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## MEMORANDUM

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for

UNITED STATES AIR FORCE

AN INVESTIGATION OF THE PRESSURE DISTRIBUTION ON A  
1/15-SCALE MODEL OF THE LOCKHEED WS-117L  
VEHICLE PLUS BOOSTER "B" AT MACH  
NUMBERS FROM 1.55 TO 2.35  
(COORD. NO. AF-AM-163)

By Norman J. Martin

Ames Research Center  
Moffett Field, Calif.

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## SERVICE REPORT

# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

WASHINGTON

March 1959

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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ABSTRACT

Pressure coefficients were measured over the vehicle and over the forward part of the booster at Reynolds numbers of  $3.0 \times 10^6$  per foot. Tabular results are presented for two nose shapes at Mach numbers of 1.55, 1.75, 2.00, and 2.35, at angles of attack from  $-4^\circ$  to  $+10^\circ$ , and at  $0^\circ$  sideslip.

INDEX HEADINGS

Missiles, Specific Types	1.7.2.2
Loads, Aerodynamic	4.1.1

\*Title, 

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SUMMARY

An investigation of the pressure distribution of a 1/15-scale model of the Lockheed WS-117L vehicle plus Booster "B" was made to determine the load distribution over the vehicle and over the forward part of the booster for structural analysis purposes. This report contains the results obtained for two nose shapes at Mach numbers of 1.55, 1.75, 2.00, and 2.35, at angles of attack from  $-4^{\circ}$  to  $+10^{\circ}$ , and at  $0^{\circ}$  sideslip. The results are presented in tabulated pressure coefficient form without analysis.

INTRODUCTION

At the request of the United States Air Force, tests of a Lockheed constructed 1/15-scale model of the WS-117L with Booster "B" were conducted in the Ames Unitary Plan wind tunnel.

The results of force tests to determine the aerodynamics of the complete model and to determine the aerodynamic load on the vehicle-booster attachment structure in the Mach number range from 0.70 to 3.53 have been reported in references 1, 2, and 3.

The purpose of the present pressure distribution tests was to determine the load distribution over the vehicle and the forward part of the booster for structural analysis purposes. This report presents the

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results of tests in the 9- by 7-foot test section at Mach numbers from 1.55 to 2.35. The results of tests at Mach numbers from 0.70 to 1.45 are presented in reference 4.

## NOTATION

- $C_p$  pressure coefficient,  $\frac{p_l - p_\infty}{q_\infty}$
- $l$  reference model length, 75.696 in.
- $M_\infty$  free-stream Mach number
- $p_l$  local pressure at orifice, lb/sq ft
- $p_\infty$  free-stream static pressure, lb/sq ft
- $q_\infty$  free-stream dynamic pressure, lb/sq ft
- $R$  Reynolds number
- $x$  distance from fuselage station 0 measured along the model longitudinal center line, in.
- $\alpha$  angle of attack, deg
- $\beta$  angle of sideslip, deg
- $\theta$  angular location of orifices about the model vertical center line, deg ( $\theta = 0^\circ$  at the bottom of the model increasing clockwise facing upstream)

## Configuration Symbols

- IB WS-117L vehicle plus Booster "B"
- N nose configuration further identified by subscripts as shown in figure 3

## APPARATUS AND MODEL

### Test Facility

The tests were conducted in the 9- by 7-foot supersonic test section of the Ames Unitary Plan wind tunnel in which the Mach number and pressure are variable. A more detailed description of the wind tunnel may be found in reference 5.

### Description of Model

The model tested was a 1/15-scale model of the Lockheed WS-117L with Booster "B" and with tail fins removed. A photograph of the model is presented in figure 1 and the general arrangement of the model is shown in figure 2. Provisions were made to test two interchangeable nose shapes. Details of these nose shapes are shown in figure 3. The instrumentation of the model consisted of 190 pressure orifices. The location of orifices is shown in figure 4.


## TESTS

Pressure measurements were recorded both by photographing fluid manometer boards and by automatically recording electrical pressure cells. The data of the pressure cells were used to compute the pressure coefficients. The manometer board data were used to check values that appeared in error.

Tests were conducted at Mach numbers of 1.55, 1.75, 2.00, and 2.35. The Reynolds number was held constant at  $3.0 \times 10^6$  per foot. No attempt was made to fix transition on the model. The angle of sideslip was held at zero and the angle of attack was varied from  $-4^\circ$  to  $+10^\circ$ .

## RESULTS

The values of pressure coefficient for each orifice are presented in tabular form in the following order:



<u>Table</u>	<u>Nose configuration</u>	<u>M</u>
1	N <sub>5</sub>	1.55
2	↓	1.75
3	↓	2.00
4	↓	2.35
5	N <sub>7</sub>	1.55
6	↓	1.75
7	↓	2.00
8	↓	2.35

Ames Research Center  
National Aeronautics and Space Administration  
Moffett Field, Calif., Jan. 14, 1959

#### REFERENCES


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  3. Martin, Norman J.: An Experimental Investigation of the Aerodynamic Characteristics of a 1/15-Scale Model of the Lockheed WS-117L Vehicle Plus Booster "B" at Mach Numbers From 1.55 to 2.35 (COORD. NO. AF-AM-163). NASA MEMO 10-11-58A, 1958.
  4. Fahey, Russell E., and Marker, Ralph D.: An Experimental Investigation of the Pressure Distribution on a 1/15-Scale Model of the Lockheed WS-117L Vehicle Plus Booster "B" at Mach Numbers From 0.70 to 1.45 (COORD. NO. AF-AM-163). NASA MEMO 3-12-59A, 1959.
  5. Huntsberger, Ralph F., and Parsons, John F.: The Design of Large High-Speed Wind Tunnels. NACA paper presented at the Fourth General Assembly of the AGARD Wind Tunnel Panel, Schevenigen, The Netherlands, AG 15/P6, May 3-7, 1954.
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TABLE I.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty=1.55$

(a)  $\alpha = -4.0^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	0.930	1.033	1.056	1.084	1.127	1.226	1.226	1.204	1.161	1.114
0.226	0.209	0.213	0.234	0.277	0.298	0.428	0.425	0.386	0.344	0.309
0.238	0.160	0.172	0.192	0.221	0.248	0.372	0.351	0.337	0.296	0.261
0.251	0.233	0.214	0.236	0.246	0.267	0.361	0.391	0.333	0.295	0.260
0.269	0.223	0.220	0.233	0.253	0.277	0.368	0.381	0.348	0.313	0.270
0.286	0.149	0.156	0.160	0.183	0.204	0.280	0.276	0.249	0.222	0.198
0.292	-0.243	-0.221	-0.224	-0.212	0.002	-0.162	-0.166	-0.176	-0.194	-0.205
0.322	-0.138	-0.013	-0.002	-0.138	-0.126	-0.082	-0.088	-0.098	-0.023	0.144
0.352	-0.105	-0.163	-0.167	-0.065	-0.065	-0.075	-0.050	-0.038	-0.149	-0.224
0.381	-0.013	-0.042	0.004	-0.098	-0.086	-0.020	-0.054	-0.095	-0.047	-0.056
0.392	0.103	0.097	0.101	0.093	0.083	0.134	0.115	0.097	0.090	0.074
0.402	0.010	-0.039	-0.004	-0.003	-0.006	0.024	0.013	0.008	-0.009	0.005
0.447	0.010	0.009	0.006	0.007	0.005	0.030	0.031	0.021	0.010	0.001
0.492	0.010	0.002	-0.002	-0.004	-0.004	0.033	0.035	0.028	0.016	0.010
0.529	0.018	0.014	0.005	0.002	0.003	0.046	0.043	0.030	0.015	0.007
0.592	0.006	0.007	0.013	0.012	0.014	0.045	0.048	0.041	0.023	0.019
0.655	0.051	0.117	0.030	0.016	0.016	0.095	0.204	0.053	0.019	0.005
0.661	-0.023	-0.184	-0.040	-0.068	-0.068	0.011	0.005	-0.023	-0.072	-0.072
0.687	-0.065	0.016	-0.079	-0.053	-0.018	-0.079	0.054	-0.080	-0.047	-0.061

(b)  $\alpha = -2.1^\circ$

0.223	1.021	1.084	1.098	1.108	1.135	1.179	1.178	1.171	1.146	1.131
0.226	0.261	0.263	0.275	0.298	0.303	0.365	0.367	0.342	0.325	0.307
0.238	0.205	0.215	0.225	0.238	0.251	0.322	0.304	0.308	0.283	0.265
0.251	0.248	0.240	0.261	0.259	0.276	0.325	0.360	0.312	0.293	0.277
0.269	0.255	0.253	0.263	0.271	0.285	0.324	0.334	0.321	0.304	0.276
0.286	0.180	0.187	0.186	0.197	0.206	0.245	0.244	0.226	0.212	0.197
0.292	-0.080	-0.189	-0.211	-0.205	0.001	-0.179	-0.181	-0.188	-0.200	-0.203
0.322	-0.129	-0.012	0.004	-0.128	-0.120	-0.101	-0.104	-0.108	-0.026	0.154
0.352	-0.104	-0.167	-0.155	-0.068	-0.038	-0.093	-0.061	-0.060	-0.144	-0.206
0.381	-0.027	-0.038	0.003	-0.075	-0.085	-0.030	-0.064	-0.080	-0.026	-0.047
0.392	0.106	0.106	0.100	0.107	0.105	0.120	0.110	0.106	0.098	0.095
0.402	0.013	-0.026	0.006	0.010	0.010	0.017	0.015	0.010	0.002	0.008
0.447	0.009	0.010	0.007	0.017	0.014	0.022	0.026	0.022	0.021	0.014
0.492	0.013	0.007	0.004	0.007	0.006	0.023	0.028	0.028	0.023	0.020
0.529	0.019	0.020	0.013	0.010	0.012	0.035	0.034	0.029	0.021	0.016
0.592	0.012	0.015	0.022	0.024	0.023	0.032	0.036	0.038	0.030	0.029
0.655	0.056	0.141	0.042	0.024	0.025	0.084	0.188	0.049	0.024	0.014
0.661	-0.023	-0.162	-0.031	-0.060	-0.059	-0.004	0.004	-0.027	-0.066	-0.064
0.687	-0.067	0.021	-0.079	-0.042	-0.007	-0.081	0.039	-0.081	-0.040	-0.051

TABLE I. - PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty=1.55$  - Continued

