | 54.16 | 127.59 | 11100. |
| 16      |    | -7.5                   | .0                   | -192.9                  | 5.48                     | 238.                      | -101.                     | -38.          | 8.33            | 54.39 | 127.87 | 11080. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1571   | .0840  | .0495  | -.0033 | -.0016 | .0200 |
| 3    | .00    | .1456   | -.0176 | .0229  | -.0030 | -.0013 | .0209 |
| 4    | -19.99 | -1.0997 | .3278  | .3709  | -.0125 | -.0108 | .0221 |
| 5    | -15.00 | -.9536  | .1909  | .4562  | -.0073 | .0043  | .0222 |
| 6    | -9.99  | -.7402  | .0529  | .2089  | -.0055 | -.0010 | .0244 |
| 7    | -4.96  | -.2967  | -.0073 | .0456  | -.0044 | -.0025 | .0208 |
| 8    | -2.50  | -.0741  | -.0165 | .0384  | -.0026 | -.0014 | .0200 |
| 9    | .02    | .1445   | -.0177 | .0220  | -.0030 | -.0006 | .0204 |
| 10   | 2.51   | .3732   | -.0105 | -.0094 | -.0026 | .0003  | .0178 |
| 11   | 5.00   | .5983   | .0067  | -.0406 | -.0033 | .0004  | .0163 |
| 12   | 10.00  | 1.0327  | .0637  | -.1253 | -.0038 | .0027  | .0140 |
| 13   | 15.00  | 1.4394  | .1592  | -.2875 | -.0009 | .0064  | .0091 |
| 14   | 20.02  | 1.5317  | .3186  | -.2887 | .0027  | .0101  | .0068 |
| 15   | .00    | .1382   | -.0180 | .0194  | -.0028 | -.0013 | .0207 |
| 16   | -7.50  | -.5212  | .0148  | .0766  | -.0061 | -.0023 | .0225 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1571   | .0840  | .0495  | -.0033 | -.0016 | .0200 |
| 3    | .00    | .1456   | -.0176 | .0229  | -.0030 | -.0013 | .0209 |
| 4    | -19.99 | -1.0997 | .3278  | .3709  | -.0125 | -.0108 | .0221 |
| 5    | -15.00 | -.9536  | .1909  | .4562  | -.0073 | .0043  | .0222 |
| 6    | -9.99  | -.7402  | .0529  | .2089  | -.0055 | -.0010 | .0244 |
| 7    | -4.96  | -.2967  | -.0073 | .0456  | -.0044 | -.0025 | .0208 |
| 8    | -2.50  | -.0741  | -.0165 | .0384  | -.0026 | -.0014 | .0200 |
| 9    | .02    | .1445   | -.0177 | .0220  | -.0030 | -.0006 | .0204 |
| 10   | 2.51   | .3732   | -.0105 | -.0094 | -.0026 | .0003  | .0178 |
| 11   | 5.00   | .5983   | .0067  | -.0406 | -.0033 | .0004  | .0163 |
| 12   | 10.00  | 1.0327  | .0637  | -.1253 | -.0038 | .0027  | .0140 |
| 13   | 15.00  | 1.4394  | .1592  | -.2875 | -.0009 | .0064  | .0091 |
| 14   | 20.02  | 1.5317  | .3186  | -.2887 | .0027  | .0101  | .0068 |
| 15   | .00    | .1382   | -.0180 | .0194  | -.0028 | -.0013 | .0207 |
| 16   | -7.50  | -.5212  | .0148  | .0766  | -.0061 | -.0023 | .0225 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 439

RUN 538 CONFIG F P R NP5 W7 T24 BT IN=-3.5 BETA=0.0 PSI=-5

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELRSB PSF | Q KNOTS | V | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|------------|---------|---|--------|
| 2       | .0        | -5.0    | 60.9        | 33.85       | 117.         | 280.         | 29.          | -36.13      | 54.78      | 128.34  |   | 3220.  |
| 3       | .0        | -5.0    | 57.3        | -6.72       | 13.          | 240.         | 48.          | -41.95      | 55.06      | 128.67  |   | 11580. |
| 4       | -20.0     | -5.0    | -412.9      | 121.61      | 1221.        | 504.         | -43.         | -29.99      | 54.86      | 128.43  |   | 11580. |
| 5       | -15.0     | -5.0    | -358.1      | 69.63       | 1278.        | 414.         | 351.         | -31.74      | 54.89      | 128.46  |   | 11590. |
| 6       | -10.0     | -5.0    | -268.1      | 19.79       | 535.         | 402.         | 63.          | -40.44      | 55.63      | 129.35  |   | 11590. |
| 7       | -5.0      | -5.0    | -107.5      | -2.52       | 133.         | 337.         | 47.          | -43.13      | 54.63      | 128.16  |   | 11630. |
| 8       | -2.5      | -5.0    | -26.0       | -6.43       | 92.          | 301.         | 60.          | -44.18      | 54.26      | 127.71  |   | 11620. |
| 9       | .0        | -5.0    | 56.6        | -7.19       | 20.          | 235.         | 60.          | -42.52      | 54.55      | 128.07  |   | 11620. |
| 10      | 2.5       | -5.0    | 141.5       | -4.43       | -68.         | 175.         | 68.          | -40.45      | 54.63      | 128.16  |   | 11610. |
| 11      | 5.0       | -5.0    | 225.0       | 1.67        | -132.        | 128.         | 62.          | -38.47      | 54.40      | 127.89  |   | 11600. |
| 12      | 10.0      | -5.0    | 387.3       | 22.48       | -435.        | 93.          | 44.          | -35.47      | 54.26      | 127.72  |   | 11570. |
| 13      | 15.0      | -5.0    | 534.0       | 56.77       | -867.        | 40.          | -102.        | -30.08      | 54.36      | 127.84  |   | 11570. |
| 14      | 20.0      | -5.0    | 562.0       | 116.53      | -750.        | -47.         | -213.        | -19.89      | 54.62      | 128.15  |   | 11580. |
| 15      | .0        | -5.0    | 54.9        | -7.25       | 24.          | 237.         | 41.          | -42.33      | 54.93      | 128.52  |   | 11620. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .1647   | .0915  | .0377  | .0169  | .0018  | -.0976 |
| 3    | .00    | .1549   | -.0182 | .0043  | .0145  | .0029  | -.1134 |
| 4    | -19.99 | -1.1159 | .3287  | .3935  | .0304  | -.0026 | -.0811 |
| 5    | -15.00 | -.9680  | .1882  | .4119  | .0250  | .0212  | -.0858 |
| 6    | -10.00 | -.7247  | .0535  | .1726  | .0243  | .0038  | -.1093 |
| 7    | -5.00  | -.2905  | -.0068 | .0428  | .0203  | .0029  | -.1166 |
| 8    | -2.50  | -.0704  | -.0174 | .0297  | .0182  | .0036  | -.1194 |
| 9    | .00    | .1529   | -.0194 | .0066  | .0142  | .0036  | -.1149 |
| 10   | 2.53   | .3824   | -.0120 | -.0219 | .0106  | .0041  | -.1093 |
| 11   | 5.00   | .6080   | .0045  | -.0427 | .0077  | .0037  | -.1040 |
| 12   | 10.00  | 1.0468  | .0608  | -.1402 | .0056  | .0027  | -.0959 |
| 13   | 15.00  | 1.4433  | .1534  | -.2794 | .0024  | -.0062 | -.0813 |
| 14   | 20.00  | 1.5189  | .3149  | -.2418 | -.0029 | -.0128 | -.0538 |
| 15   | .01    | .1484   | -.0196 | .0076  | .0143  | .0025  | -.1144 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .1647   | .0826  | .0367  | .0169  | .0012  | -.1053 |
| 3    | .00    | .1549   | -.0280 | .0029  | .0145  | .0028  | -.1114 |
| 4    | -19.99 | -1.1159 | .3203  | .3932  | .0304  | -.0090 | -.1095 |
| 5    | -15.00 | -.9680  | .1799  | .4004  | .0250  | .0144  | -.1019 |
| 6    | -10.00 | -.7247  | .0437  | .1702  | .0243  | .0009  | -.1135 |
| 7    | -5.00  | -.2905  | -.0170 | .0413  | .0203  | .0021  | -.1155 |
| 8    | -2.50  | -.0704  | -.0278 | .0279  | .0182  | .0031  | -.1174 |
| 9    | .00    | .1529   | -.0294 | .0048  | .0142  | .0035  | -.1128 |
| 10   | 2.53   | .3824   | -.0215 | -.0237 | .0106  | .0045  | -.1079 |
| 11   | 5.00   | .6080   | -.0046 | -.0442 | .0077  | .0044  | -.1040 |
| 12   | 10.00  | 1.0468  | .0521  | -.1409 | .0056  | .0049  | -.1008 |
| 13   | 15.00  | 1.4433  | .1457  | -.2755 | .0024  | -.0015 | -.0944 |
| 14   | 20.00  | 1.5189  | .3090  | -.2349 | -.0029 | -.0088 | -.0811 |
| 15   | .01    | .1484   | -.0295 | .0064  | .0143  | .0024  | -.1123 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 440

RUN 559 CONFIG F P B NP5 W7 T24 BT IN=-3.5 BETA=0

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | 0           | 0     | RPM     |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 10      | .0        | .0      | -126.7      | 35.54       | -536.        | -48.         | -12.         | 9.44        | 55.54 | 129.26  | 3090.  |
| 11      | .0        | .0      | -133.2      | -6.82       | -602.        | -50.         | 17.          | 9.50        | 55.80 | 129.56  | 11840. |
| 12      | -20.0     | .0      | -415.3      | 158.09      | 1124.        | -91.         | -55.         | 6.30        | 55.73 | 129.47  | 11810. |
| 13      | -15.0     | .0      | -373.4      | 110.79      | 1181.        | -124.        | -175.        | 6.25        | 55.95 | 129.74  | 11840. |
| 14      | -10.0     | .0      | -326.7      | 67.30       | 170.         | -168.        | -63.         | 11.97       | 54.83 | 128.40  | 11810. |
| 15      | -5.0      | .0      | -269.3      | 17.95       | -346.        | -124.        | 213.         | 9.69        | 55.30 | 128.96  | 11790. |
| 16      | -0        | .0      | -133.3      | -7.50       | -588.        | -53.         | 12.          | 9.20        | 55.29 | 128.96  | 11810. |
| 17      | 2.5       | .0      | -49.5       | -10.75      | -671.        | -70.         | 49.          | 8.19        | 55.16 | 128.80  | 11770. |
| 18      | 5.0       | .0      | 34.3        | -10.45      | -706.        | -53.         | 58.          | 7.38        | 55.05 | 128.67  | 11800. |
| 19      | 10.0      | .0      | 208.8       | -.22        | -874.        | -6.          | 96.          | 6.23        | 55.22 | 128.88  | 11750. |
| 20      | 15.0      | .0      | 384.6       | 25.34       | -1111.       | 46.          | 146.         | 3.23        | 55.23 | 128.89  | 11830. |
| 21      | 20.0      | .0      | 524.7       | 64.89       | -836.        | 42.          | 153.         | 1.99        | 54.87 | 128.46  | 11790. |
| 22      | -0        | .0      | -133.9      | -6.55       | -587.        | -53.         | 18.          | 9.15        | 55.20 | 128.85  | 11790. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 10   | .00    | -.3424  | .0960  | -.1727 | -.0029 | -.0007 | .0255 |
| 11   | .00    | -.3599  | -.0184 | -.1942 | -.0030 | .0010  | .0257 |
| 12   | -20.01 | -1.1226 | .4273  | .3623  | -.0055 | -.0033 | .0170 |
| 13   | -15.01 | -1.0092 | .2994  | .3806  | -.0075 | -.0105 | .0169 |
| 14   | -10.00 | -.8831  | .1819  | .0548  | -.0101 | -.0038 | .0324 |
| 15   | -4.98  | -.7278  | .0485  | -.1114 | -.0075 | .0128  | .0262 |
| 16   | -.01   | -.3603  | -.0203 | -.1897 | -.0032 | .0007  | .0249 |
| 17   | 2.49   | -.1337  | -.0291 | -.2163 | -.0042 | .0030  | .0221 |
| 18   | 4.99   | .0926   | -.0282 | -.2276 | -.0032 | .0035  | .0200 |
| 19   | 10.00  | .5642   | -.0006 | -.2818 | -.0004 | .0058  | .0168 |
| 20   | 15.00  | 1.0395  | .0685  | -.3583 | .0027  | .0088  | .0087 |
| 21   | 20.00  | 1.4181  | .1754  | -.2696 | .0025  | .0093  | .0054 |
| 22   | -.00   | -.3619  | -.0177 | -.1893 | -.0032 | .0011  | .0247 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 10   | .00    | -.3424  | .0960  | -.1727 | -.0029 | -.0007 | .0255 |
| 11   | .00    | -.3599  | -.0184 | -.1942 | -.0030 | .0010  | .0257 |
| 12   | -20.01 | -1.1226 | .4273  | .3623  | -.0055 | -.0033 | .0170 |
| 13   | -15.01 | -1.0092 | .2994  | .3806  | -.0075 | -.0105 | .0169 |
| 14   | -10.00 | -.8831  | .1819  | .0548  | -.0101 | -.0038 | .0324 |
| 15   | -4.98  | -.7278  | .0485  | -.1114 | -.0075 | .0128  | .0262 |
| 16   | -.01   | -.3603  | -.0203 | -.1897 | -.0032 | .0007  | .0249 |
| 17   | 2.49   | -.1337  | -.0291 | -.2163 | -.0042 | .0030  | .0221 |
| 18   | 4.99   | .0926   | -.0282 | -.2276 | -.0032 | .0035  | .0200 |
| 19   | 10.00  | .5642   | -.0006 | -.2818 | -.0004 | .0058  | .0168 |
| 20   | 15.00  | 1.0395  | .0685  | -.3583 | .0027  | .0088  | .0087 |
| 21   | 20.00  | 1.4181  | .1754  | -.2696 | .0025  | .0093  | .0054 |
| 22   | -.00   | -.3619  | -.0177 | -.1893 | -.0032 | .0011  | .0247 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 441

RUN 560 CONFIG F O B NP W7 T24 BT TN=-3.5 BETA=0

| IW      | 0 DELF.   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DFLSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |
| 2       | .0        | .0      | 67.0        | 29.81       | 289.         | -83.         | 13.          | 7.89        | 57.01 | 130.99  | 3260.  |
| 3       | .0        | .0      | 65.2        | 29.69       | 270.         | -74.         | 2.           | 7.59        | 55.48 | 129.18  | 3190.  |
| 4       | .0        | .0      | 66.5        | 30.05       | 267.         | -83.         | 3.           | 7.10        | 54.88 | 128.47  | 3230.  |
| 5       | .0        | .0      | 64.3        | -7.02       | 226.         | -88.         | 18.          | 8.48        | 55.46 | 129.16  | 10990. |
| 6       | -20.0     | .0      | -423.1      | 112.28      | 2038.        | -171.        | -103.        | 14.07       | 54.87 | 128.45  | 10990. |
| 7       | -15.0     | .0      | -354.2      | 61.17       | 1602.        | -170.        | 75.          | 9.02        | 55.29 | 128.95  | 11010. |
| 8       | -10.0     | .0      | -260.8      | 12.13       | 701.         | -112.        | 12.          | 9.45        | 55.16 | 128.80  | 11010. |
| 9       | -5.0      | .0      | -99.8       | -4.31       | 382.         | -88.         | -17.         | 6.97        | 55.69 | 129.43  | 11020. |
| 10      | -0        | .0      | 63.1        | -7.93       | 219.         | -87.         | 25.          | 8.17        | 55.07 | 128.69  | 11050. |
| 11      | 2.5       | .0      | 145.6       | -4.54       | 87.          | -90.         | 46.          | 6.43        | 54.76 | 128.33  | 10980. |
| 12      | 5.0       | .0      | 227.7       | 1.66        | -26.         | -97.         | 77.          | 5.28        | 55.03 | 128.64  | 11010. |
| 13      | 10.0      | .0      | 395.4       | 24.59       | -267.        | -57.         | 92.          | 4.14        | 54.64 | 128.18  | 11010. |
| 14      | 15.0      | .0      | 538.3       | 61.10       | -857.        | -33.         | 123.         | 2.20        | 54.79 | 128.36  | 11000. |
| 15      | 20.0      | .0      | 553.8       | 123.67      | -936.        | -7.          | 173.         | 1.34        | 54.33 | 127.81  | 10970. |
| 16      | .0        | .0      | 63.8        | -6.74       | 247.         | -64.         | -3.          | 7.24        | 55.54 | 129.25  | 11000. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1810   | .0806  | .0933  | -.0050 | .0008  | .0213 |
| 3    | .00    | .1763   | .0802  | .0869  | -.0045 | .0001  | .0205 |
| 4    | .00    | .1797   | .0812  | .0860  | -.0050 | .0002  | .0192 |
| 5    | .00    | .1738   | -.0190 | .0728  | -.0053 | .0011  | .0229 |
| 6    | -20.00 | -1.1436 | .3035  | .6571  | -.0104 | -.0062 | .0380 |
| 7    | -15.00 | -.9574  | .1653  | .5163  | -.0103 | .0045  | .0244 |
| 8    | -10.00 | -.7049  | .0328  | .2260  | -.0067 | .0007  | .0255 |
| 9    | -5.00  | -.2697  | -.0116 | .1231  | -.0053 | -.0010 | .0188 |
| 10   | -.01   | .1705   | -.0214 | .0706  | -.0053 | .0015  | .0221 |
| 11   | 2.50   | .3934   | -.0123 | .0279  | -.0054 | .0028  | .0174 |
| 12   | 4.99   | .6154   | .0045  | -.0084 | -.0059 | .0047  | .0143 |
| 13   | 9.99   | 1.0686  | .0665  | -.0860 | -.0034 | .0056  | .0112 |
| 14   | 14.99  | 1.4549  | .1651  | -.2764 | -.0020 | .0074  | .0059 |
| 15   | 20.00  | 1.4968  | .3342  | -.3018 | -.0004 | .0104  | .0036 |
| 16   | .00    | .1723   | -.0182 | .0797  | -.0039 | -.0002 | .0196 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1810   | .0806  | .0933  | -.0050 | .0008  | .0213 |
| 3    | .00    | .1763   | .0802  | .0869  | -.0045 | .0001  | .0205 |
| 4    | .00    | .1797   | .0812  | .0860  | -.0050 | .0002  | .0192 |
| 5    | .00    | .1738   | -.0190 | .0728  | -.0053 | .0011  | .0229 |
| 6    | -20.00 | -1.1436 | .3035  | .6571  | -.0104 | -.0062 | .0380 |
| 7    | -15.00 | -.9574  | .1653  | .5163  | -.0103 | .0045  | .0244 |
| 8    | -10.00 | -.7049  | .0328  | .2260  | -.0067 | .0007  | .0255 |
| 9    | -5.00  | -.2697  | -.0116 | .1231  | -.0053 | -.0010 | .0188 |
| 10   | -.01   | .1705   | -.0214 | .0706  | -.0053 | .0015  | .0221 |
| 11   | 2.50   | .3934   | -.0123 | .0279  | -.0054 | .0028  | .0174 |
| 12   | 4.99   | .6154   | .0045  | -.0084 | -.0059 | .0047  | .0143 |
| 13   | 9.99   | 1.0686  | .0665  | -.0860 | -.0034 | .0056  | .0112 |
| 14   | 14.99  | 1.4549  | .1651  | -.2764 | -.0020 | .0074  | .0059 |
| 15   | 20.00  | 1.4968  | .3342  | -.3018 | -.0004 | .0104  | .0036 |
| 16   | .00    | .1723   | -.0182 | .0797  | -.0039 | -.0002 | .0196 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 442

RUN 561 CONFIG F 0 B NP W7 T24 BT IN=-3.5 BETA=5

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 60.1        | 28.51       | 219.         | -83.         | 13.          | 7.83        | 55.69 | 129.42  | 3250.  |
| 3       | .0        | .0      | 59.6        | -6.55       | 139.         | -67.         | 14.          | 7.61        | 55.24 | 128.89  | 10800. |
| 4       | -20.0     | .0      | -397.6      | 118.58      | 2082.        | -175.        | 26.          | 9.63        | 54.12 | 127.54  | 10820. |
| 5       | -15.0     | .0      | -350.9      | 62.11       | 1790.        | -169.        | 72.          | 8.88        | 53.85 | 127.22  | 10810. |
| 6       | -10.0     | .0      | -260.4      | 11.60       | 710.         | -81.         | -32.         | 7.69        | 54.35 | 127.82  | 10820. |
| 7       | -5.0      | .0      | -101.9      | -3.42       | 406.         | -85.         | -0.          | 7.65        | 54.65 | 128.17  | 10780. |
| 8       | -2.5      | .0      | -19.0       | -6.31       | 292.         | -90.         | 19.          | 7.32        | 54.44 | 127.92  | 10760. |
| 9       | .0        | .0      | 61.0        | -7.07       | 145.         | -87.         | 8.           | 7.91        | 54.38 | 127.86  | 10820. |
| 10      | 2.5       | .0      | 142.0       | -3.66       | 20.          | -67.         | 18.          | 5.36        | 54.89 | 128.47  | 10770. |
| 11      | 5.0       | .0      | 226.5       | 2.83        | -82.         | -90.         | 42.          | 5.70        | 54.95 | 128.54  | 10780. |
| 12      | 10.0      | .0      | 384.8       | 23.38       | -372.        | -61.         | 99.          | 2.92        | 54.38 | 127.86  | 10760. |
| 13      | 15.0      | .0      | 519.2       | 59.94       | -931.        | -19.         | 130.         | 2.16        | 54.59 | 128.10  | 10760. |
| 14      | 20.0      | .0      | 547.8       | 119.98      | -998.        | 19.          | 126.         | 1.85        | 54.05 | 127.46  | 10820. |
| 15      | .0        | .0      | 58.2        | -6.92       | 127.         | -77.         | -3.          | 6.86        | 54.59 | 128.11  | 10800. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1624   | .0771  | .0705  | -.0050 | .0008  | .0212 |
| 3    | .00    | .1610   | -.0177 | .0447  | -.0041 | .0008  | .0206 |
| 4    | -20.00 | -1.0747 | .3205  | .6711  | -.0106 | .0016  | .0260 |
| 5    | -15.00 | -.9485  | .1679  | .5770  | -.0102 | .0043  | .0240 |
| 6    | -10.00 | -.7038  | .0313  | .2290  | -.0049 | -.0019 | .0208 |
| 7    | -5.01  | -.2755  | -.0092 | .1310  | -.0051 | -.0000 | .0207 |
| 8    | -2.50  | -.0515  | -.0171 | .0942  | -.0054 | .0012  | .0198 |
| 9    | .02    | .1649   | -.0191 | .0467  | -.0052 | .0005  | .0214 |
| 10   | 2.51   | .3837   | -.0099 | .0066  | -.0040 | .0011  | .0145 |
| 11   | 5.01   | .6121   | .0077  | -.0265 | -.0054 | .0025  | .0154 |
| 12   | 10.00  | 1.0399  | .0632  | -.1201 | -.0037 | .0060  | .0079 |
| 13   | 15.00  | 1.4033  | .1620  | -.3002 | -.0011 | .0078  | .0058 |
| 14   | 20.00  | 1.4804  | .3243  | -.3216 | .0011  | .0076  | .0050 |
| 15   | .00    | .1573   | -.0187 | .0410  | -.0046 | -.0002 | .0186 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1624   | .0771  | .0705  | -.0050 | .0008  | .0212 |
| 3    | .00    | .1610   | -.0177 | .0447  | -.0041 | .0008  | .0206 |
| 4    | -20.00 | -1.0747 | .3205  | .6711  | -.0106 | .0016  | .0260 |
| 5    | -15.00 | -.9485  | .1679  | .5770  | -.0102 | .0043  | .0240 |
| 6    | -10.00 | -.7038  | .0313  | .2290  | -.0049 | -.0019 | .0208 |
| 7    | -5.01  | -.2755  | -.0092 | .1310  | -.0051 | -.0000 | .0207 |
| 8    | -2.50  | -.0515  | -.0171 | .0942  | -.0054 | .0012  | .0198 |
| 9    | .02    | .1649   | -.0191 | .0467  | -.0052 | .0005  | .0214 |
| 10   | 2.51   | .3837   | -.0099 | .0066  | -.0040 | .0011  | .0145 |
| 11   | 5.01   | .6121   | .0077  | -.0265 | -.0054 | .0025  | .0154 |
| 12   | 10.00  | 1.0399  | .0632  | -.1201 | -.0037 | .0060  | .0079 |
| 13   | 15.00  | 1.4033  | .1620  | -.3002 | -.0011 | .0078  | .0058 |
| 14   | 20.00  | 1.4804  | .3243  | -.3216 | .0011  | .0076  | .0050 |
| 15   | .00    | .1573   | -.0187 | .0410  | -.0046 | -.0002 | .0186 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 443

RUN 565 CONFIG F P B NP W7 T24 BT IN=-3.5 BETA=5

| PT. NO. | ALPHA DEG. | DELTA DEG. | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELTA PSF | DELTA V KNOTS | RPM    |
|---------|------------|------------|-------------|-------------|---------------|--------------|--------------|-------------|-----------|---------------|--------|
| 2       | 0          | 5.0        | 62.7        | 31.92       | 135.          | -355.        | -78.         | 47.31       | 55.49     | 129.18        | 3270.  |
| 3       | 0          | 5.0        | 62.0        | -7.15       | 41.           | -311.        | -90.         | 52.69       | 55.62     | 129.33        | 11410. |
| 4       | -20.0      | 5.0        | -410.5      | 112.42      | 1935.         | -962.        | -246.        | 53.54       | 55.02     | 128.61        | 11350. |
| 5       | -15.0      | 5.0        | -349.7      | 57.35       | 1519.         | -820.        | -134.        | 55.76       | 55.43     | 129.10        | 11440. |
| 6       | -10.0      | 5.0        | -255.6      | 10.69       | 544.          | -532.        | -128.        | 55.37       | 55.55     | 129.24        | 11380. |
| 7       | -5.0       | 5.0        | -96.6       | -3.44       | 303.          | -435.        | -100.        | 54.82       | 55.76     | 129.49        | 11440. |
| 8       | -2.5       | 5.0        | -16.0       | -7.13       | 166.          | -382.        | -87.         | 54.64       | 55.67     | 129.39        | 11480. |
| 9       | 0          | 5.0        | 64.0        | -6.84       | 53.           | -319.        | -73.         | 52.35       | 55.65     | 129.37        | 11440. |
| 10      | 2.5        | 5.0        | 144.1       | -3.82       | -74.          | -258.        | -61.         | 49.15       | 56.12     | 129.92        | 11410. |
| 11      | 5.0        | 5.0        | 225.6       | 1.84        | -185.         | -250.        | -18.         | 46.94       | 55.49     | 129.17        | 11410. |
| 12      | 10.0       | 5.0        | 380.7       | 22.08       | -470.         | -184.        | 92.          | 41.30       | 55.54     | 129.23        | 11400. |
| 13      | 15.0       | 5.0        | 520.6       | 58.59       | -920.         | -80.         | 330.         | 34.84       | 55.15     | 128.77        | 11430. |
| 14      | 20.0       | 5.0        | 548.9       | 119.01      | -1095.        | 83.          | 426.         | 25.29       | 55.14     | 128.76        | 11430. |
| 15      | 0          | 5.0        | 62.4        | -6.41       | 44.           | -316.        | -83.         | 51.33       | 55.92     | 129.68        | 11340. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .1695   | .0863  | .0436  | -.0214 | -.0047 | .1279 |
| 3    | 0.00   | .1676   | -.0193 | .0132  | -.0188 | -.0054 | .1424 |
| 4    | -20.01 | -1.1096 | .3038  | .6238  | -.0581 | -.0149 | .1447 |
| 5    | -15.00 | -.9452  | .1550  | .4896  | -.0495 | -.0081 | .1507 |
| 6    | -10.00 | -.6908  | .0289  | .1753  | -.0322 | -.0077 | .1497 |
| 7    | -5.01  | -.2611  | -.0093 | .0978  | -.0263 | -.0060 | .1482 |
| 8    | -2.51  | -.0432  | -.0193 | .0534  | -.0231 | -.0052 | .1477 |
| 9    | 0.00   | .1731   | -.0185 | .0170  | -.0193 | -.0044 | .1415 |
| 10   | 2.49   | .3896   | -.0103 | -.0238 | -.0156 | -.0037 | .1328 |
| 11   | 4.99   | .6097   | .0050  | -.0596 | -.0151 | -.0011 | .1269 |
| 12   | 10.00  | 1.0290  | .0597  | -.1516 | -.0111 | .0056  | .1116 |
| 13   | 14.99  | 1.4071  | .1584  | -.2965 | -.0048 | .0199  | .0941 |
| 14   | 19.99  | 1.4836  | .3216  | -.3532 | .0050  | .0257  | .0683 |
| 15   | 0.00   | .1685   | -.0173 | .0142  | -.0191 | -.0050 | .1367 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .1695   | .0747  | .0412  | -.0214 | -.0040 | .1349 |
| 3    | 0.00   | .1676   | -.0317 | .0106  | -.0188 | -.0052 | .1402 |
| 4    | -20.01 | -1.1096 | .2900  | .6145  | -.0581 | -.0046 | .1707 |
| 5    | -15.00 | -.9452  | .1412  | .4839  | -.0495 | -.0000 | .1637 |
| 6    | -10.00 | -.6908  | .0157  | .1710  | -.0322 | -.0048 | .1516 |
| 7    | -5.01  | -.2611  | -.0222 | .0946  | -.0263 | -.0044 | .1468 |
| 8    | -2.51  | -.0432  | -.0321 | .0508  | -.0231 | -.0043 | .1454 |
| 9    | 0.00   | .1731   | -.0308 | .0149  | -.0193 | -.0041 | .1393 |
| 10   | 2.49   | .3896   | -.0219 | -.0255 | -.0156 | -.0041 | .1314 |
| 11   | 4.99   | .6097   | -.0061 | -.0599 | -.0151 | -.0021 | .1268 |
| 12   | 10.00  | 1.0290  | .0497  | -.1484 | -.0111 | .0030  | .1164 |
| 13   | 14.99  | 1.4071  | .1495  | -.2861 | -.0048 | .0150  | .1077 |
| 14   | 19.99  | 1.4836  | .3144  | -.3398 | .0050  | .0198  | .0962 |
| 15   | 0.00   | .1685   | -.0294 | .0119  | -.0191 | -.0047 | .1367 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P444

RUN 566 CONFIG F 0 B NP W7 T24 BT IN=-3.5 BETA=-5

| IW        | 0 DELF | 0 DELA | 0 IHT | 0 DELE | 0 DELR | 0 DELSB | 0     | 0     | 0     | 0      | 0      | 0 |
|-----------|--------|--------|-------|--------|--------|---------|-------|-------|-------|--------|--------|---|
| PT. ALPHA | PSI    | CLBAR  | CDBAR | CPMBAR | CYMBAR | CRMBAR  | CYBAR | PSF   | V     | RPM    |        |   |
| NO. DEG   | DEG    | SQ-FT  | SQ-FT | CU-FT  | CU-FT  | CU-FT   | SQ-FT |       |       |        |        |   |
| 2         | .0     | 5.0    | 67.5  | 34.03  | 281.   | -340.   | -68.  | 47.66 | 55.06 | 128.67 | 3160.  |   |
| 3         | .0     | 5.0    | 66.3  | -6.96  | 161.   | -295.   | -67.  | 52.30 | 54.97 | 128.56 | 11590. |   |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD     | CPM   | CYM    | CRM    | CY    |
|------|-------|-------|--------|-------|--------|--------|-------|
| 2    | .00   | .1825 | .0920  | .0905 | -.0205 | -.0041 | .1288 |
| 3    | .00   | .1792 | -.0188 | .0519 | -.0178 | -.0041 | .1414 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB    | CPMB  | CYMB   | CRMB   | CYB   |
|------|-------|-------|--------|-------|--------|--------|-------|
| 2    | .00   | .1825 | .0803  | .0882 | -.0205 | -.0026 | .1364 |
| 3    | .00   | .1792 | -.0311 | .0498 | -.0178 | -.0032 | .1392 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 445

RUN: 567 CONFIG F O B NP W7 T24 BT IN=-3.5 BETA=-.5

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 65.1        | 32.69       | 230.         | -73.         | -15.         | 7.49        | 55.01 | 128.61  | 3150.  |
| 3       | .0        | .0      | 63.7        | -13.27      | 144.         | -79.         | 9.           | 6.81        | 55.06 | 128.67  | 12140. |
| 4       | -20.0     | .0      | -429.9      | 102.74      | 1716.        | -214.        | -108.        | 8.56        | 54.55 | 128.05  | 12180. |
| 5       | -15.0     | .0      | -364.1      | 56.21       | 1357.        | -215.        | 87.          | 9.20        | 54.91 | 128.48  | 12170. |
| 6       | -10.0     | .0      | -261.1      | 7.63        | 655.         | -154.        | 8.           | 8.58        | 55.06 | 128.67  | 12170. |
| 7       | -5.0      | .0      | -96.8       | -10.01      | 163.         | -127.        | 6.           | 7.69        | 55.10 | 128.71  | 12180. |
| 8       | -2.5      | .0      | -19.2       | -13.63      | 152.         | -106.        | 8.           | 7.17        | 54.44 | 127.93  | 12160. |
| 9       | -.0       | .0      | 63.5        | -13.54      | 110.         | -103.        | 20.          | 7.18        | 54.74 | 128.28  | 12150. |
| 10      | 2.5       | .0      | 147.3       | -10.95      | 38.          | -94.         | 23.          | 5.87        | 53.95 | 127.34  | 12150. |
| 11      | 5.0       | .0      | 227.3       | -4.85       | -65.         | -86.         | 48.          | 6.09        | 54.62 | 128.14  | 12140. |
| 12      | 10.0      | .0      | 391.6       | 17.05       | -299.        | -60.         | 62.          | 4.65        | 54.92 | 128.49  | 12120. |
| 13      | 15.0      | .0      | 545.9       | 54.36       | -723.        | -19.         | 105.         | 3.34        | 55.12 | 128.74  | 12120. |
| 14      | 20.0      | .0      | 566.4       | 116.76      | -845.        | 34.          | 177.         | 2.40        | 54.91 | 128.48  | 12140. |
| 15      | -.0       | .0      | 61.9        | -13.49      | 131.         | -86.         | -9.          | 7.46        | 54.67 | 128.21  | 12170. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1760   | .0883  | .0741  | -.0044 | -.0009 | .0203 |
| 3    | .00    | .1722   | -.0359 | .0464  | -.0048 | .0005  | .0184 |
| 4    | -20.00 | -1.1619 | .2777  | .5531  | -.0129 | -.0065 | .0231 |
| 5    | -14.99 | -.9841  | .1519  | .4375  | -.0130 | .0052  | .0249 |
| 6    | -10.00 | -.7058  | .0206  | .2112  | -.0093 | .0005  | .0232 |
| 7    | -5.00  | -.2697  | -.0270 | .0526  | -.0077 | .0003  | .0208 |
| 8    | -2.51  | -.0518  | -.0368 | .0491  | -.0064 | .0005  | .0194 |
| 9    | -.00   | .1715   | -.0366 | .0354  | -.0062 | .0012  | .0194 |
| 10   | 2.50   | .3982   | -.0296 | .0122  | -.0057 | .0014  | .0159 |
| 11   | 5.00   | .6143   | -.0131 | -.0209 | -.0052 | .0029  | .0165 |
| 12   | 10.00  | 1.0582  | .0485  | -.0962 | -.0036 | .0037  | .0126 |
| 13   | 15.00  | 1.4753  | .1469  | -.2330 | -.0012 | .0063  | .0090 |
| 14   | 20.00  | 1.5308  | .3156  | -.2725 | .0021  | .0107  | .0065 |
| 15   | -.00   | .1673   | -.0365 | .0421  | -.0052 | -.0006 | .0202 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1760   | .0883  | .0741  | -.0044 | -.0009 | .0203 |
| 3    | .00    | .1722   | -.0359 | .0464  | -.0048 | .0005  | .0184 |
| 4    | -20.00 | -1.1619 | .2777  | .5531  | -.0129 | -.0065 | .0231 |
| 5    | -14.99 | -.9841  | .1519  | .4375  | -.0130 | .0052  | .0249 |
| 6    | -10.00 | -.7058  | .0206  | .2112  | -.0093 | .0005  | .0232 |
| 7    | -5.00  | -.2697  | -.0270 | .0526  | -.0077 | .0003  | .0208 |
| 8    | -2.51  | -.0518  | -.0368 | .0491  | -.0064 | .0005  | .0194 |
| 9    | -.00   | .1715   | -.0366 | .0354  | -.0062 | .0012  | .0194 |
| 10   | 2.50   | .3982   | -.0296 | .0122  | -.0057 | .0014  | .0159 |
| 11   | 5.00   | .6143   | -.0131 | -.0209 | -.0052 | .0029  | .0165 |
| 12   | 10.00  | 1.0582  | .0485  | -.0962 | -.0036 | .0037  | .0126 |
| 13   | 15.00  | 1.4753  | .1469  | -.2330 | -.0012 | .0063  | .0090 |
| 14   | 20.00  | 1.5308  | .3156  | -.2725 | .0021  | .0107  | .0065 |
| 15   | -.00   | .1673   | -.0365 | .0421  | -.0052 | -.0006 | .0202 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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1446

RUN 568 CONFIG F P B NP5 W7 T15 IN=-3.5 BETA=0.0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELP       | 0 DFLSB      | Q            | V           | RPM                 |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|---------------------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF KNOTS           |
| 5       | .0        | .0      | 76.5        | 32.00       | 125.         | -73.         | 18.          | 9.65        | 54.26 127.73        |
| 6       | .0        | .0      | 70.2        | -13.48      | 27.          | -59.         | 6.           | 9.35        | 54.76 128.32 12030. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD     | CPM   | CYM    | CRM   | CY    |
|------|-------|-------|--------|-------|--------|-------|-------|
| 5    | .01   | .2067 | .0865  | .0404 | -.0044 | .0011 | .0261 |
| 6    | .00   | .1897 | -.0364 | .0088 | -.0036 | .0004 | .0253 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB    | CPMB  | CYMB   | CRMB  | CYB   |
|------|-------|-------|--------|-------|--------|-------|-------|
| 5    | .01   | .2067 | .0865  | .0404 | -.0044 | .0011 | .0261 |
| 6    | .00   | .1897 | -.0364 | .0088 | -.0036 | .0004 | .0253 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 447

RUN 569 CONFIG F P B NP5 W7 T15 IN=-3.5 BETA=0.0

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------|------------|--------|
| 2                | .0                     | .0                   | 66.7                     | -13.48                  | 45.                       | -35.                      | -29.                      | 8.95                      | 54.43    | 127.92     | 12020. |
| 3                | -20.0                  | .0                   | -429.3                   | 119.46                  | 3061.                     | -73.                      | -122.                     | 7.33                      | 55.16    | 128.79     | 12080. |
| 4                | -15.0                  | .0                   | -398.1                   | 57.01                   | 3334.                     | -129.                     | 192.                      | 10.33                     | 54.51    | 128.01     | 12070. |
| 5                | -10.0                  | .0                   | -283.6                   | 9.29                    | 1929.                     | 27.                       | -101.                     | 7.55                      | 55.66    | 129.38     | 11960. |
| 6                | -5.0                   | .0                   | -108.9                   | -10.06                  | 887.                      | -36.                      | -65.                      | 7.87                      | 54.81    | 128.37     | 12040. |
| 7                | -2.5                   | .0                   | -18.3                    | -13.36                  | 363.                      | -36.                      | -11.                      | 8.03                      | 55.03    | 128.63     | 12030. |
| 8                | .0                     | .0                   | 67.7                     | -13.49                  | 35.                       | -45.                      | .6                        | 9.55                      | 54.82    | 128.30     | 12040. |
| 9                | 2.5                    | .0                   | 154.1                    | -10.25                  | -236.                     | -8.                       | 28.                       | 6.85                      | 55.00    | 128.61     | 12020. |
| 10               | 5.0                    | .0                   | 237.0                    | -3.87                   | -539.                     | -8.                       | 47.                       | 5.74                      | 55.57    | 129.28     | 12000. |
| 11               | 10.0                   | .0                   | 388.6                    | 16.30                   | -828.                     | -37.                      | 33.                       | 4.47                      | 54.85    | 128.43     | 11990. |
| 12               | 15.0                   | .0                   | 507.8                    | 49.76                   | -809.                     | -8.                       | 87.                       | 3.90                      | 54.99    | 128.59     | 11980. |
| 13               | 20.0                   | .0                   | 529.7                    | 98.12                   | -439.                     | 78.                       | 107.                      | .79                       | 54.66    | 128.20     | 12000. |
| 14               | -0.0                   | .0                   | 69.5                     | -13.27                  | 55.                       | -37.                      | 24.                       | 8.62                      | 54.94    | 128.53     | 12010. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1802   | -.0364 | .0145  | -.0021 | -.0018 | .0242 |
| 3    | -20.01 | -1.1601 | .3228  | .9868  | -.0044 | -.0074 | .0198 |
| 4    | -15.01 | -1.0761 | .1541  | 1.0750 | -.0078 | .0116  | .0279 |
| 5    | -10.01 | -.7666  | .0251  | .6220  | .0017  | -.0061 | .0204 |
| 6    | -5.01  | -.2944  | -.0272 | .2859  | -.0022 | -.0039 | .0213 |
| 7    | -2.50  | -.0494  | -.0361 | .1169  | -.0022 | -.0007 | .0217 |
| 8    | .00    | .1831   | -.0365 | .0112  | -.0027 | .0003  | .0258 |
| 9    | 2.50   | .4165   | -.0277 | -.0760 | -.0005 | .0017  | .0185 |
| 10   | 4.99   | .6407   | -.0105 | -.1738 | -.0005 | .0028  | .0155 |
| 11   | 9.99   | 1.0504  | .0441  | -.2671 | -.0022 | .0020  | .0121 |
| 12   | 15.02  | 1.3724  | .1345  | -.2607 | -.0005 | .0053  | .0105 |
| 13   | 19.99  | 1.4315  | .2652  | -.1417 | .0047  | .0064  | .0021 |
| 14   | -.01   | .1879   | -.0359 | .0177  | -.0023 | .0015  | .0233 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1802   | -.0364 | .0145  | -.0021 | -.0018 | .0242 |
| 3    | -20.01 | -1.1601 | .3228  | .9868  | -.0044 | -.0074 | .0198 |
| 4    | -15.01 | -1.0761 | .1541  | 1.0750 | -.0078 | .0116  | .0279 |
| 5    | -10.01 | -.7666  | .0251  | .6220  | .0017  | -.0061 | .0204 |
| 6    | -5.01  | -.2944  | -.0272 | .2859  | -.0022 | -.0039 | .0213 |
| 7    | -2.50  | -.0494  | -.0361 | .1169  | -.0022 | -.0007 | .0217 |
| 8    | .00    | .1831   | -.0365 | .0112  | -.0027 | .0003  | .0258 |
| 9    | 2.50   | .4165   | -.0277 | -.0760 | -.0005 | .0017  | .0185 |
| 10   | 4.99   | .6407   | -.0105 | -.1738 | -.0005 | .0028  | .0155 |
| 11   | 9.99   | 1.0504  | .0441  | -.2671 | -.0022 | .0020  | .0121 |
| 12   | 15.02  | 1.3724  | .1345  | -.2607 | -.0005 | .0053  | .0105 |
| 13   | 19.99  | 1.4315  | .2652  | -.1417 | .0047  | .0064  | .0021 |
| 14   | -.01   | .1879   | -.0359 | .0177  | -.0023 | .0015  | .0233 |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 448

RUN 570 CONFIG F P B NP5 W7 T25 IN=-3.5 BETA=0.0

| PT. NO. | IW    | 0 DELF | 0 DELA | 0 IHT  | 0 DELE | 0 DELR | 0 DELSB | V    | RPM   |        |        |
|---------|-------|--------|--------|--------|--------|--------|---------|------|-------|--------|--------|
|         | ALPHA | PSI    | CLBAR  | CDBAR  | CPMBAR | CYMBAR | CRMBAR  | Q    |       |        |        |
|         | DEG   | DEG    | SQ-FT  | SQ-FT  | CU-FT  | CU-FT  | CU-FT   | PSF  | KNOTS |        |        |
| 5       | .0    | .0     | 80.9   | 32.27  | -99.   | -48.   | 24.     | 9.11 | 54.81 | 128.38 | 3540.  |
| 6       | .0    | .0     | 73.9   | -6.94  | -188.  | -37.   | 23.     | 9.65 | 54.59 | 128.12 | 11120. |
| 7       | -20.0 | .0     | -392.4 | 118.56 | 2130.  | -8.    | -104.   | 6.89 | 54.59 | 128.10 | 11130. |
| 8       | -15.0 | .0     | -337.6 | 64.94  | 1797.  | 136.   | -10.    | 4.94 | 54.97 | 128.57 | 11180. |
| 9       | -10.0 | .0     | -257.5 | 13.51  | 905.   | 25.    | -51.    | 8.29 | 54.63 | 128.16 | 11150. |
| 10      | -5.0  | .0     | -95.2  | -4.13  | 350.   | -29.   | -30.    | 7.95 | 55.40 | 129.08 | 11150. |
| 11      | -2.5  | .0     | -8.3   | -7.23  | -35.   | -25.   | 7.      | 7.41 | 55.44 | 129.13 | 11140. |
| 12      | .0    | .0     | 76.9   | -6.76  | -275.  | -38.   | 23.     | 9.61 | 55.19 | 128.83 | 11130. |
| 13      | 2.5   | .0     | 153.4  | -4.09  | -369.  | 3.     | 28.     | 6.51 | 55.27 | 128.92 | 11150. |
| 14      | 5.0   | .0     | 233.2  | 2.24   | -376.  | -11.   | 12.     | 6.37 | 54.77 | 128.32 | 11140. |
| 15      | 10.0  | .0     |        | 21.85  |        | -31.   | 68.     | 4.57 | 54.69 | 128.23 | 11140. |
| 16      | 15.0  | .0     | 494.2  | 53.65  | -164.  | -9.    | 87.     | 3.97 | 54.96 | 128.56 | 11120. |
| 17      | 20.0  | .0     | 507.4  | 100.12 | 489.   | 74.    | 124.    | 1.55 | 54.85 | 128.41 | 11170. |
| 18      | 10.0  | .0     | 375.2  | 21.52  | -374.  | -26.   | 67.     | 4.83 | 55.26 | 128.91 | 11130. |
| 19      | .0    | .0     | 70.9   | -6.82  | -192.  | -32.   | 5.      | 9.88 | 55.26 | 128.91 | 11130. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | .01    | .2186   | .0872  | -.0318 | -.0029 | .0014  | .0246 |
| 6    | .01    | .1998   | -.0188 | -.0605 | -.0022 | .0014  | .0261 |
| 7    | -19.99 | -1.0604 | .3204  | .6867  | -.0005 | -.0063 | .0186 |
| 8    | -15.00 | -.9125  | .1755  | .5794  | .0082  | -.0006 | .0133 |
| 9    | -10.00 | -.6960  | .0365  | .2919  | .0015  | -.0031 | .0224 |
| 10   | -5.00  | -.2574  | -.0112 | .1129  | -.0018 | -.0018 | .0215 |
| 11   | -2.50  | -.0225  | -.0195 | -.0112 | -.0015 | .0004  | .0200 |
| 12   | .00    | .2079   | -.0183 | -.0888 | -.0023 | .0014  | .0260 |
| 13   | 2.51   | .4146   | -.0110 | -.1190 | .0002  | .0017  | .0176 |
| 14   | 5.00   | .6303   | .0061  | -.1211 | -.0007 | .0007  | .0172 |
| 15   | 10.01  | .3063   | .0590  | 4.1353 | -.0019 | .0041  | .0123 |
| 16   | 15.00  | 1.3357  | .1450  | -.0528 | -.0006 | .0053  | .0107 |
| 17   | 20.00  | 1.3713  | .2706  | .1578  | .0045  | .0075  | .0042 |
| 18   | 10.02  | 1.0139  | .0582  | -.1207 | -.0016 | .0041  | .0131 |
| 19   | .00    | .1916   | -.0184 | -.0619 | -.0020 | .0003  | .0267 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | .01    | .2186   | .0872  | -.0318 | -.0029 | .0014  | .0246 |
| 6    | .01    | .1998   | -.0188 | -.0605 | -.0022 | .0014  | .0261 |
| 7    | -19.99 | -1.0604 | .3204  | .6867  | -.0005 | -.0063 | .0186 |
| 8    | -15.00 | -.9125  | .1755  | .5794  | .0082  | -.0006 | .0133 |
| 9    | -10.00 | -.6960  | .0365  | .2919  | .0015  | -.0031 | .0224 |
| 10   | -5.00  | -.2574  | -.0112 | .1129  | -.0018 | -.0018 | .0215 |
| 11   | -2.50  | -.0225  | -.0195 | -.0112 | -.0015 | .0004  | .0200 |
| 12   | .00    | .2079   | -.0183 | -.0888 | -.0023 | .0014  | .0260 |
| 13   | 2.51   | .4146   | -.0110 | -.1190 | .0002  | .0017  | .0176 |
| 14   | 5.00   | .6303   | .0061  | -.1211 | -.0007 | .0007  | .0172 |
| 15   | 10.01  | .3063   | .0590  | 4.1353 | -.0019 | .0041  | .0123 |
| 16   | 15.00  | 1.3357  | .1450  | -.0528 | -.0006 | .0053  | .0107 |
| 17   | 20.00  | 1.3713  | .2706  | .1578  | .0045  | .0075  | .0042 |
| 18   | 10.02  | 1.0139  | .0582  | -.1207 | -.0016 | .0041  | .0131 |
| 19   | .00    | .1916   | -.0184 | -.0619 | -.0020 | .0003  | .0267 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
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RUN 571 CONFIG F P B NP5 W7 T26 IN=-3.5 BETA=0.0

| PT. NO. | O DELF    |         | O DELA      |             | O IHT        |              | O DELE       |             | O DELR |         | O DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | V KNOTS |         |  |     |
| 5       | .0        | .0      | 81.4        | 31.80       | -279.        | -34.         | -12.         | 9.12        | 54.66  | 128.20  | 3540.   |  |     |
| 6       | .0        | .0      | 77.1        | -6.55       | -347.        | -21.         | -11.         | 8.67        | 55.16  | 128.79  | 11160.  |  |     |
| 7       | -20.0     | .0      | -365.6      | 108.89      | 258.         | -126.        | -54.         | 8.53        | 55.52  | 129.29  | 11130.  |  |     |
| 8       | -15.0     | .0      | -320.0      | 55.59       | 328.         | -8.          | 140.         | 7.94        | 55.78  | 129.53  | 11130.  |  |     |
| 9       | -10.0     | .0      | -234.2      | 12.47       | -87.         | 14.          | -33.         | 8.32        | 55.93  | 129.71  | 11140.  |  |     |
| 10      | -5.0      | .0      | -81.0       | -4.20       | -302.        | -15.         | -29.         | 7.62        | 55.61  | 129.33  | 11160.  |  |     |
| 11      | -2.5      | .0      | .6          | -7.04       | -334.        | -17.         | 8.           | 7.13        | 54.75  | 128.31  | 11130.  |  |     |
| 12      | .0        | .0      | 76.0        | -6.55       | -309.        | -27.         | 6.           | 9.19        | 55.63  | 129.35  | 11110.  |  |     |
| 13      | 2.5       | .0      | 155.7       | -3.52       | -294.        | 2.           | 44.          | 7.13        | 55.74  | 129.48  | 11130.  |  |     |
| 14      | 5.0       | .0      | 231.5       | 2.18        | -245.        | 1.           | 30.          | 5.76        | 55.17  | 128.80  | 11160.  |  |     |
| 15      | 10.0      | .0      | 370.1       | 20.74       | 11.          | -33.         | 67.          | 5.02        | 55.40  | 129.08  | 11130.  |  |     |
| 16      | 15.0      | .0      | 481.9       | 51.36       | 489.         | -14.         | 87.          | 3.93        | 54.96  | 128.56  | 11120.  |  |     |
| 17      | 20.0      | .0      | 502.2       | 97.33       | 1022.        | 38.          | 123.         | 2.03        | 55.40  | 129.07  | 11150.  |  |     |
| 18      | .0        | .0      | 76.3        | -7.15       | -317.        | -25.         | -11.         | 9.02        | 54.74  | 128.30  | 11140.  |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 5    | .01    | .2199  | .0859  | -.0898 | -.0021 | -.0007 | .0246 |
| 6    | .01    | .2083  | -.0177 | -.1120 | -.0013 | -.0007 | .0234 |
| 7    | -20.00 | -.9882 | .2943  | .0832  | -.0076 | -.0033 | .0230 |
| 8    | -15.00 | -.8649 | .1502  | .1056  | -.0005 | .0085  | .0215 |
| 9    | -10.00 | -.6329 | .0337  | -.0279 | .0009  | -.0020 | .0225 |
| 10   | -5.00  | -.2190 | -.0114 | -.0974 | -.0009 | -.0018 | .0206 |
| 11   | -2.50  | .0017  | -.0190 | -.1076 | -.0010 | .0005  | .0193 |
| 12   | .01    | .2054  | -.0177 | -.0995 | -.0017 | .0004  | .0248 |
| 13   | 2.50   | .4208  | -.0095 | -.0947 | .0001  | .0027  | .0193 |
| 14   | 5.01   | .6256  | .0059  | -.0789 | .0001  | .0018  | .0156 |
| 15   | 10.01  | 1.0003 | .0560  | .0037  | -.0020 | .0040  | .0136 |
| 16   | 15.00  | 1.3025 | .1388  | .1575  | -.0008 | .0053  | .0106 |
| 17   | 20.00  | 1.3573 | .2631  | .3293  | .0023  | .0074  | .0055 |
| 18   | .01    | .2063  | -.0193 | -.1023 | -.0015 | -.0007 | .0244 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 5    | .01    | .2199  | .0859  | -.0898 | -.0021 | -.0007 | .0246 |
| 6    | .01    | .2083  | -.0177 | -.1120 | -.0013 | -.0007 | .0234 |
| 7    | -20.00 | -.9882 | .2943  | .0832  | -.0076 | -.0033 | .0230 |
| 8    | -15.00 | -.8649 | .1502  | .1056  | -.0005 | .0085  | .0215 |
| 9    | -10.00 | -.6329 | .0337  | -.0279 | .0009  | -.0020 | .0225 |
| 10   | -5.00  | -.2190 | -.0114 | -.0974 | -.0009 | -.0018 | .0206 |
| 11   | -2.50  | .0017  | -.0190 | -.1076 | -.0010 | .0005  | .0193 |
| 12   | .01    | .2054  | -.0177 | -.0995 | -.0017 | .0004  | .0248 |
| 13   | 2.50   | .4208  | -.0095 | -.0947 | .0001  | .0027  | .0193 |
| 14   | 5.01   | .6256  | .0059  | -.0789 | .0001  | .0018  | .0156 |
| 15   | 10.01  | 1.0003 | .0560  | .0037  | -.0020 | .0040  | .0136 |
| 16   | 15.00  | 1.3025 | .1388  | .1575  | -.0008 | .0053  | .0106 |
| 17   | 20.00  | 1.3573 | .2631  | .3293  | .0023  | .0074  | .0055 |
| 18   | .01    | .2063  | -.0193 | -.1023 | -.0015 | -.0007 | .0244 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 572 CONFIG F P B NP5 W7 T19 BT TN=-3.5 BETA=0

| PT. NO. | IW    | 0 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM   |        |        |
|---------|-------|------------------------|----------------------|-------------------------|--------------------------|---------------------------|---------------------------|---------------|-----------------|-------|--------|--------|
| 2       |       | .0                     | .0                   | -165.8                  | 31.36                    | 11825.                    | -31.                      | 6.            | 9.01            | 55.83 | 129.59 | 3560.  |
| 10      |       | .0                     | .0                   | 68.8                    | 31.33                    | 74.                       | -42.                      | 5.            | 9.50            | 55.60 | 129.31 | 3570.  |
| 11      |       | .0                     | .0                   | 66.8                    | -3.79                    | -31.                      | -41.                      | 6.            | 8.90            | 55.39 | 129.07 | 10850. |
| 12      | -20.0 | .0                     | .0                   | -392.0                  | 121.94                   | 1573.                     | -138.                     | -25.          | 11.04           | 54.94 | 128.52 | 10840. |
| 13      | -15.0 | .0                     | .0                   | -340.7                  | 70.13                    | 1654.                     | 37.                       | -67.          | 6.62            | 54.74 | 128.28 | 10840. |
| 14      | -10.0 | .0                     | .0                   | -259.3                  | 16.87                    | 729.                      | -32.                      | -2.           | 10.41           | 55.41 | 129.08 | 10790. |
| 15      | -5.0  | .0                     | .0                   | -97.0                   | -1.60                    | 155.                      | -61.                      | -32.          | 9.28            | 54.95 | 128.54 | 10850. |
| 16      | -2.5  | .0                     | .0                   | -14.8                   | -4.75                    | 62.                       | -38.                      | 24.           | 7.88            | 54.93 | 128.51 | 10840. |
| 17      | .0    | .0                     | .0                   | 66.2                    | -4.80                    | -30.                      | -43.                      | 23.           | 9.49            | 55.02 | 128.62 | 10850. |
| 18      | 2.5   | .0                     | .0                   | 146.6                   | -1.94                    | -91.                      | -21.                      | 45.           | 7.18            | 54.88 | 128.45 | 10850. |
| 19      | 5.0   | .0                     | .0                   | 226.1                   | 4.45                     | -191.                     | -30.                      | 82.           | 6.39            | 55.11 | 128.73 | 10800. |
| 20      | 10.0  | .0                     | .0                   | 378.5                   | 24.42                    | -297.                     | -65.                      | 86.           | 5.19            | 54.69 | 128.23 | 10760. |
| 21      | 15.0  | .0                     | .0                   | 505.5                   | 58.38                    | -337.                     | -23.                      | 123.          | 4.06            | 54.76 | 128.31 | 10880. |
| 22      | 20.0  | .0                     | .0                   | 530.1                   | 111.99                   | -203.                     | 16.                       | 160.          | 1.99            | 54.69 | 128.23 | 10830. |
| 23      | -10.0 | .0                     | .0                   | -261.6                  | 16.79                    | 719.                      | -26.                      | -35.          | 9.35            | 55.01 | 128.60 | 10870. |
| 24      | -0    | .0                     | .0                   | 63.2                    | -4.91                    | -25.                      | -42.                      | 24.           | 9.08            | 55.27 | 128.92 | 10870. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.4481  | .0847  | 3.8123 | -.0018 | .0004  | .0244 |
| 10   | .00    | .1860   | .0847  | .0239  | -.0025 | .0003  | .0257 |
| 11   | .00    | .1804   | -.0102 | -.0099 | -.0025 | .0004  | .0240 |
| 12   | -20.00 | -1.0595 | .3296  | .5071  | -.0083 | -.0015 | .0298 |
| 13   | -15.00 | -.9207  | .1895  | .5331  | .0022  | -.0040 | .0179 |
| 14   | -10.00 | -.7009  | .0456  | .2350  | -.0019 | -.0001 | .0281 |
| 15   | -5.00  | -.2620  | -.0043 | .0500  | -.0037 | -.0019 | .0251 |
| 16   | -2.51  | -.0399  | -.0128 | .0200  | -.0023 | .0015  | .0213 |
| 17   | .00    | .1790   | -.0130 | -.0096 | -.0026 | .0014  | .0257 |
| 18   | 2.49   | .3961   | -.0052 | -.0292 | -.0013 | .0027  | .0194 |
| 19   | 4.99   | .6111   | .0120  | -.0616 | -.0018 | .0049  | .0173 |
| 20   | 9.99   | 1.0229  | .0660  | -.0958 | -.0040 | .0052  | .0140 |
| 21   | 15.00  | 1.3662  | .1578  | -.1088 | -.0014 | .0074  | .0110 |
| 22   | 20.00  | 1.4327  | .3027  | -.0655 | .0010  | .0097  | .0054 |
| 23   | -10.00 | -.7070  | .0454  | .2318  | -.0015 | -.0021 | .0253 |
| 24   | -.00   | .1708   | -.0133 | -.0080 | -.0026 | .0014  | .0245 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.4481  | .0847  | 3.8123 | -.0018 | .0004  | .0244 |
| 10   | .00    | .1860   | .0847  | .0239  | -.0025 | .0003  | .0257 |
| 11   | .00    | .1804   | -.0102 | -.0099 | -.0025 | .0004  | .0240 |
| 12   | -20.00 | -1.0595 | .3296  | .5071  | -.0083 | -.0015 | .0298 |
| 13   | -15.00 | -.9207  | .1895  | .5331  | .0022  | -.0040 | .0179 |
| 14   | -10.00 | -.7009  | .0456  | .2350  | -.0019 | -.0001 | .0281 |
| 15   | -5.00  | -.2620  | -.0043 | .0500  | -.0037 | -.0019 | .0251 |
| 16   | -2.51  | -.0399  | -.0128 | .0200  | -.0023 | .0015  | .0213 |
| 17   | .00    | .1790   | -.0130 | -.0096 | -.0026 | .0014  | .0257 |
| 18   | 2.49   | .3961   | -.0052 | -.0292 | -.0013 | .0027  | .0194 |
| 19   | 4.99   | .6111   | .0120  | -.0616 | -.0018 | .0049  | .0173 |
| 20   | 9.99   | 1.0229  | .0660  | -.0958 | -.0040 | .0052  | .0140 |
| 21   | 15.00  | 1.3662  | .1578  | -.1088 | -.0014 | .0074  | .0110 |
| 22   | 20.00  | 1.4327  | .3027  | -.0655 | .0010  | .0097  | .0054 |
| 23   | -10.00 | -.7070  | .0454  | .2318  | -.0015 | -.0021 | .0253 |
| 24   | -.00   | .1708   | -.0133 | -.0080 | -.0026 | .0014  | .0245 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 573 CONFIG F P B NP5 W7 T27 BT III=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELTA PSF | DELTA V KNOTS | RPM  |
|---------|-----------|---------|-------------|-------------|---------------|--------------|--------------|-------------|-----------|---------------|------|
| 2       | .0        | .0      | 65.8        | 31.50       | 145.          | -33.         | -11.         | 8.46        | 55.03     | 128.63        | 356  |
| 3       | .0        | .0      | 64.0        | -4.09       | 41.           | -34.         | 24.          | 8.42        | 55.68     | 129.40        | 1087 |
| 4       | -20.0     | .0      | -400.1      | 125.22      | 1817.         | -139.        | -8.          | 11.54       | 54.68     | 128.21        | 1089 |
| 5       | -15.0     | .0      | -357.3      | 71.04       | 2044.         | 51.          | -49.         | 6.69        | 54.83     | 128.38        | 1086 |
| 6       | -10.0     | .0      | -268.5      | 17.01       | 969.          | -24.         | -17.         | 9.47        | 54.93     | 128.51        | 1087 |
| 7       | -5.0      | .0      | -102.8      | -1.31       | 360.          | -52.         | 22.          | 8.42        | 55.27     | 128.91        | 1086 |
| 8       | -2.5      | .0      | -19.9       | -4.99       | 175.          | -36.         | -29.         | 8.16        | 55.36     | 129.01        | 1093 |
| 9       | -0        | .0      | 62.5        | -4.02       | 62.           | -39.         | 6.           | 9.41        | 54.66     | 128.18        | 1083 |
| 10      | 2.5       | .0      | 146.2       | -1.32       | -101.         | -16.         | 45.          | 7.12        | 54.85     | 128.41        | 1084 |
| 11      | 5.0       | .0      | 226.6       | 4.21        | -198.         | -29.         | 64.          | 6.68        | 55.11     | 128.73        | 1090 |
| 15      | 10.0      | .0      | 378.7       | 25.28       | -474.         | -57.         | 67.          | 4.68        | 55.32     | 128.98        | 1086 |
| 16      | 15.0      | .0      | 510.7       | 61.16       | -646.         | -15.         | 123.         | 2.97        | 55.02     | 128.62        | 1086 |
| 17      | 20.0      | .0      | 533.9       | 115.79      | -479.         | 17.          | 158.         | 1.83        | 55.24     | 128.87        | 1077 |
| 18      | -0        | .0      | 59.9        | -3.51       | 38.           | -35.         | -11.         | 8.59        | 55.91     | 129.67        | 1081 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1779   | .0851  | .0468  | -.0020 | -.0006 | .0229 |
| 3    | .00    | .1730   | -.0110 | .0133  | -.0021 | .0015  | .0228 |
| 4    | -20.01 | -1.0814 | .3384  | .5859  | -.0084 | -.0005 | .0312 |
| 5    | -15.00 | -.9656  | .1920  | .6591  | .0031  | -.0030 | .0181 |
| 6    | -10.01 | -.7255  | .0460  | .3123  | -.0014 | -.0010 | .0256 |
| 7    | -5.01  | -.2778  | -.0035 | .1161  | -.0031 | .0013  | .0228 |
| 8    | -2.51  | -.0537  | -.0135 | .0563  | -.0021 | -.0018 | .0221 |
| 9    | -.01   | .1689   | -.0109 | .0198  | -.0024 | .0004  | .0254 |
| 10   | 2.50   | .3950   | -.0036 | -.0326 | -.0010 | .0027  | .0192 |
| 11   | 5.00   | .6124   | .0114  | -.0638 | -.0018 | .0039  | .0180 |

|    |       |        |        |        |        |        |       |
|----|-------|--------|--------|--------|--------|--------|-------|
| 15 | 9.99  | 1.0236 | .0683  | -.1529 | -.0034 | .0041  | .0126 |
| 16 | 15.00 | 1.3803 | .1653  | -.2083 | -.0009 | .0074  | .0080 |
| 17 | 19.99 | 1.4429 | .3129  | -.1545 | .0010  | .0096  | .0049 |
| 18 | -.00  | .1619  | -.0095 | .0121  | -.0021 | -.0007 | .0232 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1779   | .0851  | .0468  | -.0020 | -.0006 | .0229 |
| 3    | .00    | .1730   | -.0110 | .0133  | -.0021 | .0015  | .0228 |
| 4    | -20.01 | -1.0814 | .3384  | .5859  | -.0084 | -.0005 | .0312 |
| 5    | -15.00 | -.9656  | .1920  | .6591  | .0031  | -.0030 | .0181 |
| 6    | -10.01 | -.7255  | .0460  | .3123  | -.0014 | -.0010 | .0256 |
| 7    | -5.01  | -.2778  | -.0035 | .1161  | -.0031 | .0013  | .0228 |
| 8    | -2.51  | -.0537  | -.0135 | .0563  | -.0021 | -.0018 | .0221 |
| 9    | -.01   | .1689   | -.0109 | .0198  | -.0024 | .0004  | .0254 |
| 10   | 2.50   | .3950   | -.0036 | -.0326 | -.0010 | .0027  | .0192 |
| 11   | 5.00   | .6124   | .0114  | -.0638 | -.0018 | .0039  | .0180 |

|    |       |        |        |        |        |        |       |
|----|-------|--------|--------|--------|--------|--------|-------|
| 15 | 9.99  | 1.0236 | .0683  | -.1529 | -.0034 | .0041  | .0126 |
| 16 | 15.00 | 1.3803 | .1653  | -.2083 | -.0009 | .0074  | .0080 |
| 17 | 19.99 | 1.4429 | .3129  | -.1545 | .0010  | .0096  | .0049 |
| 18 | -.00  | .1619  | -.0095 | .0121  | -.0021 | -.0007 | .0232 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P452

RUN 574 CONFIG F P B NP5 W7 T28 BT 1N=-3.5 XN=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | -162.7      | -6.82       | 10574.       | 0.           | -1113.       | .00         | 54.84 | 128.40  | 0.     |
| 3       | .0        | .0      | 63.7        | 31.85       | 165.         | -36.         | 6.           | 9.41        | 54.52 | 128.02  | 3550.  |
| 4       | .0        | .0      | 61.7        | -2.71       | 30.          | -34.         | -47.         | 9.19        | 54.96 | 128.54  | 10800. |
| 5       | -20.0     | .0      | -392.9      | 128.19      | 1767.        | -135.        | -76.         | 10.02       | 55.08 | 128.68  | 10660. |
| 6       | -15.0     | .0      | -353.9      | 74.63       | 2057.        | 46.          | 2.           | 7.63        | 54.74 | 128.27  | 10720. |
| 7       | -10.0     | .0      | -272.8      | 19.65       | 1069.        | -0.          | -70.         | 9.23        | 55.23 | 128.86  | 10750. |
| 8       | -5.0      | .0      | -104.6      | -1.16       | 382.         | -53.         | -32.         | 9.36        | 55.45 | 129.12  | 10720. |
| 9       | -2.5      | .0      | -20.5       | -3.07       | 189.         | -35.         | -47.         | 8.21        | 55.43 | 129.10  | 10760. |
| 10      | .0        | .0      | 60.5        | -2.91       | 29.          | -30.         | -12.         | 9.35        | 55.52 | 129.21  | 10660. |
| 11      | 2.5       | .0      | 144.3       | -.72        | -141.        | -6.          | -7.          | 6.04        | 54.71 | 128.24  | 10710. |
| 12      | 5.0       | .0      | 225.2       | 5.52        | -248.        | -19.         | 29.          | 6.62        | 54.53 | 128.02  | 10700. |
| 13      | 10.0      | .0      | 380.5       | 26.41       | -477.        | -45.         | 86.          | 4.80        | 54.41 | 127.89  | 10700. |
| 14      | 15.0      | .0      | 511.0       | 61.08       | -737.        | -13.         | 142.         | 3.19        | 54.49 | 127.97  | 10720. |
| 15      | 20.0      | .0      | 538.4       | 116.98      | -520.        | 15.          | 180.         | 2.02        | 53.89 | 127.26  | 10700. |
| 16      | -0        | .0      | 58.5        | -3.43       | 30.          | -37.         | -47.         | 9.52        | 54.89 | 128.45  | 10680. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.4396  | -.0184 | 3.4088 | .0000  | -.0672 | .0000 |
| 3    | .00    | .1722   | .0861  | .0531  | -.0022 | .0004  | .0254 |
| 4    | .00    | .1668   | -.0073 | .0097  | -.0020 | -.0028 | .0248 |
| 5    | -20.00 | -1.0618 | .3464  | .5695  | -.0082 | -.0046 | .0271 |
| 6    | -15.00 | -.9566  | .2017  | .6632  | .0028  | .0001  | .0206 |
| 7    | -10.00 | -.7372  | .0531  | .3446  | -.0000 | -.0042 | .0249 |
| 8    | -5.00  | -.2826  | -.0004 | .1232  | -.0032 | -.0019 | .0253 |
| 9    | -2.50  | -.0554  | -.0083 | .0609  | -.0021 | -.0028 | .0222 |
| 10   | .00    | .1634   | -.0079 | .0093  | -.0018 | -.0007 | .0253 |
| 11   | 2.50   | .3899   | -.0020 | -.0453 | -.0004 | -.0004 | .0163 |
| 12   | 4.99   | .6088   | .0149  | -.0801 | -.0011 | .0018  | .0179 |
| 13   | 10.00  | 1.0285  | .0714  | -.1537 | -.0027 | .0052  | .0130 |
| 14   | 15.00  | 1.3810  | .1651  | -.2377 | -.0008 | .0086  | .0086 |
| 15   | 20.00  | 1.4553  | .3162  | -.1676 | .0009  | .0109  | .0055 |
| 16   | -.01   | .1581   | -.0093 | .0098  | -.0022 | -.0029 | .0257 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.4396  | -.0184 | 3.4088 | .0000  | -.0672 | .0000 |
| 3    | .00    | .1722   | .0861  | .0531  | -.0022 | .0004  | .0254 |
| 4    | .00    | .1668   | -.0073 | .0097  | -.0020 | -.0028 | .0248 |
| 5    | -20.00 | -1.0618 | .3464  | .5695  | -.0082 | -.0046 | .0271 |
| 6    | -15.00 | -.9566  | .2017  | .6632  | .0028  | .0001  | .0206 |
| 7    | -10.00 | -.7372  | .0531  | .3446  | -.0000 | -.0042 | .0249 |
| 8    | -5.00  | -.2826  | -.0004 | .1232  | -.0032 | -.0019 | .0253 |
| 9    | -2.50  | -.0554  | -.0083 | .0609  | -.0021 | -.0028 | .0222 |
| 10   | .00    | .1634   | -.0079 | .0093  | -.0018 | -.0007 | .0253 |
| 11   | 2.50   | .3899   | -.0020 | -.0453 | -.0004 | -.0004 | .0163 |
| 12   | 4.99   | .6088   | .0149  | -.0801 | -.0011 | .0018  | .0179 |
| 13   | 10.00  | 1.0285  | .0714  | -.1537 | -.0027 | .0052  | .0130 |
| 14   | 15.00  | 1.3810  | .1651  | -.2377 | -.0008 | .0086  | .0086 |
| 15   | 20.00  | 1.4553  | .3162  | -.1676 | .0009  | .0109  | .0055 |
| 16   | -.01   | .1581   | -.0093 | .0098  | -.0022 | -.0029 | .0257 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 453

RUN 575 CONFIG F P.B NP5 W7 T12 BT IN=-3.5 XN=0

| PT. NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 DELA<br>CDBAR<br>SQ-FT | 0 IHT<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|---------|------------------------|----------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 6       | .0                     | .0                   | 65.7                     | 31.30                    | 101.                     | -39.                      | -46.                      | 9.03                      | 55.85         | 129.59          | 3580.  |
| 7       | .0                     | .0                   | 61.6                     | -6.56                    | -19.                     | -36.                      | -46.                      | 8.91                      | 56.05         | 129.83          | 11270. |
| 8       | -20.0                  | .0                   | -399.8                   | 120.77                   | 1831.                    | -135.                     | -58.                      | 9.90                      | 55.15         | 128.75          | 11310. |
| 9       | -15.0                  | .0                   | -343.9                   | 69.67                    | 1809.                    | 42.                       | -84.                      | 6.79                      | 55.38         | 129.03          | 11280. |
| 10      | -10.0                  | .0                   | -258.8                   | 15.17                    | 712.                     | -24.                      | -69.                      | 9.28                      | 55.56         | 129.24          | 11330. |
| 11      | -5.0                   | .0                   | -97.0                    | -3.52                    | 158.                     | -58.                      | -31.                      | 8.95                      | 55.70         | 129.41          | 11340. |
| 12      | -2.5                   | .0                   | -14.4                    | -6.07                    | 118.                     | -32.                      | -13.                      | 9.19                      | 55.61         | 129.30          | 11290. |
| 14      | .0                     | .0                   | 62.3                     | -6.66                    | -22.                     | -37.                      | -11.                      | 8.88                      | 56.68         | 130.57          | 11320. |
| 15      | 2.5                    | .0                   | 144.1                    | -4.99                    | -133.                    | -15.                      | 27.                       | 7.43                      | 54.54         | 128.03          | 11320. |
| 16      | 5.0                    | .0                   | 223.3                    | .84                      | -206.                    | -22.                      | 30.                       | 6.02                      | 54.54         | 128.04          | 11310. |
| 17      | 10.0                   | .0                   | 374.0                    | 21.85                    | -366.                    | -58.                      | 68.                       | 4.82                      | 55.09         | 128.69          | 11290. |
| 18      | 15.0                   | .0                   | 506.2                    | 57.00                    | -506.                    | -35.                      | 88.                       | 3.75                      | 54.57         | 128.07          | 11270. |
| 19      | 20.0                   | .0                   | 535.5                    | 107.92                   | -540.                    | 19.                       | 177.                      | 1.86                      | 54.84         | 128.38          | 11280. |
| 20      | .0                     | .0                   | 62.0                     | -7.68                    | -17.                     | -38.                      | 6.                        | 9.00                      | 55.37         | 129.01          | 11290. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | .00    | .1775   | .0846  | .0324  | -.0023 | -.0028 | .0244 |
| 7    | .00    | .1664   | -.0177 | -.0060 | -.0022 | -.0028 | .0241 |
| 8    | -19.99 | -1.0806 | .3264  | .5904  | -.0082 | -.0035 | .0268 |
| 9    | -14.99 | -.9295  | .1883  | .5832  | .0026  | -.0051 | .0183 |
| 10   | -9.99  | -.6994  | .0410  | .2294  | -.0014 | -.0042 | .0251 |
| 11   | -5.00  | -.2622  | -.0095 | .0510  | -.0035 | -.0019 | .0242 |
| 12   | -2.50  | -.0389  | -.0164 | .0379  | -.0019 | -.0008 | .0248 |
| 14   | .00    | .1683   | -.0180 | -.0071 | -.0022 | -.0007 | .0240 |
| 15   | 2.50   | .3894   | -.0135 | -.0430 | -.0009 | .0017  | .0201 |
| 16   | 5.00   | .6034   | .0023  | -.0665 | -.0013 | .0018  | .0163 |
| 17   | 10.00  | 1.0108  | .0591  | -.1179 | -.0035 | .0041  | .0130 |
| 18   | 15.00  | 1.3681  | .1541  | -.1632 | -.0021 | .0053  | .0101 |
| 19   | 20.00  | 1.4473  | .2917  | -.1741 | .0011  | .0107  | .0050 |
| 20   | .00    | .1676   | -.0208 | -.0053 | -.0023 | .0004  | .0243 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | .00    | .1775   | .0846  | .0324  | -.0023 | -.0028 | .0244 |
| 7    | .00    | .1664   | -.0177 | -.0060 | -.0022 | -.0028 | .0241 |
| 8    | -19.99 | -1.0806 | .3264  | .5904  | -.0082 | -.0035 | .0268 |
| 9    | -14.99 | -.9295  | .1883  | .5832  | .0026  | -.0051 | .0183 |
| 10   | -9.99  | -.6994  | .0410  | .2294  | -.0014 | -.0042 | .0251 |
| 11   | -5.00  | -.2622  | -.0095 | .0510  | -.0035 | -.0019 | .0242 |
| 12   | -2.50  | -.0389  | -.0164 | .0379  | -.0019 | -.0008 | .0248 |
| 14   | .00    | .1683   | -.0180 | -.0071 | -.0022 | -.0007 | .0240 |
| 15   | 2.50   | .3894   | -.0135 | -.0430 | -.0009 | .0017  | .0201 |
| 16   | 5.00   | .6034   | .0023  | -.0665 | -.0013 | .0018  | .0163 |
| 17   | 10.00  | 1.0108  | .0591  | -.1179 | -.0035 | .0041  | .0130 |
| 18   | 15.00  | 1.3681  | .1541  | -.1632 | -.0021 | .0053  | .0101 |
| 19   | 20.00  | 1.4473  | .2917  | -.1741 | .0011  | .0107  | .0050 |
| 20   | .00    | .1676   | -.0208 | -.0053 | -.0023 | .0004  | .0243 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 454

RUH 576 CONFIG F P B NP5 W7 T29 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q. PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|---------------|--------------|--------------|-------------|--------|---------|--------|
| 7       | -0.0      | .0      | 61.2        | 31.31       | 257.          | -47.         | -30.         | 9.35        | 54.55  | 128.05  | 3560.  |
| 8       | -0.0      | .0      | 56.6        | -0.06       | 143.          | -49.         | -47.         | 9.21        | 55.09  | 128.69  | 10200. |
| 9       | -20.0     | .0      | -391.8      | 127.56      | 1841.         | -199.        | 8.           | 12.26       | 54.55  | 128.04  | 10250. |
| 10      | -15.0     | .0      | -345.4      | 77.20       | 2049.         | 37.          | -52.         | 7.79        | 54.49  | 127.97  | 10220. |
| 11      | -10.0     | .0      | -262.0      | 22.87       | 966.          | -58.         | -36.         | 10.17       | 55.24  | 128.86  | 10240. |
| 12      | -5.0      | .0      | -102.5      | 4.14        | 435.          | -71.         | -32.         | 9.18        | 55.52  | 129.20  | 10330. |
| 13      | -2.5      | .0      | -24.3       | .16         | 302.          | -59.         | -47.         | 8.69        | 55.17  | 128.77  | 10240. |
| 14      | .0        | .0      | 56.9        | .36         | 151.          | -57.         | -30.         | 9.48        | 55.00  | 128.58  | 10220. |
| 15      | 2.5       | .0      | 138.3       | 2.56        | -1.           | -32.         | -9.          | 7.88        | 55.46  | 129.12  | 10250. |
| 16      | 5.0       | .0      | 220.9       | 8.65        | -126.         | -42.         | 11.          | 6.96        | 55.14  | 128.74  | 10260. |
| 17      | 10.0      | .0      | 369.3       | 28.80       | -314.         | -73.         | 50.          | 5.03        | 55.08  | 128.67  | 10220. |
| 18      | 15.0      | .0      | 499.2       | 62.74       | -487.         | -37.         | 70.          | 4.47        | 54.87  | 128.43  | 10240. |
| 19      | 20.0      | .0      | 535.6       | 116.48      | -620.         | 13.          | 142.         | 2.27        | 54.61  | 128.11  | 10300. |
| 20      | .0        | .0      | 55.7        | -.08        | 160.          | -54.         | -47.         | 9.94        | 55.62  | 129.31  | 10240. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | -.01   | .1653   | .0846  | .0830  | -.0028 | -.0018 | .0253 |
| 8    | -.01   | .1530   | -.0002 | .0462  | -.0030 | -.0028 | .0249 |
| 9    | -20.00 | -1.0588 | .3448  | .5934  | -.0120 | .0005  | .0331 |
| 10   | -15.01 | -.9336  | .2086  | .6607  | .0022  | -.0031 | .0211 |
| 11   | -10.00 | -.7080  | .0618  | .3115  | -.0035 | -.0022 | .0275 |
| 12   | -5.00  | -.2770  | .0112  | .1401  | -.0043 | -.0019 | .0248 |
| 13   | -2.51  | -.0658  | .0004  | .0975  | -.0036 | -.0029 | .0235 |
| 14   | .00    | .1537   | .0010  | .0488  | -.0034 | -.0018 | .0256 |
| 15   | 2.50   | .3738   | .0069  | -.0004 | -.0020 | -.0005 | .0213 |
| 16   | 5.00   | .5969   | .0234  | -.0407 | -.0026 | .0007  | .0188 |
| 17   | 9.99   | .9980   | .0779  | -.1013 | -.0044 | .0030  | .0136 |
| 18   | 15.00  | 1.3492  | .1696  | -.1569 | -.0022 | .0042  | .0121 |
| 19   | 20.00  | 1.4475  | .3148  | -.2000 | .0008  | .0086  | .0061 |
| 20   | .00    | .1506   | -.0002 | .0517  | -.0033 | -.0029 | .0269 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | -.01   | .1653   | .0846  | .0830  | -.0028 | -.0018 | .0253 |
| 8    | -.01   | .1530   | -.0002 | .0462  | -.0030 | -.0028 | .0249 |
| 9    | -20.00 | -1.0588 | .3448  | .5934  | -.0120 | .0005  | .0331 |
| 10   | -15.01 | -.9336  | .2086  | .6607  | .0022  | -.0031 | .0211 |
| 11   | -10.00 | -.7080  | .0618  | .3115  | -.0035 | -.0022 | .0275 |
| 12   | -5.00  | -.2770  | .0112  | .1401  | -.0043 | -.0019 | .0248 |
| 13   | -2.51  | -.0658  | .0004  | .0975  | -.0036 | -.0029 | .0235 |
| 14   | .00    | .1537   | .0010  | .0488  | -.0034 | -.0018 | .0256 |
| 15   | 2.50   | .3738   | .0069  | -.0004 | -.0020 | -.0005 | .0213 |
| 16   | 5.00   | .5969   | .0234  | -.0407 | -.0026 | .0007  | .0188 |
| 17   | 9.99   | .9980   | .0779  | -.1013 | -.0044 | .0030  | .0136 |
| 18   | 15.00  | 1.3492  | .1696  | -.1569 | -.0022 | .0042  | .0121 |
| 19   | 20.00  | 1.4475  | .3148  | -.2000 | .0008  | .0086  | .0061 |
| 20   | .00    | .1506   | -.0002 | .0517  | -.0033 | -.0029 | .0269 |

RUN 577 CONFIG F P Q NPS W7 T30 BT IN=-3.5 BETA=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM    |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------------|--------|
| 6       | -0.0      | 0.0           | 57.4        | 31.38       | 310.         | -49.         | -30.         | 9.56        | 55.14       | 128.74        | 3560.  |
| 7       | -0.0      | 0.0           | 56.9        | -6.70       | 171.         | -51.         | -29.         | 9.28        | 55.43       | 129.09        | 11250. |
| 8       | -20.0     | 0.0           | -437.4      | 130.19      | 3559.        | -80.         | -73.         | 9.29        | 55.62       | 129.31        | 11230. |
| 9       | -15.0     | 0.0           | -381.5      | 77.54       | 3303.        | -48.         | 19.          | 7.91        | 55.28       | 128.91        | 11240. |
| 10      | -10.0     | 0.0           | -283.7      | 19.95       | 1723.        | -16.         | -86.         | 8.82        | 55.87       | 129.61        | 11270. |
| 11      | -5.0      | 0.0           | -112.4      | -1.48       | 799.         | -73.         | -66.         | 9.04        | 55.90       | 129.65        | 11270. |
| 12      | -2.5      | 0.0           | -27.1       | -5.37       | 451.         | -42.         | -29.         | 7.87        | 55.55       | 129.23        | 11280. |
| 13      | -0.0      | 0.0           | 57.9        | -5.94       | 146.         | -43.         | 6.           | 8.69        | 55.50       | 129.18        | 11250. |
| 14      | 2.5       | 0.0           | 143.2       | -3.71       | -149.        | -29.         | -8.          | 7.56        | 55.72       | 129.44        | 11250. |
| 15      | 5.0       | 0.0           | 278.6       | 3.09        | -473.        | -46.         | 11.          | 6.56        | 55.39       | 129.04        | 11230. |
| 16      | 10.0      | 0.0           | 387.8       | 24.07       | -890.        | -79.         | 50.          | 5.31        | 54.79       | 128.33        | 11240. |
| 17      | 15.0      | 0.0           | 516.3       | 59.43       | -1098.       | -42.         | 105.         | 3.28        | 55.05       | 128.64        | 11220. |
| 18      | 20.0      | 0.0           | 553.4       | 115.47      | -1143.       | 21.          | 207.         | 1.51        | 56.22       | 130.02        | 11230. |
| 19      | -0.0      | 0.0           | 55.6        | -5.84       | 200.         | -53.         | 6.           | 9.47        | 55.40       | 129.06        | 11210. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | -0.01  | .1552   | .0848  | .0998  | -.0030 | -.0018 | .0258 |
| 7    | -0.01  | .1537   | -.0181 | .0550  | -.0031 | -.0018 | .0251 |
| 8    | -20.00 | -1.1823 | .3519  | 1.1475 | -.0049 | -.0044 | .0251 |
| 9    | -15.01 | -1.0309 | .2096  | 1.0648 | -.0029 | .0011  | .0214 |
| 10   | -10.01 | -.7667  | .0539  | .5554  | -.0010 | -.0052 | .0238 |
| 11   | -5.01  | -.3037  | -.0040 | .2577  | -.0044 | -.0040 | .0244 |
| 12   | -2.51  | -.0734  | -.0145 | .1455  | -.0025 | -.0017 | .0213 |
| 13   | -0.01  | .1565   | -.0161 | .0470  | -.0026 | .0004  | .0235 |
| 14   | 2.50   | .3870   | -.0087 | -.0479 | -.0018 | -.0005 | .0204 |
| 15   | 4.99   | .6180   | .0084  | -.1526 | -.0028 | .0007  | .0177 |
| 16   | 10.00  | 1.0480  | .0651  | -.2869 | -.0048 | .0030  | .0143 |
| 17   | 14.99  | 1.3955  | .1606  | -.3539 | -.0025 | .0063  | .0089 |
| 18   | 20.01  | 1.4957  | .3121  | -.3684 | .0013  | .0125  | .0041 |
| 19   | -0.01  | .1503   | -.0158 | .0646  | -.0032 | .0003  | .0256 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDD    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | -0.01  | .1552   | .0848  | .0998  | -.0030 | -.0018 | .0258 |
| 7    | -0.01  | .1537   | -.0181 | .0550  | -.0031 | -.0018 | .0251 |
| 8    | -20.00 | -1.1823 | .3519  | 1.1475 | -.0049 | -.0044 | .0251 |
| 9    | -15.01 | -1.0309 | .2096  | 1.0648 | -.0029 | .0011  | .0214 |
| 10   | -10.01 | -.7667  | .0539  | .5554  | -.0010 | -.0052 | .0238 |
| 11   | -5.01  | -.3037  | -.0040 | .2577  | -.0044 | -.0040 | .0244 |
| 12   | -2.51  | -.0734  | -.0145 | .1455  | -.0025 | -.0017 | .0213 |
| 13   | -0.01  | .1565   | -.0161 | .0470  | -.0026 | .0004  | .0235 |
| 14   | 2.50   | .3870   | -.0087 | -.0479 | -.0018 | -.0005 | .0204 |
| 15   | 4.99   | .6180   | .0084  | -.1526 | -.0028 | .0007  | .0177 |
| 16   | 10.00  | 1.0480  | .0651  | -.2869 | -.0048 | .0030  | .0143 |
| 17   | 14.99  | 1.3955  | .1606  | -.3539 | -.0025 | .0063  | .0089 |
| 18   | 20.01  | 1.4957  | .3121  | -.3684 | .0013  | .0125  | .0041 |
| 19   | -0.01  | .1503   | -.0158 | .0646  | -.0032 | .0003  | .0256 |

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11432409-1

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011

P456

RUN 578 CONFIG F P B NP5 W7 T13 BT IN=-3.5 BETA=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CD BAR SQ-FT | DELTA CPM BAR CU-FT | DELTA CYM BAR CU-FT | DELTA CRM BAR CU-FT | DELTA CYB BAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM    |
|---------|-----------|---------------|-------------------|--------------------|---------------------|---------------------|---------------------|---------------------|-------------|---------------|--------|
| 6       | 0         | 0             | 49.2              | 33.30              | 151.                | -20.                | -928.               | 8.19                | 54.88       | 128.45        | 3580.  |
| 7       | 0         | 0             | 65.3              | -31                | 18.                 | -43.                | -47.                | 9.08                | 54.91       | 128.48        | 10460. |
| 8       | -20.0     | 0             | -430.3            | 132.85             | 3357.               | -129.               | -25.                | 10.95               | 54.97       | 128.55        | 10500. |
| 9       | -15.0     | 0             | -367.3            | 79.09              | 2843.               | -157.               | 101.                | 11.07               | 54.89       | 128.45        | 10490. |
| 10      | -10.0     | 0             | -270.9            | 25.17              | 1546.               | -80.                | -18.                | 10.03               | 56.05       | 129.83        | 10420. |
| 11      | -5.0      | 0             | -104.1            | 4.53               | 584.                | -7.                 | -81.                | 7.23                | 55.46       | 129.13        | 10450. |
| 12      | -2.5      | 0             | -18.5             | .55                | 325.                | -31.                | -47.                | 8.31                | 55.49       | 129.17        | 10440. |
| 13      | -0        | 0             | 63.4              | .23                | 79.                 | -38.                | -29.                | 8.84                | 55.23       | 128.85        | 10450. |
| 14      | 2.5       | 0             | 148.6             | 3.29               | -265.               | -20.                | -7.                 | 6.50                | 55.73       | 129.45        | 10440. |
| 15      | 5.0       | 0             | 231.6             | 9.16               | -465.               | -24.                | -5.                 | 5.36                | 55.31       | 128.96        | 10480. |
| 16      | 10.0      | 0             | 384.8             | 30.67              | -846.               | -60.                | 15.                 | 4.42                | 55.49       | 129.17        | 10500. |
| 17      | 15.0      | 0             | 520.1             | 66.77              | -1137.              | -30.                | 104.                | 3.80                | 55.32       | 128.97        | 10470. |
| 18      | 20.0      | 0             | 550.5             | 120.17             | -993.               | 6.                  | 140.                | 1.99                | 55.39       | 129.05        | 10470. |
| 19      | 20.0      | 0             | 553.8             | 120.42             | -969.               | 6.                  | 179.                | 1.82                | 54.16       | 127.58        | 10440. |
| 20      | -0        | 0             | 62.2              | -.66               | 76.                 | -39.                | -46.                | 8.23                | 54.91       | 128.48        | 10500. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | 0.00   | .1330   | .0900  | .0487  | -.0012 | -.0561 | .0221 |
| 7    | 0.00   | .1764   | -.0008 | .0060  | -.0026 | -.0028 | .0245 |
| 8    | -20.00 | -1.1628 | .3591  | 1.0824 | -.0078 | -.0015 | .0296 |
| 9    | -15.00 | -.9928  | .2138  | .9165  | -.0095 | .0061  | .0299 |
| 10   | -10.00 | -.7323  | .0680  | .4984  | -.0048 | -.0011 | .0271 |
| 11   | -5.00  | -.2813  | .0122  | .1884  | -.0005 | -.0049 | .0195 |
| 12   | -2.50  | -.0501  | .0015  | .1047  | -.0019 | -.0028 | .0225 |
| 13   | -0.00  | .1713   | .0006  | .0254  | -.0023 | -.0017 | .0239 |
| 14   | 2.53   | .4016   | .0089  | -.0853 | -.0012 | -.0004 | .0176 |
| 15   | 5.00   | .6259   | .0248  | -.1499 | -.0015 | -.0003 | .0145 |
| 16   | 10.00  | 1.0399  | .0829  | -.2727 | -.0036 | .0009  | .0119 |
| 17   | 15.00  | 1.4057  | .1805  | -.3664 | -.0018 | .0063  | .0103 |
| 18   | 20.00  | 1.4878  | .3248  | -.3200 | .0004  | .0085  | .0054 |
| 19   | 19.99  | 1.4968  | .3254  | -.3125 | .0003  | .0108  | .0049 |
| 20   | -0.00  | .1680   | -.0018 | .0244  | -.0023 | -.0028 | .0222 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | 0.00   | .1330   | .0900  | .0487  | -.0012 | -.0561 | .0221 |
| 7    | 0.00   | .1764   | -.0008 | .0060  | -.0026 | -.0028 | .0245 |
| 8    | -20.00 | -1.1628 | .3591  | 1.0824 | -.0078 | -.0015 | .0296 |
| 9    | -15.00 | -.9928  | .2138  | .9165  | -.0095 | .0061  | .0299 |
| 10   | -10.00 | -.7323  | .0680  | .4984  | -.0048 | -.0011 | .0271 |
| 11   | -5.00  | -.2813  | .0122  | .1884  | -.0005 | -.0049 | .0195 |
| 12   | -2.50  | -.0501  | .0015  | .1047  | -.0019 | -.0028 | .0225 |
| 13   | -0.00  | .1713   | .0006  | .0254  | -.0023 | -.0017 | .0239 |
| 14   | 2.53   | .4016   | .0089  | -.0853 | -.0012 | -.0004 | .0176 |
| 15   | 5.00   | .6259   | .0248  | -.1499 | -.0015 | -.0003 | .0145 |
| 16   | 10.00  | 1.0399  | .0829  | -.2727 | -.0036 | .0009  | .0119 |
| 17   | 15.00  | 1.4057  | .1805  | -.3664 | -.0018 | .0063  | .0103 |
| 18   | 20.00  | 1.4878  | .3248  | -.3200 | .0004  | .0085  | .0054 |
| 19   | 19.99  | 1.4968  | .3254  | -.3125 | .0003  | .0108  | .0049 |
| 20   | -0.00  | .1680   | -.0018 | .0244  | -.0023 | -.0028 | .0222 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 457

RUN 579 CONFIG F P B NPS W7 T31 BT IN=-3.5 BETA=0

| PT. NO. | IW ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CD BAR SQ-FT | IHT CU-FT | DELE CYMBAR CU-FT | DELR CRM BAR CU-FT | DELSB Q SQ-FT | DELTA V KNOTS | RPM    |        |
|---------|--------------|---------------|-------------------|--------------------|-----------|-------------------|--------------------|---------------|---------------|--------|--------|
| 5       | 0            | 0             | 68.6              | 32.44              | 154.      | -31.              | 7.                 | 8.27          | 55.04         | 128.64 | 3580.  |
| 6       | 0            | 0             | 62.8              | -6.59              | 34.       | -22.              | -45.               | 7.61          | 55.17         | 128.79 | 11380. |
| 7       | -20.0        | 0             | -452.3            | 128.75             | 3369.     | -133.             | -216.              | 9.47          | 54.89         | 128.45 | 11330. |
| 8       | -15.0        | 0             | -381.4            | 76.34              | 2973.     | -105.             | -3.                | 9.95          | 54.92         | 128.49 | 11360. |
| 9       | -10.0        | 0             | -288.2            | 18.82              | 1822.     | -86.              | -54.               | 10.12         | 55.44         | 129.11 | 11350. |
| 10      | -5.0         | 0             | -113.9            | -2.09              | 776.      | -68.              | -31.               | 8.88          | 55.52         | 129.21 | 11410. |
| 11      | -2.5         | 0             | -23.0             | -5.92              | 311.      | -29.              | -28.               | 7.11          | 55.54         | 129.23 | 11370. |
| 12      | 0            | 0             | 63.4              | -6.15              | -9.       | -24.              | 8.                 | 7.65          | 55.67         | 129.38 | 11350. |
| 13      | 2.5          | 0             | 150.3             | -3.19              | -299.     | -11.              | 10.                | 6.81          | 55.02         | 128.62 | 11320. |
| 14      | 5.0          | 0             | 235.4             | 3.20               | -575.     | -23.              | 30.                | 5.83          | 55.11         | 128.72 | 11320. |
| 15      | 10.0         | 0             | 395.0             | 24.65              | -985.     | -49.              | 103.               | 4.29          | 55.02         | 128.62 | 11360. |
| 16      | 15.0         | 0             | 529.8             | 61.63              | -1333.    | -12.              | 140.               | 2.04          | 55.09         | 128.70 | 11330. |
| 17      | 20.0         | 0             | 554.8             | 118.64             | -1001.    | -4.               | 212.               | .77           | 54.82         | 128.37 | 11340. |
| 18      | 0            | 0             | 61.6              | -6.41              | 14.       | -22.              | -10.               | 7.92          | 55.47         | 129.14 | 11370. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | .01    | .1853   | .0877  | .0496  | -.0019 | .0004  | .0224 |
| 6    | .01    | .1698   | -.0178 | .0110  | -.0013 | -.0027 | .0206 |
| 7    | -19.99 | -1.2223 | .3480  | 1.0862 | -.0080 | -.0130 | .0256 |
| 8    | -14.98 | -1.0307 | .2063  | .9584  | -.0063 | -.0002 | .0269 |
| 9    | -10.00 | -.7789  | .0509  | .5873  | -.0052 | -.0032 | .0273 |
| 10   | -5.00  | -.3077  | -.0057 | .2501  | -.0041 | -.0019 | .0240 |
| 11   | -2.49  | -.0623  | -.0160 | .1004  | -.0018 | -.0017 | .0192 |
| 12   | .00    | .1714   | -.0166 | -.0028 | -.0015 | .0005  | .0207 |
| 13   | 2.50   | .4061   | -.0086 | -.0963 | -.0007 | .0006  | .0184 |
| 14   | 5.00   | .6362   | .0086  | -.1853 | -.0014 | .0018  | .0158 |
| 15   | 10.00  | 1.0675  | .0666  | -.3174 | -.0029 | .0062  | .0116 |
| 16   | 15.01  | 1.4320  | .1666  | -.4298 | -.0007 | .0085  | .0055 |
| 17   | 20.00  | 1.4993  | .3207  | -.3228 | -.0002 | .0128  | .0021 |
| 18   | .00    | .1664   | -.0173 | .0045  | -.0013 | -.0006 | .0214 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | .01    | .1853   | .0877  | .0496  | -.0019 | .0004  | .0224 |
| 6    | .01    | .1698   | -.0178 | .0110  | -.0013 | -.0027 | .0206 |
| 7    | -19.99 | -1.2223 | .3480  | 1.0862 | -.0080 | -.0130 | .0256 |
| 8    | -14.98 | -1.0307 | .2063  | .9584  | -.0063 | -.0002 | .0269 |
| 9    | -10.00 | -.7789  | .0509  | .5873  | -.0052 | -.0032 | .0273 |
| 10   | -5.00  | -.3077  | -.0057 | .2501  | -.0041 | -.0019 | .0240 |
| 11   | -2.49  | -.0623  | -.0160 | .1004  | -.0018 | -.0017 | .0192 |
| 12   | .00    | .1714   | -.0166 | -.0028 | -.0015 | .0005  | .0207 |
| 13   | 2.50   | .4061   | -.0086 | -.0963 | -.0007 | .0006  | .0184 |
| 14   | 5.00   | .6362   | .0086  | -.1853 | -.0014 | .0018  | .0158 |
| 15   | 10.00  | 1.0675  | .0666  | -.3174 | -.0029 | .0062  | .0116 |
| 16   | 15.01  | 1.4320  | .1666  | -.4298 | -.0007 | .0085  | .0055 |
| 17   | 20.00  | 1.4993  | .3207  | -.3228 | -.0002 | .0128  | .0021 |
| 18   | .00    | .1664   | -.0173 | .0045  | -.0013 | -.0006 | .0214 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 458

RUN 580 CONFIG F P R MPS W7 T17 BT IN=-3.5 BETA=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 5       | 0         | 0             | 59.3        | 32.89       | 396.         | -69.         | -48.         | 9.93        | 55.13 | 128.75  | 3590.  |
| 6       | 0         | 0             | 58.2        | -6.36       | 256.         | -72.         | -12.         | 9.36        | 54.82 | 128.38  | 11350. |
| 7       | -20.0     | 0             | -479.1      | 139.31      | 4503.        | -239.        | -48.         | 13.43       | 55.36 | 129.02  | 11350. |
| 8       | -15.0     | 0             | -416.7      | 78.76       | 3812.        | -198.        | 43.          | 12.84       | 55.37 | 129.03  | 11360. |
| 9       | -10.0     | 0             | -303.5      | 22.21       | 2197.        | -57.         | -86.         | 8.75        | 55.39 | 129.06  | 11310. |
| 10      | -5.0      | 0             | -121.6      | -1.05       | 1050.        | -99.         | -32.         | 9.28        | 54.95 | 128.54  | 11350. |
| 11      | -2.5      | 0             | -30.5       | -5.17       | 556.         | -61.         | -47.         | 7.80        | 54.62 | 128.14  | 11360. |
| 12      | 0         | 0             | 55.8        | -6.47       | 189.         | -35.         | -46.         | 8.71        | 55.12 | 128.73  | 11370. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | 0.00   | .1603   | .0889  | .1278  | -.0042 | -.0029 | .0268 |
| 6    | 0.00   | .1572   | -.0172 | .0825  | -.0043 | -.0007 | .0253 |
| 7    | -20.00 | -1.2948 | .3765  | 1.4517 | -.0144 | -.0029 | .0363 |
| 8    | -15.00 | -1.1236 | .2129  | 1.2289 | -.0120 | .0026  | .0347 |
| 9    | -10.00 | -.8202  | .0600  | .7083  | -.0034 | -.0052 | .0237 |
| 10   | -5.00  | -.3286  | -.0028 | .3385  | -.0060 | -.0019 | .0251 |
| 11   | -2.50  | -.0824  | -.0140 | .1792  | -.0037 | -.0028 | .0211 |
| 12   | 0.00   | .1509   | -.0175 | .0611  | -.0021 | -.0028 | .0236 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | 0.00   | .1603   | .0889  | .1278  | -.0042 | -.0029 | .0268 |
| 6    | 0.00   | .1572   | -.0172 | .0825  | -.0043 | -.0007 | .0253 |
| 7    | -20.00 | -1.2948 | .3765  | 1.4517 | -.0144 | -.0029 | .0363 |
| 8    | -15.00 | -1.1236 | .2129  | 1.2289 | -.0120 | .0026  | .0347 |
| 9    | -10.00 | -.8202  | .0600  | .7083  | -.0034 | -.0052 | .0237 |
| 10   | -5.00  | -.3286  | -.0028 | .3385  | -.0060 | -.0019 | .0251 |
| 11   | -2.50  | -.0824  | -.0140 | .1792  | -.0037 | -.0028 | .0211 |
| 12   | 0.00   | .1509   | -.0175 | .0611  | -.0021 | -.0028 | .0236 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 459

RUN 582 CONFIG F P R NP5 W7 T17 BT IN=-3.5 BETA=0

| PT. NO. | ALPHA DEG | O DELF PSI DEG | O DELA CLBAR SQ-FT | O IHT CDBAR SQ-FT | O DELE CPMBAR CU-FT | O DELR CYMBAR CU-FT | O DELSB CRMBAR CU-FT | O DELSB Q SQ-FT | O DELSB PSF | O DELSB V KNOTS | RPM    |
|---------|-----------|----------------|--------------------|-------------------|---------------------|---------------------|----------------------|-----------------|-------------|-----------------|--------|
| 2       | 0.0       | 0.0            | 57.2               | -6.35             | 240.                | -66.                | -29.                 | 8.83            | 55.03       | 128.63          | 11330. |
| 3       | 2.5       | 0.0            | 146.1              | -3.77             | -111.               | -43.                | -7.                  | 6.74            | 55.06       | 128.67          | 11350. |
| 4       | 5.0       | 0.0            | 233.2              | 2.76              | -392.               | -49.                | -23.                 | 5.62            | 54.99       | 128.59          | 11350. |
| 5       | 10.0      | 0.0            | 397.0              | 24.86             | -963.               | -77.                | 50.                  | 4.80            | 54.84       | 128.40          | 11350. |
| 6       | 15.0      | 0.0            | 543.4              | 63.57             | -1499.              | -44.                | 106.                 | 2.95            | 54.32       | 127.78          | 11330. |
| 7       | 20.0      | 0.0            | 582.9              | 123.68            | -1642.              | -25.                | 125.                 | 1.94            | 54.48       | 127.98          | 11330. |
| 8       | -10.0     | 0.0            | -305.6             | 21.83             | 2130.               | -28.                | -104.                | 8.22            | 54.73       | 128.27          | 11360. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPH    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .1547  | -.0171 | .0774  | -.0040 | -.0017 | .0239 |
| 3    | 2.49   | .3949  | -.0102 | -.0357 | -.0026 | -.0005 | .0182 |
| 4    | 5.00   | .6304  | .0075  | -.1265 | -.0030 | -.0014 | .0152 |
| 5    | 10.00  | 1.0728 | .0672  | -.3104 | -.0046 | .0030  | .0130 |
| 6    | 15.00  | 1.4686 | .1718  | -.4833 | -.0027 | .0064  | .0080 |
| 7    | 20.00  | 1.5754 | .3343  | -.5293 | -.0015 | .0075  | .0052 |
| 8    | -10.00 | -.8261 | .0590  | .6868  | -.0017 | -.0063 | .0222 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .1547  | -.0171 | .0774  | -.0040 | -.0017 | .0239 |
| 3    | 2.49   | .3949  | -.0102 | -.0357 | -.0026 | -.0005 | .0182 |
| 4    | 5.00   | .6304  | .0075  | -.1265 | -.0030 | -.0014 | .0152 |
| 5    | 10.00  | 1.0728 | .0672  | -.3104 | -.0046 | .0030  | .0130 |
| 6    | 15.00  | 1.4686 | .1718  | -.4833 | -.0027 | .0064  | .0080 |
| 7    | 20.00  | 1.5754 | .3343  | -.5293 | -.0015 | .0075  | .0052 |
| 8    | -10.00 | -.8261 | .0590  | .6868  | -.0017 | -.0063 | .0222 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 460.

RUN 583 CONFIG. F P R NP5 W7 T18 BT IN=-3.5 BETA=0

| PT.# | INW       | O DELF  | O DELA      | O IHT       | O DELE       | O DELR       | O DELSB      | O           | RPM   |         |        |
|------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| NO.  | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 8    | 0         | 0       | 58.8        | 33.57       | 347.         | -62.         | -65.         | 9.47        | 54.46 | 127.96  | 3570.  |
| 9    | 0         | 0       | 55.4        | -6.49       | 247.         | -57.         | -46.         | 8.65        | 55.11 | 128.73  | 11300. |
| 10   | -20.0     | 0       | -462.6      | 127.67      | 3240.        | -162.        | -131.        | 11.41       | 55.21 | 128.85  | 11360. |
| 11   | -15.0     | 0       | -430.3      | 55.18       | 2838.        | -38.         | -158.        | 7.80        | 54.75 | 128.30  | 11330. |
| 12   | -10.0     | 0       | -290.0      | 17.74       | 1494.        | -81.         | -52.         | 9.22        | 54.95 | 128.54  | 11330. |
| 13   | -5.0      | 0       | -112.4      | -2.60       | 573.         | -107.        | -50.         | 9.52        | 55.45 | 129.13  | 11320. |
| 14   | 0         | 0       | 56.2        | -6.94       | 189.         | -74.         | -64.         | 8.55        | 55.13 | 128.75  | 11320. |
| 15   | 5.0       | 0       | 226.5       | 1.97        | -134.        | -54.         | -41.         | 6.15        | 55.18 | 128.82  | 11300. |
| 16   | 10.0      | 0       | 387.4       | 23.39       | -445.        | -86.         | 33.          | 4.41        | 54.83 | 128.40  | 11280. |
| 17   | 15.0      | 0       | 528.6       | 60.20       | -852.        | -59.         | 70.          | 2.95        | 55.01 | 128.61  | 11300. |
| 18   | 20.0      | 0       | 578.1       | 122.38      | -1188.       | -19.         | 89.          | 2.26        | 54.69 | 128.23  | 11280. |
| 19   | 0         | 0       | 55.4        | -7.29       | 210.         | -83.         | -64.         | 9.36        | 55.46 | 129.15  | 11330. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 8    | 0.00   | .1589   | .0907  | .1119  | -.0038 | -.0039 | .0256 |
| 9    | 0.00   | .1496   | -.0175 | .0796  | -.0034 | -.0028 | .0234 |
| 10   | -20.00 | -1.2502 | .3450  | 1.0445 | -.0098 | -.0079 | .0308 |
| 11   | -14.98 | -1.1629 | .1491  | .9150  | -.0023 | -.0095 | .0211 |
| 12   | -10.00 | -.7839  | .0480  | .4815  | -.0049 | -.0032 | .0249 |
| 13   | -5.00  | -.3038  | -.0070 | .1849  | -.0065 | -.0030 | .0257 |
| 14   | 0.00   | .1518   | -.0188 | .0610  | -.0045 | -.0038 | .0231 |
| 15   | 4.99   | .6122   | .0053  | -.0432 | -.0033 | -.0025 | .0166 |
| 16   | 10.00  | 1.0470  | .0632  | -.1433 | -.0052 | .0020  | .0119 |
| 17   | 15.00  | 1.4287  | .1627  | -.2746 | -.0036 | .0042  | .0080 |
| 18   | 20.00  | 1.5624  | .3308  | -.3830 | -.0012 | .0054  | .0061 |
| 19   | 0.00   | .1497   | -.0197 | .0677  | -.0050 | -.0039 | .0253 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 8    | 0.00   | .1589   | .0907  | .1119  | -.0038 | -.0039 | .0256 |
| 9    | 0.00   | .1496   | -.0175 | .0796  | -.0034 | -.0028 | .0234 |
| 10   | -20.00 | -1.2502 | .3450  | 1.0445 | -.0098 | -.0079 | .0308 |
| 11   | -14.98 | -1.1629 | .1491  | .9150  | -.0023 | -.0095 | .0211 |
| 12   | -10.00 | -.7839  | .0480  | .4815  | -.0049 | -.0032 | .0249 |
| 13   | -5.00  | -.3038  | -.0070 | .1849  | -.0065 | -.0030 | .0257 |
| 14   | 0.00   | .1518   | -.0188 | .0610  | -.0045 | -.0038 | .0231 |
| 15   | 4.99   | .6122   | .0053  | -.0432 | -.0033 | -.0025 | .0166 |
| 16   | 10.00  | 1.0470  | .0632  | -.1433 | -.0052 | .0020  | .0119 |
| 17   | 15.00  | 1.4287  | .1627  | -.2746 | -.0036 | .0042  | .0080 |
| 18   | 20.00  | 1.5624  | .3308  | -.3830 | -.0012 | .0054  | .0061 |
| 19   | 0.00   | .1497   | -.0197 | .0677  | -.0050 | -.0039 | .0253 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 584 CONFIG F P B NP5 W7 T32 BT IN=-3.5 BETA=0

| PT. No. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 5       | -0.0      | 0.0     | 67.4        | 31.78       | 88.          | 5.           | -80.         | 7.06        | 54.65 | 128.19  | 3560.  |
| 6       | -0.0      | 0.0     | 63.5        | -6.66       | 732.         | 1.           | -26.         | 6.56        | 54.88 | 128.46  | 11170. |
| 7       | -20.0     | 0.0     | -377.1      | 120.59      | 508.         | -24.         | -54.         | 7.91        | 54.38 | 127.85  | 11170. |
| 8       | -15.0     | 0.0     | -365.4      | 59.58       | 930.         | -87.         | 13.          | 10.61       | 55.01 | 128.61  | 11150. |
| 9       | -10.0     | 0.0     | -259.9      | 15.46       | 349.         | 37.          | -64.         | 5.98        | 55.06 | 128.67  | 11140. |
| 11      | -5.0      | 0.0     | -96.8       | -3.40       | 10.          | -3.          | -28.         | 6.49        | 55.45 | 129.14  | 11220. |
| 12      | -2.5      | 0.0     | -14.4       | -6.55       | 16.          | 17.          | 9.           | 6.06        | 54.69 | 128.23  | 11180. |
| 13      | -0.0      | 0.0     | 62.9        | -7.03       | -7.          | -0.          | -9.          | 7.08        | 54.71 | 128.26  | 11140. |
| 14      | 2.5       | 0.0     | 146.7       | -4.02       | 22.          | 11.          | 30.          | 5.22        | 54.17 | 127.61  | 11130. |
| 15      | 5.0       | 0.0     | 223.7       | 1.84        | -1.          | 5.           | 14.          | 4.30        | 54.20 | 127.64  | 11160. |
| 16      | 10.0      | 0.0     | 378.9       | 21.94       | -39.         | -28.         | 88.          | 3.01        | 53.97 | 127.37  | 11160. |
| 17      | 15.0      | 0.0     | 512.7       | 56.52       | -357.        | -2.          | 125.         | 1.59        | 54.27 | 127.73  | 11160. |
| 18      | 20.0      | 0.0     | 543.3       | 114.06      | -390.        | 47.          | 162.         | .84         | 53.92 | 127.31  | 11180. |
| 19      | 2.5       | 0.0     | 142.3       | -4.74       | -9.          | 12.          | -23.         | 4.99        | 53.91 | 127.30  | 11180. |
| 20      | -0.0      | 0.0     | 64.9        | -6.82       | -24.         | -1.          | -44.         | 6.84        | 54.42 | 127.91  | 11150. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPH    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | -0.01  | .1822   | .0859  | .0283  | .0003  | -.0048 | .0191 |
| 6    | -0.01  | .1716   | -.0180 | -.0104 | .0000  | -.0016 | .0177 |
| 7    | -20.00 | -1.0191 | .3259  | .1639  | -.0014 | -.0032 | .0214 |
| 8    | -15.01 | -.9881  | .1610  | .3000  | -.0053 | .0008  | .0287 |
| 9    | -10.00 | -.7025  | .0418  | .1126  | .0022  | -.0039 | .0162 |
| 11   | -5.01  | -.2616  | -.0092 | .0033  | -.0002 | -.0017 | .0175 |
| 12   | -2.51  | -.0388  | -.0177 | .0051  | .0010  | .0006  | .0164 |
| 13   | -0.01  | .1699   | -.0190 | -.0023 | -.0000 | -.0005 | .0191 |
| 14   | 2.50   | .3966   | -.0109 | .0070  | .0007  | .0018  | .0141 |
| 15   | 4.99   | .6047   | .0050  | -.0005 | .0003  | .0008  | .0116 |
| 16   | 10.00  | 1.0240  | .0593  | -.0124 | -.0017 | .0053  | .0081 |
| 17   | 14.99  | 1.3858  | .1527  | -.1151 | -.0001 | .0075  | .0043 |
| 18   | 20.00  | 1.4683  | .3083  | -.1257 | .0029  | .0098  | .0023 |
| 19   | 2.51   | .3846   | -.0128 | -.0030 | .0007  | -.0014 | .0135 |
| 20   | -0.00  | .1753   | -.0184 | -.0077 | -.0001 | -.0027 | .0185 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | -0.01  | .1822   | .0859  | .0283  | .0003  | -.0048 | .0191 |
| 6    | -0.01  | .1716   | -.0180 | -.0104 | .0000  | -.0016 | .0177 |
| 7    | -20.00 | -1.0191 | .3259  | .1639  | -.0014 | -.0032 | .0214 |
| 8    | -15.01 | -.9881  | .1610  | .3000  | -.0053 | .0008  | .0287 |
| 9    | -10.00 | -.7025  | .0418  | .1126  | .0022  | -.0039 | .0162 |
| 11   | -5.01  | -.2616  | -.0092 | .0033  | -.0002 | -.0017 | .0175 |
| 12   | -2.51  | -.0388  | -.0177 | .0051  | .0010  | .0006  | .0164 |
| 13   | -0.01  | .1699   | -.0190 | -.0023 | -.0000 | -.0005 | .0191 |
| 14   | 2.50   | .3966   | -.0109 | .0070  | .0007  | .0018  | .0141 |
| 15   | 4.99   | .6047   | .0050  | -.0005 | .0003  | .0008  | .0116 |
| 16   | 10.00  | 1.0240  | .0593  | -.0124 | -.0017 | .0053  | .0081 |
| 17   | 14.99  | 1.3858  | .1527  | -.1151 | -.0001 | .0075  | .0043 |
| 18   | 20.00  | 1.4683  | .3083  | -.1257 | .0029  | .0098  | .0023 |
| 19   | 2.51   | .3846   | -.0128 | -.0030 | .0007  | -.0014 | .0135 |
| 20   | -0.00  | .1753   | -.0184 | -.0077 | -.0001 | -.0027 | .0185 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 462

RUN 585 CONFIG F P B NP5 W7 T33 BT IN=-3.5 XN=0

| PT. NO. | IW | 0 DELF<br>ALPHA DEG | 0 DELA<br>PSI DEG | 0 IHT<br>CLBAR SQ-FT | 0 DELE<br>CDBAR SQ-FT | 0 DELR<br>CPMBAR CU-FT | 0 DELSB<br>CYMBAR CU-FT | 0<br>CRMBAR CU-FT | 0<br>CYBAR SQ-FT | 0<br>PSF | 0<br>V KNOTS | RPM    |
|---------|----|---------------------|-------------------|----------------------|-----------------------|------------------------|-------------------------|-------------------|------------------|----------|--------------|--------|
| 7       |    | -0.0                | .0                | 68.2                 | 30.94                 | 11.                    | -7.                     | -10.              | 7.56             | 55.26    | 128.91       | 3400.  |
| 8       |    | -0.0                | .0                | 65.8                 | -6.19                 | -86.                   | -1.                     | -27.              | 7.16             | 55.54    | 129.24       | 11260. |
| 9       |    | -20.0               | .0                | -373.5               | 107.82                | 277.                   | -85.                    | -121.             | 6.93             | 55.23    | 128.86       | 11240. |
| 10      |    | -15.0               | .0                | -316.8               | 63.71                 | 417.                   | -51.                    | 36.               | 8.02             | 54.95    | 128.53       | 11220. |
| 11      |    | -10.0               | .0                | -239.4               | 12.97                 | -114.                  | 12.                     | -49.              | 7.41             | 55.49    | 129.17       | 11250. |
| 12      |    | -5.0                | .0                | -87.1                | -4.01                 | -268.                  | -13.                    | -10.              | 6.70             | 55.39    | 129.06       | 11270. |
| 13      |    | -2.5                | .0                | -8.0                 | -6.46                 | -153.                  | 8.                      | -10.              | 6.83             | 54.87    | 128.43       | 11230. |
| 14      |    | .0                  | .0                | 66.8                 | -6.67                 | -83.                   | -3.                     | 26.               | 7.49             | 54.90    | 128.47       | 11200. |
| 15      |    | 2.5                 | .0                | 141.4                | -4.02                 | -23.                   | 4.                      | 47.               | 5.58             | 55.13    | 128.74       | 11210. |
| 16      |    | 5.0                 | .0                | 218.5                | 1.46                  | 43.                    | -9.                     | 67.               | 4.53             | 54.70    | 128.23       | 11280. |
| 17      |    | 10.0                | .0                | 364.5                | 20.68                 | 113.                   | -43.                    | 87.               | 3.09             | 54.44    | 127.93       | 11190. |
| 18      |    | 15.0                | .0                | 491.5                | 54.06                 | 10.                    | -6.                     | 88.               | 3.10             | 54.60    | 128.11       | 11270. |
| 19      |    | 20.0                | .0                | 526.7                | 107.75                | -64.                   | 24.                     | 142.              | 1.25             | 54.49    | 127.98       | 11250. |
| 20      |    | -0.0                | .0                | 64.0                 | -6.88                 | -59.                   | -9.                     | -27.              | 7.38             | 54.92    | 128.49       | 11280. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | -0.00  | .1843   | .0836  | .0035  | -.0004 | -.0006 | .0204 |
| 8    | -0.00  | .1777   | -.0167 | -.0276 | -.0001 | -.0016 | .0193 |
| 9    | -20.00 | -1.0094 | .2914  | .0892  | -.0051 | -.0073 | .0187 |
| 10   | -15.00 | -.8563  | .1722  | .1346  | -.0031 | .0022  | .0217 |
| 11   | -10.00 | -.6471  | .0350  | -.0367 | .0007  | -.0029 | .0200 |
| 12   | -5.00  | -.2355  | -.0108 | -.0865 | -.0008 | -.0006 | .0181 |
| 13   | -2.50  | -.0216  | -.0175 | -.0492 | .0005  | -.0006 | .0185 |
| 14   | .00    | .1806   | -.0180 | -.0267 | -.0002 | .0016  | .0202 |
| 15   | 2.50   | .3823   | -.0109 | -.0075 | .0002  | .0028  | .0151 |
| 16   | 5.00   | .5904   | .0039  | .0140  | -.0006 | .0040  | .0122 |
| 17   | 10.00  | .9850   | .0559  | .0364  | -.0026 | .0053  | .0083 |
| 18   | 15.00  | 1.3283  | .1461  | .0031  | -.0004 | .0053  | .0084 |
| 19   | 20.00  | 1.4235  | .2912  | -.0205 | .0015  | .0086  | .0034 |
| 20   | -0.00  | .1730   | -.0186 | -.0190 | -.0005 | -.0016 | .0199 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | -0.00  | .1843   | .0836  | .0035  | -.0004 | -.0006 | .0204 |
| 8    | -0.00  | .1777   | -.0167 | -.0276 | -.0001 | -.0016 | .0193 |
| 9    | -20.00 | -1.0094 | .2914  | .0892  | -.0051 | -.0073 | .0187 |
| 10   | -15.00 | -.8563  | .1722  | .1346  | -.0031 | .0022  | .0217 |
| 11   | -10.00 | -.6471  | .0350  | -.0367 | .0007  | -.0029 | .0200 |
| 12   | -5.00  | -.2355  | -.0108 | -.0865 | -.0008 | -.0006 | .0181 |
| 13   | -2.50  | -.0216  | -.0175 | -.0492 | .0005  | -.0006 | .0185 |
| 14   | .00    | .1806   | -.0180 | -.0267 | -.0002 | .0016  | .0202 |
| 15   | 2.50   | .3823   | -.0109 | -.0075 | .0002  | .0028  | .0151 |
| 16   | 5.00   | .5904   | .0039  | .0140  | -.0006 | .0040  | .0122 |
| 17   | 10.00  | .9850   | .0559  | .0364  | -.0026 | .0053  | .0083 |
| 18   | 15.00  | 1.3283  | .1461  | .0031  | -.0004 | .0053  | .0084 |
| 19   | 20.00  | 1.4235  | .2912  | -.0205 | .0015  | .0086  | .0034 |
| 20   | -0.00  | .1730   | -.0186 | -.0190 | -.0005 | -.0016 | .0199 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 463

RUN 566 CONFIG F P B NPS W7 T34 BT IN=-3.5 XN=0

| PT. NO. | I#    | J   | DELTA  | DELTA  | IHT    | DELE   | DELR   | DELSB | DELTA | DELTA  | RPM    |
|---------|-------|-----|--------|--------|--------|--------|--------|-------|-------|--------|--------|
|         | ALPHA | PSI | CLBAR  | CDBAR  | CPMBAR | CYMBAR | CRMBAR | CYBAR | DELTA | DELTA  |        |
|         | DEG   | DEG | SQ-FT  | SQ-FT  | CU-FT  | CU-FT  | CU-FT  | SQ-FT | PSF   | KNOTS  |        |
| 7       | -0    | .0  | 58.8   | 31.11  | 315.   | -39.   | -28.   | 8.21  | 55.02 | 128.62 | 2770.  |
| 8       | -0    | .0  | 55.6   | -6.90  | 195.   | -38.   | -10.   | 8.25  | 55.21 | 128.84 | 11320. |
| 9       | -20.0 | .0  | -422.9 | 119.62 | 1754.  | -210.  | -164.  | 10.09 | 54.89 | 128.46 | 11280. |
| 10      | -15.0 | .0  | -354.1 | 68.95  | 1605.  | -131.  | 49.    | 10.16 | 55.01 | 128.60 | 11350. |
| 11      | -10.0 | .0  | -270.3 | 16.31  | 720.   | -62.   | -71.   | 9.51  | 54.78 | 128.32 | 11320. |
| 12      | -5.0  | .0  | -102.9 | -2.99  | 188.   | -69.   | -30.   | 7.76  | 55.45 | 129.12 | 11330. |
| 13      | -2.5  | .0  | -20.9  | -5.74  | 226.   | -37.   | -28.   | 7.72  | 55.61 | 129.31 | 11290. |
| 14      | .0    | .0  | 56.7   | -6.39  | 181.   | -35.   | -10.   | 7.90  | 55.66 | 129.37 | 11290. |
| 15      | 2.5   | .0  | 135.6  | -3.79  | 133.   | -27.   | -24.   | 6.29  | 55.40 | 129.06 | 11260. |
| 16      | 5.0   | .0  | 217.3  | 1.65   | 78.    | -28.   | 30.    | 5.59  | 54.81 | 128.36 | 11370. |
| 17      | 10.0  | .0  | 370.1  | 21.93  | -80.   | -61.   | 33.    | 3.80  | 54.64 | 128.16 | 11310. |
| 18      | 15.0  | .0  | 507.6  | 57.20  | -576.  | -19.   | 123.   | 3.05  | 54.68 | 128.20 | 11250. |
| 19      | 20.0  | .0  | 563.1  | 118.93 | -1229. | 18.    | 108.   | 1.78  | 54.16 | 127.58 | 11120. |
| 20      | .0    | .0  | 54.8   | -6.92  | 190.   | -37.   | -10.   | 7.60  | 54.80 | 128.35 | 11320. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | -0.00  | .1589   | .0841  | .1016  | -.0023 | -.0017 | .0222 |
| 8    | -0.00  | .1504   | -.0187 | .0629  | -.0023 | -.0006 | .0223 |
| 9    | -20.00 | -1.1429 | .3233  | .5653  | -.0127 | -.0099 | .0273 |
| 10   | -15.00 | -.9570  | .1864  | .5176  | -.0079 | .0030  | .0274 |
| 11   | -10.00 | -.7307  | .0441  | .2322  | -.0038 | -.0043 | .0257 |
| 12   | -4.99  | -.2780  | -.0081 | .0606  | -.0042 | -.0018 | .0210 |
| 13   | -2.49  | -.0566  | -.0155 | .0728  | -.0022 | -.0017 | .0209 |
| 14   | .00    | .1533   | -.0173 | .0583  | -.0021 | -.0006 | .0213 |
| 15   | 2.50   | .3666   | -.0102 | .0429  | -.0016 | -.0015 | .0170 |
| 16   | 5.01   | .5874   | .0045  | .0251  | -.0017 | .0018  | .0151 |
| 17   | 10.00  | 1.0003  | .0593  | -.0259 | -.0037 | .0020  | .0103 |
| 18   | 15.00  | 1.3719  | .1546  | -.1857 | -.0012 | .0075  | .0083 |
| 19   | 20.01  | 1.5218  | .3214  | -.3961 | .0011  | .0065  | .0048 |
| 20   | .00    | .1482   | -.0187 | .0612  | -.0022 | -.0006 | .0206 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | -0.00  | .1589   | .0841  | .1016  | -.0023 | -.0017 | .0222 |
| 8    | -0.00  | .1504   | -.0187 | .0629  | -.0023 | -.0006 | .0223 |
| 9    | -20.00 | -1.1429 | .3233  | .5653  | -.0127 | -.0099 | .0273 |
| 10   | -15.00 | -.9570  | .1864  | .5176  | -.0079 | .0030  | .0274 |
| 11   | -10.00 | -.7307  | .0441  | .2322  | -.0038 | -.0043 | .0257 |
| 12   | -4.99  | -.2780  | -.0081 | .0606  | -.0042 | -.0018 | .0210 |
| 13   | -2.49  | -.0566  | -.0155 | .0728  | -.0022 | -.0017 | .0209 |
| 14   | .00    | .1533   | -.0173 | .0583  | -.0021 | -.0006 | .0213 |
| 15   | 2.50   | .3666   | -.0102 | .0429  | -.0016 | -.0015 | .0170 |
| 16   | 5.01   | .5874   | .0045  | .0251  | -.0017 | .0018  | .0151 |
| 17   | 10.00  | 1.0003  | .0593  | -.0259 | -.0037 | .0020  | .0103 |
| 18   | 15.00  | 1.3719  | .1546  | -.1857 | -.0012 | .0075  | .0083 |
| 19   | 20.01  | 1.5218  | .3214  | -.3961 | .0011  | .0065  | .0048 |
| 20   | .00    | .1482   | -.0187 | .0612  | -.0022 | -.0006 | .0206 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 464

RUIN 587 CONFIG F P B NP5 W7 T10 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 6       | .0        | .0      | 71.3        | 31.30       | 34.          | -12.         | 26.          | 7.43        | 55.02 | 128.62  | 3030.  |
| 7       | .0        | .0      | 65.2        | -6.66       | -68.         | -11.         | -26.         | 7.02        | 55.64 | 129.35  | 10230. |
| 8       | -20.0     | .0      | -362.1      | 118.91      | 505.         | -47.         | -54.         | 7.94        | 54.22 | 127.65  | 10390. |
| 9       | -15.0     | .0      | -311.6      | 71.04       | 634.         | -89.         | 69.          | 9.69        | 54.61 | 128.12  | 10190. |
| 10      | -10.0     | .0      | -238.4      | 19.76       | -11.         | -17.         | -50.         | 8.32        | 55.00 | 128.58  | 10300. |
| 11      | -5.0      | .0      | -85.1       | 2.41        | -219.        | -30.         | -28.         | 6.91        | 55.52 | 129.20  | 10200. |
| 12      | -2.5      | .0      | -7.7        | -6.66       | -136.        | -15.         | 25.          | 7.08        | 55.66 | 129.37  | 10410. |
| 13      | -0        | .0      | 65.0        | -7.79       | -68.         | -8.          | -26.         | 7.19        | 55.77 | 129.50  | 10410. |
| 14      | 2.5       | .0      | 142.4       | 1.81        | -46.         | -1.          | -6.          | 5.63        | 55.28 | 128.91  | 10310. |
| 15      | 5.0       | .0      | 219.0       | 7.76        | -0.          | -12.         | 13.          | 4.76        | 55.34 | 128.99  | 10470. |
| 16      | 10.0      | .0      | 365.5       | 27.50       | -10.         | -49.         | 68.          | 4.11        | 55.23 | 128.86  | 10220. |
| 17      | 15.0      | .0      | 494.5       | 61.49       | -212.        | -14.         | 52.          | 3.59        | 55.04 | 128.63  | 10360. |
| 18      | 20.0      | .0      | 539.0       | 116.21      | -510.        | 18.          | 107.         | 1.65        | 54.46 | 127.93  | 10340. |
| 19      | -0        | .0      | 65.5        | .10         | -45.         | -12.         | -10.         | 7.61        | 55.77 | 129.50  | 10340. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 6    | .00    | .1928  | .0846  | .0110  | -.0007 | .0016  | .0201 |
| 7    | .00    | .1761  | -.0018 | -.0219 | -.0007 | -.0016 | .0190 |
| 8    | -20.00 | -.9785 | .3214  | .1629  | -.0028 | -.0032 | .0215 |
| 9    | -15.01 | -.8422 | .1920  | .2045  | -.0054 | .0041  | .0262 |
| 10   | -10.00 | -.6442 | .0534  | -.0034 | -.0010 | -.0031 | .0225 |
| 11   | -5.01  | -.2299 | .0065  | -.0707 | -.0018 | -.0017 | .0187 |
| 12   | -2.50  | -.0207 | -.0018 | -.0439 | -.0009 | .0015  | .0191 |
| 13   | -0.00  | .1757  | -.0021 | -.0221 | -.0005 | -.0016 | .0194 |
| 14   | 2.50   | .3849  | .0049  | -.0150 | -.0001 | -.0004 | .0152 |
| 15   | 5.00   | .5920  | .0210  | -.0001 | -.0008 | .0008  | .0129 |
| 16   | 10.00  | .9878  | .0743  | -.0033 | -.0030 | .0041  | .0111 |
| 17   | 15.00  | 1.3364 | .1662  | -.0683 | -.0008 | .0031  | .0097 |
| 18   | 19.99  | 1.4567 | .3141  | -.1644 | .0011  | .0065  | .0045 |
| 19   | -0.00  | .1771  | .0003  | -.0145 | -.0007 | -.0006 | .0206 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 6    | .00    | .1928  | .0846  | .0110  | -.0007 | .0016  | .0201 |
| 7    | .00    | .1761  | -.0018 | -.0219 | -.0007 | -.0016 | .0190 |
| 8    | -20.00 | -.9785 | .3214  | .1629  | -.0028 | -.0032 | .0215 |
| 9    | -15.01 | -.8422 | .1920  | .2045  | -.0054 | .0041  | .0262 |
| 10   | -10.00 | -.6442 | .0534  | -.0034 | -.0010 | -.0031 | .0225 |
| 11   | -5.01  | -.2299 | .0065  | -.0707 | -.0018 | -.0017 | .0187 |
| 12   | -2.50  | -.0207 | -.0018 | -.0439 | -.0009 | .0015  | .0191 |
| 13   | -0.00  | .1757  | -.0021 | -.0221 | -.0005 | -.0016 | .0194 |
| 14   | 2.50   | .3849  | .0049  | -.0150 | -.0001 | -.0004 | .0152 |
| 15   | 5.00   | .5920  | .0210  | -.0001 | -.0008 | .0008  | .0129 |
| 16   | 10.00  | .9878  | .0743  | -.0033 | -.0030 | .0041  | .0111 |
| 17   | 15.00  | 1.3364 | .1662  | -.0683 | -.0008 | .0031  | .0097 |
| 18   | 19.99  | 1.4567 | .3141  | -.1644 | .0011  | .0065  | .0045 |
| 19   | -0.00  | .1771  | .0003  | -.0145 | -.0007 | -.0006 | .0206 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 465

RUN 588 CONFIG F P B NP5 W7 T28 BT IN=-3.5 XN=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | -5 DELE     | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 6       | -0        | .0      | 43.1        | 32.80       | 844.         | -15.         | 8.           | 7.76        | 54.91 | 128.48  | 3600.  |
| 7       | -0        | .0      | 37.2        | -.84        | 762.         | -4.          | 26.          | 7.20        | 54.90 | 128.47  | 10530. |
| 8       | -20.0     | .0      | -400.7      | 137.35      | 2151.        | -2.          | -105.        | 6.66        | 54.18 | 127.60  | 10420. |
| 9       | -15.0     | .0      | -360.0      | 85.44       | 2520.        | -144.        | 30.          | 11.05       | 54.54 | 128.04  | 10460. |
| 10      | -10.0     | .0      | -297.1      | 29.90       | 1776.        | -46.         | -70.         | 9.23        | 54.50 | 127.98  | 10470. |
| 11      | -5.0      | .0      | -133.0      | 5.81        | 1183.        | -36.         | -47.         | 7.64        | 54.98 | 128.56  | 10490. |
| 12      | -2.5      | .0      | -47.6       | .86         | 909.         | -29.         | -44.         | 6.42        | 55.04 | 128.63  | 10450. |
| 13      | -0        | .0      | 38.6        | .18         | 755.         | -10.         | 9.           | 6.98        | 55.34 | 128.99  | 10440. |
| 14      | 5.0       | .0      | 200.2       | 6.50        | 430.         | -29.         | -5.          | 5.64        | 54.73 | 128.26  | 10460. |
| 15      | 10.0      | .0      | 353.2       | 25.12       | 232.         | -62.         | 33.          | 3.69        | 54.74 | 128.28  | 10500. |
| 16      | 15.0      | .0      | 480.0       | 58.00       | 70.          | -15.         | 87.          | 3.74        | 55.01 | 128.59  | 10470. |
| 17      | 20.0      | .0      | 524.0       | 106.39      | -154.        | 33.          | 124.         | 1.34        | 54.88 | 128.43  | 10440. |
| 18      | -0        | .0      | 34.3        | -.08        | 754.         | -29.         | -45.         | 8.04        | 55.39 | 129.05  | 10490. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | -0     | .1164   | .0887  | .2721  | -.0009 | .0005  | .0210 |
| 7    | -0     | .1006   | -.0023 | .2456  | -.0002 | .0016  | .0195 |
| 8    | -20.01 | -1.0830 | .3712  | .6934  | -.0001 | -.0063 | .0180 |
| 9    | -15.00 | -.9730  | .2309  | .8126  | -.0087 | .0018  | .0299 |
| 10   | -10.00 | -.8030  | .0808  | .5726  | -.0028 | -.0042 | .0249 |
| 11   | -5.00  | -.3595  | .0157  | .3813  | -.0022 | -.0029 | .0207 |
| 12   | -2.51  | -.1287  | .0023  | .2932  | -.0018 | -.0027 | .0173 |
| 13   | -0     | .1043   | .0005  | .2434  | -.0006 | .0005  | .0189 |
| 14   | 4.99   | .5412   | .0176  | .1387  | -.0018 | -.0003 | .0153 |
| 15   | 9.99   | .9547   | .0679  | .0747  | -.0037 | .0020  | .0100 |
| 16   | 15.00  | 1.2974  | .1567  | .0225  | -.0009 | .0053  | .0101 |
| 17   | 20.00  | 1.4163  | .2875  | -.0498 | .0020  | .0075  | .0036 |
| 18   | -0     | .0926   | -.0002 | .2429  | -.0017 | -.0027 | .0217 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | -0     | .1164   | .0887  | .2721  | -.0009 | .0005  | .0210 |
| 7    | -0     | .1006   | -.0023 | .2456  | -.0002 | .0016  | .0195 |
| 8    | -20.01 | -1.0830 | .3712  | .6934  | -.0001 | -.0063 | .0180 |
| 9    | -15.00 | -.9730  | .2309  | .8126  | -.0087 | .0018  | .0299 |
| 10   | -10.00 | -.8030  | .0808  | .5726  | -.0028 | -.0042 | .0249 |
| 11   | -5.00  | -.3595  | .0157  | .3813  | -.0022 | -.0029 | .0207 |
| 12   | -2.51  | -.1287  | .0023  | .2932  | -.0018 | -.0027 | .0173 |
| 13   | -0     | .1043   | .0005  | .2434  | -.0006 | .0005  | .0189 |
| 14   | 4.99   | .5412   | .0176  | .1387  | -.0018 | -.0003 | .0153 |
| 15   | 9.99   | .9547   | .0679  | .0747  | -.0037 | .0020  | .0100 |
| 16   | 15.00  | 1.2974  | .1567  | .0225  | -.0009 | .0053  | .0101 |
| 17   | 20.00  | 1.4163  | .2875  | -.0498 | .0020  | .0075  | .0036 |
| 18   | -0     | .0926   | -.0002 | .2429  | -.0017 | -.0027 | .0217 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 466

RUN 589 CONFIG F P B NP5 W7 T20 BT IN=-3.5 XN=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 5 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 86.9        | 32.34       | -469.        | -17.         | -45.         | 8.15        | 55.30 | 128.94  | 3570.  |
| 3       | .0        | .0      | 84.8        | -.11        | -568.        | -18.         | -9.          | 7.12        | 54.98 | 128.57  | 10380. |
| 4       | -20.0     | .0      | -379.7      | 122.60      | 1427.        | -81.         | -38.         | 8.86        | 54.37 | 127.82  | 10490. |
| 5       | -15.0     | .0      | -331.6      | 67.65       | 1449.        | -179.        | 117.         | 11.71       | 54.79 | 128.33  | 10500. |
| 6       | -10.0     | .0      | -241.6      | 16.75       | 343.         | -26.         | -33.         | 8.37        | 54.92 | 128.48  | 10510. |
| 7       | -5.0      | .0      | -75.0       | .44         | -313.        | -36.         | -11.         | 7.07        | 55.40 | 129.06  | 10510. |
| 8       | -2.5      | .0      | 4.6         | -1.39       | -454.        | -12.         | -45.         | 7.00        | 55.00 | 128.58  | 10500. |
| 9       | -.0       | .0      | 87.0        | -.32        | -574.        | -8.          | 9.           | 7.12        | 55.16 | 128.77  | 10490. |
| 10      | 2.5       | .0      | 165.9       | 3.24        | -744.        | -3.          | 29.          | 5.87        | 55.33 | 128.98  | 10470. |
| 11      | 5.0       | .0      | 247.2       | 10.41       | -853.        | 3.           | 31.          | 4.36        | 55.24 | 128.87  | 10470. |
| 12      | 10.0      | .0      | 401.9       | 32.45       | -1108.       | -15.         | 87.          | 2.19        | 54.96 | 128.53  | 10490. |
| 13      | 15.0      | .0      | 513.0       | 74.27       | -1035.       | -15.         | 87.          | 3.39        | 55.24 | 128.87  | 10470. |
| 14      | 20.0      | .0      | 530.0       | 123.70      | -561.        | 19.          | 106.         | 2.17        | 55.02 | 128.61  | 10490. |
| 15      | .0        | .0      | 83.3        | -.68        | -583.        | -17.         | -10.         | 7.57        | 55.34 | 128.98  | 10480. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .2349   | .0874  | -.1512 | -.0010 | -.0027 | .0220 |
| 3    | .00    | .2292   | -.0003 | -.1830 | -.0011 | -.0005 | .0193 |
| 4    | -19.99 | -1.0261 | .3313  | .4600  | -.0049 | -.0023 | .0239 |
| 5    | -14.99 | -.8961  | .1828  | .4672  | -.0108 | .0071  | .0316 |
| 6    | -10.00 | -.6530  | .0453  | .1106  | -.0015 | -.0020 | .0226 |
| 7    | -5.00  | -.2027  | .0012  | -.1008 | -.0022 | -.0007 | .0191 |
| 8    | -2.50  | .0124   | -.0037 | -.1464 | -.0007 | -.0027 | .0189 |
| 9    | -.00   | .2352   | -.0009 | -.1852 | -.0005 | .0005  | .0193 |
| 10   | 2.50   | .4485   | .0087  | -.2399 | -.0002 | .0017  | .0159 |
| 11   | 5.01   | .6680   | .0281  | -.2750 | .0002  | .0019  | .0118 |
| 12   | 10.00  | 1.0862  | .0877  | -.3571 | -.0009 | .0052  | .0059 |
| 13   | 15.00  | 1.3866  | .2007  | -.3337 | -.0009 | .0053  | .0092 |
| 14   | 20.00  | 1.4323  | .3343  | -.1809 | .0011  | .0064  | .0059 |
| 15   | .00    | .2253   | -.0019 | -.1881 | -.0010 | -.0006 | .0205 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .2349   | .0874  | -.1512 | -.0010 | -.0027 | .0220 |
| 3    | .00    | .2292   | -.0003 | -.1830 | -.0011 | -.0005 | .0193 |
| 4    | -19.99 | -1.0261 | .3313  | .4600  | -.0049 | -.0023 | .0239 |
| 5    | -14.99 | -.8961  | .1828  | .4672  | -.0108 | .0071  | .0316 |
| 6    | -10.00 | -.6530  | .0453  | .1106  | -.0015 | -.0020 | .0226 |
| 7    | -5.00  | -.2027  | .0012  | -.1008 | -.0022 | -.0007 | .0191 |
| 8    | -2.50  | .0124   | -.0037 | -.1464 | -.0007 | -.0027 | .0189 |
| 9    | -.00   | .2352   | -.0009 | -.1852 | -.0005 | .0005  | .0193 |
| 10   | 2.50   | .4485   | .0087  | -.2399 | -.0002 | .0017  | .0159 |
| 11   | 5.01   | .6680   | .0281  | -.2750 | .0002  | .0019  | .0118 |
| 12   | 10.00  | 1.0862  | .0877  | -.3571 | -.0009 | .0052  | .0059 |
| 13   | 15.00  | 1.3866  | .2007  | -.3337 | -.0009 | .0053  | .0092 |
| 14   | 20.00  | 1.4323  | .3343  | -.1809 | .0011  | .0064  | .0059 |
| 15   | .00    | .2253   | -.0019 | -.1881 | -.0010 | -.0006 | .0205 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 467

RUN 590 CONFIG F P B NP5 W7 T19 BT IN=-3.5 XN=0

| PT. NO. | IW    | 0 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 5 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>V<br>KNOTS | RPM    |
|---------|-------|------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------|-----------------|--------|
| 6       |       | .0                     | .0                   | 85.0                     | 31.94                   | -353.                     | -31.                      | 26.                       | 7.14                      | 55.02    | 128.60          | 3570.  |
| 7       |       | .0                     | .0                   | 79.8                     | -48                     | -474.                     | -25.                      | -9.                       | 7.37                      | 54.82    | 128.37          | 10400. |
| 8       |       | .0                     | .0                   | 80.5                     | -7.30                   | -491.                     | -27.                      | -9.                       | 7.12                      | 54.71    | 128.23          | 11370. |
| 9       | -20.0 | .0                     | .0                   | -374.9                   | 111.20                  | 1079.                     | -57.                      | -36.                      | 7.92                      | 54.19    | 127.61          | 11330. |
| 10      | -15.0 | .0                     | .0                   | -325.2                   | 61.31                   | 1066.                     | -171.                     | 137.                      | 10.77                     | 54.59    | 128.09          | 11330. |
| 11      | -10.0 | .0                     | .0                   | -235.5                   | 10.66                   | 120.                      | -32.                      | -32.                      | 8.01                      | 55.29    | 128.92          | 11340. |
| 12      | -5.0  | .0                     | .0                   | -75.8                    | -5.54                   | -383.                     | -48.                      | -12.                      | 7.57                      | 54.72    | 128.24          | 11350. |
| 13      | -2.5  | .0                     | .0                   | 2.0                      | -8.20                   | -429.                     | -56.                      | -27.                      | 6.33                      | 55.05    | 128.63          | 11360. |
| 14      | .0    | .0                     | .0                   | 80.0                     | -7.32                   | -489.                     | -31.                      | -9.                       | 7.36                      | 54.58    | 128.08          | 11360. |
| 15      | 2.5   | .0                     | .0                   | 159.8                    | -3.76                   | -544.                     | -18.                      | 30.                       | 4.94                      | 54.96    | 128.52          | 11340. |
| 16      | 5.0   | .0                     | .0                   | 238.7                    | 2.87                    | -631.                     | -16.                      | 31.                       | 4.15                      | 54.96    | 128.53          | 11340. |
| 17      | 10.0  | .0                     | .0                   | 387.1                    | 24.11                   | -752.                     | -35.                      | 51.                       | 2.92                      | 54.80    | 128.34          | 11350. |
| 18      | 15.0  | .0                     | .0                   | 503.6                    | 63.12                   | -657.                     | -31.                      | 88.                       | 2.63                      | 54.47    | 127.95          | 11330. |
| 19      | 20.0  | .0                     | .0                   | 522.1                    | 112.45                  | -201.                     | -3.                       | 124.                      | 1.53                      | 55.04    | 128.63          | 11340. |
| 20      | .0    | .0                     | .0                   | 79.8                     | -7.17                   | -487.                     | -34.                      | -10.                      | 8.13                      | 55.17    | 128.78          | 11340. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | .01    | .2297   | .0863  | -.1136 | -.0019 | .0016  | .0193 |
| 7    | .01    | .2158   | -.0013 | -.1528 | -.0015 | -.0006 | .0199 |
| 8    | .01    | .2176   | -.0197 | -.1584 | -.0016 | -.0005 | .0192 |
| 9    | -19.99 | -1.0131 | .3005  | .3479  | -.0034 | -.0022 | .0214 |
| 10   | -15.00 | -.8790  | .1657  | .3435  | -.0103 | .0083  | .0291 |
| 11   | -10.00 | -.6364  | .0288  | .0388  | -.0019 | -.0019 | .0216 |
| 12   | -4.99  | -.2048  | -.0150 | -.1233 | -.0029 | -.0007 | .0205 |
| 13   | -2.50  | .0053   | -.0222 | -.1382 | -.0022 | -.0016 | .0171 |
| 14   | .00    | .2161   | -.0198 | -.1578 | -.0019 | -.0006 | .0199 |
| 15   | 2.51   | .4319   | -.0102 | -.1753 | -.0011 | .0018  | .0133 |
| 16   | 5.00   | .6452   | .0078  | -.2035 | -.0010 | .0019  | .0112 |
| 17   | 10.00  | 1.0463  | .0652  | -.2423 | -.0021 | .0031  | .0079 |
| 18   | 15.02  | 1.3610  | .1706  | -.2119 | -.0019 | .0053  | .0071 |
| 19   | 20.01  | 1.4110  | .3039  | -.0647 | -.0002 | .0075  | .0041 |
| 20   | .00    | .2158   | -.0194 | -.1571 | -.0021 | -.0006 | .0220 |

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\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | .01    | .2297   | .0863  | -.1136 | -.0019 | .0016  | .0193 |
| 7    | .01    | .2158   | -.0013 | -.1528 | -.0015 | -.0006 | .0199 |
| 8    | .01    | .2176   | -.0197 | -.1584 | -.0016 | -.0005 | .0192 |
| 9    | -19.99 | -1.0131 | .3005  | .3479  | -.0034 | -.0022 | .0214 |
| 10   | -15.00 | -.8790  | .1657  | .3435  | -.0103 | .0083  | .0291 |
| 11   | -10.00 | -.6364  | .0288  | .0388  | -.0019 | -.0019 | .0216 |
| 12   | -4.99  | -.2048  | -.0150 | -.1233 | -.0029 | -.0007 | .0205 |
| 13   | -2.50  | .0053   | -.0222 | -.1382 | -.0022 | -.0016 | .0171 |
| 14   | .00    | .2161   | -.0198 | -.1578 | -.0019 | -.0006 | .0199 |
| 15   | 2.51   | .4319   | -.0102 | -.1753 | -.0011 | .0018  | .0133 |
| 16   | 5.00   | .6452   | .0078  | -.2035 | -.0010 | .0019  | .0112 |
| 17   | 10.00  | 1.0463  | .0652  | -.2423 | -.0021 | .0031  | .0079 |
| 18   | 15.02  | 1.3610  | .1706  | -.2119 | -.0019 | .0053  | .0071 |
| 19   | 20.01  | 1.4110  | .3039  | -.0647 | -.0002 | .0075  | .0041 |
| 20   | .00    | .2158   | -.0194 | -.1571 | -.0021 | -.0006 | .0220 |

N432409-1

SIKORSKY KSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 468

RUN 591 CONFIG F P B NP5 W7 T19 BT IN=-3.5 XN=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | -5 DELE     | 0 DELR       | 0 DELSB      | 0            |             |       | RPM     |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 48.0        | 31.11       | 583.         | -30.         | -9.          | 7.43        | 55.44 | 129.10  | 3570.  |
| 3       | .0        | .0      | 46.0        | -6.88       | 462.         | -33.         | -9.          | 7.22        | 54.24 | 127.68  | 11210. |
| 4       | -20.0     | .0      | -409.4      | 123.72      | 1831.        | -138.        | -144.        | 8.57        | 54.59 | 128.10  | 11250. |
| 5       | -15.0     | .0      | -363.1      | 71.88       | 2118.        | -161.        | 14.          | 10.18       | 55.32 | 128.97  | 11210. |
| 6       | -10.0     | .0      | -287.1      | 19.68       | 1396.        | -9.          | -66.         | 7.32        | 55.24 | 128.87  | 11260. |
| 7       | -5.0      | .0      | -121.9      | -7.70       | 798.         | -45.         | -63.         | 6.61        | 55.48 | 129.15  | 11240. |
| 8       | -2.5      | .0      | -35.4       | -5.60       | 567.         | -35.         | -26.         | 6.08        | 55.65 | 129.36  | 11250. |
| 9       | .0        | .0      | 45.2        | -6.06       | 454.         | -38.         | -10.         | 7.84        | 55.19 | 128.81  | 11240. |
| 10      | 2.5       | .0      | 128.5       | -4.29       | 358.         | -25.         | -7.          | 6.21        | 54.68 | 128.21  | 11160. |
| 11      | 5.0       | .0      | 206.7       | 1.25        | 284.         | -27.         | -4.          | 4.67        | 55.22 | 128.85  | 11220. |
| 12      | 10.0      | .0      | 356.4       | 20.31       | 216.         | -72.         | 68.          | 4.11        | 55.03 | 128.62  | 11210. |
| 13      | 15.0      | .0      | 476.5       | 51.87       | 264.         | -34.         | 70.          | 2.92        | 55.16 | 128.78  | 11190. |
| 14      | 20.0      | .0      | 515.7       | 99.56       | 286.         | 31.          | 142.         | 1.08        | 54.84 | 128.40  | 11190. |
| 15      | -0.0      | .0      | 45.1        | -6.22       | 484.         | -42.         | -27.         | 7.76        | 55.03 | 128.62  | 11210. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM   | CYM    | CRM    | CY    |
|------|--------|---------|--------|-------|--------|--------|-------|
| 2    | .00    | .1298   | .0841  | .1880 | -.0018 | -.0006 | .0201 |
| 3    | .00    | .1243   | -.0186 | .1491 | -.0020 | -.0006 | .0195 |
| 4    | -20.00 | -1.1065 | .3344  | .5901 | -.0083 | -.0087 | .0232 |
| 5    | -15.00 | -.9814  | .1943  | .6828 | -.0097 | .0008  | .0275 |
| 6    | -10.01 | -.7759  | .0532  | .4502 | -.0005 | -.0040 | .0198 |
| 7    | -5.00  | -.3296  | -.0019 | .2573 | -.0027 | -.0038 | .0179 |
| 8    | -2.51  | -.0957  | -.0151 | .1827 | -.0021 | -.0016 | .0164 |
| 9    | .00    | .1221   | -.0164 | .1465 | -.0023 | -.0006 | .0212 |
| 10   | 2.50   | .3473   | -.0116 | .1155 | -.0015 | -.0004 | .0168 |
| 11   | 5.00   | .5587   | .0034  | .0916 | -.0016 | -.0003 | .0126 |
| 12   | 9.99   | .9633   | .0549  | .0695 | -.0044 | .0041  | .0111 |
| 13   | 15.00  | 1.2877  | .1402  | .0851 | -.0020 | .0042  | .0079 |
| 14   | 20.00  | 1.3938  | .2691  | .0922 | .0019  | .0085  | .0029 |
| 15   | -.00   | .1218   | -.0168 | .1561 | -.0025 | -.0017 | .0210 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB  | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|-------|--------|--------|-------|
| 2    | .00    | .1298   | .0841  | .1880 | -.0018 | -.0006 | .0201 |
| 3    | .00    | .1243   | -.0186 | .1491 | -.0020 | -.0006 | .0195 |
| 4    | -20.00 | -1.1065 | .3344  | .5901 | -.0083 | -.0087 | .0232 |
| 5    | -15.00 | -.9814  | .1943  | .6828 | -.0097 | .0008  | .0275 |
| 6    | -10.01 | -.7759  | .0532  | .4502 | -.0005 | -.0040 | .0198 |
| 7    | -5.00  | -.3296  | -.0019 | .2573 | -.0027 | -.0038 | .0179 |
| 8    | -2.51  | -.0957  | -.0151 | .1827 | -.0021 | -.0016 | .0164 |
| 9    | .00    | .1221   | -.0164 | .1465 | -.0023 | -.0006 | .0212 |
| 10   | 2.50   | .3473   | -.0116 | .1155 | -.0015 | -.0004 | .0168 |
| 11   | 5.00   | .5587   | .0034  | .0916 | -.0016 | -.0003 | .0126 |
| 12   | 9.99   | .9633   | .0549  | .0695 | -.0044 | .0041  | .0111 |
| 13   | 15.00  | 1.2877  | .1402  | .0851 | -.0020 | .0042  | .0079 |
| 14   | 20.00  | 1.3938  | .2691  | .0922 | .0019  | .0085  | .0029 |
| 15   | -.00   | .1218   | -.0168 | .1561 | -.0025 | -.0017 | .0210 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 469

RUN 592 CONFIG F P B NP5 W7 T19 BT IN=-3.5 IHTT=-5.0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 5       | .0        | .0      | 54.9        | 31.53       | 601.         | -53.         | -9.          | 7.15        | 55.42 | 129.09  | 3590.  |
| 6       | .0        | .0      | 52.2        | -7.39       | 447.         | -69.         | -62.         | 8.11        | 55.87 | 129.61  | 11430. |
| 7       | -20.0     | .0      | -393.9      | 116.98      | 1195.        | -116.        | -142.        | 8.64        | 55.33 | 128.98  | 11470. |
| 8       | -15.0     | .0      | -344.1      | 70.59       | 1545.        | -12.         | 23.          | 5.91        | 55.69 | 129.40  | 11420. |
| 9       | -10.0     | .0      | -271.7      | 16.11       | 1189.        | -89.         | -34.         | 9.05        | 55.56 | 129.25  | 11430. |
| 10      | -5.0      | .0      | -107.2      | -3.47       | 643.         | -101.        | -12.         | 7.89        | 55.57 | 129.26  | 11440. |
| 11      | .0        | .0      | 51.9        | -7.56       | 472.         | -82.         | -45.         | 7.93        | 55.41 | 129.07  | 11440. |
| 12      | 2.5       | .0      | 133.8       | -4.89       | 380.         | -69.         | 11.          | 6.03        | 55.96 | 129.72  | 11440. |
| 13      | 5.0       | .0      | 214.2       | .86         | 316.         | -66.         | -5.          | 5.19        | 55.52 | 129.20  | 11440. |
| 14      | 10.0      | .0      | 367.3       | 20.43       | 237.         | -91.         | 68.          | 4.50        | 54.96 | 128.54  | 11420. |
| 15      | 15.0      | .0      | 490.9       | 52.87       | 199.         | -69.         | 123.         | 3.10        | 54.95 | 128.52  | 11400. |
| 16      | 20.0      | .0      | 518.9       | 103.61      | 341.         | -27.         | 142.         | 2.13        | 54.89 | 128.45  | 11440. |
| 17      | .0        | .0      | 49.8        | -7.53       | 473.         | -84.         | -28.         | 8.14        | 55.79 | 129.53  | 11420. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM   | CYM    | CRM    | CY    |
|------|--------|---------|--------|-------|--------|--------|-------|
| 5    | .00    | .1485   | .0852  | .1937 | -.0032 | -.0005 | .0193 |
| 6    | .00    | .1411   | -.0200 | .1442 | -.0042 | -.0038 | .0219 |
| 7    | -19.99 | -1.0645 | .3162  | .3854 | -.0070 | -.0086 | .0233 |
| 8    | -15.00 | -.9299  | .1908  | .4981 | -.0007 | .0014  | .0160 |
| 9    | -9.98  | -.7343  | .0435  | .3832 | -.0054 | -.0021 | .0245 |
| 10   | -4.99  | -.2898  | -.0094 | .2074 | -.0061 | -.0007 | .0213 |
| 11   | .00    | .1403   | -.0204 | .1521 | -.0049 | -.0027 | .0214 |
| 12   | 2.51   | .3617   | -.0132 | .1224 | -.0036 | .0006  | .0163 |
| 13   | 5.02   | .5789   | .0023  | .1017 | -.0040 | -.0003 | .0140 |
| 14   | 10.05  | .9926   | .0552  | .0763 | -.0055 | .0041  | .0122 |
| 15   | 15.03  | 1.3267  | .1429  | .0641 | -.0036 | .0074  | .0084 |
| 16   | 20.00  | 1.4025  | .2800  | .1101 | -.0016 | .0086  | .0058 |
| 17   | .00    | .1346   | -.0204 | .1526 | -.0051 | -.0017 | .0220 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB  | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|-------|--------|--------|-------|
| 5    | .00    | .1485   | .0852  | .1937 | -.0032 | -.0005 | .0193 |
| 6    | .00    | .1411   | -.0200 | .1442 | -.0042 | -.0038 | .0219 |
| 7    | -19.99 | -1.0645 | .3162  | .3854 | -.0070 | -.0086 | .0233 |
| 8    | -15.00 | -.9299  | .1908  | .4981 | -.0007 | .0014  | .0160 |
| 9    | -9.98  | -.7343  | .0435  | .3832 | -.0054 | -.0021 | .0245 |
| 10   | -4.99  | -.2898  | -.0094 | .2074 | -.0061 | -.0007 | .0213 |
| 11   | .00    | .1403   | -.0204 | .1521 | -.0049 | -.0027 | .0214 |
| 12   | 2.51   | .3617   | -.0132 | .1224 | -.0036 | .0006  | .0163 |
| 13   | 5.02   | .5789   | .0023  | .1017 | -.0040 | -.0003 | .0140 |
| 14   | 10.05  | .9926   | .0552  | .0763 | -.0055 | .0041  | .0122 |
| 15   | 15.03  | 1.3267  | .1429  | .0641 | -.0036 | .0074  | .0084 |
| 16   | 20.00  | 1.4025  | .2800  | .1101 | -.0016 | .0086  | .0058 |
| 17   | .00    | .1346   | -.0204 | .1526 | -.0051 | -.0017 | .0220 |

N4324J9-1

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011

P 470

RUN 533 CONFIG F P 8 NP5 W7 T19 BT IN=-3.5 IHTT=5.0

| PT. NO. | IW | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 DELA<br>CDBAR<br>SQ-FT | 0 IHT<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSR<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|---------|----|------------------------|----------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 2       |    | .0                     | .0                   | 80.1                     | 31.89                    | -375.                    | -17.                      | -27.                      | 7.33                      | 55.76         | 129.49          | 3600.  |
| 3       |    | .0                     | .0                   | 76.4                     | -7.03                    | -502.                    | -29.                      | -9.                       | 7.00                      | 54.97         | 128.55          | 11340. |
| 4       |    | -20.0                  | .0                   | -397.3                   | 111.52                   | 1264.                    | -150.                     | -145.                     | 9.53                      | 55.17         | 128.79          | 11330. |
| 5       |    | -15.0                  | .0                   | -331.3                   | 63.95                    | 1158.                    | 9.                        | -12.                      | 5.97                      | 55.20         | 128.82          | 11320. |
| 6       |    | -10.0                  | .0                   | -250.3                   | 13.13                    | 228.                     | 6.                        | -84.                      | 7.39                      | 54.87         | 128.44          | 11370. |
| 7       |    | -5.0                   | .0                   | -84.2                    | -4.51                    | -321.                    | -27.                      | -45.                      | 6.46                      | 55.16         | 128.78          | 11370. |
| 8       |    | -2.5                   | .0                   | -3.4                     | -7.42                    | -409.                    | -25.                      | -44.                      | 6.26                      | 55.14         | 128.76          | 11360. |
| 9       |    | .0                     | .0                   | 75.0                     | -7.17                    | -497.                    | -27.                      | -27.                      | 7.14                      | 55.22         | 128.85          | 11350. |
| 10      |    | 2.5                    | .0                   | 155.5                    | -3.66                    | -579.                    | -10.                      | 30.                       | 4.74                      | 55.34         | 129.00          | 11330. |
| 11      |    | 5.0                    | .0                   | 234.3                    | 2.96                     | -634.                    | -16.                      | -4.                       | 4.64                      | 55.56         | 129.26          | 11340. |
| 12      |    | 10.0                   | .0                   | 388.1                    | 24.01                    | -724.                    | -49.                      | 51.                       | 3.31                      | 54.88         | 128.45          | 11330. |
| 13      |    | 15.0                   | .0                   | 512.7                    | 58.51                    | -779.                    | -1.                       | 105.                      | 2.03                      | 54.90         | 128.48          | 11320. |
| 14      |    | 20.0                   | .0                   | 539.9                    | 111.55                   | -576.                    | 35.                       | 141.                      | 1.14                      | 54.94         | 128.52          | 11330. |
| 15      |    | .0                     | .0                   | 73.0                     | -7.29                    | -490.                    | -36.                      | -45.                      | 7.58                      | 55.42         | 129.10          | 11340. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .2166   | .0862  | -.1209 | -.0010 | -.0016 | .0198 |
| 3    | .00    | .2065   | -.0190 | -.1617 | -.0017 | -.0005 | .0189 |
| 4    | -19.99 | -1.0738 | .3014  | .4074  | -.0091 | -.0087 | .0258 |
| 5    | -14.99 | -.8953  | .1728  | .3732  | .0006  | -.0007 | .0161 |
| 6    | -9.99  | -.6764  | .0355  | .0736  | .0003  | -.0051 | .0200 |
| 7    | -5.00  | -.2277  | -.0122 | -.1034 | -.0016 | -.0027 | .0175 |
| 8    | -2.50  | -.0092  | -.0200 | -.1317 | -.0015 | -.0027 | .0169 |
| 9    | .00    | .2027   | -.0194 | -.1603 | -.0016 | -.0016 | .0193 |
| 10   | 2.50   | .4203   | -.0099 | -.1866 | -.0006 | .0018  | .0128 |
| 11   | 5.01   | .6333   | .0080  | -.2043 | -.0009 | -.0003 | .0125 |
| 12   | 10.00  | 1.0489  | .0649  | -.2335 | -.0029 | .0031  | .0089 |
| 13   | 15.00  | 1.3856  | .1581  | -.2510 | -.0001 | .0064  | .0055 |
| 14   | 20.00  | 1.4591  | .3015  | -.1858 | .0021  | .0085  | .0031 |
| 15   | .01    | .1972   | -.0197 | -.1579 | -.0022 | -.0027 | .0205 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .2166   | .0862  | -.1209 | -.0010 | -.0016 | .0198 |
| 3    | .00    | .2065   | -.0190 | -.1617 | -.0017 | -.0005 | .0189 |
| 4    | -19.99 | -1.0738 | .3014  | .4074  | -.0091 | -.0087 | .0258 |
| 5    | -14.99 | -.8953  | .1728  | .3732  | .0006  | -.0007 | .0161 |
| 6    | -9.99  | -.6764  | .0355  | .0736  | .0003  | -.0051 | .0200 |
| 7    | -5.00  | -.2277  | -.0122 | -.1034 | -.0016 | -.0027 | .0175 |
| 8    | -2.50  | -.0092  | -.0200 | -.1317 | -.0015 | -.0027 | .0169 |
| 9    | .00    | .2027   | -.0194 | -.1603 | -.0016 | -.0016 | .0193 |
| 10   | 2.50   | .4203   | -.0099 | -.1866 | -.0006 | .0018  | .0128 |
| 11   | 5.01   | .6333   | .0080  | -.2043 | -.0009 | -.0003 | .0125 |
| 12   | 10.00  | 1.0489  | .0649  | -.2335 | -.0029 | .0031  | .0089 |
| 13   | 15.00  | 1.3856  | .1581  | -.2510 | -.0001 | .0064  | .0055 |
| 14   | 20.00  | 1.4591  | .3015  | -.1858 | .0021  | .0085  | .0031 |
| 15   | .01    | .1972   | -.0197 | -.1579 | -.0022 | -.0027 | .0205 |

N432499-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P471

RUN 594 CONFIG F P B NP5 W7 T19 BT IN=-3.5

| PT. NO. | IW | 0 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>CU-FT | 0<br>PSF | 0<br>V  | 0<br>RPM            |
|---------|----|------------------------|----------------------|-------------------------|--------------------------|---------------------------|---------------------------|----------|---------|---------------------|
| 10      |    | .0                     | .0                   | 80.3                    | 32.25                    | -420.                     | -16.                      | 2.       | -1.25   | 54.57 128.09 3560.  |
| 11      |    | .0                     | .0                   | 76.4                    | -6.78                    | -510.                     | -9.                       | 10.      | 6.13    | 54.84 128.41 11190. |
| 12      |    | .0                     | -20.0                | 111.3                   | 39.19                    | -1319.                    | 1436.                     | -319.    | -188.74 | 54.39 127.87 11260. |
| 13      |    | .0                     | -15.0                | 102.5                   | 18.59                    | -1086.                    | 893.                      | -184.    | -188.99 | 54.31 127.78 11270. |
| 14      |    | .0                     | -10.0                | 92.0                    | 3.05                     | -798.                     | 300.                      | 42.      | -189.32 | 54.20 127.65 11250. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 10   | .00    | .2169 | .0872  | -.1353 | -.0010 | .0001  | -.0034 |
| 11   | .00    | .2064 | -.0183 | -.1646 | -.0006 | .0006  | .0166  |
| 12   | -20.00 | .3008 | .1059  | -.4252 | .0868  | -.0193 | -.5101 |
| 13   | -15.00 | .2771 | .0502  | -.3500 | .0539  | -.0111 | -.5108 |
| 14   | -10.00 | .2487 | .0082  | -.2574 | .0181  | .0026  | -.5117 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|--------|--------|--------|-------|--------|
| 10   | .00    | .2169 | .0872  | -.1353 | -.0010 | .0001 | -.0034 |
| 11   | .00    | .2064 | -.0183 | -.1646 | -.0006 | .0006 | .0166  |
| 12   | -20.00 | .3008 | -.0758 | -.3640 | .0868  | .0093 | -.5155 |
| 13   | -15.00 | .2771 | -.0843 | -.3225 | .0539  | .0063 | -.5063 |
| 14   | -10.00 | .2487 | -.0811 | -.2558 | .0181  | .0109 | -.5053 |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 475

RUN 595 CONFIG F P B NP5 W7 T19 BT IN=3.5

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 69.8        | 32.51       | 88.          | -32.         | -7.          | 5.76        | 54.37 | 127.85  | 3550.  |
| 3       | .0        | .0      | 66.5        | -7.49       | -34.         | -44.         | -9.          | 6.89        | 54.40 | 127.89  | 11250. |
| 4       | .0        | -20.0   | 104.6       | 40.95       | -943.        | 1504.        | -194.        | -185.60     | 53.89 | 127.27  | 11170. |
| 5       | .0        | -15.0   | 95.4        | 18.72       | -602.        | 1093.        | -63.         | -137.12     | 53.78 | 127.15  | 11240. |
| 6       | .0        | -10.0   | 81.4        | 2.74        | -291.        | 694.         | -39.         | -88.80      | 53.90 | 127.28  | 11250. |
| 7       | .0        | -5.0    | 73.1        | -5.15       | -92.         | 321.         | -3.          | -43.99      | 53.59 | 126.91  | 11240. |
| 8       | .0        | -2.5    | 66.7        | -6.92       | -60.         | 162.         | -43.         | -19.47      | 54.24 | 127.69  | 11240. |
| 9       | .0        | .0      | 64.7        | -7.63       | -30.         | -14.         | -27.         | 7.01        | 54.39 | 127.88  | 11240. |
| 11      | .0        | 5.0     | 71.5        | -5.64       | -112.        | -291.        | 23.          | 54.02       | 53.79 | 127.15  | 11240. |
| 12      | .0        | 10.0    | 77.5        | 1.12        | -377.        | -701.        | 61.          | 98.90       | 54.87 | 128.45  | 11240. |
| 13      | .0        | 15.0    | 87.4        | 13.34       | -761.        | -1033.       | 165.         | 137.14      | 55.02 | 128.62  | 11240. |
| 14      | .0        | 20.0    | 95.6        | 34.96       | -1001.       | -1472.       | 242.         | 192.24      | 54.58 | 128.10  | 11250. |
| 15      | .0        | .0      | 65.7        | -7.60       | -15.         | -45.         | -25.         | 5.76        | 54.97 | 128.57  | 11260. |
| 16      | .0        | 10.0    | 77.3        | 1.09        | -350.        | -1030.       | 196.         | 5.90        | 54.87 | 128.45  | 11240. |
| 17      | .0        | 10.0    | 79.0        | .96         | -345.        | -700.        | 75.          | 100.06      | 55.02 | 128.62  | 11230. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1886 | .0879  | .0283  | -.0020 | -.0004 | .0156  |
| 3    | .00    | .1796 | -.0202 | -.0110 | -.0027 | -.0005 | .0186  |
| 4    | -20.00 | .2828 | .1107  | -.3041 | .0908  | -.0117 | -.5016 |
| 5    | -15.00 | .2580 | .0506  | -.1941 | .0660  | -.0038 | -.3706 |
| 6    | -10.00 | .2199 | .0074  | -.0939 | .0419  | -.0024 | -.2400 |
| 7    | -5.00  | .1975 | -.0139 | -.0297 | .0194  | -.0002 | -.1189 |
| 8    | -2.50  | .1802 | -.0187 | -.0194 | .0098  | -.0026 | -.0526 |
| 9    | .00    | .1749 | -.0206 | -.0098 | -.0008 | -.0016 | .0190  |
| 11   | 5.00   | .1933 | -.0152 | -.0362 | -.0176 | .0014  | .1460  |
| 12   | 10.00  | .2094 | .0030  | -.1217 | -.0424 | .0037  | .2673  |
| 13   | 15.00  | .2362 | .0361  | -.2454 | -.0624 | .0100  | .3706  |
| 14   | 20.00  | .2584 | .0945  | -.3228 | -.0889 | .0146  | .5196  |
| 15   | .00    | .1776 | -.0206 | -.0048 | -.0027 | -.0015 | .0156  |
| 16   | 10.00  | .2088 | .0030  | -.1129 | -.0622 | .0119  | .0159  |
| 17   | 10.00  | .2134 | .0026  | -.1111 | -.0423 | .0046  | .2704  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1886 | .0879  | .0283  | -.0020 | -.0004 | .0156  |
| 3    | .00    | .1796 | -.0202 | -.0110 | -.0027 | -.0005 | .0186  |
| 4    | -20.00 | .2828 | -.0684 | -.2642 | .0908  | .0086  | -.5091 |
| 5    | -15.00 | .2580 | -.0475 | -.1821 | .0660  | .0058  | -.3710 |
| 6    | -10.00 | .2199 | -.0346 | -.0903 | .0419  | .0007  | -.2376 |
| 7    | -5.00  | .1975 | -.0243 | -.0295 | .0194  | .0003  | -.1172 |
| 8    | -2.50  | .1802 | -.0210 | -.0188 | .0098  | -.0024 | -.0518 |
| 9    | .00    | .1749 | -.0206 | -.0098 | -.0008 | -.0016 | .0190  |
| 11   | 5.00   | .1933 | -.0280 | -.0354 | -.0176 | .0008  | .1441  |
| 12   | 10.00  | .2094 | -.0437 | -.1164 | -.0424 | -.0004 | .2637  |
| 13   | 15.00  | .2362 | -.0615 | -.2231 | -.0624 | -.0023 | .3673  |
| 14   | 20.00  | .2584 | -.0897 | -.2763 | -.0889 | -.0070 | .5204  |
| 15   | .00    | .1776 | -.0206 | -.0048 | -.0027 | -.0015 | .0156  |
| 16   | 10.00  | .2088 | .0001  | -.1001 | -.0622 | .0080  | .0162  |
| 17   | 10.00  | .2134 | -.0446 | -.1052 | -.0423 | .0009  | .2667  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P473

RUN 596 CONFIG F P B NP5 W7 T19 BT IN=-3.5

| PT. NO. | IW | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | -20 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|---------|----|------------------------|----------------------|----------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 2       |    | .0                     | .0                   | 65.3                       | 34.02                   | 134.                      | -1042.                    | 154.                      | 32.02                     | 54.79         | 128.36          | 3550.  |
| 3       |    | .0                     | .0                   | 64.8                       | -7.59                   | 16.                       | -1074.                    | 153.                      | 33.41                     | 54.66         | 128.20          | 11580. |
| 4       |    | .0                     | -20.0                | 95.3                       | 34.08                   | -846.                     | 627.                      | -45.                      | -166.99                   | 54.49         | 127.99          | 11560. |
| 5       |    | .0                     | -15.0                | 88.1                       | 14.40                   | -520.                     | 144.                      | 68.                       | -117.11                   | 54.28         | 127.75          | 11590. |
| 6       |    | .0                     | -10.0                | 73.5                       | -.40                    | -163.                     | -346.                     | 123.                      | -64.57                    | 54.66         | 128.20          | 11580. |
| 7       |    | .0                     | -5.0                 | 66.5                       | -6.85                   | -23.                      | -691.                     | 178.                      | -19.49                    | 54.52         | 128.04          | 11570. |
| 8       |    | .0                     | -2.5                 | 64.5                       | -8.17                   | 3.                        | -913.                     | 174.                      | 5.88                      | 54.48         | 127.99          | 11580. |
| 9       |    | .0                     | .0                   | 64.6                       | -8.38                   | -9.                       | -1069.                    | 137.                      | 32.29                     | 54.43         | 127.93          | 11570. |
| 10      |    | .0                     | 2.6                  | 67.4                       | -7.10                   | -75.                      | -1125.                    | 146.                      | 54.71                     | 54.67         | 128.21          | 11570. |
| 11      |    | .0                     | 5.0                  | 70.5                       | -4.28                   | -155.                     | -1227.                    | 151.                      | 76.24                     | 55.00         | 128.61          | 11560. |
| 12      |    | .0                     | 10.0                 | 79.9                       | 3.56                    | -460.                     | -1681.                    | 189.                      | 124.09                    | 54.52         | 128.03          | 11570. |
| 13      |    | .0                     | 15.0                 | 86.6                       | 17.15                   | -797.                     | -1876.                    | 295.                      | 166.22                    | 54.35         | 127.83          | 11600. |
| 14      |    | .0                     | 20.0                 | 95.1                       | 41.74                   | -1017.                    | -2379.                    | 371.                      | 215.23                    | 54.78         | 128.34          | 11600. |
| 15      |    | .0                     | .0                   | 62.2                       | -7.81                   | 36.                       | -1058.                    | 138.                      | 29.71                     | 55.16         | 128.79          | 11620. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1764 | .0920  | .0433  | -.0629 | .0093  | .0865  |
| 3    | .00    | .1752 | -.0205 | .0052  | -.0649 | .0092  | .0903  |
| 4    | -20.00 | .2575 | .0921  | -.2728 | .0379  | -.0027 | -.4513 |
| 5    | -15.00 | .2382 | .0389  | -.1678 | .0087  | .0041  | -.3165 |
| 6    | -10.00 | .1986 | -.0011 | -.0525 | -.0209 | .0074  | -.1745 |
| 7    | -5.00  | .1797 | -.0185 | -.0075 | -.0417 | .0108  | -.0527 |
| 8    | -2.50  | .1743 | -.0221 | .0011  | -.0551 | .0105  | .0159  |
| 9    | .00    | .1746 | -.0227 | -.0030 | -.0646 | .0083  | .0873  |
| 10   | 2.60   | .1822 | -.0192 | -.0242 | -.0679 | .0088  | .1479  |
| 11   | 5.00   | .1904 | -.0116 | -.0500 | -.0741 | .0091  | .2060  |
| 12   | 10.00  | .2158 | .0096  | -.1484 | -.1016 | .0114  | .3354  |
| 13   | 15.00  | .2340 | .0463  | -.2570 | -.1133 | .0178  | .4492  |
| 14   | 20.00  | .2571 | .1128  | -.3278 | -.1437 | .0224  | .5817  |
| 15   | .00    | .1681 | -.0211 | .0115  | -.0639 | .0083  | .0803  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1764 | .0920  | .0433  | -.0629 | .0093  | .0865  |
| 3    | .00    | .1752 | -.0205 | .0052  | -.0649 | .0092  | .0903  |
| 4    | -20.00 | .2575 | -.0685 | -.2512 | .0379  | .0150  | -.4555 |
| 5    | -15.00 | .2382 | -.0447 | -.1677 | .0087  | .0121  | -.3157 |
| 6    | -10.00 | .1986 | -.0315 | -.0586 | -.0209 | .0090  | -.1716 |
| 7    | -5.00  | .1797 | -.0231 | -.0125 | -.0417 | .0108  | -.0509 |
| 8    | -2.50  | .1743 | -.0214 | -.0013 | -.0551 | .0105  | .0168  |
| 9    | .00    | .1746 | -.0227 | -.0030 | -.0646 | .0083  | .0873  |
| 10   | 2.60   | .1822 | -.0259 | -.0220 | -.0679 | .0086  | .1468  |
| 11   | 5.00   | .1904 | -.0296 | -.0456 | -.0741 | .0083  | .2042  |
| 12   | 10.00  | .2158 | -.0490 | -.1355 | -.1016 | .0064  | .3319  |
| 13   | 15.00  | .2340 | -.0720 | -.2235 | -.1133 | .0047  | .4458  |
| 14   | 20.00  | .2571 | -.0939 | -.2668 | -.1437 | -.0001 | .5851  |
| 15   | .00    | .1681 | -.0211 | .0115  | -.0639 | .0083  | .0803  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 474

RUN 597 CONFIG F P B NP5 W7 T19 BT IN=-3.5

| IW        | 0 DELF | -10 DELA | 0 IHT | 0 DELE | 0 DELR | 0 DELSB | 0     |       |       |        |        |  |
|-----------|--------|----------|-------|--------|--------|---------|-------|-------|-------|--------|--------|--|
| PT. ALPHA | PSI    | CLBAR    | CDBAR | CPMBAR | CYMBAR | CRMBAR  | CYBAR | Q     | V     | RPM    |        |  |
| NO. DEG   | DEG    | SQ-FT    | SQ-FT | CU-FT  | CU-FT  | CU-FT   | SQ-FT | PSF   | KNOTS |        |        |  |
| 2         | .0     | .0       | 69.5  | 32.98  | 124.   | -542.   | 63.   | 20.13 | 55.01 | 128.62 | 3570.  |  |
| 3         | .0     | .0       | 66.4  | -6.49  | -15.   | -557.   | 82.   | 19.39 | 54.64 | 128.18 | 11350. |  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI | CL    | CD     | CPM    | CYM    | CRM   | CY    |
|------|-----|-------|--------|--------|--------|-------|-------|
| 2    | .00 | .1852 | .0891  | .0400  | -.0327 | .0038 | .0544 |
| 3    | .00 | .1796 | -.0175 | -.0049 | -.0336 | .0049 | .0524 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI | CLB   | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|-----|-------|--------|--------|--------|-------|-------|
| 2    | .00 | .1852 | .0891  | .0400  | -.0327 | .0038 | .0544 |
| 3    | .00 | .1796 | -.0175 | -.0049 | -.0336 | .0049 | .0524 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

10475

RUN 598 CONFIG F P B NP5 W7 T19 BT IN=-3.5

| PT. NO. | IW | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | -10 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|---------|----|------------------------|----------------------|----------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 2       |    | .0                     | .0                   | 69.5                       | 33.33                   | 97.                       | -552.                     | 82.                       | 19.97                     | 54.42         | 127.91          | 3560.  |
| 3       |    | .0                     | .0                   | 63.6                       | -6.78                   | 1.                        | -567.                     | 79.                       | 20.85                     | 55.06         | 128.68          | 11420. |
| 4       |    | .0                     | -20.0                | 101.5                      | 38.32                   | -914.                     | 1087.                     | -131.                     | -175.79                   | 54.72         | 128.28          | 11410. |
| 5       |    | .0                     | -15.0                | 92.3                       | 17.52                   | -599.                     | 643.                      | -38.                      | -128.34                   | 54.52         | 128.03          | 11410. |
| 6       |    | .0                     | -10.0                | 76.8                       | 2.00                    | -240.                     | 186.                      | 35.                       | -77.10                    | 54.79         | 128.36          | 11410. |
| 7       |    | .0                     | -5.0                 | 69.5                       | -4.99                   | -85.                      | -183.                     | 16.                       | -31.33                    | 54.69         | 128.24          | 11430. |
| 8       |    | .0                     | -2.5                 | 66.1                       | -6.57                   | -36.                      | -360.                     | 32.                       | -8.61                     | 54.59         | 128.12          | 11410. |
| 9       |    | .0                     | .0                   | 62.7                       | -6.80                   | -52.                      | -546.                     | 46.                       | 19.12                     | 55.04         | 128.65          | 11420. |
| 10      |    | .0                     | 2.5                  | 62.3                       | -5.97                   | -67.                      | -635.                     | 35.                       | 42.77                     | 54.63         | 128.17          | 11400. |
| 11      |    | .0                     | 5.0                  | 65.9                       | -3.13                   | -168.                     | -756.                     | 43.                       | 65.33                     | 54.80         | 128.37          | 11410. |
| 12      |    | .0                     | 7.5                  | 71.5                       | -.02                    | -325.                     | -925.                     | 69.                       | 88.17                     | 55.17         | 128.81          | 11420. |
| 13      |    | .0                     | 10.0                 | 76.8                       | 4.15                    | -450.                     | -1197.                    | 133.                      | 113.27                    | 54.65         | 128.19          | 11400. |
| 14      |    | .0                     | 15.0                 | 85.4                       | 16.93                   | -810.                     | -1421.                    | 218.                      | 155.53                    | 54.64         | 128.18          | 11410. |
| 15      |    | .0                     | 20.0                 | 87.9                       | 39.20                   | -982.                     | -1870.                    | 270.                      | 201.61                    | 55.05         | 128.66          | 11440. |
| 16      |    | .0                     | .0                   | 62.6                       | -6.46                   | -8.                       | -545.                     | 11.                       | 19.24                     | 54.37         | 127.85          | 11420. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1879 | .0901  | .0313  | -.0333 | .0049  | .0540  |
| 3    | .00    | .1719 | -.0183 | .0004  | -.0342 | .0048  | .0563  |
| 4    | -20.00 | .2742 | .1036  | -.2947 | .0656  | -.0079 | -.4751 |
| 5    | -15.00 | .2494 | .0473  | -.1930 | .0388  | -.0023 | -.3469 |
| 6    | -10.00 | .2076 | .0054  | -.0775 | .0112  | .0021  | -.2084 |
| 7    | -5.00  | .1878 | -.0135 | -.0273 | -.0111 | .0010  | -.0847 |
| 8    | -2.50  | .1786 | -.0178 | -.0116 | -.0218 | .0020  | -.0233 |
| 9    | .00    | .1695 | -.0184 | -.0168 | -.0330 | .0028  | .0517  |
| 10   | 2.50   | .1684 | -.0161 | -.0217 | -.0383 | .0021  | .1156  |
| 11   | 5.00   | .1782 | -.0085 | -.0540 | -.0457 | .0026  | .1766  |
| 12   | 7.50   | .1932 | -.0001 | -.1049 | -.0559 | .0042  | .2383  |
| 13   | 10.00  | .2076 | .0112  | -.1451 | -.0723 | .0080  | .3061  |
| 14   | 15.00  | .2309 | .0458  | -.2610 | -.0858 | .0132  | .4204  |
| 15   | 20.00  | .2374 | .1060  | -.3166 | -.1130 | .0163  | .5449  |
| 16   | .00    | .1692 | -.0175 | -.0026 | -.0329 | .0007  | .0520  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1879 | .0901  | .0313  | -.0333 | .0049  | .0540  |
| 3    | .00    | .1719 | -.0183 | .0004  | -.0342 | .0048  | .0563  |
| 4    | -20.00 | .2742 | -.0659 | -.2623 | .0656  | .0116  | -.4818 |
| 5    | -15.00 | .2494 | -.0445 | -.1832 | .0388  | .0072  | -.3472 |
| 6    | -10.00 | .2076 | -.0310 | -.0783 | .0112  | .0046  | -.2061 |
| 7    | -5.00  | .1878 | -.0208 | -.0277 | -.0111 | .0014  | -.0832 |
| 8    | -2.50  | .1786 | -.0188 | -.0121 | -.0218 | .0021  | -.0225 |
| 9    | .00    | .1695 | -.0184 | -.0168 | -.0330 | .0028  | .0517  |
| 10   | 2.50   | .1684 | -.0212 | -.0212 | -.0383 | .0019  | .1148  |
| 11   | 5.00   | .1782 | -.0239 | -.0526 | -.0457 | .0017  | .1752  |
| 12   | 7.50   | .1932 | -.0313 | -.1011 | -.0559 | .0016  | .2362  |
| 13   | 10.00  | .2076 | -.0423 | -.1354 | -.0723 | .0032  | .3034  |
| 14   | 15.00  | .2309 | -.0651 | -.2338 | -.0858 | -.0000 | .4178  |
| 15   | 20.00  | .2374 | -.0877 | -.2674 | -.1130 | -.0050 | .5481  |
| 16   | .00    | .1692 | -.0175 | -.0026 | -.0329 | .0007  | .0520  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P476

RUN 599 CONFIG F P B NP5 W7 T19 BT IN=3.5

| PT. NO. | 0 DELF<br>ALPHA<br>DEG | 10 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ=FT | 0 DELE<br>CDBAR<br>SQ=FT | 0 DELR<br>CPMBAR<br>CU=FT | 0 DELSB<br>CYMBAR<br>CU=FT | 0<br>CRMBAR<br>CU=FT | 0<br>CYBAR<br>SQ=FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|---------|------------------------|-----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|---------------|-----------------|--------|
| 2       | .0                     | .0                    | 68.4                    | 34.21                    | 120.                      | 495.                       | -81.                 | -5.00               | 55.18         | 128.83          | 3560.  |
| 3       | .0                     | .0                    | 64.5                    | -6.47                    | 18.                       | 510.                       | -115.                | -6.83               | 54.85         | 128.44          | 11490. |
| 4       | .0                     | -20.0                 | 105.0                   | 44.63                    | -966.                     | 1924.                      | -226.                | -196.67             | 54.52         | 128.04          | 11490. |
| 5       | .0                     | -15.0                 | 91.9                    | 22.67                    | -677.                     | 1536.                      | -186.                | -149.92             | 54.81         | 128.38          | 11480. |
| 6       | .0                     | -10.0                 | 80.3                    | 5.59                     | -375.                     | 1216.                      | -109.                | -101.96             | 54.62         | 128.16          | 11490. |
| 7       | .0                     | -5.0                  | 69.5                    | -3.62                    | -124.                     | 808.                       | -95.                 | -55.22              | 54.71         | 128.27          | 11510. |
| 8       | .0                     | -2.5                  | 63.5                    | -5.91                    | -65.                      | 700.                       | -114.                | -32.19              | 55.03         | 128.65          | 11510. |
| 9       | .0                     | .0                    | 63.4                    | -6.57                    | -4.                       | 504.                       | -100.                | -4.97               | 54.78         | 128.36          | 11500. |
| 10      | .0                     | 2.5                   | 60.8                    | -6.32                    | -56.                      | 333.                       | -95.                 | 19.71               | 54.95         | 128.55          | 11510. |
| 11      | .0                     | 5.0                   | 65.5                    | -5.02                    | -100.                     | 197.                       | -86.                 | 41.99               | 54.92         | 128.52          | 11510. |
| 12      | .0                     | 7.5                   | 70.3                    | -2.89                    | -180.                     | 19.                        | -59.                 | 65.42               | 54.67         | 128.22          | 11490. |
| 13      | .0                     | 10.0                  | 73.3                    | .70                      | -332.                     | -204.                      | -47.                 | 89.34               | 54.56         | 128.09          | 11500. |
| 14      | .0                     | 15.0                  | 83.8                    | 12.73                    | -662.                     | -606.                      | 100.                 | 136.87              | 54.75         | 128.32          | 11510. |
| 16      | .0                     | 20.0                  | 89.6                    | 32.75                    | -929.                     | -1054.                     | 133.                 | 184.65              | 54.81         | 128.38          | 11490. |
| 17      | .0                     | .0                    | 65.3                    | -6.55                    | 28.                       | 516.                       | -47.                 | -4.93               | 54.60         | 128.13          | 11500. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1847 | .0925  | .0387  | .0299  | -.0049 | -.0135 |
| 3    | .00    | .1744 | -.0175 | .0057  | .0308  | -.0069 | -.0185 |
| 4    | -20.00 | .2837 | .1206  | -.3115 | .1162  | -.0136 | -.5315 |
| 5    | -15.00 | .2485 | .0613  | -.2184 | .0928  | -.0112 | -.4052 |
| 6    | -10.00 | .2170 | .0151  | -.1210 | .0734  | -.0066 | -.2756 |
| 7    | -5.00  | .1879 | -.0098 | -.0400 | .0488  | -.0057 | -.1493 |
| 8    | -2.50  | .1716 | -.0160 | -.0210 | .0423  | -.0069 | -.0870 |
| 9    | .00    | .1713 | -.0178 | -.0014 | .0305  | -.0060 | -.0134 |
| 10   | 2.50   | .1642 | -.0171 | -.0182 | .0201  | -.0057 | .0533  |
| 11   | 5.00   | .1770 | -.0136 | -.0323 | .0119  | -.0052 | .1135  |
| 12   | 7.50   | .1899 | -.0078 | -.0581 | .0011  | -.0036 | .1768  |
| 13   | 10.00  | .1982 | .0019  | -.1072 | -.0123 | -.0029 | .2415  |
| 14   | 15.00  | .2265 | .0344  | -.2133 | -.0366 | .0061  | .3699  |
| 16   | 20.00  | .2421 | .0885  | -.2994 | -.0636 | .0080  | .4990  |
| 17   | .00    | .1765 | -.0177 | .0089  | .0312  | -.0028 | -.0133 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1847 | .0925  | .0387  | .0299  | -.0049 | -.0135 |
| 3    | .00    | .1744 | -.0175 | .0057  | .0308  | -.0069 | -.0185 |
| 4    | -20.00 | .2837 | -.0693 | -.2675 | .1162  | .0072  | -.5406 |
| 5    | -15.00 | .2485 | -.0462 | -.1953 | .0928  | -.0002 | -.4072 |
| 6    | -10.00 | .2170 | -.0332 | -.1130 | .0734  | -.0025 | -.2740 |
| 7    | -5.00  | .1879 | -.0228 | -.0372 | .0488  | -.0051 | -.1478 |
| 8    | -2.50  | .1716 | -.0198 | -.0194 | .0423  | -.0067 | -.0862 |
| 9    | .00    | .1713 | -.0178 | -.0014 | .0305  | -.0060 | -.0134 |
| 10   | 2.50   | .1642 | -.0194 | -.0195 | .0201  | -.0059 | .0525  |
| 11   | 5.00   | .1770 | -.0234 | -.0346 | .0119  | -.0057 | .1119  |
| 12   | 7.50   | .1899 | -.0309 | -.0601 | .0011  | -.0050 | .1743  |
| 13   | 10.00  | .1982 | -.0403 | -.1082 | -.0123 | -.0063 | .2381  |
| 14   | 15.00  | .2265 | -.0629 | -.1975 | -.0366 | -.0045 | .3661  |

|    |       |       |        |        |        |        |        |
|----|-------|-------|--------|--------|--------|--------|--------|
| 16 | 20.00 | .2421 | -.0883 | -.2664 | -.0636 | -.0117 | .4991  |
| 17 | .00   | .1765 | -.0177 | .0089  | .0312  | -.0028 | -.0133 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P477

RUN 600 CONFIG F P B NPS W7 T19 BT IN=-3,5

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG° | PSI<br>PSI<br>DEG | 20 DELA<br>CLBAR<br>SQ=FT | 0 IHT<br>CDBAR<br>SQ=FT | 0 DELE<br>CPMBAR<br>CU=FT | 0 DELE<br>CYMBAR<br>CU=FT | 0 DELR<br>CRMBAR<br>CU=FT | 0 DELSB<br>CYBAR<br>SQ=FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|-------------------|---------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 2                | .0                      | .0                | 65.9                      | 35.31                   | 183.                      | 1038.                     | -204.                     | -17.78                    | 55.55         | 129.26          | 3570.  |
| 3                | .0                      | .0                | 62.2                      | -6.72                   | 56.                       | 1053.                     | -222.                     | -18.10                    | 55.32         | 128.99          | 11720. |
| 4                | .0                      | -20.0             | 105.5                     | 47.59                   | -924.                     | 2358.                     | -282.                     | -204.81                   | 54.89         | 128.48          | 11730. |
| 5                | .0                      | -15.0             | 93.4                      | 24.63                   | -650.                     | 1996.                     | -222.                     | -160.64                   | 54.99         | 128.60          | 11720. |
| 6                | .0                      | -10.0             | 81.9                      | 6.85                    | -357.                     | 1682.                     | -198.                     | -112.46                   | 55.07         | 128.70          | 11740. |
| 7                | .0                      | -5.0              | 70.3                      | -3.45                   | -94.                      | 1304.                     | -130.                     | -66.83                    | 55.46         | 129.16          | 11740. |
| 8                | .0                      | -2.5              | 63.6                      | -5.72                   | -29.                      | 1206.                     | -152.                     | -44.04                    | 54.84         | 128.43          | 11740. |
| 9                | .0                      | .0                | 64.9                      | -6.86                   | 46.                       | 1056.                     | -189.                     | -18.17                    | 54.93         | 128.53          | 11740. |
| 10               | .0                      | 2.5               | 63.1                      | -7.13                   | 28.                       | 851.                      | -187.                     | 8.31                      | 54.94         | 128.54          | 11760. |
| 11               | .0                      | 5.0               | 68.2                      | -6.26                   | 6.                        | 706.                      | -144.                     | 31.16                     | 54.77         | 128.34          | 11770. |
| 12               | .0                      | 7.6               | 67.9                      | -4.46                   | -70.                      | 525.                      | -180.                     | 52.60                     | 54.79         | 128.36          | 11760. |
| 13               | .0                      | 10.0              | 72.0                      | -1.93                   | -243.                     | 337.                      | -136.                     | 75.69                     | 54.77         | 128.34          | 11750. |
| 14               | .0                      | 15.0              | 80.5                      | 9.11                    | -547.                     | -146.                     | -6.                       | 124.88                    | 54.86         | 128.44          | 11760. |
| 15               | .0                      | 20.0              | 90.5                      | 28.73                   | -837.                     | -630.                     | 57.                       | 175.13                    | 54.56         | 128.09          | 11760. |
| 16               | .0                      | .0                | 66.8                      | -7.30                   | 69.                       | 1049.                     | -153.                     | -19.01                    | 54.65         | 128.20          | 11710. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1782 | .0954  | .0590  | .0627  | -.0123 | -.0481 |
| 3    | .00    | .1682 | -.0182 | .0180  | .0636  | -.0134 | -.0489 |
| 4    | -20.00 | .2851 | .1286  | -.2980 | .1424  | -.0170 | -.5535 |
| 5    | -15.00 | .2525 | .0666  | -.2097 | .1206  | -.0134 | -.4342 |
| 6    | -10.00 | .2215 | .0185  | -.1151 | .1016  | -.0120 | -.3039 |
| 7    | -5.00  | .1901 | -.0093 | -.0305 | .0788  | -.0078 | -.1806 |
| 8    | -2.50  | .1855 | -.0155 | -.0093 | .0728  | -.0092 | -.1190 |
| 9    | .00    | .1754 | -.0185 | .0147  | .0638  | -.0114 | -.0491 |
| 10   | 2.50   | .1705 | -.0193 | .0089  | .0514  | -.0113 | .0225  |
| 11   | 5.00   | .1845 | -.0169 | .0021  | .0426  | -.0087 | .0842  |
| 12   | 7.60   | .1835 | -.0120 | -.0226 | .0317  | -.0109 | .1422  |
| 13   | 10.00  | .1946 | -.0052 | -.0784 | .0204  | -.0082 | .2046  |
| 14   | 15.00  | .2176 | .0246  | -.1765 | -.0088 | -.0003 | .3375  |
| 15   | 20.00  | .2447 | .0777  | -.2699 | -.0381 | .0035  | .4733  |
| 16   | .00    | .1805 | -.0197 | .0221  | .0634  | -.0093 | -.0514 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1782 | .0954  | .0590  | .0627  | -.0123 | -.0481 |
| 3    | .00    | .1682 | -.0182 | .0180  | .0636  | -.0134 | -.0489 |
| 4    | -20.00 | .2851 | -.0694 | -.2486 | .1424  | .0032  | -.5640 |
| 5    | -15.00 | .2525 | -.0486 | -.1839 | .1206  | -.0028 | -.4365 |
| 6    | -10.00 | .2215 | -.0348 | -.1022 | .1016  | -.0080 | -.3025 |
| 7    | -5.00  | .1901 | -.0251 | -.0267 | .0788  | -.0073 | -.1791 |
| 8    | -2.50  | .1855 | -.0207 | -.0072 | .0728  | -.0091 | -.1182 |
| 9    | .00    | .1754 | -.0185 | .0147  | .0638  | -.0114 | -.0491 |
| 10   | 2.50   | .1705 | -.0202 | .0063  | .0514  | -.0112 | .0216  |
| 11   | 5.00   | .1845 | -.0242 | -.0020 | .0426  | -.0086 | .0824  |
| 12   | 7.60   | .1835 | -.0308 | -.0301 | .0317  | -.0113 | .1393  |
| 13   | 10.00  | .1946 | -.0408 | -.0849 | .0204  | -.0106 | .2005  |
| 14   | 15.00  | .2176 | -.0640 | -.1709 | -.0088 | -.0089 | .3323  |
| 15   | 20.00  | .2447 | -.0897 | -.2471 | -.0381 | -.0141 | .4712  |
| 16   | .00    | .1805 | -.0197 | .0221  | .0634  | -.0093 | -.0514 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 478

RUN 602 CONFIG F P B NP5 W7 T19 BT IN=-3.5 XN=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | 0           | 0     |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | 10.0      | .0      | 376.6       | 64.25       | -246.        | -61.         | 50.          | 4.77        | 55.01 | 128.62  | 3860.  |
| 3       | -0.0      | .0      | 66.2        | -6.39       | 1.           | -60.         | 41.          | 8.92        | 55.38 | 129.06  | 11270. |
| 4       | 10.0      | .0      | 377.2       | 22.68       | -260.        | -80.         | 49.          | 5.33        | 55.63 | 129.36  | 11280. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI | CL     | CD     | CPM    | CYM    | CRM   | CY    |
|------|-----|--------|--------|--------|--------|-------|-------|
| 2    | .00 | 1.0178 | .1736  | -.0792 | -.0037 | .0030 | .0129 |
| 3    | .00 | .1789  | -.0173 | .0005  | -.0036 | .0025 | .0241 |
| 4    | .00 | 1.0194 | .0613  | -.0839 | -.0048 | .0030 | .0144 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|-----|--------|--------|--------|--------|-------|-------|
| 2    | .00 | 1.0178 | .1736  | -.0792 | -.0037 | .0030 | .0129 |
| 3    | .00 | .1789  | -.0173 | .0005  | -.0036 | .0025 | .0241 |
| 4    | .00 | 1.0194 | .0613  | -.0839 | -.0048 | .0030 | .0144 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 603 CONFIG F P B NP5 W7 T19 BT IN=-3.5 XN=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | 0           | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 67.5        | -6.07       | -38.         | -51.         | 6.           | 9.71        | 54.39 | 127.89  | 11170. |
| 3       | 10.0      | .0      | 381.8       | 23.43       | -261.        | -79.         | 103.         | 5.36        | 54.61 | 128.15  | 11150. |
| 5       | 10.0      | -15.0   | 387.2       | 45.74       | -954.        | 303.         | -204.        | -107.41     | 55.25 | 128.90  | 11160. |
| 6       | 10.0      | -10.0   | 384.1       | 32.24       | -603.        | 269.         | -94.         | -68.94      | 55.19 | 128.84  | 11180. |
| 7       | 10.0      | -5.0    | 384.8       | 26.01       | -311.        | 80.          | 50.          | -31.95      | 54.91 | 128.50  | 11140. |
| 8       | 10.0      | -2.5    | 380.4       | 24.40       | -271.        | 17.          | 48.          | -14.53      | 55.11 | 128.74  | 11140. |
| 9       | 10.0      | .0      | 379.4       | 23.74       | -250.        | -80.         | 103.         | 4.57        | 55.21 | 128.87  | 11140. |
| 10      | 10.0      | 2.5     | 381.2       | 24.16       | -288.        | -163.        | 158.         | 24.72       | 55.39 | 129.07  | 11140. |
| 11      | 10.0      | 5.0     | 379.5       | 25.80       | -391.        | -193.        | 152.         | 41.08       | 54.98 | 128.59  | 11170. |
| 12      | 10.0      | 10.0    | 379.1       | 32.01       | -719.        | -304.        | 268.         | 78.85       | 54.82 | 128.40  | 11140. |
| 13      | 10.0      | 15.0    | 380.2       | 43.48       | -1058.       | -335.        | 354.         | 118.54      | 55.00 | 128.61  | 11160. |
| 14      | 10.0      | 20.0    | 379.7       | 69.21       | -1222.       | -1199.       | 436.         | 172.33      | 54.64 | 128.17  | 11170. |
| 15      | 10.0      | -20.0   | 386.5       | 66.46       | -1222.       | 805.         | -267.        | -154.96     | 55.09 | 128.72  | 11140. |
| 16      | 10.0      | .0      | 384.3       | 24.21       | -249.        | -81.         | 85.          | 6.47        | 54.74 | 128.30  | 11150. |
| 17      | 10.0      | 20.0    | 376.1       | 68.80       | -1197.       | -1184.       | 428.         | 170.66      | 55.33 | 129.00  | 11170. |
| 18      | 10.0      | 15.0    | 384.1       | 43.78       | -1046.       | -327.        | 370.         | 118.52      | 54.84 | 128.42  | 11150. |
| 19      | 10.0      | 16.3    | 382.8       | 48.46       | -1126.       | -496.        | 397.         | 129.56      | 55.01 | 128.61  | 11150. |
| 20      | 10.0      | 17.5    | 378.2       | 53.26       | -1190.       | -693.        | 442.         | 140.93      | 55.31 | 128.97  | 11150. |
| 21      | 10.0      | .0      | 375.3       | 63.64       | -180.        | -78.         | 14.          | 6.18        | 55.10 | 128.73  | 3860.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .1825  | -.0164 | -.0122 | -.0031 | .0003  | .0262  |
| 3    | .00    | 1.0318 | .0633  | -.0842 | -.0048 | .0062  | .0145  |
| 5    | -15.00 | 1.0464 | .1236  | -.3075 | .0183  | -.0123 | -.2903 |
| 6    | -10.00 | 1.0382 | .0871  | -.1944 | .0162  | -.0057 | -.1863 |
| 7    | -5.00  | 1.0400 | .0703  | -.1002 | .0048  | .0030  | -.0864 |
| 8    | -2.50  | 1.0281 | .0659  | -.0874 | .0010  | .0029  | -.0393 |
| 9    | .00    | 1.0255 | .0642  | -.0806 | -.0048 | .0062  | .0123  |
| 10   | 2.50   | 1.0303 | .0653  | -.0930 | -.0099 | .0096  | .0668  |
| 11   | 5.00   | 1.0257 | .0697  | -.1261 | -.0117 | .0092  | .1110  |
| 12   | 10.00  | 1.0247 | .0865  | -.2318 | -.0183 | .0162  | .2131  |
| 13   | 15.00  | 1.0277 | .1175  | -.3410 | -.0202 | .0214  | .3204  |
| 14   | 20.00  | 1.0262 | .1871  | -.3940 | -.0724 | .0263  | .4658  |
| 15   | -20.00 | 1.0447 | .1796  | -.3940 | .0486  | -.0161 | -.4188 |
| 16   | .00    | 1.0387 | .0654  | -.0802 | -.0049 | .0051  | .0175  |
| 17   | 20.00  | 1.0164 | .1859  | -.3860 | -.0715 | .0259  | .4612  |
| 18   | 15.00  | 1.0380 | .1183  | -.3371 | -.0197 | .0223  | .3203  |
| 19   | 16.30  | 1.0347 | .1310  | -.3631 | -.0300 | .0240  | .3501  |
| 20   | 17.50  | 1.0221 | .1439  | -.3835 | -.0419 | .0267  | .3809  |
| 21   | .00    | 1.0143 | .1720  | -.0580 | -.0047 | .0008  | .0167  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .1825  | -.0164 | -.0122 | -.0031 | .0003  | .0262  |
| 3    | .00    | 1.0318 | .0633  | -.0842 | -.0048 | .0062  | .0145  |
| 5    | -15.00 | 1.0464 | .0439  | -.2798 | .0183  | .0031  | -.3125 |
| 6    | -10.00 | 1.0382 | .0533  | -.1861 | .0162  | .0007  | -.1987 |
| 7    | -5.00  | 1.0400 | .0625  | -.1012 | .0048  | .0047  | -.0922 |
| 8    | -2.50  | 1.0281 | .0641  | -.0880 | .0010  | .0036  | -.0421 |
| 9    | .00    | 1.0255 | .0642  | -.0806 | -.0048 | .0062  | .0123  |
| 10   | 2.50   | 1.0303 | .0623  | -.0907 | -.0099 | .0088  | .0696  |
| 11   | 5.00   | 1.0257 | .0597  | -.1213 | -.0117 | .0071  | .1167  |
| 12   | 10.00  | 1.0247 | .0480  | -.2132 | -.0183 | .0084  | .2249  |
| 13   | 15.00  | 1.0277 | .0302  | -.2997 | -.0202 | .0040  | .3399  |
| 14   | 20.00  | 1.0262 | .0157  | -.3218 | -.0724 | -.0006 | .5017  |
| 15   | -20.00 | 1.0447 | .0248  | -.3405 | .0486  | .0102  | -.4550 |
| 16   | .00    | 1.0387 | .0654  | -.0802 | -.0049 | .0051  | .0175  |
| 17   | 20.00  | 1.0164 | .0162  | -.3150 | -.0715 | -.0005 | .4971  |
| 18   | 15.00  | 1.0380 | .0310  | -.2945 | -.0197 | .0052  | .3401  |
| 19   | 16.30  | 1.0347 | .0269  | -.3123 | -.0300 | .0038  | .3729  |
| 20   | 17.50  | 1.0221 | .0222  | -.3226 | -.0419 | .0037  | .4066  |
| 21   | .00    | 1.0143 | .1720  | -.0580 | -.0047 | .0008  | .0167  |



RUN 604 CONFIG F P B NPS W7 T19 H1 IN=-3,5

| PK      | Q DELF    | Q DELA  | Q IHT       | Q DELE      | Q DELR       | Q DELSB      | Q            | V           | RPM   |        |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|--------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  |        |
| 2       | -10,0     | ,0      | -265,3      | 15,68       | 840,         | -39,         | -52,         | 8,81        | 54,52 | 128,04 | 11120, |
| 3       | -10,0     | -20,0   | -189,8      | 58,78       | -169,        | 1849,        | -141,        | -180,87     | 54,45 | 127,95 | 11130, |
| 4       | -10,0     | -17,5   | -199,5      | 48,94       | -26,         | 1667,        | -88,         | -159,22     | 55,11 | 128,74 | 11160, |
| 5       | -10,0     | -15,0   | -214,4      | 40,00       | 80,          | 1410,        | -78,         | -134,69     | 54,86 | 128,44 | 11160, |
| 6       | -10,0     | -10,0   | -235,2      | 28,66       | 373,         | 415,         | -225,        | -63,88      | 55,03 | 128,64 | 11150, |
| 7       | -10,0     | -5,0    | -256,9      | 19,68       | 614,         | 491,         | -33,         | -39,31      | 55,11 | 128,74 | 11140, |
| 8       | -10,0     | -2,5    | -261,3      | 17,49       | 797,         | 257,         | -86,         | -16,32      | 55,11 | 126,74 | 11140, |
| 9       | -10,0     | ,0      | -263,5      | 16,50       | 741,         | -34,         | -52,         | 9,30        | 54,93 | 128,52 | 11190, |
| 10      | -10,0     | 2,5     | -259,9      | 17,61       | 714,         | -174,        | -133,        | 31,85       | 55,08 | 128,70 | 11190, |
| 11      | -10,0     | 5,0     | -253,8      | 19,62       | 602,         | -421,        | -158,        | 53,78       | 54,73 | 128,28 | 11160, |
| 12      | -10,0     | 10,0    | -233,8      | 23,80       | 341,         | -878,        | -141,        | 100,39      | 55,31 | 128,98 | 11130, |
| 13      | -10,0     | 15,0    | -207,9      | 37,12       | 30,          | -1542,       | -17,         | 152,36      | 55,54 | 129,25 | 11170, |
| 14      | -10,0     | 17,5    | -198,9      | 46,55       | -107,        | -1751,       | 99,          | 175,23      | 54,88 | 128,46 | 11170, |
| 15      | -10,0     | 20,0    | -194,8      | 58,03       | -249,        | -1892,       | 66,          | 194,05      | 55,09 | 128,71 | 11160, |
| 16      | -10,0     | -10,0   | -233,0      | 28,08       | 363,         | 849,         | 58,          | -83,07      | 55,69 | 129,42 | 11140, |
| 17      | -10,0     | ,0      | -263,2      | 17,42       | 736,         | -25,         | -34,         | 9,13        | 55,21 | 128,85 | 11130, |
| 18      | -10,0     | ,0      | -232,2      | 54,26       | 965,         | -27,         | -68,         | 8,52        | 55,60 | 129,32 | 3650,  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | ,00    | -.7170 | ,0424 | ,2708  | -.0024 | -.0031 | ,0238  |
| 3    | -20,00 | -.5129 | ,1589 | -.0543 | ,1117  | -.0085 | -.4888 |
| 4    | -17,50 | -.5391 | ,1323 | -.0085 | ,1007  | -.0053 | -.4303 |
| 5    | -15,00 | -.5795 | ,1103 | ,0257  | ,0852  | -.0047 | -.3640 |
| 6    | -10,00 | -.6358 | ,0775 | ,1202  | ,0250  | -.0136 | -.1727 |
| 7    | -5,00  | -.6944 | ,0532 | ,1979  | ,0297  | -.0020 | -.1063 |
| 8    | -2,50  | -.7063 | ,0473 | ,2569  | ,0156  | -.0052 | -.0441 |
| 9    | ,00    | -.7122 | ,0446 | ,2389  | -.0021 | -.0032 | ,0251  |
| 10   | 2,50   | -.7024 | ,0476 | ,2303  | -.0117 | -.0080 | ,0861  |
| 11   | 5,00   | -.6859 | ,0530 | ,1940  | -.0254 | -.0096 | ,1453  |
| 12   | 10,00  | -.6320 | ,0645 | ,1098  | -.0530 | -.0085 | ,2713  |
| 13   | 15,00  | -.5618 | ,1003 | ,0097  | -.0931 | -.0011 | ,4118  |
| 14   | 17,50  | -.5376 | ,1258 | -.0345 | -.1057 | ,0060  | ,4736  |
| 15   | 20,00  | -.5265 | ,1568 | -.0803 | -.1137 | ,0040  | ,5245  |
| 16   | -10,00 | -.6297 | ,0759 | ,1170  | ,0513  | ,0035  | -.2245 |
| 17   | ,00    | -.7113 | ,0471 | ,2373  | -.0015 | -.0021 | ,0247  |
| 18   | ,00    | -.6277 | ,1467 | ,3110  | -.0017 | -.0041 | ,0230  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDP    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | ,00    | -.7170 | ,0424  | ,2708  | -.0024 | -.0031 | ,0238  |
| 3    | -20,00 | -.5129 | -.0187 | -.0354 | ,1117  | -.0045 | -.5137 |
| 4    | -17,50 | -.5391 | -.0039 | ,0005  | ,1007  | -.0046 | -.4502 |
| 5    | -15,00 | -.5795 | ,0118  | ,0314  | ,0852  | -.0058 | -.3802 |
| 6    | -10,00 | -.6358 | ,0462  | ,1310  | ,0250  | -.0173 | -.1835 |
| 7    | -5,00  | -.6944 | ,0437  | ,1981  | ,0297  | -.0052 | -.1105 |
| 8    | -2,50  | -.7063 | ,0453  | ,2579  | ,0156  | -.0073 | -.0461 |
| 9    | ,00    | -.7122 | ,0446  | ,2389  | -.0021 | -.0032 | ,0251  |
| 10   | 2,50   | -.7024 | ,0436  | ,2283  | -.0117 | -.0061 | ,0881  |
| 11   | 5,00   | -.6859 | ,0401  | ,1888  | -.0254 | -.0063 | ,1494  |
| 12   | 10,00  | -.6320 | ,0162  | ,1002  | -.0530 | -.0048 | ,2784  |

|    |        |        |        |        |        |        |        |
|----|--------|--------|--------|--------|--------|--------|--------|
| 13 | 15,00  | -.5618 | -.0102 | ,0077  | -.0931 | -.0005 | ,4237  |
| 14 | 17,50  | -.5376 | -.0231 | -.0233 | -.1057 | ,0037  | ,4895  |
| 15 | 20,00  | -.5265 | -.0329 | -.0681 | -.1137 | -.0014 | ,5464  |
| 16 | -10,00 | -.6297 | ,0356  | ,1119  | ,0513  | -.0004 | -.2343 |
| 17 | ,00    | -.7113 | ,0471  | ,2373  | -.0015 | -.0021 | ,0247  |
| 18 | ,00    | -.6277 | ,1467  | ,3110  | -.0017 | -.0041 | ,0230  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P481

RUN 605 CONFIG F P B NP5 W7 T35 BT IN=-3.5 XN=0

| PT. NO. | O DELF    |         | O DELA      |             | O IHT        |              | O DELE       |             | O DELR |         | O DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | V KNOTS |         |  |     |
| 5       | .0        | .0      | 63.1        | 32.26       | 152.         | -68.         | 5.           | 10.36       | 54.92  | 128.52  | 3540.   |  |     |
| 6       | .0        | .0      | 65.1        | -7.42       | 33.          | -70.         | -12.         | 9.66        | 54.68  | 128.23  | 11340.  |  |     |
| 7       | .0        | -20.0   | 102.1       | 40.99       | -900.        | 1546.        | -132.        | -186.76     | 54.88  | 128.47  | 11330.  |  |     |
| 8       | .0        | -15.0   | 90.2        | 19.22       | -602.        | 1110.        | -77.         | -137.33     | 54.94  | 128.54  | 11330.  |  |     |
| 9       | .0        | -10.0   | 78.6        | 3.31        | -267.        | 665.         | -0.          | -86.59      | 55.66  | 129.40  | 11330.  |  |     |
| 10      | .0        | -5.0    | 70.2        | -4.67       | -65.         | 281.         | -3.          | -41.72      | 55.45  | 129.14  | 11360.  |  |     |
| 12      | .0        | -2.5    | 67.2        | -6.31       | 15.          | 117.         | 45.          | -17.88      | 55.62  | 129.34  | 11340.  |  |     |
| 13      | .0        | .0      | 67.2        | -6.72       | 28.          | -74.         | 42.          | 8.14        | 55.22  | 128.87  | 11340.  |  |     |
| 14      | .0        | 2.5     | 65.6        | -6.22       | -38.         | -182.        | 9.           | 32.95       | 55.30  | 128.97  | 11350.  |  |     |
| 15      | .0        | 5.0     | 66.4        | -4.60       | -69.         | -314.        | -17.         | 54.15       | 55.55  | 129.26  | 11340.  |  |     |
| 16      | .0        | 10.0    | 76.8        | 1.78        | -366.        | -744.        | 51.          | 100.75      | 55.14  | 128.78  | 11330.  |  |     |
| 17      | .0        | 15.0    | 85.1        | 14.52       | -673.        | -1094.       | 144.         | 147.23      | 54.93  | 128.52  | 11330.  |  |     |
| 18      | .0        | 20.0    | 92.5        | 36.05       | -991.        | -1613.       | 182.         | 195.43      | 55.26  | 128.91  | 11320.  |  |     |
| 19      | .0        | .0      | 65.0        | -7.11       | 54.          | -65.         | -11.         | 8.91        | 54.66  | 128.21  | 11310.  |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 5    | .00    | .1841 | .0872  | .0491  | -.0041 | .0003  | .0280  |
| 6    | .00    | .1787 | -.0201 | .0106  | -.0042 | -.0007 | .0261  |
| 7    | -20.00 | .2760 | .1108  | -.2900 | .0934  | -.0080 | -.5048 |
| 8    | -15.00 | .2437 | .0519  | -.1941 | .0670  | -.0047 | -.3712 |
| 9    | -10.00 | .2123 | .0089  | -.0862 | .0402  | -.0000 | -.2340 |
| 10   | -5.00  | .1896 | -.0126 | -.0210 | .0170  | -.0002 | -.1127 |
| 12   | -2.50  | .1815 | -.0171 | .0049  | .0071  | .0027  | -.0483 |
| 13   | .00    | .1816 | -.0182 | .0090  | -.0045 | .0026  | .0220  |
| 14   | 2.50   | .1773 | -.0168 | -.0122 | -.0110 | .0005  | .0891  |
| 15   | 5.00   | .1795 | -.0124 | -.0224 | -.0190 | -.0010 | .1463  |
| 16   | 10.00  | .2077 | .0048  | -.1179 | -.0450 | .0031  | .2723  |
| 17   | 15.00  | .2299 | .0392  | -.2171 | -.0661 | .0087  | .3979  |
| 18   | 20.00  | .2499 | .0974  | -.3195 | -.0975 | .0110  | .5282  |
| 19   | .00    | .1758 | -.0192 | .0175  | -.0039 | -.0007 | .0241  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 5    | .00    | .1841 | .0872  | .0491  | -.0041 | .0003  | .0280  |
| 6    | .00    | .1787 | -.0201 | .0106  | -.0042 | -.0007 | .0261  |
| 7    | -20.00 | .2760 | -.0693 | -.2577 | .0934  | .0112  | -.5121 |
| 8    | -15.00 | .2437 | -.0463 | -.1809 | .0670  | .0050  | -.3719 |
| 9    | -10.00 | .2123 | -.0320 | -.0849 | .0402  | .0028  | -.2320 |
| 10   | -5.00  | .1896 | -.0225 | -.0209 | .0170  | .0002  | -.1112 |
| 12   | -2.50  | .1815 | -.0192 | .0043  | .0071  | .0027  | -.0475 |
| 13   | .00    | .1816 | -.0182 | .0090  | -.0045 | .0026  | .0220  |
| 14   | 2.50   | .1773 | -.0207 | -.0121 | -.0110 | .0004  | .0882  |
| 15   | 5.00   | .1795 | -.0252 | -.0228 | -.0190 | -.0014 | .1447  |
| 16   | 10.00  | .2077 | -.0428 | -.1132 | -.0450 | -.0008 | .2690  |
| 17   | 15.00  | .2299 | -.0656 | -.1975 | -.0661 | -.0022 | .3944  |
| 18   | 20.00  | .2499 | -.0899 | -.2799 | -.0975 | -.0102 | .5295  |
| 19   | .00    | .1758 | -.0192 | .0175  | -.0039 | -.0007 | .0241  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 482

RUN 606 CONFIG F P B NP5 W7 T2 IN=-3.5 XN=0

| PT. NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 0 IHT<br>COBAR<br>SQ-FT | 0 IHT<br>CPMBAR<br>CU-FT | - DELE<br>CYMBAR<br>CU-FT | - DELR<br>CRMBAR<br>CU-FT | - DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM   |
|---------|------------------------|----------------------|-------------------------|-------------------------|--------------------------|---------------------------|---------------------------|---------------------------|----------|------------|-------|
| 5       | .0                     | .0                   | 85.7                    | 29.14                   | -371.                    | 30.                       | 10.                       | 6.31                      | 55.03    | 128.65     | 3550. |
| 6       | -20.0                  | .0                   | -260.8                  | 138.68                  | -827.                    | 23.                       | -162.                     | 1.55                      | 54.95    | 128.54     | 3850. |
| 7       | -15.0                  | .0                   | -229.2                  | 84.97                   | -704.                    | -132.                     | 275.                      | 12.44                     | 54.77    | 128.33     | 3770. |
| 8       | -10.0                  | .0                   | -177.5                  | 45.66                   | -764.                    | 40.                       | -12.                      | 6.39                      | 54.91    | 128.50     | 3620. |
| 9       | -5.0                   | .0                   | -55.0                   | 29.06                   | -733.                    | 26.                       | -9.                       | 5.87                      | 55.11    | 128.74     | 3450. |
| 10      | -2.5                   | .0                   | 14.4                    | 27.53                   | -561.                    | 22.                       | -26.                      | 6.00                      | 55.04    | 128.66     | 3490. |
| 11      | .0                     | .0                   | 85.2                    | 29.12                   | -337.                    | 28.                       | 44.                       | 7.25                      | 54.94    | 128.54     | 3540. |
| 12      | 2.5                    | .0                   | 156.1                   | 32.83                   | -240.                    | 26.                       | 29.                       | 5.43                      | 54.63    | 128.16     | 3600. |
| 13      | 5.0                    | .0                   | 228.6                   | 39.14                   | -79.                     | 17.                       | 67.                       | 3.60                      | 54.84    | 128.42     | 3670. |
| 14      | 10.0                   | .0                   | 358.3                   | 58.64                   | -381.                    | 1.                        | 86.                       | 3.23                      | 54.90    | 128.48     | 3850. |
| 15      | 15.0                   | .0                   | 468.3                   | 87.99                   | 793.                     | -14.                      | 105.                      | 3.46                      | 55.08    | 128.70     | 4020. |
| 16      | 20.0                   | .0                   | 476.0                   | 132.50                  | 1081.                    | -16.                      | 124.                      | 2.92                      | 54.91    | 128.50     | 4100. |
| 17      | .0                     | .0                   | 82.5                    | 29.07                   | -386.                    | 22.                       | -9.                       | 6.76                      | 55.43    | 129.12     | 3560. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 5    | .01    | .2317  | .0788 | -.1195 | .0018  | .0006  | .0171 |
| 6    | -19.99 | -.7049 | .3748 | -.2666 | .0014  | -.0098 | .0042 |
| 7    | -15.00 | -.6196 | .2297 | -.2271 | -.0079 | .0166  | .0336 |
| 8    | -10.00 | -.4797 | .1234 | -.2464 | .0024  | -.0007 | .0173 |
| 9    | -5.00  | -.1487 | .0785 | -.2364 | .0016  | -.0006 | .0159 |
| 10   | -2.49  | .0390  | .0744 | -.1807 | .0013  | -.0016 | .0162 |
| 11   | .00    | .2302  | .0787 | -.1086 | .0017  | .0026  | .0196 |
| 12   | 2.50   | .4219  | .0887 | -.0774 | .0016  | .0018  | .0147 |
| 13   | 5.00   | .6177  | .1058 | -.0256 | .0010  | .0041  | .0097 |
| 14   | 10.01  | .9685  | .1585 | .1229  | .0000  | .0052  | .0087 |
| 15   | 15.01  | 1.2658 | .2378 | .2558  | -.0009 | .0063  | .0094 |
| 16   | 20.01  | 1.2866 | .3581 | .3487  | -.0010 | .0075  | .0079 |
| 17   | .00    | .2230  | .0786 | -.1245 | .0013  | -.0005 | .0183 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 5    | .01    | .2317  | .0788 | -.1195 | .0018  | .0006  | .0171 |
| 6    | -19.99 | -.7049 | .3748 | -.2666 | .0014  | -.0098 | .0042 |
| 7    | -15.00 | -.6196 | .2297 | -.2271 | -.0079 | .0166  | .0336 |
| 8    | -10.00 | -.4797 | .1234 | -.2464 | .0024  | -.0007 | .0173 |
| 9    | -5.00  | -.1487 | .0785 | -.2364 | .0016  | -.0006 | .0159 |
| 10   | -2.49  | .0390  | .0744 | -.1807 | .0013  | -.0016 | .0162 |
| 11   | .00    | .2302  | .0787 | -.1086 | .0017  | .0026  | .0196 |
| 12   | 2.50   | .4219  | .0887 | -.0774 | .0016  | .0018  | .0147 |
| 13   | 5.00   | .6177  | .1058 | -.0256 | .0010  | .0041  | .0097 |
| 14   | 10.01  | .9685  | .1585 | .1229  | .0000  | .0052  | .0087 |
| 15   | 15.01  | 1.2658 | .2378 | .2558  | -.0009 | .0063  | .0094 |
| 16   | 20.01  | 1.2866 | .3581 | .3487  | -.0010 | .0075  | .0079 |
| 17   | .00    | .2230  | .0786 | -.1245 | .0013  | -.0005 | .0183 |

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RUN 607 CONFIG F P B NP5 W7 T2 IN=-3,5 XN=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA PSF | DELTA V KNOTS | RPM    |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-----------|---------------|--------|
| 1       | .0        | .0            | 81.0              | -7.01             | -434.              | 27.                | 9.                 | 6.98              | 54.70     | 128.25        | 10890. |
| 2       | -20.0     | .0            | -325.1            | 100.67            | -1089.             | 37.                | -149.              | 3.48              | 54.78     | 128.34        | 10940. |
| 3       | -15.0     | .0            | -279.9            | 50.14             | -961.              | 52.                | -148.              | 3.69              | 55.38     | 129.06        | 10920. |
| 4       | -10.0     | .0            | -208.4            | 9.08              | -952.              | 54.                | -13.               | 6.88              | 55.43     | 129.12        | 10920. |
| 5       | -5.0      | .0            | -68.1             | -5.64             | -790.              | 30.                | -25.               | 4.83              | 55.68     | 129.42        | 10920. |
| 6       | -2.5      | .0            | 9.4               | -7.85             | -608.              | 27.                | 27.                | 5.48              | 55.31     | 128.98        | 10890. |
| 7       | .0        | .0            | 80.1              | -6.99             | -446.              | 21.                | 28.                | 5.84              | 54.87     | 128.45        | 10890. |
| 8       | 2.5       | .0            | 152.4             | -3.65             | -278.              | 26.                | 11.                | 6.49              | 55.24     | 128.89        | 10870. |
| 9       | 5.0       | .0            | 228.0             | 1.87              | -51.               | 27.                | 68.                | 4.21              | 54.19     | 127.64        | 10880. |
| 10      | 10.0      | .0            | 361.9             | 20.29             | 405.               | -9.                | 122.               | 2.16              | 55.16     | 128.80        | 10900. |
| 11      | 15.0      | .0            | 472.8             | 50.08             | 834.               | -20.               | 140.               | 2.72              | 55.18     | 128.82        | 10850. |
| 12      | 20.0      | .0            | 495.6             | 95.61             | 1142.              | -9.                | 158.               | 3.20              | 55.43     | 129.12        | 10920. |
| 13      | -0        | .0            | 77.5              | -7.28             | -429.              | 23.                | 11.                | 5.54              | 54.75     | 128.31        | 10890. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 1    | .00    | .2190  | -.0189 | -.1399 | .0016  | .0005  | .0189 |
| 2    | -20.00 | -.8786 | .2721  | -.3510 | .0023  | -.0090 | .0094 |
| 3    | -15.00 | -.7564 | .1355  | -.3097 | .0031  | -.0089 | .0100 |
| 4    | -9.99  | -.5631 | .0245  | -.3069 | .0032  | -.0008 | .0186 |
| 5    | -5.00  | -.1840 | -.0152 | -.2547 | .0018  | -.0015 | .0131 |
| 6    | -2.50  | .0255  | -.0212 | -.1959 | .0016  | .0016  | .0148 |
| 7    | .00    | .2164  | -.0189 | -.1439 | .0013  | .0017  | .0158 |
| 8    | 2.50   | .4118  | -.0099 | -.0897 | .0016  | .0007  | .0148 |
| 9    | 5.01   | .6163  | .0050  | -.0164 | .0016  | .0041  | .0114 |
| 10   | 10.00  | .9781  | .0548  | .1305  | -.0006 | .0074  | .0058 |
| 11   | 15.00  | 1.2779 | .1354  | .2689  | -.0012 | .0085  | .0073 |
| 12   | 20.00  | 1.3394 | .2584  | .3683  | -.0005 | .0095  | .0086 |
| 13   | -.00   | .2096  | -.0197 | -.1382 | .0014  | .0006  | .0150 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 1    | .00    | .2190  | -.0189 | -.1399 | .0016  | .0005  | .0189 |
| 2    | -20.00 | -.8786 | .2721  | -.3510 | .0023  | -.0090 | .0094 |
| 3    | -15.00 | -.7564 | .1355  | -.3097 | .0031  | -.0089 | .0100 |
| 4    | -9.99  | -.5631 | .0245  | -.3069 | .0032  | -.0008 | .0186 |
| 5    | -5.00  | -.1840 | -.0152 | -.2547 | .0018  | -.0015 | .0131 |
| 6    | -2.50  | .0255  | -.0212 | -.1959 | .0016  | .0016  | .0148 |
| 7    | .00    | .2164  | -.0189 | -.1439 | .0013  | .0017  | .0158 |
| 8    | 2.50   | .4118  | -.0099 | -.0897 | .0016  | .0007  | .0148 |
| 9    | 5.01   | .6163  | .0050  | -.0164 | .0016  | .0041  | .0114 |
| 10   | 10.00  | .9781  | .0548  | .1305  | -.0006 | .0074  | .0058 |
| 11   | 15.00  | 1.2779 | .1354  | .2689  | -.0012 | .0085  | .0073 |
| 12   | 20.00  | 1.3394 | .2584  | .3683  | -.0005 | .0095  | .0086 |
| 13   | -.00   | .2096  | -.0197 | -.1382 | .0014  | .0006  | .0150 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 608 CONFIG F P 8 NP5 W7 T2

| PT. NO. | W<br>ALPHA<br>DEG | O.O DELF<br>PSI<br>DEG | O.O DELA<br>CLBAR<br>SQ-FT | O.O IHT<br>CDBAR<br>SQ-FT | DELE<br>CPM BAR<br>CU-FT | DELR<br>CYM BAR<br>CU-FT | DELSB<br>CRM BAR<br>CU-FT | CYBAR<br>SQ-FT | DELSB<br>Q<br>PSF | V<br>KNOTS | RPM    |
|---------|-------------------|------------------------|----------------------------|---------------------------|--------------------------|--------------------------|---------------------------|----------------|-------------------|------------|--------|
| 2       | 0                 | 0                      | 83.8                       | 29.15                     | 375.                     | 33.                      | 9.                        | 6.87           | 55.06             | 128.68     | 3540.  |
| 3       | 0                 | 0                      | 75.2                       | -115.52                   | -566.                    | 204.                     | 50.                       | 2.93           | 54.58             | 128.11     | 22980. |
| 5       | -15.0             | 0                      | -352.3                     | -45.86                    | -1267.                   | 129.                     | 302.                      | -0.56          | 54.72             | 128.28     | 22980. |
| 6       | -10.0             | 0                      | -245.5                     | -92.13                    | -1262.                   | 231.                     | 18.                       | 0.00           | 55.08             | 128.71     | 23030. |
| 7       | -5.0              | 0                      | -78.2                      | -102.14                   | -913.                    | 189.                     | 49.                       | 2.22           | 55.35             | 129.03     | 23060. |
| 8       | -2.5              | 0                      | 2.5                        | -102.67                   | -762.                    | 168.                     | 48.                       | 2.92           | 55.93             | 129.71     | 23020. |
| 9       | 0                 | 0                      | 77.8                       | -105.55                   | -581.                    | 152.                     | 68.                       | 2.23           | 54.94             | 128.54     | 23020. |
| 11      | 5.0               | 0                      | 233.9                      | -95.40                    | -121.                    | 130.                     | 106.                      | 0.31           | 54.69             | 128.24     | 23000. |
| 12      | 10.0              | 0                      | 376.9                      | -70.08                    | 352.                     | 84.                      | 178.                      | -1.31          | 54.81             | 128.38     | 22840. |
| 13      | 15.0              | 0                      | 493.6                      | -40.94                    | 813.                     | 76.                      | 211.                      | 0.43           | 55.14             | 128.77     | 23020. |
| 14      | 20.0              | 0                      | 530.9                      | 5.03                      | 1150.                    | 73.                      | 229.                      | -1.37          | 54.87             | 128.45     | 23060. |
| 15      | 0                 | 0                      | 77.4                       | -96.76                    | -536.                    | 118.                     | 66.                       | 3.47           | 54.94             | 128.54     | 23030. |
| 16      | 2.5               | 0                      | 155.2                      | -93.25                    | -344.                    | 102.                     | 85.                       | 3.29           | 54.90             | 128.50     | 23060. |

\*\*\* COEFFICIENT FORM WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM   | CRM   | CY     |
|------|--------|--------|--------|--------|-------|-------|--------|
| 2    | 00     | .2265  | .0788  | -.1209 | .0020 | .0005 | .0186  |
| 3    | 00     | .2032  | -.3122 | -.1824 | .0123 | .0030 | .0079  |
| 5    | -15.00 | -.9521 | -.1240 | -.4086 | .0078 | .0183 | -.0015 |
| 6    | -10.00 | -.6635 | -.2490 | -.4069 | .0140 | .0011 | .0000  |
| 7    | -4.99  | -.2114 | -.2761 | -.2944 | .0114 | .0030 | .0060  |
| 8    | -2.50  | .0068  | -.2775 | -.2458 | .0101 | .0029 | .0079  |
| 9    | 00     | .2103  | -.2853 | -.1872 | .0092 | .0041 | .0060  |
| 11   | 5.00   | .6322  | -.2578 | -.0389 | .0078 | .0064 | .0008  |
| 12   | 10.00  | 1.0186 | -.1894 | .1136  | .0051 | .0107 | -.0035 |
| 13   | 15.01  | 1.3340 | -.1106 | .2622  | .0046 | .0127 | -.0012 |
| 14   | 20.05  | 1.4350 | .0136  | .3708  | .0044 | .0138 | -.0037 |
| 15   | 00     | .2091  | -.2615 | -.1729 | .0071 | .0040 | .0094  |
| 16   | 2.50   | .4195  | -.2520 | -.1110 | .0062 | .0051 | .0089  |

\*\*\* COEFFICIENT FORM STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB  | CRMB  | CYB    |
|------|--------|--------|--------|--------|-------|-------|--------|
| 2    | 00     | .2265  | .0788  | -.1209 | .0020 | .0005 | .0186  |
| 3    | 00     | .2032  | -.3122 | -.1824 | .0123 | .0030 | .0079  |
| 5    | -15.00 | -.9521 | -.1240 | -.4086 | .0078 | .0183 | -.0015 |
| 6    | -10.00 | -.6635 | -.2490 | -.4069 | .0140 | .0011 | .0000  |
| 7    | -4.99  | -.2114 | -.2761 | -.2944 | .0114 | .0030 | .0060  |
| 8    | -2.50  | .0068  | -.2775 | -.2458 | .0101 | .0029 | .0079  |
| 9    | 00     | .2103  | -.2853 | -.1872 | .0092 | .0041 | .0060  |
| 11   | 5.00   | .6322  | -.2578 | -.0389 | .0078 | .0064 | .0008  |
| 12   | 10.00  | 1.0186 | -.1894 | .1136  | .0051 | .0107 | -.0035 |
| 13   | 15.01  | 1.3340 | -.1106 | .2622  | .0046 | .0127 | -.0012 |
| 14   | 20.05  | 1.4350 | .0136  | .3708  | .0044 | .0138 | -.0037 |
| 15   | 00     | .2091  | -.2615 | -.1729 | .0071 | .0040 | .0094  |
| 16   | 2.50   | .4195  | -.2520 | -.1110 | .0062 | .0051 | .0089  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 609 CONFIG F P B NP5 W7 T2

| PT. NO. | ALPHA DEG | DELTA PSI | CLBAR SQ=FT | CDBAR SQ=FT | CPMBAR CU=FT | CYMBAR CU=FT | CRMBAR CU=FT | CYBAR SQ=FT | DELSB Q PSF | O.O. DELTA V KNOTS | RPM   |
|---------|-----------|-----------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|--------------------|-------|
| 6       | 0         | 0         | 84.4        | 29.24       | -397.        | 36.          | -10.         | 6.01        | 54.97       | 128.58             | 3540. |
| 7       | 0         | -20.0     | 103.6       | 59.94       | -549.        | -629.        | 122.         | -107.49     | 54.79       | 128.36             | 3670. |
| 8       | 0         | -15.0     | 99.2        | 46.71       | -470.        | -492.        | 140.         | -79.51      | 54.63       | 128.16             | 3640. |
| 9       | 0         | -10.0     | 94.2        | 36.40       | -476.        | -336.        | 118.         | -51.53      | 55.06       | 128.68             | 3620. |
| 10      | 0         | -5.0      | 91.2        | 31.45       | -463.        | -169.        | 61.          | -25.76      | 54.89       | 128.48             | 3590. |
| 11      | 0         | -2.5      | 87.1        | 30.16       | -411.        | -66.         | 31.          | -8.56       | 54.94       | 128.53             | 3580. |
| 12      | 0         | 0         | 86.2        | 29.54       | -431.        | 39.          | 11.          | 5.57        | 55.06       | 128.68             | 3560. |
| 13      | 0         | 2.5       | 84.5        | 30.27       | -410.        | 142.         | -26.         | 21.27       | 55.42       | 129.10             | 3530. |
| 14      | 0         | 5.0       | 83.1        | 31.66       | -379.        | 237.         | -55.         | 33.95       | 55.29       | 128.96             | 3500. |
| 15      | 0         | 10.0      | 87.4        | 36.11       | -446.        | 418.         | -89.         | 60.31       | 54.85       | 128.42             | 3440. |
| 16      | 0         | 15.0      | 90.6        | 44.36       | -433.        | 564.         | -109.        | 86.10       | 54.96       | 128.55             | 3380. |
| 17      | 0         | 20.0      | 93.7        | 57.47       | -467.        | 707.         | -115.        | 112.13      | 54.56       | 128.08             | 3310. |
| 18      | 0         | 0         | 83.3        | 29.41       | -408.        | 35.          | -8.          | 6.67        | 55.16       | 128.80             | 3540. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPH    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | 0.00   | .2280 | .0790 | -.1281 | .0022  | .0006  | .0162  |
| 7    | -20.00 | .2799 | .1620 | -.1769 | -.0380 | .0074  | -.2905 |
| 8    | -15.00 | .2681 | .1262 | -.1517 | -.0297 | .0085  | -.2149 |
| 9    | -10.00 | .2547 | .0984 | -.1534 | -.0203 | .0071  | -.1393 |
| 10   | -5.00  | .2464 | .0850 | -.1493 | -.0102 | .0037  | -.0696 |
| 11   | -2.50  | .2353 | .0815 | -.1326 | -.0040 | .0019  | -.0231 |
| 12   | 0.00   | .2330 | .0798 | -.1390 | .0023  | .0006  | .0150  |
| 13   | 2.50   | .2283 | .0818 | -.1322 | .0086  | -.0016 | .0575  |
| 14   | 5.00   | .2247 | .0856 | -.1222 | .0143  | -.0033 | .0917  |
| 15   | 10.00  | .2363 | .0976 | -.1437 | .0252  | -.0054 | .1630  |
| 16   | 15.00  | .2446 | .1199 | -.1397 | .0341  | -.0066 | .2327  |
| 17   | 20.00  | .2532 | .1553 | -.1505 | .0427  | -.0070 | .3031  |
| 18   | 0.00   | .2251 | .0795 | -.1316 | .0021  | -.0005 | .0180  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | 0.00   | .2280 | .0790 | -.1281 | .0022  | .0006  | .0162  |
| 7    | -20.00 | .2799 | .0523 | -.1796 | -.0380 | .0183  | -.3285 |
| 8    | -15.00 | .2681 | .0660 | -.1582 | -.0297 | .0156  | -.2403 |
| 9    | -10.00 | .2547 | .0726 | -.1577 | -.0203 | .0120  | -.1543 |
| 10   | -5.00  | .2464 | .0786 | -.1505 | -.0102 | .0061  | -.0768 |
| 11   | -2.50  | .2353 | .0804 | -.1329 | -.0040 | .0030  | -.0267 |
| 12   | 0.00   | .2330 | .0798 | -.1390 | .0023  | .0006  | .0150  |
| 13   | 2.50   | .2283 | .0792 | -.1324 | .0086  | -.0027 | .0610  |
| 14   | 5.00   | .2247 | .0772 | -.1233 | .0143  | -.0053 | .0989  |
| 15   | 10.00  | .2363 | .0677 | -.1466 | .0252  | -.0100 | .1775  |
| 16   | 15.00  | .2446 | .0553 | -.1441 | .0341  | -.0132 | .2559  |
| 17   | 20.00  | .2532 | .0418 | -.1541 | .0427  | -.0162 | .3380  |
| 18   | 0.00   | .2251 | .0795 | -.1316 | .0021  | -.0005 | .0180  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 610 CONFIG F P B NP5 W7 T2

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM    |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------------|--------|
| 1       | 0         | 0             | 77.2        | -6.84       | -468.        | 36.          | -42.         | 5.53        | 54.81       | 128.39        | 10910. |
| 2       | 0         | -20.0         | 97.1        | 26.64       | -577.        | -725.        | 192.         | -126.69     | 54.91       | 128.50        | 10920. |
| 3       | 0         | -15.0         | 92.3        | 12.42       | -571.        | -564.        | 102.         | -96.50      | 54.71       | 128.27        | 10920. |
| 4       | 0         | -10.0         | 87.9        | 1.38        | -497.        | -378.        | 146.         | -63.14      | 54.60       | 128.13        | 10930. |
| 5       | 0         | -5.0          | 81.5        | -4.93       | -475.        | -171.        | 82.          | -31.32      | 55.26       | 128.91        | 10930. |
| 6       | 0         | -2.5          | 81.2        | -6.40       | -493.        | -66.         | 17.          | -11.94      | 54.51       | 128.02        | 10920. |
| 7       | 0         | 0             | 78.2        | -6.76       | -471.        | 37.          | 29.          | 5.07        | 55.12       | 128.75        | 10920. |
| 8       | 0         | 2.5           | 75.8        | -6.02       | -456.        | 160.         | -44.         | 22.86       | 55.14       | 128.77        | 10930. |
| 9       | 0         | 5.0           | 78.9        | -4.64       | -440.        | 262.         | -43.         | 39.44       | 54.84       | 128.42        | 10930. |
| 10      | 0         | 10.0          | 81.8        | .22         | -456.        | 455.         | -81.         | 70.56       | 55.13       | 128.76        | 10930. |
| 11      | 0         | 15.0          | 86.7        | 9.64        | -513.        | 646.         | -89.         | 101.22      | 54.66       | 128.20        | 10940. |
| 12      | 0         | 20.0          | 86.3        | 23.60       | -519.        | 782.         | -113.        | 129.96      | 55.20       | 128.85        | 10940. |
| 13      | 0         | 0             | 81.5        | -7.03       | -441.        | 28.          | 11.          | 5.33        | 54.96       | 128.56        | 10890. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 1    | .00    | .2087 | -.0185 | -.1507 | .0022  | -.0026 | .0149  |
| 2    | -20.00 | .2625 | .0720  | -.1859 | -.0438 | .0116  | -.3424 |
| 3    | -15.00 | .2494 | .0336  | -.1840 | -.0341 | .0062  | -.2608 |
| 4    | -10.00 | .2376 | .0037  | -.1603 | -.0228 | .0088  | -.1706 |
| 5    | -5.00  | .2203 | -.0133 | -.1530 | -.0103 | .0050  | -.0846 |
| 6    | -2.50  | .2195 | -.0173 | -.1588 | -.0040 | .0010  | -.0323 |
| 7    | .00    | .2115 | -.0183 | -.1518 | .0022  | .0017  | .0137  |
| 8    | 2.50   | .2048 | -.0163 | -.1471 | .0097  | -.0027 | .0618  |
| 9    | 5.00   | .2133 | -.0125 | -.1417 | .0158  | -.0026 | .1066  |
| 10   | 10.00  | .2212 | .0006  | -.1469 | .0275  | -.0049 | .1907  |
| 11   | 15.00  | .2344 | .0260  | -.1653 | .0390  | -.0054 | .2736  |
| 12   | 20.00  | .2333 | .0638  | -.1675 | .0472  | -.0068 | .3512  |
| 13   | .00    | .2203 | -.0190 | -.1422 | .0017  | .0007  | .0144  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 1    | .00    | .2087 | -.0185 | -.1507 | .0022  | -.0026 | .0149  |
| 2    | -20.00 | .2625 | -.0500 | -.1958 | -.0438 | .0228  | -.3463 |
| 3    | -15.00 | .2494 | -.0354 | -.1863 | -.0341 | .0149  | -.2606 |
| 4    | -10.00 | .2376 | -.0261 | -.1661 | -.0228 | .0139  | -.1687 |
| 5    | -5.00  | .2203 | -.0207 | -.1547 | -.0103 | .0075  | -.0831 |
| 6    | -2.50  | .2195 | -.0187 | -.1589 | -.0040 | .0023  | -.0315 |
| 7    | .00    | .2115 | -.0183 | -.1518 | .0022  | .0017  | .0137  |
| 8    | 2.50   | .2048 | -.0190 | -.1476 | .0097  | -.0039 | .0610  |
| 9    | 5.00   | .2133 | -.0218 | -.1424 | .0158  | -.0049 | .1051  |
| 10   | 10.00  | .2212 | -.0327 | -.1492 | .0275  | -.0096 | .1879  |
| 11   | 15.00  | .2344 | -.0460 | -.1670 | .0390  | -.0132 | .2709  |
| 12   | 20.00  | .2333 | -.0608 | -.1698 | .0472  | -.0172 | .3518  |
| 13   | .00    | .2203 | -.0190 | -.1422 | .0017  | .0007  | .0144  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 611 CONFIG F P B NP5 W7 T2

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB PSF | Q KNOTS | V | RPM    |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-----------|---------|---|--------|
| 2       | 0         | 0             | 85.4        | 29.82       | -396.        | 22.          | -7.          | 5.38        | 54.42     | 127.92  |   | 3520.  |
| 3       | 0         | 0             | 70.5        | -146.50     | -639.        | 29.          | 49.          | 3.42        | 54.84     | 128.42  |   | 22950. |
| 4       | 0         | -20.0         | 89.8        | -98.74      | -753.        | -825.        | 241.         | -187.08     | 54.72     | 128.28  |   | 22970. |
| 5       | 0         | -15.0         | 85.6        | -117.26     | -779.        | -622.        | 207.         | -142.70     | 54.48     | 127.99  |   | 22960. |
| 6       | 0         | -10.0         | 79.1        | -131.65     | -648.        | -427.        | 198.         | -94.38      | 54.71     | 128.28  |   | 22960. |
| 7       | 0         | -5.0          | 75.1        | -136.24     | -693.        | -204.        | 83.          | -47.58      | 54.48     | 128.00  |   | 22940. |
| 8       | 0         | -2.5          | 72.0        | -141.40     | -688.        | -89.         | 85.          | -24.51      | 54.61     | 128.16  |   | 23000. |
| 9       | 0         | 0             | 71.2        | -143.53     | -662.        | 39.          | 66.          | 3.29        | 54.86     | 128.45  |   | 22920. |
| 10      | 0         | 2.5           | 69.3        | -144.28     | -667.        | 177.         | 56.          | 28.60       | 54.68     | 128.23  |   | 22940. |
| 11      | 0         | 5.0           | 72.7        | -143.63     | -619.        | 305.         | 49.          | 52.07       | 54.76     | 128.33  |   | 23000. |
| 12      | 0         | 10.0          | 74.0        | -137.57     | -686.        | 540.         | 32.          | 97.54       | 54.52     | 128.04  |   | 22950. |
| 13      | 0         | 15.0          | 74.5        | -124.03     | -668.        | 752.         | 11.          | 143.06      | 54.70     | 128.25  |   | 22990. |
| 14      | 0         | 20.0          | 69.8        | -105.94     | -652.        | 943.         | 32.          | 185.34      | 54.90     | 128.49  |   | 23020. |
| 15      | 0         | 0             | 72.1        | -143.94     | -637.        | 37.          | 85.          | 3.13        | 54.45     | 127.96  |   | 23000. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .2309 | .0806  | -.1278 | .0013  | -.0004 | .0145  |
| 3    | 0.00   | .1905 | -.3959 | -.2062 | .0018  | .0029  | .0092  |
| 4    | -20.00 | .2427 | -.2669 | -.2429 | -.0498 | .0146  | -.5056 |
| 5    | -15.00 | .2315 | -.3169 | -.2513 | -.0376 | .0125  | -.3857 |
| 6    | -10.00 | .2138 | -.3558 | -.2089 | -.0258 | .0120  | -.2551 |
| 7    | -5.00  | .2030 | -.3682 | -.2233 | -.0123 | .0050  | -.1286 |
| 8    | -2.50  | .1945 | -.3822 | -.2219 | -.0053 | .0051  | -.0662 |
| 9    | 0.00   | .1923 | -.3879 | -.2133 | .0024  | .0040  | .0089  |
| 10   | 2.50   | .1874 | -.3899 | -.2149 | .0107  | .0034  | .0773  |
| 11   | 5.00   | .1966 | -.3882 | -.1995 | .0185  | .0030  | .1407  |
| 12   | 10.00  | .1999 | -.3718 | -.2210 | .0326  | .0020  | .2636  |
| 13   | 15.00  | .2013 | -.3352 | -.2155 | .0454  | .0007  | .3866  |
| 14   | 20.00  | .1886 | -.2863 | -.2102 | .0569  | .0020  | .5009  |
| 15   | 0.00   | .1948 | -.3890 | -.2052 | .0022  | .0051  | .0085  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .2309 | .0806  | -.1278 | .0013  | -.0004 | .0145  |
| 3    | 0.00   | .1905 | -.3959 | -.2062 | .0018  | .0029  | .0092  |
| 4    | -20.00 | .2427 | -.4243 | -.2548 | -.0498 | .0293  | -.3832 |
| 5    | -15.00 | .2315 | -.4063 | -.2600 | -.0376 | .0243  | -.2900 |
| 6    | -10.00 | .2138 | -.3949 | -.2169 | -.0258 | .0186  | -.1891 |
| 7    | -5.00  | .2030 | -.3781 | -.2248 | -.0123 | .0087  | -.0959 |
| 8    | -2.50  | .1945 | -.3847 | -.2229 | -.0053 | .0069  | -.0494 |
| 9    | 0.00   | .1923 | -.3879 | -.2133 | .0024  | .0040  | .0089  |
| 10   | 2.50   | .1874 | -.3930 | -.2139 | .0107  | .0016  | .0601  |
| 11   | 5.00   | .1966 | -.3990 | -.1973 | .0185  | -.0003 | .1062  |
| 12   | 10.00  | .1999 | -.4121 | -.2158 | .0326  | -.0053 | .1947  |
| 13   | 15.00  | .2013 | -.4242 | -.2072 | .0454  | -.0098 | .2862  |
| 14   | 20.00  | .1886 | -.4410 | -.1938 | .0569  | -.0117 | .3721  |
| 15   | 0.00   | .1948 | -.3890 | -.2052 | .0022  | .0051  | .0085  |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER#72011  
P 488

RUN 612 CONF-IG F P B NP5 W7 T2

| IW<br>PT.# | O.O<br>ALPHA | DELF<br>PSI | O.O DELA<br>CLBAR | O.O<br>CDBAR | IHT<br>CPMBAR | O.O DELE<br>CYMBAR | O.O DELR<br>CRMBAR | O.O<br>CYBAR | DELSB<br>Q | O.O<br>V | RPM    |
|------------|--------------|-------------|-------------------|--------------|---------------|--------------------|--------------------|--------------|------------|----------|--------|
| NO.        | DEG          | DEG         | SQ-FT             | SQ-FT        | CU-FT         | CU-FT              | CU-FT              | SQ-FT        | PSF        | KNOTS    |        |
| 2          | 0.0          | 0.0         | 72.7              | -58.55       | -488.         | -551.              | 72.                | 13.26        | 54.72      | 128.28   | 23010. |
| 3          | 0.0          | -20.0       | 96.4              | -18.98       | -633.         | -1320.             | 222.               | -137.62      | 54.95      | 128.56   | 22970. |
| 4          | 0.0          | -15.0       | 91.8              | -33.97       | -591.         | -1145.             | 217.               | -103.67      | 54.71      | 128.27   | 23080. |
| 5          | 0.0          | -10.0       | 82.2              | -45.63       | -554.         | -941.              | 198.               | -64.97       | 54.90      | 128.49   | 22970. |
| 6          | 0.0          | -5.0        | 75.7              | -50.47       | -552.         | -738.              | 113.               | -29.21       | 54.57      | 128.10   | 23040. |
| 7          | 0.0          | -2.5        | 74.8              | -51.40       | -524.         | -634.              | 101.               | -8.93        | 54.92      | 128.52   | 23040. |
| 8          | 0.0          | 0.0         | 72.3              | -51.39       | -495.         | -502.              | 72.                | 12.68        | 55.09      | 128.71   | 23010. |
| 9          | 0.0          | 2.5         | 68.3              | -50.87       | -495.         | -382.              | 34.                | 31.76        | 54.91      | 128.50   | 22990. |
| 10         | 0.0          | 5.0         | 72.7              | -50.24       | -484.         | -287.              | 15.                | 51.66        | 54.47      | 127.98   | 23020. |
| 11         | 0.0          | 10.0        | 72.3              | -44.28       | -511.         | -83.               | -21.               | 84.79        | 54.39      | 127.89   | 23020. |
| 12         | 0.0          | 15.0        | 73.0              | -33.08       | -497.         | 102.               | -28.               | 119.73       | 54.51      | 128.03   | 23030. |
| 13         | 0.0          | 20.0        | 67.3              | -17.47       | -507.         | 259.               | -42.               | 151.91       | 54.00      | 127.41   | 22980. |
| 14         | 0.0          | 0.0         | 69.9              | -49.46       | -488.         | -485.              | 37.                | 13.16        | 54.60      | 128.13   | 23020. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .1965 | -.1583 | -.1573 | -.0333 | .0043  | .0358  |
| 3    | -20.00 | .2604 | -.0513 | -.2042 | -.0798 | .0134  | -.3719 |
| 4    | -15.00 | .2482 | -.0918 | -.1905 | -.0692 | .0131  | -.2802 |
| 5    | -10.00 | .2220 | -.1233 | -.1786 | -.0569 | .0120  | -.1756 |
| 6    | -5.00  | .2047 | -.1364 | -.1778 | -.0446 | .0068  | -.0790 |
| 7    | -2.50  | .2021 | -.1389 | -.1690 | -.0383 | .0061  | -.0241 |
| 8    | 0.00   | .1953 | -.1389 | -.1597 | -.0303 | .0043  | .0343  |
| 9    | 2.50   | .1847 | -.1375 | -.1597 | -.0231 | .0020  | .0859  |
| 10   | 5.00   | .1965 | -.1358 | -.1561 | -.0174 | .0009  | .1396  |
| 11   | 10.00  | .1954 | -.1197 | -.1646 | -.0050 | -.0013 | .2292  |
| 12   | 15.00  | .1973 | -.0894 | -.1603 | .0061  | -.0017 | .3236  |
| 13   | 20.00  | .1819 | -.0472 | -.1635 | .0157  | -.0025 | .4106  |
| 14   | 0.00   | .1890 | -.1337 | -.1572 | -.0293 | .0022  | .0356  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .1965 | -.1583 | -.1573 | -.0333 | .0043  | .0358  |
| 3    | -20.00 | .2604 | -.1759 | -.2164 | -.0798 | .0258  | -.3317 |
| 4    | -15.00 | .2482 | -.1615 | -.2021 | -.0692 | .0219  | -.2467 |
| 5    | -10.00 | .2220 | -.1521 | -.1870 | -.0569 | .0176  | -.1514 |
| 6    | -5.00  | .2047 | -.1428 | -.1803 | -.0446 | .0097  | -.0667 |
| 7    | -2.50  | .2021 | -.1398 | -.1702 | -.0383 | .0075  | -.0180 |
| 8    | 0.00   | .1953 | -.1389 | -.1597 | -.0303 | .0043  | .0343  |
| 9    | 2.50   | .1847 | -.1411 | -.1590 | -.0231 | .0007  | .0797  |
| 10   | 5.00   | .1965 | -.1475 | -.1551 | -.0174 | -.0017 | .1272  |
| 11   | 10.00  | .1954 | -.1578 | -.1633 | -.0050 | -.0066 | .2048  |
| 12   | 15.00  | .1973 | -.1704 | -.1571 | .0061  | -.0095 | .2892  |
| 13   | 20.00  | .1819 | -.1854 | -.1582 | .0157  | -.0129 | .3694  |
| 14   | 0.00   | .1890 | -.1337 | -.1572 | -.0293 | .0022  | .0356  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 489

RUN 613 CONFIG F P B NP5 W7 T36 BT

| PT. NO. | O.D DELF  |         | O.D DELA    |             | O.O IHT      |              | O.O DELE     |             | O.O DELR |        | O.O DELSB |  | O.O V | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|----------|--------|-----------|--|-------|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF    | KNOTS  |           |  |       |     |
| 7       | 0         | 0       | 69.4        | 31.80       | 96.          | -95.         | 4.           | 10.56       | 54.83    | 128.41 | 3490.     |  |       |     |
| 8       | 0         | 0       | 69.0        | -6.61       | -1.          | -84.         | 24.          | 8.92        | 55.00    | 128.61 | 11260.    |  |       |     |
| 9       | 0         | -20.0   | 105.6       | 38.65       | -948.        | 1206.        | -161.        | -179.05     | 54.30    | 127.77 | 11260.    |  |       |     |
| 10      | 0         | -15.0   | 91.8        | 18.71       | -625.        | 831.         | -88.         | -131.69     | 55.67    | 129.40 | 11250.    |  |       |     |
| 11      | 0         | -10.0   | 79.6        | 3.84        | -299.        | 442.         | -6.          | -80.79      | 56.00    | 129.79 | 11250.    |  |       |     |
| 12      | 0         | -5.0    | 73.0        | -4.05       | -167.        | 166.         | 19.          | -37.83      | 55.29    | 128.95 | 11240.    |  |       |     |
| 13      | 0         | -2.5    | 68.0        | -5.83       | -71.         | 60.          | -13.         | -17.42      | 54.94    | 128.54 | 11250.    |  |       |     |
| 14      | 0         | 0       | 66.6        | -6.35       | -53.         | -79.         | 6.           | 8.92        | 55.40    | 129.08 | 11250.    |  |       |     |
| 15      | 0         | 2.5     | 65.3        | -5.40       | -86.         | -115.        | -18.         | 30.54       | 55.20    | 128.85 | 11260.    |  |       |     |
| 16      | 0         | 5.0     | 69.4        | -3.82       | -126.        | -196.        | -5.          | 51.26       | 55.16    | 128.80 | 11260.    |  |       |     |
| 17      | 0         | 10.0    | 78.1        | 1.89        | -399.        | -532.        | 22.          | 95.67       | 55.01    | 128.62 | 11250.    |  |       |     |
| 18      | 0         | 15.0    | 85.6        | 13.46       | -692.        | -825.        | 107.         | 138.43      | 55.42    | 129.10 | 11280.    |  |       |     |
| 19      | 0         | 20.0    | 91.3        | 34.35       | -943.        | -1222.       | 162.         | 185.59      | 55.08    | 128.71 | 11260.    |  |       |     |
| 20      | 0         | 0       | 66.7        | -6.90       | 3.           | -75.         | 5.           | 9.98        | 54.97    | 128.57 | 11280.    |  |       |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 7    | 0.00   | .1874 | .0859  | .0310  | -.0057 | .0003  | .0285  |
| 8    | 0.00   | .1866 | -.0179 | -.0003 | -.0051 | .0014  | .0241  |
| 9    | -20.00 | .2854 | .1045  | -.3057 | .0728  | -.0097 | -.4839 |
| 10   | -15.00 | .2481 | .0506  | -.2014 | .0502  | -.0053 | -.3559 |
| 11   | -10.00 | .2152 | .0104  | -.0963 | .0267  | -.0004 | -.2183 |
| 12   | -5.00  | .1973 | -.0109 | -.0539 | .0100  | .0011  | -.1022 |
| 13   | -2.50  | .1838 | -.0158 | -.0228 | .0036  | -.0008 | -.0471 |
| 14   | 0.00   | .1800 | -.0172 | -.0172 | -.0048 | .0004  | .0241  |
| 15   | 2.50   | .1766 | -.0146 | -.0277 | -.0070 | -.0011 | .0826  |
| 16   | 5.00   | .1875 | -.0103 | -.0407 | -.0119 | -.0003 | .1385  |
| 17   | 10.00  | .2111 | .0051  | -.1287 | -.0321 | .0013  | .2586  |
| 18   | 15.00  | .2314 | .0364  | -.2231 | -.0498 | .0065  | .3741  |
| 19   | 20.00  | .2468 | .0928  | -.3041 | -.0738 | .0098  | .5016  |
| 20   | 0.00   | .1802 | -.0187 | .0010  | -.0045 | .0003  | .0270  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 7    | 0.00   | .1874 | .0859  | .0310  | -.0057 | .0003  | .0285  |
| 8    | 0.00   | .1866 | -.0179 | -.0003 | -.0051 | .0014  | .0241  |
| 9    | -20.00 | .2854 | -.0681 | -.2692 | .0728  | .0105  | -.4903 |
| 10   | -15.00 | .2481 | -.0437 | -.1871 | .0502  | .0047  | -.3568 |
| 11   | -10.00 | .2152 | -.0279 | -.0945 | .0267  | .0028  | -.2168 |
| 12   | -5.00  | .1973 | -.0199 | -.0542 | .0100  | .0020  | -.1809 |
| 13   | -2.50  | .1838 | -.0178 | -.0226 | .0036  | -.0006 | -.0464 |
| 14   | 0.00   | .1800 | -.0172 | -.0172 | -.0048 | .0004  | .0241  |
| 15   | 2.50   | .1766 | -.0182 | -.0279 | -.0070 | -.0013 | .0818  |
| 16   | 5.00   | .1875 | -.0224 | -.0407 | -.0119 | -.0010 | .1371  |
| 17   | 10.00  | .2111 | -.0401 | -.1255 | -.0321 | -.0029 | .2555  |
| 18   | 15.00  | .2314 | -.0621 | -.2065 | -.0498 | -.0046 | .3707  |
| 19   | 20.00  | .2468 | -.0851 | -.2676 | -.0738 | -.0104 | .5029  |
| 20   | 0.00   | .1802 | -.0187 | .0010  | -.0045 | .0003  | .0270  |

SIKORSKY RSRA 1/4 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 614 CONFIG F P B NPS W7 T36 BT

| IW<br>PT.# | 0.0 DELF<br>ALPHA DEG | 0.0 DELA<br>PSI | 0.0 IHT<br>CLBAR | 0.0 DELE<br>CDBAR | 0.0 DELR<br>CPMBAR | 0.0 DELSB<br>CYMBAR | 0.0<br>CRM | 0.0<br>CYB | 0.0<br>Q | 0.0<br>PSF | 0.0<br>KNOTS | 0.0<br>V | RPM |
|------------|-----------------------|-----------------|------------------|-------------------|--------------------|---------------------|------------|------------|----------|------------|--------------|----------|-----|
| 10         | 10.0                  | 0               | 377.6            | 65.05             | -257.              | -83.                | 33.        | 4.30       | 54.70    | 128.26     | 3860.        |          |     |
| 11         | 10.0                  | 0               | 387.0            | 5.77              | -295.              | -121.               | 103.       | 4.16       | 54.93    | 128.53     | 14750.       |          |     |
| 12         | 10.0                  | -20.0           | 402.9            | 39.53             | -1443.             | 553.                | -348.      | -166.17    | 54.92    | 128.51     | 14700.       |          |     |
| 13         | 10.0                  | -15.0           | 403.2            | 18.08             | -1132.             | 137.                | -217.      | -119.97    | 54.91    | 128.51     | 14750.       |          |     |
| 14         | 10.0                  | -10.0           | 389.2            | 4.13              | -642.              | 88.                 | -96.       | -74.45     | 55.64    | 129.37     | 14700.       |          |     |
| 15         | 10.0                  | -5.0            | 389.5            | -2.66             | -379.              | -18.                | 30.        | -34.52     | 55.06    | 128.68     | 14750.       |          |     |
| 16         | 10.0                  | -10.0           | 390.5            | 3.88              | -617.              | 81.                 | -99.       | -72.55     | 55.26    | 128.93     | 14710.       |          |     |
| 17         | 10.0                  | -2.5            | 385.7            | -3.94             | -331.              | -79.                | 47.        | -15.34     | 55.30    | 128.96     | 14710.       |          |     |
| 18         | 10.0                  | 0               | 385.8            | -4.84             | -293.              | -127.               | 85.        | 5.43       | 55.25    | 128.90     | 14740.       |          |     |
| 19         | 10.0                  | 2.5             | 384.2            | -4.58             | -391.              | -161.               | 109.       | 25.19      | 55.30    | 128.97     | 14760.       |          |     |
| 20         | 10.0                  | 5.0             | 382.8            | -2.84             | -447.              | -167.               | 173.       | 44.05      | 55.22    | 128.87     | 14740.       |          |     |
| 21         | 10.0                  | 10.0            | 383.1            | 3.61              | -677.              | -210.               | 258.       | 84.18      | 55.07    | 128.70     | 14740.       |          |     |
| 22         | 10.0                  | 15.0            | 385.2            | 15.26             | -1137.             | -253.               | 349.       | 126.79     | 55.16    | 128.80     | 14710.       |          |     |
| 23         | 10.0                  | 20.0            | 385.4            | 39.20             | -1476.             | -1024.              | 482.       | 181.31     | 55.16    | 128.80     | 14760.       |          |     |
| 24         | 10.0                  | 5.0             | 381.0            | -2.93             | -386.              | -157.               | 140.       | 43.59      | 55.09    | 128.72     | 14750.       |          |     |
| 25         | 10.0                  | 10.0            | 357.4            | 3.34              | -777.              | -214.               | 1876.      | 83.47      | 54.68    | 128.23     | 14690.       |          |     |
| 26         | 10.0                  | 0               | 383.3            | -4.60             | -307.              | -130.               | 68.        | 3.45       | 55.31    | 128.98     | 14740.       |          |     |

\*\*\* COEFFICIENT FORM = WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 10   | 0.00   | 1.0204 | .1758  | -.0829 | -.0050 | .0020  | .0116  |
| 11   | 0.00   | 1.0461 | -.0156 | -.0950 | -.0073 | .0062  | .0112  |
| 12   | -20.00 | 1.0889 | .1068  | -.4653 | .0334  | -.0210 | -.4491 |
| 13   | -15.00 | 1.0898 | .0489  | -.3650 | .0083  | -.0131 | -.3243 |
| 14   | -10.00 | 1.0518 | .0112  | -.2068 | .0053  | -.0058 | -.2012 |
| 15   | -5.00  | 1.0527 | -.0072 | -.1222 | -.0011 | .0018  | -.0933 |
| 16   | -10.00 | 1.0555 | .0105  | -.1988 | .0049  | -.0060 | -.1961 |
| 17   | -2.50  | 1.0425 | -.0107 | -.1066 | -.0048 | .0028  | -.0415 |
| 18   | 0.00   | 1.0427 | -.0131 | -.0944 | -.0077 | .0051  | .0147  |
| 19   | 2.50   | 1.0384 | -.0124 | -.1259 | -.0097 | .0066  | .0681  |
| 20   | 5.00   | 1.0345 | -.0077 | -.1442 | -.0101 | .0105  | .1190  |
| 21   | 10.00  | 1.0353 | .0098  | -.2183 | -.0127 | .0156  | .2275  |
| 22   | 15.00  | 1.0410 | .0412  | -.3666 | -.0153 | .0211  | .3427  |
| 23   | 20.00  | 1.0416 | .1059  | -.4758 | -.0619 | .0291  | .4900  |
| 24   | 5.00   | 1.0298 | -.0079 | -.1244 | -.0095 | .0084  | .1178  |
| 25   | 10.00  | .9658  | .0090  | -.2505 | -.0129 | .1133  | .2256  |
| 26   | 0.00   | 1.0359 | -.0124 | -.0989 | -.0078 | .0041  | .0093  |

\*\*\* COEFFICIENT FORM = STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 10   | 0.00   | 1.0204 | .1758  | -.0829 | -.0050 | .0020  | .0116  |
| 11   | 0.00   | 1.0461 | -.0156 | -.0950 | -.0073 | .0062  | .0112  |
| 12   | -20.00 | 1.0889 | -.0539 | -.3985 | .0334  | .0102  | -.4585 |
| 13   | -15.00 | 1.0898 | -.0371 | -.3342 | .0083  | .0051  | -.3258 |
| 14   | -10.00 | 1.0518 | -.0241 | -.1983 | .0053  | .0011  | -.2001 |
| 15   | -5.00  | 1.0527 | -.0153 | -.1226 | -.0011 | .0038  | -.0923 |
| 16   | -10.00 | 1.0555 | -.0239 | -.1902 | .0049  | .0006  | -.1949 |
| 17   | -2.50  | 1.0425 | -.0125 | -.1072 | -.0048 | .0037  | -.0410 |
| 18   | 0.00   | 1.0427 | -.0131 | -.0944 | -.0077 | .0051  | .0147  |
| 19   | 2.50   | 1.0384 | -.0153 | -.1243 | -.0097 | .0055  | .0675  |
| 20   | 5.00   | 1.0345 | -.0181 | -.1388 | -.0101 | .0081  | .1179  |
| 21   | 10.00  | 1.0353 | -.0301 | -.2004 | -.0127 | .0082  | .2257  |
| 22   | 15.00  | 1.0410 | -.0493 | -.3248 | -.0153 | .0025  | .3416  |
| 23   | 20.00  | 1.0416 | -.0688 | -.3935 | -.0619 | -.0033 | .4966  |
| 24   | 5.00   | 1.0298 | -.0182 | -.1200 | -.0095 | .0064  | .1167  |
| 25   | 10.00  | .9658  | -.0305 | -.1412 | -.0129 | .1034  | .2237  |
| 26   | 0.00   | 1.0359 | -.0124 | -.0989 | -.0078 | .0041  | .0093  |

RUN 615 CONF IG F P B NP5 W7 T36 BT

| PT. No. | IW ALPHA DEG | O.O DELF PSI DEG | O.O DELA CLBAR SQ-FT | O.O IHT CDBAR SQ-FT | O.O DELE CPMBAR CU-FT | O.O DELR CYMBAR CU-FT | =10 DELSB CRMBAR SQ-FT | O.O Q PSF | O.O V KNOTS | RPM    |        |
|---------|--------------|------------------|----------------------|---------------------|-----------------------|-----------------------|------------------------|-----------|-------------|--------|--------|
| 4       | 0            | 0                | 71.3                 | 32.41               | 44.                   | -356.                 | 68.                    | 16.07     | 55.10       | 128.73 | 3560.  |
| 5       | 0            | 0                | 68.9                 | -6.84               | -63.                  | -359.                 | 33.                    | 15.26     | 55.34       | 129.02 | 11330. |
| 6       | 0            | -20.0            | 103.9                | 36.25               | -917.                 | 889.                  | -61.                   | -170.87   | 54.98       | 128.59 | 11340. |
| 7       | 0            | -15.0            | 91.8                 | 16.11               | -614.                 | 503.                  | 5.                     | -122.70   | 55.52       | 129.23 | 11350. |
| 8       | 0            | -9.9             | 80.2                 | 2.10                | -260.                 | 116.                  | 93.                    | -75.72    | 55.02       | 128.63 | 11340. |
| 9       | 0            | -5.0             | 73.8                 | -4.79               | -159.                 | -97.                  | 100.                   | -32.31    | 55.35       | 129.02 | 11320. |
| 10      | 0            | -2.5             | 68.6                 | -6.04               | -92.                  | -228.                 | 64.                    | -8.69     | 55.66       | 129.39 | 11330. |
| 11      | 0            | 0                | 68.0                 | -6.64               | -55.                  | -355.                 | 84.                    | 15.79     | 55.67       | 129.41 | 11360. |
| 12      | 0            | 2.5              | 67.3                 | -5.78               | -162.                 | -420.                 | 79.                    | 36.45     | 55.43       | 129.11 | 11360. |
| 13      | 0            | 5.0              | 71.9                 | -3.91               | -200.                 | -511.                 | 53.                    | 59.86     | 55.37       | 129.05 | 11360. |
| 14      | 0            | 10.0             | 79.9                 | 1.93                | -487.                 | -871.                 | 96.                    | 103.16    | 55.74       | 129.49 | 11360. |
| 15      | 0            | 15.0             | 88.5                 | 13.73               | -802.                 | -1117.                | 172.                   | 146.63    | 54.36       | 127.85 | 11380. |
| 16      | 0            | 20.0             | 93.7                 | 34.94               | -1040.                | -1529.                | 246.                   | 192.18    | 54.45       | 127.95 | 11350. |
| 17      | 0            | -15.0            | 91.4                 | 16.16               | -584.                 | 503.                  | 38.                    | -124.82   | 54.53       | 128.04 | 11310. |
| 18      | 0            | 0                | 67.7                 | -7.57               | -83.                  | -355.                 | 69.                    | 15.52     | 54.45       | 127.95 | 11360. |
| 19      | 0            | -15.0            | 89.8                 | 15.79               | -557.                 | 507.                  | 1.                     | -123.37   | 54.78       | 128.34 | 11390. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 4    | 0.00   | .1928 | .0876  | .0142  | -.0215 | .0041  | .0434  |
| 5    | 0.00   | .1861 | -.0185 | -.0202 | -.0217 | .0020  | .0413  |
| 6    | -20.00 | .2809 | .0980  | -.2958 | .0837  | -.0037 | -.4618 |
| 7    | -15.00 | .2482 | .0435  | -.1978 | .0304  | .0003  | -.3316 |
| 8    | -9.90  | .2166 | .0057  | -.0839 | .0070  | .0056  | -.2046 |
| 9    | -5.00  | .1993 | -.0130 | -.0511 | -.0059 | .0060  | -.0873 |
| 10   | -2.50  | .1853 | -.0163 | -.0297 | -.0138 | .0039  | -.0235 |
| 11   | 0.00   | .1837 | -.0179 | -.0179 | -.0214 | .0051  | .0427  |
| 12   | 2.50   | .1818 | -.0156 | -.0523 | -.0254 | .0047  | .0985  |
| 13   | 5.00   | .1943 | -.0106 | -.0644 | -.0309 | .0032  | .1618  |
| 14   | 10.00  | .2160 | .0052  | -.1571 | -.0526 | .0058  | .2788  |
| 15   | 15.00  | .2393 | .0371  | -.2586 | -.0675 | .0104  | .3963  |
| 16   | 20.00  | .2533 | .0944  | -.3352 | -.0924 | .0149  | .5194  |
| 17   | -15.00 | .2470 | .0437  | -.1881 | .0304  | .0023  | -.3374 |
| 18   | 0.00   | .1830 | -.0205 | -.0269 | -.0214 | .0042  | .0419  |
| 19   | -15.00 | .2427 | .0427  | -.1794 | .0306  | .0000  | -.3334 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 4    | 0.00   | .1928 | .0876  | .0142  | -.0215 | .0041  | .0434  |
| 5    | 0.00   | .1861 | -.0185 | -.0202 | -.0217 | .0020  | .0413  |
| 6    | -20.00 | .2809 | -.0666 | -.2710 | .0837  | .0156  | -.4674 |
| 7    | -15.00 | .2482 | -.0442 | -.1914 | .0304  | .0099  | -.3315 |
| 8    | -9.90  | .2166 | -.0298 | -.0878 | .0070  | .0082  | -.2026 |
| 9    | -5.00  | .1993 | -.0205 | -.0538 | -.0059 | .0068  | -.0859 |
| 10   | -2.50  | .1853 | -.0174 | -.0305 | -.0138 | .0041  | -.0227 |
| 11   | 0.00   | .1837 | -.0179 | -.0179 | -.0214 | .0051  | .0427  |
| 12   | 2.50   | .1818 | -.0199 | -.0511 | -.0254 | .0043  | .0977  |
| 13   | 5.00   | .1943 | -.0247 | -.0627 | -.0309 | .0021  | .1602  |
| 14   | 10.00  | .2160 | -.0435 | -.1493 | -.0526 | .0006  | .2754  |
| 15   | 15.00  | .2393 | -.0672 | -.2353 | -.0675 | -.0025 | .3923  |
| 16   | 20.00  | .2533 | -.0897 | -.2876 | -.0924 | -.0076 | .5203  |

|    |        |       |        |        |        |       |        |
|----|--------|-------|--------|--------|--------|-------|--------|
| 17 | -15.00 | .2470 | -.0455 | -.1849 | .0304  | .0114 | -.3371 |
| 18 | 0.00   | .1830 | -.0205 | -.0269 | -.0214 | .0042 | .0419  |
| 19 | -15.00 | .2427 | -.0455 | -.1733 | .0306  | .0088 | -.3331 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 49.2

RUN 616 CONFIG F P B NPS W7 T36 BT IN=-3,5 BETA=0

| IW      | 0.0 DELF  | 0.0 DELA | 0.0 IHT     | 0.0 DELE    | 0.0 DELR     | -20 DELSB    | 0.0          |             |       |         |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CPMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0       | 71.0        | 33.18       | 53.          | -644.        | 78.          | 22.51       | 54.48 | 128.00  | 3530.  |
| 3       | .0        | .0       | 68.3        | -6.45       | -78.         | -646.        | 114.         | 22.38       | 54.65 | 128.19  | 11340. |
| 4       | .0        | -20.0    | 103.1       | 35.06       | -868.        | 612.         | -22.         | -164.96     | 54.27 | 127.74  | 11350. |
| 5       | .0        | -15.0    | 90.7        | 15.63       | -572.        | 221.         | 82.          | -117.85     | 54.63 | 128.18  | 11300. |
| 6       | .0        | -10.0    | 77.6        | 1.70        | -212.        | -122.        | 80.          | -68.55      | 54.76 | 128.33  | 11380. |
| 7       | .0        | -5.0     | 72.0        | -4.56       | -113.        | -352.        | 94.          | -27.72      | 54.44 | 127.95  | 11340. |
| 8       | .0        | -2.5     | 68.3        | -6.22       | -88.         | -498.        | 111.         | -3.65       | 54.99 | 128.61  | 11340. |
| 9       | .0        | .0       | 67.2        | -6.42       | -68.         | -640.        | 93.          | 24.72       | 54.56 | 128.09  | 11330. |
| 10      | .0        | 2.5      | 70.9        | -5.14       | -148.        | -720.        | 121.         | 45.80       | 54.67 | 128.22  | 11330. |
| 11      | .0        | 5.0      | 72.5        | -3.18       | -190.        | -827.        | 117.         | 66.85       | 54.73 | 128.29  | 11330. |
| 12      | .0        | 10.0     | 81.3        | 3.55        | -470.        | -1207.       | 194.         | 112.52      | 54.89 | 128.48  | 11320. |
| 13      | .0        | 15.0     | 89.9        | 16.71       | -795.        | -1428.       | 228.         | 155.51      | 54.68 | 128.23  | 11310. |
| 14      | .0        | 20.0     | 97.3        | 38.78       | -1056.       | -1824.       | 280.         | 201.65      | 54.70 | 128.25  | 11310. |
| 15      | .0        | .0       | 68.0        | -6.49       | -36.         | -642.        | 130.         | 22.76       | 55.08 | 128.70  | 11320. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | Cy     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1918 | .0897  | .0172  | -.0389 | .0047  | .0608  |
| 3    | .00    | .1847 | -.0174 | -.0251 | -.0390 | .0069  | .0605  |
| 4    | -20.00 | .2787 | .0948  | -.2799 | .0370  | -.0013 | -.4458 |
| 5    | -15.00 | .2451 | .0422  | -.1845 | .0134  | .0050  | -.3185 |
| 6    | -10.00 | .2098 | .0046  | -.0683 | -.0073 | .0048  | -.1853 |
| 7    | -5.00  | .1946 | -.0123 | -.0363 | -.0212 | .0057  | -.0749 |
| 8    | -2.50  | .1846 | -.0168 | -.0283 | -.0301 | .0067  | -.0099 |
| 9    | .00    | .1817 | -.0174 | -.0219 | -.0387 | .0056  | .0668  |
| 10   | 2.50   | .1915 | -.0139 | -.0477 | -.0435 | .0073  | .1238  |
| 11   | 5.00   | .1959 | -.0086 | -.0614 | -.0500 | .0070  | .1807  |
| 12   | 10.00  | .2197 | .0096  | -.1514 | -.0729 | .0117  | .3041  |
| 13   | 15.00  | .2430 | .0452  | -.2563 | -.0863 | .0138  | .4203  |
| 14   | 20.00  | .2629 | .1048  | -.3404 | -.1102 | .0160  | .5450  |
| 15   | .00    | .1837 | -.0175 | -.0115 | -.0388 | .0078  | .0615  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1918 | .0897  | .0172  | -.0389 | .0047  | .0608  |
| 3    | .00    | .1847 | -.0174 | -.0251 | -.0390 | .0069  | .0605  |
| 4    | -20.00 | .2787 | -.0642 | -.2604 | .0370  | .0168  | -.4512 |
| 5    | -15.00 | .2451 | -.0420 | -.1851 | .0134  | .0138  | -.3185 |
| 6    | -10.00 | .2098 | -.0278 | -.0717 | -.0073 | .0070  | -.1832 |
| 7    | -5.00  | .1946 | -.0188 | -.0388 | -.0212 | .0063  | -.0735 |
| 8    | -2.50  | .1846 | -.0172 | -.0299 | -.0301 | .0069  | -.0091 |
| 9    | .00    | .1817 | -.0174 | -.0219 | -.0387 | .0056  | .0668  |
| 10   | 2.50   | .1915 | -.0193 | -.0459 | -.0435 | .0069  | .1231  |
| 11   | 5.00   | .1959 | -.0244 | -.0579 | -.0500 | .0060  | .1792  |
| 12   | 10.00  | .2197 | -.0436 | -.1382 | -.0729 | .0066  | .3011  |
| 13   | 15.00  | .2430 | -.0657 | -.2284 | -.0863 | .0008  | .4176  |
| 14   | 20.00  | .2629 | -.0888 | -.2886 | -.1102 | -.0006 | .5478  |
| 15   | .00    | .1837 | -.0175 | -.0115 | -.0388 | .0078  | .0615  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72014  
P493

RUN 617 CONFIG F P B NPS W7 T36 BT IN=-3.5 BETA=0

| PT. NO. | IW | 0.0 DELF<br>ALPHA<br>DEG | 0.0 DELA<br>PSI<br>DEG | 0.0 DELA<br>CLBAR<br>SQ-FT | 0.0 IHT<br>CDBAR<br>SQ-FT | 0.0 DELE<br>CPMBAR<br>CU-FT | 0.0 DELR<br>CYMBAR<br>CU-FT | 10 DELSR<br>CRMBAR<br>CU-FT | 0.0 DELSB<br>CYBAR<br>SQ-FT | 0.0 V<br>PSF<br>KNOTS | RPM    |        |
|---------|----|--------------------------|------------------------|----------------------------|---------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------|--------|--------|
| 2       |    | .0                       | .0                     | 71.3                       | 32.55                     | 47.                         | 229.                        | -38.                        | 1.57                        | 54.37                 | 127.86 | 3540.  |
| 3       |    | .0                       | .0                     | 67.9                       | -6.76                     | -62.                        | 231.                        | -53.                        | .55                         | 55.55                 | 129.27 | 11390. |
| 4       |    | .0                       | .0                     | 66.5                       | -6.94                     | -54.                        | 231.                        | -53.                        | .12                         | 55.51                 | 129.22 | 11380. |
| 5       |    | .0                       | -19.9                  | 107.2                      | 40.43                     | -1029.                      | 1506.                       | -180.                       | -186.73                     | 54.62                 | 128.16 | 11370. |
| 6       |    | .0                       | -15.0                  | 92.6                       | 19.25                     | -683.                       | 1169.                       | -138.                       | -139.95                     | 54.33                 | 127.81 | 11390. |
| 7       |    | .0                       | -10.0                  | 80.8                       | 3.70                      | -382.                       | 811.                        | -136.                       | -91.92                      | 54.89                 | 128.48 | 11390. |
| 8       |    | .0                       | -5.0                   | 74.6                       | -4.31                     | -184.                       | 489.                        | -19.                        | -48.41                      | 55.59                 | 129.31 | 11390. |
| 9       |    | .0                       | -2.5                   | 69.6                       | -5.98                     | -107.                       | 378.                        | -39.                        | -23.40                      | 55.33                 | 129.00 | 11380. |
| 10      |    | .0                       | .0                     | 67.1                       | -6.86                     | -94.                        | 234.                        | -72.                        | 1.35                        | 55.37                 | 129.05 | 11390. |
| 11      |    | .0                       | 2.5                    | 67.8                       | -6.10                     | -92.                        | 126.                        | -28.                        | 24.31                       | 55.22                 | 128.87 | 11390. |
| 12      |    | .0                       | 5.0                    | 70.2                       | -4.78                     | -128.                       | 31.                         | -52.                        | 45.84                       | 55.89                 | 129.66 | 11390. |
| 13      |    | .0                       | 10.0                   | 77.1                       | .47                       | -363.                       | -240.                       | -39.                        | 87.64                       | 55.81                 | 129.58 | 11390. |
| 14      |    | .0                       | 15.0                   | 85.6                       | 12.62                     | -756.                       | -544.                       | 43.                         | 133.85                      | 55.40                 | 129.09 | 11420. |
| 15      |    | .0                       | 20.0                   | 92.2                       | 33.19                     | -976.                       | -947.                       | 78.                         | 181.24                      | 55.16                 | 128.80 | 11370. |
| 16      |    | .0                       | .0                     | 71.7                       | -6.90                     | -40.                        | 229.                        | -36.                        | .62                         | 55.13                 | 128.76 | 11400. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1926 | .0880  | .0152  | .0138  | -.0023 | .0042  |
| 3    | .00    | .1836 | -.0183 | -.0199 | .0140  | -.0032 | .0015  |
| 4    | .00    | .1797 | -.0188 | -.0173 | .0140  | -.0032 | .0003  |
| 5    | -19.90 | .2898 | .1093  | -.3316 | .0909  | -.0109 | -.5047 |
| 6    | -15.00 | .2502 | .0520  | -.2203 | .0706  | -.0084 | -.3782 |
| 7    | -10.00 | .2183 | .0100  | -.1231 | .0490  | -.0082 | -.2484 |
| 8    | -5.00  | .2016 | -.0117 | -.0594 | .0296  | -.0012 | -.1308 |
| 9    | -2.50  | .1881 | -.0162 | -.0345 | .0228  | -.0024 | -.0632 |
| 10   | .00    | .1815 | -.0185 | -.0303 | .0141  | -.0043 | .0037  |
| 11   | 2.50   | .1832 | -.0165 | -.0296 | .0076  | -.0017 | .0657  |
| 12   | 5.00   | .1897 | -.0129 | -.0414 | .0019  | -.0031 | .1239  |
| 13   | 10.00  | .2083 | .0013  | -.1171 | -.0145 | -.0024 | .2369  |
| 14   | 15.00  | .2314 | .0341  | -.2439 | -.0329 | .0026  | .3618  |
| 15   | 20.00  | .2492 | .0897  | -.3146 | -.0572 | .0047  | .4898  |
| 16   | .00    | .1937 | -.0187 | -.0130 | .0138  | -.0022 | .0017  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1926 | .0880  | .0152  | .0138  | -.0023 | .0042  |
| 3    | .00    | .1836 | -.0183 | -.0199 | .0140  | -.0032 | .0015  |
| 4    | .00    | .1797 | -.0188 | -.0173 | .0140  | -.0032 | .0003  |
| 5    | -19.90 | .2898 | -.0698 | -.2918 | .0909  | .0110  | -.5116 |
| 6    | -15.00 | .2502 | -.0481 | -.2011 | .0706  | .0027  | -.3788 |
| 7    | -10.00 | .2183 | -.0335 | -.1135 | .0490  | -.0041 | -.2464 |
| 8    | -5.00  | .2016 | -.0231 | -.0586 | .0296  | -.0002 | -.1293 |
| 9    | -2.50  | .1881 | -.0189 | -.0339 | .0228  | -.0021 | -.0625 |
| 10   | .00    | .1815 | -.0185 | -.0303 | .0141  | -.0043 | .0037  |
| 11   | 2.50   | .1832 | -.0193 | -.0299 | .0076  | -.0020 | .0649  |
| 12   | 5.00   | .1897 | -.0237 | -.0427 | .0019  | -.0038 | .1223  |
| 13   | 10.00  | .2083 | -.0401 | -.1175 | -.0145 | -.0062 | .2335  |
| 14   | 15.00  | .2314 | -.0611 | -.2319 | -.0329 | -.0094 | .3582  |
| 15   | 20.00  | .2492 | -.0840 | -.2868 | -.0572 | -.0158 | .4909  |
| 16   | .00    | .1937 | -.0187 | -.0130 | .0138  | -.0022 | .0017  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P494

RUN 618 CONFIG F P B NP5 W7 T36 BT IN=-3.5 BETA=0

| IW<br>PT.<br>NO. | 0.0<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 0.0<br>CLBAR<br>SQ-FT | 0.0<br>CDBAR<br>SQ-FT | 0.0<br>CMBAR<br>CU-FT | 0.0<br>CYMBAR<br>CU-FT | 0.0<br>CRMBAR<br>CU-FT | 20<br>CYBAR<br>SQ-FT | DELTA<br>Q<br>PSF | 0.0<br>V<br>KNOTS | RPM    |
|------------------|---------------------|---------------------|-----------------------|-----------------------|-----------------------|------------------------|------------------------|----------------------|-------------------|-------------------|--------|
| 2                | .0                  | .0                  | 70.3                  | 33.67                 | 84.                   | 631.                   | -113.                  | -8.27                | 54.77             | 128.34            | 3550.  |
| 3                | .0                  | .0                  | 69.3                  | -6.55                 | -13.                  | 642.                   | -59.                   | -9.10                | 55.01             | 128.63            | 11490. |
| 4                | .0                  | -20.0               | 107.6                 | 42.64                 | -1047.                | 1831.                  | -223.                  | -193.86              | 54.82             | 128.40            | 11520. |
| 5                | .0                  | -15.0               | 94.1                  | 21.26                 | -729.                 | 1529.                  | -193.                  | -149.00              | 54.78             | 128.35            | 11510. |
| 6                | .0                  | -10.0               | 82.9                  | 5.02                  | -393.                 | 1205.                  | -139.                  | -101.13              | 55.14             | 128.78            | 11510. |
| 7                | .0                  | -5.0                | 74.2                  | -4.00                 | -176.                 | 867.                   | -80.                   | -56.39               | 55.21             | 128.86            | 11500. |
| 8                | .0                  | -2.5                | 69.5                  | -5.70                 | -106.                 | 784.                   | -63.                   | -33.15               | 54.87             | 128.45            | 11530. |
| 9                | .0                  | -2.5                | 69.5                  | -5.70                 | -106.                 | 784.                   | -63.                   | -33.14               | 54.88             | 128.47            | 11530. |
| 10               | .0                  | -2.5                | 69.8                  | -5.64                 | -87.                  | 781.                   | -96.                   | -35.33               | 54.87             | 128.45            | 11500. |
| 11               | .0                  | .0                  | 67.6                  | -6.66                 | -53.                  | 646.                   | -94.                   | -8.79                | 55.41             | 129.09            | 11520. |
| 12               | .0                  | 2.5                 | 66.2                  | -6.26                 | -82.                  | 502.                   | -105.                  | 15.85                | 55.03             | 128.64            | 11510. |
| 13               | .0                  | 5.0                 | 69.5                  | -5.13                 | -94.                  | 380.                   | -93.                   | 37.66                | 55.63             | 129.36            | 11520. |
| 14               | .0                  | 10.0                | 75.3                  | -.34                  | -281.                 | 78.                    | -46.                   | 81.52                | 55.16             | 128.80            | 11530. |
| 15               | .0                  | 15.0                | 83.8                  | 11.09                 | -628.                 | -210.                  | 20.                    | 126.07               | 55.39             | 129.07            | 11510. |
| 16               | .0                  | 20.0                | 90.5                  | 30.47                 | -891.                 | -585.                  | 73.                    | 171.47               | 55.49             | 129.19            | 11520. |
| 17               | .0                  | .0                  | 68.2                  | -6.24                 | -36.                  | 656.                   | -76.                   | -9.31                | 54.90             | 128.49            | 11480. |

\*\*\*\* COEFFICIENT FORM. - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1900 | .0910  | .0269  | .0381  | -.0068 | -.0224 |
| 3    | .00    | .1872 | -.0177 | -.0043 | .0388  | -.0036 | -.0246 |
| 4    | -20.00 | .2908 | .1153  | -.3376 | .1106  | -.0135 | -.5239 |
| 5    | -15.00 | .2543 | .0575  | -.2349 | .0923  | -.0117 | -.4027 |
| 6    | -10.00 | .2242 | .0136  | -.1266 | .0728  | -.0084 | -.2733 |
| 7    | -5.00  | .2007 | -.0108 | -.0566 | .0524  | -.0048 | -.1524 |
| 8    | -2.50  | .1878 | -.0154 | -.0343 | .0474  | -.0038 | -.0896 |
| 9    | -2.50  | .1877 | -.0154 | -.0343 | .0473  | -.0038 | -.0896 |
| 10   | -2.50  | .1886 | -.0152 | -.0282 | .0471  | -.0057 | -.0955 |
| 11   | .00    | .1827 | -.0180 | -.0170 | .0390  | -.0057 | -.0238 |
| 12   | 2.50   | .1788 | -.0169 | -.0264 | .0303  | -.0068 | .0428  |
| 13   | 5.00   | .1878 | -.0139 | -.0302 | .0230  | -.0056 | .1018  |
| 14   | 10.00  | .2035 | -.0009 | -.0907 | .0047  | -.0028 | .2203  |
| 15   | 15.00  | .2265 | .0300  | -.2026 | -.0127 | .0012  | .3407  |
| 16   | 20.00  | .2446 | .0824  | -.2871 | -.0354 | .0044  | .4634  |
| 17   | .00    | .1843 | -.0169 | -.0116 | .0396  | -.0046 | -.0252 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|--------|-------|--------|--------|-------|--------|--------|
| 2    | .00    | .1900 | .0910  | .0269  | .0381 | -.0068 | -.0224 |
| 3    | .00    | .1872 | -.0177 | -.0043 | .0388 | -.0036 | -.0246 |
| 4    | -20.00 | .2908 | -.0717 | -.2924 | .1106 | .0091  | -.5316 |
| 5    | -15.00 | .2543 | -.0492 | -.2106 | .0923 | .0002  | -.4038 |
| 6    | -10.00 | .2242 | -.0343 | -.1168 | .0728 | -.0041 | -.2715 |
| 7    | -5.00  | .2007 | -.0241 | -.0541 | .0524 | -.0039 | -.1509 |
| 8    | -2.50  | .1878 | -.0193 | -.0333 | .0474 | -.0035 | -.0888 |
| 9    | -2.50  | .1877 | -.0193 | -.0333 | .0473 | -.0035 | -.0888 |
| 10   | -2.50  | .1886 | -.0194 | -.0268 | .0471 | -.0055 | -.0947 |
| 11   | .00    | .1827 | -.0180 | -.0170 | .0390 | -.0057 | -.0238 |
| 12   | 2.50   | .1788 | -.0188 | -.0278 | .0303 | -.0068 | .0420  |
| 13   | 5.00   | .1878 | -.0227 | -.0327 | .0230 | -.006  | .1002  |
| 14   | 10.00  | .2035 | -.0393 | -.0920 | .0047 | -.0057 | .2168  |

|    |       |       |        |        |        |        |        |
|----|-------|-------|--------|--------|--------|--------|--------|
| 15 | 15.00 | .2265 | -.0596 | -.1940 | -.0127 | -.0087 | .3368  |
| 16 | 20.00 | .2446 | -.0818 | -.2616 | -.0354 | -.0144 | .4635  |
| 17 | .00   | .1843 | -.0169 | -.0116 | .0396  | -.0046 | -.0252 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 495

RUN 619 CONFIG F P B NP5 W7 T36 BT IN=-3.5 ALPHA=-10

| PT. | ALPHA | DELF  | 0.0 DELA | 0.0 IHT | 0.0 DELE | 0.0 DELR | 0.0 DELSB | 0.0     | RPM   |        |        |
|-----|-------|-------|----------|---------|----------|----------|-----------|---------|-------|--------|--------|
| NO. | DEG   | PSI   | CLBAR    | CDBAR   | CPMBAR   | CYMBAR   | CRMBAR    | CYBAR   | Q     | V      | RPM    |
|     |       | DEG   | SQ-FT    | SQ-FT   | CU-FT    | CU-FT    | CU-FT     | SQ-FT   | PSF   | KNOTS  |        |
| 15  | -10.0 | .0    | -265.3   | 15.43   | 724.     | -33.     | -34.      | 8.79    | 54.62 | 128.16 | 11360. |
| 16  | -10.0 | -19.9 | -190.1   | 56.17   | -239.    | 1589.    | -111.     | -175.06 | 55.03 | 128.64 | 11290. |
| 17  | .0    | .0    | 66.8     | -6.92   | -62.     | -716.    | -1435.    | 34.55   | 55.70 | 129.44 | 11440. |
| 18  | -10.0 | -15.0 | -214.7   | 38.62   | 14.      | 1202.    | 16.       | -131.94 | 55.07 | 128.69 | 11290. |
| 19  | -10.0 | -10.0 | -236.7   | 26.05   | 330.     | 739.     | 53.       | -80.27  | 55.09 | 128.71 | 11380. |
| 20  | -10.0 | -5.0  | -254.9   | 17.80   | 547.     | 350.     | -6.       | -38.44  | 55.21 | 128.85 | 11350. |
| 21  | -10.0 | -2.5  | -258.8   | 16.16   | 629.     | 129.     | -42.      | -13.30  | 55.84 | 129.61 | 11320. |
| 22  | -10.0 | .0    | -262.3   | 15.13   | 665.     | -40.     | -69.      | 9.05    | 55.33 | 129.00 | 11370. |
| 23  | -10.0 | 2.5   | -258.5   | 16.38   | 648.     | -205.    | -130.     | 32.47   | 55.18 | 128.82 | 11300. |
| 24  | -10.0 | 5.0   | -251.6   | 18.31   | 594.     | -386.    | -220.     | 53.23   | 55.42 | 129.10 | 11350. |
| 25  | -10.0 | 10.0  | -235.3   | 22.59   | 315.     | -797.    | -162.     | 99.00   | 55.19 | 128.83 | 11320. |
| 26  | -10.0 | 15.0  | -207.8   | 35.29   | -50.     | -1263.   | -61.      | 145.93  | 55.63 | 129.35 | 11300. |
| 27  | -10.0 | 20.0  | -195.0   | 55.56   | -266.    | -1584.   | -30.      | 188.91  | 54.91 | 128.49 | 11340. |
| 28  | -10.0 | .0    | -266.0   | 16.11   | 711.     | -30.     | -49.      | 7.42    | 54.64 | 128.17 | 11340. |
| 29  | -10.0 | .0    | -230.9   | 53.86   | 950.     | -72.     | -15.      | 8.18    | 55.40 | 129.08 | 3670.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 15   | .00    | -.7171 | .0417  | .2335  | -.0020 | -.0020 | .0238  |
| 16   | -19.90 | -.5138 | .1518  | -.0772 | .0960  | -.0067 | -.4731 |
| 17   | .00    | .1804  | -.0187 | -.0198 | -.0433 | -.0867 | .0934  |
| 18   | -15.00 | -.5802 | .1044  | .0046  | .0726  | .0009  | -.3566 |
| 19   | -10.00 | -.6397 | .0704  | .1063  | .0446  | .0032  | -.2169 |
| 20   | -5.00  | -.6890 | .0481  | .1764  | .0211  | -.0003 | -.1039 |
| 21   | -2.50  | -.6994 | .0437  | .2027  | .0078  | -.0025 | -.0359 |
| 22   | .00    | -.7088 | .0409  | .2144  | -.0024 | -.0042 | .0245  |
| 23   | 2.50   | -.6986 | .0443  | .2090  | -.0124 | -.0079 | .0878  |
| 24   | 5.00   | -.6800 | .0495  | .1914  | -.0233 | -.0133 | .1439  |
| 25   | 10.00  | -.6359 | .0611  | .1015  | -.0482 | -.0098 | .2676  |
| 26   | 15.00  | -.5617 | .0954  | -.0161 | -.0763 | -.0037 | .3944  |
| 27   | 20.00  | -.5269 | .1502  | -.0857 | -.0957 | -.0018 | .5106  |
| 28   | .00    | -.7190 | .0435  | .2294  | -.0018 | -.0030 | .0201  |
| 29   | .00    | -.6241 | .1456  | .3064  | -.0044 | -.0009 | .0221  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 15   | .00    | -.7171 | .0417  | .2335  | -.0020 | -.0020 | .0238  |
| 16   | -19.90 | -.5138 | -.0191 | -.0603 | .0960  | -.0014 | -.4965 |
| 17   | .00    | .1804  | -.0187 | -.0198 | -.0433 | -.0867 | .0934  |
| 18   | -15.00 | -.5802 | .0081  | .0031  | .0726  | .0007  | -.3715 |
| 19   | -10.00 | -.6397 | .0315  | .1017  | .0446  | -.0003 | -.2259 |
| 20   | -5.00  | -.6890 | .0388  | .1759  | .0211  | -.0032 | -.1077 |
| 21   | -2.50  | -.6994 | .0420  | .2031  | .0078  | -.0042 | -.0378 |
| 22   | .00    | -.7088 | .0409  | .2144  | -.0024 | -.0042 | .0245  |
| 23   | 2.50   | -.6986 | .0404  | .2069  | -.0124 | -.0062 | .0896  |
| 24   | 5.00   | -.6800 | .0367  | .1844  | -.0233 | -.0101 | .1476  |
| 25   | 10.00  | -.6359 | .0135  | .0908  | -.0482 | -.0063 | .2741  |
| 26   | 15.00  | -.5617 | -.0104 | -.0206 | -.0763 | -.0043 | .4056  |
| 27   | 20.00  | -.5269 | -.0344 | -.0838 | -.0957 | -.0072 | .5311  |
| 28   | .00    | -.7190 | .0435  | .2294  | -.0018 | -.0030 | .0201  |
| 29   | .00    | -.6241 | .1456  | .3064  | -.0044 | -.0009 | .0221  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 496

RUN 620 CONFIG F P B NP5 W7 T36 BT IN=-3,5

| PT. NO. | IW    | 0.0 DELF | 0.0 DELA | 0.0 IHT | 0.0 DELE | 0.0 DELR | -30 DELSB | 0.0     | RPM   |        |        |
|---------|-------|----------|----------|---------|----------|----------|-----------|---------|-------|--------|--------|
|         | ALPHA | PSI      | CLBAR    | CDBAR   | CPMBAR   | CYMBAR   | CMBAR     | CYBAR   |       |        |        |
|         | DEG   | DEG      | SQ-FT    | SQ-FT   | CU-FT    | CU-FT    | CU-FT     | SQ-FT   | Q     |        |        |
|         |       |          |          |         |          |          |           | PSF     | V     |        |        |
|         |       |          |          |         |          |          |           |         | KNOTS |        |        |
| 2       | .0    | .0       | 72.1     | 34.51   | 72.      | -985.    | 119.      | 31.81   | 54.62 | 128.16 | 3540.  |
| 3       | .0    | .0       | 65.7     | -7.11   | -57.     | -990.    | 102.      | 31.28   | 54.89 | 128.48 | 11660. |
| 4       | .0    | -20.0    | 100.9    | 32.74   | -841.    | 350.     | 40.       | -158.33 | 54.54 | 128.06 | 11670. |
| 5       | .0    | -15.0    | 88.6     | 14.02   | -495.    | -53.     | 90.       | -110.83 | 54.83 | 128.41 | 11660. |
| 6       | .0    | -10.0    | 77.6     | .51     | -228.    | -441.    | 122.      | -60.07  | 54.78 | 128.34 | 11650. |
| 7       | .0    | -5.0     | 71.3     | -6.05   | -106.    | -669.    | 117.      | -18.73  | 54.92 | 128.51 | 11640. |
| 8       | .0    | -2.5     | 67.8     | -7.11   | -86.     | -843.    | 100.      | 5.03    | 54.87 | 128.45 | 11640. |
| 9       | .0    | .0       | 67.4     | -6.90   | -92.     | -976.    | 116.      | 32.27   | 55.43 | 129.11 | 11650. |
| 10      | .0    | 2.5      | 66.8     | -5.75   | -176.    | -1030.   | 76.       | 52.65   | 55.25 | 128.91 | 11650. |
| 11      | .0    | 5.0      | 71.4     | -3.59   | -230.    | -1160.   | 87.       | 75.90   | 54.93 | 128.53 | 11650. |
| 12      | .0    | 10.0     | 80.9     | 3.98    | -521.    | -1564.   | 183.      | 121.29  | 54.91 | 128.50 | 11660. |
| 13      | .0    | 15.0     | 89.5     | 17.34   | -869.    | -1679.   | 197.      | 162.03  | 55.31 | 128.98 | 11650. |
| 14      | .0    | 20.0     | 97.4     | 40.97   | -1118.   | -2106.   | 255.      | 211.17  | 54.28 | 127.75 | 11650. |
| 15      | .0    | .0       | 67.5     | -6.88   | -71.     | -985.    | 119.      | 31.19   | 54.93 | 128.53 | 11630. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM   | Cy     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1947 | .0933  | .0231  | -.0595 | .0072 | .0860  |
| 3    | .00    | .1774 | -.0192 | -.0185 | -.0598 | .0061 | .0845  |
| 4    | -20.00 | .2727 | .0885  | -.2712 | .0211  | .0024 | -.4279 |
| 5    | -15.00 | .2394 | .0379  | -.1597 | -.0032 | .0054 | -.2995 |
| 6    | -10.00 | .2098 | .0014  | -.0736 | -.0266 | .0074 | -.1624 |
| 7    | -5.00  | .1927 | -.0164 | -.0341 | -.0404 | .0071 | -.0506 |
| 8    | -2.50  | .1832 | -.0192 | -.0278 | -.0509 | .0061 | .0136  |
| 9    | .00    | .1820 | -.0187 | -.0296 | -.0589 | .0070 | .0872  |
| 10   | 2.50   | .1805 | .0155  | -.0569 | -.0622 | .0046 | .1423  |
| 11   | 5.00   | .1929 | -.0097 | -.0742 | -.0701 | .0053 | .2051  |
| 12   | 10.00  | .2188 | .0108  | -.1681 | -.0944 | .0110 | .3278  |
| 13   | 15.00  | .2419 | .0469  | -.2801 | -.1014 | .0119 | .4379  |
| 14   | 20.00  | .2632 | .1107  | -.3604 | -.1272 | .0154 | .5707  |
| 15   | .00    | .1825 | -.0186 | -.0228 | -.0595 | .0072 | .0843  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1947 | .0933  | .0231  | -.0595 | .0072  | .0860  |
| 3    | .00    | .1774 | -.0192 | -.0185 | -.0598 | .0061  | .0845  |
| 4    | -20.00 | .2727 | -.0639 | -.2591 | .0211  | .0197  | -.4323 |
| 5    | -15.00 | .2394 | -.0413 | -.1618 | -.0032 | .0130  | -.2991 |
| 6    | -10.00 | .2098 | -.0270 | -.0793 | -.0266 | .0097  | -.1601 |
| 7    | -5.00  | .1927 | -.0207 | -.0372 | -.0404 | .0076  | -.0490 |
| 8    | -2.50  | .1832 | -.0186 | -.0291 | -.0509 | .0063  | .0144  |
| 9    | .00    | .1820 | -.0187 | -.0296 | -.0589 | .0070  | .0872  |
| 10   | 2.50   | .1805 | -.0218 | -.0557 | -.0622 | .0041  | .1415  |
| 11   | 5.00   | .1929 | -.0276 | -.0715 | -.0701 | .0040  | .2035  |
| 12   | 10.00  | .2188 | -.0466 | -.1552 | -.0944 | .0054  | .3247  |
| 13   | 15.00  | .2419 | -.0686 | -.2540 | -.1014 | -.0022 | .4350  |
| 14   | 20.00  | .2632 | -.0921 | -.3103 | -.1272 | -.0087 | .5740  |
| 15   | .00    | .1825 | -.0186 | -.0228 | -.0595 | .0072  | .0843  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P497

RUN 621 CONFIG F P B NP5 W7 T36 BT IN=-3.5 WM

| IW<br>PT.<br>NO. | 0.0 DELF<br>ALPHA<br>DEG | 0.0 DELA<br>PSI<br>DEG | 0.0 IHT<br>CLBAR<br>SQ-FT | 0.0 DELE<br>CDBAR<br>SQ-FT | 0.0 DELR<br>CPMBAR<br>CU-FT | 0.0 DELS<br>CYMBAR<br>CU-FT | 0.0 DELSB<br>CFMBAR<br>CU-FT | 0.0<br>CYBAR<br>SQ-FT | 0.0<br>PSF | 0.0<br>V.<br>KNOTS | RPM   |
|------------------|--------------------------|------------------------|---------------------------|----------------------------|-----------------------------|-----------------------------|------------------------------|-----------------------|------------|--------------------|-------|
| 2                | .0                       | .0                     | 76.4                      | 36.04                      | -25.                        | -77.                        | -10.                         | 7.83                  | 5.22       | 39.30              | 190.  |
| 3                | .0                       | .0                     | 71.5                      | 34.22                      | 21.                         | -80.                        | -107.                        | 9.62                  | 10.26      | 55.15              | 1100. |
| 4                | .0                       | .0                     | 70.7                      | 32.68                      | 52.                         | -96.                        | 37.                          | 7.63                  | 20.84      | 78.73              | 2210. |
| 5                | .0                       | .0                     | 71.1                      | 32.60                      | 53.                         | -92.                        | 26.                          | 9.73                  | 25.21      | 86.65              | 2430. |
| 6                | .0                       | .0                     | 68.7                      | 31.79                      | 49.                         | -75.                        | 15.                          | 6.47                  | 42.14      | 112.34             | 3130. |
| 7                | .0                       | .0                     | 72.4                      | 32.19                      | 56.                         | -82.                        | 8.                           | 8.54                  | 52.68      | 125.82             | 3490. |
| 8                | .0                       | .0                     | 73.1                      | 31.66                      | 63.                         | -77.                        | 4.                           | 9.05                  | 64.72      | 139.73             | 3850. |
| 9                | .0                       | .0                     | 72.2                      | 31.65                      | 64.                         | -71.                        | -9.                          | 7.49                  | 75.53      | 151.22             | 4150. |
| 10               | .0                       | .0                     | 71.4                      | 31.44                      | 47.                         | -70.                        | -10.                         | 7.84                  | 87.72      | 163.29             | 4450. |
| 11               | .0                       | .0                     | 71.1                      | 31.51                      | 66.                         | -48.                        | -0.                          | 7.99                  | 96.78      | 171.76             | 4660. |
| 12               | .0                       | .0                     | 70.8                      | 32.07                      | 54.                         | -44.                        | -46.                         | 7.49                  | 53.64      | 126.97             | 3520. |
| 13               | .0                       | .0                     | 70.6                      | 32.31                      | 54.                         | -49.                        | -11.                         | 8.77                  | 42.71      | 113.10             | 3160. |
| 14               | .0                       | .0                     | 69.1                      | 32.51                      | 31.                         | -51.                        | -9.                          | 7.48                  | 30.98      | 96.14              | 2690. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD    | CPM    | CYM    | CRM    | Cy    |
|------|-------|-------|-------|--------|--------|--------|-------|
| 2    | .00   | .2064 | .0974 | -.0082 | -.0046 | -.0006 | .0212 |
| 3    | .00   | .1932 | .0925 | .0067  | -.0048 | -.0064 | .0260 |
| 4    | .00   | .1910 | .0883 | .0167  | -.0058 | .0022  | .0208 |
| 5    | .00   | .1921 | .0881 | .0172  | -.0056 | .0016  | .0263 |
| 6    | .00   | .1856 | .0859 | .0158  | -.0045 | .0009  | .0175 |
| 7    | .00   | .1957 | .0870 | .0180  | -.0050 | .0005  | .0231 |
| 8    | .00   | .1975 | .0856 | .0204  | -.0047 | .0002  | .0245 |
| 9    | .00   | .1951 | .0855 | .0206  | -.0043 | -.0006 | .0202 |
| 10   | .00   | .1928 | .0850 | .0151  | -.0042 | -.0006 | .0212 |
| 11   | .00   | .1921 | .0852 | .0212  | -.0029 | -.0000 | .0216 |
| 12   | .00   | .1913 | .0867 | .0174  | -.0027 | -.0027 | .0203 |
| 13   | .00   | .1907 | .0873 | .0175  | -.0030 | -.0007 | .0237 |
| 14   | .00   | .1867 | .0879 | .0101  | -.0031 | -.0006 | .0202 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|-------|-------|-------|--------|--------|--------|-------|
| 2    | .00   | .2064 | .0974 | -.0082 | -.0046 | -.0006 | .0212 |
| 3    | .00   | .1932 | .0925 | .0067  | -.0048 | -.0064 | .0260 |
| 4    | .00   | .1910 | .0883 | .0167  | -.0058 | .0022  | .0208 |
| 5    | .00   | .1921 | .0881 | .0172  | -.0056 | .0016  | .0263 |
| 6    | .00   | .1856 | .0859 | .0158  | -.0045 | .0009  | .0175 |
| 7    | .00   | .1957 | .0870 | .0180  | -.0050 | .0005  | .0231 |
| 8    | .00   | .1975 | .0856 | .0204  | -.0047 | .0002  | .0245 |
| 9    | .00   | .1951 | .0855 | .0206  | -.0043 | -.0006 | .0202 |
| 10   | .00   | .1928 | .0850 | .0151  | -.0042 | -.0006 | .0212 |
| 11   | .00   | .1921 | .0852 | .0212  | -.0029 | -.0000 | .0216 |
| 12   | .00   | .1913 | .0867 | .0174  | -.0027 | -.0027 | .0203 |
| 13   | .00   | .1907 | .0873 | .0175  | -.0030 | -.0007 | .0237 |
| 14   | .00   | .1867 | .0879 | .0101  | -.0031 | -.0006 | .0202 |

RUN 622 CONFIG F P B NP5 W7 T36 BT IN=-3,5 ALPHA=10

| PT. NO. | IW ALPHA DEG | 0.0 DELF PSI DEG | 0.0 DELA CLBAR SQ-FT | 0.0 IHT CDBAR SQ-FT | 0.0 DELE CPMBAR CU-FT | 0.0 DELR CRMBAR CU-FT | 0.0 DELSB CYBAR SQ-FT | 0.0 DELSB Q PSF | 0.0 V KNOTS | RPM    |        |
|---------|--------------|------------------|----------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------|-------------|--------|--------|
| 3       | .0           | .0               | 47.2                 | -4.50               | -35.                  | -43.                  | 972.                  | 6.47            | 55.31       | 128.97 | 11390. |
| 4       | 10.0         | .0               | 379.9                | 22.41               | -277.                 | -102.                 | 103.                  | 4.02            | 55.08       | 128.70 | 11390. |
| 5       | 10.0         | -20.0            | 391.6                | 62.85               | -1272.                | 573.                  | -277.                 | -151.96         | 55.30       | 128.96 | 11420. |
| 6       | 10.0         | -15.0            | 390.7                | 43.87               | -1050.                | 97.                   | -183.                 | -106.71         | 55.13       | 128.76 | 11410. |
| 7       | 10.0         | -10.0            | 383.0                | 29.95               | -648.                 | 97.                   | -72.                  | -67.59          | 55.24       | 128.89 | 11430. |
| 8       | 10.0         | -5.0             | 381.0                | 25.00               | -398.                 | -0.                   | 61.                   | -31.41          | 55.42       | 129.11 | 11320. |
| 9       | 10.0         | -2.5             | 381.0                | 23.07               | -317.                 | -51.                  | 61.                   | -11.55          | 55.17       | 128.81 | 11420. |
| 10      | 10.0         | .0               | 378.9                | 22.54               | -311.                 | -115.                 | 85.                   | 4.68            | 55.28       | 128.94 | 11420. |
| 11      | 10.0         | 2.5              | 378.8                | 23.05               | -337.                 | -133.                 | 129.                  | 23.47           | 55.15       | 128.79 | 11390. |
| 12      | 10.0         | 5.0              | 378.6                | 24.80               | -437.                 | -137.                 | 159.                  | 40.10           | 55.22       | 128.86 | 11370. |
| 13      | 10.0         | 10.0             | 378.4                | 29.75               | -742.                 | -183.                 | 263.                  | 76.47           | 55.33       | 128.99 | 11460. |
| 14      | 10.0         | 15.0             | 386.1                | 41.39               | -1093.                | -191.                 | 398.                  | 114.73          | 54.63       | 128.16 | 11450. |
| 15      | 10.0         | .0               | 377.9                | 22.17               | -257.                 | -93.                  | 85.                   | 5.24            | 55.26       | 128.92 | 11470. |
| 16      | 10.0         | .0               | 374.3                | 63.87               | -211.                 | -75.                  | 67.                   | 4.81            | 55.24       | 128.89 | 3880.  |
| 17      | .0           | .0               | 73.9                 | 33.15               | 163.                  | -86.                  | 81.                   | 9.07            | 10.51       | 55.82  | 1190.  |
| 18      | .0           | .0               | 76.4                 | 34.19               | 172.                  | -103.                 | -13.                  | 10.37           | 7.23        | 46.26  | 710.   |
| 20      | .0           | .0               | 69.4                 | 33.05               | 87.                   | -74.                  | -10.                  | 7.66            | 14.67       | 65.98  | 1770.  |
| 21      | .0           | .0               | 69.4                 | 33.81               | 245.                  | -63.                  | 81.                   | 9.48            | 10.43       | 55.59  | 1150.  |
| 22      | .0           | .0               | 73.8                 | 33.89               | 43.                   | -86.                  | 81.                   | 9.52            | 10.38       | 55.46  | 1160.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | .1275  | -.0122 | -.0114 | -.0026 | -.0587 | .0175  |
| 4    | .00    | 1.0268 | .0606  | -.0893 | -.0062 | .0062  | .0109  |
| 5    | -20.00 | 1.0583 | .1699  | -.4100 | .0346  | -.0168 | -.4107 |
| 6    | -15.00 | 1.0560 | .1186  | -.3386 | .0058  | -.0111 | -.2884 |
| 7    | -10.00 | 1.0352 | .0809  | -.2090 | .0059  | -.0044 | -.1827 |
| 8    | -5.00  | 1.0299 | .0676  | -.1282 | -.0000 | .0037  | -.0849 |
| 9    | -2.50  | 1.0296 | .0623  | -.1021 | -.0031 | .0037  | -.0312 |
| 10   | .00    | 1.0241 | .0609  | -.1003 | -.0069 | .0051  | .0127  |
| 11   | 2.50   | 1.0238 | .0623  | -.1087 | -.0080 | .0078  | .0634  |
| 12   | 5.00   | 1.0232 | .0670  | -.1409 | -.0083 | .0094  | .1084  |
| 13   | 10.00  | 1.0226 | .0804  | -.2393 | -.0111 | .0159  | .2067  |
| 14   | 15.00  | 1.0436 | .1119  | -.3523 | -.0115 | .0241  | .3101  |
| 15   | .00    | 1.0215 | .0599  | -.0828 | -.0056 | .0051  | .0142  |
| 16   | .00    | 1.0117 | .1726  | -.0679 | -.0045 | .0041  | .0130  |
| 17   | .00    | .1997  | .0896  | .0526  | -.0052 | .0049  | .0245  |
| 18   | .00    | .2064  | .0924  | .0556  | -.0062 | -.0008 | .0280  |
| 20   | .00    | .1877  | .0893  | .0281  | -.0045 | -.0006 | .0207  |
| 21   | .00    | .1875  | .0914  | .0791  | -.0038 | .0049  | .0256  |
| 22   | .00    | .1993  | .0916  | .0139  | -.0052 | .0049  | .0257  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | .1275  | -.0122 | -.0114 | -.0026 | -.0587 | .0175  |
| 4    | .00    | 1.0268 | .0606  | -.0893 | -.0062 | .0062  | .0109  |
| 5    | -20.00 | 1.0583 | .0184  | -.3543 | .0346  | .0107  | -.4441 |
| 6    | -15.00 | 1.0560 | .0395  | -.3116 | .0058  | .0058  | -.3093 |
| 7    | -10.00 | 1.0352 | .0478  | -.2018 | .0059  | .0025  | -.1940 |
| 8    | -5.00  | 1.0299 | .0599  | -.1294 | -.0000 | .0058  | -.0905 |
| 9    | -2.50  | 1.0296 | .0609  | -.1028 | -.0031 | .0045  | -.0339 |
| 10   | .00    | 1.0241 | .0609  | -.1003 | -.0069 | .0051  | .0127  |
| 11   | 2.50   | 1.0238 | .0595  | -.1068 | -.0080 | .0069  | .0661  |
| 12   | 5.00   | 1.0232 | .0573  | -.1358 | -.0083 | .0073  | .1138  |
| 13   | 10.00  | 1.0226 | .0431  | -.2209 | -.0111 | .0078  | .2175  |
| 14   | 15.00  | 1.0436 | .0274  | -.3068 | -.0115 | .0061  | .3285  |
| 15   | .00    | 1.0215 | .0599  | -.0828 | -.0056 | .0051  | .0142  |
| 16   | .00    | 1.0117 | .1726  | -.0679 | -.0045 | .0041  | .0130  |
| 17   | .00    | .1997  | .0896  | .0526  | -.0052 | .0049  | .0245  |
| 18   | .00    | .2064  | .0924  | .0556  | -.0062 | -.0008 | .0280  |
| 20   | .00    | .1877  | .0893  | .0281  | -.0045 | -.0006 | .0207  |
| 21   | .00    | .1875  | .0914  | .0791  | -.0038 | .0049  | .0256  |
| 22   | .00    | .1993  | .0916  | .0139  | -.0052 | .0049  | .0257  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 623 CONFIG F P B NP5 W7 T36 BT IN=-3.5 150 GRIT WM

| IW<br>PT.<br>NO. | 0.0<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 0.0<br>CLBAR<br>SQ-FT | 0.0<br>CDBAR<br>SQ-FT | 0.0<br>CPMBAR<br>CU-FT | 0.0<br>CYMBAR<br>CU-FT | 0.0<br>CRMBAR<br>CU-FT | 0.0<br>CYBAR<br>SQ-FT | 0.0<br>DELSB<br>G<br>PSF | 0.0<br>V<br>KNOTS | RPM   |
|------------------|---------------------|---------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|-----------------------|--------------------------|-------------------|-------|
| 3                | .0                  | .0                  | 78.4                  | 35.01                 | -17.                   | -35.                   | -13.                   | 10.55                 | 6.46                     | 43.73             | 480.  |
| 4                | .0                  | .0                  | 75.1                  | 34.12                 | 11.                    | -45.                   | -12.                   | 9.16                  | 10.04                    | 54.55             | 1080. |
| 5                | .0                  | .0                  | 71.0                  | 33.77                 | 3.                     | -39.                   | -10.                   | 7.85                  | 15.19                    | 67.15             | 1810. |
| 7                | .0                  | .0                  | 72.6                  | 34.02                 | 37.                    | -64.                   | 37.                    | 9.42                  | 19.88                    | 76.88             | 2180. |
| 8                | .0                  | .0                  | 69.7                  | 34.18                 | 35.                    | -59.                   | -11.                   | 8.92                  | 30.16                    | 94.86             | 2670. |
| 9                | .0                  | .0                  | 71.9                  | 34.36                 | 57.                    | -48.                   | 13.                    | 7.77                  | 42.11                    | 112.30            | 3130. |
| 10               | .0                  | .0                  | 70.7                  | 34.68                 | 65.                    | -55.                   | 26.                    | 8.16                  | 53.00                    | 126.21            | 3500. |
| 11               | .0                  | .0                  | 69.8                  | 33.69                 | 51.                    | -57.                   | -42.                   | 8.94                  | 64.05                    | 139.00            | 3810. |
| 12               | .0                  | .0                  | 69.7                  | 33.32                 | 55.                    | -56.                   | -10.                   | 7.66                  | 74.69                    | 150.36            | 4130. |
| 13               | .0                  | .0                  | 68.1                  | 32.91                 | 62.                    | -40.                   | -22.                   | 8.76                  | 87.46                    | 163.05            | 4440. |
| 14               | .0                  | .0                  | 68.9                  | 32.87                 | 70.                    | -40.                   | 0.                     | 7.83                  | 97.48                    | 172.41            | 4680. |
| 15               | .0                  | .0                  | 68.8                  | 33.72                 | 53.                    | -49.                   | -10.                   | 8.21                  | 53.55                    | 126.87            | 3510. |
| 16               | .0                  | .0                  | 69.9                  | 34.06                 | 44.                    | -57.                   | 12.                    | 8.83                  | 42.44                    | 112.74            | 3150. |
| 17               | .0                  | .0                  | 69.7                  | 33.84                 | 55.                    | -51.                   | 28.                    | 8.89                  | 49.79                    | 122.27            | 3390. |
| 18               | .0                  | .0                  | 68.9                  | 33.69                 | 47.                    | -58.                   | -30.                   | 9.07                  | 53.31                    | 126.59            | 3500. |
| 19               | .0                  | .0                  | 69.6                  | 33.49                 | 39.                    | -55.                   | 6.                     | 8.14                  | 58.57                    | 132.79            | 3660. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD    | CPM    | CYM    | CRM    | CY    |
|------|-------|-------|-------|--------|--------|--------|-------|
| 3    | .00   | .2118 | .0946 | -.0054 | -.0021 | -.0008 | .0285 |
| 4    | .00   | .2029 | .0922 | .0037  | -.0027 | -.0007 | .0248 |
| 5    | .00   | .1919 | .0913 | .0010  | -.0023 | -.0006 | .0212 |
| 7    | .00   | .1962 | .0919 | .0121  | -.0039 | .0022  | .0255 |
| 8    | .00   | .1883 | .0924 | .0112  | -.0035 | -.0007 | .0241 |
| 9    | .00   | .1945 | .0929 | .0185  | -.0029 | .0008  | .0210 |
| 10   | .00   | .1910 | .0937 | .0208  | -.0033 | .0016  | .0221 |
| 11   | .00   | .1886 | .0911 | .0164  | -.0034 | -.0025 | .0241 |
| 12   | .00   | .1885 | .0900 | .0179  | -.0034 | -.0006 | .0207 |
| 13   | .00   | .1840 | .0889 | .0200  | -.0024 | -.0013 | .0237 |
| 14   | .00   | .1863 | .0888 | .0226  | -.0024 | .0000  | .0212 |
| 15   | .00   | .1860 | .0911 | .0170  | -.0030 | -.0006 | .0222 |
| 16   | .00   | .1890 | .0921 | .0143  | -.0034 | .0007  | .0239 |
| 17   | .00   | .1885 | .0915 | .0176  | -.0031 | .0017  | .0240 |
| 18   | .00   | .1863 | .0911 | .0150  | -.0035 | -.0018 | .0245 |
| 19   | .00   | .1881 | .0905 | .0125  | -.0033 | .0004  | .0220 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|-------|-------|-------|--------|--------|--------|-------|
| 3    | .00   | .2118 | .0946 | -.0054 | -.0021 | -.0008 | .0285 |
| 4    | .00   | .2029 | .0922 | .0037  | -.0027 | -.0007 | .0248 |
| 5    | .00   | .1919 | .0913 | .0010  | -.0023 | -.0006 | .0212 |
| 7    | .00   | .1962 | .0919 | .0121  | -.0039 | .0022  | .0255 |
| 8    | .00   | .1883 | .0924 | .0112  | -.0035 | -.0007 | .0241 |
| 9    | .00   | .1945 | .0929 | .0185  | -.0029 | .0008  | .0210 |
| 10   | .00   | .1910 | .0937 | .0208  | -.0033 | .0016  | .0221 |
| 11   | .00   | .1886 | .0911 | .0164  | -.0034 | -.0025 | .0241 |
| 12   | .00   | .1885 | .0900 | .0179  | -.0034 | -.0006 | .0207 |
| 13   | .00   | .1840 | .0889 | .0200  | -.0024 | -.0013 | .0237 |
| 14   | .00   | .1863 | .0888 | .0226  | -.0024 | .0000  | .0212 |
| 15   | .00   | .1860 | .0911 | .0170  | -.0030 | -.0006 | .0222 |
| 16   | .00   | .1890 | .0921 | .0143  | -.0034 | .0007  | .0239 |
| 17   | .00   | .1885 | .0915 | .0176  | -.0031 | .0017  | .0240 |
| 18   | .00   | .1863 | .0911 | .0150  | -.0035 | -.0018 | .0245 |
| 19   | .00   | .1881 | .0905 | .0125  | -.0033 | .0004  | .0220 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 500

RUN 624 CONFIG F P B NP5 W7 T36 BT IN=-3.5 150 GRIT 23000

| IW<br>PT.<br>NO. | 0.0<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 0.0<br>CLBAR<br>SQ-FT | 0.0<br>CDBAR<br>SQ-FT | 0.0<br>IHT<br>CU-FT | 0.0<br>DELE<br>CYMBAR<br>CU-FT | 0.0<br>DELR<br>CRMBAR<br>CU-FT | 0.0<br>DELSB<br>CYBAR<br>SQ-FT | 0.0<br>DELTA<br>PSF | 0.0<br>V<br>KNOTS | RPM    |
|------------------|---------------------|---------------------|-----------------------|-----------------------|---------------------|--------------------------------|--------------------------------|--------------------------------|---------------------|-------------------|--------|
| 3                | .0                  | .0                  | -32.9                 | -1510.06              | -1160.              | 338.                           | 819.                           | -51.45                         | 6.42                | 43.63             | 23050. |
| 4                | .0                  | .0                  | 5.2                   | -946.91               | -765.               | 174.                           | 437.                           | -31.74                         | 9.77                | 53.81             | 23090. |
| 5                | .0                  | .0                  | 31.9                  | -580.22               | -571.               | 145.                           | 344.                           | -12.67                         | 14.78               | 66.25             | 23060. |
| 6                | .0                  | .0                  | 43.0                  | -395.09               | -390.               | 92.                            | 198.                           | -3.73                          | 20.08               | 77.28             | 23020. |
| 7                | .0                  | .0                  | 53.1                  | -239.38               | -270.               | 44.                            | 158.                           | 2.26                           | 30.11               | 94.79             | 22970. |
| 8                | .0                  | .0                  | 56.7                  | -157.77               | -247.               | 86.                            | 111.                           | 4.44                           | 41.44               | 111.40            | 22920. |
| 9                | .0                  | .0                  | 59.3                  | -147.12               | -279.               | -2.                            | 31.                            | 5.28                           | 51.60               | 124.52            | 22970. |
| 10               | .0                  | .0                  | 61.4                  | -116.06               | -227.               | -21.                           | 39.                            | 5.90                           | 62.36               | 137.13            | 22970. |
| 11               | .0                  | .0                  | 61.3                  | -81.92                | -180.               | -23.                           | 41.                            | 6.42                           | 79.12               | 154.88            | 22960. |
| 12               | .0                  | .0                  | 61.8                  | -66.94                | -156.               | -21.                           | 12.                            | 7.39                           | 89.41               | 164.92            | 23010. |
| 13               | .0                  | .0                  | 61.4                  | -56.03                | -133.               | -23.                           | 11.                            | 6.87                           | 99.66               | 174.40            | 23060. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD      | CPM    | CYM    | CRM   | Cy     |
|------|-------|--------|---------|--------|--------|-------|--------|
| 3    | .00   | -.0889 | -4.0812 | -.3739 | .0204  | .0495 | -.1390 |
| 4    | .00   | .0141  | -2.5592 | -.2466 | .0105  | .0264 | -.0858 |
| 5    | .00   | .0863  | -1.5682 | -.1839 | .0087  | .0200 | -.0342 |
| 6    | .00   | .1161  | -1.0678 | -.1257 | .0055  | .0110 | -.0101 |
| 7    | .00   | .1434  | -.6470  | -.0872 | .0027  | .0095 | .0061  |
| 8    | .00   | .1533  | -.4264  | -.0796 | .0052  | .0067 | .0120  |
| 9    | .00   | .1603  | -.3976  | -.0899 | -.0001 | .0019 | .0143  |
| 10   | .00   | .1660  | -.3137  | -.0733 | -.0013 | .0024 | .0159  |
| 11   | .00   | .1657  | -.2214  | -.0580 | -.0014 | .0025 | .0173  |
| 12   | .00   | .1670  | -.1809  | -.0505 | -.0012 | .0007 | .0200  |
| 13   | .00   | .1660  | -.1514  | -.0430 | -.0014 | .0006 | .0186  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB     | CPMB   | CYMB   | CRMB  | CYB    |
|------|-------|--------|---------|--------|--------|-------|--------|
| 3    | .00   | -.0889 | -4.0812 | -.3739 | .0204  | .0495 | -.1390 |
| 4    | .00   | .0141  | -2.5592 | -.2466 | .0105  | .0264 | -.0858 |
| 5    | .00   | .0863  | -1.5682 | -.1839 | .0087  | .0200 | -.0342 |
| 6    | .00   | .1161  | -1.0678 | -.1257 | .0055  | .0110 | -.0101 |
| 7    | .00   | .1434  | -.6470  | -.0872 | .0027  | .0095 | .0061  |
| 8    | .00   | .1533  | -.4264  | -.0796 | .0052  | .0067 | .0120  |
| 9    | .00   | .1603  | -.3976  | -.0899 | -.0001 | .0019 | .0143  |
| 10   | .00   | .1660  | -.3137  | -.0733 | -.0013 | .0024 | .0159  |
| 11   | .00   | .1657  | -.2214  | -.0580 | -.0014 | .0025 | .0173  |
| 12   | .00   | .1670  | -.1809  | -.0505 | -.0012 | .0007 | .0200  |
| 13   | .00   | .1660  | -.1514  | -.0430 | -.0014 | .0006 | .0186  |

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SIKORSKY. RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

*P 501*

RUN 625 CONFIG F P B NP5 W7 T37 BT IN=-3,5

| IW<br>PT.<br>NO. | 0,0<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 0,0<br>CLBAR<br>SQ-FT | 0,0<br>CDBAR<br>SQ-FT | 0,0<br>CPMBAR<br>CU-FT | 0,0<br>CYMBAR<br>CU-FT | 0,0<br>CRMBAR<br>CU-FT | 0,0<br>CYBAR<br>SQ-FT | 0,0<br>DELSB<br>PSF | 0,0<br>V<br>KNOTS | RPM    |
|------------------|---------------------|---------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|-----------------------|---------------------|-------------------|--------|
| 5                | .0                  | .0                  | 70,2                  | 32,54                 | -2.                    | -52.                   | -9.                    | 7,50                  | 55,44               | 129,14            | 3550.  |
| 6                | .0                  | .0                  | 67,9                  | -6,34                 | -96.                   | -39.                   | -9.                    | 7,23                  | 54,22               | 127,68            | 11490. |
| 7                | .0                  | -20,0               | 90,5                  | 39,96                 | -489.                  | 1130.                  | 67.                    | -175,61               | 54,57               | 128,09            | 11520. |
| 8                | .0                  | -15,0               | 81,0                  | 19,22                 | -317.                  | 709.                   | 27.                    | -127,39               | 54,60               | 128,14            | 11480. |
| 9                | .0                  | -10,0               | 76,7                  | 3,96                  | -208.                  | 327.                   | 83.                    | -80,40                | 54,57               | 128,10            | 11490. |
| 10               | .0                  | -5,0                | 70,5                  | -3,93                 | -155.                  | 108.                   | 3.                     | -38,06                | 54,41               | 127,91            | 11510. |
| 11               | .0                  | -2,5                | 65,5                  | -5,78                 | -122.                  | 48.                    | -3.                    | -16,99                | 54,53               | 128,06            | 11510. |
| 12               | .0                  | .0                  | 67,3                  | -6,15                 | -138.                  | -37.                   | -10.                   | 8,10                  | 54,27               | 127,74            | 11520. |
| 13               | .0                  | 2,5                 | 65,6                  | -5,38                 | -161.                  | -61.                   | -26.                   | 28,66                 | 54,55               | 128,07            | 11530. |
| 14               | .0                  | 5,0                 | 66,9                  | -3,77                 | -133.                  | -116.                  | -74.                   | 49,32                 | 54,78               | 128,35            | 11510. |
| 15               | .0                  | 10,0                | 75,4                  | 2,40                  | -336.                  | -404.                  | -45.                   | 93,06                 | 54,40               | 127,89            | 11510. |
| 16               | .0                  | 15,0                | 78,7                  | 15,16                 | -470.                  | -710.                  | 12.                    | 136,80                | 54,66               | 128,20            | 11530. |
| 17               | .0                  | 20,0                | 83,8                  | 36,72                 | -617.                  | -1177.                 | 1.                     | 185,48                | 54,31               | 127,78            | 11520. |
| 18               | .0                  | .0                  | 66,4                  | -5,93                 | -78.                   | -40.                   | -7.                    | 5,86                  | 54,61               | 128,14            | 11490. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 5    | .00    | .1896 | .0880  | -.0008 | -.0031 | -.0006 | .0203  |
| 6    | .00    | .1834 | -.0171 | -.0309 | -.0023 | -.0006 | .0195  |
| 7    | -20,00 | .2447 | .1080  | -.1576 | .0683  | .0041  | -.4746 |
| 8    | -15,00 | .2189 | .0519  | -.1021 | .0428  | .0016  | -.3443 |
| 9    | -10,00 | .2072 | .0107  | -.0669 | .0197  | .0050  | -.2173 |
| 10   | -5,00  | .1906 | -.0106 | -.0500 | .0065  | .0002  | -.1029 |
| 11   | -2,50  | .1771 | -.0156 | -.0394 | .0029  | -.0002 | -.0459 |
| 12   | .00    | .1819 | -.0166 | -.0446 | -.0022 | -.000  | .0219  |
| 13   | 2,50   | .1772 | -.0146 | -.0519 | -.0037 | -.0016 | .0775  |
| 14   | 5,00   | .1808 | -.0102 | -.0428 | -.0070 | -.0045 | .1333  |
| 15   | 10,00  | .2038 | .0065  | -.1084 | -.0244 | -.0027 | .2515  |
| 16   | 15,00  | .2128 | .0410  | -.1515 | -.0429 | .0007  | .3697  |
| 17   | 20,00  | .2264 | .0992  | -.1990 | -.0711 | .0001  | .5013  |
| 18   | .00    | .1794 | -.0160 | -.0252 | -.0024 | -.0004 | .0158  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 5    | .00    | .1896 | .0880  | -.0008 | -.0031 | -.0006 | .0203  |
| 6    | .00    | .1834 | -.0171 | -.0309 | -.0023 | -.0006 | .0195  |
| 7    | -20,00 | .2447 | -.0616 | -.1555 | .0683  | .0140  | -.4828 |
| 8    | -15,00 | .2189 | -.0393 | -.1009 | .0428  | .0065  | -.3460 |
| 9    | -10,00 | .2072 | -.0274 | -.0706 | .0197  | .0071  | -.2158 |
| 10   | -5,00  | .1906 | -.0196 | -.0499 | .0065  | .0010  | -.1015 |
| 11   | -2,50  | .1771 | -.0176 | -.0393 | .0029  | .0001  | -.0452 |
| 12   | .00    | .1819 | -.0166 | -.0446 | -.0022 | -.0006 | .0219  |
| 13   | 2,50   | .1772 | -.0179 | -.0522 | -.0037 | -.0020 | .0768  |
| 14   | 5,00   | .1808 | -.0218 | -.0447 | -.0070 | -.0052 | .1319  |
| 15   | 10,00  | .2038 | -.0375 | -.1092 | -.0244 | -.0062 | .2488  |
| 16   | 15,00  | .2128 | -.0566 | -.1453 | -.0429 | -.006  | .3677  |
| 17   | 20,00  | .2264 | -.0790 | -.1867 | -.0711 | -.0127 | .5049  |
| 18   | .00    | .1794 | -.0160 | -.0252 | -.0024 | -.0004 | .0158  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011  
P 502

RUN 626 CONFIG F P B NP5 W7 T37 BT IN=-3.5 ALPHA=10

| PT. NO. | 0.0 ALPHA DEG | 0.0 DELF PSI DEG | 0.0 DELA CLBAR SQ-FT | 0.0 IHT CDBAR SQ-FT | 0.0 DELE CPMBAR CU-FT | 0.0 DELR CYMBAR CU-FT | 0.0 DELR CRMBAR CU-FT | 0.0 DELSB CYBAR SQ-FT | 0.0 Q PSF | 0.0 V KNOTS | RPM    |
|---------|---------------|------------------|----------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|-------------|--------|
| 6       | 10.0          | .0               | 366.1                | 63.04               | 149.                  | -71.                  | 50.                   | 5.12                  | 55.22     | 128.87      | 3860.  |
| 7       | 10.0          | .0               | 374.6                | -4.77               | 122.                  | -73.                  | 68.                   | 4.79                  | 54.71     | 128.26      | 14610. |
| 8       | 10.0          | -20.0            | 370.0                | 40.94               | -104.                 | 524.                  | 219.                  | -162.78               | 54.75     | 128.31      | 14660. |
| 9       | 10.0          | -15.0            | 369.7                | 19.30               | -36.                  | 92.                   | 134.                  | -116.26               | 54.61     | 128.15      | 14650. |
| 10      | 10.0          | -10.0            | 374.3                | 5.59                | -16.                  | -14.                  | 86.                   | -70.57                | 54.74     | 128.30      | 14660. |
| 11      | 10.0          | -4.9             | 377.3                | -1.89               | 49.                   | -70.                  | 88.                   | -33.16                | 54.45     | 127.96      | 14630. |
| 12      | 10.0          | -2.5             | 376.1                | -3.31               | 95.                   | -66.                  | 94.                   | -14.53                | 54.63     | 128.17      | 14650. |
| 13      | 10.0          | .0               | 375.9                | -4.27               | 91.                   | -86.                  | 128.                  | 4.50                  | 54.45     | 127.96      | 14640. |
| 14      | 10.0          | 2.5              | 372.7                | -3.47               | 56.                   | -77.                  | 99.                   | 23.76                 | 54.76     | 128.33      | 14680. |
| 15      | 10.0          | 5.0              | 372.8                | -1.83               | 45.                   | -77.                  | 100.                  | 42.10                 | 54.46     | 127.96      | 14650. |
| 16      | 10.0          | 10.0             | 369.9                | 5.32                | -21.                  | -75.                  | 112.                  | 81.11                 | 54.55     | 128.08      | 14680. |
| 17      | 10.0          | 15.0             | 365.9                | 17.57               | 0.                    | -203.                 | 52.                   | 124.38                | 54.31     | 127.79      | 14640. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 6    | .00    | .9894  | .1704  | .0479  | -.0043 | .0030 | .0138  |
| 7    | .00    | 1.0123 | -.0129 | .0392  | -.0044 | .0041 | .0130  |
| 8    | -20.00 | 1.0000 | .1107  | -.0335 | .0317  | .0133 | -.4399 |
| 9    | -15.00 | .9992  | .0522  | -.0117 | .0055  | .0081 | -.3142 |
| 10   | -10.00 | 1.0116 | .0151  | -.0050 | -.0008 | .0052 | -.1907 |
| 11   | -4.90  | 1.0198 | -.0051 | .0157  | -.0042 | .0053 | -.0896 |
| 12   | -2.50  | 1.0166 | -.0090 | .0305  | -.0040 | .0057 | -.0393 |
| 13   | .00    | 1.0161 | -.0115 | .0294  | -.0052 | .0074 | .0122  |
| 14   | 2.50   | 1.0073 | -.0094 | .0179  | -.0046 | .0060 | .0642  |
| 15   | 5.00   | 1.0076 | -.0050 | .0145  | -.0046 | .0061 | .1138  |
| 16   | 10.00  | .9997  | .0144  | -.0068 | -.0045 | .0067 | .2192  |
| 17   | 15.00  | .9888  | .0475  | .0000  | -.0123 | .0031 | .3361  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 6    | .00    | .9894  | .1704  | .0479  | -.0043 | .0030 | .0138  |
| 7    | .00    | 1.0123 | -.0129 | .0392  | -.0044 | .0041 | .0130  |
| 8    | -20.00 | 1.0000 | -.0472 | -.0558 | .0317  | .0146 | -.4512 |
| 9    | -15.00 | .9992  | -.0313 | -.0226 | .0055  | .0084 | -.3170 |
| 10   | -10.00 | 1.0116 | -.0184 | -.0098 | -.0008 | .0055 | -.1904 |
| 11   | -4.90  | 1.0198 | -.0128 | .0132  | -.0042 | .0051 | -.0888 |
| 12   | -2.50  | 1.0166 | -.0107 | .0291  | -.0040 | .0054 | -.0388 |
| 13   | .00    | 1.0161 | -.0115 | .0294  | -.0052 | .0074 | .0122  |
| 14   | 2.50   | 1.0073 | -.0122 | .0193  | -.0046 | .0061 | .0638  |
| 15   | 5.00   | 1.0076 | -.0149 | .0173  | -.0046 | .0063 | .1129  |
| 16   | 10.00  | .9997  | -.0241 | -.0005 | -.0045 | .0064 | .2184  |
| 17   | 15.00  | .9888  | -.0415 | .0043  | -.0123 | .0030 | .3369  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 503

RUN 627 CONFIG F P B NP5 W7 T37 BT IN=-3,5 ALPHA=10

| PT. NO. | I.W. ALPHA DEG | 0.0 DELF |       | 0.0 DELA    |             | 0.0 IHT      |              | 0.0 DELE     |             | 0.0 DELR |         | 0.0 DELSB |  | 0.0 |  | RPM |
|---------|----------------|----------|-------|-------------|-------------|--------------|--------------|--------------|-------------|----------|---------|-----------|--|-----|--|-----|
|         |                | PSI      | DEG   | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF    | V KNOTS |           |  |     |  |     |
| 1       | -0             | .0       | 66.2  | -6.30       | -71.        | -45.         | 27.          | 6.92         | 54.68       | 128.23   | 11480.  |           |  |     |  |     |
| 2       | 10.0           | -20.0    | 365.1 | 64.89       | -78.        | 544.         | 205.         | -152.13      | 54.66       | 128.20   | 11420.  |           |  |     |  |     |
| 3       | 10.0           | -15.0    | 365.7 | 43.54       | -10.        | 52.          | 159.         | -104.90      | 54.69       | 128.24   | 11440.  |           |  |     |  |     |
| 4       | 10.0           | -10.0    | 371.6 | 30.95       | -32.        | 5.           | 79.          | -65.42       | 54.15       | 127.60   | 11460.  |           |  |     |  |     |
| 5       | 10.0           | -5.0     | 372.2 | 24.11       | 68.         | -61.         | 102.         | -28.40       | 54.46       | 127.97   | 11460.  |           |  |     |  |     |
| 6       | 10.0           | -2.5     | 373.4 | 22.95       | 97.         | -73.         | 111.         | -13.11       | 54.33       | 127.81   | 11470.  |           |  |     |  |     |
| 7       | 10.0           | .0       | 373.9 | 22.43       | 113.        | -81.         | 69.          | 5.15         | 54.20       | 127.66   | 11470.  |           |  |     |  |     |
| 8       | 10.0           | 2.5      | 370.4 | 22.66       | 69.         | -79.         | 101.         | 22.21        | 54.61       | 128.15   | 11490.  |           |  |     |  |     |
| 9       | 10.0           | 5.0      | 370.0 | 24.36       | 13.         | -74.         | 139.         | 38.36        | 54.52       | 128.04   | 11460.  |           |  |     |  |     |
| 10      | 10.0           | 10.0     | 365.0 | 30.67       | -14.        | -74.         | 101.         | 74.04        | 54.57       | 128.09   | 11450.  |           |  |     |  |     |
| 11      | 10.0           | 15.0     | 358.4 | 42.24       | 22.         | -183.        | 44.          | 113.37       | 54.77       | 128.34   | 11440.  |           |  |     |  |     |
| 12      | 10.0           | 20.0     | 358.8 | 65.56       | -231.       | -929.        | 26.          | 163.48       | 54.80       | 128.37   | 11440.  |           |  |     |  |     |
| 13      | 10.0           | 20.0     | 360.6 | 66.26       | -249.       | -957.        | 21.          | 167.29       | 54.78       | 128.34   | 11450.  |           |  |     |  |     |
| 14      | 10.0           | .0       | 375.2 | 23.03       | 135.        | -78.         | 139.         | 4.85         | 54.73       | 128.29   | 11440.  |           |  |     |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 1    | .00    | .1788  | -.0170 | -.0230 | -.0027 | .0016 | .0187  |
| 2    | -20.00 | .9867  | .1754  | -.0251 | .0329  | .0124 | -.4112 |
| 3    | -15.00 | .9884  | .1177  | -.0031 | .0031  | .0098 | -.2835 |
| 4    | -10.00 | 1.0042 | .0836  | -.0104 | .0003  | .0048 | -.1768 |
| 5    | -5.00  | 1.0060 | .0651  | .0221  | -.0037 | .0061 | -.0767 |
| 6    | -2.50  | 1.0093 | .0620  | .0314  | -.0044 | .0067 | -.0354 |
| 7    | .00    | 1.0104 | .0606  | .0365  | -.0049 | .0041 | .0139  |
| 8    | 2.50   | 1.0012 | .0612  | .0221  | -.0048 | .0061 | .0600  |
| 9    | 5.00   | 1.0000 | .0658  | .0043  | -.0044 | .0084 | .1037  |
| 10   | 10.00  | .9864  | .0829  | -.0046 | -.0045 | .0061 | .2001  |
| 11   | 15.00  | .9686  | .1142  | .0070  | -.0111 | .0027 | .3064  |
| 12   | 20.00  | .9697  | .1772  | -.0746 | -.0561 | .0016 | .4418  |
| 13   | 20.00  | .9747  | .1791  | -.0802 | -.0578 | .0013 | .4521  |
| 14   | .00    | 1.0140 | .0622  | .0434  | -.0047 | .0084 | .0131  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 1    | .00    | .1788  | -.0170 | -.0230 | -.0027 | .0016  | .0187  |
| 2    | -20.00 | .9867  | .0235  | -.0463 | .0329  | .0133  | -.4464 |
| 3    | -15.00 | .9884  | .0399  | -.0163 | .0031  | .0094  | -.3043 |
| 4    | -10.00 | 1.0042 | .0515  | -.0147 | .0003  | .0050  | -.1887 |
| 5    | -5.00  | 1.0060 | .0582  | .0191  | -.0037 | .0058  | -.0822 |
| 6    | -2.50  | 1.0093 | .0604  | .0298  | -.0044 | .0062  | -.0381 |
| 7    | .00    | 1.0104 | .0606  | .0365  | -.0049 | .0041  | .0139  |
| 8    | 2.50   | 1.0012 | .0585  | .0235  | -.0048 | .0063  | .0626  |
| 9    | 5.00   | 1.0000 | .0565  | .0082  | -.0044 | .0084  | .1090  |
| 10   | 10.00  | .9864  | .0467  | .0012  | -.0045 | .0059  | .2115  |
| 11   | 15.00  | .9686  | .0306  | .0104  | -.0111 | .0029  | .3256  |
| 12   | 20.00  | .9697  | .0146  | -.0672 | -.0561 | -.0033 | .4758  |
| 13   | 20.00  | .9747  | .0129  | -.0730 | -.0578 | -.0040 | .4861  |
| 14   | .00    | 1.0140 | .0622  | .0434  | -.0047 | .0084  | .0131  |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 504

RUN 628 CONFIG F P B NP5 W7 T37 BT IN=-3,5

| PT. NO. | IW ALPHA DEG | 0.0 DELF PSI DEG | 0.0 DELA CLBAR SQ-FT | 0.0 IHT CDBAR SQ-FT | 0.0 DELE CPMBAR CU-FT | 0.0 DELR CYMBAR CU-FT | 0.0 DELR CRMBAR CM-FT | -10 DELSB CYBAR SQ-FT | 0.0 DELSB Q PSF | 0.0 V KNOTS | RPM    |
|---------|--------------|------------------|----------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|-------------|--------|
| 4       | .0           | .0               | 65.6                 | -6.19               | -86.                  | -283.                 | 19.                   | 13.56                 | 54.24           | 127.71      | 11450. |
| 5       | .0           | -20.0            | 89.5                 | 37.96               | -443.                 | 818.                  | 74.                   | -168.42               | 54.49           | 128.00      | 11490. |
| 6       | .0           | -15.0            | 82.9                 | 17.87               | -342.                 | 423.                  | 75.                   | -122.20               | 54.33           | 127.81      | 11500. |
| 7       | .0           | -10.0            | 73.8                 | 2.89                | -155.                 | 51.                   | 90.                   | -72.95                | 55.19           | 128.84      | 11520. |
| 8       | .0           | -5.0             | 69.1                 | -3.76               | -103.                 | -115.                 | 51.                   | -33.76                | 55.00           | 128.61      | 11460. |
| 9       | .0           | -2.4             | 64.3                 | -5.64               | -97.                  | -186.                 | 45.                   | -11.68                | 54.81           | 128.39      | 11500. |
| 10      | .0           | .0               | 66.0                 | -5.30               | -97.                  | -268.                 | 20.                   | 12.61                 | 54.58           | 128.11      | 11470. |
| 11      | .0           | 2.6              | 66.0                 | -4.52               | -117.                 | -315.                 | -15.                  | 36.08                 | 54.76           | 128.33      | 11480. |
| 12      | .0           | 5.1              | 67.1                 | -2.82               | -144.                 | -395.                 | -9.                   | 55.61                 | 55.32           | 128.99      | 11480. |
| 13      | .0           | 10.1             | 74.5                 | 3.32                | -294.                 | -714.                 | 36.                   | 101.50                | 54.64           | 128.18      | 11530. |
| 14      | .0           | 15.0             | 78.5                 | 16.61               | -428.                 | -991.                 | 56.                   | 143.36                | 54.91           | 128.51      | 11530. |
| 15      | .0           | 20.0             | 82.2                 | 38.53               | -563.                 | -1467.                | 29.                   | 191.17                | 54.63           | 128.17      | 11530. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 4    | .00    | .1774 | -.0167 | -.0277 | -.0171 | .0011  | .0367  |
| 5    | -20.00 | .2418 | .1026  | -.1427 | .0494  | .0045  | -.4552 |
| 6    | -15.00 | .2240 | .0483  | -.1101 | .0256  | .0045  | -.3303 |
| 7    | -10.00 | .1995 | .0078  | -.0498 | .0031  | .0055  | -.1972 |
| 8    | -5.00  | .1867 | -.0102 | -.0332 | -.0070 | .0031  | -.0912 |
| 9    | -2.40  | .1738 | -.0152 | -.0312 | -.0113 | .0027  | -.0316 |
| 10   | .00    | .1784 | -.0143 | -.0299 | -.0162 | .0012  | .0341  |
| 11   | 2.60   | .1785 | -.0122 | -.0378 | -.0190 | -.0009 | .0975  |
| 12   | 5.10   | .1812 | -.0076 | -.0463 | -.0239 | -.0006 | .1503  |
| 13   | 10.10  | .2014 | .0090  | -.0947 | -.0431 | .0022  | .2743  |
| 14   | 15.00  | .2123 | .0449  | -.1380 | -.0599 | .0034  | .3875  |
| 15   | 20.00  | .2222 | .1041  | -.1814 | -.0886 | .0018  | .5167  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 4    | .00    | .1774 | -.0167 | -.0277 | -.0171 | .0011  | .0367  |
| 5    | -20.00 | .2418 | -.0600 | -.1423 | .0494  | .0134  | -.4627 |
| 6    | -15.00 | .2240 | -.0392 | -.1126 | .0256  | .0097  | -.3315 |
| 7    | -10.00 | .1995 | -.0267 | -.0541 | .0031  | .0070  | -.1955 |
| 8    | -5.00  | .1867 | -.0181 | -.0345 | -.0070 | .0036  | -.0900 |
| 9    | -2.40  | .1738 | -.0166 | -.0318 | -.0113 | .0037  | -.0309 |
| 10   | .00    | .1784 | -.0143 | -.0299 | -.0162 | .0012  | .0341  |
| 11   | 2.60   | .1785 | -.0167 | -.0379 | -.0190 | -.0012 | .0969  |
| 12   | 5.10   | .1812 | -.0210 | -.0464 | -.0239 | -.0013 | .1490  |
| 13   | 10.10  | .2014 | -.0395 | -.0911 | -.0431 | -.0010 | .2716  |
| 14   | 15.00  | .2123 | -.0574 | -.1285 | -.0599 | -.0035 | .3858  |
| 15   | 20.00  | .2222 | -.0797 | -.1671 | -.0886 | -.0100 | .5210  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 505

RUN 629 CONFIG F P B NP5 W7 T37 BT IN=-3.5

| PT. NO. | IW | 0,0 DELF<br>ALPHA<br>DEG | 0,0 DELA<br>PSI<br>DEG | 0,0 DELA<br>CLBAR<br>SQ-FT | 0,0 IHT<br>CDBAR<br>SQ-FT | 0,0 DELE<br>CPMBAR<br>CU-FT | 0,0 DELR<br>CYMBAR<br>CU-FT | 0,0 DELR<br>CRMBAR<br>CU-FT | -20 DELSB<br>CYBAR<br>SQ-FT | 0,0<br>PSF | 0,0<br>V<br>KNOTS | RPM    |
|---------|----|--------------------------|------------------------|----------------------------|---------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------|-------------------|--------|
| 2       |    | .0                       | .0                     | 70.0                       | 33.55                     | 44.                         | -559.                       | 62.                         | 21.27                       | 54.62      | 128.16            | 3540.  |
| 3       |    | .0                       | .0                     | 62.8                       | -6.01                     | -80.                        | -541.                       | 66.                         | 18.19                       | 54.51      | 128.03            | 11580. |
| 4       |    | .0                       | -20.0                  | 88.8                       | 37.13                     | -424.                       | 548.                        | 173.                        | -162.56                     | 54.67      | 128.22            | 11480. |
| 6       |    | .0                       | -10.0                  | 72.9                       | 3.49                      | -188.                       | -173.                       | 136.                        | -67.96                      | 55.09      | 128.72            | 11500. |
| 7       |    | .0                       | -5.0                   | 69.4                       | -3.53                     | -100.                       | -350.                       | 112.                        | -26.63                      | 55.26      | 128.92            | 11520. |
| 8       |    | .0                       | -15.0                  | 80.1                       | 17.68                     | -253.                       | 151.                        | 133.                        | -113.12                     | 55.08      | 128.70            | 11480. |
| 9       |    | .0                       | -2.5                   | 63.9                       | -4.90                     | -112.                       | -449.                       | 70.                         | -5.58                       | 54.91      | 128.50            | 11510. |
| 10      |    | .0                       | .0                     | 63.9                       | -4.97                     | -88.                        | -554.                       | 45.                         | 20.64                       | 54.62      | 128.16            | 11590. |
| 11      |    | .0                       | 2.5                    | 65.4                       | -4.06                     | -125.                       | -606.                       | 9.                          | 43.46                       | 54.32      | 127.80            | 11490. |
| 12      |    | .0                       | 5.0                    | 67.0                       | -1.92                     | -144.                       | -699.                       | 50.                         | 64.24                       | 54.30      | 127.77            | 11510. |
| 13      |    | .0                       | 10.1                   | 73.6                       | 5.48                      | -328.                       | -1050.                      | 26.                         | 109.30                      | 54.79      | 128.36            | 11510. |
| 14      |    | .0                       | 15.0                   | 79.0                       | 19.02                     | -467.                       | -1283.                      | 46.                         | 151.98                      | 54.62      | 128.16            | 11520. |
| 15      |    | .0                       | 20.0                   | 82.3                       | 42.12                     | -564.                       | -1771.                      | 89.                         | 200.80                      | 54.49      | 128.00            | 11510. |
| 16      |    | .0                       | .0                     | 64.8                       | -5.51                     | -52.                        | -552.                       | 63.                         | 20.32                       | 54.64      | 128.19            | 11520. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1891 | .0907  | .0142  | -.0338 | .0037 | .0575  |
| 3    | .00    | .1699 | -.0162 | -.0258 | -.0327 | .0040 | .0491  |
| 4    | -20.00 | .2401 | .1003  | -.1366 | .0331  | .0107 | -.4394 |
| 6    | -10.00 | .1972 | -.0094 | -.0606 | -.0104 | .0082 | -.1837 |
| 7    | -5.00  | .1875 | -.0096 | -.0324 | -.0211 | .0068 | -.0720 |
| 8    | -15.00 | .2165 | .0478  | -.0816 | .0091  | .0080 | -.3057 |
| 9    | -2.50  | .1726 | -.0132 | -.0362 | -.0271 | .0042 | -.0151 |
| 10   | .00    | .1726 | -.0134 | -.0284 | -.0335 | .0027 | .0558  |
| 11   | 2.50   | .1768 | -.0110 | -.0404 | -.0366 | .0006 | .1174  |
| 12   | 5.00   | .1810 | -.0052 | -.0463 | -.0423 | .0030 | .1736  |
| 13   | 10.10  | .1990 | .0148  | -.1058 | -.0634 | .0016 | .2954  |
| 14   | 15.00  | .2134 | .0514  | -.1505 | -.0775 | .0028 | .4108  |
| 15   | 20.00  | .2225 | .1138  | -.1819 | -.1070 | .0054 | .5427  |
| 16   | .00    | .1751 | -.0149 | -.0166 | -.0333 | .0038 | .0549  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1891 | .0907  | .0142  | -.0338 | .0037  | .0575  |
| 3    | .00    | .1699 | -.0162 | -.0258 | -.0327 | .0040  | .0491  |
| 4    | -20.00 | .2401 | -.0567 | -.1475 | .0331  | .0186  | -.4471 |
| 6    | -10.00 | .1972 | -.0228 | -.0673 | -.0104 | .0101  | -.1825 |
| 7    | -5.00  | .1875 | -.0158 | -.0354 | -.0211 | .0073  | -.0709 |
| 8    | -15.00 | .2165 | -.0333 | -.0899 | .0091  | .0117  | -.3076 |
| 9    | -2.50  | .1726 | -.0139 | -.0372 | -.0271 | .0045  | -.0145 |
| 10   | .00    | .1726 | -.0134 | -.0284 | -.0335 | .0027  | .0558  |
| 11   | 2.50   | .1768 | -.0161 | -.0403 | -.0366 | .0002  | .1169  |
| 12   | 5.00   | .1810 | -.0204 | -.0447 | -.0423 | .002   | .1725  |
| 13   | 10.10  | .1990 | -.0375 | -.1026 | -.0634 | -.0019 | .2934  |
| 14   | 15.00  | .2134 | -.0571 | -.1414 | -.0775 | -.0046 | .4100  |
| 15   | 20.00  | .2225 | -.0795 | -.1610 | -.1070 | -.0067 | .5488  |
| 16   | .00    | .1751 | -.0149 | -.0166 | -.0333 | .0038  | .0549  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 506

RUN 630 CONFIG F P B NPS W7 T36 BT IN=-3,5 Q=40

| PT. NO. | IW    | 0,0 DELF | 0,0 DELA | 0,0 IHT | 0,0 DELE | 0,0 DELR | 0,0 DELSB | 0,0   | RPM   |        |        |
|---------|-------|----------|----------|---------|----------|----------|-----------|-------|-------|--------|--------|
|         | ALPHA | PSI      | CLBAR    | CDBAR   | CPMBAR   | CYMBAR   | CRMBAR    | CYBAR |       |        |        |
|         | DEG   | DEG      | SQ-FT    | SQ-FT   | CU-FT    | CU-FT    | CU-FT     | SQ-FT | Q     |        |        |
|         |       |          |          |         |          |          |           | PSF   | V     |        |        |
|         |       |          |          |         |          |          |           |       | KNOTS |        |        |
| 6       | .0    | .0       | 67,4     | 33,45   | 52.      | -43.     | 14.       | 7,10  | 41,28 | 111,17 | 3090.  |
| 7       | .0    | .0       | 64,0     | -5,35   | -38.     | -35.     | -34.      | 7,56  | 40,11 | 109,57 | 10010. |
| 8       | -20,0 | .0       | -418,6   | 115,61  | 1512.    | -241.    | 138.      | 13,53 | 40,28 | 109,80 | 9930.  |
| 9       | -15,0 | .0       | -363,5   | 61,95   | 1482.    | -283.    | 290.      | 11,00 | 40,28 | 109,79 | 9940.  |
| 10      | -10,0 | .0       | -260,0   | 13,78   | 742.     | -20.     | -37.      | 7,10  | 40,31 | 109,84 | 9910.  |
| 11      | -5,0  | .0       | -98,2    | -2,45   | 153.     | -44.     | -85.      | 8,07  | 40,12 | 109,58 | 9900.  |
| 12      | .0    | .0       | 65,3     | -5,67   | -21.     | -42.     | 17.       | 5,92  | 39,67 | 108,96 | 9890.  |
| 13      | 5,0   | .0       | 226,7    | 3,55    | -225.    | -27.     | 43.       | 6,15  | 39,90 | 109,28 | 9880.  |
| 14      | 10,0  | .0       | 379,7    | 23,96   | -308.    | -55.     | 94.       | 4,07  | 40,21 | 109,70 | 9860.  |
| 15      | 15,0  | .0       | 503,8    | 59,24   | -353.    | -13.     | 96.       | 2,73  | 39,99 | 109,40 | 9840.  |
| 16      | 20,0  | .0       | 534,8    | 115,66  | -78.     | -14.     | 147.      | 1,63  | 39,65 | 108,92 | 9870.  |
| 17      | -0    | .0       | 63,1     | -5,88   | -37.     | -38.     | -33.      | 7,31  | 40,06 | 109,49 | 9920.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | Cy    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | .00    | .1821   | .0904  | .0169  | -.0026 | .0009  | .0192 |
| 7    | .00    | .1729   | -.0145 | -.0124 | -.0021 | -.0020 | .0204 |
| 8    | -20,00 | -1,1313 | .3124  | .4875  | -.0146 | .0083  | .0366 |
| 9    | -14,99 | -.9824  | .1674  | .4778  | -.0171 | .0175  | .0297 |
| 10   | -9,98  | -.7028  | .0373  | .2392  | -.0012 | -.0022 | .0192 |
| 11   | -5,00  | -.2654  | -.0066 | .0492  | -.0026 | -.0051 | .0218 |
| 12   | .02    | .1764   | -.0153 | -.0069 | -.0025 | .0010  | .0160 |
| 13   | 5,00   | .6126   | .0096  | -.0725 | -.0016 | .0026  | .0166 |
| 14   | 10,00  | 1,0262  | .0648  | -.0994 | -.0033 | .0057  | .0110 |
| 15   | 15,00  | 1,3617  | .1601  | -.1139 | -.0008 | .0058  | .0074 |
| 16   | 20,00  | 1,4454  | .3126  | -.0250 | -.0008 | .0089  | .0044 |
| 17   | -.00   | .1706   | -.0159 | -.0118 | -.0023 | -.0020 | .0198 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | .00    | .1821   | .0904  | .0169  | -.0026 | .0009  | .0192 |
| 7    | .00    | .1729   | -.0145 | -.0124 | -.0021 | -.0020 | .0204 |
| 8    | -20,00 | -1,1313 | .3124  | .4875  | -.0146 | .0083  | .0366 |
| 9    | -14,99 | -.9824  | .1674  | .4778  | -.0171 | .0175  | .0297 |
| 10   | -9,98  | -.7028  | .0373  | .2392  | -.0012 | -.0022 | .0192 |
| 11   | -5,00  | -.2654  | -.0066 | .0492  | -.0026 | -.0051 | .0218 |
| 12   | .02    | .1764   | -.0153 | -.0069 | -.0025 | .0010  | .0160 |
| 13   | 5,00   | .6126   | .0096  | -.0725 | -.0016 | .0026  | .0166 |
| 14   | 10,00  | 1,0262  | .0648  | -.0994 | -.0033 | .0057  | .0110 |
| 15   | 15,00  | 1,3617  | .1601  | -.1139 | -.0008 | .0058  | .0074 |
| 16   | 20,00  | 1,4454  | .3126  | -.0250 | -.0008 | .0089  | .0044 |
| 17   | -.00   | .1706   | -.0159 | -.0118 | -.0023 | -.0020 | .0198 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 507

RUN 631 CONFIG F P B NP5 W7 T36 BT IN=3.5 Q=40 WM

| IW      | 0,0 DELF  | 0,0 DELA | 0,0 IHT     | 0,0 DELE    | 0,0 DELR     | 0,0 DELSB    | 0,0          |             |       |         |       |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM   |
| 1       | -0        | .0       | 67.5        | 32.93       | 98.          | -51.         | 14.          | 7.98        | 40.13 | 109.60  | 3040. |
| 2       | -20.0     | .0       | -360.4      | 161.17      | 1923.        | -293.        | 209.         | 13.87       | 40.27 | 109.78  | 3300. |
| 3       | -15.0     | .0       | -305.3      | 98.21       | 1659.        | -375.        | 324.         | 17.02       | 40.42 | 110.00  | 3240. |
| 4       | -10.0     | .0       | -231.9      | 52.56       | 921.         | -66.         | -37.         | 7.24        | 40.48 | 110.08  | 3150. |
| 5       | -5.0      | .0       | -87.5       | 34.31       | 346.         | -77.         | 13.          | 7.28        | 40.26 | 109.78  | 2970. |
| 6       | .0        | .0       | 68.6        | 33.35       | 84.          | -58.         | -9.          | 7.25        | 39.94 | 109.33  | 3050. |
| 7       | 5.0       | .0       | 226.8       | 43.34       | -153.        | -57.         | 66.          | 6.80        | 40.06 | 109.50  | 3160. |
| 8       | 10.0      | .0       | 376.7       | 65.21       | -239.        | -56.         | 95.          | 2.80        | 40.14 | 109.60  | 3320. |
| 9       | 15.0      | .0       | 503.4       | 101.30      | -353.        | -21.         | 121.         | 3.16        | 39.90 | 109.27  | 3440. |
| 10      | 20.0      | .0       | 514.9       | 155.76      | -214.        | -16.         | 98.          | 2.91        | 39.82 | 109.16  | 3500. |
| 11      | .0        | .0       | 68.1        | 33.44       | 65.          | -60.         | 15.          | 7.21        | 40.16 | 109.63  | 3060. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | Cy    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 1    | -0.00  | .1825  | .0890 | .0317  | -.0031 | .0008  | .0216 |
| 2    | -20.00 | -.9741 | .4356 | .6201  | -.0177 | .0126  | .0375 |
| 3    | -15.00 | -.8251 | .2654 | .5349  | -.0227 | .0196  | .0460 |
| 4    | -9.99  | -.6268 | .1421 | .2970  | -.0040 | -.0022 | .0196 |
| 5    | -5.00  | -.2365 | .0927 | .1115  | -.0047 | .0008  | .0197 |
| 6    | .00    | .1854  | .0901 | .0272  | -.0035 | -.0006 | .0196 |
| 7    | 5.01   | .6130  | .1171 | -.0495 | -.0035 | .0040  | .0184 |
| 8    | 10.00  | 1.0180 | .1762 | -.0770 | -.0034 | .0057  | .0076 |
| 9    | 15.00  | 1.3605 | .2738 | -.1138 | -.0013 | .0073  | .0085 |
| 10   | 20.02  | 1.3915 | .4210 | -.0691 | -.0010 | .0059  | .0079 |
| 11   | .00    | .1842  | .0904 | .0209  | -.0036 | .0008  | .0195 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 1    | -0.00  | .1825  | .0890 | .0317  | -.0031 | .0008  | .0216 |
| 2    | -20.00 | -.9741 | .4356 | .6201  | -.0177 | .0126  | .0375 |
| 3    | -15.00 | -.8251 | .2654 | .5349  | -.0227 | .0196  | .0460 |
| 4    | -9.99  | -.6268 | .1421 | .2970  | -.0040 | -.0022 | .0196 |
| 5    | -5.00  | -.2365 | .0927 | .1115  | -.0047 | .0008  | .0197 |
| 6    | .00    | .1854  | .0901 | .0272  | -.0035 | -.0006 | .0196 |
| 7    | 5.01   | .6130  | .1171 | -.0495 | -.0035 | .0040  | .0184 |
| 8    | 10.00  | 1.0180 | .1762 | -.0770 | -.0034 | .0057  | .0076 |
| 9    | 15.00  | 1.3605 | .2738 | -.1138 | -.0013 | .0073  | .0085 |
| 10   | 20.02  | 1.3915 | .4210 | -.0691 | -.0010 | .0059  | .0079 |
| 11   | .00    | .1842  | .0904 | .0209  | -.0036 | .0008  | .0195 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 508

RUN 632 CONFIG F P B NP5 W7 T36 BT IN=-3,5 Q=40 23000

| PT. NO. | IW    | 0.0 DELF | 0.0 DELA | 0.0 IHT | 0.0 DELE | 0.0 DELR | 0.0 DELSB | 0.0   | 0.0   | RPM    |        |
|---------|-------|----------|----------|---------|----------|----------|-----------|-------|-------|--------|--------|
|         | ALPHA | PSI      | CLBAR    | CDBAR   | CPMBAR   | CYMBAR   | CRMBAR    | CYBAR | Q     | V      |        |
|         | DEG   | DEG      | SQ-FT    | SQ-FT   | CU-FT    | CU-FT    | CU-FT     | SQ-FT | PSF   | KNOTS  |        |
| 1       | .0    | .0       | 54.6     | -211.53 | -314.    | 0.       | 70.       | 3.38  | 39.27 | 108.41 | 22960. |
| 2       | -20.0 | .0       | -592.6   | -56.64  | 1689.    | 24.      | 77.       | -.88  | 38.67 | 107.56 | 23030. |
| 3       | -15.0 | .0       | -482.7   | -127.10 | 880.     | 58.      | 260.      | -4.32 | 38.63 | 107.50 | 23020. |
| 4       | -10.0 | .0       | -327.7   | -183.94 | 76.      | 122.     | 0.        | -.26  | 39.45 | 108.66 | 23000. |
| 5       | -5.0  | .0       | -139.7   | -200.46 | -81.     | 19.      | 70.       | 2.68  | 39.44 | 108.64 | 22950. |
| 6       | .0    | .0       | 52.8     | -200.59 | -281.    | -14.     | 96.       | 1.63  | 39.71 | 109.01 | 22960. |
| 7       | 5.0   | .0       | 235.2    | -192.55 | -322.    | -57.     | 221.      | -.95  | 39.63 | 108.91 | 23010. |
| 8       | 10.0  | .0       | 413.0    | -170.94 | -446.    | -94.     | 248.      | -2.86 | 39.32 | 108.47 | 22940. |
| 9       | 15.0  | .0       | 558.8    | -130.49 | -533.    | -56.     | 297.      | -4.08 | 39.21 | 108.32 | 22990. |
| 10      | 20.0  | .0       | 614.2    | -66.00  | -345.    | -148.    | 269.      | -3.27 | 39.60 | 108.86 | 22950. |
| 11      | .0    | .0       | 54.0     | -189.39 | -250.    | 5.       | 120.      | 1.28  | 39.82 | 109.17 | 22970. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM   | Cy     |
|------|--------|---------|--------|--------|--------|-------|--------|
| 1    | .00    | .1476   | -.5717 | -.1012 | .0000  | .0042 | .0091  |
| 2    | -20.00 | -1.6017 | -.1531 | .5444  | .0015  | .0047 | -.0024 |
| 3    | -15.00 | -1.3045 | -.3435 | .2836  | .0035  | .0157 | -.0117 |
| 4    | -10.00 | -.8858  | -.4971 | .0245  | .0074  | .0000 | -.0007 |
| 5    | -5.00  | -.3775  | -.5418 | -.0263 | .0011  | .0042 | .0072  |
| 6    | .00    | .1426   | -.5421 | -.0907 | -.0008 | .0058 | .0044  |
| 7    | 5.00   | .6356   | -.5204 | -.1039 | -.0034 | .0133 | -.0026 |
| 8    | 10.00  | 1.1162  | -.4620 | -.1439 | -.0057 | .0150 | -.0077 |
| 9    | 15.02  | 1.5103  | -.3527 | -.1717 | -.0034 | .0180 | -.0110 |
| 10   | 20.00  | 1.6599  | -.1784 | -.1112 | -.0089 | .0162 | -.0088 |
| 11   | .00    | .1461   | -.5119 | -.0808 | .0003  | .0073 | .0035  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|---------|--------|--------|--------|-------|--------|
| 1    | .00    | .1476   | -.5717 | -.1012 | .0000  | .0042 | .0091  |
| 2    | -20.00 | -1.6017 | -.1531 | .5444  | .0015  | .0047 | -.0024 |
| 3    | -15.00 | -1.3045 | -.3435 | .2836  | .0035  | .0157 | -.0117 |
| 4    | -10.00 | -.8858  | -.4971 | .0245  | .0074  | .0000 | -.0007 |
| 5    | -5.00  | -.3775  | -.5418 | -.0263 | .0011  | .0042 | .0072  |
| 6    | .00    | .1426   | -.5421 | -.0907 | -.0008 | .0058 | .0044  |
| 7    | 5.00   | .6356   | -.5204 | -.1039 | -.0034 | .0133 | -.0026 |
| 8    | 10.00  | 1.1162  | -.4620 | -.1439 | -.0057 | .0150 | -.0077 |
| 9    | 15.02  | 1.5103  | -.3527 | -.1717 | -.0034 | .0180 | -.0110 |
| 10   | 20.00  | 1.6599  | -.1784 | -.1112 | -.0089 | .0162 | -.0088 |
| 11   | .00    | .1461   | -.5119 | -.0808 | .0003  | .0073 | .0035  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 509

RUN 633 CONFIG F P B NP5 W7 T36 BT IN=-3.5 Q=40 23000

| IW      | 0.0 DELF  | 0.0 DELA | 0.0 IHT     | 0.0 DELE    | 0.0 DELR     | 0.0 DELSB    | 0.0          |             |       |         |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR C'-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0       | 70.6        | 33.71       | 66.          | -55.         | 63.          | 8.30        | 39.81 | 109.15  | 3040.  |
| 3       | .0        | .0       | 52.2        | -208.06     | -361.        | -1.          | 119.         | 2.40        | 39.68 | 108.98  | 23070. |
| 4       | -0        | -20.0    | 93.6        | -145.63     | -1350.       | 1438.        | -274.        | -273.99     | 39.51 | 108.74  | 22980. |
| 5       | -0        | -15.0    | 79.4        | -174.72     | -1021.       | 974.         | -65.         | -209.01     | 39.69 | 108.98  | 22920. |
| 6       | -0        | -10.0    | 66.6        | -197.43     | -693.        | 401.         | 33.          | -130.02     | 39.90 | 109.20  | 23060. |
| 7       | -0        | -5.0     | 58.7        | -207.90     | -516.        | 116.         | 54.          | -65.90      | 39.70 | 109.01  | 23030. |
| 8       | -0        | .0       | 51.8        | -209.36     | -400.        | -19.         | 116.         | 3.92        | 40.01 | 109.44  | 23000. |
| 9       | -0        | 5.0      | 55.5        | -204.63     | -466.        | -38.         | 157.         | 66.21       | 39.92 | 109.32  | 23050. |
| 10      | -0        | 10.0     | 61.3        | -190.65     | -667.        | -340.        | 208.         | 131.87      | 39.65 | 108.94  | 22960. |
| 11      | -0        | 15.0     | 64.7        | -174.03     | -944.        | -707.        | 312.         | 199.41      | 39.89 | 109.27  | 22960. |
| 12      | -0        | 20.0     | 63.4        | -138.58     | -1040.       | -1219.       | 319.         | 264.44      | 39.70 | 109.01  | 23030. |
| 13      | -0        | .0       | 52.7        | -198.75     | -272.        | -23.         | 98.          | .17         | 39.53 | 108.77  | 23120. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1907 | .0911  | .0213  | -.0033 | .0038  | .0224  |
| 3    | .00    | .1412 | -.5623 | -.1162 | -.0001 | .0072  | .0065  |
| 4    | -20.00 | .2530 | -.3936 | -.4353 | .0869  | -.0166 | -.7405 |
| 5    | -15.00 | .2147 | -.4722 | -.3292 | .0589  | -.0039 | -.5649 |
| 6    | -10.00 | .1801 | -.5336 | -.2235 | .0242  | .0020  | -.3514 |
| 7    | -5.00  | .1585 | -.5619 | -.1663 | .0070  | .0033  | -.1781 |
| 8    | .00    | .1400 | -.5658 | -.1288 | -.0012 | .0070  | .0106  |
| 9    | 5.00   | .1501 | -.5530 | -.1503 | -.0023 | .0095  | .1789  |
| 10   | 10.00  | .1657 | -.5153 | -.2152 | -.0205 | .0126  | .3564  |
| 11   | 15.00  | .1748 | -.4703 | -.3044 | -.0427 | .0188  | .5389  |
| 12   | 20.00  | .1714 | -.3746 | -.3351 | -.0736 | .0192  | .7147  |
| 13   | .00    | .1425 | -.5372 | -.0875 | -.0014 | .0059  | .0005  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1907 | .0911  | .0213  | -.0033 | .0038  | .0224  |
| 3    | .00    | .1412 | -.5623 | -.1162 | -.0001 | .0072  | .0065  |
| 4    | -20.00 | .2530 | -.6240 | -.3785 | .0869  | .0125  | -.5602 |
| 5    | -15.00 | .2147 | -.6028 | -.3124 | .0589  | .0123  | -.4227 |
| 6    | -10.00 | .1801 | -.5867 | -.2219 | .0242  | .0092  | -.2529 |
| 7    | -5.00  | .1585 | -.5753 | -.1672 | .0070  | .0060  | -.1282 |
| 8    | .00    | .1400 | -.5658 | -.1288 | -.0012 | .0070  | .0106  |
| 9    | 5.00   | .1501 | -.5666 | -.1453 | -.0023 | .0070  | .1298  |
| 10   | 10.00  | .1657 | -.5695 | -.2002 | -.0205 | .0053  | .2611  |
| 11   | 15.00  | .1748 | -.5943 | -.2678 | -.0427 | .0034  | .3981  |
| 12   | 20.00  | .1714 | -.5973 | -.2794 | -.0736 | -.0035 | .5425  |
| 13   | .00    | .1425 | -.5372 | -.0875 | -.0014 | .0059  | .0005  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 510

RUN 634 CONFIG F P B NP5 W7 T36 BT IN=-3.5 Q=40 23000

| IW      | 0.0 DELF  | 0.0 DELA | 0.0 IHT     | 0.0 DELE    | 0.0 DELR     | 0.0 DELSB    | 0.0          | RPM         |       |         |       |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |       |
| 2       | .0        | .0       | 68.9        | 34.41       | 27.          | -25.         | -58.         | 7.17        | 39.88 | 109.25  | 3030  |
| 3       | 10.0      | .0       | 413.0       | -180.69     | -473.        | -50.         | 124.         | -.52        | 39.31 | 108.46  | 23010 |
| 4       | 10.0      | -20.0    | 453.5       | -119.76     | -2387.       | 615.         | -579.        | -245.51     | 39.50 | 108.73  | 23030 |
| 5       | 10.0      | -15.0    | 438.8       | -146.15     | -1702.       | 484.         | -298.        | -186.96     | 39.59 | 108.85  | 22960 |
| 6       | 10.0      | -10.0    | 425.1       | -168.48     | -848.        | 130.         | 53.          | -119.30     | 39.43 | 108.63  | 23020 |
| 7       | 10.0      | -5.0     | 414.0       | -176.79     | -598.        | -55.         | 97.          | -55.89      | 39.74 | 109.06  | 23000 |
| 8       | 10.0      | .0       | 413.8       | -178.75     | -543.        | -112.        | 219.         | 1.46        | 39.74 | 109.06  | 23000 |
| 9       | 10.0      | 5.0      | 412.1       | -174.88     | -649.        | -224.        | 264.         | 58.86       | 39.47 | 108.69  | 23040 |
| 10      | 10.0      | 10.0     | 403.1       | -164.40     | -785.        | -423.        | 400.         | 120.41      | 39.69 | 108.99  | 23030 |
| 11      | 10.0      | 15.0     | 406.4       | -145.52     | -1038.       | -417.        | 476.         | 179.52      | 39.71 | 109.02  | 23040 |
| 12      | 10.0      | 20.0     | 391.8       | -114.30     | -1445.       | -1045.       | 637.         | 243.15      | 39.73 | 109.05  | 23040 |
| 13      | 10.0      | .0       | 410.7       | -166.81     | -498.        | -111.        | 197.         | -1.98       | 39.61 | 108.88  | 23000 |
| 14      | 10.0      | 15.0     | 407.6       | -138.71     | -996.        | -369.        | 485.         | 175.65      | 39.41 | 108.60  | 23040 |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .1862  | .0930  | .0088  | -.0015 | -.0035 | .0194  |
| 3    | .00    | 1.1162 | -.4884 | -.1525 | -.0030 | .0075  | -.0014 |
| 4    | -20.00 | 1.2257 | -.3237 | -.7697 | .0371  | -.0350 | -.6635 |
| 5    | -15.00 | 1.1859 | -.3950 | -.5488 | .0292  | -.0180 | -.5053 |
| 6    | -10.00 | 1.1489 | -.4554 | -.2733 | .0079  | .0032  | -.3224 |
| 7    | -5.00  | 1.1190 | -.4778 | -.1927 | -.0033 | .0059  | -.1511 |
| 8    | .00    | 1.1183 | -.4831 | -.1751 | -.0068 | .0132  | .0039  |
| 9    | 5.00   | 1.1138 | -.4726 | -.2092 | -.0135 | .0160  | .1591  |
| 10   | 10.00  | 1.0894 | -.4443 | -.2530 | -.0266 | .0242  | .3254  |
| 11   | 15.00  | 1.0984 | -.3933 | -.3345 | -.0252 | .0287  | .4852  |
| 12   | 20.00  | 1.0588 | -.3089 | -.4658 | -.0631 | .0385  | .6572  |
| 13   | .00    | 1.1101 | -.4508 | -.1605 | -.0067 | .0119  | -.0053 |
| 14   | 15.00  | 1.1016 | -.3749 | -.3212 | -.0223 | .0293  | .4747  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .1862  | .0930  | .0088  | -.0015 | -.0035 | .0194  |
| 3    | .00    | 1.1162 | -.4884 | -.1525 | -.0030 | .0075  | -.0014 |
| 4    | -20.00 | 1.2257 | -.5319 | -.6587 | .0371  | .0167  | -.5120 |
| 5    | -15.00 | 1.1859 | -.5128 | -.5050 | .0292  | .0093  | -.3852 |
| 6    | -10.00 | 1.1489 | -.5046 | -.2721 | .0079  | .0121  | -.2381 |
| 7    | -5.00  | 1.1190 | -.4892 | -.1947 | -.0033 | .0090  | -.1086 |
| 8    | .00    | 1.1183 | -.4831 | -.1751 | -.0068 | .0132  | .0039  |
| 9    | 5.00   | 1.1138 | -.4848 | -.2009 | -.0135 | .0125  | .1171  |
| 10   | 10.00  | 1.0894 | -.4943 | -.2266 | -.0256 | .0155  | .2429  |
| 11   | 15.00  | 1.0984 | -.5059 | -.2831 | -.0252 | .0115  | .3663  |
| 12   | 20.00  | 1.0588 | -.5159 | -.3669 | -.0631 | .0061  | .5110  |
| 13   | .00    | 1.1101 | -.4508 | -.1605 | -.0067 | .0119  | -.0053 |
| 14   | 15.00  | 1.1016 | -.4854 | -.2695 | -.0223 | .0126  | .3609  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 511

RUN 635 CONFIG F P 8 NPS W7 T36 BT IN=-3.5 XN=0

| IW        | Q DELF | D DELA | D IHT | D DELE  | D DELR | -20 DELSB | D     |         |       |        |        |
|-----------|--------|--------|-------|---------|--------|-----------|-------|---------|-------|--------|--------|
| PT. ALPHA | PSI    | CL BAR | CDBAR | CPM BAR | CYMBAR | CRMBAR    | CYBAR | Q       | V     | RPM    |        |
| NO. DEG   | DEG    | SQ-FT  | SQ-FT | CU-FT   | CU-FT  | CU-FT     | SQ-FT | PSF     | KNOTS |        |        |
| 3         | .0     | .0     | 68.7  | 34.22   | 54.    | -664.     | 115.  | 24.97   | 39.70 | 109.01 | 3010.  |
| 4         | .0     | .0     | 51.6  | -212.50 | -282.  | -728.     | 221.  | 19.79   | 39.42 | 108.62 | 22970. |
| 5         | .0     | -20.0  | 90.3  | -154.44 | -1230. | 511.      | -8.   | -258.57 | 39.09 | 108.15 | 23040. |
| 6         | .0     | -15.0  | 77.1  | -177.42 | -839.  | -40.      | 141.  | -181.42 | 39.45 | 108.66 | 23080. |
| 7         | .0     | -10.0  | 62.6  | -194.16 | -489.  | -440.     | 248.  | -109.94 | 39.78 | 109.12 | 23000. |
| 8         | .0     | -5.0   | 56.5  | -205.75 | -362.  | -578.     | 254.  | -49.66  | 39.30 | 108.45 | 22960. |
| 9         | .0     | -2.5   | 55.1  | -206.61 | -332.  | -674.     | 236.  | -15.54  | 39.25 | 108.38 | 22980. |
| 10        | .0     | .0     | 52.1  | -206.64 | -312.  | -737.     | 224.  | 17.61   | 39.27 | 108.40 | 22970. |
| 11        | .0     | 2.5    | 51.3  | -203.33 | -351.  | -771.     | 218.  | 50.68   | 39.25 | 108.38 | 22980. |
| 12        | .0     | 5.0    | 57.1  | -197.23 | -423.  | -857.     | 260.  | 82.35   | 39.53 | 108.91 | 22930. |
| 13        | .0     | 10.0   | 62.7  | -186.65 | -668.  | -1335.    | 358.  | 148.75  | 39.57 | 108.83 | 22990. |
| 14        | .0     | 15.0   | 70.3  | -167.85 | -974.  | -1761.    | 438.  | 218.82  | 39.37 | 108.55 | 22960. |
| 15        | .0     | 20.0   | 68.7  | -139.87 | -1168. | -2040.    | 517.  | 283.61  | 39.31 | 108.47 | 23040. |
| 16        | .0     | .0     | 56.7  | -189.20 | -209.  | -696.     | 200.  | 17.54   | 39.23 | 108.35 | 22990. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 3    | .00    | .1857 | .0925  | .0173  | -.0401 | .0069  | .0675  |
| 4    | .00    | .1393 | -.5743 | -.0909 | -.0440 | .0133  | .0535  |
| 5    | -20.00 | .2440 | -.4174 | -.3964 | .0309  | -.0005 | -.6988 |
| 6    | -15.00 | .2085 | -.4795 | -.2705 | -.0024 | .0085  | -.4903 |
| 7    | -10.00 | .1693 | -.5248 | -.1577 | -.0266 | .0150  | -.2971 |
| 8    | -5.00  | .1526 | -.5561 | -.1167 | -.0349 | .0154  | -.1342 |
| 9    | -2.50  | .1490 | -.5584 | -.1069 | -.0407 | .0143  | -.0420 |
| 10   | .00    | .1409 | -.5585 | -.1006 | -.0445 | .0136  | .0476  |
| 11   | 2.50   | .1385 | -.5495 | -.1132 | -.0466 | .0131  | .1370  |
| 12   | 5.00   | .1543 | -.5331 | -.1363 | -.0518 | .0157  | .2226  |
| 13   | 10.00  | .1694 | -.5028 | -.2153 | -.0807 | .0216  | .4020  |
| 14   | 15.00  | .1900 | -.4536 | -.3140 | -.1063 | .0265  | .5914  |
| 15   | 20.00  | .1857 | -.3780 | -.3765 | -.1232 | .0312  | .7665  |
| 16   | .00    | .1532 | -.5113 | -.0675 | -.0421 | .0121  | .0474  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|--------|--------|--------|-------|--------|
| 3    | .00    | .1857 | .0925  | .0173  | -.0401 | .0069 | .0675  |
| 4    | .00    | .1393 | -.5743 | -.0909 | -.0440 | .0133 | .0535  |
| 5    | -20.00 | .2440 | -.6321 | -.3714 | .0309  | .0250 | -.5129 |
| 6    | -15.00 | .2085 | -.5905 | -.2730 | -.0024 | .0214 | -.3488 |
| 7    | -10.00 | .1693 | -.5685 | -.1692 | -.0266 | .0199 | -.2010 |
| 8    | -5.00  | .1526 | -.5657 | -.1234 | -.0349 | .0172 | -.0850 |
| 9    | -2.50  | .1490 | -.5597 | -.1102 | -.0407 | .0151 | -.0175 |
| 10   | .00    | .1409 | -.5585 | -.1006 | -.0445 | .0136 | .0476  |
| 11   | 2.50   | .1385 | -.5550 | -.1100 | -.0466 | .0122 | .1128  |
| 12   | 5.00   | .1543 | -.5505 | -.1285 | -.0518 | .0134 | .1750  |
| 13   | 10.00  | .1694 | -.5652 | -.1918 | -.0807 | .0143 | .3081  |
| 14   | 15.00  | .1900 | -.5918 | -.2665 | -.1063 | .0103 | .4531  |
| 15   | 20.00  | .1857 | -.6183 | -.2964 | -.1232 | .0051 | .5900  |
| 16   | .00    | .1532 | -.5113 | -.0675 | -.0421 | .0121 | .0474  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 512

RUN 636 CONFIG F P 8 NPS W7 T36 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | Q DELTA PSI | Q DELTA CL BAR | Q DELTA CDBAR | Q DELTA CPM BAR | Q DELTA CYM BAR | Q DELTA CRM BAR | Q DELTA CY BAR | Q DELTA DELTA B | Q DELTA DELTA S | Q DELTA DELTA V | RPM |
|---------|-----------|-------------|----------------|---------------|-----------------|-----------------|-----------------|----------------|-----------------|-----------------|-----------------|-----|
| 2       | .0        | .0          | 67.5           | 33.73         | 40.             | -372.           | 27.             | 16.69          | 40.01           | 109.43          | 3040.           |     |
| 3       | .0        | .0          | 51.9           | -203.44       | -347.           | -365.           | 152.            | 11.58          | 40.58           | 110.23          | 22970.          |     |
| 4       | .0        | -20.0       | 85.7           | -149.15       | -1224.          | 841.            | -174.           | -260.16        | 39.81           | 109.15          | 22970.          |     |
| 5       | .0        | -15.0       | 74.9           | -178.12       | -893.           | 343.            | -19.            | -192.06        | 39.52           | 108.75          | 22890.          |     |
| 6       | .0        | -10.0       | 63.8           | -199.46       | -623.           | -116.           | 138.            | -118.51        | 39.98           | 109.40          | 23010.          |     |
| 7       | .0        | -5.0        | 55.3           | -210.86       | -483.           | -260.           | 139.            | -56.82         | 39.75           | 109.08          | 22920.          |     |
| 8       | .0        | -2.5        | 51.9           | -214.71       | -439.           | -340.           | 171.            | -23.65         | 39.73           | 109.05          | 22910.          |     |
| 9       | .0        | .0          | 50.7           | -214.84       | -371.           | -404.           | 204.            | 12.06          | 39.84           | 109.20          | 22960.          |     |
| 10      | .0        | 2.5         | 50.3           | -211.83       | -454.           | -443.           | 172.            | 45.50          | 39.76           | 109.09          | 22930.          |     |
| 11      | .0        | 5.0         | 56.8           | -209.97       | -505.           | -535.           | 243.            | 76.85          | 39.58           | 108.84          | 23050.          |     |
| 12      | .0        | 10.0        | 61.7           | -196.56       | -748.           | -921.           | 332.            | 145.62         | 40.03           | 109.46          | 22980.          |     |
| 13      | .0        | 15.0        | 67.4           | -180.97       | -998.           | -1284.          | 413.            | 214.60         | 39.81           | 109.16          | 22960.          |     |
| 14      | .0        | 20.0        | 66.0           | -151.52       | -1194.          | -1643.          | 491.            | 282.37         | 39.57           | 108.82          | 22990.          |     |
| 15      | .0        | .0          | 21.8           | -203.11       | 1250.           | -395.           | 205.            | 11.47          | 39.79           | 109.13          | 22950.          |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1825 | .0912  | .0130  | -.0225 | .0016  | .0451  |
| 3    | .00    | .1402 | -.5498 | -.1118 | -.0220 | .0092  | .0313  |
| 4    | -20.00 | .2317 | -.4031 | -.3945 | .0508  | -.0105 | -.7031 |
| 5    | -15.00 | .2025 | -.4614 | -.2880 | .0207  | -.0011 | -.5191 |
| 6    | -10.00 | .1725 | -.5391 | -.2010 | -.0070 | .0083  | -.3203 |
| 7    | -5.00  | .1494 | -.5699 | -.1557 | -.0157 | .0084  | -.1536 |
| 8    | -2.50  | .1403 | -.5803 | -.1416 | -.0205 | .0103  | -.0640 |
| 9    | .00    | .1369 | -.5806 | -.1198 | -.0244 | .0123  | .0326  |
| 10   | 2.50   | .1359 | -.5725 | -.1463 | -.0267 | .0104  | .1230  |
| 11   | 5.00   | .1535 | -.5675 | -.1627 | -.0323 | .0147  | .2071  |
| 12   | 10.00  | .1668 | -.5312 | -.2410 | -.0556 | .0200  | .3934  |
| 13   | 15.00  | .1821 | -.4891 | -.3217 | -.0776 | .0250  | .5801  |
| 14   | 20.00  | .1785 | -.4095 | -.3849 | -.0993 | .0297  | .7631  |
| 15   | .00    | .0590 | -.5489 | .4030  | -.0239 | .0124  | .0310  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1825 | .0912  | .0130  | -.0225 | .0016 | .0451  |
| 3    | .00    | .1402 | -.5498 | -.1118 | -.0220 | .0092 | .0313  |
| 4    | -20.00 | .2317 | -.6201 | -.3512 | .0508  | .0155 | -.5219 |
| 5    | -15.00 | .2025 | -.5998 | -.2765 | .0207  | .0129 | -.3761 |
| 6    | -10.00 | .1725 | -.5867 | -.2056 | -.0070 | .0148 | -.2213 |
| 7    | -5.00  | .1494 | -.5811 | -.1590 | -.0157 | .0109 | -.1031 |
| 8    | -2.50  | .1403 | -.5825 | -.1438 | -.0205 | .0115 | -.0385 |
| 9    | .00    | .1369 | -.5806 | -.1198 | -.0244 | .0123 | .0326  |
| 10   | 2.50   | .1359 | -.5773 | -.1438 | -.0267 | .0092 | .0978  |
| 11   | 5.00   | .1535 | -.5835 | -.1552 | -.0323 | .0120 | .1572  |
| 12   | 10.00  | .1668 | -.5917 | -.2186 | -.0556 | .0119 | .2949  |
| 13   | 15.00  | .1821 | -.6231 | -.2760 | -.0776 | .0084 | .4329  |
| 14   | 20.00  | .1785 | -.6468 | -.3071 | -.0993 | .0031 | .5760  |
| 15   | .00    | .0590 | -.5489 | .4030  | -.0239 | .0124 | .0310  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 513

RUN 637 CONFIG F P B NP5 W7 T36 BT IN=-3.5 XN=0

| PT. NO. | O DELF    |         | O DELA       |             | O IHT        |              | O DELE       |             | O DELR       |             | O DELSB |           | RPM |
|---------|-----------|---------|--------------|-------------|--------------|--------------|--------------|-------------|--------------|-------------|---------|-----------|-----|
|         | ALPHA DEG | PSI DEG | CL BAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF   | Q V KNOTS |     |
| 2       | .0        | .0      | 66.9         | 33.90       | 21.          | 262.         | 3.           | -2.64       | 40.07        | 109.52      | 3040.   |           |     |
| 3       | .0        | .0      | 52.3         | -206.68     | -371.        | 318.         | 54.          | -4.66       | 40.22        | 109.73      | 22990.  |           |     |
| 4       | .0        | -20.0   | 89.4         | -141.81     | -1265.       | 1862.        | -327.        | -283.27     | 40.20        | 109.70      | 23030.  |           |     |
| 5       | .0        | -15.0   | 77.8         | -171.56     | -990.        | 1423.        | -174.        | -216.84     | 40.03        | 109.46      | 22970.  |           |     |
| 6       | .0        | -10.0   | 64.2         | -194.32     | -681.        | 763.         | -4.          | -139.51     | 40.12        | 109.59      | 22930.  |           |     |
| 7       | .0        | -5.0    | 56.4         | -203.80     | -514.        | 439.         | 38.          | -72.17      | 40.40        | 109.98      | 22880.  |           |     |
| 8       | .0        | -2.5    | 52.7         | -207.74     | -501.        | 344.         | 69.          | -39.57      | 40.54        | 110.18      | 22950.  |           |     |
| 9       | .0        | .0      | 51.1         | -209.87     | -429.        | 248.         | 124.         | -2.95       | 40.44        | 110.04      | 23050.  |           |     |
| 10      | .0        | 5.0     | 52.1         | -204.04     | -412.        | 168.         | 115.         | 59.64       | 40.50        | 110.11      | 22940.  |           |     |
| 11      | .0        | 10.0    | 58.8         | -194.31     | -639.        | -13.         | 143.         | 121.91      | 40.29        | 109.83      | 22870.  |           |     |
| 12      | .0        | 15.0    | 64.1         | -175.48     | -857.        | -409.        | 264.         | 192.24      | 40.54        | 110.17      | 22860.  |           |     |
| 13      | .0        | 20.0    | 61.4         | -152.32     | -1089.       | -726.        | 317.         | 258.38      | 40.33        | 109.88      | 22990.  |           |     |
| 14      | .0        | 2.5     | 51.7         | -197.88     | -373.        | 195.         | 118.         | 27.59       | 40.49        | 110.10      | 22920.  |           |     |
| 15      | .0        | .0      | 53.7         | -197.94     | -365.        | 229.         | 103.         | -5.41       | 40.32        | 109.86      | 23110.  |           |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1807 | .0916  | .0069  | .0158  | .0002  | -.0071 |
| 3    | .00    | .1415 | -.5586 | -.1196 | .0192  | .0033  | -.0126 |
| 4    | -20.00 | .2416 | -.3833 | -.4078 | .1125  | -.0198 | -.7656 |
| 5    | -15.00 | .2103 | -.4637 | -.3193 | .0860  | -.0105 | -.5861 |
| 6    | -10.00 | .1736 | -.5252 | -.2196 | .0461  | -.0003 | -.3770 |
| 7    | -5.00  | .1524 | -.5508 | -.1656 | .0265  | .0023  | -.1951 |
| 8    | -2.50  | .1423 | -.5615 | -.1616 | .0208  | .0041  | -.1070 |
| 9    | .00    | .1381 | -.5672 | -.1383 | .0150  | .0075  | -.0080 |
| 10   | 5.00   | .1407 | -.5515 | -.1329 | .0101  | .0069  | .1612  |
| 11   | 10.00  | .1589 | -.5252 | -.2060 | -.0008 | .0087  | .3295  |
| 12   | 15.00  | .1733 | -.4743 | -.2764 | -.0247 | .0159  | .5196  |
| 13   | 20.00  | .1660 | -.4117 | -.3510 | -.0438 | .0192  | .6983  |
| 14   | 2.50   | .1398 | -.5348 | -.1203 | .0118  | .0071  | .0746  |
| 15   | .00    | .1452 | -.5350 | -.1175 | .0138  | .0062  | -.0146 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1807 | .0916  | .0069  | .0158  | .0002  | -.0071 |
| 3    | .00    | .1415 | -.5586 | -.1196 | .0192  | .0033  | -.0126 |
| 4    | -20.00 | .2416 | -.6229 | -.3467 | .1125  | .0077  | -.5873 |
| 5    | -15.00 | .2103 | -.6001 | -.2937 | .0860  | .0054  | -.4454 |
| 6    | -10.00 | .1736 | -.5829 | -.2150 | .0461  | .0069  | -.2797 |
| 7    | -5.00  | .1524 | -.5658 | -.1660 | .0265  | .0050  | -.1461 |
| 8    | -2.50  | .1423 | -.5656 | -.1625 | .0208  | .0055  | -.0823 |
| 9    | .00    | .1381 | -.5672 | -.1383 | .0150  | .0075  | -.0080 |
| 10   | 5.00   | .1407 | -.5535 | -.1291 | .0101  | .0047  | .1123  |
| 11   | 10.00  | .1589 | -.5746 | -.1948 | -.0008 | .0018  | .2328  |
| 12   | 15.00  | .1733 | -.5930 | -.2448 | -.0247 | .0019  | .3784  |
| 13   | 20.00  | .1660 | -.6265 | -.2945 | -.0438 | -.0046 | .5144  |
| 14   | 2.50   | .1398 | -.5376 | -.1185 | .0118  | .0061  | .0511  |
| 15   | .00    | .1452 | -.5350 | -.1175 | .0138  | .0062  | -.0146 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 514

RUN 638 CONFIG F P B NP5 W7 T36 BT IN=-3.5 XN=0

| IN PT. | Q DELF    | Q DELA  | Q INT       | Q DELE      | Q DELR       | 20 DELSB     | Q            | V           | RPM                 |
|--------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|---------------------|
| NO.    | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF KNOTS           |
| 2      | .0        | .0      | 67.1        | 34.63       | 96.          | 636.         | -84.         | -8.89       | 40.63 110.29 3060.  |
| 3      | .0        | .0      | 51.2        | -206.82     | -284.        | 734.         | -5.          | -14.86      | 40.11 109.57 22960. |
| 4      | .0        | -20.0   | 93.9        | -138.82     | -1326.       | 2477.        | -407.        | -299.49     | 39.80 109.14 22930. |
| 5      | .0        | -21.4   | 92.9        | -129.55     | -1393.       | 2447.        | -397.        | -311.11     | 39.99 109.40 22940. |
| 6      | .0        | -15.0   | 79.5        | -165.92     | -954.        | 1940.        | -255.        | -226.41     | 40.17 109.65 22990. |
| 7      | .0        | -10.0   | 64.6        | -187.63     | -664.        | 1270.        | -117.        | -142.79     | 40.58 110.21 23010. |
| 8      | .0        | -5.0    | 56.1        | -199.85     | -488.        | 879.         | 3.           | -82.63      | 40.44 110.02 22960. |
| 9      | .0        | -2.5    | 51.7        | -203.73     | -455.        | 832.         | -14.         | -49.94      | 40.52 110.13 23010. |
| 10     | .0        | .0      | 49.1        | -205.91     | -324.        | 737.         | -29.         | -14.29      | 40.75 110.45 22980. |
| 11     | .0        | 2.5     | 48.7        | -207.42     | -304.        | 641.         | -64.         | 20.58       | 40.53 110.14 22980. |
| 12     | .0        | 5.0     | 49.9        | -204.74     | -340.        | 615.         | 9.           | 49.14       | 40.76 110.46 22950. |
| 13     | .0        | 10.0    | 54.5        | -196.41     | -525.        | 440.         | 62.          | 111.41      | 40.55 110.16 22920. |
| 14     | .0        | 15.0    | 61.2        | -179.09     | -803.        | 77.          | 70.          | 179.51      | 40.21 109.70 22950. |
| 15     | .0        | 20.0    | 58.4        | -150.15     | -973.        | -239.        | 125.         | 239.84      | 40.59 110.22 22960. |
| 16     | .0        | .0      | 48.8        | -203.29     | -315.        | 735.         | -28.         | -15.29      | 40.77 110.47 23010. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM   | CRM    | CY     |
|------|--------|-------|--------|--------|-------|--------|--------|
| 2    | .00    | .1814 | .0936  | .0309  | .0384 | -.0051 | -.0240 |
| 3    | .00    | .1383 | -.5590 | -.0916 | .0443 | -.0003 | -.0402 |
| 4    | -20.00 | .2538 | -.3752 | -.4276 | .1496 | -.0246 | -.8094 |
| 5    | -21.40 | .2510 | -.3501 | -.4490 | .1478 | -.0240 | -.8408 |
| 6    | -15.00 | .2148 | -.4484 | -.3077 | .1172 | -.0154 | -.6119 |
| 7    | -10.00 | .1745 | -.5071 | -.2139 | .0767 | -.0071 | -.3859 |
| 8    | -5.00  | .1515 | -.5401 | -.1477 | .0531 | .0002  | -.2233 |
| 9    | -2.50  | .1396 | -.5506 | -.1466 | .0502 | -.0008 | -.1350 |
| 10   | .00    | .1326 | -.5565 | -.1043 | .0445 | -.0018 | -.0386 |
| 11   | 2.50   | .1318 | -.5506 | -.0982 | .0387 | -.0039 | .0559  |
| 12   | 5.00   | .1350 | -.5534 | -.1096 | .0372 | .0005  | .1328  |
| 13   | 10.00  | .1474 | -.5308 | -.1594 | .0266 | .0037  | .3011  |
| 14   | 15.00  | .1655 | -.4840 | -.2590 | .0046 | .0042  | .4851  |
| 15   | 20.00  | .1579 | -.4058 | -.3138 | .0144 | .0076  | .6482  |
| 16   | .00    | .1320 | -.5494 | -.1017 | .0444 | -.0017 | -.0413 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|------|--------|-------|--------|--------|-------|--------|--------|
| 2    | .00    | .1814 | .0936  | .0309  | .0384 | -.0051 | -.0240 |
| 3    | .00    | .1383 | -.5590 | -.0916 | .0443 | -.0003 | -.0402 |
| 4    | -20.00 | .2538 | -.6304 | -.3566 | .1496 | .0045  | -.6313 |
| 5    | -21.40 | .2510 | -.6339 | -.3709 | .1478 | .0085  | -.6540 |
| 6    | -15.00 | .2148 | -.5921 | -.2757 | .1172 | .0001  | -.4743 |
| 7    | -10.00 | .1745 | -.5566 | -.2041 | .0767 | .0000  | -.2915 |
| 8    | -5.00  | .1515 | -.5576 | -.1473 | .0531 | .0026  | -.1752 |
| 9    | -2.50  | .1396 | -.5560 | -.1463 | .0502 | .0004  | -.1107 |
| 10   | .00    | .1326 | -.5565 | -.1043 | .0445 | -.0018 | -.0386 |
| 11   | 2.50   | .1318 | -.5525 | -.0990 | .0387 | -.0047 | .0313  |
| 12   | 5.00   | .1350 | -.5629 | -.1089 | .0372 | -.0013 | .0838  |
| 13   | 10.00  | .1474 | -.5752 | -.1633 | .0266 | -.0019 | .2039  |
| 14   | 15.00  | .1655 | -.5935 | -.2442 | .0046 | -.0085 | .3426  |
| 15   | 20.00  | .1579 | -.6038 | -.2808 | .0144 | -.0131 | .4694  |
| 16   | .00    | .1320 | -.5494 | -.1017 | .0444 | -.0017 | -.0413 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P. 515

RUN 639 CONFIG F P B NPE W7 T36 IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM   |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| 2       | .0        | .0      | 67.5        | 30.63       | 43.          | -71.         | -34.         | 8.65        | 41.36 | 111.27  | 3100. |
| 3       | .0        | -20.0   | 107.8       | 69.39       | -915.        | 1128.        | -191.        | -153.17     | 41.23 | 111.10  | 3200. |
| 5       | .0        | .0      | 67.5        | 30.70       | 27.          | -81.         | -58.         | 9.08        | 41.28 | 111.15  | 3090. |
| 6       | .0        | 10.0    | 79.4        | 37.38       | -369.        | -575.        | 7.           | 83.09       | 41.49 | 111.44  | 3000. |
| 7       | .0        | 20.0    | 99.6        | 67.38       | -1036.       | -1352.       | 208.         | 165.91      | 41.15 | 110.97  | 2890. |
| 8       | .0        | .0      | 66.7        | 30.39       | 81.          | -85.         | -35.         | 9.30        | 41.41 | 111.33  | 3100. |
| 9       | .0        | -10.0   | 80.6        | 38.04       | -217.        | 468.         | -51.         | -70.62      | 41.49 | 111.44  | 3170. |
| 10      | .0        | -10.1   | 79.4        | 38.32       | -302.        | 488.         | -78.         | -71.02      | 41.44 | 111.38  | 3170. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .1824 | .0828 | .0140  | -.0043 | -.0021 | .0234  |
| 3    | -20.00 | .2914 | .1875 | -.2948 | .0682  | -.0115 | -.4140 |
| 5    | .00    | .1824 | .0830 | .0086  | -.0049 | -.0035 | .0245  |
| 6    | 10.00  | .2146 | .1010 | -.1191 | -.0347 | .0004  | .2246  |
| 7    | 20.00  | .2593 | .1821 | -.3339 | -.0816 | .0126  | .4484  |
| 8    | .00    | .1802 | .0821 | .0260  | -.0052 | -.0021 | .0251  |
| 9    | -10.00 | .2179 | .1028 | -.0700 | .0283  | -.0031 | -.1909 |
| 10   | -10.10 | .2146 | .1036 | -.0974 | .0295  | -.0047 | -.1919 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .1824 | .0828 | .0140  | -.0043 | -.0021 | .0234  |
| 3    | -20.00 | .2914 | .0339 | -.2558 | .0682  | .0082  | -.4532 |
| 5    | .00    | .1824 | .0830 | .0086  | -.0049 | -.0035 | .0245  |
| 6    | 10.00  | .2146 | .0603 | -.1169 | -.0347 | -.0035 | .2388  |
| 7    | 20.00  | .2593 | .0170 | -.2905 | -.0816 | -.0097 | .4837  |
| 8    | .00    | .1802 | .0821 | .0260  | -.0052 | -.0021 | .0251  |
| 9    | -10.00 | .2179 | .0679 | -.0661 | .0283  | -.0007 | -.2059 |
| 10   | -10.10 | .2146 | .0681 | -.0915 | .0295  | -.0014 | -.2072 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 516

RUN 640 CONFIG F P B NPS W7 T36 IN=-3.5 XN=0

| PT. NO. | O DELF    |         | O DELA       |             | O INT         | O DELE      |              | O DELR      |       | O DELSB |        | O | RPM |
|---------|-----------|---------|--------------|-------------|---------------|-------------|--------------|-------------|-------|---------|--------|---|-----|
|         | ALPHA DEG | PSI DEG | CL BAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |   |     |
| 1       | .0        | .0      | 50.4         | -203.84     | -374.         | -67.        | 42.          | 4.64        | 40.37 | 109.92  | 22930. |   |     |
| 2       | .0        | -20.0   | 50.3         | -149.14     | -134.5        | 1299.       | -299.        | -266.68     | 40.17 | 109.64  | 22950. |   |     |
| 3       | .0        | -10.0   | 65.4         | -195.59     | -686.         | 336.        | 52.          | -125.37     | 40.38 | 109.92  | 22920. |   |     |
| 4       | .0        | .0      | 50.0         | -207.96     | -366.         | -67.        | 91.          | 3.68        | 40.68 | 110.34  | 22960. |   |     |
| 5       | .0        | 10.0    | 56.8         | -198.18     | -653.         | -376.       | 205.         | 130.29      | 40.37 | 109.91  | 22890. |   |     |
| 6       | .0        | 20.0    | 58.9         | -154.79     | -111.9        | -1206.      | 334.         | 266.10      | 40.39 | 109.93  | 22950. |   |     |
| 7       | .0        | .0      | 49.9         | -207.87     | -300.         | -87.        | 89.          | 5.39        | 40.42 | 109.98  | 22960. |   |     |
| 8       | .0        | -20.0   | 91.7         | -147.63     | -1334.        | 1319.       | -298.        | -265.27     | 40.26 | 109.75  | 23000. |   |     |
| 9       | .0        | 20.0    | 63.6         | -151.59     | -1147.        | -1089.      | 380.         | 258.65      | 40.67 | 110.32  | 22990. |   |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 1    | .00    | .1361 | -.5509 | -.1206 | -.0040 | .0025  | .0125  |
| 2    | -20.00 | .2441 | -.4031 | -.4337 | .0785  | -.0181 | -.7208 |
| 3    | -10.00 | .1769 | -.5286 | -.2213 | .0203  | .0031  | -.3388 |
| 4    | .00    | .1352 | -.5621 | -.1178 | -.0041 | .0055  | .0100  |
| 5    | 10.00  | .1536 | -.5356 | -.2104 | -.0227 | .0124  | .3521  |
| 6    | 20.00  | .1592 | -.4183 | -.3609 | -.0728 | .0202  | .7192  |
| 7    | .00    | .1348 | -.5618 | -.0968 | -.0053 | .0054  | .0146  |
| 8    | -20.00 | .2479 | -.3990 | -.4300 | .0797  | -.0180 | -.7169 |
| 9    | 20.00  | .1719 | -.4097 | -.3697 | -.0658 | .0229  | .6991  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 1    | .00    | .1361 | -.5509 | -.1206 | -.0040 | .0025  | .0125  |
| 2    | -20.00 | .2441 | -.6261 | -.3741 | .0785  | .0109  | -.5384 |
| 3    | -10.00 | .1769 | -.5796 | -.2208 | .0203  | .0103  | -.2414 |
| 4    | .00    | .1352 | -.5621 | -.1178 | -.0041 | .0055  | .0100  |
| 5    | 10.00  | .1536 | -.5888 | -.1956 | -.0227 | .0053  | .2533  |
| 6    | 20.00  | .1592 | -.6399 | -.3020 | -.0728 | -.0043 | .5317  |
| 7    | .00    | .1348 | -.5618 | -.0968 | -.0053 | .0054  | .0146  |
| 8    | -20.00 | .2479 | -.6210 | -.3709 | .0797  | .0108  | -.5362 |
| 9    | 20.00  | .1719 | -.6249 | -.3052 | -.0658 | -.0022 | .5158  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 517

RUN 642 CONFIG F P B NPS W7 T36 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|---------------|--------------|---------------|-------------|-------|---------|--------|
| 5       | .0        | .0      | 557.6       | 126.62      | 609.          | -76.         | 166.          | .75         | 40.73 | 110.42  | 3680.  |
| 6       | .0        | .0      | 457.9       | -104.30     | -75.          | -43.         | 519.          | -13.52      | 40.57 | 110.20  | 23000. |
| 7       | -20.0     | .0      | -216.5      | -98.38      | 1536.         | 26.          | 234.          | 2.27        | 40.47 | 110.06  | 22940. |
| 8       | -15.0     | .0      | -21.8       | -123.38     | 1457.         | 38.          | 285.          | -.67        | 40.96 | 110.73  | 22940. |
| 9       | -10.0     | .0      | 189.8       | -134.13     | 918.          | -94.         | 350.          | 3.34        | 40.82 | 110.53  | 22950. |
| 10      | -5.0      | .0      | 359.0       | -124.14     | 260.          | -168.        | 376.          | -12.04      | 40.73 | 110.42  | 23030. |
| 11      | -2.5      | .0      | 427.4       | -117.30     | 86.           | -159.        | 448.          | -13.96      | 40.75 | 110.44  | 22900. |
| 12      | -.0       | .0      | 472.4       | -103.87     | -28.          | -84.         | 675.          | -26.48      | 40.79 | 110.49  | 23020. |
| 13      | 2.5       | .0      | 506.5       | -89.76      | -301.         | -102.        | 563.          | -12.66      | 40.62 | 110.25  | 22960. |
| 14      | 5.0       | .0      | 497.9       | -70.59      | -469.         | -267.        | -87.          | -9.07       | 40.58 | 110.20  | 22960. |
| 15      | 10.0      | .0      | 493.4       | -14.47      | -572.         | -41.         | 429.          | 1.68        | 40.60 | 110.22  | 22960. |
| 16      | 15.0      | .0      | 498.1       | -13.97      | -497.         | -41.         | 433.          | 1.69        | 40.22 | 109.70  | 22970. |
| 17      | 20.0      | .0      | 656.3       | 131.91      | -889.         | -25.         | 338.          | 6.17        | 40.33 | 109.85  | 22940. |
| 18      | -.0       | .0      | 469.4       | -99.80      | -27.          | -70.         | 720.          | -25.91      | 40.89 | 110.62  | 22940. |
| 19      | 15.0      | .0      | 576.1       | 59.55       | -686.         | -80.         | 285.          | 8.48        | 40.57 | 110.17  | 22950. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 5    | .00    | 1.5071 | .3422  | .1964  | -.0046 | .0100  | .0020  |
| 6    | .00    | 1.2375 | -.2819 | -.0242 | -.0026 | .0313  | -.0365 |
| 7    | -20.00 | -.5852 | -.2659 | .4951  | .0016  | .0141  | .0061  |
| 8    | -14.99 | -.0590 | -.3335 | .4696  | .0023  | .0172  | -.0018 |
| 9    | -10.00 | .5129  | -.3625 | .2958  | -.0057 | .0211  | .0090  |
| 10   | -5.01  | .9703  | -.3355 | .0837  | -.0101 | .0227  | -.0325 |
| 11   | -2.50  | 1.1552 | -.3170 | .0212  | -.0096 | .0270  | -.0377 |
| 12   | -.00   | 1.2768 | -.2807 | -.0091 | -.0051 | .0408  | -.0716 |
| 13   | 2.51   | 1.3688 | -.2426 | -.0970 | -.0061 | .0340  | -.0342 |
| 14   | 5.00   | 1.3456 | -.1908 | -.1512 | -.0161 | -.0053 | -.0245 |
| 15   | 10.00  | 1.3336 | -.0391 | -.1843 | -.0025 | .0259  | .0045  |
| 16   | 15.00  | 1.3463 | -.0378 | -.1601 | -.0025 | .0262  | .0046  |
| 17   | 20.01  | 1.7739 | .3565  | -.2865 | -.0015 | .0204  | .0167  |
| 18   | -.00   | 1.2685 | -.2697 | -.0086 | -.0043 | .0435  | -.0700 |
| 19   | 14.99  | 1.5571 | .1609  | -.2211 | -.0048 | .0172  | .0229  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 5    | .00    | 1.5071 | .3422  | .1964  | -.0046 | .0100  | .0020  |
| 6    | .00    | 1.2375 | -.2819 | -.0242 | -.0026 | .0313  | -.0365 |
| 7    | -20.00 | -.5852 | -.2659 | .4951  | .0016  | .0141  | .0061  |
| 8    | -14.99 | -.0590 | -.3335 | .4696  | .0023  | .0172  | -.0018 |
| 9    | -10.00 | .5129  | -.3625 | .2958  | -.0057 | .0211  | .0090  |
| 10   | -5.01  | .9703  | -.3355 | .0837  | -.0101 | .0227  | -.0325 |
| 11   | -2.50  | 1.1552 | -.3170 | .0212  | -.0096 | .0270  | -.0377 |
| 12   | -.00   | 1.2768 | -.2807 | -.0091 | -.0051 | .0408  | -.0716 |
| 13   | 2.51   | 1.3688 | -.2426 | -.0970 | -.0061 | .0340  | -.0342 |
| 14   | 5.00   | 1.3456 | -.1908 | -.1512 | -.0161 | -.0053 | -.0245 |
| 15   | 10.00  | 1.3336 | -.0391 | -.1843 | -.0025 | .0259  | .0045  |
| 16   | 15.00  | 1.3463 | -.0378 | -.1601 | -.0025 | .0262  | .0046  |
| 17   | 20.01  | 1.7739 | .3565  | -.2865 | -.0015 | .0204  | .0167  |
| 18   | -.00   | 1.2685 | -.2697 | -.0086 | -.0043 | .0435  | -.0700 |
| 19   | 14.99  | 1.5571 | .1609  | -.2211 | -.0048 | .0172  | .0229  |

ORIGINAL PAGE IS  
OF POOR QUALITY

RUN 643 CONFIG F P 8 NPS W7 T36 BT IN=-3.5 XN=0

| PT. NO. | 15 DELF<br>ALPHA<br>DEG | PSI<br>DEG | 30 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>COBAR<br>SQ-FT | 0 DELE<br>CPM BAR<br>CU-FT | 0 DELR<br>CYM BAR<br>CU-FT | 0 DELS8<br>CRM BAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM    |
|---------|-------------------------|------------|---------------------------|-------------------------|----------------------------|----------------------------|-----------------------------|---------------------|----------|------------|--------|
| 2       | .0                      | .0         | 43.8                      | 123.47                  | 588.                       | -84.                       | 116.                        | .99                 | 41.19    | 111.03     | 3710.  |
| 3       | .0                      | .0         | 43.8                      | -99.13                  | -102.                      | -57.                       | 561.                        | -16.99              | 41.30    | 111.19     | 23000. |
| 4       | .0                      | -20.2      | 424.7                     | -62.60                  | -207.                      | 2619.                      | -894.                       | -230.55             | 41.40    | 111.32     | 23020. |
| 5       | .0                      | -15.0      | 451.1                     | -87.11                  | 0.                         | 1704.                      | -651.                       | -160.61             | 41.42    | 111.36     | 23030. |
| 6       | .0                      | -10.0      | 450.6                     | -95.34                  | -200.                      | 305.                       | -412.                       | -82.77              | 41.44    | 111.38     | 22940. |
| 7       | .0                      | -5.0       | 438.2                     | -101.64                 | -259.                      | -104.                      | -312.                       | -32.49              | 41.41    | 111.34     | 22980. |
| 8       | .0                      | -2.5       | 436.6                     | -102.32                 | -258.                      | -153.                      | -325.                       | -13.13              | 41.50    | 111.46     | 22980. |
| 9       | .0                      | .0         | 424.8                     | -101.87                 | -301.                      | -175.                      | 93.                         | .91                 | 41.28    | 111.17     | 23060. |
| 10      | .0                      | 2.5        | 417.5                     | -100.95                 | -250.                      | -243.                      | 205.                        | 20.54               | 41.63    | 111.63     | 23020. |
| 11      | .0                      | 5.0        | 418.4                     | -101.96                 | -179.                      | -323.                      | 207.                        | 41.20               | 41.34    | 111.24     | 23010. |
| 12      | .0                      | 10.0       | 447.5                     | -101.28                 | 201.                       | -804.                      | 932.                        | 76.56               | 41.38    | 111.30     | 23010. |
| 13      | .0                      | 15.0       | 420.4                     | -89.92                  | 54.                        | -1320.                     | 1118.                       | 150.59              | 41.44    | 111.38     | 23060. |
| 14      | .0                      | 20.0       | 382.2                     | -68.53                  | 275.                       | -2231.                     | 1172.                       | 210.15              | 41.63    | 111.63     | 23070. |
| 15      | .0                      | .0         | 469.4                     | -98.02                  | -87.                       | -90.                       | 545.                        | -25.48              | 41.57    | 111.56     | 22910. |
| 16      | .0                      | .0         | 426.6                     | -97.86                  | -287.                      | -181.                      | 191.                        | -3.05               | 41.33    | 111.23     | 23000. |
| 17      | .0                      | .0         | 409.3                     | -92.01                  | -352.                      | -179.                      | 26.                         | -1.89               | 41.55    | 111.52     | 23050. |
| 18      | -20.0                   | .0         | -211.1                    | -88.75                  | 1454.                      | 111.                       | 203.                        | -7.83               | 41.78    | 111.83     | 22950. |
| 19      | -10.0                   | .0         | 195.3                     | -120.02                 | 729.                       | -55.                       | 304.                        | -1.39               | 41.75    | 111.81     | 23150. |
| 20      | .0                      | .0         | 453.1                     | -89.88                  | -261.                      | -84.                       | 458.                        | -11.80              | 41.56    | 111.53     | 22960. |
| 21      | 10.0                    | .0         | 486.1                     | -9.20                   | -632.                      | -94.                       | 400.                        | 1.08                | 41.13    | 110.95     | 23020. |
| 22      | 20.0                    | .0         | 652.9                     | 136.11                  | -925.                      | -10.                       | 166.                        | 4.73                | 41.04    | 110.82     | 23000. |
| 23      | .0                      | .0         | 455.2                     | -98.63                  | -237.                      | -76.                       | 376.                        | -10.79              | 40.11    | 109.55     | 23020. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CFM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.4698 | .3337  | .1894  | -.0051 | .0070  | .0027  |
| 3    | .00    | 1.2264 | -.2679 | -.0329 | -.0035 | .0339  | -.0459 |
| 4    | -20.20 | 1.1477 | -.1692 | -.0926 | .1582  | -.0540 | -.6231 |
| 5    | -15.00 | 1.2193 | -.2354 | -.0000 | .1029  | -.0393 | -.4341 |
| 6    | -10.00 | 1.2179 | -.2577 | -.0644 | .0184  | -.0249 | -.2237 |
| 7    | -5.00  | 1.1843 | -.2747 | -.0834 | -.0063 | -.0188 | -.0878 |
| 8    | -2.50  | 1.1800 | -.2765 | -.0831 | -.0092 | -.0196 | -.0355 |
| 9    | .00    | 1.1482 | -.2753 | -.0972 | -.0106 | .0056  | .0025  |
| 10   | 2.50   | 1.1285 | -.2728 | -.0805 | -.0147 | .0124  | .0555  |
| 11   | 5.00   | 1.1307 | -.2756 | -.0574 | -.0195 | .0125  | .1114  |
| 12   | 10.00  | 1.2095 | -.2737 | .0649  | -.0486 | .0563  | .2069  |
| 13   | 15.00  | 1.1361 | -.2430 | .0174  | -.1099 | .0575  | .4070  |
| 14   | 20.00  | 1.0330 | -.1852 | .0886  | -.1348 | .0708  | .5680  |
| 15   | .00    | 1.2687 | -.2649 | -.0280 | -.0054 | .0329  | -.0689 |
| 16   | .00    | 1.1530 | -.2645 | -.0927 | -.0109 | .0116  | -.0082 |
| 17   | .00    | 1.1063 | -.2487 | -.1133 | -.0108 | .0016  | -.0051 |
| 18   | -20.00 | -.5706 | -.2399 | .4689  | .0067  | .0123  | -.0212 |
| 19   | -10.00 | .5279  | -.3244 | .2350  | -.0033 | .0184  | -.0037 |
| 20   | .00    | 1.2246 | -.2429 | -.0842 | -.0051 | .0277  | -.0319 |
| 21   | 10.00  | 1.3138 | -.0249 | -.2038 | -.0057 | .0242  | .0029  |
| 22   | 20.00  | 1.7645 | .3679  | -.2982 | -.0006 | .0100  | .0128  |
| 23   | .00    | 1.2304 | -.2666 | -.0763 | -.0046 | .0227  | -.0292 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.4698 | .3337  | .1894  | -.0051 | .0070  | .0027  |
| 3    | .00    | 1.2264 | -.2679 | -.0329 | -.0035 | .0339  | -.0459 |
| 4    | -20.20 | 1.1477 | -.3748 | .0131  | .1582  | -.0446 | -.5258 |
| 5    | -15.00 | 1.2193 | -.3402 | .0546  | .1029  | -.0380 | -.3579 |
| 6    | -10.00 | 1.2179 | -.2928 | -.0402 | .0184  | -.0224 | -.1753 |
| 7    | -5.00  | 1.1843 | -.2813 | -.0743 | -.0063 | -.0174 | -.0634 |
| 8    | -2.50  | 1.1800 | -.2778 | -.0794 | -.0092 | -.0189 | -.0233 |
| 9    | .00    | 1.1482 | -.2753 | -.0972 | -.0106 | .0056  | .0025  |
| 10   | 2.50   | 1.1285 | -.2750 | -.0775 | -.0147 | .0117  | .0435  |
| 11   | 5.00   | 1.1307 | -.2843 | -.0513 | -.0195 | .0115  | .0868  |
| 12   | 10.00  | 1.2095 | -.3056 | .1163  | -.0486 | .0576  | .1560  |
| 13   | 15.00  | 1.1361 | -.3405 | .1105  | -.1099 | .0661  | .3298  |
| 14   | 20.00  | 1.0330 | -.3690 | .2130  | -.1348 | .0722  | .4698  |
| 15   | .00    | 1.2687 | -.2649 | -.0280 | -.0054 | .0329  | -.0689 |
| 16   | .00    | 1.1530 | -.2645 | -.0927 | -.0109 | .0116  | -.0082 |
| 17   | .00    | 1.1063 | -.2487 | -.1133 | -.0108 | .0016  | -.0051 |
| 18   | -20.00 | -.5706 | -.2399 | .4689  | .0067  | .0123  | -.0212 |
| 19   | -10.00 | .5279  | -.3244 | .2350  | -.0033 | .0184  | -.0037 |
| 20   | .00    | 1.2246 | -.2429 | -.0842 | -.0051 | .0277  | -.0319 |
| 21   | 10.00  | 1.3138 | -.0249 | -.2038 | -.0057 | .0242  | .0029  |
| 22   | 20.00  | 1.7645 | .3679  | -.2982 | -.0006 | .0100  | .0128  |
| 23   | .00    | 1.2304 | -.2666 | -.0763 | -.0046 | .0227  | -.0292 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P519

RUN 644 CONFIG F P B NPS W7 T36 BT IN=-3.5 XN=0

| PT. NO. | IW    | 15 DELF | 30 DELA | 0 IHT   | 0 DELE  | 0 DELR | 0 DELSB | 0      | RPM   |        |        |
|---------|-------|---------|---------|---------|---------|--------|---------|--------|-------|--------|--------|
| NO.     | ALPHA | PSI     | CL BAR  | CDBAR   | CPM BAR | CYBAR  | CRM BAR | CYBAR  | Q     | V      | RPM    |
|         | DEG   | DEG     | SQ-FT   | SQ-FT   | CU-FT   | CU-FT  | CU-FT   | SQ-FT  | PSF   | KNOTS  |        |
| 2       | .0    | .0      | 547.2   | 123.62  | 610.    | -78.   | 145.    | .00    | 40.17 | 109.63 | 3660.  |
| 3       | .0    | .0      | 451.4   | -111.52 | -106.   | -61.   | 528.    | -13.68 | 39.85 | 109.19 | 23030. |
| 4       | -20.0 | .0      | -217.4  | -104.57 | 1321.   | 131.   | 159.    | -5.43  | 39.56 | 108.79 | 22930. |
| 5       | -15.0 | .0      | -30.6   | -131.11 | 1076.   | 35.    | 377.    | -6.48  | 39.92 | 109.30 | 22990. |
| 6       | -10.0 | .0      | 188.1   | -140.84 | 880.    | 2.     | 323.    | -2.76  | 39.55 | 108.79 | 22970. |
| 7       | -5.0  | .0      | 357.5   | -120.13 | 266.    | -125.  | 202.    | -7.61  | 40.72 | 110.40 | 22990. |
| 8       | -2.5  | .0      | 429.3   | -118.54 | 67.     | -186.  | 325.    | -6.98  | 40.02 | 109.43 | 22900. |
| 9       | .0    | .0      | 461.6   | -105.72 | -144.   | -89.   | 478.    | -12.73 | 39.89 | 109.24 | 22920. |
| 10      | 2.5   | .0      | 517.5   | -92.51  | -225.   | -111.  | 521.    | -10.16 | 39.91 | 109.28 | 23150. |
| 11      | 5.0   | .0      | 497.9   | -73.24  | -450.   | -246.  | -187.   | -8.49  | 39.72 | 109.02 | 22950. |
| 12      | 10.0  | .0      | 487.5   | -18.69  | -574.   | -33.   | 389.    | 2.57   | 39.72 | 109.01 | 22940. |
| 13      | 15.0  | .0      | 578.0   | 52.89   | -667.   | -90.   | 194.    | 4.64   | 39.69 | 108.96 | 22950. |
| 14      | 20.0  | .0      | 653.1   | 134.32  | -843.   | -9.    | 168.    | 4.37   | 40.50 | 110.09 | 22930. |
| 15      | .0    | .0      | 464.8   | -94.77  | -133.   | -46.   | 525.    | -14.83 | 40.20 | 109.68 | 22870. |
| 16      | -20.0 | .0      | -210.1  | -92.32  | 1516.   | 163.   | 209.    | -7.05  | 40.12 | 109.56 | 23030. |
| 17      | -15.0 | .0      | -26.2   | -118.57 | 1195.   | 62.    | 336.    | -10.93 | 40.22 | 109.71 | 23090. |
| 18      | -17.5 | .0      | -122.7  | -105.47 | 1871.   | 61.    | 183.    | -6.06  | 39.89 | 109.25 | 23060. |
| 19      | -12.5 | .0      | 83.2    | -119.42 | 1354.   | 128.   | 280.    | -7.47  | 40.12 | 109.57 | 23020. |
| 20      | -20.0 | .0      | -206.2  | -84.30  | 1415.   | 141.   | 244.    | -11.88 | 40.14 | 109.59 | 23090. |
| 21      | -17.5 | .0      | -132.8  | -103.88 | 1736.   | 57.    | 282.    | -7.55  | 40.18 | 109.64 | 23060. |
| 22      | -17.5 | .0      | -135.2  | -102.84 | 1644.   | 66.    | 241.    | -10.49 | 39.95 | 109.32 | 23000. |
| 23      | -17.5 | .0      | -130.0  | -102.25 | 1582.   | 44.    | 172.    | -13.01 | 40.32 | 109.84 | 22940. |
| 24      | -17.5 | .0      | -128.6  | -102.41 | 1580.   | 68.    | 194.    | -11.75 | 40.31 | 109.83 | 22980. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.4788 | .3341  | .1966  | -.0047 | .0087  | .0000  |
| 3    | .00    | 1.2199 | -.3014 | -.0342 | -.0037 | .0319  | -.0370 |
| 4    | -19.99 | -.5876 | -.2826 | .4259  | .0079  | .0096  | -.0147 |
| 5    | -15.00 | -.0828 | -.3543 | .3470  | .0021  | .0228  | -.0175 |
| 6    | -10.00 | .5084  | -.3807 | .2637  | .0001  | .0195  | -.0074 |
| 7    | -4.99  | .9663  | -.3247 | .0858  | -.0075 | .0122  | -.0206 |
| 8    | -2.49  | 1.1602 | -.3204 | .0215  | -.0112 | .0196  | -.0189 |
| 9    | .00    | 1.2475 | -.2857 | -.0464 | -.0054 | .0289  | -.0344 |
| 10   | 2.51   | 1.3987 | -.2500 | -.0726 | -.0067 | .0315  | -.0275 |
| 11   | 5.03   | 1.3457 | -.1979 | -.1452 | -.0149 | -.0113 | -.0229 |
| 12   | 10.00  | 1.3175 | -.0505 | -.1852 | -.0020 | .0235  | .0070  |
| 13   | 15.01  | 1.5621 | .1429  | -.2151 | -.0054 | .0117  | .0125  |
| 14   | 20.00  | 1.7651 | .3630  | -.2717 | -.0005 | .0102  | .0118  |
| 15   | .00    | 1.2561 | -.2561 | -.0427 | -.0028 | .0317  | -.0401 |
| 16   | -20.00 | -.5679 | -.2495 | .4886  | .0098  | .0126  | -.0190 |
| 17   | -15.00 | -.0709 | -.3205 | .3851  | .0037  | .0203  | -.0295 |
| 18   | -17.50 | -.3315 | -.2850 | .6032  | .0037  | .0111  | -.0164 |
| 19   | -12.50 | .2249  | -.3228 | .4365  | .0077  | .0169  | -.0202 |
| 20   | -20.00 | -.5573 | -.2278 | .4561  | .0085  | .0148  | -.0321 |
| 21   | -17.50 | -.3588 | -.2807 | .5598  | .0034  | .0170  | -.0204 |
| 22   | -17.50 | -.3654 | -.2779 | .5301  | .0040  | .0146  | -.0283 |
| 23   | -17.47 | -.3513 | -.2763 | .5101  | .0026  | .0104  | -.0352 |
| 24   | -17.49 | -.3475 | -.2768 | .5094  | .0041  | .0117  | -.0317 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS



| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.4788 | .3341  | .1966  | -.0047 | .0087  | .0000  |
| 3    | .00    | 1.2199 | -.3014 | -.0342 | -.0037 | .0319  | -.0370 |
| 4    | -19.99 | -.5876 | -.2826 | .4259  | .0079  | .0096  | -.0147 |
| 5    | -15.00 | -.0828 | -.3543 | .3470  | .0021  | .0228  | -.0175 |
| 6    | -10.00 | .5084  | -.3807 | .2837  | .0001  | .0195  | -.0074 |
| 7    | -4.99  | .9663  | -.3247 | .0858  | -.0075 | .0122  | -.0206 |
| 8    | -2.49  | 1.1602 | -.3204 | .0215  | -.0112 | .0196  | -.0189 |
| 9    | .00    | 1.2475 | -.2857 | -.0454 | -.0054 | .0289  | -.0344 |
| 10   | 2.51   | 1.3987 | -.2500 | -.0726 | -.0067 | .0315  | -.0275 |
| 11   | 5.03   | 1.3457 | -.1979 | -.1452 | -.0149 | -.0113 | -.0229 |
| 12   | 10.00  | 1.3175 | -.0505 | -.1852 | -.0020 | .0235  | .0070  |
| 13   | 15.01  | 1.5621 | .1429  | -.2151 | -.0054 | .0117  | .0125  |
| 14   | 20.00  | 1.7651 | .3630  | -.2717 | -.0005 | .0102  | .0118  |
| 15   | .00    | 1.2561 | -.2561 | -.0427 | -.0028 | .0317  | -.0401 |
| 16   | -20.00 | -.5679 | -.2495 | .4886  | .0098  | .0126  | -.0190 |
| 17   | -15.00 | -.0709 | -.3205 | .3851  | .0037  | .0203  | -.0295 |
| 18   | -17.50 | -.3315 | -.2850 | .6032  | .0037  | .0111  | -.0164 |
| 19   | -12.50 | .2249  | -.3228 | .4365  | .0077  | .0169  | -.0202 |
| 20   | -20.00 | -.5573 | -.2278 | .4561  | .0085  | .0148  | -.0321 |
| 21   | -17.50 | -.3588 | -.2807 | .5598  | .0034  | .0170  | -.0204 |
| 22   | -17.50 | -.3654 | -.2779 | .5301  | .0040  | .0146  | -.0283 |
| 23   | -17.47 | -.3513 | -.2763 | .5101  | .0026  | .0104  | -.0352 |
| 24   | -17.49 | -.3475 | -.2768 | .5094  | .0041  | .0117  | -.0317 |

SEP-72011  
P 520

N 645 CONFIG F P B NP5 W7 J36 BT IN=-3.5 Q=55

| W     | 15 DELF | 30 DELA | 0.0 IHT | 0.0 DELE | 0.0 DELR | 0.0 DELSB | 0.0   |        |       |        |        |
|-------|---------|---------|---------|----------|----------|-----------|-------|--------|-------|--------|--------|
| ALPHA | PSI     | CLBAR   | CDBAR   | CPMBAR   | CYMBAR   | CRMBAR    | CYBAR | Q      | V     |        |        |
| DEG   | DEG     | SQ-FT   | SQ-FT   | CU-FT    | CU-FT    | CU-FT     | SQ-FT | PSF    | KNOTS |        |        |
| 2     | .0      | .0      | 544.3   | 123.60   | 625.     | -90.      | 65.   | 3.28   | 56.06 | 129.85 | 4380.  |
| 3     | .0      | .0      | 482.6   | -7.00    | 145.     | -68.      | 161.  | -3.67  | 55.68 | 129.40 | 20740. |
| 4     | -20.0   | .0      | -144.3  | -12.03   | 1118.    | 74.       | 8.    | -3.64  | 56.22 | 130.04 | 20710. |
| 5     | -15.0   | .0      | 16.9    | -34.99   | 1560.    | -35.      | 105.  | -.49   | 55.79 | 129.53 | 20750. |
| 5     | -10.0   | .0      | 205.0   | -37.57   | 1339.    | -33.      | 189.  | .67    | 56.04 | 129.83 | 20760. |
| 7     | -5.0    | .0      | 363.3   | -22.53   | 672.     | -43.      | 183.  | -6.39  | 55.96 | 129.74 | 20790. |
| 3     | -2.5    | .0      | 429.6   | -12.11   | 386.     | -80.      | 165.  | -5.11  | 55.37 | 129.04 | 20910. |
| 7     | -.0     | .0      | 454.9   | .16      | 107.     | -13.      | 394.  | -10.71 | 55.97 | 129.74 | 20780. |
| 3     | 2.5     | .0      | 502.7   | 11.67    | -100.    | -15.      | 442.  | -7.38  | 55.84 | 129.59 | 20750. |
| 1     | 5.0     | .0      | 545.9   | 26.23    | -294.    | -65.      | 550.  | -10.54 | 55.57 | 129.27 | 20710. |
| 2     | 10.0    | .0      | 475.9   | 83.74    | -490.    | -53.      | 222.  | 4.31   | 56.07 | 129.86 | 20720. |
| 3     | 15.0    | .0      | 533.8   | 145.04   | -544.    | -75.      | 85.   | 3.15   | 56.26 | 130.08 | 20690. |
| 4     | 20.0    | .0      | 609.0   | 215.31   | -677.    | -4.       | 35.   | 4.82   | 56.51 | 130.37 | 20800. |
| 5     | -5.0    | .0      | 362.3   | -23.78   | 644.     | -39.      | 187.  | -8.90  | 55.91 | 129.67 | 20750. |
| 5     | -.0     | .0      | 469.6   | -3.17    | 130.     | -39.      | 121.  | .06    | 55.92 | 129.68 | 20760. |
| 7     | 5.0     | .0      | 541.2   | 25.61    | -232.    | -56.      | 443.  | -8.20  | 55.66 | 129.37 | 20750. |
| 3     | 7.5     | .0      | 453.5   | 48.14    | -249.    | -251.     | 198.  | -8.61  | 55.82 | 129.56 | 20740. |
| 7     | -20.0   | .0      | -153.4  | -9.13    | 1149.    | 94.       | 70.   | -7.91  | 56.02 | 129.80 | 20710. |
| 3     | -17.5   | .0      | -72.2   | -24.25   | 1619.    | 55.       | 27.   | -4.67  | 56.16 | 129.97 | 20860. |
| 1     | -15.0   | .0      | 13.6    | -31.37   | 1636.    | -37.      | 125.  | -1.83  | 55.85 | 129.60 | 20670. |

\* COEFFICIENT FORM - WIND AXIS

| # | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|---|--------|--------|--------|--------|--------|-------|--------|
| 2 | .00    | 1.4710 | .3341  | .2016  | -.0054 | .0039 | .0089  |
| 3 | .00    | 1.3043 | -.0189 | .0467  | -.0041 | .0097 | -.0099 |
| 4 | -20.00 | -.3900 | -.0325 | .3606  | .0045  | .0005 | -.0098 |
| 5 | -15.01 | .0457  | -.0946 | .5030  | -.0021 | .0064 | -.0013 |
| 6 | -10.00 | .5542  | -.1016 | .4317  | -.0020 | .0114 | .0018  |
| 7 | -5.01  | .9819  | -.0609 | .2168  | -.0026 | .0111 | -.0173 |
| 8 | -2.51  | 1.1610 | -.0327 | .1245  | -.0048 | .0100 | -.0138 |
| 9 | -.01   | 1.2295 | .0004  | .0344  | -.0008 | .0238 | -.0290 |
| 0 | 2.49   | 1.3586 | .0315  | -.0323 | -.0009 | .0267 | -.0200 |
| 1 | 4.99   | 1.4754 | .0709  | -.0949 | -.0039 | .0332 | -.0285 |
| 2 | 9.99   | 1.2863 | .2263  | -.1579 | -.0032 | .0134 | .0117  |
| 3 | 15.01  | 1.4428 | .3920  | -.1754 | -.0045 | .0052 | .0085  |
| 4 | 20.00  | 1.6460 | .5819  | -.2184 | -.0002 | .0021 | .0130  |
| 5 | -5.00  | .9793  | -.0643 | .2077  | -.0023 | .0113 | -.0240 |
| 6 | -.00   | 1.2693 | -.0086 | .0418  | -.0024 | .0073 | .0002  |
| 7 | 4.99   | 1.4626 | .0692  | -.0747 | -.0034 | .0268 | -.0222 |
| 8 | 7.49   | 1.2257 | .1301  | -.0803 | -.0151 | .0119 | -.0233 |
| 9 | -20.00 | -.4145 | -.0247 | .3705  | .0057  | .0042 | -.0214 |
| 0 | -17.51 | -.1951 | -.0655 | .5219  | .0033  | .0017 | -.0126 |
| 1 | -15.01 | .0369  | -.0848 | .5275  | -.0022 | .0076 | -.0049 |

\* COEFFICIENT FORM - STABILITY AXIS

| # | ALPHA  | CLS    | CDB    | CPMB  | CYMB   | CRMB  | CYB    |
|---|--------|--------|--------|-------|--------|-------|--------|
| 2 | .00    | 1.4710 | .3341  | .2016 | -.0054 | .0039 | .0089  |
| 3 | .00    | 1.3043 | -.0189 | .0467 | -.0041 | .0097 | -.0099 |
| 4 | -20.00 | -.3900 | -.0325 | .3606 | .0045  | .0005 | -.0098 |
| 5 | -15.01 | .0457  | -.0946 | .5030 | -.0021 | .0064 | -.0013 |
| 6 | -10.00 | .5542  | -.1016 | .4317 | -.0020 | .0114 | .0018  |

|   |        |        |        |        |        |       |        |
|---|--------|--------|--------|--------|--------|-------|--------|
| 7 | -5.01  | .9819  | -.0609 | .2168  | -.0026 | .0111 | -.0173 |
| 8 | -2.51  | 1.1610 | -.0327 | .1245  | -.0048 | .0100 | -.0138 |
| 9 | -.01   | 1.2295 | .0004  | .0344  | -.0008 | .0238 | -.0290 |
| 0 | 2.49   | 1.3586 | .0315  | -.0323 | -.0009 | .0267 | -.0200 |
| 1 | 4.99   | 1.4754 | .0709  | -.0949 | -.0039 | .0332 | -.0285 |
| 2 | 9.99   | 1.2863 | .2263  | -.1579 | -.0032 | .0134 | .0117  |
| 3 | 15.01  | 1.4428 | .3920  | -.1754 | -.0045 | .0052 | .0085  |
| 4 | 20.00  | 1.6460 | .5819  | -.2184 | -.0002 | .0021 | .0130  |
| 5 | -5.00  | .9793  | -.0643 | .2077  | -.0023 | .0113 | -.0240 |
| 6 | -.00   | 1.2693 | -.0086 | .0418  | -.0024 | .0073 | .0002  |
| 7 | 4.99   | 1.4626 | .0692  | -.0747 | -.0034 | .0268 | -.0222 |
| 8 | 7.49   | 1.2257 | .1301  | -.0803 | -.0151 | .0119 | -.0233 |
| 9 | -20.00 | -.4145 | -.0247 | .3705  | .0057  | .0042 | -.0214 |
| 0 | -17.51 | -.1951 | -.0655 | .5219  | .0033  | .0017 | -.0126 |
| 1 | -15.01 | .0369  | -.0848 | .5275  | -.0022 | .0076 | -.0049 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 522

V 646 CONFIG P P B NP5 W7 T36 BT IN=3.5 Q=40 OEI

| #  | 15 DEL F  |     | 30 DEL A |        | 0.0 IHT |        | 0.0 DELE |         | 0.0 DELR |        | 10 DEL SR |     | 0.0     |     |
|----|-----------|-----|----------|--------|---------|--------|----------|---------|----------|--------|-----------|-----|---------|-----|
|    | ALPHA DEG | PSI | CLBAR    | CDBAR  | CPMRAR  | CYBAR  | CRMBAR   | CYBAR   | CRMBAR   | CYBAR  | Q         | PSF | V KNOTS | RPM |
| 1  | 0.0       | 0.0 | 543.0    | 124.50 | 590.    | 288.   | 61.      | -7.48   | 56.03    | 129.82 | 4360.     |     |         |     |
| 2  | 0.0       | 0.0 | 483.7    | 10.87  | 66.     | -451.  | 460.     | -17.86  | 39.85    | 109.20 | 22980.    |     |         |     |
| 3  | -20.0     | 0.0 | 443.4    | 41.53  | -171.   | 2378.  | -798.    | -174.69 | 39.62    | 108.88 | 22980.    |     |         |     |
| 4  | -15.0     | 0.0 | 480.2    | 23.26  | -20.    | 1547.  | -536.    | -125.30 | 39.47    | 108.67 | 23000.    |     |         |     |
| 5  | -10.0     | 0.0 | 473.9    | 17.01  | -146.   | 265.   | -434.    | -60.87  | 39.79    | 109.12 | 22970.    |     |         |     |
| 6  | -5.0      | 0.0 | 474.2    | 13.92  | -173.   | -282.  | -153.    | -30.20  | 39.82    | 109.15 | 23020.    |     |         |     |
| 7  | -2.5      | 0.0 | 503.1    | 11.73  | -34.    | -427.  | 199.     | -28.73  | 39.72    | 109.02 | 22970.    |     |         |     |
| 8  | 0.0       | 0.0 | 479.5    | 14.75  | -6.     | -470.  | 492.     | -22.97  | 39.74    | 109.04 | 22960.    |     |         |     |
| 9  | 2.5       | 0.0 | 482.3    | 13.83  | 156.    | -698.  | 596.     | 3.51    | 39.76    | 109.08 | 22990.    |     |         |     |
| 10 | 5.1       | 0.0 | 469.4    | 12.98  | 216.    | -980.  | 675.     | 21.87   | 39.57    | 108.80 | 22990.    |     |         |     |
| 11 | 10.0      | 0.0 | 452.4    | 13.45  | 199.    | -1528. | 768.     | 69.37   | 39.92    | 109.30 | 23050.    |     |         |     |
| 12 | 15.0      | 0.0 | 419.8    | 21.73  | 82.     | -2192. | 1006.    | 120.67  | 39.83    | 109.17 | 23050.    |     |         |     |
| 13 | 20.0      | 0.0 | 370.8    | 35.82  | 163.    | -2828. | 1289.    | 178.11  | 39.80    | 109.13 | 23070.    |     |         |     |
| 14 | 0.0       | 0.0 | 476.9    | 18.25  | 97.     | -427.  | 467.     | -23.22  | 39.90    | 109.26 | 23080.    |     |         |     |
| 15 | 0.0       | 0.0 | 538.0    | 123.65 | 654.    | 295.   | 79.      | -5.59   | 40.21    | 109.69 | 3580.     |     |         |     |

COEFFICIENT FORM - WIND AXIS

| #  | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|----|--------|--------|-------|--------|--------|--------|--------|
| 2  | 0.00   | 1.4675 | .3365 | .1903  | .0174  | .0037  | .0202  |
| 3  | 0.00   | 1.3073 | .0294 | .0213  | -.0272 | .0278  | -.0483 |
| 4  | -20.00 | 1.1983 | .1122 | -.0553 | .1437  | -.0482 | -.4721 |
| 5  | -15.00 | 1.2978 | .0629 | -.0066 | .0934  | -.0324 | -.3387 |
| 6  | -10.00 | 1.2808 | .0460 | -.0472 | .0160  | -.0262 | -.1645 |
| 7  | -5.00  | 1.2815 | .0376 | -.0557 | -.0170 | -.0092 | -.0816 |
| 8  | -2.50  | 1.3598 | .0317 | -.0111 | -.0258 | .0120  | -.0776 |
| 9  | 0.00   | 1.2960 | .0399 | -.0020 | -.0284 | .0297  | -.0621 |
| 10 | 2.50   | 1.3034 | .0374 | .0504  | -.0422 | .0360  | .0095  |
| 11 | 5.10   | 1.2686 | .0351 | .0695  | -.0592 | .0408  | .0591  |
| 12 | 10.00  | 1.2227 | .0364 | .0642  | -.0923 | .0464  | .1875  |
| 13 | 15.00  | 1.1344 | .0587 | .0263  | -.1324 | .0608  | .3261  |
| 14 | 20.00  | 1.0021 | .0968 | .0526  | -.1708 | .0775  | .4814  |
| 15 | 0.00   | 1.2888 | .0493 | .0312  | -.0258 | .0282  | -.0628 |
| 16 | 0.00   | 1.4540 | .3342 | .2108  | .0178  | .0048  | -.0151 |

COEFFICIENT FORM - STABILITY AXIS

| #  | PSI    | CLB    | CDL    | CPMB   | CYMB   | CRMB   | CYB    |
|----|--------|--------|--------|--------|--------|--------|--------|
| 2  | 0.00   | 1.4675 | .3365  | .1903  | .0174  | .0037  | .0202  |
| 3  | 0.00   | 1.3073 | .0294  | .0213  | -.0272 | .0278  | -.0483 |
| 4  | -20.00 | 1.1983 | -.0568 | .0365  | .1437  | -.0417 | -.4820 |
| 5  | -15.00 | 1.2978 | -.0273 | .0386  | .0934  | -.0309 | -.3434 |
| 6  | -10.00 | 1.2808 | .0166  | -.0221 | .0160  | -.0243 | -.1700 |
| 7  | -5.00  | 1.2815 | .0303  | -.0512 | -.0170 | -.0083 | -.0846 |
| 8  | -2.50  | 1.3598 | .0283  | -.0139 | -.0258 | .0121  | -.0790 |
| 9  | 0.00   | 1.2960 | .0399  | -.0020 | -.0284 | .0297  | -.0621 |
| 10 | 2.50   | 1.3034 | .0369  | .0588  | -.0422 | .0364  | .0111  |
| 11 | 5.10   | 1.2686 | .0297  | .0887  | -.0592 | .0418  | .0620  |
| 12 | 10.00  | 1.2227 | .0031  | .1064  | -.0923 | .0478  | .1909  |
| 13 | 15.00  | 1.1344 | -.0281 | .1097  | -.1324 | .0599  | .3302  |
| 14 | 20.00  | 1.0021 | -.0745 | .1922  | -.1708 | .0765  | .4853  |
| 15 | 0.00   | 1.2888 | .0493  | .0312  | -.0258 | .0282  | -.0628 |
| 16 | 0.00   | 1.4540 | .3342  | .2108  | .0178  | .0048  | -.0151 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 523

V 647 CONFIG F P B NP5 W7 T36 BT INP=3.5 Q=40 OEI

| 1W | 15 DELF | 30 DELA | 0.0 IHT | 0.0 DELE | 0.0 DELR | 20 DELSB | 0.0 Q  | 0.0 V   | RPM   |        |        |
|----|---------|---------|---------|----------|----------|----------|--------|---------|-------|--------|--------|
| #  | ALPHA   | PSI     | CLBAR   | CDBAR    | CPMBAR   | CYMBAR   | CRMBAR | CYBAR   |       |        |        |
|    | DEG     | DEG     | SQ-FT   | SQ-FT    | CU-FT    | CU-FT    | CU-FT  | SQ-FT   | PSF   |        |        |
|    |         |         |         |          |          |          |        |         | KNOTS |        |        |
| 2  | 0.0     | 0.0     | 541.6   | 126.85   | 601.     | 815.     | -24.   | -19.31  | 40.05 | 109.48 | 3620.  |
| 3  | 0.0     | 0.0     | 477.8   | 6.14     | 50.      | 15.      | 352.   | -32.22  | 40.49 | 110.09 | 22980. |
| 4  | 0.0     | -20.1   | 452.5   | 51.88    | -159.    | 2866.    | -877.  | -197.71 | 39.71 | 109.01 | 23040. |
| 5  | 0.0     | -15.0   | 480.0   | 27.84    | -94.     | 2052.    | -639.  | -136.98 | 39.64 | 108.91 | 23040. |
| 5  | 0.0     | -10.0   | 475.5   | 18.09    | -201.    | 742.     | -514.  | -75.91  | 39.67 | 108.95 | 22990. |
| 7  | 0.0     | -5.0    | 481.0   | 14.18    | -251.    | 237.     | -236.  | -40.94  | 39.60 | 108.85 | 23050. |
| 3  | 0.0     | -2.5    | 503.9   | 11.60    | -78.     | 96.      | 98.    | -45.22  | 39.77 | 109.09 | 23070. |
| 9  | 0.0     | 0.0     | 478.8   | 14.80    | 8.       | 38.      | 380.   | -32.30  | 39.97 | 109.36 | 23000. |
| 0  | 0.0     | 3.0     | 474.5   | 14.31    | 152.     | -228.    | 517.   | -6.39   | 40.00 | 109.40 | 23040. |
| 1  | 0.0     | 2.5     | 479.8   | 15.14    | 141.     | -130.    | 715.   | -13.54  | 39.76 | 109.07 | 23020. |
| 2  | 0.0     | 5.0     | 472.7   | 15.12    | 215.     | -473.    | 511.   | 11.58   | 39.71 | 109.01 | 23030. |
| 3  | 0.0     | 10.0    | 451.6   | 14.75    | 207.     | -1220.   | 709.   | 63.66   | 39.70 | 108.99 | 23030. |
| 4  | 0.0     | 15.0    | 421.5   | 23.49    | 104.     | -1857.   | 859.   | 116.09  | 39.97 | 109.36 | 23070. |
| 5  | 0.0     | 20.0    | 379.1   | 37.99    | 155.     | -2569.   | 1224.  | 172.45  | 39.57 | 108.80 | 23000. |
| 6  | 0.0     | 0.0     | 479.3   | 21.16    | 30.      | 90.      | 388.   | -35.81  | 39.57 | 108.81 | 23030. |

COEFFICIENT FORM - WIND AXIS

| # | PSI    | CL     | CD    | CPM    | CYM   | CRM    | CY     |
|---|--------|--------|-------|--------|-------|--------|--------|
| 2 | 0.00   | 1.4637 | .3428 | .1936  | .0492 | -.0014 | -.0522 |
| 3 | 0.00   | 1.2914 | .0166 | .0161  | .0009 | .0213  | -.0871 |
| 4 | -20.10 | 1.2229 | .1402 | .0514  | .1731 | -.0529 | -.5344 |
| 5 | -15.00 | 1.2972 | .0752 | -.0303 | .1239 | -.0386 | -.3702 |
| 6 | -10.00 | 1.2851 | .0489 | .0650  | .0448 | -.0310 | -.2052 |
| 7 | -5.00  | 1.3001 | .0383 | .0809  | .0143 | -.0143 | -.1107 |
| 8 | -2.50  | 1.3618 | .0313 | .0253  | .0058 | .0059  | -.1222 |
| 9 | 0.00   | 1.2940 | .0400 | .0027  | .0023 | .0230  | -.0873 |
| 0 | 3.00   | 1.2825 | .0387 | .0489  | .0138 | .0312  | -.0173 |
| 1 | 2.50   | 1.2967 | .0409 | .0455  | .0078 | .0432  | -.0366 |
| 2 | 5.00   | 1.2776 | .0409 | .0692  | .0286 | .0309  | .0313  |
| 3 | 10.00  | 1.2204 | .0399 | .0667  | .0737 | .0428  | .1721  |
| 4 | 15.00  | 1.1393 | .0635 | .0334  | .1122 | .0519  | .3137  |
| 5 | 20.00  | 1.0245 | .1027 | .0499  | .1552 | .0739  | .4661  |
| 6 | 0.00   | 1.2955 | .0572 | .0097  | .0055 | .0234  | -.0968 |

COEFFICIENT FORM - STABILITY AXIS

| # | PSI    | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB    |
|---|--------|--------|--------|--------|-------|--------|--------|
| 2 | 0.00   | 1.4637 | .3428  | .1936  | .0492 | -.0014 | -.0522 |
| 3 | 0.00   | 1.2914 | .0166  | .0161  | .0009 | .0213  | -.0871 |
| 4 | -20.10 | 1.2229 | -.0528 | .0493  | .1731 | -.0464 | -.5499 |
| 5 | -15.00 | 1.2972 | -.0236 | .0243  | .1239 | -.0356 | -.3771 |
| 6 | -10.00 | 1.2851 | .0124  | .0351  | .0448 | -.0284 | -.2105 |
| 7 | -5.00  | 1.3001 | .0285  | -.0739 | .0143 | -.0129 | -.1136 |
| 8 | -2.50  | 1.3618 | .0260  | -.0266 | .0058 | .0061  | -.1235 |
| 9 | 0.00   | 1.2940 | .0400  | .0027  | .0023 | .0230  | -.0873 |
| 0 | 3.00   | 1.2825 | .0395  | .0576  | .0138 | .0317  | -.0152 |
| 1 | 2.50   | 1.2967 | .0425  | .0556  | .0078 | .0435  | -.0348 |
| 2 | 5.00   | 1.2776 | .0380  | .0833  | .0286 | .0319  | .0348  |
| 3 | 10.00  | 1.2204 | .0092  | .1056  | .0737 | .0443  | .1769  |
| 4 | 15.00  | 1.1393 | -.0203 | .1043  | .1122 | .0517  | .3195  |
| 5 | 20.00  | 1.0245 | -.0637 | .1824  | .1552 | .0727  | .4730  |
| 6 | 0.00   | 1.2955 | .0572  | .0097  | .0055 | .0234  | -.0968 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 524

648 CONFIG F P B NPS W7 T36 BT IN#-3.5 Q=40 OeI

| 1W    | 15 DELF | 30 DELA | 0.0 IHT | 0.0 DELE | 0.0 DELR | 25 DELSB | 0.0   |         |       |        |        |
|-------|---------|---------|---------|----------|----------|----------|-------|---------|-------|--------|--------|
| ALPHA | PSI     | CLBAR   | CDBAR   | CPMBAR   | CYMBAR   | CRMBAR   | CYBAR | Q       |       |        |        |
| DEG   | DEG     | SQ-FT   | SQ-FT   | CU-FT    | CU-FT    | CU-FT    | SQ-FT | PSF     |       |        |        |
|       |         |         |         |          |          |          |       | KNOTS   |       |        |        |
|       |         |         |         |          |          |          |       | RPM     |       |        |        |
| 2     | 0       | 0       | 542.7   | 127.83   | 636.     | 976.     | -68.  | -23.25  | 39.85 | 109.20 | 3660.  |
| 3     | 0       | 0       | 481.0   | 3.99     | 104.     | 154.     | 336.  | -36.00  | 40.03 | 109.44 | 23000. |
| 4     | 0       | -20.0   | 442.5   | 50.16    | 51.      | 3034.    | -851. | -196.07 | 39.49 | 108.70 | 22980. |
| 5     | 0       | -15.1   | 489.0   | 31.01    | -63.     | 2184.    | -614. | -143.42 | 39.90 | 109.27 | 23100. |
| 6     | 0       | -10.0   | 478.0   | 19.95    | -240.    | 901.     | -477. | -79.57  | 39.94 | 109.33 | 22960. |
| 7     | 0       | -5.0    | 513.3   | 15.86    | -174.    | 423.     | -54.  | -59.79  | 39.77 | 109.09 | 22960. |
| 8     | 0       | -2.5    | 507.7   | 13.46    | -37.     | 291.     | 52.   | -46.53  | 39.98 | 109.37 | 22980. |
| 9     | 0       | 0       | 486.6   | 14.24    | 40.      | 229.     | 385.  | -35.89  | 39.96 | 109.35 | 23030. |
| 10    | 0       | 2.5     | 470.6   | 12.37    | 157.     | -2.      | 436.  | -20.74  | 39.58 | 108.83 | 23030. |
| 11    | 0       | 5.0     | 462.5   | 11.35    | 243.     | -324.    | 574.  | 2.40    | 39.76 | 109.08 | 23030. |
| 12    | 0       | 10.1    | 454.5   | 11.87    | 250.     | -1075.   | 685.  | 60.93   | 39.81 | 109.14 | 22990. |
| 13    | 0       | 15.0    | 420.5   | 20.20    | 130.     | -1767.   | 849.  | 110.38  | 39.81 | 109.14 | 23070. |
| 14    | 0       | 20.0    | 375.2   | 35.30    | 217.     | -2477.   | 1153. | 172.79  | 39.61 | 108.86 | 23130. |
| 15    | 0       | 0       | 480.5   | 20.77    | 28.      | 268.     | 368.  | -39.50  | 39.67 | 108.95 | 22950. |

COEFFICIENT FORM - WIND AXIS

| #  | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|----|--------|--------|-------|--------|--------|--------|--------|
| 2  | 0.00   | 1.4668 | .3455 | .2050  | .0589  | -.0041 | -.0628 |
| 3  | 0.00   | 1.3001 | .0108 | .0337  | .0093  | .0203  | -.0973 |
| 4  | -20.00 | 1.1960 | .1356 | .0165  | .1833  | -.0514 | -.5299 |
| 5  | -15.10 | 1.3216 | .0838 | -.0204 | .1319  | -.0371 | -.3876 |
| 6  | -10.00 | 1.2919 | .0539 | -.0775 | .0544  | -.0288 | -.2151 |
| 7  | -5.00  | 1.3872 | .0429 | -.0561 | .0256  | -.0033 | -.1616 |
| 8  | -2.50  | 1.3722 | .0364 | -.0120 | .0176  | .0032  | -.1257 |
| 9  | 0.00   | 1.3150 | .0385 | .0128  | .0138  | .0233  | -.0970 |
| 10 | 2.50   | 1.2720 | .0334 | .0508  | -.0001 | .0263  | -.0561 |
| 11 | 5.00   | 1.2500 | .0307 | .0783  | -.0196 | .0347  | .0065  |
| 12 | 10.10  | 1.2284 | .0321 | .0806  | -.0649 | .0414  | .1647  |
| 13 | 15.00  | 1.1364 | .0546 | .0418  | -.1068 | .0513  | .2983  |
| 14 | 20.00  | 1.0141 | .0954 | .0700  | -.1496 | .0699  | .4670  |
| 15 | 0.00   | 1.2986 | .0561 | .0091  | .0162  | .0222  | -.1068 |

COEFFICIENT FORM - STABILITY AXIS

| #  | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|----|--------|--------|--------|--------|--------|--------|--------|
| 2  | 0.00   | 1.4668 | .3455  | .2050  | .0589  | -.0041 | -.0628 |
| 3  | 0.00   | 1.3001 | .0108  | .0337  | .0093  | .0203  | -.0973 |
| 4  | -20.00 | 1.1960 | -.0547 | .1098  | .1833  | -.0493 | -.5442 |
| 5  | -15.10 | 1.3216 | -.0205 | .0321  | .1319  | -.0348 | -.3961 |
| 6  | -10.00 | 1.2919 | .0156  | -.0495 | .0544  | -.0259 | -.2212 |
| 7  | -5.00  | 1.3872 | .0285  | -.0543 | .0256  | -.0024 | -.1647 |
| 8  | -2.50  | 1.3722 | .0308  | -.0128 | .0176  | .0032  | -.1272 |
| 9  | 0.00   | 1.3150 | .0385  | .0128  | .0138  | .0233  | -.0970 |
| 10 | 2.50   | 1.2720 | .0359  | .0569  | -.0001 | .0267  | -.0545 |
| 11 | 5.00   | 1.2500 | .0300  | .0942  | -.0196 | .0358  | .0091  |
| 12 | 10.10  | 1.2284 | .0026  | .1183  | -.0649 | .0434  | .1677  |
| 13 | 15.00  | 1.1364 | -.0248 | .1415  | -.1068 | .0515  | .3023  |
| 14 | 20.00  | 1.0141 | -.0708 | .1935  | -.1496 | .0699  | .4714  |
| 15 | 0.00   | 1.2986 | .0561  | .0091  | .0162  | .0222  | -.1068 |

32409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P525

N 649 CONFIG F P B NP5 W7 T37 BT IN=3.5 Q=55

| AW    | 15 DELF | 30 DELA | 0.0 IHT | 0.0 DELE | 0.0 DELR | 0.0 DELSB | 0.0   |         |       |        |        |  |  |
|-------|---------|---------|---------|----------|----------|-----------|-------|---------|-------|--------|--------|--|--|
| ALPHA | PSI     | CLBAR   | COBAR   | CPMBAR   | CYMBAR   | CRMBAR    | CYBAR | Q       | V     | RPM    |        |  |  |
| DEG   | DEG     | SQ-FT   | SQ-FT   | CU-FT    | CU-FT    | CU-FT     | SQ-FT | PSF     | KNOTS |        |        |  |  |
| 2     | .0      | .0      | 562.0   | 125.87   | 236.     | -4.       | 126.  | -1.92   | 55.04 | 128.66 | 4310.  |  |  |
| 3     | .0      | .0      | 479.6   | -6.22    | -133.    | 20.       | 483.  | -21.58  | 55.26 | 128.92 | 20540. |  |  |
| 4     | .0      | .0      | 481.3   | -6.22    | -133.    | 20.       | 485.  | -21.65  | 55.06 | 128.68 | 20520. |  |  |
| 5     | .0      | -20.1   | 455.2   | 28.50    | 53.      | 2417.     | -341. | -190.98 | 55.04 | 128.66 | 20530. |  |  |
| 6     | .0      | -15.1   | 474.0   | 8.46     | 240.     | 1669.     | -447. | -132.35 | 54.80 | 128.37 | 20580. |  |  |
| 7     | .0      | -10.1   | 467.1   | .54      | -39.     | 490.      | -299. | -70.51  | 55.07 | 128.69 | 20550. |  |  |
| 8     | .0      | -4.9    | 466.6   | -3.97    | -102.    | 38.       | -146. | -31.79  | 54.75 | 128.31 | 20370. |  |  |
| 9     | .0      | -2.5    | 442.5   | -2.84    | -360.    | -1.       | 168.  | -21.86  | 55.02 | 128.63 | 20530. |  |  |
| 0     | .0      | .0      | 440.6   | -3.04    | -310.    | -76.      | 238.  | -7.82   | 55.32 | 128.99 | 20560. |  |  |
| 1     | .0      | 2.5     | 449.9   | -2.44    | -258.    | -145.     | 413.  | 10.23   | 54.95 | 128.55 | 20550. |  |  |
| 2     | .0      | 5.1     | 478.2   | -2.99    | 91.      | -295.     | 642.  | 17.29   | 55.38 | 129.06 | 20530. |  |  |
| 3     | .0      | 10.1    | 461.8   | -7.49    | 187.     | -847.     | 840.  | 59.15   | 55.35 | 129.02 | 20570. |  |  |
| 4     | .0      | 15.0    | 432.4   | 10.02    | 223.     | -1715.    | 988.  | 116.42  | 55.18 | 128.82 | 20560. |  |  |
| 5     | .0      | 20.0    | 395.5   | 26.37    | 601.     | -2135.    | 980.  | 169.67  | 55.29 | 128.95 | 20500. |  |  |
| 6     | .0      | .0      | 463.1   | 7.85     | -208.    | 54.       | 381.  | -10.82  | 55.43 | 129.12 | 20520. |  |  |

\*\* COEFFICIENT FORM - WIND AXIS

| # | PSI    | CL     | CD     | CPM    | CYM    | CRM    | Cy     |
|---|--------|--------|--------|--------|--------|--------|--------|
| 2 | .00    | 1.5189 | .3402  | .0762  | -.0002 | .0076  | -.0052 |
| 3 | .00    | 1.2962 | -.0168 | -.0428 | .0012  | .0292  | -.0583 |
| 4 | .00    | 1.3008 | -.0168 | -.0429 | .0012  | .0293  | -.0585 |
| 5 | -20.10 | 1.2302 | .0770  | .0170  | .1460  | -.0206 | -.5162 |
| 6 | -15.10 | 1.2811 | .0229  | .0775  | .1008  | -.0270 | -.3577 |
| 7 | -10.10 | 1.2624 | .0015  | -.0126 | .0296  | -.0181 | -.1906 |
| 8 | -4.90  | 1.2610 | -.0107 | -.0330 | .0023  | -.0088 | -.0859 |
| 9 | -2.50  | 1.1959 | -.0077 | -.1161 | -.0001 | .0101  | -.0591 |
| 0 | .00    | 1.1908 | -.0082 | -.1001 | -.0046 | .0144  | -.0211 |
| 1 | 2.50   | 1.2159 | -.0066 | -.0830 | -.0087 | .0250  | .0276  |
| 2 | 5.10   | 1.2923 | -.0081 | .0293  | -.0178 | .0388  | .0467  |
| 3 | 10.10  | 1.2480 | -.0013 | .0603  | -.0512 | .0508  | .1599  |
| 4 | 15.00  | 1.1685 | .0271  | .0717  | -.1036 | .0597  | .3147  |
| 5 | 20.00  | 1.0689 | .0713  | .1938  | -.1290 | .0592  | .4586  |
| 6 | .00    | 1.2516 | .0212  | -.0672 | .0033  | .0230  | -.0292 |

\*\* COEFFICIENT FORM - STABILITY AXIS

| # | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|---|--------|--------|--------|--------|--------|--------|--------|
| 2 | .00    | 1.5189 | .3402  | .0762  | -.0002 | .0076  | -.0052 |
| 3 | .00    | 1.2962 | -.0168 | -.0428 | .0012  | .0292  | -.0583 |
| 4 | .00    | 1.3008 | -.0168 | -.0429 | .0012  | .0293  | -.0585 |
| 5 | -20.10 | 1.2302 | -.1059 | .0538  | .1460  | -.0204 | -.5110 |
| 6 | -15.10 | 1.2811 | -.0715 | .1125  | .1008  | -.0299 | -.3512 |
| 7 | -10.10 | 1.2624 | -.0321 | .0046  | .0296  | -.0174 | -.1879 |
| 8 | -4.90  | 1.2610 | -.0181 | -.0289 | .0023  | -.0088 | -.0847 |
| 9 | -2.50  | 1.1959 | -.0102 | -.1184 | -.0001 | .0111  | -.0587 |
| 0 | .00    | 1.1908 | -.0082 | -.1001 | -.0046 | .0144  | -.0211 |
| 1 | 2.50   | 1.2159 | -.0078 | -.0771 | -.0087 | .0242  | .0273  |
| 2 | 5.10   | 1.2923 | -.0122 | .0477  | -.0178 | .0391  | .0458  |
| 3 | 10.10  | 1.2480 | -.0295 | .1071  | -.0512 | .0520  | .1571  |
| 4 | 15.00  | 1.1685 | -.0557 | .1521  | -.1036 | .0611  | .3109  |
| 5 | 20.00  | 1.0689 | -.0906 | .2906  | -.1290 | .0681  | .4551  |
| 6 | .00    | 1.2516 | .0212  | -.0672 | .0033  | .0230  | -.0292 |

N432409-1

SIKORSKY RSRA 1/0 20-L MODEL TEST  
AERODYNAMIC DATA

SER-72011

P526

RUN 653 CONFIG F P E NPS W7 T20+SPCILEK IN=3.5 XN=0

| PT. NO. | ALPHA DEG | Q DELF DEG | Q DELA SQ-FT | Q INT SQ-FT | Q D'EE CU-FT | Q DELR CU-FT | Q DELSB SQ-FT | Q PSF | Q V KNOTS | Q RPM  |        |
|---------|-----------|------------|--------------|-------------|--------------|--------------|---------------|-------|-----------|--------|--------|
| 7       | -0.0      | .1         | 38.9         | 36.90       | 754.         | -13.         | -6.           | 4.64  | 54.36     | 127.84 | 3530.  |
| 8       | -0.0      | .1         | 30.2         | -6.37       | 747.         | -14.         | 11.           | 4.67  | 55.46     | 129.16 | 11860. |
| 9       | -20.0     | .1         | -428.1       | 134.84      | 2153.        | -144.        | -200.         | 4.52  | 55.75     | 129.50 | 11730. |
| 10      | -15.0     | .1         | -407.4       | 71.21       | 2757.        | -210.        | 275.          | 10.51 | 55.77     | 129.53 | 11810. |
| 11      | -10.0     | .1         | -317.5       | 24.34       | 1941.        | -59.         | -10.          | 6.32  | 55.50     | 129.21 | 11800. |
| 12      | -5.0      | .1         | -142.6       | 1.10        | 1154.        | -17.         | -26.          | 5.76  | 54.96     | 128.57 | 11810. |
| 13      | -2.5      | .1         | -52.3        | -3.56       | 973.         | -10.         | -24.          | 4.57  | 55.12     | 128.75 | 11740. |
| 15      | 2.5       | .1         | 118.5        | -4.17       | 504.         | -12.         | 48.           | 3.88  | 55.25     | 128.91 | 11770. |
| 16      | 5.0       | .1         | 203.2        | .70         | 341.         | -9.          | 30.           | 3.45  | 55.30     | 128.97 | 11800. |
| 18      | 15.0      | .1         | 483.9        | 55.29       | 48.          | -46.         | 118.          | 2.64  | 55.46     | 129.16 | 11810. |
| 19      | 20.0      | .1         | 532.8        | 108.80      | -29.         | -31.         | 171.          | 1.36  | 55.21     | 128.86 | 11780. |
| 20      | -0.0      | .1         | 29.6         | -5.81       | 739.         | -23.         | -6.           | 4.93  | 55.25     | 128.91 | 11810. |
| 21      | 10.0      | .1         | 357.2        | 20.85       | 157.         | -60.         | 48.           | 3.15  | 55.23     | 128.89 | 11810. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | -0.01  | .1050   | .0997  | .2560  | -.0008 | -.0004 | .0125 |
| 8    | -0.01  | .0817   | -.0172 | .2409  | .0009  | .0007  | .0126 |
| 9    | -20.00 | -1.1570 | .3644  | .6941  | -.0087 | -.0121 | .0122 |
| 10   | -15.00 | -1.1010 | .1925  | .8887  | -.0127 | .0166  | .0284 |
| 11   | -10.01 | -.8581  | .0658  | .6259  | -.0036 | -.0006 | .0171 |
| 12   | -5.00  | -.3853  | .0030  | .3851  | -.0010 | -.0016 | .0156 |
| 13   | -2.51  | -.1413  | -.0096 | .3137  | -.0006 | -.0014 | .0124 |
| 15   | 2.50   | .3204   | -.0113 | .1624  | -.0007 | .0029  | .0105 |
| 16   | 4.99   | .5493   | .0019  | .1099  | -.0005 | .0018  | .0093 |
| 18   | 14.7   | 1.3348  | .1494  | .0155  | -.0028 | .0071  | .0071 |
| 19   | 20.00  | 1.4401  | .2940  | -.0094 | -.0019 | .0104  | .0037 |
| 20   | -0.00  | .0799   | -.0157 | .2382  | -.0014 | -.0004 | .0133 |
| 21   | 10.00  | .9654   | .0504  | .0505  | -.0036 | .0029  | .0085 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | COB    | CRMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | -0.01  | .1050   | .0997  | .2560  | -.0008 | -.0003 | .0127 |
| 8    | -0.01  | .0817   | -.0172 | .2409  | -.0009 | .0008  | .0126 |
| 9    | -20.00 | -1.1570 | .3644  | .6940  | -.0087 | -.0118 | .0129 |
| 10   | -15.00 | -1.1010 | .1924  | .8889  | -.0127 | .0169  | .0287 |
| 11   | -10.01 | -.8581  | .0657  | .6259  | -.0036 | -.0004 | .0172 |
| 12   | -5.00  | -.3853  | .0079  | .3850  | -.0010 | -.0014 | .0156 |
| 13   | -2.51  | -.1413  | -.0097 | .3137  | -.0006 | -.0013 | .0123 |
| 15   | 2.50   | .3204   | -.0113 | .1624  | -.0007 | .0029  | .0105 |
| 16   | 4.25   | .5493   | .0019  | .1099  | -.0005 | .0019  | .0093 |
| 18   | 14.99  | .5493   | .1494  | .0156  | -.0028 | .0071  | .0074 |
| 19   | 20.00  | .5493   | .2940  | -.0093 | -.0019 | .0104  | .0042 |
| 20   | -0.00  | .0799   | -.0157 | .2382  | -.0014 | -.0003 | .0133 |
| 21   | 10.00  | .9654   | .0563  | .0506  | -.0036 | .0029  | .0086 |

N432409-1

SIKORSKY RSPA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 527

RUN 654 CONFIG F P R NP5 W7 T2 IN=-3.5 XN=0

| JW      | 0 DELF    | 0 DELA  | 0 DHT       | - DELF     | - DFLR       | - DFLSB      | -            | -           | RPM   |         |        |
|---------|-----------|---------|-------------|------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLRAP SQ-FT | CRAP SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 6       | -0        | -1      | 73.4        | -7.07      | -301.        | 29.          | 29.          | 6.43        | 54.53 | 128.06  | 10840. |
| 7       | 10.0      | -1      | 356.6       | 19.00      | 449.         | 9.           | 91.          | 2.17        | 54.88 | 128.47  | 10830. |
| 8       | 10.0      | -20.1   | 341.2       | 52.27      | 373.         | -680.        | 152.         | -115.77     | 54.38 | 127.87  | 10770. |
| 9       | 10.0      | -15.1   | 345.9       | 37.70      | 402.         | -556.        | 146.         | -87.45      | 54.53 | 128.06  | 10780. |
| 10      | 10.0      | -10.1   | 355.0       | 28.31      | 376.         | -383.        | 143.         | -55.87      | 54.44 | 127.95  | 10760. |
| 11      | 10.0      | -5.1    | 359.1       | 21.95      | 383.         | -218.        | 70.          | -27.54      | 54.42 | 127.92  | 10770. |
| 12      | 10.0      | -2.6    | 358.9       | 20.37      | 398.         | -108.        | 79.          | -12.65      | 54.55 | 128.19  | 10790. |
| 13      | 10.0      | -1      | 359.6       | 19.85      | 415.         | -3.          | 92.          | 1.63        | 54.33 | 127.82  | 10780. |
| 14      | 10.0      | 2.4     | 355.4       | 19.97      | 423.         | 112.         | 124.         | 17.19       | 54.70 | 128.25  | 10780. |
| 15      | 10.0      | 4.9     | 353.5       | 22.27      | 416.         | 245.         | 127.         | 31.23       | 54.54 | 128.07  | 10680. |
| 16      | 10.0      | 9.9     | 346.5       | 27.14      | 456.         | 431.         | 112.         | 61.00       | 54.11 | 127.55  | 10750. |
| 17      | 10.0      | 14.9    | 341.3       | 35.99      | 423.         | 595.         | 18.          | 93.87       | 54.32 | 127.81  | 10730. |
| 18      | 10.0      | 19.9    | 330.8       | 50.90      | 398.         | 727.         | -13.         | 121.29      | 54.79 | 128.37  | 10710. |
| 19      | 10.0      | -1      | 360.2       | 19.55      | 456.         | -2.          | 110.         | 2.70        | 54.27 | 127.75  | 10790. |
| 20      | 10.0      | -1      | 355.0       | 57.73      | 468.         | -3.          | 74.          | 3.46        | 54.13 | 127.57  | 3820.  |
| 21      | -0        | -1      | 78.7        | 28.48      | -307.        | 14.          | 65.          | 6.04        | 54.71 | 128.27  | 3530.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 6    | -1.10  | .1985 | -.0191 | -.1260 | .0017  | .0018  | .0174  |
| 7    | -1.10  | .9637 | .0513  | .1448  | .0005  | .0055  | .0059  |
| 8    | -20.10 | .9222 | .1413  | .1204  | -.0411 | .0002  | -.3129 |
| 9    | -15.10 | .9350 | .1019  | .1206  | -.0336 | .0088  | -.2363 |
| 10   | -10.10 | .9594 | .0765  | .1212  | -.0231 | .0086  | -.1510 |
| 11   | -5.10  | .9705 | .0593  | .1236  | -.0131 | .0042  | -.0744 |
| 12   | -2.60  | .9700 | .0550  | .1285  | -.0065 | .0048  | -.0342 |
| 13   | -1.10  | .9718 | .0537  | .1338  | -.0002 | .0056  | .0044  |
| 14   | 2.40   | .9605 | .0540  | .1363  | .0068  | .0075  | .0465  |
| 15   | 4.90   | .9554 | .0602  | .1342  | .0148  | .0077  | .0844  |
| 16   | 9.90   | .9364 | .0733  | .1469  | .0260  | .0067  | .1649  |
| 17   | 14.90  | .9225 | .0973  | .1365  | .0360  | .0011  | .2537  |
| 18   | 19.90  | .8941 | .1376  | .1282  | .0439  | -.0008 | .3278  |
| 19   | -1.10  | .9734 | .0528  | .1470  | -.0001 | .0066  | .0073  |
| 20   | -1.10  | .9594 | .1560  | .1509  | -.0002 | .0044  | .0094  |
| 21   | -1.10  | .2126 | .0770  | -.0991 | .0009  | .0039  | .0163  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | COB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|--------|--------|--------|-------|--------|
| 6    | -1.10  | .1985 | -.0191 | -.1260 | .0017  | .0018 | .0174  |
| 7    | -1.10  | .9637 | .0514  | .1448  | .0005  | .0055 | .0058  |
| 8    | -20.10 | .9222 | .0246  | .0960  | -.0411 | .0009 | -.3424 |
| 9    | -15.10 | .9350 | .0365  | .1128  | -.0336 | .0022 | -.2548 |
| 10   | -10.10 | .9594 | .0487  | .1112  | -.0231 | .0045 | -.1621 |
| 11   | -5.10  | .9705 | .0524  | .1211  | -.0131 | .0021 | -.0794 |
| 12   | -2.60  | .9700 | .0534  | .1272  | -.0065 | .0037 | -.0367 |
| 13   | -1.10  | .9718 | .0537  | .1337  | -.0002 | .0055 | .0043  |
| 14   | 2.40   | .9605 | .0520  | .1378  | .0068  | .0086 | .0487  |
| 15   | 4.90   | .9554 | .0527  | .1372  | .0148  | .0098 | .0893  |
| 16   | 9.90   | .9364 | .0438  | .1509  | .0260  | .0114 | .1751  |
| 17   | 14.90  | .9225 | .0284  | .1334  | .0360  | .0077 | .2702  |
| 18   | 19.90  | .8941 | .0172  | .1101  | .0439  | .0075 | .3551  |

|    |       |       |       |        |        |       |       |
|----|-------|-------|-------|--------|--------|-------|-------|
| 19 | -1.10 | .9734 | .0528 | .1469  | -.0001 | .0066 | .0072 |
| 20 | -1.10 | .9594 | .1560 | .1508  | -.0002 | .0044 | .0091 |
| 21 | -1.10 | .2126 | .0770 | -.0992 | .0009  | .0040 | .0162 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P-528

RUN 655 CONFIG F P B NP5 W7 T2 IN=-3.5 XN=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | - DELF      | - DELR        | - DELSB     | Q             | V           | RPM   |        |        |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|-------------|-------|--------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  |        |
| 2       | 10.0      | .0      | 363.7       | 20.38       | 411.          | 15.         | 52.           | 2.82        | 54.32 | 127.82 | 10750. |
| 3       | 10.0      | -20.0   | 346.7       | 53.42       | 344.          | -680.       | 120.          | -116.39     | 54.35 | 127.84 | 10750. |
| 4       | 10.0      | -15.0   | 345.4       | 38.88       | 379.          | -552.       | 71.           | -89.35      | 54.60 | 128.14 | 10760. |
| 5       | 10.0      | -10.0   | 361.0       | 29.55       | 338.          | -404.       | 53.           | -56.88      | 54.20 | 127.67 | 10750. |
| 6       | 10.0      | -5.0    | 363.8       | 23.12       | 350.          | -219.       | 14.           | -27.41      | 54.55 | 128.09 | 10730. |
| 7       | 10.0      | -2.5    | 366.3       | 21.13       | 367.          | -120.       | 41.           | -12.94      | 54.24 | 127.72 | 10760. |
| 8       | 10.0      | .0      | 361.9       | 21.16       | 374.          | 9.          | 69.           | 2.49        | 54.65 | 128.21 | 10660. |
| 9       | 10.0      | .0      | 364.3       | 21.25       | 373.          | 6.          | 70.           | 2.51        | 54.29 | 127.78 | 10650. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM   | CYM    | CRM   | CY     |
|------|--------|-------|-------|-------|--------|-------|--------|
| 2    | .00    | .9830 | .0551 | .1325 | .0009  | .0031 | .0076  |
| 3    | -20.00 | .9370 | .1444 | .1110 | -.0411 | .0073 | -.3146 |
| 4    | -15.00 | .9335 | .1051 | .1094 | -.0333 | .0043 | -.2415 |
| 5    | -10.00 | .9758 | .0799 | .1000 | -.0244 | .0032 | -.1537 |
| 6    | -5.00  | .9834 | .0625 | .1129 | -.0132 | .0008 | -.0741 |
| 7    | -2.50  | .9899 | .0571 | .1185 | -.0072 | .0025 | -.0350 |
| 8    | .00    | .9780 | .0572 | .1205 | .0005  | .0042 | .0067  |
| 9    | .00    | .9847 | .0574 | .1203 | .0004  | .0042 | .0068  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB  | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|-------|--------|--------|--------|
| 2    | .00    | .9830 | .0551 | .1325 | .0009  | .0031  | .0076  |
| 3    | -20.00 | .9370 | .0275 | .0909 | -.0411 | -.0003 | -.3450 |
| 4    | -15.00 | .9335 | .0387 | .0996 | -.0333 | -.0012 | -.2605 |
| 5    | -10.00 | .9758 | .0518 | .1044 | -.0244 | -.0004 | -.1653 |
| 6    | -5.00  | .9834 | .0558 | .1121 | -.0132 | -.0010 | -.0793 |
| 7    | -2.50  | .9899 | .0555 | .1178 | -.0072 | .0015  | -.0374 |
| 8    | .00    | .9780 | .0572 | .1205 | .0005  | .0042  | .0067  |
| 9    | .00    | .9847 | .0574 | .1203 | .0004  | .0042  | .0068  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 529

RUN 656 CONFIG F P 2 NPS W7 T2

IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | DELTA PSI | DELTA CL BAR | DELTA CDBAR | DELTA CPMBAR | DELTA CYMBAR | DELTA CRMBAR | DELTA CYBAR | DELTA Q PSF | DELTA V KNOTS | RPM    |
|---------|-----------|-----------|--------------|-------------|--------------|--------------|--------------|-------------|-------------|---------------|--------|
| 2       | 10.0      | .0        | 364.9        | 21.24       | 390.         | 17.          | 87.          | 2.25        | 54.58       | 128.12        | 10660. |
| 3       | 10.0      | -20.0     | 345.0        | 53.62       | 365.         | -685.        | 146.         | -116.80     | 54.85       | 128.44        | 10800. |
| 4       | 10.0      | -15.0     | 345.8        | 39.51       | 359.         | -553.        | 86.          | -89.31      | 55.00       | 128.63        | 10760. |
| 5       | 10.0      | -10.0     | 351.0        | 29.82       | 361.         | -410.        | 102.         | -55.82      | 54.68       | 128.24        | 10740. |
| 6       | 10.0      | -5.0      | 361.8        | 23.41       | 362.         | -213.        | 61.          | -26.90      | 55.18       | 128.84        | 10730. |
| 9       | 10.0      | -2.5      | 362.8        | 21.69       | 381.         | -112.        | -76.         | -12.63      | 55.12       | 128.76        | 10720. |
| 10      | 10.0      | .0        | 360.9        | 21.07       | 383.         | 9.           | 93.          | 1.54        | 55.21       | 128.88        | 10740. |
| 11      | 10.0      | 2.5       | 363.2        | 21.76       | 397.         | 126.         | 89.          | 17.61       | 54.62       | 128.17        | 10740. |
| 12      | 10.0      | 5.0       | 359.3        | 23.21       | 393.         | 244.         | 60.          | 32.53       | 54.84       | 128.43        | 10720. |
| 13      | 10.0      | 10.0      | 352.8        | 28.54       | 413.         | 440.         | 75.          | 62.86       | 54.57       | 128.11        | 10710. |
| 14      | 10.0      | 15.0      | 348.6        | 38.09       | 397.         | 604.         | 19.          | 95.50       | 54.17       | 127.63        | 10740. |
| 15      | 10.0      | 20.0      | 338.1        | 52.69       | 374.         | 731.         | -51.         | 123.97      | 54.83       | 128.42        | 10750. |
| 16      | 10.0      | .0        | 365.6        | 21.12       | 431.         | 21.          | 87.          | 2.60        | 54.65       | 128.21        | 10840. |
| 17      | 10.0      | .0        | 356.3        | 58.28       | 441.         | 10.          | 80.          | 2.79        | 55.28       | 128.95        | 3850.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPN   | CYM    | CRM   | CY     |
|------|--------|-------|-------|-------|--------|-------|--------|
| 2    | .00    | .9862 | .0574 | .1258 | .0010  | .0053 | .0061  |
| 3    | -20.00 | .9325 | .1449 | .1176 | -.0414 | .0088 | -.3157 |
| 4    | -15.00 | .9345 | .1008 | .1156 | -.0334 | .0052 | -.2414 |
| 5    | -10.00 | .9756 | .0806 | .1165 | -.0248 | .0061 | -.1509 |
| 6    | -5.00  | .9779 | .0633 | .1167 | -.0128 | .0037 | -.0727 |

|    |       |       |       |       |       |        |        |
|----|-------|-------|-------|-------|-------|--------|--------|
| 9  | -2.50 | .9805 | .0586 | .1227 | .0068 | .0046  | -.0341 |
| 10 | .00   | .9753 | .0569 | .1234 | .0006 | .0056  | .0042  |
| 11 | 2.50  | .9816 | .0588 | .1279 | .0076 | .0054  | .0475  |
| 12 | 5.00  | .9712 | .0627 | .1268 | .0147 | .0036  | .0879  |
| 13 | 10.00 | .9535 | .0771 | .1333 | .0266 | .0046  | .1699  |
| 14 | 15.00 | .9422 | .1029 | .1281 | .0365 | .0012  | .2501  |
| 15 | 20.00 | .9139 | .1424 | .1205 | .0442 | -.0031 | .3351  |
| 16 | .00   | .9980 | .0571 | .1390 | .0013 | .0053  | .0070  |
| 17 | .00   | .9631 | .1575 | .1423 | .0006 | .0048  | .0076  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CRMB  | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|-------|--------|--------|--------|
| 2    | .00    | .9862 | .0574 | .1258 | .0010  | .0053  | .0061  |
| 3    | -20.00 | .9325 | .0277 | .0943 | -.0414 | .0007  | -.3463 |
| 4    | -15.00 | .9345 | .0404 | .1044 | -.0334 | -.0006 | -.2608 |
| 5    | -10.00 | .9756 | .0530 | .1090 | -.0248 | .0022  | -.1626 |
| 6    | -5.00  | .9779 | .0567 | .1145 | -.0128 | .0018  | -.0780 |

|    |       |       |       |       |       |       |        |
|----|-------|-------|-------|-------|-------|-------|--------|
| 9  | -2.50 | .9805 | .0571 | .1215 | .0068 | .0036 | -.0367 |
| 10 | .00   | .9753 | .0569 | .1234 | .0006 | .0056 | .0042  |
| 11 | 2.50  | .9816 | .0567 | .1291 | .0076 | .0064 | .0501  |
| 12 | 5.00  | .9712 | .0540 | .1280 | .0147 | .0057 | .0931  |
| 13 | 10.00 | .9535 | .0463 | .1355 | .0266 | .0088 | .1807  |
| 14 | 15.00 | .9422 | .0323 | .1254 | .0365 | .0074 | .2760  |

|    |       |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|-------|
| 15 | 20.00 | .9139 | .0186 | .1075 | .0442 | .0048 | .3636 |
| 16 | .00   | .9980 | .0571 | .1390 | .0013 | .0053 | .0070 |
| 17 | .00   | .9631 | .1575 | .1423 | .0006 | .0048 | .0076 |

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SIKORSKY RSRA 1/E SCALE MODEL TEST  
AERODYNAMIC DATA

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P 530

RUN 657 CONFIG F P S NPS U7 T2

IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CL BAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CL-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM   |
|---------|-----------|---------------|--------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| 6       | .0        | .0            | 80.9         | 29.71       | -374.        | 26.          | 10.          | 6.07        | 54.06 | 127.50  | 3520. |
| 7       | .0        | .0            | 80.4         | 29.75       | -377.        | 24.          | 22.          | 6.17        | 54.12 | 127.58  | 3510. |
| 8       | .0        | .0            | 79.7         | 29.72       | -379.        | 18.          | 4.           | 5.73        | 55.12 | 128.77  | 3550. |
| 9       | -20.0     | .0            | -274.3       | 144.77      | -844.        | -12.         | -170.        | 1.99        | 54.80 | 128.38  | 3850. |
| 10      | -10.0     | .0            | -160.6       | 47.09       | -716.        | 40.          | 10.          | 4.14        | 55.39 | 129.09  | 3650. |
| 11      | .0        | .0            | 81.4         | 29.69       | -381.        | 18.          | 28.          | 5.74        | 55.36 | 129.06  | 3550. |
| 13      | 10.0      | .0            | 360.9        | 58.92       | -395.        | 5.           | 80.          | 2.61        | 55.31 | 128.99  | 3850. |
| 14      | 20.0      | .0            | 490.0        | 134.87      | 1126.        | -14.         | 177.         | 2.09        | 54.94 | 128.55  | 4100. |
| 15      | .0        | .0            | 79.7         | 29.60       | -377.        | 21.          | -2.          | 5.95        | 55.65 | 129.39  | 3550. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 6    | .00    | .2187  | .0803 | -.1207 | .0016  | .0006  | .0164 |
| 7    | .01    | .2174  | .0804 | -.1216 | .0014  | .0013  | .0167 |
| 8    | .01    | .2154  | .0803 | -.1223 | .0011  | .0003  | .0155 |
| 9    | -20.00 | -.7414 | .3913 | -.2722 | -.0007 | -.0102 | .0054 |
| 10   | -10.00 | -.4881 | .1273 | -.2307 | .0024  | .0006  | .0112 |
| 11   | .01    | .2200  | .0802 | -.1229 | .0011  | .0017  | .0155 |
| 13   | 10.01  | .9753  | .1593 | .1273  | .0003  | .0048  | .0070 |
| 14   | 20.01  | 1.3242 | .3645 | .3629  | -.0009 | .0107  | .0056 |
| 15   | .00    | .2155  | .0797 | -.1215 | .0013  | -.0001 | .0161 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 6    | .00    | .2187  | .0803 | -.1207 | .0016  | .0006  | .0164 |
| 7    | .01    | .2174  | .0804 | -.1216 | .0014  | .0013  | .0167 |
| 8    | .01    | .2154  | .0803 | -.1223 | .0011  | .0003  | .0155 |
| 9    | -20.00 | -.7414 | .3913 | -.2722 | -.0007 | -.0102 | .0054 |
| 10   | -10.00 | -.4881 | .1273 | -.2307 | .0024  | .0006  | .0112 |
| 11   | .01    | .2200  | .0802 | -.1229 | .0011  | .0017  | .0155 |
| 13   | 10.01  | .9753  | .1593 | .1273  | .0003  | .0048  | .0070 |
| 14   | 20.01  | 1.3242 | .3645 | .3629  | -.0009 | .0107  | .0056 |
| 15   | .00    | .2155  | .0797 | -.1215 | .0013  | -.0001 | .0161 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 531

FUN F58 CONFIG F P L NPS 17 T2

M=3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SU-FT | CDBAR SG-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 2       | .0        | .0      | 51.4        | 29.78       | -372.        | 18.          | -1.          | 5.73        | 55.10 | 128.75  | 3540.  |
| 3       | .0        | .0      | 58.6        | -59.15      | -496.        | -564.        | 42.          | 12.73       | 55.37 | 129.07  | 23130. |
| 4       | -20.0     | .0      | -351.0      | 65.55       | -1162.       | -322.        | 192.         | 11.22       | 55.03 | 128.66  | 22940. |
| 5       | -15.0     | .0      | -340.6      | -2.71       | -1063.       | -283.        | 218.         | 4.51        | 55.34 | 129.02  | 22930. |
| 7       | -5.0      | .0      | -55.6       | -53.42      | -832.        | -506.        | 116.         | 10.84       | 55.74 | 129.51  | 22880. |
| 8       | -2.5      | .0      | -6.2        | -55.45      | -665.        | -517.        | 82.          | 11.88       | 55.36 | 129.05  | 22920. |
| 9       | .0        | .0      | 70.1        | -56.24      | -496.        | -548.        | 67.          | 12.23       | 55.07 | 128.71  | 22910. |
| 10      | 2.5       | .0      | 144.0       | -52.99      | -313.        | -559.        | 34.          | 11.18       | 55.56 | 129.29  | 22980. |
| 11      | 5.0       | .0      | 219.6       | -47.58      | -107.        | -554.        | 19.          | 10.81       | 55.37 | 129.07  | 22990. |
| 12      | 10.0      | .0      | 302.7       | -28.07      | 353.         | -581.        | 7.           | 7.97        | 55.44 | 129.15  | 22960. |
| 13      | 15.0      | .0      | 450.5       | .68         | 856.         | -591.        | -54.         | 5.50        | 55.14 | 128.79  | 23020. |
| 14      | 20.0      | .0      | 517.0       | 51.03       | 1130.        | -526.        | -100.        | 3.11        | 54.83 | 128.42  | 22920. |
| 15      | -10.0     | .0      | -230.7      | -31.88      | -992.        | -401.        | 205.         | 7.41        | 55.01 | 128.64  | 23000. |
| 16      | .0        | .0      | 16.2        | -50.44      | -489.        | -506.        | 67.          | 11.37       | 55.63 | 129.37  | 23010. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CFM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .2201  | .0805  | -.1198 | .0011  | -.0001 | .0155 |
| 3    | .00    | .1855  | -.1599 | -.1580 | -.0341 | .0025  | .0344 |
| 4    | -20.00 | -.9486 | .1772  | -.3746 | -.0194 | .0116  | .0303 |
| 5    | -15.00 | -.9204 | -.0073 | -.3428 | -.0171 | .0132  | .0122 |
| 7    | -5.00  | -.2314 | -.1444 | -.2681 | -.0306 | .0070  | .0293 |
| 8    | -2.50  | -.0166 | -.1499 | -.2143 | -.0312 | .0050  | .0321 |
| 9    | .01    | .1894  | -.1520 | -.1598 | -.0331 | .0040  | .0330 |
| 10   | 2.50   | .3231  | -.1432 | -.1010 | -.0338 | .0021  | .0302 |
| 11   | 5.00   | .5935  | -.1286 | -.0344 | -.0334 | .0011  | .0292 |
| 12   | 10.01  | .9302  | -.0759 | .1137  | -.0351 | .0004  | .0215 |
| 13   | 15.00  | 1.3257 | .0018  | .2758  | -.0357 | -.0033 | .0149 |
| 14   | 20.01  | 1.3973 | .1379  | .3644  | -.0314 | -.0060 | .0084 |
| 15   | -9.99  | -.6235 | -.0662 | -.3198 | -.0242 | .0127  | .0200 |
| 16   | .01    | .1788  | -.1363 | -.1577 | -.0306 | .0040  | .0307 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLS    | CDS    | CPMS   | CYMS   | CRMS   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .2201  | .0805  | -.1198 | .0011  | -.0001 | .0155 |
| 3    | .00    | .1855  | -.1599 | -.1580 | -.0341 | .0025  | .0344 |
| 4    | -20.00 | -.9486 | .1772  | -.3746 | -.0194 | .0116  | .0303 |
| 5    | -15.00 | -.9204 | -.0073 | -.3428 | -.0171 | .0132  | .0122 |
| 7    | -5.00  | -.2314 | -.1444 | -.2681 | -.0306 | .0070  | .0293 |
| 8    | -2.50  | -.0166 | -.1499 | -.2143 | -.0312 | .0050  | .0321 |
| 9    | .01    | .1894  | -.1520 | -.1598 | -.0331 | .0040  | .0330 |
| 10   | 2.50   | .3231  | -.1432 | -.1010 | -.0338 | .0021  | .0302 |
| 11   | 5.00   | .5935  | -.1286 | -.0344 | -.0334 | .0011  | .0292 |
| 12   | 10.01  | .9302  | -.0759 | .1137  | -.0351 | .0004  | .0215 |
| 13   | 15.00  | 1.3257 | .0018  | .2758  | -.0357 | -.0033 | .0149 |
| 14   | 20.01  | 1.3973 | .1379  | .3644  | -.0314 | -.0060 | .0084 |
| 15   | -9.99  | -.6235 | -.0662 | -.3198 | -.0242 | .0127  | .0200 |
| 16   | .01    | .1788  | -.1363 | -.1577 | -.0306 | .0040  | .0307 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 532

RUN 661 CONFIG F P B NP5 W7 T2 IN=-3.5

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | DELA SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | DELE CYMBAR CU-FT | DELR CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------------|-------------|------------|-------------|--------------|-------------------|-------------------|-------------|-------------|---------------|-----|
| 6       | .0        | .0            | 77.1        | 28.70      | -352.       | 15.          | -18.              | 5.09              | 55.36       | 129.04      | 3610.         |     |
| 7       | .0        | .0            | 65.5        | -55.82     | -466.       | -535.        | 32.               | 11.99             | 55.32       | 128.98      | 23110.        |     |
| 8       | .0        | -20.0         | 86.1        | -21.62     | -581.       | -1320.       | 195.              | -135.19           | 54.86       | 128.44      | 23020.        |     |
| 9       | .0        | -15.0         | 78.9        | -34.10     | -570.       | -1133.       | 171.              | -100.95           | 54.95       | 128.54      | 23080.        |     |
| 10      | .0        | -10.0         | 74.5        | -44.54     | -520.       | -946.        | 142.              | -64.52            | 54.84       | 128.42      | 22980.        |     |
| 11      | .0        | -5.0          | 66.7        | -50.89     | -517.       | -747.        | 96.               | -27.64            | 54.64       | 128.18      | 23000.        |     |
| 12      | .0        | -2.5          | 64.9        | -51.60     | -499.       | -629.        | 61.               | -9.22             | 55.28       | 128.94      | 22990.        |     |
| 13      | .0        | .0            | 64.0        | -51.68     | -497.       | -511.        | 56.               | 11.41             | 54.93       | 128.52      | 23000.        |     |
| 14      | .0        | 2.5           | 63.9        | -50.63     | -481.       | -389.        | 38.               | 30.95             | 54.84       | 128.42      | 23050.        |     |
| 15      | .0        | 5.0           | 63.8        | -49.24     | -461.       | -278.        | 20.               | 48.36             | 54.95       | 128.55      | 23000.        |     |
| 16      | .0        | 10.0          | 64.9        | -43.94     | -482.       | -79.         | -42.              | 83.55             | 54.86       | 128.45      | 22970.        |     |
| 17      | .0        | 15.0          | 65.7        | -33.62     | -510.       | 84.          | -4.               | 118.32            | 54.89       | 128.48      | 23010.        |     |
| 18      | .0        | 20.0          | 61.9        | -18.12     | -520.       | 241.         | -10.              | 152.31            | 54.87       | 128.45      | 23000.        |     |
| 19      | .0        | .0            | 64.6        | -51.15     | -477.       | -514.        | 34.               | 10.43             | 54.96       | 128.56      | 23080.        |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 6    | .00    | .2084 | .0776  | -.1136 | .0009  | -.0011 | .0137  |
| 7    | .00    | .1770 | -.1509 | -.1503 | -.0323 | .0019  | .0324  |
| 8    | -20.00 | .2326 | -.0584 | -.1872 | -.0798 | .0118  | -.3654 |
| 9    | -15.00 | .2132 | -.0922 | -.1836 | -.0685 | .0103  | -.2728 |
| 10   | -10.00 | .2013 | -.1204 | -.1678 | -.0571 | .0086  | -.1744 |
| 11   | -5.00  | .1802 | -.1375 | -.1667 | -.0451 | .0058  | -.0747 |
| 12   | -2.50  | .1753 | -.1395 | -.1610 | -.0380 | .0037  | -.0249 |
| 13   | .00    | .1729 | -.1397 | -.1603 | -.0309 | .0034  | .0308  |
| 14   | 2.50   | .1726 | -.1368 | -.1550 | -.0235 | .0023  | .0837  |
| 15   | 5.00   | .1724 | -.1331 | -.1485 | -.0168 | .0012  | .1307  |
| 16   | 10.00  | .1754 | -.1188 | -.1553 | -.0047 | -.0026 | .2258  |
| 17   | 15.00  | .1775 | -.0909 | -.1643 | .0051  | -.0002 | .3198  |
| 18   | 20.00  | .1672 | -.0490 | -.1677 | .0146  | -.0006 | .4117  |
| 19   | .00    | .1747 | -.1383 | -.1538 | -.0311 | .0020  | .0282  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 6    | .00    | .2084 | .0776  | -.1136 | .0009  | -.0011 | .0137  |
| 7    | .00    | .1770 | -.1509 | -.1503 | -.0323 | .0019  | .0324  |
| 8    | -20.00 | .2326 | -.1804 | -.1973 | -.0798 | .0231  | -.3231 |
| 9    | -15.00 | .2132 | -.1599 | -.1917 | -.0685 | .0189  | -.2395 |
| 10   | -10.00 | .2013 | -.1489 | -.1732 | -.0571 | .0140  | -.1507 |
| 11   | -5.00  | .1802 | -.1436 | -.1687 | -.0451 | .0085  | -.0624 |
| 12   | -2.50  | .1753 | -.1404 | -.1617 | -.0380 | .0050  | -.0188 |
| 13   | .00    | .1729 | -.1397 | -.1603 | -.0309 | .0034  | .0308  |
| 14   | 2.50   | .1726 | -.1404 | -.1543 | -.0235 | .0010  | .0776  |
| 15   | 5.00   | .1724 | -.1440 | -.1473 | -.0168 | -.0012 | .1185  |
| 16   | 10.00  | .1754 | -.1563 | -.1553 | -.0047 | -.0076 | .2016  |
| 17   | 15.00  | .1775 | -.1709 | -.1590 | .0051  | -.0082 | .2852  |
| 18   | 20.00  | .1672 | -.1874 | -.1586 | .0146  | -.0114 | .3698  |
| 19   | .00    | .1747 | -.1383 | -.1538 | -.0311 | .0020  | .0282  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 533

RUN 662 CONFIG F P B NP5 W7 T2 IN=3.5 ALPHA=-10

| PT. NO. | ALPHA DEG | O.O DELF PSI DEG | O.O DELA CLBAR SQ-FT | O.O IHT CDBAR SQ-FT | O.O DELE CPMBAR CU-FT | O.O DELR CYMBAR CU-FT | O.O DELSB CRMBAR SQ-FT | O.O DELS Q PSF | O.O V KNOTS | RPM    |        |
|---------|-----------|------------------|----------------------|---------------------|-----------------------|-----------------------|------------------------|----------------|-------------|--------|--------|
| 7       | 0         | 0                | 72.6                 | -4.81               | -435.                 | 20.                   | 5.                     | 5.58           | 54.34       | 127.82 | 10490. |
| 8       | -10.0     | 0                | -214.9               | 13.04               | -901.                 | 37.                   | -21.                   | 4.83           | 55.04       | 128.65 | 10550. |
| 9       | -10.0     | -20.0            | -167.0               | 41.11               | -1072.                | -660.                 | 198.                   | -113.85        | 54.34       | 127.82 | 10510. |
| 10      | -10.0     | -14.9            | -180.7               | 28.13               | -1107.                | -507.                 | 152.                   | -82.60         | 54.55       | 128.07 | 10530. |
| 11      | -10.0     | -10.0            | -194.0               | 19.01               | -1063.                | -342.                 | 102.                   | -54.00         | 54.44       | 127.93 | 10440. |
| 12      | -10.0     | -5.0             | -211.0               | 13.10               | -1011.                | -135.                 | 53.                    | -26.95         | 54.47       | 127.98 | 10500. |
| 13      | -10.0     | -2.5             | -214.2               | 12.75               | -952.                 | -51.                  | 34.                    | -12.40         | 54.57       | 128.09 | 10570. |
| 14      | -10.0     | 0                | -216.0               | 13.19               | -923.                 | 39.                   | -1.                    | 3.65           | 54.45       | 127.95 | 10490. |
| 15      | -10.0     | 2.5              | -211.2               | 13.01               | -943.                 | 136.                  | -46.                   | 20.03          | 54.75       | 128.31 | 10520. |
| 16      | -10.0     | 5.0              | -206.8               | 15.41               | -981.                 | 248.                  | -68.                   | 32.04          | 55.00       | 128.61 | 10500. |
| 17      | -10.0     | 10.1             | -196.4               | 19.69               | -1013.                | 435.                  | -129.                  | 60.80          | 55.38       | 129.05 | 10490. |
| 18      | -10.0     | 15.0             | -181.5               | 28.60               | -1034.                | 581.                  | -169.                  | 89.50          | 55.11       | 128.74 | 10490. |
| 19      | -10.0     | 20.0             | -169.3               | 44.00               | -1031.                | 745.                  | -228.                  | 118.99         | 54.66       | 128.20 | 10540. |
| 20      | -10.0     | 0                | -216.3               | 12.59               | -915.                 | 42.                   | -20.                   | 4.48           | 54.49       | 128.00 | 10550. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPH    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | 0.00   | .1963  | -.0130 | -.1401 | .0012  | .0003  | .0151  |
| 8    | 0.00   | -.5809 | .0352  | -.2904 | .0022  | -.0012 | .0130  |
| 9    | -20.00 | -.4514 | .1111  | -.3457 | -.0399 | .0120  | -.3077 |
| 10   | -14.90 | -.4885 | .0760  | -.3569 | -.0306 | .0092  | -.2232 |
| 11   | -10.00 | -.5242 | .0514  | -.3429 | -.0206 | .0062  | -.1459 |
| 12   | -5.00  | -.5704 | .0354  | -.3259 | -.0081 | .0032  | -.0728 |
| 13   | -2.50  | -.5788 | .0344  | -.3069 | -.0031 | .0021  | -.0335 |
| 14   | 0.00   | -.5839 | .0356  | -.2974 | .0024  | -.0000 | .0099  |
| 15   | 2.50   | -.5708 | .0352  | -.3039 | .0082  | -.0028 | .0541  |
| 16   | 5.00   | -.5590 | .0417  | -.3163 | .0150  | -.0041 | .0866  |
| 17   | 10.10  | -.5308 | .0532  | -.3267 | .0263  | -.0078 | .1643  |
| 18   | 15.00  | -.4906 | .0773  | -.3334 | .0351  | -.0102 | .2419  |
| 19   | 20.00  | -.4575 | .1189  | -.3323 | .0450  | -.0138 | .3216  |
| 20   | 0.00   | -.5847 | .0340  | -.2950 | .0025  | -.0012 | .0121  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CyMB   | CRMB   | CyB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | 0.00   | .1963  | -.0130 | -.1401 | .0012  | .0003  | .0151  |
| 8    | 0.00   | -.5809 | .0352  | -.2904 | .0022  | -.0012 | .0130  |
| 9    | -20.00 | -.4514 | -.0014 | -.3466 | -.0399 | .0335  | -.3271 |
| 10   | -14.90 | -.4885 | .0158  | -.3574 | -.0306 | .0261  | -.2353 |
| 11   | -10.00 | -.5242 | .0251  | -.3434 | -.0206 | .0173  | -.1527 |
| 12   | -5.00  | -.5704 | .0289  | -.3261 | -.0081 | .0085  | -.0757 |
| 13   | -2.50  | -.5788 | .0329  | -.3070 | -.0031 | .0046  | -.0350 |
| 14   | 0.00   | -.5839 | .0356  | -.2974 | .0024  | -.0000 | .0099  |
| 15   | 2.50   | -.5708 | .0328  | -.3043 | .0082  | -.0052 | .0556  |
| 16   | 5.00   | -.5590 | .0339  | -.3170 | .0150  | -.0093 | .0899  |
| 17   | 10.10  | -.5308 | .0234  | -.3289 | .0263  | -.0185 | .1711  |
| 18   | 15.00  | -.4906 | .0118  | -.3361 | .0351  | -.0261 | .2537  |
| 19   | 20.00  | -.4575 | .0012  | -.3373 | .0450  | -.0343 | .3429  |
| 20   | 0.00   | -.5847 | .0340  | -.2950 | .0025  | -.0012 | .0121  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011  
P534

RUN 663 CONFIG F P B NP5 W7 T2 IN=-3.5

| PT. NO. | IW    | O.O DELF | O.O DELA | O.O IHT | O.O DELE | O.O DELR | O.O DELSB | O.O  | RPM   |        |        |
|---------|-------|----------|----------|---------|----------|----------|-----------|------|-------|--------|--------|
|         | ALPHA | PSI      | CLBAR    | CDBAR   | CPMBAR   | CYMBAR   | CRMBAR    | Q    | V     |        |        |
|         | DEG   | DEG      | SQ-FT    | SQ-FT   | CU-FT    | CU-FT    | CU-FT     | PSF  | KNOTS |        |        |
| 8       | -0.0  | 0.0      | 77.4     | 28.69   | -366.    | 21.      | 11.       | 5.30 | 54.58 | 128.11 | 3520.  |
| 9       | -0.0  | 0.0      | 73.9     | -6.32   | -426.    | 21.      | 6.        | 4.95 | 54.83 | 128.41 | 10630. |
| 10      | -20.0 | 0.0      | -335.9   | 104.36  | -1086.   | 52.      | -213.     | 0.12 | 54.71 | 128.26 | 10700. |
| 11      | -15.0 | 0.0      | -294.9   | 50.57   | -969.    | 6.       | 23.       | 5.86 | 55.06 | 128.68 | 10740. |
| 12      | -10.0 | 0.0      | -216.5   | 10.82   | -911.    | 38.      | 10.       | 4.32 | 55.13 | 128.77 | 10780. |
| 13      | -5.0  | 0.0      | -74.4    | -4.72   | -759.    | 29.      | 19.       | 3.10 | 54.88 | 128.47 | 10670. |
| 14      | -2.5  | 0.0      | .4       | -7.62   | -605.    | 23.      | 31.       | 2.90 | 54.43 | 127.93 | 10720. |
| 15      | 0.0   | 0.0      | 74.5     | -6.63   | -414.    | 22.      | 35.       | 4.78 | 54.59 | 128.12 | 10750. |
| 16      | 2.5   | 0.0      | 146.7    | -3.92   | -235.    | 13.      | 48.       | 4.53 | 55.14 | 128.78 | 10720. |
| 17      | 5.0   | 0.0      | 219.4    | 1.45    | -37.     | 19.      | 56.       | 3.37 | 54.94 | 128.53 | 10730. |
| 18      | 10.0  | 0.0      | 358.4    | 19.63   | 406.     | 13.      | 94.       | 1.71 | 54.33 | 127.80 | 10760. |
| 19      | 15.0  | 0.0      | 473.7    | 47.68   | 870.     | 6.       | 166.      | 1.71 | 54.52 | 128.03 | 10650. |
| 20      | 20.0  | 0.0      | 492.3    | 93.06   | 1167.    | 12.      | 172.      | 1.88 | 54.47 | 127.97 | 10770. |
| 21      | -0.0  | 0.0      | 71.5     | -7.11   | -401.    | 20.      | 17.       | 5.45 | 54.57 | 128.09 | 10620. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM   | CRM    | CY    |
|------|--------|--------|--------|--------|-------|--------|-------|
| 8    | -0.00  | .2092  | .0775  | -.1180 | .0012 | .0007  | .0143 |
| 9    | -0.00  | .1998  | -.0171 | -.1373 | .0012 | .0003  | .0134 |
| 10   | -20.00 | -.9077 | .2821  | -.3501 | .0031 | -.0129 | .0003 |
| 11   | -15.01 | -.7969 | .1367  | -.3124 | .0004 | .0014  | .0158 |
| 12   | -9.99  | -.5850 | .0292  | -.2936 | .0023 | .0006  | .0117 |
| 13   | -5.00  | -.2012 | -.0128 | -.2448 | .0017 | .0011  | .0084 |
| 14   | -2.49  | .0011  | -.0206 | -.1951 | .0014 | .0019  | .0078 |
| 15   | 0.00   | .2015  | -.0179 | -.1335 | .0013 | .0021  | .0129 |
| 16   | 2.50   | .3964  | -.0106 | -.0757 | .0008 | .0029  | .0122 |
| 17   | 5.02   | .5929  | .0039  | -.0120 | .0011 | .0034  | .0091 |
| 18   | 10.00  | .9687  | .0530  | .1310  | .0008 | .0057  | .0046 |
| 19   | 15.00  | 1.2801 | .1289  | .2804  | .0004 | .0100  | .0046 |
| 20   | 19.99  | 1.3305 | .2515  | .3761  | .0007 | .0104  | .0051 |
| 21   | -0.00  | .1933  | -.0192 | -.1293 | .0012 | .0010  | .0147 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB   |
|------|--------|--------|--------|--------|-------|--------|-------|
| 8    | -0.00  | .2092  | .0775  | -.1180 | .0012 | .0007  | .0143 |
| 9    | -0.00  | .1998  | -.0171 | -.1373 | .0012 | .0003  | .0134 |
| 10   | -20.00 | -.9077 | .2821  | -.3501 | .0031 | -.0129 | .0003 |
| 11   | -15.01 | -.7969 | .1367  | -.3124 | .0004 | .0014  | .0158 |
| 12   | -9.99  | -.5850 | .0292  | -.2936 | .0023 | .0006  | .0117 |
| 13   | -5.00  | -.2012 | -.0128 | -.2448 | .0017 | .0011  | .0084 |
| 14   | -2.49  | .0011  | -.0206 | -.1951 | .0014 | .0019  | .0078 |
| 15   | 0.00   | .2015  | -.0179 | -.1335 | .0013 | .0021  | .0129 |
| 16   | 2.50   | .3964  | -.0106 | -.0757 | .0008 | .0029  | .0122 |
| 17   | 5.02   | .5929  | .0039  | -.0120 | .0011 | .0034  | .0091 |
| 18   | 10.00  | .9687  | .0530  | .1310  | .0008 | .0057  | .0046 |
| 19   | 15.00  | 1.2801 | .1289  | .2804  | .0004 | .0100  | .0046 |
| 20   | 19.99  | 1.3305 | .2515  | .3761  | .0007 | .0104  | .0051 |
| 21   | -0.00  | .1933  | -.0192 | -.1293 | .0012 | .0010  | .0147 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 535

RUN 664 CONFIG F P B NPS W7 T2 IN=-3.5

| PT. NO. | IW | DELTA ALPHA | DELTA PSI | DELTA CLBAR | DELTA CDBAR | DELTA CPMBAR | DELTA CYMBAR | DELTA CRMBAR | DELTA CYBAR | DELTA Q | DELTA V | RPM    |
|---------|----|-------------|-----------|-------------|-------------|--------------|--------------|--------------|-------------|---------|---------|--------|
|         |    | DEG         | DEG       | SQ-FT       | SQ-FT       | CU-FT        | CU-FT        | CU-FT        | SQ-FT       | PSF     | KNOTS   |        |
| 2       |    | .0          | .0        | -123.0      | 32.45       | -379.        | 22.          | -27.         | 7.74        | 55.00   | 128.62  | 3310.  |
| 3       |    | .0          | .0        | -129.9      | -6.59       | -425.        | 18.          | -16.         | 7.64        | 54.85   | 128.43  | 11260. |
| 4       |    | .0          | -20.0     | -68.2       | 28.22       | -530.        | -691.        | 288.         | -126.12     | 54.63   | 128.17  | 11400. |
| 5       |    | .0          | -15.0     | -83.8       | 14.01       | -500.        | -527.        | 233.         | -97.56      | 54.77   | 128.34  | 11390. |
| 6       |    | .0          | -10.0     | -104.3      | 2.25        | -439.        | -339.        | 178.         | -64.55      | 54.89   | 128.47  | 11420. |
| 7       |    | .0          | -5.0      | -124.6      | -4.53       | -430.        | -156.        | 82.          | -31.71      | 54.68   | 128.22  | 11350. |
| 8       |    | .0          | -2.5      | -132.3      | -7.03       | -444.        | -72.         | 46.          | -12.87      | 54.80   | 128.37  | 11360. |
| 9       |    | .0          | .0        | -130.4      | -6.55       | -439.        | 16.          | -2.          | 6.52        | 54.70   | 128.25  | 11340. |
| 10      |    | .0          | 2.5       | -127.2      | -5.21       | -427.        | 125.         | -56.         | 26.84       | 54.99   | 128.59  | 11360. |
| 11      |    | .0          | 5.0       | -118.0      | -3.26       | -403.        | 225.         | -118.        | 44.38       | 54.88   | 128.47  | 11380. |
| 12      |    | .0          | 10.0      | -105.0      | 2.79        | -432.        | 413.         | -167.        | 75.62       | 54.90   | 128.48  | 11370. |
| 13      |    | .0          | 15.0      | -87.8       | 13.02       | -487.        | 612.         | -214.        | 104.91      | 54.98   | 128.59  | 11320. |
| 14      |    | .0          | 20.0      | -71.6       | 26.48       | -539.        | 774.         | -239.        | 132.65      | 54.77   | 128.33  | 11290. |
| 15      |    | .0          | .0        | -130.6      | -6.55       | -411.        | 22.          | -21.         | 7.30        | 54.72   | 128.27  | 11350. |

\*\*\* COEFFICIENT FORM = WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.3324 | .0877  | -.1222 | .0013  | -.0017 | .0209  |
| 3    | .00    | -.3510 | -.0178 | -.1369 | .0011  | -.0009 | .0206  |
| 4    | -20.00 | -.1844 | .0763  | -.1708 | -.0417 | .0174  | -.3409 |
| 5    | -15.00 | -.2266 | .0379  | -.1612 | -.0318 | .0141  | -.2637 |
| 6    | -10.00 | -.2819 | .0061  | -.1416 | -.0205 | .0107  | -.1745 |
| 7    | -5.00  | -.3367 | -.0122 | -.1387 | -.0094 | .0050  | -.0857 |
| 8    | -2.50  | -.3575 | -.0190 | -.1431 | -.0043 | .0028  | -.0348 |
| 9    | .00    | -.3525 | -.0177 | -.1415 | .0010  | -.0001 | .0176  |
| 10   | 2.50   | -.3439 | -.0141 | -.1377 | .0076  | -.0034 | .0726  |
| 11   | 5.00   | -.3189 | -.0088 | -.1299 | .0136  | -.0071 | .1199  |
| 12   | 10.00  | -.2838 | .0075  | -.1393 | .0249  | -.0101 | .2044  |
| 13   | 15.00  | -.2373 | .0352  | -.1569 | .0369  | -.0129 | .2835  |
| 14   | 20.00  | -.1936 | .0716  | -.1738 | .0468  | -.0144 | .3585  |
| 15   | .00    | -.3530 | -.0177 | -.1324 | .0013  | -.0013 | .0197  |

\*\*\* COEFFICIENT FORM = STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.3324 | .0877  | -.1222 | .0013  | -.0017 | .0209  |
| 3    | .00    | -.3510 | -.0178 | -.1369 | .0011  | -.0009 | .0206  |
| 4    | -20.00 | -.1844 | -.0455 | -.1923 | -.0417 | .0274  | -.3463 |
| 5    | -15.00 | -.2266 | -.0320 | -.1752 | -.0318 | .0215  | -.2644 |
| 6    | -10.00 | -.2819 | -.0244 | -.1495 | -.0205 | .0152  | -.1728 |
| 7    | -5.00  | -.3367 | -.0197 | -.1405 | -.0094 | .0072  | -.0843 |
| 8    | -2.50  | -.3575 | -.0205 | -.1436 | -.0043 | .0040  | -.0339 |
| 9    | .00    | -.3525 | -.0177 | -.1415 | .0010  | -.0001 | .0176  |
| 10   | 2.50   | -.3439 | -.0172 | -.1384 | .0076  | -.0045 | .0719  |
| 11   | 5.00   | -.3189 | -.0193 | -.1327 | .0136  | -.0092 | .1187  |
| 12   | 10.00  | -.2838 | -.0282 | -.1466 | .0249  | -.0145 | .2026  |
| 13   | 15.00  | -.2373 | -.0397 | -.1695 | .0369  | -.0201 | .2829  |
| 14   | 20.00  | -.1936 | -.0559 | -.1896 | .0468  | -.0247 | .3613  |
| 15   | .00    | -.3530 | -.0177 | -.1324 | .0013  | -.0013 | .0197  |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 536

RUN 665 CONFIG F P B NP5 W7 T2 IN=3.5

| 1W<br>PT.<br>NO. | -9<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 0.0<br>CLBAR<br>SQ-FT | 0.0<br>CDBAR<br>SQ-FT | 0.0<br>CPMBAR<br>CU-FT | 0.0<br>CYMBAR<br>CU-FT | 0.0<br>CRMBAR<br>CU-FT | 0.0<br>CYBAR<br>SQ-FT | 0.0<br>DELTA<br>PSF | 0.0<br>Q<br>KNOTS | 0.0<br>V<br>RPM |
|------------------|--------------------|---------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|-----------------------|---------------------|-------------------|-----------------|
| 2                | 0                  | 0                   | -122.7                | 32.30                 | -382.                  | 22.                    | 2.                     | 7.55                  | 54.86               | 128.45            | 3310.           |
| 3                | 0                  | 0                   | -130.1                | -7.17                 | -439.                  | 19.                    | -27.                   | 7.30                  | 54.63               | 128.17            | 11270.          |
| 4                | -20.0              | 0                   | -335.0                | 141.11                | -1034.                 | -1.                    | -78.                   | 3.38                  | 55.08               | 128.70            | 11340.          |
| 5                | -15.0              | 0                   | -288.4                | 98.00                 | -866.                  | 18.                    | -90.                   | 3.72                  | 55.25               | 128.90            | 11350.          |
| 6                | -10.0              | 0                   | -287.7                | 60.61                 | -796.                  | 11.                    | -117.                  | 6.85                  | 55.40               | 129.08            | 11340.          |
| 7                | -5.0               | 0                   | -273.2                | 7.54                  | -700.                  | 37.                    | -40.                   | 7.09                  | 55.05               | 128.67            | 11350.          |
| 8                | -2.5               | 0                   | -206.6                | -.69                  | -586.                  | 37.                    | -17.                   | 7.99                  | 54.70               | 128.25            | 11370.          |
| 9                | 0                  | 0                   | -129.3                | -6.04                 | -431.                  | 20.                    | -4.                    | 7.81                  | 55.38               | 129.06            | 11280.          |
| 10               | 2.5                | 0                   | -55.7                 | -9.71                 | -269.                  | 15.                    | -2.                    | 7.00                  | 55.01               | 128.62            | 11310.          |
| 11               | 5.0                | 0                   | 21.9                  | -9.35                 | -81.                   | 9.                     | -6.                    | 6.68                  | 54.72               | 128.27            | 11270.          |
| 12               | 10.0               | 0                   | 166.6                 | -3.70                 | 335.                   | 10.                    | 26.                    | 5.44                  | 54.92               | 128.51            | 11450.          |
| 13               | 15.0               | 0                   | 315.0                 | 13.96                 | 830.                   | 14.                    | 65.                    | 3.06                  | 54.49               | 128.00            | 11330.          |
| 14               | 20.0               | 0                   | 446.5                 | 42.58                 | 1363.                  | 10.                    | 95.                    | 2.09                  | 54.90               | 128.49            | 11320.          |
| 15               | 0                  | 0                   | -130.3                | -6.34                 | -432.                  | 15.                    | -16.                   | 7.75                  | 54.97               | 128.57            | 11340.          |
| 17               | -10.0              | 0                   | -290.4                | 60.70                 | -726.                  | 10.                    | -158.                  | 6.26                  | 55.17               | 128.80            | 11340.          |
| 18               | -15.0              | 0                   | -298.8                | 99.66                 | -846.                  | 25.                    | 5.                     | 5.96                  | 55.27               | 128.92            | 11470.          |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | -.3316 | .0873  | -.1232 | .0013  | .0001  | .0204 |
| 3    | 0.00   | -.3517 | -.0194 | -.1415 | .0012  | -.0016 | .0197 |
| 4    | -20.00 | -.9054 | .3814  | -.3335 | -.0001 | -.0047 | .0091 |
| 5    | -15.00 | -.7794 | .2648  | -.2792 | .0011  | -.0054 | .0101 |
| 6    | -10.00 | -.7775 | .1638  | -.2566 | .0007  | -.0071 | .0185 |
| 7    | -5.01  | -.7383 | .0204  | -.2257 | .0023  | -.0024 | .0192 |
| 8    | -2.52  | -.5584 | -.0019 | -.1889 | .0023  | -.0010 | .0216 |
| 9    | 0.00   | -.3495 | -.0163 | -.1391 | .0012  | -.0002 | .0211 |
| 10   | 2.49   | -.1504 | -.0263 | -.0867 | .0009  | -.0001 | .0189 |
| 11   | 5.01   | .0592  | -.0253 | -.0260 | .0005  | -.0004 | .0181 |
| 12   | 10.00  | .4503  | -.0100 | .1080  | .0006  | .0016  | .0147 |
| 13   | 15.01  | .8514  | .0377  | .2677  | .0008  | .0039  | .0083 |
| 14   | 20.02  | 1.2068 | .1151  | .4393  | .0006  | .0057  | .0056 |
| 15   | 0.00   | -.3522 | -.0171 | -.1393 | .0009  | -.0009 | .0209 |
| 17   | -10.00 | -.7850 | .1640  | -.2340 | .0006  | -.0095 | .0169 |
| 18   | -14.99 | -.8075 | .2694  | -.2727 | .0015  | .0003  | .0161 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | -.3316 | .0873  | -.1232 | .0013  | .0001  | .0204 |
| 3    | 0.00   | -.3517 | -.0194 | -.1415 | .0012  | -.0016 | .0197 |
| 4    | -20.00 | -.9054 | .3814  | -.3335 | -.0001 | -.0047 | .0091 |
| 5    | -15.00 | -.7794 | .2648  | -.2792 | .0011  | -.0054 | .0101 |
| 6    | -10.00 | -.7775 | .1638  | -.2566 | .0007  | -.0071 | .0185 |
| 7    | -5.01  | -.7383 | .0204  | -.2257 | .0023  | -.0024 | .0192 |
| 8    | -2.52  | -.5584 | -.0019 | -.1889 | .0023  | -.0010 | .0216 |
| 9    | 0.00   | -.3495 | -.0163 | -.1391 | .0012  | -.0002 | .0211 |
| 10   | 2.49   | -.1504 | -.0263 | -.0867 | .0009  | -.0001 | .0189 |
| 11   | 5.01   | .0592  | -.0253 | -.0260 | .0005  | -.0004 | .0181 |
| 12   | 10.00  | .4503  | -.0100 | .1080  | .0006  | .0016  | .0147 |
| 13   | 15.01  | .8514  | .0377  | .2677  | .0008  | .0039  | .0083 |
| 14   | 20.02  | 1.2068 | .1151  | .4393  | .0006  | .0057  | .0056 |
| 15   | 0.00   | -.3522 | -.0171 | -.1393 | .0009  | -.0009 | .0209 |
| 17   | -10.00 | -.7850 | .1640  | -.2340 | .0006  | -.0095 | .0169 |
| 18   | -14.99 | -.8075 | .2694  | -.2727 | .0015  | .0003  | .0161 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 537

RUN 666 CONFIG F P B NP5 W7 T2 IN=3.5

| PT. No. | IW | 7.5 DELF<br>ALPHA DEG | 0.0 DELA<br>PSI | 0.0 DELA<br>CLBAR SQ=FT | 0.0 IHT<br>CDBAR SQ=FT | 0.0 DELE<br>CPMBAR CU=FT | 0.0 DELR<br>CYMBAR CU=FT | 0.0 DELR<br>CRMBAR CU=FT | 0.0 DELSB<br>CYBAR SQ=FT | 0.0<br>Q PSF | 0.0<br>V KNOTS | RPM    |
|---------|----|-----------------------|-----------------|-------------------------|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|----------------|--------|
| 2       |    | .0                    | .0              | 248.8                   | 43.04                  | -452.                    | 12.                      | 80.                      | 2.56                     | 54.06        | 127.50         | 3740.  |
| 3       |    | .0                    | .0              | 241.2                   | -6.34                  | -533.                    | 4.                       | 82.                      | 1.49                     | 54.02        | 127.45         | 12170. |
| 4       |    | -20.0                 | .0              | -324.7                  | 37.11                  | -1338.                   | 52.                      | -22.                     | 4.24                     | 54.32        | 127.80         | 12290. |
| 5       |    | -15.0                 | .0              | -202.5                  | 10.17                  | -1246.                   | 56.                      | 6.                       | 3.01                     | 54.76        | 128.33         | 12270. |
| 7       |    | -5.0                  | .0              | 92.3                    | -14.78                 | -912.                    | 25.                      | 67.                      | 2.35                     | 55.01        | 128.62         | 12300. |
| 8       |    | -2.5                  | .0              | 169.1                   | -10.78                 | -715.                    | 21.                      | 67.                      | 2.83                     | 54.90        | 128.49         | 12210. |
| 9       |    | .0                    | .0              | 238.1                   | -6.05                  | -521.                    | 8.                       | 74.                      | 1.95                     | 54.64        | 128.17         | 12330. |
| 10      |    | 2.5                   | .0              | 303.8                   | 2.72                   | -312.                    | 7.                       | 100.                     | .25                      | 54.76        | 128.33         | 12170. |
| 11      |    | 5.0                   | .0              | 370.2                   | 12.81                  | -97.                     | 3.                       | 112.                     | -.68                     | 54.97        | 128.58         | 12270. |
| 12      |    | 10.0                  | .0              | 445.1                   | 45.78                  | 227.                     | 3.                       | 165.                     | -.31                     | 54.94        | 128.53         | 12320. |
| 13      |    | 15.0                  | .0              | 478.2                   | 94.58                  | 517.                     | -18.                     | 153.                     | .37                      | 54.91        | 128.50         | 12320. |
| 14      |    | 20.0                  | .0              | 509.2                   | 157.90                 | 861.                     | -4.                      | 135.                     | .14                      | 55.09        | 128.71         | 12150. |
| 15      |    | -10.0                 | .0              | -58.8                   | -12.61                 | -1220.                   | 34.                      | 22.                      | 3.74                     | 55.19        | 128.83         | 12280. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .6724  | .1163  | -.1457 | .0007  | .0049  | .0069  |
| 3    | .00    | .6520  | -.0171 | -.1719 | .0002  | .0049  | .0040  |
| 4    | -20.00 | -.8775 | .1003  | -.4315 | .0031  | -.0013 | .0115  |
| 5    | -15.01 | -.5474 | .0275  | -.4016 | .0034  | .0003  | .0081  |
| 7    | -5.01  | .2496  | -.0399 | -.2941 | .0015  | .0040  | .0064  |
| 8    | -2.48  | .4571  | -.0291 | -.2304 | .0013  | .0040  | .0077  |
| 9    | .00    | .6434  | -.0164 | -.1679 | .0005  | .0045  | .0053  |
| 10   | 2.50   | .8209  | .0073  | -.1006 | .0004  | .0060  | .0007  |
| 11   | 5.02   | 1.0006 | .0346  | -.0314 | .0002  | .0068  | -.0018 |
| 12   | 10.01  | 1.2029 | .1237  | .0732  | .0002  | .0100  | -.0008 |
| 13   | 15.00  | 1.2923 | .2556  | .1667  | -.0011 | .0092  | .0010  |
| 14   | 20.00  | 1.3762 | .4268  | .2774  | -.0002 | .0081  | .0004  |
| 15   | -10.00 | -.1590 | -.0341 | -.3935 | .0020  | .0014  | .0101  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .6724  | .1163  | -.1457 | .0007  | .0049  | .0069  |
| 3    | .00    | .6520  | -.0171 | -.1719 | .0002  | .0049  | .0040  |
| 4    | -20.00 | -.8775 | .1003  | -.4315 | .0031  | -.0013 | .0115  |
| 5    | -15.01 | -.5474 | .0275  | -.4016 | .0034  | .0003  | .0081  |
| 7    | -5.01  | .2496  | -.0399 | -.2941 | .0015  | .0040  | .0064  |
| 8    | -2.48  | .4571  | -.0291 | -.2304 | .0013  | .0040  | .0077  |
| 9    | .00    | .6434  | -.0164 | -.1679 | .0005  | .0045  | .0053  |
| 10   | 2.50   | .8209  | .0073  | -.1006 | .0004  | .0060  | .0007  |
| 11   | 5.02   | 1.0006 | .0346  | -.0314 | .0002  | .0068  | -.0018 |
| 12   | 10.01  | 1.2029 | .1237  | .0732  | .0002  | .0100  | -.0008 |
| 13   | 15.00  | 1.2923 | .2556  | .1667  | -.0011 | .0092  | .0010  |
| 14   | 20.00  | 1.3762 | .4268  | .2774  | -.0002 | .0081  | .0004  |
| 15   | -10.00 | -.1590 | -.0341 | -.3935 | .0020  | .0014  | .0101  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 538

RUN 667 CONFIG F P R NP5 W7 T2 IN=-3.5 XN=0

| PT. NO. | IW    | 7.5 DELF | Q DELA | O IHT | DELE    | DELR  | DELSB   | Q       | V     | RPM    |        |
|---------|-------|----------|--------|-------|---------|-------|---------|---------|-------|--------|--------|
|         | ALPHA | PSI      | CLBAR  | CDBAR | CPM BAR | CYBAR | CRM BAR | CYBAR   | PSF   | KNOTS  |        |
|         | DEG   | DEG      | SQ-FT  | SQ-FT | CU-FT   | CU-FT | CU-FT   | SQ-FT   |       |        |        |
| 2       | .0    | .0       | 249.4  | 43.43 | -443.   | 15.   | 57.     | 2.45    | 53.78 | 127.18 | 3700.  |
| 3       | .0    | .0       | 244.4  | -6.63 | -528.   | 14.   | 92.     | 1.95    | 54.77 | 128.36 | 12340. |
| 4       | .0    | -20.0    | 736.5  | 24.22 | -538.   | -776. | 39.     | -123.50 | 55.28 | 128.96 | 12310. |
| 5       | .0    | -15.0    | 233.7  | 9.66  | -523.   | -603. | 15.     | -89.67  | 55.25 | 128.93 | 12310. |
| 6       | .0    | -10.0    | 239.8  | .13   | -520.   | -428. | 74.     | -58.59  | 55.06 | 128.70 | 12330. |
| 7       | .0    | -5.0     | 246.1  | -3.86 | -547.   | -228. | 84.     | -29.84  | 54.91 | 128.53 | 12340. |
| 8       | .0    | -2.5     | 245.0  | -4.30 | -541.   | -115. | 95.     | -13.73  | 54.91 | 128.52 | 12290. |
| 9       | .0    | .0       | 243.0  | -5.37 | -535.   | 14.   | 115.    | 2.43    | 54.66 | 128.23 | 12320. |
| 10      | .0    | 2.5      | 241.3  | -4.51 | -513.   | 140.  | 122.    | 17.80   | 54.61 | 128.17 | 12310. |
| 11      | .0    | 5.0      | 236.8  | -4.55 | -486.   | 249.  | 111.    | 32.53   | 54.69 | 128.26 | 12320. |
| 12      | .0    | 10.0     | 230.5  | -1.47 | -469.   | 471.  | 176.    | 61.40   | 54.88 | 128.49 | 12350. |
| 13      | .0    | 15.0     | 229.2  | 9.82  | -485.   | 648.  | 147.    | 95.75   | 55.06 | 128.70 | 12270. |
| 14      | .0    | 20.0     | 225.1  | 23.08 | -490.   | 807.  | 151.    | 127.46  | 54.78 | 128.36 | 12350. |
| 15      | .0    | .0       | 241.9  | -4.23 | -485.   | 12.   | 114.    | 2.61    | 55.25 | 128.93 | 12310. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .6741 | .1174  | -.1427 | .0009  | .0034 | .0066  |
| 3    | .00    | .6606 | -.0179 | -.1702 | .0009  | .0055 | .0053  |
| 4    | -20.00 | .6392 | .0655  | -.1735 | -.0469 | .0023 | -.3338 |
| 5    | -15.00 | .6316 | .0261  | -.1686 | -.0364 | .0009 | -.2423 |
| 6    | -10.00 | .6480 | .0004  | -.1675 | -.0259 | .0045 | -.1583 |
| 7    | -5.00  | .6652 | -.0104 | -.1763 | -.0138 | .0051 | -.0806 |
| 8    | -2.50  | .6623 | -.0116 | -.1745 | -.0070 | .0057 | -.0371 |
| 9    | .00    | .6568 | .0145  | -.1725 | .0009  | .0070 | .0066  |
| 10   | 2.50   | .6523 | -.0122 | -.1653 | .0085  | .0074 | .0481  |
| 11   | 5.00   | .6399 | -.0123 | -.1566 | .0150  | .0067 | .0876  |
| 12   | 10.00  | .6231 | -.0040 | -.1512 | .0284  | .0106 | .1660  |
| 13   | 15.00  | .6194 | .0265  | -.1565 | .0391  | .0089 | .2588  |
| 14   | 20.00  | .6083 | .0624  | -.1578 | .0487  | .0091 | .3445  |
| 15   | .00    | .6538 | -.0114 | -.1562 | .0007  | .0069 | .0071  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .6741 | .1174  | -.1427 | .0009  | .0034  | .0066  |
| 3    | .00    | .6606 | -.0179 | -.1702 | .0009  | .0055  | .0053  |
| 4    | -20.00 | .6392 | -.0532 | -.1672 | -.0469 | .0134  | -.3360 |
| 5    | -15.00 | .6316 | -.0378 | -.1641 | -.0364 | .0091  | -.2408 |
| 6    | -10.00 | .6480 | -.0273 | -.1691 | -.0259 | .0099  | -.1560 |
| 7    | -5.00  | .6652 | -.0175 | -.1780 | -.0138 | .0080  | -.0794 |
| 8    | -2.50  | .6623 | -.0132 | -.1757 | -.0070 | .0072  | -.0366 |
| 9    | .00    | .6568 | .0145  | -.1725 | .0009  | .0070  | .0066  |
| 10   | 2.50   | .6523 | -.0143 | -.1634 | .0085  | .0060  | .0475  |
| 11   | 5.00   | .6399 | -.0199 | -.1529 | .0150  | .0041  | .0862  |
| 12   | 10.00  | .6231 | -.0329 | -.1390 | .0284  | .0055  | .1627  |
| 13   | 15.00  | .6194 | -.0417 | -.1387 | .0391  | .0010  | .2568  |
| 14   | 20.00  | .6083 | -.0598 | -.1315 | .0487  | -.0016 | .3449  |
| 15   | .00    | .6538 | -.0114 | -.1562 | .0007  | .0069  | .0071  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 539

RUN 668 CONFIG F P B NP5 W7 T2 IN=-3.5 XN=0

| PT. NO. | IW ALPHA DEG | IS DELF PSI DEG | O DELA CLBAR SQ-FT | O IHT CDBAR SQ-FT | CPHMBAR CU-FT | DELE CYMBAR CU-FT | DELR CRMBAR CU-FT | DELSB CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|--------------|-----------------|--------------------|-------------------|---------------|-------------------|-------------------|-------------------|-------|---------|--------|
| 2       | .0           | .0              | 397.0              | 71.94             | -524.         | 6.                | 115.              | -.65              | 53.92 | 127.33  | 3960.  |
| 3       | .0           | .0              | 363.9              | -6.49             | -616.         | -78.              | 213.              | -4.89             | 54.62 | 128.17  | 15500. |
| 4       | .0           | -20.0           | 352.4              | 23.18             | -575.         | -763.             | -368.             | -112.14           | 55.10 | 128.75  | 15510. |
| 5       | .0           | -15.0           | 362.6              | 10.19             | -625.         | -612.             | -277.             | -82.81            | 55.22 | 128.88  | 15510. |
| 6       | .0           | -10.0           | 362.5              | 2.30              | -663.         | -483.             | -158.             | -51.92            | 54.93 | 128.55  | 15520. |
| 7       | .0           | -5.0            | 359.6              | -.84              | -700.         | -313.             | -36.              | -26.94            | 55.05 | 128.69  | 15520. |
| 8       | .0           | -2.5            | 364.6              | -1.14             | -698.         | -217.             | 70.               | -16.19            | 54.36 | 127.86  | 15460. |
| 9       | .0           | .0              | 360.6              | -1.87             | -690.         | -60.              | 225.              | -5.20             | 54.82 | 128.41  | 15520. |
| 10      | .0           | 2.5             | 360.7              | -1.96             | -658.         | 45.               | 294.              | 6.81              | 54.68 | 128.25  | 15450. |
| 11      | .0           | 5.0             | 362.5              | -2.50             | -643.         | 235.              | 394.              | 19.33             | 54.74 | 128.32  | 15500. |
| 12      | .0           | 10.0            | 354.0              | .08               | -585.         | 458.              | 485.              | 45.24             | 55.24 | 128.92  | 15450. |
| 13      | .0           | 15.0            | 339.0              | 7.77              | -501.         | 638.              | 605.              | 76.48             | 54.95 | 128.57  | 15450. |
| 14      | .0           | 20.0            | 325.9              | 19.71             | -467.         | 797.              | 604.              | 109.23            | 55.05 | 128.69  | 15500. |
| 15      | .0           | .0              | 358.2              | -1.94             | -704.         | -22.              | 199.              | -3.76             | 54.90 | 128.50  | 15470. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0729 | .1944  | -.1691 | .0004  | .0069  | -.0018 |
| 3    | .00    | .9835  | -.0175 | -.1987 | -.0047 | .0129  | -.0132 |
| 4    | -20.00 | .9525  | .0627  | -.1855 | -.0461 | -.0222 | -.3031 |
| 5    | -15.00 | .9799  | .0275  | -.2014 | -.0370 | -.0168 | -.2238 |
| 6    | -10.00 | .9796  | .0062  | -.2138 | -.0292 | -.0095 | -.1403 |
| 7    | -5.00  | .9720  | -.0023 | -.2257 | -.0189 | -.0022 | -.0728 |
| 8    | -2.50  | .9855  | -.0031 | -.2251 | -.0131 | .0042  | -.0438 |
| 9    | .00    | .9747  | -.0051 | -.2226 | -.0036 | .0136  | -.0141 |
| 10   | 2.50   | .9748  | -.0053 | -.2120 | .0027  | .0178  | .0184  |
| 11   | 5.00   | .9798  | -.0068 | -.2073 | .0142  | .0238  | .0522  |
| 12   | 10.00  | .9568  | .0002  | -.1885 | .0277  | .0293  | .1223  |
| 13   | 15.00  | .9162  | .0210  | -.1614 | .0385  | .0366  | .2067  |
| 14   | 20.00  | .8808  | .0533  | -.1506 | .0482  | .0365  | .2952  |
| 15   | .00    | .9681  | -.0052 | -.2271 | -.0013 | .0120  | -.0102 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0729 | .1944  | -.1691 | .0004  | .0069  | -.0018 |
| 3    | .00    | .9835  | -.0175 | -.1987 | -.0047 | .0129  | -.0132 |
| 4    | -20.00 | .9525  | -.0453 | -.1335 | -.0461 | -.0089 | -.3062 |
| 5    | -15.00 | .9799  | -.0316 | -.1712 | -.0370 | -.0064 | -.2233 |
| 6    | -10.00 | .9796  | -.0184 | -.2017 | -.0292 | -.0024 | -.1393 |
| 7    | -5.00  | .9720  | -.0086 | -.2238 | -.0189 | .0015  | -.0723 |
| 8    | -2.50  | .9855  | -.0050 | -.2259 | -.0131 | .0061  | -.0436 |
| 9    | .00    | .9747  | -.0051 | -.2226 | -.0036 | .0136  | -.0141 |
| 10   | 2.50   | .9748  | -.0061 | -.2076 | .0027  | .0160  | .0182  |
| 11   | 5.00   | .9798  | -.0113 | -.1953 | .0142  | .0203  | .0515  |
| 12   | 10.00  | .9568  | -.0211 | -.1584 | .0277  | .0227  | .1204  |
| 13   | 15.00  | .9162  | -.0335 | -.1052 | .0385  | .0274  | .2050  |
| 14   | 20.00  | .8808  | -.0514 | -.0745 | .0482  | .0246  | .2956  |
| 15   | .00    | .9681  | -.0052 | -.2271 | -.0013 | .0120  | -.0102 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 540

RUN 669 CONFIG F P R NP5 W7 T2 IN=-3,5 XN=0

| IW<br>PT. NO. | 15<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CLBAR<br>SO-FT | DELTA<br>CDBAR<br>SQ-FT | IHT<br>CPMBAR<br>CU-FT | DELE<br>CYMBAR<br>CU-FT | DELTA<br>CRMBAR<br>CU-FT | DELTA<br>CYBAR<br>SQ-FT | DELTA<br>PSF<br>Q | DELTA<br>V<br>KNOTS | RPM    |
|---------------|--------------------|---------------------|-------------------------|-------------------------|------------------------|-------------------------|--------------------------|-------------------------|-------------------|---------------------|--------|
| 2             | 0                  | 0                   | 395.4                   | 71.78                   | -526.                  | 6.                      | 136.                     | -0.62                   | 54.90             | 128.50              | 3990.  |
| 3             | 0                  | 0                   | 366.5                   | -7.13                   | -628.                  | -73.                    | 200.                     | -4.81                   | 55.02             | 128.64              | 15480. |
| 4             | -20.0              | 0                   | -203.1                  | 1.96                    | -1743.                 | 2.                      | 45.                      | 8.28                    | 55.25             | 128.91              | 15530. |
| 5             | -15.0              | 0                   | -46.2                   | -28.23                  | -1785.                 | 66.                     | 38.                      | 1.48                    | 55.36             | 129.05              | 15470. |
| 6             | -10.0              | 0                   | 112.8                   | -32.16                  | -1478.                 | 56.                     | 93.                      | -0.18                   | 55.57             | 129.30              | 15500. |
| 7             | -5.0               | 0                   | 251.3                   | -21.24                  | -1076.                 | 5.                      | 159.                     | -4.88                   | 55.33             | 129.02              | 15420. |
| 8             | -2.5               | 0                   | 309.3                   | -14.04                  | -856.                  | -45.                    | 189.                     | -4.49                   | 54.83             | 128.42              | 15450. |
| 9             | -0                 | 0                   | 365.0                   | -3.56                   | -625.                  | -89.                    | 206.                     | -4.95                   | 55.07             | 128.71              | 15460. |
| 10            | 2.5                | 0                   | 415.6                   | 10.81                   | -440.                  | -116.                   | 213.                     | -6.75                   | 54.99             | 128.61              | 15460. |
| 11            | 5.0                | 0                   | 397.4                   | 31.99                   | -336.                  | -38.                    | 264.                     | -5.96                   | 55.07             | 128.71              | 15470. |
| 12            | 10.0               | 0                   | 454.2                   | 79.40                   | -70.                   | 26.                     | 55.                      | -3.10                   | 54.63             | 128.18              | 15460. |
| 13            | 15.0               | 0                   | 462.1                   | 131.69                  | 361.                   | -22.                    | 201.                     | .44                     | 54.59             | 128.12              | 15440. |
| 14            | 20.0               | 0                   | 524.4                   | 192.94                  | 727.                   | 22.                     | 19.                      | 4.65                    | 54.27             | 127.74              | 15440. |
| 15            | 2.5                | 0                   | 413.9                   | 10.67                   | -441.                  | -129.                   | 184.                     | -6.58                   | 54.73             | 128.30              | 15430. |
| 16            | 5.0                | 0                   | 400.2                   | 29.56                   | -347.                  | 2.                      | 251.                     | -3.26                   | 54.75             | 128.32              | 15470. |
| 17            | 0                  | 0                   | 364.0                   | -4.29                   | -632.                  | -83.                    | 207.                     | -4.80                   | 54.70             | 128.27              | 15480. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | Cy     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 0.00   | 1.0686 | .1940  | -.1697 | .0004  | .0082 | -.0017 |
| 3    | 0.00   | .9905  | -.0193 | -.2025 | -.0044 | .0121 | -.0130 |
| 4    | -20.01 | -.5489 | .0053  | -.5618 | .0001  | .0027 | .0224  |
| 5    | -14.99 | -.1249 | -.0763 | -.5754 | .0040  | .0023 | .0040  |
| 6    | -10.00 | .3048  | -.0869 | -.4764 | .0034  | .0056 | -.0005 |
| 7    | -5.00  | .6792  | -.0574 | -.3470 | .0003  | .0096 | -.0132 |
| 8    | -2.51  | .8358  | -.0380 | -.2759 | -.0027 | .0114 | -.0121 |
| 9    | -0.00  | .9864  | -.0096 | -.2016 | -.0054 | .0124 | -.0134 |
| 10   | 2.50   | 1.1234 | .0292  | -.1419 | -.0070 | .0129 | -.0182 |
| 11   | 5.01   | 1.0741 | .0864  | -.1084 | -.0023 | .0159 | -.0161 |
| 12   | 10.01  | 1.2275 | .2146  | -.0226 | .0015  | .0033 | -.0084 |
| 13   | 15.00  | 1.2489 | .3559  | .1162  | -.0014 | .0121 | .0012  |
| 14   | 20.00  | 1.4172 | .5215  | .2342  | .0013  | .0011 | .0126  |
| 15   | 2.50   | 1.1188 | .0288  | -.1423 | -.0078 | .0111 | -.0178 |
| 16   | 5.01   | 1.0817 | .0799  | -.1119 | .0001  | .0152 | -.0088 |
| 17   | 0.01   | .9837  | -.0116 | -.2038 | -.0050 | .0125 | -.0130 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 0.00   | 1.0686 | .1940  | -.1697 | .0004  | .0082 | -.0017 |
| 3    | 0.00   | .9905  | -.0193 | -.2025 | -.0044 | .0121 | -.0130 |
| 4    | -20.01 | -.5489 | .0053  | -.5618 | .0001  | .0027 | .0224  |
| 5    | -14.99 | -.1249 | -.0763 | -.5754 | .0040  | .0023 | .0040  |
| 6    | -10.00 | .3048  | -.0869 | -.4764 | .0034  | .0056 | -.0005 |
| 7    | -5.00  | .6792  | -.0574 | -.3470 | .0003  | .0096 | -.0132 |
| 8    | -2.51  | .8358  | -.0380 | -.2759 | -.0027 | .0114 | -.0121 |
| 9    | -0.00  | .9864  | -.0096 | -.2016 | -.0054 | .0124 | -.0134 |
| 10   | 2.50   | 1.1234 | .0292  | -.1419 | -.0070 | .0129 | -.0182 |
| 11   | 5.01   | 1.0741 | .0864  | -.1084 | -.0023 | .0159 | -.0161 |
| 12   | 10.01  | 1.2275 | .2146  | -.0226 | .0015  | .0033 | -.0084 |
| 13   | 15.00  | 1.2489 | .3559  | .1162  | -.0014 | .0121 | .0012  |
| 14   | 20.00  | 1.4172 | .5215  | .2342  | .0013  | .0011 | .0126  |

|    |      |        |        |        |        |       |        |
|----|------|--------|--------|--------|--------|-------|--------|
| 15 | 2.50 | 1.1188 | .0288  | -.1423 | -.0078 | .0111 | -.0178 |
| 16 | 5.01 | 1.0817 | .0799  | -.1119 | .0001  | .0152 | -.0088 |
| 17 | 0.01 | .9837  | -.0116 | -.2038 | -.0050 | .0125 | -.0130 |

SIKORSKY-RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 670 CONFIG F P 9 NP5 W7 T2 IN=-3.5 XN=0

| PT. NO. | 15 DELF ALPHA DEG | PSI DEG | 30 DELA CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | DELE CYM BAR CU-FT | DEL R CRM BAR CU-FT | DELS B CY BAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-------------------|---------|---------------------|-------------|---------------|--------------------|---------------------|---------------------|-------|---------|--------|
| 2       | 0                 | 0       | 623.0               | 132.37      | -1122.        | 12.                | 162.                | -5.31               | 56.08 | 129.90  | 4260.  |
| 4       | 0                 | 0       | 534.2               | -6.61       | -1264.        | 69.                | -312.               | 16.08               | 56.31 | 128.98  | 20180. |
| 5       | -20.0             | 0       | -42.9               | -35.20      | -2769.        | 102.               | 144.                | -4.12               | 55.12 | 128.76  | 20170. |
| 6       | -15.0             | 0       | 144.7               | -49.02      | -2637.        | 141.               | 159.                | -8.88               | 55.22 | 128.88  | 20080. |
| 7       | -10.0             | 0       | 320.9               | -42.64      | -2282.        | 71.                | 211.                | -6.71               | 55.21 | 128.87  | 20140. |
| 8       | -5.0              | 0       | 471.1               | -29.65      | -1833.        | 29.                | 234.                | -7.16               | 55.03 | 128.66  | 20250. |
| 9       | -2.5              | 0       | 538.1               | -17.67      | -1565.        | 5.                 | 249.                | -6.66               | 55.27 | 128.94  | 20220. |
| 10      | 0                 | 0       | 601.2               | -7.85       | -1297.        | 4.                 | 327.                | -8.33               | 55.09 | 128.73  | 20140. |
| 11      | 2.5               | 0       | 560.8               | 10.33       | -976.         | -46.               | 722.                | -17.75              | 55.14 | 128.79  | 20100. |
| 12      | 5.0               | 0       | 590.9               | 22.23       | -700.         | -60.               | 834.                | -19.00              | 54.64 | 128.18  | 20190. |
| 13      | 10.0              | 0       | 518.1               | 81.47       | -577.         | 38.                | 123.                | 2.96                | 54.52 | 128.04  | 20180. |
| 14      | 15.0              | 0       | 543.0               | 142.46      | -178.         | -80.               | 274.                | -1.40               | 54.31 | 127.79  | 20080. |
| 15      | 20.0              | 0       | 589.0               | 204.51      | 292.          | 16.                | 113.                | 3.05                | 54.66 | 128.20  | 20170. |
| 17      | 0                 | 0       | 600.1               | -6.07       | -1295.        | -4.                | 340.                | -7.56               | 54.70 | 128.26  | 20120. |
| 18      | 2.5               | 0       | 564.6               | 9.49        | -982.         | -49.               | 778.                | -18.29              | 54.58 | 128.11  | 20170. |
| 19      | 5.0               | 0       | 583.8               | 24.50       | -709.         | -57.               | 844.                | -19.70              | 54.75 | 128.31  | 20120. |
| 20      | 0                 | 0       | 597.2               | -4.62       | -1286.        | -7.                | 333.                | -8.61               | 55.11 | 128.75  | 20080. |
| 21      | 1.3               | 0       | 563.5               | 2.64        | -1162.        | -59.               | 864.                | -30.26              | 54.97 | 128.58  | 20140. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.6838 | .3578  | -.3618 | .0007  | .0098  | -.0143 |
| 4    | 0.00   | 1.4439 | -.0179 | -.4074 | .0042  | -.0189 | .0434  |
| 5    | -20.00 | -.1159 | -.0951 | -.8927 | .0062  | .0087  | -.0111 |
| 6    | -15.01 | .3911  | -.1325 | -.8502 | .0085  | .0096  | -.0240 |
| 7    | -10.01 | .8674  | -.1153 | -.7355 | .0043  | .0128  | -.0181 |
| 8    | -5.00  | 1.2733 | -.0801 | -.5910 | .0018  | .0141  | -.0193 |
| 9    | -2.51  | 1.4542 | -.0477 | -.5047 | .0003  | .0150  | -.0180 |
| 10   | 0.00   | 1.6248 | -.0212 | -.4182 | .0002  | .0198  | -.0225 |
| 11   | 2.50   | 1.5157 | .0279  | -.3145 | -.0027 | .0436  | -.0480 |
| 12   | 5.00   | 1.5970 | .0601  | -.2256 | -.0036 | .0503  | -.0513 |
| 13   | 10.01  | 1.4004 | .2202  | -.1859 | .0023  | .0074  | .0080  |
| 14   | 15.00  | 1.4677 | .3850  | -.0575 | -.0048 | .0165  | -.0038 |
| 15   | 20.00  | 1.5918 | .5527  | .0941  | .0009  | .0068  | .0083  |
| 16   | 0.00   | 1.2725 | -.0193 | 1.7066 | .0001  | .0198  | -.0208 |
| 17   | 0.00   | 1.6220 | -.0164 | -.4176 | -.0003 | .0206  | -.0204 |
| 18   | 2.50   | 1.5259 | .0256  | -.3165 | -.0029 | .0470  | -.0494 |
| 19   | 4.99   | 1.5779 | .0662  | -.2285 | -.0035 | .0510  | -.0533 |
| 20   | 0.00   | 1.6141 | -.0125 | -.4146 | -.0004 | .0201  | -.0233 |
| 21   | 1.25   | 1.5229 | .0071  | -.3746 | -.0036 | .0522  | -.0818 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDL    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.6838 | .3578  | -.3618 | .0007  | .0098  | -.0143 |
| 4    | 0.00   | 1.4439 | -.0179 | -.4074 | .0042  | -.0189 | .0434  |
| 5    | -20.00 | -.1159 | -.0951 | -.8927 | .0062  | .0087  | -.0111 |
| 6    | -15.01 | .3911  | -.1325 | -.8502 | .0085  | .0096  | -.0240 |
| 7    | -10.01 | .8674  | -.1153 | -.7355 | .0043  | .0128  | -.0181 |
| 8    | -5.00  | 1.2733 | -.0801 | -.5910 | .0018  | .0141  | -.0193 |
| 9    | -2.51  | 1.4542 | -.0477 | -.5047 | .0003  | .0150  | -.0180 |
| 10   | 0.00   | 1.6248 | -.0212 | -.4182 | .0002  | .0198  | -.0225 |
| 11   | 2.50   | 1.5157 | .0279  | -.3145 | -.0027 | .0436  | -.0480 |
| 12   | 5.00   | 1.5970 | .0601  | -.2256 | -.0036 | .0503  | -.0513 |
| 13   | 10.01  | 1.4004 | .2202  | -.1859 | .0023  | .0074  | .0080  |
| 14   | 15.00  | 1.4677 | .3850  | -.0575 | -.0048 | .0165  | -.0038 |
| 15   | 20.00  | 1.5918 | .5527  | .0941  | .0009  | .0068  | .0083  |
| 16   | 0.00   | 1.2725 | -.0193 | 1.7066 | .0001  | .0198  | -.0208 |
| 17   | 0.00   | 1.6220 | -.0164 | -.4176 | -.0003 | .0206  | -.0204 |
| 18   | 2.50   | 1.5259 | .0256  | -.3165 | -.0029 | .0470  | -.0494 |
| 19   | 4.99   | 1.5779 | .0662  | -.2285 | -.0035 | .0510  | -.0533 |
| 20   | 0.00   | 1.6141 | -.0125 | -.4146 | -.0004 | .0201  | -.0233 |
| 21   | 1.25   | 1.5229 | .0071  | -.3746 | -.0036 | .0522  | -.0818 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 542

RUN 671 CONFIG F P B NP5 W7 T2 IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | 15 DELF |       | 30 DELA |         | 0 IHT |        | DELE    |       | DELRL  |        | DELSB |  | V KNOTS | RPM |
|---------|-----------|---------|-------|---------|---------|-------|--------|---------|-------|--------|--------|-------|--|---------|-----|
|         |           | PSI     | CLBAR | CDBAR   | CPM BAR | CYBAR | CRMBAR | CYBAR   | Q PSF |        |        |       |  |         |     |
| 2       | .0        | .0      | 615.7 | 132.19  | -1119.  | 2.    | 191.   | -7.62   | 55.29 | 128.96 | 4240.  |       |  |         |     |
| 3       | .0        | .0      | 603.2 | -6.96   | -1288.  | -4.   | 262.   | -8.53   | 55.27 | 128.94 | 20140. |       |  |         |     |
| 4       | .0        | -20.0   | 487.1 | 15.26   | -866.   | -670. | -837.  | -106.62 | 55.46 | 129.17 | 20170. |       |  |         |     |
| 5       | .0        | -15.0   | 516.9 | 5.20    | -1018.  | -596. | -715.  | -75.27  | 55.76 | 129.51 | 20150. |       |  |         |     |
| 6       | .0        | -10.0   | 531.9 | -2.32   | -1130.  | -459. | -574.  | -40.32  | 55.48 | 129.19 | 20250. |       |  |         |     |
| 7       | .0        | -5.0    | 533.2 | -5.75   | -1250.  | -227. | -529.  | -9.86   | 55.26 | 128.93 | 20230. |       |  |         |     |
| 8       | .0        | -2.5    | 532.8 | -5.67   | -1268.  | -72.  | -460.  | 2.90    | 55.25 | 128.91 | 20220. |       |  |         |     |
| 9       | .0        | .0      | 532.4 | -5.06   | -1275.  | 67.   | -323.  | 15.43   | 55.41 | 129.10 | 20110. |       |  |         |     |
| 10      | .0        | 2.5     | 540.6 | -6.51   | -1283.  | 205.  | -136.  | 26.00   | 55.24 | 128.90 | 20220. |       |  |         |     |
| 11      | .0        | 5.0     | 529.7 | -3.55   | -1169.  | 210.  | 996.   | -2.75   | 55.80 | 129.56 | 20170. |       |  |         |     |
| 12      | .0        | 10.0    | 521.0 | -1.92   | -1007.  | 432.  | 1109.  | 26.42   | 55.57 | 129.30 | 20100. |       |  |         |     |
| 13      | .0        | 15.0    | 483.1 | 2.52    | -843.   | 551.  | 1255.  | 59.51   | 56.07 | 129.89 | 20110. |       |  |         |     |
| 14      | .0        | 20.0    | 452.4 | 8.83    | -865.   | 672.  | 1297.  | 98.36   | 55.98 | 129.77 | 20250. |       |  |         |     |
| 15      | .0        | .0      | 541.0 | -2.64   | -1289.  | -42.  | 830.   | -29.65  | 55.45 | 129.15 | 20110. |       |  |         |     |
| 16      | .0        | 5.0     | 530.0 | -5.24   | -1163.  | 215.  | 1002.  | -2.99   | 55.83 | 129.60 | 20140. |       |  |         |     |
| 17      | .0        | .0      | 532.5 | -7.37   | -1278.  | 55.   | -315.  | 14.79   | 55.51 | 129.23 | 20230. |       |  |         |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.6640 | .3573  | -.3609 | .0001  | .0115  | -.0206 |
| 3    | .00    | 1.6307 | -.0188 | -.4154 | -.0002 | .0158  | -.0230 |
| 4    | -20.00 | 1.3166 | .0412  | -.2793 | -.0405 | -.0506 | -.2882 |
| 5    | -15.00 | 1.3969 | .0141  | -.3281 | -.0360 | -.0432 | -.2034 |
| 6    | -10.00 | 1.4374 | -.0063 | -.3643 | -.0277 | -.0347 | -.1090 |
| 7    | -5.00  | 1.4410 | -.0155 | -.4029 | -.0137 | -.0319 | -.0267 |
| 8    | -2.50  | 1.4401 | -.0153 | -.4087 | -.0043 | -.0278 | .0078  |
| 9    | .00    | 1.4388 | -.0137 | -.4110 | .0040  | -.0195 | .0417  |
| 10   | 2.50   | 1.4612 | -.0176 | -.4135 | .0124  | -.0082 | .0703  |
| 11   | 5.00   | 1.4316 | -.0096 | -.3768 | .0127  | .0602  | -.0074 |
| 12   | 10.00  | 1.4080 | -.0052 | -.3246 | .0261  | .0670  | .0714  |
| 13   | 15.00  | 1.3055 | .0068  | -.2719 | .0333  | .0758  | .1608  |
| 14   | 20.00  | 1.2226 | .0239  | -.2788 | .0406  | .0784  | .2658  |
| 15   | .00    | 1.4622 | -.0071 | -.4157 | -.0025 | .0501  | -.0801 |
| 16   | 5.00   | 1.4325 | -.0142 | -.3750 | .0130  | .0605  | -.0081 |
| 17   | .00    | 1.4392 | -.0199 | -.4119 | .0033  | -.0191 | .0400  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.6640 | .3573  | -.3609 | .0001  | .0115  | -.0206 |
| 3    | .00    | 1.6307 | -.0188 | -.4154 | -.0002 | .0158  | -.0230 |
| 4    | -20.00 | 1.3166 | -.0603 | -.1696 | -.0405 | -.0295 | -.2848 |
| 5    | -15.00 | 1.3969 | -.0393 | -.2569 | -.0360 | -.0257 | -.2001 |
| 6    | -10.00 | 1.4374 | -.0252 | -.3264 | -.0277 | -.0223 | -.1062 |
| 7    | -5.00  | 1.4410 | -.0178 | -.3864 | -.0137 | -.0252 | -.0252 |
| 8    | -2.50  | 1.4401 | -.0150 | -.4018 | -.0043 | -.0244 | .0085  |
| 9    | .00    | 1.4388 | -.0137 | -.4110 | .0040  | -.0195 | .0417  |
| 10   | 2.50   | 1.4612 | -.0207 | -.4150 | .0124  | -.0116 | .0694  |
| 11   | 5.00   | 1.4316 | -.0089 | -.3472 | .0127  | .0538  | -.0082 |
| 12   | 10.00  | 1.4080 | -.0176 | -.2573 | .0261  | .0553  | .0694  |
| 13   | 15.00  | 1.3055 | -.0352 | -.1573 | .0333  | .0600  | .1571  |
| 14   | 20.00  | 1.2226 | -.0689 | -.1181 | .0406  | .0556  | .2579  |
| 15   | .00    | 1.4622 | -.0071 | -.4157 | -.0025 | .0501  | -.0801 |
| 16   | 5.00   | 1.4325 | -.0134 | -.3453 | .0130  | .0541  | -.0093 |
| 17   | .00    | 1.4392 | -.0199 | -.4119 | .0033  | -.0191 | .0400  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 543

RUN 672 CONFIG F P R NPS W7 T2 IN=-3.5 XN=0

| IW      | DELTA     | DELTA   | DELTA       | DELTA       | DELTA        | DELTA        | DELTA        | DELTA       | DELTA | DELTA   | DELTA  | DELTA |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |       |
| 2       | 0         | 0       | 196.8       | 40.56       | -659.        | 21.          | 6.           | 4.69        | 55.15 | 128.79  | 3630.  |       |
| 3       | 0         | 0       | 194.6       | -7.69       | -771.        | 22.          | 35.          | 4.61        | 54.88 | 128.47  | 12320. |       |
| 4       | -20.0     | 0       | -300.9      | 77.75       | -1374.       | 45.          | -127.        | 3.92        | 54.71 | 128.26  | 12300. |       |
| 5       | -15.0     | 0       | -235.1      | 31.00       | -1284.       | -66.         | 143.         | 7.68        | 54.97 | 128.57  | 12210. |       |
| 6       | -10.0     | 0       | -118.6      | -7.41       | -1402.       | 44.          | -21.         | 4.89        | 55.45 | 129.15  | 12280. |       |
| 7       | -5.0      | 0       | 37.1        | -12.75      | -1144.       | 38.          | -11.         | 3.45        | 55.26 | 128.91  | 12300. |       |
| 8       | -2.5      | 0       | 116.6       | -11.46      | -774.        | 33.          | 13.          | 3.06        | 55.24 | 128.89  | 12300. |       |
| 9       | 0         | 0       | 190.3       | -7.25       | -774.        | 20.          | 35.          | 4.31        | 55.27 | 128.93  | 12280. |       |
| 10      | 2.5       | 0       | 269.1       | -.58        | -570.        | 20.          | 48.          | 3.88        | 55.33 | 129.00  | 12260. |       |
| 11      | 5.0       | 0       | 344.9       | 8.61        | -356.        | 15.          | 62.          | 2.47        | 55.06 | 128.67  | 12240. |       |
| 12      | 10.0      | 0       | 490.4       | 32.79       | 119.         | -5.          | 87.          | .92         | 55.33 | 129.00  | 12240. |       |
| 13      | 15.0      | 0       | 619.6       | 63.83       | 662.         | 5.           | 100.         | 2.11        | 54.79 | 128.35  | 12290. |       |
| 14      | 20.0      | 0       | 586.1       | 125.94      | 877.         | 18.          | 54.          | 1.44        | 54.49 | 128.00  | 12280. |       |
| 15      | 0         | 0       | 190.9       | -7.13       | -775.        | 16.          | -29.         | 4.83        | 55.05 | 128.66  | 12260. |       |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | Cy    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .5319  | .1096  | -.2124 | .0013  | .0003  | .0127 |
| 3    | 0.00   | .5260  | -.0208 | -.2486 | .0013  | .0021  | .0125 |
| 4    | -20.00 | -.8133 | .2155  | -.4429 | .0027  | -.0077 | .0106 |
| 5    | -14.99 | -.6353 | .0838  | -.4138 | -.0040 | .0086  | .0208 |
| 6    | -10.00 | -.3205 | -.0200 | -.4519 | .0026  | -.0012 | .0132 |
| 7    | -5.00  | .1004  | -.0345 | -.3688 | .0023  | -.0007 | .0093 |
| 8    | -2.50  | .3151  | -.0310 | -.3139 | .0020  | .0008  | .0083 |
| 9    | 0.00   | .5144  | -.0196 | -.2494 | .0012  | .0021  | .0117 |
| 10   | 2.50   | .7272  | -.0016 | -.1838 | .0012  | .0029  | .0105 |
| 11   | 5.00   | .9321  | .0233  | -.1147 | .0009  | .0038  | .0067 |
| 12   | 10.00  | 1.3255 | .0886  | .0383  | -.0003 | .0053  | .0025 |
| 13   | 15.00  | 1.6746 | .1725  | .2135  | .0003  | .0060  | .0057 |
| 14   | 20.00  | 1.5841 | .3404  | .2826  | .0011  | .0032  | .0039 |
| 15   | 0.00   | .5160  | -.0193 | -.2499 | .0010  | .0018  | .0130 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .5319  | .1096  | -.2124 | .0013  | .0003  | .0127 |
| 3    | 0.00   | .5260  | -.0208 | -.2486 | .0013  | .0021  | .0125 |
| 4    | -20.00 | -.8133 | .2155  | -.4429 | .0027  | -.0077 | .0106 |
| 5    | -14.99 | -.6353 | .0838  | -.4138 | -.0040 | .0086  | .0208 |
| 6    | -10.00 | -.3205 | -.0200 | -.4519 | .0026  | -.0012 | .0132 |
| 7    | -5.00  | .1004  | -.0345 | -.3688 | .0023  | -.0007 | .0093 |
| 8    | -2.50  | .3151  | -.0310 | -.3139 | .0020  | .0008  | .0083 |
| 9    | 0.00   | .5144  | -.0196 | -.2494 | .0012  | .0021  | .0117 |
| 10   | 2.50   | .7272  | -.0016 | -.1838 | .0012  | .0029  | .0105 |
| 11   | 5.00   | .9321  | .0233  | -.1147 | .0009  | .0038  | .0067 |
| 12   | 10.00  | 1.3255 | .0886  | .0383  | -.0003 | .0053  | .0025 |
| 13   | 15.00  | 1.6746 | .1725  | .2135  | .0003  | .0060  | .0057 |
| 14   | 20.00  | 1.5841 | .3404  | .2826  | .0011  | .0032  | .0039 |
| 15   | 0.00   | .5160  | -.0193 | -.2499 | .0010  | .0018  | .0130 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011  
P 544

RUN 673 CONFIG F P B NP5 W7 T10 BT IN=3.5 XN=0

| IW      | O DELF    | O DELA  | O IHT       | O DELE      | O DELR        | O DELSB     | O             | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 8       | 0         | 0       | 70.9        | 31.86       | 59.           | 39.         | -8.           | 6.39        | 55.48 | 129.18  | 3550.  |
| 9       | 0         | 0       | 70.6        | -6.80       | -53.          | -38.        | 11.           | 5.48        | 55.34 | 129.01  | 11240. |
| 10      | 20.0      | 0       | 396.7       | 112.80      | 648.          | -79.        | -154.         | 5.66        | 54.78 | 128.34  | 11250. |
| 11      | 15.0      | 0       | 345.2       | 56.70       | 654.          | -181.       | 293.          | 11.49       | 55.14 | 128.77  | 11260. |
| 12      | 10.0      | 0       | 246.7       | 12.66       | -43.          | -22.        | -11.          | 6.15        | 54.85 | 128.42  | 11270. |
| 13      | 5.0       | 0       | -88.4       | -3.40       | -269.         | -53.        | 10.           | 4.63        | 55.17 | 128.81  | 11220. |
| 14      | -2.5      | 0       | -8.2        | -6.49       | -123.         | -41.        | 44.           | 6.11        | 55.21 | 128.86  | 11260. |
| 15      | 0         | 0       | 69.2        | -6.49       | -63.          | -39.        | 27.           | 6.53        | 55.33 | 129.00  | 11220. |
| 16      | 2.5       | 0       | 146.7       | -4.07       | -40.          | -30.        | 66.           | 3.93        | 55.42 | 129.10  | 11250. |
| 17      | 5.0       | 0       | 226.5       | 2.28        | 9.            | -26.        | 84.           | 3.38        | 55.45 | 129.14  | 11190. |
| 18      | 10.0      | 0       | 378.2       | 22.77       | -5.           | -46.        | 102.          | 4.61        | 55.42 | 129.10  | 11250. |
| 19      | 15.0      | 0       | 509.6       | 57.97       | -213.         | -38.        | 192.          | 2.65        | 55.30 | 128.96  | 11220. |
| 20      | 20.0      | 0       | 552.6       | 114.45      | -512.         | 29.         | 159.          | 2.29        | 54.92 | 128.50  | 11230. |
| 21      | 0         | 0       | 67.9        | -6.49       | -56.          | -43.        | 45.           | 6.14        | 55.47 | 129.16  | 11210. |
| 22      | -15.0     | 0       | 366.2       | 45.82       | 681.          | -72.        | -39.          | 10.27       | 55.38 | 129.05  | 11280. |
| 23      | -17.5     | 0       | 366.5       | 86.12       | 693.          | -46.        | -227.         | 7.31        | 54.99 | 128.58  | 11210. |
| 24      | -15.0     | 0       | 345.1       | 57.44       | 673.          | -186.       | 223.          | 10.90       | 55.33 | 128.99  | 11190. |
| 25      | -12.5     | 0       | 310.7       | 31.06       | 403.          | -41.        | 17.           | 8.99        | 55.32 | 128.97  | 11240. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 8    | 00     | .1916   | .0861  | .0189  | -.0024 | -.0005 | .0173 |
| 9    | 00     | .1909   | -.0184 | -.0171 | -.0023 | .0006  | .0148 |
| 10   | -20.01 | -1.0720 | .3049  | .2089  | -.0048 | -.0093 | .0153 |
| 11   | -15.00 | -.9331  | .1532  | .2107  | -.0109 | .0177  | .0311 |
| 12   | -10.00 | -.6667  | .0342  | -.0140 | -.0013 | -.0007 | .0166 |
| 13   | -5.00  | -.2390  | -.0092 | -.0868 | -.0032 | .0006  | .0125 |
| 14   | -2.50  | -.0221  | -.0175 | -.0396 | -.0025 | .0027  | .0165 |
| 15   | 01     | .1870   | -.0175 | -.0203 | -.0023 | .0016  | .0176 |
| 16   | 2.49   | .3964   | -.0110 | -.0128 | -.0018 | .0040  | .0106 |
| 17   | 5.00   | .6121   | .0062  | .0027  | -.0016 | .0051  | .0091 |
| 18   | 10.00  | 1.0221  | .0615  | -.0015 | -.0028 | .0062  | .0125 |
| 19   | 14.99  | 1.3773  | .1567  | -.0686 | -.0023 | .0116  | .0072 |
| 20   | 20.00  | 1.4934  | .3093  | -.1651 | .0018  | .0096  | .0062 |
| 21   | 00     | .1835   | -.0175 | -.0180 | -.0026 | .0027  | .0166 |
| 22   | -15.00 | -.9896  | .1238  | .2194  | -.0043 | -.0023 | .0278 |
| 23   | -17.50 | -.9905  | .2327  | .2233  | -.0028 | -.0137 | .0198 |
| 24   | -15.00 | -.9328  | .1552  | .2170  | -.0112 | .0134  | .0294 |
| 25   | -12.50 | -.8396  | .0839  | .1301  | -.0025 | .0011  | .0243 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 8    | 00     | .1916   | .0861  | .0189  | -.0024 | -.0005 | .0173 |
| 9    | 00     | .1909   | -.0184 | -.0171 | -.0023 | .0006  | .0148 |
| 10   | -20.01 | -1.0720 | .3049  | .2089  | -.0048 | -.0093 | .0153 |
| 11   | -15.00 | -.9331  | .1532  | .2107  | -.0109 | .0177  | .0311 |
| 12   | -10.00 | -.6667  | .0342  | -.0140 | -.0013 | -.0007 | .0166 |
| 13   | -5.00  | -.2390  | -.0092 | -.0868 | -.0032 | .0006  | .0125 |
| 14   | -2.50  | -.0221  | -.0175 | -.0396 | -.0025 | .0027  | .0165 |
| 15   | 01     | .1870   | -.0175 | -.0203 | -.0023 | .0016  | .0176 |
| 16   | 2.49   | .3964   | -.0110 | -.0128 | -.0018 | .0040  | .0106 |
| 17   | 5.00   | .6121   | .0062  | .0027  | -.0016 | .0051  | .0091 |
| 18   | 10.00  | 1.0221  | .0615  | -.0015 | -.0028 | .0062  | .0125 |
| 19   | 14.99  | 1.3773  | .1567  | -.0686 | -.0023 | .0116  | .0072 |
| 20   | 20.00  | 1.4934  | .3093  | -.1651 | .0018  | .0096  | .0062 |
| 21   | 00     | .1835   | -.0175 | -.0180 | -.0026 | .0027  | .0166 |
| 22   | -15.00 | -.9896  | .1238  | .2194  | -.0043 | -.0023 | .0278 |
| 23   | -17.50 | -.9905  | .2327  | .2233  | -.0028 | -.0137 | .0198 |
| 24   | -15.00 | -.9328  | .1552  | .2170  | -.0112 | .0134  | .0294 |
| 25   | -12.50 | -.8396  | .0839  | .1301  | -.0025 | .0011  | .0243 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 545

RUN 674 CONFIG F P 8 NP5 T2

IN=-3.5

XN=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM    |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------|--------|
| 7       | 0         | 0             | -19.0       | 23.54       | -278.        | 12.          | 29.          | 4.98        | 55.42       | 129.10  | 3480.  |
| 9       | -20.0     | 0             | -143.1      | 40.23       | -1265.       | 31.          | 29.          | 2.78        | 55.08       | 128.69  | 10120. |
| 10      | -15.0     | 0             | -117.0      | 23.86       | -1066.       | 36.          | 29.          | 3.09        | 55.11       | 128.73  | 10060. |
| 11      | -10.0     | 0             | -96.7       | 3.68        | -1008.       | 40.          | 14.          | 1.93        | 54.67       | 128.20  | 10120. |
| 12      | -5.0      | 0             | -68.4       | -3.21       | -710.        | 13.          | 31.          | 2.68        | 54.62       | 128.15  | 10140. |
| 13      | -2.5      | 0             | -48.5       | -5.77       | -519.        | 10.          | 29.          | 4.08        | 55.10       | 128.71  | 10150. |
| 14      | 0         | 0             | -28.4       | -7.01       | -346.        | 5.           | 30.          | 4.04        | 54.78       | 128.34  | 10140. |
| 15      | 2.5       | 0             | -7.4        | -7.82       | -166.        | 6.           | 31.          | 4.00        | 54.56       | 128.08  | 10160. |
| 16      | 5.0       | 0             | 13.6        | -7.28       | 13.          | 1.           | 15.          | 3.18        | 54.66       | 128.20  | 10160. |
| 17      | 10.0      | 0             | 57.0        | -3.09       | 374.         | -8.          | 32.          | 5.06        | 55.17       | 128.80  | 10100. |
| 18      | 15.1      | 0             | 100.5       | 4.89        | 748.         | -9.          | 52.          | 4.02        | 55.02       | 128.62  | 10060. |
| 19      | 20.0      | 0             | 140.2       | 16.79       | 1103.        | -15.         | 36.          | 5.47        | 55.42       | 129.10  | 10130. |
| 20      | 0         | 0             | -26.7       | -6.57       | -336.        | -3.          | 48.          | 3.95        | 55.16       | 128.79  | 10010. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPH    | CYH    | CRM   | CY    |
|------|--------|--------|--------|--------|--------|-------|-------|
| 7    | 0.00   | -.0512 | .0636  | -.0896 | .0007  | .0017 | .0135 |
| 9    | -20.00 | -.3867 | .1087  | -.4079 | .0019  | .0017 | .0075 |
| 10   | -14.97 | -.3162 | .0645  | -.3437 | .0022  | .0017 | .0084 |
| 11   | -9.98  | -.2614 | .0099  | -.3251 | .0024  | .0009 | .0052 |
| 12   | -5.00  | -.1848 | -.0087 | -.2288 | .0008  | .0019 | .0072 |
| 13   | -2.50  | -.1311 | -.0156 | -.1675 | .0006  | .0018 | .0110 |
| 14   | .01    | -.0769 | -.0189 | -.1115 | .0003  | .0018 | .0109 |
| 15   | 2.50   | -.0199 | -.0211 | -.0537 | .0004  | .0019 | .0108 |
| 16   | 5.00   | .0368  | -.0197 | .0043  | .0001  | .0009 | .0086 |
| 17   | 10.00  | .1540  | -.0084 | .1204  | -.0005 | .0019 | .0137 |
| 18   | 15.07  | .2715  | .0132  | .2411  | -.0005 | .0031 | .0109 |
| 19   | 20.00  | .3789  | .0454  | .3556  | -.0009 | .0022 | .0148 |
| 20   | .00    | -.0723 | -.0178 | -.1084 | -.0002 | .0029 | .0107 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|--------|--------|--------|--------|-------|-------|
| 7    | 0.00   | -.0512 | .0636  | -.0896 | .0007  | .0017 | .0135 |
| 9    | -20.00 | -.3867 | .1087  | -.4079 | .0019  | .0017 | .0075 |
| 10   | -14.97 | -.3162 | .0645  | -.3437 | .0022  | .0017 | .0084 |
| 11   | -9.98  | -.2614 | .0099  | -.3251 | .0024  | .0009 | .0052 |
| 12   | -5.00  | -.1848 | -.0087 | -.2288 | .0008  | .0019 | .0072 |
| 13   | -2.50  | -.1311 | -.0156 | -.1675 | .0006  | .0018 | .0110 |
| 14   | .01    | -.0769 | -.0189 | -.1115 | .0003  | .0018 | .0109 |
| 15   | 2.50   | -.0199 | -.0211 | -.0537 | .0004  | .0019 | .0108 |
| 16   | 5.00   | .0368  | -.0197 | .0043  | .0001  | .0009 | .0086 |
| 17   | 10.00  | .1540  | -.0084 | .1204  | -.0005 | .0019 | .0137 |
| 18   | 15.07  | .2715  | .0132  | .2411  | -.0005 | .0031 | .0109 |
| 19   | 20.00  | .3789  | .0454  | .3556  | -.0009 | .0022 | .0148 |
| 20   | .00    | -.0723 | -.0178 | -.1084 | -.0002 | .0029 | .0107 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 546

RUN 675 CONFIG F P B NPS T2 IN=3.5

| PT. NO. | IW | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CU-FT | DELE CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPI |
|---------|----|-----------|---------------|-------------------|-------------------|-----------|-------------------|--------------------|-------------------|-------------|---------|-----|
| 6       | 0  | 0         | 0             | -18.6             | 23.53             | -276.     | 2.                | -6.                | 4.47              | 54.84       | 128.41  | 34  |
| 7       | 0  | 0         | 0             | -28.1             | -9.41             | -342.     | 8.                | 11.                | 4.91              | 54.86       | 128.43  | 105 |
| 8       | 0  | -20.0     | 0             | -9.6              | 21.86             | -309.     | -672.             | 18.                | -106.85           | 55.25       | 128.90  | 104 |
| 9       | 0  | -15.0     | 0             | -16.6             | 7.40              | -330.     | -535.             | 19.                | -79.87            | 54.93       | 128.52  | 105 |
| 10      | 0  | -10.0     | 0             | -21.2             | -2.54             | -344.     | -375.             | 19.                | -52.53            | 54.67       | 128.21  | 104 |
| 11      | 0  | 5.0       | 0             | -25.3             | -8.18             | -369.     | -191.             | -18.               | -24.31            | 55.07       | 128.69  | 105 |
| 12      | 0  | -2.5      | 0             | -27.2             | -8.97             | -358.     | -92.              | -5.                | -9.90             | 55.03       | 128.63  | 104 |
| 13      | 0  | 0         | 0             | -28.6             | -9.10             | -369.     | 16.               | 10.                | 5.67              | 55.24       | 128.88  | 104 |
| 14      | 0  | 2.5       | 0             | -28.2             | -8.24             | -362.     | 116.              | 50.                | 19.38             | 55.36       | 129.03  | 104 |
| 15      | 0  | 5.0       | 0             | -28.5             | -6.89             | -358.     | 218.              | 22.                | 33.14             | 55.40       | 129.07  | 105 |
| 16      | 0  | 10.0      | 0             | -28.3             | -2.30             | -331.     | 427.              | 50.                | 59.36             | 55.66       | 129.39  | 105 |
| 17      | 0  | 15.0      | 0             | -21.9             | 6.08              | -309.     | 600.              | 58.                | 82.25             | 55.54       | 129.24  | 104 |
| 18      | 0  | 20.0      | 0             | -12.6             | 18.69             | -302.     | 772.              | 56.                | 107.21            | 54.84       | 128.41  | 105 |
| 19      | 0  | 0         | 0             | -27.4             | -9.20             | -329.     | 13.               | 10.                | 6.09              | 55.33       | 128.99  | 104 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | 0.00   | -.0502 | .0636  | -.0890 | .0001  | -.0003 | .0121  |
| 7    | 0.00   | -.0759 | -.0254 | -.1103 | .0005  | .0007  | .0133  |
| 8    | -20.00 | -.0259 | .0591  | -.0995 | -.0406 | .0011  | -.2888 |
| 9    | -15.00 | -.0449 | .0200  | -.1063 | -.0323 | .0011  | -.2159 |
| 10   | -10.00 | -.0574 | -.0069 | -.1109 | -.0227 | .0012  | -.1420 |
| 11   | -5.00  | -.0683 | -.0221 | -.1188 | -.0115 | -.0011 | -.0657 |
| 12   | -2.50  | -.0735 | -.0242 | -.1155 | -.0056 | -.0003 | -.0268 |
| 13   | 0.00   | -.0773 | -.0246 | -.1191 | .0010  | .0006  | .0153  |
| 14   | 2.50   | -.0762 | -.0223 | -.1168 | .0070  | .0030  | .0524  |
| 15   | 5.00   | -.0771 | -.0186 | -.1153 | .0132  | .0014  | .0896  |
| 16   | 10.00  | -.0765 | -.0062 | -.1066 | .0258  | .0030  | .1604  |
| 17   | 15.00  | -.0591 | .0164  | -.0995 | .0363  | .0035  | .2223  |
| 18   | 20.00  | -.0340 | .0505  | -.0973 | .0467  | .0034  | .2898  |
| 19   | 0.00   | -.0740 | -.0249 | -.1060 | .0008  | .0006  | .0165  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDP    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | 0.00   | -.0502 | .0636  | -.0890 | .0001  | -.0003 | .0121  |
| 7    | 0.00   | -.0759 | -.0254 | -.1103 | .0005  | .0007  | .0133  |
| 8    | -20.00 | -.0259 | -.0437 | -.0954 | -.0406 | .0074  | -.2915 |
| 9    | -15.00 | -.0449 | -.0368 | -.1042 | -.0323 | .0063  | -.2136 |
| 10   | -10.00 | -.0574 | -.0315 | -.1103 | -.0227 | .0048  | -.1386 |
| 11   | -5.00  | -.0683 | -.0278 | -.1179 | -.0115 | .0008  | -.0635 |
| 12   | -2.50  | -.0735 | -.0254 | -.1154 | -.0056 | .0006  | -.0257 |
| 13   | 0.00   | -.0773 | -.0246 | -.1191 | .0010  | .0006  | .0153  |
| 14   | 2.50   | -.0762 | -.0245 | -.1160 | .0070  | .0020  | .0514  |
| 15   | 5.00   | -.0771 | -.0264 | -.1142 | .0132  | -.0005 | .0876  |
| 16   | 10.00  | -.0765 | -.0341 | -.1021 | .0258  | -.0005 | .1569  |
| 17   | 15.00  | -.0591 | -.0419 | -.0913 | .0363  | -.0015 | .2189  |
| 18   | 20.00  | -.0340 | -.0521 | -.0851 | .0467  | -.0031 | .2895  |
| 19   | 0.00   | -.0740 | -.0249 | -.1060 | .0008  | .0006  | .0165  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P547

RUN 676 CONFIG F P B NP5 W7 T38 BT IN=3.5

| PT. NO. | ALPHA DEG | DELTA PSI DEG | O.0 DELA CLBAR SQ-FT | O.0 IHT COBAR SQ-FT | O.0 DELE CPMBAR CU-FT | O.0 DELR CRMBAR CU-FT | O.0 DELSB CYBAR SQ-FT | O.0 DELSB Q PSF | O.0 V KNOTS | RPM    |        |
|---------|-----------|---------------|----------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------|-------------|--------|--------|
| 6       | 0         | 0             | 76.7                 | 31.75               | -7.                   | -48.                  | 10.                   | 6.51            | 54.41       | 127.90 | 3530.  |
| 7       | 0         | 0             | 73.3                 | -5.19               | -112.                 | -54.                  | 29.                   | 5.01            | 54.45       | 127.95 | 10850. |
| 8       | -20.0     | 0             | -389.5               | 119.83              | 372.                  | -131.                 | -246.                 | 7.39            | 54.87       | 128.44 | 10950. |
| 9       | -15.0     | 0             | -370.2               | 48.12               | 777.                  | -105.                 | 13.                   | 11.02           | 54.69       | 128.24 | 10860. |
| 10      | -10.0     | 0             | -250.2               | 15.83               | 257.                  | -54.                  | 3.                    | 8.13            | 55.32       | 128.99 | 10870. |
| 11      | -5.0      | 0             | -88.0                | -3.26               | 141.                  | -53.                  | 22.                   | 8.59            | 53.91       | 127.30 | 10900. |
| 12      | -2.5      | 0             | -5.3                 | -6.20               | -107.                 | -52.                  | 47.                   | 4.65            | 54.24       | 127.70 | 10980. |
| 13      | 0         | 0             | 74.2                 | -5.64               | -102.                 | -55.                  | 66.                   | 4.24            | 54.63       | 128.16 | 10920. |
| 14      | 2.5       | 0             | 153.1                | -2.82               | -88.                  | -44.                  | 67.                   | 3.57            | 54.35       | 127.83 | 10890. |
| 15      | 5.0       | 0             | 232.6                | 3.88                | -51.                  | -45.                  | 86.                   | 1.92            | 54.87       | 128.45 | 10920. |
| 16      | 10.0      | 0             | 386.1                | 25.01               | -41.                  | -79.                  | 86.                   | 4.43            | 54.57       | 128.09 | 10890. |
| 17      | 15.0      | 0             | 519.4                | 62.22               | -327.                 | -56.                  | 123.                  | 3.12            | 54.64       | 128.18 | 10860. |
| 18      | 20.0      | 0             | 547.4                | 119.91              | -380.                 | -35.                  | 88.                   | 2.04            | 55.01       | 128.61 | 10850. |
| 19      | 0         | 0             | 73.8                 | -4.74               | -93.                  | -57.                  | 83.                   | 4.27            | 55.02       | 128.63 | 10810. |
| 20      | 5.0       | 0             | 233.6                | 5.00                | -53.                  | -50.                  | 86.                   | 2.54            | 54.95       | 128.54 | 10870. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | 0.00   | .2072   | .0858  | -.0021 | -.0029 | .0006  | .0176 |
| 7    | 0.00   | .1980   | -.0140 | -.0362 | -.0032 | .0018  | .0135 |
| 8    | -20.00 | -1.0527 | .3239  | .1199  | -.0079 | -.0149 | .0200 |
| 9    | -15.01 | -1.0005 | .1301  | .2506  | -.0064 | .0008  | .0298 |
| 10   | -9.98  | -.6762  | .0428  | .0830  | -.0033 | .0002  | .0220 |
| 11   | -5.02  | -.2379  | -.0088 | -.0454 | -.0032 | .0014  | .0232 |
| 12   | -2.50  | -.0143  | -.0168 | -.0345 | -.0031 | .0028  | .0126 |
| 13   | 0.00   | .2005   | -.0152 | -.0328 | -.0033 | .0040  | .0115 |
| 14   | 2.49   | .4138   | -.0076 | -.0284 | -.0027 | .0041  | .0097 |
| 15   | 4.99   | .6286   | .0105  | -.0165 | -.0027 | .0052  | .0052 |
| 16   | 10.00  | 1.0436  | .0676  | -.0133 | -.0048 | .0052  | .0120 |
| 17   | 15.00  | 1.4037  | .1682  | -.1053 | -.0034 | .0075  | .0084 |
| 18   | 20.00  | 1.4795  | .3241  | -.1225 | -.0021 | .0053  | .0055 |
| 19   | 0.00   | .1994   | -.0128 | -.0299 | -.0034 | .0050  | .0115 |
| 20   | 5.01   | .6314   | .0135  | -.0172 | -.0030 | .0052  | .0069 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | COB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | 0.00   | .2072   | .0858  | -.0021 | -.0029 | .0006  | .0176 |
| 7    | 0.00   | .1980   | -.0140 | -.0362 | -.0032 | .0018  | .0135 |
| 8    | -20.00 | -1.0527 | .3239  | .1199  | -.0079 | -.0149 | .0200 |
| 9    | -15.01 | -1.0005 | .1301  | .2506  | -.0064 | .0008  | .0298 |
| 10   | -9.98  | -.6762  | .0428  | .0830  | -.0033 | .0002  | .0220 |
| 11   | -5.02  | -.2379  | -.0088 | -.0454 | -.0032 | .0014  | .0232 |
| 12   | -2.50  | -.0143  | -.0168 | -.0345 | -.0031 | .0028  | .0126 |
| 13   | 0.00   | .2005   | -.0152 | -.0328 | -.0033 | .0040  | .0115 |
| 14   | 2.49   | .4138   | -.0076 | -.0284 | -.0027 | .0041  | .0097 |
| 15   | 4.99   | .6286   | .0105  | -.0165 | -.0027 | .0052  | .0052 |
| 16   | 10.00  | 1.0436  | .0676  | -.0133 | -.0048 | .0052  | .0120 |
| 17   | 15.00  | 1.4037  | .1682  | -.1053 | -.0034 | .0075  | .0084 |
| 18   | 20.00  | 1.4795  | .3241  | -.1225 | -.0021 | .0053  | .0055 |
| 19   | 0.00   | .1994   | -.0128 | -.0299 | -.0034 | .0050  | .0115 |
| 20   | 5.01   | .6314   | .0135  | -.0172 | -.0030 | .0052  | .0069 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 548

RUN 677 CONFIG F P B NPS W7 T38 BT IN=3.5 N=23K Q=40

| IW      | Q.O DELF  | Q.O DELA | Q.O IHT     | Q.O DELE    | Q.O DELR      | Q.O DELSB   | Q.O           | RPM         |       |         |        |
|---------|-----------|----------|-------------|-------------|---------------|-------------|---------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 2       | 0         | 0        | 78.2        | 32.29       | 15.           | 51.         | 66.           | 6.03        | 39.57 | 108.82  | 3040.  |
| 3       | 0         | 0        | 63.5        | -216.50     | -496.         | -72.        | 123.          | 1.34        | 39.62 | 108.89  | 22860. |
| 4       | -20.0     | 0        | -582.8      | -58.48      | 1253.         | 48.         | -125.         | 1.54        | 39.89 | 109.26  | 22970. |
| 5       | -15.0     | 0        | -479.8      | -132.15     | 399.          | 7.          | 265.          | .60         | 39.97 | 109.37  | 22920. |
| 6       | -10.0     | 0        | -313.8      | -193.18     | -569.         | -24.        | 70.           | 1.88        | 39.77 | 109.10  | 22990. |
| 7       | -5.0      | 0        | -121.9      | -211.67     | -565.         | -47.        | 119.          | 1.71        | 39.90 | 109.28  | 23020. |
| 8       | -2.5      | 0        | -27.9       | -215.45     | -535.         | -48.        | 143.          | 2.48        | 39.80 | 109.14  | 22970. |
| 9       | 0         | 0        | 65.3        | -216.39     | -504.         | -59.        | 191.          | 1.95        | 40.14 | 109.61  | 22990. |
| 10      | 2.5       | 0        | 157.7       | -216.39     | -424.         | -74.        | 219.          | 1.26        | 39.81 | 109.16  | 23000. |
| 11      | 5.0       | 0        | 246.9       | -212.66     | -325.         | -107.       | 196.          | 1.60        | 39.70 | 109.00  | 22940. |
| 12      | 10.0      | 0        | 421.2       | -193.54     | -246.         | -166.       | 245.          | -1.63       | 39.72 | 109.03  | 22990. |
| 13      | 15.0      | 0        | 572.1       | -154.31     | -466.         | -133.       | 268.          | -4.36       | 39.84 | 109.20  | 23010. |
| 14      | 20.0      | 0        | 635.5       | -89.93      | -446.         | -147.       | 194.          | -2.99       | 39.92 | 109.30  | 22960. |
| 15      | 0         | 0        | 63.5        | -223.52     | -525.         | -83.        | 169.          | 1.81        | 39.49 | 108.71  | 23020. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .2113   | .0873  | -.0049 | -.0031 | .0040  | .0163  |
| 3    | 0.00   | .1716   | -.5851 | -.1599 | -.0044 | .0074  | -.0009 |
| 4    | -20.00 | -1.5752 | -.1580 | .4041  | .0029  | -.0075 | .0042  |
| 5    | -15.00 | -1.2967 | -.3572 | .1286  | .0004  | .0160  | .0016  |
| 6    | -9.98  | -.8481  | -.5221 | -.1835 | -.0015 | .0042  | .0051  |
| 7    | -4.96  | -.3295  | -.5721 | -.1820 | -.0029 | .0072  | .0046  |
| 8    | -2.48  | -.0754  | -.5823 | -.1725 | -.0029 | .0086  | .0067  |
| 9    | .02    | .1765   | -.5848 | -.1623 | -.0036 | .0115  | .0053  |
| 10   | 2.52   | .4262   | -.5848 | -.1366 | -.0044 | .0132  | -.0007 |
| 11   | 5.00   | .6674   | -.5747 | -.1049 | -.0064 | .0118  | -.0016 |
| 12   | 10.00  | 1.1383  | -.5231 | -.0793 | -.0100 | .0148  | -.0044 |
| 13   | 15.00  | 1.5461  | -.4170 | -.1501 | -.0080 | .0162  | -.0118 |
| 14   | 20.02  | 1.7175  | -.2431 | -.1438 | -.0089 | .0117  | -.0081 |
| 15   | .01    | .1716   | -.6041 | -.1691 | -.0050 | .0102  | .0049  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .2113   | .0873  | -.0049 | -.0031 | .0040  | .0163  |
| 3    | 0.00   | .1716   | -.5851 | -.1599 | -.0044 | .0074  | -.0009 |
| 4    | -20.00 | -1.5752 | -.1580 | .4041  | .0029  | -.0075 | .0042  |
| 5    | -15.00 | -1.2967 | -.3572 | .1286  | .0004  | .0160  | .0016  |
| 6    | -9.98  | -.8481  | -.5221 | -.1835 | -.0015 | .0042  | .0051  |
| 7    | -4.96  | -.3295  | -.5721 | -.1820 | -.0029 | .0072  | .0046  |
| 8    | -2.48  | -.0754  | -.5823 | -.1725 | -.0029 | .0086  | .0067  |
| 9    | .02    | .1765   | -.5848 | -.1623 | -.0036 | .0115  | .0053  |
| 10   | 2.52   | .4262   | -.5848 | -.1366 | -.0044 | .0132  | -.0007 |
| 11   | 5.00   | .6674   | -.5747 | -.1049 | -.0064 | .0118  | -.0016 |
| 12   | 10.00  | 1.1383  | -.5231 | -.0793 | -.0100 | .0148  | -.0044 |
| 13   | 15.00  | 1.5461  | -.4170 | -.1501 | -.0080 | .0162  | -.0118 |
| 14   | 20.02  | 1.7175  | -.2431 | -.1438 | -.0089 | .0117  | -.0081 |
| 15   | .01    | .1716   | -.6041 | -.1691 | -.0050 | .0102  | .0049  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 549

RUN 678 CONFIG F P B NPS W7 T38 BT IN=3.5 N=23K Q=40

| PT. NO. | 0.0 DELF ALPHA DEG | 0.0 DELF PSI DEG | 0.0 DELA CLBAR SQ-FT | 0.0 DELA CDBAR SQ-FT | 0.0 IHT CPMBAR CU-FT | 0.0 DELE CYMBAR CU-FT | 0.0 DELR CRMBAR CU-FT | 0.0 DELR CYBAR SQ-FT | 0.0 DELSB Q PSF | 0.0 V KNOTS | RPM    |
|---------|--------------------|------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|----------------------|-----------------|-------------|--------|
| 5       | 0                  | 0                | 76.9                 | 32.04                | 2.                   | -54.                  | 40.                   | 6.00                 | 40.29           | 109.81      | 3050.  |
| 6       | 0                  | 0                | 61.7                 | -226.94              | -470.                | -46.                  | 91.                   | 3.70                 | 40.55           | 110.18      | 22990. |
| 7       | -10.0              | 0                | -316.7               | -192.16              | -538.                | -39.                  | 63.                   | 5.16                 | 40.26           | 109.78      | 23050. |
| 8       | -5.0               | 0                | -124.2               | -207.13              | -531.                | -52.                  | 90.                   | 3.61                 | 40.63           | 110.28      | 23020. |
| 9       | 0                  | 0                | 63.0                 | -221.49              | -458.                | -45.                  | 120.                  | 1.81                 | 39.52           | 108.75      | 23040. |
| 10      | 5.0                | 0                | 244.7                | -212.95              | -255.                | -80.                  | 222.                  | -0.78                | 39.46           | 108.66      | 23040. |
| 11      | 10.0               | 0                | 419.4                | -188.66              | -171.                | -118.                 | 270.                  | -2.83                | 39.70           | 109.00      | 23060. |
| 12      | 0                  | 0                | 64.4                 | -215.15              | -449.                | -61.                  | 193.                  | 1.11                 | 39.97           | 109.37      | 22950. |
| 13      | 10.0               | 0                | 418.1                | -187.30              | -178.                | -152.                 | 267.                  | 0.26                 | 39.92           | 109.31      | 23030. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 5    | 0.00   | .2079  | .0866  | .0005  | -.0033 | .0024 | .0162  |
| 6    | 0.00   | .1667  | -.6134 | -.1514 | -.0028 | .0055 | .0100  |
| 7    | -10.00 | -.8559 | -.5194 | -.1734 | -.0024 | .0038 | .0139  |
| 8    | -4.99  | -.3357 | -.5598 | -.1712 | -.0031 | .0054 | .0097  |
| 9    | 0.00   | .1703  | -.5986 | -.1477 | -.0027 | .0073 | .0049  |
| 10   | 4.99   | .6613  | -.5755 | -.0821 | -.0049 | .0134 | -.0021 |
| 11   | 10.01  | 1.1335 | -.5099 | -.0553 | -.0071 | .0163 | -.0077 |
| 12   | 0.00   | .1741  | -.5815 | -.1448 | -.0037 | .0116 | .0030  |
| 13   | 10.00  | 1.1301 | -.5062 | -.0575 | -.0092 | .0161 | .0007  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 5    | 0.00   | .2079  | .0866  | .0005  | -.0033 | .0024 | .0162  |
| 6    | 0.00   | .1667  | -.6134 | -.1514 | -.0028 | .0055 | .0100  |
| 7    | -10.00 | -.8559 | -.5194 | -.1734 | -.0024 | .0038 | .0139  |
| 8    | -4.99  | -.3357 | -.5598 | -.1712 | -.0031 | .0054 | .0097  |
| 9    | 0.00   | .1703  | -.5986 | -.1477 | -.0027 | .0073 | .0049  |
| 10   | 4.99   | .6613  | -.5755 | -.0821 | -.0049 | .0134 | -.0021 |
| 11   | 10.01  | 1.1335 | -.5099 | -.0553 | -.0071 | .0163 | -.0077 |
| 12   | 0.00   | .1741  | -.5815 | -.1448 | -.0037 | .0116 | .0030  |
| 13   | 10.00  | 1.1301 | -.5062 | -.0575 | -.0092 | .0161 | .0007  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 550

RUN 679 CONFIG F P B NPS W7 T39 BT IN=3.5

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CU-FT | DELE CU-FT | DELR CU-FT | DELSB SQ-FT | DELSB PSF | DELSB Q | V KNOTS | RPM    |
|---------|-----------|---------------|-------------------|-------------------|-----------|------------|------------|-------------|-----------|---------|---------|--------|
| 5       | 0         | 0             | 75.9              | 32.81             | 191.      | -67.       | 45.        | 6.56        | 54.52     | 128.04  |         | 3530.  |
| 6       | 0         | 0             | 70.1              | .24               | 83.       | -67.       | 29.        | 4.66        | 54.82     | 128.40  |         | 10230. |
| 7       | -20.0     | 0             | -402.0            | 127.57            | 929.      | -155.      | -201.      | 10.23       | 54.60     | 128.13  |         | 10390. |
| 8       | -15.0     | 0             | -351.8            | 65.98             | 1279.     | -236.      | 253.       | 13.19       | 55.26     | 128.91  |         | 10370. |
| 9       | -10.0     | 0             | -263.7            | 21.39             | 789.      | -63.       | 20.        | 8.66        | 54.29     | 127.76  |         | 10320. |
| 10      | -5.0      | 0             | -96.4             | 2.37              | 263.      | -82.       | -12.       | 7.68        | 54.54     | 128.06  |         | 10310. |
| 11      | -2.5      | 0             | -11.1             | -.57              | 181.      | -75.       | 44.        | 6.43        | 54.55     | 128.07  |         | 10350. |
| 12      | 0         | 0             | 69.7              | -.69              | 93.       | -57.       | 63.        | 6.44        | 54.46     | 127.97  |         | 10350. |
| 13      | 2.5       | 0             | 151.9             | 2.31              | 30.       | -48.       | 66.        | 4.22        | 54.85     | 128.43  |         | 10340. |
| 14      | 5.0       | 0             | 232.4             | 9.00              | -10.      | -45.       | 50.        | 3.80        | 54.69     | 128.24  |         | 10360. |
| 15      | 10.0      | 0             | 389.1             | 30.48             | -72.      | -75.       | 104.       | 5.12        | 54.57     | 128.09  |         | 10310. |
| 16      | 15.0      | 0             | 517.3             | 66.43             | -305.     | -46.       | 105.       | 3.41        | 54.92     | 128.52  |         | 10310. |
| 17      | 20.0      | 0             | 549.2             | 124.35            | -246.     | -57.       | 107.       | 3.06        | 54.59     | 128.11  |         | 10300. |
| 18      | -0        | 0             | 69.2              | -.58              | 98.       | -71.       | 28.        | 5.91        | 54.79     | 128.36  |         | 10320. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | 0.00   | .2051   | .0887  | .0615  | -.0040 | .0027  | .0177 |
| 6    | 0.00   | .1894   | .0007  | .0267  | -.0041 | .0018  | .0126 |
| 7    | -20.00 | -1.0865 | .3448  | .2995  | -.0093 | -.0121 | .0277 |
| 8    | -14.98 | -.9509  | .1783  | .4124  | -.0142 | .0153  | .0357 |
| 9    | -10.00 | -.7127  | .0578  | .2544  | -.0038 | .0012  | .0234 |
| 10   | -5.01  | -.2606  | .0064  | .0848  | -.0050 | -.0007 | .0208 |
| 11   | -2.51  | -.0300  | -.0015 | .0585  | -.0046 | .0027  | .0174 |
| 12   | 0.00   | .1884   | -.0019 | .0299  | -.0035 | .0038  | .0174 |
| 13   | 2.52   | .4106   | .0062  | .0097  | -.0029 | .0040  | .0114 |
| 14   | 4.99   | .6282   | .0243  | -.0033 | -.0027 | .0030  | .0103 |
| 15   | 9.99   | 1.0515  | .0824  | -.0232 | -.0045 | .0063  | .0138 |
| 16   | 15.01  | 1.3982  | .1795  | -.0985 | -.0028 | .0064  | .0092 |
| 17   | 19.99  | 1.4843  | .3361  | -.0793 | -.0035 | .0065  | .0083 |
| 18   | -0.00  | .1870   | -.0016 | .0317  | -.0043 | .0017  | .0160 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | 0.00   | .2051   | .0887  | .0615  | -.0040 | .0027  | .0177 |
| 6    | 0.00   | .1894   | .0007  | .0267  | -.0041 | .0018  | .0126 |
| 7    | -20.00 | -1.0865 | .3448  | .2995  | -.0093 | -.0121 | .0277 |
| 8    | -14.98 | -.9509  | .1783  | .4124  | -.0142 | .0153  | .0357 |
| 9    | -10.00 | -.7127  | .0578  | .2544  | -.0038 | .0012  | .0234 |
| 10   | -5.01  | -.2606  | .0064  | .0848  | -.0050 | -.0007 | .0208 |
| 11   | -2.51  | -.0300  | -.0015 | .0585  | -.0046 | .0027  | .0174 |
| 12   | 0.00   | .1884   | -.0019 | .0299  | -.0035 | .0038  | .0174 |
| 13   | 2.52   | .4106   | .0062  | .0097  | -.0029 | .0040  | .0114 |
| 14   | 4.99   | .6282   | .0243  | -.0033 | -.0027 | .0030  | .0103 |
| 15   | 9.99   | 1.0515  | .0824  | -.0232 | -.0045 | .0063  | .0138 |
| 16   | 15.01  | 1.3982  | .1795  | -.0985 | -.0028 | .0064  | .0092 |
| 17   | 19.99  | 1.4843  | .3361  | -.0793 | -.0035 | .0065  | .0083 |
| 18   | -0.00  | .1870   | -.0016 | .0317  | -.0043 | .0017  | .0160 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 551

RUN 680 CONFIG F P B NP5 W7 T39 BT IN=3.5 N=23K Q=40

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 2       | 0         | 0             | 74.9        | 33.19       | 181.         | -83.         | 65.          | 6.43        | 39.73 | 109.04  | 3040.  |
| 3       | 0         | 0             | 58.6        | -220.45     | -269.        | -116.        | 165.         | 3.57        | 40.05 | 109.49  | 22940. |
| 4       | -20.0     | 0             | -603.6      | -55.34      | 1896.        | 16.          | -87.         | 5.84        | 39.67 | 108.96  | 22960. |
| 5       | -15.0     | 0             | -520.7      | -141.10     | 978.         | 124.         | 2.           | -77.        | 39.88 | 109.25  | 23080. |
| 6       | -10.0     | 0             | -331.2      | -192.81     | 25.          | 9.           | 68.          | 3.20        | 39.40 | 108.59  | 23010. |
| 7       | -5.0      | 0             | -136.2      | -213.27     | -159.        | -66.         | 117.         | 3.63        | 39.38 | 108.56  | 22990. |
| 8       | -2.4      | 0             | -33.3       | -214.91     | -216.        | -71.         | 140.         | 4.02        | 39.86 | 109.23  | 23040. |
| 9       | 0         | 0             | 58.9        | -217.32     | -279.        | -79.         | 168.         | 1.54        | 39.89 | 109.27  | 23000. |
| 10      | 2.5       | 0             | 155.1       | -215.13     | -267.        | -104.        | 147.         | .34         | 39.53 | 108.77  | 22920. |
| 11      | 5.0       | 0             | 245.5       | -210.35     | -225.        | -106.        | 194.         | 1.55        | 39.60 | 108.87  | 22990. |
| 12      | 10.0      | 0             | 420.4       | -188.45     | -238.        | -148.        | 269.         | .34         | 39.64 | 108.92  | 22970. |
| 13      | 15.0      | 0             | 575.0       | -150.12     | -492.        | -124.        | 244.         | -.94        | 39.70 | 109.00  | 23020. |
| 14      | 20.0      | 0             | 633.8       | -87.58      | -348.        | -158.        | 122.         | -1.90       | 39.45 | 108.65  | 22980. |
| 15      | 0         | 0             | 60.3        | -220.18     | -292.        | -90.         | 166.         | 3.86        | 39.76 | 109.09  | 22930. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYH    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .2024   | .0897  | .0582  | -.0050 | .0039  | .0174  |
| 3    | 0.00   | .1583   | -.5958 | -.0867 | -.0070 | .0100  | .0097  |
| 4    | -20.00 | -1.6314 | -.1496 | .6112  | .0010  | -.0052 | .0158  |
| 5    | -15.01 | -1.4073 | -.3813 | .3153  | .0075  | .0001  | -.0021 |
| 6    | -10.00 | -.8952  | -.5211 | .0081  | .0006  | .0041  | .0086  |
| 7    | -5.00  | -.3682  | -.5764 | -.0513 | -.0040 | .0071  | .0098  |
| 8    | -2.45  | -.0899  | -.5808 | -.0697 | -.0043 | .0085  | .0109  |
| 9    | 0.00   | .1592   | -.5873 | -.0901 | -.0048 | .0102  | .0042  |
| 10   | 2.53   | .4191   | -.5814 | -.0859 | -.0063 | .0089  | .0009  |
| 11   | 4.99   | .6634   | -.5685 | -.0727 | -.0064 | .0117  | .0042  |
| 12   | 9.99   | 1.1361  | -.5093 | -.0769 | -.0090 | .0162  | .0009  |
| 13   | 14.99  | 1.5540  | -.4057 | -.1587 | -.0075 | .0148  | -.0026 |
| 14   | 20.00  | 1.7129  | -.2367 | -.1123 | -.0095 | .0074  | -.0051 |
| 15   | 0.00   | .1629   | -.5951 | -.0940 | -.0055 | .0100  | .0104  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .2024   | .0897  | .0582  | -.0050 | .0039  | .0174  |
| 3    | 0.00   | .1583   | -.5958 | -.0867 | -.0070 | .0100  | .0097  |
| 4    | -20.00 | -1.6314 | -.1496 | .6112  | .0010  | -.0052 | .0158  |
| 5    | -15.01 | -1.4073 | -.3813 | .3153  | .0075  | .0001  | -.0021 |
| 6    | -10.00 | -.8952  | -.5211 | .0081  | .0006  | .0041  | .0086  |
| 7    | -5.00  | -.3682  | -.5764 | -.0513 | -.0040 | .0071  | .0098  |
| 8    | -2.45  | -.0899  | -.5808 | -.0697 | -.0043 | .0085  | .0109  |
| 9    | 0.00   | .1592   | -.5873 | -.0901 | -.0048 | .0102  | .0042  |
| 10   | 2.53   | .4191   | -.5814 | -.0859 | -.0063 | .0089  | .0009  |
| 11   | 4.99   | .6634   | -.5685 | -.0727 | -.0064 | .0117  | .0042  |
| 12   | 9.99   | 1.1361  | -.5093 | -.0769 | -.0090 | .0162  | .0009  |
| 13   | 14.99  | 1.5540  | -.4057 | -.1587 | -.0075 | .0148  | -.0026 |
| 14   | 20.00  | 1.7129  | -.2367 | -.1123 | -.0095 | .0074  | -.0051 |
| 15   | 0.00   | .1629   | -.5951 | -.0940 | -.0055 | .0100  | .0104  |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 552

RUN 681 CONFIG F P B NP5 W7 T39 BT IN=-3.5

| PT. NO. | IW    | 0.0 DELF | 0.0 DELA | 0.0 IHT | 0.0 DELE | 0.0 DELR | 0.0 DELSB | 0.0     | 0.0   | RPM    |        |
|---------|-------|----------|----------|---------|----------|----------|-----------|---------|-------|--------|--------|
|         | ALPHA | PSI      | CLBAR    | CDBAR   | CPMBAR   | CYMBAR   | CRMBAR    | CYBAR   | DELSB | V      |        |
|         | DEG   | DEG      | SQ-FT    | SQ-FT   | CU-FT    | CU-FT    | CU-FT     | SQ-FT   | PSF   | KNOTS  |        |
| 6       | .0    | .0       | 74.0     | 32.62   | 179.     | -73.     | 47.       | 5.35    | 54.13 | 127.57 | 3520.  |
| 7       | .0    | .0       | 71.1     | 7.15    | 72.      | -65.     | 81.       | 5.86    | 54.62 | 128.16 | 11230. |
| 8       | .0    | -20.0    | 102.3    | 38.15   | -820.    | 1174.    | 13.       | -175.63 | 54.87 | 128.45 | 11220. |
| 9       | .0    | -15.0    | 92.6     | 18.49   | -538.    | 860.     | 11.       | -131.56 | 54.84 | 128.42 | 11220. |
| 10      | .0    | -10.0    | 82.7     | 3.02    | -189.    | 442.     | 82.       | -84.32  | 55.14 | 128.78 | 11220. |
| 11      | .0    | -4.9     | 75.6     | -4.44   | -27.     | 168.     | 41.       | -41.24  | 55.09 | 128.72 | 11230. |
| 12      | .0    | -2.5     | 71.6     | -6.37   | 13.      | 50.      | 32.       | -18.53  | 54.96 | 128.56 | 11240. |
| 13      | .0    | .1       | 70.7     | -6.86   | 37.      | -65.     | 46.       | 7.20    | 54.88 | 128.46 | 11310. |
| 14      | .0    | 2.6      | 72.0     | -5.93   | 27.      | -144.    | 33.       | 28.25   | 54.74 | 128.31 | 11210. |
| 15      | .0    | 5.0      | 72.5     | -4.87   | -9.      | -237.    | 35.       | 50.92   | 54.86 | 128.44 | 11240. |
| 16      | .0    | 10.0     | 79.2     | 1.59    | -203.    | -552.    | 74.       | 93.08   | 54.90 | 128.49 | 11200. |
| 17      | .0    | 15.0     | 87.3     | 14.17   | -521.    | -874.    | 95.       | 141.66  | 54.51 | 128.03 | 11250. |
| 18      | .0    | 20.0     | 94.3     | 34.85   | -792.    | -1257.   | 110.      | 189.86  | 54.02 | 127.44 | 11230. |
| 19      | .0    | .0       | 70.4     | -7.05   | 82.      | -69.     | 48.       | 4.32    | 54.47 | 127.98 | 11190. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 6    | .00    | .2000 | .0882  | .0578  | -.0044 | .0028 | .0145  |
| 7    | .00    | .1922 | .0193  | .0231  | -.0039 | .0049 | .0158  |
| 8    | -20.00 | .2764 | .1031  | -.2643 | .0709  | .0008 | -.4747 |
| 9    | -15.00 | .2502 | .0500  | -.1734 | .0519  | .0007 | -.3556 |
| 10   | -10.00 | .2235 | .0082  | -.0610 | .0267  | .0049 | -.2279 |
| 11   | -4.90  | .2043 | -.0120 | -.0087 | .0101  | .0025 | -.1115 |
| 12   | -2.50  | .1935 | -.0172 | .0041  | .0030  | .0019 | -.0501 |
| 13   | .10    | .1911 | -.0185 | .0118  | -.0039 | .0028 | .0195  |
| 14   | 2.60   | .1945 | -.0160 | .0087  | -.0087 | .0020 | .0764  |
| 15   | 5.00   | .1960 | -.0132 | -.0029 | -.0143 | .0021 | .1376  |
| 16   | 10.00  | .2139 | .0043  | -.0655 | -.0333 | .0044 | .2516  |
| 17   | 15.00  | .2359 | .0383  | -.1680 | -.0528 | .0058 | .3829  |
| 18   | 20.00  | .2549 | .0942  | -.2553 | -.0759 | .0066 | .5131  |
| 19   | .00    | .1903 | -.0191 | .0265  | -.0042 | .0029 | .0117  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 6    | .00    | .2000 | .0882  | .0578  | -.0044 | .0028  | .0145  |
| 7    | .00    | .1922 | .0193  | .0231  | -.0039 | .0049  | .0158  |
| 8    | -20.00 | .2764 | -.0662 | -.2496 | .0709  | .0177  | -.4812 |
| 9    | -15.00 | .2502 | -.0442 | -.1684 | .0519  | .0091  | -.3563 |
| 10   | -10.00 | .2235 | -.0317 | -.0647 | .0267  | .0069  | -.2258 |
| 11   | -4.90  | .2043 | -.0215 | -.0098 | .0101  | .0026  | -.1100 |
| 12   | -2.50  | .1935 | -.0194 | .0037  | .0030  | .0019  | -.0493 |
| 13   | .10    | .1911 | -.0186 | .0118  | -.0039 | .0028  | .0194  |
| 14   | 2.60   | .1945 | .0195  | .0092  | -.0087 | .0021  | .0755  |
| 15   | 5.00   | .1960 | -.0252 | -.0019 | -.0143 | .0021  | .1359  |
| 16   | 10.00  | .2139 | -.0397 | -.0604 | -.0333 | .0022  | .2485  |
| 17   | 15.00  | .2359 | -.0626 | -.1542 | -.0528 | -.0026 | .3797  |
| 18   | 20.00  | .2549 | -.0878 | -.2276 | -.0759 | -.0102 | .5143  |
| 19   | .00    | .1903 | -.0191 | .0265  | -.0042 | .0029  | .0117  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 553

RUN 682 CONFIG F P B NPS W7 T39 BT IN=3.5 N=23K Q=40

| PT. NO. | IW    | 0.0 DELF | 0.0 DELA | 0.0 IHT | 0.0 DELE | 0.0 DELR | 0.0 DELSB | 0.0     | 0.0   | RPM    |        |
|---------|-------|----------|----------|---------|----------|----------|-----------|---------|-------|--------|--------|
|         | ALPHA | PSI      | CLBAR    | CDBAR   | CPMBAR   | CYMBAR   | CRMBAR    | CYBAR   | Q     | V      |        |
|         | DEG   | DEG      | SQ-FT    | SQ-FT   | CU-FT    | CU-FT    | CU-FT     | SQ-FT   | PSF   | KNOTS  |        |
| 1       | .0    | .0       | 74.5     | 33.01   | 203.     | -62.     | 64.       | 6.53    | 40.14 | 109.60 | 3050.  |
| 2       | .0    | .0       | 62.0     | -220.44 | -266.    | -106.    | 145.      | .94     | 39.86 | 109.22 | 23050. |
| 3       | .0    | -20.0    | 90.8     | -150.59 | -1072.   | 1335.    | -50.      | -273.48 | 40.05 | 109.48 | 22990. |
| 4       | .0    | -15.0    | 83.5     | -179.36 | -843.    | 819.     | 52.       | -204.28 | 39.84 | 109.19 | 22960. |
| 5       | .0    | -10.0    | 70.2     | -201.05 | -950.    | 312.     | 104.      | -131.16 | 40.10 | 109.56 | 23000. |
| 6       | .0    | -5.0     | 67.0     | -214.07 | -408.    | 89.      | 149.      | -65.03  | 39.76 | 109.08 | 22960. |
| 7       | .0    | -2.5     | 61.0     | -216.94 | -366.    | -9.      | 168.      | -31.79  | 39.76 | 109.08 | 22990. |
| 8       | .0    | .0       | 58.5     | -217.17 | -348.    | -43.     | 118.      | 2.74    | 39.83 | 109.19 | 22990. |
| 10      | .0    | 5.0      | 63.0     | -216.62 | -393.    | -144.    | 112.      | 70.15   | 39.33 | 108.49 | 23000. |
| 11      | .0    | 10.0     | 67.1     | -206.60 | -582.    | -440.    | 144.      | 135.86  | 39.64 | 108.92 | 22970. |
| 12      | .0    | 15.0     | 70.5     | -188.50 | -855.    | -835.    | 232.      | 207.52  | 39.79 | 109.13 | 23020. |
| 13      | .0    | 20.0     | 69.6     | -160.30 | -992.    | -1277.   | 346.      | 274.67  | 39.80 | 109.14 | 22970. |
| 14      | .0    | .0       | 61.0     | -217.39 | -318.    | -95.     | 191.      | 2.39    | 39.94 | 109.34 | 23020. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 1    | .00    | .2015 | .0892  | .0654  | -.0038 | .0039  | .0177  |
| 2    | .00    | .1675 | -.5958 | -.0859 | -.0064 | .0087  | .0025  |
| 3    | -20.00 | .2453 | -.4070 | -.3458 | .0806  | -.0030 | -.7391 |
| 4    | -15.00 | .2257 | -.4848 | -.2717 | .0494  | .0032  | -.5521 |
| 5    | -10.00 | .1896 | -.5434 | -.1774 | .0188  | .0063  | -.3545 |
| 6    | -5.00  | .1812 | -.5786 | -.1316 | .0054  | .0090  | -.1758 |
| 7    | -2.50  | .1648 | -.5863 | -.1181 | -.0005 | .0101  | -.0859 |
| 8    | .00    | .1581 | -.5869 | -.1122 | -.0026 | .0071  | .0074  |
| 10   | 5.00   | .1703 | -.5855 | -.1268 | -.0087 | .0068  | .1896  |
| 11   | 10.00  | .1814 | -.5584 | -.1875 | -.0266 | .0087  | .3672  |
| 12   | 15.00  | .1905 | -.5095 | -.2756 | -.0504 | .0140  | .5609  |
| 13   | 20.00  | .1881 | -.4332 | -.3199 | -.0771 | .0209  | .7423  |
| 14   | .00    | .1648 | -.5875 | -.1026 | -.0057 | .0115  | .0065  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 1    | .00    | .2015 | .0892  | .0654  | -.0038 | .0039  | .0177  |
| 2    | .00    | .1675 | -.5958 | -.0859 | -.0064 | .0087  | .0025  |
| 3    | -20.00 | .2453 | -.6361 | -.3192 | .0806  | .0194  | -.5543 |
| 4    | -15.00 | .2257 | -.6116 | -.2667 | .0494  | .0163  | -.4071 |
| 5    | -10.00 | .1896 | -.5969 | -.1806 | .0188  | .0120  | -.2543 |
| 6    | -5.00  | .1812 | -.5917 | -.1353 | .0054  | .0111  | -.1244 |
| 7    | -2.50  | .1648 | -.5895 | -.1204 | -.0005 | .0111  | -.0601 |
| 8    | .00    | .1581 | -.5869 | -.1122 | -.0026 | .0071  | .0074  |
| 10   | 5.00   | .1703 | -.5998 | -.1232 | -.0087 | .0046  | .1376  |
| 11   | 10.00  | .1814 | -.6139 | -.1765 | -.0266 | .0024  | .2642  |
| 12   | 15.00  | .1905 | -.6378 | -.2466 | -.0504 | .0001  | .4091  |
| 13   | 20.00  | .1881 | -.6619 | -.2622 | -.0771 | -.0010 | .5483  |
| 14   | .00    | .1648 | -.5875 | -.1026 | -.0057 | .0115  | .0065  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 554

RUN 683 CONFIG F P B NP5 W7 T39 BT IN=-3.5 XN=0

| PT. NO. | Q DELF<br>ALPHA DEG | O DELA<br>PSI | O DELA<br>CLBAR SQ-FT | O DELA<br>CDBAR SQ-FT | O DELA<br>CPM BAR CU-FT | O DELA<br>CYM BAR CU-FT | O DELA<br>CRM BAR CU-FT | O DELA<br>CYB BAR SQ-FT | O DELS<br>Q PSF | O DELS<br>V KNOTS | RPM    |
|---------|---------------------|---------------|-----------------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------|-------------------|--------|
| 7       | 0                   | 0             | 70.3                  | -6.65                 | 80.                     | -67.                    | 82.                     | 6.30                    | 54.10           | 127.56            | 11060. |
| 8       | 0                   | 0             | 69.6                  | -5.63                 | 79.                     | -70.                    | 63.                     | 5.78                    | 55.35           | 129.05            | 11050. |
| 9       | 0                   | 0             | 71.6                  | -6.88                 | 82.                     | -67.                    | 79.                     | 6.80                    | 55.61           | 129.35            | 11320. |
| 10      | 0                   | 5.0           | 72.4                  | -3.66                 | -5.                     | -211.                   | 17.                     | 51.81                   | 55.36           | 129.05            | 11310. |
| 11      | -20.0               | 5.0           | -401.8                | 124.29                | 956.                    | -322.                   | -482.                   | 28.26                   | 55.20           | 128.87            | 11250. |
| 12      | -15.0               | 5.0           | -391.7                | 52.12                 | 1306.                   | -334.                   | -185.                   | 45.68                   | 54.89           | 128.49            | 11270. |
| 13      | -10.0               | 5.0           | -261.9                | 17.82                 | 580.                    | -399.                   | -66.                    | 51.61                   | 55.44           | 129.15            | 11240. |
| 14      | -5.0                | 5.0           | -92.5                 | .21                   | 145.                    | -319.                   | -50.                    | 54.49                   | 55.71           | 129.47            | 11290. |
| 15      | -2.5                | 5.0           | -8.5                  | -3.25                 | 85.                     | -280.                   | 11.                     | 53.33                   | 55.32           | 129.00            | 11230. |
| 16      | 0                   | 5.0           | 72.8                  | -3.43                 | 9.                      | -208.                   | 34.                     | 51.57                   | 55.61           | 129.36            | 11280. |
| 17      | 2.5                 | 5.0           | 159.5                 | .01                   | -58.                    | -161.                   | 88.                     | 50.27                   | 55.22           | 128.89            | 11260. |
| 18      | 5.0                 | 5.0           | 237.6                 | 6.23                  | -103.                   | -110.                   | 89.                     | 45.63                   | 55.84           | 129.63            | 11270. |
| 19      | 10.0                | 5.0           | 393.7                 | 27.25                 | -193.                   | -113.                   | 170.                    | 41.29                   | 55.60           | 129.34            | 11230. |
| 20      | 15.0                | 5.0           | 532.5                 | 61.95                 | -418.                   | -118.                   | 280.                    | 32.88                   | 55.53           | 129.25            | 11260. |
| 21      | 20.0                | 5.0           | 569.1                 | 122.83                | -512.                   | 47.                     | 389.                    | 23.27                   | 55.04           | 128.67            | 11290. |
| 22      | 0                   | 5.0           | 71.8                  | -3.18                 | -3.                     | -213.                   | 19.                     | 50.28                   | 55.28           | 128.96            | 11290. |
| 23      | 0                   | 5.0           | 74.0                  | 35.44                 | 115.                    | -247.                   | 41.                     | 45.34                   | 55.83           | 129.61            | 3520.  |

\*\*\* COEFFICIENT FORM. - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | .00    | .1899   | -.0180 | .0257  | -.0040 | .0049  | .0170 |
| 8    | .00    | .1882   | -.0152 | .0255  | -.0042 | .0038  | .0156 |
| 9    | .00    | .1934   | -.0186 | .0264  | -.0040 | .0047  | .0184 |
| 10   | .00    | .1958   | -.0099 | -.0016 | -.0128 | .0010  | .1400 |
| 11   | -20.01 | -1.0860 | .3359  | .3082  | -.0194 | -.0291 | .0764 |
| 12   | -15.00 | -1.0587 | .1409  | .4210  | -.0202 | -.0112 | .1235 |
| 13   | -10.01 | -.7078  | .0482  | .1871  | -.0241 | -.0040 | .1395 |
| 14   | -5.00  | -.2501  | .0006  | .0469  | -.0193 | -.0030 | .1473 |
| 15   | -2.50  | -.0229  | -.0088 | .0273  | -.0169 | .0006  | .1441 |
| 16   | .01    | .1968   | -.0093 | .0030  | -.0125 | .0020  | .1394 |
| 17   | 2.51   | .4311   | .0000  | -.0188 | -.0097 | .0053  | .1359 |
| 18   | 5.00   | .6421   | .0168  | -.0331 | -.0067 | .0054  | .1233 |
| 19   | 10.00  | 1.0640  | .0737  | -.0621 | -.0068 | .0102  | .1116 |
| 20   | 15.00  | 1.4391  | .1674  | -.1347 | -.0071 | .0169  | .0889 |
| 21   | 20.01  | 1.5381  | .3320  | -.1650 | .0028  | .0235  | .0629 |
| 22   | .00    | .1941   | -.0086 | -.0008 | -.0129 | .0011  | .1359 |
| 23   | .00    | .2001   | .0958  | .0369  | -.0149 | .0025  | .1225 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | .00    | .1899   | -.0180 | .0257  | -.0040 | .0049  | .0170 |
| 8    | .00    | .1882   | -.0152 | .0255  | -.0042 | .0038  | .0156 |
| 9    | .00    | .1934   | -.0186 | .0264  | -.0040 | .0047  | .0184 |
| 10   | .00    | .1958   | -.0221 | -.0011 | -.0128 | .0010  | .1386 |
| 11   | -20.01 | -1.0860 | .3279  | .2934  | -.0194 | -.0240 | .1055 |
| 12   | -15.00 | -1.0587 | .1295  | .4142  | -.0202 | -.0042 | .1353 |
| 13   | -10.01 | -.7078  | .0358  | .1845  | -.0241 | -.0009 | .1432 |
| 14   | -5.00  | -.2501  | -.0123 | .0453  | -.0193 | -.0022 | .1467 |
| 15   | -2.50  | -.0229  | -.0214 | .0275  | -.0169 | .0011  | .1428 |
| 16   | .01    | .1968   | -.0214 | .0039  | -.0125 | .0021  | .1380 |
| 17   | 2.51   | .4311   | -.0119 | -.0162 | -.0097 | .0050  | .1354 |
| 18   | 5.00   | .6421   | .0060  | -.0304 | -.0067 | .0048  | .1243 |
| 19   | 10.00  | 1.0640  | .0636  | -.0571 | -.0068 | .0092  | .1176 |
| 20   | 15.00  | 1.4391  | .1590  | -.1263 | -.0071 | .0146  | .1032 |
| 21   | 20.01  | 1.5381  | .3252  | -.1534 | .0028  | .0207  | .0917 |
| 22   | .00    | .1941   | -.0205 | -.0003 | -.0129 | .0011  | .1346 |
| 23   | .00    | .2001   | .0847  | .0379  | -.0149 | .0031  | .1304 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 555

RUN 6R4 CONFIG F P B NP5 W7 T41 BT IN=-3.5 XN=0

| PT. NO. | 1W    | O DELF<br>ALPHA<br>DEG | O DELF<br>PSI<br>DEG | O DELA<br>CLBAR<br>SQ-FT | O IHT<br>CDBAR<br>SQ-FT | O DELE<br>CPMBAR<br>CU-FT | O DELR<br>CYMBAR<br>CU-FT | O DELSB<br>CRMBAR<br>CU-FT | O<br>CYBAR<br>SQ-FT | O<br>PSF | O<br>V<br>KNOTS | RPM    |
|---------|-------|------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|----------------------------|---------------------|----------|-----------------|--------|
| 7       |       | 0                      | 0                    | 86.5                     | 33.10                   | -187.                     | -55.                      | 81.                        | 6.23                | 54.66    | 128.23          | 3530.  |
| 8       |       | 0                      | 0                    | 82.2                     | -6.92                   | -276.                     | -46.                      | 60.                        | 8.28                | 54.73    | 128.30          | 11180. |
| 9       | -20.0 | 0                      | 0                    | -355.9                   | 107.05                  | -621.                     | -74.                      | -39.                       | 9.18                | 54.57    | 128.11          | 11210. |
| 10      | -15.0 | 0                      | 0                    | -306.9                   | 52.82                   | -510.                     | -168.                     | 241.                       | 12.15               | 54.66    | 128.21          | 11170. |
| 11      | -10.0 | 0                      | 0                    | -226.5                   | 10.13                   | -457.                     | -74.                      | 55.                        | 8.36                | 55.03    | 128.66          | 11160. |
| 12      | -5.0  | 0                      | 0                    | -73.5                    | -4.07                   | -402.                     | -65.                      | 7.                         | 6.89                | 55.41    | 129.11          | 11090. |
| 13      | -2.5  | 0                      | 0                    | 5.4                      | -5.14                   | -343.                     | -46.                      | 76.                        | 8.55                | 54.99    | 128.61          | 10980. |
| 14      | 0     | 0                      | 0                    | 81.9                     | -5.98                   | -271.                     | -47.                      | 60.                        | 7.82                | 55.30    | 128.99          | 11120. |
| 15      | 2.5   | 0                      | 0                    | 159.1                    | -3.78                   | -171.                     | -30.                      | 101.                       | 4.13                | 55.20    | 128.86          | 11190. |
| 16      | 5.0   | 0                      | 0                    | 234.9                    | 2.01                    | -39.                      | -18.                      | 84.                        | 4.08                | 55.05    | 128.68          | 11220. |
| 17      | 10.0  | 0                      | 0                    | 377.6                    | 21.07                   | 320.                      | -67.                      | 122.                       | 3.29                | 54.92    | 128.53          | 11250. |
| 18      | 15.0  | 0                      | 0                    | 489.2                    | 53.16                   | 808.                      | -84.                      | 176.                       | 3.16                | 54.92    | 128.53          | 11220. |
| 19      | 20.0  | 0                      | 0                    | 506.7                    | 100.43                  | 1256.                     | -32.                      | 124.                       | .19                 | 54.59    | 128.14          | 11180. |
| 20      | 0     | 0                      | 0                    | 81.2                     | -6.05                   | -275.                     | -61.                      | 43.                        | 8.03                | 54.69    | 128.26          | 11180. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 7    | 0.00   | .2338  | .0895  | -.0602 | -.0033 | .0049  | .0168 |
| 8    | 0.00   | .2222  | -.0187 | -.0891 | -.0028 | .0036  | .0224 |
| 9    | -20.00 | -.9620 | .2893  | -.2002 | -.0045 | -.0023 | .0248 |
| 10   | -15.00 | -.8294 | .1427  | -.1644 | -.0102 | .0145  | .0328 |
| 11   | -10.00 | -.6122 | .0274  | -.1475 | -.0045 | .0033  | .0226 |
| 12   | -5.00  | -.1987 | -.0110 | -.1295 | -.0039 | .0004  | .0186 |
| 13   | -2.49  | .0146  | -.0139 | -.1106 | -.0028 | .0046  | .0231 |
| 14   | 0.00   | .2215  | -.0162 | -.0875 | -.0028 | .0036  | .0211 |
| 15   | 2.50   | .4299  | -.0102 | -.0551 | -.0018 | .0061  | .0112 |
| 16   | 5.00   | .6349  | .0054  | -.0125 | -.0011 | .0051  | .0110 |
| 17   | 10.00  | 1.0206 | .0569  | .1030  | -.0041 | .0073  | .0089 |
| 18   | 15.00  | 1.3221 | .1437  | .2607  | -.0051 | .0106  | .0085 |
| 19   | 20.00  | 1.3694 | .2714  | .4051  | -.0019 | .0075  | .0005 |
| 20   | 0.00   | .2194  | -.0164 | -.0885 | -.0037 | .0026  | .0217 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 7    | 0.00   | .2338  | .0895  | -.0602 | -.0033 | .0049  | .0168 |
| 8    | 0.00   | .2222  | -.0187 | -.0891 | -.0028 | .0036  | .0224 |
| 9    | -20.00 | -.9620 | .2893  | -.2002 | -.0045 | -.0023 | .0248 |
| 10   | -15.00 | -.8294 | .1427  | -.1644 | -.0102 | .0145  | .0328 |
| 11   | -10.00 | -.6122 | .0274  | -.1475 | -.0045 | .0033  | .0226 |
| 12   | -5.00  | -.1987 | -.0110 | -.1295 | -.0039 | .0004  | .0186 |
| 13   | -2.49  | .0146  | -.0139 | -.1106 | -.0028 | .0046  | .0231 |
| 14   | 0.00   | .2215  | -.0162 | -.0875 | -.0028 | .0036  | .0211 |
| 15   | 2.50   | .4299  | -.0102 | -.0551 | -.0018 | .0061  | .0112 |
| 16   | 5.00   | .6349  | .0054  | -.0125 | -.0011 | .0051  | .0110 |
| 17   | 10.00  | 1.0206 | .0569  | .1030  | -.0041 | .0073  | .0089 |
| 18   | 15.00  | 1.3221 | .1437  | .2607  | -.0051 | .0106  | .0085 |
| 19   | 20.00  | 1.3694 | .2714  | .4051  | -.0019 | .0075  | .0005 |
| 20   | 0.00   | .2194  | -.0164 | -.0885 | -.0037 | .0026  | .0217 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 556

RUN 685 CONFIG F P R NP5 W7 T42 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | O DELF PSI DEG | O DELA CLBAR SQ-FT | O IHT CDBAR SQ-FT | O DELE CPMBAR CU-FT | O DELR CYMBAR CU-FT | O DELR CRMBAR CU-FT | O DELSB CYBAR SQ-FT | O DELSB Q PSF | O V KNOTS | RPM    |
|---------|-----------|----------------|--------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------|-----------|--------|
| 2       | 0         | 0              | 72.1               | 33.21             | 197.                | -60.                | 79.                 | 6.85                | 55.20         | 128.87    | 3540.  |
| 3       | 0         | 0              | 67.2               | -6.94             | 73.                 | -59.                | 62.                 | 6.28                | 55.32         | 129.00    | 11200. |
| 4       | -20.0     | 0              | -403.0             | 120.24            | 801.                | -172.               | -149.               | 10.97               | 54.67         | 128.22    | 11230. |
| 5       | -15.0     | 0              | -359.2             | 61.43             | 1019.               | -209.               | 259.                | 12.20               | 54.45         | 127.96    | 11210. |
| 6       | -10.0     | 0              | -260.6             | 14.58             | 467.                | -59.                | 39.                 | 7.61                | 55.04         | 128.67    | 11210. |
| 7       | -5.0      | 0              | -93.8              | -3.11             | 125.                | -76.                | 24.                 | 7.22                | 55.18         | 128.83    | 11200. |
| 8       | -2.5      | 0              | -7.9               | -6.45             | 116.                | -61.                | 59.                 | 7.80                | 55.02         | 128.65    | 11240. |
| 9       | 0         | 0              | 70.2               | -6.72             | 84.                 | -58.                | 62.                 | 7.20                | 54.86         | 128.46    | 11250. |
| 10      | 2.5       | 0              | 149.6              | -3.56             | 58.                 | -38.                | 65.                 | 4.95                | 55.06         | 128.69    | 11210. |
| 11      | 5.0       | 0              | 232.0              | 2.21              | 80.                 | -37.                | 119.                | 4.47                | 54.86         | 128.45    | 11240. |
| 12      | 10.0      | 0              | 384.5              | 22.12             | 126.                | -81.                | 121.                | 5.41                | 54.80         | 128.38    | 11280. |
| 13      | 15.0      | 0              | 512.8              | 57.46             | 101.                | -64.                | 141.                | 4.37                | 54.53         | 128.06    | 11200. |
| 14      | 20.0      | 0              | 548.1              | 113.50            | 69.                 | -19.                | 144.                | 2.71                | 54.12         | 127.57    | 11230. |
| 15      | 0         | 0              | 69.0               | -6.61             | 78.                 | -57.                | 79.                 | 6.93                | 55.07         | 128.71    | 11210. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM   | CYM    | CRM   | CY    |
|------|--------|---------|--------|-------|--------|-------|-------|
| 2    | 0.00   | .1949   | .0898  | .0635 | -.0036 | .0048 | .0185 |
| 3    | 0.00   | .1816   | -.0188 | .0235 | -.0036 | .0038 | .0170 |
| 4    | -20.00 | -1.0891 | .3250  | .2583 | -.0104 | .0090 | .0296 |
| 5    | -15.00 | -.9709  | .1660  | .3286 | -.0126 | .0157 | .0330 |
| 6    | -10.00 | -.7044  | .0394  | .1506 | -.0036 | .0023 | .0206 |
| 7    | -5.00  | -.2535  | -.0084 | .0401 | -.0046 | .0014 | .0195 |
| 8    | -2.50  | -.0215  | -.0174 | .0374 | -.0037 | .0036 | .0211 |
| 9    | 0.00   | .1897   | -.0182 | .0271 | -.0035 | .0037 | .0195 |
| 10   | 2.50   | .4043   | -.0096 | .0186 | -.0023 | .0039 | .0134 |
| 11   | 5.00   | .6271   | .0060  | .0258 | -.0022 | .0072 | .0121 |
| 12   | 10.00  | 1.0393  | .0598  | .0405 | -.0049 | .0073 | .0146 |
| 13   | 15.00  | 1.3859  | .1553  | .0325 | -.0038 | .0085 | .0118 |
| 14   | 20.00  | 1.4814  | .3067  | .0221 | -.0012 | .0087 | .0073 |
| 15   | 0.00   | .1866   | -.0179 | .0253 | -.0035 | .0048 | .0187 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB  | CYMB   | CRMB  | CYB   |
|------|--------|---------|--------|-------|--------|-------|-------|
| 2    | 0.00   | .1949   | .0898  | .0635 | -.0036 | .0048 | .0185 |
| 3    | 0.00   | .1816   | -.0188 | .0235 | -.0036 | .0038 | .0170 |
| 4    | -20.00 | -1.0891 | .3250  | .2583 | -.0104 | .0090 | .0296 |
| 5    | -15.00 | -.9709  | .1660  | .3286 | -.0126 | .0157 | .0330 |
| 6    | -10.00 | -.7044  | .0394  | .1506 | -.0036 | .0023 | .0206 |
| 7    | -5.00  | -.2535  | -.0084 | .0401 | -.0046 | .0014 | .0195 |
| 8    | -2.50  | -.0215  | -.0174 | .0374 | -.0037 | .0036 | .0211 |
| 9    | 0.00   | .1897   | -.0182 | .0271 | -.0035 | .0037 | .0195 |
| 10   | 2.50   | .4043   | -.0096 | .0186 | -.0023 | .0039 | .0134 |
| 11   | 5.00   | .6271   | .0060  | .0258 | -.0022 | .0072 | .0121 |
| 12   | 10.00  | 1.0393  | .0598  | .0405 | -.0049 | .0073 | .0146 |
| 13   | 15.00  | 1.3859  | .1553  | .0325 | -.0038 | .0085 | .0118 |
| 14   | 20.00  | 1.4814  | .3067  | .0221 | -.0012 | .0087 | .0073 |
| 15   | 0.00   | .1866   | -.0179 | .0253 | -.0035 | .0048 | .0187 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P557

RUN 686 CONFIG F P B NPS W7 T4D BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM    |
|---------|-----------|---------------|-------------|-------------|---------------|-------------|---------------|-------------|-------------|---------|--------|
| 6       | 0         | 0             | 73.1        | 32.55       | 228.          | -53.        | 78.           | 7.87        | 55.00       | 128.62  | 3560.  |
| 7       | 0         | 0             | 66.6        | -11.04      | 84.           | -54.        | 44.           | 6.45        | 55.47       | 129.17  | 11730. |
| 8       | -0        | 0             | 67.4        | -5.92       | 90.           | -51.        | 43.           | 7.59        | 55.63       | 129.35  | 11150. |
| 9       | -0        | 0             | 67.9        | -7.25       | 90.           | -43.        | 59.           | 8.77        | 55.54       | 129.25  | 11310. |
| 10      | -20.0     | 0             | -414.1      | 121.51      | 1537.         | -167.       | -57.          | 9.65        | 55.06       | 128.67  | 11240. |
| 11      | -15.0     | 0             | -376.6      | 60.19       | 1873.         | -285.       | 268.          | 15.19       | 54.94       | 128.53  | 11240. |
| 12      | -10.0     | 0             | -265.6      | 13.24       | 857.          | -101.       | 37.           | 8.36        | 55.41       | 129.10  | 11240. |
| 13      | -5.0      | 0             | -97.8       | -3.76       | 309.          | -77.        | 22.           | 8.32        | 55.66       | 129.39  | 11230. |
| 14      | -2.5      | 0             | -15.3       | -6.63       | 191.          | -69.        | 27.           | 5.99        | 55.18       | 128.82  | 11250. |
| 15      | 0         | 0             | 67.5        | -6.98       | 81.           | -55.        | 44.           | 6.54        | 55.72       | 129.47  | 11240. |
| 16      | 2.5       | 0             | 150.3       | -4.07       | -12.          | -38.        | 45.           | 6.52        | 55.41       | 129.10  | 11270. |
| 17      | 5.0       | 0             | 232.4       | 2.26        | -58.          | -40.        | 118.          | 4.46        | 55.71       | 129.46  | 11270. |
| 18      | 10.0      | 0             | 387.9       | 22.93       | -96.          | -91.        | 156.          | 3.89        | 55.12       | 128.76  | 11260. |
| 19      | 15.0      | 0             | 513.8       | 58.03       | -116.         | -56.        | 106.          | 4.24        | 54.58       | 128.11  | 11280. |
| 20      | 17.5      | 0             | 536.4       | 82.75       | -125.         | -48.        | 142.          | 1.19        | 54.53       | 128.05  | 11210. |
| 21      | 20.0      | 0             | 540.9       | 113.21      | -46.          | -33.        | 125.          | 2.19        | 54.54       | 128.06  | 11240. |
| 22      | 0         | 0             | 67.0        | -6.74       | 78.           | -71.        | 44.           | 7.11        | 55.10       | 128.72  | 11210. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | 0.00   | .1976   | .0880  | .0735  | -.0032 | .0047  | .0213 |
| 7    | 0.00   | .1799   | -.0299 | .0271  | -.0033 | .0027  | .0174 |
| 8    | -0.01  | .1822   | -.0160 | .0290  | -.0031 | .0026  | .0205 |
| 9    | -0.01  | .1835   | -.0196 | .0290  | -.0026 | .0035  | .0237 |
| 10   | -20.00 | -1.1193 | .3284  | .4955  | -.0101 | -.0034 | .0261 |
| 11   | -15.00 | -1.0177 | .1627  | .6037  | -.0172 | .0162  | .0411 |
| 12   | -10.00 | -.7179  | .0358  | .2763  | -.0061 | .0022  | .0226 |
| 13   | -5.00  | -.2643  | -.0102 | .0996  | -.0046 | .0013  | .0225 |
| 14   | -2.51  | -.0413  | -.0179 | .0615  | -.0042 | .0016  | .0162 |
| 15   | 0.00   | .1825   | -.0189 | .0261  | -.0033 | .0027  | .0177 |
| 16   | 2.49   | .4062   | -.0110 | -.0037 | -.0023 | .0027  | .0176 |
| 17   | 5.00   | .6282   | .0061  | -.0188 | -.0024 | .0071  | .0121 |
| 18   | 10.00  | 1.0483  | .0620  | -.0310 | -.0055 | .0094  | .0105 |
| 19   | 15.00  | 1.3885  | .1568  | -.0374 | -.0034 | .0064  | .0115 |
| 20   | 17.50  | 1.4496  | .2236  | -.0404 | -.0029 | .0086  | .0032 |
| 21   | 20.00  | 1.4617  | .3060  | -.0147 | -.0020 | .0075  | .0059 |
| 22   | 0.00   | .1811   | -.0182 | .0252  | -.0043 | .0026  | .0192 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | 0.00   | .1976   | .0880  | .0735  | -.0032 | .0047  | .0213 |
| 7    | 0.00   | .1799   | -.0299 | .0271  | -.0033 | .0027  | .0174 |
| 8    | -0.01  | .1822   | -.0160 | .0290  | -.0031 | .0026  | .0205 |
| 9    | -0.01  | .1835   | -.0196 | .0290  | -.0026 | .0035  | .0237 |
| 10   | -20.00 | -1.1193 | .3284  | .4955  | -.0101 | -.0034 | .0261 |
| 11   | -15.00 | -1.0177 | .1627  | .6037  | -.0172 | .0162  | .0411 |
| 12   | -10.00 | -.7179  | .0358  | .2763  | -.0061 | .0022  | .0226 |
| 13   | -5.00  | -.2643  | -.0102 | .0996  | -.0046 | .0013  | .0225 |
| 14   | -2.51  | -.0413  | -.0179 | .0615  | -.0042 | .0016  | .0162 |
| 15   | 0.00   | .1825   | -.0189 | .0261  | -.0033 | .0027  | .0177 |
| 16   | 2.49   | .4062   | -.0110 | -.0037 | -.0023 | .0027  | .0176 |
| 17   | 5.00   | .6282   | .0061  | -.0188 | -.0024 | .0071  | .0121 |
| 18   | 10.00  | 1.0483  | .0620  | -.0310 | -.0055 | .0094  | .0105 |
| 19   | 15.00  | 1.3885  | .1568  | -.0374 | -.0034 | .0064  | .0115 |
| 20   | 17.50  | 1.4496  | .2236  | -.0404 | -.0029 | .0086  | .0032 |
| 21   | 20.00  | 1.4617  | .3060  | -.0147 | -.0020 | .0075  | .0059 |
| 22   | 0.00   | .1811   | -.0182 | .0252  | -.0043 | .0026  | .0192 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P558

RUN 687 CONFIG F P B NPS W7 T40 BT IN=-3.5 XN=0

| PT.# | ALPHA | DELTA PSI | DELTA CLBAR | DELTA CDBAR | DELTA CPMBAR | DELTA CYMBAR | DELTA CRMBAR | DELTA CYBAR | DELTA Q | V      | RPM   |
|------|-------|-----------|-------------|-------------|--------------|--------------|--------------|-------------|---------|--------|-------|
| NO.  | DEG   | DEG       | SQ-FT       | SQ-FT       | CU-FT        | CU-FT        | CU-FT        | SQ-FT       | PSF     | KNOTS  |       |
| 2    | .0    | .0        | 73.1        | 33.22       | 202.         | -66.         | 61.          | 7.00        | 41.35   | 111.26 | 3100. |
| 3    | .0    | .0        | 72.7        | 32.79       | 189.         | -64.         | 87.          | 6.97        | 40.54   | 110.16 | 3060. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL    | CD    | CPM   | CYM    | CRM   | CY    |
|------|-------|-------|-------|-------|--------|-------|-------|
| 2    | .00   | .1976 | .0898 | .0652 | -.0040 | .0037 | .0189 |
| 3    | .00   | .1964 | .0886 | .0609 | -.0038 | .0052 | .0188 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB   | CDB   | CPMB  | CYMB   | CRMB  | CYB   |
|------|-------|-------|-------|-------|--------|-------|-------|
| 2    | .00   | .1976 | .0898 | .0652 | -.0040 | .0037 | .0189 |
| 3    | .00   | .1964 | .0886 | .0609 | -.0038 | .0052 | .0188 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P559

RUN 688 CONFIG F P B NP5 W7 T43 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | O DELF PSI DEG | O DELA CLBAR SQ-FT | O IHT CDBAR SQ-FT | O DELE CPMBAR CU-FT | O DELR CYMBAR CU-FT | O DELS CRMBAR CU-FT | O DELSB CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|----------------|--------------------|-------------------|---------------------|---------------------|---------------------|---------------------|-------|---------|--------|
| 2       | 0         | 0              | 65.4               | 32.67             | 328.                | -53.                | 63.                 | 6.85                | 40.31 | 109.84  | 3050.  |
| 3       | 0         | 0              | 52.2               | -218.53           | -156.               | -95.                | 115.                | 3.62                | 40.47 | 110.08  | 23020. |
| 4       | -20.0     | 0              | -624.5             | -45.92            | 3020.               | 14.                 | 9.                  | 6.45                | 40.13 | 109.59  | 22960. |
| 5       | -15.0     | 0              | -547.1             | -134.20           | 1959.               | 67.                 | 20.                 | 1.87                | 40.08 | 109.53  | 22920. |
| 6       | -10.0     | 0              | -341.6             | -185.80           | 481.                | -17.                | 62.                 | 5.48                | 40.39 | 109.96  | 22970. |
| 7       | -20.0     | 0              | -616.3             | -47.25            | 2721.               | 52.                 | -12.                | 5.36                | 40.01 | 109.44  | 22960. |
| 8       | -5.0      | 0              | -136.4             | -205.26           | -32.                | -35.                | 88.                 | 4.52                | 40.67 | 110.35  | 22980. |
| 9       | -2.5      | 0              | -36.8              | -211.25           | -186.               | -46.                | 139.                | 3.62                | 40.47 | 110.07  | 22970. |
| 10      | 0         | 0              | 58.9               | -211.76           | -321.               | -61.                | 163.                | 3.96                | 40.46 | 110.06  | 22880. |
| 11      | 2.5       | 0              | 154.5              | -210.25           | -386.               | -53.                | 214.                | 1.85                | 40.44 | 110.04  | 22940. |
| 12      | 5.0       | 0              | 247.6              | -205.84           | -416.               | -76.                | 242.                | .17                 | 40.01 | 109.43  | 23000. |
| 13      | 10.0      | 0              | 423.2              | -183.69           | -545.               | -148.               | 266.                | -1.86               | 40.21 | 109.71  | 22950. |
| 14      | 15.0      | 0              | 584.9              | -145.30           | -810.               | -123.               | 292.                | -2.05               | 39.89 | 109.27  | 22970. |
| 15      | 20.0      | 0              | 636.4              | -82.20            | -521.               | -161.               | 218.                | -1.28               | 39.96 | 109.36  | 22910. |
| 16      | 0         | 0              | 59.9               | -214.04           | -330.               | -79.                | 239.                | 1.78                | 40.18 | 109.67  | 22970. |
| 17      | 17.5      | 0              | 613.7              | -116.65           | -764.               | -139.               | 291.                | -1.28               | 40.01 | 109.43  | 22980. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .1767   | .0883  | .1058  | -.0032 | .0038  | .0185  |
| 3    | 0.00   | .1410   | -.5906 | -.0504 | -.0057 | .0070  | .0098  |
| 4    | -20.00 | -1.6879 | -.1241 | .9738  | .0008  | .0006  | .0174  |
| 5    | -15.01 | -1.4787 | -.3627 | .6317  | .0041  | .0012  | .0051  |
| 6    | -10.00 | -.9231  | -.5022 | .1550  | -.0010 | .0037  | .0148  |
| 7    | -20.00 | -1.6656 | -.1277 | .8773  | .0032  | -.0007 | .0145  |
| 8    | -5.01  | -.3687  | -.5548 | -.0104 | -.0021 | .0053  | .0122  |
| 9    | -2.50  | -.0994  | -.5710 | -.0600 | -.0028 | .0084  | .0098  |
| 10   | 0.01   | .1592   | -.5723 | -.1034 | -.0037 | .0098  | .0107  |
| 11   | 2.50   | .4175   | -.5682 | -.1245 | -.0032 | .0129  | .0050  |
| 12   | 5.00   | .6691   | -.5563 | -.1343 | -.0046 | .0146  | .0005  |
| 13   | 9.99   | 1.1438  | -.4965 | -.1757 | -.0089 | .0161  | -.0050 |
| 14   | 15.00  | 1.5808  | -.3927 | -.2610 | -.0074 | .0176  | -.0055 |
| 15   | 20.00  | 1.7201  | -.2222 | -.1680 | -.0097 | .0132  | -.0035 |
| 16   | 0.01   | .1620   | -.5785 | -.1065 | -.0048 | .0144  | .0048  |
| 17   | 17.50  | 1.6588  | -.3153 | -.2463 | -.0084 | .0176  | -.0035 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .1767   | .0883  | .1058  | -.0032 | .0038  | .0185  |
| 3    | 0.00   | .1410   | -.5906 | -.0504 | -.0057 | .0070  | .0098  |
| 4    | -20.00 | -1.6879 | -.1241 | .9738  | .0008  | .0006  | .0174  |
| 5    | -15.01 | -1.4787 | -.3627 | .6317  | .0041  | .0012  | .0051  |
| 6    | -10.00 | -.9231  | -.5022 | .1550  | -.0010 | .0037  | .0148  |
| 7    | -20.00 | -1.6656 | -.1277 | .8773  | .0032  | -.0007 | .0145  |
| 8    | -5.01  | -.3687  | -.5548 | -.0104 | -.0021 | .0053  | .0122  |
| 9    | -2.50  | -.0994  | -.5710 | -.0600 | -.0028 | .0084  | .0098  |
| 10   | 0.01   | .1592   | -.5723 | -.1034 | -.0037 | .0098  | .0107  |
| 11   | 2.50   | .4175   | -.5682 | -.1245 | -.0032 | .0129  | .0050  |
| 12   | 5.00   | .6691   | -.5563 | -.1343 | -.0046 | .0146  | .0005  |
| 13   | 9.99   | 1.1438  | -.4965 | -.1757 | -.0089 | .0161  | -.0050 |
| 14   | 15.00  | 1.5808  | -.3927 | -.2610 | -.0074 | .0176  | -.0055 |

|    |       |        |        |        |        |       |        |
|----|-------|--------|--------|--------|--------|-------|--------|
| 15 | 20.00 | 1.7201 | -.2222 | -.1680 | -.0097 | .0132 | -.0035 |
| 16 | 0.01  | .1620  | -.5785 | -.1065 | -.0048 | .0144 | .0048  |
| 17 | 17.50 | 1.6588 | -.3153 | -.2463 | -.0084 | .0176 | -.0035 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P560

RUN 6A9 CONFIG F P B NP5 W7 T43 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | O DELTA CLBAR SQ-FT | O DELTA CDBAR SQ-FT | O IHT CU-FT | O DELE CYMBAR CU-FT | O DELR CRMBAR CU-FT | O DELSB Q SQ-FT | O V PSF | O V KNOTS | RPM    |
|---------|-----------|---------|---------------------|---------------------|-------------|---------------------|---------------------|-----------------|---------|-----------|--------|
| 2       | 0.0       | 0.0     | 72.6                | 32.37               | 216.        | -63.                | 61.                 | 6.84            | 55.28   | 128.94    | 3550.  |
| 3       | 0.0       | 0.0     | 70.0                | -7.17               | 93.         | -66.                | 79.                 | 6.18            | 55.63   | 129.37    | 11270. |
| 4       | -20.0     | 0.0     | -427.2              | 124.31              | 1878.       | -167.               | -129.               | 9.79            | 54.61   | 128.14    | 11290. |
| 5       | -15.0     | 0.0     | -383.6              | 62.30               | 2223.       | -284.               | 323.                | 14.50           | 54.97   | 128.58    | 11300. |
| 6       | -10.0     | 0.0     | -275.9              | 13.91               | 1167.       | -122.               | 51.                 | 10.23           | 55.28   | 128.94    | 11260. |
| 7       | -5.0      | 0.0     | -100.4              | -4.49               | 435.        | -78.                | 61.                 | 6.05            | 55.21   | 128.86    | 11310. |
| 8       | -2.5      | 0.0     | -14.1               | -7.54               | 250.        | -67.                | 42.                 | 7.29            | 55.12   | 128.75    | 11300. |
| 9       | 0.0       | 0.0     | 71.3                | -7.73               | 83.         | -65.                | 80.                 | 6.53            | 54.78   | 128.35    | 11320. |
| 10      | 2.5       | 0.0     | 153.3               | -3.89               | -58.        | -50.                | 82.                 | 5.23            | 55.38   | 129.06    | 11240. |
| 11      | 5.0       | 0.0     | 235.4               | 2.16                | -159.       | -44.                | 84.                 | 4.19            | 55.34   | 129.01    | 11330. |
| 12      | 10.0      | 0.0     | 397.9               | 24.40               | -316.       | -92.                | 139.                | 3.98            | 54.76   | 128.33    | 11250. |
| 13      | 15.0      | 0.0     | 528.9               | 60.47               | -556.       | -67.                | 159.                | 3.36            | 54.68   | 128.23    | 11300. |
| 14      | 17.5      | 0.0     | 548.4               | 85.78               | -554.       | -67.                | 142.                | 1.68            | 54.75   | 128.31    | 11370. |
| 15      | 20.0      | 0.0     | 554.0               | 118.12              | -322.       | -51.                | 107.                | 2.63            | 54.38   | 127.86    | 11300. |
| 16      | 20.0      | 0.0     | 553.1               | 118.43              | -318.       | -54.                | 90.                 | 2.51            | 54.35   | 127.83    | 11280. |
| 17      | 0.0       | 0.0     | 69.6                | -7.21               | 88.         | -76.                | 80.                 | 6.13            | 55.00   | 128.62    | 11280. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPH    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .1963   | .0875  | .0698  | -.0038 | .0037  | .0185 |
| 3    | 0.00   | .1892   | -.0194 | .0300  | -.0040 | .0048  | .0167 |
| 4    | -19.99 | -1.1547 | .3360  | .6054  | -.0101 | -.0078 | .0265 |
| 5    | -15.00 | -1.0367 | .1684  | .7168  | -.0171 | .0195  | .0392 |
| 6    | -10.00 | -.7458  | .0376  | .3764  | -.0074 | .0031  | .0276 |
| 7    | -5.00  | -.2713  | -.0121 | .1404  | -.0047 | .0037  | .0163 |
| 8    | -2.50  | -.0382  | -.0204 | .0807  | -.0041 | .0026  | .0197 |
| 9    | 0.00   | .1928   | -.0209 | .0267  | -.0039 | .0048  | .0176 |
| 10   | 2.50   | .4143   | -.0105 | -.0188 | -.0030 | .0049  | .0141 |
| 11   | 5.00   | .6361   | .0058  | -.0514 | -.0027 | .0051  | .0113 |
| 12   | 10.00  | 1.0753  | .0660  | -.1018 | -.0055 | .0084  | .0108 |
| 13   | 15.00  | 1.4294  | .1634  | -.1793 | -.0040 | -.0096 | .0091 |
| 14   | 17.50  | 1.4821  | .2318  | -.1787 | -.0040 | .0086  | .0045 |
| 15   | 20.00  | 1.4972  | .3192  | -.1039 | -.0031 | .0065  | .0071 |
| 16   | 20.00  | 1.4949  | .3201  | -.1027 | -.0033 | .0054  | .0068 |
| 17   | 0.00   | .1881   | -.0195 | .0283  | -.0046 | .0049  | .0166 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .1963   | .0875  | .0698  | -.0038 | .0037  | .0185 |
| 3    | 0.00   | .1892   | -.0194 | .0300  | -.0040 | .0048  | .0167 |
| 4    | -19.99 | -1.1547 | .3360  | .6054  | -.0101 | -.0078 | .0265 |
| 5    | -15.00 | -1.0367 | .1684  | .7168  | -.0171 | .0195  | .0392 |
| 6    | -10.00 | -.7458  | .0376  | .3764  | -.0074 | .0031  | .0276 |
| 7    | -5.00  | -.2713  | -.0121 | .1404  | -.0047 | .0037  | .0163 |
| 8    | -2.50  | -.0382  | -.0204 | .0807  | -.0041 | .0026  | .0197 |
| 9    | 0.00   | .1928   | -.0209 | .0267  | -.0039 | .0048  | .0176 |
| 10   | 2.50   | .4143   | -.0105 | -.0188 | -.0030 | .0049  | .0141 |
| 11   | 5.00   | .6361   | .0058  | -.0514 | -.0027 | .0051  | .0113 |
| 12   | 10.00  | 1.0753  | .0660  | -.1018 | -.0055 | .0084  | .0108 |
| 13   | 15.00  | 1.4294  | .1634  | -.1793 | -.0040 | -.0096 | .0091 |
| 14   | 17.50  | 1.4821  | .2318  | -.1787 | -.0040 | .0086  | .0045 |
| 15   | 20.00  | 1.4972  | .3192  | -.1039 | -.0031 | .0065  | .0071 |
| 16   | 20.00  | 1.4949  | .3201  | -.1027 | -.0033 | .0054  | .0068 |
| 17   | 0.00   | .1881   | -.0195 | .0283  | -.0046 | .0049  | .0166 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 561

RUN 690 CONFIG F P B NP5 W7 T43 BT IN=3.5

| PT. | NO. | IW    | 0.0 DELF | 0.0 DELA | 0.0 IHT | 0.0 DELE | 0.0 DELR | 0.0 DELSB | 0.0   |       |        |        |
|-----|-----|-------|----------|----------|---------|----------|----------|-----------|-------|-------|--------|--------|
|     |     | ALPHA | PSI      | CLBAR    | CDBAR   | CPMBAR   | CYMBAR   | CRMBAR    | CYBAR | Q     | V      | RPM    |
|     |     | DEG   | DEG      | SQ-FT    | SQ-FT   | CU-FT    | CU-FT    | CU-FT     | SQ-FT | PSF   | KNOTS  |        |
| 8   |     | 0     | 5.0      | 71.9     | -5.35   | -11.     | -209.    | 34.       | 51.60 | 55.46 | 129.16 | 11420. |
| 9   |     | -20.0 | 5.0      | -415.4   | 124.99  | 1881.    | -167.    | -654.     | 25.08 | 54.74 | 128.29 | 11410. |
| 10  |     | -15.0 | 5.0      | -384.3   | 59.01   | 1906.    | -266.    | -422.     | 39.57 | 54.84 | 128.41 | 11360. |
| 11  |     | -10.0 | 5.0      | -266.7   | 14.81   | 1058.    | -517.    | -34.      | 54.20 | 55.12 | 128.75 | 11390. |
| 12  |     | -5.0  | 5.0      | -96.8    | -1.72   | 324.     | -347.    | -46.      | 53.06 | 54.89 | 128.48 | 11330. |
| 14  |     | 0     | 5.0      | 73.5     | -5.42   | -22.     | -218.    | 37.       | 51.42 | 54.46 | 127.96 | 11370. |
| 15  |     | -2.5  | 5.0      | -10.2    | -5.76   | 149.     | -284.    | -4.       | 52.12 | 54.97 | 128.57 | 11380. |
| 16  |     | 2.5   | 5.0      | 156.5    | -1.73   | -171.    | -168.    | 57.       | 49.05 | 54.66 | 128.20 | 11300. |
| 17  |     | 5.0   | 5.0      | 238.7    | 3.96    | -273.    | -129.    | 93.       | 45.98 | 54.75 | 128.31 | 11370. |
| 18  |     | 10.0  | 5.0      | 397.9    | 25.89   | -451.    | -122.    | 213.      | 40.42 | 54.27 | 127.74 | 11380. |
| 19  |     | 15.0  | 5.0      | 530.4    | 64.36   | -808.    | -192.    | 326.      | 30.72 | 54.55 | 128.07 | 11300. |
| 20  |     | 20.0  | 5.0      | 552.1    | 119.02  | -775.    | -139.    | 468.      | 19.43 | 54.86 | 128.44 | 11350. |
| 21  |     | 0     | 5.0      | 72.4     | -5.42   | -22.     | -219.    | 57.       | 49.69 | 54.50 | 128.01 | 11360. |
| 22  |     | 0     | 5.0      | 74.8     | 34.73   | 92.      | -268.    | 25.       | 45.84 | 54.77 | 128.34 | 3490.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 8    | 0.00   | .1944   | -.0144 | -.0035 | -.0126 | .0021  | .1395 |
| 9    | -20.00 | -1.1227 | .3378  | .6065  | -.0101 | -.0395 | .0678 |
| 10   | -14.99 | -1.0387 | .1595  | .6146  | -.0161 | -.0255 | .1069 |
| 11   | -9.97  | -.7209  | .0400  | .3412  | -.0312 | -.0021 | .1465 |
| 12   | -5.01  | -.2615  | -.0047 | .1043  | -.0210 | -.0028 | .1434 |
| 14   | .03    | .1985   | -.0146 | -.0070 | -.0132 | .0022  | .1390 |
| 15   | -2.51  | -.0276  | -.0156 | .0481  | -.0171 | -.0003 | .1409 |
| 16   | 2.50   | .4229   | -.0047 | -.0550 | -.0101 | .0034  | .1326 |
| 17   | 5.01   | .6452   | .0107  | -.0881 | -.0078 | .0056  | .1243 |
| 18   | 9.99   | 1.0755  | .0700  | -.1454 | -.0074 | .0128  | .1093 |
| 19   | 15.00  | 1.4334  | .1739  | -.2604 | -.0116 | .0197  | .0830 |
| 20   | 20.00  | 1.4922  | .3217  | -.2500 | -.0084 | .0283  | .0525 |
| 21   | .00    | .1957   | -.0147 | -.0069 | -.0132 | .0034  | .1343 |
| 22   | .00    | .2021   | .0939  | .0296  | -.0162 | .0015  | .1239 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 8    | 0.00   | .1944   | -.0266 | -.0025 | -.0126 | .0020  | .1377 |
| 9    | -20.00 | -1.1227 | .3306  | .5857  | -.0101 | -.0294 | .0971 |
| 10   | -14.99 | -1.0387 | .1495  | .6004  | -.0161 | -.0153 | .1205 |
| 11   | -9.97  | -.7209  | .0270  | .3389  | -.0312 | .0035  | .1494 |
| 12   | -5.01  | -.2615  | -.0172 | .1026  | -.0210 | -.0011 | .1424 |
| 14   | .03    | .1985   | -.0268 | -.0060 | -.0132 | .0021  | .1372 |
| 15   | -2.51  | -.0276  | -.0279 | .0478  | -.0171 | .0005  | .1390 |
| 16   | 2.50   | .4229   | -.0163 | -.0532 | -.0101 | .0025  | .1316 |
| 17   | 5.01   | .6452   | -.0002 | -.0852 | -.0078 | .0041  | .1247 |
| 18   | 9.99   | 1.0755  | .0601  | -.1388 | -.0074 | .0104  | .1150 |
| 19   | 15.00  | 1.4334  | .1660  | -.2507 | -.0116 | .0153  | .0979 |
| 20   | 20.00  | 1.4922  | .3158  | -.2358 | -.0084 | .0240  | .0805 |
| 21   | .00    | .1957   | -.0264 | -.0053 | -.0132 | .0033  | .1325 |
| 22   | .00    | .2021   | .0826  | .0302  | -.0162 | .0020  | .1316 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 562

RUN 691 CONFIG F P B T43 BT

| PT. NO. | IW    | DELTA ALPHA | DELTA PSI | DELTA CLBAR | DELTA CDBAR | DELTA CPMBAR | DELTA CYMBAR | DELTA CRMBAR | DELTA CYBAR | DELTA Q | DELTA V | RPM |
|---------|-------|-------------|-----------|-------------|-------------|--------------|--------------|--------------|-------------|---------|---------|-----|
| 5       | 0     | 0           | 0         | -7.5        | 14.85       | 241.         | -82.         | -1.          | 5.78        | 54.22   | 127.70  | 0.  |
| 6       | -20.0 | 0           | 0         | -117.4      | 45.56       | 2973.        | -62.         | -8.          | .80         | 54.23   | 127.70  | 0.  |
| 7       | -15.0 | 0           | 0         | -104.7      | 31.10       | 2828.        | -169.        | 31.          | 5.06        | 54.58   | 128.11  | 0.  |
| 8       | -10.0 | 0           | 0         | -86.3       | 20.03       | 2410.        | -149.        | 9.           | 8.02        | 53.94   | 127.35  | 0.  |
| 9       | -5.0  | 0           | 0         | -46.6       | 15.46       | 1335.        | -99.         | -3.          | 5.81        | 53.92   | 127.33  | 0.  |
| 11      | 0     | 0           | 0         | -7.4        | 14.87       | 244.         | -83.         | 4.           | 6.29        | 53.97   | 127.39  | 0.  |
| 12      | 2.5   | 0           | 0         | 12.3        | 15.43       | -300.        | -69.         | 18.          | 5.23        | 54.52   | 128.04  | 0.  |
| 13      | 5.0   | 0           | 0         | 31.8        | 17.11       | -826.        | -83.         | 18.          | 5.98        | 54.26   | 127.74  | 0.  |
| 14      | 10.0  | 0           | 0         | 72.2        | 22.30       | -1897.       | -49.         | 21.          | 5.48        | 54.49   | 128.01  | 0.  |
| 15      | 15.0  | 0           | 0         | 87.3        | 37.45       | -2348.       | -50.         | -1.          | 5.97        | 54.38   | 127.87  | 0.  |
| 16      | 20.0  | 0           | 0         | 90.5        | 48.33       | -2335.       | -92.         | 16.          | 8.43        | 54.55   | 128.07  | 0.  |
| 17      | 0     | 0           | 0         | -7.0        | 14.68       | 238.         | -88.         | 4.           | 6.16        | 54.56   | 128.09  | 0.  |
| 18      | -2.5  | 0           | 0         | -27.3       | 14.81       | 802.         | -101.        | -3.          | 6.34        | 54.05   | 127.48  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 5    | 0.00   | -.0202 | .0401 | .0777  | -.0049 | -.0001 | .0156 |
| 6    | -20.00 | -.3172 | .1231 | .9584  | -.0037 | -.0005 | .0022 |
| 7    | -15.01 | -.2829 | .0841 | .9117  | -.0102 | .0019  | .0137 |
| 8    | -10.00 | -.2333 | .0541 | .7769  | -.0090 | .0006  | .0217 |
| 9    | -5.01  | -.1261 | .0418 | .4303  | -.0060 | -.0002 | .0157 |
| 11   | 0.01   | -.0201 | .0402 | .0786  | -.0050 | .0002  | .0170 |
| 12   | 2.53   | .0333  | .0417 | -.0966 | -.0042 | .0011  | .0141 |
| 13   | 5.03   | .0859  | .0462 | -.2662 | -.0050 | .0011  | .0162 |
| 14   | 10.00  | .1950  | .0603 | -.6116 | -.0029 | .0012  | .0148 |
| 15   | 15.00  | .2360  | .1012 | -.7570 | -.0030 | -.0001 | .0161 |
| 16   | 19.99  | .2446  | .1306 | -.7529 | -.0056 | -.0010 | .0228 |
| 17   | 0.00   | -.0190 | .0397 | .0766  | -.0053 | .0002  | .0166 |
| 18   | -2.51  | -.0739 | .0400 | .2584  | -.0061 | -.0002 | .0171 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 5    | 0.00   | -.0202 | .0401 | .0777  | -.0049 | -.0001 | .0156 |
| 6    | -20.00 | -.3172 | .1231 | .9584  | -.0037 | -.0005 | .0022 |
| 7    | -15.01 | -.2829 | .0841 | .9117  | -.0102 | .0019  | .0137 |
| 8    | -10.00 | -.2333 | .0541 | .7769  | -.0090 | .0006  | .0217 |
| 9    | -5.01  | -.1261 | .0418 | .4303  | -.0060 | -.0002 | .0157 |
| 11   | 0.01   | -.0201 | .0402 | .0786  | -.0050 | .0002  | .0170 |
| 12   | 2.53   | .0333  | .0417 | -.0966 | -.0042 | .0011  | .0141 |
| 13   | 5.03   | .0859  | .0462 | -.2662 | -.0050 | .0011  | .0162 |
| 14   | 10.00  | .1950  | .0603 | -.6116 | -.0029 | .0012  | .0148 |
| 15   | 15.00  | .2360  | .1012 | -.7570 | -.0030 | -.0001 | .0161 |
| 16   | 19.99  | .2446  | .1306 | -.7529 | -.0056 | -.0010 | .0228 |
| 17   | 0.00   | -.0190 | .0397 | .0766  | -.0053 | .0002  | .0166 |
| 18   | -2.51  | -.0739 | .0400 | .2584  | -.0061 | -.0002 | .0171 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 563

RUN 692 CONFIG F P B T44 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CU-FT | O.O DELE CU-FT | O.O DELR CU-FT | O.O DELSB SQ-FT | O.O DELSB PSF | O.O V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|-----------|----------------|----------------|-----------------|---------------|-------------|-----|
| 5       | 0         | 0             | -3.7              | 14.14             | 130.      | -68.           | 23.            | 5.56            | 54.11         | 127.56      | 0.  |
| 6       | -20.0     | 0             | -50.9             | 27.26             | 995.      | -34.           | 35.            | .40             | 54.10         | 127.54      | 0.  |
| 7       | -15.0     | 0             | -46.9             | 19.52             | 1142.     | -143.          | 92.            | 4.74            | 54.13         | 127.58      | 0.  |
| 8       | -10.0     | 0             | -32.8             | 15.26             | 894.      | -121.          | 71.            | 6.72            | 54.06         | 127.49      | 0.  |
| 9       | -5.0      | 0             | -18.3             | 14.45             | 534.      | -73.           | 46.            | 4.87            | 53.81         | 127.20      | 0.  |
| 10      | -2.5      | 0             | -11.0             | 13.96             | 334.      | -80.           | 39.            | 6.19            | 54.63         | 128.18      | 0.  |
| 11      | 0         | 0             | -3.5              | 14.30             | 129.      | -63.           | 41.            | 5.37            | 53.92         | 127.32      | 0.  |
| 12      | 2.5       | 0             | 4.3               | 14.49             | -76.      | -66.           | 30.            | 5.27            | 54.55         | 128.08      | 0.  |
| 13      | 5.0       | 0             | 11.7              | 15.51             | -273.     | -68.           | 31.            | 5.13            | 54.03         | 127.45      | 0.  |
| 14      | 10.0      | 0             | 25.8              | 17.49             | -634.     | -46.           | 26.            | 5.48            | 54.53         | 128.05      | 0.  |
| 15      | 15.0      | 0             | 39.7              | 20.67             | -930.     | -38.           | 17.            | 5.93            | 54.36         | 127.85      | 0.  |
| 16      | 20.0      | 0             | 45.0              | 25.93             | -882.     | -107.          | 2.             | 8.88            | 54.08         | 127.51      | 0.  |
| 17      | -0        | 0             | -3.4              | 14.06             | 134.      | -66.           | 29.            | 4.85            | 54.50         | 128.02      | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPH    | CYM    | CRM   | CY    |
|------|--------|--------|-------|--------|--------|-------|-------|
| 5    | 0.00   | -.0099 | .0382 | .0419  | -.0041 | .0014 | .0150 |
| 6    | -20.00 | -.1375 | .0737 | .3207  | -.0020 | .0021 | .0011 |
| 7    | -15.00 | -.1268 | .0527 | .3683  | -.0086 | .0055 | .0128 |
| 8    | -9.99  | -.0886 | .0412 | .2881  | -.0073 | .0043 | .0182 |
| 9    | -4.98  | -.0496 | .0391 | .1723  | -.0044 | .0028 | .0132 |
| 10   | -2.47  | -.0296 | .0377 | .1076  | -.0049 | .0023 | .0167 |
| 11   | 0.00   | -.0096 | .0387 | .0415  | -.0038 | .0025 | .0145 |
| 12   | 2.51   | .0116  | .0392 | -.0246 | -.0040 | .0018 | .0142 |
| 13   | 5.02   | .0317  | .0419 | -.0881 | -.0041 | .0019 | .0139 |
| 14   | 9.99   | .0697  | .0473 | -.2044 | -.0028 | .0016 | .0148 |
| 15   | 14.98  | .1073  | .0559 | -.3000 | -.0023 | .0010 | .0160 |
| 16   | 20.02  | .1217  | .0701 | -.2843 | -.0065 | .0001 | .0240 |
| 17   | -0.00  | -.0092 | .0380 | .0432  | -.0040 | .0018 | .0131 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|--------|-------|--------|--------|-------|-------|
| 5    | 0.00   | -.0099 | .0382 | .0419  | -.0041 | .0014 | .0150 |
| 6    | -20.00 | -.1375 | .0737 | .3207  | -.0020 | .0021 | .0011 |
| 7    | -15.00 | -.1268 | .0527 | .3683  | -.0086 | .0055 | .0128 |
| 8    | -9.99  | -.0886 | .0412 | .2881  | -.0073 | .0043 | .0182 |
| 9    | -4.98  | -.0496 | .0391 | .1723  | -.0044 | .0028 | .0132 |
| 10   | -2.47  | -.0296 | .0377 | .1076  | -.0049 | .0023 | .0167 |
| 11   | 0.00   | -.0096 | .0387 | .0415  | -.0038 | .0025 | .0145 |
| 12   | 2.51   | .0116  | .0392 | -.0246 | -.0040 | .0018 | .0142 |
| 13   | 5.02   | .0317  | .0419 | -.0881 | -.0041 | .0019 | .0139 |
| 14   | 9.99   | .0697  | .0473 | -.2044 | -.0028 | .0016 | .0148 |
| 15   | 14.98  | .1073  | .0559 | -.3000 | -.0023 | .0010 | .0160 |
| 16   | 20.02  | .1217  | .0701 | -.2843 | -.0065 | .0001 | .0240 |
| 17   | -0.00  | -.0092 | .0380 | .0432  | -.0040 | .0018 | .0131 |

ORIGINAL PAGE IS  
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RUN 693 CONFIG .F P B T44 BT

ALPHA=10

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| 6       | 10.0      | .0            | 26.2        | 17.77       | -607.        | -63.         | 10.          | 6.54        | 53.79 | 127.17  | 0.  |
| 7       | 10.0      | -20.0         | 46.8        | 64.53       | -1382.       | -320.        | 5.           | -558.69     | 55.73 | 129.49  | 0.  |
| 8       | 10.0      | -15.0         | 41.9        | 43.27       | -1253.       | 641.         | -156.        | -109.12     | 55.83 | 129.60  | 0.  |
| 9       | 10.0      | -10.0         | 33.0        | 27.85       | -951.        | 198.         | -85.         | -65.97      | 54.98 | 128.59  | 0.  |
| 10      | 10.0      | -4.9          | 28.3        | 19.57       | -699.        | -69.         | 38.          | -26.41      | 55.08 | 128.72  | 0.  |
| 11      | 10.0      | -2.5          | 27.0        | 17.99       | -638.        | -67.         | 20.          | -10.95      | 55.29 | 128.97  | 0.  |
| 12      | 10.0      | .0            | 25.6        | 17.49       | -620.        | -57.         | -9.          | 5.54        | 55.36 | 129.05  | 0.  |
| 13      | 10.0      | 2.5           | 26.3        | 18.17       | -647.        | -54.         | -1.          | 22.48       | 55.35 | 129.04  | 0.  |
| 14      | 10.0      | 5.0           | 28.4        | 20.80       | -752.        | -70.         | 14.          | 40.99       | 55.07 | 128.70  | 0.  |
| 15      | 10.0      | 10.0          | 35.4        | 29.07       | -1082.       | -357.        | 74.          | 81.50       | 55.33 | 129.00  | 0.  |
| 16      | 10.0      | 15.0          | 41.1        | 43.08       | -1275.       | -842.        | 142.         | 121.73      | 55.06 | 128.69  | 0.  |
| 17      | 10.0      | 15.0          | 40.9        | 42.95       | -1262.       | -838.        | 136.         | 121.11      | 55.11 | 128.74  | 0.  |
| 18      | 10.0      | 19.9          | 43.0        | 66.08       | -1262.       | -1463.       | 178.         | 163.41      | 55.31 | 128.97  | 0.  |
| 19      | 10.0      | .0            | 25.8        | 17.63       | -580.        | -52.         | -15.         | 5.24        | 55.28 | 128.95  | 0.  |
| 20      | 10.0      | -15.0         | 41.7        | 43.35       | -1231.       | 649.         | -157.        | -109.16     | 55.56 | 129.27  | 0.  |
| 21      | 10.0      | -19.9         | 46.9        | 64.88       | -1385.       | 1290.        | -241.        | -151.76     | 55.10 | 128.73  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY      |
|------|--------|-------|-------|--------|--------|--------|---------|
| 6    | .00    | .0708 | .0480 | -.1956 | -.0038 | -.0006 | .0177   |
| 7    | -20.00 | .1264 | .1744 | -.4455 | -.0193 | .0003  | -1.5100 |
| 8    | -15.00 | .1132 | .1169 | -.4040 | .0387  | -.0094 | -.2949  |
| 9    | -10.00 | .0892 | .0753 | -.3065 | .0120  | -.0052 | -.1783  |
| 10   | -4.90  | .0764 | .0529 | -.2253 | -.0041 | -.0023 | -.0714  |
| 11   | -2.50  | .0729 | .0486 | -.2058 | -.0041 | -.0012 | -.0296  |
| 12   | .00    | .0693 | .0473 | -.1999 | -.0035 | -.0005 | .0150   |
| 13   | 2.50   | .0709 | .0491 | -.2085 | -.0033 | -.0001 | .0608   |
| 14   | 5.00   | .0768 | .0562 | -.2425 | -.0042 | .0008  | .1108   |
| 15   | 10.00  | .0958 | .0786 | -.3488 | -.0215 | .0045  | .2203   |
| 16   | 15.00  | .1110 | .1164 | -.4111 | -.0509 | .0086  | .3290   |
| 17   | 15.00  | .1105 | .1161 | -.4068 | -.0506 | .0082  | .3273   |
| 18   | 19.90  | .1163 | .1786 | -.4068 | -.0884 | .0108  | .4416   |
| 19   | .00    | .0698 | .0476 | -.1869 | -.0031 | -.0009 | .0142   |
| 20   | -15.00 | .1128 | .1172 | -.3969 | .0392  | -.0095 | -.2950  |
| 21   | -19.90 | .1267 | .1754 | -.4465 | .0779  | -.0146 | -.4102  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB     |
|------|--------|-------|--------|--------|--------|--------|---------|
| 6    | .00    | .0708 | .0480  | -.1956 | -.0038 | -.0006 | .0177   |
| 7    | -20.00 | .1264 | -.3549 | -.4189 | -.0193 | .0289  | -1.4780 |
| 8    | -15.00 | .1132 | .0362  | -.3770 | .0387  | .0106  | -.3152  |
| 9    | -10.00 | .0892 | .0430  | -.2970 | .0120  | .0049  | -.1887  |
| 10   | -4.90  | .0764 | .0466  | -.2235 | -.0041 | .0014  | -.0756  |
| 11   | -2.50  | .0729 | .0473  | -.2053 | -.0041 | .0005  | -.0317  |
| 12   | .00    | .0693 | .0473  | -.1999 | -.0035 | -.0005 | .0150   |
| 13   | 2.50   | .0709 | .0464  | -.2084 | -.0033 | -.0018 | .0629   |
| 14   | 5.00   | .0768 | .0463  | -.2411 | -.0042 | -.0031 | .1153   |
| 15   | 10.00  | .0958 | .0390  | -.3393 | -.0215 | -.0070 | .2306   |
| 16   | 15.00  | .1110 | .0269  | -.3851 | -.0509 | -.0117 | .3480   |
| 17   | 15.00  | .1105 | .0270  | -.3814 | -.0506 | -.0119 | .3463   |
| 18   | 19.90  | .1163 | .0168  | -.3626 | -.0884 | -.0159 | .4761   |

|    |        |       |       |        |        |        |        |
|----|--------|-------|-------|--------|--------|--------|--------|
| 19 | .00    | .0698 | .0476 | -.1869 | -.0031 | -.0009 | .0142  |
| 20 | -15.00 | .1128 | .0364 | -.3700 | .0392  | .0102  | -.3153 |
| 21 | -19.90 | .1267 | .0246 | -.3930 | .0779  | .0149  | -.4454 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 694 CONFIG F P B T38 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CU-FT | O.D DELE CU-FT | O.D DELR CRMBAR CU-FT | O.D DELR CYBAR SQ-FT | DELSB Q PSF | O.D V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|-----------|----------------|-----------------------|----------------------|-------------|-------------|-----|
| 5       | 0         | 0             | -5.3              | 14.32             | 127.      | -71.           | 17.                   | 5.10                 | 55.17       | 128.82      | 0.  |
| 6       | -20.0     | 0             | -84.8             | 38.46             | 1507.     | -37.           | 29.                   | 10                   | 55.23       | 128.89      | 0.  |
| 7       | -15.0     | 0             | -72.2             | 26.95             | 1381.     | -32.           | 21.                   | 1.27                 | 55.26       | 128.93      | 0.  |
| 8       | -10.0     | 0             | -62.4             | 17.72             | 1334.     | -95.           | 24.                   | 6.29                 | 55.08       | 128.71      | 0.  |
| 9       | -5.0      | 0             | -33.8             | 14.71             | 735.      | -79.           | 33.                   | 5.45                 | 54.77       | 128.35      | 0.  |
| 10      | -2.5      | 0             | -20.0             | 14.07             | 438.      | -80.           | 26.                   | 6.30                 | 55.33       | 129.01      | 0.  |
| 11      | 0         | 0             | -5.3              | 14.34             | 124.      | -70.           | 23.                   | 5.04                 | 55.18       | 128.83      | 0.  |
| 12      | 2.6       | 0             | 9.5               | 15.13             | -183.     | -64.           | 29.                   | 5.05                 | 55.34       | 129.02      | 0.  |
| 13      | 5.0       | 0             | 23.0              | 16.36             | -458.     | -75.           | 36.                   | 5.01                 | 55.33       | 129.01      | 0.  |
| 14      | 10.0      | 0             | 54.2              | 20.50             | -1103.    | -40.           | 50.                   | 5.31                 | 54.95       | 128.55      | 0.  |
| 15      | 15.0      | 0             | 63.2              | 33.65             | -1196.    | -25.           | 17.                   | 4.52                 | 55.06       | 128.68      | 0.  |
| 16      | 20.0      | 0             | 65.8              | 43.09             | -1114.    | -87.           | 13.                   | 8.39                 | 55.09       | 128.72      | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM   | CY    |
|------|--------|--------|-------|--------|--------|-------|-------|
| 5    | 0      | .0142  | .0387 | .0408  | -.0043 | .0010 | .0138 |
| 6    | -20.00 | -.2292 | .1039 | .4860  | -.0022 | .0018 | .0003 |
| 7    | -15.00 | -.1952 | .0728 | .4453  | -.0019 | .0013 | .0034 |
| 8    | -10.00 | -.1685 | .0479 | .4301  | -.0058 | .0014 | .0170 |
| 9    | -4.99  | -.0913 | .0398 | .2369  | -.0048 | .0020 | .0147 |
| 10   | -2.51  | -.0542 | .0380 | .1412  | -.0048 | .0016 | .0170 |
| 11   | 0      | .0142  | .0387 | .0399  | -.0042 | .0014 | .0136 |
| 12   | 2.56   | .0257  | .0409 | -.0590 | -.0039 | .0018 | .0136 |
| 13   | 5.01   | .0623  | .0442 | -.1476 | -.0045 | .0022 | .0135 |
| 14   | 9.99   | .1465  | .0554 | -.3556 | -.0024 | .0030 | .0144 |
| 15   | 15.00  | .1708  | .0909 | -.3855 | -.0015 | .0010 | .0122 |
| 16   | 20.00  | .1777  | .1165 | -.3590 | -.0053 | .0008 | .0227 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|--------|-------|--------|--------|-------|-------|
| 5    | 0      | .0142  | .0387 | .0408  | -.0043 | .0010 | .0138 |
| 6    | -20.00 | -.2292 | .1039 | .4860  | -.0022 | .0018 | .0003 |
| 7    | -15.00 | -.1952 | .0728 | .4453  | -.0019 | .0013 | .0034 |
| 8    | -10.00 | -.1685 | .0479 | .4301  | -.0058 | .0014 | .0170 |
| 9    | -4.99  | -.0913 | .0398 | .2369  | -.0048 | .0020 | .0147 |
| 10   | -2.51  | -.0542 | .0380 | .1412  | -.0048 | .0016 | .0170 |
| 11   | 0      | .0142  | .0387 | .0399  | -.0042 | .0014 | .0136 |
| 12   | 2.56   | .0257  | .0409 | -.0590 | -.0039 | .0018 | .0136 |
| 13   | 5.01   | .0623  | .0442 | -.1476 | -.0045 | .0022 | .0135 |
| 14   | 9.99   | .1465  | .0554 | -.3556 | -.0024 | .0030 | .0144 |
| 15   | 15.00  | .1708  | .0909 | -.3855 | -.0015 | .0010 | .0122 |
| 16   | 20.00  | .1777  | .1165 | -.3590 | -.0053 | .0008 | .0227 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 695 CONFIG F P B T38 BT

ALPHA=10

| PT.# | ALPHA DEG | DELTA PSI | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | DELR V KNOTS | RPM |
|------|-----------|-----------|-------------|-------------|---------------|-------------|---------------|-------------|-------------|--------------|-----|
| 6    | 10.0      | .0        | 52.6        | 22.17       | -1031.        | -66.        | -3.           | 5.25        | 55.16       | 128.81       | 0.  |
| 7    | 10.0      | -20.0     | 57.8        | 69.81       | -1194.        | 1222.       | -47.          | -149.13     | 55.20       | 128.86       | 0.  |
| 8    | 10.0      | -15.0     | 54.2        | 49.21       | -1073.        | 646.        | -5.           | -108.92     | 55.02       | 128.64       | 0.  |
| 9    | 10.0      | -10.0     | 51.1        | 34.74       | -1034.        | 252.        | -14.          | -67.14      | 55.07       | 128.70       | 0.  |
| 10   | 10.0      | -5.0      | 53.6        | 24.74       | -1093.        | -33.        | -23.          | -28.51      | 54.99       | 128.61       | 0.  |
| 11   | 10.0      | -2.5      | 52.9        | 22.99       | -1059.        | -49.        | 3.            | -12.39      | 55.08       | 128.71       | 0.  |
| 12   | 10.0      | .0        | 52.3        | 22.15       | -1055.        | -81.        | 2.            | 5.98        | 55.47       | 129.17       | 0.  |
| 13   | 10.0      | 2.5       | 53.4        | 22.93       | -1080.        | -80.        | 18.           | 22.37       | 55.12       | 128.76       | 0.  |
| 14   | 10.0      | 5.0       | 54.0        | 25.08       | -1108.        | -117.       | 24.           | 40.94       | 55.52       | 129.24       | 0.  |
| 15   | 10.0      | 10.0      | 55.3        | 33.86       | -1137.        | -393.       | 51.           | 82.07       | 55.12       | 128.76       | 0.  |
| 16   | 10.0      | 15.0      | 58.3        | 47.03       | -1251.        | -824.       | 93.           | 120.61      | 55.52       | 129.23       | 0.  |
| 17   | 10.0      | 20.0      | 61.1        | 67.41       | -1368.        | -1386.      | 169.          | 161.90      | 55.20       | 128.85       | 0.  |
| 18   | 10.0      | .0        | 54.5        | 20.96       | -1059.        | -42.        | 20.           | 4.87        | 55.52       | 129.23       | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | Cy     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | .00    | .1420 | .0599 | -.3325 | -.0040 | -.0002 | .0142  |
| 7    | -20.00 | .1563 | .1887 | -.3848 | .0738  | -.0028 | -.4030 |
| 8    | -15.00 | .1465 | .1330 | -.3458 | .0390  | -.0003 | -.2944 |
| 9    | -10.00 | .1380 | .0939 | -.3333 | .0152  | -.0008 | -.1815 |
| 10   | -5.00  | .1449 | .0669 | -.3525 | -.0020 | -.0014 | -.0771 |
| 11   | -2.50  | .1429 | .0621 | -.3413 | -.0029 | .0002  | -.0335 |
| 12   | .00    | .1413 | .0599 | -.3400 | -.0049 | .0001  | .0162  |
| 13   | 2.50   | .1443 | .0620 | -.3480 | -.0048 | .0011  | .0605  |
| 14   | 5.00   | .1459 | .0678 | -.3572 | -.0071 | .0015  | .1107  |
| 15   | 10.00  | .1494 | .0915 | -.3666 | -.0237 | .0031  | .2218  |
| 16   | 15.00  | .1576 | .1271 | -.4033 | -.0498 | .0056  | .3260  |
| 17   | 20.00  | .1652 | .1822 | -.4410 | -.0837 | .0102  | .4376  |
| 18   | .00    | .1472 | .0567 | -.3414 | -.0025 | .0012  | .0132  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | .00    | .1420 | .0599 | -.3325 | -.0040 | -.0002 | .0142  |
| 7    | -20.00 | .1563 | .0387 | -.3562 | .0738  | .0221  | -.4433 |
| 8    | -15.00 | .1465 | .0519 | -.3335 | .0390  | .0165  | -.3188 |
| 9    | -10.00 | .1380 | .0608 | -.3275 | .0152  | .0101  | -.1951 |
| 10   | -5.00  | .1449 | .0599 | -.3505 | -.0020 | .0044  | -.0826 |
| 11   | -2.50  | .1429 | .0606 | -.3411 | -.0029 | .0030  | -.0362 |
| 12   | .00    | .1413 | .0599 | -.3400 | -.0049 | .0001  | .0162  |
| 13   | 2.50   | .1443 | .0593 | -.3474 | -.0048 | -.0018 | .0631  |
| 14   | 5.00   | .1459 | .0578 | -.3551 | -.0071 | -.0044 | .1162  |
| 15   | 10.00  | .1494 | .0514 | -.3582 | -.0237 | -.0090 | .2344  |
| 16   | 15.00  | .1576 | .0380 | -.3817 | -.0498 | -.0142 | .3478  |
| 17   | 20.00  | .1652 | .0208 | -.3954 | -.0837 | -.0188 | .4735  |
| 18   | .00    | .1472 | .0567 | -.3414 | -.0025 | .0012  | .0132  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 696 CONFIG F P B T44 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM8AR CU-FT | CYMBAR CU-FT | CRM8AR CU-FT | CYBAR SQ-FT | DELS <sub>0</sub> PSF | V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-----------------------|---------|-----|
| 5       | 0         | 0             | -7          | 14.41       | 2            | -62          | 22           | 5.50        | 55.09                 | 128.74  | 0   |
| 6       | 0         | -20.0         | 21.8        | 56.03       | -742         | 1472         | -424         | -148.10     | 55.16                 | 128.81  | 0   |
| 7       | 0         | -15.0         | 13.3        | 36.14       | -491         | 862          | -254         | -102.45     | 55.07                 | 128.71  | 0   |
| 8       | 0         | -10.0         | 5.9         | 21.69       | -249         | 314          | -132         | -58.23      | 55.44                 | 129.15  | 0   |
| 9       | 0         | -5.0          | 2.0         | 15.54       | -95          | 71           | -53          | -24.38      | 55.24                 | 128.91  | 0   |
| 10      | 0         | -2.5          | -7          | 14.63       | -22          | -4           | -29          | -9.04       | 55.53                 | 129.25  | 0   |
| 11      | 0         | 0             | -7          | 14.21       | -8           | -55          | 23           | 4.79        | 55.23                 | 128.89  | 0   |
| 12      | 0         | 2.5           | -7          | 15.16       | -29          | -91          | 41           | 20.11       | 55.17                 | 128.83  | 0   |
| 13      | 0         | 5.0           | 8           | 16.14       | -78          | -151         | 65           | 36.20       | 55.58                 | 129.31  | 0   |
| 14      | 0         | 10.0          | 6.6         | 21.21       | -277         | -449         | 143          | 72.18       | 55.20                 | 128.86  | 0   |
| 15      | 0         | 15.0          | 15.2        | 33.60       | -583         | -1019        | 283          | 114.87      | 55.31                 | 128.99  | 0   |
| 16      | 0         | 20.0          | 23.6        | 54.61       | -864         | -1580        | 482          | 159.90      | 55.20                 | 128.86  | 0   |
| 17      | 0         | 0             | -4          | 14.25       | 5            | -58          | 17           | 5.32        | 55.44                 | 129.14  | 0   |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 5    | .00    | -.0019 | .0389 | .0008  | -.0038 | .0013  | .0149  |
| 6    | -20.00 | .0589  | .1514 | -.2392 | .0889  | -.0256 | -.4003 |
| 7    | -15.00 | .0358  | .0977 | -.1584 | .0521  | -.0154 | -.2769 |
| 8    | -10.00 | .0159  | .0586 | -.0802 | .0190  | -.0080 | -.1574 |
| 9    | -5.00  | .0055  | .0420 | -.0305 | .0043  | -.0032 | -.0659 |
| 10   | -2.50  | -.0001 | .0395 | -.0072 | -.0002 | -.0017 | -.0244 |
| 11   | .00    | -.0019 | .0384 | -.0025 | -.0033 | .0014  | .0129  |
| 12   | 2.50   | -.0018 | .0410 | -.0093 | -.0055 | .0025  | .0543  |
| 13   | 5.00   | .0021  | .0436 | -.0253 | -.0091 | .0039  | .0978  |
| 14   | 10.00  | .0180  | .0573 | -.0891 | -.0271 | .0087  | .1951  |
| 15   | 15.00  | .0410  | .0908 | -.1880 | -.0616 | .0171  | .3105  |
| 16   | 20.00  | .0639  | .1476 | -.2785 | -.0954 | .0291  | .4322  |
| 17   | .00    | -.0011 | .0385 | .0017  | -.0035 | .0010  | .0144  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 5    | .00    | -.0019 | .0389  | .0008  | -.0038 | .0013  | .0149  |
| 6    | -20.00 | .0589  | .0047  | -.1777 | .0889  | -.0087 | -.4279 |
| 7    | -15.00 | .0358  | .0223  | -.1317 | .0521  | -.0071 | -.2928 |
| 8    | -10.00 | .0159  | .0303  | -.0716 | .0190  | -.0053 | -.1652 |
| 9    | -5.00  | .0055  | .0361  | -.0289 | .0043  | -.0027 | -.0693 |
| 10   | -2.50  | -.0001 | .0384  | -.0068 | -.0002 | -.0017 | -.0261 |
| 11   | .00    | -.0019 | .0384  | -.0025 | -.0033 | .0014  | .0129  |
| 12   | 2.50   | -.0018 | .0386  | -.0088 | -.0055 | .0024  | .0561  |
| 13   | 5.00   | .0021  | .0349  | -.0233 | -.0091 | .0035  | .1013  |
| 14   | 10.00  | .0180  | .0224  | -.0797 | -.0271 | .0056  | .2021  |
| 15   | 15.00  | .0410  | .0070  | -.1578 | -.0616 | .0074  | .3234  |
| 16   | 20.00  | .0639  | -.0098 | -.2082 | -.0954 | .0094  | .4566  |
| 17   | .00    | -.0011 | .0385  | .0017  | -.0035 | .0010  | .0144  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 697 CONF16 F P B T44 BT

| PT. NO. | ALPHA DEG | DELTA PSI | DELTA CLBAR | DELTA CDBAR | IHT SQ-FT | O DELE CU-FT | DELTA CRMBAR | DELTA CYBAR | DELTA O DELTSB @ PSF | O V KNOTS | RPM |
|---------|-----------|-----------|-------------|-------------|-----------|--------------|--------------|-------------|----------------------|-----------|-----|
| 6       | -10.0     | .0        | -30.3       | 15.59       | 782.      | -83.         | 51.          | 4.16        | 55.41                | 129.13    | 0.  |
| 7       | -10.0     | -20.3     | -1.8        | 63.79       | -88.      | 2032.        | -678.        | -169.14     | 55.24                | 128.92    | 0.  |
| 8       | -10.0     | -15.0     | -14.9       | 41.32       | 195.      | 1487.        | -452.        | -121.25     | 55.57                | 129.31    | 0.  |
| 9       | -10.0     | -10.0     | -23.2       | 26.60       | 495.      | 907.         | -268.        | -74.47      | 55.09                | 128.74    | 0.  |
| 10      | -10.0     | -5.0      | -27.2       | 18.91       | 648.      | 196.         | -221.        | -28.60      | 55.66                | 129.41    | 0.  |
| 11      | -10.0     | -2.5      | -29.4       | 16.60       | 728.      | 188.         | -30.         | -16.38      | 55.44                | 129.16    | 0.  |
| 12      | -10.0     | .0        | -30.5       | 15.51       | 750.      | -81.         | 50.          | 4.56        | 55.49                | 129.22    | 0.  |
| 13      | -10.0     | 2.5       | -31.0       | 15.99       | 740.      | -324.        | 156.         | 25.30       | 55.48                | 129.20    | 0.  |
| 14      | -10.0     | 5.0       | -29.7       | 18.35       | 695.      | -445.        | 138.         | 41.91       | 55.60                | 129.34    | 0.  |
| 15      | -10.0     | 10.0      | -22.6       | 25.05       | 444.      | -928.        | 291.         | 86.57       | 55.38                | 129.08    | 0.  |
| 16      | -10.0     | 15.0      | -11.5       | 39.48       | 19.       | -1396.       | 496.         | 130.01      | 55.13                | 128.78    | 0.  |
| 17      | -10.0     | 20.0      | -2.5        | 63.55       | -200.     | -1943.       | 727.         | 175.40      | 55.26                | 128.94    | 0.  |
| 18      | -10.0     | .0        | -30.4       | 15.52       | 782.      | -85.         | 57.          | 3.81        | 55.42                | 129.13    | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .00    | -.0820 | .0421 | .2522  | -.0050 | .0031  | .0112  |
| 7    | -20.30 | -.0048 | .1724 | -.0283 | .1227  | -.0409 | -.4571 |
| 8    | -15.00 | -.0403 | .1117 | .0630  | .0898  | -.0273 | -.3277 |
| 9    | -10.00 | -.0627 | .0719 | .1595  | .0548  | -.0162 | -.2013 |
| 10   | -5.00  | -.0736 | .0511 | .2088  | .0118  | -.0134 | -.0773 |
| 11   | -2.50  | -.0795 | .0449 | .2348  | .0113  | -.0018 | -.0443 |
| 12   | .00    | -.0825 | .0419 | .2418  | -.0049 | .0030  | .0123  |
| 13   | 2.50   | -.0839 | .0432 | .2386  | -.0196 | .0094  | .0684  |
| 14   | 5.00   | -.0802 | .0496 | .2241  | -.0269 | .0084  | .1133  |
| 15   | 10.00  | -.0611 | .0677 | .1430  | -.0561 | .0176  | .2340  |
| 16   | 15.00  | -.0305 | .1067 | .0060  | -.0643 | .0300  | .3514  |
| 17   | 20.00  | -.0067 | .1718 | -.0644 | -.1174 | .0439  | .4740  |
| 18   | .00    | -.0822 | .0419 | .2521  | -.0051 | .0034  | .0103  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB  | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|-------|--------|--------|--------|
| 6    | .00    | -.0820 | .0421  | .2522 | -.0050 | .0031  | .0112  |
| 7    | -20.30 | -.0048 | .0023  | .0496 | .1227  | -.0365 | -.4886 |
| 8    | -15.00 | -.0403 | .0226  | .0987 | .0898  | -.0294 | -.3455 |
| 9    | -10.00 | -.0627 | .0357  | .1722 | .0548  | -.0212 | -.2107 |
| 10   | -5.00  | -.0736 | .0442  | .2143 | .0118  | -.0167 | -.0815 |
| 11   | -2.50  | -.0795 | .0429  | .2350 | .0113  | -.0038 | -.0462 |
| 12   | .00    | -.0825 | .0419  | .2418 | -.0049 | .0030  | .0123  |
| 13   | 2.50   | -.0839 | .0402  | .2406 | -.0196 | .0114  | .0702  |
| 14   | 5.00   | -.0802 | .0395  | .2271 | -.0269 | .0120  | .1172  |
| 15   | 10.00  | -.0611 | .0259  | .1572 | -.0561 | .0220  | .2422  |
| 16   | 15.00  | -.0305 | .0117  | .0474 | -.0843 | .0292  | .3670  |
| 17   | 20.00  | -.0067 | -.0015 | .0201 | -.1174 | .0371  | .5042  |
| 18   | .00    | -.0822 | .0419  | .2521 | -.0051 | .0034  | .0103  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 569

RUN 698 CONFIG F P B T44 BT

| PT. NO. | IW | - DELF<br>ALPHA<br>DEG | - DELA<br>PSI<br>DEG | - IHT<br>CLBAR<br>SQ-FT | -10 DELE<br>CDBAR<br>SQ-FT | - DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>DELSB<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM |
|---------|----|------------------------|----------------------|-------------------------|----------------------------|---------------------------|----------------------------|----------------------|---------------------|------------------------|-----------------|-----|
| 5       |    | .0                     | .0                   | -24.7                   | 16.08                      | 1086.                     | -80.                       | -3.                  | 6.74                | 54.90                  | 128.52          | 0.  |
| 6       |    | -20.0                  | .0                   | -41.7                   | 33.96                      | 770.                      | -22.                       | 25.                  | -81                 | 54.93                  | 128.55          | 0.  |
| 7       |    | -15.0                  | .0                   | -33.7                   | 27.68                      | 755.                      | -68.                       | 58.                  | 3.46                | 54.87                  | 128.48          | 0.  |
| 8       |    | -10.0                  | .0                   | -28.7                   | 22.50                      | 824.                      | -35.                       | 40.                  | 3.84                | 54.35                  | 127.86          | 0.  |
| 9       |    | -5.0                   | .0                   | -34.1                   | 18.40                      | 1276.                     | -34.                       | 17.                  | 3.87                | 55.44                  | 129.16          | 0.  |
| 10      |    | -2.5                   | .0                   | -32.0                   | 16.33                      | 1281.                     | -59.                       | 21.                  | 5.50                | 55.57                  | 129.31          | 0.  |
| 11      |    | -.0                    | .0                   | -25.0                   | 15.95                      | 1063.                     | -79.                       | 27.                  | 6.05                | 55.20                  | 128.87          | 0.  |
| 12      |    | 2.5                    | .0                   | -16.9                   | 15.56                      | 872.                      | -75.                       | 29.                  | 5.10                | 55.47                  | 129.19          | 0.  |
| 14      |    | 10.0                   | .0                   | -5.0                    | 16.48                      | 305.                      | -95.                       | 19.                  | 7.58                | 55.58                  | 129.33          | 0.  |
| 15      |    | 15.0                   | .0                   | 20.1                    | 18.52                      | -32.                      | -84.                       | 10.                  | 7.13                | 55.60                  | 129.35          | 0.  |
| 16      |    | 17.5                   | .0                   | 26.7                    | 20.26                      | -181.                     | -76.                       | -6.                  | 7.62                | 55.58                  | 129.32          | 0.  |
| 17      |    | 20.0                   | .0                   | 31.3                    | 21.90                      | -255.                     | -103.                      | -16.                 | 9.25                | 55.74                  | 129.50          | 0.  |
| 18      |    | 5.0                    | .0                   | -9.9                    | 15.84                      | 678.                      | -150.                      | 15.                  | 8.56                | 55.70                  | 129.46          | 0.  |
| 19      |    | -.0                    | .0                   | -24.9                   | 15.94                      | 1060.                     | -86.                       | 27.                  | 6.15                | 55.53                  | 129.27          | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CU    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 5    | .00    | -.0668 | .0434 | .3501  | -.0048 | -.0002 | .0182  |
| 6    | -20.00 | -.1126 | .0918 | .2484  | -.0013 | .0015  | -.0022 |
| 7    | -15.00 | -.0912 | .0748 | .2435  | -.0041 | .0035  | .0093  |
| 8    | -10.00 | -.0777 | .0608 | .2657  | -.0021 | .0024  | .0104  |
| 9    | -5.00  | -.0921 | .0497 | .4114  | -.0020 | .0010  | .0105  |
| 10   | -2.50  | -.0865 | .0441 | .4130  | -.0035 | .0013  | .0149  |
| 11   | -.00   | -.0675 | .0431 | .3491  | -.0048 | .0017  | .0163  |
| 12   | 2.50   | -.0457 | .0420 | .2810  | -.0045 | .0018  | .0138  |
| 14   | 10.00  | .0135  | .0445 | .0982  | -.0057 | .0011  | .0205  |
| 15   | 15.00  | .0542  | .0501 | -.0103 | -.0050 | .0006  | .0193  |
| 16   | 17.50  | .0721  | .0547 | -.0582 | -.0046 | -.0004 | .0206  |
| 17   | 20.00  | .0847  | .0592 | -.0822 | -.0062 | -.0009 | .0250  |
| 18   | 5.00   | -.0268 | .0428 | .2187  | -.0091 | .0009  | .0231  |
| 19   | -.00   | -.0673 | .0431 | .3483  | -.0052 | .0016  | .0166  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 5    | .00    | -.0668 | .0434 | .3501  | -.0046 | -.0002 | .0182  |
| 6    | -20.00 | -.1126 | .0918 | .2484  | -.0013 | .0015  | -.0022 |
| 7    | -15.00 | -.0912 | .0748 | .2435  | -.0041 | .0035  | .0093  |
| 8    | -10.00 | -.0777 | .0608 | .2657  | -.0021 | .0024  | .0104  |
| 9    | -5.00  | -.0921 | .0497 | .4114  | -.0020 | .0010  | .0105  |
| 10   | -2.50  | -.0865 | .0441 | .4130  | -.0035 | .0013  | .0149  |
| 11   | -.00   | -.0675 | .0431 | .3491  | -.0048 | .0017  | .0163  |
| 12   | 2.50   | -.0457 | .0420 | .2810  | -.0045 | .0018  | .0138  |
| 14   | 10.00  | .0135  | .0445 | .0982  | -.0057 | .0011  | .0205  |
| 15   | 15.00  | .0542  | .0501 | -.0103 | -.0050 | .0006  | .0193  |
| 16   | 17.50  | .0721  | .0547 | -.0582 | -.0046 | -.0004 | .0206  |
| 17   | 20.00  | .0847  | .0592 | -.0822 | -.0062 | -.0009 | .0250  |
| 18   | 5.00   | -.0268 | .0428 | .2187  | -.0091 | .0009  | .0231  |
| 19   | -.00   | -.0673 | .0431 | .3483  | -.0052 | .0016  | .0166  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 570

RUN 699 CONFIG F P B T44 BT

| PT. NO. | - DELF    |         | - DELA      |             | - IHT        |              | -5 RELE      |             | - DELR |        | 0 NELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|--------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF    | KNOTS  |         |  |     |
| 2       | .0        | .0      | -12.6       | 14.98       | 522.         | -79.         | 10.          | 6.18        | 54.74  | 128.32 | 0.      |  |     |
| 3       | -20.0     | .0      | -40.6       | 31.53       | 665.         | -30.         | 51.          | .78         | 55.08  | 128.73 | 0.      |  |     |
| 4       | -15.0     | .0      | -40.1       | 24.26       | 946.         | -80.         | 57.          | 3.79        | 55.09  | 128.74 | 0.      |  |     |
| 5       | -10.0     | .0      | -36.8       | 18.17       | 1099.        | -30.         | 30.          | 2.98        | 55.30  | 128.99 | 0.      |  |     |
| 6       | -5.0      | .0      | -27.0       | 15.75       | 911.         | -66.         | 34.          | 4.27        | 55.01  | 128.64 | 0.      |  |     |
| 7       | -2.5      | .0      | -19.7       | 15.01       | 714.         | -76.         | 23.          | 4.29        | 55.35  | 129.05 | 0.      |  |     |
| 8       | .0        | .0      | -12.7       | 14.66       | 523.         | -79.         | 27.          | 6.10        | 55.62  | 129.37 | 0.      |  |     |
| 9       | 2.5       | .0      | -5.0        | 15.07       | 318.         | -68.         | 18.          | 5.38        | 55.09  | 128.74 | 0.      |  |     |
| 10      | 5.0       | .0      | 2.7         | 15.27       | 122.         | -83.         | 24.          | 6.02        | 55.28  | 128.96 | 0.      |  |     |
| 11      | 10.0      | .0      | 17.2        | 16.91       | -247.        | -71.         | 8.           | 6.30        | 55.38  | 129.08 | 0.      |  |     |
| 12      | 15.0      | .0      | 32.1        | 20.01       | -583.        | -95.         | 4.           | 8.24        | 55.25  | 128.92 | 0.      |  |     |
| 13      | 17.5      | .0      | 37.4        | 21.78       | -667.        | -99.         | -18.         | 8.71        | 55.25  | 128.92 | 0.      |  |     |
| 14      | 20.0      | .0      | 40.6        | 23.63       | -668.        | -113.        | -16.         | 10.25       | 55.38  | 129.08 | 0.      |  |     |
| 15      | .0        | .0      | -12.7       | 14.93       | 524.         | -87.         | 27.          | 6.64        | 54.93  | 128.55 | 0.      |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CU    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | -.0341 | .0405 | .1684  | -.0048 | .0006  | .0167 |
| 3    | -19.99 | -.1098 | .0852 | .2143  | -.0018 | .0031  | .0021 |
| 4    | -14.99 | -.1083 | .0656 | .3051  | -.0048 | .0034  | .0103 |
| 5    | -10.00 | -.0995 | .0491 | .3542  | -.0018 | .0018  | .0080 |
| 6    | -5.00  | -.0729 | .0425 | .2936  | -.0040 | .0021  | .0115 |
| 7    | -2.50  | -.0532 | .0406 | .2303  | -.0046 | .0014  | .0116 |
| 8    | .00    | -.0343 | .0396 | .1685  | -.0048 | .0016  | .0165 |
| 9    | 2.50   | -.0134 | .0407 | .1026  | -.0041 | .0011  | .0145 |
| 10   | 5.01   | .0073  | .0413 | .0394  | -.0050 | .0014  | .0163 |
| 11   | 10.01  | .0466  | .0457 | -.0796 | -.0043 | .0005  | .0170 |
| 12   | 15.01  | .0867  | .0541 | -.1879 | -.0057 | .0003  | .0223 |
| 13   | 17.51  | .1009  | .0589 | -.2149 | -.0060 | -.0011 | .0236 |
| 14   | 20.00  | .1097  | .0639 | -.2153 | -.0068 | -.0009 | .0277 |
| 15   | .00    | -.0344 | .0403 | .1688  | -.0053 | .0016  | .0179 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | -.0341 | .0405 | .1684  | -.0048 | .0006  | .0167 |
| 3    | -19.99 | -.1098 | .0852 | .2143  | -.0018 | .0031  | .0021 |
| 4    | -14.99 | -.1083 | .0656 | .3051  | -.0048 | .0034  | .0103 |
| 5    | -10.00 | -.0995 | .0491 | .3542  | -.0018 | .0018  | .0080 |
| 6    | -5.00  | -.0729 | .0425 | .2936  | -.0040 | .0021  | .0115 |
| 7    | -2.50  | -.0532 | .0406 | .2303  | -.0046 | .0014  | .0116 |
| 8    | .00    | -.0343 | .0396 | .1685  | -.0048 | .0016  | .0165 |
| 9    | 2.50   | -.0134 | .0407 | .1026  | -.0041 | .0011  | .0145 |
| 10   | 5.01   | .0073  | .0413 | .0394  | -.0050 | .0014  | .0163 |
| 11   | 10.01  | .0466  | .0457 | -.0796 | -.0043 | .0005  | .0170 |
| 12   | 15.01  | .0867  | .0541 | -.1879 | -.0057 | .0003  | .0223 |
| 13   | 17.51  | .1009  | .0589 | -.2149 | -.0060 | -.0011 | .0236 |
| 14   | 20.00  | .1097  | .0639 | -.2153 | -.0068 | -.0009 | .0277 |
| 15   | .00    | -.0344 | .0403 | .1688  | -.0053 | .0016  | .0179 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 571

RUN 700 CONFIG F P B T44 BT

| PT. NO. | - UELF    |         | - DELA      |             | - IHT        |              | S DELE       |             | - DELR |         | O DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | V KNOTS |         |  |     |
| 2       | .0        | .0      | 8.5         | 14.76       | -431.        | -72.         | 15.          | 6.48        | 55.19  | 128.86  | 0.      |  |     |
| 3       | -20.0     | .0      | -49.9       | 24.53       | 857.         | -5.          | 25.          | -8.5        | 55.08  | 128.72  | 0.      |  |     |
| 4       | -15.0     | .0      | -37.8       | 17.35       | 696.         | -55.         | 41.          | 2.69        | 55.28  | 128.96  | 0.      |  |     |
| 5       | -10.0     | .0      | -21.0       | 14.37       | 346.         | -59.         | 45.          | 4.16        | 55.12  | 128.77  | 0.      |  |     |
| 6       | -5.0      | .0      | -5.7        | 13.95       | -30.         | -56.         | 29.          | 3.90        | 55.60  | 129.34  | 0.      |  |     |
| 7       | -2.5      | .0      | 1.6         | 14.25       | -229.        | -68.         | 29.          | 4.68        | 55.13  | 128.78  | 0.      |  |     |
| 8       | -.0       | .0      | 8.5         | 14.88       | -432.        | -65.         | 28.          | 5.99        | 55.01  | 128.64  | 0.      |  |     |
| 9       | 2.5       | .0      | 16.3        | 15.40       | -636.        | -54.         | 29.          | 5.71        | 55.24  | 128.91  | 0.      |  |     |
| 10      | 5.0       | .0      | 23.9        | 16.88       | -851.        | -41.         | 19.          | 5.05        | 55.07  | 128.71  | 0.      |  |     |
| 11      | 10.0      | .0      | 37.7        | 19.86       | -1176.       | -46.         | 14.          | 5.72        | 54.77  | 128.36  | 0.      |  |     |
| 12      | 15.0      | .0      | 45.3        | 25.84       | -1162.       | -122.        | -19.         | 8.19        | 55.15  | 128.81  | 0.      |  |     |
| 13      | 17.5      | .0      | 47.2        | 27.71       | -1138.       | -123.        | -29.         | 8.94        | 55.51  | 129.23  | 0.      |  |     |
| 14      | 20.0      | .0      | 45.4        | 30.65       | -930.        | -129.        | -39.         | 10.34       | 55.44  | 129.15  | 0.      |  |     |
| 15      | .0        | .0      | 8.3         | 14.81       | -429.        | -69.         | 21.          | 6.51        | 54.97  | 128.59  | 0.      |  |     |
| 16      | 5.0       | .0      | 23.6        | 16.74       | -823.        | -54.         | 19.          | 5.01        | 55.56  | 129.29  | 0.      |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CU    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0229  | .0399 | -.1389 | -.0043 | .0009  | .0175  |
| 3    | -20.00 | -.1350 | .0663 | .2762  | -.0003 | .0015  | -.0023 |
| 4    | -15.00 | -.1020 | .0469 | .2245  | -.0034 | .0025  | .0073  |
| 5    | -10.00 | -.0567 | .0388 | .1116  | -.0036 | .0027  | .0112  |
| 6    | -5.00  | -.0155 | .0377 | -.0098 | -.0034 | .0017  | .0105  |
| 7    | -2.50  | .0042  | .0385 | -.0739 | -.0041 | .0017  | .0126  |
| 8    | -.00   | .0229  | .0402 | -.1393 | -.0039 | .0017  | .0162  |
| 9    | 2.50   | .0440  | .0416 | -.2050 | -.0032 | .0017  | .0154  |
| 10   | 5.00   | .0645  | .0456 | -.2679 | -.0025 | .0011  | .0137  |
| 11   | 10.00  | .1019  | .0537 | -.3790 | -.0028 | .0009  | .0155  |
| 12   | 15.00  | .1225  | .0698 | -.3809 | -.0074 | -.0012 | .0221  |
| 13   | 17.50  | .1277  | .0749 | -.3668 | -.0074 | -.0018 | .0242  |
| 14   | 20.00  | .1228  | .0828 | -.2997 | -.0078 | -.0023 | .0280  |
| 15   | .00    | .0225  | .0400 | -.1383 | -.0042 | .0013  | .0176  |
| 16   | 5.00   | .0639  | .0452 | -.2654 | -.0032 | .0011  | .0135  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0229  | .0399 | -.1389 | -.0043 | .0009  | .0175  |
| 3    | -20.00 | -.1350 | .0663 | .2762  | -.0003 | .0015  | -.0023 |
| 4    | -15.00 | -.1020 | .0469 | .2245  | -.0034 | .0025  | .0073  |
| 5    | -10.00 | -.0567 | .0388 | .1116  | -.0036 | .0027  | .0112  |
| 6    | -5.00  | -.0155 | .0377 | -.0098 | -.0034 | .0017  | .0105  |
| 7    | -2.50  | .0042  | .0385 | -.0739 | -.0041 | .0017  | .0126  |
| 8    | -.00   | .0229  | .0402 | -.1393 | -.0039 | .0017  | .0162  |
| 9    | 2.50   | .0440  | .0416 | -.2050 | -.0032 | .0017  | .0154  |
| 10   | 5.00   | .0645  | .0456 | -.2679 | -.0025 | .0011  | .0137  |
| 11   | 10.00  | .1019  | .0537 | -.3790 | -.0028 | .0009  | .0155  |
| 12   | 15.00  | .1225  | .0698 | -.3809 | -.0074 | -.0012 | .0221  |
| 13   | 17.50  | .1277  | .0749 | -.3668 | -.0074 | -.0018 | .0242  |
| 14   | 20.00  | .1228  | .0828 | -.2997 | -.0078 | -.0023 | .0280  |
| 15   | .00    | .0225  | .0400 | -.1383 | -.0042 | .0013  | .0176  |
| 16   | 5.00   | .0639  | .0452 | -.2654 | -.0032 | .0011  | .0135  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 572

RUN 701 CONFIG F P B T44 BT

IVT=4.5

| IW         | - DELF       |            | - DELA         |                | - IHT           |                 | O DELE          |                | - DELR         |                | O DELSB  |            | O  | RPM |
|------------|--------------|------------|----------------|----------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|----------|------------|----|-----|
| PT.<br>NG. | ALPHA<br>DEG | PSI<br>DEG | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | CRMSB<br>SQ-FT | CYBSB<br>SQ-FT | Q<br>PSF | V<br>KNOTS |    |     |
| 2          | .0           | .0         | -1.9           | 14.61          | 67.             | -665.           | 90.             | 21.55          | 54.85          | 128.45         |          |            | 0. |     |
| 3          | .0           | -20.0      | 13.1           | 49.63          | -412.           | 668.            | -232.           | -126.66        | 54.56          | 128.10         |          |            | 0. |     |
| 4          | .0           | -15.0      | 6.6            | 30.91          | -204.           | 57.             | -113.           | -82.17         | 54.49          | 128.02         |          |            | 0. |     |
| 5          | .0           | -10.0      | 1.6            | 18.76          | -58.            | -350.           | -37.            | -40.05         | 54.77          | 128.36         |          |            | 0. |     |
| 6          | .0           | -5.0       | -1.2           | 14.91          | 51.             | -518.           | 26.             | -8.69          | 54.87          | 128.48         |          |            | 0. |     |
| 7          | .0           | -2.5       | -1.8           | 14.70          | 75.             | -630.           | 38.             | 7.66           | 54.25          | 127.73         |          |            | 0. |     |
| 8          | .0           | .0         | -2.2           | 14.51          | 50.             | -663.           | 66.             | 22.31          | 54.71          | 128.29         |          |            | 0. |     |
| 9          | .0           | 2.5        | -1.1           | 16.04          | -12.            | -665.           | 86.             | 35.99          | 54.80          | 128.39         |          |            | 0. |     |
| 10         | .0           | 5.1        | 2.0            | 17.65          | -115.           | -786.           | 111.            | 53.23          | 55.27          | 128.94         |          |            | 0. |     |
| 11         | .0           | 10.0       | 10.2           | 25.19          | -420.           | -1248.          | 226.            | 94.03          | 54.92          | 128.53         |          |            | 0. |     |
| 12         | .0           | 15.0       | 20.2           | 41.37          | -767.           | -1792.          | 360.            | 136.84         | 54.91          | 128.52         |          |            | 0. |     |
| 13         | .0           | 20.0       | 28.9           | 67.00          | -1042.          | -2344.          | 495.            | 179.56         | 54.51          | 128.04         |          |            | 0. |     |
| 14         | .0           | .0         | -2.1           | 14.71          | 51.             | -673.           | 74.             | 21.26          | 54.37          | 127.88         |          |            | 0. |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CU    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0051 | .0395 | .0216  | -.0402 | .0055  | .0582  |
| 3    | -20.00 | .0354  | .1341 | -.1327 | .0404  | -.0140 | -.3423 |
| 4    | -15.00 | .0179  | .0835 | -.0657 | .0035  | -.0068 | -.2221 |
| 5    | -10.00 | .0044  | .0507 | -.0187 | -.0211 | -.0022 | -.1083 |
| 6    | -5.00  | -.0032 | .0403 | .0163  | -.0313 | .0016  | -.0235 |
| 7    | -2.50  | -.0050 | .0397 | .0241  | -.0381 | .0023  | .0207  |
| 8    | .00    | -.0059 | .0392 | .0160  | -.0400 | .0040  | .0603  |
| 9    | 2.50   | -.0031 | .0433 | -.0038 | -.0401 | .0052  | .0973  |
| 10   | 5.10   | .0053  | .0477 | -.0372 | -.0475 | .0067  | .1439  |
| 11   | 10.00  | .0275  | .0681 | -.1355 | -.0754 | .0137  | .2541  |
| 12   | 15.00  | .0546  | .1118 | -.2472 | -.1083 | .0217  | .3698  |
| 13   | 20.00  | .0782  | .1811 | -.3359 | -.1416 | .0299  | .4853  |
| 14   | .00    | -.0057 | .0398 | .0165  | -.0406 | .0045  | .0575  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0051 | .0395 | .0216  | -.0402 | .0055  | .0582  |
| 3    | -20.00 | .0354  | .0084 | -.0989 | .0404  | -.0046 | -.3676 |
| 4    | -15.00 | .0179  | .0229 | -.0540 | .0035  | -.0034 | -.2362 |
| 5    | -10.00 | .0044  | .0310 | -.0163 | -.0211 | -.0016 | -.1154 |
| 6    | -5.00  | -.0032 | .0381 | .0155  | -.0313 | .0013  | -.0269 |
| 7    | -2.50  | -.0050 | .0406 | .0235  | -.0381 | .0021  | .0189  |
| 8    | .00    | -.0059 | .0392 | .0160  | -.0400 | .0040  | .0603  |
| 9    | 2.50   | -.0031 | .0390 | -.0026 | -.0401 | .0052  | .0991  |
| 10   | 5.10   | .0053  | .0347 | -.0338 | -.0475 | .0061  | .1476  |
| 11   | 10.00  | .0275  | .0227 | -.1207 | -.0754 | .0090  | .2621  |
| 12   | 15.00  | .0546  | .0118 | -.2085 | -.1083 | .0090  | .3862  |
| 13   | 20.00  | .0782  | .0033 | -.2606 | -.1416 | .0065  | .5180  |
| 14   | .00    | -.0057 | .0398 | .0165  | -.0406 | .0045  | .0575  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 573

RUN 702 CONFIG F P B T44 BT

IVT=2.5

| IW<br>PT.<br>NO. | - DELF<br>ALPHA<br>DEG | - DELA<br>PSI<br>DEG | - IHT<br>CLBAR<br>SQ-FT | 0-DELE<br>CDBAR<br>SQ-FT | - DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM |
|------------------|------------------------|----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|---------------|-----------------|-----|
| 2                | .0                     | .0                   | -5.0                    | 14.35                    | 209.                      | -380.                      | 35.                  | 13.85               | 55.08         | 128.73          | 0.  |
| 3                | .0                     | -20.0                | 13.8                    | 52.90                    | -423.                     | 1098.                      | -279.                | -138.64             | 55.50         | 129.23          | 0.  |
| 4                | .0                     | -15.0                | 6.0                     | 32.74                    | -173.                     | 455.                       | -128.                | -91.46              | 55.18         | 128.84          | 0.  |
| 5                | .0                     | -10.0                | -2                      | 20.15                    | 40.                       | -25.                       | -67.                 | -49.09              | 54.99         | 128.61          | 0.  |
| 6                | .0                     | -5.0                 | -3.0                    | 15.00                    | 163.                      | -218.                      | -23.                 | -16.85              | 55.45         | 129.16          | 0.  |
| 7                | .0                     | -2.5                 | -4.7                    | 14.69                    | 203.                      | -308.                      | 7.                   | -1.41               | 54.90         | 128.50          | 0.  |
| 8                | .0                     | .0                   | -5.0                    | 14.29                    | 201.                      | -380.                      | 40.                  | 14.39               | 55.25         | 128.93          | 0.  |
| 9                | .0                     | 2.5                  | -4.3                    | 15.35                    | 169.                      | -398.                      | 60.                  | 28.16               | 55.56         | 129.29          | 0.  |
| 10               | .0                     | 5.0                  | -1.8                    | 16.92                    | 85.                       | -466.                      | 68.                  | 44.88               | 55.16         | 128.81          | 0.  |
| 11               | .0                     | 10.0                 | 5.4                     | 22.53                    | -194.                     | -839.                      | 153.                 | 82.48               | 55.52         | 129.24          | 0.  |
| 12               | .0                     | 15.0                 | 14.9                    | 37.61                    | -533.                     | -1508.                     | 310.                 | 129.31              | 54.88         | 128.48          | 0.  |
| 13               | .0                     | 20.0                 | 24.1                    | 60.64                    | -837.                     | -2033.                     | 436.                 | 170.90              | 55.42         | 129.13          | 0.  |
| 14               | .0                     | .0                   | -4.9                    | 14.33                    | 210.                      | -386.                      | 41.                  | 13.99               | 55.04         | 128.66          | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CU    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0136 | .0388 | .0674  | -.0230 | .0021  | .0374  |
| 3    | -20.00 | .0372  | .1430 | -.1363 | .0663  | -.0168 | -.3747 |
| 4    | -15.00 | .0163  | .0885 | -.0558 | .0275  | -.0077 | -.2472 |
| 5    | -10.00 | -.0006 | .0545 | .0128  | -.0015 | -.0041 | -.1327 |
| 6    | -5.00  | -.0080 | .0406 | .0526  | -.0132 | -.0014 | -.0455 |
| 7    | -2.50  | -.0128 | .0397 | .0656  | -.0186 | .0004  | -.0038 |
| 8    | .00    | -.0134 | .0386 | .0647  | -.0229 | .0024  | .0389  |
| 9    | 2.50   | -.0115 | .0415 | .0543  | -.0240 | .0036  | .0761  |
| 10   | 5.00   | -.0050 | .0457 | .0273  | -.0282 | .0041  | .1213  |
| 11   | 10.00  | .0146  | .0609 | -.0627 | -.0507 | .0092  | .2229  |
| 12   | 15.00  | .0402  | .1016 | -.1717 | -.0911 | .0187  | .3495  |
| 13   | 20.00  | .0652  | .1639 | -.2698 | -.1228 | .0263  | .4619  |
| 14   | .00    | -.0133 | .0387 | .0678  | -.0233 | .0025  | .0378  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0136 | .0388  | .0674  | -.0230 | .0021  | .0374  |
| 3    | -20.00 | .0372  | .0056  | -.0971 | .0663  | -.0070 | -.4010 |
| 4    | -15.00 | .0163  | .0212  | -.0432 | .0275  | -.0047 | -.2617 |
| 5    | -10.00 | -.0006 | .0305  | .0163  | -.0015 | -.0044 | -.1401 |
| 6    | -5.00  | -.0080 | .0364  | .0530  | -.0132 | -.0022 | -.0489 |
| 7    | -2.50  | -.0128 | .0395  | .0654  | -.0186 | -.0001 | -.0055 |
| 8    | .00    | -.0134 | .0386  | .0647  | -.0229 | .0024  | .0389  |
| 9    | 2.50   | -.0115 | .0381  | .0551  | -.0240 | .0041  | .0779  |
| 10   | 5.00   | -.0050 | .0349  | .0291  | -.0282 | .0045  | .1248  |
| 11   | 10.00  | .0146  | .0211  | -.0531 | -.0507 | .0071  | .2301  |
| 12   | 15.00  | .0402  | .0073  | -.1398 | -.0911 | .0097  | .3639  |
| 13   | 20.00  | .0652  | -.0048 | -.2051 | -.1228 | .0074  | .4901  |
| 14   | .00    | -.0133 | .0387  | .0678  | -.0233 | .0025  | .0378  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 574

RUN 703 CONFIG F P B T44 BT

| IW      | - DELF    |         | - DELA      |             | - IHT        | O DELE       |              | - DELR      |       | 10      | DELSB | 0  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|----|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |       |    |     |
| 2       | .0        | .0      | -5.8        | 14.94       | 228.         | 303.         | -30.         | -3.90       | 54.70 | 128.27  |       | 0. |     |
| 3       | .0        | -20.0   | 18.8        | 59.16       | -608.        | 1843.        | -437.        | -157.87     | 54.81 | 128.40  |       | 0. |     |
| 4       | .0        | -15.0   | 9.2         | 37.13       | -311.        | 1272.        | -283.        | -112.13     | 54.84 | 128.43  |       | 0. |     |
| 5       | .0        | -10.0   | 1.3         | 22.72       | -45.         | 700.         | -167.        | -66.88      | 55.05 | 128.68  |       | 0. |     |
| 6       | .0        | -5.0    | -2.6        | 16.42       | 110.         | 454.         | -96.         | -33.98      | 54.97 | 128.58  |       | 0. |     |
| 7       | .0        | -2.5    | -4.5        | 15.50       | 192.         | 389.         | -77.         | -18.61      | 54.98 | 128.60  |       | 0. |     |
| 8       | .0        | .0      | -5.8        | 14.90       | 216.         | 299.         | -38.         | -2.78       | 54.67 | 128.23  |       | 0. |     |
| 9       | .0        | 2.5     | -5.5        | 15.27       | 198.         | 219.         | -13.         | 12.73       | 55.20 | 128.86  |       | 0. |     |
| 10      | .0        | 5.0     | -4.1        | 16.15       | 160.         | 140.         | 1.           | 28.67       | 55.17 | 128.82  |       | 0. |     |
| 11      | .0        | 10.0    | .6          | 20.52       | -14.         | -155.        | 51.          | 65.25       | 55.04 | 128.67  |       | 0. |     |
| 12      | .0        | 15.0    | 9.5         | 33.11       | -331.        | -755.        | 175.         | 110.43      | 54.71 | 128.28  |       | 0. |     |
| 13      | .0        | 20.0    | 18.8        | 53.20       | -662.        | -1317.       | 345.         | 152.68      | 55.28 | 128.95  |       | 0. |     |
| 14      | .0        | .0      | -5.6        | 14.80       | 226.         | 310.         | -36.         | -3.85       | 55.21 | 128.87  |       | 0. |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0155 | .0404 | .0735  | .0183  | -.0018 | -.0105 |
| 3    | -20.00 | .0508  | .1599 | -.1960 | .1113  | -.0264 | -.4267 |
| 4    | -15.00 | .0249  | .1004 | -.1001 | .0768  | -.0171 | -.3031 |
| 5    | -10.00 | .0035  | .0614 | -.0147 | .0423  | -.0101 | -.1807 |
| 6    | -5.00  | -.0071 | .0444 | .0355  | .0274  | -.0058 | -.0918 |
| 7    | -2.50  | -.0123 | .0419 | .0620  | .0235  | -.0046 | -.0503 |
| 8    | .00    | -.0158 | .0403 | .0697  | .0181  | -.0023 | -.0075 |
| 9    | 2.50   | -.0149 | .0413 | .0640  | .0132  | -.0008 | .0344  |
| 10   | 5.00   | -.0111 | .0436 | .0517  | .0085  | .0001  | .0775  |
| 11   | 10.00  | .0015  | .0554 | -.0045 | -.0093 | .0031  | .1764  |
| 12   | 15.00  | .0256  | .0895 | -.1068 | -.0456 | .0106  | .2985  |
| 13   | 20.00  | .0507  | .1438 | -.2133 | -.0796 | .0208  | .4126  |
| 14   | .00    | -.0151 | .0400 | .0727  | .0188  | -.0022 | -.0104 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0155 | .0404  | .0735  | .0183  | -.0018 | -.0105 |
| 3    | -20.00 | .0508  | .0036  | -.1357 | .1113  | -.0122 | -.4556 |
| 4    | -15.00 | .0249  | .0181  | -.0730 | .0768  | -.0116 | -.3187 |
| 5    | -10.00 | .0035  | .0289  | -.0050 | .0423  | -.0095 | -.1887 |
| 6    | -5.00  | -.0071 | .0362  | .0381  | .0274  | -.0063 | -.0954 |
| 7    | -2.50  | -.0123 | .0397  | .0630  | .0235  | -.0051 | -.0521 |
| 8    | .00    | -.0158 | .0403  | .0697  | .0181  | -.0023 | -.0075 |
| 9    | 2.50   | -.0149 | .0397  | .0637  | .0132  | -.0003 | .0362  |
| 10   | 5.00   | -.0111 | .0367  | .0516  | .0085  | .0009  | .0810  |
| 11   | 10.00  | .0015  | .0238  | -.0016 | -.0093 | .0029  | .1833  |
| 12   | 15.00  | .0256  | .0088  | -.0885 | -.0456 | .0050  | .3115  |
| 13   | 20.00  | .0507  | -.0067 | -.1622 | -.0796 | .0058  | .4369  |
| 14   | .00    | -.0151 | .0400  | .0727  | .0188  | -.0022 | -.0104 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 575

RUN 704 CONFIG F P B T44 BT

| PT. NO. | - DELF    |         | - DELA      |             | - IHT        |              | 0 DELE       |             | - DELR |         | 20 DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|----------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | V KNOTS |          |  |     |
| 2       | .0        | .0      | -6.2        | 15.81       | 263.         | 692.         | -88.         | -13.65      | 55.48  | 129.20  | 0.       |  |     |
| 3       | .0        | -20.0   | 19.1        | 61.82       | -622.        | 2119.        | -479.        | -164.40     | 55.45  | 129.15  | 0.       |  |     |
| 4       | .0        | -15.0   | 9.7         | 39.06       | -322.        | 1597.        | -308.        | -118.93     | 55.65  | 129.39  | 0.       |  |     |
| 6       | .0        | -10.0   | 1.6         | 24.48       | -48.         | 1033.        | -217.        | -75.01      | 55.68  | 129.42  | 0.       |  |     |
| 7       | .0        | -5.0    | -2.8        | 17.53       | 121.         | 776.         | -159.        | -41.96      | 55.72  | 129.47  | 0.       |  |     |
| 8       | .0        | -2.5    | -5.4        | 16.58       | 215.         | 757.         | -128.        | -27.63      | 55.56  | 129.28  | 0.       |  |     |
| 9       | .0        | .0      | -6.4        | 15.81       | 253.         | 676.         | -107.        | -12.16      | 55.39  | 129.09  | 0.       |  |     |
| 10      | .0        | 2.5     | -6.3        | 16.13       | 237.         | 560.         | -72.         | 4.11        | 55.25  | 128.92  | 0.       |  |     |
| 11      | .0        | 5.0     | -4.7        | 16.73       | 202.         | 455.         | -47.         | 20.93       | 55.38  | 129.08  | 0.       |  |     |
| 12      | .0        | 10.0    | -.2         | 20.71       | 34.          | 94.          | 0.           | 59.03       | 55.44  | 129.14  | 0.       |  |     |
| 13      | .0        | 15.0    | 7.7         | 31.84       | -265.        | -475.        | 112.         | 101.73      | 55.81  | 129.58  | 0.       |  |     |
| 14      | .0        | 20.0    | 17.6        | 52.73       | -621.        | -1090.       | 286.         | 147.08      | 55.59  | 129.31  | 0.       |  |     |
| 15      | .0        | .0      | -6.2        | 15.81       | 259.         | 684.         | -100.        | -12.92      | 55.54  | 129.26  | 0.       |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0169 | .0427 | .0847  | .0418  | -.0053 | -.0369 |
| 3    | -20.00 | .0517  | .1671 | -.2004 | .1280  | -.0289 | -.4443 |
| 4    | -15.00 | .0261  | .1056 | -.1037 | .0965  | -.0186 | -.3214 |
| 6    | -10.00 | .0044  | .0662 | -.0156 | .0624  | -.0131 | -.2027 |
| 7    | -5.00  | -.0075 | .0474 | .0391  | .0469  | -.0096 | -.1134 |
| 8    | -2.50  | -.0145 | .0448 | .0694  | .0457  | -.0078 | -.0747 |
| 9    | .00    | -.0172 | .0427 | .0815  | .0408  | -.0065 | -.0329 |
| 10   | 2.50   | -.0170 | .0436 | .0764  | .0338  | -.0044 | .0111  |
| 11   | 5.00   | -.0127 | .0452 | .0651  | .0275  | -.0029 | .0566  |
| 12   | 10.00  | -.0005 | .0560 | .0111  | .0057  | .0000  | .1595  |
| 13   | 15.00  | .0207  | .0861 | -.0853 | -.0287 | .0068  | .2749  |
| 14   | 20.00  | .0476  | .1425 | -.2001 | -.0658 | .0173  | .3975  |
| 15   | .00    | -.0167 | .0427 | .0837  | .0413  | -.0060 | -.0349 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0169 | .0427  | .0847  | .0418  | -.0053 | -.0369 |
| 3    | -20.00 | .0517  | .0043  | -.1351 | .1280  | -.0143 | -.4747 |
| 4    | -15.00 | .0261  | .0184  | -.0743 | .0965  | -.0129 | -.3378 |
| 6    | -10.00 | .0044  | .0298  | -.0031 | .0624  | -.0124 | -.2112 |
| 7    | -5.00  | -.0075 | .0373  | .0434  | .0469  | -.0102 | -.1171 |
| 8    | -2.50  | -.0145 | .0415  | .0712  | .0457  | -.0083 | -.0766 |
| 9    | .00    | -.0172 | .0427  | .0815  | .0408  | -.0065 | -.0329 |
| 10   | 2.50   | -.0170 | .0431  | .0753  | .0338  | -.0037 | .0130  |
| 11   | 5.00   | -.0127 | .0401  | .0635  | .0275  | -.0018 | .0603  |
| 12   | 10.00  | -.0005 | .0273  | .0109  | .0057  | .0004  | .1669  |
| 13   | 15.00  | .0207  | .0116  | -.0730 | -.0287 | .0024  | .2879  |
| 14   | 20.00  | .0476  | -.0027 | -.1562 | -.0658 | .0033  | .4223  |
| 15   | .00    | -.0167 | .0427  | .0837  | .0413  | -.0060 | -.0349 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 576

| RUN 705 CONFIG |           | F P B T45 BT |             |             |              | ALPHA=-10    |              |             |       |         |     |  |
|----------------|-----------|--------------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|--|
| PT. NO.        | ALPHA DEG | PSI DEG      | CLBAR SQ-FT | CDBAR SQ-FT | CPHBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |  |
| 6              | .0        | .0           | -12.3       | 14.76       | 323.         | -81.         | 10.          | 5.95        | 55.51 | 129.24  | 0.  |  |
| 7              | .0        | -20.0        | -2.3        | 57.24       | 51.          | 1526.        | -75.         | -149.54     | 55.62 | 129.36  | 0.  |  |
| 8              | .0        | -15.0        | -5.0        | 35.53       | 124.         | 903.         | -33.         | -102.76     | 55.09 | 128.72  | 0.  |  |
| 9              | .0        | -10.0        | -8.4        | 21.79       | 200.         | 345.         | 2.           | -58.30      | 55.41 | 129.11  | 0.  |  |
| 10             | .0        | -5.0         | -10.4       | 15.86       | 270.         | 117.         | -2.          | -25.64      | 55.71 | 129.47  | 0.  |  |
| 11             | .0        | -2.5         | -11.9       | 15.37       | 307.         | 30.          | -3.          | -10.44      | 55.15 | 128.80  | 0.  |  |
| 12             | .0        | .0           | -12.2       | 14.84       | 317.         | -84.         | -3.          | 6.94        | 55.30 | 128.97  | 0.  |  |
| 13             | .0        | 2.5          | -12.1       | 15.50       | 294.         | -143.        | -8.          | 21.72       | 55.56 | 129.29  | 0.  |  |
| 14             | .0        | 5.0          | -10.6       | 16.78       | 256.         | -222.        | -25.         | 38.82       | 55.55 | 129.27  | 0.  |  |
| 15             | .0        | 10.0         | -7.3        | 21.34       | 148.         | -514.        | -1.          | 73.79       | 55.57 | 129.29  | 0.  |  |
| 16             | .0        | 15.0         | -4.1        | 34.41       | 32.          | -1127.       | 61.          | 118.28      | 55.00 | 128.61  | 0.  |  |
| 17             | .0        | 20.0         | -2.2        | 56.32       | -24.         | -1730.       | 108.         | 162.70      | 54.99 | 128.60  | 0.  |  |
| 18             | .0        | .0           | -11.9       | 14.77       | 329.         | -68.         | 58.          | 5.56        | 54.90 | 128.50  | 0.  |  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .00    | -.0333 | .0399 | .1040  | -.0049 | .0006  | .0161  |
| 7    | -20.00 | -.0062 | .1547 | .0164  | .0922  | -.0045 | -.4042 |
| 8    | -15.00 | -.0136 | .0960 | .0401  | .0545  | -.0020 | -.2777 |
| 9    | -10.00 | -.0226 | .0589 | .0645  | .0208  | .0001  | -.1576 |
| 10   | -5.00  | -.0282 | .0429 | .0870  | .0071  | -.0001 | -.0693 |
| 11   | -2.50  | -.0321 | .0415 | .0991  | .0018  | -.0002 | -.0282 |
| 12   | .00    | -.0331 | .0401 | .1021  | -.0051 | -.0002 | .0188  |
| 13   | 2.50   | -.0327 | .0419 | .0947  | -.0087 | -.0005 | .0587  |
| 14   | 5.00   | -.0286 | .0454 | .0825  | -.0134 | -.0015 | .1049  |
| 15   | 10.00  | -.0197 | .0577 | .0478  | -.0310 | -.0001 | .1994  |
| 16   | 15.00  | -.0111 | .0930 | .0104  | -.0681 | .0037  | .3197  |
| 17   | 20.00  | -.0059 | .1522 | -.0077 | -.1045 | .0065  | .4397  |
| 18   | .00    | -.0320 | .0399 | .1062  | -.0041 | .0035  | .0150  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDL    | CPMB  | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|-------|--------|--------|--------|
| 6    | .00    | -.0333 | .0399  | .1040 | -.0049 | .0006  | .0161  |
| 7    | -20.00 | -.0062 | .0065  | .0236 | .0922  | -.0053 | -.4327 |
| 8    | -15.00 | -.0136 | .0205  | .0415 | .0545  | -.0039 | -.2931 |
| 9    | -10.00 | -.0226 | .0305  | .0634 | .0208  | -.0020 | -.1654 |
| 10   | -5.00  | -.0282 | .0366  | .0867 | .0071  | -.0016 | -.0728 |
| 11   | -2.50  | -.0321 | .0403  | .0990 | .0018  | -.0010 | -.0300 |
| 12   | .00    | -.0331 | .0401  | .1021 | -.0051 | -.0002 | .0188  |
| 13   | 2.50   | -.0327 | .0393  | .0945 | -.0087 | .0003  | .0605  |
| 14   | 5.00   | -.0286 | .0360  | .0815 | -.0134 | -.0002 | .1085  |
| 15   | 10.00  | -.0197 | .0220  | .0470 | -.0310 | .0015  | .2064  |
| 16   | 15.00  | -.0111 | .0067  | .0151 | -.0681 | .0041  | .3329  |
| 17   | 20.00  | -.0059 | -.0081 | .0047 | -.1045 | .0056  | .4653  |
| 18   | .00    | -.0320 | .0399  | .1062 | -.0041 | .0035  | .0150  |

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SIKORSKY RSRA 1/4 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 577

RUN 706 CONFIG F P B T45 BT

| PT. NO. | I W   | - DELF    |         | - DELA      |             | - IHT  | O.O DELE      |              | O.O DELR      |             | O.O DELSB |         | O.O |  | RPM |
|---------|-------|-----------|---------|-------------|-------------|--------|---------------|--------------|---------------|-------------|-----------|---------|-----|--|-----|
|         |       | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT |        | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF     | V KNOTS |     |  |     |
| 9       | -10.0 | .0        | .0      | -63.3       | 22.01       | 1404.  | -76.          | -2.          | 4.10          | 55.17       | 128.83    | 0.      |     |  |     |
| 10      | -10.0 | -20.0     | -46.0   | 66.14       | 1011.       | 1975.  | -363.         | -162.86      | 55.01         | 128.63      | 0.        |         |     |  |     |
| 11      | -10.0 | -15.0     | -58.3   | 44.39       | 1248.       | 1447.  | -251.         | -117.36      | 54.70         | 128.25      | 0.        |         |     |  |     |
| 12      | -10.0 | -10.0     | -63.2   | 30.08       | 1385.       | 908.   | -181.         | -73.04       | 54.60         | 128.14      | 0.        |         |     |  |     |
| 13      | -10.0 | -5.0      | -65.2   | 22.69       | 1464.       | 443.   | -114.         | -36.50       | 54.85         | 128.44      | 0.        |         |     |  |     |
| 14      | -10.0 | .0        | -67.0   | 19.88       | 1492.       | -103.  | -23.          | 6.40         | 55.15         | 128.79      | 0.        |         |     |  |     |
| 15      | -10.0 | 2.5       | -66.1   | 20.58       | 1438.       | -332.  | -7.           | 26.57        | 54.99         | 128.60      | 0.        |         |     |  |     |
| 16      | -10.0 | 5.0       | -64.8   | 22.14       | 1366.       | -570.  | 14.           | 45.99        | 54.93         | 128.54      | 0.        |         |     |  |     |
| 17      | -10.0 | 10.0      | -60.4   | 28.49       | 1228.       | -986.  | 59.           | 87.73        | 55.33         | 129.01      | 0.        |         |     |  |     |
| 18      | -10.0 | 15.0      | -54.5   | 42.94       | 1058.       | -1416. | 108.          | 127.61       | 55.28         | 128.95      | 0.        |         |     |  |     |
| 19      | -10.0 | 20.0      | -46.3   | 67.20       | 867.        | -1929. | 200.          | 171.68       | 55.02         | 128.64      | 0.        |         |     |  |     |
| 20      | -10.0 | -2.5      | -66.0   | 20.69       | 1503.       | 191.   | -57.          | -15.51       | 55.29         | 128.95      | 0.        |         |     |  |     |
| 21      | -10.0 | .0        | -67.1   | 20.24       | 1502.       | -90.   | -33.          | 5.21         | 54.93         | 128.53      | 0.        |         |     |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM   | CYM    | CRM    | CY     |
|------|--------|--------|-------|-------|--------|--------|--------|
| 9    | .00    | -.1709 | .0595 | .4526 | -.0046 | -.0001 | .0111  |
| 10   | -20.00 | -.1242 | .1787 | .3259 | .1193  | -.0219 | -.4402 |
| 11   | -15.00 | -.1577 | .1200 | .4024 | .0874  | -.0152 | -.3172 |
| 12   | -10.00 | -.1707 | .0813 | .4466 | .0549  | -.0109 | -.1974 |
| 13   | -5.00  | -.1761 | .0613 | .4719 | .0268  | -.0069 | -.0986 |
| 14   | .00    | -.1810 | .0537 | .4810 | -.0062 | -.0014 | .0173  |
| 15   | 2.50   | -.1786 | .0556 | .4636 | -.0200 | -.0004 | .0718  |
| 16   | 5.00   | -.1750 | .0598 | .4404 | -.0344 | .0008  | .1243  |
| 17   | 10.00  | -.1632 | .0770 | .3958 | -.0596 | .0036  | .2371  |
| 18   | 15.00  | -.1474 | .1161 | .3412 | -.0856 | .0065  | .3449  |
| 19   | 20.00  | -.1250 | .1816 | .2796 | -.1165 | .0121  | .4640  |
| 20   | -2.50  | -.1783 | .0559 | .4845 | .0115  | -.0035 | -.0419 |
| 21   | .00    | -.1814 | .0547 | .4843 | -.0055 | -.0020 | .0141  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB  | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|-------|--------|--------|--------|
| 9    | .00    | -.1709 | .0595 | .4526 | -.0046 | -.0001 | .0111  |
| 10   | -20.00 | -.1242 | .0167 | .3463 | .1193  | -.0416 | -.4748 |
| 11   | -15.00 | -.1577 | .0334 | .4096 | .0874  | -.0343 | -.3375 |
| 12   | -10.00 | -.1707 | .0456 | .4500 | .0549  | -.0254 | -.2085 |
| 13   | -5.00  | -.1761 | .0524 | .4733 | .0268  | -.0146 | -.1036 |
| 14   | .00    | -.1810 | .0537 | .4810 | -.0062 | -.0014 | .0173  |
| 15   | 2.50   | -.1786 | .0524 | .4631 | -.0200 | .0034  | .0742  |
| 16   | 5.00   | -.1750 | .0487 | .4391 | -.0344 | .0080  | .1291  |
| 17   | 10.00  | -.1632 | .0344 | .3930 | -.0596 | .0164  | .2469  |
| 18   | 15.00  | -.1474 | .0224 | .3385 | -.0856 | .0229  | .3632  |
| 19   | 20.00  | -.1250 | .0112 | .2848 | -.1165 | .0294  | .4981  |
| 20   | -2.50  | -.1783 | .0540 | .4849 | .0115  | -.0074 | -.0443 |
| 21   | .00    | -.1814 | .0547 | .4843 | -.0055 | -.0020 | .0141  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 578

RUN 707 CONFIG F P B T45 BT ALPHA=10

| IW      | - DELF    | - DELA  | - IHT       | O,O DELE    | O,O DELR      | O,O DELSB   | O.O          |             |       |         |     |  |
|---------|-----------|---------|-------------|-------------|---------------|-------------|--------------|-------------|-------|---------|-----|--|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM |  |
| 7       | 10.0      | .0      | 47.6        | 19.79       | -869.         | -50.        | 20.          | 5.73        | 55.04 | 128.67  | 0.  |  |
| 8       | 10.0      | -20.0   | 51.0        | 68.44       | -1014.        | 1376.       | -2.          | -153.72     | 54.72 | 128.28  | 0.  |  |
| 9       | 10.0      | -15.0   | 47.9        | 46.25       | -899.         | 725.        | 37.          | -109.72     | 55.12 | 128.76  | 0.  |  |
| 10      | 10.0      | -10.0   | 45.8        | 30.98       | -877.         | 291.        | 12.          | -67.05      | 55.23 | 128.89  | 0.  |  |
| 11      | 10.0      | -5.0    | 48.6        | 21.36       | -941.         | 49.         | 15.          | -29.21      | 55.36 | 129.05  | 0.  |  |
| 12      | 10.0      | -2.5    | 48.0        | 19.84       | -909.         | -3.         | 10.          | -12.34      | 55.46 | 129.17  | 0.  |  |
| 13      | 10.0      | .0      | 47.0        | 19.37       | -885.         | -52.        | 2.           | 5.67        | 55.69 | 129.43  | 0.  |  |
| 14      | 10.0      | 2.5     |             | 20.05       |               | -76.        |              | 23.38       | 55.41 | 129.10  | 0.  |  |
| 15      | 10.0      | 5.0     | 48.2        | 22.56       | -923.         | -148.       | -10.         | 42.32       | 55.54 | 129.25  | 0.  |  |
| 16      | 10.0      | 10.0    | 48.8        | 31.97       | -948.         | -444.       | -18.         | 82.39       | 55.54 | 129.25  | 0.  |  |
| 17      | 10.0      | 15.0    | 51.0        | 45.63       | -1067.        | -958.       | 18.          | 123.02      | 55.19 | 128.84  | 0.  |  |
| 18      | 10.0      | 20.0    | 53.5        | 67.48       | -1154.        | -1555.      | 68.          | 164.49      | 55.06 | 128.68  | 0.  |  |
| 19      | 10.0      | 2.5     | 47.8        | 20.04       | -887.         | -92.        | -2.          | 23.12       | 55.35 | 129.03  | 0.  |  |
| 20      | 10.0      | .0      | 47.4        | 19.68       | -878.         | -42.        | 3.           | 4.55        | 55.42 | 129.12  | 0.  |  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 7    | .00    | .1285 | .0535 | -.2801 | -.0030 | .0012  | .0155  |
| 8    | -20.00 | .1378 | .1850 | -.3270 | .0831  | -.0001 | -.4154 |
| 9    | -15.00 | .1295 | .1250 | -.2898 | .0438  | .0022  | -.2965 |
| 10   | -10.00 | .1239 | .0837 | -.2826 | .0176  | .0008  | -.1812 |
| 11   | -5.00  | .1313 | .0577 | -.3035 | .0029  | .0009  | -.0789 |
| 12   | -2.50  | .1297 | .0536 | -.2930 | -.0002 | .0006  | -.0334 |
| 13   | .00    | .1270 | .0524 | -.2852 | -.0031 | .0002  | .0153  |
| 14   | 2.50   |       | .0542 |        | -.0046 |        | .0632  |
| 15   | 5.00   | .1301 | .0610 | -.2976 | -.0089 | -.0006 | .1144  |
| 16   | 10.00  | .1319 | .0864 | -.3055 | -.0268 | -.0011 | .2227  |
| 17   | 15.00  | .1380 | .1233 | -.3441 | -.0579 | .0011  | .3325  |
| 18   | 20.00  | .1445 | .1824 | -.3719 | -.0939 | .0041  | .4446  |
| 19   | 2.50   | .1291 | .0542 | -.2861 | -.0055 | -.0001 | .0625  |
| 20   | .00    | .1282 | .0532 | -.2831 | -.0025 | .0002  | .0123  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 7    | .00    | .1285 | .0535 | -.2801 | -.0030 | .0012  | .0155  |
| 8    | -20.00 | .1378 | .0310 | -.3069 | .0831  | .0209  | -.4537 |
| 9    | -15.00 | .1295 | .0436 | -.2830 | .0438  | .0163  | -.3188 |
| 10   | -10.00 | .1239 | .0508 | -.2790 | .0176  | .0100  | -.1930 |
| 11   | -5.00  | .1313 | .0506 | -.3027 | .0029  | .0059  | -.0837 |
| 12   | -2.50  | .1297 | .0521 | -.2929 | -.0002 | .0030  | -.0357 |
| 13   | .00    | .1270 | .0524 | -.2852 | -.0031 | .0002  | .0153  |
| 14   | 2.50   |       | .0514 |        | -.0046 |        | .0655  |
| 15   | 5.00   | .1301 | .0507 | -.2968 | -.0089 | -.0055 | .1193  |
| 16   | 10.00  | .1319 | .0462 | -.3019 | -.0268 | -.0110 | .2343  |
| 17   | 15.00  | .1380 | .0327 | -.3308 | -.0579 | -.0157 | .3531  |
| 18   | 20.00  | .1445 | .0186 | -.3418 | -.0939 | -.0201 | .4802  |
| 19   | 2.50   | .1291 | .0514 | -.2858 | -.0055 | -.0024 | .0648  |
| 20   | .00    | .1282 | .0532 | -.2831 | -.0025 | .0002  | .0123  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 579

RUN 708 CONFIG F P B T45 8T

| PT. NO. | - DELF    |         | - DELA      |             | - IHT        |              | -10 DELE     |             | 0,0 DELR |        | 0,0 DELSB |  | 0,0 V | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|----------|--------|-----------|--|-------|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF    | KNOTS  |           |  |       |     |
| 6       | -0        | .0      | -52.5       | 17.99       | 1465.        | -103.        | 9.           | 6.92        | 55.42    | 129.12 | 0.        |  |       |     |
| 7       | -20.0     | .0      | -81.1       | 53.12       | 1518.        | -27.         | 25.          | -82         | 55.61    | 129.34 | 0.        |  |       |     |
| 8       | -15.0     | .0      | -76.0       | 40.60       | 1560.        | -49.         | 25.          | 1.71        | 55.88    | 129.66 | 0.        |  |       |     |
| 9       | -10.0     | .0      | -75.6       | 31.30       | 1757.        | -103.        | 24.          | 5.79        | 56.09    | 129.91 | 0.        |  |       |     |
| 10      | -5.0      | .0      | -63.5       | 24.73       | 1593.        | -99.         | 32.          | 5.21        | 55.74    | 129.50 | 0.        |  |       |     |
| 11      | -2.5      | .0      | -58.1       | 21.95       | 1526.        | -114.        | 19.          | 7.12        | 55.83    | 129.60 | 0.        |  |       |     |
| 12      | -0        | .0      | -52.3       | 17.93       | 1454.        | -109.        | -3.          | 7.12        | 55.78    | 129.54 | 0.        |  |       |     |
| 13      | 2.5       | .0      | -38.0       | 16.50       | 1152.        | -115.        | -2.          | 6.65        | 56.01    | 129.81 | 0.        |  |       |     |
| 14      | 5.0       | .0      | -23.1       | 15.84       | 844.         | -89.         | 12.          | 5.79        | 56.07    | 129.88 | 0.        |  |       |     |
| 15      | 10.0      | .0      | 5.6         | 16.64       | 273.         | -86.         | 8.           | 6.08        | 56.18    | 130.02 | 0.        |  |       |     |
| 16      | 15.0      | .0      | 38.2        | 19.72       | -356.        | -106.        | -7.          | 7.64        | 55.74    | 129.49 | 0.        |  |       |     |
| 17      | 17.5      | .0      | 54.4        | 22.02       | -671.        | -124.        | -12.         | 9.49        | 56.11    | 129.92 | 0.        |  |       |     |
| 18      | 20.0      | .0      | 69.2        | 26.43       | -951.        | -107.        | 2.           | 9.06        | 56.05    | 129.86 | 0.        |  |       |     |
| 19      | -0        | .0      | -52.4       | 17.99       | 1458.        | -106.        | -3.          | 6.86        | 55.79    | 129.54 | 0.        |  |       |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | -0.00  | -.1418 | .0486 | .4721  | -.0062 | .0005  | .0187  |
| 7    | -20.00 | -.2191 | .1436 | .4893  | -.0016 | .0015  | -.0022 |
| 8    | -14.99 | -.2055 | .1097 | .5030  | -.0030 | .0015  | .0046  |
| 9    | -9.99  | -.2044 | .0846 | .5665  | -.0062 | .0014  | .0156  |
| 10   | -5.00  | -.1715 | .0668 | .5135  | -.0060 | .0020  | .0141  |
| 11   | -2.50  | -.1571 | .0593 | .4920  | -.0069 | .0011  | .0192  |
| 12   | -0.00  | -.1414 | .0485 | .4689  | -.0066 | -.0002 | .0193  |
| 13   | 2.51   | -.1028 | .0446 | .3714  | -.0069 | -.0001 | .0180  |
| 14   | 5.01   | -.0624 | .0428 | .2722  | -.0054 | .0007  | .0157  |
| 15   | 10.01  | .0151  | .0450 | .0880  | -.0052 | .0005  | .0164  |
| 16   | 15.00  | .1034  | .0533 | -.1147 | -.0064 | -.0004 | .0206  |
| 17   | 17.50  | .1469  | .0595 | -.2163 | -.0075 | -.0007 | .0257  |
| 18   | 20.00  | .1871  | .0714 | -.3066 | -.0065 | .0001  | .0245  |
| 19   | -0.00  | -.1416 | .0486 | .4700  | -.0064 | -.0002 | .0185  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | -0.00  | -.1418 | .0486 | .4721  | -.0062 | .0005  | .0187  |
| 7    | -20.00 | -.2191 | .1436 | .4893  | -.0016 | .0015  | -.0022 |
| 8    | -14.99 | -.2055 | .1097 | .5030  | -.0030 | .0015  | .0046  |
| 9    | -9.99  | -.2044 | .0846 | .5665  | -.0062 | .0014  | .0156  |
| 10   | -5.00  | -.1715 | .0668 | .5135  | -.0060 | .0020  | .0141  |
| 11   | -2.50  | -.1571 | .0593 | .4920  | -.0069 | .0011  | .0192  |
| 12   | -0.00  | -.1414 | .0485 | .4689  | -.0066 | -.0002 | .0193  |
| 13   | 2.51   | -.1028 | .0446 | .3714  | -.0069 | -.0001 | .0180  |
| 14   | 5.01   | -.0624 | .0428 | .2722  | -.0054 | .0007  | .0157  |
| 15   | 10.01  | .0151  | .0450 | .0880  | -.0052 | .0005  | .0164  |
| 16   | 15.00  | .1034  | .0533 | -.1147 | -.0064 | -.0004 | .0206  |
| 17   | 17.50  | .1469  | .0595 | -.2163 | -.0075 | -.0007 | .0257  |
| 18   | 20.00  | .1871  | .0714 | -.3066 | -.0065 | .0001  | .0245  |
| 19   | -0.00  | -.1416 | .0486 | .4700  | -.0064 | -.0002 | .0185  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 580

RUN 709 CONFIG F P B T45 BT

| PT. NO. | IW ALPHA DEG | - DELF PSI DEG | - DELA      |             | - IHT CU-FT | -S DELE CPMBAR | CYMBAR CU-FT | 0,0 DELR CRMBAR CU-FT | 0,0 DELSB CYBAR SQ-FT | Q PSF  | 0,0 V KNOTS | RPM |
|---------|--------------|----------------|-------------|-------------|-------------|----------------|--------------|-----------------------|-----------------------|--------|-------------|-----|
|         |              |                | CLBAR SQ-FT | CDBAR SQ-FT |             |                |              |                       |                       |        |             |     |
| 2       | .0           | .0             | -28.1       | 15.01       | 784.        | -87.           | -1.          | 5.64                  | 55.55                 | 129.28 | 0.          |     |
| 3       | -20.0        | .0             | -83.1       | 45.88       | 1507.       | -7.            | -2.          | -1.86                 | 55.04                 | 128.66 | 0.          |     |
| 4       | -15.0        | .0             | -78.6       | 33.40       | 1599.       | -32.           | 9.           | 1.21                  | 55.31                 | 128.98 | 0.          |     |
| 5       | -10.0        | .0             | -67.7       | 25.00       | 1515.       | -81.           | 21.          | 4.69                  | 55.21                 | 128.87 | 0.          |     |
| 6       | -5.0         | .0             | -55.9       | 17.63       | 1374.       | -86.           | 4.           | 4.56                  | 55.56                 | 129.28 | 0.          |     |
| 7       | -2.5         | .0             | -43.1       | 15.82       | 1105.       | -101.          | 14.          | 6.74                  | 54.95                 | 128.55 | 0.          |     |
| 8       | .0           | .0             | -28.4       | 15.13       | 784.        | -91.           | -2.          | 6.52                  | 55.21                 | 128.86 | 0.          |     |
| 9       | 2.5          | .0             | -13.0       | 14.93       | 460.        | -80.           | 5.           | 5.76                  | 55.56                 | 129.27 | 0.          |     |
| 10      | 5.0          | .0             | 1.7         | 15.63       | 161.        | -71.           | 7.           | 4.91                  | 55.24                 | 128.90 | 0.          |     |
| 11      | 10.0         | .0             | 31.2        | 17.91       | -441.       | -79.           | 2.           | 5.87                  | 55.15                 | 128.79 | 0.          |     |
| 12      | 15.0         | .0             | 64.8        | 22.95       | -1098.      | -89.           | 5.           | 6.42                  | 55.21                 | 128.86 | 0.          |     |
| 13      | 20.0         | .0             | 67.0        | 37.29       | -1064.      | -119.          | -39.         | 9.26                  | 55.29                 | 128.95 | 0.          |     |
| 14      | .0           | .0             |             | 15.12       |             | -95.           |              | 6.39                  | 54.92                 | 128.51 | 0.          |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0759 | .0406 | .2527  | -.0052 | -.0001 | .0152  |
| 3    | -19.99 | -.2246 | .1240 | .4858  | -.0004 | -.0001 | -.0050 |
| 4    | -15.00 | -.2123 | .0903 | .5155  | -.0020 | .0006  | .0033  |
| 5    | -9.99  | -.1830 | .0676 | .4885  | -.0049 | .0012  | .0127  |
| 6    | -5.00  | -.1510 | .0476 | .4431  | -.0052 | .0003  | .0123  |
| 7    | -2.47  | -.1165 | .0427 | .3562  | -.0061 | .0008  | .0182  |
| 8    | .00    | -.0767 | .0409 | .2529  | -.0055 | -.0001 | .0176  |
| 9    | 2.50   | -.0351 | .0403 | .1482  | -.0048 | .0003  | .0156  |
| 10   | 5.00   | .0046  | .0423 | .0519  | -.0043 | .0004  | .0133  |
| 11   | 10.00  | .0843  | .0484 | -.1422 | -.0048 | .0001  | .0159  |
| 12   | 15.01  | .1751  | .0620 | -.3541 | -.0054 | .0003  | .0173  |
| 13   | 20.00  | .1810  | .1008 | -.3430 | -.0072 | -.0024 | .0250  |
| 14   | .00    |        | .0409 |        | -.0057 |        | .0173  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0759 | .0406 | .2527  | -.0052 | -.0001 | .0152  |
| 3    | -19.99 | -.2246 | .1240 | .4858  | -.0004 | -.0001 | -.0050 |
| 4    | -15.00 | -.2123 | .0903 | .5155  | -.0020 | .0006  | .0033  |
| 5    | -9.99  | -.1830 | .0676 | .4885  | -.0049 | .0012  | .0127  |
| 6    | -5.00  | -.1510 | .0476 | .4431  | -.0052 | .0003  | .0123  |
| 7    | -2.47  | -.1165 | .0427 | .3562  | -.0061 | .0008  | .0182  |
| 8    | .00    | -.0767 | .0409 | .2529  | -.0055 | -.0001 | .0176  |
| 9    | 2.50   | -.0351 | .0403 | .1482  | -.0048 | .0003  | .0156  |
| 10   | 5.00   | .0046  | .0423 | .0519  | -.0043 | .0004  | .0133  |
| 11   | 10.00  | .0843  | .0484 | -.1422 | -.0048 | .0001  | .0159  |
| 12   | 15.01  | .1751  | .0620 | -.3541 | -.0054 | .0003  | .0173  |
| 13   | 20.00  | .1810  | .1008 | -.3430 | -.0072 | -.0024 | .0250  |
| 14   | .00    |        | .0409 |        | -.0057 |        | .0173  |

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N432409-1

SIKORSKY RSRA 1/6. SCALE MODEL TEST  
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P 581

RUN 710. CONFIG F P B T45 BT

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | D.O. V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|---------------|--------------|--------------|-------------|-------------|--------------|-----|
| 2       | .0        | .0      | 19.2        | 15.27       | -574.         | -69.         | 40.          | 5.39        | 55.45       | 129.16       | 0.  |
| 3       | -20.0     | .0      | -78.1       | 31.22       | 1263.         | -10.         | 9.           | -1.19       | 55.54       | 129.26       | 0.  |
| 4       | -15.0     | .0      | -65.9       | 20.09       | 1163.         | -34.         | 7.           | 2.24        | 55.84       | 129.62       | 0.  |
| 5       | -10.0     | .0      | -36.0       | 14.86       | 634.          | -60.         | 21.          | 4.18        | 55.46       | 129.17       | 0.  |
| 6       | -5.0      | .0      | -9.7        | 14.42       | 46.           | -69.         | 35.          | 3.76        | 54.93       | 128.53       | 0.  |
| 7       | -2.5      | .0      | 4.4         | 14.48       | -254.         | -80.         | 30.          | 3.81        | 55.44       | 129.14       | 0.  |
| 8       | .0        | .0      | 19.3        | 15.39       | -578.         | -71.         | 40.          | 5.49        | 55.42       | 129.11       | 0.  |
| 9       | 2.5       | .0      | 33.6        | 16.69       | -882.         | -63.         | 41.          | 4.92        | 55.34       | 129.02       | 0.  |
| 10      | 5.0       | .0      | 48.0        | 18.68       | -1171.        | -62.         | 42.          | 5.08        | 55.42       | 129.11       | 0.  |
| 11      | 10.0      | .0      | 58.5        | 31.26       | -1315.        | -60.         | 14.          | 5.89        | 55.35       | 129.03       | 0.  |
| 12      | 15.0      | .0      | 62.4        | 40.55       | -1241.        | -92.         | -7.          | 7.24        | 55.24       | 128.90       | 0.  |
| 13      | 20.0      | .0      | 65.2        | 49.32       | -1180.        | -115.        | -4.          | 9.59        | 55.17       | 128.82       | 0.  |
| 14      | .0        | .0      | 19.5        | 15.39       | -582.         | -72.         | 33.          | 6.05        | 55.01       | 128.62       | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0519  | .0413 | -.1851 | -.0042 | .0024  | .0146  |
| 3    | -19.99 | -.2111 | .0844 | .4073  | -.0006 | .0005  | -.0032 |
| 4    | -15.00 | -.1781 | .0543 | .3751  | -.0020 | .0004  | .0060  |
| 5    | -9.99  | -.1026 | .0402 | .2043  | -.0036 | .0013  | .0113  |
| 6    | -4.99  | -.0263 | .0390 | .0147  | -.0042 | .0021  | .0102  |
| 7    | -2.50  | .0119  | .0391 | -.0819 | -.0048 | .0018  | .0103  |
| 8    | .01    | .0521  | .0416 | -.1863 | -.0043 | .0024  | .0148  |
| 9    | 2.50   | .0907  | .0451 | -.2844 | -.0038 | .0025  | .0133  |
| 10   | 5.01   | .1296  | .0505 | -.3776 | -.0037 | .0025  | .0137  |
| 11   | 10.01  | .1582  | .0845 | -.4239 | -.0036 | .0009  | .0159  |
| 12   | 15.00  | .1687  | .1096 | -.4002 | -.0056 | -.0004 | .0196  |
| 13   | 20.01  | .1762  | .1333 | -.3803 | -.0070 | -.0002 | .0259  |
| 14   | .01    | .0528  | .0416 | -.1876 | -.0044 | .0020  | .0163  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0519  | .0413 | -.1851 | -.0042 | .0024  | .0146  |
| 3    | -19.99 | -.2111 | .0844 | .4073  | -.0006 | .0005  | -.0032 |
| 4    | -15.00 | -.1781 | .0543 | .3751  | -.0020 | .0004  | .0060  |
| 5    | -9.99  | -.1026 | .0402 | .2043  | -.0036 | .0013  | .0113  |
| 6    | -4.99  | -.0263 | .0390 | .0147  | -.0042 | .0021  | .0102  |
| 7    | -2.50  | .0119  | .0391 | -.0819 | -.0048 | .0018  | .0103  |
| 8    | .01    | .0521  | .0416 | -.1863 | -.0043 | .0024  | .0148  |
| 9    | 2.50   | .0907  | .0451 | -.2844 | -.0038 | .0025  | .0133  |
| 10   | 5.01   | .1296  | .0505 | -.3776 | -.0037 | .0025  | .0137  |
| 11   | 10.01  | .1582  | .0845 | -.4239 | -.0036 | .0009  | .0159  |
| 12   | 15.00  | .1687  | .1096 | -.4002 | -.0056 | -.0004 | .0196  |
| 13   | 20.01  | .1762  | .1333 | -.3803 | -.0070 | -.0002 | .0259  |
| 14   | .01    | .0528  | .0416 | -.1876 | -.0044 | .0020  | .0163  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 582

RUN 711 CONFIG F P B T45 BT

| PT. NO. | W. ALPHA DEG | - DELF PSI DEG | - DELA CLBAR SQ-FT | - IHT CDBAR SQ-FT | IO DELE CPMBAR CU-FT | IO DELE CYMBAR CU-FT | O,O DELR CRMBAR CU-FT | O,O DELSB CYBAR SQ-FT | O,O DELSB Q PSF | O,O DELSB V KNOTS | RPM |
|---------|--------------|----------------|--------------------|-------------------|----------------------|----------------------|-----------------------|-----------------------|-----------------|-------------------|-----|
| 2       | 0            | 0              | 42,0               | 18,75             | -1226                | -75                  | 23                    | 5,40                  | 54,89           | 128,49            | 0   |
| 3       | 20,0         | 0              | -73,3              | 24,86             | 1068                 | -8                   | 2                     | -1,02                 | 54,66           | 128,21            | 0   |
| 4       | -15,0        | 0              | -44,2              | 17,14             | 537                  | -24                  | 23                    | ,52                   | 54,76           | 128,33            | 0   |
| 5       | -10,0        | 0              | -14,7              | 14,28             | -33                  | -61                  | 46                    | 4,03                  | 54,68           | 128,24            | 0   |
| 6       | -5,0         | 0              | 13,3               | 15,03             | -602                 | -71                  | 41                    | 4,10                  | 54,54           | 128,07            | 0   |
| 7       | -2,5         | 0              | 28,5               | 16,22             | -934                 | -78                  | 52                    | 4,98                  | 54,53           | 128,06            | 0   |
| 8       | 0            | 0              | 43,0               | 17,73             | -1247                | -62                  | 52                    | 5,30                  | 55,07           | 128,71            | 0   |
| 9       | 2,5          | 0              | 50,5               | 22,67             | -1380                | -72                  | 25                    | 4,47                  | 54,82           | 128,41            | 0   |
| 10      | 5,0          | 0              | 52,2               | 28,69             | -1352                | -57                  | 31                    | 3,92                  | 55,10           | 128,73            | 0   |
| 11      | 10,0         | 0              | 57,2               | 38,30             | -1350                | -64                  | 14                    | 5,44                  | 54,94           | 128,54            | 0   |
| 12      | 15,0         | 0              | 62,0               | 46,39             | -1295                | -79                  | 16                    | 6,24                  | 54,73           | 128,29            | 0   |
| 13      | 20,0         | 0              | 68,9               | 56,44             | -1350                | -111                 | -16                   | 9,25                  | 54,86           | 128,45            | 0   |
| 14      | 0            | 0              | 42,9               | 17,85             | -1251                | -56                  | 41                    | 5,14                  | 54,78           | 128,35            | 0   |

COEFFICIENT FORM - WIND AXIS

| PT. NO. | W. ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|---------|----------|--------|-------|--------|--------|--------|--------|
| 2       | 0,00     | .1136  | .0507 | -.3953 | -.0045 | .0014  | .0146  |
| 3       | -20,00   | -.1981 | .0672 | .3443  | -.0005 | .0001  | -.0028 |
| 4       | -15,01   | -.1195 | .0463 | .1732  | -.0015 | .0014  | .0014  |
| 5       | -10,00   | -.0397 | .0386 | -.0106 | -.0037 | .0028  | .0109  |
| 6       | -5,00    | .0359  | .0406 | -.1940 | -.0043 | .0025  | .0111  |
| 7       | -2,50    | .0771  | .0438 | -.3012 | -.0047 | .0032  | .0134  |
| 8       | 0,00     | .1161  | .0479 | -.4020 | -.0037 | .0031  | .0143  |
| 9       | 2,50     | .1366  | .0613 | -.4450 | -.0043 | .0015  | .0121  |
| 10      | 5,00     | .1411  | .0775 | -.4360 | -.0034 | .0019  | .0106  |
| 11      | 10,01    | .1545  | .1035 | -.4352 | -.0039 | .0009  | .0147  |
| 12      | 15,00    | .1676  | .1254 | -.4176 | -.0048 | .0010  | .0169  |
| 13      | 20,01    | .1862  | .1525 | -.4351 | -.0067 | -.0010 | .0250  |
| 14      | 0,00     | .1160  | .0482 | -.4035 | -.0034 | .0025  | .0139  |

COEFFICIENT FORM - STABILITY AXIS

| PT. NO. | W. ALPHA | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|---------|----------|--------|-------|--------|--------|--------|--------|
| 2       | 0,00     | .1136  | .0507 | -.3953 | -.0045 | .0014  | .0146  |
| 3       | -20,00   | -.1981 | .0672 | .3443  | -.0005 | .0001  | -.0028 |
| 4       | -15,01   | -.1195 | .0463 | .1732  | -.0015 | .0014  | .0014  |
| 5       | -10,00   | -.0397 | .0386 | -.0106 | -.0037 | .0028  | .0109  |
| 6       | -5,00    | .0359  | .0406 | -.1940 | -.0043 | .0025  | .0111  |
| 7       | -2,50    | .0771  | .0438 | -.3012 | -.0047 | .0032  | .0134  |
| 8       | 0,00     | .1161  | .0479 | -.4020 | -.0037 | .0031  | .0143  |
| 9       | 2,50     | .1366  | .0613 | -.4450 | -.0043 | .0015  | .0121  |
| 10      | 5,00     | .1411  | .0775 | -.4360 | -.0034 | .0019  | .0106  |
| 11      | 10,01    | .1545  | .1035 | -.4352 | -.0039 | .0009  | .0147  |
| 12      | 15,00    | .1676  | .1254 | -.4176 | -.0048 | .0010  | .0169  |
| 13      | 20,01    | .1862  | .1525 | -.4351 | -.0067 | -.0010 | .0250  |
| 14      | 0,00     | .1160  | .0482 | -.4035 | -.0034 | .0025  | .0139  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 583

RUN 712 CONFIG F P B T45 BT

| IW<br>PT.<br>NO. | ALPHA<br>DEG | - DELF<br>PSI<br>DEG | - DELA<br>CLBAR<br>SQ-FT | - IHT<br>CDBAR<br>SQ-FT | O,O DELE<br>CPMBAR<br>CU-FT | O,O DELK<br>CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM |
|------------------|--------------|----------------------|--------------------------|-------------------------|-----------------------------|-----------------------------|-----------------|----------------|----------|------------|-----|
| 2                | .0           | .0                   | -6.1                     | 15.08                   | 154.                        | 275.                        | -25.            | -3.50          | 55.47    | 129.18     | 0.  |
| 3                | .0           | -20.0                | 4.3                      | 60.00                   | -95.                        | 1896.                       | -179.           | -158.22        | 55.47    | 129.18     | 0.  |
| 4                | .0           | -15.0                | 2.0                      | 37.29                   | -72.                        | 1298.                       | -124.           | -111.77        | 55.62    | 129.35     | 0.  |
| 5                | .0           | -10.0                | -1.4                     | 22.99                   | 17.                         | 711.                        | -69.            | -67.38         | 55.67    | 129.41     | 0.  |
| 6                | .0           | -5.0                 | -3.9                     | 16.70                   | 95.                         | 454.                        | -59.            | -33.90         | 55.74    | 129.49     | 0.  |
| 7                | .0           | -2.5                 | -5.7                     | 15.67                   | 141.                        | 385.                        | -50.            | -18.91         | 55.54    | 129.26     | 0.  |
| 8                | .0           | .0                   | -6.2                     | 15.05                   | 147.                        | 262.                        | -38.            | -2.09          | 55.39    | 129.08     | 0.  |
| 9                | .0           | 2.5                  | -6.2                     | 15.41                   | 133.                        | 150.                        | -29.            | 14.91          | 55.59    | 129.31     | 0.  |
| 10               | .0           | 5.0                  | -5.2                     | 16.27                   | 105.                        | 76.                         | -27.            | 30.10          | 55.42    | 129.11     | 0.  |
| 11               | .0           | 10.0                 | -2.0                     | 20.53                   | 5.                          | -237.                       | 5.              | 66.35          | 55.62    | 129.35     | 0.  |
| 12               | .0           | 15.0                 | .9                       | 32.13                   | -106.                       | -818.                       | 77.             | 108.99         | 55.83    | 129.60     | 0.  |
| 13               | .0           | 20.0                 | 3.0                      | 53.83                   | -157.                       | -1463.                      | 149.            | 155.57         | 55.49    | 129.19     | 0.  |
| 14               | .0           | .0                   | -6.0                     | 15.01                   | 166.                        | 272.                        | -19.            | -3.07          | 55.77    | 129.53     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0166 | .0408 | .0495  | .0166  | -.0015 | -.0095 |
| 3    | -20.00 | .0117  | .1622 | -.0305 | .1146  | -.0108 | -.4276 |
| 4    | -15.00 | .0054  | .1008 | -.0232 | .0784  | -.0075 | -.3021 |
| 5    | -10.00 | -.0037 | .0421 | .0055  | .0430  | -.0042 | -.1821 |
| 6    | -5.00  | -.0106 | .0451 | .0308  | .0274  | -.0036 | -.0916 |
| 7    | -2.50  | -.0154 | .0423 | .0455  | .0232  | -.0030 | -.0511 |
| 8    | .00    | -.0168 | .0407 | .0473  | .0158  | -.0023 | -.0057 |
| 9    | 2.50   | -.0167 | .0416 | .0428  | .0091  | -.0018 | .0403  |
| 10   | 5.00   | -.0140 | .0440 | .0337  | .0046  | -.0017 | .0814  |
| 11   | 10.00  | -.0055 | .0555 | .0015  | -.0143 | .0003  | .1793  |
| 12   | 15.00  | .0024  | .0868 | -.0340 | -.0494 | .0046  | .2946  |
| 13   | 20.00  | .0082  | .1455 | -.0506 | -.0884 | .0090  | .4205  |
| 14   | .00    | -.0163 | .0406 | .0537  | .0164  | -.0012 | -.0083 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0166 | .0408  | .0495  | .0166  | -.0015 | -.0095 |
| 3    | -20.00 | .0117  | .0054  | -.0089 | .1146  | -.0082 | -.4573 |
| 4    | -15.00 | .0054  | .0188  | -.0120 | .0784  | -.0061 | -.3179 |
| 5    | -10.00 | -.0037 | .0294  | .0094  | .0430  | -.0043 | -.1901 |
| 6    | -5.00  | -.0106 | .0369  | .0323  | .0274  | -.0041 | -.0952 |
| 7    | -2.50  | -.0154 | .0401  | .0462  | .0232  | -.0034 | -.0529 |
| 8    | .00    | -.0168 | .0407  | .0473  | .0158  | -.0023 | -.0057 |
| 9    | 2.50   | -.0167 | .0398  | .0424  | .0091  | -.0014 | .0421  |
| 10   | 5.00   | -.0140 | .0367  | .0328  | .0046  | -.0011 | .0849  |
| 11   | 10.00  | -.0055 | .0234  | .0017  | -.0143 | .0003  | .1863  |
| 12   | 15.00  | .0024  | .0073  | -.0264 | -.0494 | .0028  | .3070  |
| 13   | 20.00  | .0082  | -.0078 | -.0311 | -.0884 | .0052  | .4448  |
| 14   | .00    | -.0163 | .0406  | .0537  | .0164  | -.0012 | -.0083 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 584

RUN 713 CONFIG F P B T45 BT

| PT. NO. | IHW | - DELF    |         | - DELA      |             | - IHT         |              | O,O DELE      |             | O,O DELR |         | 20 DELSB |  | O.O |  | RPM |
|---------|-----|-----------|---------|-------------|-------------|---------------|--------------|---------------|-------------|----------|---------|----------|--|-----|--|-----|
|         |     | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF    | V KNOTS |          |  |     |  |     |
| 2       |     | .0        | .0      | -7.6        | 16.55       | 225.          | 671.         | -72.          | -12.87      | 54.86    | 128.46  |          |  |     |  | 0.  |
| 3       |     | .0        | -20.0   | 3.5         | 62.90       | -65.          | 2194.        | -178.         | -164.01     | 54.72    | 128.28  |          |  |     |  | 0.  |
| 4       |     | .0        | -15.0   | 1.4         | 40.36       | -48.          | 1650.        | -158.         | -120.80     | 54.95    | 128.56  |          |  |     |  | 0.  |
| 5       |     | .0        | -10.0   | -1.8        | 25.30       | 31.           | 1064.        | -111.         | -76.47      | 55.51    | 129.22  |          |  |     |  | 0.  |
| 6       |     | .0        | -5.0    | -4.9        | 18.54       | 130.          | 790.         | -97.          | -41.58      | 55.30    | 128.97  |          |  |     |  | 0.  |
| 7       |     | .0        | -2.5    | -6.6        | 17.29       | 186.          | 762.         | -96.          | -28.09      | 55.63    | 129.36  |          |  |     |  | 0.  |
| 8       |     | .0        | .0      | -7.7        | 16.39       | 207.          | 657.         | -96.          | -11.34      | 55.37    | 129.06  |          |  |     |  | 0.  |
| 9       |     | .0        | 2.5     | -7.7        | 16.26       | 194.          | 501.         | -80.          | 5.26        | 55.90    | 129.68  |          |  |     |  | 0.  |
| 10      |     | .0        | 5.0     | -6.9        | 16.92       | 175.          | 393.         | -81.          | 22.21       | 55.47    | 129.17  |          |  |     |  | 0.  |
| 11      |     | .0        | 10.0    | -3.8        | 20.92       | 63.           | 32.          | -44.          | 59.97       | 55.48    | 129.18  |          |  |     |  | 0.  |
| 12      |     | .0        | 15.0    | -.3         | 31.93       | -62.          | -542.        | 23.           | 102.99      | 55.35    | 129.03  |          |  |     |  | 0.  |
| 13      |     | .0        | 20.0    | 1.5         | 52.09       | -117.         | -1171.       | 84.           | 147.91      | 55.53    | 129.25  |          |  |     |  | 0.  |
| 14      |     | .0        | .0      | -7.4        | 16.30       | 226.          | 666.         | -82.          | -12.88      | 55.64    | 129.38  |          |  |     |  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYH    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0206 | .0447 | .0725  | .0405  | -.0043 | -.0348 |
| 3    | -20.00 | .0095  | .1700 | -.0210 | .1325  | -.0107 | -.4433 |
| 4    | -15.00 | .0037  | .1091 | -.0155 | .0996  | -.0095 | -.3265 |
| 5    | -10.00 | -.0048 | .0684 | .0099  | .0642  | -.0067 | -.2067 |
| 6    | -5.00  | -.0132 | .0501 | .0418  | .0477  | -.0059 | -.1124 |
| 7    | -2.50  | -.0179 | .0467 | .0599  | .0461  | -.0058 | -.0759 |
| 8    | .00    | -.0207 | .0443 | .0667  | .0397  | -.0058 | -.0306 |
| 9    | 2.50   | -.0208 | .0439 | .0625  | .0303  | -.0049 | .0142  |
| 10   | 5.00   | -.0187 | .0457 | .0564  | .0238  | -.0049 | .0600  |
| 11   | 10.00  | -.0104 | .0555 | .0202  | .0019  | -.0027 | .1621  |
| 12   | 15.00  | -.0008 | .0863 | -.0199 | -.0327 | .0014  | .2783  |
| 13   | 20.00  | .0041  | .1408 | -.0377 | -.0707 | .0051  | .3998  |
| 14   | .00    | -.0199 | .0441 | .0729  | .0402  | -.0050 | -.0348 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0206 | .0447  | .0725  | .0405  | -.0043 | -.0348 |
| 3    | -20.00 | .0095  | .0074  | -.0001 | .1325  | -.0087 | -.4747 |
| 4    | -15.00 | .0037  | .0204  | -.0017 | .0996  | -.0084 | -.3436 |
| 5    | -10.00 | -.0048 | .0313  | .0159  | .0642  | -.0069 | -.2154 |
| 6    | -5.00  | -.0132 | .0401  | .0443  | .0477  | -.0065 | -.1163 |
| 7    | -2.50  | -.0179 | .0433  | .0612  | .0461  | -.0063 | -.0779 |
| 8    | .00    | -.0207 | .0443  | .0667  | .0397  | -.0058 | -.0306 |
| 9    | 2.50   | -.0208 | .0433  | .0613  | .0303  | -.0043 | .0161  |
| 10   | 5.00   | -.0187 | .0403  | .0539  | .0238  | -.0039 | .0638  |
| 11   | 10.00  | -.0104 | .0274  | .0174  | .0019  | -.0020 | .1695  |
| 12   | 15.00  | -.0008 | .0110  | -.0172 | -.0327 | .0004  | .2912  |
| 13   | 20.00  | .0041  | -.0051 | -.0261 | -.0707 | .0024  | .4238  |
| 14   | .00    | -.0199 | .0441  | .0729  | .0402  | -.0050 | -.0348 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

575

RUN 714 CONFIG F T38 BT

| PT. NO. | IW | - DELF<br>ALPHA<br>DEG | - DELA<br>PSI<br>DEG | - IHT<br>CLBAR<br>SQ-FT | O,O DELE<br>CDBAR<br>SQ-FT | O,O DELR<br>CPMBAR<br>CU-FT | O,O DELS<br>CYMBAR<br>CU-FT | O,O DELS<br>CRMBAR<br>CU-FT | O,O DELS<br>CYBAR<br>SQ-FT | O,O<br>Q<br>PSF | O,O<br>V<br>KNOTS | RPM |
|---------|----|------------------------|----------------------|-------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------|-----------------|-------------------|-----|
| 3       |    | .0                     | .0                   | -7.7                    | 9.20                       | 150.                        | -80.                        | 11.                         | 5.19                       | 54.94           | 128.56            | 0.  |
| 4       |    | -20.0                  | .0                   | -87.5                   | 35.49                      | 1544.                       | -60.                        | 20.                         | 1.36                       | 55.03           | 128.65            | 0.  |
| 5       |    | -15.0                  | .0                   | -75.9                   | 23.72                      | 1438.                       | -46.                        | 18.                         | 2.73                       | 54.89           | 128.49            | 0.  |
| 6       |    | -10.0                  | .0                   | -63.7                   | 13.76                      | 1333.                       | -77.                        | 8.                          | 5.08                       | 55.24           | 128.91            | 0.  |
| 7       |    | -5.0                   | .0                   | -36.4                   | 9.92                       | 766.                        | -72.                        | 24.                         | 3.84                       | 54.64           | 128.19            | 0.  |
| 8       |    | -2.5                   | .0                   | -22.7                   | 9.26                       | 473.                        | -97.                        | 27.                         | 5.81                       | 54.33           | 127.82            | 0.  |
| 9       |    | .0                     | .0                   | -7.6                    | 9.03                       | 150.                        | -77.                        | 29.                         | 5.00                       | 54.96           | 128.57            | 0.  |
| 10      |    | 2.5                    | .0                   | 6.8                     | 9.48                       | -160.                       | -69.                        | 25.                         | 4.09                       | 54.95           | 128.56            | 0.  |
| 11      |    | 5.0                    | .0                   | 20.8                    | 10.28                      | -454.                       | -86.                        | 31.                         | 4.56                       | 54.79           | 128.37            | 0.  |
| 12      |    | 10.0                   | .0                   | 53.6                    | 13.20                      | -1140.                      | -111.                       | 26.                         | 5.30                       | 55.03           | 128.66            | 0.  |
| 13      |    | 15.0                   | .0                   | 62.0                    | 25.68                      | -1186.                      | -175.                       | -7.                         | 7.33                       | 54.99           | 128.61            | 0.  |
| 14      |    | 20.0                   | .0                   | 67.9                    | 35.00                      | -1109.                      | -76.                        | -22.                        | 5.58                       | 55.19           | 128.84            | 0.  |
| 15      |    | .0                     | .0                   | -7.6                    | 9.03                       | 145.                        | -78.                        | 23.                         | 4.85                       | 54.96           | 128.58            | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 3    | .00    | -.0208 | .0249 | .0482  | -.0048 | .0007  | .0140 |
| 4    | -20.00 | -.2364 | .0959 | .4977  | -.0036 | .0012  | .0037 |
| 5    | -14.99 | -.2052 | .0641 | .4635  | -.0028 | .0011  | .0074 |
| 6    | -10.00 | -.1723 | .0372 | .4298  | -.0047 | .0005  | .0137 |
| 7    | -5.00  | -.0984 | .0268 | .2470  | -.0043 | .0014  | .0104 |
| 8    | -2.51  | -.0613 | .0250 | .1525  | -.0058 | .0017  | .0157 |
| 9    | .01    | -.0205 | .0244 | .0483  | -.0047 | .0017  | .0135 |
| 10   | 2.51   | .0183  | .0256 | -.0517 | -.0041 | .0015  | .0111 |
| 11   | 5.00   | .0563  | .0278 | -.1463 | -.0052 | .0019  | .0123 |
| 12   | 10.01  | .1449  | .0357 | -.3676 | -.0067 | .0016  | .0143 |
| 13   | 15.01  | .1675  | .0694 | -.3822 | -.0106 | -.0004 | .0198 |
| 14   | 19.99  | .1836  | .0946 | -.3575 | -.0046 | -.0013 | .0151 |
| 15   | .00    | -.0205 | .0244 | .0467  | -.0047 | .0014  | .0131 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 3    | .00    | -.0208 | .0249 | .0482  | -.0048 | .0007  | .0140 |
| 4    | -20.00 | -.2364 | .0959 | .4977  | -.0036 | .0012  | .0037 |
| 5    | -14.99 | -.2052 | .0641 | .4635  | -.0028 | .0011  | .0074 |
| 6    | -10.00 | -.1723 | .0372 | .4298  | -.0047 | .0005  | .0137 |
| 7    | -5.00  | -.0984 | .0268 | .2470  | -.0043 | .0014  | .0104 |
| 8    | -2.51  | -.0613 | .0250 | .1525  | -.0058 | .0017  | .0157 |
| 9    | .01    | -.0205 | .0244 | .0483  | -.0047 | .0017  | .0135 |
| 10   | 2.51   | .0183  | .0256 | -.0517 | -.0041 | .0015  | .0111 |
| 11   | 5.00   | .0563  | .0278 | -.1463 | -.0052 | .0019  | .0123 |
| 12   | 10.01  | .1449  | .0357 | -.3676 | -.0067 | .0016  | .0143 |
| 13   | 15.01  | .1675  | .0694 | -.3822 | -.0106 | -.0004 | .0198 |
| 14   | 19.99  | .1836  | .0946 | -.3575 | -.0046 | -.0013 | .0151 |
| 15   | .00    | -.0205 | .0244 | .0467  | -.0047 | .0014  | .0131 |

N432409-1

SIKORSKY RSRA 1/4 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 5-86

RUN 715 CONFIG F T38 BT

| IW      | - DELF    |         | - DELA      |             | - IHT        | O.O DELE     |              | O.O DELR    |       | O.O DELSB |     | O.O |  |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|-----------|-----|-----|--|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS   | RPM |     |  |
| 5       | .0        | .0      | -7.8        | 9.20        | 159.         | -83.         | 17.          | 5.31        | 55.14 | 128.79    | 0.  |     |  |
| 6       | .0        | -20.0   | 15.3        | 35.14       | -419.        | 1876.        | -211.        | -106.99     | 54.88 | 128.48    | 0.  |     |  |
| 7       | .0        | -15.0   | 7.1         | 22.00       | -250.        | 1322.        | -136.        | -75.33      | 55.27 | 128.95    | 0.  |     |  |
| 8       | .0        | -10.0   | -.9         | 13.75       | -35.         | 733.         | -51.         | -43.95      | 54.95 | 128.56    | 0.  |     |  |
| 9       | .0        | -5.0    | -6.1        | 10.06       | 105.         | 280.         | -22.         | -17.27      | 55.17 | 128.82    | 0.  |     |  |
| 10      | .0        | -2.5    | -7.7        | 9.48        | 134.         | 84.          | -2.          | -5.52       | 55.10 | 128.74    | 0.  |     |  |
| 11      | .0        | .0      | -7.9        | 8.97        | 134.         | -83.         | 5.           | 5.18        | 55.51 | 129.23    | 0.  |     |  |
| 12      | .0        | 2.5     | -7.1        | 9.69        | 106.         | -251.        | 3.           | 16.18       | 55.15 | 128.80    | 0.  |     |  |
| 13      | .0        | 5.0     | -4.5        | 10.01       | 45.          | -435.        | 18.          | 28.80       | 55.52 | 129.24    | 0.  |     |  |
| 14      | .0        | 10.0    | 2.9         | 12.16       | -154.        | -821.        | 56.          | 55.09       | 55.57 | 129.29    | 0.  |     |  |
| 15      | .0        | 15.0    | 8.7         | 20.31       | -315.        | -1353.       | 124.         | 85.75       | 55.47 | 129.18    | 0.  |     |  |
| 16      | .0        | 20.0    | 14.6        | 35.03       | -447.        | -1960.       | 194.         | 118.27      | 55.38 | 129.07    | 0.  |     |  |
| 17      | .0        | .0      | -8.0        | 9.18        | 156.         | -78.         | 23.          | 4.63        | 55.15 | 128.80    | 0.  |     |  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 5    | .00    | -.0210 | .0249 | .0512  | -.0050 | .0010  | .0144  |
| 6    | -20.00 | .0412  | .0950 | -.1352 | .1133  | -.0127 | -.2892 |
| 7    | -15.00 | .0191  | .0595 | -.0806 | .0798  | -.0082 | -.2036 |
| 8    | -10.00 | -.0024 | .0372 | -.0114 | .0443  | -.0031 | -.1188 |
| 9    | -5.00  | -.0186 | .0272 | .0340  | .0169  | -.0013 | -.0467 |
| 10   | -2.50  | -.0209 | .0256 | .0431  | .0051  | -.0001 | -.0149 |
| 11   | .00    | -.0213 | .0242 | .0431  | -.0050 | .0003  | .0140  |
| 12   | 2.50   | -.0191 | .0262 | .0343  | -.0152 | .0002  | .0437  |
| 13   | 5.00   | -.0121 | .0270 | .0144  | -.0263 | .0011  | .0778  |
| 14   | 10.00  | .0079  | .0329 | -.0497 | -.0496 | .0034  | .1489  |
| 15   | 15.00  | .0235  | .0549 | -.1014 | -.0817 | .0075  | .2318  |
| 16   | 20.00  | .0394  | .0947 | -.1442 | -.1184 | .0117  | .3197  |
| 17   | .00    | -.0217 | .0248 | .0502  | -.0047 | .0014  | .0125  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 5    | .00    | -.0210 | .0249  | .0512  | -.0050 | .0010  | .0144  |
| 6    | -20.00 | .0412  | -.0101 | -.1036 | .1133  | -.0032 | -.3042 |
| 7    | -15.00 | .0191  | .0045  | -.0664 | .0798  | -.0040 | -.2121 |
| 8    | -10.00 | -.0024 | .0159  | -.0083 | .0443  | -.0027 | -.1235 |
| 9    | -5.00  | -.0186 | .0230  | .0344  | .0169  | -.0019 | -.0489 |
| 10   | -2.50  | -.0209 | .0249  | .0431  | .0051  | -.0005 | -.0160 |
| 11   | .00    | -.0213 | .0242  | .0431  | -.0050 | .0003  | .0140  |
| 12   | 2.50   | -.0191 | .0243  | .0343  | -.0152 | .0005  | .0448  |
| 13   | 5.00   | -.0121 | .0201  | .0149  | -.0263 | .0013  | .0799  |
| 14   | 10.00  | .0079  | .0064  | -.0458 | -.0496 | .0017  | .1523  |
| 15   | 15.00  | .0235  | -.0072 | -.0876 | -.0817 | .0023  | .2381  |
| 16   | 20.00  | .0394  | -.0209 | -.1139 | -.1184 | .0017  | .3327  |
| 17   | .00    | -.0217 | .0248  | .0502  | -.0047 | .0014  | .0125  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P587