(c)  $\alpha = 0.1^\circ$

Axial position $x/l$	Radial Position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.120	1.134	1.136	1.129	1.137	1.130	1.134	1.136	1.130	1.131
0.226	0.316	0.318	0.318	0.318	0.304	0.303	0.309	0.300	0.305	0.306
0.238	0.251	0.267	0.266	0.256	0.256	0.269	0.261	0.275	0.271	0.272
0.251	0.286	0.273	0.293	0.278	0.283	0.284	0.322	0.286	0.286	0.269
0.269	0.289	0.283	0.286	0.285	0.284	0.290	0.298	0.292	0.288	0.273
0.286	0.208	0.217	0.209	0.206	0.203	0.212	0.213	0.205	0.206	0.199
0.292	-0.079	-0.176	-0.199	-0.200	0.002	-0.193	-0.199	-0.199	-0.204	-0.202
0.322	-0.117	0.037	0.008	-0.120	-0.116	-0.116	-0.119	-0.118	-0.033	0.154
0.352	-0.097	-0.166	-0.147	-0.074	-0.032	-0.102	-0.068	-0.075	-0.143	-0.197
0.381	-0.029	-0.035	0.003	-0.061	-0.085	-0.033	-0.068	-0.068	-0.020	-0.040
0.392	0.109	0.113	0.111	0.110	0.117	0.113	0.109	0.106	0.104	0.104
0.402	0.009	-0.012	0.011	0.014	0.014	0.017	0.017	0.011	0.011	0.013
0.447	0.011	0.011	0.011	0.022	0.016	0.014	0.017	0.019	0.020	0.019
0.492	0.019	0.014	0.011	0.014	0.010	0.017	0.021	0.025	0.024	0.024
0.529	0.025	0.027	0.018	0.016	0.017	0.025	0.025	0.024	0.023	0.020
0.592	0.022	0.023	0.031	0.031	0.027	0.022	0.026	0.032	0.033	0.033
0.655	0.070	0.160	0.049	0.031	0.029	0.073	0.169	0.045	0.025	0.018
0.661	-0.015	-0.156	-0.023	-0.056	-0.054	-0.018	0.005	-0.030	-0.064	-0.061
0.687	-0.075	0.032	-0.076	-0.037	-0.002	-0.075	0.027	-0.082	-0.036	-0.047

(d)  $\alpha = 1.9^\circ$

0.223	1.183	1.181	1.172	1.143	1.136	1.079	1.087	1.099	1.113	1.129
0.226	0.374	0.373	0.360	0.335	0.304	0.247	0.261	0.262	0.288	0.306
0.238	0.302	0.314	0.298	0.271	0.257	0.218	0.215	0.236	0.256	0.267
0.251	0.325	0.311	0.322	0.289	0.279	0.246	0.285	0.251	0.265	0.273
0.269	0.321	0.315	0.310	0.292	0.285	0.261	0.265	0.270	0.274	0.273
0.286	0.241	0.246	0.229	0.215	0.207	0.183	0.185	0.183	0.194	0.196
0.292	-0.056	-0.162	-0.188	-0.196	0.001	-0.207	-0.212	-0.211	-0.207	-0.204
0.322	-0.100	0.067	0.012	-0.115	-0.117	-0.131	-0.134	-0.129	-0.052	0.138
0.352	-0.086	-0.165	-0.144	-0.079	-0.046	-0.108	-0.077	-0.092	-0.153	-0.221
0.381	-0.026	-0.032	0.003	-0.054	-0.079	-0.028	-0.056	-0.057	-0.029	-0.051
0.392	0.119	0.119	0.129	0.106	0.103	0.108	0.109	0.104	0.111	0.100
0.402	0.273	0.004	-0.001	0.008	0.010	0.017	0.015	0.011	-0.002	0.014
0.447	0.017	0.015	0.015	0.020	0.013	0.010	0.010	0.011	0.019	0.015
0.492	0.027	0.021	0.018	0.013	0.006	0.014	0.017	0.018	0.022	0.021
0.529	0.032	0.032	0.021	0.016	0.015	0.017	0.017	0.017	0.018	0.016
0.592	0.031	0.031	0.037	0.031	0.024	0.017	0.018	0.022	0.029	0.031
0.655	0.083	0.172	0.055	0.032	0.025	0.058	0.146	0.039	0.019	0.015
0.661	-0.000	-0.149	-0.019	-0.057	-0.057	-0.031	0.004	-0.036	-0.067	-0.063
0.687	-0.082	0.043	-0.074	-0.039	-0.005	-0.065	0.012	-0.086	-0.321	-0.052



TABLE I. - PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty=1.55$  - Continued

(e)  $\alpha = 3.9^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.231	1.225	1.199	1.156	1.132	1.024	1.035	1.060	1.092	1.123
0.226	0.437	0.429	0.399	0.349	0.301	0.193	0.212	0.224	0.269	0.304
0.238	0.363	0.357	0.332	0.283	0.250	0.175	0.171	0.202	0.234	0.260
0.251	0.375	0.348	0.343	0.297	0.279	0.220	0.266	0.224	0.244	0.268
0.269	0.366	0.354	0.340	0.303	0.283	0.230	0.235	0.244	0.257	0.273
0.286	0.277	0.281	0.252	0.219	0.203	0.156	0.158	0.160	0.181	0.194
0.292	-0.082	-0.148	-0.177	-0.191	0.002	-0.226	-0.225	-0.223	-0.215	-0.206
0.322	-0.082	0.100	0.018	-0.114	-0.123	-0.139	-0.146	-0.141	-0.071	0.113
0.352	-0.064	-0.162	-0.138	-0.090	-0.064	-0.109	-0.084	-0.106	-0.172	-0.249
0.381	-0.016	-0.023	0.004	-0.050	-0.082	-0.015	-0.031	-0.048	-0.040	-0.064
0.392	0.133	0.124	0.140	0.116	0.088	0.105	0.105	0.116	0.112	0.082
0.402	0.016	0.020	0.004	0.002	0.000	0.019	0.018	0.012	-0.010	0.000
0.447	0.025	0.022	0.017	0.014	0.005	0.008	0.009	0.005	0.008	0.003
0.492	0.036	0.030	0.020	0.006	-0.002	0.011	0.012	0.011	0.009	0.013
0.529	0.042	0.041	0.022	0.011	0.008	0.011	0.011	0.009	0.007	0.008
0.592	0.045	0.042	0.041	0.025	0.016	0.015	0.015	0.015	0.018	0.022
0.655	0.092	0.184	0.058	0.027	0.017	0.048	0.122	0.031	0.011	0.007
0.661	0.015	-0.146	-0.016	-0.060	-0.064	-0.038	0.006	-0.054	-0.077	-0.070
0.687	-0.080	0.057	-0.071	-0.046	-0.013	-0.061	-0.002	-0.088	-0.048	-0.060

(f)  $\alpha = 5.9^\circ$

0.223	1.274	1.264	1.227	1.161	1.125	0.973	0.987	1.022	1.070	1.116
0.226	0.504	0.496	0.447	0.365	0.299	0.145	0.165	0.187	0.250	0.300
0.238	0.416	0.406	0.368	0.299	0.251	0.129	0.129	0.166	0.217	0.255
0.251	0.425	0.395	0.374	0.308	0.269	0.192	0.238	0.201	0.226	0.257
0.269	0.415	0.398	0.367	0.309	0.275	0.203	0.207	0.217	0.236	0.255
0.286	0.318	0.317	0.274	0.224	0.194	0.127	0.129	0.134	0.162	0.182
0.292	-0.099	-0.129	-0.165	-0.191	0.002	-0.239	-0.240	-0.236	-0.226	-0.211
0.322	-0.060	0.135	0.022	-0.118	-0.133	-0.143	-0.157	-0.156	-0.092	0.090
0.352	-0.054	-0.157	-0.128	-0.101	-0.091	-0.107	-0.092	-0.117	-0.192	-0.262
0.381	-0.002	-0.015	0.004	-0.059	-0.088	0.006	0.003	-0.041	-0.053	-0.076
0.392	0.154	0.135	0.136	0.094	0.063	0.103	0.089	0.097	0.098	0.055
0.402	0.030	0.030	0.003	-0.010	-0.024	0.016	0.013	0.004	-0.051	-0.014
0.447	0.038	0.031	0.010	0.003	-0.010	0.007	0.006	-0.001	-0.007	-0.014
0.492	0.047	0.038	0.018	-0.005	-0.018	0.006	0.006	0.003	-0.004	-0.003
0.529	0.055	0.050	0.024	0.001	-0.006	0.014	0.011	0.000	-0.008	-0.008
0.592	0.060	0.054	0.042	0.013	0.003	0.013	0.011	0.008	0.000	0.008
0.655	0.111	0.195	0.060	0.018	0.002	0.048	0.106	0.014	-0.004	-0.007
0.661	0.032	-0.142	-0.015	-0.070	-0.078	-0.041	0.005	-0.041	-0.090	-0.085
0.687	-0.073	0.066	-0.071	-0.060	-0.028	-0.067	-0.005	-0.092	-0.063	-0.076

TABLE I.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty = 1.55$  - Concluded

(g)  $\alpha = 7.9^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.310	1.297	1.246	1.161	1.109	0.913	0.927	0.971	1.037	1.096
0.226	0.562	0.552	0.490	0.379	0.293	0.091	0.115	0.144	0.225	0.291
0.238	0.464	0.450	0.398	0.305	0.244	0.067	0.077	0.129	0.193	0.243
0.251	0.471	0.437	0.401	0.306	0.248	0.162	0.204	0.164	0.195	0.236
0.269	0.457	0.436	0.391	0.305	0.254	0.168	0.172	0.182	0.203	0.232
0.286	0.358	0.354	0.295	0.220	0.178	0.098	0.098	0.100	0.132	0.162
0.292	-0.120	-0.112	-0.156	-0.192	-0.000	-0.255	-0.255	-0.254	-0.241	-0.220
0.322	-0.038	0.170	0.025	-0.123	-0.146	-0.147	-0.164	-0.172	-0.126	0.048
0.352	-0.035	-0.152	-0.115	-0.117	-0.130	-0.110	-0.103	-0.131	-0.213	-0.231
0.381	0.009	-0.009	0.001	-0.081	-0.100	0.007	0.010	-0.037	-0.080	-0.096
0.392	0.177	0.144	0.121	0.084	0.025	0.099	0.088	0.083	0.026	0.018
0.402	0.047	0.033	0.009	-0.032	-0.068	0.013	0.024	-0.021	-0.041	-0.050
0.447	0.049	0.038	0.002	-0.021	-0.038	0.008	0.000	-0.010	-0.026	-0.040
0.492	0.056	0.042	0.011	-0.028	-0.044	0.001	-0.005	-0.016	-0.029	-0.030
0.529	0.067	0.058	0.021	-0.018	-0.032	0.002	-0.003	-0.008	-0.030	-0.034
0.592	0.075	0.064	0.039	-0.007	-0.022	0.004	-0.000	-0.001	-0.024	-0.017
0.655	0.127	0.201	0.059	-0.000	-0.023	0.054	0.100	-0.001	-0.026	-0.033
0.661	0.048	-0.138	-0.017	-0.087	-0.100	-0.030	0.002	-0.056	-0.110	-0.107
0.687	-0.063	0.071	-0.074	-0.083	-0.052	-0.108	-0.004	-0.091	-0.087	-0.101