RUN 716 CONFIG F P B T2

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| 7       | .0        | .0      | .1          | 11.87       | -32.         | 28.          | 13.          | 3.20        | 55.65 | 129.40  | 0.  |
| 8       | .0        | -20.0   | 5.4         | 41.92       | -51.         | -656.        | 73.          | -94.09      | 55.38 | 129.07  | 0.  |
| 9       | .0        | -15.0   | 3.0         | 27.44       | -51.         | -534.        | 26.          | -67.81      | 55.61 | 129.35  | 0.  |
| 10      | .0        | -10.0   | 1.6         | 17.57       | -44.         | -374.        | 25.          | -41.52      | 55.29 | 128.97  | 0.  |
| 11      | .0        | -5.0    | 1.3         | 13.09       | -58.         | -191.        | 7.           | -18.75      | 55.30 | 128.98  | 0.  |
| 12      | .0        | -2.5    | .7          | 12.27       | -52.         | -92.         | 9.           | -7.98       | 54.49 | 128.02  | 0.  |
| 13      | .0        | .0      | .0          | 11.72       | -50.         | 21.          | 14.          | 3.13        | 54.81 | 128.40  | 0.  |
| 14      | .0        | 2.5     | -.5         | 12.86       | -41.         | 129.         | 10.          | 14.26       | 55.35 | 129.03  | 0.  |
| 15      | .0        | 5.0     | -.6         | 13.87       | -31.         | 236.         | 2.           | 26.29       | 55.80 | 129.57  | 0.  |
| 16      | .0        | 10.0    | .1          | 17.39       | -26.         | 434.         | 5.           | 48.39       | 55.31 | 128.99  | 0.  |
| 17      | .0        | 15.0    | 1.5         | 26.24       | -35.         | 602.         | -28.         | 71.59       | 55.20 | 128.85  | 0.  |
| 18      | .0        | 20.0    | 2.8         | 40.28       | -68.         | 768.         | -32.         | 96.90       | 54.85 | 128.44  | 0.  |
| 19      | .0        | .0      | -.2         | 11.91       | -48.         | 23.          | 20.          | 2.73        | 54.98 | 128.60  | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 7    | .00    | .0002  | .0321 | -.0104 | .0017  | .0008  | .0087  |
| 8    | -20.00 | .0146  | .1133 | -.0164 | -.0396 | .0044  | -.2543 |
| 9    | -15.00 | .0080  | .0742 | -.0164 | -.0323 | .0016  | -.1833 |
| 10   | -10.00 | .0044  | .0475 | -.0142 | -.0226 | .0015  | -.1122 |
| 11   | -5.00  | .0034  | .0354 | -.0186 | -.0115 | .0004  | -.0507 |
| 12   | -2.50  | .0020  | .0332 | -.0167 | -.0056 | .0005  | -.0216 |
| 13   | .00    | -.0001 | .0317 | -.0161 | .0013  | .0008  | .0085  |
| 14   | 2.50   | -.0015 | .0347 | -.0132 | .0078  | .0006  | .0385  |
| 15   | 5.00   | -.0015 | .0375 | -.0100 | .0142  | .0001  | .0711  |
| 16   | 10.00  | .0003  | .0470 | -.0091 | .0262  | .0003  | .1308  |
| 17   | 15.00  | .0039  | .0709 | -.0114 | .0364  | -.0017 | .1935  |
| 18   | 20.00  | .0075  | .1089 | -.0219 | .0464  | -.0019 | .2619  |
| 19   | .00    | -.0005 | .0322 | -.0156 | .0014  | .0012  | .0074  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 7    | .00    | .0002  | .0321 | -.0104 | .0017  | .0008  | .0087  |
| 8    | -20.00 | .0146  | .0190 | -.0235 | -.0396 | .0052  | -.2777 |
| 9    | -15.00 | .0080  | .0240 | -.0180 | -.0323 | .0023  | -.1962 |
| 10   | -10.00 | .0044  | .0272 | -.0154 | -.0226 | .0020  | -.1188 |
| 11   | -5.00  | .0034  | .0308 | -.0188 | -.0115 | .0007  | -.0536 |
| 12   | -2.50  | .0020  | .0322 | -.0169 | -.0056 | .0007  | -.0230 |
| 13   | .00    | -.0001 | .0317 | -.0161 | .0013  | .0008  | .0085  |
| 14   | 2.50   | -.0015 | .0330 | -.0131 | .0078  | .0005  | .0400  |
| 15   | 5.00   | -.0015 | .0311 | -.0099 | .0142  | -.0000 | .0741  |
| 16   | 10.00  | .0003  | .0235 | -.0086 | .0262  | .0000  | .1370  |
| 17   | 15.00  | .0039  | .0182 | -.0133 | .0364  | -.0022 | .2053  |
| 18   | 20.00  | .0075  | .0123 | -.0241 | .0464  | -.0032 | .2834  |
| 19   | .00    | -.0005 | .0322 | -.0156 | .0014  | .0012  | .0074  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 588

RUN 717 CONFIG F P B T2

| PT. NO. | IW        | DELFA | PSI   | CLBAR | CDBAR | CPMBAR | CYMBAR | CRMBAR | CYBAR | DELSB Q | DELSB V | RPM |
|---------|-----------|-------|-------|-------|-------|--------|--------|--------|-------|---------|---------|-----|
|         | ALPHA DEG | DEG   | SQ-FT | SQ-FT | CU-FT | CU-FT  | CU-FT  | CU-FT  | SQ-FT | PSF     | KNOTS   |     |
| 5       | -0.0      | .0    | -0.0  | 11.63 | -38.  | 29.    | 2.     | 3.02   | 55.32 | 129.00  | 0.      |     |
| 6       | -20.0     | .0    | -18.3 | 15.74 | -515. | 63.    | -2.    | -1.58  | 54.52 | 128.04  | 0.      |     |
| 7       | -15.0     | .0    | -11.9 | 12.05 | -404. | 51.    | 9.     | 1.47   | 54.12 | 127.57  | 0.      |     |
| 8       | -10.0     | .0    | -6.4  | 10.12 | -287. | 42.    | 15.    | 1.31   | 55.44 | 129.14  | 0.      |     |
| 9       | -5.0      | .0    | -2.9  | 10.75 | -157. | 41.    | 21.    | 1.35   | 55.48 | 129.18  | 0.      |     |
| 10      | -2.5      | .0    | -1.6  | 11.24 | -93.  | 32.    | 20.    | 2.65   | 55.32 | 129.00  | 0.      |     |
| 11      | -0.0      | .0    | -0.0  | 11.66 | -40.  | 22.    | 25.    | 2.97   | 55.41 | 129.11  | 0.      |     |
| 12      | 2.5       | .0    | 2.3   | 12.18 | 11.   | 18.    | 15.    | 2.47   | 55.10 | 128.73  | 0.      |     |
| 13      | 5.0       | .0    | 3.5   | 12.93 | 67.   | 14.    | 20.    | 3.20   | 55.38 | 129.07  | 0.      |     |
| 14      | 10.0      | .0    | 8.0   | 14.15 | 173.  | 18.    | 21.    | 3.94   | 55.65 | 129.39  | 0.      |     |
| 15      | 15.0      | .0    | 12.9  | 15.93 | 290.  | 40.    | 23.    | 3.39   | 55.65 | 129.38  | 0.      |     |
| 16      | 20.0      | .0    | 16.9  | 19.01 | 421.  | 29.    | 42.    | 4.46   | 54.96 | 128.56  | 0.      |     |
| 17      | -0.0      | .0    | 0.0   | 11.59 | -35.  | 24.    | 19.    | 3.17   | 55.81 | 129.58  | 0.      |     |
| 18      | -20.0     | .0    | -17.9 | 15.25 | -507. | 65.    | 14.    | -1.06  | 55.83 | 129.60  | 0.      |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CU    | CPM    | CYM   | CRM    | CY     |
|------|--------|--------|-------|--------|-------|--------|--------|
| 5    | -0.00  | -.0001 | .0314 | -.0121 | .0018 | .0001  | .0082  |
| 6    | -20.00 | -.0494 | .0425 | -.1660 | .0038 | -.0001 | -.0043 |
| 7    | -15.00 | -.0320 | .0326 | -.1302 | .0031 | .0005  | .0040  |
| 8    | -10.00 | -.0174 | .0273 | -.0925 | .0025 | .0009  | .0035  |
| 9    | -5.00  | -.0078 | .0290 | -.0507 | .0025 | .0013  | .0037  |
| 10   | -2.50  | -.0045 | .0304 | -.0299 | .0019 | .0012  | .0072  |
| 11   | -0.00  | -.0000 | .0315 | -.0129 | .0013 | .0015  | .0080  |
| 12   | 2.49   | .0062  | .0329 | .0035  | .0011 | .0009  | .0067  |
| 13   | 4.99   | .0095  | .0350 | .0217  | .0008 | .0012  | .0086  |
| 14   | 10.00  | .0216  | .0382 | .0557  | .0011 | .0013  | .0106  |
| 15   | 14.99  | .0350  | .0431 | .0936  | .0024 | .0014  | .0092  |
| 16   | 19.99  | .0457  | .0514 | .1357  | .0018 | .0025  | .0121  |
| 17   | -0.01  | .0000  | .0313 | -.0113 | .0015 | .0012  | .0086  |
| 18   | -20.01 | -.0483 | .0412 | -.1634 | .0039 | .0008  | -.0029 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB  | CRMB   | CYB    |
|------|--------|--------|-------|--------|-------|--------|--------|
| 5    | -0.00  | -.0001 | .0314 | -.0121 | .0018 | .0001  | .0082  |
| 6    | -20.00 | -.0494 | .0425 | -.1660 | .0038 | -.0001 | -.0043 |
| 7    | -15.00 | -.0320 | .0326 | -.1302 | .0031 | .0005  | .0040  |
| 8    | -10.00 | -.0174 | .0273 | -.0925 | .0025 | .0009  | .0035  |
| 9    | -5.00  | -.0078 | .0290 | -.0507 | .0025 | .0013  | .0037  |
| 10   | -2.50  | -.0045 | .0304 | -.0299 | .0019 | .0012  | .0072  |
| 11   | -0.00  | -.0000 | .0315 | -.0129 | .0013 | .0015  | .0080  |
| 12   | 2.49   | .0062  | .0329 | .0035  | .0011 | .0009  | .0067  |
| 13   | 4.99   | .0095  | .0350 | .0217  | .0008 | .0012  | .0086  |
| 14   | 10.00  | .0216  | .0382 | .0557  | .0011 | .0013  | .0106  |
| 15   | 14.99  | .0350  | .0431 | .0936  | .0024 | .0014  | .0092  |
| 16   | 19.99  | .0457  | .0514 | .1357  | .0018 | .0025  | .0121  |
| 17   | -0.01  | .0000  | .0313 | -.0113 | .0015 | .0012  | .0086  |
| 18   | -20.01 | -.0483 | .0412 | -.1634 | .0039 | .0008  | -.0029 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 589

RUN 718 CONFIG F P B NR1 W7 T2 IN=-3.5 XN=0

| PT. NO. | Iw ALPHA DEG | O DELF |        | O DELA      |             | O IHT        |              | - DELE       |             | - DELR |         | - DELSB |  | RPM |
|---------|--------------|--------|--------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         |              | PSI    | DEG    | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | V KNOTS |         |  |     |
| 5       | .0           | .0     | 74.1   | 23.25       | -306.       | 34.          | 59.          | 3.95         | 55.43       | 129.13 | 0.      |         |  |     |
| 6       | -20.0        | .0     | -303.0 | 136.27      | -1031.      | 6.           | -181.        | 4.45         | 54.92       | 128.51 | 0.      |         |  |     |
| 7       | -15.0        | .0     | -264.3 | 90.67       | -888.       | 35.          | 59.          | 5.10         | 55.47       | 129.16 | 0.      |         |  |     |
| 8       | -10.0        | .0     | -206.9 | 45.13       | -815.       | 52.          | 14.          | 4.98         | 55.45       | 129.14 | 0.      |         |  |     |
| 9       | -5.0         | .0     | -72.0  | 27.92       | -603.       | 36.          | 39.          | 4.52         | 55.54       | 129.24 | 0.      |         |  |     |
| 10      | -2.5         | .0     | 1.8    | 23.75       | -450.       | 33.          | 68.          | 5.01         | 55.96       | 129.75 | 0.      |         |  |     |
| 11      | -.0          | .0     | 72.3   | 23.57       | -314.       | 25.          | 70.          | 4.30         | 55.41       | 129.09 | 0.      |         |  |     |
| 12      | 2.5          | .0     | 141.4  | 26.06       | -141.       | 15.          | 84.          | 2.57         | 56.02       | 129.81 | 0.      |         |  |     |
| 13      | 5.0          | .0     | 213.9  | 32.47       | 51.         | 12.          | 108.         | 1.92         | 55.71       | 129.45 | 0.      |         |  |     |
| 14      | 10.0         | .0     | 351.3  | 53.06       | 500.        | 1.           | 116.         | 1.54         | 55.37       | 129.05 | 0.      |         |  |     |
| 15      | 15.0         | .0     | 467.6  | 88.03       | 975.        | -17.         | 139.         | 1.21         | 55.51       | 129.21 | 0.      |         |  |     |
| 16      | 17.5         | .0     | 479.1  | 111.52      | 1117.       | -23.         | 93.          | 2.32         | 55.71       | 129.45 | 0.      |         |  |     |
| 17      | 20.0         | .0     | 479.7  | 137.79      | 1247.       | -47.         | 99.          | 2.07         | 55.52       | 129.22 | 0.      |         |  |     |
| 18      | -.0          | .0     | 70.9   | 23.60       | -305.       | 21.          | 77.          | 4.57         | 54.90       | 128.48 | 0.      |         |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 5    | .00    | .2004  | .0628 | -.0987 | .0021  | .0036  | .0107 |
| 6    | -20.00 | -.8190 | .3683 | -.3323 | .0004  | -.0109 | .0120 |
| 7    | -15.00 | -.7144 | .2451 | -.2864 | .0021  | .0036  | .0138 |
| 8    | -10.01 | -.5593 | .1220 | -.2628 | .0032  | .0009  | .0134 |
| 9    | -5.00  | -.1946 | .0755 | -.1945 | .0022  | .0024  | .0122 |
| 10   | -2.50  | .0048  | .0642 | -.1452 | .0020  | .0041  | .0135 |
| 11   | -.00   | .1955  | .0637 | -.1011 | .0015  | .0042  | .0116 |
| 12   | 2.50   | .3820  | .0704 | -.0454 | .0009  | .0051  | .0070 |
| 13   | 5.01   | .5780  | .0878 | .0164  | .0007  | .0065  | .0052 |
| 14   | 10.00  | .9494  | .1434 | .1612  | .0000  | .0070  | .0042 |
| 15   | 15.00  | 1.2637 | .2379 | .3144  | -.0010 | .0084  | .0033 |
| 16   | 17.50  | 1.2948 | .3014 | .3601  | -.0014 | .0056  | .0063 |
| 17   | 20.00  | 1.2964 | .3724 | .4019  | -.0028 | .0060  | .0056 |
| 18   | -.00   | .1917  | .0638 | -.0985 | .0013  | .0046  | .0124 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | COB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 5    | .00    | .2004  | .0628 | -.0987 | .0021  | .0036  | .0107 |
| 6    | -20.00 | -.8190 | .3683 | -.3323 | .0004  | -.0109 | .0120 |
| 7    | -15.00 | -.7144 | .2451 | -.2864 | .0021  | .0036  | .0138 |
| 8    | -10.01 | -.5593 | .1220 | -.2628 | .0032  | .0009  | .0134 |
| 9    | -5.00  | -.1946 | .0755 | -.1945 | .0022  | .0024  | .0122 |
| 10   | -2.50  | .0048  | .0642 | -.1452 | .0020  | .0041  | .0135 |
| 11   | -.00   | .1955  | .0637 | -.1011 | .0015  | .0042  | .0116 |
| 12   | 2.50   | .3820  | .0704 | -.0454 | .0009  | .0051  | .0070 |
| 13   | 5.01   | .5780  | .0878 | .0164  | .0007  | .0065  | .0052 |
| 14   | 10.00  | .9494  | .1434 | .1612  | .0000  | .0070  | .0042 |
| 15   | 15.00  | 1.2637 | .2379 | .3144  | -.0010 | .0084  | .0033 |
| 16   | 17.50  | 1.2948 | .3014 | .3601  | -.0014 | .0056  | .0063 |
| 17   | 20.00  | 1.2964 | .3724 | .4019  | -.0028 | .0060  | .0056 |
| 18   | -.00   | .1917  | .0638 | -.0985 | .0013  | .0046  | .0124 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 590

RUN 719 CONFIG F P B NR1 W7 T2 IN=-3.5 XN=0

| IW<br>PT.<br>NO. | DELTA<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CLBAR<br>SQ-FT | DELTA<br>CDBAR<br>SQ-FT | DELTA<br>CPMBAR<br>CU-FT | DELTA<br>CYMBAR<br>CU-FT | DELTA<br>CRMBAR<br>CU-FT | DELTA<br>CYBAR<br>SQ-FT | DELTA<br>Q<br>PSF | DELTA<br>V<br>KNOTS | RPM |
|------------------|-----------------------|---------------------|-------------------------|-------------------------|--------------------------|--------------------------|--------------------------|-------------------------|-------------------|---------------------|-----|
| 5                | .0                    | .0                  | 71.7                    | 23.57                   | -285.                    | 23.                      | 82.                      | 4.16                    | 55.45             | 129.14              | 0.  |
| 6                | .0                    | -20.0               | 89.0                    | 60.18                   | -393.                    | -887.                    | 215.                     | -119.87                 | 55.13             | 128.76              | 0.  |
| 7                | .0                    | -15.0               | 84.1                    | 43.37                   | -380.                    | -701.                    | 179.                     | -89.69                  | 55.18             | 128.82              | 0.  |
| 8                | .0                    | -10.0               | 79.9                    | 31.59                   | -333.                    | -470.                    | 145.                     | -59.51                  | 55.24             | 128.89              | 0.  |
| 9                | .0                    | -5.0                | 75.6                    | 25.23                   | -331.                    | -244.                    | 106.                     | -29.22                  | 55.06             | 128.68              | 0.  |
| 10               | .0                    | -2.5                | 71.6                    | 23.56                   | -320.                    | -116.                    | 72.                      | -12.96                  | 55.61             | 129.33              | 0.  |
| 11               | .0                    | .0                  | 70.7                    | 23.31                   | -307.                    | 17.                      | 53.                      | 4.26                    | 55.67             | 129.40              | 0.  |
| 12               | .0                    | 2.5                 | 71.7                    | 24.78                   | -299.                    | 148.                     | 19.                      | 21.07                   | 55.55             | 129.25              | 0.  |
| 13               | .0                    | 5.0                 | 71.0                    | 26.16                   | -301.                    | 289.                     | -4.                      | 36.57                   | 55.76             | 129.50              | 0.  |
| 14               | .0                    | 10.0                | 72.5                    | 31.49                   | -335.                    | 536.                     | -51.                     | 65.67                   | 55.54             | 129.24              | 0.  |
| 15               | .0                    | 15.0                | 74.3                    | 41.80                   | -372.                    | 755.                     | -96.                     | 93.05                   | 55.56             | 129.27              | 0.  |
| 16               | .0                    | 20.0                | 76.5                    | 57.41                   | -381.                    | 950.                     | -159.                    | 120.61                  | 55.34             | 129.00              | 0.  |
| 17               | .0                    | .0                  | 70.8                    | 23.62                   | -299.                    | 14.                      | 41.                      | 4.28                    | 55.46             | 129.15              | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CU    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 5    | .00    | .1938 | .0637 | -.0917 | .0014  | .0050  | .0112  |
| 6    | -20.00 | .2406 | .1626 | -.1267 | -.0536 | .0130  | -.3240 |
| 7    | -15.00 | .2273 | .1172 | -.1226 | -.0423 | .0108  | -.2424 |
| 8    | -10.00 | .2160 | .0854 | -.1072 | -.0284 | .0088  | -.1608 |
| 9    | -5.00  | .2044 | .0682 | -.1067 | -.0148 | .0064  | -.0790 |
| 10   | -2.50  | .1935 | .0637 | -.1031 | -.0070 | .0044  | -.0350 |
| 11   | .00    | .1911 | .0630 | -.0990 | .0010  | .0032  | .0115  |
| 12   | 2.50   | .1937 | .0670 | -.0965 | .0090  | .0012  | .0570  |
| 13   | 5.00   | .1918 | .0707 | -.0972 | .0175  | -.0002 | .0988  |
| 14   | 10.00  | .1960 | .0851 | -.1079 | .0324  | -.0031 | .1775  |
| 15   | 15.00  | .2007 | .1130 | -.1198 | .0456  | -.0058 | .2515  |
| 16   | 20.00  | .2069 | .1551 | -.1229 | .0574  | -.0096 | .3260  |
| 17   | .00    | .1913 | .0638 | -.0962 | .0008  | .0025  | .0116  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 5    | .00    | .1938 | .0637 | -.0917 | .0014  | .0050  | .0112  |
| 6    | -20.00 | .2406 | .0415 | -.1427 | -.0536 | .0203  | -.3601 |
| 7    | -15.00 | .2273 | .0502 | -.1334 | -.0423 | .0164  | -.2646 |
| 8    | -10.00 | .2160 | .0560 | -.1137 | -.0284 | .0121  | -.1733 |
| 9    | -5.00  | .2044 | .0610 | -.1092 | -.0148 | .0081  | -.0846 |
| 10   | -2.50  | .1935 | .0621 | -.1040 | -.0070 | .0052  | -.0378 |
| 11   | .00    | .1911 | .0630 | -.0990 | .0010  | .0032  | .0115  |
| 12   | 2.50   | .1937 | .0644 | -.0962 | .0090  | .0004  | .0598  |
| 13   | 5.00   | .1918 | .0678 | -.0969 | .0175  | -.0018 | .1047  |
| 14   | 10.00  | .1960 | .0529 | -.1091 | .0324  | -.0065 | .1896  |
| 15   | 15.00  | .2007 | .0437 | -.1238 | .0456  | -.0114 | .2722  |
| 16   | 20.00  | .2069 | .0337 | -.1331 | .0574  | -.0170 | .3594  |
| 17   | .00    | .1913 | .0638 | -.0962 | .0008  | .0025  | .0116  |

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RUN 720 CONFIG F P B NR1 W7 T43 BT IN=-3.5 XN=0

| PT. NO. | IW    | 0 DELF<br>ALPHA DEG | 0 DELA<br>PSI<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELSB<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>V<br>KNOTS | RPM |
|---------|-------|---------------------|---------------------------------|-------------------------|---------------------------|---------------------------|----------------------------|---------------------|----------|-----------------|-----|
| 5       |       | .0                  | .0 59.8                         | 26.72                   | 96.                       | -71.                      | 27.                        | 6.26                | 56.03    | 129.82          | 0.  |
| 6       | -20.0 | .0                  | -396.3                          | 163.36                  | 2397.                     | -166.                     | -167.                      | 11.76               | 55.32    | 128.97          | 0.  |
| 7       | -15.0 | .0                  | -336.4                          | 108.53                  | 1814.                     | -177.                     | -5.                        | 11.09               | 55.00    | 128.59          | 0.  |
| 8       | -10.0 | .0                  | -259.1                          | 53.21                   | 1046.                     | -80.                      | -17.                       | 9.29                | 55.75    | 129.49          | 0.  |
| 9       | -5.0  | .0                  | -102.7                          | 32.59                   | 447.                      | -79.                      | -12.                       | 7.51                | 55.78    | 129.52          | 0.  |
| 10      | -2.5  | .0                  | -19.0                           | 28.05                   | 267.                      | -68.                      | 6.                         | 8.25                | 55.72    | 129.45          | 0.  |
| 11      | .0    | .0                  | 59.4                            | 27.31                   | 92.                       | -72.                      | 27.                        | 6.35                | 55.26    | 128.91          | 0.  |
| 12      | 2.5   | .0                  | 137.1                           | 29.77                   | -74.                      | -73.                      | 46.                        | 5.65                | 55.46    | 129.15          | 0.  |
| 13      | 5.0   | .0                  | 217.7                           | 36.53                   | -213.                     | -84.                      | 65.                        | 4.93                | 55.30    | 128.96          | 0.  |
| 14      | .0    | .0                  | 59.3                            | 27.39                   | 86.                       | -71.                      | -9.                        | 7.09                | 54.28    | 127.73          | 0.  |
| 15      | 2.5   | .0                  | 136.5                           | 29.66                   | -77.                      | -64.                      | 11.                        | 6.04                | 54.68    | 128.22          | 0.  |
| 16      | 5.0   | .0                  | -3.8                            | 36.08                   | 10771.                    | -80.                      | 48.                        | 4.71                | 54.98    | 128.57          | 0.  |
| 17      | 10.0  | .0                  | 371.7                           | 59.43                   | -453.                     | -70.                      | 67.                        | 5.40                | 54.89    | 128.47          | 0.  |
| 19      | 15.0  | .0                  | 511.7                           | 99.70                   | -661.                     | -44.                      | 106.                       | 1.86                | 54.82    | 128.38          | 0.  |
| 20      | 17.5  | .0                  | 537.5                           | 130.00                  | -725.                     | -26.                      | 36.                        | .88                 | 54.32    | 127.78          | 0.  |
| 21      | 20.0  | .0                  | 526.8                           | 161.91                  | -493.                     | -37.                      | 71.                        | -.81                | 54.40    | 127.88          | 0.  |
| 22      | .0    | .0                  | 56.2                            | 26.71                   | 46.                       | -51.                      | 9.                         | 6.43                | 55.07    | 128.68          | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CU    | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|-------|--------|--------|--------|--------|
| 5    | .01    | .1616   | .0722 | .0311  | -.0043 | .0016  | .0169  |
| 6    | -20.00 | -1.0711 | .4415 | .7726  | -.0100 | -.0101 | .0318  |
| 7    | -15.00 | -.9093  | .2933 | .5848  | -.0107 | -.0003 | .0300  |
| 8    | -10.00 | -.7004  | .1438 | .3372  | -.0048 | -.0010 | .0251  |
| 9    | -5.00  | -.2776  | .0881 | .1442  | -.0048 | -.0007 | .0203  |
| 10   | -2.49  | -.0512  | .0758 | .0862  | -.0041 | .0003  | .0223  |
| 11   | .00    | .1605   | .0738 | .0297  | -.0043 | .0016  | .0172  |
| 12   | 2.50   | .3705   | .0804 | -.0238 | -.0044 | .0028  | .0153  |
| 13   | 5.00   | .5883   | .0987 | -.0688 | -.0051 | .0040  | .0133  |
| 14   | .00    | .1603   | .0740 | .0276  | -.0043 | -.0005 | .0192  |
| 15   | 2.50   | .3688   | .0802 | -.0249 | -.0039 | .0007  | .0163  |
| 16   | 5.00   | -.0104  | .0975 | 3.4724 | -.0048 | .0029  | .0127  |
| 17   | 10.01  | 1.0047  | .1606 | -.1461 | -.0042 | .0041  | .0146  |
| 19   | 15.00  | 1.3830  | .2694 | -.2130 | -.0027 | .0064  | .0050  |
| 20   | 17.51  | 1.4526  | .3514 | -.2338 | -.0016 | .0022  | .0024  |
| 21   | 20.01  | 1.4237  | .4376 | -.1589 | -.0022 | .0043  | -.0022 |
| 22   | .01    | .1520   | .0722 | .0147  | -.0031 | .0006  | .0174  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|-------|--------|--------|--------|--------|
| 5    | .01    | .1616   | .0722 | .0311  | -.0043 | .0016  | .0169  |
| 6    | -20.00 | -1.0711 | .4415 | .7726  | -.0100 | -.0101 | .0318  |
| 7    | -15.00 | -.9093  | .2933 | .5848  | -.0107 | -.0003 | .0300  |
| 8    | -10.00 | -.7004  | .1438 | .3372  | -.0048 | -.0010 | .0251  |
| 9    | -5.00  | -.2776  | .0881 | .1442  | -.0048 | -.0007 | .0203  |
| 10   | -2.49  | -.0512  | .0758 | .0862  | -.0041 | .0003  | .0223  |
| 11   | .00    | .1605   | .0738 | .0297  | -.0043 | .0016  | .0172  |
| 12   | 2.50   | .3705   | .0804 | -.0238 | -.0044 | .0028  | .0153  |
| 13   | 5.00   | .5883   | .0987 | -.0688 | -.0051 | .0040  | .0133  |
| 14   | .00    | .1603   | .0740 | .0276  | -.0043 | -.0005 | .0192  |
| 15   | 2.50   | .3688   | .0802 | -.0249 | -.0039 | .0007  | .0163  |
| 16   | 5.00   | -.0104  | .0975 | 3.4724 | -.0048 | .0029  | .0127  |
| 17   | 10.01  | 1.0047  | .1606 | -.1461 | -.0042 | .0041  | .0146  |
| 19   | 15.00  | 1.3830  | .2694 | -.2130 | -.0027 | .0064  | .0050  |
| 20   | 17.51  | 1.4526  | .3514 | -.2338 | -.0016 | .0022  | .0024  |
| 21   | 20.01  | 1.4237  | .4376 | -.1589 | -.0022 | .0043  | -.0022 |
| 22   | .01    | .1520   | .0722 | .0147  | -.0031 | .0006  | .0174  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 592

RUN 721 CONFIG F P B NR1 W7 T43 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | Q V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|-----------|-----|
| 9       | .0        | .0      | 53.7        | 26.20       | 55.          | -55.         | 26.          | 6.86        | 55.15       | 128.78    | 0.  |
| 10      | .0        | -20.0   | 90.3        | 70.54       | -810.        | 931.         | -68.         | -163.22     | 55.22       | 128.86    | 0.  |
| 11      | .0        | -15.0   | 79.3        | 49.91       | -554.        | 531.         | -25.         | -117.59     | 55.19       | 128.81    | 0.  |
| 12      | .0        | -10.0   | 65.9        | 35.11       | -251.        | 319.         | 6.           | -75.31      | 55.37       | 129.03    | 0.  |
| 13      | .0        | -5.0    | 59.2        | 27.87       | -53.         | 124.         | 45.          | -35.39      | 55.25       | 128.89    | 0.  |
| 14      | .0        | -2.5    | 56.1        | 26.50       | 10.          | 28.          | 71.          | -15.92      | 55.00       | 128.59    | 0.  |
| 15      | .0        | .0      | 54.3        | 25.95       | 29.          | -65.         | 63.          | 5.63        | 55.02       | 128.62    | 0.  |
| 16      | .0        | 2.5     | 54.8        | 26.59       | 22.          | -88.         | 24.          | 26.15       | 55.37       | 129.03    | 0.  |
| 17      | .0        | 5.0     | 54.7        | 28.03       | -34.         | -125.        | 23.          | 45.84       | 55.22       | 128.85    | 0.  |
| 18      | .0        | 10.0    | 64.2        | 34.39       | -244.        | -329.        | 22.          | 85.76       | 55.37       | 129.03    | 0.  |
| 19      | .0        | 15.0    | 73.1        | 47.90       | -538.        | -583.        | 54.          | 128.25      | 55.27       | 128.92    | 0.  |
| 20      | .0        | 20.0    | 81.9        | 68.49       | -746.        | -993.        | 122.         | 171.89      | 54.99       | 128.58    | 0.  |
| 21      | .0        | .0      | 54.6        | 25.94       | 45.          | -65.         | 63.          | 6.12        | 55.08       | 128.68    | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CU    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 9    | .00    | .1451 | .0708 | .0177  | -.0033 | .0016  | .0185  |
| 10   | -20.00 | .2440 | .1907 | -.2612 | .0562  | -.0041 | -.4411 |
| 11   | -15.00 | .2143 | .1349 | -.1785 | .0320  | -.0015 | -.3178 |
| 12   | -10.00 | .1780 | .0949 | -.0808 | .0193  | .0004  | -.2035 |
| 13   | -5.00  | .1600 | .0753 | -.0172 | .0075  | .0027  | -.0957 |
| 14   | -2.50  | .1517 | .0716 | .0032  | .0017  | .0043  | -.0430 |
| 15   | .00    | .1469 | .0701 | .0092  | -.0039 | .0038  | .0152  |
| 16   | 2.50   | .1480 | .0719 | .0072  | -.0053 | .0014  | .0707  |
| 17   | 5.00   | .1479 | .0758 | -.0109 | -.0075 | .0014  | .1239  |
| 18   | 10.00  | .1735 | .0929 | -.0788 | -.0199 | .0013  | .2318  |
| 19   | 15.00  | .1975 | .1295 | -.1735 | -.0352 | .0033  | .3466  |
| 20   | 20.00  | .2215 | .1851 | -.2406 | -.0600 | .0074  | .4646  |
| 21   | .00    | .1476 | .0701 | .0146  | -.0039 | .0038  | .0165  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 9    | .00    | .1451 | .0708 | .0177  | -.0033 | .0016  | .0185  |
| 10   | -20.00 | .2440 | .0275 | -.2377 | .0562  | .0129  | -.4798 |
| 11   | -15.00 | .2143 | .0476 | -.1702 | .0320  | .0072  | -.3420 |
| 12   | -10.00 | .1780 | .0579 | -.0799 | .0193  | .0030  | -.2170 |
| 13   | -5.00  | .1600 | .0667 | -.0184 | .0075  | .0030  | -.1019 |
| 14   | -2.50  | .1517 | .0697 | .0022  | .0017  | .0043  | -.0461 |
| 15   | .00    | .1469 | .0701 | .0092  | -.0039 | .0038  | .0152  |
| 16   | 2.50   | .1480 | .0687 | .0075  | -.0053 | .0015  | .0737  |
| 17   | 5.00   | .1479 | .0646 | -.0102 | -.0075 | .0012  | .1300  |
| 18   | 10.00  | .1735 | .0511 | -.0764 | -.0199 | -.0013 | .2444  |
| 19   | 15.00  | .1975 | .0349 | -.1630 | -.0352 | -.0053 | .3684  |
| 20   | 20.00  | .2215 | .0143 | -.2125 | -.0600 | -.0086 | .4999  |
| 21   | .00    | .1476 | .0701 | .0146  | -.0039 | .0038  | .0165  |

143-409-1

SUKORSKY RSGA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 593

RUN 722 CONF-16 F P B MRI #7 T43 BT IN=-3.5 XN=0

| PT. NO. | IN ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CU-FT | DELE CYMBAR CU-FT | DELR CRMBAR CU-FT | DELSB CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM |
|---------|--------------|---------------|-------------------|-------------------|-----------|-------------------|-------------------|-------------------|-------------|---------------|-----|
| 5       | -0.0         | .0            | 55.9              | 25.68             | 97.       | -65.              | 27.               | 6.27              | 55.41       | 129.08        | 0.  |
| 6       | -20.0        | .0            | -372.2            | 149.90            | 2621.     | -162.             | -207.             | 4.23              | 53.99       | 127.39        | 0.  |
| 7       | -15.0        | .0            | -339.5            | 94.28             | 2185.     | -154.             | -197.             | 10.03             | 55.02       | 128.62        | 0.  |
| 8       | -10.0        | .0            | -252.5            | 46.63             | 1380.     | -89.              | 18.               | 9.15              | 55.45       | 129.12        | 0.  |
| 9       | -5.0         | .0            | -98.6             | 30.01             | 622.      | -67.              | 73.               | 9.55              | 54.93       | 128.51        | 0.  |
| 10      | -2.5         | .0            | -18.2             | 25.95             | 328.      | -53.              | 42.               | 7.68              | 55.44       | 129.12        | 0.  |
| 11      | -0.0         | .0            | 54.9              | 25.78             | 85.       | -63.              | 26.               | 7.51              | 55.31       | 128.96        | 0.  |
| 12      | 2.5          | .0            | 133.3             | 28.56             | -117.     | -68.              | 80.               | 6.20              | 55.50       | 129.19        | 0.  |
| 13      | 5.0          | .0            | 210.5             | 34.83             | -328.     | -70.              | 100.              | 4.72              | 55.55       | 129.25        | 0.  |
| 14      | 10.0         | .0            | 364.1             | 57.57             | -713.     | -54.              | 85.               | 4.52              | 54.97       | 128.56        | 0.  |
| 15      | 15.0         | .0            | 498.7             | 93.01             | -1095.    | -11.              | 140.              | 4.88              | 55.16       | 128.78        | 0.  |
| 16      | 17.5         | .0            | 511.7             | 120.94            | -1127.    | -18.              | 105.              | 5.35              | 55.35       | 129.01        | 0.  |
| 17      | 20.0         | .0            | 501.1             | 148.82            | -984.     | -15.              | 124.              | 5.51              | 54.99       | 128.58        | 0.  |
| 18      | .0           | .0            | 55.8              | 25.80             | 92.       | -64.              | 44.               | 7.03              | 55.25       | 128.89        | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CU    | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|-------|--------|--------|--------|-------|
| 5    | -0.00  | .1510   | .0694 | .0313  | -.0039 | .0016  | .0169 |
| 6    | -20.01 | -1.0059 | .4051 | .8448  | -.0098 | -.0125 | .0114 |
| 7    | -15.01 | -.9174  | .2548 | .7044  | -.0093 | -.0119 | .0271 |
| 8    | -10.00 | -.6824  | .1260 | .4448  | -.0054 | .0011  | .0247 |
| 9    | -5.01  | -.2666  | .0811 | .2006  | -.0041 | .0044  | .0258 |
| 10   | -2.50  | -.0492  | .0701 | .1059  | -.0032 | .0025  | .0208 |
| 11   | -0.01  | .1484   | .0697 | .0273  | -.0038 | .0015  | .0203 |
| 12   | 2.49   | .3602   | .0772 | -.0376 | -.0041 | .0049  | .0168 |
| 13   | 4.99   | .5688   | .0941 | -.1057 | -.0042 | .0061  | .0128 |
| 14   | 10.00  | .9841   | .1556 | -.2300 | -.0032 | .0052  | .0122 |
| 15   | 15.01  | 1.3478  | .2514 | -.3530 | -.0007 | .0084  | .0132 |
| 16   | 17.51  | 1.3830  | .3269 | -.3632 | -.0011 | .0063  | .0145 |
| 17   | 20.01  | 1.3543  | .4022 | -.3173 | -.0009 | .0075  | .0149 |
| 18   | .01    | .1509   | .0697 | .0297  | -.0039 | .0026  | .0190 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CUB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|-------|--------|--------|--------|-------|
| 5    | -0.00  | .1510   | .0694 | .0313  | -.0039 | .0016  | .0169 |
| 6    | -20.01 | -1.0059 | .4051 | .8448  | -.0098 | -.0125 | .0114 |
| 7    | -15.01 | -.9174  | .2548 | .7044  | -.0093 | -.0119 | .0271 |
| 8    | -10.00 | -.6824  | .1260 | .4448  | -.0054 | .0011  | .0247 |
| 9    | -5.01  | -.2666  | .0811 | .2006  | -.0041 | .0044  | .0258 |
| 10   | -2.50  | -.0492  | .0701 | .1059  | -.0032 | .0025  | .0208 |
| 11   | -0.01  | .1484   | .0697 | .0273  | -.0038 | .0015  | .0203 |
| 12   | 2.49   | .3602   | .0772 | -.0376 | -.0041 | .0049  | .0168 |
| 13   | 4.99   | .5688   | .0941 | -.1057 | -.0042 | .0061  | .0128 |
| 14   | 10.00  | .9841   | .1556 | -.2300 | -.0032 | .0052  | .0122 |
| 15   | 15.01  | 1.3478  | .2514 | -.3530 | -.0007 | .0084  | .0132 |
| 16   | 17.51  | 1.3830  | .3269 | -.3632 | -.0011 | .0063  | .0145 |
| 17   | 20.01  | 1.3543  | .4022 | -.3173 | -.0009 | .0075  | .0149 |
| 18   | .01    | .1509   | .0697 | .0297  | -.0039 | .0026  | .0190 |

N432109-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P594

RUN 723 CONF-16 F P B NR1 W7 T43 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB PSF | V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-----------|---------|-----|
| 5       | .0        | .0      | 55.3        | 25.72       | 106.         | -62.         | 61.          | 6.59        | 55.80     | 129.55  | 0.  |
| 6       | .0        | -20.0   | 94.9        | 67.20       | -770.        | 1163.        | -123.        | -157.25     | 55.17     | 128.80  | 0.  |
| 7       | .0        | -15.0   | 83.0        | 46.68       | -499.        | 704.         | 3.           | -114.95     | 55.33     | 128.98  | 0.  |
| 8       | .0        | -10.0   | 70.2        | 33.34       | -182.        | 392.         | 24.          | -70.50      | 55.32     | 128.97  | 0.  |
| 9       | .0        | -4.9    | 61.1        | 26.98       | 10.          | 158.         | 11.          | -32.14      | 55.33     | 128.99  | 0.  |
| 10      | .0        | -2.5    | 57.3        | 26.22       | 66.          | 59.          | 16.          | -14.05      | 55.03     | 128.62  | 0.  |
| 11      | .0        | .0      | 56.7        | 25.83       | 98.          | -80.         | 62.          | 7.17        | 54.65     | 128.18  | 0.  |
| 12      | .0        | 2.5     | 57.2        | 26.56       | 84.          | -131.        | 60.          | 25.64       | 55.01     | 128.60  | 0.  |
| 13      | .0        | 5.0     | 59.0        | 28.15       | 26.          | -192.        | 27.          | 44.28       | 54.47     | 127.96  | 0.  |
| 14      | .0        | 10.0    | 67.2        | 32.73       | -204.        | -449.        | 65.          | 80.60       | 55.49     | 129.18  | 0.  |
| 15      | .0        | 15.0    | 80.4        | 44.76       | -496.        | -717.        | 117.         | 121.34      | 55.42     | 129.09  | 0.  |
| 17      | .0        | .0      | 56.2        | 25.76       | 109.         | -73.         | 27.          | 6.51        | 54.92     | 128.50  | 0.  |
| 18      | .0        | -2.5    | 58.1        | 26.25       | 80.          | 60.          | 35.          | -14.39      | 54.93     | 128.51  | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CU    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 5    | .00    | .1494 | .0695 | .0343  | -.0037 | .0037  | .0178  |
| 6    | -20.00 | .2564 | .1816 | -.2483 | .0703  | -.0074 | -.4250 |
| 7    | -15.00 | .2244 | .1262 | -.1608 | .0425  | .0002  | -.3107 |
| 8    | -10.00 | .1897 | .0901 | -.0586 | .0237  | .0015  | -.1906 |
| 9    | -4.90  | .1651 | .0729 | .0033  | .0096  | .0007  | -.0869 |
| 10   | -2.50  | .1549 | .0709 | .0212  | .0036  | .0010  | -.0380 |
| 11   | .00    | .1532 | .0700 | .0315  | -.0048 | .0037  | .0194  |
| 12   | 2.50   | .1547 | .0718 | .0270  | -.0079 | .0036  | .0693  |
| 13   | 5.00   | .1594 | .0761 | .0085  | -.0116 | .0016  | .1197  |
| 14   | 10.00  | .1817 | .0885 | -.0656 | -.0271 | .0039  | .2178  |
| 15   | 15.00  | .2172 | .1210 | -.1599 | -.0433 | .0071  | .3279  |
| 17   | .00    | .1518 | .0696 | .0351  | -.0044 | .0016  | .0176  |
| 18   | -2.50  | .1571 | .0709 | .0257  | .0036  | .0021  | -.0389 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 5    | .00    | .1494 | .0695 | .0343  | -.0037 | .0037  | .0178  |
| 6    | -20.00 | .2564 | .0246 | -.2195 | .0703  | .0090  | -.4615 |
| 7    | -15.00 | .2244 | .0411 | -.1555 | .0425  | .0080  | -.3328 |
| 8    | -10.00 | .1897 | .0555 | -.0591 | .0237  | .0034  | -.2033 |
| 9    | -4.90  | .1651 | .0652 | .0030  | .0096  | .0006  | -.0928 |
| 10   | -2.50  | .1549 | .0691 | .0210  | .0036  | .0008  | -.0410 |
| 11   | .00    | .1532 | .0700 | .0315  | -.0048 | .0037  | .0194  |
| 12   | 2.50   | .1547 | .0687 | .0279  | -.0079 | .0038  | .0724  |
| 13   | 5.00   | .1594 | .0653 | .0092  | -.0116 | .0017  | .1259  |
| 14   | 10.00  | .1817 | .0491 | -.0609 | -.0271 | .0017  | .2299  |
| 15   | 15.00  | .2172 | .0316 | -.1446 | -.0433 | -.0009 | .3481  |
| 17   | .00    | .1518 | .0696 | .0351  | -.0044 | .0016  | .0176  |
| 18   | -2.50  | .1571 | .0692 | .0252  | .0036  | .0019  | -.0420 |

N432439-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SEP-72011

P 595

RUM 724 CONFIG F P R NP5 W7 T40 BT IN=-3.5 DELTA=25

| PT. NO. | IW    | 0.0 DELF | 0.0 DELA | 0.0 IHT | 0.0 DELE | 25 DELR | 0.0 DFLSR | 0.0   | RPM   |        |        |
|---------|-------|----------|----------|---------|----------|---------|-----------|-------|-------|--------|--------|
|         | ALPHA | PSI      | CLBAR    | CDBAR   | CPMBAR   | CYMBAR  | CPMBAR    | CYBAR |       |        |        |
|         | DEG   | DEG      | SQ-FT    | SQ-FT   | CU-FT    | CU-FT   | CU-FT     | SQ-FT | PSF   |        |        |
|         |       |          |          |         |          |         |           |       | KNOTS |        |        |
| 7       | .0    | .0       | 115.4    | 3.62    | -1136.   | -44.    | 46.       | 6.25  | 53.94 | 127.3h | 10700. |
| 8       | -20.0 | .0       | -386.6   | 117.65  | 780.     | -134.   | -144.     | 9.15  | 55.10 | 128.73 | 10700. |
| 9       | -15.0 | .0       | -316.0   | 60.68   | 355.     | -201.   | 238.      | 11.36 | 55.50 | 129.20 | 10680. |
| 10      | -10.0 | .0       | -207.4   | 20.82   | -596.    | -72.    | 37.       | 8.32  | 55.30 | 128.97 | 10750. |
| 11      | -5.0  | .0       | -48.5    | 4.91    | -971.    | -60.    | 41.       | 7.48  | 55.58 | 129.30 | 10670. |
| 12      | -2.5  | .0       | 34.9     | 3.80    | -1046.   | -51.    | 76.       | 7.67  | 55.51 | 129.22 | 10720. |
| 13      | .0    | .0       | 113.7    | 5.03    | -1116.   | -42.    | 99.       | 5.18  | 55.26 | 128.93 | 10760. |
| 14      | 2.5   | .0       | -47.3    | 9.01    | 10900.   | -36.    | 83.       | 4.52  | 55.01 | 128.62 | 10700. |
| 15      | 5.0   | .0       | 277.7    | 16.78   | -1264.   | -42.    | 137.      | 4.27  | 55.00 | 128.61 | 10740. |
| 16      | 10.0  | .0       | 429.1    | 41.39   | -1425.   | -70.    | 172.      | 2.82  | 55.64 | 129.38 | 10780. |
| 17      | 15.0  | .0       | 555.8    | 82.66   | -1563.   | -78.    | 122.      | 3.83  | 55.19 | 128.80 | 10740. |
| 18      | 20.0  | .0       | 575.2    | 140.54  | -1228.   | -72.    | 88.       | 3.57  | 55.29 | 128.96 | 10780. |
| 19      | 2.5   | .0       | 192.4    | 9.36    | -1173.   | -44.    | 101.      | 3.33  | 55.28 | 128.95 | 10710. |
| 20      | .0    | .0       | 110.1    | 5.33    | -1088.   | -43.    | 60.       | 7.37  | 55.89 | 129.67 | 10650. |
| 21      | .0    | .0       | 114.5    | 40.24   | -996.    | -56.    | 63.       | 5.55  | 55.21 | 128.86 | 3580.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD    | CPM    | CY1    | CRM    | CY    |
|------|--------|---------|-------|--------|--------|--------|-------|
| 7    | .00    | .3119   | .0098 | -.3663 | -.0027 | .0028  | .0169 |
| 8    | -20.00 | -1.0448 | .3180 | .2513  | -.0081 | -.0097 | .0247 |
| 9    | -14.99 | -.8541  | .1640 | .1144  | -.0122 | .0144  | .0307 |
| 10   | -10.01 | -.5604  | .0563 | -.1920 | -.0044 | .0023  | .0225 |
| 11   | -5.01  | -.1310  | .0133 | -.3129 | -.0036 | .0025  | .0202 |
| 12   | -2.50  | .0943   | .0103 | -.3373 | -.0031 | .0046  | .0207 |
| 13   | -.01   | .3073   | .0136 | -.3597 | -.0025 | .0060  | .0140 |
| 14   | 2.49   | -.1278  | .0243 | 3.5142 | -.0021 | .0050  | .0122 |
| 15   | 5.00   | .7504   | .0454 | -.4074 | -.0025 | .0083  | .0115 |
| 16   | 10.00  | 1.1597  | .1119 | -.4596 | -.0042 | .0104  | .0076 |
| 17   | 14.99  | 1.5022  | .2234 | -.5039 | -.0047 | .0074  | .0103 |
| 18   | 19.99  | 1.5546  | .3798 | -.3960 | -.0044 | .0053  | .0097 |
| 19   | 2.50   | .5200   | .0253 | -.3781 | -.0027 | .0061  | .0090 |
| 20   | -.00   | .2977   | .0144 | -.3507 | -.0026 | .0036  | .0109 |
| 21   | -.00   | .3094   | .1087 | -.3211 | -.0034 | .0038  | .0150 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDR   | CPMB   | CYMB   | CRMH   | CYB   |
|------|--------|---------|-------|--------|--------|--------|-------|
| 7    | .00    | .3119   | .0098 | -.3663 | -.0027 | .0028  | .0169 |
| 8    | -20.00 | -1.0448 | .3180 | .2513  | -.0081 | -.0087 | .0247 |
| 9    | -14.99 | -.8541  | .1640 | .1144  | -.0122 | .0144  | .0307 |
| 10   | -10.01 | -.5604  | .0563 | -.1920 | -.0044 | .0023  | .0225 |
| 11   | -5.01  | -.1310  | .0133 | -.3129 | -.0036 | .0025  | .0202 |
| 12   | -2.50  | .0943   | .0103 | -.3373 | -.0031 | .0046  | .0207 |
| 13   | -.01   | .3073   | .0136 | -.3597 | -.0025 | .0060  | .0140 |
| 14   | 2.49   | -.1278  | .0243 | 3.5142 | -.0021 | .0050  | .0122 |
| 15   | 5.00   | .7504   | .0454 | -.4074 | -.0025 | .0083  | .0115 |
| 16   | 10.00  | 1.1597  | .1119 | -.4596 | -.0042 | .0104  | .0076 |
| 17   | 14.99  | 1.5022  | .2234 | -.5039 | -.0047 | .0074  | .0103 |
| 18   | 19.99  | 1.5546  | .3798 | -.3960 | -.0044 | .0053  | .0097 |
| 19   | 2.50   | .5200   | .0253 | -.3781 | -.0027 | .0061  | .0090 |
| 20   | -.00   | .2977   | .0144 | -.3507 | -.0026 | .0036  | .0109 |
| 21   | -.00   | .3094   | .1087 | -.3211 | -.0034 | .0038  | .0150 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SEP-72011

P 596

RUN 725 CONFIG F P R NP5 W7 T40 BT IN=-3.5 DELTA=-25

| IW      | 0.0 DELF  | 0.0 DELA | 0.0 INT     | 0.0 DELE    | -21 DELR     | 0.0 DELSB    | 0.0          | RPM         |       |         |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0       | 36.0        | 39.04       | 1126.        | -46.         | 26.          | 7.16        | 55.19 | 128.83  | 3570.  |
| 3       | .0        | .0       | 31.1        | 4.35        | 1051.        | -39.         | 45.          | 5.53        | 55.49 | 129.19  | 10660. |
| 4       | -20.0     | .0       | -439.7      | 140.35      | 2527.        | -190.        | -27.         | 12.08       | 55.83 | 129.50  | 10730. |
| 5       | -15.0     | .0       | -390.5      | 85.12       | 2894.        | -196.        | 164.         | 12.86       | 55.88 | 129.65  | 10780. |
| 6       | -10.0     | .0       | -308.8      | 37.12       | 2208.        | -32.         | 22.          | 6.80        | 56.13 | 129.95  | 10750. |
| 7       | -5.0      | .0       | -144.1      | 12.37       | 1589.        | -57.         | 61.          | 5.71        | 55.52 | 129.23  | 10730. |
| 8       | -2.5      | .0       | -50.4       | 5.60        | 1178.        | -36.         | 43.          | 6.28        | 55.85 | 129.61  | 10740. |
| 9       | -.0       | .0       | 34.0        | 3.43        | 1041.        | -33.         | 80.          | 6.14        | 55.48 | 129.18  | 10770. |
| 10      | 2.5       | .0       | 118.6       | 5.16        | 896.         | -38.         | 64.          | 4.96        | 55.60 | 129.32  | 10730. |
| 11      | 5.0       | .0       | 199.9       | 9.63        | 752.         | -57.         | 100.         | 4.78        | 55.55 | 129.27  | 10760. |
| 12      | 10.0      | .0       | 354.7       | 28.82       | 619.         | -102.        | 67.          | 4.24        | 55.48 | 129.18  | 10710. |
| 13      | 15.0      | .0       | 481.0       | 62.27       | 620.         | -82.         | 87.          | 4.58        | 55.09 | 128.72  | 10680. |
| 14      | 20.0      | .0       | 520.5       | 114.35      | 502.         | 0.           | 176.         | 1.92        | 55.11 | 128.73  | 10710. |
| 15      | .0        | .0       | 30.6        | 4.15        | 1033.        | -27.         | 45.          | 5.81        | 55.08 | 128.70  | 10610. |
| 16      | -5.0      | .0       | -142.4      | 12.80       | 1485.        | -60.         | 26.          | 5.79        | 55.35 | 129.02  | 10560. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD    | CPM   | CYM    | CRM <sub>x</sub> | CY    |
|------|--------|---------|-------|-------|--------|------------------|-------|
| 2    | .00    | .0973   | .1055 | .3630 | -.0028 | .0016            | .0194 |
| 3    | .00    | .0841   | .0118 | .3388 | -.0024 | .0027            | .0149 |
| 4    | -20.00 | -1.1885 | .3793 | .8146 | -.0115 | -.0017           | .0327 |
| 5    | -15.01 | -1.0554 | .2300 | .9329 | -.0118 | .0099            | .0348 |
| 6    | -10.01 | -.8345  | .1003 | .7119 | -.0019 | .0013            | .0184 |
| 7    | -5.00  | -.3894  | .0334 | .5123 | -.0035 | .0037            | .0154 |
| 8    | -2.51  | -.1361  | .0151 | .3798 | -.0022 | .0026            | .0170 |
| 9    | -.00   | .0918   | .0093 | .3358 | -.0020 | .0048            | .0166 |
| 10   | 2.54   | .3206   | .0139 | .2888 | -.0023 | .0039            | .0134 |
| 11   | 5.01   | .5403   | .0260 | .2424 | -.0035 | .0061            | .0129 |
| 12   | 10.00  | .9586   | .0779 | .1996 | -.0062 | .0041            | .0115 |
| 13   | 14.99  | 1.3000  | .1683 | .1999 | -.0049 | .0053            | .0124 |
| 14   | 20.00  | 1.4068  | .3091 | .1619 | .0000  | .0106            | .0052 |
| 15   | .00    | .0826   | .0112 | .3330 | -.0017 | .0027            | .0157 |
| 16   | -5.00  | -.3848  | .0346 | .4787 | -.0036 | .0016            | .0156 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB   | CPMB  | CYMB   | CRM <sub>y</sub> | CYB   |
|------|--------|---------|-------|-------|--------|------------------|-------|
| 2    | .00    | .0973   | .1055 | .3630 | -.0028 | .0016            | .0194 |
| 3    | .00    | .0841   | .0118 | .3388 | -.0024 | .0027            | .0149 |
| 4    | -20.00 | -1.1885 | .3793 | .8146 | -.0115 | -.0017           | .0327 |
| 5    | -15.01 | -1.0554 | .2300 | .9329 | -.0118 | .0099            | .0348 |
| 6    | -10.01 | -.8345  | .1003 | .7119 | -.0019 | .0013            | .0184 |
| 7    | -5.00  | -.3894  | .0334 | .5123 | -.0035 | .0037            | .0154 |
| 8    | -2.51  | -.1361  | .0151 | .3798 | -.0022 | .0026            | .0170 |
| 9    | -.00   | .0918   | .0093 | .3358 | -.0020 | .0048            | .0166 |
| 10   | 2.54   | .3206   | .0139 | .2888 | -.0023 | .0039            | .0134 |
| 11   | 5.01   | .5403   | .0260 | .2424 | -.0035 | .0061            | .0129 |
| 12   | 10.00  | .9586   | .0779 | .1996 | -.0062 | .0041            | .0115 |
| 13   | 14.99  | 1.3000  | .1683 | .1999 | -.0049 | .0053            | .0124 |
| 14   | 20.00  | 1.4068  | .3091 | .1619 | .0000  | .0106            | .0052 |
| 15   | .00    | .0826   | .0112 | .3330 | -.0017 | .0027            | .0157 |
| 16   | -5.00  | -.3848  | .0346 | .4787 | -.0036 | .0016            | .0156 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 726 CONFIG F P B NP5 W7 T2 IN=-3.5 XN=0

| PT. NO. | IW ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA DELS8 Q PSF | DELTA V KNOTS | RPM    |
|---------|--------------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------------|---------------|--------|
| 2       | 0            | 0             | 112.3             | 31.16             | -430.              | 73.                | -217.              | 4.45              | 55.08             | 128.71        | 3560.  |
| 3       | 0            | 0             | 108.7             | -6.51             | -499.              | 69.                | -251.              | 3.71              | 55.06             | 128.69        | 11040. |
| 4       | -20.0        | 0             | -326.7            | 93.87             | -1182.             | 21.                | -259.              | 4.45              | 54.40             | 127.89        | 11040. |
| 5       | -15.0        | 0             | -268.4            | 42.95             | -1045.             | -101.              | -45.               | 4.93              | 55.23             | 128.89        | 11040. |
| 6       | -10.0        | 0             | -190.2            | 5.70              | -1052.             | 61.                | -254.              | 3.48              | 54.87             | 128.46        | 11050. |
| 7       | -5.0         | 0             | -43.2             | -6.85             | -847.              | 51.                | -217.              | 3.53              | 55.00             | 128.61        | 11030. |
| 8       | -2.5         | 0             | 33.2              | -8.28             | -677.              | 52.                | -248.              | 1.42              | 55.20             | 128.86        | 11020. |
| 9       | -0           | 0             | 107.4             | -6.23             | -499.              | 68.                | -249.              | 3.69              | 55.43             | 129.13        | 11010. |
| 10      | 2.5          | 0             | 182.5             | -2.26             | -298.              | 80.                | -178.              | 2.94              | 55.56             | 129.28        | 10990. |
| 11      | 5.0          | 0             | 255.7             | 4.62              | -99.               | 91.                | -161.              | 2.54              | 55.08             | 128.71        | 10960. |
| 12      | 10.0         | 0             | 387.2             | 24.54             | 367.               | 78.                | -124.              | .62               | 55.01             | 128.62        | 10920. |
| 13      | 15.0         | 0             | 505.7             | 56.10             | 836.               | 70.                | -143.              | 2.87              | 54.56             | 128.09        | 10920. |
| 14      | 17.5         | 0             | 504.4             | 76.13             | 971.               | 54.                | -0.                | 2.36              | 54.79             | 128.37        | 11010. |
| 15      | 20.0         | 0             | 511.6             | 102.56            | 1117.              | 46.                | 0.                 | 2.55              | 54.71             | 128.26        | 11080. |
| 16      | -20.0        | 0             | -332.1            | 95.33             | -1185.             | 19.                | -294.              | 4.06              | 54.47             | 127.98        | 11000. |
| 17      | -15.0        | 0             | -266.7            | 43.07             | -1023.             | -91.               | 24.                | 5.49              | 55.27             | 128.94        | 11030. |
| 18      | -10.0        | 0             | -186.3            | 5.38              | -1035.             | 59.                | -235.              | 4.31              | 55.38             | 129.07        | 11040. |
| 19      | -0           | 0             | 107.5             | -6.68             | -486.              | 73.                | -216.              | 4.26              | 55.23             | 128.89        | 11040. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .3036  | .0842  | -.1387 | .0044  | -.0131 | .0120 |
| 3    | 0.00   | .2938  | -.0176 | -.1609 | .0042  | -.0152 | .0100 |
| 4    | -20.00 | -.8830 | .2537  | -.3812 | .0013  | -.0157 | .0120 |
| 5    | -15.00 | -.7255 | .1161  | -.3369 | -.0061 | -.0027 | .0133 |
| 6    | -10.01 | -.5142 | .0154  | -.3392 | .0037  | -.0153 | .0094 |
| 7    | -5.01  | -.1168 | -.0185 | -.2731 | .0031  | -.0131 | .0095 |
| 8    | -2.50  | .0898  | -.0224 | -.2182 | .0031  | -.0150 | .0038 |
| 9    | -.00   | .2902  | -.0168 | -.1610 | .0041  | -.0151 | .0100 |
| 10   | 2.49   | .4933  | -.0061 | -.0959 | .0048  | -.0107 | .0080 |
| 11   | 4.99   | .6910  | .0125  | -.0319 | .0055  | -.0097 | .0069 |
| 12   | 9.99   | 1.0465 | .0663  | .1182  | .0047  | -.0075 | .0017 |
| 13   | 15.00  | 1.3666 | .1516  | .2695  | .0042  | -.0086 | .0078 |
| 14   | 17.50  | 1.3633 | .2058  | .3130  | .0032  | -.0000 | .0064 |
| 15   | 20.00  | 1.3828 | .2772  | .3600  | .0028  | .0000  | .0069 |
| 16   | -20.00 | -.8975 | .2576  | -.3822 | .0011  | -.0177 | .0110 |
| 17   | -14.98 | -.7208 | .1164  | -.3300 | -.0055 | .0014  | .0148 |
| 18   | -10.00 | -.5036 | .0145  | -.3336 | .0036  | -.0142 | .0116 |
| 19   | -.00   | .2905  | -.0180 | -.1567 | .0044  | -.0130 | .0115 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .3036  | .0842  | -.1387 | .0044  | -.0131 | .0120 |
| 3    | 0.00   | .2938  | -.0176 | -.1609 | .0042  | -.0152 | .0100 |
| 4    | -20.00 | -.8830 | .2537  | -.3812 | .0013  | -.0157 | .0120 |
| 5    | -15.00 | -.7255 | .1161  | -.3369 | -.0061 | -.0027 | .0133 |
| 6    | -10.01 | -.5142 | .0154  | -.3392 | .0037  | -.0153 | .0094 |
| 7    | -5.01  | -.1168 | -.0185 | -.2731 | .0031  | -.0131 | .0095 |
| 8    | -2.50  | .0898  | -.0224 | -.2182 | .0031  | -.0150 | .0038 |
| 9    | -.00   | .2902  | -.0168 | -.1610 | .0041  | -.0151 | .0100 |
| 10   | 2.49   | .4933  | -.0061 | -.0959 | .0048  | -.0107 | .0080 |
| 11   | 4.99   | .6910  | .0125  | -.0319 | .0055  | -.0097 | .0069 |
| 12   | 9.99   | 1.0465 | .0663  | .1182  | .0047  | -.0075 | .0017 |
| 13   | 15.00  | 1.3666 | .1516  | .2695  | .0042  | -.0086 | .0078 |
| 14   | 17.50  | 1.3633 | .2058  | .3130  | .0032  | -.0000 | .0064 |
| 15   | 20.00  | 1.3828 | .2772  | .3600  | .0028  | .0000  | .0069 |
| 16   | -20.00 | -.8975 | .2576  | -.3822 | .0011  | -.0177 | .0110 |
| 17   | -14.98 | -.7208 | .1164  | -.3300 | -.0055 | .0014  | .0148 |
| 18   | -10.00 | -.5036 | .0145  | -.3336 | .0036  | -.0142 | .0116 |
| 19   | -.00   | .2905  | -.0180 | -.1567 | .0044  | -.0130 | .0115 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 598

RUN 727 CONFIG F P B NP5 W7 T2 IN=-3.5 XN=0

| PT. NO. | IW    | DELTA | PSI | CLBAR  | CDBAR  | CPMBAR | CYBAR | CRMBAR | CYBAR | DELSB | V      | RPM    |
|---------|-------|-------|-----|--------|--------|--------|-------|--------|-------|-------|--------|--------|
|         | ALPHA | DEG   | DEG | SQ-FT  | SQ-FT  | CU-FT  | CU-FT | CU-FT  | CU-FT | SQ-FT | PSF    | KNOTS  |
| 2       | 0     | 0     | 0   | 124.3  | 34.34  | -458.  | 129.  | -392.  | 4.69  | 55.26 | 128.92 | 3580.  |
| 3       | 0     | 0     | 0   | 118.6  | -6.90  | -532.  | 131.  | -390.  | 4.24  | 55.43 | 129.12 | 11470. |
| 4       | -20.0 | 0     | 0   | -319.0 | 89.71  | -1225. | 23.   | -394.  | 2.85  | 54.94 | 128.54 | 11450. |
| 5       | -15.0 | 0     | 0   | -268.1 | 39.89  | -1104. | -40.  | -305.  | 2.30  | 54.87 | 128.45 | 11480. |
| 6       | -10.0 | 0     | 0   | -178.5 | 3.05   | -1119. | 91.   | -427.  | 3.63  | 55.36 | 129.04 | 11500. |
| 7       | -5.0  | 0     | 0   | -30.9  | -7.82  | -886.  | 102.  | -375.  | 3.04  | 54.96 | 128.56 | 11500. |
| 8       | -2.5  | 0     | 0   | 43.6   | -8.94  | -720.  | 112.  | -408.  | 3.21  | 55.24 | 128.90 | 11490. |
| 9       | 0     | 0     | 0   | 117.0  | -6.84  | -521.  | 130.  | -392.  | 4.27  | 55.10 | 128.74 | 11480. |
| 10      | 2.5   | 0     | 0   | 191.2  | -2.78  | -336.  | 145.  | -319.  | 3.63  | 55.37 | 129.05 | 11480. |
| 11      | 5.0   | 0     | 0   | 263.9  | 4.15   | -130.  | 164.  | -284.  | 3.08  | 55.22 | 128.88 | 11470. |
| 12      | 10.0  | 0     | 0   | 401.7  | 24.59  | 338.   | 168.  | -265.  | 1.30  | 54.94 | 128.54 | 11500. |
| 13      | 15.0  | 0     | 0   | 517.3  | 55.86  | 809.   | 165.  | -354.  | 2.61  | 54.89 | 128.48 | 11490. |
| 14      | 17.5  | 0     | 0   | 518.0  | 75.83  | 969.   | 131.  | -177.  | 2.93  | 54.66 | 128.21 | 11470. |
| 15      | 20.0  | 0     | 0   | 514.4  | 103.07 | 1078.  | 125.  | -53.   | 2.05  | 54.88 | 128.47 | 11460. |
| 16      | -0    | 0     | 0   | 116.3  | -7.34  | -533.  | 127.  | -410.  | 4.20  | 55.10 | 128.73 | 11500. |

\*\*\* COEFFICIENT FORM WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .3361  | .0928  | -.1477 | .0078  | -.0237 | .0127 |
| 3    | 0.00   | .3205  | -.0187 | -.1716 | .0079  | -.0236 | .0115 |
| 4    | -20.00 | -.8623 | .2425  | -.3951 | .0014  | -.0238 | .0077 |
| 5    | -15.00 | -.7245 | .1078  | -.3559 | -.0024 | -.0184 | .0062 |
| 6    | -10.00 | -.4825 | .0082  | -.3607 | .0055  | -.0258 | .0098 |
| 7    | -5.00  | -.0836 | -.0211 | -.2857 | .0062  | -.0227 | .0082 |
| 8    | -2.50  | .1179  | -.0242 | -.2322 | .0067  | -.0246 | .0087 |
| 9    | 0.00   | .3163  | -.0185 | -.1681 | .0079  | -.0237 | .0115 |
| 10   | 2.50   | .5167  | -.0075 | -.1084 | .0088  | -.0193 | .0098 |
| 11   | 5.00   | .7134  | .0112  | -.0418 | .0099  | -.0171 | .0083 |
| 12   | 10.00  | 1.0858 | .0665  | .1090  | .0101  | -.0160 | .0035 |
| 13   | 15.00  | 1.3980 | .1510  | .2608  | .0100  | -.0214 | .0070 |
| 14   | 17.50  | 1.4000 | .2049  | .3125  | .0079  | -.0107 | .0079 |
| 15   | 20.00  | 1.3904 | .2786  | .3476  | .0075  | -.0032 | .0055 |
| 16   | -0.00  | .3143  | -.0198 | -.1719 | .0077  | -.0248 | .0114 |

\*\*\* COEFFICIENT FORM STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .3361  | .0928  | -.1477 | .0078  | -.0237 | .0127 |
| 3    | 0.00   | .3205  | -.0187 | -.1716 | .0079  | -.0236 | .0115 |
| 4    | -20.00 | -.8623 | .2425  | -.3951 | .0014  | -.0238 | .0077 |
| 5    | -15.00 | -.7245 | .1078  | -.3559 | -.0024 | -.0184 | .0062 |
| 6    | -10.00 | -.4825 | .0082  | -.3607 | .0055  | -.0258 | .0098 |
| 7    | -5.00  | -.0836 | -.0211 | -.2857 | .0062  | -.0227 | .0082 |
| 8    | -2.50  | .1179  | -.0242 | -.2322 | .0067  | -.0246 | .0087 |
| 9    | 0.00   | .3163  | -.0185 | -.1681 | .0079  | -.0237 | .0115 |
| 10   | 2.50   | .5167  | -.0075 | -.1084 | .0088  | -.0193 | .0098 |
| 11   | 5.00   | .7134  | .0112  | -.0418 | .0099  | -.0171 | .0083 |
| 12   | 10.00  | 1.0858 | .0665  | .1090  | .0101  | -.0160 | .0035 |
| 13   | 15.00  | 1.3980 | .1510  | .2608  | .0100  | -.0214 | .0070 |
| 14   | 17.50  | 1.4000 | .2049  | .3125  | .0079  | -.0107 | .0079 |
| 15   | 20.00  | 1.3904 | .2786  | .3476  | .0075  | -.0032 | .0055 |
| 16   | -0.00  | .3143  | -.0198 | -.1719 | .0077  | -.0248 | .0114 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 599

RUN 728 CONFIG F P B NP5 W7 T2 IN=-3.5 XN#0

| PT. NO. | IW ALPHA DEG | O DELF PSI DEG | O DELA      |             | 10 IHT CU-FT | - DELE      |              | - DELR      |       | - DELSB |        | V KNOTS | RPM |
|---------|--------------|----------------|-------------|-------------|--------------|-------------|--------------|-------------|-------|---------|--------|---------|-----|
|         |              |                | CLBAR SQ-FT | CDBAR SQ-FT |              | CYBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   |         |        |         |     |
| 2       | 0            | 0              | 67.1        | 29.20       | -336.        | 24.         | 342.         | 6.21        | 55.38 | 129.07  | 3560.  |         |     |
| 3       | 0            | 0              | 63.3        | -7.13       | -403.        | 23.         | 397.         | 6.00        | 55.10 | 128.73  | 10890. |         |     |
| 4       | -20.0        | 0              | -343.6      | 102.77      | -1109.       | 128.        | -115.        | 3.85        | 54.88 | 128.46  | 10870. |         |     |
| 5       | -15.0        | 0              | -288.8      | 56.18       | -967.        | 62.         | 227.         | 9.79        | 54.95 | 128.55  | 10870. |         |     |
| 6       | -10.0        | 0              | -226.0      | 10.79       | -948.        | 115.        | 299.         | 8.42        | 55.45 | 129.14  | 10910. |         |     |
| 7       | -5.0         | 0              | -82.8       | -4.44       | -748.        | 58.         | 338.         | 6.05        | 55.77 | 129.52  | 10900. |         |     |
| 8       | -2.5         | 0              | -6.8        | -6.94       | -569.        | 41.         | 392.         | 7.13        | 55.39 | 129.07  | 10910. |         |     |
| 9       | 0            | 0              | 64.8        | -6.72       | -384.        | 26.         | 377.         | 5.33        | 55.59 | 129.31  | 10900. |         |     |
| 10      | 2.5          | 0              | 137.0       | -4.25       | -232.        | 14.         | 395.         | 4.46        | 55.73 | 129.47  | 10900. |         |     |
| 11      | 5.0          | 0              | 211.0       | 1.06        | -20.         | 3.          | 416.         | 4.62        | 55.27 | 128.93  | 10900. |         |     |
| 12      | 10.0         | 0              | 346.3       | 18.50       | 427.         | -47.        | 436.         | 1.66        | 55.45 | 129.14  | 10870. |         |     |
| 13      | 15.0         | 0              | 465.0       | 47.63       | 877.         | -85.        | 333.         | 3.21        | 55.10 | 128.73  | 10850. |         |     |
| 14      | 17.5         | 0              | 487.4       | 69.15       | 1044.        | -96.        | 300.         | 1.74        | 54.82 | 128.40  | 10830. |         |     |
| 15      | 20.0         | 0              | 494.0       | 94.72       | 1178.        | -98.        | 230.         | 2.79        | 54.96 | 128.56  | 10830. |         |     |
| 16      | 0            | 0              | 63.4        | -6.66       | -411.        | 26.         | 376.         | 6.38        | 55.50 | 129.21  | 10890. |         |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 00     | .1813  | .0789  | -.1082 | .0014  | .0207  | .0168 |
| 3    | 00     | .1712  | -.0193 | -.1300 | .0014  | .0240  | .0162 |
| 4    | -20.00 | -.9286 | .2778  | -.3574 | .0077  | -.0069 | .0104 |
| 5    | -15.00 | -.7806 | .1518  | -.3117 | .0037  | .0137  | .0265 |
| 6    | -10.00 | -.6108 | .0292  | -.3058 | .0069  | .0181  | .0227 |
| 7    | -5.00  | -.2238 | -.0120 | -.2410 | .0035  | .0204  | .0163 |
| 8    | -2.50  | -.0183 | -.0188 | -.1835 | .0025  | .0237  | .0193 |
| 9    | 00     | .1751  | -.0182 | -.1239 | .0016  | .0228  | .0144 |
| 10   | 2.51   | .3703  | -.0115 | -.0748 | .0008  | .0239  | .0121 |
| 11   | 5.00   | .5704  | .0029  | -.0063 | .0002  | .0252  | .0125 |
| 12   | 10.00  | .9359  | .0500  | .1376  | -.0028 | .0263  | .0045 |
| 13   | 15.00  | 1.2568 | .1287  | .2827  | -.0051 | .0201  | .0087 |
| 14   | 17.51  | 1.3173 | .1869  | .3365  | -.0058 | .0181  | .0047 |
| 15   | 20.00  | 1.3352 | .2560  | .3798  | -.0059 | .0139  | .0075 |
| 16   | 00     | .1714  | -.0180 | -.1326 | .0016  | .0227  | .0173 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 00     | .1813  | .0789  | -.1082 | .0014  | .0207  | .0168 |
| 3    | 00     | .1712  | -.0193 | -.1300 | .0014  | .0240  | .0162 |
| 4    | -20.00 | -.9286 | .2778  | -.3574 | .0077  | -.0069 | .0104 |
| 5    | -15.00 | -.7806 | .1518  | -.3117 | .0037  | .0137  | .0265 |
| 6    | -10.00 | -.6108 | .0292  | -.3058 | .0069  | .0181  | .0227 |
| 7    | -5.00  | -.2238 | -.0120 | -.2410 | .0035  | .0204  | .0163 |
| 8    | -2.50  | -.0183 | -.0188 | -.1835 | .0025  | .0237  | .0193 |
| 9    | 00     | .1751  | -.0182 | -.1239 | .0016  | .0228  | .0144 |
| 10   | 2.51   | .3703  | -.0115 | -.0748 | .0008  | .0239  | .0121 |
| 11   | 5.00   | .5704  | .0029  | -.0063 | .0002  | .0252  | .0125 |
| 12   | 10.00  | .9359  | .0500  | .1376  | -.0028 | .0263  | .0045 |
| 13   | 15.00  | 1.2568 | .1287  | .2827  | -.0051 | .0201  | .0087 |
| 14   | 17.51  | 1.3173 | .1869  | .3365  | -.0058 | .0181  | .0047 |
| 15   | 20.00  | 1.3352 | .2560  | .3798  | -.0059 | .0139  | .0075 |
| 16   | 00     | .1714  | -.0180 | -.1326 | .0016  | .0227  | .0173 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 600

RUN 729 CONFIG F P B NP5 W7 T2 IN=3.5 XN=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | DELTA PSF | V KNOTS | RPM    |
|---------|-----------|---------------|-------------|-------------|---------------|-------------|---------------|-------------|-----------|---------|--------|
| 2       | 0         | 0             | 49.4        | 31.32       | -302.         | 49.         | 587.          | 7.97        | 55.14     | 128.77  | 3540.  |
| 3       | 0         | 0             | 46.0        | -6.96       | -378.         | 54.         | 590.          | 7.50        | 54.97     | 128.57  | 11140. |
| 4       | -20.0     | 0             | -343.4      | 104.16      | -1110.        | 163.        | -92.          | 1.37        | 54.67     | 128.21  | 11170. |
| 5       | -15.0     | 0             | -299.3      | 59.52       | -965.         | 117.        | 421.          | 10.26       | 54.80     | 128.36  | 11200. |
| 6       | -10.0     | 0             | -243.5      | 12.18       | -925.         | 165.        | 509.          | 9.95        | 55.14     | 128.77  | 11230. |
| 7       | -5.0      | 0             | -101.6      | -4.15       | -738.         | 102.        | 568.          | 7.42        | 55.12     | 128.75  | 11240. |
| 8       | -2.5      | 0             | -27.3       | -7.33       | -585.         | 75.         | 553.          | 6.61        | 55.15     | 128.78  | 11240. |
| 9       | 0         | 0             | 44.7        | -7.41       | -367.         | 52.         | 618.          | 6.91        | 55.69     | 129.42  | 11240. |
| 10      | 2.5       | 0             | 120.6       | -5.48       | -214.         | 33.         | 630.          | 6.22        | 54.79     | 128.36  | 11230. |
| 11      | 5.0       | 0             | 192.1       | 15.50       | 2.            | 7.          | 662.          | 5.06        | 55.24     | 128.90  | 11220. |
| 12      | 10.0      | 0             | 327.9       | 15.48       | 447.          | -59.        | 664.          | 2.77        | 55.30     | 128.96  | 11210. |
| 13      | 15.0      | 0             | 447.4       | 43.19       | 901.          | -124.       | 544.          | 3.40        | 55.13     | 128.76  | 11180. |
| 14      | 17.5      | 0             | 477.7       | 63.08       | 1077.         | -144.       | 371.          | 3.73        | 54.77     | 128.33  | 11170. |
| 15      | 20.0      | 0             | 484.6       | 89.13       | 1183.         | -136.       | 320.          | 2.99        | 54.61     | 128.14  | 11170. |
| 16      | 0         | 0             | 45.3        | -7.19       | -385.         | 44.         | 622.          | 6.84        | 55.28     | 128.94  | 11230. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 00     | .1335  | .0846  | -.0974 | .0029  | .0355  | .0215 |
| 3    | 00     | .1244  | -.0188 | -.1220 | .0033  | .0356  | .0203 |
| 4    | -20.00 | -.9281 | .2815  | -.3578 | .0099  | -.0055 | .0037 |
| 5    | -15.00 | -.8089 | .1609  | -.3112 | .0071  | .0254  | .0277 |
| 6    | -10.00 | -.6582 | .0329  | -.2983 | .0100  | .0307  | .0269 |
| 7    | -5.00  | -.2745 | -.0112 | -.2380 | .0062  | .0343  | .0200 |
| 8    | -2.50  | -.0738 | -.0198 | -.1886 | .0045  | .0334  | .0179 |
| 9    | 00     | .1207  | -.0200 | -.1183 | .0031  | .0373  | .0187 |
| 10   | 2.50   | .3259  | -.0148 | -.0689 | .0020  | .0380  | .0168 |
| 11   | 5.00   | .5193  | -.0014 | .0005  | .0004  | .0400  | .0137 |
| 12   | 10.00  | .8861  | .0419  | .1440  | -.0036 | .0401  | .0075 |
| 13   | 15.00  | 1.2093 | .1167  | .2906  | -.0075 | .0329  | .0092 |
| 14   | 17.50  | 1.2910 | .1705  | .3473  | -.0087 | .0224  | .0101 |
| 15   | 20.00  | 1.3096 | .2409  | .3813  | -.0087 | .0193  | .0081 |
| 16   | 00     | .1225  | -.0194 | -.1242 | .0027  | .0376  | .0185 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 00     | .1335  | .0846  | -.0974 | .0029  | .0355  | .0215 |
| 3    | 00     | .1244  | -.0188 | -.1220 | .0033  | .0356  | .0203 |
| 4    | -20.00 | -.9281 | .2815  | -.3578 | .0099  | -.0055 | .0037 |
| 5    | -15.00 | -.8089 | .1609  | -.3112 | .0071  | .0254  | .0277 |
| 6    | -10.00 | -.6582 | .0329  | -.2983 | .0100  | .0307  | .0269 |
| 7    | -5.00  | -.2745 | -.0112 | -.2380 | .0062  | .0343  | .0200 |
| 8    | -2.50  | -.0738 | -.0198 | -.1886 | .0045  | .0334  | .0179 |
| 9    | 00     | .1207  | -.0200 | -.1183 | .0031  | .0373  | .0187 |
| 10   | 2.50   | .3259  | -.0148 | -.0689 | .0020  | .0380  | .0168 |
| 11   | 5.00   | .5193  | -.0014 | .0005  | .0004  | .0400  | .0137 |
| 12   | 10.00  | .8861  | .0419  | .1440  | -.0036 | .0401  | .0075 |
| 13   | 15.00  | 1.2093 | .1167  | .2906  | -.0075 | .0329  | .0092 |
| 14   | 17.50  | 1.2910 | .1705  | .3473  | -.0087 | .0224  | .0101 |
| 15   | 20.00  | 1.3096 | .2409  | .3813  | -.0087 | .0193  | .0081 |
| 16   | 00     | .1225  | -.0194 | -.1242 | .0027  | .0376  | .0185 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 601

| RUN 710 CONFIG F P R NP5 W7 T2 |           |               |             |             |               |              |               |             |               | IN3-3.5 |        | XN30 |  | PSI=5 |  |
|--------------------------------|-----------|---------------|-------------|-------------|---------------|--------------|---------------|-------------|---------------|---------|--------|------|--|-------|--|
| PT. NO.                        | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | DELTA PSI PSF | V KNOTS | RPM    |      |  |       |  |
| 7                              | 0         | 5.0           | 46.6        | -3.01       | -326.         | 281.         | 547.          | 42.04       | 55.18         | 128.82  | 11150. |      |  |       |  |
| 8                              | -20.0     | 5.0           | -334.0      | 102.49      | -1125.        | 319.         | -303.         | 13.68       | 55.29         | 128.95  | 10900. |      |  |       |  |
| 9                              | -15.0     | 5.0           | -308.7      | 52.17       | -980.         | 556.         | -15.          | 23.97       | 55.27         | 128.92  | 11170. |      |  |       |  |
| 10                             | -10.0     | 5.0           | -237.9      | 14.22       | -946.         | 368.         | 434.          | 38.32       | 55.38         | 129.05  | 11200. |      |  |       |  |
| 11                             | -5.0      | 5.0           | -97.2       | -.04        | -686.         | 308.         | 442.          | 40.90       | 55.97         | 129.74  | 11230. |      |  |       |  |
| 12                             | -2.5      | 5.0           | -74.7       | -3.10       | -509.         | 295.         | 483.          | 42.09       | 55.76         | 129.50  | 11250. |      |  |       |  |
| 13                             | 0         | 5.0           | 45.3        | -3.35       | -334.         | 276.         | 532.          | 41.85       | 55.02         | 128.63  | 11190. |      |  |       |  |
| 14                             | 2.5       | 5.0           | 119.8       | -.98        | -154.         | 262.         | 552.          | 39.27       | 55.26         | 128.91  | 11130. |      |  |       |  |
| 15                             | 5.0       | 5.0           | 194.3       | 3.12        | 63.           | 251.         | 595.          | 37.91       | 54.81         | 128.37  | 11140. |      |  |       |  |
| 16                             | 10.0      | 5.0           | 324.8       | 18.41       | 479.          | 182.         | 617.          | 34.16       | 54.94         | 128.53  | 11140. |      |  |       |  |
| 17                             | 15.0      | 5.0           | 454.6       | 44.92       | 946.          | 85.          | 644.          | 31.08       | 54.36         | 127.84  | 11190. |      |  |       |  |
| 18                             | 17.5      | 5.0           | 470.5       | 65.46       | 1069.         | 46.          | 569.          | 28.21       | 54.70         | 128.23  | 11170. |      |  |       |  |
| 19                             | 20.0      | 5.0           | 481.5       | 91.07       | 1179.         | 62.          | 536.          | 23.45       | 54.63         | 128.16  | 11230. |      |  |       |  |
| 20                             | -0        | 5.0           | 46.3        | -3.19       | -337.         | 269.         | 549.          | 41.34       | 55.04         | 128.64  | 11150. |      |  |       |  |
| 21                             | -0        | 5.0           | 51.2        | 34.39       | -244.         | 244.         | 501.          | 36.67       | 54.99         | 128.59  | 3510.  |      |  |       |  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPH    | CYM   | CRM    | CY    |
|------|--------|--------|--------|--------|-------|--------|-------|
| 7    | 0.00   | .1260  | -.0081 | -.1049 | .0170 | .0330  | .1136 |
| 8    | -20.00 | -.9026 | .2770  | -.3626 | .0193 | -.0183 | .0370 |
| 9    | -15.00 | -.8344 | .1410  | -.3160 | .0336 | -.0009 | .0648 |
| 10   | -10.00 | -.6431 | .0384  | -.3049 | .0222 | .0262  | .1036 |
| 11   | -5.00  | -.2627 | -.0001 | -.2212 | .0186 | .0267  | .1105 |
| 12   | -2.50  | -.0668 | -.0084 | -.1641 | .0178 | .0292  | .1138 |
| 13   | 0.00   | .1223  | -.0091 | -.1075 | .0167 | .0321  | .1131 |
| 14   | 2.50   | .3239  | -.0027 | -.0495 | .0158 | .0333  | .1061 |
| 15   | 5.00   | .5251  | .0084  | .0202  | .0152 | .0359  | .1025 |
| 16   | 10.00  | .8779  | .0498  | .1546  | .0110 | .0373  | .0923 |
| 17   | 15.00  | 1.2287 | .1214  | .3050  | .0052 | .0389  | .0840 |
| 18   | 17.51  | 1.2717 | .1769  | .3448  | .0028 | .0344  | .0763 |
| 19   | 20.00  | 1.3015 | .2461  | .3800  | .0038 | .0324  | .0634 |
| 20   | -0.00  | .1251  | -.0086 | -.1085 | .0162 | .0332  | .1117 |
| 21   | -0.00  | .1383  | .0930  | -.0785 | .0147 | .0303  | .0991 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPHB   | CYMB  | CRMB   | CYB   |
|------|--------|--------|--------|--------|-------|--------|-------|
| 7    | 0.00   | .1260  | -.0181 | -.0891 | .0170 | .0312  | .1125 |
| 8    | -20.00 | -.9026 | .2727  | -.3698 | .0193 | -.0242 | .0611 |
| 9    | -15.00 | -.8344 | .1348  | -.3152 | .0336 | -.0061 | .0769 |
| 10   | -10.00 | -.6431 | .0292  | -.2915 | .0222 | .0211  | .1065 |
| 11   | -5.00  | -.2627 | -.0098 | -.2079 | .0186 | .0230  | .1101 |
| 12   | -2.50  | -.0668 | -.0183 | -.1498 | .0178 | .0264  | .1126 |
| 13   | 0.00   | .1223  | -.0189 | -.0921 | .0167 | .0302  | .1119 |
| 14   | 2.50   | .3239  | -.0119 | -.0338 | .0158 | .0324  | .1055 |
| 15   | 5.00   | .5251  | -.0006 | .0369  | .0152 | .0361  | .1028 |
| 16   | 10.00  | .8779  | .0415  | .1714  | .0110 | .0397  | .0963 |
| 17   | 15.00  | 1.2287 | .1136  | .3221  | .0052 | .0438  | .0943 |
| 18   | 17.51  | 1.2717 | .1696  | .3595  | .0028 | .0399  | .0914 |
| 19   | 20.00  | 1.3015 | .2396  | .3936  | .0038 | .0385  | .0847 |
| 20   | -0.00  | .1251  | -.0184 | -.0926 | .0162 | .0313  | .1106 |
| 21   | -0.00  | .1383  | .0839  | -.0641 | .0147 | .0289  | .1069 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

PG 2

RUN 731 CONFIG F P R NP5 W7 T2 IN=-3.5 XN=0

| IW<br>PT. NO. | Q DELF<br>ALPHA<br>DEG | Q DELA<br>PSI<br>DEG | Q DELA<br>CIBAR<br>SQ-FT | Q IHT<br>CDBAR<br>SQ-FT | Q IHT<br>CPMBAR<br>CU-FT | - Q DELE<br>CYMBAR<br>CU-FT | - Q DELR<br>CRMBAR<br>CU-FT | - Q DELSB<br>CYBAR<br>SQ-FT | - Q<br>PSF | - V<br>KNOTS | RPM    |
|---------------|------------------------|----------------------|--------------------------|-------------------------|--------------------------|-----------------------------|-----------------------------|-----------------------------|------------|--------------|--------|
| 7             | 0                      | 0                    | 50.3                     | 30.91                   | -293.                    | 47.                         | 621.                        | 6.33                        | 55.41      | 129.08       | 3570.  |
| 8             | 0                      | 0                    | 50.8                     | 31.05                   | -293.                    | 49.                         | 605.                        | 6.97                        | 55.20      | 128.84       | 3580.  |
| 9             | 0                      | 0                    | 46.0                     | -7.02                   | -381.                    | 54.                         | 637.                        | 6.50                        | 55.54      | 129.24       | 11250. |
| 10            | 0                      | -20.0                | 63.6                     | 25.15                   | -653.                    | -699.                       | 706.                        | -124.68                     | 55.71      | 129.43       | 11280. |
| 11            | 0                      | -15.0                | 57.7                     | 11.40                   | -617.                    | -546.                       | 725.                        | -94.21                      | 55.07      | 128.67       | 11190. |
| 12            | 0                      | -10.0                | 54.2                     | .59                     | -525.                    | -349.                       | 725.                        | -61.52                      | 55.70      | 129.42       | 11230. |
| 13            | 0                      | -5.0                 | 49.5                     | -5.81                   | -487.                    | -162.                       | 709.                        | -28.95                      | 55.77      | 129.50       | 11270. |
| 14            | 0                      | -2.5                 | 44.6                     | -7.15                   | -466.                    | -68.                        | 639.                        | -12.69                      | 55.57      | 129.27       | 11240. |
| 15            | 0                      | 0                    | 43.2                     | -6.60                   | -445.                    | 51.                         | 566.                        | 6.05                        | 55.74      | 129.47       | 11230. |
| 16            | 0                      | 2.5                  | 45.7                     | -5.33                   | -400.                    | 154.                        | 621.                        | 23.60                       | 55.73      | 129.45       | 11250. |
| 17            | 0                      | 5.0                  | 45.2                     | -4.12                   | -365.                    | 265.                        | 554.                        | 40.60                       | 56.13      | 129.93       | 11280. |
| 18            | 0                      | 10.0                 | 50.2                     | .81                     | -336.                    | 475.                        | 490.                        | 72.60                       | 56.07      | 129.86       | 11260. |
| 19            | 0                      | 15.0                 | 51.8                     | 10.49                   | -320.                    | 669.                        | 410.                        | 102.89                      | 55.79      | 129.52       | 11260. |
| 20            | 0                      | 20.0                 | 55.2                     | 24.96                   | -314.                    | 832.                        | 375.                        | 133.16                      | 55.41      | 129.08       | 11280. |
| 21            | 0                      | 0                    | 46.8                     | -6.55                   | -393.                    | 53.                         | 635.                        | 7.35                        | 55.63      | 129.34       | 11240. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 7    | 0.00   | .1360 | .0835  | -.0944 | .0028  | .0375 | .0171  |
| 8    | 0.00   | .1374 | .0839  | -.0944 | .0030  | .0366 | .0188  |
| 9    | 0.00   | .1244 | -.0190 | -.1230 | .0033  | .0385 | .0176  |
| 10   | -20.00 | .1718 | .0680  | -.2105 | -.0422 | .0426 | -.3370 |
| 11   | -15.00 | .1558 | .0308  | -.1991 | -.0330 | .0438 | -.2546 |
| 12   | -10.00 | .1466 | .0016  | -.1694 | -.0211 | .0438 | -.1663 |
| 13   | -5.00  | .1339 | -.0157 | -.1571 | -.0098 | .0428 | -.0783 |
| 14   | -2.50  | .1205 | -.0193 | -.1504 | -.0041 | .0386 | -.0343 |
| 15   | 0.00   | .1168 | -.0178 | -.1435 | .0031  | .0342 | .0164  |
| 16   | 2.50   | .1236 | -.0144 | -.1288 | .0093  | .0375 | .0638  |
| 17   | 5.00   | .1221 | -.0111 | -.1176 | .0160  | .0335 | .1097  |
| 18   | 10.00  | .1357 | .0022  | -.1084 | .0287  | .0296 | .1962  |
| 19   | 15.00  | .1401 | .0283  | -.1057 | .0404  | .0247 | .2781  |
| 20   | 20.00  | .1493 | .0675  | -.1013 | .0502  | .0227 | .3599  |
| 21   | 0.00   | .1266 | -.0177 | -.1266 | .0032  | .0384 | .0199  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|--------|--------|--------|-------|--------|
| 7    | 0.00   | .1360 | .0835  | -.0944 | .0028  | .0375 | .0171  |
| 8    | 0.00   | .1374 | .0839  | -.0944 | .0030  | .0366 | .0188  |
| 9    | 0.00   | .1244 | -.0190 | -.1230 | .0033  | .0385 | .0176  |
| 10   | -20.00 | .1718 | -.0519 | -.2759 | -.0422 | .0536 | -.3398 |
| 11   | -15.00 | .1558 | -.0364 | -.2530 | -.0330 | .0520 | -.2539 |
| 12   | -10.00 | .1466 | -.0274 | -.2076 | -.0211 | .0487 | -.1640 |
| 13   | -5.00  | .1339 | -.0225 | -.1765 | -.0098 | .0452 | -.0766 |
| 14   | -2.50  | .1205 | -.0208 | -.1593 | -.0041 | .0398 | -.0334 |
| 15   | 0.00   | .1168 | -.0178 | -.1435 | .0031  | .0342 | .0164  |
| 16   | 2.50   | .1236 | -.0172 | -.1199 | .0093  | .0364 | .0631  |
| 17   | 5.00   | .1221 | -.0207 | -.1016 | .0160  | .0314 | .1083  |
| 18   | 10.00  | .1357 | -.0321 | -.0792 | .0287  | .0256 | .1936  |
| 19   | 15.00  | .1401 | -.0449 | -.0678 | .0404  | .0187 | .2759  |
| 20   | 20.00  | .1493 | -.0603 | -.0536 | .0502  | .0148 | .3612  |
| 21   | 0.00   | .1266 | -.0177 | -.1266 | .0032  | .0384 | .0199  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR=72011

P 603

RUN 732 CONFIG F P R NP5 W7 T2 IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | O DELF PSI DEG | O DELA CLBAR SQ-FT | 20 IHT CDBAR SQ-FT | - DELE CPMBAR CU-FT | - DELR CYMBAR CU-FT | - DELSB CRMBAR CU-FT | - DELSB CYBAR SQ-FT | G PSF | V KNOTS | RPM    |
|---------|-----------|----------------|--------------------|--------------------|---------------------|---------------------|----------------------|---------------------|-------|---------|--------|
| 9       | 10.0      | 0              | 324.6              | 15.97              | 416.                | -41.                | 678.                 | 2.88                | 55.63 | 129.34  | 11230. |
| 10      | 10.0      | -20.0          | 311.4              | 48.01              | 202.                | -750.               | 704.                 | -117.23             | 55.44 | 129.11  | 11250. |
| 11      | 10.0      | -15.0          | 318.3              | 33.56              | 236.                | -622.               | 728.                 | -88.03              | 55.45 | 129.12  | 11230. |
| 12      | 10.0      | -10.0          | 317.7              | 24.10              | 263.                | -445.               | 648.                 | -55.48              | 55.14 | 128.75  | 11260. |
| 13      | 10.0      | -5.0           | 324.9              | 17.71              | 307.                | -273.               | 686.                 | -26.24              | 55.31 | 128.96  | 11260. |
| 14      | 10.0      | -2.5           | 324.0              | 16.38              | 340.                | -250.               | 537.                 | -8.69               | 55.68 | 129.40  | 11270. |
| 15      | 10.0      | 0              | 324.2              | 15.37              | 382.                | -56.                | 698.                 | 2.34                | 55.43 | 129.10  | 11300. |
| 16      | 10.0      | 2.5            | 322.1              | 15.87              | 413.                | 58.                 | 682.                 | 17.53               | 55.58 | 129.28  | 11210. |
| 17      | 10.0      | 5.0            | 322.7              | 18.16              | 428.                | 184.                | 693.                 | 32.79               | 55.27 | 128.91  | 11240. |
| 18      | 10.0      | 10.0           | 319.5              | 23.71              | 483.                | 395.                | 617.                 | 63.48               | 55.27 | 128.91  | 11250. |
| 19      | 10.0      | 15.0           | 314.3              | 32.42              | 530.                | 553.                | 548.                 | 94.11               | 55.09 | 128.70  | 11290. |
| 20      | 10.0      | 20.0           | 307.4              | 47.84              | 546.                | 703.                | 429.                 | 123.17              | 55.29 | 128.93  | 11240. |
| 21      | 10.0      | -2.5           | 328.3              | 16.52              | 361.                | -174.               | 685.                 | -11.80              | 55.12 | 128.73  | 11280. |
| 22      | 10.0      | 0              | 325.1              | 15.78              | 391.                | -53.                | 677.                 | 3.00                | 55.64 | 129.35  | 11270. |
| 23      | 10.0      | 0              | 319.2              | 55.69              | 419.                | -56.                | 677.                 | 2.69                | 55.67 | 129.38  | 3890.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM   | CYM    | CRM   | CY     |
|------|--------|-------|-------|-------|--------|-------|--------|
| 9    | 0.00   | .8773 | .0432 | .1341 | -.0025 | .0409 | .0078  |
| 10   | -20.00 | .8415 | .1298 | .0651 | -.0453 | .0425 | -.3168 |
| 11   | -15.00 | .8604 | .0907 | .0760 | -.0376 | .0440 | -.2379 |
| 12   | -10.00 | .8587 | .0651 | .0848 | -.0269 | .0391 | -.1499 |
| 13   | -5.00  | .8782 | .0479 | .0990 | -.0165 | .0414 | -.0709 |
| 14   | -2.50  | .8756 | .0443 | .1095 | -.0151 | .0324 | -.0235 |
| 15   | 0.00   | .8761 | .0415 | .1232 | -.0034 | .0422 | .0063  |
| 16   | 2.50   | .8706 | .0429 | .1332 | .0035  | .0412 | .0474  |
| 17   | 5.00   | .8722 | .0491 | .1380 | .0111  | .0418 | .0886  |
| 18   | 10.00  | .8636 | .0641 | .1557 | .0238  | .0373 | .1716  |
| 19   | 15.00  | .8496 | .0876 | .1708 | .0334  | .0331 | .2544  |
| 20   | 20.00  | .8307 | .1293 | .1761 | .0425  | .0259 | .3329  |
| 21   | -2.50  | .8873 | .0447 | .1163 | -.0105 | .0414 | -.0319 |
| 22   | 0.00   | .8785 | .0427 | .1259 | -.0032 | .0409 | .0081  |
| 23   | 0.00   | .8628 | .1505 | .1351 | -.0034 | .0409 | .0073  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|-------|--------|--------|-------|--------|
| 9    | 0.00   | .8773 | .0432 | .1341  | -.0025 | .0409 | .0078  |
| 10   | -20.00 | .8415 | .0130 | -.0168 | -.0453 | .0357 | -.3421 |
| 11   | -15.00 | .8604 | .0257 | .0124  | -.0376 | .0388 | -.2533 |
| 12   | -10.00 | .8587 | .0380 | .0470  | -.0269 | .0358 | -.1590 |
| 13   | -5.00  | .8782 | .0415 | .0792  | -.0165 | .0397 | -.0748 |
| 14   | -2.50  | .8756 | .0432 | .1018  | -.0151 | .0315 | -.0254 |
| 15   | 0.00   | .8761 | .0415 | .1232  | -.0034 | .0422 | .0063  |
| 16   | 2.50   | .8706 | .0408 | .1427  | .0035  | .0422 | .0492  |
| 17   | 5.00   | .8722 | .0411 | .1570  | .0111  | .0440 | .0926  |
| 18   | 10.00  | .8636 | .0332 | .1880  | .0238  | .0418 | .1801  |
| 19   | 15.00  | .8496 | .0185 | .2109  | .0334  | .0403 | .2684  |
| 20   | 20.00  | .8307 | .0071 | .2129  | .0425  | .0357 | .3570  |
| 21   | -2.50  | .8873 | .0432 | .1065  | -.0105 | .0404 | -.0338 |
| 22   | 0.00   | .8785 | .0427 | .1259  | -.0032 | .0409 | .0081  |
| 23   | 0.00   | .8628 | .1505 | .1351  | -.0034 | .0409 | .0073  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P 604

RUN 713 CONFIG F P R NP5 W7 T2 IN=-3.5 DELTAA=-10 ALPHA=10

| PT. NO. | ALPHA DEG | DELTA PSI | DELTA CLBAR | DELTA CDBAR | DELTA CPMBAR | DELTA CYMBAR | DELTA CRMBAR | DELTA CYBAR | DELTA Q PSF | V KNOTS | RPM    |
|---------|-----------|-----------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------|--------|
| 3       | 10.0      | .0        | 376.9       | 23.18       | 340.         | 76.          | -53.         | 1.41        | 55.58       | 129.28  | 11140. |
| 4       | 10.0      | -20.0     | 364.7       | 55.83       | 421.         | -611.        | -40.         | -113.34     | 55.66       | 129.37  | 11140. |
| 5       | 10.0      | -15.0     | 372.9       | 41.93       | 372.         | -487.        | -92.         | -85.62      | 55.02       | 128.61  | 11080. |
| 6       | 10.0      | -10.0     | 373.0       | 31.10       | 352.         | -316.        | -100.        | -54.34      | 55.54       | 129.23  | 11190. |
| 7       | 10.0      | -5.0      | 380.5       | 25.86       | 338.         | -136.        | -100.        | -26.28      | 55.09       | 128.70  | 11080. |
| 8       | 10.0      | -2.5      | 379.9       | 23.63       | 339.         | -33.         | -78.         | -12.64      | 55.26       | 128.90  | 11190. |
| 9       | 10.0      | .0        | 374.6       | 22.55       | 313.         | 75.          | -87.         | .98         | 55.90       | 129.65  | 11090. |
| 10      | 10.0      | 2.5       | 375.4       | 23.46       | 316.         | 180.         | -94.         | 16.02       | 55.94       | 129.70  | 11140. |
| 12      | 10.0      | 10.1      | 371.4       | 30.08       | 303.         | 491.         | -89.         | 60.74       | 55.13       | 128.74  | 11140. |
| 13      | 10.0      | 15.0      | 361.4       | 37.99       | 313.         | 647.         | -135.        | 89.95       | 55.29       | 128.93  | 11170. |
| 14      | 10.0      | 20.1      | 351.1       | 52.33       | 298.         | 788.         | -125.        | 119.72      | 55.34       | 128.99  | 11130. |
| 15      | 10.0      | 5.0       | 378.4       | 25.26       | 324.         | 301.         | -133.        | 31.69       | 55.14       | 128.75  | 11180. |
| 16      | 10.0      | .0        | 380.2       | 23.06       | 369.         | 72.          | -106.        | 1.97        | 55.45       | 129.12  | 11180. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM   | CYM    | CRM    | CY     |
|------|--------|--------|-------|-------|--------|--------|--------|
| 3    | .00    | 1.0186 | .0626 | .1097 | .0046  | -.0032 | .0038  |
| 4    | -20.00 | .9858  | .1509 | .1358 | -.0369 | -.0024 | -.3063 |
| 5    | -15.00 | 1.0080 | .1133 | .1198 | -.0294 | -.0055 | -.2314 |
| 6    | -10.00 | 1.0080 | .0840 | .1135 | -.0191 | -.0061 | -.1469 |
| 7    | -5.00  | 1.0284 | .0699 | .1090 | -.0082 | -.0061 | -.0710 |
| 8    | -2.50  | 1.0268 | .0639 | .1094 | -.0020 | -.0047 | -.0342 |
| 9    | .00    | 1.0124 | .0609 | .1008 | .0046  | -.0053 | .0026  |
| 10   | 2.50   | 1.0145 | .0634 | .1018 | .0109  | -.0057 | .0433  |
| 12   | 10.10  | 1.0037 | .0813 | .0978 | .0296  | -.0054 | .1642  |
| 13   | 15.00  | .9768  | .1027 | .1010 | .0391  | -.0081 | .2431  |
| 14   | 20.10  | .9489  | .1414 | .0960 | .0476  | -.0076 | .3236  |
| 15   | 5.00   | 1.0228 | .0683 | .1044 | .0182  | -.0081 | .0857  |
| 16   | .00    | 1.0276 | .0623 | .1190 | .0043  | -.0064 | .0053  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB  | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|-------|--------|--------|--------|
| 3    | .00    | 1.0186 | .0626 | .1097 | .0046  | -.0032 | .0038  |
| 4    | -20.00 | .9858  | .0365 | .1321 | -.0369 | -.0110 | -.3395 |
| 5    | -15.00 | 1.0080 | .0493 | .1234 | -.0294 | -.0112 | -.2529 |
| 6    | -10.00 | 1.0080 | .0571 | .1174 | -.0191 | -.0097 | -.1593 |
| 7    | -5.00  | 1.0284 | .0634 | .1114 | -.0082 | -.0078 | -.0769 |
| 8    | -2.50  | 1.0268 | .0623 | .1104 | -.0020 | -.0056 | -.0369 |
| 9    | .00    | 1.0124 | .0609 | .1008 | .0046  | -.0053 | .0026  |
| 10   | 2.50   | 1.0145 | .0615 | .1004 | .0109  | -.0049 | .0460  |
| 12   | 10.10  | 1.0037 | .0511 | .0913 | .0296  | -.0020 | .1759  |
| 13   | 15.00  | .9768  | .0359 | .0862 | .0391  | -.0029 | .2614  |
| 14   | 20.10  | .9489  | .0210 | .0761 | .0476  | -.0009 | .3525  |
| 15   | 5.00   | 1.0228 | .0605 | .1002 | .0182  | -.0063 | .0913  |
| 16   | .00    | 1.0276 | .0623 | .1190 | .0043  | -.0064 | .0053  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 605

RUN 734 CONFIG F P R NP5 W7 T2 IN=3.5 DELTAA=10 ALPHA=10

| PT. NO. | ALPHA DEG | DELTA PSI | CLBAR | CDBAR | CPMBAR | CYMBAR | CRMBAR | CYBAR   | DELSB Q | V KNOTS | RPM    |
|---------|-----------|-----------|-------|-------|--------|--------|--------|---------|---------|---------|--------|
| 2       | 0         | 0         | 109.4 | 30.60 | -417.  | 58.    | -268.  | 4.01    | 55.26   | 128.90  | 3580.  |
| 3       | 0         | 0         | 105.4 | -6.64 | -495.  | 65.    | -251.  | 4.43    | 55.38   | 129.04  | 11110. |
| 4       | 0         | -20.0     | 119.6 | 26.96 | -448.  | -678.  | -80.   | -123.77 | 55.48   | 129.16  | 11060. |
| 5       | 0         | -15.0     | 115.6 | 11.63 | -476.  | -530.  | -100.  | -93.24  | 55.42   | 129.09  | 11150. |
| 6       | 0         | -10.0     | 114.6 | 1.94  | -476.  | -339.  | -141.  | -62.83  | 55.46   | 129.14  | 11140. |
| 7       | 0         | -5.0      | 109.7 | -4.55 | -517.  | -154.  | -210.  | -30.71  | 55.35   | 129.00  | 11130. |
| 8       | 0         | -2.5      | 106.4 | -6.26 | -533.  | -49.   | -241.  | -14.88  | 54.96   | 128.54  | 11170. |
| 9       | 0         | 0         | 105.6 | -6.18 | -523.  | 64.    | -232.  | 3.38    | 55.39   | 129.05  | 11120. |
| 10      | 0         | 2.6       | 106.8 | -5.31 | -526.  | 193.   | -261.  | 21.71   | 54.75   | 128.29  | 11190. |
| 11      | 0         | 5.0       | 106.1 | -4.27 | -534.  | 288.   | -258.  | 37.04   | 55.18   | 128.80  | 11100. |
| 12      | 0         | 10.0      | 105.2 | -.24  | -570.  | 488.   | -300.  | 68.15   | 55.53   | 129.22  | 11140. |
| 13      | 0         | 15.1      | 105.2 | 7.82  | -616.  | 675.   | -348.  | 99.02   | 55.94   | 129.70  | 11140. |
| 14      | 0         | 20.0      | 105.4 | 3.05  | -632.  | 820.   | -291.  | 127.61  | 55.71   | 129.43  | 11090. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .2957 | .0827  | -.1345 | .0035  | -.0162 | .0108  |
| 3    | 0.00   | .2849 | -.0179 | -.1594 | .0039  | -.0151 | .0120  |
| 4    | -20.00 | .3232 | .0729  | -.1444 | -.0409 | -.0048 | -.3345 |
| 5    | -15.00 | .3126 | .0314  | -.1535 | -.0320 | -.0061 | -.2520 |
| 6    | -10.00 | .3096 | .0053  | -.1535 | -.0205 | -.0085 | -.1698 |
| 7    | -5.00  | .2966 | -.0123 | -.1666 | -.0093 | -.0127 | -.0830 |
| 8    | -2.50  | .2875 | -.0169 | -.1718 | -.0030 | -.0146 | -.0402 |
| 9    | 0.00   | .2854 | .0167  | -.1686 | .0039  | -.0140 | .0091  |
| 10   | 2.60   | .2888 | -.0144 | -.1695 | .0116  | -.0158 | .0587  |
| 11   | 5.00   | .2867 | -.0115 | -.1723 | .0174  | -.0156 | .1001  |
| 12   | 10.00  | .2844 | -.0006 | -.1838 | .0295  | -.0181 | .1842  |
| 13   | 15.10  | .2843 | .0265  | -.1986 | .0408  | -.0210 | .2676  |
| 14   | 20.00  | .2847 | .0623  | -.2037 | .0495  | -.0176 | .3449  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .2957 | .0827  | -.1345 | .0035  | -.0162 | .0108  |
| 3    | 0.00   | .2849 | -.0179 | -.1594 | .0039  | -.0151 | .0120  |
| 4    | -20.00 | .3232 | -.0465 | -.1268 | -.0409 | .0047  | -.3392 |
| 5    | -15.00 | .3126 | -.0352 | -.1398 | -.0320 | .0016  | -.2515 |
| 6    | -10.00 | .3096 | -.0244 | -.1432 | -.0205 | -.0034 | -.1681 |
| 7    | -5.00  | .2966 | -.0195 | -.1600 | -.0093 | -.0099 | -.0816 |
| 8    | -2.50  | .2875 | -.0187 | -.1682 | -.0030 | -.0131 | -.0394 |
| 9    | 0.00   | .2854 | -.0167 | -.1686 | .0039  | -.0140 | .0091  |
| 10   | 2.60   | .2888 | -.0170 | -.1732 | .0116  | -.0172 | .0580  |
| 11   | 5.00   | .2867 | -.0203 | -.1789 | .0174  | -.0183 | .0987  |
| 12   | 10.00  | .2844 | -.0328 | -.1979 | .0295  | -.0239 | .1813  |
| 13   | 15.10  | .2843 | -.0444 | -.2210 | .0408  | -.0300 | .2652  |
| 14   | 20.00  | .2847 | -.0600 | -.2236 | .0495  | -.0296 | .3453  |

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N432499-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 606

RUN 775 CONFIG F P R NP5 W7 T2 IN=-3.5 DELTAA=-10 YAW=5

| PT.# | ALPHA | DELTA PSI | DELTA CLBAR | DELTA CDBAR | IHT    | DELE  | DELR  | DELSB | V.    | RPM    |        |
|------|-------|-----------|-------------|-------------|--------|-------|-------|-------|-------|--------|--------|
| NO.  | DEG   | DEG       | SQ-FT       | SQ-FT       | CU-FT  | CU-FT | CU-FT | PSF   | KNOTS |        |        |
| 4    | 0     | 5.0       | 108.8       | 32.82       | -400.  | 260.  | -300. | 31.91 | 55.83 | 129.56 | 3550.  |
| 5    | 0     | 5.0       | 105.2       | -6.59       | -492.  | 283.  | -273. | 37.52 | 55.39 | 129.04 | 11520. |
| 6    | -20.0 | 5.0       | -319.6      | 84.70       | -1200. | 181.  | -521. | 15.37 | 55.18 | 128.80 | 11540. |
| 7    | -15.0 | 5.0       | -277.9      | 29.44       | -1119. | 294.  | -378. | 21.33 | 56.07 | 129.85 | 11560. |
| 8    | -10.0 | 5.0       | -181.4      | 3.56        | -1132. | 246.  | -288. | 33.39 | 55.60 | 129.29 | 11580. |
| 9    | -5.0  | 5.0       | -39.3       | -6.32       | -856.  | 263.  | -299. | 37.31 | 55.24 | 128.87 | 11510. |
| 10   | -2.5  | 5.0       | 31.5        | -7.70       | -665.  | 272.  | -308. | 37.62 | 56.14 | 129.94 | 11530. |
| 11   | 0     | 5.0       | 105.8       | -6.76       | -485.  | 280.  | -271. | 37.03 | 55.75 | 129.47 | 11580. |
| 12   | 2.5   | 5.0       | 178.1       | -2.74       | -310.  | 300.  | -271. | 36.70 | 55.23 | 128.86 | 11520. |
| 13   | 5.0   | 5.0       | 247.3       | 2.81        | -94.   | 314.  | -181. | 35.66 | 55.12 | 128.72 | 11570. |
| 14   | 10.0  | 5.0       | 376.4       | 22.01       | 315.   | 300.  | -123. | 32.39 | 55.11 | 128.71 | 11580. |
| 15   | 15.0  | 5.0       | 493.2       | 50.85       | 810.   | 242.  | -102. | 28.52 | 55.17 | 128.79 | 11580. |
| 16   | 20.0  | 5.0       | 504.9       | 100.69      | 1086.  | 219.  | 150.  | 21.97 | 55.21 | 128.83 | 11450. |
| 17   | 0     | 5.0       | 103.3       | -6.25       | -494.  | 282.  | -288. | 37.97 | 55.98 | 129.75 | 11570. |
| 18   | -2.5  | 5.0       | 30.7        | -7.31       | -670.  | 270.  | -290. | 37.51 | 56.13 | 129.92 | 11510. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPH    | CYM   | CRM    | CY    |
|------|--------|--------|--------|--------|-------|--------|-------|
| 4    | 0.00   | .2942  | .0887  | -.1288 | .0157 | -.0181 | .0863 |
| 5    | 0.00   | .2844  | -.0178 | -.1587 | .0171 | -.0165 | .1014 |
| 6    | -20.00 | -.8638 | .2289  | -.3869 | .0109 | -.0315 | .0415 |
| 7    | -14.97 | -.7511 | .0796  | -.3608 | .0178 | -.0228 | .0576 |
| 8    | -9.97  | -.4904 | .0096  | -.3649 | .0148 | -.0174 | .0902 |
| 9    | -4.99  | -.1062 | -.0171 | -.2761 | .0159 | -.0181 | .1008 |
| 10   | -2.50  | .0853  | -.0208 | -.2142 | .0164 | -.0186 | .1017 |
| 11   | .01    | .2859  | -.0183 | -.1565 | .0169 | -.0164 | .1001 |
| 12   | 2.54   | .4813  | -.0074 | -.1001 | .0181 | -.0164 | .0992 |
| 13   | 5.01   | .6683  | .0076  | -.0303 | .0190 | -.0109 | .0964 |
| 14   | 10.01  | 1.0172 | .0595  | .1015  | .0181 | -.0075 | .0875 |
| 15   | 15.00  | 1.3328 | .1374  | .2611  | .0146 | -.0062 | .0771 |
| 16   | 20.00  | 1.3645 | .2721  | .3502  | .0137 | .0090  | .0594 |
| 17   | .00    | .2791  | -.0169 | -.1592 | .0170 | -.0174 | .1026 |
| 18   | -2.50  | .0829  | -.0198 | -.2158 | .0163 | -.0175 | .1014 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB  | CRMB   | CYB   |
|------|--------|--------|--------|--------|-------|--------|-------|
| 4    | 0.00   | .2942  | .0808  | -.1368 | .0157 | -.0202 | .0937 |
| 5    | 0.00   | .2844  | -.0266 | -.1658 | .0171 | -.0190 | .0994 |
| 6    | -20.00 | -.8638 | .2244  | -.4001 | .0109 | -.0377 | .0614 |
| 7    | -14.97 | -.7511 | .0742  | -.3701 | .0178 | -.0287 | .0644 |
| 8    | -9.97  | -.4904 | .0017  | -.3716 | .0148 | -.0233 | .0907 |
| 9    | -4.99  | -.1062 | -.0258 | -.2835 | .0159 | -.0225 | .0989 |
| 10   | -2.50  | .0853  | -.0296 | -.2221 | .0164 | -.0220 | .0995 |
| 11   | .01    | .2859  | -.0270 | -.1636 | .0169 | -.0189 | .0981 |
| 12   | 2.54   | .4813  | -.0161 | -.1073 | .0181 | -.0179 | .0981 |
| 13   | 5.01   | .6683  | -.0009 | -.0353 | .0190 | -.0114 | .0967 |
| 14   | 10.01  | 1.0172 | .0516  | .0976  | .0181 | -.0058 | .0924 |
| 15   | 15.00  | 1.3328 | .1302  | .2572  | .0146 | -.0019 | .0888 |
| 16   | 20.00  | 1.3645 | .2659  | .3531  | .0137 | .0148  | .0830 |
| 17   | .00    | .2791  | -.0258 | -.1667 | .0170 | -.0200 | .1008 |
| 18   | -2.50  | .0829  | -.0286 | -.2232 | .0163 | -.0210 | .0993 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 607

RUN 736 CONFIG F P B NP5 W7 T2 IN=-3.5 DELTAF=10

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDRAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA DELSB Q PSF | DELTA V KNOTS | RPM    |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------------|---------------|--------|
| 2       | 0         | 0             | 154.5             | 34.16             | -526.              | 26.                | 30.                | 3.80              | 55.61             | 129.31        | 3660.  |
| 3       | 0         | 0             | 149.6             | -6.31             | -622.              | 35.                | 48.                | 3.13              | 55.46             | 129.13        | 11620. |
| 4       | -20.0     | 0             | -301.5            | 84.61             | -1227.             | 65.                | -97.               | 4.11              | 55.53             | 129.22        | 11610. |
| 5       | -15.0     | 0             | -242.4            | 35.22             | -1158.             | -54.               | 230.               | 7.01              | 55.40             | 129.06        | 11640. |
| 6       | -10.0     | 0             | -146.8            | -3.29             | -1185.             | 50.                | 43.                | 4.70              | 55.79             | 129.52        | 11630. |
| 7       | -5.0      | 0             | 3.0               | -9.94             | -971.              | 33.                | 64.                | 3.73              | 55.65             | 129.35        | 11610. |
| 8       | -2.5      | 0             | 79.0              | -9.50             | -778.              | 26.                | 63.                | 4.60              | 55.54             | 129.23        | 11600. |
| 9       | -0        | 0             | 150.1             | -6.51             | -591.              | 22.                | 48.                | 3.25              | 55.54             | 129.22        | 11600. |
| 11      | 5.0       | 0             | 300.5             | 6.71              | -243.              | 23.                | 69.                | 1.54              | 55.26             | 128.89        | 11640. |
| 12      | 10.0      | 0             | 441.6             | 28.57             | 296.               | -1.                | 105.               | 1.43              | 54.89             | 128.45        | 11660. |
| 13      | 15.0      | 0             | 549.0             | 59.55             | 707.               | -26.               | 0.                 | .92               | 55.29             | 128.93        | 11590. |
| 14      | 20.0      | 0             | 541.7             | 113.80            | 951.               | -34.               | 159.               | 2.47              | 55.14             | 128.74        | 11600. |
| 15      | -0        | 0             | 148.5             | -6.37             | -596.              | 19.                | 65.                | 3.80              | 55.56             | 129.25        | 11630. |
| 16      | -2.5      | 0             | 75.8              | -9.61             | -772.              | 18.                | 29.                | 4.55              | 55.40             | 129.06        | 11640. |
| 17      | 2.5       | 0             | 223.6             | -.09              | -396.              | 19.                | 101.               | 3.13              | 55.48             | 129.15        | 11670. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CN     | CPH    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .4176  | .0923  | -.1697 | .0016  | .0018  | .0103 |
| 3    | .00    | .4043  | -.0170 | -.2004 | .0021  | .0029  | .0085 |
| 4    | -20.00 | -.8148 | .2287  | -.3955 | .0039  | -.0058 | .0111 |
| 5    | -15.00 | -.6553 | .0952  | -.3735 | -.0033 | .0139  | .0189 |
| 6    | -9.98  | -.3966 | -.0089 | -.3819 | .0030  | .0026  | .0127 |
| 7    | -5.00  | .0082  | -.0269 | -.3132 | .0020  | .0039  | .0101 |
| 8    | -2.50  | .2136  | -.0257 | -.2509 | .0015  | .0038  | .0124 |
| 9    | -.00   | .4057  | -.0176 | -.1906 | .0013  | .0029  | .0088 |
| 11   | 5.03   | .8122  | .0181  | -.0782 | .0014  | .0041  | .0042 |
| 12   | 10.00  | 1.1935 | .0772  | .0954  | -.0001 | .0063  | .0039 |
| 13   | 15.03  | 1.4839 | .1609  | .2278  | -.0015 | -.0000 | .0025 |
| 14   | 20.02  | 1.4640 | .3076  | .3067  | -.0020 | .0096  | .0067 |
| 15   | -.00   | .4013  | -.0172 | -.1920 | .0012  | .0039  | .0103 |
| 16   | -2.50  | .2048  | -.0260 | -.2489 | .0011  | .0017  | .0123 |
| 17   | 2.50   | .6044  | -.0002 | -.1277 | .0011  | .0061  | .0085 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .4176  | .0923  | -.1697 | .0016  | .0018  | .0103 |
| 3    | .00    | .4043  | -.0170 | -.2004 | .0021  | .0029  | .0085 |
| 4    | -20.00 | -.8148 | .2287  | -.3955 | .0039  | -.0058 | .0111 |
| 5    | -15.00 | -.6553 | .0952  | -.3735 | -.0033 | .0139  | .0189 |
| 6    | -9.98  | -.3966 | -.0089 | -.3819 | .0030  | .0026  | .0127 |
| 7    | -5.00  | .0082  | -.0269 | -.3132 | .0020  | .0039  | .0101 |
| 8    | -2.50  | .2136  | -.0257 | -.2509 | .0015  | .0038  | .0124 |
| 9    | -.00   | .4057  | -.0176 | -.1906 | .0013  | .0029  | .0088 |
| 11   | 5.03   | .8122  | .0181  | -.0782 | .0014  | .0041  | .0042 |
| 12   | 10.00  | 1.1935 | .0772  | .0954  | -.0001 | .0063  | .0039 |
| 13   | 15.03  | 1.4839 | .1609  | .2278  | -.0015 | -.0000 | .0025 |
| 14   | 20.02  | 1.4640 | .3076  | .3067  | -.0020 | .0096  | .0067 |

|    |       |       |        |        |       |       |       |
|----|-------|-------|--------|--------|-------|-------|-------|
| 15 | -.00  | .4013 | -.0172 | -.1920 | .0012 | .0039 | .0103 |
| 16 | -2.50 | .2048 | -.0260 | -.2489 | .0011 | .0017 | .0123 |
| 17 | 2.50  | .6044 | -.0002 | -.1277 | .0011 | .0061 | .0085 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 608

RUN 737 CONFIG F P B NP5 W7 T2 IN=3.0 DELTAF=20

| PT. NO. | ALPHA DEG | DELTA PSI DEG | 20 DELTA CLBAR SQ-FT | 0.0 DELTA CDBAR SQ-FT | 0.0 IHT CU-FT | - DELTA CYMBAR CU-FT | - DELTA CRMBAR CU-FT | - DELTA CYBAR SQ-FT | - DELTA DELSB PSF | - V KNOTS | RPM    |
|---------|-----------|---------------|----------------------|-----------------------|---------------|----------------------|----------------------|---------------------|-------------------|-----------|--------|
| 2       | 0         | 0             | 235.1                | 46.01                 | -738.         | 34.                  | 66.                  | 3.45                | 55.31             | 128.95    | 3700.  |
| 3       | 0         | 0             | 233.4                | -7.34                 | -861.         | 33.                  | 86.                  | 2.43                | 54.61             | 128.13    | 13040. |
| 4       | -20.0     | 0             | -286.6               | 70.68                 | -1402.        | 59.                  | -83.                 | 5.58                | 54.91             | 128.48    | 12990. |
| 5       | -15.0     | 0             | -219.4               | 22.76                 | -1379.        | -46.                 | 108.                 | 7.55                | 55.08             | 128.68    | 13020. |
| 6       | -10.0     | 0             | -77.2                | -12.37                | -1509.        | 70.                  | 28.                  | 3.91                | 55.76             | 129.49    | 13030. |
| 7       | -5.0      | 0             | 79.8                 | -14.94                | -1225.        | 58.                  | 48.                  | 3.02                | 55.36             | 129.02    | 13060. |
| 8       | -2.5      | 0             | 154.0                | -12.46                | -1047.        | 46.                  | 30.                  | 3.78                | 54.95             | 128.53    | 13030. |
| 9       | 0         | 0             | 231.0                | -7.00                 | -859.         | 31.                  | 49.                  | 2.72                | 55.05             | 128.64    | 12990. |
| 10      | 2.5       | 0             | 308.0                | .28                   | -657.         | 33.                  | 104.                 | 1.68                | 54.87             | 128.43    | 12990. |
| 11      | 5.0       | 0             | 382.5                | 10.12                 | -424.         | 29.                  | 140.                 | .06                 | 55.27             | 128.90    | 13040. |
| 12      | 10.0      | 0             | 524.2                | 35.88                 | 53.           | -2.                  | 123.                 | -.56                | 55.16             | 128.78    | 13020. |
| 13      | 15.0      | 0             | 647.9                | 68.25                 | 580.          | -11.                 | 88.                  | .37                 | 55.01             | 128.60    | 12920. |
| 14      | 20.0      | 0             | 585.3                | 130.04                | 805.          | -2.                  | -34.                 | 2.27                | 55.48             | 129.15    | 13010. |
| 15      | -0        | 0             | 227.5                | -7.10                 | -840.         | 28.                  | 101.                 | 2.43                | 56.11             | 129.90    | 13060. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .6354  | .1243  | -.2379 | .0020  | .0040  | .0093  |
| 3    | 0.00   | .6307  | -.0198 | -.2775 | .0020  | .0052  | .0066  |
| 4    | -20.00 | -.7746 | .1910  | -.4520 | .0035  | -.0050 | .0151  |
| 5    | -15.00 | -.5930 | .0615  | -.4445 | -.0028 | .0065  | .0204  |
| 6    | -10.00 | -.2087 | -.0334 | -.4864 | .0042  | .0017  | .0106  |
| 7    | -5.00  | .2157  | -.0404 | -.3948 | .0035  | .0029  | .0081  |
| 8    | -2.49  | .4162  | -.0337 | -.3376 | .0028  | .0018  | .0102  |
| 9    | .01    | .6242  | -.0189 | -.2769 | .0019  | .0030  | .0074  |
| 10   | 2.50   | .8324  | .0007  | -.2118 | .0020  | .0063  | .0045  |
| 11   | 5.00   | 1.0338 | .0273  | -.1367 | .0017  | .0085  | .0002  |
| 12   | 10.00  | 1.4169 | .0970  | .0170  | -.0001 | .0074  | -.0015 |
| 13   | 15.00  | 1.7511 | .1845  | .1868  | -.0007 | .0053  | .0010  |
| 14   | 20.00  | 1.5819 | .3514  | .2594  | -.0001 | -.0021 | .0061  |
| 15   | -.00   | .6148  | -.0192 | -.2708 | .0017  | .0061  | .0066  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .6354  | .1243  | -.2379 | .0020  | .0040  | .0093  |
| 3    | 0.00   | .6307  | -.0198 | -.2775 | .0020  | .0052  | .0066  |
| 4    | -20.00 | -.7746 | .1910  | -.4520 | .0035  | -.0050 | .0151  |
| 5    | -15.00 | -.5930 | .0615  | -.4445 | -.0028 | .0065  | .0204  |
| 6    | -10.00 | -.2087 | -.0334 | -.4864 | .0042  | .0017  | .0106  |
| 7    | -5.00  | .2157  | -.0404 | -.3948 | .0035  | .0029  | .0081  |
| 8    | -2.49  | .4162  | -.0337 | -.3376 | .0028  | .0018  | .0102  |
| 9    | .01    | .6242  | -.0189 | -.2769 | .0019  | .0030  | .0074  |
| 10   | 2.50   | .8324  | .0007  | -.2118 | .0020  | .0063  | .0045  |
| 11   | 5.00   | 1.0338 | .0273  | -.1367 | .0017  | .0085  | .0002  |
| 12   | 10.00  | 1.4169 | .0970  | .0170  | -.0001 | .0074  | -.0015 |
| 13   | 15.00  | 1.7511 | .1845  | .1868  | -.0007 | .0053  | .0010  |
| 14   | 20.00  | 1.5819 | .3514  | .2594  | -.0001 | -.0021 | .0061  |
| 15   | -.00   | .6148  | -.0192 | -.2708 | .0017  | .0061  | .0066  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 609

RUN 738 CONFIG F P B NPS W7 T2 IN=-3.5 DELTAF=40

| PT. NO. | IW    | 0.0 DELF | 40 DEIA | 0.0 IHT | - DELE | - DELR | DELSB | V     | RPM                 |
|---------|-------|----------|---------|---------|--------|--------|-------|-------|---------------------|
|         | ALPHA | PSI      | CLBAR   | CDBAR   | CPMBAR | CRMBAR | CYBAR | KNOTS |                     |
|         | DEG   | DEG      | SQ-FT   | SQ-FT   | CU-FT  | CU-FT  | SQ-FT |       |                     |
| 2       | .0    | .0       | 352.6   | 79.46   | -1152. | 21.    | 174.  | 1.36  | 55.00 128.59 3810.  |
| 4       | -20.0 | .0       | -262.6  | 44.49   | -1804. | 57.    | 198.  | 6.82  | 54.47 127.95 16010. |
| 5       | -15.0 | .0       | -127.6  | -3.90   | -2100. | 102.   | 137.  | 2.25  | 54.60 128.11 16100. |
| 7       | -5.0  | .0       | 190.7   | -17.83  | -1701. | 58.    | 179.  | -1.43 | 54.83 128.39 16050. |
| 8       | -10.0 | .0       | 26.8    | -20.94  | -2034. | 97.    | 141.  | .37   | 54.85 128.41 16070. |
| 9       | -2.5  | .0       | 266.9   | -12.79  | -1499. | 44.    | 158.  | 1.12  | 54.73 128.27 16050. |
| 10      | .0    | .0       | 343.0   | -4.60   | -1290. | 25.    | 212.  | .25   | 54.74 128.29 16040. |
| 11      | 2.5   | .0       | 417.6   | 4.95    | -1062. | 20.    | 180.  | -2.68 | 54.67 128.19 16040. |
| 12      | 5.0   | .0       | 495.3   | 17.32   | -844.  | -10.   | 305.  | -2.94 | 54.51 128.01 16040. |
| 13      | 10.0  | .0       | 650.8   | 48.72   | -292.  | -49.   | 284.  | -.81  | 54.62 128.14 16030. |
| 14      | 15.0  | .0       | 764.6   | 81.59   | 348.   | -39.   | 230.  | -.81  | 54.73 128.26 16070. |
| 15      | 20.0  | .0       | 673.0   | 153.82  | 573.   | -77.   | 301.  | -.81  | 54.62 128.13 16090. |
| 16      | .0    | .0       | 343.4   | -3.07   | -1263. | 26.    | 226.  | 1.73  | 55.10 128.70 16120. |

| PT.# | COEFFICIENT | FORM   | - WIND | AXIS   |        |       |        |
|------|-------------|--------|--------|--------|--------|-------|--------|
|      | ALPHA       | CL     | CD     | CPH    | CYM    | CRM   | CY     |
| 2    | .00         | .9530  | .2147  | -.3715 | .0012  | .0105 | .0037  |
| 4    | -19.99      | -.7098 | .1202  | -.5817 | .0035  | .0120 | .0184  |
| 5    | -15.01      | -.3449 | -.0105 | -.6769 | .0061  | .0083 | .0061  |
| 7    | -5.00       | .5154  | -.0482 | -.5485 | .0035  | .0108 | -.0039 |
| 8    | -10.00      | .0723  | -.0566 | -.6556 | .0058  | .0085 | .0010  |
| 9    | -2.49       | .7212  | -.0346 | -.4833 | .0026  | .0095 | .0030  |
| 10   | .00         | .9270  | -.0124 | -.4159 | .0015  | .0128 | .0007  |
| 11   | 2.51        | 1.1285 | .0134  | -.3425 | .0017  | .0109 | -.0072 |
| 12   | 5.01        | 1.3388 | .0468  | -.2720 | -.0006 | .0184 | -.0079 |
| 13   | 10.02       | 1.7590 | .1317  | -.0942 | -.0030 | .0172 | -.0022 |
| 14   | 15.03       | 2.0664 | .2205  | .1120  | -.0024 | .0139 | -.0022 |
| 15   | 20.00       | 1.8189 | .4157  | .1847  | -.0046 | .0182 | -.0022 |
| 16   | .01         | .9281  | -.0083 | -.4073 | .0016  | .0137 | .0047  |

| PT.# | COEFFICIENT | FORM   | - STABILITY | AXIS   |        |       |        |
|------|-------------|--------|-------------|--------|--------|-------|--------|
|      | ALPHA       | CLB    | CDR         | CPMB   | CYMB   | CRMB  | CYB    |
| 2    | .00         | .9530  | .2147       | -.3715 | .0012  | .0105 | .0037  |
| 4    | -19.99      | -.7098 | .1202       | -.5817 | .0035  | .0120 | .0184  |
| 5    | -15.01      | -.3449 | -.0105      | -.6769 | .0061  | .0083 | .0061  |
| 7    | -5.00       | .5154  | -.0482      | -.5485 | .0035  | .0108 | -.0039 |
| 8    | -10.00      | .0723  | -.0566      | -.6556 | .0058  | .0085 | .0010  |
| 9    | -2.49       | .7212  | -.0346      | -.4833 | .0026  | .0095 | .0030  |
| 10   | .00         | .9270  | -.0124      | -.4159 | .0015  | .0128 | .0007  |
| 11   | 2.51        | 1.1285 | .0134       | -.3425 | .0012  | .0109 | -.0072 |
| 12   | 5.01        | 1.3388 | .0468       | -.2720 | -.0006 | .0184 | -.0079 |
| 13   | 10.02       | 1.7590 | .1317       | -.0942 | -.0030 | .0172 | -.0022 |
| 14   | 15.03       | 2.0664 | .2205       | .1120  | -.0024 | .0139 | -.0022 |
| 15   | 20.00       | 1.8189 | .4157       | .1847  | -.0046 | .0182 | -.0022 |
| 16   | .01         | .9281  | -.0083      | -.4073 | .0016  | .0137 | .0047  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 610

RUN 739 CONFIG F P R NP5 W7 T2 IN=-3.5 DELTAF=30

| PT. NO. | IW    | 0.0 ALPHA DEG | DELTA PSI DEG | 30 DEIA CLRAR SQ-FT | 0.0 IHT COBAR SQ-FT | - DELE CPMBAR CU-FT | - DELR CYMBAR CU-FT | - DELR CRMBAR CU-FT | - DELSB Q CYBAR SQ-FT | - V PSF | RPM    |        |
|---------|-------|---------------|---------------|---------------------|---------------------|---------------------|---------------------|---------------------|-----------------------|---------|--------|--------|
| 2       |       | .0            | .0            | 309.1               | 62.78               | -978.               | 26.                 | 84.                 | 2.97                  | 55.06   | 128.67 | 3760.  |
| 3       |       | .0            | .0            | 307.6               | -6.70               | -1093.              | 24.                 | 140.                | 1.94                  | 54.53   | 128.03 | 14640. |
| 4       | -20.0 | .0            | -288.6        | 57.72               | -1569.              | 49.                 | -66.                | 5.41                | 54.18                 | 127.61  | 14790. |        |
| 5       | -15.0 | .0            | -166.3        | .73                 | -1805.              | 84.                 | 64.                 | 3.25                | 54.57                 | 128.09  | 14720. |        |
| 6       | -10.0 | .0            | -6.4          | -18.97              | -1854.              | 89.                 | 85.                 | 2.44                | 54.34                 | 127.81  | 14720. |        |
| 7       | -5.0  | .0            | 151.2         | -17.61              | -1497.              | 63.                 | 124.                | .50                 | 54.55                 | 128.06  | 14710. |        |
| 8       | -2.5  | .0            | 227.8         | -13.57              | -1288.              | 38.                 | 122.                | 1.94                | 54.47                 | 127.96  | 14670. |        |
| 9       | .0    | .0            | 306.4         | -7.36               | -1097.              | 28.                 | 141.                | 1.44                | 54.27                 | 127.72  | 14770. |        |
| 10      | 2.5   | .0            | 381.2         | 1.93                | -861.               | 27.                 | 196.                | -1.06               | 54.76                 | 128.31  | 14690. |        |
| 11      | 5.0   | .0            | 457.1         | 13.87               | -666.               | 9.                  | 144.                | -2.50               | 54.60                 | 128.12  | 14670. |        |
| 12      | 10.0  | .0            | 599.9         | 41.41               | -146.               | -27.                | 179.                | -1.25               | 54.45                 | 127.94  | 14670. |        |
| 13      | 15.0  | .0            | 720.6         | 74.47               | 470.                | -27.                | 161.                | -.13                | 54.13                 | 127.55  | 14680. |        |
| 14      | 20.0  | .0            | 630.8         | 142.27              | 683.                | -36.                | -18.                | -.82                | 54.06                 | 127.47  | 14690. |        |
| 15      | -0.0  | .0            | 304.9         | -6.18               | -1084.              | 19.                 | 156.                | 2.55                | 54.69                 | 128.23  | 14660. |        |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .8353  | .1697  | -.3151 | .0016  | .0051  | .0080  |
| 3    | .00    | .8313  | -.0181 | -.3524 | .0015  | .0084  | .0057  |
| 4    | -20.02 | -.7799 | .1547  | -.5059 | .0030  | -.0040 | .0146  |
| 5    | -15.01 | -.4496 | .0020  | -.5818 | .0051  | .0039  | .0088  |
| 6    | -9.99  | -.0174 | -.0513 | -.5977 | .0054  | .0051  | .0066  |
| 7    | -5.00  | .4087  | -.0476 | -.4825 | .0038  | .0075  | .0014  |
| 8    | -2.51  | .6156  | -.0367 | -.4153 | .0023  | .0074  | .0052  |
| 9    | .00    | .8280  | -.0199 | -.3536 | .0017  | .0085  | .0039  |
| 10   | 2.50   | 1.0302 | .0052  | -.7776 | .0017  | .0118  | -.0029 |
| 11   | 5.01   | 1.2353 | .0375  | -.2148 | .0005  | .0087  | -.0067 |
| 12   | 10.03  | 1.6213 | .1119  | -.0472 | -.0016 | .0108  | -.0034 |
| 13   | 15.03  | 1.9475 | .2013  | .1514  | -.0016 | .0097  | -.0003 |
| 14   | 20.00  | 1.7048 | .3845  | .2202  | -.0022 | -.0011 | -.0022 |
| 15   | -.01   | .8240  | -.0167 | -.3496 | .0017  | .0094  | .0069  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .8353  | .1697  | -.3151 | .0016  | .0051  | .0080  |
| 3    | .00    | .8313  | -.0181 | -.3524 | .0015  | .0084  | .0052  |
| 4    | -20.02 | -.7799 | .1547  | -.5059 | .0030  | -.0040 | .0146  |
| 5    | -15.01 | -.4496 | .0020  | -.5818 | .0051  | .0039  | .0088  |
| 6    | -9.99  | -.0174 | -.0513 | -.5977 | .0054  | .0051  | .0066  |
| 7    | -5.00  | .4087  | -.0476 | -.4825 | .0038  | .0075  | .0014  |
| 8    | -2.51  | .6156  | -.0367 | -.4153 | .0023  | .0074  | .0052  |
| 9    | .00    | .8280  | -.0199 | -.3536 | .0017  | .0085  | .0039  |
| 10   | 2.50   | 1.0302 | .0052  | -.7776 | .0017  | .0118  | -.0029 |
| 11   | 5.01   | 1.2353 | .0375  | -.2148 | .0005  | .0087  | -.0067 |
| 12   | 10.03  | 1.6213 | .1119  | -.0472 | -.0016 | .0108  | -.0034 |
| 13   | 15.03  | 1.9475 | .2013  | .1514  | -.0016 | .0097  | -.0003 |
| 14   | 20.00  | 1.7048 | .3845  | .2202  | -.0022 | -.0011 | -.0022 |
| 15   | -.01   | .8240  | -.0167 | -.3496 | .0017  | .0094  | .0069  |

N432409-1

SIKORSKY RSRA 1/4 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 611

RUN 740 CONFIG F P B NPS W7 T2 IN=-3.5 DELTAF=30 IW=15 WM

| PT.# | 15 ALPHA DEG | DELTA PSI DEG | 30 CLBAR SQ-FT | DELTA CD BAR SQ-FT | 0.0 CDBAR SQ-FT | 1HT CPMBAR CU-FT | DELE CYMBAR CU-FT | DEL R CRMBAR CU-FT | CYBAR SQ-FT | DEL SB PSF | V KNOTS | RPM |
|------|--------------|---------------|----------------|--------------------|-----------------|------------------|-------------------|--------------------|-------------|------------|---------|-----|
| 2    | 0            | 0             | 426.3          | 132.44             | -1091.          | 28.              | 127.              | -1.32              | 54.30       | 127.76     | 4260.   |     |
| 3    | -20.0        | 0             | 44.1           | 83.52              | -1971.          | 68.              | 27.               | 3.87               | 54.57       | 128.08     | 4100.   |     |
| 4    | -15.0        | 0             | 217.1          | 75.70              | -2148.          | 86.              | 2.                | -1.06              | 54.76       | 128.30     | 3970.   |     |
| 5    | -10.0        | 0             | 374.6          | 84.37              | -1919.          | 49.              | 72.               | -.50               | 54.52       | 128.02     | 3980.   |     |
| 6    | -5.0         | 0             | 509.1          | 105.80             | -1526.          | 23.              | 88.               | .94                | 54.37       | 127.85     | 4100.   |     |
| 7    | -2.5         | 0             | 567.4          | 117.70             | -1284.          | 33.              | 160.              | -.12               | 54.60       | 128.12     | 4180.   |     |
| 8    | 0            | 0             | 624.5          | 131.72             | -1077.          | 29.              | 144.              | -1.00              | 54.46       | 127.96     | 4260.   |     |
| 9    | 2.5          | 0             | 540.8          | 146.66             | -819.           | -6.              | -425.             | -.56               | 54.68       | 128.21     | 4050.   |     |
| 10   | 5.0          | 0             | 476.6          | 169.96             | -662.           | 16.              | 151.              | -8.54              | 54.25       | 127.69     | 3990.   |     |
| 11   | 10.0         | 0             | 445.6          | 215.40             | -267.           | 9.               | 163.              | -3.08              | 54.14       | 127.57     | 3800.   |     |
| 12   | 15.0         | 0             | 453.5          | 262.99             | 63.             | 4.               | 1.                | 5.37               | 55.23       | 128.87     | 3850.   |     |
| 13   | 20.0         | 0             | 466.4          | 319.16             | 334.            | -18.             | 18.               | 4.34               | 54.98       | 128.56     | 3930.   |     |
| 14   | -0           | 0             | 613.3          | 130.03             | -1069.          | 27.              | 90.               | -1.54              | 55.14       | 128.76     | 4250.   |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0      | 1.6927 | .3579 | -.3516 | .0017  | .0076  | -.0036 |
| 3    | -20.00 | .1191  | .2257 | -.6353 | .0041  | .0016  | .0105  |
| 4    | -14.99 | .5866  | .2046 | -.6926 | .0052  | .0001  | -.0029 |
| 5    | -10.01 | 1.0123 | .2280 | -.6187 | .0029  | .0043  | -.0014 |
| 6    | -5.01  | 1.3760 | .2859 | -.4919 | .0014  | .0053  | .0025  |
| 7    | -2.47  | 1.5335 | .3181 | -.4139 | .0020  | .0097  | -.0003 |
| 8    | .01    | 1.6878 | .3560 | -.3472 | .0018  | .0087  | -.0027 |
| 9    | 2.50   | 1.4615 | .3964 | -.2640 | -.0004 | -.0257 | -.0015 |
| 10   | 5.00   | 1.2881 | .4594 | -.2134 | .0009  | .0091  | -.0231 |
| 11   | 10.01  | 1.2044 | .5822 | -.0860 | .0005  | .0098  | -.0083 |
| 12   | 15.00  | 1.2258 | .7108 | .0204  | .0002  | -.0001 | .0145  |
| 13   | 20.01  | 1.2605 | .8626 | .1076  | -.0011 | .0011  | .0117  |
| 14   | -.01   | 1.6577 | .3514 | -.3445 | .0016  | .0054  | -.0042 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0      | 1.6927 | .3579 | -.3516 | .0017  | .0076  | -.0036 |
| 3    | -20.00 | .1191  | .2257 | -.6353 | .0041  | .0016  | .0105  |
| 4    | -14.99 | .5866  | .2046 | -.6926 | .0052  | .0001  | -.0029 |
| 5    | -10.01 | 1.0123 | .2280 | -.6187 | .0029  | .0043  | -.0014 |
| 6    | -5.01  | 1.3760 | .2859 | -.4919 | .0014  | .0053  | .0025  |
| 7    | -2.47  | 1.5335 | .3181 | -.4139 | .0020  | .0097  | -.0003 |
| 8    | .01    | 1.6878 | .3560 | -.3472 | .0018  | .0087  | -.0027 |
| 9    | 2.50   | 1.4615 | .3964 | -.2640 | -.0004 | -.0257 | -.0015 |
| 10   | 5.00   | 1.2881 | .4594 | -.2134 | .0009  | .0091  | -.0231 |
| 11   | 10.01  | 1.2044 | .5822 | -.0860 | .0005  | .0098  | -.0083 |
| 12   | 15.00  | 1.2258 | .7108 | .0204  | .0002  | -.0001 | .0145  |
| 13   | 20.01  | 1.2605 | .8626 | .1076  | -.0011 | .0011  | .0117  |
| 14   | -.01   | 1.6577 | .3514 | -.3445 | .0016  | .0054  | -.0042 |

N432409=1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR=72011

P 612

RUN 741 CONFIG F P R NP5 W7 T2 IN=-3.5 DELTAF=30 IW=15 WM

| IW      | 15 DELF   | 30 DELA | 0.0 IHT     | - NELE      | - DELR       | - DELSB      | -            | RPM         |             |           |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|-----------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | - V KNOTS |       |
| 2       | 0         | 0       | 619.8       | 131.51      | -1059.       | 24.          | 145.         | -1.70       | 54.25       | 127.70    | 4240. |
| 3       | 0         | -20.0   | 521.9       | 141.54      | -638.        | -451.        | -682.        | -54.52      | 54.23       | 127.68    | 4050. |
| 4       | 0         | -15.0   | 570.2       | 134.67      | -874.        | -385.        | -487.        | -41.85      | 54.86       | 128.43    | 4170. |
| 5       | 0         | -10.0   | 607.0       | 131.95      | -1020.       | -283.        | -276.        | -27.25      | 54.38       | 127.85    | 4220. |
| 6       | 0         | -5.0    | 614.9       | 130.97      | -1097.       | -148.        | -115.        | -11.87      | 54.51       | 128.01    | 4240. |
| 7       | 0         | -2.5    | 615.7       | 130.35      | -1092.       | -75.         | 39.          | -6.37       | 54.58       | 128.09    | 4240. |
| 8       | 0         | 0       | 615.7       | 130.65      | -1093.       | 29.          | 145.         | -2.31       | 54.63       | 128.15    | 4230. |
| 9       | 0         | 2.5     | 574.1       | 132.25      | -1033.       | 72.          | 510.         | -12.87      | 54.53       | 128.04    | 4230. |
| 10      | 0         | 5.0     | 570.4       | 131.07      | -938.        | 135.         | 695.         | -5.24       | 54.62       | 128.14    | 4210. |
| 11      | 0         | 10.0    | 550.1       | 128.47      | -832.        | 312.         | 805.         | 12.63       | 54.48       | 127.98    | 4150. |
| 12      | 0         | 15.0    | 523.3       | 131.75      | -678.        | 402.         | 680.         | 32.11       | 54.42       | 127.90    | 4090. |
| 13      | 0         | 20.0    | 485.2       | 132.85      | -486.        | 450.         | 878.         | 55.39       | 54.55       | 128.05    | 3990. |
| 14      | 0         | 0       | 586.1       | 133.26      | -1051.       | -16.         | 410.         | -16.76      | 54.88       | 128.46    | 4250. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.6752 | .3554 | -.3415 | .0015  | .0088  | -.0046 |
| 3    | -20.00 | 1.4104 | .3825 | -.2057 | -.0272 | -.0412 | -.1474 |
| 4    | -15.00 | 1.5411 | .3640 | -.2816 | -.0233 | -.0294 | -.1131 |
| 5    | -10.00 | 1.6405 | .3566 | -.3289 | -.0171 | -.0167 | -.0736 |
| 6    | -5.00  | 1.6618 | .3540 | -.3536 | -.0089 | -.0070 | -.0321 |
| 7    | -2.50  | 1.6639 | .3523 | -.3519 | -.0045 | .0024  | -.0172 |
| 8    | 0.00   | 1.6639 | .3531 | -.3523 | .0017  | .0087  | -.0062 |
| 9    | 2.50   | 1.5517 | .3574 | -.3331 | .0043  | .0308  | -.0348 |
| 10   | 5.00   | 1.5416 | .3542 | -.3024 | .0082  | .0420  | -.0142 |
| 11   | 10.00  | 1.4866 | .3472 | -.2682 | .0188  | .0486  | .0341  |
| 12   | 15.00  | 1.4143 | .3561 | -.2187 | .0243  | .0411  | .0868  |
| 13   | 20.00  | 1.3113 | .3590 | -.1566 | .0272  | .0530  | .1497  |
| 14   | 0.00   | 1.5839 | .3602 | -.3389 | -.0010 | .0247  | -.0453 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.6752 | .3554 | -.3415 | .0015  | .0088  | -.0046 |
| 3    | -20.00 | 1.4104 | .3086 | -.1177 | -.0272 | -.0254 | -.2698 |
| 4    | -15.00 | 1.5411 | .3220 | -.2312 | -.0233 | -.0147 | -.2038 |
| 5    | -10.00 | 1.6405 | .3383 | -.3083 | -.0171 | -.0057 | -.1347 |
| 6    | -5.00  | 1.6618 | .3498 | -.3490 | -.0089 | -.0011 | -.0630 |
| 7    | -2.50  | 1.6639 | .3512 | -.3521 | -.0045 | .0053  | -.0326 |
| 8    | 0.00   | 1.6639 | .3531 | -.3523 | .0017  | .0087  | -.0062 |
| 9    | 2.50   | 1.5517 | .3586 | -.3256 | .0043  | .0280  | -.0191 |
| 10   | 5.00   | 1.5416 | .3541 | -.2817 | .0082  | .0368  | .0169  |
| 11   | 10.00  | 1.4866 | .3359 | -.2188 | .0188  | .0391  | .0942  |
| 12   | 15.00  | 1.4143 | .3213 | -.1542 | .0243  | .0290  | .1764  |
| 13   | 20.00  | 1.3113 | .2858 | -.0499 | .0272  | .0397  | .2639  |
| 14   | 0.00   | 1.5839 | .3602 | -.3389 | -.0010 | .0247  | -.0453 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 613

RUN 742 CONFIG F P R NP5 W7 T2 IN=-3.5 DELTAF=30 IW=15 MAX

| PT.<br>NO. | ALPHA<br>DEG | 15 DELF<br>PSI<br>DEG | 30 DELA<br>CLBAR<br>50-FT | 0.0 IHT<br>CDBAR<br>SQ-FT | - DELE<br>CPMBAR<br>CU-FT | - DELR<br>CYMBAR<br>CU-FT | - DELSB<br>CRMBAR<br>SQ-FT | - V<br>CYBAR<br>PSF | Q<br>KNOTS | RPM    |          |
|------------|--------------|-----------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------------------|---------------------|------------|--------|----------|
|            |              |                       |                           |                           |                           |                           |                            |                     |            |        | Q<br>PSF |
| 2          | 0            | 0                     | 618.4                     | 131.11                    | -1082.                    | 36.                       | 110.                       | -2.38               | 54.42      | 127.91 | 4230.    |
| 3          | 0            | 0                     | 544.6                     | -49.53                    | -1276.                    | -4.                       | 787.                       | -29.54              | 54.32      | 127.79 | 23030.   |
| 4          | 0            | -20.0                 | 486.8                     | -27.17                    | -797.                     | -669.                     | -922.                      | -120.16             | 53.84      | 127.21 | 22980.   |
| 5          | 0            | -15.0                 | 549.9                     | -45.93                    | -1042.                    | -651.                     | -580.                      | -86.03              | 53.73      | 127.09 | 23000.   |
| 6          | 0            | -10.0                 | 515.3                     | -49.39                    | -1183.                    | -557.                     | -423.                      | -53.95              | 53.29      | 126.56 | 23020.   |
| 7          | 0            | -5.0                  | 498.6                     | -50.37                    | -1264.                    | -303.                     | -277.                      | -28.83              | 54.00      | 127.41 | 23010.   |
| 8          | 0            | -2.5                  | 486.7                     | -49.56                    | -1256.                    | -173.                     | -73.                       | -18.63              | 54.30      | 127.77 | 23000.   |
| 9          | 0            | 0                     | 471.7                     | -48.45                    | -1299.                    | 25.                       | 208.                       | -9.06               | 54.12      | 127.55 | 23020.   |
| 10         | 0            | 2.5                   | 460.0                     | -48.49                    | -1316.                    | 175.                      | 370.                       | 2.52                | 54.09      | 127.52 | 22970.   |
| 11         | 0            | 5.0                   | 469.6                     | -48.80                    | -1282.                    | 282.                      | 424.                       | 15.22               | 53.95      | 127.36 | 23000.   |
| 12         | 0            | 10.0                  | 516.8                     | -45.63                    | -1028.                    | 478.                      | 1186.                      | 30.13               | 54.15      | 127.59 | 23010.   |
| 13         | 0            | 15.0                  | 485.9                     | -38.70                    | -870.                     | 553.                      | 1324.                      | 67.97               | 54.03      | 127.44 | 23010.   |
| 14         | 0            | 20.0                  | 443.1                     | -26.23                    | -756.                     | 598.                      | 1532.                      | 114.41              | 53.62      | 126.96 | 23040.   |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.6712 | .3543  | -.3488 | .0022  | .0066  | -.0064 |
| 3    | 0.00   | 1.4719 | -.1339 | -.4114 | -.0003 | .0475  | -.0798 |
| 4    | -20.00 | 1.3155 | -.0734 | -.2570 | -.0404 | -.0557 | -.3248 |
| 5    | -15.00 | 1.4861 | -.1241 | -.3360 | -.0393 | -.0351 | -.2325 |
| 6    | -10.00 | 1.3927 | -.1335 | -.3813 | -.0336 | -.0255 | -.1458 |
| 7    | -5.00  | 1.3474 | -.1361 | -.4075 | -.0183 | -.0167 | -.0779 |
| 8    | -2.50  | 1.3154 | -.1340 | -.4049 | -.0104 | -.0044 | -.0504 |
| 9    | 0.00   | 1.2749 | -.1309 | -.4187 | .0015  | .0126  | -.0245 |
| 10   | 2.50   | 1.2431 | -.1311 | -.4243 | .0105  | .0223  | .0068  |
| 11   | 5.00   | 1.2691 | -.1319 | -.4132 | .0170  | .0256  | .0411  |
| 12   | 10.00  | 1.3968 | -.1233 | -.3314 | .0289  | .0717  | .0814  |
| 13   | 15.00  | 1.3132 | -.1046 | -.2805 | .0334  | .0800  | .1837  |
| 14   | 20.00  | 1.1976 | -.0709 | -.2437 | .0361  | .0925  | .3092  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.6712 | .3543  | -.3488 | .0022  | .0066  | -.0064 |
| 3    | 0.00   | 1.4719 | -.1339 | -.4114 | -.0003 | .0475  | -.0798 |
| 4    | -20.00 | 1.3155 | -.1805 | -.1392 | -.0404 | -.0358 | -.2798 |
| 5    | -15.00 | 1.4861 | -.1803 | -.2758 | -.0393 | -.0175 | -.1922 |
| 6    | -10.00 | 1.3927 | -.1569 | -.3517 | -.0336 | -.0127 | -.1203 |
| 7    | -5.00  | 1.3474 | -.1424 | -.3981 | -.0183 | -.0100 | -.0657 |
| 8    | -2.50  | 1.3154 | -.1360 | -.4035 | -.0104 | -.0011 | -.0444 |
| 9    | 0.00   | 1.2749 | -.1309 | -.4187 | .0015  | .0126  | -.0245 |
| 10   | 2.50   | 1.2431 | -.1312 | -.4187 | .0105  | .0188  | .0011  |
| 11   | 5.00   | 1.2691 | -.1350 | -.3997 | .0170  | .0187  | .0294  |
| 12   | 10.00  | 1.3968 | -.1356 | -.2596 | .0289  | .0597  | .0587  |
| 13   | 15.00  | 1.3132 | -.1488 | -.1599 | .0334  | .0635  | .1502  |
| 14   | 20.00  | 1.1976 | -.1728 | -.0592 | .0361  | .0712  | .2660  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 614

| RUN 743 CONFIG F P B NP5 W7 T2 IN=-3.5 DELTAF#30 IW#15 MAX |           |               |                      |                       |                  |                  |                   |             |             |         |         |
|--|-----------|---------------|----------------------|-----------------------|------------------|------------------|-------------------|-------------|-------------|---------|---------|
| PT.#   | ALPHA DEG | DELTA PSI DEG | 30 DELTA CLBAR SQ-FT | 0.0 DELTA CDBAR SQ-FT | IHT CPMBAR CU-FT | DELE CYBAR CU-FT | DELR CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM     |
| 2  | 0.0       | 0.0           | 623.08               | 131.87                | -1081.0          | 33.0             | 146.0             | -2.69       | 54.41       | 127.90  | 4230.0  |
| 3  | 0.0       | 0.0           | 548.0                | -47.17                | -1275.0          | 6.0              | 738.0             | -29.06      | 53.92       | 127.32  | 23170.0 |
| 4  | -20.0     | 0.0           | -37.0                | -77.50                | -2850.0          | 162.0            | 132.0             | -2.90       | 54.11       | 127.54  | 22960.0 |
| 5  | -15.0     | 0.0           | 152.5                | -96.23                | -2708.0          | 163.0            | 120.0             | -5.64       | 53.76       | 127.12  | 22980.0 |
| 6  | -10.0     | 0.0           | 326.1                | -93.31                | -2301.0          | 112.0            | 226.0             | -5.81       | 53.92       | 127.31  | 23000.0 |
| 7  | -5.0      | 0.0           | 439.9                | -72.28                | -1813.0          | 53.0             | 465.0             | -21.86      | 53.93       | 127.33  | 23000.0 |
| 8  | -2.5      | 0.0           | 499.0                | -63.16                | -1508.0          | 0.0              | 635.0             | -26.77      | 53.58       | 126.90  | 23000.0 |
| 10   | 0.0       | 0.0           | 535.0                | -45.04                | -1274.0          | 14.0             | 822.0             | -31.85      | 54.54       | 128.06  | 23000.0 |
| 11   | 2.5       | 0.0           | 559.6                | -32.00                | -973.0           | -13.0            | 695.0             | -17.92      | 54.56       | 128.09  | 22990.0 |
| 12   | 5.0       | 0.0           | 540.7                | -16.62                | -787.0           | -25.0            | 401.0             | -11.85      | 54.61       | 128.14  | 23040.0 |
| 13   | 10.0      | 0.0           | 497.2                | 38.83                 | -426.0           | 68.0             | 279.0             | 4.27        | 55.10       | 128.72  | 23010.0 |
| 14   | 15.0      | 0.0           | 548.1                | 111.66                | -17.0            | -106.0           | 368.0             | 3.45        | 55.24       | 128.89  | 22960.0 |
| 15   | 20.0      | 0.0           | 600.8                | 181.30                | 260.0            | 43.0             | 177.0             | 2.86        | 54.84       | 128.40  | 22980.0 |
| 16   | 0.0       | 0.0           | 540.4                | -36.28                | -1276.0          | -9.0             | 893.0             | -32.64      | 54.58       | 128.11  | 23080.0 |

| *** COEFFICIENT FORM - WIND AXIS |        |        |        |        |        |       |        |  |
|----------------------------------|--------|--------|--------|--------|--------|-------|--------|--|
| PT.#                             | ALPHA  | CL     | CD     | CPM    | CYH    | CRM   | CY     |  |
| 2                                | 0.00   | 1.6860 | .3564  | -.3485 | .0020  | .0088 | -.0073 |  |
| 3                                | 0.00   | 1.4811 | -.1275 | -.4111 | .0003  | .0446 | -.0785 |  |
| 4                                | -19.99 | -.0999 | -.2095 | -.9189 | .0098  | .0080 | -.0078 |  |
| 5                                | -14.99 | .4121  | -.2601 | -.8730 | .0099  | .0072 | -.0152 |  |
| 6                                | -9.99  | .8814  | -.2522 | -.7417 | .0068  | .0137 | -.0157 |  |
| 7                                | -5.00  | 1.1889 | -.1953 | -.5844 | .0032  | .0281 | -.0591 |  |
| 8                                | -2.50  | 1.3487 | -.1707 | -.4863 | .0000  | .0383 | -.0723 |  |
| 10                               | 0.01   | 1.4459 | -.1217 | -.4107 | .0009  | .0496 | -.0861 |  |
| 11                               | 2.50   | 1.5125 | -.0865 | -.3137 | -.0008 | .0420 | -.0484 |  |
| 12                               | 5.00   | 1.4614 | -.0449 | -.2538 | -.0015 | .0242 | -.0320 |  |
| 13                               | 10.00  | 1.3438 | .1049  | -.1372 | .0041  | .0168 | .0115  |  |
| 14                               | 15.00  | 1.4814 | .3018  | -.0054 | -.0064 | .0222 | .0093  |  |
| 15                               | 20.02  | 1.6239 | .4900  | .0839  | .0026  | .0107 | .0077  |  |
| 16                               | 0.01   | 1.4605 | -.0980 | -.4114 | -.0005 | .0540 | -.0882 |  |

| *** COEFFICIENT FORM - STABILITY AXIS |        |        |        |        |        |       |        |  |
|---------------------------------------|--------|--------|--------|--------|--------|-------|--------|--|
| PT.#                                  | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |  |
| 2                                     | 0.00   | 1.6860 | .3564  | -.3485 | .0020  | .0088 | -.0073 |  |
| 3                                     | 0.00   | 1.4811 | -.1275 | -.4111 | .0003  | .0446 | -.0785 |  |
| 4                                     | -19.99 | -.0999 | -.2095 | -.9189 | .0098  | .0080 | -.0078 |  |
| 5                                     | -14.99 | .4121  | -.2601 | -.8730 | .0099  | .0072 | -.0152 |  |
| 6                                     | -9.99  | .8814  | -.2522 | -.7417 | .0068  | .0137 | -.0157 |  |
| 7                                     | -5.00  | 1.1889 | -.1953 | -.5844 | .0032  | .0281 | -.0591 |  |
| 8                                     | -2.50  | 1.3487 | -.1707 | -.4863 | .0000  | .0383 | -.0723 |  |
| 10                                    | 0.01   | 1.4459 | -.1217 | -.4107 | .0009  | .0496 | -.0861 |  |
| 11                                    | 2.50   | 1.5125 | -.0865 | -.3137 | -.0008 | .0420 | -.0484 |  |
| 12                                    | 5.00   | 1.4614 | -.0449 | -.2538 | -.0015 | .0242 | -.0320 |  |
| 13                                    | 10.00  | 1.3438 | .1049  | -.1372 | .0041  | .0168 | .0115  |  |
| 14                                    | 15.00  | 1.4814 | .3018  | -.0054 | -.0064 | .0222 | .0093  |  |
| 15                                    | 20.02  | 1.6239 | .4900  | .0839  | .0026  | .0107 | .0077  |  |
| 16                                    | 0.01   | 1.4605 | -.0980 | -.4114 | -.0005 | .0540 | -.0882 |  |

N432409-1

SIKORSKY BSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011  
P 615

RUN 744 CONFIG F P B NP5 W7 T2 IN=-3.5 DELTAF=30 IW=15

| PT.# | 15 DELF      | 30 DELA    | 0.0 IHT        | - DELE.        | W DELR          | - DELSB         | - V             | RPM          |       |        |        |
|------|--------------|------------|----------------|----------------|-----------------|-----------------|-----------------|--------------|-------|--------|--------|
| NO.  | ALPHA<br>DEG | PSI<br>DEG | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>SQ-FT | PSF<br>KNPTS |       |        |        |
| 2    | 0.0          | 0.0        | 622.3          | 132.35         | -1075.          | 32.             | 144.            | -1.93        | 54.66 | 128.19 | 4240.  |
| 3    | 0.0          | 0.0        | 543.9          | 46.96          | -1228.          | -626.           | 760.            | -22.28       | 54.28 | 127.75 | 22960. |
| 4    | -20.0        | 0.0        | 8.6            | 3.75           | -2440.          | -438.           | 229.            | 17.18        | 54.13 | 127.56 | 23010. |
| 5    | -15.0        | 0.0        | 180.2          | -5.58          | -2421.          | -397.           | 255.            | 5.37         | 54.52 | 128.03 | 22940. |
| 6    | -10.0        | 0.0        | 344.3          | 1.15           | -2108.          | -487.           | 199.            | 8.29         | 54.27 | 127.73 | 23000. |
| 7    | -5.0         | 0.0        | 450.9          | 25.67          | -1635.          | -555.           | 455.            | -6.44        | 54.48 | 127.98 | 22990. |
| 8    | -2.5         | 0.0        | 502.2          | 36.73          | -1405.          | -592.           | 604.            | -14.60       | 54.81 | 128.38 | 22950. |
| 9    | 0.0          | 0.0        | 546.1          | 50.90          | -1204.          | -605.           | 796.            | -23.38       | 54.34 | 127.82 | 22990. |
| 10   | 2.5          | 0.0        | 576.9          | 64.26          | -948.           | -622.           | 803.            | -22.04       | 54.71 | 128.26 | 23000. |
| 11   | 5.0          | 0.0        | 499.9          | 82.24          | -770.           | -584.           | -456.           | -5.74        | 54.57 | 128.09 | 23000. |
| 12   | 10.0         | 0.0        | 458.1          | 135.04         | -418.           | -436.           | -64.            | 17.98        | 54.76 | 128.32 | 23070. |
| 13   | 15.0         | 0.0        | 474.6          | 185.24         | -61.            | -371.           | -215.           | 10.30        | 54.60 | 128.12 | 23040. |
| 14   | 20.0         | 0.0        | 528.4          | 254.48         | 256.            | -228.           | -489.           | 23.64        | 54.91 | 128.49 | 23050. |
| 15   | 2.5          | 0.0        | 576.2          | 66.28          | -946.           | -612.           | 821.            | -23.61       | 54.82 | 128.38 | 23040. |
| 16   | -0.0         | 0.0        | 538.2          | 53.86          | -1203.          | -570.           | 735.            | -20.92       | 54.71 | 128.26 | 22980. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYH    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.6819 | .3577  | -.3466 | .0019  | .0087  | -.0052 |
| 3    | 0.00   | 1.4700 | .1269  | -.3960 | -.0378 | .0459  | -.0602 |
| 4    | -20.00 | .0231  | .0101  | -.7865 | -.0264 | .0139  | .0464  |
| 5    | -15.00 | .4871  | -.0151 | -.7806 | -.0240 | .0154  | .0145  |
| 6    | -10.00 | .9307  | .0031  | -.6796 | -.0294 | .0120  | .0224  |
| 7    | -4.98  | 1.2187 | .0694  | -.5272 | -.0335 | .0275  | -.0174 |
| 8    | -2.48  | 1.3573 | .0993  | -.4529 | -.0358 | .0365  | -.0395 |
| 9    | .01    | 1.4760 | .1376  | -.3880 | -.0366 | .0481  | -.0632 |
| 10   | 2.52   | 1.5593 | .1737  | -.3057 | -.0376 | .0485  | -.0596 |
| 11   | 5.00   | 1.3510 | .2223  | -.2482 | -.0353 | -.0276 | -.0155 |
| 12   | 10.02  | 1.2381 | .3650  | -.1349 | -.0263 | -.0038 | .0486  |
| 13   | 15.00  | 1.2828 | .5006  | -.0196 | -.0224 | -.0130 | .0278  |
| 14   | 20.00  | 1.4281 | .6878  | .0827  | -.0138 | -.0296 | .0639  |
| 15   | 2.52   | 1.5572 | .1791  | -.3049 | -.0370 | .0496  | -.0638 |
| 16   | -.00   | 1.4545 | .1456  | -.3879 | -.0344 | .0444  | -.0565 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.6819 | .3577  | -.3466 | .0019  | .0087  | -.0052 |
| 3    | 0.00   | 1.4700 | .1269  | -.3960 | -.0378 | .0459  | -.0602 |
| 4    | -20.00 | .0231  | .0101  | -.7865 | -.0264 | .0139  | .0464  |
| 5    | -15.00 | .4871  | -.0151 | -.7806 | -.0240 | .0154  | .0145  |
| 6    | -10.00 | .9307  | .0031  | -.6796 | -.0294 | .0120  | .0224  |
| 7    | -4.98  | 1.2187 | .0694  | -.5272 | -.0335 | .0275  | -.0174 |
| 8    | -2.48  | 1.3573 | .0993  | -.4529 | -.0358 | .0365  | -.0395 |
| 9    | .01    | 1.4760 | .1376  | -.3880 | -.0366 | .0481  | -.0632 |
| 10   | 2.52   | 1.5593 | .1737  | -.3057 | -.0376 | .0485  | -.0596 |
| 11   | 5.00   | 1.3510 | .2223  | -.2482 | -.0353 | -.0276 | -.0155 |
| 12   | 10.02  | 1.2381 | .3650  | -.1349 | -.0263 | -.0038 | .0486  |
| 13   | 15.00  | 1.2828 | .5006  | -.0196 | -.0224 | -.0130 | .0278  |
| 14   | 20.00  | 1.4281 | .6878  | .0827  | -.0138 | -.0296 | .0639  |
| 15   | 2.52   | 1.5572 | .1791  | -.3049 | -.0370 | .0496  | -.0638 |
| 16   | -.00   | 1.4545 | .1456  | -.3879 | -.0344 | .0444  | -.0565 |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P616

RUN 745 CONFIG F P R NPS W7 T2 IN=-3.5 DELTAF=30 IW=15

| PT. NO. | IW | ALPHA DEG | DELTA PSI DEG | 30 DELTA CLBAR | 0.0 IHT SQ-FT | DELE CPMBAR | DELR CYMBAR | DELSB CRMBAR | DELSB CYBAR | PSF   | V KNOTS | RPM    |
|---------|----|-----------|---------------|----------------|---------------|-------------|-------------|--------------|-------------|-------|---------|--------|
| 2       | 0  | 0         | 0             | 631.0          | 133.99        | -1091.      | 25.         | 163.         | -2.31       | 54.47 | 127.97  | 4320.  |
| 3       | 0  | 0         | 0             | 550.0          | 47.33         | -1230.      | -620.       | 756.         | -20.16      | 54.42 | 127.91  | 23000. |
| 4       | 0  | -20.0     | 0             | 529.3          | 58.78         | -833.       | -1279.      | -623.        | -73.53      | 54.53 | 128.05  | 23090. |
| 5       | 0  | -15.0     | 0             | 564.0          | 50.95         | -934.       | -1174.      | -564.        | -46.09      | 54.55 | 128.07  | 23030. |
| 6       | 0  | -10.0     | 0             | 574.7          | 52.82         | -1185.      | -1103.      | -59.         | -43.95      | 54.65 | 128.19  | 22950. |
| 7       | 0  | -4.9      | 0             | 573.2          | 52.04         | -1259.      | -878.       | 300.         | -31.80      | 54.53 | 128.05  | 22910. |
| 8       | 0  | -2.5      | 0             | 565.8          | 52.08         | -1254.      | -756.       | 411.         | -26.29      | 54.81 | 128.38  | 23070. |
| 9       | 0  | 0         | 0             | 547.7          | 51.47         | -1267.      | -585.       | 769.         | -21.12      | 54.83 | 128.41  | 23050. |
| 10      | 0  | 2.5       | 0             | 546.2          | 52.03         | -1204.      | -462.       | 813.         | -8.83       | 54.41 | 127.91  | 23090. |
| 11      | 0  | 5.0       | 0             | 530.9          | 51.34         | -1157.      | -376.       | 942.         | -1.12       | 54.94 | 128.54  | 23030. |
| 12      | 0  | 10.0      | 0             | 505.9          | 50.55         | -945.       | -249.       | 1072.        | 27.02       | 54.84 | 128.42  | 23030. |
| 13      | 0  | 15.0      | 0             | 475.1          | 54.47         | -775.       | -203.       | 1060.        | 58.77       | 54.60 | 128.13  | 22990. |
| 14      | 0  | 20.0      | 0             | 443.0          | 61.91         | -515.       | -190.       | 1634.        | 95.95       | 54.75 | 128.30  | 22950. |
| 15      | 0  | 0         | 0             | 548.7          | 52.38         | -1233.      | -582.       | 788.         | -18.98      | 54.55 | 128.07  | 23250. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPH    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.7055 | .3621 | -.3518 | .0015  | .0098  | -.0063 |
| 3    | 0.00   | 1.4866 | .1279 | -.3967 | -.0375 | .0456  | -.0545 |
| 4    | -20.00 | 1.4305 | .1589 | -.2684 | -.0773 | -.0376 | -.1987 |
| 5    | -15.00 | 1.5244 | .1377 | -.3010 | -.0709 | -.0341 | -.1246 |
| 6    | -10.00 | 1.5532 | .1427 | -.3819 | -.0667 | -.0036 | -.1188 |
| 7    | -4.90  | 1.5492 | .1406 | -.4058 | -.0530 | .0181  | -.0859 |
| 8    | -2.50  | 1.5290 | .1408 | -.4043 | -.0457 | .0248  | -.0711 |
| 9    | 0.00   | 1.4802 | .1391 | -.4085 | -.0353 | .0464  | -.0571 |
| 10   | 2.50   | 1.4762 | .1406 | -.3881 | -.0279 | .0491  | -.0239 |
| 11   | 5.00   | 1.4350 | .1387 | -.3730 | -.0227 | .0569  | -.0003 |
| 12   | 10.00  | 1.3673 | .1366 | -.3045 | -.0150 | .0647  | .0730  |
| 13   | 15.00  | 1.2841 | .1472 | -.2499 | -.0123 | .0640  | .1588  |
| 14   | 20.00  | 1.1972 | .1673 | -.1660 | -.0115 | .0987  | .2593  |
| 15   | 0.00   | 1.4830 | .1416 | -.3975 | -.0351 | .0476  | -.0513 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.7055 | .3621 | -.3518 | .0015  | .0098  | -.0063 |
| 3    | 0.00   | 1.4866 | .1279 | -.3967 | -.0375 | .0456  | -.0545 |
| 4    | -20.00 | 1.4305 | .0809 | -.1831 | -.0773 | -.0181 | -.2412 |
| 5    | -15.00 | 1.5244 | .1006 | -.2433 | -.0709 | -.0182 | -.1561 |
| 6    | -10.00 | 1.5532 | .1198 | -.3727 | -.0667 | .0090  | -.1419 |
| 7    | -4.90  | 1.5492 | .1328 | -.4126 | -.0530 | .0246  | -.0977 |
| 8    | -2.50  | 1.5290 | .1375 | -.4097 | -.0457 | .0281  | -.0772 |
| 9    | 0.00   | 1.4802 | .1391 | -.4085 | -.0353 | .0464  | -.0571 |
| 10   | 2.50   | 1.4762 | .1415 | -.3763 | -.0279 | .0459  | -.0177 |
| 11   | 5.00   | 1.4350 | .1382 | -.3450 | -.0227 | .0506  | .0118  |
| 12   | 10.00  | 1.3673 | .1218 | -.2396 | -.0150 | .0538  | .0957  |
| 13   | 15.00  | 1.2841 | .1009 | -.1525 | -.0123 | .0496  | .1917  |
| 14   | 20.00  | 1.1972 | .0681 | -.0250 | -.0115 | .0820  | .3010  |
| 15   | 0.00   | 1.4830 | .1416 | -.3975 | -.0351 | .0476  | -.0513 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 746 CONFIG F P B NP5 W7 T2 TN=-3.5 XN=0

| PT. NO. | 15 DELF   |         | 30 DELA     |             | -10 IHT      |              | - DELE       |             | - DELR |         | - DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR 50-FT | CDBAR 50-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR 50-FT | PSF    | V KNOTS |         |  |     |
| 2       | .0        | .0      | 648.4       | 138.92      | -1152.       | 128.         | -86.         | -2.38       | 54.28  | 127.76  | 4220.   |  |     |
| 3       | .0        | .0      | 649.3       | 139.05      | -1152.       | 129.         | -85.         | -2.40       | 55.24  | 128.91  | 4270.   |  |     |
| 4       | .0        | .0      | 575.7       | -7.21       | -1265.       | 88.          | 651.         | -29.34      | 55.27  | 128.94  | 21220.  |  |     |
| 5       | .0        | -20.0   | 506.3       | 9.11        | -689.        | -533.        | -1306.       | -108.45     | 55.31  | 128.99  | 21160.  |  |     |
| 6       | .0        | -15.0   | 564.8       | -2.26       | -917.        | -486.        | -769.        | -71.71      | 55.67  | 129.42  | 21140.  |  |     |
| 7       | .0        | -10.0   | 568.5       | -5.23       | -1139.       | -428.        | -354.        | -56.08      | 55.52  | 129.23  | 21150.  |  |     |
| 8       | .0        | -5.0    | 525.4       | -6.28       | -1257.       | -181.        | -530.        | -23.07      | 55.09  | 128.72  | 21200.  |  |     |
| 9       | .0        | -2.5    | 536.5       | -7.44       | -1261.       | -17.         | -479.        | -8.02       | 55.22  | 128.89  | 21190.  |  |     |
| 10      | .0        | .0      | 536.1       | -7.48       | -1275.       | 107.         | -248.        | 1.48        | 55.18  | 128.84  | 21150.  |  |     |
| 11      | .0        | .0      | 488.9       | -7.91       | -1297.       | 115.         | -8.          | -7.57       | 55.38  | 129.07  | 21120.  |  |     |
| 12      | .0        | 2.5     | 494.1       | -7.86       | -1294.       | 261.         | 176.         | 4.17        | 55.59  | 129.32  | 21180.  |  |     |
| 13      | .0        | 5.0     | 508.2       | -8.01       | -1225.       | 364.         | 345.         | 15.15       | 55.32  | 129.00  | 21220.  |  |     |
| 14      | .0        | 10.0    | 537.4       | -5.02       | -1079.       | 531.         | 1113.        | 21.32       | 55.45  | 129.16  | 21210.  |  |     |
| 15      | .0        | 15.0    | 521.7       | -6.60       | -858.        | 628.         | 1360.        | 63.81       | 55.73  | 129.49  | 21190.  |  |     |
| 16      | .0        | 20.0    | 455.8       | 6.76        | -742.        | 621.         | 1379.        | 100.91      | 55.73  | 129.49  | 21180.  |  |     |
| 17      | .0        | .0      | 564.0       | -4.28       | -1328.       | 97.          | 707.         | -34.02      | 55.47  | 129.17  | 21140.  |  |     |
| 18      | .0        | -10.0   | 567.3       | -2.75       | -1162.       | -407.        | -415.        | -52.65      | 55.32  | 129.00  | 21280.  |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.7523 | .3754  | -.3714 | .0077  | -.0052 | -.0064 |
| 3    | .00    | 1.7548 | .3758  | -.3715 | .0078  | -.0051 | -.0065 |
| 4    | .00    | 1.5559 | -.0195 | -.4079 | .0053  | .0393  | -.0793 |
| 5    | -20.00 | 1.3683 | .0246  | -.2221 | -.0322 | -.0789 | -.2931 |
| 6    | -15.00 | 1.5264 | -.0061 | -.2955 | -.0294 | -.0464 | -.1938 |
| 7    | -10.00 | 1.5366 | -.0141 | -.3671 | -.0259 | -.0214 | -.1516 |
| 8    | -5.00  | 1.4201 | -.0170 | -.4051 | -.0109 | -.0320 | -.0623 |
| 9    | -2.50  | 1.4500 | -.0201 | -.4064 | -.0011 | -.0289 | -.0217 |
| 10   | .00    | 1.4488 | -.0202 | -.4111 | .0065  | -.0150 | .0040  |
| 11   | .00    | 1.3212 | -.0214 | -.4182 | .0070  | -.0005 | -.0204 |
| 12   | 2.50   | 1.3354 | -.0212 | -.4172 | .0158  | .0106  | .0113  |
| 13   | 5.00   | 1.3735 | -.0217 | -.3949 | .0220  | .0208  | .0409  |
| 14   | 10.00  | 1.4525 | -.0136 | -.3480 | .0321  | .0672  | .0576  |
| 15   | 15.00  | 1.4099 | -.0016 | -.2766 | .0380  | .0822  | .1725  |
| 16   | 20.00  | 1.2320 | .0183  | -.2393 | .0375  | .0833  | .2727  |
| 17   | .00    | 1.5244 | -.0116 | -.4280 | .0059  | .0427  | -.0920 |
| 18   | -10.00 | 1.5331 | -.0074 | -.3746 | -.0246 | -.0250 | -.1423 |

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\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.7523 | .3754  | -.3714 | .0077  | -.0052 | -.0064 |
| 3    | .00    | 1.7548 | .3758  | -.3715 | .0078  | -.0051 | -.0065 |
| 4    | .00    | 1.5559 | -.0195 | -.4079 | .0053  | .0393  | -.0793 |
| 5    | -20.00 | 1.3683 | -.0776 | -.0639 | -.0322 | -.0598 | -.2837 |
| 6    | -15.00 | 1.5264 | -.0563 | -.2209 | -.0294 | -.0305 | -.1856 |
| 7    | -10.00 | 1.5366 | -.0403 | -.3416 | -.0259 | -.0091 | -.1468 |
| 8    | -5.00  | 1.4201 | -.0224 | -.3886 | -.0109 | -.0253 | -.0606 |
| 9    | -2.50  | 1.4500 | -.0210 | -.3993 | -.0011 | -.0256 | -.0208 |
| 10   | .00    | 1.4488 | -.0202 | -.4111 | .0065  | -.0150 | .0040  |
| 11   | .00    | 1.3212 | -.0214 | -.4182 | .0070  | -.0005 | -.0204 |
| 12   | 2.50   | 1.3354 | -.0217 | -.4143 | .0158  | .0072  | .0103  |

|    |        |        |        |        |        |        |        |
|----|--------|--------|--------|--------|--------|--------|--------|
| 13 | 5.00   | 1.3735 | -.0252 | -.3836 | .0220  | .0143  | .0389  |
| 14 | 10.00  | 1.4525 | -.0234 | -.2800 | .0321  | .0548  | .0544  |
| 15 | 15.00  | 1.4099 | -.0464 | -.1531 | .0380  | .0659  | .1661  |
| 16 | 20.00  | 1.2320 | -.0765 | -.0719 | .0375  | .0629  | .2624  |
| 17 | .00    | 1.5244 | -.0116 | -.4280 | .0059  | .0427  | -.0920 |
| 18 | -10.00 | 1.5331 | -.0321 | -.3456 | -.0246 | -.0124 | -.1388 |

RUN 747 CONFIG F P B NP5 W7 T2 IN=-3.5 XN=0

| IW      | 15 DELF   | 30 DEIA | -10 IHT     | - DELE      | - DELR       | - DELSB      | -            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | 0         | 0       | 642.8       | 137.88      | -1126.       | 126.         | -131.        | -2.50       | 55.40 | 129.09  | 4240.  |
| 3       | 0         | 0       | 555.5       | -6.47       | -1270.       | 111.         | 511.         | -23.49      | 55.69 | 129.43  | 21070. |
| 4       | -20.0     | 0       | 14.1        | -49.33      | -2884.       | 156.         | -206.        | -4.39       | 55.31 | 128.98  | 20960. |
| 5       | -15.0     | 0       | 192.3       | -60.62      | -2711.       | 705.         | -202.        | -7.18       | 55.00 | 128.61  | 21010. |
| 6       | -10.0     | 0       | 359.1       | -53.39      | -2308.       | 174.         | -125.        | -5.38       | 55.14 | 128.78  | 21060. |
| 7       | -5.0      | 0       | 469.3       | -30.14      | -1795.       | 129.         | 248.         | -22.69      | 54.70 | 128.25  | 21020. |
| 8       | -2.5      | 0       | 528.2       | -18.62      | -1535.       | 89.          | 362.         | -26.15      | 54.72 | 128.28  | 21030. |
| 9       | 0         | 0       | 561.7       | -3.78       | -1303.       | 113.         | 610.         | -31.35      | 54.94 | 128.54  | 21010. |
| 10      | 2.5       | 0       | 529.4       | 9.41        | -1035.       | 108.         | 106.         | -10.71      | 54.72 | 128.28  | 20960. |
| 11      | 5.0       | 0       | 549.1       | 24.56       | -780.        | 95.          | 229.         | -12.01      | 55.00 | 128.62  | 21000. |
| 12      | 10.0      | 0       | 500.3       | 80.47       | -451.        | 122.         | 35.          | .18         | 55.26 | 128.92  | 20980. |
| 13      | 15.0      | 0       | 536.7       | 141.58      | -48.         | -50.         | 330.         | -.75        | 54.81 | 128.38  | 21040. |
| 14      | 17.5      | 0       | 565.6       | 172.03      | 117.         | 7.           | 202.         | .17         | 54.36 | 127.84  | 21050. |
| 15      | 20.0      | 0       | 591.8       | 206.49      | 303.         | 73.          | 124.         | -.96        | 54.53 | 128.04  | 21050. |
| 16      | 0         | 0       | 564.6       | -1.15       | -1301.       | 110.         | 616.         | -32.92      | 55.12 | 128.75  | 21030. |
| 17      | 2.5       | 0       | 529.4       | 12.70       | -1009.       | 124.         | 115.         | -8.74       | 55.20 | 128.85  | 20990. |
| 18      | 5.0       | 0       | 551.2       | 29.50       | -776.        | 88.          | 227.         | -10.30      | 55.02 | 128.64  | 21020. |
| 20      | -0        | 0       | 487.3       | -5.44       | -1262.       | 123.         | 26.          | -6.39       | 55.11 | 128.75  | 21110. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.7374 | .3726  | -.3630 | .0076  | -.0079 | -.0068 |
| 3    | 0.00   | 1.5012 | -.0175 | -.4095 | .0067  | .0309  | -.0635 |
| 4    | -20.00 | .0381  | -.1333 | -.9299 | .0094  | -.0124 | -.0119 |
| 5    | -15.00 | .5198  | -.1638 | -.8741 | .0124  | -.0122 | -.0194 |
| 6    | -10.00 | .9704  | -.1443 | -.7440 | .0105  | -.0075 | -.0145 |
| 7    | -5.00  | 1.2684 | -.0815 | -.5787 | .0078  | .0150  | -.0613 |
| 8    | -2.50  | 1.4276 | -.0503 | -.4948 | .0054  | .0218  | -.0707 |
| 9    | 0.00   | 1.5181 | -.0102 | -.4201 | .0068  | .0368  | -.0847 |
| 10   | 2.50   | 1.4309 | .0254  | -.3336 | .0065  | .0064  | -.0289 |
| 11   | 5.00   | 1.4840 | .0664  | -.2515 | .0057  | .0138  | -.0325 |
| 12   | 10.00  | 1.3520 | .2175  | -.1454 | .0074  | .0021  | .0005  |
| 13   | 15.00  | 1.4504 | .3826  | -.0156 | -.0030 | .0199  | -.0020 |
| 14   | 17.50  | 1.5286 | .4649  | .0377  | .0004  | .0122  | .0005  |
| 15   | 20.00  | 1.5994 | .5581  | .0976  | .0044  | .0075  | -.0026 |
| 16   | 0.00   | 1.5260 | -.0031 | -.4194 | .0066  | .0372  | -.0890 |
| 17   | 2.50   | 1.4309 | .0343  | -.3252 | .0075  | .0069  | -.0236 |
| 18   | 5.00   | 1.4896 | .0797  | -.2500 | .0053  | .0137  | -.0278 |
| 20   | 0.00   | 1.3169 | -.0147 | -.4070 | .0074  | .0016  | -.0173 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.7374 | .3726  | -.3630 | .0076  | -.0079 | -.0068 |
| 3    | 0.00   | 1.5012 | -.0175 | -.4095 | .0067  | .0309  | -.0635 |
| 4    | -20.00 | .0381  | -.1333 | -.9299 | .0094  | -.0124 | -.0119 |
| 5    | -15.00 | .5198  | -.1638 | -.8741 | .0124  | -.0122 | -.0194 |
| 6    | -10.00 | .9704  | -.1443 | -.7440 | .0105  | -.0075 | -.0145 |
| 7    | -5.00  | 1.2684 | -.0815 | -.5787 | .0078  | .0150  | -.0613 |
| 8    | -2.50  | 1.4276 | -.0503 | -.4948 | .0054  | .0218  | -.0707 |
| 9    | 0.00   | 1.5181 | -.0102 | -.4201 | .0068  | .0368  | -.0847 |
| 10   | 2.50   | 1.4309 | .0254  | -.3336 | .0065  | .0064  | -.0289 |
| 11   | 5.00   | 1.4840 | .0664  | -.2515 | .0057  | .0138  | -.0325 |
| 12   | 10.00  | 1.3520 | .2175  | -.1454 | .0074  | .0021  | .0005  |
| 13   | 15.00  | 1.4504 | .3826  | -.0156 | -.0030 | .0199  | -.0020 |
| 14   | 17.50  | 1.5286 | .4649  | .0377  | .0004  | .0122  | .0005  |
| 15   | 20.00  | 1.5994 | .5581  | .0976  | .0044  | .0075  | -.0026 |
| 16   | 0.00   | 1.5260 | -.0031 | -.4194 | .0066  | .0372  | -.0890 |
| 17   | 2.50   | 1.4309 | .0343  | -.3252 | .0075  | .0069  | -.0236 |
| 18   | 5.00   | 1.4896 | .0797  | -.2500 | .0053  | .0137  | -.0278 |
| 20   | 0.00   | 1.3169 | -.0147 | -.4070 | .0074  | .0016  | -.0173 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 619.

RUN 748 CONFIG F P B NPS W7 T2 IN=-3.5 XN=0

| IW<br>PT.<br>NO. | 15<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 30<br>CLBAR<br>SQ-FT | DETA<br>CDBAR<br>SQ-FT | 10<br>IHT<br>CU-FT | - DELE<br>CYMBAR<br>CU-FT | - DELR<br>CRMBAR<br>CU-FT | - DELSR<br>CYBAR<br>SQ-FT | - V<br>PSF | RPM    |        |
|------------------|--------------------|---------------------|----------------------|------------------------|--------------------|---------------------------|---------------------------|---------------------------|------------|--------|--------|
| 2                | .0                 | .0                  | 603.3                | 130.15                 | -1043.             | -23.                      | 412.                      | -2.18                     | 55.25      | 128.90 | 4260.  |
| 3                | .0                 | .0                  | 639.5                | -6.35                  | -1173.             | -105.                     | 898.                      | -23.98                    | 55.45      | 129.14 | 20320. |
| 4                | -20.0              | .0                  | -29.5                | -34.67                 | -2707.             | 163.                      | 414.                      | .37                       | 55.32      | 128.99 | 20160. |
| 5                | -15.0              | .0                  | 145.1                | -49.31                 | -2580.             | 175.                      | 462.                      | -3.10                     | 55.34      | 129.01 | 20280. |
| 6                | -10.0              | .0                  | 314.2                | -43.63                 | -2205.             | 93.                       | 532.                      | -3.17                     | 55.21      | 128.86 | 20220. |
| 7                | -5.0               | .0                  | 425.9                | -25.26                 | -1693.             | 9.                        | 792.                      | -18.42                    | 55.47      | 129.17 | 20310. |
| 8                | -2.5               | .0                  | 486.5                | -14.38                 | -1444.             | -41.                      | 883.                      | -22.23                    | 55.41      | 129.09 | 20310. |
| 9                | .0                 | .0                  | 521.1                | -2.42                  | -1220.             | -62.                      | 1128.                     | -31.28                    | 55.21      | 128.86 | 20230. |
| 10               | 2.5                | .0                  | 493.4                | 8.54                   | -928.              | -75.                      | 543.                      | -6.41                     | 55.46      | 129.15 | 20310. |
| 11               | 5.0                | .0                  | 524.4                | 23.44                  | -689.              | -104.                     | 515.                      | -5.50                     | 55.09      | 128.71 | 20360. |
| 12               | 10.0               | .0                  | 471.7                | 78.69                  | -369.              | -56.                      | 422.                      | .64                       | 55.07      | 128.68 | 20240. |
| 13               | 15.0               | .0                  | 522.2                | 141.07                 | -23.               | -108.                     | 357.                      | 5.46                      | 55.08      | 128.69 | 20230. |
| 14               | 20.0               | .0                  | 572.8                | 205.42                 | 314.               | -14.                      | 153.                      | 3.64                      | 54.97      | 128.56 | 20300. |
| 15               | .0                 | .0                  | 446.5                | -6.24                  | -1162.             | -37.                      | 490.                      | -4.11                     | 55.31      | 128.97 | 20320. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.6306 | .3518  | -.3364 | -.0014 | .0249 | -.0059 |
| 3    | .00    | 1.4582 | -.0172 | -.3780 | -.0063 | .0543 | -.0648 |
| 4    | -19.99 | -.0797 | -.0937 | -.8726 | .0099  | .0250 | .0010  |
| 5    | -15.00 | .3922  | -.1333 | -.8317 | .0105  | .0279 | -.0084 |
| 6    | -10.00 | .8492  | -.1179 | -.7110 | .0056  | .0322 | -.0086 |
| 7    | -4.99  | 1.1510 | -.0683 | -.5459 | .0005  | .0478 | -.0498 |
| 8    | -2.50  | 1.3149 | -.0389 | -.4657 | -.0025 | .0533 | -.0601 |
| 9    | .00    | 1.4084 | -.0065 | -.3934 | -.0037 | .0681 | -.0845 |
| 10   | 2.51   | 1.3335 | .0231  | -.2992 | -.0045 | .0328 | -.0173 |
| 11   | 5.00   | 1.4174 | .0634  | -.2220 | -.0063 | .0311 | -.0149 |
| 12   | 10.00  | 1.2749 | .2127  | -.1189 | -.0034 | .0255 | .0017  |
| 13   | 15.01  | 1.4112 | .3813  | -.0074 | -.0065 | .0215 | .0148  |
| 14   | 20.01  | 1.5482 | .5552  | .1012  | -.0009 | .0093 | .0098  |
| 15   | .00    | 1.2067 | -.0169 | -.3746 | -.0023 | .0296 | -.0111 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.6306 | .3518  | -.3364 | -.0014 | .0249 | -.0059 |
| 3    | .00    | 1.4582 | -.0172 | -.3780 | -.0063 | .0543 | -.0648 |
| 4    | -19.99 | -.0797 | -.0937 | -.8726 | .0099  | .0250 | .0010  |
| 5    | -15.00 | .3922  | -.1333 | -.8317 | .0105  | .0279 | -.0084 |
| 6    | -10.00 | .8492  | -.1179 | -.7110 | .0056  | .0322 | -.0086 |
| 7    | -4.99  | 1.1510 | -.0683 | -.5459 | .0005  | .0478 | -.0498 |
| 8    | -2.50  | 1.3149 | -.0389 | -.4657 | -.0025 | .0533 | -.0601 |
| 9    | .00    | 1.4084 | -.0065 | -.3934 | -.0037 | .0681 | -.0845 |
| 10   | 2.51   | 1.3335 | .0231  | -.2992 | -.0045 | .0328 | -.0173 |
| 11   | 5.00   | 1.4174 | .0634  | -.2220 | -.0063 | .0311 | -.0149 |
| 12   | 10.00  | 1.2749 | .2127  | -.1189 | -.0034 | .0255 | .0017  |
| 13   | 15.01  | 1.4112 | .3813  | -.0074 | -.0065 | .0215 | .0148  |
| 14   | 20.01  | 1.5482 | .5552  | .1012  | -.0009 | .0093 | .0098  |
| 15   | .00    | 1.2067 | -.0169 | -.3746 | -.0023 | .0296 | -.0111 |

M43242S-1

STROPSKY RSRM 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 628

RUN 7.9 CONFIG F P 2 LPS W7 T2 TNE=-3.5 YN=0

| PT. NO. | 15 DELF   |       | 30 DELA |        | 10 INT |        | - DELE |         | - DELP |         | - DELSF |  | RPM |
|---------|-----------|-------|---------|--------|--------|--------|--------|---------|--------|---------|---------|--|-----|
|         | ALPHA DEG | PSI   | CLFR    | CDBAR  | CPMBAR | CYMBAR | CPMBAR | CYBAP   | PSF    | V KNOTS |         |  |     |
| 2       | .0        | .0    | 565.7   | 170.60 | -1311. | -74.   | 621.   | -16.17  | 55.42  | 129.10  | 4250.   |  |     |
| 3       | .0        | .0    | 540.3   | 164.47 | -1160. | -130.  | 925.   | -25.03  | 55.36  | 129.03  | 20440.  |  |     |
| 4       | .0        | -20.0 | 470.3   | 15.46  | -836.  | -696.  | -660.  | -103.67 | 55.70  | 129.31  | 20500.  |  |     |
| 5       | .0        | -15.0 | 500.0   | 1.00   | -10.0  | -620.  | -521.  | -68.81  | 55.33  | 128.99  | 20390.  |  |     |
| 6       | .0        | -10.0 | 401.9   | -1.51  | -1117. | -559.  | -143.  | -44.57  | 55.54  | 129.25  | 20480.  |  |     |
| 7       | .0        | -5.0  | 464.9   | -7.71  | -1196. | -339.  | 40.    | -24.71  | 55.52  | 129.27  | 20370.  |  |     |
| 8       | .0        | -2.5  | 470.0   | -4.99  | -1157. | -210.  | 200.   | -12.35  | 55.71  | 129.44  | 20370.  |  |     |
| 9       | .0        | .0    | 460.2   | -5.41  | -1147. | -76.   | 340.   | -2.07   | 55.53  | 129.23  | 20410.  |  |     |
| 10      | .0        | 2.5   | 447.2   | -5.70  | -1137. | 92.    | 716.   | 5.87    | 55.56  | 129.26  | 20340.  |  |     |
| 11      | .0        | 5.0   | 456.1   | -5.79  | -1070. | 201.   | 842.   | 16.74   | 55.76  | 129.50  | 20400.  |  |     |
| 12      | .0        | 10.0  | 488.3   | -5.58  | -847.  | 374.   | 1433.  | 24.18   | 55.78  | 129.52  | 20350.  |  |     |
| 13      | .0        | 15.0  | 463.2   | 1.49   | -675.  | 437.   | 1480.  | 60.52   | 55.07  | 129.74  | 20410.  |  |     |
| 14      | .0        | 20.0  | 430.1   | 10.56  | -510.  | 483.   | 1580.  | 99.02   | 55.74  | 129.47  | 20410.  |  |     |
| 15      | .0        | .0    | 517.2   | -3.47  | -1170. | -61.   | 1128.  | -28.70  | 55.64  | 129.35  | 20480.  |  |     |
| 16      | .0        | .0    | 450.7   | -6.16  | -1160. | -59.   | 528.   | -6.04   | 55.27  | 128.92  | 20430.  |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPH    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.5288 | .3573  | -.3258 | -.0045 | .0375  | -.0437 |
| 3    | .00    | 1.4603 | -.0175 | -.3766 | -.0041 | .0559  | -.0701 |
| 4    | -20.00 | 1.2710 | .0203  | -.2694 | -.0420 | -.0309 | -.2801 |
| 5    | -15.00 | 1.3512 | .0051  | -.3235 | -.0374 | -.0314 | -.1860 |
| 6    | -10.00 | 1.3295 | -.0041 | -.3671 | -.0337 | -.0086 | -.1204 |
| 7    | -5.00  | 1.3104 | -.0099 | -.3857 | -.0205 | .0024  | -.0669 |
| 8    | -2.50  | 1.2756 | -.0135 | -.3731 | -.0127 | .0121  | -.0334 |
| 9    | .00    | 1.2573 | -.0146 | -.3638 | -.0046 | .0205  | -.0056 |
| 10   | 2.50   | 1.2086 | -.0154 | -.3665 | .0049  | .0433  | .0157  |
| 11   | 5.00   | 1.2426 | -.0156 | -.3479 | .0121  | .0508  | .0452  |
| 12   | 10.00  | 1.3193 | -.0007 | -.2730 | .0226  | .0365  | .0654  |
| 13   | 15.00  | 1.2518 | .0040  | -.2177 | .0264  | .0304  | .1636  |
| 14   | 20.00  | 1.1624 | .0296  | -.1673 | .0202  | .0955  | .2701  |
| 15   | .00    | 1.3979 | -.0004 | -.3770 | -.0037 | .0601  | -.0778 |
| 16   | .00    | 1.2181 | -.0167 | -.3730 | -.0035 | .0319  | -.0163 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDP    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.5288 | .3573  | -.3258 | -.0045 | .0375  | -.0437 |
| 3    | .00    | 1.4603 | -.0175 | -.3766 | -.0041 | .0559  | -.0701 |
| 4    | -20.00 | 1.2710 | -.0007 | -.1799 | -.0420 | -.0271 | -.2727 |
| 5    | -15.00 | 1.3512 | -.0034 | -.2630 | -.0374 | -.0146 | -.1809 |
| 6    | -10.00 | 1.3295 | -.0257 | -.3465 | -.0337 | .0033  | -.1179 |
| 7    | -5.00  | 1.3104 | -.0148 | -.3853 | -.0205 | .0088  | -.0657 |
| 8    | -2.50  | 1.2756 | -.0149 | -.3756 | -.0127 | .0151  | -.0308 |
| 9    | .00    | 1.2573 | -.0146 | -.3638 | -.0046 | .0205  | -.0056 |
| 10   | 2.50   | 1.2086 | -.0151 | -.3550 | .0049  | .0402  | .0151  |
| 11   | 5.00   | 1.2326 | -.0105 | -.3228 | .0121  | .0449  | .0437  |
| 12   | 10.00  | 1.3193 | -.0200 | -.1933 | .0226  | .0763  | .0627  |
| 13   | 15.00  | 1.2518 | -.0326 | -.0961 | .0264  | .0757  | .1590  |
| 14   | 20.00  | 1.1624 | -.0669 | -.0170 | .0202  | .0709  | .2634  |
| 15   | .00    | 1.3979 | -.0004 | -.3770 | -.0037 | .0601  | -.0778 |
| 16   | .00    | 1.2181 | -.0167 | -.3730 | -.0035 | .0319  | -.0163 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 621

RUN 750 CONFIG F P B NPS W7 T2 IN=-3.5 XN=0

| PT. NO. | 15 ALPHA DEG | DELF PSI DEG | 30 DELA CLBAR SQ-FT | 20 IHT CDBAR SQ-FT | CPM BAR CU-FT | DELE CYM BAR CU-FT | DELR CRM BAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM    |
|---------|--------------|--------------|---------------------|--------------------|---------------|--------------------|--------------------|-------------|-------------|---------|--------|
| 2       | .0           | .0           | 559.1               | 130.13             | -968.         | -64.               | 829.               | -10.71      | 55.02       | 128.62  | 4260.  |
| 3       | .0           | .0           | 517.4               | -6.25              | -1126.        | -114.              | 1095.              | -20.78      | 55.91       | 129.67  | 20420. |
| 4       | .0           | -20.0        | 443.3               | 8.94               | -924.         | -683.              | -409.              | -102.58     | 55.39       | 129.06  | 20430. |
| 5       | .0           | -15.0        | 479.5               | -4.45              | -1051.        | -624.              | -236.              | -68.90      | 54.91       | 128.49  | 20480. |
| 6       | .0           | -10.0        | 473.8               | -3.90              | -1128.        | -562.              | 85.                | -41.48      | 55.35       | 129.01  | 20420. |
| 7       | .0           | -5.0         | 464.6               | -5.80              | -1179.        | -356.              | 326.               | -20.62      | 55.29       | 128.94  | 20530. |
| 8       | .0           | -2.5         | 452.9               | -7.21              | -1156.        | -237.              | 423.               | -10.49      | 55.30       | 128.96  | 20420. |
| 9       | .0           | .0           | 444.1               | -8.05              | -1122.        | -103.              | 512.               | 1.21        | 55.30       | 128.95  | 20430. |
| 10      | .0           | 2.5          | 432.0               | -7.98              | -1094.        | 60.                | 913.               | 7.95        | 54.96       | 128.54  | 20480. |
| 11      | .0           | 5.0          | 433.2               | -8.09              | -1032.        | 185.               | 1038.              | 19.61       | 55.40       | 129.07  | 20420. |
| 12      | .0           | 10.0         | 470.8               | -4.86              | -783.         | 353.               | 1617.              | 26.06       | 55.55       | 129.25  | 20390. |
| 13      | .0           | 15.0         | 444.2               | -4.31              | -601.         | 414.               | 1731.              | 61.37       | 55.29       | 128.93  | 20400. |
| 14      | .0           | 20.0         | 419.3               | 8.07               | -436.         | 462.               | 1700.              | 103.45      | 55.18       | 128.80  | 20510. |
| 15      | .0           | .0           | 423.4               | -9.04              | -1128.        | -62.               | 797.               | -4.65       | 55.14       | 128.75  | 20410. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYH    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.5110 | .3517  | -.3120 | -.0039 | .0501  | -.0289 |
| 3    | .00    | 1.3984 | -.0169 | -.3630 | -.0069 | .0661  | -.0562 |
| 4    | -20.00 | 1.1982 | .0242  | -.2977 | -.0413 | -.0247 | -.2772 |
| 5    | -15.00 | 1.2959 | -.0012 | -.3388 | -.0377 | -.0143 | -.1862 |
| 6    | -10.00 | 1.2806 | -.0105 | -.3637 | -.0339 | .0051  | -.1121 |
| 7    | -5.00  | 1.2557 | -.0157 | -.3802 | -.0215 | .0197  | -.0557 |
| 8    | -2.50  | 1.2242 | -.0195 | -.3728 | -.0143 | .0255  | -.0284 |
| 9    | .00    | 1.2004 | -.0218 | -.3617 | -.0062 | .0310  | .0033  |
| 10   | 2.50   | 1.1675 | -.0216 | -.3529 | .0036  | .0551  | .0215  |
| 11   | 5.00   | 1.1707 | -.0219 | -.3328 | .0111  | .0627  | .0530  |
| 12   | 10.00  | 1.2724 | -.0131 | -.2526 | .0213  | .0977  | .0704  |
| 13   | 15.00  | 1.2006 | -.0008 | -.1937 | .0250  | .1046  | .1659  |
| 14   | 20.00  | 1.1331 | .0218  | -.1406 | .0279  | .1027  | .2796  |
| 15   | .00    | 1.1442 | -.0244 | -.3636 | -.0038 | .0481  | -.0126 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.5110 | .3517  | -.3120 | -.0039 | .0501  | -.0289 |
| 3    | .00    | 1.3984 | -.0169 | -.3630 | -.0069 | .0661  | -.0562 |
| 4    | -20.00 | 1.1982 | -.0725 | -.2344 | -.0413 | -.0040 | -.2687 |
| 5    | -15.00 | 1.2959 | -.0496 | -.3074 | -.0377 | .0027  | -.1795 |
| 6    | -10.00 | 1.2806 | -.0299 | -.3629 | -.0339 | .0170  | -.1085 |
| 7    | -5.00  | 1.2557 | -.0205 | -.3880 | -.0215 | .0259  | -.0541 |
| 8    | -2.50  | 1.2242 | -.0207 | -.3784 | -.0143 | .0286  | -.0275 |
| 9    | .00    | 1.2004 | -.0218 | -.3617 | -.0062 | .0310  | .0033  |
| 10   | 2.50   | 1.1675 | -.0225 | -.3396 | .0036  | .0522  | .0205  |
| 11   | 5.00   | 1.1707 | -.0264 | -.3022 | .0111  | .0570  | .0509  |
| 12   | 10.00  | 1.2724 | -.0252 | -.1577 | .0213  | .0879  | .0671  |
| 13   | 15.00  | 1.2006 | -.0439 | -.0419 | .0250  | .0916  | .1599  |
| 14   | 20.00  | 1.1331 | -.0756 | .0562  | .0279  | .0874  | .2701  |
| 15   | .00    | 1.1442 | -.0244 | -.3636 | -.0038 | .0481  | -.0126 |

ORIGINAL PAGE IS  
OF POOR QUALITY

| RUN 751 CONFIG F P B NP5 W7 T2 |           |         |             |             |                          |                         |                          |                         |         | IN=-3.5 | XN=0   |
|--------------------------------|-----------|---------|-------------|-------------|--------------------------|-------------------------|--------------------------|-------------------------|---------|---------|--------|
| IW                             | IS        | DELTA   | 30          | 20          | - DELE                   |                         | - DELR                   |                         | - DELSB | -       | RPM    |
| PT. NO.                        | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM <sub>BAR</sub> CU-FT | CY <sub>BAR</sub> CU-FT | CRM <sub>BAR</sub> CU-FT | CY <sub>BAR</sub> SQ-FT | Q PSF   | V KNOTS |        |
| 2                              | 0         | 0       | 554.0       | 129.79      | -956.                    | -75.                    | 854.                     | -11.65                  | 54.67   | 128.19  | 4250.  |
| 3                              | 0         | 0       | 494.3       | -6.88       | -1139.                   | -95.                    | 1327.                    | -28.36                  | 55.29   | 128.94  | 20360. |
| 5                              | -20.0     | 0       | -51.8       | -33.12      | -2604.                   | 228.                    | 647.                     | 1.45                    | 55.62   | 129.32  | 20480. |
| 6                              | -15.0     | 0       | 121.9       | -45.80      | -2453.                   | 206.                    | 770.                     | -1.73                   | 55.65   | 129.36  | 20370. |
| 7                              | -10.0     | 0       | 286.4       | -41.53      | -2125.                   | 118.                    | 837.                     | -2.04                   | 55.03   | 128.62  | 20310. |
| 8                              | -5.0      | 0       | 403.4       | -23.90      | -1639.                   | 9.                      | 999.                     | -14.25                  | 55.21   | 128.84  | 20340. |
| 9                              | -2.5      | 0       | 460.2       | -14.60      | -1388.                   | -54.                    | 1109.                    | -20.29                  | 55.34   | 128.99  | 20340. |
| 10                             | 0         | 0       | 495.5       | -3.84       | -1135.                   | -93.                    | 1344.                    | -26.22                  | 55.94   | 129.70  | 20400. |
| 11                             | 2.5       | 0       | 471.7       | 8.02        | -856.                    | -123.                   | 900.                     | -6.62                   | 55.71   | 129.43  | 20310. |
| 12                             | 5.0       | 0       | 497.0       | 19.31       | -628.                    | -148.                   | 816.                     | -5.97                   | 55.01   | 128.60  | 20410. |
| 13                             | 10.0      | 0       | 464.8       | 74.46       | -334.                    | -74.                    | 445.                     | 2.75                    | 54.99   | 128.57  | 20360. |
| 14                             | 15.0      | 0       | 511.5       | 135.90      | 9.                       | -127.                   | 346.                     | 7.74                    | 54.87   | 128.43  | 20430. |
| 15                             | 20.0      | 0       | 563.8       | 202.13      | 339.                     | -46.                    | 182.                     | 5.00                    | 55.17   | 128.78  | 20360. |
| 16                             | 0         | 0       | 512.6       | -1.86       | -1108.                   | -118.                   | 1178.                    | -22.30                  | 55.60   | 129.30  | 20310. |
| 17                             | 0         | 0       | 512.7       | -2.57       | -1108.                   | -121.                   | 1171.                    | -21.51                  | 55.37   | 129.02  | 20360. |

| *** COEFFICIENT FORM - WIND AXIS |        |        |        |        |        |       |        |
|----------------------------------|--------|--------|--------|--------|--------|-------|--------|
| PT.#                             | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
| 2                                | 0.00   | 1.4973 | .3508  | -.3081 | -.0045 | .0516 | -.0315 |
| 3                                | 0.00   | 1.3361 | -.0186 | -.3671 | -.0057 | .0801 | -.0766 |
| 5                                | -20.00 | -.1400 | -.0895 | -.8394 | .0138  | .0391 | .0039  |
| 6                                | -15.00 | .3294  | -.1238 | -.7910 | .0125  | .0465 | -.0047 |
| 7                                | -10.00 | .7741  | -.1123 | -.6851 | .0071  | .0506 | -.0055 |
| 8                                | -5.000 | 1.0903 | -.0646 | -.5285 | .0005  | .0604 | -.0385 |
| 9                                | -2.50  | 1.2439 | -.0394 | -.4475 | -.0033 | .0670 | -.0548 |
| 10                               | 0.00   | 1.3391 | -.0104 | -.3658 | -.0056 | .0812 | -.0709 |
| 11                               | 2.50   | 1.2747 | .0217  | -.2760 | -.0074 | .0544 | -.0179 |
| 12                               | 5.00   | 1.3432 | .0522  | -.2024 | -.0090 | .0493 | -.0161 |
| 13                               | 10.00  | 1.2563 | .2012  | -.1078 | -.0045 | .0269 | .0074  |
| 14                               | 15.00  | 1.3825 | .3673  | .0028  | -.0076 | .0209 | .0209  |
| 15                               | 20.00  | 1.5238 | .5463  | .1094  | -.0028 | .0110 | .0135  |
| 16                               | 0.00   | 1.3853 | -.0050 | -.3572 | -.0071 | .0712 | -.0603 |
| 17                               | 0.00   | 1.3856 | -.0070 | -.3571 | -.0073 | .0707 | -.0581 |

| *** COEFFICIENT FORM - STABILITY AXIS |        |        |        |        |        |       |        |
|---------------------------------------|--------|--------|--------|--------|--------|-------|--------|
| PT.#                                  | ALPHA  | CLB    | CDR    | CPMB   | CYMB   | CPMB  | CYB    |
| 2                                     | 0.00   | 1.4973 | .3508  | -.3081 | -.0045 | .0516 | -.0315 |
| 3                                     | 0.00   | 1.3361 | -.0186 | -.3671 | -.0057 | .0801 | -.0766 |
| 5                                     | -20.00 | -.1400 | -.0895 | -.8394 | .0138  | .0391 | .0039  |
| 6                                     | -15.00 | .3294  | -.1238 | -.7910 | .0125  | .0465 | -.0047 |
| 7                                     | -10.00 | .7741  | -.1123 | -.6851 | .0071  | .0506 | -.0055 |
| 8                                     | -5.000 | 1.0903 | -.0646 | -.5285 | .0005  | .0604 | -.0385 |
| 9                                     | -2.50  | 1.2439 | -.0394 | -.4475 | -.0033 | .0670 | -.0548 |
| 10                                    | 0.00   | 1.3391 | -.0104 | -.3658 | -.0056 | .0812 | -.0709 |
| 11                                    | 2.50   | 1.2747 | .0217  | -.2760 | -.0074 | .0544 | -.0179 |
| 12                                    | 5.00   | 1.3432 | .0522  | -.2024 | -.0090 | .0493 | -.0161 |
| 13                                    | 10.00  | 1.2563 | .2012  | -.1078 | -.0045 | .0269 | .0074  |
| 14                                    | 15.00  | 1.3825 | .3673  | .0028  | -.0076 | .0209 | .0209  |
| 15                                    | 20.00  | 1.5238 | .5463  | .1094  | -.0028 | .0110 | .0135  |
| 16                                    | 0.00   | 1.3853 | -.0050 | -.3572 | -.0071 | .0712 | -.0603 |
| 17                                    | 0.00   | 1.3856 | -.0070 | -.3571 | -.0073 | .0707 | -.0581 |

N432409-1

SUKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 623

RUN 752 CONFIG F P B NP5 W7 T2 IN=-3.5 XN=0

| PT.# | IS DELF      | O DELA     | O IHT          | - DELE         | - DELR                      | - DELSB        | V                           | RPM                         |       |        |        |
|------|--------------|------------|----------------|----------------|-----------------------------|----------------|-----------------------------|-----------------------------|-------|--------|--------|
| NO.  | ALPHA<br>DEG | PSI<br>DEG | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPM <sub>BAR</sub><br>CU-FT | CYBAR<br>CU-FT | CRM <sub>BAR</sub><br>CU-FT | CYB <sub>BAR</sub><br>SQ-FT | PSF   | KNOTS  |        |
| 3    | .0           | .0         | 527.0          | -6.53          | -1230.                      | 5.             | 794.                        | -31.36                      | 55.69 | 129.40 | 20670. |
| 4    | .0           | -10.0      | 504.0          | -6.05          | -1045.                      | -490.          | -483.                       | -45.01                      | 55.22 | 128.85 | 20690. |
| 5    | .0           | -5.0       | 494.9          | -6.31          | -1180.                      | -277.          | -232.                       | -22.95                      | 55.46 | 129.13 | 20750. |
| 6    | .0           | .0         | 480.0          | -7.05          | -1189.                      | -2.            | 9.                          | -2.48                       | 55.39 | 129.05 | 20760. |
| 7    | .0           | 2.5        | 457.5          | -5.30          | -1176.                      | 161.           | 409.                        | 4.76                        | 56.09 | 129.88 | 20670. |
| 8    | .0           | 5.0        | 461.9          | -6.20          | -1154.                      | 268.           | 521.                        | 15.41                       | 55.94 | 129.69 | 20760. |
| 9    | .0           | 10.0       | 497.7          | -4.44          | -930.                       | 437.           | 1184.                       | 23.23                       | 55.82 | 129.56 | 20690. |
| 10   | .0           | 15.0       | 466.3          | .48            | -770.                       | 504.           | 1296.                       | 54.78                       | 56.46 | 130.30 | 20720. |
| 11   | .0           | .0         | 455.7          | -6.13          | -1187.                      | -3.            | 225.                        | -4.62                       | 56.06 | 129.84 | 20750. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | 1.4243 | -.0177 | -.3965 | .0003  | .0479  | -.0848 |
| 4    | -10.00 | 1.3621 | -.0163 | -.3369 | -.0296 | -.0292 | -.1216 |
| 5    | -5.00  | 1.3375 | -.0171 | -.3803 | -.0167 | -.0140 | -.0620 |
| 6    | .00    | 1.2973 | -.0190 | -.3832 | -.0001 | .0005  | -.0067 |
| 7    | 2.50   | 1.2365 | -.0143 | -.3791 | .0097  | .0247  | .0129  |
| 8    | 5.00   | 1.2485 | -.0168 | -.3722 | .0162  | .0314  | .0416  |
| 9    | 10.00  | 1.3451 | -.0120 | -.2997 | .0264  | .0715  | .0628  |
| 10   | 15.00  | 1.2603 | .0013  | -.2482 | .0305  | .0783  | .1481  |
| 11   | .00    | 1.2316 | -.0166 | -.3826 | -.0002 | .0136  | -.0125 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR    | CPMB   | CYMR   | CRM <sub>B</sub> | CY <sub>B</sub> |
|------|--------|--------|--------|--------|--------|------------------|-----------------|
| 3    | .00    | 1.4243 | -.0177 | -.3965 | .0003  | .0479            | -.0848          |
| 4    | -10.00 | 1.3621 | -.0373 | -.3046 | -.0296 | -.0177           | -.1169          |
| 5    | -5.00  | 1.3375 | -.0224 | -.3723 | -.0167 | -.0077           | -.0603          |
| 6    | .00    | 1.2973 | -.0190 | -.3832 | -.0001 | .0005            | -.0067          |
| 7    | 2.50   | 1.2365 | -.0149 | -.3729 | .0097  | .0216            | .0122           |
| 8    | 5.00   | 1.2485 | -.0203 | -.3561 | .0162  | .0252            | .0400           |
| 9    | 10.00  | 1.3451 | -.0228 | -.2286 | .0264  | .0606            | .0597           |
| 10   | 15.00  | 1.2603 | -.0372 | -.1311 | .0305  | .0635            | .1433           |
| 11   | .00    | 1.2316 | -.0166 | -.3826 | -.0002 | .0136            | -.0125          |



| RUN 753 CONFIG F P B NP5 W7 T2 |       |       |       |       |        |        |        |         |       |        |        | IN=-3.5 |   | XN=0 |  |  |
|--------------------------------|-------|-------|-------|-------|--------|--------|--------|---------|-------|--------|--------|---------|---|------|--|--|
| IW                             | 15    | DEL   | 0     | DELA  | 20     | IHT    | -      | DELE    | -     | DEL    | -      | DELSB   | - |      |  |  |
| PT.                            | ALPHA | PSI   | CLBAR | CDBAR | CPMBAR | CYMBAR | CRMBAR | CYBAR   | DELSB | Q      | V      | RPM     |   |      |  |  |
| NO.                            | DEG   | DEG   | SQ-FT | SQ-FT | CU-FT  | CU-FT  | CU-FT  | SQ-FT   | PSF   | KNOTS  |        |         |   |      |  |  |
| 2                              | .0    | .0    | 334.4 | 65.77 | -390.  | -104.  | 656.   | .21     | 55.12 | 128.72 | 4010.  |         |   |      |  |  |
| 3                              | .0    | .0    | 317.0 | -6.96 | -516.  | -152.  | 749.   | -1.59   | 54.92 | 128.48 | 15260. |         |   |      |  |  |
| 4                              | .0    | -20.0 | 303.0 | 17.86 | -606.  | -836.  | 248.   | -110.40 | 54.73 | 128.25 | 15300. |         |   |      |  |  |
| 5                              | .0    | -15.0 | 307.2 | 5.28  | -621.  | -689.  | 313.   | -81.16  | 54.84 | 128.39 | 15250. |         |   |      |  |  |
| 6                              | .0    | -10.0 | 306.8 | -2.44 | -611.  | -569.  | 432.   | -51.01  | 54.87 | 128.43 | 15250. |         |   |      |  |  |
| 7                              | .0    | -5.0  | 308.5 | -4.94 | -619.  | -385.  | 574.   | -27.02  | 54.93 | 128.50 | 15270. |         |   |      |  |  |
| 8                              | .0    | -2.5  | 312.2 | -5.37 | -606.  | -279.  | 660.   | -16.23  | 54.69 | 128.21 | 15260. |         |   |      |  |  |
| 9                              | .0    | .0    | 313.0 | 75.91 | -571.  | -125.  | 786.   | -4.41   | 54.61 | 128.11 | 15270. |         |   |      |  |  |
| 10                             | .0    | 2.5   | 303.0 | -5.78 | -518.  | -23.   | 773.   | 8.73    | 55.78 | 129.51 | 15290. |         |   |      |  |  |
| 11                             | .0    | 5.0   | 308.5 | -6.88 | -452.  | 105.   | 870.   | 19.71   | 54.91 | 128.47 | 15260. |         |   |      |  |  |
| 12                             | .0    | 10.0  | 301.7 | -3.86 | -360.  | 404.   | 967.   | 45.90   | 54.94 | 128.51 | 15270. |         |   |      |  |  |
| 13                             | .0    | 15.0  | 289.4 | 3.24  | -257.  | 555.   | 997.   | 74.05   | 54.99 | 128.57 | 15270. |         |   |      |  |  |
| 14                             | .0    | 20.0  | 285.5 | 16.26 | -204.  | 708.   | 974.   | 109.06  | 54.94 | 128.51 | 15270. |         |   |      |  |  |
| 15                             | .0    | .0    | 318.9 | -7.19 | -495.  | -155.  | 785.   | -2.81   | 54.94 | 128.51 | 15260. |         |   |      |  |  |
| 16                             | .0    | 10.0  | 309.1 | -5.79 | -301.  | 366.   | 865.   | 47.19   | 55.34 | 128.98 | 15270. |         |   |      |  |  |
| 17                             | .0    | 15.0  | 292.1 | 4.34  | -230.  | 556.   | 1014.  | 74.64   | 55.09 | 128.68 | 15230. |         |   |      |  |  |

| COEFFICIENT FORM - WIND AXIS |        |       |        |        |        |       |        |
|------------------------------|--------|-------|--------|--------|--------|-------|--------|
| PT.#                         | PSI    | CL    | CD     | CPM    | CYM    | CRM   | CY     |
| 2                            | .00    | .9038 | .1778  | -.1258 | -.0063 | .0396 | .0006  |
| 3                            | .00    | .8568 | -.0188 | -.1663 | -.0092 | .0452 | -.0043 |
| 4                            | -20.00 | .8190 | .0483  | -.1954 | -.0505 | .0150 | -.2984 |
| 5                            | -15.00 | .8302 | .0143  | -.2001 | -.0416 | .0189 | -.2194 |
| 6                            | -10.00 | .8291 | -.0066 | -.1971 | -.0343 | .0261 | -.1379 |
| 7                            | -5.00  | .8338 | -.0133 | -.1995 | -.0233 | .0347 | -.0730 |
| 8                            | -2.50  | .8437 | -.0145 | -.1953 | -.0168 | .0399 | -.0439 |
| 9                            | .00    | .8460 | -.0160 | -.1840 | -.0075 | .0475 | -.0119 |
| 10                           | 2.50   | .8190 | -.0156 | -.1669 | -.0014 | .0467 | .0236  |
| 11                           | 5.00   | .8337 | -.0186 | -.1456 | .0063  | .0526 | .0533  |
| 12                           | 10.00  | .8154 | -.0104 | -.1161 | .0244  | .0584 | .1241  |
| 13                           | 15.00  | .7823 | .0087  | -.0828 | .0335  | .0602 | .2001  |
| 14                           | 20.00  | .7716 | .0439  | -.0659 | .0428  | .0588 | .2948  |
| 15                           | .00    | .8620 | -.0194 | -.1597 | -.0094 | .0474 | -.0076 |
| 16                           | 10.00  | .8354 | -.0156 | -.0969 | .0221  | .0522 | .1275  |
| 17                           | 15.00  | .7896 | .0117  | -.0743 | .0336  | .0613 | .2017  |

| COEFFICIENT FORM - STABILITY AXIS |        |       |        |        |        |       |        |
|-----------------------------------|--------|-------|--------|--------|--------|-------|--------|
| PT.#                              | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
| 2                                 | .00    | .9038 | .1778  | -.1258 | -.0063 | .0396 | .0006  |
| 3                                 | .00    | .8568 | -.0188 | -.1663 | -.0092 | .0452 | -.0043 |
| 4                                 | -20.00 | .8190 | -.0572 | -.2109 | -.0505 | .0266 | -.2968 |
| 5                                 | -15.00 | .8302 | -.0432 | -.2195 | -.0416 | .0280 | -.2155 |
| 6                                 | -10.00 | .8291 | -.0306 | -.2184 | -.0343 | .0321 | -.1346 |
| 7                                 | -5.00  | .8338 | -.0197 | -.2150 | -.0233 | .0378 | -.0716 |
| 8                                 | -2.50  | .8437 | -.0164 | -.2044 | -.0168 | .0414 | -.0432 |
| 9                                 | .00    | .8460 | -.0160 | -.1840 | -.0075 | .0475 | -.0119 |
| 10                                | 2.50   | .8190 | -.0166 | -.1558 | -.0014 | .0452 | .0229  |
| 11                                | 5.00   | .8337 | -.0232 | -.1205 | .0063  | .0500 | .0514  |
| 12                                | 10.00  | .8154 | -.0319 | -.0599 | .0244  | .0537 | .1203  |
| 13                                | 15.00  | .7823 | -.0436 | .0036  | .0335  | .0541 | .1955  |
| 14                                | 20.00  | .7716 | -.0600 | .0460  | .0428  | .0510 | .2919  |

|    |       |       |        |        |        |       |        |
|----|-------|-------|--------|--------|--------|-------|--------|
| 15 | .00   | .8620 | -.0194 | -.1597 | -.0094 | .0474 | -.0076 |
| 16 | 10.00 | .8354 | -.0376 | -.0468 | .0221  | .0483 | .1229  |
| 17 | 15.00 | .7896 | -.0411 | .0133  | .0336  | .0556 | .1978  |

| RUN     | 754          | CONFIG        | F                    | P                    | B         | NP5                   | W7                    | T2                    | IN=-3.5     | XN=0    |        |
|---------|--------------|---------------|----------------------|----------------------|-----------|-----------------------|-----------------------|-----------------------|-------------|---------|--------|
| PT. NO. | 15 ALPHA DEG | DELTA PSI DEG | 0. DELTA CLBAR SQ-FT | 20 DELTA CDBAR SQ-FT | IHT CU-FT | - DELTA CYM BAR CU-FT | - DELTA CRM BAR CU-FT | - DELTA CYB BAR SQ-FT | DELSB Q PSF | V KNOTS | RPM    |
| 2       | 0            | 0             | 337.5                | 65.70                | -371.     | -96.                  | 634.                  | .22                   | 55.97       | 129.73  | 4020.  |
| 3       | 0            | 0             | 339.4                | 66.16                | -376.     | -101.                 | 619.                  | .42                   | 54.71       | 128.23  | 3990.  |
| 4       | 0            | 0             | 317.5                | -7.11                | -497.     | -143.                 | 710.                  | -1.95                 | 55.21       | 128.83  | 15320. |
| 5       | -20.0        | 0             | -227.7               | 7.53                 | -1630.    | 104.                  | 554.                  | 10.85                 | 54.74       | 128.27  | 15290. |
| 6       | -15.0        | 0             | -84.6                | -20.52               | -1569.    | 153.                  | 583.                  | 1.24                  | 55.15       | 128.75  | 15260. |
| 7       | -10.0        | 0             | 67.3                 | -29.46               | -1321.    | 83.                   | 658.                  | -.41                  | 55.00       | 128.58  | 15240. |
| 8       | -5.0         | 0             | 198.7                | -22.16               | -932.     | -15.                  | 694.                  | -1.61                 | 55.12       | 128.72  | 15230. |
| 9       | -2.5         | 0             | 257.6                | -15.68               | -715.     | -88.                  | 712.                  | -1.33                 | 55.50       | 129.18  | 15250. |
| 10      | 0            | 0             | 315.8                | -6.99                | -509.     | -150.                 | 716.                  | -2.36                 | 55.25       | 128.88  | 15250. |
| 11      | 2.5          | 0             | 365.0                | 4.61                 | -312.     | -193.                 | 691.                  | -4.82                 | 55.13       | 128.74  | 15240. |
| 12      | 5.0          | 0             | 362.8                | 23.26                | -181.     | -170.                 | 492.                  | -5.22                 | 55.01       | 128.59  | 15260. |
| 14      | 15.0         | 0             | 434.7                | 123.50               | 416.      | -169.                 | 358.                  | -1.79                 | 55.04       | 128.62  | 15230. |
| 15      | 17.5         | 0             | 460.2                | 149.77               | 590.      | -128.                 | 266.                  | 1.87                  | 54.56       | 128.05  | 15290. |
| 16      | 20.0         | 0             | 489.2                | 178.39               | 753.      | -89.                  | 107.                  | 5.43                  | 54.62       | 128.12  | 15280. |
| 18      | 10.0         | 0             | 392.9                | 74.66                | 58.       | -75.                  | 595.                  | -8.98                 | 54.76       | 128.29  | 15250. |
| 19      | 0            | 0             | 316.6                | -7.17                | -506.     | -143.                 | 725.                  | -3.07                 | 55.12       | 128.72  | 15240. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 0.00   | .9122  | .1776  | -.1197 | -.0058 | .0383 | .0006  |
| 3    | 0.00   | .9172  | .1788  | -.1212 | -.0061 | .0374 | .0011  |
| 4    | 0.00   | .8580  | -.0192 | -.1603 | -.0086 | .0429 | -.0053 |
| 5    | -20.00 | -.6155 | .0204  | -.5254 | .0063  | .0334 | .0293  |
| 6    | -15.00 | -.2288 | -.0555 | -.5058 | .0093  | .0352 | .0033  |
| 7    | -10.00 | .1818  | -.0796 | -.4260 | .0050  | .0398 | -.0011 |
| 8    | -5.00  | .5370  | -.0599 | -.3004 | -.0009 | .0419 | -.0043 |
| 9    | -2.50  | .6962  | -.0424 | -.2304 | -.0053 | .0430 | -.0036 |
| 10   | 0.00   | .8536  | -.0189 | -.1641 | -.0091 | .0433 | -.0064 |
| 11   | 2.49   | .9865  | .0125  | -.1005 | -.0116 | .0417 | -.0130 |
| 12   | 4.99   | .9805  | .0629  | -.0584 | -.0103 | .0297 | -.0141 |
| 14   | 14.99  | 1.1750 | .3338  | .1342  | -.0102 | .0216 | -.0049 |
| 15   | 17.49  | 1.2437 | .4048  | .1901  | -.0077 | .0161 | .0051  |
| 16   | 20.00  | 1.3221 | .4821  | .2429  | -.0054 | .0065 | .0147  |
| 18   | 10.00  | 1.0620 | .2018  | .0186  | -.0045 | .0359 | -.0243 |
| 19   | 0.01   | .8557  | -.0194 | -.1632 | -.0086 | .0438 | -.0083 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 0.00   | .9122  | .1776  | -.1197 | -.0058 | .0383 | .0006  |
| 3    | 0.00   | .9172  | .1788  | -.1212 | -.0061 | .0374 | .0011  |
| 4    | 0.00   | .8580  | -.0192 | -.1603 | -.0086 | .0429 | -.0053 |
| 5    | -20.00 | -.6155 | .0204  | -.5254 | .0063  | .0334 | .0293  |
| 6    | -15.00 | -.2288 | -.0555 | -.5058 | .0093  | .0352 | .0033  |
| 7    | -10.00 | .1818  | -.0796 | -.4260 | .0050  | .0398 | -.0011 |
| 8    | -5.00  | .5370  | -.0599 | -.3004 | -.0009 | .0419 | -.0043 |
| 9    | -2.50  | .6962  | -.0424 | -.2304 | -.0053 | .0430 | -.0036 |
| 10   | 0.00   | .8536  | -.0189 | -.1641 | -.0091 | .0433 | -.0064 |
| 11   | 2.49   | .9865  | .0125  | -.1005 | -.0116 | .0417 | -.0130 |
| 12   | 4.99   | .9805  | .0629  | -.0584 | -.0103 | .0297 | -.0141 |
| 14   | 14.99  | 1.1750 | .3338  | .1342  | -.0102 | .0216 | -.0049 |
| 15   | 17.49  | 1.2437 | .4048  | .1901  | -.0077 | .0161 | .0051  |
| 16   | 20.00  | 1.3221 | .4821  | .2429  | -.0054 | .0065 | .0147  |
| 18   | 10.00  | 1.0620 | .2018  | .0186  | -.0045 | .0359 | -.0243 |
| 19   | 0.01   | .8557  | -.0194 | -.1632 | -.0086 | .0438 | -.0083 |

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N432409-1

SIKORSKY RSRA 1/4 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 626

RUN 755 CONFIG F P B NPS W7 T2 IN=-3.5 IW=15 DELTAAR=10

| PT.# | IW    | 15 DELF | 0 DELA | 20 IHT | - DELF | - DELR | - DELSB | V      | RPM   |        |        |
|------|-------|---------|--------|--------|--------|--------|---------|--------|-------|--------|--------|
| NO.  | ALPHA | PSI     | CLBAR  | CDBAR  | CPMBAR | CYBAR  | CRMBAR  | CYBAR  | PSF   | KNOTS  |        |
|      | DEG   | DEG     | SQ-FT  | SQ-FT  | CU-FT  | CU-FT  | CU-FT   | SQ-FT  |       |        |        |
| 2    | 0     | 0       | 353.2  | 66.07  | -418.  | -65.   | 374.    | -1.13  | 55.44 | 129.11 | 4000.  |
| 3    | 0     | 0       | 333.1  | -6.35  | -538.  | -107.  | 455.    | -3.21  | 55.12 | 128.72 | 15230. |
| 4    | -20.0 | 0       | -212.2 | 2.56   | -1660. | 62.    | 323.    | 9.22   | 54.42 | 127.89 | 15270. |
| 5    | -15.0 | 0       | -66.0  | -24.41 | -1717. | 128.   | 365.    | -.02   | 53.93 | 127.30 | 15210. |
| 6    | -10.0 | 0       | 83.5   | -31.84 | -1369. | 80.    | 399.    | -2.89  | 54.14 | 127.55 | 15260. |
| 7    | -5.0  | 0       | 215.7  | -24.07 | -965.  | -20.   | 429.    | -.27   | 54.24 | 127.67 | 15230. |
| 8    | -2.5  | 0       | 275.6  | -16.18 | -760.  | -75.   | 443.    | -1.30  | 54.14 | 127.55 | 15250. |
| 9    | 0     | 0       | 330.7  | -6.67  | -540.  | -117.  | 450.    | -2.33  | 54.20 | 127.63 | 15240. |
| 10   | 2.5   | 0       | 379.3  | 6.69   | -333.  | -145.  | 433.    | -4.41  | 54.37 | 127.82 | 15140. |
| 11   | 5.0   | 0       | 373.1  | 26.26  | -246.  | -116.  | 352.    | -5.16  | 54.82 | 128.36 | 15190. |
| 13   | 15.0  | 0       | 443.2  | 126.73 | 397.   | -98.   | 302.    | -1.77  | 54.52 | 128.00 | 15220. |
| 14   | 20.0  | 0       | 501.2  | 184.23 | 746.   | -24.   | 13.     | 4.14   | 54.62 | 128.12 | 15280. |
| 15   | 10.0  | 0       | 398.6  | 77.60  | 43.    | -33.   | 536.    | -11.20 | 54.85 | 128.40 | 15280. |
| 16   | 0     | 0       | 336.2  | -5.56  | -542.  | -118.  | 488.    | -4.00  | 54.20 | 127.62 | 15260. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 0.00   | .9547  | .1786  | -.1349 | -.0039 | .0226 | -.0030 |
| 3    | 0.00   | .9003  | -.0172 | -.1734 | -.0064 | .0275 | -.0087 |
| 4    | -20.00 | -.5734 | .0069  | -.5350 | .0038  | .0195 | .0249  |
| 5    | -14.98 | -.1784 | -.0660 | -.5536 | .0077  | .0221 | -.0001 |
| 6    | -10.00 | .2258  | -.0861 | -.4413 | .0048  | .0241 | -.0078 |
| 7    | -4.98  | .5830  | -.0651 | -.3112 | -.0012 | .0259 | -.0007 |
| 8    | -2.50  | .7449  | -.0437 | -.2450 | -.0045 | .0268 | -.0035 |
| 9    | 0.00   | .8939  | -.0180 | -.1742 | -.0070 | .0272 | -.0063 |
| 10   | 2.51   | 1.0252 | .0181  | -.1074 | -.0087 | .0261 | -.0119 |
| 11   | 5.01   | 1.0084 | .0710  | -.0792 | -.0070 | .0213 | -.0139 |
| 13   | 15.00  | 1.1979 | .3425  | .1279  | -.0059 | .0183 | -.0048 |
| 14   | 20.00  | 1.3546 | .4979  | .2405  | -.0014 | .0008 | .0112  |
| 15   | 10.01  | 1.0773 | .2097  | .0137  | -.0020 | .0324 | -.0303 |
| 16   | 0.00   | .9086  | -.0150 | -.1747 | -.0071 | .0295 | -.0108 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 0.00   | .9547  | .1786  | -.1349 | -.0039 | .0226 | -.0030 |
| 3    | 0.00   | .9003  | -.0172 | -.1734 | -.0064 | .0275 | -.0087 |
| 4    | -20.00 | -.5734 | .0069  | -.5350 | .0038  | .0195 | .0249  |
| 5    | -14.98 | -.1784 | -.0660 | -.5536 | .0077  | .0221 | -.0001 |
| 6    | -10.00 | .2258  | -.0861 | -.4413 | .0048  | .0241 | -.0078 |
| 7    | -4.98  | .5830  | -.0651 | -.3112 | -.0012 | .0259 | -.0007 |
| 8    | -2.50  | .7449  | -.0437 | -.2450 | -.0045 | .0268 | -.0035 |
| 9    | 0.00   | .8939  | -.0180 | -.1742 | -.0070 | .0272 | -.0063 |
| 10   | 2.51   | 1.0252 | .0181  | -.1074 | -.0087 | .0261 | -.0119 |
| 11   | 5.01   | 1.0084 | .0710  | -.0792 | -.0070 | .0213 | -.0139 |
| 13   | 15.00  | 1.1979 | .3425  | .1279  | -.0059 | .0183 | -.0048 |
| 14   | 20.00  | 1.3546 | .4979  | .2405  | -.0014 | .0008 | .0112  |
| 15   | 10.01  | 1.0773 | .2097  | .0137  | -.0020 | .0324 | -.0303 |
| 16   | 0.00   | .9086  | -.0150 | -.1747 | -.0071 | .0295 | -.0108 |

N432409-1

SIKORSKY RSR# 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SEP-72011

P 627

RUN 756 CONFIG F P R IMP5 07 T2 INE=3.5 IR=15 DELTAAR=10

| PT. NO. | 15 DELF<br>ALPHA DEG | 0.0 DELTA<br>PSI DEG | 10 INT<br>CLP-FT | - DELF<br>CP3AR<br>SO-FT | - DELP<br>CY3AR<br>CU-FT | - DELSC<br>CRPPAR<br>CU-FT | - DELSC<br>CYBAR<br>SO-FT | - DELSC<br>PSF | -<br>KNOTS | RPM    |        |
|---------|----------------------|----------------------|------------------|--------------------------|--------------------------|----------------------------|---------------------------|----------------|------------|--------|--------|
| 2       | .0                   | .0                   | 354.6            | 67.72                    | -426.                    | -67.                       | 384.                      | -0.02          | 54.70      | 128.22 | 3980.  |
| 3       | .0                   | .0                   | 336.9            | -5.57                    | -546.                    | -134.                      | 461.                      | -4.30          | 54.65      | 128.16 | 15290. |
| 4       | .0                   | 20.0                 | 216.9            | 10.24                    | -325.                    | -700.                      | 6140.                     | 114.30         | 54.22      |        |        |
| 5       | .0                   | -15.0                | 326.4            | 7.54                     | -597.                    | -630.                      | -10.                      | -82.46         | 54.76      | 128.30 | 15280. |
| 6       | .0                   | -10.0                | 326.3            | -0.77                    | -624.                    | -510.                      | 138.                      | -51.47         | 54.38      | 127.84 | 15260. |
| 7       | .0                   | -5.0                 | 329.7            | -2.90                    | -647.                    | -333.                      | 247.                      | -26.71         | 54.33      | 127.78 | 15230. |
| 8       | .0                   | -2.5                 | 331.6            | -0.96                    | -637.                    | -204.                      | 341.                      | -16.00         | 54.39      | 127.86 | 15240. |
| 9       | .0                   | .0                   | 327.2            | -3.67                    | -615.                    | -05.                       | 457.                      | -4.84          | 55.14      | 128.74 | 15230. |
| 10      | .0                   | 2.5                  | 330.2            | -3.06                    | -547.                    | 20.                        | 549.                      | 5.13           | 55.10      | 128.60 | 15230. |
| 11      | .0                   | 5.0                  | 328.0            | -4.69                    | -517.                    | 161.                       | 573.                      | 17.52          | 54.89      | 128.45 | 15270. |
| 12      | .0                   | 10.0                 | 318.9            | -2.19                    | -433.                    | 439.                       | 663.                      | 42.35          | 54.30      | 128.30 | 15250. |
| 13      | .0                   | 15.0                 | 306.9            | 4.09                     | -332.                    | 596.                       | 770.                      | 72.39          | 54.49      | 127.97 | 15300. |
| 14      | .0                   | 20.0                 | 298.1            | 16.10                    | -330.                    | 742.                       | 726.                      | 104.69         | 54.04      | 127.43 | 15240. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CP     | CPM    | CY <sup>2</sup> | CR <sup>2</sup> | CY     |
|------|--------|-------|--------|--------|-----------------|-----------------|--------|
| 2    | .00    | .9584 | .1839  | -.1374 | -.0041          | .0232           | -.0001 |
| 3    | .00    | .9106 | -.0151 | -.1762 | -.0063          | .0278           | -.0116 |
| 4    | -20.00 | .5940 | .0539  | -.2003 | .0482           | -.3214          | -.2917 |
| 5    | -15.00 | .8423 | .0305  | -.1827 | -.0391          | .0097           | -.2200 |
| 6    | -10.00 | .8819 | -.0263 | -.2043 | -.0308          | .0130           | -.1364 |
| 7    | -5.00  | .8910 | -.0101 | -.2148 | -.0261          | .0103           | -.0712 |
| 8    | -2.50  | .8961 | -.0072 | -.2077 | -.0148          | .0222           | -.0455 |
| 9    | .00    | .8843 | -.0009 | -.1950 | -.0053          | .0276           | -.0131 |
| 10   | 2.50   | .8924 | -.0113 | -.1683 | .0012           | .0317           | .0134  |
| 11   | 5.00   | .8865 | -.0169 | -.1466 | .0097           | .0318           | .0461  |
| 12   | 10.00  | .8616 | -.0253 | -.1002 | .0065           | .0349           | .1117  |
| 13   | 15.00  | .8293 | -.0378 | -.0389 | .0060           | .0397           | .1924  |
| 14   | 20.00  | .8056 | -.0563 | -.0194 | .0048           | .0343           | .2807  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLS   | CPB    | CPMB   | CY <sup>2</sup> | CR <sup>2</sup> | CYB    |
|------|--------|-------|--------|--------|-----------------|-----------------|--------|
| 2    | .00    | .9584 | .1839  | -.1374 | -.0041          | .0232           | -.0001 |
| 3    | .00    | .9106 | -.0151 | -.1762 | -.0063          | .0278           | -.0116 |
| 4    | -20.00 | .5940 | -.0516 | .4038  | -.0482          | -.3206          | -.2911 |
| 5    | -15.00 | .8423 | -.0305 | -.1827 | -.0391          | .0097           | -.2200 |
| 6    | -10.00 | .8819 | -.0263 | -.2043 | -.0308          | .0130           | -.1364 |
| 7    | -5.00  | .8910 | -.0101 | -.2148 | -.0261          | .0103           | -.0712 |
| 8    | -2.50  | .8961 | -.0072 | -.2077 | -.0148          | .0222           | -.0455 |
| 9    | .00    | .8843 | -.0009 | -.1950 | -.0053          | .0276           | -.0131 |
| 10   | 2.50   | .8924 | -.0113 | -.1683 | .0012           | .0317           | .0134  |
| 11   | 5.00   | .8865 | -.0169 | -.1466 | .0097           | .0318           | .0461  |
| 12   | 10.00  | .8616 | -.0253 | -.1002 | .0065           | .0349           | .1117  |
| 13   | 15.00  | .8293 | -.0378 | -.0389 | .0060           | .0397           | .1924  |
| 14   | 20.00  | .8056 | -.0563 | -.0194 | .0048           | .0343           | .2807  |

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N432405-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 628

RU: 757 CONFIG F P B NP5 W7 T2 IN=-3.5 IW=15 DELTAAR=-10

| PT. NO. | 15 DELF ALPHA DEG | 0.0 DELTA PSI DEG | 0.0 DELTA CLBAR SQ-FT | -10 IHT CDBAR SQ-FT | - DELE CPMBAR CU-FT | - DELR- CYMBAR CU-FT | - DELR- CRMBAR CU-FT | - DFLSR CYBAR SQ-FT | PSF   | Y KNOTS | RPM    |
|---------|-------------------|-------------------|-----------------------|---------------------|---------------------|----------------------|----------------------|---------------------|-------|---------|--------|
| 2       | .0                | .0                | 388.3                 | 75.67               | -527.               | 83.                  | -106.                | -.27                | 54.74 | 128.28  | 3990.  |
| 3       | .0                | .0                | 371.1                 | -6.39               | -646.               | 42.                  | -41.                 | -4.68               | 54.82 | 128.37  | 16160. |
| 4       | .0                | -20.0             | 356.0                 | 18.12               | -475.               | -649.                | -570.                | -109.14             | 54.64 | 128.15  | 16190. |
| 5       | .0                | -15.0             | 356.1                 | 6.90                | -531.               | -499.                | -452.                | -80.79              | 55.35 | 128.99  | 16130. |
| 6       | .0                | -10.0             | 362.4                 | -1.15               | -625.               | -374.                | -406.                | -51.67              | 54.66 | 128.17  | 16150. |
| 7       | .0                | -5.0              | 363.9                 | -4.27               | -691.               | -180.                | -295.                | -27.60              | 54.93 | 128.49  | 16210. |
| 8       | .0                | -2.5              | 365.3                 | -5.81               | -705.               | -59.                 | -169.                | -15.95              | 55.04 | 128.62  | 16250. |
| 9       | .0                | .0                | 358.9                 | -5.52               | -695.               | 39.                  | -75.                 | -5.37               | 55.18 | 128.80  | 16220. |
| 11      | .0                | 5.0               | 365.3                 | -6.75               | -653.               | 308.                 | 51.                  | 17.13               | 54.50 | 127.98  | 16200. |
| 12      | .0                | 10.0              | 347.4                 | -4.09               | -618.               | 576.                 | 273.                 | 42.00               | 54.96 | 128.54  | 16180. |
| 13      | .0                | 15.0              | 336.9                 | 3.32                | -556.               | 724.                 | 362.                 | 72.14               | 54.57 | 128.07  | 16200. |
| 14      | .0                | 20.0              | 325.9                 | 14.84               | -546.               | 863.                 | 362.                 | 105.97              | 54.71 | 128.23  | 16190. |
| 15      | .0                | 2.5               | 360.7                 | -5.48               | -684.               | 224.                 | 185.                 | 4.78                | 54.92 | 128.49  | 16200. |
| 16      | .0                | .0                | 366.9                 | -4.97               | -693.               | 84.                  | 63.                  | -7.43               | 54.53 | 128.02  | 16190. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0493 | .2045  | -.1698 | .0050  | -.0064 | -.0007 |
| 3    | .00    | 1.0030 | -.0173 | -.2084 | .0025  | -.0025 | -.0127 |
| 4    | -20.00 | .9622  | .0490  | -.1532 | -.0392 | -.0344 | -.2950 |
| 5    | -15.00 | .9623  | .0186  | -.1711 | -.0302 | -.0273 | -.2184 |
| 6    | -10.00 | .9796  | -.0031 | -.2014 | -.0226 | -.0245 | -.1396 |
| 7    | -5.00  | .9835  | -.0116 | -.2227 | -.0109 | -.0178 | -.0746 |
| 8    | -2.50  | .9874  | -.0157 | -.2273 | -.0036 | -.0102 | -.0431 |
| 9    | .00    | .9699  | -.0149 | -.2240 | .0023  | -.0045 | -.0145 |
| 11   | 5.00   | .9872  | -.0182 | -.2106 | .0186  | .0031  | .0463  |
| 12   | 10.00  | .9390  | -.0110 | -.1994 | .0348  | .0165  | .1135  |
| 13   | 15.00  | .9106  | .0090  | -.1792 | .0437  | .0218  | .1950  |
| 14   | 20.00  | .8809  | .0401  | -.1762 | .0521  | .0218  | .2864  |
| 15   | 2.50   | .9748  | -.0148 | -.2206 | .0135  | .0064  | .0129  |
| 16   | .00    | .9915  | -.0134 | -.2233 | .0051  | .0038  | -.0201 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0493 | .2045  | -.1698 | .0050  | -.0064 | -.0007 |
| 3    | .00    | 1.0030 | -.0173 | -.2084 | .0025  | -.0025 | -.0127 |
| 4    | -20.00 | .9622  | -.0553 | -.0807 | -.0392 | -.0225 | -.2939 |
| 5    | -15.00 | .9623  | -.0388 | -.1273 | -.0302 | -.0181 | -.2157 |
| 6    | -10.00 | .9796  | -.0274 | -.1755 | -.0226 | -.0176 | -.1370 |
| 7    | -5.00  | .9835  | -.0180 | -.2135 | -.0109 | -.0141 | -.0733 |
| 8    | -2.50  | .9874  | -.0176 | -.2247 | -.0036 | -.0083 | -.0424 |
| 9    | .00    | .9699  | -.0149 | -.2240 | .0023  | -.0045 | -.0145 |
| 11   | 5.00   | .9872  | -.0222 | -.2083 | .0186  | -.0004 | .0445  |
| 12   | 10.00  | .9390  | -.0307 | -.1810 | .0348  | .0097  | .1098  |
| 13   | 15.00  | .9106  | -.0420 | -.1427 | .0437  | .0124  | .1906  |
| 14   | 20.00  | .8809  | -.0607 | -.1254 | .0521  | .0092  | .2828  |
| 15   | 2.50   | .9748  | -.0154 | -.2189 | .0135  | .0045  | .0122  |
| 16   | .00    | .9915  | -.0134 | -.2233 | .0051  | .0038  | -.0201 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 629

RUN 758 CONFIG F P B NPS W7 T2 IN=-3.5 IW=15 DELTAAR=-10

| P#  | 15    | DELTA | 0.0    | DELTA  | -10    | IHT   | DELE   | DELR   | DELSB | V      | RPM    |
|-----|-------|-------|--------|--------|--------|-------|--------|--------|-------|--------|--------|
| NO. | ALPHA | PSI   | CLBAR  | CDRAR  | CPMBAR | CYBAR | CRMBAR | CYBAR  | PSF   | KNOTS  |        |
|     | DEG   | DEG   | SQ=FT  | SQ=FT  | CU=FT  | CU=FT | CU=FT  | SQ=FT  |       |        |        |
| 2   | .0    | .0    | 390.3  | 76.92  | -529.  | 73.   | -111.  | -.91   | 54.66 | 128.18 | 4000.  |
| 3   | .0    | .0    | 369.4  | -6.76  | -640.  | 29.   | -22.   | -5.76  | 55.18 | 128.80 | 16190. |
| 4   | -20.0 | .0    | -179.2 | -3.57  | -1665. | 68.   | -210.  | 2.61   | 55.28 | 128.91 | 16190. |
| 5   | -15.0 | .0    | -25.5  | -30.51 | -1695. | 154.  | -204.  | -2.85  | 55.29 | 128.92 | 16180. |
| 6   | -10.0 | .0    | 119.5  | -34.70 | -1448. | 171.  | -159.  | -5.42  | 55.31 | 128.95 | 16200. |
| 7   | -5.0  | .0    | 249.6  | -24.95 | -1067. | 94.   | -79.   | -2.27  | 55.01 | 128.60 | 16210. |
| 8   | -2.5  | .0    | 315.6  | -16.96 | -868.  | 64.   | -36.   | -3.42  | 54.75 | 128.29 | 16240. |
| 9   | .0    | .0    | 370.6  | -6.72  | -647.  | 47.   | -6.    | -4.82  | 54.90 | 128.46 | 16240. |
| 10  | 2.5   | .0    | 415.8  | 8.56   | -458.  | 7.    | -9.    | -7.66  | 54.85 | 128.40 | 16210. |
| 11  | 5.0   | .0    | 394.4  | 27.49  | -314.  | 11.   | 179.   | -8.41  | 54.70 | 128.22 | 16200. |
| 12  | 10.0  | .0    | 412.0  | 78.14  | 29.    | 38.   | 438.   | -13.28 | 54.79 | 128.33 | 16170. |
| 13  | 15.0  | .0    | 444.6  | 127.42 | 407.   | -13.  | 171.   | -7.06  | 55.18 | 128.79 | 16210. |
| 15  | 20.0  | .0    | 510.6  | 188.81 | 827.   | 121.  | -100.  | -1.04  | 54.82 | 128.36 | 16180. |
| 16  | .0    | .0    | 360.9  | -2.32  | -674.  | 39.   | -78.   | -3.41  | 54.95 | 128.53 | 16220. |

COEFFICIENT FORM - WIND AXIS

| P# | ALPHA  | CL     | CD     | CPM    | CYH    | CRM    | CY     |
|----|--------|--------|--------|--------|--------|--------|--------|
| 2  | .00    | 1.0548 | .2079  | -.1706 | .0044  | -.0067 | -.0025 |
| 3  | .00    | .9984  | -.0183 | -.2063 | .0017  | -.0013 | -.0156 |
| 4  | -20.00 | -.4843 | -.0097 | -.5367 | .0041  | -.0127 | .0071  |
| 5  | -14.96 | -.0690 | -.0825 | -.5464 | .0093  | -.0123 | -.0077 |
| 6  | -10.01 | .3230  | -.0938 | -.4670 | .0103  | -.0096 | -.0146 |
| 7  | -4.98  | .6747  | -.0674 | -.3439 | .0056  | -.0047 | -.0061 |
| 8  | -2.50  | .8529  | -.0458 | -.2799 | .0039  | -.0022 | -.0092 |
| 9  | .00    | 1.0016 | -.0182 | -.2086 | .0028  | -.0003 | -.0130 |
| 10 | 2.50   | 1.1239 | .0231  | -.1475 | .0004  | -.0006 | -.0207 |
| 11 | 5.00   | 1.0661 | .0743  | -.1014 | .0007  | .0108  | -.0227 |
| 12 | 10.00  | 1.1136 | .2112  | .0092  | .0023  | .0265  | -.0359 |
| 13 | 15.02  | 1.2016 | .3444  | .1312  | -.0008 | .0103  | -.0191 |
| 15 | 20.01  | 1.3801 | .5103  | .2667  | .0073  | -.0061 | -.0028 |
| 16 | .00    | .9755  | -.0063 | -.2174 | .0024  | -.0047 | -.0092 |

COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0548 | .2079  | -.1706 | .0044  | -.0067 | -.0025 |
| 3    | .00    | .9984  | -.0183 | -.2063 | .0017  | -.0013 | -.0156 |
| 4    | -20.00 | -.4843 | -.0097 | -.5367 | .0041  | -.0127 | .0071  |
| 5    | -14.96 | -.0690 | -.0825 | -.5464 | .0093  | -.0123 | -.0077 |
| 6    | -10.01 | .3230  | -.0938 | -.4670 | .0103  | -.0096 | -.0146 |
| 7    | -4.98  | .6747  | -.0674 | -.3439 | .0056  | -.0047 | -.0061 |
| 8    | -2.50  | .8529  | -.0458 | -.2799 | .0039  | -.0022 | -.0092 |
| 9    | .00    | 1.0016 | -.0182 | -.2086 | .0028  | -.0003 | -.0130 |
| 10   | 2.50   | 1.1239 | .0231  | -.1475 | .0004  | -.0006 | -.0207 |
| 11   | 5.00   | 1.0661 | .0743  | -.1014 | .0007  | .0108  | -.0227 |
| 12   | 10.00  | 1.1136 | .2112  | .0092  | .0023  | .0265  | -.0359 |
| 13   | 15.02  | 1.2016 | .3444  | .1312  | -.0008 | .0103  | -.0191 |
| 15   | 20.01  | 1.3801 | .5103  | .2667  | .0073  | -.0061 | -.0028 |
| 16   | .00    | .9755  | -.0063 | -.2174 | .0024  | -.0047 | -.0092 |

RUN 759 CONFIG F P B NP5 W7 T2 IN=3.5 IW=15 WM

| PT. NO. | IW ALPHA DEG | DELTA PSI DEG | 0.0 CLBAR SQ-FT | 0.0 CD BAR SQ-FT | 0.0 IHT CU-FT | - DELE CYM BAR CU-FT | - DELR CRM BAR CU-FT | - DELSB CY BAR SQ-FT | - V PSF | - V KNOTS | RPM   |
|---------|--------------|---------------|-----------------|------------------|---------------|----------------------|----------------------|----------------------|---------|-----------|-------|
| 2       | 0            | 0             | 372.8           | 70.21            | -468.         | 10.                  | 119.                 | -1.08                | 54.81   | 128.35    | 3980. |
| 3       | -20.0        | 0             | -142.6          | 66.65            | -1042.        | -0.                  | -11.                 | 9.95                 | 54.86   | 128.42    | 4040. |
| 4       | -15.0        | 0             | -15.5           | 47.20            | -1117.        | 9.                   | 1.                   | 2.49                 | 55.09   | 128.69    | 3850. |
| 5       | -10.0        | 0             | 133.7           | 39.42            | -1137.        | 60.                  | 52.                  | .71                  | 54.37   | 127.83    | 3790. |
| 6       | -5.0         | 0             | 264.6           | 50.14            | -850.         | 48.                  | 92.                  | -1.89                | 54.63   | 128.14    | 3870. |
| 7       | -2.5         | 0             | 325.1           | 58.87            | -661.         | 32.                  | 98.                  | -2.01                | 54.33   | 127.78    | 3920. |
| 8       | 0            | 0             | 374.8           | 70.09            | -464.         | -3.                  | 131.                 | -1.65                | 55.19   | 128.81    | 3990. |
| 9       | 2.5          | 0             | 392.9           | 87.60            | -355.         | 18.                  | 133.                 | -3.19                | 54.80   | 128.34    | 3990. |
| 10      | 5.0          | 0             | 385.1           | 106.21           | -213.         | 30.                  | 186.                 | -4.23                | 54.98   | 128.56    | 3980. |
| 11      | 10.0         | 0             | 417.9           | 158.41           | 84.           | -110.                | -220.                | -10.49               | 54.34   | 127.79    | 4050. |
| 12      | 15.0         | 0             | 403.3           | 201.68           | 453.          | -16.                 | 41.                  | 2.09                 | 54.77   | 128.31    | 3880. |
| 13      | 20.0         | 0             | 449.7           | 257.37           | 828.          | -33.                 | -47.                 | .56                  | 54.74   | 128.27    | 4000. |
| 14      | 10.0         | 0             | 360.7           | 157.17           | 52.           | 54.                  | 26.                  | 5.72                 | 55.21   | 128.83    | 3760. |
| 15      | 0            | 0             | 376.0           | 71.22            | -532.         | -2.                  | 114.                 | -2.13                | 54.97   | 128.55    | 4000. |
| 16      | 5.0          | 0             | 384.2           | 106.22           | -222.         | 39.                  | 163.                 | -4.56                | 54.99   | 128.56    | 3980. |
| 17      | 10.0         | 0             | 386.9           | 159.05           | 78.           | -13.                 | 178.                 | -3.82                | 55.26   | 128.89    | 4050. |
| 18      | 7.5          | 0             | 382.5           | 139.63           | -117.         | -3.                  | 501.                 | -6.67                | 54.68   | 128.19    | 4040. |
| 19      | 12.6         | 0             | 387.9           | 178.41           | 266.          | 25.                  | 40.                  | 1.75                 | 55.23   | 128.86    | 3920. |
| 20      | 10.0         | 0             | 400.7           | 160.69           | 76.           | -69.                 | 301.                 | -4.25                | 55.10   | 128.69    | 4120. |
| 21      | 7.5          | 0             | 379.1           | 138.52           | -109.         | -11.                 | 508.                 | -7.89                | 55.38   | 129.03    | 4060. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.0076 | .1898 | -.1508 | .0006  | .0072  | -.0029 |
| 3    | -20.00 | -.3854 | .1801 | -.3359 | -.0000 | -.0007 | .0269  |
| 4    | -15.00 | -.0420 | .1276 | -.3601 | .0005  | .0000  | .0067  |
| 5    | -9.98  | .3614  | .1065 | -.3666 | .0036  | .0032  | .0019  |
| 6    | -4.97  | .7153  | .1355 | -.2739 | .0029  | .0055  | -.0051 |
| 7    | -2.51  | .8788  | .1591 | -.2132 | .0019  | .0059  | -.0054 |
| 8    | .03    | 1.0131 | .1894 | -.1495 | -.0002 | .0079  | -.0044 |
| 9    | 2.50   | 1.0619 | .2367 | -.1144 | .0011  | .0080  | -.0086 |
| 10   | 5.02   | 1.0409 | .2870 | -.0685 | .0018  | .0112  | -.0114 |
| 11   | 10.00  | 1.1293 | .4281 | .0269  | -.0067 | -.0133 | -.0284 |
| 12   | 15.00  | 1.0900 | .5451 | .1461  | -.0010 | .0025  | .0057  |
| 13   | 20.00  | 1.2154 | .6956 | .2671  | -.0020 | -.0028 | .0015  |
| 14   | 10.00  | .9748  | .4248 | .0169  | .0032  | .0016  | .0155  |
| 15   | 0.00   | 1.0161 | .1925 | -.1714 | -.0001 | .0069  | -.0058 |
| 16   | 5.00   | 1.0383 | .2871 | -.0716 | .0024  | .0098  | -.0123 |
| 17   | 10.05  | 1.0457 | .4299 | .0251  | -.0008 | .0107  | -.0103 |
| 18   | 7.50   | 1.0339 | .3774 | -.0376 | -.0002 | .0303  | -.0180 |
| 19   | 12.55  | 1.0485 | .4822 | .0858  | .0015  | .0024  | .0047  |
| 20   | 10.02  | 1.0830 | .4343 | .0244  | -.0042 | .0182  | -.0115 |
| 21   | 7.52   | 1.0247 | .3744 | -.0352 | -.0007 | .0307  | -.0213 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMR   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | 1.0076 | .1898 | -.1508 | .0006  | .0072  | -.0029 |
| 3    | -20.00 | -.3854 | .1801 | -.3359 | -.0000 | -.0007 | .0269  |
| 4    | -15.00 | -.0420 | .1276 | -.3601 | .0005  | .0000  | .0067  |
| 5    | -9.98  | .3614  | .1065 | -.3666 | .0036  | .0032  | .0019  |
| 6    | -4.97  | .7153  | .1355 | -.2739 | .0029  | .0055  | -.0051 |
| 7    | -2.51  | .8788  | .1591 | -.2132 | .0019  | .0059  | -.0054 |
| 8    | .03    | 1.0131 | .1894 | -.1495 | -.0002 | .0079  | -.0044 |
| 9    | 2.50   | 1.0619 | .2367 | -.1144 | .0011  | .0080  | -.0086 |
| 10   | 5.02   | 1.0409 | .2870 | -.0685 | .0018  | .0112  | -.0114 |
| 11   | 10.00  | 1.1293 | .4281 | .0269  | -.0067 | -.0133 | -.0284 |
| 12   | 15.00  | 1.0900 | .5451 | .1461  | -.0010 | .0025  | .0057  |
| 13   | 20.00  | 1.2154 | .6956 | .2671  | -.0020 | -.0028 | .0015  |
| 14   | 10.00  | .9748  | .4248 | .0169  | .0032  | .0016  | .0155  |
| 15   | 0.00   | 1.0161 | .1925 | -.1714 | -.0001 | .0069  | -.0058 |
| 16   | 5.00   | 1.0383 | .2871 | -.0716 | .0024  | .0098  | -.0123 |
| 17   | 10.05  | 1.0457 | .4299 | .0251  | -.0008 | .0107  | -.0103 |
| 18   | 7.50   | 1.0339 | .3774 | -.0376 | -.0002 | .0303  | -.0180 |
| 19   | 12.55  | 1.0485 | .4822 | .0858  | .0015  | .0024  | .0047  |
| 20   | 10.02  | 1.0830 | .4343 | .0244  | -.0042 | .0182  | -.0115 |
| 21   | 7.52   | 1.0247 | .3744 | -.0352 | -.0007 | .0307  | -.0213 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 631

RUN 760 CONFIG F P 8 NP5 W7 T2 IN=-3.5 IW=15

| PT. NO. | IW | 15 ALPHA DEG | DELTA PSI DEG | 0.0 CLBAR SQ-FT | DETA CDBAR SQ-FT | 0.0 IHT CU-FT | - DELE CYMBAR CU-FT | - DELR CRMBAR CU-FT | - DELS CYBAR SQ-FT | DELTA Q PSF | V KNOTS | RPM    |
|---------|----|--------------|---------------|-----------------|------------------|---------------|---------------------|---------------------|--------------------|-------------|---------|--------|
| 2       |    | 0            | 0             | 373.8           | 71.58            | -486.         | -3.                 | 115.                | -1.94              | 54.50       | 127.99  | 3980.  |
| 3       |    | 0            | 0             | 348.0           | -102.69          | -696.         | -42.                | 239.                | -5.63              | 54.23       | 127.68  | 23040. |
| 4       |    | -20.0        | 0             | -248.4          | -90.12           | -1946.        | 113.                | 168.                | -.88               | 54.48       | 127.98  | 23040. |
| 5       |    | -15.0        | 0             | -89.6           | -125.09          | -1934.        | 147.                | 170.                | -3.19              | 53.44       | 126.73  | 23030. |
| 6       |    | -10.0        | 0             | 71.0            | -128.84          | -1565.        | 151.                | 214.                | -9.47              | 54.31       | 127.78  | 22920. |
| 7       |    | -5.0         | 0             | 214.7           | -122.04          | -1162.        | 9.                  | 275.                | -7.53              | 54.01       | 127.41  | 22990. |
| 8       |    | -2.5         | 0             | 282.1           | -115.41          | -944.         | -41.                | 286.                | -7.42              | 53.86       | 127.23  | 22990. |
| 9       |    | 0            | 0             | 344.6           | -106.61          | -716.         | -73.                | 332.                | -7.08              | 53.92       | 127.31  | 23020. |
| 10      |    | 2.6          | 0             | 396.8           | -90.08           | -554.         | 13.                 | 349.                | -10.40             | 53.62       | 126.94  | 23050. |
| 11      |    | 5.0          | 0             | 446.6           | -72.38           | -347.         | -18.                | 447.                | -13.58             | 53.60       | 126.92  | 22930. |
| 12      |    | 10.0         | 0             | 422.4           | -15.26           | 5.            | 0.                  | 514.                | -14.85             | 54.29       | 127.75  | 23080. |
| 13      |    | 15.0         | 0             | 497.3           | 44.43            | 381.          | -65.                | 277.                | -8.64              | 54.03       | 127.44  | 22980. |
| 14      |    | 20.0         | 0             | 564.4           | 109.74           | 795.          | 44.                 | 48.                 | .08                | 54.15       | 127.58  | 22950. |
| 15      |    | 0            | 0             | 334.5           | -94.73           | -782.         | 8.                  | 274.                | -10.01             | 54.44       | 127.93  | 23250. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 00     | 1.0101 | .1935  | -.1568 | -.0002 | .0069 | -.0052 |
| 3    | 00     | .9405  | -.2775 | -.2244 | -.0025 | .0145 | -.0152 |
| 4    | -20.00 | -.6714 | -.2436 | -.6274 | .0068  | .0101 | -.0024 |
| 5    | -15.00 | -.2422 | -.3381 | -.6235 | .0089  | .0103 | -.0086 |
| 6    | -9.99  | .1918  | -.3482 | -.5047 | .0091  | .0129 | -.0256 |
| 7    | -5.00  | .5803  | -.3298 | -.3747 | .0005  | .0166 | -.0203 |
| 8    | -2.51  | .7625  | -.3119 | -.3045 | -.0025 | .0173 | -.0201 |
| 9    | .02    | .9314  | -.2881 | -.2307 | -.0044 | .0201 | -.0191 |
| 10   | 2.57   | 1.0725 | -.2435 | -.1786 | .0008  | .0211 | -.0281 |
| 11   | 5.00   | 1.2071 | -.1956 | -.1119 | -.0011 | .0270 | -.0367 |
| 12   | 10.00  | 1.1417 | -.0412 | .0015  | -.0000 | .0311 | -.0401 |
| 13   | 15.01  | 1.3441 | .1201  | .1230  | -.0039 | .0167 | -.0233 |
| 14   | 20.00  | 1.5254 | .2966  | .2563  | .0026  | .0029 | .0002  |
| 15   | .00    | .9040  | -.2560 | -.2520 | .0005  | .0165 | -.0271 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 00     | 1.0101 | .1935  | -.1568 | -.0002 | .0069 | -.0052 |
| 3    | 00     | .9405  | -.2775 | -.2244 | -.0025 | .0145 | -.0152 |
| 4    | -20.00 | -.6714 | -.2436 | -.6274 | .0068  | .0101 | -.0024 |
| 5    | -15.00 | -.2422 | -.3381 | -.6235 | .0089  | .0103 | -.0086 |
| 6    | -9.99  | .1918  | -.3482 | -.5047 | .0091  | .0129 | -.0256 |
| 7    | -5.00  | .5803  | -.3298 | -.3747 | .0005  | .0166 | -.0203 |
| 8    | -2.51  | .7625  | -.3119 | -.3045 | -.0025 | .0173 | -.0201 |
| 9    | .02    | .9314  | -.2881 | -.2307 | -.0044 | .0201 | -.0191 |
| 10   | 2.57   | 1.0725 | -.2435 | -.1786 | .0008  | .0211 | -.0281 |
| 11   | 5.00   | 1.2071 | -.1956 | -.1119 | -.0011 | .0270 | -.0367 |
| 12   | 10.00  | 1.1417 | -.0412 | .0015  | -.0000 | .0311 | -.0401 |
| 13   | 15.01  | 1.3441 | .1201  | .1230  | -.0039 | .0167 | -.0233 |
| 14   | 20.00  | 1.5254 | .2966  | .2563  | .0026  | .0029 | .0002  |
| 15   | .00    | .9040  | -.2560 | -.2520 | .0005  | .0165 | -.0271 |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODFI TEST  
AERODYNAMIC DATA

SFR=72011  
P 632

RUN 761 CONFIG F P B NPS W7 T2 IN=3.5

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CL BAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA PSF | DELTA V KNOTS | RPM    |
|---------|-----------|---------------|--------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-----------|---------------|--------|
| 2       | .0        | .0            | 85.9               | 28.98             | -373.              | 20.                | 41.                | 4.67              | 54.74     | 128.28        | 3540.  |
| 3       | .0        | .0            | 82.5               | -6.71             | -452.              | 36.                | 37.                | 3.96              | 53.88     | 127.25        | 10920. |
| 4       | -20.0     | .0            | -329.8             | 98.29             | -1118.             | 85.                | -137.              | 2.60              | 54.18     | 127.60        | 10920. |
| 5       | -15.0     | .0            | -283.7             | 46.76             | -1005.             | -111.              | 196.               | 8.57              | 54.30     | 127.75        | 10910. |
| 7       | -5.0      | .0            | 51.8               | -5.26             | -806.              | 46.                | 41.                | 4.30              | 54.41     | 127.89        | 10920. |
| 8       | -2.5      | .0            | 11.4               | -7.02             | -615.              | 46.                | 47.                | 4.94              | 54.28     | 127.74        | 10910. |
| 9       | .0        | .0            | 83.9               | -6.32             | -462.              | 31.                | 67.                | 3.90              | 54.21     | 127.65        | 10910. |
| 10      | 2.5       | .0            | 155.3              | -3.22             | -259.              | 28.                | 79.                | 3.16              | 54.53     | 128.04        | 10900. |
| 11      | 5.0       | .0            | 230.3              | 2.76              | -57.               | 24.                | 87.                | 2.92              | 54.09     | 127.51        | 10930. |
| 12      | 10.0      | .0            | 362.2              | 21.48             | 400.               | 2.                 | 105.               | 3.58              | 54.18     | 127.62        | 10910. |
| 13      | 15.0      | .0            | 472.7              | 51.84             | 826.               | -16.               | 83.                | 2.53              | 53.96     | 127.34        | 10890. |
| 14      | 20.0      | .0            | 492.4              | 97.55             | 1130.              | -17.               | 108.               | 3.85              | 54.30     | 127.76        | 10880. |
| 15      | -0.0      | .0            | 80.9               | -6.53             | -450.              | 29.                | 49.                | 3.95              | 54.00     | 127.40        | 10940. |
| 16      | -10.0     | .0            | -207.8             | 7.68              | -999.              | 63.                | 9.                 | 4.55              | 54.40     | 127.87        | 10910. |
| 17      | -0.0      | .0            | 80.6               | -6.16             | -438.              | 32.                | 71.                | 4.79              | 54.75     | 128.30        | 10900. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .2321  | .0783  | -.1201 | .0012  | .0025  | .0126 |
| 3    | .00    | .2230  | -.0181 | -.1457 | .0022  | .0022  | .0107 |
| 4    | -20.00 | -.8913 | .2656  | -.3604 | .0051  | -.0083 | .0070 |
| 5    | -15.00 | -.7667 | .1250  | -.3239 | -.0067 | .0119  | .0232 |
| 7    | -5.00  | -.1671 | -.0142 | -.2599 | .0028  | .0025  | .0116 |
| 8    | -2.50  | .0308  | -.0190 | -.1983 | .0028  | .0028  | .0133 |
| 9    | .00    | .2268  | -.0171 | -.1489 | .0019  | .0040  | .0105 |
| 10   | 2.50   | .4198  | -.0087 | -.0836 | .0017  | .0048  | .0086 |
| 11   | 5.04   | .6224  | .0075  | -.0185 | .0015  | .0052  | .0079 |
| 12   | 10.00  | .9790  | .0580  | .1290  | .0001  | .0064  | .0097 |
| 13   | 15.00  | 1.2776 | .1401  | .2664  | -.0010 | .0050  | .0068 |
| 14   | 20.00  | 1.3309 | .2636  | .3642  | -.0010 | .0065  | .0104 |
| 15   | -0.00  | .2187  | -.0176 | -.1450 | .0017  | .0029  | .0107 |
| 16   | -10.01 | -.5617 | .0207  | -.3221 | .0038  | .0004  | .0123 |
| 17   | -0.00  | .2178  | -.0166 | -.1411 | .0019  | .0043  | .0129 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .2321  | .0783  | -.1201 | .0012  | .0025  | .0126 |
| 3    | .00    | .2230  | -.0181 | -.1457 | .0022  | .0022  | .0107 |
| 4    | -20.00 | -.8913 | .2656  | -.3604 | .0051  | -.0083 | .0070 |
| 5    | -15.00 | -.7667 | .1250  | -.3239 | -.0067 | .0119  | .0232 |
| 7    | -5.00  | -.1671 | -.0142 | -.2599 | .0028  | .0025  | .0116 |
| 8    | -2.50  | .0308  | -.0190 | -.1983 | .0028  | .0028  | .0133 |
| 9    | .00    | .2268  | -.0171 | -.1489 | .0019  | .0040  | .0105 |
| 10   | 2.50   | .4198  | -.0087 | -.0836 | .0017  | .0048  | .0086 |
| 11   | 5.04   | .6224  | .0075  | -.0185 | .0015  | .0052  | .0079 |
| 12   | 10.00  | .9790  | .0580  | .1290  | .0001  | .0064  | .0097 |
| 13   | 15.00  | 1.2776 | .1401  | .2664  | -.0010 | .0050  | .0068 |
| 14   | 20.00  | 1.3309 | .2636  | .3642  | -.0010 | .0065  | .0104 |
| 15   | -0.00  | .2187  | -.0176 | -.1450 | .0017  | .0029  | .0107 |
| 16   | -10.01 | -.5617 | .0207  | -.3221 | .0038  | .0004  | .0123 |
| 17   | -0.00  | .2178  | -.0166 | -.1411 | .0019  | .0043  | .0129 |

NH3209-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

PG 33

RUJ 762 CONFIG F P R NP5 W7 T2 TH=3.5 YAW=5

| PT. NO. | 0.0 DELF DEG | 0.0 DELA PSI | 0.0 IHT SQ-FT | - DELE SQ-FT | - DELR SQ-FT | - DELSR PSI | V KNOTS | RPM   |       |        |        |
|---------|--------------|--------------|---------------|--------------|--------------|-------------|---------|-------|-------|--------|--------|
| 3       | .0           | .0           | 80.0          | -5.79        | -455.        | 39.         | 53.     | 4.59  | 54.69 | 128.22 | 10920. |
| 4       | .0           | 5.0          | 80.8          | -2.05        | -424.        | 257.        | -9.     | 38.68 | 54.78 | 128.33 | 10710. |
| 5       | -20.0        | 5.0          | -322.2        | 98.68        | -1146.       | 243.        | -398.   | 17.85 | 54.25 | 127.70 | 10900. |
| 6       | -15.0        | 5.0          | -297.6        | 42.82        | -1075.       | 395.        | -194.   | 23.76 | 54.72 | 128.26 | 10910. |
| 7       | -10.0        | 5.0          | -204.0        | 8.12         | -1082.       | 244.        | -45.    | 36.73 | 54.94 | 128.52 | 10910. |
| 8       | -5.0         | 5.0          | -61.8         | -1.42        | -792.        | 245.        | -30.    | 37.81 | 54.45 | 127.94 | 10860. |
| 9       | -2.5         | 5.0          | 10.0          | -3.52        | -627.        | 256.        | -9.     | 39.63 | 54.21 | 127.65 | 10910. |
| 10      | -.0          | 5.0          | 81.0          | -2.61        | -455.        | 257.        | 4.      | 38.04 | 53.99 | 127.39 | 10880. |
| 11      | 2.5          | 5.0          | 152.0         | -.26         | -251.        | 261.        | 32.     | 36.08 | 54.50 | 128.00 | 10950. |
| 12      | 5.0          | 5.0          | 223.8         | 5.19         | -38.         | 260.        | 60.     | 33.56 | 54.31 | 127.77 | 11000. |
| 13      | 10.0         | 5.0          | 357.1         | 27.87        | 398.         | 231.        | 82.     | 31.43 | 53.94 | 127.32 | 10920. |
| 14      | 15.0         | 5.0          | 471.9         | 52.93        | 834.         | 177.        | 232.    | 28.21 | 53.90 | 127.28 | 10900. |
| 15      | 20.0         | 5.0          | 491.0         | 100.16       | 1143.        | 155.        | 372.    | 22.98 | 54.64 | 128.16 | 10920. |
| 16      | -.0          | 5.0          | 81.5          | -2.66        | -432.        | 262.        | 3.      | 38.36 | 54.59 | 128.10 | 10920. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM   | CRM    | CY    |
|------|--------|--------|--------|--------|-------|--------|-------|
| 3    | .00    | .2162  | -.0154 | -.1467 | .0024 | .0032  | .0124 |
| 4    | .00    | .2185  | -.0055 | -.1366 | .0155 | -.0006 | .1045 |
| 5    | -20.00 | -.8707 | .2667  | -.3693 | .0147 | -.0241 | .0482 |
| 6    | -15.00 | -.8043 | .1157  | -.3465 | .0239 | -.0117 | .0642 |
| 7    | -10.01 | -.5514 | .0219  | -.3487 | .0107 | -.0027 | .0993 |
| 8    | -5.00  | -.1671 | -.0039 | -.2553 | .0148 | -.0018 | .1022 |
| 9    | -2.50  | .0270  | -.0095 | -.2020 | .0155 | -.0005 | .1071 |
| 10   | -.00   | .2188  | -.0071 | -.1468 | .0155 | .0003  | .1028 |
| 11   | 2.49   | .4109  | -.0007 | -.0809 | .0157 | .0019  | .0986 |
| 12   | 5.00   | .6047  | .0140  | -.0124 | .0157 | .0036  | .0907 |
| 13   | 10.00  | .9650  | .0645  | .1283  | .0139 | .0050  | .0849 |
| 14   | 15.00  | 1.2753 | .1431  | .2687  | .0107 | .0140  | .0762 |
| 15   | 20.00  | 1.3269 | .2707  | .3686  | .0074 | .0225  | .0621 |
| 16   | -.00   | .2202  | -.0072 | -.1393 | .0158 | .0002  | .1037 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR    | CPMB   | CYMR  | CRMb   | CYB   |
|------|--------|--------|--------|--------|-------|--------|-------|
| 3    | .00    | .2162  | -.0154 | -.1467 | .0024 | .0032  | .0124 |
| 4    | .00    | .2185  | -.0147 | -.1364 | .0155 | -.0028 | .1037 |
| 5    | -20.00 | -.8707 | .2614  | -.3792 | .0147 | -.0300 | .0714 |
| 6    | -15.00 | -.8043 | .1597  | -.3506 | .0239 | -.0174 | .0741 |
| 7    | -10.01 | -.5514 | .0132  | -.3487 | .0147 | -.0084 | .1008 |
| 8    | -5.00  | -.1671 | -.0128 | -.2552 | .0148 | -.0060 | .1014 |
| 9    | -2.50  | .0270  | -.0189 | -.2015 | .0155 | -.0038 | .1059 |
| 10   | -.00   | .2188  | -.0160 | -.1461 | .0155 | -.0022 | .1018 |
| 11   | 2.49   | .4109  | -.0093 | -.0797 | .0157 | .0026  | .0982 |
| 12   | 5.00   | .6047  | .0060  | -.0106 | .0157 | .0034  | .0916 |
| 13   | 10.00  | .9650  | .0568  | .1391  | .0139 | .0071  | .0903 |
| 14   | 15.00  | 1.2753 | .1358  | .2743  | .0107 | .0184  | .0885 |
| 15   | 20.00  | 1.3269 | .2642  | .3777  | .0094 | .0284  | .0856 |
| 16   | -.00   | .2202  | -.0162 | -.1387 | .0158 | -.0021 | .1025 |

N4.32409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

PG 34

RUN 763 CONFIG F P B T47 PT

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CPBAR SQ-FT | CPMBAR CU-FT | CYBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | MPM |
|---------|-----------|---------|-------------|-------------|--------------|-------------|--------------|-------------|-------|---------|-----|
| 5       | .0        | .0      | -4.2        | 13.81       | -19.         | -70.        | 10.          | 5.92        | 53.88 | 127.27  | 0.  |
| 6       | -20.0     | .0      | -36.5       | 23.63       | 38.          | 149.        | -106.        | -2.48       | 54.85 | 128.42  | 0.  |
| 7       | -15.0     | .0      | -33.6       | 17.39       | 55.          | -73.        | 39.          | 3.83        | 54.58 | 128.10  | 0.  |
| 8       | -10.0     | .0      | -20.5       | 13.33       | 33.          | -66.        | 35.          | 3.24        | 55.76 | 129.40  | 0.  |
| 9       | -5.0      | .0      | -9.7        | 13.56       | 132.         | -57.        | 41.          | 3.55        | 54.96 | 128.54  | 0.  |
| 10      | -2.5      | .0      | -4.9        | 13.58       | 48.          | -69.        | 29.          | 4.96        | 54.47 | 127.96  | 0.  |
| 11      | .0        | .0      | .1          | 13.83       | -22.         | -69.        | 29.          | 5.40        | 54.65 | 128.18  | 0.  |
| 12      | 2.5       | .0      | 4.1         | 14.12       | -92.         | -68.        | 23.          | 5.55        | 55.25 | 128.89  | 0.  |
| 13      | 5.0       | .0      | 8.4         | 14.39       | -146.        | -76.        | 48.          | 5.00        | 54.99 | 128.58  | 0.  |
| 14      | 10.0      | .0      | 18.4        | 16.03       | -297.        | -56.        | 8.           | 5.94        | 55.22 | 128.85  | 0.  |
| 15      | 15.0      | .0      | 29.0        | 18.04       | -454.        | 14.         | 29.          | 3.75        | 55.10 | 128.72  | 0.  |
| 16      | 20.0      | .0      | 32.7        | 22.64       | -348.        | -39.        | 24.          | 4.35        | 55.31 | 128.96  | 0.  |
| 17      | .0        | .0      | -4.2        | 13.83       | -16.         | -68.        | 29.          | 5.09        | 55.27 | 128.92  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CY     | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 5    | .00    | -.0007 | .0373 | -.0063 | -.0042 | .0006  | .0160  |
| 6    | -19.99 | -.0987 | .0639 | .1243  | .0090  | -.0064 | -.0067 |
| 7    | -15.01 | -.0907 | .0470 | .1800  | -.0044 | .0024  | .0103  |
| 8    | -9.99  | -.0553 | .0360 | .1092  | -.0040 | .0021  | .0088  |
| 9    | -4.99  | -.0262 | .0367 | .0425  | -.0034 | .0025  | .0096  |
| 10   | -2.50  | -.0132 | .0367 | .0154  | -.0042 | .0017  | .0134  |
| 11   | .00    | -.0003 | .0374 | -.0064 | -.0042 | .0017  | .0146  |
| 12   | 2.50   | .0110  | .0382 | -.0296 | -.0041 | .0014  | .0150  |
| 13   | 5.00   | .0228  | .0402 | -.0469 | -.0046 | .0029  | .0135  |
| 14   | 10.00  | .0497  | .0433 | -.0957 | -.0074 | .0005  | .0161  |
| 15   | 15.01  | .0784  | .0512 | -.1465 | .0008  | .0017  | .0101  |
| 16   | 20.00  | .0883  | .0612 | -.1123 | -.0024 | .0015  | .0118  |
| 17   | .00    | -.0005 | .0367 | -.0052 | -.0041 | .0017  | .0138  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMP   | CRMb   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 5    | .00    | -.0007 | .0373 | -.0063 | -.0042 | .0006  | .0160  |
| 6    | -19.99 | -.0987 | .0639 | .1243  | .0090  | -.0064 | -.0067 |
| 7    | -15.01 | -.0907 | .0470 | .1800  | -.0044 | .0024  | .0103  |
| 8    | -9.99  | -.0553 | .0360 | .1092  | -.0040 | .0021  | .0088  |
| 9    | -4.99  | -.0262 | .0367 | .0425  | -.0034 | .0025  | .0096  |
| 10   | -2.50  | -.0132 | .0367 | .0154  | -.0042 | .0017  | .0134  |
| 11   | .00    | -.0003 | .0374 | -.0064 | -.0042 | .0017  | .0146  |
| 12   | 2.50   | .0110  | .0382 | -.0296 | -.0041 | .0014  | .0150  |
| 13   | 5.00   | .0228  | .0402 | -.0469 | -.0046 | .0029  | .0135  |
| 14   | 10.00  | .0497  | .0433 | -.0957 | -.0074 | .0005  | .0161  |
| 15   | 15.01  | .0784  | .0512 | -.1465 | .0008  | .0017  | .0101  |
| 16   | 20.00  | .0883  | .0612 | -.1123 | -.0024 | .0015  | .0118  |
| 17   | .00    | -.0005 | .0367 | -.0052 | -.0041 | .0017  | .0138  |

N4324J-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SEP-72011

P635

RUN 7.54 CONFIG F P 9 T47 AT .

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CMBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMPAR CU-FT | CYBAR SQ-FT | PSF   | Q KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| 6       | .0        | .0      | -.1         | 14.01       | -25.         | -71.         | 33.          | 6.28        | 54.95 | 128.55  | 0.  |
| 7       | .0        | -20.0   | 21.9        | 56.29       | -604.        | 1497.        | -377.        | -151.27     | 54.81 | 128.38  | 0.  |
| 8       | .0        | -15.0   | 11.9        | 34.72       | -406.        | 876.         | -225.        | -104.07     | 55.14 | 128.77  | 0.  |
| 9       | .0        | -10.0   | 5.6         | 20.98       | -211.        | 295.         | -109.        | -57.83      | 55.84 | 129.60  | 0.  |
| 10      | .0        | -5.0    | 2.1         | 14.91       | -102.        | 73.          | -62.         | -24.24      | 55.80 | 129.54  | 0.  |
| 12      | .0        | .0      | -.2         | 13.81       | -53.         | -70.         | 22.          | 5.47        | 55.59 | 129.30  | 0.  |
| 13      | .0        | -2.5    | .7          | 13.93       | -70.         | 2.           | -19.         | -8.93       | 56.10 | 129.90  | 0.  |
| 14      | .0        | 2.5     | -.3         | 14.44       | -61.         | -96.         | 49.          | 19.94       | 55.40 | 129.07  | 0.  |
| 15      | .0        | 5.0     | .4          | 15.68       | -94.         | -146.        | 73.          | 34.51       | 55.50 | 129.19  | 0.  |
| 16      | .0        | 10.0    | 4.1         | 20.69       | -228.        | -435.        | 135.         | 70.20       | 55.32 | 128.97  | 0.  |
| 17      | .0        | 15.0    | 11.2        | 33.02       | -453.        | -1028.       | 275.         | 113.62      | 55.16 | 128.79  | 0.  |
| 18      | .0        | 20.0    | 19.6        | 53.24       | -730.        | -1526.       | 427.         | 154.47      | 55.40 | 129.07  | 0.  |
| 19      | .0        | .0      | .0          | 13.53       | -38.         | -73.         | 40.          | 5.21        | 55.62 | 129.33  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .00    | -.0004 | .0379 | -.0081 | -.0043 | .0020  | .0170  |
| 7    | -20.00 | .0592  | .1521 | -.2206 | .0904  | -.0228 | -.4088 |
| 8    | -15.00 | .0323  | .0938 | -.1311 | .0529  | -.0136 | -.2813 |
| 9    | -10.00 | .0150  | .0567 | -.0682 | .0178  | -.0066 | -.1563 |
| 10   | -5.00  | .0057  | .0403 | -.0330 | .0044  | -.0037 | -.0655 |
| 12   | .00    | -.0006 | .0373 | -.0170 | -.0042 | .0013  | .0148  |
| 13   | -2.50  | .0020  | .0376 | -.0227 | .0001  | -.0012 | -.0241 |
| 14   | 2.50   | -.0009 | .0300 | -.0197 | -.0058 | .0030  | .0539  |
| 15   | 5.00   | .0011  | .0424 | -.0304 | -.0088 | .0044  | .0933  |
| 16   | 10.00  | .0111  | .0559 | -.0735 | -.0263 | .0082  | .1897  |
| 17   | 15.00  | .0304  | .0893 | -.1460 | -.0621 | .0166  | .3071  |
| 18   | 20.00  | .0530  | .1439 | -.2353 | -.0921 | .0258  | .4175  |
| 19   | .00    | .0001  | .0356 | -.0124 | -.0044 | .0024  | .0141  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLJ    | CDB    | CPMB   | CYMB   | CPMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | -.0004 | .0379  | -.0081 | -.0043 | .0020  | .0170  |
| 7    | -20.00 | .0592  | .0024  | -.1655 | .0904  | -.0072 | -.4362 |
| 8    | -15.00 | .0323  | .0175  | -.1077 | .0529  | -.0067 | -.2960 |
| 9    | -10.00 | .0150  | .0206  | -.0610 | .0178  | -.0042 | -.1638 |
| 10   | -5.00  | .0057  | .0344  | -.0311 | .0044  | -.0032 | -.0688 |
| 12   | .00    | -.0006 | .0373  | -.0170 | -.0042 | .0013  | .0148  |
| 13   | -2.50  | .0020  | .0365  | -.0224 | .0001  | -.0010 | -.0258 |
| 14   | 2.50   | -.0009 | .0366  | -.0190 | -.0058 | .0028  | .0556  |
| 15   | 5.00   | .0011  | .0340  | -.0282 | -.0088 | .0039  | .0966  |
| 16   | 10.00  | .0111  | .0220  | -.0648 | -.0263 | .0057  | .1966  |
| 17   | 15.00  | .0304  | .0664  | -.1180 | -.0621 | .0089  | .3197  |
| 18   | 20.00  | .0530  | -.0083 | -.1737 | -.0921 | .0091  | .4415  |
| 19   | .00    | .0001  | .0366  | -.0124 | -.0044 | .0024  | .0141  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SEP-72011

P 636

RU-1 765 CONFIG F P B T47 RT

| PT. NO. | IV   | - DELF    |         | - DELA      |             | - IHT        |              | Q DELE       |             | Q DELP |           | Q DFLSR |  | PPM |
|---------|------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|-----------|---------|--|-----|
|         |      | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | Q V KNOTS |         |  |     |
| 6       | 10.0 | .0        | 18.7    | 16.29       | -305.       | -65.         | 26.          | 6.99         | 55.54       | 129.23 | 0.        |         |  |     |
| 7       | 10.0 | -20.0     | 37.7    | 62.64       | -998.       | 1297.        | -74.         | -151.12      | 55.38       | 129.04 | 0.        |         |  |     |
| 8       | 10.0 | -15.0     | 32.7    | 41.95       | -893.       | 673.         | -32.         | -109.72      | 55.50       | 129.19 | 0.        |         |  |     |
| 9       | 10.0 | -10.0     | 24.8    | 26.69       | -617.       | 194.         | -6.          | -64.19       | 55.28       | 128.93 | 0.        |         |  |     |
| 10      | 10.0 | -5.0      | 21.3    | 18.51       | -416.       | -72.         | 4.           | -26.20       | 55.64       | 129.36 | 0.        |         |  |     |
| 11      | 10.0 | -2.5      | 19.5    | 16.07       | -341.       | -95.         | 4.           | -9.90        | 55.73       | 129.46 | 0.        |         |  |     |
| 12      | 10.0 | .0        | 18.4    | 16.12       | -325.       | -59.         | 2.           | 5.93         | 55.76       | 129.40 | 0.        |         |  |     |
| 13      | 10.0 | 2.5       | 19.1    | 16.04       | -362.       | -44.         | -8.          | 22.64        | 55.91       | 128.60 | 0.        |         |  |     |
| 14      | 10.0 | 5.0       | 20.3    | 16.26       | -451.       | -78.         | -17.         | 39.87        | 55.42       | 129.09 | 0.        |         |  |     |
| 15      | 10.0 | 10.0      | 25.6    | 27.93       | -769.       | -389.        | 20.          | 79.82        | 54.89       | 128.45 | 0.        |         |  |     |
| 16      | 10.0 | 15.0      | 30.1    | 41.68       | -839.       | -846.        | 43.          | 120.55       | 55.23       | 128.86 | 0.        |         |  |     |
| 17      | 10.0 | 20.0      | 36.1    | 61.80       | -1044.      | -1354.       | 114.         | 158.14       | 55.02       | 128.61 | 0.        |         |  |     |
| 18      | 10.0 | -7.5      | 22.7    | 21.71       | -487.       | 4.           | 13.          | -43.73       | 54.63       | 128.14 | 0.        |         |  |     |
| 19      | 10.0 | .0        | 18.8    | 16.18       | -321.       | -75.         | 2.           | 6.48         | 54.89       | 128.45 | 0.        |         |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | .00    | .0507 | .0440 | -.0982 | -.0039 | .0015  | .0165  |
| 7    | -20.00 | .1019 | .1653 | -.3218 | .0784  | -.0044 | -.4084 |
| 8    | -15.00 | .0883 | .1134 | -.2869 | .0407  | -.0019 | -.2965 |
| 9    | -10.00 | .0671 | .0721 | -.1990 | .0117  | -.0004 | -.1735 |
| 10   | -5.00  | .0575 | .0590 | -.1341 | -.0044 | .0002  | -.0708 |
| 11   | -2.50  | .0527 | .0459 | -.1098 | -.0057 | .0002  | -.0268 |
| 12   | .00    | .0498 | .0436 | -.1048 | -.0036 | .0001  | .0160  |
| 13   | 2.50   | .0515 | .0458 | -.1166 | -.0027 | -.0005 | .0612  |
| 14   | 5.00   | .0549 | .0521 | -.1453 | -.0047 | -.0010 | .1078  |
| 15   | 10.00  | .0691 | .0755 | -.2286 | -.0235 | .0012  | .2157  |
| 16   | 15.00  | .0813 | .1126 | -.2704 | -.0511 | .0026  | .3258  |
| 17   | 20.00  | .0975 | .1670 | -.3364 | -.0818 | .0069  | .4274  |
| 18   | -7.50  | .0612 | .0597 | -.1571 | .0003  | .0008  | -.1182 |
| 19   | .00    | .0507 | .0437 | -.1033 | -.0046 | .0001  | .0175  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDR   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | .00    | .0507 | .0440 | -.0982 | -.0039 | .0015  | .0165  |
| 7    | -20.00 | .1019 | .0187 | -.2940 | .0784  | .0165  | -.4417 |
| 8    | -15.00 | .0883 | .0324 | -.2744 | .0407  | .0121  | -.3158 |
| 9    | -10.00 | .0671 | .0408 | -.1956 | .0117  | .0061  | -.1834 |
| 10   | -5.00  | .0575 | .0436 | -.1337 | -.0044 | .0024  | -.0749 |
| 11   | -2.50  | .0527 | .0446 | -.1098 | -.0057 | .0011  | -.0287 |
| 12   | .00    | .0498 | .0436 | -.1048 | -.0036 | .0001  | .0160  |
| 13   | 2.50   | .0515 | .0430 | -.1166 | -.0027 | -.0015 | .0631  |
| 14   | 5.00   | .0549 | .0424 | -.1452 | -.0047 | -.0034 | .1119  |
| 15   | 10.00  | .0691 | .0367 | -.2240 | -.0235 | -.0063 | .2256  |
| 16   | 15.00  | .0813 | .0241 | -.2574 | -.0511 | -.0106 | .3439  |
| 17   | 20.00  | .0975 | .0100 | -.3033 | -.0818 | -.0152 | .4588  |
| 18   | -7.50  | .0612 | .0427 | -.1563 | .0003  | .0046  | -.1249 |
| 19   | .00    | .0507 | .0437 | -.1033 | -.0046 | .0001  | .0175  |

N43249-1

SIKORSKY R9RA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 637

RUN: 766 CONFIG F P B T47 ST

| PT. NO. | ALPHA DEG | PSI DEG | CLEAR SQ-FT | CGBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | C     | V      | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|--------|-----|
| 7       | -10.0     | .0      | -20.3       | 14.82       | 367.         | -76.         | 63.          | 4.30        | 54.97 | 128.56 | 0.  |
| 8       | -10.0     | -20.0   | 3.9         | 60.25       | -280.        | 1875.        | -605.        | -162.22     | 54.87 | 128.43 | 0.  |
| 9       | -10.0     | -20.0   | 3.8         | 59.88       | -274.        | 1852.        | -693.        | -160.08     | 54.79 | 128.33 | 0.  |
| 10      | -10.0     | -15.0   | -5.8        | 39.49       | -79.         | 1384.        | -491.        | -118.11     | 54.93 | 128.51 | 0.  |
| 11      | -10.0     | -10.0   | -14.7       | 25.09       | 167.         | 828.         | -278.        | -71.18      | 54.62 | 128.13 | 0.  |
| 12      | -10.0     | -5.0    | -17.5       | 17.25       | 252.         | 400.         | -128.        | -35.19      | 54.79 | 128.33 | 0.  |
| 13      | -10.0     | -2.5    | -19.7       | 14.92       | 317.         | 199.         | -57.         | -15.86      | 54.90 | 128.47 | 0.  |
| 14      | -10.0     | .0      | -20.6       | 13.95       | 347.         | -66.         | 40.          | 3.89        | 54.83 | 128.30 | 0.  |
| 15      | -10.0     | 2.5     | -20.4       | 15.30       | 338.         | -200.        | 101.         | 22.76       | 54.68 | 128.21 | 0.  |
| 16      | -10.0     | 5.0     | -19.0       | 17.04       | 287.         | -426.        | 147.         | 41.04       | 54.64 | 128.16 | 0.  |
| 17      | -10.0     | 10.0    | -13.8       | 24.35       | 100.         | -841.        | 302.         | 81.88       | 54.76 | 128.30 | 0.  |
| 18      | -10.0     | 15.0    | -4.3        | 37.35       | -187.        | -1339.       | 517.         | 125.51      | 54.90 | 128.47 | 0.  |
| 19      | -10.0     | 20.0    | 2.5         | 50.20       | -378.        | -1818.       | 732.         | 165.38      | 55.09 | 128.60 | 0.  |
| 20      | -10.0     | .0      | -20.5       | 14.71       | 348.         | -47.         | 42.          | 3.02        | 54.45 | 127.93 | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | GY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 7    | .00    | -.0548 | .0379 | .1184  | -.0046 | .0038  | .0116  |
| 8    | -20.00 | .0105  | .1628 | -.0902 | .1133  | -.0365 | -.4384 |
| 9    | -20.00 | .0103  | .1618 | -.0883 | .1119  | -.0419 | -.4327 |
| 10   | -15.00 | -.0156 | .1067 | -.0256 | .0836  | -.0296 | -.3192 |
| 11   | -10.00 | -.0398 | .0678 | .0538  | .0500  | -.0168 | -.1924 |
| 12   | -5.00  | -.0474 | .0466 | .0812  | .0242  | -.0077 | -.0951 |
| 13   | -2.50  | -.0532 | .0403 | .1021  | .0120  | -.0034 | -.0429 |
| 14   | .00    | -.0556 | .0377 | .1118  | -.0040 | .0024  | .0105  |
| 15   | 2.50   | -.0551 | .0413 | .1089  | -.0145 | .0061  | .0615  |
| 16   | 5.00   | -.0515 | .0471 | .0926  | -.0257 | .0089  | .1109  |
| 17   | 10.00  | -.0373 | .0658 | .0323  | -.0508 | .0182  | .2213  |
| 18   | 15.00  | -.0117 | .1009 | -.0604 | -.0809 | .0312  | .3392  |
| 19   | 20.00  | .0067  | .1600 | -.1218 | -.1098 | .0442  | .4470  |
| 20   | .00    | -.0553 | .0384 | .1121  | -.0029 | .0025  | .0082  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | -.0548 | .0379  | .1184  | -.0046 | .0038  | .0116  |
| 8    | -20.00 | .0105  | .0023  | -.0177 | .1133  | -.0285 | -.4677 |
| 9    | -20.00 | .0103  | .0034  | -.0061 | .1119  | -.0336 | -.4619 |
| 10   | -15.00 | -.0156 | .0201  | .0164  | .0836  | -.0274 | -.3360 |
| 11   | -10.00 | -.0398 | .0332  | .0686  | .0500  | -.0183 | -.2013 |
| 12   | -5.00  | -.0474 | .0381  | .0845  | .0242  | -.0090 | -.0988 |
| 13   | -2.50  | -.0532 | .0384  | .1028  | .0120  | -.0043 | -.0446 |
| 14   | .00    | -.0556 | .0377  | .1118  | -.0040 | .0024  | .0105  |
| 15   | 2.50   | -.0551 | .0386  | .1102  | -.0145 | .0070  | .0633  |
| 16   | 5.00   | -.0515 | .0372  | .0964  | -.0257 | .0104  | .1146  |
| 17   | 10.00  | -.0373 | .0262  | .0487  | -.0508 | .0190  | .2294  |
| 18   | 15.00  | -.0117 | .0893  | -.0149 | -.0809 | .0272  | .3538  |
| 19   | 20.00  | .0067  | -.0033 | -.0333 | -.1098 | .0337  | .4747  |
| 20   | .00    | -.0553 | .0384  | .1121  | -.0029 | .0025  | .0082  |

N432406-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 638

RUI: 767 CONFIG F P R T47 PT

| PT. NO. | ALPHA DEG | DELTA PSI | DELTA CLBAR | DELTA CDBAR | DELTA CPMBAR | DELTA CYMBAR | DELTA CRM'BAR | DELTA CYB'BAR | DELTA DFLSR | DELTA V | PPM |
|---------|-----------|-----------|-------------|-------------|--------------|--------------|---------------|---------------|-------------|---------|-----|
| 2       | .0        | .0        | 5.4         | 13.56       | -262.        | -58.         | 16.           | 5.56          | 55.10       | 128.70  | 0.  |
| 3       | -20.0     | .0        | -39.3       | 23.90       | 466.         | 33.          | -22.          | -4.3          | 55.26       | 128.89  | 0.  |
| 4       | -15.0     | .0        | -26.4       | 15.63       | 251.         | -69.         | 40.           | 6.09          | 55.03       | 128.62  | 0.  |
| 5       | -10.0     | .0        | -13.5       | 12.80       | 47.          | -55.         | 38.           | 4.93          | 55.08       | 128.68  | 0.  |
| 6       | -5.0      | .0        | -3.9        | 13.05       | -117.        | -48.         | 29.           | 3.86          | 55.07       | 128.66  | 0.  |
| 7       | -2.5      | .0        | .9          | 13.08       | -185.        | -60.         | 28.           | 5.29          | 55.18       | 128.80  | 0.  |
| 8       | .0        | .0        | 5.2         | 13.61       | -264.        | -56.         | 19.           | 4.43          | 55.08       | 128.68  | 0.  |
| 9       | 2.5       | .0        | 10.0        | 14.06       | -340.        | -54.         | 18.           | 4.43          | 55.37       | 129.02  | 0.  |
| 10      | 5.0       | .0        | 14.7        | 15.09       | -417.        | -53.         | 13.           | 4.55          | 55.16       | 128.77  | 0.  |
| 11      | 10.0      | .0        | 25.3        | 17.00       | -617.        | -47.         | 9.            | 4.45          | 55.10       | 128.71  | 0.  |
| 12      | 15.0      | .0        | 31.0        | 21.36       | -569.        | -63.         | 5.            | 6.21          | 55.21       | 128.83  | 0.  |
| 13      | 20.0      | .0        | 33.0        | 25.17       | -389.        | -54.         | -10.          | 6.63          | 54.97       | 128.54  | 0.  |
| 14      | -1.0      | .0        | 5.2         | 13.52       | -259.        | -54.         | 24.           | 4.32          | 55.21       | 128.83  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0145  | .0367 | -.0844 | -.0035 | .0010  | .0150  |
| 3    | -20.00 | -.1063 | .0562 | .1502  | .0020  | -.0014 | -.0012 |
| 4    | -15.00 | -.0713 | .0422 | .0810  | -.0041 | .0024  | .0165  |
| 5    | -10.01 | -.0364 | .0346 | .0152  | -.0033 | .0023  | .0133  |
| 6    | -5.00  | -.0105 | .0353 | -.0378 | -.0029 | .0018  | .0104  |
| 7    | -2.50  | .0024  | .0354 | -.0595 | -.0036 | .0017  | .0143  |
| 8    | .00    | .0140  | .0368 | -.0850 | -.0034 | .0011  | .0120  |
| 9    | 2.50   | .0270  | .0380 | -.1096 | -.0033 | .0011  | .0120  |
| 10   | 5.00   | .0398  | .0408 | -.1344 | -.0032 | .0008  | .0123  |
| 11   | 9.99   | .0683  | .0459 | -.1989 | -.0028 | .0006  | .0120  |
| 12   | 15.00  | .0839  | .0577 | -.1833 | -.0038 | .0003  | .0168  |
| 13   | 20.00  | .0891  | .0680 | -.1256 | -.0033 | -.0006 | .0179  |
| 14   | -.01   | .0140  | .0365 | -.0836 | -.0033 | .0014  | .0117  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0145  | .0367 | -.0844 | -.0035 | .0010  | .0150  |
| 3    | -20.00 | -.1063 | .0562 | .1502  | .0020  | -.0014 | -.0012 |
| 4    | -15.00 | -.0713 | .0422 | .0810  | -.0041 | .0024  | .0165  |
| 5    | -10.01 | -.0364 | .0346 | .0152  | -.0033 | .0023  | .0133  |
| 6    | -5.00  | -.0105 | .0353 | -.0378 | -.0029 | .0018  | .0104  |
| 7    | -2.50  | .0024  | .0354 | -.0595 | -.0036 | .0017  | .0143  |
| 8    | .00    | .0140  | .0368 | -.0850 | -.0034 | .0011  | .0120  |
| 9    | 2.50   | .0270  | .0380 | -.1096 | -.0033 | .0011  | .0120  |
| 10   | 5.00   | .0398  | .0408 | -.1344 | -.0032 | .0008  | .0123  |
| 11   | 9.99   | .0683  | .0459 | -.1989 | -.0028 | .0006  | .0120  |
| 12   | 15.00  | .0839  | .0577 | -.1833 | -.0038 | .0003  | .0168  |
| 13   | 20.00  | .0891  | .0680 | -.1256 | -.0033 | -.0006 | .0179  |
| 14   | -.01   | .0140  | .0365 | -.0836 | -.0033 | .0014  | .0117  |

RUN 708 CONFIG F P B T47 RT

| PT. NO. | - DELF    |         | - DELA      |             | - IHT       |             | -1° DELE     |             | 0 DELR |        | 0 DELSR |    | V | PPM |
|---------|-----------|---------|-------------|-------------|-------------|-------------|--------------|-------------|--------|--------|---------|----|---|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SO-FT | CSBAR SO-FT | CPBAR CU-FT | CYBAR CU-FT | CRMBAR CU-FT | CYBAR SO-FT | PSF    | KNOTS  |         |    |   |     |
| 2       | .0        | .0      | -14.3       | 14.68       | 636.        | -27.        | -5.          | 3.93        | 55.41  | 129.07 | 0.      | 0. |   |     |
| 3       | -20.0     | .0      | -30.4       | 27.82       | 291.        | -32.        | 25.          | 1.81        | 55.24  | 128.87 | 0.      | 0. |   |     |
| 4       | -15.0     | .0      | -23.5       | 23.43       | 287.        | -74.        | 50.          | 4.29        | 54.51  | 128.00 | 0.      | 0. |   |     |
| 5       | -10.0     | .0      | -16.8       | 16.94       | 301.        | -50.        | 36.          | 2.79        | 54.92  | 128.40 | 0.      | 0. |   |     |
| 6       | -5.0      | .0      | -24.8       | 15.80       | 862.        | 34.         | -14.         | 1.62        | 55.24  | 128.87 | 0.      | 0. |   |     |
| 7       | -2.5      | .0      | -20.2       | 15.23       | 774.        | -10.        | -4.          | 3.16        | 54.93  | 128.50 | 0.      | 0. |   |     |
| 8       | .0        | .0      | -14.3       | 14.72       | 635.        | -25.        | -5.          | 4.18        | 54.92  | 128.40 | 0.      | 0. |   |     |
| 9       | 2.5       | .0      | -8.7        | 14.46       | 515.        | -90.        | 12.          | 5.43        | 54.58  | 128.00 | 0.      | 0. |   |     |
| 10      | 5.0       | .0      | -4.0        | 14.58       | 421.        | -91.        | 1.           | 5.63        | 54.69  | 128.21 | 0.      | 0. |   |     |
| 11      | 10.0      | .0      | 5.4         | 15.14       | 361.        | -82.        | 3.           | 5.41        | 54.76  | 128.29 | 0.      | 0. |   |     |
| 12      | 15.0      | .0      | 15.0        | 16.97       | 192.        | -35.        | 5.           | 6.08        | 54.53  | 128.02 | 0.      | 0. |   |     |
| 13      | 20.0      | .0      | 23.0        | 19.73       | 110.        | -51.        | -16.         | 7.18        | 54.88  | 128.44 | 0.      | 0. |   |     |
| 14      | -20.0     | .0      | -30.6       | 28.02       | 290.        | -35.        | 27.          | 1.20        | 54.85  | 128.40 | 0.      | 0. |   |     |
| 15      | -15.0     | .0      | -23.4       | 22.69       | 286.        | -76.        | 50.          | 4.35        | 54.81  | 128.35 | 0.      | 0. |   |     |
| 16      | -10.0     | .0      | -17.1       | 18.00       | 296.        | -51.        | 29.          | 3.42        | 55.04  | 128.60 | 0.      | 0. |   |     |
| 18      | -7.5      | .0      | -24.7       | 16.68       | 732.        | -58.        | 31.          | 2.75        | 54.88  | 128.43 | 0.      | 0. |   |     |
| 19      | .0        | .0      | -14.2       | 14.77       | 633.        | -26.        | -5.          | 4.30        | 54.97  | 128.54 | 0.      | 0. |   |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM   | CYM    | CRM    | CY    |
|------|--------|--------|-------|-------|--------|--------|-------|
| 2    | .00    | -.0386 | .0397 | .2050 | -.0016 | -.0003 | .0106 |
| 3    | -20.00 | -.0821 | .0752 | .0937 | -.0019 | .0015  | .0049 |
| 4    | -14.99 | -.0636 | .0622 | .0926 | -.0045 | .0030  | .0116 |
| 5    | -9.99  | -.0455 | .0512 | .0969 | -.0030 | .0022  | .0075 |
| 6    | -5.00  | -.0671 | .0427 | .2779 | .0020  | -.0009 | .0044 |
| 7    | -2.50  | -.0545 | .0406 | .2495 | -.0006 | -.0003 | .0085 |
| 8    | .01    | -.0386 | .0398 | .2047 | -.0015 | -.0003 | .0113 |
| 9    | 2.50   | -.0235 | .0391 | .1661 | -.0054 | .0007  | .0147 |
| 10   | 5.01   | -.0108 | .0394 | .1356 | -.0055 | .0000  | .0152 |
| 11   | 10.01  | .0147  | .0409 | .0970 | -.0049 | .0002  | .0146 |
| 12   | 15.00  | .0406  | .0459 | .0618 | -.0021 | .0003  | .0164 |
| 13   | 20.00  | .0621  | .0533 | .0354 | -.0031 | -.0010 | .0104 |
| 14   | -20.00 | -.0826 | .0757 | .0936 | -.0021 | .0016  | .0032 |
| 15   | -14.99 | -.0632 | .0613 | .0923 | -.0046 | .0030  | .0118 |
| 16   | -10.00 | -.0461 | .0508 | .0956 | -.0031 | .0017  | .0093 |
| 18   | -7.49  | -.0667 | .0451 | .2361 | -.0035 | .0018  | .0074 |
| 19   | .01    | -.0385 | .0399 | .2042 | -.0016 | -.0003 | .0116 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB  | CYMP   | CRMB   | CYB   |
|------|--------|--------|-------|-------|--------|--------|-------|
| 2    | .00    | -.0386 | .0397 | .2050 | -.0016 | -.0003 | .0106 |
| 3    | -20.00 | -.0821 | .0752 | .0937 | -.0019 | .0015  | .0049 |
| 4    | -14.99 | -.0636 | .0622 | .0926 | -.0045 | .0030  | .0116 |
| 5    | -9.99  | -.0455 | .0512 | .0969 | -.0030 | .0022  | .0075 |
| 6    | -5.00  | -.0671 | .0427 | .2779 | .0020  | -.0009 | .0044 |
| 7    | -2.50  | -.0545 | .0406 | .2495 | -.0006 | -.0003 | .0085 |
| 8    | .01    | -.0386 | .0398 | .2047 | -.0015 | -.0003 | .0113 |
| 9    | 2.50   | -.0235 | .0391 | .1661 | -.0054 | .0007  | .0147 |
| 10   | 5.01   | -.0108 | .0394 | .1356 | -.0055 | .0000  | .0152 |
| 11   | 10.01  | .0147  | .0409 | .0970 | -.0049 | .0002  | .0146 |
| 12   | 15.00  | .0406  | .0459 | .0618 | -.0021 | .0003  | .0164 |
| 13   | 20.00  | .0621  | .0533 | .0354 | -.0031 | -.0010 | .0194 |
| 14   | -20.00 | -.0826 | .0757 | .0936 | -.0021 | .0016  | .0032 |
| 15   | -14.99 | -.0632 | .0613 | .0923 | -.0046 | .0030  | .0118 |
| 16   | -10.00 | -.0461 | .0508 | .0956 | -.0031 | .0017  | .0093 |
| 18   | -7.49  | -.0667 | .0451 | .2361 | -.0035 | .0018  | .0074 |
| 19   | .01    | -.0385 | .0399 | .2042 | -.0016 | -.0003 | .0116 |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P. 640

RUN 769 CONFIG F P B T47 PT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-----------|---------------|-----|
| 4       | .0        | .0            | -6.6              | 13.62             | 266.               | -62.               | 12.                | 4.71              | 54.73     | 128.26        | 0.  |
| 5       | -20.0     | .0            | -30.0             | 26.41             | 209.               | -61.               | 54.                | 2.31              | 54.73     | 128.26        | 0.  |
| 6       | -15.0     | .0            | -22.4             | 20.72             | 202.               | -64.               | 36.                | 2.80              | 55.07     | 128.66        | 0.  |
| 7       | -10.0     | .0            | -27.4             | 15.40             | 673.               | 31.                | -14.               | 1.28              | 54.37     | 127.83        | 0.  |
| 8       | -5.0      | .0            | -17.1             | 14.44             | 485.               | -18.               | 3.                 | 1.86              | 55.21     | 128.83        | 0.  |
| 9       | -2.5      | .0            | -11.6             | 13.48             | 369.               | -82.               | 16.                | 5.33              | 55.21     | 128.83        | 0.  |
| 10      | .0        | .0            | -6.7              | 13.60             | 265.               | -66.               | 5.                 | 4.96              | 54.93     | 128.50        | 0.  |
| 11      | 2.5       | .0            | -1.9              | 13.99             | 184.               | -71.               | 13.                | 4.09              | 54.81     | 128.35        | 0.  |
| 12      | 5.0       | .0            | 2.9               | 14.54             | 106.               | -79.               | -4.                | 4.27              | 55.01     | 128.59        | 0.  |
| 14      | 15.0      | .0            | 21.7              | 17.72             | -129.              | -43.               | -13.               | 6.05              | 55.49     | 129.16        | 0.  |
| 15      | 10.0      | .0            | 11.8              | 15.23             | -2.                | -66.               | -9.                | 4.85              | 54.96     | 128.53        | 0.  |
| 16      | 20.0      | .0            | 28.3              | 20.83             | -145.              | -42.               | -16.               | 6.18              | 54.75     | 128.28        | 0.  |
| 17      | .0        | .0            | -6.6              | 13.80             | 266.               | -66.               | 0.                 | 4.63              | 54.75     | 128.28        | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 4    | .00    | -.0178 | .0368 | .0858  | -.0037 | .0007  | .0127 |
| 5    | -20.01 | -.0811 | .0714 | .0673  | -.0037 | .0033  | .0062 |
| 6    | -15.01 | -.0607 | .0560 | .0650  | -.0039 | .0021  | .0076 |
| 7    | -9.99  | -.0739 | .0416 | .2168  | .0019  | -.0009 | .0035 |
| 8    | -5.00  | -.0463 | .0390 | .1565  | -.0011 | .0002  | .0050 |
| 9    | -2.51  | -.0314 | .0364 | .1189  | -.0050 | .0010  | .0144 |
| 10   | .00    | -.0180 | .0368 | .0853  | -.0040 | .0003  | .0134 |
| 11   | 2.49   | -.0050 | .0378 | .0593  | -.0043 | .0008  | .0111 |
| 12   | 4.99   | .0077  | .0393 | .0342  | -.0048 | -.0002 | .0115 |
| 14   | 15.00  | .0586  | .0479 | -.0416 | -.0026 | -.0008 | .0163 |
| 15   | 9.99   | .0320  | .0412 | -.0007 | -.0040 | -.0005 | .0131 |
| 16   | 20.00  | .0766  | .0563 | -.0467 | -.0026 | -.0010 | .0167 |
| 17   | .01    | -.0178 | .0373 | .0857  | -.0040 | .0000  | .0125 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 4    | .00    | -.0178 | .0368 | .0858  | -.0037 | .0007  | .0127 |
| 5    | -20.01 | -.0811 | .0714 | .0673  | -.0037 | .0033  | .0062 |
| 6    | -15.01 | -.0607 | .0560 | .0650  | -.0039 | .0021  | .0076 |
| 7    | -9.99  | -.0739 | .0416 | .2168  | .0019  | -.0009 | .0035 |
| 8    | -5.00  | -.0463 | .0390 | .1565  | -.0011 | .0002  | .0050 |
| 9    | -2.51  | -.0314 | .0364 | .1189  | -.0050 | .0010  | .0144 |
| 10   | .00    | -.0180 | .0368 | .0853  | -.0040 | .0003  | .0134 |
| 11   | 2.49   | -.0050 | .0378 | .0593  | -.0043 | .0008  | .0111 |
| 12   | 4.99   | .0077  | .0393 | .0342  | -.0048 | -.0002 | .0115 |
| 14   | 15.00  | .0586  | .0479 | -.0416 | -.0026 | -.0008 | .0163 |
| 15   | 9.99   | .0320  | .0412 | -.0007 | -.0040 | -.0005 | .0131 |
| 16   | 20.00  | .0766  | .0563 | -.0467 | -.0026 | -.0010 | .0167 |
| 17   | .01    | -.0178 | .0373 | .0857  | -.0040 | .0000  | .0125 |

N4324.9-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER. 72011

P 641

RU. 770 CONFIG F P R T47 RT

| PT. NO. | - DELF       |            | - DELA         |                | - INT           |                 | O DELE          |                | O DELR |        | 10 DFLSP |    | O |  | PPM |
|---------|--------------|------------|----------------|----------------|-----------------|-----------------|-----------------|----------------|--------|--------|----------|----|---|--|-----|
|         | ALPHA<br>LEG | PSI<br>JEG | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | PSF    | KNOTS  | Q        | V  |   |  |     |
| 3       | .0           | .0         | -.3            | 14.14          | -16.            | 251.            | -26.            | -3.08          | 54.56  | 128.05 | 0.       | 0. |   |  |     |
| 4       | .0           | -20.0      | 21.6           | 52.95          | -674.           | 1782.           | -432.           | -153.16        | 54.98  | 128.55 | 0.       | 0. |   |  |     |
| 5       | .0           | -15.0      | 12.7           | 35.19          | -424.           | 1215.           | -283.           | -110.06        | 55.62  | 129.32 | 0.       | 0. |   |  |     |
| 6       | .0           | -10.0      | 5.3            | 21.49          | -195.           | 646.            | -178.           | -64.36         | 55.37  | 129.01 | 0.       | 0. |   |  |     |
| 7       | .0           | -5.0       | 2.1            | 15.38          | -91.            | 388.            | -112.           | -31.21         | 55.34  | 128.99 | 0.       | 0. |   |  |     |
| 8       | .0           | -2.5       | .4             | 14.73          | -42.            | 323.            | -79.            | -16.88         | 55.89  | 129.63 | 0.       | 0. |   |  |     |
| 9       | .0           | .0         | -.5            | 14.02          | -17.            | 237.            | -26.            | -2.36          | 55.37  | 129.01 | 0.       | 0. |   |  |     |
| 10      | .0           | 2.5        | -1.0           | 14.61          | -17.            | 184.            | -10.            | 11.82          | 55.33  | 128.97 | 0.       | 0. |   |  |     |
| 11      | .0           | 5.0        | -.4            | 15.51          | -33.            | 142.            | 37.             | 26.64          | 55.37  | 129.02 | 0.       | 0. |   |  |     |
| 12      | .0           | 10.0       | 2.9            | 19.75          | -143.           | -144.           | 66.             | 60.95          | 55.37  | 129.01 | 0.       | 0. |   |  |     |
| 13      | .0           | 15.0       | 0.4            | 30.84          | -367.           | -698.           | 173.            | 103.95         | 55.84  | 129.57 | 0.       | 0. |   |  |     |
| 14      | .0           | 20.0       | 17.6           | 52.95          | -637.           | -1233.          | 342.            | 146.84         | 55.22  | 128.84 | 0.       | 0. |   |  |     |
| 15      | .0           | .0         | -.3            | 14.14          | -15.            | 245.            | -37.            | -2.86          | 55.14  | 128.75 | 0.       | 0. |   |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 3    | .00    | -.0009 | .0382 | -.0052 | .0152  | -.0016 | -.0083 |
| 4    | -20.00 | .0585  | .1539 | -.2173 | .1077  | -.0261 | -.4140 |
| 5    | -15.00 | .0342  | .0951 | -.1367 | .0734  | -.0171 | -.2974 |
| 6    | -10.00 | .0144  | .0591 | -.0629 | .0390  | -.0107 | -.1739 |
| 7    | -5.00  | .0057  | .0416 | -.0293 | .0234  | -.0068 | -.0843 |
| 8    | -2.50  | .0010  | .0387 | -.0136 | .0195  | -.0047 | -.0456 |
| 9    | .00    | -.0014 | .0379 | -.0054 | .0143  | -.0016 | -.0064 |
| 10   | 2.50   | -.0027 | .0395 | -.0055 | .0111  | -.0006 | .0320  |
| 11   | 5.00   | -.0010 | .0419 | -.0105 | .0086  | .0022  | .0720  |
| 12   | 10.00  | .0078  | .0574 | -.0462 | -.0087 | .0040  | .1647  |
| 13   | 15.00  | .0255  | .0874 | -.1182 | -.0421 | .0105  | .2809  |
| 14   | 20.00  | .0476  | .1377 | -.2030 | -.0745 | .0207  | .3969  |
| 15   | .00    | -.0009 | .0382 | -.0049 | .0148  | -.0023 | -.0077 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | -.0009 | .0382  | -.0052 | .0152  | -.0016 | -.0083 |
| 4    | -20.00 | .0585  | .0023  | -.1563 | .1077  | -.0105 | -.4416 |
| 5    | -15.00 | .0342  | .0145  | -.1083 | .0734  | -.0098 | -.3119 |
| 6    | -10.00 | .0144  | .0268  | -.0519 | .0390  | -.0085 | -.1814 |
| 7    | -5.00  | .0057  | .0340  | -.0261 | .0234  | -.0063 | -.0877 |
| 8    | -2.50  | .0010  | .0367  | -.0125 | .0195  | -.0046 | -.0473 |
| 9    | .00    | -.0014 | .0379  | -.0054 | .0143  | -.0016 | -.0064 |
| 10   | 2.50   | -.0027 | .0380  | -.0056 | .0111  | -.0007 | .0336  |
| 11   | 5.00   | -.0010 | .0354  | -.0094 | .0086  | .0020  | .0754  |
| 12   | 10.00  | .0078  | .0238  | -.0418 | -.0087 | .0024  | .1715  |
| 13   | 15.00  | .0255  | .0075  | -.0996 | -.0421 | .0044  | .2930  |
| 14   | 20.00  | .0476  | -.0070 | -.1528 | -.0745 | .0063  | .4200  |
| 15   | .00    | -.0009 | .0382  | -.0049 | .0148  | -.0023 | -.0077 |

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1432435-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

PG42

RUN 771 CONFIG F P R T47 PT

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CMBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DFLSR PSF | DELTA KNOTS | PPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-----------|-------------|-----|
| 2       | .0        | .0      | -.8         | 15.13       | 19.          | 613.         | -72.         | -12.55      | 54.99     | 128.57      | 0.  |
| 3       | .0        | -20.0   | 21.9        | 58.82       | -664.        | 2046.        | -449.        | -158.30     | 55.87     | 129.61      | 0.  |
| 4       | .0        | -15.0   | 13.2        | 38.10       | -434.        | 1562.        | -330.        | -119.12     | 54.84     | 128.39      | 0.  |
| 5       | .0        | -10.0   | 5.6         | 27.35       | -202.        | 978.         | -211.        | -72.80      | 54.89     | 128.44      | 0.  |
| 6       | .0        | -5.0    | 2.1         | 16.51       | -79.         | 712.         | -153.        | -39.63      | 55.47     | 129.13      | 0.  |
| 7       | .0        | -2.5    | .1          | 16.08       | -11.         | 684.         | -123.        | -25.74      | 54.53     | 128.02      | 0.  |
| 8       | .0        | .0      | -.9         | 15.04       | 12.          | 603.         | -85.         | -11.35      | 55.23     | 128.85      | 0.  |
| 9       | .0        | 2.5     | -1.3        | 15.38       | 11.          | 510.         | -53.         | 3.86        | 54.77     | 128.30      | 0.  |
| 10      | .0        | 5.0     | -.4         | 16.12       | -9.          | 429.         | -36.         | 19.82       | 54.89     | 128.45      | 0.  |
| 11      | .0        | 10.0    | 1.7         | 18.57       | -92.         | 94.          | 27.          | 55.02       | 55.75     | 129.46      | 0.  |
| 12      | .0        | 15.0    | 9.4         | 30.71       | -330.        | -436.        | 99.          | 98.71       | 54.56     | 128.05      | 0.  |
| 13      | .0        | 20.0    | 16.1        | 49.44       | -585.        | -909.        | 261.         | 138.95      | 55.12     | 128.72      | 0.  |
| 14      | .0        | .0      | -.8         | 15.04       | 19.          | 609.         | -85.         | -11.77      | 55.10     | 128.70      | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0022 | .0409 | .0062  | .0370  | -.0044 | -.0339 |
| 3    | -20.00 | .0591  | .1590 | -.2140 | .1236  | -.0271 | -.4278 |
| 4    | -15.00 | .0357  | .1030 | -.1400 | .0944  | -.0199 | -.3219 |
| 5    | -10.00 | .0150  | .0631 | -.0651 | .0591  | -.0127 | -.1968 |
| 6    | -5.00  | .0058  | .0446 | -.0253 | .0430  | -.0093 | -.1071 |
| 7    | -2.50  | .0002  | .0435 | -.0036 | .0413  | -.0074 | -.0696 |
| 8    | .00    | -.0024 | .0406 | .0039  | .0364  | -.0051 | -.0307 |
| 9    | 2.50   | -.0034 | .0416 | .0037  | .0308  | -.0032 | .0104  |
| 10   | 5.00   | -.0011 | .0476 | -.0028 | .0259  | -.0022 | .0536  |
| 11   | 10.00  | .0045  | .0529 | -.0298 | .0057  | .0016  | .1487  |
| 12   | 15.00  | .0253  | .0830 | -.1065 | -.0264 | .0060  | .2668  |
| 13   | 20.00  | .0436  | .1336 | -.1885 | -.0549 | .0158  | .3755  |
| 14   | .00    | -.0022 | .0407 | .0062  | .0368  | -.0051 | -.0318 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLR    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0022 | .0409  | .0062  | .0370  | -.0044 | -.0339 |
| 3    | -20.00 | .0591  | .0023  | -.1513 | .1236  | -.0117 | -.4564 |
| 4    | -15.00 | .0357  | .0157  | -.1075 | .0944  | -.0124 | -.3376 |
| 5    | -10.00 | .0150  | .0278  | -.0522 | .0591  | -.0104 | -.2048 |
| 6    | -5.00  | .0058  | .0351  | -.0209 | .0430  | -.0088 | -.1106 |
| 7    | -2.50  | .0002  | .0404  | -.0019 | .0413  | -.0074 | -.0714 |
| 8    | .00    | -.0024 | .0406  | .0039  | .0364  | -.0051 | -.0307 |
| 9    | 2.50   | -.0034 | .0411  | .0029  | .0308  | -.0032 | .0122  |
| 10   | 5.00   | -.0011 | .0387  | -.0038 | .0259  | -.0022 | .0572  |
| 11   | 10.00  | .0045  | .0261  | -.0278 | .0057  | .0006  | .1556  |
| 12   | 15.00  | .0253  | .0108  | -.0946 | -.0264 | .0006  | .2792  |
| 13   | 20.00  | .0436  | -.0035 | -.1481 | -.0549 | .0027  | .3986  |
| 14   | .00    | -.0022 | .0407  | .0062  | .0368  | -.0051 | -.0318 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST.  
AERODYNAMIC DATA

SER=72011  
P 643

RUN 772 CONFIG F T47 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA COBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------|---------------|-----|
| 6       | 0         | 0             | -2.1              | 8.31              | 7.                 | -75.               | 30.                | 4.34              | 54.93       | 128.49        | 0.  |
| 7       | 0         | -20.0         | 25.4              | 33.19             | -756.              | 1863.              | -371.              | -104.95           | 54.96       | 128.53        | 0.  |
| 9       | 0         | -15.0         | 14.7              | 20.74             | -495.              | 1297.              | -223.              | -74.26            | 55.03       | 128.61        | 0.  |
| 9       | 0         | -10.0         | 4.9               | 12.01             | -211.              | 777.               | -126.              | -43.74            | 54.64       | 128.15        | 0.  |
| 10      | 0         | -5.0          | -3                | 8.90              | 260.               | 305.               | -59.               | -17.82            | 54.41       | 127.88        | 0.  |
| 11      | 0         | -2.5          | -1.6              | 8.58              | -29.               | 89.                | -29.               | -5.71             | 54.93       | 128.50        | 0.  |
| 12      | 0         | 0             | -2.1              | 8.55              | -18.               | -87.               | 0.                 | 4.99              | 54.59       | 128.09        | 0.  |
| 13      | 0         | 2.5           | -1.7              | 9.10              | -27.               | -249.              | 26.                | 15.36             | 54.62       | 128.12        | 0.  |
| 14      | 0         | 5.0           | 0                 | 9.40              | -86.               | -452.              | 52.                | 27.63             | 54.81       | 128.35        | 0.  |
| 15      | 0         | 10.0          | 7.5               | 11.50             | -306.              | -862.              | 134.               | 53.09             | 55.21       | 128.82        | 0.  |
| 16      | 0         | 15.0          | 15.8              | 19.30             | -578.              | -1426.             | 261.               | 85.16             | 55.10       | 128.69        | 0.  |
| 17      | 0         | 20.0          | 25.0              | 33.57             | -854.              | -1846.             | 372.               | 112.16            | 54.50       | 127.97        | 0.  |
| 18      | 0         | 0             | -2.1              | 8.56              | -12.               | -71.               | 7.                 | 4.02              | 54.77       | 128.30        | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPH     | CYH     | CRM     | CY      |
|------|--------|--------|--------|---------|---------|---------|---------|
| 6    | 0.00   | -0.056 | 0.225  | 0.022   | -0.0046 | 0.0018  | 0.0117  |
| 7    | -20.00 | 0.688  | 0.0877 | -0.2436 | 0.1125  | -0.0224 | -0.2936 |
| 9    | -15.00 | 0.398  | 0.0561 | -0.1595 | 0.0783  | -0.0135 | -0.2007 |
| 9    | -10.00 | 0.132  | 0.0325 | -0.0680 | 0.0470  | -0.0076 | -0.1182 |
| 10   | -5.00  | -0.009 | 0.0241 | -0.0194 | 0.0184  | -0.0035 | -0.0482 |
| 11   | -2.50  | -0.043 | 0.0232 | -0.0094 | 0.0054  | -0.0017 | -0.0154 |
| 12   | 0.00   | -0.058 | 0.0231 | -0.0059 | -0.0052 | -0.0000 | 0.0135  |
| 13   | 2.50   | -0.046 | 0.0246 | -0.0086 | -0.0150 | 0.0016  | 0.0415  |
| 14   | 5.00   | 0.001  | 0.0254 | -0.0276 | -0.0273 | 0.0031  | 0.0747  |
| 15   | 10.00  | 0.202  | 0.0311 | -0.0988 | -0.0521 | 0.0081  | 0.1435  |
| 16   | 15.00  | 0.426  | 0.0522 | -0.1864 | -0.0861 | 0.0158  | 0.2301  |
| 17   | 20.00  | 0.677  | 0.0907 | -0.2752 | -0.1115 | 0.0225  | 0.3031  |
| 18   | 0.00   | -0.058 | 0.0231 | -0.0039 | -0.0043 | 0.0004  | 0.0109  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | COB     | CPMB    | CYMB    | CRMB    | CYB     |
|------|--------|--------|---------|---------|---------|---------|---------|
| 6    | 0.00   | -0.056 | 0.225   | 0.022   | -0.0046 | 0.0018  | 0.0117  |
| 7    | -20.00 | 0.688  | -0.0132 | -0.1977 | 0.1125  | -0.0053 | -0.2972 |
| 9    | -15.00 | 0.398  | 0.0020  | -0.1354 | 0.0783  | -0.0052 | -0.2084 |
| 9    | -10.00 | 0.132  | 0.0113  | -0.0599 | 0.0470  | -0.0053 | -0.1221 |
| 10   | -5.00  | -0.009 | 0.0197  | -0.0177 | 0.0184  | -0.0032 | -0.0501 |
| 11   | -2.50  | -0.043 | 0.0225  | -0.0090 | 0.0054  | -0.0017 | -0.0164 |
| 12   | 0.00   | -0.058 | 0.0231  | -0.0059 | -0.0052 | -0.0000 | 0.0135  |
| 13   | 2.50   | -0.046 | 0.0228  | -0.0082 | -0.0150 | 0.0015  | 0.0426  |
| 14   | 5.00   | 0.001  | 0.0188  | -0.0261 | -0.0273 | 0.0026  | 0.0766  |
| 15   | 10.00  | 0.202  | 0.0056  | -0.0897 | -0.0521 | 0.0048  | 0.1467  |
| 16   | 15.00  | 0.426  | -0.0095 | -0.1582 | -0.0861 | 0.0061  | 0.2358  |
| 17   | 20.00  | 0.677  | -0.0189 | -0.2172 | -0.1115 | 0.0034  | 0.3159  |
| 18   | 0.00   | -0.058 | 0.0231  | -0.0039 | -0.0043 | 0.0004  | 0.0109  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 644

RUN 773 CONFIG F T47 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA C/BAR SQ-FT | IHT CDBAR SQ-FT | DELE CPMBAR CU-FT | DELR CYMBAR CU-FT | DELSB Q PSF | DELR CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-----------------|-------------------|-------------------|-------------|------------------|-------------|---------|-----|
| 7       | -0.0      | 0.0           | -2.1              | 8.47            | -2.               | -69.              | 7.          | 3.63             | 55.39       | 129.04  | 0.  |
| 8       | -20.0     | 0.0           | -41.8             | 19.82           | 435.              | -56.              | 39.         | 7.71             | 55.94       | 129.69  | 0.  |
| 9       | -15.0     | 0.0           | -34.7             | 13.70           | 513.              | -188.             | 84.         | 7.01             | 55.56       | 129.25  | 0.  |
| 10      | -10.0     | 0.0           | -21.9             | 9.49            | 320.              | -84.              | 46.         | 3.19             | 55.54       | 129.21  | 0.  |
| 11      | -5.0      | 0.0           | -10.8             | 8.36            | 137.              | -67.              | 34.         | 3.89             | 55.73       | 129.44  | 0.  |
| 12      | -2.5      | 0.0           | -6.7              | 8.37            | 73.               | -78.              | 23.         | 4.46             | 55.03       | 128.61  | 0.  |
| 13      | 0.0       | 0.0           | -2.3              | 8.26            | -4.               | -73.              | 19.         | 3.52             | 55.81       | 129.53  | 0.  |
| 14      | 2.5       | 0.0           | 1.9               | 8.57            | -67.              | -71.              | 19.         | 3.72             | 55.20       | 128.81  | 0.  |
| 15      | 5.0       | 0.0           | 5.8               | 8.96            | -132.             | -87.              | 7.          | 4.53             | 55.45       | 129.11  | 0.  |
| 16      | 10.0      | 0.0           | 15.5              | 9.20            | -280.             | -106.             | 9.          | 4.87             | 55.77       | 129.49  | 0.  |
| 17      | 15.0      | 0.0           | 28.0              | 11.23           | -496.             | -62.              | 23.         | 2.89             | 55.45       | 129.11  | 0.  |
| 18      | 20.0      | 0.0           | 35.2              | 15.35           | -428.             | -31.              | 6.          | 2.06             | 55.67       | 129.37  | 0.  |
| 19      | 0.0       | 0.0           | -2.2              | 8.43            | -4.               | -76.              | 12.         | 4.34             | 55.49       | 129.15  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD    | CPM     | CYM     | CRM   | CY    |
|------|--------|---------|-------|---------|---------|-------|-------|
| 7    | -0.00  | -0.0057 | .0229 | -0.0007 | -0.0042 | .0004 | .0098 |
| 8    | -20.01 | -0.1130 | .0536 | .1404   | -0.0034 | .0023 | .0019 |
| 9    | -14.97 | -0.0937 | .0370 | .1654   | -0.0113 | .0051 | .0189 |
| 10   | -10.00 | -0.0593 | .0257 | .1031   | -0.0051 | .0028 | .0086 |
| 11   | -5.00  | -0.0292 | .0226 | .0441   | -0.0041 | .0021 | .0105 |
| 12   | -2.51  | -0.0182 | .0226 | .0234   | -0.0047 | .0014 | .0120 |
| 13   | 0.00   | -0.0061 | .0223 | -0.0012 | -0.0044 | .0011 | .0095 |
| 14   | 2.51   | 0.0051  | .0232 | -0.0215 | -0.0043 | .0012 | .0101 |
| 15   | 5.04   | 0.0158  | .0242 | -0.0426 | -0.0052 | .0004 | .0122 |
| 16   | 10.00  | 0.0419  | .0249 | -0.0902 | -0.0064 | .0005 | .0132 |
| 17   | 15.00  | 0.0755  | .0304 | -0.1598 | -0.0037 | .0014 | .0078 |
| 18   | 20.01  | 0.0951  | .0415 | -0.1380 | -0.0019 | .0004 | .0056 |
| 19   | 0.00   | -0.0058 | .0228 | -0.0014 | -0.0046 | .0007 | .0117 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB   | CPMB    | CYMB    | CRMB  | CYB   |
|------|--------|---------|-------|---------|---------|-------|-------|
| 7    | -0.00  | -0.0057 | .0229 | -0.0007 | -0.0042 | .0004 | .0098 |
| 8    | -20.01 | -0.1130 | .0536 | .1404   | -0.0034 | .0023 | .0019 |
| 9    | -14.97 | -0.0937 | .0370 | .1654   | -0.0113 | .0051 | .0189 |
| 10   | -10.00 | -0.0593 | .0257 | .1031   | -0.0051 | .0028 | .0086 |
| 11   | -5.00  | -0.0292 | .0226 | .0441   | -0.0041 | .0021 | .0105 |
| 12   | -2.51  | -0.0182 | .0226 | .0234   | -0.0047 | .0014 | .0120 |
| 13   | 0.00   | -0.0061 | .0223 | -0.0012 | -0.0044 | .0011 | .0095 |
| 14   | 2.51   | 0.0051  | .0232 | -0.0215 | -0.0043 | .0012 | .0101 |
| 15   | 5.04   | 0.0158  | .0242 | -0.0426 | -0.0052 | .0004 | .0122 |
| 16   | 10.00  | 0.0419  | .0249 | -0.0902 | -0.0064 | .0005 | .0132 |
| 17   | 15.00  | 0.0755  | .0304 | -0.1598 | -0.0037 | .0014 | .0078 |
| 18   | 20.01  | 0.0951  | .0415 | -0.1380 | -0.0019 | .0004 | .0056 |
| 19   | 0.00   | -0.0058 | .0228 | -0.0014 | -0.0046 | .0007 | .0117 |

N432400-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 645

RUN 774 CONFIG F P R NP5 W7 T46 BT

IN=-3.5

| PT. NO. | IW    | 0.0 DELF | 0.0 DELA | 0.0 IHT | 0.0 DELE | 0.0 DELR | 0.0 DELSB | 0.0 V | RPM   |        |        |
|---------|-------|----------|----------|---------|----------|----------|-----------|-------|-------|--------|--------|
|         | ALPHA | PSI      | CLBAR    | CDBAR   | CPMBAR   | CYMBAR   | CRMBAR    | Q     |       |        |        |
|         | DEG   | DEG      | SQ-FT    | SQ-FT   | CU-FT    | CU-FT    | CU-FT     | PSF   | KNOTS |        |        |
| 6       | 0     | 0        | 73.6     | 30.49   | -2.      | -53.     | 10.       | 6.12  | 55.11 | 128.72 | 3640.  |
| 7       | 0     | 0        | 71.2     | -6.92   | -131.    | -32.     | 45.       | 6.37  | 55.10 | 128.70 | 11250. |
| 8       | -20.0 | 0        | -392.4   | 111.52  | 934.     | -231.    | -21.      | 9.22  | 55.08 | 128.67 | 11170. |
| 9       | -15.0 | 0        | -347.0   | 57.13   | 1092.    | -263.    | 254.      | 11.88 | 55.64 | 129.35 | 11250. |
| 10      | -10.0 | 0        | -250.4   | 11.38   | 211.     | -48.     | 4.        | 7.27  | 54.37 | 127.83 | 11260. |
| 11      | -5.0  | 0        | -64.7    | -3.99   | -104.    | -46.     | 40.       | 8.26  | 54.45 | 127.93 | 11280. |
| 12      | -2.5  | 0        | -6.8     | -6.78   | -105.    | -41.     | 27.       | 5.58  | 54.92 | 128.48 | 11180. |
| 13      | 0     | 0        | 68.7     | -7.13   | -138.    | -32.     | 27.       | 6.27  | 55.38 | 129.03 | 11240. |
| 14      | 2.5   | 0        | 148.0    | -3.29   | -125.    | -22.     | 28.       | 6.75  | 54.99 | 128.57 | 11190. |
| 15      | 5.0   | 0        | 224.7    | 3.09    | -109.    | -28.     | 29.       | 6.75  | 55.00 | 128.59 | 11200. |
| 16      | 10.0  | 0        | 375.4    | 23.54   | -84.     | -74.     | 51.       | 3.57  | 54.36 | 127.82 | 11200. |
| 17      | 15.0  | 0        | 494.5    | 56.96   | -134.    | -51.     | 141.      | 1.55  | 55.03 | 128.62 | 11250. |
| 18      | 20.0  | 0        | 533.0    | 112.29  | -34.     | -22.     | 196.      | 1.19  | 54.48 | 127.96 | 11220. |
| 19      | 0     | 0        | 70.8     | -6.78   | -130.    | -27.     | 26.       | 7.68  | 54.56 | 128.06 | 11220. |
| 20      | 10.0  | 0        | 374.6    | 22.93   | -83.     | -70.     | 68.       | 4.87  | 54.52 | 128.01 | 11160. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | 0.00   | .1990   | .0824  | -.0006 | -.0032 | .0006  | .0165 |
| 7    | 0.00   | .1924   | -.0187 | -.0423 | -.0020 | .0027  | .0172 |
| 8    | -20.00 | -1.0604 | .3014  | .3012  | -.0139 | -.0013 | .0249 |
| 9    | -15.00 | -.9380  | .1544  | .3521  | -.0159 | .0153  | .0321 |
| 10   | -10.00 | -.6768  | .0308  | .0680  | -.0029 | .0003  | .0196 |
| 11   | -5.00  | -.2289  | -.0108 | -.0337 | -.0028 | .0024  | .0223 |
| 12   | -2.51  | -.0184  | -.0183 | -.0337 | -.0025 | .0017  | .0151 |
| 13   | .01    | .1856   | -.0193 | -.0445 | -.0020 | .0016  | .0170 |
| 14   | 2.49   | .4001   | -.0089 | -.0404 | -.0013 | .0017  | .0182 |
| 15   | 5.01   | .6074   | .0084  | -.0352 | -.0017 | .0017  | .0182 |
| 16   | 9.99   | 1.0145  | .0636  | -.0271 | -.0045 | .0031  | .0097 |
| 17   | 15.00  | 1.3364  | .1540  | -.0431 | -.0031 | .0085  | .0042 |
| 18   | 20.00  | 1.4406  | .3035  | -.0110 | -.0013 | .0118  | .0032 |
| 19   | .00    | .1914   | -.0183 | -.0418 | -.0016 | .0016  | .0208 |
| 20   | 10.00  | 1.0125  | .0620  | -.0268 | -.0042 | .0041  | .0132 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | 0.00   | .1990   | .0824  | -.0006 | -.0032 | .0006  | .0165 |
| 7    | 0.00   | .1924   | -.0187 | -.0423 | -.0020 | .0027  | .0172 |
| 8    | -20.00 | -1.0604 | .3014  | .3012  | -.0139 | -.0013 | .0249 |
| 9    | -15.00 | -.9380  | .1544  | .3521  | -.0159 | .0153  | .0321 |
| 10   | -10.00 | -.6768  | .0308  | .0680  | -.0029 | .0003  | .0196 |
| 11   | -5.00  | -.2289  | -.0108 | -.0337 | -.0028 | .0024  | .0223 |
| 12   | -2.51  | -.0184  | -.0183 | -.0337 | -.0025 | .0017  | .0151 |
| 13   | .01    | .1856   | -.0193 | -.0445 | -.0020 | .0016  | .0170 |
| 14   | 2.49   | .4001   | -.0089 | -.0404 | -.0013 | .0017  | .0182 |
| 15   | 5.01   | .6074   | .0084  | -.0352 | -.0017 | .0017  | .0182 |
| 16   | 9.99   | 1.0145  | .0636  | -.0271 | -.0045 | .0031  | .0097 |
| 17   | 15.00  | 1.3364  | .1540  | -.0431 | -.0031 | .0085  | .0042 |
| 18   | 20.00  | 1.4406  | .3035  | -.0110 | -.0013 | .0118  | .0032 |
| 19   | .00    | .1914   | -.0183 | -.0418 | -.0016 | .0016  | .0208 |
| 20   | 10.00  | 1.0125  | .0620  | -.0268 | -.0042 | .0041  | .0132 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 646

RUN 775 CONFIG F P R NP5 W7 T37 BT

IN=-3.5

| PT. NO. | IW    | 0.0 DELF<br>ALPHA DEG | 0.0 DELA<br>PSI<br>CLBAR<br>SQ-FT | 0.0 IHT<br>CDRAR<br>SQ-FT | 0.0 DELE<br>CPMBAR<br>CU-FT | 0.0 DELR<br>CYMBAR<br>CU-FT | 0.0 DELS<br>CRMAR<br>CU-FT | 0.0 DELS8<br>CYBAR<br>SQ-FT | 0.0<br>Q<br>PSF | 0.0<br>V<br>KNOTS | RPM    |
|---------|-------|-----------------------|-----------------------------------|---------------------------|-----------------------------|-----------------------------|----------------------------|-----------------------------|-----------------|-------------------|--------|
| 7       |       | 0.0                   | 73.4                              | 31.07                     | -65.                        | -35.                        | -77.                       | 7.29                        | 54.69           | 128.22            | 3630.  |
| 8       |       | 0.0                   | 69.3                              | -7.50                     | -180.                       | -33.                        | -6.                        | 4.64                        | 55.00           | 128.59            | 11300. |
| 9       | -20.0 | 0.0                   | -376.5                            | 106.82                    | 223.                        | -162.                       | -41.                       | 10.32                       | 54.47           | 127.95            | 11300. |
| 10      | -15.0 | 0.0                   | -329.5                            | 53.61                     | 286.                        | -193.                       | 213.                       | 7.54                        | 55.09           | 128.69            | 11230. |
| 11      | -10.0 | 0.0                   | -233.1                            | 9.70                      | -285.                       | -18.                        | -15.                       | 8.40                        | 55.18           | 128.80            | 11240. |
| 12      | -5.0  | 0.0                   | -79.8                             | -4.42                     | -344.                       | -51.                        | -7.                        | 4.48                        | 54.03           | 127.43            | 11270. |
| 13      | -2.5  | 0.0                   | -1.2                              | -7.24                     | -229.                       | -44.                        | 28.                        | 5.08                        | 54.28           | 127.73            | 11230. |
| 14      | 0.0   | 0.0                   | 70.5                              | -7.01                     | -167.                       | -25.                        | 27.                        | 6.95                        | 54.87           | 128.43            | 11240. |
| 15      | 2.5   | 0.0                   | 146.0                             | -3.69                     | -94.                        | -21.                        | 28.                        | 6.22                        | 54.81           | 128.36            | 11220. |
| 16      | 5.0   | 0.0                   | 224.9                             | 2.90                      | -18.                        | -50.                        | 50.                        | 3.46                        | 54.13           | 127.55            | 11190. |
| 17      | 10.0  | 0.0                   | 370.5                             | 22.88                     | 78.                         | -80.                        | 87.                        | 2.73                        | 54.82           | 128.38            | 11240. |
| 18      | 15.0  | 0.0                   | 497.3                             | 57.65                     | -27.                        | -51.                        | 106.                       | 1.74                        | 54.79           | 128.34            | 11170. |
| 19      | 20.0  | 0.0                   | 534.5                             | 112.85                    | -92.                        | -32.                        | 126.                       | 4.27                        | 54.19           | 127.62            | 11270. |
| 20      | 0.0   | 0.0                   | 65.9                              | -6.84                     | -192.                       | -65.                        | 29.                        | 5.35                        | 54.71           | 128.25            | 11260. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | 0.00   | .1985   | .0840  | -.0211 | -.0021 | -.0016 | .0197 |
| 8    | 0.00   | .1873   | -.0203 | -.0581 | -.0020 | -.0004 | .0126 |
| 9    | -20.00 | -1.0175 | .2887  | .0718  | -.0098 | -.0025 | .0279 |
| 10   | -15.00 | -.8905  | .1449  | .0923  | -.0116 | .0129  | .0204 |
| 11   | -10.00 | -.6299  | .0249  | -.0919 | -.0011 | -.0009 | .0227 |
| 12   | -5.00  | -.2156  | -.0120 | -.1108 | -.0031 | -.0004 | .0121 |
| 13   | -2.46  | -.0032  | -.0196 | -.0737 | -.0027 | .0017  | .0137 |
| 14   | 0.00   | .1906   | -.0189 | -.0539 | -.0015 | .0016  | .0188 |
| 15   | 2.50   | .3945   | -.0100 | -.0303 | -.0013 | .0017  | .0168 |
| 16   | 4.99   | .6078   | .0078  | -.0058 | -.0030 | .0030  | .0094 |
| 17   | 10.03  | 1.0014  | .0618  | .0250  | -.0048 | .0052  | .0074 |
| 18   | 15.01  | 1.3442  | .1558  | -.0088 | -.0031 | .0064  | .0047 |
| 19   | 20.00  | 1.4446  | .3050  | -.0298 | -.0019 | .0076  | .0116 |
| 20   | 0.00   | .1780   | -.0185 | -.0620 | -.0039 | .0017  | .0145 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | 0.00   | .1985   | .0840  | -.0211 | -.0021 | -.0016 | .0197 |
| 8    | 0.00   | .1873   | -.0203 | -.0581 | -.0020 | -.0004 | .0126 |
| 9    | -20.00 | -1.0175 | .2887  | .0718  | -.0098 | -.0025 | .0279 |
| 10   | -15.00 | -.8905  | .1449  | .0923  | -.0116 | .0129  | .0204 |
| 11   | -10.00 | -.6299  | .0249  | -.0919 | -.0011 | -.0009 | .0227 |
| 12   | -5.00  | -.2156  | -.0120 | -.1108 | -.0031 | -.0004 | .0121 |
| 13   | -2.46  | -.0032  | -.0196 | -.0737 | -.0027 | .0017  | .0137 |
| 14   | 0.00   | .1906   | -.0189 | -.0539 | -.0015 | .0016  | .0188 |
| 15   | 2.50   | .3945   | -.0100 | -.0303 | -.0013 | .0017  | .0168 |
| 16   | 4.99   | .6078   | .0078  | -.0058 | -.0030 | .0030  | .0094 |
| 17   | 10.03  | 1.0014  | .0618  | .0250  | -.0048 | .0052  | .0074 |
| 18   | 15.01  | 1.3442  | .1558  | -.0088 | -.0031 | .0064  | .0047 |
| 19   | 20.00  | 1.4446  | .3050  | -.0298 | -.0019 | .0076  | .0116 |
| 20   | 0.00   | .1780   | -.0185 | -.0620 | -.0039 | .0017  | .0145 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 647

RUN 777 CONFIG F P R NP5 W7 T48 BT

IN=3.5

| PT. NO. | IW | 0.0 DELF<br>ALPHA DEG | 0.0 DELF<br>PSI DEG | 0.0 DELA<br>CLBAR SQ-FT | 0.0 IHT<br>CDBAR SQ-FT | 0.0 DELE<br>CPMBAR CU-FT | 0.0 DELR<br>CYMBAR CU-FT | 0.0 DELR<br>CRMBAR CU-FT | 0.0 DELSB<br>CYBAR SQ-FT | 0.0 DELSB<br>Q PSF | 0.0 V<br>KNOTS | RPM    |
|---------|----|-----------------------|---------------------|-------------------------|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------|----------------|--------|
| 6       |    | 0                     | 0                   | 71.6                    | 31.54                  | 23.                      | -48.                     | -25.                     | 5.85                     | 54.71              | 128.25         | 3630.  |
| 7       |    | 0                     | 0                   | 69.9                    | -7.15                  | -101.                    | -38.                     | 30.                      | 4.64                     | 54.30              | 127.76         | 11270. |
| 8       |    | -20.0                 | 0                   | -397.3                  | 112.59                 | 1212.                    | -185.                    | 7.                       | 12.42                    | 54.56              | 128.07         | 11250. |
| 9       |    | -15.0                 | 0                   | -359.2                  | 56.72                  | 1320.                    | -251.                    | 278.                     | 11.94                    | 54.50              | 128.00         | 11190. |
| 10      |    | -10.0                 | 0                   | -251.9                  | 11.62                  | 361.                     | -85.                     | 24.                      | 6.28                     | 54.75              | 128.30         | 11200. |
| 11      |    | -5.0                  | 0                   | -89.2                   | -4.53                  | -19.                     | -60.                     | 10.                      | 5.16                     | 54.74              | 128.29         | 11370. |
| 12      |    | -2.5                  | 0                   | -8.3                    | -7.64                  | -41.                     | -47.                     | 13.                      | 3.43                     | 55.58              | 129.28         | 11200. |
| 13      |    | -0                    | 0                   | 70.7                    | -6.64                  | -101.                    | -49.                     | 28.                      | 5.74                     | 55.23              | 128.87         | 11230. |
| 14      |    | 2.6                   | 0                   | 150.9                   | -4.09                  | -132.                    | -40.                     | 14.                      | 3.13                     | 54.33              | 127.79         | 11250. |
| 15      |    | 5.0                   | 0                   | 226.4                   | 2.07                   | -140.                    | -41.                     | 49.                      | 5.08                     | 54.35              | 127.82         | 11210. |
| 16      |    | 10.0                  | 0                   | 378.1                   | 22.81                  | -154.                    | -57.                     | 31.                      | 7.53                     | 54.72              | 128.25         | 11270. |
| 17      |    | 15.0                  | 0                   | 505.6                   | 58.08                  | -215.                    | -47.                     | 71.                      | 2.44                     | 54.51              | 128.00         | 11210. |
| 18      |    | 20.0                  | 0                   | 531.2                   | 112.76                 | -100.                    | -10.                     | 107.                     | 1.43                     | 54.69              | 128.23         | 11340. |
| 19      |    | -0                    | 0                   | 67.1                    | -7.13                  | -110.                    | -36.                     | 28.                      | 5.31                     | 55.14              | 128.76         | 11240. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | 0.00   | .1936   | .0852  | .0073  | -.0029 | -.0015 | .0158 |
| 7    | 0.00   | .1889   | -.0193 | -.0324 | -.0023 | .0018  | .0125 |
| 8    | -20.01 | -1.0738 | .3043  | .3909  | -.0112 | .0004  | .0336 |
| 9    | -14.98 | -.9709  | .1533  | .4257  | -.0152 | .0168  | .0323 |
| 10   | -10.00 | -.6809  | .0314  | .1164  | -.0051 | .0014  | .0170 |
| 11   | -5.01  | -.2411  | -.0122 | -.0061 | -.0036 | .0006  | .0140 |
| 12   | -2.49  | -.0224  | -.0206 | -.0131 | -.0029 | .0008  | .0093 |
| 13   | -0.00  | .1912   | -.0179 | -.0326 | -.0029 | .0017  | .0155 |
| 14   | 2.58   | .4079   | -.0111 | -.0424 | -.0024 | .0009  | .0085 |
| 15   | 5.00   | .6118   | .0056  | -.0451 | -.0024 | .0029  | .0137 |
| 16   | 9.99   | 1.0218  | .0616  | -.0497 | -.0034 | .0019  | .0204 |
| 17   | 15.01  | 1.3664  | .1570  | -.0694 | -.0028 | .0043  | .0066 |
| 18   | 19.99  | 1.4356  | .3048  | -.0321 | -.0006 | .0064  | .0039 |
| 19   | -0.00  | .1813   | -.0193 | -.0354 | -.0022 | .0017  | .0144 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 6    | 0.00   | .1936   | .0852  | .0073  | -.0029 | -.0015 | .0158 |
| 7    | 0.00   | .1889   | -.0193 | -.0324 | -.0023 | .0018  | .0125 |
| 8    | -20.01 | -1.0738 | .3043  | .3909  | -.0112 | .0004  | .0336 |
| 9    | -14.98 | -.9709  | .1533  | .4257  | -.0152 | .0168  | .0323 |
| 10   | -10.00 | -.6809  | .0314  | .1164  | -.0051 | .0014  | .0170 |
| 11   | -5.01  | -.2411  | -.0122 | -.0061 | -.0036 | .0006  | .0140 |
| 12   | -2.49  | -.0224  | -.0206 | -.0131 | -.0029 | .0008  | .0093 |
| 13   | -0.00  | .1912   | -.0179 | -.0326 | -.0029 | .0017  | .0155 |
| 14   | 2.58   | .4079   | -.0111 | -.0424 | -.0024 | .0009  | .0085 |
| 15   | 5.00   | .6118   | .0056  | -.0451 | -.0024 | .0029  | .0137 |
| 16   | 9.99   | 1.0218  | .0616  | -.0497 | -.0034 | .0019  | .0204 |
| 17   | 15.01  | 1.3664  | .1570  | -.0694 | -.0028 | .0043  | .0066 |
| 18   | 19.99  | 1.4356  | .3048  | -.0321 | -.0006 | .0064  | .0039 |
| 19   | -0.00  | .1813   | -.0193 | -.0354 | -.0022 | .0017  | .0144 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 648

RUN 77R CONFIG F P R NP5 W7 T49 BT

IN=3.5

| PT. NO. | IW ALPHA DEG | O.O DELF PSI DEG | O.O DELA CLBAR SQ-FT | O.O IHT CDBAR SQ-FT | O.O DELE CPMBAR CU-FT | O.O DELR CYMBAR CU-FT | O.O DELR CRMBAR CU-FT | O.O DELSB Q SQ-FT | O.O V KNOTS | RP M   |        |
|---------|--------------|------------------|----------------------|---------------------|-----------------------|-----------------------|-----------------------|-------------------|-------------|--------|--------|
| 2       | 0            | 0                | 72.3                 | 31.53               | 17.                   | -57.                  | -6.                   | 4.56              | 54.57       | 128.08 | 3620.  |
| 3       | 0            | 0                | 70.8                 | -6.84               | -97.                  | -50.                  | 69.                   | 1.56              | 54.57       | 128.09 | 11220. |
| 4       | -20.0        | 0                | -400.0               | 114.24              | 1025.                 | -193.                 | -110.                 | 9.16              | 54.28       | 127.73 | 11210. |
| 5       | -15.0        | 0                | -374.6               | 46.64               | 1243.                 | -140.                 | 18.                   | 8.11              | 55.01       | 128.61 | 11240. |
| 6       | -10.0        | 0                | -253.4               | 11.32               | 387.                  | -95.                  | 47.                   | 3.03              | 55.06       | 128.66 | 11260. |
| 7       | -5.0         | 0                | -88.9                | -3.99               | -12.                  | -79.                  | 60.                   | 7.07              | 54.42       | 127.90 | 11250. |
| 8       | -2.5         | 0                | -7.7                 | -6.86               | -26.                  | -45.                  | 62.                   | 5.92              | 55.25       | 128.89 | 11250. |
| 10      | 2.5          | 0                | 151.8                | -3.50               | -122.                 | -34.                  | 84.                   | 4.61              | 54.68       | 128.21 | 11230. |
| 11      | 5.0          | 0                | 229.5                | 2.87                | -139.                 | -59.                  | 86.                   | .37               | 54.56       | 128.07 | 11250. |
| 12      | 10.0         | 0                | 379.8                | 23.22               | -146.                 | -76.                  | 142.                  | 1.88              | 54.25       | 127.70 | 11250. |
| 13      | 15.0         | 0                | 503.6                | 58.09               | -221.                 | -48.                  | 142.                  | 1.06              | 54.59       | 128.10 | 11250. |
| 15      | 20.0         | 0                | 537.5                | 114.11              | -121.                 | -22.                  | 160.                  | 2.13              | 54.47       | 127.96 | 11250. |
| 16      | -0           | 0                | 69.2                 | -6.92               | -97.                  | -56.                  | 32.                   | 2.98              | 54.81       | 128.37 | 11230. |
| 17      | 15.0         | 0                | 509.3                | 59.42               | -218.                 | -38.                  | 177.                  | 2.06              | 54.56       | 128.06 | 11220. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1954   | .0852  | .0054  | -.0034 | -.0003 | .0123 |
| 3    | .00    | .1914   | -.0185 | -.0313 | -.0030 | .0042  | .0042 |
| 4    | -19.99 | -1.0810 | .3087  | .3303  | -.0116 | -.0066 | .0248 |
| 5    | -15.01 | -1.0126 | .1260  | .4006  | -.0085 | .0011  | .0219 |
| 6    | -9.99  | -.6848  | .0306  | .1246  | -.0057 | .0029  | .0082 |
| 7    | -5.00  | -.2402  | -.0108 | -.0037 | -.0048 | .0036  | .0191 |
| 8    | -2.50  | -.0207  | -.0185 | -.0084 | -.0027 | .0037  | .0160 |
| 10   | 2.50   | .4103   | -.0095 | -.0392 | -.0021 | .0050  | .0125 |
| 11   | 4.99   | .6202   | .0078  | -.0448 | -.0035 | .0053  | .0010 |
| 12   | 9.99   | 1.0264  | .0628  | -.0471 | -.0046 | .0086  | .0051 |
| 13   | 14.99  | 1.3610  | .1570  | -.0712 | -.0029 | .0086  | .0029 |
| 15   | 20.00  | 1.4527  | .3084  | -.0389 | -.0013 | .0097  | .0057 |
| 16   | -.00   | .1870   | -.0187 | -.0312 | -.0034 | .0019  | .0081 |
| 17   | 15.00  | 1.3764  | .1606  | -.0704 | -.0023 | .0107  | .0056 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1954   | .0852  | .0054  | -.0034 | -.0003 | .0123 |
| 3    | .00    | .1914   | -.0185 | -.0313 | -.0030 | .0042  | .0042 |
| 4    | -19.99 | -1.0810 | .3087  | .3303  | -.0116 | -.0066 | .0248 |
| 5    | -15.01 | -1.0126 | .1260  | .4006  | -.0085 | .0011  | .0219 |
| 6    | -9.99  | -.6848  | .0306  | .1246  | -.0057 | .0029  | .0082 |
| 7    | -5.00  | -.2402  | -.0108 | -.0037 | -.0048 | .0036  | .0191 |
| 8    | -2.50  | -.0207  | -.0185 | -.0084 | -.0027 | .0037  | .0160 |
| 10   | 2.50   | .4103   | -.0095 | -.0392 | -.0021 | .0050  | .0125 |
| 11   | 4.99   | .6202   | .0078  | -.0448 | -.0035 | .0053  | .0010 |
| 12   | 9.99   | 1.0264  | .0628  | -.0471 | -.0046 | .0086  | .0051 |
| 13   | 14.99  | 1.3610  | .1570  | -.0712 | -.0029 | .0086  | .0029 |
| 15   | 20.00  | 1.4527  | .3084  | -.0389 | -.0013 | .0097  | .0057 |
| 16   | -.00   | .1870   | -.0187 | -.0312 | -.0034 | .0019  | .0081 |
| 17   | 15.00  | 1.3764  | .1606  | -.0704 | -.0023 | .0107  | .0056 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

PG 49

RUN 779 CONFIG F P B NPS W7 T49 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 7       | .0        | .0      | 73.0        | 31.60       | 21.          | -51.         | 11.          | 5.29        | 54.71 | 128.25  | 3630.  |
| 8       | .0        | .0      | 69.3        | -6.80       | -92.         | -39.         | 27.          | 6.36        | 54.65 | 128.17  | 11190. |
| 9       | .0        | -20.0   | 103.7       | 37.85       | -905.        | 1231.        | -75.         | -172.63     | 55.13 | 128.75  | 11070. |
| 10      | .0        | -15.0   | 92.0        | 18.16       | -625.        | 859.         | -46.         | -128.88     | 54.87 | 128.44  | 11030. |
| 11      | .0        | -10.0   | 82.2        | 2.81        | -339.        | 425.         | 8.           | -81.98      | 55.43 | 129.11  | 11180. |
| 12      | .0        | -5.0    | 73.3        | -3.98       | -189.        | 150.         | 33.          | -38.08      | 55.10 | 128.71  | 11210. |
| 13      | .0        | -2.5    | 68.7        | -6.12       | -157.        | 42.          | 22.          | -18.06      | 55.26 | 128.90  | 11220. |
| 14      | .0        | .0      | 69.5        | -6.09       | -142.        | -56.         | 64.          | 5.35        | 54.77 | 128.32  | 11230. |
| 15      | .0        | 2.5     | 70.5        | -5.43       | -146.        | -131.        | 23.          | 27.68       | 54.65 | 128.18  | 11210. |
| 16      | .0        | 5.0     | 71.0        | -3.38       | -187.        | -206.        | 38.          | 48.94       | 55.34 | 129.00  | 11190. |
| 17      | .0        | 10.0    | 78.8        | 1.98        | -396.        | -523.        | 56.          | 92.64       | 55.27 | 128.91  | 11220. |
| 18      | .0        | 15.0    | 87.5        | 14.01       | -665.        | -835.        | 185.         | 138.11      | 54.95 | 128.53  | 11250. |
| 19      | .0        | 20.0    | 91.7        | 34.95       | -904.        | -1165.       | 218.         | 183.18      | 55.08 | 128.69  | 11230. |
| 20      | .0        | .0      | 68.0        | -6.17       | -105.        | -50.         | 45.          | 5.63        | 55.64 | 129.35  | 11220. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 7    | .00    | .1973 | .0854  | .0067  | -.0031 | .0007  | .0143  |
| 8    | .00    | .1873 | -.0184 | -.0296 | -.0023 | .0017  | .0172  |
| 9    | -20.00 | .2804 | .1023  | -.2916 | .0744  | -.0046 | -.4666 |
| 10   | -15.00 | .2486 | .0491  | -.2016 | .0519  | -.0028 | -.3483 |
| 11   | -10.00 | .2221 | .0076  | -.1092 | .0257  | .0005  | -.2216 |
| 12   | -5.00  | .1981 | -.0107 | -.0608 | .0091  | .0020  | -.1029 |
| 13   | -2.50  | .1856 | -.0165 | -.0505 | .0026  | .0013  | -.0488 |
| 14   | .00    | .1877 | -.0165 | -.0457 | -.0034 | .0039  | .0145  |
| 15   | 2.50   | .1906 | -.0147 | -.0470 | -.0079 | .0014  | .0748  |
| 16   | 5.00   | .1920 | -.0091 | -.0601 | -.0124 | .0023  | .1323  |
| 17   | 10.00  | .2129 | .0054  | -.1278 | -.0316 | .0034  | .2504  |
| 18   | 15.00  | .2364 | .0379  | -.2143 | -.0505 | .0112  | .3733  |
| 19   | 20.00  | .2479 | .0944  | -.2913 | -.0704 | .0132  | .4951  |
| 20   | .00    | .1838 | -.0167 | -.0337 | -.0030 | .0027  | .0152  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 7    | .00    | .1973 | .0854  | .0067  | -.0031 | .0007  | .0143  |
| 8    | .00    | .1873 | -.0184 | -.0296 | -.0023 | .0017  | .0172  |
| 9    | -20.00 | .2804 | -.0642 | -.2655 | .0744  | .0145  | -.4733 |
| 10   | -15.00 | .2486 | -.0432 | -.1908 | .0519  | .0071  | -.3491 |
| 11   | -10.00 | .2221 | -.0312 | -.1080 | .0257  | .0041  | -.2195 |
| 12   | -5.00  | .1981 | -.0197 | -.0615 | .0091  | .0030  | -.1016 |
| 13   | -2.50  | .1856 | -.0187 | -.0507 | .0026  | .0017  | -.0480 |
| 14   | .00    | .1877 | -.0165 | -.0457 | -.0034 | .0039  | .0145  |
| 15   | 2.50   | .1906 | -.0179 | -.0466 | -.0079 | .0010  | .0741  |
| 16   | 5.00   | .1920 | -.0207 | -.0588 | -.0124 | .0013  | .1310  |
| 17   | 10.00  | .2129 | -.0384 | -.1227 | -.0316 | -.0009 | .2475  |
| 18   | 15.00  | .2364 | -.0605 | -.1914 | -.0505 | .0004  | .3763  |
| 19   | 20.00  | .2479 | -.0814 | -.2495 | -.0704 | -.0064 | .4974  |
| 20   | .00    | .1838 | -.0167 | -.0337 | -.0030 | .0027  | .0152  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUW 780 CONFIG F P B NP5 W7 T37 BT IN=-3.5 XIN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 2       | .0        | .0      | 36.5        | 33.01       | 938.         | -41.         | -24.         | 5.27        | 54.96 | 128.55  | 3630.  |
| 3       | .0        | .0      | 33.0        | -7.17       | 853.         | -25.         | 26.          | 6.69        | 55.53 | 129.22  | 11540. |
| 4       | -20.0     | .0      | -387.8      | 122.94      | 462.         | -142.        | -122.        | 7.10        | 54.68 | 128.21  | 11510. |
| 5       | -15.0     | .0      | -383.6      | 55.83       | 1104.        | -81.         | -35.         | 8.42        | 55.01 | 128.59  | 11480. |
| 6       | -10.0     | .0      | -286.3      | 18.87       | 1064.        | -47.         | -50.         | 8.36        | 55.80 | 129.54  | 11510. |
| 7       | -5.0      | .0      | -128.6      | .01         | 907.         | -60.         | -28.         | 6.66        | 55.25 | 128.88  | 11520. |
| 8       | -2.5      | .0      | -45.0       | -5.29       | 838.         | -43.         | 45.          | 5.68        | 55.13 | 128.75  | 11540. |
| 9       | -0        | .0      | 31.3        | -7.03       | 845.         | -27.         | -8.          | 6.52        | 55.42 | 129.09  | 11550. |
| 10      | 2.5       | .0      | 110.3       | -5.17       | 865.         | -23.         | 11.          | 6.11        | 55.75 | 129.48  | 11540. |
| 11      | 5.0       | .0      | 186.9       | -.27        | 907.         | -53.         | 13.          | 4.80        | 55.34 | 129.00  | 11530. |
| 12      | 10.0      | .0      | 337.4       | 17.38       | 1047.        | -91.         | 67.          | 7.05        | 54.59 | 128.10  | 11500. |
| 13      | 15.0      | .0      | 455.3       | 48.45       | 1057.        | -79.         | 87.          | 2.41        | 55.13 | 128.74  | 11490. |
| 14      | 20.0      | .0      | 499.1       | 96.99       | 854.         | -11.         | 123.         | 1.24        | 55.16 | 128.77  | 11480. |
| 15      | 17.5      | .0      | 482.2       | 70.57       | 972.         | -54.         | 106.         | 4.16        | 54.91 | 128.47  | 11480. |
| 16      | -20.0     | .0      | -384.3      | 121.81      | 492.         | -148.        | -130.        | 10.88       | 55.09 | 128.69  | 11490. |
| 17      | -17.5     | .0      | -357.7      | 99.46       | 731.         | -142.        | -232.        | 9.24        | 54.96 | 128.53  | 11480. |
| 18      | -12.5     | .0      | -343.6      | 39.18       | 1330.        | -67.         | -29.         | 5.89        | 55.54 | 129.22  | 11490. |
| 19      | -0        | .0      | 32.2        | -6.54       | 833.         | -31.         | 45.          | 5.50        | 55.73 | 129.45  | 11510. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM   | CYM    | CRM    | CY    |
|------|--------|---------|--------|-------|--------|--------|-------|
| 2    | .00    | .0985   | .0892  | .3025 | -.0025 | -.0015 | .0142 |
| 3    | .00    | .0892   | -.0194 | .2751 | -.0015 | .0016  | .0181 |
| 4    | -20.01 | -1.0481 | .3323  | .1490 | -.0089 | -.0074 | .0192 |
| 5    | -15.01 | -1.0369 | .1509  | .3560 | -.0049 | -.0021 | .0228 |
| 6    | -10.00 | -.7736  | .0510  | .3431 | -.0029 | -.0030 | .0226 |
| 7    | -5.01  | -.3476  | .0000  | .2926 | -.0036 | -.0017 | .0180 |
| 8    | -2.50  | -.1217  | -.0143 | .2701 | -.0026 | .0027  | .0154 |
| 9    | -0.00  | .0846   | -.0190 | .2724 | -.0017 | -.0005 | .0176 |
| 10   | 2.49   | .2981   | -.0140 | .2790 | -.0014 | .0006  | .0165 |
| 11   | 5.00   | .5052   | -.0007 | .2925 | -.0032 | .0008  | .0130 |
| 12   | 9.99   | .9119   | .0470  | .3375 | -.0055 | .0040  | .0191 |
| 13   | 15.00  | 1.2304  | .1309  | .3407 | -.0047 | .0053  | .0065 |
| 14   | 19.99  | 1.3489  | .2621  | .2754 | -.0007 | .0074  | .0033 |
| 15   | 17.50  | 1.3032  | .1907  | .3134 | -.0032 | .0064  | .0112 |
| 16   | -20.01 | -1.0387 | .3292  | .1588 | -.0089 | -.0079 | .0294 |
| 17   | -17.51 | -.9667  | .2688  | .2358 | -.0086 | -.0140 | .0250 |
| 18   | -12.50 | -.9287  | .1059  | .4288 | -.0041 | -.0017 | .0159 |
| 19   | -0.00  | .0871   | -.0177 | .2685 | -.0019 | .0027  | .0149 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDL    | CPMB  | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|-------|--------|--------|-------|
| 2    | .00    | .0985   | .0892  | .3025 | -.0025 | -.0015 | .0142 |
| 3    | .00    | .0892   | -.0194 | .2751 | -.0015 | .0016  | .0181 |
| 4    | -20.01 | -1.0481 | .3323  | .1490 | -.0089 | -.0074 | .0192 |
| 5    | -15.01 | -1.0369 | .1509  | .3560 | -.0049 | -.0021 | .0228 |
| 6    | -10.00 | -.7736  | .0510  | .3431 | -.0029 | -.0030 | .0226 |
| 7    | -5.01  | -.3476  | .0000  | .2926 | -.0036 | -.0017 | .0180 |
| 8    | -2.50  | -.1217  | -.0143 | .2701 | -.0026 | .0027  | .0154 |
| 9    | -0.00  | .0846   | -.0190 | .2724 | -.0017 | -.0005 | .0176 |
| 10   | 2.49   | .2981   | -.0140 | .2790 | -.0014 | .0006  | .0165 |
| 11   | 5.00   | .5052   | -.0007 | .2925 | -.0032 | .0008  | .0130 |
| 12   | 9.99   | .9119   | .0470  | .3375 | -.0055 | .0040  | .0191 |
| 13   | 15.00  | 1.2304  | .1309  | .3407 | -.0047 | .0053  | .0065 |
| 14   | 19.99  | 1.3489  | .2621  | .2754 | -.0007 | .0074  | .0033 |
| 15   | 17.50  | 1.3032  | .1907  | .3134 | -.0032 | .0064  | .0112 |
| 16   | -20.01 | -1.0387 | .3292  | .1588 | -.0089 | -.0079 | .0294 |
| 17   | -17.51 | -.9667  | .2688  | .2358 | -.0086 | -.0140 | .0250 |
| 18   | -12.50 | -.9287  | .1059  | .4288 | -.0041 | -.0017 | .0159 |
| 19   | -0.00  | .0871   | -.0177 | .2685 | -.0019 | .0027  | .0149 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 651

RUN 781 CONFIG F P B NP5 W7 T37 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CD BAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM    |
|---------|-----------|---------------|-------------------|--------------------|--------------------|--------------------|--------------------|-------------------|-------------|---------------|--------|
| 3       | .0        | .0            | 57.1              | 32.24              | 412.               | -58.               | -6.                | 5.06              | 54.57       | 128.07        | 3630.  |
| 4       | .0        | .0            | 52.1              | -6.66              | 310.               | -31.               | 29.                | 4.76              | 55.13       | 128.74        | 11340. |
| 5       | -20.0     | .0            | -381.4            | 114.32             | 373.               | -184.              | -148.              | 11.07             | 55.37       | 129.02        | 11320. |
| 6       | -15.0     | .0            | -352.7            | 56.60              | 806.               | -175.              | 174.               | 9.66              | 54.98       | 128.56        | 11370. |
| 7       | -10.0     | .0            | -258.7            | 13.70              | 373.               | -47.               | -12.               | 6.59              | 55.29       | 128.93        | 11300. |
| 8       | -5.0      | .0            | -100.6            | -1.88              | 222.               | -42.               | 7.                 | 7.03              | 55.24       | 128.87        | 11260. |
| 9       | -2.5      | .0            | -22.4             | -6.10              | 252.               | -43.               | 26.                | 5.96              | 55.43       | 129.10        | 11310. |
| 10      | -0        | .0            | 52.4              | -6.28              | 300.               | -29.               | 11.                | 5.42              | 54.68       | 128.21        | 11290. |
| 11      | 2.5       | .0            | 128.4             | -3.86              | 347.               | -21.               | 28.                | 6.27              | 54.84       | 128.39        | 11300. |
| 12      | 5.0       | .0            | 203.6             | 1.56               | 413.               | -45.               | 65.                | 5.04              | 55.37       | 129.03        | 11300. |
| 13      | 10.0      | .0            | 347.8             | 20.05              | 521.               | -93.               | 67.                | 5.05              | 55.33       | 128.98        | 11300. |
| 14      | 15.0      | .0            | 474.0             | 52.74              | 501.               | -70.               | 88.                | 1.99              | 54.65       | 128.17        | 11290. |
| 15      | 17.5      | .0            | 505.5             | 78.01              | 378.               | -51.               | 159.               | 4.72              | 54.82       | 128.37        | 11280. |
| 16      | 20.0      | .0            | 520.7             | 103.66             | 253.               | -5.                | 161.               | 1.94              | 54.38       | 127.85        | 11290. |
| 17      | -12.5     | .0            | -321.8            | 33.69              | 725.               | -52.               | -18.               | 9.06              | 55.26       | 128.90        | 11330. |
| 18      | .0        | .0            | 51.8              | -5.87              | 290.               | -29.               | 45.                | 5.65              | 55.45       | 129.12        | 11240. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. NO. | ALPHA  | CL      | CD     | CPM   | CYM    | CRM    | CY    |
|---------|--------|---------|--------|-------|--------|--------|-------|
| 3       | .00    | .1542   | .0871  | .1328 | -.0035 | -.0004 | .0137 |
| 4       | .00    | .1408   | -.0180 | .0998 | -.0019 | .0018  | .0129 |
| 5       | -20.00 | -1.0309 | .3090  | .1204 | -.0111 | -.0089 | .0299 |
| 6       | -15.00 | -.9532  | .1530  | .2598 | -.0106 | .0105  | .0261 |
| 7       | -10.00 | -.6992  | .0370  | .1203 | -.0029 | -.0007 | .0178 |
| 8       | -5.00  | -.2719  | -.0051 | .0715 | -.0025 | .0004  | .0190 |
| 9       | -2.50  | -.0606  | -.0165 | .0813 | -.0026 | .0016  | .0161 |
| 10      | -0     | .1417   | -.0170 | .0968 | -.0018 | .0007  | .0146 |
| 11      | 2.50   | .3470   | -.0104 | .1119 | -.0012 | .0017  | .0170 |
| 12      | 5.00   | .5504   | .0042  | .1331 | -.0027 | .0039  | .0136 |
| 13      | 10.00  | .9401   | .0542  | .1680 | -.0056 | .0041  | .0136 |
| 14      | 15.00  | 1.2812  | .1425  | .1614 | -.0042 | .0053  | .0054 |
| 15      | 17.50  | 1.3662  | .2108  | .1219 | -.0031 | .0096  | .0128 |
| 16      | 20.00  | 1.4074  | .2802  | .0814 | -.0003 | .0097  | .0052 |
| 17      | -12.50 | -.8698  | .0910  | .2339 | -.0031 | -.0011 | .0245 |
| 18      | .00    | .1400   | -.0151 | .0934 | -.0018 | .0027  | .0153 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. NO. | ALPHA  | CL3     | CD3    | CPMB  | CYMB   | CRMB   | CYB   |
|---------|--------|---------|--------|-------|--------|--------|-------|
| 3       | .00    | .1542   | .0871  | .1328 | -.0035 | -.0004 | .0137 |
| 4       | .00    | .1408   | -.0180 | .0998 | -.0019 | .0018  | .0129 |
| 5       | -20.00 | -1.0309 | .3090  | .1204 | -.0111 | -.0089 | .0299 |
| 6       | -15.00 | -.9532  | .1530  | .2598 | -.0106 | .0105  | .0261 |
| 7       | -10.00 | -.6992  | .0370  | .1203 | -.0029 | -.0007 | .0178 |
| 8       | -5.00  | -.2719  | -.0051 | .0715 | -.0025 | .0004  | .0190 |
| 9       | -2.50  | -.0606  | -.0165 | .0813 | -.0026 | .0016  | .0161 |
| 10      | -0     | .1417   | -.0170 | .0968 | -.0018 | .0007  | .0146 |
| 11      | 2.50   | .3470   | -.0104 | .1119 | -.0012 | .0017  | .0170 |
| 12      | 5.00   | .5504   | .0042  | .1331 | -.0027 | .0039  | .0136 |
| 13      | 10.00  | .9401   | .0542  | .1680 | -.0056 | .0041  | .0136 |
| 14      | 15.00  | 1.2812  | .1425  | .1614 | -.0042 | .0053  | .0054 |
| 15      | 17.50  | 1.3662  | .2108  | .1219 | -.0031 | .0096  | .0128 |
| 16      | 20.00  | 1.4074  | .2802  | .0814 | -.0003 | .0097  | .0052 |
| 17      | -12.50 | -.8698  | .0910  | .2339 | -.0031 | -.0011 | .0245 |
| 18      | .00    | .1400   | -.0151 | .0934 | -.0018 | .0027  | .0153 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 782 CONFIG F P 8 NP5 W7 T37 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 2       | .0        | .0      | 90.1        | 32.67       | -545.        | -55.         | 29.          | 4.89        | 55.01 | 128.60  | 3640.  |
| 3       | .0        | .0      | 88.0        | -6.74       | -650.        | -26.         | 25.          | 7.69        | 55.40 | 129.06  | 11450. |
| 4       | -20.0     | .0      | -360.6      | 100.85      | -349.        | -152.        | -22.         | 9.61        | 55.31 | 128.95  | 11500. |
| 5       | -15.0     | .0      | -331.4      | 37.18       | -303.        | -49.         | -33.         | 7.71        | 55.24 | 128.86  | 11530. |
| 6       | -10.0     | .0      | -212.3      | 5.05        | -943.        | -47.         | 5.           | 6.76        | 55.40 | 129.06  | 11520. |
| 7       | -5.0      | .0      | -80.3       | -5.83       | -916.        | -52.         | -10.         | 6.45        | 55.43 | 129.10  | 11460. |
| 8       | -2.5      | .0      | 15.1        | -8.26       | -762.        | -51.         | 42.          | 7.52        | 55.23 | 128.86  | 11580. |
| 9       | -0        | .0      | 85.7        | -6.68       | -668.        | -49.         | 47.          | 4.03        | 55.72 | 129.44  | 11450. |
| 10      | 2.5       | .0      | 161.8       | -3.40       | -586.        | -24.         | 51.          | 1.48        | 55.42 | 129.08  | 11530. |
| 11      | 5.0       | .0      | 237.0       | 2.96        | -522.        | -23.         | 48.          | 4.11        | 55.58 | 129.28  | 11560. |
| 12      | 10.0      | .0      | 385.4       | 24.57       | -488.        | -47.         | 86.          | 2.58        | 55.38 | 129.04  | 11530. |
| 13      | 15.0      | .0      | 504.2       | 65.17       | -431.        | -64.         | 69.          | 3.82        | 55.23 | 128.85  | 11410. |
| 14      | 17.5      | .0      | 518.5       | 90.48       | -359.        | -78.         | 88.          | 4.99        | 55.32 | 128.97  | 11570. |
| 15      | 20.0      | .0      | 524.2       | 116.09      | -189.        | -41.         | 123.         | 2.84        | 55.25 | 128.88  | 11480. |
| 16      | -17.5     | .0      | -323.4      | 76.79       | -264.        | -117.        | -29.         | 13.45       | 55.48 | 129.14  | 11500. |
| 17      | -12.5     | .0      | -273.2      | 23.65       | -565.        | -46.         | -48.         | 6.77        | 55.84 | 129.58  | 11480. |
| 18      | .0        | .0      | 85.8        | -7.00       | -680.        | -53.         | 46.          | 4.46        | 55.79 | 129.52  | 11500. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .2436  | .0883  | -.1757 | -.0033 | .0018  | .0132 |
| 3    | .00    | .2379  | -.0182 | -.2094 | -.0016 | .0015  | .0208 |
| 4    | -20.00 | -.9745 | .2726  | -.1126 | -.0092 | -.0013 | .0260 |
| 5    | -15.00 | -.8956 | .1005  | -.0978 | -.0029 | -.0020 | .0208 |
| 6    | -10.00 | -.5737 | .0136  | -.3039 | -.0028 | .0003  | .0183 |
| 7    | -5.01  | -.1630 | -.0158 | -.2954 | -.0032 | -.0006 | .0174 |
| 8    | -2.50  | .0409  | -.0223 | -.2458 | -.0031 | .0025  | .0203 |
| 9    | -.00   | .2315  | -.0180 | -.2153 | -.0029 | .0028  | .0109 |
| 10   | 2.49   | .4372  | -.0092 | -.1888 | -.0015 | .0031  | .0040 |
| 11   | 4.99   | .6407  | .0080  | -.1682 | -.0014 | .0029  | .0111 |
| 12   | 10.00  | 1.0417 | .0664  | -.1574 | -.0028 | .0052  | .0070 |
| 13   | 15.00  | 1.3628 | .1761  | -.1389 | -.0038 | .0042  | .0103 |
| 14   | 17.50  | 1.4013 | .2445  | -.1159 | -.0047 | .0053  | .0135 |
| 15   | 19.99  | 1.4167 | .3137  | -.0611 | -.0024 | .0074  | .0077 |
| 16   | -17.50 | -.8740 | .2075  | -.0851 | -.0071 | -.0018 | .0363 |
| 17   | -12.50 | -.7382 | .0639  | -.1821 | -.0028 | -.0029 | .0183 |
| 18   | .00    | .2320  | -.0189 | -.2192 | -.0032 | .0028  | .0120 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .2436  | .0883  | -.1757 | -.0033 | .0018  | .0132 |
| 3    | .00    | .2379  | -.0182 | -.2094 | -.0016 | .0015  | .0208 |
| 4    | -20.00 | -.9745 | .2726  | -.1126 | -.0092 | -.0013 | .0260 |
| 5    | -15.00 | -.8956 | .1005  | -.0978 | -.0029 | -.0020 | .0208 |
| 6    | -10.00 | -.5737 | .0136  | -.3039 | -.0028 | .0003  | .0183 |
| 7    | -5.01  | -.1630 | -.0158 | -.2954 | -.0032 | -.0006 | .0174 |
| 8    | -2.50  | .0409  | -.0223 | -.2458 | -.0031 | .0025  | .0203 |
| 9    | -.00   | .2315  | -.0180 | -.2153 | -.0029 | .0028  | .0109 |
| 10   | 2.49   | .4372  | -.0092 | -.1888 | -.0015 | .0031  | .0040 |
| 11   | 4.99   | .6407  | .0080  | -.1682 | -.0014 | .0029  | .0111 |
| 12   | 10.00  | 1.0417 | .0664  | -.1574 | -.0028 | .0052  | .0070 |

|    |        |        |        |        |        |        |       |
|----|--------|--------|--------|--------|--------|--------|-------|
| 13 | 15.00  | 1.3628 | .1761  | -.1389 | -.0038 | .0042  | .0103 |
| 14 | 17.50  | 1.4013 | .2445  | -.1159 | -.0047 | .0053  | .0135 |
| 15 | 19.99  | 1.4167 | .3137  | -.0611 | -.0024 | .0074  | .0077 |
| 16 | -17.50 | -.8740 | .2075  | -.0851 | -.0071 | -.0018 | .0363 |
| 17 | -12.50 | -.7382 | .0639  | -.1821 | -.0028 | -.0029 | .0183 |
| 18 | .00    | .2320  | -.0189 | -.2192 | -.0032 | .0028  | .0120 |

RUN 763 CONFIG F P B NP5 W7 T37 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|-------------|-------|---------|--------|
| 2       | .0        | .0      | 105.2       | 34.04       | -976.         | -36.        | 30.           | 4.14        | 55.08 | 128.68  | 3640.  |
| 3       | .0        | .0      | 102.3       | -6.70       | -1093.        | -28.        | 65.           | 3.94        | 55.28 | 128.91  | 11690. |
| 4       | -20.0     | .0      | -344.0      | 95.50       | -721.         | -142.       | -18.          | 8.02        | 55.63 | 129.32  | 11660. |
| 5       | -17.5     | .0      | -305.6      | 76.05       | -720.         | -99.        | -68.          | 7.16        | 55.63 | 129.32  | 11690. |
| 6       | -15.0     | .0      | -316.0      | 34.64       | -835.         | -36.        | -44.          | 4.23        | 55.57 | 129.26  | 11700. |
| 7       | -12.5     | .0      | -260.4      | 21.60       | -1116.        | -15.        | 9.            | 4.43        | 55.38 | 129.03  | 11700. |
| 8       | -10.0     | .0      | -195.0      | 3.01        | -1522.        | -54.        | 24.           | 5.83        | 55.47 | 129.14  | 11740. |
| 9       | -5.0      | .0      | -44.3       | -7.12       | -1388.        | -29.        | 63.           | 4.71        | 55.02 | 128.60  | 11710. |
| 10      | -2.5      | .0      | 27.8        | -9.05       | -1218.        | -47.        | 30.           | 3.66        | 54.84 | 128.39  | 11710. |
| 11      | .0        | .0      | 103.5       | -6.99       | -1108.        | -43.        | 83.           | 3.91        | 54.90 | 128.46  | 11710. |
| 12      | 2.5       | .0      | 178.2       | -2.75       | -1003.        | -41.        | 68.           | 2.35        | 54.99 | 128.57  | 11720. |
| 13      | 5.0       | .0      | 249.6       | 4.80        | -932.         | -55.        | 68.           | 1.72        | 55.35 | 128.99  | 11720. |
| 14      | 10.0      | .0      | 395.5       | 30.09       | -756.         | -101.       | 104.          | 3.86        | 54.74 | 128.28  | 11690. |
| 15      | 15.0      | .0      | 507.4       | 68.72       | -516.         | -129.       | 104.          | 4.50        | 55.21 | 128.83  | 11680. |
| 16      | 17.5      | .0      | 520.9       | 93.41       | -416.         | -127.       | 88.           | 5.41        | 54.75 | 128.28  | 11680. |
| 17      | 20.0      | .0      | 524.7       | 119.90      | -265.         | -97.        | 72.           | 4.90        | 54.89 | 128.45  | 11680. |
| 18      | -5.0      | .0      | 99.1        | -6.97       | -1101.        | -44.        | 46.           | 5.44        | 55.10 | 128.70  | 11710. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. NO. | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|---------|--------|--------|--------|--------|--------|--------|-------|
| 2       | .00    | .2843  | .0920  | -.3146 | -.0022 | .0018  | .0112 |
| 3       | .00    | .2765  | -.0181 | -.3524 | -.0017 | .0039  | .0107 |
| 4       | -20.01 | -.9298 | .2581  | -.2324 | -.0086 | -.0011 | .0217 |
| 5       | -17.49 | -.8260 | .2055  | -.2321 | -.0060 | -.0041 | .0194 |
| 6       | -14.98 | -.8541 | .0936  | -.2691 | -.0022 | -.0026 | .0114 |
| 7       | -12.52 | -.7039 | .0584  | -.3599 | -.0009 | .0005  | .0120 |
| 8       | -9.99  | -.5271 | .0081  | -.4907 | -.0032 | .0015  | .0158 |
| 9       | -5.01  | -.1198 | -.0192 | -.4475 | -.0017 | .0038  | .0127 |
| 10      | -2.51  | .0752  | -.0245 | -.3926 | -.0029 | .0018  | .0099 |
| 11      | .00    | .2797  | -.0189 | -.3573 | -.0026 | .0050  | .0106 |
| 12      | 2.50   | .4817  | -.0074 | -.3234 | -.0025 | .0041  | .0064 |
| 13      | 4.99   | .6752  | .0130  | -.3004 | -.0033 | .0041  | .0047 |
| 14      | 10.00  | 1.0689 | .0813  | -.2439 | -.0061 | .0063  | .0104 |
| 15      | 15.00  | 1.3714 | .1857  | -.1663 | -.0078 | .0063  | .0122 |
| 16      | 17.50  | 1.4079 | .2525  | -.1341 | -.0077 | .0053  | .0146 |
| 17      | 20.00  | 1.4182 | .3241  | -.0857 | -.0058 | .0043  | .0132 |
| 18      | -.01   | .2678  | -.0188 | -.3550 | -.0027 | .0028  | .0147 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. NO. | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|---------|--------|--------|--------|--------|--------|--------|-------|
| 2       | .00    | .2843  | .0920  | -.3146 | -.0022 | .0018  | .0112 |
| 3       | .00    | .2765  | -.0181 | -.3524 | -.0017 | .0039  | .0107 |
| 4       | -20.01 | -.9298 | .2581  | -.2324 | -.0086 | -.0011 | .0217 |
| 5       | -17.49 | -.8260 | .2055  | -.2321 | -.0060 | -.0041 | .0194 |
| 6       | -14.98 | -.8541 | .0936  | -.2691 | -.0022 | -.0026 | .0114 |
| 7       | -12.52 | -.7039 | .0584  | -.3599 | -.0009 | .0005  | .0120 |
| 8       | -9.99  | -.5271 | .0081  | -.4907 | -.0032 | .0015  | .0158 |
| 9       | -5.01  | -.1198 | -.0192 | -.4475 | -.0017 | .0038  | .0127 |
| 10      | -2.51  | .0752  | -.0245 | -.3926 | -.0029 | .0018  | .0099 |
| 11      | .00    | .2797  | -.0189 | -.3573 | -.0026 | .0050  | .0106 |
| 12      | 2.50   | .4817  | -.0074 | -.3234 | -.0025 | .0041  | .0064 |
| 13      | 4.99   | .6752  | .0130  | -.3004 | -.0033 | .0041  | .0047 |
| 14      | 10.00  | 1.0689 | .0813  | -.2439 | -.0061 | .0063  | .0104 |
| 15      | 15.00  | 1.3714 | .1857  | -.1663 | -.0078 | .0063  | .0122 |
| 16      | 17.50  | 1.4079 | .2525  | -.1341 | -.0077 | .0053  | .0146 |
| 17      | 20.00  | 1.4182 | .3241  | -.0857 | -.0058 | .0043  | .0132 |
| 18      | -.01   | .2678  | -.0188 | -.3550 | -.0027 | .0028  | .0147 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUI. 734 CONFIG F F B MP5 W7 T50 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 9       | .0        | .0      | 64.4        | 32.25       | 547.         | -40.         | -8.          | 6.25        | 55.04 | 128.63  | 3640.  |
| 10      | .0        | .0      | 61.1        | -6.74       | 451.         | -41.         | 27.          | 6.85        | 54.68 | 128.20  | 11440. |
| 11      | -20.0     | .0      | -347.5      | 108.16      | -320.        | -77.         | -157.        | 6.88        | 54.95 | 128.52  | 11370. |
| 12      | -15.0     | .0      | -317.5      | 44.18       | -274.        | 8.           | -48.         | 6.14        | 54.90 | 128.46  | 11460. |
| 13      | -10.0     | .0      | -225.1      | 12.31       | -133.        | 66.          | -28.         | 5.78        | 55.37 | 129.02  | 11490. |
| 14      | -5.0      | .0      | -88.9       | -3.10       | 308.         | 34.          | -44.         | 5.73        | 55.26 | 128.89  | 11490. |
| 15      | -2.5      | .0      | -15.6       | -6.49       | 407.         | 8.           | -7.          | 4.92        | 55.34 | 128.98  | 11490. |
| 16      | -.0       | .0      | 59.3        | -6.80       | 410.         | -37.         | 10.          | 5.71        | 55.43 | 129.09  | 11480. |
| 17      | 2.5       | .0      | 135.7       | -4.23       | 457.         | -76.         | -6.          | 5.49        | 55.26 | 128.89  | 11490. |
| 18      | 5.0       | .0      | 209.6       | 1.79        | 535.         | -89.         | 81.          | 6.75        | 55.48 | 129.15  | 11490. |
| 19      | 10.0      | .0      | 350.3       | 19.97       | 814.         | -159.        | 86.          | 4.59        | 54.88 | 128.44  | 11460. |
| 20      | 15.0      | .0      | 455.8       | 49.33       | 1242.        | -163.        | 138.         | 8.41        | 55.47 | 129.13  | 11450. |
| 21      | 17.5      | .0      | 468.0       | 69.38       | 1472.        | -144.        | 35.          | 5.20        | 55.06 | 128.65  | 11450. |
| 22      | 20.0      | .0      | 476.4       | 92.44       | 1718.        | -93.         | 124.         | 5.39        | 54.97 | 128.54  | 11450. |
| 23      | -7.5      | .0      | -168.0      | 2.85        | 262.         | 34.          | -26.         | 4.73        | 55.43 | 129.09  | 11480. |
| 24      | .0        | .0      | 55.1        | -5.65       | 378.         | -26.         | -9.          | 7.32        | 55.40 | 129.05  | 11470. |
| 25      | .0        | .0      | 57.8        | -5.42       | 378.         | -14.         | 26.          | 7.14        | 55.33 | 128.97  | 11450. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 9    | .00    | .1741  | .0872  | .1764  | -.0024 | -.0005 | .0169 |
| 10   | .00    | .1652  | -.0182 | .1453  | -.0025 | .0016  | .0185 |
| 11   | -20.00 | -.9391 | .2923  | -.1032 | -.0046 | -.0095 | .0186 |
| 12   | -15.00 | -.8581 | .1194  | -.0882 | .0005  | -.0029 | .0166 |
| 13   | -10.00 | -.6084 | .0333  | -.0430 | .0040  | -.0017 | .0156 |
| 14   | -5.00  | -.2404 | -.0084 | .1251  | .0021  | -.0027 | .0155 |
| 15   | -2.50  | -.0422 | -.0175 | .1314  | .0005  | -.0004 | .0133 |
| 16   | -.00   | .1604  | -.0184 | .1323  | -.0022 | .0006  | .0154 |
| 17   | 2.50   | .3668  | -.0114 | .1474  | -.0046 | -.0004 | .0148 |
| 18   | 5.00   | .5665  | .0048  | .1726  | -.0054 | .0049  | .0183 |
| 19   | 9.99   | .9468  | .0540  | .2625  | -.0096 | .0052  | .0124 |
| 20   | 15.00  | 1.2319 | .1333  | .4005  | -.0098 | .0083  | .0227 |
| 21   | 17.50  | 1.2649 | .1875  | .4746  | -.0087 | .0021  | .0140 |
| 22   | 20.00  | 1.2877 | .2498  | .5539  | -.0056 | .0075  | .0146 |
| 23   | -7.49  | -.4540 | .0077  | .0846  | .0021  | -.0015 | .0128 |
| 24   | .00    | .1488  | -.0153 | .1219  | -.0016 | -.0006 | .0198 |
| 25   | .00    | .1561  | -.0147 | .1218  | -.0008 | .0016  | .0193 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 9    | .00    | .1741  | .0872  | .1764  | -.0024 | -.0005 | .0169 |
| 10   | .00    | .1652  | -.0182 | .1453  | -.0025 | .0016  | .0185 |
| 11   | -20.00 | -.9391 | .2923  | -.1032 | -.0046 | -.0095 | .0186 |
| 12   | -15.00 | -.8581 | .1194  | -.0882 | .0005  | -.0029 | .0166 |
| 13   | -10.00 | -.6084 | .0333  | -.0430 | .0040  | -.0017 | .0156 |
| 14   | -5.00  | -.2404 | -.0084 | .1251  | .0021  | -.0027 | .0155 |
| 15   | -2.50  | -.0422 | -.0175 | .1314  | .0005  | -.0004 | .0133 |
| 16   | -.00   | .1604  | -.0184 | .1323  | -.0022 | .0006  | .0154 |
| 17   | 2.50   | .3668  | -.0114 | .1474  | -.0046 | -.0004 | .0148 |
| 18   | 5.00   | .5665  | .0048  | .1726  | -.0054 | .0049  | .0183 |
| 19   | 9.99   | .9468  | .0540  | .2625  | -.0096 | .0052  | .0124 |
| 20   | 15.00  | 1.2319 | .1333  | .4005  | -.0098 | .0083  | .0227 |
| 21   | 17.50  | 1.2649 | .1875  | .4746  | -.0087 | .0021  | .0140 |
| 22   | 20.00  | 1.2877 | .2498  | .5539  | -.0056 | .0075  | .0146 |
| 23   | -7.49  | -.4540 | .0077  | .0846  | .0021  | -.0015 | .0128 |
| 24   | .00    | .1488  | -.0153 | .1219  | -.0016 | -.0006 | .0198 |
| 25   | .00    | .1561  | -.0147 | .1218  | -.0008 | .0016  | .0193 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 655