(h)  $\alpha = 9.9^\circ$

0.223	1.361	1.347	1.283	1.177	1.109	0.866	0.881	0.933	1.019	1.088
0.226	0.630	0.616	0.542	0.402	0.299	0.052	0.074	0.114	0.209	0.289
0.238	0.522	0.504	0.435	0.319	0.240	0.043	0.041	0.104	0.174	0.236
0.251	0.527	0.487	0.431	0.308	0.233	0.142	0.177	0.130	0.169	0.218
0.269	0.516	0.490	0.424	0.310	0.241	0.145	0.151	0.152	0.171	0.212
0.286	0.416	0.404	0.327	0.224	0.167	0.084	0.081	0.077	0.107	0.145
0.292	-0.105	-0.088	-0.140	-0.188	0.002	-0.261	-0.261	-0.264	-0.253	-0.228
0.322	-0.006	0.216	0.035	-0.124	-0.161	-0.143	-0.168	-0.186	-0.154	0.003
0.352	-0.005	-0.138	-0.091	-0.128	-0.159	-0.108	-0.108	-0.137	-0.219	-0.280
0.381	0.029	0.005	0.004	-0.114	-0.126	0.014	0.016	-0.029	-0.145	-0.141
0.392	0.210	0.169	0.120	0.048	0.000	0.106	0.078	0.073	0.002	-0.024
0.402	0.084	0.051	0.010	-0.052	-0.099	0.010	0.018	-0.045	-0.050	-0.083
0.447	0.067	0.057	0.013	-0.054	-0.069	0.013	-0.009	-0.026	-0.045	-0.064
0.492	0.078	0.055	0.007	-0.050	-0.068	0.007	-0.011	-0.018	-0.051	-0.057
0.529	0.087	0.073	0.023	-0.036	-0.058	0.005	-0.017	-0.017	-0.043	-0.059
0.592	0.100	0.084	0.040	-0.024	-0.046	0.004	-0.015	-0.010	-0.042	-0.043
0.655	0.154	0.217	0.064	-0.017	-0.047	0.053	0.091	-0.014	-0.045	-0.058
0.661	0.075	-0.127	-0.013	-0.101	-0.121	-0.019	0.006	-0.059	-0.127	-0.128
0.687	-0.043	0.083	-0.069	-0.105	-0.074	-0.166	0.006	-0.089	-0.105	-0.125

TABLE II. - PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty = 1.75$

(a)  $\alpha = -4.0^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.071	1.076	1.101	1.130	1.170	1.277	1.277	1.255	1.213	1.179
0.226	0.265	0.267	0.287	0.327	0.346	0.469	0.469	0.430	0.392	0.358
0.238	0.149	0.158	0.178	0.204	0.235	0.352	0.331	0.320	0.281	0.249
0.251	0.197	0.192	0.213	0.220	0.250	0.341	0.375	0.315	0.281	0.253
0.269	0.188	0.199	0.219	0.237	0.250	0.347	0.360	0.326	0.289	0.256
0.286	0.145	0.134	0.158	0.182	0.204	0.282	0.279	0.255	0.229	0.201
0.292	-0.165	-0.136	-0.165	-0.153	0.003	-0.103	-0.106	-0.112	-0.132	-0.141
0.322	-0.108	0.002	0.010	-0.107	-0.094	-0.044	-0.050	-0.060	-0.028	-0.160
0.352	-0.081	-0.137	-0.140	-0.047	-0.054	-0.044	-0.022	-0.010	-0.104	-0.185
0.381	-0.032	-0.032	0.005	-0.091	-0.066	-0.009	-0.033	-0.061	-0.030	-0.049
0.392	0.096	0.098	0.084	0.078	0.074	0.135	0.114	0.079	0.090	0.072
0.402	0.017	-0.009	0.011	0.008	-0.000	0.038	0.023	0.012	0.003	0.019
0.447	0.017	0.017	0.011	0.012	0.009	0.035	0.029	0.015	0.005	-0.002
0.492	0.007	0.006	0.006	0.000	-0.000	0.033	0.032	0.021	0.010	0.005
0.529	0.011	0.009	0.002	0.000	0.004	0.038	0.037	0.028	0.013	0.004
0.592	0.003	0.001	0.004	0.007	0.009	0.035	0.035	0.030	0.015	0.014
0.655	0.043	0.103	0.020	0.000	-0.002	0.073	0.189	0.038	0.013	-0.000
0.661	-0.012	-0.140	-0.034	-0.068	-0.067	0.014	0.005	-0.020	-0.061	-0.062
0.687	-0.077	0.009	-0.071	-0.051	-0.014	-0.072	0.045	-0.070	-0.042	-0.058

(b)  $\alpha = -2.1^\circ$

0.223	1.122	1.125	1.140	1.151	1.178	1.231	1.233	1.224	1.200	1.182
0.226	0.309	0.310	0.320	0.343	0.348	0.408	0.416	0.392	0.375	0.358
0.238	0.186	0.194	0.206	0.216	0.233	0.294	0.283	0.284	0.265	0.249
0.251	0.230	0.217	0.243	0.241	0.256	0.300	0.336	0.287	0.271	0.257
0.269	0.229	0.216	0.238	0.255	0.268	0.308	0.315	0.302	0.283	0.264
0.286	0.168	0.171	0.182	0.200	0.207	0.239	0.235	0.227	0.214	0.204
0.292	-0.167	-0.130	-0.153	-0.144	-0.002	-0.123	-0.123	-0.129	-0.134	-0.140
0.322	-0.084	-0.033	0.008	-0.098	-0.090	-0.060	-0.069	-0.070	-0.033	0.167
0.352	-0.065	-0.142	-0.131	-0.052	-0.038	-0.057	-0.031	-0.028	-0.106	-0.174
0.381	-0.026	-0.029	0.004	-0.067	-0.065	-0.017	-0.049	-0.063	-0.015	-0.036
0.392	0.102	0.112	0.097	0.095	0.099	0.119	0.102	0.093	0.100	0.096
0.402	0.017	0.006	0.017	0.021	0.017	0.028	0.018	0.017	0.015	0.026
0.447	0.018	0.021	0.017	0.025	0.023	0.031	0.025	0.017	0.012	0.008
0.492	0.011	0.012	0.012	0.011	0.010	0.026	0.027	0.022	0.017	0.015
0.529	0.016	0.017	0.009	0.013	0.014	0.029	0.029	0.026	0.022	0.015
0.592	0.007	0.008	0.013	0.018	0.019	0.023	0.025	0.027	0.023	0.024
0.655	0.052	0.134	0.022	0.010	0.007	0.064	0.174	0.037	0.020	0.010
0.661	-0.013	-0.126	-0.031	-0.058	-0.057	0.002	0.005	-0.021	-0.054	-0.057
0.687	-0.078	0.019	-0.065	-0.043	-0.005	-0.079	0.032	-0.070	-0.036	-0.049

TABLE II.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty=1.75$  - Continued

(c)  $\alpha = 0.1^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.178	1.178	1.179	1.170	1.180	1.176	1.182	1.185	1.184	1.182
0.226	0.363	0.362	0.361	0.361	0.350	0.349	0.360	0.350	0.356	0.357
0.238	0.239	0.238	0.237	0.226	0.227	0.250	0.242	0.252	0.251	0.247
0.251	0.259	0.249	0.266	0.250	0.255	0.263	0.300	0.262	0.262	0.258
0.269	0.261	0.265	0.264	0.270	0.270	0.268	0.270	0.273	0.270	0.263
0.286	0.202	0.210	0.205	0.207	0.206	0.205	0.202	0.203	0.201	0.201
0.292	-0.149	-0.114	-0.140	-0.137	0.002	-0.141	-0.138	-0.141	-0.140	-0.141
0.322	-0.082	0.030	-0.011	-0.083	-0.087	-0.073	-0.086	-0.081	-0.048	-0.164
0.352	-0.058	-0.136	-0.128	-0.055	-0.059	-0.068	-0.038	-0.046	-0.106	-0.164
0.381	-0.026	-0.028	0.004	-0.049	-0.061	0.101	-0.059	-0.057	-0.013	-0.030
0.392	0.108	0.108	0.116	0.108	0.096	0.107	0.095	0.095	0.109	0.106
0.402	0.031	0.011	0.021	0.023	0.026	0.021	0.016	0.016	0.022	0.029
0.447	0.022	0.025	0.022	0.031	0.025	0.023	0.022	0.015	0.012	0.010
0.492	0.015	0.016	0.017	0.016	0.011	0.020	0.021	0.020	0.018	0.018
0.529	0.019	0.023	0.017	0.016	0.015	0.020	0.021	0.021	0.021	0.018
0.592	0.013	0.014	0.020	0.023	0.022	0.014	0.016	0.021	0.023	0.026
0.655	0.061	0.145	0.023	0.016	0.009	0.056	0.154	0.033	0.019	0.013
0.661	-0.003	-0.117	-0.031	-0.054	-0.053	-0.010	0.004	-0.024	-0.053	-0.048
0.687	-0.078	0.027	-0.062	-0.040	-0.002	-0.083	0.017	-0.071	-0.035	-0.040

(d)  $\alpha = 1.9^\circ$

0.223	1.260	1.228	1.217	1.189	1.182	1.129	1.138	1.151	1.169	1.182
0.226	0.419	0.415	0.401	0.379	0.352	0.302	0.316	0.317	0.343	0.357
0.238	0.279	0.291	0.274	0.252	0.239	0.204	0.198	0.216	0.239	0.249
0.251	0.298	0.283	0.293	0.263	0.256	0.222	0.263	0.235	0.249	0.256
0.269	0.297	0.297	0.289	0.276	0.265	0.238	0.239	0.247	0.257	0.264
0.286	0.237	0.243	0.231	0.216	0.209	0.172	0.176	0.181	0.198	0.202
0.292	-0.130	-0.101	-0.130	-0.131	-0.001	-0.157	-0.157	-0.153	-0.149	-0.140
0.322	-0.068	0.076	0.022	-0.091	-0.092	-0.083	-0.098	-0.092	-0.039	-0.154
0.352	-0.054	-0.132	-0.122	-0.062	-0.038	-0.075	-0.047	-0.066	-0.118	-0.184
0.381	-0.020	-0.022	0.004	-0.041	-0.064	-0.030	-0.062	-0.042	-0.018	-0.041
0.392	0.118	0.111	0.126	0.102	0.091	0.095	0.090	0.091	0.110	0.101
0.402	0.020	0.025	0.017	0.021	0.018	0.015	0.012	0.009	0.015	0.034
0.447	0.027	0.028	0.025	0.028	0.021	0.018	0.016	0.012	0.011	0.006
0.492	0.022	0.021	0.019	0.015	0.010	0.014	0.014	0.015	0.015	0.015
0.529	0.027	0.029	0.021	0.015	0.012	0.015	0.014	0.014	0.017	0.016
0.592	0.021	0.022	0.024	0.023	0.020	0.009	0.010	0.015	0.019	0.024
0.655	0.064	0.154	0.027	0.016	0.006	0.050	0.131	0.028	0.015	0.010
0.661	0.008	-0.115	-0.027	-0.054	-0.057	-0.020	0.004	-0.030	-0.055	-0.052
0.687	-0.075	0.037	-0.061	-0.042	-0.005	-0.077	0.003	-0.074	-0.041	-0.042

TABLE II.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty = 1.75$  - Continued