RUN 785 CONFIG F P B NPS W7 T50 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 2       | .0        | .0      | 92.0        | 30.97       | -667.        | -35.         | 9.           | 6.85        | 55.17 | 128.78  | 3650.  |
| 3       | .0        | .0      | 87.8        | -7.35       | -737.        | -13.         | 29.          | 4.67        | 55.43 | 129.09  | 11340. |
| 4       | -20.0     | .0      | -348.6      | 98.87       | -208.        | -113.        | -77.         | 2.84        | 55.16 | 128.77  | 11290. |
| 5       | -15.0     | .0      | -309.8      | 36.61       | -387.        | -42.         | 1.           | 7.79        | 55.53 | 129.21  | 11300. |
| 6       | -10.0     | .0      | -212.3      | 6.64        | -750.        | -10.         | -31.         | 7.22        | 55.65 | 129.34  | 11310. |
| 7       | -5.0      | .0      | -62.0       | -5.34       | -810.        | -35.         | 7.           | 6.64        | 55.42 | 129.08  | 11320. |
| 8       | -2.5      | .0      | 11.0        | -7.58       | -799.        | -22.         | -10.         | 7.09        | 55.27 | 128.89  | 11340. |
| 9       | -.0       | .0      | 85.8        | -6.78       | -742.        | -20.         | 46.          | 4.46        | 55.77 | 129.49  | 11330. |
| 10      | 2.5       | .0      | 161.4       | -3.30       | -671.        | -3.          | 10.          | 6.64        | 55.44 | 129.10  | 11320. |
| 11      | 5.0       | .0      | 233.2       | 3.17        | -568.        | -24.         | 47.          | 5.66        | 55.41 | 129.06  | 11330. |
| 12      | 10.0      | .0      | 373.2       | 22.87       | -264.        | -78.         | 68.          | 3.88        | 55.35 | 128.99  | 11320. |
| 13      | 15.0      | .0      | 476.8       | 53.73       | 165.         | -72.         | 86.          | 4.04        | 55.68 | 129.38  | 11290. |
| 14      | 17.5      | .0      | 494.0       | 75.98       | 317.         | -51.         | 70.          | 3.83        | 55.15 | 128.75  | 11300. |
| 15      | 20.0      | .0      | 501.1       | 99.47       | 609.         | -7.          | 123.         | 2.47        | 55.19 | 128.80  | 11300. |
| 16      | .0        | .0      | 85.7        | -6.78       | -721.        | -24.         | 28.          | 5.75        | 55.73 | 129.44  | 11340. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. # | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|-------|--------|--------|--------|--------|--------|--------|-------|
| 2     | .00    | .2488  | .0837  | -.2150 | -.0021 | .0005  | .0185 |
| 3     | .00    | .2372  | -.0190 | -.2375 | -.0008 | .0018  | .0126 |
| 4     | -20.00 | -.9420 | .2672  | -.0671 | -.0068 | -.0046 | .0077 |
| 5     | -15.00 | -.8372 | .0990  | -.1246 | -.0026 | .0001  | .0211 |
| 6     | -10.00 | -.5739 | .0179  | -.2417 | -.0006 | -.0019 | .0195 |
| 7     | -5.00  | -.1677 | -.0144 | -.2612 | -.0021 | .0004  | .0179 |
| 8     | -2.50  | .0296  | -.0205 | -.2576 | -.0013 | -.0006 | .0192 |
| 9     | -.00   | .2316  | -.0183 | -.2393 | -.0012 | .0028  | .0121 |
| 10    | 2.50   | .4361  | -.0089 | -.2164 | -.0002 | .0006  | .0179 |
| 11    | 5.00   | .6304  | .0086  | -.1830 | -.0015 | .0028  | .0153 |
| 12    | 10.00  | 1.0088 | .0618  | -.0852 | -.0047 | .0041  | .0105 |
| 13    | 15.00  | 1.2886 | .1452  | .0532  | -.0043 | .0052  | .0109 |
| 14    | 17.50  | 1.3351 | .2053  | .1022  | -.0031 | .0042  | .0103 |
| 15    | 19.99  | 1.3542 | .2688  | .1963  | -.0004 | .0075  | .0067 |
| 16    | .00    | .2317  | -.0183 | -.2325 | -.0015 | .0017  | .0155 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. # | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|-------|--------|--------|--------|--------|--------|--------|-------|
| 2     | .00    | .2488  | .0837  | -.2150 | -.0021 | .0005  | .0185 |
| 3     | .00    | .2372  | -.0190 | -.2375 | -.0008 | .0018  | .0126 |
| 4     | -20.00 | -.9420 | .2672  | -.0671 | -.0068 | -.0046 | .0077 |
| 5     | -15.00 | -.8372 | .0990  | -.1246 | -.0026 | .0001  | .0211 |
| 6     | -10.00 | -.5739 | .0179  | -.2417 | -.0006 | -.0019 | .0195 |
| 7     | -5.00  | -.1677 | -.0144 | -.2612 | -.0021 | .0004  | .0179 |
| 8     | -2.50  | .0296  | -.0205 | -.2576 | -.0013 | -.0006 | .0192 |
| 9     | -.00   | .2316  | -.0183 | -.2393 | -.0012 | .0028  | .0121 |
| 10    | 2.50   | .4361  | -.0089 | -.2164 | -.0002 | .0006  | .0179 |
| 11    | 5.00   | .6304  | .0086  | -.1830 | -.0015 | .0028  | .0153 |
| 12    | 10.00  | 1.0088 | .0618  | -.0852 | -.0047 | .0041  | .0105 |
| 13    | 15.00  | 1.2886 | .1452  | .0532  | -.0043 | .0052  | .0109 |
| 14    | 17.50  | 1.3351 | .2053  | .1022  | -.0031 | .0042  | .0103 |
| 15    | 19.99  | 1.3542 | .2688  | .1963  | -.0004 | .0075  | .0067 |
| 16    | .00    | .2317  | -.0183 | -.2325 | -.0015 | .0017  | .0155 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 786 CONFIG F P B NP5 W7 T50 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | G PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|---------------|--------------|---------------|-------------|-------|---------|--------|
| 2       | .0        | .0      | 75.9        | 30.75       | 89.           | -55.         | 9.            | 6.81        | 55.00 | 128.50  | 3650.  |
| 3       | .0        | .0      | 70.6        | -6.74       | -17.          | -46.         | 45.           | 5.97        | 55.35 | 128.99  | 11270. |
| 4       | -20.0     | .0      | -338.0      | 105.07      | -369.         | -43.         | -98.          | 4.50        | 55.32 | 128.95  | 11300. |
| 5       | -15.0     | .0      | -313.3      | 42.19       | -101.         | 67.          | -109.         | 2.09        | 55.42 | 129.07  | 11330. |
| 6       | -10.0     | .0      | -232.0      | 9.47        | 67.           | 60.          | -99.          | 5.53        | 54.80 | 128.34  | 11320. |
| 7       | -5.0      | .0      | -80.4       | -4.58       | -27.          | -33.         | 6.            | 7.15        | 55.71 | 129.42  | 11300. |
| 8       | -2.5      | .0      | -2.8        | -7.17       | -40.          | -35.         | 64.           | 5.10        | 54.75 | 128.28  | 11310. |
| 9       | -2.5      | .0      | -5.2        | -7.35       | -51.          | -40.         | 28.           | 4.84        | 54.90 | 128.45  | 11320. |
| 10      | .0        | .0      | 70.5        | -6.74       | -20.          | -35.         | 10.           | 6.01        | 54.95 | 128.51  | 11250. |
| 11      | 2.5       | .0      | 145.1       | -3.99       | 29.           | -29.         | 28.           | 6.20        | 54.93 | 128.49  | 11320. |
| 12      | 5.0       | .0      | 219.4       | 1.86        | 119.          | -40.         | 46.           | 7.25        | 54.95 | 128.51  | 11290. |
| 13      | 10.0      | .0      | 353.0       | 19.91       | 413.          | -95.         | 32.           | 5.15        | 55.55 | 129.23  | 11310. |
| 14      | 15.0      | .0      | 459.8       | 48.96       | 857.          | -90.         | 51.           | 5.14        | 55.63 | 129.33  | 11350. |
| 15      | 17.5      | .0      | 474.9       | 70.05       | 1062.         | -70.         | 53.           | 2.59        | 55.21 | 128.82  | 11300. |
| 16      | 20.0      | .0      | 478.4       | 93.08       | 1341.         | -12.         | 35.           | 2.27        | 55.41 | 129.06  | 11290. |
| 17      | .0        | .0      | 69.3        | -6.78       | -23.          | -44.         | 10.           | 5.72        | 55.43 | 129.08  | 11250. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. # | ALPHA  | CL     | CU     | CPM    | CYM    | CRM    | CY    |
|-------|--------|--------|--------|--------|--------|--------|-------|
| 2     | .00    | .2052  | .0831  | .0287  | -.0033 | .0005  | .0184 |
| 3     | .00    | .1907  | -.0182 | -.0054 | -.0028 | .0027  | .0161 |
| 4     | -20.01 | -.9135 | .2840  | -.1190 | -.0026 | -.0059 | .0121 |
| 5     | -15.01 | -.8467 | .1140  | -.0325 | .0041  | -.0066 | .0056 |
| 6     | -9.99  | -.6269 | .0256  | .0216  | .0036  | -.0060 | .0150 |
| 7     | -5.00  | -.2172 | -.0124 | -.0086 | -.0020 | .0004  | .0193 |
| 8     | -2.50  | -.0076 | -.0194 | -.0130 | -.0021 | .0038  | .0138 |
| 9     | -2.50  | -.0141 | -.0199 | -.0166 | -.0024 | .0017  | .0131 |
| 10    | -.00   | .1905  | -.0182 | -.0065 | -.0021 | .0006  | .0163 |
| 11    | 2.52   | .3922  | -.0108 | .0095  | -.0018 | .0017  | .0168 |
| 12    | 4.99   | .5930  | .0050  | .0383  | -.0024 | .0028  | .0196 |
| 13    | 10.01  | .9540  | .0538  | .1330  | -.0057 | .0019  | .0139 |
| 14    | 14.99  | 1.2428 | .1323  | .2761  | -.0054 | .0031  | .0139 |
| 15    | 17.50  | 1.2836 | .1893  | .3488  | -.0042 | .0032  | .0070 |
| 16    | 19.99  | 1.2929 | .2516  | .4324  | -.0007 | .0021  | .0061 |
| 17    | .00    | .1872  | -.0183 | -.0075 | -.0027 | .0006  | .0154 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. # | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|-------|--------|--------|--------|--------|--------|--------|-------|
| 2     | .00    | .2052  | .0831  | .0287  | -.0033 | .0005  | .0184 |
| 3     | .00    | .1907  | -.0182 | -.0054 | -.0028 | .0027  | .0161 |
| 4     | -20.01 | -.9135 | .2840  | -.1190 | -.0026 | -.0059 | .0121 |
| 5     | -15.01 | -.8467 | .1140  | -.0325 | .0041  | -.0066 | .0056 |
| 6     | -9.99  | -.6269 | .0256  | .0216  | .0036  | -.0060 | .0150 |
| 7     | -5.00  | -.2172 | -.0124 | -.0086 | -.0020 | .0004  | .0193 |
| 8     | -2.50  | -.0076 | -.0194 | -.0130 | -.0021 | .0038  | .0138 |
| 9     | -2.50  | -.0141 | -.0199 | -.0166 | -.0024 | .0017  | .0131 |
| 10    | -.00   | .1905  | -.0182 | -.0065 | -.0021 | .0006  | .0163 |
| 11    | 2.52   | .3922  | -.0108 | .0095  | -.0018 | .0017  | .0168 |
| 12    | 4.99   | .5930  | .0050  | .0383  | -.0024 | .0028  | .0196 |
| 13    | 10.01  | .9540  | .0538  | .1330  | -.0057 | .0019  | .0139 |
| 14    | 14.99  | 1.2428 | .1323  | .2761  | -.0054 | .0031  | .0139 |
| 15    | 17.50  | 1.2836 | .1893  | .3488  | -.0042 | .0032  | .0070 |
| 16    | 19.99  | 1.2929 | .2516  | .4324  | -.0007 | .0021  | .0061 |
| 17    | .00    | .1872  | -.0183 | -.0075 | -.0027 | .0006  | .0154 |

N732409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P657

RUH 787 CONFIG F P R NP5 W7 T50 BT IN=3.5

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CI BAR SQ-FT | DELTA CO BAR SQ-FT | DELTA CP BAR CU-FT | DELTA CM BAR CU-FT | DELTA CR BAR CU-FT | DELTA CY BAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | DELTA RPM |
|---------|-----------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------|---------------|-----------|
| 2       | 0.0       | 0.0           | 81.0               | 30.77              | -265.              | -50.               | -8.                | 6.04               | 55.24       | 128.86        | 3660.     |
| 3       | 0.0       | 0.0           | 76.5               | -7.06              | -363.              | -36.               | 45.                | 5.47               | 56.09       | 129.87        | 11350.    |
| 4       | -20.0     | 0.0           | -308.4             | 103.77             | -169.              | -106.              | -130.              | 3.68               | 55.60       | 129.28        | 11310.    |
| 5       | -15.0     | 0.0           | -319.4             | 37.94              | 81.                | 59.                | -146.              | 4.00               | 56.15       | 129.93        | 11330.    |
| 6       | -10.0     | 0.0           | -224.6             | 7.62               | -297.              | 34.                | -66.               | 7.20               | 55.32       | 128.95        | 11360.    |
| 7       | -5.0      | 0.0           | -73.8              | -5.67              | -390.              | -47.               | 24.                | 7.06               | 55.51       | 129.18        | 11350.    |
| 8       | -2.5      | 0.0           | 2.9                | -8.18              | -378.              | -45.               | 41.                | 8.41               | 55.09       | 128.68        | 11360.    |
| 9       | 0.0       | 0.0           | 77.1               | -7.84              | -348.              | -31.               | 44.                | 6.63               | 55.45       | 129.11        | 11370.    |
| 10      | 2.5       | 0.0           | 153.8              | -4.47              | -285.              | -25.               | 64.                | 6.19               | 55.04       | 128.63        | 11360.    |
| 11      | 5.0       | 0.0           | 222.6              | 1.56               | -183.              | -42.               | 47.                | 5.85               | 55.33       | 128.97        | 11340.    |
| 12      | 10.0      | 0.0           | 359.1              | 20.81              | 142.               | -108.              | 85.                | 3.30               | 55.71       | 129.42        | 11430.    |
| 13      | 15.0      | 0.0           | 465.3              | 50.75              | 574.               | -104.              | 52.                | 4.62               | 55.27       | 128.90        | 11300.    |
| 14      | 20.0      | 0.0           | 482.2              | 95.12              | 990.               | -9.                | 88.                | 3.19               | 55.52       | 129.19        | 11400.    |
| 15      | 17.5      | 0.0           | 480.4              | 71.63              | 752.               | -63.               | 35.                | 3.26               | 55.31       | 128.94        | 11350.    |
| 16      | 0.0       | 0.0           | 76.8               | -7.05              | -340.              | -47.               | 46.                | 4.66               | 55.50       | 129.17        | 11260.    |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. # | ALPHA  | CL     | CD     | CPH    | CYM    | CRM    | CY    |
|-------|--------|--------|--------|--------|--------|--------|-------|
| 2     | 0.00   | .2189  | .0830  | -.0855 | -.0030 | -.0005 | .0163 |
| 3     | 0.00   | .2069  | -.0191 | -.1171 | -.0022 | .0027  | .0148 |
| 4     | -19.99 | -.9417 | .2805  | -.0544 | -.0064 | -.0079 | .0099 |
| 5     | -14.99 | -.8638 | .1026  | .0260  | .0036  | -.0088 | .0108 |
| 6     | -9.99  | -.6069 | .0206  | -.0957 | .0020  | -.0040 | .0195 |
| 7     | -5.01  | -.1994 | -.0153 | -.1258 | -.0029 | .0014  | .0191 |
| 8     | -2.51  | .0080  | -.0221 | -.1220 | -.0027 | .0025  | .0227 |
| 9     | 0.01   | .2083  | -.0213 | -.1122 | -.0019 | .0027  | .0179 |
| 10    | 2.52   | .4156  | -.0121 | -.0920 | -.0015 | .0038  | .0167 |
| 11    | 4.99   | .6016  | .0042  | -.0590 | -.0025 | .0028  | .0158 |
| 12    | 10.01  | .9704  | .0562  | .0457  | -.0065 | .0051  | .0089 |
| 13    | 15.00  | 1.2575 | .1372  | .1851  | -.0063 | .0031  | .0125 |
| 14    | 20.00  | 1.3031 | .2571  | .3191  | -.0005 | .0053  | .0086 |
| 15    | 17.51  | 1.2984 | .1936  | .2425  | -.0038 | .0021  | .0088 |
| 16    | 0.00   | .2076  | -.0190 | -.1098 | -.0028 | .0028  | .0126 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. # | ALPHA  | CLB    | CD8    | CPMB   | CYMB   | CRMB   | CYB   |
|-------|--------|--------|--------|--------|--------|--------|-------|
| 2     | 0.00   | .2189  | .0830  | -.0855 | -.0030 | -.0005 | .0163 |
| 3     | 0.00   | .2069  | -.0191 | -.1171 | -.0022 | .0027  | .0148 |
| 4     | -19.99 | -.9417 | .2805  | -.0544 | -.0064 | -.0079 | .0099 |
| 5     | -14.99 | -.8638 | .1026  | .0260  | .0036  | -.0088 | .0108 |
| 6     | -9.99  | -.6069 | .0206  | -.0957 | .0020  | -.0040 | .0195 |
| 7     | -5.01  | -.1994 | -.0153 | -.1258 | -.0029 | .0014  | .0191 |
| 8     | -2.51  | .0080  | -.0221 | -.1220 | -.0027 | .0025  | .0227 |
| 9     | 0.01   | .2083  | -.0213 | -.1122 | -.0019 | .0027  | .0179 |
| 10    | 2.52   | .4156  | -.0121 | -.0920 | -.0015 | .0038  | .0167 |
| 11    | 4.99   | .6016  | .0042  | -.0590 | -.0025 | .0028  | .0158 |
| 12    | 10.01  | .9704  | .0562  | .0457  | -.0065 | .0051  | .0089 |
| 13    | 15.00  | 1.2575 | .1372  | .1851  | -.0063 | .0031  | .0125 |
| 14    | 20.00  | 1.3031 | .2571  | .3191  | -.0005 | .0053  | .0086 |
| 15    | 17.51  | 1.2984 | .1936  | .2425  | -.0038 | .0021  | .0088 |
| 16    | 0.00   | .2076  | -.0190 | -.1098 | -.0028 | .0028  | .0126 |

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SIKORSKY RSRA 1/6 SCALD MODEL TEST  
AERODYNAMIC DATA

SCR-72011

P658

RPM 298 CONFIG F P R NPS W7 T49 BT IN=-3.5 WM

| PT. | ALPHA | PSI | CIBAR  | COBAR  | CPMBAR | CYMBAR | CRMBAR | CYBAR | DELSA | DELTA  | DELTA | DELTA | RPM |
|-----|-------|-----|--------|--------|--------|--------|--------|-------|-------|--------|-------|-------|-----|
| NO. | DEG   | DEG | 50-FT  | 50-FT  | CU-FT  | CU-FT  | CU-FT  | SQ-FT | PSF   | KNOTS  | V     |       |     |
| 6   | 0     | 0   | 71.7   | 30.74  | 68.    | -55.   | 26.    | 7.03  | 55.24 | 128.86 |       | 3670. |     |
| 7   | -20.0 | 0   | -324.7 | 156.20 | 1506.  | -130.  | -144.  | 9.73  | 55.67 | 129.37 |       | 3810. |     |
| 8   | -15.0 | 0   | -291.4 | 93.32  | 1641.  | -120.  | 171.   | 10.86 | 55.23 | 128.84 |       | 3910. |     |
| 9   | -10.0 | 0   | -212.6 | 52.79  | 773.   | -58.   | -27.   | 5.33  | 55.65 | 129.35 |       | 3750. |     |
| 10  | -5.0  | 0   | -81.1  | 32.72  | 251.   | -77.   | 8.     | 5.92  | 55.26 | 128.88 |       | 3580. |     |
| 11  | -2.5  | 0   | -5.2   | 30.17  | 163.   | -68.   | 24.    | 7.95  | 55.68 | 129.38 |       | 3620. |     |
| 12  | 0     | 0   | 70.4   | 30.72  | 58.    | -59.   | 10.    | 5.51  | 55.67 | 129.36 |       | 3670. |     |
| 13  | 2.5   | 0   | 147.4  | 34.32  | 4.     | -41.   | 30.    | 4.77  | 55.70 | 129.40 |       | 3720. |     |
| 14  | 5.0   | 0   | 220.2  | 41.47  | -57.   | -39.   | 13.    | 5.04  | 55.45 | 129.11 |       | 3790. |     |
| 15  | 10.0  | 0   | 348.2  | 63.21  | -92.   | -71.   | 86.    | 2.95  | 55.38 | 129.02 |       | 3960. |     |
| 16  | 15.0  | 0   | 494.6  | 97.70  | -208.  | -42.   | 87.    | 4.21  | 55.05 | 128.63 |       | 4130. |     |
| 17  | 20.0  | 0   | 510.0  | 151.25 | -136.  | -55.   | 106.   | 2.10  | 55.09 | 128.67 |       | 4200. |     |
| 18  | 17.5  | 0   | 505.6  | 123.47 | -293.  | -47.   | 70.    | 2.10  | 55.27 | 128.89 |       | 4160. |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYX    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 6    | 0.00   | .1938  | .0831 | .0219  | -.0033 | .0016  | .0190 |
| 7    | -20.00 | -.8776 | .4222 | .4854  | -.0109 | -.0087 | .0263 |
| 8    | -15.00 | -.7877 | .2522 | .5290  | -.0073 | .0103  | .0293 |
| 9    | -9.99  | -.5746 | .1427 | .2492  | -.0035 | -.0016 | .0144 |
| 10   | -5.01  | -.2191 | .0884 | .0809  | -.0046 | .0005  | .0160 |
| 11   | -2.50  | -.0141 | .0815 | .0525  | -.0041 | .0014  | .0215 |
| 12   | .02    | .1901  | .0830 | .0188  | -.0036 | .0006  | .0149 |
| 13   | 2.50   | .3983  | .0928 | .0012  | -.0025 | .0018  | .0129 |
| 14   | 5.00   | .5950  | .1121 | -.0185 | -.0024 | .0008  | .0136 |
| 15   | 10.00  | .9951  | .1708 | -.0296 | -.0043 | .0052  | .0080 |
| 16   | 15.00  | 1.3367 | .2641 | -.0672 | -.0026 | .0053  | .0114 |
| 17   | 20.00  | 1.3783 | .4088 | -.0437 | -.0034 | .0064  | .0057 |
| 18   | 17.50  | 1.3666 | .3337 | -.0945 | -.0028 | .0042  | .0057 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 6    | 0.00   | .1938  | .0831 | .0219  | -.0033 | .0016  | .0190 |
| 7    | -20.00 | -.8776 | .4222 | .4854  | -.0109 | -.0087 | .0263 |
| 8    | -15.00 | -.7877 | .2522 | .5290  | -.0073 | .0103  | .0293 |
| 9    | -9.99  | -.5746 | .1427 | .2492  | -.0035 | -.0016 | .0144 |
| 10   | -5.01  | -.2191 | .0884 | .0809  | -.0046 | .0005  | .0160 |
| 11   | -2.50  | -.0141 | .0815 | .0525  | -.0041 | .0014  | .0215 |
| 12   | .02    | .1901  | .0830 | .0188  | -.0036 | .0006  | .0149 |
| 13   | 2.50   | .3983  | .0928 | .0012  | -.0025 | .0018  | .0129 |
| 14   | 5.00   | .5950  | .1121 | -.0185 | -.0024 | .0008  | .0136 |
| 15   | 10.00  | .9951  | .1708 | -.0296 | -.0043 | .0052  | .0080 |
| 16   | 15.00  | 1.3367 | .2641 | -.0672 | -.0026 | .0053  | .0114 |
| 17   | 20.00  | 1.3783 | .4088 | -.0437 | -.0034 | .0064  | .0057 |
| 18   | 17.50  | 1.3666 | .3337 | -.0945 | -.0028 | .0042  | .0057 |

H432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P 659

RUH 7A9 CONFIG F P R NP5 M7 T49 BT IH=-3.5 MAX

| PT.# | ALPHA DEG | PSI DEG | CIBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB PSF | DELSB V | RPM    |
|------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-----------|---------|--------|
| 2    | 0         | 0       | 68.6        | 30.59       | 51.          | -55.         | -43.         | 6.46        | 55.91     | 129.66  | 3670.  |
| 3    | 0         | 0       | 60.6        | -138.77     | -311.        | -38.         | 65.          | 4.96        | 54.27     | 127.72  | 22960. |
| 4    | -20.0     | 0       | -500.2      | 5.14        | 1321.        | 103.         | 16.          | .49         | 55.11     | 128.70  | 23010. |
| 5    | -15.0     | 0       | -445.2      | -62.59      | 894.         | 109.         | 69.          | -7.57       | 54.91     | 128.47  | 23030. |
| 6    | -10.0     | 0       | -290.3      | -116.05     | -52.         | 89.          | -2.          | 1.30        | 55.05     | 128.64  | 22970. |
| 7    | -4.9      | 0       | -113.2      | -132.64     | -145.        | -38.         | 48.          | 2.95        | 55.39     | 129.04  | 23000. |
| 8    | -2.5      | 0       | -25.5       | -136.17     | -241.        | -54.         | 45.          | 4.83        | 55.72     | 129.44  | 23040. |
| 9    | 0         | 0       | 1.3         | -137.58     | -306.        | -62.         | 85.          | 2.53        | 55.21     | 128.83  | 23000. |
| 10   | 2.5       | 0       | 148.9       | -135.17     | -317.        | -63.         | 137.         | 3.29        | 54.93     | 128.50  | 22970. |
| 11   | 5.0       | 0       | 230.4       | -130.19     | -286.        | -96.         | 174.         | 1.92        | 55.09     | 128.69  | 22970. |
| 12   | 10.0      | 0       | 388.6       | -109.41     | -271.        | -129.        | 140.         | 2.30        | 54.74     | 128.27  | 22970. |
| 13   | 15.0      | 0       | 527.2       | -72.04      | -315.        | -115.        | 230.         | -1.80       | 54.90     | 128.46  | 23060. |
| 14   | 20.0      | 0       | 597.5       | -11.99      | -147.        | -136.        | 247.         | -2.17       | 54.89     | 128.45  | 23080. |
| 15   | 17.5      | 0       | 559.3       | -45.33      | -319.        | -144.        | 159.         | -.06        | 54.84     | 128.39  | 23050. |
| 16   | 0         | 0       | 60.9        | -137.86     | -306.        | -50.         | 123.         | 1.63        | 54.24     | 127.67  | 22990. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYH    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.0    | .1853   | .0827  | .0164  | -.0033 | -.0026 | .0175  |
| 3    | 0.0    | .1639   | -.3751 | -.1004 | -.0023 | .0039  | .0134  |
| 4    | -20.00 | -1.3517 | .0139  | .4260  | .0062  | .0010  | -.0013 |
| 5    | -14.99 | -1.2031 | -.1692 | .2882  | .0102  | .0041  | -.0205 |
| 6    | -10.00 | -.7845  | -.3137 | -.0168 | .0054  | -.0001 | .0035  |
| 7    | -4.95  | -.3058  | -.3585 | -.0468 | -.0023 | .0029  | .0080  |
| 8    | -2.44  | -.0690  | -.3680 | -.0777 | -.0032 | .0027  | .0131  |
| 9    | 0.0    | .1656   | -.3718 | -.0988 | -.0037 | .0051  | .0068  |
| 10   | 2.51   | .4025   | -.3653 | -.1023 | -.0038 | .0083  | .0089  |
| 11   | 5.01   | .6228   | -.3518 | -.0923 | -.0058 | .0105  | .0052  |
| 12   | 10.00  | 1.0502  | -.2957 | -.0873 | -.0078 | .0085  | .0062  |
| 13   | 15.01  | 1.4248  | -.1947 | -.1014 | -.0069 | .0139  | -.0049 |
| 14   | 20.00  | 1.5878  | -.0324 | -.0472 | -.0082 | .0149  | -.0059 |
| 15   | 17.51  | 1.5116  | -.1225 | -.1030 | -.0087 | .0096  | -.0002 |
| 16   | 0.0    | .1645   | -.3726 | -.0985 | -.0030 | .0074  | .0044  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.0    | .1853   | .0827  | .0164  | -.0033 | -.0026 | .0175  |
| 3    | 0.0    | .1639   | -.3751 | -.1004 | -.0023 | .0039  | .0134  |
| 4    | -20.00 | -1.3517 | .0139  | .4260  | .0062  | .0010  | -.0013 |
| 5    | -14.99 | -1.2031 | -.1692 | .2882  | .0102  | .0041  | -.0205 |
| 6    | -10.00 | -.7845  | -.3137 | -.0168 | .0054  | -.0001 | .0035  |
| 7    | -4.95  | -.3058  | -.3585 | -.0468 | -.0023 | .0029  | .0080  |
| 8    | -2.44  | -.0690  | -.3680 | -.0777 | -.0032 | .0027  | .0131  |
| 9    | 0.0    | .1656   | -.3718 | -.0988 | -.0037 | .0051  | .0068  |
| 10   | 2.51   | .4025   | -.3653 | -.1023 | -.0038 | .0083  | .0089  |
| 11   | 5.01   | .6228   | -.3518 | -.0923 | -.0058 | .0105  | .0052  |
| 12   | 10.00  | 1.0502  | -.2957 | -.0873 | -.0078 | .0085  | .0062  |
| 13   | 15.01  | 1.4248  | -.1947 | -.1014 | -.0069 | .0139  | -.0049 |
| 14   | 20.00  | 1.5878  | -.0324 | -.0472 | -.0082 | .0149  | -.0059 |
| 15   | 17.51  | 1.5116  | -.1225 | -.1030 | -.0087 | .0096  | -.0002 |
| 16   | 0.0    | .1645   | -.3726 | -.0985 | -.0030 | .0074  | .0044  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 660

RUN 700 CONFIG F P R NP5 W7 T49 BT IN=-3.5 DEI

| PT. No. | IN    | 0.0 DELF<br>ALPHA<br>DEG | 0.0 DELF<br>PSI<br>DEG | 0.0 DELA<br>CIBAR<br>SQ-FT | 0.0 IHT<br>CDBAR<br>SQ-FT | 0.0 DELE<br>CPMBAR<br>CU-FT | 0.0 DELE<br>CYMBAR<br>CU-FT | 0.0 DELR<br>CRMBAR<br>CU-FT | 0.0 DELSR<br>CYBAR<br>SQ-FT | 0.0<br>Q<br>PSF | 0.0<br>V<br>KNOTS | RP#    |
|---------|-------|--------------------------|------------------------|----------------------------|---------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------|-------------------|--------|
| 2       |       | 0.0                      | 0.0                    | 70.9                       | 30.97                     | 41.0                        | -51.0                       | -7.0                        | 5.42                        | 54.72           | 128.24            | 3650.  |
| 3       |       | 0.0                      | 0.0                    | 60.5                       | -56.75                    | -195.0                      | -635.0                      | 18.0                        | 13.42                       | 55.35           | 129.00            | 23040. |
| 4       | -20.0 | 0.0                      | -421.4                 | 81.84                      | 1575.0                    | -191.0                      | 232.0                       | 6.89                        | 54.88                       | 128.43          | 23020.            |        |
| 5       | -15.0 | 0.0                      | -387.4                 | 3.49                       | 995.0                     | -6.0                        | 37.0                        | -0.86                       | 55.23                       | 128.86          | 22980.            |        |
| 6       | -10.0 | 0.0                      | -257.7                 | -31.04                     | 175.0                     | -460.0                      | 145.0                       | 16.35                       | 55.22                       | 128.84          | 22990.            |        |
| 7       | -5.0  | 0.0                      | -101.2                 | -47.76                     | -107.0                    | -566.0                      | 83.0                        | 14.04                       | 55.33                       | 128.98          | 22980.            |        |
| 8       | -2.5  | 0.0                      | -18.1                  | -53.12                     | -164.0                    | -614.0                      | 102.0                       | 15.60                       | 54.57                       | 128.07          | 23000.            |        |
| 9       | 0.0   | 0.0                      | 62.8                   | -53.78                     | -218.0                    | -643.0                      | 90.0                        | 13.97                       | 54.11                       | 127.52          | 23050.            |        |
| 10      | 2.5   | 0.0                      | 139.2                  | -49.68                     | -230.0                    | -636.0                      | 38.0                        | 13.29                       | 55.37                       | 129.02          | 23090.            |        |
| 11      | 5.0   | 0.0                      | 218.5                  | -43.27                     | -229.0                    | -663.0                      | 40.0                        | 13.28                       | 55.13                       | 128.74          | 23040.            |        |
| 12      | 10.0  | 0.0                      | 372.6                  | -21.70                     | -237.0                    | -671.0                      | -59.0                       | 10.88                       | 54.80                       | 128.34          | 23070.            |        |
| 13      | 15.0  | 0.0                      | 505.8                  | 13.49                      | -270.0                    | -614.0                      | 34.0                        | 7.29                        | 55.14                       | 128.74          | 23010.            |        |
| 14      | 17.5  | 0.0                      | 523.9                  | 38.34                      | -307.0                    | -569.0                      | -18.0                       | 4.93                        | 55.25                       | 128.88          | 23030.            |        |
| 15      | 20.0  | 0.0                      | 535.7                  | 69.17                      | -178.0                    | -556.0                      | -87.0                       | 4.15                        | 55.04                       | 128.62          | 23060.            |        |
| 16      | 0.0   | 0.0                      | 61.3                   | -50.86                     | -195.0                    | -611.0                      | 54.0                        | 13.10                       | 55.12                       | 128.72          | 23120.            |        |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .1918   | .0837  | .0132  | -.0031 | -.0004 | .0146  |
| 3    | 0.00   | .1636   | -.1534 | -.0629 | -.0384 | .0011  | .0363  |
| 4    | -20.00 | -1.1393 | .2212  | .5077  | -.0115 | .0140  | .0186  |
| 5    | -15.00 | -1.0471 | .0094  | .3207  | -.0004 | .0022  | -.0023 |
| 6    | -10.00 | -.6966  | -.0839 | .0563  | -.0278 | .0088  | .0442  |
| 7    | -5.00  | -.2735  | -.1291 | -.0347 | -.0342 | .0050  | .0379  |
| 8    | -2.47  | -.0489  | -.1436 | -.0528 | -.0371 | .0062  | .0422  |
| 9    | 0.00   | .1698   | -.1453 | -.0702 | -.0389 | .0054  | .0378  |
| 10   | 2.50   | .3763   | -.1343 | -.0741 | -.0384 | .0023  | .0359  |
| 11   | 4.99   | .5905   | -.1169 | -.0739 | -.0400 | .0024  | .0359  |
| 12   | 10.00  | 1.0070  | -.0587 | -.0765 | -.0417 | -.0036 | .0294  |
| 13   | 15.00  | 1.3671  | .0365  | -.0872 | -.0371 | .0020  | .0197  |
| 14   | 17.51  | 1.4160  | .1036  | -.0991 | -.0344 | -.0011 | .0133  |
| 15   | 20.00  | 1.4478  | .1870  | -.0574 | -.0336 | -.0053 | .0112  |
| 16   | 0.00   | .1656   | -.1375 | -.0630 | -.0369 | .0032  | .0354  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .1918   | .0837  | .0132  | -.0031 | -.0004 | .0146  |
| 3    | 0.00   | .1636   | -.1534 | -.0629 | -.0384 | .0011  | .0363  |
| 4    | -20.00 | -1.1393 | .2212  | .5077  | -.0115 | .0140  | .0186  |
| 5    | -15.00 | -1.0471 | .0094  | .3207  | -.0004 | .0022  | -.0023 |
| 6    | -10.00 | -.6966  | -.0839 | .0563  | -.0278 | .0088  | .0442  |
| 7    | -5.00  | -.2735  | -.1291 | -.0347 | -.0342 | .0050  | .0379  |
| 8    | -2.47  | -.0489  | -.1436 | -.0528 | -.0371 | .0062  | .0422  |
| 9    | 0.00   | .1698   | -.1453 | -.0702 | -.0389 | .0054  | .0378  |
| 10   | 2.50   | .3763   | -.1343 | -.0741 | -.0384 | .0023  | .0359  |
| 11   | 4.99   | .5905   | -.1169 | -.0739 | -.0400 | .0024  | .0359  |
| 12   | 10.00  | 1.0070  | -.0587 | -.0765 | -.0417 | -.0036 | .0294  |
| 13   | 15.00  | 1.3671  | .0365  | -.0872 | -.0371 | .0020  | .0197  |
| 14   | 17.51  | 1.4160  | .1036  | -.0991 | -.0344 | -.0011 | .0133  |
| 15   | 20.00  | 1.4478  | .1870  | -.0574 | -.0336 | -.0053 | .0112  |
| 16   | 0.00   | .1656   | -.1375 | -.0630 | -.0369 | .0032  | .0354  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 661

RUN 791 CONFIG F P R NPS W7 T49 BT IN=-3.5 WM

| PT# | ALPHA DEG | DELTA PSI | CLBAR | CDBAR | CPMBAR | CYMBAR | CRMBAR | CYBAR   | Q PSF | V KNOTS | RPM   |
|-----|-----------|-----------|-------|-------|--------|--------|--------|---------|-------|---------|-------|
| 5   | 0         | 0         | 19.9  | 30.66 | 60.    | -48.   | -23.   | 4.09    | 55.02 | 128.61  | 3640. |
| 6   | -20.0     | 20.0      | 107.3 | 70.74 | -747.  | 1212.  | -218.  | -153.84 | 55.16 | 128.77  | 3420. |
| 7   | -15.0     | 15.0      | 97.0  | 52.20 | -467.  | 826.   | -119.  | -111.54 | 55.13 | 128.73  | 3490. |
| 8   | -10.0     | 10.0      | 87.7  | 40.16 | -167.  | 490.   | -24.   | -76.32  | 54.63 | 128.14  | 3560. |
| 9   | -5.0      | 5.0       | 78.2  | 33.00 | -15.   | 217.   | 0.     | -35.16  | 54.64 | 128.15  | 3610. |
| 10  | -2.5      | 2.5       | 73.1  | 31.39 | 16.    | 87.    | -32.   | -14.96  | 55.33 | 128.97  | 3630. |
| 11  | 0         | 0         | 71.4  | 30.74 | 33.    | -48.   | 11.    | 5.24    | 55.23 | 128.85  | 3650. |
| 12  | 2.5       | 2.5       | 74.7  | 31.91 | 32.    | -149.  | -30.   | 25.31   | 54.91 | 128.48  | 3670. |
| 13  | 5.0       | 5.0       | 75.1  | 32.97 | -30.   | -250.  | 6.     | 41.95   | 55.22 | 128.84  | 3680. |
| 14  | 10.0      | 10.0      | 81.2  | 37.81 | -281.  | -601.  | -13.   | 83.35   | 55.13 | 128.74  | 3710. |
| 15  | 15.0      | 15.0      | 89.1  | 49.00 | -531.  | -778.  | 34.    | 118.97  | 55.41 | 129.06  | 3720. |
| 16  | 20.0      | 20.0      | 97.7  | 67.91 | -811.  | -1202. | 128.   | 165.80  | 55.02 | 128.61  | 3740. |
| 17  | 0         | 0         | 69.8  | 30.43 | 61.    | -50.   | -74.   | 3.54    | 55.82 | 129.55  | 3650. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT# | PSI    | CL    | CD    | CPM    | CYH    | CRM    | CY     |
|-----|--------|-------|-------|--------|--------|--------|--------|
| 5   | 0.00   | .1888 | .0829 | .0192  | -.0029 | -.0014 | .0110  |
| 6   | -20.00 | .2899 | .1912 | -.2410 | .0732  | -.0131 | -.4158 |
| 7   | -15.00 | .2621 | .1411 | -.1507 | .0499  | -.0072 | -.3014 |
| 8   | -10.00 | .2369 | .1085 | -.0540 | .0296  | -.0015 | -.2063 |
| 9   | -5.00  | .2114 | .0892 | -.0049 | .0131  | .0000  | -.0950 |
| 10  | -2.50  | .1976 | .0848 | .0051  | .0053  | -.0019 | -.0404 |
| 11  | 0.00   | .1931 | .0831 | .0105  | -.0029 | .0007  | .0142  |
| 12  | 2.50   | .2020 | .0862 | .0102  | -.0090 | -.0018 | .0684  |
| 13  | 5.00   | .2030 | .0891 | -.0097 | -.0151 | .0004  | .1134  |
| 14  | 10.00  | .2194 | .1022 | -.0907 | -.0363 | -.0008 | .2253  |
| 15  | 15.00  | .2409 | .1324 | -.1713 | -.0470 | .0020  | .3215  |
| 16  | 20.00  | .2642 | .1833 | -.2614 | -.0775 | .0077  | .4481  |
| 17  | 0.00   | .1886 | .0822 | .0196  | -.0030 | -.0045 | .0096  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|-----|--------|-------|-------|--------|--------|--------|--------|
| 5   | 0.00   | .1888 | .0829 | .0192  | -.0029 | -.0014 | .0110  |
| 6   | -20.00 | .2899 | .0367 | -.2022 | .0732  | .0032  | -.4562 |
| 7   | -15.00 | .2621 | .0579 | -.1356 | .0499  | .0004  | -.3278 |
| 8   | -10.00 | .2369 | .0709 | -.0518 | .0296  | .0003  | -.2220 |
| 9   | -5.00  | .2114 | .0805 | -.0048 | .0131  | .0001  | -.1025 |
| 10  | -2.50  | .1976 | .0830 | .0056  | .0053  | -.0020 | -.0441 |
| 11  | 0.00   | .1931 | .0831 | .0105  | -.0029 | .0007  | .0142  |
| 12  | 2.50   | .2020 | .0832 | .0098  | -.0090 | -.0018 | .0721  |
| 13  | 5.00   | .2030 | .0788 | -.0095 | -.0151 | .0002  | .1207  |
| 14  | 10.00  | .2194 | .0613 | -.0901 | -.0363 | -.0037 | .2396  |
| 15  | 15.00  | .2409 | .0443 | -.1626 | -.0470 | -.0064 | .3449  |
| 16  | 20.00  | .2642 | .0182 | -.2313 | -.0775 | -.0096 | .4838  |
| 17  | 0.00   | .1886 | .0822 | .0196  | -.0030 | -.0045 | .0096  |

N432479-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P662

RUN 792 CONFIG F P R NPS W7 T49 BT IN=-3.5 MAX

| PT. NO. | INW | 0.0 DELF<br>ALPHA<br>DEG | 0.0 DELA<br>PSI | 0.0 IHT<br>CLBAR<br>SQ-FT | 0.0 DELE<br>CDBAR<br>SQ-FT | 0.0 DELR<br>CPMBAR<br>CU-FT | 0.0 DELSB<br>CYMBAR<br>CU-FT | 0.0<br>CRMBAP<br>SQ-FT | 0.0<br>CYBAR<br>PSF | 0.0<br>Q<br>KNOTS | 0.0<br>V<br>KNOTS | RPM    |
|---------|-----|--------------------------|-----------------|---------------------------|----------------------------|-----------------------------|------------------------------|------------------------|---------------------|-------------------|-------------------|--------|
| 2       |     | .0                       | .0              | 73.0                      | 31.34                      | 50.                         | -37.                         | -8.                    | 6.25                | 55.05             | 128.65            | 3590.  |
| 3       |     | .0                       | .0              | 61.2                      | -138.24                    | -307.                       | -7.                          | 104.                   | 2.76                | 54.31             | 127.77            | 22960. |
| 4       |     | .0                       | -20.0           | 101.5                     | -82.46                     | -1131.                      | 1428.                        | -129.                  | -236.70             | 54.26             | 127.70            | 22900. |
| 5       |     | .0                       | -15.0           | 87.7                      | -109.20                    | -852.                       | 1012.                        | -62.                   | -181.79             | 54.23             | 127.67            | 22950. |
| 6       |     | .0                       | -10.0           | 78.2                      | -128.94                    | -569.                       | 456.                         | 39.                    | -117.93             | 54.10             | 127.52            | 23060. |
| 7       |     | .0                       | -5.0            | 68.2                      | -138.20                    | -422.                       | 148.                         | 130.                   | -56.29              | 54.34             | 127.81            | 22930. |
| 8       |     | .0                       | -2.5            | 63.5                      | -140.85                    | -381.                       | 75.                          | 100.                   | -22.63              | 54.34             | 127.80            | 23020. |
| 9       |     | .0                       | .0              | 60.2                      | -140.35                    | -357.                       | -23.                         | 90.                    | -1.25               | 54.72             | 128.26            | 23000. |
| 10      |     | .0                       | 2.5             | 62.3                      | -140.51                    | -360.                       | -66.                         | 86.                    | 33.39               | 54.48             | 127.98            | 23050. |
| 12      |     | .0                       | 5.1             | 65.0                      | -137.63                    | -396.                       | -127.                        | 115.                   | 61.35               | 54.02             | 127.42            | 23010. |
| 13      |     | .0                       | 10.0            | 70.8                      | -128.62                    | -585.                       | -411.                        | 182.                   | 119.94              | 54.22             | 127.66            | 23060. |
| 14      |     | .0                       | 15.0            | 74.4                      | -109.90                    | -784.                       | -805.                        | 226.                   | 180.94              | 54.14             | 127.57            | 22880. |
| 15      |     | .0                       | 20.0            | 76.0                      | -85.62                     | -1003.                      | -1156.                       | 299.                   | 239.25              | 54.30             | 127.76            | 23010. |
| 16      |     | .0                       | .0              | 63.5                      | -136.99                    | -300.                       | -20.                         | 140.                   | 1.94                | 54.49             | 127.99            | 23010. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CRM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1972 | .0847  | .0161  | -.0022 | -.0005 | .0169  |
| 3    | .00    | .1653 | -.3736 | -.0991 | -.0004 | .0063  | .0075  |
| 4    | -20.00 | .2744 | -.2229 | -.3646 | .0862  | -.0078 | -.6397 |
| 5    | -15.00 | .2369 | -.2951 | -.2746 | .0611  | -.0038 | -.4913 |
| 6    | -10.00 | .2112 | -.3485 | -.1835 | .0275  | .0023  | -.3187 |
| 7    | -5.00  | .1843 | -.3735 | -.1361 | .0090  | .0079  | -.1521 |
| 8    | -2.50  | .1717 | -.3807 | -.1228 | .0045  | .0060  | -.0612 |
| 9    | .00    | .1626 | -.3793 | -.1151 | -.0014 | .0054  | -.0034 |
| 10   | 2.50   | .1685 | -.3798 | -.1161 | -.0040 | .0052  | .0902  |
| 12   | 5.10   | .1756 | -.3720 | -.1276 | -.0077 | .0070  | .1658  |
| 13   | 10.00  | .1914 | -.3476 | -.1885 | -.0248 | .0110  | .3242  |
| 14   | 15.00  | .2012 | -.2970 | -.2526 | -.0486 | .0136  | .4890  |
| 15   | 20.00  | .2055 | -.2314 | -.3235 | -.0698 | .0181  | .6466  |
| 16   | .00    | .1717 | -.3703 | -.0969 | -.0012 | .0084  | .0052  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1972 | .0847  | .0161  | -.0022 | -.0005 | .0169  |
| 3    | .00    | .1653 | -.3736 | -.0991 | -.0004 | .0063  | .0075  |
| 4    | -20.00 | .2744 | -.4291 | -.3282 | .0862  | .0162  | -.5242 |
| 5    | -15.00 | .2369 | -.4127 | -.2599 | .0611  | .0097  | -.3977 |
| 6    | -10.00 | .2112 | -.3987 | -.1829 | .0275  | .0083  | -.2531 |
| 7    | -5.00  | .1843 | -.3854 | -.1393 | .0090  | .0101  | -.1189 |
| 8    | -2.50  | .1717 | -.3830 | -.1241 | .0045  | .0070  | -.0444 |
| 9    | .00    | .1626 | -.3793 | -.1151 | -.0014 | .0054  | -.0034 |
| 10   | 2.50   | .1685 | -.3834 | -.1147 | -.0040 | .0042  | .0735  |
| 12   | 5.10   | .1756 | -.3853 | -.1238 | -.0077 | .0048  | .1319  |
| 13   | 10.00  | .1914 | -.3988 | -.1753 | -.0248 | .0047  | .2585  |
| 14   | 15.00  | .2012 | -.4140 | -.2250 | -.0486 | .0009  | .3950  |
| 15   | 20.00  | .2055 | -.4394 | -.2707 | -.0698 | -.0038 | .5278  |
| 16   | .00    | .1717 | -.3703 | -.0969 | -.0012 | .0084  | .0052  |

N432409-1

SIKORSKY RSRA 1/4 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 663

RUN 793 CONFIG F P B NP5 W7 T49 BT IN=-3.5 OEI

| PT. No. | W O.N DELF<br>ALPHA DEG | O.O DELF<br>PSI DEG | O.O DELA<br>CLBAR SQ-FT | O.O IHT<br>COBAR SQ-FT | O.O DELE<br>CPMRAR CU-FT | O.O DELE<br>CYMBAR CU-FT | O.O DELR<br>CRMBAH CU-FT | O.O DELSB<br>CYBAR SQ-FT | O.O<br>Q PSF | O.O<br>V KNOTS | RPM    |
|---------|-------------------------|---------------------|-------------------------|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|----------------|--------|
| 2       | .0                      | .0                  | 71.4                    | 30.90                  | 46.                      | -46.                     | 46.                      | 5.45                     | 55.02        | 128.62         | 3590.  |
| 3       | .0                      | .0                  | 61.1                    | -56.69                 | -193.                    | -640.                    | 35.                      | 14.51                    | 54.46        | 127.95         | 22980. |
| 4       | .0                      | -20.0               | 102.8                   | -5.73                  | -957.                    | 763.                     | -153.                    | -187.81                  | 54.32        | 127.78         | 22960. |
| 5       | .0                      | -15.0               | 90.4                    | -26.91                 | -676.                    | 420.                     | -25.                     | -136.74                  | 54.78        | 128.33         | 22960. |
| 6       | .0                      | -10.0               | 77.2                    | -42.87                 | -427.                    | -132.                    | 50.                      | -83.31                   | 54.91        | 128.49         | 22960. |
| 7       | .0                      | -5.0                | 68.6                    | -51.71                 | -294.                    | -423.                    | 87.                      | -35.73                   | 54.25        | 127.69         | 23020. |
| 8       | .0                      | -2.5                | 63.3                    | -52.23                 | -257.                    | -547.                    | 32.                      | -10.86                   | 54.91        | 128.48         | 23010. |
| 9       | .0                      | .0                  | 60.2                    | -52.19                 | -244.                    | -630.                    | 88.                      | 13.45                    | 55.23        | 128.86         | 22960. |
| 10      | .0                      | 2.5                 | 61.2                    | -50.73                 | -238.                    | -711.                    | 99.                      | 35.87                    | 55.27        | 128.91         | 23010. |
| 11      | .0                      | 5.0                 | 63.6                    | -49.39                 | -277.                    | -780.                    | 128.                     | 61.18                    | 54.62        | 128.13         | 23000. |
| 12      | .0                      | 10.0                | 68.5                    | -42.74                 | -456.                    | -1086.                   | 174.                     | 110.02                   | 54.84        | 128.39         | 23010. |
| 13      | .0                      | 15.0                | 72.9                    | -29.81                 | -643.                    | -1309.                   | 200.                     | 157.19                   | 54.57        | 128.07         | 23070. |
| 14      | .0                      | 20.0                | 69.8                    | -8.11                  | -820.                    | -1708.                   | 307.                     | 203.87                   | 55.04        | 128.63         | 22960. |
| 15      | .0                      | .0                  | 62.8                    | -50.94                 | -190.                    | -609.                    | 90.                      | 12.23                    | 54.87        | 128.44         | 22990. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPH    | CYH    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1931 | .0835  | .0149  | -.0028 | .0028  | .0147  |
| 3    | .00    | .1650 | -.1532 | -.0623 | -.0386 | .0021  | .0392  |
| 4    | -20.00 | .2777 | -.0155 | -.3087 | .0461  | -.0092 | -.5076 |
| 5    | -15.00 | .2443 | -.0727 | -.2181 | .0254  | -.0015 | -.3696 |
| 6    | -10.00 | .2087 | -.1159 | -.1377 | -.0080 | .0030  | -.2252 |
| 7    | -5.00  | .1854 | -.1397 | -.0947 | -.0255 | .0052  | -.0966 |
| 8    | -2.50  | .1710 | -.1412 | -.0829 | -.0327 | .0019  | -.0293 |
| 9    | .00    | .1627 | -.1411 | -.0788 | -.0380 | .0053  | .0363  |
| 10   | 2.50   | .1654 | -.1371 | -.0767 | -.0430 | .0060  | .0970  |
| 11   | 5.00   | .1718 | -.1335 | -.0894 | -.0471 | .0077  | .1654  |
| 12   | 10.00  | .1850 | -.1155 | -.1471 | -.0656 | .0105  | .2973  |
| 13   | 15.00  | .1970 | -.0806 | -.2075 | -.0791 | .0121  | .4248  |
| 14   | 20.00  | .1885 | -.0219 | -.2644 | -.1032 | .0186  | .5510  |
| 15   | .00    | .1696 | -.1377 | -.0612 | -.0368 | .0055  | .0331  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1931 | .0835  | .0149  | -.0028 | .0028 | .0147  |
| 3    | .00    | .1650 | -.1532 | -.0623 | -.0386 | .0021 | .0392  |
| 4    | -20.00 | .2777 | -.1889 | -.2729 | .0461  | .0112 | -.4714 |
| 5    | -15.00 | .2443 | -.1663 | -.2085 | .0254  | .0092 | -.3379 |
| 6    | -10.00 | .2087 | -.1534 | -.1384 | -.0080 | .0075 | -.2015 |
| 7    | -5.00  | .1854 | -.1477 | -.0968 | -.0255 | .0068 | -.0840 |
| 8    | -2.50  | .1710 | -.1423 | -.0833 | -.0327 | .0026 | -.0231 |
| 9    | .00    | .1627 | -.1411 | -.0788 | -.0380 | .0053 | .0363  |
| 10   | 2.50   | .1654 | -.1412 | -.0752 | -.0430 | .0053 | .0909  |
| 11   | 5.00   | .1718 | -.1475 | -.0854 | -.0471 | .0062 | .1530  |
| 12   | 10.00  | .1850 | -.1656 | -.1350 | -.0656 | .0056 | .2726  |
| 13   | 15.00  | .1970 | -.1882 | -.1836 | -.0791 | .0016 | .3893  |
| 14   | 20.00  | .1885 | -.2099 | -.2143 | -.1032 | .0004 | .5099  |
| 15   | .00    | .1696 | -.1377 | -.0612 | -.0368 | .0055 | .0331  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 664

RUN 794 CONFIG F P 8 NPS W7 T49 BT IN=-3.5

| PT. NO. | ALPHA DEG | -9 DELF PSI DEG | 0,0 DELA CLBAR SQ-FT | 0,0 IHT CDBAR SQ-FT | 0,0 CELL CPMBAR CU-FT | 0,0 DELR CYMBAR CU-FT | 0,0 DELS CRMBAR CU-FT | 0,0 DELS CYBAR SQ-FT | 0,0 DELS G PSF | 0,0 DELS V KNOTS | RPM   |
|---------|-----------|-----------------|----------------------|---------------------|-----------------------|-----------------------|-----------------------|----------------------|----------------|------------------|-------|
| 2       | .0        | .0              | -117,4               | 34,39               | -405.                 | -35,                  | -26,                  | 6,91                 | 54,73          | 128,26           | 3350. |
| 3       | .0        | -19,9           | -41,0                | 78,42               | -1734,                | 1190.                 | 411,                  | -143,67              | 55,46          | 129,13           | 3520. |
| 4       | .0        | -15,0           | -66,7                | 60,38               | -1267,                | 574,                  | 461,                  | -106,05              | 54,83          | 128,38           | 3490. |
| 5       | .0        | -10,0           | -88,2                | 46,26               | -857,                 | 419,                  | 320,                  | -73,74               | 55,02          | 128,60           | 3460. |
| 6       | .0        | -5,0            | -113,6               | 36,29               | -615,                 | 168,                  | 129,                  | -32,42               | 55,05          | 128,65           | 3410. |
| 7       | .0        | -2,5            | -119,3               | 34,41               | -511,                 | 79,                   | 63,                   | -9,28                | 55,08          | 128,68           | 3390. |
| 8       | .0        | .0              | -118,8               | 34,64               | -438,                 | -34,                  | -29,                  | 9,22                 | 54,70          | 128,23           | 3360. |
| 9       | .0        | 2,5             | -114,1               | 35,84               | -328,                 | -104,                 | -90,                  | 29,48                | 54,89          | 128,45           | 3330. |
| 10      | .0        | 5,0             | -104,6               | 38,18               | -250,                 | -193,                 | -200,                 | 46,07                | 55,46          | 129,13           | 3310. |
| 11      | .0        | 10,0            | -89,7                | 45,93               | -282,                 | -450,                 | -401,                 | 62,66                | 54,98          | 128,56           | 3260. |
| 12      | .0        | 15,0            | -71,2                | 58,21               | -382,                 | -611,                 | -506,                 | 115,97               | 54,63          | 128,15           | 3190. |
| 13      | .0        | 20,1            | -46,8                | 77,45               | -641,                 | -1217,                | -532,                 | 159,63               | 54,91          | 128,47           | 3120. |
| 14      | -20,0     | .0              | -320,7               | 194,43              | 1526,                 | -12,                  | -68,                  | 6,82                 | 55,43          | 129,09           | 3750. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. # | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|-------|--------|--------|-------|--------|--------|--------|--------|
| 2     | .00    | -.3173 | .0929 | -.1304 | -.0021 | -.0016 | .0187  |
| 3     | .00    | -.1109 | .2119 | -.5591 | .0719  | .0248  | -.3883 |
| 4     | .00    | -.1803 | .1632 | -.4084 | .0347  | .0278  | -.2866 |
| 5     | .00    | -.2384 | .1250 | -.2764 | .0253  | .0193  | -.1993 |
| 6     | .00    | -.3072 | .0781 | -.1982 | .0102  | .0078  | -.0876 |
| 7     | .00    | -.3223 | .0730 | -.1648 | .0048  | .0038  | -.0251 |
| 8     | .00    | -.3211 | .0736 | -.1412 | -.0021 | -.0018 | .0249  |
| 9     | .00    | -.3083 | .0769 | -.1059 | -.0063 | -.0054 | .0797  |
| 10    | .00    | -.2826 | .1032 | -.0806 | -.0116 | -.0121 | .1245  |
| 11    | .00    | -.2425 | .1241 | -.0908 | -.0272 | -.0242 | .2234  |
| 12    | .00    | -.1924 | .1573 | -.1230 | -.0369 | -.0306 | .3134  |
| 13    | .00    | -.1266 | .2093 | -.2065 | -.0735 | -.0322 | .4314  |
| 14    | -20,00 | -.8667 | .5255 | .4919  | -.0008 | -.0041 | .0184  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. # | ALPHA  | CLB    | CDP   | CPMB   | CYNB   | CRMB   | CYB    |
|-------|--------|--------|-------|--------|--------|--------|--------|
| 2     | .00    | -.3173 | .0929 | -.1304 | -.0021 | -.0016 | .0187  |
| 3     | .00    | -.1109 | .0664 | -.5707 | .0719  | .0591  | -.4374 |
| 4     | .00    | -.1803 | .0831 | -.4330 | .0347  | .0466  | -.3192 |
| 5     | .00    | -.2384 | .0884 | -.2901 | .0253  | .0281  | -.2181 |
| 6     | .00    | -.3072 | .0700 | -.2010 | .0102  | .0110  | -.0959 |
| 7     | .00    | -.3223 | .0718 | -.1656 | .0048  | .0052  | -.0291 |
| 8     | .00    | -.3211 | .0736 | -.1412 | -.0021 | -.0018 | .0249  |
| 9     | .00    | -.3083 | .0733 | -.1071 | -.0063 | -.0063 | .0838  |
| 10    | .00    | -.2826 | .0919 | -.0860 | -.0116 | -.0134 | .1331  |
| 11    | .00    | -.2425 | .0833 | -.1119 | -.0272 | -.0268 | .2416  |
| 12    | .00    | -.1924 | .0704 | -.1612 | -.0369 | -.0355 | .3436  |
| 13    | .00    | -.1266 | .0475 | -.2531 | -.0735 | -.0435 | .4772  |
| 14    | -20,00 | -.8667 | .5255 | .4919  | -.0008 | -.0041 | .0184  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SFR-72011  
P 665

RUH 795 CONFIG F P R NPS W7 T50 BT IN=-3.5 IW=-9 WM

| PT.# | ALPHA | PSI | Q      | DELTA  | HT    | DELR  | DELSB | Q     | V     | RPM    |       |
|------|-------|-----|--------|--------|-------|-------|-------|-------|-------|--------|-------|
| No.  | DEG   | DEG | SQ-FT  | SQ-FT  | CU-FT | CU-FT | CU-FT | SQ-FT | PSF   | KNOTS  |       |
| 1    | -20.0 | .0  | 322.0  | 195.25 | 1450. | -13.  | -68.  | 6.85  | 55.21 | 128.83 | 3750. |
| 2    | -15.0 | .0  | 306.1  | 144.51 | 1526. | -121. | -224. | 7.52  | 55.30 | 128.93 | 3690. |
| 3    | -10.0 | .0  | 247.8  | 106.81 | 718.  | 64.   | 116.  | 3.18  | 55.65 | 129.35 | 3490. |
| 4    | -5.0  | .0  | 244.6  | 47.26  | -104. | -30.  | 22.   | 8.66  | 55.08 | 128.68 | 3320. |
| 5    | -2.5  | .0  | -195.0 | 39.27  | -285. | -35.  | -29.  | 8.01  | 55.29 | 128.93 | 3350. |
| 6    | .0    | .0  | -118.9 | 34.14  | -390. | -39.  | -28.  | 8.21  | 55.63 | 129.33 | 3370. |
| 7    | 2.5   | .0  | -39.9  | 32.22  | -468. | -33.  | 42.   | 9.33  | 55.15 | 128.76 | 3410. |
| 8    | 5.0   | .0  | 33.8   | 32.95  | -498. | -26.  | 45.   | 8.25  | 55.31 | 128.96 | 3480. |
| 9    | 10.0  | .0  | 187.4  | 43.24  | -483. | -22.  | 83.   | 8.05  | 55.00 | 128.58 | 3620. |
| 10   | 15.0  | .0  | 337.5  | 66.58  | -345. | -27.  | 70.   | 3.47  | 55.01 | 128.60 | 3830. |
| 11   | 17.5  | .0  | 406.4  | 83.19  | -81.  | -27.  | 124.  | 2.80  | 54.76 | 128.30 | 3920. |
| 12   | 20.0  | .0  | 463.3  | 100.77 | 297.  | -35.  | 71.   | 2.98  | 54.90 | 128.47 | 4040. |
| 13   | .0    | .0  | -115.7 | 34.36  | -388. | -39.  | 74.   | 8.12  | 55.78 | 129.51 | 3370. |
| 14   | -10.0 | .0  | -241.1 | 104.28 | 678.  | 74.   | 98.   | 3.87  | 55.48 | 129.16 | 3510. |
| 15   | -5.0  | .0  | -247.1 | 48.01  | -108. | -52.  | -15.  | 9.50  | 54.85 | 128.40 | 3330. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 1    | -20.00 | -.8702 | .5277 | .4675  | -.0008 | -.0041 | .0185 |
| 2    | -15.01 | -.8274 | .3906 | .4921  | -.0073 | -.0136 | .0203 |
| 3    | -10.00 | -.6697 | .2887 | .2314  | .0039  | .0070  | .0084 |
| 4    | -5.00  | -.7152 | .1277 | -.0335 | -.0018 | .0013  | .0234 |
| 5    | -2.50  | -.5270 | .1061 | -.0920 | -.0021 | -.0017 | .0216 |
| 6    | .01    | -.3214 | .0923 | -.1257 | -.0024 | -.0017 | .0222 |
| 7    | 2.50   | -.1078 | .0871 | -.1510 | -.0020 | .0026  | .0252 |
| 8    | 4.99   | .0913  | .0891 | -.1606 | -.0015 | .0027  | .0223 |
| 9    | 10.00  | .5064  | .1169 | -.1556 | -.0013 | .0050  | .0218 |
| 10   | 15.00  | .9121  | .1799 | -.1112 | -.0016 | .0042  | .0094 |
| 11   | 17.50  | 1.0983 | .2248 | -.0262 | -.0016 | .0075  | .0076 |
| 12   | 19.99  | 1.2521 | .2723 | .0959  | -.0021 | .0043  | .0080 |
| 13   | .00    | -.3127 | .0929 | -.1250 | -.0024 | .0015  | .0220 |
| 14   | -10.00 | -.6788 | .2818 | .2185  | .0057  | .0059  | .0105 |
| 15   | -5.00  | -.7218 | .1298 | -.0349 | -.0031 | -.0009 | .0257 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | COB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 1    | -20.00 | -.8702 | .5277 | .4675  | -.0008 | -.0041 | .0185 |
| 2    | -15.01 | -.8274 | .3906 | .4921  | -.0073 | -.0136 | .0203 |
| 3    | -10.00 | -.6697 | .2887 | .2314  | .0039  | .0070  | .0084 |
| 4    | -5.00  | -.7152 | .1277 | -.0335 | -.0018 | .0013  | .0234 |
| 5    | -2.50  | -.5270 | .1061 | -.0920 | -.0021 | -.0017 | .0216 |
| 6    | .01    | -.3214 | .0923 | -.1257 | -.0024 | -.0017 | .0222 |
| 7    | 2.50   | -.1078 | .0871 | -.1510 | -.0020 | .0026  | .0252 |
| 8    | 4.99   | .0913  | .0891 | -.1606 | -.0015 | .0027  | .0223 |
| 9    | 10.00  | .5064  | .1169 | -.1556 | -.0013 | .0050  | .0218 |
| 10   | 15.00  | .9121  | .1799 | -.1112 | -.0016 | .0042  | .0094 |
| 11   | 17.50  | 1.0983 | .2248 | -.0262 | -.0016 | .0075  | .0076 |
| 12   | 19.99  | 1.2521 | .2723 | .0959  | -.0021 | .0043  | .0080 |
| 13   | .00    | -.3127 | .0929 | -.1250 | -.0024 | .0015  | .0220 |
| 14   | -10.00 | -.6788 | .2818 | .2185  | .0057  | .0059  | .0105 |
| 15   | -5.00  | -.7218 | .1298 | -.0349 | -.0031 | -.0009 | .0257 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 666

RUN 794 CONFIG F P R NP5 W7 T49 BT IN=-3.5 IW=-9

| PT. # | IW    | DELTA ALPHA | DELTA PSI | DELTA CL | DELTA CD | DELTA CPM | DELTA CYN | DELTA CRM | DELTA CY | DELTA Q | DELTA V | RP11 |
|-------|-------|-------------|-----------|----------|----------|-----------|-----------|-----------|----------|---------|---------|------|
| NO.   | DEG   | DEG         | CI BAR    | CD BAR   | CPM BAR  | CYN BAR   | CRM BAR   | CY BAR    | PSF      | KNOTS   |         |      |
| 2     | 0.0   | 0.0         | -115.9    | 35.21    | -388.    | -40.      | -84.      | 10.81     | 54.81    | 128.36  | 3350.   |      |
| 3     | 0.0   | 0.0         | -122.7    | -6.76    | -503.    | -38.      | -28.      | 8.11      | 54.62    | 128.14  | 11740.  |      |
| 4     | -20.0 | 0.0         | -397.8    | 156.94   | 995.     | -54.      | 4.        | 6.11      | 54.60    | 128.11  | 11830.  |      |
| 5     | -15.0 | 0.0         | -380.3    | 112.34   | 1319.    | -0.       | -317.     | -1.19     | 54.88    | 128.44  | 11800.  |      |
| 6     | -10.0 | 0.0         | -350.7    | 63.38    | 286.     | -34.      | -386.     | 7.67      | 54.64    | 128.16  | 11820.  |      |
| 7     | -5.0  | 0.0         | -281.5    | 7.87     | -309.    | -10.      | 3.        | 9.65      | 54.70    | 128.24  | 11830.  |      |
| 8     | -2.5  | 0.0         | -206.9    | .15      | -394.    | -20.      | 3.        | 10.20     | 54.44    | 127.93  | 11790.  |      |
| 9     | -0.0  | 0.0         | -153.7    | -5.14    | -592.    | -47.      | 32.       | 8.59      | 45.23    | 116.60  | 11790.  |      |
| 10    | -0.0  | 0.0         | -127.6    | -5.42    | -492.    | -39.      | 27.       | 7.13      | 54.48    | 127.98  | 11780.  |      |
| 11    | 2.5   | 0.0         | -47.5     | -7.41    | -542.    | -42.      | -43.      | 6.60      | 54.19    | 127.63  | 11810.  |      |
| 12    | 5.0   | 0.0         | 34.6      | -6.93    | -545.    | -43.      | 44.       | 9.97      | 54.34    | 127.81  | 11790.  |      |
| 13    | 10.0  | 0.0         | 187.9     | 1.96     | -531.    | -50.      | 50.       | 6.03      | 54.23    | 127.68  | 11800.  |      |
| 14    | 15.0  | 0.0         | 342.8     | 23.97    | -263.    | -17.      | 89.       | 2.77      | 54.18    | 127.61  | 11850.  |      |
| 15    | 17.5  | 0.0         | 414.3     | 40.52    | -69.     | 4.        | 89.       | 2.19      | 54.41    | 127.89  | 11780.  |      |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. # | ALPHA  | CL      | CD     | CPM    | CYN    | CRM    | CY     |
|-------|--------|---------|--------|--------|--------|--------|--------|
| 2     | 0.00   | -.3132  | .0952  | -.1251 | -.0024 | -.0051 | .0292  |
| 3     | 0.00   | -.3315  | -.0183 | -.1623 | -.0023 | -.0017 | .0219  |
| 4     | -20.00 | -1.0751 | .4242  | .3208  | -.0033 | .0002  | .0165  |
| 5     | -15.00 | -1.0279 | .3036  | .4251  | -.0000 | -.0192 | -.0005 |
| 6     | -10.00 | -.9477  | .1713  | .0921  | -.0020 | -.0233 | .0207  |
| 7     | -4.99  | -.7607  | .0213  | -.0996 | -.0006 | .0002  | .0261  |
| 8     | -2.51  | -.5591  | .0004  | -.1270 | -.0012 | .0002  | .0276  |
| 9     | -0.00  | -.4155  | -.0139 | -.1909 | -.0028 | .0019  | .0232  |
| 10    | -0.00  | -.3449  | -.0147 | -.1585 | -.0024 | .0016  | .0193  |
| 11    | 2.49   | -.1285  | -.0200 | -.1746 | -.0025 | -.0026 | .0178  |
| 12    | 5.00   | .0934   | -.0187 | -.1757 | -.0026 | .0027  | .0269  |
| 13    | 10.00  | .5080   | .0053  | -.1712 | -.0030 | .0030  | .0163  |
| 14    | 14.99  | .9265   | .0648  | -.0847 | -.0010 | .0054  | .0075  |
| 15    | 17.53  | 1.1197  | .1095  | -.0223 | .0003  | .0054  | .0059  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. # | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|-------|--------|---------|--------|--------|--------|--------|--------|
| 2     | 0.00   | -.3132  | .0952  | -.1251 | -.0024 | -.0051 | .0292  |
| 3     | 0.00   | -.3315  | -.0183 | -.1623 | -.0023 | -.0017 | .0219  |
| 4     | -20.00 | -1.0751 | .4242  | .3208  | -.0033 | .0002  | .0165  |
| 5     | -15.00 | -1.0279 | .3036  | .4251  | -.0000 | -.0192 | -.0005 |
| 6     | -10.00 | -.9477  | .1713  | .0921  | -.0020 | -.0233 | .0207  |
| 7     | -4.99  | -.7607  | .0213  | -.0996 | -.0006 | .0002  | .0261  |
| 8     | -2.51  | -.5591  | .0004  | -.1270 | -.0012 | .0002  | .0276  |
| 9     | -0.00  | -.4155  | -.0139 | -.1909 | -.0028 | .0019  | .0232  |
| 10    | -0.00  | -.3449  | -.0147 | -.1585 | -.0024 | .0016  | .0193  |
| 11    | 2.47   | -.1285  | -.0200 | -.1746 | -.0025 | -.0026 | .0178  |
| 12    | 5.00   | .0934   | -.0187 | -.1757 | -.0026 | .0027  | .0269  |
| 13    | 10.00  | .5080   | .0053  | -.1712 | -.0030 | .0030  | .0163  |
| 14    | 14.99  | .9265   | .0648  | -.0847 | -.0010 | .0054  | .0075  |
| 15    | 17.53  | 1.1197  | .1095  | -.0223 | .0003  | .0054  | .0059  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P 667

RUN 797 CONFIG F P R NP5 W7 T49 BT IN=-3.5 IW=-9 MAX

| PT. No. | IW    | ALPHA DEG | DELTA DEG | O.0 DELTA PSI | O.0 DELTA CIRAR SQ-FT | O.0 IHT CONAR SQ-FT | O.0 DELE CPMBAR CU-FT | O.0 DELR CYMBAR CU-FT | O.0 DELR CRMBAR CU-FT | O.0 DELSR CYBAR SQ-FT | O.0 DELSR Q PSF | O.0 V KNOTS | RPM |
|---------|-------|-----------|-----------|---------------|-----------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|-------------|-----|
| 2       | 0     | 0         | 0         | -117.4        | 36.71                 | -404.               | -32.                  | -46.                  | 8.14                  | 54.00                 | 127.40          | 3380.       |     |
| 3       | 0     | 0         | 0         | -131.0        | -135.68               | -664.               | -46.                  | 46.                   | 5.93                  | 54.59                 | 128.12          | 23050.      |     |
| 4       | -20.0 | 0         | 0         | -492.2        | -61.94                | 880.                | 24.                   | -12.                  | 5.30                  | 53.99                 | 127.40          | 23060.      |     |
| 5       | -15.0 | 0         | 0         | -458.1        | -9.69                 | 645.                | 154.                  | -172.                 | -4.12                 | 53.79                 | 127.16          | 23030.      |     |
| 6       | -10.0 | 0         | 0         | -381.9        | -43.27                | -275.               | 56.                   | -4.                   | 2.40                  | 53.86                 | 127.24          | 22950.      |     |
| 7       | -5.0  | 0         | 0         | -303.7        | -122.74               | -559.               | -20.                  | 63.                   | 5.56                  | 53.94                 | 127.35          | 23080.      |     |
| 8       | -2.5  | 0         | 0         | -219.0        | -130.86               | -649.               | -36.                  | 44.                   | 7.20                  | 53.93                 | 127.33          | 23080.      |     |
| 9       | 0     | 0         | 0         | -131.8        | -137.15               | -722.               | -41.                  | 11.                   | 5.53                  | 53.63                 | 126.97          | 22910.      |     |
| 10      | 2.5   | 0         | 0         | -49.4         | -140.75               | -753.               | -67.                  | 88.                   | 2.03                  | 53.73                 | 127.09          | 23050.      |     |
| 11      | 5.0   | 0         | 0         | 41.3          | -137.83               | -701.               | -80.                  | 139.                  | 4.66                  | 54.09                 | 127.52          | 23060.      |     |
| 12      | 10.0  | 0         | 0         | 215.6         | -129.78               | -638.               | -127.                 | 178.                  | 4.31                  | 53.74                 | 127.10          | 23030.      |     |
| 13      | 15.0  | 0         | 0         | 300.4         | -104.53               | -470.               | -101.                 | 163.                  | -2.67                 | 53.54                 | 126.85          | 23110.      |     |
| 14      | 17.5  | 0         | 0         | 446.8         | -81.87                | -297.               | -93.                  | 198.                  | -1.27                 | 53.84                 | 127.22          | 22900.      |     |
| 16      | 20.0  | 0         | 0         | 532.2         | -59.63                | -68.                | -87.                  | 180.                  | -1.27                 | 53.75                 | 127.11          | 22970.      |     |
| 17      | 0     | 0         | 0         | -130.1        | -124.72               | -678.               | -32.                  | 67.                   | 4.03                  | 54.07                 | 127.49          | 23000.      |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. # | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|-------|--------|---------|--------|--------|--------|--------|--------|
| 2     | 0.00   | -.3174  | .0992  | -.1304 | -.0019 | -.0028 | .0220  |
| 3     | 0.00   | -.3541  | -.3667 | -.2141 | -.0028 | .0028  | .0160  |
| 4     | -20.04 | -1.3301 | -.1674 | .2836  | .0015  | -.0007 | .0143  |
| 5     | -15.00 | -1.2380 | -.0262 | .2144  | .0093  | -.0104 | -.0111 |
| 6     | -10.00 | -1.0321 | -.1710 | -.0887 | .0034  | -.0003 | .0065  |
| 7     | -5.00  | -.8209  | -.3317 | -.1803 | -.0012 | .0038  | .0150  |
| 8     | -2.53  | -.5919  | -.3537 | -.2093 | -.0022 | .0026  | .0195  |
| 9     | 0.00   | -.3561  | -.3707 | -.2326 | -.0025 | .0007  | .0149  |
| 10    | 2.51   | -.1335  | -.3804 | -.2429 | -.0040 | .0053  | .0055  |
| 11    | 5.02   | .1115   | -.3725 | -.2259 | -.0048 | .0084  | .0126  |
| 12    | 10.00  | .5827   | -.3508 | -.2058 | -.0077 | .0107  | .0117  |
| 13    | 15.02  | 1.0552  | -.2825 | -.1514 | -.0061 | .0099  | -.0072 |
| 14    | 17.53  | 1.2617  | -.2213 | -.0957 | -.0056 | .0120  | -.0034 |
| 16    | 20.00  | 1.4383  | -.1612 | -.0219 | -.0053 | .0109  | -.0034 |
| 17    | 0.01   | -.3515  | -.3371 | -.2187 | -.0019 | .0040  | .0109  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. # | ALPHA  | CLB     | COB    | CPMB   | CYMB   | CRMB   | CYB    |
|-------|--------|---------|--------|--------|--------|--------|--------|
| 2     | 0.00   | -.3174  | .0992  | -.1304 | -.0019 | -.0028 | .0220  |
| 3     | 0.00   | -.3541  | -.3667 | -.2141 | -.0028 | .0028  | .0160  |
| 4     | -20.04 | -1.3301 | -.1674 | .2836  | .0015  | -.0007 | .0143  |
| 5     | -15.00 | -1.2380 | -.0262 | .2144  | .0093  | -.0104 | -.0111 |
| 6     | -10.00 | -1.0321 | -.1710 | -.0887 | .0034  | -.0003 | .0065  |
| 7     | -5.00  | -.8209  | -.3317 | -.1803 | -.0012 | .0038  | .0150  |
| 8     | -2.53  | -.5919  | -.3537 | -.2093 | -.0022 | .0026  | .0195  |
| 9     | 0.00   | -.3561  | -.3707 | -.2326 | -.0025 | .0007  | .0149  |
| 10    | 2.51   | -.1335  | -.3804 | -.2429 | -.0040 | .0053  | .0055  |
| 11    | 5.02   | .1115   | -.3725 | -.2259 | -.0048 | .0084  | .0126  |
| 12    | 10.00  | .5827   | -.3508 | -.2058 | -.0077 | .0107  | .0117  |
| 13    | 15.02  | 1.0552  | -.2825 | -.1514 | -.0061 | .0099  | -.0072 |
| 14    | 17.53  | 1.2617  | -.2213 | -.0957 | -.0056 | .0120  | -.0034 |
| 16    | 20.00  | 1.4383  | -.1612 | -.0219 | -.0053 | .0109  | -.0034 |
| 17    | 0.01   | -.3515  | -.3371 | -.2187 | -.0019 | .0040  | .0109  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
PGG 8

RUN 798 CONFIG F.P.B-NP5 W7 T49 BT IN=-3.5 OEI

| IW      | -9 DELF   | 0.0 DELA | 0.0 IHT     | 0.0 DELE    | 0.0 DELR     | 0.0 DELSB    | 0.0          | 0.0         |       |         |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0       | -115.3      | 35.76       | -419.        | -32.         | 24.          | 9.21        | 55.09 | 128.71  | 3400.  |
| 3       | .0        | .0       | -128.4      | -49.90      | -594.        | -623.        | 104.         | 15.63       | 54.91 | 128.50  | 23030. |
| 4       | -20.0     | .0       | -416.9      | 124.40      | 1440.        | -188.        | 405.         | 7.10        | 55.17 | 128.80  | 22970. |
| 5       | -15.0     | .0       | -388.5      | 66.96       | 879.         | -340.        | 92.          | 6.45        | 54.93 | 128.52  | 23030. |
| 6       | -10.0     | .0       | -342.9      | 18.48       | 203.         | -519.        | 329.         | 11.37       | 55.43 | 129.11  | 23000. |
| 7       | -5.0      | .0       | -290.6      | -34.17      | -375.        | -610.        | 138.         | 13.10       | 54.86 | 128.44  | 23010. |
| 8       | -2.5      | .0       | -212.5      | -43.10      | -495.        | -622.        | 141.         | 13.84       | 54.39 | 127.88  | 22990. |
| 9       | -.0       | .0       | -126.9      | -47.78      | -586.        | -618.        | 118.         | 17.47       | 55.20 | 128.84  | 22950. |
| 10      | 2.5       | .0       | -44.1       | -51.62      | -634.        | -651.        | 180.         | 12.49       | 55.09 | 128.72  | 23060. |
| 11      | 5.0       | .0       | 33.2        | -50.70      | -634.        | -621.        | 21.          | 15.27       | 55.11 | 128.74  | 22990. |
| 12      | 10.0      | .0       | 199.2       | -42.26      | -589.        | -623.        | 12.          | 10.45       | 54.42 | 127.92  | 22950. |
| 13      | 15.0      | .0       | 357.6       | -17.26      | -377.        | -580.        | 34.          | 5.30        | 55.29 | 128.95  | 23010. |
| 14      | 20.0      | .0       | 497.2       | 18.18       | 181.         | -503.        | -71.         | 2.56        | 54.54 | 128.05  | 22940. |
| 15      | .0        | .0       | -131.0      | -47.29      | -598.        | -631.        | 124.         | 14.24       | 54.55 | 128.07  | 23020. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3117  | .0967  | -.1352 | -.0019 | .0014  | .0249 |
| 3    | .00    | -.3470  | -.1349 | -.1915 | -.0376 | .0063  | .0423 |
| 4    | -20.00 | -1.1267 | .3362  | .4644  | -.0113 | .0245  | .0192 |
| 5    | -15.01 | -1.0499 | .1810  | .2832  | -.0205 | .0056  | .0174 |
| 6    | -10.00 | -.9267  | .0499  | .0653  | -.0313 | .0199  | .0307 |
| 7    | -5.00  | -.7853  | -.0924 | -.1207 | -.0368 | .0084  | .0354 |
| 8    | -2.50  | -.5745  | -.1165 | -.1595 | -.0376 | .0085  | .0374 |
| 9    | -.01   | -.3429  | -.1291 | -.1888 | -.0374 | .0071  | .0472 |
| 10   | 2.51   | -.1192  | -.1395 | -.2045 | -.0393 | .0109  | .0338 |
| 11   | 5.01   | .0897   | -.1370 | -.2045 | -.0375 | .0013  | .0413 |
| 12   | 10.02  | .5383   | -.1142 | -.1900 | -.0376 | .0007  | .0283 |
| 13   | 15.00  | .9666   | -.0467 | -.1215 | -.0351 | .0021  | .0143 |
| 14   | 20.00  | 1.3438  | .0491  | .0582  | -.0304 | -.0043 | .0069 |
| 15   | .00    | -.3540  | -.1278 | -.1927 | -.0381 | .0075  | .0385 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3117  | .0967  | -.1352 | -.0019 | .0014  | .0249 |
| 3    | .00    | -.3470  | -.1349 | -.1915 | -.0376 | .0063  | .0423 |
| 4    | -20.00 | -1.1267 | .3362  | .4644  | -.0113 | .0245  | .0192 |
| 5    | -15.01 | -1.0499 | .1810  | .2832  | -.0205 | .0056  | .0174 |
| 6    | -10.00 | -.9267  | .0499  | .0653  | -.0313 | .0199  | .0307 |
| 7    | -5.00  | -.7853  | -.0924 | -.1207 | -.0368 | .0084  | .0354 |
| 8    | -2.50  | -.5745  | -.1165 | -.1595 | -.0376 | .0085  | .0374 |
| 9    | -.01   | -.3429  | -.1291 | -.1888 | -.0374 | .0071  | .0472 |
| 10   | 2.51   | -.1192  | -.1395 | -.2045 | -.0393 | .0109  | .0338 |
| 11   | 5.01   | .0897   | -.1370 | -.2045 | -.0375 | .0013  | .0413 |
| 12   | 10.02  | .5383   | -.1142 | -.1900 | -.0376 | .0007  | .0283 |
| 13   | 15.00  | .9666   | -.0467 | -.1215 | -.0351 | .0021  | .0143 |
| 14   | 20.00  | 1.3438  | .0491  | .0582  | -.0304 | -.0043 | .0069 |
| 15   | .00    | -.3540  | -.1278 | -.1927 | -.0381 | .0075  | .0385 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P669

RUN 799 CONFIG F P B NPS W7 T49 BT IN=-3.5 OEI

| IW      | -9 DELF   | 0.0 DELA | 0.0 IHT     | 0.0 DELE    | 0.0 DELR     | 0.0 DELSB    | 0.0          |             |       |         |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0       | -116.4      | 35.43       | -481.        | -38.         | 6.           | 9.09        | 55.09 | 128.72  | 3380.  |
| 3       | .0        | .0       | -128.0      | -49.07      | -641.        | -623.        | 34.          | 14.93       | 55.20 | 128.85  | 22990. |
| 4       | -20.0     | .0       | -424.0      | 126.34      | 1370.        | -210.        | 253.         | 6.67        | 54.12 | 127.55  | 23080. |
| 5       | -15.0     | .0       | -389.8      | 68.24       | 884.         | -346.        | 133.         | 4.50        | 54.46 | 127.96  | 23020. |
| 6       | -10.0     | .0       | -338.6      | 21.65       | 173.         | -527.        | 228.         | 11.18       | 54.56 | 128.08  | 22950. |
| 7       | -5.0      | .0       | -293.3      | -34.76      | -482.        | -608.        | 172.         | 14.76       | 54.71 | 128.26  | 23000. |
| 8       | -.0       | .0       | -131.3      | -49.71      | -677.        | -639.        | 68.          | 15.94       | 54.93 | 128.53  | 23010. |
| 9       | 5.0       | .0       | 35.0        | -52.12      | -698.        | -635.        | 39.          | 14.88       | 54.47 | 127.97  | 22990. |
| 10      | 10.0      | .0       | 198.3       | -41.96      | -643.        | -632.        | -24.         | 10.78       | 54.99 | 128.59  | 23020. |
| 11      | 15.0      | .0       | 359.0       | -17.63      | -448.        | -597.        | -19.         | 5.14        | 55.03 | 128.64  | 22990. |
| 12      | 20.0      | .0       | 497.2       | 18.71       | 135.         | -515.        | -106.        | 2.24        | 54.64 | 128.17  | 22990. |
| 13      | .0        | .0       | -132.5      | -46.57      | -665.        | -619.        | 34.          | 15.03       | 54.62 | 128.15  | 23040. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3146  | .0958  | -.1549 | -.0023 | .0004  | .0246 |
| 3    | .00    | -.3461  | -.1326 | -.2065 | -.0376 | .0020  | .0404 |
| 4    | -20.01 | -1.1459 | .3415  | .4418  | -.0127 | .0153  | .0180 |
| 5    | -15.01 | -1.0536 | .1844  | .2851  | -.0208 | .0080  | .0122 |
| 6    | -10.01 | -.9151  | .0590  | .0558  | -.0318 | .0138  | .0302 |
| 7    | -4.99  | -.7926  | -.0940 | -.1554 | -.0367 | .0104  | .0399 |
| 8    | -.01   | -.3549  | -.1344 | -.2182 | -.0386 | .0041  | .0431 |
| 9    | 5.00   | .0947   | -.1409 | -.2250 | -.0384 | .0024  | .0402 |
| 10   | 10.02  | .5360   | -.1134 | -.2073 | -.0381 | -.0014 | .0291 |
| 11   | 15.00  | .9704   | -.0477 | -.1444 | -.0360 | -.0011 | .0139 |
| 12   | 20.00  | 1.3438  | .0506  | .0436  | -.0311 | -.0064 | .0061 |
| 13   | .00    | -.3581  | -.1259 | -.2142 | -.0374 | .0021  | .0406 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3146  | .0958  | -.1549 | -.0023 | .0004  | .0246 |
| 3    | .00    | -.3461  | -.1326 | -.2065 | -.0376 | .0020  | .0404 |
| 4    | -20.01 | -1.1459 | .3415  | .4418  | -.0127 | .0153  | .0180 |
| 5    | -15.01 | -1.0536 | .1844  | .2851  | -.0208 | .0080  | .0122 |
| 6    | -10.01 | -.9151  | .0590  | .0558  | -.0318 | .0138  | .0302 |
| 7    | -4.99  | -.7926  | -.0940 | -.1554 | -.0367 | .0104  | .0399 |
| 8    | -.01   | -.3549  | -.1344 | -.2182 | -.0386 | .0041  | .0431 |
| 9    | 5.00   | .0947   | -.1409 | -.2250 | -.0384 | .0024  | .0402 |
| 10   | 10.02  | .5360   | -.1134 | -.2073 | -.0381 | -.0014 | .0291 |
| 11   | 15.00  | .9704   | -.0477 | -.1444 | -.0360 | -.0011 | .0139 |
| 12   | 20.00  | 1.3438  | .0506  | .0436  | -.0311 | -.0064 | .0061 |
| 13   | .00    | -.3581  | -.1259 | -.2142 | -.0374 | .0021  | .0406 |

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N432409-1.

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 670.

RUN 800 CONFIG F P B NP5 W7 T49 BT IN=-3.5 OEI

| IW      | -9 DELF   | 0.0 DELA | 0.0 IHT     | 0.0 DELE    | 0.0 DELR     | 0.0 DELSB    | 0.0          |             |       |         |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0       | -117.4      | 35.48       | -500.        | -37.         | 5.           | 10.49       | 54.22 | 127.68  | 3380.  |
| 3       | .0        | .0       | -124.5      | -49.79      | -667.        | -622.        | 102.         | 16.90       | 54.83 | 128.40  | 23040. |
| 4       | -20.0     | .0       | -428.7      | 125.61      | 1376.        | -188.        | 229.         | 9.91        | 53.98 | 127.39  | 22900. |
| 5       | -15.0     | .0       | -388.0      | 65.80       | 817.         | -360.        | 42.          | 5.86        | 54.09 | 127.52  | 22970. |
| 6       | -10.0     | .0       | -339.0      | 17.50       | 179.         | -531.        | 407.         | 12.14       | 54.16 | 127.60  | 23000. |
| 7       | -5.0      | .0       | -293.2      | -36.18      | -487.        | -613.        | 120.         | 14.47       | 54.16 | 127.60  | 23020. |
| 8       | -2.5      | .0       | -212.1      | -43.86      | -595.        | -616.        | 119.         | 15.00       | 55.39 | 129.08  | 22970. |
| 9       | -.0       | .0       | -125.9      | -48.13      | -655.        | -619.        | 84.          | 15.99       | 55.83 | 129.59  | 22980. |
| 10      | 5.0       | .0       | 36.5        | -50.84      | -689.        | -608.        | 40.          | 13.33       | 55.45 | 129.14  | 23050. |
| 11      | 10.0      | .0       | 200.0       | -41.90      | -647.        | -613.        | 11.          | 11.74       | 55.12 | 128.75  | 22980. |
| 12      | 15.0      | .0       | 359.3       | -17.25      | -441.        | -556.        | -1.          | 6.87        | 55.55 | 129.26  | 23010. |
| 13      | 20.0      | .0       | 499.7       | 18.37       | 139.         | -485.        | -70.         | 2.11        | 54.87 | 128.45  | 23000. |
| 14      | -.0       | .0       | -130.0      | -47.60      | -684.        | -629.        | 103.         | 15.44       | 55.16 | 128.80  | 23010. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3172  | .0959  | -.1612 | -.0022 | .0003  | .0284 |
| 3    | .00    | -.3364  | -.1346 | -.2152 | -.0376 | .0062  | .0457 |
| 4    | -20.00 | -1.1586 | .3395  | .4438  | -.0113 | .0138  | .0268 |
| 5    | -15.00 | -1.0486 | .1778  | .2634  | -.0217 | .0025  | .0158 |
| 6    | -10.00 | -.9162  | .0473  | .0577  | -.0321 | .0246  | .0328 |
| 7    | -5.01  | -.7923  | -.0978 | -.1570 | -.0370 | .0073  | .0391 |
| 8    | -2.50  | -.5732  | -.1185 | -.1918 | -.0372 | .0072  | .0406 |
| 9    | -.00   | -.3402  | -.1301 | -.2113 | -.0374 | .0051  | .0432 |
| 10   | 5.01   | .0986   | -.1374 | -.2222 | -.0367 | .0024  | .0360 |
| 11   | 10.01  | .5405   | -.1132 | -.2085 | -.0370 | .0006  | .0317 |
| 12   | 14.99  | .9711   | -.0466 | -.1421 | -.0336 | -.0001 | .0186 |
| 13   | 20.00  | 1.3506  | .0496  | .0448  | -.0293 | -.0042 | .0057 |
| 14   | -.01   | -.3513  | -.1287 | -.2204 | -.0380 | .0062  | .0417 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3172  | .0959  | -.1612 | -.0022 | .0003  | .0284 |
| 3    | .00    | -.3364  | -.1346 | -.2152 | -.0376 | .0062  | .0457 |
| 4    | -20.00 | -1.1586 | .3395  | .4438  | -.0113 | .0138  | .0268 |
| 5    | -15.00 | -1.0486 | .1778  | .2634  | -.0217 | .0025  | .0158 |
| 6    | -10.00 | -.9162  | .0473  | .0577  | -.0321 | .0246  | .0328 |
| 7    | -5.01  | -.7923  | -.0978 | -.1570 | -.0370 | .0073  | .0391 |
| 8    | -2.50  | -.5732  | -.1185 | -.1918 | -.0372 | .0072  | .0406 |
| 9    | -.00   | -.3402  | -.1301 | -.2113 | -.0374 | .0051  | .0432 |
| 10   | 5.01   | .0986   | -.1374 | -.2222 | -.0367 | .0024  | .0360 |
| 11   | 10.01  | .5405   | -.1132 | -.2085 | -.0370 | .0006  | .0317 |
| 12   | 14.99  | .9711   | -.0466 | -.1421 | -.0336 | -.0001 | .0186 |
| 13   | 20.00  | 1.3506  | .0496  | .0448  | -.0293 | -.0042 | .0057 |
| 14   | -.01   | -.3513  | -.1287 | -.2204 | -.0380 | .0062  | .0417 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 671

RUN 801 CONFIG F P B NPS W7 T49 BT IN=-3.5 OEI

| IW      | 7.5 DELF. | 0.0 DELA | 0.0 IHT     | 0.0 DELE    | 0.0 DELR     | 0.0 DELSB    | 0.0          |             |       |         |        |  |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|--|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |  |
| 2       | .0        | .0       | 235.4       | 45.81       | 153.         | -59.         | 97.          | 4.99        | 56.03 | 129.83  | 3340.  |  |
| 3       | .0        | .0       | 223.1       | -46.26      | -136.        | -693.        | 72.          | 12.17       | 55.16 | 128.80  | 23020. |  |
| 4       | -20.0     | .0       | -408.5      | 26.20       | 1295.        | -85.         | 223.         | 3.17        | 54.84 | 128.41  | 23030. |  |
| 5       | -15.0     | .0       | -269.3      | -16.07      | 966.         | -328.        | 218.         | 5.59        | 54.82 | 128.39  | 23060. |  |
| 6       | -10.0     | .0       | -110.3      | -41.41      | 251.         | -436.        | 85.          | 10.67       | 55.55 | 129.26  | 23080. |  |
| 7       | -5.0      | .0       | 62.0        | -45.62      | -81.         | -572.        | 104.         | 11.07       | 55.68 | 129.42  | 23000. |  |
| 8       | -2.5      | .0       | 145.5       | -43.34      | -125.        | -620.        | 106.         | 11.39       | 55.63 | 129.36  | 23010. |  |
| 9       | .0        | .0       | 221.5       | -38.31      | -136.        | -652.        | 93.          | 9.58        | 55.09 | 128.71  | 23020. |  |
| 10      | 2.5       | .0       | 295.9       | -30.60      | -137.        | -651.        | 61.          | 8.92        | 55.02 | 128.63  | 23010. |  |
| 11      | 5.0       | .0       | 372.7       | -20.01      | -163.        | -691.        | 46.          | 7.76        | 54.42 | 127.92  | 23000. |  |
| 12      | 10.0      | .0       | 474.3       | 13.81       | -273.        | -742.        | -236.        | 8.00        | 54.53 | 128.04  | 23020. |  |
| 13      | 15.0      | .0       | 507.7       | 74.21       | -427.        | -764.        | -72.         | 6.22        | 54.73 | 128.28  | 22990. |  |
| 14      | 20.0      | .0       | 580.8       | 146.29      | -519.        | -556.        | -124.        | 4.58        | 54.26 | 127.71  | 22950. |  |
| 15      | .0        | .0       | 217.0       | -39.53      | -141.        | -653.        | 108.         | 10.98       | 55.86 | 129.62  | 23000. |  |
| 16      | .0        | .0       | 216.9       | -41.21      | -148.        | -664.        | 128.         | 10.38       | 54.82 | 128.39  | 22970. |  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .6362   | .1238  | .0494  | -.0036 | .0059  | .0135 |
| 3    | .00    | .6029   | -.1250 | -.0439 | -.0419 | .0044  | .0329 |
| 4    | -20.00 | -1.1041 | .0708  | .4174  | -.0051 | .0134  | .0086 |
| 5    | -15.00 | -.7279  | -.0434 | .3116  | -.0198 | .0132  | .0151 |
| 6    | -9.99  | -.2980  | -.1119 | .0810  | -.0264 | .0051  | .0288 |
| 7    | -5.00  | .1675   | -.1233 | -.0262 | -.0345 | .0063  | .0299 |
| 8    | -2.50  | .3932   | -.1171 | -.0402 | -.0375 | .0064  | .0308 |
| 9    | .00    | .5987   | -.1036 | -.0440 | -.0394 | .0056  | .0259 |
| 10   | 2.50   | .7997   | -.0827 | -.0442 | -.0394 | .0037  | .0241 |
| 11   | 5.00   | 1.0073  | -.0541 | -.0526 | -.0417 | .0028  | .0210 |
| 12   | 10.00  | 1.2819  | .0373  | -.0879 | -.0448 | -.0142 | .0216 |
| 13   | 15.00  | 1.3722  | .2006  | -.1377 | -.0461 | -.0044 | .0168 |
| 14   | 20.00  | 1.5698  | .3954  | -.1673 | -.0336 | -.0075 | .0124 |
| 15   | .00    | .5865   | -.1068 | -.0455 | -.0395 | .0065  | .0297 |
| 16   | .00    | .5862   | -.1114 | -.0476 | -.0401 | .0077  | .0280 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .6362   | .1238  | .0494  | -.0036 | .0059  | .0135 |
| 3    | .00    | .6029   | -.1250 | -.0439 | -.0419 | .0044  | .0329 |
| 4    | -20.00 | -1.1041 | .0708  | .4174  | -.0051 | .0134  | .0086 |
| 5    | -15.00 | -.7279  | -.0434 | .3116  | -.0198 | .0132  | .0151 |
| 6    | -9.99  | -.2980  | -.1119 | .0810  | -.0264 | .0051  | .0288 |
| 7    | -5.00  | .1675   | -.1233 | -.0262 | -.0345 | .0063  | .0299 |
| 8    | -2.50  | .3932   | -.1171 | -.0402 | -.0375 | .0064  | .0308 |
| 9    | .00    | .5987   | -.1036 | -.0440 | -.0394 | .0056  | .0259 |
| 10   | 2.50   | .7997   | -.0827 | -.0442 | -.0394 | .0037  | .0241 |
| 11   | 5.00   | 1.0073  | -.0541 | -.0526 | -.0417 | .0028  | .0210 |
| 12   | 10.00  | 1.2819  | .0373  | -.0879 | -.0448 | -.0142 | .0216 |
| 13   | 15.00  | 1.3722  | .2006  | -.1377 | -.0461 | -.0044 | .0168 |
| 14   | 20.00  | 1.5698  | .3954  | -.1673 | -.0336 | -.0075 | .0124 |
| 15   | .00    | .5865   | -.1068 | -.0455 | -.0395 | .0065  | .0297 |
| 16   | .00    | .5862   | -.1114 | -.0476 | -.0401 | .0077  | .0280 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 802 CONFIG F P B NP5 W7 T49 BT IN=-3.5

| IW      | 7.5 DELF  | 0.0 DELA | 0.0 IHT     | 0.0 DELE    | 0.0 DELR     | 0.0 DELSB    | 0.0          | RPM         |       |         |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0       | 232.7       | 45.79       | 145.         | -69.         | 30.          | 3.99        | 54.70 | 128.24  | 3830.  |
| 3       | .0        | .0       | 228.3       | -6.63       | -33.         | -64.         | 65.          | 4.66        | 54.85 | 128.42  | 12870. |
| 4       | -20.0     | .0       | -390.4      | 50.20       | 992.         | -101.        | -55.         | 8.69        | 54.86 | 128.43  | 12840. |
| 5       | -15.0     | .0       | -264.5      | 17.96       | 1008.        | 68.          | -75.         | 2.74        | 55.88 | 129.64  | 12880. |
| 6       | -10.0     | .0       | -102.8      | -10.27      | 451.         | 2.           | 44.          | 4.76        | 55.05 | 128.66  | 12890. |
| 7       | -5.0      | .0       | 65.2        | -14.54      | 150.         | -53.         | 11.          | 3.99        | 55.45 | 129.14  | 12870. |
| 8       | -2.5      | .0       | 148.9       | -12.69      | 3.           | -75.         | 66.          | 3.21        | 55.15 | 128.78  | 12900. |
| 9       | -.0       | .0       | 226.3       | -7.19       | -41.         | -74.         | 67.          | 3.17        | 54.87 | 128.45  | 12850. |
| 10      | 2.5       | .0       | 295.2       | .73         | -49.         | -51.         | 50.          | 2.58        | 55.51 | 129.20  | 12860. |
| 11      | 5.0       | .0       | 368.0       | 11.34       | -73.         | -68.         | 68.          | 1.85        | 55.22 | 128.87  | 12850. |
| 12      | 10.0      | .0       | 450.6       | 47.13       | -174.        | -92.         | 105.         | 2.11        | 54.86 | 128.44  | 12870. |
| 13      | 15.0      | .0       | 498.3       | 100.93      | -328.        | -141.        | 106.         | 1.87        | 54.56 | 128.07  | 12860. |
| 14      | 20.0      | .0       | 563.1       | 175.74      | -392.        | -15.         | 54.          | 2.88        | 54.47 | 127.96  | 12910. |
| 15      | -20.0     | .0       | -389.8      | 49.83       | 1002.        | -88.         | -35.         | 7.51        | 54.91 | 128.50  | 12870. |
| 16      | -17.5     | .0       | -323.1      | 31.40       | 1098.        | -92.         | -34.         | 7.67        | 55.50 | 129.19  | 12870. |
| 17      | -.0       | .0       | 224.3       | -6.54       | -35.         | -71.         | 48.          | 3.61        | 55.75 | 129.49  | 12840. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .6290   | .1237  | .0468  | -.0041 | .0018  | .0108 |
| 3    | .00    | .6169   | -.0179 | -.0105 | -.0039 | .0039  | .0126 |
| 4    | -20.00 | -1.0550 | .1357  | .3198  | -.0061 | -.0033 | .0235 |
| 5    | -15.00 | -.7148  | .0485  | .3251  | .0041  | -.0045 | .0074 |
| 6    | -10.00 | -.2780  | -.0278 | .1453  | .0001  | .0027  | .0129 |
| 7    | -5.01  | .1762   | -.0393 | .0483  | -.0032 | .0007  | .0108 |
| 8    | -2.50  | .4025   | -.0343 | .0010  | -.0046 | .0040  | .0087 |
| 9    | -.00   | .6117   | -.0194 | -.0131 | -.0045 | .0040  | .0086 |
| 10   | 2.50   | .7977   | .0020  | -.0157 | -.0031 | .0030  | .0070 |
| 11   | 5.03   | .9945   | .0307  | -.0235 | -.0041 | .0041  | .0050 |
| 12   | 10.01  | 1.2178  | .1274  | -.0561 | -.0056 | .0063  | .0057 |
| 13   | 14.99  | 1.3468  | .2728  | -.1059 | -.0085 | .0064  | .0051 |
| 14   | 19.99  | 1.5220  | .4750  | -.1263 | -.0009 | .0033  | .0078 |
| 15   | -20.02 | -1.0535 | .1347  | .3231  | -.0053 | -.0021 | .0203 |
| 16   | -17.50 | -.8731  | .0849  | .3541  | -.0056 | -.0021 | .0207 |
| 17   | -.01   | .6062   | -.0177 | -.0114 | -.0043 | .0029  | .0097 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .6290   | .1237  | .0468  | -.0041 | .0018  | .0108 |
| 3    | .00    | .6169   | -.0179 | -.0105 | -.0039 | .0039  | .0126 |
| 4    | -20.00 | -1.0550 | .1357  | .3198  | -.0061 | -.0033 | .0235 |
| 5    | -15.00 | -.7148  | .0485  | .3251  | .0041  | -.0045 | .0074 |
| 6    | -10.00 | -.2780  | -.0278 | .1453  | .0001  | .0027  | .0129 |
| 7    | -5.01  | .1762   | -.0393 | .0483  | -.0032 | .0007  | .0108 |
| 8    | -2.50  | .4025   | -.0343 | .0010  | -.0046 | .0040  | .0087 |
| 9    | -.00   | .6117   | -.0194 | -.0131 | -.0045 | .0040  | .0086 |
| 10   | 2.50   | .7977   | .0020  | -.0157 | -.0031 | .0030  | .0070 |
| 11   | 5.03   | .9945   | .0307  | -.0235 | -.0041 | .0041  | .0050 |
| 12   | 10.01  | 1.2178  | .1274  | -.0561 | -.0056 | .0063  | .0057 |
| 13   | 14.99  | 1.3468  | .2728  | -.1059 | -.0085 | .0064  | .0051 |
| 14   | 19.99  | 1.5220  | .4750  | -.1263 | -.0009 | .0033  | .0078 |
| 15   | -20.02 | -1.0535 | .1347  | .3231  | -.0053 | -.0021 | .0203 |
| 16   | -17.50 | -.8731  | .0849  | .3541  | -.0056 | -.0021 | .0207 |
| 17   | -.01   | .6062   | -.0177 | -.0114 | -.0043 | .0029  | .0097 |

RUN 803 CONFIG F P B NP5 W7 T49 BT IN=-3.5 MAX

| PT. NO. | IW | 7,5 DELF<br>ALPHA DEG | 0,0 DELA<br>PSI DEG | 0,0 IHT<br>CLBAR SQ-FT | 0,0 DELE<br>CDBAR SQ-FT | 0,0 DELR<br>CPMBAR CU-FT | 0,0 DELSB<br>CYMBAR CU-FT | 0,0 DELR<br>CRMBAR CU-FT | 0,0 DELSB<br>CYBAR SQ-FT | 0,0<br>Q PSF | 0,0<br>V KNOTS | RPM    |
|---------|----|-----------------------|---------------------|------------------------|-------------------------|--------------------------|---------------------------|--------------------------|--------------------------|--------------|----------------|--------|
| 2       |    | .0                    | .0                  | 228.2                  | 45.22                   | 154.                     | -64.                      | 14.                      | 3.07                     | 55.49        | 129.18         | 3840.  |
| 3       |    | .0                    | .0                  | 219.8                  | -134.30                 | -235.                    | -116.                     | 123.                     | .81                      | 54.70        | 128.25         | 23000. |
| 4       |    | -20.0                 | .0                  | -486.2                 | -54.69                  | 998.                     | 201.                      | 25.                      | -3.13                    | 54.50        | 128.01         | 23100. |
| 5       |    | -15.0                 | .0                  | -329.8                 | -93.23                  | 738.                     | 11.                       | 82.                      | 3.30                     | 54.78        | 128.34         | 23020. |
| 6       |    | -10.0                 | .0                  | -138.2                 | -126.01                 | 110.                     | 54.                       | -17.                     | -1.19                    | 54.38        | 127.87         | 23000. |
| 7       |    | -5.0                  | .0                  | 45.9                   | -130.22                 | -146.                    | -38.                      | 82.                      | 3.38                     | 55.42        | 129.10         | 22970. |
| 8       |    | -2.5                  | .0                  | 133.2                  | -130.47                 | -197.                    | -82.                      | 104.                     | 1.74                     | 54.84        | 128.41         | 23020. |
| 9       |    | .0                    | .0                  | 217.8                  | -125.68                 | -228.                    | -97.                      | 177.                     | -.12                     | 54.85        | 128.43         | 22970. |
| 10      |    | 2.5                   | .0                  | 295.7                  | -117.70                 | -244.                    | -108.                     | 158.                     | .37                      | 55.00        | 128.61         | 22980. |
| 11      |    | 5.0                   | .0                  | 373.6                  | -108.01                 | -260.                    | -136.                     | 159.                     | .12                      | 54.83        | 128.40         | 23000. |
| 13      |    | 15.0                  | .0                  | 536.9                  | -17.05                  | -409.                    | -208.                     | 214.                     | .88                      | 54.17        | 127.61         | 22980. |
| 14      |    | 10.0                  | .0                  | 487.8                  | -71.09                  | -322.                    | -149.                     | 457.                     | -1.79                    | 55.26        | 128.92         | 22950. |
| 15      |    | 15.0                  | .0                  | 530.2                  | -16.33                  | -450.                    | -168.                     | 177.                     | 1.06                     | 54.81        | 128.38         | 23010. |
| 16      |    | 15.0                  | .0                  | 523.7                  | -15.02                  | -424.                    | -203.                     | 87.                      | 2.03                     | 55.34        | 129.01         | 22960. |
| 17      |    | 20.0                  | .0                  | 607.0                  | 62.83                   | -363.                    | -113.                     | 89.                      | 2.97                     | 54.99        | 128.59         | 23030. |
| 18      |    | 20.0                  | .0                  | 608.0                  | 62.62                   | -358.                    | -98.                      | 36.                      | 3.96                     | 55.11        | 128.74         | 22970. |
| 19      |    | .0                    | .0                  | 214.9                  | -123.00                 | -217.                    | -122.                     | 139.                     | .61                      | 55.55        | 129.27         | 22960. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .6168   | .1222  | .0496  | -.0038 | .0008  | .0083  |
| 3    | .00    | .5940   | -.3630 | -.0758 | -.0070 | .0074  | .0022  |
| 4    | -20.00 | -1.3140 | -.1478 | .3218  | .0122  | .0015  | -.0084 |
| 5    | -14.99 | -.8912  | -.2520 | .2378  | .0007  | .0049  | .0089  |
| 6    | -9.99  | -.3735  | -.3406 | .0355  | .0033  | -.0011 | -.0005 |
| 7    | -5.00  | .1240   | -.3520 | -.0472 | -.0023 | .0050  | .0091  |
| 8    | -2.50  | .3599   | -.3526 | -.0636 | -.0050 | .0063  | .0047  |
| 9    | .00    | .5887   | -.3397 | -.0733 | -.0059 | .0107  | -.0003 |
| 10   | 2.52   | .7992   | -.3181 | -.0788 | -.0065 | .0096  | .0010  |
| 11   | 5.01   | 1.0097  | -.2919 | -.0840 | -.0082 | .0096  | .0003  |
| 13   | 15.01  | 1.4510  | -.0461 | -.1319 | -.0126 | .0130  | .0024  |
| 14   | 10.00  | 1.3183  | -.1921 | -.1037 | -.0090 | .0276  | -.0048 |
| 15   | 15.01  | 1.4329  | -.0441 | -.1450 | -.0101 | .0107  | .0029  |
| 16   | 15.01  | 1.4154  | -.0406 | -.1368 | -.0123 | .0053  | .0055  |
| 17   | 20.00  | 1.6405  | .1698  | -.1169 | -.0068 | .0054  | .0080  |
| 18   | 20.00  | 1.6431  | .1693  | -.1154 | -.0059 | .0022  | .0107  |
| 19   | .00    | .5807   | -.3324 | -.0699 | -.0073 | .0084  | .0017  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .6168   | .1222  | .0496  | -.0038 | .0008  | .0083  |
| 3    | .00    | .5940   | -.3630 | -.0758 | -.0070 | .0074  | .0022  |
| 4    | -20.00 | -1.3140 | -.1478 | .3218  | .0122  | .0015  | -.0084 |
| 5    | -14.99 | -.8912  | -.2520 | .2378  | .0007  | .0049  | .0089  |
| 6    | -9.99  | -.3735  | -.3406 | .0355  | .0033  | -.0011 | -.0005 |
| 7    | -5.00  | .1240   | -.3520 | -.0472 | -.0023 | .0050  | .0091  |
| 8    | -2.50  | .3599   | -.3526 | -.0636 | -.0050 | .0063  | .0047  |
| 9    | .00    | .5887   | -.3397 | -.0733 | -.0059 | .0107  | -.0003 |
| 10   | 2.52   | .7992   | -.3181 | -.0788 | -.0065 | .0096  | .0010  |
| 11   | 5.01   | 1.0097  | -.2919 | -.0840 | -.0082 | .0096  | .0003  |
| 13   | 15.01  | 1.4510  | -.0461 | -.1319 | -.0126 | .0130  | .0024  |
| 14   | 10.00  | 1.3183  | -.1921 | -.1037 | -.0090 | .0276  | -.0048 |
| 15   | 15.01  | 1.4329  | -.0441 | -.1450 | -.0101 | .0107  | .0029  |
| 16   | 15.01  | 1.4154  | -.0406 | -.1368 | -.0123 | .0053  | .0055  |
| 17   | 20.00  | 1.6405  | .1698  | -.1169 | -.0068 | .0054  | .0080  |
| 18   | 20.00  | 1.6431  | .1693  | -.1154 | -.0059 | .0022  | .0107  |
| 19   | .00    | .5807   | -.3324 | -.0699 | -.0073 | .0084  | .0017  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 674

RUN 804 CONFIG F P B NP5 W7 T49 BT IN=-3,5 WM

| IW      | 7.5 DELF  | 0.0 DELA | 0.0 IHT     | 0.0 DELE    | 0.0 DELR     | 0.0 DELSB    | 0.0          |             |       |         |       |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM   |
| 2       | .0        | .0       | 229.3       | 45.13       | 149.         | -63.         | 47.          | 4.18        | 55.41 | 129.09  | 3840. |
| 3       | -20.0     | .0       | -326.9      | 99.78       | 1376.        | -90.         | -22.         | 9.85        | 56.05 | 129.84  | 3860. |
| 4       | -15.0     | .0       | -205.1      | 64.11       | 1369.        | 39.          | -59.         | 3.08        | 55.33 | 129.00  | 3850. |
| 5       | -10.0     | .0       | -80.3       | 40.60       | 593.         | -7.          | 13.          | 2.59        | 55.32 | 128.98  | 3710. |
| 6       | -5.0      | .0       | 76.7        | 35.87       | 238.         | -83.         | -9.          | 5.49        | 55.81 | 129.55  | 3740. |
| 7       | -2.5      | .0       | 153.6       | 38.96       | 164.         | -75.         | 10.          | 4.97        | 55.48 | 129.17  | 3790. |
| 8       | .0        | .0       | 228.5       | 45.18       | 142.         | -74.         | 12.          | 4.06        | 55.31 | 128.97  | 3170. |
| 9       | 5.0       | .0       | 370.9       | 65.63       | 53.          | -50.         | 121.         | 2.17        | 54.90 | 128.48  | 3990. |
| 10      | 10.0      | .0       | 437.0       | 101.11      | -97.         | -93.         | 155.         | 1.89        | 55.74 | 129.48  | 4050. |
| 11      | 15.0      | .0       | 482.9       | 156.05      | -292.        | -173.        | 210.         | 2.35        | 55.13 | 128.74  | 4090. |
| 12      | 20.0      | .0       | 511.5       | 224.90      | -439.        | 23.          | -17.         | 2.60        | 55.07 | 128.68  | 4230. |
| 13      | .0        | .0       | 226.5       | 44.85       | 145.         | -77.         | 47.          | 4.13        | 55.31 | 128.97  | 3850. |
| 14      | 2.5       | .0       | 301.4       | 53.97       | 109.         | -51.         | 85.          | 3.23        | 54.91 | 128.49  | 3910. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .6197  | .1220 | .0482  | -.0038 | .0028  | .0113 |
| 3    | -19.99 | -.8836 | .2697 | .4436  | -.0054 | -.0014 | .0266 |
| 4    | -14.99 | -.5543 | .1733 | .4415  | .0023  | -.0036 | .0083 |
| 5    | -10.00 | -.2171 | .1097 | .1913  | -.0004 | .0008  | .0070 |
| 6    | -5.00  | .2074  | .0969 | .0768  | -.0050 | -.0005 | .0148 |
| 7    | -2.49  | .4150  | .1053 | .0528  | -.0045 | .0006  | .0134 |
| 8    | .01    | .6176  | .1221 | .0458  | -.0045 | .0007  | .0110 |
| 9    | 5.00   | 1.0025 | .1774 | .0170  | -.0030 | .0073  | .0059 |
| 10   | 10.01  | 1.1811 | .2733 | -.0314 | -.0056 | .0094  | .0051 |
| 11   | 15.00  | 1.3051 | .4218 | -.0943 | -.0104 | .0127  | .0063 |
| 12   | 20.00  | 1.3824 | .6078 | -.1417 | .0014  | -.0010 | .0070 |
| 13   | .01    | .6121  | .1212 | .0468  | -.0047 | .0029  | .0112 |
| 14   | 2.51   | .8145  | .1459 | .0350  | -.0031 | .0051  | .0087 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .6197  | .1220 | .0482  | -.0038 | .0028  | .0113 |
| 3    | -19.99 | -.8836 | .2697 | .4436  | -.0054 | -.0014 | .0266 |
| 4    | -14.99 | -.5543 | .1733 | .4415  | .0023  | -.0036 | .0083 |
| 5    | -10.00 | -.2171 | .1097 | .1913  | -.0004 | .0008  | .0070 |
| 6    | -5.00  | .2074  | .0969 | .0768  | -.0050 | -.0005 | .0148 |
| 7    | -2.49  | .4150  | .1053 | .0528  | -.0045 | .0006  | .0134 |
| 8    | .01    | .6176  | .1221 | .0458  | -.0045 | .0007  | .0110 |
| 9    | 5.00   | 1.0025 | .1774 | .0170  | -.0030 | .0073  | .0059 |
| 10   | 10.01  | 1.1811 | .2733 | -.0314 | -.0056 | .0094  | .0051 |
| 11   | 15.00  | 1.3051 | .4218 | -.0943 | -.0104 | .0127  | .0063 |
| 12   | 20.00  | 1.3824 | .6078 | -.1417 | .0014  | -.0010 | .0070 |
| 13   | .01    | .6121  | .1212 | .0468  | -.0047 | .0029  | .0112 |
| 14   | 2.51   | .8145  | .1459 | .0350  | -.0031 | .0051  | .0087 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P675

RUN 805 CONFIG F P B NP5 W7 T49 BT IN=-3.5 WM

| IW      | 15 DELF   | 0.0 DELA | 0.0 IHT     | 0.0 DELE    | 0.0 DELR     | 0.0 DELSB    | 0.0          | RPM         |       |         |       |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |       |
| 2       | .0        | .0       | 357.2       | 71.22       | 311.         | -78.         | 46.          | 4.63        | 55.90 | 129.67  | 4080. |
| 3       | -20.0     | .0       | -216.9      | 88.14       | 1326.        | -178.        | 23.          | 13.03       | 55.14 | 128.77  | 4050. |
| 4       | -15.0     | .0       | -88.2       | 60.69       | 1172.        | -41.         | 45.          | 3.89        | 55.21 | 128.85  | 3910. |
| 5       | -10.0     | .0       | 69.6        | 46.26       | 888.         | -21.         | 28.          | 3.94        | 55.30 | 128.96  | 3870. |
| 6       | -5.0      | .0       | 226.8       | 53.10       | 487.         | -102.        | 81.          | 4.19        | 55.23 | 128.87  | 3960. |
| 7       | -2.5      | .0       | 296.8       | 60.54       | 387.         | -130.        | 47.          | 4.20        | 55.12 | 128.74  | 4020. |
| 8       | .0        | .0       | 355.1       | 71.00       | 304.         | -80.         | 65.          | 3.70        | 55.30 | 128.95  | 4060. |
| 9       | 2.5       | .0       | 377.7       | 88.16       | 221.         | -45.         | 106.         | .19         | 54.68 | 128.22  | 4030. |
| 10      | 5.0       | .0       | 368.6       | 105.92      | 117.         | -58.         | 51.          | 1.61        | 55.04 | 128.64  | 3980. |
| 11      | 10.0      | .0       | 435.1       | 156.72      | -196.        | -252.        | -225.        | -7.76       | 54.88 | 128.45  | 3790. |
| 12      | 15.0      | .0       | 429.0       | 208.00      | -303.        | -108.        | 106.         | 2.18        | 54.68 | 128.21  | 3920. |
| 13      | 20.0      | .0       | 492.6       | -273.66     | -406.        | -52.         | 36.          | 2.44        | 54.35 | 127.81  | 4100. |
| 14      | .0        | .0       | 357.5       | 71.45       | 311.         | -92.         | 84.          | 3.92        | 54.75 | 128.30  | 4050. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .9654  | .1925 | .1003  | -.0047 | .0028  | .0125  |
| 3    | -20.00 | -.5862 | .2382 | .4276  | -.0108 | .0014  | .0352  |
| 4    | -15.01 | -.2385 | .1640 | .3779  | -.0025 | .0027  | .0105  |
| 5    | -10.00 | .1880  | .1250 | .2862  | -.0013 | .0017  | .0107  |
| 6    | -5.00  | .6129  | .1435 | .1571  | -.0062 | .0049  | .0113  |
| 7    | -2.50  | .8020  | .1636 | .1246  | -.0079 | .0028  | .0114  |
| 8    | .01    | .9596  | .1919 | .0980  | -.0048 | .0040  | .0100  |
| 9    | 2.50   | 1.0208 | .2383 | .0711  | -.0027 | .0064  | .0005  |
| 10   | 5.00   | .9962  | .2863 | .0377  | -.0035 | .0031  | .0043  |
| 11   | 10.01  | 1.1760 | .4236 | -.0632 | -.0152 | -.0136 | -.0210 |
| 12   | 15.01  | 1.1595 | .5622 | -.0975 | -.0065 | .0064  | .0059  |
| 13   | 20.00  | 1.3314 | .7396 | -.1308 | -.0031 | .0022  | .0066  |
| 14   | .00    | .9663  | .1931 | .1004  | -.0055 | .0050  | .0106  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .9654  | .1925 | .1003  | -.0047 | .0028  | .0125  |
| 3    | -20.00 | -.5862 | .2382 | .4276  | -.0108 | .0014  | .0352  |
| 4    | -15.01 | -.2385 | .1640 | .3779  | -.0025 | .0027  | .0105  |
| 5    | -10.00 | .1880  | .1250 | .2862  | -.0013 | .0017  | .0107  |
| 6    | -5.00  | .6129  | .1435 | .1571  | -.0062 | .0049  | .0113  |
| 7    | -2.50  | .8020  | .1636 | .1246  | -.0079 | .0028  | .0114  |
| 8    | .01    | .9596  | .1919 | .0980  | -.0048 | .0040  | .0100  |
| 9    | 2.50   | 1.0208 | .2383 | .0711  | -.0027 | .0064  | .0005  |
| 10   | 5.00   | .9962  | .2863 | .0377  | -.0035 | .0031  | .0043  |
| 11   | 10.01  | 1.1760 | .4236 | -.0632 | -.0152 | -.0136 | -.0210 |
| 12   | 15.01  | 1.1595 | .5622 | -.0975 | -.0065 | .0064  | .0059  |
| 13   | 20.00  | 1.3314 | .7396 | -.1308 | -.0031 | .0022  | .0066  |
| 14   | .00    | .9663  | .1931 | .1004  | -.0055 | .0050  | .0106  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 675

RUN 806 CONFIG F P B NP5 W7 T49 BT IN=-3.5

| PT. NO. | IW | 15 DELF<br>ALPHA<br>DEG | 0.0 DELA<br>PSI<br>DEG | 0.0 DE LA<br>CLBAR<br>SQ-FT | 0.0 IHT<br>CDBAR<br>SQ-FT | 0.0 DELE<br>CPMBAR<br>CU-FT | 0.0 DELR<br>CYMBAR<br>CU-FT | 0.0 DELRB<br>CRMBAR<br>CU-FT | 0.0 DELSB<br>CYBAR<br>SQ-FT | 0.0<br>Q<br>PSF | 0.0<br>V<br>KNOTS | RPM    |
|---------|----|-------------------------|------------------------|-----------------------------|---------------------------|-----------------------------|-----------------------------|------------------------------|-----------------------------|-----------------|-------------------|--------|
| 2       |    | .0                      | .0                     | 355.8                       | 71.19                     | 296.                        | -78.                        | 85.                          | 2.41                        | 55.06           | 128.68            | 4050.  |
| 3       |    | .0                      | .0                     | 332.6                       | -6.29                     | -6.                         | -122.                       | 104.                         | .80                         | 55.22           | 128.86            | 15720. |
| 4       |    | -20.0                   | .0                     | -272.9                      | 18.64                     | 835.                        | -70.                        | 106.                         | 7.79                        | 54.64           | 128.17            | 15730. |
| 5       |    | -15.0                   | .0                     | -131.0                      | -11.89                    | 989.                        | 23.                         | .15.                         | 1.06                        | 54.87           | 128.44            | 15670. |
| 6       |    | -10.0                   | .0                     | 46.3                        | -27.27                    | 587.                        | 21.                         | 67.                          | 1.73                        | 55.22           | 128.86            | 15760. |
| 7       |    | -5.0                    | .0                     | 203.7                       | -21.63                    | 215.                        | -94.                        | 13.                          | 3.21                        | 55.19           | 128.82            | 15670. |
| 8       |    | -2.5                    | .0                     | 270.0                       | -13.75                    | 66.                         | -153.                       | 53.                          | -.06                        | 55.31           | 128.97            | 15640. |
| 9       |    | .0                      | .0                     | 333.7                       | -5.53                     | 6.                          | -127.                       | 142.                         | -1.23                       | 55.33           | 128.99            | 15710. |
| 10      |    | 2.5                     | .0                     | 388.4                       | 6.23                      | -109.                       | -103.                       | 125.                         | -2.16                       | 55.25           | 128.90            | 15730. |
| 11      |    | 5.0                     | .0                     | 377.9                       | 27.87                     | -136.                       | -137.                       | 124.                         | -1.42                       | 55.23           | 128.87            | 15710. |
| 12      |    | 10.0                    | .0                     | 435.4                       | 73.37                     | -43.                        | -83.                        | 69.                          | 1.41                        | 55.64           | 129.35            | 15710. |
| 13      |    | 15.0                    | .0                     | 484.6                       | 136.58                    | -360.                       | -136.                       | 70.                          | 2.10                        | 55.25           | 128.89            | 15730. |
| 14      |    | 20.0                    | .0                     | 550.5                       | 201.57                    | -386.                       | -2.                         | 19.                          | 4.43                        | 54.64           | 128.16            | 15700. |
| 15      |    | -.0                     | .0                     | 332.8                       | -5.06                     | -2.                         | -128.                       | 142.                         | -.37                        | 54.95           | 128.54            | 15700. |
| 16      |    | 10.0                    | .0                     | 435.9                       | 76.19                     | -222.                       | -107.                       | 52.                          | .31                         | 55.48           | 129.16            | 15680. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | .9615  | .1924  | .0954  | -.0047 | .0051 | .0065  |
| 3    | .00    | .8990  | -.0170 | -.0019 | -.0074 | .0063 | .0022  |
| 4    | -20.00 | -.7375 | .0504  | .2694  | -.0042 | .0064 | .0211  |
| 5    | -15.00 | -.3540 | -.0321 | .3190  | .0014  | .0009 | .0029  |
| 6    | -10.02 | .1251  | -.0737 | .1892  | .0012  | .0040 | .0047  |
| 7    | -4.99  | .5506  | -.0584 | .0693  | -.0057 | .0008 | .0087  |
| 8    | -2.48  | .7296  | -.0372 | .0214  | -.0092 | .0032 | -.0002 |
| 9    | .00    | .9018  | -.0149 | .0019  | -.0077 | .0086 | -.0033 |
| 10   | 2.50   | 1.0497 | .0168  | -.0351 | -.0062 | .0076 | -.0058 |
| 11   | 5.00   | 1.0213 | .0753  | -.0439 | -.0083 | .0075 | -.0038 |
| 12   | 9.99   | 1.1767 | .1983  | -.0137 | -.0050 | .0042 | .0038  |
| 13   | 15.03  | 1.3098 | .3691  | -.1160 | -.0082 | .0042 | .0057  |
| 14   | 20.00  | 1.4877 | .5448  | -.1243 | -.0001 | .0011 | .0120  |
| 15   | -.00   | .8995  | -.0137 | -.0005 | -.0077 | .0085 | -.0010 |
| 16   | 10.00  | 1.1782 | .2059  | -.0717 | -.0065 | .0032 | .0008  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | .9615  | .1924  | .0954  | -.0047 | .0051 | .0065  |
| 3    | .00    | .8990  | -.0170 | -.0019 | -.0074 | .0063 | .0022  |
| 4    | -20.00 | -.7375 | .0504  | .2694  | -.0042 | .0064 | .0211  |
| 5    | -15.00 | -.3540 | -.0321 | .3190  | .0014  | .0009 | .0029  |
| 6    | -10.02 | .1251  | -.0737 | .1892  | .0012  | .0040 | .0047  |
| 7    | -4.99  | .5506  | -.0584 | .0693  | -.0057 | .0008 | .0087  |
| 8    | -2.48  | .7296  | -.0372 | .0214  | -.0092 | .0032 | -.0002 |
| 9    | .00    | .9018  | -.0149 | .0019  | -.0077 | .0086 | -.0033 |
| 10   | 2.50   | 1.0497 | .0168  | -.0351 | -.0062 | .0076 | -.0058 |
| 11   | 5.00   | 1.0213 | .0753  | -.0439 | -.0083 | .0075 | -.0038 |
| 12   | 9.99   | 1.1767 | .1983  | -.0137 | -.0050 | .0042 | .0038  |
| 13   | 15.03  | 1.3098 | .3691  | -.1160 | -.0082 | .0042 | .0057  |
| 14   | 20.00  | 1.4877 | .5448  | -.1243 | -.0001 | .0011 | .0120  |
| 15   | -.00   | .8995  | -.0137 | -.0005 | -.0077 | .0085 | -.0010 |
| 16   | 10.00  | 1.1782 | .2059  | -.0717 | -.0065 | .0032 | .0008  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 677

RUN 807 CONFIG F P B NP5 W7 T49 BT IN=-3.5 MAX

| IW      | 15 DELF   | 0.0 DELA | 0.0 IHT     | 0.0 DELE    | 0.0 DELR     | 0.0 DELSB    | 0.0          |             |       |         |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0       | 355.3       | 71.18       | 290.         | -79.         | 31.          | 2.69        | 55.71 | 129.45  | 4070.  |
| 3       | .0        | .0       | 327.0       | -107.14     | -187.        | -192.        | 145.         | -2.00       | 54.52 | 128.04  | 23060. |
| 4       | -20.0     | .0       | -343.9      | -62.22      | 878.         | 55.          | 192.         | .68         | 55.21 | 128.86  | 23050. |
| 5       | -15.0     | .0       | -163.0      | -101.67     | 455.         | -2.          | 47.          | 3.05        | 54.73 | 128.29  | 23050. |
| 6       | -10.0     | .0       | 21.2        | -116.23     | 336.         | 74.          | 110.         | -2.41       | 55.20 | 128.85  | 22990. |
| 7       | -5.0      | .0       | 183.4       | -112.37     | -37.         | -162.        | 160.         | -.50        | 54.75 | 128.31  | 22980. |
| 9       | .0        | .0       | 329.9       | -96.92      | -154.        | -177.        | 158.         | .06         | 55.06 | 128.68  | 22980. |
| 10      | 2.5       | .0       | 391.9       | -85.62      | -289.        | -158.        | 217.         | -4.22       | 54.84 | 128.42  | 22980. |
| 11      | 5.0       | .0       | 390.2       | -64.08      | -340.        | -216.        | 251.         | -3.97       | 54.91 | 128.50  | 22970. |
| 12      | 10.0      | .0       | 441.8       | -18.43      | -435.        | -202.        | 144.         | -2.44       | 54.34 | 127.83  | 22990. |
| 13      | 15.0      | .0       | 532.8       | 52.05       | -476.        | -176.        | 179.         | 1.95        | 54.14 | 127.58  | 22990. |
| 14      | 20.0      | .0       | 599.3       | 122.68      | -477.        | -34.         | -35.         | 3.16        | 55.03 | 128.64  | 22980. |
| 15      | -2.5      | .0       | 255.8       | -104.83     | -91.         | -195.        | 160.         | -1.54       | 55.33 | 129.01  | 23040. |
| 16      | .0        | .0       | 329.3       | -97.56      | -163.        | -195.        | 181.         | -2.26       | 54.34 | 127.82  | 23050. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9602  | .1924  | .0935  | -.0048 | .0019  | .0073  |
| 3    | .00    | .8837  | -.2896 | -.0603 | -.0116 | .0087  | -.0054 |
| 4    | -20.01 | -.9295 | -.1682 | .2830  | .0033  | .0116  | .0018  |
| 5    | -14.99 | -.4404 | -.2748 | .1466  | -.0001 | .0028  | .0082  |
| 6    | -10.01 | .0573  | -.3141 | .1082  | .0045  | .0066  | -.0065 |
| 7    | -4.98  | .4956  | -.3037 | -.0121 | -.0098 | .0097  | -.0013 |
| 9    | .02    | .8916  | -.2620 | -.0496 | -.0107 | .0096  | .0002  |
| 10   | 2.52   | 1.0592 | -.2314 | -.0933 | -.0096 | .0131  | -.0114 |
| 11   | 5.01   | 1.0546 | -.1732 | -.1095 | -.0131 | .0151  | -.0107 |
| 12   | 10.02  | 1.1942 | -.0498 | -.1403 | -.0122 | .0087  | -.0066 |
| 13   | 14.99  | 1.4399 | .1407  | -.1536 | -.0106 | .0108  | .0053  |
| 14   | 20.00  | 1.6197 | .3316  | -.1538 | -.0020 | -.0021 | .0085  |
| 15   | -2.51  | .6913  | -.2833 | -.0294 | -.0118 | .0097  | -.0042 |
| 16   | .00    | .8901  | -.2637 | -.0525 | -.0118 | .0109  | -.0061 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9602  | .1924  | .0935  | -.0048 | .0019  | .0073  |
| 3    | .00    | .8837  | -.2896 | -.0603 | -.0116 | .0087  | -.0054 |
| 4    | -20.01 | -.9295 | -.1682 | .2830  | .0033  | .0116  | .0018  |
| 5    | -14.99 | -.4404 | -.2748 | .1466  | -.0001 | .0028  | .0082  |
| 6    | -10.01 | .0573  | -.3141 | .1082  | .0045  | .0066  | -.0065 |
| 7    | -4.98  | .4956  | -.3037 | -.0121 | -.0098 | .0097  | -.0013 |
| 9    | .02    | .8916  | -.2620 | -.0496 | -.0107 | .0096  | .0002  |
| 10   | 2.52   | 1.0592 | -.2314 | -.0933 | -.0096 | .0131  | -.0114 |
| 11   | 5.01   | 1.0546 | -.1732 | -.1095 | -.0131 | .0151  | -.0107 |
| 12   | 10.02  | 1.1942 | -.0498 | -.1403 | -.0122 | .0087  | -.0066 |
| 13   | 14.99  | 1.4399 | .1407  | -.1536 | -.0106 | .0108  | .0053  |
| 14   | 20.00  | 1.6197 | .3316  | -.1538 | -.0020 | -.0021 | .0085  |
| 15   | -2.51  | .6913  | -.2833 | -.0294 | -.0118 | .0097  | -.0042 |
| 16   | .00    | .8901  | -.2637 | -.0525 | -.0118 | .0109  | -.0061 |

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C. 8

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P678

RUN 808 CONFIG F P B NP5 W7 T49 BT IN=-3.5 OEI

| PT. NO. | IW    | 15 DELF | 0.0 DELA | 0.0 IHT | 0.0 DELE | 0.0 DELR | 0.0 DELSB | 0.0   | 0.0   | 0.0    | RPM    |
|---------|-------|---------|----------|---------|----------|----------|-----------|-------|-------|--------|--------|
|         | ALPHA | PSI     | CLBAR    | CDBAR   | CPMBAR   | CYMBAR   | CRMBAR    | CYBAR | Q     | V      |        |
|         | DEG   | DEG     | SQ-FT    | SQ-FT   | CU-FT    | CU-FT    | CU-FT     | SQ-FT | PSF   | KNOTS  |        |
| 2       | .0    | .0      | 362.1    | 72.67   | 293.     | -87.     | 82.       | 4.52  | 55.01 | 128.62 | 4060.  |
| 3       | .0    | .0      | 332.7    | -18.12  | -74.     | -804.    | 134.      | 4.35  | 55.59 | 129.31 | 23000. |
| 4       | -20.0 | .0      | -288.9   | 17.23   | 1202.    | -319.    | 278.      | 9.76  | 54.80 | 128.37 | 23120. |
| 5       | -15.0 | .0      | -131.3   | -19.26  | 898.     | -351.    | 172.      | 10.60 | 54.95 | 128.55 | 23080. |
| 7       | -5.0  | .0      | 197.7    | -28.15  | 127.     | -687.    | 203.      | 6.49  | 54.57 | 128.10 | 23020. |
| 8       | -10.0 | .0      | 39.9     | -34.17  | 538.     | -478.    | 143.      | 8.78  | 54.68 | 128.23 | 23000. |
| 9       | -2.5  | .0      | 268.9    | -21.26  | 32.      | -729.    | 166.      | 6.99  | 55.11 | 128.74 | 23000. |
| 10      | .0    | .0      | 336.0    | -11.42  | -54.     | -754.    | 190.      | 2.46  | 55.33 | 129.00 | 22980. |
| 11      | 2.5   | .0      | 388.3    | 1.79    | -156.    | -790.    | 140.      | 1.43  | 54.89 | 128.48 | 22960. |
| 12      | 5.0   | .0      | 373.2    | 21.10   | -182.    | -755.    | -3.       | 3.12  | 54.65 | 128.19 | 22950. |
| 13      | 10.0  | .0      | 425.5    | 69.91   | -288.    | -748.    | 70.       | 1.11  | 55.23 | 128.88 | 23020. |
| 14      | 15.0  | .0      | 468.9    | 130.09  | -455.    | -464.    | -340.     | 11.25 | 54.50 | 128.01 | 23000. |
| 15      | 17.5  | .0      | 509.4    | 161.96  | -475.    | -339.    | -301.     | 11.07 | 54.78 | 128.34 | 23010. |
| 16      | 20.0  | .0      | 542.0    | 198.30  | -506.    | -268.    | -389.     | 9.81  | 54.53 | 128.04 | 22980. |
| 17      | -.0   | .0      | 335.1    | -11.72  | -74.     | -758.    | 206.      | 3.52  | 55.17 | 128.81 | 23040. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .9787  | .1964  | .0944  | -.0053 | .0050  | .0122 |
| 3    | .00    | .8993  | -.0490 | -.0239 | -.0486 | .0081  | .0118 |
| 4    | -20.00 | -.7807 | .0466  | .3874  | -.0193 | .0168  | .0264 |
| 5    | -15.02 | -.3550 | -.0520 | .2895  | -.0212 | .0104  | .0287 |
| 7    | -4.97  | .5344  | -.0761 | .0410  | -.0415 | .0123  | .0175 |
| 8    | -10.00 | .1077  | -.0923 | .1733  | -.0289 | .0087  | .0237 |
| 9    | -2.51  | .7266  | -.0575 | .0105  | -.0441 | .0100  | .0189 |
| 10   | .00    | .9081  | -.0309 | -.0173 | -.0456 | .0114  | .0067 |
| 11   | 2.52   | 1.0495 | .0048  | -.0502 | -.0477 | .0084  | .0039 |
| 12   | 5.00   | 1.0085 | .0570  | -.0587 | -.0456 | -.0002 | .0084 |
| 13   | 10.00  | 1.1500 | .1889  | -.0928 | -.0452 | .0042  | .0030 |
| 14   | 15.00  | 1.2674 | .3516  | -.1468 | -.0280 | -.0205 | .0304 |
| 15   | 17.52  | 1.3767 | .4377  | -.1531 | -.0205 | -.0182 | .0299 |
| 16   | 20.04  | 1.4649 | .5359  | -.1632 | -.0162 | -.0235 | .0265 |
| 17   | -.00   | .9056  | -.0317 | -.0237 | -.0458 | .0125  | .0095 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .9787  | .1964  | .0944  | -.0053 | .0050  | .0122 |
| 3    | .00    | .8993  | -.0490 | -.0239 | -.0486 | .0081  | .0118 |
| 4    | -20.00 | -.7807 | .0466  | .3874  | -.0193 | .0168  | .0264 |
| 5    | -15.02 | -.3550 | -.0520 | .2895  | -.0212 | .0104  | .0287 |
| 7    | -4.97  | .5344  | -.0761 | .0410  | -.0415 | .0123  | .0175 |
| 8    | -10.00 | .1077  | -.0923 | .1733  | -.0289 | .0087  | .0237 |
| 9    | -2.51  | .7266  | -.0575 | .0105  | -.0441 | .0100  | .0189 |
| 10   | .00    | .9081  | -.0309 | -.0173 | -.0456 | .0114  | .0067 |
| 11   | 2.52   | 1.0495 | .0048  | -.0502 | -.0477 | .0084  | .0039 |
| 12   | 5.00   | 1.0085 | .0570  | -.0587 | -.0456 | -.0002 | .0084 |
| 13   | 10.00  | 1.1500 | .1889  | -.0928 | -.0452 | .0042  | .0030 |
| 14   | 15.00  | 1.2674 | .3516  | -.1468 | -.0280 | -.0205 | .0304 |
| 15   | 17.52  | 1.3767 | .4377  | -.1531 | -.0205 | -.0182 | .0299 |
| 16   | 20.04  | 1.4649 | .5359  | -.1632 | -.0162 | -.0235 | .0265 |
| 17   | -.00   | .9056  | -.0317 | -.0237 | -.0458 | .0125  | .0095 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 679

RUN 809 CONFIG F P B NP5 W7 T49 BT IN=-3.5 OEI

| PT. NO. | IW ALPHA DEG | 15 DELF PSI DEG | 30 DELA CLBAR SQ-FT | 0.0 IHT CDBAR SQ-FT | 0.0 DELE CPMBAR CU-FT | 0.0 DELR CYMBAR CU-FT | 0.0 DELR CRMBAR CU-FT | 0.0 DELSB CYBAR SQ-FT | 0.0 Q PSF | 0.0 V KNOTS | RPM    |
|---------|--------------|-----------------|---------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|-------------|--------|
| 2       | .0           | .0              | 569.1               | 127.77              | 401.                  | -68.                  | 89.                   | .82                   | 53.87     | 127.25      | 4260.  |
| 3       | .0           | .0              | 567.4               | 127.13              | 400.                  | -65.                  | 68.                   | 1.41                  | 55.57     | 129.29      | 4320.  |
| 4       | .0           | .0              | 523.3               | 40.20               | -74.                  | -659.                 | 351.                  | -13.08                | 54.97     | 128.57      | 22760. |
| 5       | -20.0        | .0              | -116.3              | 29.25               | 814.                  | -475.                 | 352.                  | 14.71                 | 55.34     | 129.01      | 23070. |
| 6       | -15.0        | .0              | 59.7                | 6.62                | 864.                  | -513.                 | 287.                  | 6.66                  | 54.77     | 128.33      | 23070. |
| 7       | -10.0        | .0              | 239.6               | 5.72                | 828.                  | -527.                 | 241.                  | 12.68                 | 55.06     | 128.68      | 23060. |
| 8       | -5.0         | .0              | 391.6               | 23.14               | 115.                  | -644.                 | 281.                  | .37                   | 55.05     | 128.67      | 23080. |
| 9       | -2.5         | .0              | 460.5               | 32.60               | -14.                  | -664.                 | 271.                  | -3.80                 | 54.74     | 128.30      | 23030. |
| 10      | .0           | .0              | 520.5               | 43.90               | -57.                  | -613.                 | 335.                  | -13.19                | 54.76     | 128.32      | 22990. |
| 11      | 2.5          | .0              | 558.1               | 59.35               | -97.                  | -601.                 | 654.                  | -17.48                | 54.94     | 128.54      | 23030. |
| 12      | 5.0          | .0              | 498.5               | 76.85               | -401.                 | -754.                 | -497.                 | 1.74                  | 54.76     | 128.32      | 23010. |
| 13      | 10.0         | .0              | 486.6               | 128.57              | -460.                 | -761.                 | -90.                  | 3.84                  | 55.03     | 128.64      | 22990. |
| 14      | 15.0         | .0              | 510.3               | 188.29              | -707.                 | -355.                 | -391.                 | 13.66                 | 54.87     | 128.45      | 22990. |
| 15      | 17.5         | .0              | 548.8               | 222.27              | -689.                 | -258.                 | -298.                 | 8.55                  | 55.35     | 129.02      | 22960. |
| 16      | 20.0         | .0              | 586.1               | 261.88              | -706.                 | -167.                 | -368.                 | 11.09                 | 55.01     | 128.61      | 23000. |
| 17      | .0           | .0              | 502.8               | 45.94               | -168.                 | -532.                 | 588.                  | -22.20                | 55.40     | 129.09      | 23040. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.5380 | .3453 | .1294  | -.0041 | .0054  | .0022  |
| 3    | .00    | 1.5334 | .3436 | .1289  | -.0039 | .0041  | .0038  |
| 4    | .00    | 1.4143 | .1086 | -.0238 | -.0398 | .0212  | -.0353 |
| 5    | -20.00 | -.3144 | .0791 | .2624  | -.0287 | .0212  | .0398  |
| 6    | -15.00 | .1613  | .0179 | .2784  | -.0310 | .0173  | .0180  |
| 7    | -9.96  | .6476  | .0155 | .2670  | -.0318 | .0145  | .0343  |
| 8    | -4.99  | 1.0583 | .0625 | .0371  | -.0389 | .0170  | .0010  |
| 9    | -2.49  | 1.2445 | .0881 | -.0047 | -.0401 | .0164  | -.0103 |
| 10   | .00    | 1.4068 | .1187 | -.0183 | -.0370 | .0202  | -.0356 |
| 11   | 2.51   | 1.5084 | .1604 | -.0312 | -.0363 | .0395  | -.0473 |
| 12   | 5.01   | 1.3473 | .2077 | -.1294 | -.0456 | -.0300 | .0047  |
| 13   | 10.00  | 1.3151 | .3475 | -.1483 | -.0460 | -.0055 | .0104  |
| 14   | 15.01  | 1.3792 | .5089 | -.2278 | -.0215 | -.0236 | .0369  |
| 15   | 17.51  | 1.4833 | .6007 | -.2221 | -.0156 | -.0180 | .0231  |
| 16   | 20.02  | 1.5842 | .7078 | -.2276 | -.0101 | -.0222 | .0300  |
| 17   | .01    | 1.3588 | .1242 | -.0540 | -.0321 | .0355  | -.0600 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.5380 | .3453 | .1294  | -.0041 | .0054  | .0022  |
| 3    | .00    | 1.5334 | .3436 | .1289  | -.0039 | .0041  | .0038  |
| 4    | .00    | 1.4143 | .1086 | -.0238 | -.0398 | .0212  | -.0353 |
| 5    | -20.00 | -.3144 | .0791 | .2624  | -.0287 | .0212  | .0398  |
| 6    | -15.00 | .1613  | .0179 | .2784  | -.0310 | .0173  | .0180  |
| 7    | -9.96  | .6476  | .0155 | .2670  | -.0318 | .0145  | .0343  |
| 8    | -4.99  | 1.0583 | .0625 | .0371  | -.0389 | .0170  | .0010  |
| 9    | -2.49  | 1.2445 | .0881 | -.0047 | -.0401 | .0164  | -.0103 |
| 10   | .00    | 1.4068 | .1187 | -.0183 | -.0370 | .0202  | -.0356 |
| 11   | 2.51   | 1.5084 | .1604 | -.0312 | -.0363 | .0395  | -.0473 |
| 12   | 5.01   | 1.3473 | .2077 | -.1294 | -.0456 | -.0300 | .0047  |
| 13   | 10.00  | 1.3151 | .3475 | -.1483 | -.0460 | -.0055 | .0104  |
| 14   | 15.01  | 1.3792 | .5089 | -.2278 | -.0215 | -.0236 | .0369  |
| 15   | 17.51  | 1.4833 | .6007 | -.2221 | -.0156 | -.0180 | .0231  |
| 16   | 20.02  | 1.5842 | .7078 | -.2276 | -.0101 | -.0222 | .0300  |
| 17   | .01    | 1.3588 | .1242 | -.0540 | -.0321 | .0355  | -.0600 |



RUN 810 CONFIG F P B NP5 W7 T49 BT IN=-3.5

| PT. NO. | 15 DELF ALPHA DEG | 30 DELA PSI | 0.0 CLBAR SQ-FT | 0.0 CDBAR SQ-FT | 0.0 CPMBAR CU-FT | 0.0 CYMBAR CU-FT | 0.0 CRMBAR CU-FT | 0.0 CYBAR SQ-FT | 0.0 DELSB Q PSF | 0.0 V KNOTS | RPM    |
|---------|-------------------|-------------|-----------------|-----------------|------------------|------------------|------------------|-----------------|-----------------|-------------|--------|
| 2       | .0                | .0          | 567.8           | 127.71          | 389.             | -57.             | 110.             | -3.23           | 54.86           | 128.44      | 4290.  |
| 3       | .0                | .0          | 516.9           | -6.14           | -54.             | -49.             | 362.             | -22.67          | 55.30           | 128.97      | 19960. |
| 4       | -20.0             | .0          | -135.5          | -8.32           | 688.             | -69.             | 145.             | 5.66            | 55.39           | 129.07      | 19980. |
| 5       | -15.0             | .0          | 43.5            | -32.15          | 1048.            | 77.              | 6.               | -2.67           | 54.86           | 128.44      | 19930. |
| 6       | -10.0             | .0          | 231.1           | -33.02          | 809.             | 15.              | 87.              | .87             | 54.87           | 128.46      | 19930. |
| 7       | -5.0              | .0          | 403.1           | -22.82          | 411.             | -81.             | 178.             | -.31            | 54.59           | 128.12      | 19890. |
| 8       | -2.5              | .0          | 457.3           | -10.80          | 33.              | -87.             | 285.             | -14.86          | 55.00           | 128.61      | 19920. |
| 9       | -.0               | .0          | 522.0           | .30             | -25.             | -39.             | 314.             | -20.94          | 54.02           | 127.44      | 19900. |
| 10      | 2.5               | .0          | 524.4           | 15.84           | -249.            | -47.             | 416.             | -8.70           | 54.81           | 128.38      | 19860. |
| 11      | 5.0               | .0          | 564.6           | 31.01           | -357.            | -80.             | 523.             | -12.82          | 55.01           | 128.63      | 19880. |
| 12      | 10.0              | .0          | 490.3           | 86.19           | -562.            | -65.             | -214.            | 2.55            | 54.77           | 128.34      | 19910. |
| 13      | 15.0              | .0          | 555.8           | 154.39          | -615.            | -103.            | 176.             | 3.72            | 54.88           | 128.46      | 19870. |
| 14      | 17.5              | .0          | 586.6           | 188.65          | -746.            | -22.             | 18.              | 4.95            | 54.41           | 127.91      | 19930. |
| 15      | 20.0              | .0          | 623.2           | 229.91          | -697.            | -33.             | 36.              | 4.74            | 55.33           | 129.00      | 19920. |
| 16      | -.0               | .0          | 436.9           | 2.58            | -345.            | -87.             | 90.              | -1.55           | 54.93           | 128.53      | 19900. |
| 17      | 2.5               | .0          | 489.9           | 17.96           | -438.            | -113.            | 59.              | -6.09           | 55.36           | 129.03      | 19910. |
| 18      | 5.0               | .0          | 534.9           | 36.40           | -546.            | -144.            | 111.             | -6.46           | 55.33           | 129.01      | 19840. |
| 19      | -.0               | .0          | 436.0           | 2.87            | -342.            | -94.             | -50.             | -1.92           | 54.95           | 128.55      | 19830. |
| 20      | -15.0             | .0          | 44.1            | -30.99          | 944.             | -15.             | 197.             | -1.91           | 55.27           | 128.94      | 19870. |
| 21      | -.0               | .0          | 517.1           | 1.97            | 34.              | -27.             | 333.             | -24.12          | 54.51           | 128.02      | 19820. |
| 22      | 2.5               | .0          | 498.8           | 16.55           | -415.            | -106.            | 126.             | -1.06           | 54.45           | 127.96      | 19940. |
| 23      | 5.0               | .0          | 542.3           | 34.56           | -548.            | -133.            | 233.             | -2.56           | 54.60           | 128.14      | 19900. |
| 24      | -.0               | .0          | 520.8           | 2.95            | 43.              | -46.             | 402.             | -23.21          | 54.59           | 128.12      | 19740. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.5345 | .3452  | .1254  | -.0035 | .0066  | -.0087 |
| 3    | .00    | 1.3970 | -.0166 | -.0175 | -.0030 | .0218  | -.0613 |
| 4    | -20.00 | -.3662 | -.0225 | .2217  | -.0041 | .0087  | .0153  |
| 5    | -15.00 | .1176  | -.0869 | .3380  | .0047  | .0003  | -.0072 |
| 6    | -10.01 | .6246  | -.0892 | .2608  | .0009  | .0052  | .0023  |
| 7    | -5.01  | 1.0894 | -.0617 | .1325  | -.0049 | .0108  | -.0008 |
| 8    | -2.52  | 1.2358 | -.0292 | .0106  | -.0052 | .0172  | -.0402 |
| 9    | -.01   | 1.4109 | .0008  | -.0081 | -.0024 | .0189  | -.0566 |
| 10   | 2.48   | 1.4173 | .0428  | -.0804 | -.0028 | .0251  | -.0235 |
| 11   | 4.98   | 1.5260 | .0838  | -.1149 | -.0048 | .0316  | -.0346 |
| 12   | 9.98   | 1.3252 | .2329  | -.1812 | -.0039 | -.0129 | .0069  |
| 13   | 14.99  | 1.5022 | .4173  | -.1983 | -.0062 | .0106  | .0101  |
| 14   | 17.52  | 1.5854 | .5099  | -.2405 | -.0013 | .0011  | .0134  |
| 15   | 19.98  | 1.6844 | .6214  | -.2247 | -.0020 | .0022  | .0128  |
| 16   | -.02   | 1.1809 | .0070  | -.1114 | -.0052 | .0054  | -.0042 |
| 17   | 2.48   | 1.3240 | .0485  | -.1413 | -.0068 | .0036  | -.0165 |
| 18   | 4.99   | 1.4456 | .0984  | -.1761 | -.0087 | .0067  | -.0175 |
| 19   | -.01   | 1.1784 | .0078  | -.1101 | -.0057 | -.0030 | -.0052 |
| 20   | -15.02 | .1191  | -.0838 | .3042  | -.0009 | .0119  | -.0052 |
| 21   | -.02   | 1.3977 | .0053  | .0109  | -.0016 | .0201  | -.0652 |
| 22   | 2.50   | 1.3481 | .0447  | -.1336 | -.0064 | .0076  | -.0029 |
| 23   | 5.00   | 1.4657 | .0934  | -.1765 | -.0080 | .0141  | -.0069 |
| 24   | -.01   | 1.4076 | .0080  | .0139  | -.0028 | .0243  | -.0627 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.5345 | .3452  | .1254  | -.0035 | .0066  | -.0087 |
| 3    | .00    | 1.3970 | -.0166 | -.0175 | -.0030 | .0218  | -.0613 |
| 4    | -20.00 | -.3662 | -.0225 | .2217  | -.0041 | .0087  | .0153  |
| 5    | -15.00 | .1176  | -.0869 | .3380  | .0047  | .0003  | -.0072 |
| 6    | -10.01 | .6246  | -.0892 | .2608  | .0009  | .0052  | .0023  |
| 7    | -5.01  | 1.0894 | -.0617 | .1325  | -.0049 | .0108  | -.0008 |
| 8    | -2.52  | 1.2358 | -.0292 | .0106  | -.0052 | .0172  | -.0402 |
| 9    | -.01   | 1.4109 | .0008  | -.0081 | -.0024 | .0189  | -.0566 |
| 10   | 2.48   | 1.4173 | .0428  | -.0804 | -.0028 | .0251  | -.0235 |
| 11   | 4.98   | 1.5260 | .0838  | -.1149 | -.0048 | .0316  | -.0346 |
| 12   | 9.98   | 1.3252 | .2329  | -.1812 | -.0039 | -.0129 | .0069  |
| 13   | 14.99  | 1.5022 | .4173  | -.1983 | -.0062 | .0106  | .0101  |
| 14   | 17.52  | 1.5854 | .5099  | -.2405 | -.0013 | .0011  | .0134  |
| 15   | 19.98  | 1.6844 | .6214  | -.2247 | -.0020 | .0022  | .0128  |
| 16   | -.02   | 1.1809 | .0070  | -.1114 | -.0052 | .0054  | -.0042 |
| 17   | 2.48   | 1.3240 | .0485  | -.1413 | -.0068 | .0036  | -.0165 |
| 18   | 4.99   | 1.4456 | .0984  | -.1761 | -.0087 | .0067  | -.0175 |
| 19   | -.01   | 1.1784 | .0078  | -.1101 | -.0057 | -.0030 | -.0052 |
| 20   | -15.02 | .1191  | -.0838 | .3042  | -.0009 | .0119  | -.0052 |
| 21   | -.02   | 1.3977 | .0053  | .0109  | -.0016 | .0201  | -.0652 |
| 22   | 2.50   | 1.3481 | .0447  | -.1336 | -.0064 | .0076  | -.0029 |
| 23   | 5.00   | 1.4657 | .0934  | -.1765 | -.0080 | .0141  | -.0069 |
| 24   | -.01   | 1.4076 | .0080  | .0139  | -.0028 | .0243  | -.0627 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 681

RUN 811 CONFIG F P B NP5 W7 T49 BT IN=-3.5 MAX

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0.0 IHT<br>CLBAR<br>SQ-FT | 0.0 DELE<br>CDBAR<br>SQ-FT | 0.0 DELR<br>CPMBAR<br>CU-FT | 0.0 DELS<br>CYMBAR<br>CU-FT | 0.0 DELR<br>CRMBAR<br>CU-FT | 0.0 DELS<br>CYBAR<br>SQ-FT | 0.0 DELSB<br>PSF | 0.0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|-----------------------|---------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------|------------------|-------------------|--------|
| 2                | .0                      | .0                    | 567.2                     | 127.23                     | 385.                        | -60.                        | 86.                         | 1.48                       | 55.33            | 129.00            | 4260.  |
| 3                | .0                      | .0                    | 519.4                     | -47.53                     | -138.                       | -75.                        | 328.                        | -20.77                     | 54.61            | 128.16            | 22980. |
| 4                | -20.0                   | .0                    | -167.8                    | -46.86                     | 855.                        | -70.                        | 202.                        | 3.70                       | 55.26            | 128.93            | 23000. |
| 5                | -15.0                   | .0                    | 25.5                      | -72.38                     | 948.                        | -12.                        | 230.                        | -1.41                      | 55.46            | 129.16            | 23030. |
| 6                | -10.0                   | .0                    | 219.3                     | -76.23                     | 762.                        | 31.                         | 233.                        | -2.53                      | 55.14            | 128.79            | 23000. |
| 7                | -5.0                    | .0                    | 379.2                     | -64.35                     | -12.                        | -36.                        | 216.                        | -14.95                     | 55.36            | 129.05            | 23110. |
| 8                | -2.5                    | .0                    | 453.8                     | -54.00                     | -114.                       | -92.                        | 252.                        | -16.59                     | 55.04            | 128.66            | 23000. |
| 9                | .0                      | .0                    | 513.2                     | -43.70                     | -133.                       | -60.                        | 398.                        | -23.24                     | 55.26            | 128.92            | 22980. |
| 10               | 2.5                     | .0                    | 528.2                     | -28.71                     | -325.                       | -66.                        | 504.                        | -9.29                      | 54.99            | 128.60            | 23020. |
| 11               | 5.0                     | .0                    | 574.9                     | -13.96                     | -433.                       | -102.                       | 472.                        | -12.82                     | 54.74            | 128.30            | 23110. |
| 12               | 10.0                    | .0                    | 499.6                     | 41.77                      | -643.                       | -114.                       | -90.                        | 2.36                       | 54.84            | 128.42            | 22950. |
| 13               | 15.0                    | .0                    | 570.2                     | 110.26                     | -657.                       | -132.                       | 264.                        | 4.72                       | 54.81            | 128.38            | 23040. |
| 14               | 17.5                    | .0                    | 596.3                     | 144.20                     | -795.                       | -19.                        | 88.                         | 5.98                       | 55.27            | 128.93            | 22990. |
| 15               | 20.0                    | .0                    | 645.4                     | 189.78                     | -763.                       | -23.                        | 36.                         | 3.64                       | 55.15            | 128.78            | 23070. |
| 16               | -0                      | .0                    | 520.5                     | -46.34                     | -160.                       | -68.                        | 389.                        | -23.40                     | 53.87            | 127.26            | 22980. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.5330 | .3439  | .1241  | -.0036 | .0052  | .0040  |
| 3    | .00    | 1.4039 | -.1285 | -.0445 | -.0045 | .0198  | -.0561 |
| 4    | -20.00 | -.4535 | -.1267 | .2755  | -.0042 | .0122  | .0100  |
| 5    | -15.01 | .0688  | -.1956 | .3056  | -.0007 | .0139  | -.0038 |
| 6    | -10.01 | .5928  | -.2060 | .2458  | .0019  | .0141  | -.0068 |
| 7    | -5.00  | 1.0248 | -.1739 | -.0039 | -.0022 | .0130  | -.0404 |
| 8    | -2.51  | 1.2266 | -.1460 | -.0368 | -.0056 | .0152  | -.0448 |
| 9    | .01    | 1.3871 | -.1181 | -.0430 | -.0036 | .0240  | -.0628 |
| 10   | 2.50   | 1.4275 | -.0776 | -.1048 | -.0040 | .0304  | -.0251 |
| 11   | 5.02   | 1.5537 | -.0377 | -.1395 | -.0061 | .0285  | -.0346 |
| 12   | 10.00  | 1.3504 | .1129  | -.2073 | -.0069 | -.0054 | .0064  |
| 13   | 15.04  | 1.5410 | .2980  | -.2119 | -.0080 | .0160  | .0128  |
| 14   | 17.49  | 1.6115 | .3897  | -.2563 | -.0012 | .0053  | .0162  |
| 15   | 20.00  | 1.7443 | .5129  | -.2461 | -.0014 | .0022  | .0098  |
| 16   | -.01   | 1.4068 | -.1253 | -.0515 | -.0041 | .0235  | -.0632 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.5330 | .3439  | .1241  | -.0036 | .0052  | .0040  |
| 3    | .00    | 1.4039 | -.1285 | -.0445 | -.0045 | .0198  | -.0561 |
| 4    | -20.00 | -.4535 | -.1267 | .2755  | -.0042 | .0122  | .0100  |
| 5    | -15.01 | .0688  | -.1956 | .3056  | -.0007 | .0139  | -.0038 |
| 6    | -10.01 | .5928  | -.2060 | .2458  | .0019  | .0141  | -.0068 |
| 7    | -5.00  | 1.0248 | -.1739 | -.0039 | -.0022 | .0130  | -.0404 |
| 8    | -2.51  | 1.2266 | -.1460 | -.0368 | -.0056 | .0152  | -.0448 |
| 9    | .01    | 1.3871 | -.1181 | -.0430 | -.0036 | .0240  | -.0628 |
| 10   | 2.50   | 1.4275 | -.0776 | -.1048 | -.0040 | .0304  | -.0251 |
| 11   | 5.02   | 1.5537 | -.0377 | -.1395 | -.0061 | .0285  | -.0346 |
| 12   | 10.00  | 1.3504 | .1129  | -.2073 | -.0069 | -.0054 | .0064  |
| 13   | 15.04  | 1.5410 | .2980  | -.2119 | -.0080 | .0160  | .0128  |
| 14   | 17.49  | 1.6115 | .3897  | -.2563 | -.0012 | .0053  | .0162  |
| 15   | 20.00  | 1.7443 | .5129  | -.2461 | -.0014 | .0022  | .0098  |
| 16   | -.01   | 1.4068 | -.1253 | -.0515 | -.0041 | .0235  | -.0632 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 682

RUN 812 CONFIG F P B NP5 W7 T49 BT IN=-3.5 WM

| IW      | 15 DELF   | 30 DELA | 0.0 IHT     | 0.0 DELE    | 0.0 DELR     | 0.0 DELSB    | 0.0          |             |       |         |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM   |
| 2       | .0        | .0      | 571.4       | 127.71      | 397.         | -54.         | 106.         | -1.17       | 55.45 | 129.14  | 4280. |
| 3       | -20.0     | .0      | -42.3       | 105.73      | 768.         | -114.        | 108.         | 6.54        | 55.25 | 128.90  | 4140. |
| 4       | -15.0     | .0      | 116.9       | 87.15       | 667.         | -112.        | 83.          | 2.47        | 55.07 | 128.70  | 3970. |
| 5       | -10.0     | .0      | 284.4       | 87.94       | 602.         | -35.         | 30.          | 2.52        | 55.46 | 129.16  | 4010. |
| 6       | -5.0      | .0      | 438.1       | 105.93      | 472.         | -117.        | 65.          | 3.48        | 54.87 | 128.46  | 4110. |
| 7       | -2.5      | .0      | 505.9       | 116.34      | 413.         | -124.        | 31.          | 3.22        | 55.01 | 128.63  | 4190. |
| 8       | .0        | .0      | 573.3       | 128.43      | 378.         | -45.         | 162.         | -2.17       | 54.89 | 128.48  | 4260. |
| 9       | 2.5       | .0      | 535.6       | 145.38      | 214.         | 68.          | 1000.        | -23.95      | 54.75 | 128.31  | 4320. |
| 10      | 5.1       | .0      | 450.0       | 163.47      | -178.        | -125.        | -98.         | -7.14       | 55.35 | 129.03  | 4010. |
| 11      | 10.0      | .0      | 473.5       | 219.58      | -348.        | -204.        | 25.          | -12.76      | 54.99 | 128.59  | 4060. |
| 12      | 15.0      | .0      | 486.2       | 269.29      | -536.        | -36.         | 69.          | 6.21        | 54.87 | 128.45  | 3840. |
| 13      | 17.5      | .0      | 508.0       | 298.93      | -632.        | -70.         | 89.          | 2.50        | 54.45 | 127.95  | 3910. |
| 14      | 20.0      | .0      | 519.1       | 326.95      | -677.        | -89.         | -86.         | 1.52        | 55.85 | 129.61  | 3980. |
| 15      | .0        | .0      | 568.8       | 127.90      | 354.         | -51.         | 103.         | .98         | 55.52 | 129.23  | 4280. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.5443 | .3452 | .1279  | -.0032 | .0064  | -.0032 |
| 3    | -19.99 | -.1143 | .2858 | .2477  | -.0069 | .0065  | .0177  |
| 4    | -15.00 | .3159  | .2355 | .2151  | -.0067 | .0050  | .0067  |
| 5    | -9.99  | .7686  | .2377 | .1941  | -.0021 | .0018  | .0068  |
| 6    | -5.00  | 1.1840 | .2863 | .1523  | -.0071 | .0039  | .0094  |
| 7    | -2.51  | 1.3673 | .3144 | .1330  | -.0075 | .0019  | .0087  |
| 8    | .01    | 1.5495 | .3471 | .1219  | -.0027 | .0098  | -.0059 |
| 9    | 2.50   | 1.4475 | .3929 | .0691  | .0041  | .0604  | -.0647 |
| 10   | 5.08   | 1.2162 | .4418 | -.0573 | -.0076 | -.0059 | -.0193 |
| 11   | 10.00  | 1.2798 | .5935 | -.1123 | -.0123 | .0015  | -.0345 |
| 12   | 15.02  | 1.3139 | .7278 | -.1727 | -.0022 | .0042  | .0168  |
| 13   | 17.51  | 1.3730 | .8079 | -.2037 | -.0043 | .0054  | .0068  |
| 14   | 20.01  | 1.4029 | .8836 | -.2183 | -.0054 | -.0052 | .0041  |
| 15   | .01    | 1.5374 | .3457 | .1142  | -.0031 | .0062  | .0027  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.5443 | .3452 | .1279  | -.0032 | .0064  | -.0032 |
| 3    | -19.99 | -.1143 | .2858 | .2477  | -.0069 | .0065  | .0177  |
| 4    | -15.00 | .3159  | .2355 | .2151  | -.0067 | .0050  | .0067  |
| 5    | -9.99  | .7686  | .2377 | .1941  | -.0021 | .0018  | .0068  |
| 6    | -5.00  | 1.1840 | .2863 | .1523  | -.0071 | .0039  | .0094  |
| 7    | -2.51  | 1.3673 | .3144 | .1330  | -.0075 | .0019  | .0087  |
| 8    | .01    | 1.5495 | .3471 | .1219  | -.0027 | .0098  | -.0059 |
| 9    | 2.50   | 1.4475 | .3929 | .0691  | .0041  | .0604  | -.0647 |
| 10   | 5.08   | 1.2162 | .4418 | -.0573 | -.0076 | -.0059 | -.0193 |
| 11   | 10.00  | 1.2798 | .5935 | -.1123 | -.0123 | .0015  | -.0345 |
| 12   | 15.02  | 1.3139 | .7278 | -.1727 | -.0022 | .0042  | .0168  |
| 13   | 17.51  | 1.3730 | .8079 | -.2037 | -.0043 | .0054  | .0068  |
| 14   | 20.01  | 1.4029 | .8836 | -.2183 | -.0054 | -.0052 | .0041  |
| 15   | .01    | 1.5374 | .3457 | .1142  | -.0031 | .0062  | .0027  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 683

RUN 813 CONFIG F P B NP5 W7 T37 BT IN=-3.5

| PT. NO. | IW | 15 DELF<br>ALPHA DEG | 30 DELA<br>PSI DEG | 0.0 IHT<br>CLBAR SQ-FT | -10 DELE<br>CDBAR SQ-FT | 0.0 DELR<br>CPMBAR CU-FT | 0.0 DELSB<br>CYMBAR CU-FT | 0.0<br>CRMBAR CU-FT | 0.0<br>CYBAR SQ-FT | 0.0<br>DELSB PSF | 0.0<br>V KNOTS | RPM    |
|---------|----|----------------------|--------------------|------------------------|-------------------------|--------------------------|---------------------------|---------------------|--------------------|------------------|----------------|--------|
| 6       |    | .0                   | .0                 | 551.3                  | 136.32                  | 780.                     | -40.                      | 144.                | -1.86              | 54.84            | 128.43         | 4250.  |
| 7       |    | .0                   | .0                 | 471.8                  | -7.54                   | 1132.                    | -42.                      | 362.                | -21.60             | 55.05            | 128.68         | 20530. |
| 8       |    | -20.0                | .0                 | -118.8                 | .95                     | -51.                     | -42.                      | 129.                | 5.59               | 54.81            | 128.39         | 20440. |
| 9       |    | -15.0                | .0                 | 37.4                   | -18.47                  | 742.                     | 16.                       | 126.                | -.56               | 54.39            | 127.89         | 20570. |
| 10      |    | -10.0                | .0                 | 201.9                  | -24.23                  | 1130.                    | 5.                        | 107.                | -.81               | 54.94            | 128.55         | 20550. |
| 11      |    | -5.0                 | .0                 | 354.2                  | -21.59                  | 1484.                    | -70.                      | 176.                | 1.00               | 54.44            | 127.94         | 20540. |
| 12      |    | -2.5                 | .0                 | 412.2                  | -13.88                  | 1191.                    | -57.                      | 148.                | -15.72             | 53.96            | 127.37         | 20500. |
| 13      |    | -.0                  | .0                 | 473.9                  | -5.22                   | 1207.                    | -42.                      | 335.                | -23.03             | 53.85            | 127.24         | 20540. |
| 14      |    | 2.5                  | .0                 | 481.2                  | 7.66                    | 927.                     | -30.                      | 330.                | -7.67              | 54.18            | 127.64         | 20470. |
| 15      |    | 5.0                  | .0                 | 529.9                  | 20.97                   | 874.                     | -76.                      | 436.                | -7.91              | 54.29            | 127.76         | 20550. |
| 16      |    | 10.0                 | .0                 | 437.9                  | 73.60                   | 493.                     | -63.                      | 173.                | 7.79               | 54.68            | 128.23         | 20470. |
| 17      |    | 15.1                 | .0                 | 512.6                  | 138.93                  | 461.                     | -61.                      | 87.                 | 6.47               | 54.80            | 128.37         | 20410. |
| 18      |    | 17.5                 | .0                 | 553.5                  | 172.72                  | 411.                     | -27.                      | 71.                 | 6.46               | 54.35            | 127.83         | 20490. |
| 19      |    | 20.0                 | .0                 | 588.5                  | 208.49                  | 235.                     | 30.                       | 19.                 | 5.10               | 54.78            | 128.35         | 20490. |
| 20      |    | .0                   | .0                 | 466.4                  | -4.60                   | 1174.                    | -42.                      | 296.                | -24.08             | 54.74            | 128.30         | 20470. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 6    | .00    | 1.4901 | .3684  | .2516  | -.0024 | .0087 | -.0050 |
| 7    | .00    | 1.2752 | -.0204 | .3651  | -.0026 | .0218 | -.0584 |
| 8    | -20.01 | -.3211 | .0026  | -.0166 | -.0026 | .0078 | .0151  |
| 9    | -14.97 | .1011  | -.0499 | .2393  | .0010  | .0076 | -.0015 |
| 10   | -10.01 | .5457  | -.0655 | .3644  | .0003  | .0065 | -.0022 |
| 11   | -5.00  | .9574  | -.0584 | .4785  | -.0042 | .0107 | .0027  |
| 12   | -2.51  | 1.1140 | -.0375 | .3839  | -.0034 | .0089 | -.0425 |
| 13   | -.01   | 1.2808 | -.0141 | .3892  | -.0026 | .0202 | -.0622 |
| 14   | 2.51   | 1.3004 | .0207  | .2989  | -.0018 | .0200 | -.0207 |
| 15   | 5.01   | 1.4321 | .0567  | .2816  | -.0046 | .0263 | -.0214 |
| 16   | 10.00  | 1.1834 | .1989  | .1590  | -.0038 | .0104 | .0210  |
| 17   | 15.15  | 1.3854 | .3755  | .1486  | -.0037 | .0053 | .0175  |
| 18   | 17.49  | 1.4959 | .4668  | .1326  | -.0016 | .0043 | .0174  |
| 19   | 20.01  | 1.5905 | .5635  | .0758  | .0018  | .0011 | .0138  |
| 20   | .00    | 1.2607 | -.0124 | .3786  | -.0026 | .0179 | -.0651 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 6    | .00    | 1.4901 | .3684  | .2516  | -.0024 | .0087 | -.0050 |
| 7    | .00    | 1.2752 | -.0204 | .3651  | -.0026 | .0218 | -.0584 |
| 8    | -20.01 | -.3211 | .0026  | -.0166 | -.0026 | .0078 | .0151  |
| 9    | -14.97 | .1011  | -.0499 | .2393  | .0010  | .0076 | -.0015 |
| 10   | -10.01 | .5457  | -.0655 | .3644  | .0003  | .0065 | -.0022 |
| 11   | -5.00  | .9574  | -.0584 | .4785  | -.0042 | .0107 | .0027  |
| 12   | -2.51  | 1.1140 | -.0375 | .3839  | -.0034 | .0089 | -.0425 |
| 13   | -.01   | 1.2808 | -.0141 | .3892  | -.0026 | .0202 | -.0622 |
| 14   | 2.51   | 1.3004 | .0207  | .2989  | -.0018 | .0200 | -.0207 |
| 15   | 5.01   | 1.4321 | .0567  | .2816  | -.0046 | .0263 | -.0214 |
| 16   | 10.00  | 1.1834 | .1989  | .1590  | -.0038 | .0104 | .0210  |
| 17   | 15.15  | 1.3854 | .3755  | .1486  | -.0037 | .0053 | .0175  |
| 18   | 17.49  | 1.4959 | .4668  | .1326  | -.0016 | .0043 | .0174  |
| 19   | 20.01  | 1.5905 | .5635  | .0758  | .0018  | .0011 | .0138  |
| 20   | .00    | 1.2607 | -.0124 | .3786  | -.0026 | .0179 | -.0651 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 684

RUN 814 CONFIG F P B NP5 W7 T37 BT IN=-3.5

| IW  | 15 DELF | 30 DELA | 0.0 IHT | -5 DELE | 0.0 DELR | 0.0 DELSB | 0.0    | RPM    |       |        |        |
|-----|---------|---------|---------|---------|----------|-----------|--------|--------|-------|--------|--------|
| PT. | ALPHA   | PSI     | CLBAR   | CDBAR   | CPMBAR   | CYMBAR    | CRMBAR | CYBAR  |       |        |        |
| NO. | DEG     | DEG     | SQ-FT   | SQ-FT   | CU-FT    | CU-FT     | CU-FT  | SG-FT  |       |        |        |
|     |         |         |         |         |          |           |        | PSF    |       |        |        |
|     |         |         |         |         |          |           |        | Q      |       |        |        |
|     |         |         |         |         |          |           |        | V      |       |        |        |
|     |         |         |         |         |          |           |        | KNOTS  |       |        |        |
| 2   | .0      | .0      | 553.7   | 128.02  | 605.     | -24.      | 126.   | -2.46  | 55.38 | 129.07 | 4280.  |
| 3   | .0      | .0      | 497.5   | -5.73   | 411.     | -44.      | 364.   | -23.70 | 55.18 | 128.84 | 20150. |
| 4   | -20.0   | .0      | -114.0  | -5.25   | -171.    | -50.      | 133.   | 2.74   | 55.87 | 129.64 | 20140. |
| 5   | -15.0   | .0      | 44.3    | -27.96  | 566.     | -18.      | 121.   | .86    | 55.30 | 128.98 | 20190. |
| 6   | -10.0   | .0      | 222.5   | -30.60  | 759.     | 6.        | 201.   | -3.00  | 54.56 | 128.09 | 20120. |
| 7   | -5.0    | .0      | 381.3   | -21.44  | 773.     | -75.      | 181.   | -1.94  | 54.47 | 127.98 | 20130. |
| 8   | -2.5    | .0      | 435.1   | -12.27  | 441.     | -43.      | 272.   | -17.59 | 54.98 | 128.60 | 20140. |
| 9   | -.0     | .0      | 479.3   | .27     | 253.     | -63.      | 169.   | -5.93  | 53.98 | 127.40 | 20130. |
| 10  | 2.5     | .0      | 502.8   | 12.65   | 247.     | -24.      | 360.   | -6.02  | 54.89 | 128.49 | 20150. |
| 11  | 5.0     | .0      | 539.5   | 26.03   | 186.     | -46.      | 412.   | -6.39  | 54.93 | 128.53 | 20160. |
| 12  | 10.0    | .0      | 468.6   | 79.96   | 88.      | -87.      | 319.   | 1.18   | 54.63 | 128.18 | 20130. |
| 13  | 15.0    | .0      | 521.7   | 140.57  | 27.      | -147.     | 176.   | 1.30   | 54.86 | 128.44 | 20150. |
| 14  | 17.5    | .0      | 564.0   | 176.33  | -113.    | -43.      | 71.    | 1.88   | 54.22 | 127.68 | 20160. |
| 15  | 20.0    | .0      | 603.6   | 214.90  | -276.    | -15.      | 18.    | 3.32   | 54.35 | 127.83 | 20110. |
| 16  | -.0     | .0      | 456.6   | -.32    | 157.     | -10.      | 477.   | -13.85 | 54.84 | 128.43 | 20160. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.4965 | .3460  | .1951  | -.0015 | .0076 | -.0066 |
| 3    | .00    | 1.3446 | -.0155 | .1326  | -.0027 | .0220 | -.0641 |
| 4    | -20.00 | -.3081 | -.0142 | -.0550 | -.0030 | .0080 | .0074  |
| 5    | -14.99 | .1196  | -.0756 | .1824  | -.0011 | .0073 | .0023  |
| 6    | -9.99  | .6015  | -.0827 | .2446  | .0003  | .0121 | -.0081 |
| 7    | -5.01  | 1.0307 | -.0579 | .2493  | -.0045 | .0109 | -.0052 |
| 8    | -2.49  | 1.1758 | -.0332 | .1423  | -.0026 | .0164 | -.0476 |
| 9    | -.00   | 1.2955 | .0007  | .0815  | -.0038 | .0102 | -.0160 |
| 10   | 2.53   | 1.3590 | .0342  | .0795  | -.0015 | .0217 | -.0163 |
| 11   | 4.99   | 1.4581 | .0704  | .0599  | -.0028 | .0249 | -.0173 |
| 12   | 10.01  | 1.2665 | .2161  | .0285  | -.0052 | .0192 | .0032  |
| 13   | 15.00  | 1.4100 | .3799  | .0088  | -.0089 | .0107 | .0035  |
| 14   | 17.50  | 1.5244 | .4766  | -.0364 | -.0026 | .0043 | .0051  |
| 15   | 19.99  | 1.6314 | .5808  | -.0890 | -.0009 | .0011 | .0090  |
| 16   | -.00   | 1.2341 | -.0009 | .0506  | -.0006 | .0288 | -.0374 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.4965 | .3460  | .1951  | -.0015 | .0076 | -.0066 |
| 3    | .00    | 1.3446 | -.0155 | .1326  | -.0027 | .0220 | -.0641 |
| 4    | -20.00 | -.3081 | -.0142 | -.0550 | -.0030 | .0080 | .0074  |
| 5    | -14.99 | .1196  | -.0756 | .1824  | -.0011 | .0073 | .0023  |
| 6    | -9.99  | .6015  | -.0827 | .2446  | .0003  | .0121 | -.0081 |
| 7    | -5.01  | 1.0307 | -.0579 | .2493  | -.0045 | .0109 | -.0052 |
| 8    | -2.49  | 1.1758 | -.0332 | .1423  | -.0026 | .0164 | -.0476 |
| 9    | -.00   | 1.2955 | .0007  | .0815  | -.0038 | .0102 | -.0160 |
| 10   | 2.53   | 1.3590 | .0342  | .0795  | -.0015 | .0217 | -.0163 |
| 11   | 4.99   | 1.4581 | .0704  | .0599  | -.0028 | .0249 | -.0173 |
| 12   | 10.01  | 1.2665 | .2161  | .0285  | -.0052 | .0192 | .0032  |
| 13   | 15.00  | 1.4100 | .3799  | .0088  | -.0089 | .0107 | .0035  |
| 14   | 17.50  | 1.5244 | .4766  | -.0364 | -.0026 | .0043 | .0051  |
| 15   | 19.99  | 1.6314 | .5808  | -.0890 | -.0009 | .0011 | .0090  |
| 16   | -.00   | 1.2341 | -.0009 | .0506  | -.0006 | .0288 | -.0374 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 685

RUN 815 CONFIG F P B NP5 W7 T37 BT IN=-3.5

| IW      | 15 DELF   | 30 DELA | 0.0 IHT     | 5 DELE      | 0.0 DELR     | 0.0 DELSB    | 0.0          |             |       |         |        |  |  |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|--|--|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |  |  |
| 2       | .0        | .0      | 594.9       | 130.19      | -496.        | -46.         | 125.         | -1.42       | 55.05 | 128.68  | 4270.  |  |  |
| 3       | .0        | .0      | 526.2       | -7.01       | -1023.       | -94.         | 277.         | -7.34       | 54.30 | 127.78  | 20410. |  |  |
| 4       | -20.0     | .0      | -97.6       | -27.71      | -824.        | -51.         | 118.         | 2.95        | 54.27 | 127.74  | 20410. |  |  |
| 5       | -15.0     | .0      | 89.4        | -45.09      | -827.        | -23.         | 158.         | 1.13        | 54.42 | 127.93  | 20470. |  |  |
| 6       | -10.0     | .0      | 271.1       | -43.10      | -844.        | -23.         | 196.         | -1.61       | 55.09 | 128.73  | 20420. |  |  |
| 7       | -5.0      | .0      | 441.6       | -30.27      | -981.        | -101.        | 214.         | -.68        | 54.73 | 128.29  | 20410. |  |  |
| 8       | -2.5      | .0      | 490.1       | -18.63      | -1056.       | -54.         | 378.         | -16.54      | 54.59 | 128.13  | 20440. |  |  |
| 9       | .0        | .0      | 521.1       | -5.19       | -1038.       | -98.         | 258.         | -7.25       | 54.48 | 128.00  | 20410. |  |  |
| 10      | 2.5       | .0      | 548.5       | 9.38        | -994.        | -67.         | 456.         | -7.69       | 54.08 | 127.51  | 20350. |  |  |
| 11      | 5.0       | .0      | 588.9       | 22.69       | -917.        | -90.         | 527.         | -9.80       | 54.24 | 127.70  | 20420. |  |  |
| 12      | 10.0      | .0      | 516.1       | 79.67       | -937.        | -113.        | 249.         | -.25        | 54.59 | 128.12  | 20420. |  |  |
| 13      | 15.0      | .0      | 560.5       | 147.13      | -942.        | -142.        | 213.         | 1.81        | 54.55 | 128.08  | 20360. |  |  |
| 14      | 17.5      | .0      | 593.6       | 185.43      | -1017.       | -47.         | 53.          | 5.97        | 54.75 | 128.31  | 20460. |  |  |
| 15      | 20.0      | .0      | 622.7       | 227.07      | -1011.       | -98.         | 71.          | 3.52        | 55.13 | 128.76  | 20370. |  |  |
| 16      | .0        | .0      | 543.9       | -4.93       | -894.        | -29.         | 473.         | -22.66      | 54.57 | 128.10  | 20440. |  |  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.6078 | .3519  | -.1599 | -.0028 | .0076 | -.0038 |
| 3    | .00    | 1.4223 | -.0189 | -.3298 | -.0057 | .0167 | -.0198 |
| 4    | -20.03 | -.2639 | -.0749 | -.2656 | -.0031 | .0071 | .0080  |
| 5    | -15.00 | .2415  | -.1219 | -.2667 | -.0014 | .0095 | .0030  |
| 6    | -9.99  | .7326  | -.1165 | -.2720 | -.0014 | .0119 | -.0043 |
| 7    | -5.00  | 1.1934 | -.0818 | -.3163 | -.0061 | .0129 | -.0019 |
| 8    | -2.50  | 1.3246 | -.0503 | -.3406 | -.0033 | .0229 | -.0447 |
| 9    | .01    | 1.4084 | -.0140 | -.3348 | -.0059 | .0156 | -.0196 |
| 10   | 2.50   | 1.4825 | .0254  | -.3203 | -.0040 | .0276 | -.0208 |
| 11   | 5.00   | 1.5915 | .0613  | -.2956 | -.0055 | .0318 | -.0265 |
| 12   | 10.00  | 1.3948 | .2153  | -.3021 | -.0068 | .0150 | -.0007 |
| 13   | 14.99  | 1.5149 | .3976  | -.3038 | -.0086 | .0129 | .0049  |
| 14   | 17.51  | 1.6044 | .5011  | -.3278 | -.0028 | .0032 | .0161  |
| 15   | 20.00  | 1.6828 | .6137  | -.3260 | -.0059 | .0043 | .0095  |
| 16   | .00    | 1.4699 | -.0133 | -.2882 | -.0017 | .0285 | -.0612 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.6078 | .3519  | -.1599 | -.0028 | .0076 | -.0038 |
| 3    | .00    | 1.4223 | -.0189 | -.3298 | -.0057 | .0167 | -.0198 |
| 4    | -20.03 | -.2639 | -.0749 | -.2656 | -.0031 | .0071 | .0080  |
| 5    | -15.00 | .2415  | -.1219 | -.2667 | -.0014 | .0095 | .0030  |
| 6    | -9.99  | .7326  | -.1165 | -.2720 | -.0014 | .0119 | -.0043 |
| 7    | -5.00  | 1.1934 | -.0818 | -.3163 | -.0061 | .0129 | -.0019 |
| 8    | -2.50  | 1.3246 | -.0503 | -.3406 | -.0033 | .0229 | -.0447 |
| 9    | .01    | 1.4084 | -.0140 | -.3348 | -.0059 | .0156 | -.0196 |
| 10   | 2.50   | 1.4825 | .0254  | -.3203 | -.0040 | .0276 | -.0208 |
| 11   | 5.00   | 1.5915 | .0613  | -.2956 | -.0055 | .0318 | -.0265 |
| 12   | 10.00  | 1.3948 | .2153  | -.3021 | -.0068 | .0150 | -.0007 |
| 13   | 14.99  | 1.5149 | .3976  | -.3038 | -.0086 | .0129 | .0049  |
| 14   | 17.51  | 1.6044 | .5011  | -.3278 | -.0028 | .0032 | .0161  |
| 15   | 20.00  | 1.6828 | .6137  | -.3260 | -.0059 | .0043 | .0095  |
| 16   | .00    | 1.4699 | -.0133 | -.2882 | -.0017 | .0285 | -.0612 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

5686

RUN 816 CONFIG F P B NPS W7 T37 BT IN=-3.5

| IW      | 15 DELF   | 30 DELA | 0,0 IHT     | 10 DELE     | 0,0 DELR     | 0,0 DELSB    | 0,0          |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 618.3       | 133.43      | -1029.       | -55.         | 93.          | -3.62       | 54.54 | 128.07  | 4270.  |
| 3       | .0        | .0      | 539.5       | -6.20       | -1611.       | -96.         | 186.         | -6.86       | 54.60 | 128.14  | 20380. |
| 4       | -20.0     | .0      | -71.2       | -32.23      | -1507.       | -73.         | 38.          | 6.61        | 54.60 | 128.14  | 20320. |
| 5       | -15.0     | .0      | 119.5       | -49.42      | -1643.       | -22.         | 125.         | .44         | 53.82 | 127.21  | 20330. |
| 6       | -10.0     | .0      | 309.2       | -45.01      | -1699.       | -25.         | 163.         | -.19        | 53.58 | 126.92  | 20270. |
| 7       | -5.0      | .0      | 475.7       | -28.26      | -1758.       | -107.        | 161.         | -.13        | 54.08 | 127.51  | 20330. |
| 8       | -2.5      | .0      | 520.4       | -14.92      | -1723.       | -74.         | 459.         | -19.33      | 53.93 | 127.34  | 20290. |
| 10      | 2.5       | .0      | 565.6       | 14.95       | -1517.       | -58.         | 400.         | -5.72       | 54.18 | 127.64  | 20270. |
| 11      | 5.0       | .0      | 571.5       | 32.30       | -1536.       | -124.        | 108.         | -.94        | 54.12 | 127.56  | 20280. |
| 12      | 10.0      | .0      | 507.7       | 85.74       | -1362.       | -87.         | 102.         | 5.76        | 55.03 | 128.66  | 20370. |
| 13      | 15.0      | .0      | 578.8       | 159.72      | -1273.       | -108.        | 123.         | 6.76        | 54.45 | 127.95  | 20280. |
| 14      | 17.5      | .0      | 602.5       | 196.71      | -1191.       | -80.         | -54.         | 6.33        | 54.37 | 127.86  | 20300. |
| 15      | 20.0      | .0      | 632.2       | 236.80      | -1122.       | -97.         | 37.          | 7.26        | 54.41 | 127.91  | 20300. |
| 16      | -.0       | .0      | 569.1       | .62         | -1495.       | -15.         | 456.         | -24.15      | 54.60 | 128.14  | 20280. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.6710 | .3606  | -.3318 | -.0033 | .0056  | -.0098 |
| 3    | .00    | 1.4581 | -.0167 | -.5192 | -.0058 | .0112  | -.0185 |
| 4    | -20.00 | -.1926 | -.0871 | -.4857 | -.0044 | .0023  | .0179  |
| 5    | -14.98 | .3229  | -.1336 | -.5296 | -.0013 | .0076  | .0012  |
| 6    | -10.01 | .8356  | -.1217 | -.5478 | -.0015 | .0099  | -.0005 |
| 7    | -4.99  | 1.2856 | -.0764 | -.5667 | -.0065 | .0098  | -.0003 |
| 8    | -2.51  | 1.4065 | -.0403 | -.5555 | -.0044 | .0277  | -.0522 |
| 10   | 2.53   | 1.5287 | .0404  | -.4892 | -.0035 | .0241  | -.0155 |
| 11   | 5.01   | 1.5445 | .0873  | -.4951 | -.0075 | .0065  | -.0026 |
| 12   | 10.00  | 1.3723 | .2317  | -.4392 | -.0052 | .0062  | .0156  |
| 13   | 15.02  | 1.5644 | .4317  | -.4103 | -.0065 | .0074  | .0183  |
| 14   | 17.51  | 1.6283 | .5317  | -.3839 | -.0049 | -.0032 | .0171  |
| 15   | 20.00  | 1.7086 | .6400  | -.3616 | -.0058 | .0022  | .0196  |
| 16   | -.01   | 1.5381 | .0017  | -.4819 | -.0009 | .0276  | -.0653 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.6710 | .3606  | -.3318 | -.0033 | .0056  | -.0098 |
| 3    | .00    | 1.4581 | -.0167 | -.5192 | -.0058 | .0112  | -.0185 |
| 4    | -20.00 | -.1926 | -.0871 | -.4857 | -.0044 | .0023  | .0179  |
| 5    | -14.98 | .3229  | -.1336 | -.5296 | -.0013 | .0076  | .0012  |
| 6    | -10.01 | .8356  | -.1217 | -.5478 | -.0015 | .0099  | -.0005 |
| 7    | -4.99  | 1.2856 | -.0764 | -.5667 | -.0065 | .0098  | -.0003 |
| 8    | -2.51  | 1.4065 | -.0403 | -.5555 | -.0044 | .0277  | -.0522 |
| 10   | 2.53   | 1.5287 | .0404  | -.4892 | -.0035 | .0241  | -.0155 |
| 11   | 5.01   | 1.5445 | .0873  | -.4951 | -.0075 | .0065  | -.0026 |
| 12   | 10.00  | 1.3723 | .2317  | -.4392 | -.0052 | .0062  | .0156  |
| 13   | 15.02  | 1.5644 | .4317  | -.4103 | -.0065 | .0074  | .0183  |
| 14   | 17.51  | 1.6283 | .5317  | -.3839 | -.0049 | -.0032 | .0171  |
| 15   | 20.00  | 1.7086 | .6400  | -.3616 | -.0058 | .0022  | .0196  |
| 16   | -.01   | 1.5381 | .0017  | -.4819 | -.0009 | .0276  | -.0653 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 687

RUN 817 CONFIG F P B NP5 W7 T37 BT IN=-3.5

| PT. NO. | IW    | 15 DELF | 0,0 DELA | 0,0 IHT | 10 DELE | 0,0 DELR | 0,0 DELSB | 0,0   | RPM   |        |        |
|---------|-------|---------|----------|---------|---------|----------|-----------|-------|-------|--------|--------|
|         | ALPHA | PSI     | CLBAR    | CDBAR   | CPMBAR  | CYMBAR   | CRMBAR    | CYBAR |       |        |        |
|         | DEG   | DEG     | SQ-FT    | SQ-FT   | CU-FT   | CU-FT    | CU-FT     | SQ-FT | Q     |        |        |
|         |       |         |          |         |         |          |           |       | V     |        |        |
|         |       |         |          |         |         |          |           |       | KNOTS |        |        |
| 2       | .0    | .0      | 400.0    | 75.59   | -823.   | -79.     | 119.      | 3.93  | 54.66 | 128.21 | 3970.  |
| 3       | .0    | .0      | 378.7    | -6.26   | -1159.  | -79.     | 199.      | -3.30 | 54.76 | 128.33 | 16000. |
| 4       | -20.0 | .0      | -218.4   | 2.57    | -1082.  | -35.     | 85.       | 9.01  | 55.17 | 128.82 | 16030. |
| 5       | -15.0 | .0      | -61.2    | -24.12  | -1378.  | -107.    | 34.       | 9.22  | 54.70 | 128.26 | 15970. |
| 6       | -10.0 | .0      | 110.2    | -34.44  | -1476.  | -25.     | 49.       | 2.39  | 54.10 | 127.54 | 16050. |
| 7       | -5.0  | .0      | 259.4    | -24.75  | -1437.  | -111.    | 85.       | 2.77  | 54.07 | 127.51 | 16080. |
| 8       | -2.5  | .0      | 320.1    | -15.01  | -1285.  | -133.    | 160.      | -5.50 | 54.61 | 128.15 | 16010. |
| 9       | .0    | .0      | 380.3    | -3.01   | -1152.  | -86.     | 164.      | -2.95 | 54.28 | 127.75 | 16000. |
| 10      | -2.5  | .0      | 319.5    | -14.31  | -1288.  | -141.    | 144.      | -1.12 | 54.55 | 128.08 | 16010. |
| 11      | .0    | .0      | 381.1    | -2.34   | -1156.  | -89.     | 146.      | -2.52 | 54.10 | 127.55 | 16010. |
| 12      | 2.5   | .0      | 428.5    | 11.14   | -1055.  | -84.     | 180.      | -3.04 | 54.93 | 128.53 | 15990. |
| 13      | 5.0   | .0      | 418.6    | 32.29   | -951.   | -116.    | 268.      | -7.75 | 54.43 | 127.94 | 16110. |
| 14      | 10.0  | .0      | 485.4    | 88.04   | -1020.  | -104.    | 73.       | -3.50 | 54.48 | 128.00 | 16020. |
| 15      | 15.0  | .0      | 514.9    | 153.75  | -946.   | -143.    | 106.      | 2.86  | 54.71 | 128.27 | 16030. |
| 16      | 17.5  | .0      | 535.4    | 185.47  | -857.   | -106.    | 53.       | 3.43  | 54.59 | 128.13 | 15970. |
| 17      | 17.5  | .0      | 532.9    | 184.58  | -853.   | -106.    | 53.       | 3.42  | 54.85 | 128.44 | 15910. |
| 18      | 20.0  | .0      | 556.7    | 218.67  | -692.   | -42.     | -16.      | 5.41  | 55.43 | 129.12 | 15990. |
| 19      | .0    | .0      | 380.7    | -2.85   | -1138.  | -81.     | 163.      | -2.99 | 54.68 | 128.24 | 16020. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0811 | .2043  | -.2654 | -.0048 | .0072  | .0106  |
| 3    | .00    | 1.0235 | -.0169 | -.3736 | -.0048 | .0120  | -.0089 |
| 4    | -20.00 | -.5901 | .0069  | -.3489 | -.0021 | .0051  | .0244  |
| 5    | -14.97 | -.1653 | -.0652 | -.4441 | -.0065 | .0021  | .0249  |
| 6    | -9.99  | .2977  | -.0931 | -.4759 | -.0015 | .0030  | .0065  |
| 7    | -4.98  | .7010  | -.0669 | -.4633 | -.0067 | .0051  | .0075  |
| 8    | -2.49  | .8653  | -.0406 | -.4141 | -.0081 | .0097  | -.0013 |
| 9    | .02    | 1.0278 | -.0081 | -.3715 | -.0052 | .0099  | -.0080 |
| 10   | -2.50  | .8636  | -.0387 | -.4153 | -.0085 | .0087  | -.0030 |
| 11   | .05    | 1.0301 | -.0063 | -.3726 | -.0053 | .0088  | -.0068 |
| 12   | 2.51   | 1.1581 | .0301  | -.3400 | -.0051 | .0109  | -.0082 |
| 13   | 5.00   | 1.1313 | .0873  | -.3067 | -.0070 | .0162  | -.0020 |
| 14   | 10.03  | 1.3118 | .2380  | -.3288 | -.0063 | .0044  | -.0095 |
| 15   | 15.04  | 1.3917 | .4155  | -.3051 | -.0086 | .0064  | .0077  |
| 16   | 17.50  | 1.4471 | .5013  | -.2764 | -.0064 | .0032  | .0093  |
| 17   | 17.50  | 1.4402 | .4989  | -.2751 | -.0064 | .0032  | .0092  |
| 18   | 20.03  | 1.5046 | .5910  | -.2231 | -.0026 | -.0010 | .0146  |
| 19   | .00    | 1.0288 | -.0077 | -.3670 | -.0049 | .0099  | -.0081 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0811 | .2043  | -.2654 | -.0048 | .0072  | .0106  |
| 3    | .00    | 1.0235 | -.0169 | -.3736 | -.0048 | .0120  | -.0089 |
| 4    | -20.00 | -.5901 | .0069  | -.3489 | -.0021 | .0051  | .0244  |
| 5    | -14.97 | -.1653 | -.0652 | -.4441 | -.0065 | .0021  | .0249  |
| 6    | -9.99  | .2977  | -.0931 | -.4759 | -.0015 | .0030  | .0065  |
| 7    | -4.98  | .7010  | -.0669 | -.4633 | -.0067 | .0051  | .0075  |
| 8    | -2.49  | .8653  | -.0406 | -.4141 | -.0081 | .0097  | -.0013 |
| 9    | .02    | 1.0278 | -.0081 | -.3715 | -.0052 | .0099  | -.0080 |
| 10   | -2.50  | .8636  | -.0387 | -.4153 | -.0085 | .0087  | -.0030 |
| 11   | .05    | 1.0301 | -.0063 | -.3726 | -.0053 | .0088  | -.0068 |
| 12   | 2.51   | 1.1581 | .0301  | -.3400 | -.0051 | .0109  | -.0082 |
| 13   | 5.00   | 1.1313 | .0873  | -.3067 | -.0070 | .0162  | -.0020 |
| 14   | 10.03  | 1.3118 | .2380  | -.3288 | -.0063 | .0044  | -.0095 |
| 15   | 15.04  | 1.3917 | .4155  | -.3051 | -.0086 | .0064  | .0077  |
| 16   | 17.50  | 1.4471 | .5013  | -.2764 | -.0064 | .0032  | .0093  |
| 17   | 17.50  | 1.4402 | .4989  | -.2751 | -.0064 | .0032  | .0092  |
| 18   | 20.03  | 1.5046 | .5910  | -.2231 | -.0026 | -.0010 | .0146  |
| 19   | .00    | 1.0288 | -.0077 | -.3670 | -.0049 | .0099  | -.0081 |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 818 CONFIG F P 3 NP5 N7 T37 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CL BAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------------|--------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 3       | .0        | .0            | 382.9        | 73.53       | -337.        | -86.         | 121.         | 3.32        | 54.38 | 127.89  | 3950.  |
| 4       | .0        | .0            | 364.7        | -6.76       | -636.        | -111.        | 145.         | -1.75       | 54.43 | 127.95  | 15780. |
| 5       | .0        | .0            | 358.2        | -6.16       | -636.        | -105.        | 141.         | -.92        | 55.24 | 128.91  | 16030. |
| 6       | -20.0     | .0            | -240.4       | 8.07        | -565.        | 27.          | 113.         | 5.34        | 54.19 | 127.65  | 16050. |
| 7       | -15.0     | .0            | -87.0        | -19.60      | -687.        | -51.         | 96.          | 4.65        | 54.98 | 128.59  | 16110. |
| 8       | -10.0     | .0            | 86.5         | -31.31      | -805.        | -18.         | 82.          | 3.53        | 54.95 | 128.56  | 16040. |
| 9       | -5.0      | .0            | 237.3        | -23.96      | -808.        | -90.         | 86.          | 1.87        | 54.61 | 128.16  | 16080. |
| 10      | -2.5      | .0            | 303.3        | -14.79      | -745.        | -141.        | 158.         | -.12        | 55.14 | 128.78  | 16060. |
| 11      | .0        | .0            | 358.6        | -3.94       | -630.        | -103.        | 210.         | -.74        | 55.58 | 129.31  | 16000. |
| 12      | 2.5       | .0            | 417.4        | 7.66        | -610.        | -97.         | 200.         | -4.07       | 54.47 | 127.98  | 16040. |
| 13      | 5.0       | .0            | 404.2        | 29.68       | -473.        | -129.        | 391.         | -2.36       | 54.87 | 128.46  | 16000. |
| 14      | 10.0      | .0            | 461.4        | 78.78       | -542.        | -113.        | 90.          | -2.18       | 54.80 | 128.37  | 16020. |
| 15      | 15.0      | .0            | 498.8        | 139.44      | -688.        | -154.        | 265.         | -1.86       | 54.84 | 128.42  | 16020. |
| 16      | 20.0      | .0            | 561.4        | 212.92      | -762.        | -32.         | 53.          | 5.16        | 55.43 | 129.12  | 15900. |
| 17      | .0        | .0            | 360.6        | -5.47       | -544.        | -110.        | 197.         | -1.74       | 54.84 | 128.43  | 16040. |
| 18      | 2.5       | .0            | 413.5        | 7.00        | -602.        | -87.         | 198.         | -3.97       | 54.98 | 128.59  | 16050. |
| 19      | 5.0       | .0            | 396.0        | 28.25       | -500.        | -119.        | 301.         | -1.67       | 55.02 | 128.64  | 16040. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPH    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 3    | .00    | 1.0349 | .1987  | -.1087 | -.0052 | .0073 | .0090  |
| 4    | .00    | .9857  | -.0183 | -.2050 | -.0067 | .0087 | -.0047 |
| 5    | .00    | .9681  | -.0167 | -.2050 | -.0064 | .0085 | -.0025 |
| 6    | -20.01 | -.6498 | .0218  | -.1822 | .0016  | .0068 | .0144  |
| 7    | -14.99 | -.2351 | -.0530 | -.2216 | -.0031 | .0058 | .0126  |
| 8    | -9.99  | .2337  | -.0846 | -.2594 | -.0011 | .0049 | .0095  |
| 9    | -5.00  | .6414  | -.0648 | -.2605 | -.0054 | .0052 | .0051  |
| 10   | -2.49  | .8198  | -.0400 | -.2401 | -.0085 | .0096 | -.0003 |
| 11   | .01    | .9691  | -.0106 | -.2031 | -.0062 | .0127 | -.0020 |
| 12   | 2.50   | 1.1282 | .0207  | -.1968 | -.0059 | .0121 | -.0110 |
| 13   | 5.01   | 1.0924 | .0802  | -.1525 | -.0078 | .0236 | -.0064 |
| 14   | 10.01  | 1.2470 | .2129  | -.1749 | -.0068 | .0054 | -.0059 |
| 15   | 15.01  | 1.3481 | .3769  | -.2217 | -.0093 | .0160 | -.0050 |
| 16   | 20.01  | 1.5174 | .5755  | -.2455 | -.0020 | .0032 | .0140  |
| 17   | .01    | .9745  | -.0148 | -.2078 | -.0067 | .0119 | -.0047 |
| 18   | 2.52   | 1.1176 | .0189  | -.1940 | -.0053 | .0120 | -.0107 |
| 19   | 5.00   | 1.0703 | .0763  | -.1610 | -.0072 | .0182 | -.0045 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 3    | .00    | 1.0349 | .1987  | -.1087 | -.0052 | .0073 | .0090  |
| 4    | .00    | .9857  | -.0183 | -.2050 | -.0067 | .0087 | -.0047 |
| 5    | .00    | .9681  | -.0167 | -.2050 | -.0064 | .0085 | -.0025 |
| 6    | -20.01 | -.6498 | .0218  | -.1822 | .0016  | .0068 | .0144  |
| 7    | -14.99 | -.2351 | -.0530 | -.2216 | -.0031 | .0058 | .0126  |
| 8    | -9.99  | .2337  | -.0846 | -.2594 | -.0011 | .0049 | .0095  |
| 9    | -5.00  | .6414  | -.0648 | -.2605 | -.0054 | .0052 | .0051  |
| 10   | -2.49  | .8198  | -.0400 | -.2401 | -.0085 | .0096 | -.0003 |
| 11   | .01    | .9691  | -.0106 | -.2031 | -.0062 | .0127 | -.0020 |
| 12   | 2.50   | 1.1282 | .0207  | -.1968 | -.0059 | .0121 | -.0110 |
| 13   | 5.01   | 1.0924 | .0802  | -.1525 | -.0078 | .0236 | -.0064 |
| 14   | 10.01  | 1.2470 | .2129  | -.1749 | -.0068 | .0054 | -.0059 |
| 15   | 15.01  | 1.3481 | .3769  | -.2217 | -.0093 | .0160 | -.0050 |
| 16   | 20.01  | 1.5174 | .5755  | -.2455 | -.0020 | .0032 | .0140  |
| 17   | .01    | .9745  | -.0148 | -.2078 | -.0067 | .0119 | -.0047 |
| 18   | 2.52   | 1.1176 | .0189  | -.1940 | -.0053 | .0120 | -.0107 |
| 19   | 5.00   | 1.0703 | .0763  | -.1610 | -.0072 | .0182 | -.0045 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 690

RUN 819 CONFIG F P 6 NPS W7 T37 BT IN=-3.5 XN=0

| PT. NO. | INW   | 15 DELF | Q DELA | Q IHT  | -5 DELE | Q DELR | Q DELSB | Q     | V     | RPM    |        |
|---------|-------|---------|--------|--------|---------|--------|---------|-------|-------|--------|--------|
|         | ALPHA | PSI     | CL 9AR | CDBAR  | CPM BAR | CYMBAR | CRMBAR  | CYBAR | PSF   | KNOTS  |        |
|         | DEG   | DEG     | SQ-FT  | SQ-FT  | CU-FT   | CU-FT  | CU-FT   | SQ-FT |       |        |        |
| 2       | .0    | .0      | 342.5  | 72.36  | 622.    | -87.   | 68.     | 1.65  | 55.44 | 129.13 | 3990.  |
| 3       | .0    | .0      | 318.5  | -6.55  | 467.    | -135.  | 90.     | -2.16 | 55.30 | 128.97 | 15870. |
| 4       | -20.0 | .0      | -282.2 | 21.78  | 254.    | -25.   | 34.     | 8.28  | 55.12 | 128.76 | 15850. |
| 5       | -15.0 | .0      | -137.3 | -8.16  | 660.    | -71.   | 21.     | 6.85  | 55.16 | 128.80 | 15910. |
| 6       | -10.0 | .0      | 34.4   | -23.95 | 575.    | -4.    | 15.     | 1.55  | 54.81 | 128.39 | 15840. |
| 7       | -5.0  | .0      | 188.1  | -19.01 | 491.    | -97.   | 68.     | 1.80  | 54.93 | 128.53 | 15830. |
| 8       | -2.5  | .0      | 257.1  | -13.18 | 434.    | -179.  | 88.     | .19   | 54.94 | 128.54 | 15860. |
| 9       | .0    | .0      | 319.7  | -4.40  | 475.    | -149.  | 126.    | -1.44 | 54.51 | 128.02 | 15840. |
| 10      | 2.5   | .0      | 369.6  | 6.59   | 478.    | -120.  | 90.     | -2.54 | 55.43 | 129.12 | 15840. |
| 11      | 5.0   | .0      | 364.0  | 27.17  | 533.    | -152.  | 179.    | -1.81 | 54.68 | 128.22 | 15850. |
| 12      | 10.0  | .0      | 422.6  | 72.55  | 461.    | -100.  | 54.     | -1.55 | 55.02 | 128.64 | 15850. |
| 13      | 15.0  | .0      | 468.5  | 131.51 | 286.    | -159.  | 70.     | 3.60  | 54.86 | 128.44 | 15830. |
| 14      | 20.0  | .0      | 535.3  | 192.35 | 57.     | 8.     | 1.      | 4.70  | 55.05 | 128.67 | 15890. |
| 15      | -17.5 | .0      | -216.5 | 10.36  | 373.    | 112.   | 4.      | -1.78 | 55.39 | 129.08 | 15860. |
| 16      | -0    | .0      | 314.0  | -3.81  | 451.    | -139.  | 107.    | -1.61 | 55.15 | 128.79 | 15840. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM   | CYM    | CRM   | CY     |
|------|--------|--------|--------|-------|--------|-------|--------|
| 2    | .00    | .9257  | .1956  | .2007 | -.0053 | .0041 | .0045  |
| 3    | .00    | .8607  | -.0180 | .1507 | -.0082 | .0055 | -.0058 |
| 4    | -20.00 | -.7088 | .0589  | .0818 | -.0015 | .0020 | .0224  |
| 5    | -15.00 | -.3711 | -.0221 | .2129 | -.0043 | .0013 | .0185  |
| 6    | -10.01 | .0929  | -.0647 | .1853 | -.0002 | .0009 | .0042  |
| 7    | -5.00  | .5085  | -.0514 | .1584 | -.0058 | .0041 | .0049  |
| 8    | -2.50  | .6949  | -.0356 | .1400 | -.0108 | .0053 | .0005  |
| 9    | .00    | .8640  | -.0119 | .1531 | -.0090 | .0076 | -.0039 |
| 10   | 2.50   | .9988  | .0178  | .1541 | -.0072 | .0055 | -.0071 |
| 11   | 5.00   | .9839  | .0734  | .1719 | -.0092 | .0108 | -.0049 |
| 12   | 9.99   | 1.1422 | .1961  | .1487 | -.0061 | .0032 | -.0042 |
| 13   | 15.00  | 1.2661 | .3554  | .0922 | -.0096 | .0042 | .0097  |
| 14   | 20.00  | 1.4466 | .5199  | .0183 | .0005  | .0001 | .0127  |
| 15   | -17.50 | -.5851 | .0280  | .1202 | .0067  | .0002 | -.0048 |
| 16   | -.00   | .8486  | -.0103 | .1455 | -.0084 | .0065 | -.0043 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB  | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|-------|--------|-------|--------|
| 2    | .00    | .9257  | .1956  | .2007 | -.0053 | .0041 | .0045  |
| 3    | .00    | .8607  | -.0180 | .1507 | -.0082 | .0055 | -.0058 |
| 4    | -20.00 | -.7088 | .0589  | .0818 | -.0015 | .0020 | .0224  |
| 5    | -15.00 | -.3711 | -.0221 | .2129 | -.0043 | .0013 | .0185  |
| 6    | -10.01 | .0929  | -.0647 | .1853 | -.0002 | .0009 | .0042  |
| 7    | -5.00  | .5085  | -.0514 | .1584 | -.0058 | .0041 | .0049  |
| 8    | -2.50  | .6949  | -.0356 | .1400 | -.0108 | .0053 | .0005  |
| 9    | .00    | .8640  | -.0119 | .1531 | -.0090 | .0076 | -.0039 |
| 10   | 2.50   | .9988  | .0178  | .1541 | -.0072 | .0055 | -.0071 |
| 11   | 5.00   | .9839  | .0734  | .1719 | -.0092 | .0108 | -.0049 |
| 12   | 9.99   | 1.1422 | .1961  | .1487 | -.0061 | .0032 | -.0042 |
| 13   | 15.00  | 1.2661 | .3554  | .0922 | -.0096 | .0042 | .0097  |
| 14   | 20.00  | 1.4466 | .5199  | .0183 | .0005  | .0001 | .0127  |
| 15   | -17.50 | -.5851 | .0280  | .1202 | .0067  | .0002 | -.0048 |
| 16   | -.00   | .8486  | -.0103 | .1455 | -.0084 | .0065 | -.0043 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 691

RUN 820 CONFIG F P E NPS U7 T37 BT IN=-3.5 XN=D

| PT. NO. | 15 DELF DEG | Q DELA PSI | Q DELA CL BAR SQ-FT | Q IHT CDBAR SQ-FT | -10 DELE CPMBAR CU-FT | Q DELR CYMBAR CU-FT | Q DELR CRMBAR CU-FT | Q DELSB CYBAR SQ-FT | Q DELSB G PSF | Q DELSB V KNOTS | RPM    |
|---------|-------------|------------|---------------------|-------------------|-----------------------|---------------------|---------------------|---------------------|---------------|-----------------|--------|
| 2       | .0          | .0         | 324.0               | 73.09             | 1083.                 | -76.                | 82.                 | 3.85                | 55.71         | 129.45          | 4010.  |
| 3       | .0          | .0         | 251.3               | -6.78             | 1019.                 | -146.               | 72.                 | -1.41               | 55.53         | 129.24          | 16100. |
| 4       | -20.0       | .0         | -272.1              | 31.26             | 328.                  | 5.                  | 23.                 | 5.16                | 55.41         | 129.09          | 16100. |
| 5       | -15.0       | .0         | -150.4              | .77               | 984.                  | -109.               | 92.                 | 6.24                | 55.17         | 128.81          | 16100. |
| 6       | -10.0       | .0         | 10.4                | -19.98            | 1179.                 | -21.                | 47.                 | 3.15                | 55.09         | 128.71          | 16110. |
| 7       | -5.0        | .0         | 161.0               | -17.30            | 1110.                 | -124.               | 101.                | 2.78                | 55.22         | 128.87          | 16080. |
| 8       | -2.5        | .0         | 200.2               | -12.06            | 1031.                 | -203.               | 86.                 | 1.36                | 55.05         | 128.67          | 16090. |
| 9       | .0          | .0         | 289.7               | -4.51             | 1005.                 | -151.               | 105.                | -.12                | 55.51         | 129.21          | 16060. |
| 10      | 2.5         | .0         | 352.2               | 5.47              | 1049.                 | -137.               | 107.                | -.56                | 54.50         | 128.01          | 16050. |
| 11      | 5.0         | .0         | 337.4               | 23.85             | 1016.                 | -147.               | 210.                | .62                 | 55.33         | 129.00          | 16030. |
| 12      | 10.0        | .0         | 398.6               | 68.17             | 93F.                  | -91.                | -141.               | 2.08                | 55.55         | 129.28          | 16070. |
| 13      | 15.0        | .0         | 447.3               | 126.65            | 789.                  | -234.               | 160.                | -.62                | 54.68         | 128.22          | 16060. |
| 14      | 20.0        | .0         | 510.6               | 184.69            | 563.                  | -91.                | -17.                | 3.75                | 55.42         | 129.10          | 16050. |
| 15      | .0          | .0         | 251.5               | -4.64             | 1024.                 | -143.               | 70.                 | .43                 | 55.24         | 128.89          | 16070. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM   | CYM    | CRM    | CY     |
|------|--------|--------|--------|-------|--------|--------|--------|
| 2    | .00    | .8758  | .1992  | .3491 | -.0046 | .0050  | .0104  |
| 3    | .00    | .7873  | -.0183 | .3287 | -.0088 | .0043  | -.0038 |
| 4    | -20.00 | -.7353 | .0845  | .1056 | .0003  | .0014  | .0140  |
| 5    | -14.99 | -.4066 | .0021  | .3173 | -.0066 | .0056  | .0169  |
| 6    | -10.01 | .0291  | -.0540 | .3801 | -.0012 | .0028  | .0085  |
| 7    | -4.99  | .4352  | -.0468 | .3579 | -.0075 | .0061  | .0075  |
| 8    | -2.50  | .6220  | -.0325 | .3325 | -.0122 | .0052  | .0037  |
| 9    | .01    | .7830  | -.0122 | .3241 | -.0091 | .0063  | -.0003 |
| 10   | 2.51   | .9519  | .0148  | .3382 | -.0083 | .0065  | -.0015 |
| 11   | 5.01   | .9119  | .0645  | .3276 | -.0089 | .0127  | .0017  |
| 12   | 10.00  | 1.0773 | .1842  | .3018 | -.0055 | -.0085 | .0056  |
| 13   | 15.01  | 1.2088 | .3423  | .2545 | -.0142 | .0096  | -.0017 |
| 14   | 20.01  | 1.3800 | .4992  | .1878 | -.0006 | -.0010 | .0101  |
| 15   | .00    | .7878  | -.0125 | .3301 | -.0086 | .0042  | .0012  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLS    | CDB    | CPMB  | CYMB   | CRMB   | CYS    |
|------|--------|--------|--------|-------|--------|--------|--------|
| 2    | .00    | .8758  | .1992  | .3491 | -.0046 | .0050  | .0104  |
| 3    | .00    | .7873  | -.0183 | .3287 | -.0088 | .0043  | -.0038 |
| 4    | -20.00 | -.7353 | .0845  | .1056 | .0003  | .0014  | .0140  |
| 5    | -14.99 | -.4066 | .0021  | .3173 | -.0066 | .0056  | .0169  |
| 6    | -10.01 | .0281  | -.0540 | .3801 | -.0012 | .0028  | .0085  |
| 7    | -4.99  | .4352  | -.0468 | .3579 | -.0075 | .0061  | .0075  |
| 8    | -2.50  | .6220  | -.0325 | .3325 | -.0122 | .0052  | .0037  |
| 9    | .01    | .7830  | -.0122 | .3241 | -.0091 | .0063  | -.0003 |
| 10   | 2.51   | .9519  | .0148  | .3382 | -.0083 | .0065  | -.0015 |
| 11   | 5.01   | .9119  | .0645  | .3276 | -.0089 | .0127  | .0017  |
| 12   | 10.00  | 1.0773 | .1842  | .3018 | -.0055 | -.0085 | .0056  |
| 13   | 15.01  | 1.2088 | .3423  | .2545 | -.0142 | .0096  | -.0017 |
| 14   | 20.01  | 1.3800 | .4992  | .1878 | -.0006 | -.0010 | .0101  |
| 15   | .00    | .7878  | -.0125 | .3301 | -.0086 | .0042  | .0012  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 692

RUN 821 CONFIG F P C NPS U7 T37 BT IN=-3.5 XN=0

| IN PT. NO. | -S DELF DEG | L DELA PSZ DEC | Q IHT SQ-FT | -LU DELE SQ-FT | Q DELR CU-FT | Q DELSB G | Q V KNOTS | RPM   |       |        |        |
|------------|-------------|----------------|-------------|----------------|--------------|-----------|-----------|-------|-------|--------|--------|
| 2          | .0          | .0             | -163.6      | 37.85          | 666.         | -45.      | -29.      | 3.28  | 55.82 | 129.58 | 3360.  |
| 3          | .0          | .0             | -104.5      | -6.74          | 582.         | -33.      | -30.      | 3.61  | 55.27 | 126.93 | 12080. |
| 4          | -20.0       | .0             | -391.8      | 164.05         | 485.         | -74.      | -187.     | 4.89  | 54.99 | 128.59 | 12060. |
| 5          | -15.0       | .0             | -410.2      | 119.42         | 1405.        | -63.      | -169.     | 4.62  | 54.54 | 128.05 | 12100. |
| 6          | -10.0       | .0             | -373.7      | 71.69          | 1029.        | -95.      | 1.        | 9.30  | 54.97 | 128.56 | 12110. |
| 7          | -5.0        | .0             | -321.3      | 10.37          | 522.         | -40.      | 5.        | 8.27  | 55.17 | 128.81 | 12150. |
| 8          | -2.5        | .0             | -243.9      | .22            | 550.         | -37.      | 5.        | 9.56  | 55.48 | 129.18 | 12100. |
| 9          | .0          | .0             | -117.6      | -0.75          | 564.         | -46.      | -27.      | 7.31  | 55.44 | 129.12 | 12120. |
| 10         | 2.5         | .0             | -83.9       | -10.72         | 594.         | -24.      | -13.      | 11.34 | 54.98 | 128.58 | 12120. |
| 11         | 5.0         | .0             | -41.6       | -11.72         | 604.         | -22.      | 10.       | 7.43  | 55.50 | 129.20 | 12100. |
| 13         | 15.0        | .0             | 314.9       | 11.44          | 878.         | -24.      | 105.      | 2.53  | 55.17 | 128.81 | 12100. |
| 14         | 20.0        | .0             | 460.9       | 46.75          | 915.         | -77.      | 177.      | -3.68 | 54.60 | 128.13 | 12050. |
| 15         | -17.5       | .0             | -373.6      | 140.20         | 880.         | -9.       | -63.      | 4.71  | 55.00 | 128.59 | 12130. |
| 16         | -12.5       | .0             | -323.9      | 37.01          | 1193.        | -74.      | -305.     | 11.09 | 54.67 | 128.20 | 12110. |
| 17         | -0          | .0             | -114.1      | -6.03          | 587.         | -32.      | -40.      | 9.03  | 55.81 | 129.57 | 12130. |
| 18         | 10.0        | .0             | 150.1       | -0.32          | 718.         | -47.      | 15.       | 4.15  | 55.84 | 129.60 | 12110. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM   | CYM    | CRM    | CY     |
|------|--------|---------|--------|-------|--------|--------|--------|
| 2    | .00    | -.4286  | .1003  | .2147 | -.0027 | -.0018 | .0251  |
| 3    | .00    | -.4445  | -.0182 | .1877 | -.0020 | -.0018 | .0260  |
| 4    | -20.00 | -1.0590 | .4434  | .1565 | -.0044 | -.0113 | .0132  |
| 5    | -15.00 | -1.1087 | .3228  | .4529 | -.0038 | -.0102 | .0125  |
| 6    | -9.99  | -1.0099 | .1538  | .3318 | -.0058 | .0000  | .0251  |
| 7    | -5.01  | -.8683  | .0230  | .1684 | -.0024 | .0003  | .0224  |
| 8    | -2.50  | -.6532  | .0006  | .1772 | -.0022 | .0003  | .0242  |
| 9    | .01    | -.4530  | -.0183 | .1818 | -.0028 | -.0016 | .0198  |
| 10   | 2.51   | -.2268  | -.0290 | .1916 | -.0015 | -.0008 | .0306  |
| 11   | 5.01   | -.0124  | -.0317 | .1947 | -.0013 | .0006  | .0201  |
| 13   | 15.00  | .8512   | .0309  | .2832 | -.0015 | .0063  | .0068  |
| 14   | 20.02  | 1.2456  | .1263  | .2950 | -.0047 | .0107  | -.0099 |
| 15   | -17.50 | -1.0231 | .3789  | .2837 | -.0005 | -.0038 | .0127  |
| 16   | -12.50 | -1.0645 | .2638  | .3848 | -.0045 | -.0154 | .0300  |
| 17   | -0.00  | -.4434  | -.0168 | .1892 | -.0019 | -.0026 | .0244  |
| 18   | 10.00  | .4050   | -.0171 | .2315 | -.0023 | .0009  | .0112  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CL2     | CDE    | CPM2  | CYM2   | CRM2   | CY2    |
|------|--------|---------|--------|-------|--------|--------|--------|
| 2    | .00    | -.4286  | .1023  | .2147 | -.0027 | -.0018 | .0251  |
| 3    | .00    | -.4445  | -.0162 | .1877 | -.0020 | -.0018 | .0260  |
| 4    | -20.00 | -1.0590 | .4434  | .1565 | -.0044 | -.0113 | .0132  |
| 5    | -15.00 | -1.1087 | .3228  | .4529 | -.0038 | -.0102 | .0125  |
| 6    | -9.99  | -1.0099 | .1538  | .3318 | -.0058 | .0000  | .0251  |
| 7    | -5.01  | -.8683  | .0260  | .1684 | -.0024 | .0003  | .0224  |
| 8    | -2.50  | -.6532  | .0006  | .1772 | -.0022 | .0003  | .0242  |
| 9    | .01    | -.4530  | -.0183 | .1818 | -.0028 | -.0016 | .0198  |
| 10   | 2.51   | -.2268  | -.0290 | .1916 | -.0015 | -.0008 | .0306  |
| 11   | 5.01   | -.0124  | -.0317 | .1947 | -.0013 | .0006  | .0201  |
| 13   | 15.00  | .8512   | .0309  | .2832 | -.0015 | .0063  | .0068  |
| 14   | 20.02  | 1.2456  | .1263  | .2950 | -.0047 | .0107  | -.0099 |
| 15   | -17.50 | -1.0231 | .3789  | .2837 | -.0005 | -.0038 | .0127  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 693

RUN 822 CONFIG F P L NP5 W7 T37 B1 INV=-3.5 XN=0

| PT. NO. | INW       | -9 DELF | D DELA      | D IHT       | -5 DELC      | D DELR      | D DELS3      | D           | V     | RFM    |        |
|---------|-----------|---------|-------------|-------------|--------------|-------------|--------------|-------------|-------|--------|--------|
|         | ALPHA DEG | PSI DEG | CL3AR SS-FT | COBAR SQ-FT | CPH3AR CU-FT | CYBAR CU-FT | CRYBAR CU-FT | CYBAR SQ-FT | G PSF | KNOTS  |        |
| 2       | .0        | .0      | -177.0      | 36.34       | 118.         | -41.        | -47.         | 9.13        | 55.19 | 128.84 | 3340.  |
| 3       | .0        | .0      | -139.7      | -7.23       | 34.          | -30.        | 7.           | 8.53        | 55.53 | 129.23 | 12030. |
| 4       | -20.0     | .0      | -364.1      | 155.67      | 319.         | -87.        | -160.        | 1.47        | 55.57 | 129.27 | 12020. |
| 5       | -15.0     | .0      | -373.4      | 110.36      | 900.         | -94.        | -202.        | 3.55        | 54.74 | 128.29 | 12020. |
| 6       | -10.0     | .0      | -309.3      | 65.37       | 301.         | -103.       | -52.         | 9.34        | 55.06 | 128.67 | 12010. |
| 7       | -5.0      | .0      | -235.5      | 7.72        | -32.         | -35.        | -83.         | 8.96        | 55.90 | 129.66 | 12030. |
| 8       | -2.5      | .0      | -270.1      | -1.14       | 29.          | -30.        | -60.         | 9.06        | 55.90 | 129.67 | 12040. |
| 9       | .0        | .0      | -141.2      | -7.27       | 52.          | -32.        | 5.           | 9.87        | 55.59 | 129.30 | 12040. |
| 10      | 5.0       | .0      | 14.5        | -11.69      | 113.         | -30.        | 46.          | 6.38        | 55.57 | 129.26 | 12030. |
| 11      | 10.0      | .0      | 172.0       | -4.86       | 260.         | -45.        | 85.          | 5.15        | 54.94 | 128.53 | 12000. |
| 12      | 15.0      | .0      | 331.8       | 14.81       | 323.         | -46.        | 124.         | .31         | 54.64 | 128.17 | 12000. |
| 13      | 20.0      | .0      | 477.1       | 51.10       | 352.         | -67.        | 159.         | -3.11       | 54.76 | 128.32 | 11990. |
| 14      | .0        | .0      | -142.3      | -7.52       | 40.          | -24.        | -30.         | 9.72        | 55.39 | 129.07 | 12030. |
| 15      | 2.5       | .0      | -14.2       | -10.98      | 72.          | -11.        | -9.          | 8.27        | 54.38 | 127.86 | 12020. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | -.3704  | .0982  | .0381  | -.0025 | -.0028 | .0247  |
| 3    | .00    | -.3776  | -.0197 | .0110  | -.0018 | .0004  | .0230  |
| 4    | -20.00 | -1.0380 | .4207  | .1029  | -.0053 | -.0037 | .0040  |
| 5    | -14.99 | -1.0227 | .2963  | .2902  | -.0057 | -.0122 | .0096  |
| 6    | -10.00 | -.9170  | .1767  | .0971  | -.0066 | -.0032 | .0252  |
| 7    | -5.00  | -.7987  | .0209  | -.0105 | -.0021 | -.0050 | .0242  |
| 8    | -2.50  | -.5949  | -.0031 | .0092  | -.0018 | -.0039 | .0245  |
| 9    | -.00   | -.3817  | -.0196 | .0169  | -.0019 | .0003  | .0267  |
| 10   | 5.01   | .0391   | -.0316 | .0364  | -.0018 | .0028  | .0172  |
| 11   | 10.02  | .4650   | -.0131 | .0837  | -.0027 | .0051  | .0139  |
| 12   | 15.02  | .8967   | .0400  | .1041  | -.0028 | .0075  | .0008  |
| 13   | 20.02  | 1.2896  | .1381  | .1070  | -.0041 | .0096  | -.0084 |
| 14   | .00    | -.3846  | -.0203 | .0156  | -.0015 | -.0018 | .0263  |
| 15   | 2.51   | -.1734  | -.0297 | .0233  | -.0006 | -.0006 | .0223  |

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\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | -.3704  | .0982  | .0381  | -.0025 | -.0028 | .0247  |
| 3    | .00    | -.3776  | -.0197 | .0110  | -.0018 | .0004  | .0230  |
| 4    | -20.00 | -1.0380 | .4207  | .1029  | -.0053 | -.0037 | .0040  |
| 5    | -14.99 | -1.0227 | .2963  | .2902  | -.0057 | -.0122 | .0096  |
| 6    | -10.00 | -.9170  | .1767  | .0971  | -.0066 | -.0032 | .0252  |
| 7    | -5.00  | -.7987  | .0209  | -.0105 | -.0021 | -.0050 | .0242  |
| 8    | -2.50  | -.5949  | -.0031 | .0092  | -.0018 | -.0039 | .0245  |
| 9    | -.00   | -.3817  | -.0196 | .0169  | -.0019 | .0003  | .0267  |
| 10   | 5.01   | .0391   | -.0316 | .0364  | -.0018 | .0028  | .0172  |
| 11   | 10.02  | .4650   | -.0131 | .0837  | -.0027 | .0051  | .0139  |
| 12   | 15.02  | .8967   | .0400  | .1041  | -.0028 | .0075  | .0008  |
| 13   | 20.02  | 1.2896  | .1381  | .1070  | -.0041 | .0096  | -.0084 |
| 14   | .00    | -.3846  | -.0203 | .0156  | -.0015 | -.0018 | .0263  |
| 15   | 2.51   | -.1734  | -.0297 | .0233  | -.0006 | -.0006 | .0223  |

N432403-1

SIKORSKY RSRA 1/8 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

PG 94

RUN 823 CONFIG F P C NPS W7 T37 BT IN=-3.5 XN=0

| PT. NO. | -9 DELF<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | O DELA<br>CL BAR<br>SQ-FT | O IHT<br>CDBAR<br>SQ-FT | O DELE<br>CPMBAR<br>CU-FT | O DELR<br>CYMBAR<br>CU-FT | O DELS<br>CRMBAR<br>CU-FT | O DELSB<br>CYBAR<br>SQ-FT | O<br>Q<br>PSF | V<br>KNOTS | RPM    |
|---------|-------------------------|---------------------|---------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|------------|--------|
|         |                         |                     |                           |                         |                           |                           |                           |                           |               |            |        |
| 3       | .0                      | .0                  | -123.8                    | -6.64                   | -516.                     | -41.                      | -29.                      | 9.47                      | 55.40         | 129.08     | 11850. |
| 4       | -20.0                   | .0                  | -379.3                    | 149.31                  | 36.                       | -78.                      | -215.                     | 2.34                      | 55.37         | 129.03     | 11810. |
| 5       | -15.0                   | .0                  | -351.0                    | 104.13                  | 250.                      | -93.                      | -196.                     | 2.62                      | 55.80         | 129.55     | 11800. |
| 6       | -10.0                   | .0                  | -304.2                    | 61.46                   | -377.                     | -119.                     | -139.                     | 9.68                      | 55.95         | 129.72     | 11810. |
| 7       | -5.0                    | .0                  | -278.3                    | 6.93                    | -622.                     | -41.                      | -66.                      | 8.36                      | 55.03         | 128.63     | 11840. |
| 8       | -2.5                    | .0                  | -200.1                    | -1.39                   | -557.                     | -33.                      | -49.                      | 9.77                      | 55.45         | 129.13     | 11840. |
| 9       | -0                      | .0                  | -123.4                    | -6.74                   | -511.                     | -43.                      | -10.                      | 7.67                      | 55.50         | 129.19     | 11840. |
| 10      | 2.5                     | .0                  | -44.7                     | -9.37                   | -456.                     | -36.                      | -6.                       | 6.97                      | 55.26         | 128.91     | 11840. |
| 11      | 5.0                     | .0                  | 33.4                      | -8.85                   | -387.                     | -39.                      | 63.                       | 7.36                      | 55.53         | 129.23     | 11830. |
| 12      | 10.0                    | .0                  | 150.7                     | -.72                    | -280.                     | -47.                      | 103.                      | 3.50                      | 55.52         | 129.22     | 11820. |
| 13      | 15.0                    | .0                  | 353.1                     | 20.83                   | -250.                     | -11.                      | 123.                      | 2.36                      | 54.82         | 128.38     | 11800. |
| 14      | 20.0                    | .0                  | 491.6                     | 57.06                   | 138.                      | -4.                       | 107.                      | .06                       | 54.39         | 127.87     | 11870. |
| 15      | -0                      | .0                  | -120.6                    | -6.74                   | -509.                     | -32.                      | -47.                      | 9.30                      | 55.30         | 128.96     | 11830. |
| 16      | 20.0                    | .0                  | 491.8                     | 51.13                   | 132.                      | -9.                       | 141.                      | -.58                      | 54.91         | 128.49     | 12670. |
| 17      | 20.0                    | .0                  | 492.2                     | 57.90                   | 115.                      | -17.                      | 72.                       | .13                       | 54.15         | 127.59     | 11800. |
| 18      | 20.0                    | .0                  | 490.4                     | 57.91                   | 123.                      | -2.                       | 71.                       | 1.69                      | 54.56         | 128.08     | 11790. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM.   | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | -.3117  | .0966  | -.1344 | -.0027 | .0026  | .0201  |
| 3    | .00    | -.3347  | -.0179 | -.1663 | -.0025 | -.0018 | .0256  |
| 4    | -20.01 | -1.0252 | .4035  | .0115  | -.0046 | -.0130 | .0063  |
| 5    | -15.00 | -.9487  | .2814  | .0807  | -.0056 | -.0119 | .0071  |
| 6    | -10.00 | -.8221  | .1651  | -.1216 | -.0072 | -.0084 | .0262  |
| 7    | -5.00  | -.7521  | .0187  | -.2007 | -.0025 | -.0040 | .0226  |
| 8    | -2.50  | -.5408  | -.0038 | -.1795 | -.0020 | -.0029 | .0264  |
| 9    | -0.00  | -.3334  | -.0182 | -.1646 | -.0026 | -.0006 | .0207  |
| 10   | 2.49   | -.1208  | -.0253 | -.1469 | -.0022 | -.0005 | .0188  |
| 11   | 5.00   | .0902   | -.0239 | -.1249 | -.0023 | .0038  | .0199  |
| 12   | 10.00  | .5153   | -.0019 | -.0904 | -.0029 | .0062  | .0095  |
| 13   | 15.00  | .9543   | .0563  | -.0805 | -.0007 | .0074  | .0064  |
| 14   | 20.00  | 1.3286  | .1542  | .0445  | -.0002 | .0065  | .0002  |
| 15   | -.01   | -.3258  | -.0182 | -.1642 | -.0019 | -.0028 | .0251  |
| 16   | 20.00  | 1.3291  | .1382  | .0425  | -.0005 | .0085  | -.0018 |
| 17   | 20.00  | 1.3303  | .1565  | .0370  | -.0010 | .0043  | .0003  |
| 18   | 20.00  | 1.3253  | .1565  | .0395  | -.0001 | .0043  | .0046  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3117  | .0966  | -.1344 | -.0027 | .0026  | .0201 |
| 3    | .00    | -.3347  | -.0179 | -.1663 | -.0025 | -.0018 | .0256 |
| 4    | -20.01 | -1.0252 | .4035  | .0115  | -.0046 | -.0130 | .0063 |
| 5    | -15.00 | -.9487  | .2814  | .0807  | -.0056 | -.0119 | .0071 |
| 6    | -10.00 | -.8221  | .1651  | -.1216 | -.0072 | -.0084 | .0262 |
| 7    | -5.00  | -.7521  | .0187  | -.2007 | -.0025 | -.0040 | .0226 |
| 8    | -2.50  | -.5408  | -.0038 | -.1795 | -.0020 | -.0029 | .0264 |
| 9    | -0.00  | -.3334  | -.0182 | -.1646 | -.0026 | -.0006 | .0207 |
| 10   | 2.49   | -.1208  | -.0253 | -.1469 | -.0022 | -.0005 | .0188 |
| 11   | 5.00   | .0902   | -.0239 | -.1249 | -.0023 | .0038  | .0199 |
| 12   | 10.00  | .5153   | -.0019 | -.0904 | -.0029 | .0062  | .0095 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 695

RUN 824 CONFIG F P B NPE W7 Y37 BT INC=-3.5 XN=0

| PT. NO. | INW | -B DELF<br>ALPHA DEG | Q DELA<br>PSI DEG | Q DELA<br>CLBAR SQ-FT | Q IHT<br>CDBAR SQ-FT | 5 DELE<br>CPMBAR CU-FT | Q DELR<br>CYMBAR CU-FT | Q DELR<br>CRMBAR CU-FT | Q DELSB<br>CYBAR SQ-FT | Q<br>PSF | V<br>KNOTS | RPM    |
|---------|-----|----------------------|-------------------|-----------------------|----------------------|------------------------|------------------------|------------------------|------------------------|----------|------------|--------|
| 2       |     | .0                   | .0                | -56.0                 | 36.26                | -906.                  | -56.                   | 7.                     | 8.61                   | 55.41    | 129.08     | 3360.  |
| 3       |     | .0                   | .0                | -103.7                | -5.98                | -1009.                 | -41.                   | -47.                   | 9.14                   | 55.17    | 128.80     | 11940. |
| 4       |     | -20.0                | .0                | -362.5                | 142.74               | -298.                  | -54.                   | -161.                  | .99                    | 54.81    | 128.37     | 11960. |
| 5       |     | -15.0                | .0                | -318.3                | 98.26                | -362.                  | -61.                   | -233.                  | 2.34                   | 55.26    | 128.90     | 11960. |
| 6       |     | -10.0                | .0                | -287.7                | 57.90                | -981.                  | -111.                  | -134.                  | 6.12                   | 55.12    | 128.73     | 11960. |
| 7       |     | -5.0                 | .0                | -250.7                | 4.86                 | -1103.                 | -47.                   | -15.                   | 9.32                   | 55.54    | 129.24     | 12010. |
| 8       |     | -2.5                 | .0                | -178.7                | -2.59                | -1048.                 | -45.                   | -48.                   | 9.56                   | 55.57    | 129.28     | 12010. |
| 9       |     | .0                   | .0                | -103.1                | -5.64                | -1015.                 | -50.                   | 25.                    | 7.57                   | 55.38    | 129.04     | 11960. |
| 10      |     | 2.5                  | .0                | -27.5                 | -8.92                | -959.                  | -35.                   | 8.                     | 8.34                   | 55.57    | 129.27     | 11950. |
| 11      |     | 5.0                  | .0                | 51.1                  | -7.71                | -877.                  | -40.                   | 30.                    | 5.71                   | 55.51    | 129.21     | 11930. |
| 12      |     | 10.0                 | .0                | 207.0                 | 3.62                 | -702.                  | -64.                   | 104.                   | 2.59                   | 55.17    | 128.80     | 11970. |
| 13      |     | 15.0                 | .0                | 355.9                 | 28.41                | -397.                  | -53.                   | 123.                   | 2.78                   | 55.05    | 128.65     | 11930. |
| 14      |     | 20.0                 | .0                | 488.9                 | 62.58                | 69.                    | -35.                   | -123.                  | -1.05                  | 54.89    | 128.47     | 11910. |
| 15      |     | .0                   | .0                | -102.5                | -7.13                | -1009.                 | -50.                   | 7.                     | 8.28                   | 55.57    | 129.27     | 11970. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. # | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|-------|--------|--------|--------|--------|--------|--------|--------|
| 2     | .00    | -.2596 | .0980  | -.2922 | -.0034 | .0004  | .0233  |
| 3     | .00    | -.2802 | -.0189 | -.3252 | -.0025 | -.0028 | .0247  |
| 4     | -19.99 | -.9795 | .3858  | -.0961 | -.0032 | -.0097 | .0027  |
| 5     | -14.99 | -.8604 | .2656  | -.1168 | -.0037 | -.0141 | .0063  |
| 6     | -10.00 | -.7777 | .1565  | -.3162 | -.0067 | -.0081 | .0165  |
| 7     | -4.99  | -.6775 | .0131  | -.3557 | -.0028 | -.0009 | .0252  |
| 8     | -2.50  | -.4830 | -.0070 | -.3379 | -.0027 | -.0029 | .0258  |
| 9     | .00    | -.2786 | -.0185 | -.3274 | -.0030 | .0015  | .0204  |
| 10    | 2.49   | -.0742 | -.0241 | -.3091 | -.0021 | .0005  | .0225  |
| 11    | 5.00   | .1381  | -.0208 | -.2828 | -.0024 | .0018  | .0154  |
| 12    | 10.02  | .5594  | .0098  | -.2265 | -.0039 | .0063  | .0070  |
| 13    | 15.00  | .9619  | .0768  | -.1279 | -.0032 | .0074  | .0075  |
| 14    | 20.01  | 1.3212 | .1691  | .0221  | -.0021 | .0075  | -.0029 |
| 15    | .00    | -.2769 | -.0193 | -.3252 | -.0030 | .0004  | .0224  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. # | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|-------|--------|--------|--------|--------|--------|--------|--------|
| 2     | .00    | -.2596 | .0980  | -.2922 | -.0034 | .0004  | .0233  |
| 3     | .00    | -.2802 | -.0189 | -.3252 | -.0025 | -.0028 | .0247  |
| 4     | -19.99 | -.9795 | .3858  | -.0961 | -.0032 | -.0097 | .0027  |
| 5     | -14.99 | -.8604 | .2656  | -.1168 | -.0037 | -.0141 | .0063  |
| 6     | -10.00 | -.7777 | .1565  | -.3162 | -.0067 | -.0081 | .0165  |
| 7     | -4.99  | -.6775 | .0131  | -.3557 | -.0028 | -.0009 | .0252  |
| 8     | -2.50  | -.4830 | -.0070 | -.3379 | -.0027 | -.0029 | .0258  |
| 9     | .00    | -.2786 | -.0185 | -.3274 | -.0030 | .0015  | .0204  |
| 10    | 2.49   | -.0742 | -.0241 | -.3091 | -.0021 | .0005  | .0225  |
| 11    | 5.00   | .1381  | -.0208 | -.2828 | -.0024 | .0018  | .0154  |
| 12    | 10.02  | .5594  | .0098  | -.2265 | -.0039 | .0063  | .0070  |
| 13    | 15.00  | .9619  | .0768  | -.1279 | -.0032 | .0074  | .0075  |
| 14    | 20.01  | 1.3212 | .1691  | .0221  | -.0021 | .0075  | -.0029 |
| 15    | .00    | -.2769 | -.0193 | -.3252 | -.0030 | .0004  | .0224  |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 696

RUN 025 CONFIG F P E NPE W7 T37 BT IN=-3.5 XN=0

| IW      | -9 DELF   | G DELA  | D IHT       | LO DELE     | O DELR       | O DELSB      | O             | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|---------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMSBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | -82.4       | 40.07       | -1354.       | -44.         | -46.          | 8.68        | 55.34 | 128.00  | 3370.  |
| 3       | .0        | .0      | -88.9       | 7.50        | -1453.       | -39.         | 24.           | 8.52        | 55.15 | 128.77  | 12520. |
| 4       | -20.0     | .0      | -354.1      | 135.40      | -689.        | -44.         | -195.         | 1.35        | 55.48 | 129.16  | 10190. |
| 5       | -15.0     | .0      | -309.1      | 90.87       | -1034.       | -97.         | -200.         | 3.69        | 55.44 | 129.11  | 12470. |
| 6       | -10.0     | .0      | -267.7      | 50.90       | -1597.       | -100.        | -57.          | 7.80        | 55.46 | 129.13  | 12510. |
| 7       | -5.0      | .0      | -241.1      | 2.23        | -1623.       | -36.         | -118.         | 9.12        | 56.05 | 129.84  | 12480. |
| 8       | -2.5      | .0      | -162.1      | -4.39       | -1517.       | -42.         | 41.           | 7.44        | 55.88 | 129.64  | 12570. |
| 9       | .0        | .0      | -89.8       | -6.80       | -1445.       | -43.         | -9.           | 7.15        | 55.74 | 129.47  | 12450. |
| 10      | .0        | .0      | -89.2       | -7.43       | -1439.       | -41.         | 27.           | 5.86        | 55.76 | 129.50  | 12550. |
| 11      | 2.5       | .0      | -12.8       | -7.96       | -1330.       | -44.         | 10.           | 6.98        | 55.64 | 129.35  | 12500. |
| 12      | 5.0       | .0      | 60.4        | -6.23       | -1168.       | -37.         | 29.           | 6.06        | 56.19 | 130.01  | 12570. |
| 13      | 10.0      | .0      | 206.5       | 4.80        | -811.        | -48.         | 85.           | 4.30        | 55.44 | 129.12  | 12530. |
| 14      | 15.0      | .0      | 357.6       | 28.02       | -428.        | -52.         | 88.           | 4.27        | 54.24 | 127.69  | 12580. |
| 15      | 20.0      | .0      | 463.7       | 61.20       | 51.          | -19.         | 88.           | 2.53        | 55.21 | 128.84  | 12570. |
| 16      | .0        | .0      | -88.9       | -7.56       | -1441.       | -48.         | 8.            | 7.23        | 55.09 | 128.70  | 12540. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.2228 | .1083  | -.4365 | -.0026 | -.0028 | .0235 |
| 3    | .00    | -.2403 | -.0203 | -.4686 | -.0023 | .0015  | .0230 |
| 4    | -20.00 | -.9570 | .3660  | -.2221 | -.0026 | -.0118 | .0037 |
| 5    | -14.99 | -.8354 | .2456  | -.3333 | -.0058 | -.0121 | .0100 |
| 6    | -10.00 | -.7235 | .1376  | -.5150 | -.0060 | -.0040 | .0211 |
| 7    | -5.00  | -.6516 | .0060  | -.5233 | -.0022 | -.0071 | .0246 |
| 8    | -2.50  | -.4381 | -.0119 | -.4891 | -.0025 | .0025  | .0201 |
| 9    | .00    | -.2427 | -.0184 | -.4657 | -.0026 | -.0005 | .0193 |
| 10   | .00    | -.2411 | -.0201 | -.4639 | -.0025 | .0017  | .0158 |
| 11   | 2.51   | -.0346 | -.0215 | -.4286 | -.0027 | .0006  | .0189 |
| 12   | 5.02   | .1632  | -.0168 | -.3765 | -.0023 | .0017  | .0164 |
| 13   | 10.02  | .5582  | .0130  | -.2615 | -.0029 | .0051  | .0116 |
| 14   | 15.00  | .9666  | .0757  | -.1381 | -.0031 | .0053  | .0115 |
| 15   | 20.02  | 1.3074 | .1654  | .0164  | -.0012 | .0053  | .0068 |
| 16   | .00    | -.2404 | -.0204 | -.4647 | -.0029 | .0005  | .0196 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.2228 | .1083  | -.4365 | -.0026 | -.0028 | .0235 |
| 3    | .00    | -.2403 | -.0203 | -.4686 | -.0023 | .0015  | .0230 |
| 4    | -20.00 | -.9570 | .3660  | -.2221 | -.0026 | -.0118 | .0037 |
| 5    | -14.99 | -.8354 | .2456  | -.3333 | -.0058 | -.0121 | .0100 |
| 6    | -10.00 | -.7235 | .1376  | -.5150 | -.0060 | -.0040 | .0211 |
| 7    | -5.00  | -.6516 | .0060  | -.5233 | -.0022 | -.0071 | .0246 |
| 8    | -2.50  | -.4381 | -.0119 | -.4891 | -.0025 | .0025  | .0201 |
| 9    | .00    | -.2427 | -.0184 | -.4657 | -.0026 | -.0005 | .0193 |
| 10   | .00    | -.2411 | -.0201 | -.4639 | -.0025 | .0017  | .0158 |
| 11   | 2.51   | -.0346 | -.0215 | -.4286 | -.0027 | .0006  | .0189 |
| 12   | 5.02   | .1632  | -.0168 | -.3765 | -.0023 | .0017  | .0164 |
| 13   | 10.02  | .5582  | .0130  | -.2615 | -.0029 | .0051  | .0116 |
| 14   | 15.00  | .9666  | .0757  | -.1381 | -.0031 | .0053  | .0115 |
| 15   | 20.02  | 1.3074 | .1654  | .0164  | -.0012 | .0053  | .0068 |
| 16   | .00    | -.2404 | -.0204 | -.4647 | -.0029 | .0005  | .0196 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 697

RUN 026 CONFIG F P 6 NPE K7 Y37 BT IN=-3.5 XN=0

| IN  | IS DELF |     | O DELA |        | O IHT  |        | O DELE |       | O DELR |        | O DELSB |   | O   |
|-----|---------|-----|--------|--------|--------|--------|--------|-------|--------|--------|---------|---|-----|
| PT. | ALPHA   | PSI | CLBAR  | CDBAR  | CPMBAR | CYMBAR | CRMBAR | CYBAR | CRBAR  | CYBAR  | Q       | V | RPM |
| NO. | DEG     | DEG | SQ-FT  | SQ-FT  | CU-FT  | CU-FT  | CU-FT  | SQ-FT | PSF    | KNOTS  |         |   |     |
| 2   | .0      | .0  | 358.2  | 70.83  | 126.   | -114.  | 50.    | 2.22  | 55.12  | 128.74 | 3980.   |   |     |
| 3   | .0      | .0  | 332.3  | -7.36  | -127.  | -115.  | 51.    | 1.31  | 54.74  | 128.29 | 15690.  |   |     |
| 4   | -20.0   | .0  | -252.2 | 11.89  | -88.   | -21.   | 21.    | 6.13  | 55.02  | 128.62 | 15610.  |   |     |
| 5   | -15.0   | .0  | -110.1 | -15.32 | -35.   | -69.   | 0.     | 8.40  | 55.56  | 129.26 | 15590.  |   |     |
| 6   | -10.0   | .0  | 59.0   | -29.40 | -157.  | -29.   | 88.    | -1.19 | 55.20  | 128.84 | 15620.  |   |     |
| 7   | -5.0    | .0  | 209.6  | -23.91 | -180.  | -103.  | 87.    | 1.31  | 54.64  | 128.17 | 15630.  |   |     |
| 8   | -2.5    | .0  | 272.2  | -16.46 | -157.  | -162.  | 53.    | -1.56 | 55.22  | 128.86 | 15630.  |   |     |
| 9   | .0      | .0  | 340.9  | -6.76  | -93.   | -150.  | 127.   | -1.94 | 54.32  | 127.78 | 15590.  |   |     |
| 10  | 2.5     | .0  | 389.6  | 8.56   | -95.   | -184.  | 108.   | -2.65 | 55.37  | 129.04 | 15640.  |   |     |
| 11  | 5.0     | .0  | 373.7  | 27.26  | 20.    | -164.  | 107.   | -2.58 | 55.35  | 129.02 | 15600.  |   |     |
| 12  | 10.0    | .0  | 435.5  | 75.61  | -50.   | -96.   | -1.    | 1.97  | 55.24  | 128.88 | 15570.  |   |     |
| 13  | 15.0    | .0  | 470.4  | 132.59 | -180.  | -83.   | 69.    | 1.59  | 55.57  | 129.27 | 15540.  |   |     |
| 14  | 17.5    | .0  | 522.1  | 165.65 | -273.  | -101.  | 158.   | 2.09  | 55.33  | 128.98 | 15610.  |   |     |
| 15  | 20.0    | .0  | 551.2  | 201.41 | -460.  | 21.    | -52.   | 3.55  | 55.64  | 129.34 | 15560.  |   |     |
| 16  | .0      | .0  | 332.5  | -6.19  | -78.   | -146.  | 141.   | -1.28 | 55.70  | 129.43 | 15560.  |   |     |

\*\*\*\* COEFFICIENT FORM -- WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | .CY    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9680  | .1916  | .0406  | -.0069 | .0030  | .0060  |
| 3    | .00    | .8981  | -.0199 | -.0410 | -.0070 | .0031  | .0035  |
| 4    | -20.00 | -.6815 | .0321  | -.0284 | -.0013 | .0013  | .0166  |
| 5    | -14.97 | -.2975 | -.0414 | -.0114 | -.0042 | .0000  | .0227  |
| 6    | -10.00 | .1596  | -.0795 | -.0507 | -.0017 | .0053  | -.0005 |
| 7    | -5.00  | .5664  | -.0646 | -.0580 | -.0062 | .0052  | .0035  |
| 8    | -2.50  | .7357  | -.0445 | -.0507 | -.0098 | .0032  | -.0015 |
| 9    | .00    | .9213  | -.0183 | -.0298 | -.0090 | .0077  | -.0053 |
| 10   | 2.51   | 1.0529 | .0234  | -.0306 | -.0111 | .0065  | -.0071 |
| 11   | 4.99   | 1.0100 | .0737  | .0064  | -.0099 | .0065  | -.0070 |
| 12   | 10.02  | 1.1771 | .2044  | -.0161 | -.0058 | -.0001 | .0053  |
| 13   | 15.00  | 1.2715 | .3583  | -.0581 | -.0050 | .0042  | .0043  |
| 14   | 17.54  | 1.4111 | .4477  | -.0881 | -.0061 | .0095  | .0057  |
| 15   | 20.01  | 1.4899 | .5443  | -.1482 | .0013  | -.0031 | .0096  |
| 16   | .00    | .8986  | -.0167 | -.0250 | -.0088 | .0085  | -.0035 |

\*\*\*\* COEFFICIENT FORM -- STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9680  | .1916  | .0406  | -.0069 | .0030  | .0060  |
| 3    | .00    | .8981  | -.0199 | -.0410 | -.0070 | .0031  | .0035  |
| 4    | -20.00 | -.6815 | .0321  | -.0284 | -.0013 | .0013  | .0166  |
| 5    | -14.97 | -.2975 | -.0414 | -.0114 | -.0042 | .0000  | .0227  |
| 6    | -10.00 | .1596  | -.0795 | -.0507 | -.0017 | .0053  | -.0005 |
| 7    | -5.00  | .5664  | -.0646 | -.0580 | -.0062 | .0052  | .0035  |
| 8    | -2.50  | .7357  | -.0445 | -.0507 | -.0098 | .0032  | -.0015 |
| 9    | .00    | .9213  | -.0183 | -.0298 | -.0090 | .0077  | -.0053 |
| 10   | 2.51   | 1.0529 | .0234  | -.0306 | -.0111 | .0065  | -.0071 |
| 11   | 4.99   | 1.0100 | .0737  | .0064  | -.0099 | .0065  | -.0070 |
| 12   | 10.02  | 1.1771 | .2044  | -.0161 | -.0058 | -.0001 | .0053  |
| 13   | 15.00  | 1.2715 | .3583  | -.0581 | -.0050 | .0042  | .0043  |
| 14   | 17.54  | 1.4111 | .4477  | -.0881 | -.0061 | .0095  | .0057  |
| 15   | 20.01  | 1.4899 | .5443  | -.1482 | .0013  | -.0031 | .0096  |
| 16   | .00    | .8986  | -.0167 | -.0250 | -.0088 | .0085  | -.0035 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P 69 8

RUN 827 CONFIG F P R NP5 W7 T37 BT IN=-3.5

| PT. NO. | ALPHA DEG | PSI DEG | 3n DELA CI BAR SQ-FT | 0.0 IHT CD BAR SQ-FT | 0.0 DELE CPMBAR CU-FT | 0.0 DELR CYMBAR CU-FT | 0.0 DELSB CRMBAR CU-FT | 0.0 DELSB Q SQ-FT | 0.0 DELSB PSF | 0.0 DELSB V KNOTS | RPM    |
|---------|-----------|---------|----------------------|----------------------|-----------------------|-----------------------|------------------------|-------------------|---------------|-------------------|--------|
| 2       | 0         | 0       | 572.4                | 128.37               | 107.                  | -16.                  | 107.                   | -2.02             | 55.77         | 129.51            | 4280.  |
| 3       | 0         | 0       | 524.9                | -7.59                | -245.                 | -27.                  | 369.                   | -24.62            | 54.51         | 128.02            | 19920. |
| 4       | -20.0     | 0       | 115.6                | -20.37               | -233.                 | -32.                  | 86.                    | .31               | 55.57         | 129.27            | 19930. |
| 5       | -15.0     | 0       | 43.6                 | -36.93               | -24.                  | -15.                  | 125.                   | -1.35             | 55.50         | 129.20            | 19930. |
| 7       | -5.0      | 0       | 403.3                | -24.73               | -134.                 | -99.                  | 160.                   | -1.78             | 55.52         | 129.22            | 19840. |
| 8       | -2.5      | 0       | 475.4                | -15.51               | -181.                 | -48.                  | 145.                   | -4.10             | 55.66         | 129.38            | 19980. |
| 9       | 0         | 0       | 521.6                | -2.48                | -240.                 | -26.                  | 378.                   | -20.94            | 55.15         | 128.78            | 19930. |
| 10      | 2.5       | 0       | 554.8                | 11.21                | -195.                 | 9.                    | 659.                   | -20.62            | 54.85         | 128.42            | 19920. |
| 11      | 5.0       | 0       | 540.1                | 27.06                | -290.                 | -75.                  | 463.                   | -7.70             | 55.31         | 128.97            | 19920. |
| 12      | 10.0      | 0       | 480.4                | 79.51                | -341.                 | -36.                  | 64.                    | 9.34              | 55.83         | 129.57            | 19940. |
| 13      | 15.0      | 0       | 539.2                | 148.25               | -420.                 | -132.                 | 175.                   | 3.14              | 55.31         | 128.96            | 19920. |
| 14      | 17.5      | 0       | 573.3                | 182.54               | -528.                 | -38.                  | 87.                    | 2.76              | 55.56         | 129.26            | 19910. |
| 15      | 20.0      | 0       | 616.0                | 223.35               | -661.                 | -14.                  | 36.                    | 3.98              | 55.58         | 129.28            | 19890. |
| 17      | -10.0     | 0       | 241.3                | -31.14               | 45.                   | -1.                   | 197.                   | -2.70             | 55.42         | 129.10            | 19940. |
| 18      | 0         | 0       | 570.0                | .64                  | -202.                 | -42.                  | 401.                   | -24.96            | 55.13         | 128.75            | 19930. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYH    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 0.00   | 1.5471 | .3469  | .0344  | -.0009 | .0065 | -.0054 |
| 3    | 0.00   | 1.4185 | -.0205 | -.0789 | -.0016 | .0223 | -.0665 |
| 4    | -20.00 | -.3125 | -.0551 | -.0751 | -.0019 | .0052 | .0008  |
| 5    | -14.99 | .1720  | -.0998 | -.0077 | -.0009 | .0075 | -.0036 |
| 7    | -5.00  | 1.0900 | -.0668 | -.0431 | -.0060 | .0097 | -.0048 |
| 8    | -2.50  | 1.2849 | -.0419 | -.0583 | -.0029 | .0088 | -.0111 |
| 9    | 0.00   | 1.4097 | -.0067 | -.0775 | -.0016 | .0228 | -.0566 |
| 10   | 2.49   | 1.4995 | .0303  | -.0629 | .0006  | .0398 | -.0557 |
| 11   | 5.00   | 1.5139 | .0731  | -.0934 | -.0046 | .0279 | -.0208 |
| 12   | 10.00  | 1.2985 | .2149  | -.1101 | -.0022 | .0039 | .0252  |
| 13   | 15.00  | 1.4574 | .4007  | -.1354 | -.0080 | .0105 | .0085  |
| 14   | 17.49  | 1.5494 | .4934  | -.1702 | -.0023 | .0053 | .0075  |
| 15   | 20.00  | 1.6649 | .6036  | -.2130 | -.0008 | .0022 | .0108  |
| 17   | -10.01 | .6523  | -.0842 | .0144  | -.0000 | .0119 | -.0073 |
| 18   | 0.00   | 1.4053 | .0017  | -.0652 | -.0025 | .0242 | -.0675 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 0.00   | 1.5471 | .3469  | .0344  | -.0009 | .0065 | -.0054 |
| 3    | 0.00   | 1.4185 | -.0205 | -.0789 | -.0016 | .0223 | -.0665 |
| 4    | -20.00 | -.3125 | -.0551 | -.0751 | -.0019 | .0052 | .0008  |
| 5    | -14.99 | .1720  | -.0998 | -.0077 | -.0009 | .0075 | -.0036 |
| 7    | -5.00  | 1.0900 | -.0668 | -.0431 | -.0060 | .0097 | -.0048 |
| 8    | -2.50  | 1.2849 | -.0419 | -.0583 | -.0029 | .0088 | -.0111 |
| 9    | 0.00   | 1.4097 | -.0067 | -.0775 | -.0016 | .0228 | -.0566 |
| 10   | 2.49   | 1.4995 | .0303  | -.0629 | .0006  | .0398 | -.0557 |
| 11   | 5.00   | 1.5139 | .0731  | -.0934 | -.0046 | .0279 | -.0208 |
| 12   | 10.00  | 1.2985 | .2149  | -.1101 | -.0022 | .0039 | .0252  |
| 13   | 15.00  | 1.4574 | .4007  | -.1354 | -.0080 | .0105 | .0085  |
| 14   | 17.49  | 1.5494 | .4934  | -.1702 | -.0023 | .0053 | .0075  |
| 15   | 20.00  | 1.6649 | .6036  | -.2130 | -.0008 | .0022 | .0108  |
| 17   | -10.01 | .6523  | -.0842 | .0144  | -.0000 | .0119 | -.0073 |
| 18   | 0.00   | 1.4053 | .0017  | -.0652 | -.0025 | .0242 | -.0675 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P699

RUN 828 CONFIG F P R NP5 W7 T37 BT IN=-3.5

| PT NO. | ALPHA DEG | PSI DEG | O.D DELA SQ-FT | O.D DELA SQ-FT | O.D IHT CU-FT | O.D DELE CU-FT | O.D DELR CU-FT | O.D DELSR SQ-FT | O V PSF | RPH    |        |
|--------|-----------|---------|----------------|----------------|---------------|----------------|----------------|-----------------|---------|--------|--------|
| 2      | 0         | 0       | 239.1          | 45.09          | 37.           | -70.           | 65.            | 4.11            | 55.56   | 129.26 | 3790.  |
| 3      | 0         | 0       | 233.1          | -12.72         | -124.         | -61.           | 65.            | 4.12            | 55.43   | 129.11 | 13510. |
| 4      | -20.0     | 0       | -363.1         | 37.28          | 112.          | -39.           | -6.            | 2.84            | 55.16   | 128.79 | 13580. |
| 5      | -15.0     | 0       | -240.0         | 8.47           | -36.          | -28.           | -12.           | 5.63            | 55.69   | 129.42 | 13490. |
| 6      | -10.0     | 0       | 83.6           | -17.11         | -258.         | -31.           | -15.           | 7.93            | 55.39   | 129.07 | 13480. |
| 7      | -5.0      | 0       | 77.8           | -20.79         | -190.         | -57.           | 28.            | 4.38            | 55.22   | 128.86 | 13500. |
| 8      | -2.5      | 0       | 168.8          | -18.47         | -209.         | -71.           | 8.             | 6.49            | 55.15   | 128.77 | 13490. |
| 9      | 0         | 0       | 232.1          | -13.16         | -123.         | -67.           | 45.            | 6.10            | 55.27   | 128.91 | 13490. |
| 10     | 2.5       | 0       | 301.5          | -5.34          | -14.          | -64.           | 52.            | 1.18            | 54.98   | 128.57 | 13470. |
| 12     | 10.0      | 0       | 438.4          | 41.36          | 63.           | -97.           | 139.           | 3.28            | 55.06   | 128.66 | 13470. |
| 13     | 15.0      | 0       | 498.9          | 95.26          | -99.          | -142.          | 228.           | 3.15            | 55.18   | 128.80 | 13460. |
| 14     | 17.6      | 0       | 516.6          | 133.58         | -289.         | -47.           | 278.           | .67             | 55.72   | 129.44 | 13480. |
| 15     | 20.0      | 0       | 552.9          | 166.32         | -326.         | 2.             | 124.           | 1.86            | 54.97   | 128.55 | 13470. |
| 16     | 0         | 0       | 228.8          | -12.58         | -104.         | -83.           | 67.            | 2.20            | 55.75   | 129.48 | 13410. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .6462  | .1219  | .0118  | -.0042 | .0039  | .0111 |
| 3    | 0.00   | .6301  | -.0344 | -.0401 | -.0037 | .0039  | .0111 |
| 4    | -20.01 | -.9814 | .1007  | .0361  | -.0024 | -.0004 | .0077 |
| 5    | -14.96 | -.6488 | .0229  | -.0115 | -.0017 | -.0007 | .0152 |
| 6    | -10.01 | -.2259 | -.0462 | -.0830 | -.0019 | -.0009 | .0214 |
| 7    | -4.99  | .2103  | -.0562 | -.0611 | -.0034 | .0017  | .0118 |
| 8    | -2.50  | .4293  | -.0499 | -.0674 | -.0043 | .0005  | .0175 |
| 9    | .02    | .6273  | -.0356 | -.0395 | -.0041 | .0027  | .0165 |
| 10   | 2.49   | .8147  | -.0144 | -.0045 | -.0039 | .0031  | .0032 |
| 12   | 10.00  | 1.1850 | .1118  | .0204  | -.0059 | .0084  | .0089 |
| 13   | 15.04  | 1.3484 | .2575  | -.0320 | -.0086 | .0138  | .0085 |
| 14   | 17.60  | 1.3961 | .3610  | -.0932 | -.0029 | .0168  | .0018 |
| 15   | 20.00  | 1.4944 | .4495  | -.1052 | .0001  | .0075  | .0050 |
| 16   | .00    | .6183  | -.0340 | -.0335 | -.0050 | .0040  | .0059 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | COB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .6462  | .1219  | .0118  | -.0042 | .0039  | .0111 |
| 3    | 0.00   | .6301  | -.0344 | -.0401 | -.0037 | .0039  | .0111 |
| 4    | -20.01 | -.9814 | .1007  | .0361  | -.0024 | -.0004 | .0077 |
| 5    | -14.96 | -.6488 | .0229  | -.0115 | -.0017 | -.0007 | .0152 |
| 6    | -10.01 | -.2259 | -.0462 | -.0830 | -.0019 | -.0009 | .0214 |
| 7    | -4.99  | .2103  | -.0562 | -.0611 | -.0034 | .0017  | .0118 |
| 8    | -2.50  | .4293  | -.0499 | -.0674 | -.0043 | .0005  | .0175 |
| 9    | .02    | .6273  | -.0356 | -.0395 | -.0041 | .0027  | .0165 |
| 10   | 2.49   | .8147  | -.0144 | -.0045 | -.0039 | .0031  | .0032 |
| 12   | 10.00  | 1.1850 | .1118  | .0204  | -.0059 | .0084  | .0089 |
| 13   | 15.04  | 1.3484 | .2575  | -.0320 | -.0086 | .0138  | .0085 |
| 14   | 17.60  | 1.3961 | .3610  | -.0932 | -.0029 | .0168  | .0018 |
| 15   | 20.00  | 1.4944 | .4495  | -.1052 | .0001  | .0075  | .0050 |
| 16   | .00    | .6183  | -.0340 | -.0335 | -.0050 | .0040  | .0059 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 700

RUN 879 CONFIG F P R NP5 W7 T37 BT IN=-3.5

| PT. NO. | 7.5 DELF<br>ALPHA DEG | 0.0 DELA<br>PSI DEG | 0.0 IHT<br>CDBAR SQ-FT | 10 DELE<br>CPMBAR CU-FT | 0.0 DELR<br>CYMBAR CU-FT | 0.0 DELSB<br>CRMBAR SQ-FT | 0.0<br>Q PSF | n.0<br>V KNOTS | RPM   |        |        |
|---------|-----------------------|---------------------|------------------------|-------------------------|--------------------------|---------------------------|--------------|----------------|-------|--------|--------|
| 2       | 0                     | 0                   | 270.0                  | 48.75                   | -824.                    | -51.                      | 12.          | 4.41           | 54.91 | 128.49 | 3790.  |
| 3       | 0                     | 0                   | 268.1                  | -13.68                  | -1074.                   | -46.                      | 84.          | 2.46           | 55.45 | 129.14 | 13940. |
| 4       | -20.0                 | 0                   | -336.1                 | 27.18                   | -818.                    | -41.                      | -17.         | 7.42           | 55.11 | 128.73 | 13770. |
| 5       | -15.0                 | 0                   | -202.6                 | -1.49                   | -1195.                   | -4.                       | 22.          | 6.05           | 55.76 | 129.50 | 13970. |
| 6       | -10.0                 | 0                   | -39.6                  | -24.15                  | -1446.                   | -31.                      | 7.           | 5.96           | 55.39 | 129.07 | 13840. |
| 7       | -5.0                  | 0                   | 117.0                  | -24.42                  | -1360.                   | -37.                      | 10.          | 4.75           | 55.27 | 128.92 | 13920. |
| 8       | -2.5                  | 0                   | 196.7                  | -20.50                  | -1256.                   | -43.                      | 66.          | 3.14           | 55.28 | 128.94 | 13930. |
| 9       | 0                     | 0                   | 266.3                  | -14.09                  | -1087.                   | -53.                      | 69.          | 1.25           | 54.65 | 128.18 | 13910. |
| 10      | 2.5                   | 0                   | 334.2                  | -4.82                   | -960.                    | -44.                      | 86.          | 1.61           | 55.12 | 128.74 | 13910. |
| 11      | 5.0                   | 0                   | 402.3                  | 7.48                    | -889.                    | -57.                      | 105.         | .99            | 55.05 | 128.65 | 13930. |
| 12      | 10.0                  | 0                   | 400.7                  | 44.91                   | -768.                    | -89.                      | 386.         | .00            | 55.29 | 128.94 | 13920. |
| 13      | 15.0                  | 0                   | 505.5                  | 105.25                  | -731.                    | -151.                     | 123.         | 2.78           | 55.11 | 128.72 | 13910. |
| 14      | 17.5                  | 0                   | 542.1                  | 141.26                  | -648.                    | -96.                      | 123.         | 1.18           | 55.01 | 128.61 | 13910. |
| 15      | 20.0                  | 0                   | 563.7                  | 178.18                  | -539.                    | -66.                      | 177.         | 1.43           | 54.68 | 128.21 | 13900. |
| 16      | 0                     | 0                   | 243.3                  | -13.48                  | -1051.                   | -49.                      | 48.          | 3.76           | 55.22 | 128.86 | 13920. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPH    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .7296  | .1304  | -.2656 | -.0031 | .0007  | .0119 |
| 3    | 0.00   | .7245  | -.0370 | -.3462 | -.0028 | .0051  | .0066 |
| 4    | -20.00 | -.9082 | .0735  | -.2637 | -.0025 | -.0010 | .0200 |
| 5    | -15.00 | -.5477 | -.0040 | -.3853 | -.0003 | .0013  | .0163 |
| 6    | -9.96  | -.1070 | -.0653 | -.4661 | -.0019 | .0004  | .0161 |
| 7    | -5.01  | .3163  | -.0660 | -.4383 | -.0022 | .0006  | .0128 |
| 8    | -2.49  | .5316  | -.0554 | -.4051 | -.0026 | .0040  | .0085 |
| 9    | 0.01   | .7197  | -.0381 | -.3506 | -.0032 | .0042  | .0034 |
| 10   | 2.50   | .9032  | .0130  | -.3094 | -.0026 | .0052  | .0043 |
| 11   | 5.01   | 1.0874 | .0202  | -.2865 | -.0035 | .0063  | .0027 |
| 12   | 9.99   | 1.3261 | .1214  | -.2475 | -.0054 | .0233  | .0000 |
| 13   | 15.01  | 1.3662 | .2845  | -.2356 | -.0091 | .0074  | .0075 |
| 14   | 17.50  | 1.4652 | .3818  | -.2089 | -.0058 | .0074  | .0032 |
| 15   | 20.01  | 1.4965 | .4816  | -.1737 | -.0040 | .0107  | .0039 |
| 16   | 0.00   | .7117  | -.0364 | -.3388 | -.0029 | .0029  | .0102 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPHB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .7296  | .1304  | -.2656 | -.0031 | .0007  | .0119 |
| 3    | 0.00   | .7245  | -.0370 | -.3462 | -.0028 | .0051  | .0066 |
| 4    | -20.00 | -.9082 | .0735  | -.2637 | -.0025 | -.0010 | .0200 |
| 5    | -15.00 | -.5477 | -.0040 | -.3853 | -.0003 | .0013  | .0163 |
| 6    | -9.96  | -.1070 | -.0653 | -.4661 | -.0019 | .0004  | .0161 |
| 7    | -5.01  | .3163  | -.0660 | -.4383 | -.0022 | .0006  | .0128 |
| 8    | -2.49  | .5316  | -.0554 | -.4051 | -.0026 | .0040  | .0085 |
| 9    | 0.01   | .7197  | -.0381 | -.3506 | -.0032 | .0042  | .0034 |
| 10   | 2.50   | .9032  | .0130  | -.3094 | -.0026 | .0052  | .0043 |
| 11   | 5.01   | 1.0874 | .0202  | -.2865 | -.0035 | .0063  | .0027 |
| 12   | 9.99   | 1.3261 | .1214  | -.2475 | -.0054 | .0233  | .0000 |
| 13   | 15.01  | 1.3662 | .2845  | -.2356 | -.0091 | .0074  | .0075 |
| 14   | 17.50  | 1.4652 | .3818  | -.2089 | -.0058 | .0074  | .0032 |
| 15   | 20.01  | 1.4965 | .4816  | -.1737 | -.0040 | .0107  | .0039 |
| 16   | 0.00   | .7117  | -.0364 | -.3388 | -.0029 | .0029  | .0102 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR=72011

P 701

RUN 830 CONFIG F P R NP5 W7 T37 BT IN=-3.5

| IW  | 7.5 DELF | 0.0 DELA | 0.0 IHT | 5 DELF | 0.0 DELR | 0.0 DELSB | 0.0    |       |       |        |  |  |        |
|-----|----------|----------|---------|--------|----------|-----------|--------|-------|-------|--------|--|--|--------|
| PT. | ALPHA    | PSI      | CIBAR   | CDBAR  | CPMBAR   | CYMBAR    | CRMBAR | CYBAR | Q     | V      |  |  | RPM    |
| NO. | DEG      | DEG      | SQ-FT   | SQ-FT  | CU-FT    | CU-FT     | CU-FT  | SQ-FT | PSF   | KNOTS  |  |  |        |
| 2   | 0        | 0        | 252.3   | 45.95  | -389.    | -60.      | 82.    | 3.74  | 55.60 | 129.31 |  |  | 3790.  |
| 3   | 0        | 0        | 250.4   | -13.84 | -599.    | -81.      | 100.   | 3.89  | 55.15 | 128.78 |  |  | 13630. |
| 4   | -20.0    | 0        | -343.1  | 30.18  | -341.    | -59.      | 32.    | 8.94  | 55.63 | 129.34 |  |  | 13790. |
| 5   | -15.0    | 0        | -219.9  | 2.53   | -611.    | -30.      | 46.    | 3.19  | 55.53 | 129.23 |  |  | 13790. |
| 6   | -10.0    | 0        | -63.2   | -22.23 | -873.    | -29.      | 42.    | 5.77  | 54.92 | 128.51 |  |  | 13790. |
| 7   | -5.0     | 0        | 95.5    | -23.73 | -782.    | -42.      | 47.    | 3.62  | 55.45 | 129.13 |  |  | 13800. |
| 8   | -2.5     | 0        | 175.1   | -20.72 | -747.    | -72.      | 48.    | 3.71  | 55.07 | 128.68 |  |  | 13800. |
| 9   | -0       | 0        | 247.8   | -14.52 | -600.    | -80.      | 68.    | 1.80  | 54.98 | 128.57 |  |  | 13810. |
| 10  | 2.5      | 0        | 321.9   | -5.95  | -479.    | -66.      | 104.   | 2.37  | 54.61 | 128.13 |  |  | 13820. |
| 11  | 5.0      | 0        | 387.4   | 5.46   | -415.    | -86.      | 122.   | 1.18  | 54.92 | 128.51 |  |  | 13820. |
| 12  | 10.0     | 0        | 464.8   | 43.59  | -406.    | -102.     | 107.   | -0.63 | 54.39 | 127.87 |  |  | 13820. |
| 13  | 15.1     | 0        | 509.7   | 99.56  | -497.    | -148.     | 227.   | 4.26  | 55.17 | 128.80 |  |  | 13820. |
| 14  | 17.5     | 0        | 531.2   | 141.33 | -583.    | -59.      | 313.   | -0.06 | 55.71 | 129.44 |  |  | 13810. |
| 15  | 20.0     | 0        | 555.5   | 173.82 | -486.    | -55.      | 331.   | 3.85  | 55.80 | 129.54 |  |  | 13810. |
| 16  | -0       | 0        | 248.1   | -14.37 | -575.    | -87.      | 49.    | 2.66  | 55.03 | 128.63 |  |  | 13840. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPH    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 0.00   | .6818  | .1242  | -.1253 | -.0036 | .0050 | .0101  |
| 3    | 0.00   | .6767  | -.0374 | -.1932 | -.0049 | .0061 | .0105  |
| 4    | -20.00 | -.9273 | .0816  | -.1100 | -.0035 | .0019 | .0242  |
| 5    | -15.00 | -.5944 | .0068  | -.1971 | -.0018 | .0028 | .0086  |
| 6    | -10.00 | -.1709 | -.0601 | -.2814 | -.0017 | .0026 | .0156  |
| 7    | -5.00  | .2581  | -.0641 | -.2521 | -.0025 | .0028 | .0098  |
| 8    | -2.50  | .4732  | -.0560 | -.2408 | -.0044 | .0029 | .0100  |
| 9    | -0.00  | .6698  | -.0393 | -.1935 | -.0048 | .0041 | .0049  |
| 10   | 2.50   | .8699  | -.0161 | -.1543 | -.0040 | .0063 | .0064  |
| 11   | 5.03   | 1.0470 | .0148  | -.1337 | -.0052 | .0074 | .0032  |
| 12   | 10.00  | 1.2562 | .1178  | -.1308 | -.0062 | .0065 | -.0017 |
| 13   | 15.08  | 1.3776 | .2691  | -.1603 | -.0090 | .0137 | .0115  |
| 14   | 17.52  | 1.4357 | .3820  | -.1881 | -.0035 | .0189 | .0002  |
| 15   | 20.04  | 1.5013 | .4698  | -.1566 | -.0033 | .0200 | .0104  |
| 16   | -0.00  | .6705  | -.0388 | -.1853 | -.0053 | .0030 | .0072  |

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\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 0.00   | .6818  | .1242  | -.1253 | -.0036 | .0050 | .0101  |
| 3    | 0.00   | .6767  | -.0374 | -.1932 | -.0049 | .0061 | .0105  |
| 4    | -20.00 | -.9273 | .0816  | -.1100 | -.0035 | .0019 | .0242  |
| 5    | -15.00 | -.5944 | .0068  | -.1971 | -.0018 | .0028 | .0086  |
| 6    | -10.00 | -.1709 | -.0601 | -.2814 | -.0017 | .0026 | .0156  |
| 7    | -5.00  | .2581  | -.0641 | -.2521 | -.0025 | .0028 | .0098  |
| 8    | -2.50  | .4732  | -.0560 | -.2408 | -.0044 | .0029 | .0100  |
| 9    | -0.00  | .6698  | -.0393 | -.1935 | -.0048 | .0041 | .0049  |
| 10   | 2.50   | .8699  | -.0161 | -.1543 | -.0040 | .0063 | .0064  |
| 11   | 5.03   | 1.0470 | .0148  | -.1337 | -.0052 | .0074 | .0032  |
| 12   | 10.00  | 1.2562 | .1178  | -.1308 | -.0062 | .0065 | -.0017 |
| 13   | 15.08  | 1.3776 | .2691  | -.1603 | -.0090 | .0137 | .0115  |
| 14   | 17.52  | 1.4357 | .3820  | -.1881 | -.0035 | .0189 | .0002  |
| 15   | 20.04  | 1.5013 | .4698  | -.1566 | -.0033 | .0200 | .0104  |
| 16   | -0.00  | .6705  | -.0388 | -.1853 | -.0053 | .0030 | .0072  |

N432499-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P 702

RUN 831 CONFIG F P R NP5 W7 T37 BT IN=3.5

| PT. NO. | 7.5 DELF<br>ALPHA DEG | 0.0 DELA<br>PSI DEG | 0.0 DELA<br>CIBAR SQ-FT | 0.0 IHT<br>CDBAR SQ-FT | -5 DELE<br>CPMBAR CU-FT | 0.0 DELR<br>CYMBAR CU-FT | 0.0 DELR<br>CRMBAR CU-FT | 0.0 DELSR<br>CYBAR SQ-FT | 0.0 DELSR<br>PSF | 0.0 V<br>KNOTS | RPM    |
|---------|-----------------------|---------------------|-------------------------|------------------------|-------------------------|--------------------------|--------------------------|--------------------------|------------------|----------------|--------|
| 3       | 0                     | 0                   | 218.6                   | 46.23                  | 504.                    | -68.                     | 11.                      | 5.43                     | 55.17            | 128.82         | 3700.  |
| 4       | 0                     | 0                   | 210.1                   | -13.46                 | 445.                    | -85.                     | -4.                      | 3.15                     | 55.06            | 128.69         | 13650. |
| 5       | -20.0                 | 0                   | -371.1                  | 48.55                  | 389.                    | -81.                     | 52.                      | 8.11                     | 55.04            | 128.65         | 13600. |
| 6       | -15.0                 | 0                   | -266.5                  | 15.21                  | 547.                    | -17.                     | 35.                      | 8.77                     | 54.75            | 128.30         | 13520. |
| 7       | -10.0                 | 0                   | -109.2                  | -12.93                 | 362.                    | -38.                     | 9.                       | 4.55                     | 55.41            | 129.09         | 13510. |
| 8       | -5.0                  | 0                   | 54.2                    | -18.64                 | 409.                    | -54.                     | 65.                      | 3.24                     | 55.69            | 129.42         | 13620. |
| 9       | -2.5                  | 0                   | 135.3                   | -16.49                 | 367.                    | -77.                     | 12.                      | 4.21                     | 54.96            | 128.56         | 13560. |
| 10      | 0                     | 0                   | 211.7                   | -13.19                 | 385.                    | -86.                     | 49.                      | 3.10                     | 54.87            | 128.45         | 13600. |
| 11      | 2.5                   | 0                   | 200.6                   | -5.58                  | 467.                    | -83.                     | 15.                      | 2.11                     | 54.97            | 128.56         | 13500. |
| 12      | 5.0                   | 0                   | 355.1                   | 4.01                   | 540.                    | -94.                     | 69.                      | 2.45                     | 54.15            | 127.59         | 13670. |
| 13      | 10.0                  | 0                   | 430.5                   | 39.81                  | 536.                    | -115.                    | 122.                     | 2.93                     | 54.66            | 128.20         | 13760. |
| 14      | 15.0                  | 0                   | 479.8                   | 91.68                  | 400.                    | -148.                    | 89.                      | 3.32                     | 54.30            | 127.76         | 13620. |
| 15      | 17.5                  | 0                   | 511.0                   | 127.15                 | 223.                    | -85.                     | 215.                     | 2.14                     | 54.18            | 127.62         | 13660. |
| 16      | 20.0                  | 0                   | 543.3                   | 160.21                 | 142.                    | -31.                     | 180.                     | 1.77                     | 53.98            | 127.38         | 13650. |
| 17      | 0                     | 0                   | 213.8                   | -12.44                 | 413.                    | -92.                     | 84.                      | 4.00                     | 54.53            | 128.05         | 13640. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM   | CYM    | CRM    | CY    |
|------|--------|---------|--------|-------|--------|--------|-------|
| 3    | 00     | .5907   | .1250  | .1624 | -.0041 | .0006  | .0147 |
| 4    | 00     | .5678   | -.0364 | .1435 | -.0051 | -.0002 | .0085 |
| 5    | -20.00 | -1.0030 | .1312  | .1255 | -.0049 | .0031  | .0219 |
| 6    | -15.00 | -.7203  | .0411  | .1764 | -.0010 | .0021  | .0237 |
| 7    | -10.00 | -.2950  | -.0349 | .1167 | -.0023 | .0006  | .0123 |
| 8    | -4.99  | .1466   | -.0504 | .1318 | -.0033 | .0039  | .0088 |
| 9    | -2.51  | .3657   | -.0446 | .1184 | -.0046 | .0007  | .0114 |
| 10   | .01    | .5722   | -.0357 | .1241 | -.0052 | .0030  | .0084 |
| 11   | 2.52   | .7585   | -.0151 | .1505 | -.0050 | .0009  | .0057 |
| 12   | 5.01   | .9597   | .0108  | .1740 | -.0058 | .0042  | .0066 |
| 13   | 10.01  | 1.1634  | .1076  | .1727 | -.0069 | .0074  | .0079 |
| 14   | 15.01  | 1.2966  | .2478  | .1290 | -.0089 | .0053  | .0090 |
| 15   | 17.50  | 1.3811  | .3436  | .0718 | -.0052 | .0130  | .0058 |
| 16   | 20.00  | 1.4684  | .4330  | .0458 | -.0019 | .0109  | .0048 |
| 17   | .00    | .5779   | -.0336 | .1330 | -.0055 | .0051  | .0108 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB  | CYMB   | CRMB   | CYR   |
|------|--------|---------|--------|-------|--------|--------|-------|
| 3    | 00     | .5907   | .1250  | .1624 | -.0041 | .0006  | .0147 |
| 4    | 00     | .5678   | -.0364 | .1435 | -.0051 | -.0002 | .0085 |
| 5    | -20.00 | -1.0030 | .1312  | .1255 | -.0049 | .0031  | .0219 |
| 6    | -15.00 | -.7203  | .0411  | .1764 | -.0010 | .0021  | .0237 |
| 7    | -10.00 | -.2950  | -.0349 | .1167 | -.0023 | .0006  | .0123 |
| 8    | -4.99  | .1466   | -.0504 | .1318 | -.0033 | .0039  | .0088 |
| 9    | -2.51  | .3657   | -.0446 | .1184 | -.0046 | .0007  | .0114 |
| 10   | .01    | .5722   | -.0357 | .1241 | -.0052 | .0030  | .0084 |
| 11   | 2.52   | .7585   | -.0151 | .1505 | -.0050 | .0009  | .0057 |
| 12   | 5.01   | .9597   | .0108  | .1740 | -.0058 | .0042  | .0066 |
| 13   | 10.01  | 1.1634  | .1076  | .1727 | -.0069 | .0074  | .0079 |
| 14   | 15.01  | 1.2966  | .2478  | .1290 | -.0089 | .0053  | .0090 |
| 15   | 17.50  | 1.3811  | .3436  | .0718 | -.0052 | .0130  | .0058 |
| 16   | 20.00  | 1.4684  | .4330  | .0458 | -.0019 | .0109  | .0048 |
| 17   | .00    | .5779   | -.0336 | .1330 | -.0055 | .0051  | .0108 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST.  
AERODYNAMIC DATA

SFR-72011

P 703

RUN 812 CONFIG F P A NP5 W7 T37 BT IN=-3.5

| PT. NO. | 7.5 DELF. ALPHA DEG | 0.0 DELF. PSI | 0.0 DELA CIBAR | 0.0 IHT CDBAR | -1.0 DELE CPMBAR | 0.0 DELR. CYMBAR | 0.0 DELS8 CRMBAR | 0.0 DELS8 CYBAR | 0.0 DELS8 PSF | 0.0 V KNOTS | RPM    |
|---------|---------------------|---------------|----------------|---------------|------------------|------------------|------------------|-----------------|---------------|-------------|--------|
| 2       | 0                   | 0             | 222.6          | 47.22         | 944.             | -80.             | 47.              | 4.74            | 55.32         | 128.99      | 3780.  |
| 3       | 0                   | 0             | 190.2          | -12.89        | 1050.            | -105.            | 30.              | 4.11            | 55.55         | 129.26      | 13820. |
| 4       | -20.0               | 0             | -374.4         | 56.56         | 506.             | -70.             | 53.              | 7.29            | 55.62         | 129.34      | 13820. |
| 5       | -15.0               | 0             | -278.5         | 26.90         | 986.             | -9.              | 27.              | 3.85            | 55.72         | 129.46      | 13810. |
| 6       | -10.0               | 0             | -132.1         | -6.39         | 1061.            | -27.             | 28.              | 3.92            | 55.61         | 129.33      | 13730. |
| 7       | -5.0                | 0             | 25.2           | -14.88        | 1196.            | -72.             | 63.              | 4.25            | 55.30         | 128.96      | 13830. |
| 8       | -2.5                | 0             | 109.2          | -14.88        | 1140.            | -96.             | 46.              | 4.92            | 54.74         | 128.30      | 13790. |
| 9       | .1                  | 0             | 192.7          | -12.76        | 1075.            | -113.            | 66.              | 4.26            | 54.42         | 127.92      | 13820. |
| 10      | 2.5                 | 0             | 262.4          | -5.68         | 1110.            | -107.            | 85.              | 2.98            | 54.85         | 128.42      | 13790. |
| 11      | 5.0                 | 0             | 335.5          | 3.71          | 1172.            | -126.            | 49.              | 4.45            | 54.33         | 127.80      | 13810. |
| 12      | 10.1                | 0             | 410.0          | 37.41         | 1123.            | -140.            | 104.             | 2.86            | 54.87         | 128.45      | 13810. |
| 13      | 15.1                | 0             | 443.5          | 88.11         | 965.             | -142.            | 195.             | 4.25            | 54.54         | 128.06      | 13800. |
| 14      | 17.5                | 0             | 476.7          | 123.69        | 830.             | -53.             | 158.             | 4.43            | 55.34         | 129.01      | 13790. |
| 15      | 20.0                | 0             | 527.6          | 156.69        | 846.             | -88.             | 267.             | 2.06            | 54.57         | 128.08      | 13770. |
| 16      | -0                  | 0             | 127.4          | -11.50        | 1086.            | -118.            | 46.              | 5.50            | 55.13         | 128.76      | 13820. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM   | CYM    | CRM   | CY    |
|------|--------|---------|--------|-------|--------|-------|-------|
| 2    | 0.00   | .5475   | .1276  | .3045 | -.0049 | .0028 | .0128 |
| 3    | 0.00   | .5141   | -.0348 | .3384 | -.0063 | .0018 | .0111 |
| 4    | -20.00 | -1.0118 | .1529  | .1631 | -.0043 | .0032 | .0197 |
| 5    | -15.00 | -.7526  | .0727  | .3179 | -.0005 | .0016 | .0104 |
| 6    | -9.97  | -.3571  | -.0173 | .3421 | -.0016 | .0017 | .0106 |
| 7    | -4.99  | .0682   | -.0402 | .3856 | -.0044 | .0038 | .0115 |
| 8    | -2.49  | .2952   | -.0402 | .3675 | -.0058 | .0028 | .0133 |
| 9    | .06    | .5209   | -.0331 | .3466 | -.0068 | .0040 | .0115 |
| 10   | 2.52   | .7093   | -.0154 | .3578 | -.0065 | .0051 | .0081 |
| 11   | 5.04   | .9068   | .0100  | .3777 | -.0076 | .0030 | .0120 |
| 12   | 10.10  | 1.1080  | .1011  | .3620 | -.0085 | .0063 | .0077 |
| 13   | 15.06  | 1.2526  | .2381  | .3112 | -.0086 | .0118 | .0115 |
| 14   | 17.50  | 1.2885  | .3343  | .2674 | -.0032 | .0095 | .0012 |
| 15   | 20.01  | 1.4260  | .4235  | .2726 | -.0053 | .0161 | .0056 |
| 16   | -.01   | .5065   | -.0311 | .3502 | -.0071 | .0028 | .0149 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB  | CYMB   | CRMB  | CYB   |
|------|--------|---------|--------|-------|--------|-------|-------|
| 2    | 0.00   | .5475   | .1276  | .3045 | -.0049 | .0028 | .0128 |
| 3    | 0.00   | .5141   | -.0348 | .3384 | -.0063 | .0018 | .0111 |
| 4    | -20.00 | -1.0118 | .1529  | .1631 | -.0043 | .0032 | .0197 |
| 5    | -15.00 | -.7526  | .0727  | .3179 | -.0005 | .0016 | .0104 |
| 6    | -9.97  | -.3571  | -.0173 | .3421 | -.0016 | .0017 | .0106 |
| 7    | -4.99  | .0682   | -.0402 | .3856 | -.0044 | .0038 | .0115 |
| 8    | -2.49  | .2952   | -.0402 | .3675 | -.0058 | .0028 | .0133 |
| 9    | .06    | .5209   | -.0331 | .3466 | -.0068 | .0040 | .0115 |
| 10   | 2.52   | .7093   | -.0154 | .3578 | -.0065 | .0051 | .0081 |
| 11   | 5.04   | .9068   | .0100  | .3777 | -.0076 | .0030 | .0120 |
| 12   | 10.10  | 1.1080  | .1011  | .3620 | -.0085 | .0063 | .0077 |
| 13   | 15.06  | 1.2526  | .2381  | .3112 | -.0086 | .0118 | .0115 |
| 14   | 17.50  | 1.2885  | .3343  | .2674 | -.0032 | .0095 | .0012 |
| 15   | 20.01  | 1.4260  | .4235  | .2726 | -.0053 | .0161 | .0056 |
| 16   | -.01   | .5065   | -.0311 | .3502 | -.0071 | .0028 | .0149 |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 704

RUN 833 CONFIG F P R NP5 W7 T50 BT IN=-3.5

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA SQ-FT | DELTA SQ-FT | IHT CU-FT | DELE CU-FT | DELR CU-FT | DELSB SQ-FT | DELSB PSF | DELSB Q KNPTS | RPM    |
|---------|-----------|---------------|-------------|-------------|-----------|------------|------------|-------------|-----------|---------------|--------|
| 2       | 0         | 0             | 252.0       | 46.82       | -249.     | -59.       | 102.       | 3.03        | 55.10     | 128.73        | 3780.  |
| 3       | 0         | 0             | 245.7       | -6.49       | -380.     | -47.       | 101.       | 3.66        | 54.88     | 128.47        | 12860. |
| 4       | -20.0     | 0             | -331.4      | 39.84       | -342.     | -83.       | 125.       | 7.53        | 54.71     | 128.26        | 13000. |
| 5       | -15.0     | 0             | -225.1      | 12.12       | -224.     | 90.        | -3.        | 1.32        | 54.21     | 127.66        | 12950. |
| 6       | -10.0     | 0             | -62.6       | -12.85      | -484.     | 17.        | 80.        | 3.88        | 55.36     | 129.03        | 13020. |
| 7       | -5.0      | 0             | 94.1        | -14.23      | -471.     | -12.       | 137.       | 2.85        | 54.96     | 128.56        | 12850. |
| 8       | -2.5      | 0             | 171.5       | -11.71      | -439.     | -52.       | 104.       | 1.37        | 54.70     | 128.25        | 12880. |
| 9       | 0         | 0             | 245.1       | -6.42       | -377.     | -53.       | 121.       | 2.50        | 54.47     | 127.97        | 12950. |
| 10      | 2.5       | 0             | 312.3       | 2.33        | -276.     | -31.       | 121.       | 1.98        | 55.00     | 128.61        | 12880. |
| 11      | 5.0       | 0             | 381.9       | 12.95       | -169.     | -52.       | 140.       | 3.33        | 54.24     | 127.70        | 12910. |
| 12      | 10.0      | 0             | 452.3       | 49.20       | 4.        | -102.      | 54.        | .13         | 54.08     | 127.51        | 12890. |
| 13      | 15.0      | 0             | 474.0       | 96.06       | 333.      | -129.      | 248.       | 1.81        | 54.70     | 128.24        | 12930. |
| 14      | 17.5      | 0             | 490.6       | 129.98      | 532.      | -28.       | 160.       | -1.06       | 54.42     | 127.91        | 12900. |
| 15      | 20.0      | 0             | 509.9       | 158.90      | 796.      | 6.         | 124.       | 1.55        | 54.95     | 128.54        | 12970. |
| 16      | 0         | 0             | 247.0       | -5.06       | -352.     | -61.       | 104.       | 2.33        | 54.15     | 127.60        | 12850. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .6812  | .1265  | -.0804 | -.0035 | .0061  | .0082  |
| 3    | 0.00   | .6640  | -.0175 | -.1225 | -.0028 | .0061  | .0099  |
| 4    | -19.99 | -.8956 | .1077  | -.1104 | -.0050 | .0075  | .0204  |
| 5    | -15.00 | -.6083 | .0328  | -.0722 | .0054  | -.0002 | .0036  |
| 6    | -10.00 | -.1692 | -.0347 | -.1559 | .0010  | .0049  | .0105  |
| 7    | -4.98  | .2544  | -.0384 | -.1517 | -.0007 | .0082  | .0077  |
| 8    | -2.49  | .4635  | -.0317 | -.1414 | -.0032 | .0063  | .0037  |
| 9    | 0.00   | .6624  | -.0174 | -.1216 | -.0032 | .0073  | .0068  |
| 10   | 2.53   | .8441  | .0063  | -.0891 | -.0019 | .0073  | .0054  |
| 11   | 5.00   | 1.0321 | .0350  | -.0543 | -.0031 | .0084  | .0090  |
| 12   | 10.01  | 1.2224 | .1330  | .0014  | -.0062 | .0032  | .0003  |
| 13   | 15.01  | 1.2811 | .2596  | .1074  | -.0078 | .0150  | .0049  |
| 14   | 17.51  | 1.3258 | .3513  | .1714  | -.0017 | .0097  | -.0029 |
| 15   | 20.02  | 1.3782 | .4295  | .2568  | .0004  | .0075  | .0042  |
| 16   | 0.00   | .6674  | -.0137 | -.1136 | -.0037 | .0063  | .0063  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .6812  | .1265  | -.0804 | -.0035 | .0061  | .0082  |
| 3    | 0.00   | .6640  | -.0175 | -.1225 | -.0028 | .0061  | .0099  |
| 4    | -19.99 | -.8956 | .1077  | -.1104 | -.0050 | .0075  | .0204  |
| 5    | -15.00 | -.6083 | .0328  | -.0722 | .0054  | -.0002 | .0036  |
| 6    | -10.00 | -.1692 | -.0347 | -.1559 | .0010  | .0049  | .0105  |
| 7    | -4.98  | .2544  | -.0384 | -.1517 | -.0007 | .0082  | .0077  |
| 8    | -2.49  | .4635  | -.0317 | -.1414 | -.0032 | .0063  | .0037  |
| 9    | 0.00   | .6624  | -.0174 | -.1216 | -.0032 | .0073  | .0068  |
| 10   | 2.53   | .8441  | .0063  | -.0891 | -.0019 | .0073  | .0054  |
| 11   | 5.00   | 1.0321 | .0350  | -.0543 | -.0031 | .0084  | .0090  |
| 12   | 10.01  | 1.2224 | .1330  | .0014  | -.0062 | .0032  | .0003  |
| 13   | 15.01  | 1.2811 | .2596  | .1074  | -.0078 | .0150  | .0049  |
| 14   | 17.51  | 1.3258 | .3513  | .1714  | -.0017 | .0097  | -.0029 |
| 15   | 20.02  | 1.3782 | .4295  | .2568  | .0004  | .0075  | .0042  |
| 16   | 0.00   | .6674  | -.0137 | -.1136 | -.0037 | .0063  | .0063  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P 705

RUN 814 CONFIG F P R NP5 W7 T50 BT IN=-3.5

| PT. NO. | 7.5 DELF<br>ALPHA<br>DEG | 0.0 DELF<br>PSI<br>DEG | 0.0 DELA<br>CIRAR<br>SQ-FT | 0.0 IHT<br>CORAR<br>SQ-FT | 5 DELE<br>CPMBAR<br>CU-FT | 0.0 DELR<br>CYMBAR<br>CU-FT | 0.0 DELSB<br>CYBAR<br>SQ-FT | 0.0<br>Q<br>PSF | 0.0<br>V<br>KNOTS | RPM    |        |
|---------|--------------------------|------------------------|----------------------------|---------------------------|---------------------------|-----------------------------|-----------------------------|-----------------|-------------------|--------|--------|
| 2       | 0.0                      | 0.0                    | 242.2                      | 47.84                     | -640.                     | -57.                        | 66.                         | 3.89            | 54.28             | 127.75 | 3770.  |
| 3       | 0.0                      | 0.0                    | 254.2                      | -6.20                     | -714.                     | -62.                        | 87.                         | 1.06            | 54.84             | 128.42 | 12910. |
| 4       | -20.0                    | 0.0                    | -334.0                     | 36.68                     | -305.                     | -164.                       | 136.                        | 10.54           | 54.64             | 128.18 | 12940. |
| 5       | -15.0                    | 0.0                    | -215.3                     | 9.48                      | -587.                     | -19.                        | 62.                         | 4.30            | 54.66             | 128.21 | 12940. |
| 6       | -10.0                    | 0.0                    | -55.5                      | -14.16                    | -877.                     | -19.                        | 45.                         | 4.16            | 54.91             | 128.50 | 12870. |
| 7       | -5.0                     | 0.0                    | 102.2                      | -14.89                    | -832.                     | -17.                        | 66.                         | 2.90            | 55.20             | 128.85 | 12840. |
| 8       | -2.5                     | 0.0                    | 180.3                      | -12.13                    | -786.                     | -51.                        | 100.                        | 3.78            | 54.95             | 128.55 | 12940. |
| 9       | 0.0                      | 0.0                    | 254.1                      | -6.11                     | -710.                     | -59.                        | 104.                        | 2.06            | 54.44             | 127.95 | 12920. |
| 10      | 2.5                      | 0.0                    | 323.5                      | 3.76                      | -605.                     | -36.                        | 141.                        | .37             | 54.71             | 128.27 | 12830. |
| 11      | 5.0                      | 0.0                    | 385.8                      | 13.66                     | -489.                     | -53.                        | 105.                        | .56             | 55.19             | 128.84 | 12910. |
| 12      | 10.0                     | 0.0                    | 456.8                      | 50.91                     | -328.                     | -104.                       | 123.                        | 1.12            | 54.91             | 128.51 | 12850. |
| 13      | 15.0                     | 0.0                    | 405.5                      | 100.07                    | 3.                        | -133.                       | 194.                        | 2.12            | 54.73             | 128.29 | 12860. |
| 14      | 17.5                     | 0.0                    | 500.0                      | 135.99                    | 173.                      | -69.                        | -248.                       | .00             | 54.74             | 128.30 | 12940. |
| 15      | 20.0                     | 0.0                    | 525.3                      | 163.39                    | 448.                      | -35.                        | 194.                        | .99             | 55.00             | 128.61 | 12940. |
| 16      | 0.0                      | 0.0                    | 250.3                      | -5.56                     | -690.                     | -55.                        | 66.                         | 3.29            | 54.91             | 128.51 | 12950. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY    |
|------|--------|--------|--------|--------|--------|-------|-------|
| 2    | 0.00   | .7086  | .1293  | -.2063 | -.0034 | .0040 | .0105 |
| 3    | 0.00   | .6869  | -.0168 | -.2303 | -.0037 | .0053 | .0029 |
| 4    | -20.00 | -.9027 | .0991  | -.0983 | -.0099 | .0082 | .0285 |
| 5    | -14.99 | -.5820 | .0256  | -.1894 | -.0012 | .0037 | .0116 |
| 6    | -9.99  | -.1499 | -.0383 | -.2826 | -.0012 | .0027 | .0112 |
| 7    | -4.98  | .2763  | -.0403 | -.2683 | -.0011 | .0040 | .0078 |
| 8    | -2.49  | .4873  | -.0328 | -.2535 | -.0031 | .0061 | .0102 |
| 9    | 0.00   | .6868  | -.0165 | -.2288 | -.0035 | .0063 | .0056 |
| 10   | 2.52   | .8743  | .0102  | -.1950 | -.0022 | .0085 | .0010 |
| 11   | 5.02   | 1.0427 | .0369  | -.1577 | -.0032 | .0063 | .0015 |
| 12   | 10.01  | 1.2346 | .1376  | -.1058 | -.0063 | .0074 | .0030 |
| 13   | 15.03  | 1.3121 | .2705  | .0008  | -.0081 | .0117 | .0057 |
| 14   | 17.51  | 1.3513 | .3675  | .0558  | -.0041 | .0150 | .0000 |
| 15   | 20.00  | 1.4198 | .4416  | .1445  | -.0021 | .0117 | .0027 |
| 16   | 0.00   | .6766  | -.0150 | -.2225 | -.0033 | .0040 | .0089 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|--------|--------|--------|--------|-------|-------|
| 2    | 0.00   | .7086  | .1293  | -.2063 | -.0034 | .0040 | .0105 |
| 3    | 0.00   | .6869  | -.0168 | -.2303 | -.0037 | .0053 | .0029 |
| 4    | -20.00 | -.9027 | .0991  | -.0983 | -.0099 | .0082 | .0285 |
| 5    | -14.99 | -.5820 | .0256  | -.1894 | -.0012 | .0037 | .0116 |
| 6    | -9.99  | -.1499 | -.0383 | -.2826 | -.0012 | .0027 | .0112 |
| 7    | -4.98  | .2763  | -.0403 | -.2683 | -.0011 | .0040 | .0078 |
| 8    | -2.49  | .4873  | -.0328 | -.2535 | -.0031 | .0061 | .0102 |
| 9    | 0.00   | .6868  | -.0165 | -.2288 | -.0035 | .0063 | .0056 |
| 10   | 2.52   | .8743  | .0102  | -.1950 | -.0022 | .0085 | .0010 |
| 11   | 5.02   | 1.0427 | .0369  | -.1577 | -.0032 | .0063 | .0015 |
| 12   | 10.01  | 1.2346 | .1376  | -.1058 | -.0063 | .0074 | .0030 |
| 13   | 15.03  | 1.3121 | .2705  | .0008  | -.0081 | .0117 | .0057 |
| 14   | 17.51  | 1.3513 | .3675  | .0558  | -.0041 | .0150 | .0000 |
| 15   | 20.00  | 1.4198 | .4416  | .1445  | -.0021 | .0117 | .0027 |
| 16   | 0.00   | .6766  | -.0150 | -.2225 | -.0033 | .0040 | .0089 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P 706

RUN 835 CONFIG F P R NP5 W7 T50 BT IN=-3.5

| PT. NO. | 7.5 DELF<br>ALPHA DEG | 0.0 DELA<br>PSI | 0.0 DELA<br>CIRAR SQ-FT | 0.0 IHT<br>COBAR SQ-FT | -5 DELE<br>CPMBAR CU-FT | 0.0 DELR<br>CYMBAR CU-FT | 0.0 DELSR<br>CRMBAR CU-FT | 0.0 DELSR<br>CYBAR SQ-FT | 0.0<br>PSF | 0.0<br>V KNOTS | RPM    |
|---------|-----------------------|-----------------|-------------------------|------------------------|-------------------------|--------------------------|---------------------------|--------------------------|------------|----------------|--------|
| 2       | .0                    | .0              | 243.2                   | 47.13                  | 98.                     | -40.                     | 32.                       | 2.23                     | 54.93      | 128.53         | 3760.  |
| 3       | .0                    | .0              | 237.9                   | -6.74                  | -24.                    | -32.                     | 69.                       | 1.30                     | 54.88      | 128.47         | 12900. |
| 4       | -20.0                 | .0              | -337.0                  | 43.96                  | -309.                   | -25.                     | -55.                      | 8.46                     | 54.76      | 128.33         | 12900. |
| 5       | -15.0                 | .0              | -217.3                  | 16.59                  | -315.                   | 49.                      | 26.                       | 4.40                     | 54.92      | 128.52         | 12910. |
| 6       | -10.0                 | .0              | -73.1                   | -10.94                 | -116.                   | 105.                     | 19.                       | -99.                     | 54.92      | 128.53         | 12800. |
| 7       | -5.0                  | .0              | 44.1                    | -14.42                 | -94.                    | 49.                      | 52.                       | .68                      | 54.76      | 128.33         | 12940. |
| 8       | -2.5                  | .0              | 161.4                   | -11.26                 | -71.                    | -19.                     | 33.                       | 1.61                     | 54.97      | 128.58         | 12800. |
| 9       | .0                    | .0              | 238.3                   | -5.84                  | -9.                     | -41.                     | 88.                       | 1.01                     | 54.18      | 127.63         | 12900. |
| 10      | 2.5                   | .0              | 310.3                   | 2.72                   | 68.                     | -31.                     | 127.                      | -2.44                    | 54.39      | 127.88         | 12910. |
| 11      | 5.0                   | .0              | 376.9                   | 13.36                  | 171.                    | -53.                     | 106.                      | .31                      | 54.46      | 127.97         | 12930. |
| 12      | 10.0                  | .0              | 445.5                   | 48.54                  | 330.                    | -93.                     | 141.                      | 3.64                     | 54.24      | 127.71         | 12940. |
| 13      | 15.0                  | .0              | 470.1                   | 96.39                  | 641.                    | -144.                    | 106.                      | .06                      | 54.66      | 128.21         | 12930. |
| 14      | 17.6                  | .0              | 402.8                   | 134.57                 | 884.                    | -38.                     | 303.                      | .25                      | 54.37      | 127.86         | 12800. |
| 15      | 20.0                  | .0              | 515.8                   | 161.71                 | 1115.                   | -64.                     | 178.                      | 1.56                     | 54.63      | 128.17         | 12840. |
| 16      | .0                    | .0              | 237.6                   | -4.61                  | 38.                     | -43.                     | 105.                      | 1.69                     | 54.36      | 127.86         | 12910. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .6574  | .1274  | .0317  | -.0024 | .0020  | .0060  |
| 3    | .00    | .6431  | -.0182 | -.0077 | -.0020 | .0042  | .0035  |
| 4    | -20.00 | -.9109 | .1188  | -.0996 | -.0015 | -.0033 | .0229  |
| 5    | -15.00 | -.5872 | .0448  | -.1016 | .0030  | .0016  | .0119  |
| 6    | -10.01 | -.1975 | -.0296 | -.0374 | .0064  | .0012  | -.0027 |
| 7    | -5.00  | .2272  | -.0390 | -.0304 | .0030  | .0031  | .0018  |
| 8    | -2.51  | .4363  | -.0304 | -.0229 | -.0011 | .0020  | .0044  |
| 9    | -.01   | .6442  | -.0158 | -.0029 | -.0025 | .0053  | .0027  |
| 10   | 2.52   | .8386  | .0073  | .0220  | -.0019 | .0077  | -.0066 |
| 11   | 5.00   | 1.0188 | .0361  | .0552  | -.0032 | .0064  | .0008  |
| 12   | 10.02  | 1.2039 | .1312  | .1065  | -.0056 | .0085  | .0098  |
| 13   | 15.03  | 1.2705 | .2605  | .2066  | -.0087 | .0064  | .0002  |
| 14   | 17.57  | 1.3320 | .3637  | .2851  | -.0023 | .0183  | .0007  |
| 15   | 20.00  | 1.3939 | .4370  | .3596  | -.0039 | .0107  | .0042  |
| 16   | -.00   | .6421  | -.0124 | .0122  | -.0026 | .0063  | .0046  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .6574  | .1274  | .0317  | -.0024 | .0020  | .0060  |
| 3    | .00    | .6431  | -.0182 | -.0077 | -.0020 | .0042  | .0035  |
| 4    | -20.00 | -.9109 | .1188  | -.0996 | -.0015 | -.0033 | .0229  |
| 5    | -15.00 | -.5872 | .0448  | -.1016 | .0030  | .0016  | .0119  |
| 6    | -10.01 | -.1975 | -.0296 | -.0374 | .0064  | .0012  | -.0027 |
| 7    | -5.00  | .2272  | -.0390 | -.0304 | .0030  | .0031  | .0018  |
| 8    | -2.51  | .4363  | -.0304 | -.0229 | -.0011 | .0020  | .0044  |
| 9    | -.01   | .6442  | -.0158 | -.0029 | -.0025 | .0053  | .0027  |
| 10   | 2.52   | .8386  | .0073  | .0220  | -.0019 | .0077  | -.0066 |
| 11   | 5.00   | 1.0188 | .0361  | .0552  | -.0032 | .0064  | .0008  |
| 12   | 10.02  | 1.2039 | .1312  | .1065  | -.0056 | .0085  | .0098  |
| 13   | 15.03  | 1.2705 | .2605  | .2066  | -.0087 | .0064  | .0002  |
| 14   | 17.57  | 1.3320 | .3637  | .2851  | -.0023 | .0183  | .0007  |
| 15   | 20.00  | 1.3939 | .4370  | .3596  | -.0039 | .0107  | .0042  |
| 16   | -.00   | .6421  | -.0124 | .0122  | -.0026 | .0063  | .0046  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SR-72011

P 707

RUN 836 CONFIG F P A NP5 W7 T50 BT IN=-3.5

| PT. NO. | 7.5 DELF<br>ALPHA DEG | 0.0 DELA<br>PSI DEG | 0.0 IHT<br>CIBAR SQ-FT | 0.0 DELE<br>CPMBAR CU-FT | 0.0 DELR<br>CYMBAR CU-FT | 0.0 DELSB<br>CYBAR SQ-FT | 0.0<br>Q PSF | 0.0<br>V KNOTS | RPM    |        |        |
|---------|-----------------------|---------------------|------------------------|--------------------------|--------------------------|--------------------------|--------------|----------------|--------|--------|--------|
| 2       | 0                     | 0                   | 233.3                  | 48.49                    | 614.                     | -3.                      | 2.25         | 54.40          | 127.91 | 3740.  |        |
| 3       | 0                     | 0                   | 276.3                  | -6.78                    | 504.                     | -1.                      | 2.17         | 54.91          | 128.52 | 12980. |        |
| 4       | -20.0                 | 0                   | -332.3                 | 46.85                    | -356.                    | -84.                     | 10.91        | 54.62          | 128.17 | 12860. |        |
| 5       | -15.0                 | 0                   | -219.2                 | 17.18                    | -409.                    | -43.                     | 15.          | 1.31           | 54.41  | 127.92 | 12970. |
| 6       | -10.0                 | 0                   | -66.6                  | -8.08                    | -281.                    | 93.                      | -35.         | -37            | 54.73  | 128.29 | 13040. |
| 7       | -5.0                  | 0                   | 76.6                   | -13.57                   | 337.                     | 78.                      | -21.         | 2.25           | 54.51  | 128.03 | 13090. |
| 8       | -2.5                  | 0                   | 152.9                  | -11.48                   | 440.                     | 27.                      | -19.         | .81            | 54.74  | 128.31 | 13130. |
| 9       | -0                    | 0                   | 276.1                  | -5.95                    | 505.                     | -4.                      | 1.           | -1.06          | 54.57  | 128.11 | 13050. |
| 11      | 5.0                   | 0                   | 362.7                  | 11.03                    | 663.                     | -90.                     | 51.          | 2.44           | 54.37  | 127.86 | 13040. |
| 12      | 10.0                  | 0                   | 436.4                  | 45.55                    | 790.                     | -105.                    | 106.         | 2.58           | 54.14  | 127.59 | 13040. |
| 13      | 15.0                  | 0                   | 488.5                  | 92.54                    | 1063.                    | -140.                    | 88.          | 3.48           | 54.75  | 128.32 | 13050. |
| 14      | 17.5                  | 0                   | 481.2                  | 127.86                   | 1254.                    | -112.                    | 179.         | 3.91           | 54.04  | 127.47 | 13050. |
| 15      | 20.0                  | 0                   | 504.5                  | 156.66                   | 1511.                    | -70.                     | 126.         | 4.84           | 54.15  | 127.60 | 13050. |
| 16      | 2.5                   | 0                   | 296.7                  | 1.71                     | 598.                     | -94.                     | 87.          | 1.75           | 54.56  | 128.09 | 13100. |
| 17      | -0                    | 0                   | 275.0                  | -5.44                    | 513.                     | -1.                      | -1.          | .56            | 54.32  | 127.81 | 13110. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .6306  | .1311  | .1980  | -.0002 | -.0002 | .0061  |
| 3    | 0.00   | .6116  | -.0183 | .1625  | -.0000 | -.0012 | .0059  |
| 4    | -20.00 | -.8980 | .1266  | -.1147 | -.0051 | -.0004 | .0295  |
| 5    | -15.00 | -.5923 | .0464  | -.1318 | -.0026 | .0009  | .0036  |
| 6    | -9.99  | -.1801 | -.0218 | -.0906 | .0056  | -.0021 | -.0010 |
| 7    | -4.98  | .2069  | -.0367 | .1086  | .0047  | -.0013 | .0061  |
| 8    | -2.50  | .4134  | -.0310 | .1417  | .0016  | -.0011 | .0022  |
| 9    | -.00   | .6110  | -.0161 | .1627  | -.0002 | .0001  | -.0029 |
| 11   | 5.01   | .9804  | .0298  | .2136  | -.0054 | .0031  | .0066  |
| 12   | 10.00  | 1.1793 | .1231  | .2548  | -.0063 | .0064  | .0070  |
| 13   | 15.01  | 1.2391 | .2501  | .3428  | -.0085 | .0053  | .0094  |
| 14   | 17.50  | 1.3004 | .3456  | .4043  | -.0068 | .0108  | .0106  |
| 15   | 20.01  | 1.3634 | .4234  | .4872  | -.0042 | .0076  | .0131  |
| 16   | 2.52   | .8020  | .0046  | .1929  | -.0057 | .0052  | .0047  |
| 17   | -.00   | .6080  | -.0147 | .1655  | -.0001 | -.0000 | .0015  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .6306  | .1311  | .1980  | -.0002 | -.0002 | .0061  |
| 3    | 0.00   | .6116  | -.0183 | .1625  | -.0000 | -.0012 | .0059  |
| 4    | -20.00 | -.8980 | .1266  | -.1147 | -.0051 | -.0004 | .0295  |
| 5    | -15.00 | -.5923 | .0464  | -.1318 | -.0026 | .0009  | .0036  |
| 6    | -9.99  | -.1801 | -.0218 | -.0906 | .0056  | -.0021 | -.0010 |
| 7    | -4.98  | .2069  | -.0367 | .1086  | .0047  | -.0013 | .0061  |
| 8    | -2.50  | .4134  | -.0310 | .1417  | .0016  | -.0011 | .0022  |
| 9    | -.00   | .6110  | -.0161 | .1627  | -.0002 | .0001  | -.0029 |
| 11   | 5.01   | .9804  | .0298  | .2136  | -.0054 | .0031  | .0066  |
| 12   | 10.00  | 1.1793 | .1231  | .2548  | -.0063 | .0064  | .0070  |
| 13   | 15.01  | 1.2391 | .2501  | .3428  | -.0085 | .0053  | .0094  |
| 14   | 17.50  | 1.3004 | .3456  | .4043  | -.0068 | .0108  | .0106  |
| 15   | 20.01  | 1.3634 | .4234  | .4872  | -.0042 | .0076  | .0131  |
| 16   | 2.52   | .8020  | .0046  | .1929  | -.0057 | .0052  | .0047  |
| 17   | -.00   | .6080  | -.0147 | .1655  | -.0001 | -.0000 | .0015  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 708

RUN 837 CONFIG F P B NP5 W7 T50 BT IN=-3.5 XN=0

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | -10 DELE    | 0 DELR        | 0 DELSB      | 0             | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|---------------|--------------|---------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 2       | .0        | .0      | -135.1      | 36.84       | 419.          | -99.         | -11.          | 8.94        | 52.59 | 125.72  | 3280.  |
| 3       | .0        | .0      | -133.0      | 35.83       | 397.          | -90.         | 7.            | 8.40        | 55.18 | 128.84  | 3330.  |
| 4       | .0        | .0      | -139.6      | -7.07       | 318.          | -106.        | 25.           | 8.00        | 54.50 | 128.03  | 11800. |
| 5       | -20.0     | .0      | -363.3      | 156.69      | -175.         | -190.        | -181.         | 2.05        | 54.86 | 128.45  | 11740. |
| 6       | -15.0     | .0      | -336.5      | 105.95      | -67.          | -124.        | -281.         | 8.65        | 55.16 | 128.81  | 11760. |
| 7       | -10.0     | .0      | -321.9      | 66.25       | 278.          | -11.         | -101.         | 7.07        | 54.96 | 128.58  | 11780. |
| 8       | -5.0      | .0      | -301.2      | 9.29        | 365.          | 47.          | -31.          | 8.13        | 53.64 | 127.00  | 11800. |
| 9       | -2.5      | .0      | -222.9      | -2.20       | 354.          | -101.        | 39.           | 11.08       | 53.47 | 126.79  | 11760. |
| 10      | .0        | .0      | -139.0      | -6.65       | 335.          | -100.        | 4.            | 10.63       | 54.47 | 127.99  | 11810. |
| 11      | 2.5       | .0      | -60.5       | -9.38       | 356.          | -88.         | 43.           | 8.91        | 54.69 | 128.25  | 11780. |
| 12      | 5.0       | .0      | 19.0        | -9.46       | 445.          | -71.         | 27.           | 8.61        | 54.62 | 128.17  | 11760. |
| 13      | 10.0      | .0      | 168.4       | -3.05       | 762.          | -68.         | 49.           | 6.37        | 55.11 | 128.76  | 11750. |
| 14      | 15.0      | .0      | 314.2       | 13.66       | 1418.         | -73.         | 34.           | 4.67        | 54.76 | 128.33  | 11790. |
| 15      | 20.0      | .0      | 443.6       | 39.36       | 2167.         | -42.         | 88.           | 1.92        | 55.10 | 128.74  | 11790. |
| 16      | -5.0      | .0      | -293.6      | 9.96        | 358.          | 41.          | -15.          | 9.88        | 55.49 | 129.21  | 11800. |
| 17      | -2.5      | .0      | -216.7      | .89         | 353.          | -103.        | 19.           | 11.19       | 55.12 | 128.77  | 11760. |
| 18      | .0        | .0      | -139.5      | -5.54       | 325.          | -92.         | 24.           | 9.18        | 54.89 | 128.49  | 11820. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3651 | .0996  | .1352  | -.0060 | -.0007 | .0242 |
| 3    | .00    | -.3595 | .0968  | .1281  | -.0054 | .0004  | .0227 |
| 4    | .00    | -.3773 | -.0191 | .1026  | -.0064 | .0015  | .0216 |
| 5    | -20.00 | -.9820 | .4235  | -.0564 | -.0060 | -.0109 | .0055 |
| 6    | -14.99 | -.9094 | .2863  | -.0217 | -.0075 | -.0170 | .0234 |
| 7    | -10.00 | -.8701 | .1790  | .0895  | -.0007 | -.0061 | .0191 |
| 8    | -4.99  | -.8141 | .0251  | .1178  | .0028  | -.0019 | .0220 |
| 9    | -2.50  | -.6023 | -.0005 | .1141  | -.0061 | .0023  | .0300 |
| 10   | .01    | -.3757 | -.0180 | .1079  | -.0060 | .0003  | .0287 |
| 11   | 2.51   | -.1636 | -.0253 | .1148  | -.0053 | .0026  | .0241 |
| 12   | 5.01   | .0515  | -.0256 | .1434  | -.0043 | .0017  | .0233 |
| 13   | 10.01  | .4552  | -.0082 | .2458  | -.0041 | .0030  | .0172 |
| 14   | 15.01  | .8492  | .0369  | .4572  | -.0044 | .0021  | .0126 |
| 15   | 20.01  | 1.1989 | .1064  | .6985  | -.0025 | .0053  | .0052 |
| 16   | -4.99  | -.7935 | .0269  | .1153  | .0025  | -.0009 | .0267 |
| 17   | -2.50  | -.5858 | .0024  | .1138  | -.0062 | .0012  | .0302 |
| 18   | .01    | -.3770 | -.0150 | .1048  | -.0056 | .0014  | .0248 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3651 | .0996  | .1352  | -.0060 | -.0007 | .0242 |
| 3    | .00    | -.3595 | .0968  | .1281  | -.0054 | .0004  | .0227 |
| 4    | .00    | -.3773 | -.0191 | .1026  | -.0064 | .0015  | .0216 |
| 5    | -20.00 | -.9820 | .4235  | -.0564 | -.0060 | -.0109 | .0055 |
| 6    | -14.99 | -.9094 | .2863  | -.0217 | -.0075 | -.0170 | .0234 |
| 7    | -10.00 | -.8701 | .1790  | .0895  | -.0007 | -.0061 | .0191 |
| 8    | -4.99  | -.8141 | .0251  | .1178  | .0028  | -.0019 | .0220 |
| 9    | -2.50  | -.6023 | -.0005 | .1141  | -.0061 | .0023  | .0300 |
| 10   | .01    | -.3757 | -.0180 | .1079  | -.0060 | .0003  | .0287 |
| 11   | 2.51   | -.1636 | -.0253 | .1148  | -.0053 | .0026  | .0241 |
| 12   | 5.01   | .0515  | -.0256 | .1434  | -.0043 | .0017  | .0233 |
| 13   | 10.01  | .4552  | -.0082 | .2458  | -.0041 | .0030  | .0172 |
| 14   | 15.01  | .8492  | .0369  | .4572  | -.0044 | .0021  | .0126 |
| 15   | 20.01  | 1.1989 | .1064  | .6985  | -.0025 | .0053  | .0052 |
| 16   | -4.99  | -.7935 | .0269  | .1153  | .0025  | -.0009 | .0267 |
| 17   | -2.50  | -.5858 | .0024  | .1138  | -.0062 | .0012  | .0302 |
| 18   | .01    | -.3770 | -.0150 | .1048  | -.0056 | .0014  | .0248 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 709

RUN 838 CONFIG F P B NP5 W7 T50 BT IN=-3.5 XN=0

| PT. NO. | -9 DELF ALPHA DEG | 0 DELA  |             | 0 IHT       |              | 5 DELE       |              | 0 DELR      |       | 0 DELSB |        | RPM |
|---------|-------------------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|-----|
|         |                   | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |     |
| 3       | .0                | .0      | -103.8      | 35.66       | -826.        | -46.         | -12.         | 9.32        | 54.85 | 128.44  | 3340.  |     |
| 4       | .0                | .0      | -112.9      | -7.07       | -901.        | -44.         | 8.           | 7.60        | 55.10 | 128.74  | 11680. |     |
| 5       | -20.0             | .0      | -362.9      | 145.73      | -67.         | 47.          | -226.        | -.49        | 55.51 | 129.22  | 11670. |     |
| 6       | -15.0             | .0      | -309.1      | 99.06       | -311.        | -25.         | -182.        | 3.44        | 55.38 | 129.07  | 11700. |     |
| 7       | -10.0             | .0      | -303.1      | 59.55       | -635.        | -135.        | -106.        | 10.43       | 55.55 | 129.27  | 11690. |     |
| 8       | -5.0              | .0      | -269.9      | 6.68        | -911.        | -32.         | -13.         | 8.18        | 54.95 | 128.56  | 11670. |     |
| 9       | -2.5              | .0      | -191.9      | -1.82       | -897.        | -33.         | 23.          | 9.02        | 54.78 | 128.36  | 11730. |     |
| 10      | .0                | .0      | -110.7      | -6.24       | -862.        | -40.         | 23.          | 9.46        | 55.10 | 128.74  | 11780. |     |
| 11      | 2.5               | .0      | -35.3       | -8.46       | -802.        | -49.         | -10.         | 8.70        | 55.23 | 128.89  | 11700. |     |
| 12      | 5.0               | .0      | 43.8        | -7.80       | -709.        | -22.         | 27.          | 8.90        | 55.11 | 128.75  | 11690. |     |
| 13      | 10.0              | .0      | 192.5       | .02         | -389.        | -39.         | 32.          | 5.62        | 55.13 | 128.78  | 11720. |     |
| 14      | 15.0              | .0      | 335.6       | 19.24       | 223.         | -35.         | 69.          | 5.16        | 55.42 | 129.11  | 11710. |     |
| 15      | 20.0              | .0      | 473.5       | 50.03       | 771.         | 1.           | 106.         | 2.05        | 54.81 | 128.39  | 11680. |     |
| 16      | .0                | .0      | -109.6      | -5.58       | -856.        | -41.         | 7.           | 8.43        | 54.95 | 128.56  | 11690. |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | -.2805 | .0964  | -.2663 | -.0028 | -.0007 | .0252  |
| 4    | .00    | -.3052 | -.0191 | -.2903 | -.0026 | .0005  | .0206  |
| 5    | -20.00 | -.9809 | .3938  | -.0217 | .0028  | -.0136 | -.0013 |
| 6    | -15.00 | -.8355 | .2677  | -.1002 | -.0015 | -.0110 | .0093  |
| 7    | -9.99  | -.8192 | .1610  | -.2048 | -.0081 | -.0064 | .0282  |
| 8    | -4.99  | -.7295 | .0181  | -.2937 | -.0019 | -.0008 | .0221  |
| 9    | -2.50  | -.5186 | -.0049 | -.2891 | -.0020 | .0014  | .0244  |
| 10   | .01    | -.2993 | -.0169 | -.2778 | -.0024 | .0014  | .0256  |
| 11   | 2.50   | -.0953 | -.0229 | -.2586 | -.0030 | -.0006 | .0235  |
| 12   | 5.01   | .1185  | -.0211 | -.2285 | -.0013 | .0016  | .0241  |
| 13   | 10.00  | .5203  | .0001  | -.1254 | -.0023 | .0019  | .0152  |
| 14   | 15.01  | .9071  | .0520  | .0720  | -.0021 | .0042  | .0140  |
| 15   | 20.00  | 1.2798 | .1352  | .2487  | .0001  | .0064  | .0055  |
| 16   | .00    | -.2961 | -.0151 | -.2760 | -.0025 | .0004  | .0228  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | -.2805 | .0964  | -.2663 | -.0028 | -.0007 | .0252  |
| 4    | .00    | -.3052 | -.0191 | -.2903 | -.0026 | .0005  | .0206  |
| 5    | -20.00 | -.9809 | .3938  | -.0217 | .0028  | -.0136 | -.0013 |
| 6    | -15.00 | -.8355 | .2677  | -.1002 | -.0015 | -.0110 | .0093  |
| 7    | -9.99  | -.8192 | .1610  | -.2048 | -.0081 | -.0064 | .0282  |
| 8    | -4.99  | -.7295 | .0181  | -.2937 | -.0019 | -.0008 | .0221  |
| 9    | -2.50  | -.5186 | -.0049 | -.2891 | -.0020 | .0014  | .0244  |
| 10   | .01    | -.2993 | -.0169 | -.2778 | -.0024 | .0014  | .0256  |
| 11   | 2.50   | -.0953 | -.0229 | -.2586 | -.0030 | -.0006 | .0235  |
| 12   | 5.01   | .1185  | -.0211 | -.2285 | -.0013 | .0016  | .0241  |
| 13   | 10.00  | .5203  | .0001  | -.1254 | -.0023 | .0019  | .0152  |
| 14   | 15.01  | .9071  | .0520  | .0720  | -.0021 | .0042  | .0140  |
| 15   | 20.00  | 1.2798 | .1352  | .2487  | .0001  | .0064  | .0055  |
| 16   | .00    | -.2961 | -.0151 | -.2760 | -.0025 | .0004  | .0228  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 710

RUN 839 CONFIG F P B NP5 W7 T50 BT IN=-3.5 XN=0

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | -111.3      | 35.44       | -374.        | -62.         | 40.          | 9.78        | 55.38 | 129.07  | 3350.  |
| 3       | .0        | .0      | -117.1      | -6.86       | -461.        | -46.         | 6.           | 9.28        | 55.07 | 128.70  | 11730. |
| 4       | -20.0     | .0      | -362.0      | 149.07      | -77.         | -74.         | -150.        | 3.96        | 55.11 | 128.75  | 11770. |
| 5       | -15.0     | .0      | -342.5      | 101.30      | 195.         | -37.         | -310.        | 4.96        | 54.97 | 128.57  | 11780. |
| 6       | -10.0     | .0      | -317.5      | 61.21       | -133.        | -140.        | -88.         | 9.80        | 55.27 | 128.93  | 11770. |
| 7       | -5.0      | .0      | -275.6      | 6.43        | -454.        | -47.         | 39.          | 8.77        | 55.53 | 129.25  | 11770. |
| 8       | -2.5      | .0      | -198.3      | -1.41       | -464.        | -48.         | -33.         | 10.69       | 55.44 | 129.14  | 11770. |
| 9       | .0        | .0      | -120.6      | -6.64       | -447.        | -71.         | 7.           | 8.12        | 55.40 | 129.09  | 11770. |
| 10      | 2.5       | .0      | -41.8       | -9.16       | -383.        | -45.         | 62.          | 7.99        | 54.97 | 128.58  | 11780. |
| 11      | 5.0       | .0      | 35.1        | -8.50       | -270.        | -42.         | 63.          | 7.48        | 55.12 | 128.76  | 11740. |
| 12      | 10.0      | .0      | 184.7       | -1.80       | 72.          | -54.         | 33.          | 4.40        | 54.91 | 128.51  | 11770. |
| 13      | 15.0      | .0      | 331.2       | 16.61       | 692.         | -55.         | 52.          | 5.73        | 54.66 | 128.20  | 11750. |
| 14      | 20.0      | .0      | 463.0       | 45.27       | 1301.        | -16.         | 124.         | 2.98        | 54.82 | 128.41  | 11720. |
| 15      | -.0       | .0      | -118.7      | -6.00       | -447.        | -54.         | 23.          | 9.32        | 55.21 | 128.87  | 11730. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3008 | .0958  | -.1205 | -.0038 | .0024  | .0264 |
| 3    | .00    | -.3165 | -.0185 | -.1485 | -.0028 | .0004  | .0251 |
| 4    | -20.00 | -.9783 | .4029  | -.0247 | -.0045 | -.0090 | .0107 |
| 5    | -15.01 | -.9257 | .2738  | .0630  | -.0023 | -.0187 | .0134 |
| 6    | -10.00 | -.8581 | .1654  | -.0429 | -.0085 | -.0053 | .0265 |
| 7    | -5.00  | -.7449 | .0174  | -.1463 | -.0029 | .0023  | .0237 |
| 8    | -2.50  | -.5359 | -.0038 | -.1497 | -.0029 | -.0020 | .0289 |
| 9    | .00    | -.3259 | -.0179 | -.1441 | -.0043 | .0004  | .0219 |
| 10   | 2.49   | -.1131 | -.0247 | -.1234 | -.0027 | .0037  | .0216 |
| 11   | 5.00   | .0948  | -.0230 | -.0871 | -.0025 | .0038  | .0202 |
| 12   | 10.01  | .4991  | -.0049 | .0233  | -.0033 | .0020  | .0119 |
| 13   | 15.01  | .8952  | .0449  | .2230  | -.0033 | .0031  | .0155 |
| 14   | 20.01  | 1.2513 | .1224  | .4194  | -.0010 | .0075  | .0081 |
| 15   | -.01   | -.3209 | -.0162 | -.1442 | -.0033 | .0014  | .0252 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3008 | .0958  | -.1205 | -.0038 | .0024  | .0264 |
| 3    | .00    | -.3165 | -.0185 | -.1485 | -.0028 | .0004  | .0251 |
| 4    | -20.00 | -.9783 | .4029  | -.0247 | -.0045 | -.0090 | .0107 |
| 5    | -15.01 | -.9257 | .2738  | .0630  | -.0023 | -.0187 | .0134 |
| 6    | -10.00 | -.8581 | .1654  | -.0429 | -.0085 | -.0053 | .0265 |
| 7    | -5.00  | -.7449 | .0174  | -.1463 | -.0029 | .0023  | .0237 |
| 8    | -2.50  | -.5359 | -.0038 | -.1497 | -.0029 | -.0020 | .0289 |
| 9    | .00    | -.3259 | -.0179 | -.1441 | -.0043 | .0004  | .0219 |
| 10   | 2.49   | -.1131 | -.0247 | -.1234 | -.0027 | .0037  | .0216 |
| 11   | 5.00   | .0948  | -.0230 | -.0871 | -.0025 | .0038  | .0202 |
| 12   | 10.01  | .4991  | -.0049 | .0233  | -.0033 | .0020  | .0119 |
| 13   | 15.01  | .8952  | .0449  | .2230  | -.0033 | .0031  | .0155 |
| 14   | 20.01  | 1.2513 | .1224  | .4194  | -.0010 | .0075  | .0081 |
| 15   | -.01   | -.3209 | -.0162 | -.1442 | -.0033 | .0014  | .0252 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 711

RUN 840 CONFIG F P B NP5 W7 T50 BT IN=-3.5 XN=0

| PT. NO. | IW | -9 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | -5 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|---------|----|-------------------------|----------------------|--------------------------|-------------------------|----------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 2       |    | .0                      | .0                   | -119.3                   | 36.09                   | -11.                       | -43.                      | -12.                      | 9.31                      | 54.88         | 128.47          | 3340.  |
| 3       |    | .0                      | .0                   | -127.4                   | -7.03                   | -141.                      | -60.                      | -82.                      | 8.68                      | 54.93         | 128.54          | 11760. |
| 4       |    | -20.0                   | .0                   | -361.8                   | 152.86                  | -154.                      | -184.                     | -100.                     | 4.86                      | 54.69         | 128.24          | 11760. |
| 5       |    | -15.0                   | .0                   | -332.7                   | 104.01                  | 6.                         | -84.                      | -276.                     | 4.79                      | 54.71         | 128.27          | 11760. |
| 6       |    | -10.0                   | .0                   | -324.3                   | 61.83                   | 222.                       | -78.                      | -124.                     | 10.00                     | 54.85         | 128.43          | 11760. |
| 7       |    | -5.0                    | .0                   | -283.8                   | 7.02                    | -127.                      | -38.                      | -15.                      | 9.41                      | 55.00         | 128.62          | 11790. |
| 8       |    | -2.5                    | .0                   | -203.5                   | -1.08                   | -135.                      | -33.                      | -13.                      | 9.41                      | 55.02         | 128.63          | 11760. |
| 9       |    | .0                      | .0                   | -127.2                   | -6.78                   | -133.                      | -41.                      | -12.                      | 9.43                      | 54.56         | 128.10          | 11790. |
| 10      |    | 2.5                     | .0                   | -46.6                    | -9.27                   | -88.                       | -55.                      | 61.                       | 8.84                      | 54.74         | 128.30          | 11750. |
| 11      |    | 5.0                     | .0                   | 28.9                     | -9.30                   | -8.                        | -44.                      | -6.                       | 5.88                      | 55.60         | 129.33          | 11770. |
| 12      |    | 10.0                    | .0                   | 180.3                    | -2.94                   | 336.                       | -54.                      | 49.                       | 7.44                      | 54.93         | 128.53          | 11740. |
| 13      |    | 15.0                    | .0                   | 325.2                    | 14.61                   | 976.                       | -54.                      | 87.                       | 5.00                      | 55.23         | 128.89          | 11770. |
| 14      |    | 20.0                    | .0                   | 459.3                    | 42.21                   | 1689.                      | -22.                      | 125.                      | 2.93                      | 54.58         | 128.11          | 11750. |
| 15      |    | .0                      | .0                   | -125.6                   | -6.12                   | -140.                      | -44.                      | -12.                      | 9.80                      | 54.90         | 128.49          | 11740. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3223 | .0975  | -.0036 | -.0026 | -.0007 | .0252 |
| 3    | .00    | -.3444 | -.0190 | -.0456 | -.0036 | -.0049 | .0235 |
| 4    | -19.99 | -.9778 | .4131  | -.0495 | -.0111 | -.0060 | .0131 |
| 5    | -15.00 | -.8991 | .2811  | .0020  | -.0051 | -.0166 | .0130 |
| 6    | -10.00 | -.8765 | .1671  | .0717  | -.0047 | -.0075 | .0270 |
| 7    | -5.00  | -.7671 | .0190  | -.0411 | -.0023 | -.0009 | .0254 |
| 8    | -2.49  | -.5499 | -.0029 | -.0436 | -.0020 | -.0008 | .0254 |
| 9    | .01    | -.3437 | -.0183 | -.0429 | -.0024 | -.0007 | .0255 |
| 10   | 2.51   | -.1260 | -.0251 | -.0282 | -.0033 | .0037  | .0239 |
| 11   | 5.01   | .0782  | -.0251 | -.0027 | -.0027 | -.0003 | .0159 |
| 12   | 10.00  | .4873  | -.0079 | .1082  | -.0033 | .0029  | .0201 |
| 13   | 15.00  | .8790  | .0395  | .3147  | -.0033 | .0052  | .0135 |
| 14   | 20.00  | 1.2414 | .1141  | .5444  | -.0013 | .0075  | .0079 |
| 15   | .00    | -.3394 | -.0165 | -.0452 | -.0027 | -.0007 | .0265 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3223 | .0975  | -.0036 | -.0026 | -.0007 | .0252 |
| 3    | .00    | -.3444 | -.0190 | -.0456 | -.0036 | -.0049 | .0235 |
| 4    | -19.99 | -.9778 | .4131  | -.0495 | -.0111 | -.0060 | .0131 |
| 5    | -15.00 | -.8991 | .2811  | .0020  | -.0051 | -.0166 | .0130 |
| 6    | -10.00 | -.8765 | .1671  | .0717  | -.0047 | -.0075 | .0270 |
| 7    | -5.00  | -.7671 | .0190  | -.0411 | -.0023 | -.0009 | .0254 |
| 8    | -2.49  | -.5499 | -.0029 | -.0436 | -.0020 | -.0008 | .0254 |
| 9    | .01    | -.3437 | -.0183 | -.0429 | -.0024 | -.0007 | .0255 |
| 10   | 2.51   | -.1260 | -.0251 | -.0282 | -.0033 | .0037  | .0239 |
| 11   | 5.01   | .0782  | -.0251 | -.0027 | -.0027 | -.0003 | .0159 |
| 12   | 10.00  | .4873  | -.0079 | .1082  | -.0033 | .0029  | .0201 |
| 13   | 15.00  | .8790  | .0395  | .3147  | -.0033 | .0052  | .0135 |
| 14   | 20.00  | 1.2414 | .1141  | .5444  | -.0013 | .0075  | .0079 |
| 15   | .00    | -.3394 | -.0165 | -.0452 | -.0027 | -.0007 | .0265 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 712

RUN 841 CONFIG F P B NP5 W7 T50 BT IN=-3.5 XN=0

| PT. NO. | IW    | -9 DELF   |         | 0 DELA      |             | 0 IHT        |              | -5 DELE      |             | 0 DELR |         | 0 DELSB |  | RPM |
|---------|-------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         |       | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF    | V KNOTS |         |  |     |
| 3       |       | .0        | .0      | -127.3      | -6.12       | -92.         | -49.         | -9.          | 6.90        | 54.84  | 128.42  | 11750.  |  |     |
| 4       | 5.0   | .0        | .0      | 28.0        | -9.12       | 28.          | -40.         | -7.          | 7.03        | 54.78  | 128.36  | 11750.  |  |     |
| 5       | 10.0  | .0        | .0      | 179.0       | -2.64       | 367.         | -55.         | 31.          | 6.65        | 54.83  | 128.42  | 11740.  |  |     |
| 6       | 15.0  | .0        | .0      | 325.1       | 14.89       | 1012.        | -48.         | 69.          | 6.21        | 54.87  | 128.46  | 11750.  |  |     |
| 7       | 20.0  | .0        | .0      | 459.5       | 42.47       | 1722.        | -23.         | 107.         | 2.50        | 54.44  | 127.95  | 11740.  |  |     |
| 8       | -20.0 | .0        | .0      | -357.8      | 151.99      | -154.        | -164.        | -97.         | 4.37        | 55.40  | 129.08  | 11760.  |  |     |
| 9       | -15.0 | .0        | .0      | -333.0      | 103.96      | 42.          | -79.         | -274.        | 3.99        | 54.67  | 128.21  | 11760.  |  |     |
| 10      | -10.0 | .0        | .0      | -318.7      | 61.81       | 268.         | -84.         | -99.         | 5.92        | 54.66  | 128.20  | 11760.  |  |     |
| 12      | -5.0  | .0        | .0      | -284.6      | 7.66        | -86.         | -29.         | 3.           | 9.42        | 54.94  | 128.54  | 11760.  |  |     |
| 13      | -.0   | .0        | .0      | -125.0      | -6.16       | -93.         | -60.         | 24.          | 8.68        | 54.96  | 128.56  | 11740.  |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 3    | .00    | -.3441 | -.0165 | -.0298 | -.0030 | -.0005 | .0186 |
| 4    | 5.00   | .0756  | -.0247 | .0091  | -.0024 | -.0004 | .0190 |
| 5    | 10.00  | .4838  | -.0071 | .1184  | -.0033 | .0019  | .0180 |
| 6    | 15.04  | .8786  | .0402  | .3262  | -.0029 | .0042  | .0168 |
| 7    | 20.00  | 1.2420 | .1148  | .5552  | -.0014 | .0065  | .0068 |
| 8    | -20.00 | -.9670 | .4108  | -.0496 | -.0099 | -.0059 | .0118 |
| 9    | -14.99 | -.8999 | .2810  | .0135  | -.0048 | -.0166 | .0108 |
| 10   | -10.00 | -.8613 | .1671  | .0863  | -.0051 | -.0060 | .0160 |
| 12   | -5.00  | -.7693 | .0207  | -.0276 | -.0018 | .0002  | .0255 |
| 13   | -.00   | -.3379 | -.0166 | -.0299 | -.0036 | .0015  | .0235 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 3    | .00    | -.3441 | -.0165 | -.0298 | -.0030 | -.0005 | .0186 |
| 4    | 5.00   | .0756  | -.0247 | .0091  | -.0024 | -.0004 | .0190 |
| 5    | 10.00  | .4838  | -.0071 | .1184  | -.0033 | .0019  | .0180 |
| 6    | 15.04  | .8786  | .0402  | .3262  | -.0029 | .0042  | .0168 |
| 7    | 20.00  | 1.2420 | .1148  | .5552  | -.0014 | .0065  | .0068 |
| 8    | -20.00 | -.9670 | .4108  | -.0496 | -.0099 | -.0059 | .0118 |
| 9    | -14.99 | -.8999 | .2810  | .0135  | -.0048 | -.0166 | .0108 |
| 10   | -10.00 | -.8613 | .1671  | .0863  | -.0051 | -.0060 | .0160 |
| 12   | -5.00  | -.7693 | .0207  | -.0276 | -.0018 | .0002  | .0255 |
| 13   | -.00   | -.3379 | -.0166 | -.0299 | -.0036 | .0015  | .0235 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 713

RUN 842 CONFIG F P B NP5 W7 T50 BT IN=-3.5 XN=0

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | -5 DELE     | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 367.5       | 72.15       | 162.         | -78.         | 83.          | 4.42        | 54.70 | 128.25  | 3980.  |
| 3       | .0        | .0      | 339.7       | -13.65      | -2.          | -2.          | 148.         | -5.69       | 55.05 | 128.66  | 16270. |
| 4       | .0        | .0      | 336.7       | -6.39       | 2.           | -11.         | 129.         | -5.75       | 55.67 | 129.39  | 15740. |
| 5       | -20.0     | .0      | -222.0      | 12.09       | -640.        | -10.         | 33.          | 8.82        | 55.25 | 128.90  | 15760. |
| 6       | -15.0     | .0      | -77.7       | -16.18      | -671.        | -78.         | 56.          | 6.48        | 55.68 | 129.41  | 15710. |
| 7       | -10.0     | .0      | 76.0        | -28.82      | -383.        | -12.         | 33.          | 1.10        | 55.49 | 129.18  | 15710. |
| 8       | -5.0      | .0      | 215.7       | -22.57      | -103.        | 24.          | 73.          | -2.14       | 55.67 | 129.39  | 15720. |
| 9       | -2.5      | .0      | 277.3       | -15.83      | -57.         | -29.         | 144.         | -2.59       | 55.19 | 128.83  | 15720. |
| 10      | .0        | .0      | 335.3       | -6.62       | -11.         | -5.          | 164.         | -6.11       | 55.72 | 129.45  | 15710. |
| 11      | 2.5       | .0      | 387.8       | 6.93        | 24.          | -30.         | 113.         | -8.08       | 55.66 | 129.38  | 15750. |
| 12      | 5.0       | .0      | 391.8       | 25.90       | 15.          | -49.         | 213.         | -1.73       | 55.05 | 128.65  | 15710. |
| 13      | 10.0      | .0      | 437.7       | 72.24       | 92.          | -90.         | 53.          | .25         | 55.04 | 128.64  | 15770. |
| 14      | 15.0      | .0      | 455.8       | 125.96      | 510.         | -205.        | 298.         | .31         | 55.32 | 128.97  | 15770. |
| 15      | 20.0      | .0      | 510.7       | 182.65      | 963.         | -50.         | -70.         | 3.84        | 54.98 | 128.57  | 15750. |
| 16.     | .0        | .0      | 344.0       | -6.64       | -17.         | -37.         | 123.         | -.61        | 55.61 | 129.33  | 15770. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9933  | .1950  | .0523  | -.0047 | .0050  | .0120  |
| 3    | .00    | .9182  | -.0369 | -.0005 | -.0001 | .0089  | -.0154 |
| 4    | .00    | .9100  | -.0173 | .0006  | -.0007 | .0078  | -.0155 |
| 5    | -20.00 | -.6000 | .0327  | -.2062 | -.0006 | .0020  | .0238  |
| 6    | -15.00 | -.2099 | -.0437 | -.2163 | -.0047 | .0034  | .0175  |
| 7    | -10.00 | .2053  | -.0779 | -.1236 | -.0007 | .0020  | .0030  |
| 8    | -5.00  | .5829  | -.0610 | -.0331 | .0014  | .0044  | -.0058 |
| 9    | -2.50  | .7494  | -.0428 | -.0183 | -.0017 | .0087  | -.0070 |
| 10   | .00    | .9063  | -.0179 | -.0037 | -.0003 | .0099  | -.0165 |
| 11   | 2.51   | 1.0482 | .0187  | .0077  | -.0018 | .0068  | -.0218 |
| 12   | 5.00   | 1.0589 | .0700  | .0047  | -.0030 | .0129  | -.0047 |
| 13   | 10.02  | 1.1830 | .1952  | .0298  | -.0054 | .0032  | .0007  |
| 14   | 15.00  | 1.2320 | .3404  | .1644  | -.0124 | .0180  | .0008  |
| 15   | 20.01  | 1.3803 | .4936  | .3105  | -.0030 | -.0042 | .0104  |
| 16   | .00    | .9296  | -.0179 | -.0054 | -.0023 | .0074  | -.0017 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9933  | .1950  | .0523  | -.0047 | .0050  | .0120  |
| 3    | .00    | .9182  | -.0369 | -.0005 | -.0001 | .0089  | -.0154 |
| 4    | .00    | .9100  | -.0173 | .0006  | -.0007 | .0078  | -.0155 |
| 5    | -20.00 | -.6000 | .0327  | -.2062 | -.0006 | .0020  | .0238  |
| 6    | -15.00 | -.2099 | -.0437 | -.2163 | -.0047 | .0034  | .0175  |
| 7    | -10.00 | .2053  | -.0779 | -.1236 | -.0007 | .0020  | .0030  |
| 8    | -5.00  | .5829  | -.0610 | -.0331 | .0014  | .0044  | -.0058 |
| 9    | -2.50  | .7494  | -.0428 | -.0183 | -.0017 | .0087  | -.0070 |
| 10   | .00    | .9063  | -.0179 | -.0037 | -.0003 | .0099  | -.0165 |
| 11   | 2.51   | 1.0482 | .0187  | .0077  | -.0018 | .0068  | -.0218 |
| 12   | 5.00   | 1.0589 | .0700  | .0047  | -.0030 | .0129  | -.0047 |
| 13   | 10.02  | 1.1830 | .1952  | .0298  | -.0054 | .0032  | .0007  |
| 14   | 15.00  | 1.2320 | .3404  | .1644  | -.0124 | .0180  | .0008  |
| 15   | 20.01  | 1.3803 | .4936  | .3105  | -.0030 | -.0042 | .0104  |
| 16   | .00    | .9296  | -.0179 | -.0054 | -.0023 | .0074  | -.0017 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 714

RUN 843 CONFIG F P B NP5 W7 T50 BT IN=-3.5 XN=0

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | -5 DELE     | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 367.2       | 72.15       | 164.         | -89.         | 31.          | 4.23        | 54.00 | 127.41  | 3970.  |
| 3       | .0        | .0      | 359.6       | 70.50       | 158.         | -78.         | 64.          | 4.30        | 55.45 | 129.14  | 4000.  |
| 4       | .0        | .0      | 343.3       | -7.15       | 18.          | -35.         | 74.          | -3.32       | 55.46 | 129.14  | 15590. |
| 5       | -20.0     | .0      | -217.2      | 13.29       | -675.        | -155.        | 170.         | 9.30        | 55.65 | 129.36  | 15580. |
| 6       | -15.0     | .0      | -76.6       | -14.85      | -643.        | -91.         | 69.          | 8.56        | 55.74 | 129.48  | 15620. |
| 7       | -10.0     | .0      | 76.0        | -28.38      | -248.        | 65.          | 3.           | -1.68       | 54.89 | 128.47  | 15570. |
| 8       | -5.0      | .0      | 214.6       | -21.34      | -83.         | 10.          | 51.          | .86         | 55.76 | 129.50  | 15650. |
| 9       | -2.5      | .0      | 282.6       | -15.33      | -35.         | -56.         | 106.         | -.25        | 55.11 | 128.72  | 15550. |
| 10      | .0        | .0      | 341.0       | -6.06       | 16.          | -37.         | 90.          | -2.03       | 55.46 | 129.14  | 15620. |
| 11      | 2.5       | .0      | 393.0       | 8.70        | 23.          | -17.         | 162.         | -3.34       | 55.07 | 128.68  | 15570. |
| 12      | 5.0       | .0      | 385.2       | 26.34       | 15.          | -59.         | 173.         | 2.71        | 55.32 | 128.97  | 15560. |
| 13      | 10.0      | .0      | 441.2       | 73.96       | 39.          | -91.         | 71.          | .37         | 54.77 | 128.32  | 15580. |
| 14      | 15.0      | .0      | 464.0       | 129.30      | 530.         | -207.        | 282.         | 1.80        | 54.98 | 128.57  | 15600. |
| 15      | 20.0      | .0      | 499.1       | 182.10      | 997.         | -68.         | 36.          | 6.41        | 55.27 | 128.91  | 15580. |
| 16      | -10.0     | .0      | 73.5        | -27.76      | -237.        | 64.          | 24.          | -3.32       | 55.42 | 129.09  | 15600. |
| 17      | .0        | .0      | 340.4       | -5.13       | 10.          | -8.          | 147.         | -4.18       | 54.55 | 128.06  | 15530. |
| 18      | 10.0      | .0      | 423.0       | 73.65       | 213.         | -113.        | 180.         | -5.59       | 54.85 | 128.41  | 15550. |
| 19      | 10.0      | .0      | 433.4       | 72.87       | 124.         | -98.         | 88.          | -.12        | 55.07 | 128.68  | 15590. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | .9924  | .1950  | .0530  | -.0054 | .0018 | .0114  |
| 3    | .00    | .9719  | .1905  | .0509  | -.0047 | .0039 | .0116  |
| 4    | .00    | .9278  | -.0193 | .0057  | -.0021 | .0045 | -.0090 |
| 5    | -20.00 | -.5869 | .0359  | -.2178 | -.0093 | .0103 | .0251  |
| 6    | -15.00 | -.2069 | -.0401 | -.2073 | -.0055 | .0042 | .0231  |
| 7    | -10.00 | .2054  | -.0767 | -.0801 | .0039  | .0002 | -.0045 |
| 8    | -5.00  | .5799  | -.0577 | -.0266 | .0006  | .0031 | .0023  |
| 9    | -2.51  | .7637  | -.0414 | -.0114 | -.0034 | .0064 | -.0007 |
| 10   | -.00   | .9215  | -.0164 | .0050  | -.0022 | .0054 | -.0055 |
| 11   | 2.50   | 1.0621 | .0235  | .0073  | -.0010 | .0098 | -.0090 |
| 12   | 5.00   | 1.0411 | .0712  | .0050  | -.0035 | .0104 | .0073  |
| 13   | 10.01  | 1.1925 | .1999  | .0124  | -.0055 | .0043 | .0010  |
| 14   | 15.01  | 1.2541 | .3495  | .1709  | -.0125 | .0170 | .0049  |
| 15   | 20.01  | 1.3490 | .4922  | .3216  | -.0041 | .0022 | .0173  |
| 16   | -10.00 | .1985  | -.0750 | -.0763 | .0039  | .0014 | -.0090 |
| 17   | .00    | .9200  | -.0139 | .0033  | -.0005 | .0089 | -.0113 |
| 18   | 10.00  | 1.1432 | .1990  | .0686  | -.0068 | .0109 | -.0151 |
| 19   | 10.00  | 1.1715 | .1969  | .0399  | -.0059 | .0053 | -.0003 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | .9924  | .1950  | .0530  | -.0054 | .0018 | .0114  |
| 3    | .00    | .9719  | .1905  | .0509  | -.0047 | .0039 | .0116  |
| 4    | .00    | .9278  | -.0193 | .0057  | -.0021 | .0045 | -.0090 |
| 5    | -20.00 | -.5869 | .0359  | -.2178 | -.0093 | .0103 | .0251  |
| 6    | -15.00 | -.2069 | -.0401 | -.2073 | -.0055 | .0042 | .0231  |
| 7    | -10.00 | .2054  | -.0767 | -.0801 | .0039  | .0002 | -.0045 |
| 8    | -5.00  | .5799  | -.0577 | -.0266 | .0006  | .0031 | .0023  |
| 9    | -2.51  | .7637  | -.0414 | -.0114 | -.0034 | .0064 | -.0007 |
| 10   | -.00   | .9215  | -.0164 | .0050  | -.0022 | .0054 | -.0055 |
| 11   | 2.50   | 1.0621 | .0235  | .0073  | -.0010 | .0098 | -.0090 |
| 12   | 5.00   | 1.0411 | .0712  | .0050  | -.0035 | .0104 | .0073  |
| 13   | 10.01  | 1.1925 | .1999  | .0124  | -.0055 | .0043 | .0010  |
| 14   | 15.01  | 1.2541 | .3495  | .1709  | -.0125 | .0170 | .0049  |
| 15   | 20.01  | 1.3490 | .4922  | .3216  | -.0041 | .0022 | .0173  |
| 16   | -10.00 | .1985  | -.0750 | -.0763 | .0039  | .0014 | -.0090 |
| 17   | .00    | .9200  | -.0139 | .0033  | -.0005 | .0089 | -.0113 |
| 18   | 10.00  | 1.1432 | .1990  | .0686  | -.0068 | .0109 | -.0151 |
| 19   | 10.00  | 1.1715 | .1969  | .0399  | -.0059 | .0053 | -.0003 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P715

RUN 844 CONFIG F P B NP5 W7 T50 BT IN=-3.5 XN=0

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPM BAR<br>CU-FT | 0 DELR<br>CYM BAR<br>CU-FT | 0 DELR<br>CRM BAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>KNOTS | RPM    |
|------------------|-------------------------|----------------------|--------------------------|-------------------------|----------------------------|----------------------------|----------------------------|---------------------------|----------|------------|--------|
| 2                | .0                      | .0                   | 363.2                    | 69.96                   | -158.                      | -90.                       | 47.                        | 4.02                      | 55.91    | 129.68     | 4010.  |
| 3                | .0                      | .0                   | 341.2                    | -6.78                   | -280.                      | -17.                       | 162.                       | -5.41                     | 56.07    | 129.86     | 15680. |
| 4                | -20.0                   | .0                   | -225.4                   | 8.68                    | -630.                      | -77.                       | 103.                       | 8.72                      | 55.06    | 128.66     | 15710. |
| 5                | -15.0                   | .0                   | -85.5                    | -19.67                  | -500.                      | -37.                       | -15.                       | 7.29                      | 55.59    | 129.29     | 15700. |
| 6                | -10.0                   | .0                   | 76.2                     | -30.47                  | -461.                      | 76.                        | 22.                        | -2.62                     | 55.81    | 129.56     | 15730. |
| 7                | -5.0                    | .0                   | 207.3                    | -21.07                  | -413.                      | 58.                        | 208.                       | -10.72                    | 55.60    | 129.31     | 15670. |
| 8                | -2.5                    | .0                   | 274.1                    | -14.34                  | -362.                      | -6.                        | 225.                       | -9.47                     | 55.06    | 128.67     | 15720. |
| 9                | .0                      | .0                   | 336.4                    | -5.23                   | -288.                      | -13.                       | 206.                       | -9.53                     | 55.02    | 128.62     | 15700. |
| 10               | 2.5                     | .0                   | 394.6                    | 8.05                    | -234.                      | -57.                       | 187.                       | -9.53                     | 55.05    | 128.68     | 15690. |
| 11               | 5.0                     | .0                   | 386.6                    | 26.10                   | -229.                      | -110.                      | 216.                       | -5.31                     | 55.16    | 128.78     | 15700. |
| 12               | 10.0                    | .0                   | 412.2                    | 69.74                   | -79.                       | -147.                      | 57.                        | -6.72                     | 55.23    | 128.87     | 15720. |
| 13               | 15.0                    | .0                   | 443.3                    | 122.09                  | 318.                       | -173.                      | 139.                       | .67                       | 55.65    | 129.37     | 15710. |
| 14               | 20.0                    | .0                   | 504.3                    | 182.10                  | 769.                       | -39.                       | 71.                        | 5.70                      | 55.58    | 129.27     | 15710. |
| 15               | -0.0                    | .0                   | 342.9                    | -4.40                   | -295.                      | -16.                       | 203.                       | -7.19                     | 54.95    | 128.53     | 15690. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9817  | .1891  | -.0509 | -.0055 | .0028  | .0109  |
| 3    | .00    | .9222  | -.0183 | -.0904 | -.0010 | .0098  | -.0146 |
| 4    | -20.00 | -.6093 | .0235  | -.2030 | -.0046 | .0062  | .0236  |
| 5    | -15.00 | -.2310 | -.0532 | -.1613 | -.0022 | -.0009 | .0197  |
| 6    | -10.00 | .2059  | -.0824 | -.1487 | .0046  | .0013  | -.0071 |
| 7    | -5.00  | .5603  | -.0569 | -.1330 | .0035  | .0126  | -.0290 |
| 8    | -2.50  | .7407  | -.0388 | -.1169 | -.0003 | .0136  | -.0256 |
| 9    | .00    | .9092  | -.0141 | -.0929 | -.0008 | .0124  | -.0258 |
| 10   | 2.51   | 1.0665 | .0218  | -.0755 | -.0035 | .0113  | -.0258 |
| 11   | 5.01   | 1.0448 | .0705  | -.0740 | -.0067 | .0130  | -.0144 |
| 12   | 10.00  | 1.1140 | .1885  | -.0253 | -.0089 | .0034  | -.0182 |
| 13   | 15.01  | 1.1980 | .3300  | .1024  | -.0104 | .0084  | .0018  |
| 14   | 20.03  | 1.3630 | .4922  | .2479  | -.0024 | .0043  | .0154  |
| 15   | -.00   | .9269  | -.0119 | -.0950 | -.0010 | .0123  | -.0194 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9817  | .1891  | -.0509 | -.0055 | .0028  | .0109  |
| 3    | .00    | .9222  | -.0183 | -.0904 | -.0010 | .0098  | -.0146 |
| 4    | -20.00 | -.6093 | .0235  | -.2030 | -.0046 | .0062  | .0236  |
| 5    | -15.00 | -.2310 | -.0532 | -.1613 | -.0022 | -.0009 | .0197  |
| 6    | -10.00 | .2059  | -.0824 | -.1487 | .0046  | .0013  | -.0071 |
| 7    | -5.00  | .5603  | -.0569 | -.1330 | .0035  | .0126  | -.0290 |
| 8    | -2.50  | .7407  | -.0388 | -.1169 | -.0003 | .0136  | -.0256 |
| 9    | .00    | .9092  | -.0141 | -.0929 | -.0008 | .0124  | -.0258 |
| 10   | 2.51   | 1.0665 | .0218  | -.0755 | -.0035 | .0113  | -.0258 |
| 11   | 5.01   | 1.0448 | .0705  | -.0740 | -.0067 | .0130  | -.0144 |
| 12   | 10.00  | 1.1140 | .1885  | -.0253 | -.0089 | .0034  | -.0182 |
| 13   | 15.01  | 1.1980 | .3300  | .1024  | -.0104 | .0084  | .0018  |
| 14   | 20.03  | 1.3630 | .4922  | .2479  | -.0024 | .0043  | .0154  |
| 15   | -.00   | .9269  | -.0119 | -.0950 | -.0010 | .0123  | -.0194 |

RUN 845 CONFIG F P L NPS #7 ISG BT IN=-3.5

| PT. NO. | INW   | 15 DELF | 0.1' DELA | 0.0 INT | S DELE | 0.0 DELR | 0.1' DELSB | U.0    |       |        |        |
|---------|-------|---------|-----------|---------|--------|----------|------------|--------|-------|--------|--------|
|         | ALPHA | PSI     | CLBAR     | CCCAP   | CPMEAF | CYMBAF   | CRMBAR     | CYBAR  | C     | V      | RPM    |
|         | DEG   | DEG     | 52-FT     | 53-FT   | CU-FT  | CU-FT    | CU-FT      | 53-FT  | PSF   | KNOTS  |        |
| 4       | .0    | .0      | 356.5     | 71.82   | -854.  | -17.     | 182.       | -5.66  | 56.38 | 130.23 | 4030.  |
| 5       | .0    | .0      | 356.6     | 72.13   | -603.  | -6.      | 145.       | -5.94  | 56.24 | 130.07 | 4020.  |
| 6       | .0    | .0      | 350.9     | -6.92   | -735.  | -9.      | 196.       | -5.96  | 55.85 | 129.61 | 15800. |
| 7       | -20.0 | .0      | -217.5    | 4.78    | -633.  | -123.    | 101.       | 8.70   | 56.00 | 129.78 | 15770. |
| 8       | -15.0 | .0      | -76.4     | -23.60  | -963.  | -122.    | 50.        | 9.64   | 55.10 | 128.71 | 15790. |
| 9       | -10.0 | .0      | 38.3      | -33.37  | -991.  | -8.      | 47.        | 2.64   | 55.56 | 129.26 | 15770. |
| 10      | -5.0  | .0      | 217.1     | -22.65  | -884.  | 45.      | 178.       | -12.05 | 54.53 | 128.51 | 15850. |
| 11      | -2.5  | .0      | 279.4     | -14.30  | -812.  | 0.       | 200.       | -3.80  | 55.61 | 129.32 | 15770. |
| 12      | .0    | .0      | 344.2     | -5.62   | -729.  | 1.       | 237.       | -0.63  | 55.64 | 129.35 | 15800. |
| 13      | 2.5   | .0      | 417.2     | 8.45    | -672.  | -42.     | 186.       | -3.14  | 55.16 | 128.79 | 15770. |
| 14      | 5.0   | .0      | 395.0     | 27.48   | -636.  | -86.     | 129.       | -7.70  | 55.73 | 129.46 | 15750. |
| 15      | 10.0  | .0      | 418.2     | 69.74   | -460.  | -90.     | 123.       | -2.32  | 55.73 | 129.46 | 15810. |
| 16      | 15.0  | .0      | 481.5     | 128.19  | -100.  | -180.    | 200.       | -1.16  | 55.88 | 129.54 | 15790. |
| 17      | 17.5  | .0      | 490.5     | 157.37  | 131.   | -83.     | 35.        | 1.47   | 55.74 | 129.47 | 15710. |
| 18      | 20.0  | .0      | 518.0     | 185.38  | 377.   | -58.     | 88.        | 4.04   | 55.72 | 129.44 | 15500. |
| 19      | .0    | .0      | 344.6     | -5.06   | -733.  | -11.     | 241.       | -10.93 | 55.46 | 129.14 | 15740. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CFM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 4    | .00    | .9636  | .1941  | -.1915 | -.0010 | .0093 | -.0158 |
| 5    | .00    | .9637  | .1951  | -.1944 | -.0004 | .0088 | -.0160 |
| 6    | .00    | .9484  | -.0187 | -.2371 | -.0005 | .0120 | -.0162 |
| 7    | -20.00 | -.6145 | .0129  | -.2042 | -.0074 | .0061 | .0235  |
| 8    | -15.00 | -.2065 | -.0638 | -.2912 | -.0074 | .0030 | .0261  |
| 9    | -9.99  | .2386  | -.0902 | -.3194 | -.0005 | .0022 | .0071  |
| 10   | -5.00  | .5869  | -.0613 | -.2850 | .0029  | .0107 | -.0327 |
| 11   | -2.48  | .7550  | -.0403 | -.2619 | .0000  | .0124 | -.0265 |
| 12   | .00    | .9302  | -.0152 | -.2352 | .0001  | .0143 | -.0233 |
| 13   | 2.50   | 1.1005 | .0228  | -.2167 | -.0026 | .0112 | -.0247 |
| 14   | 5.05   | 1.0676 | .0743  | -.2051 | -.0053 | .0078 | -.0208 |
| 15   | 10.01  | 1.1302 | .1885  | -.1484 | -.0054 | .0074 | -.0063 |
| 16   | 15.02  | 1.2475 | .3465  | -.0343 | -.0114 | .0157 | -.0031 |
| 17   | 17.53  | 1.3256 | .4253  | .0422  | -.0050 | .0021 | .0040  |
| 18   | 20.00  | 1.3999 | .5010  | .1217  | -.0035 | .0053 | .0109  |
| 19   | .00    | .9314  | -.0137 | -.2362 | -.0007 | .0146 | -.0295 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CL2    | CD8    | CFM3   | CYM3   | CRM3  | CY3    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 4    | .00    | .9636  | .1941  | -.1915 | -.0010 | .0098 | -.0158 |
| 5    | .00    | .9637  | .1951  | -.1944 | -.0004 | .0088 | -.0160 |
| 6    | .00    | .9484  | -.0187 | -.2371 | -.0005 | .0120 | -.0162 |
| 7    | -20.00 | -.6149 | .0129  | -.2042 | -.0074 | .0061 | .0235  |
| 8    | -15.00 | -.2065 | -.0638 | -.2912 | -.0074 | .0030 | .0261  |
| 9    | -9.99  | .2386  | -.0902 | -.3194 | -.0005 | .0022 | .0071  |
| 10   | -5.00  | .5869  | -.0613 | -.2850 | .0029  | .0107 | -.0327 |
| 11   | -2.48  | .7550  | -.0403 | -.2619 | .0000  | .0124 | -.0265 |
| 12   | .00    | .9302  | -.0152 | -.2352 | .0001  | .0143 | -.0233 |
| 13   | 2.50   | 1.1005 | .0228  | -.2167 | -.0026 | .0112 | -.0247 |
| 14   | 5.05   | 1.0676 | .0743  | -.2051 | -.0053 | .0078 | -.0208 |
| 15   | 10.01  | 1.1302 | .1885  | -.1484 | -.0054 | .0074 | -.0063 |
| 16   | 15.02  | 1.2475 | .3465  | -.0343 | -.0114 | .0157 | -.0031 |

|    |       |        |        |        |        |       |        |
|----|-------|--------|--------|--------|--------|-------|--------|
| 17 | 17.53 | 1.3256 | .4253  | .0422  | -.0050 | .0021 | .0040  |
| 18 | 20.00 | 1.3999 | .5010  | .1217  | -.0035 | .0053 | .0109  |
| 19 | .00   | .9314  | -.0137 | -.2362 | -.0007 | .0146 | -.0295 |

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N472409-1

SIKORSKY ISRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SCR-72011

P 717

RUN 346 CONFID F P C NPS W7 TSD BT IN=-3.5

| PK      | IS DELF   | Q.R DELA | O.O IHT      | -IU DELE    | O.G DELR     | O.O DELSE    | G.O          |             |       |         |        |
|---------|-----------|----------|--------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CL BAR SC-FT | CCBAR SC-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0       | 307.8        | 72.00       | 577.         | 92.          | 168.         | -5.80       | 55.99 | 129.77  | 4010.  |
| 3       | .0        | .0       | 318.2        | -6.74       | 412.         | 78.          | 186.         | -11.03      | 55.59 | 129.28  | 15880. |
| 4       | -20.0     | .0       | -219.1       | 13.17       | -684.        | -61.         | 53.          | 7.15        | 55.76 | 129.50  | 15630. |
| 5       | -15.0     | .0       | -70.0        | -13.75      | -760.        | -79.         | 59.          | 5.18        | 55.29 | 128.94  | 15780. |
| 6       | -10.0     | .0       | 77.3         | -20.04      | -417.        | 61.          | 19.          | -6.62       | 55.12 | 128.74  | 15850. |
| 7       | -5.0      | .0       | 132.6        | -13.99      | 30.          | 103.         | 139.         | -10.43      | 55.50 | 129.18  | 15850. |
| 8       | -2.5      | .0       | 257.6        | -13.25      | 360.         | 107.         | 196.         | -14.03      | 54.87 | 128.44  | 15850. |
| 9       | .0        | .0       | 310.0        | -5.24       | 420.         | 78.          | 173.         | -12.44      | 55.30 | 128.95  | 15840. |
| 10      | 2.5       | .0       | 375.2        | 7.93        | 447.         | 5.           | 150.         | -9.93       | 55.59 | 129.29  | 15820. |
| 11      | 5.0       | .0       | 374.3        | 23.99       | 433.         | -100.        | 217.         | -6.79       | 55.22 | 128.85  | 15860. |
| 12      | 10.0      | .0       | 401.8        | 67.31       | 500.         | -169.        | 145.         | -7.48       | 55.13 | 128.74  | 15870. |
| 13      | 15.0      | .0       | 445.3        | 123.35      | 863.         | -198.        | 155.         | 1.21        | 56.21 | 130.02  | 15850. |
| 14      | 20.0      | .0       | 408.1        | 170.30      | 1528.        | -300.        | 53.          | 2.22        | 56.20 | 128.83  | 15690. |
| 15      | .0        | .0       | 318.8        | -4.01       | 423.         | 70.          | 210.         | -12.87      | 55.04 | 128.64  | 15820. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CFM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | .8860  | .1973  | .1860  | .0050  | .0102 | -.0265 |
| 3    | .00    | .8601  | -.0162 | .1329  | .0047  | .0114 | -.0298 |
| 4    | -20.00 | -.5894 | .0356  | -.2207 | -.0037 | .0032 | .0193  |
| 5    | -14.99 | -.2055 | -.0372 | -.2449 | -.0047 | .0036 | .0140  |
| 6    | -10.00 | .2089  | -.0717 | -.1344 | .0037  | .0011 | -.0017 |
| 7    | -5.00  | .5205  | -.0513 | .0278  | .0062  | .0084 | -.0282 |
| 8    | -2.47  | .6968  | -.0358 | .1181  | .0065  | .0113 | -.0379 |
| 9    | .00    | .8529  | -.0142 | .1372  | .0047  | .0105 | -.0336 |
| 10   | 2.50   | 1.0142 | .0214  | .1441  | .0003  | .0091 | -.0268 |
| 11   | 5.00   | 1.0115 | .0648  | .1397  | -.0064 | .0131 | -.0183 |
| 12   | 10.00  | 1.0860 | .1819  | .1804  | -.0102 | .0088 | -.0202 |
| 13   | 15.00  | 1.2034 | .3334  | .2781  | -.0119 | .0094 | .0033  |
| 14   | 20.00  | 1.3462 | .4819  | .4282  | -.0054 | .0032 | .0060  |
| 15   | .00    | .8617  | -.0108 | .1365  | .0042  | .0127 | -.0348 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | COB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | .8860  | .1973  | .1860  | .0050  | .0102 | -.0265 |
| 3    | .00    | .8601  | -.0162 | .1329  | .0047  | .0114 | -.0298 |
| 4    | -20.00 | -.5894 | .0356  | -.2207 | -.0037 | .0032 | .0193  |
| 5    | -14.99 | -.2055 | -.0372 | -.2449 | -.0047 | .0036 | .0140  |
| 6    | -10.00 | .2089  | -.0717 | -.1344 | .0037  | .0011 | -.0017 |
| 7    | -5.00  | .5205  | -.0513 | .0278  | .0062  | .0084 | -.0282 |
| 8    | -2.47  | .6968  | -.0358 | .1181  | .0065  | .0113 | -.0379 |
| 9    | .00    | .8529  | -.0142 | .1372  | .0047  | .0105 | -.0336 |
| 10   | 2.50   | 1.0142 | .0214  | .1441  | .0003  | .0091 | -.0268 |
| 11   | 5.00   | 1.0115 | .0648  | .1397  | -.0064 | .0131 | -.0183 |
| 12   | 10.00  | 1.0860 | .1819  | .1804  | -.0102 | .0088 | -.0202 |
| 13   | 15.00  | 1.2034 | .3334  | .2781  | -.0119 | .0094 | .0033  |
| 14   | 20.00  | 1.3462 | .4819  | .4282  | -.0054 | .0032 | .0060  |
| 15   | .00    | .8617  | -.0108 | .1365  | .0042  | .0127 | -.0348 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

10718

RUN 847 CONFIG F P L NPE W7 T50 BT IN=3.5

| IW      | 15 DELF   | 30 DELA | Q.0         | IHT         | -10 DELE     | Q.0 DELR     | Q.0 DELSB    | Q.0         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRM9AR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 542.2       | 132.29      | 124.         | 193.         | 311.         | -25.39      | 55.54 | 129.23  | 4270.  |
| 3       | .0        | .0      | 520.9       | -7.09       | -40.         | 256.         | 465.         | -32.62      | 54.83 | 128.39  | 20300. |
| 4       | -20.0     | .0      | -53.0       | -26.05      | -165.3.      | -78.         | 114.         | 4.97        | 54.16 | 127.59  | 20220. |
| 5       | -15.0     | .0      | 131.0       | -40.30      | -1638.       | 38.          | 200.         | -2.12       | 54.61 | 128.14  | 20210. |
| 6       | -10.0     | .0      | 234.2       | -37.67      | -1193.       | -114.        | 168.         | 6.03        | 54.23 | 127.67  | 20210. |
| 7       | -5.0      | .0      | 338.1       | -20.01      | -559.        | 98.          | 371.         | -22.48      | 54.80 | 128.43  | 20170. |
| 8       | .0        | .0      | 520.8       | -1.97       | -37.         | 255.         | 459.         | -31.27      | 55.44 | 129.12  | 20320. |
| 9       | 2.5       | .0      | 553.4       | 10.60       | 27.          | 259.         | 710.         | -34.95      | 54.88 | 128.45  | 20220. |
| 10      | 5.0       | .0      | 525.0       | 22.79       | 142.         | -26.         | 393.         | -9.22       | 55.44 | 129.11  | 20230. |
| 11      | 10.0      | .0      | 426.9       | 78.93       | 165.         | -189.        | 279.         | -.06        | 55.49 | 129.17  | 20230. |
| 12      | 15.0      | .0      | 515.5       | 134.86      | 534.         | -169.        | 274.         | 5.75        | 56.29 | 130.12  | 20230. |
| 13      | 20.0      | .0      | 507.5       | 199.49      | 861.         | -84.         | 70.          | 3.92        | 55.65 | 129.36  | 20270. |
| 14      | .0        | .0      | 514.4       | -5.59       | -30.         | 277.         | 441.         | -30.99      | 55.52 | 129.21  | 20260. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.4654 | .3575  | .0400  | .0117  | .0188 | -.0686 |
| 3    | .00    | 1.4079 | -.0192 | -.0149 | .0161  | .0281 | -.0882 |
| 4    | -20.00 | -.1432 | -.0704 | -.5329 | -.0047 | .0069 | .0134  |
| 5    | -15.00 | .3542  | -.1089 | -.5282 | .0023  | .0121 | -.0057 |
| 6    | -10.01 | .7951  | -.1018 | -.3845 | -.0069 | .0101 | .0163  |
| 7    | -5.00  | 1.0760 | -.0541 | -.1834 | .0059  | .0224 | -.0607 |
| 8    | .00    | 1.4074 | -.0053 | -.0118 | .0154  | .0277 | -.0845 |
| 9    | 2.50   | 1.4956 | .0289  | .0087  | .0156  | .0429 | -.0345 |
| 10   | 5.00   | 1.4190 | .0616  | .0459  | -.0016 | .0237 | -.0249 |
| 11   | 10.00  | 1.3160 | .2133  | .0525  | -.0114 | .0169 | -.0002 |
| 12   | 15.00  | 1.3932 | .3645  | .1722  | -.0102 | .0166 | .0155  |
| 13   | 20.00  | 1.5338 | .5391  | .2775  | -.0051 | .0043 | .0106  |
| 14   | .00    | 1.3904 | -.0151 | -.0097 | .0167  | .0266 | -.0837 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDC    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.4654 | .3575  | .0400  | .0117  | .0188 | -.0686 |
| 3    | .00    | 1.4079 | -.0192 | -.0149 | .0161  | .0281 | -.0882 |
| 4    | -20.00 | -.1432 | -.0704 | -.5329 | -.0047 | .0069 | .0134  |
| 5    | -15.00 | .3542  | -.1089 | -.5282 | .0023  | .0121 | -.0057 |
| 6    | -10.01 | .7951  | -.1018 | -.3845 | -.0069 | .0101 | .0163  |
| 7    | -5.00  | 1.0760 | -.0541 | -.1834 | .0059  | .0224 | -.0607 |
| 8    | .00    | 1.4074 | -.0053 | -.0118 | .0154  | .0277 | -.0845 |
| 9    | 2.50   | 1.4956 | .0289  | .0087  | .0156  | .0429 | -.0345 |
| 10   | 5.00   | 1.4190 | .0616  | .0459  | -.0016 | .0237 | -.0249 |
| 11   | 10.00  | 1.3160 | .2133  | .0525  | -.0114 | .0169 | -.0002 |
| 12   | 15.00  | 1.3932 | .3645  | .1722  | -.0102 | .0166 | .0155  |
| 13   | 20.00  | 1.5338 | .5391  | .2775  | -.0051 | .0043 | .0106  |
| 14   | .00    | 1.3904 | -.0151 | -.0097 | .0167  | .0266 | -.0837 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 719

RUN 848 CONFIG F P U NP5 W7 T50 BT IN=-3.5

| PT. NO. | INW   | IS DELF | 30 DELA | 0.0 INT | 5 DELE  | 0.0 DELR | 0.0 DELSB | 0.0    | 0.0   | RPM    |        |
|---------|-------|---------|---------|---------|---------|----------|-----------|--------|-------|--------|--------|
|         | ALPHA | PSI     | CL BAR  | CDBAR   | CPM BAR | CYMBAR   | CRMBAR    | CYBAR  | Q     | V      |        |
|         | DEG   | DEG     | SQ-FT   | SQ-FT   | CU-FT   | CU-FT    | CU-FT     | SQ-FT  | PSF   | KNOTS  |        |
| 2       | .0    | .0      | 565.7   | 131.23  | -1025.  | 97.      | 377.      | -20.32 | 55.14 | 128.76 | 4270.  |
| 3       | .0    | .0      | 545.4   | -5.35   | -1210.  | 145.     | 437.      | -25.15 | 54.99 | 128.59 | 20260. |
| 4       | -20.0 | .0      | -58.4   | -32.03  | -1557.  | 60.      | 67.       | 1.42   | 55.20 | 128.83 | 20190. |
| 5       | -15.0 | .0      | 124.1   | -46.90  | -1678.  | 112.     | 63.       | -5.07  | 55.10 | 128.72 | 20190. |
| 6       | -10.0 | .0      | 303.3   | -43.54  | -1681.  | 19.      | 161.      | -5.50  | 54.58 | 128.09 | 20170. |
| 7       | -5.0  | .0      | 417.6   | -25.58  | -1444.  | 91.      | 375.      | -26.18 | 55.04 | 128.65 | 20240. |
| 8       | -2.5  | .0      | 481.6   | -15.39  | -1334.  | 55.      | 421.      | -23.42 | 54.99 | 128.58 | 20210. |
| 9       | -.0   | .0      | 520.8   | -2.68   | -1196.  | 119.     | 513.      | -28.67 | 54.89 | 128.46 | 20200. |
| 10      | 2.5   | .0      | 578.6   | 9.96    | -1084.  | 173.     | 691.      | -32.48 | 54.75 | 128.29 | 20180. |
| 11      | 5.0   | .0      | 590.9   | 23.21   | -911.   | 9.       | 775.      | -24.36 | 55.36 | 129.03 | 20210. |
| 12      | 10.0  | .0      | 513.7   | 87.62   | -958.   | -132.    | 321.      | -6.69  | 55.00 | 128.50 | 20190. |
| 13      | 15.0  | .0      | 529.2   | 139.72  | -577.   | -157.    | 191.      | 2.14   | 55.78 | 129.51 | 20230. |
| 14      | 20.0  | .0      | 561.7   | 203.13  | -94.    | -51.     | 88.       | 2.96   | 55.28 | 128.92 | 20220. |
| 15      | -.0   | .0      | 541.3   | -4.63   | -1164.  | 137.     | 542.      | -28.01 | 55.45 | 129.13 | 20260. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.5289 | .3547  | -.3303 | .0059  | .0228 | -.0549 |
| 3    | .00    | 1.4742 | -.0161 | -.3901 | .0088  | .0264 | -.0680 |
| 4    | -20.00 | -.1579 | -.0866 | -.5019 | .0036  | .0040 | .0038  |
| 5    | -14.99 | .3353  | -.1268 | -.5408 | .0068  | .0038 | -.0137 |
| 6    | -10.01 | .8196  | -.1177 | -.5421 | .0011  | .0097 | -.0013 |
| 7    | -5.00  | 1.1287 | -.0691 | -.4657 | .0055  | .0227 | -.0708 |
| 8    | -2.50  | 1.3016 | -.0416 | -.4300 | .0033  | .0254 | -.0633 |
| 9    | -.01   | 1.4885 | -.0073 | -.3855 | .0072  | .0310 | -.0775 |
| 10   | 2.52   | 1.5636 | .0269  | -.3493 | .0105  | .0417 | -.0876 |
| 11   | 5.00   | 1.5970 | .0627  | -.2938 | .0080  | .0468 | -.0659 |
| 12   | 10.00  | 1.3883 | .2358  | -.3090 | -.0080 | .0194 | -.0181 |
| 13   | 15.02  | 1.4302 | .3776  | -.1861 | -.0095 | .0115 | .0058  |
| 14   | 19.99  | 1.5721 | .5490  | -.0304 | -.0031 | .0053 | .0080  |
| 15   | -.01   | 1.4629 | -.0125 | -.3818 | .0083  | .0328 | -.0757 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.5289 | .3547  | -.3303 | .0059  | .0228 | -.0549 |
| 3    | .00    | 1.4742 | -.0161 | -.3901 | .0088  | .0264 | -.0680 |
| 4    | -20.00 | -.1579 | -.0866 | -.5019 | .0036  | .0040 | .0038  |
| 5    | -14.99 | .3353  | -.1268 | -.5408 | .0068  | .0038 | -.0137 |
| 6    | -10.01 | .8196  | -.1177 | -.5421 | .0011  | .0097 | -.0013 |
| 7    | -5.00  | 1.1287 | -.0691 | -.4657 | .0055  | .0227 | -.0708 |
| 8    | -2.50  | 1.3016 | -.0416 | -.4300 | .0033  | .0254 | -.0633 |
| 9    | -.01   | 1.4885 | -.0073 | -.3855 | .0072  | .0310 | -.0775 |
| 10   | 2.52   | 1.5636 | .0269  | -.3493 | .0105  | .0417 | -.0876 |
| 11   | 5.00   | 1.5970 | .0627  | -.2938 | .0080  | .0468 | -.0659 |
| 12   | 10.00  | 1.3883 | .2358  | -.3090 | -.0080 | .0194 | -.0181 |
| 13   | 15.02  | 1.4302 | .3776  | -.1861 | -.0095 | .0115 | .0058  |
| 14   | 19.99  | 1.5721 | .5490  | -.0304 | -.0031 | .0053 | .0080  |
| 15   | -.01   | 1.4629 | -.0125 | -.3818 | .0083  | .0328 | -.0757 |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 720

RUN 349 CONFIG F P C NPE W7 T50 BT IN=-3.5

| PT. NO. | ALPHA DEG | PSI DEG | CL BAR SQ-FT | CDBAR SQ-FT | CPM BAP CU-FT | CYMFAP CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|--------------|-------------|---------------|--------------|--------------|-------------|-------|---------|--------|
| 2       | .0        | .0      | 550.5        | 127.59      | -683.         | -32.         | 159.         | -.68        | 55.26 | 128.90  | 4260.  |
| 3       | .0        | .0      | 537.1        | -6.38       | -269.         | 144.         | 418.         | -25.03      | 55.12 | 128.75  | 20240. |
| 4       | -20.0     | .0      | -06.0        | -29.63      | -1651.        | 6.           | 102.         | 2.13        | 54.44 | 127.93  | 20230. |
| 5       | -15.0     | .0      | 117.0        | -47.23      | -1394.        | 130.         | 61.          | -3.50       | 54.48 | 127.99  | 20230. |
| 6       | -10.0     | .0      | 256.5        | -42.65      | -1261.        | 26.          | 146.         | -2.73       | 55.00 | 128.60  | 20190. |
| 7       | -5.0      | .0      | 443.3        | -31.13      | -1143.        | -93.         | 177.         | -.06        | 54.76 | 128.32  | 20240. |
| 8       | -2.5      | .0      | 486.6        | -17.83      | -1022.        | 68.          | 364.         | -19.01      | 54.65 | 128.19  | 20190. |
| 9       | .0        | .0      | 538.2        | -6.16       | -873.         | 144.         | 510.         | -25.75      | 54.77 | 128.33  | 20210. |
| 10      | 2.5       | .0      | 571.2        | 8.26        | -750.         | 159.         | 759.         | -31.65      | 54.69 | 128.46  | 20220. |
| 11      | 5.0       | .0      | 548.6        | 24.55       | -684.         | -86.         | 325.         | -4.38       | 54.43 | 127.92  | 20210. |
| 12      | 10.1      | .0      | 509.4        | 83.33       | -590.         | -114.        | 155.         | 4.50        | 55.30 | 128.95  | 20200. |
| 13      | 15.0      | .0      | 535.8        | 137.83      | -278.         | -145.        | 176.         | 4.47        | 54.83 | 128.39  | 20170. |
| 14      | 20.0      | .0      | 568.8        | 205.37      | 224.          | -62.         | 54.          | 5.52        | 54.96 | 128.54  | 20230. |
| 15      | -.0       | .0      | 548.5        | -4.59       | -872.         | 127.         | 472.         | -24.68      | 54.94 | 128.52  | 20250. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CC     | CFM    | CYM    | CPM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.6122 | .3448  | -.2201 | -.0055 | .0096 | -.0018 |
| 3    | .00    | 1.4517 | -.0186 | -.2803 | .0087  | .0253 | -.0676 |
| 4    | -20.00 | -.1513 | -.0801 | -.5323 | .0004  | .0062 | .0057  |
| 5    | -15.00 | .3162  | -.1277 | -.4495 | .0079  | .0037 | -.0095 |
| 6    | -9.97  | .8014  | -.1158 | -.4065 | .0016  | .0088 | -.0074 |
| 7    | -5.00  | 1.1981 | -.0841 | -.3685 | -.0056 | .0107 | -.0002 |
| 8    | -2.50  | 1.3151 | -.0482 | -.3296 | .0040  | .0220 | -.0514 |
| 9    | .01    | 1.4546 | -.0166 | -.2815 | .0087  | .0308 | -.0696 |
| 10   | 2.50   | 1.5437 | .0223  | -.2419 | .0096  | .0458 | -.0855 |
| 11   | 5.00   | 1.4827 | .0663  | -.2207 | -.0052 | .0196 | -.0118 |
| 12   | 10.07  | 1.3766 | .2252  | -.1901 | -.0069 | .0094 | .0122  |
| 13   | 15.00  | 1.4480 | .3727  | -.0897 | -.0088 | .0106 | .0121  |
| 14   | 20.02  | 1.5914 | .5551  | .0721  | -.0038 | .0033 | .0151  |
| 15   | -.00   | 1.4825 | -.0124 | -.2811 | .0077  | .0285 | -.0667 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CFMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.6122 | .3448  | -.2201 | -.0055 | .0096 | -.0018 |
| 3    | .00    | 1.4517 | -.0186 | -.2803 | .0087  | .0253 | -.0676 |
| 4    | -20.00 | -.1513 | -.0801 | -.5323 | .0004  | .0062 | .0057  |
| 5    | -15.00 | .3162  | -.1277 | -.4495 | .0079  | .0037 | -.0095 |
| 6    | -9.97  | .8014  | -.1158 | -.4065 | .0016  | .0088 | -.0074 |
| 7    | -5.00  | 1.1981 | -.0841 | -.3685 | -.0056 | .0107 | -.0002 |
| 8    | -2.50  | 1.3151 | -.0482 | -.3296 | .0040  | .0220 | -.0514 |
| 9    | .01    | 1.4546 | -.0166 | -.2815 | .0087  | .0308 | -.0696 |
| 10   | 2.50   | 1.5437 | .0223  | -.2419 | .0096  | .0458 | -.0855 |
| 11   | 5.00   | 1.4827 | .0663  | -.2207 | -.0052 | .0196 | -.0118 |
| 12   | 10.07  | 1.3766 | .2252  | -.1901 | -.0069 | .0094 | .0122  |
| 13   | 15.00  | 1.4480 | .3727  | -.0897 | -.0088 | .0106 | .0121  |
| 14   | 20.02  | 1.5914 | .5551  | .0721  | -.0038 | .0033 | .0151  |
| 15   | -.00   | 1.4825 | -.0124 | -.2811 | .0077  | .0285 | -.0667 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 721

RUN 850 CONFIG F P L NPS W7 T50 BT IN=-3.5

| PT. NO. | ALPHA DEG | PSI DEG | CL BAR SQ-FT | CD BAR SQ-FT | CPM BAR CU-FT | CYB BAR CU-FT | CRM BAR CU-FT | CYB BAR SQ-FT | G PSF | V KNOTS | RPM    |
|---------|-----------|---------|--------------|--------------|---------------|---------------|---------------|---------------|-------|---------|--------|
| 2       | .0        | .0      | 593.2        | 129.27       | -268.         | -102.         | 178.          | -.12          | 54.58 | 128.10  | 4250.  |
| 3       | .0        | .0      | 543.7        | .06          | -448.         | 99.           | 411.          | -19.03        | 55.13 | 128.76  | 19830. |
| 4       | -20.0     | .0      | -46.8        | -20.70       | -1763.        | -17.          | 153.          | 6.11          | 54.63 | 128.17  | 19760. |
| 5       | -15.0     | .0      | 129.6        | -37.72       | -1654.        | 39.           | 179.          | -2.09         | 55.36 | 129.03  | 19890. |
| 6       | -10.0     | .0      | 253.5        | -35.49       | -971.         | 104.          | 147.          | -3.11         | 54.79 | 128.36  | 19770. |
| 7       | -5.0      | .0      | 436.2        | -23.37       | -671.         | 2.            | 198.          | -2.54         | 54.91 | 128.49  | 19800. |
| 8       | -2.5      | .0      | 402.2        | -11.22       | -574.         | 101.          | 308.          | -15.35        | 54.38 | 127.86  | 19900. |
| 9       | .0        | .0      | 538.3        | .28          | -451.         | 111.          | 425.          | -29.97        | 55.01 | 128.61  | 19850. |
| 10      | 2.5       | .0      | 563.6        | 15.12        | -367.         | 148.          | 766.          | -36.07        | 54.85 | 128.42  | 19850. |
| 11      | 5.0       | .0      | 534.4        | 30.55        | -275.         | -82.          | 352.          | -1.85         | 55.25 | 128.89  | 19770. |
| 12      | 10.0      | .0      | 503.7        | 85.84        | -216.         | -138.         | 150.          | -2.36         | 54.87 | 128.44  | 19790. |
| 13      | 15.0      | .0      | 528.6        | 144.49       | 107.          | -158.         | 227.          | 5.56          | 55.15 | 128.78  | 19820. |
| 14      | 20.0      | .0      | 559.2        | 207.23       | 546.          | -89.          | 125.          | 5.09          | 54.85 | 128.41  | 19730. |
| 15      | .0        | .0      | 535.8        | 3.21         | -430.         | 98.           | 486.          | -25.62        | 55.57 | 129.28  | 19800. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.6032 | .3494  | -.0864 | -.0062 | .0107 | -.0003 |
| 3    | .00    | 1.4696 | .0002  | -.1443 | .0060  | .0248 | -.0514 |
| 4    | -19.99 | -.1264 | -.0560 | -.5685 | -.0010 | .0099 | .0165  |
| 5    | -15.00 | .3503  | -.1020 | -.5333 | .0023  | .0108 | -.0057 |
| 6    | -9.95  | .7933  | -.0959 | -.3129 | .0063  | .0089 | -.0084 |
| 7    | -5.00  | 1.1790 | -.0632 | -.2163 | .0001  | .0120 | -.0069 |
| 8    | -2.50  | 1.3304 | -.0303 | -.1849 | .0061  | .0186 | -.0442 |
| 9    | .00    | 1.4550 | .0008  | -.1452 | .0067  | .0257 | -.0810 |
| 10   | 2.51   | 1.5237 | .0409  | -.1183 | .0089  | .0463 | -.1029 |
| 11   | 5.02   | 1.4443 | .0828  | -.0888 | -.0050 | .0213 | -.0050 |
| 12   | 10.01  | 1.3612 | .2320  | -.0697 | -.0083 | .0097 | -.0064 |
| 13   | 15.02  | 1.4287 | .3905  | .0346  | -.0096 | .0137 | .0150  |
| 14   | 20.02  | 1.5384 | .5601  | .1761  | -.0054 | .0075 | .0138  |
| 15   | .01    | 1.4480 | .0087  | -.1387 | .0059  | .0293 | -.0692 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.6032 | .3494  | -.0864 | -.0062 | .0107 | -.0003 |
| 3    | .00    | 1.4696 | .0002  | -.1443 | .0060  | .0248 | -.0514 |
| 4    | -19.99 | -.1264 | -.0560 | -.5685 | -.0010 | .0099 | .0165  |
| 5    | -15.00 | .3503  | -.1020 | -.5333 | .0023  | .0108 | -.0057 |
| 6    | -9.95  | .7933  | -.0959 | -.3129 | .0063  | .0089 | -.0084 |
| 7    | -5.00  | 1.1790 | -.0632 | -.2163 | .0001  | .0120 | -.0069 |
| 8    | -2.50  | 1.3304 | -.0303 | -.1849 | .0061  | .0186 | -.0442 |
| 9    | .00    | 1.4550 | .0008  | -.1452 | .0067  | .0257 | -.0810 |
| 10   | 2.51   | 1.5237 | .0409  | -.1183 | .0089  | .0463 | -.1029 |
| 11   | 5.02   | 1.4443 | .0828  | -.0888 | -.0050 | .0213 | -.0050 |
| 12   | 10.01  | 1.3612 | .2320  | -.0697 | -.0083 | .0097 | -.0064 |
| 13   | 15.02  | 1.4287 | .3905  | .0346  | -.0096 | .0137 | .0150  |
| 14   | 20.02  | 1.5384 | .5601  | .1761  | -.0054 | .0075 | .0138  |
| 15   | .01    | 1.4480 | .0087  | -.1387 | .0059  | .0293 | -.0692 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 722

RUN 851 CONFIG F P C NPS W7 T51 BT IN=-3.5

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CSBAR SQ-FT | CPMBAR CU-FT | CYMSAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 6       | .0        | .0      | 343.8       | 68.77       | 374.         | -105.        | 64.          | 5.11        | 55.30 | 128.96  | 3990.  |
| 7       | .0        | .0      | 321.9       | -7.27       | 212.         | -125.        | 120.         | 2.22        | 55.14 | 126.77  | 15490. |
| 8       | -20.0     | .0      | -200.1      | 24.35       | 490.         | -3.          | 68.          | 9.62        | 54.20 | 127.64  | 15480. |
| 9       | -15.0     | .0      | -144.1      | -7.54       | 674.         | -70.         | 22.          | 6.25        | 55.06 | 128.67  | 15390. |
| 10      | -10.0     | .0      | 31.3        | -24.22      | 429.         | -37.         | 28.          | 3.68        | 55.53 | 129.30  | 15390. |
| 11      | -5.0      | .0      | 186.1       | -21.37      | 315.         | -102.        | 83.          | 3.50        | 54.58 | 128.10  | 15520. |
| 12      | -2.5      | .0      | 256.7       | -15.24      | 241.         | -153.        | 120.         | 2.80        | 54.74 | 128.29  | 15470. |
| 13      | .0        | .0      | 323.6       | -4.54       | 235.         | -138.        | 123.         | .74         | 54.87 | 128.45  | 15460. |
| 14      | 2.5       | .0      | 398.2       | 8.65        | 140.         | -143.        | 108.         | -1.69       | 54.52 | 128.03  | 15470. |
| 15      | 5.0       | .0      | 385.1       | 28.20       | -18.         | -127.        | 226.         | -.25        | 55.29 | 128.95  | 15450. |
| 16      | 10.0      | .0      | 435.7       | 74.59       | -215.        | -101.        | 35.          | .49         | 55.62 | 129.33  | 15430. |
| 17      | 15.0      | .0      | 451.3       | 137.07      | -494.        | -225.        | 387.         | .19         | 55.03 | 128.63  | 15430. |
| 18      | 17.5      | .0      | 528.7       | 169.24      | -696.        | -121.        | 194.         | -1.05       | 55.00 | 128.59  | 15440. |
| 19      | 20.0      | .0      | 565.0       | 205.24      | -857.        | -17.         | 106.         | 5.75        | 55.67 | 129.39  | 15450. |
| 20      | .0        | .0      | 323.3       | -3.21       | 233.         | -131.        | 85.          | 1.97        | 55.36 | 129.03  | 15450. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CFM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 6    | .00    | .9293  | .1859  | .1205  | -.0063 | .0038 | .0138  |
| 7    | .00    | .8699  | -.0197 | .0684  | -.0076 | .0073 | .0060  |
| 8    | -20.00 | -.7570 | .0658  | .1578  | -.0002 | .0041 | .0260  |
| 9    | -14.99 | -.3893 | -.0204 | .2174  | -.0042 | .0013 | .0169  |
| 10   | -9.96  | .0845  | -.0655 | .1384  | -.0022 | .0017 | .0099  |
| 11   | -5.00  | .5030  | -.0594 | .1015  | -.0061 | .0050 | .0094  |
| 12   | -2.51  | .6938  | -.0412 | .0777  | -.0093 | .0072 | .0076  |
| 13   | .01    | .8746  | -.0133 | .0759  | -.0084 | .0074 | .0020  |
| 14   | 2.52   | 1.0493 | .0234  | .0450  | -.0086 | .0066 | -.0046 |
| 15   | 5.01   | 1.0407 | .0762  | -.0057 | -.0077 | .0138 | -.0007 |
| 16   | 10.00  | 1.1776 | .2016  | -.0692 | -.0061 | .0021 | .0013  |
| 17   | 15.00  | 1.3277 | .3705  | -.1592 | -.0136 | .0234 | .0005  |
| 18   | 17.50  | 1.4290 | .4574  | -.2244 | -.0073 | .0117 | -.0028 |
| 19   | 20.02  | 1.5271 | .5547  | -.2764 | -.0010 | .0064 | .0155  |
| 20   | .00    | .8738  | -.0087 | .0750  | -.0079 | .0051 | .0053  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 6    | .00    | .9293  | .1859  | .1205  | -.0063 | .0038 | .0138  |
| 7    | .00    | .8699  | -.0197 | .0684  | -.0076 | .0073 | .0060  |
| 8    | -20.00 | -.7570 | .0658  | .1578  | -.0002 | .0041 | .0260  |
| 9    | -14.99 | -.3893 | -.0204 | .2174  | -.0042 | .0013 | .0169  |
| 10   | -9.96  | .0845  | -.0655 | .1384  | -.0022 | .0017 | .0099  |
| 11   | -5.00  | .5030  | -.0594 | .1015  | -.0061 | .0050 | .0094  |
| 12   | -2.51  | .6938  | -.0412 | .0777  | -.0093 | .0072 | .0076  |
| 13   | .01    | .8746  | -.0133 | .0759  | -.0084 | .0074 | .0020  |
| 14   | 2.52   | 1.0493 | .0234  | .0450  | -.0086 | .0066 | -.0046 |
| 15   | 5.01   | 1.0407 | .0762  | -.0057 | -.0077 | .0138 | -.0007 |
| 16   | 10.00  | 1.1776 | .2016  | -.0692 | -.0061 | .0021 | .0013  |
| 17   | 15.00  | 1.3277 | .3705  | -.1592 | -.0136 | .0234 | .0005  |
| 18   | 17.50  | 1.4290 | .4574  | -.2244 | -.0073 | .0117 | -.0028 |
| 19   | 20.02  | 1.5271 | .5547  | -.2764 | -.0010 | .0064 | .0155  |
| 20   | .00    | .8738  | -.0087 | .0750  | -.0079 | .0051 | .0053  |