(e)  $\alpha = 3.9^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.264	1.274	1.250	1.204	1.180	1.076	1.086	1.111	1.146	1.173
0.226	0.477	0.469	0.441	0.395	0.351	0.251	0.265	0.276	0.321	0.352
0.238	0.331	0.332	0.310	0.267	0.238	0.162	0.157	0.186	0.219	0.246
0.251	0.347	0.330	0.323	0.273	0.252	0.193	0.230	0.205	0.228	0.252
0.269	0.338	0.333	0.313	0.281	0.264	0.211	0.208	0.225	0.243	0.259
0.286	0.273	0.278	0.254	0.224	0.203	0.148	0.150	0.158	0.184	0.198
0.292	-0.115	-0.084	-0.115	-0.130	0.003	-0.173	-0.169	-0.163	-0.155	-0.142
0.322	-0.048	0.112	0.027	-0.089	-0.095	-0.109	-0.111	-0.106	-0.056	0.136
0.352	-0.037	-0.130	-0.117	-0.075	-0.055	-0.083	-0.055	-0.084	-0.134	-0.211
0.381	-0.008	-0.015	0.004	-0.038	-0.063	-0.034	-0.058	-0.049	-0.027	-0.049
0.392	0.137	0.121	0.130	0.098	0.076	0.091	0.086	0.080	0.107	0.079
0.402	0.033	0.035	0.025	0.017	0.001	0.019	0.015	0.007	0.005	0.013
0.447	0.035	0.035	0.025	0.020	0.012	0.018	0.015	0.006	0.001	-0.002
0.492	0.031	0.027	0.019	0.007	0.003	0.011	0.010	0.009	0.005	0.006
0.529	0.036	0.037	0.021	0.008	0.003	0.012	0.009	0.006	0.006	0.006
0.592	0.033	0.032	0.027	0.018	0.010	0.004	0.005	0.009	0.007	0.014
0.655	0.067	0.166	0.030	0.010	-0.002	0.038	0.109	0.013	0.005	0.000
0.661	0.017	-0.116	-0.026	-0.059	-0.065	-0.028	0.004	0.230	-0.066	-0.061
0.687	-0.067	0.047	-0.062	-0.048	-0.013	-0.070	-0.012	-0.074	-0.050	-0.061

(f)  $\alpha = 5.9^\circ$

0.223	1.326	1.317	1.281	1.213	1.173	1.021	1.034	1.067	1.120	1.162
0.226	0.538	0.526	0.483	0.410	0.350	0.202	0.218	0.242	0.302	0.347
0.238	0.389	0.379	0.345	0.279	0.238	0.128	0.122	0.156	0.205	0.244
0.251	0.406	0.376	0.353	0.285	0.245	0.156	0.204	0.178	0.211	0.236
0.269	0.391	0.377	0.346	0.288	0.256	0.182	0.180	0.197	0.224	0.244
0.286	0.313	0.313	0.273	0.223	0.191	0.124	0.124	0.134	0.167	0.190
0.292	-0.112	-0.066	-0.104	-0.131	-0.007	-0.183	-0.182	-0.176	-0.164	-0.147
0.322	-0.032	0.144	0.033	-0.090	-0.103	-0.116	-0.121	-0.119	-0.073	0.112
0.352	-0.022	-0.122	-0.108	-0.086	-0.077	-0.091	-0.069	-0.100	-0.150	-0.202
0.381	0.000	-0.007	0.004	-0.049	-0.068	-0.017	-0.034	-0.055	-0.048	-0.064
0.392	0.155	0.132	0.124	0.091	0.056	0.090	0.085	0.074	0.077	0.049
0.402	0.052	0.044	0.019	0.008	-0.020	0.019	0.028	0.004	-0.034	-0.007
0.447	0.046	0.045	0.023	0.006	-0.005	0.015	0.011	0.000	-0.011	-0.018
0.492	0.043	0.034	0.018	-0.006	-0.015	0.008	0.004	0.000	-0.007	-0.008
0.529	0.048	0.046	0.021	-0.003	-0.012	0.007	0.003	-0.004	-0.009	-0.009
0.592	0.048	0.043	0.029	0.007	-0.005	0.001	0.002	0.001	-0.007	-0.002
0.655	0.078	0.177	0.031	-0.000	-0.017	0.036	0.096	0.003	-0.009	-0.014
0.661	0.029	-0.113	-0.026	-0.069	-0.077	-0.032	0.004	-0.040	-0.079	-0.074
0.687	-0.056	0.056	-0.062	-0.060	-0.025	-0.076	0.001	-0.083	-0.066	-0.075

TABLE II. - PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty=1.7$  - Concluded

(g)  $\alpha = 7.9^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.372	1.359	1.311	1.223	1.167	0.969	0.983	1.027	1.096	1.151
0.226	0.606	0.594	0.532	0.428	0.350	0.158	0.179	0.205	0.283	0.344
0.238	0.443	0.430	0.379	0.289	0.241	0.093	0.088	0.127	0.188	0.234
0.251	0.454	0.420	0.381	0.288	0.229	0.139	0.181	0.150	0.189	0.229
0.269	0.444	0.422	0.377	0.295	0.246	0.155	0.158	0.167	0.201	0.232
0.286	0.357	0.352	0.298	0.224	0.181	0.101	0.101	0.108	0.144	0.176
0.292	-0.076	-0.047	-0.092	-0.129	-0.003	-0.192	-0.192	-0.189	-0.176	-0.154
0.322	-0.008	0.184	0.042	-0.092	-0.113	-0.124	-0.132	-0.134	-0.096	0.076
0.352	0.001	-0.113	-0.093	-0.093	-0.107	-0.088	-0.076	-0.117	-0.166	-0.191
0.381	0.014	0.004	0.004	-0.075	-0.082	-0.010	-0.016	-0.059	-0.072	-0.088
0.392	0.178	0.146	0.121	0.070	0.036	0.094	0.079	0.070	0.013	0.009
0.402	0.074	0.054	0.023	-0.007	-0.021	0.022	0.014	-0.017	-0.029	-0.024
0.447	0.060	0.059	0.025	-0.018	-0.031	0.013	0.005	-0.007	-0.028	-0.036
0.492	0.059	0.045	0.012	-0.025	-0.036	0.007	-0.002	-0.014	-0.027	-0.030
0.529	0.063	0.056	0.020	-0.022	-0.033	0.004	-0.004	-0.012	-0.027	-0.031
0.592	0.066	0.056	0.029	-0.007	-0.026	-0.001	-0.002	-0.002	-0.026	-0.023
0.655	0.094	0.187	0.032	-0.015	-0.038	0.031	0.088	-0.004	-0.028	-0.034
0.661	0.047	-0.107	-0.025	-0.083	-0.094	-0.022	0.005	-0.047	-0.096	-0.091
0.687	-0.038	0.064	-0.061	-0.076	-0.042	-0.106	0.055	-0.084	-0.083	-0.093

(h)  $\alpha = 9.9^\circ$

0.223	1.325	1.325	1.334	1.225	1.153	0.914	0.927	0.983	1.069	1.138
0.226	0.672	0.656	0.577	0.441	0.343	0.115	0.138	0.170	0.265	0.340
0.238	0.499	0.481	0.412	0.299	0.222	0.057	0.051	0.096	0.169	0.229
0.251	0.506	0.466	0.413	0.291	0.218	0.118	0.153	0.118	0.162	0.214
0.269	0.499	0.474	0.410	0.298	0.230	0.129	0.132	0.136	0.167	0.213
0.286	0.409	0.399	0.326	0.228	0.170	0.072	0.072	0.078	0.117	0.159
0.292	-0.033	-0.024	-0.078	-0.127	0.003	-0.205	-0.205	-0.205	-0.188	-0.163
0.322	0.021	0.226	0.051	-0.097	-0.131	-0.121	-0.135	-0.152	-0.127	0.037
0.352	0.026	-0.103	-0.073	-0.107	-0.140	-0.090	-0.088	-0.131	-0.171	-0.258
0.381	0.041	0.019	0.004	-0.096	-0.116	-0.009	-0.006	-0.058	-0.119	-0.129
0.392	0.203	0.164	0.116	0.034	0.006	0.099	0.068	0.086	-0.017	-0.028
0.402	0.097	0.069	0.028	-0.022	-0.063	0.020	0.007	-0.024	-0.059	-0.078
0.447	0.085	0.076	0.022	-0.036	-0.075	0.014	-0.011	-0.027	-0.052	-0.073
0.492	0.077	0.059	0.009	-0.056	-0.066	0.004	-0.019	-0.022	-0.052	-0.061
0.529	0.084	0.071	0.013	-0.046	-0.061	0.001	-0.022	-0.022	-0.050	-0.061
0.592	0.085	0.070	0.028	-0.029	-0.053	-0.004	-0.023	-0.013	-0.046	-0.053
0.655	0.113	0.196	0.033	-0.035	-0.063	0.019	0.059	-0.020	-0.053	-0.061
0.661	0.068	-0.100	-0.024	-0.100	-0.116	-0.017	0.005	-0.055	-0.116	-0.115
0.687	-0.024	0.073	-0.061	-0.097	-0.063	-0.126	0.072	-0.086	-0.101	-0.118

TABLE III.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty=2.00$

(a)  $\alpha = -4.0^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.088	1.110	1.137	1.172	1.213	1.305	1.301	1.272	1.223	1.190
0.226	0.299	0.305	0.328	0.371	0.390	0.492	0.488	0.444	0.408	0.370
0.238	0.138	0.147	0.171	0.200	0.225	0.317	0.298	0.284	0.243	0.216
0.251	0.169	0.167	0.200	0.214	0.241	0.317	0.322	0.284	0.246	0.220
0.269	0.177	0.182	0.188	0.216	0.241	0.321	0.333	0.291	0.257	0.227
0.286	0.123	0.133	0.137	0.163	0.181	0.262	0.253	0.229	0.204	0.174
0.292	-0.127	-0.097	-0.129	-0.118	0.009	-0.066	-0.069	-0.080	-0.100	-0.109
0.322	-0.101	-0.013	-0.005	-0.092	-0.083	-0.021	-0.046	-0.053	-0.044	0.140
0.352	-0.080	-0.127	-0.124	-0.046	-0.053	-0.033	-0.030	-0.022	-0.083	-0.165
0.381	-0.028	-0.039	0.010	-0.084	-0.059	-0.019	-0.025	-0.042	-0.040	-0.051
0.392	0.072	0.075	0.059	0.031	0.051	0.118	0.098	0.060	0.068	0.049
0.402	0.009	-0.008	-0.002	-0.011	-0.014	0.043	0.028	-0.002	0.000	0.011
0.447	0.002	0.005	-0.001	-0.004	-0.006	0.027	0.023	0.009	-0.003	-0.009
0.492	-0.001	-0.006	-0.009	-0.008	-0.007	0.023	0.018	0.009	-0.001	-0.001
0.529	0.002	0.001	-0.004	-0.007	-0.006	0.025	0.024	0.011	0.001	-0.005
0.592	-0.000	-0.004	-0.003	-0.005	-0.004	0.025	0.027	0.016	0.000	-0.000
0.655	0.016	0.075	0.002	-0.007	-0.009	0.039	0.152	0.014	-0.000	-0.012
0.661	-0.018	-0.138	-0.038	-0.060	-0.058	-0.001	0.009	-0.030	-0.056	-0.060
0.687	-0.082	-0.008	-0.066	-0.053	-0.010	-0.064	0.027	-0.062	-0.051	-0.062