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SIKORSKY RSFA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 723

RUN 952 CONFIG F P 5 NP5-117 T51 BT IN=-3.5

| PT. NO. | IN | -9 DELF<br>ALPHA<br>DEG | Q.U DELA<br>PSI<br>DEG | Q.O DELA<br>CL BAR<br>SQ-FT | Q.O IHT<br>CDBAR<br>SQ-FT | Q.O DELE<br>CPM BAR<br>CU-FT | Q.O DELR<br>CYM BAR<br>CU-FT | Q.O DELR<br>CRM BAR<br>CU-FT | Q.O DELSB<br>CYBAR<br>SQ-FT | Q.O<br>PSF | Q.O<br>V<br>KNOTS | RPM    |
|---------|----|-------------------------|------------------------|-----------------------------|---------------------------|------------------------------|------------------------------|------------------------------|-----------------------------|------------|-------------------|--------|
| 2       |    | .0                      | .0                     | -119.2                      | 35.56                     | -580.                        | -16.                         | -10.                         | 7.96                        | 54.34      | 127.62            | 3330.  |
| 3       |    | .0                      | .0                     | -122.5                      | -6.80                     | -659.                        | -25.                         | -9.                          | 6.79                        | 55.71      | 129.45            | 11860. |
| 4       |    | -20.0                   | .0                     | -327.8                      | 155.09                    | 447.                         | -134.                        | -202.                        | 3.76                        | 55.22      | 128.86            | 11860. |
| 5       |    | -15.0                   | .0                     | -373.3                      | 107.40                    | 788.                         | -114.                        | -245.                        | 3.20                        | 55.24      | 123.88            | 11860. |
| F       |    | -10.0                   | .0                     | -320.5                      | 62.79                     | -45.                         | -82.                         | -52.                         | 5.39                        | 55.16      | 128.79            | 11850. |
| 7       |    | -5.0                    | .0                     | -281.4                      | 7.47                      | -663.                        | -16.                         | -12.                         | 7.81                        | 54.95      | 128.54            | 11970. |
| 8       |    | -2.5                    | .0                     | -202.0                      | -1.06                     | -650.                        | -23.                         | -66.                         | 9.47                        | 55.06      | 128.68            | 11870. |
| 9       |    | .0                      | .0                     | -133.1                      | -6.25                     | -655.                        | -27.                         | -62.                         | 7.44                        | 55.40      | 129.07            | 11720. |
| 10      |    | 2.5                     | .0                     | -44.1                       | -10.15                    | -657.                        | -12.                         | -5.                          | 6.30                        | 54.58      | 128.10            | 11830. |
| 11      |    | 5.0                     | .0                     | 37.4                        | -6.91                     | -633.                        | -5.                          | 26.                          | 9.77                        | 54.40      | 127.89            | 11820. |
| 12      |    | 10.0                    | .0                     | 196.4                       | .11                       | -616.                        | 2.                           | 84.                          | 5.42                        | 55.27      | 128.92            | 11790. |
| 13      |    | 15.0                    | .0                     | 363.4                       | 24.46                     | -632.                        | -29.                         | 70.                          | 3.80                        | 54.64      | 128.18            | 11890. |
| 14      |    | 17.5                    | .0                     | 450.9                       | 42.71                     | -462.                        | -6.                          | 70.                          | 3.94                        | 55.27      | 128.93            | 11840. |
| 15      |    | 20.0                    | .0                     | 502.7                       | 63.49                     | -257.                        | -24.                         | 71.                          | 1.62                        | 54.55      | 128.07            | 11940. |
| 16      |    | -0.0                    | .0                     | -120.4                      | -5.98                     | -640.                        | -31.                         | -28.                         | 8.26                        | 55.25      | 128.90            | 11850. |
| 17      |    | -0.0                    | .0                     | -122.1                      | -6.06                     | -654.                        | -42.                         | -24.                         | 5.33                        | 54.99      | 128.59            | 11830. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CC     | CFM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3221  | .0962  | -.1869 | -.0010 | -.0006 | .0215 |
| 3    | .00    | -.3312  | -.0184 | -.2124 | -.0015 | -.0005 | .0183 |
| 4    | -20.00 | -1.0482 | .4192  | .1442  | -.0081 | -.0122 | .0102 |
| 5    | -15.00 | -1.0088 | .2904  | .2539  | -.0069 | -.0148 | .0222 |
| 6    | -10.00 | -.8663  | .1697  | -.0144 | -.0050 | -.0032 | .0254 |
| 7    | -5.01  | -.7606  | .0202  | -.2137 | -.0010 | -.0007 | .0211 |
| 8    | -2.48  | -.5460  | -.0029 | -.2097 | -.0014 | -.0040 | .0256 |
| 9    | .00    | -.3326  | -.0169 | -.2112 | -.0016 | -.0037 | .0201 |
| 10   | 2.49   | -.1191  | -.0274 | -.2117 | -.0007 | -.0006 | .0224 |
| 11   | 5.01   | .1010   | -.0241 | -.2039 | -.0003 | .0016  | .0264 |
| 12   | 10.01  | .5308   | .0003  | -.1985 | .0001  | .0051  | .0147 |
| 13   | 14.99  | .9820   | .0661  | -.2039 | -.0017 | .0042  | .0103 |
| 14   | 17.51  | 1.1645  | .1154  | -.1489 | -.0004 | .0042  | .0107 |
| 15   | 20.00  | 1.3585  | .1716  | -.0828 | -.0014 | .0043  | .0044 |
| 16   | -0.00  | -.3255  | -.0162 | -.2062 | -.0019 | -.0017 | .0223 |
| 17   | -0.00  | -.3300  | -.0164 | -.2109 | -.0025 | -.0015 | .0144 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3221  | .0962  | -.1869 | -.0010 | -.0006 | .0215 |
| 3    | .00    | -.3312  | -.0184 | -.2124 | -.0015 | -.0005 | .0183 |
| 4    | -20.00 | -1.0482 | .4192  | .1442  | -.0081 | -.0122 | .0102 |
| 5    | -15.00 | -1.0088 | .2904  | .2539  | -.0069 | -.0148 | .0222 |
| 6    | -10.00 | -.8663  | .1697  | -.0144 | -.0050 | -.0032 | .0254 |
| 7    | -5.01  | -.7606  | .0202  | -.2137 | -.0010 | -.0007 | .0211 |
| 8    | -2.48  | -.5460  | -.0029 | -.2097 | -.0014 | -.0040 | .0256 |
| 9    | .00    | -.3326  | -.0169 | -.2112 | -.0016 | -.0037 | .0201 |
| 10   | 2.49   | -.1191  | -.0274 | -.2117 | -.0007 | -.0006 | .0224 |
| 11   | 5.01   | .1010   | -.0241 | -.2039 | -.0003 | .0016  | .0264 |
| 12   | 10.01  | .5308   | .0003  | -.1985 | .0001  | .0051  | .0147 |
| 13   | 14.99  | .9820   | .0661  | -.2039 | -.0017 | .0042  | .0103 |
| 14   | 17.51  | 1.1645  | .1154  | -.1489 | -.0004 | .0042  | .0107 |
| 15   | 20.00  | 1.3585  | .1716  | -.0828 | -.0014 | .0043  | .0044 |
| 16   | -0.00  | -.3255  | -.0162 | -.2062 | -.0019 | -.0017 | .0223 |
| 17   | -0.00  | -.3300  | -.0164 | -.2109 | -.0025 | -.0015 | .0144 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 724

RUN 053 CONFIG F P E NPE M7 TE2 BT IN=3.5

| PT. NO. | ALPHA DEG | -S DELTA PSI DEG | Q.O DELTA SQ-FT | Q.O INT SQ-FT | Q.O DELE CU-FT | Q.O DELR CU-FT | Q.O DELR SQ-FT | Q.O DELSB PSI | Q.O V KNOTS | RPM    |        |
|---------|-----------|------------------|-----------------|---------------|----------------|----------------|----------------|---------------|-------------|--------|--------|
| 7       | .0        | .0               | -115.0          | 37.01         | -441.          | -45.           | 9.             | 7.19          | 54.92       | 128.51 | 3350.  |
| 8       | .0        | .0               | -121.5          | -5.16         | -545.          | -43.           | 56.            | 9.24          | 55.29       | 128.96 | 11850. |
| 9       | -20.0     | .0               | -390.6          | 62.19         | 496.           | -6.            | -199.          | 2.54          | 55.07       | 128.68 | 11860. |
| 10      | -15.0     | .0               | -379.7          | 111.29        | 1206.          | -84.           | -246.          | 8.69          | 55.27       | 129.93 | 11850. |
| 11      | -10.0     | .0               | -330.1          | 56.31         | 480.           | -93.           | -23.           | 12.36         | 55.68       | 129.40 | 11860. |
| 12      | -4.2      | .0               | -277.1          | 9.24          | -357.          | -48.           | -33.           | 10.04         | 55.30       | 128.96 | 11870. |
| 13      | -2.5      | .0               | -203.0          | .65           | -449.          | -44.           | 5.             | 8.84          | 55.51       | 129.21 | 11810. |
| 14      | -.0       | .0               | -123.5          | -5.47         | -550.          | -48.           | 25.            | 6.55          | 54.58       | 128.10 | 11810. |
| 15      | 2.5       | .0               | -43.1           | -7.30         | -621.          | -31.           | 46.            | 6.93          | 54.57       | 128.09 | 11860. |
| 16      | 5.0       | .0               | 38.9            | -7.72         | -642.          | -25.           | 46.            | 7.27          | 55.30       | 128.96 | 11870. |
| 17      | 10.0      | .0               | 201.9           | 1.05          | -677.          | -29.           | 66.            | 4.69          | 54.48       | 127.98 | 11840. |
| 18      | 15.0      | .0               | 359.7           | 25.20         | -577.          | -46.           | 105.           | 2.97          | 55.11       | 128.73 | 11840. |
| 19      | 17.5      | .0               | 431.4           | 42.99         | -354.          | -32.           | 98.            | 1.73          | 55.01       | 128.62 | 11850. |
| 20      | 20.0      | .0               | 502.2           | 63.37         | -85.           | -31.           | 125.           | 3.12          | 54.61       | 128.13 | 11860. |
| 21      | .0        | .0               | -123.8          | -5.45         | -551.          | -55.           | 60.            | 8.53          | 54.72       | 128.27 | 11820. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | .00    | -.3107  | .1000  | -.1421 | -.0027 | .0005  | .0194 |
| 8    | .00    | -.3295  | -.0140 | -.1758 | -.0026 | .0035  | .0250 |
| 9    | -20.00 | -1.0556 | .1681  | .1598  | -.0004 | -.0120 | .0069 |
| 10   | -14.98 | -1.0262 | .3009  | .3888  | -.0051 | -.0149 | .0235 |
| 11   | -10.00 | -.8922  | .1792  | .1547  | -.0056 | -.0014 | .0334 |
| 12   | -4.76  | -.7490  | .0250  | -.1151 | -.0029 | -.0020 | .0271 |
| 13   | -2.50  | -.5487  | .0017  | -.1448 | -.0027 | .0003  | .0239 |
| 14   | -.00   | -.3339  | -.0146 | -.1773 | -.0029 | .0015  | .0231 |
| 15   | 2.51   | -.1166  | -.0214 | -.2002 | -.0019 | .0028  | .0187 |
| 16   | 5.03   | .1051   | -.0209 | -.2069 | -.0015 | .0028  | .0196 |
| 17   | 10.00  | .5456   | .0028  | -.2183 | -.0018 | .0052  | .0127 |
| 18   | 15.00  | .9720   | .0081  | -.1862 | -.0028 | .0063  | .0080 |
| 19   | 17.51  | 1.1660  | .1162  | -.1140 | -.0019 | .0053  | .0047 |
| 20   | 20.00  | 1.3572  | .1713  | -.0273 | -.0019 | .0075  | .0084 |
| 21   | .00    | -.3347  | -.0147 | -.1775 | -.0033 | .0036  | .0231 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CCB    | CFMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | .00    | -.3107  | .1000  | -.1421 | -.0027 | .0005  | .0194 |
| 8    | .00    | -.3295  | -.0140 | -.1758 | -.0026 | .0035  | .0250 |
| 9    | -20.00 | -1.0556 | .1681  | .1598  | -.0004 | -.0120 | .0069 |
| 10   | -14.98 | -1.0262 | .3009  | .3888  | -.0051 | -.0149 | .0235 |
| 11   | -10.00 | -.8922  | .1792  | .1547  | -.0056 | -.0014 | .0334 |
| 12   | -4.76  | -.7490  | .0250  | -.1151 | -.0029 | -.0020 | .0271 |
| 13   | -2.50  | -.5487  | .0017  | -.1448 | -.0027 | .0003  | .0239 |
| 14   | -.00   | -.3339  | -.0146 | -.1773 | -.0029 | .0015  | .0231 |
| 15   | 2.51   | -.1166  | -.0214 | -.2002 | -.0019 | .0028  | .0187 |
| 16   | 5.03   | .1051   | -.0209 | -.2069 | -.0015 | .0028  | .0196 |
| 17   | 10.00  | .5456   | .0028  | -.2183 | -.0018 | .0052  | .0127 |
| 18   | 15.00  | .9720   | .0081  | -.1862 | -.0028 | .0063  | .0080 |
| 19   | 17.51  | 1.1660  | .1162  | -.1140 | -.0019 | .0053  | .0047 |
| 20   | 20.00  | 1.3572  | .1713  | -.0273 | -.0019 | .0075  | .0084 |
| 21   | .00    | -.3347  | -.0147 | -.1775 | -.0033 | .0036  | .0231 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 854 CONFIG F P L NPS W7 T52 BT IN=-3.5 XN=0

| PT. NO. | INW | ALPHA DEG | DELTA PSI DEG | DELTA CL BAR SQ-FT | DELTA CD BAR SQ-FT | DELTA CPM BAR CU-FT | DELTA CYM BAR CU-FT | DELTA CRM BAR CU-FT | DELTA CYB BAR SQ-FT | DELTA G PSF | DELTA V KNOTS | RPM    |
|---------|-----|-----------|---------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|-------------|---------------|--------|
| 2       |     | .0        | .0            | 62.7               | 32.32              | 128.                | -75.                | 10.                 | 5.91                | 55.36       | 129.04        | 3560.  |
| 3       |     | .0        | .0            | 60.3               | -1.66              | 26.                 | -74.                | 9.                  | 6.78                | 54.79       | 128.36        | 10630. |
| 4       |     | .0        | .0            | 59.6               | -5.36              | 25.                 | -83.                | 27.                 | 6.35                | 55.27       | 128.93        | 11130. |
| 5       |     | -20.0     | .0            | -404.4             | 118.91             | 1074.               | -50.                | -452.               | 4.11                | 54.76       | 128.32        | 11110. |
| 6       |     | -15.0     | .0            | -374.2             | 58.74              | 1344.               | 10.                 | -200.               | 6.28                | 54.79       | 128.36        | 11150. |
| 7       |     | -10.0     | .0            | -270.2             | 19.17              | 765.                | -77.                | -14.                | 7.86                | 55.07       | 128.69        | 11110. |
| 8       |     | -5.0      | .0            | -103.8             | -2.03              | 190.                | -102.               | 6.                  | 7.44                | 54.92       | 128.51        | 11170. |
| 9       |     | -2.5      | .0            | -22.1              | -5.06              | 99.                 | -90.                | 24.                 | 7.56                | 55.40       | 129.08        | 11110. |
| 10      |     | .0        | .0            | 58.0               | -5.46              | 30.                 | -78.                | 45.                 | 6.00                | 55.07       | 128.69        | 11130. |
| 11      |     | 2.5       | .0            | 141.2              | -2.40              | -26.                | -73.                | 49.                 | 2.90                | 55.22       | 128.87        | 11110. |
| 12      |     | 5.0       | .0            | 222.5              | 3.94               | -66.                | -51.                | 84.                 | 4.73                | 54.79       | 128.36        | 11120. |
| 13      |     | 10.0      | .0            | 381.1              | 24.58              | -176.               | -72.                | 140.                | 3.18                | 54.67       | 128.22        | 11140. |
| 14      |     | 15.0      | .0            | 523.2              | 59.88              | -415.               | -55.                | 177.                | 2.69                | 54.55       | 128.07        | 11140. |
| 15      |     | 17.5      | .0            | 541.6              | 87.24              | -412.               | -40.                | 125.                | 1.13                | 54.17       | 127.61        | 11130. |
| 16      |     | 20.0      | .0            | 541.3              | 115.22             | -230.               | -30.                | 177.                | 1.86                | 54.88       | 128.46        | 11150. |
| 17      |     | .0        | .0            | 57.1               | -5.17              | 20.                 | -75.                | 43.                 | 7.69                | 54.91       | 128.50        | 11110. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1696   | .0873  | .0412  | -.0045 | .0006  | .0160 |
| 3    | .00    | .1630   | -.0045 | .0085  | -.0045 | .0006  | .0183 |
| 4    | .00    | .1610   | -.0145 | .0079  | -.0050 | .0016  | .0172 |
| 5    | -20.00 | -1.0929 | .3214  | .3461  | -.0030 | -.0273 | .0111 |
| 6    | -15.00 | -1.0114 | .1587  | .4334  | .0006  | -.0125 | .0170 |
| 7    | -10.00 | -.7302  | .0518  | .2466  | -.0046 | -.0009 | .0212 |
| 8    | -5.00  | -.2806  | -.0055 | .0612  | -.0062 | .0004  | .0201 |
| 9    | -2.50  | -.0597  | -.0137 | .0320  | -.0054 | .0015  | .0204 |
| 10   | .00    | .1569   | -.0148 | .0095  | -.0047 | .0027  | .0162 |
| 11   | 2.50   | .3816   | -.0065 | -.0085 | -.0044 | .0030  | .0078 |
| 12   | 5.00   | .6013   | .0106  | -.0212 | -.0031 | .0051  | .0128 |
| 13   | 10.00  | 1.0299  | .0664  | -.0566 | -.0044 | .0085  | .0086 |
| 14   | 15.00  | 1.4139  | .1618  | -.1338 | -.0033 | .0107  | .0073 |
| 15   | 17.51  | 1.4638  | .2358  | -.1329 | -.0024 | .0076  | .0031 |
| 16   | 20.00  | 1.4629  | .3131  | -.0742 | -.0018 | .0107  | .0050 |
| 17   | .00    | .1543   | -.0140 | .0063  | -.0045 | .0026  | .0208 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1696   | .0873  | .0412  | -.0045 | .0006  | .0160 |
| 3    | .00    | .1630   | -.0045 | .0085  | -.0045 | .0006  | .0183 |
| 4    | .00    | .1610   | -.0145 | .0079  | -.0050 | .0016  | .0172 |
| 5    | -20.00 | -1.0929 | .3214  | .3461  | -.0030 | -.0273 | .0111 |
| 6    | -15.00 | -1.0114 | .1587  | .4334  | .0006  | -.0125 | .0170 |
| 7    | -10.00 | -.7302  | .0518  | .2466  | -.0046 | -.0009 | .0212 |
| 8    | -5.00  | -.2806  | -.0055 | .0612  | -.0062 | .0004  | .0201 |
| 9    | -2.50  | -.0597  | -.0137 | .0320  | -.0054 | .0015  | .0204 |
| 10   | .00    | .1569   | -.0148 | .0095  | -.0047 | .0027  | .0162 |
| 11   | 2.50   | .3816   | -.0065 | -.0085 | -.0044 | .0030  | .0078 |
| 12   | 5.00   | .6013   | .0106  | -.0212 | -.0031 | .0051  | .0128 |
| 13   | 10.00  | 1.0299  | .0664  | -.0566 | -.0044 | .0085  | .0086 |
| 14   | 15.00  | 1.4139  | .1618  | -.1338 | -.0033 | .0107  | .0073 |
| 15   | 17.51  | 1.4638  | .2358  | -.1329 | -.0024 | .0076  | .0031 |
| 16   | 20.00  | 1.4629  | .3131  | -.0742 | -.0018 | .0107  | .0050 |
| 17   | .00    | .1543   | -.0140 | .0063  | -.0045 | .0026  | .0208 |

ORIGINAL PAGE IS  
OF POOR QUALITY

RUN 055 CONFIG F P 0 NPS 47 T52 01 IN=-3.5 XN=0

| IN      | IS DELF   | Q DELA  | Q IHT        | Q DELC      | Q DELR        | Q DELSB     | Q             | Q           |       |         |        |
|---------|-----------|---------|--------------|-------------|---------------|-------------|---------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CL BAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | Q FPM  |
| 2       | .0        | .0      | 347.9        | 74.22       | 612.          | -129.       | 101.          | 3.73        | 54.84 | 128.42  | 4000.  |
| 3       | .0        | .0      | 321.4        | 5.09        | 433.          | -146.       | 104.          | .55         | 55.37 | 129.05  | 14770. |
| 4       | .0        | .0      | 319.3        | -7.70       | 409.          | -158.       | 103.          | 1.29        | 55.30 | 128.97  | 16200. |
| 5       | .0        | .0      | 318.7        | -2.52       | 416.          | -150.       | 65.           | 1.17        | 55.13 | 128.76  | 15690. |
| 6       | .0        | .0      | 315.7        | -4.58       | 339.          | -91.        | 137.          | 2.59        | 55.25 | 128.90  | 15970. |
| 7       | -20.0     | .0      | -264.8       | 26.00       | 1169.         | -26.        | 30.           | 7.44        | 54.46 | 127.96  | 15990. |
| 8       | -15.0     | .0      | -142.5       | -9.38       | 1178.         | -56.        | -29.          | 5.34        | 54.85 | 128.42  | 16000. |
| 9       | -10.0     | .0      | 20.0         | -25.69      | 1025.         | -36.        | 87.           | .80         | 55.03 | 128.04  | 16010. |
| 10      | -5.0      | .0      | 188.1        | -21.60      | 708.          | -151.       | 45.           | 5.20        | 54.41 | 127.90  | 15640. |
| 11      | -2.5      | .0      | 256.6        | -14.79      | 563.          | -207.       | 125.          | -.31        | 54.67 | 128.21  | 15990. |
| 12      | .0        | .0      | 317.3        | -5.88       | 424.          | -156.       | 105.          | .75         | 54.80 | 128.37  | 15960. |
| 13      | 2.5       | .0      | 377.6        | 7.32        | 147.          | -181.       | 31.           | -1.80       | 54.93 | 128.52  | 15930. |
| 14      | 5.0       | .0      | 399.9        | 27.59       | -61.          | -98.        | 603.          | -1.00       | 54.71 | 128.26  | 15990. |
| 15      | 10.0      | .0      | 440.3        | 74.69       | -191.         | -141.       | 158.          | 2.99        | 54.62 | 128.14  | 16000. |
| 16      | 15.0      | .0      | 504.8        | 139.60      | -505.         | -153.       | 17.           | 3.14        | 54.30 | 127.77  | 15980. |
| 17      | 17.5      | .0      | 539.7        | 171.80      | -645.         | -43.        | -4.           | 1.56        | 55.02 | 128.71  | 15950. |
| 18      | 20.0      | .0      | 568.6        | 206.82      | -754.         | 17.         | -52.          | 3.56        | 55.52 | 129.21  | 16020. |
| 19      | -.0       | .0      | 315.8        | -5.75       | 451.          | -143.       | 124.          | -.37        | 55.01 | 128.02  | 16000. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CFM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9403  | .2006  | .1972  | -.0078 | .0061  | .0101  |
| 3    | .00    | .8685  | .0138  | .1396  | -.0088 | .0063  | .0015  |
| 4    | .00    | .3030  | -.0208 | .1318  | -.0095 | .0063  | .0035  |
| 5    | .00    | .8614  | -.0008 | .1340  | -.0091 | .0042  | .0032  |
| 6    | .00    | .8531  | -.0124 | .1092  | -.0055 | .0083  | .0070  |
| 7    | -20.00 | -.7698 | .0703  | .3768  | -.0016 | .0054  | .0201  |
| 8    | -15.00 | -.385  | -.0254 | .3797  | -.0034 | -.0017 | .0144  |
| 9    | -10.00 | .0811  | -.0694 | .3303  | -.0022 | .0052  | .0022  |
| 10   | -5.00  | .5085  | -.0534 | .2284  | -.0091 | .0027  | .0140  |
| 11   | -2.50  | .6935  | -.0400 | .1816  | -.0125 | .0075  | -.0006 |
| 12   | .00    | .8575  | -.0154 | .1369  | -.0094 | .0064  | .0020  |
| 13   | 2.50   | 1.0206 | .0198  | .0473  | -.0103 | .0055  | -.0050 |
| 14   | 5.00   | 1.0808 | .0706  | -.0198 | -.0059 | .0364  | -.0027 |
| 15   | 10.00  | 1.1901 | .2019  | -.0615 | -.0085 | .0095  | .0081  |
| 16   | 15.00  | 1.3642 | .3775  | -.1629 | -.0092 | .0010  | .0085  |
| 17   | 17.50  | 1.4566 | .4643  | -.2078 | -.0026 | -.0000 | .0053  |
| 18   | 20.00  | 1.5368 | .5590  | -.2430 | .0010  | -.0031 | .0096  |
| 19   | -.00   | .8536  | -.0155 | .1454  | -.0087 | .0075  | -.0010 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLS    | CD     | CFM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9403  | .2006  | .1972  | -.0078 | .0061  | .0101  |
| 3    | .00    | .8685  | .0138  | .1396  | -.0088 | .0063  | .0015  |
| 4    | .00    | .3030  | -.0208 | .1318  | -.0095 | .0063  | .0035  |
| 5    | .00    | .8614  | -.0008 | .1340  | -.0091 | .0042  | .0032  |
| 6    | .00    | .8531  | -.0124 | .1092  | -.0055 | .0083  | .0070  |
| 7    | -20.00 | -.7698 | .0703  | .3768  | -.0016 | .0054  | .0201  |
| 8    | -15.00 | -.385  | -.0254 | .3797  | -.0034 | -.0017 | .0144  |
| 9    | -10.00 | .0811  | -.0694 | .3303  | -.0022 | .0052  | .0022  |
| 10   | -5.00  | .5085  | -.0534 | .2284  | -.0091 | .0027  | .0140  |
| 11   | -2.50  | .6935  | -.0400 | .1816  | -.0125 | .0075  | -.0006 |
| 12   | .00    | .8575  | -.0154 | .1369  | -.0094 | .0064  | .0020  |
| 13   | 2.50   | 1.0206 | .0198  | .0473  | -.0103 | .0055  | -.0050 |
| 14   | 5.00   | 1.0808 | .0706  | -.0198 | -.0059 | .0364  | -.0027 |
| 15   | 10.00  | 1.1901 | .2019  | -.0615 | -.0085 | .0095  | .0081  |
| 16   | 15.00  | 1.3642 | .3775  | -.1629 | -.0092 | .0010  | .0085  |
| 17   | 17.50  | 1.4566 | .4643  | -.2078 | -.0026 | -.0000 | .0053  |
| 18   | 20.00  | 1.5368 | .5590  | -.2430 | .0010  | -.0031 | .0096  |
| 19   | -.00   | .8536  | -.0155 | .1454  | -.0087 | .0075  | -.0010 |

1472409-1

SIKORSKY RSPA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 727

RUN REG CONFIG F P I NPE W7 T53 ET IM=-3.5 XN=0

| IN      | 15 DELF   | 0 DELA  | 0 IHT       | 0 DELC      | 0 DELR       | 0 DELSS      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| FT. NO. | ALPHA DEC | PSI DEC | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CL-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 345.1       | 72.31       | 549.         | -110.        | 48.          | 3.40        | 55.12 | 128.74  | 4000.  |
| 3       | .0        | .0      | 319.5       | -6.88       | 331.         | -129.        | 87.          | .06         | 55.51 | 129.21  | 15750. |
| 4       | -20.0     | .0      | -234.6      | 27.67       | 1577.        | -32.         | 14.          | 9.35        | 54.62 | 128.15  | 15750. |
| 5       | -15.0     | .0      | -157.7      | -6.70       | 1697.        | -5.          | -82.         | 5.56        | 55.09 | 128.71  | 15740. |
| 6       | -10.0     | .0      | 27.6        | -24.65      | 1187.        | 22.          | 30.          | -5.56       | 55.19 | 128.83  | 15740. |
| 7       | -5.0      | .0      | 104.9       | -20.34      | 715.         | -142.        | 64.          | 4.26        | 55.15 | 128.79  | 15750. |
| 8       | -2.5      | .0      | 257.2       | -14.04      | 438.         | -179.        | 85.          | 2.18        | 54.81 | 128.38  | 15760. |
| 9       | .0        | .0      | 329.2       | -4.01       | 351.         | -136.        | 65.          | 1.30        | 54.94 | 128.53  | 15750. |
| 10      | 2.5       | .0      | 330.3       | 9.05        | 37.          | -142.        | 124.         | -1.11       | 55.21 | 128.86  | 15760. |
| 11      | 5.0       | .0      | 373.3       | 29.07       | -164.        | -141.        | 155.         | -1.67       | 55.11 | 128.73  | 15770. |
| 12      | 10.0      | .0      | 440.0       | 80.50       | -441.        | -159.        | 121.         | 2.77        | 55.39 | 129.05  | 13050. |
| 13      | 15.0      | .0      | 501.7       | 140.66      | -652.        | -125.        | 50.          | 1.66        | 55.35 | 129.02  | 15760. |
| 14      | 17.5      | .0      | 535.2       | 170.37      | -765.        | -52.         | 35.          | 2.04        | 55.11 | 128.73  | 15760. |
| 15      | 20.0      | .0      | 514.1       | 205.54      | -837.        | 5.           | -87.         | 2.34        | 55.39 | 129.06  | 15760. |
| 16      | .0        | .0      | 313.2       | -3.41       | 330.         | -153.        | 109.         | -2.72       | 55.01 | 128.62  | 15740. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| FT.# | ALPHA  | CL     | CD     | CPM    | CYN    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9326  | .1970  | .1770  | -.0066 | .0029  | .0092  |
| 3    | .00    | .8647  | -.0180 | .1067  | -.0078 | .0053  | .0002  |
| 4    | -13.99 | -.7962 | .0748  | .5084  | -.0013 | .0009  | .0253  |
| 5    | -14.99 | -.4262 | -.0181 | .5470  | -.0013 | -.0049 | .0150  |
| 6    | -10.00 | .0746  | -.0667 | .3827  | .0014  | .0022  | -.0015 |
| 7    | -5.00  | .4998  | -.0566 | .2305  | -.0086 | .0038  | .0115  |
| 8    | -2.50  | .6950  | -.0390 | .1605  | -.0108 | .0052  | .0059  |
| 9    | .01    | .8027  | -.0125 | .1130  | -.0082 | .0042  | .0035  |
| 10   | 2.50   | 1.0277 | .0245  | .0259  | -.0086 | .0075  | -.0030 |
| 11   | 5.00   | 1.0090 | .0802  | -.0530 | -.0085 | .0116  | -.0045 |
| 12   | 10.01  | 1.1891 | .2177  | -.1422 | -.0096 | .0073  | .0075  |
| 13   | 15.00  | 1.3558 | .3800  | -.2102 | -.0076 | .0032  | .0045  |
| 14   | 17.50  | 1.4465 | .4605  | -.2467 | -.0031 | .0021  | .0055  |
| 15   | 20.01  | 1.5245 | .5555  | -.2665 | .0003  | -.0053 | .0063  |
| 16   | .00    | .8464  | -.0092 | .1063  | -.0093 | .0066  | -.0074 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLD    | CD8    | CPM2   | CYM2   | CRM2   | CYE    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9326  | .1970  | .1770  | -.0066 | .0029  | .0092  |
| 3    | .00    | .8647  | -.0180 | .1067  | -.0078 | .0053  | .0002  |
| 4    | -13.99 | -.7962 | .0743  | .5084  | -.0013 | .0009  | .0253  |
| 5    | -14.99 | -.4262 | -.0181 | .5470  | -.0013 | -.0049 | .0150  |
| 6    | -10.00 | .0746  | -.0667 | .3827  | .0014  | .0022  | -.0015 |
| 7    | -5.00  | .4998  | -.0566 | .2305  | -.0086 | .0038  | .0115  |
| 8    | -2.50  | .6950  | -.0390 | .1605  | -.0108 | .0052  | .0059  |
| 9    | .01    | .8027  | -.0125 | .1130  | -.0082 | .0042  | .0035  |
| 10   | 2.50   | 1.0277 | .0245  | .0259  | -.0086 | .0075  | -.0030 |
| 11   | 5.00   | 1.0090 | .0802  | -.0530 | -.0085 | .0116  | -.0045 |
| 12   | 10.01  | 1.1891 | .2177  | -.1422 | -.0096 | .0073  | .0075  |
| 13   | 15.00  | 1.3558 | .3800  | -.2102 | -.0076 | .0032  | .0045  |
| 14   | 17.50  | 1.4465 | .4605  | -.2467 | -.0031 | .0021  | .0055  |
| 15   | 20.01  | 1.5245 | .5555  | -.2665 | .0003  | -.0053 | .0063  |
| 16   | .00    | .8464  | -.0092 | .1063  | -.0093 | .0066  | -.0074 |

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M432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 728

RUN 657 CONFIG F P C NP5 W7 T53 BT IN=-3.0 XN=U

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 2       | .0        | .0      | 18.7        | 31.99       | 29.          | -65.         | -44.         | 6.74        | 55.09 | 128.72  | 3570.  |
| 3       | .0        | .0      | 14.6        | -7.33       | -94.         | -76.         | -19.         | 1.23        | 55.54 | 129.25  | 11400. |
| 4       | -20.0     | .0      | -411.1      | 121.30      | 150.9.       | -141.        | -239.        | 4.57        | 55.13 | 128.75  | 11390. |
| 5       | -15.0     | .0      | -362.1      | 60.66       | 1841.        | -124.        | 111.         | 6.22        | 54.77 | 128.34  | 11400. |
| 6       | -10.0     | .0      | -272.7      | 15.66       | 835.         | -75.         | -14.         | 7.46        | 54.79 | 128.35  | 11390. |
| 7       | -5.0      | .0      | -100.9      | -4.17       | 157.         | -80.         | -25.         | 7.05        | 55.07 | 128.68  | 11400. |
| 8       | -2.5      | .0      | -18.3       | -7.63       | 11.          | -76.         | -8.          | 5.98        | 55.24 | 128.89  | 11400. |
| 9       | .0        | .0      | 15.8        | -7.38       | -95.         | -60.         | 26.          | 7.52        | 54.84 | 128.41  | 11390. |
| 10      | 2.5       | .0      | 146.8       | -4.62       | -174.        | -54.         | 29.          | 5.66        | 55.36 | 129.04  | 11440. |
| 11      | 5.0       | .0      | 228.2       | 1.06        | -242.        | -39.         | 13.          | 4.65        | 54.93 | 128.52  | 11440. |
| 12      | 10.0      | .0      | 383.9       | 22.93       | -366.        | -39.         | 103.         | 4.06        | 55.40 | 129.08  | 11430. |
| 13      | 15.0      | .0      | 518.5       | 60.66       | -620.        | -40.         | 141.         | 1.93        | 54.71 | 128.26  | 11430. |
| 14      | 17.5      | .0      | 550.6       | 37.11       | -654.        | -25.         | 106.         | 2.31        | 54.61 | 128.14  | 11400. |
| 15      | 20.0      | .0      | 551.1       | 118.01      | -515.        | 15.          | 89.          | 1.67        | 54.92 | 128.50  | 11410. |
| 16      | .0        | .0      | 63.4        | -7.67       | -100.        | -70.         | 11.          | 5.39        | 55.02 | 128.63  | 11450. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | -CL     | CD     | CFM    | CYM    | CPM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1857   | .0865  | .0091  | -.0039 | -.0026 | .0182 |
| 3    | .00    | .1747   | -.0198 | -.0302 | -.0046 | -.0011 | .0033 |
| 4    | -20.00 | -1.1110 | .3232  | .4865  | -.0085 | -.0144 | .0124 |
| 5    | -15.00 | -1.0327 | .1640  | .5935  | -.0075 | .0067  | .0168 |
| 6    | -10.00 | -.7371  | .0423  | .2692  | -.0046 | -.0008 | .0202 |
| 7    | -5.00  | -.2726  | -.0113 | .0506  | -.0053 | -.0017 | .0191 |
| 8    | -2.48  | -.0496  | -.0208 | .0035  | -.0046 | -.0005 | .0162 |
| 9    | .00    | .1777   | -.0199 | -.0299 | -.0036 | .0016  | .0203 |
| 10   | 2.50   | .3967   | -.0125 | -.0560 | -.0032 | .0017  | .0153 |
| 11   | 5.00   | .6167   | .0050  | -.0780 | -.0023 | .0008  | .0126 |
| 12   | 10.00  | 1.0376  | .0620  | -.1180 | -.0023 | .0062  | .0110 |
| 13   | 15.02  | 1.4284  | .1623  | -.1998 | -.0024 | .0065  | .0052 |
| 14   | 17.50  | 1.4881  | .2354  | -.2206 | -.0015 | .0064  | .0062 |
| 15   | 20.00  | 1.4895  | .3189  | -.1661 | .0009  | .0053  | .0045 |
| 16   | .00    | .1713   | -.0207 | -.0322 | -.0042 | .0007  | .0146 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLD     | CD     | CPMB   | CYMB   | CRMS   | CY2   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1857   | .0865  | .0091  | -.0039 | -.0026 | .0182 |
| 3    | .00    | .1747   | -.0198 | -.0302 | -.0046 | -.0011 | .0033 |
| 4    | -20.00 | -1.1110 | .3232  | .4865  | -.0085 | -.0144 | .0124 |
| 5    | -15.00 | -1.0327 | .1640  | .5935  | -.0075 | .0067  | .0168 |
| 6    | -10.00 | -.7371  | .0423  | .2692  | -.0046 | -.0008 | .0202 |
| 7    | -5.00  | -.2726  | -.0113 | .0506  | -.0053 | -.0017 | .0191 |
| 8    | -2.48  | -.0496  | -.0208 | .0035  | -.0046 | -.0005 | .0162 |
| 9    | .00    | .1777   | -.0199 | -.0299 | -.0036 | .0016  | .0203 |
| 10   | 2.50   | .3967   | -.0125 | -.0560 | -.0032 | .0017  | .0153 |
| 11   | 5.00   | .6167   | .0050  | -.0780 | -.0023 | .0008  | .0126 |
| 12   | 10.00  | 1.0376  | .0620  | -.1180 | -.0023 | .0062  | .0110 |
| 13   | 15.02  | 1.4284  | .1623  | -.1998 | -.0024 | .0065  | .0052 |
| 14   | 17.50  | 1.4881  | .2354  | -.2206 | -.0015 | .0064  | .0062 |
| 15   | 20.00  | 1.4895  | .3189  | -.1661 | .0009  | .0053  | .0045 |
| 16   | .00    | .1713   | -.0207 | -.0322 | -.0042 | .0007  | .0146 |

N4324FE-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P729

RUN 258 CONFIG F P C NPE W7 T53 BT IN=-3.5 XN=0

| PT. NO. | IN | -9 DELF<br>ALPHA<br>DEC | C DELA<br>PSI<br>DEG | Q IHT<br>CLBAR<br>SQ-FT | Q DELE<br>COBAR<br>SQ-FT | Q DELR<br>CPMBAR<br>CU-FT | Q DELSB<br>CYMBAR<br>CU-FT | Q<br>CRMSAR<br>CU-FT | G<br>CYBAR<br>SQ-FT | V<br>PSF | RPM<br>KNCTS |        |
|---------|----|-------------------------|----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|----------|--------------|--------|
| 2       |    | .0                      | .0                   | -109.0                  | 35.05                    | -569.                     | -19.                       | -12.                 | 9.28                | 55.09    | 128.71       | 3340.  |
| 3       |    | .0                      | .0                   | -115.2                  | -6.53                    | -677.                     | -29.                       | -27.                 | 7.55                | 55.48    | 129.18       | 11760. |
| 4       |    | -20.0                   | .0                   | -412.5                  | 161.85                   | 1495.                     | -141.                      | -231.                | 7.51                | 54.42    | 127.91       | 11800. |
| 5       |    | -15.0                   | .0                   | -354.8                  | 110.05                   | 1791.                     | -21.                       | -224.                | 5.37                | 54.52    | 126.03       | 11800. |
| 6       |    | -10.0                   | .0                   | -337.4                  | 63.96                    | 572.                      | -106.                      | -158.                | 9.16                | 55.05    | 128.57       | 11780. |
| 7       |    | -5.0                    | .0                   | -260.7                  | 7.35                     | -447.                     | -21.                       | -31.                 | 8.70                | 55.24    | 128.89       | 11790. |
| 8       |    | -2.5                    | .0                   | -199.7                  | -1.15                    | -571.                     | -22.                       | 4.                   | 9.56                | 54.54    | 128.06       | 11790. |
| 9       |    | -0                      | .0                   | -116.6                  | -6.26                    | -692.                     | -17.                       | -33.                 | 12.03               | 54.65    | 128.19       | 11780. |
| 10      |    | 2.5                     | .0                   | -32.2                   | -8.53                    | -755.                     | -9.                        | 27.                  | 7.78                | 55.20    | 128.84       | 11770. |
| 11      |    | 5.0                     | .0                   | 49.5                    | -7.50                    | -815.                     | -20.                       | 64.                  | 6.87                | 55.00    | 128.61       | 11770. |
| 12      |    | 10.0                    | .0                   | 213.0                   | 2.05                     | -867.                     | -8.                        | 51.                  | 3.85                | 54.89    | 128.47       | 11780. |
| 13      |    | 15.0                    | .0                   | 375.1                   | 27.62                    | -704.                     | -30.                       | 52.                  | 4.49                | 54.62    | 128.16       | 11770. |
| 14      |    | 17.5                    | .0                   | 443.8                   | 45.76                    | -411.                     | -14.                       | 125.                 | 2.38                | 54.45    | 127.95       | 11770. |
| 15      |    | 20.0                    | .0                   | 507.8                   | 60.41                    | -258.                     | -26.                       | 142.                 | 2.99                | 54.64    | 128.17       | 11760. |
| 16      |    | -0                      | .0                   | -114.3                  | -5.06                    | -664.                     | -13.                       | -28.                 | -8.47               | -55.12   | -129.74      | 11780. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CRM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.2947  | .0947  | -.1834 | -.0012 | -.0007 | .0251 |
| 3    | .00    | -.3113  | -.0177 | -.2181 | -.0018 | -.0016 | .0204 |
| 4    | -20.00 | -1.1149 | .4374  | .4819  | -.0085 | -.0139 | .0203 |
| 5    | -15.01 | -1.0671 | .2974  | .5773  | -.0013 | -.0136 | .0145 |
| 6    | -10.00 | -.9119  | .1729  | .1844  | -.0064 | -.0095 | .0247 |
| 7    | -5.00  | -.7586  | .0199  | -.1440 | -.0013 | -.0019 | .0235 |
| 8    | -2.50  | -.5396  | -.0031 | -.1839 | -.0013 | .0003  | .0258 |
| 9    | -0.00  | -.3158  | -.0185 | -.2230 | -.0010 | -.0020 | .0325 |
| 10   | 2.49   | -.0870  | -.0231 | -.2434 | -.0005 | .0016  | .0210 |
| 11   | 5.01   | .1338   | -.0203 | -.2627 | -.0012 | .0039  | .0186 |
| 12   | 10.00  | .5757   | .0055  | -.2795 | -.0005 | .0031  | .0104 |
| 13   | 15.00  | 1.0139  | .0746  | -.2270 | -.0018 | .0032  | .0121 |
| 14   | 17.50  | 1.1994  | .1237  | -.1326 | -.0008 | .0075  | .0064 |
| 15   | 20.00  | 1.3725  | .1795  | -.0833 | -.0016 | .0086  | .0081 |
| 16   | -0.00  | -.3090  | -.0164 | -.2139 | -.0008 | -.0017 | .0229 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.2947  | .0947  | -.1834 | -.0012 | -.0007 | .0251 |
| 3    | .00    | -.3113  | -.0177 | -.2181 | -.0018 | -.0016 | .0204 |
| 4    | -20.00 | -1.1149 | .4374  | .4819  | -.0085 | -.0139 | .0203 |
| 5    | -15.01 | -1.0671 | .2974  | .5773  | -.0013 | -.0136 | .0145 |
| 6    | -10.00 | -.9119  | .1729  | .1844  | -.0064 | -.0095 | .0247 |
| 7    | -5.00  | -.7586  | .0199  | -.1440 | -.0013 | -.0019 | .0235 |
| 8    | -2.50  | -.5396  | -.0031 | -.1839 | -.0013 | .0003  | .0258 |
| 9    | -0.00  | -.3158  | -.0185 | -.2230 | -.0010 | -.0020 | .0325 |
| 10   | 2.49   | -.0870  | -.0231 | -.2434 | -.0005 | .0016  | .0210 |
| 11   | 5.01   | .1338   | -.0203 | -.2627 | -.0012 | .0039  | .0186 |
| 12   | 10.00  | .5757   | .0055  | -.2795 | -.0005 | .0031  | .0104 |
| 13   | 15.00  | 1.0139  | .0746  | -.2270 | -.0018 | .0032  | .0121 |
| 14   | 17.50  | 1.1994  | .1237  | -.1326 | -.0008 | .0075  | .0064 |
| 15   | 20.00  | 1.3725  | .1795  | -.0833 | -.0016 | .0086  | .0081 |
| 16   | -0.00  | -.3090  | -.0164 | -.2139 | -.0008 | -.0017 | .0229 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 730

RUN 859 CONFIG F P E NPE W7 T54 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYB BAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|---------------|-------|---------|--------|
| 5       | .0        | .0      | -115.8      | 36.56       | -290.         | -73.        | -13.          | 10.31         | 54.52 | 128.04  | 3350.  |
| 6       | .0        | .0      | -122.5      | -5.70       | -413.         | -76.        | -29.          | 8.94          | 54.88 | 128.46  | 11800. |
| 7       | -20.0     | .0      | -423.0      | 150.91      | 1391.         | -199.       | -261.         | 5.85          | 54.78 | 128.33  | 11800. |
| 8       | -15.0     | .0      | -394.3      | 112.49      | 1395.         | -219.       | -279.         | 6.76          | 54.94 | 128.53  | 11780. |
| 9       | -10.0     | .0      | -330.9      | 64.13       | 312.          | -184.       | -125.         | 10.89         | 55.39 | 129.06  | 11790. |
| 10      | -5.0      | .0      | -278.5      | 9.16        | -335.         | -104.       | 19.           | 9.96          | 55.38 | 129.06  | 11770. |
| 11      | -2.5      | .0      | -203.5      | .23         | -372.         | -96.        | -11.          | 8.01          | 55.71 | 129.44  | 11790. |
| 12      | -0        | .0      | -121.8      | -5.14       | -430.         | -96.        | 7.            | 8.68          | 55.34 | 129.01  | 11700. |
| 13      | 2.5       | .0      | -41.9       | -7.48       | -475.         | -82.        | -7.           | 6.07          | 55.00 | 128.60  | 11730. |
| 14      | 5.0       | .0      | 40.1        | -7.05       | -491.         | -62.        | -9.           | 9.19          | 55.60 | 129.32  | 11740. |
| 15      | 10.0      | .0      | 205.1       | 1.36        | -590.         | -64.        | 13.           | 6.90          | 55.79 | 129.54  | 11750. |
| 16      | 15.0      | .0      | 301.2       | 28.35       | -845.         | -74.        | 8.            | 5.09          | 55.53 | 129.22  | 11730. |
| 17      | 20.0      | .0      | 525.9       | 77.28       | -1115.        | -123.       | 122.          | 1.04          | 55.50 | 129.19  | 11750. |
| 18      | .0        | .0      | -122.1      | -5.11       | -405.         | -91.        | -12.          | 9.64          | 55.62 | 129.57  | 11770. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | .00    | -.3131  | .0988  | -.0936 | -.0044 | -.0008 | .0279 |
| 6    | .00    | -.3312  | -.0154 | -.1331 | -.0046 | -.0017 | .0242 |
| 7    | -20.00 | -1.1431 | .4295  | .4483  | -.0120 | -.0158 | .0158 |
| 8    | -15.00 | -1.0657 | .3040  | .4496  | -.0132 | -.0168 | .0183 |
| 9    | -10.00 | -.8942  | .1733  | .1004  | -.0111 | -.0075 | .0294 |
| 10   | -5.00  | -.7528  | .0247  | -.1081 | -.0063 | .0012  | .0269 |
| 11   | -2.50  | -.5500  | .0006  | -.1199 | -.0058 | -.0007 | .0217 |
| 12   | -.00   | -.3291  | -.0139 | -.1385 | -.0058 | .0004  | .0235 |
| 13   | 2.51   | -.1133  | -.0202 | -.1533 | -.0050 | -.0004 | .0164 |
| 14   | 5.00   | .1083   | -.0191 | -.1583 | -.0038 | -.0005 | .0248 |
| 15   | 10.00  | .5543   | .0050  | -.1901 | -.0038 | .0008  | .0186 |
| 16   | 15.01  | 1.0302  | .0766  | -.2723 | -.0045 | .0052  | .0138 |
| 17   | 20.01  | 1.4213  | .2089  | -.3595 | -.0075 | .0074  | .0028 |
| 18   | .00    | -.3301  | -.0138 | -.1305 | -.0055 | -.0007 | .0261 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CL9     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 5    | .00    | -.3131  | .0988  | -.0936 | -.0044 | -.0008 | .0279 |
| 6    | .00    | -.3312  | -.0154 | -.1331 | -.0046 | -.0017 | .0242 |
| 7    | -20.00 | -1.1431 | .4295  | .4483  | -.0120 | -.0158 | .0158 |
| 8    | -15.00 | -1.0657 | .3040  | .4496  | -.0132 | -.0168 | .0183 |
| 9    | -10.00 | -.8942  | .1733  | .1004  | -.0111 | -.0075 | .0294 |
| 10   | -5.00  | -.7528  | .0247  | -.1081 | -.0063 | .0012  | .0269 |
| 11   | -2.50  | -.5500  | .0006  | -.1199 | -.0058 | -.0007 | .0217 |
| 12   | -.00   | -.3291  | -.0139 | -.1385 | -.0058 | .0004  | .0235 |
| 13   | 2.51   | -.1133  | -.0202 | -.1533 | -.0050 | -.0004 | .0164 |
| 14   | 5.00   | .1083   | -.0191 | -.1583 | -.0038 | -.0005 | .0248 |
| 15   | 10.00  | .5543   | .0050  | -.1901 | -.0038 | .0008  | .0186 |
| 16   | 15.01  | 1.0302  | .0766  | -.2723 | -.0045 | .0052  | .0138 |
| 17   | 20.01  | 1.4213  | .2089  | -.3595 | -.0075 | .0074  | .0028 |
| 18   | .00    | -.3301  | -.0138 | -.1305 | -.0055 | -.0007 | .0261 |

N432403-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 731

RUN 960 CONFIG F P D NPS W7 T54 BT IN=-3.5 XN=0

| PT. NO. | INW   | DELTA ALPHA | DELTA PSI | DELTA CL | DELTA CD | DELTA CPM | DELTA CYM | DELTA CRM | DELTA CY | Q      | V      | RPM |
|---------|-------|-------------|-----------|----------|----------|-----------|-----------|-----------|----------|--------|--------|-----|
|         | DEG   | DEG         | SQ-FT     | SQ-FT    | CU-FT    | CU-FT     | CU-FT     | CU-FT     | CU-FT    | PSF    | KNOTS  |     |
| 2       | .0    | .0          | 16.5      | 32.44    | 310.     | -114.     | 26.       | 7.00      | 55.00    | 128.61 | 3590.  |     |
| 3       | .0    | .0          | 61.3      | -6.98    | 161.     | -105.     | -28.      | 8.37      | 55.72    | 129.46 | 11340. |     |
| 4       | -20.0 | .0          | -430.2    | 123.05   | 1770.    | -298.     | -187.     | 11.97     | 54.62    | 128.14 | 11350. |     |
| 5       | -15.0 | .0          | -394.0    | 49.72    | 1584.    | -160.     | -58.      | 11.06     | 55.12    | 128.74 | 11340. |     |
| 6       | -5.0  | .0          | -98.5     | -2.99    | 199.     | -137.     | -51.      | 10.06     | 55.22    | 128.86 | 11350. |     |
| 7       | -2.5  | .0          | -19.3     | -6.88    | 195.     | -124.     | -11.      | 7.85      | 55.56    | 129.27 | 11360. |     |
| 8       | .0    | .0          | 61.7      | -6.90    | 179.     | -93.      | 41.       | 9.65      | 55.09    | 128.71 | 11380. |     |
| 9       | 2.5   | .0          | 142.8     | -3.88    | 129.     | -77.      | 28.       | 5.76      | 55.59    | 129.30 | 11360. |     |
| 10      | 5.0   | .0          | 225.5     | 2.53     | 101.     | -64.      | 40.       | 6.95      | 54.89    | 128.47 | 11340. |     |
| 11      | 10.0  | .0          | 379.0     | 23.51    | -46.     | -91.      | 67.       | 5.28      | 55.51    | 129.20 | 11350. |     |
| 12      | 15.0  | .0          | 520.7     | 60.81    | -530.    | -88.      | 140.      | 3.89      | 55.10    | 128.72 | 11330. |     |
| 13      | 17.5  | .0          | 551.2     | 89.46    | -843.    | -87.      | 88.       | 2.73      | 54.83    | 128.39 | 11340. |     |
| 14      | 20.0  | .0          | 573.6     | 125.02   | -1201.   | -47.      | 71.       | 3.91      | 54.85    | 128.41 | 11340. |     |
| 15      | -10.0 | .0          | -267.2    | 17.23    | 751.     | -147.     | -67.      | 7.95      | 55.26    | 128.91 | 11350. |     |
| 16      | -0    | .0          | 59.3      | -7.05    | 181.     | -103.     | -28.      | 8.54      | 55.45    | 129.13 | 11360. |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1798   | .0877  | .1000  | -.0069 | .0016  | .0189 |
| 3    | .00    | .1658   | -.0189 | .0518  | -.0063 | -.0017 | .0226 |
| 4    | -20.00 | -1.1626 | .3326  | .5707  | -.0180 | -.0113 | .0324 |
| 5    | -15.00 | -1.0648 | .1344  | .5105  | -.0096 | -.0035 | .0299 |
| 6    | -5.01  | -.2662  | -.0081 | .0643  | -.0083 | -.0031 | .0272 |
| 7    | -2.50  | -.0521  | -.0186 | .0628  | -.0075 | -.0007 | .0212 |
| 8    | .00    | .1668   | -.0187 | .0577  | -.0056 | .0024  | .0261 |
| 9    | 2.50   | .3859   | -.0105 | .0416  | -.0046 | .0017  | .0156 |
| 10   | 5.00   | .6095   | .0068  | .0326  | -.0039 | .0028  | .0188 |
| 11   | 10.00  | 1.0242  | .0635  | -.0149 | -.0055 | .0040  | .0143 |
| 12   | 14.99  | 1.4072  | .1644  | -.1709 | -.0053 | .0084  | .0105 |
| 13   | 17.50  | 1.4897  | .2418  | -.2717 | -.0053 | .0053  | .0074 |
| 14   | 20.00  | 1.5501  | .3379  | -.3871 | -.0029 | .0043  | .0106 |
| 15   | -10.00 | -.7222  | .0466  | .2422  | -.0089 | -.0041 | .0215 |
| 16   | -.00   | .1602   | -.0190 | .0583  | -.0062 | -.0017 | .0231 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1798   | .0877  | .1000  | -.0069 | .0016  | .0189 |
| 3    | .00    | .1658   | -.0189 | .0518  | -.0063 | -.0017 | .0226 |
| 4    | -20.00 | -1.1626 | .3326  | .5707  | -.0180 | -.0113 | .0324 |
| 5    | -15.00 | -1.0648 | .1344  | .5105  | -.0096 | -.0035 | .0299 |
| 6    | -5.01  | -.2662  | -.0081 | .0643  | -.0083 | -.0031 | .0272 |
| 7    | -2.50  | -.0521  | -.0186 | .0628  | -.0075 | -.0007 | .0212 |
| 8    | .00    | .1668   | -.0187 | .0577  | -.0056 | .0024  | .0261 |
| 9    | 2.50   | .3859   | -.0105 | .0416  | -.0046 | .0017  | .0156 |
| 10   | 5.00   | .6095   | .0068  | .0326  | -.0039 | .0028  | .0188 |
| 11   | 10.00  | 1.0242  | .0635  | -.0149 | -.0055 | .0040  | .0143 |
| 12   | 14.99  | 1.4072  | .1644  | -.1709 | -.0053 | .0084  | .0105 |
| 13   | 17.50  | 1.4897  | .2418  | -.2717 | -.0053 | .0053  | .0074 |
| 14   | 20.00  | 1.5501  | .3379  | -.3871 | -.0029 | .0043  | .0106 |
| 15   | -10.00 | -.7222  | .0466  | .2422  | -.0089 | -.0041 | .0215 |
| 16   | -.00   | .1602   | -.0190 | .0583  | -.0062 | -.0017 | .0231 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 261 CONFIG F P 2 NPS W7 TS4 BT IN=-3.5 XN=0

| PT. NO. | IN | 15 DELF<br>ALPHA DEG | 30 DELA<br>PSI DEC | 0 IHT<br>CL BAR SQ-FT | 0 DELE<br>CDBAR SQ-FT | 0 DELR<br>CPM BAR CU-FT | 0 DELSB<br>CYBAR CU-FT | 0<br>CRM BAR CU-FT | 0<br>CYBAR SQ-FT | 0<br>Q PSF | 0<br>V KNOTS | 0<br>RPM |
|---------|----|----------------------|--------------------|-----------------------|-----------------------|-------------------------|------------------------|--------------------|------------------|------------|--------------|----------|
| 2       |    | .0                   | .0                 | 353.0                 | 71.17                 | 771.                    | -166.                  | 29.                | 4.68             | 56.07      | 129.86       | 4020.    |
| 3       |    | .0                   | .0                 | 315.1                 | -6.94                 | 484.                    | -187.                  | 31.                | 2.89             | 55.32      | 128.98       | 15770.   |
| 4       |    | -20.0                | .0                 | -309.0                | 23.45                 | 1589.                   | -130.                  | 83.                | 10.44            | 54.51      | 128.02       | 15750.   |
| 5       |    | -15.0                | .0                 | -112.0                | -6.16                 | 1509.                   | -164.                  | -14.               | 6.83             | 54.89      | 128.47       | 15780.   |
| 6       |    | -10.0                | .0                 | 17.6                  | -24.14                | 1154.                   | -146.                  | 25.                | 5.72             | 54.74      | 128.29       | 15740.   |
| 7       |    | -5.0                 | .0                 | 176.2                 | -21.04                | 753.                    | -209.                  | -40.               | 2.80             | 54.79      | 128.35       | 15730.   |
| 8       |    | -2.5                 | .0                 | 248.7                 | -14.65                | 557.                    | -260.                  | 49.                | 2.72             | 55.08      | 128.70       | 15790.   |
| 9       |    | .0                   | .0                 | 313.0                 | -4.64                 | 365.                    | -242.                  | 14.                | 2.65             | 55.26      | 128.91       | 15740.   |
| 10      |    | 2.5                  | .0                 | 370.7                 | 6.80                  | 199.                    | -224.                  | 72.                | -1.60            | 55.36      | 129.02       | 15730.   |
| 12      |    | 5.0                  | .0                 | 400.3                 | 26.97                 | 104.                    | -147.                  | 583.               | -1.18            | 54.98      | 128.58       | 15760.   |
| 13      |    | 10.0                 | .0                 | 422.1                 | 73.34                 | -60.                    | -121.                  | -38.               | 4.77             | 55.00      | 128.60       | 15710.   |
| 14      |    | 15.0                 | .0                 | 439.1                 | 135.94                | -553.                   | -214.                  | 70.                | .12              | 55.11      | 128.73       | 15760.   |
| 15      |    | 17.5                 | .0                 | 547.0                 | 170.75                | -820.                   | -76.                   | -53.               | 1.12             | 54.72      | 128.26       | 15750.   |
| 16      |    | 20.0                 | .0                 | 582.6                 | 207.44                | -1260.                  | 18.                    | -86.               | 6.66             | 55.21      | 128.84       | 15740.   |
| 17      |    | .0                   | .0                 | 317.0                 | -7.26                 | 501.                    | -216.                  | 85.                | 2.49             | 54.65      | 128.18       | 15750.   |
| 18      |    | .0                   | .0                 | 312.9                 | -6.88                 | 495.                    | -210.                  | 84.                | 2.39             | 55.48      | 129.17       | 15780.   |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CC     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9000  | .1924  | .2486  | -.0100 | .0017  | .0126  |
| 3    | .00    | .8515  | -.0188 | .1562  | -.0113 | .0019  | .0078  |
| 4    | -20.00 | -.8351 | .0634  | .5124  | -.0079 | .0050  | .0282  |
| 5    | -14.99 | -.4379 | -.0166 | .4863  | -.0099 | -.0009 | .0184  |
| 6    | -10.00 | .0475  | -.0652 | .3721  | -.0088 | .0015  | .0155  |
| 7    | -4.99  | .4763  | -.0569 | .2428  | -.0126 | -.0024 | .0076  |
| 8    | -2.48  | .6723  | -.0396 | .1797  | -.0157 | .0030  | .0074  |
| 9    | .00    | .8460  | -.0125 | .1241  | -.0146 | .0009  | .0072  |
| 10   | 2.50   | 1.0018 | .0184  | .0642  | -.0135 | .0043  | -.0043 |
| 12   | 5.00   | 1.0820 | .0729  | .0335  | -.0089 | .0352  | -.0032 |
| 13   | 10.00  | 1.1409 | .1982  | -.0258 | -.0073 | -.0023 | .0129  |
| 14   | 15.01  | 1.3218 | .3674  | -.1783 | -.0129 | .0042  | .0003  |
| 15   | 17.51  | 1.4784 | .4615  | -.2645 | -.0046 | -.0032 | .0030  |
| 16   | 20.00  | 1.5746 | .5606  | -.4061 | .0011  | -.0052 | .0180  |
| 17   | .00    | .8569  | -.0196 | .1615  | -.0130 | .0052  | .0067  |
| 18   | .00    | .8456  | -.0186 | .1600  | -.0127 | .0051  | .0065  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9000  | .1924  | .2486  | -.0100 | .0017  | .0126  |
| 3    | .00    | .8515  | -.0188 | .1562  | -.0113 | .0019  | .0078  |
| 4    | -20.00 | -.8351 | .0634  | .5124  | -.0079 | .0050  | .0282  |
| 5    | -14.99 | -.4379 | -.0166 | .4863  | -.0099 | -.0009 | .0184  |
| 6    | -10.00 | .0475  | -.0652 | .3721  | -.0088 | .0015  | .0155  |
| 7    | -4.99  | .4763  | -.0569 | .2428  | -.0126 | -.0024 | .0076  |
| 8    | -2.48  | .6723  | -.0396 | .1797  | -.0157 | .0030  | .0074  |
| 9    | .00    | .8460  | -.0125 | .1241  | -.0146 | .0009  | .0072  |
| 10   | 2.50   | 1.0018 | .0184  | .0642  | -.0135 | .0043  | -.0043 |
| 12   | 5.00   | 1.0820 | .0729  | .0335  | -.0089 | .0352  | -.0032 |
| 13   | 10.00  | 1.1409 | .1982  | -.0258 | -.0073 | -.0023 | .0129  |
| 14   | 15.01  | 1.3218 | .3674  | -.1783 | -.0129 | .0042  | .0003  |
| 15   | 17.51  | 1.4784 | .4615  | -.2645 | -.0046 | -.0032 | .0030  |
| 16   | 20.00  | 1.5746 | .5606  | -.4061 | .0011  | -.0052 | .0180  |
| 17   | .00    | .8569  | -.0196 | .1615  | -.0130 | .0052  | .0067  |
| 18   | .00    | .8456  | -.0186 | .1600  | -.0127 | .0051  | .0065  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 733

RUN 862 CONFIG 0.0 0.0 0.0 15 0.0 30 0.0

| PT. NO. | IWB T | DELTA PSI | DELTA C <sub>L</sub> | DELTA C <sub>D</sub> | IHT F  | P B   | DELE    | NPS W  | DEL R7 | T54    | DELSB  | Q     | V | RPM |
|---------|-------|-----------|----------------------|----------------------|--------|-------|---------|--------|--------|--------|--------|-------|---|-----|
|         | ALPHA | PSI       | CL BAR               | CDBAR                | CPNBAR | CYBAR | CRM BAR | CYBAR  | CU=FT  | SQ=FT  | PSF    | KNOTS |   |     |
| 2       | 0.0   | 0.0       | 530.0                | 124.39               | 1214.  | -160. | 67.     | 1.89   | 55.86  | 129.62 | 4300.  |       |   |     |
| 3       | 0.0   | 0.0       | 488.2                | -6.88                | 752.   | -138. | 286.    | -19.16 | 55.46  | 129.15 | 20150. |       |   |     |
| 4       | -20.0 | 0.0       | -184.0               | -3.13                | 1879.  | -188. | 103.    | 8.49   | 55.35  | 129.02 | 20090. |       |   |     |
| 5       | -15.0 | 0.0       | -2.2                 | -26.44               | 1869.  | -211. | 109.    | 6.64   | 55.37  | 129.04 | 20120. |       |   |     |
| 6       | -10.0 | 0.0       | 185.5                | -31.52               | 1694.  | -207. | 168.    | 4.00   | 55.39  | 129.07 | 20150. |       |   |     |
| 7       | -5.0  | 0.0       | 362.4                | -23.96               | 1374.  | -214. | 170.    | 3.72   | 55.01  | 128.61 | 20130. |       |   |     |
| 8       | -2.5  | 0.0       | 422.2                | -13.86               | 892.   | -173. | 231.    | -14.15 | 55.14  | 128.77 | 20160. |       |   |     |
| 9       | 0.0   | 0.0       | 486.4                | -4.23                | 840.   | -136. | 291.    | -22.01 | 55.25  | 128.89 | 20140. |       |   |     |
| 11      | 5.0   | 0.0       | 515.6                | 27.57                | -154.  | -190. | 142.    | -2.94  | 55.53  | 129.23 | 20100. |       |   |     |
| 12      | 10.0  | 0.0       | 471.7                | 81.39                | -226.  | -123. | 206.    | 7.70   | 55.28  | 128.93 | 20150. |       |   |     |
| 13      | 15.0  | 0.0       | 558.7                | 149.07               | -500.  | -179. | 175.    | .80    | 55.18  | 128.81 | 20170. |       |   |     |
| 14      | 17.5  | 0.0       | 600.7                | 187.06               | -1019. | -54.  | 70.     | 3.02   | 55.20  | 128.83 | 20090. |       |   |     |
| 15      | 20.0  | 0.0       | 655.5                | 229.06               | -1333. | 41.   | -121.   | 6.71   | 55.36  | 129.02 | 20170. |       |   |     |
| 16      | 2.5   | 0.0       | 514.8                | 12.43                | 426.   | -107. | 612.    | -18.36 | 55.65  | 129.37 | 20160. |       |   |     |
| 17      | 0.0   | 0.0       | 486.8                | -3.96                | 829.   | -117. | 324.    | -21.60 | 55.51  | 129.21 | 20170. |       |   |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.4324 | .3362  | .3913  | -.0097 | .0040  | .0051  |
| 3    | 0.00   | 1.3196 | -.0186 | .2426  | -.0083 | .0173  | -.0518 |
| 4    | -20.00 | -.4973 | -.0084 | .6058  | -.0114 | .0062  | .0230  |
| 5    | -14.98 | -.0060 | -.0715 | .6025  | -.0127 | .0066  | .0180  |
| 6    | -10.00 | .5014  | -.0852 | .5462  | -.0125 | .0101  | .0108  |
| 7    | -4.99  | .9794  | -.0648 | .4430  | -.0129 | .0103  | .0100  |
| 8    | -2.49  | 1.1412 | -.0375 | .2875  | -.0105 | .0139  | -.0382 |
| 9    | .01    | 1.3146 | -.0114 | .2707  | -.0082 | .0176  | -.0595 |
| 11   | 5.00   | 1.3936 | .0745  | -.0496 | -.0115 | .0086  | -.0080 |
| 12   | 10.01  | 1.2747 | .2200  | -.0728 | -.0074 | .0124  | .0208  |
| 13   | 15.00  | 1.5100 | .4029  | -.1612 | -.0108 | .0106  | .0022  |
| 14   | 17.51  | 1.6235 | .5056  | -.3285 | -.0033 | -.0042 | .0082  |
| 15   | 20.00  | 1.7715 | .6191  | -.4298 | .0025  | -.0073 | .0181  |
| 16   | 2.51   | 1.3913 | .0336  | .1373  | -.0065 | .0370  | -.0496 |
| 17   | .00    | 1.3157 | -.0107 | .2674  | -.0071 | .0196  | -.0584 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.4324 | .3362  | .3913  | -.0097 | .0040  | .0051  |
| 3    | 0.00   | 1.3196 | -.0186 | .2426  | -.0083 | .0173  | -.0518 |
| 4    | -20.00 | -.4973 | -.0084 | .6058  | -.0114 | .0062  | .0230  |
| 5    | -14.98 | -.0060 | -.0715 | .6025  | -.0127 | .0066  | .0180  |
| 6    | -10.00 | .5014  | -.0852 | .5462  | -.0125 | .0101  | .0108  |
| 7    | -4.99  | .9794  | -.0648 | .4430  | -.0129 | .0103  | .0100  |
| 8    | -2.49  | 1.1412 | -.0375 | .2875  | -.0105 | .0139  | -.0382 |
| 9    | .01    | 1.3146 | -.0114 | .2707  | -.0082 | .0176  | -.0595 |
| 11   | 5.00   | 1.3936 | .0745  | -.0496 | -.0115 | .0086  | -.0080 |
| 12   | 10.01  | 1.2747 | .2200  | -.0728 | -.0074 | .0124  | .0208  |
| 13   | 15.00  | 1.5100 | .4029  | -.1612 | -.0108 | .0106  | .0022  |
| 14   | 17.51  | 1.6235 | .5056  | -.3285 | -.0033 | -.0042 | .0082  |
| 15   | 20.00  | 1.7715 | .6191  | -.4298 | .0025  | -.0073 | .0181  |
| 16   | 2.51   | 1.3913 | .0336  | .1373  | -.0065 | .0370  | -.0496 |
| 17   | .00    | 1.3157 | -.0107 | .2674  | -.0071 | .0196  | -.0584 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 734

RUN 863 CONFIG F P R NP5 W7 T54 BT IN=3.5 ALPHA=10

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q | V KNOTS | RPM    |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|---------|---------|--------|
| 7       | 0         | 0             | 48.8        | 31.98       | 285.         | -105.        | -27.         | 7.15        | 54.34   | 127.83  | 3540.  |
| 8       | 0         | 0             | 47.1        | 26.33       | 167.         | -97.         | 10.          | 6.02        | 55.43   | 129.12  | 11360. |
| 9       | 10.0      | 0             | 375.6       | 22.06       | -48.         | -95.         | 49.          | 6.36        | 54.67   | 128.21  | 11250. |
| 10      | 10.0      | -20.0         | 349.7       | 66.08       | -354.        | 756.         | -39.         | -155.37     | 54.28   | 127.75  | 11210. |
| 11      | 10.0      | -15.0         | 347.0       | 43.55       | -261.        | 177.         | -29.         | -106.61     | 55.28   | 128.93  | 11210. |
| 12      | 10.0      | -10.0         | 371.7       | 30.67       | -240.        | 152.         | -6.          | -70.51      | 55.17   | 128.81  | 11240. |
| 13      | 10.0      | -5.0          | 372.8       | 23.87       | -147.        | 15.          | 8.           | -33.12      | 55.12   | 128.75  | 11270. |
| 14      | 10.0      | -2.5          | 372.5       | 23.16       | -92.         | -28.         | 27.          | -13.42      | 55.07   | 128.69  | 11200. |
| 15      | 10.0      | 0             | 371.1       | 22.29       | -69.         | -127.        | 18.          | -1.66       | 55.28   | 128.94  | 11230. |
| 16      | 10.0      | 2.5           | 370.2       | 22.87       | -85.         | -122.        | 58.          | 24.43       | 54.80   | 128.36  | 11210. |
| 17      | 10.0      | 5.0           | 370.1       | 24.40       | -107.        | -163.        | 106.         | 39.94       | 55.01   | 128.62  | 11220. |
| 18      | 10.0      | 10.0          | 345.1       | 29.80       | -221.        | -302.        | 98.          | 74.59       | 55.76   | 129.51  | 11210. |
| 19      | 10.0      | 15.0          | 354.9       | 42.45       | -211.        | -348.        | 84.          | 117.86      | 55.15   | 128.78  | 11210. |
| 20      | 10.0      | 20.0          | 351.7       | 65.77       | -453.        | -1122.       | 63.          | 167.93      | 55.26   | 128.91  | 11210. |
| 21      | 10.0      | -2.5          | 372.7       | 22.99       | -54.         | -27.         | 27.          | -13.62      | 55.04   | 128.64  | 11230. |
| 22      | 10.0      | 0             | 371.8       | 22.11       | -33.         | -128.        | 52.          | 1.23        | 55.18   | 128.82  | 11220. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | .1318  | .0864  | .0920  | -.0064 | -.0016 | .0193  |
| 8    | .00    | .1272  | -.0171 | .0537  | -.0058 | .0006  | .0163  |
| 9    | .00    | 1.0150 | .0596  | -.0156 | -.0057 | .0030  | .0172  |
| 10   | -20.00 | .9990  | .1786  | -.1140 | .0456  | -.0023 | -.4199 |
| 11   | -15.00 | .9919  | .1177  | -.0842 | .0107  | -.0018 | -.2881 |
| 12   | -10.00 | 1.0045 | .0829  | -.0774 | .0092  | -.0003 | -.1906 |
| 13   | -5.00  | 1.0076 | .0645  | -.0474 | .0009  | .0005  | -.0895 |
| 14   | -2.50  | 1.0068 | .0626  | -.0296 | -.0017 | .0016  | -.0363 |
| 15   | .00    | 1.0031 | .0602  | -.0222 | -.0077 | .0011  | -.0045 |
| 16   | 2.50   | 1.0006 | .0618  | -.0275 | -.0074 | .0035  | .0660  |
| 17   | 5.00   | 1.0002 | .0659  | -.0346 | -.0098 | .0064  | .1079  |
| 18   | 10.00  | .9327  | .0805  | -.0714 | -.0182 | .0059  | .2016  |
| 19   | 15.00  | .9593  | .1147  | -.0682 | -.0210 | .0051  | .3185  |
| 20   | 20.00  | .9505  | .1778  | -.1462 | -.0678 | .0038  | .4539  |
| 21   | -2.50  | 1.0072 | .0621  | -.0175 | -.0016 | .0016  | -.0368 |
| 22   | .00    | 1.0048 | .0598  | -.0105 | -.0077 | .0031  | .0033  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | .1318  | .0864  | .0920  | -.0064 | -.0016 | .0193  |
| 8    | .00    | .1272  | -.0171 | .0537  | -.0058 | .0006  | .0163  |
| 9    | .00    | 1.0150 | .0596  | -.0156 | -.0057 | .0030  | .0172  |
| 10   | -20.00 | .9990  | .0235  | -.1028 | .0456  | .0051  | -.4557 |
| 11   | -15.00 | .9919  | .0387  | -.0789 | .0107  | .0024  | -.3088 |
| 12   | -10.00 | 1.0045 | .0484  | -.0759 | .0092  | .0022  | -.2021 |
| 13   | -5.00  | 1.0076 | .0564  | -.0475 | .0009  | .0013  | -.0948 |
| 14   | -2.50  | 1.0068 | .0609  | -.0300 | -.0017 | .0019  | -.0390 |
| 15   | .00    | 1.0031 | .0602  | -.0222 | -.0077 | .0011  | -.0045 |
| 16   | 2.50   | 1.0006 | .0589  | -.0267 | -.0074 | .0033  | .0687  |
| 17   | 5.00   | 1.0002 | .0562  | -.0314 | -.0098 | .0058  | .1133  |
| 18   | 10.00  | .9327  | .0441  | -.0648 | -.0182 | .0035  | .2125  |
| 19   | 15.00  | .9593  | .0280  | -.0588 | -.0210 | .0016  | .3374  |
| 20   | 20.00  | .9505  | .0110  | -.1303 | -.0678 | -.0058 | .4873  |
| 21   | -2.50  | 1.0072 | .0605  | -.0179 | -.0016 | .0018  | -.0395 |
| 22   | .00    | 1.0048 | .0598  | -.0105 | -.0077 | .0031  | .0033  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P735

RUN 864 CONFIG F P R NP5 W7 T54 BT IN=3.5 PSI=5

| PT. NO. | IW    | 0.0 DELF | 0.0 DELA | 0.0 IHT | 0.0 DELE | 0.0 DELR | 0.0 DELSB | 0.0   | 0.0   | RPM    |        |
|---------|-------|----------|----------|---------|----------|----------|-----------|-------|-------|--------|--------|
|         | ALPHA | PSI      | CLBAR    | CDBAR   | CPMBAR   | CYMBAR   | CRMBAR    | CYBAR | Q     | V      |        |
|         | DEG   | DEG      | SQ-FT    | SQ-FT   | CU-FT    | CU-FT    | CU-FT     | SQ-FT | PSF   | KNOTS  |        |
| 7       | 0     | 0        | 50.0     | 31.81   | 288.     | -88.     | -25.      | 6.18  | 55.08 | 128.71 | 3550.  |
| 8       | 0     | 0        | 47.8     | -6.84   | 170.     | -86.     | 10.       | 5.93  | 54.56 | 128.08 | 11250. |
| 9       | 0     | 5.0      | 49.3     | -3.21   | 111.     | -242.    | -28.      | 51.78 | 54.74 | 128.29 | 11230. |
| 10      | -20.0 | 5.0      | -420.6   | 128.19  | 1526.    | -682.    | -584.     | 40.67 | 54.53 | 128.04 | 11230. |
| 11      | -15.0 | 5.0      | -382.5   | 64.07   | 1481.    | -481.    | -386.     | 42.56 | 54.99 | 128.59 | 11180. |
| 12      | -10.0 | 5.0      | -274.8   | 22.90   | 653.     | -479.    | -104.     | 51.27 | 55.08 | 128.70 | 11210. |
| 13      | -5.0  | 5.0      | -108.7   | 1.78    | 129.     | -339.    | -59.      | 50.37 | 56.13 | 129.94 | 11210. |
| 14      | -2.5  | 5.0      | -32.7    | -2.66   | 124.     | -291.    | -70.      | 52.38 | 55.08 | 128.71 | 11290. |
| 15      | 0     | 5.0      | 48.8     | -2.70   | 120.     | -248.    | -61.      | 50.04 | 55.07 | 128.69 | 11190. |
| 16      | 2.6   | 5.0      | 133.0    | -0.81   | 75.      | -196.    | 47.       | 48.98 | 55.08 | 128.70 | 11220. |
| 17      | 5.0   | 5.0      | 210.5    | 4.11    | 33.      | -142.    | 85.       | 45.77 | 55.08 | 128.70 | 11210. |
| 18      | 10.0  | 5.0      | 368.9    | 24.66   | -126.    | -147.    | 117.      | 41.17 | 54.45 | 127.95 | 11190. |
| 19      | 15.0  | 5.0      | 521.2    | 59.23   | -551.    | -159.    | 222.      | 36.19 | 54.68 | 128.23 | 11170. |
| 20      | 17.5  | 5.0      | 567.3    | 85.75   | -866.    | -103.    | 383.      | 31.56 | 54.40 | 127.89 | 11320. |
| 21      | 20.0  | 5.0      | 576.1    | 120.62  | -1258.   | -45.     | 490.      | 24.82 | 55.17 | 128.80 | 11320. |
| 22      | 0     | 5.0      | 47.8     | -3.77   | 122.     | -252.    | -7.       | 49.65 | 55.09 | 128.71 | 11270. |

\*\*\* COEFFICIENT FORM WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | 0.00   | .1350   | .0860  | .0928  | -.0053 | -.0015 | .0167 |
| 8    | 0.00   | .1292   | .0185  | .0548  | -.0052 | .0006  | .0160 |
| 9    | 0.00   | .1332   | -.0087 | .0357  | -.0146 | -.0017 | .1399 |
| 10   | -20.00 | -1.1368 | .3465  | .4921  | -.0412 | -.0353 | .1099 |
| 11   | -14.99 | -1.0339 | .1732  | .4774  | -.0290 | -.0233 | .1150 |
| 12   | -9.99  | -.7426  | .0619  | .2107  | -.0289 | -.0043 | .1386 |
| 13   | -4.97  | -.2937  | .0048  | .0417  | -.0205 | -.0036 | .1361 |
| 14   | -2.52  | -.0884  | -.0072 | .0400  | -.0176 | -.0042 | .1416 |
| 15   | 0.00   | .1319   | -.0073 | .0386  | -.0150 | -.0037 | .1353 |
| 16   | 2.55   | .3596   | .0022  | .0241  | -.0119 | .0028  | .1324 |
| 17   | 5.00   | .5690   | .0111  | .0107  | -.0086 | .0052  | .1237 |
| 18   | 10.03  | .9971   | .0667  | .0407  | -.0089 | .0071  | .1113 |
| 19   | 15.01  | 1.4087  | .1601  | -.1776 | -.0096 | .0134  | .0978 |
| 20   | 17.50  | 1.5333  | .2318  | -.2791 | -.0063 | .0232  | .0853 |
| 21   | 20.00  | 1.5570  | .3260  | -.4055 | -.0027 | .0296  | .0671 |
| 22   | 0.00   | .1291   | -.0102 | .0393  | -.0152 | -.0005 | .1342 |

\*\*\* COEFFICIENT FORM STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | 0.00   | .1350   | .0860  | .0928  | -.0053 | -.0015 | .0167 |
| 8    | 0.00   | .1292   | -.0185 | .0548  | -.0052 | .0006  | .0160 |
| 9    | 0.00   | .1332   | -.0209 | .0348  | -.0146 | -.0011 | .1386 |
| 10   | -20.00 | -1.1368 | .3355  | .4737  | -.0412 | -.0271 | .1398 |
| 11   | -14.99 | -1.0339 | .1624  | .4647  | -.0290 | -.0154 | .1297 |
| 12   | -9.99  | -.7426  | .0495  | .2069  | -.0289 | -.0028 | .1435 |
| 13   | -4.97  | -.2937  | -.0071 | .0399  | -.0205 | -.0029 | .1360 |
| 14   | -2.52  | -.0884  | -.0195 | .0378  | -.0176 | -.0035 | .1404 |
| 15   | 0.00   | .1319   | -.0191 | .0368  | -.0150 | -.0030 | .1341 |
| 16   | 2.55   | .3596   | -.0138 | .0254  | -.0119 | .0032  | .1317 |
| 17   | 5.00   | .5690   | .0002  | .0131  | -.0086 | .0053  | .1242 |
| 18   | 10.03  | .9971   | .0567  | -.0373 | -.0089 | .0044  | .1167 |
| 19   | 15.01  | 1.4087  | .1509  | -.1707 | -.0096 | .0105  | .1115 |
| 20   | 17.50  | 1.5333  | .2234  | -.2672 | -.0063 | .0185  | .1053 |
| 21   | 20.00  | 1.5570  | .3189  | -.3901 | -.0027 | .0228  | .0954 |
| 22   | 0.00   | .1291   | -.0219 | .0389  | -.0152 | .0002  | .1328 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011  
P73C

RUN 865 CONFIG F P R NP5 W7 Y55 BT IN=3.5

| PT. NO. | IW<br>ALPHA<br>DEG | O.O DELF<br>PSI<br>DEG | O.O DELA<br>CLBAR<br>SQ-FT | O.O IHT<br>CDBAR<br>SQ-FT | O.O DELE<br>CPM BAR<br>CU-FT | O.O DELR<br>CYM BAR<br>CU-FT | O.O DELS<br>CRM BAR<br>CU-FT | O.O DELS<br>CY BAR<br>SQ-FT | O.O DELS<br>Q<br>PSF | O.O<br>V<br>KNOTS | RPM    |
|---------|--------------------|------------------------|----------------------------|---------------------------|------------------------------|------------------------------|------------------------------|-----------------------------|----------------------|-------------------|--------|
| 6       | 0                  | 0                      | 64.9                       | 31.61                     | -226.                        | -33.                         | 65.                          | 3.69                        | 55.34                | 129.02            | 3540.  |
| 7       | 0                  | 0                      | 61.8                       | -6.70                     | -335.                        | -25.                         | 46.                          | 4.93                        | 55.29                | 128.95            | 11210. |
| 8       | -20.0              | 0                      | -397.3                     | 124.57                    | 666.                         | -123.                        | -310.                        | 4.53                        | 54.88                | 128.46            | 11300. |
| 9       | -15.0              | 0                      | -344.6                     | 67.71                     | 863.                         | -111.                        | 90.                          | 7.20                        | 55.36                | 129.03            | 11320. |
| 10      | -10.0              | 0                      | -265.4                     | 16.84                     | 99.                          | -48.                         | 8.                           | 5.19                        | 54.49                | 128.01            | 11220. |
| 11      | -5.0               | 0                      | -96.9                      | -3.88                     | -348.                        | -55.                         | 10.                          | 5.02                        | 55.01                | 128.62            | 11230. |
| 12      | -2.5               | 0                      | -16.5                      | -6.89                     | -343.                        | -42.                         | 46.                          | 5.30                        | 54.65                | 128.19            | 11260. |
| 13      | 0                  | 0                      | 62.1                       | -7.20                     | -334.                        | -36.                         | 47.                          | 5.21                        | 54.29                | 127.76            | 11220. |
| 14      | 2.5                | 0                      | 143.4                      | -4.31                     | -322.                        | -24.                         | 67.                          | 3.80                        | 54.71                | 128.26            | 11250. |
| 15      | 5.0                | 0                      | 223.6                      | 2.45                      | -311.                        | -33.                         | 106.                         | 1.07                        | 54.31                | 127.79            | 11230. |
| 16      | 10.0               | 0                      | 386.6                      | 23.50                     | -414.                        | -41.                         | 105.                         | 2.63                        | 54.36                | 127.85            | 11230. |
| 17      | 15.0               | 0                      | 536.6                      | 59.95                     | -768.                        | -50.                         | 124.                         | -0.6                        | 54.70                | 128.26            | 11210. |
| 18      | 20.0               | 0                      | 572.4                      | 120.39                    | -850.                        | -14.                         | 161.                         | .63                         | 54.28                | 127.75            | 11230. |
| 19      | 0                  | 0                      | 61.1                       | -7.13                     | -337.                        | -40.                         | 68.                          | 2.95                        | 54.34                | 127.83            | 11190. |
| 20      | 17.5               | 0                      | 559.6                      | 87.56                     | -862.                        | -31.                         | 107.                         | 2.06                        | 54.48                | 127.99            | 11270. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 6    | 0.00   | .1753   | .0854  | -.0730 | -.0020 | .0039  | -.0100 |
| 7    | 0.00   | .1670   | -.0181 | -.1081 | -.0015 | .0028  | .0133  |
| 8    | -19.99 | -1.0738 | .3367  | .2147  | -.0074 | -.0188 | .0122  |
| 9    | -15.00 | -.9313  | .1830  | .2783  | -.0067 | .0054  | .0195  |
| 10   | -9.99  | -.7172  | .0455  | .0320  | -.0029 | .0005  | .0140  |
| 11   | -4.98  | -.2620  | -.0105 | -.1121 | -.0033 | .0006  | .0136  |
| 12   | -2.45  | -.0447  | -.0186 | -.1107 | -.0025 | .0028  | .0143  |
| 13   | 0.00   | .1679   | -.0194 | -.1076 | -.0022 | .0028  | .0141  |
| 14   | 2.51   | .3876   | -.0116 | -.1038 | -.0015 | .0040  | .0103  |
| 15   | 5.00   | .6043   | .0066  | -.1002 | -.0020 | .0064  | .0029  |
| 16   | 10.03  | 1.0450  | .0635  | -.1336 | -.0025 | .0064  | .0071  |
| 17   | 15.04  | 1.4503  | .1620  | -.2475 | -.0030 | .0075  | -.0002 |
| 18   | 20.01  | 1.5471  | .3254  | -.2740 | -.0009 | .0097  | .0017  |
| 19   | 0.01   | .1652   | -.0193 | -.1086 | -.0024 | .0041  | .0080  |
| 20   | 17.53  | 1.5123  | .2367  | -.2778 | -.0019 | .0064  | .0056  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 6    | 0.00   | .1753   | .0854  | -.0730 | -.0020 | .0039  | .0100  |
| 7    | 0.00   | .1670   | -.0181 | -.1081 | -.0015 | .0028  | .0133  |
| 8    | -19.99 | -1.0738 | .3367  | .2147  | -.0074 | -.0188 | .0122  |
| 9    | -15.00 | -.9313  | .1830  | .2783  | -.0067 | .0054  | .0195  |
| 10   | -9.99  | -.7172  | .0455  | .0320  | -.0029 | .0005  | .0140  |
| 11   | -4.98  | -.2620  | -.0105 | -.1121 | -.0033 | .0006  | .0136  |
| 12   | -2.45  | -.0447  | -.0186 | -.1107 | -.0025 | .0028  | .0143  |
| 13   | 0.00   | .1679   | -.0194 | -.1076 | -.0022 | .0028  | .0141  |
| 14   | 2.51   | .3876   | -.0116 | -.1038 | -.0015 | .0040  | .0103  |
| 15   | 5.00   | .6043   | .0066  | -.1002 | -.0020 | .0064  | .0029  |
| 16   | 10.03  | 1.0450  | .0635  | -.1336 | -.0025 | .0064  | .0071  |
| 17   | 15.04  | 1.4503  | .1620  | -.2475 | -.0030 | .0075  | -.0002 |
| 18   | 20.01  | 1.5471  | .3254  | -.2740 | -.0009 | .0097  | .0017  |
| 19   | 0.01   | .1652   | -.0193 | -.1086 | -.0024 | .0041  | .0080  |
| 20   | 17.53  | 1.5123  | .2367  | -.2778 | -.0019 | .0064  | .0056  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

A 737

RUN 866 CONFIG F P R NP5 W7 T55 BT IN=3.5

| PT. NO. | ALPHA DEG | DELTA DEG | O.D. DELA SQ-FT | O.D. DELA SQ-FT | O.D. IHT CU-FT | O.D. DELE CU-FT | O.D. DELR CU-FT | O.D. DELSB SQ-FT | O.D. DELSB PSF | O.D. DELSB KNOTS | RPM    |
|---------|-----------|-----------|-----------------|-----------------|----------------|-----------------|-----------------|------------------|----------------|------------------|--------|
| 2       | 0         | 0         | 109.3           | 36.19           | 766.           | 7.              | 10.             | 8.13             | 55.28          | 128.95           | 3320.  |
| 3       | 0         | 0         | 119.6           | 6.36            | 890.           | 14.             | 46.             | 8.10             | 54.26          | 127.73           | 11850. |
| 4       | 20.0      | 0         | 397.2           | 162.19          | 572.           | 109.            | 134.            | 4.70             | 55.05          | 128.67           | 11900. |
| 5       | 15.0      | 0         | 369.3           | 107.14          | 739.           | 126.            | 260.            | 7.26             | 55.40          | 129.08           | 11900. |
| 6       | 10.0      | 0         | 321.3           | 64.73           | 211.           | 98.             | 53.             | 9.87             | 54.52          | 128.03           | 11940. |
| 7       | 5.0       | 0         | 276.3           | 7.35            | 854.           | 9.              | 4.              | 8.46             | 55.17          | 128.81           | 11870. |
| 8       | 2.5       | 0         | 197.0           | 7.78            | 853.           | 15.             | 12.             | 8.30             | 55.43          | 129.11           | 11890. |
| 9       | 0         | 0         | 118.6           | 6.49            | 877.           | 16.             | 27.             | 7.43             | 54.59          | 128.12           | 11910. |
| 10      | 2.5       | 0         | 35.5            | 9.40            | 885.           | 7.              | 44.             | 7.69             | 54.89          | 128.48           | 11960. |
| 11      | 5.0       | 0         | 45.2            | 7.86            | 888.           | 15.             | 30.             | 5.56             | 54.55          | 128.08           | 11880. |
| 12      | 10.0      | 0         | 211.7           | 2.02            | 946.           | 24.             | 33.             | 4.33             | 54.28          | 127.75           | 11810. |
| 13      | 15.0      | 0         | 377.0           | 28.57           | 965.           | 20.             | 158.            | 4.47             | 54.93          | 128.52           | 11900. |
| 14      | 17.5      | 0         | 452.2           | 48.33           | 858.           | 28.             | 71.             | 3.32             | 54.40          | 127.90           | 11830. |
| 15      | 20.0      | 0         | 523.1           | 69.57           | 658.           | 32.             | 108.            | 1.89             | 54.09          | 127.52           | 11870. |
| 16      | 0         | 0         | 118.6           | 6.18            | 877.           | 5.              | 31.             | 10.32            | 55.15          | 128.78           | 11970. |

COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 00     | -.2955  | .0978  | -.2469 | -.0005 | -.0006 | .0220 |
| 3    | 00     | -.3231  | -.0172 | -.2870 | -.0008 | -.0028 | .0219 |
| 4    | -19.99 | -1.0735 | .4383  | .1843  | -.0066 | -.0081 | .0127 |
| 5    | -14.97 | -.9981  | .2896  | .2381  | -.0076 | -.0157 | .0196 |
| 6    | -9.99  | -.8684  | .1750  | -.0679 | -.0059 | .0032  | .0267 |
| 7    | -4.99  | -.7467  | .0199  | -.2755 | -.0006 | .0003  | .0229 |
| 8    | -2.49  | -.5323  | -.0021 | -.2751 | -.0009 | -.0007 | .0224 |
| 9    | 00     | -.3206  | -.0175 | -.2828 | -.0010 | -.0016 | .0201 |
| 10   | 2.54   | -.0960  | -.0254 | -.2853 | -.0004 | .0027  | .0208 |
| 11   | 5.05   | .1221   | -.0213 | -.2862 | -.0009 | .0018  | .0150 |
| 12   | 10.02  | .5721   | .0055  | -.3051 | -.0014 | .0020  | .0117 |
| 13   | 15.02  | 1.0190  | .0772  | -.3111 | -.0012 | .0095  | .0121 |
| 14   | 17.51  | 1.2221  | .1306  | -.2767 | -.0017 | .0043  | .0090 |
| 15   | 20.02  | 1.4137  | .1880  | -.2122 | -.0019 | .0065  | .0051 |
| 16   | 01     | -.3206  | -.0167 | -.2826 | .0003  | -.0018 | .0279 |

COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 00     | -.2955  | .0978  | -.2469 | -.0005 | -.0006 | .0220 |
| 3    | 00     | -.3231  | -.0172 | -.2870 | -.0008 | -.0028 | .0219 |
| 4    | -19.99 | -1.0735 | .4383  | .1843  | -.0066 | -.0081 | .0127 |
| 5    | -14.97 | -.9981  | .2896  | .2381  | -.0076 | -.0157 | .0196 |
| 6    | -9.99  | -.8684  | .1750  | -.0679 | -.0059 | .0032  | .0267 |
| 7    | -4.99  | -.7467  | .0199  | -.2755 | -.0006 | .0003  | .0229 |
| 8    | -2.49  | -.5323  | -.0021 | -.2751 | -.0009 | -.0007 | .0224 |
| 9    | 00     | -.3206  | -.0175 | -.2828 | -.0010 | -.0016 | .0201 |
| 10   | 2.54   | -.0960  | -.0254 | -.2853 | -.0004 | .0027  | .0208 |
| 11   | 5.05   | .1221   | -.0213 | -.2862 | -.0009 | .0018  | .0150 |
| 12   | 10.02  | .5721   | .0055  | -.3051 | -.0014 | .0020  | .0117 |
| 13   | 15.02  | 1.0190  | .0772  | -.3111 | -.0012 | .0095  | .0121 |
| 14   | 17.51  | 1.2221  | .1306  | -.2767 | -.0017 | .0043  | .0090 |
| 15   | 20.02  | 1.4137  | .1880  | -.2122 | -.0019 | .0065  | .0051 |
| 16   | 01     | -.3206  | -.0167 | -.2826 | .0003  | -.0018 | .0279 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P738

RUN 867 CONFIG F P R NP5 W7 T55 BT IN=3.5

| PT. NO. | 1W ALPHA DEG | 15 DELF PSI DEG | 0.0 DELA CLBAR SQ-FT | 0.0 IHT CDBAR SQ-FT | 0.0 DELE CPMBAR CU-FT | 0.0 DELR CYMBAR CU-FT | 0.0 DELR CRMBAR CU-FT | 0.0 DELSB CYBAR SQ-FT | 0.0 DELSB Q PSF | 0.0 V KNOTS | RPM    |
|---------|--------------|-----------------|----------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|-------------|--------|
| 2       | 0            | 0               | 352.5                | 69.43               | 265.                  | -110.                 | 65.                   | 4.23                  | 54.80           | 128.38      | 3990.  |
| 3       | 0            | 0               | 335.1                | 66.76               | 60.                   | -141.                 | 108.                  | -1.37                 | 54.60           | 128.13      | 15360. |
| 4       | -20.0        | 0               | -281.4               | 26.58               | 575.                  | -12.                  | 53.                   | 7.64                  | 54.83           | 128.40      | 15320. |
| 5       | -15.0        | 0               | -149.3               | 55.58               | 616.                  | -82.                  | 8.                    | 4.93                  | 54.57           | 128.10      | 15300. |
| 6       | -10.0        | 0               | 30.5                 | -24.43              | 368.                  | -47.                  | 69.                   | 1.00                  | 54.38           | 127.88      | 15330. |
| 7       | -5.0         | 0               | 198.0                | -21.37              | 202.                  | -105.                 | 53.                   | .57                   | 53.92           | 127.32      | 15370. |
| 8       | -2.5         | 0               | 269.5                | -14.29              | 119.                  | -175.                 | 104.                  | 2.21                  | 54.04           | 127.46      | 15350. |
| 9       | 0            | 0               | 336.8                | -4.61               | 73.                   | -154.                 | 126.                  | -.57                  | 54.00           | 127.42      | 15300. |
| 10      | 2.5          | 0               | 399.1                | 9.32                | 30.                   | -164.                 | 94.                   | -4.32                 | 54.37           | 127.86      | 15280. |
| 11      | 5.0          | 0               | 398.0                | 29.67               | -185.                 | -133.                 | 145.                  | -2.01                 | 54.28           | 127.75      | 15350. |
| 12      | 10.0         | 0               | 451.4                | 77.93               | -420.                 | -91.                  | 72.                   | 1.63                  | 54.44           | 127.94      | 15370. |
| 13      | 15.0         | 0               | 517.1                | 142.46              | -789.                 | -161.                 | 125.                  | .63                   | 54.39           | 127.89      | 15330. |
| 14      | 17.5         | 0               | 564.8                | 178.56              | -1016.                | -64.                  | 0.                    | 1.19                  | 54.33           | 127.81      | 15310. |
| 15      | 20.0         | 0               | 594.8                | 216.47              | -1276.                | -28.                  | -35.                  | .99                   | 55.20           | 128.85      | 15370. |
| 16      | 0            | 0               | 334.4                | -3.20               | 53.                   | -149.                 | 124.                  | .06                   | 54.88           | 128.47      | 15360. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .9527  | .1876  | .0856  | -.0067 | .0039  | .0114  |
| 3    | 0.00   | .9057  | -.0183 | .0195  | -.0085 | .0065  | -.0037 |
| 4    | -20.00 | -.7604 | .0718  | .1853  | -.0008 | .0032  | .0207  |
| 5    | -15.00 | -.4036 | -.0151 | .1987  | -.0050 | .0005  | .0133  |
| 6    | -9.99  | .0824  | -.0660 | .1186  | -.0029 | .0042  | .0027  |
| 7    | -4.98  | .5350  | -.0578 | .0650  | -.0064 | .0032  | .0015  |
| 8    | -2.50  | .7284  | -.0386 | .0382  | -.0106 | .0063  | .0060  |
| 9    | 0.00   | .9103  | -.0125 | .0234  | -.0093 | .0076  | -.0015 |
| 10   | 2.50   | 1.0787 | .0252  | -.0096 | -.0099 | .0057  | -.0117 |
| 11   | 5.01   | 1.0757 | .0802  | -.0596 | -.0080 | .0087  | -.0054 |
| 12   | 10.00  | 1.2199 | .2106  | -.1354 | -.0055 | -.0044 | .0044  |
| 13   | 15.00  | 1.3976 | .3850  | -.2544 | -.0097 | .0075  | .0017  |
| 14   | 17.54  | 1.5266 | .4826  | -.3276 | -.0038 | -.0000 | .0032  |
| 15   | 20.00  | 1.6076 | .5851  | -.4112 | -.0017 | -.0021 | .0027  |
| 16   | 0.01   | .9039  | -.0086 | .0170  | -.0090 | .0075  | .0002  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .9527  | .1876  | .0856  | -.0067 | .0039  | .0114  |
| 3    | 0.00   | .9057  | -.0183 | .0195  | -.0085 | .0065  | -.0037 |
| 4    | -20.00 | -.7604 | .0718  | .1853  | -.0008 | .0032  | .0207  |
| 5    | -15.00 | -.4036 | -.0151 | .1987  | -.0050 | .0005  | .0133  |
| 6    | -9.99  | .0824  | -.0660 | .1186  | -.0029 | .0042  | .0027  |
| 7    | -4.98  | .5350  | -.0578 | .0650  | -.0064 | .0032  | .0015  |
| 8    | -2.50  | .7284  | -.0386 | .0382  | -.0106 | .0063  | .0060  |
| 9    | 0.00   | .9103  | -.0125 | .0234  | -.0093 | .0076  | -.0015 |
| 10   | 2.50   | 1.0787 | .0252  | -.0096 | -.0099 | .0057  | -.0117 |
| 11   | 5.01   | 1.0757 | .0802  | -.0596 | -.0080 | .0087  | -.0054 |
| 12   | 10.00  | 1.2199 | .2106  | -.1354 | -.0055 | -.0044 | .0044  |
| 13   | 15.00  | 1.3976 | .3850  | -.2544 | -.0097 | .0075  | .0017  |
| 14   | 17.54  | 1.5266 | .4826  | -.3276 | -.0038 | -.0000 | .0032  |
| 15   | 20.00  | 1.6076 | .5851  | -.4112 | -.0017 | -.0021 | .0027  |
| 16   | 0.01   | .9039  | -.0086 | .0170  | -.0090 | .0075  | .0002  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR=72011

P739

RUN 848 CONFIG F P R NP5 W7 T55 BT IN=3.5 XN=0

| PT. NO. | IW    | Q DELF | DELTA  | O IHT  | O DELE | O DELR | O DELSB | O     | RPM   |        |        |
|---------|-------|--------|--------|--------|--------|--------|---------|-------|-------|--------|--------|
|         | ALPHA | PSI    | CI BAR | CDBAR  | CPMBAR | CYMBAR | CRMBAR  | CYBAR |       |        |        |
|         | DEG   | DEG    | SQ=FT  | SQ=FT  | CU=FT  | CU=FT  | CU=FT   | SQ=FT | PSF   |        |        |
|         |       |        |        |        |        |        |         |       | V     |        |        |
|         |       |        |        |        |        |        |         |       | KNOTS |        |        |
| 7       | 0     | 0      | 80.9   | -0.68  | -234.  | -34.   | 63.     | 5.89  | 54.94 | 128.55 | 10390. |
| 3       | 0.    | 5.0    | 81.2   | -3.73  | -371.  | -191.  | 35.     | 49.26 | 55.18 | 128.83 | 11270. |
| 4       | -20.0 | 5.0    | -391.7 | 115.82 | 619.   | -374.  | -248.   | 31.66 | 54.77 | 128.33 | 11260. |
| 5       | -15.0 | 5.0    | -368.1 | 46.51  | 737.   | -471.  | -77.    | 47.09 | 55.05 | 128.67 | 11250. |
| 6       | -10.0 | 5.0    | -240.3 | 14.79  | -36.   | -427.  | -49.    | 51.48 | 55.38 | 129.06 | 11240. |
| 7       | -5.0  | 5.0    | -79.3  | -1.43  | -412.  | -296.  | 4.      | 52.21 | 55.07 | 128.69 | 11260. |
| 8       | -2.5  | 5.0    | .6     | -4.20  | -393.  | -234.  | 13.     | 50.49 | 55.06 | 128.68 | 11250. |
| 9       | -0    | 5.0    | 78.8   | -3.57  | -367.  | -196.  | 73.     | 48.65 | 54.89 | 128.48 | 11230. |
| 10      | 2.5   | 5.0    | 158.9  | -0.43  | -364.  | -143.  | 23.     | 46.06 | 55.10 | 128.72 | 11250. |
| 11      | 5.0   | 5.0    | 239.0  | 5.87   | -364.  | -123.  | 62.     | 42.98 | 54.45 | 127.95 | 11240. |
| 12      | 10.0  | 5.0    | 391.7  | 27.04  | -455.  | -132.  | 144.    | 38.79 | 55.06 | 128.68 | 11230. |
| 13      | 15.0  | 5.0    | 536.1  | 63.57  | -768.  | -84.   | 330.    | 33.84 | 54.86 | 128.44 | 11250. |
| 14      | 17.5  | 5.0    | 558.0  | 91.34  | -945.  | -61.   | 427.    | 29.22 | 55.15 | 128.78 | 11250. |
| 15      | 20.0  | 5.0    | 572.4  | 127.82 | -1028. | 26.    | 411.    | 23.97 | 54.57 | 128.09 | 11240. |
| 16      | 0     | 5.0    | 79.1   | -4.02  | -368.  | -189.  | 38.     | 47.30 | 55.24 | 128.89 | 11270. |
| 17      | 0     | 5.0    | 81.9   | 34.65  | -250.  | -224.  | -10.    | 43.12 | 54.90 | 128.48 | 3510.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | 01     | .2187   | -.0018 | -.0755 | -.0021 | .0038  | .0159 |
| 3    | 00     | .2194   | -.0101 | -.1197 | -.0115 | .0021  | .1331 |
| 4    | -20.00 | -1.0586 | .3130  | .1996  | -.0226 | -.0150 | .0856 |
| 5    | -15.00 | -.9950  | .1257  | .2376  | -.0285 | -.0047 | .1273 |
| 6    | -10.00 | -.6495  | .0400  | -.0116 | -.0258 | -.0030 | .1391 |
| 7    | -5.01  | -.2144  | -.0039 | .1330  | -.0179 | .0002  | .1411 |
| 8    | -2.50  | .0016   | -.0113 | -.1267 | -.0141 | .0008  | .1365 |
| 9    | -00    | .2131   | -.0097 | -.1182 | -.0119 | .0044  | .1315 |
| 10   | 2.50   | .4296   | -.0012 | -.1174 | -.0087 | .0014  | .1245 |
| 11   | 5.00   | .6459   | .0159  | -.1175 | -.0074 | .0018  | .1162 |
| 12   | 10.00  | 1.0587  | .0731  | -.1467 | -.0080 | .0087  | .1048 |
| 13   | 15.00  | 1.4490  | .1718  | -.2476 | -.0051 | .0199  | .0915 |
| 14   | 17.50  | 1.5082  | .2469  | -.3046 | -.0037 | .0258  | .0790 |
| 15   | 20.00  | 1.5471  | .3455  | -.3314 | .0016  | .0248  | .0648 |
| 16   | 00     | .2137   | -.0109 | -.1186 | -.0114 | .0023  | .1278 |
| 17   | 00     | .2213   | .0936  | -.0807 | -.0135 | -.0006 | .1166 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | 01     | .2187   | -.0018 | -.0755 | -.0021 | .0038  | .0159 |
| 3    | 00     | .2194   | -.0217 | -.1182 | -.0115 | .0001  | .1317 |
| 4    | -20.00 | -1.0586 | .3043  | .1918  | -.0226 | -.0116 | .1126 |
| 5    | -15.00 | -.9950  | .1141  | .2345  | -.0285 | -.0007 | .1378 |
| 6    | -10.00 | -.6495  | .0276  | -.0130 | -.0258 | -.0032 | .1421 |
| 7    | -5.01  | -.2144  | -.0162 | -.1323 | -.0179 | -.0019 | .1402 |
| 8    | -2.50  | .0016   | -.0232 | -.1259 | -.0141 | -.0013 | .1349 |
| 9    | -00    | .2131   | -.0211 | -.1157 | -.0119 | .0024  | .1301 |
| 10   | 2.50   | .4296   | -.0121 | -.1163 | -.0087 | -.0005 | .1239 |
| 11   | 5.00   | .6459   | .0056  | -.1153 | -.0074 | .0018  | .1171 |
| 12   | 10.00  | 1.0587  | .0636  | -.1420 | -.0080 | .0043  | .1108 |
| 13   | 15.00  | 1.4490  | .1631  | -.2373 | -.0051 | .0158  | .1062 |
| 14   | 17.50  | 1.5082  | .2390  | -.2914 | -.0037 | .0207  | .1003 |

|    |       |        |        |        |        |        |       |
|----|-------|--------|--------|--------|--------|--------|-------|
| 15 | 20.00 | 1.5471 | .3385  | -.3185 | .0016  | .0193  | .0948 |
| 16 | 00    | .2137  | -.0220 | -.1171 | -.0114 | .0003  | .1264 |
| 17 | 00    | .2213  | .0831  | -.0807 | -.0135 | -.0019 | .1243 |

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SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER=72011

P 740

RUN 869 CONFIG F P R NP5 W7 T55 BT IN=3.5 XN=0

| PT. NO. | ALPHA DEG | DELTA |        | IHT    |        | DELE   |        | DELR  |       | DELSB  |        | RPM |
|---------|-----------|-------|--------|--------|--------|--------|--------|-------|-------|--------|--------|-----|
|         |           | PSI   | CI BAR | CDBAR  | CPMBAR | CYMBAR | CRMBAR | CYBAR | Q     | V      |        |     |
|         |           | DEG   | SQ-FT  | SQ-FT  | CU-FT  | CU-FT  | CU-FT  | CU-FT | SQ-FT | PSF    | KNOTS  |     |
| 2       | 0         | 0     | 51.7   | 32.89  | 612.   | -47.   | 8.     | 6.36  | 55.16 | 128.80 | 3570.  |     |
| 3       | 0         | 0     | 48.1   | -6.94  | 535.   | -35.   | 45.    | 6.07  | 54.98 | 128.58 | 11360. |     |
| 4       | -20.0     | 0     | -41.3  | 125.46 | 909.   | -149.  | -298.  | 7.82  | 55.33 | 128.99 | 11320. |     |
| 5       | -15.0     | 0     | -37.6  | 68.67  | 1551.  | -221.  | 192.   | 9.20  | 55.15 | 128.78 | 11310. |     |
| 6       | -10.0     | 0     | -28.0  | 18.49  | 1045.  | -13.   | -64.   | 6.62  | 55.57 | 129.28 | 11340. |     |
| 7       | -5.0      | 0     | -17.1  | -1.27  | 595.   | -82.   | -11.   | 6.96  | 55.81 | 129.56 | 11310. |     |
| 8       | -2.5      | 0     | -3.0   | -5.55  | 537.   | -59.   | -26.   | 5.96  | 55.42 | 129.10 | 11280. |     |
| 9       | 0         | 0     | 48.7   | -6.74  | 521.   | -38.   | 44.    | 6.59  | 55.27 | 128.93 | 11350. |     |
| 10      | 2.5       | 0     | 128.1  | -4.09  | 478.   | -47.   | 45.    | 6.58  | 55.36 | 129.04 | 11290. |     |
| 11      | 5.0       | 0     | 208.7  | .87    | 458.   | -52.   | 47.    | 5.42  | 55.30 | 128.97 | 11370. |     |
| 12      | 10.0      | 0     | 364.5  | 20.76  | 410.   | -102.  | 68.    | 3.43  | 55.57 | 129.28 | 11350. |     |
| 13      | 15.0      | 0     | 505.9  | 55.82  | 93.    | -85.   | 157.   | 1.91  | 55.33 | 128.99 | 11310. |     |
| 14      | 17.5      | 0     | 531.1  | 80.38  | -205.  | -47.   | 105.   | 2.02  | 55.55 | 129.26 | 11290. |     |
| 15      | 20.0      | 0     | 548.0  | 109.67 | -467.  | -25.   | 157.   | .67   | 55.67 | 129.40 | 11320. |     |
| 16      | 0         | 0     | 46.7   | -6.58  | 509.   | -55.   | 28.    | 4.93  | 55.92 | 129.70 | 11390. |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .1397   | .0889  | .1973  | -.0028 | -.0005 | .0172 |
| 3    | 0.00   | .1301   | -.0188 | .1726  | -.0021 | .0027  | .0164 |
| 4    | -20.00 | -1.1172 | .3391  | .2931  | -.0090 | -.0180 | .0211 |
| 5    | -15.00 | -1.0181 | .1856  | .5001  | -.0133 | .0116  | .0249 |
| 6    | -9.99  | -.7573  | .0500  | .3370  | -.0008 | -.0039 | .0179 |
| 7    | -5.02  | -.3164  | -.0034 | .1918  | -.0050 | -.0007 | .0188 |
| 8    | -2.50  | -.0893  | -.0150 | .1732  | -.0035 | -.0016 | .0161 |
| 9    | 0.00   | .1318   | -.0182 | .1679  | -.0023 | .0027  | .0178 |
| 10   | 2.49   | .3463   | -.0111 | .1542  | -.0029 | .0027  | .0178 |
| 11   | 5.00   | .5640   | .0023  | .1475  | -.0032 | .0029  | .0146 |
| 12   | 10.00  | .9852   | .0561  | .1322  | -.0062 | .0041  | .0093 |
| 13   | 15.00  | 1.3673  | .1509  | .0300  | -.0051 | .0095  | .0052 |
| 14   | 17.51  | 1.4353  | .2172  | -.0660 | -.0028 | .0063  | .0055 |
| 15   | 20.00  | 1.4812  | .2964  | -.1505 | -.0015 | .0095  | .0018 |
| 16   | 0.00   | .1261   | -.0178 | .1641  | -.0033 | .0017  | .0133 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .1397   | .0889  | .1973  | -.0028 | -.0005 | .0172 |
| 3    | 0.00   | .1301   | -.0188 | .1726  | -.0021 | .0027  | .0164 |
| 4    | -20.00 | -1.1172 | .3391  | .2931  | -.0090 | -.0180 | .0211 |
| 5    | -15.00 | -1.0181 | .1856  | .5001  | -.0133 | .0116  | .0249 |
| 6    | -9.99  | -.7573  | .0500  | .3370  | -.0008 | -.0039 | .0179 |
| 7    | -5.02  | -.3164  | -.0034 | .1918  | -.0050 | -.0007 | .0188 |
| 8    | -2.50  | -.0893  | -.0150 | .1732  | -.0035 | -.0016 | .0161 |
| 9    | 0.00   | .1318   | -.0182 | .1679  | -.0023 | .0027  | .0178 |
| 10   | 2.49   | .3463   | -.0111 | .1542  | -.0029 | .0027  | .0178 |
| 11   | 5.00   | .5640   | .0023  | .1475  | -.0032 | .0029  | .0146 |
| 12   | 10.00  | .9852   | .0561  | .1322  | -.0062 | .0041  | .0093 |
| 13   | 15.00  | 1.3673  | .1509  | .0300  | -.0051 | .0095  | .0052 |
| 14   | 17.51  | 1.4353  | .2172  | -.0660 | -.0028 | .0063  | .0055 |
| 15   | 20.00  | 1.4812  | .2964  | -.1505 | -.0015 | .0095  | .0018 |
| 16   | 0.00   | .1261   | -.0178 | .1641  | -.0033 | .0017  | .0133 |

N4324n9-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR=72011

P 741

RUN 870 CONFIG F P R NPS W7 T55 BT IN=3.5 XN=0

| PT.# | ALPHA DEG | DELTA PSI DEG | DELTA CIBAR | DELTA CDBAR | DELTA CPMBAR | DELTA CYMBAR | DELTA CRMBAR | DELTA CYBAR | DELTA Q PSF | DELTA V KNOTS | RPM    |
|------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------------|--------|
| 2    | 0         | 0             | 25.5        | 36.76       | 1335.        | -78.         | 27.          | 6.33        | 54.90       | 128.48        | 3150.  |
| 3    | 0         | 0             | 21.7        | -6.59       | 1290.        | -60.         | 9.           | 6.49        | 55.10       | 128.72        | 11820. |
| 4    | -20.0     | 0             | -416.5      | 135.48      | 1088.        | -141.        | -155.        | 5.74        | 54.61       | 128.14        | 11810. |
| 5    | -15.0     | 0             | -395.9      | 79.98       | 1879.        | -205.        | 213.         | 8.42        | 54.60       | 128.12        | 11890. |
| 6    | -10.0     | 0             | -311.2      | 28.96       | 1751.        | -26.         | -30.         | 6.74        | 55.05       | 128.66        | 11820. |
| 7    | -5.0      | 0             | -147.2      | 3.57        | 1382.        | -102.        | 7.           | 6.78        | 55.31       | 128.96        | 11880. |
| 8    | -2.5      | 0             | -60.0       | -2.59       | 1211.        | -82.         | -8.          | 5.72        | 55.35       | 129.02        | 11840. |
| 9    | 0         | 0             | 18.3        | -6.68       | 1263.        | -75.         | -27.         | 7.18        | 55.04       | 128.65        | 11800. |
| 10   | 2.5       | 0             | 98.4        | -7.10       | 1203.        | -60.         | 44.          | 7.99        | 55.42       | 129.10        | 11890. |
| 11   | 5.0       | 0             | 181.8       | -3.11       | 1200.        | -94.         | 67.          | 3.39        | 55.25       | 128.89        | 11850. |
| 12   | 10.0      | 0             | 339.9       | 14.03       | 1145.        | -138.        | 104.         | 4.06        | 54.55       | 128.06        | 11850. |
| 13   | 15.0      | 0             | 469.9       | 45.81       | 885.         | -115.        | 122.         | 2.22        | 55.24       | 128.88        | 11830. |
| 14   | 17.5      | 0             | 503.7       | 69.62       | 622.         | -82.         | 176.         | 2.61        | 54.89       | 128.47        | 11840. |
| 15   | 20.0      | 0             | 522.3       | 97.60       | 342.         | -28.         | 176.         | 1.55        | 55.06       | 128.67        | 11820. |
| 16   | -2.5      | 0             | -60.7       | -2.30       | 1211.        | -85.         | 27.          | 5.73        | 55.25       | 128.90        | 11830. |
| 17   | -0.0      | 0             | 19.4        | -7.15       | 1281.        | -53.         | 9.           | 6.51        | 54.94       | 128.53        | 11900. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM   | CYM    | CRM    | CY    |
|------|--------|---------|--------|-------|--------|--------|-------|
| 2    | 0.00   | .0690   | .0994  | .4305 | -.0047 | .0016  | .0171 |
| 3    | 0.00   | .0587   | -.0178 | .4158 | -.0036 | .0006  | .0175 |
| 4    | -20.00 | -1.1256 | .3661  | .3507 | -.0085 | -.0094 | .0155 |
| 5    | -15.00 | -1.0699 | .2162  | .6058 | -.0124 | .0129  | .0228 |
| 6    | -10.00 | -.8411  | .0783  | .5644 | -.0016 | -.0018 | .0182 |
| 7    | -5.01  | -.3977  | .0097  | .4455 | -.0062 | .0004  | .0183 |
| 8    | -2.51  | -.1621  | -.0070 | .3904 | -.0050 | -.0005 | .0155 |
| 9    | 0.00   | .0495   | -.0180 | .4072 | -.0045 | -.0016 | .0194 |
| 10   | 2.51   | .2660   | -.0192 | .3879 | -.0036 | .0026  | .0216 |
| 11   | 5.00   | .4914   | -.0084 | .3868 | -.0057 | .0040  | .0092 |
| 12   | 10.02  | .9186   | .0379  | .3691 | -.0083 | .0063  | .0110 |
| 13   | 14.99  | 1.2701  | .1238  | .2854 | -.0069 | .0074  | .0060 |
| 14   | 17.51  | 1.3614  | .1881  | .2005 | -.0050 | .0107  | .0070 |
| 15   | 20.00  | 1.4116  | .2638  | .1101 | -.0017 | .0106  | .0042 |
| 16   | -2.50  | -.1641  | -.0062 | .3906 | -.0051 | .0016  | .0155 |
| 17   | -0.00  | .0524   | -.0193 | .4130 | -.0032 | .0006  | .0176 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB  | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|-------|--------|--------|-------|
| 2    | 0.00   | .0690   | .0994  | .4305 | -.0047 | .0016  | .0171 |
| 3    | 0.00   | .0587   | -.0178 | .4158 | -.0036 | .0006  | .0175 |
| 4    | -20.00 | -1.1256 | .3661  | .3507 | -.0085 | -.0094 | .0155 |
| 5    | -15.00 | -1.0699 | .2162  | .6058 | -.0124 | .0129  | .0228 |
| 6    | -10.00 | -.8411  | .0783  | .5644 | -.0016 | -.0018 | .0182 |
| 7    | -5.01  | -.3977  | .0097  | .4455 | -.0062 | .0004  | .0183 |
| 8    | -2.51  | -.1621  | -.0070 | .3904 | -.0050 | -.0005 | .0155 |
| 9    | 0.00   | .0495   | -.0180 | .4072 | -.0045 | -.0016 | .0194 |
| 10   | 2.51   | .2660   | -.0192 | .3879 | -.0036 | .0026  | .0216 |
| 11   | 5.00   | .4914   | -.0084 | .3868 | -.0057 | .0040  | .0092 |
| 12   | 10.02  | .9186   | .0379  | .3691 | -.0083 | .0063  | .0110 |
| 13   | 14.99  | 1.2701  | .1238  | .2854 | -.0069 | .0074  | .0060 |
| 14   | 17.51  | 1.3614  | .1881  | .2005 | -.0050 | .0107  | .0070 |
| 15   | 20.00  | 1.4116  | .2638  | .1101 | -.0017 | .0106  | .0042 |
| 16   | -2.50  | -.1641  | -.0062 | .3906 | -.0051 | .0016  | .0155 |
| 17   | -0.00  | .0524   | -.0193 | .4130 | -.0032 | .0006  | .0176 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 742

RUN 871 CONFIG F P R NPS W7 T55 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | DELTA SQ-FT | CDBAR SQ-FT | CPHBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB PSF | DELTA V | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-----------|---------|--------|
| 2       | 0         | 0       | 68.0        | 32.35       | 199.         | -57.         | 63.          | 4.97        | 55.57     | 129.27  | 3590.  |
| 3       | 0         | 0       | 64.1        | -5.93       | 88.          | -38.         | 79.          | 7.17        | 55.11     | 128.74  | 11240. |
| 4       | -20.0     | 0       | 408.9       | 122.88      | 773.         | -178.        | -288.        | 2.30        | 54.85     | 128.41  | 11250. |
| 5       | -15.0     | 0       | 363.6       | 63.58       | 1161.        | -208.        | 209.         | 8.66        | 55.44     | 129.12  | 11200. |
| 6       | -10.0     | 0       | 263.6       | 15.38       | 519.         | -16.         | 6.           | 6.28        | 55.34     | 129.01  | 11230. |
| 7       | -5.0      | 0       | 97.7        | -2.23       | 98.          | -77.         | 43.          | 5.89        | 55.50     | 129.20  | 11190. |
| 8       | -2.5      | 0       | 16.1        | -5.44       | 88.          | -59.         | 9.           | 5.73        | 55.87     | 129.63  | 11160. |
| 9       | 0         | 0       | 63.6        | -5.45       | 91.          | -44.         | 81.          | 4.72        | 55.53     | 129.23  | 11180. |
| 10      | 2.5       | 0       | 144.4       | -2.93       | 67.          | -49.         | 117.         | 5.38        | 55.07     | 128.69  | 11180. |
| 11      | 5.0       | 0       | 222.1       | 2.77        | 52.          | -70.         | 84.          | 3.33        | 55.30     | 128.96  | 11220. |
| 12      | 10.0      | 0       | 382.8       | 23.55       | -12.         | -106.        | 158.         | .56         | 54.97     | 128.56  | 11160. |
| 13      | 15.0      | 0       | 514.7       | 58.78       | -390.        | -69.         | 174.         | .98         | 55.47     | 129.15  | 11190. |
| 14      | 17.5      | 0       | 548.8       | 86.35       | -670.        | -68.         | 124.         | -1.56       | 54.58     | 128.10  | 11210. |
| 15      | 20.0      | 0       | 565.4       | 119.50      | -761.        | -47.         | 161.         | -1.01       | 54.19     | 127.62  | 11180. |
| 16      | -0        | 0       | 62.9        | -5.90       | 87.          | -40.         | 63.          | 5.66        | 55.34     | 129.00  | 11240. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPH    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 00     | .1837   | .0874  | .0640  | -.0034 | .0038  | .0134  |
| 3    | 00     | .1733   | -.0160 | .0283  | -.0023 | .0048  | .0194  |
| 4    | -20.00 | -1.1050 | .3321  | .2492  | -.0107 | -.0174 | .0062  |
| 5    | -15.00 | -.9826  | .1718  | .3744  | -.0126 | .0126  | .0234  |
| 6    | -10.00 | -.7125  | .0416  | .1673  | -.0010 | .0004  | .0170  |
| 7    | -5.00  | -.2640  | -.0060 | .0315  | -.0046 | .0026  | .0159  |
| 8    | -2.49  | -.0436  | -.0147 | .0284  | -.0035 | .0006  | .0155  |
| 9    | 00     | .1718   | -.0147 | .0292  | -.0026 | .0049  | .0128  |
| 10   | 2.49   | .3902   | -.0079 | .0216  | -.0030 | .0071  | .0145  |
| 11   | 4.99   | .6002   | .0075  | .0169  | -.0043 | .0051  | .0090  |
| 12   | 10.01  | 1.0345  | .0636  | -.0040 | -.0064 | .0096  | .0015  |
| 13   | 15.00  | 1.3912  | .1589  | -.1258 | -.0042 | .0105  | .0027  |
| 14   | 17.52  | 1.4834  | .2334  | -.2161 | -.0041 | .0075  | -.0015 |
| 15   | 20.01  | 1.5281  | .3230  | -.2453 | -.0028 | .0097  | -.0027 |
| 16   | -000   | .1700   | -.0159 | .0281  | -.0024 | .0038  | .0153  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 00     | .1837   | .0874  | .0640  | -.0034 | .0038  | .0134  |
| 3    | 00     | .1733   | -.0160 | .0283  | -.0023 | .0048  | .0194  |
| 4    | -20.00 | -1.1050 | .3321  | .2492  | -.0107 | -.0174 | .0062  |
| 5    | -15.00 | -.9826  | .1718  | .3744  | -.0126 | .0126  | .0234  |
| 6    | -10.00 | -.7125  | .0416  | .1673  | -.0010 | .0004  | .0170  |
| 7    | -5.00  | -.2640  | -.0060 | .0315  | -.0046 | .0026  | .0159  |
| 8    | -2.49  | -.0436  | -.0147 | .0284  | -.0035 | .0006  | .0155  |
| 9    | 00     | .1718   | -.0147 | .0292  | -.0026 | .0049  | .0128  |
| 10   | 2.49   | .3902   | -.0079 | .0216  | -.0030 | .0071  | .0145  |
| 11   | 4.99   | .6002   | .0075  | .0169  | -.0043 | .0051  | .0090  |
| 12   | 10.01  | 1.0345  | .0636  | -.0040 | -.0064 | .0096  | .0015  |
| 13   | 15.00  | 1.3912  | .1589  | -.1258 | -.0042 | .0105  | .0027  |
| 14   | 17.52  | 1.4834  | .2334  | -.2161 | -.0041 | .0075  | -.0015 |
| 15   | 20.01  | 1.5281  | .3230  | -.2453 | -.0028 | .0097  | -.0027 |
| 16   | -000   | .1700   | -.0159 | .0281  | -.0024 | .0038  | .0153  |

N4324n9=1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 743

RUN 872 CONFIG F P R NP5 W7 T55 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CL BAR | DELTA CD BAR | DELTA CPM BAR | DELTA CYM BAR | DELTA CRM BAR | DELTA CYB BAR | DELTA Q PSF | DELTA V KNOTS | RPM    |
|---------|-----------|---------------|--------------|--------------|---------------|---------------|---------------|---------------|-------------|---------------|--------|
| 2       | 0         | 0             | -133.1       | 35.86        | 18.           | -39.          | 42.           | 8.17          | 55.02       | 128.63        | 3350.  |
| 3       | 0         | 0             | -138.6       | -6.86        | -65.          | -42.          | -10.          | 7.65          | 56.11       | 129.91        | 11920. |
| 4       | -20.0     | 0             | -403.7       | 165.65       | 831.          | -106.         | -214.         | 1.72          | 55.46       | 129.14        | 11880. |
| 5       | -15.0     | 0             | -396.8       | 117.08       | 1621.         | -144.         | -257.         | 5.79          | 55.26       | 128.91        | 11880. |
| 6       | -10.0     | 0             | -351.8       | 70.51        | 885.          | -112.         | -191.         | 9.22          | 55.78       | 129.52        | 11890. |
| 7       | -5.0      | 0             | -294.0       | 9.06         | 53.           | -13.          | -69.          | 11.19         | 56.32       | 130.16        | 11910. |
| 8       | -2.5      | 0             | -217.6       | -1.14        | 31.           | -24.          | 6.            | 8.39          | 55.23       | 128.87        | 11920. |
| 9       | 0         | 0             | -139.8       | -7.37        | -85.          | -36.          | 7.            | 8.40          | 55.58       | 129.28        | 11920. |
| 10      | 2.5       | 0             | -57.3        | -10.61       | -119.         | -52.          | 44.           | 7.90          | 55.61       | 129.32        | 11920. |
| 11      | 5.0       | 0             | 23.0         | -10.72       | -132.         | -47.          | 64.           | 6.45          | 55.47       | 129.16        | 11910. |
| 12      | 10.0      | 0             | 192.6        | -1.86        | -113.         | -45.          | 84.           | 5.73          | 55.25       | 128.89        | 11890. |
| 13      | 15.0      | 0             | 361.3        | 20.23        | -252.         | -38.          | 140.          | 2.35          | 55.09       | 128.70        | 11880. |
| 14      | 17.5      | 0             | 446.2        | 37.10        | -362.         | -47.          | 178.          | 1.13          | 54.41       | 127.89        | 11850. |
| 15      | 20.0      | 0             | 509.3        | 59.76        | -404.         | -93.          | 106.          | .43           | 54.94       | 128.52        | 11830. |
| 16      | 0         | 0             | -136.7       | -7.50        | -70.          | -44.          | 41.           | 9.52          | 55.11       | 128.73        | 11920. |

\*\*\* COEFFICIENT FORM = WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 0.00   | -.3598  | .0969  | .0058  | -.0023 | .0026  | .0221 |
| 3    | 0.00   | -.3746  | -.0185 | -.0210 | -.0025 | -.0006 | .0207 |
| 4    | -20.00 | -1.0911 | .4477  | .2680  | -.0064 | -.0129 | .0046 |
| 5    | -15.00 | -1.0723 | .3164  | .5226  | -.0087 | -.0156 | .0157 |
| 6    | -10.00 | -.9509  | .1906  | .2854  | -.0068 | -.0115 | .0249 |
| 7    | -4.99  | -.7947  | .0245  | .0169  | -.0008 | -.0042 | .0302 |
| 8    | -2.50  | -.5880  | -.0004 | .0100  | -.0014 | .0003  | .0227 |
| 9    | .01    | -.3779  | -.0199 | -.0273 | -.0022 | .0004  | .0227 |
| 10   | 2.51   | -.1549  | -.0287 | -.0384 | -.0031 | .0026  | .0214 |
| 11   | 5.00   | .0622   | -.0290 | -.0425 | -.0028 | .0039  | .0174 |
| 12   | 10.03  | .5205   | -.0050 | -.0363 | -.0027 | .0051  | .0155 |
| 13   | 15.02  | .9764   | .0547  | -.0812 | -.0023 | .0085  | .0064 |
| 14   | 17.50  | 1.2059  | .1003  | -.1168 | -.0028 | .0108  | .0030 |
| 15   | 20.00  | 1.3766  | .1615  | -.1302 | -.0056 | .0064  | .0012 |
| 16   | 0.00   | -.3694  | -.0203 | -.0225 | -.0026 | .0025  | .0257 |

\*\*\* COEFFICIENT FORM = STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 0.00   | -.3598  | .0969  | .0058  | -.0023 | .0026  | .0221 |
| 3    | 0.00   | -.3746  | -.0185 | -.0210 | -.0025 | -.0006 | .0207 |
| 4    | -20.00 | -1.0911 | .4477  | .2680  | -.0064 | -.0129 | .0046 |
| 5    | -15.00 | -1.0723 | .3164  | .5226  | -.0087 | -.0156 | .0157 |
| 6    | -10.00 | -.9509  | .1906  | .2854  | -.0068 | -.0115 | .0249 |
| 7    | -4.99  | -.7947  | .0245  | .0169  | -.0008 | -.0042 | .0302 |
| 8    | -2.50  | -.5880  | -.0004 | .0100  | -.0014 | .0003  | .0227 |
| 9    | .01    | -.3779  | -.0199 | -.0273 | -.0022 | .0004  | .0227 |
| 10   | 2.51   | -.1549  | -.0287 | -.0384 | -.0031 | .0026  | .0214 |
| 11   | 5.00   | .0622   | -.0290 | -.0425 | -.0028 | .0039  | .0174 |
| 12   | 10.03  | .5205   | -.0050 | -.0363 | -.0027 | .0051  | .0155 |
| 13   | 15.02  | .9764   | .0547  | -.0812 | -.0023 | .0085  | .0064 |
| 14   | 17.50  | 1.2059  | .1003  | -.1168 | -.0028 | .0108  | .0030 |
| 15   | 20.00  | 1.3766  | .1615  | -.1302 | -.0056 | .0064  | .0012 |
| 16   | 0.00   | -.3694  | -.0203 | -.0225 | -.0026 | .0025  | .0257 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 744

RUN 873 CONFIG F P R NP5 W7 T55 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CL | DELTA CDBAR | DELTA CPMBAR | DELTA CYMBAR | DELTA CRM | DELTA CRMBAR | DELTA CDBAR | DELTA PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------------|----------|-------------|--------------|--------------|-----------|--------------|-------------|-----------|---------------|-----|
| 2       | 0         | 5.0           | -126.5   | -1.72       | -45.         | -130.        | -149.     | 53.55        | 56.29       | 130.13    | 11890.        |     |
| 3       | -20.0     | 5.0           | -397.8   | 169.59      | 1054.        | -377.        | -100.     | 29.86        | 55.45       | 129.13    | 11930.        |     |
| 4       | -15.0     | 5.0           | -327.7   | 116.69      | 1273.        | -405.        | -310.     | 32.69        | 55.23       | 128.87    | 11920.        |     |
| 5       | -10.0     | 5.0           | -343.5   | 69.03       | 769.         | -418.        | -446.     | 43.24        | 55.39       | 129.06    | 11930.        |     |
| 6       | -5.0      | 5.0           | -278.5   | 13.06       | 93.          | -236.        | -133.     | 53.04        | 55.68       | 129.41    | 11940.        |     |
| 7       | -2.5      | 5.0           | -205.3   | 4.29        | 32.          | -185.        | -139.     | 52.30        | 55.49       | 129.18    | 11950.        |     |
| 8       | 0         | 5.0           | -128.6   | -.97        | -35.         | -140.        | -135.     | 55.05        | 54.76       | 128.31    | 11840.        |     |
| 9       | 2.5       | 5.0           | -46.3    | -3.87       | -89.         | -109.        | -160.     | 51.50        | 56.03       | 129.81    | 11870.        |     |
| 10      | 5.0       | 5.0           | 33.6     | -5.54       | -125.        | -69.         | -70.      | 50.34        | 56.03       | 129.82    | 11910.        |     |
| 11      | 10.0      | 5.0           | 195.8    | 1.34        | -157.        | -27.         | 18.       | 47.68        | 54.51       | 128.02    | 11910.        |     |
| 12      | 15.0      | 5.0           | 358.5    | 23.79       | -311.        | 5.           | 98.       | 39.65        | 54.82       | 128.38    | 11870.        |     |
| 13      | 17.5      | 5.0           | 434.2    | 42.69       | -425.        | -7.          | 181.      | 35.01        | 54.48       | 127.98    | 11860.        |     |
| 14      | 20.0      | 5.0           | 506.9    | 65.97       | -420.        | -1.          | 192.      | 30.07        | 54.23       | 127.68    | 11850.        |     |
| 15      | 0         | 5.0           | -129.2   | -2.15       | -58.         | -146.        | -115.     | 52.65        | 54.42       | 127.90    | 11920.        |     |
| 16      | 0         | 5.0           | -122.6   | 40.98       | 59.          | -181.        | -144.     | 45.65        | 54.40       | 127.87    | 3310.         |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 0.00   | -.3418  | -.0046 | -.0145 | -.0078 | -.0090 | .1447 |
| 3    | -20.00 | -1.0752 | .4583  | .3398  | -.0228 | -.0060 | .0807 |
| 4    | -15.00 | -.9937  | .3154  | -.4104 | -.0245 | -.0188 | .0883 |
| 5    | -10.01 | -.9283  | .1866  | .2481  | -.0252 | -.0269 | .1169 |
| 6    | -5.00  | -.7528  | .0353  | .0300  | -.0143 | -.0080 | .1433 |
| 7    | -2.51  | -.5549  | .0116  | .0103  | -.0112 | -.0084 | .1414 |
| 8    | 0.00   | -.3475  | -.0026 | -.0114 | -.0085 | -.0082 | .1488 |
| 9    | 2.51   | -.1252  | -.0105 | -.0288 | -.0066 | -.0096 | .1392 |
| 10   | 5.01   | .0907   | -.0150 | -.0404 | -.0041 | -.0042 | .1361 |
| 11   | 10.00  | .5291   | .0036  | -.0506 | -.0017 | .0011  | .1289 |
| 12   | 15.02  | .9689   | .0643  | -.1002 | .0003  | .0059  | .1072 |
| 13   | 17.52  | 1.1736  | .1154  | -.1372 | -.0004 | .0110  | .0946 |
| 14   | 20.00  | 1.3699  | .1783  | -.1354 | -.0001 | .0116  | .0813 |
| 15   | 0.00   | -.3493  | -.0058 | -.0187 | -.0088 | -.0070 | .1423 |
| 16   | 0.00   | -.3314  | .1108  | .0189  | -.0109 | -.0087 | .1234 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 0.00   | -.3418  | -.0173 | -.0187 | -.0078 | -.0092 | .1438 |
| 3    | -20.00 | -1.0752 | .4495  | .3357  | -.0228 | -.0004 | .1205 |
| 4    | -15.00 | -.9937  | .3064  | .4001  | -.0245 | -.0119 | .1156 |
| 5    | -10.01 | -.9283  | .1756  | .2345  | -.0252 | -.0227 | .1327 |
| 6    | -5.00  | -.7528  | .0226  | .0261  | -.0143 | -.0075 | .1459 |
| 7    | -2.51  | -.5549  | -.0008 | .0063  | -.0112 | -.0082 | .1418 |
| 8    | 0.00   | -.3475  | -.0156 | -.0152 | -.0085 | -.0083 | .1480 |
| 9    | 2.51   | -.1252  | -.0226 | -.0332 | -.0066 | -.0101 | .1377 |
| 10   | 5.01   | .0907   | -.0268 | -.0422 | -.0041 | -.0049 | .1342 |
| 11   | 10.00  | .5291   | -.0077 | -.0499 | -.0017 | .0003  | .1287 |
| 12   | 15.02  | .9689   | .0547  | -.0971 | .0003  | .0042  | .1124 |
| 13   | 17.52  | 1.1736  | .1066  | -.1315 | -.0004 | .0087  | .1044 |
| 14   | 20.00  | 1.3699  | .1705  | -.1295 | -.0001 | .0024  | .0966 |
| 15   | 0.00   | -.3493  | -.0182 | -.0219 | -.0088 | -.0072 | .1412 |
| 16   | 0.00   | -.3314  | .0995  | .0148  | -.0109 | -.0084 | .1326 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P745

RUN 874 CONFIG . F P R NPS W7 T56 BT IN=3.5 XN=0

| IW<br>PT.<br>NO. | -9<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CDBAR<br>SQ-FT | O INT<br>CDBAR<br>SQ-FT | O DELE<br>CPMBAR<br>CU-FT | O DELR<br>CYMBAR<br>CU-FT | O DELR<br>CRMBAR<br>CU-FT | O DELSB<br>CYBAR<br>SQ-FT | O<br>Q<br>PSF | O<br>V<br>KNOTS | RPM    |
|------------------|--------------------|---------------------|-------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 9                | 0                  | 0                   | 106.7                   | 35.09                   | 747.                      | 22.                       | 10.                       | 8.09                      | 55.16         | 128.79          | 3370.  |
| 10               | 0                  | 0                   | 111.0                   | 6.74                    | 834.                      | 26.                       | 25.                       | 7.69                      | 55.80         | 129.55          | 11850. |
| 11               | -20.0              | 0                   | 404.3                   | 163.24                  | 954.                      | 61.                       | 94.                       | 3.08                      | 55.38         | 129.04          | 11790. |
| 12               | -15.0              | 0                   | 375.0                   | 106.98                  | 1060.                     | 159.                      | 251.                      | 4.03                      | 55.80         | 129.54          | 11810. |
| 13               | -10.0              | 0                   | 315.4                   | 62.85                   | 18.                       | 110.                      | 26.                       | 14.27                     | 55.86         | 129.61          | 11840. |
| 14               | -5.0               | 0                   | 266.5                   | 7.18                    | 746.                      | 20.                       | 3.                        | 9.07                      | 55.58         | 129.29          | 11820. |
| 16               | 0                  | 0                   | 113.7                   | 6.94                    | 845.                      | 38.                       | 10.                       | 5.89                      | 55.54         | 129.23          | 11820. |
| 17               | 2.5                | 0                   | 29.4                    | 9.02                    | 857.                      | 35.                       | 64.                       | 4.37                      | 56.09         | 129.89          | 11840. |
| 18               | 5.0                | 0                   | 52.3                    | 8.00                    | 867.                      | 35.                       | 46.                       | 5.77                      | 56.06         | 129.85          | 11830. |
| 19               | 10.0               | 0                   | 223.5                   | 3.33                    | 962.                      | 34.                       | 119.                      | 4.35                      | 55.66         | 129.38          | 11810. |
| 20               | 15.0               | 0                   | 402.1                   | 28.56                   | 1247.                     | 34.                       | 159.                      | 7.93                      | 54.78         | 128.34          | 11800. |
| 21               | 17.5               | 0                   | 400.8                   | 46.10                   | 1379.                     | 34.                       | 158.                      | 7.68                      | 55.09         | 128.70          | 11840. |
| 22               | 20.0               | 0                   | 558.1                   | 69.73                   | 1501.                     | 86.                       | 193.                      | 2.04                      | 55.07         | 128.68          | 11860. |
| 23               | -2.5               | 0                   | 186.6                   | 1.08                    | 749.                      | 15.                       | 48.                       | 9.41                      | 56.14         | 129.94          | 11840. |
| 24               | 0                  | 0                   | 110.2                   | 6.59                    | 825.                      | 29.                       | 10.                       | 8.08                      | 55.63         | 129.34          | 11820. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYH    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 9    | 0.00   | -.2882  | .0948  | -.2407 | -.0013 | -.0006 | .0219  |
| 10   | 0.00   | -.3000  | -.0182 | -.2689 | -.0015 | .0015  | .0208  |
| 11   | -20.00 | -1.0927 | .4412  | .3076  | -.0037 | -.0057 | .0083  |
| 12   | -15.00 | -1.0134 | .2891  | .3419  | -.0096 | -.0152 | .0109  |
| 13   | -10.00 | -.8525  | .1699  | .0059  | -.0066 | -.0016 | .0386  |
| 14   | -5.00  | -.7201  | .0194  | -.2407 | -.0012 | .0002  | .0245  |
| 16   | 0.00   | -.3072  | -.0188 | -.2723 | -.0023 | .0006  | .0159  |
| 17   | 2.50   | -.0794  | -.0244 | -.2762 | -.0021 | .0039  | .0118  |
| 18   | 5.01   | .1412   | -.0216 | -.2796 | -.0021 | .0028  | .0156  |
| 19   | 10.01  | .6042   | .0090  | -.3101 | -.0020 | .0072  | .0117  |
| 20   | 15.01  | 1.0868  | .0772  | -.4021 | -.0021 | .0096  | -.0025 |
| 21   | 17.50  | 1.2994  | .1246  | -.4444 | -.0021 | .0096  | -.0018 |
| 22   | 20.00  | 1.5083  | .1884  | -.4839 | -.0052 | .0117  | -.0055 |
| 23   | -2.50  | -.5043  | -.0029 | -.2415 | -.0009 | -.0029 | .0254  |
| 24   | 0.01   | -.2979  | -.0178 | -.2661 | -.0017 | -.0006 | .0218  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 9    | 0.00   | -.2882  | .0948  | -.2407 | -.0013 | -.0006 | .0219  |
| 10   | 0.00   | -.3000  | -.0182 | -.2689 | -.0015 | .0015  | .0208  |
| 11   | -20.00 | -1.0927 | .4412  | .3076  | -.0037 | -.0057 | .0083  |
| 12   | -15.00 | -1.0134 | .2891  | .3419  | -.0096 | -.0152 | .0109  |
| 13   | -10.00 | -.8525  | .1699  | .0059  | -.0066 | -.0016 | .0386  |
| 14   | -5.00  | -.7201  | .0194  | -.2407 | -.0012 | .0002  | .0245  |
| 16   | 0.00   | -.3072  | -.0188 | -.2723 | -.0023 | .0006  | .0159  |
| 17   | 2.50   | -.0794  | -.0244 | -.2762 | -.0021 | .0039  | .0118  |
| 18   | 5.01   | .1412   | -.0216 | -.2796 | -.0021 | .0028  | .0156  |
| 19   | 10.01  | .6042   | .0090  | -.3101 | -.0020 | .0072  | .0117  |
| 20   | 15.01  | 1.0868  | .0772  | -.4021 | -.0021 | .0096  | -.0025 |
| 21   | 17.50  | 1.2994  | .1246  | -.4444 | -.0021 | .0096  | -.0018 |
| 22   | 20.00  | 1.5083  | .1884  | -.4839 | -.0052 | .0117  | -.0055 |
| 23   | -2.50  | -.5043  | -.0029 | -.2415 | -.0009 | -.0029 | .0254  |
| 24   | 0.01   | -.2979  | -.0178 | -.2661 | -.0017 | -.0006 | .0218  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 746

RUN 875 CONFIG F P R NP5 W7 T56 BT IN=-3.5 XN=0

| PT. NO. | ALPHA DEG | PSI DEG | C BAR SQ-FT | CDBAR SQ-FT | CPHBAR CU-FT | CYHBAR CU-FT | CRHBAR CU-FT | CYBAR SQ-FT | DELSB PSF | DELTA V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-----------|---------------|--------|
| 2       | 0         | 0       | -139.1      | 36.21       | 254.         | -36.         | 24.          | 8.90        | 55.47     | 129.16        | 3390.  |
| 3       | 0         | 0       | -140.4      | 36.58       | 257.         | -37.         | 24.          | 8.99        | 54.97     | 128.55        | 3350.  |
| 4       | 0         | 0       | -147.9      | -6.82       | 161.         | -39.         | -27.         | 7.90        | 55.63     | 129.34        | 12030. |
| 5       | -20.0     | 0       | -413.1      | 172.13      | 1401.        | -72.         | -81.         | 4.78        | 55.56     | 129.25        | 12040. |
| 6       | -15.0     | 0       | -400.6      | 117.05      | 2215.        | -60.         | -61.         | 4.36        | 55.51     | 129.20        | 12040. |
| 7       | -10.0     | 0       | -343.1      | 70.33       | 1288.        | -151.        | -18.         | 9.85        | 55.66     | 129.37        | 12040. |
| 8       | -5.0      | 0       | -303.9      | 9.34        | 345.         | -41.         | 4.           | 8.62        | 55.31     | 128.96        | 12060. |
| 9       | -2.5      | 0       | -225.6      | -.35        | 272.         | -34.         | 22.          | 9.37        | 55.65     | 129.37        | 12030. |
| 10      | 0         | 0       | -147.1      | -7.46       | 152.         | -43.         | 62.          | 6.76        | 54.96     | 128.55        | 12000. |
| 11      | 2.5       | 0       | -43.8       | -11.12      | 77.          | -43.         | 44.          | 7.54        | 55.60     | 129.30        | 12020. |
| 12      | 5.0       | 0       | 19.3        | -11.24      | 50.          | -45.         | 64.          | 5.68        | 55.76     | 129.49        | 12020. |
| 13      | 10.0      | 0       | 184.4       | -3.19       | 35.          | -63.         | 102.         | 4.17        | 55.52     | 129.21        | 12000. |
| 14      | 15.0      | 0       | 357.5       | 18.32       | -167.        | -68.         | 158.         | .31         | 55.17     | 128.79        | 12040. |
| 15      | 20.0      | 0       | 518.8       | 57.09       | -486.        | -109.        | 159.         | -2.24       | 54.81     | 128.37        | 12030. |
| 16      | 0         | 0       | -144.1      | -7.46       | 171.         | -39.         | 22.          | 10.66       | 55.27     | 128.91        | 12040. |

COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPH    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | -.3759  | .0979  | .0820  | -.0021 | .0014  | .0241  |
| 3    | 0.00   | -.3793  | .0989  | .0828  | -.0023 | .0014  | .0243  |
| 4    | 0.00   | -.3998  | -.0184 | .0520  | -.0024 | -.0017 | .0214  |
| 5    | -20.00 | -1.1164 | .4652  | .4517  | -.0043 | -.0049 | .0129  |
| 6    | -15.00 | -1.0827 | .3164  | .7142  | -.0036 | -.0037 | .0118  |
| 7    | -10.00 | -.9813  | .1901  | .4154  | -.0091 | -.0011 | .0266  |
| 8    | -5.00  | -.8213  | .0252  | .1112  | -.0025 | .0002  | .0233  |
| 9    | -2.51  | -.6097  | -.0010 | .0878  | -.0020 | .0013  | .0253  |
| 10   | 0.01   | -.3977  | -.0202 | .0491  | -.0026 | .0037  | .0183  |
| 11   | 2.52   | -.1725  | -.0301 | .0247  | -.0026 | .0027  | .0204  |
| 12   | 5.01   | .0522   | -.0304 | .0162  | -.0027 | .0039  | .0154  |
| 13   | 10.00  | .4985   | -.0086 | .0114  | -.0038 | .0062  | .0113  |
| 14   | 15.00  | .9662   | .0495  | -.0540 | -.0041 | .0095  | .0008  |
| 15   | 20.00  | 1.4022  | .1543  | -.1567 | -.0066 | .0096  | -.0060 |
| 16   | 0.00   | -.3893  | -.0202 | .0550  | -.0024 | .0013  | .0288  |

COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | -.3759  | .0979  | .0820  | -.0021 | .0014  | .0241  |
| 3    | 0.00   | -.3793  | .0989  | .0828  | -.0023 | .0014  | .0243  |
| 4    | 0.00   | -.3998  | -.0184 | .0520  | -.0024 | -.0017 | .0214  |
| 5    | -20.00 | -1.1164 | .4652  | .4517  | -.0043 | -.0049 | .0129  |
| 6    | -15.00 | -1.0827 | .3164  | .7142  | -.0036 | -.0037 | .0118  |
| 7    | -10.00 | -.9813  | .1901  | .4154  | -.0091 | -.0011 | .0266  |
| 8    | -5.00  | -.8213  | .0252  | .1112  | -.0025 | .0002  | .0233  |
| 9    | -2.51  | -.6097  | -.0010 | .0878  | -.0020 | .0013  | .0253  |
| 10   | 0.01   | -.3977  | -.0202 | .0491  | -.0026 | .0037  | .0183  |
| 11   | 2.52   | -.1725  | -.0301 | .0247  | -.0026 | .0027  | .0204  |
| 12   | 5.01   | .0522   | -.0304 | .0162  | -.0027 | .0039  | .0154  |
| 13   | 10.00  | .4985   | -.0086 | .0114  | -.0038 | .0062  | .0113  |
| 14   | 15.00  | .9662   | .0495  | -.0540 | -.0041 | .0095  | .0008  |
| 15   | 20.00  | 1.4022  | .1543  | -.1567 | -.0066 | .0096  | -.0060 |
| 16   | 0.00   | -.3893  | -.0202 | .0550  | -.0024 | .0013  | .0288  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SPR-72011

P 747

RUN 876 CONFIG F P R NP5 W7 T56 BT IN=-3.5 XN=0

| PT. # | ALPHA | PSI | CL     | CDBAR  | CPHBAR | CYMBAR | CRMBAR | CYBAR | Q     | V      | RPM    |
|-------|-------|-----|--------|--------|--------|--------|--------|-------|-------|--------|--------|
| NO.   | DEG   | DEG | SQ-FT  | SQ-FT  | CU-FT  | CU-FT  | CU-FT  | SQ-FT | PSF   | KNOTS  |        |
| 2     | 0     | 0   | 78.4   | 31.84  | -38.   | -60.   | 30.    | 3.97  | 55.72 | 129.45 | 3600.  |
| 3     | 0     | 0   | 76.6   | -6.80  | -157.  | -51.   | 64.    | 4.22  | 55.66 | 129.38 | 11360. |
| 4     | -20.0 | 0   | -408.9 | 119.65 | 1055.  | -197.  | -108.  | 8.97  | 55.09 | 128.70 | 11310. |
| 5     | -15.0 | 0   | -364.0 | 56.88  | 1228.  | -218.  | 267.   | 7.13  | 54.95 | 128.54 | 11320. |
| 6     | -10.0 | 0   | -248.3 | 14.34  | 383.   | -84.   | 55.    | 8.10  | 55.49 | 129.17 | 11330. |
| 7     | -5.0  | 0   | -84.0  | -4.30  | -142.  | -63.   | 57.    | 7.84  | 55.58 | 129.28 | 11330. |
| 8     | -2.5  | 0   | -4.3   | -7.13  | -170.  | -61.   | 26.    | 6.65  | 54.83 | 128.40 | 11330. |
| 9     | 0     | 0   | 76.6   | -6.54  | -157.  | -52.   | 80.    | 5.00  | 55.85 | 129.60 | 11310. |
| 10    | 2.5   | 0   | 154.1  | -3.17  | -172.  | -41.   | 64.    | 5.19  | 55.81 | 129.56 | 11330. |
| 11    | 5.0   | 0   | 233.3  | 3.45   | -184.  | -42.   | 66.    | 3.52  | 56.07 | 129.86 | 10130. |
| 12    | 10.0  | 0   | 398.5  | 25.60  | -324.  | -52.   | 85.    | 5.80  | 54.59 | 128.10 | 11340. |
| 13    | 15.0  | 0   | 535.8  | 63.75  | -822.  | -35.   | 195.   | 2.75  | 54.42 | 127.90 | 11330. |
| 14    | 17.5  | 0   | 562.8  | 89.12  | -1142. | -30.   | 141.   | .37   | 54.81 | 128.36 | 11320. |
| 15    | 20.0  | 0   | 589.7  | 120.33 | -1430. | -11.   | 159.   | 1.24  | 54.90 | 128.48 | 11320. |
| 16    | -0    | 0   | 74.4   | -7.37  | -169.  | -54.   | 99.    | 4.11  | 55.54 | 129.23 | 11390. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYH    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .2119   | .0861  | -.0122 | -.0036 | .0018  | .0107 |
| 3    | 0.00   | .2070   | -.0184 | -.0507 | -.0031 | .0039  | .0114 |
| 4    | -20.00 | -1.1051 | .3234  | .3402  | -.0119 | -.0045 | .0242 |
| 5    | -15.01 | -.9839  | .1537  | .3957  | -.0132 | .0141  | .0193 |
| 6    | -10.00 | -.6711  | .0387  | .1234  | -.0051 | .0033  | .0219 |
| 7    | -5.00  | -.2269  | -.0116 | -.0458 | -.0038 | .0035  | .0212 |
| 8    | -2.52  | -.0116  | -.0193 | -.0547 | -.0037 | .0016  | .0180 |
| 9    | 0.00   | .2071   | -.0177 | -.0506 | -.0031 | .0049  | .0135 |
| 10   | 2.51   | .4165   | -.0086 | -.0555 | -.0025 | .0038  | .0140 |
| 11   | 5.01   | .6305   | .0093  | -.0593 | -.0025 | .0040  | .0095 |
| 12   | 10.00  | 1.0771  | .0692  | -.1045 | -.0031 | .0052  | .0157 |
| 13   | 14.98  | 1.4480  | .1723  | -.2651 | -.0021 | .0118  | .0074 |
| 14   | 17.49  | 1.5211  | .2408  | -.3683 | -.0018 | .0085  | .0010 |
| 15   | 20.00  | 1.5937  | .3252  | -.4609 | -.0007 | .0096  | .0034 |
| 16   | -0.00  | .2010   | -.0199 | -.0544 | -.0033 | .0060  | .0111 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .2119   | .0861  | -.0122 | -.0036 | .0018  | .0107 |
| 3    | 0.00   | .2070   | -.0184 | -.0507 | -.0031 | .0039  | .0114 |
| 4    | -20.00 | -1.1051 | .3234  | .3402  | -.0119 | -.0045 | .0242 |
| 5    | -15.01 | -.9839  | .1537  | .3957  | -.0132 | .0141  | .0193 |
| 6    | -10.00 | -.6711  | .0387  | .1234  | -.0051 | .0033  | .0219 |
| 7    | -5.00  | -.2269  | -.0116 | -.0458 | -.0038 | .0035  | .0212 |
| 8    | -2.52  | -.0116  | -.0193 | -.0547 | -.0037 | .0016  | .0180 |
| 9    | 0.00   | .2071   | -.0177 | -.0506 | -.0031 | .0049  | .0135 |
| 10   | 2.51   | .4165   | -.0086 | -.0555 | -.0025 | .0038  | .0140 |
| 11   | 5.01   | .6305   | .0093  | -.0593 | -.0025 | .0040  | .0095 |
| 12   | 10.00  | 1.0771  | .0692  | -.1045 | -.0031 | .0052  | .0157 |
| 13   | 14.98  | 1.4480  | .1723  | -.2651 | -.0021 | .0118  | .0074 |
| 14   | 17.49  | 1.5211  | .2408  | -.3683 | -.0018 | .0085  | .0010 |
| 15   | 20.00  | 1.5937  | .3252  | -.4609 | -.0007 | .0096  | .0034 |
| 16   | -0.00  | .2010   | -.0199 | -.0544 | -.0033 | .0060  | .0111 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 748

RUN 877 CONFIG F P B NP5 W7 T57 BT IN=-3.5

| PT. NO. | IW    | 0.0 DELF | 0.0 DELA | 0.0 IHT | 0.0 DELE | 0.0 DELR | 0.0 DELSB | 0.0   | 0.0   | RPM    |        |
|---------|-------|----------|----------|---------|----------|----------|-----------|-------|-------|--------|--------|
|         | ALPHA | PSI      | CLBAR    | CDBAR   | CPMBAR   | CYMBAR   | CRMBAR    | CYBAR | Q     | V      |        |
|         | DEG   | DEG      | SQ-FT    | SQ-FT   | CU-FT    | CU-FT    | CU-FT     | SQ-FT | PSF   | KNOTS  |        |
| 7       | .0    | .0       | 75.5     | 31.31   | 43.      | -57.     | -8.       | 6.06  | 56.19 | 130.01 | 3590.  |
| 8       | .0    | .0       | 74.3     | -7.17   | -60.     | -51.     | 44.       | 6.54  | 55.72 | 129.45 | 11410. |
| 9       | -20.0 | .0       | -389.9   | 116.03  | 502.     | -135.    | -187.     | 6.21  | 55.95 | 129.72 | 11390. |
| 10      | -15.0 | .0       | -353.4   | 57.08   | 901.     | -206.    | 133.      | 11.79 | 55.50 | 129.18 | 11360. |
| 11      | -10.0 | .0       | -249.6   | 12.13   | 250.     | -24.     | 22.       | 7.01  | 56.35 | 130.20 | 11390. |
| 12      | -5.0  | .0       | -87.9    | -4.29   | -83.     | -61.     | -29.      | 7.28  | 55.68 | 129.41 | 11390. |
| 13      | -2.5  | .0       | -7.2     | -7.64   | -82.     | -61.     | 26.       | 5.99  | 55.75 | 129.48 | 11400. |
| 14      | .0    | .0       | 72.0     | -7.37   | -57.     | -45.     | 46.       | 5.04  | 55.40 | 129.07 | 11390. |
| 15      | 2.5   | .0       | 151.5    | -4.15   | -45.     | -39.     | 81.       | 5.56  | 55.72 | 129.45 | 11400. |
| 16      | 5.0   | .0       | 232.3    | 2.32    | -26.     | -52.     | 83.       | 4.64  | 55.77 | 129.50 | 11240. |
| 17      | 10.0  | .0       | 385.6    | 23.58   | -73.     | -76.     | 84.       | 4.60  | 55.60 | 129.30 | 11400. |
| 18      | 15.0  | .0       | 522.4    | 60.34   | -409.    | -74.     | 122.      | -1.12 | 55.50 | 129.19 | 11420. |
| 19      | 17.5  | .0       | 547.2    | 87.21   | -546.    | -72.     | 105.      | 2.76  | 55.50 | 129.19 | 11390. |
| 20      | 20.0  | .0       | 550.7    | 118.40  | -483.    | -28.     | 52.       | 1.09  | 56.19 | 130.00 | 11400. |
| 21      | -0.0  | .0       | 71.1     | -7.04   | -62.     | -54.     | -8.       | 6.34  | 55.89 | 129.65 | 11340. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 7    | .00    | .2040   | .0846  | .0138  | -.0035 | -.0005 | .0164  |
| 8    | .00    | .2007   | -.0194 | -.0195 | -.0031 | .0027  | .0177  |
| 9    | -20.00 | -1.0538 | .3136  | .1620  | -.0082 | -.0113 | .0168  |
| 10   | -14.97 | -.9551  | .1543  | .2905  | -.0124 | .0080  | .0319  |
| 11   | -10.00 | -.6745  | .0328  | .0807  | -.0015 | .0013  | .0190  |
| 12   | -5.00  | -.2375  | -.0116 | -.0267 | -.0037 | -.0017 | .0197  |
| 13   | -2.49  | -.0194  | -.0206 | -.0263 | -.0037 | .0016  | .0162  |
| 14   | .01    | .1945   | -.0199 | -.0184 | -.0027 | .0028  | .0136  |
| 15   | 2.50   | .4094   | -.0112 | -.0145 | -.0024 | .0049  | .0150  |
| 16   | 5.00   | .6279   | .0063  | -.0085 | -.0031 | .0050  | .0125  |
| 17   | 10.01  | 1.0422  | .0637  | -.0235 | -.0046 | .0051  | .0124  |
| 18   | 15.00  | 1.4120  | .1631  | -.1318 | -.0045 | .0074  | -.0003 |
| 19   | 17.50  | 1.4788  | .2357  | -.1762 | -.0043 | .0063  | .0075  |
| 20   | 20.00  | 1.4883  | .3200  | -.1559 | -.0017 | .0031  | .0029  |
| 21   | -.00   | .1922   | -.0190 | -.0200 | -.0033 | -.0005 | .0171  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 7    | .00    | .2040   | .0846  | .0138  | -.0035 | -.0005 | .0164  |
| 8    | .00    | .2007   | -.0194 | -.0195 | -.0031 | .0027  | .0177  |
| 9    | -20.00 | -1.0538 | .3136  | .1620  | -.0082 | -.0113 | .0168  |
| 10   | -14.97 | -.9551  | .1543  | .2905  | -.0124 | .0080  | .0319  |
| 11   | -10.00 | -.6745  | .0328  | .0807  | -.0015 | .0013  | .0190  |
| 12   | -5.00  | -.2375  | -.0116 | -.0267 | -.0037 | -.0017 | .0197  |
| 13   | -2.49  | -.0194  | -.0206 | -.0263 | -.0037 | .0016  | .0162  |
| 14   | .01    | .1945   | -.0199 | -.0184 | -.0027 | .0028  | .0136  |
| 15   | 2.50   | .4094   | -.0112 | -.0145 | -.0024 | .0049  | .0150  |
| 16   | 5.00   | .6279   | .0063  | -.0085 | -.0031 | .0050  | .0125  |
| 17   | 10.01  | 1.0422  | .0637  | -.0235 | -.0046 | .0051  | .0124  |
| 18   | 15.00  | 1.4120  | .1631  | -.1318 | -.0045 | .0074  | -.0003 |
| 19   | 17.50  | 1.4788  | .2357  | -.1762 | -.0043 | .0063  | .0075  |
| 20   | 20.00  | 1.4883  | .3200  | -.1559 | -.0017 | .0031  | .0029  |
| 21   | -.00   | .1922   | -.0190 | -.0200 | -.0033 | -.0005 | .0171  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 749

RUN 878 CONFIG F P B NP5 W7 T57 BT IN=-3.5

| IW      | -9 DELF   | 0.0 DELA | 0.0 IHT     | 0.0 DELE    | 0.0 DELR     | 0.0 DELSB    | 0.0          |             |       |         |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0       | -114.2      | 34.30       | -507.        | -17.         | -26.         | 6.83        | 55.84 | 129.59  | 3360.  |
| 3       | .0        | .0       | -120.8      | -6.54       | -599.        | -26.         | -8.          | 6.68        | 56.13 | 129.94  | 11800. |
| 4       | -20.0     | .0       | -390.9      | 157.46      | 442.         | -91.         | -321.        | 3.43        | 55.61 | 129.32  | 11930. |
| 5       | -15.0     | .0       | -352.7      | 107.51      | 906.         | -28.         | -163.        | 3.87        | 56.29 | 130.12  | 11890. |
| 6       | -10.0     | .0       | -320.4      | 64.55       | 136.         | -115.        | 27.          | 13.72       | 56.13 | 129.93  | 11900. |
| 7       | -5.0      | .0       | -277.7      | 6.61        | -576.        | -4.          | 5.           | 8.18        | 55.81 | 129.56  | 11910. |
| 8       | -2.5      | .0       | -198.3      | -1.81       | -554.        | -14.         | 2.           | 10.65       | 55.32 | 128.98  | 11920. |
| 9       | .0        | .0       | -121.7      | -7.55       | -600.        | -27.         | -27.         | 7.95        | 56.11 | 129.91  | 11910. |
| 11      | 2.6       | .0       | -40.8       | -10.41      | -610.        | -34.         | 61.          | 8.23        | 55.45 | 129.13  | 11910. |
| 12      | 5.0       | .0       | 38.9        | -9.72       | -573.        | -20.         | 27.          | 7.79        | 56.00 | 129.78  | 11990. |
| 13      | 10.0      | .0       | 205.8       | -.51        | -576.        | -27.         | 30.          | 8.49        | 55.74 | 129.48  | 11960. |
| 14      | 15.0      | .0       | 372.1       | 25.04       | -576.        | -57.         | 104.         | 3.56        | 55.56 | 129.26  | 11890. |
| 15      | 17.5      | .0       | 440.0       | 43.19       | -445.        | -39.         | 86.          | 1.46        | 56.13 | 129.94  | 11910. |
| 16      | 20.0      | .0       | 509.3       | 63.09       | -256.        | -24.         | 70.          | .80         | 55.64 | 129.35  | 11970. |
| 17      | .0        | .0       | -121.4      | -7.20       | -590.        | -14.         | -30.         | 9.78        | 56.08 | 129.88  | 11900. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3086  | .0927  | -.1635 | -.0011 | -.0016 | .0185 |
| 3    | .00    | -.3264  | -.0177 | -.1931 | -.0016 | -.0005 | .0180 |
| 4    | -20.00 | -1.0566 | .4256  | .1424  | -.0055 | -.0194 | .0093 |
| 5    | -15.01 | -.9532  | .2906  | .2921  | -.0017 | -.0098 | .0105 |
| 6    | -10.01 | -.8659  | .1745  | .0438  | -.0069 | .0016  | .0371 |
| 7    | -5.00  | -.7505  | .0179  | -.1856 | -.0003 | .0003  | .0221 |
| 8    | -2.49  | -.5360  | -.0049 | -.1788 | -.0009 | .0001  | .0288 |
| 9    | .01    | -.3290  | -.0204 | -.1935 | -.0016 | -.0017 | .0215 |
| 11   | 2.55   | -.1102  | -.0281 | -.1966 | -.0020 | .0037  | .0222 |
| 12   | 5.00   | .1050   | -.0263 | -.1848 | -.0012 | .0016  | .0210 |
| 13   | 10.00  | .5562   | -.0014 | -.1858 | -.0017 | .0018  | .0230 |
| 14   | 15.01  | 1.0056  | .0677  | -.1857 | -.0035 | .0063  | .0096 |
| 15   | 17.51  | 1.1891  | .1167  | -.1435 | -.0024 | .0052  | .0039 |
| 16   | 20.01  | 1.3765  | .1705  | -.0824 | -.0015 | .0042  | .0022 |
| 17   | .00    | -.3280  | -.0195 | -.1901 | -.0008 | -.0018 | .0264 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3086  | .0927  | -.1635 | -.0011 | -.0016 | .0185 |
| 3    | .00    | -.3264  | -.0177 | -.1931 | -.0016 | -.0005 | .0180 |
| 4    | -20.00 | -1.0566 | .4256  | .1424  | -.0055 | -.0194 | .0093 |
| 5    | -15.01 | -.9532  | .2906  | .2921  | -.0017 | -.0098 | .0105 |
| 6    | -10.01 | -.8659  | .1745  | .0438  | -.0069 | .0016  | .0371 |
| 7    | -5.00  | -.7505  | .0179  | -.1856 | -.0003 | .0003  | .0221 |
| 8    | -2.49  | -.5360  | -.0049 | -.1788 | -.0009 | .0001  | .0288 |
| 9    | .01    | -.3290  | -.0204 | -.1935 | -.0016 | -.0017 | .0215 |
| 11   | 2.55   | -.1102  | -.0281 | -.1966 | -.0020 | .0037  | .0222 |
| 12   | 5.00   | .1050   | -.0263 | -.1848 | -.0012 | .0016  | .0210 |
| 13   | 10.00  | .5562   | -.0014 | -.1858 | -.0017 | .0018  | .0230 |
| 14   | 15.01  | 1.0056  | .0677  | -.1857 | -.0035 | .0063  | .0096 |
| 15   | 17.51  | 1.1891  | .1167  | -.1435 | -.0024 | .0052  | .0039 |
| 16   | 20.01  | 1.3765  | .1705  | -.0824 | -.0015 | .0042  | .0022 |
| 17   | .00    | -.3280  | -.0195 | -.1901 | -.0008 | -.0018 | .0264 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 750

RUN 879 CONFIG F.P B NP5 W7 T57 BT IN=-3.5

| IW      | -9 DELF   | 0.0 DELA | 0.0 IHT     | -2.5 DELE   | 0.0 DELR     | 0.0 DELSB    | 0.0          |             |       |         |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |
| 2       | .0        | .0       | -128.3      | 34.51       | -169.        | -6.          | -43.         | 6.79        | 56.16 | 129.97  | 3370.  |
| 3       | -.0       | .0       | -137.3      | -6.27       | -260.        | -27.         | -28.         | 8.55        | 55.75 | 129.48  | 11790. |
| 4       | -20.0     | .0       | -397.4      | 161.41      | 570.         | -111.        | -218.        | 3.99        | 55.51 | 129.20  | 11940. |
| 5       | -15.0     | .0       | -358.5      | 110.05      | 1220.        | -20.         | -79.         | 4.90        | 56.31 | 130.14  | 11960. |
| 6       | -10.0     | .0       | -339.0      | 67.29       | 535.         | -127.        | -87.         | 9.82        | 56.22 | 130.04  | 11880. |
| 7       | -5.0      | .0       | -290.9      | 7.78        | -197.        | -15.         | -13.         | 8.11        | 56.27 | 130.10  | 11990. |
| 8       | -2.5      | .0       | -213.0      | -.93        | -219.        | -20.         | 22.          | 8.61        | 56.56 | 130.44  | 12040. |
| 9       | -.0       | .0       | -137.8      | -6.72       | -256.        | -30.         | 6.           | 9.24        | 55.31 | 128.96  | 11800. |
| 10      | 2.5       | .0       | -54.7       | -11.14      | -262.        | -45.         | -7.          | 6.66        | 55.72 | 129.45  | 11940. |
| 11      | 5.0       | .0       | 28.8        | -10.28      | -240.        | -29.         | 10.          | 7.60        | 55.60 | 129.31  | 11970. |
| 12      | 10.0      | .0       | 193.0       | -.91        | -217.        | -43.         | 66.          | 6.12        | 55.64 | 129.35  | 11890. |
| 13      | 15.0      | .0       | 363.6       | 19.87       | -320.        | -43.         | 104.         | 2.58        | 55.56 | 129.26  | 11910. |
| 14      | 17.5      | .0       | 441.0       | 36.84       | -292.        | -50.         | 88.          | 1.11        | 55.25 | 128.89  | 12040. |
| 15      | 20.0      | .0       | 510.6       | 58.72       | -172.        | -28.         | 70.          | .99         | 55.24 | 128.88  | 11930. |
| 16      | .0        | .0       | -133.2      | -7.08       | -223.        | -33.         | 26.          | 6.85        | 55.70 | 129.43  | 11870. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3468  | .0933  | -.0545 | -.0004 | -.0026 | .0184 |
| 3    | -.00   | -.3710  | -.0169 | -.0839 | -.0016 | -.0017 | .0231 |
| 4    | -20.00 | -1.0742 | .4362  | .1839  | -.0067 | -.0132 | .0108 |
| 5    | -15.00 | -.9688  | .2974  | .3933  | -.0012 | -.0048 | .0132 |
| 6    | -9.98  | -.9163  | .1819  | .1724  | -.0077 | -.0053 | .0265 |
| 7    | -5.00  | -.7862  | .0210  | -.0636 | -.0009 | -.0008 | .0219 |
| 8    | -2.51  | -.5755  | -.0025 | -.0705 | -.0012 | .0013  | .0233 |
| 9    | -.01   | -.3724  | -.0182 | -.0826 | -.0018 | .0004  | .0250 |
| 10   | 2.50   | -.1478  | -.0301 | -.0843 | -.0027 | -.0004 | .0180 |
| 11   | 5.00   | .0777   | -.0278 | -.0773 | -.0018 | .0006  | .0205 |
| 12   | 10.00  | .5215   | -.0025 | -.0700 | -.0026 | .0040  | .0165 |
| 13   | 15.00  | .9826   | .0537  | -.1032 | -.0026 | .0063  | .0070 |
| 14   | 17.49  | 1.1919  | .0996  | -.0940 | -.0030 | .0053  | .0030 |
| 15   | 20.03  | 1.3800  | .1587  | -.0553 | -.0017 | .0042  | .0027 |
| 16   | .00    | -.3599  | -.0191 | -.0720 | -.0020 | .0016  | .0185 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3468  | .0933  | -.0545 | -.0004 | -.0026 | .0184 |
| 3    | -.00   | -.3710  | -.0169 | -.0839 | -.0016 | -.0017 | .0231 |
| 4    | -20.00 | -1.0742 | .4362  | .1839  | -.0067 | -.0132 | .0108 |
| 5    | -15.00 | -.9688  | .2974  | .3933  | -.0012 | -.0048 | .0132 |
| 6    | -9.98  | -.9163  | .1819  | .1724  | -.0077 | -.0053 | .0265 |
| 7    | -5.00  | -.7862  | .0210  | -.0636 | -.0009 | -.0008 | .0219 |
| 8    | -2.51  | -.5755  | -.0025 | -.0705 | -.0012 | .0013  | .0233 |
| 9    | -.01   | -.3724  | -.0182 | -.0826 | -.0018 | .0004  | .0250 |
| 10   | 2.50   | -.1478  | -.0301 | -.0843 | -.0027 | -.0004 | .0180 |
| 11   | 5.00   | .0777   | -.0278 | -.0773 | -.0018 | .0006  | .0205 |
| 12   | 10.00  | .5215   | -.0025 | -.0700 | -.0026 | .0040  | .0165 |
| 13   | 15.00  | .9826   | .0537  | -.1032 | -.0026 | .0063  | .0070 |
| 14   | 17.49  | 1.1919  | .0996  | -.0940 | -.0030 | .0053  | .0030 |
| 15   | 20.03  | 1.3800  | .1587  | -.0553 | -.0017 | .0042  | .0027 |
| 16   | .00    | -.3599  | -.0191 | -.0720 | -.0020 | .0016  | .0185 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 751

RUN 880 CONFIG F P B NP5 W7 T57 BT IN=-3.5

| IW<br>PT.<br>NO. | -9 DELF<br>ALPHA<br>DEG | 0,0 DELA<br>PSI<br>DEG | 0,0 DELA<br>CLBAR<br>SQ-FT | 0,0 IHT<br>CDBAR<br>SQ-FT | -5 DELE<br>CPMBAR<br>CU-FT | 0,0 DELR<br>CYMBAR<br>CU-FT | 0,0 DELR<br>CRMBAR<br>CU-FT | 0,0 DELSB<br>CYBAR<br>SQ-FT | 0,0<br>PSF | 0,0<br>KNOTS | RPM    |
|------------------|-------------------------|------------------------|----------------------------|---------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|------------|--------------|--------|
| 2                | .0                      | .0                     | -138.1                     | 35.99                     | 256.                       | -42.                        | -10.                        | 7.78                        | 55.60      | 129.31       | 3360.  |
| 3                | .0                      | .0                     | -147.6                     | 3.40                      | 179.                       | -30.                        | -27.                        | 7.77                        | 55.22      | 128.86       | 10550. |
| 4                | .0                      | .0                     | -147.3                     | -2.74                     | 162.                       | -47.                        | -65.                        | 10.08                       | 55.40      | 129.08       | 11430. |
| 5                | -0                      | .0                     | -147.9                     | -5.92                     | 176.                       | -50.                        | 25.                         | 8.19                        | 55.35      | 129.01       | 11810. |
| 6                | -20.0                   | .0                     | -398.2                     | 166.01                    | 681.                       | -93.                        | -112.                       | 3.02                        | 55.28      | 128.92       | 11870. |
| 7                | -15.0                   | .0                     | -366.5                     | 116.98                    | 1310.                      | 9.                          | -93.                        | 2.83                        | 55.35      | 129.01       | 11900. |
| 8                | -10.0                   | .0                     | -359.2                     | 70.83                     | 1006.                      | -112.                       | -22.                        | 12.25                       | 55.05      | 128.66       | 11940. |
| 9                | -5.0                    | .0                     | -309.9                     | 9.38                      | 205.                       | -28.                        | 5.                          | 7.77                        | 55.26      | 128.90       | 11890. |
| 10               | -2.5                    | .0                     | -229.6                     | -.34                      | 187.                       | -37.                        | -7.                         | 4.98                        | 55.37      | 129.04       | 11890. |
| 11               | .0                      | .0                     | -148.0                     | -6.80                     | 149.                       | -40.                        | 36.                         | 12.71                       | 55.75      | 129.49       | 11890. |
| 12               | 2.5                     | .0                     | -70.6                      | -10.41                    | 110.                       | -43.                        | 9.                          | 8.04                        | 55.52      | 129.22       | 11900. |
| 13               | 5.0                     | .0                     | 13.6                       | -10.85                    | 109.                       | -48.                        | 27.                         | 8.36                        | 55.40      | 129.07       | 11880. |
| 14               | 10.0                    | .0                     | 177.3                      | -3.19                     | 156.                       | -63.                        | 33.                         | 3.56                        | 55.50      | 129.19       | 11910. |
| 15               | 15.0                    | .0                     | 346.4                      | 16.91                     | 101.                       | -54.                        | 105.                        | 2.53                        | 55.23      | 128.87       | 11910. |
| 16               | 20.0                    | .0                     | 504.1                      | 52.81                     | 29.                        | -49.                        | 89.                         | 2.11                        | 54.94      | 128.52       | 11890. |
| 17               | 17.5                    | .0                     | 427.4                      | 32.81                     | 36.                        | -41.                        | 123.                        | 1.85                        | 55.20      | 128.83       | 11850. |
| 18               | -0                      | .0                     | -147.1                     | -6.40                     | 183.                       | -47.                        | 25.                         | 8.57                        | 54.45      | 127.95       | 11930. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM   | CYM    | CRM    | CY    |
|------|--------|---------|--------|-------|--------|--------|-------|
| 2    | .00    | -.3734  | .0973  | .0826 | -.0026 | -.0006 | .0210 |
| 3    | .00    | -.3989  | .0092  | .0577 | -.0018 | -.0017 | .0210 |
| 4    | .00    | -.3981  | -.0074 | .0523 | -.0028 | -.0039 | .0273 |
| 5    | -0     | -.3999  | -.0160 | .0567 | -.0030 | .0015  | .0221 |
| 6    | -20.00 | -1.0762 | .4487  | .2196 | -.0056 | -.0068 | .0082 |
| 7    | -14.99 | -.9906  | .3162  | .4223 | .0005  | -.0056 | .0077 |
| 8    | -10.00 | -.9708  | .1914  | .3244 | -.0068 | -.0014 | .0331 |
| 9    | -4.99  | -.8375  | .0253  | .0662 | -.0017 | .0003  | .0210 |
| 10   | -2.48  | -.6205  | -.0009 | .0602 | -.0022 | -.0004 | .0135 |
| 11   | .00    | -.3999  | -.0184 | .0479 | -.0024 | .0022  | .0343 |
| 12   | 2.52   | -.1907  | -.0281 | .0355 | -.0026 | .0005  | .0217 |
| 13   | 5.00   | .0367   | -.0293 | .0350 | -.0029 | .0016  | .0226 |
| 14   | 9.99   | .4792   | -.0086 | .0503 | -.0038 | .0020  | .0096 |
| 15   | 15.00  | .9363   | .0457  | .0327 | -.0033 | .0063  | .0068 |
| 16   | 20.00  | 1.3625  | .1427  | .0095 | -.0029 | .0054  | .0057 |
| 17   | 17.50  | 1.1551  | .0887  | .0115 | -.0025 | .0074  | .0050 |
| 18   | -0     | -.3976  | -.0173 | .0591 | -.0028 | .0015  | .0232 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB  | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|-------|--------|--------|-------|
| 2    | .00    | -.3734  | .0973  | .0826 | -.0026 | -.0006 | .0210 |
| 3    | .00    | -.3989  | .0092  | .0577 | -.0018 | -.0017 | .0210 |
| 4    | .00    | -.3981  | -.0074 | .0523 | -.0028 | -.0039 | .0273 |
| 5    | -0     | -.3999  | -.0160 | .0567 | -.0030 | .0015  | .0221 |
| 6    | -20.00 | -1.0762 | .4487  | .2196 | -.0056 | -.0068 | .0082 |
| 7    | -14.99 | -.9906  | .3162  | .4223 | .0005  | -.0056 | .0077 |
| 8    | -10.00 | -.9708  | .1914  | .3244 | -.0068 | -.0014 | .0331 |
| 9    | -4.99  | -.8375  | .0253  | .0662 | -.0017 | .0003  | .0210 |
| 10   | -2.48  | -.6205  | -.0009 | .0602 | -.0022 | -.0004 | .0135 |
| 11   | .00    | -.3999  | -.0184 | .0479 | -.0024 | .0022  | .0343 |
| 12   | 2.52   | -.1907  | -.0281 | .0355 | -.0026 | .0005  | .0217 |

|    |       |        |        |       |        |       |       |
|----|-------|--------|--------|-------|--------|-------|-------|
| 13 | 5.00  | .0367  | -.0293 | .0350 | -.0029 | .0016 | .0226 |
| 14 | 9.99  | .4792  | -.0086 | .0503 | -.0038 | .0020 | .0096 |
| 15 | 15.00 | .9363  | .0457  | .0327 | -.0033 | .0063 | .0068 |
| 16 | 20.00 | 1.3625 | .1427  | .0095 | -.0029 | .0054 | .0057 |
| 17 | 17.50 | 1.1551 | .0887  | .0115 | -.0025 | .0074 | .0050 |
| 18 | -0    | -.3976 | -.0173 | .0591 | -.0028 | .0015 | .0232 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 752

RUN 881 CONFIG F P B NP5 W7 T57 BT IN=-3.5

| IW      | 7.5 DELF  | 0.0 DELA | 0.0 IHT     | 2.5 DELE    | 0.0 DELR     | 0.0 DELSB    | 0.0          | RPM         |       |         |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0       | 240.1       | 45.09       | -80.         | -98.         | 42.          | 8.04        | 55.47 | 129.16  | 3790.  |
| 3       | .0        | .0       | 236.0       | -6.67       | -254.        | -76.         | 44.          | 7.13        | 54.46 | 127.96  | 12750. |
| 4       | -20.0     | .0       | -370.0      | 48.68       | 233.         | -65.         | -12.         | 5.09        | 55.53 | 129.22  | 12830. |
| 5       | -15.0     | .0       | -257.2      | 17.16       | 278.         | -47.         | 43.          | 4.96        | 54.23 | 127.68  | 12800. |
| 6       | -10.0     | .0       | -89.8       | -10.75      | -104.        | -64.         | 70.          | 9.73        | 54.96 | 128.55  | 12800. |
| 7       | -5.0      | .0       | 72.7        | -14.53      | -178.        | -54.         | 62.          | 5.05        | 55.29 | 128.95  | 12840. |
| 8       | -2.5      | .0       | 158.7       | -12.01      | -266.        | -86.         | 83.          | 3.60        | 54.83 | 128.39  | 12830. |
| 9       | .0        | .0       | 235.9       | -6.24       | -248.        | -86.         | 101.         | 3.92        | 54.69 | 128.23  | 12820. |
| 10      | 2.5       | .0       | 304.8       | 2.02        | -217.        | -61.         | 68.          | 2.09        | 55.38 | 129.05  | 12850. |
| 11      | 5.1       | .0       | 381.1       | 13.94       | -231.        | -82.         | 122.         | 1.11        | 55.08 | 128.70  | 12820. |
| 12      | 10.1      | .0       | 467.6       | 51.39       | -435.        | -90.         | 176.         | 1.18        | 54.92 | 128.50  | 12850. |
| 13      | 15.0      | .0       | 523.9       | 112.61      | -778.        | -147.        | 194.         | 2.11        | 54.89 | 128.47  | 12310. |
| 14      | 17.5      | .0       | 553.4       | 151.70      | -976.        | -122.        | 177.         | 1.06        | 54.78 | 128.33  | 12710. |
| 15      | 20.0      | .0       | 576.1       | 185.43      | -945.        | -2.          | 1.           | 5.25        | 55.10 | 128.72  | 12810. |
| 16      | -.0       | .0       | 232.3       | -6.08       | -251.        | -77.         | 100.         | 3.82        | 55.23 | 128.88  | 12830. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .6490  | .1219  | -.0258 | -.0059 | .0025  | .0217 |
| 3    | .00    | .6377  | -.0180 | -.0818 | -.0046 | .0027  | .0193 |
| 4    | -19.99 | -.9999 | .1316  | .0751  | -.0039 | -.0007 | .0138 |
| 5    | -14.98 | -.6951 | .0464  | .0897  | -.0028 | .0026  | .0134 |
| 6    | -9.99  | -.2427 | -.0291 | -.0336 | -.0039 | .0042  | .0263 |
| 7    | -5.00  | .1965  | -.0393 | -.0575 | -.0033 | .0038  | .0137 |
| 8    | -2.49  | .4289  | -.0325 | -.0856 | -.0052 | .0050  | .0097 |
| 9    | .00    | .6375  | -.0169 | -.0799 | -.0052 | .0061  | .0106 |
| 10   | 2.50   | .8238  | .0055  | -.0698 | -.0037 | .0041  | .0057 |
| 11   | 5.06   | 1.0301 | .0377  | -.0744 | -.0050 | .0074  | .0030 |
| 12   | 10.05  | 1.2639 | .1389  | -.1403 | -.0055 | .0106  | .0032 |
| 13   | 15.01  | 1.4160 | .3044  | -.2510 | -.0089 | .0117  | .0057 |
| 14   | 17.50  | 1.4956 | .4100  | -.3147 | -.0074 | .0107  | .0029 |
| 15   | 20.00  | 1.5570 | .5012  | -.3048 | -.0001 | .0001  | .0142 |
| 16   | -.00   | .6279  | -.0164 | -.0809 | -.0046 | .0061  | .0103 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .6490  | .1219  | -.0258 | -.0059 | .0025  | .0217 |
| 3    | .00    | .6377  | -.0180 | -.0818 | -.0046 | .0027  | .0193 |
| 4    | -19.99 | -.9999 | .1316  | .0751  | -.0039 | -.0007 | .0138 |
| 5    | -14.98 | -.6951 | .0464  | .0897  | -.0028 | .0026  | .0134 |
| 6    | -9.99  | -.2427 | -.0291 | -.0336 | -.0039 | .0042  | .0263 |
| 7    | -5.00  | .1965  | -.0393 | -.0575 | -.0033 | .0038  | .0137 |
| 8    | -2.49  | .4289  | -.0325 | -.0856 | -.0052 | .0050  | .0097 |
| 9    | .00    | .6375  | -.0169 | -.0799 | -.0052 | .0061  | .0106 |
| 10   | 2.50   | .8238  | .0055  | -.0698 | -.0037 | .0041  | .0057 |
| 11   | 5.06   | 1.0301 | .0377  | -.0744 | -.0050 | .0074  | .0030 |
| 12   | 10.05  | 1.2639 | .1389  | -.1403 | -.0055 | .0106  | .0032 |
| 13   | 15.01  | 1.4160 | .3044  | -.2510 | -.0089 | .0117  | .0057 |
| 14   | 17.50  | 1.4956 | .4100  | -.3147 | -.0074 | .0107  | .0029 |
| 15   | 20.00  | 1.5570 | .5012  | -.3048 | -.0001 | .0001  | .0142 |
| 16   | -.00   | .6279  | -.0164 | -.0809 | -.0046 | .0061  | .0103 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 753

RUN 882 CONFIG F P B NP5 W7 T57 BT IN=-3.5

| PT. NO. | 0.0 DELF ALPHA DEG | 0.0 DELF PSI DEG | 0.0 DELA CLBAR SQ-FT | 0.0 IHT CDBAR SQ-FT | 0.0 DELE CPMBAR CU-FT | 0.0 DELR CYMBAR CU-FT | 0.0 DELR CRMBAR CU-FT | 0.0 DELSB CYBAR SQ-FT | 0.0 DELSB Q PSF | 0.0 V KNOTS | RPM    |
|---------|--------------------|------------------|----------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|-------------|--------|
| 3       | .0                 | .0               | 69.1                 | 32.35               | 6.                    | -70.                  | 27.                   | 6.80                  | 54.61           | 128.14      | 3550.  |
| 4       | .0                 | .0               | 64.0                 | -5.51               | -105.                 | -62.                  | 46.                   | 4.71                  | 55.66           | 129.39      | 11140. |
| 5       | -20.0              | .0               | -388.8               | 120.69              | 404.                  | -138.                 | -262.                 | 7.11                  | 55.11           | 128.72      | 11150. |
| 6       | -15.0              | .0               | -351.1               | 59.73               | 867.                  | -217.                 | 292.                  | 10.94                 | 55.40           | 129.08      | 11210. |
| 7       | -10.0              | .0               | -256.1               | 13.31               | 176.                  | -55.                  | 10.                   | 4.06                  | 55.37           | 129.03      | 11230. |
| 8       | -5.0               | .0               | -95.1                | -3.08               | -148.                 | -70.                  | 23.                   | 7.79                  | 55.12           | 128.75      | 11210. |
| 9       | -2.5               | .0               | -18.3                | -5.94               | -143.                 | -60.                  | -25.                  | 5.31                  | 55.20           | 128.84      | 11210. |
| 10      | .0                 | .0               | 61.9                 | -5.76               | -104.                 | -53.                  | 27.                   | 6.50                  | 55.53           | 129.23      | 11190. |
| 11      | 2.5                | .0               | 144.1                | -2.90               | -87.                  | -40.                  | 30.                   | 4.76                  | 54.42           | 127.91      | 11190. |
| 12      | 5.0                | .0               | 222.7                | 2.86                | -70.                  | -31.                  | 101.                  | 5.56                  | 54.51           | 128.01      | 11190. |
| 13      | 10.0               | .0               | 380.0                | 24.10               | -113.                 | -67.                  | 88.                   | 2.82                  | 54.30           | 127.76      | 11180. |
| 14      | 15.0               | .0               | 528.7                | 60.34               | -432.                 | -61.                  | 159.                  | 1.12                  | 54.60           | 128.13      | 11190. |
| 15      | 17.5               | .0               | 546.6                | 86.31               | -557.                 | -57.                  | 106.                  | .93                   | 54.74           | 128.29      | 11260. |
| 16      | 20.0               | .0               | 550.8                | 118.17              | -475.                 | -24.                  | 124.                  | 2.42                  | 54.85           | 128.41      | 11200. |
| 17      | 2.5                | .0               | 142.3                | -3.23               | -89.                  | -42.                  | 29.                   | 5.04                  | 55.41           | 129.08      | 11260. |
| 18      | -2.5               | .0               | -16.0                | -6.77               | -132.                 | -60.                  | 41.                   | 8.19                  | 54.87           | 128.45      | 11220. |
| 19      | .0                 | .0               | 63.2                 | -6.24               | -96.                  | -51.                  | 65.                   | 4.85                  | 54.80           | 128.36      | 11230. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 3    | .00    | .1867   | .0874  | .0021  | -.0042 | .0016  | .0184 |
| 4    | .00    | .1731   | -.0149 | -.0339 | -.0037 | .0028  | .0127 |
| 5    | -19.99 | -1.0509 | .3262  | .1303  | -.0084 | -.0158 | .0192 |
| 6    | -14.99 | -.9489  | .1614  | .2796  | -.0131 | .0176  | .0296 |
| 7    | -9.96  | -.6921  | .0360  | .0567  | -.0033 | .0006  | .0110 |
| 8    | -4.96  | -.2571  | -.0083 | -.0476 | -.0042 | .0014  | .0210 |
| 9    | -2.54  | -.0494  | -.0160 | -.0460 | -.0036 | -.0015 | .0143 |
| 10   | .00    | .1672   | -.0156 | -.0334 | -.0032 | .0016  | .0176 |
| 11   | 2.53   | .3895   | -.0078 | -.0279 | -.0024 | .0018  | .0129 |
| 12   | 5.00   | .5019   | .0077  | -.0226 | -.0019 | .0061  | .0150 |
| 13   | 10.00  | 1.0269  | .0651  | -.0363 | -.0041 | .0053  | .0076 |
| 14   | 15.00  | 1.4288  | .1631  | -.1391 | -.0037 | .0096  | .0030 |
| 15   | 17.50  | 1.4774  | .2333  | -.1796 | -.0035 | .0064  | .0025 |
| 16   | 20.00  | 1.4888  | .3194  | -.1530 | -.0015 | .0075  | .0065 |
| 17   | 2.51   | .3846   | -.0087 | -.0285 | -.0025 | .0018  | .0136 |
| 18   | -2.49  | -.0432  | -.0183 | -.0425 | -.0036 | .0025  | .0221 |
| 19   | .00    | .1707   | -.0169 | -.0309 | -.0031 | .0039  | .0131 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 3    | .00    | .1867   | .0874  | .0021  | -.0042 | .0016  | .0184 |
| 4    | .00    | .1731   | -.0149 | -.0339 | -.0037 | .0028  | .0127 |
| 5    | -19.99 | -1.0509 | .3262  | .1303  | -.0084 | -.0158 | .0192 |
| 6    | -14.99 | -.9489  | .1614  | .2796  | -.0131 | .0176  | .0296 |
| 7    | -9.96  | -.6921  | .0360  | .0567  | -.0033 | .0006  | .0110 |
| 8    | -4.96  | -.2571  | -.0083 | -.0476 | -.0042 | .0014  | .0210 |
| 9    | -2.54  | -.0494  | -.0160 | -.0460 | -.0036 | -.0015 | .0143 |
| 10   | .00    | .1672   | -.0156 | -.0334 | -.0032 | .0016  | .0176 |
| 11   | 2.53   | .3895   | -.0078 | -.0279 | -.0024 | .0018  | .0129 |
| 12   | 5.00   | .5019   | .0077  | -.0226 | -.0019 | .0061  | .0150 |
| 13   | 10.00  | 1.0269  | .0651  | -.0363 | -.0041 | .0053  | .0076 |
| 14   | 15.00  | 1.4288  | .1631  | -.1391 | -.0037 | .0096  | .0030 |
| 15   | 17.50  | 1.4774  | .2333  | -.1796 | -.0035 | .0064  | .0025 |
| 16   | 20.00  | 1.4888  | .3194  | -.1530 | -.0015 | .0075  | .0065 |
| 17   | 2.51   | .3846   | -.0087 | -.0285 | -.0025 | .0018  | .0136 |
| 18   | -2.49  | -.0432  | -.0183 | -.0425 | -.0036 | .0025  | .0221 |
| 19   | .00    | .1707   | -.0169 | -.0309 | -.0031 | .0039  | .0131 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 754

RUN 883 CONFIG F P B NP5 W7 T57 RT IN=-3.5 ALPHA=10

| PT. NO. | 0.0 DELF<br>ALPHA<br>DEG | 0.0 DELF<br>PSI<br>DEG | 0.0 DELA<br>CLBAR<br>SQ-FT | 0.0 IHT<br>CDBAR<br>SQ-FT | 0.0 DELE<br>CPMBAR<br>CU-FT | 0.0 DELE<br>CYMBAR<br>CU-FT | 0.0 DELR<br>CRMBAR<br>CU-FT | 0.0 DELR<br>CYBAR<br>SQ-FT | 0.0 DELSB<br>Q<br>PSF | 0.0<br>V<br>KNOTS | RPM    |
|---------|--------------------------|------------------------|----------------------------|---------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------|-----------------------|-------------------|--------|
| 7       | .0                       | .0                     | 65.4                       | 31.38                     | -1.                         | -52.                        | -6.                         | 5.13                       | 54.49                 | 128.00            | 3550.  |
| 8       | .0                       | .0                     | 63.6                       | -7.19                     | -116.                       | -37.                        | -10.                        | 8.02                       | 54.81                 | 128.37            | 11230. |
| 9       | 10.0                     | -20.0                  | 377.8                      | 67.11                     | -379.                       | 804.                        | -7.                         | -153.39                    | 54.59                 | 128.11            | 11230. |
| 10      | 10.0                     | -15.0                  | 379.7                      | 45.46                     | -284.                       | 236.                        | -16.                        | -108.90                    | 54.62                 | 128.14            | 11240. |
| 11      | 10.0                     | -10.0                  | 383.5                      | 32.61                     | -251.                       | 190.                        | -10.                        | -68.34                     | 54.73                 | 128.28            | 11140. |
| 12      | 10.0                     | -5.0                   | 380.7                      | 25.53                     | -159.                       | 37.                         | 24.                         | -33.59                     | 55.07                 | 128.69            | 11170. |
| 13      | 10.0                     | -2.5                   | 386.0                      | 24.56                     | -130.                       | -44.                        | 55.                         | -17.72                     | 54.59                 | 128.12            | 11230. |
| 14      | 10.0                     | .1                     | 385.6                      | 23.78                     | -121.                       | -38.                        | 248.                        | 1.94                       | 54.45                 | 127.95            | 11260. |
| 15      | 10.0                     | .1                     | 381.6                      | 23.70                     | -117.                       | -69.                        | 104.                        | 3.46                       | 55.10                 | 128.72            | 11260. |
| 16      | 10.0                     | 2.5                    | 378.0                      | 23.52                     | -135.                       | -94.                        | 104.                        | 23.36                      | 54.98                 | 128.58            | 11250. |
| 17      | 10.0                     | 5.0                    | 377.9                      | 25.58                     | -164.                       | -112.                       | 110.                        | 40.23                      | 54.87                 | 128.44            | 11210. |
| 18      | 10.0                     | 10.0                   | 370.3                      | 31.39                     | -237.                       | -219.                       | 205.                        | 76.42                      | 54.87                 | 128.45            | 11210. |
| 19      | 10.0                     | 15.0                   | 368.7                      | 44.14                     | -238.                       | -303.                       | 113.                        | 118.83                     | 54.81                 | 128.38            | 11220. |
| 20      | 10.0                     | 20.0                   | 346.1                      | 65.28                     | -422.                       | -1083.                      | 254.                        | 158.72                     | 55.12                 | 128.74            | 11210. |
| 21      | 10.0                     | .0                     | 379.3                      | 23.12                     | -85.                        | -48.                        | 66.                         | 7.42                       | 55.06                 | 128.67            | 11260. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | .1767  | .0848  | -.0005 | -.0031 | -.0004 | .0139  |
| 8    | .00    | .1718  | -.0194 | -.0372 | -.0022 | -.0006 | .0217  |
| 9    | -20.00 | 1.0211 | .1814  | -.1223 | .0486  | -.0004 | -.4146 |
| 10   | -15.00 | 1.0262 | .1229  | -.0914 | .0143  | -.0010 | -.2943 |
| 11   | -10.00 | 1.0364 | .0881  | -.0810 | .0115  | -.0006 | -.1847 |
| 12   | -5.00  | 1.0290 | .0690  | -.0514 | .0022  | .0014  | -.0908 |
| 13   | -2.50  | 1.0432 | .0664  | -.0419 | -.0027 | .0034  | -.0479 |
| 14   | .10    | 1.0421 | .0643  | -.0390 | -.0023 | .0150  | .0052  |
| 15   | .10    | 1.0315 | .0641  | -.0378 | -.0042 | .0063  | .0094  |
| 16   | 2.50   | 1.0217 | .0636  | -.0435 | -.0057 | .0063  | .0631  |
| 17   | 5.00   | 1.0214 | .0691  | -.0530 | -.0068 | .0066  | .1087  |
| 18   | 10.00  | 1.0008 | .0848  | -.0763 | -.0133 | .0124  | .2065  |
| 19   | 15.00  | .9965  | .1193  | -.0767 | -.0183 | .0068  | .3212  |
| 20   | 20.00  | .9354  | .1764  | -.1361 | -.0654 | .0153  | .4290  |
| 21   | .00    | 1.0252 | .0625  | -.0274 | -.0029 | .0040  | .0201  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | .1767  | .0848  | -.0005 | -.0031 | -.0004 | .0139  |
| 8    | .00    | .1718  | -.0194 | -.0372 | -.0022 | -.0006 | .0217  |
| 9    | -20.00 | 1.0211 | .0279  | -.1141 | .0486  | .0075  | -.4517 |
| 10   | -15.00 | 1.0262 | .0421  | -.0869 | .0143  | .0035  | -.3161 |
| 11   | -10.00 | 1.0364 | .0546  | -.0792 | .0115  | .0020  | -.1972 |
| 12   | -5.00  | 1.0290 | .0608  | -.0518 | .0022  | .0023  | -.0965 |
| 13   | -2.50  | 1.0432 | .0642  | -.0426 | -.0027 | .0037  | -.0508 |
| 14   | .10    | 1.0421 | .0643  | -.0389 | -.0023 | .0150  | .0054  |
| 15   | .10    | 1.0315 | .0640  | -.0377 | -.0042 | .0063  | .0095  |
| 16   | 2.50   | 1.0217 | .0607  | -.0420 | -.0057 | .0059  | .0658  |
| 17   | 5.00   | 1.0214 | .0593  | -.0497 | -.0068 | .0058  | .1144  |
| 18   | 10.00  | 1.0008 | .0475  | -.0637 | -.0133 | .0097  | .2182  |
| 19   | 15.00  | .9965  | .0317  | -.0646 | -.0183 | .0028  | .3411  |
| 20   | 20.00  | .9354  | .0183  | -.0996 | -.0654 | .0057  | .4635  |
| 21   | .00    | 1.0252 | .0625  | -.0274 | -.0029 | .0040  | .0201  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 755

RUN 884 CONFIG F P B NP5 W7 T57 BT IN=-3.5

| IW<br>PT.<br>NO. | 0.0 DELF<br>ALPHA<br>DEG | 0.0 DELF<br>PSI<br>DEG | 0.0 DELA<br>CLBAR<br>SQ-FT | 0.0 IHT<br>CDBAR<br>SQ-FT | 0.0 DELE<br>CPMBAR<br>CU-FT | 0.0 DELE<br>CYMBAR<br>CU-FT | 0.0 DELR<br>CRMBAR<br>CU-FT | 0.0 DELR<br>CYBAR<br>SQ-FT | 0.0 DELSB<br>Q<br>PSF | 0.0<br>V<br>KNOTS | RPM    |
|------------------|--------------------------|------------------------|----------------------------|---------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------|-----------------------|-------------------|--------|
| 6                | .0                       | .0                     | 68.1                       | 31.14                     | 5.                          | -65.                        | -6.                         | 4.53                       | 54.89                 | 128.47            | 3560.  |
| 7                | .0                       | .0                     | 63.3                       | -5.62                     | -114.                       | -51.                        | 10.                         | 5.80                       | 54.66                 | 128.20            | 10960. |
| 8                | .0                       | -20.0                  | 90.2                       | 40.73                     | -559.                       | 1410.                       | 33.                         | -177.24                    | 54.51                 | 128.01            | 11010. |
| 9                | .0                       | -15.0                  | 86.8                       | 19.80                     | -440.                       | 939.                        | 32.                         | -130.30                    | 55.06                 | 128.67            | 11000. |
| 10               | .0                       | -10.0                  | 76.1                       | 4.60                      | -272.                       | 461.                        | 25.                         | -81.24                     | 55.10                 | 128.72            | 11010. |
| 11               | .0                       | -5.0                   | 69.7                       | -3.04                     | -169.                       | 181.                        | 50.                         | -37.03                     | 55.47                 | 129.16            | 11000. |
| 12               | .0                       | -2.5                   | 65.8                       | -4.80                     | -161.                       | 64.                         | 83.                         | -18.33                     | 55.19                 | 128.82            | 11010. |
| 13               | .0                       | .0                     | 63.1                       | -5.34                     | -137.                       | -53.                        | 9.                          | 6.47                       | 55.26                 | 128.92            | 11010. |
| 14               | .0                       | 2.5                    | 63.5                       | -4.38                     | -151.                       | -130.                       | -21.                        | 28.10                      | 54.43                 | 127.92            | 11000. |
| 15               | .0                       | 5.0                    | 64.0                       | -2.50                     | -193.                       | -193.                       | 6.                          | 49.55                      | 55.00                 | 128.60            | 10640. |
| 16               | .0                       | 9.9                    | 74.1                       | 3.90                      | -344.                       | -539.                       | 62.                         | 93.70                      | 54.57                 | 128.09            | 11010. |
| 17               | .0                       | 15.0                   | 79.7                       | 17.40                     | -485.                       | -917.                       | 116.                        | 139.90                     | 54.62                 | 128.14            | 11010. |
| 18               | .0                       | 19.9                   | 76.9                       | 38.12                     | -561.                       | -1355.                      | 115.                        | 184.18                     | 54.65                 | 128.19            | 11010. |
| 19               | .0                       | .0                     | 62.9                       | -5.96                     | -110.                       | -48.                        | -11.                        | 5.45                       | 54.41                 | 127.90            | 10980. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 6    | .00    | .1841 | .0842  | .0018  | -.0039 | -.0003 | .0122  |
| 7    | .00    | .1712 | -.0152 | -.0367 | -.0031 | .0006  | .0157  |
| 8    | -20.00 | .2437 | .1101  | -.1803 | .0852  | .0020  | -.4790 |
| 9    | -15.00 | .2345 | .0535  | -.1420 | .0567  | .0019  | -.3522 |
| 10   | -10.00 | .2058 | .0124  | -.0875 | .0278  | .0015  | -.2196 |
| 11   | -5.00  | .1885 | -.0082 | -.0546 | .0110  | .0030  | -.1001 |
| 12   | -2.50  | .1779 | -.0130 | -.0521 | .0039  | .0050  | -.0495 |
| 13   | .00    | .1706 | -.0144 | -.0440 | -.0032 | .0006  | .0175  |
| 14   | 2.50   | .1717 | -.0118 | -.0488 | -.0078 | -.0012 | .0759  |
| 15   | 5.00   | .1729 | -.0068 | -.0621 | -.0117 | .0004  | .1339  |
| 16   | 9.90   | .2001 | .0105  | -.1110 | -.0326 | .0038  | .2532  |
| 17   | 15.00  | .2154 | .0470  | -.1563 | -.0554 | .0070  | .3781  |
| 18   | 19.90  | .2078 | .1030  | -.1808 | -.0819 | .0070  | .4978  |
| 19   | .00    | .1699 | -.0161 | -.0354 | -.0029 | .0007  | .0147  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 6    | .00    | .1841 | .0842  | .0018  | -.0039 | -.0003 | .0122  |
| 7    | .00    | .1712 | -.0152 | -.0367 | -.0031 | .0006  | .0157  |
| 8    | -20.00 | .2437 | -.0612 | -.1730 | .0852  | .0135  | -.4877 |
| 9    | -15.00 | .2345 | -.0399 | -.1398 | .0567  | .0088  | -.3540 |
| 10   | -10.00 | .2058 | -.0261 | -.0876 | .0278  | .0043  | -.2184 |
| 11   | -5.00  | .1885 | -.0169 | -.0558 | .0110  | .0039  | -.0990 |
| 12   | -2.50  | .1779 | -.0151 | -.0532 | .0039  | .0055  | -.0489 |
| 13   | .00    | .1706 | -.0144 | -.0440 | -.0032 | .0006  | .0175  |
| 14   | 2.50   | .1717 | -.0152 | -.0491 | -.0078 | -.0016 | .0754  |
| 15   | 5.00   | .1729 | -.0185 | -.0617 | -.0117 | -.0007 | .1328  |
| 16   | 9.90   | .2001 | -.0334 | -.1059 | -.0326 | .0001  | .2512  |
| 17   | 15.00  | .2154 | -.0529 | -.1412 | -.0554 | -.0008 | .3773  |
| 18   | 19.90  | .2078 | -.0734 | -.1572 | -.0819 | -.0050 | .5030  |
| 19   | .00    | .1699 | -.0161 | -.0354 | -.0029 | .0007  | .0147  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 885 CONFIG F P B NP5 W7 T57 BT IN=-3.5 ALPHA=-10

| IW<br>PT.<br>NO. | 0.0 DELF<br>ALPHA<br>DEG | 0.0 DELA<br>PSI<br>DEG | 0.0 IHT<br>CLBAR<br>SQ-FT | 0.0 DELE<br>CDBAR<br>SQ-FT | 0.0 DELR<br>CPMBAR<br>CU-FT | 0.0 DELSB<br>CYMBAR<br>CU-FT | 0.0<br>CRMBAR<br>CU-FT | 0.0<br>CYBAR<br>SQ-FT | 0.0<br>DELSB<br>Q<br>PSF | 0.0<br>V<br>KNOTS | RPM    |
|------------------|--------------------------|------------------------|---------------------------|----------------------------|-----------------------------|------------------------------|------------------------|-----------------------|--------------------------|-------------------|--------|
| 7                | .0                       | .0                     | 66.0                      | 31.19                      | 9.                          | -61.                         | 46.                    | 5.55                  | 55.23                    | 128.88            | 3550.  |
| 8                | .0                       | .0                     | 62.9                      | -7.09                      | -109.                       | -52.                         | 10.                    | 5.82                  | 54.45                    | 127.95            | 11100. |
| 9                | .0                       | -20.0                  | 89.4                      | 38.74                      | -549.                       | 1401.                        | 140.                   | -177.48               | 54.84                    | 128.41            | 11210. |
| 10               | .0                       | -15.0                  | 86.5                      | 18.61                      | -450.                       | 970.                         | 94.                    | -133.25               | 54.45                    | 127.95            | 11250. |
| 11               | -10.0                    | -19.9                  | -189.4                    | 56.82                      | -428.                       | 1793.                        | -195.                  | -180.23               | 54.04                    | 127.45            | 11220. |
| 12               | -10.0                    | -15.1                  | -206.3                    | 38.06                      | -264.                       | 1314.                        | -52.                   | -131.36               | 54.95                    | 128.55            | 11190. |
| 13               | -10.0                    | -10.1                  | -231.7                    | 25.52                      | -58.                        | 812.                         | -22.                   | -88.14                | 54.57                    | 128.10            | 11160. |
| 14               | -10.0                    | -5.0                   | -250.7                    | 17.08                      | 97.                         | 424.                         | -16.                   | -41.65                | 54.80                    | 128.36            | 11270. |
| 15               | -10.0                    | -2.5                   | -259.7                    | 14.65                      | 180.                        | 190.                         | -29.                   | -15.89                | 54.45                    | 127.95            | 11170. |
| 16               | -10.0                    | .0                     | -259.1                    | 15.57                      | 290.                        | -87.                         | 58.                    | 7.10                  | 54.67                    | 128.21            | 11250. |
| 17               | -10.0                    | 2.5                    | -256.8                    | 16.19                      | 232.                        | -259.                        | 19.                    | 32.41                 | 54.44                    | 127.94            | 11260. |
| 18               | -10.0                    | 5.0                    | -251.8                    | 17.05                      | 144.                        | -445.                        | -76.                   | 50.35                 | 54.54                    | 128.05            | 11180. |
| 19               | -10.0                    | 10.1                   | -233.5                    | 22.87                      | -98.                        | -845.                        | -65.                   | 95.28                 | 54.63                    | 128.16            | 11160. |
| 20               | -10.0                    | 15.0                   | -212.4                    | 36.90                      | -245.                       | -1279.                       | -24.                   | 147.93                | 54.30                    | 127.76            | 11210. |
| 21               | -10.0                    | 20.0                   | -193.7                    | 55.41                      | -469.                       | -1618.                       | 22.                    | 189.25                | 54.54                    | 128.05            | 11250. |
| 24               | -10.0                    | .0                     | -260.9                    | 13.04                      | 245.                        | -3.                          | 25.                    | 6.11                  | 54.08                    | 127.51            | 11310. |
| 25               | -10.0                    | .0                     | -257.7                    | 12.78                      | 242.                        | -3.                          | 24.                    | 6.04                  | 54.75                    | 128.31            | 11030. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | .1782  | .0843  | .0029  | -.0037 | .0028  | .0150  |
| 8    | .00    | .1699  | -.0192 | -.0352 | -.0032 | .0006  | .0157  |
| 9    | -20.00 | .2417  | .1047  | -.1770 | .0846  | .0085  | -.4797 |
| 10   | -15.00 | .2338  | .0503  | -.1450 | .0586  | .0057  | -.3601 |
| 11   | -19.90 | -.5119 | .1536  | -.1381 | .1083  | -.0118 | -.4871 |
| 12   | -15.10 | -.5576 | .1029  | -.0851 | .0794  | -.0032 | -.3550 |
| 13   | -10.10 | -.6263 | .0690  | -.0186 | .0490  | -.0013 | -.2382 |
| 14   | -5.00  | -.6776 | .0462  | .0313  | .0256  | -.0010 | -.1126 |
| 15   | -2.50  | -.7019 | .0396  | .0581  | .0114  | -.0017 | -.0429 |
| 16   | .00    | -.7003 | .0421  | .0936  | -.0052 | .0035  | .0192  |
| 17   | 2.50   | -.6941 | .0438  | .0748  | -.0157 | .0012  | .0876  |
| 18   | 5.00   | -.6805 | .0461  | .0465  | -.0269 | -.0046 | .1361  |
| 19   | 10.10  | -.6310 | .0618  | -.0317 | -.0510 | -.0039 | .2575  |
| 20   | 15.00  | -.5741 | .0997  | -.0791 | -.0772 | -.0015 | .3998  |
| 21   | 20.00  | -.5236 | .1497  | -.1511 | -.0977 | .0014  | .5115  |
| 24   | .00    | -.7051 | .0352  | .0790  | -.0002 | .0015  | .0165  |
| 25   | .00    | -.6965 | .0345  | .0780  | -.0002 | .0015  | .0163  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | .1782  | .0843  | .0029  | -.0037 | .0028  | .0150  |
| 8    | .00    | .1699  | -.0192 | -.0352 | -.0032 | .0006  | .0157  |
| 9    | -20.00 | .2417  | -.0664 | -.1817 | .0846  | .0194  | -.4864 |
| 10   | -15.00 | .2338  | -.0450 | -.1479 | .0586  | .0126  | -.3608 |
| 11   | -19.90 | -.5119 | -.0222 | -.1082 | .1083  | -.0023 | -.5103 |
| 12   | -15.10 | -.5576 | .0064  | -.0777 | .0794  | .0011  | -.3696 |
| 13   | -10.10 | -.6263 | .0259  | -.0171 | .0490  | -.0007 | -.2466 |
| 14   | -5.00  | -.6776 | .0361  | .0316  | .0256  | -.0015 | -.1162 |
| 15   | -2.50  | -.7019 | .0377  | .0585  | .0114  | -.0022 | -.0446 |
| 16   | .00    | -.7003 | .0421  | .0936  | -.0052 | .0035  | .0192  |
| 17   | 2.50   | -.6941 | .0399  | .0750  | -.0157 | .0018  | .0894  |
| 18   | 5.00   | -.6805 | .0340  | .0442  | -.0269 | -.0038 | .1396  |
| 19   | 10.10  | -.6310 | .0155  | -.0349 | -.0510 | -.0049 | .2644  |
| 20   | 15.00  | -.5741 | -.0076 | -.0784 | -.0772 | -.0053 | .4120  |
| 21   | 20.00  | -.5236 | -.0351 | -.1394 | -.0977 | -.0084 | .5318  |
| 24   | .00    | -.7051 | .0352  | .0790  | -.0002 | .0015  | .0165  |
| 25   | .00    | -.6965 | .0345  | .0780  | -.0002 | .0015  | .0163  |

RUN 886 CONFIG F P B NP5 W7 T57 BT IN=-3.5 XN=0

| PT. NO. | IW<br>ALPHA<br>DEG | O DELF     |                | O DELA         |                 | O IHT           |                 | O DELE         |              | O DELR     |        | O DELSB |  | O<br>V<br>RPM |
|---------|--------------------|------------|----------------|----------------|-----------------|-----------------|-----------------|----------------|--------------|------------|--------|---------|--|---------------|
|         |                    | PSI<br>DEG | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | DELSB<br>PSF | Q<br>KNOTS |        |         |  |               |
| 7       | -0.0               | .0         | 66.4           | -14.15         | -48.            | -57.            | 82.             | 5.56           | 54.53        | 128.05     | 12050. |         |  |               |
| 8       | -0.0               | .0         | 66.5           | -14.16         | -48.            | -57.            | 82.             | 5.57           | 54.45        | 127.95     | 12040. |         |  |               |
| 10      | .0                 | .0         | 66.9           | -6.74          | -56.            | -50.            | 42.             | 7.82           | 55.77        | 129.51     | 11320. |         |  |               |
| 11      | .0                 | 5.0        | 66.3           | -4.49          | -163.           | -200.           | -47.            | 48.43          | 54.66        | 128.19     | 11300. |         |  |               |
| 12      | -20.0              | 5.0        | -391.7         | 117.70         | 548.            | -445.           | -287.           | 32.82          | 54.49        | 127.98     | 11300. |         |  |               |
| 13      | -15.0              | 5.0        | -372.0         | 47.71          | 806.            | -476.           | -103.           | 46.53          | 54.98        | 128.57     | 11300. |         |  |               |
| 14      | -10.0              | 5.0        | -250.2         | 17.22          | 186.            | -426.           | -69.            | 51.53          | 55.06        | 128.67     | 11300. |         |  |               |
| 15      | -5.0               | 5.0        | -92.1          | -1.20          | -204.           | -307.           | -28.            | 51.84          | 54.87        | 128.44     | 11310. |         |  |               |
| 16      | -2.5               | 5.0        | -13.5          | -4.54          | -187.           | -243.           | -37.            | 50.81          | 54.98        | 128.57     | 11300. |         |  |               |
| 17      | .0                 | 5.0        | 65.5           | -4.45          | -155.           | -195.           | -30.            | 49.06          | 55.54        | 129.24     | 11300. |         |  |               |
| 18      | 2.5                | 5.0        | 145.9          | -1.80          | -134.           | -148.           | -27.            | 47.65          | 54.98        | 128.57     | 11320. |         |  |               |
| 19      | 5.0                | 5.0        | 221.0          | 3.99           | -121.           | -110.           | 29.             | 44.40          | 55.09        | 128.70     | 11300. |         |  |               |
| 20      | 10.0               | 5.0        | 375.5          | 24.19          | -176.           | -140.           | 95.             | 38.71          | 54.74        | 128.28     | 11300. |         |  |               |
| 21      | 15.0               | 5.0        | 513.8          | 58.10          | -409.           | -93.            | 236.            | 33.17          | 55.46        | 129.14     | 11310. |         |  |               |
| 22      | 17.5               | 5.0        | 541.4          | 85.27          | -542.           | -60.            | 419.            | 29.93          | 55.21        | 128.84     | 11280. |         |  |               |
| 23      | 20.0               | 5.0        | 554.0          | 117.57         | -593.           | 40.             | 363.            | 24.49          | 54.80        | 128.36     | 11310. |         |  |               |
| 24      | .0                 | 5.0        | 62.6           | -4.73          | -164.           | -198.           | 7.              | 47.78          | 55.33        | 128.98     | 11310. |         |  |               |
| 25      | .0                 | 5.0        | 67.5           | 33.80          | -50.            | -240.           | -41.            | 43.87          | 54.90        | 128.48     | 3520.  |         |  |               |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | .00    | .1795   | -.0382 | -.0154 | -.0035 | .0049  | .0150 |
| 8    | -.01   | .1797   | -.0383 | -.0154 | -.0035 | .0049  | .0150 |
| 10   | .00    | .1808   | -.0182 | -.0182 | -.0030 | .0026  | .0211 |
| 11   | .00    | .1793   | -.0121 | -.0527 | -.0121 | -.0028 | .1309 |
| 12   | -20.00 | -1.0587 | .3181  | .1766  | -.0269 | -.0174 | .0887 |
| 13   | -15.00 | -1.0055 | .1289  | .2597  | -.0288 | -.0062 | .1258 |
| 14   | -10.00 | -.6762  | .0465  | .0600  | -.0257 | -.0042 | .1393 |
| 15   | -5.00  | -.2490  | -.0032 | -.0657 | -.0186 | -.0017 | .1401 |
| 16   | -2.49  | -.0366  | -.0123 | -.0601 | -.0147 | -.0022 | .1373 |
| 17   | .01    | .1770   | -.0120 | -.0499 | -.0118 | -.0018 | .1326 |
| 18   | 2.51   | .3944   | -.0049 | -.0433 | -.0090 | -.0016 | .1288 |
| 19   | 5.00   | .5974   | .0108  | -.0389 | -.0067 | .0017  | .1200 |
| 20   | 10.01  | 1.0148  | .0654  | -.0568 | -.0084 | .0057  | .1046 |
| 21   | 15.00  | 1.3885  | .1570  | -.1320 | -.0056 | .0142  | .0896 |
| 22   | 17.51  | 1.4632  | .2305  | -.1747 | -.0036 | .0253  | .0809 |
| 23   | 20.01  | 1.4972  | .3177  | -.1911 | .0024  | .0219  | .0662 |
| 24   | .01    | .1692   | -.0128 | -.0529 | -.0120 | .0004  | .1291 |
| 25   | .01    | .1824   | .0914  | -.0161 | -.0145 | -.0025 | .1186 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | .00    | .1795   | -.0382 | -.0154 | -.0035 | .0049  | .0150 |
| 8    | -.01   | .1797   | -.0383 | -.0154 | -.0035 | .0049  | .0150 |
| 10   | .00    | .1808   | -.0182 | -.0182 | -.0030 | .0026  | .0211 |
| 11   | .00    | .1793   | -.0236 | -.0538 | -.0121 | -.0037 | .1293 |
| 12   | -20.00 | -1.0587 | .3091  | .1678  | -.0269 | -.0144 | .1162 |
| 13   | -15.00 | -1.0055 | .1174  | .2558  | -.0288 | -.0019 | .1366 |
| 14   | -10.00 | -.6762  | .0342  | .0578  | -.0257 | -.0032 | .1428 |
| 15   | -5.00  | -.2490  | -.0155 | -.0662 | -.0186 | -.0028 | .1393 |
| 16   | -2.49  | -.0366  | -.0243 | -.0609 | -.0147 | -.0032 | .1357 |

|    |       |        |        |        |        |        |       |
|----|-------|--------|--------|--------|--------|--------|-------|
| 17 | .01   | .1770  | -.0236 | -.0506 | -.0118 | -.0026 | .1310 |
| 18 | 2.51  | .3944  | -.0161 | -.0439 | -.0090 | -.0023 | .1279 |
| 19 | 5.00  | .5974  | .0002  | -.0379 | -.0067 | .0011  | .1205 |
| 20 | 10.01 | 1.0148 | .0560  | -.0540 | -.0084 | .0048  | .1099 |
| 21 | 15.00 | 1.3885 | .1486  | -.1248 | -.0056 | .0120  | .1030 |
| 22 | 17.51 | 1.4632 | .2225  | -.1623 | -.0036 | .0223  | .1007 |
| 23 | 20.01 | 1.4972 | .3107  | -.1802 | .0024  | .0187  | .0938 |
| 24 | .01   | .1692  | -.0240 | -.0525 | -.0120 | -.0004 | .1275 |
| 25 | .01   | .1824  | .0806  | -.0172 | -.0145 | -.0028 | .1261 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 758

RUN 887 CONFIG F P B NP5 W7 T51 BT IN=-3.5 XN=0

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 DELA<br>CDBAR<br>SQ-FT | 0 IHT<br>CPM<br>CU-FT | 0 DELE<br>CYM<br>CU-FT | 0 DELR<br>CRM<br>CU-FT | 0 DELR<br>CYB<br>SQ-FT | 0 DELSB<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|--------------------------|--------------------------|-----------------------|------------------------|------------------------|------------------------|---------------------|-----------------|--------|
| 8                | .0                     | .0                   | 68.0                     | 31.24                    | 31.                   | -54.                   | 10.                    | 6.10                   | 55.84               | 129.60          | 3580.  |
| 9                | .0                     | .0                   | 63.9                     | -7.29                    | -70.                  | -55.                   | 31.                    | 3.13                   | 55.48               | 129.17          | 11320. |
| 10               | .0                     | -20.0                | 90.4                     | 37.47                    | -591.                 | 1241.                  | 54.                    | -174.18                | 55.70               | 129.42          | 11290. |
| 11               | .0                     | -15.0                | 82.3                     | 16.91                    | -459.                 | 809.                   | 13.                    | -127.77                | 55.64               | 129.36          | 11240. |
| 12               | .0                     | -10.0                | 76.4                     | 2.01                     | -283.                 | 387.                   | 14.                    | -81.93                 | 55.47               | 129.15          | 11290. |
| 13               | .0                     | -5.0                 | 69.2                     | -4.94                    | -175.                 | 131.                   | 55.                    | -38.55                 | 54.96               | 128.55          | 11270. |
| 14               | .0                     | -2.5                 | 65.4                     | -6.66                    | -142.                 | 40.                    | 52.                    | -19.61                 | 55.25               | 128.89          | 11290. |
| 15               | .0                     | .0                   | 63.5                     | -6.98                    | -125.                 | -37.                   | -10.                   | 7.92                   | 55.07               | 128.68          | 11300. |
| 16               | .0                     | 2.5                  | 64.0                     | -6.27                    | -139.                 | -93.                   | 30.                    | 27.21                  | 55.33               | 128.99          | 11300. |
| 17               | .0                     | 5.0                  | 63.9                     | -4.95                    | -194.                 | -159.                  | -33.                   | 47.38                  | 55.72               | 129.45          | 11290. |
| 18               | .0                     | 10.0                 | 70.0                     | 1.11                     | -342.                 | -445.                  | 16.                    | 90.44                  | 56.27               | 130.10          | 11280. |
| 19               | .0                     | 15.0                 | 76.6                     | 14.25                    | -520.                 | -817.                  | 76.                    | 136.68                 | 55.28               | 128.93          | 11330. |
| 20               | .0                     | 20.0                 | 82.5                     | 36.05                    | -623.                 | -1235.                 | 48.                    | 184.35                 | 55.62               | 129.33          | 11280. |
| 21               | .0                     | .0                   | 65.5                     | -6.61                    | -103.                 | -37.                   | 13.                    | 3.91                   | 54.96               | 128.54          | 11270. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 8    | .00    | .1839 | .0844  | .0101  | -.0032 | .0006  | .0165  |
| 9    | .00    | .1727 | -.0197 | -.0227 | -.0033 | .0019  | .0085  |
| 10   | -20.00 | .2444 | .1013  | -.1905 | .0750  | .0032  | -.4708 |
| 11   | -15.00 | .2225 | .0457  | -.1479 | .0488  | .0008  | -.3453 |
| 12   | -10.00 | .2065 | .0054  | -.0914 | .0234  | .0009  | -.2214 |
| 13   | -5.00  | .1871 | -.0133 | -.0563 | .0079  | .0033  | -.1042 |
| 14   | -2.50  | .1769 | -.0180 | -.0459 | .0024  | .0031  | -.0530 |
| 15   | .00    | .1715 | -.0189 | -.0402 | -.0022 | -.0006 | .0214  |
| 16   | 2.50   | .1729 | -.0169 | -.0447 | -.0056 | .0018  | .0735  |
| 17   | 5.00   | .1727 | -.0134 | -.0627 | -.0096 | -.0020 | .1281  |
| 18   | 10.00  | .1892 | .0030  | -.1104 | -.0269 | .0010  | .2444  |
| 19   | 15.00  | .2071 | .0385  | -.1677 | -.0493 | .0046  | .3694  |
| 20   | 20.00  | .2231 | .0974  | -.2007 | -.0746 | .0029  | .4982  |
| 21   | .00    | .1770 | -.0179 | -.0332 | -.0022 | .0008  | .0106  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 8    | .00    | .1839 | .0844  | .0101  | -.0032 | .0006  | .0165  |
| 9    | .00    | .1727 | -.0197 | -.0227 | -.0033 | .0019  | .0085  |
| 10   | -20.00 | .2444 | -.0666 | -.1849 | .0750  | .0153  | -.4769 |
| 11   | -15.00 | .2225 | -.0456 | -.1440 | .0488  | .0080  | -.3453 |
| 12   | -10.00 | .2065 | -.0333 | -.0908 | .0234  | .0038  | -.2190 |
| 13   | -5.00  | .1871 | -.0224 | -.0577 | .0079  | .0042  | -.1026 |
| 14   | -2.50  | .1769 | -.0203 | -.0466 | .0024  | .0035  | -.0522 |
| 15   | .00    | .1715 | -.0189 | -.0402 | -.0022 | -.0006 | .0214  |
| 16   | 2.50   | .1729 | -.0201 | -.0443 | -.0056 | .0014  | .0727  |
| 17   | 5.00   | .1727 | -.0245 | -.0634 | -.0096 | -.0030 | .1264  |
| 18   | 10.00  | .1892 | -.0397 | -.1078 | -.0269 | -.0026 | .2412  |
| 19   | 15.00  | .2071 | -.0588 | -.1555 | -.0493 | -.0038 | .3667  |
| 20   | 20.00  | .2231 | -.0797 | -.1832 | -.0746 | -.0102 | .5014  |
| 21   | .00    | .1770 | -.0179 | -.0332 | -.0022 | .0008  | .0106  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 759

RUN 888 CONFIG F P B NP5 W7 T51 BT IN=-3.5 XN=0

| IW        | 0 DELF | 0 DELA | 0 IHT | 0 DELE | 0 DELR | 0 DELSB | 0     | 0       | 0     | 0      |        |
|-----------|--------|--------|-------|--------|--------|---------|-------|---------|-------|--------|--------|
| PT. ALPHA | PSI    | CLBAR  | CDBAR | CPMBAR | CYMBAR | CRMBAR  | CYBAR | Q       | V     | RPM    |        |
| NO. DEG   | DEG    | SQ-FT  | SQ-FT | CU-FT  | CU-FT  | CU-FT   | SQ-FT | PSF     | KNOTS |        |        |
| 7         | .0     | .0     | 66.9  | -6.55  | -69.   | -36.    | 60.   | 8.40    | 55.14 | 128.77 | 11240. |
| 8         | 10.0   | .0     | 378.4 | 22.77  | -112.  | -58.    | 33.   | 3.65    | 55.10 | 128.71 | 11290. |
| 9         | 10.0   | -20.0  | 372.4 | 64.42  | -414.  | 660.    | -7.   | -150.57 | 55.40 | 129.07 | 11300. |
| 10        | 10.0   | -15.0  | 373.4 | 43.06  | -322.  | 136.    | -17.  | -105.51 | 55.27 | 128.91 | 11310. |
| 11        | 10.0   | -10.0  | 377.6 | 30.74  | -305.  | 104.    | -11.  | -69.03  | 54.97 | 128.56 | 11320. |
| 12        | 10.0   | -5.0   | 376.9 | 24.03  | -199.  | -3.     | 42.   | -33.99  | 55.13 | 128.74 | 11340. |
| 13        | 10.0   | -2.5   | 377.5 | 23.02  | -176.  | -21.    | 53.   | -14.15  | 55.39 | 129.05 | 11330. |
| 14        | 10.0   | .0     | 375.6 | 22.47  | -150.  | -61.    | 68.   | 3.01    | 55.52 | 129.21 | 11320. |
| 15        | 10.0   | 2.5    | 375.8 | 22.83  | -158.  | -81.    | 121.  | 21.37   | 55.14 | 128.76 | 11310. |
| 16        | 10.0   | 5.0    | 371.7 | 24.11  | -200.  | -79.    | 109.  | 38.06   | 55.32 | 128.97 | 11300. |
| 17        | 10.0   | 10.0   | 369.6 | 30.28  | -270.  | -130.   | 113.  | 74.18   | 54.65 | 128.17 | 11290. |
| 18        | 10.0   | 15.0   | 359.1 | 41.09  | -258.  | -211.   | 62.   | 111.22  | 54.88 | 128.45 | 11310. |
| 19        | 10.0   | 20.0   | 347.0 | 63.25  | -494.  | -953.   | 142.  | 157.19  | 55.61 | 129.31 | 11290. |
| 20        | 10.0   | .0     | 379.4 | 22.97  | -130.  | -60.    | 51.   | 2.73    | 54.96 | 128.54 | 11310. |
| 21        | 10.0   | .0     | 371.0 | 63.23  | -114.  | -35.    | 85.   | 2.94    | 55.58 | 129.27 | 3880.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | .1808  | -.0177 | -.0222 | -.0022 | .0036  | .0227  |
| 8    | .00    | 1.0226 | .0616  | -.0362 | -.0035 | .0020  | .0099  |
| 9    | -20.00 | 1.0064 | .1741  | -.1333 | .0398  | -.0004 | -.4069 |
| 10   | -15.00 | 1.0091 | .1164  | -.1037 | .0082  | -.0011 | -.2852 |
| 11   | -10.00 | 1.0205 | .0831  | -.0983 | .0063  | -.0006 | -.1866 |
| 12   | -5.00  | 1.0185 | .0649  | -.0641 | -.0002 | .0025  | -.0919 |
| 13   | -2.50  | 1.0203 | .0622  | -.0567 | -.0013 | .0032  | -.0382 |
| 14   | .00    | 1.0151 | .0607  | -.0485 | -.0037 | .0041  | .0081  |
| 15   | 2.50   | 1.0158 | .0617  | -.0508 | -.0049 | .0073  | .0578  |
| 16   | 5.00   | 1.0045 | .0652  | -.0645 | -.0047 | .0066  | .1029  |
| 17   | 10.00  | .9988  | .0818  | -.0871 | -.0079 | .0068  | .2005  |
| 18   | 15.00  | .9705  | .1110  | -.0832 | -.0127 | .0038  | .3006  |
| 19   | 20.00  | .9379  | .1710  | -.1594 | -.0575 | .0085  | .4248  |
| 20   | .00    | 1.0253 | .0621  | -.0420 | -.0036 | .0031  | .0074  |
| 21   | .00    | 1.0027 | .1709  | -.0366 | -.0021 | .0052  | .0080  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | .1808  | -.0177 | -.0222 | -.0022 | .0036  | .0227  |
| 8    | .00    | 1.0226 | .0616  | -.0362 | -.0035 | .0020  | .0099  |
| 9    | -20.00 | 1.0064 | .0237  | -.1244 | .0398  | .0082  | -.4420 |
| 10   | -15.00 | 1.0091 | .0382  | -.0987 | .0082  | .0040  | -.3056 |
| 11   | -10.00 | 1.0205 | .0493  | -.0962 | .0063  | .0026  | -.1982 |
| 12   | -5.00  | 1.0185 | .0567  | -.0650 | -.0002 | .0036  | -.0972 |
| 13   | -2.50  | 1.0203 | .0605  | -.0574 | -.0013 | .0037  | -.0409 |
| 14   | .00    | 1.0151 | .0607  | -.0485 | -.0037 | .0041  | .0081  |
| 15   | 2.50   | 1.0158 | .0591  | -.0490 | -.0049 | .0069  | .0604  |
| 16   | 5.00   | 1.0045 | .0559  | -.0612 | -.0047 | .0055  | .1082  |
| 17   | 10.00  | .9988  | .0456  | -.0794 | -.0079 | .0039  | .2117  |
| 18   | 15.00  | .9705  | .0291  | -.0751 | -.0127 | -.0004 | .3191  |
| 19   | 20.00  | .9379  | .0146  | -.1340 | -.0575 | -.0022 | .4577  |
| 20   | .00    | 1.0253 | .0621  | -.0420 | -.0036 | .0031  | .0074  |
| 21   | .00    | 1.0027 | .1709  | -.0366 | -.0021 | .0052  | .0080  |



SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 889 CONFIG F P B NP5 W7 T56 BT IN=-3.5 XN=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 5 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 102.7       | 33.78       | -890.        | -40.         | 10.          | 6.09        | 55.38 | 129.05  | 3580.  |
| 3       | .0        | .0      | 99.8        | -6.82       | -1020.       | -42.         | 28.          | 5.46        | 55.54 | 129.23  | 11630. |
| 4       | -20.0     | .0      | -390.3      | 103.60      | 438.         | -143.        | -221.        | 5.45        | 55.63 | 129.33  | 11610. |
| 5       | -15.0     | .0      | -326.5      | 49.93       | 174.         | -183.        | 239.         | 10.18       | 55.87 | 129.62  | 11620. |
| 6       | -10.0     | .0      | -217.1      | 7.35        | -823.        | -18.         | -24.         | 3.62        | 55.44 | 129.12  | 11630. |
| 7       | -5.0      | .0      | -58.0       | -6.78       | -1112.       | -62.         | 43.          | 6.01        | 55.53 | 129.21  | 11600. |
| 8       | -2.5      | .0      | 22.1        | -8.22       | -1047.       | -63.         | 47.          | 3.95        | 55.16 | 128.78  | 11600. |
| 9       | .0        | .0      | 100.0       | -6.76       | -1000.       | -41.         | 45.          | 5.43        | 55.84 | 129.59  | 11600. |
| 10      | 2.5       | .0      | 177.7       | -2.82       | -1039.       | -40.         | 49.          | 3.03        | 55.09 | 128.69  | 11600. |
| 11      | 5.0       | .0      | 257.4       | 4.70        | -1072.       | -14.         | 48.          | 4.76        | 55.10 | 128.70  | 11590. |
| 12      | 10.0      | .0      | 422.8       | 29.31       | -1313.       | -31.         | 141.         | .75         | 54.68 | 128.21  | 11610. |
| 13      | 15.0      | .0      | 566.7       | 68.70       | -1776.       | -49.         | 194.         | -.43        | 54.83 | 128.39  | 11600. |
| 14      | 17.5      | .0      | 593.6       | 94.71       | -2074.       | -22.         | 141.         | .37         | 54.98 | 128.57  | 11610. |
| 15      | 20.0      | .0      | 570.5       | 130.23      | -1350.       | -51.         | 89.          | 3.10        | 54.90 | 128.47  | 11580. |
| 16      | -.0       | .0      | 100.0       | -6.61       | -1020.       | -50.         | 46.          | 4.94        | 55.19 | 128.81  | 11610. |
| 17      | 20.0      | .0      | 576.5       | 130.62      | -1358.       | -63.         | 89.          | 2.43        | 54.72 | 128.25  | 11600. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .2776   | .0913  | -.2870 | -.0024 | .0006  | .0165  |
| 3    | .00    | .2698   | -.0184 | -.3288 | -.0026 | .0017  | .0148  |
| 4    | -20.00 | -1.0550 | .2800  | .1412  | -.0086 | -.0134 | .0147  |
| 5    | -15.00 | -.8825  | .1350  | .0562  | -.0111 | .0144  | .0275  |
| 6    | -10.00 | -.5868  | .0199  | -.2655 | -.0011 | -.0015 | .0098  |
| 7    | -5.00  | -.1566  | -.0183 | -.3586 | -.0037 | .0026  | .0162  |
| 8    | -2.51  | .0596   | -.0222 | -.3374 | -.0038 | .0028  | .0107  |
| 9    | .01    | .2702   | -.0183 | -.3224 | -.0025 | .0027  | .0147  |
| 10   | 2.50   | .4803   | -.0076 | -.3349 | -.0024 | .0030  | .0082  |
| 11   | 5.00   | .6957   | .0127  | -.3455 | -.0008 | .0029  | .0129  |
| 12   | 10.02  | 1.1428  | .0792  | -.4233 | -.0019 | .0085  | .0020  |
| 13   | 15.00  | 1.5316  | .1857  | -.5725 | -.0030 | .0117  | -.0012 |
| 14   | 17.50  | 1.6043  | .2560  | -.6686 | -.0014 | .0085  | .0010  |
| 15   | 20.01  | 1.5419  | .3520  | -.4352 | -.0031 | .0054  | .0084  |
| 16   | -.00   | .2702   | -.0179 | -.3290 | -.0030 | .0028  | .0133  |
| 17   | 20.00  | 1.5581  | .3530  | -.4378 | -.0038 | .0054  | .0066  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .2776   | .0913  | -.2870 | -.0024 | .0006  | .0165  |
| 3    | .00    | .2698   | -.0184 | -.3288 | -.0026 | .0017  | .0148  |
| 4    | -20.00 | -1.0550 | .2800  | .1412  | -.0086 | -.0134 | .0147  |
| 5    | -15.00 | -.8825  | .1350  | .0562  | -.0111 | .0144  | .0275  |
| 6    | -10.00 | -.5868  | .0199  | -.2655 | -.0011 | -.0015 | .0098  |
| 7    | -5.00  | -.1566  | -.0183 | -.3586 | -.0037 | .0026  | .0162  |
| 8    | -2.51  | .0596   | -.0222 | -.3374 | -.0038 | .0028  | .0107  |
| 9    | .01    | .2702   | -.0183 | -.3224 | -.0025 | .0027  | .0147  |
| 10   | 2.50   | .4803   | -.0076 | -.3349 | -.0024 | .0030  | .0082  |
| 11   | 5.00   | .6957   | .0127  | -.3455 | -.0008 | .0029  | .0129  |
| 12   | 10.02  | 1.1428  | .0792  | -.4233 | -.0019 | .0085  | .0020  |
| 13   | 15.00  | 1.5316  | .1857  | -.5725 | -.0030 | .0117  | -.0012 |
| 14   | 17.50  | 1.6043  | .2560  | -.6686 | -.0014 | .0085  | .0010  |
| 15   | 20.01  | 1.5419  | .3520  | -.4352 | -.0031 | .0054  | .0084  |
| 16   | -.00   | .2702   | -.0179 | -.3290 | -.0030 | .0028  | .0133  |
| 17   | 20.00  | 1.5581  | .3530  | -.4378 | -.0038 | .0054  | .0066  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 761

RUN 890 CONFIG F P B NP5 W7 T56 BT IN=-3.5 XN=0

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 10 DELE     | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |
| 2       | .0        | .0      | 133.3       | 37.16       | -1736.       | -27.         | 9.           | 6.23        | 55.75 | 129.48  | 3580.  |
| 3       | .0        | .0      | 132.7       | -9.29       | -1913.       | -28.         | 65.          | 3.89        | 55.20 | 128.83  | 12460. |
| 4       | -20.0     | .0      | -370.8      | 96.00       | -353.        | -91.         | -220.        | 3.89        | 55.18 | 128.80  | 12450. |
| 5       | -15.0     | .0      | -300.7      | 41.43       | -924.        | -151.        | 177.         | 7.78        | 55.14 | 128.75  | 12420. |
| 6       | -10.0     | .0      | -178.9      | -.74        | -1899.       | -16.         | -22.         | 2.57        | 55.76 | 129.49  | 12460. |
| 7       | -5.0      | .0      | -26.7       | -11.21      | -2078.       | -46.         | -24.         | 4.09        | 55.81 | 129.55  | 12450. |
| 8       | -2.5      | .0      | 51.7        | -12.41      | -1969.       | -39.         | 13.          | 3.45        | 55.26 | 128.90  | 12430. |
| 9       | -.0       | .0      | 132.6       | -9.69       | -1904.       | -34.         | 84.          | 3.47        | 54.97 | 128.55  | 12460. |
| 10      | 2.5       | .0      | 208.3       | -4.37       | -1907.       | -21.         | 68.          | 2.11        | 54.77 | 128.31  | 12450. |
| 11      | 5.0       | .0      | 288.0       | 3.75        | -1931.       | 0.           | 69.          | 1.55        | 55.01 | 128.60  | 12460. |
| 12      | 10.0      | .0      | 449.6       | 30.61       | -2182.       | -5.          | 140.         | 1.11        | 55.25 | 128.88  | 12460. |
| 13      | 15.0      | .0      | 556.6       | 79.87       | -1881.       | -149.        | -0.          | 1.54        | 55.15 | 128.77  | 12440. |
| 14      | 20.0      | .0      | 568.2       | 132.06      | -1399.       | -78.         | 123.         | 2.41        | 55.24 | 128.87  | 12440. |
| 15      | 17.5      | .0      | 563.5       | 101.94      | -1511.       | -137.        | 70.          | 3.41        | 55.02 | 128.61  | 12460. |
| 17      | .0        | .0      | 130.0       | -9.73       | -1923.       | -34.         | 65.          | 4.28        | 54.93 | 128.51  | 12450. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .3602   | .1004  | -.5596 | -.0016 | .0006  | .0168 |
| 3    | .00    | .3585   | -.0251 | -.6166 | -.0017 | .0039  | .0105 |
| 4    | -20.00 | -1.0021 | .2595  | -.1137 | -.0055 | -.0133 | .0105 |
| 5    | -15.00 | -.8126  | .1120  | -.2978 | -.0091 | .0107  | .0210 |
| 6    | -10.00 | -.4836  | -.0020 | -.6121 | -.0010 | -.0013 | .0069 |
| 7    | -5.00  | -.0720  | -.0303 | -.6698 | -.0027 | -.0014 | .0111 |
| 8    | -2.51  | .1396   | -.0335 | -.6348 | -.0024 | .0008  | .0093 |
| 9    | -.00   | .3583   | -.0262 | -.6137 | -.0021 | .0051  | .0094 |
| 10   | 2.51   | .5631   | -.0118 | -.6149 | -.0012 | .0041  | .0057 |
| 11   | 5.02   | .7783   | .0101  | -.6225 | .0000  | .0042  | .0042 |
| 12   | 10.00  | 1.2151  | .0827  | -.7036 | -.0003 | .0084  | .0030 |
| 13   | 15.01  | 1.5044  | .2159  | -.6064 | -.0090 | -.0000 | .0042 |
| 14   | 20.00  | 1.5356  | .3569  | -.4512 | -.0047 | .0074  | .0065 |
| 15   | 17.50  | 1.5229  | .2755  | -.4870 | -.0082 | .0043  | .0092 |
| 17   | .00    | .3514   | -.0263 | -.6200 | -.0021 | .0039  | .0116 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .3602   | .1004  | -.5596 | -.0016 | .0006  | .0168 |
| 3    | .00    | .3585   | -.0251 | -.6166 | -.0017 | .0039  | .0105 |
| 4    | -20.00 | -1.0021 | .2595  | -.1137 | -.0055 | -.0133 | .0105 |
| 5    | -15.00 | -.8126  | .1120  | -.2978 | -.0091 | .0107  | .0210 |
| 6    | -10.00 | -.4836  | -.0020 | -.6121 | -.0010 | -.0013 | .0069 |
| 7    | -5.00  | -.0720  | -.0303 | -.6698 | -.0027 | -.0014 | .0111 |
| 8    | -2.51  | .1396   | -.0335 | -.6348 | -.0024 | .0008  | .0093 |
| 9    | -.00   | .3583   | -.0262 | -.6137 | -.0021 | .0051  | .0094 |
| 10   | 2.51   | .5631   | -.0118 | -.6149 | -.0012 | .0041  | .0057 |
| 11   | 5.02   | .7783   | .0101  | -.6225 | .0000  | .0042  | .0042 |
| 12   | 10.00  | 1.2151  | .0827  | -.7036 | -.0003 | .0084  | .0030 |
| 13   | 15.01  | 1.5044  | .2159  | -.6064 | -.0090 | -.0000 | .0042 |
| 14   | 20.00  | 1.5356  | .3569  | -.4512 | -.0047 | .0074  | .0065 |
| 15   | 17.50  | 1.5229  | .2755  | -.4870 | -.0082 | .0043  | .0092 |
| 17   | .00    | .3514   | -.0263 | -.6200 | -.0021 | .0039  | .0116 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 762

RUN 891 CONFIG F P B NP5 W7 T56 BT IN=-3.5 XN=0

| IW         | 0 DELF       | 0 DELA     | 0 IHT          | -5 DELE        | 0 DELR          | 0 DELSB         | 0               |                |       |            |        |
|------------|--------------|------------|----------------|----------------|-----------------|-----------------|-----------------|----------------|-------|------------|--------|
| PT,<br>NO. | ALPHA<br>DEG | PSI<br>DEG | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | PSF   | V<br>KNOTS | RPM    |
| 2          | .0           | .0         | 44.8           | 32.24          | 678.            | -73.            | 28.             | 5.96           | 54.82 | 128.38     | 3580.  |
| 3          | .0           | .0         | 39.5           | -6.90          | 566.            | -60.            | -25.            | 5.50           | 55.13 | 128.75     | 11430. |
| 4          | -20.0        | .0         | -411.7         | 130.36         | 1328.           | -149.           | -203.           | 4.56           | 55.24 | 128.87     | 11460. |
| 5          | -15.0        | .0         | -372.1         | 73.39          | 1834.           | -174.           | 87.             | 9.08           | 55.15 | 128.76     | 11400. |
| 6          | -10.0        | .0         | -288.0         | 18.87          | 1242.           | -40.            | -13.            | 6.98           | 55.64 | 129.35     | 11420. |
| 7          | -5.0         | .0         | -123.7         | -1.75          | 673.            | -96.            | -13.            | 8.53           | 55.54 | 129.23     | 11430. |
| 8          | -2.5         | .0         | -40.4          | -6.24          | 602.            | -87.            | 46.             | 4.51           | 55.14 | 128.75     | 11430. |
| 9          | -0           | .0         | 38.1           | -7.17          | 535.            | -70.            | 46.             | 5.00           | 55.84 | 129.59     | 11430. |
| 10         | 2.5          | .0         | 118.6          | -4.78          | 485.            | -54.            | -4.             | 3.41           | 55.88 | 129.63     | 11370. |
| 11         | 5.0          | .0         | 203.3          | -.06           | 465.            | -44.            | 48.             | 5.21           | 54.97 | 128.55     | 11470. |
| 12         | 10.0         | .0         | 357.3          | 19.94          | 380.            | -83.            | 102.            | 5.80           | 55.25 | 128.89     | 11430. |
| 13         | 15.0         | .0         | 498.3          | 53.83          | -4.             | -77.            | 70.             | 2.65           | 55.26 | 128.89     | 11410. |
| 14         | 17.5         | .0         | 532.0          | 77.97          | -344.           | -41.            | 175.            | 1.17           | 55.21 | 128.83     | 11400. |
| 15         | 20.0         | .0         | 554.4          | 106.99         | -663.           | -21.            | 141.            | .74            | 55.21 | 128.84     | 11440. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1211   | .0871  | .2185  | -.0044 | .0017  | .0161 |
| 3    | .00    | .1068   | -.0187 | .1805  | -.0036 | -.0015 | .0149 |
| 4    | -20.00 | -1.1126 | .3523  | .4281  | -.0090 | -.0123 | .0123 |
| 5    | -15.00 | -1.0056 | .1984  | .5912  | -.0105 | .0052  | .0245 |
| 6    | -9.99  | -.7783  | .0510  | .4006  | -.0024 | -.0008 | .0189 |
| 7    | -5.00  | -.3344  | -.0047 | .2170  | -.0058 | -.0008 | .0230 |
| 8    | -2.50  | -.1091  | -.0169 | .1942  | -.0052 | .0028  | .0122 |
| 9    | -.00   | .1029   | -.0194 | .1726  | -.0042 | .0028  | .0135 |
| 10   | 2.51   | .3204   | -.0129 | .1564  | -.0033 | -.0002 | .0092 |
| 11   | 4.99   | .5493   | -.0002 | .1498  | -.0026 | .0029  | .0141 |
| 12   | 10.02  | .9658   | .0539  | .1224  | -.0050 | .0062  | .0157 |
| 13   | 14.99  | 1.3467  | .1455  | -.0012 | -.0047 | .0042  | .0072 |
| 14   | 17.50  | 1.4378  | .2107  | -.1108 | -.0025 | .0106  | .0032 |
| 15   | 20.00  | 1.4983  | .2892  | -.2136 | -.0012 | .0085  | .0020 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1211   | .0871  | .2185  | -.0044 | .0017  | .0161 |
| 3    | .00    | .1068   | -.0187 | .1805  | -.0036 | -.0015 | .0149 |
| 4    | -20.00 | -1.1126 | .3523  | .4281  | -.0090 | -.0123 | .0123 |
| 5    | -15.00 | -1.0056 | .1984  | .5912  | -.0105 | .0052  | .0245 |
| 6    | -9.99  | -.7783  | .0510  | .4006  | -.0024 | -.0008 | .0189 |
| 7    | -5.00  | -.3344  | -.0047 | .2170  | -.0058 | -.0008 | .0230 |
| 8    | -2.50  | -.1091  | -.0169 | .1942  | -.0052 | .0028  | .0122 |
| 9    | -.00   | .1029   | -.0194 | .1726  | -.0042 | .0028  | .0135 |
| 10   | 2.51   | .3204   | -.0129 | .1564  | -.0033 | -.0002 | .0092 |
| 11   | 4.99   | .5493   | -.0002 | .1498  | -.0026 | .0029  | .0141 |
| 12   | 10.02  | .9658   | .0539  | .1224  | -.0050 | .0062  | .0157 |
| 13   | 14.99  | 1.3467  | .1455  | -.0012 | -.0047 | .0042  | .0072 |
| 14   | 17.50  | 1.4378  | .2107  | -.1108 | -.0025 | .0106  | .0032 |
| 15   | 20.00  | 1.4983  | .2892  | -.2136 | -.0012 | .0085  | .0020 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 763

RUN 892 CONFIG F P B NP5 W7 T56 BT IN=-3.5 XN=0

| PT. NO. | -9 DELF   |         | 0 DELA      |             | 0 IHT         |              | -10 DELE      |             | 0 DELR |           | 0 DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|---------------|--------------|---------------|-------------|--------|-----------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | PSF    | 0 V KNOTS |         |  |     |
| 3       | .0        | .0      | -165.9      | 37.36       | 965.          | -50.         | -42.          | 5.63        | 55.67  | 129.38    | 3360.   |  |     |
| 4       | .0        | .0      | -173.2      | -7.07       | 887.          | -66.         | 23.           | 9.43        | 54.92  | 128.50    | 12270.  |  |     |
| 5       | -20.0     | .0      | -409.4      | 175.88      | 1564.         | -89.         | -30.          | 5.63        | 55.70  | 129.40    | 12230.  |  |     |
| 6       | -15.0     | .0      | -415.7      | 130.09      | 2676.         | -93.         | -44.          | 4.28        | 54.89  | 128.45    | 12220.  |  |     |
| 7       | -10.0     | .0      | -398.8      | 77.92       | 2218.         | -163.        | -193.         | 9.66        | 55.38  | 129.04    | 12240.  |  |     |
| 8       | -5.0      | .0      | -334.3      | 12.17       | 1089.         | -46.         | -48.          | 8.39        | 55.61  | 129.31    | 12260.  |  |     |
| 9       | -2.5      | .0      | -255.4      | .94         | 984.          | -59.         | -12.          | 8.76        | 55.20  | 128.82    | 12260.  |  |     |
| 10      | -0        | .0      | -173.0      | -6.62       | 896.          | -43.         | 20.           | 11.54       | 55.51  | 129.19    | 12260.  |  |     |
| 11      | 2.5       | .0      | -86.6       | -11.28      | 789.          | -72.         | 30.           | 4.57        | 55.91  | 129.66    | 12260.  |  |     |
| 12      | 5.0       | .0      | -6.2        | -12.30      | 738.          | -40.         | 27.           | 8.72        | 55.08  | 128.67    | 12240.  |  |     |
| 13      | 10.0      | .0      | 158.1       | -5.79       | 688.          | -53.         | 31.           | 6.64        | 55.92  | 129.67    | 12230.  |  |     |
| 14      | 15.0      | .0      | 328.1       | 13.38       | 609.          | -63.         | 104.          | 4.90        | 55.59  | 129.28    | 12210.  |  |     |
| 15      | 17.5      | .0      | 412.5       | 28.44       | 500.          | -51.         | 70.           | 3.83        | 55.11  | 128.71    | 12210.  |  |     |
| 16      | 20.0      | .0      | 487.9       | 46.24       | 368.          | -40.         | 53.           | 2.21        | 55.40  | 129.06    | 12190.  |  |     |
| 17      | -0        | .0      | -173.0      | -6.74       | 869.          | -65.         | -12.          | 9.20        | 55.54  | 129.22    | 12260.  |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. # | ALPHA  | CL      | CD     | CPM   | CYM    | CRM    | CY    |
|-------|--------|---------|--------|-------|--------|--------|-------|
| 3     | .00    | -.4483  | .1010  | .3110 | -.0030 | -.0025 | .0152 |
| 4     | .00    | -.4680  | -.0191 | .2861 | -.0040 | .0014  | .0255 |
| 5     | -20.00 | -1.1065 | .4753  | .5041 | -.0054 | -.0018 | .0152 |
| 6     | -15.00 | -1.1236 | .3516  | .8626 | -.0056 | -.0027 | .0116 |
| 7     | -10.00 | -1.0779 | .2106  | .7151 | -.0098 | -.0116 | .0261 |
| 8     | -5.00  | -.9036  | .0329  | .3511 | -.0028 | -.0029 | .0227 |
| 9     | -2.49  | -.6902  | .0025  | .3173 | -.0036 | -.0008 | .0237 |
| 10    | -.00   | -.4676  | -.0179 | .2888 | -.0026 | .0012  | .0312 |
| 11    | 2.53   | -.2339  | -.0305 | .2545 | -.0044 | .0018  | .0123 |
| 12    | 4.99   | -.0167  | -.0332 | .2379 | -.0024 | .0016  | .0236 |
| 13    | 10.00  | .4273   | -.0156 | .2218 | -.0032 | .0019  | .0179 |
| 14    | 15.00  | .8868   | .0362  | .1962 | -.0038 | .0063  | .0132 |
| 15    | 17.51  | 1.1148  | .0769  | .1612 | -.0031 | .0042  | .0104 |
| 16    | 20.00  | 1.3186  | .1250  | .1187 | -.0024 | .0032  | .0060 |
| 17    | -.00   | -.4677  | -.0182 | .2800 | -.0040 | -.0007 | .0249 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. # | ALPHA  | CLB     | CDB    | CPMB  | CYMB   | CRMB   | CYB   |
|-------|--------|---------|--------|-------|--------|--------|-------|
| 3     | .00    | -.4483  | .1010  | .3110 | -.0030 | -.0025 | .0152 |
| 4     | .00    | -.4680  | -.0191 | .2861 | -.0040 | .0014  | .0255 |
| 5     | -20.00 | -1.1065 | .4753  | .5041 | -.0054 | -.0018 | .0152 |
| 6     | -15.00 | -1.1236 | .3516  | .8626 | -.0056 | -.0027 | .0116 |
| 7     | -10.00 | -1.0779 | .2106  | .7151 | -.0098 | -.0116 | .0261 |
| 8     | -5.00  | -.9036  | .0329  | .3511 | -.0028 | -.0029 | .0227 |
| 9     | -2.49  | -.6902  | .0025  | .3173 | -.0036 | -.0008 | .0237 |
| 10    | -.00   | -.4676  | -.0179 | .2888 | -.0026 | .0012  | .0312 |
| 11    | 2.53   | -.2339  | -.0305 | .2545 | -.0044 | .0018  | .0123 |
| 12    | 4.99   | -.0167  | -.0332 | .2379 | -.0024 | .0016  | .0236 |
| 13    | 10.00  | .4273   | -.0156 | .2218 | -.0032 | .0019  | .0179 |
| 14    | 15.00  | .8868   | .0362  | .1962 | -.0038 | .0063  | .0132 |
| 15    | 17.51  | 1.1148  | .0769  | .1612 | -.0031 | .0042  | .0104 |
| 16    | 20.00  | 1.3186  | .1250  | .1187 | -.0024 | .0032  | .0060 |
| 17    | -.00   | -.4677  | -.0182 | .2800 | -.0040 | -.0007 | .0249 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 764

RUN 893 CONFIG F P B NP5 W7 T56 BT IN=-3.5 XN=0.

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | 5 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM       |              |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-----------|--------------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR SQ-FT | CYBAR PSF | Q V KNOTS    |        |
| 2       | .0        | .0      | -64.5       | 35.78       | -1690.       | -8.          | 41.          | 9.21      | 55.10 128.70 | 3380.  |
| 3       | .0        | .0      | -70.6       | -6.76       | -1806.       | -17.         | 44.          | 6.59      | 55.35 129.00 | 12010. |
| 4       | -20.0     | .0      | -371.8      | 140.70      | 249.         | -13.         | -166.        | 3.75      | 55.38 129.03 | 12040. |
| 5       | -15.0     | .0      | -317.1      | 96.50       | -128.        | -55.         | -163.        | 1.93      | 54.79 128.33 | 12050. |
| 6       | -10.0     | .0      | -275.8      | 55.30       | -1182.       | -116.        | -154.        | 6.77      | 54.84 128.38 | 12050. |
| 7       | -5.0      | .0      | -224.8      | 2.92        | -1761.       | -20.         | -27.         | 5.99      | 55.71 129.43 | 12080. |
| 8       | -2.5      | .0      | -149.7      | -3.92       | -1803.       | -14.         | -26.         | 6.27      | 55.38 129.03 | 12060. |
| 9       | .0        | .0      | -70.6       | -7.06       | -1804.       | -23.         | 28.          | 5.46      | 55.56 129.24 | 12010. |
| 10      | 2.5       | .0      | 9.2         | -7.53       | -1801.       | -12.         | 45.          | 6.11      | 55.72 129.44 | 12000. |
| 11      | 5.0       | .0      | 89.9        | -5.11       | -1816.       | -4.          | 64.          | 6.53      | 55.31 128.95 | 11990. |
| 12      | 10.0      | .0      | 255.2       | 8.48        | -1928.       | -9.          | 122.         | 1.23      | 55.40 129.05 | 12010. |
| 13      | 15.0      | .0      | 411.1       | 38.65       | -1762.       | -136.        | -37.         | 6.45      | 54.94 128.51 | 12050. |
| 14      | 17.5      | .0      | 479.5       | 56.71       | -1672.       | -156.        | -105.        | 5.00      | 55.19 128.81 | 12030. |
| 15      | 20.0      | .0      | 525.8       | 79.77       | -1114.       | -50.         | 1.           | 3.34      | 55.11 128.72 | 12010. |
| 16      | -.0       | .0      | -72.2       | -6.43       | -1823.       | -19.         | 62.          | 6.79      | 55.21 128.83 | 11950. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.1744  | .0967  | -.5449 | -.0005 | .0025  | .0249 |
| 3    | .00    | -.1908  | -.0183 | -.5821 | -.0010 | .0027  | .0178 |
| 4    | -20.00 | -1.0048 | .3803  | .0803  | -.0008 | -.0100 | .0101 |
| 5    | -15.00 | -.8571  | .2608  | -.0411 | -.0033 | -.0099 | .0052 |
| 6    | -10.00 | -.7453  | .1495  | -.3811 | -.0070 | -.0093 | .0183 |
| 7    | -4.99  | -.6076  | .0079  | -.5677 | -.0012 | -.0016 | .0162 |
| 8    | -2.48  | -.4045  | -.0106 | -.5811 | -.0008 | -.0016 | .0170 |
| 9    | .02    | -.1907  | -.0191 | -.5816 | -.0014 | .0017  | .0147 |
| 10   | 2.51   | .0248   | -.0203 | -.5807 | -.0007 | .0027  | .0165 |
| 11   | 5.02   | .2430   | -.0138 | -.5854 | -.0002 | .0039  | .0176 |
| 12   | 10.01  | .6898   | .0229  | -.6215 | -.0005 | .0074  | .0033 |
| 13   | 15.02  | 1.1110  | .1045  | -.5681 | -.0082 | -.0022 | .0174 |
| 14   | 17.51  | 1.2960  | .1533  | -.5389 | -.0094 | -.0064 | .0135 |
| 15   | 20.01  | 1.4212  | .2156  | -.3592 | -.0030 | .0000  | .0090 |
| 16   | -.00   | -.1951  | -.0174 | -.5878 | -.0012 | .0037  | .0183 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.1744  | .0967  | -.5449 | -.0005 | .0025  | .0249 |
| 3    | .00    | -.1908  | -.0183 | -.5821 | -.0010 | .0027  | .0178 |
| 4    | -20.00 | -1.0048 | .3803  | .0803  | -.0008 | -.0100 | .0101 |
| 5    | -15.00 | -.8571  | .2608  | -.0411 | -.0033 | -.0099 | .0052 |
| 6    | -10.00 | -.7453  | .1495  | -.3811 | -.0070 | -.0093 | .0183 |
| 7    | -4.99  | -.6076  | .0079  | -.5677 | -.0012 | -.0016 | .0162 |
| 8    | -2.48  | -.4045  | -.0106 | -.5811 | -.0008 | -.0016 | .0170 |
| 9    | .02    | -.1907  | -.0191 | -.5816 | -.0014 | .0017  | .0147 |
| 10   | 2.51   | .0248   | -.0203 | -.5807 | -.0007 | .0027  | .0165 |
| 11   | 5.02   | .2430   | -.0138 | -.5854 | -.0002 | .0039  | .0176 |
| 12   | 10.01  | .6898   | .0229  | -.6215 | -.0005 | .0074  | .0033 |
| 13   | 15.02  | 1.1110  | .1045  | -.5681 | -.0082 | -.0022 | .0174 |
| 14   | 17.51  | 1.2960  | .1533  | -.5389 | -.0094 | -.0064 | .0135 |
| 15   | 20.01  | 1.4212  | .2156  | -.3592 | -.0030 | .0000  | .0090 |
| 16   | -.00   | -.1951  | -.0174 | -.5878 | -.0012 | .0037  | .0183 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 765

RUN 894 CONFIG F P 8 NP5 W7 T56 BT IN=-3.5

| IW      | 7.5 DELF  | 0.0 DELA | 0.0 IHT     | 5 DELE      | 0.0 DELR     | 0.0 DELSB    | 0.0          |             |       |         |  |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |  | RPM    |
| 2       | .0        | .0       | 255.3       | 46.33       | -670.        | -88.         | 81.          | 4.68        | 56.04 | 129.81  |  | 3810.  |
| 3       | .0        | .0       | 256.4       | -4.93       | -938.        | -93.         | 83.          | 3.20        | 55.35 | 129.00  |  | 12940. |
| 4       | -20.0     | .0       | -374.1      | 39.74       | 120.         | -80.         | -37.         | 8.43        | 55.34 | 128.99  |  | 13040. |
| 5       | -15.0     | .0       | -232.1      | 10.00       | -298.        | -35.         | -12.         | 5.67        | 55.32 | 128.96  |  | 13050. |
| 6       | -10.0     | .0       | -64.7       | -14.78      | -752.        | -56.         | 56.          | 7.61        | 55.09 | 128.70  |  | 13000. |
| 7       | -5.0      | .0       | 98.3        | -15.63      | -914.        | -71.         | 46.          | 4.39        | 55.11 | 128.71  |  | 13030. |
| 8       | -2.5      | .0       | 182.2       | -11.88      | -976.        | -86.         | 100.         | 4.47        | 54.88 | 128.45  |  | 13000. |
| 9       | .0        | .0       | 257.0       | -5.63       | -940.        | -97.         | 68.          | 2.19        | 54.52 | 128.01  |  | 13010. |
| 10      | 2.5       | .0       | 327.3       | 3.71        | -919.        | -74.         | 85.          | 3.10        | 54.99 | 128.57  |  | 13000. |
| 11      | 5.0       | .0       | 398.7       | 15.64       | -977.        | -69.         | 105.         | .43         | 55.13 | 128.74  |  | 13040. |
| 12      | 10.0      | .0       | 491.3       | 57.77       | -1326.       | -87.         | 142.         | .06         | 54.40 | 127.87  |  | 12940. |
| 13      | 15.0      | .0       | 555.9       | 115.44      | -1857.       | -107.        | 231.         | 1.62        | 54.55 | 128.05  |  | 13010. |
| 14      | 17.5      | .0       | 593.4       | 157.79      | -2227.       | -65.         | 177.         | -.19        | 54.84 | 128.39  |  | 13050. |
| 15      | 20.0      | .0       | 630.1       | 199.03      | -2251.       | -96.         | -17.         | 4.80        | 54.68 | 128.20  |  | 13030. |
| 16      | .0        | .0       | 255.0       | -5.66       | -958.        | -86.         | 101.         | 3.92        | 54.75 | 128.20  |  | 12980. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .6900   | .1252  | -.2160 | -.0053 | .0049  | .0127  |
| 3    | .00    | .6929   | -.0133 | -.3023 | -.0056 | .0050  | .0087  |
| 4    | -19.99 | -1.0112 | .1074  | .0388  | -.0048 | -.0022 | .0228  |
| 5    | -15.00 | -.6272  | .0270  | -.0962 | -.0021 | -.0007 | .0153  |
| 6    | -9.98  | -.1749  | -.0399 | -.2425 | -.0034 | .0034  | .0206  |
| 7    | -4.99  | .2657   | -.0422 | -.2946 | -.0043 | .0028  | .0119  |
| 8    | -2.50  | .4924   | -.0321 | -.3145 | -.0052 | .0060  | .0121  |
| 9    | .00    | .6947   | -.0152 | -.3031 | -.0058 | .0041  | .0059  |
| 10   | 2.50   | .8846   | .0100  | -.2963 | -.0044 | .0051  | .0084  |
| 11   | 5.01   | 1.0777  | .0423  | -.3149 | -.0042 | .0063  | .0012  |
| 12   | 10.02  | 1.3279  | .1561  | -.4276 | -.0053 | .0086  | .0002  |
| 13   | 15.01  | 1.5025  | .3120  | -.5988 | -.0065 | .0139  | .0044  |
| 14   | 17.53  | 1.6037  | .4265  | -.7180 | -.0039 | .0107  | -.0005 |
| 15   | 20.01  | 1.7030  | .5379  | -.7256 | -.0058 | -.0010 | .0130  |
| 16   | .01    | .6893   | -.0153 | -.3089 | -.0052 | .0061  | .0106  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .6900   | .1252  | -.2160 | -.0053 | .0049  | .0127  |
| 3    | .00    | .6929   | -.0133 | -.3023 | -.0056 | .0050  | .0087  |
| 4    | -19.99 | -1.0112 | .1074  | .0388  | -.0048 | -.0022 | .0228  |
| 5    | -15.00 | -.6272  | .0270  | -.0962 | -.0021 | -.0007 | .0153  |
| 6    | -9.98  | -.1749  | -.0399 | -.2425 | -.0034 | .0034  | .0206  |
| 7    | -4.99  | .2657   | -.0422 | -.2946 | -.0043 | .0028  | .0119  |
| 8    | -2.50  | .4924   | -.0321 | -.3145 | -.0052 | .0060  | .0121  |
| 9    | .00    | .6947   | -.0152 | -.3031 | -.0058 | .0041  | .0059  |
| 10   | 2.50   | .8846   | .0100  | -.2963 | -.0044 | .0051  | .0084  |
| 11   | 5.01   | 1.0777  | .0423  | -.3149 | -.0042 | .0063  | .0012  |
| 12   | 10.02  | 1.3279  | .1561  | -.4276 | -.0053 | .0086  | .0002  |
| 13   | 15.01  | 1.5025  | .3120  | -.5988 | -.0065 | .0139  | .0044  |
| 14   | 17.53  | 1.6037  | .4265  | -.7180 | -.0039 | .0107  | -.0005 |
| 15   | 20.01  | 1.7030  | .5379  | -.7256 | -.0058 | -.0010 | .0130  |
| 16   | .01    | .6893   | -.0153 | -.3089 | -.0052 | .0061  | .0106  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P766

RUN 895 CONFIG F P B NP5.W7 T56 BT IN=-3.5

| PT. NO. | 7.5 DELF ALPHA DEG | 0.0 DELA PSI DEG | 0.0 IHT CLBAR SQ-FT | 0.0 DELE CDBAR SQ-FT | 0.0 DELR CPMBAR CU-FT | 0.0 DELSB CYBAR CU-FT | 0.0 DELR CRMBAR CU-FT | 0.0 DELSB Q SQ-FT | 0.0 V PSF | RPM    |        |
|---------|--------------------|------------------|---------------------|----------------------|-----------------------|-----------------------|-----------------------|-------------------|-----------|--------|--------|
| 2       | .0                 | .0               | 227.6               | 44.86                | 96.                   | -114.                 | 61.                   | 7.26              | 55.35     | 129.00 | 3800.  |
| 3       | .0                 | .0               | 227.3               | -7.02                | -62.                  | -115.                 | 99.                   | 3.98              | 55.70     | 129.42 | 13000. |
| 4       | -20.0              | .0               | -396.5              | 55.08                | 913.                  | -87.                  | 3.                    | 6.37              | 55.06     | 128.65 | 12980. |
| 5       | -15.0              | .0               | -272.6              | 17.64                | 763.                  | -79.                  | -62.                  | 4.48              | 54.78     | 128.33 | 12930. |
| 6       | -10.0              | .0               | -107.1              | -11.18               | 279.                  | -80.                  | 39.                   | 7.48              | 54.63     | 128.15 | 13070. |
| 7       | -5.0               | .0               | 59.7                | -14.92               | 69.                   | -99.                  | 28.                   | 4.66              | 54.88     | 128.45 | 12940. |
| 8       | -2.5               | .0               | 146.2               | -12.43               | -37.                  | -124.                 | 28.                   | 4.75              | 55.20     | 128.82 | 12960. |
| 9       | .0                 | .0               | 224.5               | -7.72                | -45.                  | -123.                 | 80.                   | 5.86              | 55.26     | 128.90 | 13010. |
| 10      | 2.5                | .0               | 298.2               | .40                  | -58.                  | -81.                  | 48.                   | 4.17              | 54.75     | 128.28 | 13010. |
| 11      | 5.0                | .0               | 371.1               | 11.84                | -106.                 | -79.                  | 69.                   | 2.30              | 54.78     | 128.32 | 13010. |
| 12      | 10.0               | .0               | 457.8               | 49.51                | -425.                 | -111.                 | 105.                  | 1.93              | 54.64     | 128.15 | 13000. |
| 13      | 15.1               | .0               | 518.7               | 105.09               | -868.                 | -138.                 | 175.                  | 2.78              | 55.06     | 128.65 | 12980. |
| 14      | 17.6               | .0               | 556.4               | 144.32               | -1279.                | -67.                  | 229.                  | 2.04              | 55.10     | 128.70 | 12970. |
| 15      | 20.0               | .0               | 603.4               | 180.62               | -1577.                | -8.                   | 142.                  | 2.30              | 54.90     | 128.47 | 13010. |
| 16      | .0                 | .0               | 223.2               | -8.19                | -76.                  | -121.                 | -5.                   | 4.29              | 54.84     | 128.40 | 13010. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .6152   | .1212  | .0308  | -.0069 | .0037  | .0196 |
| 3    | .00    | .6144   | -.0190 | -.0200 | -.0069 | .0060  | .0107 |
| 4    | -20.00 | -1.0716 | .1489  | .2944  | -.0053 | .0002  | .0172 |
| 5    | -15.00 | -.7368  | .0477  | .2459  | -.0048 | -.0038 | .0121 |
| 6    | -10.01 | -.2895  | -.0302 | .0901  | -.0048 | .0024  | .0202 |
| 7    | -5.00  | .1614   | -.0403 | .0224  | -.0060 | .0017  | .0126 |
| 8    | -2.48  | .3951   | -.0336 | -.0121 | -.0075 | .0017  | .0128 |
| 9    | .04    | .6068   | -.0209 | -.0145 | -.0074 | .0048  | .0158 |
| 10   | 2.52   | .8058   | .0011  | -.0186 | -.0049 | .0029  | .0113 |
| 11   | 5.04   | 1.0030  | .0320  | -.0343 | -.0048 | .0041  | .0062 |
| 12   | 10.02  | 1.2372  | .1338  | -.1372 | -.0067 | .0064  | .0052 |
| 13   | 15.06  | 1.4020  | .2840  | -.2798 | -.0083 | .0106  | .0075 |
| 14   | 17.56  | 1.5038  | .3901  | -.4123 | -.0041 | .0138  | .0055 |
| 15   | 19.99  | 1.6309  | .4881  | -.5084 | -.0005 | .0086  | .0062 |
| 16   | .00    | .6032   | -.0221 | -.0244 | -.0073 | -.0003 | .0116 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .6152   | .1212  | .0308  | -.0069 | .0037  | .0196 |
| 3    | .00    | .6144   | -.0190 | -.0200 | -.0069 | .0060  | .0107 |
| 4    | -20.00 | -1.0716 | .1489  | .2944  | -.0053 | .0002  | .0172 |
| 5    | -15.00 | -.7368  | .0477  | .2459  | -.0048 | -.0038 | .0121 |
| 6    | -10.01 | -.2895  | -.0302 | .0901  | -.0048 | .0024  | .0202 |
| 7    | -5.00  | .1614   | -.0403 | .0224  | -.0060 | .0017  | .0126 |
| 8    | -2.48  | .3951   | -.0336 | -.0121 | -.0075 | .0017  | .0128 |
| 9    | .04    | .6068   | -.0209 | -.0145 | -.0074 | .0048  | .0158 |
| 10   | 2.52   | .8058   | .0011  | -.0186 | -.0049 | .0029  | .0113 |
| 11   | 5.04   | 1.0030  | .0320  | -.0343 | -.0048 | .0041  | .0062 |
| 12   | 10.02  | 1.2372  | .1338  | -.1372 | -.0067 | .0064  | .0052 |
| 13   | 15.06  | 1.4020  | .2840  | -.2798 | -.0083 | .0106  | .0075 |
| 14   | 17.56  | 1.5038  | .3901  | -.4123 | -.0041 | .0138  | .0055 |
| 15   | 19.99  | 1.6309  | .4881  | -.5084 | -.0005 | .0086  | .0062 |
| 16   | .00    | .6032   | -.0221 | -.0244 | -.0073 | -.0003 | .0116 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011  
P 767

RUN 896 CONFIG F P 8 NP5 W7 T56 BT IN=-3.5

| IW        | 7.5 DELF | 0.0 DELA | 0.0 IHT | -5 DELE | 0.0 DELR | 0.0 DELSB | 0.0   |       |       |        |        |
|-----------|----------|----------|---------|---------|----------|-----------|-------|-------|-------|--------|--------|
| PT, ALPHA | PSI      | CLBAR    | CDBAR   | CPMBAR  | CYMBAR   | CRMBAR    | CYBAR | Q     |       |        |        |
| NO. DEG   | DEG      | SQ-FT    | SQ-FT   | CU-FT   | CU-FT    | CU-FT     | SQ-FT | PSF   |       |        |        |
|           |          |          |         |         |          |           |       | V     |       |        |        |
|           |          |          |         |         |          |           |       | KNOTS |       |        |        |
|           |          |          |         |         |          |           |       | RPM   |       |        |        |
| 2         | .0       | .0       | 200.3   | 44.20   | 908.     | -110.     | 65.   | 3.87  | 55.51 | 129.19 | 3810.  |
| 3         | .0       | .0       | 195.0   | -8.59   | 846.     | -105.     | 47.   | 4.68  | 54.56 | 128.06 | 13070. |
| 4         | .0       | .0       | 191.9   | -6.68   | 843.     | -107.     | 29.   | 5.11  | 55.29 | 128.94 | 12830. |
| 5         | -20.0    | .0       | -396.9  | 66.64   | 1279.    | -84.      | 4.    | 6.19  | 55.06 | 128.66 | 12800. |
| 6         | -15.0    | .0       | -302.6  | 29.50   | 1777.    | -80.      | 5.    | 6.09  | 54.79 | 128.33 | 12810. |
| 7         | -10.0    | .0       | -144.4  | -3.01   | 1390.    | -81.      | -11.  | 6.25  | 55.06 | 128.66 | 12830. |
| 8         | -5.0     | .0       | 23.4    | -10.93  | 1121.    | -99.      | 6.    | 7.17  | 55.55 | 129.24 | 12860. |
| 9         | -2.5     | .0       | 112.1   | -10.40  | 986.     | -120.     | 62.   | 6.02  | 54.88 | 128.44 | 12850. |
| 10        | .0       | .0       | 190.6   | -6.45   | 860.     | -106.     | 98.   | 4.97  | 55.54 | 129.23 | 12830. |
| 11        | 2.6      | .0       | 266.6   | .84     | 816.     | -73.      | 13.   | 3.97  | 54.89 | 128.46 | 12810. |
| 12        | 5.0      | .0       | 339.1   | 10.22   | 732.     | -94.      | 69.   | .99   | 55.27 | 128.91 | 12790. |
| 13        | 10.0     | .0       | 425.3   | 44.60   | 382.     | -112.     | 137.  | 3.93  | 55.50 | 129.18 | 12890. |
| 14        | 15.0     | .0       | 484.4   | 96.97   | -24.     | -149.     | 156.  | 2.82  | 55.53 | 129.21 | 12880. |
| 15        | 20.0     | .0       | 572.2   | 174.28  | -664.    | -58.      | 54.   | 3.85  | 54.85 | 128.40 | 12900. |
| 16        | .0       | .0       | 191.5   | -6.29   | 853.     | -104.     | 64.   | 4.93  | 55.33 | 128.97 | 12830. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .5413   | .1194  | .2928  | -.0066 | .0039  | .0104 |
| 3    | .00    | .5270   | -.0232 | .2727  | -.0063 | .0029  | .0127 |
| 4    | .00    | .5185   | -.0180 | .2716  | -.0065 | .0017  | .0138 |
| 5    | -20.00 | -1.0728 | .1801  | .4122  | -.0050 | .0002  | .0167 |
| 6    | -14.96 | -.8180  | .0797  | .5730  | -.0049 | .0003  | .0165 |
| 7    | -10.00 | -.3903  | -.0081 | .4481  | -.0049 | -.0007 | .0169 |
| 8    | -5.00  | .0633   | -.0295 | .3613  | -.0060 | .0004  | .0194 |
| 9    | -2.50  | .3030   | -.0281 | .3179  | -.0073 | .0037  | .0163 |
| 10   | .00    | .5151   | -.0174 | .2773  | -.0064 | .0059  | .0134 |
| 11   | 2.55   | .7205   | .0023  | .2632  | -.0044 | .0008  | .0107 |
| 12   | 5.02   | .9164   | .0276  | .2360  | -.0057 | .0042  | .0027 |
| 13   | 10.01  | 1.1494  | .1205  | .1231  | -.0067 | .0083  | .0106 |
| 14   | 15.01  | 1.3091  | .2621  | -.0076 | -.0090 | .0095  | .0076 |
| 15   | 20.02  | 1.5466  | .4710  | -.2141 | -.0035 | .0032  | .0104 |
| 16   | .00    | .5176   | -.0170 | .2750  | -.0063 | .0039  | .0133 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .5413   | .1194  | .2928  | -.0066 | .0039  | .0104 |
| 3    | .00    | .5270   | -.0232 | .2727  | -.0063 | .0029  | .0127 |
| 4    | .00    | .5185   | -.0180 | .2716  | -.0065 | .0017  | .0138 |
| 5    | -20.00 | -1.0728 | .1801  | .4122  | -.0050 | .0002  | .0167 |
| 6    | -14.96 | -.8180  | .0797  | .5730  | -.0049 | .0003  | .0165 |
| 7    | -10.00 | -.3903  | -.0081 | .4481  | -.0049 | -.0007 | .0169 |
| 8    | -5.00  | .0633   | -.0295 | .3613  | -.0060 | .0004  | .0194 |
| 9    | -2.50  | .3030   | -.0281 | .3179  | -.0073 | .0037  | .0163 |
| 10   | .00    | .5151   | -.0174 | .2773  | -.0064 | .0059  | .0134 |
| 11   | 2.55   | .7205   | .0023  | .2632  | -.0044 | .0008  | .0107 |
| 12   | 5.02   | .9164   | .0276  | .2360  | -.0057 | .0042  | .0027 |
| 13   | 10.01  | 1.1494  | .1205  | .1231  | -.0067 | .0083  | .0106 |
| 14   | 15.01  | 1.3091  | .2621  | -.0076 | -.0090 | .0095  | .0076 |
| 15   | 20.02  | 1.5466  | .4710  | -.2141 | -.0035 | .0032  | .0104 |
| 16   | .00    | .5176   | -.0170 | .2750  | -.0063 | .0039  | .0133 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 768

RUN 897 CONFIG. F P B NP5 W7 T56 BT IN=-3.5 ALPHA=10

| PT. NO. | 7.5 DELF<br>ALPHA DEG | 0.0 DELA<br>PSI | 0.0 DELA<br>CLBAR SQ-FT | 0.0 IHT<br>CDBAR SQ-FT | 0.0 DELE<br>CPMBAR CU-FT | 0.0 DELR<br>CYMBAR CU-FT | 0.0 DELR<br>CRMBAR CU-FT | 0.0 DELSB<br>CYBAR SQ-FT | 0.0<br>Q PSF | 0.0<br>V KNOTS | RPM    |
|---------|-----------------------|-----------------|-------------------------|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------|----------------|--------|
|         |                       |                 |                         |                        |                          |                          |                          |                          |              |                |        |
| 7       | .0                    | .0              | 229.4                   | 44.61                  | 105.                     | -108.                    | -5.                      | 4.25                     | 55.35        | 129.00         | 3810.  |
| 8       | .0                    | .0              | 228.3                   | -6.28                  | -68.                     | -94.                     | 65.                      | 4.86                     | 54.69        | 128.22         | 12800. |
| 9       | 10.0                  | .0              | 462.9                   | 51.90                  | -445.                    | -102.                    | 53.                      | -.19                     | 54.62        | 128.17         | 12800. |
| 10      | 10.0                  | -20.0           | 468.5                   | 82.71                  | -459.                    | 990.                     | -658.                    | -137.15                  | 54.94        | 128.51         | 12860. |
| 11      | 10.0                  | -15.0           | 471.0                   | 66.55                  | -532.                    | 633.                     | -646.                    | -105.42                  | 55.22        | 128.85         | 12810. |
| 12      | 10.0                  | -10.0           | 471.4                   | 55.03                  | -543.                    | 338.                     | -454.                    | -60.76                   | 54.83        | 128.38         | 12890. |
| 13      | 10.0                  | -5.0            | 466.2                   | 52.98                  | -483.                    | 78.                      | -165.                    | -28.28                   | 54.92        | 128.49         | 12850. |
| 14      | 10.0                  | -2.5            | 460.4                   | 52.16                  | -480.                    | -7.                      | -77.                     | -12.69                   | 55.03        | 128.62         | 12830. |
| 15      | 10.0                  | .0              | 465.5                   | 51.94                  | -463.                    | -100.                    | 158.                     | 1.37                     | 54.84        | 128.39         | 12890. |
| 16      | 10.0                  | 2.5             | 458.4                   | 51.71                  | -485.                    | -185.                    | 233.                     | 18.76                    | 55.38        | 129.03         | 12790. |
| 17      | 10.0                  | 5.0             | 454.1                   | 49.92                  | -480.                    | -252.                    | 418.                     | 31.82                    | 55.67        | 129.38         | 12860. |
| 18      | 10.0                  | 10.0            | 476.1                   | 51.74                  | -518.                    | -431.                    | 424.                     | 67.15                    | 54.89        | 128.45         | 12820. |
| 19      | 10.0                  | 15.1            | 466.0                   | 62.67                  | -464.                    | -736.                    | 629.                     | 103.16                   | 54.91        | 128.48         | 12810. |
| 20      | 10.0                  | 20.0            | 446.2                   | 81.54                  | -543.                    | -1316.                   | 756.                     | 143.57                   | 55.64        | 129.34         | 12760. |
| 21      | 10.0                  | .0              | 463.2                   | 52.17                  | -443.                    | -98.                     | 105.                     | 1.93                     | 54.78        | 128.32         | 12740. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | .6201  | .1206  | .0337  | -.0065 | -.0003 | .0115  |
| 8    | .00    | .6170  | -.0170 | -.0219 | -.0057 | .0039  | .0131  |
| 9    | .00    | 1.2512 | .1403  | -.1435 | -.0062 | .0032  | -.0005 |
| 10   | -20.00 | 1.2663 | .2235  | -.1479 | .0598  | -.0397 | -.3707 |
| 11   | -15.00 | 1.2730 | .1799  | -.1716 | .0382  | -.0390 | -.2849 |
| 12   | -10.00 | 1.2741 | .1487  | -.1751 | .0204  | -.0274 | -.1642 |
| 13   | -5.00  | 1.2599 | .1432  | -.1556 | .0047  | -.0100 | -.0764 |
| 14   | -2.50  | 1.2444 | .1410  | -.1548 | -.0004 | -.0046 | -.0343 |
| 15   | .00    | 1.2581 | .1404  | -.1492 | -.0060 | .0096  | .0037  |
| 16   | 2.50   | 1.2389 | .1397  | -.1565 | -.0112 | .0141  | .0507  |
| 17   | 5.00   | 1.2273 | .1349  | -.1547 | -.0152 | .0253  | .0860  |
| 18   | 10.00  | 1.2868 | .1398  | -.1671 | -.0260 | .0256  | .1815  |
| 19   | 15.10  | 1.2595 | .1694  | -.1495 | -.0445 | .0380  | .2788  |
| 20   | 20.00  | 1.2058 | .2204  | -.1751 | -.0795 | .0456  | .3880  |
| 21   | .00    | 1.2520 | .1410  | -.1427 | -.0059 | .0063  | .0052  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | .6201  | .1206  | .0337  | -.0065 | -.0003 | .0115  |
| 8    | .00    | .6170  | -.0170 | -.0219 | -.0057 | .0039  | .0131  |
| 9    | .00    | 1.2512 | .1403  | -.1435 | -.0062 | .0032  | -.0005 |
| 10   | -20.00 | 1.2663 | .0826  | -.0661 | .0598  | -.0278 | -.4249 |
| 11   | -15.00 | 1.2730 | .0996  | -.1116 | .0382  | -.0293 | -.3219 |
| 12   | -10.00 | 1.2741 | .1178  | -.1469 | .0204  | -.0213 | -.1876 |
| 13   | -5.00  | 1.2599 | .1360  | -.1504 | .0047  | -.0074 | -.0887 |
| 14   | -2.50  | 1.2444 | .1393  | -.1535 | -.0004 | -.0034 | -.0404 |
| 15   | .00    | 1.2581 | .1404  | -.1492 | -.0060 | .0096  | .0037  |
| 16   | 2.50   | 1.2389 | .1374  | -.1530 | -.0112 | .0128  | .0568  |
| 17   | 5.00   | 1.2273 | .1269  | -.1423 | -.0152 | .0226  | .0975  |
| 18   | 10.00  | 1.2868 | .1060  | -.1407 | -.0260 | .0198  | .2031  |
| 19   | 15.10  | 1.2595 | .0905  | -.0912 | -.0445 | .0293  | .3134  |
| 20   | 20.00  | 1.2058 | .0737  | -.0808 | -.0795 | .0316  | .4401  |
| 21   | .00    | 1.2520 | .1410  | -.1427 | -.0059 | .0063  | .0052  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 769

RUN 898- CONFIG F P B NP5 W7 T56 BT IN=-3.5 PST=5

| IW      | 7.5 DELF  | 0.0 DELA | 0.0 IHT     | 0.0 DELE    | 0.0 DELR     | 0.0 DELSB    | 0.0          | 0.0         |       |         |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |
| 7       | .0        | .0       | 229.3       | 44.37       | 102.         | -93.         | 47.          | 4.15        | 55.79 | 129.53  | 3820.  |
| 8       | .0        | .0       | 229.2       | -7.09       | -80.         | -94.         | 64.          | 5.15        | 54.85 | 128.42  | 12890. |
| 9       | -.0       | 5.0      | 226.0       | -5.46       | -138.        | -211.        | 153.         | 45.26       | 55.24 | 128.88  | 12960. |
| 10      | -20.0     | 5.0      | -389.6      | 55.97       | 959.         | -515.        | 43.          | 43.42       | 54.92 | 128.49  | 12880. |
| 11      | -15.0     | 5.0      | -262.3      | 18.85       | 709.         | -524.        | 24.          | 49.17       | 55.56 | 129.26  | 12970. |
| 12      | -10.0     | 5.0      | -100.4      | -7.82       | 185.         | -497.        | 27.          | 54.40       | 55.10 | 128.71  | 12900. |
| 13      | -5.0      | 5.0      | 69.2        | -12.54      | -22.         | -348.        | 67.          | 50.77       | 55.08 | 128.68  | 12940. |
| 14      | -2.5      | 5.0      | 150.5       | -10.40      | -95.         | -297.        | 115.         | 45.37       | 55.11 | 128.71  | 12910. |
| 15      | -.0       | 5.0      | 222.6       | -5.28       | -124.        | -228.        | 86.          | 43.44       | 55.20 | 128.83  | 12880. |
| 16      | 2.5       | 5.0      | 298.2       | 2.74        | -143.        | -215.        | 182.         | 39.19       | 54.85 | 128.41  | 12870. |
| 17      | 5.0       | 5.0      | 368.8       | 13.33       | -218.        | -220.        | 168.         | 34.48       | 54.83 | 128.39  | 12930. |
| 18      | 10.0      | 5.0      | 461.9       | 50.26       | -499.        | -254.        | 466.         | 32.18       | 54.52 | 128.01  | 12920. |
| 19      | 15.0      | 5.0      | 523.9       | 108.34      | -1057.       | -193.        | 463.         | 24.89       | 54.75 | 128.29  | 12890. |
| 20      | 17.5      | 5.0      | 561.4       | 148.04      | -1353.       | -153.        | 594.         | 16.74       | 54.54 | 128.04  | 12890. |
| 21      | 20.0      | 5.0      | 604.8       | 181.52      | -1744.       | -.0.         | 558.         | 9.34        | 54.32 | 127.77  | 12880. |
| 22      | .0        | 5.0      | 224.3       | -5.08       | -130.        | -232.        | 156.         | 42.20       | 55.62 | 129.33  | 12890. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM   | CY    |
|------|--------|---------|--------|--------|--------|-------|-------|
| 7    | .00    | .6197   | .1199  | .0329  | -.0056 | .0028 | .0112 |
| 8    | .00    | .6194   | -.0192 | -.0258 | -.0057 | .0039 | .0139 |
| 9    | -.00   | .6108   | -.0148 | -.0444 | -.0127 | .0092 | .1223 |
| 10   | -20.01 | -1.0530 | .1513  | .3091  | -.0311 | .0026 | .1174 |
| 11   | -15.00 | -.7088  | .0509  | .2285  | -.0317 | .0015 | .1329 |
| 12   | -10.00 | -.2714  | -.0211 | .0597  | -.0300 | .0016 | .1470 |
| 13   | -5.00  | .1871   | -.0339 | -.0071 | -.0210 | .0041 | .1372 |
| 14   | -2.50  | .4068   | -.0281 | -.0306 | -.0179 | .0070 | .1226 |
| 15   | -.00   | .6017   | -.0143 | -.0401 | -.0137 | .0052 | .1174 |
| 16   | 2.49   | .8058   | .0074  | -.0460 | -.0130 | .0110 | .1059 |
| 17   | 5.01   | .9967   | .0360  | -.0704 | -.0133 | .0102 | .0932 |
| 18   | 10.00  | 1.2485  | .1358  | -.1608 | -.0153 | .0282 | .0870 |
| 19   | 15.00  | 1.4159  | .2928  | -.3408 | -.0116 | .0280 | .0673 |
| 20   | 17.51  | 1.5173  | .4001  | -.4364 | -.0092 | .0359 | .0452 |
| 21   | 20.02  | 1.6347  | .4906  | -.5624 | -.0000 | .0337 | .0253 |
| 22   | .00    | .6063   | -.0137 | -.0420 | -.0140 | .0094 | .1140 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|---------|--------|--------|--------|-------|-------|
| 7    | .00    | .6197   | .1199  | .0329  | -.0056 | .0028 | .0112 |
| 8    | .00    | .6194   | -.0192 | -.0258 | -.0057 | .0039 | .0139 |
| 9    | -.00   | .6108   | -.0254 | -.0399 | -.0127 | .0085 | .1206 |
| 10   | -20.01 | -1.0530 | .1404  | .3091  | -.0311 | .0077 | .1301 |
| 11   | -15.00 | -.7088  | .0391  | .2283  | -.0317 | .0052 | .1368 |
| 12   | -10.00 | -.2714  | -.0339 | .0602  | -.0300 | .0026 | .1446 |
| 13   | -5.00  | .1871   | -.0458 | -.0052 | -.0210 | .0039 | .1337 |
| 14   | -2.50  | .4068   | -.0387 | -.0273 | -.0179 | .0064 | .1197 |
| 15   | -.00   | .6017   | -.0245 | -.0375 | -.0137 | .0045 | .1157 |
| 16   | 2.49   | .8058   | -.0019 | -.0407 | -.0130 | .0102 | .1062 |
| 17   | 5.01   | .9967   | .0277  | -.0653 | -.0133 | .0090 | .0960 |
| 18   | 10.00  | 1.2485  | .1277  | -.1470 | -.0153 | .0254 | .0985 |
| 19   | 15.00  | 1.4159  | .2858  | -.3265 | -.0116 | .0223 | .0926 |

|    |       |        |        |        |        |       |       |
|----|-------|--------|--------|--------|--------|-------|-------|
| 20 | 17.51 | 1.5173 | .3946  | -.4179 | -.0092 | .0286 | .0801 |
| 21 | 20.02 | 1.6347 | .4865  | -.5445 | -.0000 | .0244 | .0681 |
| 22 | .00   | .6063  | -.0237 | -.0374 | -.0140 | .0087 | .1124 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P. 770.

RUN 899 CONFIG F P B NP5 W7 T56 BT IN=-3.5

| PT. NO. | IW | 7.5 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0.0 DEBAR<br>CLBAR<br>SQ-FT | 0.0 IHT<br>CDBAR<br>SQ-FT | 0.0 DELE<br>CPMBAR<br>CU-FT | 0.0 DELR<br>CYMBAR<br>CU-FT | 0.0 DELSB<br>CRMBAR<br>CU-FT | 0.0<br>CYBAR<br>SQ-FT | Q<br>PSF | 0.0<br>V<br>KNOTS | RPM    |
|---------|----|--------------------------|-----------------------|-----------------------------|---------------------------|-----------------------------|-----------------------------|------------------------------|-----------------------|----------|-------------------|--------|
| 4       |    | .0                       | .0                    | 427.4                       | 91.42                     | 350.                        | -120.                       | 46.                          | 5.15                  | 54.94    | 128.52            | 4030.  |
| 5       |    | .0                       | .0                    | 419.8                       | -6.78                     | 210.                        | -147.                       | 44.                          | 7.31                  | 54.97    | 128.56            | 17160. |
| 6       |    | -20.0                    | .0                    | -278.4                      | 23.05                     | 659.                        | -16.                        | 74.                          | 5.92                  | 55.27    | 128.91            | 16990. |
| 7       |    | -15.0                    | .0                    | -102.0                      | -10.69                    | 641.                        | -34.                        | 79.                          | 4.53                  | 54.87    | 128.43            | 17120. |
| 8       |    | -10.0                    | .0                    | 79.3                        | -23.51                    | 330.                        | -40.                        | 104.                         | .87                   | 54.93    | 128.51            | 17140. |
| 9       |    | -5.0                     | .0                    | 256.7                       | -17.93                    | 177.                        | -129.                       | 120.                         | 2.42                  | 54.92    | 128.50            | 17100. |
| 10      |    | -2.5                     | .0                    | 340.2                       | -11.61                    | 145.                        | -144.                       | 67.                          | 2.66                  | 55.00    | 128.60            | 17080. |
| 11      |    | .0                       | .0                    | 419.5                       | -3.82                     | 211.                        | -136.                       | 69.                          | 1.37                  | 54.87    | 128.44            | 17170. |
| 12      |    | 2.5                      | .0                    | 494.2                       | 6.97                      | 247.                        | -115.                       | 120.                         | 3.34                  | 55.01    | 128.60            | 17140. |
| 13      |    | 5.0                      | .0                    | 567.3                       | 19.46                     | 204.                        | -147.                       | 86.                          | 1.61                  | 55.06    | 128.66            | 16920. |
| 14      |    | 10.0                     | .0                    | 659.6                       | 55.59                     | -292.                       | -228.                       | 288.                         | -9.50                 | 54.83    | 128.39            | 17070. |
| 15      |    | 15.0                     | .0                    | 601.3                       | 134.05                    | -650.                       | -22.                        | 371.                         | 4.04                  | 54.76    | 128.30            | 17090. |
| 16      |    | 17.5                     | .0                    | 630.1                       | 168.01                    | -933.                       | -46.                        | 158.                         | 3.65                  | 55.13    | 128.73            | 17090. |
| 17      |    | 20.0                     | .0                    | 680.4                       | 210.58                    | -1490.                      | -78.                        | 89.                          | -1.07                 | 54.26    | 127.70            | 17110. |
| 18      |    | -0.0                     | .0                    | 418.7                       | -3.86                     | 189.                        | -145.                       | 80.                          | 6.05                  | 55.17    | 128.79            | 17140. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 4    | .00    | 1.1553 | .2471  | .1130  | -.0072 | .0028 | .0139  |
| 5    | .00    | 1.1346 | -.0183 | .0676  | -.0089 | .0026 | .0198  |
| 6    | -20.00 | -.7525 | .0623  | .2123  | -.0010 | .0045 | .0160  |
| 7    | -15.00 | -.2757 | -.0289 | .2066  | -.0021 | .0048 | .0122  |
| 8    | -10.00 | .2144  | -.0635 | .1064  | -.0024 | .0063 | .0023  |
| 9    | -5.00  | .6937  | -.0485 | .0571  | -.0078 | .0072 | .0065  |
| 10   | -2.52  | .9194  | -.0314 | .0468  | -.0087 | .0040 | .0072  |
| 11   | .00    | 1.1338 | -.0103 | .0682  | -.0082 | .0042 | .0037  |
| 12   | 2.49   | 1.3358 | .0188  | .0796  | -.0070 | .0072 | .0090  |
| 13   | 4.99   | 1.5333 | .0526  | .0659  | -.0089 | .0052 | .0043  |
| 14   | 9.99   | 1.7826 | .1502  | -.0943 | -.0138 | .0174 | -.0257 |
| 15   | 15.01  | 1.6252 | .3623  | -.2096 | -.0013 | .0224 | .0109  |
| 16   | 17.49  | 1.7030 | .4541  | -.3009 | -.0028 | .0096 | .0099  |
| 17   | 20.00  | 1.8390 | .5691  | -.4803 | -.0047 | .0054 | -.0029 |
| 18   | -.00   | 1.1316 | -.0104 | .0608  | -.0088 | .0048 | .0164  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 4    | .00    | 1.1553 | .2471  | .1130  | -.0072 | .0028 | .0139  |
| 5    | .00    | 1.1346 | -.0183 | .0676  | -.0089 | .0026 | .0198  |
| 6    | -20.00 | -.7525 | .0623  | .2123  | -.0010 | .0045 | .0160  |
| 7    | -15.00 | -.2757 | -.0289 | .2066  | -.0021 | .0048 | .0122  |
| 8    | -10.00 | .2144  | -.0635 | .1064  | -.0024 | .0063 | .0023  |
| 9    | -5.00  | .6937  | -.0485 | .0571  | -.0078 | .0072 | .0065  |
| 10   | -2.52  | .9194  | -.0314 | .0468  | -.0087 | .0040 | .0072  |
| 11   | .00    | 1.1338 | -.0103 | .0682  | -.0082 | .0042 | .0037  |
| 12   | 2.49   | 1.3358 | .0188  | .0796  | -.0070 | .0072 | .0090  |
| 13   | 4.99   | 1.5333 | .0526  | .0659  | -.0089 | .0052 | .0043  |
| 14   | 9.99   | 1.7826 | .1502  | -.0943 | -.0138 | .0174 | -.0257 |
| 15   | 15.01  | 1.6252 | .3623  | -.2096 | -.0013 | .0224 | .0109  |
| 16   | 17.49  | 1.7030 | .4541  | -.3009 | -.0028 | .0096 | .0099  |
| 17   | 20.00  | 1.8390 | .5691  | -.4803 | -.0047 | .0054 | -.0029 |
| 18   | -.00   | 1.1316 | -.0104 | .0608  | -.0088 | .0048 | .0164  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 900 CONFIG F P B NP5 W7 T56 BT IN=-3.5 PSI=5

| PT. NO. | IW ALPHA DEG | 15 DELF PSI DEG | 30 DELA CLBAR SQ-FT | 0.0 IHT CDBAR SQ-FT | 0.0 DELE CPMBAR CU-FT | 0.0 DELR CYMBAR CU-FT | 0.0 DELS CRMBAR CU-FT | 0.0 DELSB CYBAR SQ-FT | 0.0 Q PSF | 0.0 V KNOTS | RPM    |
|---------|--------------|-----------------|---------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|-------------|--------|
| 3       | .0           | .0              | 551.1               | 125.62              | 621.                  | -100.                 | 87.                   | .56                   | 55.23     | 128.87      | 4290.  |
| 4       | .0           | .0              | 504.3               | -6.90               | 220.                  | -79.                  | 266.                  | -18.14                | 55.76     | 129.51      | 19910. |
| 5       | .0           | 5.0             | 470.7               | -6.88               | 381.                  | -490.                 | 588.                  | 13.47                 | 55.36     | 129.03      | 19940. |
| 6       | -20.0        | 5.0             | -160.6              | -7.06               | 1066.                 | -739.                 | 256.                  | 62.28                 | 55.24     | 128.88      | 19910. |
| 7       | -15.0        | 5.0             | 18.4                | -33.11              | 1051.                 | -803.                 | 223.                  | 60.38                 | 54.84     | 128.41      | 19880. |
| 8       | -10.0        | 5.0             | 202.2               | -36.00              | 899.                  | -642.                 | 286.                  | 54.93                 | 54.82     | 128.38      | 19890. |
| 9       | -5.0         | 5.0             | 347.0               | -23.84              | 288.                  | -548.                 | 320.                  | 29.58                 | 55.16     | 128.78      | 19890. |
| 10      | -2.5         | 5.0             | 418.9               | -15.87              | 327.                  | -566.                 | 443.                  | 20.08                 | 54.80     | 128.36      | 19850. |
| 11      | .0           | 5.0             | 471.7               | -5.18               | 345.                  | -468.                 | 626.                  | 19.77                 | 54.63     | 128.16      | 19900. |
| 12      | 2.5          | 5.0             | 524.4               | 7.45                | 286.                  | -432.                 | 633.                  | 16.18                 | 54.52     | 128.02      | 19950. |
| 13      | 5.0          | 5.0             | 501.4               | 28.40               | -44.                  | -284.                 | 1032.                 | 29.78                 | 54.67     | 128.20      | 19910. |
| 14      | 10.0         | 5.0             | 508.8               | 86.25               | -786.                 | -256.                 | 414.                  | 31.25                 | 54.49     | 127.99      | 19930. |
| 15      | 15.0         | 5.0             | 559.4               | 146.68              | -1100.                | -182.                 | 378.                  | 29.13                 | 54.73     | 128.27      | 19870. |
| 16      | 17.5         | 5.0             | 617.9               | 187.71              | -1403.                | -89.                  | 364.                  | 20.43                 | 54.02     | 127.42      | 19900. |
| 17      | 20.0         | 5.0             | 660.5               | 227.97              | -1797.                | 4.                    | 502.                  | 13.06                 | 54.24     | 127.68      | 19900. |
| 18      | .0           | 5.0             | 474.2               | 9.94                | 154.                  | -217.                 | 618.                  | 17.29                 | 55.36     | 129.02      | 19900. |
| 19      | .0           | 5.0             | 543.4               | 122.73              | 580.                  | -603.                 | 213.                  | 32.64                 | 54.79     | 128.34      | 4250.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 3    | .00    | 1.4893 | .3395  | .2001  | -.0060 | .0053 | .0015  |
| 4    | .00    | 1.3629 | -.0187 | .0709  | -.0048 | .0161 | -.0490 |
| 5    | .00    | 1.2721 | -.0186 | .1230  | -.0296 | .0355 | .0364  |
| 6    | -20.00 | -.4341 | -.0191 | .3436  | -.0446 | .0155 | .1683  |
| 7    | -14.98 | .0498  | -.0895 | .3387  | -.0485 | .0135 | .1632  |
| 8    | -9.99  | .5465  | -.0973 | .2899  | -.0388 | .0173 | .1485  |
| 9    | -5.00  | .9377  | -.0644 | .0928  | -.0331 | .0193 | .0800  |
| 10   | -2.49  | 1.1323 | -.0429 | .1056  | -.0342 | .0268 | .0543  |
| 11   | .01    | 1.2750 | -.0140 | .1114  | -.0283 | .0378 | .0534  |
| 12   | 2.54   | 1.4172 | .0201  | .0921  | -.0261 | .0382 | .0437  |
| 13   | 5.00   | 1.3552 | .0768  | -.0143 | -.0172 | .0624 | .0805  |
| 14   | 10.00  | 1.3752 | .2331  | -.2534 | -.0155 | .0250 | .0845  |
| 15   | 15.00  | 1.5118 | .3964  | -.3546 | -.0110 | .0228 | .0787  |
| 16   | 17.53  | 1.6699 | .5073  | -.4523 | -.0054 | .0220 | .0552  |
| 17   | 20.00  | 1.7852 | .6161  | -.5795 | .0002  | .0303 | .0353  |
| 18   | .00    | 1.2816 | .0269  | .0495  | -.0131 | .0373 | .0467  |
| 19   | .00    | 1.4687 | .3317  | .1869  | -.0364 | .0129 | .0882  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB  | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|-------|--------|-------|--------|
| 3    | .00    | 1.4893 | .3395  | .2001 | -.0060 | .0053 | .0015  |
| 4    | .00    | 1.3629 | -.0187 | .0709 | -.0048 | .0161 | -.0490 |
| 5    | .00    | 1.2721 | -.0217 | .1391 | -.0296 | .0374 | .0346  |
| 6    | -20.00 | -.4341 | -.0338 | .3495 | -.0446 | .0211 | .1660  |
| 7    | -14.98 | .0498  | -.1034 | .3437 | -.0485 | .0190 | .1547  |
| 8    | -9.99  | .5465  | -.1099 | .2968 | -.0388 | .0220 | .1394  |
| 9    | -5.00  | .9377  | -.0712 | .1014 | -.0331 | .0208 | .0740  |
| 10   | -2.49  | 1.1323 | -.0475 | .1177 | -.0342 | .0284 | .0503  |
| 11   | .01    | 1.2750 | -.0186 | .1286 | -.0243 | .0395 | .0520  |
| 12   | 2.54   | 1.4172 | .0162  | .1096 | -.0261 | .0396 | .0453  |
| 13   | 5.00   | 1.3552 | .0694  | .0149 | -.0172 | .0619 | .0869  |

|    |       |        |       |        |        |       |       |
|----|-------|--------|-------|--------|--------|-------|-------|
| 14 | 10.00 | 1.3752 | .2248 | -.2408 | -.0155 | .0208 | .1046 |
| 15 | 15.00 | 1.5118 | .3880 | -.3426 | -.0110 | .0169 | .1131 |
| 16 | 17.53 | 1.6699 | .5005 | -.4403 | -.0054 | .0145 | .0994 |
| 17 | 20.00 | 1.7852 | .6107 | -.5631 | .0002  | .0207 | .0891 |
| 18 | .00   | 1.2816 | .0227 | .0668  | -.0131 | .0380 | .0489 |
| 19 | .00   | 1.4687 | .3227 | .1922  | -.0364 | .0159 | .1169 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 772

RUN 901 CONFIG F P B NP5 W7 T58 BT IN=-3.5

| PT. NO. | 7.5 DELF ALPHA DEG | 30 DELA PSI DEG | 0.0 IHT CLBAR SQ-FT | 0.0 DELE CDBAR SQ-FT | 0.0 DELR CPMBAR CU-FT | 0.0 DELS8 CYMBAR CU-FT | 0.0 DELR CRMBAR CU-FT | 0.0 DELS8 CYBAR SQ-FT | 0.0 DELS8 Q PSF | 0.0 V KNOTS | RPM    |
|---------|--------------------|-----------------|---------------------|----------------------|-----------------------|------------------------|-----------------------|-----------------------|-----------------|-------------|--------|
| 2       | .0                 | .0              | 423.1               | 92.47                | 625.                  | -108.                  | 98.                   | 5.88                  | 55.00           | 128.59      | 4020.  |
| 3       | .0                 | .0              | 417.4               | -5.67                | 488.                  | -140.                  | 80.                   | 5.71                  | 55.51           | 129.21      | 17300. |
| 4       | -20.0              | .0              | -296.3              | 26.29                | 1219.                 | -54.                   | 36.                   | 7.64                  | 54.41           | 127.89      | 17210. |
| 5       | -15.0              | .0              | -116.6              | -8.08                | 1157.                 | 26.                    | -0.                   | .12                   | 54.93           | 128.52      | 17260. |
| 6       | -10.0              | .0              | 66.8                | -21.80               | 879.                  | 17.                    | 88.                   | .12                   | 55.15           | 128.78      | 17220. |
| 7       | -5.0               | .0              | 248.1               | -19.60               | 617.                  | -113.                  | 98.                   | 6.08                  | 54.31           | 127.78      | 17220. |
| 8       | -2.4               | .0              | 335.8               | -13.07               | 526.                  | -111.                  | 102.                  | 3.19                  | 54.52           | 128.03      | 17220. |
| 9       | -.0                | .0              | 418.0               | -4.86                | 498.                  | -126.                  | 98.                   | 6.63                  | 54.43           | 127.91      | 17200. |
| 10      | 2.5                | .0              | 500.3               | 5.80                 | 443.                  | -103.                  | 86.                   | 2.82                  | 54.29           | 127.75      | 17260. |
| 11      | 5.0                | .0              | 568.6               | 19.58                | 363.                  | -92.                   | 89.                   | -1.36                 | 55.01           | 128.61      | 17260. |
| 12      | 10.0               | .0              | 681.4               | 55.41                | -216.                 | -218.                  | 199.                  | -6.80                 | 54.59           | 128.10      | 17260. |
| 13      | 15.0               | .0              | 617.0               | 136.80               | -663.                 | -41.                   | 319.                  | 1.31                  | 54.65           | 128.18      | 17250. |
| 14      | 17.5               | .0              | 649.5               | 173.28               | -1067.                | -32.                   | 234.                  | 2.28                  | 53.74           | 127.09      | 17190. |
| 15      | 20.0               | .0              | 697.2               | 215.51               | -1440.                | -8.                    | 73.                   | 6.13                  | 53.92           | 127.30      | 17300. |
| 16      | -.0                | .0              | 415.6               | -3.89                | 504.                  | -105.                  | 86.                   | 1.67                  | 55.01           | 128.62      | 17230. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.1436 | .2499  | .2016  | -.0065 | .0059  | .0159  |
| 3    | .00    | 1.1281 | -.0153 | .1573  | -.0085 | .0048  | .0154  |
| 4    | -20.00 | -.8009 | .0710  | .3931  | -.0033 | .0022  | .0206  |
| 5    | -15.00 | -.3151 | -.0218 | .3730  | .0016  | -.0000 | .0003  |
| 6    | -10.00 | .1805  | -.0589 | .2833  | .0010  | .0053  | .0003  |
| 7    | -5.00  | .6705  | -.0530 | .1988  | -.0068 | .0059  | .0164  |
| 8    | -2.45  | .9075  | -.0353 | .1695  | -.0067 | .0062  | .0086  |
| 9    | -.00   | 1.1296 | -.0131 | .1605  | -.0076 | .0059  | .0179  |
| 10   | 2.55   | 1.3522 | .0157  | .1427  | -.0062 | .0052  | .0076  |
| 11   | 5.01   | 1.5367 | .0529  | .1171  | -.0056 | .0054  | -.0037 |
| 12   | 10.00  | 1.8416 | .1498  | -.0698 | -.0131 | .0120  | -.0184 |
| 13   | 15.00  | 1.6676 | .3697  | -.2136 | -.0025 | .0193  | .0035  |
| 14   | 17.50  | 1.7555 | .4683  | -.3441 | -.0019 | .0142  | .0062  |
| 15   | 19.99  | 1.8844 | .5824  | -.4642 | -.0005 | .0044  | .0166  |
| 16   | -.00   | 1.1231 | -.0105 | .1626  | -.0063 | .0052  | .0045  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.1436 | .2499  | .2016  | -.0065 | .0059  | .0159  |
| 3    | .00    | 1.1281 | -.0153 | .1573  | -.0085 | .0048  | .0154  |
| 4    | -20.00 | -.8009 | .0710  | .3931  | -.0033 | .0022  | .0206  |
| 5    | -15.00 | -.3151 | -.0218 | .3730  | .0016  | -.0000 | .0003  |
| 6    | -10.00 | .1805  | -.0589 | .2833  | .0010  | .0053  | .0003  |
| 7    | -5.00  | .6705  | -.0530 | .1988  | -.0068 | .0059  | .0164  |
| 8    | -2.45  | .9075  | -.0353 | .1695  | -.0067 | .0062  | .0086  |
| 9    | -.00   | 1.1296 | -.0131 | .1605  | -.0076 | .0059  | .0179  |
| 10   | 2.55   | 1.3522 | .0157  | .1427  | -.0062 | .0052  | .0076  |
| 11   | 5.01   | 1.5367 | .0529  | .1171  | -.0056 | .0054  | -.0037 |
| 12   | 10.00  | 1.8416 | .1498  | -.0698 | -.0131 | .0120  | -.0184 |
| 13   | 15.00  | 1.6676 | .3697  | -.2136 | -.0025 | .0193  | .0035  |
| 14   | 17.50  | 1.7555 | .4683  | -.3441 | -.0019 | .0142  | .0062  |
| 15   | 19.99  | 1.8844 | .5824  | -.4642 | -.0005 | .0044  | .0166  |
| 16   | -.00   | 1.1231 | -.0105 | .1626  | -.0063 | .0052  | .0045  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 773

RUN 902 CONFIG F P B NP5 W7 T5B BT IN=-3.5

| IW<br>PT.<br>NO. | -9 DELF<br>ALPHA<br>DEG | 0.0 DELA<br>PSI<br>DEG | 0.0 IHT<br>CLBAR<br>SQ-FT | 0.0 IHT<br>CDBAR<br>SQ-FT | -4 DELE<br>CPMBAR<br>CU-FT | 0.0 DELR<br>CYMBAR<br>CU-FT | 0.0 DELSB<br>CRMBAR<br>CU-FT | 0.0<br>CYBAR<br>SQ-FT | 0.0<br>Q<br>PSF | 0.0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|------------------------|---------------------------|---------------------------|----------------------------|-----------------------------|------------------------------|-----------------------|-----------------|-------------------|--------|
| 2                | .0                      | .0                     | -123.1                    | 35.13                     | -130.                      | -21.                        | -4.                          | 3.49                  | 55.66           | 129.37            | 3360.  |
| 3                | .0                      | .0                     | -129.8                    | -6.29                     | -234.                      | -46.                        | -8.                          | 6.64                  | 55.95           | 129.72            | 11770. |
| 4                | -20.0                   | .0                     | -424.5                    | 170.98                    | 1755.                      | -125.                       | -223.                        | 5.25                  | 55.18           | 128.80            | 11830. |
| 5                | -15.0                   | .0                     | -409.3                    | 114.80                    | 2261.                      | -148.                       | -295.                        | 7.31                  | 55.48           | 129.15            | 11900. |
| 6                | -10.0                   | .0                     | -352.3                    | 68.10                     | 1135.                      | -120.                       | -35.                         | 9.69                  | 55.54           | 129.23            | 11940. |
| 7                | -5.0                    | .0                     | -291.5                    | 8.30                      | 78.                        | -15.                        | -28.                         | 6.80                  | 55.14           | 128.76            | 11930. |
| 8                | -2.5                    | .0                     | -207.2                    | -1.04                     | -63.                       | -28.                        | 25.                          | 6.96                  | 55.27           | 128.92            | 11910. |
| 9                | -0                      | .0                     | -130.5                    | -6.98                     | -231.                      | -20.                        | -10.                         | 7.69                  | 55.40           | 129.07            | 11920. |
| 10               | 2.5                     | .0                     | -47.2                     | -10.27                    | -334.                      | -38.                        | 47.                          | 4.41                  | 55.56           | 129.25            | 11930. |
| 11               | 5.0                     | .0                     | 40.2                      | -9.12                     | -367.                      | -5.                         | 65.                          | 5.65                  | 55.48           | 129.16            | 11910. |
| 12               | 10.0                    | .0                     | 203.5                     | .28                       | -478.                      | -6.                         | 68.                          | 3.38                  | 55.42           | 129.09            | 11910. |
| 13               | 15.0                    | .0                     | 375.5                     | 22.90                     | -622.                      | -31.                        | 88.                          | 2.04                  | 55.10           | 128.71            | 11920. |
| 14               | 17.5                    | .0                     | 458.2                     | 39.32                     | -681.                      | -30.                        | 106.                         | 1.43                  | 54.96           | 128.54            | 11910. |
| 15               | 20.0                    | .0                     | 534.9                     | 58.29                     | -754.                      | -18.                        | 141.                         | 1.55                  | 55.05           | 128.65            | 11920. |
| 16               | .0                      | .0                     | -131.1                    | -7.27                     | -242.                      | -23.                        | -28.                         | 8.35                  | 55.48           | 129.16            | 11950. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3327  | .0949  | -.0420 | -.0013 | -.0003 | .0094 |
| 3    | .00    | -.3507  | -.0170 | -.0754 | -.0028 | -.0005 | .0179 |
| 4    | -20.00 | -1.1474 | .4621  | .5657  | -.0076 | -.0134 | .0142 |
| 5    | -15.00 | -1.1063 | .3103  | .7288  | -.0089 | -.0178 | .0197 |
| 6    | -9.99  | -.9523  | .1841  | .3660  | -.0072 | -.0021 | .0262 |
| 7    | -5.00  | -.7877  | .0224  | .0250  | -.0009 | -.0017 | .0184 |
| 8    | -2.47  | -.5601  | -.0028 | -.0204 | -.0017 | .0015  | .0188 |
| 9    | -.00   | -.3526  | -.0189 | -.0745 | -.0012 | -.0006 | .0208 |
| 10   | 2.51   | -.1275  | -.0278 | -.1078 | -.0023 | .0029  | .0119 |
| 11   | 5.00   | .1086   | -.0247 | -.1182 | -.0003 | .0039  | .0153 |
| 12   | 10.02  | .5500   | .0008  | -.1540 | -.0003 | .0041  | .0091 |
| 13   | 15.00  | 1.0150  | .0619  | -.2005 | -.0019 | .0053  | .0055 |
| 14   | 17.52  | 1.2384  | .1063  | -.2195 | -.0018 | .0064  | .0039 |
| 15   | 20.00  | 1.4456  | .1575  | -.2431 | -.0011 | .0085  | .0042 |
| 16   | .00    | -.3542  | -.0196 | -.0781 | -.0014 | -.0017 | .0226 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3327  | .0949  | -.0420 | -.0013 | -.0003 | .0094 |
| 3    | .00    | -.3507  | -.0170 | -.0754 | -.0028 | -.0005 | .0179 |
| 4    | -20.00 | -1.1474 | .4621  | .5657  | -.0076 | -.0134 | .0142 |
| 5    | -15.00 | -1.1063 | .3103  | .7288  | -.0089 | -.0178 | .0197 |
| 6    | -9.99  | -.9523  | .1841  | .3660  | -.0072 | -.0021 | .0262 |
| 7    | -5.00  | -.7877  | .0224  | .0250  | -.0009 | -.0017 | .0184 |
| 8    | -2.47  | -.5601  | -.0028 | -.0204 | -.0017 | .0015  | .0188 |
| 9    | -.00   | -.3526  | -.0189 | -.0745 | -.0012 | -.0006 | .0208 |
| 10   | 2.51   | -.1275  | -.0278 | -.1078 | -.0023 | .0029  | .0119 |
| 11   | 5.00   | .1086   | -.0247 | -.1182 | -.0003 | .0039  | .0153 |
| 12   | 10.02  | .5500   | .0008  | -.1540 | -.0003 | .0041  | .0091 |
| 13   | 15.00  | 1.0150  | .0619  | -.2005 | -.0019 | .0053  | .0055 |
| 14   | 17.52  | 1.2384  | .1063  | -.2195 | -.0018 | .0064  | .0039 |
| 15   | 20.00  | 1.4456  | .1575  | -.2431 | -.0011 | .0085  | .0042 |
| 16   | .00    | -.3542  | -.0196 | -.0781 | -.0014 | -.0017 | .0226 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 774

RUN 903 CONFIG F P B NP5 W7 T58 BT IN=-3.5

| PT. NO. | 0.0 DELF ALPHA DEG | 0.0 DELF PSI DEG | 0.0 DELA CLBAR SQ-FT | 0.0 IHT CDBAR SQ-FT | 0.0 DELE CPMBAR CU-FT | 0.0 DELE CYMBAR CU-FT | 0.0 DELR CRMBAR CU-FT | 0.0 DELSB CYBAR SQ-FT | 0.0 DELSB PSF | 0.0 V KNOTS | RPM    |
|---------|--------------------|------------------|----------------------|---------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------------|-------------|--------|
| 2       | .0                 | .0               | 75.3                 | 32.90               | -44.                  | -29.                  | 44.                   | 6.45                  | 55.43         | 129.11      | 3590.  |
| 3       | .0                 | .0               | 75.2                 | -6.60               | -172.                 | -23.                  | 44.                   | 6.55                  | 55.66         | 129.38      | 11500. |
| 4       | -20.0              | .0               | -416.5               | 127.18              | 1442.                 | -168.                 | -155.                 | 6.98                  | 55.65         | 129.36      | 11490. |
| 5       | -15.0              | .0               | -370.7               | 59.45               | 1541.                 | -188.                 | 187.                  | 9.82                  | 56.20         | 130.02      | 11500. |
| 6       | -10.0              | .0               | -263.0               | 13.70               | 591.                  | -15.                  | 6.                    | 6.00                  | 55.60         | 129.31      | 11530. |
| 7       | -5.0               | .0               | -92.5                | -4.08               | -9.                   | -59.                  | 26.                   | 5.17                  | 56.64         | 130.53      | 11530. |
| 8       | -2.5               | .0               | -8.8                 | -7.56               | -82.                  | -49.                  | 44.                   | 6.12                  | 55.64         | 129.35      | 11510. |
| 9       | .0                 | .0               | 73.1                 | -7.56               | -170.                 | -35.                  | 62.                   | 6.75                  | 55.01         | 128.61      | 11500. |
| 10      | 2.5                | .0               | 151.5                | -4.32               | -262.                 | -20.                  | 83.                   | 4.97                  | 54.84         | 128.41      | 11490. |
| 11      | 5.0                | .0               | 231.8                | 2.04                | -347.                 | -18.                  | 69.                   | 1.04                  | 55.43         | 129.10      | 11510. |
| 12      | 10.0               | .0               | 393.5                | 24.48               | -596.                 | -40.                  | 87.                   | 1.30                  | 54.99         | 128.59      | 11510. |
| 13      | 15.0               | .0               | 541.5                | 62.24               | -1000.                | -39.                  | 141.                  | -.43                  | 54.98         | 128.58      | 11520. |
| 14      | 17.5               | .0               | 569.9                | 87.58               | -1256.                | -12.                  | 123.                  | -1.17                 | 55.15         | 128.77      | 11510. |
| 15      | 20.0               | .0               | 590.9                | 118.06              | -1475.                | 9.                    | 176.                  | -.31                  | 54.93         | 128.51      | 11490. |
| 16      | .0                 | .0               | 69.5                 | -7.68               | -189.                 | -41.                  | 47.                   | 4.37                  | 55.31         | 128.96      | 11540. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .2035   | .0889  | -.0142 | -.0017 | .0027  | .0174  |
| 3    | .00    | .2033   | -.0178 | -.0556 | -.0014 | .0027  | .0177  |
| 4    | -20.00 | -1.1257 | .3437  | .4649  | -.0101 | -.0094 | .0189  |
| 5    | -14.98 | -1.0018 | .1607  | .4969  | -.0114 | .0113  | .0265  |
| 6    | -10.00 | -.7107  | .0370  | .1907  | -.0009 | .0004  | .0162  |
| 7    | -5.00  | -.2501  | -.0110 | -.0030 | -.0036 | .0016  | .0140  |
| 8    | -2.51  | -.0238  | -.0204 | -.0263 | -.0030 | .0026  | .0165  |
| 9    | .00    | .1975   | -.0204 | -.0547 | -.0021 | .0037  | .0182  |
| 10   | 2.50   | .4096   | -.0117 | -.0846 | -.0012 | .0050  | .0134  |
| 11   | 5.00   | .6266   | .0055  | -.1119 | -.0011 | .0042  | .0028  |
| 12   | 10.00  | 1.0636  | .0662  | -.1922 | -.0024 | .0053  | .0035  |
| 13   | 15.00  | 1.4635  | .1682  | -.3224 | -.0024 | .0085  | -.0012 |
| 14   | 17.51  | 1.5403  | .2367  | -.4050 | -.0008 | .0074  | -.0032 |
| 15   | 20.01  | 1.5970  | .3191  | -.4756 | .0005  | .0107  | -.0008 |
| 16   | .00    | .1877   | -.0208 | -.0610 | -.0025 | .0028  | .0118  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .2035   | .0889  | -.0142 | -.0017 | .0027  | .0174  |
| 3    | .00    | .2033   | -.0178 | -.0556 | -.0014 | .0027  | .0177  |
| 4    | -20.00 | -1.1257 | .3437  | .4649  | -.0101 | -.0094 | .0189  |
| 5    | -14.98 | -1.0018 | .1607  | .4969  | -.0114 | .0113  | .0265  |
| 6    | -10.00 | -.7107  | .0370  | .1907  | -.0009 | .0004  | .0162  |
| 7    | -5.00  | -.2501  | -.0110 | -.0030 | -.0036 | .0016  | .0140  |
| 8    | -2.51  | -.0238  | -.0204 | -.0263 | -.0030 | .0026  | .0165  |
| 9    | .00    | .1975   | -.0204 | -.0547 | -.0021 | .0037  | .0182  |
| 10   | 2.50   | .4096   | -.0117 | -.0846 | -.0012 | .0050  | .0134  |
| 11   | 5.00   | .6266   | .0055  | -.1119 | -.0011 | .0042  | .0028  |
| 12   | 10.00  | 1.0636  | .0662  | -.1922 | -.0024 | .0053  | .0035  |
| 13   | 15.00  | 1.4635  | .1682  | -.3224 | -.0024 | .0085  | -.0012 |
| 14   | 17.51  | 1.5403  | .2367  | -.4050 | -.0008 | .0074  | -.0032 |
| 15   | 20.01  | 1.5970  | .3191  | -.4756 | .0005  | .0107  | -.0008 |
| 16   | .00    | .1877   | -.0208 | -.0610 | -.0025 | .0028  | .0118  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 775

RUN 904 CONFIG F P B NP5 W7 T58 BT IN=-3.5

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 0.0 DELA<br>PSI<br>DEG | 0.0 DELA<br>CLBAR<br>SQ-FT | 0.0 IHT<br>CDBAR<br>SQ-FT | 2.5 DELE<br>-CPMBAR<br>CU-FT | 0.0 DELR<br>CYMBAR<br>CU-FT | 0.0 DELR<br>CRMBAR<br>CU-FT | 0.0 DELSB<br>CYBAR<br>SQ-FT | 0.0<br>Q<br>PSF | 0.0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|------------------------|----------------------------|---------------------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------|-------------------|--------|
| 2                | .0                      | .0                     | 356.9                      | 68.86                     | 174.                         | -101.                       | 134.                        | 4.62                        | 55.32           | 128.98            | 4010.  |
| 3                | .0                      | .0                     | 336.2                      | -6.92                     | -153.                        | -153.                       | 142.                        | -1.17                       | 55.22           | 128.87            | 15490. |
| 5                | -20.0                   | .0                     | -302.3                     | 22.10                     | 1145.                        | -30.                        | 54.                         | 7.52                        | 54.39           | 127.87            | 15510. |
| 6                | -15.0                   | .0                     | -147.3                     | -8.33                     | 797.                         | -57.                        | -19.                        | 9.07                        | 55.22           | 128.86            | 15480. |
| 7                | -10.0                   | .0                     | 29.6                       | -25.38                    | 538.                         | -33.                        | 70.                         | .00                         | 55.07           | 128.68            | 15510. |
| 8                | -5.0                    | .0                     | 195.6                      | -22.20                    | 221.                         | -108.                       | 137.                        | 2.04                        | 55.13           | 128.75            | 15460. |
| 9                | -2.5                    | .0                     | 269.7                      | -15.82                    | 13.                          | -164.                       | 155.                        | 3.76                        | 54.36           | 127.84            | 15490. |
| 10               | .0                      | .0                     | 334.6                      | -5.93                     | -131.                        | -157.                       | 160.                        | -1.30                       | 54.92           | 128.51            | 15480. |
| 11               | 2.5                     | .0                     | 406.6                      | 8.57                      | -336.                        | -134.                       | 200.                        | -2.46                       | 54.00           | 127.41            | 15470. |
| 12               | 5.0                     | .0                     | 407.7                      | 28.71                     | -518.                        | -137.                       | 197.                        | -2.61                       | 54.74           | 128.29            | 15500. |
| 13               | 10.0                    | .0                     | 475.7                      | 80.96                     | -769.                        | -75.                        | 19.                         | -1.37                       | 54.51           | 128.01            | 15490. |
| 14               | 15.0                    | .0                     | 527.3                      | 146.79                    | -1206.                       | -114.                       | 53.                         | .12                         | 54.55           | 128.06            | 15480. |
| 15               | 17.5                    | .0                     | 572.1                      | 180.39                    | -1695.                       | -49.                        | -72.                        | -1.19                       | 53.92           | 127.31            | 15490. |
| 16               | 20.0                    | .0                     | 624.4                      | 216.90                    | -1974.                       | 24.                         | 18.                         | 2.08                        | 54.14           | 127.56            | 15500. |
| 17               | -0                      | .0                     | 340.2                      | -5.64                     | -116.                        | -125.                       | 173.                        | 3.05                        | 54.77           | 128.32            | 15440. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9647  | .1861  | .0562  | -.0061 | .0081  | .0125  |
| 3    | .00    | .9086  | -.0187 | -.0493 | -.0092 | .0086  | -.0032 |
| 5    | -20.00 | -.8170 | .0597  | .3691  | -.0018 | .0033  | .0203  |
| 6    | -15.00 | -.3980 | -.0225 | .2570  | -.0034 | -.0011 | .0245  |
| 7    | -9.99  | .0799  | -.0686 | .1735  | -.0020 | .0043  | .0000  |
| 8    | -5.00  | .5286  | -.0600 | .0711  | -.0065 | .0083  | .0055  |
| 9    | -2.50  | .7290  | -.0427 | .0041  | -.0099 | .0094  | .0102  |
| 10   | .02    | .9043  | -.0160 | -.0422 | -.0095 | .0097  | -.0035 |
| 11   | 2.52   | 1.0989 | .0232  | -.1083 | -.0081 | .0121  | -.0066 |
| 12   | 5.01   | 1.1018 | .0776  | -.1671 | -.0083 | .0119  | -.0071 |
| 13   | 10.03  | 1.2856 | .2188  | -.2479 | -.0045 | .0011  | -.0037 |
| 14   | 15.00  | 1.4252 | .3967  | -.3889 | -.0069 | .0032  | .0003  |
| 15   | 17.49  | 1.5463 | .4875  | -.5464 | -.0029 | -.0043 | -.0005 |
| 16   | 19.98  | 1.6876 | .5862  | -.6363 | .0015  | .0011  | .0056  |
| 17   | -.00   | .9195  | -.0152 | -.0373 | -.0075 | .0105  | .0082  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9647  | .1861  | .0562  | -.0061 | .0081  | .0125  |
| 3    | .00    | .9086  | -.0187 | -.0493 | -.0092 | .0086  | -.0032 |
| 5    | -20.00 | -.8170 | .0597  | .3691  | -.0018 | .0033  | .0203  |
| 6    | -15.00 | -.3980 | -.0225 | .2570  | -.0034 | -.0011 | .0245  |
| 7    | -9.99  | .0799  | -.0686 | .1735  | -.0020 | .0043  | .0000  |
| 8    | -5.00  | .5286  | -.0600 | .0711  | -.0065 | .0083  | .0055  |
| 9    | -2.50  | .7290  | -.0427 | .0041  | -.0099 | .0094  | .0102  |
| 10   | .02    | .9043  | -.0160 | -.0422 | -.0095 | .0097  | -.0035 |
| 11   | 2.52   | 1.0989 | .0232  | -.1083 | -.0081 | .0121  | -.0066 |
| 12   | 5.01   | 1.1018 | .0776  | -.1671 | -.0083 | .0119  | -.0071 |
| 13   | 10.03  | 1.2856 | .2188  | -.2479 | -.0045 | .0011  | -.0037 |
| 14   | 15.00  | 1.4252 | .3967  | -.3889 | -.0069 | .0032  | .0003  |
| 15   | 17.49  | 1.5463 | .4875  | -.5464 | -.0029 | -.0043 | -.0005 |
| 16   | 19.98  | 1.6876 | .5862  | -.6363 | .0015  | .0011  | .0056  |
| 17   | -.00   | .9195  | -.0152 | -.0373 | -.0075 | .0105  | .0082  |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P776

RUN 905 CONFIG F P B NP5 W7 T58 BT IN=-3.5

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 560.4       | 125.35      | 541.         | -109.        | 175.         | 3.34        | 54.07 | 127.49  | 4250.  |
| 3       | .0        | .0      | 556.3       | 124.83      | 539.         | -106.        | 103.         | 2.69        | 54.54 | 128.05  | 4250.  |
| 4       | .0        | .0      | 521.5       | -6.10       | 57.          | -62.         | 246.         | -13.52      | 54.93 | 128.52  | 19890. |
| 5       | -20.0     | .0      | -167.5      | -7.01       | 1170.        | 34.          | 113.         | -3.05       | 54.79 | 128.35  | 19910. |
| 6       | -15.0     | .0      | 15.7        | -30.74      | 1061.        | 4.           | 193.         | -.06        | 55.27 | 128.93  | 19920. |
| 7       | -10.0     | .0      | 205.6       | -33.66      | 896.         |              |              |             | 55.79 | 129.54  | 19930. |
| 8       | -5.0      | .0      | 389.7       | -26.59      | 474.         | -97.         | 214.         | -.76        | 53.98 | 127.39  | 19950. |
| 9       | -2.5      | .0      | 453.4       | -15.30      | 245.         | -90.         | 258.         | -7.05       | 54.62 | 128.15  | 19860. |
| 10      | -.0       | .0      | 522.7       | -4.45       | 116.         | -80.         | 270.         | -15.49      | 54.09 | 127.52  | 19860. |
| 11      | 2.5       | .0      | 577.2       | 9.70        | -31.         | -89.         | 393.         | -19.75      | 54.85 | 128.42  | 19870. |
| 12      | 5.0       | .0      | 571.7       | 28.40       | -558.        | -87.         | 570.         | -10.65      | 55.34 | 129.01  | 19890. |
| 13      | 10.0      | .0      | 517.9       | 89.21       | -791.        | -79.         | 347.         | 9.99        | 54.92 | 128.51  | 19920. |
| 14      | 15.0      | .0      | 579.8       | 151.78      | -1463.       | -118.        | 211.         | 2.61        | 54.89 | 128.47  | 19930. |
| 15      | 17.5      | .0      | 626.5       | 190.29      | -1656.       | -60.         | 141.         | 1.55        | 55.06 | 128.67  | 19930. |
| 16      | 20.0      | .0      | 669.9       | 231.52      | -2076.       | -6.          | 107.         | 3.63        | 54.47 | 127.96  | 19870. |
| 17      | -.0       | .0      | 520.3       | -4.01       | 120.         | -74.         | 317.         | -13.50      | 54.99 | 128.59  | 19890. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.5147 | .3388  | .1744  | -.0066 | .0106 | .0090  |
| 3    | .00    | 1.5034 | .3374  | .1737  | -.0064 | .0062 | .0073  |
| 4    | .00    | 1.4096 | -.0165 | .0185  | -.0037 | .0149 | -.0365 |
| 5    | -20.00 | -.4527 | -.0189 | .3772  | .0020  | .0068 | -.0082 |
| 6    | -15.01 | .0425  | -.0831 | .3420  | .0002  | .0117 | -.0002 |
| 7    | -10.00 | .5556  | -.0910 | .2890  |        |       |        |
| 8    | -4.98  | 1.0533 | -.0719 | .1527  | -.0059 | .0129 | .0020  |
| 9    | -2.51  | 1.2253 | -.0413 | .0789  | -.0054 | .0156 | -.0190 |
| 10   | -.00   | 1.4127 | -.0120 | .0374  | -.0049 | .0163 | -.0419 |
| 11   | 2.52   | 1.5601 | .0262  | -.0101 | -.0054 | .0237 | -.0534 |
| 12   | 5.03   | 1.5452 | .0767  | -.1798 | -.0053 | .0344 | -.0288 |
| 13   | 10.00  | 1.3998 | .2411  | -.2549 | -.0048 | .0210 | .0270  |
| 14   | 15.00  | 1.5669 | .4102  | -.4715 | -.0071 | .0128 | .0070  |
| 15   | 17.50  | 1.6932 | .5143  | -.5339 | -.0036 | .0085 | .0042  |
| 16   | 19.99  | 1.8106 | .6257  | -.6693 | -.0004 | .0065 | .0098  |
| 17   | -.00   | 1.4062 | -.0108 | .0387  | -.0045 | .0191 | -.0365 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.5147 | .3388  | .1744  | -.0066 | .0106 | .0090  |
| 3    | .00    | 1.5034 | .3374  | .1737  | -.0064 | .0062 | .0073  |
| 4    | .00    | 1.4096 | -.0165 | .0185  | -.0037 | .0149 | -.0365 |
| 5    | -20.00 | -.4527 | -.0189 | .3772  | .0020  | .0068 | -.0082 |
| 6    | -15.01 | .0425  | -.0831 | .3420  | .0002  | .0117 | -.0002 |
| 7    | -10.00 | .5556  | -.0910 | .2890  |        |       |        |
| 8    | -4.98  | 1.0533 | -.0719 | .1527  | -.0059 | .0129 | .0020  |
| 9    | -2.51  | 1.2253 | -.0413 | .0789  | -.0054 | .0156 | -.0190 |
| 10   | -.00   | 1.4127 | -.0120 | .0374  | -.0049 | .0163 | -.0419 |
| 11   | 2.52   | 1.5601 | .0262  | -.0101 | -.0054 | .0237 | -.0534 |
| 12   | 5.03   | 1.5452 | .0767  | -.1798 | -.0053 | .0344 | -.0288 |
| 13   | 10.00  | 1.3998 | .2411  | -.2549 | -.0048 | .0210 | .0270  |
| 14   | 15.00  | 1.5669 | .4102  | -.4715 | -.0071 | .0128 | .0070  |
| 15   | 17.50  | 1.6932 | .5143  | -.5339 | -.0036 | .0085 | .0042  |
| 16   | 19.99  | 1.8106 | .6257  | -.6693 | -.0004 | .0065 | .0098  |
| 17   | -.00   | 1.4062 | -.0108 | .0387  | -.0045 | .0191 | -.0365 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 777

RUN 906 CONFIG F P B NP5 W7 T58 BT IN=-3.5

| PT. NO. | 7.5 DELF  |         | 30 DELA     |             | 0 IHT        |              | 5 DELE       |             | 0 DELR |         | 0 DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | V KNOTS |         |  |     |
| 2       | .0        | .0      | 455.4       | 95.17       | -247.        | -90.         | 118.         | 3.63        | 55.39  | 129.07  | 4020.   |  |     |
| 3       | .0        | .0      | 458.2       | -2.29       | -565.        | -121.        | 138.         | 2.29        | 54.95  | 128.54  | 17430.  |  |     |
| 4       | .0        | .0      | 458.9       | -6.92       | -580.        | -126.        | 191.         | 2.48        | 54.87  | 128.45  | 17780.  |  |     |
| 5       | -20.0     | .0      | -273.3      | 9.24        | 366.         | 33.          | 81.          | 3.56        | 54.53  | 128.05  | 17810.  |  |     |
| 6       | -15.0     | .0      | -74.9       | -20.55      | 85.          | 77.          | 128.         | -2.11       | 54.80  | 128.36  | 17780.  |  |     |
| 7       | -10.0     | .0      | 108.0       | -29.07      | -255.        | 31.          | 127.         | -2.40       | 55.26  | 128.91  | 17790.  |  |     |
| 8       | -5.0      | .0      | 288.1       | -22.22      | -468.        | -104.        | 195.         | -.93        | 55.19  | 128.83  | 17750.  |  |     |
| 9       | -2.5      | .0      | 375.1       | -14.91      | -540.        | -130.        | 120.         | 2.48        | 54.85  | 128.43  | 17820.  |  |     |
| 10      | -.0       | .0      | 453.4       | -4.97       | -553.        | -85.         | 169.         | 4.62        | 55.28  | 128.94  | 17820.  |  |     |
| 11      | 2.5       | .0      | 531.9       | 7.00        | -598.        | -100.        | 212.         | -1.36       | 55.30  | 128.97  | 17720.  |  |     |
| 12      | 5.0       | .0      | 607.2       | 21.49       | -682.        | -97.         | 179.         | -2.30       | 54.88  | 128.46  | 17760.  |  |     |
| 13      | 10.0      | .0      | 646.4       | 63.73       | -935.        | -106.        | 1087.        | -12.75      | 54.76  | 128.32  | 17820.  |  |     |
| 14      | 15.0      | .0      | 641.5       | 142.81      | -1604.       | -41.         | 249.         | 1.19        | 54.53  | 128.03  | 17800.  |  |     |
| 15      | 17.5      | .0      | 669.6       | 177.85      | -1824.       | -97.         | 176.         | 3.29        | 54.96  | 128.55  | 17770.  |  |     |
| 16      | 20.0      | .0      | 716.1       | 213.95      | -2131.       | -20.         | 144.         | 5.97        | 54.25  | 127.70  | 17780.  |  |     |
| 17      | -.0       | .0      | 455.3       | -6.72       | -605.        | -114.        | 139.         | .93         | 55.17  | 128.81  | 17860.  |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.2309 | .2572  | -.0798 | -.0054 | .0071 | .0098  |
| 3    | .00    | 1.2384 | -.0062 | -.1821 | -.0073 | .0083 | .0062  |
| 4    | .00    | 1.2404 | -.0187 | -.1868 | -.0076 | .0115 | .0067  |
| 5    | -20.00 | -.7386 | .0250  | .1181  | .0020  | .0049 | .0096  |
| 6    | -15.00 | -.2025 | -.0555 | .0273  | .0047  | .0077 | -.0057 |
| 7    | -10.01 | .2919  | -.0786 | -.0821 | .0019  | .0077 | -.0065 |
| 8    | -5.00  | .7788  | -.0601 | -.1510 | -.0063 | .0118 | -.0025 |
| 9    | -2.50  | 1.0138 | -.0403 | -.1740 | -.0078 | .0073 | .0067  |
| 10   | -.01   | 1.2253 | -.0134 | -.1784 | -.0051 | .0102 | .0125  |
| 11   | 2.51   | 1.4375 | .0189  | -.1929 | -.0060 | .0128 | -.0037 |
| 12   | 5.02   | 1.6412 | .0581  | -.2199 | -.0059 | .0108 | -.0062 |
| 13   | 9.99   | 1.7470 | .1723  | -.3016 | -.0064 | .0656 | -.0345 |
| 14   | 15.00  | 1.7337 | .3860  | -.5172 | -.0025 | .0150 | .0032  |
| 15   | 17.52  | 1.8098 | .4807  | -.5880 | -.0059 | .0106 | .0089  |
| 16   | 20.00  | 1.9355 | .5782  | -.6869 | -.0012 | .0087 | .0161  |
| 17   | -.00   | 1.2306 | -.0182 | -.1950 | -.0069 | .0084 | .0025  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.2309 | .2572  | -.0798 | -.0054 | .0071 | .0098  |
| 3    | .00    | 1.2384 | -.0062 | -.1821 | -.0073 | .0083 | .0062  |
| 4    | .00    | 1.2404 | -.0187 | -.1868 | -.0076 | .0115 | .0067  |
| 5    | -20.00 | -.7386 | .0250  | .1181  | .0020  | .0049 | .0096  |
| 6    | -15.00 | -.2025 | -.0555 | .0273  | .0047  | .0077 | -.0057 |
| 7    | -10.01 | .2919  | -.0786 | -.0821 | .0019  | .0077 | -.0065 |
| 8    | -5.00  | .7788  | -.0601 | -.1510 | -.0063 | .0118 | -.0025 |
| 9    | -2.50  | 1.0138 | -.0403 | -.1740 | -.0078 | .0073 | .0067  |
| 10   | -.01   | 1.2253 | -.0134 | -.1784 | -.0051 | .0102 | .0125  |
| 11   | 2.51   | 1.4375 | .0189  | -.1929 | -.0060 | .0128 | -.0037 |
| 12   | 5.02   | 1.6412 | .0581  | -.2199 | -.0059 | .0108 | -.0062 |
| 13   | 9.99   | 1.7470 | .1723  | -.3016 | -.0064 | .0656 | -.0345 |
| 14   | 15.00  | 1.7337 | .3860  | -.5172 | -.0025 | .0150 | .0032  |
| 15   | 17.52  | 1.8098 | .4807  | -.5880 | -.0059 | .0106 | .0089  |
| 16   | 20.00  | 1.9355 | .5782  | -.6869 | -.0012 | .0087 | .0161  |
| 17   | -.00   | 1.2306 | -.0182 | -.1950 | -.0069 | .0084 | .0025  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 778

RUN 907 CONFIG F P P NP5 W7 T59 BT IN=-3.5

| IW      | 7.5 DELF  | 30 DELA | 0 IHT       | 5 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       | RPM       |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|-----------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | 0 PSF | 0 V KNOTS |        |
| 2       | .0        | .0      | 458.7       | 95.48       | -366.        | -75.         | 170.         | 3.75        | 55.40 | 129.07    | 4030.  |
| 3       | .0        | .0      | 461.0       | -3.90       | -698.        | -121.        | 154.         | 4.11        | 54.74 | 128.29    | 17390. |
| 4       | .0        | .0      | 458.1       | -5.43       | -691.        | -109.        | 173.         | 1.11        | 55.45 | 129.14    | 17710. |
| 5       | -20.0     | .0      | -258.9      | 8.99        | 56.          | 56.          | 70.          | .19         | 55.24 | 128.89    | 17700. |
| 6       | -15.0     | .0      | -66.4       | -20.23      | -202.        | 40.          | 108.         | -1.84       | 55.55 | 129.26    | 17690. |
| 7       | -10.0     | .0      | 111.0       | -28.22      | -470.        | 58.          | 128.         | -2.89       | 55.44 | 129.13    | 17740. |
| 8       | -5.0      | .0      | 289.5       | -23.05      | -621.        | -83.         | 156.         | 1.67        | 55.10 | 128.73    | 17790. |
| 9       | -2.5      | .0      | 375.9       | -14.00      | -652.        | -116.        | 160.         | -1.42       | 55.06 | 128.67    | 17720. |
| 10      | -.0       | .0      | 457.3       | -4.36       | -662.        | -97.         | 143.         | -1.31       | 54.81 | 128.38    | 17650. |
| 11      | 2.5       | .0      | 538.0       | 8.48        | -698.        | -92.         | 232.         | -1.56       | 54.77 | 128.32    | 17680. |
| 12      | 5.0       | .0      | 606.2       | 22.86       | -749.        | -109.        | 160.         | -2.16       | 55.14 | 128.77    | 17630. |
| 13      | 10.0      | .0      | 666.9       | 64.81       | -927.        | -89.         | 1026.        | -11.57      | 54.17 | 127.61    | 17720. |
| 14      | 15.0      | .0      | 635.1       | 141.21      | -1433.       | -41.         | 321.         | -.81        | 54.44 | 127.93    | 17720. |
| 16      | 20.0      | .0      | 689.1       | 216.73      | -1538.       | -52.         | -35.         | .12         | 55.00 | 128.59    | 17620. |
| 17      | .0        | .0      | 460.4       | -5.57       | -706.        | -116.        | 159.         | 1.12        | 54.51 | 128.02    | 17810. |
| 18      | 17.5      | .0      | 659.0       | 179.46      | -1536.       | -82.         | 211.         | 6.62        | 55.09 | 128.71    | 17750. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.2398 | .2581  | -.1180 | -.0046 | .0103  | .0101  |
| 3    | .00    | 1.2458 | -.0105 | -.2250 | -.0073 | .0093  | .0111  |
| 4    | .00    | 1.2381 | -.0147 | -.2229 | -.0066 | .0105  | .0030  |
| 5    | -19.99 | -.6998 | .0243  | .0180  | .0034  | .0042  | .0005  |
| 6    | -15.00 | -.1795 | -.0547 | -.0651 | .0024  | .0066  | -.0050 |
| 7    | -9.99  | .2999  | -.0763 | -.1514 | .0035  | .0077  | -.0078 |
| 8    | -5.01  | .7825  | -.0623 | -.2001 | -.0050 | .0094  | .0045  |
| 9    | -2.51  | 1.0159 | -.0378 | -.2102 | -.0070 | .0097  | -.0038 |
| 10   | -.02   | 1.2360 | -.0118 | -.2133 | -.0059 | .0086  | -.0035 |
| 11   | 2.52   | 1.4541 | .0229  | -.2251 | -.0055 | .0140  | -.0042 |
| 12   | 5.04   | 1.6383 | .0618  | -.2414 | -.0066 | .0097  | -.0058 |
| 13   | 10.04  | 1.8023 | .1752  | -.2988 | -.0054 | .0620  | -.0313 |
| 14   | 15.02  | 1.7165 | .3816  | -.4621 | -.0025 | .0194  | -.0022 |
| 16   | 20.00  | 1.8624 | .5858  | -.4960 | -.0031 | -.0021 | .0003  |
| 17   | .01    | 1.2442 | -.0150 | -.2277 | -.0070 | .0096  | .0030  |
| 18   | 17.51  | 1.7812 | .4850  | -.4952 | -.0049 | .0127  | .0179  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.2398 | .2581  | -.1180 | -.0046 | .0103 | .0101  |
| 3    | .00    | 1.2458 | -.0105 | -.2250 | -.0073 | .0093 | .0111  |
| 4    | .00    | 1.2381 | -.0147 | -.2229 | -.0066 | .0105 | .0030  |
| 5    | -19.99 | -.6998 | .0243  | .0180  | .0034  | .0042 | .0005  |
| 6    | -15.00 | -.1795 | -.0547 | -.0651 | .0024  | .0066 | -.0050 |
| 7    | -9.99  | .2999  | -.0763 | -.1514 | .0035  | .0077 | -.0078 |
| 8    | -5.01  | .7825  | -.0623 | -.2001 | -.0050 | .0094 | .0045  |
| 9    | -2.51  | 1.0159 | -.0378 | -.2102 | -.0070 | .0097 | -.0038 |
| 10   | -.02   | 1.2360 | -.0118 | -.2133 | -.0059 | .0086 | -.0035 |
| 11   | 2.52   | 1.4541 | .0229  | -.2251 | -.0055 | .0140 | -.0042 |
| 12   | 5.04   | 1.6383 | .0618  | -.2414 | -.0066 | .0097 | -.0058 |
| 13   | 10.04  | 1.8023 | .1752  | -.2988 | -.0054 | .0620 | -.0313 |
| 14   | 15.02  | 1.7165 | .3816  | -.4621 | -.0025 | .0194 | -.0022 |

|    |       |        |        |        |        |        |       |
|----|-------|--------|--------|--------|--------|--------|-------|
| 16 | 20.00 | 1.8624 | .5858  | -.4960 | -.0031 | -.0021 | .0003 |
| 17 | .01   | 1.2442 | -.0150 | -.2277 | -.0070 | .0096  | .0030 |
| 18 | 17.51 | 1.7812 | .4850  | -.4952 | -.0049 | .0127  | .0179 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 779

RUN 908 CONFIG F P B NP5 W7 T59 BT IN=-3.5

| PT. NO. | 7.5 DELF<br>ALPHA DEG | 30 DELA<br>PSI DEG | 0 IHT<br>CLBAR SQ-FT | 0 DELE<br>CDBAR SQ-FT | 0 DELR<br>CPMBAR CU-FT | 0 DELSB<br>CYMBAR CU-FT | 0<br>CRMBAR CU-FT | 0<br>CYBAR SQ-FT | 0<br>Q PSF | 0<br>V KNOTS | RPM    |
|---------|-----------------------|--------------------|----------------------|-----------------------|------------------------|-------------------------|-------------------|------------------|------------|--------------|--------|
| 2       | .0                    | .0                 | 425.9                | 94.95                 | 576.                   | -76.                    | 63.               | 5.83             | 54.94      | 128.53       | 4040.  |
| 3       | .0                    | .0                 | 417.0                | -4.77                 | 482.                   | -121.                   | 83.               | 3.91             | 54.89      | 128.47       | 17450. |
| 4       | .0                    | .0                 | 416.0                | -5.34                 | 480.                   | -121.                   | 26.               | 7.49             | 55.06      | 128.68       | 17470. |
| 5       | -20.0                 | .0                 | -284.4               | 27.18                 | 826.                   | 86.                     | 126.              | -1.06            | 54.74      | 128.29       | 17460. |
| 6       | -15.0                 | .0                 | -109.4               | -8.41                 | 1001.                  | 46.                     | 91.               | -1.78            | 55.46      | 129.15       | 17460. |
| 7       | -10.0                 | .0                 | 67.1                 | -22.21                | 809.                   | 6.                      | 108.              | -1.36            | 55.07      | 128.69       | 17500. |
| 8       | -5.0                  | .0                 | 246.1                | -18.71                | 579.                   | -107.                   | 155.              | 2.35             | 55.07      | 128.69       | 17520. |
| 9       | -2.5                  | .0                 | 333.7                | -11.57                | 515.                   | -130.                   | 136.              | 3.53             | 54.97      | 128.57       | 17570. |
| 10      | .0                    | .0                 | 414.3                | -4.01                 | 501.                   | -119.                   | 103.              | 2.42             | 54.97      | 128.57       | 17480. |
| 11      | 2.5                   | .0                 | 490.9                | 4.96                  | 449.                   | -92.                    | 107.              | -1.30            | 54.82      | 128.39       | 17500. |
| 12      | 5.1                   | .0                 | 576.0                | 18.55                 | 401.                   | -104.                   | 197.              | -1.63            | 54.50      | 128.01       | 17570. |
| 13      | 10.0                  | .0                 | 673.0                | 52.37                 | -75.                   | -257.                   | 306.              | -9.58            | 54.78      | 128.34       | 17480. |
| 14      | 15.0                  | .0                 | 601.1                | 130.63                | -502.                  | -63.                    | 265.              | 2.55             | 54.80      | 128.36       | 17590. |
| 15      | 17.5                  | .0                 | 634.7                | 166.17                | -813.                  | -60.                    | 158.              | 3.58             | 55.15      | 128.77       | 17500. |
| 16      | 20.0                  | .0                 | 673.7                | 203.62                | -1041.                 | -44.                    | 143.              | 5.86             | 54.64      | 128.16       | 17500. |
| 17      | .0                    | .0                 | 414.8                | -3.58                 | 517.                   | -113.                   | 119.              | 3.55             | 54.73      | 128.29       | 17480. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY:    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.1510 | .2566  | .1858  | -.0046 | .0038 | .0158  |
| 3    | .00    | 1.1270 | -.0129 | .1553  | -.0073 | .0050 | .0106  |
| 4    | .00    | 1.1244 | -.0144 | .1547  | -.0073 | .0016 | .0202  |
| 5    | -19.99 | -.7687 | .0735  | .2662  | .0052  | .0076 | -.0029 |
| 6    | -15.01 | -.2958 | -.0227 | .3227  | .0028  | .0055 | -.0048 |
| 7    | -10.01 | .1813  | -.0600 | .2609  | .0004  | .0065 | -.0037 |
| 8    | -5.00  | .6652  | -.0506 | .1866  | -.0065 | .0093 | .0064  |
| 9    | -2.52  | .9020  | -.0313 | .1660  | -.0079 | .0082 | .0095  |
| 10   | .01    | 1.1197 | -.0108 | .1617  | -.0072 | .0062 | .0065  |
| 11   | 2.50   | 1.3268 | .0134  | .1448  | -.0056 | .0065 | -.0035 |
| 12   | 5.05   | 1.5567 | .0501  | .1294  | -.0063 | .0119 | -.0044 |
| 13   | 10.01  | 1.8189 | .1416  | -.0243 | -.0155 | .0185 | -.0259 |
| 14   | 15.02  | 1.6246 | .3530  | -.1617 | -.0038 | .0160 | .0069  |
| 15   | 17.53  | 1.7153 | .4491  | -.2620 | -.0036 | .0095 | .0097  |
| 16   | 20.02  | 1.8208 | .5503  | -.3355 | -.0027 | .0086 | .0158  |
| 17   | .00    | 1.1211 | -.0097 | .1668  | -.0068 | .0072 | .0096  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.1510 | .2566  | .1858  | -.0046 | .0038 | .0158  |
| 3    | .00    | 1.1270 | -.0129 | .1553  | -.0073 | .0050 | .0106  |
| 4    | .00    | 1.1244 | -.0144 | .1547  | -.0073 | .0016 | .0202  |
| 5    | -19.99 | -.7687 | .0735  | .2662  | .0052  | .0076 | -.0029 |
| 6    | -15.01 | -.2958 | -.0227 | .3227  | .0028  | .0055 | -.0048 |
| 7    | -10.01 | .1813  | -.0600 | .2609  | .0004  | .0065 | -.0037 |
| 8    | -5.00  | .6652  | -.0506 | .1866  | -.0065 | .0093 | .0064  |
| 9    | -2.52  | .9020  | -.0313 | .1660  | -.0079 | .0082 | .0095  |
| 10   | .01    | 1.1197 | -.0108 | .1617  | -.0072 | .0062 | .0065  |
| 11   | 2.50   | 1.3268 | .0134  | .1448  | -.0056 | .0065 | -.0035 |
| 12   | 5.05   | 1.5567 | .0501  | .1294  | -.0063 | .0119 | -.0044 |
| 13   | 10.01  | 1.8189 | .1416  | -.0243 | -.0155 | .0185 | -.0259 |
| 14   | 15.02  | 1.6246 | .3530  | -.1617 | -.0038 | .0160 | .0069  |
| 15   | 17.53  | 1.7153 | .4491  | -.2620 | -.0036 | .0095 | .0097  |
| 16   | 20.02  | 1.8208 | .5503  | -.3355 | -.0027 | .0086 | .0158  |
| 17   | .00    | 1.1211 | -.0097 | .1668  | -.0068 | .0072 | .0096  |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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*P 880*

RUN 909 CONFIG F P B NP5 W7 T59 BT IN=-3.5

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | -4 DELE     | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | -135.1      | 35.73       | -37.         | -34.         | -8.          | 6.56        | 55.53 | 129.23  | 3360.  |
| 3       | .0        | .0      | -141.7      | -6.72       | -153.        | -50.         | 45.          | 6.34        | 54.85 | 128.42  | 11910. |
| 4       | -20.0     | .0      | -401.8      | 169.32      | 1283.        | -59.         | 19.          | 7.10        | 55.17 | 128.80  | 11960. |
| 5       | -15.0     | .0      | -402.0      | 118.79      | 1993.        | -89.         | -153.        | 6.34        | 55.38 | 129.05  | 11900. |
| 6       | -10.0     | .0      | -360.7      | 69.26       | 1123.        | -128.        | -111.        | 12.02       | 54.70 | 128.24  | 11940. |
| 7       | -5.0      | .0      | -303.1      | 9.38        | 154.         | -44.         | -64.         | 7.78        | 55.60 | 129.31  | 11990. |
| 8       | -2.5      | .0      | -223.0      | -.08        | -4.          | -29.         | 59.          | 7.73        | 55.09 | 128.71  | 11970. |
| 9       | -.0       | .0      | -141.4      | -7.05       | -141.        | -37.         | 26.          | 7.63        | 54.92 | 128.51  | 11950. |
| 10      | 2.5       | .0      | -56.4       | -9.93       | -228.        | -25.         | 27.          | 6.95        | 55.39 | 129.06  | 11950. |
| 11      | 5.0       | .0      | 26.6        | -9.49       | -281.        | -0.          | 29.          | 6.74        | 55.62 | 129.33  | 11940. |
| 12      | 10.0      | .0      | 191.5       | -1.33       | -324.        | -15.         | 85.          | 4.58        | 55.05 | 128.65  | 11990. |
| 13      | 15.0      | .0      | 359.2       | 20.46       | -369.        | -44.         | 140.         | .68         | 55.26 | 128.90  | 11940. |
| 14      | 17.5      | .0      | 440.4       | 36.46       | -396.        | -39.         | 88.          | .75         | 54.75 | 128.30  | 11930. |
| 15      | 20.0      | .0      | 510.6       | 56.83       | -347.        | -51.         | 36.          | 2.11        | 54.89 | 128.47  | 11940. |
| 16      | -.0       | .0      | -139.0      | -6.43       | -155.        | -35.         | 41.          | 8.76        | 55.62 | 129.34  | 11900. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3651  | .0966  | -.0119 | -.0021 | -.0005 | .0177 |
| 3    | .00    | -.3831  | -.0182 | -.0492 | -.0030 | .0027  | .0171 |
| 4    | -19.99 | -1.0859 | .4576  | .4136  | -.0036 | .0011  | .0192 |
| 5    | -15.00 | -1.0865 | .3210  | .6425  | -.0054 | -.0092 | .0171 |
| 6    | -10.01 | -.9748  | .1872  | .3620  | -.0077 | -.0067 | .0325 |
| 7    | -5.01  | -.8192  | .0253  | .0495  | -.0026 | -.0039 | .0210 |
| 8    | -2.52  | -.6027  | -.0002 | -.0013 | -.0017 | .0036  | .0209 |
| 9    | -.01   | -.3822  | -.0191 | -.0455 | -.0022 | .0015  | .0206 |
| 10   | 2.52   | -.1524  | -.0268 | -.0734 | -.0015 | .0016  | .0188 |
| 11   | 4.98   | .0719   | -.0256 | -.0906 | -.0000 | .0017  | .0182 |
| 12   | 9.99   | .5175   | -.0036 | -.1043 | -.0009 | .0052  | .0124 |
| 13   | 15.02  | .9708   | .0553  | -.1191 | -.0026 | .0085  | .0018 |
| 14   | 17.51  | 1.1902  | .0985  | -.1277 | -.0024 | .0053  | .0020 |
| 15   | 19.99  | 1.3800  | .1536  | -.1117 | -.0031 | .0022  | .0057 |
| 16   | -.00   | -.3757  | -.0174 | -.0498 | -.0021 | .0025  | .0237 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3651  | .0966  | -.0119 | -.0021 | -.0005 | .0177 |
| 3    | .00    | -.3831  | -.0182 | -.0492 | -.0030 | .0027  | .0171 |
| 4    | -19.99 | -1.0859 | .4576  | .4136  | -.0036 | .0011  | .0192 |
| 5    | -15.00 | -1.0865 | .3210  | .6425  | -.0054 | -.0092 | .0171 |
| 6    | -10.01 | -.9748  | .1872  | .3620  | -.0077 | -.0067 | .0325 |
| 7    | -5.01  | -.8192  | .0253  | .0495  | -.0026 | -.0039 | .0210 |
| 8    | -2.52  | -.6027  | -.0002 | -.0013 | -.0017 | .0036  | .0209 |
| 9    | -.01   | -.3822  | -.0191 | -.0455 | -.0022 | .0015  | .0206 |
| 10   | 2.52   | -.1524  | -.0268 | -.0734 | -.0015 | .0016  | .0188 |
| 11   | 4.98   | .0719   | -.0256 | -.0906 | -.0000 | .0017  | .0182 |
| 12   | 9.99   | .5175   | -.0036 | -.1043 | -.0009 | .0052  | .0124 |
| 13   | 15.02  | .9708   | .0553  | -.1191 | -.0026 | .0085  | .0018 |
| 14   | 17.51  | 1.1902  | .0985  | -.1277 | -.0024 | .0053  | .0020 |
| 15   | 19.99  | 1.3800  | .1536  | -.1117 | -.0031 | .0022  | .0057 |
| 16   | -.00   | -.3757  | -.0174 | -.0498 | -.0021 | .0025  | .0237 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011  
P 88/

RUN 910 CONFIG F P B NP5 W7 T2 IN=-3.5

| IW        | 0 DELF | 0 DELA | 0 IHT  | - DELE | - DELR | - DELSP | -     | -    | -     |        |        |
|-----------|--------|--------|--------|--------|--------|---------|-------|------|-------|--------|--------|
| PT. ALPHA | PSI    | CLBAR  | CDBAR  | CPMBAR | CYBAR  | CRMBAR  | CYBAR | Q    | V     | RPM    |        |
| NO. DEG   | DEG    | SQ-FT  | SQ-FT  | CU-FT  | CU-FT  | CU-FT   | SQ-FT | PSF  | KNOTS |        |        |
| 6         | .0     | .0     | 88.9   | 29.62  | -369.  | 13.     | 29.   | 4.43 | 55.34 | 129.00 | 3590.  |
| 7         | .0     | .0     | 85.9   | -6.78  | -447.  | 18.     | 30.   | 4.12 | 54.53 | 128.04 | 11030. |
| 8         | -20.0  | .0     | -327.7 | 96.65  | -1104. | 44.     | -218. | 2.73 | 55.00 | 128.59 | 11020. |
| 9         | -15.0  | .0     | -281.2 | 45.75  | -974.  | -82.    | 193.  | 8.71 | 55.16 | 128.78 | 11030. |
| 10        | -10.0  | .0     | -205.1 | 7.98   | -981.  | 38.     | -27.  | 5.12 | 54.56 | 128.07 | 11050. |
| 11        | -5.0   | .0     | -62.4  | -5.37  | -776.  | 23.     | -6.   | 3.93 | 55.52 | 129.22 | 10980. |
| 12        | -2.5   | .0     | 10.9   | -7.15  | -615.  | 21.     | -6.   | 4.57 | 55.11 | 128.73 | 10990. |
| 13        | -.0    | .0     | 83.6   | -6.54  | -431.  | 9.      | 65.   | 3.17 | 55.93 | 129.70 | 10990. |
| 14        | 2.5    | .0     | 153.4  | -3.52  | -266.  | 1.      | 66.   | 4.02 | 55.14 | 128.76 | 10990. |
| 15        | 5.0    | .0     | 227.6  | 2.54   | -72.   | 2.      | 50.   | 3.16 | 54.97 | 128.56 | 11000. |
| 16        | 10.1   | .0     | 362.0  | 21.29  | 360.   | -3.     | 69.   | 1.67 | 55.14 | 128.77 | 10980. |
| 17        | 15.0   | .0     | 474.2  | 52.37  | 797.   | -23.    | 71.   | .44  | 54.22 | 127.66 | 10980. |
| 18        | 17.5   | .0     | 480.5  | 71.14  | 944.   | -18.    | 123.  | 1.67 | 55.14 | 128.76 | 11030. |
| 19        | 20.0   | .0     | 487.7  | 97.43  | 1080.  | -23.    | 53.   | .50  | 55.05 | 128.66 | 10970. |
| 20        | .0     | .0     | 81.4   | -6.53  | -445.  | 5.      | 13.   | 3.71 | 55.10 | 128.71 | 10940. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 6    | .00    | .2402  | .0801  | -.1188 | .0008  | .0018  | .0120 |
| 7    | .00    | .2321  | -.0183 | -.1441 | .0011  | .0018  | .0111 |
| 8    | -20.00 | -.8857 | .2612  | -.3559 | .0027  | -.0131 | .0074 |
| 9    | -15.01 | -.7601 | .1236  | -.3140 | -.0049 | .0116  | .0235 |
| 10   | -10.01 | -.5544 | .0216  | -.3162 | .0023  | -.0016 | .0138 |
| 11   | -5.03  | -.1686 | -.0145 | -.2503 | .0014  | -.0004 | .0106 |
| 12   | -2.49  | .0294  | -.0193 | -.1984 | .0013  | -.0004 | .0124 |
| 13   | -.00   | .2260  | -.0177 | -.1390 | .0005  | .0039  | .0086 |
| 14   | 2.50   | .4145  | -.0095 | -.0857 | .0001  | .0040  | .0109 |
| 15   | 5.03   | .6151  | .0069  | -.0232 | .0001  | .0030  | .0085 |
| 16   | 10.05  | .9783  | .0576  | .1160  | -.0002 | .0042  | .0045 |
| 17   | 15.00  | 1.2816 | .1415  | .2570  | -.0014 | .0043  | .0012 |
| 18   | 17.50  | 1.2986 | .1923  | .3043  | -.0011 | .0074  | .0045 |
| 19   | 20.00  | 1.3181 | .2633  | .3481  | -.0014 | .0032  | .0013 |
| 20   | .00    | .2200  | -.0177 | -.1434 | .0003  | .0008  | .0100 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 6    | .00    | .2402  | .0801  | -.1188 | .0008  | .0018  | .0120 |
| 7    | .00    | .2321  | -.0183 | -.1441 | .0011  | .0018  | .0111 |
| 8    | -20.00 | -.8857 | .2612  | -.3559 | .0027  | -.0131 | .0074 |
| 9    | -15.01 | -.7601 | .1236  | -.3140 | -.0049 | .0116  | .0235 |
| 10   | -10.01 | -.5544 | .0216  | -.3162 | .0023  | -.0016 | .0138 |
| 11   | -5.03  | -.1686 | -.0145 | -.2503 | .0014  | -.0004 | .0106 |
| 12   | -2.49  | .0294  | -.0193 | -.1984 | .0013  | -.0004 | .0124 |
| 13   | -.00   | .2260  | -.0177 | -.1390 | .0005  | .0039  | .0086 |
| 14   | 2.50   | .4145  | -.0095 | -.0857 | .0001  | .0040  | .0109 |
| 15   | 5.03   | .6151  | .0069  | -.0232 | .0001  | .0030  | .0085 |
| 16   | 10.05  | .9783  | .0576  | .1160  | -.0002 | .0042  | .0045 |
| 17   | 15.00  | 1.2816 | .1415  | .2570  | -.0014 | .0043  | .0012 |
| 18   | 17.50  | 1.2986 | .1923  | .3043  | -.0011 | .0074  | .0045 |
| 19   | 20.00  | 1.3181 | .2633  | .3481  | -.0014 | .0032  | .0013 |
| 20   | .00    | .2200  | -.0177 | -.1434 | .0003  | .0008  | .0100 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

*ppp*

RUN 911 CONFIG F P B NP5 W7 T59 BT IN=-3.5

| PT. NO. | IW    | O DELF    |         | O DELA      |             | O IHT        |              | O DELE       |             | O DELR |         | O DELSB |  | O |  | RPM |
|---------|-------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|---|--|-----|
|         |       | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | V KNOTS |         |  |   |  |     |
| 2       |       | .0        | .0      | 73.2        | 33.53       | -20.         | -29.         | 65.          | 3.75        | 55.39  | 129.06  | 3580.   |  |   |  |     |
| 3       |       | .0        | .0      | 70.6        | -6.92       | -138.        | -35.         | 30.          | 3.99        | 55.44  | 129.12  | 11580.  |  |   |  |     |
| 4       | -20.0 | .0        | -419.1  | 118.52      | 1234.       | -116.        | -159.        | -159.        | 7.94        | 54.90  | 128.47  | 11570.  |  |   |  |     |
| 5       | -15.0 | .0        | -378.9  | 47.30       | 1348.       | -55.         | -36.         | 8.95         | 55.21       | 128.85 | 11640.  |         |  |   |  |     |
| 6       | -10.0 | .0        | -252.7  | 14.31       | 646.        | -64.         | -10.         | 5.54         | 54.76       | 128.32 | 11560.  |         |  |   |  |     |
| 7       | -5.0  | .0        | -90.4   | -5.12       | 7.          | -72.         | 62.          | 5.49         | 54.59       | 128.11 | 11570.  |         |  |   |  |     |
| 8       | -2.5  | .0        | -9.4    | -8.12       | -62.        | -42.         | 44.          | 6.40         | 54.83       | 128.39 | 11720.  |         |  |   |  |     |
| 9       | -.0   | .0        | 69.7    | -8.29       | -135.       | -27.         | 63.          | 5.57         | 55.07       | 128.68 | 11730.  |         |  |   |  |     |
| 10      | 2.5   | .0        | 148.1   | -5.44       | -214.       | -22.         | 65.          | 5.15         | 54.91       | 128.49 | 11730.  |         |  |   |  |     |
| 11      | 5.0   | .0        | 231.5   | 1.09        | -278.       | -45.         | 67.          | 4.78         | 54.21       | 127.65 | 11680.  |         |  |   |  |     |
| 12      | 10.0  | .0        | 388.1   | 23.54       | -436.       | -79.         | 75.          | -7.12        | 54.50       | 128.00 | 11550.  |         |  |   |  |     |
| 13      | 15.0  | .0        | 520.5   | 60.67       | -788.       | -50.         | 124.         | .62          | 54.80       | 128.35 | 11560.  |         |  |   |  |     |
| 14      | 17.5  | .0        | 550.2   | 89.04       | -874.       | -67.         | 54.          | 1.89         | 53.96       | 127.35 | 11570.  |         |  |   |  |     |
| 15      | 20.0  | .0        | 560.5   | 121.99      | -756.       | 3.           | 124.         | .75          | 54.80       | 128.35 | 11600.  |         |  |   |  |     |
| 16      | -.0   | .0        | 70.2    | -7.67       | -131.       | -47.         | 11.          | 4.94         | 55.91       | 129.67 | 11600.  |         |  |   |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .1979   | .0906  | -.0066 | -.0017 | .0039  | .0101  |
| 3    | .00    | .1907   | -.0187 | -.0444 | -.0021 | .0018  | .0108  |
| 4    | -20.01 | -1.1328 | .3203  | .3979  | -.0070 | -.0096 | .0215  |
| 5    | -15.01 | -1.0242 | .1278  | .4346  | -.0034 | -.0022 | .0242  |
| 6    | -10.00 | -.6829  | .0387  | .2083  | -.0039 | -.0006 | .0150  |
| 7    | -4.99  | -.2444  | -.0138 | .0023  | -.0044 | .0038  | .0148  |
| 8    | -2.50  | -.0254  | -.0219 | -.0199 | -.0025 | .0027  | .0173  |
| 9    | -.01   | .1883   | -.0224 | -.0435 | -.0016 | .0038  | .0150  |
| 10   | 2.49   | .4003   | -.0147 | -.0690 | -.0013 | .0039  | .0139  |
| 11   | 5.00   | .6257   | .0029  | -.0895 | -.0027 | .0040  | .0129  |
| 12   | 9.98   | 1.0489  | .0636  | -.1406 | -.0048 | .0045  | -.0193 |
| 13   | 15.00  | 1.4068  | .1640  | -.2541 | -.0030 | .0075  | .0017  |
| 14   | 17.50  | 1.4869  | .2406  | -.2817 | -.0040 | .0033  | .0051  |
| 15   | 20.01  | 1.5150  | .3297  | -.2437 | .0002  | .0075  | .0020  |
| 16   | -.00   | .1898   | -.0207 | -.0423 | -.0028 | .0007  | .0133  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .1979   | .0906  | -.0066 | -.0017 | .0039  | .0101  |
| 3    | .00    | .1907   | -.0187 | -.0444 | -.0021 | .0018  | .0108  |
| 4    | -20.01 | -1.1328 | .3203  | .3979  | -.0070 | -.0096 | .0215  |
| 5    | -15.01 | -1.0242 | .1278  | .4346  | -.0034 | -.0022 | .0242  |
| 6    | -10.00 | -.6829  | .0387  | .2083  | -.0039 | -.0006 | .0150  |
| 7    | -4.99  | -.2444  | -.0138 | .0023  | -.0044 | .0038  | .0148  |
| 8    | -2.50  | -.0254  | -.0219 | -.0199 | -.0025 | .0027  | .0173  |
| 9    | -.01   | .1883   | -.0224 | -.0435 | -.0016 | .0038  | .0150  |
| 10   | 2.49   | .4003   | -.0147 | -.0690 | -.0013 | .0039  | .0139  |
| 11   | 5.00   | .6257   | .0029  | -.0895 | -.0027 | .0040  | .0129  |
| 12   | 9.98   | 1.0489  | .0636  | -.1406 | -.0048 | .0045  | -.0193 |
| 13   | 15.00  | 1.4068  | .1640  | -.2541 | -.0030 | .0075  | .0017  |
| 14   | 17.50  | 1.4869  | .2406  | -.2817 | -.0040 | .0033  | .0051  |
| 15   | 20.01  | 1.5150  | .3297  | -.2437 | .0002  | .0075  | .0020  |
| 16   | -.00   | .1898   | -.0207 | -.0423 | -.0028 | .0007  | .0133  |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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*PFF3*

RUN 912 CONFIG F P B NP5 W7 T60 BT TN=-3.5

| PT. NO. | 0 DELF    |         | 0 DELA      |             | 0 IHT        |              | 0 DELE       |             | 0 DELR |         | 0 DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF    | V KNOTS |         |  |     |
| 7       | .0        | .0      | 75.8        | 32.98       | 12.          | -38.         | 10.          | 5.92        | 55.23  | 128.88  | 3600.   |  |     |
| 8       | .0        | .0      | 74.0        | -6.23       | -104.        | -32.         | 45.          | 5.52        | 55.57  | 129.28  | 11420.  |  |     |
| 9       | -20.0     | .0      | -405.1      | 120.74      | 1252.        | -181.        | -142.        | 8.04        | 54.65  | 128.17  | 11460.  |  |     |
| 10      | -15.0     | .0      | -380.0      | 46.43       | 1326.        | -89.         | -48.         | 6.38        | 54.99  | 128.58  | 11470.  |  |     |
| 11      | -10.0     | .0      | -254.0      | 14.33       | 645.         | -65.         | -11.         | 5.91        | 55.31  | 128.97  | 11380.  |  |     |
| 12      | -5.0      | .0      | -87.6       | -3.93       | 41.          | -70.         | 29.          | 3.93        | 55.53  | 129.22  | 11350.  |  |     |
| 13      | -2.5      | .0      | -7.5        | -7.35       | -34.         | -49.         | -9.          | 6.19        | 55.62  | 129.33  | 11470.  |  |     |
| 14      | -.0       | .0      | 71.9        | -6.88       | -104.        | -55.         | -23.         | 3.95        | 55.16  | 128.79  | 11420.  |  |     |
| 15      | 2.5       | .0      | 150.5       | -3.12       | -184.        | -34.         | 65.          | 4.62        | 55.27  | 128.91  | 11390.  |  |     |
| 16      | 5.0       | .0      | 229.2       | 1.90        | -229.        | -22.         | 85.          | 2.27        | 55.56  | 129.26  | 11480.  |  |     |
| 17      | 10.0      | .0      | 388.6       | 24.28       | -373.        | -44.         | 53.          | 1.06        | 54.39  | 127.86  | 11430.  |  |     |
| 18      | 15.1      | .0      | 514.8       | 60.38       | -673.        | -54.         | 106.         | .25         | 55.04  | 128.64  | 11430.  |  |     |
| 19      | 17.5      | .0      | 539.4       | 87.90       | -739.        | -63.         | 35.          | 1.56        | 54.66  | 128.19  | 11370.  |  |     |
| 20      | 20.0      | .0      | 548.3       | 120.08      | -596.        | 12.          | -18.         | .50         | 54.86  | 128.42  | 11440.  |  |     |
| 21      | .0        | .0      | 71.4        | -6.51       | -109.        | -50.         | 12.          | 4.47        | 55.58  | 129.28  | 11390.  |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | .00    | .2047   | .0891  | .0039  | -.0023 | .0006  | .0160 |
| 8    | .00    | .2000   | -.0168 | -.0336 | -.0019 | .0027  | .0149 |
| 9    | -20.00 | -1.0949 | .3263  | .4036  | -.0109 | -.0086 | .0217 |
| 10   | -14.96 | -1.0271 | .1255  | .4274  | -.0054 | -.0029 | .0172 |
| 11   | -10.00 | -.6865  | .0387  | .2079  | -.0039 | -.0007 | .0160 |
| 12   | -5.00  | -.2367  | -.0106 | .0132  | -.0042 | .0017  | .0106 |
| 13   | -2.48  | -.0202  | -.0199 | -.0108 | -.0030 | -.0005 | .0167 |
| 14   | -.00   | .1943   | -.0186 | -.0334 | -.0033 | -.0014 | .0107 |
| 15   | 2.50   | .4067   | -.0084 | -.0592 | -.0020 | .0039  | .0125 |
| 16   | 5.00   | .6196   | .0051  | -.0738 | -.0013 | .0051  | .0061 |
| 17   | 10.01  | 1.0502  | .0656  | -.1204 | -.0027 | .0032  | .0029 |
| 18   | 15.06  | 1.3913  | .1632  | -.2169 | -.0033 | .0064  | .0007 |
| 19   | 17.50  | 1.4578  | .2376  | -.2381 | -.0038 | .0021  | .0042 |
| 20   | 20.02  | 1.4818  | .3245  | -.1922 | .0007  | -.0011 | .0013 |
| 21   | .00    | .1931   | -.0176 | -.0350 | -.0030 | .0007  | .0121 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 7    | .00    | .2047   | .0891  | .0039  | -.0023 | .0006  | .0160 |
| 8    | .00    | .2000   | -.0168 | -.0336 | -.0019 | .0027  | .0149 |
| 9    | -20.00 | -1.0949 | .3263  | .4036  | -.0109 | -.0086 | .0217 |
| 10   | -14.96 | -1.0271 | .1255  | .4274  | -.0054 | -.0029 | .0172 |
| 11   | -10.00 | -.6865  | .0387  | .2079  | -.0039 | -.0007 | .0160 |
| 12   | -5.00  | -.2367  | -.0106 | .0132  | -.0042 | .0017  | .0106 |
| 13   | -2.48  | -.0202  | -.0199 | -.0108 | -.0030 | -.0005 | .0167 |
| 14   | -.00   | .1943   | -.0186 | -.0334 | -.0033 | -.0014 | .0107 |
| 15   | 2.50   | .4067   | -.0084 | -.0592 | -.0020 | .0039  | .0125 |
| 16   | 5.00   | .6196   | .0051  | -.0738 | -.0013 | .0051  | .0061 |
| 17   | 10.01  | 1.0502  | .0656  | -.1204 | -.0027 | .0032  | .0029 |
| 18   | 15.06  | 1.3913  | .1632  | -.2169 | -.0033 | .0064  | .0007 |
| 19   | 17.50  | 1.4578  | .2376  | -.2381 | -.0038 | .0021  | .0042 |
| 20   | 20.02  | 1.4818  | .3245  | -.1922 | .0007  | -.0011 | .0013 |
| 21   | .00    | .1931   | -.0176 | -.0350 | -.0030 | .0007  | .0121 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

*PFF*

RUN 913 CONFIG F P B NP5 W7 T60 BT IN=-3.5

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | -5 DELE     | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |  |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|--|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |  |
| 2       | .0        | .0      | 48.9        | 32.26       | 713.         | -65.         | -27.         | 7.79        | 55.56 | 129.25  | 3590.  |  |
| 3       | .0        | .0      | 44.9        | -5.63       | 603.         | -62.         | 10.          | 6.14        | 55.52 | 129.21  | 11260. |  |
| 4       | -20.0     | .0      | -414.7      | 127.34      | 1435.        | -250.        | -73.         | 8.55        | 54.57 | 128.08  | 11270. |  |
| 5       | -15.0     | .0      | -380.4      | 70.23       | 1966.        | -220.        | 186.         | 11.87       | 55.10 | 128.70  | 11230. |  |
| 6       | -10.0     | .0      | -286.0      | 21.62       | 1549.        | -83.         | -11.         | 5.97        | 55.38 | 129.04  | 11200. |  |
| 7       | -5.0      | .0      | -118.7      | -.09        | 887.         | -89.         | 25.          | 6.07        | 55.56 | 129.26  | 11230. |  |
| 8       | -2.5      | .0      | -36.6       | -4.40       | 741.         | -75.         | 10.          | 5.14        | 55.04 | 128.63  | 11260. |  |
| 9       | .0        | .0      | 47.9        | -5.55       | 630.         | -65.         | 28.          | 6.14        | 54.89 | 128.46  | 11260. |  |
| 10      | 2.5       | .0      | 125.1       | -3.40       | 511.         | -54.         | -5.          | 4.57        | 55.11 | 128.72  | 11260. |  |
| 11      | 5.0       | .0      | 203.3       | 2.26        | 428.         | -43.         | 32.          | 2.68        | 55.89 | 129.65  | 11240. |  |
| 12      | 10.0      | .0      | 358.2       | 21.91       | 327.         | -65.         | 103.         | 3.39        | 55.34 | 129.00  | 11230. |  |
| 13      | 15.0      | .0      | 485.5       | 55.87       | 98.          | -80.         | 122.         | 2.95        | 55.48 | 129.16  | 11230. |  |
| 14      | 17.5      | .0      | 510.9       | 78.29       | -77.         | -51.         | 140.         | .49         | 55.47 | 129.15  | 11230. |  |
| 15      | 20.0      | .0      | 545.0       | 109.52      | -268.        | 11.          | 70.          | -1.30       | 55.24 | 128.87  | 11250. |  |
| 16      | .0        | .0      | 43.4        | -4.86       | 605.         | -75.         | 81.          | 5.52        | 54.95 | 128.53  | 11210. |  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .1322   | .0872  | .2298  | -.0039 | -.0016 | .0210  |
| 3    | .00    | .1212   | -.0152 | .1944  | -.0038 | .0006  | .0166  |
| 4    | -20.00 | -1.1207 | .3442  | .4627  | -.0151 | -.0044 | .0231  |
| 5    | -15.00 | -1.0281 | .1898  | .6339  | -.0133 | .0113  | .0321  |
| 6    | -9.99  | -.7730  | .0584  | .4994  | -.0050 | -.0007 | .0161  |
| 7    | -5.00  | -.3209  | -.0003 | .2861  | -.0054 | .0015  | .0164  |
| 8    | -2.50  | -.0988  | -.0119 | .2390  | -.0045 | .0006  | .0139  |
| 9    | .03    | .1296   | -.0150 | .2031  | -.0039 | .0017  | .0166  |
| 10   | 2.49   | .3381   | -.0092 | .1647  | -.0032 | -.0003 | .0124  |
| 11   | 5.02   | .5494   | .0061  | .1379  | -.0026 | .0019  | .0072  |
| 12   | 10.00  | .9682   | .0592  | .1053  | -.0039 | .0062  | .0091  |
| 13   | 15.00  | 1.3122  | .1510  | .0317  | -.0048 | .0073  | .0080  |
| 14   | 17.50  | 1.3809  | .2116  | -.0249 | -.0031 | .0084  | .0013  |
| 15   | 20.04  | 1.4730  | .2960  | -.0862 | .0007  | .0042  | -.0035 |
| 16   | .00    | .1173   | -.0131 | .1950  | -.0046 | .0049  | .0149  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .1322   | .0872  | .2298  | -.0039 | -.0016 | .0210  |
| 3    | .00    | .1212   | -.0152 | .1944  | -.0038 | .0006  | .0166  |
| 4    | -20.00 | -1.1207 | .3442  | .4627  | -.0151 | -.0044 | .0231  |
| 5    | -15.00 | -1.0281 | .1898  | .6339  | -.0133 | .0113  | .0321  |
| 6    | -9.99  | -.7730  | .0584  | .4994  | -.0050 | -.0007 | .0161  |
| 7    | -5.00  | -.3209  | -.0003 | .2861  | -.0054 | .0015  | .0164  |
| 8    | -2.50  | -.0988  | -.0119 | .2390  | -.0045 | .0006  | .0139  |
| 9    | .03    | .1296   | -.0150 | .2031  | -.0039 | .0017  | .0166  |
| 10   | 2.49   | .3381   | -.0092 | .1647  | -.0032 | -.0003 | .0124  |
| 11   | 5.02   | .5494   | .0061  | .1379  | -.0026 | .0019  | .0072  |
| 12   | 10.00  | .9682   | .0592  | .1053  | -.0039 | .0062  | .0091  |
| 13   | 15.00  | 1.3122  | .1510  | .0317  | -.0048 | .0073  | .0080  |
| 14   | 17.50  | 1.3809  | .2116  | -.0249 | -.0031 | .0084  | .0013  |
| 15   | 20.04  | 1.4730  | .2960  | -.0862 | .0007  | .0042  | -.0035 |
| 16   | .00    | .1173   | -.0131 | .1950  | -.0046 | .0049  | .0149  |

RUN 914 CONFIG F P.B NP5 W7 T60 BT IN=3.5

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | -4 DELE     | 0 DELR       | 0 DELSB      | 0            | 0           | RPM   |          |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|----------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V. KNOTS |        |
| 2       | .0        | .0      | -131.3      | 35.14       | -59.         | -22.         | 8.           | 7.54        | 55.12 | 128.74   | 3350.  |
| 3       | .0        | .0      | -135.4      | -5.78       | -143.        | -12.         | -60.         | 6.61        | 56.65 | 130.55   | 11810. |
| 4       | -.0       | .0      | -138.4      | -5.03       | -153.        | -24.         | -43.         | 6.41        | 55.24 | 128.88   | 11690. |
| 5       | -20.0     | .0      | -401.3      | 168.99      | 1315.        | -84.         | -98.         | 4.00        | 54.46 | 127.93   | 11680. |
| 6       | -15.0     | .0      | -406.1      | 120.52      | 1913.        | -132.        | -176.        | 6.23        | 53.56 | 126.86   | 11680. |
| 7       | -10.0     | .0      | -362.2      | 68.73       | 1135.        | -140.        | -175.        | 7.53        | 54.25 | 127.69   | 11720. |
| 8       | -5.0      | .0      | -292.5      | 11.09       | 170.         | -34.         | -80.         | 5.94        | 54.49 | 127.98   | 11740. |
| 9       | -2.5      | .0      | -215.3      | 1.23        | -5.          | -31.         | 12.          | 3.99        | 54.61 | 128.12   | 11730. |
| 10      | .0        | .0      | -138.3      | -5.52       | -154.        | -11.         | -42.         | 5.18        | 55.27 | 128.90   | 11730. |
| 11      | 2.5       | .0      | -54.1       | -7.67       | -190.        | -7.          | 11.          | 6.02        | 54.90 | 128.47   | 11740. |
| 12      | 5.1       | .0      | 27.8        | -8.07       | -271.        | -41.         | 65.          | 5.74        | 55.17 | 128.80   | 11730. |
| 13      | 10.0      | .0      | 187.5       | .62         | -298.        | -23.         | 86.          | 4.12        | 54.61 | 128.13   | 11650. |
| 14      | 15.0      | .0      | 346.6       | 20.48       | -329.        | -27.         | 87.          | 3.28        | 55.12 | 128.73   | 11760. |
| 15      | 17.5      | .0      | 426.7       | 35.94       | -319.        | -9.          | 106.         | 1.43        | 54.76 | 128.30   | 11770. |
| 16      | 20.0      | .0      | 494.1       | 55.83       | -260.        | -51.         | 53.          | .00         | 55.11 | 128.73   | 11700. |
| 17      | -.0       | .0      | -139.4      | -4.88       | -146.        | -5.          | -8.          | 6.64        | 54.90 | 128.48   | 11730. |
| 18      | 2.5       | .0      | -58.6       | -8.39       | -259.        | -30.         | 10.          | 7.06        | 54.99 | 128.58   | 11730. |
| 19      | 5.0       | .0      | 23.6        | -8.19       | -293.        | -14.         | 28.          | 7.53        | 55.22 | 128.85   | 11740. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3550  | .0950  | -.0190 | -.0014 | .0005  | .0204 |
| 3    | .00    | -.3659  | -.0156 | -.0462 | -.0007 | -.0036 | .0179 |
| 4    | -.00   | -.3741  | -.0136 | -.0493 | -.0014 | -.0026 | .0173 |
| 5    | -20.01 | -1.0846 | .4567  | .4238  | -.0050 | -.0059 | .0108 |
| 6    | -15.00 | -1.0977 | .3257  | .6169  | -.0080 | -.0106 | .0168 |
| 7    | -10.01 | -.9789  | .1858  | .3658  | -.0084 | -.0105 | .0204 |
| 8    | -5.00  | -.7906  | .0300  | .0549  | -.0020 | -.0049 | .0161 |
| 9    | -2.49  | -.5820  | .0033  | -.0017 | -.0019 | .0007  | .0108 |
| 10   | .01    | -.3739  | -.0149 | -.0495 | -.0007 | -.0025 | .0140 |
| 11   | 2.50   | -.1462  | -.0207 | -.0612 | -.0004 | .0007  | .0163 |
| 12   | 5.07   | .0751   | -.0218 | -.0873 | -.0025 | .0039  | .0155 |
| 13   | 10.00  | .5069   | .0017  | -.0962 | -.0014 | .0052  | .0111 |
| 14   | 14.99  | .9367   | .0554  | -.1060 | -.0016 | .0053  | .0089 |
| 15   | 17.49  | 1.1532  | .0971  | -.1029 | -.0006 | .0064  | .0039 |
| 16   | 20.01  | 1.3353  | .1509  | -.0839 | -.0031 | .0032  | .0000 |
| 17   | -.01   | -.3768  | -.0132 | -.0470 | -.0003 | -.0005 | .0179 |
| 18   | 2.52   | -.1584  | -.0227 | -.0834 | -.0018 | .0006  | .0191 |
| 19   | 5.00   | .0637   | -.0221 | -.0944 | -.0009 | .0017  | .0203 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3550  | .0950  | -.0190 | -.0014 | .0005  | .0204 |
| 3    | .00    | -.3659  | -.0156 | -.0462 | -.0007 | -.0036 | .0179 |
| 4    | -.00   | -.3741  | -.0136 | -.0493 | -.0014 | -.0026 | .0173 |
| 5    | -20.01 | -1.0846 | .4567  | .4238  | -.0050 | -.0059 | .0108 |
| 6    | -15.00 | -1.0977 | .3257  | .6169  | -.0080 | -.0106 | .0168 |
| 7    | -10.01 | -.9789  | .1858  | .3658  | -.0084 | -.0105 | .0204 |
| 8    | -5.00  | -.7906  | .0300  | .0549  | -.0020 | -.0049 | .0161 |
| 9    | -2.49  | -.5820  | .0033  | -.0017 | -.0019 | .0007  | .0108 |
| 10   | .01    | -.3739  | -.0149 | -.0495 | -.0007 | -.0025 | .0140 |
| 11   | 2.50   | -.1462  | -.0207 | -.0612 | -.0004 | .0007  | .0163 |
| 12   | 5.07   | .0751   | -.0218 | -.0873 | -.0025 | .0039  | .0155 |
| 13   | 10.00  | .5069   | .0017  | -.0962 | -.0014 | .0052  | .0111 |
| 14   | 14.99  | .9367   | .0554  | -.1060 | -.0016 | .0053  | .0089 |
| 15   | 17.49  | 1.1532  | .0971  | -.1029 | -.0006 | .0064  | .0039 |
| 16   | 20.01  | 1.3353  | .1509  | -.0839 | -.0031 | .0032  | .0000 |
| 17   | -.01   | -.3768  | -.0132 | -.0470 | -.0003 | -.0005 | .0179 |
| 18   | 2.52   | -.1584  | -.0227 | -.0834 | -.0018 | .0006  | .0191 |
| 19   | 5.00   | .0637   | -.0221 | -.0944 | -.0009 | .0017  | .0203 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 886

RUN 915 CONFIG F P B NP5 W7 T60 BT IN=-3.5 PSI=5

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | 0           | 0     | 0       | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 8       | .0        | 5.0     | -106.0      | -3.54       | -669.        | -152.        | 1.           | 53.51       | 53.92 | 127.30  | 12000. |
| 9       | -20.0     | 5.0     | -393.2      | 160.95      | 1312.        | -341.        | -231.        | 30.83       | 54.25 | 127.68  | 11970. |
| 10      | -15.0     | 5.0     | -350.6      | 108.57      | 1096.        | -319.        | -398.        | 33.30       | 55.34 | 128.98  | 11990. |
| 11      | -10.0     | 5.0     | -313.5      | 61.41       | 292.         | -380.        | -301.        | 40.98       | 55.20 | 128.82  | 11970. |
| 12      | -5.0      | 5.0     | -254.4      | 11.12       | -381.        | -251.        | -53.         | 50.16       | 55.76 | 129.49  | 11990. |
| 13      | -2.5      | 5.0     | -179.8      | 2.60        | -518.        | -203.        | -24.         | 50.88       | 55.91 | 129.66  | 11990. |
| 14      | -.0       | 5.0     | -104.4      | -2.54       | -649.        | -157.        | 1.           | 52.78       | 55.50 | 129.18  | 11990. |
| 15      | 2.5       | 5.0     | -27.2       | -5.28       | -729.        | -101.        | -58.         | 49.58       | 56.14 | 129.93  | 11990. |
| 16      | 5.0       | 5.0     | 49.2        | -4.81       | -801.        | -66.         | 54.          | 46.87       | 55.89 | 129.64  | 12000. |
| 17      | 10.0      | 5.0     | 209.7       | 4.21        | -853.        | 7.           | 94.          | 43.44       | 55.20 | 128.83  | 11990. |
| 18      | 15.0      | 5.0     | 369.1       | 28.86       | -890.        | -19.         | 140.         | 38.03       | 55.26 | 128.90  | 11970. |
| 19      | 17.5      | 5.0     | 438.2       | 47.76       | -739.        | 10.          | 172.         | 37.80       | 55.42 | 129.09  | 11950. |
| 20      | 20.0      | 5.0     | 492.3       | 71.69       | -562.        | -54.         | 174.         | 30.15       | 55.25 | 128.88  | 12020. |
| 21      | .0        | 5.0     | -105.0      | -2.61       | -664.        | -150.        | -66.         | 51.18       | 56.31 | 130.14  | 12030. |
| 22      | .0        | 5.0     | -99.5       | 39.35       | -553.        | -194.        | -45.         | 46.70       | 55.29 | 128.93  | 3330.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 8    | .00    | -.2865  | -.0096 | -.2158 | -.0092 | .0001  | .1446 |
| 9    | -20.03 | -1.0628 | .4350  | .4231  | -.0206 | -.0139 | .0833 |
| 10   | -14.99 | -.9476  | .2934  | .3533  | -.0193 | -.0240 | .0900 |
| 11   | -9.97  | -.8472  | .1660  | .0941  | -.0229 | -.0182 | .1107 |
| 12   | -4.99  | -.6876  | .0301  | -.1228 | -.0152 | -.0032 | .1356 |
| 13   | -2.50  | -.4860  | .0070  | -.1672 | -.0123 | -.0015 | .1375 |
| 14   | -.00   | -.2821  | -.0069 | -.2092 | -.0095 | .0001  | .1427 |
| 15   | 2.51   | -.0735  | -.0143 | -.2350 | -.0061 | -.0035 | .1340 |
| 16   | 5.00   | .1329   | -.0130 | -.2581 | -.0040 | .0032  | .1267 |
| 17   | 10.02  | .5669   | .0114  | -.2751 | .0004  | .0056  | .1174 |
| 18   | 15.00  | .9976   | .0780  | -.2869 | -.0011 | .0085  | .1028 |
| 19   | 17.50  | 1.1843  | .1291  | -.2383 | .0006  | .0104  | .1022 |
| 20   | 20.00  | 1.3306  | .1937  | -.1813 | -.0032 | .0105  | .0815 |
| 21   | .00    | -.2838  | -.0070 | -.2139 | -.0090 | -.0040 | .1383 |
| 22   | .00    | -.2690  | .1063  | -.1783 | -.0117 | -.0027 | .1262 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLR     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 8    | .00    | -.2865  | -.0222 | -.2149 | -.0092 | -.0035 | .1432 |
| 9    | -20.03 | -1.0628 | .4260  | .4150  | -.0206 | -.0069 | .1211 |
| 10   | -14.99 | -.9476  | .2844  | .3407  | -.0193 | -.0182 | .1154 |
| 11   | -9.97  | -.8472  | .1555  | .0853  | -.0229 | -.0166 | .1249 |
| 12   | -4.99  | -.6876  | .0181  | -.1238 | -.0152 | -.0052 | .1377 |
| 13   | -2.50  | -.4860  | -.0050 | -.1672 | -.0123 | -.0042 | .1376 |
| 14   | -.00   | -.2821  | -.0193 | -.2084 | -.0095 | -.0034 | .1415 |
| 15   | 2.51   | -.0735  | -.0259 | -.2358 | -.0061 | -.0073 | .1322 |
| 16   | 5.00   | .1329   | -.0240 | -.2556 | -.0040 | -.0010 | .1251 |
| 17   | 10.02  | .5669   | .0011  | -.2714 | .0004  | .0011  | .1180 |
| 18   | 15.00  | .9976   | .0687  | -.2819 | -.0011 | .0037  | .1092 |
| 19   | 17.50  | 1.1843  | .1196  | -.2325 | .0006  | .0064  | .1131 |
| 20   | 20.00  | 1.3306  | .1859  | -.1757 | -.0032 | .0075  | .0981 |
| 21   | .00    | -.2838  | -.0191 | -.2150 | -.0090 | -.0075 | .1372 |
| 22   | .00    | -.2690  | .0949  | -.1789 | -.0117 | -.0057 | .1350 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 887

RUN 916 CONFIG F P R NP5 W7 T60 BT IN=-3.5 PSI=5

| IW      | 0 DELF    | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 3       | .0        | .0      | 63.1        | -6.70       | -98.         | -23.         | 81.          | 4.52        | 55.82 | 129.56  | 11660. |
| 4       | .0        | 5.0     | 63.0        | -4.35       | -195.        | -195.        | 7.           | 47.69       | 55.64 | 129.35  | 11640. |
| 5       | -20.0     | 5.0     | -404.4      | 123.69      | 917.         | -336.        | -365.        | 30.49       | 54.97 | 128.55  | 11650. |
| 6       | -15.0     | 5.0     | -377.1      | 49.70       | 1223.        | -338.        | -247.        | 39.40       | 55.51 | 129.19  | 11700. |
| 7       | -10.0     | 5.0     | -253.1      | 17.41       | 480.         | -334.        | -155.        | 49.31       | 55.74 | 129.47  | 11680. |
| 8       | -5.0      | 5.0     | -93.1       | -2.08       | -44.         | -279.        | -42.         | 47.63       | 55.86 | 129.61  | 11630. |
| 9       | -2.5      | 5.0     | -15.5       | -5.39       | -118.        | -242.        | 19.          | 47.62       | 55.51 | 129.20  | 11620. |
| 10      | .0        | 5.0     | 61.8        | -5.39       | -195.        | -207.        | -26.         | 46.50       | 55.60 | 129.31  | 11630. |
| 11      | 2.5       | 5.0     | 143.3       | -2.70       | -254.        | -167.        | 13.          | 45.83       | 55.45 | 129.12  | 11640. |
| 12      | 5.0       | 5.0     | 220.4       | 2.21        | -291.        | -92.         | 124.         | 40.89       | 55.40 | 129.07  | 11660. |
| 13      | 10.0      | 5.0     | 370.7       | 23.43       | -459.        | -147.        | 140.         | 38.81       | 55.64 | 129.35  | 11630. |
| 14      | 15.0      | 5.0     | 512.4       | 56.51       | -687.        | -80.         | 293.         | 32.90       | 55.59 | 129.29  | 11670. |
| 15      | 20.0      | 5.0     | 553.6       | 116.80      | -797.        | 35.          | 414.         | 23.24       | 54.97 | 128.55  | 11660. |
| 16      | .0        | 5.0     | 64.4        | -6.25       | -194.        | -192.        | -26.         | 45.87       | 55.63 | 129.33  | 11650. |
| 17      | .0        | 5.0     | 67.6        | 34.59       | -64.         | -236.        | -6.          | 43.24       | 55.15 | 128.76  | 3560.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 3    | .00    | .1706   | -.0181 | -.0317 | -.0014 | .0049  | .0122 |
| 4    | .00    | .1704   | -.0118 | -.0628 | -.0118 | .0004  | .1289 |
| 5    | -20.00 | -1.0929 | .3343  | .2958  | -.0203 | -.0221 | .0824 |
| 6    | -14.99 | -1.0191 | .1343  | .3942  | -.0204 | -.0149 | .1065 |
| 7    | -10.01 | -.6841  | .0471  | .1547  | -.0202 | -.0094 | .1333 |
| 8    | -4.97  | -.2517  | -.0056 | -.0141 | -.0169 | -.0025 | .1287 |
| 9    | -2.51  | -.0420  | -.0146 | -.0381 | -.0146 | .0011  | .1287 |
| 10   | .00    | .1670   | -.0146 | -.0628 | -.0125 | -.0016 | .1257 |
| 11   | 2.50   | .3874   | -.0073 | -.0818 | -.0101 | .0008  | .1239 |
| 12   | 5.02   | .5957   | .0060  | -.0939 | -.0055 | .0075  | .1105 |
| 13   | 10.01  | 1.0018  | .0633  | -.1480 | -.0089 | .0085  | .1049 |
| 14   | 15.00  | 1.3847  | .1527  | -.2214 | -.0049 | .0177  | .0889 |
| 15   | 20.01  | 1.4963  | .3157  | -.2569 | .0021  | .0250  | .0628 |
| 16   | -.01   | .1741   | -.0169 | -.0626 | -.0116 | -.0016 | .1240 |
| 17   | -.01   | .1827   | .0935  | -.0206 | -.0143 | -.0003 | .1169 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 3    | .00    | .1706   | -.0181 | -.0317 | -.0014 | .0049  | .0122 |
| 4    | .00    | .1704   | -.0230 | -.0624 | -.0118 | -.0006 | .1274 |
| 5    | -20.00 | -1.0929 | .3258  | .2843  | -.0203 | -.0171 | .1114 |
| 6    | -14.99 | -1.0191 | .1245  | .3858  | -.0204 | -.0084 | .1178 |
| 7    | -10.01 | -.6841  | .0352  | .1497  | -.0202 | -.0068 | .1369 |
| 8    | -4.97  | -.2517  | -.0169 | -.0153 | -.0169 | -.0028 | .1277 |
| 9    | -2.51  | -.0420  | -.0258 | -.0374 | -.0146 | .0005  | .1269 |
| 10   | .00    | .1670   | -.0255 | -.0633 | -.0125 | -.0026 | .1239 |
| 11   | 2.50   | .3874   | -.0181 | -.0811 | -.0101 | -.0006 | .1228 |
| 12   | 5.02   | .5957   | -.0037 | -.0901 | -.0055 | .0059  | .1106 |
| 13   | 10.01  | 1.0018  | .0539  | -.1435 | -.0089 | .0060  | .1100 |
| 14   | 15.00  | 1.3847  | .1444  | -.2123 | -.0049 | .0140  | .1020 |
| 15   | 20.01  | 1.4963  | .3090  | -.2443 | .0021  | .0207  | .0902 |
| 16   | -.01   | .1741   | -.0277 | -.0631 | -.0116 | -.0026 | .1220 |
| 17   | -.01   | .1827   | .0829  | -.0207 | -.0143 | -.0007 | .1246 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
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RUN 917 CONFIG F P B NP5 W7 T60 BT IN=-3.5 PSI=5

| PT. NO. | IW | 7.5 DELF<br>ALPHA DEG | 0 DELA<br>PSI DEG | 0 IHT<br>CLBAR SQ-FT | 0 DELE<br>CDBAR SQ-FT | 0 DELR<br>CPMBAR CU-FT | 0 DELSB<br>CYMBAR CU-FT | 0<br>CRMBAR CU-FT | 0<br>CYBAR SQ-FT | 0<br>Q PSF | 0<br>V KNOTS | RPM    |
|---------|----|-----------------------|-------------------|----------------------|-----------------------|------------------------|-------------------------|-------------------|------------------|------------|--------------|--------|
| 3       |    | .0                    | 5.0               | 205.6                | -5.93                 | 88.                    | -194.                   | 72.               | 42.71            | 55.83      | 129.58       | 12920. |
| 4       |    | -20.0                 | 5.0               | -389.5               | 61.35                 | 1087.                  | -337.                   | -206.             | 36.99            | 55.16      | 128.77       | 12970. |
| 5       |    | -15.0                 | 5.0               | -272.8               | 23.87                 | 1065.                  | -366.                   | -157.             | 44.54            | 55.68      | 129.39       | 12970. |
| 6       |    | -10.0                 | 5.0               | -117.7               | -4.86                 | 591.                   | -380.                   | -104.             | 50.34            | 55.56      | 129.25       | 12900. |
| 7       |    | -5.0                  | 5.0               | 47.3                 | -11.70                | 335.                   | -304.                   | -46.              | 46.57            | 55.59      | 129.29       | 12910. |
| 8       |    | -2.5                  | 5.0               | 128.4                | -10.39                | 180.                   | -250.                   | -21.              | 44.97            | 55.91      | 129.67       | 12860. |
| 9       |    | .0                    | 5.0               | 209.1                | -6.32                 | 95.                    | -212.                   | 57.               | 42.45            | 54.96      | 128.55       | 12920. |
| 10      |    | 2.5                   | 5.0               | 278.8                | 1.87                  | 8.                     | -213.                   | 104.              | 32.84            | 55.61      | 129.31       | 12890. |
| 11      |    | 5.0                   | 5.0               | 356.7                | 11.65                 | -67.                   | -179.                   | 138.              | 34.14            | 55.08      | 128.69       | 12910. |
| 12      |    | 10.0                  | 5.0               | 448.1                | 45.14                 | -333.                  | -234.                   | 398.              | 31.77            | 55.32      | 128.97       | 12970. |
| 13      |    | 15.0                  | 5.0               | 515.0                | 102.70                | -783.                  | -177.                   | 405.              | 25.34            | 54.98      | 128.56       | 12870. |
| 14      |    | 17.5                  | 5.0               | 539.9                | 142.35                | -947.                  | -198.                   | 510.              | 20.17            | 55.90      | 129.66       | 12910. |
| 15      |    | 20.0                  | 5.0               | 566.5                | 172.50                | -1018.                 | -80.                    | 490.              | 14.34            | 55.34      | 128.99       | 12870. |
| 16      |    | .0                    | 5.0               | 207.1                | -5.13                 | 92.                    | -212.                   | 73.               | 41.79            | 55.92      | 129.68       | 12930. |
| 17      |    | .0                    | 5.0               | 210.6                | 45.13                 | 221.                   | -265.                   | 26.               | 36.81            | 55.81      | 129.54       | 3790.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 3    | .00    | .5557   | -.0160 | .0283  | -.0117 | .0044  | .1154 |
| 4    | -19.99 | -1.0528 | .1658  | .3505  | -.0203 | -.0124 | .1000 |
| 5    | -14.99 | -.7372  | .0645  | .3433  | -.0221 | -.0095 | .1204 |
| 6    | -10.00 | -.3180  | -.0131 | .1905  | -.0230 | -.0063 | .1360 |
| 7    | -4.98  | .1277   | -.0316 | .1082  | -.0184 | -.0028 | .1259 |
| 8    | -2.46  | .3471   | -.0281 | .0580  | -.0151 | -.0013 | .1215 |
| 9    | .01    | .5652   | -.0171 | .0306  | -.0128 | .0034  | .1147 |
| 10   | 2.52   | .7536   | .0050  | .0027  | -.0129 | .0063  | .0887 |
| 11   | 5.01   | .9640   | .0315  | -.0217 | -.0108 | .0084  | .0923 |
| 12   | 10.02  | 1.2110  | .1220  | -.1073 | -.0141 | .0240  | .0859 |
| 13   | 15.01  | 1.3918  | .2776  | -.2524 | -.0107 | .0245  | .0685 |
| 14   | 17.53  | 1.4593  | .3847  | -.3054 | -.0120 | .0308  | .0545 |
| 15   | 20.03  | 1.5311  | .4662  | -.3281 | -.0048 | .0296  | .0388 |
| 16   | .01    | .5599   | -.0139 | .0297  | -.0128 | .0044  | .1129 |
| 17   | .01    | .5693   | .1220  | .0712  | -.0160 | .0016  | .0995 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 3    | .00    | .5557   | -.0261 | .0303  | -.0117 | .0048  | .1136 |
| 4    | -19.99 | -1.0528 | .1564  | .3434  | -.0203 | -.0066 | .1141 |
| 5    | -14.99 | -.7372  | .0537  | .3375  | -.0221 | -.0038 | .1256 |
| 6    | -10.00 | -.3180  | -.0250 | .1868  | -.0230 | -.0032 | .1344 |
| 7    | -4.98  | .1277   | -.0425 | .1065  | -.0184 | -.0010 | .1226 |
| 8    | -2.46  | .3471   | -.0386 | .0572  | -.0151 | -.0003 | .1186 |
| 9    | .01    | .5652   | -.0271 | .0321  | -.0128 | .0039  | .1128 |
| 10   | 2.52   | .7536   | -.0027 | .0056  | -.0129 | .0063  | .0888 |
| 11   | 5.01   | .9640   | .0233  | -.0177 | -.0108 | .0080  | .0947 |
| 12   | 10.02  | 1.2110  | .1140  | -.0956 | -.0141 | .0222  | .0962 |
| 13   | 15.01  | 1.3918  | .2705  | -.2400 | -.0107 | .0202  | .0925 |
| 14   | 17.53  | 1.4593  | .3785  | -.2899 | -.0120 | .0257  | .0880 |
| 15   | 20.03  | 1.5311  | .4610  | -.3130 | -.0048 | .0241  | .0794 |
| 16   | .01    | .5599   | -.0237 | .0317  | -.0128 | .0049  | .1113 |
| 17   | .01    | .5693   | .1128  | .0716  | -.0160 | .0027  | .1098 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
- AERODYNAMIC DATA

SER-72011

P 889

RUN 918 CONFIG F P B NP5 W7 T60 BT IN=-3.5 PSI=5

| PT. NO. | 7.5 DELF ALPHA DEG | 30 DELA PSI DEG | 0 IHT CLBAR SQ-FT | 0 DELE CNBAR SQ-FT | 0 DELR CPMBAR CU-FT | 0 DFLSB CYMBAR CU-FT | 0 CRMBAR CU-FT | 0 CYBAR SQ-FT | 0 PSF | 0 V KNOTS | RPM    |
|---------|--------------------|-----------------|-------------------|--------------------|---------------------|----------------------|----------------|---------------|-------|-----------|--------|
| 3       | .0                 | 5.0             | 396.2             | -5.73              | 276.                | -297.                | 119.           | 42.65         | 55.35 | 129.01    | 17420. |
| 4       | -20.0              | 5.0             | -283.0            | 27.90              | 843.                | -371.                | -14.           | 44.29         | 55.37 | 129.04    | 17440. |
| 5       | -15.0              | 5.0             | -114.0            | -1.07              | 917.                | -315.                | -59.           | 47.33         | 55.06 | 128.68    | 17460. |
| 6       | -10.0              | 5.0             | 58.3              | -15.91             | 630.                | -238.                | 33.            | 45.75         | 55.92 | 129.69    | 17400. |
| 7       | -5.0               | 5.0             | 229.3             | -13.95             | 385.                | -266.                | 79.            | 44.00         | 56.13 | 129.94    | 17460. |
| 8       | -2.5               | 5.0             | 313.0             | -8.11              | 326.                | -269.                | 66.            | 42.33         | 55.77 | 129.51    | 17250. |
| 9       | .0                 | 5.0             | 397.8             | 1.69               | 316.                | -244.                | 123.           | 40.00         | 55.27 | 128.93    | 17460. |
| 10      | 2.5                | 5.0             | 472.2             | 12.92              | 330.                | -215.                | 74.            | 36.68         | 55.16 | 128.80    | 17470. |
| 11      | -.0                | 5.0             | 397.0             | 4.06               | 328.                | -226.                | 86.            | 40.69         | 55.33 | 129.00    | 17410. |
| 12      | 5.0                | 5.0             | 539.9             | 26.69              | 335.                | -191.                | 213.           | 31.62         | 55.80 | 129.55    | 17440. |
| 13      | 10.0               | 5.0             | 635.8             | 62.34              | -81.                | -255.                | 441.           | 20.01         | 55.32 | 128.98    | 17430. |
| 14      | 15.0               | 5.0             | 590.9             | 143.75             | -655.               | -185.                | 374.           | 18.70         | 55.20 | 128.84    | 17440. |
| 15      | 17.5               | 5.0             | 639.2             | 183.24             | -808.               | -166.                | 320.           | 16.07         | 55.31 | 128.97    | 17460. |
| 16      | 20.0               | 5.0             | 653.3             | 214.43             | -1088.              | 16.                  | 228.           | 9.02          | 55.11 | 128.73    | 17540. |
| 17      | -.0                | 5.0             | 396.2             | 5.42               | 350.                | -240.                | 125.           | 37.03         | 55.65 | 129.38    | 17490. |
| 18      | -.0                | 5.0             | 406.2             | 90.98              | 390.                | -403.                | 109.           | 36.46         | 54.85 | 128.42    | 3980.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CY <sup>M</sup> | CRM    | CY    |
|------|--------|--------|--------|--------|-----------------|--------|-------|
| 3    | .00    | 1.0709 | -.0155 | .0890  | -.0180          | .0072  | .1153 |
| 4    | -20.02 | -.7649 | .0754  | .2719  | -.0224          | -.0008 | .1197 |
| 5    | -15.01 | -.3082 | -.0029 | .2956  | -.0190          | -.0035 | .1279 |
| 6    | -9.99  | .1577  | -.0430 | .2030  | -.0144          | .0020  | .1237 |
| 7    | -5.01  | .6196  | -.0377 | .1241  | -.0161          | .0048  | .1189 |
| 8    | -2.50  | .8460  | -.0219 | .1052  | -.0163          | .0040  | .1144 |
| 9    | .01    | 1.0751 | .0046  | .1019  | -.0148          | .0074  | .1081 |
| 10   | 2.50   | 1.2763 | .0349  | .1063  | -.0130          | .0044  | .0991 |
| 11   | -.00   | 1.0731 | .0110  | .1058  | -.0137          | .0052  | .1100 |
| 12   | 5.00   | 1.4593 | .0721  | .1080  | -.0115          | .0129  | .0855 |
| 13   | 10.01  | 1.7183 | .1685  | -.0260 | -.0154          | .0266  | .0541 |
| 14   | 15.00  | 1.5969 | .3885  | -.2113 | -.0112          | .0226  | .0505 |
| 15   | 17.50  | 1.7276 | .4952  | -.2606 | -.0100          | .0193  | .0434 |
| 16   | 20.00  | 1.7657 | .5795  | -.3508 | .0010           | .0138  | .0244 |
| 17   | -.00   | 1.0709 | .0147  | .1127  | -.0145          | .0075  | .1001 |
| 18   | -.00   | 1.0978 | .2459  | .1257  | -.0243          | .0066  | .0985 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|--------|--------|--------|--------|-------|-------|
| 3    | .00    | 1.0709 | -.0255 | .0920  | -.0180 | .0086 | .1135 |
| 4    | -20.02 | -.7649 | .0646  | .2705  | -.0224 | .0036 | .1259 |
| 5    | -15.01 | -.3082 | -.0141 | .2928  | -.0190 | .0013 | .1272 |
| 6    | -9.99  | .1577  | -.0537 | .2032  | -.0144 | .0053 | .1194 |
| 7    | -5.01  | .6196  | -.0480 | .1258  | -.0161 | .0068 | .1152 |
| 8    | -2.50  | .8460  | -.0318 | .1066  | -.0163 | .0057 | .1121 |
| 9    | .01    | 1.0751 | -.0049 | .1050  | -.0148 | .0090 | .1081 |
| 10   | 2.50   | 1.2763 | .0261  | .1080  | -.0130 | .0062 | .1018 |
| 11   | -.00   | 1.0731 | .0013  | .1078  | -.0137 | .0069 | .1105 |
| 12   | 5.00   | 1.4593 | .0644  | .1136  | -.0115 | .0146 | .0915 |
| 13   | 10.01  | 1.7183 | .1631  | -.0135 | -.0154 | .0261 | .0686 |
| 14   | 15.00  | 1.5969 | .3826  | -.1999 | -.0112 | .0191 | .0844 |
| 15   | 17.50  | 1.7276 | .4895  | -.2506 | -.0100 | .0150 | .0866 |
| 16   | 20.00  | 1.7657 | .5752  | -.3430 | .0010  | .0080 | .0750 |
| 17   | -.00   | 1.0709 | .0058  | .1158  | -.0145 | .0074 | .1010 |
| 18   | -.00   | 1.0978 | .2363  | .1283  | -.0243 | .0086 | .1197 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 919 CONFIG F P B NP5 W7 T60 BT IN=-3.5 PSI=5

| PT. NO. | IW    | 15 DELF | 30 DELA | 0 IHT  | 0 DELE | 0 DELR | 0 DELSE | 0     | 0     | RPM    |        |
|---------|-------|---------|---------|--------|--------|--------|---------|-------|-------|--------|--------|
|         | ALPHA | PSI     | CLBAR   | CDBAR  | CPMBAR | CYMBAR | CRMBAR  | CYBAR | 0     |        |        |
|         | DEG   | DEG     | SQ-FT   | SQ-FT  | CU-FT  | CU-FT  | CU-FT   | SQ-FT | PSF   | KNOTS  |        |
| 3       | .0    | 5.0     | 464.0   | -5.91  | 535.   | -462.  | 542.    | 17.14 | 54.65 | 128.20 | 20180. |
| 4       | -20.0 | 5.0     | -155.2  | .30    | 1045.  | -617.  | 140.    | 58.93 | 55.38 | 129.05 | 20110. |
| 5       | -15.0 | 5.0     | 15.0    | -25.89 | 1210.  | -627.  | 123.    | 63.21 | 55.89 | 129.66 | 20110. |
| 6       | -10.0 | 5.0     | 188.0   | -33.27 | 1189.  | -495.  | 121.    | 56.50 | 55.65 | 129.38 | 20170. |
| 7       | -5.0  | 5.0     | 346.6   | -24.21 | 617.   | -478.  | 245.    | 31.79 | 55.08 | 128.71 | 20200. |
| 8       | -2.5  | 5.0     | 416.1   | -18.81 | 563.   | -486.  | 268.    | 32.56 | 54.51 | 128.02 | 20150. |
| 9       | .0    | 5.0     | 466.3   | -6.99  | 567.   | -481.  | 682.    | 15.28 | 54.85 | 128.43 | 20180. |
| 10      | 2.5   | 5.0     | 519.6   | 6.05   | 454.   | -434.  | 676.    | 10.49 | 54.58 | 128.11 | 20090. |
| 11      | 5.0   | 5.0     | 528.6   | 25.07  | 334.   | -210.  | 1141.   | 26.44 | 55.13 | 128.76 | 20150. |
| 12      | 10.0  | 5.0     | 529.6   | 86.12  | -415.  | -343.  | 272.    | 34.15 | 54.16 | 127.60 | 20100. |
| 13      | 15.0  | 5.0     | 560.0   | 143.67 | -698.  | -315.  | 500.    | 24.33 | 54.46 | 127.96 | 20180. |
| 14      | 17.5  | 5.0     | 600.6   | 181.82 | -972.  | -206.  | 410.    | 18.23 | 54.94 | 128.53 | 20140. |
| 15      | 20.0  | 5.0     | 645.9   | 220.66 | -1240. | -60.   | 480.    | 16.28 | 55.02 | 128.62 | 20150. |
| 16      | 10.0  | 5.0     | 528.4   | 88.50  | -369.  | -371.  | 454.    | 30.77 | 55.57 | 129.28 | 20130. |
| 17      | -0    | 5.0     | 469.4   | -2.27  | 562.   | -451.  | 582.    | 17.84 | 55.37 | 129.05 | 20120. |
| 18      | -0    | 5.0     | 535.2   | 123.86 | 756.   | -590.  | 121.    | 33.67 | 55.54 | 129.24 | 4270.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY    |
|------|--------|--------|--------|--------|--------|-------|-------|
| 3    | .00    | 1.2539 | -.0160 | .1725  | -.0279 | .0327 | .0463 |
| 4    | -20.00 | -.4193 | .0008  | .3368  | -.0372 | .0084 | .1593 |
| 5    | -14.99 | .0404  | -.0700 | .3902  | -.0379 | .0074 | .1708 |
| 6    | -10.00 | .5082  | -.0899 | .3832  | -.0299 | .0073 | .1527 |
| 7    | -5.01  | .9368  | -.0654 | .1990  | -.0289 | .0148 | .0859 |
| 8    | -2.51  | 1.1245 | -.0508 | .1816  | -.0294 | .0162 | .0880 |
| 9    | .00    | 1.2602 | -.0189 | .1827  | -.0291 | .0412 | .0413 |
| 10   | 2.50   | 1.4043 | .0164  | .1464  | -.0262 | .0408 | .0283 |
| 11   | 4.99   | 1.4286 | .0677  | .1078  | -.0127 | .0689 | .0715 |
| 12   | 10.00  | 1.4313 | .2328  | -.1338 | -.0207 | .0164 | .0923 |
| 13   | 15.01  | 1.5136 | .3883  | -.2249 | -.0190 | .0302 | .0658 |
| 14   | 17.50  | 1.6233 | .4914  | -.3135 | -.0124 | .0248 | .0493 |
| 15   | 19.99  | 1.7457 | .5964  | -.3996 | -.0036 | .0290 | .0440 |
| 16   | 10.02  | 1.4281 | .2392  | -.1189 | -.0224 | .0274 | .0832 |
| 17   | -.00   | 1.2685 | -.0061 | .1813  | -.0273 | .0352 | .0482 |
| 18   | -.00   | 1.4463 | .3348  | .2436  | -.0356 | .0073 | .0910 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|--------|--------|--------|--------|-------|-------|
| 3    | .00    | 1.2539 | -.0200 | .1871  | -.0279 | .0354 | .0447 |
| 4    | -20.00 | -.4193 | -.0131 | .3395  | -.0372 | .0139 | .1587 |
| 5    | -14.99 | .0404  | -.0847 | .3922  | -.0379 | .0138 | .1640 |
| 6    | -10.00 | .5082  | -.1029 | .3851  | -.0299 | .0135 | .1442 |
| 7    | -5.01  | .9368  | -.0727 | .2051  | -.0289 | .0180 | .0798 |
| 8    | -2.51  | 1.1245 | -.0584 | .1885  | -.0294 | .0191 | .0832 |
| 9    | .00    | 1.2602 | -.0224 | .2013  | -.0291 | .0440 | .0395 |
| 10   | 2.50   | 1.4043 | .0138  | .1649  | -.0262 | .0431 | .0297 |
| 11   | 4.99   | 1.4286 | .0612  | .1395  | -.0127 | .0704 | .0771 |
| 12   | 10.00  | 1.4313 | .2238  | -.1256 | -.0207 | .0142 | .1123 |
| 13   | 15.01  | 1.5136 | .3810  | -.2100 | -.0190 | .0264 | .0995 |
| 14   | 17.50  | 1.6233 | .4852  | -.3007 | -.0124 | .0195 | .0921 |
| 15   | 19.99  | 1.7457 | .5902  | -.3845 | -.0036 | .0223 | .0961 |

|    |       |        |        |        |        |       |       |
|----|-------|--------|--------|--------|--------|-------|-------|
| 16 | 10.02 | 1.4281 | .2310  | -.1056 | -.0224 | .0253 | .1038 |
| 17 | -.00  | 1.2685 | -.0103 | .1970  | -.0273 | .0380 | .0475 |
| 18 | -.00  | 1.4463 | .3255  | .2460  | -.0356 | .0113 | .1200 |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 891

RUN 920 CONFIG F P B NP5 W7 T60 BT IN=-3.5 PSI=5

| PT. NO. | IW ALPHA DEG | 15 DELF PSI DEG | 0 DELA CLBAR S0-FT | 0 IHT CDBAR S0-FT | 0 DELE CPMBAR CU-FT | 0 DELR CYMBAR CU-FT | 0 DELSB CRMBAR CU-FT | 0 DELS0 CYBAR S0-FT | 0 DELS0 PSF | 0 DELS0 V KNOTS | RPM    |
|---------|--------------|-----------------|--------------------|-------------------|---------------------|---------------------|----------------------|---------------------|-------------|-----------------|--------|
| 3       | .0           | 5.0             | 319.1              | -7.96             | 317.                | -303.               | 102.                 | 35.09               | 54.94       | 128.54          | 15810. |
| 4       | -20.0        | 5.0             | -293.6             | 30.47             | 1172.               | -408.               | 49.                  | 48.63               | 54.92       | 128.51          | 15760. |
| 5       | -15.0        | 5.0             | -146.8             | -5.57             | 1034.               | -485.               | -55.                 | 57.77               | 55.13       | 128.76          | 15790. |
| 7       | -5.0         | 5.0             | 175.3              | -20.30            | 515.                | -334.               | 59.                  | 35.23               | 55.21       | 128.86          | 15760. |
| 8       | -10.0        | 5.0             | 23.2               | -21.69            | 746.                | -317.               | -13.                 | 47.69               | 55.78       | 129.53          | 15770. |
| 9       | -2.5         | 5.0             | 247.2              | -14.60            | 447.                | -344.               | 98.                  | 35.87               | 54.98       | 128.58          | 15780. |
| 10      | .0           | 5.0             | 314.3              | -6.14             | 322.                | -316.               | 140.                 | 32.41               | 55.50       | 129.20          | 15770. |
| 11      | 2.5          | 5.0             | 381.0              | 5.60              | 138.                | -304.               | 242.                 | 26.77               | 54.58       | 128.11          | 15810. |
| 12      | 5.0          | 5.0             | 412.3              | 27.35             | -252.               | -282.               | 160.                 | 28.29               | 55.14       | 128.78          | 15800. |
| 13      | 10.0         | 5.0             | 456.2              | 78.22             | -514.               | -261.               | 193.                 | 22.78               | 54.88       | 128.46          | 15810. |
| 14      | 15.0         | 5.0             | 503.9              | 134.88            | -728.               | -275.               | 484.                 | 22.29               | 54.71       | 128.26          | 15800. |
| 15      | 17.5         | 5.0             | 549.2              | 171.10            | -905.               | -157.               | 359.                 | 15.83               | 55.08       | 128.69          | 15780. |
| 16      | 20.0         | 5.0             | 587.8              | 208.88            | -1125.              | -65.                | 474.                 | 9.70                | 54.44       | 127.94          | 15780. |
| 17      | .0           | 5.0             | 309.0              | -5.61             | 280.                | -292.               | 103.                 | 35.08               | 55.54       | 129.25          | 15790. |
| 18      | .0           | 5.0             | 334.4              | 69.94             | 453.                | -351.               | 82.                  | 31.60               | 55.52       | 129.22          | 15980. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 3    | .00    | .8623  | -.0215 | .1021  | -.0183 | .0062  | .0948 |
| 4    | -20.00 | -.7936 | .0824  | .3778  | -.0246 | .0030  | .1314 |
| 5    | -15.00 | -.3967 | -.0151 | .3333  | -.0293 | -.0034 | .1561 |
| 7    | -4.98  | .4739  | -.0549 | .1659  | -.0202 | .0036  | .0952 |
| 8    | -10.00 | .0628  | -.0586 | .2404  | -.0192 | -.0008 | .1289 |
| 9    | -2.49  | .6682  | -.0395 | .1441  | -.0208 | .0059  | .0970 |
| 10   | .01    | .8495  | -.0166 | .1039  | -.0191 | .0084  | .0876 |
| 11   | 2.54   | 1.0297 | .0151  | .0446  | -.0184 | .0146  | .0724 |
| 12   | 5.01   | 1.1143 | .0739  | -.0812 | -.0171 | .0096  | .0765 |
| 13   | 10.00  | 1.2331 | .2114  | -.1658 | -.0158 | .0117  | .0616 |
| 14   | 15.01  | 1.3620 | .3645  | -.2346 | -.0166 | .0292  | .0602 |
| 15   | 17.50  | 1.4844 | .4624  | -.2918 | -.0095 | .0217  | .0428 |
| 16   | 20.00  | 1.5885 | .5645  | -.3627 | -.0039 | .0287  | .0262 |
| 17   | .00    | .8352  | -.0152 | .0902  | -.0176 | .0062  | .0948 |
| 18   | .00    | .9037  | .1890  | .1462  | -.0212 | .0049  | .0854 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|--------|--------|--------|--------|-------|-------|
| 3    | .00    | .8623  | -.0297 | .1046  | -.0183 | .0078 | .0926 |
| 4    | -20.00 | -.7936 | .0705  | .3778  | -.0246 | .0092 | .1381 |
| 5    | -15.00 | -.3967 | -.0287 | .3304  | -.0293 | .0021 | .1542 |
| 7    | -4.98  | .4739  | -.0630 | .1670  | -.0202 | .0063 | .0900 |
| 8    | -10.00 | .0628  | -.0697 | .2391  | -.0192 | .0031 | .1233 |
| 9    | -2.49  | .6682  | -.0478 | .1463  | -.0208 | .0083 | .0931 |
| 10   | .01    | .8495  | -.0242 | .1074  | -.0191 | .0101 | .0858 |
| 11   | 2.54   | 1.0297 | .0088  | .0513  | -.0184 | .0153 | .0734 |
| 12   | 5.01   | 1.1143 | .0669  | -.0764 | -.0171 | .0083 | .0826 |
| 13   | 10.00  | 1.2331 | .2052  | -.1597 | -.0158 | .0089 | .0798 |
| 14   | 15.01  | 1.3620 | .3579  | -.2201 | -.0166 | .0252 | .0919 |
| 15   | 17.50  | 1.4844 | .4569  | -.2806 | -.0095 | .0168 | .0831 |
| 16   | 20.00  | 1.5885 | .5601  | -.3479 | -.0039 | .0226 | .0755 |
| 17   | .00    | .8352  | -.0234 | .0928  | -.0176 | .0077 | .0931 |
| 18   | .00    | .9037  | .1808  | .1479  | -.0212 | .0073 | .1016 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 892

RUN 921 CONFIG F P B NP5 W7 T60 BT IN=-3.5

| PT. NO. | 15 DELF<br>ALPHA DEG | 0 DELA<br>PSI DEG | 0 DELA<br>CLBAR SQ-FT | 0 IHT<br>CDBAR SQ-FT | 2.5 DELE<br>CPMBAR CU-FT | 0 DELR<br>CYMBAR CU-FT | 0 DELR<br>CRMBAR CU-FT | 0 DELSB<br>CYBAR SQ-FT | 0        |            | RPM    |
|---------|----------------------|-------------------|-----------------------|----------------------|--------------------------|------------------------|------------------------|------------------------|----------|------------|--------|
|         |                      |                   |                       |                      |                          |                        |                        |                        | Q<br>PSF | V<br>KNOTS |        |
| 3       | .0                   | .0                | 351.9                 | 70.30                | 185.                     | -90.                   | 14.                    | 2.82                   | 55.49    | 129.20     | 4000.  |
| 4       | .0                   | .0                | 333.4                 | -7.18                | -82.                     | -118.                  | 85.                    | 1.21                   | 56.28    | 130.13     | 15740. |
| 5       | -20.0                | .0                | -285.1                | 24.16                | 790.                     | -22.                   | 54.                    | 6.97                   | 55.21    | 128.85     | 15690. |
| 6       | -15.0                | .0                | -133.1                | -10.03               | 674.                     | -71.                   | 22.                    | 6.06                   | 56.17    | 130.00     | 15700. |
| 7       | -10.0                | .0                | 36.3                  | -25.50               | 465.                     | -28.                   | 86.                    | .62                    | 55.37    | 129.05     | 15740. |
| 8       | -5.0                 | .0                | 197.1                 | -22.07               | 165.                     | -115.                  | 116.                   | 4.90                   | 54.92    | 128.52     | 15750. |
| 9       | -2.5                 | .0                | 266.0                 | -14.98               | 22.                      | -171.                  | 119.                   | 3.03                   | 55.08    | 128.71     | 15690. |
| 10      | .0                   | .0                | 337.3                 | -5.36                | -61.                     | -138.                  | 109.                   | -1.75                  | 54.62    | 128.16     | 15680. |
| 11      | 2.6                  | .0                | 399.3                 | 7.34                 | -225.                    | -92.                   | 145.                   | -3.17                  | 54.75    | 128.31     | 15700. |
| 12      | 5.0                  | .0                | 403.1                 | 30.26                | -428.                    | -114.                  | 55.                    | -1.93                  | 54.84    | 128.42     | 15720. |
| 13      | 10.0                 | .0                | 454.8                 | 80.53                | -689.                    | -165.                  | 157.                   | 3.23                   | 54.87    | 128.45     | 15740. |
| 14      | 15.0                 | .0                | 514.2                 | 138.78               | -1027.                   | 15.                    | -245.                  | -1.79                  | 55.19    | 128.83     | 15680. |
| 15      | 17.5                 | .0                | 562.3                 | 176.87               | -1199.                   | -202.                  | 71.                    | .81                    | 54.45    | 127.95     | 15720. |
| 16      | 20.0                 | .0                | 601.0                 | 219.03               | -1312.                   | -67.                   | 72.                    | 3.88                   | 54.40    | 127.89     | 15670. |
| 17      | .0                   | .0                | 331.8                 | -3.49                | -64.                     | -130.                  | 107.                   | -1.66                  | 55.31    | 128.98     | 15610. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | .9511  | .1900  | .0597  | -.0054 | .0008  | .0076  |
| 4    | .00    | .9011  | -.0194 | -.0263 | -.0071 | .0051  | .0033  |
| 5    | -20.00 | -.7706 | .0653  | .2546  | -.0013 | .0033  | .0188  |
| 6    | -15.00 | -.3598 | -.0271 | .2174  | -.0043 | .0013  | .0164  |
| 7    | -10.02 | .0980  | -.0689 | .1499  | -.0017 | .0052  | .0017  |
| 8    | -5.01  | .5326  | -.0596 | .0531  | -.0069 | .0070  | .0132  |
| 9    | -2.52  | .7189  | -.0405 | .0070  | -.0103 | .0072  | .0082  |
| 10   | .00    | .9117  | -.0145 | -.0195 | -.0083 | .0066  | -.0047 |
| 11   | 2.60   | 1.0792 | .0198  | -.0725 | -.0056 | .0088  | -.0086 |
| 12   | 5.04   | 1.0895 | .0818  | -.1379 | -.0069 | .0033  | -.0052 |
| 13   | 10.02  | 1.2293 | .2176  | -.2220 | -.0099 | .0095  | .0087  |
| 14   | 15.01  | 1.3898 | .3751  | -.3310 | .0009  | -.0148 | -.0048 |
| 15   | 17.51  | 1.5198 | .4780  | -.3864 | -.0122 | .0043  | .0022  |
| 16   | 20.03  | 1.6243 | .5920  | -.4230 | -.0040 | .0043  | .0105  |
| 17   | .00    | .8968  | -.0094 | -.0205 | -.0079 | .0065  | -.0045 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | .9511  | .1900  | .0597  | -.0054 | .0008  | .0076  |
| 4    | .00    | .9011  | -.0194 | -.0263 | -.0071 | .0051  | .0033  |
| 5    | -20.00 | -.7706 | .0653  | .2546  | -.0013 | .0033  | .0188  |
| 6    | -15.00 | -.3598 | -.0271 | .2174  | -.0043 | .0013  | .0164  |
| 7    | -10.02 | .0980  | -.0689 | .1499  | -.0017 | .0052  | .0017  |
| 8    | -5.01  | .5326  | -.0596 | .0531  | -.0069 | .0070  | .0132  |
| 9    | -2.52  | .7189  | -.0405 | .0070  | -.0103 | .0072  | .0082  |
| 10   | .00    | .9117  | -.0145 | -.0195 | -.0083 | .0066  | -.0047 |
| 11   | 2.60   | 1.0792 | .0198  | -.0725 | -.0056 | .0088  | -.0086 |
| 12   | 5.04   | 1.0895 | .0818  | -.1379 | -.0069 | .0033  | -.0052 |
| 13   | 10.02  | 1.2293 | .2176  | -.2220 | -.0099 | .0095  | .0087  |
| 14   | 15.01  | 1.3898 | .3751  | -.3310 | .0009  | -.0148 | -.0048 |
| 15   | 17.51  | 1.5198 | .4780  | -.3864 | -.0122 | .0043  | .0022  |
| 16   | 20.03  | 1.6243 | .5920  | -.4230 | -.0040 | .0043  | .0105  |
| 17   | .00    | .8968  | -.0094 | -.0205 | -.0079 | .0065  | -.0045 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

PA93

RUN 922 CONFIG F P B NP5 W7 T60 BT IN=-3.5

| PT,<br>NO. | IW<br>ALPHA<br>DEG | 15 DELF<br>PSI<br>DEG | 30 DELA        |                | 0 IHT<br>CPMBAR<br>CU-FT | 0 DELE          |                 | 0 DELR         |          | 0 DELSB |        | 0<br>V<br>KNOTS | RPM |
|------------|--------------------|-----------------------|----------------|----------------|--------------------------|-----------------|-----------------|----------------|----------|---------|--------|-----------------|-----|
|            |                    |                       | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT |                          | CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | Q<br>PSF |         |        |                 |     |
| 2          | .0                 | .0                    | 544.2          | 124.90         | 842.                     | -101.           | 119.            | 1.82           | 56.06    | 129.87  | 4300.  |                 |     |
| 3          | .0                 | .0                    | 503.3          | -6.08          | 405.                     | -96.            | 202.            | -20.24         | 55.03    | 128.66  | 20220. |                 |     |
| 4          | -20.0              | .0                    | -158.1         | -1.84          | 1017.                    | -60.            | 50.             | .86            | 55.57    | 129.29  | 20280. |                 |     |
| 5          | -15.0              | .0                    | 19.8           | -30.52         | 1175.                    | -62.            | 116.            | 3.08           | 55.30    | 128.97  | 20270. |                 |     |
| 6          | -10.0              | .0                    | 201.1          | -35.46         | 1191.                    | -55.            | 133.            | 3.75           | 55.48    | 129.18  | 20260. |                 |     |
| 7          | -5.0               | .0                    | 363.4          | -24.18         | 690.                     | -76.            | 212.            | -10.94         | 54.78    | 128.35  | 20220. |                 |     |
| 8          | -2.5               | .0                    | 437.8          | -17.66         | 564.                     | -126.           | 176.            | -11.46         | 54.42    | 127.92  | 20210. |                 |     |
| 9          | .0                 | .0                    | 503.3          | -9.06          | 503.                     | -113.           | 271.            | -16.53         | 54.20    | 127.66  | 20330. |                 |     |
| 10         | 2.5                | .0                    | 514.9          | 5.73           | 70.                      | -56.            | 470.            | -13.00         | 55.27    | 128.93  | 20250. |                 |     |
| 11         | 5.0                | .0                    | 556.1          | 21.36          | -136.                    | -105.           | 541.            | -15.85         | 55.22    | 128.87  | 20240. |                 |     |
| 12         | 10.0               | .0                    | 524.3          | 88.19          | -408.                    | -294.           | 306.            | -4.89          | 54.32    | 127.80  | 20250. |                 |     |
| 13         | 15.0               | .0                    | 591.4          | 146.75         | -701.                    | -235.           | 318.            | .93            | 54.89    | 128.48  | 20240. |                 |     |
| 14         | 17.5               | .0                    | 609.4          | 180.82         | -1083.                   | -140.           | 213.            | 1.37           | 54.56    | 128.08  | 20190. |                 |     |
| 15         | 20.0               | .0                    | 636.5          | 217.38         | -1258.                   | -35.            | -70.            | .75            | 54.86    | 128.44  | 20260. |                 |     |
| 16         | .0                 | .0                    | 498.6          | -7.27          | 471.                     | -103.           | 325.            | -20.78         | 55.09    | 128.72  | 20170. |                 |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.4708 | .3376  | .2713  | -.0061 | .0072  | .0049  |
| 3    | .00    | 1.3603 | -.0164 | .1307  | -.0058 | .0122  | -.0547 |
| 4    | -20.00 | -.4273 | -.0050 | .3278  | -.0036 | .0030  | .0023  |
| 5    | -15.00 | .0536  | -.0825 | .3789  | -.0037 | .0070  | .0083  |
| 6    | -10.01 | .5434  | -.0958 | .3839  | -.0033 | .0080  | .0101  |
| 7    | -5.00  | .9821  | -.0653 | .2224  | -.0046 | .0128  | -.0296 |
| 8    | -2.49  | 1.1831 | -.0477 | .1818  | -.0076 | .0107  | -.0310 |
| 9    | .02    | 1.3602 | -.0245 | .1621  | -.0068 | .0164  | -.0447 |
| 10   | 2.49   | 1.3917 | .0155  | .0224  | -.0034 | .0284  | -.0351 |
| 11   | 5.01   | 1.5029 | .0577  | -.0440 | -.0063 | .0327  | -.0428 |
| 12   | 10.00  | 1.4170 | .2383  | -.1317 | -.0178 | .0185  | -.0132 |
| 13   | 14.99  | 1.5984 | .3966  | -.2258 | -.0142 | .0192  | .0025  |
| 14   | 17.49  | 1.6470 | .4887  | -.3493 | -.0085 | .0129  | .0037  |
| 15   | 19.99  | 1.7202 | .5875  | -.4056 | -.0021 | -.0043 | .0020  |
| 16   | .00    | 1.3474 | -.0197 | .1519  | -.0062 | .0196  | -.0562 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.4708 | .3376  | .2713  | -.0061 | .0072  | .0049  |
| 3    | .00    | 1.3603 | -.0164 | .1307  | -.0058 | .0122  | -.0547 |
| 4    | -20.00 | -.4273 | -.0050 | .3278  | -.0036 | .0030  | .0023  |
| 5    | -15.00 | .0536  | -.0825 | .3789  | -.0037 | .0070  | .0083  |
| 6    | -10.01 | .5434  | -.0958 | .3839  | -.0033 | .0080  | .0101  |
| 7    | -5.00  | .9821  | -.0653 | .2224  | -.0046 | .0128  | -.0296 |
| 8    | -2.49  | 1.1831 | -.0477 | .1818  | -.0076 | .0107  | -.0310 |
| 9    | .02    | 1.3602 | -.0245 | .1621  | -.0068 | .0164  | -.0447 |
| 10   | 2.49   | 1.3917 | .0155  | .0224  | -.0034 | .0284  | -.0351 |
| 11   | 5.01   | 1.5029 | .0577  | -.0440 | -.0063 | .0327  | -.0428 |
| 12   | 10.00  | 1.4170 | .2383  | -.1317 | -.0178 | .0185  | -.0132 |
| 13   | 14.99  | 1.5984 | .3966  | -.2258 | -.0142 | .0192  | .0025  |
| 14   | 17.49  | 1.6470 | .4887  | -.3493 | -.0085 | .0129  | .0037  |
| 15   | 19.99  | 1.7202 | .5875  | -.4056 | -.0021 | -.0043 | .0020  |
| 16   | .00    | 1.3474 | -.0197 | .1519  | -.0062 | .0196  | -.0562 |

ORIGINAL PAGE IS  
OF POOR QUALITY

RUN 923 CONFIG F P L NPE K7 T60 BT IN=-3.5

| PT. NO. | 7.5 DELF<br>ALPHA DEG | DELTA PSI<br>PSI DEG | L DELTA<br>CLBAR SQ-FT | O IHT<br>CDBAR SQ-FT | Q DELE<br>CFM3AR CU-FT | O DELR<br>CYMBAR CU-FT | O DELSB<br>CRM3AR CU-FT | O<br>CY3AR SQ-FT | Q<br>PSF | V<br>KNOTS | RPM    |
|---------|-----------------------|----------------------|------------------------|----------------------|------------------------|------------------------|-------------------------|------------------|----------|------------|--------|
| 2       | .0                    | .0                   | 219.5                  | 45.66                | 344.                   | -98.                   | 45.                     | 7.50             | 53.16    | 126.42     | 3680.  |
| 3       | .0                    | .0                   | 222.4                  | 46.20                | 342.                   | -95.                   | 26.                     | 8.02             | 53.52    | 126.85     | 3710.  |
| 4       | .0                    | .0                   | 222.2                  | 46.18                | 340.                   | -95.                   | 24.                     | 8.84             | 54.69    | 128.26     | 3750.  |
| 5       | .0                    | .0                   | 217.0                  | -6.84                | 150.                   | -9E.                   | 4E.                     | 5.27             | 54.98    | 128.61     | 12760. |
| 6       | -20.0                 | .0                   | -415.4                 | 63.78                | 1215.                  | -110.                  | -57.                    | 9.56             | 54.16    | 127.62     | 12770. |
| 7       | -15.0                 | .0                   | -291.9                 | 23.70                | 1204.                  | -56.                   | -61.                    | 4.14             | 55.12    | 128.77     | 12750. |
| 8       | -10.0                 | .0                   | -128.9                 | -5.69                | 866.                   | -60.                   | 5.                      | 7.11             | 54.11    | 127.56     | 12760. |
| 9       | -5.0                  | .0                   | 44.9                   | -12.11               | 511.                   | -78.                   | 41.                     | 7.14             | 55.34    | 129.03     | 12750. |
| 10      | -2.5                  | .0                   | 136.5                  | -10.31               | 296.                   | -113.                  | 7E.                     | 7.39             | 55.74    | 129.51     | 12740. |
| 11      | .0                    | .0                   | 217.6                  | -5.19                | 191.                   | -97.                   | 44.                     | 6.61             | 55.14    | 128.79     | 12740. |
| 12      | 2.5                   | .0                   | 296.4                  | 2.87                 | 124.                   | -75.                   | 102.                    | 2.96             | 55.19    | 128.84     | 12750. |
| 13      | 5.0                   | .0                   | 369.9                  | 13.92                | 43.                    | -42.                   | 83.                     | 5.10             | 55.43    | 129.13     | 12730. |
| 14      | 10.0                  | .0                   | 468.0                  | 50.27                | -236.                  | -92.                   | 137.                    | 2.81             | 55.74    | 129.50     | 12730. |
| 15      | 15.0                  | .0                   | 525.3                  | 108.89               | -653.                  | -58.                   | -18.                    | 1.30             | 55.18    | 128.84     | 12780. |
| 16      | 17.5                  | .0                   | 577.4                  | 146.49               | -903.                  | -124.                  | 85.                     | .75              | 54.43    | 127.94     | 12760. |
| 17      | 20.0                  | .0                   | 615.8                  | 185.49               | -1003.                 | -123.                  | 37.                     | 6.25             | 54.53    | 128.06     | 12770. |
| 18      | -0.0                  | .0                   | 212.8                  | -4.35                | 177.                   | -91.                   | 61.                     | 6.49             | 56.18    | 130.02     | 12730. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .5932   | .1234  | .1110  | -.0059 | .0027  | .0203 |
| 3    | .00    | .6011   | .1249  | .1102  | -.0058 | .0016  | .0217 |
| 4    | .00    | .6004   | .1248  | .1097  | -.0058 | .0015  | .0239 |
| 5    | .00    | .5864   | -.0185 | .0611  | -.0058 | .0028  | .0142 |
| 6    | -20.00 | -1.1228 | .1724  | .3918  | -.0066 | -.0035 | .0258 |
| 7    | -15.01 | -.7890  | .0641  | .3882  | -.0034 | -.0037 | .0112 |
| 8    | -10.01 | -.3484  | -.0154 | .2793  | -.0036 | .0003  | .0192 |
| 9    | -5.00  | .1214   | -.0327 | .1649  | -.0047 | .0025  | .0193 |
| 10   | -2.51  | .3690   | -.0279 | .0953  | -.0069 | .004E  | .0200 |
| 11   | .00    | .5881   | -.0140 | .0617  | -.0058 | .0027  | .0179 |
| 12   | 2.51   | .8011   | .0078  | .0399  | -.0045 | .0062  | .0080 |
| 13   | 4.99   | .9998   | .0376  | .0139  | -.0025 | .0050  | .0138 |
| 14   | 10.01  | 1.2649  | .1359  | -.0760 | -.0056 | .0083  | .0076 |
| 15   | 14.99  | 1.4198  | .2943  | -.2104 | -.0035 | -.0011 | .0035 |
| 16   | 17.50  | 1.5605  | .3959  | -.2911 | -.0075 | .0054  | .0020 |
| 17   | 19.99  | 1.6643  | .5013  | -.3235 | -.0074 | .0022  | .0169 |
| 18   | -.00   | .5751   | -.0113 | .0572  | -.0055 | .0037  | .0175 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .5932   | .1234  | .1110  | -.0059 | .0027  | .0203 |
| 3    | .00    | .6011   | .1249  | .1102  | -.0058 | .0016  | .0217 |
| 4    | .00    | .6004   | .1248  | .1097  | -.0058 | .0015  | .0239 |
| 5    | .00    | .5864   | -.0185 | .0611  | -.0058 | .0028  | .0142 |
| 6    | -20.00 | -1.1228 | .1724  | .3918  | -.0066 | -.0035 | .0258 |
| 7    | -15.01 | -.7890  | .0641  | .3882  | -.0034 | -.0037 | .0112 |
| 8    | -10.01 | -.3484  | -.0154 | .2793  | -.0036 | .0003  | .0192 |
| 9    | -5.00  | .1214   | -.0327 | .1649  | -.0047 | .0025  | .0193 |
| 10   | -2.51  | .3690   | -.0279 | .0953  | -.0069 | .004E  | .0200 |
| 11   | .00    | .5881   | -.0140 | .0617  | -.0058 | .0027  | .0179 |
| 12   | 2.51   | .8011   | .0078  | .0399  | -.0045 | .0062  | .0080 |
| 13   | 4.99   | .9998   | .0376  | .0139  | -.0025 | .0050  | .0138 |
| 14   | 10.01  | 1.2649  | .1359  | -.0760 | -.0056 | .0083  | .0076 |
| 15   | 14.99  | 1.4198  | .2943  | -.2104 | -.0035 | -.0011 | .0035 |
| 16   | 17.50  | 1.5605  | .3959  | -.2911 | -.0075 | .0054  | .0020 |
| 17   | 19.99  | 1.6643  | .5013  | -.3235 | -.0074 | .0022  | .0169 |
| 18   | -.00   | .5751   | -.0113 | .0572  | -.0055 | .0037  | .0175 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 895

RUN 924 CONFIG F P E NP5 W7 T60 BT IN=-3.5

| PT. NO. | 7.5 DELF<br>ALPHA DEG | L DELA<br>PSI DEG | Q IHT<br>CLBAR SQ-FT | Q DELE<br>CDBAR SQ-FT | Q DELR<br>CPMBAR CU-FT | Q DELSB<br>CYMBAR CU-FT | Q<br>PSF | V<br>KNOTS | RPM    |        |       |
|---------|-----------------------|-------------------|----------------------|-----------------------|------------------------|-------------------------|----------|------------|--------|--------|-------|
| 2       | .0                    | .0                | 222.9                | 46.31                 | 338.                   | -97.                    | 27.      | 55.31      | 129.00 | 3770.  |       |
| 3       | -20.0                 | .0                | -341.7               | 116.46                | 1380.                  | -112.                   | -61.     | 11.77      | 55.88  | 129.67 | 3970. |
| 4       | -15.0                 | .0                | -216.5               | 76.34                 | 1222.                  | -59.                    | -28.     | 4.89       | 55.72  | 129.48 | 3890. |
| 5       | -10.0                 | .0                | -101.6               | 45.29                 | 892.                   | -68.                    | 20.      | 7.80       | 55.92  | 129.71 | 3650. |
| 6       | -5.0                  | .0                | 59.1                 | 37.62                 | 520.                   | -97.                    | 7.       | 6.72       | 55.77  | 129.54 | 3670. |
| 7       | -2.5                  | .0                | 142.4                | 40.23                 | 412.                   | -115.                   | 6.       | 6.77       | 55.82  | 129.59 | 3730. |
| 8       | .0                    | .0                | 222.0                | 46.08                 | 321.                   | -100.                   | 63.      | 5.39       | 55.61  | 129.35 | 3780. |
| 9       | 2.5                   | .0                | 296.8                | 54.51                 | 221.                   | -56.                    | 48.      | 4.03       | 55.83  | 129.61 | 3860. |
| 10      | 5.0                   | .0                | 371.1                | 66.19                 | 143.                   | -46.                    | 68.      | 1.95       | 55.85  | 129.63 | 3930. |
| 11      | 10.0                  | .0                | 459.3                | 102.13                | -176.                  | -68.                    | 87.      | .98        | 55.42  | 129.12 | 4010. |
| 12      | 15.0                  | .0                | 522.8                | 163.70                | -645.                  | -55.                    | 261.     | 3.74       | 55.56  | 129.29 | 4000. |
| 13      | 17.5                  | .0                | 547.0                | 201.59                | -889.                  | -123.                   | 174.     | 5.09       | 55.60  | 129.33 | 4060. |
| 14      | 20.0                  | .0                | 553.9                | 234.86                | -1036.                 | 91.                     | -313.    | 3.49       | 55.63  | 129.37 | 4080. |
| 15      | -0                    | .0                | 221.5                | 46.24                 | 309.                   | -101.                   | 29.      | 4.94       | 55.17  | 128.82 | 3780. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .6025  | .1252 | .1088  | -.0059 | .0016  | .0181 |
| 3    | -20.00 | -.9236 | .3148 | .4450  | -.0068 | -.0037 | .0318 |
| 4    | -15.00 | -.5851 | .2063 | .3938  | -.0036 | -.0017 | .0132 |
| 5    | -10.00 | -.2746 | .1224 | .2877  | -.0041 | .0012  | .0211 |
| 6    | -5.00  | .1596  | .1017 | .1676  | -.0059 | .0004  | .0182 |
| 7    | -2.51  | .3849  | .1087 | .1328  | -.0070 | .0005  | .0183 |
| 8    | .00    | .6001  | .1245 | .1036  | -.0060 | .0032  | .0146 |
| 9    | 2.52   | .8020  | .1473 | .0712  | -.0034 | .0029  | .0109 |
| 10   | 5.03   | 1.0029 | .1789 | .0461  | -.0028 | .0041  | .0053 |
| 11   | 10.01  | 1.2412 | .2760 | -.0569 | -.0041 | .0052  | .0027 |
| 12   | 15.00  | 1.4129 | .4424 | -.2078 | -.0033 | .0158  | .0101 |
| 13   | 17.51  | 1.4783 | .5448 | -.2865 | -.0074 | .0105  | .0137 |
| 14   | 20.01  | 1.4971 | .6348 | -.3341 | .0055  | -.0189 | .0094 |
| 15   | -.00   | .5985  | .1250 | .0996  | -.0061 | .0017  | .0134 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .6025  | .1252 | .1088  | -.0059 | .0016  | .0181 |
| 3    | -20.00 | -.9236 | .3148 | .4450  | -.0068 | -.0037 | .0318 |
| 4    | -15.00 | -.5851 | .2063 | .3938  | -.0036 | -.0017 | .0132 |
| 5    | -10.00 | -.2746 | .1224 | .2877  | -.0041 | .0012  | .0211 |
| 6    | -5.00  | .1596  | .1017 | .1676  | -.0059 | .0004  | .0182 |
| 7    | -2.51  | .3849  | .1087 | .1328  | -.0070 | .0005  | .0183 |
| 8    | .00    | .6001  | .1245 | .1036  | -.0060 | .0032  | .0146 |
| 9    | 2.52   | .8020  | .1473 | .0712  | -.0034 | .0029  | .0109 |
| 10   | 5.03   | 1.0029 | .1789 | .0461  | -.0028 | .0041  | .0053 |
| 11   | 10.01  | 1.2412 | .2760 | -.0569 | -.0041 | .0052  | .0027 |
| 12   | 15.00  | 1.4129 | .4424 | -.2078 | -.0033 | .0158  | .0101 |
| 13   | 17.51  | 1.4783 | .5448 | -.2865 | -.0074 | .0105  | .0137 |
| 14   | 20.01  | 1.4971 | .6348 | -.3341 | .0055  | -.0189 | .0094 |
| 15   | -.00   | .5985  | .1250 | .0996  | -.0061 | .0017  | .0134 |

RUN 925 CONFIG F P E NP5 #7 T60 BT IN=-3.5

| PT. NO. | 7.5 DELF<br>ALPHA DEG | DELTA<br>PSI DEG | DELTA<br>CLBAR SQ-FT | DELTA<br>CDBAR SQ-FT | DELTA<br>CFMBAR CU-FT | DELTA<br>CYMBAR CU-FT | DELTA<br>CRMBAR CU-FT | DELTA<br>CYBAR SQ-FT | DELTA<br>PSF | DELTA<br>V KNOTS | RPM    |
|---------|-----------------------|------------------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|----------------------|--------------|------------------|--------|
| 2       | .0                    | .0               | 224.4                | 46.33                | 330.                  | -82.                  | 45.                   | 5.86                 | 55.23        | 128.90           | 3770.  |
| 3       | .0                    | .0               | 210.1                | -143.22              | -117.                 | -118.                 | 80.                   | 1.74                 | 54.93        | 128.55           | 23060. |
| 4       | -20.0                 | .0               | -535.2               | -50.32               | 1691.                 | 112.                  | -25.                  | 3.13                 | 55.42        | 129.13           | 23070. |
| 5       | -15.0                 | .0               | -318.8               | -94.45               | 1157.                 | 27.                   | 12.                   | 2.75                 | 54.87        | 128.48           | 22990. |
| 6       | -10.0                 | .0               | -117.7               | -130.29              | 502.                  | -41.                  | 43.                   | 5.57                 | 55.06        | 128.71           | 23040. |
| 7       | -5.0                  | .0               | 31.0                 | -139.69              | 129.                  | -85.                  | 47.                   | 3.95                 | 55.14        | 128.80           | 23000. |
| 8       | -5.0                  | .0               | 30.6                 | -137.93              | 127.                  | -84.                  | 46.                   | 3.90                 | 55.89        | 129.68           | 23030. |
| 9       | -5.0                  | .0               | 26.1                 | -135.22              | 130.                  | -80.                  | 85.                   | 1.35                 | 55.45        | 129.16           | 23000. |
| 10      | -2.5                  | .0               | 122.9                | -135.60              | -11.                  | -97.                  | 84.                   | 2.85                 | 54.99        | 128.62           | 23020. |
| 11      | -.0                   | .0               | 204.8                | -129.57              | -115.                 | -114.                 | 81.                   | .43                  | 55.72        | 129.49           | 22980. |
| 12      | 2.5                   | .0               | 232.3                | -121.69              | -157.                 | -117.                 | 158.                  | .25                  | 55.25        | 128.92           | 23040. |
| 13      | 5.0                   | .0               | 371.6                | -111.15              | -235.                 | -110.                 | 159.                  | -1.46                | 55.27        | 128.94           | 22950. |
| 14      | 10.0                  | .0               | 503.1                | -74.76               | -425.                 | -151.                 | 455.                  | -2.70                | 55.59        | 129.33           | 23010. |
| 15      | 15.0                  | .0               | 568.6                | -14.54               | -834.                 | -129.                 | 194.                  | .68                  | 54.90        | 128.51           | 23110. |
| 16      | 17.5                  | .0               | 619.7                | 23.27                | -999.                 | -136.                 | 159.                  | 5.09                 | 54.97        | 128.46           | 23080. |
| 17      | 17.5                  | .0               | 624.8                | 23.56                | -1007.                | -188.                 | 161.                  | 5.13                 | 54.42        | 127.92           | 23060. |
| 18      | 20.0                  | .0               | 654.5                | 64.35                | -1081.                | -131.                 | -52.                  | 2.45                 | 55.51        | 129.22           | 23040. |
| 19      | .0                    | .0               | 207.4                | -130.93              | -125.                 | -144.                 | 86.                   | .44                  | 54.71        | 128.28           | 23070. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .6066   | .1252  | .1064  | -.0050 | .0027  | .0158  |
| 3    | .00    | .5679   | -.3887 | -.0377 | -.0071 | .0052  | .0047  |
| 4    | -20.00 | -1.4464 | -.1360 | .5452  | .0068  | -.0015 | .0085  |
| 5    | -15.01 | -.9968  | -.2553 | .3729  | .0016  | .0007  | .0075  |
| 6    | -10.00 | -.4532  | -.3521 | .1618  | -.0025 | .0020  | .0150  |
| 7    | -5.00  | .0838   | -.3775 | .0415  | -.0051 | .0023  | .0107  |
| 8    | -5.00  | .0826   | -.3728 | .0410  | -.0051 | .0026  | .0105  |
| 9    | -5.00  | .0705   | -.3654 | .0419  | -.0048 | .0051  | .0037  |
| 10   | -2.50  | .3323   | -.3665 | -.0035 | -.0059 | .0051  | .0077  |
| 11   | -.00   | .5536   | -.3502 | -.0370 | -.0069 | .0052  | .0012  |
| 12   | 2.50   | .7901   | -.3289 | -.0536 | -.0070 | .0095  | .0007  |
| 13   | 5.00   | 1.0044  | -.3004 | -.0756 | -.0067 | .0090  | -.0040 |
| 14   | 10.01  | 1.3597  | -.2021 | -.1371 | -.0091 | .0275  | -.0073 |
| 15   | 15.00  | 1.5369  | -.0393 | -.2688 | -.0078 | .0117  | .0018  |
| 16   | 17.50  | 1.6748  | .0629  | -.3220 | -.0112 | .0091  | .0138  |
| 17   | 17.50  | 1.6887  | .0635  | -.3247 | -.0113 | .0097  | .0139  |
| 18   | 20.02  | 1.7689  | .1756  | -.3486 | -.0079 | -.0031 | .0066  |
| 19   | .00    | .5606   | -.3539 | -.0402 | -.0087 | .0053  | .0012  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .6066   | .1252  | .1064  | -.0050 | .0027  | .0158  |
| 3    | .00    | .5679   | -.3887 | -.0377 | -.0071 | .0052  | .0047  |
| 4    | -20.00 | -1.4464 | -.1360 | .5452  | .0068  | -.0015 | .0085  |
| 5    | -15.01 | -.9968  | -.2553 | .3729  | .0016  | .0007  | .0075  |
| 6    | -10.00 | -.4532  | -.3521 | .1618  | -.0025 | .0020  | .0150  |
| 7    | -5.00  | .0838   | -.3775 | .0415  | -.0051 | .0023  | .0107  |
| 8    | -5.00  | .0826   | -.3728 | .0410  | -.0051 | .0026  | .0105  |
| 9    | -5.00  | .0705   | -.3654 | .0419  | -.0048 | .0051  | .0037  |
| 10   | -2.50  | .3323   | -.3665 | -.0035 | -.0059 | .0051  | .0077  |
| 11   | -.00   | .5536   | -.3502 | -.0370 | -.0069 | .0052  | .0012  |
| 12   | 2.50   | .7901   | -.3289 | -.0536 | -.0070 | .0095  | .0007  |
| 13   | 5.00   | 1.0044  | -.3004 | -.0756 | -.0067 | .0090  | -.0040 |
| 14   | 10.01  | 1.3597  | -.2021 | -.1371 | -.0091 | .0275  | -.0073 |
| 15   | 15.00  | 1.5369  | -.0393 | -.2688 | -.0078 | .0117  | .0018  |
| 16   | 17.50  | 1.6748  | .0629  | -.3220 | -.0112 | .0091  | .0138  |
| 17   | 17.50  | 1.6887  | .0635  | -.3247 | -.0113 | .0097  | .0139  |
| 18   | 20.02  | 1.7689  | .1756  | -.3486 | -.0079 | -.0031 | .0066  |
| 19   | .00    | .5606   | -.3539 | -.0402 | -.0087 | .0053  | .0012  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 897

RUN 92E CONFIG F P 3 NPS W7 T60 BT IN=-3.5

| PT. NO. | 7.5 DELF<br>ALPHA DEG | DELTA<br>PSI DEG | CLBAR<br>SG-FT | CDBAR<br>SQ-FT | CPM BAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | DELTA<br>PSF | V<br>KNOTS | RPM    |
|---------|-----------------------|------------------|----------------|----------------|------------------|-----------------|-----------------|----------------|--------------|------------|--------|
| 2       | .0                    | .0               | 222.2          | 46.43          | 333.             | -98.            | 80.             | 5.92           | 55.27        | 128.94     | 3800.  |
| 3       | .0                    | .0               | 208.2          | -48.09         | 43.              | -742.           | 72.             | 12.65          | 55.19        | 128.86     | 23050. |
| 4       | -20.0                 | .0               | -439.0         | 33.74          | 1461.            | -99.            | 293.            | 1.59           | 55.61        | 129.35     | 23070. |
| 5       | -15.0                 | .0               | -290.6         | -11.31         | 1017.            | -316.           | 270.            | 4.17           | 55.61        | 129.34     | 23090. |
| 6       | -10.0                 | .0               | -141.4         | -44.11         | 600.             | -588.           | 166.            | 13.97          | 55.58        | 129.31     | 23020. |
| 7       | -5.0                  | .0               | 40.0           | -52.32         | 187.             | -680.           | 71.             | 9.24           | 56.41        | 130.29     | 23020. |
| 8       | -2.5                  | .0               | 127.1          | -52.11         | 105.             | -736.           | 51.             | 13.11          | 56.33        | 129.01     | 23030. |
| 9       | -.0                   | .0               | 204.8          | -46.46         | 55.              | -735.           | 73.             | 11.26          | 56.69        | 129.44     | 23030. |
| 10      | 2.5                   | .0               | 233.2          | -38.40         | -7.              | -730.           | 58.             | 10.39          | 55.72        | 129.48     | 23040. |
| 11      | 5.0                   | .0               | 310.7          | -27.09         | -67.             | -748.           | -25.            | 7.98           | 55.47        | 129.18     | 23000. |
| 12      | 10.0                  | .0               | 479.8          | 6.09           | -352.            | -776.           | -283.           | 6.62           | 55.55        | 129.28     | 23030. |
| 13      | 15.0                  | .0               | 547.1          | 71.97          | -782.            | -661.           | 33.             | 8.53           | 55.13        | 128.77     | 23020. |
| 14      | 17.5                  | .0               | 586.3          | 112.33         | -953.            | -668.           | -158.           | 11.01          | 55.06        | 128.68     | 23020. |
| 15      | 20.0                  | .0               | 621.2          | 147.97         | -1071.           | -582.           | -440.           | 8.20           | 54.87        | 128.46     | 23030. |
| 16      | -.0                   | .0               | 286.8          | -44.72         | 48.              | -721.           | 56.             | 10.66          | 55.61        | 129.35     | 23000. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .6006   | .1255  | .1075  | -.0059 | .0048  | .0160 |
| 3    | .00    | .5627   | -.1300 | .0138  | -.0448 | .0043  | .0342 |
| 4    | -20.01 | -1.1864 | .0912  | .4711  | -.0060 | .0177  | .0043 |
| 5    | -14.99 | -.7855  | -.0306 | .3279  | -.0191 | .0163  | .0113 |
| 6    | -10.01 | -.3822  | -.1192 | .1936  | -.0355 | .0100  | .0378 |
| 7    | -5.00  | .1080   | -.1414 | .0603  | -.0410 | .0043  | .0250 |
| 8    | -2.50  | .3435   | -.1408 | .0340  | -.0445 | .0031  | .0354 |
| 9    | -.00   | .5534   | -.1256 | .0177  | -.0444 | .0044  | .0304 |
| 10   | 2.50   | .7655   | -.1038 | -.0022 | -.0441 | .0035  | .0281 |
| 11   | 5.01   | .9748   | -.0732 | -.0216 | -.0452 | -.0015 | .0216 |
| 12   | 10.02  | 1.2967  | .0165  | -.1134 | -.0469 | -.0171 | .0179 |
| 13   | 15.00  | 1.4787  | .1945  | -.2520 | -.0399 | .0020  | .0230 |
| 14   | 17.51  | 1.5845  | .3036  | -.3072 | -.0404 | -.0096 | .0298 |
| 15   | 20.00  | 1.6789  | .3999  | -.3454 | -.0351 | -.0266 | .0221 |
| 16   | -.00   | .5539   | -.1209 | .0154  | -.0435 | .0034  | .0288 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | COB    | CPMB   | GYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .6006   | .1255  | .1075  | -.0059 | .0048  | .0160 |
| 3    | .00    | .5627   | -.1300 | .0138  | -.0448 | .0043  | .0342 |
| 4    | -20.01 | -1.1864 | .0912  | .4711  | -.0060 | .0177  | .0043 |
| 5    | -14.99 | -.7855  | -.0306 | .3279  | -.0191 | .0163  | .0113 |
| 6    | -10.01 | -.3822  | -.1192 | .1936  | -.0355 | .0100  | .0378 |
| 7    | -5.00  | .1080   | -.1414 | .0603  | -.0410 | .0043  | .0250 |
| 8    | -2.50  | .3435   | -.1408 | .0340  | -.0445 | .0031  | .0354 |
| 9    | -.00   | .5534   | -.1256 | .0177  | -.0444 | .0044  | .0304 |
| 10   | 2.50   | .7655   | -.1038 | -.0022 | -.0441 | .0035  | .0281 |
| 11   | 5.01   | .9748   | -.0732 | -.0216 | -.0452 | -.0015 | .0216 |
| 12   | 10.02  | 1.2967  | .0165  | -.1134 | -.0469 | -.0171 | .0179 |
| 13   | 15.00  | 1.4787  | .1945  | -.2520 | -.0399 | .0020  | .0230 |
| 14   | 17.51  | 1.5845  | .3036  | -.3072 | -.0404 | -.0096 | .0298 |
| 15   | 20.00  | 1.6789  | .3999  | -.3454 | -.0351 | -.0266 | .0221 |
| 16   | -.00   | .5539   | -.1209 | .0154  | -.0435 | .0034  | .0288 |

RUN 927 CONFIG F P C NPS W7 160 BT IN=-3.5

| PT. NO. | IW    | 15 DELF | 1 DELA | 0 IHT  | 2.5 DELE | 0 DELR | 0 DELS8 | 0     | Q     | V      | RPM    |
|---------|-------|---------|--------|--------|----------|--------|---------|-------|-------|--------|--------|
|         | ALPHA | PSI     | CLBAR  | COBAR  | CPMBAR   | CYMEAR | CRMBAR  | CYBAR | Q     | V      | RPM    |
|         | DCG   | DEC     | SG-FT  | SG-FT  | CU-FT    | CU-FT  | CU-FT   | SG-FT | PSF   | KNOTS  |        |
| 2       | .0    | .0      | 366.2  | 73.79  | 242.     | -106.  | 81.     | 4.06  | 56.22 | 130.07 | 4050.  |
| 3       | .0    | .0      | 349.9  | -6.59  | -46.     | -123.  | 108.    | -1.18 | 54.81 | 128.40 | 15800. |
| 4       | -20.0 | .0      | -205.6 | 20.73  | 899.     | -68.   | 102.    | 8.70  | 55.58 | 129.31 | 15800. |
| 5       | -17.5 | .0      | -228.1 | 4.28   | 843.     | -75.   | 55.     | 6.90  | 55.27 | 128.95 | 15810. |
| 6       | -15.0 | .0      | -133.6 | -11.86 | 745.     | -101.  | 24.     | 5.26  | 55.66 | 129.40 | 15810. |
| 7       | -12.5 | .0      | -39.0  | -23.72 | 610.     | -68.   | 57.     | 6.13  | 56.11 | 129.93 | 15810. |
| 8       | -10.0 | .0      | 47.2   | -27.05 | 517.     | -40.   | 96.     | 4.07  | 56.11 | 129.93 | 15850. |
| 9       | -5.0  | .0      | 203.4  | -22.24 | 232.     | -127.  | 95.     | 1.53  | 55.52 | 129.24 | 15800. |
| 10      | -2.5  | .0      | 278.5  | -16.10 | 91.      | -166.  | 104.    | 1.18  | 55.02 | 128.65 | 15810. |
| 11      | .0    | .0      | 344.3  | -5.80  | -38.     | -119.  | 141.    | -1.04 | 55.57 | 129.29 | 15820. |
| 12      | 2.5   | .0      | 405.9  | 6.76   | -208.    | -105.  | 213.    | -2.34 | 55.36 | 129.04 | 15830. |
| 13      | 5.0   | .0      | 404.5  | 32.97  | -436.    | -95.   | -69.    | -1.55 | 55.37 | 129.06 | 15800. |
| 14      | 10.0  | .0      | 457.2  | 79.17  | -667.    | -118.  | 141.    | -1.60 | 55.40 | 129.09 | 15830. |
| 15      | 15.0  | .0      | 510.1  | 140.43 | -978.    | -73.   | 17.     | -1.06 | 55.87 | 129.65 | 15830. |
| 16      | 17.5  | .0      | 513.4  | 184.45 | -1207.   | -134.  | 160.    | 2.44  | 54.45 | 127.95 | 15800. |
| 17      | 20.0  | .0      | 512.9  | 221.41 | -1321.   | -7.    | -35.    | 3.41  | 54.95 | 128.55 | 15790. |
| 18      | -20.0 | .0      | -205.6 | 22.52  | 891.     | -76.   | 69.     | 8.17  | 55.43 | 129.12 | 15790. |
| 19      | .0    | .0      | 347.9  | -5.16  | -24.     | -134.  | 179.    | -3.08 | 55.37 | 129.06 | 15810. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9397  | .1994  | .0779  | -.0064 | .0049  | .0110  |
| 3    | .00    | .9457  | -.0178 | -.0149 | -.0074 | .0065  | -.0032 |
| 4    | -19.99 | -.7719 | .0560  | .2899  | -.0041 | .0062  | .0235  |
| 5    | -17.50 | -.6164 | .0116  | .2716  | -.0045 | .0033  | .0187  |
| 6    | -15.00 | -.3611 | -.0321 | .2403  | -.0061 | .0014  | .0142  |
| 7    | -12.50 | -.1054 | -.0641 | .1966  | -.0041 | .0034  | .0166  |
| 8    | -9.99  | .1276  | -.0731 | .1668  | -.0024 | .0050  | .0110  |
| 9    | -5.00  | .5498  | -.0601 | .0747  | -.0077 | .0051  | .0041  |
| 10   | -2.48  | .7527  | -.0435 | .0292  | -.0101 | .0063  | .0032  |
| 11   | .02    | .9306  | -.0157 | -.0124 | -.0072 | .0085  | -.0028 |
| 12   | 2.52   | 1.0970 | .0183  | -.0671 | -.0063 | .0128  | -.0063 |
| 13   | 5.02   | 1.0931 | .0691  | -.1407 | -.0058 | -.0042 | -.0015 |
| 14   | 10.01  | 1.2357 | .2140  | -.2151 | -.0071 | .0085  | -.0043 |
| 15   | 15.01  | 1.3788 | .3795  | -.3151 | -.0044 | .0010  | -.0002 |
| 16   | 17.51  | 1.5768 | .4985  | -.3892 | -.0081 | .0097  | .0066  |
| 17   | 20.00  | 1.6296 | .5984  | -.4260 | -.0004 | -.0021 | .0092  |
| 18   | -20.00 | -.7719 | .0609  | .2872  | -.0046 | .0042  | .0221  |
| 19   | .00    | .9402  | -.0139 | -.0079 | -.0081 | .0108  | -.0083 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | COB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9897  | .1994  | .0779  | -.0064 | .0049  | .0110  |
| 3    | .00    | .9457  | -.0178 | -.0149 | -.0074 | .0065  | -.0032 |
| 4    | -19.99 | -.7719 | .0560  | .2899  | -.0041 | .0062  | .0235  |
| 5    | -17.50 | -.6164 | .0116  | .2716  | -.0045 | .0033  | .0187  |
| 6    | -15.00 | -.3611 | -.0321 | .2403  | -.0061 | .0014  | .0142  |
| 7    | -12.50 | -.1054 | -.0641 | .1966  | -.0041 | .0034  | .0166  |
| 8    | -9.99  | .1276  | -.0731 | .1668  | -.0024 | .0050  | .0110  |
| 9    | -5.00  | .5498  | -.0601 | .0747  | -.0077 | .0051  | .0041  |
| 10   | -2.48  | .7527  | -.0435 | .0292  | -.0101 | .0063  | .0032  |
| 11   | .02    | .9306  | -.0157 | -.0124 | -.0072 | .0085  | -.0028 |
| 12   | 2.52   | 1.0970 | .0183  | -.0671 | -.0063 | .0128  | -.0063 |
| 13   | 5.02   | 1.0931 | .0691  | -.1407 | -.0058 | -.0042 | -.0015 |
| 14   | 10.01  | 1.2357 | .2140  | -.2151 | -.0071 | .0085  | -.0043 |
| 15   | 15.01  | 1.3788 | .3795  | -.3151 | -.0044 | .0010  | -.0002 |
| 16   | 17.51  | 1.5768 | .4985  | -.3892 | -.0081 | .0097  | .0066  |
| 17   | 20.00  | 1.6296 | .5984  | -.4260 | -.0004 | -.0021 | .0092  |
| 18   | -20.00 | -.7719 | .0609  | .2872  | -.0046 | .0042  | .0221  |
| 19   | .00    | .9402  | -.0139 | -.0079 | -.0081 | .0108  | -.0083 |



RUN 928 CONFIG F P 3 NP5 W7 T60 BT IN=-3.5

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 2.5 DELE    | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPM3AR CU-FT | CYM3AR CU-FT | CRM3AR CU-FT | CY3AR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 589.2       | 133.26      | 567.         | -100.        | 71.          | .12         | 54.63 | 128.19  | 4270.  |
| 3       | .0        | .0      | 458.2       | -6.49       | -123.        | -27.         | 492.         | -14.57      | 55.19 | 128.85  | 20180. |
| 4       | -20.0     | .0      | -141.9      | -13.48      | 452.         | -71.         | 40.          | 5.43        | 55.18 | 128.83  | 20190. |
| 5       | -15.0     | .0      | 42.7        | -38.08      | 759.         | -58.         | 67.          | 1.66        | 55.35 | 129.04  | 20190. |
| 6       | -10.0     | .0      | 237.4       | -40.23      | 647.         | -43.         | 138.         | 1.36        | 55.29 | 128.96  | 20200. |
| 7       | -17.5     | .0      | -53.7       | -28.01      | 880.         | -54.         | 79.          | 3.55        | 55.65 | 129.39  | 20190. |
| 8       | -12.5     | .0      | 141.2       | -37.74      | 722.         | -23.         | 109.         | -1.73       | 55.07 | 128.70  | 20160. |
| 9       | -5.0      | .0      | 406.5       | -27.73      | 440.         | -119.        | 140.         | .00         | 55.39 | 129.08  | 20140. |
| 10      | -2.5      | .0      | 410.4       | -16.50      | 102.         | -95.         | 231.         | -15.43      | 55.62 | 129.36  | 20150. |
| 11      | .0        | .0      | 523.4       | -6.24       | 31.          | -68.         | 415.         | -22.88      | 55.24 | 128.90  | 20160. |
| 12      | 2.5       | .0      | 543.8       | 9.20        | -272.        | -44.         | 489.         | -11.41      | 54.94 | 128.55  | 20180. |
| 13      | 5.0       | .0      | 582.9       | 25.16       | -469.        | -60.         | 468.         | -10.48      | 54.94 | 128.54  | 20200. |
| 14      | 10.0      | .0      | 531.9       | 90.36       | -633.        | -200.        | 174.         | 1.66        | 55.25 | 128.90  | 20190. |
| 15      | 15.0      | .0      | 598.7       | 156.90      | -1095.       | -120.        | 1.           | -3.39       | 55.21 | 128.86  | 20190. |
| 16      | 20.0      | .0      | 653.8       | 234.76      | -1493.       | 34.          | -88.         | 3.50        | 54.54 | 128.06  | 20180. |
| 17      | 20.0      | .0      | 610.6       | 235.17      | -1466.       | -8.          | -70.         | .62         | 55.27 | 128.93  | 20200. |
| 18      | 25.0      | .0      | 727.5       | 334.65      | -1629.       | 6.           | 3.           | 5.15        | 54.87 | 128.44  | 20210. |
| 19      | -0.0      | .0      | 522.4       | -2.62       | 70.          | -27.         | 341.         | -20.48      | 55.39 | 129.08  | 20140. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.5924 | .3602  | .1829  | -.0060 | .0043  | .0003  |
| 3    | .00    | 1.3465 | -.0175 | -.0397 | -.0016 | .0297  | -.0394 |
| 4    | -20.00 | -.3835 | -.0364 | .1459  | -.0043 | .0024  | .0147  |
| 5    | -15.00 | .1155  | -.1029 | .2446  | -.0035 | .0040  | .0045  |
| 6    | -10.00 | .6416  | -.1087 | .2086  | -.0026 | .0083  | .0037  |
| 7    | -17.51 | -.1450 | -.0757 | .2838  | -.0032 | .0048  | .0096  |
| 8    | -12.53 | .3816  | -.1020 | .2327  | -.0014 | .0066  | -.0047 |
| 9    | -5.01  | 1.0985 | -.0749 | .1420  | -.0072 | .0085  | .0000  |
| 10   | -2.49  | 1.2443 | -.0446 | .0328  | -.0057 | .0139  | -.0417 |
| 11   | .01    | 1.4147 | -.0169 | .0101  | -.0041 | .0251  | -.0618 |
| 12   | 2.51   | 1.4697 | .0249  | -.0877 | -.0027 | .0295  | -.0308 |
| 13   | 5.01   | 1.5753 | .0680  | -.1512 | -.0036 | .0283  | -.0283 |
| 14   | 10.01  | 1.4374 | .2442  | -.2040 | -.0121 | .0105  | .0045  |
| 15   | 15.01  | 1.6182 | .4241  | -.3530 | -.0072 | .0000  | -.0092 |
| 16   | 20.01  | 1.7940 | .6345  | -.4814 | .0020  | -.0053 | .0095  |
| 17   | 20.01  | 1.7854 | .6356  | -.4727 | -.0005 | -.0042 | .0017  |
| 18   | 25.00  | 1.9663 | .9045  | -.5253 | .0004  | .0002  | .0139  |
| 19   | -.00   | 1.4119 | -.0071 | .0226  | -.0016 | .0206  | -.0553 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYM6   | CRM6   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.5924 | .3602  | .1829  | -.0060 | .0043  | .0003  |
| 3    | .00    | 1.3465 | -.0175 | -.0397 | -.0016 | .0297  | -.0394 |
| 4    | -20.00 | -.3835 | -.0364 | .1459  | -.0043 | .0024  | .0147  |
| 5    | -15.00 | .1155  | -.1029 | .2446  | -.0035 | .0040  | .0045  |
| 6    | -10.00 | .6416  | -.1087 | .2086  | -.0026 | .0083  | .0037  |
| 7    | -17.51 | -.1450 | -.0757 | .2838  | -.0032 | .0048  | .0096  |
| 8    | -12.53 | .3816  | -.1020 | .2327  | -.0014 | .0066  | -.0047 |
| 9    | -5.01  | 1.0985 | -.0749 | .1420  | -.0072 | .0085  | .0000  |
| 10   | -2.49  | 1.2443 | -.0446 | .0328  | -.0057 | .0139  | -.0417 |
| 11   | .01    | 1.4147 | -.0169 | .0101  | -.0041 | .0251  | -.0618 |
| 12   | 2.51   | 1.4697 | .0249  | -.0877 | -.0027 | .0295  | -.0308 |
| 13   | 5.01   | 1.5753 | .0680  | -.1512 | -.0036 | .0283  | -.0283 |
| 14   | 10.01  | 1.4374 | .2442  | -.2040 | -.0121 | .0105  | .0045  |
| 15   | 15.01  | 1.6182 | .4241  | -.3530 | -.0072 | .0000  | -.0092 |
| 16   | 20.01  | 1.7940 | .6345  | -.4814 | .0020  | -.0053 | .0095  |
| 17   | 20.01  | 1.7854 | .6356  | -.4727 | -.0005 | -.0042 | .0017  |
| 18   | 25.00  | 1.9663 | .9045  | -.5253 | .0004  | .0002  | .0139  |
| 19   | -.00   | 1.4119 | -.0071 | .0226  | -.0016 | .0206  | -.0553 |

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OF POOR QUALITY

RUN 929 CONFIG F P C NP5 W7 T61 BT IN=-3.5

| IM      | IS DELF   | 30 DELA | G IHT       | 2.5 DELE    | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 5       | .0        | .0      | 581.0       | 128.89      | 236.         | -87.         | 118.         | 2.74        | 55.98 | 129.78  | 4270.  |
| 6       | .0        | .0      | 527.0       | -7.00       | -250.        | -46.         | 377.         | -23.14      | 55.80 | 129.57  | 20070. |
| 7       | -20.0     | .0      | -134.2      | -16.41      | 285.         | -35.         | 113.         | 3.92        | 55.56 | 129.28  | 20070. |
| 8       | -17.5     | .0      | -59.7       | -29.92      | 360.         | -59.         | 115.         | 2.54        | 55.35 | 130.21  | 20090. |
| 9       | -15.0     | .0      | 55.9        | -40.17      | 262.         | -66.         | 99.          | 3.02        | 55.27 | 128.94  | 20090. |
| 10      | -12.5     | .0      | 151.6       | -41.29      | 201.         | -44.         | 152.         | 1.89        | 55.89 | 129.67  | 20110. |
| 11      | -10.0     | .0      | 248.6       | -39.39      | 145.         | -76.         | 210.         | .00         | 55.44 | 129.14  | 20060. |
| 12      | -5.0      | .0      | 415.1       | -28.95      | -30.         | -115.        | 156.         | .61         | 55.44 | 129.14  | 20070. |
| 13      | -2.5      | .0      | 469.3       | -17.10      | -274.        | -78.         | 268.         | -15.69      | 55.13 | 128.77  | 20070. |
| 14      | -.0       | .0      | 550.2       | -5.32       | -219.        | -45.         | 375.         | -20.23      | 55.39 | 129.08  | 20060. |
| 15      | 2.5       | .0      | 539.3       | 9.85        | -459.        | -28.         | 437.         | -14.61      | 55.27 | 128.93  | 20080. |
| 16      | 5.0       | .0      | 562.6       | 25.74       | -573.        | -48.         | 557.         | -11.89      | 55.00 | 128.62  | 20090. |
| 17      | 10.0      | .0      | 532.3       | 91.26       | -650.        | -197.        | 196.         | -2.48       | 54.84 | 128.42  | 20060. |
| 18      | 15.0      | .0      | 595.6       | 156.76      | -1067.       | -134.        | 89.          | -1.55       | 54.91 | 128.50  | 20070. |
| 19      | 17.5      | .0      | 630.5       | 194.05      | -1330.       | -17.         | 123.         | 4.32        | 55.24 | 128.89  | 20080. |
| 21      | 25.0      | .0      | 705.2       | 337.45      | -1637.       | -9.          | 74.          | 5.43        | 54.60 | 128.12  | 20050. |
| 22      | 20.0      | .0      | 653.7       | 235.46      | -1486.       | -7.          | 71.          | 1.54        | 55.15 | 128.78  | 20030. |
| 23      | -2.5      | .0      | 470.1       | -12.54      | -237.        | -80.         | 232.         | -15.45      | 55.33 | 129.01  | 20070. |
| 24      | .0        | .0      | 528.0       | -2.01       | -199.        | -49.         | 312.         | -25.87      | 55.43 | 129.13  | 20090. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 5    | .00    | 1.5704 | .3484  | .0760  | -.0052 | .0071 | .0074  |
| 6    | .00    | 1.4243 | -.0189 | -.0805 | -.0027 | .0227 | -.0625 |
| 7    | -19.99 | -.3627 | -.0444 | .0921  | -.0021 | .0068 | .0106  |
| 8    | -17.49 | -.1073 | -.0809 | .1162  | -.0036 | .0069 | .0069  |
| 9    | -14.98 | .1512  | -.1086 | .0846  | -.0040 | .0060 | .0082  |
| 10   | -12.50 | .4097  | -.1116 | .0648  | -.0026 | .0092 | .0051  |
| 11   | -10.00 | .6719  | -.1065 | .0467  | -.0046 | .0127 | .0000  |
| 12   | -5.00  | 1.1219 | -.0783 | -.0097 | -.0069 | .0094 | .0017  |
| 13   | -2.51  | 1.2685 | -.0462 | -.0882 | -.0047 | .0162 | -.0424 |
| 14   | -.00   | 1.4330 | -.0160 | -.0706 | -.0027 | .0227 | -.0547 |
| 15   | 2.51   | 1.4577 | .0266  | -.1480 | -.0017 | .0264 | -.0395 |
| 16   | 5.00   | 1.5745 | .0696  | -.1846 | -.0029 | .0337 | -.0321 |
| 17   | 10.00  | 1.4388 | .2466  | -.2097 | -.0119 | .0118 | -.0067 |
| 18   | 15.01  | 1.6096 | .4237  | -.3441 | -.0081 | .0053 | -.0042 |
| 19   | 17.51  | 1.7041 | .5245  | -.4289 | -.0010 | .0074 | .0117  |
| 21   | 25.01  | 1.9599 | .9120  | -.5277 | -.0006 | .0045 | .0147  |
| 22   | 20.01  | 1.7669 | .6364  | -.4791 | -.0004 | .0043 | .0042  |
| 23   | -2.49  | 1.2705 | -.0339 | -.0765 | -.0048 | .0140 | -.0418 |
| 24   | .00    | 1.4271 | -.0054 | -.0643 | -.0030 | .0189 | -.0699 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 5    | .00    | 1.5704 | .3484  | .0760  | -.0052 | .0071 | .0074  |
| 6    | .00    | 1.4243 | -.0189 | -.0805 | -.0027 | .0227 | -.0625 |
| 7    | -19.99 | -.3627 | -.0444 | .0921  | -.0021 | .0068 | .0106  |
| 8    | -17.49 | -.1073 | -.0809 | .1162  | -.0036 | .0069 | .0069  |
| 9    | -14.98 | .1512  | -.1086 | .0846  | -.0040 | .0060 | .0082  |
| 10   | -12.50 | .4097  | -.1116 | .0648  | -.0026 | .0092 | .0051  |
| 11   | -10.00 | .6719  | -.1065 | .0467  | -.0046 | .0127 | .0000  |
| 12   | -5.000 | 1.1219 | -.0783 | -.0097 | -.0069 | .0094 | .0017  |
| 13   | -2.51  | 1.2685 | -.0462 | -.0882 | -.0047 | .0162 | -.0424 |
| 14   | -.00   | 1.4330 | -.0160 | -.0706 | -.0027 | .0227 | -.0547 |
| 15   | 2.51   | 1.4577 | .0266  | -.1480 | -.0017 | .0264 | -.0395 |
| 16   | 5.00   | 1.5745 | .0696  | -.1846 | -.0029 | .0337 | -.0321 |
| 17   | 10.00  | 1.4388 | .2466  | -.2097 | -.0119 | .0118 | -.0067 |
| 18   | 15.01  | 1.6096 | .4237  | -.3441 | -.0081 | .0053 | -.0042 |
| 19   | 17.51  | 1.7041 | .5245  | -.4289 | -.0010 | .0074 | .0117  |
| 21   | 25.01  | 1.9599 | .9120  | -.5277 | -.0006 | .0045 | .0147  |
| 22   | 20.01  | 1.7669 | .6364  | -.4791 | -.0004 | .0043 | .0042  |
| 23   | -2.49  | 1.2705 | -.0339 | -.0765 | -.0048 | .0140 | -.0418 |
| 24   | .00    | 1.4271 | -.0054 | -.0643 | -.0030 | .0189 | -.0699 |

RUN 930 CONFIG F P 3 NPS W7 T61 BT IN=-3.5

| IW      | 15 DELF   | 30 DELA | 0 IHT       | 5 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMEAR CU-FT | CYMEAP CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | G PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 559.3       | 131.30      | -217.        | -82.         | 121.         | 2.05        | 54.81 | 128.38  | 4250.  |
| 3       | .0        | .0      | 546.7       | -5.69       | -722.        | -47.         | 417.         | -24.38      | 55.20 | 128.85  | 20020. |
| 4       | -20.0     | .0      | -120.1      | -21.43      | -108.        | -62.         | 87.          | .12         | 55.49 | 129.20  | 20000. |
| 5       | -17.5     | .0      | -24.3       | -33.92      | -150.        | -34.         | 52.          | .31         | 55.71 | 129.45  | 20030. |
| 6       | -15.0     | .0      | 74.9        | -41.48      | -299.        | -34.         | 111.         | 4.82        | 55.87 | 129.65  | 20040. |
| 7       | -12.5     | .0      | 174.0       | -42.55      | -382.        | -1.          | 175.         | -.25        | 55.53 | 129.24  | 20060. |
| 8       | -10.0     | .0      | 267.2       | -40.48      | -442.        | -44.         | 189.         | 1.41        | 55.67 | 129.41  | 20050. |
| 9       | -5.0      | .0      | 438.0       | -27.68      | -619.        | -101.        | 149.         | 5.34        | 55.51 | 129.22  | 19980. |
| 10      | -2.5      | .0      | 485.6       | -14.30      | -777.        | -77.         | 298.         | -13.88      | 55.70 | 129.45  | 20050. |
| 11      | .0        | .0      | 526.0       | -1.43       | -776.        | 15.          | 610.         | -27.73      | 55.64 | 129.37  | 20030. |
| 12      | 2.5       | .0      | 549.5       | 14.00       | -878.        | -30.         | 414.         | -16.18      | 55.20 | 130.03  | 20050. |
| 13      | 5.0       | .0      | 541.1       | 38.84       | -1068.       | -177.        | -286.        | -11.04      | 55.54 | 129.25  | 20050. |
| 14      | 10.0      | .0      | 500.3       | 92.82       | -1008.       | -95.         | 85.          | 2.59        | 55.76 | 129.50  | 20040. |
| 15      | 15.0      | .0      | 609.4       | 164.37      | -1384.       | -121.        | 122.         | .67         | 55.61 | 129.33  | 20020. |
| 16      | 17.5      | .0      | 630.9       | 198.83      | -1615.       | -92.         | 139.         | .55         | 55.71 | 129.44  | 20020. |
| 17      | 20.0      | .0      | 668.5       | 245.23      | -1686.       | -49.         | 106.         | .44         | 54.81 | 128.37  | 20020. |
| 18      | 25.0      | .0      | 710.6       | 336.20      | -1636.       | 13.          | 140.         | 2.62        | 55.83 | 129.58  | 20020. |
| 19      | -.0       | .0      | 541.8       | -.89        | -695.        | -11.         | 358.         | -22.62      | 55.88 | 129.65  | 20030. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.6196 | .3549  | -.0699 | -.0050 | .0073  | .0055  |
| 3    | .00    | 1.4775 | -.0154 | -.2327 | -.0028 | .0252  | -.0659 |
| 4    | -20.01 | -.3246 | -.0579 | -.0349 | -.0037 | .0053  | .0003  |
| 5    | -17.51 | -.0656 | -.0917 | -.0484 | -.0021 | .0031  | .0008  |
| 6    | -15.01 | .2025  | -.1121 | -.0965 | -.0021 | .0067  | .0130  |
| 7    | -12.50 | .4704  | -.1150 | -.1232 | -.0000 | .0106  | -.0007 |
| 8    | -10.00 | .7221  | -.1094 | -.1425 | -.0026 | .0114  | .0038  |
| 9    | -5.00  | 1.1836 | -.0748 | -.1994 | -.0061 | .0090  | .0144  |
| 10   | -2.50  | 1.3123 | -.0387 | -.2504 | -.0047 | .0180  | -.0375 |
| 11   | .01    | 1.4217 | -.0039 | -.2500 | .0009  | .0368  | -.0750 |
| 12   | 2.51   | 1.4852 | .0378  | -.2832 | -.0018 | .0250  | -.0437 |
| 13   | 5.00   | 1.4623 | .1050  | -.3444 | -.0107 | -.0173 | -.0298 |
| 14   | 10.00  | 1.4333 | .2509  | -.3250 | -.0058 | .0052  | .0073  |
| 15   | 15.00  | 1.6469 | .4443  | -.4461 | -.0073 | .0074  | .0018  |
| 16   | 17.51  | 1.7051 | .5374  | -.5207 | -.0055 | .0084  | .0015  |
| 17   | 20.01  | 1.8067 | .6628  | -.5435 | -.0030 | .0064  | .0012  |
| 18   | 25.00  | 1.9205 | .9086  | -.5274 | .0008  | .0085  | .0071  |
| 19   | -.00   | 1.4644 | -.0024 | -.2241 | -.0007 | .0216  | -.0611 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.6196 | .3549  | -.0699 | -.0050 | .0073  | .0055  |
| 3    | .00    | 1.4775 | -.0154 | -.2327 | -.0028 | .0252  | -.0659 |
| 4    | -20.01 | -.3246 | -.0579 | -.0349 | -.0037 | .0053  | .0003  |
| 5    | -17.51 | -.0656 | -.0917 | -.0484 | -.0021 | .0031  | .0008  |
| 6    | -15.01 | .2025  | -.1121 | -.0965 | -.0021 | .0067  | .0130  |
| 7    | -12.50 | .4704  | -.1150 | -.1232 | -.0000 | .0106  | -.0007 |
| 8    | -10.00 | .7221  | -.1094 | -.1425 | -.0026 | .0114  | .0038  |
| 9    | -5.00  | 1.1836 | -.0748 | -.1994 | -.0061 | .0090  | .0144  |
| 10   | -2.50  | 1.3123 | -.0387 | -.2504 | -.0047 | .0180  | -.0375 |
| 11   | .01    | 1.4217 | -.0039 | -.2500 | .0009  | .0368  | -.0750 |
| 12   | 2.51   | 1.4852 | .0378  | -.2832 | -.0018 | .0250  | -.0437 |
| 13   | 5.00   | 1.4623 | .1050  | -.3444 | -.0107 | -.0173 | -.0298 |
| 14   | 10.00  | 1.4333 | .2509  | -.3250 | -.0058 | .0052  | .0073  |
| 15   | 15.00  | 1.6469 | .4443  | -.4461 | -.0073 | .0074  | .0018  |
| 16   | 17.51  | 1.7051 | .5374  | -.5207 | -.0055 | .0084  | .0015  |
| 17   | 20.01  | 1.8067 | .6628  | -.5435 | -.0030 | .0064  | .0012  |
| 18   | 25.00  | 1.9205 | .9086  | -.5274 | .0008  | .0085  | .0071  |
| 19   | -.00   | 1.4644 | -.0024 | -.2241 | -.0007 | .0216  | -.0611 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 902

RUN 931 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| PT. NO. | 15 DELF<br>ALPHA DEG | 30 DELA<br>PSI<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>CPMBAR<br>CU-FT | 10 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM    |        |
|---------|----------------------|----------------------------------|-----------------------------------|----------------------------|---------------------------|---------------------------|----------|------------|--------|--------|
| 2       | 0                    | 623.9                            | 134.18                            | -993.                      | -80.                      | 119.                      | 1.95     | 56.02      | 129.82 | 4290.  |
| 3       | 0                    | 578.8                            | -7.11                             | -1573.                     | -34.                      | 385.                      | -22.13   | 54.34      | 127.82 | 20260. |
| 4       | -20.0                | -87.8                            | -33.43                            | -1050.                     | -45.                      | 119.                      | 1.42     | 56.30      | 128.96 | 20210. |
| 5       | -17.5                | 16.1                             | -43.93                            | -1215.                     | -12.                      | 172.                      | 2.24     | 54.81      | 128.38 | 20290. |
| 6       | -15.0                | 112.8                            | -50.50                            | -1385.                     | -4.                       | 195.                      | -0.06    | 54.74      | 128.30 | 20250. |
| 7       | -12.5                | 211.7                            | -49.81                            | -1472.                     | -21.                      | 211.                      | .56      | 54.94      | 128.54 | 20240. |
| 8       | -10.0                | 302.3                            | -46.85                            | -1525.                     | -37.                      | 207.                      | 1.29     | 55.46      | 129.15 | 20260. |
| 9       | -5.0                 | 477.5                            | -31.68                            | -1690.                     | -89.                      | 140.                      | 1.94     | 54.32      | 127.81 | 20240. |
| 10      | -2.5                 | 508.1                            | -17.65                            | -1645.                     | -49.                      | 352.                      | -14.69   | 55.67      | 129.40 | 20250. |
| 11      | 0                    | 576.1                            | -4.34                             | -1537.                     | -43.                      | 468.                      | -21.32   | 54.96      | 128.56 | 20240. |
| 12      | 2.5                  | 551.1                            | 12.78                             | -1763.                     | -27.                      | 81.                       | -9.45    | 55.16      | 128.80 | 20250. |
| 13      | 5.0                  | 597.2                            | 34.81                             | -1834.                     | -109.                     | 450.                      | -8.57    | 54.85      | 128.43 | 20250. |
| 14      | 10.0                 | 549.9                            | 93.97                             | -1733.                     | -164.                     | 232.                      | -4.59    | 54.93      | 128.52 | 20280. |
| 15      | 15.0                 | 624.1                            | 167.48                            | -1840.                     | -153.                     | 176.                      | -4.13    | 55.32      | 128.98 | 20200. |
| 16      | 17.5                 | 641.0                            | 206.22                            | -1967.                     | -46.                      | 159.                      | 4.77     | 54.97      | 128.57 | 20240. |
| 17      | 20.0                 | 648.7                            | 245.27                            | -1865.                     | -23.                      | 35.                       | 3.43     | 55.69      | 129.42 | 20230. |
| 18      | -0                   | 555.3                            | .66                               | -1597.                     | 28.                       | 663.                      | -29.30   | 55.69      | 129.43 | 20190. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 0.00   | 1.6861 | .3626  | -.3202 | -.0048 | .0072 | .0053  |
| 3    | 0.00   | 1.5643 | -.0192 | -.5070 | -.0020 | .0232 | -.0598 |
| 4    | -19.99 | -.2372 | -.0904 | -.3384 | -.0027 | .0072 | .0038  |
| 5    | -17.50 | .0436  | -.1187 | -.3917 | -.0007 | .0104 | .0060  |
| 6    | -15.00 | .3049  | -.1365 | -.4465 | -.0003 | .0118 | -.0002 |
| 7    | -12.51 | .5723  | -.1346 | -.4746 | -.0013 | .0127 | .0015  |
| 8    | -10.00 | .8170  | -.1266 | -.4917 | -.0022 | .0125 | .0035  |
| 9    | -4.99  | 1.2906 | -.0856 | -.5448 | -.0054 | .0084 | .0053  |
| 10   | -2.50  | 1.3732 | -.0477 | -.5303 | -.0030 | .0212 | -.0397 |
| 11   | 0.00   | 1.5571 | -.0117 | -.4957 | -.0026 | .0283 | -.0576 |
| 12   | 2.53   | 1.4894 | .0346  | -.5683 | -.0016 | .0049 | -.0255 |
| 13   | 5.00   | 1.6141 | .0941  | -.5913 | -.0066 | .0272 | -.0232 |
| 14   | 10.00  | 1.4861 | .2540  | -.5587 | -.0099 | .0140 | -.0124 |
| 15   | 15.04  | 1.6867 | .4527  | -.5931 | -.0092 | .0106 | -.0112 |
| 16   | 17.51  | 1.7323 | .5573  | -.6341 | -.0028 | .0096 | .0129  |
| 17   | 20.01  | 1.7532 | .6629  | -.6013 | -.0014 | .0021 | .0093  |
| 18   | -0.00  | 1.5008 | .0018  | -.5148 | .0017  | .0401 | -.0792 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 0.00   | 1.6861 | .3626  | -.3202 | -.0048 | .0072 | .0053  |
| 3    | 0.00   | 1.5643 | -.0192 | -.5070 | -.0020 | .0232 | -.0598 |
| 4    | -19.99 | -.2372 | -.0904 | -.3384 | -.0027 | .0072 | .0038  |
| 5    | -17.50 | .0436  | -.1187 | -.3917 | -.0007 | .0104 | .0060  |
| 6    | -15.00 | .3049  | -.1365 | -.4465 | -.0003 | .0118 | -.0002 |
| 7    | -12.51 | .5723  | -.1346 | -.4746 | -.0013 | .0127 | .0015  |
| 8    | -10.00 | .8170  | -.1266 | -.4917 | -.0022 | .0125 | .0035  |
| 9    | -4.99  | 1.2906 | -.0856 | -.5448 | -.0054 | .0084 | .0053  |
| 10   | -2.50  | 1.3732 | -.0477 | -.5303 | -.0030 | .0212 | -.0397 |
| 11   | 0.00   | 1.5571 | -.0117 | -.4957 | -.0026 | .0283 | -.0576 |
| 12   | 2.53   | 1.4894 | .0346  | -.5683 | -.0016 | .0049 | -.0255 |

|    |       |        |       |        |        |       |        |
|----|-------|--------|-------|--------|--------|-------|--------|
| 13 | 5.00  | 1.6141 | .0941 | -.5913 | -.0066 | .0272 | -.0232 |
| 14 | 10.00 | 1.4861 | .2540 | -.5587 | -.0099 | .0140 | -.0124 |
| 15 | 15.04 | 1.6867 | .4527 | -.5931 | -.0092 | .0106 | -.0112 |
| 16 | 17.51 | 1.7323 | .5573 | -.6341 | -.0028 | .0096 | .0129  |
| 17 | 20.01 | 1.7532 | .6629 | -.6013 | -.0014 | .0021 | .0093  |
| 18 | -0.00 | 1.5008 | .0018 | -.5148 | .0017  | .0401 | -.0792 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011  
P 903

RUN 932 CONFIG F P B NPS W7 T61 BT IN=-3.5

| IW        | IS DELF | 30. DELA | 0 IHT  | 0 DELE | 0 DELR | 0 DELSB | 0     |        |       |        |        |
|-----------|---------|----------|--------|--------|--------|---------|-------|--------|-------|--------|--------|
| PT. ALPHA | PSI     | CLBAR    | CDBAR  | CPMBAR | CYMBAR | CRMBAR  | CYBAR | Q      | V     | RPM    |        |
| No. DEG   | DEG     | SQ-FT    | SQ-FT  | CU-FT  | CU-FT  | CU-FT   | SQ-FT | PSF    | KNOTS |        |        |
| 2         | .0      | .0       | 569.2  | 129.28 | 578.   | -103.   | 117.  | 4.44   | 55.21 | 128.87 | 4270.  |
| 3         | .0      | .0       | 512.9  | -6.88  | 157.   | -75.    | 430.  | -22.71 | 55.50 | 129.21 | 19940. |
| 4         | -20.0   | .0       | -145.0 | -10.01 | 637.   | -55.    | 152.  | 3.05   | 54.78 | 128.35 | 19940. |
| 5         | -17.5   | .0       | -54.3  | -25.61 | 784.   | -61.    | 104.  | .56    | 55.20 | 128.85 | 19920. |
| 6         | -15.0   | .0       | 39.2   | -34.00 | 708.   | -69.    | 169.  | 2.83   | 55.39 | 129.08 | 19920. |
| 7         | -12.5   | .0       | 135.0  | -37.32 | 678.   | -42.    | 206.  | 1.53   | 55.54 | 129.25 | 19920. |
| 8         | -10.0   | .0       | 229.4  | -38.26 | 645.   | -101.   | 261.  | 1.80   | 54.98 | 128.58 | 19950. |
| 9         | -5.0    | .0       | 398.8  | -26.87 | 511.   | -115.   | 243.  | 1.79   | 55.09 | 128.72 | 19940. |
| 10        | -2.5    | .0       | 452.2  | -15.61 | 168.   | -107.   | 271.  | -17.09 | 55.03 | 128.64 | 19880. |
| 11        | .0      | .0       | 516.2  | -4.79  | 167.   | -71.    | 379.  | -19.70 | 54.80 | 128.37 | 19940. |
| 12        | 2.5     | .0       | 526.0  | 9.56   | -69.   | -23.    | 433.  | -9.47  | 55.01 | 128.62 | 19940. |
| 13        | 5.0     | .0       | 578.9  | 25.23  | -171.  | -70.    | 576.  | -11.06 | 54.81 | 128.38 | 19920. |
| 14        | 10.0    | .0       | 511.1  | 82.74  | -389.  | -90.    | 125.  | 1.39   | 54.03 | 127.44 | 19890. |
| 15        | 15.0    | .0       | 576.7  | 151.99 | -709.  | -90.    | 142.  | 2.37   | 54.57 | 128.08 | 19910. |
| 16        | 17.5    | .0       | 618.8  | 187.64 | -974.  | -71.    | 124.  | -.19   | 54.84 | 128.41 | 19910. |
| 17        | 20.0    | .0       | 635.1  | 223.75 | -1162. | 13.     | 70.   | 3.78   | 55.92 | 129.70 | 19900. |
| 18        | .0      | .0       | 514.1  | -3.09  | 278.   | -79.    | 328.  | -20.86 | 54.54 | 128.07 | 19880. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.5384 | .3494  | .1863  | -.0062 | .0071 | .0120  |
| 3    | .00    | 1.3861 | -.0186 | .0507  | -.0045 | .0260 | -.0614 |
| 4    | -19.99 | -.3920 | -.0271 | .2054  | -.0033 | .0092 | .0082  |
| 5    | -17.49 | -.1467 | -.0692 | .2527  | -.0037 | .0063 | .0015  |
| 6    | -15.00 | .1058  | .0919  | .2283  | -.0042 | .0102 | .0076  |
| 7    | -12.50 | .3649  | -.1009 | .2185  | -.0026 | .0125 | .0041  |
| 8    | -10.00 | .6199  | -.1034 | .2080  | -.0061 | .0158 | .0049  |
| 9    | -4.99  | 1.0778 | -.0726 | .1647  | -.0069 | .0147 | .0048  |
| 10   | -2.50  | 1.2221 | .0422  | .0541  | -.0065 | .0164 | -.0462 |
| 11   | .00    | 1.3951 | -.0129 | .0539  | -.0043 | .0229 | -.0533 |
| 12   | 2.55   | 1.4217 | .0258  | -.0222 | -.0014 | .0262 | -.0256 |
| 13   | 5.01   | 1.5646 | .0682  | -.0551 | -.0043 | .0348 | -.0299 |
| 14   | 10.00  | 1.3813 | .2236  | -.1253 | -.0054 | .0075 | .0037  |
| 15   | 15.01  | 1.5586 | .4108  | -.2287 | -.0054 | .0086 | .0064  |
| 16   | 17.50  | 1.6725 | .5071  | -.3139 | -.0043 | .0075 | -.0005 |
| 17   | 20.02  | 1.7166 | .6047  | -.3747 | .0008  | .0042 | .0102  |
| 18   | .00    | 1.3893 | -.0084 | .0898  | -.0048 | .0198 | -.0564 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.5384 | .3494  | .1863  | -.0062 | .0071 | .0120  |
| 3    | .00    | 1.3861 | -.0186 | .0507  | -.0045 | .0260 | -.0614 |
| 4    | -19.99 | -.3920 | -.0271 | .2054  | -.0033 | .0092 | .0082  |
| 5    | -17.49 | -.1467 | -.0692 | .2527  | -.0037 | .0063 | .0015  |
| 6    | -15.00 | .1058  | .0919  | .2283  | -.0042 | .0102 | .0076  |
| 7    | -12.50 | .3649  | -.1009 | .2185  | -.0026 | .0125 | .0041  |
| 8    | -10.00 | .6199  | -.1034 | .2080  | -.0061 | .0158 | .0049  |
| 9    | -4.99  | 1.0778 | -.0726 | .1647  | -.0069 | .0147 | .0048  |
| 10   | -2.50  | 1.2221 | .0422  | .0541  | -.0065 | .0164 | -.0462 |
| 11   | .00    | 1.3951 | -.0129 | .0539  | -.0043 | .0229 | -.0533 |
| 12   | 2.55   | 1.4217 | .0258  | -.0222 | -.0014 | .0262 | -.0256 |
| 13   | 5.01   | 1.5646 | .0682  | -.0551 | -.0043 | .0348 | -.0299 |
| 14   | 10.00  | 1.3813 | .2236  | -.1253 | -.0054 | .0075 | .0037  |
| 15   | 15.01  | 1.5586 | .4108  | -.2287 | -.0054 | .0086 | .0064  |
| 16   | 17.50  | 1.6725 | .5071  | -.3139 | -.0043 | .0075 | -.0005 |
| 17   | 20.02  | 1.7166 | .6047  | -.3747 | .0008  | .0042 | .0102  |
| 18   | .00    | 1.3893 | -.0084 | .0898  | -.0048 | .0198 | -.0564 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 904

RUN 933 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| PT. NO. | IW ALPHA DEG | IS DELF PSI DEG | 30 DELA CLBAR SQ-FT | 0 DELA CDBAR SQ-FT | 0 IHT CPMBAR CU-FT | -S DELE CYMBAR CU-FT | 0 DELR CRMBAR CU-FT | 0 DELSB CYBAR SQ-FT | 0 DELSB Q PSF | 0 V KNOTS | RPM    |
|---------|--------------|-----------------|---------------------|--------------------|--------------------|----------------------|---------------------|---------------------|---------------|-----------|--------|
| 2       | 0            | 0               | 556.4               | 140.08             | 917.               | -106.                | 136.                | 3.34                | 55.10         | 128.74    | 4270.  |
| 3       | 0            | 0               | 485.8               | -6.70              | 1057.              | -92.                 | 326.                | -20.68              | 54.85         | 128.43    | 20140. |
| 4       | -20.0        | 0               | -160.3              | 3.70               | 1021.              | -30.                 | 176.                | .19                 | 54.84         | 128.42    | 20150. |
| 5       | -17.5        | 0               | -75.4               | -11.78             | 1403.              | -89.                 | 25.                 | 4.40                | 55.75         | 129.50    | 20160. |
| 6       | -15.0        | 0               | 13.7                | -24.18             | 1412.              | -82.                 | 149.                | 3.74                | 55.53         | 129.24    | 20170. |
| 7       | -12.5        | 0               | 107.4               | -29.66             | 1510.              | -61.                 | 166.                | 5.14                | 55.05         | 128.68    | 20170. |
| 8       | -10.0        | 0               | 197.4               | -32.07             | 1555.              | -86.                 | 208.                | 2.30                | 54.77         | 128.33    | 20180. |
| 10      | -2.5         | 0               | 423.9               | -15.83             | 1065.              | -122.                | 269.                | -14.58              | 54.69         | 128.24    | 20100. |
| 11      | -5.0         | 0               | 361.2               | -25.89             | 1478.              | -142.                | 206.                | 2.96                | 55.19         | 128.84    | 20160. |
| 12      | 0            | 0               | 482.9               | -5.56              | 985.               | -96.                 | 362.                | -22.23              | 55.18         | 128.82    | 20180. |
| 13      | 2.5          | 0               | 492.1               | 6.91               | 680.               | -44.                 | 358.                | -7.51               | 55.34         | 129.02    | 20160. |
| 14      | 5.0          | 0               | 538.0               | 20.53              | 485.               | -64.                 | 479.                | -9.55               | 55.62         | 129.34    | 20150. |
| 15      | 10.0         | 0               | 481.7               | 75.62              | 67.                | -115.                | 54.                 | 2.22                | 55.15         | 128.79    | 20160. |
| 16      | 15.0         | 0               | 551.1               | 143.13             | -261.              | -179.                | 210.                | 2.47                | 55.27         | 128.92    | 20180. |
| 17      | 17.5         | 0               | 604.5               | 181.07             | -416.              | -47.                 | 88.                 | -3.1                | 54.93         | 128.52    | 20160. |
| 20      | 20.0         | 0               | 632.6               | 219.13             | -689.              | 33.                  | -70.                | 2.29                | 54.98         | 128.58    | 20150. |
| 21      | 0            | 0               | 482.5               | -3.59              | 964.               | -99.                 | 215.                | -18.80              | 55.62         | 129.35    | 20160. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.5038 | .3786  | .2955  | -.0064 | .0082  | .0090  |
| 3    | 0.00   | 1.3130 | -.0181 | .3407  | -.0055 | .0197  | -.0559 |
| 4    | -20.02 | -.4333 | .0100  | .3291  | -.0018 | .0106  | .0005  |
| 5    | -17.50 | -.2037 | -.0318 | .4522  | -.0054 | .0015  | .0119  |
| 6    | -14.99 | .0370  | -.0653 | .4551  | -.0050 | .0090  | .0101  |
| 7    | -12.49 | .2902  | -.0802 | .4870  | -.0037 | .0100  | .0139  |
| 8    | -9.98  | .5336  | -.0867 | .5015  | -.0052 | .0126  | .0062  |
| 10   | -2.50  | 1.1457 | -.0428 | .3434  | -.0073 | .0162  | -.0394 |
| 11   | -5.00  | .9762  | -.0700 | .4765  | -.0086 | .0124  | .0080  |
| 12   | .01    | 1.3050 | -.0150 | .3175  | -.0058 | .0219  | -.0601 |
| 13   | 2.50   | 1.3301 | .0187  | .2193  | -.0026 | .0217  | -.0203 |
| 14   | 5.00   | 1.4542 | .0555  | .1563  | -.0039 | .0290  | -.0258 |
| 15   | 10.00  | 1.3018 | .2044  | .0217  | -.0070 | -.0033 | .0060  |
| 16   | 15.00  | 1.4895 | .3868  | -.0842 | -.0108 | .0127  | .0067  |
| 17   | 17.50  | 1.6339 | .4894  | -.1340 | -.0028 | .0053  | -.0008 |
| 20   | 20.01  | 1.7096 | .5922  | -.2220 | .0020  | -.0042 | .0062  |
| 21   | .01    | 1.3040 | -.0097 | .3107  | -.0060 | .0130  | -.0508 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.5038 | .3786  | .2955  | -.0064 | .0082  | .0090  |
| 3    | 0.00   | 1.3130 | -.0181 | .3407  | -.0055 | .0197  | -.0559 |
| 4    | -20.02 | -.4333 | .0100  | .3291  | -.0018 | .0106  | .0005  |
| 5    | -17.50 | -.2037 | -.0318 | .4522  | -.0054 | .0015  | .0119  |
| 6    | -14.99 | .0370  | -.0653 | .4551  | -.0050 | .0090  | .0101  |
| 7    | -12.49 | .2902  | -.0802 | .4870  | -.0037 | .0100  | .0139  |
| 8    | -9.98  | .5336  | -.0867 | .5015  | -.0052 | .0126  | .0062  |
| 10   | -2.50  | 1.1457 | -.0428 | .3434  | -.0073 | .0162  | -.0394 |
| 11   | -5.00  | .9762  | -.0700 | .4765  | -.0086 | .0124  | .0080  |
| 12   | .01    | 1.3050 | -.0150 | .3175  | -.0058 | .0219  | -.0601 |
| 13   | 2.50   | 1.3301 | .0187  | .2193  | -.0026 | .0217  | -.0203 |
| 14   | 5.00   | 1.4542 | .0555  | .1563  | -.0039 | .0290  | -.0258 |
| 15   | 10.00  | 1.3018 | .2044  | .0217  | -.0070 | -.0033 | .0060  |
| 16   | 15.00  | 1.4895 | .3868  | -.0842 | -.0108 | .0127  | .0067  |
| 17   | 17.50  | 1.6339 | .4894  | -.1340 | -.0028 | .0053  | -.0008 |
| 20   | 20.01  | 1.7096 | .5922  | -.2220 | .0020  | -.0042 | .0062  |
| 21   | .01    | 1.3040 | -.0097 | .3107  | -.0060 | .0130  | -.0508 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 934 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| PT.# | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 2    | .0        | .0      | 337.2       | 71.98       | 950.         | -105.        | 82.          | 4.62        | 55.30 | 128.97  | 1780.  |
| 3    | .0        | .0      | 311.4       | -5.37       | 821.         | -160.        | 89.          | -1.22       | 55.64 | 129.37  | 15500. |
| 4    | -20.0     | .0      | -293.7      | 34.07       | 1066.        | -58.         | 99.          | 10.86       | 54.92 | 128.51  | 15520. |
| 5    | -17.5     | .0      | -245.6      | 15.34       | 1288.        | -83.         | -10.         | 4.76        | 55.87 | 129.64  | 15520. |
| 6    | -15.0     | .0      | -162.9      | -3.53       | 1437.        | -113.        | 18.          | 8.01        | 55.30 | 128.97  | 15490. |
| 7    | -12.4     | .0      | -68.7       | -16.84      | 1303.        | -92.         | 94.          | 5.66        | 55.34 | 129.02  | 15520. |
| 8    | -10.0     | .0      | 13.6        | -20.60      | 1132.        | -40.         | 202.         | 3.80        | 55.54 | 129.25  | 15520. |
| 9    | -5.0      | .0      | 172.3       | -17.66      | 968.         | -132.        | 134.         | 3.82        | 55.28 | 128.94  | 15520. |
| 10   | -2.5      | .0      | 243.5       | -12.33      | 850.         | -200.        | 87.          | .19         | 55.23 | 128.89  | 15520. |
| 11   | -.0       | .0      | 310.5       | -4.76       | 832.         | -163.        | 108.         | -2.70       | 55.57 | 129.29  | 15490. |
| 12   | 2.5       | .0      | 371.0       | 6.71        | 674.         | -104.        | 143.         | -3.00       | 55.56 | 129.28  | 15530. |
| 13   | 5.0       | .0      | 374.7       | 30.49       | 473.         | -114.        | 35.          | .12         | 54.85 | 128.42  | 15440. |
| 14   | 10.0      | .0      | 423.0       | 76.72       | 246.         | -76.         | 54.          | -2.99       | 56.86 | 129.63  | 15510. |
| 15   | 15.0      | .0      | 493.1       | 137.64      | -16.         | -169.        | 176.         | 1.98        | 54.97 | 128.57  | 15510. |
| 16   | 17.5      | .0      | 544.8       | 173.16      | -246.        | -162.        | 213.         | -.62        | 54.62 | 128.15  | 15520. |
| 17   | 20.0      | .0      | 574.3       | 205.67      | -586.        | -32.         | 88.          | 3.93        | 55.46 | 129.15  | 15510. |
| 18   | -.0       | .0      | 312.0       | -2.83       | 826.         | -153.        | 141.         | -.61        | 55.44 | 129.13  | 15440. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9114  | .1945  | .3063  | -.0063 | .0049  | .0125  |
| 3    | .00    | .8416  | -.0145 | .2646  | -.0097 | .0054  | -.0033 |
| 4    | -20.00 | -.7937 | .0921  | .3436  | -.0035 | .0060  | .0293  |
| 5    | -17.49 | -.6637 | .0415  | .4153  | -.0050 | -.0006 | .0129  |
| 6    | -15.00 | -.4402 | -.0095 | .4633  | -.0068 | .0011  | .0216  |
| 7    | -12.39 | -.1857 | -.0455 | .4202  | -.0056 | .0057  | .0153  |
| 8    | -10.01 | .0367  | -.0557 | .3649  | -.0024 | .0122  | .0103  |
| 9    | -5.01  | .4657  | -.0477 | .3119  | -.0080 | .0081  | .0103  |
| 10   | -2.51  | .6582  | -.0333 | .2740  | -.0121 | .0053  | .0005  |
| 11   | -.01   | .8393  | -.0129 | .2682  | -.0099 | .0065  | -.0073 |
| 12   | 2.50   | 1.0026 | .0181  | .2173  | -.0063 | .0086  | -.0081 |
| 13   | 5.00   | 1.0126 | .0824  | .1524  | -.0069 | .0021  | .0003  |
| 14   | 10.01  | 1.1431 | .2073  | .0792  | -.0046 | .0032  | -.0081 |
| 15   | 15.00  | 1.3326 | .3720  | -.0050 | -.0102 | .0106  | .0054  |
| 16   | 17.50  | 1.4725 | .4680  | -.0793 | -.0098 | .0129  | -.0017 |
| 17   | 20.00  | 1.5521 | .5559  | -.1890 | -.0020 | .0053  | .0106  |
| 18   | -.01   | .8434  | -.0076 | .2664  | -.0092 | .0085  | -.0017 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9114  | .1945  | .3063  | -.0063 | .0049  | .0125  |
| 3    | .00    | .8416  | -.0145 | .2646  | -.0097 | .0054  | -.0033 |
| 4    | -20.00 | -.7937 | .0921  | .3436  | -.0035 | .0060  | .0293  |
| 5    | -17.49 | -.6637 | .0415  | .4153  | -.0050 | -.0006 | .0129  |
| 6    | -15.00 | -.4402 | -.0095 | .4633  | -.0068 | .0011  | .0216  |
| 7    | -12.39 | -.1857 | -.0455 | .4202  | -.0056 | .0057  | .0153  |
| 8    | -10.01 | .0367  | -.0557 | .3649  | -.0024 | .0122  | .0103  |
| 9    | -5.01  | .4657  | -.0477 | .3119  | -.0080 | .0081  | .0103  |
| 10   | -2.51  | .6582  | -.0333 | .2740  | -.0121 | .0053  | .0005  |
| 11   | -.01   | .8393  | -.0129 | .2682  | -.0099 | .0065  | -.0073 |
| 12   | 2.50   | 1.0026 | .0181  | .2173  | -.0063 | .0086  | -.0081 |
| 13   | 5.00   | 1.0126 | .0824  | .1524  | -.0069 | .0021  | .0003  |
| 14   | 10.01  | 1.1431 | .2073  | .0792  | -.0046 | .0032  | -.0081 |
| 15   | 15.00  | 1.3326 | .3720  | -.0050 | -.0102 | .0106  | .0054  |
| 16   | 17.50  | 1.4725 | .4680  | -.0793 | -.0098 | .0129  | -.0017 |
| 17   | 20.00  | 1.5521 | .5559  | -.1890 | -.0020 | .0053  | .0106  |
| 18   | -.01   | .8434  | -.0076 | .2664  | -.0092 | .0085  | -.0017 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011  
P 906

RUN 935 CONFIG F P B NPS W7 T61 BT IN=-3.5

| 1W<br>PT.<br>NO. | ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CLBAR<br>SQ-FT | DELTA<br>CDBAR<br>SQ-FT | DELTA<br>CPM<br>CU-FT | DELTA<br>CYM<br>CU-FT | DELTA<br>CRM<br>CU-FT | DELTA<br>CYB<br>SQ-FT | DELTA<br>PSF | DELTA<br>V<br>KNOTS | RPM    |
|------------------|--------------|---------------------|-------------------------|-------------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------|---------------------|--------|
| 2                | .0           | .0                  | 356.4                   | 71.23                   | 311.                  | -89.                  | 99.                   | 3.52                  | 56.08        | 129.90              | 3990.  |
| 3                | .0           | .0                  | 337.1                   | -6.70                   | 105.                  | -119.                 | 71.                   | 7.99                  | 55.32        | 129.00              | 15580. |
| 4                | -20.0        | .0                  | -281.3                  | 21.84                   | 692.                  | -61.                  | 68.                   | 8.58                  | 55.60        | 129.33              | 15620. |
| 5                | -17.5        | .0                  | 231.3                   | 4.32                    | 748.                  | -69.                  | -11.                  | 5.03                  | 55.56        | 129.28              | 15620. |
| 6                | -15.0        | .0                  | -138.3                  | -12.23                  | 715.                  | -92.                  | 36.                   | 7.73                  | 55.93        | 129.72              | 15630. |
| 7                | -10.0        | .0                  | 40.1                    | -28.15                  | 437.                  | -38.                  | 134.                  | 2.68                  | 55.86        | 129.64              | 15640. |
| 8                | -5.0         | .0                  | 198.9                   | -22.18                  | 221.                  | -106.                 | 135.                  | 2.51                  | 55.66        | 129.39              | 15600. |
| 9                | -2.5         | .0                  | 269.5                   | -15.35                  | 154.                  | -155.                 | 176.                  | -1.04                 | 55.65        | 129.39              | 15600. |
| 10               | .0           | .0                  | 336.2                   | -6.18                   | 121.                  | -130.                 | 125.                  | -1.85                 | 55.25        | 128.92              | 15610. |
| 11               | 2.5          | .0                  | 393.1                   | 5.86                    | 22.                   | -95.                  | 159.                  | -2.09                 | 55.53        | 129.25              | 15610. |
| 12               | 5.0          | .0                  | 399.8                   | 31.15                   | -146.                 | -100.                 | 18.                   | -.55                  | 55.25        | 128.91              | 15620. |
| 13               | 10.0         | .0                  | 447.8                   | 76.38                   | -278.                 | -89.                  | 85.                   | 2.50                  | 55.81        | 129.58              | 15620. |
| 14               | 15.0         | .0                  | 505.6                   | 138.89                  | -669.                 | -57.                  | 87.                   | 3.77                  | 55.08        | 128.70              | 15630. |
| 15               | 17.5         | .0                  | 550.2                   | 174.18                  | -824.                 | -92.                  | 87.                   | -2.02                 | 55.65        | 129.38              | 15620. |
| 16               | 20.0         | .0                  | 594.7                   | 212.71                  | -1149.                | -6.                   | -35.                  | .00                   | 55.21        | 128.86              | 15620. |
| 17               | .0           | .0                  | 336.3                   | -5.89                   | 121.                  | -117.                 | 141.                  | -.74                  | 55.17        | 128.81              | 15620. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9632  | .1925  | .1002  | -.0054 | .0060  | .0095  |
| 3    | .00    | .9110  | -.0181 | .0337  | -.0072 | .0043  | -.0027 |
| 4    | -20.00 | -.7603 | .0590  | .2232  | -.0037 | .0041  | .0232  |
| 5    | -17.51 | -.6252 | .0117  | .2411  | -.0041 | -.0007 | .0136  |
| 6    | -15.00 | -.3738 | -.0331 | .2306  | -.0056 | .0022  | .0209  |
| 7    | -9.98  | .1085  | -.0761 | .1408  | -.0023 | .0081  | .0073  |
| 8    | -4.98  | .5376  | -.0599 | .0711  | -.0064 | .0082  | .0068  |
| 9    | -2.48  | .7284  | -.0415 | .0496  | -.0094 | .0106  | -.0028 |
| 10   | .02    | .9085  | -.0167 | .0391  | -.0078 | .0076  | -.0050 |
| 11   | 2.51   | 1.0624 | .0158  | .0070  | -.0057 | .0096  | -.0056 |
| 12   | 5.00   | 1.0806 | .0842  | -.0469 | -.0060 | .0011  | -.0015 |
| 13   | 10.02  | 1.2102 | .2064  | -.0897 | -.0054 | .0052  | .0068  |
| 14   | 15.00  | 1.3665 | .3754  | -.2156 | -.0034 | .0053  | .0102  |
| 15   | 17.51  | 1.4870 | .4708  | -.2655 | -.0056 | .0053  | -.0055 |
| 16   | 20.00  | 1.6072 | .5749  | -.3703 | -.0003 | -.0021 | .0000  |
| 17   | .01    | .9090  | -.0159 | .0391  | -.0071 | .0085  | -.0020 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9632  | .1925  | .1002  | -.0054 | .0060  | .0095  |
| 3    | .00    | .9110  | -.0181 | .0337  | -.0072 | .0043  | -.0027 |
| 4    | -20.00 | -.7603 | .0590  | .2232  | -.0037 | .0041  | .0232  |
| 5    | -17.51 | -.6252 | .0117  | .2411  | -.0041 | -.0007 | .0136  |
| 6    | -15.00 | -.3738 | -.0331 | .2306  | -.0056 | .0022  | .0209  |
| 7    | -9.98  | .1085  | -.0761 | .1408  | -.0023 | .0081  | .0073  |
| 8    | -4.98  | .5376  | -.0599 | .0711  | -.0064 | .0082  | .0068  |
| 9    | -2.48  | .7284  | -.0415 | .0496  | -.0094 | .0106  | -.0028 |
| 10   | .02    | .9085  | -.0167 | .0391  | -.0078 | .0076  | -.0050 |
| 11   | 2.51   | 1.0624 | .0158  | .0070  | -.0057 | .0096  | -.0056 |
| 12   | 5.00   | 1.0806 | .0842  | -.0469 | -.0060 | .0011  | -.0015 |
| 13   | 10.02  | 1.2102 | .2064  | -.0897 | -.0054 | .0052  | .0068  |
| 14   | 15.00  | 1.3665 | .3754  | -.2156 | -.0034 | .0053  | .0102  |
| 15   | 17.51  | 1.4870 | .4708  | -.2655 | -.0056 | .0053  | -.0055 |
| 16   | 20.00  | 1.6072 | .5749  | -.3703 | -.0003 | -.0021 | .0000  |
| 17   | .01    | .9090  | -.0159 | .0391  | -.0071 | .0085  | -.0020 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 907

RUN 936 CONFIG F P B NPS W7 T61 BT IN=-3,5

| PT# | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|-----|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 2   | .0        | .0      | 389.8       | 74.81       | -398.        | -94.         | 82.          | 3.57        | 56.24 | 130.10  | 4000.  |
| 3   | .0        | .0      | 370.7       | -6.82       | -717.        | -117.        | 128.         | -2.14       | 54.23 | 127.70  | 15700. |
| 4   | -20.0     | .0      | -260.9      | 7.76        | 7.           | -47.         | 143.         | 6.76        | 54.97 | 128.58  | 15690. |
| 5   | -15.0     | .0      | 100.4       | -21.09      | -320.        | -87.         | 35.          | 8.72        | 55.06 | 128.69  | 15720. |
| 6   | -10.0     | .0      | 75.8        | -32.78      | -599.        | -10.         | 190.         | 1.42        | 55.27 | 128.94  | 15740. |
| 8   | -2.5      | .0      | 304.4       | -16.68      | -685.        | -140.        | 142.         | -0.37       | 54.79 | 128.37  | 15720. |
| 9   | .0        | .0      | 366.0       | -5.60       | -689.        | -114.        | 143.         | -2.10       | 55.12 | 128.76  | 15720. |
| 10  | 2.5       | .0      | 422.2       | 7.45        | -757.        | -81.         | 126.         | -2.54       | 54.93 | 128.53  | 15730. |
| 11  | 5.0       | .0      | 428.1       | 34.23       | -843.        | -117.        | 180.         | -3.61       | 54.71 | 128.26  | 15690. |
| 12  | 10.0      | .0      | 472.2       | 81.32       | -980.        | -131.        | 212.         | -3.15       | 55.23 | 128.89  | 15700. |
| 13  | 15.0      | .0      | 519.0       | 143.74      | -1314.       | -86.         | 88.          | 1.18        | 54.96 | 128.57  | 15700. |
| 14  | 20.0      | .0      | 600.7       | 225.97      | -1542.       | -51.         | -18.         | -0.50       | 54.66 | 128.20  | 15700. |
| 15  | -5.0      | .0      | 228.2       | -24.21      | -633.        | -111.        | 64.          | 3.89        | 55.16 | 128.80  | 15730. |
| 16  | .0        | .0      | 360.6       | -5.15       | -648.        | -116.        | 94.          | -4.28       | 54.96 | 128.56  | 15700. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYN    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0535 | .2022  | -.1283 | -.0057 | .0049  | .0097  |
| 3    | .00    | 1.0019 | -.0184 | -.2313 | -.0071 | .0077  | -.0058 |
| 4    | -20.00 | -.7050 | .0210  | .0022  | -.0028 | .0087  | .0183  |
| 5    | -14.99 | -.2712 | -.0570 | -.1031 | -.0053 | .0021  | .0236  |
| 6    | -10.01 | .2049  | -.0886 | -.1932 | -.0006 | .0115  | .0038  |
| 8    | -2.51  | .8227  | -.0450 | -.2208 | -.0084 | .0086  | -.0010 |
| 9    | .01    | .9892  | -.0151 | -.2222 | -.0069 | .0087  | -.0057 |
| 10   | 2.54   | 1.1412 | .0201  | -.2440 | -.0049 | .0076  | -.0069 |
| 11   | 5.04   | 1.1570 | .0925  | -.2716 | -.0071 | .0109  | -.0098 |
| 12   | 10.00  | 1.2762 | .2198  | -.3160 | -.0079 | .0128  | -.0085 |
| 13   | 14.99  | 1.4026 | .3885  | -.4235 | -.0052 | .0053  | .0032  |
| 14   | 20.00  | 1.6234 | .6107  | -.4973 | -.0031 | -.0011 | -.0013 |
| 15   | -5.00  | .6168  | -.0654 | -.2041 | -.0067 | .0039  | .0105  |
| 16   | .00    | .9745  | -.0139 | -.2088 | -.0070 | .0057  | -.0116 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0535 | .2022  | -.1283 | -.0057 | .0049  | .0097  |
| 3    | .00    | 1.0019 | -.0184 | -.2313 | -.0071 | .0077  | -.0058 |
| 4    | -20.00 | -.7050 | .0210  | .0022  | -.0028 | .0087  | .0183  |
| 5    | -14.99 | -.2712 | -.0570 | -.1031 | -.0053 | .0021  | .0236  |
| 6    | -10.01 | .2049  | -.0886 | -.1932 | -.0006 | .0115  | .0038  |
| 8    | -2.51  | .8227  | -.0450 | -.2208 | -.0084 | .0086  | -.0010 |
| 9    | .01    | .9892  | -.0151 | -.2222 | -.0069 | .0087  | -.0057 |
| 10   | 2.54   | 1.1412 | .0201  | -.2440 | -.0049 | .0076  | -.0069 |
| 11   | 5.04   | 1.1570 | .0925  | -.2716 | -.0071 | .0109  | -.0098 |
| 12   | 10.00  | 1.2762 | .2198  | -.3160 | -.0079 | .0128  | -.0085 |
| 13   | 14.99  | 1.4026 | .3885  | -.4235 | -.0052 | .0053  | .0032  |
| 14   | 20.00  | 1.6234 | .6107  | -.4973 | -.0031 | -.0011 | -.0013 |
| 15   | -5.00  | .6168  | -.0654 | -.2041 | -.0067 | .0039  | .0105  |
| 16   | .00    | .9745  | -.0139 | -.2088 | -.0070 | .0057  | -.0116 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 90 P

RUN 937 CONFIG F P B NP5 W7 T60 BT IN=-3.5

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM   |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|
| 14      | 0         | 0       | 353.5       | 72.76       | 585.         | -113.        | 99.          | 4.17        | 55.58 | 129.31  | 3980. |
| 15      | -20.0     | 0       | -225.6      | 97.83       | 1321.        | -100.        | 83.          | 10.00       | 54.86 | 128.45  | 4030. |
| 16      | -15.0     | 0       | -102.3      | 70.56       | 1109.        | -75.         | 78.          | 4.57        | 55.20 | 128.85  | 3810. |
| 17      | -10.0     | 0       | 58.3        | 51.96       | 1077.        | -51.         | 77.          | 5.74        | 55.22 | 128.88  | 3790. |
| 18      | -5.0      | 0       | 218.0       | 54.65       | 846.         | -105.        | 81.          | 4.37        | 55.31 | 128.98  | 3880. |
| 19      | -2.5      | 0       | 287.7       | 61.41       | 711.         | -137.        | 99.          | 4.32        | 55.17 | 128.82  | 3940. |
| 20      | 0         | 0       | 356.5       | 73.01       | 573.         | -114.        | 120.         | 2.74        | 54.72 | 128.27  | 3980. |
| 21      | 2.5       | 0       | 384.9       | 90.25       | 328.         | -71.         | 175.         | 2.43        | 54.67 | 128.22  | 3980. |
| 22      | 5.0       | 0       | 388.3       | 109.13      | 181.         | -32.         | 55.          | 2.27        | 55.46 | 129.16  | 3960. |
| 23      | 10.0      | 0       | 432.7       | 164.71      | -229.        | -65.         | 510.         | 3.60        | 54.92 | 128.51  | 3910. |
| 24      | 15.0      | 0       | 450.7       | 215.36      | -601.        | -75.         | 34.          | 4.14        | 55.09 | 128.72  | 3870. |
| 25      | 20.0      | 0       | 532.0       | 284.59      | -1078.       | -81.         | 124.         | 2.54        | 54.94 | 128.53  | 3990. |
| 26      | -0        | 0       | 350.8       | 72.72       | 617.         | -104.        | 82.          | 4.71        | 54.95 | 128.54  | 3990. |
| 27      | -0        | 0       | 347.7       | 72.02       | 612.         | -103.        | 81.          | 4.67        | 55.43 | 129.12  | 4000. |
| 28      | -0        | 0       | 346.6       | 71.77       | 610.         | -103.        | 81.          | 4.66        | 55.61 | 129.33  | 4000. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD.   | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 14   | 00     | .9555  | .1966 | .1885  | -.0068 | .0060  | .0113 |
| 15   | -20.00 | -.6098 | .2644 | .4260  | -.0061 | .0050  | .0270 |
| 16   | -14.99 | -.2765 | .1907 | .3575  | -.0045 | .0047  | .0123 |
| 17   | -10.01 | .1576  | .1404 | .3472  | -.0031 | .0047  | .0155 |
| 18   | -5.01  | .5891  | .1477 | .2728  | -.0063 | .0049  | .0118 |
| 19   | -2.50  | .7776  | .1660 | .2292  | -.0083 | .0060  | .0117 |
| 20   | 00     | .9636  | .1973 | .1846  | -.0069 | .0073  | .0074 |
| 21   | 2.51   | 1.0403 | .2439 | .1058  | -.0043 | .0105  | .0066 |
| 22   | 5.00   | 1.0494 | .2949 | .0583  | -.0019 | -.0033 | .0061 |
| 23   | 10.01  | 1.1694 | .4451 | -.0737 | -.0039 | .0308  | .0097 |
| 24   | 15.00  | 1.2181 | .5820 | -.1939 | -.0045 | .0021  | .0112 |
| 25   | 20.00  | 1.4377 | .7692 | -.3475 | -.0049 | .0075  | .0069 |
| 26   | -01    | .9481  | .1965 | .1989  | -.0063 | .0050  | .0127 |
| 27   | -01    | .9398  | .1947 | .1972  | -.0062 | .0049  | .0126 |
| 28   | -01    | .9368  | .1940 | .1966  | -.0062 | .0049  | .0126 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 14   | 00     | .9555  | .1966 | .1885  | -.0068 | .0060  | .0113 |
| 15   | -20.00 | -.6098 | .2644 | .4260  | -.0061 | .0050  | .0270 |
| 16   | -14.99 | -.2765 | .1907 | .3575  | -.0045 | .0047  | .0123 |
| 17   | -10.01 | .1576  | .1404 | .3472  | -.0031 | .0047  | .0155 |
| 18   | -5.01  | .5891  | .1477 | .2728  | -.0063 | .0049  | .0118 |
| 19   | -2.50  | .7776  | .1660 | .2292  | -.0083 | .0060  | .0117 |
| 20   | 00     | .9636  | .1973 | .1846  | -.0069 | .0073  | .0074 |
| 21   | 2.51   | 1.0403 | .2439 | .1058  | -.0043 | .0105  | .0066 |
| 22   | 5.00   | 1.0494 | .2949 | .0583  | -.0019 | -.0033 | .0061 |
| 23   | 10.01  | 1.1694 | .4451 | -.0737 | -.0039 | .0308  | .0097 |
| 24   | 15.00  | 1.2181 | .5820 | -.1939 | -.0045 | .0021  | .0112 |
| 25   | 20.00  | 1.4377 | .7692 | -.3475 | -.0049 | .0075  | .0069 |
| 26   | -01    | .9481  | .1965 | .1989  | -.0063 | .0050  | .0127 |
| 27   | -01    | .9398  | .1947 | .1972  | -.0062 | .0049  | .0126 |
| 28   | -01    | .9368  | .1940 | .1966  | -.0062 | .0049  | .0126 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 909

RUN 938 CONFIG F P B NP5 W7 T60 BT IN=3.5

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA DELSB PSF | DELTA Q KNOTS | RPM    |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-----------------|---------------|--------|
| 2       | 0         | 0             | 358.8             | 74.10             | 595.               | -91.               | 83.                | 4.49              | 54.60           | 128.14        | 3980.  |
| 3       | 0         | 0             | 322.9             | -112.27           | 148.               | -181.              | 144.               | -3.08             | 55.35           | 129.04        | 23010. |
| 4       | -20.0     | 0             | -389.6            | -65.43            | 1620.              | -4.                | 167.               | 3.38              | 55.45           | 129.15        | 23030. |
| 5       | -15.0     | 0             | -196.4            | -110.87           | 953.               | -15.               | 118.               | 2.42              | 54.94           | 128.54        | 23050. |
| 6       | -10.0     | 0             | -7.7              | -128.47           | 780.               | 15.                | 223.               | 1.71              | 55.64           | 129.38        | 23060. |
| 7       | -5.0      | 0             | 165.1             | -128.54           | 391.               | -176.              | 156.               | 1.05              | 55.29           | 128.96        | 23090. |
| 8       | -2.5      | 0             | 243.4             | -122.98           | 281.               | -213.              | 159.               | -0.80             | 55.09           | 128.73        | 23020. |
| 9       | 0         | 0             | 317.5             | -112.99           | 96.                | -169.              | 178.               | -3.24             | 55.66           | 129.40        | 23050. |
| 10      | 2.6       | 0             | 387.3             | -101.35           | -118.              | -141.              | 177.               | -2.27             | 55.63           | 129.37        | 23050. |
| 11      | 5.0       | 0             | 422.0             | -79.39            | -423.              | -174.              | -175.              | -0.68             | 55.21           | 128.86        | 23010. |
| 12      | 10.0      | 0             | 467.8             | -30.15            | -582.              | -192.              | 213.               | -1.93             | 54.85           | 128.44        | 23020. |
| 13      | 15.0      | 0             | 546.9             | 38.00             | -875.              | -68.               | -159.              | 1.74              | 54.96           | 128.56        | 23040. |
| 14      | 20.0      | 0             | 644.9             | 113.24            | -1217.             | -63.               | 89.                | 4.60              | 54.81           | 128.38        | 23050. |
| 15      | 10.0      | 0             | 462.8             | -30.44            | -617.              | -205.              | 176.               | 0.06              | 54.90           | 128.49        | 23120. |
| 16      | 0         | 0             | 313.3             | -109.27           | 58.                | -193.              | 142.               | -1.35             | 55.36           | 129.04        | 22920. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .9699   | .2003  | .1918  | -.0055 | .0050  | .0121  |
| 3    | 0.00   | .8726   | -.3034 | .0476  | -.0109 | .0087  | -.0083 |
| 4    | -20.00 | -1.0530 | -.1768 | .5221  | -.0003 | .0101  | .0091  |
| 5    | -15.01 | -.5308  | -.2996 | .3073  | -.0009 | .0072  | .0065  |
| 6    | -10.00 | -.0207  | -.3472 | .2516  | .0009  | .0135  | .0046  |
| 7    | -4.97  | .4463   | -.3474 | .1261  | -.0106 | .0094  | .0028  |
| 8    | -2.51  | .6579   | -.3324 | .0905  | -.0129 | .0096  | -.0022 |
| 9    | 0.00   | .8582   | -.3054 | .0310  | -.0102 | .0108  | -.0088 |
| 10   | 2.55   | 1.0468  | -.2739 | -.0380 | -.0085 | .0107  | -.0061 |
| 11   | 5.01   | 1.1405  | -.2146 | -.1362 | -.0105 | -.0106 | -.0018 |
| 12   | 10.01  | 1.2644  | -.0815 | -.1878 | -.0116 | .0129  | -.0052 |
| 13   | 15.02  | 1.4781  | .1027  | -.2821 | -.0041 | -.0096 | .0047  |
| 14   | 20.00  | 1.7429  | .3060  | -.3924 | -.0038 | .0054  | .0124  |
| 15   | 10.00  | 1.2507  | -.0823 | -.1989 | -.0124 | .0107  | .0002  |
| 16   | 0.01   | .8468   | -.2953 | .0186  | -.0116 | .0086  | -.0037 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | .9699   | .2003  | .1918  | -.0055 | .0050  | .0121  |
| 3    | 0.00   | .8726   | -.3034 | .0476  | -.0109 | .0087  | -.0083 |
| 4    | -20.00 | -1.0530 | -.1768 | .5221  | -.0003 | .0101  | .0091  |
| 5    | -15.01 | -.5308  | -.2996 | .3073  | -.0009 | .0072  | .0065  |
| 6    | -10.00 | -.0207  | -.3472 | .2516  | .0009  | .0135  | .0046  |
| 7    | -4.97  | .4463   | -.3474 | .1261  | -.0106 | .0094  | .0028  |
| 8    | -2.51  | .6579   | -.3324 | .0905  | -.0129 | .0096  | -.0022 |
| 9    | 0.00   | .8582   | -.3054 | .0310  | -.0102 | .0108  | -.0088 |
| 10   | 2.55   | 1.0468  | -.2739 | -.0380 | -.0085 | .0107  | -.0061 |
| 11   | 5.01   | 1.1405  | -.2146 | -.1362 | -.0105 | -.0106 | -.0018 |
| 12   | 10.01  | 1.2644  | -.0815 | -.1878 | -.0116 | .0129  | -.0052 |
| 13   | 15.02  | 1.4781  | .1027  | -.2821 | -.0041 | -.0096 | .0047  |
| 14   | 20.00  | 1.7429  | .3060  | -.3924 | -.0038 | .0054  | .0124  |
| 15   | 10.00  | 1.2507  | -.0823 | -.1989 | -.0124 | .0107  | .0002  |
| 16   | 0.01   | .8468   | -.2953 | .0186  | -.0116 | .0086  | -.0037 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 910

RUN 939 CONFIG F P B NP5 W7 T60 BT IN=3.5

| PT. NO. | IW ALPHA DEG | 15 DELF PSI DEG | O DELA      |             | O IHT        | O DELE       |              | O DELR      | O DELSB |        | O V KNOTS | RPM |
|---------|--------------|-----------------|-------------|-------------|--------------|--------------|--------------|-------------|---------|--------|-----------|-----|
|         |              |                 | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF   |        |           |     |
| 2       | 0            | 0               | 350.5       | 73.50       | 534.         | -96.         | 101.         | 2.90        | 55.29   | 128.96 | 4000.     |     |
| 3       | 0            | 0               | 324.9       | -20.69      | 200.         | -840.        | 170.         | 3.81        | 55.44   | 129.14 | 23020.    |     |
| 4       | -20.0        | 0               | -312.4      | 19.21       | 1389.        | -358.        | 403.         | 9.64        | 54.79   | 128.35 | 23020.    |     |
| 5       | -15.0        | 0               | -158.8      | -18.35      | 879.         | -550.        | 306.         | 13.00       | 55.28   | 128.94 | 23020.    |     |
| 6       | -10.0        | 0               | 16.4        | -34.64      | 737.         | -563.        | 319.         | 6.81        | 55.52   | 129.23 | 23020.    |     |
| 7       | -5.0         | 0               | 179.3       | -35.08      | 493.         | -792.        | 236.         | 6.81        | 54.99   | 128.60 | 23040.    |     |
| 8       | -2.5         | 0               | 256.1       | -29.72      | 356.         | -831.        | 203.         | 6.27        | 54.84   | 128.42 | 23050.    |     |
| 9       | 0            | 0               | 320.5       | -20.15      | 191.         | -826.        | 152.         | 4.44        | 55.27   | 128.93 | 22940.    |     |
| 10      | 2.5          | 0               | 378.5       | -3.37       | -80.         | -813.        | 63.          | 6.57        | 54.95   | 128.54 | 22990.    |     |
| 11      | 5.0          | 0               | 402.3       | 12.52       | -216.        | -815.        | -321.        | 6.16        | 55.28   | 128.93 | 23000.    |     |
| 12      | 10.0         | 0               | 458.1       | 64.86       | -403.        | -814.        | 299.         | 4.24        | 54.60   | 128.12 | 23000.    |     |
| 13      | 15.0         | 0               | 485.4       | 124.55      | -792.        | -519.        | -407.        | 11.63       | 55.04   | 128.65 | 23010.    |     |
| 14      | 20.0         | 0               | 581.5       | 200.10      | -1240.       | -281.        | -589.        | 8.49        | 54.15   | 127.59 | 23020.    |     |
| 15      | -0           | 0               | 327.3       | -18.52      | 209.         | -830.        | 152.         | 5.98        | 54.73   | 128.29 | 23000.    |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPH    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 00     | .9472  | .1986  | .1723  | -.0058 | .0061  | .0078 |
| 3    | 00     | .8782  | -.0559 | .0645  | -.0507 | .0103  | .0103 |
| 4    | -20.00 | -.8442 | .0519  | .4477  | -.0216 | .0243  | .0260 |
| 5    | -14.99 | -.4291 | -.0496 | .2835  | -.0332 | .0185  | .0351 |
| 6    | -10.01 | .0444  | -.0936 | .2375  | -.0340 | .0193  | .0184 |
| 7    | -5.00  | .4845  | -.0948 | .1591  | -.0479 | .0143  | .0184 |
| 8    | -2.51  | .6920  | -.0803 | .1146  | -.0502 | .0123  | .0170 |
| 9    | .01    | .8662  | -.0545 | .0617  | -.0499 | .0092  | .0120 |
| 10   | 2.50   | 1.0230 | -.0091 | -.0258 | -.0491 | .0038  | .0178 |
| 11   | 4.99   | 1.0874 | .0338  | -.0695 | -.0492 | -.0194 | .0167 |
| 12   | 10.02  | 1.2382 | .1753  | -.1300 | -.0492 | .0181  | .0115 |
| 13   | 15.00  | 1.3118 | .3366  | -.2554 | -.0314 | -.0246 | .0314 |
| 14   | 19.99  | 1.5717 | .5408  | -.3996 | -.0170 | -.0356 | .0230 |
| 15   | -.01   | .8846  | -.0501 | .0673  | -.0501 | .0092  | .0161 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPHB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 00     | .9472  | .1986  | .1723  | -.0058 | .0061  | .0078 |
| 3    | 00     | .8782  | -.0559 | .0645  | -.0507 | .0103  | .0103 |
| 4    | -20.00 | -.8442 | .0519  | .4477  | -.0216 | .0243  | .0260 |
| 5    | -14.99 | -.4291 | -.0496 | .2835  | -.0332 | .0185  | .0351 |
| 6    | -10.01 | .0444  | -.0936 | .2375  | -.0340 | .0193  | .0184 |
| 7    | -5.00  | .4845  | -.0948 | .1591  | -.0479 | .0143  | .0184 |
| 8    | -2.51  | .6920  | -.0803 | .1146  | -.0502 | .0123  | .0170 |
| 9    | .01    | .8662  | -.0545 | .0617  | -.0499 | .0092  | .0120 |
| 10   | 2.50   | 1.0230 | -.0091 | -.0258 | -.0491 | .0038  | .0178 |
| 11   | 4.99   | 1.0874 | .0338  | -.0695 | -.0492 | -.0194 | .0167 |
| 12   | 10.02  | 1.2382 | .1753  | -.1300 | -.0492 | .0181  | .0115 |
| 13   | 15.00  | 1.3118 | .3366  | -.2554 | -.0314 | -.0246 | .0314 |
| 14   | 19.99  | 1.5717 | .5408  | -.3996 | -.0170 | -.0356 | .0230 |
| 15   | -.01   | .8846  | -.0501 | .0673  | -.0501 | .0092  | .0161 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 911

RUN 940 CONFIG F P B NPS W7 T60 BT IN=-3.5

| PT. NO. | ALPHA DEG | 15 DELF PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CPMBAR CU-FT | DELE CYMBAR CU-FT | DELR CRMBAR CU-FT | DELSB CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|-----------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------|---------|--------|
| 7       | .0        | .0              | 354.2             | 73.85             | 539.             | -87.              | 122.              | 1.05              | 55.06 | 128.69  | 3980.  |
| 8       | .0        | .0              | 326.3             | -5.47             | 297.             | -128.             | 106.              | -1.05             | 55.38 | 129.07  | 15580. |
| 9       | .0        | -20.1           | 325.1             | 33.32             | -218.            | 1879.             | -257.             | -185.73           | 55.33 | 129.01  | 15550. |
| 10      | .0        | -15.7           | 331.6             | 16.75             | -16.             | 1405.             | -63.              | -138.60           | 55.52 | 129.23  | 15540. |
| 11      | .0        | -10.0           | 327.8             | 2.90              | 78.              | 406.              | -138.             | -71.48            | 55.33 | 129.00  | 15570. |
| 12      | .0        | -5.0            | 329.0             | -1.92             | 97.              | 71.               | 2.                | -35.27            | 54.96 | 128.56  | 15570. |
| 13      | .0        | -2.5            | 330.4             | -3.42             | 145.             | -51.              | 69.               | -16.95            | 54.45 | 127.96  | 15600. |
| 14      | .0        | .1              | 326.0             | -3.00             | 186.             | -199.             | 106.              | -.06              | 55.56 | 129.28  | 15560. |
| 15      | .0        | 2.5             | 325.2             | -4.02             | 284.             | -236.             | 111.              | 16.09             | 55.24 | 128.90  | 15580. |
| 16      | .0        | 5.1             | 322.8             | -4.39             | 294.             | -324.             | 139.              | 33.88             | 55.19 | 128.84  | 15570. |
| 17      | .0        | 10.0            | 323.9             | -2.22             | 274.             | -697.             | 133.              | 76.00             | 55.54 | 129.25  | 15480. |
| 18      | .0        | 15.0            | 309.7             | 11.34             | 77.              | -1370.            | 369.              | 125.37            | 55.89 | 129.67  | 15510. |
| 19      | .0        | 20.0            | 299.7             | 29.33             | -112.            | -1802.            | 496.              | 177.50            | 55.12 | 128.75  | 15510. |
| 20      | .0        | .0              | 330.4             | -3.12             | 319.             | -135.             | 125.              | -.74              | 54.89 | 128.48  | 15530. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 7    | .00    | .9573 | .1996  | .1738  | -.0053 | .0074  | .0028  |
| 8    | .00    | .8818 | -.0148 | .0958  | -.0077 | .0064  | -.0028 |
| 9    | -20.10 | .8787 | .0901  | -.0704 | .1135  | -.0155 | -.5020 |
| 10   | -15.70 | .8961 | .0453  | -.0053 | .0849  | -.0038 | -.3746 |
| 11   | -10.00 | .8858 | .0078  | .0252  | .0245  | -.0083 | -.1932 |
| 12   | -5.00  | .8893 | -.0052 | .0312  | .0043  | .0001  | -.0953 |
| 13   | -2.50  | .8929 | -.0092 | .0468  | -.0031 | .0042  | -.0458 |
| 14   | .10    | .8810 | -.0081 | .0600  | -.0120 | .0064  | -.0002 |
| 15   | 2.50   | .8790 | -.0109 | .0915  | -.0143 | .0067  | .0435  |
| 16   | 5.10   | .8724 | -.0119 | .0948  | -.0196 | .0084  | .0916  |
| 17   | 10.00  | .8755 | -.0060 | .0883  | -.0421 | .0081  | .2054  |
| 18   | 15.00  | .8371 | .0307  | .0250  | -.0828 | .0223  | .3388  |
| 19   | 20.00  | .8100 | .0793  | -.0361 | -.1088 | .0300  | .4797  |
| 20   | .00    | .8930 | -.0084 | .1029  | -.0082 | .0075  | -.0020 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 7    | .00    | .9573 | .1996  | .1738  | -.0053 | .0074  | .0028  |
| 8    | .00    | .8818 | -.0148 | .0958  | -.0077 | .0064  | -.0028 |
| 9    | -20.10 | .8787 | -.0887 | -.0375 | .1135  | -.0100 | -.5022 |
| 10   | -15.70 | .8961 | -.0583 | .0005  | .0849  | -.0034 | -.3728 |
| 11   | -10.00 | .8858 | -.0260 | .0325  | .0245  | -.0090 | -.1916 |
| 12   | -5.00  | .8893 | -.0135 | .0311  | .0043  | -.0004 | -.0945 |
| 13   | -2.50  | .8929 | -.0112 | .0458  | -.0031 | .0038  | -.0454 |
| 14   | .10    | .8810 | -.0081 | .0601  | -.0120 | .0064  | -.0002 |
| 15   | 2.50   | .8790 | -.0128 | .0930  | -.0143 | .0075  | .0430  |
| 16   | 5.10   | .8724 | -.0200 | .0984  | -.0196 | .0099  | .0901  |
| 17   | 10.00  | .8755 | -.0417 | .0944  | -.0421 | .0108  | .2012  |
| 18   | 15.00  | .8371 | -.0585 | .0551  | -.0828 | .0228  | .3351  |
| 19   | 20.00  | .8100 | -.0903 | .0210  | -.1088 | .0258  | .4778  |
| 20   | .00    | .8930 | -.0084 | .1029  | -.0082 | .0075  | -.0020 |

RUN 942 CONFIG F P J NPS W7 TGO BT IN=-3.5

| PT. NO. | IN | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEC | 0 IHT<br>CLBAR<br>SL-FT | 0 IHT<br>CDBAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 CELR<br>CYMBAR<br>CU-FT | 0 CELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>G<br>PSF | 0<br>V<br>KNOTS | RPM    |
|---------|----|-------------------------|-----------------------|-------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|
| 2       |    | .0                      | .0                    | 521.2                   | -6.22                   | 460.                      | -126.                     | 339.                      | -17.9E                    | 55.21         | 128.87          | 19940. |
| 3       |    | .0                      | -15.0                 | 476.1                   | 10.17                   | 507.                      | 1826.                     | -460.                     | -140.04                   | 54.95         | 128.56          | 19950. |
| 4       |    | .0                      | -10.0                 | 408.2                   | -3.93                   | 679.                      | 316.                      | -377.                     | -71.63                    | 54.63         | 128.42          | 19950. |
| 5       |    | .0                      | -5.0                  | 470.7                   | -4.61                   | 284.                      | 124.                      | -390.                     | -23.23                    | 55.04         | 128.67          | 19980. |
| 6       |    | .0                      | -2.5                  | 478.6                   | -3.39                   | 260.                      | -46.                      | -262.                     | -1.49                     | 54.90         | 128.60          | 19900. |
| 7       |    | .0                      | .0                    | 478.1                   | -5.11                   | 165.                      | -199.                     | -142.                     | 13.46                     | 54.40         | 127.91          | 19970. |
| 8       |    | .0                      | 2.5                   | 464.8                   | -5.65                   | 101.                      | -285.                     | -97.                      | 24.65                     | 55.42         | 129.12          | 19920. |
| 9       |    | .0                      | 5.0                   | 469.1                   | -3.38                   | 561.                      | -484.                     | 586.                      | 17.22                     | 54.61         | 128.15          | 19950. |
| 10      |    | .0                      | 10.0                  | 418.7                   | -.16                    | 527.                      | -1053.                    | 645.                      | 69.91                     | 55.45         | 129.15          | 19900. |
| 11      |    | .0                      | 15.0                  | 444.5                   | 9.35                    | 477.                      | -1939.                    | 738.                      | 136.50                    | 54.93         | 128.53          | 19970. |
| 12      |    | .0                      | 19.8                  | 422.6                   | 27.87                   | 118.                      | -2329.                    | 1009.                     | 181.11                    | 55.03         | 128.65          | 20020. |
| 13      |    | .0                      | .0                    | 473.7                   | -1.19                   | 179.                      | -188.                     | -284.                     | 15.97                     | 55.02         | 128.64          | 19920. |
| 14      |    | .0                      | 2.5                   | 464.9                   | -.91                    | 525.                      | -286.                     | 598.                      | -3.98                     | 55.69         | 129.43          | 19930. |
| 15      |    | .0                      | 5.0                   | 475.2                   | -1.07                   | 593.                      | -493.                     | 599.                      | 15.37                     | 55.61         | 129.34          | 19930. |
| 16      |    | .0                      | 7.5                   | 471.1                   | -.39                    | 618.                      | -741.                     | 607.                      | 42.03                     | 55.84         | 129.61          | 19910. |
| 17      |    | .0                      | 10.0                  | 463.0                   | 1.50                    | 575.                      | -1073.                    | 739.                      | 71.39                     | 56.07         | 129.88          | 19930. |
| 18      |    | .0                      | .0                    | 464.7                   | .02                     | 450.                      | -57.                      | 590.                      | -22.80                    | 55.28         | 128.95          | 19910. |
| 19      |    | .0                      | .0                    | 415.1                   | -.77                    | 175.                      | -211.                     | -172.                     | 11.65                     | 55.57         | 129.29          | 19940. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM   | CYM    | CRM    | CY     |
|------|--------|--------|--------|-------|--------|--------|--------|
| 2    | .00    | 1.4086 | -.0187 | .1482 | -.0076 | .0205  | -.0485 |
| 3    | -15.00 | 1.2866 | .0275  | .1636 | .1103  | -.0278 | -.3785 |
| 4    | -10.00 | 1.3195 | -.0106 | .2188 | .0493  | -.0226 | -.1936 |
| 5    | -5.00  | 1.2723 | -.0125 | .0914 | .0075  | -.0236 | -.0644 |
| 6    | -2.50  | 1.2934 | -.0092 | .0838 | -.0028 | -.0153 | -.0040 |
| 7    | .00    | 1.2922 | -.0138 | .0533 | -.0120 | -.0086 | .0364  |
| 8    | 2.50   | 1.2562 | -.0153 | .0325 | -.0172 | -.0058 | .0666  |
| 9    | 5.00   | 1.3219 | -.0091 | .1807 | -.0292 | .0355  | .0465  |
| 10   | 10.00  | 1.2666 | -.0002 | .1699 | -.0636 | .0390  | .1889  |
| 11   | 15.00  | 1.2014 | .0253  | .1539 | -.1171 | .0446  | .3689  |
| 12   | 19.80  | 1.1420 | .0753  | .0381 | -.1407 | .0605  | .4895  |
| 13   | .00    | 1.2802 | -.0032 | .0576 | -.0114 | -.0172 | .0432  |
| 14   | 2.50   | 1.3104 | -.0025 | .1693 | -.0173 | .0361  | -.0107 |
| 15   | 5.00   | 1.2842 | -.0029 | .1911 | -.0296 | .0362  | .0416  |
| 16   | 7.50   | 1.2734 | -.0010 | .1992 | -.0447 | .0367  | .1136  |
| 17   | 10.00  | 1.2514 | .0042  | .1855 | -.0648 | .0447  | .1929  |
| 18   | .00    | 1.3370 | .0022  | .1452 | -.0034 | .0356  | -.0616 |
| 19   | .00    | 1.2570 | -.0021 | .0565 | -.0128 | -.0104 | .0315  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | COB    | CPMB  | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|-------|--------|--------|--------|
| 2    | .00    | 1.4086 | -.0187 | .1482 | -.0076 | .0205  | -.0485 |
| 3    | -15.00 | 1.2868 | -.0719 | .1965 | .1103  | -.0349 | -.3726 |
| 4    | -10.00 | 1.3195 | -.0442 | .2360 | .0493  | -.0296 | -.1888 |
| 5    | -5.00  | 1.2723 | -.0181 | .1021 | .0075  | -.0250 | -.0631 |
| 6    | -2.50  | 1.2934 | -.0093 | .0874 | -.0028 | -.0165 | -.0036 |
| 7    | .00    | 1.2922 | -.0138 | .0533 | -.0120 | -.0086 | .0364  |
| 8    | 2.50   | 1.2562 | -.0182 | .0311 | -.0172 | -.0056 | .0659  |
| 9    | 5.00   | 1.3219 | -.0132 | .1967 | -.0292 | .0384  | .0456  |
| 10   | 10.00  | 1.2666 | -.0331 | .2036 | -.0636 | .0439  | .1860  |

|    |       |        |        |       |        |        |        |
|----|-------|--------|--------|-------|--------|--------|--------|
| 11 | 15.00 | 1.2014 | -.0715 | .2105 | -.1171 | .0505  | .3628  |
| 12 | 19.80 | 1.1420 | -.0957 | .1464 | -.1407 | .0597  | .4859  |
| 13 | .00   | 1.2802 | -.0032 | .0576 | -.0114 | -.0172 | .0432  |
| 14 | 2.50  | 1.3104 | -.0020 | .1775 | -.0173 | .0374  | -.0108 |
| 15 | 5.00  | 1.2842 | -.0065 | .2073 | -.0298 | .0392  | .0411  |
| 16 | 7.50  | 1.2734 | -.0159 | .2231 | -.0447 | .0413  | .1125  |
| 17 | 10.00 | 1.2514 | -.0295 | .2242 | -.0648 | .0501  | .1907  |
| 18 | .00   | 1.3370 | .0022  | .1452 | -.0034 | .0356  | -.0616 |
| 19 | .00   | 1.2570 | -.0021 | .0565 | -.0128 | -.0104 | .0315  |

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N432409-1

SIKORSKY R5RA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 913

RUN 943 CONFIG F P 3 NPS W7 T60 BT

IN=-3.5

| PT. NO. | ALPHA DEG | 15 DELF |        | 30 DELA |         | 0 IHT  |        | 0 DELE  |       | 0 DELR |        | 0 DELSB |  | RPM |
|---------|-----------|---------|--------|---------|---------|--------|--------|---------|-------|--------|--------|---------|--|-----|
|         |           | PSI     | CL BAR | CD BAR  | CPM BAR | CYMBAR | CRMBAR | CYBAR   | Q     | V      |        |         |  |     |
| 2       | 10.0      | .0      | 501.2  | 225.18  | -322.   | -244.  | 143.   | -5.29   | 55.39 | 129.08 | 4050.  |         |  |     |
| 3       | 10.0      | .0      | 533.0  | 87.29   | -450.   | -211.  | 401.   | 4.51    | 55.19 | 128.84 | 19970. |         |  |     |
| 4       | 10.0      | -20.0   | 526.9  | 119.47  | -1236.  | 286.   | -906.  | -133.45 | 55.11 | 128.74 | 20000. |         |  |     |
| 5       | 10.0      | -15.1   | 517.1  | 100.40  | -1096.  | 887.   | -757.  | -112.60 | 54.54 | 128.07 | 20060. |         |  |     |
| 6       | 10.0      | -10.0   | 507.1  | 85.80   | -639.   | 370.   | -326.  | -72.59  | 55.19 | 128.83 | 19970. |         |  |     |
| 7       | 10.0      | -5.0    | 508.2  | 86.80   | -530.   | 26.    | -90.   | -37.22  | 55.37 | 129.05 | 19970. |         |  |     |
| 8       | 10.0      | -2.5    | 516.8  | 84.70   | -557.   | -77.   | 111.   | -17.04  | 55.19 | 130.02 | 19990. |         |  |     |
| 9       | 10.0      | .0      | 524.2  | 86.87   | -455.   | -184.  | 384.   | .49     | 55.63 | 129.24 | 20000. |         |  |     |
| 10      | 10.0      | 2.5     | 502.4  | 85.72   | -593.   | -287.  | 315.   | 16.79   | 55.40 | 129.09 | 20020. |         |  |     |
| 11      | 10.0      | 5.0     | 510.0  | 87.53   | -676.   | -376.  | 593.   | 34.69   | 55.58 | 129.29 | 20010. |         |  |     |
| 12      | 10.0      | 10.0    | 507.3  | 92.24   | -720.   | -609.  | 607.   | 68.32   | 55.79 | 129.54 | 19930. |         |  |     |
| 13      | 10.0      | 15.0    | 510.6  | 100.63  | -913.   | -1201. | 1029.  | 99.22   | 55.45 | 129.14 | 19970. |         |  |     |
| 14      | 10.0      | 20.0    | 507.4  | 116.24  | -1042.  | -1233. | 1325.  | 126.30  | 56.02 | 129.61 | 19910. |         |  |     |
| 15      | 10.0      | .0      | 510.0  | 85.63   | -486.   | -133.  | 242.   | 3.62    | 55.48 | 129.18 | 19910. |         |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.3546 | .6086 | -.1037 | -.0147 | .0086  | -.0143 |
| 3    | .00    | 1.4405 | .2359 | -.1450 | -.0127 | .0242  | .0122  |
| 4    | -20.00 | 1.4240 | .3229 | -.3983 | .0595  | -.0547 | -.3607 |
| 5    | -15.10 | 1.3976 | .2713 | -.3535 | .0536  | -.0457 | -.3043 |
| 6    | -10.00 | 1.3705 | .2400 | -.2059 | .0223  | -.0197 | -.1962 |
| 7    | -5.00  | 1.3734 | .2346 | -.1709 | .0016  | -.0054 | -.1006 |
| 8    | -2.50  | 1.3966 | .2289 | -.1796 | -.0046 | .0067  | -.0460 |
| 9    | .00    | 1.4167 | .2348 | -.1466 | -.0111 | .0232  | .0013  |
| 10   | 2.50   | 1.3578 | .2317 | -.1911 | -.0173 | .0190  | .0454  |
| 11   | 5.00   | 1.3784 | .2366 | -.2180 | -.0227 | .0356  | .0938  |
| 12   | 10.00  | 1.3712 | .2493 | -.2322 | -.0368 | .0367  | .1847  |
| 13   | 15.00  | 1.3799 | .2720 | -.2942 | -.0726 | .0621  | .2682  |
| 14   | 20.00  | 1.3713 | .3141 | -.3360 | -.0745 | .0800  | .3414  |
| 15   | .00    | 1.3783 | .2314 | -.1568 | -.0080 | .0146  | .0098  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.3546 | .6086 | -.1037 | -.0147 | .0086  | -.0143 |
| 3    | .00    | 1.4405 | .2359 | -.1450 | -.0127 | .0242  | .0122  |
| 4    | -20.00 | 1.4240 | .1793 | -.2738 | .0595  | -.0257 | -.4496 |
| 5    | -15.10 | 1.3976 | .1823 | -.2773 | .0536  | -.0268 | -.3647 |
| 6    | -10.00 | 1.3705 | .2021 | -.1844 | .0223  | -.0126 | -.2350 |
| 7    | -5.00  | 1.3734 | .2249 | -.1677 | .0016  | -.0026 | -.1208 |
| 8    | -2.50  | 1.3966 | .2267 | -.1810 | -.0046 | .0082  | -.0560 |
| 9    | .00    | 1.4167 | .2348 | -.1466 | -.0111 | .0232  | .0013  |
| 10   | 2.50   | 1.3578 | .2295 | -.1865 | -.0173 | .0174  | .0555  |
| 11   | 5.00   | 1.3784 | .2274 | -.2004 | -.0227 | .0321  | .1141  |
| 12   | 10.00  | 1.3712 | .2133 | -.1945 | -.0368 | .0285  | .2253  |
| 13   | 15.00  | 1.3799 | .1929 | -.1979 | -.0726 | .0457  | .3296  |
| 14   | 20.00  | 1.3713 | .1778 | -.1688 | -.0745 | .0535  | .4265  |
| 15   | .00    | 1.3783 | .2314 | -.1568 | -.0080 | .0146  | .0098  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 914

RUN 944 CONFIG F P S NP5 W7 T60 BT IN=-3.5

| PT. NO. | ALPHA DEG | PSI DEG | CL BAR | CD BAR | CPM BAR | CYM BAR | CRM BAR | CYB BAR | PSF   | V KNOTS | RPM    |
|---------|-----------|---------|--------|--------|---------|---------|---------|---------|-------|---------|--------|
| 2       | -10.0     | .0      | 296.7  | 101.83 | 376.    | -112.   | 81.     | 2.93    | 55.79 | 129.55  | 3990.  |
| 3       | -10.0     | .0      | 221.9  | -35.30 | 1121.   | -58.    | 210.    | -.55    | 55.56 | 129.28  | 19950. |
| 4       | -10.0     | -10.0   | 219.6  | -26.39 | 709.    | 979.    | 96.     | -113.77 | 55.15 | 128.79  | 19990. |
| 5       | -10.0     | -5.0    | 219.1  | -32.98 | 982.    | 32.     | 17.     | -37.90  | 55.64 | 129.36  | 20010. |
| 6       | -10.0     | -2.5    | 221.9  | -34.20 | 994.    | 130.    | 139.    | -24.24  | 55.34 | 129.73  | 20020. |
| 7       | -10.0     | .0      | 219.6  | -34.97 | 987.    | -100.   | 154.    | 4.55    | 56.12 | 129.93  | 20030. |
| 8       | -10.0     | 2.5     | 217.8  | -34.53 | 950.    | -298.   | 55.     | 29.57   | 55.76 | 129.51  | 20000. |
| 9       | -10.0     | 5.0     | 216.2  | -32.47 | 891.    | -533.   | 136.    | 55.73   | 55.86 | 129.63  | 20000. |
| 10      | -10.0     | 10.0    | 205.8  | -28.05 | 617.    | -974.   | 173.    | 107.84  | 55.91 | 129.68  | 19940. |
| 11      | -10.0     | 15.0    | 185.1  | -15.16 | 346.    | -1492.  | 243.    | 163.90  | 56.03 | 129.83  | 19940. |
| 12      | -10.0     | 20.1    | 161.2  | 8.60   | -79.    | -2031.  | 491.    | 211.56  | 55.14 | 128.77  | 19960. |
| 13      | -10.0     | -14.6   | 212.9  | -12.50 | 400.    | 1655.   | -58.    | -167.23 | 55.71 | 129.45  | 19970. |
| 14      | -10.0     | -5.0    | 219.0  | -31.29 | 1011.   | 403.    | 201.    | -52.42  | 55.43 | 129.12  | 19960. |
| 15      | -10.0     | .0      | 222.6  | -34.25 | 1003.   | -90.    | 224.    | 1.97    | 55.28 | 128.93  | 19980. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .8020 | .2752  | .1213  | -.0068 | .0049  | .0079  |
| 3    | .00    | .5998 | -.0954 | .3613  | -.0035 | .0127  | -.0015 |
| 4    | -10.00 | .5936 | -.0713 | .2286  | .0591  | .0059  | -.3075 |
| 5    | -5.00  | .5921 | -.0891 | .3166  | .0019  | .0010  | -.1024 |
| 6    | -2.50  | .5998 | -.0924 | .3205  | .0079  | .0120  | -.0655 |
| 7    | .00    | .5935 | -.0945 | .3182  | -.0060 | .0099  | .0123  |
| 8    | 2.50   | .5667 | -.0933 | .3064  | -.0180 | .0033  | .0799  |
| 9    | 5.00   | .5843 | -.0878 | .2872  | -.0322 | .0082  | .1506  |
| 10   | 10.00  | .5563 | -.0758 | .1991  | -.0588 | .0104  | .2915  |
| 11   | 15.00  | .5004 | -.0410 | .1123  | -.0901 | .0147  | .4430  |
| 12   | 20.10  | .4357 | .0232  | -.0255 | -.1227 | .0297  | .5729  |
| 13   | -14.60 | .5754 | -.0338 | .1291  | .0999  | -.0034 | -.4520 |
| 14   | -5.00  | .5919 | -.0846 | .3258  | .0244  | .0121  | -.1417 |
| 15   | .00    | .6014 | -.0926 | .3234  | -.0055 | .0135  | .0053  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CL    | CD     | CPM   | CYM    | CRM    | CY     |
|------|--------|-------|--------|-------|--------|--------|--------|
| 2    | .00    | .8020 | .2752  | .1213 | -.0068 | .0049  | .0079  |
| 3    | .00    | .5998 | -.0954 | .3613 | -.0035 | .0127  | -.0015 |
| 4    | -10.00 | .5936 | -.1239 | .2196 | .0591  | -.0017 | -.2903 |
| 5    | -5.00  | .5921 | -.0978 | .3149 | .0019  | -.0042 | -.0942 |
| 6    | -2.50  | .5998 | -.0952 | .3174 | .0079  | .0094  | -.0614 |
| 7    | .00    | .5935 | -.0945 | .3182 | -.0060 | .0099  | .0123  |
| 8    | 2.50   | .5887 | -.0967 | .3069 | -.0180 | .0052  | .0757  |
| 9    | 5.00   | .5843 | -.1006 | .2899 | -.0322 | .0129  | .1424  |
| 10   | 10.00  | .5563 | -.1255 | .2057 | -.0598 | .0168  | .2738  |
| 11   | 15.00  | .5004 | -.1547 | .1288 | -.0901 | .0196  | .4171  |
| 12   | 20.10  | .4357 | -.1759 | .0307 | -.1227 | .0262  | .5457  |
| 13   | -14.60 | .5754 | -.1471 | .1295 | .0999  | -.0094 | -.4287 |
| 14   | -5.00  | .5919 | -.0966 | .3189 | .0244  | .0067  | -.1337 |
| 15   | .00    | .6014 | -.0926 | .3234 | -.0055 | .0135  | .0053  |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 9/15

RUN 945 CONF16 F P E NPE W7 T6U BT IN=-3.5

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CSBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|-------------|-------|---------|--------|
| 2       | .0        | .0      | 50.3        | 132.10      | 836.          | -132.       | 118.          | 4.27        | 54.99 | 128.60  | 4280.  |
| 3       | .0        | .0      | 525.5       | -57.22      | 267.          | -34.        | 244.          | -14.75      | 55.90 | 129.68  | 22990. |
| 4       | -20.0     | .0      | -118.1      | -50.41      | 1279.         | -65.        | 110.          | 4.86        | 56.03 | 129.83  | 23080. |
| 5       | -15.0     | .0      | 7.4         | -80.30      | 1137.         | -37.        | 202.          | 2.99        | 55.65 | 129.62  | 23080. |
| 6       | -10.0     | .0      | 217.5       | -83.17      | 976.          | -56.        | 261.          | -.91        | 55.96 | 129.75  | 22710. |
| 7       | -10.0     | .0      | 218.9       | -83.43      | 1025.         | -43.        | 267.          | .50         | 55.05 | 128.67  | 22980. |
| 8       | -5.0      | .0      | 340.3       | -72.95      | 437.          | -105.       | 201.          | -6.40       | 55.84 | 129.61  | 23000. |
| 9       | -2.5      | .0      | 455.1       | -65.62      | 306.          | -143.       | 187.          | -9.18       | 55.63 | 129.36  | 23000. |
| 10      | -.0       | .0      | 522.4       | -57.01      | 251.          | -104.       | 225.          | -13.63      | 55.23 | 126.86  | 23020. |
| 11      | 2.5       | .0      | 517.7       | -40.14      | -119.         | -80.        | 498.          | -12.70      | 55.05 | 129.85  | 23030. |
| 12      | 5.0       | .0      | 538.4       | -16.67      | -580.         | -208.       | 63.           | -11.21      | 55.60 | 129.31  | 23050. |
| 13      | 10.0      | .0      | 503.1       | 30.60       | -598.         | -114.       | 34.           | .79         | 55.98 | 129.77  | 23020. |
| 14      | 15.0      | .0      | 602.1       | 107.42      | -922.         | -130.       | 140.          | -1.04       | 55.52 | 129.21  | 23020. |
| 15      | 20.0      | .0      | 674.4       | 103.38      | -1336.        | -35.        | 96.           | .74         | 55.43 | 129.10  | 23040. |
| 16      | -.0       | .0      | 513.5       | -54.96      | 292.          | -115.       | 226.          | -14.10      | 55.80 | 129.55  | 23030. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.5684 | .3570  | .2696  | -.0080 | .0071 | .0116  |
| 3    | .00    | 1.4203 | -.1546 | .0926  | -.0057 | .0147 | -.0399 |
| 4    | -20.02 | -.5353 | -.1362 | .4123  | -.0039 | .0066 | .0131  |
| 5    | -15.01 | .0201  | -.2170 | .3664  | -.0023 | .0122 | .0081  |
| 6    | -10.00 | .5608  | -.2248 | .3148  | -.0034 | .0152 | -.0025 |
| 7    | -10.00 | .5646  | -.2255 | .3308  | -.0026 | .0159 | .0013  |
| 8    | -5.01  | 1.0279 | -.1572 | .1407  | -.0063 | .0121 | -.0173 |
| 9    | -2.48  | 1.2299 | -.1774 | .0987  | -.0086 | .0113 | -.0248 |
| 10   | -.01   | 1.4119 | -.1541 | .0809  | -.0063 | .0138 | -.0368 |
| 11   | 2.51   | 1.3992 | -.1685 | -.0383 | -.0048 | .0301 | -.0343 |
| 12   | 5.00   | 1.4550 | -.0451 | -.1869 | -.0126 | .0038 | -.0303 |
| 13   | 10.01  | 1.3597 | .0827  | -.1928 | -.0069 | .0021 | .0021  |
| 14   | 15.02  | 1.6272 | .2903  | -.2972 | -.0082 | .0084 | -.0029 |
| 15   | 20.01  | 1.8226 | .4956  | -.4314 | -.0021 | .0053 | .0020  |
| 16   | -.00   | 1.3879 | -.1486 | .0941  | -.0070 | .0137 | -.0381 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CSB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.5684 | .3570  | .2696  | -.0080 | .0071 | .0116  |
| 3    | .00    | 1.4203 | -.1546 | .0926  | -.0057 | .0147 | -.0399 |
| 4    | -20.02 | -.5353 | -.1362 | .4123  | -.0039 | .0066 | .0131  |
| 5    | -15.01 | .0201  | -.2170 | .3664  | -.0023 | .0122 | .0081  |
| 6    | -10.00 | .5608  | -.2248 | .3148  | -.0034 | .0152 | -.0025 |
| 7    | -10.00 | .5646  | -.2255 | .3308  | -.0026 | .0159 | .0013  |
| 8    | -5.01  | 1.0279 | -.1572 | .1407  | -.0063 | .0121 | -.0173 |
| 9    | -2.48  | 1.2299 | -.1774 | .0987  | -.0086 | .0113 | -.0248 |
| 10   | -.01   | 1.4119 | -.1541 | .0809  | -.0063 | .0138 | -.0368 |
| 11   | 2.51   | 1.3992 | -.1685 | -.0383 | -.0048 | .0301 | -.0343 |
| 12   | 5.00   | 1.4550 | -.0451 | -.1869 | -.0126 | .0038 | -.0303 |
| 13   | 10.01  | 1.3597 | .0827  | -.1928 | -.0069 | .0021 | .0021  |
| 14   | 15.02  | 1.6272 | .2903  | -.2972 | -.0082 | .0084 | -.0029 |
| 15   | 20.01  | 1.8226 | .4956  | -.4314 | -.0021 | .0053 | .0020  |
| 16   | -.00   | 1.3879 | -.1486 | .0941  | -.0070 | .0137 | -.0381 |

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N472009-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 916

RUN 547 CONFIG F F 1 NPS W7 TEG BT IN=-3.5

| PT. NO. | IN ALPHA DEG | IS DELF PSI DEG | SL DELA CLBAR SQ-FT | Q ZHT CDBAR SQ-FT | U DELE CPMBAR CU-FT | U DELR CYSBAR CU-FT | U DELRB C3MBAR CU-FT | U DELSC CYBAR SQ-FT | Q PSF | Q V KNOTS | RPM   |
|---------|--------------|-----------------|---------------------|-------------------|---------------------|---------------------|----------------------|---------------------|-------|-----------|-------|
| 2       | .0           | .0              | 571.6               | 130.51            | 864.                | -146.               | 83.                  | 3.94                | 55.32 | 129.01    | 42400 |
| 3       | -20.0        | .0              | -44.9               | 114.58            | 560.                | -74.                | 6.                   | 5.25                | 55.14 | 128.78    | 4100. |
| 4       | -15.0        | .0              | 153.5               | 93.36             | 276.                | -131.               | 111.                 | 5.53                | 55.43 | 129.13    | 3940. |
| 5       | -10.0        | .0              | 258.6               | 101.88            | 408.                | -115.               | 9.                   | 4.61                | 55.15 | 128.84    | 3980. |
| 6       | -5.0         | .0              | 444.7               | 116.35            | 669.                | -193.               | 111.                 | 7.98                | 55.04 | 128.67    | 4090. |
| 7       | -2.5         | .0              | 513.0               | 124.18            | 753.                | -164.               | 114.                 | 7.22                | 54.75 | 128.32    | 4160. |
| 8       | .0           | .0              | 563.7               | 129.33            | 856.                | -135.               | 100.                 | 3.57                | 55.39 | 129.09    | 4250. |
| 9       | 2.5          | .0              | 570.4               | 150.15            | 590.                | 27.                 | 743.                 | -14.16              | 54.60 | 128.14    | 4310. |
| 10      | 5.0          | .0              | 576.3               | 182.12            | 79.                 | -104.               | 36.                  | -6.62               | 54.84 | 128.43    | 4020. |
| 11      | 10.0         | .0              | 516.9               | 231.14            | -307.               | -221.               | 162.                 | -5.59               | 54.23 | 127.63    | 4050. |
| 12      | 15.0         | .0              | 502.1               | 274.01            | -818.               | -45.                | 34.                  | 4.63                | 55.77 | 129.53    | 3850. |
| 13      | 20.0         | .0              | 570.5               | 348.25            | -1234.              | -95.                | 0.                   | .12                 | 55.06 | 128.65    | 3980. |
| 14      | .0           | .0              | 517.1               | 129.97            | 928.                | -128.               | 83.                  | 3.43                | 55.57 | 129.29    | 4250. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CFM    | CYM    | CRM   | CY     |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | 1.5447 | .3527 | .2785  | -.0090 | .0050 | .0107  |
| 3    | -20.00 | -.1213 | .3108 | .1870  | -.0045 | .0003 | .0142  |
| 4    | -14.98 | .3608  | .2672 | .0889  | -.0079 | .0067 | .0149  |
| 5    | -10.00 | .8070  | .2754 | .1316  | -.0069 | .0005 | .0130  |
| 6    | -5.00  | 1.2018 | .3145 | .2158  | -.0116 | .0067 | .0216  |
| 7    | -2.49  | 1.3864 | .3356 | .2556  | -.0111 | .0069 | .0195  |
| 8    | .01    | 1.5370 | .3510 | .2760  | -.0082 | .0061 | .0056  |
| 9    | 2.52   | 1.5416 | .4058 | .1903  | .0016  | .0449 | -.0383 |
| 10   | 5.01   | 1.3684 | .4922 | .0251  | -.0063 | .0022 | -.0017 |
| 11   | 10.00  | 1.3971 | .6247 | -.0991 | -.0134 | .0110 | -.0151 |
| 12   | 15.01  | 1.3571 | .7422 | -.2639 | -.0027 | .0020 | .0109  |
| 13   | 20.01  | 1.5418 | .9412 | -.3980 | -.0051 | .0000 | .0003  |
| 14   | .01    | 1.5326 | .3513 | .2992  | -.0078 | .0050 | .0093  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLS    | COB   | CPMB   | CYNS   | CRMS  | CYB    |
|------|--------|--------|-------|--------|--------|-------|--------|
| 2    | .00    | 1.5447 | .3527 | .2785  | -.0090 | .0050 | .0107  |
| 3    | -20.00 | -.1213 | .3108 | .1870  | -.0045 | .0003 | .0142  |
| 4    | -14.98 | .3608  | .2672 | .0889  | -.0079 | .0067 | .0149  |
| 5    | -10.00 | .8070  | .2754 | .1316  | -.0069 | .0005 | .0130  |
| 6    | -5.00  | 1.2018 | .3145 | .2158  | -.0116 | .0067 | .0216  |
| 7    | -2.49  | 1.3864 | .3356 | .2556  | -.0111 | .0069 | .0195  |
| 8    | .01    | 1.5370 | .3510 | .2760  | -.0082 | .0061 | .0056  |
| 9    | 2.52   | 1.5416 | .4058 | .1903  | .0016  | .0449 | -.0383 |
| 10   | 5.01   | 1.3684 | .4922 | .0251  | -.0063 | .0022 | -.0017 |
| 11   | 10.00  | 1.3971 | .6247 | -.0991 | -.0134 | .0110 | -.0151 |
| 12   | 15.01  | 1.3571 | .7422 | -.2639 | -.0027 | .0020 | .0109  |
| 13   | 20.01  | 1.5418 | .9412 | -.3980 | -.0051 | .0000 | .0003  |
| 14   | .01    | 1.5326 | .3513 | .2992  | -.0078 | .0050 | .0093  |

N732409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 917

RUN 947 CONFIG F P 8 NPE W7 T60 BT

IN=-3.8

| PT. NO. | IN    | 15 DELF | 30 DELA | 0 IHT  | 0 DCLE | 0 DELR | 0 DELSE | 0      |       |        |        |
|---------|-------|---------|---------|--------|--------|--------|---------|--------|-------|--------|--------|
|         | ALPHA | PSI     | CLBAR   | COBAR  | CPMBAP | CYMBAR | CRMBAR  | CYBAR  | G     | V      | RPM    |
|         | DEG   | DEG     | SC-FT   | SQ-FT  | CU-FT  | CU-FT  | CU-FT   | SQ-FT  | PSF   | KNOTS  |        |
| 4       | .0    | .0      | 572.1   | 130.30 | 853.   | -121.  | 100.    | 3.76   | 55.26 | 128.93 | 4250.  |
| 5       | .0    | .0      | 507.4   | 36.73  | 312.   | -723.  | 268.    | -5.32  | 55.72 | 129.46 | 23020. |
| 6       | -20.0 | .0      | -117.6  | 31.99  | 946.   | -504.  | 462.    | 17.78  | 55.95 | 129.75 | 23040. |
| 7       | -15.0 | .0      | 02.1    | 10.47  | 791.   | -555.  | 445.    | 10.06  | 55.22 | 130.07 | 23070. |
| 8       | -10.0 | .0      | 237.4   | 7.87   | 952.   | -680.  | 376.    | 14.79  | 55.29 | 128.97 | 23040. |
| 9       | -5.0  | .0      | 397.9   | 20.34  | 455.   | -761.  | 231.    | 7.38   | 55.83 | 129.67 | 23040. |
| 10      | -2.5  | .0      | 474.6   | 29.34  | 365.   | -780.  | 203.    | 5.05   | 55.33 | 129.01 | 23020. |
| 11      | .0    | .0      | 536.9   | 37.57  | 302.   | -735.  | 268.    | -3.58  | 55.12 | 128.77 | 23030. |
| 12      | 2.5   | .0      | 582.9   | 53.74  | 91.    | -692.  | 604.    | -21.16 | 55.06 | 128.70 | 23020. |
| 13      | 5.0   | .0      | 504.0   | 77.59  | -529.  | -915.  | -589.   | 6.34   | 54.84 | 128.43 | 23020. |
| 14      | 7.3   | .0      | 451.3   | 95.42  | -552.  | -707.  | -73.    | 3.10   | 54.94 | 128.55 | 23020. |
| 15      | 10.0  | .0      | 505.6   | 126.42 | -485.  | -301.  | -27.    | 14.80  | 53.88 | 127.27 | 23020. |
| 16      | 15.0  | .0      | 549.0   | 192.70 | -945.  | -392.  | -456.   | 7.68   | 55.45 | 129.15 | 23030. |
| 17      | 20.0  | .0      | 522.9   | 265.54 | -1374. | -146.  | -416.   | 7.47   | 55.65 | 129.39 | 23050. |
| 18      | -0.0  | .0      | 502.4   | 43.82  | 178.   | -651.  | 541.    | -14.35 | 55.56 | 129.28 | 23000. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 4    | .00    | 1.5463 | .3522 | .2750  | -.0073 | .0061  | .0102  |
| 5    | .00    | 1.4525 | .1047 | .1006  | -.0440 | .0162  | -.0144 |
| 6    | -20.02 | -.3178 | .0865 | .3051  | -.0304 | .0279  | .0480  |
| 7    | -14.99 | .1679  | .0283 | .2551  | -.0335 | .0265  | .0272  |
| 8    | -10.02 | .6415  | .0213 | .3069  | -.0411 | .0227  | .0400  |
| 9    | -5.01  | 1.0754 | .0550 | .1466  | -.0460 | .0140  | .0199  |
| 10   | -2.52  | 1.2832 | .0793 | .1177  | -.0471 | .0123  | .0136  |
| 11   | .00    | 1.4511 | .1016 | .0975  | -.0444 | .0162  | -.0097 |
| 12   | 2.49   | 1.5214 | .1453 | .0292  | -.0418 | .0365  | -.0572 |
| 13   | 5.01   | 1.3621 | .2097 | -.1707 | -.0492 | -.0356 | .0171  |
| 14   | 7.31   | 1.3277 | .2579 | -.1780 | -.0464 | -.0044 | .0084  |
| 15   | 10.03  | 1.3664 | .3417 | -.1563 | -.0484 | -.0016 | .0400  |
| 16   | 14.99  | 1.4839 | .5208 | -.3047 | -.0237 | -.0265 | .0208  |
| 17   | 20.00  | 1.6834 | .7177 | -.4429 | -.0088 | -.0252 | .0202  |
| 18   | -.00   | 1.3579 | .1184 | .0575  | -.0393 | .0327  | -.0388 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | COB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 4    | .00    | 1.5463 | .3522 | .2750  | -.0073 | .0061  | .0102  |
| 5    | .00    | 1.4525 | .1047 | .1006  | -.0440 | .0162  | -.0144 |
| 6    | -20.02 | -.3178 | .0865 | .3051  | -.0304 | .0279  | .0480  |
| 7    | -14.99 | .1679  | .0283 | .2551  | -.0335 | .0265  | .0272  |
| 8    | -10.02 | .6415  | .0213 | .3069  | -.0411 | .0227  | .0400  |
| 9    | -5.01  | 1.0754 | .0550 | .1466  | -.0460 | .0140  | .0199  |
| 10   | -2.52  | 1.2832 | .0793 | .1177  | -.0471 | .0123  | .0136  |
| 11   | .00    | 1.4511 | .1016 | .0975  | -.0444 | .0162  | -.0097 |
| 12   | 2.49   | 1.5214 | .1453 | .0292  | -.0418 | .0365  | -.0572 |
| 13   | 5.01   | 1.3621 | .2097 | -.1707 | -.0492 | -.0356 | .0171  |
| 14   | 7.31   | 1.3277 | .2579 | -.1780 | -.0464 | -.0044 | .0084  |
| 15   | 10.03  | 1.3664 | .3417 | -.1563 | -.0484 | -.0016 | .0400  |
| 16   | 14.99  | 1.4839 | .5208 | -.3047 | -.0237 | -.0265 | .0208  |
| 17   | 20.00  | 1.6834 | .7177 | -.4429 | -.0088 | -.0252 | .0202  |
| 18   | -.00   | 1.3579 | .1184 | .0575  | -.0393 | .0327  | -.0388 |

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RUN 948 CONFIG F P 2 NPS K7 T60 BT IN=-3.5

| PT. NO. | IW        | IS DELF | 30 DELA     | 10R IHT     | Q DELE                   | Q DELR                   | Q DELSB                  | Q           | V.    | RPM    |        |
|---------|-----------|---------|-------------|-------------|--------------------------|--------------------------|--------------------------|-------------|-------|--------|--------|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM <sub>BAR</sub> CU-FT | CYM <sub>BAR</sub> CU-FT | CRM <sub>BAR</sub> CU-FT | CYBAR SQ-FT | PSF   | KNOTS  |        |
| 2       | .0        | .0      | 549.1       | 127.78      | 937.                     | -140.                    | 380.                     | 2.02        | 55.67 | 129.42 | 4290.  |
| 3       | .0        | .0      | 516.2       | -6.56       | 399.                     | -99.                     | 573.                     | -13.80      | 55.78 | 129.55 | 19840. |
| 4       | -20.0     | .0      | -176.2      | -1.45       | 1013.                    | 17.                      | 446.                     | 2.64        | 55.43 | 129.13 | 19860. |
| 5       | -15.0     | .0      | 15.4        | -28.27      | 1040.                    | 6.                       | 461.                     | 5.09        | 55.54 | 129.26 | 19840. |
| 6       | -10.0     | .0      | 202.1       | -32.75      | 1042.                    | -55.                     | 489.                     | 1.61        | 55.15 | 129.80 | 19840. |
| 7       | -5.0      | .0      | 375.5       | -24.99      | 820.                     | -110.                    | 556.                     | 1.72        | 55.47 | 129.18 | 19830. |
| 8       | -2.5      | .0      | 448.7       | -14.56      | 514.                     | -132.                    | 498.                     | -5.23       | 55.33 | 129.02 | 19800. |
| 9       | -0.0      | .0      | 519.6       | -5.46       | 398.                     | -98.                     | 526.                     | -12.14      | 54.98 | 128.59 | 19830. |
| 10      | 2.5       | .0      | 547.3       | 7.39        | 130.                     | -120.                    | 439.                     | -1.57       | 55.46 | 129.16 | 19820. |
| 11      | 5.0       | .0      | 569.5       | 25.25       | -199.                    | -127.                    | 799.                     | -9.56       | 55.21 | 128.87 | 19840. |
| 12      | 10.0      | .0      | 501.5       | 80.05       | -613.                    | -251.                    | 354.                     | -4.33       | 55.08 | 129.71 | 19240. |
| 13      | 15.0      | .0      | 591.0       | 154.91      | -835.                    | -209.                    | 193.                     | 1.05        | 55.21 | 128.85 | 19850. |
| 14      | 20.0      | .0      | 646.8       | 227.76      | -1312.                   | -44.                     | 70.                      | 1.47        | 55.48 | 129.18 | 19840. |
| 15      | .0        | .0      | 517.6       | -3.12       | 459.                     | -86.                     | 561.                     | -13.58      | 55.19 | 128.85 | 19860. |
| 16      | -20.0     | .0      | -170.3      | .91         | 1027.                    | 37.                      | 464.                     | 1.64        | 55.98 | 129.79 | 19880. |
| 17      | -10.0     | .0      | 199.8       | -30.46      | 1174.                    | -43.                     | 502.                     | 2.33        | 55.48 | 129.19 | 19870. |
| 18      | -5.0      | .0      | 371.8       | -23.04      | 894.                     | -106.                    | 521.                     | 1.23        | 55.60 | 129.33 | 19870. |
| 19      | .0        | .0      | 518.1       | -3.00       | 459.                     | -89.                     | 575.                     | -11.46      | 55.29 | 128.96 | 19880. |
| 20      | 5.0       | .0      | 559.9       | 26.19       | -147.                    | -118.                    | 777.                     | -11.94      | 55.64 | 129.38 | 19890. |
| 21      | 10.0      | .0      | 513.2       | 84.68       | -501.                    | -267.                    | 356.                     | -3.05       | 54.72 | 128.29 | 19850. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.4841 | .3454  | .3021  | -.0085 | .0230 | .0055  |
| 3    | .00    | 1.3952 | -.0177 | .1286  | -.0060 | .0346 | -.0373 |
| 4    | -20.01 | -.4762 | -.0039 | .3265  | .0010  | .0271 | .0071  |
| 5    | -15.00 | .0417  | -.0764 | .3353  | .0003  | .0278 | .0138  |
| 6    | -10.00 | .5463  | -.0885 | .3359  | -.0033 | .0295 | .0043  |
| 7    | -5.00  | 1.0148 | -.0675 | .2642  | -.0066 | .0336 | .0046  |
| 8    | -2.50  | 1.2128 | -.0393 | .1657  | -.0080 | .0301 | -.0141 |
| 9    | -0.00  | 1.4043 | -.0147 | .1284  | -.0059 | .0318 | -.0328 |
| 10   | 2.51   | 1.4791 | .0200  | .0419  | -.0073 | .0265 | -.0053 |
| 11   | 5.01   | 1.5393 | .0682  | -.0643 | -.0077 | .0482 | -.0258 |
| 12   | 10.00  | 1.3554 | .2164  | -.1975 | -.0152 | .0214 | -.0117 |
| 13   | 15.01  | 1.5972 | .4187  | -.2693 | -.0126 | .0116 | .0028  |
| 14   | 20.01  | 1.7482 | .6156  | -.4229 | -.0026 | .0042 | .0040  |
| 15   | .00    | 1.3988 | -.0084 | .1481  | -.0052 | .0339 | -.0367 |
| 16   | -20.00 | -.4602 | .0025  | .3312  | .0022  | .0280 | .0044  |
| 17   | -10.01 | .5399  | -.0823 | .3784  | -.0026 | .0303 | .0063  |
| 18   | -5.03  | 1.0048 | -.0623 | .2884  | -.0064 | .0315 | .0033  |
| 19   | .00    | 1.4004 | -.0081 | .1512  | -.0054 | .0348 | -.0310 |
| 20   | 5.01   | 1.5131 | .0708  | -.0475 | -.0072 | .0470 | -.0323 |
| 21   | 10.00  | 1.3869 | .2289  | -.1615 | -.0161 | .0215 | -.0082 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.4841 | .3454  | .3021  | -.0085 | .0230 | .0055  |
| 3    | .00    | 1.3952 | -.0177 | .1286  | -.0060 | .0346 | -.0373 |
| 4    | -20.01 | -.4762 | -.0039 | .3265  | .0010  | .0271 | .0071  |
| 5    | -15.00 | .0417  | -.0764 | .3353  | .0003  | .0278 | .0138  |
| 6    | -10.00 | .5463  | -.0885 | .3359  | -.0033 | .0295 | .0043  |
| 7    | -5.00  | 1.0148 | -.0675 | .2642  | -.0066 | .0336 | .0046  |
| 8    | -2.50  | 1.2128 | -.0393 | .1657  | -.0080 | .0301 | -.0141 |
| 9    | -0.00  | 1.4043 | -.0147 | .1284  | -.0059 | .0318 | -.0328 |
| 10   | 2.51   | 1.4791 | .0200  | .0419  | -.0073 | .0265 | -.0053 |
| 11   | 5.01   | 1.5393 | .0682  | -.0643 | -.0077 | .0482 | -.0258 |
| 12   | 10.00  | 1.3554 | .2164  | -.1975 | -.0152 | .0214 | -.0117 |
| 13   | 15.01  | 1.5972 | .4187  | -.2693 | -.0126 | .0116 | .0028  |
| 14   | 20.01  | 1.7482 | .6156  | -.4229 | -.0026 | .0042 | .0040  |
| 15   | .00    | 1.3988 | -.0084 | .1481  | -.0052 | .0339 | -.0367 |
| 16   | -20.00 | -.4602 | .0025  | .3312  | .0022  | .0280 | .0044  |
| 17   | -10.01 | .5399  | -.0823 | .3784  | -.0026 | .0303 | .0063  |
| 18   | -5.03  | 1.0048 | -.0623 | .2884  | -.0064 | .0315 | .0033  |
| 19   | .00    | 1.4004 | -.0081 | .1512  | -.0054 | .0348 | -.0310 |
| 20   | 5.01   | 1.5131 | .0708  | -.0475 | -.0072 | .0470 | -.0323 |
| 21   | 10.00  | 1.3869 | .2289  | -.1615 | -.0161 | .0215 | -.0082 |

N432409-1

SIKORSKY FSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P919

RUN 949 CONFIG F P L NPS W7 T60 BT IN=-3.5

| IN PT. NO. | IS DELF DEG | PSI DEG | 30 DELA SG-FT | 10R INT SQ-FT | Q DELE CU-FT | Q DELR CU-FT | Q DELSB SQ-FT | Q V PSF | RPM                 |
|------------|-------------|---------|---------------|---------------|--------------|--------------|---------------|---------|---------------------|
| 2          | .0          | .0      | 550.2         | 127.27        | 863.         | -124.        | 414.          | 4.61    | 55.45 129.15 4250.  |
| 3          | .0          | .0      | 518.6         | -9.44         | 410.         | -39.         | 525.          | -12.17  | 55.13 128.78 19850. |
| 4          | .0          | .0      | 519.9         | -6.37         | 401.         | -37.         | 523.          | -12.12  | 55.39 129.06 19800. |
| 5          | .0          | -15.0   | 469.4         | 11.83         | 61.          | 1847.        | -319.         | -137.85 | 55.53 129.24 19810. |
| 6          | .0          | -10.0   | 472.7         | -1.73         | 387.         | 864.         | -167.         | -72.04  | 55.51 129.23 19830. |
| 7          | .0          | -5.0    | 464.3         | -3.69         | 194.         | 138.         | -166.         | -21.76  | 55.11 128.75 19850. |
| 8          | .0          | -2.5    | 463.3         | -3.29         | 165.         | -26.         | -34.          | -1.22   | 55.72 129.47 19830. |
| 9          | .0          | .0      | 400.5         | -4.18         | 94.          | -160.        | 68.           | 15.46   | 55.54 129.26 19820. |
| 10         | .0          | 2.5     | 458.7         | -5.04         | 15.          | -264.        | 73.           | 30.72   | 55.01 128.63 19820. |
| 11         | .0          | 5.0     | 467.2         | -4.01         | 463.         | -485.        | 948.          | 16.23   | 55.63 129.35 19810. |
| 12         | .0          | 10.0    | 451.3         | -1.32         | 495.         | -1067.       | 956.          | 69.33   | 56.11 129.94 19800. |
| 13         | .0          | 15.0    | 432.8         | 9.65          | 461.         | -2005.       | 1049.         | 129.34  | 55.23 128.89 19810. |
| 14         | .0          | 20.0    | 415.6         | 28.61         | 134.         | -2341.       | 1343.         | 180.39  | 55.80 129.57 19830. |
| 15         | .0          | .0      | 474.5         | -.19          | 276.         | -36.         | 829.          | -26.69  | 56.03 129.84 19730. |
| 16         | .0          | .0      | 523.6         | .02           | 411.         | -100.        | 489.          | -12.32  | 55.28 128.95 19720. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CFM   | CYM    | CRM    | CY     |
|------|--------|--------|--------|-------|--------|--------|--------|
| 2    | .00    | 1.4872 | .3440  | .2783 | -.0075 | .0250  | .0125  |
| 3    | .00    | 1.4017 | -.0255 | .1321 | -.0060 | .0317  | -.0329 |
| 4    | .00    | 1.4025 | -.0172 | .1294 | -.0059 | .0316  | -.0327 |
| 5    | -15.00 | 1.2686 | .0320  | .0198 | .1116  | -.0197 | -.3726 |
| 6    | -10.00 | 1.2776 | -.0047 | .1247 | .0522  | -.0101 | -.1947 |
| 7    | -5.00  | 1.2549 | -.0100 | .0627 | .0083  | -.0100 | -.0588 |
| 8    | -2.50  | 1.2520 | -.0089 | .0531 | -.0016 | -.0021 | -.0033 |
| 9    | .00    | 1.2445 | -.0113 | .0303 | -.0096 | .0041  | .0418  |
| 10   | 2.50   | 1.2398 | -.0136 | .0049 | -.0160 | .0044  | .0830  |
| 11   | 5.00   | 1.2627 | -.0108 | .1492 | -.0293 | .0573  | .0439  |
| 12   | 10.00  | 1.2197 | -.0036 | .1598 | -.0645 | .0577  | .1874  |
| 13   | 15.00  | 1.1698 | .0261  | .1486 | -.1211 | .0634  | .3495  |
| 14   | 20.00  | 1.1232 | -.0773 | .0433 | -.1414 | .0811  | .4675  |
| 15   | .00    | 1.2824 | -.0005 | .0888 | -.0022 | .0501  | -.0721 |
| 16   | .00    | 1.4151 | .0001  | .1324 | -.0060 | .0295  | -.0333 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB  | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|-------|--------|--------|--------|
| 2    | .00    | 1.4872 | .3440  | .2783 | -.0075 | .0250  | .0125  |
| 3    | .00    | 1.4017 | -.0255 | .1321 | -.0060 | .0317  | -.0329 |
| 4    | .00    | 1.4025 | -.0172 | .1294 | -.0059 | .0316  | -.0327 |
| 5    | -15.00 | 1.2686 | -.0660 | .0458 | .1116  | -.0195 | -.3581 |
| 6    | -10.00 | 1.2776 | -.0386 | .1322 | .0522  | -.0140 | -.1909 |
| 7    | -5.00  | 1.2549 | -.0151 | .0671 | .0083  | -.0110 | -.0577 |
| 8    | -2.50  | 1.2520 | -.0090 | .0535 | -.0016 | -.0025 | -.0029 |
| 9    | .00    | 1.2445 | -.0113 | .0303 | -.0096 | .0041  | .0418  |
| 10   | 2.50   | 1.2398 | -.0173 | .0059 | -.0160 | .0044  | .0823  |
| 11   | 5.00   | 1.2627 | -.0146 | .1753 | -.0293 | .0595  | .0427  |
| 12   | 10.00  | 1.2197 | -.0362 | .2111 | -.0645 | .0621  | .1839  |
| 13   | 15.00  | 1.1698 | -.0657 | .2314 | -.1211 | .0684  | .3443  |
| 14   | 20.00  | 1.1232 | -.0949 | .1894 | -.1414 | .0790  | .4844  |
| 15   | .00    | 1.2824 | -.0005 | .0888 | -.0022 | .0501  | -.0721 |
| 16   | .00    | 1.4151 | .0001  | .1324 | -.0060 | .0295  | -.0333 |

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| RUN | 950 CONFIG | F P E NPS W7 T60 BT | IN=-3.5 | DELTA A (RT=-10) |        |        |        |        |       |        |        |     |
|-----|------------|---------------------|---------|------------------|--------|--------|--------|--------|-------|--------|--------|-----|
| PT. | ALPHA      | PSI                 | CLBAR   | COBAR            | CFMBAR | CYMBAR | CYMBAR | CYMBAR | CYBAR | Q      | V      | RPM |
| NO. | SEC        | DEC                 | SQ-FT   | SQ-FT            | CU-FT  | CU-FT  | CU-FT  | CU-FT  | SQ-FT | PSF    | KNOTS  |     |
| 2   | .0         | .0                  | 591.6   | 134.10           | 660.   | -41.   | -143.  | 2.63   | 55.69 | 129.44 | 4270.  |     |
| 3   | .0         | .0                  | 542.0   | 13.04            | 190.   | 18.    | 98.    | -20.68 | 54.19 | 127.65 | 18740. |     |
| 4   | -20.0      | .0                  | -111.4  | 3.64             | 844.   | -83.   | -138.  | -.99   | 55.27 | 128.94 | 18760. |     |
| 5   | -15.0      | .0                  | 73.2    | -19.02           | 636.   | -46.   | -231.  | 1.05   | 55.02 | 128.65 | 18780. |     |
| 6   | -20.0      | .0                  | -111.1  | 4.57             | 834.   | -114.  | -145.  | 1.73   | 54.99 | 128.61 | 18730. |     |
| 7   | -10.0      | .0                  | 259.3   | -19.45           | 828.   | -45.   | -179.  | 1.24   | 54.77 | 128.35 | 18730. |     |
| 8   | -5.0       | .0                  | 420.7   | -9.54            | 635.   | -60.   | -125.  | .74    | 54.90 | 128.50 | 18730. |     |
| 9   | -2.5       | .0                  | 471.7   | 3.56             | 232.   | -46.   | 38.    | -14.73 | 55.05 | 128.68 | 18740. |     |
| 10  | .0         | .0                  | 543.9   | 14.52            | 186.   | 17.    | 122.   | -25.37 | 54.11 | 127.55 | 18810. |     |
| 11  | 2.5        | .0                  | 545.0   | 30.04            | -159.  | 66.    | 120.   | -13.12 | 55.04 | 128.67 | 18750. |     |
| 12  | 5.0        | .0                  | 557.3   | 47.22            | -341.  | 47.    | 386.   | -14.06 | 54.53 | 128.05 | 18760. |     |
| 14  | 15.0       | .0                  | 522.3   | 174.50           | -956.  | -93.   | 142.   | -.37   | 54.54 | 128.06 | 18710. |     |
| 15  | 20.0       | .0                  | 623.3   | 249.20           | -1348. | -5.    | 53.    | .56    | 54.59 | 128.12 | 18750. |     |
| 16  | .0         | .0                  | 537.7   | 16.34            | 193.   | -3.    | 119.   | -24.28 | 54.71 | 128.27 | 18740. |     |
| 17  | 10.0       | .0                  | 515.6   | 114.54           | -434.  | 15.    | -3.    | 5.72   | 54.77 | 128.34 | 18700. |     |

\*\*\*\* COEFFICIENT FOR: - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.5989 | .3624  | .2129  | -.0025 | -.0080 | .0071  |
| 3    | .00    | 1.4650 | .0353  | .0614  | .0011  | .0055  | -.0559 |
| 4    | -20.00 | -.3011 | .0098  | .2720  | -.0050 | -.0083 | -.0027 |
| 5    | -14.98 | .1979  | -.0514 | .2694  | -.0028 | -.0140 | .0028  |
| 6    | -20.00 | -.3003 | .0123  | .2690  | -.0069 | -.0085 | .0047  |
| 7    | -10.00 | .7008  | -.0526 | .2669  | -.0027 | -.0103 | .0034  |
| 8    | -5.00  | 1.1370 | -.0258 | .2047  | -.0036 | -.0077 | .0020  |
| 9    | -2.50  | 1.2747 | .0096  | .0747  | -.0028 | .0023  | -.0398 |
| 10   | .00    | 1.4701 | .0393  | .0600  | .0010  | .0077  | -.0686 |
| 11   | 2.51   | 1.4730 | .0812  | -.0513 | .0040  | .0077  | -.0355 |
| 12   | 5.01   | 1.6144 | .1276  | -.1101 | .0028  | .0237  | -.0380 |
| 14   | 15.00  | 1.5739 | .4716  | -.3083 | -.0056 | .0081  | -.0010 |
| 15   | 20.00  | 1.7656 | .6735  | -.4346 | -.0003 | .0037  | .0015  |
| 16   | .00    | 1.4532 | .0458  | .0623  | -.0002 | .0077  | -.0656 |
| 17   | 10.02  | 1.5016 | .3096  | -.1400 | .0009  | -.0002 | .0155  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.5989 | .3624  | .2129  | -.0025 | -.0080 | .0071  |
| 3    | .00    | 1.4650 | .0353  | .0614  | .0011  | .0055  | -.0559 |
| 4    | -20.00 | -.3011 | .0098  | .2720  | -.0050 | -.0083 | -.0027 |
| 5    | -14.98 | .1979  | -.0514 | .2694  | -.0028 | -.0140 | .0028  |
| 6    | -20.00 | -.3003 | .0123  | .2690  | -.0069 | -.0085 | .0047  |
| 7    | -10.00 | .7008  | -.0526 | .2669  | -.0027 | -.0103 | .0034  |
| 8    | -5.00  | 1.1370 | -.0258 | .2047  | -.0036 | -.0077 | .0020  |
| 9    | -2.50  | 1.2747 | .0096  | .0747  | -.0028 | .0023  | -.0398 |
| 10   | .00    | 1.4701 | .0393  | .0600  | .0010  | .0077  | -.0686 |
| 11   | 2.51   | 1.4730 | .0812  | -.0513 | .0040  | .0077  | -.0355 |
| 12   | 5.01   | 1.6144 | .1276  | -.1101 | .0028  | .0237  | -.0380 |
| 14   | 15.00  | 1.5739 | .4716  | -.3083 | -.0056 | .0081  | -.0010 |
| 15   | 20.00  | 1.7656 | .6735  | -.4346 | -.0003 | .0037  | .0015  |
| 16   | .00    | 1.4532 | .0458  | .0623  | -.0002 | .0077  | -.0656 |
| 17   | 10.02  | 1.5016 | .3096  | -.1400 | .0009  | -.0002 | .0155  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 921

RUN 951 CONFIG F P B NP5 W7 T60 BT IN=-3.0

| PT. NO. | IW ALPHA DEG | 15 DELF PSI DEG | 0 DELA CLBAR SQ-FT | 0 IHT CDBAR SQ-FT | 0 DELE CPMBAR CU-FT | 0 DELR CYMBAR CU-FT | 0 DELSB CRMBAR CU-FT | 0 DELSB CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|--------------|-----------------|--------------------|-------------------|---------------------|---------------------|----------------------|---------------------|-------|---------|--------|
| 2       | .0           | .0              | 369.6              | 75.00             | 372.                | -97.                | 85.                  | 3.21                | 54.17 | 127.63  | 3960.  |
| 3       | .0           | .0              | 340.6              | -3.17             | 84.                 | -134.               | 181.                 | -3.71               | 55.02 | 128.64  | 15300. |
| 4       | -20.0        | .0              | -280.8             | 25.74             | 1015.               | -78.                | 112.                 | 12.19               | 55.35 | 129.03  | 15290. |
| 5       | -15.0        | .0              | -140.0             | -8.16             | 948.                | -112.               | 37.                  | 8.04                | 54.62 | 128.17  | 15300. |
| 6       | -10.0        | .0              | 42.1               | -24.68            | 685.                | -51.                | 82.                  | 3.34                | 55.10 | 128.74  | 15320. |
| 7       | -5.0         | .0              | 206.9              | -19.73            | 396.                | -133.               | 157.                 | 2.64                | 54.11 | 127.55  | 15290. |
| 8       | -2.5         | .0              | 271.5              | -12.51            | 237.                | -169.               | 178.                 | -1.24               | 55.03 | 128.66  | 15300. |
| 9       | .0           | .0              | 340.6              | -2.91             | 90.                 | -149.               | 165.                 | -3.93               | 54.62 | 128.16  | 15310. |
| 10      | 2.5          | .0              | 398.6              | 9.48              | -85.                | -98.                | 250.                 | -4.14               | 55.18 | 128.83  | 15330. |
| 11      | 5.0          | .0              | 394.9              | 34.01             | -302.               | -125.               | 159.                 | -2.39               | 55.52 | 129.24  | 15320. |
| 12      | 10.0         | .0              | 460.2              | 82.38             | -516.               | -102.               | 142.                 | -.06                | 54.72 | 128.28  | 15310. |
| 13      | 15.0         | .0              | 515.0              | 144.49            | -906.               | 9.                  | -141.                | .68                 | 54.96 | 128.57  | 15280. |
| 14      | 20.0         | .0              | 593.7              | 218.86            | -1228.              | -3.                 | 54.                  | 3.95                | 54.36 | 127.84  | 15290. |
| 15      | .0           | .0              | 341.4              | -2.20             | 124.                | -140.               | 183.                 | -4.62               | 54.55 | 128.08  | 15310. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9990  | .2027  | .1198  | -.0058 | .0052  | .0087  |
| 3    | .00    | .9205  | -.0086 | .0272  | -.0081 | .0109  | -.0100 |
| 4    | -20.00 | -.7588 | .0696  | .3272  | -.0047 | .0068  | .0329  |
| 5    | -15.02 | -.3783 | -.0221 | .3057  | -.0067 | .0022  | .0217  |
| 6    | -9.99  | .1138  | -.0667 | .2208  | -.0031 | .0049  | .0090  |
| 7    | -5.01  | .5593  | -.0533 | .1276  | -.0080 | .0095  | .0071  |
| 8    | -2.50  | .7338  | -.0338 | .0765  | -.0102 | .0107  | -.0033 |
| 9    | .00    | .9207  | -.0079 | .0292  | -.0090 | .0099  | -.0106 |
| 10   | 2.50   | 1.0773 | .0256  | -.0275 | -.0059 | .0151  | -.0112 |
| 11   | 5.00   | 1.0674 | .0919  | -.0974 | -.0075 | .0096  | -.0065 |
| 12   | 10.00  | 1.2437 | .2226  | -.1665 | -.0061 | .0086  | -.0002 |
| 13   | 15.01  | 1.3918 | .3905  | -.2922 | .0005  | -.0085 | .0018  |
| 14   | 20.00  | 1.6046 | .5915  | -.3959 | -.0002 | .0033  | .0107  |
| 15   | .00    | .9227  | -.0059 | .0401  | -.0085 | .0111  | -.0125 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9990  | .2027  | .1198  | -.0058 | .0052  | .0087  |
| 3    | .00    | .9205  | -.0086 | .0272  | -.0081 | .0109  | -.0100 |
| 4    | -20.00 | -.7588 | .0696  | .3272  | -.0047 | .0068  | .0329  |
| 5    | -15.02 | -.3783 | -.0221 | .3057  | -.0067 | .0022  | .0217  |
| 6    | -9.99  | .1138  | -.0667 | .2208  | -.0031 | .0049  | .0090  |
| 7    | -5.01  | .5593  | -.0533 | .1276  | -.0080 | .0095  | .0071  |
| 8    | -2.50  | .7338  | -.0338 | .0765  | -.0102 | .0107  | -.0033 |
| 9    | .00    | .9207  | -.0079 | .0292  | -.0090 | .0099  | -.0106 |
| 10   | 2.50   | 1.0773 | .0256  | -.0275 | -.0059 | .0151  | -.0112 |
| 11   | 5.00   | 1.0674 | .0919  | -.0974 | -.0075 | .0096  | -.0065 |
| 12   | 10.00  | 1.2437 | .2226  | -.1665 | -.0061 | .0086  | -.0002 |
| 13   | 15.01  | 1.3918 | .3905  | -.2922 | .0005  | -.0085 | .0018  |
| 14   | 20.00  | 1.6046 | .5915  | -.3959 | -.0002 | .0033  | .0107  |
| 15   | .00    | .9227  | -.0059 | .0401  | -.0085 | .0111  | -.0125 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 922

RUN 952 CONFIG F P B NP5 W7 T60 BT IN=-3.5 DELTAA( RT=+10)

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | +10 IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRM<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>G<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|---------------------------|--------------------------|---------------------------|----------------------------|-------------------|---------------------|---------------|-----------------|--------|
| 2                | .0                     | .0                   | 59.3                      | 33.51                    | -30.                      | -8.                        | 307.              | 5.15                | 55.60         | 129.34          | 3550.  |
| 3                | .0                     | .0                   | 57.1                      | -6.57                    | -161.                     | -3.                        | 325.              | 7.17                | 55.14         | 128.78          | 11340. |
| 4                | -20.0                  | .0                   | -431.5                    | 123.91                   | 1307.                     | -77.                       | 87.               | 8.46                | 54.75         | 128.31          | 11290. |
| 5                | -15.0                  | .0                   | -408.3                    | 51.32                    | 1303.                     | 5.                         | 250.              | 8.20                | 54.43         | 127.94          | 11370. |
| 6                | -10.0                  | .0                   | -274.3                    | 17.91                    | 592.                      | 31.                        | 290.              | 5.39                | 55.00         | 128.61          | 11360. |
| 7                | -5.0                   | .0                   | -110.1                    | -2.78                    | -48.                      | 5.                         | 309.              | 7.13                | 54.44         | 127.95          | 11320. |
| 8                | -2.5                   | .0                   | -25.6                     | -6.41                    | -108.                     | -5.                        | 274.              | 7.32                | 54.42         | 127.92          | 11330. |
| 9                | .0                     | .0                   | 57.7                      | -6.86                    | -183.                     | -13.                       | 368.              | 5.07                | 54.39         | 127.89          | 11370. |
| 10               | 2.5                    | .0                   | 139.3                     | -4.10                    | -260.                     | -20.                       | 351.              | 4.19                | 54.51         | 128.03          | 11360. |
| 11               | 5.0                    | .0                   | 219.4                     | 2.31                     | -319.                     | -17.                       | 402.              | 1.85                | 55.13         | 128.77          | 11350. |
| 12               | 10.0                   | .0                   | 384.5                     | 23.77                    | -474.                     | -69.                       | 386.              | 2.54                | 55.00         | 128.62          | 11350. |
| 14               | 20.0                   | .0                   | 575.9                     | 125.44                   | -648.                     | 23.                        | 0.                | 2.38                | 54.48         | 127.99          | 11320. |
| 15               | 15.0                   | .0                   | 537.9                     | 60.43                    | -796.                     | -108.                      | 340.              | 1.51                | 54.02         | 127.45          | 11350. |
| 16               | .0                     | .0                   | 56.8                      | -6.66                    | -156.                     | -4.                        | 309.              | 6.13                | 55.01         | 128.62          | 11360. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM   | CY    |
|------|--------|---------|--------|--------|--------|-------|-------|
| 2    | .00    | .1603   | .0906  | -.0097 | -.0005 | .0186 | .0139 |
| 3    | .00    | .1545   | -.0178 | -.0518 | -.0002 | .0196 | .0194 |
| 4    | -20.01 | -1.1661 | .3349  | .4213  | -.0046 | .0053 | .0229 |
| 5    | -15.00 | -1.1036 | .1387  | .4200  | .0003  | .0151 | .0222 |
| 6    | -10.01 | -.7413  | .0484  | .1908  | .0019  | .0175 | .0146 |
| 7    | -5.01  | -.2977  | -.0075 | -.0153 | .0003  | .0187 | .0193 |
| 8    | -2.49  | -.0691  | -.0173 | -.0349 | -.0003 | .0166 | .0198 |
| 9    | -.01   | .1558   | -.0185 | -.0589 | -.0008 | .0222 | .0137 |
| 10   | 2.49   | .3764   | -.0111 | -.0840 | -.0012 | .0212 | .0113 |
| 11   | 5.01   | .5930   | .0062  | -.1028 | -.0010 | .0243 | .0050 |
| 12   | 9.99   | 1.0392  | .0643  | -.1529 | -.0042 | .0233 | .0069 |
| 14   | 19.99  | 1.5564  | .3390  | -.2089 | .0014  | .0000 | .0064 |
| 15   | 15.00  | 1.4537  | .1633  | -.2567 | -.0065 | .0206 | .0041 |
| 16   | -.01   | .1536   | -.0180 | -.0502 | -.0002 | .0187 | .0166 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|---------|--------|--------|--------|-------|-------|
| 2    | .00    | .1603   | .0906  | -.0097 | -.0005 | .0186 | .0139 |
| 3    | .00    | .1545   | -.0178 | -.0518 | -.0002 | .0196 | .0194 |
| 4    | -20.01 | -1.1661 | .3349  | .4213  | -.0046 | .0053 | .0229 |
| 5    | -15.00 | -1.1036 | .1387  | .4200  | .0003  | .0151 | .0222 |
| 6    | -10.01 | -.7413  | .0484  | .1908  | .0019  | .0175 | .0146 |
| 7    | -5.01  | -.2977  | -.0075 | -.0153 | .0003  | .0187 | .0193 |
| 8    | -2.49  | -.0691  | -.0173 | -.0349 | -.0003 | .0166 | .0198 |
| 9    | -.01   | .1558   | -.0185 | -.0589 | -.0008 | .0222 | .0137 |
| 10   | 2.49   | .3764   | -.0111 | -.0840 | -.0012 | .0212 | .0113 |
| 11   | 5.01   | .5930   | .0062  | -.1028 | -.0010 | .0243 | .0050 |
| 12   | 9.99   | 1.0392  | .0643  | -.1529 | -.0042 | .0233 | .0069 |
| 14   | 19.99  | 1.5564  | .3390  | -.2089 | .0014  | .0000 | .0064 |
| 15   | 15.00  | 1.4537  | .1633  | -.2567 | -.0065 | .0206 | .0041 |
| 16   | -.01   | .1536   | -.0180 | -.0502 | -.0002 | .0187 | .0166 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 9 2 3

RUN 953 CONFIG F P B NP5 W7 T60 BT IN=-3.5 DELTAA (RT=-10)

| IW      | 0 DELF    | 0 DELA  | -10 IHT     | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 106.2       | 35.49       | -211.        | -20.         | -254.        | 5.46        | 54.91 | 128.52  | 3550.  |
| 3       | .0        | .0      | 102.5       | -5.42       | -339.        | -21.         | -233.        | 3.71        | 55.08 | 128.71  | 11390. |
| 4       | -20.0     | .0      | -411.4      | 113.63      | 1265.        | -191.        | -191.        | 6.45        | 54.94 | 128.55  | 11410. |
| 5       | -15.0     | .0      | -361.9      | 47.38       | 1145.        | -154.        | -291.        | 3.97        | 54.89 | 128.48  | 11220. |
| 6       | -10.0     | .0      | -235.0      | 13.38       | 378.         | -97.         | -294.        | 4.83        | 54.34 | 127.83  | 11390. |
| 7       | -5.0      | .0      | -65.1       | -4.89       | -235.        | -64.         | -290.        | 5.27        | 54.94 | 128.54  | 11410. |
| 8       | -2.5      | .0      | 22.0        | -6.95       | -286.        | -37.         | -255.        | 4.61        | 54.68 | 128.24  | 11400. |
| 9       | .0        | .0      | 103.2       | -5.51       | -353.        | -26.         | -217.        | 4.15        | 55.01 | 128.63  | 11410. |
| 10      | 2.5       | .0      | 183.0       | -1.20       | -431.        | 2.           | -232.        | 3.82        | 55.22 | 128.88  | 11400. |
| 11      | 5.0       | .0      | 264.1       | 6.23        | -479.        | 44.          | -179.        | 4.37        | 55.29 | 128.96  | 11390. |
| 12      | 10.0      | .0      | 424.9       | 30.61       | -638.        | 45.          | -106.        | .19         | 55.07 | 128.70  | 11380. |
| 13      | 15.0      | .0      | 569.1       | 69.67       | -949.        | 88.          | -161.        | 1.07        | 54.29 | 127.77  | 11360. |
| 14      | 20.0      | .0      | 589.5       | 133.78      | -685.        | 111.         | -18.         | -.94        | 54.26 | 127.74  | 11390. |
| 15      | .0        | .0      | 102.2       | -5.14       | -342.        | -28.         | -249.        | 3.32        | 55.43 | 129.13  | 11370. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .2869   | .0959  | -.0679 | -.0012 | -.0153 | .0148  |
| 3    | .00    | .2770   | -.0146 | -.1094 | -.0013 | -.0141 | .0100  |
| 4    | -19.99 | -1.1118 | .3071  | .4078  | -.0116 | -.0115 | .0174  |
| 5    | -14.99 | -.9781  | .1281  | .3690  | -.0093 | -.0176 | .0107  |
| 6    | -10.00 | -.6351  | .0362  | .1219  | -.0058 | -.0178 | .0130  |
| 7    | -4.98  | -.1760  | -.0132 | -.0759 | -.0039 | -.0175 | .0142  |
| 8    | -2.47  | .0595   | -.0188 | -.0922 | -.0022 | -.0154 | .0125  |
| 9    | .03    | .2789   | -.0149 | -.1139 | -.0016 | -.0131 | .0112  |
| 10   | 2.52   | .4945   | -.0033 | -.1388 | .0001  | -.0140 | .0103  |
| 11   | 5.00   | .7139   | .0168  | -.1546 | .0027  | -.0108 | .0118  |
| 12   | 10.02  | 1.1483  | .0827  | -.2057 | .0027  | -.0064 | .0005  |
| 13   | 15.00  | 1.5381  | .1883  | -.3058 | .0053  | -.0097 | .0029  |
| 14   | 20.01  | 1.5933  | .3616  | -.2210 | .0067  | -.0011 | -.0025 |
| 15   | .00    | .2763   | -.0139 | -.1101 | -.0017 | -.0150 | .0090  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .2869   | .0959  | -.0679 | -.0012 | -.0153 | .0148  |
| 3    | .00    | .2770   | -.0146 | -.1094 | -.0013 | -.0141 | .0100  |
| 4    | -19.99 | -1.1118 | .3071  | .4078  | -.0116 | -.0115 | .0174  |
| 5    | -14.99 | -.9781  | .1281  | .3690  | -.0093 | -.0176 | .0107  |
| 6    | -10.00 | -.6351  | .0362  | .1219  | -.0058 | -.0178 | .0130  |
| 7    | -4.98  | -.1760  | -.0132 | -.0759 | -.0039 | -.0175 | .0142  |
| 8    | -2.47  | .0595   | -.0188 | -.0922 | -.0022 | -.0154 | .0125  |
| 9    | .03    | .2789   | -.0149 | -.1139 | -.0016 | -.0131 | .0112  |
| 10   | 2.52   | .4945   | -.0033 | -.1388 | .0001  | -.0140 | .0103  |
| 11   | 5.00   | .7139   | .0168  | -.1546 | .0027  | -.0108 | .0118  |
| 12   | 10.02  | 1.1483  | .0827  | -.2057 | .0027  | -.0064 | .0005  |
| 13   | 15.00  | 1.5381  | .1883  | -.3058 | .0053  | -.0097 | .0029  |
| 14   | 20.01  | 1.5933  | .3616  | -.2210 | .0067  | -.0011 | -.0025 |
| 15   | .00    | .2763   | -.0139 | -.1101 | -.0017 | -.0150 | .0090  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 924

RUN 954 CONFIG F P B NP5 W7 T60 BT IN=-3.5 DELTAA(RT=-10)

| IW      | 0 DELF    | 0 DELA  | -10 IHT     | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 106.0       | 35.26       | -230.        | -23.         | -218.        | 6.17        | 55.21 | 128.87  | 3550.  |
| 3       | .0        | .0      | 102.1       | -6.45       | -356.        | -27.         | -272.        | 5.10        | 54.73 | 128.30  | 11510. |
| 4       | .0        | -20.3   | 131.5       | 39.82       | -851.        | 1280.        | -225.        | -184.13     | 54.97 | 128.58  | 11490. |
| 5       | .0        | -15.0   | 123.7       | 18.48       | -697.        | 892.         | -305.        | -133.43     | 54.79 | 128.37  | 11490. |
| 6       | .0        | -10.0   | 111.9       | 3.47        | -505.        | 468.         | -295.        | -83.98      | 54.96 | 128.58  | 11500. |
| 7       | .0        | -5.0    | 106.6       | -4.00       | -407.        | 204.         | -256.        | -39.20      | 55.18 | 128.83  | 11510. |
| 8       | .0        | -2.5    | 103.8       | -5.82       | -383.        | 82.          | -249.        | -17.56      | 54.71 | 128.27  | 11520. |
| 9       | .0        | .0      | 102.1       | -6.41       | -370.        | -22.         | -237.        | 7.21        | 55.29 | 128.96  | 11510. |
| 10      | .0        | 2.5     | 102.6       | -5.75       | -402.        | -89.         | -203.        | 28.78       | 55.28 | 128.95  | 11520. |
| 11      | .0        | 5.1     | 104.0       | -4.76       | -484.        | -173.        | -215.        | 49.87       | 55.12 | 128.77  | 11530. |
| 12      | .0        | 10.1    | 110.2       | 1.52        | -701.        | -507.        | -153.        | 93.66       | 54.52 | 128.04  | 11540. |
| 13      | .0        | 15.0    | 115.4       | 14.53       | -984.        | -849.        | -56.         | 141.99      | 54.94 | 128.54  | 11470. |
| 14      | .0        | 20.0    | 119.8       | 35.96       | -1233.       | -1192.       | 38.          | 188.53      | 54.82 | 128.40  | 11470. |
| 15      | .0        | .0      | 102.8       | -6.39       | -351.        | -26.         | -217.        | 4.93        | 55.24 | 128.90  | 11530. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .2865 | .0953  | -.0742 | -.0014 | -.0132 | .0167  |
| 3    | .00    | .2760 | -.0174 | -.1148 | -.0017 | -.0164 | .0138  |
| 4    | -20.30 | .3554 | .1076  | -.2743 | .0773  | -.0136 | -.4976 |
| 5    | -15.00 | .3343 | .0499  | -.2247 | .0539  | -.0184 | -.3606 |
| 6    | -10.00 | .3026 | .0094  | -.1628 | .0283  | -.0178 | -.2270 |
| 7    | -5.00  | .2882 | -.0108 | -.1312 | .0123  | -.0154 | -.1060 |
| 8    | -2.50  | .2807 | -.0157 | -.1233 | .0050  | -.0150 | -.0475 |
| 9    | .00    | .2759 | -.0173 | -.1193 | -.0013 | -.0143 | .0195  |
| 10   | 2.50   | .2773 | -.0155 | -.1295 | -.0054 | -.0122 | .0778  |
| 11   | 5.10   | .2811 | -.0129 | -.1560 | -.0105 | -.0130 | .1348  |
| 12   | 10.10  | .2978 | .0041  | -.2260 | -.0306 | -.0092 | .2531  |
| 13   | 15.00  | .3118 | .0393  | -.3172 | -.0513 | -.0034 | .3837  |
| 14   | 20.00  | .3238 | .0972  | -.3975 | -.0720 | .0023  | .5095  |
| 15   | .00    | .2778 | -.0173 | -.1133 | -.0016 | -.0131 | .0133  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .2865 | .0953  | -.0742 | -.0014 | -.0132 | .0167  |
| 3    | .00    | .2760 | -.0174 | -.1148 | -.0017 | -.0164 | .0138  |
| 4    | -20.30 | .3584 | -.0725 | -.2318 | .0773  | .0052  | -.5039 |
| 5    | -15.00 | .3343 | -.0455 | -.1913 | .0539  | -.0060 | -.3612 |
| 6    | -10.00 | .3026 | -.0303 | -.1437 | .0283  | -.0122 | -.2251 |
| 7    | -5.00  | .2882 | -.0200 | -.1235 | .0123  | -.0132 | -.1046 |
| 8    | -2.50  | .2807 | -.0178 | -.1197 | .0050  | -.0140 | -.0467 |
| 9    | .00    | .2759 | -.0173 | -.1193 | -.0013 | -.0143 | .0195  |
| 10   | 2.50   | .2773 | -.0189 | -.1322 | -.0054 | -.0133 | .0770  |
| 11   | 5.10   | .2811 | -.0248 | -.1615 | -.0105 | -.0156 | .1331  |
| 12   | 10.10  | .2978 | -.0406 | -.2311 | -.0306 | -.0166 | .2499  |
| 13   | 15.00  | .3118 | -.0618 | -.3110 | -.0513 | -.0187 | .3808  |
| 14   | 20.00  | .3238 | -.0838 | -.3691 | -.0720 | -.0234 | .5119  |
| 15   | .00    | .2778 | -.0173 | -.1133 | -.0016 | -.0131 | .0133  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P925

RUN 955 CONFIG F P B NP5 W7 T60 BT IN=-3.5 DELTAA,RT=+20)

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | +20 IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSR<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>G<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|---------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|---------------|-----------------|--------|
| 2                | .0                     | .0                   | 42.5                      | 36.25                    | 4.                        | 40.                        | 648.                 | 5.03                | 54.82         | 128.41          | 3540.  |
| 3                | .0                     | .0                   | 39.5                      | -5.83                    | -142.                     | 44.                        | 643.                 | 5.12                | 55.24         | 128.91          | 11530. |
| 4                | .0                     | -20.0                | 92.3                      | 39.87                    | -1523.                    | 1357.                      | 239.                 | -181.76             | 55.32         | 129.01          | 11520. |
| 5                | .0                     | -15.0                | 71.5                      | 18.57                    | -1105.                    | 903.                       | 368.                 | -132.33             | 55.63         | 129.37          | 11530. |
| 6                | .0                     | -9.9                 | 54.5                      | 3.79                     | -620.                     | 573.                       | 589.                 | -84.43              | 54.83         | 128.43          | 11530. |
| 7                | .0                     | -5.0                 | 45.4                      | -3.96                    | -306.                     | 295.                       | 645.                 | -41.16              | 54.79         | 128.37          | 11540. |
| 8                | .0                     | -2.5                 | 39.4                      | -5.66                    | -219.                     | 157.                       | 641.                 | -17.91              | 54.97         | 128.59          | 11550. |
| 9                | .0                     | .0                   | 39.4                      | -5.86                    | -161.                     | 34.                        | 594.                 | 8.75                | 54.47         | 128.00          | 11560. |
| 10               | .0                     | 2.5                  | 38.4                      | -4.88                    | -175.                     | -56.                       | 597.                 | 30.24               | 55.08         | 128.72          | 11530. |
| 11               | .0                     | 5.0                  | 42.5                      | -3.30                    | -217.                     | -148.                      | 598.                 | 50.20               | 54.62         | 128.18          | 11520. |
| 12               | .0                     | 10.1                 | 50.1                      | 3.55                     | -374.                     | -478.                      | 602.                 | 96.82               | 55.06         | 128.70          | 11540. |
| 13               | .0                     | 15.0                 | 61.5                      | 17.09                    | -643.                     | -890.                      | 693.                 | 147.33              | 54.91         | 128.52          | 11530. |
| 14               | .0                     | 20.0                 | 68.6                      | 39.17                    | -867.                     | -1224.                     | 717.                 | 193.63              | 54.64         | 128.20          | 11540. |
| 15               | .0                     | .0                   | 40.2                      | -5.52                    | -154.                     | 27.                        | 627.                 | 5.51                | 55.06         | 128.69          | 11520. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM   | Cy     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1148 | .0980  | .0011  | .0024  | .0391 | .0136  |
| 3    | .00    | .1067 | -.0158 | -.0456 | .0027  | .0388 | .0138  |
| 4    | -20.00 | .2493 | .1078  | -.4909 | .0819  | .0144 | -.4912 |
| 5    | -15.00 | .1934 | .0502  | -.3563 | .0545  | .0222 | -.3577 |
| 6    | -9.90  | .1474 | .0103  | -.1997 | .0346  | .0356 | -.2282 |
| 7    | -5.00  | .1227 | -.0107 | -.0987 | .0178  | .0390 | -.1112 |
| 8    | -2.50  | .1064 | -.0153 | -.0707 | .0095  | .0387 | -.0484 |
| 9    | .00    | .1064 | -.0158 | -.0518 | .0021  | .0359 | .0237  |
| 10   | 2.50   | .1039 | -.0132 | -.0565 | -.0034 | .0360 | .0817  |
| 11   | 5.00   | .1148 | -.0089 | -.0701 | -.0089 | .0361 | .1357  |
| 12   | 10.10  | .1353 | .0096  | -.1205 | -.0289 | .0364 | .2617  |
| 13   | 15.00  | .1662 | .0462  | -.2071 | -.0537 | .0419 | .3982  |
| 14   | 20.00  | .1853 | .1059  | -.2795 | -.0739 | .0433 | .5233  |
| 15   | .00    | .1085 | -.0149 | -.0496 | .0016  | .0378 | .0149  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1148 | .0980  | .0011  | .0024  | .0391 | .0136  |
| 3    | .00    | .1067 | -.0158 | -.0456 | .0027  | .0388 | .0138  |
| 4    | -20.00 | .2493 | -.0675 | -.4874 | .0819  | .0451 | -.4984 |
| 5    | -15.00 | .1934 | -.0445 | -.3749 | .0545  | .0388 | -.3584 |
| 6    | -9.90  | .1474 | -.0293 | -.2295 | .0346  | .0415 | -.2265 |
| 7    | -5.00  | .1227 | -.0204 | -.1166 | .0178  | .0404 | -.1099 |
| 8    | -2.50  | .1064 | -.0174 | -.0797 | .0095  | .0393 | -.0477 |
| 9    | .00    | .1064 | -.0158 | -.0518 | .0021  | .0359 | .0237  |
| 10   | 2.50   | .1039 | -.0168 | -.0481 | -.0034 | .0355 | .0811  |
| 11   | 5.00   | .1148 | -.0208 | -.0529 | -.0089 | .0348 | .1344  |
| 12   | 10.10  | .1353 | -.0366 | -.0844 | -.0289 | .0318 | .2593  |
| 13   | 15.00  | .1662 | -.0589 | -.1419 | -.0537 | .0304 | .3965  |
| 14   | 20.00  | .1853 | -.0804 | -.1831 | -.0739 | .0227 | .5278  |
| 15   | .00    | .1085 | -.0149 | -.0496 | .0016  | .0378 | .0149  |

RUN 956 CONFIG F P B NP5 W7 T4L BT IN=-3.5

| IW<br>PT.<br>NO. | 15<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 30<br>CLBAR<br>SQ-FT | 0<br>CDBAR<br>SQ-FT | 0<br>CPM BAR<br>CU-FT | 0<br>CYM BAR<br>CU-FT | 0<br>DEL R<br>CU-FT | 0<br>CYB AR<br>SQ-FT | 0<br>DELSB<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|--------------------|---------------------|----------------------|---------------------|-----------------------|-----------------------|---------------------|----------------------|------------------------|-----------------|--------|
| 6                | .0                 | .0                  | 632.0                | 135.51              | -762.                 | -103.                 | 87.                 | 1.51                 | 54.27                  | 127.76          | 4220.  |
| 8                | .0                 | .0                  | 624.9                | 133.94              | -762.                 | -84.                  | 85.                 | 2.36                 | 54.85                  | 128.45          | 4220.  |
| 9                | .0                 | .0                  | 558.4                | -6.76               | -910.                 | 115.                  | 424.                | -28.55               | 55.00                  | 128.63          | 19980. |
| 10               | -20.0              | .0                  | -53.6                | -31.25              | -2163.                | -21.                  | 144.                | -1.36                | 54.94                  | 128.57          | 20020. |
| 11               | -15.0              | .0                  | 134.8                | -48.84              | -2137.                | -14.                  | 141.                | 1.20                 | 53.86                  | 127.27          | 20020. |
| 12               | -10.0              | .0                  | 316.6                | -42.86              | -1758.                | -7.                   | 163.                | -1.26                | 54.19                  | 127.67          | 20000. |
| 13               | -5.0               | .0                  | 469.6                | -29.55              | -1292.                | -110.                 | 230.                | 1.13                 | 54.36                  | 127.87          | 20000. |
| 14               | -2.5               | .0                  | 511.1                | -16.44              | -1076.                | 32.                   | 398.                | -17.38               | 54.49                  | 128.02          | 20000. |
| 15               | .0                 | .0                  | 571.1                | -4.00               | -914.                 | 149.                  | 556.                | -27.11               | 53.90                  | 127.32          | 20010. |
| 16               | 2.5                | .0                  | 583.4                | 9.50                | -711.                 | -3.                   | 243.                | -9.96                | 54.40                  | 127.91          | 20010. |
| 17               | 5.0                | .0                  | 602.5                | 25.18               | -562.                 | -4.                   | 673.                | -13.13               | 54.24                  | 127.72          | 20070. |
| 18               | 10.0               | .0                  | 557.8                | 88.70               | -485.                 | -49.                  | -35.                | .12                  | 54.53                  | 128.07          | 20050. |
| 19               | 15.0               | .0                  | 572.2                | 147.26              | -145.                 | -142.                 | 376.                | 1.20                 | 54.02                  | 127.46          | 19960. |
| 20               | 20.0               | .0                  | 606.6                | 214.03              | 292.                  | -27.                  | 178.                | 2.18                 | 54.66                  | 128.22          | 20000. |
| 21               | .0                 | .0                  | 562.2                | -.18                | -904.                 | 136.                  | 474.                | -26.84               | 55.08                  | 128.73          | 19970. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | Cy     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | 1.7082 | .3662  | -.2456 | -.0062 | .0053  | .0041  |
| 8    | .00    | 1.6890 | .3620  | -.2457 | -.0051 | .0052  | .0064  |
| 9    | .00    | 1.5091 | -.0183 | -.2932 | .0069  | .0256  | -.0772 |
| 10   | -20.00 | -.1449 | -.0845 | -.6975 | -.0013 | .0087  | -.0037 |
| 11   | -15.01 | .3645  | -.1320 | -.6890 | -.0009 | .0085  | .0032  |
| 12   | -10.01 | .8558  | -.1159 | -.5669 | -.0004 | .0090  | -.0034 |
| 13   | -5.00  | 1.2693 | -.0799 | -.4167 | -.0066 | .0139  | .0030  |
| 14   | -2.51  | 1.3813 | -.0444 | -.3470 | .0019  | .0240  | -.0470 |
| 15   | -.00   | 1.5434 | -.0108 | -.2947 | .0090  | .0336  | -.0733 |
| 16   | 2.49   | 1.5769 | .0257  | -.2291 | -.0002 | .0147  | -.0269 |
| 17   | 4.99   | 1.6285 | .0681  | -.1811 | -.0002 | .0407  | -.0355 |
| 18   | 10.00  | 1.5076 | .2397  | -.1564 | -.0030 | -.0021 | -.0003 |
| 19   | 15.00  | 1.5464 | .3980  | -.0467 | -.0086 | .0227  | .0032  |
| 20   | 19.99  | 1.6394 | .5785  | .0941  | -.0016 | .0107  | .0059  |
| 21   | -.01   | 1.5195 | -.0005 | -.2914 | .0082  | .0286  | -.0725 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | 1.7082 | .3662  | -.2456 | -.0062 | .0053  | .0041  |
| 8    | .00    | 1.6890 | .3620  | -.2457 | -.0051 | .0052  | .0064  |
| 9    | .00    | 1.5091 | -.0183 | -.2932 | .0069  | .0256  | -.0772 |
| 10   | -20.00 | -.1449 | -.0845 | -.6975 | -.0013 | .0087  | -.0037 |
| 11   | -15.01 | .3645  | -.1320 | -.6890 | -.0009 | .0085  | .0032  |
| 12   | -10.01 | .8558  | -.1159 | -.5669 | -.0004 | .0090  | -.0034 |
| 13   | -5.00  | 1.2693 | -.0799 | -.4167 | -.0066 | .0139  | .0030  |
| 14   | -2.51  | 1.3813 | -.0444 | -.3470 | .0019  | .0240  | -.0470 |
| 15   | -.00   | 1.5434 | -.0108 | -.2947 | .0090  | .0336  | -.0733 |
| 16   | 2.49   | 1.5769 | .0257  | -.2291 | -.0002 | .0147  | -.0269 |
| 17   | 4.99   | 1.6285 | .0681  | -.1811 | -.0002 | .0407  | -.0355 |
| 18   | 10.00  | 1.5076 | .2397  | -.1564 | -.0030 | -.0021 | -.0003 |
| 19   | 15.00  | 1.5464 | .3980  | -.0467 | -.0086 | .0227  | .0032  |
| 20   | 19.99  | 1.6394 | .5785  | .0941  | -.0016 | .0107  | .0059  |
| 21   | -.01   | 1.5195 | -.0005 | -.2914 | .0082  | .0286  | -.0725 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 927

RUN 957 CONFIG F P B NP5 W7 T60 BT IN=-3.5

| IW<br>PT.<br>NO. | 15 DELF<br>ALPHA<br>DEG | 30 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 5 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CPMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|-----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|---------------|-----------------|--------|
| 2                | .0                      | .0                    | 635.4                   | 134.71                   | -1021.                    | -96.                       | 103.                 | 3.06                | 54.58         | 128.13          | 4210.  |
| 3                | .0                      | .0                    | 567.9                   | -7.49                    | -1166.                    | 140.                       | 491.                 | -23.11              | 54.55         | 128.10          | 19940. |
| 4                | -20.0                   | .0                    | -54.9                   | -31.80                   | -2191.                    | 1.                         | 171.                 | 2.35                | 55.02         | 128.67          | 19970. |
| 5                | -15.0                   | .0                    | 135.8                   | -47.89                   | -2087.                    | -17.                       | 141.                 | -.06                | 54.99         | 128.62          | 19930. |
| 6                | -10.0                   | .0                    | 315.3                   | -43.96                   | -1794.                    | -49.                       | 138.                 | 2.24                | 54.66         | 128.23          | 19930. |
| 7                | -5.0                    | .0                    | 472.7                   | -30.04                   | -1527.                    | -129.                      | 141.                 | 1.00                | 54.44         | 127.96          | 19950. |
| 8                | -2.5                    | .0                    | 509.3                   | -15.37                   | -1336.                    | 40.                        | 323.                 | -16.55              | 54.97         | 128.60          | 19950. |
| 9                | .0                      | .0                    | 571.1                   | -3.11                    | -1141.                    | 132.                       | 512.                 | -27.32              | 54.74         | 128.33          | 19940. |
| 10               | 2.5                     | .0                    | 592.7                   | 10.83                    | -941.                     | 2.                         | 350.                 | -10.51              | 54.47         | 128.00          | 19940. |
| 11               | 5.0                     | .0                    | 610.3                   | 27.69                    | -821.                     | -6.                        | 678.                 | -17.42              | 54.18         | 127.65          | 19990. |
| 12               | 10.0                    | .0                    | 564.0                   | 92.28                    | -741.                     | -47.                       | 18.                  | -.37                | 54.86         | 128.47          | 19920. |
| 13               | 15.0                    | .0                    | 569.9                   | 148.39                   | -344.                     | -164.                      | 336.                 | -1.49               | 54.82         | 128.42          | 19930. |
| 14               | 20.0                    | .0                    | 617.5                   | 218.61                   | 92.                       | -58.                       | 126.                 | 3.71                | 54.15         | 127.61          | 19930. |
| 15               | .0                      | .0                    | 546.1                   | -.16                     | -1167.                    | 197.                       | 708.                 | -30.02              | 54.93         | 128.55          | 19960. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.7173 | .3641  | -.3291 | -.0058 | .0062 | .0083  |
| 3    | .00    | 1.5349 | -.0202 | -.3760 | .0085  | .0297 | -.0624 |
| 4    | -19.99 | -.1483 | -.0859 | -.7064 | .0000  | .0103 | .0064  |
| 5    | -15.00 | .3671  | -.1294 | -.6727 | -.0010 | .0085 | -.0002 |
| 6    | -10.00 | .8521  | -.1188 | -.5783 | -.0030 | .0083 | .0061  |
| 7    | -4.99  | 1.2775 | -.0812 | -.4924 | -.0078 | .0085 | .0027  |
| 8    | -2.49  | 1.3765 | -.0415 | -.4308 | .0024  | .0195 | -.0447 |
| 9    | .00    | 1.5434 | -.0084 | -.3679 | .0079  | .0310 | -.0738 |
| 10   | 2.51   | 1.6018 | .0293  | -.3033 | .0001  | .0211 | -.0284 |
| 11   | 5.01   | 1.6496 | .0748  | -.2646 | -.0004 | .0410 | -.0471 |
| 12   | 10.01  | 1.5244 | .2494  | -.2388 | -.0028 | .0011 | -.0010 |
| 13   | 15.00  | 1.5403 | .4011  | -.1108 | -.0099 | .0203 | -.0040 |
| 14   | 20.00  | 1.6688 | .5908  | .0298  | -.0035 | .0076 | .0100  |
| 15   | .01    | 1.4758 | -.0004 | -.3764 | .0119  | .0422 | -.0811 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.7173 | .3641  | -.3291 | -.0058 | .0062 | .0083  |
| 3    | .00    | 1.5349 | -.0202 | -.3760 | .0085  | .0297 | -.0624 |
| 4    | -19.99 | -.1483 | -.0859 | -.7064 | .0000  | .0103 | .0064  |
| 5    | -15.00 | .3671  | -.1294 | -.6727 | -.0010 | .0085 | -.0002 |
| 6    | -10.00 | .8521  | -.1188 | -.5783 | -.0030 | .0083 | .0061  |
| 7    | -4.99  | 1.2775 | -.0812 | -.4924 | -.0078 | .0085 | .0027  |
| 8    | -2.49  | 1.3765 | -.0415 | -.4308 | .0024  | .0195 | -.0447 |
| 9    | .00    | 1.5434 | -.0084 | -.3679 | .0079  | .0310 | -.0738 |
| 10   | 2.51   | 1.6018 | .0293  | -.3033 | .0001  | .0211 | -.0284 |
| 11   | 5.01   | 1.6496 | .0748  | -.2646 | -.0004 | .0410 | -.0471 |
| 12   | 10.01  | 1.5244 | .2494  | -.2388 | -.0028 | .0011 | -.0010 |
| 13   | 15.00  | 1.5403 | .4011  | -.1108 | -.0099 | .0203 | -.0040 |
| 14   | 20.00  | 1.6688 | .5908  | .0298  | -.0035 | .0076 | .0100  |
| 15   | .01    | 1.4758 | -.0004 | -.3764 | .0119  | .0422 | -.0811 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 928

RUN 958 CONFIG F P'B NP5 W7 T41 BT IN=-3.5

| IW      | 15 DELF   | 30 DELA | 0 IHT       | -5 DELE     | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CpMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 622.9       | 135.16      | -572.        | -58.         | 87.          | 1.11        | 55.10 | 128.76  | 4220.  |
| 3       | .0        | .0      | 566.6       | -6.57       | -684.        | 109.         | 506.         | -26.31      | 55.29 | 128.99  | 20080. |
| 4       | -20.0     | .0      | -61.6       | -31.00      | -2135.       | -18.         | 101.         | 1.60        | 55.46 | 129.19  | 20120. |
| 5       | -15.0     | .0      | 133.5       | -46.99      | -2043.       | -2.          | 103.         | -.06        | 56.25 | 130.12  | 20110. |
| 6       | -10.0     | .0      | 313.6       | -44.17      | -1756.       | -45.         | 163.         | -2.23       | 55.03 | 128.68  | 20100. |
| 7       | -5.0      | .0      | 467.2       | -30.13      | -1281.       | -86.         | 157.         | 1.19        | 54.88 | 128.50  | 20090. |
| 8       | -2.5      | .0      | 501.8       | -16.36      | -966.        | 34.          | 307.         | -18.03      | 55.18 | 128.86  | 20090. |
| 9       | .0        | .0      | 566.1       | -4.96       | -673.        | 97.          | 475.         | -23.74      | 54.38 | 127.90  | 20100. |
| 10      | 2.5       | .0      | 595.8       | 9.31        | -511.        | 153.         | 793.         | -37.34      | 54.10 | 127.56  | 20080. |
| 11      | 5.0       | .0      | 594.1       | 23.92       | -321.        | -12.         | 575.         | -11.41      | 54.92 | 128.55  | 20120. |
| 12      | 10.0      | .0      | 524.4       | 76.80       | -253.        | -141.        | 431.         | -11.38      | 54.79 | 128.39  | 20040. |
| 13      | 15.0      | .0      | 570.3       | 143.02      | 120.         | -148.        | 196.         | -4.67       | 54.67 | 128.24  | 20090. |
| 14      | 20.0      | .0      | 613.8       | 213.68      | 473.         | -39.         | 73.          | 3.56        | 53.65 | 127.01  | 20100. |
| 15      | -.0       | .0      | 531.3       | -2.04       | -705.        | 168.         | 769.         | -33.48      | 54.64 | 128.21  | 20090. |
| 16      | 10.0      | .0      | 576.1       | 97.02       | -245.        | -142.        | 250.         | .25         | 54.13 | 127.60  | 20070. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.6836 | .3653  | -.1845 | -.0035 | .0052 | .0030  |
| 3    | .00    | 1.5312 | -.0178 | -.2207 | .0066  | .0304 | -.0711 |
| 4    | -20.00 | -.1665 | -.0838 | -.6882 | -.0011 | .0061 | .0043  |
| 5    | -15.01 | .3608  | -.1270 | -.6587 | -.0001 | .0063 | -.0002 |
| 6    | -10.00 | .8476  | -.1194 | -.5661 | -.0027 | .0092 | -.0060 |
| 7    | -5.00  | 1.2627 | -.0814 | -.4131 | -.0052 | .0095 | .0032  |
| 8    | -2.49  | 1.3561 | -.0442 | -.3114 | .0021  | .0185 | -.0487 |
| 9    | .00    | 1.5300 | -.0134 | -.2169 | .0059  | .0287 | -.0642 |
| 10   | 2.50   | 1.6103 | .0252  | -.1648 | .0092  | .0479 | -.1009 |
| 11   | 5.00   | 1.6055 | .0647  | -.1036 | -.0007 | .0347 | -.0308 |
| 12   | 10.00  | 1.4173 | .2076  | -.0817 | -.0085 | .0260 | -.0307 |
| 13   | 15.00  | 1.5412 | .3865  | .0387  | -.0089 | .0112 | -.0126 |
| 14   | 20.01  | 1.6588 | .5775  | .1526  | -.0023 | .0044 | .0096  |
| 15   | -.00   | 1.4360 | -.0055 | -.2273 | .0102  | .0462 | -.0905 |
| 16   | 10.01  | 1.5570 | .2622  | -.0789 | -.0086 | .0151 | .0007  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.6836 | .3653  | -.1845 | -.0035 | .0052 | .0030  |
| 3    | .00    | 1.5312 | -.0178 | -.2207 | .0066  | .0304 | -.0711 |
| 4    | -20.00 | -.1665 | -.0838 | -.6882 | -.0011 | .0061 | .0043  |
| 5    | -15.01 | .3608  | -.1270 | -.6587 | -.0001 | .0063 | -.0002 |
| 6    | -10.00 | .8476  | -.1194 | -.5661 | -.0027 | .0092 | -.0060 |
| 7    | -5.00  | 1.2627 | -.0814 | -.4131 | -.0052 | .0095 | .0032  |
| 8    | -2.49  | 1.3561 | -.0442 | -.3114 | .0021  | .0185 | -.0487 |
| 9    | .00    | 1.5300 | -.0134 | -.2169 | .0059  | .0287 | -.0642 |
| 10   | 2.50   | 1.6103 | .0252  | -.1648 | .0092  | .0479 | -.1009 |
| 11   | 5.00   | 1.6055 | .0647  | -.1036 | -.0007 | .0347 | -.0308 |
| 12   | 10.00  | 1.4173 | .2076  | -.0817 | -.0085 | .0260 | -.0307 |
| 13   | 15.00  | 1.5412 | .3865  | .0387  | -.0089 | .0112 | -.0126 |
| 14   | 20.01  | 1.6588 | .5775  | .1526  | -.0023 | .0044 | .0096  |
| 15   | -.00   | 1.4360 | -.0055 | -.2273 | .0102  | .0462 | -.0905 |
| 16   | 10.01  | 1.5570 | .2622  | -.0789 | -.0086 | .0151 | .0007  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 929

RUN 959 CONFIG F P B NPS W7 TH1 BT IN=3.5

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | -5 DELE     | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |       |
| 2       | .0        | .0      | 376.6       | 73.21       | 14.          | -72.         | 84.          | 84.         | 2.72  | 55.16   | 128.83 | 3950. |
| 3       | .0        | .0      | 356.3       | -6.53       | -125.        | -35.         | 166.         | -5.78       | 54.84 | 128.45  | 15490. |       |
| 4       | -20.0     | .0      | -227.0      | 9.29        | -1109.       | -48.         | 84.          | 9.62        | 54.87 | 128.49  | 15500. |       |
| 5       | -15.0     | .0      | -79.8       | -17.68      | -1119.       | -85.         | 91.          | 7.36        | 54.61 | 128.17  | 15500. |       |
| 6       | -10.0     | .0      | 86.7        | -29.74      | -950.        | 16.          | 141.         | .06         | 54.79 | 128.39  | 15490. |       |
| 7       | -5.0      | .0      | 231.5       | -22.12      | -550.        | -8.          | 125.         | -1.06       | 54.82 | 128.42  | 15500. |       |
| 8       | -2.5      | .0      | 292.1       | -14.56      | -291.        | -69.         | 178.         | -1.42       | 55.00 | 128.64  | 15500. |       |
| 9       | .0        | .0      | 354.3       | -5.55       | -126.        | -35.         | 149.         | -5.24       | 54.58 | 128.14  | 15510. |       |
| 10      | 2.5       | .0      | 408.5       | 6.56        | 9.           | -3.          | 204.         | -7.33       | 54.37 | 127.88  | 15480. |       |
| 11      | 5.0       | .0      | 435.8       | 28.27       | 34.          | -1.          | 502.         | -4.93       | 54.58 | 128.13  | 15490. |       |
| 12      | 10.0      | .0      | 448.2       | 74.62       | 194.         | -85.         | 88.          | 1.56        | 54.65 | 128.22  | 15500. |       |
| 13      | 15.0      | .0      | 497.7       | 134.28      | 565.         | 11.          | -71.         | .44         | 54.46 | 127.99  | 15500. |       |
| 14      | 20.0      | .0      | 538.9       | 195.32      | 979.         | -65.         | 72.          | 2.32        | 54.43 | 127.96  | 15500. |       |
| 15      | .0        | .0      | 353.6       | -4.21       | -114.        | -31.         | 202.         | -6.20       | 54.91 | 128.53  | 15540. |       |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0177 | .1979  | .0044  | -.0044 | .0051  | .0073  |
| 3    | .00    | .9629  | -.0176 | -.0404 | -.0021 | .010n  | -.0156 |
| 4    | -20.00 | -.6136 | .0251  | -.3575 | -.0029 | .0051  | .0260  |
| 5    | -14.98 | -.2158 | -.0478 | -.3606 | -.0051 | .005n  | .0199  |
| 6    | -10.00 | .2342  | -.0804 | -.3064 | .0010  | .008n  | .0002  |
| 7    | -4.99  | .6256  | -.0598 | -.1773 | -.0005 | .007n  | -.0029 |
| 8    | -2.50  | .7896  | -.0393 | -.0939 | -.0042 | .010n  | -.0039 |
| 9    | .00    | .9574  | -.0150 | -.0406 | -.0021 | .009n  | -.0142 |
| 10   | 2.52   | 1.1040 | .0177  | .0030  | -.0002 | .012n  | -.0198 |
| 11   | 5.01   | 1.1778 | .0764  | .0110  | -.0000 | .030n  | -.0133 |
| 12   | 10.02  | 1.2113 | .2017  | .0626  | -.0051 | .005n  | .0042  |
| 13   | 15.01  | 1.3452 | .3629  | .1822  | .0006  | -.004n | .0012  |
| 14   | 20.00  | 1.4565 | .5279  | .3157  | -.0039 | .004n  | .0063  |
| 15   | .01    | .9556  | -.0114 | -.0367 | -.0019 | .012n  | -.0168 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0177 | .1979  | .0044  | -.0044 | .0051  | .0073  |
| 3    | .00    | .9629  | -.0176 | -.0404 | -.0021 | .010n  | -.0156 |
| 4    | -20.00 | -.6136 | .0251  | -.3575 | -.0029 | .0051  | .0260  |
| 5    | -14.98 | -.2158 | -.0478 | -.3606 | -.0051 | .005n  | .0199  |
| 6    | -10.00 | .2342  | -.0804 | -.3064 | .0010  | .008n  | .0002  |
| 7    | -4.99  | .6256  | -.0598 | -.1773 | -.0005 | .007n  | -.0029 |
| 8    | -2.50  | .7896  | -.0393 | -.0939 | -.0042 | .010n  | -.0039 |
| 9    | .00    | .9574  | -.0150 | -.0406 | -.0021 | .009n  | -.0142 |
| 10   | 2.52   | 1.1040 | .0177  | .0030  | -.0002 | .012n  | -.0198 |
| 11   | 5.01   | 1.1778 | .0764  | .0110  | -.0000 | .030n  | -.0133 |
| 12   | 10.02  | 1.2113 | .2017  | .0626  | -.0051 | .005n  | .0042  |
| 13   | 15.01  | 1.3452 | .3629  | .1822  | .0006  | -.004n | .0012  |
| 14   | 20.00  | 1.4565 | .5279  | .3157  | -.0039 | .004n  | .0063  |
| 15   | .01    | .9556  | -.0114 | -.0367 | -.0019 | .012n  | -.0168 |

RUN 960 CONFIG      F P B NPS W7 T41 BT      M=-3.5

| IW      | 15 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR        | 0 DELSB      | 0             |             |       |         |        |
|---------|-----------|---------|-------------|-------------|---------------|--------------|---------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 359.2       | -3.21       | -359.         | -17.         | 254.          | -2.27       | 54.10 | 127.57  | 15060. |
| 3       | .0        | .0      | 363.0       | -.28        | -344.         | -32.         | 251.          | -3.10       | 55.01 | 128.64  | 15070. |
| 5       | .0        | .0      | 378.6       | 72.08       | -233.         | -98.         | 101.          | 3.60        | 54.95 | 128.57  | 3970.  |
| 6       | .0        | .0      | 339.8       | -83.76      | -421.         | -35.         | 253.          | -6.92       | 55.62 | 129.37  | 21480. |
| 7       | .0        | .0      | 355.7       | -6.57       | -358.         | -52.         | 200.          | -4.89       | 55.04 | 128.67  | 15850. |
| 8       | -20.0     | .0      | -223.1      | 9.29        | -1130.        | -45.         | 105.          | 8.24        | 55.00 | 128.63  | 15810. |
| 9       | -15.0     | .0      | -79.2       | -17.09      | -1104.        | -65.         | 71.           | 7.42        | 56.00 | 129.81  | 15830. |
| 10      | -10.0     | .0      | 83.9        | -28.64      | -885.         | 9.           | 135.          | 2.07        | 56.03 | 129.84  | 15790. |
| 11      | -5.0      | .0      | 228.2       | -22.19      | -601.         | -69.         | 140.          | -.06        | 55.32 | 129.00  | 15800. |
| 12      | -2.5      | .0      | 294.3       | -14.61      | -478.         | -110.        | 174.          | 1.61        | 54.90 | 128.50  | 15810. |
| 13      | .0        | .0      | 353.7       | -5.22       | -360.         | -59.         | 234.          | -4.69       | 55.25 | 128.91  | 15820. |
| 14      | 2.5       | .0      | 401.5       | 6.39        | -240.         | -12.         | 198.          | -4.80       | 55.36 | 129.04  | 15830. |
| 15      | 5.0       | .0      | 423.5       | 28.39       | -230.         | 9.           | 407.          | -3.58       | 55.15 | 128.80  | 15790. |
| 16      | 10.0      | .0      | 443.4       | 74.21       | -28.          | -90.         | 189.          | 3.61        | 55.71 | 129.46  | 15800. |
| 17      | 15.0      | .0      | 489.4       | 132.78      | 329.          | -47.         | -35.          | -1.17       | 55.53 | 129.24  | 15790. |
| 18      | 20.0      | .0      | 534.8       | 194.89      | 712.          | -95.         | 174.          | 3.53        | 55.99 | 129.78  | 15810. |
| 19      | -.0       | .0      | 347.0       | -5.05       | -365.         | -70.         | 214.          | -4.39       | 55.86 | 129.64  | 15820. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9709  | -.0087 | -.1156 | -.0010 | .0153  | -.0061 |
| 3    | .00    | .9811  | -.0007 | -.1108 | -.0020 | .0151  | -.0084 |
| 5    | .00    | 1.0234 | .1948  | -.0750 | -.0059 | .0061  | .0097  |
| 6    | .00    | .9183  | -.2264 | -.1359 | -.0021 | .0153  | -.0187 |
| 7    | .00    | .9612  | -.0178 | -.1155 | -.0031 | .0121  | -.0132 |
| 8    | -20.00 | -.6031 | .0251  | -.3644 | -.0027 | .0063  | .0223  |
| 9    | -15.01 | -.2141 | -.0462 | -.3559 | -.0039 | .0043  | .0201  |
| 10   | -10.00 | .2266  | -.0774 | -.2853 | .0005  | .0081  | .0056  |
| 11   | -5.00  | .6167  | -.0600 | -.1939 | -.0042 | .0085  | -.0002 |
| 12   | -2.50  | .7955  | -.0395 | -.1540 | -.0066 | .0105  | .0044  |
| 13   | .00    | .9559  | -.0141 | -.1160 | -.0036 | .0141  | -.0127 |
| 14   | 2.50   | 1.0852 | .0173  | -.0772 | -.0007 | .0120  | -.0130 |
| 15   | 5.00   | 1.1447 | .0767  | -.0742 | .0005  | .0246  | -.0097 |
| 16   | 10.00  | 1.1983 | .2006  | -.0090 | -.0054 | .0110  | .0098  |
| 17   | 15.00  | 1.3226 | .3589  | .1059  | -.0029 | -.0021 | -.0032 |
| 18   | 19.99  | 1.4455 | .5267  | .2294  | -.0058 | .0105  | .0095  |
| 19   | -.01   | .9379  | -.0137 | -.1176 | -.0043 | .0120  | -.0119 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .9709  | -.0087 | -.1156 | -.0010 | .0153  | -.0061 |
| 3    | .00    | .9811  | -.0007 | -.1108 | -.0020 | .0151  | -.0084 |
| 5    | .00    | 1.0234 | .1948  | -.0750 | -.0059 | .0061  | .0097  |
| 6    | .00    | .9183  | -.2264 | -.1359 | -.0021 | .0153  | -.0187 |
| 7    | .00    | .9612  | -.0178 | -.1155 | -.0031 | .0121  | -.0132 |
| 8    | -20.00 | -.6031 | .0251  | -.3644 | -.0027 | .0063  | .0223  |
| 9    | -15.01 | -.2141 | -.0462 | -.3559 | -.0039 | .0043  | .0201  |
| 10   | -10.00 | .2266  | -.0774 | -.2853 | .0005  | .0081  | .0056  |
| 11   | -5.00  | .6167  | -.0600 | -.1939 | -.0042 | .0085  | -.0002 |
| 12   | -2.50  | .7955  | -.0395 | -.1540 | -.0066 | .0105  | .0044  |
| 13   | .00    | .9559  | -.0141 | -.1160 | -.0036 | .0141  | -.0127 |
| 14   | 2.50   | 1.0852 | .0173  | -.0772 | -.0007 | .0120  | -.0130 |
| 15   | 5.00   | 1.1447 | .0767  | -.0742 | .0005  | .0246  | -.0097 |
| 16   | 10.00  | 1.1983 | .2006  | -.0090 | -.0054 | .0110  | .0098  |
| 17   | 15.00  | 1.3226 | .3589  | .1059  | -.0029 | -.0021 | -.0032 |
| 18   | 19.99  | 1.4455 | .5267  | .2294  | -.0058 | .0105  | .0095  |
| 19   | -.01   | .9379  | -.0137 | -.1176 | -.0043 | .0120  | -.0119 |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEI TEST  
AERODYNAMIC DATA

SER=72011

P 931

RUN 961 CONFIG F P B NP5 W7 T41 BT M=-3.5

| PT. NO. | IW | 15 DELF<br>ALPHA<br>DEG | PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 5 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>V<br>KNOTS | RPM    |        |
|---------|----|-------------------------|------------|--------------------------|-------------------------|---------------------------|--------------------------|---------------------------|----------|-----------------|--------|--------|
| 2       |    | .0                      | .0         | 383.7                    | 71.35                   | -468.                     | -83.                     | 65.                       | 3.43     | 55.58           | 129.32 | 3970.  |
| 3       |    | .0                      | .0         | 365.3                    | -6.78                   | -617.                     | -34.                     | 167.                      | -6.38    | 54.96           | 128.58 | 15510. |
| 4       |    | -20.0                   | .0         | -221.2                   | 8.12                    | -1170.                    | -55.                     | 98.                       | 10.57    | 55.41           | 129.11 | 15530. |
| 5       |    | -15.0                   | .0         | -79.5                    | -17.82                  | -1091.                    | -93.                     | 71.                       | 7.89     | 55.25           | 128.93 | 15530. |
| 6       |    | -10.0                   | .0         | 88.1                     | -30.21                  | -1013.                    | -22.                     | 100.                      | 2.57     | 55.71           | 129.48 | 15510. |
| 7       |    | -5.0                    | .0         | 237.4                    | -22.93                  | -855.                     | -63.                     | 121.                      | 1.30     | 55.01           | 128.65 | 15530. |
| 8       |    | -2.5                    | .0         | 300.2                    | -13.95                  | -718.                     | -93.                     | 178.                      | -2.82    | 55.57           | 129.31 | 15500. |
| 9       |    | .0                      | .0         | 368.3                    | -3.89                   | -603.                     | -34.                     | 200.                      | -4.18    | 54.65           | 128.21 | 15510. |
| 10      |    | 2.5                     | .0         | 413.7                    | 8.52                    | -470.                     | -3.                      | 201.                      | -7.88    | 55.31           | 129.00 | 15490. |
| 11      |    | 5.0                     | .0         | 419.3                    | 31.92                   | -498.                     | -17.                     | 93.                       | -4.73    | 54.73           | 128.30 | 15500. |
| 12      |    | 10.0                    | .0         | 454.3                    | 78.04                   | -286.                     | -80.                     | 104.                      | 2.16     | 55.12           | 128.77 | 15500. |
| 13      |    | 15.0                    | .0         | 508.5                    | 139.19                  | 110.                      | -11.                     | -107.                     | -1.57    | 54.08           | 127.52 | 15530. |
| 14      |    | 20.0                    | .0         | 529.8                    | 194.53                  | 597.                      | -56.                     | 105.                      | 5.28     | 56.13           | 129.96 | 15500. |
| 15      |    | .0                      | .0         | 361.4                    | -1.33                   | -594.                     | -48.                     | 162.                      | -4.75    | 55.89           | 129.68 | 15510. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0370 | .1928  | -.1507 | -.0050 | .0030  | .0093  |
| 3    | .00    | .9874  | -.0183 | -.1990 | -.0021 | .0101  | -.0173 |
| 4    | -19.99 | -.5978 | .0219  | -.3773 | -.0033 | .0050  | .0286  |
| 5    | -14.99 | -.2149 | -.0482 | -.3516 | -.0056 | .0043  | .0213  |
| 6    | -10.00 | .2381  | -.0816 | -.3265 | -.0013 | .0060  | .0069  |
| 7    | -5.00  | .6416  | -.0620 | -.2756 | -.0038 | .0073  | .0035  |
| 8    | -2.48  | .8115  | -.0377 | -.2314 | -.0056 | .0100  | -.0076 |
| 9    | .01    | .9954  | -.0105 | -.1944 | -.0020 | .0121  | -.0113 |
| 10   | 2.51   | 1.1180 | .0230  | -.1514 | -.0002 | .0120  | -.0213 |
| 11   | 5.02   | 1.1333 | .0863  | -.1605 | -.0010 | .0050  | -.0128 |
| 12   | 10.00  | 1.2278 | .2109  | -.0921 | -.0048 | .0063  | .0058  |
| 13   | 15.02  | 1.3743 | .3762  | .0354  | -.0007 | -.0065 | -.0043 |
| 14   | 20.01  | 1.4320 | .5257  | .1926  | -.0034 | .0063  | .0143  |
| 15   | .00    | .9769  | -.0036 | -.1914 | -.0029 | .0090  | -.0128 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0370 | .1928  | -.1507 | -.0050 | .0030  | .0093  |
| 3    | .00    | .9874  | -.0183 | -.1990 | -.0021 | .0101  | -.0173 |
| 4    | -19.99 | -.5978 | .0219  | -.3773 | -.0033 | .0050  | .0286  |
| 5    | -14.99 | -.2149 | -.0482 | -.3516 | -.0056 | .0043  | .0213  |
| 6    | -10.00 | .2381  | -.0816 | -.3265 | -.0013 | .0060  | .0069  |
| 7    | -5.00  | .6416  | -.0620 | -.2756 | -.0038 | .0073  | .0035  |
| 8    | -2.48  | .8115  | -.0377 | -.2314 | -.0056 | .0100  | -.0076 |
| 9    | .01    | .9954  | -.0105 | -.1944 | -.0020 | .0121  | -.0113 |
| 10   | 2.51   | 1.1180 | .0230  | -.1514 | -.0002 | .0120  | -.0213 |
| 11   | 5.02   | 1.1333 | .0863  | -.1605 | -.0010 | .0050  | -.0128 |
| 12   | 10.00  | 1.2278 | .2109  | -.0921 | -.0048 | .0063  | .0058  |
| 13   | 15.02  | 1.3743 | .3762  | .0354  | -.0007 | -.0065 | -.0043 |
| 14   | 20.01  | 1.4320 | .5257  | .1926  | -.0034 | .0063  | .0143  |
| 15   | .00    | .9769  | -.0036 | -.1914 | -.0029 | .0090  | -.0128 |

RUN 962 CONFIG

F P B NP5 W7 T41 BT

M=-3.5

| PT. NO. | IW    | 7.5 DELF<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 5 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELSB<br>CMBAR<br>SQ-FT | 0<br>PSF | 0<br>V<br>KNOTS | RPM    |        |
|---------|-------|--------------------------|---------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|----------|-----------------|--------|--------|
| 2       |       | .0                       | .0                  | 263.1                    | 47.88                   | -455.                     | -64.                      | 99.                       | 5.11     | 55.30           | 128.98 | 3780.  |
| 3       |       | .0                       | .0                  | 255.6                    | -1.09                   | -565.                     | -64.                      | 135.                      | 2.94     | 55.68           | 129.43 | 12360. |
| 4       |       | .0                       | .0                  | 256.0                    | -5.28                   | -577.                     | -51.                      | 119.                      | 2.83     | 55.30           | 128.99 | 12820. |
| 5       | -20.0 | .0                       | .0                  | -334.4                   | 40.29                   | -857.                     | -63.                      | -13.                      | 5.82     | 54.41           | 127.91 | 12880. |
| 6       | -15.0 | .0                       | .0                  | -209.5                   | 11.57                   | -763.                     | -48.                      | 113.                      | 4.43     | 55.35           | 129.03 | 12830. |
| 7       | -10.0 | .0                       | .0                  | -52.9                    | -12.13                  | -896.                     | -42.                      | 97.                       | 4.37     | 55.37           | 129.06 | 12800. |
| 8       | -5.0  | .0                       | .0                  | 103.8                    | -13.80                  | -780.                     | -21.                      | 116.                      | 4.24     | 55.45           | 129.15 | 12870. |
| 9       | -2.5  | .0                       | .0                  | 181.0                    | -10.39                  | -694.                     | -65.                      | 98.                       | 5.04     | 55.39           | 129.09 | 12850. |
| 10      | .0    | .0                       | .0                  | 252.5                    | -4.35                   | -578.                     | -62.                      | 83.                       | 3.49     | 55.64           | 129.38 | 12840. |
| 11      | 2.5   | .0                       | .0                  | 322.8                    | 4.36                    | -465.                     | -22.                      | 86.                       | 1.66     | 55.45           | 129.16 | 12840. |
| 12      | 5.0   | .0                       | .0                  | 386.7                    | 15.42                   | -334.                     | -6.                       | 139.                      | -3.7     | 55.95           | 129.75 | 12850. |
| 13      | 10.0  | .0                       | .0                  | 451.8                    | 51.16                   | -146.                     | -42.                      | 175.                      | -9.2     | 55.69           | 129.44 | 12840. |
| 14      | 15.0  | .0                       | .0                  | 488.4                    | 104.27                  | 185.                      | -70.                      | -18.                      | 2.39     | 55.56           | 129.28 | 12860. |
| 15      | 17.5  | .0                       | .0                  | 504.3                    | 138.43                  | 388.                      | -63.                      | 224.                      | 2.84     | 56.30           | 130.16 | 12830. |
| 17      | -15.0 | .0                       | .0                  | -206.0                   | 11.91                   | -761.                     | -51.                      | 114.                      | 3.53     | 55.92           | 129.70 | 12860. |
| 18      | .0    | .0                       | .0                  | 250.3                    | -4.33                   | -588.                     | -61.                      | 64.                       | 4.10     | 55.68           | 129.42 | 12840. |
| 19      | 20.0  | .0                       | .0                  | 542.5                    | 168.14                  | 577.                      | -70.                      | 246.                      | -3.16    | 55.01           | 128.62 | 12860. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .7112  | .1294  | -.1466 | -.0038 | .006n  | .0138  |
| 3    | .00    | .6909  | -.0029 | -.1821 | -.0039 | .008n  | .0079  |
| 4    | .00    | .6919  | -.0143 | -.1860 | -.0031 | .007n  | .0077  |
| 5    | -20.00 | -.9038 | .1089  | -.2764 | -.0038 | -.000n | .0157  |
| 6    | -15.01 | -.5663 | .0313  | -.2459 | -.0029 | .006n  | .0120  |
| 7    | -9.99  | -.1430 | -.0328 | -.2890 | -.0026 | .005n  | .0118  |
| 8    | -5.00  | .2804  | -.0373 | -.2514 | -.0013 | .007n  | .0115  |
| 9    | -2.50  | .4893  | -.0281 | -.2236 | -.0039 | .005n  | .0136  |
| 10   | .00    | .6825  | -.0118 | -.1864 | -.0037 | .005n  | .0094  |
| 11   | 2.51   | .8725  | .0118  | -.1500 | -.0013 | .005n  | .0045  |
| 12   | 5.00   | 1.0451 | .0417  | -.1075 | -.0003 | .008n  | -.0010 |
| 13   | 10.01  | 1.2210 | .1383  | -.0471 | -.0025 | .010n  | -.0025 |
| 14   | 15.01  | 1.3201 | .2818  | .0597  | -.0042 | -.001n | .0065  |
| 15   | 17.50  | 1.3631 | .3741  | .1252  | -.0038 | .013n  | .0077  |
| 17   | -15.00 | -.5568 | .0322  | -.2453 | -.0031 | .006n  | .0095  |
| 18   | .00    | .6764  | -.0117 | -.1894 | -.0037 | .003n  | .0111  |
| 19   | 20.00  | 1.4663 | .4544  | .1859  | -.0042 | .014n  | -.0085 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .7112  | .1294  | -.1466 | -.0038 | .006n  | .0138  |
| 3    | .00    | .6909  | -.0029 | -.1821 | -.0039 | .008n  | .0079  |
| 4    | .00    | .6919  | -.0143 | -.1860 | -.0031 | .007n  | .0077  |
| 5    | -20.00 | -.9038 | .1089  | -.2764 | -.0038 | -.000n | .0157  |
| 6    | -15.01 | -.5663 | .0313  | -.2459 | -.0029 | .006n  | .0120  |
| 7    | -9.99  | -.1430 | -.0328 | -.2890 | -.0026 | .005n  | .0118  |
| 8    | -5.00  | .2804  | -.0373 | -.2514 | -.0013 | .007n  | .0115  |
| 9    | -2.50  | .4893  | -.0281 | -.2236 | -.0039 | .005n  | .0136  |
| 10   | .00    | .6825  | -.0118 | -.1864 | -.0037 | .005n  | .0094  |
| 11   | 2.51   | .8725  | .0118  | -.1500 | -.0013 | .005n  | .0045  |
| 12   | 5.00   | 1.0451 | .0417  | -.1075 | -.0003 | .008n  | -.0010 |
| 13   | 10.01  | 1.2210 | .1383  | -.0471 | -.0025 | .010n  | -.0025 |
| 14   | 15.01  | 1.3201 | .2818  | .0597  | -.0042 | -.001n | .0065  |
| 15   | 17.50  | 1.3631 | .3741  | .1252  | -.0038 | .013n  | .0077  |
| 17   | -15.00 | -.5568 | .0322  | -.2453 | -.0031 | .006n  | .0095  |
| 18   | .00    | .6764  | -.0117 | -.1894 | -.0037 | .003n  | .0111  |
| 19   | 20.00  | 1.4663 | .4544  | .1859  | -.0042 | .014n  | -.0085 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 933

RUN 963 CONFIG      F P B NP5 W7 T41 BT      J=3.5

| PT. NO. | 7.5 DELF ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM    |
|---------|--------------------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------|---------------|--------|
| 2       | .0                 | .0            | 253.6             | 47.35             | -213.              | -74.               | 82.                | 4.18              | 55.40       | 129.09        | 3800.  |
| 3       | .0                 | .0            | 243.8             | -6.80             | -328.              | -65.               | 82.                | 3.27              | 56.22       | 130.06        | 12920. |
| 4       | -20.0              | .0            | -326.4            | 39.56             | -803.              | -58.               | 6.                 | 4.97              | 54.86       | 128.45        | 12920. |
| 5       | -15.0              | .0            | -208.5            | 11.29             | -785.              | -16.               | 9.                 | 4.11              | 55.49       | 129.20        | 12960. |
| 6       | -10.0              | .0            | -58.4             | -12.01            | -695.              | -22.               | 43.                | 5.41              | 55.40       | 129.09        | 12910. |
| 7       | -5.0               | .0            | 95.2              | -14.48            | -517.              | -31.               | 63.                | 4.16              | 55.74       | 129.49        | 12980. |
| 8       | -2.5               | .0            | 173.2             | -12.63            | -441.              | -66.               | 66.                | 2.71              | 55.27       | 128.93        | 12980. |
| 9       | -.0                | .0            | 243.5             | -6.66             | -332.              | -58.               | 99.                | 4.09              | 55.78       | 129.53        | 12960. |
| 10      | 2.5                | .0            | 312.8             | 1.92              | -207.              | -27.               | 121.               | .55               | 55.75       | 129.50        | 12870. |
| 11      | 5.0                | .0            | 380.4             | 12.78             | -85.               | -10.               | 89.                | -.99              | 55.03       | 128.65        | 12910. |
| 12      | 10.0               | .0            | 447.6             | 47.46             | 130.               | -52.               | 122.               | 1.55              | 54.99       | 128.60        | 12960. |
| 13      | 15.0               | .0            | 484.2             | 99.69             | 439.               | -75.               | 53.                | 1.11              | 55.01       | 128.61        | 12990. |
| 14      | 17.5               | .0            | 501.2             | 133.64            | 608.               | -68.               | 210.               | 2.46              | 55.47       | 129.16        | 12990. |
| 15      | 20.0               | .0            | 524.7             | 161.85            | 795.               | -36.               | 71.                | 3.38              | 55.47       | 129.16        | 12910. |
| 16      | -.0                | .0            | 241.5             | -6.70             | -325.              | -63.               | 98.                | 4.17              | 56.37       | 130.23        | 12970. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | .6854  | .1280  | -.0688 | -.0045 | .0050 | .0113  |
| 3    | .00    | .6590  | -.0184 | -.1057 | -.0039 | .0050 | .0088  |
| 4    | -20.01 | -.8820 | .1069  | -.2590 | -.0035 | .0004 | .0134  |
| 5    | -14.99 | -.5635 | .0305  | -.2532 | -.0010 | .0005 | .0111  |
| 6    | -10.01 | -.1579 | -.0324 | -.2241 | -.0014 | .0024 | .0146  |
| 7    | -5.01  | .2573  | -.0391 | -.1668 | -.0019 | .0030 | .0112  |
| 8    | -2.51  | .4681  | -.0341 | -.1423 | -.0040 | .0040 | .0073  |
| 9    | -.01   | .6581  | -.0180 | -.1070 | -.0035 | .0060 | .0111  |
| 10   | 2.51   | .8453  | .0052  | -.0668 | -.0017 | .0073 | .0015  |
| 11   | 5.00   | 1.0282 | .0346  | -.0273 | -.0006 | .0054 | -.0027 |
| 12   | 10.01  | 1.2098 | .1283  | .0419  | -.0031 | .0074 | .0042  |
| 13   | 14.99  | 1.3087 | .2694  | .1414  | -.0045 | .0032 | .0030  |
| 14   | 17.49  | 1.3546 | .3612  | .1959  | -.0041 | .0127 | .0066  |
| 15   | 19.99  | 1.4180 | .4374  | .2563  | -.0022 | .0043 | .0091  |
| 16   | -.01   | .6528  | -.0181 | -.1049 | -.0038 | .0050 | .0113  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | .6854  | .1280  | -.0688 | -.0045 | .0050 | .0113  |
| 3    | .00    | .6590  | -.0184 | -.1057 | -.0039 | .0050 | .0088  |
| 4    | -20.01 | -.8820 | .1069  | -.2590 | -.0035 | .0004 | .0134  |
| 5    | -14.99 | -.5635 | .0305  | -.2532 | -.0010 | .0005 | .0111  |
| 6    | -10.01 | -.1579 | -.0324 | -.2241 | -.0014 | .0024 | .0146  |
| 7    | -5.01  | .2573  | -.0391 | -.1668 | -.0019 | .0030 | .0112  |
| 8    | -2.51  | .4681  | -.0341 | -.1423 | -.0040 | .0040 | .0073  |
| 9    | -.01   | .6581  | -.0180 | -.1070 | -.0035 | .0060 | .0111  |
| 10   | 2.51   | .8453  | .0052  | -.0668 | -.0017 | .0073 | .0015  |
| 11   | 5.00   | 1.0282 | .0346  | -.0273 | -.0006 | .0054 | -.0027 |
| 12   | 10.01  | 1.2098 | .1283  | .0419  | -.0031 | .0074 | .0042  |
| 13   | 14.99  | 1.3087 | .2694  | .1414  | -.0045 | .0032 | .0030  |
| 14   | 17.49  | 1.3546 | .3612  | .1959  | -.0041 | .0127 | .0066  |
| 15   | 19.99  | 1.4180 | .4374  | .2563  | -.0022 | .0043 | .0091  |
| 16   | -.01   | .6528  | -.0181 | -.1049 | -.0038 | .0050 | .0113  |

1432409-1

SIKORSKY R2RA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 934

RUN 964 CONFIG F P B NP5 W7 I41 BT IN=-3.5

| PT. | ALPHA | PSI | CLBAR  | CDBAR  | CPMBAR | CYMBAR | CRMBAR | CYBAR | Q     | V      | RPM    |
|-----|-------|-----|--------|--------|--------|--------|--------|-------|-------|--------|--------|
| NO. | DEG   | DEG | SQ-FT  | SQ-FT  | CU-FT  | CU-FT  | CU-FT  | SQ-FT | PSF   | KNOTS  |        |
| 2   | .0    | .0  | 246.5  | 47.86  | 83.    | -57.   | 46.    | 5.04  | 55.38 | 129.08 | 3780.  |
| 3   | .0    | .0  | 238.6  | -6.37  | -40.   | -58.   | 66.    | 2.76  | 55.56 | 129.28 | 12970. |
| 4   | -20.0 | .0  | -329.7 | 39.57  | -739.  | -61.   | 52.    | 8.55  | 54.58 | 128.12 | 13060. |
| 5   | -15.0 | .0  | -206.8 | 12.17  | -738.  | -39.   | 44.    | 4.16  | 55.67 | 129.41 | 13000. |
| 6   | -10.0 | .0  | -56.1  | -11.73 | -742.  | -8.    | -5.    | 2.78  | 55.21 | 128.87 | 12960. |
| 7   | -5.0  | .0  | 93.4   | -13.75 | -377.  | 11.    | 48.    | 2.45  | 55.72 | 129.47 | 13000. |
| 8   | -2.5  | .0  | 169.0  | -11.11 | -197.  | -23.   | 47.    | 3.86  | 55.58 | 129.30 | 13000. |
| 9   | .0    | .0  | 241.3  | -5.95  | -33.   | -60.   | 83.    | 3.83  | 55.13 | 128.77 | 13010. |
| 10  | 2.5   | .0  | 308.0  | 1.42   | 92.    | -44.   | 69.    | 1.11  | 55.13 | 128.77 | 13030. |
| 11  | 5.0   | .0  | 379.4  | 12.23  | 223.   | -25.   | 106.   | .56   | 54.54 | 128.06 | 13020. |
| 12  | 10.0  | .0  | 466.7  | 44.35  | 460.   | -71.   | -159.  | .99   | 55.05 | 128.68 | 13020. |
| 13  | 15.0  | .0  | 479.0  | 98.86  | 725.   | -93.   | 17.    | 3.03  | 55.09 | 128.72 | 13020. |
| 14  | 17.5  | .0  | 499.5  | 133.70 | 909.   | -100.  | 214.   | 2.25  | 54.42 | 127.92 | 13010. |
| 15  | 20.0  | .0  | 534.7  | 163.50 | 1056.  | -69.   | 107.   | 4.54  | 54.82 | 128.39 | 13020. |
| 16  | .0    | .0  | 237.9  | -5.59  | -32.   | -60.   | 48.    | 3.61  | 55.62 | 129.35 | 13080. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .6661  | .1293  | .0266  | -.0034 | .0028  | .0136 |
| 3    | .00    | .6449  | -.0172 | -.0128 | -.0035 | .0040  | .0075 |
| 4    | -20.00 | -.8910 | .1070  | -.2382 | -.0037 | .0031  | .0231 |
| 5    | -15.02 | -.5589 | .0329  | -.2379 | -.0023 | .0026  | .0112 |
| 6    | -10.01 | -.1517 | -.0317 | -.2391 | -.0005 | -.0003 | .0075 |
| 7    | -4.99  | .2525  | -.0372 | -.1214 | .0007  | .0029  | .0066 |
| 8    | -2.50  | .4568  | -.0300 | -.0634 | -.0014 | .0028  | .0104 |
| 9    | .01    | .6523  | -.0161 | -.0107 | -.0036 | .0050  | .0104 |
| 10   | 2.50   | .8323  | .0038  | .0296  | -.0027 | .0042  | .0030 |
| 11   | 5.00   | 1.0254 | .0330  | .0719  | -.0015 | .0064  | .0015 |
| 12   | 10.00  | 1.2613 | .1199  | .1484  | -.0043 | -.0096 | .0027 |
| 13   | 15.02  | 1.2947 | .2672  | .2339  | -.0056 | .0010  | .0082 |
| 14   | 17.51  | 1.3500 | .3614  | .2930  | -.0061 | .0129  | .0061 |
| 15   | 20.00  | 1.4450 | .4419  | .3404  | -.0041 | .0065  | .0123 |
| 16   | .01    | .6429  | -.0151 | -.0102 | -.0036 | .0029  | .0098 |

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\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .6661  | .1293  | .0266  | -.0034 | .0028  | .0136 |
| 3    | .00    | .6449  | -.0172 | -.0128 | -.0035 | .0040  | .0075 |
| 4    | -20.00 | -.8910 | .1070  | -.2382 | -.0037 | .0031  | .0231 |
| 5    | -15.02 | -.5589 | .0329  | -.2379 | -.0023 | .0026  | .0112 |
| 6    | -10.01 | -.1517 | -.0317 | -.2391 | -.0005 | -.0003 | .0075 |
| 7    | -4.99  | .2525  | -.0372 | -.1214 | .0007  | .0029  | .0066 |
| 8    | -2.50  | .4568  | -.0300 | -.0634 | -.0014 | .0028  | .0104 |
| 9    | .01    | .6523  | -.0161 | -.0107 | -.0036 | .0050  | .0104 |
| 10   | 2.50   | .8323  | .0038  | .0296  | -.0027 | .0042  | .0030 |
| 11   | 5.00   | 1.0254 | .0330  | .0719  | -.0015 | .0064  | .0015 |
| 12   | 10.00  | 1.2613 | .1199  | .1484  | -.0043 | -.0096 | .0027 |
| 13   | 15.02  | 1.2947 | .2672  | .2339  | -.0056 | .0010  | .0082 |
| 14   | 17.51  | 1.3500 | .3614  | .2930  | -.0061 | .0129  | .0061 |
| 15   | 20.00  | 1.4450 | .4419  | .3404  | -.0041 | .0065  | .0123 |
| 16   | .01    | .6429  | -.0151 | -.0102 | -.0036 | .0029  | .0098 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEI TEST  
AERODYNAMIC DATA

SER-72011

P 935

RUN 965 CONFIG F P B NP5 W7 T60 BT IN=3.5

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELPS PSF | DELV KNOTS | Rpm    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-----------|------------|--------|
| 2       | .0        | .0      | 433.2       | 94.88       | 671.         | -105.        | 62.          | 6.90        | 54.79     | 128.37     | 3990.  |
| 3       | .0        | .0      | 423.0       | -6.39       | 569.         | -125.        | 116.         | 5.67        | 55.27     | 128.94     | 17280. |
| 4       | -20.0     | .0      | -281.9      | 25.93       | 898.         | -19.         | 96.          | 3.81        | 55.44     | 129.15     | 17270. |
| 5       | -15.0     | .0      | -103.3      | -7.87       | 991.         | -21.         | 77.          | 4.31        | 56.06     | 129.88     | 17300. |
| 6       | -10.0     | .0      | 77.1        | -21.65      | 771.         | -48.         | 117.         | 3.66        | 54.98     | 128.60     | 17280. |
| 7       | -5.0      | .0      | 252.7       | -17.81      | 639.         | -131.        | 130.         | 6.95        | 54.92     | 128.52     | 17300. |
| 8       | -2.5      | .0      | 338.7       | -11.22      | 567.         | -150.        | 130.         | 8.13        | 54.87     | 128.46     | 17260. |
| 9       | -0        | .0      | 420.9       | -2.76       | 567.         | -138.        | 47.          | 4.58        | 55.02     | 128.65     | 17260. |
| 10      | 2.5       | .0      | 497.8       | 7.30        | 540.         | -85.         | 120.         | 2.72        | 55.07     | 128.69     | 17280. |
| 11      | 5.0       | .0      | 569.7       | 20.87       | 465.         | -81.         | 120.         | 1.96        | 55.59     | 129.32     | 17290. |
| 12      | 10.0      | .0      | 672.4       | 57.17       | -68.         | -166.        | 342.         | -7.55       | 54.57     | 128.10     | 17260. |
| 13      | 15.0      | .0      | 615.7       | 135.75      | -422.        | -92.         | 176.         | 2.17        | 54.87     | 128.45     | 17230. |
| 14      | 17.5      | .0      | 667.2       | 179.32      | -712.        | -57.         | 71.          | 2.43        | 54.73     | 128.29     | 17230. |
| 15      | 20.0      | .0      | 675.7       | 209.86      | -1024.       | 12.          | -87.         | 2.97        | 55.06     | 128.68     | 17210. |
| 16      | 25.0      | .0      | 713.7       | 297.09      | -1311.       | -43.         | 212.         | .74         | 54.97     | 128.57     | 17230. |
| 17      | .0        | .0      | 418.0       | -93         | 543.         | -143.        | 46.          | 5.64        | 54.93     | 128.54     | 17260. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.1707 | .2564  | .2163  | -.0063 | .0037  | .0187  |
| 3    | .00    | 1.1432 | -.0173 | .1833  | -.0076 | .0070  | .0153  |
| 4    | -20.01 | -.7619 | .0701  | .2896  | -.0011 | .0058  | .0103  |
| 5    | -15.01 | -.2792 | -.0213 | .3196  | -.0013 | .0047  | .0117  |
| 6    | -10.00 | .2084  | -.0585 | .2485  | -.0029 | .0070  | .0099  |
| 7    | -5.01  | .6831  | -.0481 | .2060  | -.0079 | .0079  | .0188  |
| 8    | -2.51  | .9154  | -.0303 | .1827  | -.0091 | .0078  | .0220  |
| 9    | -.01   | 1.1376 | -.0074 | .1813  | -.0084 | .0028  | .0124  |
| 10   | 2.50   | 1.3453 | .0197  | .1742  | -.0051 | .0073  | .0074  |
| 11   | 4.99   | 1.5397 | .0564  | .1499  | -.0049 | .0073  | .0053  |
| 12   | 10.00  | 1.8172 | .1545  | -.0219 | -.0101 | .0206  | -.0204 |
| 13   | 15.00  | 1.6641 | .3669  | -.1360 | -.0055 | .0106  | .0059  |
| 14   | 17.50  | 1.8031 | .4847  | -.2297 | -.0035 | .0043  | .0066  |
| 15   | 20.01  | 1.8263 | .5672  | -.3303 | .0008  | -.0053 | .0080  |
| 16   | 24.99  | 1.9288 | .8029  | -.4228 | -.0026 | .0128  | .0020  |
| 17   | .00    | 1.1297 | -.0025 | .1752  | -.0087 | .0028  | .0153  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.1707 | .2564  | .2163  | -.0063 | .0037  | .0187  |
| 3    | .00    | 1.1432 | -.0173 | .1833  | -.0076 | .0070  | .0153  |
| 4    | -20.01 | -.7619 | .0701  | .2896  | -.0011 | .0058  | .0103  |
| 5    | -15.01 | -.2792 | -.0213 | .3196  | -.0013 | .0047  | .0117  |
| 6    | -10.00 | .2084  | -.0585 | .2485  | -.0029 | .0070  | .0099  |
| 7    | -5.01  | .6831  | -.0481 | .2060  | -.0079 | .0079  | .0188  |
| 8    | -2.51  | .9154  | -.0303 | .1827  | -.0091 | .0078  | .0220  |
| 9    | -.01   | 1.1376 | -.0074 | .1813  | -.0084 | .0028  | .0124  |
| 10   | 2.50   | 1.3453 | .0197  | .1742  | -.0051 | .0073  | .0074  |
| 11   | 4.99   | 1.5397 | .0564  | .1499  | -.0049 | .0073  | .0053  |
| 12   | 10.00  | 1.8172 | .1545  | -.0219 | -.0101 | .0206  | -.0204 |
| 13   | 15.00  | 1.6641 | .3669  | -.1360 | -.0055 | .0106  | .0059  |
| 14   | 17.50  | 1.8031 | .4847  | -.2297 | -.0035 | .0043  | .0066  |
| 15   | 20.01  | 1.8263 | .5672  | -.3303 | .0008  | -.0053 | .0080  |
| 16   | 24.99  | 1.9288 | .8029  | -.4228 | -.0026 | .0128  | .0020  |
| 17   | .00    | 1.1297 | -.0025 | .1752  | -.0087 | .0028  | .0153  |

RUN 966 CONFIG F P B NP5 W7 T60 BT M=3.5

| PT. NO. | IW | 7.5 DELF<br>ALPHA DEG | 15 DELA<br>PSI DEG | 0 IHT<br>CLBAR SQ-FT | 0 DELE<br>CDBAR SQ-FT | 0 DELR<br>CPMBAR CU-FT | 0 DELSB<br>CYMBAR CU-FT | 0<br>CYBAR SQ-FT | 0<br>Q PSF | 0<br>V KNOTS | RPM    |        |
|---------|----|-----------------------|--------------------|----------------------|-----------------------|------------------------|-------------------------|------------------|------------|--------------|--------|--------|
| 2       |    | .0                    | .0                 | 330.7                | 65.50                 | 562.                   | -91.                    | 64.              | 5.16       | 54.81        | 128.39 | 3900.  |
| 3       |    | .0                    | .0                 | 327.7                | -6.59                 | 479.                   | -88.                    | 131.             | 8.41       | 54.66        | 128.21 | 14850. |
| 4       |    | -20.0                 | .0                 | -344.7               | 41.69                 | 997.                   | -48.                    | 57.              | 5.77       | 55.54        | 129.25 | 14850. |
| 5       |    | -15.0                 | .0                 | -202.1               | 5.85                  | 1057.                  | -38.                    | -12.             | 5.87       | 54.54        | 128.06 | 14790. |
| 6       |    | -10.0                 | .0                 | -20.2                | -16.32                | 748.                   | -21.                    | 81.              | 3.46       | 55.19        | 128.84 | 14830. |
| 7       |    | -5.0                  | .0                 | 153.6                | -17.43                | 600.                   | -121.                   | 112.             | 6.35       | 55.76        | 129.51 | 14860. |
| 8       |    | -2.5                  | .0                 | 239.2                | -13.49                | 554.                   | -143.                   | 132.             | 6.07       | 54.96        | 128.57 | 14850. |
| 9       |    | -.0                   | .0                 | 323.5                | -5.25                 | 477.                   | -98.                    | 115.             | 6.91       | 54.75        | 128.32 | 14800. |
| 10      |    | 2.5                   | .0                 | 409.4                | 4.82                  | 415.                   | -74.                    | 139.             | 3.01       | 54.30        | 127.77 | 14800. |
| 11      |    | 5.0                   | .0                 | 490.4                | 18.66                 | 347.                   | -75.                    | 141.             | .75        | 54.86        | 128.45 | 14820. |
| 12      |    | 10.0                  | .0                 | 530.7                | 61.18                 | 17.                    | -52.                    | 87.              | 1.86       | 54.97        | 128.58 | 14820. |
| 13      |    | 15.0                  | .0                 | 572.7                | 131.17                | -519.                  | 31.                     | 121.             | .61        | 55.98        | 129.77 | 14830. |
| 14      |    | 17.5                  | .0                 | 606.7                | 166.38                | -730.                  | -41.                    | 209.             | 3.61       | 55.64        | 129.37 | 14820. |
| 15      |    | 20.0                  | .0                 | 653.3                | 203.35                | -931.                  | -12.                    | 124.             | 4.95       | 55.08        | 128.70 | 14810. |
| 16      |    | 25.0                  | .0                 | 683.5                | 285.65                | -1083.                 | -119.                   | 350.             | -1.48      | 55.27        | 128.92 | 14810. |
| 17      |    | -.0                   | .0                 | 316.2                | -4.30                 | 482.                   | -104.                   | 79.              | 5.50       | 56.40        | 130.27 | 14850. |
| 18      |    | -.0                   | .0                 | 319.8                | -4.90                 | 479.                   | -112.                   | 79.              | 7.24       | 55.02        | 128.64 | 14790. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CyM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .8937  | .1770  | .1813  | -.0055 | .003a  | .0139  |
| 3    | .00    | .8857  | -.0178 | .1545  | -.0053 | .007a  | .0227  |
| 4    | -20.01 | -.9316 | .1127  | .3215  | -.0029 | .003a  | .0156  |
| 5    | -15.00 | -.5463 | .0158  | .3407  | -.0023 | -.0007 | .0159  |
| 6    | -10.00 | -.0545 | -.0441 | .2413  | -.0013 | .004a  | .0093  |
| 7    | -5.01  | .4151  | -.0471 | .1935  | -.0073 | .0067  | .0172  |
| 8    | -2.50  | .6464  | -.0365 | .1786  | -.0086 | .008a  | .0164  |
| 9    | -.01   | .8743  | -.0142 | .1538  | -.0059 | .007a  | .0187  |
| 10   | 2.50   | 1.1065 | .0130  | .1338  | -.0044 | .008a  | .0081  |
| 11   | 5.00   | 1.3254 | .0504  | .1117  | -.0046 | .008a  | .0020  |
| 12   | 9.99   | 1.4342 | .1653  | .0053  | -.0031 | .005a  | .0050  |
| 13   | 15.00  | 1.5479 | .3545  | -.1673 | .0019  | .007a  | .0016  |
| 14   | 17.49  | 1.6398 | .4497  | -.2352 | -.0025 | .012a  | .0098  |
| 15   | 20.00  | 1.7655 | .5496  | -.3001 | -.0007 | .007a  | .0134  |
| 16   | 25.00  | 1.8474 | .7720  | -.3493 | -.0072 | .021a  | -.0040 |
| 17   | -.01   | .8546  | -.0116 | .1553  | -.0063 | .004a  | .0149  |
| 18   | -.01   | .8644  | -.0132 | .1544  | -.0068 | .004a  | .0196  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB  | CyMB   | CRMB   | CYB   |
|------|--------|--------|--------|-------|--------|--------|-------|
| 2    | .00    | .8937  | .1770  | .1813 | -.0055 | .003a  | .0139 |
| 3    | .00    | .8857  | -.0178 | .1545 | -.0053 | .007a  | .0227 |
| 4    | -20.01 | -.9316 | .1127  | .3215 | -.0029 | .003a  | .0156 |
| 5    | -15.00 | -.5463 | .0158  | .3407 | -.0023 | -.0007 | .0159 |
| 6    | -10.00 | -.0545 | -.0441 | .2413 | -.0013 | .004a  | .0093 |
| 7    | -5.01  | .4151  | -.0471 | .1935 | -.0073 | .0067  | .0172 |
| 8    | -2.50  | .6464  | -.0365 | .1786 | -.0086 | .008a  | .0164 |
| 9    | -.01   | .8743  | -.0142 | .1538 | -.0059 | .007a  | .0187 |
| 10   | 2.50   | 1.1065 | .0130  | .1338 | -.0044 | .008a  | .0081 |
| 11   | 5.00   | 1.3254 | .0504  | .1117 | -.0046 | .008a  | .0020 |
| 12   | 9.99   | 1.4342 | .1653  | .0053 | -.0031 | .005a  | .0050 |

|    |       |        |        |        |        |       |        |
|----|-------|--------|--------|--------|--------|-------|--------|
| 13 | 15.00 | 1.5479 | .3545  | -.1673 | .0019  | .007a | .0016  |
| 14 | 17.49 | 1.6398 | .4497  | -.2352 | -.0025 | .012a | .0098  |
| 15 | 20.00 | 1.7655 | .5496  | -.3001 | -.0007 | .007a | .0134  |
| 16 | 25.00 | 1.8474 | .7720  | -.3493 | -.0072 | .021a | -.0040 |
| 17 | -.01  | .8546  | -.0116 | .1553  | -.0063 | .004a | .0149  |
| 18 | -.01  | .8644  | -.0132 | .1544  | -.0068 | .004a | .0196  |

SIKORSKY R5RA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

TUN 967 CONFIG F P B NP5 W7 160 BT IN=-3.5

| IT# | ALPHA DEG | 7.5 DELF PSI DEG | 30 DELA CLBAR SQ-FT | 0 IHT CDBAR SQ-FT | 0 DELE CPMBAR CU-FT | U DELR CRMBAR CU-FT | 0 DELSB Q SQ-FT | 0 V PSF | RPM   |        |        |
|-----|-----------|------------------|---------------------|-------------------|---------------------|---------------------|-----------------|---------|-------|--------|--------|
| 2   | .0        | .0               | 434.0               | 95.40             | 655.                | -102.               | 88.             | 6.75    | 49.97 | 122.50 | 3820.  |
| 3   | 2.5       | .0               | 499.2               | -6.11             | 494.                | -83.                | 73.             | 2.89    | 50.62 | 123.30 | 17340. |
| 4   | .0        | .0               | 419.8               | -103.45           | 405.                | -190.               | 128.            | 6.79    | 49.64 | 122.08 | 23030. |
| 5   | -20.0     | .0               | -347.5              | -60.09            | 1242.               | 15.                 | 79.             | -2.21   | 49.66 | 122.11 | 23040. |
| 6   | -15.0     | .0               | -141.3              | -97.18            | 876.                | 80.                 | 172.            | 1.16    | 49.96 | 122.48 | 22940. |
| 7   | -10.0     | .0               | 58.7                | -110.47           | 489.                | 9.                  | 172.            | 1.02    | 50.22 | 122.81 | 22970. |
| 8   | -5.0      | .0               | 243.5               | -110.29           | 337.                | -199.               | 129.            | 4.23    | 49.90 | 122.41 | 22930. |
| 9   | -2.5      | .0               | 333.0               | -106.31           | 343.                | -223.               | 128.            | 6.25    | 49.57 | 121.99 | 22980. |
| 10  | .0        | .0               | 418.8               | -100.69           | 370.                | -196.               | 111.            | 5.37    | 49.45 | 121.84 | 22970. |
| 11  | 2.5       | .0               | 493.5               | -88.50            | 357.                | -169.               | 112.            | 2.97    | 50.48 | 123.13 | 22990. |
| 12  | 5.0       | .0               | 586.9               | -75.88            | 270.                | -160.               | 135.            | 2.41    | 49.47 | 121.87 | 23010. |
| 13  | 10.0      | .0               | 709.0               | -41.54            | -153.               | -205.               | 178.            | -3.30   | 49.50 | 121.91 | 23010. |
| 14  | 15.0      | .0               | 638.2               | 37.52             | -580.               | -159.               | 216.            | -2.00   | 49.51 | 121.92 | 22990. |
| 15  | 17.5      | .0               | 695.3               | 85.03             | -826.               | -79.                | 136.            | .55     | 49.82 | 122.31 | 22970. |
| 17  | 25.0      | .0               | 775.3               | 215.79            | -1313.              | -74.                | 253.            | .00     | 49.83 | 122.31 | 22910. |
| 18  | .0        | .0               | 418.2               | -100.27           | 357.                | -217.               | 147.            | 7.18    | 49.81 | 122.29 | 22990. |
| 19  | 20.0      | .0               | 713.2               | 119.63            | -1090.              | -52.                | 115.            | -1.14   | 50.34 | 122.95 | 22960. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| IT# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|-----|--------|--------|--------|--------|--------|-------|--------|
| 2   | .00    | 1.1730 | .2578  | .2112  | -.0062 | .0053 | .0182  |
| 3   | 2.50   | 1.3491 | -.0165 | .1594  | -.0050 | .0044 | .0078  |
| 4   | .00    | 1.1346 | -.2796 | .1307  | -.0115 | .0077 | .0184  |
| 5   | -19.99 | -.9393 | -.1624 | .4005  | .0009  | .0047 | -.0006 |
| 6   | -15.00 | -.3820 | -.2626 | .2824  | .0048  | .0104 | .0031  |
| 7   | -10.00 | .1586  | -.2986 | .1577  | .0006  | .0104 | .0027  |
| 8   | -5.00  | .6581  | -.2981 | .1087  | -.0120 | .0078 | .0114  |
| 9   | -2.50  | .8999  | -.2873 | .1107  | -.0135 | .0077 | .0169  |
| 10  | .00    | 1.1318 | -.2721 | .1192  | -.0118 | .0067 | .0145  |
| 11  | 2.51   | 1.3338 | -.2392 | .1150  | -.0102 | .0068 | .0080  |
| 12  | 5.01   | 1.5863 | -.2051 | .0869  | -.0096 | .0081 | .0065  |
| 13  | 10.02  | 1.9162 | -.1123 | -.0494 | -.0124 | .0108 | -.0089 |
| 14  | 14.99  | 1.7249 | .1014  | -.1871 | -.0096 | .0130 | -.0054 |
| 15  | 17.50  | 1.8793 | .2298  | -.2663 | -.0048 | .0082 | .0015  |
| 17  | 25.01  | 2.0954 | .5832  | -.4234 | -.0045 | .0153 | .0000  |
| 18  | .00    | 1.1302 | -.2710 | .1149  | -.0131 | .0089 | .0194  |
| 19  | 20.01  | 1.9277 | .3233  | -.3514 | -.0031 | .0070 | -.0004 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| IT# | ALPHA  | CLB    | CDB    | CPMB  | CYMB   | CRMB  | CYB    |
|-----|--------|--------|--------|-------|--------|-------|--------|
| 2   | .00    | 1.1730 | .2578  | .2112 | -.0062 | .0053 | .0182  |
| 3   | 2.50   | 1.3491 | -.0165 | .1594 | -.0050 | .0044 | .0078  |
| 4   | .00    | 1.1346 | -.2796 | .1307 | -.0115 | .0077 | .0184  |
| 5   | -19.99 | -.9393 | -.1624 | .4005 | .0009  | .0047 | -.0006 |
| 6   | -15.00 | -.3820 | -.2626 | .2824 | .0048  | .0104 | .0031  |
| 7   | -10.00 | .1586  | -.2986 | .1577 | .0006  | .0104 | .0027  |
| 8   | -5.00  | .6581  | -.2981 | .1087 | -.0120 | .0078 | .0114  |
| 9   | -2.50  | .8999  | -.2873 | .1107 | -.0135 | .0077 | .0169  |
| 10  | .00    | 1.1318 | -.2721 | .1192 | -.0118 | .0067 | .0145  |
| 11  | 2.51   | 1.3338 | -.2392 | .1150 | -.0102 | .0068 | .0080  |
| 12  | 5.01   | 1.5863 | -.2051 | .0869 | -.0096 | .0081 | .0065  |

|    |       |        |        |        |        |       |        |
|----|-------|--------|--------|--------|--------|-------|--------|
| 13 | 10.02 | 1.9162 | -.1123 | -.0494 | -.0124 | .0108 | -.0089 |
| 14 | 14.99 | 1.7249 | .1014  | -.1871 | -.0096 | .0130 | -.0054 |
| 15 | 17.50 | 1.8793 | .2298  | -.2663 | -.0048 | .0082 | .0015  |
| 17 | 25.01 | 2.0954 | .5832  | -.4234 | -.0045 | .0153 | .0000  |
| 18 | .00   | 1.1302 | -.2710 | .1149  | -.0131 | .0089 | .0194  |
| 19 | 20.01 | 1.9277 | .3233  | -.3514 | -.0031 | .0070 | -.0004 |

ORIGINAL PAGE IS  
OF POOR QUALITY

RUN 968 CONFIG F P 8 NPS W7 I60 BT IN=-3.5

| IW  | 7.5 DELF | 0 DELA | 0 IHT  | 0 DELE | 0 DELR  | 0 DELSB | Q      | V     | RPM   |        |        |
|-----|----------|--------|--------|--------|---------|---------|--------|-------|-------|--------|--------|
| T#  | ALPHA    | PSI    | CLBAR  | CDBAR  | CPM BAR | CYBAR   | CRMBAR | CYBAR |       |        |        |
| 10. | DEG      | DEG    | SQ-FT  | SQ-FT  | CU-FT   | CU-FT   | CU-FT  | SQ-FT | PSF   |        |        |
| 3   | .0       | .0     | 232.0  | 46.76  | 416.    | -67.    | 81.    | 5.52  | 54.91 | 128.52 | 3780.  |
| 4   | .0       | .0     | 226.4  | -6.95  | 244.    | -62.    | 82.    | 5.95  | 54.39 | 127.89 | 12920. |
| 5   | .0       | .0     | 225.1  | -6.94  | 242.    | -62.    | 63.    | 5.92  | 54.62 | 128.17 | 12920. |
| 6   | -20.0    | .0     | -392.6 | 59.77  | 1200.   | -81.    | 18.    | 7.48  | 55.08 | 128.71 | 12840. |
| 7   | -15.0    | .0     | -280.1 | 21.79  | 1191.   | -24.    | 47.    | 2.87  | 54.60 | 128.13 | 12820. |
| 8   | -10.0    | .0     | -116.1 | -7.06  | 872.    | -11.    | 45.    | 5.19  | 53.80 | 127.18 | 12770. |
| 9   | -20.0    | .0     | -394.9 | 59.85  | 1208.   | -71.    | -20.   | 8.97  | 54.67 | 128.22 | 12860. |
| 10  | -15.0    | .0     | -278.2 | 21.92  | 1199.   | -31.    | 45.    | 4.06  | 54.48 | 128.00 | 12790. |
| 11  | -5.0     | .0     | 57.0   | -12.61 | 564.    | -68.    | 63.    | 4.99  | 54.61 | 128.15 | 12810. |
| 12  | -2.5     | .0     | 144.5  | -11.69 | 367.    | -78.    | 117.   | 5.00  | 54.47 | 127.99 | 12860. |
| 13  | -.0      | .0     | 224.0  | -6.30  | 253.    | -71.    | 120.   | 3.06  | 54.60 | 128.13 | 12850. |
| 14  | 2.5      | .0     | 301.4  | 2.17   | 173.    | -51.    | 86.    | 3.33  | 54.28 | 127.75 | 12810. |
| 15  | 5.0      | .0     | 376.1  | 13.64  | 81.     | -39.    | 140.   | 2.57  | 54.26 | 127.72 | 12750. |
| 16  | 10.0     | .0     | 462.7  | 50.92  | -229.   | -63.    | 177.   | 2.82  | 54.26 | 127.73 | 12930. |
| 18  | 20.0     | .0     | 599.5  | 186.01 | -1016.  | -50.    | 126.   | 4.77  | 54.30 | 127.77 | 12770. |
| 19  | .0       | .0     | 221.9  | -6.26  | 249.    | -63.    | 83.    | 4.28  | 54.96 | 128.57 | 12850. |
| 20  | 15.0     | .0     | 516.8  | 113.25 | -611.   | 17.     | 267.   | 1.25  | 54.31 | 127.79 | 12830. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| T# | PSI    | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|----|--------|---------|--------|--------|--------|--------|-------|
| 3  | .00    | .6271   | .1264  | .1341  | -.0040 | .0049  | .0149 |
| 4  | .00    | .6118   | -.0188 | .0787  | -.0037 | .0049  | .0161 |
| 5  | .00    | .6084   | -.0188 | .0780  | -.0037 | .0038  | .0160 |
| 6  | -20.00 | -1.0611 | .1615  | .3869  | -.0049 | .0011  | .0202 |
| 7  | -15.00 | -.7571  | .0589  | .3840  | -.0015 | .0029  | .0078 |
| 8  | -10.00 | -.3137  | -.0191 | .2811  | -.0007 | .0027  | .0140 |
| 9  | -20.00 | -1.0672 | .1618  | .3895  | -.0043 | -.0012 | .0242 |
| 10 | -15.01 | -.7519  | .0592  | .3865  | -.0019 | .0027  | .0110 |
| 11 | -5.00  | .1541   | -.0341 | .1818  | -.0041 | .0038  | .0135 |
| 12 | -2.50  | .3906   | -.0316 | .1182  | -.0047 | .0071  | .0135 |
| 13 | -.01   | .6053   | -.0170 | .0817  | -.0043 | .0073  | .0083 |
| 14 | 2.51   | .8146   | .0059  | .0556  | -.0031 | .0052  | .0090 |
| 15 | 5.00   | 1.0165  | .0369  | .0263  | -.0024 | .0085  | .0070 |
| 16 | 9.99   | 1.2505  | .1376  | -.0740 | -.0038 | .0107  | .0076 |
| 18 | 20.01  | 1.6203  | .5027  | -.3276 | -.0030 | .0076  | .0129 |
| 19 | .00    | .5996   | -.0169 | .0804  | -.0038 | .0050  | .0116 |
| 20 | 15.00  | 1.3968  | .3061  | -.1971 | .0010  | .0161  | .0034 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| T# | PSI    | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|----|--------|---------|--------|--------|--------|--------|-------|
| 3  | .00    | .6271   | .1264  | .1341  | -.0040 | .0049  | .0149 |
| 4  | .00    | .6118   | -.0188 | .0787  | -.0037 | .0049  | .0161 |
| 5  | .00    | .6084   | -.0188 | .0780  | -.0037 | .0038  | .0160 |
| 6  | -20.00 | -1.0611 | .1615  | .3869  | -.0049 | .0011  | .0202 |
| 7  | -15.00 | -.7571  | .0589  | .3840  | -.0015 | .0029  | .0078 |
| 8  | -10.00 | -.3137  | -.0191 | .2811  | -.0007 | .0027  | .0140 |
| 9  | -20.00 | -1.0672 | .1618  | .3895  | -.0043 | -.0012 | .0242 |
| 10 | -15.01 | -.7519  | .0592  | .3865  | -.0019 | .0027  | .0110 |
| 11 | -5.00  | .1541   | -.0341 | .1818  | -.0041 | .0038  | .0135 |
| 12 | -2.50  | .3906   | -.0316 | .1182  | -.0047 | .0071  | .0135 |
| 13 | -.01   | .6053   | -.0170 | .0817  | -.0043 | .0073  | .0083 |
| 14 | 2.51   | .8146   | .0059  | .0556  | -.0031 | .0052  | .0090 |
| 15 | 5.00   | 1.0165  | .0369  | .0263  | -.0024 | .0085  | .0070 |
| 16 | 9.99   | 1.2505  | .1376  | -.0740 | -.0038 | .0107  | .0076 |
| 18 | 20.01  | 1.6203  | .5027  | -.3276 | -.0030 | .0076  | .0129 |
| 19 | .00    | .5996   | -.0169 | .0804  | -.0038 | .0050  | .0116 |
| 20 | 15.00  | 1.3968  | .3061  | -.1971 | .0010  | .0161  | .0034 |



1432409-1

SIKORSKY ROBA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P939

RUN 969 CONFIG F P B NP5 W7 160 BT IN=-3.5

| PT.# | 7.5 DELF<br>ALPHA<br>DEG | DELTA<br>PSI<br>DEG | DELTA<br>CLBAR<br>SQ-FT | DELTA<br>CDBAR<br>SQ-FT | DELTA<br>CPM BAR<br>CU-FT | DELTA<br>CYM BAR<br>CU-FT | DELTA<br>CRM BAR<br>CU-FT | DELTA<br>CY BAR<br>SQ-FT | DELTA<br>Q<br>PSF | DELTA<br>V<br>KNOTS | RPM    |
|------|--------------------------|---------------------|-------------------------|-------------------------|---------------------------|---------------------------|---------------------------|--------------------------|-------------------|---------------------|--------|
| 1    | .0                       | .0                  | 230.9                   | 47.04                   | 417.                      | -60.                      | 101.                      | 5.56                     | 53.87             | 127.26              | 3770.  |
| 2    | .0                       | .0                  | 225.2                   | -6.57                   | 255.                      | -62.                      | 121.                      | 2.82                     | 54.44             | 127.95              | 12830. |
| 3    | .0                       | -20.0               | 236.4                   | 37.63                   | -532.                     | 1468.                     | 61.                       | -180.17                  | 54.98             | 128.59              | 12780. |
| 4    | .0                       | -15.1               | 226.7                   | 16.92                   | -217.                     | 1088.                     | 53.                       | -133.28                  | 54.52             | 128.04              | 12840. |
| 5    | .0                       | -10.0               | 224.1                   | 2.95                    | 49.                       | 480.                      | 102.                      | -78.33                   | 54.62             | 128.17              | 12860. |
| 6    | .0                       | -5.0                | 225.1                   | -3.88                   | 175.                      | 167.                      | 131.                      | -37.55                   | 55.25             | 128.91              | 12840. |
| 7    | .0                       | -2.5                | 224.9                   | -5.58                   | 210.                      | 31.                       | 139.                      | -15.94                   | 54.92             | 128.52              | 12860. |
| 8    | .0                       | .0                  | 223.9                   | -5.71                   | 233.                      | -62.                      | 117.                      | 4.95                     | 55.02             | 128.64              | 12880. |
| 9    | .0                       | 2.5                 | 223.1                   | -5.69                   | 210.                      | -125.                     | 84.                       | 24.23                    | 54.41             | 127.91              | 12850. |
| 10   | .0                       | 5.1                 | 220.5                   | -4.60                   | 155.                      | -182.                     | 92.                       | 41.05                    | 55.19             | 128.84              | 12860. |
| 11   | .0                       | 10.0                | 209.9                   | -.16                    | 46.                       | -534.                     | 126.                      | 82.13                    | 55.78             | 129.54              | 12850. |
| 12   | .0                       | 15.0                | 223.5                   | 13.31                   | -291.                     | -1173.                    | 192.                      | 143.47                   | 55.13             | 128.77              | 12830. |
| 13   | .0                       | 20.0                | 216.2                   | 31.97                   | -456.                     | -1402.                    | 210.                      | 179.50                   | 55.09             | 128.72              | 12840. |
| 14   | .0                       | .0                  | 220.7                   | -5.86                   | 254.                      | -61.                      | 101.                      | 3.20                     | 55.31             | 128.98              | 12890. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYH    | CRM   | CY     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 1    | .00    | .6241 | .1271  | .1345  | -.0036 | .0061 | .0150  |
| 2    | .00    | .6088 | -.0178 | .0821  | -.0037 | .0073 | .0076  |
| 3    | -20.00 | .6389 | .1017  | -.1716 | .0887  | .0037 | -.4869 |
| 4    | -15.10 | .6128 | .0457  | -.0701 | .0657  | .0032 | -.3602 |
| 5    | -10.00 | .6056 | .0080  | .0159  | .0290  | .0062 | -.2117 |
| 6    | -5.00  | .6083 | -.0105 | .0564  | .0101  | .0079 | -.1015 |
| 7    | -2.50  | .6079 | -.0151 | .0676  | .0019  | .0084 | -.0431 |
| 8    | .00    | .6051 | -.0154 | .0752  | -.0037 | .0071 | .0134  |
| 9    | 2.50   | .6030 | -.0154 | .0676  | -.0076 | .0051 | .0655  |
| 10   | 5.10   | .5958 | -.0124 | .0501  | -.0110 | .0056 | .1109  |
| 11   | 10.00  | .5674 | -.0004 | .0149  | -.0323 | .0076 | .2220  |
| 12   | 15.00  | .6041 | .0360  | -.0937 | -.0709 | .0116 | .3877  |
| 13   | 20.00  | .5843 | .0864  | -.1471 | -.0847 | .0127 | .4851  |
| 14   | .00    | .5964 | -.0158 | .0818  | -.0037 | .0061 | .0087  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|--------|--------|--------|-------|--------|
| 1    | .00    | .6241 | .1271  | .1345  | -.0036 | .0061 | .0150  |
| 2    | .00    | .6088 | -.0178 | .0821  | -.0037 | .0073 | .0076  |
| 3    | -20.00 | .6389 | -.0717 | -.1679 | .0887  | .0145 | -.4922 |
| 4    | -15.10 | .6128 | -.0501 | -.0721 | .0657  | .0065 | -.3596 |
| 5    | -10.00 | .6056 | -.0291 | .0099  | .0290  | .0055 | -.2098 |
| 6    | -5.00  | .6083 | -.0193 | .0525  | .0101  | .0069 | -.1002 |
| 7    | -2.50  | .6079 | -.0170 | .0656  | .0019  | .0079 | -.0424 |
| 8    | .00    | .6051 | -.0154 | .0752  | -.0037 | .0071 | .0134  |
| 9    | 2.50   | .6030 | -.0182 | .0687  | -.0076 | .0056 | .0647  |
| 10   | 5.10   | .5958 | -.0223 | .0526  | -.0110 | .0064 | .1094  |
| 11   | 10.00  | .5674 | -.0391 | .0217  | -.0323 | .0080 | .2185  |
| 12   | 15.00  | .6041 | -.0661 | -.0744 | -.0709 | .0066 | .3838  |
| 13   | 20.00  | .5843 | -.0855 | -.1149 | -.0847 | .0024 | .4853  |
| 14   | .00    | .5964 | -.0158 | .0818  | -.0037 | .0061 | .0087  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 940

RUN 970 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| PT. NO. | IW    | 7.5 DELF ALPHA DEG | PSI PSI DEG | DELA CLBAR SQ-FT | CDBAR SQ-FT | IHT CU-FT | O DELF CYMBAR CU-FT | DELR CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM    |
|---------|-------|--------------------|-------------|------------------|-------------|-----------|---------------------|-------------------|-------------|-------------|---------|--------|
| 2       |       | .0                 | .0          | 234.7            | 45.67       | 199.      | -56.                | 65.               | 4.64        | 55.06       | 128.68  | 3780.  |
| 3       |       | .0                 | .0          | 229.9            | -6.20       | 54.       | -52.                | 65.               | 4.58        | 54.99       | 128.61  | 12660. |
| 4       | -20.0 | .0                 | .0          | -383.5           | 55.42       | 675.      | -75.                | 20.               | 6.62        | 54.53       | 128.06  | 12740. |
| 5       | -15.0 | .0                 | .0          | -268.9           | 17.98       | 683.      | -30.                | 5.                | 5.91        | 54.73       | 128.29  | 12800. |
| 6       | -10.0 | .0                 | .0          | -102.2           | -9.64       | 317.      | -45.                | 11.               | 3.73        | 54.74       | 128.30  | 12710. |
| 7       | -5.0  | .0                 | .0          | 63.0             | -13.32      | 171.      | -42.                | 48.               | 2.77        | 55.24       | 128.91  | 12770. |
| 8       | -2.5  | .0                 | .0          | 149.4            | -12.01      | 71.       | -58.                | 83.               | 3.65        | 55.06       | 128.69  | 12740. |
| 9       | -.0   | .0                 | .0          | 226.4            | -5.60       | 52.       | -60.                | 66.               | 3.60        | 54.88       | 128.48  | 12730. |
| 10      | 2.5   | .0                 | .0          | 300.4            | 1.61        | 59.       | -35.                | 101.              | 4.58        | 55.06       | 128.68  | 12710. |
| 11      | 5.0   | .0                 | .0          | 375.0            | 14.43       | 45.       | -39.                | 88.               | .68         | 54.76       | 128.33  | 12710. |
| 12      | 10.0  | .0                 | .0          | 481.2            | 48.11       | -208.     | -58.                | -161.             | 2.00        | 54.57       | 128.10  | 12910. |
| 13      | 15.0  | .0                 | .0          | 528.9            | 109.71      | -555.     | -61.                | 143.              | 1.83        | 53.91       | 127.31  | 12710. |
| 14      | 20.0  | .0                 | .0          | 594.6            | 186.84      | -858.     | -58.                | 90.               | 1.13        | 54.16       | 127.60  | 12630. |
| 15      | -.0   | .0                 | .0          | 229.4            | -5.72       | 58.       | -52.                | 80.               | 6.75        | 54.53       | 128.05  | 12780. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .6344   | .1234  | .0641  | -.0034 | .0039  | .0125 |
| 3    | .00    | .6214   | -.0168 | .0174  | -.0031 | .0039  | .0124 |
| 4    | -20.03 | -1.0365 | .1498  | .2178  | -.0045 | .0012  | .0179 |
| 5    | -15.03 | -.7268  | .0486  | .2201  | -.0024 | .0003  | .0160 |
| 6    | -9.98  | -.2762  | -.0260 | .1023  | -.0027 | .0007  | .0101 |
| 7    | -5.04  | .1703   | -.0360 | .0552  | -.0025 | .0029  | .0075 |
| 8    | -2.50  | .4039   | -.0325 | .0228  | -.0035 | .0050  | .0099 |
| 9    | -.00   | .6119   | -.0151 | .0169  | -.0036 | .0040  | .0097 |
| 10   | 2.49   | .8119   | .0044  | .0189  | -.0021 | .0061  | .0124 |
| 11   | 4.98   | 1.0136  | .0390  | .0145  | -.0023 | .0053  | .0018 |
| 12   | 10.01  | 1.3004  | .1300  | -.0670 | -.0035 | -.0097 | .0054 |
| 13   | 14.99  | 1.4296  | .2965  | -.1790 | -.0037 | .0087  | .0050 |
| 14   | 19.98  | 1.6071  | .5050  | -.2766 | -.0035 | .0054  | .0031 |
| 15   | -.00   | .6201   | -.0155 | .0185  | -.0031 | .0049  | .0182 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .6344   | .1234  | .0641  | -.0034 | .0039  | .0125 |
| 3    | .00    | .6214   | -.0168 | .0174  | -.0031 | .0039  | .0124 |
| 4    | -20.03 | -1.0365 | .1498  | .2178  | -.0045 | .0012  | .0179 |
| 5    | -15.03 | -.7268  | .0486  | .2201  | -.0024 | .0003  | .0160 |
| 6    | -9.98  | -.2762  | -.0260 | .1023  | -.0027 | .0007  | .0101 |
| 7    | -5.04  | .1703   | -.0360 | .0552  | -.0025 | .0029  | .0075 |
| 8    | -2.50  | .4039   | -.0325 | .0228  | -.0035 | .0050  | .0099 |
| 9    | -.00   | .6119   | -.0151 | .0169  | -.0036 | .0040  | .0097 |
| 10   | 2.49   | .8119   | .0044  | .0189  | -.0021 | .0061  | .0124 |
| 11   | 4.98   | 1.0136  | .0390  | .0145  | -.0023 | .0053  | .0018 |
| 12   | 10.01  | 1.3004  | .1300  | -.0670 | -.0035 | -.0097 | .0054 |
| 13   | 14.99  | 1.4296  | .2965  | -.1790 | -.0037 | .0087  | .0050 |
| 14   | 19.98  | 1.6071  | .5050  | -.2766 | -.0035 | .0054  | .0031 |
| 15   | -.00   | .6201   | -.0155 | .0185  | -.0031 | .0049  | .0182 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 941

RUN 971 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| PT. NO. | TW        | 7.5 DELF | DELA        | IHT         | 5 DELE       | DELR         | DELSR        | Q           | V     | RPM    |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|--------|--------|
|         | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  |        |
| 2       | .0        | .0       | 258.6       | 47.10       | -460.        | -67.         | 101.         | 4.49        | 54.58 | 128.12 | 3780.  |
| 3       | .0        | .0       | 254.5       | -6.94       | -689.        | -56.         | 81.          | 4.68        | 56.03 | 129.84 | 13060. |
| 4       | -20.0     | .0       | -368.4      | 42.82       | 125.         | -49.         | 39.          | 6.00        | 55.67 | 129.41 | 13010. |
| 5       | -15.0     | .0       | -238.2      | 10.14       | -156.        | -52.         | 63.          | 3.24        | 55.64 | 129.38 | 13010. |
| 6       | -10.0     | .0       | -73.0       | -14.94      | -557.        | -36.         | 63.          | 4.00        | 55.38 | 129.07 | 13010. |
| 7       | -5.0      | .0       | 95.3        | -16.46      | -678.        | -47.         | 97.          | 5.12        | 55.23 | 128.89 | 13020. |
| 8       | -2.5      | .0       | 178.1       | -12.70      | -724.        | -69.         | 78.          | 5.83        | 56.05 | 129.86 | 13030. |
| 9       | .0        | .0       | 253.6       | -6.31       | -692.        | -64.         | 101.         | 2.82        | 55.54 | 129.26 | 13030. |
| 10      | 2.5       | .0       | 330.5       | 2.73        | -666.        | -36.         | 120.         | 3.22        | 54.93 | 128.54 | 13030. |
| 11      | 5.0       | .0       | 490.0       | 15.04       | -679.        | -37.         | 139.         | .67         | 55.60 | 129.33 | 13020. |
| 12      | 10.0      | .0       | 482.6       | 54.06       | -887.        | -68.         | 157.         | 1.29        | 55.28 | 129.95 | 13020. |
| 13      | 15.0      | .0       | 545.4       | 115.94      | -1229.       | -83.         | 158.         | 1.05        | 55.07 | 128.70 | 13010. |
| 14      | 20.0      | .0       | 606.8       | 198.94      | -1391.       | -41.         | 195.         | 2.18        | 54.81 | 128.38 | 13010. |
| 15      | -0        | .0       | 255.8       | -6.45       | -689.        | -60.         | 100.         | 4.58        | 55.04 | 128.66 | 13070. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY    |
|------|--------|--------|--------|--------|--------|-------|-------|
| 2    | .00    | .6989  | .1273  | -.1482 | -.0040 | .0061 | .0121 |
| 3    | .00    | .6877  | -.0188 | -.2221 | -.0034 | .0049 | .0127 |
| 4    | -19.99 | -.9956 | .1157  | .0403  | -.0030 | .0023 | .0162 |
| 5    | -15.01 | -.6437 | .0274  | -.0502 | -.0032 | .0038 | .0088 |
| 6    | -10.00 | -.1973 | -.0404 | -.1796 | -.0022 | .0038 | .0108 |
| 7    | -5.01  | .2575  | -.0445 | -.2185 | -.0028 | .0059 | .0138 |
| 8    | -2.48  | .4814  | -.0343 | -.2334 | -.0042 | .0047 | .0158 |
| 9    | .00    | .6855  | -.0171 | -.2232 | -.0039 | .0061 | .0076 |
| 10   | 2.51   | .8933  | .0074  | -.2147 | -.0022 | .0072 | .0087 |
| 11   | 5.01   | 1.0812 | .0407  | -.2190 | -.0022 | .0084 | .0018 |
| 12   | 10.00  | 1.3042 | .1461  | -.2859 | -.0041 | .0095 | .0035 |
| 13   | 14.99  | 1.4740 | .3133  | -.3962 | -.0050 | .0096 | .0028 |
| 14   | 20.01  | 1.6400 | .5377  | -.4486 | -.0025 | .0118 | .0059 |
| 15   | -.00   | .6913  | -.0174 | -.2222 | -.0036 | .0060 | .0124 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|--------|--------|--------|--------|-------|-------|
| 2    | .00    | .6989  | .1273  | -.1482 | -.0040 | .0061 | .0121 |
| 3    | .00    | .6877  | -.0188 | -.2221 | -.0034 | .0049 | .0127 |
| 4    | -19.99 | -.9956 | .1157  | .0403  | -.0030 | .0023 | .0162 |
| 5    | -15.01 | -.6437 | .0274  | -.0502 | -.0032 | .0038 | .0088 |
| 6    | -10.00 | -.1973 | -.0404 | -.1796 | -.0022 | .0038 | .0108 |
| 7    | -5.01  | .2575  | -.0445 | -.2185 | -.0028 | .0059 | .0138 |
| 8    | -2.48  | .4814  | -.0343 | -.2334 | -.0042 | .0047 | .0158 |
| 9    | .00    | .6855  | -.0171 | -.2232 | -.0039 | .0061 | .0076 |
| 10   | 2.51   | .8933  | .0074  | -.2147 | -.0022 | .0072 | .0087 |
| 11   | 5.01   | 1.0812 | .0407  | -.2190 | -.0022 | .0084 | .0018 |
| 12   | 10.00  | 1.3042 | .1461  | -.2859 | -.0041 | .0095 | .0035 |
| 13   | 14.99  | 1.4740 | .3133  | -.3962 | -.0050 | .0096 | .0028 |
| 14   | 20.01  | 1.6400 | .5377  | -.4486 | -.0025 | .0118 | .0059 |
| 15   | -.00   | .6913  | -.0174 | -.2222 | -.0036 | .0060 | .0124 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 942

RUN 972 CONFIG

F P B NP5 W7 T61 BT

IN=-3.5

| PT. NO. | 7.5 DELF  |         | DELA        |             | IHT -5 DELE  |              | DELR         |             | DELSB |         | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 203.5       | 45.16       | 879.         | -73.         | 63.          | 5.31        | 55.83 | 129.61  | 3800.  |
| 3       | .0        | .0      | 196.7       | -6.41       | 846.         | -70.         | 98.          | 4.83        | 55.74 | 129.49  | 12810. |
| 4       | -20.0     | .0      | -385.0      | 63.75       | 782.         | -97.         | -19.         | 8.22        | 55.55 | 129.27  | 12780. |
| 5       | -15.0     | .0      | -293.7      | 30.23       | 1401.        | -55.         | 60.          | 5.05        | 55.37 | 129.05  | 12870. |
| 6       | -10.0     | .0      | -133.9      | -1.16       | 1195.        | -43.         | 76.          | 5.91        | 55.87 | 129.65  | 12740. |
| 7       | -5.0      | .0      | 30.3        | -10.12      | 1057.        | -77.         | 29.          | 4.05        | 55.58 | 129.30  | 12840. |
| 8       | -2.5      | .0      | 115.7       | -9.58       | 955.         | -73.         | 62.          | 5.45        | 55.59 | 129.30  | 12900. |
| 9       | .0        | .0      | 195.7       | -6.55       | 852.         | -80.         | 82.          | 3.93        | 55.53 | 129.24  | 12880. |
| 10      | 2.5       | .0      | 271.9       | .97         | 840.         | -50.         | 83.          | 4.37        | 55.30 | 128.97  | 12850. |
| 11      | 5.0       | .0      | 344.9       | 11.67       | 799.         | -35.         | 138.         | 2.21        | 55.48 | 129.18  | 12860. |
| 12      | 10.0      | .0      | 432.3       | 46.88       | 548.         | -76.         | 174.         | 1.79        | 55.26 | 128.92  | 12790. |
| 13      | 15.0      | .0      | 493.5       | 103.01      | 216.         | -91.         | 157.         | 2.64        | 55.49 | 129.20  | 12790. |
| 14      | 20.0      | .0      | 563.8       | 173.12      | -83.         | -74.         | 228.         | 3.02        | 55.34 | 129.01  | 12770. |
| 15      | .0        | .0      | 195.4       | -5.35       | 865.         | -75.         | 117.         | 4.23        | 55.54 | 129.26  | 12850. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .5500   | .1221  | .2833  | -.0044 | .0038  | .0143 |
| 3    | .00    | .5316   | -.0173 | .2728  | -.0042 | .0059  | .0130 |
| 4    | -19.98 | -1.0405 | .1723  | .2520  | -.0058 | -.0011 | .0222 |
| 5    | -14.98 | -.7938  | .0817  | .4516  | -.0033 | .0036  | .0136 |
| 6    | -10.01 | -.3618  | -.0031 | .3851  | -.0026 | .0046  | .0160 |
| 7    | -4.97  | .0819   | -.0274 | .3408  | -.0046 | .0017  | .0109 |
| 8    | -2.51  | .3127   | -.0259 | .3080  | -.0044 | .0037  | .0147 |
| 9    | .00    | .5290   | -.0177 | .2748  | -.0048 | .0050  | .0106 |
| 10   | 2.53   | .7349   | .0026  | .2708  | -.0030 | .0050  | .0118 |
| 11   | 4.99   | .9321   | .0315  | .2577  | -.0021 | .0083  | .0060 |
| 12   | 10.01  | 1.1683  | .1267  | .1768  | -.0046 | .0105  | .0048 |
| 13   | 15.00  | 1.3339  | .2784  | .0697  | -.0055 | .0095  | .0071 |
| 14   | 20.01  | 1.5239  | .4679  | -.0266 | -.0044 | .0138  | .0082 |
| 15   | .00    | .5280   | -.0145 | .2788  | -.0045 | .0071  | .0114 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .5500   | .1221  | .2833  | -.0044 | .0038  | .0143 |
| 3    | .00    | .5316   | -.0173 | .2728  | -.0042 | .0059  | .0130 |
| 4    | -19.98 | -1.0405 | .1723  | .2520  | -.0058 | -.0011 | .0222 |
| 5    | -14.98 | -.7938  | .0817  | .4516  | -.0033 | .0036  | .0136 |
| 6    | -10.01 | -.3618  | -.0031 | .3851  | -.0026 | .0046  | .0160 |
| 7    | -4.97  | .0819   | -.0274 | .3408  | -.0046 | .0017  | .0109 |
| 8    | -2.51  | .3127   | -.0259 | .3080  | -.0044 | .0037  | .0147 |
| 9    | .00    | .5290   | -.0177 | .2748  | -.0048 | .0050  | .0106 |
| 10   | 2.53   | .7349   | .0026  | .2708  | -.0030 | .0050  | .0118 |
| 11   | 4.99   | .9321   | .0315  | .2577  | -.0021 | .0083  | .0060 |
| 12   | 10.01  | 1.1683  | .1267  | .1768  | -.0046 | .0105  | .0048 |
| 13   | 15.00  | 1.3339  | .2784  | .0697  | -.0055 | .0095  | .0071 |
| 14   | 20.01  | 1.5239  | .4679  | -.0266 | -.0044 | .0138  | .0082 |
| 15   | .00    | .5280   | -.0145 | .2788  | -.0045 | .0071  | .0114 |

RUN 973 CONFIG F P B NP5 W7 T61 BT TN=-3.5

| PT. NO. | 7.5 DELF ALPHA DEG | DELTA PSI DEG | 30 DELA     |             | IHT -5 DELE  |              | DELR         |             | DELSB |         | RPM    |
|---------|--------------------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
|         |                    |               | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0                 | .0            | 419.8       | 101.01      | 825.         | -106.        | 62.          | 6.69        | 55.22 | 128.88  | 4010.  |
| 3       | .0                 | .0            | 394.2       | -6.41       | 1208.        | -136.        | 81.          | 5.58        | 54.94 | 128.55  | 17490. |
| 4       | -20.0              | .0            | -275.2      | 30.01       | 752.         | -14.         | 95.          | 2.98        | 57.18 | 131.19  | 17510. |
| 5       | -15.0              | .0            | -118.2      | -2.41       | 1195.        | -49.         | 64.          | 3.35        | 54.89 | 128.48  | 17510. |
| 6       | -10.0              | .0            | 54.9        | -20.15      | 1114.        | -104.        | 135.         | 2.52        | 55.45 | 129.15  | 17540. |
| 7       | -5.0               | .0            | 225.8       | -15.61      | 1127.        | -169.        | 148.         | 6.80        | 55.13 | 128.77  | 17430. |
| 8       | -2.5               | .0            | 310.8       | -9.74       | 1134.        | -162.        | 78.          | 7.15        | 54.82 | 128.41  | 17450. |
| 9       | .0                 | .0            | 395.5       | -1.44       | 1188.        | -142.        | 81.          | 6.36        | 54.64 | 128.18  | 17480. |
| 10      | 2.5                | .0            | 463.3       | 6.92        | 1240.        | -91.         | 100.         | 4.29        | 55.54 | 129.26  | 17490. |
| 11      | 5.0                | .0            | 543.9       | 17.08       | 1298.        | -86.         | 105.         | .87         | 54.97 | 128.59  | 17560. |
| 12      | 5.0                | .0            | 540.5       | 16.93       | 1290.        | -86.         | 104.         | .86         | 55.32 | 129.00  | 17550. |
| 13      | 10.0               | .0            | 631.4       | 50.82       | 731.         | -172.        | 321.         | -11.18      | 55.47 | 129.17  | 17440. |
| 14      | 15.0               | .0            | 581.4       | 126.48      | 358.         | -150.        | 140.         | 1.05        | 55.23 | 128.89  | 17430. |
| 15      | 20.0               | .0            | 647.5       | 202.02      | -75.         | -19.         | 123.         | 3.37        | 55.56 | 129.27  | 17420. |
| 16      | .0                 | .0            | 392.4       | 2.01        | 1170.        | -123.        | 98.          | 5.85        | 55.30 | 128.97  | 17420. |
| 17      | 2.5                | .0            | 469.2       | 10.94       | 1247.        | -90.         | 137.         | 2.40        | 55.38 | 129.07  | 17390. |
| 18      | 5.0                | .0            | 547.9       | 20.75       | 1310.        | -80.         | 104.         | 2.87        | 54.69 | 128.25  | 17390. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.1347 | .2730  | .2660  | -.0064 | .0037 | .0178  |
| 3    | .00    | 1.0654 | -.0173 | .3894  | -.0082 | .0049 | .0151  |
| 4    | -19.99 | -.7437 | .0811  | .2424  | -.0009 | .0057 | .0081  |
| 5    | -14.98 | -.3195 | -.0065 | .3852  | -.0029 | .0038 | .0091  |
| 6    | -10.00 | .1483  | -.0545 | .3592  | -.0063 | .0082 | .0068  |
| 7    | -4.99  | .6103  | -.0422 | .3635  | -.0102 | .0089 | .0184  |
| 8    | -2.51  | .8399  | -.0263 | .3657  | -.0098 | .0047 | .0193  |
| 9    | .00    | 1.0689 | -.0039 | .3831  | -.0086 | .0049 | .0172  |
| 10   | 2.51   | 1.2523 | .0187  | .3999  | -.0055 | .0060 | .0116  |
| 11   | 5.00   | 1.4700 | .0462  | .4186  | -.0052 | .0063 | .0023  |
| 12   | 5.00   | 1.4608 | .0458  | .4159  | -.0052 | .0063 | .0023  |
| 13   | 10.01  | 1.7064 | .1373  | .2356  | -.0104 | .0194 | -.0302 |
| 14   | 15.01  | 1.5713 | .3418  | .1155  | -.0090 | .0085 | .0028  |
| 15   | 20.00  | 1.7500 | .5460  | -.0242 | -.0012 | .0074 | .0091  |
| 16   | .00    | 1.0605 | .0054  | .3772  | -.0074 | .0059 | .0158  |
| 17   | 2.51   | 1.2681 | .0296  | .4019  | -.0054 | .0083 | .0065  |
| 18   | 5.00   | 1.4809 | .0561  | .4223  | -.0048 | .0063 | .0077  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.1347 | .2730  | .2660  | -.0064 | .0037 | .0178  |
| 3    | .00    | 1.0654 | -.0173 | .3894  | -.0082 | .0049 | .0151  |
| 4    | -19.99 | -.7437 | .0811  | .2424  | -.0009 | .0057 | .0081  |
| 5    | -14.98 | -.3195 | -.0065 | .3852  | -.0029 | .0038 | .0091  |
| 6    | -10.00 | .1483  | -.0545 | .3592  | -.0063 | .0082 | .0068  |
| 7    | -4.99  | .6103  | -.0422 | .3635  | -.0102 | .0089 | .0184  |
| 8    | -2.51  | .8399  | -.0263 | .3657  | -.0098 | .0047 | .0193  |
| 9    | .00    | 1.0689 | -.0039 | .3831  | -.0086 | .0049 | .0172  |
| 10   | 2.51   | 1.2523 | .0187  | .3999  | -.0055 | .0060 | .0116  |
| 11   | 5.00   | 1.4700 | .0462  | .4186  | -.0052 | .0063 | .0023  |
| 12   | 5.00   | 1.4608 | .0458  | .4159  | -.0052 | .0063 | .0023  |
| 13   | 10.01  | 1.7064 | .1373  | .2356  | -.0104 | .0194 | -.0302 |
| 14   | 15.01  | 1.5713 | .3418  | .1155  | -.0090 | .0085 | .0028  |
| 15   | 20.00  | 1.7500 | .5460  | -.0242 | -.0012 | .0074 | .0091  |
| 16   | .00    | 1.0605 | .0054  | .3772  | -.0074 | .0059 | .0158  |
| 17   | 2.51   | 1.2681 | .0296  | .4019  | -.0054 | .0083 | .0065  |
| 18   | 5.00   | 1.4809 | .0561  | .4223  | -.0048 | .0063 | .0077  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 944

RUN 974 CONFIG F P B NP5 W7 T61 BT TN=-3.5

| PT. NO. | 7.5 DELF  |         | 30 DELA     |             | IHT          |              | DELE         |             | DELR  |         | DELSB  |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |  |     |
| 2       | .0        | .0      | 434.2       | 92.95       | 351.         | -88.         | 116.         | 5.43        | 55.24 | 128.91  | 3990.  |  |     |
| 3       | .0        | .0      | 430.6       | -6.72       | 261.         | -119.        | 82.          | 5.49        | 54.58 | 128.12  | 17250. |  |     |
| 4       | -20.0     | .0      | -270.2      | 20.20       | 341.         | -61.         | 95.          | 4.76        | 55.08 | 128.71  | 17210. |  |     |
| 5       | -15.0     | .0      | -92.9       | -10.55      | 472.         | -49.         | 41.          | 5.99        | 54.60 | 128.15  | 17240. |  |     |
| 6       | -10.0     | .0      | 88.3        | -23.17      | 222.         | -77.         | 79.          | 4.76        | 55.13 | 128.77  | 17250. |  |     |
| 7       | -5.0      | .0      | 263.9       | -17.19      | 147.         | -140.        | 110.         | 7.61        | 55.49 | 129.21  | 17250. |  |     |
| 8       | -2.5      | .0      | 350.7       | -11.00      | 163.         | -135.        | 115.         | 6.34        | 54.81 | 128.40  | 17270. |  |     |
| 9       | .0        | .0      | 429.4       | -2.16       | 250.         | -114.        | 80.          | 6.76        | 54.90 | 128.50  | 17320. |  |     |
| 10      | 2.5       | .0      | 504.3       | 9.37        | 332.         | -72.         | 82.          | 4.91        | 55.46 | 129.16  | 17270. |  |     |
| 11      | 5.0       | .0      | 582.6       | 23.52       | 329.         | -73.         | 70.          | 1.43        | 54.60 | 128.14  | 17210. |  |     |
| 12      | 10.0      | .0      | 674.0       | 58.71       | -98.         | -148.        | 325.         | -8.14       | 54.42 | 127.92  | 17250. |  |     |
| 13      | 15.0      | .0      | 602.0       | 134.24      | -385.        | -74.         | 52.          | 1.96        | 55.49 | 129.20  | 17280. |  |     |
| 14      | 20.0      | .0      | 685.0       | 211.83      | -919.        | -40.         | 230.         | 3.41        | 54.98 | 128.59  | 17320. |  |     |
| 15      | .0        | .0      | 423.6       | .45         | 246.         | -109.        | 81.          | 4.77        | 55.65 | 129.38  | 17230. |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.1736 | .2512  | .1132  | -.0053 | .0070 | .0147  |
| 3    | .00    | 1.1637 | -.0182 | .0843  | -.0072 | .0049 | .0148  |
| 4    | -19.99 | -.7304 | .0546  | .1099  | -.0037 | .0057 | .0129  |
| 5    | -14.99 | -.2510 | -.0285 | .1522  | -.0030 | .0025 | .0162  |
| 6    | -10.00 | .2385  | -.0626 | .0714  | -.0047 | .0048 | .0129  |
| 7    | -5.00  | .7132  | -.0465 | .0473  | -.0085 | .0067 | .0206  |
| 8    | -2.49  | .9478  | -.0297 | .0527  | -.0082 | .0069 | .0171  |
| 9    | .02    | 1.1606 | -.0058 | .0807  | -.0069 | .0048 | .0183  |
| 10   | 2.54   | 1.3629 | .0253  | .1071  | -.0043 | .0049 | .0133  |
| 11   | 5.01   | 1.5746 | .0636  | .1060  | -.0044 | .0042 | .0039  |
| 12   | 10.00  | 1.8216 | .1587  | -.0315 | -.0089 | .0196 | -.0220 |
| 13   | 15.01  | 1.6269 | .3628  | -.1240 | -.0045 | .0031 | .0053  |
| 14   | 20.04  | 1.8514 | .5725  | -.2963 | -.0024 | .0139 | .0092  |
| 15   | .01    | 1.1450 | .0012  | .0792  | -.0066 | .0049 | .0129  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.1736 | .2512  | .1132  | -.0053 | .0070 | .0147  |
| 3    | .00    | 1.1637 | -.0182 | .0843  | -.0072 | .0049 | .0148  |
| 4    | -19.99 | -.7304 | .0546  | .1099  | -.0037 | .0057 | .0129  |
| 5    | -14.99 | -.2510 | -.0285 | .1522  | -.0030 | .0025 | .0162  |
| 6    | -10.00 | .2385  | -.0626 | .0714  | -.0047 | .0048 | .0129  |
| 7    | -5.00  | .7132  | -.0465 | .0473  | -.0085 | .0067 | .0206  |
| 8    | -2.49  | .9478  | -.0297 | .0527  | -.0082 | .0069 | .0171  |
| 9    | .02    | 1.1606 | -.0058 | .0807  | -.0069 | .0048 | .0183  |
| 10   | 2.54   | 1.3629 | .0253  | .1071  | -.0043 | .0049 | .0133  |
| 11   | 5.01   | 1.5746 | .0636  | .1060  | -.0044 | .0042 | .0039  |
| 12   | 10.00  | 1.8216 | .1587  | -.0315 | -.0089 | .0196 | -.0220 |
| 13   | 15.01  | 1.6269 | .3628  | -.1240 | -.0045 | .0031 | .0053  |
| 14   | 20.04  | 1.8514 | .5725  | -.2963 | -.0024 | .0139 | .0092  |
| 15   | .01    | 1.1450 | .0012  | .0792  | -.0066 | .0049 | .0129  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 945

RUN 975 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| PT. NO. | 7.5 DELF  |         | 30 DELA     |             | IHT          |              | 5 DELE       |             | DELR  |         | DELSB  |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |  |     |
| 2       | .0        | .0      | 470.1       | 96.55       | -469.        | -81.         | 115.         | 6.55        | 55.10 | 128.74  | 4010.  |  |     |
| 3       | .0        | .0      | 469.0       | -6.92       | -747.        | -127.        | 136.         | 5.13        | 54.42 | 127.93  | 17530. |  |     |
| 4       | -20.0     | .0      | -249.6      | 7.01        | -321.        | -55.         | 96.          | 4.21        | 54.98 | 128.60  | 17500. |  |     |
| 5       | -15.0     | .0      | -58.8       | -19.93      | -496.        | -38.         | 103.         | 1.49        | 54.72 | 128.28  | 17520. |  |     |
| 6       | -10.0     | .0      | 125.0       | -29.28      | -786.        | -58.         | 115.         | 4.07        | 55.25 | 128.92  | 17480. |  |     |
| 7       | -5.0      | .0      | 297.6       | -21.79      | -867.        | -142.        | 135.         | 3.27        | 55.19 | 128.85  | 17520. |  |     |
| 8       | -2.5      | .0      | 382.6       | -13.60      | -830.        | -145.        | 114.         | 6.18        | 55.08 | 128.71  | 17550. |  |     |
| 9       | -.0       | .0      | 462.7       | -2.61       | -720.        | -121.        | 117.         | 5.07        | 55.06 | 128.69  | 17500. |  |     |
| 10      | 2.5       | .0      | 538.3       | 9.98        | -639.        | -88.         | 136.         | 3.20        | 55.41 | 129.11  | 17490. |  |     |
| 11      | 5.0       | .0      | 619.4       | 24.85       | -644.        | -89.         | 140.         | 1.62        | 54.67 | 128.23  | 17480. |  |     |
| 12      | 10.0      | .0      | 691.0       | 61.21       | -922.        | -162.        | 391.         | -9.61       | 55.32 | 128.99  | 17480. |  |     |
| 13      | 15.0      | .0      | 629.0       | 142.80      | -1143.       | -99.         | 174.         | 4.30        | 55.47 | 129.17  | 17490. |  |     |
| 14      | 20.0      | .0      | 693.7       | 220.01      | -1335.       | -33.         | 71.          | 2.80        | 54.71 | 128.27  | 17530. |  |     |
| 15      | -.0       | .0      | 460.0       | -.61        | -715.        | -112.        | 115.         | 5.86        | 55.21 | 128.87  | 17430. |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.2707 | .2609  | -.1511 | -.0049 | .0069 | .0177  |
| 3    | .00    | 1.2675 | -.0187 | -.2409 | -.0076 | .0082 | .0139  |
| 4    | -20.01 | -.6745 | .0189  | -.1035 | -.0033 | .0058 | .0114  |
| 5    | -15.00 | -.1588 | -.0539 | -.1600 | -.0023 | .0062 | .0040  |
| 6    | -10.01 | .3377  | -.0791 | -.2534 | -.0035 | .0070 | .0110  |
| 7    | -5.01  | .8044  | -.0589 | -.2794 | -.0086 | .0082 | .0088  |
| 8    | -2.50  | 1.0342 | -.0368 | -.2677 | -.0088 | .0069 | .0167  |
| 9    | -.00   | 1.2506 | -.0071 | -.2322 | -.0073 | .0071 | .0137  |
| 10   | 2.57   | 1.4548 | .0270  | -.2060 | -.0053 | .0082 | .0086  |
| 11   | 4.99   | 1.6741 | .0672  | -.2077 | -.0054 | .0085 | .0044  |
| 12   | 10.01  | 1.8675 | .1654  | -.2972 | -.0098 | .0236 | -.0260 |
| 13   | 15.01  | 1.7025 | .3860  | -.3684 | -.0060 | .0105 | .0116  |
| 14   | 20.00  | 1.8749 | .5946  | -.4305 | -.0020 | .0043 | .0076  |
| 15   | -.00   | 1.2433 | -.0016 | -.2305 | -.0068 | .0070 | .0158  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.2707 | .2609  | -.1511 | -.0049 | .0069 | .0177  |
| 3    | .00    | 1.2675 | -.0187 | -.2409 | -.0076 | .0082 | .0139  |
| 4    | -20.01 | -.6745 | .0189  | -.1035 | -.0033 | .0058 | .0114  |
| 5    | -15.00 | -.1588 | -.0539 | -.1600 | -.0023 | .0062 | .0040  |
| 6    | -10.01 | .3377  | -.0791 | -.2534 | -.0035 | .0070 | .0110  |
| 7    | -5.01  | .8044  | -.0589 | -.2794 | -.0086 | .0082 | .0088  |
| 8    | -2.50  | 1.0342 | -.0368 | -.2677 | -.0088 | .0069 | .0167  |
| 9    | -.00   | 1.2506 | -.0071 | -.2322 | -.0073 | .0071 | .0137  |
| 10   | 2.57   | 1.4548 | .0270  | -.2060 | -.0053 | .0082 | .0086  |
| 11   | 4.99   | 1.6741 | .0672  | -.2077 | -.0054 | .0085 | .0044  |
| 12   | 10.01  | 1.8675 | .1654  | -.2972 | -.0098 | .0236 | -.0260 |
| 13   | 15.01  | 1.7025 | .3860  | -.3684 | -.0060 | .0105 | .0116  |
| 14   | 20.00  | 1.8749 | .5946  | -.4305 | -.0020 | .0043 | .0076  |
| 15   | -.00   | 1.2433 | -.0016 | -.2305 | -.0068 | .0070 | .0158  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 946

RUN 976 CONFIG F P B NP5 W7 T60-BT IN=-3.5

| IW<br>PT.<br>NO. | -9 DELF<br>ALPHA<br>DEG | PSI<br>DEG | 10 DELA<br>CLBAR<br>SQ-FT | COBAR<br>SQ-FT | IHT<br>CU-FT | -4 DELE<br>CYMBAR<br>CU-FT | DELR<br>CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | DELSB<br>Q<br>PSF | V<br>KNOTS | RPM    |
|------------------|-------------------------|------------|---------------------------|----------------|--------------|----------------------------|-------------------------|----------------|-------------------|------------|--------|
| 2                | .0                      | .0         | -82.1                     | 35.76          | 294.         | 12.                        | 62.                     | 7.02           | 54.85             | 128.45     | 3380.  |
| 3                | .0                      | .0         | -91.8                     | -5.57          | 175.         | 15.                        | 10.                     | 6.23           | 55.20             | 128.86     | 11560. |
| 4                | -20.0                   | .0         | -389.3                    | 161.55         | 1398.        | -107.                      | -96.                    | 6.69           | 54.98             | 128.59     | 11580. |
| 5                | -15.0                   | .0         | -381.6                    | 108.46         | 1963.        | -125.                      | -285.                   | 3.01           | 55.52             | 129.23     | 11640. |
| 6                | -10.0                   | .0         | -353.9                    | 62.40          | 1490.        | -16.                       | 11.                     | 3.71           | 55.07             | 128.71     | 11570. |
| 7                | -5.0                    | .0         | -249.8                    | 8.25           | 538.         | -29.                       | 42.                     | 6.62           | 55.61             | 129.34     | 11590. |
| 10               | .0                      | .0         | -89.8                     | -5.84          | 168.         | 8.                         | -22.                    | 3.68           | 55.57             | 129.29     | 11590. |
| 11               | 2.5                     | .0         | 3.9                       | -6.57          | 139.         | 5.                         | 44.                     | 7.33           | 55.33             | 129.02     | 11580. |
| 12               | 5.0                     | .0         | 36.2                      | -4.75          | 46.          | 17.                        | 66.                     | 3.17           | 55.85             | 129.63     | 11590. |
| 13               | 10.0                    | .0         | 254.1                     | 8.06           | -47.         | 12.                        | 50.                     | 2.92           | 55.91             | 129.70     | 11630. |
| 14               | 15.0                    | .0         | 436.8                     | 35.15          | -140.        | -29.                       | 105.                    | 2.67           | 54.83             | 128.42     | 11590. |
| 15               | 20.0                    | .0         | 599.4                     | 73.75          | -150.        | -24.                       | 141.                    | -.06           | 55.07             | 128.70     | 11530. |
| 16               | -2.5                    | .0         | -168.5                    | .27            | 358.         | -7.                        | 8.                      | 6.53           | 55.29             | 128.96     | 11550. |
| 17               | 25.0                    | .0         | 667.2                     | 132.87         | 193.         | 6.                         | 70.                     | -1.42          | 55.03             | 128.66     | 11560. |
| 18               | -.0                     | .0         | -91.3                     | -5.01          | 155.         | 5.                         | -24.                    | 5.18           | 55.24             | 128.91     | 11550. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | -.2220  | .0967  | .0948  | .0008  | .0037  | .0190  |
| 3    | .00    | -.2481  | -.0150 | .0566  | .0009  | .0006  | .0168  |
| 4    | -20.02 | -1.0522 | .4366  | .4507  | -.0065 | -.0052 | .0181  |
| 5    | -15.01 | -1.0313 | .2931  | .6328  | -.0075 | -.0172 | .0081  |
| 6    | -9.99  | -.9565  | .1687  | .4805  | -.0010 | .0007  | .0100  |
| 7    | -5.01  | -.6752  | .0223  | .1736  | -.0018 | .0025  | .0179  |
| 10   | .01    | -.2426  | -.0158 | .0543  | .0005  | -.0013 | .0099  |
| 11   | 2.51   | .0106   | -.0178 | .0448  | .0003  | .0027  | .0198  |
| 12   | 5.01   | .2329   | -.0128 | .0150  | .0010  | .0040  | .0086  |
| 13   | 10.01  | .6866   | .0218  | -.0151 | .0007  | .0030  | .0079  |
| 14   | 15.00  | 1.1805  | .0950  | -.0451 | -.0018 | .0064  | .0072  |
| 15   | 20.00  | 1.6201  | .1993  | -.0484 | -.0015 | .0085  | -.0002 |
| 16   | -2.51  | -.4553  | .0007  | .1155  | -.0004 | .0005  | .0177  |
| 17   | 25.01  | 1.8033  | .3591  | .0623  | .0004  | .0042  | -.0038 |
| 18   | -.00   | -.2469  | -.0135 | .0500  | .0003  | -.0015 | .0140  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CPB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | -.2220  | .0967  | .0948  | .0008  | .0037  | .0190  |
| 3    | .00    | -.2481  | -.0150 | .0566  | .0009  | .0006  | .0168  |
| 4    | -20.02 | -1.0522 | .4366  | .4507  | -.0065 | -.0052 | .0181  |
| 5    | -15.01 | -1.0313 | .2931  | .6328  | -.0075 | -.0172 | .0081  |
| 6    | -9.99  | -.9565  | .1687  | .4805  | -.0010 | .0007  | .0100  |
| 7    | -5.01  | -.6752  | .0223  | .1736  | -.0018 | .0025  | .0179  |
| 10   | .01    | -.2426  | -.0158 | .0543  | .0005  | -.0013 | .0099  |
| 11   | 2.51   | .0106   | -.0178 | .0448  | .0003  | .0027  | .0198  |
| 12   | 5.01   | .2329   | -.0128 | .0150  | .0010  | .0040  | .0086  |
| 13   | 10.01  | .6866   | .0218  | -.0151 | .0007  | .0030  | .0079  |
| 14   | 15.00  | 1.1805  | .0950  | -.0451 | -.0018 | .0064  | .0072  |
| 15   | 20.00  | 1.6201  | .1993  | -.0484 | -.0015 | .0085  | -.0002 |
| 16   | -2.51  | -.4553  | .0007  | .1155  | -.0004 | .0005  | .0177  |
| 17   | 25.01  | 1.8033  | .3591  | .0623  | .0004  | .0042  | -.0038 |
| 18   | -.00   | -.2469  | -.0135 | .0500  | .0003  | -.0015 | .0140  |



RUN 977 CONFIG F P B NP5 W7 T60 BT IN=-3.5

| PT. NO. | IW ALPHA DEG | DELF PSI DEG | 10 DELA     |             | IHT CU-FT | DELE CU-FT   |             | DELR     |            | DELSB  |        | RPM |
|---------|--------------|--------------|-------------|-------------|-----------|--------------|-------------|----------|------------|--------|--------|-----|
|         |              |              | CLBAR SQ-FT | CDBAR SQ-FT |           | CRMBAR CU-FT | CYBAR SQ-FT | DELQ PSF | DELV KNOTS |        |        |     |
| 2       | .0           | .0           | 126.1       | 37.25       | 228.      | -59.         | 61.         | 6.73     | 55.68      | 129.43 | 3620.  |     |
| 3       | .0           | .0           | 122.4       | -2.72       | 122.      | -59.         | 43.         | 6.48     | 55.22      | 130.07 | 11600. |     |
| 4       | .0           | .0           | 119.9       | -13.85      | 100.      | -56.         | 60.         | 7.07     | 56.37      | 130.24 | 12820. |     |
| 5       | .0           | .0           | 122.1       | -11.48      | 110.      | -65.         | 81.         | 4.50     | 56.02      | 129.83 | 5120.  |     |
| 6       | .0           | .0           | 121.8       | -6.74       | 120.      | -61.         | -8.         | 6.69     | 54.99      | 128.60 | 11990. |     |
| 7       | -20.0        | .0           | -398.3      | 109.80      | 1249.     | 28.          | -289.       | 1.87     | 54.51      | 128.02 | 11980. |     |
| 8       | -15.0        | .0           | -352.2      | 41.71       | 1381.     | -33.         | -22.        | 2.44     | 55.78      | 129.54 | 11970. |     |
| 10      | -5.0         | .0           | -47.3       | -6.96       | 344.      | -57.         | 27.         | 5.04     | 56.11      | 129.93 | 12000. |     |
| 11      | -2.5         | .0           | 38.7        | -8.49       | 181.      | -77.         | 44.         | 5.16     | 56.09      | 129.90 | 12010. |     |
| 12      | -5.0         | .0           | -47.5       | -6.86       | 349.      | -62.         | 43.         | 6.15     | 55.41      | 129.10 | 12000. |     |
| 13      | .1           | .0           | 123.1       | -6.34       | 119.      | -58.         | 28.         | 5.36     | 55.26      | 128.92 | 12000. |     |
| 14      | 2.5          | .0           | 203.7       | -1.37       | 67.       | -38.         | 82.         | 4.40     | 55.70      | 129.45 | 12000. |     |
| 15      | 5.0          | .0           | 288.8       | 7.06        | 7.        | -37.         | 85.         | 3.08     | 55.25      | 128.92 | 11910. |     |
| 16      | 10.0         | .0           | 454.8       | 31.31       | -84.      | -44.         | 50.         | 4.39     | 55.09      | 128.73 | 12010. |     |
| 17      | 15.0         | .0           | 597.0       | 66.83       | -278.     | -74.         | 158.        | 1.92     | 55.07      | 128.70 | 11980. |     |
| 18      | 20.1         | .0           | 635.2       | 138.95      | -752.     | 17.          | 36.         | 1.19     | 54.21      | 127.67 | 12030. |     |
| 19      | -10.0        | .0           | -221.1      | 9.62        | 927.      | -57.         | 6.          | 6.32     | 54.97      | 128.58 | 12010. |     |

\*\*\*\* COEFFICIENT FORM -- WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .3409   | .1007  | .0736  | -.0035 | .0037  | .0182 |
| 3    | .00    | .3309   | -.0074 | .0395  | -.0035 | .0026  | .0175 |
| 4    | .00    | .3241   | -.0374 | .0322  | -.0034 | .0036  | .0191 |
| 5    | .00    | .3299   | -.0310 | .0355  | -.0039 | .0049  | .0122 |
| 6    | .00    | .3291   | -.0182 | .0387  | -.0037 | -.0005 | .0181 |
| 7    | -19.99 | -1.0766 | .2968  | .4025  | .0017  | -.0174 | .0051 |
| 8    | -15.00 | -.9520  | .1127  | .4451  | -.0020 | -.0014 | .0066 |
| 10   | -4.97  | -.1278  | -.0188 | .1109  | -.0035 | .0016  | .0136 |
| 11   | -2.51  | .1046   | -.0229 | .0582  | -.0047 | .0027  | .0140 |
| 12   | -4.99  | -.1285  | -.0185 | .1124  | -.0037 | .0026  | .0166 |
| 13   | .08    | .3328   | -.0171 | .0382  | -.0035 | .0017  | .0145 |
| 14   | 2.51   | .5506   | -.0037 | .0217  | -.0023 | .0050  | .0119 |
| 15   | 5.00   | .7805   | .0191  | .0024  | -.0023 | .0051  | .0083 |
| 16   | 10.01  | 1.2291  | .0846  | -.0272 | -.0027 | .0030  | .0119 |
| 17   | 15.01  | 1.6135  | .1806  | -.0896 | -.0045 | .0095  | .0052 |
| 18   | 20.08  | 1.7167  | .3755  | -.2425 | .0010  | .0022  | .0032 |
| 19   | -10.00 | -.5975  | .0260  | .2989  | -.0034 | .0004  | .0171 |

\*\*\*\* COEFFICIENT FORM -- STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .3409   | .1007  | .0736  | -.0035 | .0037  | .0182 |
| 3    | .00    | .3309   | -.0074 | .0395  | -.0035 | .0026  | .0175 |
| 4    | .00    | .3241   | -.0374 | .0322  | -.0034 | .0036  | .0191 |
| 5    | .00    | .3299   | -.0310 | .0355  | -.0039 | .0049  | .0122 |
| 6    | .00    | .3291   | -.0182 | .0387  | -.0037 | -.0005 | .0181 |
| 7    | -19.99 | -1.0766 | .2968  | .4025  | .0017  | -.0174 | .0051 |
| 8    | -15.00 | -.9520  | .1127  | .4451  | -.0020 | -.0014 | .0066 |
| 10   | -4.97  | -.1278  | -.0188 | .1109  | -.0035 | .0016  | .0136 |
| 11   | -2.51  | .1046   | -.0229 | .0582  | -.0047 | .0027  | .0140 |
| 12   | -4.99  | -.1285  | -.0185 | .1124  | -.0037 | .0026  | .0166 |
| 13   | .08    | .3328   | -.0171 | .0382  | -.0035 | .0017  | .0145 |
| 14   | 2.51   | .5506   | -.0037 | .0217  | -.0023 | .0050  | .0119 |
| 15   | 5.00   | .7805   | .0191  | .0024  | -.0023 | .0051  | .0083 |
| 16   | 10.01  | 1.2291  | .0846  | -.0272 | -.0027 | .0030  | .0119 |
| 17   | 15.01  | 1.6135  | .1806  | -.0896 | -.0045 | .0095  | .0052 |
| 18   | 20.08  | 1.7167  | .3755  | -.2425 | .0010  | .0022  | .0032 |
| 19   | -10.00 | -.5975  | .0260  | .2989  | -.0034 | .0004  | .0171 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 948

RUN 978 CONFIG F P B NP5 W7 T61 BT IN=-3,5

| PT. NO. | IW    | DELF      |         | DELA        |             | IHT          |              | -5 DELE      |             | DELR  |         | DELSB  |  | RPM |
|---------|-------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|--|-----|
|         |       | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |  |     |
| 2       |       | .0        | .0      | 41.5        | 32.43       | 689.         | -22.         | 13.          | 3.74        | 55.52 | 129.24  | 3560.  |  |     |
| 3       |       | .0        | .0      | 38.3        | -3.90       | 583.         | -21.         | 11.          | 5.19        | 55.15 | 128.80  | 10860. |  |     |
| 4       |       | .0        | .0      | 37.3        | -6.84       | 577.         | -24.         | -7.          | 5.47        | 55.41 | 129.11  | 11360. |  |     |
| 5       | -20.0 | .0        | .0      | -421.6      | 124.55      | 958.         | -50.         | -302.        | 1.79        | 55.34 | 129.01  | 11370. |  |     |
| 6       | -15.0 | .0        | .0      | -402.3      | 59.94       | 1625.        | -9.          | -60.         | 3.71        | 55.07 | 128.70  | 11330. |  |     |
| 7       | -10.0 | .0        | .0      | -295.6      | 22.19       | 1272.        | -72.         | 44.          | 4.87        | 54.61 | 128.15  | 11380. |  |     |
| 8       | -5.0  | .0        | .0      | -129.4      | -1.44       | 683.         | -47.         | 8.           | 5.99        | 55.18 | 128.84  | 11370. |  |     |
| 9       | -2.5  | .0        | .0      | -44.0       | -5.60       | 624.         | -35.         | 26.          | 5.98        | 55.86 | 129.64  | 11360. |  |     |
| 10      | .0    | .0        | .0      | 39.0        | -6.77       | 584.         | -28.         | -7.          | 5.52        | 55.55 | 129.27  | 11350. |  |     |
| 11      | 2.6   | .0        | .0      | 123.0       | -4.79       | 535.         | -13.         | 46.          | 5.48        | 55.37 | 129.06  | 11360. |  |     |
| 12      | 5.0   | .0        | .0      | 199.1       | .04         | 515.         | -5.          | 31.          | 3.82        | 55.32 | 129.00  | 11340. |  |     |
| 13      | 10.0  | .0        | .0      | 356.6       | 19.46       | 513.         | -18.         | 86.          | 3.46        | 55.08 | 128.71  | 11370. |  |     |
| 14      | 15.0  | .0        | .0      | 499.4       | 53.27       | 236.         | -33.         | 105.         | 5.01        | 55.09 | 128.72  | 11380. |  |     |
| 15      | 20.0  | .0        | .0      | 556.6       | 107.22      | -310.        | 14.          | 142.         | 3.59        | 55.05 | 128.67  | 11380. |  |     |
| 16      | .0    | .0        | .0      | 37.7        | -6.82       | 592.         | -29.         | 29.          | 4.43        | 55.35 | 129.03  | 11400. |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1123   | .0876  | .2220  | -.0013 | .0008  | .0101 |
| 3    | .00    | .1035   | -.0105 | .1878  | -.0013 | .0007  | .0140 |
| 4    | .00    | .1007   | -.0185 | .1861  | -.0015 | -.0004 | .0148 |
| 5    | -20.00 | -1.1394 | .3366  | .3088  | -.0030 | -.0182 | .0048 |
| 6    | -14.97 | -1.0872 | .1620  | .5240  | -.0006 | -.0037 | .0100 |
| 7    | -9.99  | -.7990  | .0600  | .4101  | -.0043 | .0027  | .0131 |
| 8    | -5.00  | -.3498  | -.0039 | .2202  | -.0028 | .0005  | .0162 |
| 9    | -2.50  | -.1188  | -.0151 | .2013  | -.0021 | .0016  | .0162 |
| 10   | .03    | .1054   | -.0183 | .1882  | -.0017 | -.0004 | .0149 |
| 11   | 2.61   | .3324   | -.0129 | .1724  | -.0008 | .0028  | .0148 |
| 12   | 5.00   | .5381   | .0001  | .1662  | -.0003 | .0019  | .0103 |
| 13   | 10.00  | .9637   | .0526  | .1655  | -.0011 | .0052  | .0094 |
| 14   | 15.01  | 1.3497  | .1440  | .0761  | -.0020 | .0063  | .0135 |
| 15   | 20.00  | 1.5043  | .2898  | -.0998 | .0008  | .0085  | .0097 |
| 16   | .00    | .1019   | -.0184 | .1910  | -.0018 | .0018  | .0120 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1123   | .0876  | .2220  | -.0013 | .0008  | .0101 |
| 3    | .00    | .1035   | -.0105 | .1878  | -.0013 | .0007  | .0140 |
| 4    | .00    | .1007   | -.0185 | .1861  | -.0015 | -.0004 | .0148 |
| 5    | -20.00 | -1.1394 | .3366  | .3088  | -.0030 | -.0182 | .0048 |
| 6    | -14.97 | -1.0872 | .1620  | .5240  | -.0006 | -.0037 | .0100 |
| 7    | -9.99  | -.7990  | .0600  | .4101  | -.0043 | .0027  | .0131 |
| 8    | -5.00  | -.3498  | -.0039 | .2202  | -.0028 | .0005  | .0162 |
| 9    | -2.50  | -.1188  | -.0151 | .2013  | -.0021 | .0016  | .0162 |
| 10   | .03    | .1054   | -.0183 | .1882  | -.0017 | -.0004 | .0149 |
| 11   | 2.61   | .3324   | -.0129 | .1724  | -.0008 | .0028  | .0148 |
| 12   | 5.00   | .5381   | .0001  | .1662  | -.0003 | .0019  | .0103 |
| 13   | 10.00  | .9637   | .0526  | .1655  | -.0011 | .0052  | .0094 |
| 14   | 15.01  | 1.3497  | .1440  | .0761  | -.0020 | .0063  | .0135 |
| 15   | 20.00  | 1.5043  | .2898  | -.0998 | .0008  | .0085  | .0097 |
| 16   | .00    | .1019   | -.0184 | .1910  | -.0018 | .0018  | .0120 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 949

RUN 979 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| PT. NO. | DELTA     |         | DELA        |             | IHT          |              | -10 DELE     |             | DEL R |         | DELSB  |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |  |     |
| 2       | .0        | .0      | 14.2        | 34.49       | 1410.        | -28.         | -26.         | 6.86        | 56.13 | 129.97  | 3570.  |  |     |
| 3       | .0        | .0      | -158.1      | -6.74       | 9732.        | -35.         | 25.          | 7.47        | 55.60 | 129.34  | 11500. |  |     |
| 4       | -20.0     | .0      | -433.1      | 135.52      | 1167.        | -24.         | -312.        | 3.70        | 54.29 | 127.77  | 11530. |  |     |
| 5       | -15.0     | .0      | -417.8      | 72.65       | 1922.        | 0.           | -60.         | 3.49        | 54.66 | 128.21  | 11550. |  |     |
| 6       | -10.0     | .0      | -318.9      | 32.81       | 1985.        | -57.         | 37.          | 8.46        | 55.58 | 129.31  | 11520. |  |     |
| 7       | -5.0      | .0      | -160.3      | 5.29        | 1503.        | -46.         | -27.         | 5.74        | 55.16 | 128.81  | 11550. |  |     |
| 8       | -2.5      | .0      | -69.9       | -1.02       | 1354.        | -44.         | 28.          | 5.05        | 54.67 | 128.22  | 11550. |  |     |
| 9       | .0        | .0      | 9.3         | -6.00       | 1395.        | -39.         | 28.          | 5.74        | 55.23 | 128.90  | 11540. |  |     |
| 10      | 2.5       | .0      | 91.0        | -5.42       | 1294.        | -27.         | 81.          | 5.58        | 55.52 | 129.24  | 11550. |  |     |
| 11      | 5.0       | .0      | 171.8       | -1.21       | 1246.        | -18.         | 68.          | 2.15        | 55.33 | 129.02  | 11540. |  |     |
| 12      | 10.0      | .0      | 330.1       | 16.28       | 1227.        | -15.         | 86.          | 2.78        | 55.10 | 128.74  | 11550. |  |     |
| 13      | 15.0      | .0      | 471.4       | 48.30       | 1038.        | -46.         | 105.         | 4.03        | 54.90 | 128.50  | 11530. |  |     |
| 14      | 20.0      | .0      | 520.2       | 98.85       | 503.         | 35.          | 105.         | 3.56        | 55.56 | 129.28  | 11520. |  |     |
| 15      | .0        | .0      | 8.7         | -5.31       | 1383.        | -44.         | 45.          | 5.55        | 55.84 | 129.62  | 11550. |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .0383   | .0932  | .4547  | -.0017 | -.0016 | .0185 |
| 3    | .00    | -.4272  | -.0182 | 3.1377 | -.0021 | .0015  | .0202 |
| 4    | -20.03 | -1.1705 | .3663  | .3761  | -.0014 | -.0188 | .0100 |
| 5    | -15.00 | -1.1291 | .1963  | .6196  | .0000  | -.0036 | .0094 |
| 6    | -9.97  | -.8619  | .0887  | .6399  | -.0034 | .0022  | .0229 |
| 7    | -4.97  | -.4334  | .0143  | .4846  | -.0028 | -.0016 | .0155 |
| 8    | -2.50  | -.1889  | -.0028 | .4364  | -.0027 | .0017  | .0136 |
| 9    | .00    | .0250   | -.0162 | .4497  | -.0023 | .0017  | .0155 |
| 10   | 2.52   | .2460   | -.0147 | .4172  | -.0016 | .0049  | .0151 |
| 11   | 5.00   | .4644   | -.0033 | .4017  | -.0011 | .0041  | .0058 |
| 12   | 10.00  | .8921   | .0440  | .3956  | -.0009 | .0052  | .0075 |
| 13   | 15.03  | 1.2741  | .1306  | .3346  | -.0028 | .0063  | .0109 |
| 14   | 20.01  | 1.4060  | .2672  | .1622  | .0021  | .0064  | .0096 |
| 15   | .01    | .0236   | -.0144 | .4458  | -.0027 | .0027  | .0150 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .0383   | .0932  | .4547  | -.0017 | -.0016 | .0185 |
| 3    | .00    | -.4272  | -.0182 | 3.1377 | -.0021 | .0015  | .0202 |
| 4    | -20.03 | -1.1705 | .3663  | .3761  | -.0014 | -.0188 | .0100 |
| 5    | -15.00 | -1.1291 | .1963  | .6196  | .0000  | -.0036 | .0094 |
| 6    | -9.97  | -.8619  | .0887  | .6399  | -.0034 | .0022  | .0229 |
| 7    | -4.97  | -.4334  | .0143  | .4846  | -.0028 | -.0016 | .0155 |
| 8    | -2.50  | -.1889  | -.0028 | .4364  | -.0027 | .0017  | .0136 |
| 9    | .00    | .0250   | -.0162 | .4497  | -.0023 | .0017  | .0155 |
| 10   | 2.52   | .2460   | -.0147 | .4172  | -.0016 | .0049  | .0151 |
| 11   | 5.00   | .4644   | -.0033 | .4017  | -.0011 | .0041  | .0058 |
| 12   | 10.00  | .8921   | .0440  | .3956  | -.0009 | .0052  | .0075 |
| 13   | 15.03  | 1.2741  | .1306  | .3346  | -.0028 | .0063  | .0109 |
| 14   | 20.01  | 1.4060  | .2672  | .1622  | .0021  | .0064  | .0096 |
| 15   | .01    | .0236   | -.0144 | .4458  | -.0027 | .0027  | .0150 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 950

RUN-980 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| PT. NO. | IW ALPHA DEG | DELTA   |             | DELA        |              | IHT          |              | DELE        |       | DELRL   |        | DELSB |  | RPM |
|---------|--------------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|-------|--|-----|
|         |              | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |       |  |     |
| 2       | .0           | .0      | 69.4        | 31.76       | -88.         | -16.         | 28.          | 5.25        | 55.83 | 129.61  | 3560.  |       |  |     |
| 3       | .0           | .0      | 70.6        | 31.89       | -92.         | -20.         | 10.          | 6.11        | 55.74 | 129.50  | 3560.  |       |  |     |
| 4       | .0           | .0      | 65.4        | -6.94       | -190.        | -19.         | 10.          | 5.54        | 55.97 | 129.77  | 11210. |       |  |     |
| 5       | -20.0        | .0      | -412.0      | 115.75      | 782.         | -35.         | -274.        | 4.99        | 55.34 | 129.02  | 11210. |       |  |     |
| 6       | -15.0        | .0      | -380.1      | 47.58       | 954.         | -17.         | -84.         | 6.70        | 55.44 | 129.14  | 11240. |       |  |     |
| 7       | -10.0        | .0      | -259.3      | 15.72       | 252.         | -70.         | 4.           | 7.70        | 54.38 | 127.88  | 11240. |       |  |     |
| 8       | -5.0         | .0      | -94.1       | -3.71       | -250.        | -26.         | -14.         | 8.82        | 55.22 | 128.89  | 11260. |       |  |     |
| 9       | -2.5         | .0      | -11.5       | -6.68       | -214.        | -25.         | 11.          | 4.61        | 55.40 | 129.10  | 11250. |       |  |     |
| 10      | .0           | .0      | 67.2        | -6.59       | -212.        | -28.         | 29.          | 4.35        | 55.66 | 129.40  | 11250. |       |  |     |
| 11      | 2.5          | .0      | 147.5       | -3.68       | -215.        | -18.         | 30.          | 4.49        | 55.39 | 129.09  | 11250. |       |  |     |
| 12      | 5.0          | .0      | 227.2       | 2.54        | -212.        | -11.         | 67.          | 3.09        | 55.07 | 128.71  | 11240. |       |  |     |
| 13      | 10.0         | .0      | 384.8       | 24.36       | -277.        | -15.         | 69.          | 1.85        | 55.28 | 128.96  | 11220. |       |  |     |
| 14      | 15.0         | .0      | 535.7       | 60.71       | -645.        | -18.         | 88.          | 3.31        | 54.59 | 128.13  | 11310. |       |  |     |
| 15      | 20.0         | .0      | 560.7       | 121.29      | -690.        | 45.          | 18.          | 4.46        | 55.04 | 128.66  | 11330. |       |  |     |
| 16      | -0           | .0      | 66.4        | -6.26       | -201.        | -15.         | 9.           | 6.58        | 56.45 | 130.33  | 11240. |       |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1877   | .0858  | -.0284 | -.0010 | .0017  | .0142 |
| 3    | .00    | .1908   | .0862  | -.0297 | -.0012 | .0006  | .0165 |
| 4    | .00    | .1768   | -.0188 | -.0611 | -.0012 | .0006  | .0150 |
| 5    | -20.01 | -1.1135 | .3128  | .2522  | -.0021 | -.0165 | .0135 |
| 6    | -15.01 | -1.0272 | .1286  | .3076  | -.0010 | -.0051 | .0181 |
| 7    | -10.00 | -.7009  | .0425  | .0812  | -.0042 | .0002  | .0208 |
| 8    | -5.02  | -.2543  | -.0100 | -.0805 | -.0016 | -.0008 | .0238 |
| 9    | -2.52  | -.0310  | -.0180 | -.0692 | -.0015 | .0007  | .0125 |
| 10   | .01    | .1815   | -.0178 | -.0682 | -.0017 | .0018  | .0117 |
| 11   | 2.50   | .3986   | -.0100 | -.0693 | -.0011 | .0018  | .0121 |
| 12   | 4.98   | .6141   | .0069  | -.0685 | -.0006 | .0041  | .0084 |
| 13   | 10.00  | 1.0400  | .0658  | -.0895 | -.0009 | .0042  | .0050 |
| 14   | 14.99  | 1.4480  | .1641  | -.2079 | -.0011 | .0053  | .0089 |
| 15   | 19.99  | 1.5155  | .3278  | -.2224 | .0027  | .0011  | .0120 |
| 16   | -.01   | .1794   | -.0169 | -.0647 | -.0009 | .0005  | .0178 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .1877   | .0858  | -.0284 | -.0010 | .0017  | .0142 |
| 3    | .00    | .1908   | .0862  | -.0297 | -.0012 | .0006  | .0165 |
| 4    | .00    | .1768   | -.0188 | -.0611 | -.0012 | .0006  | .0150 |
| 5    | -20.01 | -1.1135 | .3128  | .2522  | -.0021 | -.0165 | .0135 |
| 6    | -15.01 | -1.0272 | .1286  | .3076  | -.0010 | -.0051 | .0181 |
| 7    | -10.00 | -.7009  | .0425  | .0812  | -.0042 | .0002  | .0208 |
| 8    | -5.02  | -.2543  | -.0100 | -.0805 | -.0016 | -.0008 | .0238 |
| 9    | -2.52  | -.0310  | -.0180 | -.0692 | -.0015 | .0007  | .0125 |
| 10   | .01    | .1815   | -.0178 | -.0682 | -.0017 | .0018  | .0117 |
| 11   | 2.50   | .3986   | -.0100 | -.0693 | -.0011 | .0018  | .0121 |
| 12   | 4.98   | .6141   | .0069  | -.0685 | -.0006 | .0041  | .0084 |
| 13   | 10.00  | 1.0400  | .0658  | -.0895 | -.0009 | .0042  | .0050 |
| 14   | 14.99  | 1.4480  | .1641  | -.2079 | -.0011 | .0053  | .0089 |
| 15   | 19.99  | 1.5155  | .3278  | -.2224 | .0027  | .0011  | .0120 |
| 16   | -.01   | .1794   | -.0169 | -.0647 | -.0009 | .0005  | .0178 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 951

RUN 981 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------------|--------|
| 2       | .0        | .0      | 101.2       | 33.92       | -831.        | -23.         | 47.          | 4.85        | 54.75       | 128.33        | 3550.  |
| 3       | .0        | .0      | 96.9        | -6.36       | -955.        | -17.         | 29.          | 4.91        | 54.80       | 128.40        | 11400. |
| 4       | -20.0     | .0      | -402.2      | 105.64      | 279.         | 2.           | -341.        | 3.45        | 55.29       | 128.97        | 11410. |
| 5       | -15.0     | .0      | -351.6      | 40.74       | 89.          | -26.         | -30.         | 6.06        | 55.65       | 129.40        | 11310. |
| 6       | -10.0     | .0      | -221.5      | 10.84       | -721.        | -59.         | 27.          | 4.50        | 55.24       | 128.91        | 11340. |
| 7       | -5.0      | .0      | -64.1       | -5.26       | -1075.       | -33.         | 10.          | 5.08        | 54.94       | 128.55        | 11340. |
| 8       | -2.5      | .0      | 16.0        | -7.13       | -989.        | -23.         | -8.          | 5.31        | 55.13       | 128.78        | 11360. |
| 9       | .0        | .0      | 95.8        | -5.75       | -961.        | -16.         | 30.          | 4.65        | 54.21       | 127.69        | 11370. |
| 10      | 2.5       | .0      | 178.0       | -2.00       | -945.        | -15.         | 102.         | 3.74        | 54.65       | 128.22        | 11370. |
| 11      | 5.0       | .0      | 258.2       | 5.94        | -948.        | -8.          | 105.         | -.12        | 55.32       | 129.01        | 11340. |
| 12      | 10.0      | .0      | 417.3       | 30.00       | -1094.       | 12.          | 70.          | .25         | 55.27       | 128.95        | 11350. |
| 13      | 15.0      | .0      | 543.1       | 75.35       | -1108.       | -50.         | 122.         | 3.02        | 55.29       | 128.98        | 11340. |
| 14      | 17.5      | .0      | 552.0       | 100.34      | -941.        | -30.         | 88.          | 3.28        | 55.09       | 128.74        | 11340. |
| 15      | 20.0      | .0      | 565.7       | 130.87      | -741.        | 26.          | 54.          | 5.35        | 54.71       | 128.29        | 11370. |
| 16      | 25.0      | .0      | 620.0       | 208.81      | -436.        | -24.         | 73.          | 2.83        | 54.24       | 127.72        | 11350. |
| 17      | .0        | .0      | 96.8        | -4.72       | -954.        | -24.         | 48.          | 4.12        | 54.60       | 128.15        | 11370. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .2734   | .0917  | -.2678 | -.0014 | .0028  | .0131  |
| 3    | .00    | .2619   | -.0172 | -.3078 | -.0010 | .0018  | .0133  |
| 4    | -20.00 | -1.0871 | .2855  | .0900  | .0001  | -.0206 | .0093  |
| 5    | -15.00 | -.9504  | .1101  | .0286  | -.0015 | -.0018 | .0164  |
| 6    | -10.00 | -.5986  | .0293  | -.2325 | -.0036 | .0016  | .0122  |
| 7    | -5.00  | -.1732  | -.0142 | -.3465 | -.0020 | .0006  | .0137  |
| 8    | -2.50  | .0433   | -.0193 | -.3188 | -.0014 | -.0005 | .0144  |
| 9    | .00    | .2590   | -.0155 | -.3098 | -.0010 | .0018  | .0126  |
| 10   | 2.50   | .4811   | -.0054 | -.3048 | -.0009 | .0062  | .0101  |
| 11   | 5.00   | .6978   | .0160  | -.3056 | -.0005 | .0064  | -.0003 |
| 12   | 10.00  | 1.1278  | .0811  | -.3526 | .0007  | .0042  | .0007  |
| 13   | 15.00  | 1.4677  | .2037  | -.3571 | -.0030 | .0074  | .0082  |
| 14   | 17.50  | 1.4918  | .2712  | -.3035 | -.0018 | .0053  | .0089  |
| 15   | 20.00  | 1.5290  | .3537  | -.2389 | .0016  | .0033  | .0145  |
| 16   | 25.00  | 1.6757  | .5644  | -.1404 | -.0014 | .0044  | .0076  |
| 17   | .00    | .2616   | -.0128 | -.3076 | -.0014 | .0029  | .0111  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .2734   | .0917  | -.2678 | -.0014 | .0028  | .0131  |
| 3    | .00    | .2619   | -.0172 | -.3078 | -.0010 | .0018  | .0133  |
| 4    | -20.00 | -1.0871 | .2855  | .0900  | .0001  | -.0206 | .0093  |
| 5    | -15.00 | -.9504  | .1101  | .0286  | -.0015 | -.0018 | .0164  |
| 6    | -10.00 | -.5986  | .0293  | -.2325 | -.0036 | .0016  | .0122  |
| 7    | -5.00  | -.1732  | -.0142 | -.3465 | -.0020 | .0006  | .0137  |
| 8    | -2.50  | .0433   | -.0193 | -.3188 | -.0014 | -.0005 | .0144  |
| 9    | .00    | .2590   | -.0155 | -.3098 | -.0010 | .0018  | .0126  |
| 10   | 2.50   | .4811   | -.0054 | -.3048 | -.0009 | .0062  | .0101  |
| 11   | 5.00   | .6978   | .0160  | -.3056 | -.0005 | .0064  | -.0003 |
| 12   | 10.00  | 1.1278  | .0811  | -.3526 | .0007  | .0042  | .0007  |
| 13   | 15.00  | 1.4677  | .2037  | -.3571 | -.0030 | .0074  | .0082  |
| 14   | 17.50  | 1.4918  | .2712  | -.3035 | -.0018 | .0053  | .0089  |
| 15   | 20.00  | 1.5290  | .3537  | -.2389 | .0016  | .0033  | .0145  |
| 16   | 25.00  | 1.6757  | .5644  | -.1404 | -.0014 | .0044  | .0076  |
| 17   | .00    | .2616   | -.0128 | -.3076 | -.0014 | .0029  | .0111  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 952

RUN 982 CONFIG F P B NP5 W7 T61 BT INC=-3.5

| IW      | 0 DELF    | 10 DELA | 0 IHT       | 5 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM    |
| 2       | .0        | .0      | 159.1       | 38.57       | -721.        | -51.         | 27.          | 6.13        | 55.53 | 129.27  | 3620.  |
| 3       | .0        | .0      | 155.9       | -6.82       | -873.        | -45.         | 47.          | 4.67        | 55.45 | 129.17  | 12070. |
| 4       | -20.0     | .0      | -353.7      | 93.78       | 210.         | -68.         | -3.          | 9.17        | 55.37 | 129.07  | 12050. |
| 5       | -15.0     | .0      | -316.3      | 30.09       | -22.         | -35.         | -34.         | 7.75        | 54.98 | 128.60  | 12070. |
| 6       | -10.0     | .0      | -170.8      | 2.48        | -628.        | -71.         | 23.          | 6.51        | 55.45 | 129.16  | 12080. |
| 7       | -5.0      | .0      | -5.8        | -9.36       | -967.        | -51.         | 32.          | 2.49        | 54.64 | 128.20  | 12080. |
| 8       | -2.5      | .0      | 76.5        | -9.12       | -928.        | -55.         | 6.           | 7.97        | 55.16 | 128.82  | 12070. |
| 9       | .0        | .0      | 157.5       | -5.51       | -875.        | -53.         | 46.          | 5.49        | 54.59 | 128.14  | 12060. |
| 10      | 2.5       | .0      | 240.3       | .72         | -865.        | -23.         | 48.          | 4.63        | 54.49 | 128.01  | 12040. |
| 11      | 5.0       | .0      | 321.3       | 9.80        | -855.        | -10.         | 69.          | 1.35        | 55.45 | 129.16  | 12070. |
| 12      | 10.0      | .0      | 492.3       | 37.95       | -890.        | -21.         | 88.          | 2.25        | 54.49 | 128.02  | 12070. |
| 13      | 15.0      | .0      | 626.2       | 77.37       | -1024.       | -58.         | 122.         | 5.12        | 55.21 | 128.87  | 12040. |
| 14      | 17.5      | .0      | 634.1       | 111.95      | -1253.       | -63.         | 89.          | 1.93        | 54.65 | 128.21  | 12080. |
| 15      | 20.0      | .0      | 639.9       | 154.04      | -1217.       | 55.          | -17.         | 2.00        | 54.56 | 128.10  | 12070. |
| 16      | 25.0      | .0      | 669.1       | 236.08      | -665.        | 37.          | 215.         | 4.05        | 54.71 | 128.28  | 11970. |
| 17      | .0        | .0      | 153.8       | -5.21       | -861.        | -51.         | 63.          | 6.25        | 55.02 | 128.65  | 12040. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .4300  | .1042  | -.2323 | -.0031 | .0016  | .0166 |
| 3    | .00    | .4214  | -.0184 | -.2814 | -.0027 | .0028  | .0126 |
| 4    | -20.00 | -.9559 | .2535  | .0678  | -.0041 | -.0002 | .0248 |
| 5    | -15.00 | -.8549 | .0813  | -.0072 | -.0021 | -.0020 | .0209 |
| 6    | -10.01 | -.4617 | .0067  | -.2023 | -.0043 | .0014  | .0176 |
| 7    | -5.00  | -.0158 | -.0253 | -.3117 | -.0031 | .0019  | .0067 |
| 8    | -2.51  | .2069  | -.0247 | -.2993 | -.0033 | .0004  | .0215 |
| 9    | .00    | .4256  | -.0149 | -.2821 | -.0032 | .0028  | .0148 |
| 10   | 2.50   | .6496  | .0019  | -.2788 | -.0014 | .0029  | .0125 |
| 11   | 5.00   | .8682  | .0265  | -.2758 | -.0006 | .0041  | .0037 |
| 12   | 10.00  | 1.3304 | .1026  | -.2868 | -.0012 | .0053  | .0061 |
| 13   | 15.00  | 1.6925 | .2091  | -.3300 | -.0035 | .0074  | .0138 |
| 14   | 17.50  | 1.7137 | .3026  | -.4038 | -.0038 | .0054  | .0052 |
| 15   | 20.01  | 1.7294 | .4163  | -.3922 | .0033  | -.0010 | .0054 |
| 16   | 25.00  | 1.8082 | .6381  | -.2142 | .0022  | .0130  | .0109 |
| 17   | .00    | .4156  | -.0141 | -.2775 | -.0031 | .0038  | .0169 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .4300  | .1042  | -.2323 | -.0031 | .0016  | .0166 |
| 3    | .00    | .4214  | -.0184 | -.2814 | -.0027 | .0028  | .0126 |
| 4    | -20.00 | -.9559 | .2535  | .0678  | -.0041 | -.0002 | .0248 |
| 5    | -15.00 | -.8549 | .0813  | -.0072 | -.0021 | -.0020 | .0209 |
| 6    | -10.01 | -.4617 | .0067  | -.2023 | -.0043 | .0014  | .0176 |
| 7    | -5.00  | -.0158 | -.0253 | -.3117 | -.0031 | .0019  | .0067 |
| 8    | -2.51  | .2069  | -.0247 | -.2993 | -.0033 | .0004  | .0215 |
| 9    | .00    | .4256  | -.0149 | -.2821 | -.0032 | .0028  | .0148 |
| 10   | 2.50   | .6496  | .0019  | -.2788 | -.0014 | .0029  | .0125 |
| 11   | 5.00   | .8682  | .0265  | -.2758 | -.0006 | .0041  | .0037 |
| 12   | 10.00  | 1.3304 | .1026  | -.2868 | -.0012 | .0053  | .0061 |
| 13   | 15.00  | 1.6925 | .2091  | -.3300 | -.0035 | .0074  | .0138 |
| 14   | 17.50  | 1.7137 | .3026  | -.4038 | -.0038 | .0054  | .0052 |

|    |       |        |        |        |        |        |       |
|----|-------|--------|--------|--------|--------|--------|-------|
| 15 | 20.01 | 1.7294 | .4163  | -.3922 | .0033  | -.0010 | .0054 |
| 16 | 25.00 | 1.8082 | .6381  | -.2142 | .0022  | .0130  | .0109 |
| 17 | .00   | .4156  | -.0141 | -.2775 | -.0031 | .0038  | .0169 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 953