(b)  $\alpha = -2.1^\circ$

0.223	1.136	1.161	1.179	1.195	1.220	1.251	1.250	1.235	1.207	1.189
0.226	0.347	0.351	0.365	0.391	0.394	0.434	0.435	0.405	0.388	0.369
0.238	0.175	0.185	0.198	0.211	0.224	0.271	0.257	0.253	0.230	0.216
0.251	0.199	0.198	0.226	0.227	0.241	0.277	0.285	0.258	0.239	0.224
0.269	0.209	0.213	0.217	0.237	0.250	0.278	0.287	0.266	0.249	0.233
0.286	0.152	0.154	0.160	0.174	0.185	0.221	0.215	0.203	0.188	0.176
0.292	-0.113	-0.086	-0.117	-0.109	0.008	-0.086	-0.089	-0.094	-0.104	-0.108
0.322	-0.079	-0.057	-0.051	-0.083	-0.078	-0.039	-0.058	-0.061	-0.046	0.146
0.352	-0.070	-0.131	-0.112	-0.045	-0.055	-0.049	-0.044	-0.035	-0.077	-0.157
0.381	-0.028	-0.036	0.010	-0.070	-0.053	-0.028	-0.037	-0.050	-0.025	-0.040
0.392	0.078	0.077	0.070	0.057	0.055	0.100	0.081	0.068	0.077	0.067
0.402	0.008	0.001	0.006	0.001	-0.002	0.028	0.014	0.005	0.012	0.020
0.447	0.006	0.010	0.002	0.005	0.004	0.015	0.014	0.009	0.004	-0.000
0.492	0.000	-0.002	-0.001	0.002	0.001	0.012	0.011	0.009	0.006	0.006
0.529	0.005	0.006	0.002	0.001	0.002	0.015	0.015	0.010	0.008	0.003
0.592	0.000	0.000	0.003	0.005	0.003	0.012	0.015	0.015	0.006	0.008
0.655	0.024	0.099	0.004	0.001	-0.001	0.032	0.139	0.011	0.003	-0.000
0.661	-0.018	-0.099	-0.034	-0.050	-0.050	-0.011	0.008	-0.031	-0.051	-0.051
0.687	-0.081	-0.000	-0.060	-0.043	-0.003	-0.074	0.018	-0.060	-0.045	-0.052

TABLE III.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty=2.00$  - Continued

(c)  $\alpha = 0.1^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.190	1.210	1.216	1.214	1.223	1.204	1.206	1.201	1.194	1.192
0.226	0.394	0.398	0.402	0.408	0.396	0.384	0.390	0.373	0.377	0.369
0.238	0.216	0.225	0.229	0.227	0.227	0.233	0.220	0.225	0.220	0.217
0.251	0.238	0.233	0.254	0.243	0.247	0.236	0.249	0.230	0.228	0.225
0.269	0.246	0.248	0.246	0.250	0.250	0.242	0.247	0.240	0.239	0.235
0.286	0.184	0.187	0.187	0.190	0.188	0.188	0.184	0.181	0.180	0.178
0.292	-0.096	-0.071	-0.104	-0.103	0.008	-0.103	-0.102	-0.105	-0.109	-0.107
0.322	-0.062	-0.032	-0.057	-0.065	-0.072	-0.058	-0.070	-0.062	-0.053	0.147
0.352	-0.056	-0.121	-0.109	-0.052	-0.050	-0.061	-0.057	-0.053	-0.078	-0.152
0.381	-0.028	-0.027	0.009	-0.063	-0.047	-0.034	-0.046	-0.055	-0.016	-0.030
0.392	0.091	0.084	0.088	0.075	0.060	0.093	0.070	0.073	0.089	0.078
0.402	0.010	0.007	0.013	0.014	0.001	0.015	0.011	0.010	0.017	0.029
0.447	0.009	0.013	0.007	0.012	0.012	0.010	0.010	0.008	0.007	0.004
0.492	0.005	0.002	0.007	0.006	0.004	0.006	0.005	0.008	0.009	0.010
0.529	0.009	0.011	0.007	0.006	0.006	0.009	0.007	0.008	0.010	0.006
0.592	0.006	0.003	0.010	0.010	0.007	0.003	0.005	0.010	0.008	0.012
0.655	0.033	0.124	0.009	0.008	0.003	0.028	0.123	0.009	0.006	0.000
0.661	-0.010	-0.100	-0.031	-0.044	-0.045	-0.018	0.009	-0.030	-0.049	-0.047
0.687	-0.078	0.013	-0.055	-0.039	-0.000	-0.081	0.006	-0.061	-0.043	-0.049

(d)  $\alpha = 1.9^\circ$

0.223	1.257	1.259	1.256	1.230	1.223	1.149	1.156	1.161	1.173	1.186
0.226	0.446	0.446	0.440	0.424	0.396	0.333	0.343	0.338	0.358	0.367
0.238	0.257	0.263	0.258	0.240	0.228	0.189	0.181	0.195	0.204	0.215
0.251	0.273	0.264	0.277	0.252	0.242	0.200	0.214	0.203	0.214	0.219
0.269	0.282	0.281	0.268	0.260	0.249	0.211	0.213	0.216	0.225	0.232
0.286	0.218	0.221	0.212	0.197	0.186	0.156	0.155	0.158	0.170	0.177
0.292	-0.079	-0.057	-0.091	-0.098	0.009	-0.117	-0.117	-0.117	-0.114	-0.106
0.322	-0.044	-0.016	-0.045	-0.062	-0.074	-0.073	-0.082	-0.080	-0.051	0.139
0.352	-0.049	-0.115	-0.109	-0.046	-0.052	-0.072	-0.064	-0.054	-0.093	-0.164
0.381	-0.023	-0.020	0.011	-0.057	-0.053	-0.031	-0.052	-0.053	-0.023	-0.040
0.392	0.101	0.094	0.100	0.081	0.053	0.084	0.068	0.073	0.083	0.071
0.402	0.021	0.015	0.015	0.014	-0.004	0.010	0.008	0.006	0.009	0.024
0.447	0.015	0.020	0.011	0.012	0.009	0.005	0.007	0.005	0.004	0.002
0.492	0.011	0.009	0.010	0.004	0.002	0.001	0.001	0.004	0.006	0.007
0.529	0.012	0.016	0.010	0.006	0.004	0.004	0.004	0.001	0.007	0.006
0.592	0.011	0.011	0.015	0.010	0.004	0.000	0.000	0.001	0.004	0.009
0.655	0.040	0.138	0.012	0.008	0.000	0.026	0.105	0.005	0.000	-0.001
0.661	-0.001	-0.098	-0.030	-0.043	-0.048	-0.027	0.010	-0.033	-0.052	-0.050
0.687	-0.072	0.022	-0.053	-0.040	-0.001	-0.082	-0.007	-0.064	-0.047	-0.052



TABLE III.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty=2.00$  - Continued

(e)  $\alpha = 3.9^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.303	1.304	1.287	1.241	1.218	1.095	1.104	1.120	1.150	1.178
0.226	0.498	0.496	0.477	0.437	0.393	0.283	0.295	0.299	0.337	0.362
0.238	0.305	0.309	0.290	0.254	0.228	0.149	0.142	0.161	0.187	0.211
0.251	0.317	0.307	0.308	0.263	0.241	0.170	0.183	0.178	0.200	0.217
0.269	0.325	0.321	0.297	0.268	0.244	0.180	0.182	0.191	0.211	0.228
0.286	0.256	0.255	0.235	0.204	0.184	0.127	0.131	0.137	0.157	0.170
0.292	-0.060	-0.040	-0.080	-0.094	0.009	-0.133	-0.133	-0.130	-0.125	-0.111
0.322	-0.023	0.003	-0.031	-0.064	-0.081	-0.094	-0.099	-0.089	-0.062	0.121
0.352	-0.034	-0.109	-0.103	-0.057	-0.047	-0.079	-0.056	-0.073	-0.104	-0.182
0.381	-0.015	-0.014	0.010	-0.052	-0.064	-0.035	-0.059	-0.049	-0.032	-0.048
0.392	0.113	0.104	0.105	0.079	0.046	0.069	0.062	0.059	0.081	0.054
0.402	0.037	0.024	0.019	0.010	-0.013	0.010	0.006	0.000	0.001	0.004
0.447	0.024	0.029	0.015	0.004	-0.001	0.000	0.001	-0.000	-0.005	-0.007
0.492	0.020	0.015	0.008	-0.001	-0.007	-0.001	-0.002	-0.002	-0.002	-0.002
0.529	0.024	0.024	0.011	0.004	-0.004	0.001	0.000	-0.001	-0.001	-0.001
0.592	0.025	0.020	0.016	0.005	-0.004	-0.003	-0.003	-0.004	-0.005	0.000
0.655	0.046	0.151	0.015	0.002	-0.007	0.022	0.089	-0.003	-0.008	-0.010
0.661	0.009	-0.094	-0.029	-0.050	-0.056	-0.032	0.009	-0.047	-0.062	-0.059
0.687	-0.063	0.031	-0.055	-0.046	-0.008	-0.078	-0.021	-0.063	0.058	-0.061

(f)  $\alpha = 5.9^\circ$

0.223	1.301	1.301	1.314	1.261	1.209	1.038	1.047	1.076	1.124	1.167
0.226	0.556	0.550	0.514	0.450	0.390	0.238	0.254	0.266	0.320	0.359
0.238	0.352	0.353	0.324	0.266	0.226	0.115	0.108	0.136	0.170	0.210
0.251	0.364	0.351	0.338	0.271	0.234	0.138	0.153	0.149	0.185	0.211
0.269	0.371	0.362	0.326	0.275	0.238	0.160	0.149	0.166	0.191	0.218
0.286	0.299	0.295	0.262	0.212	0.181	0.106	0.105	0.112	0.143	0.163
0.292	-0.039	-0.022	-0.066	-0.092	0.009	-0.146	-0.143	-0.139	-0.130	-0.118
0.322	-0.001	0.032	-0.022	-0.065	-0.086	-0.106	-0.105	-0.101	-0.072	0.098
0.352	-0.013	-0.105	-0.092	-0.065	-0.066	-0.084	-0.064	-0.087	-0.121	-0.179
0.381	-0.002	-0.003	0.011	-0.058	-0.072	-0.036	-0.050	-0.054	-0.049	-0.064
0.392	0.130	0.115	0.100	0.064	0.044	0.067	0.061	0.048	0.048	0.030
0.402	0.052	0.035	0.016	0.001	-0.023	0.010	0.004	-0.004	-0.028	-0.007
0.447	0.034	0.039	0.018	-0.009	-0.020	-0.001	-0.000	-0.008	-0.014	-0.023
0.492	0.032	0.024	0.005	-0.013	-0.024	-0.002	-0.004	-0.010	-0.018	-0.019
0.529	0.038	0.033	0.013	-0.010	-0.021	-0.002	-0.004	-0.010	-0.015	-0.018
0.592	0.038	0.032	0.017	-0.004	-0.018	-0.009	-0.009	-0.011	-0.027	-0.014
0.655	0.057	0.162	0.017	-0.006	-0.021	0.016	0.084	-0.009	-0.022	-0.025
0.661	0.021	-0.090	-0.027	-0.060	-0.068	-0.035	0.010	-0.039	-0.074	-0.072
0.687	-0.051	0.040	-0.055	-0.055	-0.019	-0.084	-0.019	-0.074	-0.069	-0.076

TABLE III. - PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty = 2.00$  - Concluded

(g)  $\alpha = 7.9^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.389	1.382	1.336	1.249	1.195	0.981	0.994	1.033	1.097	1.154
0.226	0.614	0.605	0.552	0.463	0.386	0.196	0.212	0.234	0.302	0.354
0.238	0.410	0.401	0.359	0.278	0.224	0.083	0.078	0.107	0.157	0.204
0.251	0.425	0.399	0.371	0.279	0.225	0.108	0.124	0.123	0.163	0.203
0.269	0.433	0.412	0.361	0.284	0.229	0.127	0.127	0.138	0.168	0.201
0.286	0.343	0.342	0.288	0.217	0.174	0.086	0.085	0.089	0.123	0.153
0.292	-0.018	-0.003	-0.053	-0.088	0.010	-0.153	-0.151	-0.150	-0.138	-0.119
0.322	0.002	0.163	0.039	-0.071	-0.096	-0.112	-0.114	-0.113	-0.089	0.068
0.352	0.007	-0.088	-0.079	-0.075	-0.089	-0.086	-0.072	-0.106	-0.133	-0.177
0.381	0.014	0.009	0.011	-0.071	-0.089	-0.031	-0.040	-0.063	-0.072	-0.085
0.392	0.150	0.126	0.101	0.040	0.019	0.065	0.054	0.040	-0.009	-0.006
0.402	0.068	0.051	0.018	-0.016	-0.039	0.009	0.203	-0.023	-0.039	-0.045
0.447	0.054	0.054	0.019	-0.020	-0.052	-0.001	-0.006	-0.018	-0.040	-0.051
0.492	0.046	0.036	0.009	-0.036	-0.048	-0.005	-0.011	-0.022	-0.037	-0.043
0.529	0.056	0.048	0.012	-0.029	-0.043	-0.005	-0.011	-0.021	-0.034	-0.040
0.592	0.056	0.045	0.018	-0.020	-0.039	-0.010	-0.016	-0.020	-0.039	-0.036
0.655	0.072	0.166	0.019	-0.020	-0.041	0.001	0.069	-0.016	-0.040	-0.045
0.661	0.036	-0.083	-0.027	-0.073	-0.086	-0.037	0.010	-0.046	-0.090	-0.091
0.687	-0.037	0.048	-0.057	-0.068	-0.035	-0.097	-0.017	-0.082	-0.085	-0.094

(h)  $\alpha = 9.9^\circ$

0.223	1.432	1.421	1.361	1.252	1.182	0.926	0.939	0.985	1.069	1.139
0.226	0.680	0.667	0.597	0.474	0.381	0.152	0.170	0.201	0.282	0.348
0.238	0.463	0.451	0.393	0.289	0.220	0.052	0.047	0.081	0.140	0.199
0.251	0.480	0.449	0.402	0.286	0.213	0.079	0.104	0.094	0.139	0.190
0.269	0.485	0.457	0.397	0.287	0.215	0.103	0.106	0.114	0.145	0.186
0.286	0.392	0.387	0.316	0.219	0.158	0.062	0.062	0.063	0.102	0.141
0.292	0.003	0.016	-0.040	-0.086	0.009	-0.162	-0.162	-0.164	-0.150	-0.125
0.322	0.030	0.202	0.052	-0.074	-0.107	-0.116	-0.123	-0.129	-0.114	0.037
0.352	0.031	-0.076	-0.063	-0.084	-0.112	-0.087	-0.081	-0.124	-0.140	-0.211
0.381	0.030	0.025	0.011	-0.082	-0.119	0.166	-0.035	-0.072	-0.106	-0.125
0.392	0.184	0.147	0.105	0.021	-0.026	0.066	0.043	0.039	-0.042	-0.041
0.402	0.088	0.065	0.030	-0.037	-0.075	0.004	0.199	-0.045	-0.078	-0.077
0.447	0.079	0.073	0.020	-0.040	-0.083	-0.001	-0.020	-0.036	-0.069	-0.089
0.492	0.067	0.165	0.010	-0.060	-0.091	-0.008	-0.027	-0.033	-0.061	-0.079
0.529	0.073	0.064	0.016	-0.063	-0.075	-0.006	-0.027	-0.033	-0.056	-0.070
0.592	0.082	0.062	0.014	-0.042	-0.066	-0.015	-0.034	-0.031	-0.062	-0.064
0.655	0.088	0.179	0.019	-0.039	-0.066	-0.012	0.033	-0.032	-0.061	-0.074
0.661	0.055	-0.080	-0.026	-0.089	-0.108	-0.042	0.010	-0.059	-0.107	-0.115
0.687	-0.022	0.058	-0.058	-0.086	-0.055	-0.103	-0.025	-0.088	-0.102	-0.120

TABLE IV. - PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty = 2.35$

(a)  $\alpha = -4.0^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.099	1.120	1.150	1.185	1.230	1.322	1.319	1.289	1.241	1.206
0.226	0.321	0.326	0.352	0.392	0.410	0.503	0.505	0.464	0.428	0.392
0.238	0.118	0.129	0.149	0.175	0.201	0.286	0.266	0.256	0.215	0.192
0.251	0.140	0.138	0.173	0.180	0.204	0.289	0.297	0.256	0.219	0.193
0.269	0.149	0.151	0.160	0.194	0.216	0.287	0.290	0.265	0.228	0.202
0.286	0.105	0.111	0.124	0.145	0.165	0.240	0.230	0.208	0.177	0.154
0.292	-0.055	-0.044	-0.092	-0.079	-0.001	-0.034	-0.037	-0.048	-0.068	-0.074
0.322	-0.076	-0.021	-0.024	-0.073	-0.065	-0.010	-0.030	-0.035	-0.046	0.128
0.352	-0.066	-0.099	-0.098	-0.052	-0.055	-0.018	-0.031	-0.026	-0.057	-0.137
0.381	-0.025	-0.043	-0.002	-0.059	-0.050	-0.031	-0.012	-0.019	-0.038	-0.043
0.392	0.047	0.049	0.033	0.019	0.040	0.094	0.082	0.069	0.049	0.034
0.402	0.002	-0.008	-0.003	-0.015	-0.005	0.041	0.032	0.006	0.008	0.013
0.447	0.004	0.009	-0.004	-0.006	-0.008	0.027	0.022	0.011	-0.001	-0.006
0.492	-0.000	-0.004	-0.006	-0.012	-0.011	0.025	0.014	0.012	0.000	-0.004
0.529	0.000	-0.001	-0.004	-0.006	-0.006	0.031	0.025	0.015	0.003	-0.003
0.592	-0.000	-0.004	-0.002	-0.001	-0.003	0.036	0.022	0.015	-0.001	-0.003
0.655	0.004	0.062	-0.001	-0.002	-0.004	0.029	0.138	0.013	-0.000	-0.009
0.661	-0.018	-0.071	-0.029	-0.041	-0.042	-0.003	-0.000	-0.024	-0.041	-0.046
0.687	-0.062	-0.011	-0.051	-0.048	0.012	-0.042	0.020	-0.045	-0.047	-0.056

(b)  $\alpha = -2.1^\circ$

0.223	1.165	1.174	1.193	1.208	1.236	1.271	1.272	1.256	1.227	1.209
0.226	0.368	0.371	0.385	0.410	0.413	0.453	0.458	0.432	0.414	0.394
0.238	0.154	0.165	0.178	0.192	0.203	0.242	0.227	0.227	0.206	0.194
0.251	0.170	0.168	0.198	0.195	0.211	0.245	0.256	0.226	0.207	0.195
0.269	0.179	0.182	0.186	0.207	0.220	0.249	0.258	0.237	0.218	0.203
0.286	0.132	0.137	0.145	0.157	0.167	0.204	0.197	0.186	0.169	0.157
0.292	-0.072	-0.036	-0.080	-0.072	-0.001	-0.050	-0.052	-0.058	-0.068	-0.073
0.322	-0.063	-0.040	-0.048	-0.060	-0.060	-0.029	-0.046	-0.041	-0.035	0.132
0.352	-0.062	-0.096	-0.085	-0.048	-0.046	-0.034	-0.039	-0.038	-0.050	-0.133
0.381	-0.029	-0.034	-0.002	-0.053	-0.042	-0.036	-0.022	-0.023	0.176	-0.032
0.392	0.051	0.056	0.051	0.039	0.044	0.078	0.063	0.055	0.060	0.051
0.402	0.004	0.000	0.002	0.001	-0.001	0.026	0.017	0.009	0.014	0.025
0.447	0.005	0.013	0.002	0.007	0.005	0.016	0.015	0.011	0.006	0.004
0.492	0.004	0.001	0.000	-0.000	0.000	0.016	0.015	0.012	0.007	0.006
0.529	0.004	0.005	0.002	0.004	0.003	0.020	0.018	0.014	0.010	0.005
0.592	0.004	0.002	0.005	0.008	0.007	0.013	0.014	0.012	0.005	0.006
0.655	0.011	0.085	0.003	0.005	0.003	0.020	0.121	0.007	0.005	0.000
0.661	-0.014	-0.072	-0.025	-0.033	-0.032	-0.008	0.000	-0.024	-0.035	-0.037
0.687	-0.063	-0.002	-0.044	-0.038	0.019	-0.053	0.010	-0.042	-0.042	-0.047

TABLE IV.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty=2.35$  - Continued

(c)  $\alpha = 0.1^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.218	1.226	1.231	1.228	1.239	1.219	1.223	1.220	1.212	1.211
0.226	0.413	0.415	0.420	0.424	0.414	0.401	0.409	0.395	0.399	0.394
0.238	0.189	0.199	0.202	0.203	0.203	0.202	0.189	0.196	0.191	0.190
0.251	0.206	0.201	0.225	0.210	0.206	0.206	0.219	0.199	0.196	0.192
0.269	0.212	0.215	0.214	0.222	0.222	0.214	0.220	0.212	0.209	0.205
0.286	0.160	0.164	0.166	0.169	0.170	0.168	0.165	0.162	0.161	0.159
0.292	-0.059	-0.026	-0.070	-0.067	-0.001	-0.068	-0.069	-0.070	-0.073	-0.072
0.322	-0.050	-0.000	-0.037	-0.053	-0.059	-0.047	-0.059	-0.049	-0.042	0.130
0.352	-0.057	-0.089	-0.084	-0.042	-0.041	-0.046	-0.047	-0.045	-0.062	-0.127
0.381	-0.029	-0.028	-0.002	-0.053	-0.028	-0.039	-0.031	-0.042	-0.013	-0.026
0.392	0.065	0.067	0.061	0.044	0.047	0.064	0.046	0.045	0.065	0.058
0.402	0.010	0.005	0.015	0.013	0.001	0.016	0.007	0.009	0.020	0.026
0.447	0.010	0.019	0.010	0.012	0.009	0.008	0.010	0.008	0.007	0.007
0.492	0.009	0.006	0.005	0.004	0.004	0.008	0.008	0.010	0.009	0.009
0.529	0.011	0.011	0.007	0.007	0.007	0.012	0.013	0.011	0.011	0.009
0.592	0.008	0.006	0.010	0.013	0.010	0.005	0.007	0.008	0.005	0.009
0.655	0.016	0.111	0.008	0.009	0.006	0.018	0.105	0.004	0.005	0.003
0.661	-0.009	-0.070	-0.023	-0.028	-0.029	-0.013	-0.000	-0.024	-0.034	-0.034
0.687	-0.061	0.011	-0.038	-0.033	0.022	-0.061	0.001	-0.044	-0.041	-0.045