RUN 983 CONFIG F P R NP5 W7 T61 BT IN=-3.5

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 10 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 0 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>DELSB<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|------------------------|-----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|-------------------|-----------------|--------|
| 2                | .0                     | .0                    | 131.3                   | 36.56                    | -32.                      | -56.                       | 44.                  | 6.44                | 55.54             | 129.27          | 3610.  |
| 3                | .0                     | .0                    | 129.1                   | -5.70                    | -140.                     | -55.                       | 28.                  | 6.30                | 54.63             | 128.18          | 11630. |
| 4                | -20.0                  | .0                    | -371.5                  | 104.96                   | 654.                      | -71.                       | -124.                | 8.04                | 55.06             | 128.70          | 11660. |
| 5                | -15.0                  | .0                    | -341.8                  | 39.01                    | 797.                      | -45.                       | -48.                 | 6.38                | 55.01             | 128.63          | 11650. |
| 6                | -10.0                  | .0                    | -206.9                  | 8.16                     | 263.                      | -92.                       | 42.                  | 6.62                | 54.06             | 127.50          | 11640. |
| 7                | -5.0                   | .0                    | -37.2                   | -6.16                    | -130.                     | -55.                       | -9.                  | 5.66                | 55.41             | 129.12          | 11620. |
| 8                | -2.5                   | .0                    | 48.4                    | -7.05                    | -186.                     | -66.                       | -27.                 | 6.77                | 55.33             | 129.01          | 11630. |
| 9                | -.0                    | .0                    | 127.5                   | -5.02                    | -152.                     | -57.                       | 44.                  | 6.74                | 55.58             | 129.31          | 11650. |
| 10               | 2.5                    | .0                    | 212.3                   | .79                      | -133.                     | -29.                       | 65.                  | 5.21                | 54.92             | 128.53          | 11620. |
| 11               | 5.0                    | .0                    | 292.4                   | 8.71                     | -126.                     | -29.                       | 66.                  | 3.30                | 55.77             | 129.54          | 11660. |
| 12               | 10.0                   | .0                    | 460.8                   | 34.42                    | -139.                     | -39.                       | 105.                 | 1.61                | 55.12             | 128.77          | 11630. |
| 13               | 15.0                   | .0                    | 607.5                   | 71.28                    | -349.                     | -32.                       | 35.                  | 3.79                | 54.78             | 128.36          | 11600. |
| 14               | 17.5                   | .0                    | 614.2                   | 101.32                   | -725.                     | -38.                       | 141.                 | 1.42                | 55.02             | 128.65          | 11630. |
| 15               | 20.0                   | .0                    | 634.8                   | 141.73                   | -960.                     | 57.                        | 18.                  | 1.31                | 54.79             | 128.37          | 11660. |
| 16               | 25.0                   | .0                    | 671.3                   | 230.48                   | -584.                     | 24.                        | 248.                 | 1.18                | 54.89             | 128.49          | 10350. |
| 17               | -.0                    | .0                    | 127.2                   | -4.16                    | -140.                     | -60.                       | 28.                  | 5.68                | 55.15             | 128.80          | 11660. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .3549   | .0988  | -.0105 | -.0034 | .0027  | .0174 |
| 3    | .00    | .3488   | -.0154 | -.0452 | -.0033 | .0017  | .0170 |
| 4    | -20.00 | -1.0040 | .2837  | .2110  | -.0043 | -.0075 | .0217 |
| 5    | -15.00 | -.9239  | .1054  | .2569  | -.0027 | -.0029 | .0172 |
| 6    | -10.00 | -.5591  | .0220  | .0848  | -.0056 | .0025  | .0179 |
| 7    | -5.00  | -.1005  | -.0166 | -.0418 | -.0033 | -.0005 | .0153 |
| 8    | -2.50  | .1309   | -.0190 | -.0599 | -.0040 | -.0016 | .0183 |
| 9    | -.00   | .3445   | -.0136 | -.0490 | -.0035 | .0026  | .0182 |
| 10   | 2.51   | .5738   | .0021  | -.0429 | -.0017 | .0039  | .0141 |
| 11   | 5.01   | .7903   | .0235  | -.0406 | -.0018 | .0040  | .0089 |
| 12   | 10.01  | 1.2453  | .0930  | -.0450 | -.0023 | .0063  | .0043 |
| 13   | 15.01  | 1.6419  | .1926  | -.1124 | -.0019 | .0021  | .0103 |
| 14   | 17.51  | 1.6600  | .2738  | -.2339 | -.0023 | .0085  | .0038 |
| 15   | 20.00  | 1.7156  | .3830  | -.3095 | .0035  | .0011  | .0035 |
| 16   | 24.99  | 1.8144  | .6229  | -.1882 | .0015  | .0150  | .0032 |
| 17   | -.01   | .3437   | -.0113 | -.0451 | -.0036 | .0017  | .0154 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .3549   | .0988  | -.0105 | -.0034 | .0027  | .0174 |
| 3    | .00    | .3488   | -.0154 | -.0452 | -.0033 | .0017  | .0170 |
| 4    | -20.00 | -1.0040 | .2837  | .2110  | -.0043 | -.0075 | .0217 |
| 5    | -15.00 | -.9239  | .1054  | .2569  | -.0027 | -.0029 | .0172 |
| 6    | -10.00 | -.5591  | .0220  | .0848  | -.0056 | .0025  | .0179 |
| 7    | -5.00  | -.1005  | -.0166 | -.0418 | -.0033 | -.0005 | .0153 |
| 8    | -2.50  | .1309   | -.0190 | -.0599 | -.0040 | -.0016 | .0183 |
| 9    | -.00   | .3445   | -.0136 | -.0490 | -.0035 | .0026  | .0182 |
| 10   | 2.51   | .5738   | .0021  | -.0429 | -.0017 | .0039  | .0141 |
| 11   | 5.01   | .7903   | .0235  | -.0406 | -.0018 | .0040  | .0089 |
| 12   | 10.01  | 1.2453  | .0930  | -.0450 | -.0023 | .0063  | .0043 |
| 13   | 15.01  | 1.6419  | .1926  | -.1124 | -.0019 | .0021  | .0103 |
| 14   | 17.51  | 1.6600  | .2738  | -.2339 | -.0023 | .0085  | .0038 |
| 15   | 20.00  | 1.7156  | .3830  | -.3095 | .0035  | .0011  | .0035 |
| 16   | 24.99  | 1.8144  | .6229  | -.1882 | .0015  | .0150  | .0032 |
| 17   | -.01   | .3437   | -.0113 | -.0451 | -.0036 | .0017  | .0154 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 954

RUN 984 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| IW      | 0 DELF    | 10 DELA | 0 IHT       | -5 DELE     | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMRAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 104.6       | 37.09       | 691.         | -66.         | 45.          | 5.81        | 55.16 | 128.82  | 3610.  |
| 3       | .0        | .0      | 101.5       | -6.84       | 631.         | -48.         | 42.          | 8.37        | 54.92 | 128.53  | 11890. |
| 4       | -20.0     | .0      | -375.0      | 113.66      | 886.         | -51.         | -8.          | 11.39       | 55.02 | 128.64  | 11820. |
| 5       | -15.0     | .0      | -363.4      | 50.33       | 1403.        | -29.         | -25.         | 3.63        | 55.34 | 129.03  | 11880. |
| 6       | -10.0     | .0      | -240.2      | 14.46       | 1176.        | -84.         | 38.          | 8.09        | 54.75 | 128.32  | 11860. |
| 7       | -5.0      | .0      | -71.4       | -4.08       | 749.         | -77.         | 10.          | 4.75        | 55.25 | 128.92  | 11840. |
| 8       | -2.5      | .0      | 18.5        | -7.15       | 631.         | -79.         | -27.         | 6.79        | 55.18 | 128.83  | 10550. |
| 9       | .0        | .0      | 101.1       | -5.98       | 627.         | -70.         | 82.          | 4.36        | 55.43 | 129.13  | 11800. |
| 10      | 2.5       | .0      | 182.0       | -2.24       | 634.         | -22.         | 98.          | 5.90        | 55.42 | 129.12  | 11830. |
| 11      | 5.0       | .0      | 267.3       | 5.03        | 634.         | -22.         | 67.          | 3.78        | 55.01 | 128.64  | 11810. |
| 12      | 10.0      | .0      | 434.3       | 28.48       | 596.         | -46.         | 122.         | 3.35        | 54.87 | 128.47  | 11810. |
| 13      | 15.0      | .0      | 583.1       | 62.74       | 441.         | -34.         | 52.          | 5.90        | 54.28 | 127.76  | 11860. |
| 14      | 17.5      | .0      | 579.7       | 90.88       | 107.         | -53.         | 159.         | 2.48        | 55.00 | 128.62  | 11890. |
| 15      | 20.0      | .0      | 611.5       | 127.43      | -241.        | 79.          | 18.          | .80         | 55.08 | 128.71  | 11860. |
| 16      | 25.0      | .0      | 668.8       | 220.20      | -522.        | 32.          | 160.         | 2.54        | 54.90 | 128.50  | 11830. |
| 17      | .0        | .0      | 98.8        | -6.00       | 624.         | -59.         | 61.          | 7.06        | 55.49 | 129.20  | 11810. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .2827   | .1002  | .2227  | -.0040 | .0027  | .0157 |
| 3    | .00    | .2742   | -.0185 | .2033  | -.0029 | .0026  | .0226 |
| 4    | -20.01 | -1.0136 | .3072  | .2857  | -.0031 | -.0005 | .0308 |
| 5    | -15.00 | -.9822  | .1360  | .4524  | -.0018 | -.0015 | .0098 |
| 6    | -10.00 | -.6492  | .0391  | .3790  | -.0051 | .0023  | .0219 |
| 7    | -5.00  | -.1931  | -.0110 | .2414  | -.0046 | .0006  | .0128 |
| 8    | -2.49  | .0501   | -.0193 | .2034  | -.0048 | -.0016 | .0184 |
| 9    | .01    | .2733   | -.0162 | .2021  | -.0042 | .0049  | .0118 |
| 10   | 2.52   | .4918   | -.0061 | .2045  | -.0013 | .0059  | .0159 |
| 11   | 5.00   | .7223   | .0136  | .2044  | -.0013 | .0040  | .0102 |
| 12   | 10.02  | 1.1739  | .0770  | .1921  | -.0028 | .0073  | .0091 |
| 13   | 15.01  | 1.5760  | .1696  | .1421  | -.0021 | .0032  | .0159 |
| 14   | 17.51  | 1.5667  | .2456  | .0344  | -.0032 | .0096  | .0067 |
| 15   | 20.00  | 1.6528  | .3444  | -.0776 | .0048  | .0011  | .0022 |
| 16   | 25.00  | 1.8076  | .5951  | -.1683 | .0020  | .0097  | .0069 |
| 17   | .01    | .2669   | -.0162 | .2011  | -.0036 | .0037  | .0191 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB  | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|-------|--------|--------|-------|
| 2    | .00    | .2827   | .1002  | .2227 | -.0040 | .0027  | .0157 |
| 3    | .00    | .2742   | -.0185 | .2033 | -.0029 | .0026  | .0226 |
| 4    | -20.01 | -1.0136 | .3072  | .2857 | -.0031 | -.0005 | .0308 |
| 5    | -15.00 | -.9822  | .1360  | .4524 | -.0018 | -.0015 | .0098 |
| 6    | -10.00 | -.6492  | .0391  | .3790 | -.0051 | .0023  | .0219 |
| 7    | -5.00  | -.1931  | -.0110 | .2414 | -.0046 | .0006  | .0128 |
| 8    | -2.49  | .0501   | -.0193 | .2034 | -.0048 | -.0016 | .0184 |
| 9    | .01    | .2733   | -.0162 | .2021 | -.0042 | .0049  | .0118 |
| 10   | 2.52   | .4918   | -.0061 | .2045 | -.0013 | .0059  | .0159 |
| 11   | 5.00   | .7223   | .0136  | .2044 | -.0013 | .0040  | .0102 |
| 12   | 10.02  | 1.1739  | .0770  | .1921 | -.0028 | .0073  | .0091 |
| 13   | 15.01  | 1.5760  | .1696  | .1421 | -.0021 | .0032  | .0159 |
| 14   | 17.51  | 1.5667  | .2456  | .0344 | -.0032 | .0096  | .0067 |

|    |       |        |        |        |        |       |       |
|----|-------|--------|--------|--------|--------|-------|-------|
| 15 | 20.00 | 1.6528 | .3444  | -.0776 | .0048  | .0011 | .0022 |
| 16 | 25.00 | 1.8076 | .5951  | -.1683 | .0020  | .0097 | .0069 |
| 17 | .01   | .2669  | -.0162 | .2011  | -.0036 | .0037 | .0191 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 955

RUN 985 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| IW      | -9 DELF   | 10 DELA | 0 IHT       | -5 DELE     | 0 DELR       | 0 DELSR      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | -91.7       | 34.70       | 260.         | 7.           | -43.         | 6.18        | 55.11 | 128.76  | 3380.  |
| 3       | .0        | .0      | -98.7       | -7.17       | 151.         | 8.           | -7.          | 5.65        | 54.90 | 128.51  | 11650. |
| 4       | -20.0     | .0      | -364.6      | 157.24      | 924.         | -135.        | -38.         | 9.11        | 55.36 | 129.05  | 11680. |
| 5       | -15.0     | .0      | -366.3      | 107.69      | 1555.        | -113.        | -200.        | 3.93        | 55.42 | 129.12  | 11670. |
| 6       | -10.0     | .0      | -321.2      | 62.38       | 1138.        | -59.         | 176.         | 8.79        | 55.40 | 129.09  | 11640. |
| 7       | -5.0      | .0      | -263.4      | 7.60        | 291.         | 1.           | -85.         | 9.31        | 55.23 | 128.89  | 11620. |
| 8       | -2.5      | .0      | -181.5      | -1.18       | 208.         | 11.          | -81.         | 8.04        | 55.52 | 129.23  | 11720. |
| 9       | -.0       | .0      | -98.6       | -6.62       | 138.         | 11.          | -8.          | 6.11        | 55.22 | 128.88  | 11660. |
| 10      | 2.5       | .0      | -12.8       | -8.47       | 114.         | 14.          | -26.         | 7.50        | 54.94 | 128.55  | 11660. |
| 11      | 5.0       | .0      | 76.7        | -6.12       | 150.         | 7.           | 30.          | 5.38        | 55.09 | 128.73  | 11630. |
| 12      | 10.0      | .0      | 247.2       | 5.97        | 125.         | 10.          | 51.          | 2.97        | 55.06 | 128.70  | 11600. |
| 13      | 15.0      | .0      | 425.1       | 31.93       | -24.         | -20.         | 70.          | 2.23        | 55.01 | 128.63  | 11650. |
| 14      | 17.5      | .0      | 511.3       | 49.76       | -123.        | -24.         | 53.          | .43         | 54.85 | 128.44  | 11650. |
| 15      | 20.0      | .0      | 594.7       | 70.91       | -206.        | -5.          | 106.         | 1.61        | 54.95 | 128.56  | 11650. |
| 16      | 25.0      | .0      | 666.5       | 129.81      | 82.          | 6.           | 18.          | .55         | 54.94 | 128.55  | 11660. |
| 17      | -.0       | .0      | -99.5       | -6.32       | 138.         | 8.           | -8.          | 6.16        | 54.72 | 128.29  | 11640. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.2477 | .0938  | .0839  | .0004  | -.0026 | .0167 |
| 3    | .00    | -.2669 | -.0194 | .0486  | .0005  | -.0004 | .0153 |
| 4    | -20.00 | -.9853 | .4250  | .2978  | -.0081 | -.0023 | .0246 |
| 5    | -15.00 | -.9899 | .2910  | .5014  | -.0068 | -.0121 | .0106 |
| 6    | -10.00 | -.8680 | .1686  | .3669  | -.0036 | .0106  | .0238 |
| 7    | -5.00  | -.7118 | .0205  | .0939  | .0000  | -.0051 | .0252 |
| 8    | -2.50  | -.4906 | -.0032 | .0669  | .0006  | -.0049 | .0217 |
| 9    | -.01   | -.2665 | -.0179 | .0445  | .0006  | -.0005 | .0165 |
| 10   | 2.51   | -.0346 | -.0229 | .0368  | .0008  | -.0016 | .0203 |
| 11   | 4.99   | .2073  | -.0165 | .0483  | .0004  | .0018  | .0145 |
| 12   | 10.00  | .6682  | .0161  | .0403  | .0006  | .0031  | .0080 |
| 13   | 15.00  | 1.1489 | .0863  | -.0076 | -.0012 | .0042  | .0060 |
| 14   | 17.51  | 1.3818 | .1345  | -.0397 | -.0014 | .0032  | .0012 |
| 15   | 20.00  | 1.6074 | .1916  | -.0665 | -.0003 | .0064  | .0044 |
| 16   | 25.00  | 1.8013 | .3508  | .0263  | .0003  | .0011  | .0015 |
| 17   | -.00   | -.2689 | -.0171 | .0444  | .0005  | -.0005 | .0167 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.2477 | .0938  | .0839  | .0004  | -.0026 | .0167 |
| 3    | .00    | -.2669 | -.0194 | .0486  | .0005  | -.0004 | .0153 |
| 4    | -20.00 | -.9853 | .4250  | .2978  | -.0081 | -.0023 | .0246 |
| 5    | -15.00 | -.9899 | .2910  | .5014  | -.0068 | -.0121 | .0106 |
| 6    | -10.00 | -.8680 | .1686  | .3669  | -.0036 | .0106  | .0238 |
| 7    | -5.00  | -.7118 | .0205  | .0939  | .0000  | -.0051 | .0252 |
| 8    | -2.50  | -.4906 | -.0032 | .0669  | .0006  | -.0049 | .0217 |
| 9    | -.01   | -.2665 | -.0179 | .0445  | .0006  | -.0005 | .0165 |
| 10   | 2.51   | -.0346 | -.0229 | .0368  | .0008  | -.0016 | .0203 |
| 11   | 4.99   | .2073  | -.0165 | .0483  | .0004  | .0018  | .0145 |
| 12   | 10.00  | .6682  | .0161  | .0403  | .0006  | .0031  | .0080 |
| 13   | 15.00  | 1.1489 | .0863  | -.0076 | -.0012 | .0042  | .0060 |
| 14   | 17.51  | 1.3818 | .1345  | -.0397 | -.0014 | .0032  | .0012 |
| 15   | 20.00  | 1.6074 | .1916  | -.0665 | -.0003 | .0064  | .0044 |
| 16   | 25.00  | 1.8013 | .3508  | .0263  | .0003  | .0011  | .0015 |
| 17   | -.00   | -.2689 | -.0171 | .0444  | .0005  | -.0005 | .0167 |

RUN 986 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| IW      | -9 DELF   | 10 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | 0           | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 2       | .0        | .0      | -65.7       | 33.93       | -490.        | 16.          | -9.          | 6.82        | 55.45 | 129.15  | 3390.  |
| 3       | .0        | .0      | -72.0       | -6.76       | -596.        | 15.          | 9.           | 6.87        | 55.05 | 128.68  | 11610. |
| 4       | -20.0     | .0      | -369.9      | 150.64      | 659.         | -121.        | -178.        | 7.47        | 54.27 | 127.75  | 11600. |
| 5       | -15.0     | .0      | -342.0      | 96.92       | 839.         | -104.        | -132.        | 4.33        | 55.01 | 128.63  | 11610. |
| 6       | -10.0     | .0      | -294.4      | 57.70       | 102.         | -71.         | 114.         | 4.69        | 55.23 | 128.89  | 11590. |
| 7       | -5.0      | .0      | -220.1      | 5.83        | -479.        | -7.          | 5.           | 7.95        | 55.25 | 128.91  | 11580. |
| 8       | -2.5      | .0      | -151.6      | -2.76       | -575.        | 14.          | -10.         | 7.27        | 54.83 | 128.41  | 11640. |
| 9       | .0        | .0      | -69.9       | -6.59       | -580.        | 19.          | -45.         | 7.91        | 55.15 | 128.80  | 11590. |
| 10      | 2.5       | .0      | 14.9        | -7.09       | -573.        | 12.          | 14.          | 3.48        | 54.83 | 128.42  | 11590. |
| 11      | 5.0       | .0      | 103.3       | 6.25        | -550.        | 733.         | 29.          | 6.69        | 55.01 | 128.63  | 11570. |
| 12      | 10.0      | .0      | 278.8       | 10.08       | -652.        | 22.          | 88.          | 2.44        | 54.40 | 127.90  | 11590. |
| 13      | 15.0      | .0      | 459.3       | 38.20       | -866.        | -19.         | 89.          | -37         | 54.51 | 128.03  | 11580. |
| 14      | 17.5      | .0      | 537.2       | 60.33       | -793.        | -43.         | 53.          | 2.19        | 54.40 | 127.90  | 11590. |
| 15      | 20.0      | .0      | 602.2       | 84.53       | -520.        | -6.          | 72.          | 2.45        | 54.28 | 127.76  | 11610. |
| 17      | 25.0      | .0      | 667.6       | 138.17      | -34.         | 1.           | 35.          | -31         | 54.86 | 128.45  | 11630. |
| 18      | .0        | .0      | -70.0       | -6.61       | -585.        | 21.          | 25.          | 8.11        | 55.03 | 128.65  | 11580. |
| 19      | 5.0       | .0      | 100.8       | -4.68       | -553.        | 16.          | 12.          | 6.29        | 55.26 | 128.93  | 11590. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.1775 | .0917  | -.1580 | .0010  | -.0005 | .0184  |
| 3    | .00    | -.1947 | -.0183 | -.1923 | .0009  | .0005  | .0186  |
| 4    | -20.00 | -.9997 | .4071  | .2124  | -.0073 | -.0107 | .0202  |
| 5    | -15.00 | -.9244 | .2619  | .2705  | -.0063 | -.0080 | .0117  |
| 6    | -10.02 | -.7956 | .1559  | .0328  | -.0043 | .0069  | .0127  |
| 7    | -5.00  | -.5949 | .0157  | -.1544 | -.0004 | .0003  | .0215  |
| 8    | -2.49  | -.4097 | -.0074 | -.1855 | .0008  | -.0006 | .0196  |
| 9    | .00    | -.1888 | -.0178 | -.1871 | .0011  | -.0027 | .0214  |
| 10   | 2.51   | .0402  | -.0192 | -.1848 | .0007  | .0008  | .0094  |
| 11   | 5.01   | .2792  | .0169  | -.1774 | .0443  | .0017  | .0181  |
| 12   | 10.00  | .7535  | .0272  | -.2100 | .0013  | .0053  | .0066  |
| 13   | 15.00  | 1.2413 | .1032  | -.2791 | -.0011 | .0054  | -.0010 |
| 14   | 17.51  | 1.4519 | .1631  | -.2556 | -.0026 | .0032  | .0059  |
| 15   | 20.00  | 1.6275 | .2285  | -.1677 | -.0004 | .0043  | .0066  |
| 17   | 25.00  | 1.8043 | .3734  | -.0111 | .0001  | .0021  | -.0008 |
| 18   | .00    | -.1891 | -.0179 | -.1886 | .0012  | .0015  | .0219  |
| 19   | 5.00   | .2724  | -.0126 | -.1783 | .0010  | .0007  | .0170  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | COB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.1775 | .0917  | -.1580 | .0010  | -.0005 | .0184  |
| 3    | .00    | -.1947 | -.0183 | -.1923 | .0009  | .0005  | .0186  |
| 4    | -20.00 | -.9997 | .4071  | .2124  | -.0073 | -.0107 | .0202  |
| 5    | -15.00 | -.9244 | .2619  | .2705  | -.0063 | -.0080 | .0117  |
| 6    | -10.02 | -.7956 | .1559  | .0328  | -.0043 | .0069  | .0127  |
| 7    | -5.00  | -.5949 | .0157  | -.1544 | -.0004 | .0003  | .0215  |
| 8    | -2.49  | -.4097 | -.0074 | -.1855 | .0008  | -.0006 | .0196  |
| 9    | .00    | -.1888 | -.0178 | -.1871 | .0011  | -.0027 | .0214  |
| 10   | 2.51   | .0402  | -.0192 | -.1848 | .0007  | .0008  | .0094  |
| 11   | 5.01   | .2792  | .0169  | -.1774 | .0443  | .0017  | .0181  |
| 12   | 10.00  | .7535  | .0272  | -.2100 | .0013  | .0053  | .0066  |
| 13   | 15.00  | 1.2413 | .1032  | -.2791 | -.0011 | .0054  | -.0010 |
| 14   | 17.51  | 1.4519 | .1631  | -.2556 | -.0026 | .0032  | .0059  |
| 15   | 20.00  | 1.6275 | .2285  | -.1677 | -.0004 | .0043  | .0066  |
| 17   | 25.00  | 1.8043 | .3734  | -.0111 | .0001  | .0021  | -.0008 |
| 18   | .00    | -.1891 | -.0179 | -.1886 | .0012  | .0015  | .0219  |
| 19   | 5.00   | .2724  | -.0126 | -.1783 | .0010  | .0007  | .0170  |

RUN 987 CONFIG F P R NP5 W7 T61 BT IN=-3.5

| IW      | -9 DELF   | 10 DELA | 0 IHT       | 5 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | -37.5       | 35.13       | -1150.       | 10.          | -7.          | 5.22        | 55.43 | 129.13  | 3390.  |
| 3       | .0        | .0      | -44.4       | -6.82       | -1267.       | 11.          | 30.          | 3.80        | 55.56 | 129.28  | 11820. |
| 4       | -20.0     | .0      | -349.2      | 138.02      | 156.         | -127.        | -122.        | 7.25        | 54.95 | 128.54  | 11790. |
| 5       | -15.0     | .0      | -310.5      | 88.49       | -37.         | -98.         | -170.        | 5.97        | 55.33 | 129.00  | 11800. |
| 6       | -10.0     | .0      | -267.5      | 52.31       | -815.        | -45.         | 144.         | 8.52        | 54.76 | 128.33  | 11810. |
| 7       | -5.0      | .0      | -197.2      | 2.66        | -1280.       | 4.           | -47.         | 7.77        | 55.27 | 128.94  | 11820. |
| 8       | -2.5      | .0      | -118.0      | -3.86       | -1281.       | 19.          | 27.          | 5.61        | 55.22 | 128.87  | 11830. |
| 9       | .0        | .0      | -45.3       | -6.90       | -1293.       | 17.          | -6.          | 4.66        | 55.50 | 129.21  | 11820. |
| 10      | 2.5       | .0      | 41.1        | -6.68       | -1284.       | 20.          | 47.          | 4.96        | 54.95 | 128.55  | 11820. |
| 11      | 5.0       | .0      | 127.9       | -2.62       | -1270.       | 9.           | 50.          | 2.90        | 55.20 | 128.85  | 11810. |
| 12      | 10.0      | .0      | 305.7       | 13.82       | -1418.       | 26.          | 53.          | .75         | 54.54 | 128.07  | 11790. |
| 13      | 15.0      | .0      | 460.0       | 50.58       | -1095.       | -32.         | 71.          | .87         | 54.61 | 128.15  | 11760. |
| 14      | 20.0      | .0      | 594.5       | 90.07       | -572.        | -16.         | 107.         | 2.37        | 54.72 | 128.27  | 11800. |
| 15      | 25.0      | .0      | 667.5       | 141.98      | -83.         | 11.          | -18.         | -.75        | 54.42 | 127.92  | 11860. |
| 16      | .0        | .0      | -41.6       | -6.55       | -1280.       | 15.          | 44.          | 6.85        | 54.70 | 128.25  | 11800. |
| 17      | 17.5      | .0      | 525.0       | 68.58       | -841.        | -18.         | 35.          | 3.59        | 55.05 | 128.67  | 11780. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.1013 | .0950  | -.3706 | .0006  | -.0004 | .0141  |
| 3    | .00    | -.1201 | -.0184 | -.4085 | .0007  | .0018  | .0103  |
| 4    | -20.00 | -.9438 | .3730  | .0504  | -.0077 | -.0074 | .0196  |
| 5    | -15.00 | -.8393 | .2392  | -.0119 | -.0059 | -.0103 | .0161  |
| 6    | -10.00 | -.7230 | .1414  | -.2627 | -.0027 | .0087  | .0230  |
| 7    | -5.00  | -.5330 | .0072  | -.4126 | .0002  | -.0029 | .0210  |
| 8    | -2.49  | -.3189 | -.0104 | -.4129 | .0012  | .0016  | .0152  |
| 9    | .00    | -.1225 | -.0187 | -.4170 | .0010  | -.0004 | .0126  |
| 10   | 2.50   | .1110  | -.0180 | -.4141 | .0012  | .0029  | .0134  |
| 11   | 5.00   | .3456  | -.0071 | -.4096 | .0005  | .0030  | .0078  |
| 12   | 10.01  | .8261  | .0374  | -.4571 | .0016  | .0032  | .0020  |
| 13   | 15.00  | 1.2432 | .1367  | -.3530 | -.0019 | .0043  | .0024  |
| 14   | 20.00  | 1.6067 | .2434  | -.1844 | -.0010 | .0064  | .0064  |
| 15   | 25.00  | 1.8040 | .3837  | -.0266 | .0006  | -.0011 | -.0020 |
| 16   | -.00   | -.1125 | -.0177 | -.4127 | .0009  | .0027  | .0185  |
| 17   | 17.50  | 1.4189 | .1853  | -.2712 | -.0011 | .0021  | .0097  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.1013 | .0950  | -.3706 | .0006  | -.0004 | .0141  |
| 3    | .00    | -.1201 | -.0184 | -.4085 | .0007  | .0018  | .0103  |
| 4    | -20.00 | -.9438 | .3730  | .0504  | -.0077 | -.0074 | .0196  |
| 5    | -15.00 | -.8393 | .2392  | -.0119 | -.0059 | -.0103 | .0161  |
| 6    | -10.00 | -.7230 | .1414  | -.2627 | -.0027 | .0087  | .0230  |
| 7    | -5.00  | -.5330 | .0072  | -.4126 | .0002  | -.0029 | .0210  |
| 8    | -2.49  | -.3189 | -.0104 | -.4129 | .0012  | .0016  | .0152  |
| 9    | .00    | -.1225 | -.0187 | -.4170 | .0010  | -.0004 | .0126  |
| 10   | 2.50   | .1110  | -.0180 | -.4141 | .0012  | .0029  | .0134  |
| 11   | 5.00   | .3456  | -.0071 | -.4096 | .0005  | .0030  | .0078  |
| 12   | 10.01  | .8261  | .0374  | -.4571 | .0016  | .0032  | .0020  |
| 13   | 15.00  | 1.2432 | .1367  | -.3530 | -.0019 | .0043  | .0024  |
| 14   | 20.00  | 1.6067 | .2434  | -.1844 | -.0010 | .0064  | .0064  |
| 15   | 25.00  | 1.8040 | .3837  | -.0266 | .0006  | -.0011 | -.0020 |
| 16   | -.00   | -.1125 | -.0177 | -.4127 | .0009  | .0027  | .0185  |
| 17   | 17.50  | 1.4189 | .1853  | -.2712 | -.0011 | .0021  | .0097  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 988 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| IW<br>PT.<br>NO. | -9 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | 5 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELSB<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|-------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|----------------------------|---------------------|----------|-----------------|--------|
| 2                | .0                      | .0                   | -89.7                    | 36.42                   | -1431.                    | 34.                       | -27.                       | 7.14                | 55.35    | 129.03          | 3350.  |
| 3                | .0                      | .0                   | -96.0                    | -6.88                   | -1560.                    | 31.                       | 10.                        | 5.85                | 54.75    | 128.32          | 11960. |
| 4                | -20.0                   | .0                   | -379.6                   | 150.74                  | 229.                      | -80.                      | -170.                      | 4.50                | 54.51    | 128.02          | 11940. |
| 5                | -15.0                   | .0                   | -340.3                   | 100.46                  | 1.                        | -49.                      | -189.                      | 6.82                | 55.47    | 129.17          | 11970. |
| 6                | -10.0                   | .0                   | -287.4                   | 57.14                   | -995.                     | -61.                      | 1.                         | 9.24                | 55.32    | 128.99          | 11940. |
| 7                | -5.0                    | .0                   | -245.9                   | 5.85                    | -1471.                    | 25.                       | -48.                       | 8.09                | 55.16    | 128.80          | 11950. |
| 8                | -2.5                    | .0                   | -171.3                   | -1.93                   | -1515.                    | 35.                       | -60.                       | 5.61                | 55.86    | 129.63          | 11940. |
| 9                | -.0                     | .0                   | -95.0                    | -6.94                   | -1536.                    | 33.                       | 8.                         | 7.73                | 55.95    | 129.74          | 11940. |
| 10               | 2.5                     | .0                   | -13.9                    | -8.32                   | -1521.                    | 18.                       | 31.                        | 3.36                | 55.74    | 129.49          | 11940. |
| 11               | 5.0                     | .0                   | 66.4                     | -5.56                   | -1463.                    | 5.                        | -23.                       | 6.08                | 55.44    | 129.13          | 11960. |
| 12               | 10.0                    | .0                   | 222.1                    | 10.47                   | -1295.                    | 11.                       | 70.                        | 1.17                | 55.17    | 128.81          | 11980. |
| 13               | 15.0                    | .0                   | 371.8                    | 36.18                   | -947.                     | -30.                      | 51.                        | 4.97                | 55.55    | 129.27          | 11950. |
| 14               | 17.5                    | .0                   | 442.2                    | 52.76                   | -716.                     | -48.                      | 18.                        | 4.45                | 55.07    | 128.69          | 11960. |
| 15               | 20.0                    | .0                   | 505.6                    | 71.01                   | -433.                     | -43.                      | 53.                        | 2.66                | 54.99    | 128.60          | 11950. |
| 16               | 25.0                    | .0                   | 585.6                    | 121.91                  | -57.                      | -44.                      | 53.                        | .25                 | 55.18    | 128.82          | 11970. |
| 17               | -.0                     | .0                   | -97.4                    | -7.23                   | -1560.                    | 38.                       | -7.                        | 5.87                | 55.13    | 128.76          | 11960. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.2424  | .0984  | -.4614 | .0021  | -.0016 | .0193 |
| 3    | .00    | -.2594  | -.0186 | -.5031 | .0019  | .0006  | .0158 |
| 4    | -20.00 | -1.0260 | .4074  | .0737  | -.0048 | -.0103 | .0122 |
| 5    | -15.01 | -.9196  | .2715  | .0003  | -.0030 | -.0114 | .0184 |
| 6    | -10.00 | -.7766  | .1544  | -.3207 | -.0037 | .0000  | .0250 |
| 7    | -5.00  | -.6646  | .0158  | -.4744 | .0015  | -.0029 | .0219 |
| 8    | -2.51  | -.4631  | -.0052 | -.4884 | .0021  | -.0036 | .0152 |
| 9    | -.01   | -.2569  | -.0188 | -.4953 | .0020  | .0005  | .0209 |
| 10   | 2.52   | -.0375  | -.0225 | -.4902 | .0011  | .0019  | .0091 |
| 11   | 5.01   | .1795   | -.0150 | -.4718 | .0003  | -.0014 | .0164 |
| 12   | 10.00  | .6002   | .0283  | -.4176 | .0006  | .0042  | .0032 |
| 13   | 15.00  | 1.0048  | .0978  | -.3053 | -.0018 | .0031  | .0134 |
| 14   | 17.50  | 1.1950  | .1426  | -.2307 | -.0029 | .0011  | .0120 |
| 15   | 20.00  | 1.3664  | .1919  | -.1396 | -.0026 | .0032  | .0072 |
| 16   | 24.99  | 1.5827  | .3295  | -.0184 | -.0027 | .0032  | .0007 |
| 17   | -.00   | -.2633  | -.0195 | -.5030 | .0023  | -.0004 | .0159 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB'   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.2424  | .0984  | -.4614 | .0021  | -.0016 | .0193 |
| 3    | .00    | -.2594  | -.0186 | -.5031 | .0019  | .0006  | .0158 |
| 4    | -20.00 | -1.0260 | .4074  | .0737  | -.0048 | -.0103 | .0122 |
| 5    | -15.01 | -.9196  | .2715  | .0003  | -.0030 | -.0114 | .0184 |
| 6    | -10.00 | -.7766  | .1544  | -.3207 | -.0037 | .0000  | .0250 |
| 7    | -5.00  | -.6646  | .0158  | -.4744 | .0015  | -.0029 | .0219 |
| 8    | -2.51  | -.4631  | -.0052 | -.4884 | .0021  | -.0036 | .0152 |
| 9    | -.01   | -.2569  | -.0188 | -.4953 | .0020  | .0005  | .0209 |
| 10   | 2.52   | -.0375  | -.0225 | -.4902 | .0011  | .0019  | .0091 |
| 11   | 5.01   | .1795   | -.0150 | -.4718 | .0003  | -.0014 | .0164 |
| 12   | 10.00  | .6002   | .0283  | -.4176 | .0006  | .0042  | .0032 |
| 13   | 15.00  | 1.0048  | .0978  | -.3053 | -.0018 | .0031  | .0134 |
| 14   | 17.50  | 1.1950  | .1426  | -.2307 | -.0029 | .0011  | .0120 |
| 15   | 20.00  | 1.3664  | .1919  | -.1396 | -.0026 | .0032  | .0072 |
| 16   | 24.99  | 1.5827  | .3295  | -.0184 | -.0027 | .0032  | .0007 |
| 17   | -.00   | -.2633  | -.0195 | -.5030 | .0023  | -.0004 | .0159 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 959

RUN 9A9 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| PT. NO. | IW | -9 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>COBAR<br>SQ-FT | 0 DELE<br>CPMRRAR<br>CU-FT | 0 DELE<br>CYMRRAR<br>CU-FT | 0 DELR<br>CRMRRAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>V<br>KNOTS | RPM    |
|---------|----|-------------------------|----------------------|--------------------------|-------------------------|----------------------------|----------------------------|----------------------------|---------------------------|----------|-----------------|--------|
| 2       |    | .0                      | .0                   | -116.1                   | 35.16                   | -687.                      | 22.                        | 12.                        | 4.44                      | 55.18    | 128.83          | 3340.  |
| 3       |    | .0                      | .0                   | -123.1                   | -6.72                   | -783.                      | 34.                        | -7.                        | 5.21                      | 55.56    | 129.28          | 11800. |
| 4       |    | -20.0                   | .0                   | -393.6                   | 161.59                  | 738.                       | -76.                       | -104.                      | 6.39                      | 54.35    | 127.83          | 11810. |
| 5       |    | -15.0                   | .0                   | -376.2                   | 108.69                  | 871.                       | -108.                      | -136.                      | 6.82                      | 55.43    | 129.12          | 11920. |
| 6       |    | -10.0                   | .0                   | -319.8                   | 62.59                   | -121.                      | -77.                       | -71.                       | 10.08                     | 55.40    | 129.09          | 11820. |
| 7       |    | -5.0                    | .0                   | -274.4                   | 8.32                    | -741.                      | 29.                        | -45.                       | 6.32                      | 55.49    | 129.19          | 11790. |
| 8       |    | -2.5                    | .0                   | -200.1                   | -5.58                   | -801.                      | 39.                        | -27.                       | 6.94                      | 55.47    | 129.16          | 11790. |
| 9       |    | .0                      | .0                   | -122.1                   | -6.23                   | -823.                      | 32.                        | 10.                        | 6.17                      | 55.78    | 129.53          | 11770. |
| 10      |    | 2.5                     | .0                   | -36.4                    | -8.27                   | -793.                      | 3.                         | 30.                        | 4.59                      | 54.93    | 128.52          | 11780. |
| 11      |    | 5.0                     | .0                   | 42.6                     | -8.24                   | -812.                      | 28.                        | 11.                        | 7.26                      | 54.44    | 127.94          | 11790. |
| 12      |    | 10.0                    | .0                   | 208.8                    | 1.65                    | -818.                      | 18.                        | 68.                        | 4.64                      | 55.08    | 128.71          | 11770. |
| 13      |    | 15.0                    | .0                   | 367.6                    | 26.47                   | -854.                      | -60.                       | 17.                        | 3.22                      | 56.02    | 129.82          | 11800. |
| 14      |    | 17.5                    | .0                   | 444.2                    | 47.51                   | -634.                      | -44.                       | 88.                        | 3.54                      | 54.78    | 128.34          | 11790. |
| 15      |    | 20.0                    | .0                   | 511.2                    | 66.84                   | -392.                      | -49.                       | 107.                       | 2.99                      | 54.69    | 128.25          | 11790. |
| 16      |    | 25.0                    | .0                   | 587.0                    | 116.74                  | 45.                        | -34.                       | 19.                        | 1.85                      | 55.17    | 128.81          | 11800. |
| 17      |    | .0                      | .0                   | -122.0                   | -6.45                   | -821.                      | 33.                        | 28.                        | 5.93                      | 54.61    | 128.15          | 11780. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3137  | .0950  | -.2216 | .0013  | .0007  | .0120 |
| 3    | .00    | -.3326  | -.0182 | -.2523 | .0021  | -.0004 | .0141 |
| 4    | -20.00 | -1.0637 | .4367  | .2379  | -.0046 | -.0063 | .0173 |
| 5    | -15.00 | -1.0166 | .2938  | .2809  | -.0066 | -.0082 | .0184 |
| 6    | -10.00 | -.8644  | .1692  | -.0390 | -.0046 | -.0043 | .0273 |
| 7    | -5.01  | -.7417  | .0225  | -.2391 | .0018  | -.0027 | .0171 |
| 8    | -2.50  | -.5408  | -.0016 | -.2581 | .0024  | -.0017 | .0188 |
| 9    | .00    | -.3299  | -.0168 | -.2654 | .0019  | .0006  | .0167 |
| 10   | 2.50   | -.0983  | -.0223 | -.2558 | .0002  | .0018  | .0124 |
| 11   | 5.01   | .1152   | -.0223 | -.2618 | .0017  | .0007  | .0196 |
| 12   | 10.00  | .5644   | .0045  | -.2637 | .0011  | .0041  | .0125 |
| 13   | 15.01  | .9936   | .0715  | -.2754 | -.0036 | .0010  | .0087 |
| 14   | 17.51  | 1.2004  | .1284  | -.2044 | -.0026 | .0053  | .0096 |
| 15   | 20.00  | 1.3816  | .1806  | -.1263 | -.0030 | .0065  | .0081 |
| 16   | 25.00  | 1.5864  | .3155  | .0144  | -.0020 | .0011  | .0050 |
| 17   | .00    | -.3299  | -.0174 | -.2647 | .0020  | .0017  | .0160 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | COB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | -.3137  | .0950  | -.2216 | .0013  | .0007  | .0120 |
| 3    | .00    | -.3326  | -.0182 | -.2523 | .0021  | -.0004 | .0141 |
| 4    | -20.00 | -1.0637 | .4367  | .2379  | -.0046 | -.0063 | .0173 |
| 5    | -15.00 | -1.0166 | .2938  | .2809  | -.0066 | -.0082 | .0184 |
| 6    | -10.00 | -.8644  | .1692  | -.0390 | -.0046 | -.0043 | .0273 |
| 7    | -5.01  | -.7417  | .0225  | -.2391 | .0018  | -.0027 | .0171 |
| 8    | -2.50  | -.5408  | -.0016 | -.2581 | .0024  | -.0017 | .0188 |
| 9    | .00    | -.3299  | -.0168 | -.2654 | .0019  | .0006  | .0167 |
| 10   | 2.50   | -.0983  | -.0223 | -.2558 | .0002  | .0018  | .0124 |
| 11   | 5.01   | .1152   | -.0223 | -.2618 | .0017  | .0007  | .0196 |
| 12   | 10.00  | .5644   | .0045  | -.2637 | .0011  | .0041  | .0125 |
| 13   | 15.01  | .9936   | .0715  | -.2754 | -.0036 | .0010  | .0087 |
| 14   | 17.51  | 1.2004  | .1284  | -.2044 | -.0026 | .0053  | .0096 |
| 15   | 20.00  | 1.3816  | .1806  | -.1263 | -.0030 | .0065  | .0081 |
| 16   | 25.00  | 1.5864  | .3155  | .0144  | -.0020 | .0011  | .0050 |
| 17   | .00    | -.3299  | -.0174 | -.2647 | .0020  | .0017  | .0160 |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 990 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | -5 DELE     | 0 DELR       | 0 DELSB      | 0            |             |           |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-----------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | -144.5      | 35.96       | 76.          | 21.          | -7.          | 5.73        | 55.31     | 128.98  | 3350.  |
| 3       | .0        | .0      | -151.6      | -6.90       | -24.         | 22.          | -23.         | 4.49        | 55.35     | 129.02  | 11930. |
| 4       | -20.0     | .0      | -400.3      | 169.49      | 979.         | -103.        | -122.        | 6.79        | 54.71     | 128.26  | 11910. |
| 5       | -15.0     | .0      | -383.0      | 116.92      | 1644.        | -7.          | -20.         | 9.70        | 55.50     | 129.20  | 11920. |
| 6       | -10.0     | .0      | -356.1      | 68.55       | 866.         | -105.        | -108.        | 10.75       | 55.12     | 128.75  | 11910. |
| 7       | -5.0      | .0      | -304.8      | 10.02       | 96.          | 28.          | -99.         | 7.58        | 55.30     | 128.96  | 11940. |
| 8       | -2.5      | .0      | -232.0      | .27         | 14.          | 36.          | -81.         | 7.65        | 55.24     | 128.89  | 11870. |
| 9       | .0        | .0      | -150.6      | -6.82       | -38.         | 26.          | -7.          | 5.54        | 54.73     | 128.28  | 11910. |
| 10      | 2.5       | .0      | -67.6       | -10.53      | -73.         | 23.          | 28.          | 6.41        | 54.78     | 128.34  | 11910. |
| 11      | 5.0       | .0      | 15.5        | -10.33      | -69.         | 17.          | 12.          | 5.49        | 55.25     | 128.91  | 11900. |
| 12      | 10.0      | .0      | 178.1       | -2.75       | -39.         | 11.          | 32.          | 5.51        | 55.61     | 129.33  | 11980. |
| 13      | 15.0      | .0      | 348.4       | 18.52       | -142.        | -35.         | 70.          | 3.65        | 55.04     | 128.65  | 11870. |
| 14      | 17.5      | .0      | 433.6       | 33.71       | -237.        | -45.         | 71.          | 2.92        | 54.80     | 128.37  | 11920. |
| 15      | 20.0      | .0      | 509.4       | 53.42       | -245.        | -47.         | 54.          | 4.24        | 54.59     | 128.12  | 11900. |
| 16      | 25.0      | .0      | 587.2       | 108.54      | 147.         | -51.         | -18.         | -.62        | 55.14     | 128.77  | 11900. |
| 17      | -.0       | .0      | -150.2      | -6.47       | -34.         | 37.          | -25.         | 6.01        | 55.52     | 129.22  | 11880. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | -.3905  | .0972  | .0245  | .0012  | -.0004 | .0155  |
| 3    | .00    | -.4096  | -.0187 | -.0077 | .0013  | -.0014 | .0121  |
| 4    | -20.00 | -1.0820 | .4581  | .3155  | -.0062 | -.0073 | .0183  |
| 5    | -15.00 | -1.0352 | .3160  | .5300  | -.0004 | -.0012 | .0262  |
| 6    | -10.00 | -.9624  | .1853  | .2792  | -.0063 | -.0065 | .0291  |
| 7    | -5.00  | -.8238  | .0271  | .0308  | .0017  | -.0060 | .0205  |
| 8    | -2.50  | -.6269  | .0007  | .0047  | .0022  | -.0049 | .0207  |
| 9    | -.00   | -.4072  | -.0184 | -.0123 | .0016  | -.0004 | .0150  |
| 10   | 2.51   | -.1826  | -.0285 | -.0234 | .0014  | .0017  | .0173  |
| 11   | 5.01   | .0418   | -.0279 | -.0223 | .0010  | .0007  | .0148  |
| 12   | 10.00  | .4814   | -.0074 | -.0127 | .0006  | .0019  | .0149  |
| 13   | 15.00  | .9417   | .0500  | -.0459 | -.0021 | .0042  | .0099  |
| 14   | 17.50  | 1.1718  | .0911  | -.0764 | -.0027 | .0043  | .0079  |
| 15   | 19.99  | 1.3768  | .1444  | -.0791 | -.0029 | .0033  | .0115  |
| 16   | 25.00  | 1.5870  | .2934  | .0473  | -.0031 | -.0011 | -.0017 |
| 17   | -.00   | -.4060  | -.0175 | -.0111 | .0022  | -.0015 | .0163  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | -.3905  | .0972  | .0245  | .0012  | -.0004 | .0155  |
| 3    | .00    | -.4096  | -.0187 | -.0077 | .0013  | -.0014 | .0121  |
| 4    | -20.00 | -1.0820 | .4581  | .3155  | -.0062 | -.0073 | .0183  |
| 5    | -15.00 | -1.0352 | .3160  | .5300  | -.0004 | -.0012 | .0262  |
| 6    | -10.00 | -.9624  | .1853  | .2792  | -.0063 | -.0065 | .0291  |
| 7    | -5.00  | -.8238  | .0271  | .0308  | .0017  | -.0060 | .0205  |
| 8    | -2.50  | -.6269  | .0007  | .0047  | .0022  | -.0049 | .0207  |
| 9    | -.00   | -.4072  | -.0184 | -.0123 | .0016  | -.0004 | .0150  |
| 10   | 2.51   | -.1826  | -.0285 | -.0234 | .0014  | .0017  | .0173  |
| 11   | 5.01   | .0418   | -.0279 | -.0223 | .0010  | .0007  | .0148  |
| 12   | 10.00  | .4814   | -.0074 | -.0127 | .0006  | .0019  | .0149  |
| 13   | 15.00  | .9417   | .0500  | -.0459 | -.0021 | .0042  | .0099  |
| 14   | 17.50  | 1.1718  | .0911  | -.0764 | -.0027 | .0043  | .0079  |
| 15   | 19.99  | 1.3768  | .1444  | -.0791 | -.0029 | .0033  | .0115  |
| 16   | 25.00  | 1.5870  | .2934  | .0473  | -.0031 | -.0011 | -.0017 |
| 17   | -.00   | -.4060  | -.0175 | -.0111 | .0022  | -.0015 | .0163  |

N4324n9-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 961

RUN 991 CONFIG F P B NP5 W7 T61 BT IN=-3,5

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | -10 DELE    | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |  |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|--|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |  |
| 2       | .0        | .0      | -176.6      | 38.64       | 844.         | 14.          | -9.          | 6.97        | 54.75 | 128.31  | 3340.  |  |
| 3       | .0        | .0      | -181.8      | -6.66       | 748.         | 15.          | -42.         | 5.83        | 55.53 | 129.24  | 12260. |  |
| 4       | -20.0     | .0      | -404.2      | 175.09      | 1221.        | -128.        | -102.        | 6.19        | 55.00 | 128.61  | 12260. |  |
| 5       | -15.0     | .0      | -410.6      | 132.01      | 2221.        | 3.           | 74.          | 7.37        | 54.52 | 128.04  | 12260. |  |
| 6       | -10.0     | .0      | -404.9      | 77.24       | 1835.        | -136.        | -145.        | 10.68       | 54.22 | 127.67  | 12270. |  |
| 7       | -5.0      | .0      | -339.5      | 11.19       | 929.         | 17.          | -82.         | 7.41        | 54.70 | 128.25  | 12310. |  |
| 8       | -2.5      | .0      | -263.3      | .22         | 827.         | 22.          | -26.         | 6.07        | 55.01 | 128.62  | 12230. |  |
| 9       | .0        | .0      | -181.7      | -7.77       | 738.         | 22.          | -61.         | 6.91        | 55.19 | 128.84  | 12280. |  |
| 10      | 2.5       | .0      | -99.0       | -12.26      | 676.         | 13.          | 11.          | 5.85        | 54.69 | 128.25  | 12250. |  |
| 11      | 5.0       | .0      | -14.0       | -13.32      | 643.         | 14.          | -58.         | 5.45        | 55.01 | 128.62  | 12260. |  |
| 12      | 10.0      | .0      | 152.1       | -7.73       | 657.         | 1.           | 15.          | 3.59        | 55.09 | 128.72  | 12250. |  |
| 13      | 15.0      | .0      | 319.5       | 11.15       | 650.         | -33.         | 70.          | 1.79        | 55.05 | 128.67  | 12230. |  |
| 14      | 20.0      | .0      | 488.8       | 43.86       | 522.         | -35.         | 90.          | 2.70        | 54.32 | 127.80  | 12190. |  |
| 15      | 25.0      | .0      | 595.3       | 94.46       | 247.         | -67.         | 19.          | 1.74        | 54.94 | 128.54  | 12230. |  |
| 16      | .0        | .0      | -179.9      | -7.17       | 748.         | 14.          | -44.         | 6.71        | 54.85 | 128.43  | 12240. |  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM   | CYM    | CRM    | CY    |
|------|--------|---------|--------|-------|--------|--------|-------|
| 2    | .00    | -.4773  | .1044  | .2722 | .0008  | -.0005 | .0188 |
| 3    | .00    | -.4915  | -.0180 | .2410 | .0009  | -.0026 | .0158 |
| 4    | -20.00 | -1.0926 | .4732  | .3935 | -.0077 | -.0062 | .0167 |
| 5    | -15.00 | -1.1096 | .3568  | .7161 | .0002  | .0044  | .0199 |
| 6    | -10.00 | -1.0943 | .2088  | .5917 | -.0082 | -.0087 | .0289 |
| 7    | -5.00  | -.9176  | .0302  | .2995 | .0010  | -.0050 | .0200 |
| 8    | -2.50  | -.7115  | .0006  | .2667 | .0013  | -.0016 | .0164 |
| 9    | .00    | -.4910  | -.0210 | .2380 | .0013  | -.0037 | .0187 |
| 10   | 2.50   | -.2675  | -.0331 | .2181 | .0008  | .0007  | .0158 |
| 11   | 5.00   | -.0379  | -.0360 | .2073 | .0009  | -.0035 | .0147 |
| 12   | 10.00  | .4110   | -.0209 | .2117 | .0001  | .0009  | .0097 |
| 13   | 15.00  | .8636   | .0301  | .2096 | -.0020 | .0042  | .0049 |
| 14   | 20.02  | 1.3211  | .1185  | .1684 | -.0021 | .0054  | .0073 |
| 15   | 25.00  | 1.6088  | .2553  | .0798 | -.0040 | .0011  | .0047 |
| 16   | .00    | -.4863  | -.0194 | .2411 | .0009  | -.0026 | .0181 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB  | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|-------|--------|--------|-------|
| 2    | .00    | -.4773  | .1044  | .2722 | .0008  | -.0005 | .0188 |
| 3    | .00    | -.4915  | -.0180 | .2410 | .0009  | -.0026 | .0158 |
| 4    | -20.00 | -1.0926 | .4732  | .3935 | -.0077 | -.0062 | .0167 |
| 5    | -15.00 | -1.1096 | .3568  | .7161 | .0002  | .0044  | .0199 |
| 6    | -10.00 | -1.0943 | .2088  | .5917 | -.0082 | -.0087 | .0289 |
| 7    | -5.00  | -.9176  | .0302  | .2995 | .0010  | -.0050 | .0200 |
| 8    | -2.50  | -.7115  | .0006  | .2667 | .0013  | -.0016 | .0164 |
| 9    | .00    | -.4910  | -.0210 | .2380 | .0013  | -.0037 | .0187 |
| 10   | 2.50   | -.2675  | -.0331 | .2181 | .0008  | .0007  | .0158 |
| 11   | 5.00   | -.0379  | -.0360 | .2073 | .0009  | -.0035 | .0147 |
| 12   | 10.00  | .4110   | -.0209 | .2117 | .0001  | .0009  | .0097 |
| 13   | 15.00  | .8636   | .0301  | .2096 | -.0020 | .0042  | .0049 |
| 14   | 20.02  | 1.3211  | .1185  | .1684 | -.0021 | .0054  | .0073 |
| 15   | 25.00  | 1.6088  | .2553  | .0798 | -.0040 | .0011  | .0047 |
| 16   | .00    | -.4863  | -.0194 | .2411 | .0009  | -.0026 | .0181 |

N4324n9-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 962

RUN 992 CONFIG F P B NP5 W7 T2 IN=-3.5

| PT. NO. | IW    | -9 DELF | - DELA | - IHT  | - DELE | - DELR | - DELSB | - V  | RPM   |
|---------|-------|---------|--------|--------|--------|--------|---------|------|-------|
|         | ALPHA | PSI     | CLBAR  | CDBAR  | CPMBAR | CYMBAR | CRMBAR  | Q    |       |
|         | DEG   | DEG     | SQ-FT  | SQ-FT  | CU-FT  | CU-FT  | CU-FT   | PSF  | KNOTS |
| 7       | -0    | 0       | -130.9 | 33.19  | -383.  | 33.    | -7.     | 5.19 | 54.43 |
| 8       | -20.0 | 0       | -265.4 | 179.31 | -760.  | 30.    | -79.    | 3.95 | 55.24 |
| 9       | -15.0 | 0       | -243.5 | 133.94 | -629.  | 5.     | -261.   | 1.87 | 56.43 |
| 10      | -10.0 | 0       | -254.3 | 102.42 | -574.  | -17.   | -189.   | 7.72 | 55.57 |
| 11      | -5.0  | 0       | -259.2 | 46.41  | -596.  | 52.    | -64.    | 7.73 | 55.53 |
| 12      | -2.5  | 0       | -198.4 | 38.59  | -509.  | 42.    | -44.    | 5.91 | 54.79 |
| 13      | 0     | 0       | -130.5 | 32.96  | -387.  | 33.    | -41.    | 4.41 | 54.81 |
| 14      | 2.5   | 0       | -56.1  | 29.91  | -229.  | 25.    | -23.    | 4.74 | 55.32 |
| 15      | 5.1   | 0       | 18.0   | 30.71  | -44.   | 25.    | -24.    | 6.49 | 55.14 |
| 16      | 10.0  | 0       | 159.7  | 38.66  | 346.   | 1.     | 34.     | 2.96 | 54.05 |
| 17      | 15.0  | 0       | 298.6  | 56.50  | 789.   | 3.     | 17.     | 2.37 | 54.59 |
| 18      | 20.0  | 0       | 427.2  | 84.97  | 1298.  | -38.   | 53.     | 1.99 | 54.87 |
| 19      | 25.0  | 0       | 504.9  | 133.00 | 1715.  | -158.  | -49.    | 7.01 | 54.88 |
| 20      | 0     | 0       | -128.4 | 32.40  | -383.  | 44.    | -43.    | 6.39 | 55.44 |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 7    | -0.00  | -.3537 | .0897 | -.1233 | .0020  | -.0004 | .0140 |
| 8    | -20.00 | -.7173 | .4846 | -.2452 | .0018  | -.0048 | .0107 |
| 9    | -15.01 | -.6580 | .3620 | -.2027 | .0003  | -.0158 | .0051 |
| 10   | -10.01 | -.6872 | .2768 | -.1851 | -.0010 | -.0114 | .0209 |
| 11   | -5.00  | -.7006 | .1254 | -.1920 | .0031  | -.0039 | .0209 |
| 12   | -2.49  | -.5362 | .1043 | -.1641 | .0025  | -.0026 | .0160 |
| 13   | 0.00   | -.3527 | .0891 | -.1246 | .0020  | -.0025 | .0119 |
| 14   | 2.55   | -.1517 | .0808 | -.0738 | .0015  | -.0014 | .0128 |
| 15   | 5.07   | .0485  | .0830 | -.0141 | .0015  | -.0014 | .0175 |
| 16   | 10.00  | .4317  | .1045 | .1114  | .0001  | .0021  | .0080 |
| 17   | 15.00  | .8069  | .1527 | .2543  | .0002  | .0010  | .0064 |
| 18   | 20.01  | 1.1546 | .2296 | .4186  | -.0023 | .0032  | .0054 |
| 19   | 25.03  | 1.3646 | .3595 | .5528  | -.0096 | -.0029 | .0190 |
| 20   | 0.00   | -.3469 | .0876 | -.1234 | .0027  | -.0026 | .0173 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 7    | -0.00  | -.3537 | .0897 | -.1233 | .0020  | -.0004 | .0140 |
| 8    | -20.00 | -.7173 | .4846 | -.2452 | .0018  | -.0048 | .0107 |
| 9    | -15.01 | -.6580 | .3620 | -.2027 | .0003  | -.0158 | .0051 |
| 10   | -10.01 | -.6872 | .2768 | -.1851 | -.0010 | -.0114 | .0209 |
| 11   | -5.00  | -.7006 | .1254 | -.1920 | .0031  | -.0039 | .0209 |
| 12   | -2.49  | -.5362 | .1043 | -.1641 | .0025  | -.0026 | .0160 |
| 13   | 0.00   | -.3527 | .0891 | -.1246 | .0020  | -.0025 | .0119 |
| 14   | 2.55   | -.1517 | .0808 | -.0738 | .0015  | -.0014 | .0128 |
| 15   | 5.07   | .0485  | .0830 | -.0141 | .0015  | -.0014 | .0175 |
| 16   | 10.00  | .4317  | .1045 | .1114  | .0001  | .0021  | .0080 |
| 17   | 15.00  | .8069  | .1527 | .2543  | .0002  | .0010  | .0064 |
| 18   | 20.01  | 1.1546 | .2296 | .4186  | -.0023 | .0032  | .0054 |
| 19   | 25.03  | 1.3646 | .3595 | .5528  | -.0096 | -.0029 | .0190 |
| 20   | 0.00   | -.3469 | .0876 | -.1234 | .0027  | -.0026 | .0173 |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 963

RUN 903 CONFIG F P B NPS W7 T2 IN=-3.5

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 2       | 0.0       | 0.0           | 130.4       | 33.17       | -405.        | 42.          | -44.         | 6.51        | 54.43 | 127.93  | 3340.  |
| 3       | 0.0       | 0.0           | -146.8      | -144.69     | -645.        | 21.          | 12.          | 4.26        | 55.16 | 128.82  | 23040. |
| 4       | -20.0     | 0.0           | -421.8      | 22.39       | -1437.       | 25.          | -75.         | 1.92        | 55.09 | 128.73  | 22970. |
| 5       | -15.0     | 0.0           | -410.5      | -24.08      | -1232.       | 44.          | -230.        | .37         | 54.92 | 128.52  | 23030. |
| 6       | -10.0     | 0.0           | -363.0      | -69.38      | -1120.       | 45.          | 35.          | .31         | 54.74 | 128.31  | 23000. |
| 7       | -5.0      | 0.0           | -301.5      | -122.43     | -927.        | 50.          | -5.          | 3.22        | 54.94 | 128.54  | 23060. |
| 8       | -2.5      | 0.0           | -221.8      | -132.03     | -778.        | 52.          | 11.          | 5.00        | 54.48 | 128.00  | 23020. |
| 9       | 0.0       | 0.0           | -148.7      | -140.58     | -652.        | 43.          | 48.          | 4.85        | 54.09 | 127.53  | 23020. |
| 10      | 2.5       | 0.0           | -60.0       | -141.12     | -431.        | 15.          | 85.          | 3.22        | 54.99 | 128.61  | 23030. |
| 11      | 5.0       | 0.0           | 20.0        | -142.01     | -229.        | 0.           | 69.          | 1.93        | 54.82 | 128.41  | 23010. |
| 12      | 10.0      | 0.0           | 185.9       | -137.56     | 247.         | -10.         | 125.         | 1.07        | 54.08 | 127.52  | 23010. |
| 13      | 15.0      | 0.0           | 347.4       | -117.66     | 780.         | -36.         | 90.          | -3.50       | 54.54 | 128.08  | 22990. |
| 14      | 20.0      | 0.0           | 500.8       | -90.12      | 1379.        | -59.         | 144.         | -1.96       | 53.87 | 127.26  | 23010. |
| 15      | 25.0      | 0.0           | 587.0       | -41.26      | 1842.        | -91.         | 194.         | -3.00       | 54.44 | 127.95  | 22980. |
| 16      | 0.0       | 0.0           | -149.7      | -136.31     | -651.        | 33.          | 12.          | 4.14        | 55.11 | 128.76  | 22950. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPH    | CYH    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | -.3525  | .0896  | -.1305 | .0025  | -.0026 | .0176  |
| 3    | 0.00   | -.3968  | -.3911 | -.2079 | .0013  | .0007  | .0115  |
| 4    | -20.00 | -1.1400 | .0605  | -.4633 | .0015  | -.0045 | .0052  |
| 5    | -14.96 | -1.1095 | -.0651 | -.3971 | .0026  | -.0139 | .0010  |
| 6    | -10.00 | -.9810  | -.1875 | -.3611 | .0027  | .0021  | .0008  |
| 7    | -4.97  | -.8150  | -.3309 | -.2989 | .0030  | -.0003 | .0087  |
| 8    | -2.51  | -.5995  | -.3568 | -.2508 | .0031  | .0006  | .0135  |
| 9    | 0.00   | -.4018  | -.3800 | -.2104 | .0026  | .0029  | .0131  |
| 10   | 2.51   | -.1621  | -.3814 | -.1389 | .0009  | .0051  | .0087  |
| 11   | 4.99   | .0540   | -.3838 | -.0737 | .0000  | .0042  | .0052  |
| 12   | 10.00  | .5024   | -.3718 | .0797  | -.0006 | .0075  | .0029  |
| 13   | 15.00  | .9389   | -.3180 | .2515  | -.0022 | .0054  | -.0095 |
| 14   | 20.00  | 1.3535  | -.2436 | .4446  | -.0035 | .0087  | -.0053 |
| 15   | 25.00  | 1.5865  | -.1115 | .5939  | -.0055 | .0117  | -.0081 |
| 16   | 0.00   | -.4046  | -.3684 | -.2098 | .0020  | .0007  | .0112  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | 0.00   | -.3525  | .0896  | -.1305 | .0025  | -.0026 | .0176  |
| 3    | 0.00   | -.3968  | -.3911 | -.2079 | .0013  | .0007  | .0115  |
| 4    | -20.00 | -1.1400 | .0605  | -.4633 | .0015  | -.0045 | .0052  |
| 5    | -14.96 | -1.1095 | -.0651 | -.3971 | .0026  | -.0139 | .0010  |
| 6    | -10.00 | -.9810  | -.1875 | -.3611 | .0027  | .0021  | .0008  |
| 7    | -4.97  | -.8150  | -.3309 | -.2989 | .0030  | -.0003 | .0087  |
| 8    | -2.51  | -.5995  | -.3568 | -.2508 | .0031  | .0006  | .0135  |
| 9    | 0.00   | -.4018  | -.3800 | -.2104 | .0026  | .0029  | .0131  |
| 10   | 2.51   | -.1621  | -.3814 | -.1389 | .0009  | .0051  | .0087  |
| 11   | 4.99   | .0540   | -.3838 | -.0737 | .0000  | .0042  | .0052  |
| 12   | 10.00  | .5024   | -.3718 | .0797  | -.0006 | .0075  | .0029  |
| 13   | 15.00  | .9389   | -.3180 | .2515  | -.0022 | .0054  | -.0095 |
| 14   | 20.00  | 1.3535  | -.2436 | .4446  | -.0035 | .0087  | -.0053 |
| 15   | 25.00  | 1.5865  | -.1115 | .5939  | -.0055 | .0117  | -.0081 |
| 16   | 0.00   | -.4046  | -.3684 | -.2098 | .0020  | .0007  | .0112  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 964

RUN 904 CONFIG F P B NPS W7 T2 IN=-3.5

| IW  | -9 DELF | 10 DELA | - IHT  | - DELE | - DELR  | - DELSB | -       | -     | -     |        |        |
|-----|---------|---------|--------|--------|---------|---------|---------|-------|-------|--------|--------|
| PT. | ALPHA   | PSI     | CLBAR  | CDBAR  | CPM BAR | CYBAR   | CRM BAR | CYBAR | Q     | V      | RPM    |
| NO. | DEG     | DEG     | SQ-FT  | SQ-FT  | CU-FT   | CU-FT   | CU-FT   | SQ-FT | PSF   | KNOTS  |        |
| 2   | 0       | 0       | -62.0  | 31.50  | -530.   | 42.     | -61.    | 6.65  | 54.85 | 128.44 | 3390.  |
| 3   | 0       | 0       | -55.4  | -6.39  | -577.   | 40.     | -79.    | 6.73  | 55.16 | 128.81 | 11370. |
| 4   | -20.0   | 0       | -302.1 | 128.00 | -1196.  | -9.     | -243.   | 5.78  | 54.76 | 128.33 | 11370. |
| 5   | -15.0   | 0       | -275.3 | 85.60  | -1059.  | 9.      | -199.   | 1.81  | 54.65 | 128.20 | 11370. |
| 6   | -10.0   | 0       | -236.7 | 50.95  | -900.   | 6.      | 107.    | 8.30  | 55.41 | 129.10 | 11370. |
| 7   | -5.0    | 0       | -204.7 | 3.80   | -841.   | 54.     | -48.    | 7.96  | 54.79 | 128.37 | 11370. |
| 8   | -2.5    | 0       | -138.5 | -3.39  | -738.   | 48.     | -130.   | 5.24  | 55.28 | 128.95 | 11330. |
| 9   | -0      | 0       | -66.5  | -7.39  | -589.   | 36.     | 13.     | 3.73  | 55.75 | 129.50 | 11310. |
| 10  | 2.5     | 0       | 11.4   | -8.13  | -432.   | 27.     | -40.    | 3.74  | 54.66 | 128.21 | 11350. |
| 11  | 5.0     | 0       | 92.2   | -5.91  | -230.   | 11.     | -4.     | 4.31  | 54.59 | 128.13 | 11340. |
| 12  | 10.0    | 0       | 247.9  | 5.68   | 204.    | 14.     | 33.     | 4.38  | 55.18 | 128.83 | 11350. |
| 13  | 15.0    | 0       | 403.7  | 28.92  | 709.    | 2.      | 71.     | 1.18  | 54.64 | 128.18 | 11350. |
| 14  | 20.0    | 0       | 542.8  | 61.37  | 1276.   | -13.    | 89.     | 1.81  | 54.70 | 128.26 | 11400. |
| 15  | 25.0    | 0       | 613.4  | 107.50 | 1785.   | -93.    | 1.      | 2.17  | 55.05 | 128.67 | 11330. |
| 17  | 0       | 0       | -66.7  | -7.72  | -596.   | 42.     | -7.     | 5.76  | 54.36 | 127.86 | 11380. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | -.1675 | .0851  | -.1710 | .0026  | -.0037 | .0180 |
| 3    | 0.00   | -.1497 | -.0173 | -.1861 | .0024  | -.0048 | .0182 |
| 4    | -20.00 | -.8164 | .3459  | -.3856 | -.0006 | -.0147 | .0156 |
| 5    | -14.97 | -.7439 | .2314  | -.3413 | .0005  | -.0120 | .0049 |
| 6    | -9.98  | -.6397 | .1377  | -.2902 | .0003  | .0065  | .0224 |
| 7    | -5.00  | -.5533 | .0103  | -.2712 | .0033  | -.0029 | .0215 |
| 8    | -2.50  | -.3743 | -.0092 | -.2380 | .0029  | -.0079 | .0142 |
| 9    | -0.00  | -.1798 | -.0200 | -.1899 | .0022  | .0008  | .0101 |
| 10   | 2.51   | .0308  | -.0220 | -.1394 | .0016  | -.0024 | .0101 |
| 11   | 5.00   | .2492  | -.0160 | -.0742 | .0007  | -.0002 | .0116 |
| 12   | 10.02  | .6700  | .0153  | .0656  | .0009  | .0020  | .0118 |
| 13   | 15.02  | 1.0911 | .0782  | .2285  | .0001  | .0043  | .0032 |
| 14   | 20.01  | 1.4671 | .1659  | .4113  | -.0008 | .0054  | .0049 |
| 15   | 24.99  | 1.6577 | .2905  | .5754  | -.0056 | .0001  | .0059 |
| 17   | 0.00   | -.1802 | -.0209 | -.1921 | .0026  | -.0004 | .0156 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | -.1675 | .0851  | -.1710 | .0026  | -.0037 | .0180 |
| 3    | 0.00   | -.1497 | -.0173 | -.1861 | .0024  | -.0048 | .0182 |
| 4    | -20.00 | -.8164 | .3459  | -.3856 | -.0006 | -.0147 | .0156 |
| 5    | -14.97 | -.7439 | .2314  | -.3413 | .0005  | -.0120 | .0049 |
| 6    | -9.98  | -.6397 | .1377  | -.2902 | .0003  | .0065  | .0224 |
| 7    | -5.00  | -.5533 | .0103  | -.2712 | .0033  | -.0029 | .0215 |
| 8    | -2.50  | -.3743 | -.0092 | -.2380 | .0029  | -.0079 | .0142 |
| 9    | -0.00  | -.1798 | -.0200 | -.1899 | .0022  | .0008  | .0101 |
| 10   | 2.51   | .0308  | -.0220 | -.1394 | .0016  | -.0024 | .0101 |
| 11   | 5.00   | .2492  | -.0160 | -.0742 | .0007  | -.0002 | .0116 |
| 12   | 10.02  | .6700  | .0153  | .0656  | .0009  | .0020  | .0118 |
| 13   | 15.02  | 1.0911 | .0782  | .2285  | .0001  | .0043  | .0032 |
| 14   | 20.01  | 1.4671 | .1659  | .4113  | -.0008 | .0054  | .0049 |
| 15   | 24.99  | 1.6577 | .2905  | .5754  | -.0056 | .0001  | .0059 |
| 17   | 0.00   | -.1802 | -.0209 | -.1921 | .0026  | -.0004 | .0156 |

N4324n9-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 965

RUN 905 CONFIG F P B NP5 W7 T2 IN=3.5

| PT. NO. | IW    | DELTA ALPHA | DELTA PSI | DELTA CLBAR | DELTA CDBAR | DELTA CPMBAR | DELTA CYMBAR | DELTA CRMBAR | DELTA CYBAR | DELTA PSF | DELTA Q | DELTA V | RPM    |
|---------|-------|-------------|-----------|-------------|-------------|--------------|--------------|--------------|-------------|-----------|---------|---------|--------|
|         |       | DEG         | DEG       | SQ-FT       | SQ-FT       | CU-FT        | CU-FT        | CU-FT        | SQ-FT       |           | KNOTS   |         |        |
| 2       |       | 0.0         | 0.0       | 86.9        | 30.07       | -365.        | 10.          | 12.          | 4.68        | 54.58     | 128.11  |         | 3560.  |
| 3       |       | 0.0         | 0.0       | 81.1        | -6.31       | -430.        | 17.          | -6.          | 4.43        | 55.36     | 129.05  |         | 10890. |
| 4       | -20.0 | 0.0         | -334.3    | 97.81       | -1109.      | 82.          | -109.        | 1.06         | 54.69       | 128.24    | 10890.  |         | 10890. |
| 5       | -15.0 | 0.0         | -306.3    | 36.57       | -1018.      | 92.          | -72.         | .93          | 55.01       | 128.63    | 10930.  |         | 10930. |
| 6       | -10.0 | 0.0         | -205.9    | 10.51       | -941.       | 46.          | -43.         | 4.46         | 55.00       | 128.62    | 10900.  |         | 10900. |
| 7       | -5.0  | 0.0         | -65.5     | -5.15       | -772.       | 36.          | -9.          | 5.90         | 54.84       | 128.42    | 10910.  |         | 10910. |
| 8       | -2.5  | 0.0         | 8.2       | -6.92       | -597.       | 25.          | -24.         | 4.45         | 55.16       | 128.81    | 10910.  |         | 10910. |
| 9       | 0.0   | 0.0         | 81.6      | -6.35       | -425.       | 17.          | 47.          | 4.35         | 55.63       | 129.37    | 10900.  |         | 10900. |
| 10      | 2.5   | 0.0         | 152.5     | -3.31       | -254.       | 4.           | -5.          | 4.10         | 55.64       | 129.38    | 10910.  |         | 10910. |
| 11      | 5.0   | 0.0         | 223.4     | 2.48        | -56.        | -8.          | 33.          | 2.33         | 55.51       | 129.23    | 10910.  |         | 10910. |
| 12      | 10.1  | 0.0         | 370.0     | 21.73       | 402.        | 0.           | 52.          | 2.49         | 54.78       | 128.36    | 10920.  |         | 10920. |
| 13      | 15.0  | 0.0         | 483.2     | 51.98       | 859.        | -21.         | 105.         | 2.42         | 54.88       | 128.48    | 10910.  |         | 10910. |
| 14      | 20.0  | 0.0         | 505.9     | 100.35      | 1139.       | 16.          | 18.          | 3.12         | 54.59       | 128.13    | 10960.  |         | 10960. |
| 15      | 25.0  | 0.0         | 558.2     | 169.95      | 1458.       | -49.         | 38.          | 4.67         | 54.73       | 128.29    | 10940.  |         | 10940. |
| 16      | 0.0   | 0.0         | 81.4      | -6.67       | -418.       | 18.          | 11.          | 5.28         | 54.22       | 127.68    | 10920.  |         | 10920. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .2349  | .0813  | -.1176 | .0006  | .0007  | .0127 |
| 3    | 0.00   | .2191  | -.0170 | -.1388 | .0010  | -.0003 | .0120 |
| 4    | -20.00 | -.9036 | .2643  | -.3577 | .0050  | -.0066 | .0029 |
| 5    | -15.00 | -.8277 | .0988  | -.3283 | .0055  | -.0044 | .0025 |
| 6    | -10.01 | -.5564 | .0284  | -.3035 | .0028  | -.0026 | .0121 |
| 7    | -4.96  | -.1770 | -.0139 | -.2490 | .0022  | -.0006 | .0159 |
| 8    | -2.51  | .0221  | -.0187 | -.1925 | .0015  | -.0014 | .0120 |
| 9    | 0.01   | .2205  | -.0172 | -.1370 | .0010  | .0028  | .0117 |
| 10   | 2.51   | .4121  | -.0089 | -.0818 | .0003  | -.0003 | .0111 |
| 11   | 5.00   | .6038  | .0067  | -.0180 | -.0005 | .0020  | .0063 |
| 12   | 10.09  | 1.0001 | .0587  | .1295  | .0000  | .0031  | .0067 |
| 13   | 15.01  | 1.3061 | .1405  | .2769  | -.0012 | .0064  | .0065 |
| 14   | 19.99  | 1.3673 | .2712  | .3673  | .0010  | .0011  | .0084 |
| 15   | 25.02  | 1.5087 | .4593  | .4701  | -.0029 | .0023  | .0126 |
| 16   | 0.01   | .2199  | -.0180 | -.1348 | .0011  | .0007  | .0143 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 0.00   | .2349  | .0813  | -.1176 | .0006  | .0007  | .0127 |
| 3    | 0.00   | .2191  | -.0170 | -.1388 | .0010  | -.0003 | .0120 |
| 4    | -20.00 | -.9036 | .2643  | -.3577 | .0050  | -.0066 | .0029 |
| 5    | -15.00 | -.8277 | .0988  | -.3283 | .0055  | -.0044 | .0025 |
| 6    | -10.01 | -.5564 | .0284  | -.3035 | .0028  | -.0026 | .0121 |
| 7    | -4.96  | -.1770 | -.0139 | -.2490 | .0022  | -.0006 | .0159 |
| 8    | -2.51  | .0221  | -.0187 | -.1925 | .0015  | -.0014 | .0120 |
| 9    | 0.01   | .2205  | -.0172 | -.1370 | .0010  | .0028  | .0117 |
| 10   | 2.51   | .4121  | -.0089 | -.0818 | .0003  | -.0003 | .0111 |
| 11   | 5.00   | .6038  | .0067  | -.0180 | -.0005 | .0020  | .0063 |
| 12   | 10.09  | 1.0001 | .0587  | .1295  | .0000  | .0031  | .0067 |
| 13   | 15.01  | 1.3061 | .1405  | .2769  | -.0012 | .0064  | .0065 |
| 14   | 19.99  | 1.3673 | .2712  | .3673  | .0010  | .0011  | .0084 |
| 15   | 25.02  | 1.5087 | .4593  | .4701  | -.0029 | .0023  | .0126 |
| 16   | 0.01   | .2199  | -.0180 | -.1348 | .0011  | .0007  | .0143 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 966

RUN 906 CONFIG F P B NPS W7 T2 IN=-3.5

| PT. NO. | IW        | 7.5 DELF | 30 DELA     | 0 IHT       | - DELE       | - DELR       | - DELSB      | Q           | V     | RPM    |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|--------|--------|
|         | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  |        |
| 2       | 0         | 0        | 491.7       | 96.74       | -1089.       | 9.           | 48.          | 4.18        | 54.65 | 128.20 | 3990.  |
| 3       | 0         | 0        | 486.5       | -7.17       | -1248.       | -13.         | 84.          | 3.24        | 54.75 | 128.33 | 17550. |
| 4       | -20.0     | 0        | -184.6      | -4.97       | -2340.       | 92.          | 32.          | 1.68        | 54.59 | 128.14 | 17510. |
| 5       | -15.0     | 0        | 3.6         | -27.86      | -2357.       | 76.          | 32.          | 1.80        | 55.00 | 128.63 | 17550. |
| 6       | -10.0     | 0        | 170.4       | -32.43      | -2119.       | 68.          | 49.          | 2.04        | 55.05 | 128.68 | 17570. |
| 7       | -5.0      | 0        | 328.4       | -21.81      | -1708.       | 18.          | 46.          | 4.33        | 55.03 | 128.66 | 17560. |
| 8       | -2.5      | 0        | 411.5       | -13.53      | -1501.       | 20.          | 65.          | 4.98        | 54.06 | 127.51 | 17560. |
| 9       | -0        | 0        | 485.0       | -3.10       | -1247.       | 9.           | 102.         | 4.08        | 54.32 | 127.82 | 17560. |
| 10      | 2.5       | 0        | 559.9       | 9.13        | -987.        | -3.          | 122.         | 2.39        | 54.24 | 127.72 | 17570. |
| 11      | 5.0       | 0        | 624.3       | 23.07       | -722.        | 10.          | 161.         | -1.13       | 54.38 | 127.89 | 17550. |
| 12      | 10.0      | 0        | 603.5       | 63.87       | -622.        | 13.          | 71.          | -0.62       | 54.85 | 128.45 | 17520. |
| 13      | 15.0      | 0        | 611.4       | 123.89      | -174.        | -36.         | 71.          | 2.31        | 54.58 | 128.13 | 17540. |
| 14      | 20.0      | 0        | 631.6       | 193.96      | 329.         | -11.         | 144.         | .70         | 53.73 | 127.09 | 17570. |
| 15      | 25.0      | 0        | 655.5       | 260.21      | 831.         | -87.         | 268.         | 2.75        | 54.60 | 128.14 | 17550. |
| 16      | 0         | 0        | 485.1       | -2.38       | -1249.       | -5.          | 83.          | 4.56        | 54.51 | 128.04 | 17530. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 0.00   | 1.3288 | .2615  | -.3511 | .0006  | .0029 | .0113  |
| 3    | 0.00   | 1.3149 | -.0194 | -.4023 | -.0008 | .0051 | .0087  |
| 4    | -19.99 | -.4989 | -.0134 | -.7545 | .0056  | .0019 | .0046  |
| 5    | -15.00 | .0097  | -.0753 | -.7599 | .0046  | .0019 | .0049  |
| 6    | -9.99  | .4607  | -.0876 | -.6832 | .0041  | .0030 | .0055  |
| 7    | -5.00  | .8876  | -.0590 | -.5506 | .0011  | .0028 | .0117  |
| 8    | -2.50  | 1.1121 | -.0366 | -.4838 | .0012  | .0039 | .0135  |
| 9    | -0.00  | 1.3109 | -.0084 | -.4022 | .0005  | .0062 | .0110  |
| 10   | 2.50   | 1.5132 | .0247  | -.3183 | -.0002 | .0074 | .0065  |
| 11   | 5.00   | 1.6874 | .0624  | -.2328 | .0006  | .0097 | -.0030 |
| 12   | 10.01  | 1.6310 | .1726  | -.2005 | .0008  | .0043 | -.0017 |
| 13   | 15.00  | 1.6523 | .3348  | -.0561 | -.0021 | .0043 | .0062  |
| 14   | 20.01  | 1.7069 | .5242  | .1062  | -.0007 | .0087 | .0019  |
| 15   | 25.02  | 1.7716 | .7033  | .2680  | -.0053 | .0162 | .0074  |
| 16   | 0.00   | 1.3111 | -.0064 | -.4026 | -.0003 | .0050 | .0123  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | 0.00   | 1.3288 | .2615  | -.3511 | .0006  | .0029 | .0113  |
| 3    | 0.00   | 1.3149 | -.0194 | -.4023 | -.0008 | .0051 | .0087  |
| 4    | -19.99 | -.4989 | -.0134 | -.7545 | .0056  | .0019 | .0046  |
| 5    | -15.00 | .0097  | -.0753 | -.7599 | .0046  | .0019 | .0049  |
| 6    | -9.99  | .4607  | -.0876 | -.6832 | .0041  | .0030 | .0055  |
| 7    | -5.00  | .8876  | -.0590 | -.5506 | .0011  | .0028 | .0117  |
| 8    | -2.50  | 1.1121 | -.0366 | -.4838 | .0012  | .0039 | .0135  |
| 9    | -0.00  | 1.3109 | -.0084 | -.4022 | .0005  | .0062 | .0110  |
| 10   | 2.50   | 1.5132 | .0247  | -.3183 | -.0002 | .0074 | .0065  |
| 11   | 5.00   | 1.6874 | .0624  | -.2328 | .0006  | .0097 | -.0030 |
| 12   | 10.01  | 1.6310 | .1726  | -.2005 | .0008  | .0043 | -.0017 |
| 13   | 15.00  | 1.6523 | .3348  | -.0561 | -.0021 | .0043 | .0062  |
| 14   | 20.01  | 1.7069 | .5242  | .1062  | -.0007 | .0087 | .0019  |
| 15   | 25.02  | 1.7716 | .7033  | .2680  | -.0053 | .0162 | .0074  |
| 16   | 0.00   | 1.3111 | -.0064 | -.4026 | -.0003 | .0050 | .0123  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 967

RUN 907 CONFIG F P B NPS W7 T41 BT IN=3,5

| 1W      | 7.5 DELF  | 30 DELA | 0 IHT       | 5 DELE      | 0 DELR        | 0 DELSB     | 0             |             |       |         |        |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 6       | 0         | 0       | 493.0       | 100.22      | -1008.        | -129.       | 63.           | 6.58        | 54.34 | 127.84  | 3990.  |
| 7       | 0         | 0       | 487.8       | 5.97        | -1172.        | -141.       | 112.          | 9.58        | 54.74 | 128.32  | 17800. |
| 8       | -20.0     | 0       | -196.3      | .54         | -1758.        | 25.         | 82.           | 2.65        | 55.24 | 128.92  | 17820. |
| 9       | -15.0     | 0       | -8.1        | -24.03      | -1775.        | 9.          | 81.           | 3.47        | 54.94 | 128.56  | 17790. |
| 10      | -10.0     | 0       | 158.8       | -31.67      | -1631.        | -49.        | 139.          | 1.36        | 54.94 | 128.56  | 17860. |
| 11      | -5.0      | 0       | 324.8       | -21.63      | -1452.        | -173.       | 113.          | 7.59        | 54.30 | 127.79  | 17760. |
| 12      | -2.5      | 0       | 404.9       | -12.48      | -1318.        | -167.       | 132.          | 7.18        | 54.54 | 128.08  | 17840. |
| 13      | 0         | 0       | 484.1       | -1.56       | -1171.        | -146.       | 116.          | 7.23        | 54.21 | 127.69  | 17810. |
| 14      | 2.5       | 0       | 557.3       | 9.43        | -983.         | -82.        | 119.          | 4.81        | 54.53 | 128.07  | 17820. |
| 15      | 5.0       | 0       | 626.8       | 23.42       | -791.         | -42.        | 195.          | .31         | 54.66 | 128.23  | 17820. |
| 16      | 10.0      | 0       | 610.6       | 64.94       | -645.         | -74.        | -1.           | 1.89        | 54.19 | 127.66  | 17820. |
| 17      | 15.0      | 0       | 614.0       | 127.29      | -255.         | -49.        | 87.           | 10.30       | 54.56 | 128.10  | 17820. |
| 18      | 20.0      | 0       | 647.8       | 196.33      | 178.          | 0.          | 37.           | 8.12        | 54.10 | 127.55  | 17850. |
| 19      | 25.0      | 0       | 670.3       | 263.93      | 588.          | -77.        | 303.          | 1.00        | 54.52 | 128.05  | 17820. |
| 20      | 0         | 0       | 484.0       | -3.36       | -1173.        | -131.       | 95.           | 9.20        | 54.43 | 127.95  | 17820. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYH    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 6    | 0.00   | 1.3325 | .2709  | -.3251 | -.0078 | .0038  | .0178 |
| 7    | 0.00   | 1.3182 | -.0161 | -.3778 | -.0085 | .0068  | .0259 |
| 8    | -20.00 | -.5305 | .0015  | -.5668 | .0015  | .0049  | .0072 |
| 9    | -14.99 | -.0220 | -.0650 | -.5721 | .0005  | .0049  | .0094 |
| 10   | -10.00 | .4291  | -.0856 | -.5257 | -.0029 | .0084  | .0037 |
| 11   | -4.98  | .8778  | -.0585 | -.4680 | -.0104 | .0068  | .0205 |
| 12   | -2.49  | 1.0943 | -.0337 | -.4250 | -.0101 | .0080  | .0194 |
| 13   | .01    | 1.3083 | -.0042 | -.3774 | -.0088 | .0070  | .0195 |
| 14   | 2.54   | 1.5063 | .0255  | -.3168 | -.0050 | .0072  | .0130 |
| 15   | 5.00   | 1.6941 | .0633  | -.2551 | -.0025 | .0118  | .0008 |
| 16   | 10.00  | 1.6503 | .1755  | -.2080 | -.0045 | -.0001 | .0051 |
| 17   | 15.01  | 1.6595 | .3440  | -.0823 | -.0029 | .0052  | .0278 |
| 18   | 20.00  | 1.7507 | .5306  | .0575  | .0000  | .0023  | .0220 |
| 19   | 25.01  | 1.8115 | .7133  | .1897  | -.0046 | .0183  | .0027 |
| 20   | .00    | 1.3081 | -.0091 | -.3782 | -.0079 | .0057  | .0249 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 6    | 0.00   | 1.3325 | .2709  | -.3251 | -.0078 | .0038  | .0178 |
| 7    | 0.00   | 1.3182 | -.0161 | -.3778 | -.0085 | .0068  | .0259 |
| 8    | -20.00 | -.5305 | .0015  | -.5668 | .0015  | .0049  | .0072 |
| 9    | -14.99 | -.0220 | -.0650 | -.5721 | .0005  | .0049  | .0094 |
| 10   | -10.00 | .4291  | -.0856 | -.5257 | -.0029 | .0084  | .0037 |
| 11   | -4.98  | .8778  | -.0585 | -.4680 | -.0104 | .0068  | .0205 |
| 12   | -2.49  | 1.0943 | -.0337 | -.4250 | -.0101 | .0080  | .0194 |
| 13   | .01    | 1.3083 | -.0042 | -.3774 | -.0088 | .0070  | .0195 |
| 14   | 2.54   | 1.5063 | .0255  | -.3168 | -.0050 | .0072  | .0130 |
| 15   | 5.00   | 1.6941 | .0633  | -.2551 | -.0025 | .0118  | .0008 |
| 16   | 10.00  | 1.6503 | .1755  | -.2080 | -.0045 | -.0001 | .0051 |
| 17   | 15.01  | 1.6595 | .3440  | -.0823 | -.0029 | .0052  | .0278 |
| 18   | 20.00  | 1.7507 | .5306  | .0575  | .0000  | .0023  | .0220 |
| 19   | 25.01  | 1.8115 | .7133  | .1897  | -.0046 | .0183  | .0027 |
| 20   | .00    | 1.3081 | -.0091 | -.3782 | -.0079 | .0057  | .0249 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER=72011

P 968

RUN 998 CONFIG F P B NP5 W7 T41 BT IN=-3.5

| PT# | 7.5 DELF<br>ALPHA DEG | DELTA PSI<br>DEG | 30 DELA<br>CLBAR | 0 IHT<br>CDBAR | 0 DELE<br>CPMBAR | 0 DELR<br>CYMBAR | 0 DELSB<br>CRMBAR | 0<br>CYBAR | 0<br>SQ-FT | 0<br>PSF | 0<br>KNOTS | 0<br>V | 0<br>RPM |
|-----|-----------------------|------------------|------------------|----------------|------------------|------------------|-------------------|------------|------------|----------|------------|--------|----------|
| 2   | .0                    | .0               | 483.8            | 100.18         | -797.            | -134.            | 62.               | 6.64       | 54.92      | 128.53   | 3990.      |        |          |
| 3   | .0                    | .0               | 478.2            | -6.66          | -966.            | -149.            | 40.               | 9.55       | 55.31      | 129.01   | 17810.     |        |          |
| 4   | -20.0                 | .0               | -197.1           | 2.16           | -1742.           | 6.               | 42.               | 4.41       | 55.61      | 129.36   | 17760.     |        |          |
| 5   | -15.0                 | .0               | -7.1             | -22.40         | -1823.           | -33.             | 82.               | 2.72       | 55.20      | 128.87   | 17830.     |        |          |
| 6   | -10.0                 | .0               | 157.6            | -28.36         | -1566.           | -17.             | 98.               | 3.29       | 55.97      | 129.78   | 17810.     |        |          |
| 7   | -5.0                  | .0               | 321.8            | -18.98         | -1232.           | -175.            | 96.               | 5.58       | 55.57      | 129.31   | 17760.     |        |          |
| 8   | -2.5                  | .0               | 399.2            | -10.47         | -1095.           | -186.            | 128.              | 7.39       | 55.78      | 129.56   | 17810.     |        |          |
| 9   | .0                    | .0               | 483.8            | -2.07          | -956.            | -158.            | 78.               | 8.09       | 54.77      | 128.36   | 17840.     |        |          |
| 10  | 2.5                   | .0               | 556.8            | 9.35           | -786.            | -96.             | 100.              | 6.04       | 54.69      | 128.27   | 17850.     |        |          |
| 11  | 5.0                   | .0               | 622.3            | 23.86          | -578.            | -49.             | 122.              | 1.24       | 55.16      | 128.83   | 17810.     |        |          |
| 12  | 10.0                  | .0               | 610.9            | 65.74          | -490.            | -92.             | 36.               | .57        | 54.12      | 127.58   | 17790.     |        |          |
| 13  | 15.0                  | .0               | 614.6            | 125.56         | -168.            | -108.            | 70.               | 3.56       | 54.50      | 128.03   | 17790.     |        |          |
| 14  | 20.0                  | .0               | 641.3            | 194.54         | 383.             | -18.             | 37.               | 7.29       | 54.17      | 127.64   | 17740.     |        |          |
| 15  | 25.0                  | .0               | 664.5            | 262.13         | 747.             | -62.             | 249.              | 1.44       | 54.59      | 128.14   | 17800.     |        |          |
| 16  | .0                    | .0               | 480.4            | -3.27          | -967.            | -170.            | 113.              | 9.33       | 54.40      | 127.92   | 17790.     |        |          |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | 1.3075 | .2708  | -.2571 | -.0081 | .0038  | .0179 |
| 3    | .00    | 1.2925 | -.0180 | -.3115 | -.0090 | .0024  | .0258 |
| 4    | -20.00 | -.5326 | .0058  | -.5615 | .0004  | .0026  | .0119 |
| 5    | -15.00 | -.0191 | -.0605 | -.5878 | -.0020 | .0050  | .0073 |
| 6    | -9.99  | .4261  | -.0766 | -.5049 | -.0010 | .0059  | .0089 |
| 7    | -5.00  | .8696  | -.0513 | -.3971 | -.0105 | .0058  | .0151 |
| 8    | -2.50  | 1.0788 | -.0283 | -.3531 | -.0113 | .0078  | .0200 |
| 9    | .03    | 1.3075 | -.0056 | -.3081 | -.0095 | .0047  | .0219 |
| 10   | 2.52   | 1.5048 | .0253  | -.2533 | -.0058 | .0060  | .0163 |
| 11   | 5.01   | 1.6820 | .0645  | -.1864 | -.0030 | .0074  | .0033 |
| 12   | 10.00  | 1.6512 | .1777  | -.1579 | -.0055 | -.0022 | .0015 |
| 13   | 15.00  | 1.6611 | .3393  | -.0542 | -.0065 | .0043  | .0096 |
| 14   | 20.00  | 1.7333 | .5258  | .1236  | -.0011 | .0022  | .0197 |
| 15   | 25.00  | 1.7958 | .7084  | .2407  | -.0037 | .0151  | .0039 |
| 16   | .00    | 1.2985 | -.0088 | -.3117 | -.0103 | .0068  | .0252 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | 1.3075 | .2708  | -.2571 | -.0081 | .0038  | .0179 |
| 3    | .00    | 1.2925 | -.0180 | -.3115 | -.0090 | .0024  | .0258 |
| 4    | -20.00 | -.5326 | .0058  | -.5615 | .0004  | .0026  | .0119 |
| 5    | -15.00 | -.0191 | -.0605 | -.5878 | -.0020 | .0050  | .0073 |
| 6    | -9.99  | .4261  | -.0766 | -.5049 | -.0010 | .0059  | .0089 |
| 7    | -5.00  | .8696  | -.0513 | -.3971 | -.0105 | .0058  | .0151 |
| 8    | -2.50  | 1.0788 | -.0283 | -.3531 | -.0113 | .0078  | .0200 |
| 9    | .03    | 1.3075 | -.0056 | -.3081 | -.0095 | .0047  | .0219 |
| 10   | 2.52   | 1.5048 | .0253  | -.2533 | -.0058 | .0060  | .0163 |
| 11   | 5.01   | 1.6820 | .0645  | -.1864 | -.0030 | .0074  | .0033 |
| 12   | 10.00  | 1.6512 | .1777  | -.1579 | -.0055 | -.0022 | .0015 |
| 13   | 15.00  | 1.6611 | .3393  | -.0542 | -.0065 | .0043  | .0096 |
| 14   | 20.00  | 1.7333 | .5258  | .1236  | -.0011 | .0022  | .0197 |
| 15   | 25.00  | 1.7958 | .7084  | .2407  | -.0037 | .0151  | .0039 |
| 16   | .00    | 1.2985 | -.0088 | -.3117 | -.0103 | .0068  | .0252 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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SER#72011

P 969

RUN 999 CONFIG F P B NPS W7 T41 BT IN=-3.5

| PT. NO. | IW | 7.5 DELF<br>ALPHA<br>DEG | PSI<br>DEG | 30 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>COBAR<br>SQ-FT | -5 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELSB<br>CRMBAR<br>CU-FT | Q<br>CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS | RPM    |
|---------|----|--------------------------|------------|---------------------------|-------------------------|----------------------------|---------------------------|----------------------------|---------------------|----------|------------|--------|
| 2       |    | .0                       | .0         | 480.1                     | 102.16                  | -571.                      | -91.                      | 64.                        | 5.59                | 54.27    | 127.76     | 3980.  |
| 3       |    | .0                       | .0         | 472.2                     | -7.19                   | -730.                      | -119.                     | 80.                        | 6.32                | 54.99    | 128.63     | 17830. |
| 4       |    | -20.0                    | .0         | -203.7                    | 3.91                    | -1688.                     | -6.                       | 79.                        | 4.02                | 55.07    | 128.72     | 17800. |
| 5       |    | -15.0                    | .0         | -15.4                     | -21.91                  | -1783.                     | -28.                      | 82.                        | 2.92                | 54.76    | 128.35     | 17850. |
| 6       |    | -10.0                    | .0         | 156.3                     | -28.68                  | -1600.                     | -36.                      | 102.                       | 2.37                | 54.57    | 128.12     | 17850. |
| 7       |    | -5.0                     | .0         | 315.2                     | -19.58                  | -1178.                     | -117.                     | 101.                       | 2.65                | 55.25    | 128.94     | 17830. |
| 8       |    | -2.5                     | .0         | 393.7                     | -10.71                  | -950.                      | -106.                     | 96.                        | 6.86                | 55.09    | 128.75     | 17850. |
| 9       |    | .0                       | .0         | 478.5                     | -1.43                   | -721.                      | -125.                     | 116.                       | 6.88                | 54.45    | 127.98     | 17900. |
| 10      |    | 2.6                      | .0         | 547.0                     | 10.35                   | -493.                      | -115.                     | 119.                       | 4.30                | 54.65    | 128.22     | 17810. |
| 11      |    | 5.0                      | .0         | 609.1                     | 24.17                   | -291.                      | -79.                      | 175.                       | .74                 | 55.27    | 128.95     | 17800. |
| 12      |    | 10.0                     | .0         | 599.4                     | 64.83                   | -216.                      | -95.                      | 34.                        | 3.30                | 54.67    | 128.24     | 17780. |
| 13      |    | 15.0                     | .0         | 605.6                     | 127.25                  | 83.                        | -96.                      | 53.                        | .93                 | 54.69    | 128.26     | 17780. |
| 14      |    | 20.0                     | .0         | 623.0                     | 190.05                  | 550.                       | -13.                      | 89.                        | .31                 | 54.65    | 128.21     | 17810. |
| 15      |    | 25.0                     | .0         | 661.7                     | 261.71                  | 959.                       | -39.                      | 251.                       | 3.68                | 54.57    | 128.12     | 17760. |
| 16      |    | .0                       | .0         | 477.6                     | -1.04                   | -722.                      | -118.                     | 115.                       | 7.45                | 54.40    | 127.92     | 17820. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY    |
|------|--------|--------|--------|--------|--------|-------|-------|
| 2    | .00    | 1.2976 | .2761  | -.1841 | -.0055 | .0039 | .0151 |
| 3    | .00    | 1.2763 | -.0194 | -.2354 | -.0072 | .0048 | .0171 |
| 4    | -20.00 | -.5505 | .0106  | -.5442 | -.0003 | .0048 | .0109 |
| 5    | -15.00 | -.0416 | -.0592 | -.5747 | -.0017 | .0050 | .0079 |
| 6    | -10.00 | .4223  | -.0775 | -.5157 | -.0022 | .0062 | .0064 |
| 7    | -5.00  | .8518  | -.0529 | -.3797 | -.0071 | .0061 | .0072 |
| 8    | -2.48  | 1.0641 | -.0289 | -.3062 | -.0064 | .0058 | .0185 |
| 9    | .03    | 1.2932 | -.0039 | -.2323 | -.0075 | .0070 | .0186 |
| 10   | 2.55   | 1.4784 | .0280  | -.1588 | -.0070 | .0072 | .0116 |
| 11   | 5.00   | 1.6462 | .0653  | -.0937 | -.0048 | .0105 | .0020 |
| 12   | 10.01  | 1.6201 | .1752  | -.0697 | -.0057 | .0020 | .0089 |
| 13   | 15.00  | 1.6368 | .3439  | .0269  | -.0058 | .0032 | .0025 |
| 14   | 20.00  | 1.6838 | .5136  | .1772  | -.0008 | .0054 | .0008 |
| 15   | 25.01  | 1.7884 | .7073  | .3093  | -.0024 | .0151 | .0100 |
| 16   | .00    | 1.2907 | -.0028 | -.2329 | -.0071 | .0070 | .0201 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|--------|--------|--------|--------|-------|-------|
| 2    | .00    | 1.2976 | .2761  | -.1841 | -.0055 | .0039 | .0151 |
| 3    | .00    | 1.2763 | -.0194 | -.2354 | -.0072 | .0048 | .0171 |
| 4    | -20.00 | -.5505 | .0106  | -.5442 | -.0003 | .0048 | .0109 |
| 5    | -15.00 | -.0416 | -.0592 | -.5747 | -.0017 | .0050 | .0079 |
| 6    | -10.00 | .4223  | -.0775 | -.5157 | -.0022 | .0062 | .0064 |
| 7    | -5.00  | .8518  | -.0529 | -.3797 | -.0071 | .0061 | .0072 |
| 8    | -2.48  | 1.0641 | -.0289 | -.3062 | -.0064 | .0058 | .0185 |
| 9    | .03    | 1.2932 | -.0039 | -.2323 | -.0075 | .0070 | .0186 |
| 10   | 2.55   | 1.4784 | .0280  | -.1588 | -.0070 | .0072 | .0116 |
| 11   | 5.00   | 1.6462 | .0653  | -.0937 | -.0048 | .0105 | .0020 |
| 12   | 10.01  | 1.6201 | .1752  | -.0697 | -.0057 | .0020 | .0089 |
| 13   | 15.00  | 1.6368 | .3439  | .0269  | -.0058 | .0032 | .0025 |
| 14   | 20.00  | 1.6838 | .5136  | .1772  | -.0008 | .0054 | .0008 |
| 15   | 25.01  | 1.7884 | .7073  | .3093  | -.0024 | .0151 | .0100 |
| 16   | .00    | 1.2907 | -.0028 | -.2329 | -.0071 | .0070 | .0201 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 970

RUN 1000 CONFIG F P B NP W7 T41 BT IN=-3.5

| PT.# | ALPHA DEG | PSI DEG | DELA        |             | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB |         | RPM    |
|------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
|      |           |         | CLBAR SQ-FT | CDBAR SQ-FT |              |              |              |             | Q PSF | V KNOTS |        |
| 2    | 0         | 0       | 80.3        | 33.32       | 55.          | -46.         | 49.          | 3.24        | 54.71 | 128.29  | 3540.  |
| 3    | 0         | 0       | 78.0        | -7.33       | -31.         | -39.         | 28.          | 5.08        | 55.70 | 129.46  | 11500. |
| 4    | 20.0      | 0       | -367.8      | 102.63      | -513.        | -13.         | -234.        | 2.59        | 55.26 | 128.95  | 11500. |
| 5    | 15.0      | 0       | -330.4      | 42.12       | -488.        | 53.          | -42.         | 3.32        | 55.42 | 129.13  | 11490. |
| 6    | 10.0      | 0       | -221.2      | 13.38       | -467.        | -43.         | 7.           | 5.84        | 56.00 | 129.83  | 11510. |
| 7    | 5.0       | 0       | -78.1       | -4.76       | -287.        | 24.          | -4.          | 2.67        | 54.92 | 128.55  | 11540. |
| 8    | -2.5      | 0       | .2          | -7.77       | -124.        | -32.         | 30.          | 3.96        | 55.08 | 128.73  | 11540. |
| 9    | 0         | 0       | 77.7        | -7.48       | -35.         | -34.         | 46.          | 5.54        | 54.72 | 128.31  | 11540. |
| 10   | 2.5       | 0       | 152.8       | -5.11       | 59.          | -38.         | 84.          | 3.97        | 54.96 | 128.58  | 11540. |
| 11   | 5.0       | 0       | 228.8       | .77         | 185.         | -20.         | 87.          | 1.42        | 55.11 | 128.77  | 11500. |
| 12   | 10.0      | 0       | 371.8       | 19.91       | 540.         | -39.         | 87.          | 1.86        | 54.82 | 128.43  | 11560. |
| 13   | 15.0      | 0       | 487.2       | 51.65       | 1021.        | -69.         | 106.         | 2.12        | 54.58 | 128.13  | 11570. |
| 14   | 20.0      | 0       | 506.4       | 101.56      | 1485.        | 11.          | 55.          | 4.16        | 54.06 | 127.52  | 11390. |
| 15   | 25.0      | 0       | 566.4       | 171.88      | 1731.        | -57.         | 126.         | 3.37        | 54.56 | 128.11  | 11540. |
| 16   | 0         | 0       | 77.4        | -6.38       | -36.         | -61.         | 83.          | 4.88        | 54.47 | 128.00  | 11530. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 00     | .2170  | .0901  | .0177  | -.0027 | .0030  | .0088 |
| 3    | 00     | .2107  | -.0198 | -.0099 | -.0024 | .0017  | .0137 |
| 4    | -19.98 | -.9939 | .2774  | -.1655 | -.0008 | -.0141 | .0070 |
| 5    | -15.00 | -.8930 | .1138  | -.1574 | .0032  | -.0025 | .0090 |
| 6    | -10.03 | -.5979 | .0361  | -.1506 | -.0026 | .0004  | .0158 |
| 7    | -5.00  | -.2110 | -.0129 | -.0925 | .0015  | -.0003 | .0072 |
| 8    | -2.50  | .0005  | -.0210 | -.0400 | -.0019 | .0018  | .0107 |
| 9    | .01    | .2101  | -.0202 | -.0112 | -.0021 | .0028  | .0150 |
| 10   | 2.49   | .4131  | -.0138 | .0189  | -.0023 | .0051  | .0107 |
| 11   | 5.00   | .6184  | .0021  | .0595  | -.0012 | .0052  | .0038 |
| 12   | 10.00  | 1.0048 | .0538  | .1740  | -.0024 | .0053  | .0050 |
| 13   | 14.99  | 1.3167 | .1396  | .3293  | -.0042 | .0064  | .0057 |
| 14   | 20.00  | 1.3686 | .2745  | .4788  | .0006  | .0033  | .0112 |
| 15   | 25.01  | 1.5308 | .4645  | .5581  | -.0034 | .0076  | .0091 |
| 16   | .01    | .2093  | -.0172 | -.0117 | -.0037 | .0050  | .0132 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | 00     | .2170  | .0901  | .0177  | -.0027 | .0030  | .0088 |
| 3    | 00     | .2107  | -.0198 | -.0099 | -.0024 | .0017  | .0137 |
| 4    | -19.98 | -.9939 | .2774  | -.1655 | -.0008 | -.0141 | .0070 |
| 5    | -15.00 | -.8930 | .1138  | -.1574 | .0032  | -.0025 | .0090 |
| 6    | -10.03 | -.5979 | .0361  | -.1506 | -.0026 | .0004  | .0158 |
| 7    | -5.00  | -.2110 | -.0129 | -.0925 | .0015  | -.0003 | .0072 |
| 8    | -2.50  | .0005  | -.0210 | -.0400 | -.0019 | .0018  | .0107 |
| 9    | .01    | .2101  | -.0202 | -.0112 | -.0021 | .0028  | .0150 |
| 10   | 2.49   | .4131  | -.0138 | .0189  | -.0023 | .0051  | .0107 |
| 11   | 5.00   | .6184  | .0021  | .0595  | -.0012 | .0052  | .0038 |
| 12   | 10.00  | 1.0048 | .0538  | .1740  | -.0024 | .0053  | .0050 |
| 13   | 14.99  | 1.3167 | .1396  | .3293  | -.0042 | .0064  | .0057 |
| 14   | 20.00  | 1.3686 | .2745  | .4788  | .0006  | .0033  | .0112 |
| 15   | 25.01  | 1.5308 | .4645  | .5581  | -.0034 | .0076  | .0091 |
| 16   | .01    | .2093  | -.0172 | -.0117 | -.0037 | .0050  | .0132 |

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RUN 1001 CONFIG F P B NP5 W7 T41 RT TN=-3.5

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELTA PSI | DELTA V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-----------|---------------|--------|
| 2       | .0        | .0      | 86.6        | 33.54       | -243.        | -53.         | 84.          | 3.94        | 54.45     | 127.96        | 3580.  |
| 3       | .0        | .0      | 97.9        | 32.60       | -232.        | -52.         | 64.          | 4.51        | 55.85     | 129.64        | 3590.  |
| 4       | .0        | .0      | 92.6        | -6.86       | -310.        | -43.         | 51.          | 1.43        | 55.20     | 128.87        | 11240. |
| 5       | -20.0     | .0      | -365.4      | 101.35      | -540.        | 37.          | -281.        | -.12        | 55.20     | 128.86        | 11240. |
| 6       | -15.0     | .0      | -327.4      | 41.65       | -512.        | 24.          | -37.         | 1.11        | 55.09     | 128.73        | 11270. |
| 7       | -10.0     | .0      | -222.2      | 10.72       | -460.        | -9.          | -6.          | 3.08        | 55.23     | 128.90        | 11270. |
| 8       | -5.0      | .0      | -73.3       | -4.43       | -442.        | -54.         | 85.          | 2.75        | 54.53     | 128.07        | 11240. |
| 9       | -2.5      | .0      | 4.6         | -7.02       | -382.        | -43.         | 65.          | 3.98        | 54.84     | 128.44        | 11260. |
| 10      | -.0       | .0      | 82.3        | -6.43       | -296.        | -40.         | 80.          | 5.93        | 55.18     | 128.84        | 11260. |
| 11      | 2.5       | .0      | 157.5       | -3.23       | -195.        | -36.         | 101.         | 4.54        | 54.71     | 128.29        | 11240. |
| 12      | 5.0       | .0      | 230.0       | 2.76        | -66.         | -21.         | 120.         | 1.90        | 55.53     | 129.26        | 11230. |
| 13      | 10.0      | .0      | 371.4       | 22.00       | 276.         | -49.         | 123.         | .25         | 54.96     | 128.58        | 11250. |
| 14      | 15.0      | .0      | 488.5       | 53.38       | 747.         | -85.         | 142.         | 2.94        | 54.38     | 127.88        | 11250. |
| 15      | 17.5      | .0      | 495.3       | 73.27       | 1006.        | -54.         | 142.         | 2.30        | 54.75     | 128.33        | 11260. |
| 16      | 20.0      | .0      | 499.5       | 100.06      | 1199.        | 11.          | 53.          | 1.98        | 55.09     | 128.73        | 11260. |
| 17      | 25.0      | .0      | 559.7       | 171.14      | 1431.        | -68.         | 178.         | 1.80        | 54.89     | 128.49        | 11250. |
| 18      | -.0       | .0      | 81.3        | -5.84       | -288.        | -48.         | 118.         | 3.88        | 55.27     | 128.95        | 11260. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .2341  | .0906  | -.0782 | -.0032 | .0051  | .0107  |
| 3    | .00    | .2377  | .0881  | -.0747 | -.0032 | .0038  | .0122  |
| 4    | .00    | .2231  | -.0185 | -.1000 | -.0026 | .0031  | .0040  |
| 5    | -20.01 | -.9875 | .2739  | -.1740 | .0022  | -.0169 | -.0003 |
| 6    | -15.01 | -.8848 | .1126  | -.1651 | .0015  | -.0023 | .0030  |
| 7    | -10.01 | -.6006 | .0290  | -.1482 | -.0006 | -.0003 | .0083  |
| 8    | -5.01  | -.1981 | -.0120 | -.1426 | -.0033 | .0051  | .0074  |
| 9    | -2.51  | .0124  | -.0190 | -.1230 | -.0026 | .0039  | .0107  |
| 10   | -.01   | .2224  | -.0174 | -.0955 | -.0024 | .0048  | .0160  |
| 11   | 2.49   | .4258  | -.0087 | -.0629 | -.0022 | .0061  | .0123  |
| 12   | 5.00   | .6217  | .0075  | -.0213 | -.0013 | .0073  | .0051  |
| 13   | 10.00  | 1.0037 | .0595  | .0889  | -.0029 | .0074  | .0007  |
| 14   | 15.01  | 1.3202 | .1443  | .2409  | -.0051 | .0086  | .0080  |
| 15   | 17.49  | 1.3386 | .1980  | .3244  | -.0032 | .0086  | .0062  |
| 16   | 19.99  | 1.3500 | .2704  | .3867  | .0006  | .0032  | .0053  |
| 17   | 24.99  | 1.5127 | .4625  | .4614  | -.0041 | .0107  | .0049  |
| 18   | -.01   | .2198  | -.0158 | -.0929 | -.0029 | .0071  | .0105  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .2341  | .0906  | -.0782 | -.0032 | .0051  | .0107  |
| 3    | .00    | .2377  | .0881  | -.0747 | -.0032 | .0038  | .0122  |
| 4    | .00    | .2231  | -.0185 | -.1000 | -.0026 | .0031  | .0040  |
| 5    | -20.01 | -.9875 | .2739  | -.1740 | .0022  | -.0169 | -.0003 |
| 6    | -15.01 | -.8848 | .1126  | -.1651 | .0015  | -.0023 | .0030  |
| 7    | -10.01 | -.6006 | .0290  | -.1482 | -.0006 | -.0003 | .0083  |
| 8    | -5.01  | -.1981 | -.0120 | -.1426 | -.0033 | .0051  | .0074  |
| 9    | -2.51  | .0124  | -.0190 | -.1230 | -.0026 | .0039  | .0107  |
| 10   | -.01   | .2224  | -.0174 | -.0955 | -.0024 | .0048  | .0160  |
| 11   | 2.49   | .4258  | -.0087 | -.0629 | -.0022 | .0061  | .0123  |
| 12   | 5.00   | .6217  | .0075  | -.0213 | -.0013 | .0073  | .0051  |

|    |       |        |        |        |        |       |       |
|----|-------|--------|--------|--------|--------|-------|-------|
| 13 | 10.00 | 1.0037 | .0595  | .0889  | -.0029 | .0074 | .0007 |
| 14 | 15.01 | 1.3202 | .1443  | .2409  | -.0051 | .0086 | .0080 |
| 15 | 17.49 | 1.3386 | .1980  | .3244  | -.0032 | .0086 | .0062 |
| 16 | 19.99 | 1.3500 | .2704  | .3867  | .0006  | .0032 | .0053 |
| 17 | 24.99 | 1.5127 | .4625  | .4614  | -.0041 | .0107 | .0049 |
| 18 | -.01  | .2198  | -.0158 | -.0929 | -.0029 | .0071 | .0105 |

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N432400-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 972

RUN 1002 CONFIG F P B NP5 W7 T41 9T TN=-3.5

| IW      | DELTA     | DELTA   | IHT         | DELE        | DELTA        | DELTA        | DELTA        | DELTA       | DELTA | DELTA   | DELTA | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |       |        |
| 2       | .0        | .0      | 93.6        | 33.00       | -457.        | -22.         | 66.          | 3.65        | 55.06 | 128.69  |       | 3570.  |
| 3       | .0        | .0      | 97.3        | -6.98       | -541.        | -14.         | 62.          | 6.23        | 55.80 | 129.58  |       | 11300. |
| 4       | -20.0     | .0      | -366.4      | 100.43      | -577.        | 58.          | -286.        | 2.47        | 55.21 | 128.87  |       | 11290. |
| 5       | -15.0     | .0      | -322.3      | 39.42       | -473.        | 51.          | -23.         | 2.88        | 55.67 | 129.41  |       | 11330. |
| 6       | -10.0     | .0      | -215.4      | 10.87       | -635.        | -63.         | 25.          | 5.86        | 54.64 | 128.19  |       | 11310. |
| 7       | -5.0      | .0      | -65.3       | -5.51       | -692.        | -33.         | 31.          | 2.82        | 55.49 | 129.20  |       | 11300. |
| 8       | -2.5      | .0      | 10.7        | -7.82       | -520.        | -27.         | 28.          | 4.76        | 55.86 | 129.64  |       | 11310. |
| 9       | .0        | .0      | 89.5        | -6.58       | -543.        | -23.         | 82.          | 3.72        | 55.91 | 129.70  |       | 11310. |
| 10      | 2.5       | .0      | 161.3       | -3.43       | -450.        | -20.         | 82.          | 3.83        | 56.03 | 129.84  |       | 11320. |
| 11      | 5.0       | .0      | 239.1       | 3.16        | -338.        | -1.          | 69.          | .86         | 55.22 | 128.88  |       | 11300. |
| 12      | 10.0      | .0      | 381.8       | 23.21       | 7.           | -16.         | 123.         | .93         | 54.83 | 128.41  |       | 11310. |
| 13      | 15.0      | .0      | 493.4       | 54.90       | 489.         | -55.         | 124.         | 1.75        | 54.60 | 128.14  |       | 11320. |
| 14      | 17.5      | .0      | 493.3       | 74.35       | 722.         | -29.         | 52.          | 1.35        | 55.48 | 129.19  |       | 11320. |
| 15      | 20.0      | .0      | 510.5       | 102.81      | 939.         | 41.          | 89.          | 1.55        | 54.92 | 128.52  |       | 11330. |
| 16      | 25.0      | .0      | 559.7       | 178.40      | 1161.        | -18.         | 281.         | -.99        | 55.10 | 128.74  |       | 11300. |
| 17      | .0        | .0      | 86.8        | -6.25       | -543.        | -29.         | 82.          | 4.61        | 55.46 | 129.16  |       | 11290. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .2530  | .0892  | -.1473 | -.0014 | .0040  | .0099  |
| 3    | .00    | .2359  | -.0189 | -.1743 | -.0008 | .0037  | .0168  |
| 4    | -20.00 | -.9904 | .2714  | -.1861 | .0035  | -.0173 | .0067  |
| 5    | -15.00 | -.8712 | .1065  | -.1526 | .0031  | -.0014 | .0078  |
| 6    | -10.00 | -.5821 | .0294  | -.2048 | -.0038 | .0015  | .0158  |
| 7    | -5.00  | -.1765 | -.0149 | -.2230 | -.0020 | .0018  | .0076  |
| 8    | -2.50  | .0289  | -.0211 | -.1998 | -.0016 | .0017  | .0129  |
| 9    | .00    | .2418  | -.0178 | -.1750 | -.0014 | .0049  | .0100  |
| 10   | 2.50   | .4359  | -.0093 | -.1450 | -.0012 | .0050  | .0104  |
| 11   | 5.01   | .6462  | .0085  | -.1089 | -.0001 | .0042  | .0023  |
| 12   | 10.02  | 1.0318 | .0627  | .0021  | -.0010 | .0074  | .0025  |
| 13   | 15.00  | 1.3335 | .1484  | .1572  | -.0033 | .0075  | .0047  |
| 14   | 17.51  | 1.3332 | .2010  | .2326  | -.0017 | .0032  | .0037  |
| 15   | 20.01  | 1.3798 | .2779  | .3026  | .0025  | .0053  | .0042  |
| 16   | 25.00  | 1.5126 | .4822  | .3743  | -.0011 | .0170  | -.0027 |
| 17   | .00    | .2346  | -.0169 | -.1751 | -.0017 | .0049  | .0125  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .2530  | .0892  | -.1473 | -.0014 | .0040  | .0099  |
| 3    | .00    | .2359  | -.0189 | -.1743 | -.0008 | .0037  | .0168  |
| 4    | -20.00 | -.9904 | .2714  | -.1861 | .0035  | -.0173 | .0067  |
| 5    | -15.00 | -.8712 | .1065  | -.1526 | .0031  | -.0014 | .0078  |
| 6    | -10.00 | -.5821 | .0294  | -.2048 | -.0038 | .0015  | .0158  |
| 7    | -5.00  | -.1765 | -.0149 | -.2230 | -.0020 | .0018  | .0076  |
| 8    | -2.50  | .0289  | -.0211 | -.1998 | -.0016 | .0017  | .0129  |
| 9    | .00    | .2418  | -.0178 | -.1750 | -.0014 | .0049  | .0100  |
| 10   | 2.50   | .4359  | -.0093 | -.1450 | -.0012 | .0050  | .0104  |
| 11   | 5.01   | .6462  | .0085  | -.1089 | -.0001 | .0042  | .0023  |
| 12   | 10.02  | 1.0318 | .0627  | .0021  | -.0010 | .0074  | .0025  |
| 13   | 15.00  | 1.3335 | .1484  | .1572  | -.0033 | .0075  | .0047  |
| 14   | 17.51  | 1.3332 | .2010  | .2326  | -.0017 | .0032  | .0037  |
| 15   | 20.01  | 1.3798 | .2779  | .3026  | .0025  | .0053  | .0042  |
| 16   | 25.00  | 1.5126 | .4822  | .3743  | -.0011 | .0170  | -.0027 |
| 17   | .00    | .2346  | -.0169 | -.1751 | -.0017 | .0049  | .0125  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 1003 CONFIG F P B NP5 W7 T41 RT TN=-3.5

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 10 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | 5 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>KNOTS | RPM    |
|------------------|------------------------|-----------------------|-------------------------|--------------------------|---------------------------|----------------------------|----------------------|---------------------|----------|------------|--------|
| 2                | .0                     | .0                    | 158.2                   | 37.68                    | -596.                     | -73.                       | 63.                  | 5.44                | 55.68    | 129.43     | 3630.  |
| 3                | .0                     | .0                    | 153.7                   | -7.70                    | -694.                     | -73.                       | 61.                  | 6.83                | 55.34    | 129.02     | 12000. |
| 4                | -20.0                  | .0                    | -524.2                  | -9.36                    | 9437.                     | -84.                       | -780.                | 6.93                | 54.54    | 128.07     | 12000. |
| 5                | -15.0                  | .0                    | -282.5                  | 28.56                    | -668.                     | 28.                        | -15.                 | 7.40                | 55.67    | 129.41     | 11980. |
| 6                | -10.0                  | .0                    | -157.3                  | -.24                     | -880.                     | -16.                       | -46.                 | 5.75                | 55.10    | 128.73     | 11960. |
| 7                | -5.0                   | .0                    | -3.1                    | -9.79                    | -862.                     | -42.                       | 27.                  | 4.87                | 55.30    | 128.97     | 11930. |
| 8                | -2.5                   | .0                    | 75.9                    | -9.68                    | -791.                     | -67.                       | 8.                   | 6.50                | 55.05    | 128.68     | 11970. |
| 9                | -.0                    | .0                    | 151.9                   | -6.84                    | -701.                     | -77.                       | 28.                  | 5.75                | 55.06    | 128.68     | 11960. |
| 10               | 2.5                    | .0                    | 231.5                   | -1.36                    | -592.                     | -40.                       | 65.                  | 4.88                | 55.09    | 128.73     | 12000. |
| 11               | 5.0                    | .0                    | 307.8                   | 7.05                     | -463.                     | -12.                       | 86.                  | 1.66                | 55.45    | 129.16     | 11970. |
| 12               | 10.0                   | .0                    | 454.6                   | 30.82                    | -115.                     | -43.                       | 104.                 | 1.05                | 55.39    | 129.09     | 11990. |
| 13               | 15.0                   | .0                    | 562.9                   | 62.80                    | 370.                      | -64.                       | 70.                  | 4.60                | 54.78    | 129.35     | 11920. |
| 14               | 17.5                   | .0                    | 558.1                   | 88.31                    | 554.                      | -72.                       | 124.                 | 1.30                | 54.86    | 128.44     | 12000. |
| 16               | 25.0                   | .0                    | 619.1                   | 200.06                   | 1046.                     | 80.                        | 127.                 | 3.45                | 54.33    | 127.82     | 12000. |
| 17               | 20.0                   | .0                    | 570.6                   | 121.43                   | 771.                      | 69.                        | -35.                 | 2.05                | 54.93    | 128.53     | 11940. |
| 19               | .0                     | .0                    | 148.0                   | -5.11                    | -717.                     | -97.                       | 63.                  | 5.00                | 55.85    | 129.63     | 11910. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .4277   | .1018  | -.1922 | -.0044 | .0038  | .0147 |
| 3    | .00    | .4153   | -.0208 | -.2237 | -.0044 | .0037  | .0185 |
| 4    | -20.00 | -1.4167 | -.0253 | 3.0426 | -.0051 | -.0471 | .0187 |
| 5    | -15.00 | -.7634  | .0772  | -.2152 | .0017  | -.0009 | .0200 |
| 6    | -10.01 | -.4252  | -.0006 | -.2836 | -.0010 | -.0028 | .0155 |
| 7    | -5.01  | -.0083  | -.0265 | -.2779 | -.0025 | .0017  | .0132 |
| 8    | -2.50  | .2051   | -.0262 | -.2549 | -.0041 | .0005  | .0176 |
| 9    | -.01   | .4104   | -.0185 | -.2260 | -.0047 | .0017  | .0156 |
| 10   | 2.51   | .6257   | -.0037 | -.1910 | -.0024 | .0039  | .0132 |
| 11   | 5.01   | .8318   | .0191  | -.1494 | -.0007 | .0052  | .0045 |
| 12   | 10.00  | 1.2285  | .0833  | -.0370 | -.0025 | .0063  | .0028 |
| 13   | 15.00  | 1.5213  | .1697  | .1192  | -.0038 | .0042  | .0124 |
| 14   | 17.51  | 1.5083  | .2387  | .1786  | -.0044 | .0075  | .0035 |
| 16   | 24.99  | 1.6732  | .5407  | .3372  | .0048  | .0077  | .0093 |
| 17   | 20.00  | 1.5421  | .3282  | .2484  | .0042  | -.0021 | .0055 |
| 18   | .00    | .4023   | -.0138 | -.2312 | -.0058 | .0038  | .0135 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | .00    | .4277   | .1018  | -.1922 | -.0044 | .0038  | .0147 |
| 3    | .00    | .4153   | -.0208 | -.2237 | -.0044 | .0037  | .0185 |
| 4    | -20.00 | -1.4167 | -.0253 | 3.0426 | -.0051 | -.0471 | .0187 |
| 5    | -15.00 | -.7634  | .0772  | -.2152 | .0017  | -.0009 | .0200 |
| 6    | -10.01 | -.4252  | -.0006 | -.2836 | -.0010 | -.0028 | .0155 |
| 7    | -5.01  | -.0083  | -.0265 | -.2779 | -.0025 | .0017  | .0132 |
| 8    | -2.50  | .2051   | -.0262 | -.2549 | -.0041 | .0005  | .0176 |
| 9    | -.01   | .4104   | -.0185 | -.2260 | -.0047 | .0017  | .0156 |
| 10   | 2.51   | .6257   | -.0037 | -.1910 | -.0024 | .0039  | .0132 |
| 11   | 5.01   | .8318   | .0191  | -.1494 | -.0007 | .0052  | .0045 |
| 12   | 10.00  | 1.2285  | .0833  | -.0370 | -.0025 | .0063  | .0028 |
| 13   | 15.00  | 1.5213  | .1697  | .1192  | -.0038 | .0042  | .0124 |
| 14   | 17.51  | 1.5083  | .2387  | .1786  | -.0044 | .0075  | .0035 |
| 16   | 24.99  | 1.6732  | .5407  | .3372  | .0048  | .0077  | .0093 |
| 17   | 20.00  | 1.5421  | .3282  | .2484  | .0042  | -.0021 | .0055 |
| 18   | .00    | .4023   | -.0138 | -.2312 | -.0058 | .0038  | .0135 |

N432479-1

SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

SER-72011

P974

RUN 1004 CONFIG F P B NP5 W7 T41 BT TN=-3.5

| PT. NO. | TW        | 0 DELF  | 10 DFLA     | 0 IHT       | 0 DELF       | 0 DELR       | 0 DELSR      | 0           | 0     | RPM     |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
|         | ALPHA DEG | PSI DEG | CLBAR 50-FT | CDBAR 50-FT | CPMRAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR 50-FT | Q PSF | V KNOTS |        |
| 2       | .0        | .0      | 152.6       | 37.91       | -330.        | -77.         | 29.          | 5.13        | 55.08 | 128.71  | 3630.  |
| 3       | .0        | .0      | 149.9       | -7.13       | -438.        | -65.         | 28.          | 6.24        | 54.56 | 128.09  | 12000. |
| 4       | -20.0     | .0      | -315.6      | 97.91       | -718.        | -32.         | -39.         | 9.31        | 55.60 | 129.32  | 11990. |
| 5       | -15.0     | .0      | -283.2      | 30.51       | -709.        | 34.          | -59.         | 2.95        | 55.34 | 129.01  | 12000. |
| 6       | -10.0     | .0      | -159.9      | .93         | -696.        | 6.           | -30.         | 7.04        | 55.13 | 128.76  | 12060. |
| 7       | -5.0      | .0      | -9.6        | -9.52       | -579.        | -55.         | 42.          | 6.52        | 55.41 | 129.10  | 12030. |
| 8       | -2.5      | .0      | 69.2        | -10.00      | -518.        | -70.         | 4.           | 9.18        | 55.66 | 129.40  | 12050. |
| 9       | .0        | .0      | 147.7       | -7.21       | -434.        | -64.         | 62.          | 6.21        | 55.40 | 129.08  | 12030. |
| 10      | 2.5       | .0      | 227.7       | -2.02       | -325.        | -31.         | 82.          | 5.80        | 54.62 | 128.16  | 12020. |
| 11      | 5.0       | .0      | 302.3       | 6.42        | -189.        | -24.         | 86.          | 1.79        | 55.09 | 128.72  | 11960. |
| 12      | 10.0      | .0      | 446.8       | 28.95       | 190.         | -40.         | 68.          | 2.76        | 55.54 | 129.25  | 11980. |
| 13      | 15.0      | .0      | 551.1       | 59.60       | 659.         | -45.         | 52.          | 3.27        | 55.19 | 128.84  | 12010. |
| 14      | 17.5      | .0      | 550.8       | 85.16       | 847.         | -30.         | 140.         | 4.49        | 55.35 | 129.03  | 12010. |
| 15      | 20.0      | .0      | 566.0       | 119.21      | 1032.        | 63.          | 0.           | 1.92        | 54.91 | 128.50  | 12040. |
| 16      | 25.0      | .0      | 606.6       | 194.70      | 1254.        | 40.          | 108.         | 3.04        | 54.83 | 128.40  | 11980. |
| 17      | .0        | .0      | 144.8       | -7.44       | -453.        | -71.         | 46.          | 5.42        | 55.27 | 128.93  | 11980. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .4123  | .1022  | -.1064 | -.0046 | .0017  | .0139 |
| 3    | .00    | .4051  | -.0193 | -.1411 | -.0039 | .0017  | .0169 |
| 4    | -20.00 | -.8530 | .2376  | -.2315 | -.0020 | -.0023 | .0252 |
| 5    | -15.00 | -.7654 | .0825  | -.2286 | .0021  | -.0035 | .0090 |
| 6    | -10.00 | -.4322 | .0025  | -.2245 | .0004  | -.0018 | .0190 |
| 7    | -5.00  | -.0259 | -.0257 | -.1868 | -.0033 | .0026  | .0176 |
| 8    | -2.51  | .1870  | -.0270 | -.1670 | -.0042 | .0003  | .0248 |
| 9    | .00    | .3992  | -.0195 | -.1400 | -.0038 | .0038  | .0168 |
| 10   | 2.51   | .6155  | -.0055 | -.1047 | -.0019 | .0050  | .0157 |
| 11   | 5.01   | .8169  | .0173  | -.0608 | -.0015 | .0052  | .0048 |
| 12   | 10.01  | 1.2076 | .0782  | .0580  | -.0024 | .0041  | .0075 |
| 13   | 15.00  | 1.4895 | .1611  | .2123  | -.0027 | .0031  | .0098 |
| 14   | 17.50  | 1.4885 | .2302  | .2732  | -.0023 | .0085  | .0121 |
| 15   | 20.01  | 1.5320 | .3222  | .3327  | .0038  | .0000  | .0052 |
| 16   | 25.00  | 1.6395 | .5262  | .4044  | .0030  | .0065  | .0082 |
| 17   | .01    | .3912  | -.0201 | -.1461 | -.0043 | .0028  | .0147 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CNB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .4123  | .1022  | -.1064 | -.0046 | .0017  | .0139 |
| 3    | .00    | .4051  | -.0193 | -.1411 | -.0039 | .0017  | .0169 |
| 4    | -20.00 | -.8530 | .2376  | -.2315 | -.0020 | -.0023 | .0252 |
| 5    | -15.00 | -.7654 | .0825  | -.2286 | .0021  | -.0035 | .0090 |
| 6    | -10.00 | -.4322 | .0025  | -.2245 | .0004  | -.0018 | .0190 |
| 7    | -5.00  | -.0259 | -.0257 | -.1868 | -.0033 | .0026  | .0176 |
| 8    | -2.51  | .1870  | -.0270 | -.1670 | -.0042 | .0003  | .0248 |
| 9    | .00    | .3992  | -.0195 | -.1400 | -.0038 | .0038  | .0168 |
| 10   | 2.51   | .6155  | -.0055 | -.1047 | -.0019 | .0050  | .0157 |
| 11   | 5.01   | .8169  | .0173  | -.0608 | -.0015 | .0052  | .0048 |
| 12   | 10.01  | 1.2076 | .0782  | .0580  | -.0024 | .0041  | .0075 |
| 13   | 15.00  | 1.4895 | .1611  | .2123  | -.0027 | .0031  | .0098 |
| 14   | 17.50  | 1.4885 | .2302  | .2732  | -.0023 | .0085  | .0121 |
| 15   | 20.01  | 1.5320 | .3222  | .3327  | .0038  | .0000  | .0052 |
| 16   | 25.00  | 1.6395 | .5262  | .4044  | .0030  | .0065  | .0082 |
| 17   | .01    | .3912  | -.0201 | -.1461 | -.0043 | .0028  | .0147 |

N432400-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P975

RUN 1005 CONFIG F P B NPS W7 T41 RT IN=-3.5

| TW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 10 DELA<br>PSI<br>DEG | 0 IHT<br>CLBAR<br>SQ-FT | -5 DELE<br>CDBAR<br>SQ-FT | 0 DELR<br>CPMBAR<br>CU-FT | 0 DELSB<br>CYMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>PSF | 0<br>KNOTS | RPM    |        |
|------------------|------------------------|-----------------------|-------------------------|---------------------------|---------------------------|----------------------------|---------------------|----------|------------|--------|--------|
| 2                | .0                     | .0                    | 144.2                   | 37.78                     | -69.                      | -66.                       | 9.                  | 6.37     | 56.11      | 129.93 | 3640.  |
| 3                | .0                     | .0                    | 138.3                   | -7.23                     | -169.                     | -69.                       | 12.                 | 4.23     | 55.61      | 129.34 | 12070. |
| 4                | -20.0                  | .0                    | -314.7                  | 88.37                     | -670.                     | -62.                       | 1.                  | 7.46     | 55.27      | 128.92 | 12090. |
| 5                | -15.0                  | .0                    | -279.1                  | 30.42                     | -642.                     | 16.                        | -7.                 | 3.58     | 55.24      | 128.89 | 12110. |
| 6                | -10.0                  | .0                    | -157.7                  | 1.99                      | -713.                     | 7.                         | -13.                | 7.13     | 55.42      | 129.11 | 12080. |
| 7                | -5.0                   | .0                    | -10.0                   | -7.78                     | -443.                     | -21.                       | 28.                 | 4.36     | 55.51      | 129.22 | 12050. |
| 8                | -2.5                   | .0                    | 55.4                    | -2.77                     | -285.                     | -73.                       | -7.                 | 4.82     | 55.14      | 129.77 | 12080. |
| 9                | .0                     | .0                    | 141.3                   | -6.45                     | -174.                     | -77.                       | -42.                | 5.23     | 55.35      | 129.02 | 12040. |
| 10               | 2.5                    | .0                    | 215.5                   | -1.96                     | -50.                      | -49.                       | 29.                 | 5.64     | 55.57      | 129.28 | 12030. |
| 11               | 5.0                    | .0                    | 292.3                   | 5.42                      | 84.                       | -38.                       | 68.                 | 1.53     | 55.62      | 129.34 | 12030. |
| 12               | 10.0                   | .0                    | 441.3                   | 27.78                     | 445.                      | -34.                       | 68.                 | 3.02     | 55.23      | 128.88 | 12010. |
| 13               | 15.0                   | .0                    | 546.3                   | 57.82                     | 930.                      | -58.                       | 70.                 | 3.44     | 54.50      | 128.00 | 12060. |
| 14               | 17.5                   | .0                    | 548.3                   | 84.22                     | 1131.                     | -63.                       | 143.                | 3.51     | 54.32      | 127.79 | 12050. |
| 15               | 20.0                   | .0                    | 558.8                   | 115.77                    | 1285.                     | 72.                        | -53.                | 2.13     | 54.45      | 127.94 | 12070. |
| 16               | 25.0                   | .0                    | 597.3                   | 191.86                    | 1496.                     | 11.                        | 54.                 | 2.29     | 55.13      | 128.75 | 12030. |
| 17               | -0                     | .0                    | 137.2                   | -6.39                     | -163.                     | -85.                       | 28.                 | 5.49     | 55.88      | 129.65 | 12040. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .3896  | .1021  | -.0192 | -.0040 | .0006  | .0172 |
| 3    | .00    | .3737  | -.0195 | -.0546 | -.0042 | .0007  | .0114 |
| 4    | -20.01 | -.8504 | .2388  | -.2161 | -.0038 | .0000  | .0202 |
| 5    | -15.00 | -.7543 | .0822  | -.2134 | .0010  | -.0004 | .0097 |
| 6    | -10.00 | -.4262 | .0054  | -.2298 | .0004  | -.0008 | .0193 |
| 7    | -5.01  | -.0270 | -.0210 | -.1429 | -.0013 | .0017  | .0118 |
| 8    | -2.50  | .1768  | -.0237 | -.0918 | -.0044 | -.0004 | .0130 |
| 9    | .00    | .3819  | -.0174 | -.0560 | -.0047 | -.0025 | .0141 |
| 10   | 2.49   | .5825  | -.0053 | -.0162 | -.0030 | .0017  | .0152 |
| 11   | 4.99   | .7901  | .0147  | .0272  | -.0023 | .0041  | .0041 |
| 12   | 9.99   | 1.1927 | .0751  | .1434  | -.0021 | .0041  | .0082 |
| 13   | 14.99  | 1.4766 | .1563  | .2999  | -.0035 | .0043  | .0093 |
| 14   | 17.49  | 1.4818 | .2276  | .3646  | -.0038 | .0086  | .0095 |
| 15   | 20.00  | 1.5103 | .3129  | .4143  | .0043  | -.0032 | .0057 |
| 16   | 25.00  | 1.6142 | .5185  | .4822  | .0007  | .0033  | .0062 |
| 17   | -.00   | .3707  | -.0173 | -.0527 | -.0051 | .0017  | .0148 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | .3896  | .1021  | -.0192 | -.0040 | .0006  | .0172 |
| 3    | .00    | .3737  | -.0195 | -.0546 | -.0042 | .0007  | .0114 |
| 4    | -20.01 | -.8504 | .2388  | -.2161 | -.0038 | .0000  | .0202 |
| 5    | -15.00 | -.7543 | .0822  | -.2134 | .0010  | -.0004 | .0097 |
| 6    | -10.00 | -.4262 | .0054  | -.2298 | .0004  | -.0008 | .0193 |
| 7    | -5.01  | -.0270 | -.0210 | -.1429 | -.0013 | .0017  | .0118 |
| 8    | -2.50  | .1768  | -.0237 | -.0918 | -.0044 | -.0004 | .0130 |
| 9    | .00    | .3819  | -.0174 | -.0560 | -.0047 | -.0025 | .0141 |
| 10   | 2.49   | .5825  | -.0053 | -.0162 | -.0030 | .0017  | .0152 |
| 11   | 4.99   | .7901  | .0147  | .0272  | -.0023 | .0041  | .0041 |
| 12   | 9.99   | 1.1927 | .0751  | .1434  | -.0021 | .0041  | .0082 |
| 13   | 14.99  | 1.4766 | .1563  | .2999  | -.0035 | .0043  | .0093 |
| 14   | 17.49  | 1.4818 | .2276  | .3646  | -.0038 | .0086  | .0095 |
| 15   | 20.00  | 1.5103 | .3129  | .4143  | .0043  | -.0032 | .0057 |
| 16   | 25.00  | 1.6142 | .5185  | .4822  | .0007  | .0033  | .0062 |
| 17   | -.00   | .3707  | -.0173 | -.0527 | -.0051 | .0017  | .0148 |

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OF POOR QUALITY

RUN 1006 CONFIG F P B NP5 W7 T41 BT TN=-3.5

| PT. NO. | TW    | -9 DELF<br>ALPHA<br>DEG | PSI<br>DEG | 10 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDBAR<br>SQ-FT | -5 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELSB<br>CRMBAR<br>CU-FT | 0<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|---------|-------|-------------------------|------------|---------------------------|-------------------------|----------------------------|---------------------------|----------------------------|---------------------|---------------|-----------------|--------|
| 2       |       | .0                      | .0         | -39.7                     | 35.11                   | -59.                       | -16.                      | -13.                       | 10.38               | 54.13         | 127.57          | 3430.  |
| 3       |       | .0                      | .0         | -36.3                     | 34.35                   | -47.                       | -37.                      | -4.                        | 3.50                | 55.46         | 129.16          | 3430.  |
| 4       |       | .0                      | .0         | -43.1                     | -7.05                   | -150.                      | -27.                      | 10.                        | 6.19                | 55.05         | 128.67          | 11710. |
| 5       | -20.0 | .0                      | .0         | -313.1                    | 129.15                  | -584.                      | -103.                     | -115.                      | 4.53                | 55.63         | 129.35          | 11720. |
| 6       | -15.0 | .0                      | .0         | -292.0                    | 89.83                   | -486.                      | -16.                      | -179.                      | 2.15                | 55.37         | 129.04          | 11740. |
| 7       | -10.0 | .0                      | .0         | -284.0                    | 46.35                   | -434.                      | -65.                      | -176.                      | 9.59                | 55.05         | 128.65          | 11720. |
| 8       | -5.0  | .0                      | .0         | -202.2                    | 3.07                    | -320.                      | 0.                        | -48.                       | 7.97                | 54.29         | 127.76          | 11720. |
| 9       | -2.5  | .0                      | .0         | -120.6                    | -3.49                   | -226.                      | -33.                      | 9.                         | 5.85                | 55.87         | 129.64          | 11740. |
| 10      | .0    | .0                      | .0         | -45.1                     | -7.19                   | -161.                      | -14.                      | 7.                         | 8.58                | 55.59         | 129.30          | 11710. |
| 11      | 2.5   | .0                      | .0         | 30.9                      | -7.87                   | -75.                       | -24.                      | 29.                        | 5.57                | 55.68         | 129.41          | 11720. |
| 12      | 5.0   | .0                      | .0         | 107.3                     | -6.01                   | 41.                        | -19.                      | 30.                        | 4.85                | 55.53         | 129.23          | 11720. |
| 13      | 10.0  | .0                      | .0         | 260.6                     | 5.63                    | 391.                       | -5.                       | 51.                        | 3.54                | 54.91         | 128.49          | 11740. |
| 14      | 15.0  | .0                      | .0         | 406.9                     | 28.45                   | 940.                       | -38.                      | 69.                        | 4.25                | 55.33         | 128.99          | 11700. |
| 15      | 20.0  | .0                      | .0         | 533.3                     | 60.50                   | 1622.                      | -15.                      | 70.                        | 1.41                | 55.46         | 129.15          | 11700. |
| 16      | 25.0  | .0                      | .0         | 599.8                     | 108.94                  | 2033.                      | 8.                        | -37.                       | -2.75               | 54.43         | 127.92          | 11760. |
| 17      | -0.0  | .0                      | .0         | -44.7                     | -7.03                   | -159.                      | -16.                      | -30.                       | 9.73                | 55.33         | 128.99          | 11710. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM.   | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.1072 | .0949  | -.0191 | -.0010 | -.0008 | .0291  |
| 3    | .00    | -.0981 | .0928  | -.0152 | -.0022 | -.0003 | .0095  |
| 4    | .00    | -.1165 | -.0190 | -.0485 | -.0017 | .0006  | .0167  |
| 5    | -20.00 | -.8463 | .3491  | -.1884 | -.0062 | -.0069 | .0122  |
| 6    | -15.01 | -.7891 | .2428  | -.1566 | -.0010 | -.0108 | .0058  |
| 7    | -10.00 | -.7675 | .1253  | -.1400 | -.0039 | -.0106 | .0259  |
| 8    | -4.99  | -.5465 | .0083  | -.1032 | .0000  | -.0029 | .0215  |
| 9    | -2.50  | -.3260 | -.0094 | -.0728 | -.0020 | .0005  | .0158  |
| 10   | .02    | -.1218 | -.0194 | -.0519 | -.0009 | .0004  | .0232  |
| 11   | 2.51   | .0835  | -.0213 | -.0242 | -.0014 | .0017  | .0150  |
| 12   | 5.02   | .2901  | -.0162 | .0132  | -.0011 | .0018  | .0131  |
| 13   | 10.01  | .7045  | .0152  | .1259  | -.0003 | .0031  | .0096  |
| 14   | 15.01  | 1.0997 | .0769  | .3030  | -.0023 | .0042  | .0115  |
| 15   | 20.01  | 1.4414 | .1635  | .5228  | -.0009 | .0042  | .0038  |
| 16   | 25.01  | 1.6211 | .2944  | .6555  | .0005  | -.0023 | -.0074 |
| 17   | -.00   | -.1207 | -.0190 | -.0514 | -.0010 | -.0018 | .0263  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.1072 | .0949  | -.0191 | -.0010 | -.0008 | .0291  |
| 3    | .00    | -.0981 | .0928  | -.0152 | -.0022 | -.0003 | .0095  |
| 4    | .00    | -.1165 | -.0190 | -.0485 | -.0017 | .0006  | .0167  |
| 5    | -20.00 | -.8463 | .3491  | -.1884 | -.0062 | -.0069 | .0122  |
| 6    | -15.01 | -.7891 | .2428  | -.1566 | -.0010 | -.0108 | .0058  |
| 7    | -10.00 | -.7675 | .1253  | -.1400 | -.0039 | -.0106 | .0259  |
| 8    | -4.99  | -.5465 | .0083  | -.1032 | .0000  | -.0029 | .0215  |
| 9    | -2.50  | -.3260 | -.0094 | -.0728 | -.0020 | .0005  | .0158  |
| 10   | .02    | -.1218 | -.0194 | -.0519 | -.0009 | .0004  | .0232  |
| 11   | 2.51   | .0835  | -.0213 | -.0242 | -.0014 | .0017  | .0150  |
| 12   | 5.02   | .2901  | -.0162 | .0132  | -.0011 | .0018  | .0131  |
| 13   | 10.01  | .7045  | .0152  | .1259  | -.0003 | .0031  | .0096  |
| 14   | 15.01  | 1.0997 | .0769  | .3030  | -.0023 | .0042  | .0115  |
| 15   | 20.01  | 1.4414 | .1635  | .5228  | -.0009 | .0042  | .0038  |
| 16   | 25.01  | 1.6211 | .2944  | .6555  | .0005  | -.0023 | -.0074 |
| 17   | -.00   | -.1207 | -.0190 | -.0514 | -.0010 | -.0018 | .0263  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 977

RUN 1007 CONFIG F P B NP5 W7 T41 RT IN=-3.5

| PT. NO. | IW ALPHA DEG | -9 DELF PST DEG | 10 DELA CLRAP SQ-FT | 0 IHT CDBAR SQ-FT | 0 DELE CPMBAR CU-FT | 0 DELR CYMBAR CU-FT | 0 DELR CRMBAR CU-FT | 0 DELSR CYBAR SQ-FT | 0 DELSR Q PSF | 0 V KNOTS | RPM    |
|---------|--------------|-----------------|---------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------|-----------|--------|
| 2       | .0           | .0              | -29.7               | 33.35             | -359.               | -17.                | 28.                 | 6.01                | 54.97         | 128.57    | 3420.  |
| 3       | .0           | .0              | -43.2               | -7.38             | -478.               | -5.                 | -59.                | 4.64                | 55.04         | 128.65    | 11620. |
| 4       | -20.0        | .0              | -312.1              | 127.72            | -627.               | -81.                | -170.               | 5.18                | 55.27         | 129.92    | 11630. |
| 5       | -15.0        | .0              | -290.9              | 87.40             | -513.               | -33.                | -246.               | 1.04                | 55.64         | 129.36    | 11590. |
| 6       | -10.0        | .0              | -254.4              | 46.44             | -407.               | -48.                | 146.                | 7.88                | 54.50         | 128.00    | 11600. |
| 7       | -5.0         | .0              | -194.0              | 1.96              | -553.               | -17.                | -10.                | 6.68                | 54.53         | 128.04    | 11610. |
| 8       | -2.5         | .0              | -121.2              | -4.61             | -543.               | -0.                 | -44.                | 6.13                | 55.03         | 128.63    | 11610. |
| 9       | .0           | .0              | -39.7               | -7.73             | -470.               | -9.                 | -7.                 | 5.26                | 55.08         | 128.69    | 11630. |
| 10      | 2.5          | .0              | 37.1                | -7.28             | -378.               | -7.                 | 10.                 | 7.28                | 54.74         | 128.28    | 11580. |
| 11      | 5.0          | .0              | 111.9               | -5.64             | -263.               | 6.                  | 14.                 | 4.04                | 54.77         | 128.32    | 11650. |
| 13      | 15.0         | .0              | 413.8               | 30.70             | 652.                | -24.                | 87.                 | 3.21                | 55.23         | 128.87    | 11580. |
| 14      | 20.0         | .0              | 538.7               | 62.61             | 1312.               | 1.                  | 70.                 | 1.77                | 55.75         | 129.48    | 11590. |
| 15      | 25.0         | .0              | 593.8               | 110.86            | 1651.               | 25.                 | -71.                | -2.46               | 55.45         | 129.13    | 11600. |
| 16      | -0.          | .0              | -37.8               | -6.84             | -464.               | -27.                | -25.                | 6.13                | 55.53         | 129.22    | 11590. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0803 | .0901  | -.1159 | -.0010 | .0017  | .0162  |
| 3    | .00    | -.1168 | -.0199 | -.1542 | -.0003 | -.0035 | .0125  |
| 4    | -20.00 | -.8435 | .3452  | -.2020 | -.0049 | -.0102 | .0140  |
| 5    | -15.01 | -.7592 | .2362  | -.1655 | -.0020 | -.0149 | .0028  |
| 6    | -10.00 | -.6876 | .1255  | -.1312 | -.0029 | .0088  | .0213  |
| 7    | -5.00  | -.5243 | .0053  | -.1784 | -.0010 | -.0006 | .0181  |
| 8    | -2.49  | -.3276 | -.0125 | -.1749 | -.0000 | -.0027 | .0166  |
| 9    | .01    | -.1073 | -.0209 | -.1515 | -.0006 | -.0004 | .0142  |
| 10   | 2.50   | .1002  | -.0197 | -.1217 | -.0004 | .0006  | .0197  |
| 11   | 4.98   | .3024  | -.0152 | -.0847 | .0004  | .0008  | .0199  |
| 13   | 15.00  | 1.1183 | .0830  | .2100  | -.0014 | .0053  | .0087  |
| 14   | 20.00  | 1.4560 | .1692  | .4231  | .0001  | .0042  | .0048  |
| 15   | 25.00  | 1.6049 | .2996  | .5321  | .0015  | -.0043 | -.0066 |
| 16   | -.00   | -.1021 | -.0185 | -.1497 | -.0016 | -.0015 | .0166  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0803 | .0901  | -.1159 | -.0010 | .0017  | .0162  |
| 3    | .00    | -.1168 | -.0199 | -.1542 | -.0003 | -.0035 | .0125  |
| 4    | -20.00 | -.8435 | .3452  | -.2020 | -.0049 | -.0102 | .0140  |
| 5    | -15.01 | -.7592 | .2362  | -.1655 | -.0020 | -.0149 | .0028  |
| 6    | -10.00 | -.6876 | .1255  | -.1312 | -.0029 | .0088  | .0213  |
| 7    | -5.00  | -.5243 | .0053  | -.1784 | -.0010 | -.0006 | .0181  |
| 8    | -2.49  | -.3276 | -.0125 | -.1749 | -.0000 | -.0027 | .0166  |
| 9    | .01    | -.1073 | -.0209 | -.1515 | -.0006 | -.0004 | .0142  |
| 10   | 2.50   | .1002  | -.0197 | -.1217 | -.0004 | .0006  | .0197  |
| 11   | 4.98   | .3024  | -.0152 | -.0847 | .0004  | .0008  | .0199  |
| 13   | 15.00  | 1.1183 | .0830  | .2100  | -.0014 | .0053  | .0087  |
| 14   | 20.00  | 1.4560 | .1692  | .4231  | .0001  | .0042  | .0048  |
| 15   | 25.00  | 1.6049 | .2996  | .5321  | .0015  | -.0043 | -.0066 |
| 16   | -.00   | -.1021 | -.0185 | -.1497 | -.0016 | -.0015 | .0166  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 978

RUN 1008 CONFIG F P B NP5 W7 T41 BT TN=-3.5

| IW      | -9 DELF   | 10 DELA | 0 IHT       | 5 DELE      | 0 DELR       | 0 DELSB      | 0            | 0           | RPM   |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SO-FT | CDBAR SO-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 2       | .0        | .0      | -28.8       | 33.69       | -614.        | -12.         | -7.          | 5.28        | 54.83 | 128.30  | 3430.  |
| 3       | .0        | .0      | -38.2       | -6.86       | -712.        | -7.          | -9.          | 6.80        | 55.12 | 128.74  | 11550. |
| 4       | -20.0     | .0      | -312.7      | 127.31      | -645.        | -79.         | -168.        | 4.26        | 55.21 | 128.85  | 11550. |
| 5       | -15.0     | .0      | -222.0      | 86.01       | -594.        | -41.         | -309.        | 4.16        | 54.96 | 128.43  | 11580. |
| 6       | -10.0     | .0      | -261.6      | 48.51       | -642.        | -80.         | 44.          | 4.71        | 54.93 | 128.52  | 11650. |
| 7       | -5.0      | .0      | -191.6      | 2.37        | -793.        | -10.         | -27.         | 6.31        | 55.04 | 128.65  | 11630. |
| 8       | -2.5      | .0      | -117.1      | -4.76       | -768.        | -16.         | 29.          | 4.39        | 55.15 | 128.78  | 11570. |
| 9       | .0        | .0      | -42.5       | -7.52       | -728.        | 15.          | -10.         | 9.17        | 55.03 | 128.63  | 11590. |
| 10      | 2.5       | .0      | 42.6        | -7.49       | -620.        | -7.          | 29.          | 5.18        | 55.25 | 128.89  | 11670. |
| 11      | 5.0       | .0      | 117.3       | -3.99       | -515.        | 0.           | 49.          | 3.64        | 55.26 | 128.91  | 11600. |
| 12      | 10.0      | .0      | 272.9       | 8.75        | -168.        | 18.          | 35.          | 1.57        | 54.36 | 127.83  | 11650. |
| 13      | 15.0      | .0      | 421.2       | 33.18       | 405.         | -18.         | 88.          | 1.30        | 54.93 | 129.51  | 11600. |
| 14      | 20.0      | .0      | 533.8       | 69.29       | 1037.        | -39.         | 140.         | -.74        | 55.20 | 128.83  | 11560. |
| 15      | 25.0      | .0      | 612.9       | 116.23      | 1411.        | 29.          | -36.         | -1.44       | 54.58 | 128.10  | 11600. |
| 16      | .0        | .0      | -33.9       | -6.59       | -694.        | -27.         | 10.          | 6.20        | 55.50 | 129.19  | 11620. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0777 | .0911  | -.1978 | -.0007 | -.0004 | .0143  |
| 3    | .00    | -.1031 | -.0185 | -.2297 | -.0004 | -.0005 | .0184  |
| 4    | -19.99 | -.8452 | .3441  | -.2078 | -.0048 | -.0101 | .0115  |
| 5    | -15.00 | -.7891 | .2324  | -.1625 | -.0025 | -.0187 | .0112  |
| 6    | -10.00 | -.7070 | .1311  | -.2070 | -.0049 | .0027  | .0127  |
| 7    | -5.00  | -.5190 | .0064  | -.2556 | -.0011 | -.0017 | .0171  |
| 8    | -2.50  | -.3164 | -.0129 | -.2477 | -.0010 | .0017  | .0119  |
| 9    | .00    | -.1150 | -.0203 | -.2349 | .0009  | -.0006 | .0221  |
| 10   | 2.53   | .1153  | -.0203 | -.1999 | -.0004 | .0019  | .0140  |
| 11   | 5.01   | .3170  | -.0105 | -.1660 | .0000  | .0030  | .0098  |
| 12   | 10.00  | .7375  | .0237  | -.0542 | .0011  | .0021  | .0042  |
| 13   | 15.02  | 1.1383 | .0897  | .1305  | -.0011 | .0053  | .0035  |
| 14   | 20.01  | 1.4426 | .1873  | .3343  | -.0023 | .0085  | -.0020 |
| 15   | 25.01  | 1.6564 | .3141  | .4548  | .0017  | -.0022 | -.0039 |
| 16   | .00    | -.0916 | -.0178 | -.2236 | -.0016 | .0006  | .0168  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0777 | .0911  | -.1978 | -.0007 | -.0004 | .0143  |
| 3    | .00    | -.1031 | -.0185 | -.2297 | -.0004 | -.0005 | .0184  |
| 4    | -19.99 | -.8452 | .3441  | -.2078 | -.0048 | -.0101 | .0115  |
| 5    | -15.00 | -.7891 | .2324  | -.1625 | -.0025 | -.0187 | .0112  |
| 6    | -10.00 | -.7070 | .1311  | -.2070 | -.0049 | .0027  | .0127  |
| 7    | -5.00  | -.5190 | .0064  | -.2556 | -.0011 | -.0017 | .0171  |
| 8    | -2.50  | -.3164 | -.0129 | -.2477 | -.0010 | .0017  | .0119  |
| 9    | .00    | -.1150 | -.0203 | -.2349 | .0009  | -.0006 | .0221  |
| 10   | 2.53   | .1153  | -.0203 | -.1999 | -.0004 | .0019  | .0140  |
| 11   | 5.01   | .3170  | -.0105 | -.1660 | .0000  | .0030  | .0098  |
| 12   | 10.00  | .7375  | .0237  | -.0542 | .0011  | .0021  | .0042  |
| 13   | 15.02  | 1.1383 | .0897  | .1305  | -.0011 | .0053  | .0035  |
| 14   | 20.01  | 1.4426 | .1873  | .3343  | -.0023 | .0085  | -.0020 |
| 15   | 25.01  | 1.6564 | .3141  | .4548  | .0017  | -.0022 | -.0039 |
| 16   | .00    | -.0916 | -.0178 | -.2236 | -.0016 | .0006  | .0168  |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P979

RUN 1009 CONFIG F P B NP5 W7 T4J BT TN=-3.5

| PT. NO. | ALPHA DEG | -9 DELF PSI DEG | 0 DELTA CLBAR SO-FT | 0 IHT CDBAR SO-FT | 5 DELE CPMRAR CU-FT | 0 DELR CYMBAR CU-FT | 0 DELR CRMBAR CU-FT | 0 DELSB CYRAR SO-FT | 0 PSF | 0 V KNOTS | RPM    |
|---------|-----------|-----------------|---------------------|-------------------|---------------------|---------------------|---------------------|---------------------|-------|-----------|--------|
| 2       | .0        | .0              | -96.9               | 33.98             | -557.               | 15.                 | -24.                | 5.35                | 54.76 | 128.31    | 3390.  |
| 3       | .0        | .0              | -190.4              | -7.31             | -631.               | 26.                 | 11.                 | 4.88                | 55.10 | 128.71    | 11700. |
| 4       | -20.0     | .0              | -348.3              | 141.08            | -526.               | -93.                | -188.               | 5.26                | 55.07 | 128.68    | 11600. |
| 5       | -15.0     | .0              | -319.3              | 96.57             | -348.               | -79.                | -252.               | 3.38                | 55.40 | 129.07    | 11670. |
| 6       | -10.0     | .0              | -334.3              | 48.72             | -524.               | -117.               | -53.                | 9.72                | 55.05 | 128.65    | 11730. |
| 7       | -5.0      | .0              | -250.5              | 5.86              | -704.               | 16.                 | 6.                  | 7.14                | 55.80 | 129.55    | 11690. |
| 8       | -2.5      | .0              | -178.0              | -2.22             | -690.               | 22.                 | -27.                | 6.69                | 55.53 | 129.23    | 11740. |
| 9       | -2.5      | .0              | -178.9              | -2.19             | -694.               | 22.                 | -27.                | 6.72                | 55.24 | 128.89    | 11720. |
| 10      | .0        | .0              | -190.9              | -6.82             | -631.               | 19.                 | 28.                 | 5.17                | 55.37 | 129.04    | 11710. |
| 11      | 2.5       | .0              | -22.2               | -8.33             | -544.               | 29.                 | -23.                | 4.91                | 56.25 | 130.08    | 11710. |
| 12      | 5.0       | .0              | 51.9                | -7.42             | -435.               | 20.                 | 30.                 | 5.19                | 55.78 | 129.52    | 11710. |
| 13      | 10.0      | .0              | 200.2               | 1.66              | -61.                | 22.                 | 50.                 | 2.92                | 55.91 | 129.67    | 11680. |
| 14      | 15.0      | .0              | 346.8               | 20.99             | 505.                | -14.                | 70.                 | 1.99                | 54.88 | 128.45    | 11680. |
| 15      | 20.0      | .0              | 458.4               | 53.40             | 1046.               | -70.                | 122.                | .98                 | 55.71 | 129.44    | 11680. |
| 16      | 25.0      | .0              | 536.4               | 98.73             | 1296.               | -37.                | 88.                 | 1.17                | 55.32 | 128.97    | 11690. |
| 17      | -0.0      | .0              | -190.2              | -6.97             | -627.               | 13.                 | 11.                 | 5.68                | 54.60 | 128.12    | 4710.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.2620 | .0916  | -.1796 | .0009  | -.0015 | .0145 |
| 3    | .00    | -.2714 | -.0198 | -.2034 | .0016  | .0007  | .0132 |
| 4    | -20.01 | -.9412 | .3813  | -.1696 | -.0056 | -.0113 | .0142 |
| 5    | -15.00 | -.8630 | .2610  | -.1122 | -.0048 | -.0152 | .0091 |
| 6    | -10.00 | -.9035 | .1317  | -.1689 | -.0071 | -.0032 | .0263 |
| 7    | -5.00  | -.6769 | .0158  | -.2269 | .0010  | .0004  | .0193 |
| 8    | -2.50  | -.4809 | -.0060 | -.2192 | .0013  | -.0016 | .0181 |
| 9    | -2.50  | -.4835 | -.0059 | -.2204 | .0013  | -.0016 | .0182 |
| 10   | -.00   | -.2726 | -.0184 | -.2033 | .0011  | .0017  | .0140 |
| 11   | 2.51   | -.0600 | -.0225 | -.1755 | .0012  | -.0014 | .0133 |
| 12   | 5.00   | .1402  | -.0200 | -.1403 | .0012  | .0018  | .0140 |
| 13   | 10.00  | .5411  | .0045  | -.0196 | .0013  | .0030  | .0079 |
| 14   | 15.00  | .9373  | .0567  | .1628  | -.0008 | .0042  | .0054 |
| 15   | 20.00  | 1.2390 | .1443  | .3371  | -.0042 | .0074  | .0026 |
| 16   | 25.01  | 1.4498 | .2668  | .4179  | -.0022 | .0053  | .0032 |
| 17   | -.00   | -.2708 | -.0188 | -.2023 | .0008  | .0006  | .0153 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRM    | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.2620 | .0916  | -.1796 | .0009  | -.0015 | .0145 |
| 3    | .00    | -.2714 | -.0198 | -.2034 | .0016  | .0007  | .0132 |
| 4    | -20.01 | -.9412 | .3813  | -.1696 | -.0056 | -.0113 | .0142 |
| 5    | -15.00 | -.8630 | .2610  | -.1122 | -.0048 | -.0152 | .0091 |
| 6    | -10.00 | -.9035 | .1317  | -.1689 | -.0071 | -.0032 | .0263 |
| 7    | -5.00  | -.6769 | .0158  | -.2269 | .0010  | .0004  | .0193 |
| 8    | -2.50  | -.4809 | -.0060 | -.2192 | .0013  | -.0016 | .0181 |
| 9    | -2.50  | -.4835 | -.0059 | -.2204 | .0013  | -.0016 | .0182 |
| 10   | -.00   | -.2726 | -.0184 | -.2033 | .0011  | .0017  | .0140 |
| 11   | 2.51   | -.0600 | -.0225 | -.1755 | .0012  | -.0014 | .0133 |
| 12   | 5.00   | .1402  | -.0200 | -.1403 | .0012  | .0018  | .0140 |
| 13   | 10.00  | .5411  | .0045  | -.0196 | .0013  | .0030  | .0079 |
| 14   | 15.00  | .9373  | .0567  | .1628  | -.0008 | .0042  | .0054 |
| 15   | 20.00  | 1.2390 | .1443  | .3371  | -.0042 | .0074  | .0026 |
| 16   | 25.01  | 1.4498 | .2668  | .4179  | -.0022 | .0053  | .0032 |
| 17   | -.00   | -.2708 | -.0188 | -.2023 | .0008  | .0006  | .0153 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 980

RUN 1010 CONFIG F P B NP5 W7 T41 BT TN=-3.5

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSR      | 0            | RPM       |         |        |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-----------|---------|--------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR SQ-FT | CYBAR PSF | Q KNOTS | V      |        |
| 2       | .0        | .0      | -99.1       | 33.55       | -253.        | 17.          | -25.         | 5.78      | 55.38   | 129.05 | 3390.  |
| 3       | .0        | .0      | -108.6      | -6.78       | -352.        | 11.          | -40.         | 3.97      | 54.93   | 128.51 | 11680. |
| 4       | -20.0     | .0      | -349.1      | 142.96      | -519.        | -95.         | -174.        | 7.25      | 55.43   | 129.10 | 11680. |
| 5       | -15.0     | .0      | -319.7      | 98.38       | -383.        | -49.         | -341.        | 3.46      | 55.17   | 128.80 | 11690. |
| 6       | -10.0     | .0      | -331.8      | 50.96       | -247.        | -65.         | -98.         | 5.86      | 55.23   | 128.87 | 11710. |
| 7       | -5.0      | .0      | -250.8      | 5.69        | -415.        | 2.           | 8.           | 6.28      | 55.84   | 129.59 | 11710. |
| 8       | -2.5      | .0      | -179.4      | -2.33       | -405.        | 14.          | -7.          | 4.80      | 56.06   | 129.84 | 11690. |
| 9       | .0        | .0      | -103.0      | -7.08       | -336.        | 12.          | 29.          | 4.42      | 56.22   | 130.04 | 11710. |
| 10      | 2.5       | .0      | -28.5       | -8.86       | -250.        | 10.          | 12.          | 5.03      | 55.54   | 129.24 | 11710. |
| 11      | 5.0       | .0      | 45.7        | -8.40       | -131.        | 20.          | 48.          | 4.36      | 55.53   | 129.23 | 11700. |
| 12      | 10.0      | .0      | 193.6       | -.03        | 234.         | 2.           | 52.          | 1.42      | 55.37   | 129.03 | 11680. |
| 13      | 15.0      | .0      | 340.0       | 18.15       | 809.         | -22.         | 70.          | 3.04      | 54.98   | 128.58 | 11730. |
| 14      | 20.0      | .0      | 467.0       | 45.58       | 1407.        | -22.         | 106.         | 2.65      | 55.24   | 128.87 | 11970. |
| 15      | 25.0      | .0      | 532.1       | 97.27       | 1637.        | -46.         | 54.          | .99       | 54.86   | 128.42 | 11430. |
| 16      | .0        | .0      | -105.1      | -7.00       | -335.        | 15.          | -25.         | 6.12      | 55.70   | 129.42 | 4700.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.2679 | .0907  | -.0817 | .0010  | -.0015 | .0156 |
| 3    | .00    | -.2936 | -.0183 | -.1136 | .0007  | -.0024 | .0107 |
| 4    | -19.99 | -.9435 | .3864  | -.1673 | -.0057 | -.0105 | .0196 |
| 5    | -14.99 | -.8641 | .2659  | -.1236 | -.0030 | -.0206 | .0093 |
| 6    | -10.00 | -.8968 | .1377  | -.0796 | -.0039 | -.0059 | .0158 |
| 7    | -5.00  | -.6778 | .0154  | -.1337 | .0001  | .0005  | .0170 |
| 8    | -2.49  | -.4847 | -.0063 | -.1305 | .0008  | -.0004 | .0130 |
| 9    | .00    | -.2785 | -.0191 | -.1083 | .0007  | .0017  | .0120 |
| 10   | 2.50   | -.0770 | -.0240 | -.0807 | .0006  | .0007  | .0136 |
| 11   | 5.00   | .1234  | -.0227 | -.0422 | .0012  | .0029  | .0118 |
| 12   | 10.00  | .5232  | -.0001 | .0754  | .0001  | .0031  | .0038 |
| 13   | 15.01  | .9189  | .0491  | .2608  | -.0013 | .0042  | .0092 |
| 14   | 20.01  | 1.2622 | .1232  | .4537  | -.0013 | .0064  | .0072 |
| 15   | 25.00  | 1.4382 | .2629  | .5276  | -.0028 | .0032  | .0027 |
| 16   | .00    | -.2840 | -.0189 | -.1081 | .0009  | -.0015 | .0165 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CPMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.2679 | .0907  | -.0817 | .0010  | -.0015 | .0156 |
| 3    | .00    | -.2936 | -.0183 | -.1136 | .0007  | -.0024 | .0107 |
| 4    | -19.99 | -.9435 | .3864  | -.1673 | -.0057 | -.0105 | .0196 |
| 5    | -14.99 | -.8641 | .2659  | -.1236 | -.0030 | -.0206 | .0093 |
| 6    | -10.00 | -.8968 | .1377  | -.0796 | -.0039 | -.0059 | .0158 |
| 7    | -5.00  | -.6778 | .0154  | -.1337 | .0001  | .0005  | .0170 |
| 8    | -2.49  | -.4847 | -.0063 | -.1305 | .0008  | -.0004 | .0130 |
| 9    | .00    | -.2785 | -.0191 | -.1083 | .0007  | .0017  | .0120 |
| 10   | 2.50   | -.0770 | -.0240 | -.0807 | .0006  | .0007  | .0136 |
| 11   | 5.00   | .1234  | -.0227 | -.0422 | .0012  | .0029  | .0118 |
| 12   | 10.00  | .5232  | -.0001 | .0754  | .0001  | .0031  | .0038 |
| 13   | 15.01  | .9189  | .0491  | .2608  | -.0013 | .0042  | .0092 |
| 14   | 20.01  | 1.2622 | .1232  | .4537  | -.0013 | .0064  | .0072 |
| 15   | 25.00  | 1.4382 | .2629  | .5276  | -.0028 | .0032  | .0027 |
| 16   | .00    | -.2840 | -.0189 | -.1081 | .0009  | -.0015 | .0165 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P 98/

RUN 1012 CONFIG F P B NPS W7 T60 BT IN=-3.5

| PT. No. | ALPHA DEG | -9 DELF PSI DEG | Q DELA CLBAR SQ-FT | O IHT CDBAR SQ-FT | -5 DELE CPMBAR CU-FT | O DELR CYMBAR CU-FT | O DELSB CRMBAR CU-FT | Q CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|-----------------|--------------------|-------------------|----------------------|---------------------|----------------------|---------------|-------|---------|--------|
| 2       | .0        | .0              | -106.3             | 34.42             | 21.                  | -3.                 | -78.                 | 5.92          | 54.65 | 128.18  | 3370.  |
| 3       | .0        | .0              | -109.2             | -6.90             | -58.                 | -1.                 | -8.                  | 6.14          | 54.92 | 128.50  | 11700. |
| 4       | -20.0     | .0              | -352.9             | 143.46            | -444.                | -112.               | -264.                | 7.69          | 54.92 | 128.49  | 11690. |
| 5       | -15.0     | .0              | -316.7             | 97.61             | -335.                | -59.                | -317.                | 1.23          | 55.46 | 129.13  | 11720. |
| 6       | -10.0     | .0              | -339.3             | 53.54             | -258.                | -18.                | -122.                | 8.47          | 54.69 | 128.22  | 11700. |
| 7       | -5.0      | .0              | -264.4             | 7.16              | -189.                | 9.                  | -46.                 | 7.07          | 54.96 | 128.55  | 11720. |
| 8       | -2.5      | .0              | -192.5             | -1.39             | -139.                | 18.                 | -28.                 | 7.37          | 55.02 | 128.62  | 11710. |
| 9       | .0        | .0              | -113.9             | -6.76             | -81.                 | 2.                  | -58.                 | 4.79          | 55.46 | 129.14  | 11710. |
| 10      | 2.5       | .0              | -36.2              | -9.35             | 11.                  | 8.                  | -40.                 | 4.07          | 55.25 | 128.89  | 11710. |
| 11      | 5.0       | .0              | 40.2               | -8.87             | 138.                 | -1.                 | 32.                  | 3.40          | 55.17 | 128.80  | 11730. |
| 12      | 10.0      | .0              | 189.2              | -1.03             | 502.                 | -7.                 | 51.                  | 3.66          | 54.91 | 128.49  | 11700. |
| 13      | 15.0      | .0              | 332.5              | 16.97             | 1080.                | -25.                | 35.                  | 3.41          | 54.98 | 128.57  | 11680. |
| 14      | 20.0      | .0              | 456.4              | 45.03             | 1704.                | -23.                | 54.                  | 4.38          | 55.18 | 128.81  | 11680. |
| 15      | 25.0      | .0              | 520.9              | 91.25             | 1899.                | -62.                | 36.                  | .62           | 55.06 | 128.67  | 11750. |
| 16      | .0        | .0              | -114.1             | -6.94             | -68.                 | 9.                  | -40.                 | 3.94          | 55.33 | 128.98  | 11710. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPH    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.2873 | .0930  | .0066  | -.0002 | -.0047 | .0160 |
| 3    | .00    | -.2951 | -.0187 | -.0186 | -.0000 | -.0005 | .0166 |
| 4    | -20.00 | -.9538 | .3877  | -.1431 | -.0068 | -.0160 | .0208 |
| 5    | -15.00 | -.8559 | .2638  | -.1081 | -.0036 | -.0191 | .0033 |
| 6    | -10.00 | -.9170 | .1447  | -.0833 | -.0011 | -.0074 | .0229 |
| 7    | -5.00  | -.7146 | .0193  | -.0610 | .0005  | -.0028 | .0191 |
| 8    | -2.50  | -.5202 | -.0038 | -.0447 | .0011  | -.0017 | .0199 |
| 9    | .01    | -.3079 | -.0183 | -.0260 | .0001  | -.0035 | .0129 |
| 10   | 2.51   | -.0978 | -.0253 | .0037  | .0005  | -.0024 | .0110 |
| 11   | 5.00   | .1087  | -.0240 | .0445  | -.0001 | .0019  | .0092 |
| 12   | 10.00  | .5113  | -.0028 | .1619  | -.0004 | .0031  | .0099 |
| 13   | 15.02  | .8987  | .0459  | .3481  | -.0015 | .0021  | .0092 |
| 14   | 20.01  | 1.2335 | .1217  | .5493  | -.0014 | .0032  | .0118 |
| 15   | 25.00  | 1.4078 | .2466  | .6122  | -.0038 | .0021  | .0017 |
| 16   | .00    | -.3084 | -.0188 | -.0220 | .0005  | -.0024 | .0106 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 2    | .00    | -.2873 | .0930  | .0066  | -.0002 | -.0047 | .0160 |
| 3    | .00    | -.2951 | -.0187 | -.0186 | -.0000 | -.0005 | .0166 |
| 4    | -20.00 | -.9538 | .3877  | -.1431 | -.0068 | -.0160 | .0208 |
| 5    | -15.00 | -.8559 | .2638  | -.1081 | -.0036 | -.0191 | .0033 |
| 6    | -10.00 | -.9170 | .1447  | -.0833 | -.0011 | -.0074 | .0229 |
| 7    | -5.00  | -.7146 | .0193  | -.0610 | .0005  | -.0028 | .0191 |
| 8    | -2.50  | -.5202 | -.0038 | -.0447 | .0011  | -.0017 | .0199 |
| 9    | .01    | -.3079 | -.0183 | -.0260 | .0001  | -.0035 | .0129 |
| 10   | 2.51   | -.0978 | -.0253 | .0037  | .0005  | -.0024 | .0110 |
| 11   | 5.00   | .1087  | -.0240 | .0445  | -.0001 | .0019  | .0092 |
| 12   | 10.00  | .5113  | -.0028 | .1619  | -.0004 | .0031  | .0099 |
| 13   | 15.02  | .8987  | .0459  | .3481  | -.0015 | .0021  | .0092 |
| 14   | 20.01  | 1.2335 | .1217  | .5493  | -.0014 | .0032  | .0118 |
| 15   | 25.00  | 1.4078 | .2466  | .6122  | -.0038 | .0021  | .0017 |
| 16   | .00    | -.3084 | -.0188 | -.0220 | .0005  | -.0024 | .0106 |

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OF POOR QUALITY

N437409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

992

RUN 1013 CONFIG F P R NP5 W7 T60 BT IN=3.5

| PT. NO. | IW | -9 DELF<br>ALPHA<br>DEG | 0 DELA<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 IHT<br>CDRAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 0 DELSB<br>CYBAR<br>SQ-FT | Q<br>PSF | 0<br>V<br>KNOTS | RPM   |
|---------|----|-------------------------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------|-----------------|-------|
| 2       |    | 0                       | 0                    | -92.7                    | 34.65                   | -454.                     | 5.                        | -8.                       | 6.60                      | 54.73    | 128.27          | 3380. |
| 3       |    | -20.0                   | 0                    | -339.1                   | 201.94                  | 1608.                     | -74.                      | -83.                      | 5.53                      | 54.85    | 128.42          | 3760. |
| 4       |    | -15.0                   | 0                    | -314.1                   | 148.59                  | 1393.                     | -131.                     | -257.                     | 5.56                      | 55.15    | 128.78          | 3690. |
| 5       |    | -10.0                   | 0                    | -296.5                   | 100.47                  | 826.                      | -92.                      | -192.                     | 8.42                      | 55.02    | 128.61          | 3490. |
| 6       |    | -5.0                    | 0                    | -250.3                   | 47.41                   | -126.                     | -12.                      | 4.                        | 8.76                      | 54.46    | 127.95          | 3350. |
| 7       |    | -2.5                    | 0                    | -171.2                   | 38.61                   | -311.                     | -0.                       | 9.                        | 5.75                      | 55.14    | 128.77          | 3350. |
| 8       |    | 0                       | 0                    | -91.4                    | 34.13                   | -465.                     | 10.                       | 10.                       | 6.36                      | 55.16    | 128.78          | 3390. |
| 9       |    | 2.5                     | 0                    | -11.5                    | 32.93                   | -562.                     | 5.                        | 12.                       | 4.70                      | 55.10    | 128.72          | 3420. |
| 10      |    | 5.0                     | 0                    | 66.6                     | 34.51                   | -638.                     | 13.                       | 66.                       | 3.93                      | 55.45    | 129.13          | 3480. |
| 11      |    | 10.0                    | 0                    | 230.0                    | 48.11                   | -742.                     | 5.                        | 70.                       | 2.45                      | 54.26    | 127.72          | 3630. |
| 12      |    | 15.0                    | 0                    | 389.4                    | 75.14                   | -760.                     | -43.                      | 35.                       | 3.58                      | 54.26    | 127.71          | 3820. |
| 13      |    | 20.0                    | 0                    | 505.7                    | 114.86                  | -245.                     | -56.                      | 36.                       | 3.44                      | 54.43    | 127.92          | 4020. |
| 14      |    | 25.0                    | 0                    | 563.1                    | 173.49                  | -90.                      | -100.                     | 2.                        | 3.88                      | 54.45    | 127.94          | 4200. |
| 15      |    | -0                      | 0                    | -92.8                    | 34.70                   | -467.                     | 11.                       | 8.                        | 7.41                      | 54.72    | 128.26          | 3380. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | -.2507 | .0937 | -.1463 | .0003  | -.0005 | .0178 |
| 3    | -20.00 | -.9165 | .5458 | .5183  | -.0045 | -.0050 | .0149 |
| 4    | -15.00 | -.8489 | .4016 | .4490  | -.0079 | -.0156 | .0150 |
| 5    | -10.00 | -.8012 | .2716 | .2663  | -.0056 | -.0116 | .0228 |
| 6    | -5.00  | -.6764 | .1281 | -.0407 | -.0007 | .0002  | .0237 |
| 7    | -2.50  | -.4628 | .1043 | -.1004 | -.0000 | .0006  | .0155 |
| 8    | .01    | -.2470 | .0922 | -.1501 | .0006  | .0006  | .0172 |
| 9    | 2.50   | -.0311 | .0890 | -.1811 | .0003  | .0007  | .0127 |
| 10   | 5.00   | .1801  | .0933 | -.2057 | .0008  | .0040  | .0106 |
| 11   | 10.00  | .6215  | .1300 | -.2391 | .0003  | .0042  | .0066 |
| 12   | 15.00  | 1.0525 | .2031 | -.2450 | -.0026 | .0021  | .0097 |
| 13   | 19.99  | 1.3668 | .3104 | -.0790 | -.0034 | .0022  | .0093 |
| 14   | 25.00  | 1.5218 | .4689 | -.0290 | -.0061 | .0001  | .0105 |
| 15   | -0.00  | -.2509 | .0938 | -.1507 | .0007  | .0005  | .0200 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | -.2507 | .0937 | -.1463 | .0003  | -.0005 | .0178 |
| 3    | -20.00 | -.9165 | .5458 | .5183  | -.0045 | -.0050 | .0149 |
| 4    | -15.00 | -.8489 | .4016 | .4490  | -.0079 | -.0156 | .0150 |
| 5    | -10.00 | -.8012 | .2716 | .2663  | -.0056 | -.0116 | .0228 |
| 6    | -5.00  | -.6764 | .1281 | -.0407 | -.0007 | .0002  | .0237 |
| 7    | -2.50  | -.4628 | .1043 | -.1004 | -.0000 | .0006  | .0155 |
| 8    | .01    | -.2470 | .0922 | -.1501 | .0006  | .0006  | .0172 |
| 9    | 2.50   | -.0311 | .0890 | -.1811 | .0003  | .0007  | .0127 |
| 10   | 5.00   | .1801  | .0933 | -.2057 | .0008  | .0040  | .0106 |
| 11   | 10.00  | .6215  | .1300 | -.2391 | .0003  | .0042  | .0066 |
| 12   | 15.00  | 1.0525 | .2031 | -.2450 | -.0026 | .0021  | .0097 |
| 13   | 19.99  | 1.3668 | .3104 | -.0790 | -.0034 | .0022  | .0093 |
| 14   | 25.00  | 1.5218 | .4689 | -.0290 | -.0061 | .0001  | .0105 |
| 15   | -0.00  | -.2509 | .0938 | -.1507 | .0007  | .0005  | .0200 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SR-72011

P983

RUN 1014 CONFIG F P R NP5 W7 T60 BT IN=3.5

| PT. NO. | W ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM    |
|---------|-------------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------|---------------|--------|
| 3       | .0          | .0            | -93.1             | 35.05             | -463.              | 12.                | -27.               | 7.23              | 54.62       | 128.14        | 3380.  |
| 4       | .0          | .0            | -96.3             | -7.04             | -565.              | 11.                | -25.               | 5.67              | 55.85       | 129.61        | 11840. |
| 5       | -20.0       | .0            | -413.8            | 163.37            | 1254.              | -126.              | -138.              | 5.98              | 54.64       | 128.17        | 11790. |
| 6       | -15.0       | .0            | -382.6            | 110.02            | 1420.              | -57.               | -324.              | 2.86              | 54.81       | 128.37        | 11880. |
| 7       | -10.0       | .0            | -367.1            | 56.35             | 482.               | -55.               | -101.              | 7.44              | 55.40       | 129.07        | 11810. |
| 8       | -5.0        | .0            | -259.8            | 6.39              | -310.              | 2.                 | -28.               | 7.00              | 55.46       | 129.15        | 11800. |
| 9       | -2.5        | .0            | -181.2            | -2.64             | -461.              | 6.                 | 9.                 | 5.78              | 55.44       | 129.13        | 11800. |
| 10      | .0          | .0            | -96.6             | -7.58             | -571.              | 15.                | 26.                | 7.01              | 55.44       | 129.12        | 11820. |
| 11      | 2.5         | .0            | -11.8             | -9.12             | -638.              | 16.                | 45.                | 7.02              | 54.87       | 128.45        | 11830. |
| 12      | 5.0         | .0            | 68.6              | -8.03             | -694.              | 14.                | 51.                | 2.41              | 55.05       | 128.66        | 11820. |
| 13      | 10.0        | .0            | 236.2             | 2.97              | -753.              | 15.                | 87.                | 1.86              | 54.84       | 128.42        | 11890. |
| 14      | 15.0        | .0            | 396.7             | 29.46             | -749.              | -46.               | 70.                | 2.96              | 55.16       | 128.79        | 11760. |
| 15      | 20.0        | .0            | 529.6             | 70.21             | -246.              | -43.               | 36.                | 3.74              | 54.72       | 128.26        | 11750. |
| 16      | 25.0        | .0            | 596.2             | 125.37            | 17.                | -48.               | 90.                | .00               | 53.97       | 127.37        | 11830. |
| 17      | .0          | .0            | -95.3             | -7.42             | -535.              | 1.                 | 13.                | 3.78              | 54.95       | 128.54        | 11800. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 3    | .00    | -.2516  | .0947  | -.1494 | .0007  | -.0016 | .0196 |
| 4    | .00    | -.2602  | -.0190 | -.1820 | .0006  | -.0015 | .0153 |
| 5    | -20.00 | -1.1184 | .4415  | .4044  | -.0076 | -.0083 | .0162 |
| 6    | -14.99 | -1.0341 | .2974  | .4577  | -.0034 | -.0196 | .0077 |
| 7    | -10.00 | -.9922  | .1523  | .1552  | -.0033 | -.0061 | .0201 |
| 8    | -5.00  | -.7021  | .0173  | -.1000 | .0001  | -.0017 | .0189 |
| 9    | -2.50  | -.4898  | -.0071 | -.1488 | .0003  | .0006  | .0156 |
| 10   | .00    | -.2611  | -.0205 | -.1841 | .0009  | .0016  | .0189 |
| 11   | 2.51   | -.0320  | -.0246 | -.2057 | .0010  | .0027  | .0190 |
| 12   | 5.01   | .1854   | -.0217 | -.2236 | .0008  | .0031  | .0065 |
| 13   | 10.02  | .6384   | .0080  | -.2427 | .0009  | .0053  | .0050 |
| 14   | 15.01  | 1.0723  | .0796  | -.2416 | -.0028 | .0042  | .0080 |
| 15   | 20.01  | 1.4313  | .1898  | -.0795 | -.0026 | .0022  | .0101 |
| 16   | 25.00  | 1.6112  | .3388  | .0056  | -.0029 | .0054  | .0000 |
| 17   | .00    | -.2576  | -.0201 | -.1726 | .0000  | .0008  | .0102 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 3    | .00    | -.2516  | .0947  | -.1494 | .0007  | -.0016 | .0196 |
| 4    | .00    | -.2602  | -.0190 | -.1820 | .0006  | -.0015 | .0153 |
| 5    | -20.00 | -1.1184 | .4415  | .4044  | -.0076 | -.0083 | .0162 |
| 6    | -14.99 | -1.0341 | .2974  | .4577  | -.0034 | -.0196 | .0077 |
| 7    | -10.00 | -.9922  | .1523  | .1552  | -.0033 | -.0061 | .0201 |
| 8    | -5.00  | -.7021  | .0173  | -.1000 | .0001  | -.0017 | .0189 |
| 9    | -2.50  | -.4898  | -.0071 | -.1488 | .0003  | .0006  | .0156 |
| 10   | .00    | -.2611  | -.0205 | -.1841 | .0009  | .0016  | .0189 |
| 11   | 2.51   | -.0320  | -.0246 | -.2057 | .0010  | .0027  | .0190 |
| 12   | 5.01   | .1854   | -.0217 | -.2236 | .0008  | .0031  | .0065 |
| 13   | 10.02  | .6384   | .0080  | -.2427 | .0009  | .0053  | .0050 |
| 14   | 15.01  | 1.0723  | .0796  | -.2416 | -.0028 | .0042  | .0080 |
| 15   | 20.01  | 1.4313  | .1898  | -.0795 | -.0026 | .0022  | .0101 |
| 16   | 25.00  | 1.6112  | .3388  | .0056  | -.0029 | .0054  | .0000 |
| 17   | .00    | -.2576  | -.0201 | -.1726 | .0000  | .0008  | .0102 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P984

RUN 1015 CONFIG F P B NP5 W7 T60 BT IN=73.5

| PT. NO. | IW | -9 DELF<br>ALPHA<br>DEG | PSI<br>DEG | DELTA<br>CLBAR<br>SQ-FT | DELTA<br>CDBAR<br>SQ-FT | IHT<br>CPMBAR<br>CU-FT | DELE<br>CYMBAR<br>CU-FT | DELR<br>CRMBAR<br>CU-FT | DELSB<br>CYBAR<br>SQ-FT | DELTA<br>PSF | V<br>KNOTS | RPM    |
|---------|----|-------------------------|------------|-------------------------|-------------------------|------------------------|-------------------------|-------------------------|-------------------------|--------------|------------|--------|
| 2       |    | .0                      | .0         | -93.5                   | -34.76                  | -466.                  | 5.                      | -43.                    | 5.71                    | 54.91        | 128.51     | 3370.  |
| 3       |    | .0                      | .0         | -106.3                  | -138.22                 | -793.                  | 8.                      | 31.                     | 3.40                    | 54.18        | 127.63     | 22920. |
| 4       |    | -20.1                   | .0         | -538.8                  | 49.01                   | 2015.                  | -52.                    | -103.                   | 6.15                    | 54.28        | 127.75     | 23010. |
| 5       |    | -15.0                   | .0         | -479.7                  | -16.31                  | 782.                   | 7.                      | -268.                   | -6.9                    | 54.02        | 127.44     | 22980. |
| 6       |    | -10.0                   | .0         | -388.9                  | -72.10                  | -180.                  | 17.                     | 110.                    | -1.87                   | 54.66        | 128.22     | 23010. |
| 7       |    | -5.0                    | .0         | -285.2                  | -125.39                 | -620.                  | 13.                     | 11.                     | 4.29                    | 53.96        | 127.37     | 22960. |
| 8       |    | -2.5                    | .0         | -197.7                  | -135.03                 | -735.                  | 14.                     | 46.                     | 5.21                    | 54.26        | 127.73     | 22950. |
| 9       |    | -0.0                    | .0         | -107.9                  | -142.87                 | -820.                  | 14.                     | 48.                     | 4.74                    | 53.91        | 127.32     | 23040. |
| 10      |    | 2.5                     | .0         | -12.6                   | -143.75                 | -852.                  | -3.                     | 121.                    | 2.23                    | 54.88        | 128.48     | 23040. |
| 11      |    | 5.0                     | .0         | 73.9                    | -143.29                 | -881.                  | -10.                    | 89.                     | -0.25                   | 54.68        | 128.24     | 22990. |
| 12      |    | 10.0                    | .0         | 260.9                   | -134.09                 | -926.                  | -44.                    | 145.                    | -1.84                   | 53.68        | 127.03     | 23030. |
| 13      |    | 15.0                    | .0         | 444.2                   | -106.17                 | -975.                  | -47.                    | 197.                    | -0.13                   | 54.16        | 127.62     | 23030. |
| 14      |    | 20.0                    | .0         | 580.8                   | -58.02                  | -589.                  | -133.                   | 251.                    | -3.09                   | 54.02        | 127.44     | 23090. |
| 15      |    | 25.0                    | .0         | 656.2                   | .78                     | -94.                   | -153.                   | 162.                    | -2.36                   | 53.48        | 126.80     | 23080. |
| 16      |    | .0                      | .0         | -102.0                  | -136.82                 | -803.                  | -1.                     | 102.                    | -4.02                   | 54.18        | 127.64     | 23210. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | -.2527  | .0940  | -.1503 | .0003  | -.0026 | .0154  |
| 3    | .00    | -.2872  | -.3736 | -.2555 | .0005  | .0019  | .0092  |
| 4    | -20.09 | -1.4563 | .1325  | .6496  | -.0031 | -.0062 | .0166  |
| 5    | -15.00 | -1.2964 | -.0441 | .2520  | .0004  | -.0162 | -.0019 |
| 6    | -10.00 | -1.0510 | -.1949 | -.0579 | .0011  | .0066  | -.0051 |
| 7    | -5.01  | -.7709  | -.3389 | -.1999 | .0008  | .0007  | .0116  |
| 8    | -2.50  | -.5343  | -.3649 | -.2371 | .0008  | .0028  | .0141  |
| 9    | -0.00  | -.2916  | -.3861 | -.2644 | .0009  | .0029  | .0128  |
| 10   | 2.52   | -.0341  | -.3885 | -.2748 | -.0002 | .0073  | .0060  |
| 11   | 5.01   | .1997   | -.3873 | -.2839 | -.0006 | .0054  | -.0007 |
| 12   | 10.00  | .7051   | -.3624 | -.2986 | -.0027 | .0088  | -.0050 |
| 13   | 15.00  | 1.2004  | -.2869 | -.3142 | -.0028 | .0119  | -.0003 |
| 14   | 19.99  | 1.5697  | -.1568 | -.1899 | -.0080 | .0151  | -.0084 |
| 15   | 24.99  | 1.7735  | .0021  | -.0302 | -.0093 | .0098  | -.0064 |
| 16   | .00    | -.2758  | -.3698 | -.2588 | -.0001 | .0062  | .0109  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | -.2527  | .0940  | -.1503 | .0003  | -.0026 | .0154  |
| 3    | .00    | -.2872  | -.3736 | -.2555 | .0005  | .0019  | .0092  |
| 4    | -20.09 | -1.4563 | .1325  | .6496  | -.0031 | -.0062 | .0166  |
| 5    | -15.00 | -1.2964 | -.0441 | .2520  | .0004  | -.0162 | -.0019 |
| 6    | -10.00 | -1.0510 | -.1949 | -.0579 | .0011  | .0066  | -.0051 |
| 7    | -5.01  | -.7709  | -.3389 | -.1999 | .0008  | .0007  | .0116  |
| 8    | -2.50  | -.5343  | -.3649 | -.2371 | .0008  | .0028  | .0141  |
| 9    | -0.00  | -.2916  | -.3861 | -.2644 | .0009  | .0029  | .0128  |
| 10   | 2.52   | -.0341  | -.3885 | -.2748 | -.0002 | .0073  | .0060  |
| 11   | 5.01   | .1997   | -.3873 | -.2839 | -.0006 | .0054  | -.0007 |
| 12   | 10.00  | .7051   | -.3624 | -.2986 | -.0027 | .0088  | -.0050 |
| 13   | 15.00  | 1.2004  | -.2869 | -.3142 | -.0028 | .0119  | -.0003 |
| 14   | 19.99  | 1.5697  | -.1568 | -.1899 | -.0080 | .0151  | -.0084 |
| 15   | 24.99  | 1.7735  | .0021  | -.0302 | -.0093 | .0098  | -.0064 |
| 16   | .00    | -.2758  | -.3698 | -.2588 | -.0001 | .0062  | .0109  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 985

RUN 1016 CONFIG F P B NP5 W7 T60 BT IN=3.5

| IW      | -9 DELF   | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR        | 0 DELSB     | 0             | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 1       | 0         | 0       | -102.1      | -45.66      | -679.         | -567.       | 53.           | 14.46       | 54.18 | 127.63  | 23080. |
| 2       | -20.0     | 0       | -432.2      | 134.88      | 1611.         | -214.       | 305.          | 7.70        | 54.00 | 127.41  | 22970. |
| 3       | -15.0     | 0       | -386.9      | 75.46       | 844.          | -274.       | 9.            | 4.41        | 54.09 | 127.52  | 22930. |
| 4       | -10.0     | 0       | -368.0      | 17.90       | 212.          | -542.       | 27.           | 14.14       | 54.45 | 127.95  | 23070. |
| 5       | -5.0      | 0       | -272.9      | -31.64      | -407.         | -548.       | 127.          | 11.68       | 53.37 | 126.66  | 22980. |
| 6       | -2.5      | 0       | -186.4      | -39.23      | -556.         | -560.       | 55.           | 11.30       | 54.58 | 128.11  | 23010. |
| 7       | 0         | 0       | -103.2      | -45.16      | -689.         | -562.       | 21.           | 11.44       | 53.90 | 127.29  | 23040. |
| 8       | 2.5       | 0       | -16.3       | -46.49      | -761.         | -556.       | 95.           | 9.96        | 54.71 | 128.26  | 23030. |
| 9       | 5.0       | 0       | 65.7        | -45.46      | -815.         | -554.       | 26.           | 9.78        | 54.67 | 128.21  | 23040. |
| 10      | 10.0      | 0       | 238.7       | -33.95      | -877.         | -553.       | 14.           | 7.24        | 54.11 | 127.56  | 23090. |
| 11      | 15.0      | 0       | 412.3       | -6.54       | -895.         | -549.       | -55.          | 4.70        | 53.65 | 127.00  | 23130. |
| 12      | 20.0      | 0       | 531.9       | 38.70       | -350.         | -553.       | -72.          | -2.09       | 53.83 | 127.21  | 23140. |
| 13      | 25.0      | 0       | 591.8       | 94.64       | -123.         | -540.       | -123.         | 2.56        | 54.53 | 128.05  | 23140. |
| 14      | -0.0      | 0       | -101.2      | -43.81      | -671.         | -550.       | 75.           | 10.80       | 54.55 | 128.07  | 23110. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 1    | 0.00   | -.2759  | -.1234 | -.2189 | -.0343 | .0032  | .0391  |
| 2    | -20.02 | -1.1680 | .3645  | .5194  | -.0129 | .0185  | .0208  |
| 3    | -14.99 | -1.0458 | .2040  | .2720  | -.0165 | .0005  | .0119  |
| 4    | -10.00 | -.9945  | .0484  | .0685  | -.0327 | .0017  | .0382  |
| 5    | -4.99  | -.7375  | -.0855 | -.1312 | -.0331 | .0077  | .0316  |
| 6    | -2.49  | -.5037  | -.1060 | -.1792 | -.0338 | .0033  | .0305  |
| 7    | 0.00   | -.2789  | -.1221 | -.2220 | -.0340 | .0013  | .0309  |
| 8    | 2.51   | -.0441  | -.1256 | -.2453 | -.0336 | .0058  | .0269  |
| 9    | 4.99   | .1777   | -.1229 | -.2628 | -.0335 | .0016  | .0264  |
| 10   | 9.99   | .6451   | -.0917 | -.2827 | -.0334 | .0008  | .0196  |
| 11   | 15.00  | 1.1142  | -.0177 | -.2886 | -.0332 | -.0033 | .0127  |
| 12   | 20.00  | 1.4375  | .1046  | -.1128 | -.0334 | -.0044 | -.0056 |
| 13   | 25.00  | 1.5995  | .2558  | -.0397 | -.0326 | -.0074 | .0069  |
| 14   | -.01   | -.2734  | -.1184 | -.2163 | -.0332 | .0045  | .0292  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 1    | 0.00   | -.2759  | -.1234 | -.2189 | -.0343 | .0032  | .0391  |
| 2    | -20.02 | -1.1680 | .3645  | .5194  | -.0129 | .0185  | .0208  |
| 3    | -14.99 | -1.0458 | .2040  | .2720  | -.0165 | .0005  | .0119  |
| 4    | -10.00 | -.9945  | .0484  | .0685  | -.0327 | .0017  | .0382  |
| 5    | -4.99  | -.7375  | -.0855 | -.1312 | -.0331 | .0077  | .0316  |
| 6    | -2.49  | -.5037  | -.1060 | -.1792 | -.0338 | .0033  | .0305  |
| 7    | 0.00   | -.2789  | -.1221 | -.2220 | -.0340 | .0013  | .0309  |
| 8    | 2.51   | -.0441  | -.1256 | -.2453 | -.0336 | .0058  | .0269  |
| 9    | 4.99   | .1777   | -.1229 | -.2628 | -.0335 | .0016  | .0264  |
| 10   | 9.99   | .6451   | -.0917 | -.2827 | -.0334 | .0008  | .0196  |
| 11   | 15.00  | 1.1142  | -.0177 | -.2886 | -.0332 | -.0033 | .0127  |
| 12   | 20.00  | 1.4375  | .1046  | -.1128 | -.0334 | -.0044 | -.0056 |
| 13   | 25.00  | 1.5995  | .2558  | -.0397 | -.0326 | -.0074 | .0069  |
| 14   | -.01   | -.2734  | -.1184 | -.2163 | -.0332 | .0045  | .0292  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011  
P 986

RUN 1017 CONFIG F P R NP5 W7 T60 BT IN=-3.5

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CIBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM    |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------|---------------|--------|
| 2       | .0        | .0            | -92.5             | 35.87             | -460.              | 9.                 | 29.                | 5.73              | 54.10       | 127.54        | 3370.  |
| 3       | .0        | .0            | -98.4             | -6.55             | -579.              | 18.                | 11.                | 5.46              | 54.30       | 127.78        | 11740. |
| 4       | .0        | -20.0         | -29.3             | 39.65             | -1125.             | 1056.              | -48.               | -169.67           | 55.63       | 129.36        | 11770. |
| 5       | .0        | -15.3         | -49.1             | 20.08             | -918.              | 616.               | -3.                | -127.84           | 55.10       | 128.74        | 11750. |
| 6       | .0        | -10.0         | -68.7             | 4.73              | -723.              | 429.               | 52.                | -85.65            | 55.04       | 128.66        | 11750. |
| 7       | .0        | -5.0          | -89.4             | -4.17             | -661.              | 172.               | 36.                | -40.39            | 55.16       | 128.81        | 11730. |
| 8       | .0        | -2.5          | -96.5             | -6.57             | -638.              | 109.               | 39.                | -18.18            | 54.72       | 128.28        | 11830. |
| 9       | .0        | .0            | -95.7             | -6.32             | -591.              | 10.                | 28.                | 5.82              | 55.02       | 128.64        | 11830. |
| 10      | .0        | 2.5           | -91.0             | -4.85             | -562.              | -73.               | 18.                | 30.57             | 55.83       | 129.59        | 11800. |
| 11      | .0        | 5.0           | -89.3             | -2.64             | -592.              | -145.              | -37.               | 51.65             | 55.59       | 129.32        | 11760. |
| 12      | .0        | 10.1          | -75.9             | 5.03              | -696.              | -413.              | 11.                | 97.88             | 55.16       | 128.80        | 11800. |
| 13      | .0        | 15.0          | -58.3             | 17.01             | -866.              | -552.              | 58.                | 137.82            | 55.02       | 128.63        | 11800. |
| 14      | .0        | 20.0          | -41.1             | 39.07             | -1145.             | -1111.             | 111.               | 188.34            | 55.15       | 128.79        | 11750. |
| 15      | .0        | .0            | -98.3             | -6.00             | -560.              | 6.                 | 29.                | 4.00              | 55.00       | 128.00        | 11700. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.2499 | .0969  | -.1481 | .0005  | .0017  | .0155  |
| 3    | .00    | -.2660 | -.0177 | -.1867 | .0011  | .0007  | .0148  |
| 4    | -20.00 | -.0792 | .1072  | -.3628 | .0638  | -.0029 | -.4586 |
| 5    | -15.30 | -.1328 | .0543  | -.2958 | .0372  | -.0002 | -.3455 |
| 6    | -10.00 | -.1858 | .0128  | -.2329 | .0259  | .0032  | -.2315 |
| 7    | -5.00  | -.2416 | -.0113 | -.2131 | .0104  | .0022  | -.1091 |
| 8    | -2.50  | -.2609 | -.0178 | -.2058 | .0066  | .0024  | -.0491 |
| 9    | .00    | -.2588 | -.0171 | -.1906 | .0006  | .0017  | .0157  |
| 10   | 2.50   | -.2459 | -.0131 | -.1813 | -.0044 | .0011  | .0826  |
| 11   | 5.00   | -.2413 | -.0071 | -.1909 | -.0088 | -.0022 | .1396  |
| 12   | 10.10  | -.2051 | .0136  | -.2244 | -.0250 | .0007  | .2645  |
| 13   | 15.00  | -.1575 | .0460  | -.2793 | -.0333 | .0035  | .3725  |
| 14   | 20.00  | -.1111 | .1056  | -.3692 | -.0671 | .0067  | .5090  |
| 15   | .00    | -.2657 | -.0162 | -.1804 | .0004  | .0017  | .0134  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.2499 | .0969  | -.1481 | .0005  | .0017  | .0155  |
| 3    | .00    | -.2660 | -.0177 | -.1867 | .0011  | .0007  | .0148  |
| 4    | -20.00 | -.0792 | -.0569 | -.3355 | .0638  | .0206  | -.4675 |
| 5    | -15.30 | -.1328 | -.0392 | -.2850 | .0372  | .0145  | -.3475 |
| 6    | -10.00 | -.1858 | -.0278 | -.2323 | .0259  | .0107  | -.2302 |
| 7    | -5.00  | -.2416 | -.0208 | -.2133 | .0104  | .0056  | -.1077 |
| 8    | -2.50  | -.2609 | -.0199 | -.2061 | .0066  | .0040  | -.0483 |
| 9    | .00    | -.2588 | -.0171 | -.1906 | .0006  | .0017  | .0157  |
| 10   | 2.50   | -.2459 | -.0167 | -.1809 | -.0044 | -.0004 | .0820  |
| 11   | 5.00   | -.2413 | -.0193 | -.1912 | -.0088 | -.0053 | .1384  |
| 12   | 10.10  | -.2051 | -.0332 | -.2202 | -.0250 | -.0067 | .2628  |
| 13   | 15.00  | -.1575 | -.0524 | -.2648 | -.0333 | -.0102 | .3716  |
| 14   | 20.00  | -.1111 | -.0757 | -.3345 | -.0671 | -.0175 | .5143  |
| 15   | .00    | -.2657 | -.0162 | -.1804 | .0004  | .0017  | .0134  |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P 987

RUN 1018 CONFIG F P B NPS W7 T60 BT IN=-3.5 ALPHA=10

| PT. NO. | ALPHA DEG | -9 DELF DEG | 0 DELTA CLBAR SQ-FT | 0 INT CDBAR SQ-FT | 0 DELE CPMBAR CU-FT | 0 DELR CYMBAR CU-FT | 0 DELS CMBAR CU-FT | 0 DELSB CYBAR SQ-FT | 0 DELS PSF | 0 V KNOTS | RPM    |
|---------|-----------|-------------|---------------------|-------------------|---------------------|---------------------|--------------------|---------------------|------------|-----------|--------|
| 2       | 0         | 0           | -97.4               | -7.02             | -569.               | 10.                 | -7.                | 5.16                | 55.42      | 129.11    | 11760. |
| 3       | 10.0      | 0           | 236.4               | 4.26              | -777.               | 2.                  | 87.                | 2.75                | 54.60      | 128.13    | 11730. |
| 4       | 10.0      | -20.0       | 260.1               | 56.06             | -1545.              | 869.                | -168.              | -163.13             | 54.77      | 128.34    | 11790. |
| 5       | 10.0      | -15.0       | 257.9               | 32.47             | -1397.              | 143.                | -80.               | -115.15             | 54.52      | 128.05    | 11840. |
| 6       | 10.0      | -10.0       | 255.3               | 16.82             | -1124.              | 86.                 | -54.               | -79.19              | 54.15      | 127.60    | 11710. |
| 7       | 10.0      | -5.0        | 238.7               | 6.75              | -842.               | 23.                 | 39.                | -37.32              | 55.40      | 129.09    | 11720. |
| 8       | 10.0      | -2.5        | 236.6               | 5.12              | -819.               | 42.                 | 61.                | -18.92              | 55.27      | 128.94    | 11700. |
| 9       | 10.0      | .1          | 239.5               | 5.00              | -798.               | -1.                 | 88.                | 3.80                | 54.75      | 128.31    | 11640. |
| 10      | 10.0      | 2.5         | 236.1               | 4.17              | -793.               | -6.                 | 134.               | 23.24               | 54.97      | 128.58    | 11750. |
| 11      | 10.0      | 5.0         | 233.1               | 6.84              | -811.               | 7.                  | 132.               | 43.89               | 55.26      | 128.93    | 11720. |
| 12      | 10.0      | 10.0        | 243.0               | 16.11             | -1104.              | -66.                | 227.               | 83.15               | 54.65      | 128.20    | 11710. |
| 13      | 10.0      | 15.0        | 241.8               | 32.43             | -1401.              | -325.               | 393.               | 121.40              | 54.58      | 128.11    | 11680. |
| 14      | 10.0      | 20.0        | 242.1               | 55.36             | -1416.              | -1062.              | 365.               | 175.30              | 54.68      | 128.23    | 11720. |
| 15      | 10.0      | .0          | 236.0               | 4.74              | -788.               | -3.                 | 70.                | .93                 | 54.66      | 128.21    | 11720. |
| 16      | 10.0      | .0          | 229.0               | 47.99             | -736.               | 7.                  | 69.                | 2.78                | 55.17      | 128.81    | 3640.  |
| 17      | 10.0      | .0          | 227.2               | 47.04             | -749.               | 8.                  | 86.                | 2.53                | 55.11      | 128.75    | 3630.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.2632 | -.0190 | -.1835 | .0006  | -.0004 | .0140  |
| 3    | .00    | .6388  | .0115  | -.2506 | .0001  | .0053  | .0074  |
| 4    | -20.00 | .7029  | .1537  | -.4981 | .0525  | -.0102 | -.4409 |
| 5    | -15.00 | .6969  | .0878  | -.4503 | .0086  | -.0048 | -.3112 |
| 6    | -10.00 | .6901  | .0454  | -.3625 | .0052  | -.0033 | -.2140 |
| 7    | -5.00  | .6453  | .0182  | -.2716 | .0014  | .0024  | -.1009 |
| 8    | -2.50  | .6396  | .0130  | -.2642 | .0025  | .0037  | -.0511 |
| 9    | .10    | .6472  | .0135  | -.2574 | -.0001 | .0053  | .0103  |
| 10   | 2.50   | .6380  | .0113  | -.2557 | -.0004 | .0081  | .0628  |
| 11   | 5.00   | .6301  | .0185  | -.2616 | .0004  | .0080  | .1186  |
| 12   | 10.00  | .6568  | .0435  | -.3561 | -.0040 | .0137  | .2247  |
| 13   | 15.00  | .6536  | .0877  | -.4517 | -.0196 | .0238  | .3281  |
| 14   | 20.00  | .6544  | .1496  | -.4564 | -.0642 | .0220  | .4738  |
| 15   | .00    | .6378  | .0128  | -.2542 | -.0002 | .0043  | .0025  |
| 16   | .00    | .6190  | .1297  | -.2374 | .0004  | .0041  | .0075  |
| 17   | .00    | .6140  | .1296  | -.2416 | .0005  | .0052  | .0068  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYR    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.2632 | -.0190 | -.1835 | .0006  | -.0004 | .0140  |
| 3    | .00    | .6388  | .0115  | -.2506 | .0001  | .0053  | .0074  |
| 4    | -20.00 | .7029  | .0707  | -.4491 | .0525  | .0225  | -.4669 |
| 5    | -15.00 | .6969  | .0308  | -.4281 | .0086  | .0173  | -.3233 |
| 6    | -10.00 | .6901  | .0074  | -.3539 | .0052  | .0086  | -.2187 |
| 7    | -5.00  | .6453  | .0093  | -.2717 | .0014  | .0068  | -.1021 |
| 8    | -2.50  | .6396  | .0116  | -.2648 | .0025  | .0059  | -.0517 |
| 9    | .10    | .6472  | .0135  | -.2574 | -.0001 | .0052  | .0103  |
| 10   | 2.50   | .6380  | .0085  | -.2536 | -.0004 | .0060  | .0632  |
| 11   | 5.00   | .6301  | .0080  | -.2568 | .0004  | .0037  | .1198  |
| 12   | 10.00  | .6568  | .0037  | -.3378 | -.0040 | .0019  | .2289  |
| 13   | 15.00  | .6536  | -.0007 | -.4032 | -.0196 | .0009  | .3396  |
| 14   | 20.00  | .6544  | .0022  | -.3882 | -.0642 | -.0087 | .4964  |

|    |     |       |       |        |        |       |       |
|----|-----|-------|-------|--------|--------|-------|-------|
| 15 | .00 | .6378 | .0128 | -.2542 | -.0002 | .0043 | .0025 |
| 16 | .00 | .6190 | .1297 | -.2374 | .0004  | .0041 | .0075 |
| 17 | .00 | .6140 | .1296 | -.2416 | .0005  | .0052 | .0068 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 1019 CONFIG F P R NP5 W7 T60 BT IN=3.5 PSI=5

| PT# | ALPHA DEG | DELTA PSI | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA PSF | DELTA V KNOTS | RPM    |
|-----|-----------|-----------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-----------|---------------|--------|
| 2   | 0         | 0         | -99.0             | -7.45             | -579.              | 5.                 | -7.                | 5.51              | 53.83     | 127.22        | 11790. |
| 3   | 0         | 5.0       | -89.1             | -2.73             | -570.              | -144.              | -22.               | 53.45             | 54.11     | 127.55        | 11730. |
| 4   | -20.0     | 5.0       | -409.4            | 165.41            | 1453.              | -406.              | -289.              | 33.63             | 53.99     | 127.40        | 11700. |
| 5   | -15.0     | 5.0       | -373.8            | 111.54            | 1291.              | -374.              | -529.              | 32.64             | 53.84     | 127.23        | 11720. |
| 6   | -10.0     | 5.0       | -340.5            | 59.06             | 326.               | -275.              | -444.              | 43.41             | 54.69     | 128.24        | 11690. |
| 7   | -5.0      | 5.0       | -250.6            | 11.82             | -300.              | -246.              | -114.              | 53.01             | 53.91     | 127.31        | 11680. |
| 8   | -2.5      | 5.0       | -167.7            | 3.39              | -427.              | -196.              | -32.               | 53.96             | 54.55     | 128.08        | 11690. |
| 9   | 0         | 5.0       | -87.5             | -1.89             | -545.              | -142.              | -23.               | 53.70             | 54.87     | 128.46        | 11700. |
| 10  | 2.5       | 5.0       | -4.9              | -3.96             | -649.              | -91.               | 23.                | 50.13             | 54.56     | 128.09        | 11670. |
| 11  | 5.0       | 5.0       | 72.2              | -3.72             | -710.              | -41.               | -6.                | 47.46             | 54.98     | 128.59        | 11650. |
| 12  | 10.0      | 5.0       | 235.1             | 6.82              | -783.              | 10.                | 105.               | 41.49             | 54.76     | 128.33        | 11720. |
| 13  | 15.0      | 5.0       | 406.3             | 33.45             | -855.              | 21.                | 168.               | 40.19             | 54.07     | 127.50        | 11720. |
| 14  | 20.0      | 5.0       | 523.7             | 79.76             | -510.              | -47.               | 255.               | 30.26             | 54.48     | 128.00        | 11690. |
| 15  | 25.0      | 5.0       | 618.9             | 135.47            | -483.              | -92.               | 133.               | 24.78             | 54.31     | 127.79        | 11680. |
| 16  | -0        | 5.0       | -87.6             | -1.95             | -553.              | -154.              | -18.               | 50.19             | 54.77     | 128.34        | 11700. |
| 17  | -0        | 5.0       | -83.7             | 38.98             | -427.              | -184.              | -30.               | 44.72             | 55.38     | 129.07        | 3330.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 0.00   | -.2676  | -.0201 | -.1865 | .0003  | -.0004 | .0149 |
| 3    | 0.00   | -.2407  | -.0074 | -.1838 | -.0087 | -.0013 | .1445 |
| 4    | -20.00 | -1.1064 | .4470  | .4683  | -.0245 | -.0174 | .0909 |
| 5    | -15.00 | -1.0103 | .3015  | .4163  | -.0226 | -.0319 | .0882 |
| 6    | -10.00 | -.9204  | .1596  | .1052  | -.0166 | -.0268 | .1173 |
| 7    | -5.00  | -.6772  | .0319  | -.0966 | -.0148 | -.0069 | .1433 |
| 8    | -2.50  | -.4532  | .0092  | -.1377 | -.0119 | -.0019 | .1458 |
| 9    | 0.01   | -.2366  | -.0051 | -.1756 | -.0086 | -.0014 | .1451 |
| 10   | 2.56   | -.0137  | -.0107 | -.2092 | -.0055 | .0014  | .1355 |
| 11   | 5.02   | .1952   | -.0087 | -.2288 | -.0025 | -.0003 | .1283 |
| 12   | 10.01  | .6355   | .0184  | -.2523 | .0006  | .0043  | .1121 |
| 13   | 15.01  | 1.0982  | .0904  | -.2756 | .0013  | .0101  | .1086 |
| 14   | 20.00  | 1.4155  | .2156  | -.1645 | -.0029 | .0154  | .0818 |
| 15   | 25.00  | 1.6727  | .3661  | -.1556 | -.0056 | .0081  | .0670 |
| 16   | -0.00  | -.2366  | -.0053 | -.1782 | -.0093 | -.0011 | .1357 |
| 17   | -0.00  | -.2263  | .1054  | -.1376 | -.0111 | -.0018 | .1209 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|---------|--------|--------|--------|--------|-------|
| 2    | 0.00   | -.2676  | -.0201 | -.1865 | .0003  | -.0004 | .0149 |
| 3    | 0.00   | -.2407  | -.0200 | -.1837 | -.0087 | -.0043 | .1433 |
| 4    | -20.00 | -1.1064 | .4374  | .4584  | -.0245 | -.0097 | .1297 |
| 5    | -15.00 | -1.0103 | .2926  | .3997  | -.0226 | -.0250 | .1143 |
| 6    | -10.00 | -.9204  | .1487  | .0923  | -.0166 | -.0250 | .1309 |
| 7    | -5.00  | -.6772  | .0193  | -.0995 | -.0148 | -.0084 | .1455 |
| 8    | -2.50  | -.4532  | -.0037 | -.1381 | -.0119 | -.0042 | .1461 |
| 9    | 0.01   | -.2366  | -.0178 | -.1756 | -.0086 | -.0043 | .1441 |
| 10   | 2.56   | -.0137  | -.0225 | -.2077 | -.0055 | -.0020 | .1340 |
| 11   | 5.02   | .1952   | -.0199 | -.2281 | -.0025 | -.0041 | .1270 |
| 12   | 10.01  | .6355   | .0085  | -.2484 | .0006  | .0022  | .1133 |
| 13   | 15.01  | 1.0982  | .0806  | -.2698 | .0013  | .0056  | .1161 |
| 14   | 20.00  | 1.4155  | .2076  | -.1567 | -.0029 | .0126  | .1003 |

|    |       |        |        |        |        |        |       |
|----|-------|--------|--------|--------|--------|--------|-------|
| 15 | 25.00 | 1.6727 | .3589  | -.1512 | -.0056 | .0055  | .0988 |
| 16 | -0.00 | -.2366 | -.0171 | -.1780 | -.0093 | -.0040 | .1347 |
| 17 | -0.00 | -.2263 | .0944  | -.1380 | -.0111 | -.0041 | .1296 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 989

RUN 1020 CONFIG F P R NP5 W7 T60 BT IN=3.5 ALPHA=10

| PT. NO. | IW    | Q DELF | Q DELA | Q IHT | Q DELE | Q DELR | Q DELSB | Q       | η     | V      | RPM    |
|---------|-------|--------|--------|-------|--------|--------|---------|---------|-------|--------|--------|
|         | ALPHA | PSI    | CLBAR  | CDBAR | CPMBAR | CYMBAR | CRMBAR  | CYBAR   | PSF   | KNOTS  |        |
|         | DFG   | DEG    | SQ-FT  | SQ-FT | CU-FT  | CU-FT  | CU-FT   | SQ-FT   |       |        |        |
| 2       | 0.0   | 0.0    | 64.3   | -6.55 | -41.   | -42.   | 64.     | 5.36    | 54.62 | 128.17 | 11240. |
| 3       | 10.0  | 0.0    | 391.9  | 24.84 | -291.  | -35.   | 53.     | -0.12   | 54.71 | 128.28 | 11220. |
| 4       | 10.0  | -20.0  | 402.5  | 70.26 | -1068. | 662.   | -237.   | -151.68 | 54.66 | 128.22 | 11190. |
| 5       | 10.0  | -15.0  | 404.6  | 48.23 | -926.  | 164.   | -211.   | -109.06 | 54.29 | 127.77 | 11250. |
| 6       | 10.0  | -9.9   | 393.4  | 33.85 | -627.  | 189.   | -132.   | -70.35  | 54.86 | 128.45 | 11200. |
| 7       | 10.0  | -4.9   | 397.0  | 27.61 | -409.  | 71.    | 41.     | -34.37  | 54.41 | 127.91 | 11210. |
| 8       | 10.0  | -2.5   | 388.1  | 25.35 | -351.  | 34.    | 18.     | -18.19  | 55.07 | 128.70 | 11230. |
| 9       | 10.0  | 0.0    | 386.7  | 24.87 | -320.  | -28.   | 70.     | .87     | 55.11 | 128.75 | 11200. |
| 10      | 10.0  | 2.5    | 395.1  | 25.51 | -336.  | -82.   | 109.    | 20.66   | 54.23 | 127.70 | 11200. |
| 11      | 10.0  | 5.0    | 385.9  | 26.39 | -402.  | -97.   | 133.    | 40.01   | 55.00 | 128.62 | 11210. |
| 12      | 10.0  | 10.1   | 385.5  | 33.19 | -622.  | -211.  | 201.    | 77.31   | 54.37 | 127.87 | 11200. |
| 13      | 10.0  | 15.0   | 387.8  | 45.47 | -826.  | -198.  | 307.    | 115.75  | 54.71 | 128.27 | 11260. |
| 14      | 10.0  | 20.0   | 383.2  | 68.40 | -999.  | -967.  | 391.    | 166.16  | 54.12 | 127.57 | 11240. |
| 15      | 10.0  | 0.0    | 391.3  | 25.10 | -297.  | -25.   | 71.     | .94     | 54.48 | 128.00 | 11180. |
| 16      | 10.0  | 0.0    | 387.4  | 66.84 | -270.  | -3.    | 35.     | 1.38    | 54.22 | 127.69 | 3850.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .1738  | -.0177 | -.0132 | -.0026 | .0039  | .0145  |
| 3    | .00    | 1.0593 | .0671  | -.0937 | -.0021 | .0032  | -.0003 |
| 4    | -20.00 | 1.0878 | .1899  | -.3444 | .0400  | -.0143 | -.4099 |
| 5    | -15.00 | 1.0936 | .1303  | -.2984 | .0099  | -.0128 | -.2947 |
| 6    | -9.90  | 1.0633 | .0915  | -.2023 | .0114  | -.0080 | -.1901 |
| 7    | -4.90  | 1.0730 | .0746  | -.1318 | .0043  | .0025  | -.0929 |
| 8    | -2.50  | 1.0490 | .0685  | -.1132 | .0021  | .0011  | -.0492 |
| 9    | .00    | 1.0452 | .0672  | -.1031 | -.0017 | .0042  | .0023  |
| 10   | 2.50   | 1.0679 | .0690  | -.1083 | -.0050 | .0066  | .0559  |
| 11   | 5.00   | 1.0429 | .0713  | -.1297 | -.0058 | .0080  | .1081  |
| 12   | 10.10  | 1.0420 | .0897  | -.2004 | -.0127 | .0122  | .2089  |
| 13   | 15.00  | 1.0482 | .1229  | -.2663 | -.0120 | .0185  | .3128  |
| 14   | 20.00  | 1.0358 | .1849  | -.3220 | -.0684 | .0236  | .4491  |
| 15   | .00    | 1.0577 | .0678  | -.0957 | -.0015 | .0043  | .0025  |
| 16   | .00    | 1.0470 | .1806  | -.0871 | -.0002 | .0021  | .0037  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .1738  | -.0177 | -.0132 | -.0026 | .0039  | .0145  |
| 3    | .00    | 1.0593 | .0671  | -.0937 | -.0021 | .0032  | -.0003 |
| 4    | -20.00 | 1.0878 | .0375  | -.2972 | .0400  | .0087  | -.4502 |
| 5    | -15.00 | 1.0936 | .0492  | -.2705 | .0099  | .0072  | -.3185 |
| 6    | -9.90  | 1.0633 | .0573  | -.1919 | .0114  | -.0013 | -.2031 |
| 7    | -4.90  | 1.0730 | .0664  | -.1324 | .0043  | .0046  | -.0990 |
| 8    | -2.50  | 1.0490 | .0663  | -.1133 | .0021  | .0020  | -.0521 |
| 9    | .00    | 1.0452 | .0672  | -.1031 | -.0017 | .0042  | .0023  |
| 10   | 2.50   | 1.0679 | .0664  | -.1067 | -.0050 | .0057  | .0588  |
| 11   | 5.00   | 1.0429 | .0616  | -.1254 | -.0058 | .0059  | .1140  |
| 12   | 10.10  | 1.0420 | .0515  | -.1858 | -.0127 | .0054  | .2215  |
| 13   | 15.00  | 1.0482 | .0373  | -.2314 | -.0120 | .0049  | .3340  |
| 14   | 20.00  | 1.0358 | .0193  | -.2592 | -.0584 | .0014  | .4852  |
| 15   | .00    | 1.0577 | .0678  | -.0957 | -.0015 | .0043  | .0025  |
| 16   | .00    | 1.0470 | .1806  | -.0871 | -.0002 | .0021  | .0037  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 990

RUN 1021 CONFIG F P R NP5 W7 T60 BT IN=-3.5 ALPHA=-10

| PT. No. | IW        | DELTA PSI | DELTA CLBAR | DELTA CDBAR | DELTA CPMBAR | DELTA CYMBAR | DELTA CRMBAR | DELTA CYBAR | DELTA Q | DELTA V | RPM    |
|---------|-----------|-----------|-------------|-------------|--------------|--------------|--------------|-------------|---------|---------|--------|
|         | ALPHA DEG | PSI DEG   | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF     | KNOTS   |        |
| 1       | -10.0     | .0        | -274.7      | 19.21       | 772.         | -68.         | 25.          | 6.02        | 54.30   | 127.78  | 11190. |
| 2       | -10.0     | -20.4     | -190.9      | 58.97       | -326.        | 1685.        | -10.         | -180.56     | 54.47   | 127.98  | 11260. |
| 3       | -10.0     | -15.0     | -220.4      | 40.55       | -22.         | 1196.        | 92.          | -132.87     | 54.61   | 128.15  | 11230. |
| 4       | -10.0     | -10.0     | -248.2      | 28.29       | 302.         | 766.         | 89.          | -83.73      | 54.47   | 127.99  | 11210. |
| 5       | -10.0     | -5.0      | -265.4      | 20.36       | 509.         | 374.         | 41.          | -41.06      | 54.59   | 128.13  | 11230. |
| 6       | -10.0     | -2.4      | -270.2      | 20.15       | 708.         | 119.         | 42.          | -17.00      | 54.69   | 128.25  | 11230. |
| 7       | -10.0     | .0        | -273.3      | 18.53       | 733.         | -50.         | -30.         | 6.70        | 54.92   | 128.52  | 11240. |
| 8       | -10.0     | 2.6       | -272.6      | 19.91       | 649.         | -175.        | -106.        | 29.25       | 54.74   | 128.31  | 11220. |
| 9       | -10.0     | 5.0       | -265.3      | 20.79       | 519.         | -317.        | -181.        | 47.45       | 55.06   | 128.69  | 11240. |
| 10      | -10.0     | 10.0      | -250.2      | 26.20       | 190.         | -719.        | -237.        | 95.55       | 55.05   | 128.67  | 11190. |
| 11      | -10.0     | 15.0      | -227.0      | 39.52       | -27.         | -1204.       | -124.        | 145.12      | 54.97   | 128.59  | 11080. |
| 12      | -10.0     | 20.0      | -202.9      | 57.73       | -297.        | -1603.       | -95.         | 189.92      | 55.21   | 128.86  | 11130. |
| 13      | -10.0     | .0        | -272.3      | 19.25       | 787.         | -54.         | 5.           | 6.65        | 54.79   | 128.37  | 11230. |
| 14      | -10.0     | .0        | -243.5      | 54.98       | 911.         | -47.         | 7.           | 5.59        | 54.88   | 128.48  | 3570.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 1    | .00    | -.7424 | .0519 | .2490  | -.0041 | .0015  | .0163  |
| 2    | -20.40 | -.5159 | .1594 | -.1050 | .1018  | -.0006 | -.4880 |
| 3    | -15.00 | -.5958 | .1096 | -.0071 | .0723  | .0056  | -.3591 |
| 4    | -10.00 | -.6707 | .0765 | .0973  | .0463  | .0054  | -.2263 |
| 5    | -5.00  | -.7174 | .0550 | .1641  | .0226  | .0025  | -.1110 |
| 6    | -2.40  | -.7302 | .0545 | .2281  | .0072  | .0025  | -.0460 |
| 7    | .00    | -.7386 | .0501 | .2362  | -.0030 | -.0018 | .0181  |
| 8    | 2.60   | -.7368 | .0538 | .2092  | -.0105 | -.0064 | .0790  |
| 9    | 5.00   | -.7169 | .0562 | .1672  | -.0192 | -.0109 | .1282  |
| 10   | 10.00  | -.6763 | .0708 | .0612  | -.0434 | -.0143 | .2582  |
| 11   | 15.00  | -.6135 | .1068 | -.0087 | -.0727 | -.0075 | .3922  |
| 12   | 20.00  | -.5485 | .1560 | -.0958 | -.0968 | -.0057 | .5133  |
| 13   | .00    | -.7360 | .0520 | .2537  | -.0032 | .0003  | .0180  |
| 14   | .00    | -.6581 | .1486 | .2938  | -.0028 | .0004  | .0151  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 1    | .00    | -.7424 | .0519  | .2490  | -.0041 | .0015  | .0163  |
| 2    | -20.40 | -.5159 | -.0216 | -.0973 | .1018  | .0063  | -.5129 |
| 3    | -15.00 | -.5958 | .0125  | -.0147 | .0723  | .0057  | -.3753 |
| 4    | -10.00 | -.6707 | .0358  | .0908  | .0463  | .0021  | -.2362 |
| 5    | -5.00  | -.7174 | .0451  | .1623  | .0226  | -.0002 | -.1154 |
| 6    | -2.40  | -.7302 | .0525  | .2273  | .0072  | .0007  | -.0482 |
| 7    | .00    | -.7386 | .0501  | .2362  | -.0030 | -.0018 | .0181  |
| 8    | 2.60   | -.7368 | .0502  | .2075  | -.0105 | -.0046 | .0814  |
| 9    | 5.00   | -.7169 | .0447  | .1615  | -.0192 | -.0081 | .1327  |
| 10   | 10.00  | -.6763 | .0247  | .0470  | -.0434 | -.0121 | .2666  |
| 11   | 15.00  | -.6135 | .0012  | -.0188 | -.0727 | -.0076 | .4065  |
| 12   | 20.00  | -.5485 | -.0298 | -.1004 | -.0968 | -.0115 | .5357  |
| 13   | .00    | -.7360 | .0520  | .2537  | -.0032 | .0003  | .0180  |
| 14   | .00    | -.6581 | .1486  | .2938  | -.0028 | .0004  | .0151  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 991

RUN 1022 CONFIG F P B NP5 W7 T60 BT

IN=-3.5

| PT. NO. | O DELF    |       | O DELA |         | O IHT |        | O DELE |         | O DELR |         | O DELSB |         | RPM |
|---------|-----------|-------|--------|---------|-------|--------|--------|---------|--------|---------|---------|---------|-----|
|         | ALPHA DEG | PSI   | CIBAR  | Q SQ-FT | CDBAR | CPMBAR | CYMBAR | CRMBAR  | CYBAR  | Q SQ-FT | PSF     | V KNOTS |     |
| 2       | .0        | .0    | 66.8   | 37.76   | 80.   | -39.   | 31.    | 3.52    | 54.22  | 127.68  | 3540.   |         |     |
| 3       | .0        | .0    | 62.8   | -6.44   | -33.  | -42.   | 68.    | 2.71    | 53.99  | 127.40  | 11180.  |         |     |
| 4       | .0        | -20.0 | 97.4   | 37.61   | -863. | 1192.  | -33.   | -172.36 | 54.80  | 128.37  | 11170.  |         |     |
| 5       | .0        | -15.0 | 88.4   | 18.06   | -585. | 818.   | 46.    | -129.95 | 54.71  | 128.26  | 11110.  |         |     |
| 6       | .0        | -10.0 | 78.3   | 3.78    | -284. | 470.   | 53.    | -84.15  | 54.29  | 127.75  | 11210.  |         |     |
| 7       | .0        | -5.0  | 67.3   | -4.27   | -137. | 196.   | 67.    | -40.29  | 55.13  | 128.76  | 11440.  |         |     |
| 8       | .0        | -2.5  | 64.7   | -3.74   | -82.  | 75.    | 99.    | -17.44  | 54.49  | 128.00  | 11260.  |         |     |
| 9       | .0        | .0    | 63.8   | -7.26   | -59.  | -37.   | 46.    | 6.19    | 54.49  | 128.00  | 11240.  |         |     |
| 10      | .0        | 2.5   | 62.8   | -6.21   | -75.  | -136.  | 54.    | 25.80   | 54.40  | 127.89  | 11230.  |         |     |
| 11      | .0        | 5.0   | 64.3   | -4.38   | -121. | -199.  | 45.    | 47.17   | 54.60  | 128.12  | 11190.  |         |     |
| 12      | .0        | 10.0  | 71.3   | 1.80    | -305. | -488.  | 65.    | 92.74   | 54.47  | 127.97  | 11190.  |         |     |
| 13      | .0        | 15.0  | 78.6   | 13.95   | -570. | -844.  | 109.   | 137.46  | 54.77  | 128.33  | 11230.  |         |     |
| 14      | .0        | 20.0  | 84.5   | 35.39   | -829. | -1217. | 121.   | 184.20  | 54.94  | 128.54  | 11180.  |         |     |
| 15      | .0        | .0    | 63.2   | -6.86   | -42.  | -43.   | 48.    | 4.15    | 54.15  | 127.59  | 11260.  |         |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1805 | .0885  | .0257  | -.0024 | .0019  | .0095  |
| 3    | .00    | .1699 | -.0174 | -.0105 | -.0026 | .0041  | .0073  |
| 4    | -20.00 | .2633 | .1016  | -.2781 | .0720  | -.0020 | -.4658 |
| 5    | -15.00 | .2389 | .0488  | -.1886 | .0494  | .0028  | -.3512 |
| 6    | -10.00 | .2115 | .0102  | -.0916 | .0284  | -.0032 | -.2274 |
| 7    | -5.00  | .1818 | -.0115 | -.0441 | .0119  | .0041  | -.1089 |
| 8    | -2.50  | .1749 | -.0101 | -.0264 | .0045  | .0060  | -.0471 |
| 9    | .00    | .1725 | -.0196 | -.0191 | -.0022 | .0027  | .0167  |
| 10   | 2.50   | .1696 | -.0168 | -.0243 | -.0082 | .0033  | .0697  |
| 11   | 5.00   | .1739 | -.0118 | -.0390 | -.0120 | .0027  | .1275  |
| 12   | 10.00  | .1928 | .0049  | -.0983 | -.0295 | .0039  | .2507  |
| 13   | 15.00  | .2123 | .0377  | -.1838 | -.0510 | .0066  | .3715  |
| 14   | 20.00  | .2283 | .0957  | -.2674 | -.0735 | .0073  | .4978  |
| 15   | .00    | .1708 | -.0185 | -.0137 | -.0026 | .0029  | .0112  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1805 | .0885  | .0257  | -.0024 | .0019  | .0095  |
| 3    | .00    | .1699 | -.0174 | -.0105 | -.0026 | .0041  | .0073  |
| 4    | -20.00 | .2633 | -.0646 | -.2575 | .0720  | .0160  | -.4724 |
| 5    | -15.00 | .2389 | -.0442 | -.1859 | .0494  | .0119  | -.3518 |
| 6    | -10.00 | .2115 | -.0296 | -.0932 | .0284  | .0061  | -.2257 |
| 7    | -5.00  | .1818 | -.0210 | -.0458 | .0119  | .0048  | -.1075 |
| 8    | -2.50  | .1749 | -.0122 | -.0278 | .0045  | .0062  | -.0466 |
| 9    | .00    | .1725 | -.0196 | -.0191 | -.0022 | .0027  | .0167  |
| 10   | 2.50   | .1696 | -.0198 | -.0235 | -.0082 | .0031  | .0689  |
| 11   | 5.00   | .1739 | -.0230 | -.0376 | -.0120 | .0021  | .1260  |
| 12   | 10.00  | .1928 | -.0389 | -.0931 | -.0295 | .0007  | .2477  |
| 13   | 15.00  | .2123 | -.0602 | -.1684 | -.0510 | -.0026 | .3685  |
| 14   | 20.00  | .2283 | -.0812 | -.2377 | -.0735 | -.0103 | .5004  |
| 15   | .00    | .1708 | -.0185 | -.0137 | -.0026 | .0029  | .0112  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 992

RUN 1023 CONFIG F P R NPS W7 T60 BT IN=-3.5

| PT. NO. | Q DELF ALPHA DEG | PSI   | Q DELA CLBAR SQ-FT | CDRAR SQ-FT | CPMBAR CU-FT | Q DELE CYMBAR CU-FT | Q DELR CRMBAR CU-FT | -10 DELSB CYBAR SQ-FT | Q PSF | Q V KNOTS | RPM    |
|---------|------------------|-------|--------------------|-------------|--------------|---------------------|---------------------|-----------------------|-------|-----------|--------|
| 2       | .0               | .0    | 64.1               | 32.35       | 49.          | -303.               | 128.                | 10.95                 | 54.73 | 128.28    | 3550.  |
| 3       | .0               | .0    | 63.1               | -6.96       | -57.         | -306.               | 108.                | 11.63                 | 55.06 | 128.68    | 11260. |
| 4       | .0               | -20.0 | 95.6               | 35.91       | -812.        | 890.                | 102.                | -167.43               | 55.38 | 129.05    | 11270. |
| 5       | .0               | -15.0 | 88.0               | 17.00       | -545.        | 506.                | 111.                | -125.00               | 54.91 | 128.50    | 11220. |
| 6       | .0               | -10.0 | 76.0               | 2.67        | -259.        | 146.                | 114.                | -77.18                | 55.12 | 128.75    | 11260. |
| 7       | .0               | -5.0  | 67.6               | -4.11       | -127.        | -107.               | 112.                | -34.26                | 54.98 | 128.58    | 11260. |
| 8       | .0               | -2.5  | 63.3               | -5.94       | -91.         | -211.               | 145.                | -11.58                | 54.43 | 127.92    | 11270. |
| 9       | .0               | .0    | 61.3               | -6.47       | -79.         | -314.               | 92.                 | 11.03                 | 54.98 | 128.57    | 11230. |
| 10      | .0               | 2.5   | 60.6               | -5.18       | -102.        | -416.               | 99.                 | 31.23                 | 55.30 | 128.96    | 11310. |
| 11      | .0               | 5.0   | 63.6               | -3.38       | -162.        | -500.               | 106.                | 52.80                 | 55.35 | 129.02    | 11240. |
| 12      | .0               | 10.0  | 72.9               | 3.08        | -344.        | -816.               | 142.                | 98.24                 | 55.17 | 128.80    | 11270. |
| 13      | .0               | 15.0  | 78.1               | 15.97       | -607.        | -1135.              | 167.                | 145.21                | 55.17 | 128.81    | 11310. |
| 14      | .0               | 20.0  | 87.1               | 37.31       | -871.        | -1534.              | 214.                | 190.85                | 55.05 | 128.65    | 11190. |
| 15      | .0               | .0    | 61.9               | -6.45       | -55.         | -312.               | 92.                 | 10.24                 | 55.20 | 128.84    | 11220. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1732 | .0874  | .0159  | -.0183 | .0077 | .0296  |
| 3    | .00    | .1706 | -.0188 | -.0184 | -.0185 | .0066 | .0314  |
| 4    | -20.00 | .2584 | .0970  | -.2617 | .0537  | .0062 | -.4525 |
| 5    | -15.00 | .2378 | .0460  | -.1757 | .0306  | .0067 | -.3378 |
| 6    | -10.00 | .2055 | .0072  | -.0835 | .0088  | .0069 | -.2086 |
| 7    | -5.00  | .1826 | -.0111 | -.0409 | -.0065 | .0068 | -.0926 |
| 8    | -2.50  | .1712 | -.0161 | -.0294 | -.0128 | .0088 | -.0313 |
| 9    | .00    | .1657 | -.0175 | -.0255 | -.0190 | .0055 | .0298  |
| 10   | 2.50   | .1638 | -.0140 | -.0328 | -.0251 | .0060 | .0844  |
| 11   | 5.00   | .1719 | -.0091 | -.0522 | -.0302 | .0064 | .1427  |
| 12   | 10.00  | .1970 | .0083  | -.1109 | -.0493 | .0086 | .2655  |
| 13   | 15.00  | .2110 | .0432  | -.1958 | -.0686 | .0101 | .3925  |
| 14   | 20.00  | .2354 | .1008  | -.2808 | -.0927 | .0129 | .5158  |
| 15   | .00    | .1673 | -.0174 | -.0176 | -.0188 | .0056 | .0277  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CD8    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1732 | .0874  | .0159  | -.0183 | .0077  | .0296  |
| 3    | .00    | .1706 | -.0188 | -.0184 | -.0185 | .0066  | .0314  |
| 4    | -20.00 | .2584 | -.0643 | -.2571 | .0537  | .0226  | -.4583 |
| 5    | -15.00 | .2378 | -.0434 | -.1789 | .0306  | .0150  | -.3382 |
| 6    | -10.00 | .2055 | -.0293 | -.0887 | .0088  | .0095  | -.2067 |
| 7    | -5.00  | .1826 | -.0192 | -.0439 | -.0065 | .0074  | -.0913 |
| 8    | -2.50  | .1712 | -.0174 | -.0314 | -.0128 | .0090  | -.0306 |
| 9    | .00    | .1657 | -.0175 | -.0255 | -.0190 | .0055  | .0298  |
| 10   | 2.50   | .1638 | -.0177 | -.0314 | -.0251 | .0057  | .0837  |
| 11   | 5.00   | .1719 | -.0216 | -.0490 | -.0302 | .0056  | .1414  |
| 12   | 10.00  | .1970 | -.0381 | -.1012 | -.0493 | .0048  | .2629  |
| 13   | 15.00  | .2110 | -.0604 | -.1750 | -.0686 | .0002  | .3902  |
| 14   | 20.00  | .2354 | -.0825 | -.2400 | -.0927 | -.0059 | .5191  |
| 15   | .00    | .1673 | -.0174 | -.0176 | -.0188 | .0056  | .0277  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 923

RUN 1024 CONFIG F P B NP5 W7 T60 BT IN=-3.5

| PT. NO. | ALPHA DEG | O DELF PSI DEG | O DELA CLBAR SQ-FT | O IHT CDBAR SQ-FT | O DELE CPMBAR CU-FT | O DELR CYBAR CU-FT | -20 DELSB Q SQ-FT | O V PSF | RPM                 |
|---------|-----------|----------------|--------------------|-------------------|---------------------|--------------------|-------------------|---------|---------------------|
| 2       | .0        | .0             | 67.0               | 33.16             | 73.                 | -596.              | 101.              | 17.80   | 54.93 128.53 3550.  |
| 3       | .0        | .0             | 66.1               | -7.01             | -36.                | -603.              | 119.              | 17.74   | 54.74 128.30 11360. |
| 4       | .0        | -20.0          | 97.7               | 34.82             | -784.               | 637.               | 80.               | -163.71 | 54.74 128.31 11360. |
| 5       | .0        | -15.0          | 88.6               | 15.89             | -496.               | 249.               | 82.               | -115.33 | 55.00 128.61 11320. |
| 6       | .0        | -10.0          | 78.8               | 2.08              | -223.               | -88.               | 129.              | -73.56  | 54.74 128.30 11310. |
| 7       | .0        | -5.0           | 71.8               | -4.72             | -98.                | -322.              | 159.              | -28.28  | 55.16 128.80 11330. |
| 8       | .0        | -2.5           | 66.5               | -6.37             | -75.                | -469.              | 152.              | -4.20   | 55.13 128.77 11370. |
| 9       | .0        | .0             | 63.0               | -6.45             | -55.                | -594.              | 118.              | 18.57   | 54.86 128.44 11370. |
| 10      | .0        | 2.5            | 66.1               | -5.79             | -93.                | -717.              | 104.              | 42.72   | 54.15 127.59 11370. |
| 11      | .0        | 5.0            | 66.7               | -3.38             | -171.               | -805.              | 95.               | 63.76   | 54.55 128.07 11360. |
| 12      | .0        | 10.0           | 73.9               | 3.81              | -380.               | -1160.             | 111.              | 110.25  | 54.69 128.24 11370. |
| 13      | .0        | 15.0           | 84.0               | 17.75             | -614.               | -1454.             | 169.              | 154.47  | 55.00 128.61 11390. |
| 14      | .0        | 20.0           | 90.8               | 40.53             | -905.               | -1833.             | 218.              | 203.27  | 54.50 128.01 11350. |
| 15      | .0        | .0             | 64.3               | -6.82             | -54.                | -596.              | 101.              | 19.57   | 53.96 127.37 11360. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1811 | .0896  | .0234  | -.0360 | .0061 | .0481  |
| 3    | .00    | .1786 | -.0189 | -.0115 | -.0364 | .0072 | .0479  |
| 4    | -20.00 | .2640 | .0941  | -.2529 | .0385  | .0048 | -.4425 |
| 5    | -15.00 | .2394 | .0429  | -.1598 | .0151  | .0049 | -.3117 |
| 6    | -10.00 | .2131 | .0056  | -.0719 | -.0053 | .0078 | -.1988 |
| 7    | -5.00  | .1939 | -.0128 | -.0315 | -.0195 | .0096 | -.0764 |
| 8    | -2.50  | .1799 | -.0172 | -.0242 | -.0283 | .0092 | -.0114 |
| 9    | .00    | .1702 | -.0174 | -.0177 | -.0359 | .0071 | .0502  |
| 10   | 2.50   | .1786 | -.0157 | -.0298 | -.0433 | .0063 | .1155  |
| 11   | 5.00   | .1803 | -.0091 | -.0552 | -.0486 | .0057 | .1723  |
| 12   | 10.00  | .1996 | .0103  | -.1226 | -.0701 | .0067 | .2980  |
| 13   | 15.00  | .2270 | .0480  | -.1979 | -.0878 | .0102 | .4175  |
| 14   | 20.00  | .2453 | .1095  | -.2918 | -.1107 | .0131 | .5494  |
| 15   | .00    | .1739 | -.0184 | -.0174 | -.0360 | .0061 | .0529  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1811 | .0896  | .0234  | -.0360 | .0061  | .0481  |
| 3    | .00    | .1786 | -.0189 | -.0115 | -.0364 | .0072  | .0479  |
| 4    | -20.00 | .2640 | -.0636 | -.2463 | .0385  | .0208  | -.4479 |
| 5    | -15.00 | .2394 | -.0396 | -.1612 | .0151  | .0125  | -.3121 |
| 6    | -10.00 | .2131 | -.0292 | -.0780 | -.0053 | .0100  | -.1967 |
| 7    | -5.00  | .1939 | -.0194 | -.0359 | -.0195 | .0101  | -.0750 |
| 8    | -2.50  | .1799 | -.0177 | -.0263 | -.0283 | .0094  | -.0106 |
| 9    | .00    | .1702 | -.0174 | -.0177 | -.0359 | .0071  | .0502  |
| 10   | 2.50   | .1786 | -.0207 | -.0283 | -.0433 | .0060  | .1147  |
| 11   | 5.00   | .1803 | -.0242 | -.0523 | -.0486 | .0048  | .1709  |
| 12   | 10.00  | .1996 | -.0418 | -.1145 | -.0701 | .0026  | .2952  |
| 13   | 15.00  | .2270 | -.0622 | -.1769 | -.0878 | .0002  | .4156  |
| 14   | 20.00  | .2453 | -.0858 | -.2500 | -.1107 | -.0064 | .5536  |
| 15   | .00    | .1739 | -.0184 | -.0174 | -.0360 | .0061  | .0529  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 994

RUN 1025- CONFIG F P B NP5 W7 T60 BT IN=-3.5

| PT. NO. | ALPHA DEG | O DELF PSI DEG | O DELA CLBAR SQ-FT | O IHT CDBAR SQ-FT | O DELE CPMBAR CU-FT | O DELR CYMBAR CU-FT | O DELR CRMBAR CU-FT | O DELR CYBAR SQ-FT | O DELSB Q PSF | O V KNOTS | RPM    |
|---------|-----------|----------------|--------------------|-------------------|---------------------|---------------------|---------------------|--------------------|---------------|-----------|--------|
| 2       | .0        | .0             | 67.3               | 33.26             | 89.                 | 291.                | -30.                | -4.17              | 54.68         | 128.23    | 3560.  |
| 3       | .0        | .0             | 64.6               | -6.80             | -39.                | 293.                | -65.                | -5.39              | 54.33         | 127.82    | 11340. |
| 4       | .0        | -20.0          | 102.8              | 40.06             | -871.               | 1528.               | -105.               | -181.61            | 54.62         | 128.16    | 11360. |
| 5       | .0        | -15.0          | 91.1               | 19.41             | -625.               | 1151.               | -81.                | -139.35            | 54.71         | 128.26    | 11350. |
| 6       | .0        | -9.9           | 80.0               | 4.37              | -322.               | 851.                | -3.                 | -93.15             | 54.53         | 128.05    | 11370. |
| 7       | .0        | -5.0           | 73.5               | -4.09             | -134.               | 565.                | -28.                | -49.82             | 53.33         | 126.61    | 11330. |
| 8       | .0        | -2.5           | 64.9               | -6.09             | -84.                | 428.                | -68.                | -26.12             | 54.37         | 127.86    | 11370. |
| 9       | .0        | .0             | 65.6               | -7.15             | -46.                | 289.                | -11.                | -5.01              | 54.44         | 127.94    | 11340. |
| 10      | .0        | 2.5            | 63.7               | -6.38             | -55.                | 166.                | -61.                | 18.61              | 54.73         | 128.28    | 11340. |
| 11      | .0        | 5.0            | 64.9               | -5.03             | -99.                | 82.                 | -71.                | 40.72              | 54.62         | 128.16    | 11330. |
| 12      | .0        | 10.0           | 71.4               | .37               | -280.               | -188.               | -49.                | 84.80              | 54.31         | 127.79    | 11350. |
| 13      | .0        | 15.0           | 80.1               | 12.70             | -538.               | -541.               | 44.                 | 132.32             | 54.63         | 128.17    | 11350. |
| 14      | .0        | 20.0           | 86.3               | 32.78             | -778.               | -894.               | 22.                 | 177.32             | 54.88         | 128.47    | 11340. |
| 15      | .0        | .0             | 64.7               | -6.88             | -36.                | 291.                | -49.                | -3.32              | 54.45         | 127.96    | 11330. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1819 | .0899  | .0286  | .0176  | -.0018 | -.0113 |
| 3    | .00    | .1746 | -.0184 | -.0125 | .0177  | -.0039 | -.0146 |
| 4    | -20.00 | .2778 | .1083  | -.2809 | .0923  | -.0063 | -.4908 |
| 5    | -15.00 | .2463 | .0525  | -.2015 | .0695  | -.0049 | -.3766 |
| 6    | -9.90  | .2161 | .0118  | -.1039 | .0514  | -.0002 | -.2517 |
| 7    | -5.00  | .1986 | -.0111 | -.0433 | .0341  | -.0017 | -.1347 |
| 8    | -2.50  | .1755 | -.0165 | -.0272 | .0258  | -.0041 | -.0706 |
| 9    | .00    | .1774 | -.0193 | -.0150 | .0175  | -.0007 | -.0135 |
| 10   | 2.50   | .1720 | -.0173 | -.0176 | .0100  | -.0037 | .0503  |
| 11   | 5.00   | .1754 | -.0136 | -.0319 | .0050  | -.0043 | .1101  |
| 12   | 10.00  | .1930 | .0010  | -.0902 | -.0114 | -.0030 | .2292  |
| 13   | 15.00  | .2166 | .0343  | -.1736 | -.0327 | .0026  | .3576  |
| 14   | 20.00  | .2331 | .0886  | -.2507 | -.0640 | .0014  | .4792  |
| 15   | .00    | .1750 | -.0186 | -.0117 | .0176  | -.0030 | -.0090 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1819 | .0899  | .0286  | .0176  | -.0018 | -.0113 |
| 3    | .00    | .1746 | -.0184 | -.0125 | .0177  | -.0039 | -.0146 |
| 4    | -20.00 | .2778 | -.0669 | -.2522 | .0923  | .0121  | -.4981 |
| 5    | -15.00 | .2463 | -.0473 | -.1878 | .0695  | .0051  | -.3773 |
| 6    | -9.90  | .2161 | -.0319 | -.1022 | .0514  | .0032  | -.2500 |
| 7    | -5.00  | .1986 | -.0228 | -.0423 | .0341  | -.0010 | -.1332 |
| 8    | -2.50  | .1755 | -.0195 | -.0262 | .0258  | -.0039 | -.0698 |
| 9    | .00    | .1774 | -.0193 | -.0150 | .0175  | -.0007 | -.0135 |
| 10   | 2.50   | .1720 | -.0194 | -.0184 | .0100  | -.0038 | .0495  |
| 11   | 5.00   | .1754 | -.0232 | -.0338 | .0050  | -.0048 | .1085  |
| 12   | 10.00  | .1930 | -.0390 | -.0916 | -.0114 | -.0059 | .2258  |
| 13   | 15.00  | .2166 | -.0598 | -.1639 | -.0327 | -.0059 | .3543  |
| 14   | 20.00  | .2331 | -.0814 | -.2330 | -.0540 | -.0149 | .4805  |
| 15   | .00    | .1750 | -.0186 | -.0117 | .0176  | -.0030 | -.0090 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 995

RUN 1026 CONFIG F P B NP5 W7 T60 BT IN=-3.5

| IW<br>PT.<br>NO. | 0 DELF<br>ALPHA<br>DEG | 0 DELF<br>PSI<br>DEG | 0 DELA<br>CLBAR<br>SQ-FT | 0 DELA<br>CDBAR<br>SQ-FT | 0 IHT<br>CPMBAR<br>CU-FT | 0 DELE<br>CYMBAR<br>CU-FT | 0 DELR<br>CRMBAR<br>CU-FT | 20 DELSB<br>CYBAR<br>SQ-FT | 0<br>Q<br>PSF | 0<br>V<br>KNOTS | RPM    |
|------------------|------------------------|----------------------|--------------------------|--------------------------|--------------------------|---------------------------|---------------------------|----------------------------|---------------|-----------------|--------|
| 2                | .0                     | .0                   | 65.5                     | 33.81                    | 130.                     | 677.                      | -55.                      | -12.09                     | 54.94         | 128.54          | 3550.  |
| 3                | .0                     | .0                   | 61.0                     | -7.30                    | 0.                       | 679.                      | -90.                      | -13.51                     | 54.46         | 127.96          | 11490. |
| 4                | .0                     | -20.0                | 102.6                    | 43.03                    | -879.                    | 1861.                     | -41.                      | -190.04                    | 54.62         | 128.15          | 11420. |
| 5                | .0                     | -15.0                | 90.0                     | 22.08                    | -623.                    | 1517.                     | -57.                      | -147.35                    | 54.24         | 127.70          | 11470. |
| 6                | .0                     | -10.0                | 81.8                     | 6.60                     | -334.                    | 1253.                     | -48.                      | -102.19                    | 54.10         | 127.53          | 11420. |
| 7                | .0                     | -5.0                 | 70.0                     | -3.52                    | -116.                    | 679.                      | -134.                     | -50.10                     | 54.19         | 127.64          | 11470. |
| 8                | .0                     | -2.5                 | 65.7                     | -5.40                    | -44.                     | 811.                      | -37.                      | -36.27                     | 54.48         | 127.99          | 11470. |
| 9                | .0                     | .0                   | 64.5                     | -6.74                    | -7.                      | 670.                      | -19.                      | -13.33                     | 54.45         | 127.95          | 11470. |
| 10               | .0                     | 2.5                  | 62.7                     | -5.96                    | -10.                     | 549.                      | -53.                      | 11.82                      | 54.18         | 127.63          | 11480. |
| 11               | .0                     | 4.9                  | 64.6                     | -4.99                    | -41.                     | 439.                      | -63.                      | 32.09                      | 54.46         | 127.96          | 11420. |
| 12               | .0                     | 10.0                 | 69.0                     | -1.19                    | -190.                    | 133.                      | -110.                     | 77.70                      | 54.27         | 127.74          | 11470. |
| 13               | .0                     | 15.0                 | 76.5                     | 11.55                    | -485.                    | -217.                     | -15.                      | 125.28                     | 54.54         | 128.06          | 11440. |
| 14               | .0                     | 20.1                 | 81.0                     | 31.37                    | -709.                    | -576.                     | -10.                      | 170.11                     | 54.57         | 128.09          | 11450. |
| 15               | .0                     | .0                   | 61.1                     | -6.59                    | -2.                      | 673.                      | -91.                      | -12.33                     | 54.42         | 127.92          | 11470. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1770 | .0914  | .0419  | .0409  | -.0033 | -.0327 |
| 3    | .00    | .1649 | -.0197 | .0000  | .0410  | -.0054 | -.0365 |
| 4    | -20.00 | .2772 | .1163  | -.2835 | .1124  | -.0025 | -.5136 |
| 5    | -15.00 | .2434 | .0597  | -.2009 | .0916  | -.0035 | -.3982 |
| 6    | -10.00 | .2211 | .0178  | -.1075 | .0757  | -.0029 | -.2762 |
| 7    | -5.00  | .1892 | -.0095 | -.0375 | .0410  | -.0081 | -.1354 |
| 8    | -2.50  | .1775 | -.0146 | -.0142 | .0490  | -.0022 | -.0980 |
| 9    | .00    | .1743 | -.0182 | -.0023 | .0405  | -.0011 | -.0360 |
| 10   | 2.50   | .1695 | -.0161 | -.0034 | .0332  | -.0032 | .0319  |
| 11   | 4.90   | .1747 | -.0135 | -.0131 | .0265  | -.0038 | .0867  |
| 12   | 10.00  | .1865 | -.0005 | -.0612 | .0080  | -.0066 | .2100  |
| 13   | 15.00  | .2069 | .0312  | -.1565 | -.0131 | -.0009 | .3386  |
| 14   | 20.10  | .2188 | .0848  | -.2284 | -.0348 | -.0006 | .4698  |
| 15   | .00    | .1651 | -.0178 | -.0006 | .0406  | -.0055 | -.0333 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | COB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1770 | .0914  | .0419  | .0409  | -.0033 | -.0327 |
| 3    | .00    | .1649 | -.0197 | .0000  | .0410  | -.0054 | -.0365 |
| 4    | -20.00 | .2772 | -.0672 | -.2617 | .1124  | .0159  | -.5223 |
| 5    | -15.00 | .2434 | -.0459 | -.1892 | .0916  | .0065  | -.4001 |
| 6    | -10.00 | .2211 | -.0306 | -.1032 | .0757  | .0007  | -.2751 |
| 7    | -5.00  | .1892 | -.0213 | -.0336 | .0410  | -.0075 | -.1341 |
| 8    | -2.50  | .1775 | -.0189 | -.0136 | .0490  | -.0021 | -.0973 |
| 9    | .00    | .1743 | -.0182 | -.0023 | .0405  | -.0011 | -.0360 |
| 10   | 2.50   | .1695 | -.0175 | -.0041 | .0332  | -.0032 | .0312  |
| 11   | 4.90   | .1747 | -.0209 | -.0148 | .0265  | -.0040 | .0852  |
| 12   | 10.00  | .1865 | -.0371 | -.0664 | .0080  | -.0085 | .2067  |
| 13   | 15.00  | .2069 | -.0579 | -.1524 | -.0131 | -.0085 | .3351  |
| 14   | 20.10  | .2188 | -.0791 | -.2155 | -.0348 | -.0153 | .4608  |
| 15   | .00    | .1651 | -.0178 | -.0006 | .0406  | -.0055 | -.0333 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 996

RUN 1027 CONFIG F P 8 NP5 W7 T60 BT IN=-3.5 IVT=2.5

| PT. No. | O DELF    |         | O DELA      |             | O IHT        |              | O DELE       |             | O DELR |         | O DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF    | V KNOTS |         |  |     |
| 2       | .0        | .0      | 72.5        | 32.68       | 9.           | -346.        | 90.          | 13.62       | 54.02  | 127.43  | 3550.   |  |     |
| 3       | .0        | .0      | 66.0        | -6.88       | -127.        | -342.        | 55.          | 12.66       | 54.62  | 128.15  | 11290.  |  |     |
| 4       | .0        | -20.0   | 99.7        | 34.08       | -767.        | 775.         | 48.          | -161.68     | 55.41  | 129.09  | 11300.  |  |     |
| 5       | .0        | -15.0   | 88.5        | 15.57       | -538.        | 452.         | 86.          | -118.55     | 55.14  | 128.77  | 11300.  |  |     |
| 6       | .0        | -10.0   | 78.5        | 1.73        | -275.        | 28.          | 56.          | -71.61      | 55.23  | 128.87  | 11310.  |  |     |
| 7       | .0        | -5.0    | 73.5        | -4.18       | -165.        | -123.        | 92.          | -30.83      | 54.80  | 128.36  | 11240.  |  |     |
| 8       | .0        | -2.5    | 66.5        | -5.70       | -146.        | -245.        | 72.          | -10.24      | 54.91  | 128.49  | 11260.  |  |     |
| 9       | .0        | .0      | 64.3        | -5.96       | -144.        | -346.        | 87.          | 14.13       | 55.20  | 128.84  | 11240.  |  |     |
| 10      | .0        | 2.5     | 66.2        | -5.11       | -181.        | -429.        | 24.          | 34.61       | 55.21  | 128.85  | 11300.  |  |     |
| 11      | .0        | 5.0     | 68.6        | -3.42       | -267.        | -515.        | 29.          | 57.69       | 55.15  | 128.78  | 11290.  |  |     |
| 12      | .0        | 10.0    | 77.9        | 3.74        | -501.        | -885.        | 81.          | 101.35      | 55.49  | 129.18  | 11270.  |  |     |
| 13      | .0        | 15.0    | 84.3        | 17.71       | -788.        | -1173.       | 175.         | 146.41      | 55.40  | 129.07  | 11300.  |  |     |
| 14      | .0        | 20.0    | 94.3        | 40.65       | -1058.       | -1628.       | 252.         | 195.33      | 55.07  | 128.68  | 11290.  |  |     |
| 15      | .0        | .0      | 67.0        |             |              |              |              | 13.87       | 56.23  | 130.05  | 11220.  |  |     |
| 16      | .0        | .0      | 66.2        | -6.97       | -135.        | -346.        | 91.          | 12.35       | 54.62  | 128.14  | 11340.  |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1959 | .0883  | .0030  | -.0209 | .0055 | .0368  |
| 3    | .00    | .1784 | -.0186 | -.0411 | -.0207 | .0033 | .0342  |
| 4    | -20.00 | .2693 | .0921  | -.2474 | .0468  | .0029 | -.4370 |
| 5    | -15.00 | .2393 | .0421  | -.1734 | .0273  | .0052 | -.3204 |
| 6    | -10.00 | .2123 | .0047  | -.0885 | .0017  | .0034 | -.1935 |
| 7    | -5.00  | .1988 | .0113  | -.0531 | -.0074 | .0056 | -.0833 |
| 8    | -2.50  | .1798 | -.0154 | -.0472 | -.0148 | .0044 | -.0277 |
| 9    | .00    | .1739 | -.0161 | -.0464 | -.0209 | .0053 | .0382  |
| 10   | 2.50   | .1790 | -.0138 | -.0583 | -.0259 | .0014 | .0935  |
| 11   | 5.00   | .1853 | -.0093 | -.0859 | -.0311 | .0018 | .1559  |
| 12   | 10.00  | .2106 | .0101  | -.1616 | -.0535 | .0049 | .2739  |
| 13   | 15.00  | .2278 | .0479  | -.2539 | -.0709 | .0106 | .3957  |
| 14   | 20.00  | .2549 | .1099  | -.3411 | -.0984 | .0152 | .5279  |
| 15   | .00    | .1811 |        |        |        |       | .0375  |
| 16   | .00    | .1789 | -.0188 | -.0434 | -.0209 | .0055 | .0334  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1959 | .0883  | .0030  | -.0209 | .0055  | .0368  |
| 3    | .00    | .1784 | -.0186 | -.0411 | -.0207 | .0033  | .0342  |
| 4    | -20.00 | .2693 | -.0636 | -.2376 | .0468  | .0186  | -.4420 |
| 5    | -15.00 | .2393 | -.0427 | -.1746 | .0273  | .0135  | -.3203 |
| 6    | -10.00 | .2123 | -.0292 | -.0903 | .0017  | .0062  | -.1914 |
| 7    | -5.00  | .1988 | -.0186 | -.0555 | -.0074 | .0064  | -.0820 |
| 8    | -2.50  | .1798 | -.0166 | -.0481 | -.0148 | .0047  | -.0270 |
| 9    | .00    | .1739 | -.0161 | -.0464 | -.0209 | .0053  | .0382  |
| 10   | 2.50   | .1790 | -.0179 | -.0579 | -.0259 | .0009  | .0928  |
| 11   | 5.00   | .1853 | -.0229 | -.0848 | -.0311 | .0003  | .1545  |
| 12   | 10.00  | .2106 | -.0378 | -.1546 | -.0535 | -.0005 | .2715  |
| 13   | 15.00  | .2278 | -.0567 | -.2305 | -.0709 | -.0021 | .3945  |
| 14   | 20.00  | .2549 | -.0782 | -.2924 | -.0984 | -.0076 | .5335  |
| 15   | .00    | .1811 |        |        |        |        | .0375  |
| 16   | .00    | .1789 | -.0188 | -.0434 | -.0209 | .0055  | .0334  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 997

RUN 1028 CONFIG F P R NP5 W7 T60 BT IN=-3.5 IVT=2.5

| PT. No. | ALPHA DEG | O DELF PSI DEG | O DELA CIBAR SQ-FT | O DELA CDBAR SQ-FT | O IHT CRMBAR CU-FT | O DELE CYMBAR CU-FT | O DELR CRMBAR CU-FT | O DELR CYBAR SQ-FT | O DELSB Q PSF | O V KNOTS | RPM    |
|---------|-----------|----------------|--------------------|--------------------|--------------------|---------------------|---------------------|--------------------|---------------|-----------|--------|
| 2       | .0        | .0             | 69.3               | 32.15              | 7.                 | -340.               | 20.                 | 12.27              | 54.95         | 128.54    | 3620.  |
| 3       | .0        | .0             | 60.2               | -55.63             | -270.              | -958.               | 64.                 | 19.45              | 54.83         | 128.40    | 23090. |
| 4       | .0        | -20.0          | 96.2               | -7.82              | -836.              | 263.                | 17.                 | -175.08            | 54.01         | 127.42    | 22960. |
| 5       | .0        | -15.0          | 84.4               | -30.34             | -655.              | -131.               | 16.                 | -124.00            | 54.42         | 127.91    | 23070. |
| 6       | .0        | -10.0          | 74.9               | -44.57             | -441.              | -526.               | 93.                 | -74.92             | 54.79         | 128.35    | 22950. |
| 7       | .0        | -5.0           | 65.7               | -51.80             | -351.              | -730.               | 70.                 | -28.96             | 54.58         | 128.09    | 23000. |
| 8       | .0        | -2.5           | 62.1               | -52.69             | -316.              | -844.               | 82.                 | -4.65              | 54.98         | 128.58    | 23090. |
| 9       | .0        | .0             | 60.1               | -52.69             | -334.              | -954.               | 27.                 | 20.89              | 54.78         | 128.34    | 23040. |
| 10      | .0        | 2.5            | 60.3               | -51.29             | -363.              | -1023.              | 121.                | 42.89              | 54.64         | 128.17    | 22980. |
| 11      | .0        | 5.0            | 62.7               | -49.68             | -414.              | -1090.              | 143.                | 67.53              | 54.83         | 128.40    | 22990. |
| 12      | .0        | 10.0           | 65.8               | -42.42             | -628.              | -1464.              | 104.                | 119.62             | 54.85         | 128.42    | 23050. |
| 13      | .0        | 15.0           | 71.9               | -27.33             | -820.              | -1664.              | 165.                | 170.20             | 54.44         | 127.93    | 22980. |
| 14      | .0        | 20.1           | 73.1               | -4.22              | -1048.             | -2174.              | 231.                | 221.16             | 55.11         | 128.73    | 23020. |
| 15      | .0        | .0             | 59.0               | -52.91             | -314.              | -953.               | 45.                 | 20.69              | 54.50         | 128.00    | 23010. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1873 | .0869  | .0021  | -.0205 | .0012 | .0332  |
| 3    | .00    | .1627 | -.1504 | -.0872 | -.0579 | .0039 | .0526  |
| 4    | -20.00 | .2600 | -.0211 | -.2695 | .0159  | .0010 | -.4732 |
| 5    | -15.00 | .2280 | -.0820 | -.2110 | -.0079 | .0010 | -.3351 |
| 6    | -10.00 | .2025 | -.1204 | -.1421 | -.0318 | .0056 | -.2025 |
| 7    | -5.00  | .1775 | -.1400 | -.1131 | -.0441 | .0042 | -.0783 |
| 8    | -2.50  | .1677 | -.1424 | -.1019 | -.0510 | .0049 | -.0126 |
| 9    | .00    | .1625 | -.1424 | -.1078 | -.0576 | .0016 | .0565  |
| 10   | 2.50   | .1630 | -.1386 | -.1170 | -.0618 | .0073 | .1159  |
| 11   | 5.00   | .1695 | -.1343 | -.1334 | -.0658 | .0086 | .1825  |
| 12   | 10.00  | .1778 | -.1146 | -.2023 | -.0884 | .0063 | .3233  |
| 13   | 15.00  | .1944 | -.0739 | -.2644 | -.1005 | .0099 | .4600  |
| 14   | 20.10  | .1975 | -.0114 | -.3377 | -.1313 | .0140 | .5977  |
| 15   | .00    | .1594 | -.1430 | -.1013 | -.0576 | .0027 | .0559  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1873 | .0869  | .0021  | -.0205 | .0012  | .0332  |
| 3    | .00    | .1627 | -.1504 | -.0872 | -.0579 | .0039  | .0526  |
| 4    | -20.00 | .2600 | -.1824 | -.2550 | .0159  | .0183  | -.4371 |
| 5    | -15.00 | .2280 | -.1663 | -.2051 | -.0079 | .0112  | -.3023 |
| 6    | -10.00 | .2025 | -.1539 | -.1452 | -.0318 | .0102  | -.1784 |
| 7    | -5.00  | .1775 | -.1463 | -.1146 | -.0441 | .0061  | -.0657 |
| 8    | -2.50  | .1677 | -.1428 | -.1030 | -.0510 | .0058  | -.0063 |
| 9    | .00    | .1625 | -.1424 | -.1078 | -.0576 | .0016  | .0565  |
| 10   | 2.50   | .1630 | -.1436 | -.1152 | -.0618 | .0064  | .1097  |
| 11   | 5.00   | .1695 | -.1497 | -.1289 | -.0658 | .0064  | .1701  |
| 12   | 10.00  | .1778 | -.1693 | -.1934 | -.0884 | -.0004 | .2983  |
| 13   | 15.00  | .1944 | -.1909 | -.2416 | -.1005 | -.0033 | .4250  |
| 14   | 20.10  | .1975 | -.2170 | -.2912 | -.1313 | -.0087 | .5571  |
| 15   | .00    | .1594 | -.1430 | -.1013 | -.0576 | .0027  | .0559  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SeR=72011

P998

RUN 1029 CONFIG F P R NP5 W7 T60 BT IN=-3.5 IVT=4.8

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | DELTA PSI PSF | DELTA V KNOTS | RPM    |
|---------|-----------|---------------|-------------|-------------|---------------|-------------|---------------|-------------|---------------|---------------|--------|
| 2       | .0        | .0            | 68.4        | 32.65       | -23.          | -650.       | 42.           | 22.84       | 54.58         | 128.10        | 3600.  |
| 3       | .0        | .0            | 61.4        | 58.96       | -279.         | -1303.      | 71.           | 28.93       | 54.16         | 127.60        | 23130. |
| 4       | .0        | -20.0         | 93.1        | -11.73      | -677.         | -161.       | 55.           | -164.28     | 54.28         | 127.75        | 23050. |
| 5       | .0        | -15.0         | 81.4        | -31.43      | -511.         | -532.       | 148.          | -118.27     | 54.03         | 127.45        | 23100. |
| 6       | .0        | -10.0         | 71.4        | -46.14      | -358.         | -873.       | 99.           | -67.28      | 54.48         | 127.98        | 23040. |
| 7       | .0        | -5.0          | 64.0        | -51.37      | -279.         | -1045.      | 111.          | -20.53      | 55.08         | 128.70        | 23010. |
| 8       | .0        | -2.5          | 61.3        | -52.23      | -280.         | -1189.      | 141.          | 3.90        | 55.06         | 128.67        | 22960. |
| 9       | .0        | .0            | 61.4        | -53.62      | -315.         | -1292.      | 141.          | 30.20       | 54.15         | 127.58        | 23060. |
| 10      | .0        | 2.5           | 61.5        | -51.28      | -375.         | -1318.      | 126.          | 52.68       | 54.71         | 128.25        | 23110. |
| 11      | .0        | 5.0           | 63.7        | 163.74      | -713.         | -16009.     | 145.          | 77.72       | 55.44         | 129.12        | 23060. |
| 12      | .0        | 10.0          | 68.2        | -40.73      | -698.         | -1858.      | 163.          | 125.61      | 55.16         | 128.79        | 22970. |
| 13      | .0        | 15.0          | 73.4        | -22.98      | -892.         | -1991.      | 222.          | 176.19      | 54.93         | 128.51        | 22980. |
| 14      | .0        | 20.0          | 77.1        | 2.47        | -1119.        | -2529.      | 317.          | 231.47      | 54.97         | 128.56        | 23050. |
| 15      | .0        | .0            | 59.9        | -49.98      | -302.         | -1251.      | 88.           | 28.33       | 54.95         | 128.55        | 23010. |
| 16      | .0        | 5.0           | 64.5        | -46.62      | -438.         | -1424.      | 114.          | 77.66       | 54.39         | 127.87        | 23090. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1848 | .0882  | -.0076 | -.0393 | .0025 | .0617  |
| 3    | .00    | .1661 | -.1594 | -.0899 | -.0787 | .0043 | .0782  |
| 4    | -20.00 | .2516 | -.0317 | -.2182 | -.0097 | .0033 | -.4440 |
| 5    | -15.00 | .2199 | -.0849 | -.1647 | -.0322 | .0089 | -.3197 |
| 6    | -10.00 | .1929 | -.1247 | -.1154 | -.0327 | .0060 | -.1818 |
| 7    | -5.00  | .1731 | -.1388 | -.0900 | -.0631 | .0067 | -.0555 |
| 8    | -2.50  | .1655 | -.1412 | -.0903 | -.0718 | .0085 | .0105  |
| 9    | .00    | .1659 | -.1449 | -.1016 | -.0780 | .0085 | .0816  |
| 10   | 2.50   | .1662 | -.1386 | -.1208 | -.0796 | .0076 | .1424  |
| 11   | 5.00   | .1721 | .4425  | -.2298 | -.9670 | .0087 | .2101  |
| 12   | 10.00  | .1842 | -.1101 | -.2251 | -.1122 | .0099 | .3395  |
| 13   | 15.00  | .1984 | -.0621 | -.2876 | -.1203 | .0134 | .4767  |
| 14   | 20.00  | .2085 | .0067  | -.3038 | -.1528 | .0192 | .5898  |
| 15   | .00    | .1619 | -.1351 | -.0974 | -.0756 | .0053 | .0766  |
| 16   | 5.00   | .1745 | -.1260 | -.1412 | -.0860 | .0069 | .2099  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1848 | .0882  | -.0076 | -.0393 | .0025  | .0617  |
| 3    | .00    | .1661 | -.1594 | -.0899 | -.0787 | .0043  | .0782  |
| 4    | -20.00 | .2516 | -.1823 | -.2110 | -.0097 | .0172  | -.4061 |
| 5    | -15.00 | .2199 | -.1651 | -.1714 | -.0322 | .0166  | -.2866 |
| 6    | -10.00 | .1929 | -.1545 | -.1192 | -.0327 | .0096  | -.1573 |
| 7    | -5.00  | .1731 | -.1431 | -.0928 | -.0631 | .0082  | -.0431 |
| 8    | -2.50  | .1655 | -.1406 | -.0922 | -.0718 | .0093  | .0167  |
| 9    | .00    | .1659 | -.1449 | -.1016 | -.0780 | .0085  | .0816  |
| 10   | 2.50   | .1662 | -.1447 | -.1189 | -.0796 | .0066  | .1362  |
| 11   | 5.00   | .1721 | .4224  | -.2248 | -.9670 | .0049  | .2480  |
| 12   | 10.00  | .1842 | -.1676 | -.2125 | -.1122 | .0024  | .3151  |
| 13   | 15.00  | .1984 | -.1838 | -.2591 | -.1203 | -.0010 | .4437  |
| 14   | 20.00  | .2085 | -.2086 | -.3038 | -.1528 | -.0052 | .5898  |
| 15   | .00    | .1619 | -.1351 | -.0974 | -.0756 | .0053  | .0766  |
| 16   | 5.00   | .1745 | -.1439 | -.1375 | -.0860 | .0045  | .1981  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 999

RUN 1030 CONFIG F P B NPS W7 T40 BT IN=-3.5 IVT=4.8

| PT. No. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDRBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | Q V KNOTS | RPM    |
|---------|-----------|---------------|-------------|--------------|---------------|--------------|---------------|-------------|-------------|-----------|--------|
| 2       | .0        | .0            | 49.7        | 32.83        | -6.           | -655.        | 43.           | 21.63       | 54.82       | 128.38    | 3580.  |
| 3       | .0        | .0            | 67.3        | -6.92        | -138.         | -669.        | 63.           | 20.72       | 54.57       | 128.09    | 11450. |
| 4       | .0        | -20.0         | 93.9        | 30.25        | -646.         | 411.         | 63.           | -153.05     | 55.11       | 128.73    | 11450. |
| 5       | .0        | -15.0         | 85.5        | 13.46        | -428.         | 127.         | 56.           | -111.05     | 55.12       | 128.74    | 11380. |
| 6       | .0        | -10.0         | 76.8        | -.29         | -233.         | -234.        | 135.          | -65.18      | 55.71       | 129.44    | 11440. |
| 7       | .0        | -5.0          | 69.2        | -5.18        | -151.         | -445.        | 81.           | -23.37      | 55.40       | 129.07    | 11400. |
| 8       | .0        | -2.5          | 66.3        | -6.18        | -146.         | -592.        | 62.           | -2.47       | 55.11       | 128.73    | 11370. |
| 9       | .0        | .0            | 67.2        | -6.24        | -181.         | -663.        | 98.           | 20.59       | 54.76       | 128.31    | 11440. |
| 10      | .0        | 2.5           | 68.8        | -4.95        | -254.         | -728.        | 65.           | 43.13       | 55.13       | 128.76    | 11400. |
| 11      | .0        | 5.0           | 70.4        | -2.98        | -350.         | -859.        | 55.           | 65.21       | 54.96       | 128.55    | 11420. |
| 12      | .0        | 10.0          | 77.8        | 5.41         | -643.         | -1273.       | 98.           | 114.45      | 55.74       | 129.48    | 11460. |
| 13      | .0        | 15.0          | 87.0        | 21.42        | -901.         | -1501.       | 89.           | 157.29      | 55.46       | 129.15    | 11380. |
| 14      | .0        | 18.9          | 96.9        | 39.87        | -1121.        | -1952.       | 245.          | 198.89      | 54.93       | 128.51    | 11450. |
| 15      | .0        | .0            | 65.2        | -6.53        | -175.         | -665.        | 78.           | 20.83       | 55.60       | 129.30    | 11370. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYN    | CRM   | CY     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .1884 | .0887  | -.0018 | -.0396 | .0026 | .0584  |
| 3    | .00    | .1819 | -.0187 | -.0444 | -.0404 | .0038 | .0560  |
| 4    | -20.00 | .2537 | .0817  | -.2082 | .0248  | .0038 | -.4136 |
| 5    | -15.00 | .2310 | .0364  | -.1381 | .0077  | .0034 | -.3001 |
| 6    | -10.00 | .2076 | -.0008 | -.0751 | -.0141 | .0081 | -.1762 |
| 7    | -5.00  | .1871 | -.0140 | -.0487 | -.0268 | .0049 | -.0632 |
| 8    | -2.50  | .1792 | -.0167 | -.0471 | -.0358 | .0037 | -.0067 |
| 9    | .00    | .1817 | -.0169 | -.0583 | -.0400 | .0059 | .0556  |
| 10   | 2.50   | .1859 | -.0134 | -.0820 | -.0440 | .0039 | .1166  |
| 11   | 5.00   | .1904 | -.0080 | -.1129 | -.0519 | .0033 | .1762  |
| 12   | 10.00  | .2102 | .0146  | -.2073 | -.0769 | .0059 | .3093  |
| 13   | 15.00  | .2352 | .0579  | -.2904 | -.0907 | .0054 | .4251  |
| 14   | 18.90  | .2619 | .1077  | -.3613 | -.1179 | .0148 | .5375  |
| 15   | .00    | .1762 | -.0177 | -.0564 | -.0402 | .0047 | .0563  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .1884 | .0887  | -.0018 | -.0396 | .0026  | .0584  |
| 3    | .00    | .1819 | -.0187 | -.0444 | -.0404 | .0038  | .0560  |
| 4    | -20.00 | .2537 | -.0653 | -.2025 | .0248  | .0170  | -.4166 |
| 5    | -15.00 | .2310 | -.0429 | -.1381 | .0077  | .0100  | -.2993 |
| 6    | -10.00 | .2076 | -.0315 | -.0815 | -.0141 | .0105  | -.1733 |
| 7    | -5.00  | .1871 | -.0195 | -.0508 | -.0268 | .0057  | -.0617 |
| 8    | -2.50  | .1792 | -.0170 | -.0480 | -.0358 | .0041  | -.0059 |
| 9    | .00    | .1817 | -.0169 | -.0583 | -.0400 | .0059  | .0556  |
| 10   | 2.50   | .1859 | -.0185 | -.0810 | -.0440 | .0033  | .1159  |
| 11   | 5.00   | .1904 | -.0234 | -.1109 | -.0519 | .0014  | .1749  |
| 12   | 10.00  | .2102 | -.0396 | -.1986 | -.0769 | -.0009 | .3071  |
| 13   | 15.00  | .2352 | -.0546 | -.2730 | -.0907 | -.0090 | .4255  |
| 14   | 18.90  | .2619 | -.0730 | -.3160 | -.1179 | -.0080 | .5434  |
| 15   | .00    | .1762 | -.0177 | -.0564 | -.0402 | .0047  | .0563  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

| RUN 1031 CONFIG |           |                | F P R NP5 47 T60 BT |                   |                     |                     | IN=-3.5             |           | WH    |        |        |
|-----------------|-----------|----------------|---------------------|-------------------|---------------------|---------------------|---------------------|-----------|-------|--------|--------|
| PT. #           | ALPHA DEG | O DELF PSI DEG | O DELTA CLBAR SQ-FT | O INT CDBAR SQ-FT | O DELE CPMBAR CU-FT | O DEIR CYMBAR CU-FT | O DELSB O PSF SQ-FT | O V KNOTS | RPM   |        |        |
| 2               | 3.5       | 0              | 172.6               | 37.56             | -60.                | -21.                | 66.                 | 3.27      | 56.19 | 130.01 | 3680.  |
| 4               | 3.5       | 0              | 174.9               | 32.19             | -92.                | -25.                | 86.                 | 1.73      | 55.18 | 128.81 | 5120.  |
| 5               | 3.5       | 0              | 176.9               | 24.87             | -114.               | -20.                | 95.                 | 3.67      | 54.74 | 128.28 | 6950.  |
| 6               | 3.5       | 0              | 175.3               | 13.74             | -130.               | -24.                | 85.                 | 2.22      | 55.20 | 128.84 | 8980.  |
| 9               | 3.5       | 0              | 176.9               | 1.34              | -145.               | -26.                | 88.                 | 0.12      | 55.07 | 128.68 | 10970. |
| 9               | 3.5       | 0              | 174.8               | -10.90            | -178.               | -27.                | 52.                 | .68       | 54.99 | 128.59 | 12510. |
| 10              | 3.5       | 0              | 174.1               | -23.81            | -183.               | -24.                | 85.                 | 2.09      | 55.54 | 129.24 | 13950. |
| 11              | 3.5       | 0              | 174.3               | -32.34            | -193.               | -33.                | 50.                 | 2.71      | 55.39 | 129.07 | 14910. |
| 12              | 3.5       | 0              | 174.6               | -48.47            | -215.               | -30.                | 69.                 | 1.62      | 54.78 | 128.34 | 16470. |
| 13              | 3.5       | 0              | 175.6               | -63.42            | -236.               | -34.                | 69.                 | .98       | 55.55 | 129.26 | 17880. |
| 14              | 3.5       | 0              | 175.6               | -75.87            | -253.               | -29.                | 71.                 | 0.19      | 55.09 | 128.71 | 18860. |
| 15              | 3.5       | 0              | 178.3               | -90.44            | -268.               | -29.                | 155.                | 1.72      | 55.59 | 129.31 | 19970. |
| 16              | 3.5       | 0              | 181.6               | -105.28           | -305.               | -17.                | 141.                | .56       | 54.57 | 128.09 | 20850. |
| 17              | 3.5       | 0              | 178.6               | -122.66           | -334.               | -49.                | 124.                | 0.50      | 54.87 | 128.45 | 21930. |
| 18              | 3.5       | 0              | 182.0               | -138.99           | -356.               | -32.                | 123.                | 1.00      | 54.67 | 128.21 | 22970. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. # | ALPHA | CL    | CD     | CPM    | CYM    | CRM   | CY     |
|-------|-------|-------|--------|--------|--------|-------|--------|
| 2     | 3.50  | .4666 | .1015  | -.0192 | -.0013 | .0040 | .0088  |
| 4     | 3.50  | .4727 | .0870  | -.0297 | -.0015 | .0052 | .0047  |
| 5     | 3.50  | .4781 | .0672  | -.0367 | -.0012 | .0051 | .0099  |
| 6     | 3.50  | .4737 | .0372  | -.0419 | -.0015 | .0052 | .0060  |
| 8     | 3.50  | .4782 | .0036  | -.0467 | -.0014 | .0053 | -.0003 |
| 9     | 3.50  | .4723 | -.0294 | -.0575 | -.0014 | .0031 | .0018  |
| 10    | 3.50  | .4706 | -.0644 | -.0591 | -.0015 | .0051 | .0056  |
| 11    | 3.50  | .4710 | -.0874 | -.0621 | -.0020 | .0030 | .0073  |
| 12    | 3.50  | .4773 | -.1310 | -.0692 | -.0018 | .0042 | .0044  |
| 13    | 3.50  | .4746 | -.1714 | -.0762 | -.0021 | .0042 | .0027  |
| 14    | 3.50  | .4747 | -.2051 | -.0814 | -.0018 | .0043 | -.0005 |
| 15    | 3.50  | .4820 | -.2445 | -.0863 | -.0017 | .0094 | .0046  |
| 16    | 3.50  | .4908 | -.2845 | -.0984 | -.0022 | .0085 | .0015  |
| 17    | 3.50  | .4826 | -.3315 | -.1076 | -.0030 | .0075 | -.0013 |
| 18    | 3.50  | .4919 | -.3757 | -.1148 | -.0019 | .0074 | .0027  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. # | ALPHA | CLB   | CPB    | CPMB   | CYMB   | CRMB  | CYB    |
|-------|-------|-------|--------|--------|--------|-------|--------|
| 2     | 3.50  | .4666 | .1015  | -.0192 | -.0013 | .0040 | .0088  |
| 4     | 3.50  | .4727 | .0870  | -.0297 | -.0015 | .0052 | .0047  |
| 5     | 3.50  | .4781 | .0672  | -.0367 | -.0012 | .0051 | .0099  |
| 6     | 3.50  | .4737 | .0372  | -.0419 | -.0015 | .0052 | .0060  |
| 8     | 3.50  | .4782 | .0036  | -.0467 | -.0014 | .0053 | -.0003 |
| 9     | 3.50  | .4723 | -.0294 | -.0575 | -.0014 | .0031 | .0018  |
| 10    | 3.50  | .4706 | -.0644 | -.0591 | -.0015 | .0051 | .0056  |
| 11    | 3.50  | .4710 | -.0874 | -.0621 | -.0020 | .0030 | .0073  |
| 12    | 3.50  | .4773 | -.1310 | -.0692 | -.0018 | .0042 | .0044  |
| 13    | 3.50  | .4746 | -.1714 | -.0762 | -.0021 | .0042 | .0027  |
| 14    | 3.50  | .4747 | -.2051 | -.0814 | -.0018 | .0043 | -.0005 |
| 15    | 3.50  | .4820 | -.2445 | -.0863 | -.0017 | .0094 | .0046  |
| 16    | 3.50  | .4908 | -.2845 | -.0984 | -.0022 | .0085 | .0015  |
| 17    | 3.50  | .4826 | -.3315 | -.1076 | -.0030 | .0075 | -.0013 |
| 18    | 3.50  | .4919 | -.3757 | -.1148 | -.0019 | .0074 | .0027  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P1001

RUN 1032 CONFIG F P B NP5 W7 T60 RT IN=-3.5 MAX

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA DELSR PSF | DELTA DELSV KNOTS | RPM   |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-----------------|-------------------|-------|
| 2       | .0        | .0            | 64.6              | 32.55             | 53.                | -50.               | 31.                | 3.11              | 54.78           | 128.33            | 3590. |
| 3       | -20.0     | .0            | -341.1            | 168.99            | 1543.              | -132.              | -207.              | 6.33              | 55.46           | 129.14            | 3890. |
| 4       | -15.0     | .0            | -322.5            | 93.36             | 1376.              | -65.               | -26.               | 4.39              | 55.83           | 129.58            | 3820. |
| 5       | -10.0     | .0            | -232.3            | 56.65             | 891.               | -88.               | -29.               | 5.94              | 55.04           | 128.64            | 3590. |
| 6       | -5.0      | .0            | -91.0             | 34.94             | 352.               | -58.               | 41.                | 7.79              | 55.08           | 128.69            | 3500. |
| 7       | -2.5      | .0            | -11.6             | 31.81             | 184.               | -64.               | 66.                | 3.34              | 55.12           | 128.74            | 3550. |
| 8       | .0        | .0            | 64.0              | 31.93             | 50.                | -43.               | 65.                | 3.98              | 55.65           | 129.36            | 3580. |
| 9       | 2.5       | .0            | 141.3             | 35.33             | -42.               | -34.               | 32.                | 2.14              | 55.60           | 129.31            | 3640. |
| 10      | 5.0       | .0            | 221.2             | 42.58             | -128.              | -25.               | 50.                | 2.72              | 55.05           | 128.65            | 3710. |
| 11      | 10.0      | .0            | 376.3             | 65.00             | -299.              | -23.               | 105.               | .99               | 54.94           | 128.52            | 3880. |
| 12      | 15.0      | .0            | 524.6             | 100.86            | -607.              | -23.               | 106.               | .56               | 54.75           | 128.30            | 4060. |
| 13      | 20.0      | .0            | 534.5             | 159.25            | -544.              | -56.               | 107.               | -.76              | 54.02           | 127.42            | 4100. |
| 14      | -.0       | .0            | 67.0              | 32.58             | 64.                | -47.               | 65.                | 4.66              | 54.84           | 128.40            | 3590. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .1746  | .0880 | .0172  | -.0030 | .0019  | .0084  |
| 3    | -20.01 | -.9220 | .4567 | .4976  | -.0080 | -.0125 | .0171  |
| 4    | -15.01 | -.8717 | .2523 | .4436  | -.0039 | -.0016 | .0119  |
| 5    | -10.00 | -.6278 | .1531 | .2873  | -.0053 | -.0017 | .0161  |
| 6    | -5.00  | -.2485 | .0944 | .1135  | -.0035 | .0025  | .0211  |
| 7    | -2.50  | -.0314 | .0860 | .0595  | -.0038 | .0040  | .0090  |
| 8    | .00    | .1755  | .0863 | .0160  | -.0026 | .0039  | .0108  |
| 9    | 2.51   | .3818  | .0955 | -.0136 | -.0021 | .0020  | .0058  |
| 10   | 5.01   | .5977  | .1151 | -.0413 | -.0015 | .0030  | .0074  |
| 11   | 10.01  | 1.0169 | .1757 | -.0964 | -.0014 | .0064  | .0027  |
| 12   | 15.04  | 1.4178 | .2726 | -.1956 | -.0014 | .0064  | .0015  |
| 13   | 20.02  | 1.4445 | .4304 | -.1753 | -.0034 | .0065  | -.0020 |
| 14   | -.01   | .1810  | .0881 | .0207  | -.0029 | .0039  | .0126  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | COB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .1746  | .0880 | .0172  | -.0030 | .0019  | .0084  |
| 3    | -20.01 | -.9220 | .4567 | .4976  | -.0080 | -.0125 | .0171  |
| 4    | -15.01 | -.8717 | .2523 | .4436  | -.0039 | -.0016 | .0119  |
| 5    | -10.00 | -.6278 | .1531 | .2873  | -.0053 | -.0017 | .0161  |
| 6    | -5.00  | -.2485 | .0944 | .1135  | -.0035 | .0025  | .0211  |
| 7    | -2.50  | -.0314 | .0860 | .0595  | -.0038 | .0040  | .0090  |
| 8    | .00    | .1755  | .0863 | .0160  | -.0026 | .0039  | .0108  |
| 9    | 2.51   | .3818  | .0955 | -.0136 | -.0021 | .0020  | .0058  |
| 10   | 5.01   | .5977  | .1151 | -.0413 | -.0015 | .0030  | .0074  |
| 11   | 10.01  | 1.0169 | .1757 | -.0964 | -.0014 | .0064  | .0027  |
| 12   | 15.04  | 1.4178 | .2726 | -.1956 | -.0014 | .0064  | .0015  |
| 13   | 20.02  | 1.4445 | .4304 | -.1753 | -.0034 | .0065  | -.0020 |
| 14   | -.01   | .1810  | .0881 | .0207  | -.0029 | .0039  | .0126  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P 1002

| RUN 1033 CONFIG |       | F P B NP5 W7 T60 RT |        |         |        |        | IN=-3.5 |       | MAX   |        |        |     |
|-----------------|-------|---------------------|--------|---------|--------|--------|---------|-------|-------|--------|--------|-----|
| PT.             | ALPHA | PSI                 | CLBAR  | COBAR   | CPMBAR | CYMRAP | CRMBAR  | CYBAR | DELTA | DELTA  | DELTA  | RPM |
| NO.             | DEG   | DEG                 | SQ-FT  | SQ-FT   | CU-FT  | CU-FT  | CU-FT   | CU-FT | PSF   | KNOTS  |        |     |
| 2               | .0    | .0                  | 64.5   | 32.46   | 50.    | -43.   | 15.     | 2.22  | 55.21 | 128.85 | 3570.  |     |
| 3               | .0    | .0                  | 58.9   | -142.08 | -321.  | -40.   | 102.    | 3.16  | 55.00 | 128.61 | 22970. |     |
| 4               | -20.0 | .0                  | -561.2 | 6.65    | 2004.  | 49.    | -116.   | 3.79  | 53.96 | 127.36 | 23040. |     |
| 5               | -15.0 | .0                  | -491.7 | -70.90  | 1190.  | 152.   | -117.   | -4.16 | 54.07 | 127.40 | 23020. |     |
| 6               | -10.0 | .0                  | -303.4 | -118.30 | 12.    | 10.    | 5.      | -2.46 | 55.37 | 129.04 | 23020. |     |
| 7               | -5.0  | .0                  | -127.7 | -139.84 | -186.  | -36.   | 48.     | 3.45  | 54.34 | 127.82 | 23070. |     |
| 8               | -2.5  | .0                  | -33.1  | -144.48 | -288.  | -60.   | 50.     | 2.44  | 54.52 | 128.04 | 23050. |     |
| 9               | .0    | .0                  | 56.4   | -145.34 | -367.  | -64.   | 69.     | 1.88  | 54.37 | 127.86 | 22980. |     |
| 10              | 2.5   | .0                  | 145.2  | -142.22 | -383.  | -57.   | 126.    | -.94  | 54.45 | 127.95 | 23240. |     |
| 11              | 5.0   | .0                  | 226.5  | -130.70 | -381.  | -64.   | 141.    | -2.02 | 55.56 | 129.27 | 22880. |     |
| 12              | 10.0  | .0                  | 406.2  | -115.35 | -505.  | -88.   | 181.    | -2.96 | 54.08 | 127.50 | 23150. |     |
| 13              | 15.0  | .0                  | 559.4  | -75.15  | -747.  | -84.   | 195.    | -3.84 | 54.99 | 128.50 | 23110. |     |
| 14              | 20.0  | .0                  | 596.8  | -59.97  | -601.  | -129.  | 212.    | -2.74 | 54.62 | 128.15 | 22610. |     |
| 15              | 25.0  | .0                  | 678.7  | 68.69   | -300.  | -180.  | 126.    | 2.07  | 54.38 | 127.86 | 23090. |     |
| 16              | .0    | .0                  | 53.5   | -137.07 | -354.  | -66.   | 55.     | -1.56 | 54.54 | 128.06 | 23110. |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .1742   | .0877  | .0160  | -.0026 | .0009  | .0060  |
| 3    | .00    | .1592   | -.3840 | -.1035 | -.0024 | .0061  | .0085  |
| 4    | -20.00 | -1.5168 | .0180  | .6461  | .0029  | -.0070 | .0102  |
| 5    | -14.97 | -1.3288 | -.1916 | .3836  | .0092  | -.0071 | -.0112 |
| 6    | -9.99  | -.8200  | -.3197 | .0039  | .0006  | .0003  | -.0067 |
| 7    | -5.00  | -.3452  | -.3780 | -.0601 | -.0022 | .0029  | .0093  |
| 8    | -2.50  | -.0894  | -.3905 | -.0929 | -.0037 | .0030  | .0066  |
| 9    | .03    | .1525   | -.3928 | -.1184 | -.0038 | .0042  | .0051  |
| 10   | 2.50   | .3925   | -.3844 | -.1234 | -.0034 | .0076  | -.0025 |
| 11   | 5.01   | .6121   | -.3533 | -.1229 | -.0039 | .0085  | -.0055 |
| 12   | 10.00  | 1.0978  | -.3118 | -.1628 | -.0053 | .0109  | -.0080 |
| 13   | 15.01  | 1.5118  | -.2031 | -.2409 | -.0051 | .0118  | -.0104 |
| 14   | 20.03  | 1.6130  | -.0161 | -.1938 | -.0078 | .0128  | -.0074 |
| 15   | 25.05  | 1.8344  | .1856  | -.0967 | -.0109 | .0076  | .0056  |
| 16   | .01    | .1446   | -.3704 | -.1141 | -.0040 | .0033  | -.0042 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .1742   | .0877  | .0160  | -.0026 | .0009  | .0060  |
| 3    | .00    | .1592   | -.3840 | -.1035 | -.0024 | .0061  | .0085  |
| 4    | -20.00 | -1.5168 | .0180  | .6461  | .0029  | -.0070 | .0102  |
| 5    | -14.97 | -1.3288 | -.1916 | .3836  | .0092  | -.0071 | -.0112 |
| 6    | -9.99  | -.8200  | -.3197 | .0039  | .0006  | .0003  | -.0067 |
| 7    | -5.00  | -.3452  | -.3780 | -.0601 | -.0022 | .0029  | .0093  |
| 8    | -2.50  | -.0894  | -.3905 | -.0929 | -.0037 | .0030  | .0066  |
| 9    | .03    | .1525   | -.3928 | -.1184 | -.0038 | .0042  | .0051  |
| 10   | 2.50   | .3925   | -.3844 | -.1234 | -.0034 | .0076  | -.0025 |
| 11   | 5.01   | .6121   | -.3533 | -.1229 | -.0039 | .0085  | -.0055 |
| 12   | 10.00  | 1.0978  | -.3118 | -.1628 | -.0053 | .0109  | -.0080 |
| 13   | 15.01  | 1.5118  | -.2031 | -.2409 | -.0051 | .0118  | -.0104 |
| 14   | 20.03  | 1.6130  | -.0161 | -.1938 | -.0078 | .0128  | -.0074 |
| 15   | 25.05  | 1.8344  | .1856  | -.0967 | -.0109 | .0076  | .0056  |
| 16   | .01    | .1446   | -.3704 | -.1141 | -.0040 | .0033  | -.0042 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P1003

RUN 1034 CONFIG F P B NP5 W7 T60 BT IN=-3.5 OEI

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR 50-FT | CDBAR 50-FT | CPM 50-FT | CYBAR 50-FT | CRM 50-FT | CYB 50-FT | DELTA Q PSF | V KNOTS | RPM    |
|---------|-----------|---------------|-------------|-------------|-----------|-------------|-----------|-----------|-------------|---------|--------|
| 2       | .0        | .0            | 44.6        | -6.82       | 161.      | 0.          | -906.     | .00       | 54.56       | 128.08  | 0.     |
| 2       | .0        | .0            | 63.0        | 32.81       | 26.       | -58.        | 30.       | 3.87      | 55.50       | 129.20  | 3590.  |
| 3       | .0        | .0            | 55.8        | -55.41      | -213.     | -669.       | 111.      | 10.27     | 54.73       | 128.28  | 23160. |
| 4       | -20.0     | .0            | -449.9      | 94.40       | 1625.     | -218.       | 349.      | 11.77     | 54.11       | 127.54  | 23080. |
| 5       | -15.0     | .0            | -412.0      | 13.30       | 917.      | -144.       | 162.      | -.13      | 54.03       | 127.44  | 22990. |
| 6       | -10.0     | .0            | -276.7      | -28.37      | 236.      | -537.       | 123.      | 10.13     | 54.80       | 128.37  | 22870. |
| 7       | -5.0      | .0            | -113.2      | -47.52      | -58.      | -615.       | 124.      | 11.01     | 54.78       | 128.34  | 22990. |
| 9       | -.0       | .0            | 54.8        | -50.21      | -227.     | -649.       | 127.      | 11.23     | 54.91       | 128.50  | 23000. |
| 10      | 2.5       | .0            | 138.3       | -47.47      | -261.     | -651.       | 77.       | 10.49     | 54.89       | 128.47  | 22970. |
| 11      | 5.0       | .0            | 221.3       | -42.25      | -308.     | -645.       | 78.       | 10.97     | 54.65       | 128.18  | 22980. |
| 12      | 10.0      | .0            | 381.9       | -20.68      | -452.     | -675.       | 32.       | 5.68      | 54.60       | 128.13  | 22930. |
| 13      | 15.0      | .0            | 542.5       | 14.66       | -708.     | -617.       | -36.      | .69       | 54.20       | 127.65  | 22950. |
| 14      | 20.0      | .0            | 567.3       | 76.59       | -530.     | -560.       | -89.      | 2.90      | 54.03       | 127.44  | 22780. |
| 15      | 25.0      | .0            | 631.5       | 168.65      | -320.     | -642.       | -118.     | 11.00     | 54.19       | 127.63  | 22990. |
| 16      | -2.5      | .0            | -28.7       | -46.74      | -123.     | -624.       | 112.      | 9.69      | 54.11       | 127.54  | 23180. |
| 17      | .0        | .0            | 54.2        | -48.32      | -221.     | -641.       | 111.      | 10.93     | 54.23       | 127.69  | 23110. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .1206   | -.0184 | .0518  | .0000  | -.0547 | .0000  |
| 2    | .00    | .1701   | .0887  | .0082  | -.0035 | .0018  | .0105  |
| 3    | .00    | .1508   | -.1498 | -.0686 | -.0404 | .0067  | .0278  |
| 4    | -20.00 | -1.2158 | .2551  | .5239  | -.0132 | .0211  | .0318  |
| 5    | -15.00 | -1.1136 | .0360  | .2955  | -.0087 | .0098  | -.0003 |
| 6    | -10.00 | -.7479  | -.0767 | .0759  | -.0324 | .0074  | .0274  |
| 7    | -5.01  | -.3059  | -.1284 | -.0186 | -.0371 | .0075  | .0297  |
| 9    | -.01   | .1481   | -.1357 | -.0731 | -.0392 | .0077  | .0303  |
| 10   | 2.49   | .3738   | -.1283 | -.0841 | -.0393 | .0046  | .0283  |
| 11   | 5.03   | .5980   | -.1142 | -.0994 | -.0390 | .0047  | .0297  |
| 12   | 10.00  | 1.0323  | -.0559 | -.1457 | -.0408 | .0019  | .0153  |
| 13   | 15.03  | 1.4662  | .0396  | -.2282 | -.0373 | -.0022 | .0019  |
| 14   | 20.00  | 1.5332  | .2070  | -.1710 | -.0339 | -.0054 | .0078  |
| 15   | 25.01  | 1.7068  | .4477  | -.1032 | -.0388 | -.0072 | .0297  |
| 16   | -2.50  | -.0775  | -.1263 | -.0396 | -.0377 | .0067  | .0262  |
| 17   | .00    | .1466   | -.1306 | -.0714 | -.0387 | .0067  | .0295  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CPMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .1206   | -.0184 | .0518  | .0000  | -.0547 | .0000  |
| 2    | .00    | .1701   | .0887  | .0082  | -.0035 | .0018  | .0105  |
| 3    | .00    | .1508   | -.1498 | -.0686 | -.0404 | .0067  | .0278  |
| 4    | -20.00 | -1.2158 | .2551  | .5239  | -.0132 | .0211  | .0318  |
| 5    | -15.00 | -1.1136 | .0360  | .2955  | -.0087 | .0098  | -.0003 |
| 6    | -10.00 | -.7479  | -.0767 | .0759  | -.0324 | .0074  | .0274  |
| 7    | -5.01  | -.3059  | -.1284 | -.0186 | -.0371 | .0075  | .0297  |
| 9    | -.01   | .1481   | -.1357 | -.0731 | -.0392 | .0077  | .0303  |
| 10   | 2.49   | .3738   | -.1283 | -.0841 | -.0393 | .0046  | .0283  |
| 11   | 5.03   | .5980   | -.1142 | -.0994 | -.0390 | .0047  | .0297  |
| 12   | 10.00  | 1.0323  | -.0559 | -.1457 | -.0408 | .0019  | .0153  |
| 13   | 15.03  | 1.4662  | .0396  | -.2282 | -.0373 | -.0022 | .0019  |
| 14   | 20.00  | 1.5332  | .2070  | -.1710 | -.0339 | -.0054 | .0078  |

|    |       |        |        |        |        |        |       |
|----|-------|--------|--------|--------|--------|--------|-------|
| 15 | 25.01 | 1.7068 | .4477  | -.1032 | -.0388 | -.0072 | .0297 |
| 16 | -2.50 | -.0775 | -.1263 | -.0396 | -.0377 | .0067  | .0262 |
| 17 | .00   | .1466  | -.1306 | -.0714 | -.0387 | .0067  | .0295 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P 1004

RUN 1035 CONFIG F P B NP5 W7 T60 RT IN=-3.5

| PT. NO. | YW    | DELTA | PSI | CLBAR  | CDBAR  | CPMRAR | CYMBAR | CRMBAR | CYBAR | DELTA | PSF    | V      | RPM |
|---------|-------|-------|-----|--------|--------|--------|--------|--------|-------|-------|--------|--------|-----|
|         | ALPHA | DELTA | DEG | 50-FT  | 50-FT  | CU-FT  | CU-FT  | CU-FT  | 50-FT | DELR  | Q      | KNOTS  |     |
| 2       | .0    | .0    | .0  | 264.5  | 65.87  | 310.   | -43.   | 91.    | -64   | 53.64 | 126.98 | 3770.  |     |
| 3       | .0    | .0    | .0  | 256.4  | -6.86  | 217.   | -74.   | 83.    | 4.10  | 54.84 | 128.41 | 14900. |     |
| 4       | -20.0 | .0    | .0  | -373.7 | 90.31  | 855.   | -100.  | -103.  | 6.22  | 54.74 | 128.29 | 14920. |     |
| 5       | -15.0 | .0    | .0  | -266.3 | 17.34  | 817.   | 86.    | 7.     | -3.44 | 54.50 | 128.00 | 14950. |     |
| 6       | -10.0 | .0    | .0  | -89.2  | -7.78  | 353.   | -39.   | 31.    | 2.61  | 54.87 | 128.46 | 14840. |     |
| 7       | -5.0  | .0    | .0  | 82.4   | -13.02 | 216.   | -139.  | 64.    | 4.30  | 54.64 | 128.17 | 14890. |     |
| 8       | -2.5  | .0    | .0  | 166.5  | -12.41 | 220.   | -107.  | 82.    | 4.15  | 55.01 | 128.62 | 15060. |     |
| 9       | .0    | .0    | .0  | 250.2  | -6.68  | 219.   | -87.   | 86.    | 1.68  | 54.86 | 128.44 | 14810. |     |
| 10      | 2.5   | .0    | .0  | 334.3  | .10    | 221.   | -72.   | 68.    | 2.80  | 54.75 | 128.31 | 14990. |     |
| 11      | 5.0   | .0    | .0  | 421.8  | 13.14  | 210.   | -60.   | 72.    | -1.18 | 54.67 | 128.21 | 14850. |     |
| 12      | 10.0  | .0    | .0  | 590.9  | 42.95  | 15.    | -125.  | 144.   | -.82  | 54.05 | 127.47 | 14760. |     |
| 13      | 15.0  | .0    | .0  | 739.5  | 80.31  | -244.  | -144.  | 180.   | .06   | 53.76 | 127.12 | 14970. |     |
| 14      | 20.0  | .0    | .0  | 703.1  | 158.00 | -663.  | -30.   | 126.   | 1.39  | 54.01 | 127.42 | 14980. |     |
| 15      | 25.0  | .0    | .0  | 753.8  | 253.59 | -968.  | 30.    | -53.   | .25   | 54.38 | 127.86 | 14800. |     |
| 16      | .0    | .0    | .0  | 249.2  | -6.42  | 241.   | -95.   | 67.    | 3.64  | 54.33 | 127.81 | 14780. |     |
| 17      | 2.5   | .0    | .0  | 335.6  | .24    | 248.   | -45.   | 68.    | 3.45  | 54.34 | 127.83 | 15000. |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .7150   | .1780  | .0999  | -.0026 | .0055  | -.0017 |
| 3    | .00    | .6929   | -.0185 | .0686  | -.0044 | .0050  | .0111  |
| 4    | -20.01 | -1.0101 | .2441  | .2756  | -.0060 | -.0062 | .0168  |
| 5    | -15.00 | -.7196  | .0469  | .2634  | .0052  | .0004  | -.0093 |
| 6    | -10.01 | -.2410  | -.0210 | .1137  | -.0024 | .0018  | .0070  |
| 7    | -5.01  | .2228   | -.0352 | .0698  | -.0084 | .0039  | .0116  |
| 8    | -2.52  | .4500   | -.0335 | .0709  | -.0064 | .0050  | .0112  |
| 9    | .00    | .6761   | -.0180 | .0707  | -.0052 | .0052  | .0045  |
| 10   | 2.50   | .9035   | .0003  | .0712  | -.0044 | .0041  | .0076  |
| 11   | 5.00   | 1.1399  | .0355  | .0675  | -.0036 | .0043  | -.0032 |
| 12   | 10.00  | 1.5970  | .1161  | .0047  | -.0075 | .0087  | -.0022 |
| 13   | 15.00  | 1.9986  | .2170  | -.0785 | -.0087 | .0109  | .0002  |
| 14   | 20.00  | 1.9002  | .4270  | -.2138 | -.0018 | .0076  | .0038  |
| 15   | 25.00  | 2.0373  | .6854  | -.3121 | .0023  | -.0032 | .0007  |
| 16   | .00    | .6734   | -.0174 | .0778  | -.0057 | .0040  | .0098  |
| 17   | 2.50   | .9071   | .0006  | .0800  | -.0027 | .0041  | .0093  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|---------|--------|--------|--------|--------|--------|
| 2    | .00    | .7150   | .1780  | .0999  | -.0026 | .0055  | -.0017 |
| 3    | .00    | .6929   | -.0185 | .0686  | -.0044 | .0050  | .0111  |
| 4    | -20.01 | -1.0101 | .2441  | .2756  | -.0060 | -.0062 | .0168  |
| 5    | -15.00 | -.7196  | .0469  | .2634  | .0052  | .0004  | -.0093 |
| 6    | -10.01 | -.2410  | -.0210 | .1137  | -.0024 | .0018  | .0070  |
| 7    | -5.01  | .2228   | -.0352 | .0698  | -.0084 | .0039  | .0116  |
| 8    | -2.52  | .4500   | -.0335 | .0709  | -.0064 | .0050  | .0112  |
| 9    | .00    | .6761   | -.0180 | .0707  | -.0052 | .0052  | .0045  |
| 10   | 2.50   | .9035   | .0003  | .0712  | -.0044 | .0041  | .0076  |
| 11   | 5.00   | 1.1399  | .0355  | .0675  | -.0036 | .0043  | -.0032 |
| 12   | 10.00  | 1.5970  | .1161  | .0047  | -.0075 | .0087  | -.0022 |
| 13   | 15.00  | 1.9986  | .2170  | -.0785 | -.0087 | .0109  | .0002  |
| 14   | 20.00  | 1.9002  | .4270  | -.2138 | -.0018 | .0076  | .0038  |
| 15   | 25.00  | 2.0373  | .6854  | -.3121 | .0023  | -.0032 | .0007  |
| 16   | .00    | .6734   | -.0174 | .0778  | -.0057 | .0040  | .0098  |
| 17   | 2.50   | .9071   | .0006  | .0800  | -.0027 | .0041  | .0093  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 1036 CONFIG F P B NP5 W7 T61 BT IN=-3.5

| PT. NO. | IW    | 7.5 ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM    |
|---------|-------|---------------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------|---------------|--------|
| 2       |       | .0            | .0            | 484.5             | 98.21             | -1210.             | -32.               | 122.               | 1.88              | 54.43       | 127.93        | 4000.  |
| 3       |       | .0            | .0            | 485.7             | -5.89             | -1620.             | -70.               | 106.               | .12               | 54.74       | 128.30        | 17740. |
| 4       |       | .0            | .0            | 489.2             | -6.74             | -1631.             | -82.               | 106.               | .38               | 54.43       | 127.93        | 17780. |
| 5       | -20.0 | .0            | .0            | -236.1            | -3.18             | -1090.             | 130.               | -1.                | .37               | 54.59       | 128.12        | 17860. |
| 6       | -15.0 | .0            | .0            | -38.9             | -30.41            | -1485.             | 53.                | 87.                | 1.45              | 54.09       | 127.52        | 17840. |
| 7       | -10.0 | .0            | .0            | 149.2             | -36.67            | -1773.             | 35.                | 130.               | -2.59             | 53.97       | 127.38        | 17730. |
| 8       | -5.0  | .0            | .0            | 321.9             | -28.25            | -1808.             | -70.               | 127.               | -.51              | 53.94       | 127.34        | 17860. |
| 9       | -2.5  | .0            | .0            | 404.9             | -17.99            | -1729.             | -69.               | 160.               | .75               | 54.23       | 127.70        | 17900. |
| 10      | .0    | .0            | .0            | 488.5             | -6.10             | -1638.             | -68.               | 107.               | 1.20              | 53.81       | 127.18        | 17750. |
| 11      | 2.5   | .0            | .0            | 555.7             | 6.19              | -1536.             | -48.               | 147.               | -4.30             | 54.63       | 128.17        | 17880. |
| 12      | 5.0   | .0            | .0            | 634.9             | 21.94             | -1482.             | -76.               | 199.               | -3.62             | 54.52       | 128.04        | 17850. |
| 13      | 10.0  | .0            | .0            | 735.3             | 59.35             | -1567.             | -109.              | 91.                | -1.45             | 53.88       | 127.27        | 17710. |
| 14      | 15.0  | .0            | .0            | 667.7             | 137.43            | -1695.             | -117.              | 215.               | .38               | 54.02       | 127.44        | 17870. |
| 16      | 25.0  | .0            | .0            | 737.6             | 302.71            | -1396.             | -109.              | 144.               | -1.33             | 53.64       | 126.98        | 17810. |
| 17      | 20.0  | .0            | .0            | 716.4             | 220.82            | -1655.             | -88.               | -72.               | 2.03              | 53.63       | 126.97        | 17860. |
| 18      | .0    | .0            | .0            | 483.6             | -6.05             | -1655.             | -75.               | 122.               | 1.94              | 54.31       | 127.79        | 17880. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.3094 | .2654  | -.3900 | -.0019 | .0074  | .0051  |
| 3    | .00    | 1.3127 | -.0159 | -.5223 | -.0042 | .0064  | .0003  |
| 4    | .00    | 1.3220 | -.0182 | -.5259 | -.0050 | .0064  | .0010  |
| 5    | -20.00 | -.6382 | -.0086 | -.3515 | .0078  | -.0001 | .0010  |
| 6    | -14.99 | -.1052 | -.0822 | -.4789 | .0032  | .0052  | .0039  |
| 7    | -9.99  | .4031  | -.0991 | -.5715 | .0021  | .0079  | -.0070 |
| 8    | -5.00  | .8701  | -.0764 | -.5827 | -.0042 | .0076  | -.0014 |
| 9    | -2.49  | 1.0944 | -.0486 | -.5574 | -.0042 | .0096  | .0020  |
| 10   | .00    | 1.3201 | -.0165 | -.5282 | -.0041 | .0064  | .0033  |
| 11   | 2.50   | 1.5018 | .0167  | -.4951 | -.0029 | .0089  | -.0116 |
| 12   | 5.01   | 1.7159 | .0593  | -.4779 | -.0046 | .0120  | -.0098 |
| 13   | 10.00  | 1.9872 | .1604  | -.5052 | -.0066 | .0055  | -.0039 |
| 14   | 15.01  | 1.8045 | .3714  | -.5463 | -.0071 | .0130  | .0010  |
| 16   | 25.00  | 1.9935 | .8181  | -.4500 | -.0066 | .0087  | -.0036 |
| 17   | 20.00  | 1.9361 | .5968  | -.5336 | -.0053 | -.0043 | .0055  |
| 18   | .00    | 1.3069 | -.0163 | -.5336 | -.0045 | .0074  | .0053  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.3094 | .2654  | -.3900 | -.0019 | .0074  | .0051  |
| 3    | .00    | 1.3127 | -.0159 | -.5223 | -.0042 | .0064  | .0003  |
| 4    | .00    | 1.3220 | -.0182 | -.5259 | -.0050 | .0064  | .0010  |
| 5    | -20.00 | -.6382 | -.0086 | -.3515 | .0078  | -.0001 | .0010  |
| 6    | -14.99 | -.1052 | -.0822 | -.4789 | .0032  | .0052  | .0039  |
| 7    | -9.99  | .4031  | -.0991 | -.5715 | .0021  | .0079  | -.0070 |
| 8    | -5.00  | .8701  | -.0764 | -.5827 | -.0042 | .0076  | -.0014 |
| 9    | -2.49  | 1.0944 | -.0486 | -.5574 | -.0042 | .0096  | .0020  |
| 10   | .00    | 1.3201 | -.0165 | -.5282 | -.0041 | .0064  | .0033  |
| 11   | 2.50   | 1.5018 | .0167  | -.4951 | -.0029 | .0089  | -.0116 |
| 12   | 5.01   | 1.7159 | .0593  | -.4779 | -.0046 | .0120  | -.0098 |
| 13   | 10.00  | 1.9872 | .1604  | -.5052 | -.0066 | .0055  | -.0039 |
| 14   | 15.01  | 1.8045 | .3714  | -.5463 | -.0071 | .0130  | .0010  |
| 16   | 25.00  | 1.9935 | .8181  | -.4500 | -.0066 | .0087  | -.0036 |
| 17   | 20.00  | 1.9361 | .5968  | -.5336 | -.0053 | -.0043 | .0055  |
| 18   | .00    | 1.3069 | -.0163 | -.5336 | -.0045 | .0074  | .0053  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1006

RUN 1037 CONFIG F P B NP5 W7 T2 BT IN=-3.5 WM

| IW      | 7.5 DELF  | 0 DELA  | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM       |              |       |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-----------|--------------|-------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR SQ-FT | CYBAR PSF | DEL V KNOTS  |       |
| 2       | .0        | .0      | 234.5       | 41.92       | -410.        | 9.           | 16.          | 1.25      | 54.63 128.17 | 3760. |
| 3       | -20.0     | .0      | -265.1      | 89.41       | -1018.       | 23.          | -31.         | 6.02      | 54.84 128.42 | 3990. |
| 4       | -15.0     | .0      | -146.3      | 59.49       | -931.        | 72.          | -54.         | .31       | 54.95 128.55 | 3900. |
| 5       | -10.0     | .0      | -48.2       | 34.98       | -947.        | 45.          | -4.          | 2.06      | 56.09 129.90 | 3660. |
| 6       | -5.0      | .0      | 94.7        | 32.05       | -756.        | 37.          | -38.         | 1.90      | 55.57 129.29 | 3680. |
| 7       | -2.5      | .0      | 166.7       | 35.65       | -597.        | 19.          | -2.          | 1.35      | 55.45 129.14 | 3720. |
| 8       | .0        | .0      | 238.3       | 42.56       | -413.        | 12.          | 51.          | 1.62      | 54.69 128.24 | 3780. |
| 9       | 2.5       | .0      | 299.7       | 50.48       | -226.        | 5.           | 1.           | -.49      | 55.23 128.88 | 3860. |
| 10      | 5.0       | .0      | 358.9       | 60.56       | -26.         | 11.          | 35.          | -.79      | 55.89 129.67 | 3930. |
| 11      | 10.0      | .0      | 442.2       | 94.48       | 293.         | 7.           | 35.          | .31       | 54.65 128.19 | 4030. |
| 12      | 15.0      | .0      | 465.8       | 143.19      | 531.         | -30.         | 88.          | .87       | 54.85 128.43 | 4080. |
| 13      | 20.0      | .0      | 496.6       | 207.63      | 854.         | -78.         | 141.         | 2.48      | 54.97 128.57 | 4200. |
| 14      | 25.0      | .0      | 510.6       | 265.16      | 1158.        | -122.        | -135.        | 8.79      | 55.03 128.64 | 4270. |
| 15      | .0        | .0      | 234.0       | 42.03       | -408.        | 7.           | 15.          | 1.91      | 55.37 129.04 | 3790. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .6337  | .1133 | -.1322 | .0005  | .0010  | .0034  |
| 3    | -20.00 | -.7164 | .2416 | -.3283 | .0014  | -.0019 | .0163  |
| 4    | -15.00 | -.3953 | .1608 | -.3003 | .0043  | -.0032 | .0008  |
| 5    | -10.00 | -.1303 | .0946 | -.3052 | .0027  | -.0002 | .0056  |
| 6    | -4.98  | .2558  | .0866 | -.2437 | .0022  | -.0023 | .0051  |
| 7    | -2.50  | .4506  | .0964 | -.1911 | .0011  | -.0001 | .0037  |
| 8    | .02    | .6439  | .1150 | -.1330 | .0007  | .0031  | .0044  |
| 9    | 2.50   | .8099  | .1364 | -.0728 | .0003  | .0000  | -.0013 |
| 10   | 5.01   | .9699  | .1637 | -.0083 | .0007  | .0021  | -.0021 |
| 11   | 10.00  | 1.1951 | .2554 | .0944  | .0004  | .0021  | .0008  |
| 12   | 15.02  | 1.2588 | .3870 | .1712  | -.0018 | .0053  | .0023  |
| 13   | 20.02  | 1.3421 | .5612 | .2753  | -.0047 | .0085  | .0067  |
| 14   | 25.02  | 1.3800 | .7167 | .3734  | -.0074 | -.0082 | .0238  |
| 15   | .00    | .6325  | .1136 | -.1316 | .0004  | .0009  | .0052  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDR   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .6337  | .1133 | -.1322 | .0005  | .0010  | .0034  |
| 3    | -20.00 | -.7164 | .2416 | -.3283 | .0014  | -.0019 | .0163  |
| 4    | -15.00 | -.3953 | .1608 | -.3003 | .0043  | -.0032 | .0008  |
| 5    | -10.00 | -.1303 | .0946 | -.3052 | .0027  | -.0002 | .0056  |
| 6    | -4.98  | .2558  | .0866 | -.2437 | .0022  | -.0023 | .0051  |
| 7    | -2.50  | .4506  | .0964 | -.1911 | .0011  | -.0001 | .0037  |
| 8    | .02    | .6439  | .1150 | -.1330 | .0007  | .0031  | .0044  |
| 9    | 2.50   | .8099  | .1364 | -.0728 | .0003  | .0000  | -.0013 |
| 10   | 5.01   | .9699  | .1637 | -.0083 | .0007  | .0021  | -.0021 |
| 11   | 10.00  | 1.1951 | .2554 | .0944  | .0004  | .0021  | .0008  |
| 12   | 15.02  | 1.2588 | .3870 | .1712  | -.0018 | .0053  | .0023  |
| 13   | 20.02  | 1.3421 | .5612 | .2753  | -.0047 | .0085  | .0067  |
| 14   | 25.02  | 1.3800 | .7167 | .3734  | -.0074 | -.0082 | .0238  |
| 15   | .00    | .6325  | .1136 | -.1316 | .0004  | .0009  | .0052  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1007

| RUN 1038 CONFIG |                       | F P B NP5 W7 T2 RT |                       |                       |                        |                        |                        |                        | IN=-3.5  |              | MAX    |  |
|-----------------|-----------------------|--------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|----------|--------------|--------|--|
| PT. NO.         | 7.5 DELF<br>ALPHA DEG | 0 DELA<br>PSI DEG  | 0 DELA<br>CLBAR SQ-FT | 0 DELA<br>CDBAR SQ-FT | 0 DELE<br>CPMBAR CU-FT | 0 DELE<br>CYMBAR CU-FT | 0 DELR<br>CRMBAR CU-FT | 0 DELSB<br>CYBAR SQ-FT | 0<br>PSF | 0<br>V KNOTS | RPM    |  |
| 2               | .0                    | .0                 | 235.0                 | 42.29                 | -418.                  | 17.                    | 32.                    | 2.67                   | 54.78    | 128.34       | 3780.  |  |
| 3               | .0                    | .0                 | 219.1                 | -132.44               | -676.                  | 18.                    | 125.                   | -1.60                  | 55.24    | 128.90       | 23010. |  |
| 4               | -20.0                 | .0                 | -418.0                | -70.90                | -1727.                 | 163.                   | 51.                    | .80                    | 55.10    | 128.73       | 23040. |  |
| 5               | -15.0                 | .0                 | -273.5                | -107.43               | -1645.                 | 71.                    | 120.                   | 1.17                   | 55.36    | 129.05       | 22920. |  |
| 6               | -10.0                 | .0                 | -196.5                | -136.18               | -1509.                 | 113.                   | 84.                    | 1.79                   | 55.28    | 128.95       | 23080. |  |
| 7               | -5.0                  | .0                 | 62.0                  | -143.98               | -1124.                 | 49.                    | 140.                   | .12                    | 55.16    | 128.81       | 23000. |  |
| 8               | -2.5                  | .0                 | 141.4                 | -141.29               | -908.                  | 27.                    | 159.                   | -.49                   | 55.22    | 128.88       | 23000. |  |
| 9               | -0                    | .0                 | 219.1                 | -135.68               | -682.                  | 3.                     | 179.                   | -2.84                  | 55.20    | 128.86       | 23020. |  |
| 10              | 2.5                   | .0                 | 294.1                 | -127.33               | -452.                  | -12.                   | 179.                   | -3.69                  | 55.38    | 129.06       | 23070. |  |
| 11              | 5.0                   | .0                 | 366.0                 | -117.07               | -207.                  | -31.                   | 216.                   | -5.86                  | 55.26    | 128.92       | 22970. |  |
| 12              | 10.0                  | .0                 | 460.0                 | -81.25                | 189.                   | -55.                   | 230.                   | -4.73                  | 55.48    | 129.18       | 22940. |  |
| 13              | 15.0                  | .0                 | 502.8                 | -25.25                | 480.                   | -52.                   | 262.                   | -3.85                  | 55.71    | 129.45       | 23010. |  |
| 14              | 20.0                  | .0                 | 576.1                 | 44.32                 | 827.                   | -23.                   | 0.                     | .31                    | 55.52    | 129.22       | 23080. |  |
| 15              | 25.0                  | .0                 | 646.4                 | 123.46                | 1167.                  | -28.                   | 72.                    | 2.97                   | 55.06    | 128.68       | 23010. |  |
| 16              | .0                    | .0                 | 214.8                 | -118.96               | -633.                  | -12.                   | 197.                   | -4.40                  | 55.74    | 129.40       | 23050. |  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|---------|--------|--------|--------|-------|--------|
| 2    | .00    | .6351   | .1143  | -.1347 | .0010  | .0019 | .0072  |
| 3    | .00    | .5923   | -.3579 | -.2178 | .0011  | .0075 | -.0043 |
| 4    | -19.99 | -1.1298 | -.1916 | -.5568 | .0099  | .0031 | .0022  |
| 5    | -14.99 | -.7392  | -.2904 | -.5302 | .0043  | .0073 | .0032  |
| 6    | -10.00 | -.2879  | -.3680 | -.4866 | .0068  | .0051 | .0048  |
| 7    | -4.99  | .1674   | -.3891 | -.3623 | .0029  | .0085 | .0003  |
| 8    | -2.50  | .3821   | -.3819 | -.2929 | .0016  | .0096 | -.0013 |
| 9    | -0.00  | .5941   | -.3667 | -.2200 | .0002  | .0108 | -.0077 |
| 10   | 2.51   | .7949   | -.3441 | -.1458 | -.0008 | .0108 | -.0100 |
| 11   | 5.02   | .9891   | -.3164 | -.0668 | -.0019 | .0130 | -.0158 |
| 12   | 10.01  | 1.2431  | -.2196 | .0609  | -.0033 | .0139 | -.0128 |
| 13   | 15.01  | 1.3589  | -.0682 | .1547  | -.0032 | .0158 | -.0104 |
| 14   | 20.00  | 1.5569  | .1198  | .2665  | -.0014 | .0000 | .0008  |
| 15   | 25.00  | 1.7470  | .3337  | .3761  | -.0017 | .0044 | .0080  |
| 16   | .00    | .5806   | -.3215 | -.2042 | -.0007 | .0119 | -.0119 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|---------|--------|--------|--------|-------|--------|
| 2    | .00    | .6351   | .1143  | -.1347 | .0010  | .0019 | .0072  |
| 3    | .00    | .5923   | -.3579 | -.2178 | .0011  | .0075 | -.0043 |
| 4    | -19.99 | -1.1298 | -.1916 | -.5568 | .0099  | .0031 | .0022  |
| 5    | -14.99 | -.7392  | -.2904 | -.5302 | .0043  | .0073 | .0032  |
| 6    | -10.00 | -.2879  | -.3680 | -.4866 | .0068  | .0051 | .0048  |
| 7    | -4.99  | .1674   | -.3891 | -.3623 | .0029  | .0085 | .0003  |
| 8    | -2.50  | .3821   | -.3819 | -.2929 | .0016  | .0096 | -.0013 |
| 9    | -0.00  | .5941   | -.3667 | -.2200 | .0002  | .0108 | -.0077 |
| 10   | 2.51   | .7949   | -.3441 | -.1458 | -.0008 | .0108 | -.0100 |
| 11   | 5.02   | .9891   | -.3164 | -.0668 | -.0019 | .0130 | -.0158 |
| 12   | 10.01  | 1.2431  | -.2196 | .0609  | -.0033 | .0139 | -.0128 |
| 13   | 15.01  | 1.3589  | -.0682 | .1547  | -.0032 | .0158 | -.0104 |
| 14   | 20.00  | 1.5569  | .1198  | .2665  | -.0014 | .0000 | .0008  |
| 15   | 25.00  | 1.7470  | .3337  | .3761  | -.0017 | .0044 | .0080  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011  
P100P

RUN 1039 CONFIG F P B NP5 W7 T2 BT IN=-3.5 MAX

| PT. NO. | 7.5 DELF ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | IHT CPMBAR CU-FT | DELE CYMBAR CU-FT | DELR CRMBAR CU-FT | DELSB CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM    |
|---------|--------------------|---------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------|---------------|--------|
| 2       | .0                 | .0            | 231.5             | 42.58             | -422.            | 5.                | 52.               | .94               | 54.59       | 128.12        | 3760.  |
| 3       | .0                 | .0            | 215.9             | -135.52           | -668.            | -35.              | 107.              | -1.17             | 55.12       | 128.76        | 22810. |
| 4       | .0                 | -20.0         | 217.9             | -94.67            | -646.            | -866.             | 51.               | -175.06           | 55.13       | 128.76        | 22910. |
| 5       | .0                 | -15.0         | 217.6             | -114.47           | -677.            | -682.             | 48.               | -135.26           | 55.38       | 129.07        | 22930. |
| 6       | .0                 | -10.0         | 220.0             | -129.31           | -665.            | -494.             | 96.               | -87.76            | 55.35       | 129.03        | 23030. |
| 7       | .0                 | -4.9          | 222.8             | -136.61           | -708.            | -277.             | 140.              | -46.58            | 54.77       | 128.34        | 22970. |
| 8       | .0                 | -2.5          | 218.2             | -137.08           | -693.            | -155.             | 195.              | -26.16            | 55.47       | 129.18        | 23090. |
| 9       | .0                 | .0            | 214.2             | -134.87           | -678.            | -12.              | 196.              | -4.08             | 55.92       | 129.70        | 23010. |
| 10      | .0                 | 2.5           | 212.2             | -134.50           | -666.            | 139.              | 206.              | 16.10             | 55.44       | 129.14        | 23010. |
| 11      | .0                 | 5.0           | 213.2             | -131.68           | -641.            | 267.              | 238.              | 35.23             | 55.59       | 129.32        | 22990. |
| 12      | .0                 | 10.0          | 193.8             | -126.73           | -613.            | 527.              | 295.              | 75.98             | 55.77       | 129.53        | 23090. |
| 13      | .0                 | 15.0          | 181.5             | -112.39           | -560.            | 716.              | 302.              | 118.06            | 56.03       | 129.84        | 23230. |
| 14      | .0                 | 20.0          | 169.7             | -87.89            | -515.            | 902.              | 337.              | 158.09            | 55.83       | 129.60        | 22980. |
| 15      | .0                 | .0            | 219.5             | -122.92           | -650.            | 6.                | 198.              | -4.96             | 55.66       | 129.40        | 22970. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .6257 | .1151  | -.1362 | .0003  | .0031 | .0025  |
| 3    | .00    | .5834 | -.3663 | -.2154 | -.0021 | .0065 | -.0032 |
| 4    | -20.00 | .5890 | -.2559 | -.2082 | -.0523 | .0031 | -.4731 |
| 5    | -15.00 | .5880 | -.3094 | -.2184 | -.0412 | .0029 | -.3656 |
| 6    | -10.00 | .5946 | -.3495 | -.2145 | -.0298 | .0058 | -.2372 |
| 7    | -4.90  | .6022 | -.3692 | -.2283 | -.0168 | .0085 | -.1259 |
| 8    | -2.50  | .5898 | -.3705 | -.2234 | -.0094 | .0118 | -.0707 |
| 9    | .00    | .5789 | -.3645 | -.2187 | -.0007 | .0118 | -.0110 |
| 10   | 2.50   | .5734 | -.3635 | -.2146 | .0084  | .0124 | .0435  |
| 11   | 5.00   | .5493 | -.3559 | -.2066 | .0162  | .0144 | .0952  |
| 12   | 10.00  | .5239 | -.3425 | -.1976 | .0318  | .0178 | .2053  |
| 13   | 15.00  | .4905 | -.3037 | -.1806 | .0433  | .0182 | .3191  |
| 14   | 20.00  | .4588 | -.2375 | -.1660 | .0545  | .0204 | .4273  |
| 15   | .00    | .5932 | -.3322 | -.2096 | .0004  | .0119 | -.0134 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|-------|--------|--------|--------|-------|--------|
| 2    | .00    | .6257 | .1151  | -.1362 | .0003  | .0031 | .0025  |
| 3    | .00    | .5834 | -.3663 | -.2154 | -.0021 | .0065 | -.0032 |
| 4    | -20.00 | .5890 | -.4028 | -.2011 | -.0523 | .0163 | -.3564 |
| 5    | -15.00 | .5880 | -.3938 | -.2149 | -.0412 | .0134 | -.2726 |
| 6    | -10.00 | .5946 | -.3855 | -.2166 | -.0298 | .0127 | -.1726 |
| 7    | -4.90  | .6022 | -.3786 | -.2313 | -.0168 | .0121 | -.0938 |
| 8    | -2.50  | .5898 | -.3732 | -.2260 | -.0094 | .0136 | -.0544 |
| 9    | .00    | .5789 | -.3645 | -.2187 | -.0007 | .0118 | -.0110 |
| 10   | 2.50   | .5734 | -.3651 | -.2114 | .0084  | .0107 | .0275  |
| 11   | 5.00   | .5493 | -.3629 | -.1991 | .0162  | .0109 | .0637  |
| 12   | 10.00  | .5239 | -.3731 | -.1780 | .0318  | .0111 | .1425  |
| 13   | 15.00  | .4905 | -.3763 | -.1491 | .0433  | .0088 | .2291  |
| 14   | 20.00  | .4588 | -.3699 | -.1185 | .0545  | .0084 | .3197  |
| 15   | .00    | .5932 | -.3322 | -.2096 | .0004  | .0119 | -.0134 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P1009

RUN 1040 CONFIG F P B NP5 W7 T2 BT IN=3.5 WH

| PT. NO. | 7.5 ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA DELSB Q PSF | DELTA V KNOTS | RPM   |
|---------|---------------|---------------|-------------------|-------------------|--------------------|-------------------|--------------------|-------------------|-------------------|---------------|-------|
| 2       | 0             | 0             | 232.1             | 41.59             | -394.              | 6.                | 34.                | .55               | 55.52             | 129.22        | 3770. |
| 3       | 0             | -19.9         | 233.1             | 67.89             | -398.              | -610.             | -42.               | -98.32            | 56.06             | 129.85        | 3900. |
| 4       | 0             | -15.0         | 231.9             | 55.46             | -395.              | -512.             | -14.               | -73.19            | 55.90             | 129.66        | 3870. |
| 5       | 0             | -10.0         | 227.5             | 45.19             | -372.              | -363.             | -4.                | -44.69            | 56.10             | 129.89        | 3830. |
| 6       | 0             | -5.0          | 233.5             | 42.78             | -408.              | -182.             | 29.                | -22.44            | 55.71             | 129.43        | 3830. |
| 7       | 0             | -2.5          | 229.5             | 41.79             | -415.              | -102.             | 22.                | -11.86            | 55.99             | 129.76        | 3870. |
| 8       | 0             | .1            | 226.5             | 41.03             | -404.              | 10.               | 29.                | 2.30              | 56.31             | 130.14        | 3790. |
| 9       | 0             | 2.5           | 225.0             | 41.29             | -391.              | 119.              | 66.                | 13.28             | 56.17             | 129.97        | 3790. |
| 10      | 0             | 5.0           | 222.2             | 41.65             | -387.              | 223.              | 35.                | 24.85             | 56.07             | 129.85        | 3760. |
| 11      | 0             | 10.0          | 209.4             | 43.20             | -351.              | 427.              | 97.                | 44.76             | 56.17             | 129.97        | 3710. |
| 12      | 0             | 15.1          | 205.5             | 50.88             | -331.              | 553.              | 73.                | 72.39             | 56.42             | 130.27        | 3640. |
| 13      | 0             | 20.0          | 209.1             | 64.14             | -378.              | 676.              | 107.               | 98.08             | 55.47             | 129.14        | 3560. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .6274 | .1124 | -.1272 | .0004  | .0021  | .0015  |
| 3    | -19.90 | .6300 | .1835 | -.1282 | -.0369 | -.0025 | -.2657 |
| 4    | -15.00 | .6267 | .1499 | -.1272 | -.0309 | -.0009 | -.1978 |
| 5    | -10.00 | .6150 | .1221 | -.1200 | -.0219 | -.0002 | -.1208 |
| 6    | -5.00  | .6310 | .1156 | -.1315 | -.0110 | .0017  | -.0606 |
| 7    | -2.50  | .6203 | .1130 | -.1337 | -.0062 | .0013  | -.0321 |
| 8    | .10    | .6122 | .1109 | -.1302 | .0006  | .0017  | .0062  |
| 9    | 2.50   | .6082 | .1116 | -.1259 | .0072  | .0040  | .0359  |
| 10   | 5.00   | .6005 | .1126 | -.1249 | .0135  | .0021  | .0672  |
| 11   | 10.00  | .5659 | .1168 | -.1131 | .0258  | .0059  | .1210  |
| 12   | 15.10  | .5554 | .1375 | -.1068 | .0334  | .0044  | .1956  |
| 13   | 20.00  | .5652 | .1734 | -.1217 | .0408  | .0065  | .2651  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .6274 | .1124 | -.1272 | .0004  | .0021  | .0015  |
| 3    | -19.90 | .6300 | .0816 | -.1159 | -.0369 | .0059  | -.3125 |
| 4    | -15.00 | .6267 | .0933 | -.1216 | -.0309 | .0054  | -.2300 |
| 5    | -10.00 | .6150 | .0992 | -.1180 | -.0219 | .0037  | -.1402 |
| 6    | -5.00  | .6310 | .1099 | -.1318 | -.0110 | .0039  | -.0705 |
| 7    | -2.50  | .6203 | .1114 | -.1339 | -.0062 | .0024  | -.0370 |
| 8    | .10    | .6122 | .1109 | -.1302 | .0006  | .0017  | .0064  |
| 9    | 2.50   | .6082 | .1099 | -.1249 | .0072  | .0030  | .0407  |
| 10   | 5.00   | .6005 | .1062 | -.1234 | .0135  | .0001  | .0768  |
| 11   | 10.00  | .5659 | .0939 | -.1059 | .0258  | .0021  | .1395  |
| 12   | 15.10  | .5554 | .0815 | -.0970 | .0334  | -.0010 | .2248  |
| 13   | 20.00  | .5652 | .0718 | -.1024 | .0408  | -.0017 | .3085  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1010

RUN 1041 CONFIG F P B NPS W7 T2 IN=-3.5

| IN<br>PT.<br>NO. | -9 DELF<br>ALPHA<br>DEG | Q DELA<br>PSI<br>DEG | O IHT<br>CLBAR<br>SQ-FT | O DELE<br>CDBAR<br>SQ-FT | O DELR<br>CPMBAR<br>CU-FT | O DELSB<br>CYBAR<br>CU-FT | Q<br>PSF | O<br>KNOTS | RPM   |        |       |
|------------------|-------------------------|----------------------|-------------------------|--------------------------|---------------------------|---------------------------|----------|------------|-------|--------|-------|
| 2                | .0                      | .0                   | -116.0                  | 34.43                    | -349.                     | 27.                       | -80.     | 7.04       | 54.20 | 127.68 | 3320. |
| 3                | .0                      | -20.0                | -53.4                   | 62.78                    | -479.                     | -609.                     | 201.     | -100.62    | 55.69 | 129.44 | 3500. |
| 4                | .0                      | -15.0                | -71.1                   | 50.64                    | -437.                     | -470.                     | 248.     | -77.33     | 55.37 | 129.06 | 3470. |
| 5                | .0                      | -10.0                | -90.3                   | 40.33                    | -394.                     | -297.                     | 134.     | -50.69     | 55.57 | 129.31 | 3440. |
| 6                | .0                      | -5.0                 | -111.6                  | 34.33                    | -400.                     | -131.                     | 99.      | -25.37     | 55.46 | 129.17 | 3390. |
| 7                | .0                      | -2.5                 | -115.0                  | 33.17                    | -383.                     | -56.                      | -1.      | -8.87      | 55.07 | 129.89 | 3370. |
| 8                | .0                      | .0                   | -114.0                  | 34.12                    | -368.                     | 29.                       | -47.     | 9.56       | 55.25 | 128.92 | 3350. |
| 9                | .0                      | 2.5                  | -113.0                  | 36.01                    | -372.                     | 122.                      | -67.     | 22.88      | 54.64 | 128.19 | 3330. |
| 10               | .0                      | 5.0                  | -107.8                  | 36.26                    | -360.                     | 205.                      | -157.    | 38.30      | 55.33 | 129.01 | 3280. |
| 11               | .0                      | 10.0                 | -95.5                   | 42.24                    | -390.                     | 370.                      | -207.    | 64.65      | 54.95 | 128.57 | 3230. |
| 12               | .0                      | 15.0                 | -77.1                   | 51.00                    | -442.                     | 548.                      | -237.    | 90.16      | 55.39 | 129.08 | 3160. |
| 13               | .0                      | 20.0                 | -62.2                   | 63.01                    | -490.                     | 712.                      | -258.    | 112.41     | 55.49 | 129.20 | 3100. |
| 14               | .0                      | .0                   | -113.5                  | 33.90                    | -353.                     | 25.                       | -10.     | 8.25       | 55.30 | 128.98 | 3350. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.3135 | .0930 | -.1126 | .0016  | -.0049 | .0190  |
| 3    | -20.00 | -.1443 | .1697 | -.1545 | -.0368 | .0121  | -.2720 |
| 4    | -15.00 | -.1923 | .1369 | -.1408 | -.0284 | .0150  | -.2090 |
| 5    | -10.00 | -.2441 | .1090 | -.1271 | -.0179 | .0081  | -.1370 |
| 6    | -5.00  | -.3015 | .0928 | -.1291 | -.0079 | .0060  | -.0686 |
| 7    | -2.50  | -.3107 | .0897 | -.1235 | -.0034 | -.0001 | -.0240 |
| 8    | .00    | -.3080 | .0922 | -.1187 | .0017  | -.0028 | .0258  |
| 9    | 2.50   | -.3075 | .0973 | -.1199 | .0074  | -.0040 | .0618  |
| 10   | 5.00   | -.2913 | .0980 | -.1160 | .0124  | -.0095 | .1035  |
| 11   | 10.00  | -.2581 | .1142 | -.1258 | .0223  | -.0125 | .1747  |
| 12   | 15.00  | -.2084 | .1378 | -.1426 | .0331  | -.0143 | .2437  |
| 13   | 20.00  | -.1680 | .1703 | -.1580 | .0430  | -.0156 | .3038  |
| 14   | .00    | -.3067 | .0916 | -.1138 | .0015  | -.0006 | .0223  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.3135 | .0930 | -.1126 | .0016  | -.0049 | .0190  |
| 3    | -20.00 | -.1443 | .0659 | -.1673 | -.0368 | .0213  | -.3137 |
| 4    | -15.00 | -.1923 | .0778 | -.1567 | -.0284 | .0213  | -.2374 |
| 5    | -10.00 | -.2441 | .0834 | -.1327 | -.0179 | .0121  | -.1539 |
| 6    | -5.00  | -.3015 | .0854 | -.1314 | -.0079 | .0080  | -.0764 |
| 7    | -2.50  | -.3107 | .0885 | -.1234 | -.0034 | .0009  | -.0279 |
| 8    | .00    | -.3080 | .0922 | -.1187 | .0017  | -.0028 | .0258  |
| 9    | 2.50   | -.3075 | .0945 | -.1207 | .0074  | -.0050 | .0660  |
| 10   | 5.00   | -.2913 | .0865 | -.1199 | .0124  | -.0113 | .1117  |
| 11   | 10.00  | -.2581 | .0819 | -.1356 | .0223  | -.0164 | .1920  |
| 12   | 15.00  | -.2084 | .0698 | -.1576 | .0331  | -.0208 | .2711  |
| 13   | 20.00  | -.1680 | .0556 | -.1769 | .0430  | -.0248 | .3438  |
| 14   | .00    | -.3067 | .0916 | -.1138 | .0015  | -.0006 | .0223  |



N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 1011

RUN 1042 CONFIG

F P B NP5 W7 T2

IN=-3.5

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 2       | .0        | .0      | -115.1      | 34.45       | -377.        | 30.          | 10.          | 6.30        | 55.11 | 128.76  | 3350.  |
| 3       | .0        | .0      | -139.0      | -154.06     | -639.        | 10.          | -6.          | 4.79        | 54.02 | 127.46  | 23040. |
| 4       | .0        | -20.0   | -72.1       | -106.23     | -718.        | -859.        | 288.         | -186.40     | 55.14 | 128.79  | 23100. |
| 5       | .0        | -15.0   | -89.2       | -121.96     | -694.        | -653.        | 259.         | -141.02     | 55.24 | 128.92  | 23070. |
| 6       | .0        | -10.0   | -110.6      | -137.64     | -669.        | -417.        | 197.         | -95.26      | 54.85 | 128.46  | 23030. |
| 7       | .0        | -5.0    | -128.2      | -145.13     | -652.        | -220.        | 158.         | -48.43      | 55.28 | 128.97  | 23010. |
| 8       | .0        | -2.5    | -135.5      | -144.00     | -646.        | -113.        | 29.          | -21.44      | 55.60 | 129.34  | 23010. |
| 9       | .0        | .0      | -136.1      | -145.63     | -650.        | 5.           | 46.          | 5.46        | 54.92 | 128.54  | 23050. |
| 10      | .0        | 2.5     | -133.4      | -145.62     | -645.        | 138.         | 12.          | 32.77       | 54.67 | 128.24  | 22990. |
| 11      | .0        | 5.0     | -125.9      | -142.99     | -641.        | 253.         | -53.         | 57.40       | 55.25 | 128.93  | 23030. |
| 12      | .0        | 10.0    | -112.1      | -135.07     | -661.        | 468.         | -107.        | 105.20      | 55.02 | 128.65  | 23010. |
| 13      | .0        | 15.0    | -96.5       | -119.72     | -715.        | 723.         | -138.        | 150.13      | 54.64 | 128.44  | 23050. |
| 14      | .0        | 20.0    | -84.9       | -103.43     | -766.        | 951.         | -158.        | 193.77      | 54.62 | 128.17  | 23020. |
| 15      | .0        | .0      | -134.1      | -142.51     | -638.        | 20.          | 63.          | 5.59        | 55.41 | 129.12  | 23020. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.3111 | .0931  | -.1215 | .0018  | .0006  | .0170  |
| 3    | .00    | -.3757 | -.4164 | -.2061 | .0006  | -.0004 | .0130  |
| 4    | -20.00 | -.1948 | -.2871 | -.2315 | -.0519 | .0174  | -.5038 |
| 5    | -15.00 | -.2412 | -.3296 | -.2236 | -.0394 | .0157  | -.3811 |
| 6    | -10.00 | -.2989 | -.3725 | -.2157 | -.0252 | .0119  | -.2575 |
| 7    | -5.00  | -.3464 | -.3922 | -.2103 | -.0133 | .0095  | -.1309 |
| 8    | -2.50  | -.3663 | -.3892 | -.2083 | -.0068 | .0017  | -.0580 |
| 9    | .00    | -.3679 | -.3941 | -.2095 | .0003  | .0028  | .0148  |
| 10   | 2.50   | -.3605 | -.3941 | -.2081 | .0083  | .0007  | .0886  |
| 11   | 5.00   | -.3403 | -.3865 | -.2066 | .0153  | -.0032 | .1551  |
| 12   | 10.00  | -.3029 | -.3650 | -.2130 | .0283  | -.0065 | .2843  |
| 13   | 15.00  | -.2607 | -.3236 | -.2306 | .0437  | -.0083 | .4058  |
| 14   | 20.00  | -.2295 | -.2795 | -.2470 | .0574  | -.0096 | .5237  |
| 15   | .00    | -.3624 | -.3852 | -.2057 | .0012  | .0038  | .0151  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.3111 | .0931  | -.1215 | .0018  | .0006  | .0170  |
| 3    | .00    | -.3757 | -.4164 | -.2061 | .0006  | -.0004 | .0130  |
| 4    | -20.00 | -.1948 | -.4427 | -.2492 | -.0519 | .0312  | -.3745 |
| 5    | -15.00 | -.2412 | -.4174 | -.2377 | -.0394 | .0260  | -.2823 |
| 6    | -10.00 | -.2989 | -.4117 | -.2235 | -.0252 | .0188  | -.1885 |
| 7    | -5.00  | -.3464 | -.4022 | -.2139 | -.0133 | .0129  | -.0960 |
| 8    | -2.50  | -.3663 | -.3914 | -.2085 | -.0068 | .0034  | -.0408 |
| 9    | .00    | -.3679 | -.3941 | -.2095 | .0003  | .0026  | .0148  |
| 10   | 2.50   | -.3605 | -.3975 | -.2077 | .0083  | -.0010 | .0712  |
| 11   | 5.00   | -.3403 | -.3986 | -.2073 | .0153  | -.0066 | .1207  |
| 12   | 10.00  | -.3029 | -.4090 | -.2158 | .0283  | -.0133 | .2163  |
| 13   | 15.00  | -.2607 | -.4179 | -.2342 | .0437  | -.0193 | .3077  |
| 14   | 20.00  | -.2295 | -.4424 | -.2495 | .0574  | -.0249 | .3958  |
| 15   | .00    | -.3624 | -.3852 | -.2057 | .0012  | .0038  | .0151  |

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N432405-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P1012

RUN 1043 CONFIG F P B NPE W7 T2 IN=-3.5

| IW      | IS DELF      | C DELA     | Q IHT          | Q DELE         | Q DELR          | Q DELSB         | Q               | V              | RPM          |       |
|---------|--------------|------------|----------------|----------------|-----------------|-----------------|-----------------|----------------|--------------|-------|
| PT. NO. | ALPHA<br>CEG | PSI<br>DEG | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>SQ-FT | CYBAR<br>SQ-FT | PSF<br>KNOTS |       |
| 2       | .0           | .0         | 382.6          | 69.25          | -483.           | 1.              | 36.             | -.49           | 55.50 129.22 | 4010. |
| 3       | .0           | -20.0      | 345.9          | 86.39          | -253.           | -576.           | -236.           | -78.03         | 56.05 129.87 | 3940. |
| 4       | .0           | -15.0      | 374.6          | 79.23          | -364.           | -488.           | -171.           | -61.16         | 54.58 128.12 | 4010. |
| 5       | .0           | -10.0      | 378.1          | 71.65          | -434.           | -352.           | -111.           | -39.81         | 55.28 128.96 | 4000. |
| 6       | .0           | -5.0       | 387.4          | 70.86          | -492.           | -211.           | -53.            | -20.28         | 54.26 127.74 | 4000. |
| 7       | .0           | -2.5       | 383.5          | 69.93          | -492.           | -117.           | 25.             | -9.34          | 54.68 128.24 | 3990. |
| 8       | .0           | .0         | 380.0          | 69.63          | -494.           | -2.             | 72.             | -1.06          | 54.64 128.19 | 3990. |
| 9       | .0           | 2.5        | 378.6          | 70.05          | -470.           | 108.            | 140.            | 8.40           | 54.74 128.31 | 3990. |
| 10      | .0           | 5.0        | 373.0          | 69.56          | -446.           | 211.            | 194.            | 17.12          | 54.93 128.54 | 3960. |
| 11      | .0           | 10.0       | 352.7          | 70.12          | -335.           | 369.            | 278.            | 31.10          | 54.98 128.60 | 3910. |
| 12      | .0           | 15.0       | 348.4          | 76.33          | -266.           | 529.            | 272.            | 58.84          | 54.65 128.20 | 3860. |
| 13      | .0           | 20.0       | 322.3          | 83.77          | -215.           | 644.            | 327.            | 77.96          | 55.36 129.05 | 3780. |
| 14      | .0           | .0         | 379.2          | 69.14          | -477.           | -10.            | -16.            | -1.06          | 54.86 128.46 | 3990. |

\*\*\*\* CCEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.0341 | .1872 | -.1558 | .0001  | .0021  | -.0013 |
| 3    | -20.00 | .9349  | .2335 | -.0817 | -.0348 | -.0142 | -.2109 |
| 4    | -15.00 | 1.0124 | .2141 | -.1175 | -.0295 | -.0103 | -.1653 |
| 5    | -10.00 | 1.0220 | .1937 | -.1398 | -.0213 | -.0067 | -.1076 |
| 6    | -5.00  | 1.0471 | .1915 | -.1586 | -.0128 | -.0032 | -.0548 |
| 7    | -2.50  | 1.0365 | .1890 | -.1585 | -.0071 | .0015  | -.0253 |
| 8    | .00    | 1.0270 | .1882 | -.1593 | -.0001 | .0044  | -.0029 |
| 9    | 2.50   | 1.0233 | .1893 | -.1514 | .0065  | .0084  | .0227  |
| 10   | 5.00   | 1.0080 | .1880 | -.1439 | .0127  | .0117  | .0463  |
| 11   | 10.00  | .9534  | .1895 | -.1079 | .0223  | .0168  | .0841  |
| 12   | 15.00  | .9416  | .2063 | -.0858 | .0320  | .0164  | .1590  |
| 13   | 20.00  | .8712  | .2264 | -.0692 | .0389  | .0197  | .2107  |
| 14   | .00    | 1.0248 | .1869 | -.1538 | -.0006 | -.0010 | -.0029 |

\*\*\*\* CCEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | 1.0341 | .1872 | -.1558 | .0001  | .0021  | -.0013 |
| 3    | -20.00 | .9349  | .1468 | -.0506 | -.0348 | -.0081 | -.2783 |
| 4    | -15.00 | 1.0124 | .1638 | -.0991 | -.0295 | -.0042 | -.2153 |
| 5    | -10.00 | 1.0220 | .1719 | -.1314 | -.0213 | -.0021 | -.1397 |
| 6    | -5.00  | 1.0471 | .1860 | -.1555 | -.0128 | -.0006 | -.0714 |
| 7    | -2.50  | 1.0365 | .1877 | -.1587 | -.0071 | .0028  | -.0335 |
| 8    | .00    | 1.0270 | .1882 | -.1593 | -.0001 | .0044  | -.0029 |
| 9    | 2.50   | 1.0233 | .1882 | -.1493 | .0065  | .0072  | .0310  |
| 10   | 5.00   | 1.0080 | .1832 | -.1379 | .0127  | .0093  | .0625  |
| 11   | 10.00  | .9534  | .1719 | -.0907 | .0223  | .0130  | .1158  |
| 12   | 15.00  | .9416  | .1579 | -.0600 | .0320  | .0117  | .2072  |
| 13   | 20.00  | .8712  | .1403 | -.0288 | .0389  | .0141  | .2757  |
| 14   | .00    | 1.0248 | .1869 | -.1538 | -.0006 | -.0010 | -.0029 |

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SIKORSKY RSRA 1/5 SCALE MODEL TEST  
AERODYNAMIC DATA

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P1013

RUN 1044 CONFIG F P B NPS W7 T2 IN=-3.5

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| 2       | .0        | .0      | 379.6       | 69.29       | -499.        | 7.           | 72.          | -1.11       | 55.20 | 128.86  | 4010.  |
| 3       | .0        | .0      | 341.5       | -115.34     | -701.        | -67.         | 218.         | -6.16       | 55.29 | 128.97  | 23050. |
| 4       | .0        | -20.0   | 333.6       | -79.69      | -619.        | -902.        | -359.        | -152.23     | 55.38 | 129.08  | 23120. |
| 5       | .0        | -15.0   | 348.0       | -94.15      | -710.        | -713.        | -262.        | -116.43     | 54.98 | 128.60  | 23150. |
| 6       | .0        | -10.0   | 340.3       | -102.67     | -758.        | -562.        | -198.        | -76.23      | 54.92 | 128.54  | 23000. |
| 7       | .0        | -5.0    | 337.8       | -108.07     | -759.        | -367.        | -6.          | -39.79      | 54.79 | 128.38  | 23020. |
| 8       | .0        | -2.5    | 335.8       | -107.24     | -765.        | -229.        | 13.          | -19.33      | 55.34 | 129.03  | 23010. |
| 9       | .0        | .0      | 336.5       | -108.62     | -750.        | -93.         | 129.         | -4.68       | 55.33 | 129.02  | 23010. |
| 10      | .0        | 2.5     | 334.6       | -109.51     | -753.        | 70.          | 231.         | 10.39       | 55.07 | 128.71  | 22990. |
| 11      | .0        | 5.0     | 331.4       | -111.38     | -715.        | 214.         | 310.         | 30.19       | 55.51 | 129.23  | 23030. |
| 12      | .0        | 10.0    | 334.7       | -104.60     | -715.        | 479.         | 540.         | 67.10       | 55.18 | 128.85  | 22990. |
| 13      | .0        | 15.0    | 321.6       | -94.05      | -637.        | 673.         | 606.         | 107.49      | 55.68 | 129.43  | 23070. |
| 14      | .0        | 20.0    | 302.9       | -79.07      | -571.        | 910.         | 635.         | 148.07      | 55.12 | 128.77  | 23080. |
| 15      | .0        | -2.5    | 337.3       | -106.01     | -774.        | -245.        | 50.          | -21.08      | 55.11 | 128.76  | 22970. |
| 16      | .0        | .0      | 335.8       | -106.84     | -762.        | -105.        | 147.         | -5.18       | 55.19 | 128.85  | 23020. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0261 | .1873  | -.1609 | .0004  | .0043  | -.0030 |
| 3    | .00    | .9230  | -.3117 | -.2260 | -.0041 | .0132  | -.0167 |
| 4    | -20.00 | .9016  | -.2154 | -.1995 | -.0545 | -.0217 | -.4114 |
| 5    | -15.00 | .9406  | -.2544 | -.2290 | -.0430 | -.0158 | -.3147 |
| 6    | -10.00 | .9197  | -.2780 | -.2444 | -.0340 | -.0119 | -.2060 |
| 7    | -5.00  | .9131  | -.2921 | -.2480 | -.0221 | -.0004 | -.1075 |
| 8    | -2.50  | .9077  | -.2898 | -.2466 | -.0138 | .0008  | -.0522 |
| 9    | .00    | .9094  | -.2936 | -.2417 | -.0056 | .0078  | -.0126 |
| 10   | 2.50   | .9042  | -.2960 | -.2428 | .0042  | .0139  | .0281  |
| 11   | 5.00   | .8957  | -.3010 | -.2305 | .0129  | .0187  | .0816  |
| 12   | 10.00  | .9045  | -.2827 | -.2304 | .0289  | .0326  | .1813  |
| 13   | 15.00  | .8693  | -.2542 | -.2054 | .0406  | .0366  | .2905  |
| 14   | 20.00  | .8187  | -.2137 | -.1842 | .0550  | .0383  | .4002  |
| 15   | -2.50  | .9117  | -.2865 | -.2497 | -.0148 | .0030  | -.0570 |
| 16   | .00    | .9076  | -.2887 | -.2456 | -.0063 | .0089  | -.0140 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | COB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.0261 | .1873  | -.1609 | .0004  | .0043  | -.0030 |
| 3    | .00    | .9230  | -.3117 | -.2260 | -.0041 | .0132  | -.0167 |
| 4    | -20.00 | .9016  | -.3436 | -.1477 | -.0545 | -.0075 | -.3124 |
| 5    | -15.00 | .9406  | -.3275 | -.1992 | -.0430 | -.0041 | -.2377 |
| 6    | -10.00 | .9197  | -.3097 | -.2296 | -.0340 | -.0032 | -.1544 |
| 7    | -5.00  | .9131  | -.3004 | -.2469 | -.0221 | .0037  | -.0816 |
| 8    | -2.50  | .9077  | -.2918 | -.2466 | -.0138 | .0028  | -.0395 |
| 9    | .00    | .9094  | -.2936 | -.2417 | -.0056 | .0078  | -.0126 |
| 10   | 2.50   | .9042  | -.2969 | -.2393 | .0042  | .0119  | .0151  |
| 11   | 5.00   | .8957  | -.3070 | -.2209 | .0129  | .0148  | .0549  |
| 12   | 10.00  | .9045  | -.3100 | -.1966 | .0289  | .0246  | .1293  |
| 13   | 15.00  | .8693  | -.3210 | -.1476 | .0406  | .0253  | .2145  |
| 14   | 20.00  | .8187  | -.3382 | -.1027 | .0550  | .0242  | .3024  |
| 15   | -2.50  | .9117  | -.2887 | -.2502 | -.0148 | .0051  | -.0444 |
| 16   | .00    | .9076  | -.2887 | -.2456 | -.0063 | .0089  | -.0140 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1014

RUN 1045 CONFIG F P B NP5 W7 T2 L IN=-3.5

| IW      | 15 DELF   | 30 DELA | Q IHT       | Q DELE      | Q DELR       | Q DELSB      | Q            | V           | RPM   |        |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|--------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  |        |
| 6       | .0        | .0      | 617.5       | 137.64      | -993.        | 46.          | 123.         | .19         | 55.15 | 128.80 | 4250.  |
| 7       | .0        | .0      | 536.9       | -6.63       | -1163.       | -16.         | 707.         | -25.59      | 54.57 | 128.11 | 20220. |
| 8       | -20.0     | .0      | -30.6       | -36.79      | -2843.       | 91.          | 63.          | 3.34        | 55.11 | 128.76 | 20210. |
| 9       | -15.0     | .0      | 145.3       | -46.48      | -2585.       | 94.          | 175.         | -.25        | 55.52 | 129.24 | 20240. |
| 10      | -20.0     | .0      | -28.0       | -36.51      | -2832.       | 93.          | 118.         | 2.29        | 55.06 | 128.70 | 20220. |
| 11      | -10.0     | .0      | 316.3       | -40.99      | -2189.       | 76.          | 200.         | -3.59       | 55.04 | 128.67 | 20220. |
| 12      | -5.0      | .0      | 463.5       | -26.69      | -1695.       | 42.          | 162.         | -2.29       | 55.12 | 128.76 | 20230. |
| 13      | -2.5      | .0      | 527.8       | -17.22      | -1419.       | 31.          | 233.         | -3.39       | 55.26 | 128.93 | 20240. |
| 14      | .0        | .0      | 533.6       | -2.37       | -1156.       | -20.         | 666.         | -24.02      | 54.89 | 128.49 | 20280. |
| 15      | 2.5       | .0      | 520.0       | 12.12       | -941.        | 15.          | 125.         | -1.12       | 54.79 | 128.37 | 20220. |
| 16      | 5.0       | .0      | 570.0       | 30.52       | -739.        | -47.         | 450.         | -8.40       | 54.75 | 128.32 | 20290. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 6    | .00    | 1.6689 | .3720  | -.3203 | .0028  | .0074 | .0005  |
| 7    | .00    | 1.4510 | -.0179 | -.3748 | -.0010 | .0427 | -.0692 |
| 8    | -20.01 | -.0826 | -.0994 | -.9166 | .0055  | .0038 | .0090  |
| 9    | -15.00 | .3928  | -.1256 | -.8333 | .0057  | .0106 | -.0007 |
| 10   | -20.00 | -.0756 | -.0987 | -.9131 | .0056  | .0071 | .0062  |
| 11   | -10.00 | .8549  | -.1108 | -.7058 | .0046  | .0121 | -.0097 |
| 12   | -5.00  | 1.2526 | -.0721 | -.5466 | .0025  | .0098 | -.0062 |
| 13   | -2.50  | 1.4266 | -.0465 | -.4575 | .0019  | .0141 | -.0092 |
| 14   | .01    | 1.4422 | -.0064 | -.3726 | -.0012 | .0402 | -.0649 |
| 15   | 2.50   | 1.4053 | .0328  | -.3033 | .0010  | .0076 | -.0030 |
| 16   | 5.01   | 1.5404 | .0836  | -.2382 | -.0028 | .0272 | -.0227 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 6    | .00    | 1.6689 | .3720  | -.3203 | .0028  | .0074 | .0005  |
| 7    | .00    | 1.4510 | -.0179 | -.3748 | -.0010 | .0427 | -.0692 |
| 8    | -20.01 | -.0826 | -.0994 | -.9166 | .0055  | .0038 | .0090  |
| 9    | -15.00 | .3928  | -.1256 | -.8333 | .0057  | .0106 | -.0007 |
| 10   | -20.00 | -.0756 | -.0987 | -.9131 | .0056  | .0071 | .0062  |
| 11   | -10.00 | .8549  | -.1108 | -.7058 | .0046  | .0121 | -.0097 |
| 12   | -5.00  | 1.2526 | -.0721 | -.5466 | .0025  | .0098 | -.0062 |
| 13   | -2.50  | 1.4266 | -.0465 | -.4575 | .0019  | .0141 | -.0092 |
| 14   | .01    | 1.4422 | -.0064 | -.3726 | -.0012 | .0402 | -.0649 |
| 15   | 2.50   | 1.4053 | .0328  | -.3033 | .0010  | .0076 | -.0030 |
| 16   | 5.01   | 1.5404 | .0836  | -.2382 | -.0028 | .0272 | -.0227 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1015

RUN 1046 CONFIG F P B NP5 W7 T2 L IN=-3.5

| IN      | 15 DELF   | 30 DELA | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |  |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|--|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |  |
| 2       | .0        | .0      | 616.8       | 136.51      | -973.        | 48.          | 88.          | -.12        | 55.30 | 128.98  | 4250.  |  |
| 3       | .0        | .0      | 530.9       | -1.51       | -1139.       | -11.         | 642.         | -25.72      | 55.62 | 129.35  | 20290. |  |
| 4       | .0        | .0      | 536.3       | -5.15       | -1127.       | -12.         | 633.         | -27.07      | 54.98 | 128.60  | 20500. |  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|-------|--------|--------|--------|--------|-------|--------|
| 2    | .00   | 1.6670 | .3689  | -.3137 | .0029  | .0053 | -.0003 |
| 3    | .00   | 1.4348 | -.0041 | -.3672 | -.0007 | .0388 | -.0695 |
| 4    | .00   | 1.4493 | -.0155 | -.3634 | -.0007 | .0383 | -.0732 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|-------|--------|--------|--------|--------|-------|--------|
| 2    | .00   | 1.6670 | .3689  | -.3137 | .0029  | .0053 | -.0003 |
| 3    | .00   | 1.4348 | -.0041 | -.3672 | -.0007 | .0388 | -.0695 |
| 4    | .00   | 1.4493 | -.0155 | -.3634 | -.0007 | .0383 | -.0732 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1016

RUN 1047 CONFIG F P B NPS W7 T2 L IN=-3.5

| PT. NO. | IS DELF<br>ALPHA DEG | PSI<br>DEG | CLBAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CMBAR<br>CU-FT | CYBAR<br>SQ-FT | CMBAR<br>PSF | CV<br>KNOTS | RPM    |
|---------|----------------------|------------|----------------|----------------|-----------------|-----------------|----------------|----------------|--------------|-------------|--------|
| 2       | .0                   | .0         | 620.5          | 137.29         | -1001.          | 46.             | 70.            | .50            | 54.61        | 128.15      | 4240.  |
| 3       | .0                   | .0         | 534.9          | -7.05          | -1144.          | 13.             | 681.           | -26.47         | 55.35        | 129.03      | 20460. |
| 4       | -20.0                | .0         | -24.5          | -37.77         | -2791.          | 81.             | 25.            | 4.17           | 55.52        | 129.24      | 20440. |
| 5       | -15.0                | .0         | 147.5          | -48.30         | -2565.          | 84.             | 83.            | 2.34           | 55.37        | 129.06      | 20450. |
| 6       | -10.0                | .0         | 320.0          | -43.54         | -2202.          | 79.             | 90.            | -1.18          | 54.90        | 128.49      | 20450. |
| 7       | -5.0                 | .0         | 456.5          | -28.23         | -1704.          | 52.             | 89.            | -.56           | 54.92        | 128.52      | 20470. |
| 8       | -2.5                 | .0         | 537.1          | -19.35         | -1439.          | 61.             | 160.           | -.68           | 54.73        | 128.29      | 20450. |
| 9       | .0                   | .0         | 524.2          | -4.89          | -1160.          | 9.              | 626.           | -24.18         | 55.36        | 129.04      | 20450. |
| 10      | 2.5                  | .0         | 510.3          | 8.26           | -903.           | 23.             | 131.           | -6.01          | 54.45        | 127.95      | 20480. |
| 11      | 5.0                  | .0         | 553.8          | 27.25          | -654.           | -18.            | 254.           | -7.88          | 54.90        | 128.49      | 20500. |
| 12      | 10.0                 | .0         | 466.6          | 74.60          | -277.           | 15.             | -18.           | -.50           | 54.41        | 127.90      | 20450. |
| 13      | 15.0                 | .0         | 539.5          | 138.71         | 59.             | -53.            | 267.           | -2.81          | 54.49        | 127.99      | 20440. |
| 14      | 20.0                 | .0         | 570.4          | 201.68         | 412.            | 10.             | 35.            | .37            | 55.54        | 129.24      | 20470. |
| 15      | -.0                  | .0         | 526.2          | -3.06          | -1146.          | -1.             | 615.           | -26.45         | 54.99        | 128.60      | 20450. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.6771 | .3711  | -.3226 | .0028  | .0042  | .0013  |
| 3    | .00    | 1.4457 | -.0190 | -.3690 | .0008  | .0411  | -.0715 |
| 4    | -20.00 | -.0663 | -.1021 | -.8997 | .0049  | .0015  | .0113  |
| 5    | -15.00 | .3987  | -.1305 | -.8271 | .0050  | .0050  | .0063  |
| 6    | -10.00 | .8647  | -.1177 | -.7099 | .0048  | .0055  | -.0032 |
| 7    | -5.00  | 1.2609 | -.0763 | -.5495 | .0032  | .0054  | -.0015 |
| 8    | -2.50  | 1.4517 | -.0523 | -.4640 | .0037  | .0097  | -.0019 |
| 9    | .00    | 1.4166 | -.0132 | -.3739 | .0005  | .0376  | -.0654 |
| 10   | 2.50   | 1.3793 | .0226  | -.2912 | .0014  | .0079  | -.0162 |
| 11   | 5.00   | 1.4967 | .0736  | -.2109 | -.0011 | .0154  | -.0213 |
| 12   | 10.00  | 1.3151 | .2016  | -.0892 | .0009  | -.0011 | -.0014 |
| 13   | 15.00  | 1.4582 | .3749  | .0190  | -.0032 | .0161  | -.0076 |
| 14   | 20.00  | 1.5417 | .5451  | .1328  | .0006  | .0021  | .0010  |
| 15   | -.00   | 1.4221 | -.0083 | -.3695 | -.0001 | .0371  | -.0715 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.6771 | .3711  | -.3226 | .0028  | .0042  | .0013  |
| 3    | .00    | 1.4457 | -.0190 | -.3690 | .0008  | .0411  | -.0715 |
| 4    | -20.00 | -.0663 | -.1021 | -.8997 | .0049  | .0015  | .0113  |
| 5    | -15.00 | .3987  | -.1305 | -.8271 | .0050  | .0050  | .0063  |
| 6    | -10.00 | .8647  | -.1177 | -.7099 | .0048  | .0055  | -.0032 |
| 7    | -5.00  | 1.2609 | -.0763 | -.5495 | .0032  | .0054  | -.0015 |
| 8    | -2.50  | 1.4517 | -.0523 | -.4640 | .0037  | .0097  | -.0019 |
| 9    | .00    | 1.4166 | -.0132 | -.3739 | .0005  | .0379  | -.0654 |
| 10   | 2.50   | 1.3793 | .0226  | -.2912 | .0014  | .0079  | -.0162 |
| 11   | 5.00   | 1.4967 | .0736  | -.2109 | -.0011 | .0154  | -.0213 |
| 12   | 10.00  | 1.3151 | .2016  | -.0892 | .0009  | -.0011 | -.0014 |
| 13   | 15.00  | 1.4582 | .3749  | .0190  | -.0032 | .0161  | -.0076 |
| 14   | 20.00  | 1.5417 | .5451  | .1328  | .0006  | .0021  | .0010  |
| 15   | -.00   | 1.4221 | -.0083 | -.3695 | -.0001 | .0371  | -.0715 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1017

RUN 1048 CONFIG F P B NPS W7 T2 L IN=-3.5

| PT. NO. | 15 DELF   |         | 30 DELA     |             | 0 IHT        |              | 0 DELE       |             | 0 DELR |        | 0 DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|--------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF    | Q      | V KNOTS |  |     |
| 6       | .0        | .0      | 614.2       | 136.52      | -997.        | 39.          | 87.          | 1.24        | 54.91  | 128.51 | 4250.   |  |     |
| 7       | .0        | .0      | 533.2       | -7.21       | -1160.       | -7.          | 704.         | -29.14      | 55.18  | 128.83 | 20460.  |  |     |
| 8       | .0        | -20.0   | 492.8       | 14.86       | -719.        | -741.        | -756.        | -106.26     | 55.52  | 129.36 | 20430.  |  |     |
| 9       | .0        | -15.0   | 539.2       | 5.70        | -884.        | -648.        | -685.        | -70.82      | 54.84  | 128.42 | 20460.  |  |     |
| 10      | .0        | -10.0   | 531.0       | -.93        | -1013.       | -449.        | -712.        | -40.79      | 55.79  | 129.55 | 20420.  |  |     |
| 11      | .0        | -5.0    | 536.8       | -5.28       | -1130.       | -211.        | -570.        | -8.83       | 54.76  | 128.34 | 20480.  |  |     |
| 12      | .0        | -2.5    | 524.9       | -5.43       | -1158.       | -72.         | -563.        | 3.62        | 55.54  | 129.26 | 20450.  |  |     |
| 13      | .0        | .0      | 461.4       | -4.44       | -1165.       | 43.          | 176.         | -1.77       | 55.89  | 129.67 | 20480.  |  |     |
| 14      | .0        | 2.5     | 461.4       | -3.64       | -1129.       | 182.         | 225.         | 9.73        | 56.01  | 129.82 | 20460.  |  |     |
| 15      | .0        | 5.0     | 540.5       | -.44        | -1117.       | 309.         | 847.         | 5.71        | 54.85  | 128.44 | 20460.  |  |     |
| 16      | .0        | 10.0    | 550.8       | -.54        | -990.        | 566.         | 634.         | 40.90       | 55.14  | 128.78 | 20450.  |  |     |
| 17      | .0        | 15.0    | 510.0       | 4.52        | -801.        | 710.         | 764.         | 71.15       | 55.35  | 129.03 | 20030.  |  |     |
| 18      | .0        | 20.0    | 473.5       | 13.08       | -661.        | 822.         | 882.         | 108.60      | 55.02  | 128.64 | 20500.  |  |     |
| 19      | .0        | .0      | 528.7       | -1.58       | -1180.       | 1.           | 647.         | -25.97      | 55.22  | 128.88 | 20450.  |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | 1.6599 | .3690  | -.3214 | .0023  | .0052  | .0034  |
| 7    | .00    | 1.4410 | -.0195 | -.3740 | -.0004 | .0425  | -.0788 |
| 8    | -20.00 | 1.3320 | .0402  | -.2317 | -.0448 | -.0457 | -.2872 |
| 9    | -15.00 | 1.4572 | .0154  | -.2849 | -.0391 | -.0414 | -.1914 |
| 10   | -10.00 | 1.4350 | -.0025 | -.3266 | -.0271 | -.0430 | -.1102 |
| 11   | -5.00  | 1.4507 | -.0143 | -.3644 | -.0127 | -.0344 | -.0239 |
| 12   | -2.50  | 1.4187 | -.0147 | -.3734 | -.0043 | -.0340 | .0058  |
| 13   | .00    | 1.2470 | -.0120 | -.3756 | .0026  | .0106  | -.0048 |
| 14   | 2.50   | 1.2470 | -.0098 | -.3638 | .0110  | .0136  | .0263  |
| 15   | 5.00   | 1.4611 | -.0012 | -.3602 | .0187  | .0512  | .0154  |
| 16   | 10.00  | 1.4887 | -.0015 | -.3191 | .0342  | .0383  | .1105  |
| 17   | 15.00  | 1.3784 | .0122  | -.2584 | .0429  | .0462  | .1923  |
| 18   | 20.00  | 1.2797 | .0354  | -.2131 | .0496  | .0533  | .2935  |
| 19   | .00    | 1.4289 | -.0043 | -.3803 | .0001  | .0391  | -.0702 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | 1.6599 | .3690  | -.3214 | .0023  | .0052  | .0034  |
| 7    | .00    | 1.4410 | -.0195 | -.3740 | -.0004 | .0425  | -.0788 |
| 8    | -20.00 | 1.3320 | -.0509 | -.1338 | -.0448 | -.0280 | -.2835 |
| 9    | -15.00 | 1.4572 | -.0349 | -.2177 | -.0391 | -.0261 | -.1888 |
| 10   | -10.00 | 1.4350 | -.0217 | -.2815 | -.0271 | -.0317 | -.1081 |
| 11   | -5.00  | 1.4507 | -.0163 | -.3470 | -.0127 | -.0287 | -.0225 |
| 12   | -2.50  | 1.4187 | -.0142 | -.3650 | -.0043 | -.0309 | .0104  |
| 13   | .00    | 1.2470 | -.0120 | -.3756 | .0026  | .0106  | -.0048 |
| 14   | 2.50   | 1.2470 | -.0110 | -.3603 | .0110  | .0106  | .0258  |
| 15   | 5.00   | 1.4611 | -.0025 | -.3349 | .0187  | .0451  | .0153  |
| 16   | 10.00  | 1.4887 | -.0207 | -.2786 | .0342  | .0273  | .1086  |
| 17   | 15.00  | 1.3784 | -.0382 | -.1854 | .0429  | .0320  | .1889  |
| 18   | 20.00  | 1.2797 | -.0676 | -.1024 | .0496  | .0363  | .2878  |
| 19   | .00    | 1.4289 | -.0043 | -.3803 | .0001  | .0391  | -.0702 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P101P

RUN 1049 CONFIG F P B NP5 W7 T2 L IN=-3.5

| PT. NO. | 7.5 ALPHA DEG | DELTA PSI DEG | DELTA CI BAR | DELTA CD BAR | DELTA CPM BAR | DELTA CYM BAR | DELTA CRM BAR | DELTA CY BAR | DELTA PSF | DELTA KN | RPM    |
|---------|---------------|---------------|--------------|--------------|---------------|---------------|---------------|--------------|-----------|----------|--------|
| 2       | .0            | .0            | 467.4        | 99.70        | -961.         | 47.           | 53.           | -0.49        | 55.89     | 129.67   | 4020.  |
| 3       | .0            | .0            | 455.6        | -7.25        | -1106.        | 56.           | 143.          | -3.41        | 55.90     | 129.68   | 17820. |
| 4       | .0            | -20.0         | 377.7        | 13.52        | -753.         | -892.         | -445.         | -115.02      | 55.06     | 128.68   | 17890. |
| 5       | .0            | -15.0         | 414.1        | 3.89         | -911.         | -698.         | -336.         | -86.96       | 55.08     | 128.71   | 17960. |
| 6       | .0            | -10.0         | 443.1        | -0.52        | -1033.        | -541.         | -156.         | -59.19       | 55.53     | 129.25   | 17820. |
| 7       | .0            | -5.0          | 461.3        | -3.48        | -1127.        | -249.         | 22.           | -33.04       | 55.06     | 128.69   | 17040. |
| 8       | .0            | -2.5          | 463.6        | -3.33        | -1137.        | -107.         | 98.           | -16.61       | 54.96     | 128.57   | 17840. |
| 9       | .0            | .0            | 457.7        | -4.73        | -1116.        | 49.           | 145.          | -4.30        | 55.48     | 129.19   | 17900. |
| 10      | .0            | 2.5           | 454.9        | -3.80        | -1098.        | 212.          | 261.          | 11.21        | 55.60     | 129.33   | 17820. |
| 11      | .0            | 5.0           | 452.7        | -3.96        | -1082.        | 362.          | 285.          | 25.46        | 54.86     | 128.46   | 17790. |
| 12      | .0            | 10.0          | 429.3        | -6.09        | -975.         | 611.          | 445.          | 54.36        | 55.27     | 128.94   | 17640. |
| 13      | .0            | 15.0          | 391.1        | -0.30        | -803.         | 820.          | 530.          | 84.26        | 56.11     | 129.94   | 17840. |
| 14      | .0            | 20.0          | 355.4        | 9.66         | -678.         | 975.          | 605.          | 113.09       | 55.55     | 129.26   | 17770. |
| 15      | .0            | .0            | 459.8        | -6.94        | -1103.        | 28.           | 198.          | -3.89        | 55.23     | 128.89   | 17800. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.2633 | .2695  | -.3097 | .0029  | .0037  | -.0013 |
| 3    | .00    | 1.2315 | -.0196 | -.3566 | .0034  | .0086  | -.0092 |
| 4    | -20.00 | 1.0207 | .0365  | -.7428 | -.0539 | -.0269 | -.3109 |
| 5    | -15.00 | 1.1193 | .0105  | -.7938 | -.0422 | -.0203 | -.2350 |
| 6    | -10.00 | 1.1975 | -.0014 | -.3331 | -.0327 | -.0094 | -.1600 |
| 7    | -5.00  | 1.2468 | -.0094 | -.3633 | -.0150 | .0013  | -.0893 |
| 8    | -2.50  | 1.2531 | -.0090 | -.3666 | -.0065 | .0059  | -.0449 |
| 9    | .00    | 1.2371 | -.0128 | -.3597 | .0030  | .0088  | -.0116 |
| 10   | 2.50   | 1.2294 | -.0103 | -.3539 | .0128  | .0158  | .0303  |
| 11   | 5.00   | 1.2235 | -.0107 | -.3487 | .0219  | .0172  | .0688  |
| 12   | 10.00  | 1.1604 | -.0165 | -.3143 | .0369  | .0269  | .1469  |
| 13   | 15.00  | 1.0570 | -.0008 | -.2589 | .0495  | .0370  | .2277  |
| 14   | 20.00  | .9604  | .0261  | -.2187 | .0589  | .0366  | .3056  |
| 15   | .00    | 1.2427 | -.0188 | -.3557 | .0017  | .0120  | -.0105 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.2633 | .2695  | -.3097 | .0029  | .0032  | -.0013 |
| 3    | .00    | 1.2315 | -.0196 | -.3566 | .0034  | .0086  | -.0092 |
| 4    | -20.00 | 1.0207 | -.0725 | -.1787 | -.0539 | -.0096 | -.3045 |
| 5    | -15.00 | 1.1193 | -.0509 | -.2555 | -.0422 | -.0053 | -.2297 |
| 6    | -10.00 | 1.1975 | -.0293 | -.3192 | -.0327 | .0016  | -.1573 |
| 7    | -5.00  | 1.2468 | -.0172 | -.3626 | -.0150 | .0073  | -.0881 |
| 8    | -2.50  | 1.2531 | -.0110 | -.3676 | -.0065 | .0089  | -.0445 |
| 9    | .00    | 1.2371 | -.0128 | -.3597 | .0030  | .0088  | -.0116 |
| 10   | 2.50   | 1.2294 | -.0116 | -.3499 | .0128  | .0129  | .0298  |
| 11   | 5.00   | 1.2235 | -.0167 | -.3393 | .0219  | .0114  | .0676  |
| 12   | 10.00  | 1.1604 | -.0418 | -.2845 | .0369  | .0162  | .1418  |
| 13   | 15.00  | 1.0570 | -.0600 | -.2056 | .0495  | .0183  | .2197  |
| 14   | 20.00  | .9604  | -.0805 | -.1383 | .0589  | .0203  | .2960  |
| 15   | .00    | 1.2427 | -.0188 | -.3557 | .0017  | .0120  | -.0105 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P1019

RUN 1050 CONFIG F P B NPS W7 T2 L IN=-3.5

| PT. No. | 7.5 DELF<br>ALPHA DEG | DELTA PSI<br>DEG | DELTA CIBAR<br>SQ-FT | DELTA COBAR<br>SQ-FT | DELTA CPMBAR<br>CU-FT | DELTA CYMBAR<br>CU-FT | DELTA CRMBAR<br>CU-FT | DELTA CYBAR<br>SQ-FT | DELTA Q<br>PSF | DELTA V<br>KNOTS | RPM    |
|---------|-----------------------|------------------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|----------------------|----------------|------------------|--------|
| 2       | 0                     | 0                | 468.7                | 100.58               | -945.                 | 29.                   | 69.                   | 49                   | 55.33          | 129.00           | 4020.  |
| 3       | 0                     | 0                | 460.4                | -6.59                | -1098.                | 34.                   | 163.                  | -3.52                | 55.14          | 128.79           | 17750. |
| 4       | -20.0                 | 0                | 31.6                 | -2.63                | -1841.                | 10.                   | 991.                  | 7.39                 | 55.75          | 129.50           | 17870. |
| 5       | -15.0                 | 0                | -4.4                 | -28.95               | -2338.                | 101.                  | 17.                   | 0.00                 | 55.72          | 129.48           | 17770. |
| 6       | -10.0                 | 0                | 156.7                | -30.29               | -2006.                | 66.                   | 71.                   | -1.04                | 55.81          | 129.58           | 17760. |
| 7       | -5.0                  | 0                | 314.7                | -21.28               | -1588.                | 45.                   | 122.                  | 0.00                 | 55.58          | 129.31           | 17740. |
| 8       | -2.5                  | 0                | 385.3                | -13.69               | -1339.                | 38.                   | 141.                  | -1.95                | 55.92          | 129.71           | 17740. |
| 9       | 0                     | 0                | 461.7                | -4.51                | -1101.                | 40.                   | 126.                  | -2.23                | 55.06          | 128.69           | 17750. |
| 10      | 2.5                   | 0                | 528.5                | 6.70                 | -824.                 | 36.                   | 163.                  | -3.78                | 55.00          | 128.61           | 17760. |
| 11      | 5.0                   | 0                | 577.6                | 17.87                | -530.                 | 11.                   | 179.                  | -5.08                | 55.68          | 129.47           | 17750. |
| 12      | 10.0                  | 0                | 594.3                | 56.18                | -75.                  | 27.                   | 677.                  | -4.92                | 56.07          | 129.88           | 17770. |
| 13      | 15.0                  | 0                | 560.7                | 115.38               | 210.                  | -37.                  | 242.                  | -2.61                | 56.14          | 129.96           | 17770. |
| 14      | 25.0                  | 0                | 648.1                | 259.93               | 932.                  | 33.                   | 36.                   | .62                  | 55.09          | 128.71           | 17700. |
| 15      | 0                     | 0                | 456.0                | -1.99                | -1077.                | 18.                   | 179.                  | -2.95                | 55.42          | 129.12           | 17780. |
| 16      | 20.0                  | 0                | 593.1                | 182.58               | 617.                  | 30.                   | -122.                 | 2.22                 | 55.20          | 128.84           | 17760. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYK    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.2668 | .2718  | -.3047 | .0017  | .0042  | .0013  |
| 3    | 0.00   | 1.2444 | -.0178 | -.3541 | .0021  | .0098  | -.0095 |
| 4    | -20.00 | .0854  | -.0071 | -.5937 | .0006  | .0599  | .0200  |
| 5    | -15.00 | -.0120 | -.0783 | -.7538 | .0061  | .0011  | .0000  |
| 6    | -9.99  | .4234  | -.0819 | -.6468 | .0040  | .0043  | -.0028 |
| 7    | -5.00  | .8506  | -.0575 | -.5120 | .0027  | .0074  | .0000  |
| 8    | -2.50  | 1.0413 | -.0370 | -.4318 | .0023  | .0085  | -.0053 |
| 9    | 0.00   | 1.2479 | -.0122 | -.3551 | .0024  | .0076  | -.0060 |
| 10   | 2.50   | 1.4285 | .0181  | -.2656 | .0021  | .0098  | -.0102 |
| 11   | 5.00   | 1.5610 | .0483  | -.1708 | .0007  | .0108  | -.0137 |
| 12   | 10.00  | 1.6063 | .1518  | -.0243 | .0016  | .0409  | -.0133 |
| 13   | 15.00  | 1.5153 | .3118  | .0676  | -.0022 | .0146  | -.0071 |
| 14   | 25.00  | 1.7516 | .7025  | .3005  | .0020  | .0021  | .0017  |
| 15   | 0.00   | 1.2325 | -.0054 | -.3471 | .0011  | .0108  | -.0080 |
| 16   | 20.00  | 1.6028 | .4935  | .1990  | .0018  | -.0074 | .0060  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.2668 | .2718  | -.3047 | .0017  | .0042  | .0013  |
| 3    | 0.00   | 1.2444 | -.0178 | -.3541 | .0021  | .0098  | -.0095 |
| 4    | -20.00 | .0854  | -.0071 | -.5937 | .0006  | .0599  | .0200  |
| 5    | -15.00 | -.0120 | -.0783 | -.7538 | .0061  | .0011  | .0000  |
| 6    | -9.99  | .4234  | -.0819 | -.6468 | .0040  | .0043  | -.0028 |
| 7    | -5.00  | .8506  | -.0575 | -.5120 | .0027  | .0074  | .0000  |
| 8    | -2.50  | 1.0413 | -.0370 | -.4318 | .0023  | .0085  | -.0053 |
| 9    | 0.00   | 1.2479 | -.0122 | -.3551 | .0024  | .0076  | -.0060 |
| 10   | 2.50   | 1.4285 | .0181  | -.2656 | .0021  | .0098  | -.0102 |
| 11   | 5.00   | 1.5610 | .0483  | -.1708 | .0007  | .0108  | -.0137 |
| 12   | 10.00  | 1.6063 | .1518  | -.0243 | .0016  | .0409  | -.0133 |
| 13   | 15.00  | 1.5153 | .3118  | .0676  | -.0022 | .0146  | -.0071 |
| 14   | 25.00  | 1.7516 | .7025  | .3005  | .0020  | .0021  | .0017  |
| 15   | 0.00   | 1.2325 | -.0054 | -.3471 | .0011  | .0108  | -.0080 |
| 16   | 20.00  | 1.6028 | .4935  | .1990  | .0018  | -.0074 | .0060  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P1020

RUN 1051 CONFIG F P B NPS W7 T60 BT L IN=-3.5

| PT. NO. | 7.5 DELF ALPHA DEG | DELTA PSI DEG | 30 DELTA C1BAR SQ-FT | DELTA CDRAR SQ-FT | DELTA IHT CU-FT | DELTA O DELE CYMBAR CU-FT | DELTA O DELR CRMBAR CU-FT | DELTA O DELSB CYBAR SQ-FT | DELTA O DELSB PSF | DELTA O DELSB V KNOTS | RPM    |
|---------|--------------------|---------------|----------------------|-------------------|-----------------|---------------------------|---------------------------|---------------------------|-------------------|-----------------------|--------|
| 11      | 0.0                | 0.0           | 414.0                | 99.53             | 566.            | -36.                      | 103.                      | 2.16                      | 55.10             | 128.75                | 4010.  |
| 12      | 0.0                | 0.0           | 405.6                | -6.98             | 437.            | -70.                      | 87.                       | .93                       | 55.20             | 128.86                | 17750. |
| 13      | -20.0              | 0.0           | -317.8               | 30.37             | 1110.           | -163.                     | 67.                       | 9.61                      | 54.57             | 128.10                | 17770. |
| 14      | -15.0              | 0.0           | -115.1               | -6.27             | 853.            | -38.                      | 75.                       | 5.75                      | 55.65             | 129.39                | 17710. |
| 15      | -10.0              | 0.0           | 43.0                 | -16.70            | 724.            | -5.                       | 68.                       | 1.23                      | 55.39             | 129.09                | 17790. |
| 16      | -5.0               | 0.0           | 242.1                | -17.24            | 519.            | -93.                      | 121.                      | 2.25                      | 54.62             | 128.17                | 17810. |
| 17      | 0.0                | 0.0           | 405.9                | -4.08             | 445.            | -72.                      | 105.                      | 1.25                      | 54.38             | 127.89                | 17730. |
| 18      | -2.5               | 0.0           | 374.4                | -11.11            | 445.            | -83.                      | 103.                      | 2.12                      | 54.67             | 128.23                | 17770. |
| 19      | 2.5                | 0.0           | 479.5                | 6.45              | 439.            | -51.                      | 126.                      | -2.18                     | 54.73             | 128.31                | 17770. |
| 20      | 5.0                | 0.0           | 550.4                | 18.81             | 378.            | -66.                      | 182.                      | -3.70                     | 54.30             | 127.79                | 17770. |
| 21      | 10.0               | 0.0           | 613.3                | 61.50             | 174.            | -16.                      | 701.                      | -7.66                     | 54.28             | 127.76                | 17780. |
| 22      | 15.0               | 0.0           | 584.2                | 123.75            | -339.           | -60.                      | 194.                      | 1.56                      | 54.72             | 128.29                | 17790. |
| 23      | 20.0               | 0.0           | 647.0                | 201.74            | -751.           | 67.                       | 18.                       | .32                       | 54.02             | 127.44                | 17790. |
| 24      | 25.0               | 0.0           | 711.5                | 293.22            | -1042.          | 128.                      | 87.                       | -2.24                     | 54.63             | 128.17                | 17820. |
| 25      | -0.0               | 0.0           | 405.4                | -0.81             | 437.            | -79.                      | 88.                       | .25                       | 54.77             | 128.34                | 17770. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|-------|--------|--------|--------|--------|-------|--------|
| 11   | 0.0   | 1.1190 | .2690  | .1825  | -.0022 | .0062 | .0058  |
| 12   | 0.0   | 1.0963 | -.0189 | .1409  | -.0042 | .0052 | .0025  |
| 13   | -20.0 | -.8589 | .0821  | .3578  | -.0099 | .0040 | .0260  |
| 14   | -15.0 | -.3110 | -.0170 | .2751  | -.0023 | .0045 | .0156  |
| 15   | -10.0 | .1704  | -.0451 | .2334  | -.0003 | .0041 | .0033  |
| 16   | -5.0  | .6545  | -.0466 | .1672  | -.0056 | .0073 | .0061  |
| 17   | 0.0   | 1.0970 | -.0110 | .1434  | -.0043 | .0064 | .0034  |
| 18   | -2.5  | .8767  | -.0300 | .1434  | -.0050 | .0062 | .0057  |
| 19   | 2.5   | 1.2959 | .0174  | .1416  | -.0031 | .0076 | -.0059 |
| 20   | 5.0   | 1.4876 | .0508  | .1219  | -.0040 | .0110 | -.0100 |
| 21   | 10.0  | 1.6575 | .1662  | .0562  | -.0010 | .0423 | -.0207 |
| 22   | 15.0  | 1.5790 | .3344  | -.1092 | -.0036 | .0117 | .0042  |
| 23   | 20.0  | 1.7487 | .5452  | -.2420 | .0040  | .0011 | .0009  |
| 24   | 25.0  | 1.9229 | .7925  | -.3359 | .0077  | .0053 | -.0061 |
| 25   | -0.0  | 1.0957 | -.0022 | .1409  | -.0048 | .0053 | .0007  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | COB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|-------|--------|--------|--------|--------|-------|--------|
| 11   | 0.0   | 1.1190 | .2690  | .1825  | -.0022 | .0062 | .0058  |
| 12   | 0.0   | 1.0963 | -.0189 | .1409  | -.0042 | .0052 | .0025  |
| 13   | -20.0 | -.8589 | .0821  | .3578  | -.0099 | .0040 | .0260  |
| 14   | -15.0 | -.3110 | -.0170 | .2751  | -.0023 | .0045 | .0156  |
| 15   | -10.0 | .1704  | -.0451 | .2334  | -.0003 | .0041 | .0033  |
| 16   | -5.0  | .6545  | -.0466 | .1672  | -.0056 | .0073 | .0061  |
| 17   | 0.0   | 1.0970 | -.0110 | .1434  | -.0043 | .0064 | .0034  |
| 18   | -2.5  | .8767  | -.0300 | .1434  | -.0050 | .0062 | .0057  |
| 19   | 2.5   | 1.2959 | .0174  | .1416  | -.0031 | .0076 | -.0059 |
| 20   | 5.0   | 1.4876 | .0508  | .1219  | -.0040 | .0110 | -.0100 |
| 21   | 10.0  | 1.6575 | .1662  | .0562  | -.0010 | .0423 | -.0207 |
| 22   | 15.0  | 1.5790 | .3344  | -.1092 | -.0036 | .0117 | .0042  |
| 23   | 20.0  | 1.7487 | .5452  | -.2420 | .0040  | .0011 | .0009  |
| 24   | 25.0  | 1.9229 | .7925  | -.3359 | .0077  | .0053 | -.0061 |
| 25   | -0.0  | 1.0957 | -.0022 | .1409  | -.0048 | .0053 | .0007  |

N432409-1

SIKORSKY RSRA 1/4 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P1021

RUN 1052 CONFIG F P 8 NP5 W7 T60 BT L IN=-3.5

| PT. NO. | 7.5 DELF<br>ALPHA DEG | DELTA PSI<br>DEG | 30 DELA<br>CL BAR<br>SQ-FT | 0 IHT<br>CDRAR<br>SQ-FT | 0 DELE<br>CPMBAR<br>CU-FT | 0 DELR<br>CYMBAR<br>CU-FT | 0 DELSB<br>CRMBAR<br>SQ-FT | 0 DELS<br>Q<br>PSF | 0 DELS<br>V<br>KNOTS | RPM    |        |
|---------|-----------------------|------------------|----------------------------|-------------------------|---------------------------|---------------------------|----------------------------|--------------------|----------------------|--------|--------|
| 2       | .0                    | .0               | 414.2                      | 97.98                   | 588.                      | -70.                      | 83.                        | 2.98               | 56.10                | 129.93 | 4000.  |
| 4       | .0                    | .0               | 403.0                      | -7.20                   | 482.                      | -74.                      | 86.                        | .67                | 56.05                | 129.87 | 17720. |
| 5       | .0                    | -20.0            | 371.3                      | 79.51                   | -651.                     | 2073.                     | -400.                      | -196.15            | 53.47                | 126.79 | 17780. |
| 6       | .0                    | -15.0            | 388.7                      | 12.07                   | -296.                     | 1438.                     | -207.                      | -146.40            | 53.70                | 127.07 | 17690. |
| 7       | .0                    | -10.0            | 408.8                      | -.96                    | 156.                      | 646.                      | 32.                        | -92.48             | 53.19                | 126.45 | 17720. |
| 8       | .0                    | -5.0             | 410.6                      | -2.35                   | 403.                      | 215.                      | 66.                        | -43.09             | 55.58                | 129.31 | 17750. |
| 9       | .0                    | -2.5             | 410.7                      | -3.99                   | 469.                      | 67.                       | 119.                       | -20.50             | 55.33                | 129.02 | 17710. |
| 10      | .0                    | .0               | 407.9                      | -4.97                   | 456.                      | -66.                      | 68.                        | 1.42               | 55.32                | 129.00 | 17690. |
| 11      | .0                    | 2.5              | 403.8                      | -5.41                   | 402.                      | -80.                      | 79.                        | 28.86              | 55.60                | 129.34 | 17700. |
| 12      | .0                    | 5.0              | 402.2                      | -4.87                   | 302.                      | -275.                     | 87.                        | 45.02              | 55.61                | 129.35 | 17730. |
| 13      | .0                    | 10.0             | 394.6                      | -1.95                   | 16.                       | -734.                     | 143.                       | 91.32              | 55.06                | 128.70 | 17720. |
| 14      | .0                    | 15.0             | 374.8                      | 9.06                    | -366.                     | -1350.                    | 217.                       | 142.25             | 55.22                | 128.89 | 17740. |
| 15      | .0                    | 20.0             | 350.5                      | 28.84                   | -658.                     | -1815.                    | 281.                       | 199.03             | 55.23                | 128.90 | 17760. |
| 16      | .0                    | .0               | 411.2                      | -3.44                   | 482.                      | -72.                      | 121.                       | 2.10               | 55.03                | 128.66 | 17770. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.1193 | .2648  | .1895  | -.0042 | .0050  | .0080  |
| 4    | .00    | 1.0893 | -.0195 | .1553  | -.0045 | .0052  | .0018  |
| 5    | -20.00 | 1.0035 | .0798  | -.2100 | .1252  | -.0241 | -.5301 |
| 6    | -15.00 | 1.0505 | .0326  | -.0953 | .0869  | -.0125 | -.3957 |
| 7    | -10.00 | 1.1049 | -.0026 | .0502  | .0390  | .0019  | -.2500 |
| 8    | -5.00  | 1.1096 | -.0064 | .1301  | .0130  | .0040  | -.1165 |
| 9    | -2.50  | 1.1100 | -.0108 | .1512  | .0041  | .0072  | -.0554 |
| 10   | .00    | 1.1025 | -.0134 | .1470  | -.0040 | .0041  | .0038  |
| 11   | 2.50   | 1.0913 | -.0146 | .1295  | -.0048 | .0048  | .0780  |
| 12   | 5.00   | 1.0871 | -.0132 | .0972  | -.0166 | .0052  | .1217  |
| 13   | 10.00  | 1.0666 | -.0053 | .0052  | -.0443 | .0086  | .2468  |
| 14   | 15.00  | 1.0129 | .0245  | -.1180 | -.0816 | .0131  | .3845  |
| 15   | 20.00  | .9473  | .0779  | -.2120 | -.1096 | .0170  | .5379  |
| 16   | .00    | 1.1115 | -.0093 | .1553  | -.0043 | .0073  | .0057  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.1193 | .2648  | .1895  | -.0042 | .0050  | .0080  |
| 4    | .00    | 1.0893 | -.0195 | .1553  | -.0045 | .0052  | .0018  |
| 5    | -20.00 | 1.0035 | -.1072 | -.1530 | .1252  | -.0091 | -.5253 |
| 6    | -15.00 | 1.0505 | -.0714 | -.0747 | .0869  | -.0074 | -.3906 |
| 7    | -10.00 | 1.1049 | -.0462 | .0477  | .0390  | .0003  | -.2457 |
| 8    | -5.00  | 1.1096 | -.0165 | .1277  | .0130  | .0018  | -.1154 |
| 9    | -2.50  | 1.1100 | -.0132 | .1494  | .0041  | .0060  | -.0549 |
| 10   | .00    | 1.1025 | -.0134 | .1470  | -.0040 | .0041  | .0038  |
| 11   | 2.50   | 1.0913 | -.0180 | .1305  | -.0048 | .0058  | .0773  |
| 12   | 5.00   | 1.0871 | -.0238 | .0993  | -.0166 | .0068  | .1201  |
| 13   | 10.00  | 1.0666 | -.0482 | .0132  | -.0443 | .0087  | .2421  |
| 14   | 15.00  | 1.0129 | -.0763 | -.0957 | -.0816 | .0069  | .3776  |
| 15   | 20.00  | .9473  | -.1116 | -.1679 | -.1096 | .0023  | .5320  |
| 16   | .00    | 1.1115 | -.0093 | .1553  | -.0043 | .0073  | .0057  |