(d)  $\alpha = 1.9^\circ$

0.223	1.273	1.276	1.269	1.244	1.236	1.166	1.173	1.180	1.192	1.205
0.226	0.465	0.464	0.456	0.439	0.411	0.354	0.365	0.361	0.380	0.390
0.238	0.229	0.236	0.233	0.215	0.203	0.167	0.155	0.171	0.179	0.189
0.251	0.244	0.236	0.249	0.221	0.212	0.174	0.188	0.174	0.186	0.191
0.269	0.253	0.252	0.241	0.232	0.221	0.179	0.181	0.186	0.196	0.203
0.286	0.196	0.198	0.193	0.180	0.169	0.135	0.132	0.135	0.146	0.156
0.292	-0.046	-0.013	-0.058	-0.062	-0.002	-0.084	-0.084	-0.083	-0.080	-0.074
0.322	-0.037	-0.002	-0.028	-0.052	-0.061	-0.060	-0.067	-0.057	-0.050	0.121
0.352	-0.035	-0.083	-0.084	-0.039	-0.048	-0.059	-0.056	-0.055	-0.072	-0.139
0.381	-0.023	-0.023	-0.002	-0.055	-0.042	-0.043	-0.035	-0.051	0.183	-0.034
0.392	0.075	0.071	0.075	0.053	0.043	0.049	0.038	0.048	0.064	0.052
0.402	0.023	0.013	0.016	0.016	-0.002	0.005	0.000	0.006	0.010	0.026
0.447	0.014	0.025	0.014	0.010	0.005	0.004	0.006	0.003	0.003	0.004
0.492	0.013	0.010	0.008	0.003	0.000	0.002	0.002	0.003	0.005	0.006
0.529	0.017	0.016	0.009	0.006	0.004	0.006	0.006	0.005	0.006	0.004
0.592	0.014	0.013	0.013	0.013	0.007	-0.001	-0.000	0.004	0.000	0.005
0.655	0.019	0.120	0.011	0.008	0.003	0.016	0.083	-0.001	-0.000	-0.001
0.661	-0.008	-0.063	-0.021	-0.031	-0.033	-0.020	-0.001	-0.029	-0.039	-0.038
0.687	-0.055	0.011	-0.037	-0.033	0.018	-0.065	-0.010	-0.047	-0.045	-0.047

TABLE IV. - PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty = 2.35$  - Continued

(e)  $\alpha = 3.9^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.328	1.326	1.306	1.260	1.238	1.114	1.122	1.141	1.175	1.203
0.226	0.519	0.515	0.495	0.454	0.415	0.310	0.325	0.330	0.365	0.390
0.238	0.272	0.278	0.264	0.230	0.206	0.133	0.124	0.145	0.166	0.190
0.251	0.288	0.278	0.281	0.233	0.209	0.140	0.157	0.148	0.172	0.190
0.269	0.296	0.292	0.272	0.245	0.221	0.151	0.151	0.161	0.180	0.199
0.286	0.235	0.235	0.218	0.188	0.167	0.110	0.110	0.116	0.137	0.151
0.292	-0.026	0.001	-0.045	-0.058	-0.002	-0.095	-0.094	-0.092	-0.086	-0.076
0.322	-0.017	0.009	-0.017	-0.050	-0.064	-0.071	-0.078	-0.069	-0.059	-0.113
0.352	-0.019	-0.077	-0.080	-0.044	-0.055	-0.068	-0.059	-0.061	-0.085	-0.150
0.381	-0.019	-0.014	-0.002	-0.055	-0.048	0.166	-0.048	-0.053	-0.023	-0.043
0.392	0.091	0.083	0.081	0.060	0.041	0.055	0.034	0.038	0.060	0.039
0.402	0.037	0.024	0.021	0.016	-0.004	0.003	0.205	-0.000	0.003	0.011
0.447	0.026	0.035	0.020	0.004	-0.006	0.000	0.001	-0.002	-0.005	-0.004
0.492	0.024	0.019	0.011	-0.002	-0.006	0.000	0.000	-0.002	-0.004	-0.002
0.529	0.029	0.024	0.012	0.001	-0.004	0.002	0.000	-0.002	-0.002	-0.005
0.592	0.025	0.021	0.016	0.009	-0.000	-0.005	-0.004	-0.004	-0.007	0.000
0.655	0.027	0.138	0.013	0.003	-0.003	0.013	0.069	-0.007	-0.009	-0.008
0.661	0.002	-0.067	-0.020	-0.035	-0.041	-0.024	-0.000	-0.034	-0.047	0.047
0.687	-0.045	0.024	-0.038	-0.037	0.012	-0.063	-0.018	-0.048	-0.052	-0.055

(f)  $\alpha = 5.9^\circ$

0.223	1.378	1.374	1.340	1.272	1.231	1.055	1.067	1.094	1.146	1.191
0.226	0.574	0.567	0.532	0.469	0.412	0.264	0.281	0.296	0.348	0.384
0.238	0.321	0.324	0.295	0.241	0.203	0.102	0.096	0.121	0.152	0.186
0.251	0.334	0.322	0.310	0.242	0.205	0.115	0.133	0.124	0.157	0.183
0.269	0.346	0.339	0.305	0.255	0.217	0.124	0.131	0.140	0.166	0.193
0.286	0.278	0.276	0.246	0.199	0.165	0.085	0.087	0.096	0.123	0.148
0.292	-0.008	0.017	-0.033	-0.054	-0.002	-0.105	-0.104	-0.099	-0.091	-0.078
0.322	0.004	0.027	-0.009	-0.051	-0.069	-0.087	-0.088	-0.079	-0.067	0.094
0.352	-0.004	-0.072	-0.075	-0.052	-0.063	-0.074	-0.060	-0.077	-0.096	-0.151
0.381	-0.007	-0.001	-0.004	-0.058	-0.062	0.164	-0.050	-0.053	-0.037	-0.056
0.392	0.107	0.098	0.085	0.058	0.028	0.039	0.032	0.029	0.028	0.017
0.402	0.050	0.037	0.027	0.006	-0.011	0.002	-0.002	-0.008	-0.022	-0.002
0.447	0.044	0.034	0.022	-0.001	-0.026	-0.001	-0.002	-0.011	-0.015	-0.021
0.492	0.037	0.032	0.014	-0.014	-0.022	-0.002	-0.005	-0.009	-0.018	-0.018
0.529	0.041	0.036	0.012	-0.009	-0.020	-0.001	-0.004	-0.012	-0.017	-0.019
0.592	0.038	0.032	0.016	-0.000	-0.014	-0.009	-0.008	-0.011	-0.021	-0.017
0.655	0.040	0.149	0.015	-0.005	-0.014	0.009	0.072	-0.014	-0.023	-0.023
0.661	0.012	-0.064	-0.021	-0.045	-0.053	-0.027	-0.001	-0.036	-0.061	-0.059
0.687	-0.034	0.032	-0.040	-0.045	0.002	-0.067	-0.011	-0.061	-0.066	-0.069

TABLE IV .- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_5$  FOR  $M_\infty = 2.35$  - Concluded

(g)  $\alpha = 7.9^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.223	1.423	1.415	1.369	1.281	1.226	1.003	1.016	1.055	1.120	1.181
0.226	0.632	0.622	0.574	0.484	0.412	0.227	0.245	0.265	0.333	0.380
0.238	0.371	0.371	0.332	0.255	0.204	0.076	0.071	0.102	0.142	0.185
0.251	0.387	0.369	0.345	0.256	0.206	0.091	0.112	0.103	0.145	0.180
0.269	0.397	0.388	0.339	0.264	0.210	0.104	0.100	0.119	0.147	0.187
0.286	0.326	0.320	0.277	0.207	0.159	0.066	0.067	0.074	0.110	0.140
0.292	0.014	0.036	-0.017	-0.051	-0.001	-0.111	-0.112	-0.109	-0.097	-0.081
0.322	0.028	0.048	0.001	-0.051	-0.075	-0.093	-0.093	-0.089	-0.076	0.073
0.352	0.019	-0.061	-0.061	-0.057	-0.070	-0.076	-0.065	-0.091	-0.107	-0.157
0.381	0.004	0.012	-0.001	-0.058	-0.081	-0.039	-0.049	-0.061	-0.054	-0.075
0.392	0.129	0.118	0.092	0.039	0.004	0.038	0.028	0.017	0.011	-0.010
0.402	0.070	0.060	0.035	-0.004	-0.034	0.002	-0.004	-0.025	-0.040	-0.030
0.447	0.063	0.065	0.025	-0.014	-0.042	-0.001	-0.004	-0.020	-0.043	-0.046
0.492	0.054	0.047	0.020	-0.023	-0.052	-0.004	-0.010	-0.022	-0.039	-0.041
0.529	0.058	0.050	0.017	-0.029	-0.044	-0.004	-0.009	-0.020	-0.037	-0.042
0.592	0.056	0.047	0.019	-0.016	-0.036	-0.010	-0.016	-0.020	-0.039	-0.038
0.655	0.056	0.161	0.015	-0.019	-0.037	-0.004	0.075	-0.020	-0.040	-0.044
0.661	0.027	-0.057	-0.020	-0.057	-0.068	-0.032	-0.000	-0.038	-0.075	-0.077
0.687	-0.020	0.040	-0.041	-0.057	-0.010	-0.073	-0.020	-0.067	-0.079	-0.087