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SIKORSKY RSRA 1/6 SCALE MODFL TEST  
AERODYNAMIC DATA

P1022

RUN 1053 CONFIG F P B NPS W7 T60 BT L IN=-3.5

| PT. NO. | IW ALPHA DEG | 15 DELF PSI DEG | 30 DELA CIBAR SQ-FT | 0 IHT CDBAR SQ-FT | 0 DELE CPMBAR CU-FT | 0 DELR CYMBAR CU-FT | 0 DELR CRMBAR CU-FT | 0 DELSB CYBAR SQ-FT | Q PSF | V KNPTS | RPM    |
|---------|--------------|-----------------|---------------------|-------------------|---------------------|---------------------|---------------------|---------------------|-------|---------|--------|
| 4       | 0            | 0               | 549.7               | 133.87            | 959.                | -51.                | 87.                 | 1.30                | 54.83 | 128.42  | 4210.  |
| 5       | 0            | 0               | 480.7               | -7.17             | 440.                | 38.                 | 478.                | -30.88              | 55.15 | 128.81  | 20210. |
| 6       | -20.0        | 0               | -175.6              | -.68              | 1353.               | -101.               | 107.                | 6.93                | 55.04 | 128.67  | 20230. |
| 7       | -15.0        | 0               | 12.8                | -26.51            | 1242.               | -100.               | 193.                | .56                 | 55.01 | 128.64  | 20160. |
| 10      | -2.5         | 0               | 459.9               | -16.89            | 862.                | -69.                | 157.                | 1.30                | 55.03 | 128.66  | 20210. |
| 11      | 0            | 0               | 478.9               | -5.10             | 436.                | 26.                 | 530.                | -31.85              | 55.40 | 129.10  | 20270. |
| 12      | 0            | 0               | 480.5               | -5.09             | 437.                | 26.                 | 532.                | -31.96              | 55.22 | 128.89  | 20240. |
| 13      | 2.5          | 0               | 487.1               | 8.96              | -117.               | -57.                | 163.                | -5.09               | 55.50 | 129.22  | 20180. |
| 14      | 5.0          | 0               | 553.1               | 27.97             | -200.               | -83.                | 224.                | -13.33              | 54.96 | 128.58  | 20230. |
| 15      | 10.0         | 0               | 503.5               | 77.42             | -303.               | -178.               | 268.                | -4.97               | 54.89 | 128.49  | 20240. |
| 16      | 15.0         | 0               | 576.4               | 148.26            | -675.               | 2.                  | 36.                 | .19                 | 54.26 | 127.73  | 20230. |
| 17      | 20.0         | 0               | 648.2               | 223.03            | -952.               | 57.                 | 53.                 | -1.88               | 54.28 | 127.76  | 20240. |
| 18      | 0            | 0               | 487.3               | -1.86             | 479.                | 15.                 | 553.                | -31.23              | 54.76 | 128.35  | 20270. |
| 19      | -5.0         | 0               | 374.3               | -18.54            | 1051.               | -60.                | 136.                | 2.40                | 55.41 | 129.12  | 20200. |
| 20      | -10.0        | 0               | 197.6               | -26.21            | 1291.               | 33.                 | 168.                | -6.20               | 55.53 | 129.25  | 20130. |
| 21      | 5.0          | 0               | 514.0               | 32.06             | -165.               | -165.               | -256.               | -8.10               | 55.09 | 128.74  | 20210. |
| 22      | 0            | 0               | 485.2               | -1.13             | 499.                | 24.                 | 484.                | -31.06              | 54.50 | 128.04  | 20210. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 4    | 0.00   | 1.4855 | .3618  | .3092  | -.0031 | .0052  | .0035  |
| 5    | 0.00   | 1.2992 | -.0194 | .1420  | .0023  | .0289  | -.0835 |
| 6    | -20.00 | -.4747 | -.0018 | .4362  | -.0061 | .0065  | .0187  |
| 7    | -15.00 | .0345  | -.0717 | .4004  | -.0060 | .0116  | .0015  |
| 10   | -2.49  | 1.2431 | -.0456 | .2779  | -.0042 | .0095  | .0035  |
| 11   | .01    | 1.2944 | -.0138 | .1406  | .0016  | .0320  | -.0861 |
| 12   | .01    | 1.2986 | -.0138 | .1410  | .0016  | .0321  | -.0864 |
| 13   | 2.51   | 1.3164 | .0242  | -.0377 | -.0035 | .0098  | -.0138 |
| 14   | 5.00   | 1.4950 | .0756  | -.0645 | -.0050 | .0135  | -.0360 |
| 15   | 10.00  | 1.3608 | .2092  | -.0978 | -.0107 | .0162  | -.0134 |
| 16   | 15.00  | 1.5579 | .4007  | -.2175 | .0001  | .0022  | .0005  |
| 17   | 20.00  | 1.7518 | .6028  | -.3068 | .0035  | .0032  | -.0051 |
| 18   | .00    | 1.3170 | -.0050 | .1543  | .0009  | .0334  | -.0844 |
| 19   | -5.00  | 1.0117 | -.0501 | .3388  | -.0036 | .0082  | .0065  |
| 20   | -10.00 | .5341  | -.0708 | .4163  | .0020  | .0102  | -.0167 |
| 21   | 5.00   | 1.3893 | .0866  | -.0531 | -.0100 | -.0155 | -.0219 |
| 22   | .01    | 1.3114 | -.0031 | .1608  | .0015  | .0292  | -.0840 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 4    | 0.00   | 1.4855 | .3618  | .3092  | -.0031 | .0052  | .0035  |
| 5    | 0.00   | 1.2992 | -.0194 | .1420  | .0023  | .0289  | -.0835 |
| 6    | -20.00 | -.4747 | -.0018 | .4362  | -.0061 | .0065  | .0187  |
| 7    | -15.00 | .0345  | -.0717 | .4004  | -.0060 | .0116  | .0015  |
| 10   | -2.49  | 1.2431 | -.0456 | .2779  | -.0042 | .0095  | .0035  |
| 11   | .01    | 1.2944 | -.0138 | .1406  | .0016  | .0320  | -.0861 |
| 12   | .01    | 1.2986 | -.0138 | .1410  | .0016  | .0321  | -.0864 |
| 13   | 2.51   | 1.3164 | .0242  | -.0377 | -.0035 | .0098  | -.0138 |
| 14   | 5.00   | 1.4950 | .0756  | -.0645 | -.0050 | .0135  | -.0360 |
| 15   | 10.00  | 1.3608 | .2092  | -.0978 | -.0107 | .0162  | -.0134 |
| 16   | 15.00  | 1.5579 | .4007  | -.2175 | .0001  | .0022  | .0005  |
| 17   | 20.00  | 1.7518 | .6028  | -.3068 | .0035  | .0032  | -.0051 |
| 18   | .00    | 1.3170 | -.0050 | .1543  | .0009  | .0334  | -.0844 |
| 19   | -5.00  | 1.0117 | -.0501 | .3388  | -.0036 | .0082  | .0065  |
| 20   | -10.00 | .5341  | -.0708 | .4163  | .0020  | .0102  | -.0167 |
| 21   | 5.00   | 1.3893 | .0866  | -.0531 | -.0100 | -.0155 | -.0219 |
| 22   | .01    | 1.3114 | -.0031 | .1608  | .0015  | .0292  | -.0840 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P1023

RUN 1054 CONF-IG F P B NPS W7 T60 BT L IN=-3.5

| PT. NO. | IW ALPHA DEG | 15 DELF PSI DEG | 30 DELA CLBAR SQ-FT | 0 IHT CDBAR SQ-FT | 0 DELE CPMBAR CU-FT | 0 DELR CYMBAR CU-FT | 0 DELSB CRMBAR CU-FT | 0 DELS8 CYBAR SQ-FT | 0 DELS8 PSF | 0 DELS8 V KNOTS | RPM    |
|---------|--------------|-----------------|---------------------|-------------------|---------------------|---------------------|----------------------|---------------------|-------------|-----------------|--------|
| 2       | .0           | .0              | 553.7               | 134.06            | 956.                | -69.                | 123.                 | -06                 | 54.95       | 128.57          | 4220.  |
| 3       | .0           | .0              | 484.1               | -7.27             | 445.                | 27.                 | 473.                 | -29.99              | 55.65       | 129.40          | 20210. |
| 4       | -0           | -20.0           | 484.1               | 30.49             | -258.               | 2442.               | -491.                | -203.05             | 54.76       | 128.34          | 20260. |
| 5       | -0           | -15.0           | 505.5               | 10.41             | 333.                | 1755.               | -160.                | -152.62             | 54.97       | 128.60          | 20180. |
| 6       | -0           | -10.0           | 530.8               | -2.21             | 597.                | 854.                | 17.                  | -96.86              | 54.69       | 128.26          | 20200. |
| 7       | -0           | -5.0            | 532.6               | -8.28             | 749.                | 304.                | 58.                  | -48.93              | 55.14       | 128.79          | 20270. |
| 8       | -0           | -2.5            | 491.9               | -4.62             | 342.                | 185.                | 402.                 | -53.07              | 55.13       | 128.79          | 20240. |
| 9       | -0           | .0              | 483.8               | -6.20             | 425.                | 36.                 | 512.                 | -30.83              | 55.36       | 129.06          | 20270. |
| 10      | -0           | 2.5             | 482.9               | -6.57             | 504.                | -168.               | 493.                 | -19                 | 54.97       | 128.59          | 20280. |
| 11      | -0           | 5.0             | 482.8               | -4.01             | 563.                | -395.               | 476.                 | 22.78               | 55.34       | 129.03          | 20270. |
| 12      | -0           | 10.0            | 511.4               | -4.62             | 331.                | -956.               | 230.                 | 87.48               | 55.33       | 129.02          | 20260. |
| 13      | -0           | 15.0            | 483.7               | 7.75              | 74.                 | -1642.              | 250.                 | 142.66              | 55.57       | 129.30          | 20220. |
| 14      | -0           | 20.0            | 453.8               | 27.59             | -335.               | -2138.              | 379.                 | 196.25              | 55.54       | 129.27          | 20240. |
| 15      | -0           | .0              | 490.3               | -2.77             | 473.                | 29.                 | 567.                 | -31.71              | 55.21       | 128.88          | 20190. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.4965 | .3623  | .3084  | -.0041 | .0075  | -.0002 |
| 3    | .00    | 1.3084 | -.0196 | .1433  | .0016  | .0286  | -.0811 |
| 4    | -20.00 | 1.3085 | .0824  | -.0831 | .1475  | -.0297 | -.5488 |
| 5    | -15.00 | 1.3662 | .0281  | .1072  | .1060  | -.0097 | -.4125 |
| 6    | -10.00 | 1.4346 | -.0060 | .1925  | .0516  | .0010  | -.2618 |
| 7    | -5.00  | 1.4395 | -.0224 | .2415  | .0184  | .0035  | -.1322 |
| 8    | -2.50  | 1.3294 | -.0125 | .1102  | .0111  | .0243  | -.1434 |
| 9    | .00    | 1.3075 | -.0168 | .1370  | .0022  | .0309  | -.0833 |
| 10   | 2.50   | 1.3051 | -.0178 | .1625  | -.0102 | .0298  | -.0005 |
| 11   | 5.00   | 1.3048 | -.0108 | .1814  | -.0238 | .0288  | .0616  |
| 12   | 10.00  | 1.3821 | -.0125 | .1066  | -.0577 | .0139  | .2364  |
| 13   | 15.00  | 1.3073 | .0209  | .0239  | -.0992 | .0151  | .3856  |
| 14   | 20.00  | 1.2265 | .0746  | -.1080 | -.1292 | .0229  | .5304  |
| 15   | .00    | 1.3252 | -.0075 | .1525  | .0017  | .0342  | -.0857 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.4965 | .3623  | .3084  | -.0041 | .0075  | -.0002 |
| 3    | .00    | 1.3084 | -.0196 | .1433  | .0016  | .0286  | -.0811 |
| 4    | -20.00 | 1.3085 | -.1111 | -.0236 | .1475  | -.0225 | -.5437 |
| 5    | -15.00 | 1.3662 | -.0801 | .1170  | .1060  | -.0196 | -.4056 |
| 6    | -10.00 | 1.4346 | -.0515 | .1886  | .0516  | -.0053 | -.2567 |
| 7    | -5.00  | 1.4395 | -.0339 | .2390  | .0184  | -.0005 | -.1298 |
| 8    | -2.50  | 1.3294 | -.0187 | .1044  | .0111  | .0234  | -.1428 |
| 9    | .00    | 1.3075 | -.0168 | .1370  | .0022  | .0309  | -.0833 |
| 10   | 2.50   | 1.3051 | -.0177 | .1693  | -.0102 | .0311  | -.0013 |
| 11   | 5.00   | 1.3048 | -.0162 | .1941  | -.0238 | .0316  | .0604  |
| 12   | 10.00  | 1.3821 | -.0535 | .1179  | -.0577 | .0171  | .2306  |
| 13   | 15.00  | 1.3073 | -.0800 | .0441  | -.0992 | .0157  | .3777  |
| 14   | 20.00  | 1.2265 | -.1122 | -.0595 | -.1292 | .0145  | .5237  |
| 15   | .00    | 1.3252 | -.0075 | .1525  | .0017  | .0342  | -.0857 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODIFIED TEST  
AERODYNAMIC DATA

SFR-72011

P1024

RUN 1055 CONFIG F P B NP5 W7 T61 BT L IN=-3.5

| PT. NO. | ALPHA DEG | PSI DEG | CI BAR SQ-FT | CD BAR SQ-FT | CPM BAR CU-FT | CYB BAR CU-FT | CRM BAR CU-FT | CYB BAR SQ-FT | Q PSF | V KNOTS | RPM    |
|---------|-----------|---------|--------------|--------------|---------------|---------------|---------------|---------------|-------|---------|--------|
| 7       | 0         | 0       | 552.6        | 132.02       | 657.          | -33.          | 50.           | 1.33          | 56.54 | 130.45  | 4250.  |
| 8       | 0         | 0       | 497.9        | -6.59        | 159.          | 51.           | 537.          | -29.43        | 54.28 | 127.77  | 20110. |
| 9       | -20.0     | 0       | -159.7       | -6.88        | 815.          | -97.          | 31.           | 9.54          | 55.33 | 129.03  | 20130. |
| 10      | -15.0     | 0       | 25.7         | -31.59       | 726.          | -101.         | 134.          | 3.94          | 54.43 | 127.95  | 20120. |
| 11      | -10.0     | 0       | 216.8        | -35.17       | 633.          | -23.          | 127.          | -1.37         | 54.55 | 128.09  | 20150. |
| 12      | -5.0      | 0       | 390.7        | -25.19       | 532.          | -63.          | 177.          | -0.56         | 55.05 | 128.70  | 20130. |
| 13      | 0         | 0       | 493.3        | -5.05        | 158.          | 15.           | 578.          | -35.97        | 54.56 | 128.10  | 20110. |
| 14      | 2.5       | 0       | 499.8        | 8.97         | -273.         | -43.          | 161.          | -2.47         | 55.09 | 128.74  | 20110. |
| 15      | 5.0       | 0       | 564.5        | 28.57        | -283.         | -72.          | 277.          | -11.36        | 54.57 | 128.11  | 20120. |
| 16      | 10.0      | 0       | 506.2        | 77.02        | -296.         | -127.         | 282.          | -0.93         | 55.05 | 128.69  | 20080. |
| 17      | 15.0      | 0       | 580.4        | 150.86       | -625.         | -66.          | 18.           | -1.69         | 54.46 | 127.98  | 20100. |
| 18      | 20.0      | 0       | 650.7        | 225.62       | -1013.        | 71.           | -36.          | -0.50         | 54.37 | 127.87  | 20110. |
| 19      | -2.5      | 0       | 472.0        | 98.76        | 216.          | -60.          | 143.          | -1.91         | 55.39 | 129.09  | 20090. |
| 20      | -2.5      | 0       | 477.8        | -12.35       | 508.          | -72.          | 160.          | .50           | 54.39 | 127.90  | 20070. |
| 21      | 0         | 0       | 496.9        | -0.11        | 200.          | 41.           | 493.          | -24.38        | 54.50 | 128.03  | 20070. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | 0.00   | 1.4935 | .3568  | .2117  | -.0020 | .0030  | .0036  |
| 8    | 0.00   | 1.3456 | -.0178 | .0514  | .0031  | .0324  | -.0796 |
| 9    | -20.00 | -.4315 | -.0186 | .2628  | -.0059 | .0019  | .0258  |
| 10   | -15.00 | .0695  | -.0854 | .2341  | -.0061 | .0081  | .0107  |
| 11   | -10.00 | .5860  | -.0950 | .2042  | -.0014 | .0077  | -.0037 |
| 12   | -5.00  | 1.0558 | -.0681 | .1717  | -.0038 | .0107  | -.0015 |
| 13   | 0.00   | 1.3332 | -.0137 | .0510  | .0009  | .0349  | -.0972 |
| 14   | 2.50   | 1.3507 | .0242  | -.0879 | -.0026 | .0097  | -.0067 |
| 15   | 4.99   | 1.5255 | .0772  | -.0911 | -.0043 | .0167  | -.0307 |
| 16   | 10.00  | 1.3681 | .2082  | -.0954 | -.0077 | .0170  | -.0025 |
| 17   | 15.00  | 1.5687 | .4077  | -.2013 | -.0040 | .0011  | -.0046 |
| 18   | 19.99  | 1.7586 | .6098  | -.3265 | .0043  | -.0072 | -.0014 |
| 19   | -2.50  | 1.2756 | .2669  | .0696  | -.0036 | .0086  | -.0052 |
| 20   | -2.50  | 1.2913 | -.0334 | .1637  | -.0043 | .0096  | .0014  |
| 21   | 0.00   | 1.3429 | -.0003 | .0646  | .0025  | .0298  | -.0659 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | 0.00   | 1.4935 | .3568  | .2117  | -.0020 | .0030  | .0036  |
| 8    | 0.00   | 1.3456 | -.0178 | .0514  | .0031  | .0324  | -.0796 |
| 9    | -20.00 | -.4315 | -.0186 | .2628  | -.0059 | .0019  | .0258  |
| 10   | -15.00 | .0695  | -.0854 | .2341  | -.0061 | .0081  | .0107  |
| 11   | -10.00 | .5860  | -.0950 | .2042  | -.0014 | .0077  | -.0037 |
| 12   | -5.00  | 1.0558 | -.0681 | .1717  | -.0038 | .0107  | -.0015 |
| 13   | 0.00   | 1.3332 | -.0137 | .0510  | .0009  | .0349  | -.0972 |
| 14   | 2.50   | 1.3507 | .0242  | -.0879 | -.0026 | .0097  | -.0067 |
| 15   | 4.99   | 1.5255 | .0772  | -.0911 | -.0043 | .0167  | -.0307 |
| 16   | 10.00  | 1.3681 | .2082  | -.0954 | -.0077 | .0170  | -.0025 |
| 17   | 15.00  | 1.5687 | .4077  | -.2013 | -.0040 | .0011  | -.0046 |
| 18   | 19.99  | 1.7586 | .6098  | -.3265 | .0043  | -.0072 | -.0014 |
| 19   | -2.50  | 1.2756 | .2669  | .0696  | -.0036 | .0086  | -.0052 |
| 20   | -2.50  | 1.2913 | -.0334 | .1637  | -.0043 | .0096  | .0014  |
| 21   | 0.00   | 1.3429 | -.0003 | .0646  | .0025  | .0298  | -.0659 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P1025

RUN 1056 CONFIG F P B NPS W7 T61 BT L IN=-3.5

| PT. NO. | 7.5 ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CD BAR SQ-FT | IHT CPMBAR CU-FT | DELE CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | V KNOTS | RPM    |
|---------|---------------|---------------|-------------------|--------------------|------------------|-------------------|--------------------|-------------------|-------------|---------|--------|
| 2       | .0            | .0            | 430.0             | 100.30             | 340.             | -55.              | 85.                | 1.91              | 55.20       | 128.87  | 3980.  |
| 3       | .0            | .0            | 419.2             | -7.02              | 246.             | -48.              | 86.                | .86               | 55.56       | 129.30  | 17710. |
| 4       | -20.0         | .0            | -308.6            | 22.55              | 672.             | -110.             | 56.                | 13.66             | 55.36       | 129.06  | 17760. |
| 5       | -15.0         | .0            | -103.8            | -13.39             | 372.             | -25.              | 79.                | 3.99              | 55.49       | 129.21  | 17670. |
| 6       | -10.0         | .0            | 79.6              | -22.78             | 175.             | -42.              | 100.               | 2.39              | 55.58       | 129.33  | 17700. |
| 8       | -5.0          | .0            | 254.0             | -18.79             | 133.             | -83.              | 82.                | 3.00              | 55.57       | 129.31  | 17720. |
| 9       | -2.5          | .0            | 336.5             | -13.78             | 156.             | -64.              | 84.                | 1.65              | 55.85       | 129.65  | 17750. |
| 10      | .0            | .0            | 416.1             | -5.36              | 254.             | -46.              | 121.               | .49               | 55.95       | 129.76  | 17720. |
| 11      | 2.5           | .0            | 497.0             | 5.62               | 324.             | -42.              | 108.               | -2.53             | 55.22       | 128.90  | 17740. |
| 12      | 5.0           | .0            | 568.3             | 18.16              | 312.             | -50.              | 123.               | -1.92             | 55.33       | 129.03  | 17760. |
| 13      | 10.0          | .0            | 628.4             | 59.58              | 47.              | 10.               | 685.               | -5.35             | 55.43       | 129.14  | 17790. |
| 14      | 15.0          | .0            | 607.3             | 127.90             | -302.            | -55.              | 124.               | .50               | 54.83       | 128.43  | 17770. |
| 15      | 20.0          | .0            | 666.8             | 205.80             | -538.            | 55.               | -36.               | -3.35             | 54.97       | 128.59  | 17720. |
| 16      | .0            | .0            | 424.5             | -1.83              | 257.             | -41.              | 70.                | .87               | 54.88       | 128.50  | 17720. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.1620 | .2711  | .1096  | -.0033 | .0052  | .0052  |
| 3    | .00    | 1.1331 | -.0190 | .0793  | -.0029 | .0052  | .0023  |
| 4    | -20.00 | -.8340 | .0610  | .2166  | -.0066 | .0034  | .0369  |
| 5    | -15.00 | -.2804 | -.0362 | .1199  | -.0015 | .0048  | .0108  |
| 6    | -10.00 | .2152  | -.0616 | .0563  | -.0026 | .0061  | .0065  |
| 8    | -5.00  | .6866  | -.0508 | .0427  | -.0050 | .0050  | .0081  |
| 9    | -2.50  | .9095  | -.0372 | .0504  | -.0039 | .0051  | .0045  |
| 10   | .00    | 1.1246 | -.0145 | .0820  | -.0028 | .0073  | .0013  |
| 11   | 2.50   | 1.3434 | .0152  | .1045  | -.0025 | .0065  | -.0068 |
| 12   | 5.00   | 1.5358 | .0491  | .1004  | -.0030 | .0075  | -.0025 |
| 13   | 10.00  | 1.6984 | .1610  | .0153  | .0006  | .0414  | -.0145 |
| 14   | 15.00  | 1.6414 | .3457  | -.0973 | -.0033 | .0075  | .0013  |
| 15   | 20.00  | 1.8020 | .5562  | -.1736 | .0034  | -.0022 | -.0090 |
| 16   | .00    | 1.1472 | -.0050 | .0829  | -.0025 | .0042  | .0023  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | COB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.1620 | .2711  | .1096  | -.0033 | .0052  | .0052  |
| 3    | .00    | 1.1331 | -.0190 | .0793  | -.0029 | .0052  | .0023  |
| 4    | -20.00 | -.8340 | .0610  | .2166  | -.0066 | .0034  | .0369  |
| 5    | -15.00 | -.2804 | -.0362 | .1199  | -.0015 | .0048  | .0108  |
| 6    | -10.00 | .2152  | -.0616 | .0563  | -.0026 | .0061  | .0065  |
| 8    | -5.00  | .6866  | -.0508 | .0427  | -.0050 | .0050  | .0081  |
| 9    | -2.50  | .9095  | -.0372 | .0504  | -.0039 | .0051  | .0045  |
| 10   | .00    | 1.1246 | -.0145 | .0820  | -.0028 | .0073  | .0013  |
| 11   | 2.50   | 1.3434 | .0152  | .1045  | -.0025 | .0065  | -.0068 |
| 12   | 5.00   | 1.5358 | .0491  | .1004  | -.0030 | .0075  | -.0025 |
| 13   | 10.00  | 1.6984 | .1610  | .0153  | .0006  | .0414  | -.0145 |
| 14   | 15.00  | 1.6414 | .3457  | -.0973 | -.0033 | .0075  | .0013  |
| 15   | 20.00  | 1.8020 | .5562  | -.1736 | .0034  | -.0022 | -.0090 |
| 16   | .00    | 1.1472 | -.0050 | .0829  | -.0025 | .0042  | .0023  |

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N42409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P102-6

RUN 1057 CONFIG F P B NP5 W7 16 BT L IN=-3.5

| IW      | 7.5 DELF  | 30 DELA | 0 IHT       | 5 DELE      | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |        |
| 3       | .0        | .0      | 462.6       | -6.12       | -715.        | -25.         | 139.         | 1.80        | 54.86 | 128.49  | 17920. |
| 4       | -20.0     | .0      | -278.8      | 11.24       | -291.        | -89.         | 31.          | 9.69        | 54.82 | 128.43  | 18060. |
| 5       | -15.0     | .0      | -68.7       | -22.22      | -684.        | -6.          | 67.          | 1.62        | 54.83 | 128.44  | 18070. |
| 6       | -10.0     | .0      | 117.9       | -27.71      | -871.        | -9.          | 83.          | 2.79        | 54.97 | 128.61  | 18060. |
| 7       | -5.0      | .0      | 296.2       | -20.71      | -892.        | -43.         | 117.         | 4.30        | 54.72 | 128.31  | 18050. |
| 8       | -2.5      | .0      | 380.2       | -13.19      | -840.        | -44.         | 101.         | 3.87        | 54.52 | 128.07  | 18020. |
| 9       | .0        | .0      | 456.9       | -2.71       | -719.        | -31.         | 72.          | -.99        | 55.00 | 128.64  | 18020. |
| 10      | 2.5       | .0      | 539.0       | 9.81        | -640.        | -23.         | 90.          | -1.50       | 54.60 | 128.17  | 18020. |
| 11      | 5.0       | .0      | 603.6       | 23.79       | -616.        | -39.         | 160.         | -1.30       | 55.06 | 128.72  | 18030. |
| 12      | 10.0      | .0      | 647.4       | 67.46       | -787.        | -10.         | 787.         | -10.11      | 54.61 | 128.18  | 18020. |
| 13      | 15.0      | .0      | 634.3       | 137.76      | -1007.       | -79.         | 178.         | -.38        | 54.45 | 127.99  | 18030. |
| 14      | 20.0      | .0      | 680.9       | 220.65      | -1237.       | 63.          | -53.         | -.74        | 55.06 | 128.70  | 17980. |
| 15      | 25.0      | .0      | 738.3       | 316.36      | -1268.       | 68.          | 106.         | .99         | 55.23 | 128.91  | 17980. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | 1.2504 | -.0165 | -.2304 | -.0015 | .0084  | .0049  |
| 4    | -20.01 | -.7535 | .0304  | -.0938 | -.0054 | .0019  | .0262  |
| 5    | -15.00 | -.1857 | -.0601 | -.2205 | -.0004 | .0041  | .0044  |
| 6    | -10.00 | .3187  | -.0749 | -.2808 | -.0005 | .0050  | .0075  |
| 7    | -5.00  | .8005  | -.0560 | -.2876 | -.0026 | .0071  | .0116  |
| 8    | -2.51  | 1.0276 | -.0356 | -.2709 | -.0027 | .0061  | .0105  |
| 9    | .00    | 1.2349 | -.0073 | -.2319 | -.0018 | .0043  | -.0027 |
| 10   | 2.50   | 1.4567 | .0265  | -.2062 | -.0014 | .0055  | -.0040 |
| 11   | 4.99   | 1.6312 | .0643  | -.1987 | -.0024 | .0096  | -.0035 |
| 12   | 10.00  | 1.7498 | .1823  | -.2536 | -.0006 | .0475  | -.0273 |
| 13   | 15.00  | 1.7143 | .3723  | -.3247 | -.0048 | .0108  | -.0010 |
| 14   | 19.99  | 1.8404 | .5964  | -.3988 | .0038  | -.0032 | -.0020 |
| 15   | 24.99  | 1.9953 | .8550  | -.4087 | .0041  | .0064  | .0027  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | 1.2504 | -.0165 | -.2304 | -.0015 | .0084  | .0049  |
| 4    | -20.01 | -.7535 | .0304  | -.0938 | -.0054 | .0019  | .0262  |
| 5    | -15.00 | -.1857 | -.0601 | -.2205 | -.0004 | .0041  | .0044  |
| 6    | -10.00 | .3187  | -.0749 | -.2808 | -.0005 | .0050  | .0075  |
| 7    | -5.00  | .8005  | -.0560 | -.2876 | -.0026 | .0071  | .0116  |
| 8    | -2.51  | 1.0276 | -.0356 | -.2709 | -.0027 | .0061  | .0105  |
| 9    | .00    | 1.2349 | -.0073 | -.2319 | -.0018 | .0043  | -.0027 |
| 10   | 2.50   | 1.4567 | .0265  | -.2062 | -.0014 | .0055  | -.0040 |
| 11   | 4.99   | 1.6312 | .0643  | -.1987 | -.0024 | .0096  | -.0035 |
| 12   | 10.00  | 1.7498 | .1823  | -.2536 | -.0006 | .0475  | -.0273 |
| 13   | 15.00  | 1.7143 | .3723  | -.3247 | -.0048 | .0108  | -.0010 |
| 14   | 19.99  | 1.8404 | .5964  | -.3988 | .0038  | -.0032 | -.0020 |
| 15   | 24.99  | 1.9953 | .8550  | -.4087 | .0041  | .0064  | .0027  |



RUN 1058 CONFIG F P R NP5 W7 T6 FT L TN=-3.5

| PT. NO. | 7.5 DELF  |         | 30 DELA     |             | 0 IHT        |              | 10 DELE      |             | 0 DELR |         | 0 DELSR |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR 50-FT | CDBAR 50-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR 50-FT | Q PSF  | V KNOTS |         |  |     |
| 2       | .0        | .0      | 484.8       | 106.98      | -1139.       | -21.         | 136.         | 2.75        | 55.74  | 129.52  | 3990.   |  |     |
| 3       | .0        | .0      | 488.4       | 107.73      | -1142.       | -27.         | 119.         | 2.84        | 55.11  | 128.77  | 3980.   |  |     |
| 4       | .0        | .0      | 489.2       | -6.45       | -1551.       | -4.          | 140.         | 1.18        | 54.79  | 128.30  | 18470.  |  |     |
| 5       | -20.0     | .0      | -244.0      | 3.34        | -1238.       | -75.         | 80.          | 11.45       | 55.03  | 128.67  | 18410.  |  |     |
| 6       | -15.0     | .0      | -97.2       | -27.27      | -1696.       | 20.          | 137.         | 1.79        | 55.08  | 128.73  | 18430.  |  |     |
| 7       | -10.0     | .0      | 147.1       | -31.77      | -1747.       | 4.           | 116.         | 2.87        | 55.83  | 129.68  | 18520.  |  |     |
| 8       | -5.0      | .0      | 323.6       | -22.69      | -1735.       | -41.         | 152.         | 3.31        | 55.58  | 129.33  | 18470.  |  |     |
| 9       | -2.5      | .0      | 405.0       | -13.66      | -1665.       | -34.         | 120.         | 1.29        | 55.50  | 129.34  | 18470.  |  |     |
| 10      | .0        | .0      | 482.0       | -2.81       | -1535.       | -20.         | 159.         | -1.60       | 55.49  | 129.22  | 18440.  |  |     |
| 11      | 2.5       | .0      | 561.7       | 10.69       | -1434.       | -4.          | 214.         | -2.90       | 55.17  | 128.84  | 18530.  |  |     |
| 12      | 5.0       | .0      | 628.0       | 25.49       | -1419.       | -23.         | 195.         | -2.28       | 55.39  | 129.11  | 18440.  |  |     |
| 13      | 10.0      | .0      | 672.6       | 69.04       | -1400.       | 6.           | 776.         | -9.30       | 55.30  | 128.90  | 18470.  |  |     |
| 14      | 15.0      | .0      | 645.2       | 141.34      | -1528.       | -89.         | 281.         | -1.11       | 55.21  | 128.88  | 18430.  |  |     |
| 17      | 20.0      | .0      | 676.5       | 221.53      | -1467.       | -6.          | -18.         | -2.46       | 55.37  | 129.07  | 18450.  |  |     |
| 18      | 25.0      | .0      | 741.6       | 319.24      | -1343.       | 73.          | 108.         | 2.97        | 54.62  | 128.18  | 18500.  |  |     |
| 19      | -0        | .0      | 486.1       | -1.66       | -1570.       | -23.         | 141.         | -.43        | 55.20  | 128.87  | 18450.  |  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXYS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.3102 | .2891  | -.3673 | -.0013 | .0082 | .0074  |
| 3    | .00    | 1.3201 | .2912  | -.3680 | -.0016 | .0072 | .0077  |
| 4    | .00    | 1.3221 | -.0174 | -.5000 | -.0003 | .0085 | .0032  |
| 5    | -20.00 | -.6594 | .0090  | -.3992 | -.0046 | .0048 | .0310  |
| 6    | -15.00 | -.1006 | -.0737 | -.5176 | .0012  | .0083 | .0048  |
| 7    | -10.00 | .3977  | -.0859 | -.5633 | .0002  | .0070 | .0077  |
| 8    | -5.00  | .8746  | -.0613 | -.5594 | -.0025 | .0092 | .0089  |
| 9    | -2.50  | 1.0945 | -.0369 | -.5369 | -.0020 | .0073 | .0035  |
| 10   | .00    | 1.3027 | -.0076 | -.4949 | -.0012 | .0096 | -.0043 |
| 11   | 2.50   | 1.5181 | .0289  | -.4623 | -.0002 | .0129 | -.0078 |
| 12   | 5.00   | 1.6972 | .0689  | -.4575 | -.0014 | .0118 | -.0061 |
| 13   | 10.00  | 1.8179 | .1866  | -.4513 | .0004  | .0469 | -.0251 |
| 14   | 15.00  | 1.7437 | .3820  | -.4927 | -.0053 | .0170 | -.0030 |

|    |       |        |        |        |        |        |        |
|----|-------|--------|--------|--------|--------|--------|--------|
| 17 | 20.00 | 1.8284 | .5987  | -.4728 | -.0004 | -.0011 | -.0067 |
| 18 | 25.00 | 2.0043 | .8628  | -.4329 | .0044  | .0065  | .0078  |
| 19 | -.00  | 1.3137 | -.0045 | -.5063 | -.0014 | .0085  | -.0012 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | .00    | 1.3102 | .2891  | -.3673 | -.0013 | .0082 | .0074  |
| 3    | .00    | 1.3201 | .2912  | -.3680 | -.0016 | .0072 | .0077  |
| 4    | .00    | 1.3221 | -.0174 | -.5000 | -.0003 | .0085 | .0032  |
| 5    | -20.00 | -.6594 | .0090  | -.3992 | -.0046 | .0048 | .0310  |
| 6    | -15.00 | -.1006 | -.0737 | -.5176 | .0012  | .0083 | .0048  |
| 7    | -10.00 | .3977  | -.0859 | -.5633 | .0002  | .0070 | .0077  |
| 8    | -5.00  | .8746  | -.0613 | -.5594 | -.0025 | .0092 | .0089  |
| 9    | -2.50  | 1.0945 | -.0369 | -.5369 | -.0020 | .0073 | .0035  |
| 10   | .00    | 1.3027 | -.0076 | -.4949 | -.0012 | .0096 | -.0043 |

|    |       |        |       |        |        |       |        |
|----|-------|--------|-------|--------|--------|-------|--------|
| 11 | 2.50  | 1.5181 | .0289 | -.4623 | -.0002 | .0129 | -.0078 |
| 12 | 5.00  | 1.6972 | .0689 | -.4575 | -.0014 | .0118 | -.0061 |
| 13 | 10.00 | 1.8179 | .1866 | -.4513 | .0004  | .0469 | -.0251 |
| 14 | 15.00 | 1.7437 | .3820 | -.4927 | -.0053 | .0170 | -.0030 |

|    |       |        |        |        |        |        |        |
|----|-------|--------|--------|--------|--------|--------|--------|
| 17 | 20.00 | 1.8284 | .5987  | -.4728 | -.0004 | -.0011 | -.0067 |
| 18 | 25.00 | 2.0043 | .8628  | -.4329 | .0044  | .0065  | .0078  |
| 19 | -.00  | 1.3137 | -.0045 | -.5063 | -.0014 | .0085  | -.0012 |

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N43249-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

A102A

RUN 1059 CONFIG F P B NP5 W7 T61 BT L IN=-3.5

| TW      | 7.5 DELF  | 30 DELA | 0 IHT       | -5 DELE     | 0 DELR       | 0 DELSB      | 0            | RPM         |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAP SQ-FT | CDRAR SQ-FT | CPMBAR CU-FT | CYMRAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 2       | .0        | .0      | 411.6       | 107.01      | 947.         | -60.         | 48.          | 4.08        | 55.13 | 128.79  | 39801. |
| 3       | .0        | .0      | 384.6       | -7.17       | 1152.        | -65.         | 117.         | 3.43        | 55.67 | 129.43  | 18030. |
| 4       | -20.0     | .0      | -324.4      | 35.04       | 1217.        | -182.        | 106.         | 15.16       | 55.26 | 128.94  | 18130. |
| 5       | -15.0     | .0      | -133.6      | -5.48       | 1185.        | -17.         | 81.          | 2.74        | 56.03 | 129.86  | 18050. |
| 6       | -10.0     | .0      | 44.6        | -18.25      | 1124.        | -46.         | 98.          | 3.61        | 55.65 | 129.40  | 18060. |
| 7       | -5.0      | .0      | 219.7       | -16.26      | 1091.        | -82.         | 114.         | 4.88        | 55.80 | 129.59  | 18060. |
| 8       | -2.5      | .0      | 307.9       | -12.03      | 1099.        | -90.         | 101.         | 3.21        | 55.15 | 128.82  | 18130. |
| 9       | .0        | .0      | 389.2       | -3.06       | 1161.        | -79.         | 120.         | 2.16        | 55.20 | 129.87  | 18050. |
| 10      | 2.5       | .0      | 456.9       | 4.73        | 1213.        | -69.         | 52.          | -1.18       | 56.16 | 130.01  | 18060. |
| 11      | 5.0       | .0      | 526.4       | 13.73       | 1226.        | -76.         | 138.         | -0.06       | 56.07 | 129.91  | 18090. |
| 12      | 10.0      | .0      | 377.5       | 53.74       | 1196.4       | -27.         | 668.         | -8.77       | 55.57 | 129.31  | 18040. |
| 13      | 15.0      | .0      | 580.2       | 118.90      | 394.         | -71.         | 225.         | 1.58        | 55.99 | 129.81  | 18100. |
| 14      | 20.0      | .0      | 639.9       | 195.51      | -190.        | 69.          | -87.         | .25         | 55.47 | 129.18  | 18030. |
| 15      | 25.0      | .0      | 730.8       | 288.27      | -805.        | 71.          | 87.          | -0.93       | 55.24 | 128.91  | 18020. |
| 16      | 10.0      | .0      | 586.1       | 54.58       | 655.         | -31.         | 728.         | -7.93       | 56.27 | 130.14  | 18040. |
| 17      | .0        | .0      | 388.1       | -5.59       | 1141.        | -86.         | 67.          | 2.47        | 55.25 | 128.93  | 18070. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.1126 | .2892  | .3053  | -.0037 | .0029  | .0110  |
| 3    | .00    | 1.0395 | -.0194 | .3713  | -.0039 | .0071  | .0093  |
| 4    | -20.00 | -.8766 | .0947  | .3924  | -.0110 | .0064  | .0410  |
| 5    | -15.00 | -.3611 | -.0148 | .3819  | -.0010 | .0049  | .0074  |
| 6    | -10.00 | .1204  | -.0493 | .3624  | -.0028 | .0059  | .0098  |
| 7    | -5.00  | .5937  | -.0439 | .3517  | -.0050 | .0069  | .0132  |
| 8    | -2.50  | .8321  | -.0325 | .3544  | -.0054 | .0061  | .0087  |
| 9    | .00    | 1.0518 | -.0083 | .3743  | -.0047 | .0073  | .0058  |
| 10   | 2.50   | 1.2348 | .0128  | .3910  | -.0042 | .0031  | -.0005 |
| 11   | 5.00   | 1.4226 | .0371  | .3954  | -.0046 | .0084  | -.0002 |
| 12   | 10.00  | 1.0202 | .1452  | 3.8570 | -.0016 | .0403  | -.0237 |
| 13   | 15.00  | 1.5681 | .3214  | .1269  | -.0043 | .0136  | .0043  |
| 14   | 20.00  | 1.7296 | .5284  | -.0612 | .0042  | -.0053 | .0007  |
| 15   | 25.00  | 1.9752 | .7791  | -.2595 | .0043  | .0053  | -.0025 |
| 16   | 10.00  | 1.5841 | .1475  | .2110  | -.0018 | .0440  | -.0214 |
| 17   | .00    | 1.0490 | -.0016 | .3679  | -.0052 | .0040  | .0067  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | 1.1126 | .2892  | .3053  | -.0037 | .0029  | .0110  |
| 3    | .00    | 1.0395 | -.0194 | .3713  | -.0039 | .0071  | .0093  |
| 4    | -20.00 | -.8766 | .0947  | .3924  | -.0110 | .0064  | .0410  |
| 5    | -15.00 | -.3611 | -.0148 | .3819  | -.0010 | .0049  | .0074  |
| 6    | -10.00 | .1204  | -.0493 | .3624  | -.0028 | .0059  | .0098  |
| 7    | -5.00  | .5937  | -.0439 | .3517  | -.0050 | .0069  | .0132  |
| 8    | -2.50  | .8321  | -.0325 | .3544  | -.0054 | .0061  | .0087  |
| 9    | .00    | 1.0518 | -.0083 | .3743  | -.0047 | .0073  | .0058  |
| 10   | 2.50   | 1.2348 | .0128  | .3910  | -.0042 | .0031  | -.0005 |
| 11   | 5.00   | 1.4226 | .0371  | .3954  | -.0046 | .0084  | -.0002 |
| 12   | 10.00  | 1.0202 | .1452  | 3.8570 | -.0016 | .0403  | -.0237 |
| 13   | 15.00  | 1.5681 | .3214  | .1269  | -.0043 | .0136  | .0043  |
| 14   | 20.00  | 1.7296 | .5284  | -.0612 | -.0042 | -.0053 | .0007  |
| 15   | 25.00  | 1.9752 | .7791  | -.2595 | .0043  | .0053  | -.0025 |
| 16   | 10.00  | 1.5841 | .1475  | .2110  | -.0018 | .0440  | -.0214 |
| 17   | .00    | 1.0490 | -.0016 | .3679  | -.0052 | .0040  | .0067  |

N432409-1

SIKORSKY RSPA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 1029

RUN 1060 CONFIG F P B MP5 W7 T61 RT L IN=-3.5

| PT. NO. | TW        | 7.5 DELF | 39 DELA     | 0 IHT       | 0 DELE       | 0 DELR       | 0 DELSB      | 0           | 0     | RPM     |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
|         | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 7       | .0        | .0       | 413.3       | -6.33       | 486.         | -82.         | 101.         | 3.13        | 55.58 | 129.32  | 17810. |
| 8       | 10.0      | .0       | 624.0       | 59.12       | 7.           | 7.           | 760.         | -7.04       | 55.14 | 128.80  | 17830. |
| 9       | 10.0      | -14.1    | 592.6       | 74.86       | 146.         | 931.         | -1253.       | -89.47      | 55.59 | 129.33  | 17850. |
| 10      | 10.0      | -10.0    | 595.6       | 65.68       | 33.          | 289.         | -060.        | -61.40      | 55.26 | 128.94  | 17840. |
| 11      | 10.0      | -5.0     | 606.8       | 64.08       | -31.         | 64.          | -734.        | -31.85      | 54.12 | 127.57  | 17810. |
| 12      | 10.0      | -2.5     | 601.9       | 61.75       | -48.         | -23.         | -652.        | -12.98      | 55.12 | 128.78  | 17820. |
| 13      | 10.0      | .0       | 573.6       | 65.95       | 42.          | -45.         | 69.          | 2.04        | 55.05 | 128.69  | 17820. |
| 14      | 10.0      | 2.5      | 577.6       | 66.80       | 30.          | -124.        | 271.         | 14.46       | 55.35 | 129.04  | 17830. |
| 15      | 10.0      | 5.0      | 588.8       | 64.98       | -239.        | -189.        | 277.         | 27.66       | 55.54 | 129.28  | 17830. |
| 16      | 10.0      | 10.0     | 619.7       | 63.78       | 332.         | -591.        | 1042.        | 49.58       | 55.31 | 129.00  | 17840. |
| 17      | 10.0      | 15.0     | 591.5       | 78.70       | -25.         | -1381.       | 1377.        | 94.86       | 55.66 | 129.41  | 17810. |
| 18      | 10.0      | 20.1     | 575.9       | 98.77       | -414.        | -1872.       | 1717.        | 135.19      | 55.03 | 128.66  | 17840. |
| 19      | 10.0      | .0       | 563.6       | 66.58       | 17.          | -55.         | 88.          | -31.        | 55.26 | 128.94  | 17800. |
| 20      | 10.0      | .0       | 542.0       | 167.14      | 143.         | -25.         | -36.         | 2.10        | 55.06 | 128.70  | 4050.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | 1.1171 | -.0171 | .1567  | -.0049 | .0061  | .0094  |
| 8    | .00    | 1.6865 | .1598  | .0021  | .0004  | .0459  | -.0190 |
| 9    | -14.10 | 1.6016 | .2023  | .0472  | .0562  | -.0757 | -.2418 |
| 10   | -10.00 | 1.5828 | .1775  | .0106  | .0175  | -.0580 | -.1659 |
| 11   | -5.00  | 1.6399 | .1732  | -.0100 | .0038  | -.0444 | -.0861 |
| 12   | -2.50  | 1.6269 | .1669  | -.0153 | -.0014 | -.0394 | -.0351 |
| 13   | .00    | 1.5503 | .1782  | .0136  | -.0027 | .0042  | .0055  |
| 14   | 2.50   | 1.5611 | .1805  | .0097  | -.0075 | .0164  | .0391  |
| 15   | 5.00   | 1.5913 | .1756  | -.0769 | -.0114 | .0167  | .0748  |
| 16   | 10.00  | 1.6757 | .1724  | .1072  | -.0357 | .0629  | .1340  |
| 17   | 15.00  | 1.5987 | .2127  | -.0079 | -.0834 | .0832  | .2564  |
| 18   | 20.10  | 1.5565 | .2669  | -.1336 | -.1131 | .1037  | .3654  |
| 19   | .00    | 1.5231 | .1799  | .0056  | -.0033 | .0053  | -.0008 |
| 20   | .00    | 1.4650 | .4517  | .0463  | -.0015 | -.0022 | .0057  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | 1.1171 | -.0171 | .1567  | -.0049 | .0061  | .0084  |
| 8    | .00    | 1.6865 | .1598  | .0021  | .0004  | .0459  | -.0190 |
| 9    | -14.10 | 1.6016 | .1370  | .1446  | .0562  | -.0756 | -.2840 |
| 10   | -10.00 | 1.5828 | .1459  | .0645  | .0175  | -.0574 | -.1944 |
| 11   | -5.00  | 1.6399 | .1650  | .0107  | .0038  | -.0440 | -.1009 |
| 12   | -2.50  | 1.6269 | .1652  | -.0061 | -.0014 | -.0392 | -.0424 |
| 13   | .00    | 1.5503 | .1782  | .0136  | -.0027 | .0042  | .0055  |
| 14   | 2.50   | 1.5611 | .1786  | .0135  | -.0075 | .0164  | .0470  |
| 15   | 5.00   | 1.5913 | .1684  | -.0688 | -.0114 | .0154  | .0898  |
| 16   | 10.00  | 1.6750 | .1464  | .1641  | -.0357 | .0655  | .1620  |
| 17   | 15.00  | 1.5987 | .1387  | .1078  | -.0834 | .0799  | .3029  |
| 18   | 20.10  | 1.5565 | .1244  | .0657  | -.1131 | .0887  | .4351  |
| 19   | .00    | 1.5231 | .1799  | .0056  | -.0033 | .0053  | -.0008 |
| 20   | .00    | 1.4650 | .4517  | .0463  | -.0015 | -.0022 | .0057  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1030

RUN 1061 CONFIG F P B NP5 W7 T61 RT L IN=-3.5

| PT. NO. | TW        | 7.5 DELF | 3.0 DELA    | 0 INT       | 0 DFLF       | 0 DELR       | 0 DELSR      | 0           | 0     | RPM     |        |
|---------|-----------|----------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
|         | ALPHA DEG | PSI DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 7       | .0        | .0       | 411.9       | -6.23       | 461.         | -67.         | 84.          | 2.04        | 55.53 | 129.26  | 17840. |
| 8       | -10.0     | .0       | 69.5        | -19.34      | 706.         | -33.         | 98.          | 3.10        | 56.05 | 129.8A  | 17870. |
| 9       | -10.0     | -10.5    | 91.3        | -4.96       | 327.         | 827.         | 37.          | -108.23     | 55.55 | 129.2A  | 17790. |
| 10      | -10.0     | -5.0     | 73.0        | -14.53      | 532.         | 341.         | 105.         | -51.09      | 55.47 | 129.19  | 17800. |
| 11      | -10.0     | -2.5     | 67.7        | -16.04      | 652.         | 157.         | 110.         | -24.92      | 55.64 | 129.39  | 17780. |
| 12      | -10.0     | .0       | 68.0        | -16.78      | 667.         | -18.         | 46.          | 3.10        | 56.02 | 129.84  | 17790. |
| 13      | -10.0     | 2.5      | 70.2        | -15.96      | 580.         | -177.        | 40.          | 30.16       | 55.34 | 129.03  | 17770. |
| 14      | -10.0     | 5.0      | 70.4        | -15.03      | 481.         | -362.        | 23.          | 55.05       | 55.56 | 129.29  | 17830. |
| 15      | -10.0     | 10.0     | 73.1        | -8.60       | 337.         | -736.        | 54.          | 110.00      | 55.52 | 129.24  | 17830. |
| 16      | -10.0     | 15.0     | 69.5        | 6.43        | 222.         | -1266.       | 121.         | 175.14      | 55.28 | 128.95  | 17830. |
| 18      | -10.0     | 20.0     | 74.2        | 30.99       | -129.        | -1540.       | 185.         | 228.00      | 55.85 | 129.63  | 17850. |
| 19      | -10.0     | .0       | 65.6        | -15.85      | 748.         | -7.          | 105.         | .96         | 55.43 | 129.13  | 17850. |
| 20      | -10.0     | .0       | 101.0       | 78.85       | 740.         | -63.         | 28.          | 3.56        | 56.49 | 130.3A  | 3790.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM   | CY     |
|------|--------|--------|--------|--------|--------|-------|--------|
| 7    | .00    | 1.1132 | -.0168 | .1487  | -.0040 | .0050 | .0080  |
| 8    | .00    | .1880  | -.0523 | .2275  | -.0020 | .0059 | .0084  |
| 9    | -10.50 | .2197  | -.0134 | .1054  | .0500  | .0022 | -.2925 |
| 10   | -5.00  | .1974  | -.0393 | .1714  | .0206  | .0063 | -.1381 |
| 11   | -2.50  | .1829  | -.0434 | .2103  | .0095  | .0066 | -.0673 |
| 12   | .00    | .1838  | -.0453 | .2151  | -.0011 | .0028 | .0094  |
| 13   | 2.50   | .1898  | -.0431 | .1870  | -.0107 | .0024 | .0915  |
| 14   | 5.00   | .1904  | -.0406 | .1551  | -.0219 | .0014 | .1488  |
| 15   | 10.00  | .1975  | -.0232 | .1087  | -.0445 | .0033 | .2995  |
| 16   | 15.00  | .1878  | .0174  | .0717  | -.0765 | .0073 | .4734  |
| 18   | 20.00  | .2006  | .0838  | -.0415 | -.0930 | .0112 | .6162  |
| 19   | .00    | .1774  | -.0428 | .2410  | -.0004 | .0063 | .0002  |
| 20   | .00    | .2730  | .2131  | .2385  | -.0038 | .0017 | .0096  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | 1.1132 | -.0168 | .1487  | -.0040 | .0050  | .0080  |
| 8    | .00    | .1880  | -.0523 | .2275  | -.0020 | .0059  | .0084  |
| 9    | -10.50 | .2197  | -.0667 | .1014  | .0500  | -.0014 | -.2851 |
| 10   | -5.00  | .1974  | -.0512 | .1678  | .0206  | .0035  | -.1341 |
| 11   | -2.50  | .1829  | -.0463 | .2085  | .0095  | .0049  | -.0654 |
| 12   | .00    | .1838  | -.0453 | .2151  | -.0011 | .0028  | .0084  |
| 13   | 2.50   | .1898  | -.0467 | .1874  | -.0107 | .0040  | .0795  |
| 14   | 5.00   | .1904  | -.0535 | .1551  | -.0219 | .0039  | .1447  |
| 15   | 10.00  | .1975  | -.0751 | .1101  | -.0445 | .0068  | .2908  |
| 16   | 15.00  | .1878  | -.1063 | .0704  | -.0765 | .0105  | .4616  |
| 18   | 20.00  | .2006  | -.1330 | -.0185 | -.0930 | .0078  | .6075  |
| 19   | .00    | .1774  | -.0428 | .2410  | -.0004 | .0063  | .0002  |
| 20   | .00    | .2730  | .2131  | .2385  | -.0038 | .0017  | .0096  |

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

RUN 1062 CONFIG F P R NP5 W7 T60 RT L TN=-3.5

| PT. NO. | TW        | 7.5 DELF | 3.0 DELA    | 0 IHT       | 0 DELE      | 0 DELR       | 0 DELSR     | 0           | 0     | RPM     |        |
|---------|-----------|----------|-------------|-------------|-------------|--------------|-------------|-------------|-------|---------|--------|
|         | ALPHA DEG | PSI DEG  | CLRAP SQ-FT | CDRAB SQ-FT | CPMAB CU-FT | CYMBAB CU-FT | CRMAB CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |
| 7       | .0        | .0       | 412.7       | -5.91       | 470.        | -61.         | 122.        | 1.24        | 54.97 | 128.58  | 17840. |
| 8       | .0        | 5.0      | 409.5       | -5.45       | 313.        | -258.        | 167.        | 45.62       | 54.88 | 128.48  | 17780. |
| 9       | -20.0     | 5.0      | -303.8      | 30.52       | 1109.       | -630.        | -1133.      | 65.98       | 55.97 | 129.76  | 17800. |
| 10      | -15.0     | 5.0      | -114.2      | -6.15       | 827.        | -459.        | -820.       | 61.52       | 55.71 | 129.46  | 17890. |
| 11      | -10.0     | 5.0      | 69.8        | -17.68      | 486.        | -336.        | -418.       | 51.01       | 55.89 | 129.68  | 17850. |
| 13      | -2.5      | 5.0      | 329.1       | -11.17      | 330.        | -307.        | 93.         | 46.99       | 55.38 | 129.07  | 17840. |
| 14      | .0        | 5.0      | 404.8       | -4.90       | 300.        | -270.        | 184.        | 44.03       | 55.47 | 129.18  | 17960. |
| 15      | 2.5       | 5.0      | 476.9       | 6.09        | 350.        | -238.        | 273.        | 39.45       | 55.52 | 129.23  | 17820. |
| 16      | 5.0       | 5.0      | 547.0       | 18.77       | 361.        | -219.        | 355.        | 33.27       | 55.80 | 129.57  | 17840. |
| 17      | 10.0      | 5.0      | 627.3       | 57.02       | 859.        | -107.        | 638.        | 33.77       | 54.98 | 128.59  | 17810. |
| 18      | 15.0      | 5.0      | 597.9       | 124.96      | -461.       | -210.        | 773.        | 20.48       | 54.73 | 128.29  | 17830. |
| 19      | 20.0      | 5.0      | 655.7       | 204.94      | -841.       | 60.          | 299.        | 15.10       | 55.06 | 128.68  | 17800. |
| 20      | 25.0      | 5.0      | 717.6       | 300.30      | -1383.      | 208.         | 402.        | -3.39       | 55.28 | 128.94  | 17820. |
| 21      | -5.0      | 5.0      | 241.9       | -12.58      | 324.        | -327.        | -52.        | 49.44       | 55.81 | 129.58  | 17810. |
| 22      | .0        | 5.0      | 401.1       | -1.50       | 287.        | -275.        | 132.        | 44.40       | 55.54 | 129.26  | 17810. |
| 23      | 5.0       | 5.0      | 546.0       | 20.89       | 354.        | -217.        | 340.        | 34.16       | 55.55 | 129.27  | 17810. |
| 24      | 7.5       | 5.0      | 526.9       | 36.39       | 253.        | -193.        | 516.        | 25.17       | 55.49 | 129.19  | 17810. |
| 25      | 10.0      | 5.0      | 631.0       | 57.55       | -160.       | -107.        | 556.        | 34.72       | 55.63 | 129.36  | 17850. |
| 26      | .0        | 5.0      | 416.1       | 101.73      | 421.        | -367.        | 107.        | 35.70       | 54.87 | 128.45  | 3990.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 7    | .00    | 1.1153 | -.0160 | .1515  | -.0037 | .0074  | .0033  |
| 8    | .00    | 1.1069 | -.0147 | .1008  | -.0156 | .0101  | .1233  |
| 9    | -20.00 | -.8210 | .0825  | .3575  | -.0381 | -.0684 | .1793  |
| 10   | -15.00 | -.3087 | -.0166 | .2667  | -.0277 | -.0495 | .1663  |
| 11   | -10.00 | .1887  | -.0478 | .1567  | -.0203 | -.0253 | .1379  |
| 13   | -2.50  | .8894  | -.0302 | .1053  | -.0183 | .0056  | .1270  |
| 14   | .00    | 1.0941 | -.0132 | .0995  | -.0163 | .0111  | .1190  |
| 15   | 2.50   | 1.2889 | .0165  | .1156  | -.0144 | .0165  | .1066  |
| 16   | 5.00   | 1.4783 | .0507  | .1164  | -.0132 | .0215  | .0899  |
| 17   | 10.00  | 1.6955 | .1541  | .2770  | -.0065 | .0385  | .0913  |
| 18   | 15.01  | 1.6158 | .3377  | -.1486 | -.0127 | .0467  | .0553  |
| 19   | 20.00  | 1.7720 | .5539  | -.2710 | .0036  | .0181  | .0408  |
| 20   | 25.00  | 1.9394 | .8116  | -.4459 | .0126  | .0243  | -.0092 |
| 21   | -4.99  | .6537  | -.0340 | .1046  | -.0198 | -.0031 | .1336  |
| 22   | .00    | 1.0840 | -.0041 | .0924  | -.0166 | .0080  | .1200  |
| 23   | 5.00   | 1.4755 | .0565  | .1141  | -.0131 | .0205  | .0923  |
| 24   | 7.50   | 1.6133 | .0983  | .0817  | -.0117 | .0312  | .0680  |
| 25   | 10.01  | 1.7055 | .1558  | -.0517 | -.0065 | .0336  | .0938  |
| 26   | .00    | 1.1246 | .2749  | .1358  | -.0221 | .0065  | .0965  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CD     | CPMB  | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|-------|--------|--------|-------|
| 7    | .00    | 1.1153 | -.0160 | .1515 | -.0037 | .0074  | .0033 |
| 8    | .00    | 1.1069 | -.0255 | .1051 | -.0156 | .0117  | .1215 |
| 9    | -20.00 | -.8210 | .0665  | .3242 | -.0381 | -.0623 | .1849 |
| 10   | -15.00 | -.3087 | -.0311 | .2426 | -.0277 | -.0449 | .1642 |
| 11   | -10.00 | .1887  | -.0597 | .1443 | -.0203 | -.0226 | .1332 |

|    |       |        |        |        |        |        |       |
|----|-------|--------|--------|--------|--------|--------|-------|
| 13 | -2.50 | .8894  | -.0412 | .1085  | -.0183 | .0074  | .1239 |
| 14 | .00   | 1.0941 | -.0236 | .1043  | -.0163 | .0127  | .1174 |
| 15 | 2.50  | 1.2889 | .0071  | .1228  | -.0144 | .0183  | .1077 |
| 16 | 5.00  | 1.4783 | .0427  | .1260  | -.0132 | .0233  | .0940 |
| 17 | 10.00 | 1.6955 | .1455  | .2939  | -.0065 | .0429  | .1044 |
| 18 | 15.01 | 1.6158 | .3316  | -.1263 | -.0127 | .0441  | .0847 |
| 19 | 20.00 | 1.7720 | .5482  | -.2615 | .0036  | .0135  | .0891 |
| 20 | 25.00 | 1.9394 | .8093  | -.4328 | .0126  | .0169  | .0619 |
| 21 | -4.99 | .6537  | -.0456 | .1027  | -.0198 | -.0014 | .1301 |
| 22 | .00   | 1.0840 | -.0146 | .0958  | -.0166 | .0095  | .1192 |
| 23 | 5.00  | 1.4755 | .0482  | .1232  | -.0131 | .0223  | .0969 |
| 24 | 7.50  | 1.6133 | .0920  | .0959  | -.0117 | .0324  | .0764 |
| 25 | 10.01 | 1.7055 | .1470  | -.0358 | -.0065 | .0326  | .1071 |
| 26 | .00   | 1.1246 | .2654  | .1383  | -.0221 | .0087  | .1202 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1032

RUN 1063 CONFIG F P R NP5 T60 BT IN=-3.5

| IW      | - DELF    | - DELA  | - IHT       | 0 DELE      | 0 DELR       | 0 DELSB      | 0            |             |       |         |        |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--------|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM    |
| 6       | .0        | .0      | -16.8       | 27.65       | -267.        | 10.          | 10.          | 6.17        | 55.77 | 129.53  | 3480.  |
| 7       | .0        | .0      | -25.3       | -7.35       | -399.        | 6.           | 30.          | 3.22        | 56.07 | 129.88  | 10820. |
| 8       | -20.0     | .0      | -220.7      | 64.22       | 1372.        | -67.         | 7.           | 4.68        | 56.07 | 129.88  | 10800. |
| 9       | -15.0     | .0      | -192.8      | 34.76       | 1237.        | -48.         | -24.         | 3.03        | 56.17 | 130.00  | 10810. |
| 10      | -10.0     | .0      | -144.3      | 8.67        | 672.         | -30.         | -9.          | 4.76        | 55.09 | 128.72  | 10890. |
| 11      | -5.0      | .0      | -87.7       | -4.21       | -8.          | -44.         | 11.          | 4.12        | 55.44 | 129.13  | 10880. |
| 12      | -2.5      | .0      | -56.5       | -6.48       | -214.        | -28.         | 12.          | 3.79        | 55.69 | 129.44  | 10760. |
| 13      | -.0       | .0      | -24.5       | -7.99       | -386.        | 10.          | 16.          | 1.33        | 56.18 | 130.01  | 10880. |
| 14      | 2.5       | .0      | 7.0         | -8.46       | -592.        | 25.          | 32.          | 2.83        | 55.28 | 128.94  | 10900. |
| 15      | 5.0       | .0      | 40.7        | -6.20       | -751.        | 31.          | 33.          | 2.23        | 55.03 | 128.65  | 10790. |
| 16      | 10.0      | .0      | 110.8       | 1.54        | -1117.       | -5.          | 69.          | 2.21        | 55.50 | 129.20  | 10770. |
| 17      | 15.0      | .0      | 162.6       | 20.83       | -1059.       | -37.         | 16.          | 5.69        | 55.04 | 128.65  | 10890. |
| 18      | 20.0      | .0      | 203.0       | 41.44       | -840.        | -68.         | 1.           | 7.50        | 55.39 | 129.08  | 10800. |
| 19      | -.0       | .0      | -25.6       | -7.44       | -404.        | 0.           | 32.          | 2.40        | 55.30 | 128.96  | 10860. |
| 20      | 25.0      | .0      | 243.7       | 68.20       | -696.        | -54.         | 4.           | 6.55        | 54.64 | 128.18  | 10800. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|--------|--------|--------|--------|-------|
| 6    | .00    | -.0455 | .0747  | -.0860 | .0006  | .0006  | .0167 |
| 7    | .00    | -.0683 | -.0199 | -.1287 | .0004  | .0018  | .0087 |
| 8    | -20.00 | -.5965 | .1736  | .4425  | -.0040 | .0004  | .0126 |
| 9    | -15.01 | -.5212 | .0940  | .3987  | -.0029 | -.0014 | .0082 |
| 10   | -10.00 | -.3901 | .0234  | .2166  | -.0018 | -.0005 | .0129 |
| 11   | -5.00  | -.2371 | -.0114 | -.0027 | -.0027 | .0007  | .0111 |
| 12   | -2.51  | -.1527 | -.0175 | -.0690 | -.0017 | .0007  | .0102 |
| 13   | -.00   | -.0661 | .0216  | -.1245 | .0006  | .0009  | .0036 |
| 14   | 2.50   | .0189  | -.0229 | -.1910 | .0015  | .0019  | .0077 |
| 15   | 5.00   | .1101  | -.0168 | -.2421 | .0019  | .0020  | .0060 |
| 16   | 10.01  | .2995  | .0042  | -.3601 | -.0003 | .0041  | .0060 |
| 17   | 15.00  | .4396  | .0563  | -.3413 | -.0022 | .0010  | .0154 |
| 18   | 20.00  | .5487  | .1120  | -.2708 | -.0041 | .0001  | .0203 |
| 19   | -.00   | -.0693 | -.0201 | -.1301 | .0000  | .0019  | .0065 |
| 20   | 25.00  | .6585  | .1843  | -.2245 | -.0033 | .0002  | .0177 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 6    | .00    | -.0455 | .0747  | -.0860 | .0006  | .0006  | .0167 |
| 7    | .00    | -.0683 | -.0199 | -.1287 | .0004  | .0018  | .0087 |
| 8    | -20.00 | -.5965 | .1736  | .4425  | -.0040 | .0004  | .0126 |
| 9    | -15.01 | -.5212 | .0940  | .3987  | -.0029 | -.0014 | .0082 |
| 10   | -10.00 | -.3901 | .0234  | .2166  | -.0018 | -.0005 | .0129 |
| 11   | -5.00  | -.2371 | -.0114 | -.0027 | -.0027 | .0007  | .0111 |
| 12   | -2.51  | -.1527 | -.0175 | -.0690 | -.0017 | .0007  | .0102 |
| 13   | -.00   | -.0661 | .0216  | -.1245 | .0006  | .0009  | .0036 |
| 14   | 2.50   | .0189  | -.0229 | -.1910 | .0015  | .0019  | .0077 |
| 15   | 5.00   | .1101  | -.0168 | -.2421 | .0019  | .0020  | .0060 |
| 16   | 10.01  | .2995  | .0042  | -.3601 | -.0003 | .0041  | .0060 |
| 17   | 15.00  | .4396  | .0563  | -.3413 | -.0022 | .0010  | .0154 |
| 18   | 20.00  | .5487  | .1120  | -.2708 | -.0041 | .0001  | .0203 |
| 19   | -.00   | -.0693 | -.0201 | -.1301 | .0000  | .0019  | .0065 |
| 20   | 25.00  | .6585  | .1843  | -.2245 | -.0033 | .0002  | .0177 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1033

RUN 1064 CONFIG F P B NP5 T60 BT

IN=-3.5

| PT. NO. | - DELF    |         | - DELA      |             | - IHT        |              | O DELE       |             | O DELR |         | O DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAP CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | V KNOTS |         |  |     |
| 6       | .0        | .0      | -17.1       | 27.47       | -275.        | -2.          | -7.          | 5.27        | 55.54  | 129.25  | 3480.   |  |     |
| 7       | .0        | .0      | -25.4       | -7.41       | -401.        | 2.           | 32.          | 2.38        | 55.75  | 129.51  | 10840.  |  |     |
| 8       | .0        | -18.7   | -1.2        | 28.37       | -641.        | 1073.        | -241.        | -142.90     | 55.04  | 128.66  | 10810.  |  |     |
| 9       | .0        | -15.1   | -7.5        | 14.02       | -589.        | 802.         | -185.        | -114.34     | 55.38  | 129.07  | 10850.  |  |     |
| 10      | .0        | -10.0   | -17.6       | -.64        | -530.        | 332.         | -78.         | -70.38      | 55.51  | 129.22  | 10840.  |  |     |
| 11      | .0        | -5.0    | -23.3       | -6.02       | -504.        | 114.         | -14.         | -33.72      | 55.16  | 128.80  | 10850.  |  |     |
| 12      | .0        | -2.6    | -24.7       | -7.26       | -469.        | 66.          | -13.         | -15.46      | 55.32  | 128.99  | 10860.  |  |     |
| 13      | .0        | .1      | -25.9       | -7.99       | -446.        | -4.          | -20.         | 4.13        | 55.21  | 128.86  | 10870.  |  |     |
| 14      | .0        | 2.5     | -25.1       | -7.11       | -439.        | -66.         | -31.         | 22.67       | 55.30  | 128.97  | 10870.  |  |     |
| 15      | .0        | 5.1     | -23.5       | -5.91       | -449.        | -118.        | -0.          | 42.52       | 55.03  | 128.65  | 10880.  |  |     |
| 16      | .0        | 10.0    | -23.0       | .08         | -474.        | -378.        | 44.          | 80.87       | 54.76  | 128.32  | 10880.  |  |     |
| 17      | .0        | 15.0    | -13.1       | 12.13       | -564.        | -881.        | 138.         | 122.86      | 55.15  | 128.70  | 10810.  |  |     |
| 18      | .0        | 20.1    | -7.7        | 31.79       | -607.        | -1229.       | 298.         | 164.14      | 55.35  | 129.02  | 10940.  |  |     |
| 19      | .0        | .0      | -25.8       | -7.60       | -404.        | 1.           | -21.         | 2.64        | 55.59  | 129.31  | 10860.  |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | -.0462 | .0742  | -.0885 | -.0001 | -.0004 | .0143  |
| 7    | .00    | -.0686 | -.0200 | -.1294 | .0001  | .0019  | .0064  |
| 8    | -18.70 | -.0032 | .0767  | -.2067 | .0648  | -.0145 | -.3862 |
| 9    | -15.10 | -.0203 | .0379  | -.1900 | .0484  | -.0112 | -.3090 |
| 10   | -10.00 | -.0476 | -.0017 | -.1708 | .0201  | -.0047 | -.1902 |
| 11   | -5.00  | -.0631 | -.0163 | -.1626 | .0069  | -.0009 | -.0911 |
| 12   | -2.60  | -.0668 | -.0196 | -.1512 | .0040  | -.0008 | -.0418 |
| 13   | .10    | -.0699 | -.0216 | -.1438 | -.0002 | -.0012 | .0112  |
| 14   | 2.50   | -.0678 | -.0192 | -.1414 | -.0040 | -.0019 | .0613  |
| 15   | 5.10   | -.0636 | -.0160 | -.1449 | -.0071 | -.0000 | .1149  |
| 16   | 10.00  | -.0622 | .0002  | -.1527 | -.0228 | .0027  | .2186  |
| 17   | 15.00  | -.0355 | .0328  | -.1819 | -.0532 | .0083  | .3320  |
| 18   | 20.10  | -.0207 | .0859  | -.1957 | -.0742 | .0125  | .4436  |
| 19   | .00    | -.0696 | -.0205 | -.1304 | .0001  | -.0013 | .0071  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | -.0462 | .0742  | -.0885 | -.0001 | -.0004 | .0143  |
| 7    | .00    | -.0686 | -.0200 | -.1294 | .0001  | .0019  | .0064  |
| 8    | -18.70 | -.0032 | -.0518 | -.1707 | .0648  | -.0013 | -.3903 |
| 9    | -15.10 | -.0203 | -.0443 | -.1678 | .0484  | -.0015 | -.3082 |
| 10   | -10.00 | -.0476 | -.0349 | -.1638 | .0201  | .0009  | -.1870 |
| 11   | -5.00  | -.0631 | -.0242 | -.1615 | .0069  | .0018  | -.0894 |
| 12   | -2.60  | -.0668 | -.0215 | -.1508 | .0040  | .0005  | -.0408 |
| 13   | .10    | -.0699 | -.0216 | -.1438 | -.0002 | -.0013 | .0111  |
| 14   | 2.50   | -.0678 | -.0219 | -.1417 | -.0040 | -.0030 | .0604  |
| 15   | 5.10   | -.0636 | -.0262 | -.1443 | -.0071 | -.0024 | .1130  |
| 16   | 10.00  | -.0622 | -.0379 | -.1479 | -.0228 | -.0024 | .2152  |
| 17   | 15.00  | -.0355 | -.0547 | -.1640 | -.0532 | -.0008 | .3291  |
| 18   | 20.10  | -.0207 | -.0725 | -.1605 | -.0742 | -.0009 | .4460  |
| 19   | .00    | -.0696 | -.0205 | -.1304 | .0001  | -.0013 | .0071  |

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V432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P1034

RUN 1065 CONFIG F P B NPS W7 T60 BT jN=3.5

| PT NO. | ALPHA DEG | DELTA PSI DEG | 3Q DELTA CIBAR SQ-FT | Q DELTA CDBAR SQ-FT | Q IHT CPMBAR CU-FT | Q DELE CYMBAR CU-FT | Q DELR CRMBAR CU-FT | Q DELSB CYBAR SQ-FT | Q DELSB PSF | n V KNOTS | RPM   |
|--------|-----------|---------------|----------------------|---------------------|--------------------|---------------------|---------------------|---------------------|-------------|-----------|-------|
| 7      | 0.0       | 0.0           | 558.1                | 126.41              | 910.               | -68.                | 51.                 | 1.74                | 54.77       | 128.34    | 4210. |
| 8      | -20.0     | 0.0           | 558.0                | 112.51              | 513.               | -4.                 | -40.                | 2.55                | 56.03       | 129.83    | 4120. |
| 9      | -15.0     | 0.0           | 110.1                | 94.38               | 323.               | -94.                | 7.                  | 4.99                | 56.02       | 129.82    | 3980. |
| 10     | -10.0     | 0.0           | 273.8                | 96.07               | 392.               | -71.                | 7.                  | 5.48                | 56.54       | 130.44    | 3980. |
| 11     | -5.0      | 0.0           | 421.4                | 111.12              | 682.               | -111.               | 78.                 | 5.43                | 55.80       | 129.56    | 4080. |
| 12     | -2.5      | 0.0           | 483.2                | 117.23              | 792.               | -134.               | 76.                 | 7.03                | 56.20       | 130.03    | 4140. |
| 13     | 0.0       | 0.0           | 548.9                | 124.87              | 880.               | -77.                | 47.                 | 4.04                | 55.71       | 129.45    | 4240. |
| 14     | 2.5       | 0.0           | 595.6                | 134.49              | 793.               | -78.                | 96.                 | 5.66                | 56.59       | 130.49    | 4330. |
| 15     | 5.0       | 0.0           | 493.0                | 162.23              | 250.               | -26.                | -159.               | 4.01                | 56.00       | 129.79    | 4050. |
| 16     | 10.0      | 0.0           | 484.1                | 215.90              | -29.               | -138.               | 341.                | 9.70                | 55.84       | 129.60    | 3930. |
| 18     | 20.0      | 0.0           | 549.7                | 331.90              | -1133.             | -53.                | 18.                 | 5.39                | 56.20       | 130.02    | 4070. |
| 19     | 20.0      | 0.0           | 554.3                | 330.86              | -1267.             | -45.                | 70.                 | 2.07                | 55.82       | 129.58    | 3990. |
| 20     | 0.0       | 0.0           | 543.0                | 123.36              | 875.               | -88.                | 81.                 | 4.13                | 56.05       | 129.85    | 4250. |
| 21     | 15.0      | 0.0           | 501.3                | 267.57              | -591.              | -66.                | 138.                | 6.44                | 55.57       | 129.27    | 3870. |
| 22     | 25.0      | 0.0           | 578.9                | 394.57              | -1629.             | -218.               | 136.                | -3.52               | 56.09       | 129.89    | 4080. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|-------|--------|--------|--------|--------|--------|--------|
| 7    | 0.0   | 1.5084 | .3416  | .2933  | -.0041 | .0031  | .0047  |
| 8    | -20.0 | -.1566 | .3041  | .1652  | -.0003 | -.0024 | .0069  |
| 9    | -15.0 | .2975  | .2605  | .1043  | -.0057 | .0004  | .0135  |
| 10   | -10.0 | .7401  | .2596  | .1264  | -.0043 | .0004  | .0148  |
| 11   | -5.0  | 1.1388 | .3003  | .2200  | -.0067 | .0047  | .0147  |
| 12   | -2.5  | 1.3060 | .3168  | .2554  | -.0081 | .0046  | .0190  |
| 13   | 0.0   | 1.4836 | .3375  | .2838  | -.0046 | .0028  | .0109  |
| 14   | 2.5   | 1.6098 | .3635  | .2556  | -.0047 | .0058  | .0153  |
| 15   | 5.0   | 1.3324 | .4385  | .0805  | -.0016 | -.0096 | .0109  |
| 16   | 10.0  | 1.3085 | .5835  | -.0095 | -.0084 | .0206  | .0262  |
| 18   | 19.99 | 1.4857 | .8970  | -.3651 | -.0032 | .0011  | .0146  |
| 19   | 19.99 | 1.4982 | .8942  | -.4085 | -.0027 | .0042  | .0056  |
| 20   | 0.0   | 1.4675 | .3334  | .2821  | -.0053 | .0049  | .0112  |
| 21   | 14.99 | 1.3550 | .7232  | -.1906 | -.0040 | .0083  | .0174  |
| 22   | 24.99 | 1.5646 | 1.0664 | -.5253 | -.0132 | .0082  | -.0095 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYS    |
|------|-------|--------|--------|--------|--------|--------|--------|
| 7    | 0.0   | 1.5084 | .3416  | .2933  | -.0041 | .0031  | .0047  |
| 8    | -20.0 | -.1566 | .3041  | .1652  | -.0003 | -.0024 | .0069  |
| 9    | -15.0 | .2975  | .2605  | .1043  | -.0057 | .0004  | .0135  |
| 10   | -10.0 | .7401  | .2596  | .1264  | -.0043 | .0004  | .0148  |
| 11   | -5.0  | 1.1388 | .3003  | .2200  | -.0067 | .0047  | .0147  |
| 12   | -2.5  | 1.3060 | .3168  | .2554  | -.0081 | .0046  | .0190  |
| 13   | 0.0   | 1.4836 | .3375  | .2838  | -.0046 | .0028  | .0109  |
| 14   | 2.5   | 1.6098 | .3635  | .2556  | -.0047 | .0058  | .0153  |
| 15   | 5.0   | 1.3324 | .4385  | .0805  | -.0016 | -.0096 | .0109  |
| 16   | 10.0  | 1.3085 | .5835  | -.0095 | -.0084 | .0206  | .0262  |
| 18   | 19.99 | 1.4857 | .8970  | -.3651 | -.0032 | .0011  | .0146  |
| 19   | 19.99 | 1.4982 | .8942  | -.4085 | -.0027 | .0042  | .0056  |
| 20   | 0.0   | 1.4675 | .3334  | .2821  | -.0053 | .0049  | .0112  |
| 21   | 14.99 | 1.3550 | .7232  | -.1906 | -.0040 | .0083  | .0174  |
| 22   | 24.99 | 1.5646 | 1.0664 | -.5253 | -.0132 | .0082  | -.0095 |



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SIKORSKY RSRA 1/6 SCALE MODFL TEST.  
AERODYNAMIC DATA

SFR=72011

P1035

RUN 1066 CONFIG F P B NP5 W7 T60 BT IN=3.5

| PT. NO. | 7.5 ALPHA DEG | DELTA PSI DEG | DELTA CL BAR SQ-FT | DELTA CD BAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM   |
|---------|---------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|-------------|---------------|-------|
| 2       | 0             | 0             | 410.4              |                    |                    |                    | 44                 | 5.47              | 57.33       | 131.36        | 4070. |
| 3       | -20.0         | 0             | 209.7              | 110.13             | 1008.              | -12.               | -10.               | 4.19              | 55.28       | 128.94        | 4030. |
| 4       | -15.0         | 0             | 53.3               | 86.49              | 546.               | -83.               | -25.               | 3.71              | 55.12       | 128.75        | 3830. |
| 5       | -10.0         | 0             | 107.4              | 73.94              | 557.               | -46.               | -25.               | 3.82              | 55.23       | 128.88        | 3760. |
| 6       | -5.0          | 0             | 259.7              | 76.61              | 627.               | -122.              | 27.                | 5.59              | 54.83       | 128.41        | 3830. |
| 7       | -2.5          | 0             | 337.6              | 81.38              | 597.               | -89.               | 43.                | 6.68              | 55.12       | 128.75        | 3910. |
| 8       | 0             | 0             | 415.3              | 91.37              | 533.               | -64.               | 62.                | 6.64              | 55.39       | 129.07        | 3980. |
| 9       | 2.5           | 0             | 490.2              | 104.47             | 494.               | -41.               | 46.                | 6.64              | 54.89       | 128.48        | 4050. |
| 10      | 5.0           | 0             | 556.0              | 118.07             | 435.               | -16.               | 67.                | 3.57              | 55.42       | 129.10        | 4140. |
| 11      | 10.0          | 0             | 618.7              | 156.07             | 273.               | -66.               | 707.               | -7.35             | 55.16       | 128.80        | 4290. |
| 12      | 15.0          | 0             | 583.5              | 227.36             | -436.              | -126.              | 532.               | -1.25             | 54.70       | 128.25        | 4150. |
| 13      | 20.0          | 0             | 591.1              | 290.50             | -921.              | 116.               | 91.                | 16.60             | 55.41       | 129.09        | 3980. |
| 14      | 25.0          | 0             | 602.4              | 374.15             | -1473.             | 28.                | 39.                | 5.20              | 54.42       | 127.91        | 4090. |
| 15      | 0             | 0             | 414.4              | 92.24              | 527.               | -79.               | 46.                | 5.11              | 55.31       | 128.97        | 3990. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.1093 |        |        |        | .0026  | .0148  |
| 3    | -20.00 | -.5668 | .2976  | .3249  | -.0008 | -.0004 | .0113  |
| 4    | -15.00 | -.1440 | .2338  | .1761  | -.0050 | -.0015 | .0100  |
| 5    | -10.00 | .2903  | .1998  | .1794  | -.0028 | -.0015 | .0103  |
| 6    | -5.00  | .7019  | .2070  | .2020  | -.0073 | .0016  | .0151  |
| 7    | -2.50  | .9124  | .2199  | .1924  | -.0054 | .0026  | .0180  |
| 8    | 0.01   | 1.1224 | .2470  | .1718  | -.0038 | .0037  | .0180  |
| 9    | 2.50   | 1.3248 | .2823  | .1593  | -.0024 | .0028  | .0179  |
| 10   | 5.00   | 1.5028 | .3191  | .1401  | -.0009 | .0040  | .0096  |
| 11   | 9.99   | 1.6722 | .4218  | .0879  | -.0040 | .0427  | -.0199 |
| 12   | 14.99  | 1.5770 | .6145  | -.1406 | -.0076 | .0321  | -.0034 |
| 13   | 20.00  | 1.5975 | .7851  | -.2969 | .0070  | .0055  | .0449  |
| 14   | 25.00  | 1.6280 | 1.0112 | -.4749 | .0017  | .0023  | .0140  |
| 15   | 0.00   | 1.1200 | .2493  | .1701  | -.0048 | .0028  | .0138  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | 1.1093 |        |        |        |        | .0148  |
| 3    | -20.00 | -.5668 | .2976  | .3249  | -.0008 | -.0004 | .0113  |
| 4    | -15.00 | -.1440 | .2338  | .1761  | -.0050 | -.0015 | .0100  |
| 5    | -10.00 | .2903  | .1998  | .1794  | -.0028 | -.0015 | .0103  |
| 6    | -5.00  | .7019  | .2070  | .2020  | -.0073 | .0016  | .0151  |
| 7    | -2.50  | .9124  | .2199  | .1924  | -.0054 | .0026  | .0180  |
| 8    | 0.01   | 1.1224 | .2470  | .1718  | -.0038 | .0037  | .0180  |
| 9    | 2.50   | 1.3248 | .2823  | .1593  | -.0024 | .0028  | .0179  |
| 10   | 5.00   | 1.5028 | .3191  | .1401  | -.0009 | .0040  | .0096  |
| 11   | 9.99   | 1.6722 | .4218  | .0879  | -.0040 | .0427  | -.0199 |
| 12   | 14.99  | 1.5770 | .6145  | -.1406 | -.0076 | .0321  | -.0034 |
| 13   | 20.00  | 1.5975 | .7851  | -.2969 | .0070  | .0055  | .0449  |
| 14   | 25.00  | 1.6280 | 1.0112 | -.4749 | .0017  | .0023  | .0140  |
| 15   | 0.00   | 1.1200 | .2493  | .1701  | -.0048 | .0028  | .0138  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR=72011

P1036

RUN 1067 CONFIG F P B NPS W7 T60 BT TN=3.5

| PT. NO. | INW   | IO DELF | 30 DELA | O IHT  | O DELE | O DELR | O DELSB | V     | RPM   |        |       |
|---------|-------|---------|---------|--------|--------|--------|---------|-------|-------|--------|-------|
|         | ALPHA | PSI     | CI BAR  | CDBAR  | CPMBAR | CYMBAR | CRMBAR  | CYBAR |       |        |       |
|         | DEG   | DEG     | SQ-FT   | SQ-FT  | CU-FT  | CU-FT  | CU-FT   | SQ-FT | PSF   |        |       |
|         |       |         |         |        |        |        |         |       | KN/T  |        |       |
| 2       | 0     | 0       | 449.9   | 101.02 | 573.   | -72.   | 46.     | 4.64  | 55.82 | 129.58 | 4050. |
| 3       | -20.0 | 0       | -171.1  | 110.45 | 971.   | -17.   | -59.    | 3.32  | 56.39 | 130.25 | 4110. |
| 4       | -15.0 | 0       | -10.0   | 89.50  | 495.   | -77.   | 28.     | 2.76  | 56.67 | 130.59 | 3930. |
| 5       | -10.0 | 0       | 152.6   | 79.66  | 423.   | -38.   | -23.    | 3.10  | 57.09 | 131.07 | 3870. |
| 6       | -5.0  | 0       | 300.2   | 86.05  | 614.   | -95.   | 10.     | 4.70  | 56.58 | 130.47 | 3960. |
| 7       | -2.5  | 0       | 378.1   | 91.87  | 589.   | -94.   | 61.     | 5.25  | 56.41 | 130.28 | 4010. |
| 8       | 0     | 0       | 452.4   | 101.22 | 569.   | -58.   | 48.     | 3.08  | 56.39 | 130.26 | 4080. |
| 9       | 2.5   | 0       | 571.9   | 113.11 | 571.   | -36.   | 29.     | 5.11  | 56.66 | 130.57 | 4160. |
| 10      | 5.0   | 0       | 589.9   | 128.05 | 472.   | -25.   | 66.     | 3.14  | 56.43 | 130.29 | 4240. |
| 11      | 10.0  | 0       | 539.5   | 176.55 | 46.    | -50.   | -105.   | 2.96  | 56.44 | 130.31 | 4100. |
| 12      | 15.0  | 0       | 552.9   | 241.09 | -259.  | -159.  | 376.    | 2.05  | 56.59 | 130.48 | 4150. |
| 13      | 20.0  | 0       | 580.4   | 304.43 | -1064. | 154.   | -154.   | 9.73  | 56.04 | 129.83 | 4010. |
| 14      | 25.0  | 0       | 598.7   | 386.66 | -1528. | 8.     | 89.     | 2.81  | 55.80 | 129.55 | 4120. |
| 15      | 0     | 0       | 458.0   | 102.49 | 585.   | -76.   | 65.     | 3.81  | 55.49 | 129.19 | 4080. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. # | ALPHA  | CL     | CD     | CPM    | CYM    | CRM    | CY    |
|-------|--------|--------|--------|--------|--------|--------|-------|
| 2     | 0.00   | 1.2160 | .2730  | .1847  | -.0043 | .0028  | .0125 |
| 3     | -20.00 | -.4624 | .2985  | .3129  | -.0010 | -.0036 | .0090 |
| 4     | -15.00 | -.0271 | .2419  | .1596  | -.0047 | .0017  | .0075 |
| 5     | -10.00 | .4123  | .2153  | .1363  | -.0023 | -.0014 | .0084 |
| 6     | -5.00  | .8114  | .2326  | .1978  | -.0058 | .0006  | .0127 |
| 7     | -2.50  | 1.0218 | .2483  | .1899  | -.0057 | .0037  | .0142 |
| 8     | 0.00   | 1.2226 | .2736  | .1835  | -.0035 | .0029  | .0083 |
| 9     | 2.50   | 1.4105 | .3057  | .1680  | -.0022 | .0017  | .0138 |
| 10    | 5.00   | 1.5943 | .3461  | .1522  | -.0015 | .0040  | .0085 |
| 11    | 10.00  | 1.4581 | .4772  | .0148  | -.0030 | -.0063 | .0080 |
| 12    | 15.00  | 1.4942 | .6516  | -.0836 | -.0096 | .0227  | .0055 |
| 13    | 20.00  | 1.5685 | .8220  | -.3429 | .0093  | -.0093 | .0263 |
| 14    | 25.00  | 1.6180 | 1.0450 | -.4926 | .0005  | .0053  | .0076 |
| 15    | 0.00   | 1.2377 | .2770  | .1885  | -.0046 | .0039  | .0103 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. # | ALPHA  | CLB    | CDR    | CPMB   | CYMB   | CRM    | CYB   |
|-------|--------|--------|--------|--------|--------|--------|-------|
| 2     | 0.00   | 1.2160 | .2730  | .1847  | -.0043 | .0028  | .0125 |
| 3     | -20.00 | -.4624 | .2985  | .3129  | -.0010 | -.0036 | .0090 |
| 4     | -15.00 | -.0271 | .2419  | .1596  | -.0047 | .0017  | .0075 |
| 5     | -10.00 | .4123  | .2153  | .1363  | -.0023 | -.0014 | .0084 |
| 6     | -5.00  | .8114  | .2326  | .1978  | -.0058 | .0006  | .0127 |
| 7     | -2.50  | 1.0218 | .2483  | .1899  | -.0057 | .0037  | .0142 |
| 8     | 0.00   | 1.2226 | .2736  | .1835  | -.0035 | .0029  | .0083 |
| 9     | 2.50   | 1.4105 | .3057  | .1680  | -.0022 | .0017  | .0138 |
| 10    | 5.00   | 1.5943 | .3461  | .1522  | -.0015 | .0040  | .0085 |
| 11    | 10.00  | 1.4581 | .4772  | .0148  | -.0030 | -.0063 | .0080 |
| 12    | 15.00  | 1.4942 | .6516  | -.0836 | -.0096 | .0227  | .0055 |
| 13    | 20.00  | 1.5685 | .8220  | -.3429 | .0093  | -.0093 | .0263 |
| 14    | 25.00  | 1.6180 | 1.0450 | -.4926 | .0005  | .0053  | .0076 |
| 15    | 0.00   | 1.2377 | .2770  | .1885  | -.0046 | .0039  | .0103 |

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SIKORSKY RSRA 1/6 SCALE MODIFIED TEST  
AERODYNAMIC DATA

SFR-72011  
P1037

RUN 1068 CONFIG F P B NPS W7 T60 BT IN=-3.5 PSI=5

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA CIBAR SQ-FT | DELTA CDBAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYMBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA PSF | DELTA V KNOTS | RPM   |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-----------|---------------|-------|
| 2       | 0         | 5.0           | 453.0             | 101.01            | 424.               | -431.              | 72.                | 37.06             | 55.61     | 129.34        | 4000. |
| 3       | -20.0     | 5.0           | -166.7            | 112.08            | 919.               | -412.              | -80.               | 33.27             | 55.08     | 128.70        | 3900. |
| 4       | -15.0     | 5.0           | -9.3              | 89.76             | 494.               | -420.              | 24.                | 38.42             | 55.59     | 129.31        | 3830. |
| 5       | -10.0     | 5.0           | 150.6             | 79.80             | 415.               | -426.              | 3.                 | 40.42             | 55.54     | 129.26        | 3770. |
| 6       | -5.0      | 5.0           | 298.1             | 83.34             | 483.               | -455.              | 14.                | 40.37             | 55.69     | 129.43        | 3850. |
| 7       | -2.5      | 5.0           | 375.6             | 90.28             | 506.               | -449.              | 74.                | 38.27             | 55.09     | 128.72        | 3920. |
| 8       | 0         | 5.0           | 451.9             | 101.20            | 419.               | -420.              | 95.                | 37.49             | 54.61     | 128.14        | 3980. |
| 9       | 2.5       | 5.0           | 525.6             | 114.79            | 382.               | -414.              | 95.                | 35.88             | 54.59     | 128.12        | 4060. |
| 10      | 5.0       | 5.0           | 504.8             | 127.86            | 351.               | -350.              | 186.               | 28.67             | 55.48     | 129.18        | 4150. |
| 11      | 10.0      | 5.0           | 547.2             | 176.76            | -122.              | -266.              | 214.               | 22.90             | 54.74     | 128.29        | 4010. |
| 12      | 15.0      | 5.0           | 558.4             | 235.97            | -549.              | -190.              | 701.               | 8.91              | 55.44     | 129.13        | 4080. |
| 13      | 20.0      | 5.0           | 574.4             | 305.96            | -1256.             | 76.                | 567.               | 3.56              | 54.47     | 127.97        | 3920. |
| 14      | -0        | 5.0           | 450.3             | 101.88            | 409.               | -379.              | 95.                | 35.16             | 55.23     | 128.88        | 4070. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | 1.2244 | .2730 | .1367  | -.0260 | .0044  | .1002 |
| 3    | -20.00 | -.4506 | .3029 | .2962  | -.0249 | -.0048 | .0899 |
| 4    | -15.00 | -.0251 | .2426 | .1593  | -.0254 | .0015  | .1038 |
| 5    | -9.99  | .4071  | .2157 | .1338  | -.0257 | .0007  | .1092 |
| 6    | -5.00  | .8057  | .2253 | .1557  | -.0275 | .0009  | .1091 |
| 7    | -2.49  | 1.0152 | .2440 | .1632  | -.0271 | .0085  | .1034 |
| 8    | 0.00   | 1.2215 | .2735 | .1352  | -.0254 | .0057  | .1013 |
| 9    | 2.50   | 1.4204 | .3102 | .1233  | -.0250 | .0058  | .0970 |
| 10   | 5.00   | 1.5807 | .3456 | .1133  | -.0211 | .0112  | .0775 |
| 11   | 10.00  | 1.4789 | .4777 | -.0394 | -.0161 | .0129  | .0619 |
| 12   | 15.00  | 1.5093 | .6377 | -.1771 | -.0115 | .0423  | .0241 |
| 13   | 20.01  | 1.5526 | .8269 | -.4048 | .0046  | .0343  | .0096 |
| 14   | -0.00  | 1.2169 | .2754 | .1318  | -.0229 | .0057  | .0950 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|--------|-------|--------|--------|-------|-------|
| 2    | 0.00   | 1.2244 | .2632 | .1382  | -.0260 | .0044 | .1237 |
| 3    | -20.00 | -.4506 | .2939 | .2928  | -.0249 | .0000 | .1161 |
| 4    | -15.00 | -.0251 | .2326 | .1594  | -.0254 | .0041 | .1247 |
| 5    | -9.99  | .4071  | .2053 | .1334  | -.0257 | .0024 | .1277 |
| 6    | -5.00  | .8057  | .2148 | .1555  | -.0275 | .0034 | .1284 |
| 7    | -2.49  | 1.0152 | .2340 | .1646  | -.0271 | .0071 | .1244 |
| 8    | 0.00   | 1.2215 | .2636 | .1373  | -.0254 | .0079 | .1249 |
| 9    | 2.50   | 1.4204 | .3006 | .1255  | -.0250 | .0078 | .1238 |
| 10   | 5.00   | 1.5807 | .3375 | .1181  | -.0211 | .0130 | .1075 |
| 11   | 10.00  | 1.4789 | .4705 | -.0333 | -.0161 | .0122 | .1035 |
| 12   | 15.00  | 1.5093 | .6332 | -.1567 | -.0115 | .0393 | .0798 |
| 13   | 20.01  | 1.5526 | .8229 | -.3872 | .0046  | .0275 | .0820 |
| 14   | -0.00  | 1.2169 | .2660 | .1340  | -.0229 | .0079 | .1188 |

NU32409-1

STYORSKY PSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P. 103 F

RUN 1069 CONFIG F P B W7 T60 FT

| PT. NO. | ALPHA DEG | PSI DFG | CLBAR SQ-FT | CDRAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRNBAP CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| 13      | .0        | .0      | 55.5        | 21.32       | 77.          | -60.         | -24.         | 5.23        | 55.36 | 129.06  | 0.  |
| 14      | -20.0     | .0      | -310.2      | 136.52      | 2113.        | -110.        | 123.         | 15.00       | 55.40 | 129.10  | 0.  |
| 15      | -15.0     | .0      | -304.0      | 80.51       | 2240.        | -107.        | 164.         | 13.12       | 55.80 | 129.58  | 0.  |
| 16      | -10.0     | .0      | -243.7      | 33.70       | 1550.        | -66.         | -26.         | 5.07        | 56.46 | 130.35  | 0.  |
| 17      | -5.0      | .0      | -94.0       | 22.85       | 735.         | -84.         | -27.         | 6.27        | 56.00 | 129.81  | 0.  |
| 18      | -2.5      | .0      | -10.4       | 20.64       | 393.         | -76.         | 25.          | 6.53        | 55.81 | 129.59  | 0.  |
| 19      | .0        | .0      | 56.0        | 21.55       | 72.          | -67.         | 12.          | 4.54        | 55.52 | 129.24  | 0.  |
| 20      | 2.5       | .0      | 128.9       | 24.33       | -197.        | -37.         | 29.          | 4.93        | 56.01 | 129.82  | 0.  |
| 21      | 5.0       | .0      | 204.5       | 30.16       | -450.        | -12.         | 30.          | 5.37        | 55.19 | 128.85  | 0.  |
| 22      | 10.0      | .0      | 354.0       | 48.32       | -1003.       | -11.         | 51.          | 2.74        | 54.77 | 128.35  | 0.  |
| 23      | 15.0      | .0      | 481.0       | 78.00       | -1658.       | -27.         | 70.          | 4.24        | 54.64 | 128.19  | 0.  |
| 24      | 20.0      | .0      | 487.2       | 133.90      | -1957.       | -227.        | -71.         | -5.56       | 54.62 | 128.16  | 0.  |
| 25      | 25.0      | .0      | 419.9       | 189.99      | -2125.       | -162.        | 148.         | 10.98       | 54.93 | 128.53  | 0.  |
| 26      | .0        | .0      | 55.1        | 21.03       | 68.          | -73.         | -3.          | 2.04        | 55.53 | 129.28  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 13   | .00    | .1499  | .0576 | .0248  | -.0036 | -.0015 | .0141  |
| 14   | -20.00 | -.8384 | .3690 | .6811  | -.0066 | .0074  | .0405  |
| 15   | -15.00 | -.8216 | .2176 | .7222  | -.0065 | .0099  | .0355  |
| 16   | -10.00 | -.6586 | .0911 | .4996  | -.0040 | -.0016 | .0137  |
| 17   | -5.00  | -.2540 | .0617 | .2371  | -.0051 | -.0016 | .0169  |
| 18   | -2.50  | -.0496 | .0558 | .1267  | -.0046 | .0015  | .0176  |
| 19   | .00    | .1515  | .0582 | .0233  | -.0040 | .0007  | .0123  |
| 20   | 2.50   | .3485  | .0657 | -.0634 | -.0023 | .0018  | .0133  |
| 21   | 5.00   | .5527  | .0815 | -.1452 | -.0007 | .0018  | .0145  |
| 22   | 10.00  | .9568  | .1306 | -.3233 | -.0007 | .0031  | .0074  |
| 23   | 15.00  | 1.3000 | .2108 | -.5345 | -.0016 | .0042  | .0115  |
| 24   | 20.00  | 1.3168 | .3619 | -.6309 | -.0137 | -.0043 | -.0015 |
| 25   | 25.00  | 1.1348 | .5135 | -.6849 | -.0098 | .0089  | .0297  |
| 26   | .00    | .1490  | .0568 | .0218  | -.0044 | -.0002 | .0055  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDL   | CPMB   | CYMB   | CRMB   | CYR    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 13   | .00    | .1499  | .0576 | .0248  | -.0036 | -.0015 | .0141  |
| 14   | -20.00 | -.8384 | .3690 | .6811  | -.0066 | .0074  | .0405  |
| 15   | -15.00 | -.8216 | .2176 | .7222  | -.0065 | .0099  | .0355  |
| 16   | -10.00 | -.6586 | .0911 | .4996  | -.0040 | -.0016 | .0137  |
| 17   | -5.00  | -.2540 | .0617 | .2371  | -.0051 | -.0016 | .0169  |
| 18   | -2.50  | -.0496 | .0558 | .1267  | -.0046 | .0015  | .0176  |
| 19   | .00    | .1515  | .0582 | .0233  | -.0040 | .0007  | .0123  |
| 20   | 2.50   | .3485  | .0657 | -.0634 | -.0023 | .0018  | .0133  |
| 21   | 5.00   | .5527  | .0815 | -.1452 | -.0007 | .0018  | .0145  |
| 22   | 10.00  | .9568  | .1306 | -.3233 | -.0007 | .0031  | .0074  |
| 23   | 15.00  | 1.3000 | .2108 | -.5345 | -.0016 | .0042  | .0115  |
| 24   | 20.00  | 1.3168 | .3619 | -.6309 | -.0137 | -.0043 | -.0015 |
| 25   | 25.00  | 1.1348 | .5135 | -.6849 | -.0098 | .0089  | .0297  |
| 26   | .00    | .1490  | .0568 | .0218  | -.0044 | -.0002 | .0055  |

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SYKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1039

RUN 1070 CONFIG F P R W7 T60 RT

| PT. NO. | ALPHA DEG | DELTA PSI | DELTA CLBAR SQ-FT | DELTA CD BAR SQ-FT | DELTA CPMBAR CU-FT | DELTA CYBAR CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM |
|---------|-----------|-----------|-------------------|--------------------|--------------------|-------------------|--------------------|-------------------|-------------|---------------|-----|
| 2       | 0         | 0         | 56.1              | 21.52              | 80.                | -61.              | 9.                 | 6.54              | 54.70       | 128.27        | 0.  |
| 3       | 0         | -20.0     | 92.4              | 66.40              | -672.              | 1473.             | -116.              | -161.96           | 55.70       | 129.45        | 0.  |
| 4       | 0         | -15.0     | 78.1              | 45.71              | -375.              | 988.              | -60.               | -116.64           | 56.22       | 130.07        | 0.  |
| 5       | 0         | -10.0     | 69.4              | 31.07              | -160.              | 504.              | 3.                 | -73.99            | 55.39       | 129.09        | 0.  |
| 6       | 0         | -5.0      | 59.1              | 22.68              | -34.               | 217.              | -29.               | -33.87            | 56.02       | 129.83        | 0.  |
| 7       | 0         | -2.5      | 55.0              | 21.49              | 12.                | 94.               | -8.                | -17.08            | 55.84       | 129.62        | 0.  |
| 8       | 0         | 0         | 55.0              | 21.18              | 47.                | -51.              | 10.                | 5.99              | 55.72       | 129.48        | 0.  |
| 9       | 0         | 2.5       | 57.2              | 22.09              | 42.                | -136.             | 17.                | 25.33             | 55.94       | 129.73        | 0.  |
| 10      | 0         | 5.0       | 57.9              | 23.46              | -6.                | -216.             | 15.                | 41.13             | 56.16       | 129.99        | 0.  |
| 11      | 0         | 10.0      | 63.3              | 29.14              | -156.              | -529.             | 7.                 | 79.05             | 55.80       | 129.58        | 0.  |
| 12      | 0         | 15.0      | 75.5              | 41.71              | -429.              | -1025.            | 56.                | 123.80            | 56.43       | 130.32        | 0.  |
| 14      | 0         | 20.0      | 85.2              | 63.13              | -721.              | -1528.            | 128.               | 169.10            | 56.32       | 130.19        | 0.  |
| 15      | 0         | 0         | 56.1              | 21.28              | 57.                | -61.              | -7.                | 5.47              | 55.41       | 129.11        | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYH    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .1516 | .0582 | .0258  | -.0037 | .0006  | .0177  |
| 3    | -20.00 | .2497 | .1795 | -.2165 | .0890  | -.0070 | -.4377 |
| 4    | -15.00 | .2110 | .1235 | -.1210 | .0597  | -.0037 | -.3152 |
| 5    | -10.00 | .1875 | .0840 | -.0517 | .0305  | .0002  | -.2000 |
| 6    | -5.00  | .1597 | .0613 | -.0108 | .0131  | -.0018 | -.0915 |
| 7    | -2.50  | .1487 | .0581 | .0040  | .0057  | -.0005 | -.0462 |
| 8    | 0.00   | .1487 | .0572 | .0153  | -.0031 | .0006  | .0162  |
| 9    | 2.50   | .1545 | .0597 | .0136  | -.0082 | .0011  | .0685  |
| 10   | 5.00   | .1565 | .0634 | -.0018 | -.0130 | .0009  | .1112  |
| 11   | 10.00  | .1712 | .0788 | -.0502 | -.0320 | .0004  | .2136  |
| 12   | 15.00  | .2039 | .1127 | -.1384 | -.0619 | .0034  | .3346  |
| 14   | 20.00  | .2304 | .1706 | -.2324 | -.0923 | .0077  | .4570  |
| 15   | 0.00   | .1517 | .0575 | .0185  | -.0037 | -.0004 | .0148  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CD    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .1516 | .0582 | .0258  | -.0037 | .0006  | .0177  |
| 3    | -20.00 | .2497 | .182  | -.1905 | .0890  | .0074  | -.4727 |
| 4    | -15.00 | .2110 | .0373 | -.1117 | .0597  | .0024  | -.3365 |
| 5    | -10.00 | .1875 | .0478 | -.0511 | .0305  | .0018  | -.2115 |
| 6    | -5.00  | .1597 | .0531 | -.0100 | .0131  | -.0016 | -.0966 |
| 7    | -2.50  | .1487 | .0560 | .0041  | .0057  | -.0005 | -.0487 |
| 8    | 0.00   | .1487 | .0572 | .0153  | -.0031 | .0006  | .0162  |
| 9    | 2.50   | .1545 | .0566 | .0138  | -.0082 | .0012  | .0710  |
| 10   | 5.00   | .1565 | .0535 | -.0014 | -.0130 | .0009  | .1163  |
| 11   | 10.00  | .1712 | .0403 | -.0491 | -.0320 | -.0012 | .2241  |
| 12   | 15.00  | .2039 | .0219 | -.1289 | -.0619 | -.0034 | .3524  |
| 14   | 20.00  | .2304 | .0032 | -.2041 | -.0923 | -.0077 | .4878  |
| 15   | 0.00   | .1517 | .0575 | .0185  | -.0037 | -.0004 | .0148  |

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SIKORSKY PSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1040

RUN 1071 CONFIG F P B NPS T60 BT IN=-3.5

| PT. No. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|---------------|--------------|--------------|-------------|-------|---------|-----|
| 2       | 0         | 0             | -16.5       | 77.79       | -328.         | -17.         | 30.          | 3.34        | 56.07 | 129.90  | WM  |
| 3       | -20.0     | 0             | -174.7      | 95.31       | 1382.         | -92.         | -32.         | 6.43        | 56.13 | 129.97  |     |
| 4       | -15.0     | 0             | -152.2      | 71.32       | 1249.         | -107.        | 27.          | 3.98        | 55.64 | 129.39  |     |
| 5       | -10.0     | 0             | -117.0      | 47.34       | 913.          | -72.         | 31.          | 2.61        | 54.78 | 128.37  |     |
| 6       | -5.0      | 0             | -77.3       | 31.89       | 173.          | -62.         | 9.           | 5.09        | 55.50 | 129.23  |     |
| 7       | -2.5      | 0             | -47.0       | 28.84       | -88.          | -47.         | 29.          | 3.78        | 55.95 | 129.75  |     |
| 8       | 0         | 0             | -17.2       | 27.89       | -330.         | -28.         | 29.          | 4.40        | 55.71 | 129.47  |     |
| 9       | 2.5       | 0             | 13.7        | 28.07       | -557.         | -16.         | 49.          | 2.75        | 55.76 | 129.53  |     |
| 10      | 5.0       | 0             | 46.9        | 30.20       | -767.         | -15.         | 49.          | 3.45        | 55.35 | 129.04  |     |
| 11      | 10.0      | 0             | 108.0       | 37.54       | -1144.        | -24.         | 33.          | 3.43        | 55.69 | 129.45  |     |
| 12      | 15.0      | 0             | 148.8       | 56.08       | -972.         | -54.         | 16.          | 5.50        | 56.96 | 130.95  |     |
| 13      | 20.0      | 0             | 181.8       | 77.11       | -818.         | -115.        | -33.         | 8.05        | 56.30 | 130.16  |     |
| 14      | 25.0      | 0             | 201.7       | 112.16      | -889.         | -97.         | -12.         | 9.06        | 56.77 | 130.72  |     |
| 15      | 0         | 0             | -15.6       | 28.23       | -310.         | -35.         | 31.          | 3.13        | 55.56 | 129.29  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD   | CPM   | CYM   | CRM   | CY   |
|------|--------|-------|------|-------|-------|-------|------|
| 2    | 0.00   | -0446 | 0751 | -1058 | -0010 | 0018  | 0090 |
| 3    | -20.00 | -4722 | 2576 | 4455  | -0056 | -0019 | 0174 |
| 4    | -15.00 | -4112 | 1928 | 4028  | -0064 | 0016  | 0108 |
| 5    | -10.00 | -3163 | 1279 | 2944  | -0044 | 0018  | 0071 |
| 6    | -5.00  | -2089 | 0862 | 0556  | -0038 | 0006  | 0138 |
| 7    | -2.50  | -1271 | 0779 | -0285 | -0028 | 0018  | 0102 |
| 8    | 0.00   | -0466 | 0754 | -1064 | -0017 | 0018  | 0119 |
| 9    | 2.50   | 0371  | 0759 | -1796 | -0010 | 0030  | 0074 |
| 10   | 5.00   | 1240  | 0816 | -2474 | -0009 | 0030  | 0093 |
| 11   | 10.00  | 2919  | 1015 | -3690 | -0014 | 0020  | 0093 |
| 12   | 15.00  | 4021  | 1516 | -3133 | -0032 | 0010  | 0149 |
| 13   | 20.00  | 4915  | 2084 | -2638 | -0070 | -0020 | 0218 |
| 14   | 25.00  | 5450  | 3031 | -2865 | -0058 | -0007 | 0245 |
| 15   | 0.00   | -0421 | 0763 | -1024 | -0021 | 0019  | 0085 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDR  | CPMB  | CYMR  | CRMB  | CYR  |
|------|--------|-------|------|-------|-------|-------|------|
| 2    | 0.00   | -0446 | 0751 | -1058 | -0010 | 0018  | 0090 |
| 3    | -20.00 | -4722 | 2576 | 4455  | -0056 | -0019 | 0174 |
| 4    | -15.00 | -4112 | 1928 | 4028  | -0064 | 0016  | 0108 |
| 5    | -10.00 | -3163 | 1279 | 2944  | -0044 | 0018  | 0071 |
| 6    | -5.00  | -2089 | 0862 | 0556  | -0038 | 0006  | 0138 |
| 7    | -2.50  | -1271 | 0779 | -0285 | -0028 | 0018  | 0102 |
| 8    | 0.00   | -0466 | 0754 | -1064 | -0017 | 0018  | 0119 |
| 9    | 2.50   | 0371  | 0759 | -1796 | -0010 | 0030  | 0074 |
| 10   | 5.00   | 1240  | 0816 | -2474 | -0009 | 0030  | 0093 |
| 11   | 10.00  | 2919  | 1015 | -3690 | -0014 | 0020  | 0093 |
| 12   | 15.00  | 4021  | 1516 | -3133 | -0032 | 0010  | 0149 |
| 13   | 20.00  | 4915  | 2084 | -2638 | -0070 | -0020 | 0218 |
| 14   | 25.00  | 5450  | 3031 | -2865 | -0058 | -0007 | 0245 |
| 15   | 0.00   | -0421 | 0763 | -1024 | -0021 | 0019  | 0085 |

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SUKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

P1041

RUN 1072 CONFIG F P R NPS T&O BT IN=-3.5

| PT. No. | ALPHA DEG | DELTA PSI DEG | DELTA CLBAR SQ-FT | DELTA CDRAP SQ-FT | DELTA CPMBAP CU-FT | DELTA CYMBAR CU-FT | DELTA CRMRAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|--------------------|--------------------|--------------------|-------------------|-------------|---------------|-----|
| 1       | .0        | .0            | -15.7             | 28.15             | -313.              | -37.               | 30.                | 3.94              | 55.40       | 129.11        |     |
| 2       | .0        | -20.0         | 9.1               | 67.79             | -516.              | 1188.              | -399.              | -140.41           | 55.99       | 129.80        |     |
| 3       | .0        | -15.0         | .1                | 49.95             | -474.              | 862.               | -136.              | -103.26           | 55.49       | 129.21        |     |
| 5       | .0        | -5.0          | -12.2             | 30.03             | -356.              | 137.               | -31.               | -30.08            | 55.37       | 129.07        |     |
| 6       | .0        | -10.0         | -7.2              | 35.72             | -386.              | 392.               | -107.              | -63.95            | 55.66       | 129.41        |     |
| 7       | .0        | -2.5          | -13.4             | 28.74             | -329.              | 49.                | 9.                 | -13.89            | 55.18       | 128.84        |     |
| 8       | .0        | .0            | -15.8             | 28.05             | -326.              | -32.               | 13.                | 3.19              | 55.45       | 129.16        |     |
| 9       | .0        | 2.5           | -16.1             | 29.19             | -325.              | -127.              | 36.                | 19.46             | 55.15       | 128.81        |     |
| 10      | .0        | 5.0           | -15.1             | 30.38             | -345.              | -191.              | 53.                | 39.07             | 55.37       | 129.07        |     |
| 11      | .0        | 10.0          | -9.9              | 34.09             | -392.              | -521.              | 142.               | 71.18             | 55.89       | 129.69        |     |
| 12      | .0        | 15.0          | -3.0              | 46.39             | -516.              | -908.              | 200.               | 108.38            | 55.57       | 129.30        |     |
| 13      | .0        | 20.0          | 6.0               | 64.45             | -623.              | -1318.             | 223.               | 149.65            | 55.36       | 129.05        |     |
| 14      | .0        | .0            | -15.7             | 28.09             | -319.              | -31.               | 30.                | 4.33              | 55.13       | 128.78        |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 1    | .00    | -.0425 | .0761 | -.1009 | -.0022 | .0018  | .0106  |
| 2    | -20.00 | .0247  | .1832 | -.1662 | .0718  | -.0241 | -.3795 |
| 3    | -15.00 | .0007  | .1350 | -.1529 | .0521  | -.0082 | -.2791 |
| 5    | -5.00  | -.0331 | .0812 | -.1147 | -.0063 | -.0019 | -.0813 |
| 6    | -10.00 | -.0195 | .0966 | -.1245 | .0237  | -.0064 | -.1728 |
| 7    | -2.50  | -.0361 | .0777 | -.1060 | .0030  | .0006  | -.0375 |
| 8    | .00    | -.0427 | .0758 | -.1051 | -.0019 | .0008  | .0086  |
| 9    | 2.50   | -.0435 | .0789 | -.1049 | -.0077 | .0022  | .0526  |
| 10   | 5.00   | -.0407 | .0821 | -.1112 | -.0115 | .0037  | .1056  |
| 11   | 10.00  | -.0266 | .0943 | -.1264 | -.0315 | .0086  | .1924  |
| 12   | 15.00  | -.0081 | .1254 | -.1662 | -.0548 | .0121  | .2929  |
| 13   | 20.00  | .0162  | .1742 | -.2009 | -.0796 | .0135  | .4045  |
| 14   | .00    | -.0425 | .0759 | -.1030 | -.0019 | .0018  | .0117  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 1    | .00    | -.0425 | .0761 | -.1009 | -.0022 | .0018  | .0106  |
| 2    | -20.00 | .0247  | .0917 | -.1119 | .0718  | -.0120 | -.4193 |
| 3    | -15.00 | .0002  | .0578 | -.1362 | .0521  | -.0005 | -.3046 |
| 5    | -5.00  | -.0331 | .0737 | -.1134 | .0083  | .0000  | -.0881 |
| 6    | -10.00 | -.0195 | .0649 | -.1166 | .0237  | -.0023 | -.1870 |
| 7    | -2.50  | -.0361 | .0759 | -.1061 | .0030  | .0014  | -.0409 |
| 8    | .00    | -.0427 | .0758 | -.1051 | -.0019 | .0008  | .0086  |
| 9    | 2.50   | -.0435 | .0765 | -.1043 | -.0077 | .0013  | .0560  |
| 10   | 5.00   | -.0407 | .0725 | -.1093 | -.0115 | .0014  | .1124  |
| 11   | 10.00  | -.0266 | .0593 | -.1165 | -.0315 | .0043  | .2059  |
| 12   | 15.00  | -.0081 | .0449 | -.1438 | -.0548 | .0036  | .3154  |
| 13   | 20.00  | .0162  | .0247 | -.1639 | -.0796 | -.0003 | .4397  |
| 14   | .00    | -.0425 | .0759 | -.1030 | -.0019 | .0018  | .0117  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1042

RUN 1073 CONFIG

F P R NP5 T60 RT IN=-3.5

| PT. NO. | ALPHA DEG | DELTA   |             | DELTA       |              | DELTA        |              | DELTA       |       | DELTA  |  | Q PSF | V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|--------|--|-------|---------|-----|
|         |           | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CPMBAR CU-FT | CYBAR SQ-FT | DELTA |        |  |       |         |     |
| 2       | 0         | 0       | -16.1       | 27.56       | -275.        | -23.         | 17.          | .55         | 55.49 | 129.22 |  |       |         |     |
| 3       | -20.0     | 0       | -173.9      | 96.25       | 1436.        | -93.         | -1.          | 8.06        | 55.39 | 129.10 |  |       |         |     |
| 4       | -10.0     | 0       | -118.3      | 47.02       | 957.         | -66.         | -24.         | 3.28        | 55.12 | 128.77 |  |       |         |     |
| 5       | 0         | 0       | -16.3       | 27.39       | -280.        | -20.         | -3.          | 2.58        | 55.52 | 129.26 |  |       |         |     |
| 6       | 10.0      | 0       | 108.1       | 37.16       | -1115.       | -5.          | 16.          | 1.90        | 55.44 | 129.16 |  |       |         |     |
| 7       | 20.0      | 0       | 183.8       | 77.65       | -735.        | -115.        | -32.         | 7.36        | 55.54 | 129.27 |  |       |         |     |
| 8       | -0        | 0       | -16.6       | 27.65       | -284.        | -20.         | 12.          | 3.44        | 55.44 | 129.16 |  |       |         |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | -.0436 | .0745 | -.0886 | -.0014 | .0010  | .0015 |
| 3    | -20.00 | -.4699 | .2601 | .4629  | -.0056 | -.0000 | .0218 |
| 4    | -10.00 | -.3197 | .1271 | .3087  | -.0040 | -.0014 | .0099 |
| 5    | 0.00   | -.0442 | .0740 | -.0902 | -.0012 | -.0002 | .0070 |
| 6    | 10.00  | .2922  | .1004 | -.3596 | -.0003 | .0010  | .0051 |
| 7    | 20.00  | .4966  | .2099 | -.2371 | -.0069 | -.0020 | .0199 |
| 8    | 0.00   | -.0449 | .0747 | -.0917 | -.0012 | .0008  | .0093 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | 0.00   | -.0436 | .0745 | -.0886 | -.0014 | .0010  | .0015 |
| 3    | -20.00 | -.4699 | .2601 | .4629  | -.0056 | -.0000 | .0218 |
| 4    | -10.00 | -.3197 | .1271 | .3087  | -.0040 | -.0014 | .0099 |
| 5    | 0.00   | -.0442 | .0740 | -.0902 | -.0012 | -.0002 | .0070 |
| 6    | 10.00  | .2922  | .1004 | -.3596 | -.0003 | .0010  | .0051 |
| 7    | 20.00  | .4966  | .2099 | -.2371 | -.0069 | -.0020 | .0199 |
| 8    | 0.00   | -.0449 | .0747 | -.0917 | -.0012 | .0008  | .0093 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P1043

RUN 1074 CONFIG F P B T60 BT

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CMREAR CU-FT | CYEAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------------|-----|
| 9       | -0.0      | .0      | -2.8        | 15.05       | 56.          | -52.         | 47.          | 4.57        | 55.11       | 128.77        | 0.  |
| 10      | -20.0     | .0      | -26.8       | 47.92       | 2163.        | -55.         | 55.          | 2.49        | 54.82       | 128.43        | 0.  |
| 11      | -15.0     | .0      | -65.5       | 35.04       | 2024.        | -59.         | 66.          | 2.37        | 54.73       | 128.32        | 0.  |
| 12      | -10.0     | .0      | -78.5       | 20.45       | 2009.        | -84.         | 66.          | 2.08        | 55.61       | 129.37        | 0.  |
| 13      | -5.0      | .0      | -11.5       | 15.55       | 1678.        | -84.         | 45.          | 5.29        | 54.71       | 128.29        | 0.  |
| 14      | -2.5      | .0      | -22.5       | 15.76       | 589.         | -91.         | 82.          | 4.01        | 55.28       | 128.97        | 0.  |
| 15      | .0        | .0      | -2.4        | 15.52       | 94.          | -52.         | 67.          | 5.89        | 55.53       | 129.27        | 0.  |
| 16      | 5.0       | .0      | 24.0        | 18.69       | -830.        | -9.          | 94.          | 3.36        | 55.71       | 129.49        | 0.  |
| 17      | 10.1      | .0      | 71.4        | 25.49       | -1737.       | -35.         | 45.          | 5.92        | 55.81       | 129.60        | 0.  |
| 18      | 15.0      | .0      | 84.2        | 40.31       | -2016.       | -112.        | 33.          | 9.47        | 55.74       | 129.51        | 0.  |
| 19      | 20.0      | .0      | 17.3        | 52.47       | -1975.       | -197.        | 20.          | 13.66       | 55.85       | 129.65        | 0.  |
| 20      | 25.0      | .0      | 38.5        | 64.67       | -1962.       | -136.        | 43.          | 12.59       | 55.47       | 129.20        | 0.  |
| 21      | 2.5       | .0      | 16.0        | 17.11       | -370.        | -24.         | 85.          | 2.66        | 55.04       | 128.69        | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM   | CY    |
|------|--------|--------|-------|--------|--------|-------|-------|
| 9    | -0.00  | -.0076 | .0434 | .0311  | -.0031 | .0025 | .0124 |
| 10   | -19.99 | -.2616 | .1295 | .6975  | -.0033 | .0039 | .0067 |
| 11   | -14.99 | -.2311 | .0963 | .6526  | -.0035 | .0040 | .0064 |
| 12   | -10.00 | -.2121 | .0553 | .6476  | -.0051 | .0040 | .0056 |
| 13   | -4.99  | -.1121 | .0453 | .3476  | -.0051 | .0027 | .0143 |
| 14   | -2.49  | -.0609 | .0426 | .1900  | -.0049 | .0050 | .0108 |
| 15   | .00    | -.0066 | .0430 | .0302  | -.0031 | .0035 | .0153 |
| 16   | 5.00   | .0920  | .0505 | -.2675 | -.0005 | .0051 | .0091 |
| 17   | 10.05  | .1931  | .0689 | -.5600 | -.0021 | .0025 | .0160 |
| 18   | 15.00  | .2277  | .1106 | -.6501 | -.0068 | .0020 | .0256 |
| 19   | 20.00  | .2358  | .1418 | -.6369 | -.0119 | .0012 | .0369 |
| 20   | 25.00  | .2396  | .1748 | -.6327 | -.0082 | .0020 | .0340 |
| 21   | 2.51   | .0432  | .0462 | -.1193 | -.0015 | .0051 | .0072 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDL   | CPMB   | CYMB   | CRMB  | CYB   |
|------|--------|--------|-------|--------|--------|-------|-------|
| 9    | -0.00  | -.0076 | .0434 | .0311  | -.0031 | .0025 | .0124 |
| 10   | -19.99 | -.2616 | .1295 | .6975  | -.0033 | .0039 | .0067 |
| 11   | -14.99 | -.2311 | .0963 | .6526  | -.0035 | .0040 | .0064 |
| 12   | -10.00 | -.2121 | .0553 | .6476  | -.0051 | .0040 | .0056 |
| 13   | -4.99  | -.1121 | .0453 | .3476  | -.0051 | .0027 | .0143 |
| 14   | -2.49  | -.0609 | .0426 | .1900  | -.0049 | .0050 | .0108 |
| 15   | .00    | -.0066 | .0430 | .0302  | -.0031 | .0035 | .0153 |
| 16   | 5.00   | .0920  | .0505 | -.2675 | -.0005 | .0051 | .0091 |
| 17   | 10.05  | .1931  | .0689 | -.5600 | -.0021 | .0025 | .0160 |
| 18   | 15.00  | .2277  | .1106 | -.6501 | -.0068 | .0020 | .0256 |
| 19   | 20.00  | .2358  | .1418 | -.6369 | -.0119 | .0012 | .0369 |
| 20   | 25.00  | .2396  | .1748 | -.6327 | -.0082 | .0020 | .0340 |
| 21   | 2.51   | .0432  | .0462 | -.1193 | -.0015 | .0051 | .0072 |

N432405-1

SIKORSKY RSRA 176 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1044

RUN 1075 CONFIC F P B TOL LT

| PT. NO. | ALPHA |       | DELA  |       | IHT   |        | O DELE |         | O DELR |        | O DELSB |         | RPM |
|---------|-------|-------|-------|-------|-------|--------|--------|---------|--------|--------|---------|---------|-----|
|         | DEG   | PSI   | SC-FT | CG-FT | CU-FT | CFM-FT | CU-FT  | CFM-FT  | CU-FT  | CFM-FT | PSF     | V KNOTS |     |
| 2       | .0    | -20.0 | 17.2  | 61.05 | -512. | 1521.  | -122.  | -153.29 | 54.58  | 128.13 |         | 0.      |     |
| 3       | .0    | -15.0 | 8.9   | 33.94 | -304. | 975.   | -49.   | -103.21 | 54.63  | 128.26 |         | 0.      |     |
| 4       | .0    | -10.0 | 4.2   | 23.93 | -153. | 410.   | 21.    | -61.39  | 55.43  | 129.15 |         | 0.      |     |
| 5       | .0    | -5.0  | .2    | 17.30 | -17.  | 162.   | 11.    | -27.89  | 55.82  | 129.61 |         | 0.      |     |
| 6       | .0    | -2.5  | -1.5  | 16.52 | 34.   | 77.    | 27.    | -12.35  | 55.17  | 128.84 |         | 0.      |     |
| 7       | .0    | .0    | -2.9  | 15.56 | 68.   | -46.   | 48.    | 3.09    | 56.16  | 130.02 |         | 0.      |     |
| 8       | .0    | 2.5   | -2.5  | 16.77 | 67.   | -137.  | 73.    | 21.26   | 55.44  | 129.17 |         | 0.      |     |
| 9       | .0    | 5.0   | -1.7  | 13.06 | 24.   | -206.  | 99.    | 36.35   | 55.66  | 129.43 |         | 0.      |     |
| 10      | .0    | 10.0  | 2.5   | 23.24 | -98.  | -507.  | 149.   | 72.26   | 54.73  | 129.31 |         | 0.      |     |
| 11      | .0    | 15.0  | 8.9   | 35.80 | -237. | -1048. | 262.   | 114.85  | 55.52  | 129.26 |         | 0.      |     |
| 12      | .0    | 20.0  | 15.1  | 57.59 | -403. | -1659. | 442.   | 158.21  | 55.75  | 129.52 |         | 0.      |     |
| 13      | .0    | .0    | -2.4  | 15.91 | 93.   | -47.   | 59.    | 9.41    | 55.60  | 129.23 |         | 0.      |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CFM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | -20.00 | .0466  | .1650 | -.1652 | .0918  | -.0074 | -.4143 |
| 3    | -15.00 | .0237  | .1090 | -.1091 | .0589  | -.0021 | -.2925 |
| 4    | -10.00 | .0113  | .0647 | -.0643 | .0243  | .0011  | -.1659 |
| 5    | -5.00  | .0007  | .0407 | -.0405 | .0093  | .0001  | -.0754 |
| 6    | -2.50  | -.0041 | .0447 | .0110  | .0046  | .0010  | -.0334 |
| 7    | .00    | -.0078 | .0421 | .0219  | -.0028 | .0023  | .0084  |
| 8    | 2.50   | -.0079 | .0403 | .0215  | -.0083 | .0044  | .0575  |
| 9    | 5.00   | -.0046 | .0436 | .0073  | -.0124 | .0054  | .0582  |
| 10   | 10.00  | .0000  | .0644 | -.0316 | -.0306 | .0097  | .1553  |
| 11   | 15.00  | .0237  | .0508 | -.0957 | -.0633 | .0151  | .3104  |
| 12   | 20.00  | .0408  | .1557 | -.1553 | -.0941 | .0267  | .4276  |
| 13   | .00    | -.0065 | .0430 | .0253  | -.0029 | .0030  | .0227  |

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\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CCD    | CFMD   | CYD    | CRMB  | CYB    |
|------|--------|--------|--------|--------|--------|-------|--------|
| 2    | -20.00 | .0466  | .1120  | -.1416 | .0918  | .0037 | -.4452 |
| 3    | -15.00 | .0237  | .0752  | -.0906 | .0589  | .0019 | -.3105 |
| 4    | -10.00 | .0113  | .0347  | -.0499 | .0243  | .0020 | -.1747 |
| 5    | -5.00  | .0007  | .0400  | -.0056 | .0093  | .0000 | -.0792 |
| 6    | -2.50  | -.0041 | .0431  | .0106  | .0046  | .0010 | -.0353 |
| 7    | .00    | -.0078 | .0421  | .0219  | -.0028 | .0023 | .0084  |
| 8    | 2.50   | -.0079 | .0428  | .0225  | -.0083 | .0044 | .0594  |
| 9    | 5.00   | -.0046 | .0400  | .0102  | -.0124 | .0055 | .1021  |
| 10   | 10.00  | .0000  | .0294  | -.1227 | -.0306 | .0070 | .2036  |
| 11   | 15.00  | .0237  | .0127  | -.0705 | -.0633 | .0100 | .3249  |
| 12   | 20.00  | .0408  | -.0007 | -.0974 | -.0941 | .0151 | .4550  |
| 13   | .00    | -.0065 | .0430  | .0253  | -.0029 | .0030 | .0227  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1045

RUN 1076 CONFIG F P B T50 BT

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR S3-FT | COBAR S3-FT | CPM BAR CU-FT | CYBAR CU-FT | CFM BAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|-------------|-------|---------|-----|
| 22      | .0        | .0      | -.3         | 14.53       | -11.          | -30.        | 28.           | 5.29        | 55.35 | 129.05  | 0.  |
| 24      | -20.0     | .0      | -43.8       | 25.54       | 707.          | -119.       | 94.           | 5.16        | 54.81 | 128.40  | 0.  |
| 25      | -15.0     | .0      | -39.0       | 18.76       | 792.          | -176.       | 113.          | 5.38        | 54.46 | 127.98  | 0.  |
| 26      | -10.0     | .0      | -26.1       | 14.39       | 577.          | -69.        | 42.           | 6.23        | 54.68 | 128.25  | 0.  |
| 27      | -5.0      | .0      | -13.0       | 14.08       | 270.          | -49.        | 30.           | 3.00        | 55.62 | 129.37  | 0.  |
| 28      | -2.5      | .0      | -6.9        | 14.21       | 136.          | -66.        | 45.           | 5.27        | 54.92 | 128.54  | 0.  |
| 29      | -.0       | .0      | -.3         | 14.02       | -14.          | -41.        | 30.           | 4.25        | 54.49 | 128.02  | 0.  |
| 30      | 2.5       | .0      | 5.0         | 15.21       | -134.         | 2.          | 32.           | 3.69        | 54.42 | 127.94  | 0.  |
| 31      | 5.0       | .0      | 10.5        | 15.09       | -247.         | 19.         | 15.           | 3.05        | 55.78 | 129.56  | 0.  |
| 32      | 10.0      | .0      | 22.1        | 17.71       | -489.         | 11.         | -3.           | 4.62        | 55.27 | 128.95  | 0.  |
| 33      | 15.0      | .0      | 34.8        | 21.28       | -715.         | -82.        | -2.           | 8.65        | 54.36 | 127.67  | 0.  |
| 34      | 20.0      | .0      | 38.5        | 25.39       | -816.         | -193.       | -51.          | 10.85       | 55.26 | 128.94  | 0.  |
| 35      | 25.0      | .0      | 44.4        | 33.97       | -660.         | -127.       | -28.          | 12.31       | 54.77 | 126.36  | 0.  |
| 36      | -2.5      | .0      | -6.7        | 14.21       | 141.          | -65.        | 30.           | 3.60        | 54.28 | 128.48  | 0.  |
| 37      | .0        | .0      | -.8         | 14.45       | -5.           | -33.        | 12.           | 4.34        | 54.39 | 128.50  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 22   | .00    | -.0009 | .0393 | -.0034 | -.0018 | .0017  | .0143 |
| 24   | -20.00 | -.1184 | .0690 | .2281  | -.0072 | .0057  | .0139 |
| 25   | -15.00 | -.1055 | .0508 | .2552  | -.0106 | .0065  | .0145 |
| 26   | -10.00 | -.0705 | .0405 | .1861  | -.0042 | .0025  | .0168 |
| 27   | -5.01  | -.0351 | .0381 | .0872  | -.0030 | .0019  | .0081 |
| 28   | -2.50  | -.0187 | .0384 | .0438  | -.0040 | .0027  | .0142 |
| 29   | -.01   | -.0007 | .0395 | -.0047 | -.0025 | .0019  | .0115 |
| 30   | 2.50   | .0135  | .0411 | -.0432 | .0001  | .0019  | .0100 |
| 31   | 5.00   | .0283  | .0424 | -.0796 | .0011  | .0005  | .0083 |
| 32   | 9.99   | .0598  | .0479 | -.1575 | .0007  | -.0002 | .0125 |
| 33   | 15.00  | .0940  | .0575 | -.2304 | -.0050 | -.0001 | .0234 |
| 34   | 19.99  | .1041  | .0686 | -.1987 | -.0120 | -.0031 | .0293 |
| 35   | 24.99  | .1199  | .0918 | -.2127 | -.0077 | -.0017 | .0333 |
| 36   | -2.50  | -.0181 | .0384 | .0455  | -.0039 | .0018  | .0097 |
| 37   | .00    | -.0021 | .0390 | -.0017 | -.0020 | .0007  | .0117 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 22   | .00    | -.0009 | .0393 | -.0034 | -.0018 | .0017  | .0143 |
| 24   | -20.00 | -.1184 | .0690 | .2281  | -.0072 | .0057  | .0139 |
| 25   | -15.00 | -.1055 | .0508 | .2552  | -.0106 | .0065  | .0145 |
| 26   | -10.00 | -.0705 | .0405 | .1861  | -.0042 | .0025  | .0168 |
| 27   | -5.01  | -.0351 | .0381 | .0872  | -.0030 | .0019  | .0081 |
| 28   | -2.50  | -.0187 | .0384 | .0438  | -.0040 | .0027  | .0142 |
| 29   | -.01   | -.0007 | .0395 | -.0047 | -.0025 | .0019  | .0115 |
| 30   | 2.50   | .0135  | .0411 | -.0432 | .0001  | .0019  | .0100 |
| 31   | 5.00   | .0283  | .0424 | -.0796 | .0011  | .0005  | .0083 |
| 32   | 9.99   | .0598  | .0479 | -.1575 | .0007  | -.0002 | .0125 |
| 33   | 15.00  | .0940  | .0575 | -.2304 | -.0050 | -.0001 | .0234 |
| 34   | 19.99  | .1041  | .0686 | -.1987 | -.0120 | -.0031 | .0293 |
| 35   | 24.99  | .1199  | .0918 | -.2127 | -.0077 | -.0017 | .0333 |
| 36   | -2.50  | -.0181 | .0384 | .0455  | -.0039 | .0018  | .0097 |
| 37   | .00    | -.0021 | .0390 | -.0017 | -.0020 | .0007  | .0117 |

N432402-1

SIKORSKY RSRA 1/8 SCALE MODE. TEST  
AERODYNAMIC DATA

SER-72011

P 1046

RUN 1077 CONFIG F P 3 TEL ET

| PT. NO. | ALPHA DEG | DELTA |             | DELTA        |              | DELTA        |              | DELTA          |              | DELTA         |     | Q PSF | V KNOTS | RPM |
|---------|-----------|-------|-------------|--------------|--------------|--------------|--------------|----------------|--------------|---------------|-----|-------|---------|-----|
|         |           | PSI   | CLBAR       | CDBAR        | CPM3BAR      | CYMBAR       | CRM3BAR      | CYBAR          | CL-FT        | SO-FT         | PSF |       |         |     |
| 2       | .0        | .0    | -1.0        | 14.40        | 6.           | -39.         | 12.          | 4.62           | 55.28        | 128.95        | 0.  |       |         |     |
| 3       | .0        | -20.1 | <b>23.3</b> | <b>58.69</b> | <b>-711.</b> | <b>1552.</b> | <b>-435.</b> | <b>-150.11</b> | <b>55.19</b> | <b>128.85</b> | 0.  |       |         |     |
| 4       | .0        | -15.0 | 11.5        | 37.36        | -417.        | 964.         | -280.        | -105.88        | 54.50        | 128.03        | 0.  |       |         |     |
| 5       | .0        | -10.0 | 4.9         | 22.51        | -192.        | 347.         | -129.        | -61.83         | 55.20        | 128.87        | 0.  |       |         |     |
| 6       | .0        | -5.0  | 1.6         | 16.44        | -86.         | 112.         | -77.         | -27.93         | 54.16        | 127.62        | 0.  |       |         |     |
| 7       | .0        | -2.5  | .5          | 15.02        | -47.         | 44.          | -50.         | -12.61         | 54.95        | 128.45        | 0.  |       |         |     |
| 8       | .0        | .0    | -.4         | 14.61        | -26.         | -27.         | -23.         | 4.44           | 54.48        | 128.01        | 0.  |       |         |     |
| 9       | .0        | 2.5   | -.6         | 15.20        | -30.         | -82.         | 8.           | 19.96          | 55.11        | 128.76        | 0.  |       |         |     |
| 10      | .0        | 5.0   | .7          | 16.47        | -67.         | -126.        | 61.          | 33.90          | 55.47        | 129.19        | 0.  |       |         |     |
| 11      | .0        | 10.1  | 5.1         | 22.24        | -219.        | -441.        | 97.          | 70.50          | 54.55        | 128.10        | 0.  |       |         |     |
| 12      | .0        | 15.0  | 14.6        | 34.10        | -507.        | -1011.       | 240.         | 112.67         | 55.15        | 128.80        | 0.  |       |         |     |
| 13      | .0        | 20.0  | 25.4        | 57.17        | -803.        | -1587.       | 411.         | 159.58         | 54.16        | 127.52        | 0.  |       |         |     |
| 14      | .0        | .0    | -.5         | 14.55        | -1.          | -40.         | -5.          | 3.58           | 55.20        | 128.87        | 0.  |       |         |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL           | CD           | CFM           | CYM          | CRM           | CY            |
|------|--------|--------------|--------------|---------------|--------------|---------------|---------------|
| 2    | .00    | -.0027       | .0389        | .0020         | -.0023       | .0007         | .0125         |
| 3    | -20.10 | <b>.0629</b> | <b>.0088</b> | <b>-.1660</b> | <b>.0934</b> | <b>-.0099</b> | <b>-.4344</b> |
| 4    | -15.00 | .0310        | .1010        | -.1345        | .0582        | -.0163        | -.2862        |
| 5    | -10.00 | .0132        | .0608        | -.0620        | .0210        | -.0070        | -.1671        |
| 6    | -5.00  | .0044        | .0444        | -.0278        | .0067        | -.0047        | -.0755        |
| 7    | -2.50  | .0012        | .0406        | -.0152        | .0026        | -.0030        | -.0341        |
| 8    | .00    | -.0010       | .0395        | -.0084        | -.0016       | -.0014        | .0120         |
| 9    | 2.50   | -.0017       | .0411        | -.0097        | -.0050       | .0005         | .0540         |
| 10   | 5.00   | .0020        | .0445        | -.0214        | -.0076       | .0037         | .0916         |
| 11   | 10.10  | .0138        | .0661        | -.0706        | -.0266       | .0055         | .1905         |
| 12   | 15.00  | .0395        | .0922        | -.1636        | -.0611       | .0145         | .3045         |
| 13   | 20.00  | .0686        | .1545        | -.2590        | -.0959       | .0248         | .4313         |
| 14   | .00    | -.0014       | .0393        | -.0004        | -.0024       | -.0003        | .0097         |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB          | CDL          | CFMB          | CYMB         | CRMB          | CYB           |
|------|--------|--------------|--------------|---------------|--------------|---------------|---------------|
| 2    | .00    | -.0027       | .0389        | .0020         | -.0023       | .0007         | .0125         |
| 3    | -20.10 | <b>.0629</b> | <b>.1582</b> | <b>-.2285</b> | <b>.0934</b> | <b>-.0263</b> | <b>-.4046</b> |
| 4    | -15.00 | .0310        | .0231        | -.1065        | .0582        | -.0099        | -.3026        |
| 5    | -10.00 | .0132        | .0307        | -.0538        | .0210        | -.0056        | -.1752        |
| 6    | -5.00  | .0044        | .0377        | -.0255        | .0067        | -.0042        | -.0791        |
| 7    | -2.50  | .0012        | .0391        | -.0145        | .0026        | -.0025        | -.0358        |
| 8    | .00    | -.0010       | .0395        | -.0084        | -.0016       | -.0014        | .0120         |
| 9    | 2.50   | -.0017       | .0387        | -.0095        | -.0050       | .0005         | .0557         |
| 10   | 5.00   | .0020        | .0363        | -.0196        | -.0076       | .0033         | .0952         |
| 11   | 10.10  | .0138        | .0256        | -.0640        | -.0266       | .0034         | .1981         |
| 12   | 15.00  | .0395        | .0098        | -.1378        | -.0611       | .0060         | .3180         |
| 13   | 20.00  | .0686        | -.0030       | -.1978        | -.0959       | .0060         | .4581         |
| 14   | .00    | -.0014       | .0393        | -.0004        | -.0024       | -.0003        | .0097         |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1047

RUN 1078 CONFIG F P S T50 ST

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CFMBAR CU-FT | CYBAR SQ-FT | DELTA G | DELTA V | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|---------|---------|-----|
| 1       | 10.0      | .0      | 22.5        | 18.07       | -459.        | 1.           | 15.          | 4.29        | 54.73   | 128.30  | 0.  |
| 2       | 10.0      | -20.0   | 45.4        | 66.25       | -1233.       | 1351.        | -135.        | -152.44     | 55.51   | 129.23  | 0.  |
| 3       | 10.0      | -15.0   | 37.9        | 46.09       | -1043.       | 723.         | -131.        | -115.01     | 54.65   | 128.21  | 0.  |
| 4       | 10.0      | -10.0   | 29.5        | 29.63       | -786.        | 243.         | -82.         | -69.70      | 54.59   | 128.14  | 0.  |
| 5       | 10.0      | -5.0    | 25.8        | 20.23       | -600.        | -20.         | -42.         | -29.90      | 55.02   | 128.65  | 0.  |
| 6       | 10.0      | -2.5    | 23.9        | 18.49       | -527.        | -25.         | -42.         | -13.35      | 54.86   | 128.47  | 0.  |
| 7       | 10.0      | .0      | 22.5        | 17.88       | -479.        | 1.           | -36.         | 4.27        | 55.07   | 128.71  | 0.  |
| 8       | 10.0      | 2.5     | 22.8        | 18.49       | -501.        | -1.          | -12.         | 20.08       | 55.65   | 129.40  | 0.  |
| 9       | 10.0      | 5.0     | 24.2        | 21.62       | -593.        | -53.         | -21.         | 39.66       | 54.72   | 128.29  | 0.  |
| 10      | 10.0      | 10.2    | 30.5        | 30.32       | -848.        | -386.        | 41.          | 78.51       | 55.45   | 129.16  | 0.  |
| 11      | 10.0      | 15.0    | 38.4        | 45.17       | -1103.       | -887.        | 77.          | 120.75      | 54.81   | 128.40  | 0.  |
| 12      | 10.0      | 20.1    | 45.1        | 66.98       | -1305.       | -1451.       | 196.         | 162.26      | 55.09   | 129.73  | 0.  |
| 13      | 10.0      | .0      | 22.3        | 18.04       | -453.        | -4.          | -20.         | 4.46        | 55.00   | 128.63  | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 1    | .00    | .0609 | .0468 | -.1481 | .0001  | .0001  | .0116  |
| 2    | -20.00 | .1227 | .1791 | -.3976 | .0816  | -.0116 | -.4120 |
| 3    | -15.00 | .1025 | .1246 | -.3364 | .0437  | -.0075 | -.3108 |
| 4    | -10.00 | .0797 | .0801 | -.2533 | .0146  | -.0049 | -.1884 |
| 5    | -5.00  | .0697 | .0547 | -.1935 | -.0012 | -.0021 | -.0808 |
| 6    | -2.50  | .0647 | .0500 | -.1700 | -.0015 | -.0025 | -.0361 |
| 7    | .00    | .0609 | .0483 | -.1545 | .0001  | -.0023 | .0115  |
| 8    | 2.50   | .0616 | .0500 | -.1616 | -.0001 | -.0007 | .0543  |
| 9    | 5.00   | .0653 | .0584 | -.1912 | -.0032 | -.0011 | .1072  |
| 10   | 10.20  | .0824 | .0820 | -.2733 | -.0233 | .0025  | .2122  |
| 11   | 15.00  | .1039 | .1221 | -.3554 | -.0536 | .0048  | .3264  |
| 12   | 20.10  | .1218 | .1808 | -.4208 | -.0877 | .0113  | .4385  |
| 13   | .00    | .0604 | .0487 | -.1461 | -.0002 | -.0011 | .0121  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CFMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 1    | .00    | .0609 | .0468 | -.1481 | .0001  | .0001  | .0116  |
| 2    | -20.00 | .1227 | .0266 | -.3519 | .0816  | .0145  | -.4484 |
| 3    | -15.00 | .1025 | .0395 | -.3139 | .0437  | .0089  | -.3325 |
| 4    | -10.00 | .0797 | .0460 | -.2448 | .0146  | .0034  | -.1995 |
| 5    | -5.00  | .0697 | .0474 | -.1916 | -.0012 | .0008  | -.0853 |
| 6    | -2.50  | .0647 | .0493 | -.1692 | -.0015 | -.0011 | -.0382 |
| 7    | .00    | .0609 | .0483 | -.1545 | .0001  | -.0023 | .0115  |
| 8    | 2.50   | .0616 | .0476 | -.1616 | -.0001 | -.0020 | .0564  |
| 9    | 5.00   | .0653 | .0489 | -.1910 | -.0032 | -.0044 | .1119  |
| 10   | 10.20  | .0824 | .0429 | -.2666 | -.0233 | -.0067 | .2234  |
| 11   | 15.00  | .1039 | .0330 | -.3368 | -.0536 | -.0122 | .3462  |
| 12   | 20.10  | .1218 | .0183 | -.3732 | -.0877 | -.0161 | .4740  |
| 13   | .00    | .0604 | .0487 | -.1461 | -.0002 | -.0012 | .0121  |

N43240E-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1048

RUN 1079 CONFIG F P E ISC DT

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SC-FT | CDBAR SQ-FT | CFMBAR CU-FT | CYMBAR CU-FT | COMBAR CL-FT | CYBAR SQ-FT | DELTA | IHT     | DELTA | DELTA | DELTA | DELTA | DELTA | DELTA | DELTA | DELTA | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| 1       | -10.0     | .0      | -25.6       | 15.55       | 598.         | -93.         | 27.          | 4.51        | 55.11 | 128.76  | 0.    |       |       |       |       |       |       |       | 0.  |
| 2       | -10.0     | -20.2   | 4.6         | 66.72       | -209.        | 2114.        | -802.        | -175.83     | 54.19 | 127.65  | 0.    |       |       |       |       |       |       |       | 0.  |
| 3       | -10.0     | -14.9   | -3.8        | 43.33       | 80.          | 1571.        | -569.        | -125.83     | 54.36 | 127.86  | 0.    |       |       |       |       |       |       |       | 0.  |
| 4       | -10.0     | -10.0   | -17.4       | 27.72       | 308.         | 879.         | -314.        | -74.72      | 55.71 | 129.47  | 0.    |       |       |       |       |       |       |       | 0.  |
| 5       | -10.0     | -5.0    | -21.9       | 19.32       | 464.         | 382.         | -139.        | -38.43      | 55.05 | 128.69  | 0.    |       |       |       |       |       |       |       | 0.  |
| 6       | -10.0     | -2.5    | -24.2       | 16.51       | 532.         | 179.         | -62.         | -19.30      | 55.24 | 128.92  | 0.    |       |       |       |       |       |       |       | 0.  |
| 7       | -10.0     | .0      | -25.9       | 15.68       | 579.         | -64.         | -13.         | 7.08        | 54.81 | 128.40  | 0.    |       |       |       |       |       |       |       | 0.  |
| 8       | -10.0     | -2.5    | -23.6       | 16.81       | 547.         | 142.         | -29.         | -17.85      | 55.34 | 129.02  | 0.    |       |       |       |       |       |       |       | 0.  |
| 9       | -10.0     | -5.0    | -22.0       | 19.53       | 484.         | 359.         | -122.        | -37.81      | 54.96 | 128.58. | 0.    |       |       |       |       |       |       |       | 0.  |
| 10      | -10.0     | 2.5     | -25.2       | 16.58       | 557.         | -195.        | 10.          | 20.28       | 55.77 | 129.54  | 0.    |       |       |       |       |       |       |       | 0.  |
| 11      | -10.0     | 5.0     | -24.1       | 18.74       | 512.         | -411.        | 109.         | 40.51       | 55.83 | 129.62  | 0.    |       |       |       |       |       |       |       | 0.  |
| 12      | -10.0     | 10.1    | -18.3       | 25.54       | 285.         | -849.        | 223.         | 84.28       | 55.62 | 129.36  | 0.    |       |       |       |       |       |       |       | 0.  |
| 13      | -10.0     | 15.0    | -8.1        | 39.36       | -9.          | -1214.       | 359.         | 126.66      | 55.08 | 128.72  | 0.    |       |       |       |       |       |       |       | 0.  |
| 14      | -10.0     | 20.1    | 3.2         | 64.44       | -268.        | -1635.       | 532.         | 170.12      | 55.09 | 128.73  | 0.    |       |       |       |       |       |       |       | 0.  |
| 15      | -10.0     | .0      | -25.5       | 15.45       | 596.         | -103.        | 24.          | 5.78        | 55.44 | 129.15  | 0.    |       |       |       |       |       |       |       | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CFM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 1    | .00    | -.0691 | .0420 | .1928  | -.0056 | .0016  | .0122  |
| 2    | -20.20 | .0125  | .0043 | -.0675 | .1277  | -.0485 | -.4752 |
| 3    | -14.90 | -.0233 | .1171 | .0259  | .0949  | -.0344 | -.3401 |
| 4    | -10.00 | -.0472 | .0749 | .0992  | .0531  | -.0190 | -.2015 |
| 5    | -5.00  | -.0593 | .0522 | .1495  | .0231  | -.0084 | -.1039 |
| 6    | -2.50  | -.0655 | .0457 | .1716  | .0108  | -.0037 | -.0522 |
| 7    | .00    | -.0701 | .0424 | .1868  | -.0038 | -.0005 | .0191  |
| 8    | -2.50  | -.0644 | .0454 | .1763  | .0086  | -.0015 | -.0482 |
| 9    | -5.00  | -.0596 | .0523 | .1561  | .0217  | -.0074 | -.1022 |
| 10   | 2.50   | -.0681 | .0448 | .1828  | -.0118 | .0006  | .0542  |
| 11   | 5.00   | -.0652 | .0507 | .1643  | -.0249 | .0066  | .1095  |
| 12   | 10.10  | -.0494 | .0701 | -.0922 | -.0513 | .0135  | .2278  |
| 13   | 15.00  | -.0219 | .1077 | -.0028 | -.0733 | .0217  | .3423  |
| 14   | 20.10  | .0086  | .1742 | -.0862 | -.0988 | .0321  | .4598  |
| 15   | .00    | -.0688 | .0418 | .1923  | -.0062 | .0015  | .0156  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CCB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 1    | .00    | -.0691 | .0420 | .1928  | -.0056 | .0016  | .0122  |
| 2    | -20.20 | .0125  | .0043 | .0254  | .1277  | -.0411 | -.5083 |
| 3    | -14.90 | -.0238 | .0253 | .0724  | .0949  | -.0345 | -.3588 |
| 4    | -10.00 | -.0472 | .0385 | .1154  | .0531  | -.0215 | -.2115 |
| 5    | -5.00  | -.0593 | .0429 | .1529  | .0231  | -.0108 | -.1080 |
| 6    | -2.50  | -.0655 | .0434 | .1723  | .0108  | -.0051 | -.0541 |
| 7    | .00    | -.0701 | .0424 | .1868  | -.0038 | -.0002 | .0191  |
| 8    | -2.50  | -.0644 | .0433 | .1765  | .0086  | -.0037 | -.0502 |
| 9    | -5.00  | -.0596 | .0436 | .1590  | .0217  | -.0093 | -.1064 |
| 10   | 2.50   | -.0681 | .0424 | .1827  | -.0118 | .0021  | .0567  |
| 11   | 5.00   | -.0652 | .0409 | .1674  | -.0249 | .0092  | .1135  |
| 12   | 10.10  | -.0494 | .0289 | .1034  | -.0513 | .0163  | .2366  |
| 13   | 15.00  | -.0219 | .0150 | .0274  | -.0733 | .0203  | .3586  |
| 14   | 20.10  | .0086  | .0048 | -.0217 | -.0988 | .0241  | .4916  |
| 15   | .00    | -.0688 | .0418 | .1923  | -.0062 | .0015  | .0156  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODE TEST  
AERODYNAMIC DATA

SER-72011

P1049

RUN 1080 CONFIG F P 3 TEST BT

| PT. # | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDSBAR SQ-FT | CFMBAR CU-FT | CYMBAR CU-FT | CYMBAR CL-FT | CYBAR SQ-FT | DELTA G | DELTA V | RPM |
|-------|-----------|---------|-------------|--------------|--------------|--------------|--------------|-------------|---------|---------|-----|
| 3     | .0        | .0      | -1.1        | 14.75        | 29.          | -12.         | -7.          | 5.39        | 5.05    | 38.67   | 0.  |
| 5     | .0        | .0      | -1.1        | 14.41        | 29.          | 21.          | -3.          | 2.21        | 6.15    | 42.67   | 0.  |
| 6     | .0        | .0      | -.9         | 14.52        | 20.          | -11.         | -7.          | 5.92        | 9.79    | 53.86   | 0.  |
| 7     | .0        | .0      | -.8         | 14.43        | 14.          | -7.          | -5.          | 3.76        | 15.39   | 67.59   | 0.  |
| 8     | .0        | .0      | -.8         | 14.39        | 12.          | -7.          | -5.          | 4.31        | 20.57   | 78.21   | 0.  |
| 9     | .0        | .0      | -.5         | 14.07        | 1.           | -22.         | -4.          | 3.45        | 31.64   | 97.18   | 0.  |
| 10    | .0        | .0      | -.2         | 14.30        | 7.           | -29.         | 20.          | 3.06        | 41.12   | 110.97  | 0.  |
| 11    | .0        | .0      | -.9         | 14.50        | 2.           | -34.         | 14.          | 3.57        | 51.46   | 124.34  | 0.  |
| 12    | .0        | .0      | -.4         | 14.28        | -5.          | -32.         | 25.          | 4.70        | 62.37   | 137.14  | 0.  |
| 13    | .0        | .0      | -.3         | 14.58        | -10.         | -32.         | -4.          | 2.85        | 75.44   | 152.18  | 0.  |
| 14    | .0        | .0      | -.5         | 14.75        | -13.         | -38.         | 10.          | 2.03        | 77.11   | 152.87  | 0.  |

\*\*\* COEFFICIENT FOR - WIND AXIS

| PT. # | ALPHA | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|-------|-------|--------|-------|--------|--------|--------|-------|
| 3     | .00   | -.0030 | .0399 | .0094  | -.0007 | -.0004 | .0146 |
| 5     | .00   | -.0030 | .0389 | .0093  | .0012  | -.0002 | .0060 |
| 6     | .00   | -.0025 | .0392 | .0063  | -.0006 | -.0005 | .0160 |
| 7     | .00   | -.0022 | .0390 | .0045  | -.0004 | -.0003 | .0102 |
| 8     | .00   | -.0021 | .0389 | .0039  | -.0004 | -.0003 | .0116 |
| 9     | .00   | -.0015 | .0380 | .0002  | -.0013 | -.0003 | .0093 |
| 10    | .00   | -.0006 | .0387 | .0022  | -.0017 | .0012  | .0083 |
| 11    | .00   | -.0025 | .0392 | .0006  | -.0021 | .0008  | .0107 |
| 12    | .00   | -.0012 | .0386 | -.0015 | -.0019 | .0015  | .0127 |
| 13    | .00   | -.0009 | .0394 | -.0032 | -.0019 | -.0002 | .0077 |
| 14    | .00   | -.0014 | .0399 | -.0040 | -.0023 | .0006  | .0055 |

\*\*\* COEFFICIENT FOR - STABILITY AXIS

| PT. # | ALPHA | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|-------|-------|--------|-------|--------|--------|--------|-------|
| 3     | .00   | -.0030 | .0399 | .0094  | -.0007 | -.0004 | .0146 |
| 5     | .00   | -.0030 | .0399 | .0093  | .0012  | -.0002 | .0060 |
| 6     | .00   | -.0025 | .0392 | .0063  | -.0006 | -.0005 | .0160 |
| 7     | .00   | -.0022 | .0390 | .0045  | -.0004 | -.0003 | .0102 |
| 8     | .00   | -.0021 | .0389 | .0039  | -.0004 | -.0003 | .0116 |
| 9     | .00   | -.0015 | .0380 | .0002  | -.0013 | -.0003 | .0093 |
| 10    | .00   | -.0006 | .0387 | .0022  | -.0017 | .0012  | .0083 |
| 11    | .00   | -.0025 | .0392 | .0006  | -.0021 | .0008  | .0107 |
| 12    | .00   | -.0012 | .0386 | -.0015 | -.0019 | .0015  | .0127 |
| 13    | .00   | -.0009 | .0394 | -.0032 | -.0019 | -.0002 | .0077 |
| 14    | .00   | -.0014 | .0399 | -.0040 | -.0023 | .0006  | .0055 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODE TEST  
AERODYNAMIC DATA

SER-72011

P1050

RUN INDEL CONFIG F F E TEL DT

| PT. NO. | INW | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CMBAR CL-FT | CYSBAR SQ-FT | Q DELTS5 PSF | U V KNOTS | RPM |
|---------|-----|-----------|---------------|-------------|-------------|--------------|--------------|-------------|--------------|--------------|-----------|-----|
| 1       |     | .0        | 5.0           | .8          | 17.69       | -52.         | -114.        | 58.         | 38.78        | 53.94        | 127.36    | 0.  |
| 2       |     | -10.0     | 5.0           | -47.5       | 30.19       | 707.         | -409.        | 145.        | 42.91        | 53.83        | 127.23    | 0.  |
| 3       |     | -15.0     | 5.0           | -37.3       | 21.38       | 637.         | -473.        | 125.        | 44.21        | 56.43        | 130.32    | 0.  |
| 4       |     | -10.0     | 5.0           | -24.1       | 18.43       | 502.         | -417.        | 117.        | 38.41        | 56.05        | 129.87    | 0.  |
| 5       |     | -5.0      | 5.0           | -10.7       | 17.94       | 197.         | -258.        | 82.         | 35.94        | 55.54        | 129.27    | 0.  |
| 6       |     | -2.5      | 5.0           | -5.0        | 17.23       | 71.          | -196.        | 55.         | 35.14        | 55.06        | 128.70    | 0.  |
| 7       |     | -0.0      | 5.0           | .8          | 17.63       | -57.         | -127.        | 61.         | 35.24        | 55.00        | 129.63    | 0.  |
| 8       |     | 2.5       | 5.0           | 6.5         | 17.55       | -186.        | -67.         | 48.         | 36.02        | 55.42        | 129.13    | 0.  |
| 9       |     | 5.0       | 5.0           | 11.0        | 19.15       | -289.        | -33.         | 20.         | 35.68        | 55.37        | 129.08    | 0.  |
| 10      |     | 10.0      | 5.0           | 23.2        | 21.38       | -598.        | -50.         | 12.         | 39.53        | 55.45        | 129.22    | 0.  |
| 11      |     | 15.0      | 5.0           | 36.0        | 26.32       | -815.        | -325.        | -64.        | 51.20        | 54.42        | 127.34    | 0.  |
| 13      |     | 25.0      | 5.0           | 44.3        | 38.89       | -687.        | -486.        | -205.       | 62.09        | 55.19        | 128.86    | 0.  |
| 14      |     | 20.0      | 5.0           | 42.8        | 31.74       | -839.        | -580.        | -147.       | 61.46        | 54.33        | 128.54    | 0.  |
| 15      |     | .0        | 5.0           | 1.0         | 17.52       | -63.         | -129.        | 50.         | 35.16        | 55.41        | 129.12    | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CFM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 1    | .00    | .0020  | .0478 | -.0168 | -.0069 | .0037  | .1048 |
| 2    | -19.99 | -.1286 | .0816 | .2290  | -.0247 | .0081  | .1160 |
| 3    | -15.00 | -.1009 | .0578 | .2215  | -.0286 | .0076  | .1214 |
| 4    | -10.00 | -.0652 | .0498 | .1620  | -.0252 | .0071  | .1038 |
| 5    | -5.00  | -.0289 | .0435 | .0635  | -.0156 | .0047  | .0971 |
| 6    | -2.50  | -.0136 | .0466 | .0227  | -.0119 | .0033  | .0950 |
| 7    | -0.00  | .0023  | .0476 | -.0183 | -.0077 | .0037  | .0953 |
| 8    | 2.51   | .0178  | .0485 | -.0600 | -.0041 | .0023  | .0973 |
| 9    | 5.00   | .0314  | .0513 | -.0931 | -.0020 | .0012  | .0964 |
| 10   | 10.00  | .0645  | .0578 | -.1927 | -.0030 | .0007  | .1058 |
| 11   | 15.00  | .0974  | .0711 | -.2627 | -.0196 | -.0033 | .1384 |
| 13   | 25.00  | .1197  | .1051 | -.2216 | -.0294 | -.0127 | .1678 |
| 14   | 20.00  | .1157  | .0858 | -.2705 | -.0351 | -.0087 | .1661 |
| 15   | .00    | .0026  | .0474 | -.0202 | -.0073 | .0037  | .0950 |

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\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CLD   | CPMB   | CYMB   | CRM2   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 1    | .00    | .0020  | .0394 | -.0151 | -.0069 | .0037  | .1086 |
| 2    | -19.99 | -.1286 | .0711 | .2313  | -.0247 | .0125  | .1227 |
| 3    | -15.00 | -.1009 | .0469 | .2242  | -.0286 | .0112  | .1260 |
| 4    | -10.00 | -.0652 | .0405 | .1646  | -.0252 | .0093  | .1078 |
| 5    | -5.00  | -.0289 | .0393 | .0655  | -.0156 | .0060  | .1010 |
| 6    | -2.50  | -.0136 | .0381 | .0242  | -.0119 | .0037  | .0987 |
| 7    | -0.00  | .0023  | .0391 | -.0165 | -.0077 | .0034  | .0991 |
| 8    | 2.51   | .0178  | .0398 | -.0584 | -.0041 | .0015  | .1012 |
| 9    | 5.00   | .0314  | .0431 | -.0922 | -.0020 | -.0004 | .1006 |
| 10   | 10.00  | .0645  | .0482 | -.1917 | -.0030 | -.0024 | .1115 |
| 11   | 15.00  | .0974  | .0587 | -.2635 | -.0196 | -.0082 | .1441 |
| 13   | 25.00  | .1197  | .0900 | -.2266 | -.0294 | -.0160 | .1764 |
| 14   | 20.00  | .1157  | .0709 | -.2735 | -.0351 | -.0137 | .1730 |
| 15   | .00    | .0026  | .0399 | -.0185 | -.0073 | .0037  | .0988 |



N432409-1

SIKORSKY FSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P 1051

RUN 1082 CONFIG F P 3 TEST 3T

| PT. NO. | INW       | * DELTA | DELA        | * IHT       | O DELE       | * DELR       | O DELSR      | O           | RPM   |         |    |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | G PSF | V KNOTS |    |
| 2       | .0        | .0      | 8.3         | 14.95       | -395.        | -50.         | 47.          | 4.19        | 56.11 | 129.93  | 0. |
| 3       | -20.0     | .0      | -42.2       | 22.19       | 529.         | -2.          | -29.         | -2.50       | 55.78 | 129.56  | 0. |
| 4       | -15.0     | .0      | -29.6       | 16.80       | 383.         | -21.         | -7.          | 3.31        | 55.58 | 129.31  | 0. |
| 5       | -10.0     | .0      | -15.3       | 13.33       | 97.          | -71.         | 58.          | 5.87        | 56.30 | 130.15  | 0. |
| 6       | -5.0      | .0      | -3.3        | 13.76       | -150.        | -54.         | 32.          | 1.56        | 56.64 | 130.55  | 0. |
| 7       | -2.5      | .0      | 2.6         | 14.04       | -275.        | -53.         | 46.          | 4.59        | 55.67 | 129.40  | 0. |
| 8       | -0.0      | .0      | 7.6         | 14.30       | -394.        | -30.         | 47.          | 4.02        | 55.92 | 129.69  | 0. |
| 9       | 2.5       | .0      | 13.4        | 14.39       | -513.        | -0.          | 48.          | 2.84        | 56.35 | 130.20  | 0. |
| 10      | 5.0       | .0      | 18.9        | 16.10       | -639.        | 11.          | 49.          | 3.59        | 56.04 | 129.82  | 0. |
| 11      | 10.0      | .0      | 30.0        | 18.72       | -869.        | 1.           | 14.          | 6.17        | 55.78 | 129.52  | 0. |
| 12      | 15.0      | .0      | 35.9        | 23.76       | -916.        | -115.        | -19.         | 8.84        | 55.90 | 129.65  | 0. |
| 13      | 20.0      | .0      | 37.8        | 28.08       | -645.        | -195.        | -32.         | 11.46       | 55.91 | 129.66  | 0. |
| 14      | 25.0      | .0      | 42.9        | 36.13       | -637.        | -134.        | -27.         | 13.02       | 55.44 | 129.12  | 0. |
| 15      | .0        | .0      | 7.7         | 14.01       | -380.        | -35.         | 28.          | 5.13        | 55.82 | 129.55  | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CFM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0224  | .0303 | -.1274 | -.0013 | .0021  | .0113  |
| 3    | -20.00 | -.1142 | .0600 | .1704  | -.0001 | -.0014 | -.0068 |
| 4    | -15.00 | -.0800 | .0456 | .1234  | -.0013 | -.0004 | .0089  |
| 5    | -10.01 | -.0413 | .0374 | .0313  | -.0043 | .0030  | .0159  |
| 6    | -5.01  | -.0088 | .0372 | -.0483 | -.0033 | .0014  | .0042  |
| 7    | -2.51  | .0070  | .0380 | -.0886 | -.0032 | .0028  | .0124  |
| 8    | -.01   | .0206  | .0386 | -.1271 | -.0018 | .0021  | .0109  |
| 9    | 2.51   | .0363  | .0405 | -.1655 | -.0000 | .0024  | .0077  |
| 10   | 5.00   | .0512  | .0435 | -.2060 | .0007  | .0021  | .0097  |
| 11   | 10.00  | .0810  | .0506 | -.2801 | .0000  | .0000  | .0167  |
| 12   | 15.00  | .0971  | .0642 | -.2629 | -.0069 | -.0012 | .0239  |
| 13   | 20.00  | .1022  | .0759 | -.2078 | -.0118 | -.0020 | .0310  |
| 14   | 25.00  | .1159  | .0974 | -.2054 | -.0081 | -.0016 | .0352  |
| 15   | .00    | .0208  | .0379 | -.1226 | -.0021 | .0017  | .0139  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CFMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0224  | .0393 | -.1274 | -.0018 | .0021  | .0113  |
| 3    | -20.00 | -.1142 | .0600 | .1704  | -.0001 | -.0014 | -.0068 |
| 4    | -15.00 | -.0800 | .0456 | .1234  | -.0013 | -.0004 | .0089  |
| 5    | -10.01 | -.0413 | .0374 | .0313  | -.0043 | .0030  | .0159  |
| 6    | -5.01  | -.0088 | .0372 | -.0483 | -.0033 | .0014  | .0042  |
| 7    | -2.51  | .0070  | .0380 | -.0886 | -.0032 | .0028  | .0124  |
| 8    | -.01   | .0206  | .0386 | -.1271 | -.0018 | .0021  | .0109  |
| 9    | 2.51   | .0363  | .0405 | -.1655 | -.0000 | .0024  | .0077  |
| 10   | 5.00   | .0512  | .0435 | -.2060 | .0007  | .0021  | .0097  |
| 11   | 10.00  | .0810  | .0506 | -.2801 | .0000  | .0000  | .0167  |
| 12   | 15.00  | .0971  | .0642 | -.2629 | -.0069 | -.0012 | .0239  |
| 13   | 20.00  | .1022  | .0759 | -.2078 | -.0118 | -.0020 | .0310  |
| 14   | 25.00  | .1159  | .0974 | -.2054 | -.0081 | -.0016 | .0352  |
| 15   | .00    | .0208  | .0379 | -.1226 | -.0021 | .0017  | .0139  |

N432405-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1052

RUN 1083 CONFIG F P B TSC BT

| PT. NO. | IK | ALPHA DEG | * DELF PSI DEG | DELA SQ-FT | * IHT SQ-FT | -10 DELE CU-FT | * DELR CM BAR | D DELSB SQ-FT | D PSF | D V KNOTS | RPM    |    |
|---------|----|-----------|----------------|------------|-------------|----------------|---------------|---------------|-------|-----------|--------|----|
| 2       |    | .0        | .0             | -18.3      | 15.37       | 828.           | 26.           | -37.          | 2.14  | 55.84     | 129.58 | 0. |
| 4       |    | -20.0     | .0             | -34.4      | 30.29       | 538.           | -66.          | 61.           | 3.78  | 55.94     | 129.70 | 0. |
| 5       |    | -15.0     | .0             | -27.9      | 24.45       | 510.           | -58.          | 28.           | 3.32  | 55.32     | 128.96 | 0. |
| 6       |    | -10.0     | .0             | -23.1      | 20.13       | 573.           | -35.          | -8.           | 4.14  | 55.16     | 128.77 | 0. |
| 7       |    | -5.0      | .0             | -25.4      | 17.11       | 896.           | -56.          | -4.           | 2.33  | 55.67     | 129.37 | 0. |
| 8       |    | -2.5      | .0             | -24.3      | 15.48       | 964.           | 30.           | -42.          | 5.17  | 56.04     | 129.80 | 0. |
| 9       |    | -.0       | .0             | -18.0      | 15.08       | 811.           | 21.           | -5.           | 3.72  | 54.91     | 128.47 | 0. |
| 10      |    | 2.5       | .0             | -12.0      | 14.81       | 650.           | 27.           | -3.           | 2.34  | 55.40     | 129.05 | 0. |
| 11      |    | 5.0       | .0             | -5.9       | 15.11       | 524.           | 15.           | -3.           | 2.84  | 55.27     | 128.89 | 0. |
| 12      |    | 10.0      | .0             | 4.9        | 15.73       | 314.           | -25.          | -20.          | 5.08  | 55.62     | 129.31 | 0. |
| 13      |    | 15.0      | .0             | 16.9       | 17.94       | 78.            | -116.         | -37.          | 9.67  | 55.68     | 129.38 | 0. |
| 14      |    | 20.0      | .0             | 27.1       | 21.28       | -74.           | -193.         | -67.          | 13.15 | 55.44     | 129.10 | 0. |
| 15      |    | 25.0      | .0             | 37.2       | 25.04       | -277.          | -154.         | -62.          | 11.47 | 55.83     | 129.56 | 0. |
| 16      |    | -.0       | .0             | -17.8      | 14.91       | 804.           | 19.           | -39.          | 3.05  | 55.85     | 129.58 | 0. |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | -.0495 | .0415 | .2668  | .0016  | -.0023 | .0058 |
| 4    | -20.00 | -.0931 | .0819 | .1734  | -.0040 | .0037  | .0102 |
| 5    | -15.00 | -.0755 | .0661 | .1643  | -.0035 | .0017  | .0090 |
| 6    | -10.01 | -.0625 | .0544 | .1846  | -.0021 | -.0005 | .0112 |
| 7    | -5.00  | -.0687 | .0462 | .2889  | -.0034 | -.0002 | .0063 |
| 8    | -2.50  | -.0656 | .0419 | .3107  | .0018  | -.0021 | .0140 |
| 9    | -.00   | -.0487 | .0407 | .2615  | .0012  | -.0003 | .0101 |
| 10   | 2.50   | -.0325 | .0400 | .2095  | .0016  | -.0002 | .0063 |
| 11   | 4.99   | -.0159 | .0408 | .1690  | .0009  | -.0002 | .0077 |
| 12   | 10.00  | .0133  | .0425 | .1013  | -.0016 | -.0017 | .0137 |
| 13   | 15.00  | .0458  | .0485 | .0251  | -.0070 | -.0022 | .0261 |
| 14   | 19.99  | .0731  | .0575 | -.0239 | -.0110 | -.0041 | .0355 |
| 15   | 25.00  | .1006  | .0704 | -.0895 | -.0093 | -.0034 | .0310 |
| 16   | -.01   | -.0482 | .0403 | .2590  | .0011  | -.0027 | .0082 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | -.0495 | .0415 | .2668  | .0016  | -.0023 | .0058 |
| 4    | -20.00 | -.0931 | .0819 | .1734  | -.0040 | .0037  | .0102 |
| 5    | -15.00 | -.0755 | .0661 | .1643  | -.0035 | .0017  | .0090 |
| 6    | -10.01 | -.0625 | .0544 | .1846  | -.0021 | -.0005 | .0112 |
| 7    | -5.00  | -.0687 | .0462 | .2889  | -.0034 | -.0002 | .0063 |
| 8    | -2.50  | -.0656 | .0419 | .3107  | .0018  | -.0021 | .0140 |
| 9    | -.00   | -.0487 | .0407 | .2615  | .0012  | -.0003 | .0101 |
| 10   | 2.50   | -.0325 | .0400 | .2095  | .0016  | -.0002 | .0063 |
| 11   | 4.99   | -.0159 | .0408 | .1690  | .0009  | -.0002 | .0077 |
| 12   | 10.00  | .0133  | .0425 | .1013  | -.0016 | -.0017 | .0137 |
| 13   | 15.00  | .0458  | .0485 | .0251  | -.0070 | -.0022 | .0261 |
| 14   | 19.99  | .0731  | .0575 | -.0239 | -.0110 | -.0041 | .0355 |
| 15   | 25.00  | .1006  | .0704 | -.0895 | -.0093 | -.0034 | .0310 |
| 16   | -.01   | -.0482 | .0403 | .2590  | .0011  | -.0027 | .0082 |

N432409-1

SIKORSKY RSRA 1/1 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P1053

RUN 1034 CONFIS F P 3 TCU 3T

| PT. NO. | INW   | DELTA | DELTA | IHT   | DELE   | DELTA  | DELSB  | DELSB | DELSB | DELSB  | DELSB | RPM |
|---------|-------|-------|-------|-------|--------|--------|--------|-------|-------|--------|-------|-----|
|         | ALPHA | PSI   | CLBAR | CDBAR | CPMBAR | CYMBAR | CPMBAR | CYBAR | DELSB | DELSB  | DELSB |     |
|         | DEG   | DEG   | SG-FT | SG-FT | CU-FT  | CU-FT  | CU-FT  | SG-FT | PSF   | KNOTS  |       |     |
| 2       | .0    | .0    | -8.4  | 13.52 | 345.   | -61.   | 12.    | 4.11  | 55.52 | 129.21 |       | 0.  |
| 3       | -20.0 | .0    | -35.7 | 27.42 | 508.   | -156.  | 111.   | 4.10  | 56.56 | 130.42 |       | 0.  |
| 4       | -15.0 | .0    | -30.7 | 21.72 | 569.   | -40.   | -6.    | 2.98  | 56.06 | 129.83 |       | 0.  |
| 5       | -10.0 | .0    | -30.1 | 16.17 | 818.   | 15.    | -38.   | 1.59  | 56.39 | 130.22 |       | 0.  |
| 6       | -5.0  | .0    | -19.4 | 14.50 | 600.   | -48.   | -7.    | 4.28  | 56.49 | 130.34 |       | 0.  |
| 7       | -2.5  | .0    | -14.3 | 13.67 | 481.   | -92.   | 10.    | 5.22  | 56.73 | 130.62 |       | 0.  |
| 8       | .0    | .0    | -8.2  | 13.57 | 340.   | -58.   | 13.    | 3.49  | 56.64 | 130.51 |       | 0.  |
| 9       | 2.5   | .0    | -2.0  | 13.32 | 210.   | -23.   | -1.    | .56   | 56.81 | 130.70 |       | 0.  |
| 11      | 10.0  | .0    | 14.3  | 16.00 | -122.  |        |        |       | 55.96 | 129.70 |       | 0.  |
| 12      | 15.0  | .0    | 27.1  | 12.74 | -344.  |        |        |       | 55.79 | 129.51 |       | 0.  |
| 13      | 20.0  | .0    | 34.7  | 22.59 | -403.  | -130.  | -85.   | 12.87 | 55.59 | 129.27 |       | 0.  |
| 14      | 25.0  | .0    | 43.3  | 30.03 | -464.  | -172.  | -35.   | 15.28 | 55.53 | 129.19 |       | 0.  |
| 15      | 5.0   | .0    | 2.9   | 14.53 | 101.   | 25.    | -21.   | 3.59  | 55.06 | 128.66 |       | 0.  |
| 16      | .0    | .0    | -8.2  | 13.54 | 356.   | -63.   | -5.    | 4.12  | 55.39 | 129.01 |       | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CFM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | -.0226 | .0376 | .1112  | -.0037 | .0007  | .0111 |
| 3    | -19.99 | -.0965 | .0741 | .1637  | -.0094 | .0067  | .0111 |
| 4    | -14.99 | -.0829 | .0587 | .1836  | -.0024 | -.0004 | .0080 |
| 5    | -10.00 | -.0814 | .0437 | .2636  | .0009  | -.0023 | .0054 |
| 6    | -5.00  | -.0524 | .0392 | .1934  | -.0029 | -.0004 | .0116 |
| 7    | -2.50  | -.0385 | .0369 | .1549  | -.0056 | .0005  | .0141 |
| 8    | .00    | -.0223 | .0367 | .1096  | -.0035 | .0005  | .0094 |
| 9    | 2.51   | -.0053 | .0376 | .0676  | -.0014 | -.0001 | .0026 |
| 11   | 10.00  | .0386  | .0433 | -.0394 |        |        |       |
| 12   | 15.00  | .0733  | .0507 | -.1110 |        |        |       |
| 13   | 20.00  | .0937  | .0610 | -.1299 | -.0115 | -.0051 | .0348 |
| 14   | 25.00  | .1170  | .0812 | -.1496 | -.0104 | -.0050 | .0413 |
| 15   | 5.00   | .0079  | .0401 | .0325  | .0015  | -.0013 | .0097 |
| 16   | .01    | -.0223 | .0366 | .1146  | -.0041 | -.0003 | .0111 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CLD   | CFMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | -.0226 | .0376 | .1112  | -.0037 | .0007  | .0111 |
| 3    | -19.99 | -.0965 | .0741 | .1637  | -.0094 | .0067  | .0111 |
| 4    | -14.99 | -.0829 | .0587 | .1836  | -.0024 | -.0004 | .0080 |
| 5    | -10.00 | -.0814 | .0437 | .2636  | .0009  | -.0023 | .0054 |
| 6    | -5.00  | -.0524 | .0392 | .1934  | -.0029 | -.0004 | .0116 |
| 7    | -2.50  | -.0385 | .0369 | .1549  | -.0056 | .0005  | .0141 |
| 8    | .00    | -.0223 | .0367 | .1096  | -.0035 | .0005  | .0094 |
| 9    | 2.51   | -.0053 | .0376 | .0676  | -.0014 | -.0001 | .0026 |
| 11   | 10.00  | .0386  | .0433 | -.0394 |        |        |       |
| 12   | 15.00  | .0733  | .0507 | -.1110 |        |        |       |
| 13   | 20.00  | .0937  | .0610 | -.1299 | -.0115 | -.0051 | .0348 |
| 14   | 25.00  | .1170  | .0812 | -.1496 | -.0104 | -.0050 | .0413 |
| 15   | 5.00   | .0079  | .0401 | .0325  | .0015  | -.0013 | .0097 |
| 16   | .01    | -.0223 | .0366 | .1146  | -.0041 | -.0003 | .0111 |

N432400-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

*P. 252*

RUN 1085 CONFIG T62BT

| PT. NO. | TW    | DELTA     |         | DELA        |             | IHT          |             | DELF         |             | DEFLR  |         | DELSR |  | RPM |
|---------|-------|-----------|---------|-------------|-------------|--------------|-------------|--------------|-------------|--------|---------|-------|--|-----|
|         |       | ALPHA-DEG | PSI-DEG | CLBAR SQ-FT | COBAR SQ-FT | CPMBAR CU-FT | CYBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF    | V KNOTS |       |  |     |
| 7       | -0.0  | .0        | .1      | 3.13        | 27.         | -60.         | -12.        | 1.48         | -56.05      | 129.87 | 0.      |       |  |     |
| 8       | -25.0 | .0        | -16.3   | 13.47       | 1004.       | -156.        | 44.         | 4.71         | 55.01       | 128.63 | 0.      |       |  |     |
| 9       | -20.0 | .0        | -17.5   | 11.01       | 982.        | -29.         | -46.        | 1.19         | 55.47       | 129.18 | 0.      |       |  |     |
| 10      | -15.0 | .0        | -22.2   | 7.13        | 1073.       | -150.        | 39.         | 4.43         | 55.13       | 128.77 | 0.      |       |  |     |
| 11      | -10.0 | .0        | -17.7   | 4.46        | 870.        | -84.         | -15.        | 2.44         | 55.60       | 129.37 | 0.      |       |  |     |
| 12      | -5.0  | .0        | -8.0    | 3.43        | 411.        | -90.         | 8.          | 2.03         | 55.27       | 128.94 | 0.      |       |  |     |
| 13      | -0.0  | .0        | .2      | 3.10        | 31.         | -50.         | -14.        | 1.22         | 55.86       | 129.64 | 0.      |       |  |     |
| 14      | 5.0   | .0        | 7.8     | 3.15        | -334.       | -102.        | -4.         | 2.81         | 54.88       | 128.47 | 0.      |       |  |     |
| 15      | 10.0  | .0        | 15.7    | 3.53        | -736.       | -157.        | -34.        | 4.67         | 55.69       | 129.43 | 0.      |       |  |     |
| 16      | 15.0  | .0        | 25.0    | 4.70        | -1174.      | -164.        | -37.        | 5.55         | 55.39       | 129.08 | 0.      |       |  |     |
| 17      | 20.0  | .0        | 25.7    | 7.47        | -1236.      | -148.        | -70.        | 6.12         | 55.53       | 129.24 | 0.      |       |  |     |
| 18      | 25.0  | .0        | 25.3    | 12.24       | -1265.      | -122.        | -70.        | 4.72         | 55.80       | 129.56 | 0.      |       |  |     |
| 19      | -0.0  | .0        | .4      | 3.11        | 13.         | -81.         | -15.        | 2.04         | 55.68       | 129.42 | 0.      |       |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 7    | -0.00  | .0003  | .0085 | .0073  | -.0036 | -.0008 | .0040 |
| 8    | -25.01 | -.0440 | .0364 | .3238  | -.0094 | .0027  | .0127 |
| 9    | -20.00 | -.0473 | .0298 | .3164  | -.0018 | -.0028 | .0032 |
| 10   | -15.01 | -.0599 | .0193 | .3458  | -.0096 | .0024  | .0120 |
| 11   | -10.00 | -.0478 | .0121 | .2705  | -.0051 | -.0009 | .0066 |
| 12   | -5.01  | -.0216 | .0093 | .1326  | -.0054 | .0005  | .0055 |
| 13   | -0.00  | .0005  | .0084 | .0009  | -.0030 | -.0008 | .0033 |
| 14   | 5.00   | .0211  | .0085 | -.1077 | -.0062 | -.0003 | .0076 |
| 15   | 9.99   | .0424  | .0095 | -.2372 | -.0095 | -.0021 | .0125 |
| 16   | 15.00  | .0676  | .0127 | -.3784 | -.0099 | -.0022 | .0150 |
| 17   | 19.99  | .0695  | .0202 | -.3985 | -.0090 | -.0042 | .0165 |
| 18   | 25.00  | .0685  | .0331 | -.4078 | -.0074 | -.0042 | .0128 |
| 19   | -0.00  | .0010  | .0084 | .0043  | -.0049 | -.0009 | .0055 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CPMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 7    | -0.00  | .0003  | .0085 | .0073  | -.0036 | -.0008 | .0040 |
| 8    | -25.01 | -.0440 | .0364 | .3238  | -.0094 | .0027  | .0127 |
| 9    | -20.00 | -.0473 | .0298 | .3164  | -.0018 | -.0028 | .0032 |
| 10   | -15.01 | -.0599 | .0193 | .3458  | -.0096 | .0024  | .0120 |
| 11   | -10.00 | -.0478 | .0121 | .2705  | -.0051 | -.0009 | .0066 |
| 12   | -5.01  | -.0216 | .0093 | .1326  | -.0054 | .0005  | .0055 |
| 13   | -0.00  | .0005  | .0084 | .0009  | -.0030 | -.0008 | .0033 |
| 14   | 5.00   | .0211  | .0085 | -.1077 | -.0062 | -.0003 | .0076 |
| 15   | 9.99   | .0424  | .0095 | -.2372 | -.0095 | -.0021 | .0125 |
| 16   | 15.00  | .0676  | .0127 | -.3784 | -.0099 | -.0022 | .0150 |
| 17   | 19.99  | .0695  | .0202 | -.3985 | -.0090 | -.0042 | .0165 |
| 18   | 25.00  | .0685  | .0331 | -.4078 | -.0074 | -.0042 | .0128 |
| 19   | -0.00  | .0010  | .0084 | .0043  | -.0049 | -.0009 | .0055 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA.

SER-72011

P1055

RUN 1086 CONFIG

T<sub>62</sub>BT

| IW      | DELF      |         | DFLA        | THT         | DELE         |              | DELR         | DELSR       |       |         | RDM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| PT. NO. | ALPHA DFG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMPAR CU-FT | CYMPAR CU-FT | CRMPAR CU-FT | CYRAR SQ-FT | Q PSF | V KNOTS |     |
| 2       | .0        | .0      | -2.0        | 3.58        | 57.          | -132.        | -62.         | 4.24        | 5.37  | 39.87   | 0.  |
| 3       | .0        | .0      | -.3         | 4.06        | 31.          | -73.         | -38.         | 2.73        | 12.00 | 59.65   | 0.  |
| 4       | .0        | .0      | -.5         | 3.59        | 32.          | -61.         | -31.         | 1.86        | 22.06 | 81.02   | 0.  |
| 5       | .0        | .0      | -.4         | 3.22        | 35.          | -59.         | -27.         | 1.53        | 35.34 | 102.78  | 0.  |
| 6       | .0        | .0      | -.1         | 3.38        | 24.          | -50.         | -20.         | 1.16        | 50.20 | 122.70  | 0.  |
| 7       | .0        | .0      | .1          | 3.27        | 14.          | -73.         | -21.         | 1.80        | 69.77 | 145.23  | 0.  |
| 8       | .0        | .0      | .2          | 3.30        | 10.          | -78.         | -24.         | 1.96        | 77.64 | 153.42  | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA | CL     | CD    | CPM   | CYM    | CRM    | CY    |
|------|-------|--------|-------|-------|--------|--------|-------|
| 2    | .00   | -.0053 | .0097 | .0182 | -.0083 | -.0038 | .0115 |
| 3    | .00   | -.0007 | .0110 | .0009 | -.0044 | -.0023 | .0074 |
| 4    | .00   | -.0014 | .0100 | .0104 | -.0037 | -.0010 | .0050 |
| 5    | .00   | -.0011 | .0087 | .0112 | -.0036 | -.0016 | .0041 |
| 6    | .00   | -.0002 | .0091 | .0076 | -.0030 | -.0012 | .0031 |
| 7    | .00   | .0003  | .0088 | .0045 | -.0044 | -.0013 | .0049 |
| 8    | .00   | .0005  | .0089 | .0034 | -.0047 | -.0014 | .0053 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA | CLB    | CDB   | CPMB  | CYMB   | CRMB   | CYB   |
|------|-------|--------|-------|-------|--------|--------|-------|
| 2    | .00   | -.0053 | .0097 | .0182 | -.0083 | -.0038 | .0115 |
| 3    | .00   | -.0007 | .0110 | .0009 | -.0044 | -.0023 | .0074 |
| 4    | .00   | -.0014 | .0100 | .0104 | -.0037 | -.0010 | .0050 |
| 5    | .00   | -.0011 | .0087 | .0112 | -.0036 | -.0016 | .0041 |
| 6    | .00   | -.0002 | .0091 | .0076 | -.0030 | -.0012 | .0031 |
| 7    | .00   | .0003  | .0088 | .0045 | -.0044 | -.0013 | .0049 |
| 8    | .00   | .0005  | .0089 | .0034 | -.0047 | -.0014 | .0053 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P 10.56

RUN 1087 CONFIG T62 BT

| PT. NO. | - DELF    |         | - DELA      |             | - IHT        |              | O DELE       |             | - DELR |         | O DELSB |    | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|---------|----|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF    | Q KNOTS | V       |    |     |
| 8       | .0        | .0      | -.2         | 3.59        | 17.          | -59.         | 1.           | 1.67        | 53.48  | 126.83  |         | 0. |     |
| 9       | .0        | .0      | -.3         | 3.57        | 18.          | -61.         | -7.          | 1.42        | 54.80  | 128.42  |         | 0. |     |
| 10      | .0        | -20.0   | 12.2        | 20.06       | -504.        | 2588.        | -53F.        | -49.51      | 54.54  | 128.10  |         | 0. |     |
| 11      | .0        | -15.0   | 6.4         | 12.13       | -301.        | 1911.        | -366.        | -51.78      | 55.19  | 128.88  |         | 0. |     |
| 12      | .0        | -10.0   | 1.8         | 7.72        | -104.        | 1230.        | -187.        | -33.41      | 54.34  | 127.86  |         | 0. |     |
| 13      | .0        | -5.0    | .1          | 4.77        | -24.         | 526.         | -58.         | -14.16      | 55.54  | 129.30  |         | 0. |     |
| 14      | .0        | -2.5    | -.5         | 4.13        | -12.         | 221.         | -58.         | -6.06       | 54.75  | 128.36  |         | 0. |     |
| 15      | .0        | .0      | -.2         | 3.84        | -20.         | -58.         | -12.         | 1.60        | 54.92  | 128.56  |         | 0. |     |
| 17      | .0        | 5.0     | .1          | 3.93        | -28.         | -671.        | 71.          | 18.50       | 55.31  | 129.03  |         | 0. |     |
| 18      | .0        | 10.0    | 3.9         | 5.50        | -180.        | -1273.       | 182.         | 36.00       | 55.01  | 128.66  |         | 0. |     |
| 19      | .0        | 15.0    | 10.9        | 10.29       | -430.        | -1819.       | 281.         | 51.98       | 54.98  | 128.62  |         | 0. |     |
| 21      | .0        | 20.0    | 16.8        | 18.27       | -693.        | -2433.       | 434.         | 69.33       | 55.29  | 128.99  |         | 0. |     |
| 22      | .0        | .0      | -.0         | 3.79        | -18.         | -42.         | -3.          | .99         | 55.18  | 128.87  |         | 0. |     |
| 23      | .0        | 2.5     | -.2         | 3.54        | -12.         | -313.        | 39.          | 8.47        | 54.81  | 128.42  |         | 0. |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 8    | .00    | -.0006 | .0097 | .0055  | -.0042 | .0001  | .0045  |
| 9    | .00    | -.0009 | .0097 | .0059  | -.0037 | -.0004 | .0038  |
| 10   | -20.00 | .0329  | .0542 | -.1625 | .1563  | -.0324 | -.1879 |
| 11   | -15.00 | .0172  | .0328 | -.0969 | .1154  | -.0221 | -.1399 |
| 12   | -10.00 | .0050  | .0209 | -.0335 | .0743  | -.0113 | -.0903 |
| 13   | -5.00  | .0003  | .0129 | -.0076 | .0318  | -.0035 | -.0383 |
| 14   | -2.50  | -.0013 | .0112 | -.0037 | .0133  | -.0035 | -.0164 |
| 15   | .00    | -.0004 | .0104 | -.0066 | -.0035 | -.0007 | .0043  |
| 17   | 5.00   | .0003  | .0106 | -.0089 | -.0405 | .0043  | .0500  |
| 18   | 10.00  | .0105  | .0149 | -.0582 | -.0769 | .0110  | .0973  |
| 19   | 15.00  | .0295  | .0278 | -.1388 | -.1099 | .0171  | .1405  |
| 20   | 20.00  | .0452  | .0501 | -.2231 | -.2382 | .0727  | .5481  |
| 22   | .00    | -.0001 | .0103 | -.0058 | -.0025 | -.0002 | .0027  |
| 23   | 2.50   | -.0006 | .0096 | -.0037 | -.0189 | .0024  | .0225  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 8    | .00    | -.0006 | .0097  | .0055  | -.0042 | .0001  | .0045  |
| 9    | .00    | -.0009 | .0097  | .0059  | -.0037 | -.0004 | .0038  |
| 10   | -20.00 | .0329  | -.0136 | -.0933 | .1563  | -.0199 | -.1951 |
| 11   | -15.00 | .0172  | -.0047 | -.0629 | .1154  | -.0166 | -.1437 |
| 12   | -10.00 | .0050  | .0048  | -.0225 | .0743  | -.0101 | -.0925 |
| 13   | -5.00  | .0003  | .0095  | -.0060 | .0318  | -.0034 | -.0393 |
| 14   | -2.50  | -.0013 | .0104  | -.0029 | .0133  | -.0035 | -.0168 |
| 15   | .00    | -.0004 | .0104  | -.0066 | -.0035 | -.0007 | .0043  |
| 17   | 5.00   | .0003  | .0062  | -.0069 | -.0405 | .0041  | .0507  |
| 18   | 10.00  | .0105  | -.0023 | -.0470 | -.0769 | .0085  | .0984  |
| 19   | 15.00  | .0295  | -.0097 | -.1104 | -.1099 | .0096  | .1429  |
| 20   | 20.00  | .0452  | -.1412 | -.0762 | -.2382 | .0535  | .5315  |
| 22   | .00    | -.0001 | .0103  | -.0058 | -.0025 | -.0002 | .0027  |
| 23   | 2.50   | -.0006 | .0086  | -.0032 | -.0189 | .0023  | .0233  |

N432409-1

SIKOPSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P1057

RUN 1098 CONFIG T62 BT

| PT. NO. | ALPHA DEG | - DELF PSI DEG | - DELA CLBAR SQ-FT | - IHT CDBAR SQ-FT | O DELE CPMBAR CU-FT | - DELR CYMBAR CU-FT | O DELSR CRMBAR CU-FT | O V PSF | O V KNOTS | RPM    |    |
|---------|-----------|----------------|--------------------|-------------------|---------------------|---------------------|----------------------|---------|-----------|--------|----|
| 2       | 10.0      | .0             | 16.0               | 4.06              | -751.               | -156.               | -40.                 | 4.73    | 55.04     | 128.71 | 0. |
| 3       | 10.0      | -20.0          | 32.9               | 20.95             | -1420.              | 2244.               | -339.                | -61.29  | 54.65     | 128.23 | 0. |
| 4       | 10.0      | -15.0          | 25.4               | 13.06             | -1180.              | 1698.               | -247.                | -46.97  | 55.10     | 128.77 | 0. |
| 5       | 10.0      | -10.0          | 20.7               | 7.93              | -980.               | 963.                | -154.                | -26.87  | 55.67     | 129.45 | 0. |
| 6       | 10.0      | -5.0           | 16.7               | 5.44              | -830.               | 354.                | -92.                 | -9.65   | 55.33     | 129.05 | 0. |
| 7       | 10.0      | -2.5           | 16.1               | 4.23              | -791.               | 121.                | -71.                 | -3.34   | 55.31     | 129.02 | 0. |
| 8       | 10.0      | .0             | 16.0               | 4.08              | -782.               | -128.               | -48.                 | 4.14    | 55.26     | 128.96 | 0. |
| 9       | 10.0      | 2.5            | 16.2               | 4.06              | -795.               | -359.               | -42.                 | 11.06   | 55.26     | 128.96 | 0. |
| 10      | 10.0      | 5.0            | 17.9               | 4.82              | -868.               | -590.               | -16.                 | 17.59   | 54.35     | 127.87 | 0. |
| 11      | 10.0      | 10.0           | 23.3               | 6.78              | -1067.              | -1161.              | 54.                  | 34.37   | 54.91     | 128.54 | 0. |
| 12      | 10.0      | 15.0           | 29.2               | 11.31             | -1275.              | -1671.              | 181.                 | 48.84   | 55.49     | 129.23 | 0. |
| 13      | 10.0      | 20.0           | 32.2               | 19.87             | -1399.              | -2160.              | 261.                 | 61.64   | 55.64     | 129.41 | 0. |
| 14      | 10.0      | .0             | 16.0               | 4.13              | -779.               | -123.               | -38.                 | 3.78    | 55.11     | 128.78 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .0433 | .0110 | -.2422 | -.0095 | -.0024 | .0128  |
| 3    | -20.00 | .0890 | .0564 | -.4577 | .1356  | -.0205 | -.1656 |
| 4    | -15.00 | .0686 | .0353 | -.3803 | .1025  | -.0149 | -.1269 |
| 5    | -10.00 | .0560 | .0214 | -.3161 | .0582  | -.0093 | -.0726 |
| 6    | -5.00  | .0452 | .0147 | -.2677 | .0214  | -.0056 | -.0261 |
| 7    | -2.50  | .0434 | .0114 | -.2550 | .0073  | -.0043 | -.0090 |
| 8    | .00    | .0434 | .0110 | -.2522 | -.0077 | -.0029 | .0112  |
| 9    | 2.50   | .0438 | .0110 | -.2562 | -.0217 | -.0025 | .0299  |
| 10   | 5.00   | .0484 | .0130 | -.2797 | -.0357 | -.0009 | .0476  |
| 11   | 10.00  | .0631 | .0183 | -.3439 | -.0701 | .0033  | .0929  |
| 12   | 15.00  | .0790 | .0306 | -.4110 | -.1009 | .0109  | .1320  |
| 13   | 20.00  | .0869 | .0537 | -.4510 | -.1305 | .0158  | .1666  |
| 14   | .00    | .0433 | .0112 | -.2511 | -.0074 | -.0023 | .0102  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .0433 | .0110  | -.2422 | -.0095 | -.0024 | .0128  |
| 3    | -20.00 | .0890 | -.0040 | -.3923 | .1356  | .0102  | -.1749 |
| 4    | -15.00 | .0686 | .0011  | -.3466 | .1025  | .0041  | -.1317 |
| 5    | -10.00 | .0560 | .0084  | -.3026 | .0582  | .0012  | -.0753 |
| 6    | -5.00  | .0452 | .0124  | -.2641 | .0214  | -.0011 | -.0273 |
| 7    | -2.50  | .0434 | .0110  | -.2537 | .0073  | -.0022 | -.0095 |
| 8    | .00    | .0434 | .0110  | -.2522 | -.0077 | -.0029 | .0112  |
| 9    | 2.50   | .0438 | .0097  | -.2566 | -.0217 | -.0046 | .0304  |
| 10   | 5.00   | .0484 | .0088  | -.2791 | -.0357 | -.0055 | .0485  |
| 11   | 10.00  | .0631 | .0018  | -.3356 | -.0701 | -.0080 | .0947  |
| 12   | 15.00  | .0790 | -.0048 | -.3817 | -.1009 | -.0095 | .1354  |
| 13   | 20.00  | .0869 | -.0068 | -.3946 | -.1305 | -.0142 | .1749  |
| 14   | .00    | .0433 | .0112  | -.2511 | -.0074 | -.0023 | .0102  |

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N432409-1

SIKORSKY PSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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*P. 1358*

RUN 1089 CONFIG T62 BT

| PT. NO. | IW    | DELTA | PSI    | DELTA  | IHT     | DELE   | DELR    | DELSB   | Q     | V      | RPM |
|---------|-------|-------|--------|--------|---------|--------|---------|---------|-------|--------|-----|
|         | ALPHA | DEG   | CL BAR | CD BAR | CPM BAR | CY BAR | CRM BAR | CYB BAR | PSF   | KNOTS  |     |
| 2       | 0     | 0     | 0.1    | 3.56   | 15.     | -51.   | -13.    | 1.30    | 55.32 | 129.01 | 0.  |
| 3       | -20.0 | 0     | -72.0  | 11.27  | 1150.   | -108.  | 10.     | 2.79    | 54.59 | 128.16 | 0.  |
| 4       | -10.0 | 0     | -18.5  | 5.30   | 860.    | -53.   | -29.    | 1.46    | 54.09 | 127.57 | 0.  |
| 5       | 0     | 0     | 0.1    | 3.64   | 11.     | -68.   | -15.    | 2.05    | 55.59 | 129.35 | 0.  |
| 6       | 10.0  | 0     | -15.6  | 3.80   | -751.   | -136.  | -30.    | 4.21    | 56.53 | 130.45 | 0.  |
| 7       | 20.0  | 0     | 75.8   | 8.08   | -1266.  | -143.  | -53.    | 5.26    | 56.28 | 130.14 | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL      | CD     | CPM     | CYM     | CRM     | CY     |
|------|--------|---------|--------|---------|---------|---------|--------|
| 2    | 0.00   | 0.0003  | 0.0096 | 0.0048  | -0.0031 | -0.0008 | 0.0035 |
| 3    | -20.01 | -0.0596 | 0.0305 | 0.3708  | -0.0065 | 0.0006  | 0.0075 |
| 4    | -10.01 | -0.0499 | 0.0143 | 0.2774  | -0.0032 | -0.0018 | 0.0039 |
| 5    | 0.01   | 0.0003  | 0.0098 | 0.0037  | -0.0041 | -0.0009 | 0.0055 |
| 6    | 9.97   | 0.0422  | 0.0103 | -0.2423 | -0.0082 | -0.0018 | 0.0114 |
| 7    | 20.00  | 0.0698  | 0.0219 | -0.4083 | -0.0086 | -0.0032 | 0.0142 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB    | CPMB    | CYMB    | CRMB    | CYB    |
|------|--------|---------|--------|---------|---------|---------|--------|
| 2    | 0.00   | 0.0003  | 0.0096 | 0.0048  | -0.0031 | -0.0008 | 0.0035 |
| 3    | -20.01 | -0.0596 | 0.0305 | 0.3708  | -0.0065 | 0.0006  | 0.0075 |
| 4    | -10.01 | -0.0499 | 0.0143 | 0.2774  | -0.0032 | -0.0018 | 0.0039 |
| 5    | 0.01   | 0.0003  | 0.0098 | 0.0037  | -0.0041 | -0.0009 | 0.0055 |
| 6    | 9.97   | 0.0422  | 0.0103 | -0.2423 | -0.0082 | -0.0018 | 0.0114 |
| 7    | 20.00  | 0.0698  | 0.0219 | -0.4083 | -0.0086 | -0.0032 | 0.0142 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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P. 10

RUN 1090 CONFIG T62 BT

| PT. NO. | I W<br>ALPHA DEG | - DELF  |       | - DELA |        | - IHT  |        | O DELE |       | - DELR |    | O DELSB |  | O V<br>KNOTS | RPM |
|---------|------------------|---------|-------|--------|--------|--------|--------|--------|-------|--------|----|---------|--|--------------|-----|
|         |                  | PSI DEG | CLBAR | CDBAR  | CPMBAR | CYBAR  | CRMBAR | CYBAR  | PSF   | Q      |    |         |  |              |     |
| 7       | -10.0            | .0      | -18.3 | 4.95   | 854.   | -83.   | -17.   | 2.23   | 55.68 | 129.46 | 0. |         |  |              |     |
| 8       | -10.0            | -20.0   | -3.8  | 22.02  | 368.   | 2606.  | -805.  | -71.28 | 56.05 | 129.89 | 0. |         |  |              |     |
| 9       | -10.0            | -15.0   | -9.2  | 15.41  | 543.   | 1967.  | -560.  | -54.55 | 55.36 | 129.08 | 0. |         |  |              |     |
| 10      | -10.0            | -10.0   | -13.9 | 10.09  | 699.   | 1264.  | -372.  | -35.44 | 55.24 | 128.94 | 0. |         |  |              |     |
| 11      | -10.0            | -5.0    | -17.0 | 6.92   | 798.   | 513.   | -148.  | -14.56 | 55.62 | 129.39 | 0. |         |  |              |     |
| 12      | -10.0            | -2.5    | -17.9 | 5.84   | 820.   | 156.   | -59.   | -4.55  | 55.50 | 129.25 | 0. |         |  |              |     |
| 13      | -10.0            | .0      | -18.2 | 4.93   | 817.   | -69.   | -32.   | 1.89   | 54.87 | 128.50 | 0. |         |  |              |     |
| 14      | -10.0            | 2.5     | -17.7 | 4.97   | 797.   | -401.  | 47.    | 11.60  | 54.34 | 127.87 | 0. |         |  |              |     |
| 15      | -10.0            | 5.0     | -16.0 | 5.45   | 735.   | -754.  | 129.   | 21.90  | 55.02 | 128.67 | 0. |         |  |              |     |
| 16      | -10.0            | 10.0    | -11.9 | 7.79   | 588.   | -1415. | 345.   | 40.63  | 55.03 | 128.69 | 0. |         |  |              |     |
| 17      | -10.0            | 15.0    | -9.4  | 11.42  | 449.   | -1979. | 492.   | 56.14  | 55.20 | 128.89 | 0. |         |  |              |     |
| 18      | -10.0            | 20.0    | 1.1   | 18.73  | 181.   | -2656. | 730.   | 76.43  | 55.31 | 129.02 | 0. |         |  |              |     |
| 19      | -10.0            | .0      | -18.1 | 5.02   | 822.   | -44.   | -31.   | 1.27   | 55.26 | 128.96 | 0. |         |  |              |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM   | CYM    | CRM    | CY     |
|------|--------|--------|-------|-------|--------|--------|--------|
| 7    | .00    | -.0495 | .0134 | .2753 | -.0050 | -.0010 | .0060  |
| 8    | -20.00 | -.0104 | .0595 | .1185 | .1574  | -.0486 | -.1926 |
| 9    | -15.00 | -.0247 | .0417 | .1752 | .1188  | -.0338 | -.1474 |
| 10   | -10.00 | -.0374 | .0273 | .2254 | .0763  | -.0224 | -.0958 |
| 11   | -5.00  | -.0459 | .0187 | .2571 | .0310  | -.0089 | -.0393 |
| 12   | -2.50  | -.0483 | .0158 | .2643 | .0094  | -.0036 | -.0123 |
| 13   | .00    | -.0492 | .0133 | .2634 | -.0042 | -.0019 | .0051  |
| 14   | 2.50   | -.0477 | .0134 | .2571 | -.0242 | .0028  | .0314  |
| 15   | 5.00   | -.0433 | .0147 | .2371 | -.0456 | .0078  | .0592  |
| 16   | 10.00  | -.0323 | .0211 | .1897 | -.0854 | .0208  | .1098  |
| 17   | 15.00  | -.0253 | .0309 | .1449 | -.1195 | .0297  | .1517  |
| 18   | 20.00  | .0029  | .0506 | .0582 | -.1604 | .0441  | .2066  |
| 19   | .00    | -.0490 | .0136 | .2650 | -.0027 | -.0018 | .0034  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB  | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|-------|--------|--------|--------|
| 7    | .00    | -.0495 | .0134  | .2753 | -.0050 | -.0010 | .0060  |
| 8    | -20.00 | -.0104 | -.0103 | .2005 | .1574  | -.0533 | -.2014 |
| 9    | -15.00 | -.0247 | .0019  | .2161 | .1188  | -.0412 | -.1532 |
| 10   | -10.00 | -.0374 | .0101  | .2428 | .0763  | -.0295 | -.0991 |
| 11   | -5.00  | -.0459 | .0152  | .2603 | .0310  | -.0131 | -.0408 |
| 12   | -2.50  | -.0483 | .0152  | .2649 | .0094  | -.0057 | -.0130 |
| 13   | .00    | -.0492 | .0133  | .2634 | -.0042 | -.0019 | .0051  |
| 14   | 2.50   | -.0477 | .0120  | .2575 | -.0242 | .0049  | .0319  |
| 15   | 5.00   | -.0433 | .0095  | .2398 | -.0456 | .0117  | .0602  |
| 16   | 10.00  | -.0323 | .0016  | .2061 | -.0854 | .0267  | .1118  |
| 17   | 15.00  | -.0253 | -.0096 | .1811 | -.1195 | .0357  | .1545  |
| 18   | 20.00  | .0029  | -.0234 | .1356 | -.1604 | .0452  | .2114  |
| 19   | .00    | -.0490 | .0136  | .2650 | -.0027 | -.0018 | .0034  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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P. 115

RUN 1091 CONFIG T62 BT

| PT. NO. | IW<br>DEG | - DELF<br>PSI<br>DEG | - DELA<br>CLBAR<br>SQ-FT | - IHT<br>CDBAR<br>SQ-FT | Q DELE<br>CPMBAR<br>CU-FT | - DELR<br>CYMBAR<br>CU-FT | O DELSB<br>CYBAR<br>SQ-FT | O<br>Q<br>PSF | O<br>V<br>KNOTS | RPM    |    |
|---------|-----------|----------------------|--------------------------|-------------------------|---------------------------|---------------------------|---------------------------|---------------|-----------------|--------|----|
| 11      | .0        | 5.0                  | 1.2                      | 3.70                    | -35.                      | -701.                     | 59.                       | 20.12         | 55.38           | 129.09 | 0. |
| 12      | -25.0     | 5.0                  | -16.0                    | 15.64                   | 974.                      |                           |                           |               | 55.22           | 128.91 | 0. |
| 13      | -25.0     | 5.0                  | -16.0                    | 15.45                   | 970.                      | -994.                     | 459.                      | 32.85         | 55.48           | 129.21 | 0. |
| 14      | -20.0     | 5.0                  | -19.1                    | 13.10                   | 1023.                     | -933.                     | 314.                      | 30.95         | 55.30           | 129.00 | 0. |
| 15      | -15.0     | 5.0                  | -24.3                    | 8.31                    | 1144.                     | -900.                     | 200.                      | 28.85         | 54.47           | 128.02 | 0. |
| 16      | -10.0     | 5.0                  | -15.2                    | 6.04                    | 737.                      | -859.                     | 155.                      | 26.25         | 54.26           | 127.77 | 0. |
| 17      | -5.0      | 5.0                  | -6.5                     | 4.07                    | 336.                      | -806.                     | 129.                      | 23.64         | 54.47           | 128.02 | 0. |
| 18      | -2.5      | 5.0                  | -2.5                     | 3.74                    | 150.                      | -739.                     | 94.                       | 21.49         | 55.05           | 128.70 | 0. |
| 19      | -.0       | 5.0                  | 1.1                      | 3.49                    | -32.                      | -698.                     | 70.                       | 20.11         | 55.40           | 129.12 | 0. |
| 20      | 2.5       | 5.0                  | 4.9                      | 3.71                    | -213.                     | -692.                     | 48.                       | 19.81         | 55.06           | 128.71 | 0. |
| 21      | 5.0       | 5.0                  | 9.2                      | 3.77                    | -408.                     | -693.                     | 27.                       | 19.96         | 54.71           | 128.30 | 0. |
| 22      | 10.0      | 5.0                  | 17.4                     | 4.59                    | -837.                     | -664.                     | -10.                      | 19.89         | 55.01           | 128.66 | 0. |
| 23      | 15.0      | 5.0                  | 25.0                     | 6.44                    | -1218.                    | -640.                     | -43.                      | 20.36         | 55.49           | 129.22 | 0. |
| 24      | 20.0      | 5.0                  | 22.6                     | 10.47                   | -1151.                    | -630.                     | -134.                     | 21.20         | 54.89           | 128.51 | 0. |
| 25      | 25.0      | 5.0                  | 22.6                     | 13.26                   | -1205.                    | -574.                     | -171.                     | 20.69         | 54.94           | 128.57 | 0. |
| 26      | -.0       | 5.0                  | 1.1                      | 3.50                    | -34.                      | -707.                     | 73.                       | 20.51         | 55.59           | 129.34 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 11   | .00    | .0032  | .0100 | -.0112 | -.0424 | .0035  | .0544 |
| 12   | -25.00 | -.0432 | .0423 | .3139  |        |        |       |
| 13   | -25.00 | -.0432 | .0418 | .3126  | -.0601 | .0277  | .0888 |
| 14   | -20.01 | -.0517 | .0354 | .3299  | -.0564 | .0190  | .0837 |
| 15   | -15.00 | -.0656 | .0225 | .3688  | -.0544 | .0121  | .0780 |
| 16   | -10.00 | -.0410 | .0163 | .2376  | -.0519 | .0093  | .0709 |
| 17   | -5.00  | -.0175 | .0110 | .1085  | -.0487 | .0078  | .0639 |
| 18   | -2.51  | -.0067 | .0101 | .0485  | -.0446 | .0057  | .0581 |
| 19   | -.00   | .0030  | .0094 | -.0103 | -.0422 | .0042  | .0544 |
| 20   | 2.50   | .0132  | .0100 | -.0686 | -.0418 | .0029  | .0535 |
| 21   | 4.99   | .0248  | .0102 | -.1314 | -.0419 | .0017  | .0540 |
| 22   | 9.99   | .0471  | .0124 | -.2698 | -.0401 | -.0006 | .0537 |
| 23   | 14.99  | .0677  | .0174 | -.3926 | -.0387 | -.0026 | .0550 |
| 24   | 20.00  | .0610  | .0283 | -.3712 | -.0380 | -.0081 | .0573 |
| 25   | 25.00  | .0610  | .0358 | -.3885 | -.0347 | -.0104 | .0559 |
| 26   | -.00   | .0031  | .0094 | -.0110 | -.0427 | .0044  | .0554 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 11   | .00    | .0032  | .0052 | -.0095 | -.0424 | .0033  | .0550 |
| 12   | -25.00 | -.0432 |       |        |        |        |       |
| 13   | -25.00 | -.0432 | .0338 | .3244  | -.0601 | .0327  | .0921 |
| 14   | -20.01 | -.0517 | .0279 | .3375  | -.0564 | .0243  | .0864 |
| 15   | -15.00 | -.0656 | .0155 | .3731  | -.0544 | .0181  | .0796 |
| 16   | -10.00 | -.0410 | .0101 | .2410  | -.0519 | .0132  | .0721 |
| 17   | -5.00  | -.0175 | .0054 | .1117  | -.0487 | .0096  | .0646 |
| 18   | -2.51  | -.0067 | .0050 | .0509  | -.0446 | .0064  | .0587 |
| 19   | -.00   | .0030  | .0046 | -.0083 | -.0422 | .0041  | .0550 |
| 20   | 2.50   | .0132  | .0053 | -.0670 | -.0418 | .0017  | .0542 |
| 21   | 4.99   | .0248  | .0054 | -.1301 | -.0419 | -.0005 | .0546 |
| 22   | 9.99   | .0471  | .0076 | -.2690 | -.0401 | -.0050 | .0546 |
| 23   | 14.99  | .0677  | .0125 | -.3923 | -.0387 | -.0090 | .0563 |
| 24   | 20.00  | .0610  | .0232 | -.3736 | -.0380 | -.0142 | .0595 |
| 25   | 25.00  | .0610  | .0308 | -.3919 | -.0347 | -.0167 | .0588 |
| 26   | -.00   | .0031  | .0046 | -.0089 | -.0427 | .0042  | .0561 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P136!

RUN 1092 CONFIG

T42 BT

| PT. NO. | ALPHA DEG | - DELF |       | - DELA |        | - IHT  |        | O DELE |       | - DELR |     | O DELSB |  | O V | RPM |
|---------|-----------|--------|-------|--------|--------|--------|--------|--------|-------|--------|-----|---------|--|-----|-----|
|         |           | PSI    | DEG   | CLBAR  | CDBAR  | CPMBAR | CYMBAR | GRMBAR | CYBAR | Q      | PSF | KNOTS   |  |     |     |
| 1       | -0.0      | 20.0   | 16.0  | 23.57  | -573.  | -2731. | 426.   | 80.29  | 55.29 | 128.98 | 0.  |         |  |     |     |
| 2       | -25.0     | 20.0   | -20.3 | 38.94  | .1376. | -3344. | 1453.  | 112.97 | 55.02 | 128.67 | 0.  |         |  |     |     |
| 3       | -20.0     | 20.0   | -18.7 | 34.07  | 1179.  | -3226. | 1133.  | 104.73 | 55.10 | 128.76 | 0.  |         |  |     |     |
| 4       | -15.0     | 20.0   | -9.9  | 28.62  | 695.   | -3147. | 960.   | 98.58  | 55.30 | 129.00 | 0.  |         |  |     |     |
| 5       | -10.0     | 20.0   | -2.5  | 25.32  | 302.   | -2967. | 744.   | 89.89  | 55.61 | 129.37 | 0.  |         |  |     |     |
| 6       | -5.0      | 20.0   | 5.8   | 23.45  | -101.  | -2759. | 555.   | 82.29  | 55.50 | 129.24 | 0.  |         |  |     |     |
| 7       | -2.5      | 20.0   | 10.7  | 23.24  | -324.  | -2724. | 491.   | 80.54  | 55.41 | 129.14 | 0.  |         |  |     |     |
| 8       | -0.0      | 20.0   | 15.8  | 23.34  | -565.  | -2718. | 431.   | 80.22  | 55.06 | 128.72 | 0.  |         |  |     |     |
| 9       | 2.5       | 20.0   | 21.1  | 23.18  | -814.  | -2689. | 387.   | 78.97  | 55.13 | 128.80 | 0.  |         |  |     |     |
| 10      | 5.0       | 20.0   | 26.3  | 22.98  | -1048. | -2601. | 344.   | 76.53  | 55.64 | 129.40 | 0.  |         |  |     |     |
| 11      | 10.0      | 20.0   | 34.8  | 24.66  | -1465. | -2422. | 256.   | 71.11  | 55.97 | 129.79 | 0.  |         |  |     |     |
| 12      | 15.0      | 20.0   | 31.1  | 30.21  | -1350. | -2353. | 13.    | 68.37  | 55.44 | 129.16 | 0.  |         |  |     |     |
| 13      | 20.0      | 20.0   | 29.8  | 32.21  | -1444. | -2141. | -159.  | 64.59  | 54.94 | 128.57 | 0.  |         |  |     |     |
| 14      | 25.0      | 20.0   | 25.4  | 35.88  | -1429. | -1950. | -337.  | 62.38  | 54.97 | 128.61 | 0.  |         |  |     |     |
| 15      | -0.0      | 20.0   | 15.6  | 23.27  | -559.  | -2717. | 428.   | 79.77  | 55.66 | 129.42 | 0.  |         |  |     |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 1    | -0.00  | .0432  | .0637 | -.1848 | -.1650 | .0257  | .2170 |
| 2    | -25.00 | -.0549 | .1052 | .4436  | -.2020 | .0877  | .3053 |
| 3    | -20.00 | -.0506 | .0921 | .3800  | -.1949 | .0684  | .2830 |
| 4    | -15.01 | -.0268 | .0774 | .2241  | -.1901 | .0580  | .2664 |
| 5    | -10.01 | -.0069 | .0684 | .0975  | -.1789 | .0449  | .2429 |
| 6    | -5.01  | .0157  | .0634 | -.0325 | -.1667 | .0335  | .2224 |
| 7    | -2.50  | .0289  | .0628 | -.1045 | -.1646 | .0297  | .2177 |
| 8    | -0.01  | .0426  | .0631 | -.1822 | -.1642 | .0260  | .2168 |
| 9    | 2.50   | .0572  | .0626 | -.2625 | -.1624 | .0234  | .2134 |
| 10   | 4.99   | .0710  | .0621 | -.3380 | -.1571 | .0208  | .2068 |
| 11   | 9.99   | .0941  | .0666 | -.4722 | -.1463 | .0155  | .1922 |
| 12   | 15.00  | .0841  | .0817 | -.4353 | -.1422 | .0008  | .1848 |
| 13   | 20.00  | .0806  | .0871 | -.4655 | -.1293 | -.0096 | .1746 |
| 14   | 25.00  | .0686  | .0970 | -.4607 | -.1178 | -.0203 | .1686 |
| 15   | -0.01  | .0427  | .0629 | -.1801 | -.1641 | .0259  | .2156 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 1    | -0.00  | .0432  | -.0147 | -.1264 | -.1650 | .0123  | .2257 |
| 2    | -25.00 | -.0549 | -.0061 | .5775  | -.2020 | .1110  | .3229 |
| 3    | -20.00 | -.0506 | -.0108 | .4823  | -.1949 | .0887  | .2974 |
| 4    | -15.01 | -.0268 | -.0189 | .3167  | -.1901 | .0689  | .2768 |
| 5    | -10.01 | -.0069 | -.0192 | .1740  | -.1789 | .0485  | .2517 |
| 6    | -5.01  | .0157  | -.0169 | .0309  | -.1667 | .0294  | .2307 |
| 7    | -2.50  | .0289  | -.0158 | -.0437 | -.1646 | .0211  | .2260 |
| 8    | -0.01  | .0426  | -.0152 | -.1234 | -.1642 | .0127  | .2253 |
| 9    | 2.50   | .0572  | -.0145 | -.2036 | -.1624 | .0051  | .2220 |
| 10   | 4.99   | .0710  | -.0127 | -.2793 | -.1571 | -.0022 | .2156 |
| 11   | 9.99   | .0941  | -.0034 | -.4151 | -.1463 | -.0159 | .2034 |
| 12   | 15.00  | .0841  | .0132  | -.4073 | -.1422 | -.0273 | .2016 |
| 13   | 20.00  | .0806  | .0218  | -.4547 | -.1293 | -.0390 | .1939 |
| 14   | 25.00  | .0686  | .0332  | -.4700 | -.1178 | -.0487 | .1916 |
| 15   | -0.01  | .0427  | -.0150 | -.1217 | -.1641 | .0127  | .2241 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 1093 CONFIG T62 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|---------------|-------------|---------------|-------------|-------|---------|-----|
| 2       | .0        | .0            | -.4         | 3.84        | 35.           | 308.        | -83.          | -7.61       | 55.29 | 128.99  | 0.  |
| 3       | .0        | -20.0         | 12.9        | 21.95       | -505.         | 2892.       | -627.         | -76.62      | 54.72 | 128.31  | 0.  |
| 4       | .0        | -15.0         | 7.5         | 14.18       | -318.         | 2339.       | -483.         | -62.22      | 54.16 | 127.65  | 0.  |
| 5       | .0        | -10.0         | 2.0         | 8.82        | -99.          | 1597.       | -344.         | -42.10      | 55.50 | 129.24  | 0.  |
| 6       | .0        | -5.0          | .1          | 5.68        | -17.          | 912.        | -217.         | -23.56      | 55.41 | 129.13  | 0.  |
| 7       | .0        | -2.5          | -.5         | 4.83        | 2.            | 597.        | -163.         | -14.92      | 54.66 | 128.24  | 0.  |
| 8       | .0        | .0            | -.3         | 4.23        | 1.            | 289.        | -107.         | -6.70       | 54.83 | 128.45  | 0.  |
| 9       | .0        | 2.5           | -.5         | 3.71        | 7.            | -2.         | -63.          | 1.05        | 54.79 | 128.40  | 0.  |
| 10      | .0        | 5.0           | -.3         | 3.80        | 3.            | -374.       | -13.          | 11.17       | 55.24 | 128.93  | 0.  |
| 11      | .0        | 10.0          | 2.7         | 4.78        | -115.         | -997.       | 117.          | 29.35       | 54.53 | 128.09  | 0.  |
| 12      | .0        | 15.0          | 9.5         | 8.75        | -363.         | -1483.      | 187.          | 43.59       | 55.37 | 129.09  | 0.  |
| 13      | .0        | 20.0          | 15.3        | 15.97       | -633.         | -2892.      | 319.          | 60.72       | 55.01 | 128.66  | 0.  |
| 14      | .0        | .0            | -.2         | 4.34        | 2.            | 301.        | -116.         | -7.13       | 54.37 | 127.89  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0011 | .0104 | .0112  | .0186  | -.0050 | -.0206 |
| 3    | -20.00 | .0347  | .0593 | -.1629 | .1747  | -.0379 | -.2071 |
| 4    | -15.00 | .0202  | .0383 | -.1024 | .1413  | -.0292 | -.1682 |
| 5    | -10.00 | .0054  | .0238 | -.0319 | .0965  | -.0208 | -.1138 |
| 6    | -5.00  | .0003  | .0154 | -.0056 | .0551  | -.0131 | -.0637 |
| 7    | -2.50  | -.0014 | .0131 | .0008  | .0361  | -.0098 | -.0403 |
| 8    | .00    | -.0008 | .0114 | .0005  | .0175  | -.0065 | -.0181 |
| 9    | 2.50   | -.0013 | .0100 | .0022  | -.0001 | -.0038 | .0028  |
| 10   | 5.00   | -.0008 | .0103 | .0011  | -.0226 | -.0008 | .0302  |
| 11   | 10.00  | .0072  | .0129 | -.0370 | -.0602 | .0071  | .0793  |
| 12   | 15.00  | .0256  | .0237 | -.1172 | -.0896 | .0113  | .1178  |
| 13   | 20.00  | .0414  | .0432 | -.2040 | -.1264 | .0192  | .1641  |
| 14   | .00    | -.0005 | .0117 | .0007  | .0182  | -.0070 | -.0193 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0011 | .0104  | .0112  | .0186  | -.0050 | -.0206 |
| 3    | -20.00 | .0347  | -.0154 | -.0835 | .1747  | -.0251 | -.2149 |
| 4    | -15.00 | .0202  | -.0067 | -.0584 | .1413  | -.0232 | -.1723 |
| 5    | -10.00 | .0054  | .0036  | -.0121 | .0965  | -.0194 | -.1162 |
| 6    | -5.00  | .0003  | .0097  | .0005  | .0551  | -.0130 | -.0648 |
| 7    | -2.50  | -.0014 | .0113  | .0031  | .0361  | -.0098 | -.0408 |
| 8    | .00    | -.0008 | .0114  | .0005  | .0175  | -.0065 | -.0181 |
| 9    | 2.50   | -.0013 | .0099  | .0013  | -.0001 | -.0038 | .0033  |
| 10   | 5.00   | -.0008 | .0076  | .0007  | -.0226 | -.0008 | .0310  |
| 11   | 10.00  | .0072  | -.0011 | -.0298 | -.0602 | .0058  | .0804  |
| 12   | 15.00  | .0256  | -.0078 | -.0974 | -.0896 | .0052  | .1199  |
| 13   | 20.00  | .0414  | -.0158 | -.1563 | -.1264 | .0049  | .1689  |
| 14   | .00    | -.0005 | .0117  | .0007  | .0182  | -.0070 | -.0193 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 1094 CONFIG T62 BT

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDRBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | V KNOTS | RPM |
|---------|-----------|---------|-------------|--------------|---------------|--------------|--------------|-------------|-------------|---------|-----|
| 2       | .0        | .0      | .1          | 4.62         | 34.           | 521.         | -110.        | -13.24      | 55.48       | 129.21  | 0.  |
| 3       | .0        | -20.0   | 13.0        | 22.81        | -480.         | 2952.        | -607.        | -78.00      | 55.65       | 129.41  | 0.  |
| 4       | .0        | -15.0   | 7.4         | 14.89        | -288.         | 2425.        | -464.        | -64.19      | 55.41       | 129.13  | 0.  |
| 5       | .0        | -10.0   | 2.2         | 10.06        | -73.          | 1807.        | -342.        | -47.63      | 54.55       | 128.10  | 0.  |
| 6       | .0        | -5.0    | .2          | 6.61         | 13.           | 1114.        | -214.        | -29.04      | 55.06       | 128.72  | 0.  |
| 7       | .0        | -2.5    | -.4         | 5.27         | 38.           | 792.         | -155.        | -20.64      | 55.70       | 129.47  | 0.  |
| 8       | .0        | .0      | -.5         | 4.49         | 34.           | 471.         | -106.        | -11.70      | 56.28       | 130.15  | 0.  |
| 9       | .0        | 2.5     | -.7         | 3.89         | 45.           | 184.         | -71.         | -4.41       | 55.58       | 129.33  | 0.  |
| 10      | .0        | 5.0     | -.6         | 4.03         | 38.           | -196.        | -7.          | 6.23        | 55.30       | 128.99  | 0.  |
| 11      | .0        | 10.0    | 2.3         | 4.59         | -74.          | -870.        | 128.         | 25.22       | 55.36       | 129.07  | 0.  |
| 12      | .0        | 15.0    | 8.9         | 8.12         | -314.         | -1329.       | 189.         | 39.12       | 55.82       | 129.62  | 0.  |
| 13      | .0        | 20.0    | 15.0        | 15.36        | -595.         | -1972.       | 338.         | 57.36       | 54.82       | 128.43  | 0.  |
| 14      | .0        | .0      | -.3         | 4.59         | 37.           | 505.         | -107.        | -12.82      | 55.42       | 129.14  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0002 | .0125 | .0110  | .0315  | -.0066 | -.0358 |
| 3    | -20.00 | .0352  | .0616 | -.1547 | .1783  | -.0366 | -.2108 |
| 4    | -15.00 | .0200  | .0402 | -.0927 | .1465  | -.0281 | -.1735 |
| 5    | -10.00 | .0061  | .0272 | -.0234 | .1092  | -.0206 | -.1287 |
| 6    | -5.00  | .0006  | .0179 | .0042  | .0673  | -.0130 | -.0785 |
| 7    | -2.50  | -.0012 | .0142 | .0122  | .0479  | -.0093 | -.0558 |
| 8    | .00    | -.0014 | .0121 | .0110  | .0285  | -.0064 | -.0316 |
| 9    | 2.50   | -.0020 | .0105 | .0147  | .0111  | -.0043 | -.0119 |
| 10   | 5.00   | -.0017 | .0109 | .0123  | -.0119 | -.0004 | .0168  |
| 11   | 10.00  | .0063  | .0124 | -.0239 | -.0526 | .0078  | .0682  |
| 12   | 15.00  | .0240  | .0219 | -.1011 | -.0803 | .0114  | .1057  |
| 13   | 20.00  | .0404  | .0415 | -.1917 | -.1191 | .0204  | .1550  |
| 14   | .00    | -.0008 | .0124 | .0118  | .0305  | -.0065 | -.0347 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0002 | .0125  | .0110  | .0315  | -.0066 | -.0358 |
| 3    | -20.00 | .0352  | -.0145 | -.0781 | .1783  | -.0245 | -.2192 |
| 4    | -15.00 | .0200  | -.0062 | -.0506 | .1465  | -.0226 | -.1780 |
| 5    | -10.00 | .0061  | .0043  | -.0038 | .1092  | -.0196 | -.1315 |
| 6    | -5.00  | .0006  | .0109  | .0102  | .0673  | -.0130 | -.0797 |
| 7    | -2.50  | -.0012 | .0118  | .0144  | .0479  | -.0094 | -.0564 |
| 8    | .00    | -.0014 | .0121  | .0110  | .0285  | -.0064 | -.0316 |
| 9    | 2.50   | -.0020 | .0110  | .0136  | .0111  | -.0042 | -.0115 |
| 10   | 5.00   | -.0017 | .0094  | .0120  | -.0119 | -.0002 | .0177  |
| 11   | 10.00  | .0063  | .0003  | -.0163 | -.0526 | .0069  | .0693  |
| 12   | 15.00  | .0240  | -.0063 | -.0818 | -.0803 | .0061  | .1078  |
| 13   | 20.00  | .0404  | -.0143 | -.1426 | -.1191 | .0069  | .1599  |
| 14   | .00    | -.0008 | .0124  | .0118  | .0305  | -.0065 | -.0347 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 1095 CONFIG

T62 BT

| PT. NO. | ALPHA DEG | - DELF PSI DEG | - DELA CI BAR SQ-FT | - IHT CDBAR SQ-FT | CPMBAR CU-FT | DELE CYMBAR CU-FT | - DELR CRM BAR CU-FT | 20 CYBAR SQ-FT | DELSB Q PSF | O V KNOTS | RPM |
|---------|-----------|----------------|---------------------|-------------------|--------------|-------------------|----------------------|----------------|-------------|-----------|-----|
| 2       | .0        | .0             | -.9                 | 5.43              | 64.          | 729.              | -146.                | -18.56         | 55.71       | 129.49    | 0.  |
| 3       | .0        | -20.0          | 13.2                | 24.16             | -480.        | 3114.             | -626.                | -82.12         | 55.73       | 129.51    | 0.  |
| 4       | .0        | -15.0          | 7.6                 | 16.23             | -288.        | 2599.             | -487.                | -69.04         | 55.76       | 129.54    | 0.  |
| 5       | .0        | -10.0          | 1.9                 | 10.49             | -58.         | 1924.             | -355.                | -50.15         | 56.22       | 130.09    | 0.  |
| 6       | .0        | -5.0           | -.1                 | 7.69              | 32.          | 1333.             | -259.                | -34.65         | 54.77       | 128.36    | 0.  |
| 7       | .0        | -2.5           | -1.0                | 6.25              | 59.          | 1009.             | -197.                | -25.94         | 55.36       | 129.07    | 0.  |
| 8       | .0        | .0             | -1.1                | 5.28              | 66.          | 703.              | -142.                | -17.75         | 55.64       | 129.40    | 0.  |
| 9       | .0        | 2.5            | -1.4                | 4.73              | 74.          | 383.              | -112.                | -9.30          | 54.54       | 128.09    | 0.  |
| 10      | .0        | 5.0            | -1.2                | 4.46              | 64.          | -7.               | -48.                 | 1.28           | 55.55       | 129.29    | 0.  |
| 11      | .0        | 10.0           | 1.8                 | 4.91              | -51.         | -712.             | 96.                  | 21.20          | 55.23       | 128.91    | 0.  |
| 12      | .0        | 15.0           | 8.5                 | 8.78              | -285.        | -1272.            | 167.                 | 37.73          | 54.98       | 128.62    | 0.  |
| 13      | .0        | 20.0           | 14.0                | 14.20             | -555.        | -1793.            | 286.                 | 52.71          | 56.13       | 129.98    | 0.  |
| 14      | .0        | .0             | -.9                 | 5.47              | 69.          | 711.              | -150.                | -18.16         | 54.95       | 128.57    | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0024 | .0147 | .0208  | .0440  | -.0088 | -.0502 |
| 3    | -20.00 | .0357  | .0653 | -.1548 | .1881  | -.0378 | -.2220 |
| 4    | -15.00 | .0205  | .0439 | -.0929 | .1570  | -.0294 | -.1866 |
| 5    | -10.00 | .0050  | .0289 | -.0186 | .1162  | -.0215 | -.1355 |
| 6    | -5.00  | -.0003 | .0208 | .0104  | .0805  | -.0156 | -.0936 |
| 7    | -2.50  | -.0027 | .0169 | .0190  | .0609  | -.0119 | -.0701 |
| 8    | .00    | -.0029 | .0143 | .0211  | .0425  | -.0086 | -.0480 |
| 9    | 2.50   | -.0039 | .0128 | .0239  | .0231  | -.0068 | -.0251 |
| 10   | 5.00   | -.0032 | .0120 | .0206  | -.0004 | -.0029 | .0035  |
| 11   | 10.00  | .0048  | .0133 | -.0165 | -.0430 | .0052  | .0573  |
| 12   | 15.00  | .0230  | .0224 | -.0919 | -.0768 | .0101  | .1020  |
| 13   | 20.00  | .0377  | .0384 | -.1791 | -.1083 | .0173  | .1425  |
| 14   | .00    | -.0023 | .0148 | .0223  | .0430  | -.0091 | -.0491 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0024 | .0147  | .0208  | .0440  | -.0088 | -.0502 |
| 3    | -20.00 | .0357  | -.0149 | -.0761 | .1881  | -.0255 | -.2309 |
| 4    | -15.00 | .0205  | -.0062 | -.0488 | .1570  | -.0239 | -.1916 |
| 5    | -10.00 | .0050  | .0048  | .0017  | .1162  | -.0205 | -.1385 |
| 6    | -5.00  | -.0003 | .0125  | .0177  | .0805  | -.0157 | -.0951 |
| 7    | -2.50  | -.0027 | .0138  | .0218  | .0609  | -.0120 | -.0708 |
| 8    | .00    | -.0029 | .0143  | .0211  | .0425  | -.0086 | -.0480 |
| 9    | 2.50   | -.0039 | .0139  | .0223  | .0231  | -.0066 | -.0246 |
| 10   | 5.00   | -.0032 | .0117  | .0192  | -.0004 | -.0025 | .0045  |
| 11   | 10.00  | .0048  | .0031  | -.0114 | -.0430 | .0046  | .0587  |
| 12   | 15.00  | .0230  | -.0049 | -.0747 | -.0768 | .0053  | .1043  |
| 13   | 20.00  | .0377  | -.0129 | -.1365 | -.1083 | .0047  | .1470  |
| 14   | .00    | -.0023 | .0148  | .0223  | .0430  | -.0091 | -.0491 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

RUN 1096 CONFIG T62 BT

| PT. NO. | ALPHA DEG | - DELF PSI DEG | - DELA CLBAR SQ-FT | - IHT CDBAR SQ-FT | O DELE CPMBAR CU-FT | - DELR CYMBAR CU-FT | 25 DELSB CYBAR SQ-FT | U V PSF | RPM   |        |    |
|---------|-----------|----------------|--------------------|-------------------|---------------------|---------------------|----------------------|---------|-------|--------|----|
| 2       | .0        | .0             | -1.7               | 6.40              | 99.                 | 897.                | -181.                | -22.46  | 55.39 | 129.10 | 0. |
| 3       | .0        | -20.0          | 13.3               | 25.40             | -478.               | 3177.               | -672.                | -83.00  | 55.18 | 128.86 | 0. |
| 4       | .0        | -15.0          | 8.1                | 17.52             | -307.               | 2727.               | -499.                | -71.70  | 55.35 | 129.05 | 0. |
| 5       | .0        | -10.0          | 2.5                | 12.43             | -75.                | 2095.               | -382.                | -54.53  | 55.18 | 128.85 | 0. |
| 6       | .0        | -5.0           | .6                 | 8.60              | 53.                 | 1504.               | -278.                | -39.14  | 55.23 | 128.92 | 0. |
| 7       | .0        | -2.5           | -1.3               | 7.41              | 81.                 | 1196.               | -230.                | -30.68  | 54.96 | 128.59 | 0. |
| 8       | .0        | .0             | -1.8               | 6.36              | 91.                 | 888.                | -174.                | -22.25  | 55.32 | 129.02 | 0. |
| 9       | .0        | 2.5            | -2.0               | 5.38              | 103.                | 566.                | -138.                | -13.85  | 55.51 | 129.25 | 0. |
| 10      | .0        | 5.0            | -1.8               | 5.35              | 92.                 | 161.                | -84.                 | -2.65   | 54.73 | 128.31 | 0. |
| 11      | .0        | 10.0           | 1.2                | 5.25              | -30.                | -563.               | 57.                  | 17.47   | 55.01 | 128.65 | 0. |
| 12      | .0        | 15.0           | 7.8                | 8.26              | -270.               | -1177.              | 151.                 | 35.23   | 55.13 | 128.79 | 0. |
| 13      | .0        | 20.0           | 13.6               | 14.11             | -545.               | -1707.              | 277.                 | 50.61   | 55.49 | 129.22 | 0. |
| 14      | .0        | .0             | -1.6               | 6.29              | 101.                | 910.                | -179.                | -23.23  | 55.32 | 129.02 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0045 | .0173 | .0319  | .0542  | -.0109 | -.0607 |
| 3    | -20.00 | .0359  | .0686 | -.1543 | .1919  | -.0406 | -.2243 |
| 4    | -15.00 | .0220  | .0474 | -.0991 | .1647  | -.0301 | -.1938 |
| 5    | -10.00 | .0067  | .0336 | -.0243 | .1266  | -.0231 | -.1474 |
| 6    | -5.00  | -.0017 | .0232 | .0172  | .0909  | -.0168 | -.1058 |
| 7    | -2.50  | -.0036 | .0200 | .0261  | .0723  | -.0139 | -.0829 |
| 8    | .00    | -.0048 | .0172 | .0292  | .0537  | -.0105 | -.0601 |
| 9    | 2.50   | -.0053 | .0145 | .0331  | .0342  | -.0084 | -.0374 |
| 10   | 5.00   | -.0050 | .0144 | .0295  | .0097  | -.0051 | -.0072 |
| 11   | 10.00  | .0033  | .0142 | -.0096 | -.0340 | .0035  | .0472  |
| 12   | 15.00  | .0210  | .0223 | -.0870 | -.0711 | .0091  | .0952  |
| 13   | 20.00  | .0367  | .0381 | -.1756 | -.1031 | .0167  | .1368  |
| 14   | .00    | -.0044 | .0170 | .0326  | .0550  | -.0108 | -.0628 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYR    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0045 | .0173  | .0319  | .0542  | -.0109 | -.0607 |
| 3    | -20.00 | .0359  | -.0126 | -.0705 | .1919  | -.0282 | -.2343 |
| 4    | -15.00 | .0220  | -.0046 | -.0539 | .1647  | -.0243 | -.1994 |
| 5    | -10.00 | .0067  | .0074  | -.0024 | .1266  | -.0219 | -.1510 |
| 6    | -5.00  | -.0017 | .0139  | .0249  | .0909  | -.0170 | -.1074 |
| 7    | -2.50  | -.0036 | .0164  | .0293  | .0723  | -.0141 | -.0837 |
| 8    | .00    | -.0048 | .0172  | .0292  | .0537  | -.0105 | -.0601 |
| 9    | 2.50   | -.0053 | .0162  | .0311  | .0342  | -.0081 | -.0367 |
| 10   | 5.00   | -.0050 | .0150  | .0270  | .0097  | -.0046 | -.0059 |
| 11   | 10.00  | .0033  | .0057  | -.0062 | -.0340 | .0031  | .0490  |
| 12   | 15.00  | .0210  | -.0032 | -.0714 | -.0711 | .0045  | .0978  |
| 13   | 20.00  | .0367  | -.0112 | -.1342 | -.1031 | .0044  | .1416  |
| 14   | .00    | -.0044 | .0170  | .0326  | .0550  | -.0108 | -.0628 |

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RUN 1097 CONFIG

T62 BT

| PT. NO. | TW | ALPHA DEG | - DELF PSI DEG | - DELA CLBAR SQ-FT | - IHT CDBAR SQ-FT | O DELE CPMBAR CU-FT | - DELR CYMBAR CU-FT | 30 DELSB CRMBAR CU-FT | Q CYBAR SQ-FT | PSF    | N V KNOTS | RPM |
|---------|----|-----------|----------------|--------------------|-------------------|---------------------|---------------------|-----------------------|---------------|--------|-----------|-----|
| 2       | .0 | .0        | .0             | -2.2               | 7.33              | 118.                | 1022.               | -200.                 | -25.81        | 55.03  | 128.68    | 0.  |
| 3       | .0 | -20.0     | 13.4           | 26.62              | -494.             | 3345.               | -580.               | -87.08                | 55.56         | 129.30 | 0.        | 0.  |
| 4       | .0 | -15.2     | 8.1            | 18.79              | -303.             | 2823.               | -534.               | -73.72                | 55.78         | 129.56 | 0.        | 0.  |
| 5       | .0 | -10.1     | 2.4            | 13.40              | -71.              | 2221.               | -375.               | -57.87                | 55.70         | 129.47 | 0.        | 0.  |
| 6       | .0 | -5.0      | -1.2           | 9.38               | 66.               | 1611.               | -285.               | -41.42                | 56.01         | 129.84 | 0.        | 0.  |
| 7       | .0 | -2.5      | -2.1           | 8.02               | 101.              | 1306.               | -245.               | -33.34                | 55.95         | 129.76 | 0.        | 0.  |
| 8       | .0 | .0        | -2.3           | 7.10               | 106.              | 1017.               | -203.               | -25.29                | 55.62         | 129.38 | 0.        | 0.  |
| 9       | .0 | 2.5       | -2.7           | 6.19               | 121.              | 703.                | -159.               | -17.34                | 55.19         | 128.86 | 0.        | 0.  |
| 10      | .0 | 5.0       | -2.5           | 5.69               | 108.              | 280.                | -108.               | -5.87                 | 55.80         | 129.59 | 0.        | 0.  |
| 11      | .0 | 10.0      | .6             | 5.47               | -20.              | -453.               | 35.                 | 14.57                 | 56.50         | 130.42 | 0.        | 0.  |
| 12      | .0 | 15.0      | 7.0            | 8.42               | -248.             | -1110.              | 133.                | 33.39                 | 55.72         | 129.49 | 0.        | 0.  |
| 13      | .0 | 20.0      | 12.7           | 14.00              | -522.             | -1628.              | 251.                | 48.59                 | 55.77         | 129.55 | 0.        | 0.  |
| 14      | .0 | .0        | -2.2           | 7.12               | 111.              | 1040.               | -198.               | -26.41                | 54.94         | 128.57 | 0.        | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPH    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0059 | .0198 | .0379  | .0617  | -.0121 | -.0698 |
| 3    | -20.00 | .0363  | .0719 | -.1593 | .2021  | -.0350 | -.2354 |
| 4    | -15.20 | .0220  | .0508 | -.0978 | .1705  | -.0323 | -.1992 |
| 5    | -10.10 | .0066  | .0362 | -.0230 | .1341  | -.0227 | -.1564 |
| 6    | -5.00  | -.0031 | .0254 | .0214  | .0973  | -.0172 | -.1119 |
| 7    | -2.50  | -.0056 | .0217 | .0327  | .0789  | -.0148 | -.0901 |
| 8    | .00    | -.0062 | .0192 | .0343  | .0614  | -.0123 | -.0683 |
| 9    | 2.50   | -.0073 | .0167 | .0391  | .0425  | -.0096 | -.0469 |
| 10   | 5.00   | -.0067 | .0154 | .0349  | .0169  | -.0065 | -.0159 |
| 11   | 10.00  | .0017  | .0148 | -.0065 | -.0274 | .0021  | .0394  |
| 12   | 15.00  | .0189  | .0228 | -.0799 | -.0670 | .0080  | .0902  |
| 13   | 20.00  | .0343  | .0378 | -.1684 | -.0984 | .0151  | .1313  |
| 14   | .00    | -.0059 | .0193 | .0357  | .0628  | -.0120 | -.0714 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0059 | .0198  | .0379  | .0617  | -.0121 | -.0698 |
| 3    | -20.00 | .0363  | -.0133 | -.0855 | .2021  | -.0226 | -.2457 |
| 4    | -15.20 | .0220  | -.0035 | -.0490 | .1705  | -.0263 | -.2056 |
| 5    | -10.10 | .0066  | .0081  | -.0014 | .1341  | -.0216 | -.1603 |
| 6    | -5.00  | -.0031 | .0155  | .0293  | .0973  | -.0175 | -.1137 |
| 7    | -2.50  | -.0056 | .0177  | .0361  | .0789  | -.0150 | -.0910 |
| 8    | .00    | -.0062 | .0192  | .0343  | .0614  | -.0123 | -.0683 |
| 9    | 2.50   | -.0073 | .0188  | .0368  | .0425  | -.0093 | -.0461 |
| 10   | 5.00   | -.0067 | .0167  | .0317  | .0169  | -.0059 | -.0145 |
| 11   | 10.00  | .0017  | .0077  | -.0046 | -.0274 | .0019  | .0414  |
| 12   | 15.00  | .0189  | -.0015 | -.0661 | -.0670 | .0038  | .0930  |
| 13   | 20.00  | .0343  | -.0096 | -.1304 | -.0984 | .0034  | .1363  |
| 14   | .00    | -.0059 | .0193  | .0357  | .0628  | -.0120 | -.0714 |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 1098 CONFIG T62 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELTA Q PSF | DELTA V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|---------------|-----|
| 2       | 0         | 0             | -1.7        | 6.57        | 97.          | -1157.       | 161.         | 29.29       | 55.37       | 129.09        | 0.  |
| 3       | 0         | -20.0         | 7.6         | 15.70       | -316.        | 1613.        | -322.        | -44.81      | 55.76       | 129.54        | 0.  |
| 4       | 0         | -15.0         | 1.3         | 9.88        | -76.         | 959.         | -167.        | -27.41      | 54.72       | 128.30        | 0.  |
| 5       | 0         | -10.0         | -1.8        | 7.12        | 62.          | 211.         | -49.         | -6.94       | 54.63       | 128.19        | 0.  |
| 6       | 0         | -5.0          | -2.2        | 6.14        | 95.          | -512.        | 70.          | 12.33       | 53.76       | 127.16        | 0.  |
| 7       | 0         | -2.5          | -2.6        | 5.83        | 104.         | -837.        | 124.         | 20.93       | 54.62       | 128.19        | 0.  |
| 8       | 0         | 0             | -2.0        | 6.63        | 94.          | -1156.       | 174.         | 29.48       | 54.51       | 128.05        | 0.  |
| 9       | 0         | 2.5           | -1.5        | 6.90        | 83.          | -1440.       | 215.         | 36.83       | 55.20       | 128.88        | 0.  |
| 10      | 0         | 5.0           | -0.7        | 8.29        | 50.          | -1794.       | 256.         | 46.45       | 54.58       | 128.14        | 0.  |
| 11      | 0         | 10.0          | 4.6         | 9.59        | -151.        | -2322.       | 370.         | 61.99       | 55.06       | 128.71        | 0.  |
| 12      | 0         | 15.0          | 12.5        | 14.46       | -422.        | -2801.       | 483.         | 75.84       | 55.37       | 129.07        | 0.  |
| 13      | 0         | 20.0          | 18.9        | 24.80       | -686.        | -3283.       | 604.         | 89.12       | 54.58       | 128.14        | 0.  |
| 14      | 0         | 0             | -2.0        | 6.42        | 102.         | -1131.       | 176.         | 28.79       | 54.76       | 128.35        | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYH    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | -.0046 | .0178 | .0314  | -.0699 | .0097  | .0792  |
| 3    | -20.00 | .0206  | .0411 | -.1019 | .0975  | -.0194 | -.1211 |
| 4    | -15.00 | .0035  | .0267 | -.0244 | .0579  | -.0101 | -.0741 |
| 5    | -10.00 | -.0048 | .0193 | .0200  | .0127  | -.0030 | -.0187 |
| 6    | -5.00  | -.0059 | .0166 | .0307  | -.0309 | .0043  | .0333  |
| 7    | -2.50  | -.0070 | .0158 | .0335  | -.0505 | .0075  | .0566  |
| 8    | 0.00   | -.0054 | .0179 | .0304  | -.0698 | .0105  | .0797  |
| 9    | 2.50   | -.0041 | .0187 | .0267  | -.0870 | .0130  | .0995  |
| 10   | 5.00   | -.0019 | .0224 | .0161  | -.1084 | .0155  | .1255  |
| 11   | 10.00  | .0125  | .0259 | -.0488 | -.1403 | .0224  | .1675  |
| 12   | 15.00  | .0337  | .0391 | -.1361 | -.1692 | .0292  | .2050  |
| 13   | 20.00  | .0510  | .0670 | -.2213 | -.1983 | .0365  | .2409  |
| 14   | 0.00   | -.0055 | .0174 | .0328  | -.0683 | .0106  | .0778  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDR    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | 0.00   | -.0046 | .0178  | .0314  | -.0699 | .0097  | .0792  |
| 3    | -20.00 | .0206  | -.0030 | -.0600 | .0975  | -.0117 | -.1279 |
| 4    | -15.00 | .0035  | .0065  | -.0096 | .0579  | -.0085 | -.0785 |
| 5    | -10.00 | -.0048 | .0157  | .0224  | .0127  | -.0036 | -.0218 |
| 6    | -5.00  | -.0059 | .0195  | .0286  | -.0309 | .0037  | .0317  |
| 7    | -2.50  | -.0070 | .0182  | .0317  | -.0505 | .0072  | .0558  |
| 8    | 0.00   | -.0054 | .0179  | .0304  | -.0698 | .0105  | .0797  |
| 9    | 2.50   | -.0041 | .0143  | .0297  | -.0870 | .0132  | .1003  |
| 10   | 5.00   | -.0019 | .0113  | .0233  | -.1084 | .0157  | .1270  |
| 11   | 10.00  | .0125  | -.0037 | -.0272 | -.1403 | .0204  | .1695  |
| 12   | 15.00  | .0337  | -.0156 | -.0909 | -.1692 | .0216  | .2081  |
| 13   | 20.00  | .0510  | -.0198 | -.1410 | -.1983 | .0200  | .2492  |
| 14   | 0.00   | -.0055 | .0174  | .0328  | -.0683 | .0106  | .0778  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 1099 CONFIG T62 BT

| PT. NO. | DELTA     |         | DELA        |             | IHT           |              | DELE          |             | DEL R |         | DEL SB |  | Q |  | RPM |
|---------|-----------|---------|-------------|-------------|---------------|--------------|---------------|-------------|-------|---------|--------|--|---|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | PSF   | V KNOTS |        |  |   |  |     |
| 2       | .0        | .0      | -1.1        | 5.61        | 67.           | -979.        | 118.          | 24.97       | 54.98 | 128.63  | 0.     |  |   |  |     |
| 3       | .0        | -20.0   | 8.5         | 15.68       | -339.         |              | 1218.         |             | 55.28 | 128.97  | 0.     |  |   |  |     |
| 4       | .0        | -15.0   | 2.5         |             |               |              | -219.         | -30.47      | 55.94 | 129.76  | 0.     |  |   |  |     |
| 5       | .0        | -10.0   | -7          | 6.69        | 30.           | 382.         | -95.          | -11.36      | 54.95 | 128.59  | 0.     |  |   |  |     |
| 6       | .0        | -5.0    | -1.4        | 5.23        | 67.           | -324.        | 22.           | 7.39        | 55.33 | 129.04  | 0.     |  |   |  |     |
| 7       | .0        | -2.5    | -1.5        | 5.16        | 81.           | -651.        | 75.           | 15.73       | 54.94 | 128.58  | 0.     |  |   |  |     |
| 8       | .0        | .0      | -1.2        | 5.42        | 72.           | -974.        | 130.          | 24.93       | 55.08 | 128.74  | 0.     |  |   |  |     |
| 9       | .0        | 2.5     | -1.0        | 6.06        | 63.           | -1255.       | 175.          | 31.93       | 55.21 | 128.89  | 0.     |  |   |  |     |
| 10      | .0        | 5.0     | .0          | 6.94        | 21.           | -1605.       | 212.          | 41.77       | 55.33 | 129.03  | 0.     |  |   |  |     |
| 11      | .0        | 10.0    | 4.9         | 8.61        | -160.         | -2190.       | 334.          | 58.59       | 55.15 | 128.83  | 0.     |  |   |  |     |
| 12      | .0        | 15.0    | 12.5        | 14.00       | -427.         |              | 454.          | 73.75       | 54.61 | 128.17  | 0.     |  |   |  |     |
| 13      | .0        | 20.1    | 19.1        | 24.73       | -696.         | -4531.       | 1247.         |             | 54.60 | 128.17  | 0.     |  |   |  |     |
| 14      | .0        | .0      | -1.1        | 5.57        | 78.           | -954.        | 149.          | 24.19       | 55.35 | 129.06  | 0.     |  |   |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0029 | .0152 | .0218  | -.0591 | .0072  | .0675  |
| 3    | -20.00 | .0229  | .0424 | -.1092 |        | .0736  |        |
| 4    | -15.00 | .0067  |       |        |        | -.0132 | -.0823 |
| 5    | -10.00 | -.0020 | .0181 | .0098  | .0231  | -.0057 | -.0307 |
| 6    | -5.00  | -.0037 | .0141 | .0217  | -.0196 | .0014  | .0200  |
| 7    | -2.50  | -.0041 | .0140 | .0260  | -.0393 | .0045  | .0425  |
| 8    | .00    | -.0031 | .0147 | .0231  | -.0589 | .0078  | .0674  |
| 9    | 2.50   | -.0026 | .0164 | .0203  | -.0758 | .0106  | .0863  |
| 10   | 5.00   | .0001  | .0188 | .0068  | -.0969 | .0128  | .1129  |
| 11   | 10.00  | .0133  | .0233 | -.0516 | -.1323 | .0201  | .1583  |
| 12   | 15.00  | .0338  | .0378 | -.1378 | -.1636 | .0274  | .1993  |
| 13   | 20.10  | .0516  | .0655 | -.2243 |        | .0753  |        |
| 14   | .00    | -.0029 | .0150 | .0253  | -.0576 | .0090  | .0654  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRM R  | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0029 | .0152  | .0218  | -.0591 | .0072  | .0675  |
| 3    | -20.00 | .0229  |        |        |        |        |        |
| 4    | -15.00 | .0067  |        |        |        |        |        |
| 5    | -10.00 | -.0020 | .0124  | .0150  | .0231  | -.0060 | -.0334 |
| 6    | -5.00  | -.0037 | .0158  | .0209  | -.0196 | .0010  | .0187  |
| 7    | -2.50  | -.0041 | .0158  | .0249  | -.0393 | .0043  | .0419  |
| 8    | .00    | -.0031 | .0147  | .0231  | -.0589 | .0078  | .0674  |
| 9    | 2.50   | -.0026 | .0126  | .0228  | -.0758 | .0107  | .0869  |
| 10   | 5.00   | .0001  | .0088  | .0128  | -.0969 | .0129  | .1141  |
| 11   | 10.00  | .0133  | -.0047 | -.0320 | -.1323 | .0182  | .1600  |
| 12   | 15.00  | .0338  | -.0153 | -.0950 | -.1636 | .0198  | .2023  |
| 13   | 20.10  | .0516  |        |        |        |        |        |
| 14   | .00    | -.0029 | .0150  | .0253  | -.0576 | .0090  | .0654  |

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C. 11

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

*D.P.*

RUN 1100 CONFIG T62 BT

| PT. NO. | DELTA     |         | DELA         |             | IHT O       |              | DELE         |             | DELR -20 |         | DELSB |   | RPM |
|---------|-----------|---------|--------------|-------------|-------------|--------------|--------------|-------------|----------|---------|-------|---|-----|
|         | ALPHA DEG | PSI DEG | CI BAR SQ-FT | CDRAR SQ-FT | CPHAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF      | V KNOTS | Q     | V |     |
| 3       | .0        | .0      | -.5          | 4.64        | 40.         | -737.        | 87.          | 18.55       | 55.17    | 128.84  |       |   | 0.  |
| 4       | .0        | -20.0   | 8.7          | 15.59       | -352.       | 1854.        | -398.        | -50.30      | 55.42    | 129.12  |       |   | 0.  |
| 5       | .0        | -15.0   | 3.1          | 9.18        | -152.       | -1708.       | 1217.        | 220.67      | 55.53    | 129.25  |       |   | 0.  |
| 6       | .0        | -10.0   | -.3          | 6.02        | -1.         | 546.         | -150.        | -15.52      | 55.81    | 129.58  |       |   | 0.  |
| 7       | .0        | -5.0    | -5.8         | 6.16        | 71.         | -30.         | -364.        | -2.43       | 55.13    | 128.76  |       |   | 0.  |
| 8       | .0        | -15.0   | 3.1          | 9.25        | -147.       | 1220.        | -246.        | -33.94      | 55.80    | 129.56  |       |   | 0.  |
| 9       | .0        | -15.0   | 3.0          | 9.09        | -142.       | 1209.        | -244.        | -33.53      | 55.86    | 129.63  |       |   | 0.  |
| 10      | .0        | -10.0   | -.2          | 5.82        | 4.          | 535.         | -138.        | -15.40      | 56.10    | 129.91  |       |   | 0.  |
| 11      | .0        | -5.0    | -1.0         | 4.32        | 40.         | -177.        | -11.         | 3.73        | 56.39    | 130.25  |       |   | 0.  |
| 12      | .0        | -2.5    | -1.2         | 4.04        | 51.         | -491.        | 41.          | 11.94       | 55.95    | 129.73  |       |   | 0.  |
| 13      | .0        | .0      | -.4          | 4.32        | 22.         | -731.        | 87.          | 18.61       | 56.08    | 129.88  |       |   | 0.  |
| 14      | .0        | 2.5     | -.6          | 4.55        | 28.         | -1019.       | 119.         | 26.27       | 56.29    | 130.13  |       |   | 0.  |
| 15      | .0        | 5.0     | .2           | 5.29        | -2.         | -1338.       | 161.         | 34.97       | 56.55    | 130.44  |       |   | 0.  |
| 17      | .0        | 15.0    | 11.7         | 12.14       | -408.       | -2458.       | 387.         | 67.64       | 55.95    | 129.72  |       |   | 0.  |
| 18      | .0        | 10.0    | 4.4          | 7.18        | -158.       | -1963.       | 300.         | 52.92       | 56.03    | 129.82  |       |   | 0.  |
| 19      | .0        | 20.0    | 17.8         | 21.33       | -663.       | -2926.       | 501.         | 79.88       | 56.38    | 130.23  |       |   | 0.  |
| 20      | .0        | .0      | -.8          | 4.42        | 56.         | -711.        | 82.          | 17.67       | 56.29    | 130.13  |       |   | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 3    | .00    | -.0014 | .0125 | .0130  | -.0445 | .0052  | .0501  |
| 4    | -20.00 | .0234  | .0421 | -.1135 | .1120  | -.0241 | -.1360 |
| 5    | -15.00 | .0085  | .0248 | -.0490 | -.1031 | .0735  | .5964  |
| 6    | -10.00 | -.0007 | .0163 | -.0002 | .0330  | -.0090 | -.0419 |
| 7    | -5.00  | -.0158 | .0166 | .0229  | -.0018 | -.0220 | -.0066 |
| 8    | -15.00 | .0085  | .0250 | -.0473 | .0737  | -.0149 | -.0917 |
| 9    | -15.00 | .0082  | .0246 | -.0458 | .0730  | -.0147 | -.0906 |
| 10   | -10.00 | -.0005 | .0157 | .0013  | .0323  | -.0083 | -.0416 |
| 11   | -5.00  | -.0028 | .0117 | .0128  | -.0107 | -.0007 | .0101  |
| 12   | -2.50  | -.0031 | .0109 | .0163  | -.0296 | .0025  | .0323  |
| 13   | .00    | -.0012 | .0117 | .0072  | -.0442 | .0053  | .0503  |
| 14   | 2.50   | -.0016 | .0123 | .0090  | -.0615 | .0072  | .0710  |
| 15   | 5.00   | .0006  | .0143 | -.0007 | -.0808 | .0097  | .0945  |
| 17   | 15.00  | .0315  | .0328 | -.1315 | -.1485 | .0234  | .1828  |
| 18   | 10.00  | .0119  | .0194 | -.0509 | -.1185 | .0181  | .1430  |
| 19   | 20.00  | .0481  | .0577 | -.2138 | -.1767 | .0302  | .2159  |
| 20   | .00    | -.0021 | .0119 | .0182  | -.0430 | .0049  | .0478  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 3    | .00    | -.0014 | .0125  | .0130  | -.0445 | .0052  | .0501  |
| 4    | -20.00 | .0234  | -.0071 | -.0624 | .1120  | -.0153 | -.1422 |
| 5    | -15.00 | .0085  | .1790  | -.1493 | -.1031 | .0734  | .5694  |
| 6    | -10.00 | -.0007 | .0087  | .0083  | .0330  | -.0089 | -.0441 |
| 7    | -5.00  | -.0158 | .0160  | .0331  | -.0018 | -.0223 | -.0080 |
| 8    | -15.00 | .0085  | .0003  | -.0251 | .0737  | -.0121 | -.0951 |
| 9    | -15.00 | .0082  | .0002  | -.0238 | .0730  | -.0120 | -.0939 |
| 10   | -10.00 | -.0005 | .0082  | .0090  | .0323  | -.0082 | -.0437 |
| 11   | -5.00  | -.0028 | .0125  | .0130  | -.0107 | -.0009 | .0090  |
| 11   | -2.50  | -.0031 | .0123  | .0157  | -.0296 | .0023  | .0318  |
| 12   | .00    | -.0012 | .0117  | .0072  | -.0442 | .0053  | .0503  |
| 13   | 2.50   | -.0016 | .0092  | .0107  | -.0615 | .0073  | .0715  |
| 14   | 5.00   | .0006  | .0060  | .0038  | -.0808 | .0097  | .0954  |
| 16   | 15.00  | .0315  | -.0158 | -.0946 | -.1485 | .0162  | .1851  |
| 18   | 10.00  | .0119  | -.0058 | -.0333 | -.1185 | .0162  | .1442  |
| 19   | 20.00  | .0481  | -.0200 | -.1453 | -.1767 | .0146  | .2225  |
| 21   | .00    | -.0021 | .0119  | .0182  | -.0430 | .0049  | .0478  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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*P. 173*

RUN 1101 CONFIG T62 BT

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|---------------|-------------|---------------|-------------|-------|---------|-----|
| 2       | .0        | .0      | .1          | 3.89        | 23.           | -536.       | 63.           | 13.47       | 56.91 | 130.87  | 0.  |
| 3       | .0        | -20.0   | 9.5         | 15.69       | -384.         | 1935.       | -427.         | -52.44      | 56.85 | 130.79  | 0.  |
| 4       | .0        | -15.0   | 3.6         | 9.16        | -152.         | 1305.       | -280.         | -36.43      | 56.52 | 130.40  | 0.  |
| 5       | .0        | -10.0   | .2          | 5.69        | -15.          | 665.        | -168.         | -18.54      | 56.99 | 130.95  | 0.  |
| 6       | .0        | -5.0    | -.3         | 3.93        | 21.           | -8.         | -49.          | -.67        | 56.89 | 130.83  | 0.  |
| 7       | .0        | -2.5    | -.2         | 3.53        | 27.           | -304.       | 13.           | 7.24        | 56.91 | 130.85  | 0.  |
| 8       | .0        | .0      | .3          | 3.74        | 6.            | -545.       | 36.           | 13.68       | 56.84 | 130.77  | 0.  |
| 9       | .0        | 5.0     | 1.0         | 4.54        | -32.          | -1152.      | 132.          | 30.67       | 56.88 | 130.81  | 0.  |
| 10      | .0        | 10.0    | 4.6         | 6.27        | -174.         | -1764.      | 249.          | 47.99       | 57.36 | 131.38  | 0.  |
| 11      | .0        | 15.0    | 11.9        | 11.39       | -412.         | -2260.      | 333.          | 62.07       | 56.78 | 130.69  | 0.  |
| 12      | .0        | 20.0    | 17.9        | 20.19       | -674.         | -2796.      | 484.          | 77.03       | 56.30 | 130.14  | 0.  |
| 13      | .0        | .0      | .2          | 3.79        | 30.           | -526.       | 55.           | 13.08       | 56.68 | 130.57  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0003  | .0105 | .0073  | -.0324 | .0038  | .0364  |
| 3    | -20.00 | .0258  | .0424 | -.1239 | .1169  | -.0258 | -.1417 |
| 4    | -15.00 | .0097  | .0248 | -.0489 | .0788  | -.0169 | -.0985 |
| 5    | -10.00 | .0007  | .0154 | -.0047 | .0402  | -.0102 | -.0501 |
| 6    | -5.00  | -.0008 | .0106 | .0069  | -.0005 | -.0029 | -.0018 |
| 7    | -2.50  | -.0005 | .0095 | .0086  | -.0184 | .0008  | .0196  |
| 8    | .00    | .0007  | .0101 | .0019  | -.0329 | .0022  | .0370  |
| 9    | 5.00   | .0028  | .0123 | -.0104 | -.0696 | .0079  | .0829  |
| 10   | 10.00  | .0125  | .0169 | -.0560 | -.1065 | .0151  | .1297  |
| 11   | 15.00  | .0322  | .0308 | -.1327 | -.1365 | .0201  | .1677  |
| 12   | 20.00  | .0483  | .0546 | -.2174 | -.1689 | .0293  | .2082  |
| 13   | .00    | .0006  | .0102 | .0095  | -.0318 | .0033  | .0354  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .0003  | .0105  | .0073  | -.0324 | .0038  | .0364  |
| 3    | -20.00 | .0258  | -.0089 | -.0691 | .1169  | -.0162 | -.1477 |
| 4    | -15.00 | .0097  | -.0017 | -.0237 | .0788  | -.0139 | -.1015 |
| 5    | -10.00 | .0007  | .0064  | .0048  | .0402  | -.0099 | -.0520 |
| 6    | -5.00  | -.0008 | .0104  | .0083  | -.0005 | -.0030 | -.0027 |
| 7    | -2.50  | -.0005 | .0104  | .0085  | -.0184 | .0007  | .0191  |
| 8    | .00    | .0007  | .0101  | .0019  | -.0329 | .0022  | .0370  |
| 9    | 5.00   | .0028  | .0050  | -.0066 | -.0696 | .0077  | .0837  |
| 10   | 10.00  | .0125  | -.0059 | -.0411 | -.1065 | .0130  | .1307  |
| 11   | 15.00  | .0322  | -.0139 | -.1003 | -.1365 | .0130  | .1700  |
| 12   | 20.00  | .0483  | -.0203 | -.1505 | -.1689 | .0135  | .2143  |
| 13   | .00    | .0006  | .0102  | .0095  | -.0318 | .0033  | .0354  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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*1102*

RUN 1102 CONFIG T62BT

| PT. NO. | TW —      |         | DELTA —     |             | IHT O        |              | DELE —       |             | DELR —10 |         | DELSB O |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|----------|---------|---------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF    | V KNOTS |         |  |     |
| 2       | .0        | .0      | .2          | 3.40        | 17.          | -352.        | 30.          | 8.83        | 56.95    | 130.90  | 0.      |  |     |
| 3       | .0        | -20.0   | 10.2        | 16.50       | -418.        | 2121.        | -470.        | -57.53      | 55.93    | 129.70  | 0.      |  |     |
| 4       | .0        | -15.0   | 4.3         | 9.45        | -201.        | 1439.        | -316.        | -39.41      | 56.94    | 130.88  | 0.      |  |     |
| 5       | .0        | -10.0   | .3          | 5.68        | -23.         | 783.         | -190.        | -21.31      | 56.77    | 130.69  | 0.      |  |     |
| 6       | .0        | -5.0    | -.2         | 3.66        | 13.          | 153.         | -85.         | -4.95       | 57.37    | 131.39  | 0.      |  |     |
| 7       | .0        | .0      | -.0         | 3.40        | 3.           | -359.        | 10.          | 9.29        | 56.82    | 130.74  | 0.      |  |     |
| 8       | .0        | 5.0     | 1.1         | 3.96        | -39.         | -952.        | 89.          | 25.38       | 56.88    | 130.81  | 0.      |  |     |
| 9       | .0        | 10.0    | 4.6         | 5.57        | -171.        | -1602.       | 226.         | 44.03       | 56.53    | 130.40  | 0.      |  |     |
| 10      | .0        | 15.0    | 11.4        | 10.08       | -410.        | -2026.       | 300.         | 56.47       | 57.34    | 131.34  | 0.      |  |     |
| 11      | .0        | 20.0    | 17.1        | 18.12       | -663.        | -2571.       | 435.         | 71.64       | 57.54    | 131.57  | 0.      |  |     |
| 12      | .0        | .0      | .3          | 3.34        | -17.         | -346.        | 12.          | 8.64        | 57.04    | 131.00  | 0.      |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYH    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0006  | .0092 | .0053  | -.0212 | .0018  | .0239  |
| 3    | -20.00 | .0276  | .0446 | -.1349 | .1281  | -.0284 | -.1555 |
| 4    | -15.00 | .0115  | .0255 | -.0648 | .0869  | -.0191 | -.1065 |
| 5    | -10.00 | .0008  | .0154 | -.0075 | .0473  | -.0115 | -.0576 |
| 6    | -5.00  | -.0005 | .0099 | .0041  | .0093  | -.0051 | -.0134 |
| 7    | .00    | -.0001 | .0092 | .0009  | -.0217 | .0006  | .0251  |
| 8    | 5.00   | .0029  | .0107 | -.0126 | -.0575 | .0054  | .0686  |
| 9    | 10.00  | .0124  | .0150 | -.0553 | -.0968 | .0136  | .1190  |
| 10   | 15.00  | .0308  | .0272 | -.1321 | -.1224 | .0181  | .1526  |
| 11   | 20.00  | .0463  | .0490 | -.2139 | -.1553 | .0262  | .1936  |
| 12   | .00    | .0008  | .0090 | .0053  | -.0209 | .0007  | .0233  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYB    | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | .0006  | .0092  | .0053  | -.0212 | .0018  | .0239  |
| 3    | -20.00 | .0276  | -.0115 | -.0746 | .1281  | -.0180 | -.1614 |
| 4    | -15.00 | .0115  | -.0030 | -.0361 | .0869  | -.0153 | -.1095 |
| 5    | -10.00 | .0008  | .0051  | .0033  | .0473  | -.0111 | -.0594 |
| 6    | -5.00  | -.0005 | .0087  | .0065  | .0093  | -.0052 | -.0142 |
| 7    | .00    | -.0001 | .0092  | .0009  | -.0217 | .0006  | .0251  |
| 8    | 5.00   | .0029  | .0047  | -.0100 | -.0575 | .0052  | .0693  |
| 9    | 10.00  | .0124  | -.0059 | -.0417 | -.0968 | .0116  | .1198  |
| 10   | 15.00  | .0308  | -.0134 | -.1025 | -.1224 | .0110  | .1544  |
| 11   | 20.00  | .0463  | -.0205 | -.1527 | -.1553 | .0109  | .1986  |
| 12   | .00    | .0008  | .0090  | .0053  | -.0209 | .0007  | .0233  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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D. J. J. A.

RUN 1103 CONFIG T62 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | COBAR SQ-FT | CPHAR CU-FT | CYBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|-------------|-------------|--------------|-------------|-------|---------|-----|
| 2       | .0        | .0            | .5          | 18.41       | -7.         | -83.        | -17.         | 1.71        | 56.36 | 130.22  | 0.  |
| 3       | .0        | -20.0         | 12.4        | 31.81       | -487.       | 2371.       | -554.        | -57.49      | 55.95 | 129.73  | 0.  |
| 4       | .0        | -15.0         | 6.6         | 26.18       | -279.       | 1575.       | -523.        | -36.76      | 55.74 | 129.47  | 0.  |
| 5       | .0        | -10.0         | 2.0         | 22.73       | -96.        | 1308.       | -269.        | -33.16      | 55.59 | 129.29  | 0.  |
| 6       | .0        | -5.0          | .4          | 19.64       | -23.        | 608.        | -146.        | -15.21      | 56.06 | 129.85  | 0.  |
| 7       | .0        | .0            | .7          | 18.04       | -24.        | -131.       | -46.         | 3.57        | 56.01 | 129.79  | 0.  |
| 8       | .0        | 5.0           | 1.6         | 18.66       | -51.        | -902.       | 55.          | 23.48       | 56.05 | 129.83  | 0.  |
| 9       | .0        | 10.0          | 5.4         | 20.44       | -209.       | -1427.      | 169.         | 37.07       | 55.67 | 129.38  | 0.  |
| 10      | .0        | 15.0          | 12.2        | 23.71       | -432.       | -1837.      | 268.         | 47.96       | 55.91 | 129.67  | 0.  |
| 11      | .0        | 20.0          | 17.2        | 28.93       | -675.       | -2248.      | 404.         | 57.77       | 56.01 | 129.79  | 0.  |
| 12      | .0        | .0            | .8          | 17.82       | -6.         | -132.       | -29.         | 3.54        | 56.10 | 129.89  | 0.  |
| 13      | .0        | -10.0         | 2.1         | 22.17       | -75.        | 1281.       | -257.        | -32.09      | 56.15 | 129.94  | 0.  |
| 14      | .0        | -15.0         | 6.5         | 26.06       | -262.       | 1861.       | -393.        | -46.45      | 56.10 | 129.88  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPH    | CYH    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .0014 | .0498 | -.0023 | -.0050 | -.0010 | .0046  |
| 3    | -20.00 | .0335 | .0860 | -.1569 | .1432  | -.0335 | -.1554 |
| 4    | -15.00 | .0178 | .0708 | -.0898 | .0951  | -.0316 | -.0993 |
| 5    | -10.00 | .0055 | .0614 | -.0310 | .0790  | -.0162 | -.0896 |
| 6    | -5.00  | .0012 | .0531 | -.0074 | .0367  | -.0088 | -.0411 |
| 7    | .00    | .0018 | .0487 | -.0077 | -.0079 | -.0028 | .0097  |
| 8    | 5.00   | .0043 | .0504 | -.0165 | -.0545 | .0033  | .0635  |
| 9    | 10.00  | .0147 | .0552 | -.0674 | -.0862 | .0102  | .1002  |
| 10   | 15.00  | .0328 | .0641 | -.1394 | -.1109 | .0162  | .1296  |
| 11   | 20.00  | .0465 | .0782 | -.2176 | -.1358 | .0244  | .1561  |
| 12   | .00    | .0021 | .0482 | -.0019 | -.0080 | -.0018 | .0096  |
| 13   | -10.00 | .0056 | .0599 | -.0243 | .0774  | -.0155 | -.0867 |
| 14   | -15.00 | .0175 | .0704 | -.0844 | .1124  | -.0237 | -.1255 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | COB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .0014 | .0498 | -.0023 | -.0050 | -.0010 | .0046  |
| 3    | -20.00 | .0335 | .0274 | -.0860 | .1432  | -.0213 | -.1754 |
| 4    | -15.00 | .0178 | .0425 | -.0429 | .0951  | -.0261 | -.1143 |
| 5    | -10.00 | .0055 | .0448 | -.0154 | .0790  | -.0150 | -.0990 |
| 6    | -5.00  | .0012 | .0493 | -.0032 | .0367  | -.0086 | -.0456 |
| 7    | .00    | .0018 | .0487 | -.0077 | -.0079 | -.0028 | .0097  |
| 8    | 5.00   | .0043 | .0447 | -.0148 | -.0545 | .0031  | .0676  |
| 9    | 10.00  | .0147 | .0369 | -.0569 | -.0862 | .0078  | .1083  |
| 10   | 15.00  | .0328 | .0282 | -.1121 | -.1109 | .0089  | .1418  |
| 11   | 20.00  | .0465 | .0198 | -.1597 | -.1358 | .0089  | .1735  |
| 12   | .00    | .0021 | .0482 | -.0019 | -.0080 | -.0018 | .0096  |
| 13   | -10.00 | .0056 | .0439 | -.0095 | .0774  | -.0145 | -.0958 |
| 14   | -15.00 | .0175 | .0354 | -.0485 | .1124  | -.0188 | -.1395 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 1104 CONFIG T628T

| PT. NO. | I W<br>ALPHA<br>DEG | DELTA      |            | DELA            |                | IHT O           |                 | DELE            |                | DELR O   |            | DELSB.35 |  | RPM |
|---------|---------------------|------------|------------|-----------------|----------------|-----------------|-----------------|-----------------|----------------|----------|------------|----------|--|-----|
|         |                     | PSI<br>DEG | PSI<br>DEG | CI BAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS |          |  |     |
| 2       | .0                  | .0         | .4         | 11.46           | 3.             | -118.           | -8.             | 3.27            | 55.59          | 129.30   | 0.         |          |  |     |
| 3       | .0                  | -20.0      | 12.0       | 26.42           | -456.          | 2436.           | -521.           | -62.10          | 55.86          | 129.60   | 0.         |          |  |     |
| 4       | .0                  | -15.0      | 5.9        | 20.35           | -254.          | 1871.           | -360.           | -47.96          | 55.56          | 129.25   | 0.         |          |  |     |
| 5       | .0                  | -10.0      | 1.5        | 15.89           | -61.           | 1224.           | -240.           | -31.41          | 55.78          | 129.51   | 0.         |          |  |     |
| 6       | .0                  | -5.0       | .2         | 13.08           | 6.             | 551.            | -117.           | -14.27          | 55.59          | 129.28   | 0.         |          |  |     |
| 7       | .0                  | .0         | .7         | 11.33           | -10.           | -121.           | -13.            | 3.43            | 55.68          | 129.39   | 0.         |          |  |     |
| 8       | .0                  | 5.0        | 1.1        | 12.42           | -31.           | -844.           | 67.             | 22.57           | 56.17          | 129.97   | 0.         |          |  |     |
| 9       | .0                  | 10.0       | 4.7        | 14.13           | -179.          | -1381.          | 187.            | 37.38           | 55.62          | 129.32   | 0.         |          |  |     |
| 10      | .0                  | 15.0       | 11.5       | 17.93           | -410.          | -1826.          | 286.            | 49.37           | 55.99          | 129.75   | 0.         |          |  |     |
| 11      | .0                  | 20.0       | 17.6       | 24.16           | -677.          | -2363.          | 428.            | 63.70           | 56.02          | 129.79   | 0.         |          |  |     |
| 12      | .0                  | .0         | .5         | 11.23           | 16.            | -122.           | -8.             | 3.25            | 55.88          | 129.62   | 0.         |          |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .0011 | .0310 | .0009  | -.0071 | -.0005 | .0088  |
| 3    | -20.00 | .0323 | .0714 | -.1471 | .1471  | -.0315 | -.1678 |
| 4    | -15.00 | .0161 | .0550 | -.0820 | .1130  | -.0217 | -.1296 |
| 5    | -10.00 | .0039 | .0429 | -.0197 | .0739  | -.0145 | -.0849 |
| 6    | -5.00  | .0007 | .0354 | .0018  | .0333  | -.0071 | -.0386 |
| 7    | .00    | .0018 | .0306 | -.0031 | -.0073 | -.0008 | .0093  |
| 8    | 5.00   | .0031 | .0336 | -.0099 | -.0510 | .0041  | .0610  |
| 9    | 10.00  | .0126 | .0382 | -.0578 | -.0834 | .0113  | .1010  |
| 10   | 15.00  | .0310 | .0484 | -.1323 | -.1103 | .0173  | .1334  |
| 11   | 20.00  | .0477 | .0653 | -.2181 | -.1427 | .0259  | .1722  |
| 12   | .00    | .0014 | .0303 | .0052  | -.0074 | -.0005 | .0088  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRM    | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .0011 | .0310 | .0009  | -.0071 | -.0005 | .0088  |
| 3    | -20.00 | .0323 | .0094 | -.0804 | .1471  | -.0201 | -.1821 |
| 4    | -15.00 | .0161 | .0194 | -.0490 | .1130  | -.0170 | -.1394 |
| 5    | -10.00 | .0039 | .0275 | -.0059 | .0739  | -.0136 | -.0911 |
| 6    | -5.00  | .0007 | .0318 | .0051  | .0333  | -.0071 | -.0415 |
| 7    | .00    | .0018 | .0306 | -.0031 | -.0073 | -.0008 | .0093  |
| 8    | 5.00   | .0031 | .0281 | -.0080 | -.0510 | .0039  | .0637  |
| 9    | 10.00  | .0126 | .0200 | -.0464 | -.0834 | .0092  | .1062  |
| 10   | 15.00  | .0310 | .0121 | -.1038 | -.1103 | .0102  | .1414  |
| 11   | 20.00  | .0477 | .0022 | -.1574 | -.1427 | .0103  | .1841  |
| 12   | .00    | .0014 | .0303 | .0052  | -.0074 | -.0005 | .0088  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

RUN 1105 CONFIG T62 BT

| PT. NO. | TW | ALPHA | DELTA | DELTA | IHT   | DELE   | DELR   | DELSB  | IS     | Q     | V      | RPM |
|---------|----|-------|-------|-------|-------|--------|--------|--------|--------|-------|--------|-----|
|         |    | DEG   | PSI   | CLBAR | CDBAR | CPMBAR | CYMBAR | CRMBAR | CYBAR  | PSF   | KNOTS  |     |
|         |    |       | DEG   | SQ-FT | SQ-FT | CU-FT  | CU-FT  | CU-FT  | SQ-FT  |       |        |     |
| 2       |    | .0    | .0    | .4    | 6.11  | 9.     | -31.   | -31.   | .23    | 55.79 | 129.55 | 0.  |
| 3       |    | .0    | -20.0 | 12.1  | 22.86 | -466.  | 2038.  | -810.  | -50.02 | 55.82 | 129.58 | 0.  |
| 4       |    | .0    | -15.0 | 6.1   | 16.10 | -268.  | 1968.  | -399.  | -52.56 | 55.27 | 128.92 | 0.  |
| 5       |    | .0    | -10.0 | 1.7   | 10.85 | -65.   | 1235.  | -257.  | -33.30 | 55.56 | 129.27 | 0.  |
| 6       |    | .0    | -5.0  | .6    | 7.75  | -12.   | 580.   | -139.  | -15.96 | 55.40 | 129.07 | 0.  |
| 7       |    | .0    | .0    | .7    | 6.10  | -18.   | -44.   | -52.   | .77    | 54.91 | 128.48 | 0.  |
| 8       |    | .0    | 5.0   | .8    | 6.73  | -28.   | -706.  | 32.    | 18.79  | 54.82 | 128.38 | 0.  |
| 9       |    | .0    | 10.0  | 4.6   | 7.91  | -170.  | -1263. | 153.   | 34.72  | 55.61 | 129.32 | 0.  |
| 10      |    | .0    | 15.0  | 10.4  | 12.00 | -361.  | -1794. | 253.   | 49.17  | 56.00 | 129.78 | 0.  |
| 11      |    | .0    | 20.0  | 17.0  | 19.36 | -655.  | -2403. | 408.   | 65.77  | 55.46 | 129.14 | 0.  |
| 12      |    | .0    | -20.0 | 12.3  | 23.44 | -479.  | 2606.  | -574.  | -68.95 | 54.96 | 128.54 | 0.  |
| 13      |    | .0    | .0    | .7    | 5.74  | -8.    | -53.   | -56.   | 1.00   | 55.90 | 129.65 | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .0012 | .0165 | .0030  | -.0019 | -.0019 | .0006  |
| 3    | -20.00 | .0328 | .0618 | -.1501 | .1231  | -.0490 | -.1352 |
| 4    | -15.00 | .0166 | .0435 | -.0865 | .1189  | -.0241 | -.1421 |
| 5    | -10.00 | .0045 | .0293 | -.0208 | .0746  | -.0155 | -.0900 |
| 6    | -5.00  | .0015 | .0210 | -.0039 | .0350  | -.0084 | -.0431 |
| 7    | .00    | .0019 | .0165 | -.0058 | -.0026 | -.0031 | .0021  |
| 8    | 5.00   | .0021 | .0182 | -.0089 | -.0426 | .0019  | .0508  |
| 9    | 10.00  | .0124 | .0214 | -.0549 | -.0763 | .0093  | .0938  |
| 10   | 15.00  | .0282 | .0324 | -.1165 | -.1084 | .0153  | .1329  |
| 11   | 20.00  | .0460 | .0523 | -.2112 | -.1452 | .0247  | .1778  |
| 12   | -20.00 | .0332 | .0633 | -.1543 | .1574  | -.0347 | -.1864 |
| 13   | .00    | .0020 | .0155 | -.0025 | -.0032 | -.0034 | .0027  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .0012 | .0165  | .0030  | -.0019 | -.0019 | .0006  |
| 3    | -20.00 | .0328 | .0116  | -.0513 | .1231  | -.0363 | -.1482 |
| 4    | -15.00 | .0166 | .0051  | -.0501 | .1189  | -.0190 | -.1485 |
| 5    | -10.00 | .0045 | .0132  | -.0060 | .0746  | -.0146 | -.0937 |
| 6    | -5.00  | .0015 | .0171  | .0000  | .0350  | -.0083 | -.0448 |
| 7    | .00    | .0019 | .0165  | -.0058 | -.0026 | -.0031 | .0021  |
| 8    | 5.00   | .0021 | .0137  | -.0080 | -.0426 | .0018  | .0522  |
| 9    | 10.00  | .0124 | .0047  | -.0454 | -.0763 | .0073  | .0961  |
| 10   | 15.00  | .0282 | -.0032 | -.0913 | -.1084 | .0091  | .1368  |
| 11   | 20.00  | .0460 | -.0119 | -.1531 | -.1452 | .0096  | .1849  |
| 12   | -20.00 | .0332 | -.0045 | -.0814 | .1574  | -.0226 | -.1968 |
| 13   | .00    | .0020 | .0155  | -.0025 | -.0032 | -.0034 | .0027  |



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SIKORSKY RSRA 1/4 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 1106 CONFIG T62 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELTA C/BAR SQ-FT | DELTA D/BAR SQ-FT | IHT CU-FT | DELE CU-FT | DELTA CRMBAR CU-FT | DELTA CYBAR SQ-FT | DELTA Q PSF | V KNOTS | RPM |
|---------|-----------|---------------|-------------------|-------------------|-----------|------------|--------------------|-------------------|-------------|---------|-----|
| 2       | 0         | 0             | 0.7               | 5.74              | 3.        | -23.       | -19.               | .37               | 55.52       | 129.22  | 0.  |
| 3       | -20.0     | 0             | -22.3             | 13.07             | 1174.     | -38.       | -25.               | 1.03              | 56.03       | 129.81  | 0.  |
| 4       | -25.0     | 0             | -15.1             | 16.35             | 995.      | -102.      | 18.                | 3.38              | 56.13       | 129.93  | 0.  |
| 5       | -15.0     | 0             | -25.3             | 9.68              | 1207.     | 10.        | -57.               | -51               | 56.15       | 129.94  | 0.  |
| 6       | -10.0     | 0             | -17.7             | 7.41              | 848.      | -57.       | -21.               | .94               | 55.75       | 129.47  | 0.  |
| 7       | -5.0      | 0             | -7.9              | 6.76              | 414.      | -43.       | 0.                 | .89               | 55.74       | 129.46  | 0.  |
| 8       | 0         | 0             | -2                | 5.79              | 53.       | -39.       | -11.               | .76               | 54.52       | 128.01  | 0.  |
| 9       | 5.0       | 0             | 6.5               | 6.42              | -270.     | -32.       | -3.                | .57               | 55.15       | 128.76  | 0.  |
| 10      | 10.0      | 0             | 15.2              | 6.99              | -741.     | -83.       | -15.               | 2.12              | 55.64       | 129.34  | 0.  |
| 11      | 15.0      | 0             | 23.2              | 8.26              | -1140.    | -76.       | -11.               | 2.10              | 56.01       | 129.77  | 0.  |
| 12      | 20.0      | 0             | 24.7              | 11.22             | -1246.    | -84.       | -36.               | 2.62              | 55.15       | 128.75  | 0.  |
| 13      | 25.0      | 0             | 23.8              | 15.53             | -1262.    | -65.       | -38.               | 2.44              | 55.81       | 129.54  | 0.  |
| 14      | 5.0       | 0             | 7.7               | 6.12              | -343.     | -38.       | -3.                | .62               | 55.91       | 129.66  | 0.  |
| 15      | 0         | 0             | 5                 | 5.41              | 10.       | -45.       | -15.               | 1.08              | 55.88       | 129.62  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .0018  | .0155 | .0010  | -.0014 | -.0011 | .0010  |
| 3    | -20.00 | -.0604 | .0353 | .3784  | -.0023 | -.0015 | .0028  |
| 4    | -24.99 | -.0407 | .0442 | .3208  | -.0061 | .0011  | .0091  |
| 5    | -14.99 | -.0683 | .0262 | .3893  | .0006  | -.0035 | -.0014 |
| 6    | -10.00 | -.0478 | .0200 | .2734  | -.0034 | -.0013 | .0026  |
| 7    | -4.99  | -.0213 | .0169 | .1334  | -.0026 | .0000  | .0024  |
| 8    | 0.00   | -.0004 | .0157 | .0171  | -.0024 | -.0006 | .0020  |
| 9    | 5.00   | .0177  | .0174 | -.0872 | -.0019 | -.0002 | .0015  |
| 10   | 10.01  | .0411  | .0189 | -.2389 | -.0050 | -.0009 | .0057  |
| 11   | 15.00  | .0627  | .0223 | -.3674 | -.0046 | -.0007 | .0057  |
| 12   | 20.01  | .0669  | .0303 | -.4018 | -.0051 | -.0022 | .0071  |
| 13   | 25.01  | .0643  | .0420 | -.4069 | -.0039 | -.0023 | .0066  |
| 14   | 5.02   | .0209  | .0165 | -.1105 | -.0023 | -.0002 | .0017  |
| 15   | 0.01   | .0014  | .0146 | .0032  | -.0027 | -.0009 | .0029  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | 0.00   | .0018  | .0155 | .0010  | -.0014 | -.0011 | .0010  |
| 3    | -20.00 | -.0604 | .0353 | .3784  | -.0023 | -.0015 | .0028  |
| 4    | -24.99 | -.0407 | .0442 | .3208  | -.0061 | .0011  | .0091  |
| 5    | -14.99 | -.0683 | .0262 | .3893  | .0006  | -.0035 | -.0014 |
| 6    | -10.00 | -.0478 | .0200 | .2734  | -.0034 | -.0013 | .0026  |
| 7    | -4.99  | -.0213 | .0169 | .1334  | -.0026 | .0000  | .0024  |
| 8    | 0.00   | -.0004 | .0157 | .0171  | -.0024 | -.0006 | .0020  |
| 9    | 5.00   | .0177  | .0174 | -.0872 | -.0019 | -.0002 | .0015  |
| 10   | 10.01  | .0411  | .0189 | -.2389 | -.0050 | -.0009 | .0057  |
| 11   | 15.00  | .0627  | .0223 | -.3674 | -.0046 | -.0007 | .0057  |
| 12   | 20.01  | .0669  | .0303 | -.4018 | -.0051 | -.0022 | .0071  |
| 13   | 25.01  | .0643  | .0420 | -.4069 | -.0039 | -.0023 | .0066  |
| 14   | 5.02   | .0209  | .0165 | -.1105 | -.0023 | -.0002 | .0017  |
| 15   | 0.01   | .0014  | .0146 | .0032  | -.0027 | -.0009 | .0029  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 1107 CONFIG TG3BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | DELA CIBAR SQ-FT | IHTO CDBAR SQ-FT | DELE CPMRAR CU-FT | DELR CYBAR CU-FT | DELSB Q PSF | IS V KNOTS | RPM          |    |
|---------|-----------|---------------|------------------|------------------|-------------------|------------------|-------------|------------|--------------|----|
| 5       | 0.0       | 0.0           | -0.2             | 7.38             | 52.               | -34.             | -12.        | .57        | 56.30 130.15 | 0. |
| 8       | -25.0     | 0.0           | -78.1            | 46.21            | 2910.             | -103.            | -9.         | 3.11       | 55.16 128.78 | 0. |
| 9       | -20.0     | 0.0           | -75.7            | 35.55            | 2679.             | -58.             | -25.        | 1.62       | 55.52 129.21 | 0. |
| 10      | -15.0     | 0.0           | -73.0            | 27.00            | 2477.             | -21.             | -45.        | .28        | 55.47 129.14 | 0. |
| 11      | -10.0     | 0.0           | -71.0            | 12.97            | 2307.             | -44.             | -23.        | .71        | 56.08 129.86 | 0. |
| 12      | -5.0      | 0.0           | -35.2            | 8.95             | 1178.             | -45.             | 3.          | 1.30       | 55.71 129.43 | 0. |
| 13      | 0.0       | 0.0           | -0.1             | 7.15             | 47.               | -42.             | -16.        | .93        | 56.35 130.18 | 0. |
| 14      | 5.0       | 0.0           | 31.5             | 9.34             | -958.             | -17.             | 6.          | .27        | 56.45 130.30 | 0. |
| 15      | 10.0      | 0.0           | 63.4             | 15.90            | -2016.            | -44.             | -19.        | .89        | 56.10 129.89 | 0. |
| 16      | 15.0      | 0.0           | 66.9             | 28.63            | -2238.            | -31.             | -3.         | 1.05       | 55.80 129.52 | 0. |
| 17      | 20.0      | 0.0           | 4.6              | 36.04            | -2311.            | -25.             | -16.        | 1.12       | 55.90 129.64 | 0. |
| 18      | 25.0      | 0.0           | 45.2             | 44.19            | -2446.            | -22.             | -5.         | .90        | 56.23 130.03 | 0. |
| 19      | 0.0       | 0.0           | .1               | 6.98             | 38.               | -34.             | -24.        | .50        | 56.40 130.23 | 0. |

\*\*\* COEFFICIENT FOR - WIND AXIS

| PT.# | ALPHA  | CL      | CD    | CPM    | CYM     | CRM     | CY    |
|------|--------|---------|-------|--------|---------|---------|-------|
| 5    | -0.01  | -0.0005 | .0200 | .0168  | -0.0020 | -0.0007 | .0015 |
| 8    | -25.00 | -0.2110 | .1249 | .9380  | -0.0062 | -0.0005 | .0084 |
| 9    | -20.01 | -0.2046 | .0961 | .8636  | -0.0035 | -0.0015 | .0044 |
| 10   | -15.00 | -0.1972 | .0730 | .7987  | -0.0012 | -0.0027 | .0008 |
| 11   | -10.00 | -0.1919 | .0351 | .7437  | -0.0027 | -0.0014 | .0019 |
| 12   | -5.00  | -0.0952 | .0242 | .3798  | -0.0027 | .0002   | .0035 |
| 13   | 0.00   | -0.0007 | .0193 | .0152  | -0.0025 | -0.0009 | .0025 |
| 14   | 5.00   | .00852  | .0252 | -.3089 | -0.0010 | .0004   | .0007 |
| 15   | 10.01  | .1720   | .0430 | -.6501 | -0.0026 | -0.0012 | .0024 |
| 16   | 15.00  | .1808   | .0774 | -.7216 | -0.0019 | -0.0002 | .0028 |
| 17   | 20.00  | .1747   | .0974 | -.7451 | -0.0015 | -0.0009 | .0030 |
| 18   | 25.00  | .1762   | .1194 | -.7886 | -0.0013 | -0.0003 | .0024 |
| 19   | 0.00   | .0004   | .0189 | .0122  | -0.0021 | -0.0014 | .0014 |

\*\*\* COEFFICIENT FOR - STABILITY AXIS

| PT.# | ALPHA  | CLB     | CDB   | CPMB   | CYMB    | CRMB    | CYB   |
|------|--------|---------|-------|--------|---------|---------|-------|
| 5    | -0.01  | -0.0005 | .0200 | .0168  | -0.0020 | -0.0007 | .0015 |
| 8    | -25.00 | -0.2110 | .1249 | .9380  | -0.0062 | -0.0005 | .0084 |
| 9    | -20.01 | -0.2046 | .0961 | .8636  | -0.0035 | -0.0015 | .0044 |
| 10   | -15.00 | -0.1972 | .0730 | .7987  | -0.0012 | -0.0027 | .0008 |
| 11   | -10.00 | -0.1919 | .0351 | .7437  | -0.0027 | -0.0014 | .0019 |
| 12   | -5.00  | -0.0952 | .0242 | .3798  | -0.0027 | .0002   | .0035 |
| 13   | 0.00   | -0.0007 | .0193 | .0152  | -0.0025 | -0.0009 | .0025 |
| 14   | 5.00   | .00852  | .0252 | -.3089 | -0.0010 | .0004   | .0007 |
| 15   | 10.01  | .1720   | .0430 | -.6501 | -0.0026 | -0.0012 | .0024 |
| 16   | 15.00  | .1808   | .0774 | -.7216 | -0.0019 | -0.0002 | .0028 |
| 17   | 20.00  | .1747   | .0974 | -.7451 | -0.0015 | -0.0009 | .0030 |
| 18   | 25.00  | .1762   | .1194 | -.7886 | -0.0013 | -0.0003 | .0024 |
| 19   | 0.00   | .0004   | .0189 | .0122  | -0.0021 | -0.0014 | .0014 |

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SIKORSKY RSRA 1/4 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 1108 CONFIG T63 BT

| PT.<br>NO. | ALPHA<br>DEG | DELTA |      | DELA            |                | IHT O           |                 | DELE            |                | DELR O   |            | DELSB IS |  | RPM |
|------------|--------------|-------|------|-----------------|----------------|-----------------|-----------------|-----------------|----------------|----------|------------|----------|--|-----|
|            |              | PSI   | DEG  | CI BAR<br>SQ-FT | CDBAR<br>SQ-FT | CPMBAR<br>CU-FT | CYMBAR<br>CU-FT | CRMBAR<br>CU-FT | CYBAR<br>SQ-FT | Q<br>PSF | V<br>KNOTS |          |  |     |
| 6          | .0           | .0    | .2   | 7.28            | 54.            | -31.            | 7.              | .78             | 55.40          | 129.07   | 0.         |          |  |     |
| 7          | .0           | -20.0 | 16.7 | 24.15           | -602.          | 2602.           | -474.           | -67.48          | 56.06          | 129.85   | 0.         |          |  |     |
| 8          | .0           | -15.0 | 8.1  | 17.76           | -297.          | 2040.           | -340.           | -53.45          | 55.92          | 129.68   | 0.         |          |  |     |
| 9          | .0           | -10.0 | 2.5  | 12.47           | -88.           | 1342.           | -210.           | -35.64          | 56.33          | 130.16   | 0.         |          |  |     |
| 10         | .0           | -5.0  | .2   | 9.15            | 27.            | 660.            | -111.           | -17.73          | 56.28          | 130.10   | 0.         |          |  |     |
| 11         | .0           | .0    | .1   | 7.17            | 40.            |                 |                 |                 | 56.10          | 129.88   | 0.         |          |  |     |
| 12         | .0           | 5.0   | 1.7  | 7.71            | -10.           | -737.           | 54.             | 19.99           | 56.41          | 130.24   | 0.         |          |  |     |
| 13         | .0           | 10.0  | 6.1  | 9.25            | -167.          | -1278.          | 174.            | 35.62           | 55.97          | 129.73   | 0.         |          |  |     |
| 14         | .0           | 15.0  | 12.5 | 13.59           | -390.          | -1780.          | 241.            | 49.42           | 56.02          | 129.79   | 0.         |          |  |     |
| 15         | .0           | 20.0  | 20.5 | 20.13           | -714.          | -2342.          | 389.            | 64.80           | 56.12          | 129.90   | 0.         |          |  |     |
| 16         | .0           | .0    | .2   | 7.18            | 58.            | -38.            | 2.              | .96             | 55.99          | 129.75   | 0.         |          |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 6    | .00    | .0005 | .0197 | .0175  | -.0019 | .0004  | .0021  |
| 7    | -20.00 | .0451 | .0653 | -.1941 | .1572  | -.0286 | -.1824 |
| 8    | -15.00 | .0220 | .0480 | -.0959 | .1233  | -.0206 | -.1444 |
| 9    | -10.00 | .0068 | .0337 | -.0283 | .0810  | -.0127 | -.0963 |
| 10   | -5.00  | .0005 | .0247 | .0088  | .0399  | -.0067 | -.0479 |
| 11   | .00    | .0004 | .0194 | .0128  |        |        |        |
| 12   | 5.00   | .0046 | .0208 | -.0032 | -.0445 | .0032  | .0540  |
| 13   | 10.00  | .0166 | .0250 | -.0538 | -.0772 | .0105  | .0963  |
| 14   | 15.00  | .0337 | .0367 | -.1258 | -.1075 | .0146  | .1336  |
| 15   | 20.00  | .0555 | .0544 | -.2301 | -.1415 | .0235  | .1751  |
| 16   | .00    | .0006 | .0194 | .0186  | -.0023 | .0001  | .0026  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 6    | .00    | .0005 | .0197  | .0175  | -.0019 | .0004  | .0021  |
| 7    | -20.00 | .0451 | -.0013 | -.1298 | .1572  | -.0144 | -.1937 |
| 8    | -15.00 | .0220 | .0088  | -.0640 | .1233  | -.0152 | -.1520 |
| 9    | -10.00 | .0068 | .0164  | -.0160 | .0810  | -.0116 | -.1007 |
| 10   | -5.00  | .0005 | .0204  | .0119  | .0399  | -.0068 | -.0499 |
| 11   | .00    | .0004 |        |        |        |        |        |
| 12   | 5.00   | .0046 | .0160  | -.0017 | -.0445 | .0032  | .0557  |
| 13   | 10.00  | .0166 | .0078  | -.0432 | -.0772 | .0086  | .0991  |
| 14   | 15.00  | .0337 | .0008  | -.1012 | -.1075 | .0079  | .1385  |
| 15   | 20.00  | .0555 | -.0091 | -.1730 | -.1415 | .0073  | .1832  |
| 16   | .00    | .0006 | .0194  | .0186  | -.0023 | .0001  | .0026  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SFR-72011

RUN 1109 CONFIG T63BT

| PT. NO. | ALPHA DEG | DELTA |      | DELA        |              | IHT O.       |              | DELE         |             | DELRO  |         | DELSB 35 |  | RPM |
|---------|-----------|-------|------|-------------|--------------|--------------|--------------|--------------|-------------|--------|---------|----------|--|-----|
|         |           | PSI   | DEG  | CLBAR SQ-FT | CDRBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF    | V KNOTS |          |  |     |
| 2       | .0        | .0    | .1   | 12.61       | 38.          | -21.         | -7.          | .43          | 55.76       | 129.51 | 0.      |          |  |     |
| 3       | .0        | -19.9 | 16.5 | 28.81       | -620.        | 2565.        | -532.        | -65.41       | 55.45       | 129.14 | 0.      |          |  |     |
| 4       | .0        | -15.0 | 8.2  | 23.08       | -319.        | 2020.        | -372.        | -51.97       | 55.53       | 129.23 | 0.      |          |  |     |
| 5       | .0        | -10.0 | 1.5  | 18.27       | -65.         | 1374.        | -223.        | -35.35       | 55.96       | 129.74 | 0.      |          |  |     |
| 6       | .0        | -5.0  | -.3  | 14.85       | 20.          | 710.         | -123.        | -18.92       | 56.18       | 130.01 | 0.      |          |  |     |
| 7       | .0        | .0    | .3   | 12.70       | 14.          | -44.         | -27.         | 1.03         | 55.19       | 128.84 | 0.      |          |  |     |
| 8       | .0        | 5.0   | 1.8  | 13.06       | -43.         | -790.        | 43.          | 21.23        | 55.61       | 129.32 | 0.      |          |  |     |
| 9       | .0        | 10.0  | 6.1  | 15.05       | -204.        | -1302.       | 147.         | 35.08        | 55.43       | 129.11 | 0.      |          |  |     |
| 10      | .0        | 15.0  | 12.8 | 18.47       | -420.        | -1735.       | 234.         | 47.01        | 55.79       | 129.55 | 0.      |          |  |     |
| 11      | .0        | 20.0  | 19.6 | 24.04       | -713.        | -2210.       | 360.         | 59.36        | 56.49       | 130.36 | 0.      |          |  |     |
| 12      | .0        | .0    | .1   | 12.52       | 36.          | -28.         | -17.         | .68          | 55.72       | 129.45 | 0.      |          |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0002  | .0341 | .0122  | -.0013 | -.0004 | .0012  |
| 3    | -19.90 | .0445  | .0779 | -.1998 | .1549  | -.0322 | -.1768 |
| 4    | -15.00 | .0222  | .0624 | -.1028 | .1220  | -.0225 | -.1405 |
| 5    | -10.00 | .0039  | .0494 | -.0209 | .0830  | -.0135 | -.0955 |
| 6    | -5.00  | -.0008 | .0401 | .0066  | .0429  | -.0074 | -.0511 |
| 7    | .00    | .0007  | .0343 | .0045  | -.0026 | -.0016 | .0028  |
| 8    | 5.00   | .0049  | .0353 | -.0139 | -.0477 | .0026  | .0574  |
| 9    | 10.00  | .0164  | .0407 | -.0657 | -.0786 | .0089  | .0948  |
| 10   | 15.00  | .0346  | .0499 | -.1354 | -.1048 | .0141  | .1270  |
| 11   | 20.00  | .0529  | .0650 | -.2300 | -.1335 | .0217  | .1604  |
| 12   | .00    | .0003  | .0339 | .0116  | -.0017 | -.0010 | .0018  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDL   | CPMB   | CYMB   | CRMB   | CYR    |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | .0002  | .0341 | .0122  | -.0013 | -.0004 | .0012  |
| 3    | -19.90 | .0445  | .0127 | -.1291 | .1549  | -.0174 | -.1928 |
| 4    | -15.00 | .0222  | .0237 | -.0681 | .1220  | -.0167 | -.1519 |
| 5    | -10.00 | .0039  | .0319 | -.0081 | .0830  | -.0126 | -.1027 |
| 6    | -5.00  | -.0008 | .0355 | .0100  | .0429  | -.0075 | -.0544 |
| 7    | .00    | .0007  | .0343 | .0045  | -.0026 | -.0016 | .0028  |
| 8    | 5.00   | .0049  | .0301 | -.0127 | -.0477 | .0024  | .0603  |
| 9    | 10.00  | .0164  | .0235 | -.0564 | -.0786 | .0066  | .1004  |
| 10   | 15.00  | .0346  | .0152 | -.1111 | -.1048 | .0070  | .1356  |
| 11   | 20.00  | .0529  | .0059 | -.1762 | -.1335 | .0056  | .1730  |
| 12   | .00    | .0003  | .0338 | .0116  | -.0017 | -.0010 | .0018  |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

RUN 1110 CONFIG T33BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CIBAR SC-FT | CDRAB SQ-FT | CPMAB CU-FT | CYMBAR CU-FT | CRMAB CU-FT | CYBAR SQ-FT | DELTA Q PSF | SS V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|------------|-----|
| 2       | .0        | .0            | .7          | 19.65       | 19.         | -85.         | -20.        | 2.11        | 55.56       | 129.27     | 0.  |
| 3       | .0        | -20.0         | 15.4        | 33.43       | -566.       | 2376.        | -573.       | -57.99      | 55.68       | 129.40     | 0.  |
| 4       | .0        | -15.0         | 8.4         | 28.06       | -336.       | 1909.        | -372.       | -47.78      | 55.86       | 129.61     | 0.  |
| 5       | .0        | -10.0         | 2.5         | 24.30       | -101.       | 1396.        | -231.       | -35.41      | 55.47       | 129.16     | 0.  |
| 6       | .0        | -5.0          | .1          | 21.01       | 18.         | 696.         | -129.       | -17.98      | 55.66       | 129.37     | 0.  |
| 7       | .0        | .0            | .6          | 19.20       | 0.          | -77.         | -29.        | 1.55        | 55.81       | 129.55     | 0.  |
| 8       | .0        | 5.0           | 1.6         | 19.02       | -41.        | -873.        | 54.         | 23.12       | 55.98       | 129.75     | 0.  |
| 9       | .0        | 10.1          | 6.7         | 20.86       | -720.       | -1368.       | 163.        | 35.78       | 55.70       | 129.42     | 0.  |
| 10      | .0        | 15.0          | 12.9        | 25.10       | -474.       | -1788.       | 236.        | 46.42       | 55.27       | 128.91     | 0.  |
| 11      | .0        | 20.0          | 18.6        | 29.66       | -683.       | -2155.       | 339.        | 55.71       | 55.66       | 129.37     | 0.  |
| 12      | .0        | .0            | .8          | 19.14       | 20.         | -91.         | -20.        | 2.26        | 55.45       | 129.12     | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .0018 | .0531 | .0060  | -.0051 | -.0012 | .0057  |
| 3    | -20.00 | .0416 | .0904 | -.1826 | .1435  | -.0316 | -.1567 |
| 4    | -15.00 | .0227 | .0758 | -.1084 | .1153  | -.0225 | -.1291 |
| 5    | -10.00 | .0067 | .0657 | -.0327 | .0843  | -.0139 | -.0957 |
| 6    | -5.00  | .0003 | .0568 | .0058  | .0420  | -.0078 | -.0484 |
| 7    | .00    | .0017 | .0519 | .0001  | -.0044 | -.0018 | .0042  |
| 8    | 5.00   | .0044 | .0514 | -.0131 | -.0528 | .0033  | .0625  |
| 9    | 10.10  | .0182 | .0564 | -.0710 | -.0826 | .0098  | .0967  |
| 10   | 15.00  | .0349 | .0678 | -.1368 | -.1080 | .0142  | .1255  |
| 11   | 20.00  | .0503 | .0802 | -.2203 | -.1307 | .0205  | .1506  |
| 12   | .00    | .0020 | .0517 | .0064  | -.0055 | -.0017 | .0061  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .0018 | .0531 | .0060  | -.0051 | -.0012 | .0057  |
| 3    | -20.00 | .0416 | .0310 | -.1135 | .1435  | -.0179 | -.1782 |
| 4    | -15.00 | .0227 | .0396 | -.0735 | .1153  | -.0164 | -.1444 |
| 5    | -10.00 | .0067 | .0480 | -.0192 | .0843  | -.0127 | -.1057 |
| 6    | -5.00  | .0003 | .0523 | .0095  | .0420  | -.0079 | -.0534 |
| 7    | .00    | .0017 | .0519 | .0001  | -.0044 | -.0018 | .0042  |
| 8    | 5.00   | .0044 | .0457 | -.0115 | -.0528 | .0031  | .0668  |
| 9    | 10.10  | .0182 | .0385 | -.0606 | -.0826 | .0073  | .1051  |
| 10   | 15.00  | .0349 | .0329 | -.1124 | -.1080 | .0071  | .1388  |
| 11   | 20.00  | .0503 | .0236 | -.1694 | -.1302 | .0051  | .1689  |
| 12   | .00    | .0020 | .0517 | .0064  | -.0055 | -.0012 | .0061  |

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N432415-1

SIKORSKY ROGA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P1080

RUN 1111 CONFIG 163 BT

| IA      | - DELF    |         | - DELA      |             | - INT        |              | U DELE       |              | U DELR       |              | U DELS6 |       | U | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|---------|-------|---|-----|
| PT. NO. | ALPHA DEG | PSI DEG | CLBAR IN-FT | CDBAR IN-FT | CFMBAR IN-FT | CYMBAR IN-FT | CFMBAR IN-FT | CYMBAR IN-FT | CFMBAR IN-FT | CYMBAR IN-FT | PSF     | KNOTS | V |     |
| 2       | .0        | .0      | .4          | 5.05        | 37.          | -109.        | 7.           | 2.74         | 54.50        | 128.05       |         |       |   | 0.  |
| 3       | .0        | .0      | .4          | 4.26        | 35.          | -100.        | 7.           | 2.78         | 53.62        | 129.37       |         |       |   | 0.  |
| 4       | .0        | -20.0   | 15.5        | 20.19       | -365.        | 2470.        | -492.        | -65.69       | 55.45        | 129.17       |         |       |   | 0.  |
| 5       | .0        | -15.0   | 8.1         | 13.69       | -305.        | 1377.        | -332.        | -50.19       | 55.14        | 128.60       |         |       |   | 0.  |
| 6       | .0        | -10.0   | 2.5         | 8.65        | -23.         | 1155.        | -211.        | -31.20       | 55.52        | 129.25       |         |       |   | 0.  |
| 7       | .0        | -5.0    | .2          | 5.90        | 11.          | 514.         | -108.        | -14.35       | 55.53        | 129.26       |         |       |   | 0.  |
| 8       | .0        | .0      | .3          | 4.97        | 10.          | -99.         | -5.          | 2.21         | 55.46        | 129.18       |         |       |   | 0.  |
| 9       | .0        | 5.0     | 1.9         | 4.85        | -38.         | -707.        | 62.          | 19.35        | 56.03        | 129.85       |         |       |   | 0.  |
| 10      | .0        | 10.0    | 5.3         | 6.37        | -198.        | -1254.       | 167.         | 36.44        | 55.17        | 128.83       |         |       |   | 0.  |
| 11      | .0        | 15.0    | 13.4        | 10.28       | -441.        | -1805.       | 255.         | 51.32        | 55.55        | 129.28       |         |       |   | 0.  |
| 12      | .0        | 20.0    | 20.9        | 13.51       | -750.        | -2426.       | 336.         | 68.41        | 55.30        | 128.98       |         |       |   | 0.  |
| 13      | .0        | .0      | .3          | 4.95        | 14.          | -95.         | -0.          | 2.57         | 55.34        | 129.02       |         |       |   | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CD    | CPM    | CYN    | CPV    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 2    | .00    | .0012 | .0130 | .0118  | -.0066 | .0004  | .0074  |
| 3    | .00    | .0012 | .0131 | .0113  | -.0066 | .0004  | .0075  |
| 4    | -20.00 | .0419 | .0543 | -.1620 | .1492  | -.0297 | -.1775 |
| 5    | -15.00 | .0218 | .0370 | -.0983 | .1134  | -.0204 | -.1356 |
| 6    | -10.00 | .0067 | .0234 | -.0267 | .0716  | -.0127 | -.0859 |
| 7    | -5.00  | .0006 | .0160 | -.0036 | .0311  | -.0061 | -.0386 |
| 8    | .00    | .0008 | .0132 | .0033  | -.0001 | -.0007 | .0070  |
| 9    | 5.00   | .0052 | .0131 | -.0124 | -.0427 | .0037  | .0523  |
| 10   | 10.00  | .0169 | .0178 | -.0638 | -.0732 | .0161  | .0965  |
| 11   | 15.00  | .0362 | .0294 | -.1421 | -.1090 | .0154  | .1387  |
| 12   | 20.00  | .0565 | .0500 | -.2418 | -.1465 | .0241  | .1849  |
| 13   | .00    | .0009 | .0135 | .0046  | -.0058 | -.0002 | .0069  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDL    | CFMS   | CYMS   | CPV3   | CYD    |
|------|--------|-------|--------|--------|--------|--------|--------|
| 2    | .00    | .0012 | .0130  | .0118  | -.0066 | .0004  | .0074  |
| 3    | .00    | .0012 | .0131  | .0113  | -.0066 | .0004  | .0075  |
| 4    | -20.00 | .0419 | -.0100 | -.1164 | .1492  | -.0162 | -.1824 |
| 5    | -15.00 | .0218 | .0005  | -.0665 | .1134  | -.0149 | -.1406 |
| 6    | -10.00 | .0067 | .0060  | -.0144 | .0716  | -.0116 | -.0857 |
| 7    | -5.00  | .0006 | .0125  | .0066  | .0311  | -.0066 | -.0400 |
| 8    | .00    | .0008 | .0132  | .0033  | -.0060 | -.0003 | .0076  |
| 9    | 5.00   | .0052 | .0085  | -.0105 | -.0427 | .0035  | .0533  |
| 10   | 10.00  | .0169 | .0203  | -.0535 | -.0782 | .0070  | .1001  |
| 11   | 15.00  | .0362 | -.0077 | -.1158 | -.1090 | .0070  | .1415  |
| 12   | 20.00  | .0565 | -.0165 | -.1830 | -.1465 | .0070  | .1908  |
| 13   | .00    | .0009 | .0135  | .0040  | -.0058 | -.0002 | .0069  |

N432403-1

SIKORSKY P55A 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1061

RUN 1112 CONFIC T63 BT ALPHA = 10

| PT. NO. | - DELTA   |         | - DELA      |             | - INT        |              | U JELE       |             | Q DELR |          | U' DELSB |  | O V | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|----------|----------|--|-----|-----|
|         | ALPHA DEG | FUJ DEC | CLBAR S.-FT | CDBAR SG-FT | CFMBAR CL-FT | CYMBAR CU-FT | COMBAR CU-FT | CYBAR SC-FT | Q PSF  | U' KNOTS |          |  |     |     |
| 7       | 10.0      | .0      | 19.2        | 17.53       | -2169.       | -149.        | -14.         | 3.62        | 55.11  | 126.77   |          |  | 0.  |     |
| 8       | 10.0      | -20.0   | 11.0        | 28.44       | -2507.       | 2297.        | -699.        | -59.09      | 54.79  | 128.38   |          |  | 0.  |     |
| 9       | 10.0      | -15.0   | 74.7        | 22.07       | -2348.       | 1500.        | -512.        | -47.44      | 54.47  | 128.01   |          |  | 0.  |     |
| 10      | 10.0      | -10.0   | 70.4        | 17.58       | -2219.       | 1035.        | -322.        | -27.17      | 54.72  | 128.31   |          |  | 0.  |     |
| 11      | 10.0      | -5.0    | 69.4        | 15.04       | -2215.       | 331.         | -176.        | -9.87       | 54.56  | 128.14   |          |  | 0.  |     |
| 12      | 10.0      | .0      | 69.4        | 13.07       | -2201.       | -140.        | -25.         | 3.95        | 54.78  | 128.38   |          |  | 0.  |     |
| 13      | 10.0      | 5.0     | 69.3        | 13.25       | -2216.       | -803.        | 127.         | 16.94       | 55.44  | 129.16   |          |  | 0.  |     |
| 14      | 10.0      | 10.0    | 73.4        | 14.65       | -2324.       | -1217.       | 290.         | 33.10       | 55.33  | 129.02   |          |  | 0.  |     |
| 15      | 10.0      | 15.0    | 75.2        | 17.24       | -2475.       | -1730.       | 504.         | 47.29       | 55.10  | 128.64   |          |  | 0.  |     |
| 16      | 10.0      | 20.0    | 11.6        | 25.33       | -2507.       | -2202.       | 669.         | 59.42       | 55.18  | 128.85   |          |  | 0.  |     |
| 17      | 10.0      | .0      | 11.5        | 11.97       | -2247.       | -111.        | -11.         | 3.12        | 55.13  | 128.79   |          |  | 0.  |     |
| 18      | 10.0      | 20.0    | 12.0        | 26.02       | -2513.       | -2217.       | 676.         | 59.27       | 54.97  | 128.59   |          |  | 0.  |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL    | CC    | CPM    | CYP    | CFU    | CY     |
|------|--------|-------|-------|--------|--------|--------|--------|
| 7    | .00    | .1309 | .0316 | -.6992 | -.0090 | -.0007 | .0103  |
| 8    | -20.00 | .2130 | .0769 | -.8083 | .1367  | -.0421 | -.1597 |
| 9    | -15.00 | .2019 | .0597 | -.7571 | .1091  | -.0300 | -.1282 |
| 10   | -10.00 | .1903 | .0475 | -.7155 | .0625  | -.0190 | -.0734 |
| 11   | -5.00  | .1876 | .0406 | -.7142 | .0230  | -.0107 | -.0269 |
| 12   | .00    | .1875 | .0367 | -.7095 | -.0098 | -.0017 | .0107  |
| 13   | 5.00   | .1838 | .0357 | -.7145 | -.0371 | .0071  | .0458  |
| 14   | 10.00  | .1985 | .0396 | -.7494 | -.0730 | .0170  | .0695  |
| 15   | 15.00  | .2161 | .0482 | -.7980 | -.1045 | .0304  | .1278  |
| 16   | 20.00  | .2212 | .0702 | -.8062 | -.1342 | .0404  | .1600  |
| 17   | .00    | .1933 | .0323 | -.7243 | -.0067 | -.0007 | .0084  |
| 18   | 20.00  | .2217 | .0703 | -.8102 | -.1339 | .0407  | .1602  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB   | CDB   | CPM3   | CYMB   | CRM8   | CYB    |
|------|--------|-------|-------|--------|--------|--------|--------|
| 7    | .00    | .1869 | .0366 | -.6992 | -.0090 | -.0009 | .0103  |
| 8    | -20.00 | .2190 | .0173 | -.6818 | .1387  | .0124  | -.1764 |
| 9    | -15.00 | .2019 | .0243 | -.6881 | .1091  | .0070  | -.1393 |
| 10   | -10.00 | .1903 | .0340 | -.6861 | .0625  | .0033  | -.0906 |
| 11   | -5.00  | .1876 | .0381 | -.7065 | .0230  | .0010  | -.0304 |
| 12   | .00    | .1875 | .0367 | -.7095 | -.0098 | -.0015 | .0107  |
| 13   | 5.00   | .1888 | .0316 | -.7083 | -.0376 | -.0045 | .0487  |
| 14   | 10.00  | .1985 | .0234 | -.7216 | -.0735 | -.0070 | .0950  |
| 15   | 15.00  | .2161 | .0133 | -.7284 | -.1045 | -.0090 | .1360  |
| 16   | 20.00  | .2212 | .0108 | -.6849 | -.1342 | -.0140 | .1700  |
| 17   | .00    | .1933 | .0323 | -.7243 | -.0067 | -.0017 | .0084  |
| 18   | 20.00  | .2217 | .0110 | -.6861 | -.1330 | -.0131 | .1746  |

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N432403-1

STOKORSKY RSPA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P10P2

RUN 1113 CONFIG 163 BT ALPHA -10

| PT. NO. | ALPHA DEG | DELTA PSI | DELTA C.BAR | DELTA S.-FT | DELTA 50-FT | DELTA CPHEAD | DELTA CU-FT | DELTA CU-FT | DELTA CU-FT | DELTA 50-FT | DELTA G | DELTA V | RPM |
|---------|-----------|-----------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|-------------|---------|---------|-----|
| 7       | -10.0     | .0        | -75.0       | 10.72       | 2478.       | -115.        | -11.        | 3.15        | 54.69       | 128.27      | 0.      | 0.      |     |
| 8       | -10.0     | -19.6     | -51.9       | 24.60       | 1635.       | 2025.        | -311.       | -71.98      | 55.23       | 128.91      | 0.      | 0.      |     |
| 9       | -10.0     | -15.0     | -70.1       | 19.10       | 1912.       | 2032.        | -130.       | -55.59      | 55.65       | 128.69      | 0.      | 0.      |     |
| 10      | -10.0     | -10.0     | -16.7       | 14.20       | 2133.       | 1275.        | -114.       | -35.26      | 55.40       | 129.11      | 0.      | 0.      |     |
| 11      | -10.0     | -5.0      | -72.5       | 11.60       | 2327.       | 551.         | -45.        | -14.83      | 55.15       | 128.52      | 0.      | 0.      |     |
| 12      | -10.0     | .0        | -74.3       | 10.49       | 2405.       | -105.        | -28.        | 3.03        | 55.66       | 129.41      | 0.      | 0.      |     |
| 13      | -10.0     | 5.0       | -70.0       | 10.34       | 2227.       | -739.        | -25.        | 20.90       | 55.29       | 129.96      | 0.      | 0.      |     |
| 14      | -10.0     | 10.0      | -73.3       | 12.00       | 1982.       | -1460.       | 53.         | 41.94       | 55.04       | 129.68      | 0.      | 0.      |     |
| 15      | -10.0     | 15.0      | -78.1       | 15.01       | 1787.       | -2014.       | 68.         | 56.56       | 55.31       | 129.00      | 0.      | 0.      |     |
| 16      | -10.0     | 20.0      | -44.2       | 21.33       | 1407.       | -2554.       | 195.        | 76.13       | 54.73       | 128.30      | 0.      | 0.      |     |
| 17      | -10.0     | .0        | -74.5       | 10.44       | 2417.       | -100.        | -24.        | 2.85        | 55.53       | 129.26      | 0.      | 0.      |     |

\*\*\* COEFFICIENT FOR - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM   | CYA    | CRM    | CY     |
|------|--------|--------|-------|-------|--------|--------|--------|
| 7    | .00    | -.2044 | .0290 | .7989 | -.0069 | -.0000 | .0085  |
| 8    | -19.60 | -.1402 | .0665 | .5272 | .1583  | -.0183 | -.2056 |
| 9    | -15.00 | -.1626 | .0518 | .6184 | .1228  | -.0110 | -.1585 |
| 10   | -10.00 | -.1803 | .0384 | .6975 | .0770  | -.0069 | -.1005 |
| 11   | -5.00  | -.1960 | .0316 | .7503 | .0321  | -.0024 | -.0427 |
| 12   | .00    | -.2007 | .0283 | .7755 | -.0063 | -.0017 | .0082  |
| 13   | 5.00   | -.1693 | .0279 | .7179 | -.0446 | -.0015 | .0567  |
| 14   | 10.00  | -.1712 | .0324 | .6390 | -.0887 | .0032  | .1173  |
| 15   | 15.00  | -.1571 | .0427 | .5780 | -.1217 | .0041  | .1596  |
| 16   | 20.00  | -.1193 | .0593 | .4476 | -.1601 | .0114  | .2136  |
| 17   | .00    | -.2008 | .0252 | .7792 | -.0061 | -.0014 | .0077  |

\*\*\* COEFFICIENT FOR - STABILITY AXIS

| PT.# | PSI    | CL     | CD     | CPM   | CYA    | CRM    | CY     |
|------|--------|--------|--------|-------|--------|--------|--------|
| 7    | .00    | -.2044 | .0290  | .7989 | -.0069 | -.0000 | .0085  |
| 8    | -19.60 | -.1402 | -.0030 | .5301 | .1593  | -.0510 | -.2056 |
| 9    | -15.00 | -.1626 | .0110  | .6115 | .1228  | -.0410 | -.1585 |
| 10   | -10.00 | -.1803 | .0212  | .6834 | .0770  | -.0252 | -.1005 |
| 11   | -5.00  | -.1960 | .0279  | .7486 | .0321  | -.0147 | -.0427 |
| 12   | .00    | -.2007 | .0283  | .7755 | -.0063 | -.0017 | .0082  |
| 13   | 5.00   | -.1693 | .0279  | .7144 | -.0446 | .0107  | .0567  |
| 14   | 10.00  | -.1712 | .0122  | .6322 | -.0887 | .0240  | .1173  |
| 15   | 15.00  | -.1571 | .0012  | .5619 | -.1217 | .0320  | .1596  |
| 16   | 20.00  | -.1193 | -.0150 | .4476 | -.1601 | .0403  | .2136  |
| 17   | .00    | -.2008 | .0282  | .7792 | -.0061 | -.0014 | .0077  |



N432408-1

SIKORSKY RSPA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1083

RUN 1114 CONFIG T13 ST

| PT. NO. | ALPHA DEG | PSI DEG | CL BAR SQ-FT | CD BAR SQ-FT | CPM CD-FT | CYM BAR CU-FT | CRM BAR CU-FT | CYB BAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-----------|---------|--------------|--------------|-----------|---------------|---------------|---------------|-------|---------|-----|
| 13      | .0        | .0      | .3           | 4.30         | 40.       | -30.          | -17.          | 1.76          | 55.62 | 129.38  | 0.  |
| 14      | -25.0     | .0      | -78.7        | 40.11        | 2931.     | -100.         | 26.           | 4.84          | 55.13 | 128.79  | 0.  |
| 15      | -20.0     | .0      | -78.8        | 34.47        | 2750.     | -93.          | 11.           | 2.84          | 55.11 | 128.77  | 0.  |
| 16      | -15.0     | .0      | -77.5        | 25.77        | 2006.     | -90.          | 3.            | 2.38          | 54.70 | 128.27  | 0.  |
| 17      | -10.0     | .0      | -74.8        | 10.45        | 2414.     | -103.         | -1.           | 2.74          | 55.17 | 128.83  | 0.  |
| 18      | -5.0      | .0      | -26.0        | 5.90         | 1132.     | -110.         | 22.           | 3.20          | 55.90 | 129.70  | 0.  |
| 19      | .0        | .0      | .0           | 4.32         | 45.       | -92.          | 4.            | 2.20          | 55.29 | 128.97  | 0.  |
| 20      | 5.0       | .0      | 34.2         | 6.83         | -1049.    | -115.         | 5.            | 3.19          | 55.12 | 128.78  | 0.  |
| 21      | 10.0      | .0      | 70.9         | 11.73        | -2201.    | -129.         | -3.           | 3.76          | 55.05 | 128.69  | 0.  |
| 22      | 15.0      | .0      | 70.1         | 25.95        | -2314.    | -139.         | -41.          | 4.38          | 54.75 | 128.36  | 0.  |
| 23      | 20.0      | .0      | 78.0         | 34.93        | -2396.    | -116.         | -44.          | 4.58          | 55.34 | 129.03  | 0.  |
| 24      | 25.0      | .0      | 70.6         | 44.60        | -2601.    | -95.          | -60.          | 4.20          | 54.91 | 128.52  | 0.  |
| 25      | .0        | .0      | .0           | 4.77         | 39.       | -98.          | 4.            | 2.37          | 55.22 | 128.89  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 13   | .00    | .0003  | .0132 | .0128  | -.0054 | -.0010 | .0048 |
| 14   | -25.00 | -.2154 | .1219 | .9451  | -.0100 | .0017  | .0131 |
| 15   | -20.00 | -.2129 | .0931 | .8864  | -.0059 | .0007  | .0077 |
| 16   | -15.01 | -.2094 | .0693 | .8400  | -.0054 | .0002  | .0064 |
| 17   | -10.01 | -.2021 | .0282 | .7783  | -.0066 | -.0001 | .0074 |
| 18   | -5.00  | -.0974 | .0159 | .3843  | -.0067 | .0017  | .0086 |
| 19   | .00    | -.0001 | .0130 | .0144  | -.0055 | .0002  | .0060 |
| 20   | 5.00   | .0941  | .0179 | -.3393 | -.0070 | .0005  | .0086 |
| 21   | 10.00  | .1916  | .0317 | -.7095 | -.0078 | -.0002 | .0102 |
| 22   | 14.99  | .1895  | .0701 | -.7461 | -.0084 | -.0025 | .0118 |
| 23   | 20.02  | .1837  | .0945 | -.7726 | -.0070 | -.0026 | .0124 |
| 24   | 25.01  | .1909  | .1207 | -.8367 | -.0057 | -.0030 | .0113 |
| 25   | .00    | .0001  | .0129 | .0125  | -.0059 | .0003  | .0064 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 13   | .00    | .0003  | .0132 | .0128  | -.0054 | -.0010 | .0048 |
| 14   | -25.00 | -.2154 | .1219 | .9451  | -.0100 | .0017  | .0131 |
| 15   | -20.00 | -.2129 | .0931 | .8864  | -.0059 | .0007  | .0077 |
| 16   | -15.01 | -.2094 | .0683 | .8400  | -.0054 | .0002  | .0064 |
| 17   | -10.01 | -.2021 | .0282 | .7783  | -.0066 | -.0001 | .0074 |
| 18   | -5.00  | -.0974 | .0159 | .3843  | -.0067 | .0017  | .0086 |
| 19   | .00    | -.0001 | .0130 | .0144  | -.0055 | .0002  | .0060 |
| 20   | 5.00   | .0941  | .0179 | -.3393 | -.0070 | .0005  | .0086 |
| 21   | 10.00  | .1916  | .0317 | -.7095 | -.0078 | -.0002 | .0102 |
| 22   | 14.99  | .1895  | .0701 | -.7461 | -.0084 | -.0025 | .0118 |
| 23   | 20.02  | .1837  | .0945 | -.7726 | -.0070 | -.0026 | .0124 |
| 24   | 25.01  | .1909  | .1207 | -.8367 | -.0057 | -.0030 | .0113 |
| 25   | .00    | .0001  | .0129 | .0125  | -.0059 | .0003  | .0064 |

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N432403-1

SIKORSKY KR8A 1/8 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1084

RUN 1115 CONFIG T63 BT

| PT. NO. | ALPHA DEG. | DELTA PSI DEG. | CLBAR SQ-FT | CDBAR SQ-FT | CFM BAR CU-FT | CYMEAP CU-FT | CMGAF CU-FT | CYBAR SQ-FT | G PSF | V KNOTS | RPM |
|---------|------------|----------------|-------------|-------------|---------------|--------------|-------------|-------------|-------|---------|-----|
| 2       | .0         | 5.0            | 3.1         | 5.17        | -371.         | -761.        | 625.        | 21.76       | 55.42 | 129.14  | 0.  |
| 3       | -25.0      | 5.0            | -10.7       | 45.33       | 2961.         | -925.        | 234.        | 28.16       | 55.63 | 129.45  | 0.  |
| 4       | -20.0      | 5.0            | -14.7       | 36.17       | 2929.         | -896.        | 116.        | 27.20       | 55.13 | 128.78  | 0.  |
| 5       | -15.0      | 5.0            | -9.6        | 25.19       | 2658.         | -842.        | 63.         | 25.65       | 54.87 | 128.47  | 0.  |
| 6       | -10.0      | 5.0            | -8.4        | 16.74       | 2173.         | -840.        | 11.         | 25.07       | 55.56 | 129.30  | 0.  |
| 7       | -5.0       | 5.0            | -32.6       | 6.74        | 1074.         | -342.        | 64.         | 24.66       | 55.42 | 129.14  | 0.  |
| 8       | .0         | 5.0            | 3.1         | 5.06        | -54.          | -745.        | 73.         | 21.18       | 55.55 | 129.29  | 0.  |
| 9       | 5.0        | 5.0            | 36.5        | 6.34        | -1109.        | -700.        | 111.        | 19.66       | 55.38 | 129.09  | 0.  |
| 10      | 10.0       | 5.0            | 71.3        | 12.13       | -2213.        | -674.        | 130.        | 18.93       | 54.61 | 128.40  | 0.  |
| 11      | 15.0       | 5.0            | 72.3        | 27.30       | -2410.        | -672.        | 79.         | 13.79       | 54.65 | 128.21  | 0.  |
| 13      | 25.0       | 5.0            | 19.1        | 44.04       | -2554.        | -524.        | -21.        | 16.33       | 55.66 | 129.41  | 0.  |
| 14      | 20.0       | 5.0            | 18.2        | 35.39       | -2391.        | -630.        | 24.         | 18.36       | 55.13 | 128.78  | 0.  |
| 15      | -0         | 5.0            | 2.8         | 5.05        | -53.          | -769.        | 83.         | 22.03       | 55.46 | 129.18  | 0.  |

\*\*\*\* COEFFICIENT FOR - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CPM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0084  | .0140 | -.1196 | -.0460 | .0377  | .0587 |
| 3    | -25.00 | -.2181 | .1239 | .9548  | -.0559 | .0141  | .0761 |
| 4    | -20.00 | -.2290 | .0977 | .9444  | -.0542 | .0071  | .0735 |
| 5    | -15.00 | -.2151 | .0681 | .8569  | -.0509 | .0032  | .0693 |
| 6    | -10.00 | -.1947 | .0290 | .7005  | -.0507 | .0000  | .0678 |
| 7    | -5.00  | -.0880 | .0182 | .3464  | -.0509 | .0030  | .0667 |
| 8    | -.00   | .0083  | .0137 | -.0175 | -.0450 | .0044  | .0572 |
| 9    | 5.00   | .0986  | .0168 | -.3577 | -.0423 | .0067  | .0531 |
| 10   | 10.00  | .1926  | .0323 | -.7133 | -.0407 | .0073  | .0512 |
| 11   | 14.99  | .1954  | .0738 | -.7769 | -.0400 | .0048  | .0566 |
| 13   | 25.00  | .1868  | .1190 | -.6234 | -.0316 | -.0013 | .0441 |
| 14   | 19.99  | .1844  | .0956 | -.7703 | -.0381 | .0014  | .0497 |
| 15   | -.01   | .0076  | .0137 | -.0170 | -.0464 | .0050  | .0590 |

\*\*\*\* COEFFICIENT FOR - STABILITY AXIS

| PT.# | ALPHA  | CLB    | COB   | CPMB   | CYMB   | CPMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0084  | .0088 | -.1016 | -.0460 | .0350  | .0597 |
| 3    | -25.00 | -.2181 | .1167 | .9577  | -.0559 | .0297  | .0867 |
| 4    | -20.00 | -.2290 | .0909 | .9441  | -.0542 | .0221  | .0816 |
| 5    | -15.00 | -.2151 | .0618 | .8554  | -.0509 | .0173  | .0750 |
| 6    | -10.00 | -.1947 | .0230 | .6981  | -.0507 | .0121  | .0700 |
| 7    | -5.00  | -.0880 | .0123 | .3463  | -.0509 | .0095  | .0680 |
| 8    | -.00   | .0083  | .0086 | -.0154 | -.0450 | .0041  | .0582 |
| 9    | 5.00   | .0986  | .0140 | -.3532 | -.0423 | .0003  | .0546 |
| 10   | 10.00  | .1926  | .0282 | -.7069 | -.0407 | -.0032 | .0538 |
| 11   | 14.99  | .1954  | .0691 | -.7717 | -.0406 | -.0080 | .0571 |
| 13   | 25.00  | .1868  | .1147 | -.8208 | -.0316 | -.0143 | .0544 |
| 14   | 19.99  | .1844  | .0909 | -.7671 | -.0381 | -.0117 | .0579 |
| 15   | -.01   | .0076  | .0084 | -.0146 | -.0464 | .0047  | .0605 |

N432409-1

SIKORSKI RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P1085

RUN 1116 CONFIG 163 BT

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|-----|
| 1       | -0.0      | 20.0    | 30.4        | 24.43       | -643.        | -2758.       | 417.         | 60.70       | 54.81 | 128.41  | 0.  |
| 2       | -25.0     | 20.0    | -91.8       | 66.55       | 3154.        | -3173.       | 644.         | 95.92       | 54.94 | 128.56  | 0.  |
| 4       | -15.0     | 20.0    | -70.0       | 41.36       | 2344.        | -2996.       | 243.         | 39.94       | 55.61 | 129.35  | 0.  |
| 5       | -10.0     | 20.0    | -47.1       | 26.71       | 1491.        | -2952.       | 229.         | 29.15       | 55.53 | 129.26  | 0.  |
| 6       | -20.0     | 20.0    | -30.3       | 54.67       | 2860.        | -3034.       | 358.         | 90.86       | 55.27 | 128.96  | 0.  |
| 7       | -5.0      | 20.0    | -13.1       | 25.02       | 412.         | -2796.       | 304.         | 83.27       | 55.56 | 129.30  | 0.  |
| 8       | 0.0       | 20.0    | 20.4        | 24.56       | -648.        | -2770.       | 419.         | 80.89       | 55.28 | 128.97  | 0.  |
| 9       | 5.0       | 20.0    | 55.4        | 26.55       | -1717.       | -2702.       | 571.         | 77.47       | 55.02 | 128.66  | 0.  |
| 10      | 10.0      | 20.0    | 95.1        | 31.46       | -2583.       | -2505.       | 651.         | 70.00       | 55.22 | 128.90  | 0.  |
| 11      | 15.0      | 20.0    | 54.0        | 46.42       | -2975.       | -2300.       | 589.         | 60.01       | 54.58 | 128.13  | 0.  |
| 12      | 20.0      | 20.0    | 29.3        | 54.01       | -2979.       | -2028.       | 434.         | 52.11       | 55.42 | 129.13  | 0.  |
| 13      | 25.0      | 20.0    | 52.8        | 61.14       | -2972.       | -1694.       | 371.         | 41.68       | 55.58 | 129.32  | 0.  |
| 14      | -0.0      | 20.0    | 20.2        | 24.44       | -642.        | -2764.       | 418.         | 80.96       | 55.09 | 128.74  | 0.  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CFM    | CYM    | CRM   | CY    |
|------|--------|--------|-------|--------|--------|-------|-------|
| 1    | -0.01  | .0552  | .0660 | -.2072 | -.1666 | .0252 | .2181 |
| 2    | -25.00 | -.2211 | .1799 | 1.0170 | -.1917 | .0385 | .2592 |
| 4    | -15.00 | -.1892 | .1118 | .7558  | -.1810 | .0147 | .2431 |
| 5    | -10.00 | -.1274 | .0776 | .4806  | -.1783 | .0130 | .2410 |
| 6    | -20.00 | -.2169 | .1477 | .5220  | -.1833 | .0210 | .2458 |
| 7    | -5.00  | -.0353 | .0676 | .1327  | -.1690 | .0183 | .2251 |
| 8    | 0.00   | .0552  | .0664 | -.2088 | -.1673 | .0254 | .2186 |
| 9    | 5.00   | .1497  | .0718 | -.5534 | -.1632 | .0345 | .2094 |
| 10   | 10.01  | .2300  | .0850 | -.6326 | -.1513 | .0395 | .1892 |
| 11   | 15.00  | .2540  | .1255 | -.9533 | -.1389 | .0356 | .1622 |
| 12   | 20.00  | .2385  | .1460 | -.5604 | -.1225 | .0282 | .1408 |
| 13   | 25.00  | .2237  | .1652 | -.9583 | -.1024 | .0224 | .1127 |
| 14   | -0.00  | .0546  | .0661 | -.2070 | -.1669 | .0252 | .2168 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CL3    | CDB    | CPMB   | CYMB   | CRM3   | CYB   |
|------|--------|--------|--------|--------|--------|--------|-------|
| 1    | -0.01  | .0552  | -.0129 | -.1485 | -.1666 | .0107  | .2275 |
| 2    | -25.00 | -.2211 | .0799  | 1.0264 | -.1917 | .1020  | .3052 |
| 4    | -15.00 | -.1892 | .0215  | .7368  | -.1810 | .0624  | .2667 |
| 5    | -10.00 | -.1274 | -.0099 | .4766  | -.1783 | .0435  | .2529 |
| 6    | -20.00 | -.2169 | .0544  | .9055  | -.1833 | .0797  | .2814 |
| 7    | -5.00  | -.0353 | -.0138 | .1583  | -.1690 | .0258  | .2340 |
| 8    | 0.00   | .0552  | -.0128 | -.1498 | -.1673 | .0103  | .2261 |
| 9    | 5.00   | .1497  | -.0045 | -.4565 | -.1632 | -.0032 | .2213 |
| 10   | 10.01  | .2300  | .0149  | -.7099 | -.1513 | -.0167 | .2069 |
| 11   | 15.00  | .2540  | .0621  | -.8357 | -.1389 | -.0280 | .1954 |
| 12   | 20.00  | .2385  | .0887  | -.8539 | -.1225 | -.0372 | .1824 |
| 13   | 25.00  | .2237  | .1165  | -.8589 | -.1024 | -.0406 | .1626 |
| 14   | -0.00  | .0546  | -.0131 | -.1481 | -.1669 | .0104  | .2282 |

N432407-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P1086

RUN 1117 CONFIG - T63 BT

| PT. NO. | IM | - DELF    |         | - DELA      |             | - IHT        |              | O JELE       |             | O DELR    |        | O DELSB |  | O  | RPM |
|---------|----|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-----------|--------|---------|--|----|-----|
|         |    | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | CRMSB PSF | CSB V  |         |  |    |     |
| 2       |    | .0        | .0      | -.3         | 5.48        | 60.          | 286.         | -67.         | -6.85       | 54.62     | 128.19 |         |  | 0. |     |
| 3       |    | .0        | -20.0   | 16.5        | 22.33       | -593.        | 2778.        | -569.        | -73.17      | 54.65     | 128.22 |         |  | 0. |     |
| 4       |    | .0        | -15.0   | 8.9         | 15.93       | -331.        | 2227.        | -418.        | -58.56      | 54.79     | 128.39 |         |  | 0. |     |
| 5       |    | .0        | -10.0   | 3.2         | 10.53       | -106.        | 1533.        | -280.        | -41.61      | 55.37     | 129.08 |         |  | 0. |     |
| 6       |    | .0        | -5.0    | .5          | 7.31        | 9.           | 921.         | -184.        | -24.32      | 54.64     | 128.21 |         |  | 0. |     |
| 7       |    | .0        | .0      | .3          | 5.65        | 31.          | 236.         | -120.        | -5.91       | 54.68     | 128.26 |         |  | 0. |     |
| 8       |    | .0        | 5.0     | 1.5         | 5.17        | -16.         | -424.        | -34.         | -12.05      | 55.75     | 129.53 |         |  | 0. |     |
| 9       |    | .0        | 10.0    | 5.5         | 6.17        | -161.        | -1026.       | 66.          | 29.55       | 55.04     | 128.69 |         |  | 0. |     |
| 10      |    | .0        | 15.0    | 12.4        | 9.91        | -397.        | -1530.       | 146.         | 44.32       | 55.12     | 128.78 |         |  | 0. |     |
| 11      |    | .0        | 20.0    | 19.8        | 16.95       | -705.        | -2151.       | 283.         | 51.57       | 55.06     | 128.71 |         |  | 0. |     |
| 12      |    | .0        | -5.0    | .7          | 7.29        | 10.          | 933.         | -228.        | -24.78      | 55.12     | 128.78 |         |  | 0. |     |
| 13      |    | .0        | .0      | .1          | 5.62        | 28.          | 239.         | -113.        | -5.71       | 54.82     | 128.42 |         |  | 0. |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CFM    | CYM    | CRM    | CY     |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0008 | .0149  | .0195  | .0161  | -.0040 | -.0185 |
| 3    | -20.00 | .0445  | .0620  | -.1927 | .1678  | -.0343 | -.1977 |
| 4    | -15.00 | .0242  | -.0431 | -.1067 | .1345  | -.0253 | -.1583 |
| 5    | -10.00 | .0086  | .0286  | -.0340 | .0956  | -.0169 | -.1125 |
| 6    | -5.00  | .0013  | .0198  | .0029  | .0556  | -.0111 | -.0657 |
| 7    | .00    | .0009  | .0153  | .0100  | .0143  | -.0073 | -.0160 |
| 8    | 5.00   | .0041  | .0137  | -.0053 | -.0256 | -.0020 | .0326  |
| 9    | 10.00  | .0149  | .0167  | -.0520 | -.0620 | .0040  | .0799  |
| 10   | 15.00  | .0336  | .0269  | -.1279 | -.0928 | .0088  | .1158  |
| 11   | 20.00  | .0534  | .0458  | -.2273 | -.1299 | .0171  | .1664  |
| 12   | -5.00  | .0019  | .0137  | .0031  | .0564  | -.0132 | -.0670 |
| 13   | .00    | .0003  | .0152  | .0090  | .0144  | -.0068 | -.0154 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CD6    | CFM6   | CYM6   | CRM6   | CY6    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0006 | .0148  | .0195  | .0161  | -.0040 | -.0185 |
| 3    | -20.00 | .0445  | -.0097 | -.1180 | .1678  | -.0199 | -.2070 |
| 4    | -15.00 | .0242  | .0004  | -.0680 | .1345  | -.0192 | -.1640 |
| 5    | -10.00 | .0086  | .0085  | -.0178 | .0956  | -.0155 | -.1157 |
| 6    | -5.00  | .0013  | .0139  | .0081  | .0556  | -.0111 | -.0672 |
| 7    | .00    | .0009  | .0153  | .0100  | .0143  | -.0073 | -.0160 |
| 8    | 5.00   | .0041  | .0108  | -.0062 | -.0256 | -.0021 | .0336  |
| 9    | 10.00  | .0149  | .0025  | -.0475 | -.0620 | .0023  | .0815  |
| 10   | 15.00  | .0336  | -.0053 | -.1113 | -.0928 | .0025  | .1226  |
| 11   | 20.00  | .0534  | -.0141 | -.1821 | -.1299 | .0014  | .1720  |
| 12   | -5.00  | .0019  | .0138  | .0095  | .0564  | -.0132 | -.0684 |
| 13   | .00    | .0003  | .0152  | .0090  | .0144  | -.0068 | -.0154 |

N432405-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P1087

RUN 1118 CONFIG T63 BT

| PT. NO. | - DELF    |         | -- DELA     |             | - IHT        |              | O DELE       |             | O DELR      |        | 20 DELSB |    | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|--------|----------|----|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SG-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CZMBAR CU-FT | CYBAR SG-FT | CZBAR SG-FT | Q PSF  | V KNOTS  |    |     |
| 2       | .0        | .0      | -1.3        | 6.89        | 105.         | 711.         | -138.        | -18.03      | 55.41       | 129.13 |          | 0. |     |
| 3       | .0        | -20.0   | 16.5        | 25.38       | -572.        | 3009.        | -600.        | -78.24      | 55.11       | 128.76 |          | 0. |     |
| 4       | .0        | -15.0   | 9.4         | 18.34       | -315.        | 2522.        | -435.        | -66.21      | 55.39       | 129.10 |          | 0. |     |
| 5       | .0        | -10.0   | 3.0         | 13.07       | -67.         | 1973.        | -314.        | -51.59      | 55.11       | 128.76 |          | 0. |     |
| 6       | .0        | -5.0    | -.4         | 9.15        | 70.          | 1345.        | -215.        | -34.88      | 55.25       | 128.92 |          | 0. |     |
| 7       | .0        | .0      | -1.2        | 6.59        | 99.          | 684.         | -119.        | -16.91      | 54.92       | 128.53 |          | 0. |     |
| 8       | .0        | 5.0     | .1          | 5.91        | 54.          | -60.         | -36.         | 2.91        | 54.81       | 128.40 |          | 0. |     |
| 9       | .0        | 10.0    | 3.9         | 6.18        | -88.         | -768.        | 94.          | 22.73       | 55.09       | 128.74 |          | 0. |     |
| 10      | .0        | 15.0    | 10.3        | 9.21        | -314.        | -1275.       | 154.         | 37.70       | 55.31       | 128.99 |          | 0. |     |
| 11      | .0        | 20.0    | 17.3        | 15.25       | -611.        | -1853.       | 265.         | 53.97       | 55.25       | 128.92 |          | 0. |     |
| 12      | .0        | .0      | -1.0        | 6.80        | 100.         | 697.         | -122.        | -17.43      | 55.37       | 129.06 |          | 0. |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPH    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0035 | .0186 | .0339  | .0430  | -.0083 | -.0487 |
| 3    | -20.00 | .0457  | .0686 | -.1845 | .1818  | -.0362 | -.2115 |
| 4    | -15.00 | .0255  | .0496 | -.1015 | .1523  | -.0265 | -.1789 |
| 5    | -10.00 | .0081  | .0353 | -.0216 | .1192  | -.0190 | -.1394 |
| 6    | -5.00  | -.0010 | .0247 | .0227  | .0812  | -.0130 | -.0943 |
| 7    | .00    | -.0032 | .0189 | .0319  | .0413  | -.0072 | -.0457 |
| 8    | 5.00   | .0004  | .0160 | .0174  | -.0036 | -.0022 | .0079  |
| 9    | 10.00  | .0105  | .0157 | -.0285 | -.0464 | .0057  | .0614  |
| 10   | 15.00  | .0279  | .0249 | -.1013 | -.0770 | .0093  | .1019  |
| 11   | 20.00  | .0467  | .0412 | -.1971 | -.1119 | .0160  | .1459  |
| 12   | .00    | -.0028 | .0184 | .0322  | .0421  | -.0074 | -.0471 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CCB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0035 | .0186  | .0339  | .0430  | -.0083 | -.0487 |
| 3    | -20.00 | .0457  | -.0082 | -.1068 | .1818  | -.0222 | -.2222 |
| 4    | -15.00 | .0255  | .0014  | -.0615 | .1523  | -.0205 | -.1857 |
| 5    | -10.00 | .0081  | .0105  | -.1036 | .1192  | -.0181 | -.1435 |
| 6    | -5.00  | -.0010 | .0164  | .0297  | .0812  | -.0133 | -.0961 |
| 7    | .00    | -.0032 | .0189  | .0319  | .0413  | -.0072 | -.0457 |
| 8    | 5.00   | .0004  | .0152  | .0163  | -.0036 | -.0019 | .0092  |
| 9    | 10.00  | .0105  | .0057  | -.0228 | -.0464 | .0047  | .0634  |
| 10   | 15.00  | .0279  | -.0025 | -.0849 | -.0770 | .0040  | .1049  |
| 11   | 20.00  | .0467  | -.0114 | -.1558 | -.1119 | .0023  | .1511  |
| 12   | .00    | -.0028 | .0184  | .0322  | .0421  | -.0074 | -.0471 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1088

RIIN 1119 CONFIG

T63 BT

| PT. NO. | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | 25 DELS8 PSF | D V KNOTS | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------------|-----------|-----|
| 2       | .0        | .0      | -1.4        | 7.72        | 126.         | 879.         | -138.        | -22.22      | 54.65        | 128.21    | 0.  |
| 3       | .0        | -19.9   | 16.4        | 26.39       | -557.        | 3148.        | -508.        | -82.21      | 55.57        | 129.31    | 0.  |
| 5       | .0        | -10.0   | 3.2         | 14.07       | -66.         | 2085.        | -305.        | -54.11      | 54.99        | 128.61    | 0.  |
| 6       | .0        | -5.0    | -1.0        | 10.13       | 92.          | 1490.        | -229.        | -38.45      | 55.19        | 128.85    | 0.  |
| 7       | .0        | .0      | -2.2        | 7.60        | 136.         | 850.         | -131.        | -21.02      | 54.92        | 128.54    | 0.  |
| 8       | .0        | 5.0     | -.8         | 6.35        | 88.          | 83.          | -54.         | -.91        | 55.14        | 128.79    | 0.  |
| 9       | .0        | 10.0    | 3.5         | 6.26        | -63.         | -655.        | 89.          | 20.06       | 55.42        | 129.13    | 0.  |
| 10      | .0        | 14.0    | 8.2         | 8.19        | -242.        | -1115.       | 156.         | 32.93       | 55.78        | 129.55    | 0.  |
| 11      | .0        | 15.0    | 9.9         | 9.09        | -288.        | -1223.       | 156.         | 36.24       | 55.54        | 129.27    | 0.  |
| 12      | .0        | 20.0    | 17.3        | 15.30       | -602.        | -1802.       | 275.         | 52.81       | 55.08        | 128.72    | 0.  |
| 13      | .0        | -15.0   | 9.2         | 19.17       | -291.        | 2596.        | -442.        | -68.51      | 55.27        | 128.94    | 0.  |
| 14      | .0        | .0      | -1.6        | 7.57        | 131.         | 833.         | -155.        | -20.95      | 55.16        | 128.82    | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0037 | .0209 | .0408  | .0531  | -.0084 | -.0601 |
| 3    | -19.90 | .0442  | .0713 | -.1794 | .1901  | -.0307 | -.2222 |
| 5    | -10.00 | .0087  | .0380 | -.0212 | .1259  | -.0185 | -.1463 |
| 6    | -5.00  | -.0028 | .0274 | .0296  | .0900  | -.0139 | -.1039 |
| 7    | .00    | -.0059 | .0206 | .0438  | .0513  | -.0079 | -.0568 |
| 8    | 5.00   | -.0021 | .0172 | .0284  | .0050  | -.0032 | -.0025 |
| 9    | 10.00  | .0094  | .0169 | -.0202 | -.0395 | .0054  | .0542  |
| 10   | 14.00  | .0223  | .0221 | -.0779 | -.0674 | .0094  | .0890  |
| 11   | 15.00  | .0267  | .0246 | -.0929 | -.0739 | .0094  | .0979  |
| 12   | 20.00  | .0467  | .0413 | -.1941 | -.1088 | .0166  | .1427  |
| 13   | -15.00 | .0250  | .0518 | -.0937 | .1568  | -.0267 | -.1852 |
| 14   | .00    | -.0044 | .0204 | .0424  | .0503  | -.0093 | -.0566 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0037 | .0209  | .0408  | .0531  | -.0084 | -.0601 |
| 3    | -19.90 | .0442  | -.0089 | -.1127 | .1901  | -.0173 | -.2332 |
| 5    | -10.00 | .0087  | .0119  | -.0037 | .1259  | -.0175 | -.1506 |
| 6    | -5.00  | -.0028 | .0182  | .0360  | .0900  | -.0143 | -.1059 |
| 7    | .00    | -.0059 | .0206  | .0438  | .0513  | -.0079 | -.0568 |
| 8    | 5.00   | -.0021 | .0173  | .0268  | .0050  | -.0028 | -.0010 |
| 9    | 10.00  | .0094  | .0072  | -.0148 | -.0395 | .0047  | .0563  |
| 10   | 14.00  | .0223  | -.0001 | -.0633 | -.0674 | .0056  | .0917  |
| 11   | 15.00  | .0267  | -.0017 | -.0766 | -.0739 | .0046  | .1010  |
| 12   | 20.00  | .0467  | -.0102 | -.1519 | -.1088 | .0031  | .1483  |
| 13   | -15.00 | .0250  | .0019  | -.0534 | .1568  | -.0212 | -.1923 |
| 14   | .00    | -.0044 | .0204  | .0424  | .0503  | -.0093 | -.0566 |

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1089

\_RUN 1120 CONFIG T63 BT

| PT. NO. | DELTA     |         | DELA        |             | IHT          |              | DELE         |             | DEL R |        | 30 DELSB |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|--------|----------|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF   | KNOTS  | V        |  |     |
| 2       | .0        | .0      | -2.9        | 8.88        | 176.         | 1044.        | -174.        | -26.36      | 54.35 | 127.85 | 0.       |  |     |
| 3       | .0        | -19.5   | 15.9        | 28.09       | -555.        | 3333.        | -388.        | -87.01      | 54.52 | 128.05 | 0.       |  |     |
| 4       | .0        | -14.6   | 8.3         | 20.46       | -269.        | 2727.        | -422.        | -70.60      | 55.41 | 129.11 | 0.       |  |     |
| 5       | .0        | -10.0   | 2.3         | 15.50       | -38.         | 2237.        | -344.        | -57.95      | 55.32 | 129.01 | 0.       |  |     |
| 6       | .0        | -5.0    | -1.7        | 11.51       | 124.         | 1674.        | -261.        | -42.95      | 55.38 | 129.08 | 0.       |  |     |
| 7       | .0        | .0      | -3.1        | 8.96        | 169.         | 1035.        | -171.        | -25.72      | 54.82 | 128.41 | 0.       |  |     |
| 8       | .0        | 5.0     | -1.8        | 7.21        | 130.         | 261.         | -87.         | -5.52       | 55.58 | 129.32 | 0.       |  |     |
| 9       | .0        | 10.0    | 2.1         | 6.78        | -24.         | -506.        | 40.          | 16.09       | 55.15 | 128.81 | 0.       |  |     |
| 10      | .0        | 15.0    | 9.0         | 9.93        | -259.        | -1150.       | 128.         | 34.34       | 54.24 | 127.71 | 0.       |  |     |
| 11      | .0        | 20.0    | 15.6        | 14.90       | -562.        | -1665.       | 230.         | 49.20       | 55.34 | 129.03 | 0.       |  |     |
| 12      | .0        | .0      | -3.2        | 8.58        | 192.         | 1048.        | -159.        | -26.64      | 55.66 | 129.41 | 0.       |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. # | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|-------|--------|--------|-------|--------|--------|--------|--------|
| 2     | .00    | -.0077 | .0240 | .0567  | .0630  | -.0105 | -.0712 |
| 3     | -19.50 | .0431  | .0759 | -.1789 | .2013  | -.0234 | -.2352 |
| 4     | -14.60 | .0224  | .0553 | -.0868 | .1647  | -.0255 | -.1908 |
| 5     | -10.00 | .0063  | .0419 | -.0123 | .1351  | -.0208 | -.1566 |
| 6     | -5.00  | -.0045 | .0311 | .0400  | .1011  | -.0158 | -.1161 |
| 7     | .00    | -.0084 | .0242 | .0546  | .0625  | -.0103 | -.0695 |
| 8     | 5.00   | -.0048 | .0195 | .0418  | .0158  | -.0053 | -.0149 |
| 9     | 10.00  | .0057  | .0183 | -.0077 | -.0306 | .0024  | .0435  |
| 10    | 15.00  | .0242  | .0268 | -.0834 | -.0695 | .0077  | .0928  |
| 11    | 20.00  | .0423  | .0403 | -.1812 | -.1006 | .0139  | .1330  |
| 12    | .00    | -.0087 | .0232 | .0620  | .0633  | -.0096 | -.0720 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. # | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|-------|--------|--------|--------|--------|--------|--------|--------|
| 2     | .00    | -.0077 | .0240  | .0567  | .0630  | -.0105 | -.0712 |
| 3     | -19.50 | .0431  | -.0073 | -.1267 | .2013  | -.0108 | -.2470 |
| 4     | -14.60 | .0224  | .0052  | -.0495 | .1647  | -.0206 | -.1986 |
| 5     | -10.00 | .0063  | .0139  | .0072  | .1351  | -.0200 | -.1615 |
| 6     | -5.00  | -.0045 | .0208  | .0472  | .1011  | -.0163 | -.1184 |
| 7     | .00    | -.0084 | .0242  | .0546  | .0625  | -.0103 | -.0695 |
| 8     | 5.00   | -.0048 | .0207  | .0392  | .0158  | -.0046 | -.0132 |
| 9     | 10.00  | .0057  | .0105  | -.0053 | -.0306 | .0021  | .0460  |
| 10    | 15.00  | .0242  | .0018  | -.0698 | -.0695 | .0034  | .0966  |
| 11    | 20.00  | .0423  | -.0079 | -.1447 | -.1006 | .0014  | .1387  |
| 12    | .00    | -.0087 | .0232  | .0620  | .0633  | -.0096 | -.0720 |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P109.0

RUN 1121 CONFIG T63 BT

| PT. NO. | - DELF.   |         | - DELA      |             | - IHT        |              | O DELE       |             | O DELR |         | -30 DELSB | O |  | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|-----------|---|--|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDPAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF    | V KNOTS |           |   |  |     |
| 2       | .0        | .0      | -2,3        | 7,72        | 148,         | -1182,       | 162,         | 30,41       | 55,35  | 129,05  |           |   |  | 0,  |
| 3       | .0        | -20,0   | 10,8        | 16,55       | -405,        | 1705,        | -339,        | -46,76      | 54,81  | 128,40  |           |   |  | 0,  |
| 4       | .0        | -15,0   | 3,2         | 10,94       | -130,        | 996,         | -180,        | -27,54      | 55,40  | 129,11  |           |   |  | 0,  |
| 5       | .0        | -10,0   | -1,1        | 8,55        | 62,          | 263,         | -63,         | -8,09       | 53,63  | 126,99  |           |   |  | 0,  |
| 6       | .0        | -5,0    | -2,7        | 7,00        | 140,         | -488,        | 53,          | 11,83       | 56,04  | 129,87  |           |   |  | 0,  |
| 7       | .0        | .0      | -2,3        | 7,90        | 129,         | -1182,       | 150,         | 30,38       | 55,21  | 128,87  |           |   |  | 0,  |
| 8       | .0        | 5,0     | .5          | 9,42        | 36,          | -1776,       | 205,         | 46,22       | 55,64  | 129,39  |           |   |  | 0,  |
| 9       | .0        | 10,0    | 7,4         | 11,08       | -208,        | -2270,       | 323,         | 60,74       | 55,88  | 129,67  |           |   |  | 0,  |
| 10      | .0        | 15,0    | 15,3        | 16,74       | -467,        | -2776,       | 405,         | 75,29       | 55,35  | 129,04  |           |   |  | 0,  |
| 11      | .0        | 20,0    | 22,0        | 25,39       | -731,        | -2478,       | 843,         | 61,94       | 55,49  | 129,20  |           |   |  | 0,  |
| 12      | .0        | .0      | -2,6        | 7,54        | 161,         | -1156,       | 173,         | 29,46       | 55,77  | 129,54  |           |   |  | 0,  |
| 13      | .0        | 20,1    | 22,2        | 26,24       | -742,        | -3263,       | 524,         | 88,15       | 55,65  | 129,39  |           |   |  | 0,  |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0062 | .0209 | .0477  | -.0714 | .0098  | .0822  |
| 3    | -20,00 | .0291  | .0447 | -.1305 | .1030  | -.0205 | -.1264 |
| 4    | -15,00 | .0088  | .0296 | -.0418 | .0602  | -.0109 | -.0744 |
| 5    | -10,00 | -.0029 | .0231 | .0201  | .0159  | -.0038 | -.0219 |
| 6    | -5,00  | -.0073 | .0189 | .0450  | -.0295 | .0032  | .0320  |
| 7    | .00    | -.0063 | .0214 | .0415  | -.0714 | .0091  | .0821  |
| 8    | 5,00   | .0014  | .0255 | .0117  | -.1073 | .0124  | .1249  |
| 9    | 10,00  | .0201  | .0300 | -.0672 | -.1371 | .0195  | .1642  |
| 10   | 15,00  | .0413  | .0453 | -.1506 | -.1677 | .0245  | .2035  |
| 11   | 20,00  | .0596  | .0686 | -.2357 | -.1497 | .0509  | .1674  |
| 12   | .00    | -.0070 | .0204 | .0521  | -.0698 | .0105  | .0796  |
| 13   | 20,10  | .0601  | .0709 | -.2391 | -.1971 | .0316  | .2382  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0062 | .0209  | .0477  | -.0714 | .0098  | .0822  |
| 3    | -20,00 | .0291  | -.0014 | -.0851 | .1030  | -.0108 | -.1341 |
| 4    | -15,00 | .0088  | .0092  | -.0253 | .0602  | -.0085 | -.0795 |
| 5    | -10,00 | -.0029 | .0189  | .0233  | .0159  | -.0044 | -.0256 |
| 6    | -5,00  | -.0073 | .0217  | .0434  | -.0295 | .0024  | .0302  |
| 7    | .00    | -.0063 | .0214  | .0415  | -.0714 | .0091  | .0821  |
| 8    | 5,00   | .0014  | .0144  | .0174  | -.1073 | .0125  | .1267  |
| 9    | 10,00  | .0201  | .0009  | -.0480 | -.1371 | .0170  | .1669  |
| 10   | 15,00  | .0413  | -.0092 | -.1114 | -.1677 | .0163  | .2083  |
| 11   | 20,00  | .0596  | .0069  | -.1280 | -.1497 | .0327  | .1808  |
| 12   | .00    | -.0070 | .0204  | .0521  | -.0698 | .0105  | .0796  |
| 13   | 20,10  | .0601  | -.0157 | -.1661 | -.1971 | .0142  | .2481  |



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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

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RUN 1122 CONFIG T63 BT

| PT. NO. | DELTA     |         | DELTA       |             | IHT.         |              | O DELE       |             | O DELR |         | -25 DELSR |  | O |    | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|--------|---------|-----------|--|---|----|-----|
|         | ALPHA DEG | PSI DEG | CLBAR SQ-FT | CDRAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF  | V KNOTS |           |  |   |    |     |
| 2       | .0        | .0      | -1.5        | 6.94        | 113.         | -986.        | 131.         | 25.15       | 54.78  | 128.36  |           |  |   | 0. |     |
| 3       | .0        | -20.0   | 11.3        | 16.47       | -435.        | 1782.        | -375.        | -48.48      | 55.62  | 129.36  |           |  |   | 0. |     |
| 4       | .0        | -15.0   | 4.7         | 10.96       | -189.        | 1172.        | -222.        | -32.03      | 55.22  | 128.89  |           |  |   | 0. |     |
| 5       | .0        | -10.0   | -1          | 7.93        | 12.          | 445.         | -97.         | -12.51      | 54.63  | 128.18  |           |  |   | 0. |     |
| 6       | .0        | -5.0    | -2.1        | 6.61        | 110.         | -302.        | 35.          | 6.79        | 54.79  | 128.38  |           |  |   | 0. |     |
| 7       | .0        | .0      | -1.7        | 6.90        | 95.          | -991.        | 122.         | 25.63       | 54.42  | 127.94  |           |  |   | 0. |     |
| 8       | .0        | 5.0     | 1.0         | 8.18        | 2.           | -1614.       | 193.         | 42.31       | 54.68  | 128.25  |           |  |   | 0. |     |
| 9       | .0        | 10.0    | 7.4         | 10.20       | -221.        | -2125.       | 284.         | 57.14       | 54.96  | 128.57  |           |  |   | 0. |     |
| 10      | .0        | 15.0    | 14.7        | 15.04       | -452.        | -2105.       | 560.         | 53.64       | 54.61  | 128.15  |           |  |   | 0. |     |
| 11      | .0        | 19.6    | 21.8        | 23.77       | -733.        | -3098.       | 487.         | -84.67      | 54.96  | 128.58  |           |  |   | 0. |     |
| 12      | .0        | 15.0    | 15.1        | 15.67       | -465.        | -2639.       | 373.         | 71.99       | 54.81  | 128.40  |           |  |   | 0. |     |
| 13      | .0        | .0      | -1.7        | 6.84        | 113.         | -973.        | 141.         | 24.79       | 55.03  | 128.66  |           |  |   | 0. |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0040 | .0187 | .0366  | -.0596 | .0079  | .0680  |
| 3    | -20.00 | .0305  | .0445 | -.1401 | .1076  | -.0227 | -.1310 |
| 4    | -15.00 | .0127  | .0296 | -.0611 | .0708  | -.0134 | -.0866 |
| 5    | -10.00 | -.0003 | .0214 | .0037  | .0269  | -.0059 | -.0338 |
| 6    | -5.00  | -.0058 | .0179 | .0353  | -.0182 | .0021  | .0184  |
| 7    | .00    | -.0047 | .0186 | .0306  | -.0598 | .0074  | .0693  |
| 8    | 5.00   | .0026  | .0221 | .0007  | -.0975 | .0117  | .1143  |
| 9    | 10.00  | .0200  | .0276 | -.0713 | -.1283 | .0171  | .1544  |
| 10   | 15.00  | .0396  | .0406 | -.1457 | -.1271 | .0338  | .1450  |
| 11   | 19.60  | .0588  | .0642 | -.2362 | -.1871 | .0294  | .2288  |
| 12   | 15.00  | .0407  | .0424 | -.1500 | -.1594 | .0225  | .1946  |
| 13   | .00    | -.0045 | .0185 | .0363  | -.0588 | .0085  | .0670  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0040 | .0187  | .0366  | -.0596 | .0079  | .0680  |
| 3    | -20.00 | .0305  | -.0032 | -.0900 | .1076  | -.0123 | -.1384 |
| 4    | -15.00 | .0127  | .0061  | -.0404 | .0708  | -.0100 | -.0913 |
| 5    | -10.00 | -.0003 | .0152  | .0092  | .0269  | -.0059 | -.0370 |
| 6    | -5.00  | -.0058 | .0194  | .0342  | -.0182 | .0015  | .0167  |
| 7    | .00    | -.0047 | .0186  | .0306  | -.0598 | .0074  | .0693  |
| 8    | 5.00   | .0026  | .0120  | .0061  | -.0975 | .0117  | .1158  |
| 9    | 10.00  | .0200  | .0002  | -.0542 | -.1283 | .0145  | .1569  |
| 10   | 15.00  | .0396  | .0016  | -.0937 | -.1271 | .0256  | .1505  |
| 11   | 19.60  | .0588  | -.0166 | -.1694 | -.1871 | .0128  | .2371  |
| 12   | 15.00  | .0407  | -.0097 | -.1136 | -.1594 | .0144  | .1989  |
| 13   | .00    | -.0045 | .0185  | .0363  | -.0588 | .0085  | .0670  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1002

RUN 1123 CONFIG T63 BT

| PT. NO. | 1% ALPHA DEG | - DELF PSI DEG | - DELA CLBAR SQ-FT | - IHT CDRAR SQ-FT | O DELE CPMBAR CU-FT | O DELR CYMBAR CU-FT | -20 DELSB Q PSF | O V KNOTS | RPM          |    |
|---------|--------------|----------------|--------------------|-------------------|---------------------|---------------------|-----------------|-----------|--------------|----|
| 2       | .0           | .0             | .6                 | 6.12              | 77.                 | -750.               | 103.            | 19.24     | 54.08 127.53 | 0. |
| 3       | .0           | -20.1          | 12.7               | 16.95             | -474.               | 1910.               | -384.           | -51.52    | 55.85 129.64 | 0. |
| 4       | .0           | -15.0          | 5.6                | 11.06             | -218.               | 1285.               | -263.           | -34.57    | 55.58 129.32 | 0. |
| 5       | .0           | -10.0          | .9                 | 7.83              | -16.                | 621.                | -132.           | -17.02    | 54.99 128.62 | 0. |
| 6       | .0           | -5.0           | -1.0               | 6.04              | 64.                 | -84.                | -23.            | 1.07      | 55.72 129.49 | 0. |
| 7       | .0           | .0             | .8                 | 6.02              | 54.                 | -731.               | 78.             | 19.07     | 55.62 129.37 | 0. |
| 8       | .0           | 5.0            | 1.7                | 7.04              | -27.                | -1376.              | 143.            | 36.47     | 55.27 128.95 | 0. |
| 10      | .0           | 15.0           | 14.7               | 14.30             | -456.               | -2433.              | 330.            | 66.50     | 55.82 129.61 | 0. |
| 11      | .0           | 20.0           | 22.4               | 23.23             | -768.               | -2996.              | 475.            | 82.37     | 55.57 129.30 | 0. |
| 12      | .0           | 10.0           | 7.5                | 9.33              | -217.               | -1962.              | 274.            | 53.33     | 55.37 129.07 | 0. |
| 13      | .0           | .0             | .6                 | 5.95              | 73.                 | -722.               | 93.             | 18.62     | 55.74 129.50 | 0. |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0016 | .0165 | .0249  | -.0453 | .0062  | .0520  |
| 3    | -20.10 | .0344  | .0458 | -.1528 | .1153  | -.0232 | -.1392 |
| 4    | -15.00 | .0152  | .0299 | -.0703 | .0776  | -.0159 | -.0934 |
| 5    | -10.00 | .0024  | .0212 | -.0050 | .0375  | -.0080 | -.0460 |
| 6    | -5.00  | -.0026 | .0163 | .0205  | -.0051 | -.0014 | .0029  |
| 7    | .00    | -.0020 | .0163 | .0173  | -.0441 | .0047  | .0515  |
| 8    | 5.00   | .0046  | .0190 | -.0087 | -.0831 | .0086  | .0986  |
| 10   | 15.00  | .0396  | .0387 | -.1469 | -.1470 | .0199  | .1797  |
| 11   | 20.00  | .0605  | .0628 | -.2474 | -.1809 | .0287  | .2226  |
| 12   | 10.00  | .0204  | .0252 | -.0701 | -.1185 | .0165  | .1441  |
| 13   | .00    | -.0017 | .0161 | .0234  | -.0436 | .0056  | .0503  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0016 | .0165  | .0249  | -.0453 | .0062  | .0520  |
| 3    | -20.10 | .0344  | -.0051 | -.1006 | .1153  | -.0119 | -.1465 |
| 4    | -15.00 | .0152  | .0046  | -.0458 | .0776  | -.0119 | -.0980 |
| 5    | -10.00 | .0024  | .0128  | .0025  | .0375  | -.0077 | -.0490 |
| 6    | -5.00  | -.0026 | .0165  | .0211  | -.0051 | -.0017 | .0015  |
| 7    | .00    | -.0020 | .0163  | .0173  | -.0441 | .0047  | .0515  |
| 8    | 5.00   | .0046  | .0103  | -.0046 | -.0831 | .0085  | .0999  |
| 10   | 15.00  | .0396  | -.0094 | -.1142 | -.1470 | .0121  | .1836  |
| 11   | 20.00  | .0605  | -.0175 | -.1798 | -.1809 | .0110  | .2306  |
| 12   | 10.00  | .0204  | -.0003 | -.0536 | -.1185 | .0140  | .1463  |
| 13   | .00    | -.0017 | .0161  | .0234  | -.0436 | .0056  | .0503  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
P1093

RUN 1124 CONFIG T63 BT

| PT. NO. | ALPHA DEG | - DELF |     | - DELA      |             | - INT         |              | n DELE       |             | o DELR |        | -15 DELSB |        | o |    | RPM |
|---------|-----------|--------|-----|-------------|-------------|---------------|--------------|--------------|-------------|--------|--------|-----------|--------|---|----|-----|
|         |           | PSI    | DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | PSF    | KNOTS  | o         | v      |   |    |     |
| 2       | .0        | .0     |     | -.4         | 5.60        |               | 63,          | -549,        |             | 61,    | 14,04  | 55,32     | 129,02 |   | 0. |     |
| 3       | .0        | -20.1  |     | 13.3        | 18.14       |               | -494,        | 2085,        |             | -434,  | -56,83 | 55,18     | 128,84 |   | 0. |     |
| 4       | .0        | -15.0  |     | 5.6         | 11.53       |               | -220,        | 1418,        |             | -281,  | -38,62 | 55,41     | 129,12 |   | 0. |     |
| 5       | .0        | -10.0  |     | 1.1         | 7.67        |               | -30,         | 765,         |             | -154,  | -20,77 | 55,66     | 129,41 |   | 0. |     |
| 6       | .0        | -5.0   |     | -.7         | 5.95        |               | 53,          | 59,          |             | -55,   | -2,43  | 54,85     | 128,45 |   | 0. |     |
| 7       | .0        | .0     |     | -.4         | 5.44        |               | 55,          | -563,        |             | 58,    | 14,61  | 55,36     | 129,06 |   | 0. |     |
| 8       | .0        | 5.0    |     | 1.7         | 6.09        |               | -18,         | -1198,       |             | 122,   | 31,72  | 56,02     | 129,84 |   | 0. |     |
| 9       | .0        | 10.0   |     | 7.5         | 8.22        |               | -219,        | -1803,       |             | 246,   | 49,42  | 55,88     | 129,68 |   | 0. |     |
| 10      | .0        | 15.0   |     | 14.0        | 13.06       |               | -443,        | -2259,       |             | 315,   | 62,28  | 55,93     | 129,73 |   | 0. |     |
| 11      | .0        | 20.0   |     | 21.3        | 21.53       |               | -743,        | -2826,       |             | 445,   | 78,69  | 56,26     | 130,11 |   | 0. |     |
| 12      | .0        | .0     |     | -.7         | 5.43        |               | 78,          | -547,        |             | 71,    | 13,81  | 54,77     | 128,35 |   | 0. |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0012 | .0151 | .0204  | -.0332 | .0037  | .0380  |
| 3    | -20.10 | .0359  | .0490 | -.1591 | .1260  | -.0262 | -.1536 |
| 4    | -15.00 | .0152  | .0312 | -.0711 | .0856  | -.0170 | -.1044 |
| 5    | -10.00 | .0029  | .0207 | -.0097 | .0462  | -.0093 | -.0561 |
| 6    | -5.00  | -.0018 | .0161 | .0172  | .0036  | -.0033 | -.0066 |
| 7    | .00    | -.0011 | .0147 | .0178  | -.0340 | .0035  | .0395  |
| 8    | 5.00   | .0046  | .0164 | -.0057 | -.0723 | .0074  | .0857  |
| 9    | 10.00  | .0203  | .0222 | -.0708 | -.1089 | .0148  | .1336  |
| 10   | 15.00  | .0378  | .0353 | -.1429 | -.1364 | .0190  | .1683  |
| 11   | 20.00  | .0576  | .0582 | -.2396 | -.1707 | .0269  | .2127  |
| 12   | .00    | -.0018 | .0147 | .0253  | -.0331 | .0043  | .0373  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0012 | .0151  | .0204  | -.0332 | .0037  | .0380  |
| 3    | -20.10 | .0359  | -.0070 | -.1010 | .1260  | -.0143 | -.1611 |
| 4    | -15.00 | .0152  | .0030  | -.0451 | .0856  | -.0129 | -.1089 |
| 5    | -10.00 | .0029  | .0106  | -.0008 | .0462  | -.0089 | -.0589 |
| 6    | -5.00  | -.0018 | .0155  | .0187  | .0036  | -.0036 | -.0079 |
| 7    | .00    | -.0011 | .0147  | .0178  | -.0340 | .0035  | .0395  |
| 8    | 5.00   | .0046  | .0089  | -.0022 | -.0723 | .0072  | .0868  |
| 9    | 10.00  | .0203  | -.0014 | -.0559 | -.1089 | .0123  | .1354  |
| 10   | 15.00  | .0378  | -.0097 | -.1116 | -.1364 | .0114  | .1717  |
| 11   | 20.00  | .0576  | -.0184 | -.1758 | -.1707 | .0098  | .2197  |
| 12   | .00    | -.0018 | .0147  | .0253  | -.0331 | .0043  | .0373  |

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N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011  
2/692

RUN 1125 CONFIG T63 BT

| PT. NO. | ALPHA DEG | - DELF |      | - DELA      |             | - IHT        |              | O DELE       |             | O DELR      |           | -10 DELSB |  | O |    | RPM |
|---------|-----------|--------|------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|-----------|-----------|--|---|----|-----|
|         |           | PSI    | DEG  | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | O V KNOTS |           |  |   |    |     |
| 2       | .0        | .0     | .0   | .1          | 5.06        | 53.          | -356.        | 31.          | 8.93        | 55.44       | 129.16    |           |  |   | 0. |     |
| 3       | .0        | -20.1  | 14.2 | 18.72       | -521.       | 2220.        | -479.        | -59.82       | 55.69       | 129.46      |           |           |  |   | 0. |     |
| 4       | .0        | -15.0  | 6.8  | 12.07       | -258.       | 1579.        | -302.        | -42.57       | 55.98       | 129.79      |           |           |  |   | 0. |     |
| 5       | .0        | -10.0  | 1.6  | 7.79        | -49.        | 897.         | -181.        | -24.18       | 56.27       | 130.13      |           |           |  |   | 0. |     |
| 6       | .0        | -5.0   | .2   | 5.89        | 27.         | 237.         | -86.         | -6.54        | 55.49       | 129.21      |           |           |  |   | 0. |     |
| 7       | .0        | .0     | -.1  | 5.23        | 29.         | -378.        | 14.          | 10.08        | 55.89       | 129.68      |           |           |  |   | 0. |     |
| 8       | .0        | 5.1    | 1.9  | 5.52        | -31.        | -1024.       | 96.          | 27.63        | 55.90       | 129.69      |           |           |  |   | 0. |     |
| 9       | .0        | 10.0   | 6.9  | 7.87        | -220.       | -1629.       | 208.         | 45.26        | 55.16       | 128.82      |           |           |  |   | 0. |     |
| 10      | .0        | 15.0   | 14.0 | 12.21       | -449.       | -2079.       | 272.         | 57.80        | 56.36       | 130.23      |           |           |  |   | 0. |     |
| 11      | .0        | 20.1   | 21.9 | 21.00       | -769.       | -2718.       | 424.         | 76.19        | 55.84       | 129.62      |           |           |  |   | 0. |     |
| 12      | .0        | .0     | .0   | 5.14        | 54.         | -356.        | 21.          | 9.25         | 55.84       | 129.63      |           |           |  |   | 0. |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 2    | .00    | -.0004 | .0137 | .0169  | -.0215 | .0019  | .0241  |
| 3    | -20.10 | .0384  | .0506 | -.1681 | .1341  | -.0289 | -.1617 |
| 4    | -15.00 | .0183  | .0326 | -.0832 | .0954  | -.0182 | -.1151 |
| 5    | -10.00 | .0044  | .0211 | -.0159 | .0542  | -.0110 | -.0653 |
| 6    | -5.00  | -.0005 | .0159 | .0088  | .0143  | -.0052 | -.0177 |
| 7    | .00    | -.0003 | .0141 | .0093  | -.0228 | .0009  | .0272  |
| 8    | 5.10   | .0051  | .0149 | -.0100 | -.0618 | .0058  | .0747  |
| 9    | 10.00  | .0186  | .0213 | -.0708 | -.0984 | .0126  | .1223  |
| 10   | 15.00  | .0380  | .0330 | -.1447 | -.1256 | .0165  | .1562  |
| 11   | 20.10  | .0592  | .0568 | -.2480 | -.1642 | .0256  | .2059  |
| 12   | .00    | .0000  | .0139 | .0173  | -.0215 | .0013  | .0250  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 2    | .00    | -.0004 | .0137  | .0169  | -.0215 | .0019  | .0241  |
| 3    | -20.10 | .0384  | -.0083 | -.1044 | .1341  | -.0163 | -.1692 |
| 4    | -15.00 | .0183  | .0016  | -.0551 | .0954  | -.0136 | -.1196 |
| 5    | -10.00 | .0044  | .0093  | -.0055 | .0542  | -.0103 | -.0680 |
| 6    | -5.00  | -.0005 | .0143  | .0112  | .0143  | -.0053 | -.0190 |
| 7    | .00    | -.0003 | .0141  | .0093  | -.0228 | .0009  | .0272  |
| 8    | 5.10   | .0051  | .0082  | -.0072 | -.0618 | .0056  | .0757  |
| 9    | 10.00  | .0186  | -.0004 | -.0580 | -.0984 | .0100  | .1242  |
| 10   | 15.00  | .0380  | -.0088 | -.1169 | -.1256 | .0088  | .1594  |
| 11   | 20.10  | .0592  | -.0178 | -.1855 | -.1642 | .0080  | .2129  |
| 12   | .00    | .0000  | .0139  | .0173  | -.0215 | .0013  | .0250  |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST  
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RUN 1127 CONFIG T64 BT

| PT. NO. | ALPHA DEG | - DELF |      | - DELA |       | - IHT  |        | O DELE |       | O DELR |        | O DELSB |    | O |  | RPM |
|---------|-----------|--------|------|--------|-------|--------|--------|--------|-------|--------|--------|---------|----|---|--|-----|
|         |           | PSI    | DEG  | CLBAR  | CDBAR | CPM    | CYMBAR | CRM    | CY    | CRMBAR | CYBAR  | Q       | V  |   |  |     |
| 2       | 0         | 0      | 0    | 1,9    | 4,32  | -37,   | -91,   | -1,    | 2,34  | 54,47  | 128,01 | 0,      | 0, |   |  |     |
| 3       | 0         | 0      | 0    | 1,9    | 4,22  | -37,   | -90,   | -2,    | 2,32  | 54,98  | 128,61 | 0,      | 0, |   |  |     |
| 4       | 0         | -20,0  | 11,3 | 19,61  | -399, | 2454,  | -440,  | -66,00 | 55,15 | 128,82 | 0,     | 0,      |    |   |  |     |
| 5       | 0         | -15,0  | 6,9  | 12,45  | -260, | 1772,  | -305,  | -48,12 | 54,83 | 128,43 | 0,     | 0,      |    |   |  |     |
| 6       | 0         | -10,0  | 3,3  | 8,04   | -120, | 1093,  | -197,  | -30,00 | 54,03 | 127,48 | 0,     | 0,      |    |   |  |     |
| 7       | 0         | -5,0   | 1,5  | 5,43   | -56,  | 475,   | -106,  | -13,03 | 54,42 | 127,94 | 0,     | 0,      |    |   |  |     |
| 8       | 0         | 0      | 1,7  | 4,25   | -57,  | -94,   | -22,   | 2,88   | 54,85 | 128,46 | 0,     | 0,      |    |   |  |     |
| 9       | 0         | 5,0    | 3,6  | 4,49   | -134, | -663,  | 41,    | 18,76  | 54,36 | 127,87 | 0,     | 0,      |    |   |  |     |
| 10      | 0         | 10,0   | 8,2  | 5,70   | -288, | -1206, | 144,   | 34,22  | 54,33 | 127,83 | 0,     | 0,      |    |   |  |     |
| 12      | 0         | 20,1   | 17,2 | 18,33  | -607, | -2433, | 329,   | 68,75  | 54,47 | 128,00 | 0,     | 0,      |    |   |  |     |
| 13      | 0         | 15,0   | 12,7 | 10,23  | -412, | -1765, | 223,   | 50,72  | 54,67 | 128,24 | 0,     | 0,      |    |   |  |     |
| 14      | 0         | 0      | 2,1  | 4,17   | -40,  | -81,   | -3,    | 2,14   | 54,72 | 128,30 | 0,     | 0,      |    |   |  |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD     | CPM     | CYM     | CRM     | CY      |
|------|--------|--------|--------|---------|---------|---------|---------|
| 2    | 0,00   | 0,0052 | 0,0117 | -0,0121 | -0,0055 | -0,0001 | 0,0063  |
| 3    | 0,00   | 0,0051 | 0,0114 | -0,0118 | -0,0055 | -0,0001 | 0,0063  |
| 4    | -20,00 | 0,0306 | 0,0530 | -0,1287 | 0,1482  | -0,0266 | -0,1784 |
| 5    | -15,00 | 0,0186 | 0,0337 | -0,0837 | 0,1070  | -0,0184 | -0,1300 |
| 6    | -10,00 | 0,0089 | 0,0217 | -0,0386 | 0,0660  | -0,0119 | -0,0811 |
| 7    | -5,00  | 0,0041 | 0,0147 | -0,0182 | 0,0287  | -0,0064 | -0,0352 |
| 8    | 0,00   | 0,0046 | 0,0115 | -0,0184 | -0,0057 | -0,0013 | 0,0078  |
| 9    | 5,00   | 0,0098 | 0,0121 | -0,0432 | -0,0400 | 0,0024  | 0,0507  |
| 10   | 10,00  | 0,0223 | 0,0154 | -0,0928 | -0,0728 | 0,0087  | 0,0925  |
| 12   | 20,10  | 0,0466 | 0,0495 | -0,1956 | -0,1470 | 0,0199  | 0,1858  |
| 13   | 15,00  | 0,0344 | 0,0276 | -0,1329 | -0,1066 | 0,0135  | 0,1371  |
| 14   | 0,00   | 0,0057 | 0,0113 | -0,0128 | -0,0049 | -0,0002 | 0,0058  |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB     | CPMB    | CYMB    | CRMB    | CYB     |
|------|--------|--------|---------|---------|---------|---------|---------|
| 2    | 0,00   | 0,0052 | 0,0117  | -0,0121 | -0,0055 | -0,0001 | 0,0063  |
| 3    | 0,00   | 0,0051 | 0,0114  | -0,0118 | -0,0055 | -0,0001 | 0,0063  |
| 4    | -20,00 | 0,0306 | -0,0115 | -0,0722 | 0,1482  | -0,0167 | -0,1857 |
| 5    | -15,00 | 0,0186 | -0,0013 | -0,0553 | 0,1070  | -0,0137 | -0,1343 |
| 6    | -10,00 | 0,0089 | 0,0072  | -0,0269 | 0,0660  | -0,0105 | -0,0836 |
| 7    | -5,00  | 0,0041 | 0,0115  | -0,0151 | 0,0287  | -0,0061 | -0,0364 |
| 8    | 0,00   | 0,0046 | 0,0115  | -0,0184 | -0,0057 | -0,0013 | 0,0078  |
| 9    | 5,00   | 0,0098 | 0,0076  | -0,0419 | -0,0400 | 0,0017  | 0,0516  |
| 10   | 10,00  | 0,0223 | -0,0010 | -0,0833 | -0,0728 | 0,0056  | 0,0938  |
| 12   | 20,10  | 0,0466 | -0,0176 | -0,1470 | -0,1470 | 0,0060  | 0,1915  |
| 13   | 15,00  | 0,0344 | -0,0089 | -0,1096 | -0,1066 | 0,0065  | 0,1395  |
| 14   | 0,00   | 0,0057 | 0,0113  | -0,0128 | -0,0049 | -0,0002 | 0,0058  |

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N432409-1

SIKORSKY RSRA 1/4 SCALE MODEL TEST  
AERODYNAMIC DATA

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P1096

RUN 1128 CONFIG T64 BT

| PT. NO. | I" ALPHA DEG | - DELF PSI DEG | - DELA      |             | - IHT SQ-FT | O DELE CPMBAR CU-FT | O DELE CYMBAR CU-FT | O DELR CRMBAR CU-FT | O DELSB Q SQ-FT | O DELSB PSF | O V KNOTS | RPM |
|---------|--------------|----------------|-------------|-------------|-------------|---------------------|---------------------|---------------------|-----------------|-------------|-----------|-----|
|         |              |                | CLBAR SQ-FT | CDBAR SQ-FT |             |                     |                     |                     |                 |             |           |     |
| 2       | .0           | .0             | 1.6         | 4.20        | -29.        | -80.                | -2.                 | 2.19                | 55.11           | 128.77      | 0.        |     |
| 3       | -25.0        | .0             | -70.4       | 38.42       | 2384.       | -185.               | 72.                 | 5.64                | 55.38           | 129.08      | 0.        |     |
| 4       | -20.0        | .0             | -69.7       | 28.97       | 2247.       | -153.               | 47.                 | 4.67                | 55.14           | 128.80      | 0.        |     |
| 5       | -15.0        | .0             | -69.0       | 20.32       | 2143.       | -64.                | 25.                 | 1.56                | 54.93           | 128.55      | 0.        |     |
| 6       | -10.0        | .0             | -63.6       | 7.92        | 1887.       | -96.                | 16.                 | 2.64                | 54.85           | 128.46      | 0.        |     |
| 7       | -5.0         | .0             | -29.4       | 4.99        | 885.        | -83.                | 26.                 | 2.14                | 55.48           | 129.20      | 0.        |     |
| 8       | .0           | .0             | 1.4         | 4.20        | -27.        | -87.                | 10.                 | 2.26                | 55.29           | 128.99      | 0.        |     |
| 9       | 5.0          | .0             | 31.2        | 5.79        | -885.       | -106.               | 15.                 | 3.08                | 54.56           | 128.10      | 0.        |     |
| 10      | 10.0         | .0             | 60.9        | 9.29        | -1746.      | -119.               | 7.                  | 3.18                | 55.36           | 129.07      | 0.        |     |
| 11      | 15.0         | .0             | 61.2        | 22.12       | -1876.      | -115.               | -18.                | 3.88                | 55.25           | 128.93      | 0.        |     |
| 12      | 20.0         | .0             | 58.6        | 30.33       | -1893.      | -113.               | -27.                | 4.37                | 54.92           | 128.54      | 0.        |     |
| 13      | 25.0         | .0             | 60.7        | 38.73       | -2060.      | -104.               | -36.                | 4.47                | 55.33           | 129.03      | 0.        |     |
| 14      | .0           | .0             | 1.8         | 4.13        | -43.        | -78.                | 20.                 | 2.02                | 55.27           | 128.96      | 0.        |     |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | ALPHA  | CL     | CD    | CPM    | CYM    | CRM    | CY    |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0044  | .0113 | -.0095 | -.0048 | -.0001 | .0059 |
| 3    | -25.00 | -.1901 | .1038 | .7685  | -.0112 | .0044  | .0152 |
| 4    | -20.00 | -.1884 | .0783 | .7244  | -.0092 | .0028  | .0126 |
| 5    | -15.00 | -.1865 | .0549 | .6909  | -.0038 | .0015  | .0042 |
| 6    | -9.99  | -.1720 | .0214 | .6085  | -.0058 | .0009  | .0071 |
| 7    | -5.00  | -.0794 | .0135 | .2854  | -.0050 | .0016  | .0058 |
| 8    | .00    | .0038  | .0114 | -.0086 | -.0052 | .0006  | .0061 |
| 9    | 5.00   | .0843  | .0157 | -.2852 | -.0064 | .0009  | .0083 |
| 10   | 10.00  | .1645  | .0251 | -.5627 | -.0072 | .0004  | .0086 |
| 11   | 15.00  | .1655  | .0598 | -.6048 | -.0070 | -.0011 | .0105 |
| 12   | 20.00  | .1585  | .0820 | -.6101 | -.0068 | -.0016 | .0118 |
| 13   | 25.00  | .1639  | .1047 | -.6641 | -.0063 | -.0022 | .0121 |
| 14   | .00    | .0049  | .0112 | -.0138 | -.0047 | .0012  | .0055 |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|------|--------|--------|-------|--------|--------|--------|-------|
| 2    | .00    | .0044  | .0113 | -.0095 | -.0048 | -.0001 | .0059 |
| 3    | -25.00 | -.1901 | .1038 | .7685  | -.0112 | .0044  | .0152 |
| 4    | -20.00 | -.1884 | .0783 | .7244  | -.0092 | .0028  | .0126 |
| 5    | -15.00 | -.1865 | .0549 | .6909  | -.0038 | .0015  | .0042 |
| 6    | -9.99  | -.1720 | .0214 | .6085  | -.0058 | .0009  | .0071 |
| 7    | -5.00  | -.0794 | .0135 | .2854  | -.0050 | .0016  | .0058 |
| 8    | .00    | .0038  | .0114 | -.0086 | -.0052 | .0006  | .0061 |
| 9    | 5.00   | .0843  | .0157 | -.2852 | -.0064 | .0009  | .0083 |
| 10   | 10.00  | .1645  | .0251 | -.5627 | -.0072 | .0004  | .0086 |
| 11   | 15.00  | .1655  | .0598 | -.6048 | -.0070 | -.0011 | .0105 |
| 12   | 20.00  | .1585  | .0820 | -.6101 | -.0068 | -.0016 | .0118 |
| 13   | 25.00  | .1639  | .1047 | -.6641 | -.0063 | -.0022 | .0121 |
| 14   | .00    | .0049  | .0112 | -.0138 | -.0047 | .0012  | .0055 |

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SIKORSKY RSRA 1/6 SCALE MODEL TEST.  
AERODYNAMIC DATA

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PLATE

RUN 1129 CONFIG

T65 BT

| PT. NO. | ALPHA DEG | - DELF  |             | - DELA      |              | - IHT        |              | O DELE      |       | O DELR  |  | O DELSB |  | O |    | RPM |
|---------|-----------|---------|-------------|-------------|--------------|--------------|--------------|-------------|-------|---------|--|---------|--|---|----|-----|
|         |           | PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPMBAR CU-FT | CYMBAR CU-FT | CRMBAR CU-FT | CYBAR SQ-FT | Q PSF | V KNOTS |  |         |  |   |    |     |
| 6       | -0        | .0      | -1.9        | 3.55        | 105.         | -100.        | -6.          | 2.50        | 54.72 | 128.31  |  |         |  |   | 0. |     |
| 7       | -25.0     | .0      | -10.9       | 10.64       | 683.         | -147.        | 55.          | 4.62        | 54.19 | 127.68  |  |         |  |   | 0. |     |
| 8       | -20.0     | .0      | -10.9       | 9.10        | 631.         | -110.        | 24.          | 2.94        | 54.48 | 128.04  |  |         |  |   | 0. |     |
| 9       | -15.0     | .0      | -10.9       | 7.62        | 579.         | -99.         | 3.           | 2.59        | 54.94 | 128.59  |  |         |  |   | 0. |     |
| 10      | -10.0     | .0      | -11.7       | 6.22        | 592.         | -99.         | 3.           | 2.59        | 54.81 | 128.42  |  |         |  |   | 0. |     |
| 11      | -5.0      | .0      | -8.0        | 4.35        | 401.         | -102.        | 20.          | 2.82        | 54.43 | 127.97  |  |         |  |   | 0. |     |
| 12      | -0        | .0      | -2.0        | 3.71        | 112.         | -95.         | -7.          | 2.45        | 54.83 | 128.45  |  |         |  |   | 0. |     |
| 13      | 5.0       | .0      | 4.5         | 3.81        | -180.        | -118.        | 4.           | 3.32        | 54.05 | 127.52  |  |         |  |   | 0. |     |
| 14      | 10.0      | .0      | 10.1        | 5.22        | -479.        | -157.        | -40.         | 4.84        | 54.36 | 127.89  |  |         |  |   | 0. |     |
| 15      | 15.0      | .0      | 10.1        | 6.13        | -492.        | -166.        | -37.         | 5.44        | 55.09 | 128.76  |  |         |  |   | 0. |     |
| 16      | 20.0      | .0      | 12.2        | 8.19        | -612.        | -160.        | -60.         | 6.04        | 54.28 | 127.80  |  |         |  |   | 0. |     |
| 17      | 25.0      | .0      | 12.2        | 10.05       | -637.        | -131.        | -59.         | 5.34        | 54.55 | 128.12  |  |         |  |   | 0. |     |
| 18      | -0        | .0      | -1.7        | 3.66        | 98.          | -89.         | -2.          | 2.23        | 55.13 | 128.82  |  |         |  |   | 0. |     |

\*\*\* COEFFICIENT FORM - WIND AXIS

| PT. # | ALPHA  | CL     | CD    | CPM    | CYM    | CRH    | CY    |
|-------|--------|--------|-------|--------|--------|--------|-------|
| 6     | -0.00  | -.0052 | .0096 | .0339  | -.0060 | -.0004 | .0067 |
| 7     | -25.00 | -.0294 | .0288 | .2201  | -.0089 | .0033  | .0125 |
| 8     | -20.00 | -.0295 | .0246 | .2035  | -.0066 | .0014  | .0080 |
| 9     | -15.01 | -.0294 | .0206 | .1867  | -.0070 | .0012  | .0081 |
| 10    | -10.00 | -.0317 | .0168 | .1910  | -.0060 | .0002  | .0070 |
| 11    | -5.00  | -.0215 | .0117 | .1293  | -.0062 | .0012  | .0076 |
| 12    | -0.00  | -.0054 | .0100 | .0360  | -.0057 | -.0004 | .0066 |
| 13    | 4.99   | .0121  | .0103 | -.0581 | -.0071 | .0002  | .0090 |
| 14    | 10.00  | .0274  | .0141 | -.1545 | -.0095 | -.0024 | .0131 |
| 15    | 15.00  | .0274  | .0166 | -.1587 | -.0100 | -.0023 | .0147 |
| 16    | 20.00  | .0330  | .0221 | -.1972 | -.0096 | -.0036 | .0163 |
| 17    | 25.00  | .0329  | .0272 | -.2053 | -.0079 | -.0036 | .0144 |
| 18    | -0.00  | -.0046 | .0099 | .0316  | -.0054 | -.0001 | .0060 |

\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT. # | ALPHA  | CLB    | CDB   | CPMB   | CYMB   | CRMB   | CYB   |
|-------|--------|--------|-------|--------|--------|--------|-------|
| 6     | -0.00  | -.0052 | .0096 | .0339  | -.0060 | -.0004 | .0067 |
| 7     | -25.00 | -.0294 | .0288 | .2201  | -.0089 | .0033  | .0125 |
| 8     | -20.00 | -.0295 | .0246 | .2035  | -.0066 | .0014  | .0080 |
| 9     | -15.01 | -.0294 | .0206 | .1867  | -.0070 | .0012  | .0081 |
| 10    | -10.00 | -.0317 | .0168 | .1910  | -.0060 | .0002  | .0070 |
| 11    | -5.00  | -.0215 | .0117 | .1293  | -.0062 | .0012  | .0076 |
| 12    | -0.00  | -.0054 | .0100 | .0360  | -.0057 | -.0004 | .0066 |
| 13    | 4.99   | .0121  | .0103 | -.0581 | -.0071 | .0002  | .0090 |
| 14    | 10.00  | .0274  | .0141 | -.1545 | -.0095 | -.0024 | .0131 |
| 15    | 15.00  | .0274  | .0166 | -.1587 | -.0100 | -.0023 | .0147 |
| 16    | 20.00  | .0330  | .0221 | -.1972 | -.0096 | -.0036 | .0163 |
| 17    | 25.00  | .0329  | .0272 | -.2053 | -.0079 | -.0036 | .0144 |
| 18    | -0.00  | -.0046 | .0099 | .0316  | -.0054 | -.0001 | .0060 |

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OF POOR QUALITY

N432409-1

SIKORSKY RSRA 1/6 SCALE MODEL TEST  
AERODYNAMIC DATA

SER-72011

P1098

RUN 1130 CONFIG T65 BT

| PT. NO. | ALPHA DEG | DELTA PSI DEG | CLBAR SQ-FT | CDBAR SQ-FT | CPM BAR CU-FT | CYBAR CU-FT | CRM BAR CU-FT | CYBAR SQ-FT | DELSB Q PSF | O DELS V KNOTS | RPM |
|---------|-----------|---------------|-------------|-------------|---------------|-------------|---------------|-------------|-------------|----------------|-----|
| 6       | .0        | .0            | -1.9        | 3.58        | 125           | -107        | -6            | 2.56        | 55.59       | 129.34         | 0.  |
| 7       | .0        | -20.0         | 10.2        | 20.03       | -369          | 2481        | -482          | -66.52      | 56.15       | 129.99         | 0.  |
| 8       | .0        | -15.0         | 3.9         | 12.85       | -143          | 1827        | -336          | -49.21      | 56.34       | 130.20         | 0.  |
| 9       | .0        | -10.0         | -1.3        | 7.34        | 32            | 1112        | -199          | -29.97      | 55.83       | 129.61         | 0.  |
| 10      | .0        | -5.0          | -1.5        | 4.42        | 84            | 451         | -115          | -12.26      | 56.64       | 130.55         | 0.  |
| 11      | .0        | .0            | -1.8        | 3.66        | 104           | -111        | -24           | 2.51        | 54.80       | 128.37         | 0.  |
| 12      | .0        | 5.0           | -1.2        | 3.82        | 78            | -700        | 28            | 18.97       | 55.80       | 129.56         | 0.  |
| 13      | .0        | 10.0          | 2.5         | 5.36        | -56           | -1291       | 147           | 36.39       | 55.75       | 129.49         | 0.  |
| 14      | .0        | 15.0          | 8.3         | 10.34       | -264          | -1817       | 215           | 51.14       | 55.52       | 129.23         | 0.  |
| 15      | .0        | 20.0          | 14.0        | 18.23       | -520          | -2519       | 374           | 70.98       | 55.36       | 129.03         | 0.  |
| 16      | .0        | .0            | -1.8        | 3.39        | 119           | -106        | -7            | 2.48        | 55.49       | 129.18         | 0.  |

\*\*\*\* COEFFICIENT FORM - WIND AXIS

| PT.# | PSI    | CL     | CD    | CPM    | CYM    | CRM    | CY     |
|------|--------|--------|-------|--------|--------|--------|--------|
| 6    | .00    | -.0051 | .0097 | .0404  | -.0064 | -.0004 | .0069  |
| 7    | -20.00 | .0276  | .0541 | -.1190 | .1499  | -.0291 | -.1798 |
| 8    | -15.00 | .0106  | .0347 | -.0460 | .1104  | -.0203 | -.1330 |
| 9    | -10.00 | -.0007 | .0198 | .0103  | .0671  | -.0120 | -.0810 |
| 10   | -5.00  | -.0041 | .0119 | .0271  | .0272  | -.0070 | -.0331 |
| 11   | .00    | -.0049 | .0099 | .0336  | -.0067 | -.0014 | .0068  |
| 12   | 5.00   | -.0032 | .0103 | .0250  | -.0423 | .0017  | .0513  |
| 13   | 10.00  | .0068  | .0145 | -.0181 | -.0780 | .0089  | .0984  |
| 14   | 15.00  | .0223  | .0279 | -.0851 | -.1097 | .0130  | .1382  |
| 15   | 20.00  | .0380  | .0493 | -.1677 | -.1522 | .0226  | .1918  |
| 16   | .00    | -.0049 | .0092 | .0383  | -.0064 | -.0004 | .0067  |

\*\*\*\* COEFFICIENT FORM - STABILITY AXIS

| PT.# | PSI    | CLB    | CDB    | CPMB   | CYMB   | CRMB   | CYB    |
|------|--------|--------|--------|--------|--------|--------|--------|
| 6    | .00    | -.0051 | .0097  | .0404  | -.0064 | -.0004 | .0069  |
| 7    | -20.00 | .0276  | -.0109 | -.0583 | .1499  | -.0197 | -.1875 |
| 8    | -15.00 | .0106  | -.0010 | -.0163 | .1104  | -.0173 | -.1374 |
| 9    | -10.00 | -.0007 | .0054  | .0213  | .0671  | -.0122 | -.0832 |
| 10   | -5.00  | -.0041 | .0090  | .0302  | .0272  | -.0074 | -.0341 |
| 11   | .00    | -.0049 | .0099  | .0336  | -.0067 | -.0014 | .0068  |
| 12   | 5.00   | -.0032 | .0058  | .0257  | -.0423 | .0021  | .0520  |
| 13   | 10.00  | .0068  | -.0029 | -.0096 | -.0780 | .0082  | .0994  |
| 14   | 15.00  | .0223  | -.0089 | -.0642 | -.1097 | .0084  | .1407  |
| 15   | 20.00  | .0380  | -.0196 | -.1161 | -.1522 | .0104  | .1971  |
| 16   | .00    | -.0049 | .0092  | .0383  | -.0064 | -.0004 | .0067  |