(h)  $\alpha = 9.9^\circ$

0.223	1.466	1.456	1.397	1.285	1.214	0.948	0.963	1.008	1.092	1.165
0.226	0.694	0.681	0.612	0.497	0.408	0.188	0.207	0.236	0.313	0.375
0.238	0.429	0.419	0.366	0.267	0.202	0.067	0.057	0.079	0.129	0.182
0.251	0.453	0.423	0.381	0.267	0.200	0.065	0.086	0.078	0.126	0.173
0.269	0.464	0.440	0.370	0.271	0.203	0.081	0.075	0.091	0.124	0.174
0.286	0.376	0.371	0.305	0.211	0.151	0.050	0.046	0.051	0.087	0.129
0.292	0.036	0.056	-0.003	-0.049	-0.002	-0.118	-0.119	-0.121	-0.108	-0.085
0.322	0.036	0.181	0.042	-0.053	-0.085	-0.098	-0.100	-0.102	-0.094	0.050
0.352	0.041	-0.048	-0.055	-0.064	-0.084	-0.079	-0.074	-0.110	-0.112	-0.169
0.381	0.026	0.026	-0.001	-0.060	-0.096	-0.040	-0.047	-0.075	-0.078	-0.111
0.392	0.152	0.135	0.099	0.027	-0.024	0.041	0.021	0.008	-0.048	-0.041
0.402	0.086	0.073	0.045	-0.015	-0.060	-0.000	-0.009	-0.042	-0.079	-0.053
0.447	0.087	0.084	0.032	-0.028	-0.068	-0.004	-0.016	-0.034	-0.079	-0.077
0.492	0.077	0.063	0.024	-0.044	-0.072	-0.008	-0.024	-0.035	-0.068	-0.079
0.529	0.078	0.067	0.022	-0.043	-0.080	-0.006	-0.026	-0.032	-0.062	-0.083
0.592	0.077	0.064	0.024	-0.034	-0.075	-0.015	-0.035	-0.031	-0.061	-0.067
0.655	0.078	0.178	0.020	-0.046	-0.061	-0.013	0.009	-0.034	-0.060	-0.071
0.661	0.046	-0.048	-0.016	-0.082	-0.095	-0.049	-0.000	-0.052	-0.092	-0.101
0.687	-0.002	0.042	-0.041	-0.081	-0.026	-0.075	-0.037	-0.077	-0.094	-0.112

TABLE V. - PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE N<sub>7</sub> FOR M<sub>∞</sub>=1.55

(a)  $\alpha = -4.0^\circ$

Axial position x/l	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.231	1.000	0.976	1.002	1.036	1.089	1.226	1.217	1.178	1.140	1.113
0.234	0.517	0.517	0.550	0.617	0.662	0.834	0.835	0.799	0.731	0.675
0.246	0.641	0.629	0.648	0.669	0.682	0.769	0.721	0.746	0.712	0.692
0.251	-0.021	-0.056	-0.030	-0.031	-0.017	0.037	0.049	0.020	-0.001	-0.017
0.268	0.074	0.089	0.096	0.142	0.159	0.254	0.264	0.233	0.193	0.161
0.286	0.133	0.136	0.146	0.180	0.201	0.277	0.269	0.257	0.220	0.200
0.292	-0.307	-0.203	-0.224	-0.211	-0.206	-0.162	-0.167	-0.173	-0.192	-0.204
0.322	-0.138	-0.014	-0.004	-0.141	-0.127	-0.080	-0.088	-0.098	-0.032	0.143
0.352	-0.106	-0.162	-0.165	-0.065	-0.068	-0.073	-0.054	-0.037	-0.148	-0.226
0.381	-0.015	-0.040	0.003	-0.096	-0.086	-0.022	-0.055	-0.096	-0.051	-0.059
0.392	0.104	0.104	0.092	0.095	0.094	0.135	0.114	0.108	0.089	0.071
0.402	0.019	-0.039	-0.004	-0.004	0.003	0.021	0.011	0.006	-0.013	0.003
0.447	0.008	0.012	0.005	0.007	0.004	0.028	0.029	0.019	0.009	0.002
0.492	0.010	0.002	-0.001	-0.004	-0.004	0.032	0.035	0.028	0.015	0.010
0.529	0.017	0.015	0.006	0.002	0.002	0.044	0.036	0.026	0.013	0.005
0.592	0.006	0.005	0.010	0.012	0.014	0.043	0.046	0.040	0.022	0.018
0.655	0.049	0.116	0.027	0.013	0.013	0.094	0.197	0.051	0.018	0.004
0.661	-0.026	-0.187	-0.042	-0.070	-0.069	0.007	0.003	-0.024	-0.072	-0.074
0.687	-0.068	0.014	-0.081	-0.054	-0.028	-0.080	0.050	-0.081	-0.051	-0.058

(b)  $\alpha = -2.1^\circ$

0.231	1.034	1.033	1.048	1.061	1.095	1.168	1.156	1.146	1.123	1.115
0.234	0.597	0.598	0.616	0.651	0.671	0.758	0.764	0.746	0.714	0.681
0.246	0.678	0.665	0.680	0.684	0.693	0.739	0.696	0.729	0.714	0.704
0.251	-0.022	-0.038	-0.013	-0.019	-0.011	0.012	0.028	0.005	0.005	-0.011
0.268	0.112	0.129	0.123	0.160	0.163	0.211	0.207	0.198	0.179	0.164
0.286	0.170	0.172	0.174	0.191	0.202	0.241	0.239	0.237	0.208	0.197
0.292	-0.044	-0.188	-0.210	-0.202	-0.201	-0.176	-0.177	-0.185	-0.198	-0.199
0.322	-0.124	0.015	0.007	-0.123	-0.118	-0.097	-0.102	-0.105	-0.027	0.154
0.352	-0.113	-0.165	-0.153	-0.063	-0.046	-0.088	-0.058	-0.054	-0.142	-0.207
0.381	-0.027	-0.033	0.005	-0.077	-0.083	-0.032	-0.064	-0.080	-0.031	-0.046
0.392	0.107	0.108	0.102	0.108	0.102	0.124	0.112	0.107	0.100	0.097
0.402	0.021	-0.027	0.006	0.009	0.010	0.017	0.022	0.011	0.000	0.007
0.447	0.008	0.014	0.009	0.015	0.013	0.020	0.025	0.021	0.021	0.015
0.492	0.014	0.008	0.005	0.008	0.003	0.025	0.028	0.029	0.023	0.020
0.529	0.020	0.022	0.014	0.012	0.013	0.035	0.033	0.029	0.022	0.016
0.592	0.014	0.013	0.022	0.026	0.022	0.032	0.035	0.037	0.026	0.031
0.655	0.057	0.145	0.041	0.025	0.025	0.082	0.186	0.049	0.026	0.015
0.661	-0.024	-0.166	-0.030	-0.060	-0.058	-0.004	0.005	-0.025	-0.064	-0.063
0.687	-0.069	0.022	-0.081	-0.042	-0.015	-0.080	0.041	-0.080	-0.039	-0.044

TABLE V. - PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_7$  FOR  $M_\infty=1.55$  - Continued

(c)  $\alpha = 0.1^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.231	1.115	1.095	1.095	1.083	1.098	1.108	1.097	1.101	1.103	1.114
0.234	0.683	0.683	0.683	0.684	0.678	0.683	0.695	0.696	0.694	0.686
0.246	0.709	0.700	0.705	0.704	0.705	0.708	0.667	0.711	0.713	0.714
0.251	-0.005	-0.013	0.005	-0.009	-0.006	-0.011	0.005	-0.007	-0.009	-0.006
0.268	0.155	0.169	0.155	0.174	0.167	0.164	0.165	0.165	0.161	0.157
0.286	0.202	0.204	0.201	0.202	0.200	0.205	0.204	0.211	0.196	0.195
0.292	-0.189	-0.172	-0.195	-0.195	-0.198	-0.195	-0.194	-0.195	-0.200	-0.200
0.322	-0.112	0.043	0.013	-0.116	-0.113	-0.113	-0.117	-0.116	-0.030	0.155
0.352	-0.099	-0.166	-0.149	-0.068	-0.038	-0.100	-0.066	-0.073	-0.140	-0.194
0.381	-0.030	-0.031	0.005	-0.061	-0.082	-0.033	-0.058	-0.067	-0.014	-0.037
0.392	0.112	0.115	0.114	0.110	0.112	0.115	0.113	0.109	0.106	0.106
0.402	0.017	-0.012	0.008	0.013	0.014	0.016	0.022	0.012	0.010	0.013
0.447	0.010	0.014	0.010	0.018	0.015	0.013	0.016	0.018	0.019	0.019
0.492	0.019	0.014	0.012	0.014	0.010	0.016	0.020	0.024	0.023	0.022
0.529	0.016	0.027	0.018	0.016	0.016	0.024	0.023	0.022	0.022	0.018
0.592	0.021	0.021	0.028	0.031	0.027	0.021	0.024	0.030	0.032	0.032
0.655	0.069	0.161	0.047	0.030	0.028	0.069	0.167	0.043	0.025	0.018
0.661	-0.017	-0.156	-0.024	-0.057	-0.055	-0.020	-0.001	-0.030	-0.064	-0.060
0.687	-0.076	0.030	-0.077	-0.037	-0.012	-0.075	0.027	-0.082	-0.038	-0.043

(d)  $\alpha = 1.9^\circ$

0.231	1.164	1.154	1.136	1.101	1.096	1.046	1.037	1.058	1.086	1.115
0.234	0.766	0.757	0.740	0.708	0.677	0.594	0.610	0.631	0.663	0.683
0.246	0.738	0.730	0.723	0.706	0.697	0.677	0.635	0.682	0.693	0.702
0.251	0.039	0.007	0.019	-0.002	-0.007	-0.032	-0.014	-0.028	-0.019	-0.011
0.268	0.201	0.202	0.184	0.175	0.170	0.131	0.122	0.135	0.147	0.158
0.286	0.237	0.235	0.222	0.212	0.200	0.171	0.171	0.185	0.183	0.194
0.292	-0.170	-0.158	-0.187	-0.195	-0.200	-0.210	-0.211	-0.210	-0.207	-0.203
0.322	-0.097	0.077	0.016	-0.113	-0.114	-0.129	-0.133	-0.128	-0.049	0.138
0.352	-0.083	-0.164	-0.145	-0.077	-0.043	-0.107	-0.075	-0.089	-0.150	-0.219
0.381	-0.030	-0.031	0.004	-0.055	-0.083	-0.020	-0.056	-0.056	-0.031	-0.049
0.392	0.119	0.119	0.130	0.109	0.105	0.109	0.111	0.106	0.112	0.108
0.402	0.007	0.003	-0.000	0.007	0.009	0.016	0.015	0.011	-0.004	0.012
0.447	0.015	0.017	0.013	0.017	0.010	0.009	0.009	0.010	0.017	0.013
0.492	0.026	0.020	0.016	0.012	0.006	0.013	0.015	0.016	0.020	0.020
0.529	0.032	0.031	0.021	0.015	0.013	0.015	0.015	0.015	0.017	0.015
0.592	0.031	0.030	0.034	0.031	0.024	0.015	0.017	0.020	0.028	0.030
0.655	0.082	0.171	0.052	0.030	0.024	0.056	0.145	0.037	0.019	0.015
0.661	-0.003	-0.151	-0.020	-0.058	-0.058	-0.033	0.004	-0.036	-0.067	-0.064
0.687	-0.082	0.041	-0.076	-0.039	-0.013	-0.066	0.012	-0.087	-0.041	-0.047



TABLE V.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_7$  FOR  $M_\infty = 1.55$  - Continued

(e)  $\alpha = 3.9^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.231	1.229	1.213	1.180	1.115	1.091	0.984	0.976	1.009	1.062	1.111
0.234	0.845	0.830	0.794	0.726	0.670	0.516	0.527	0.564	0.627	0.673
0.246	0.770	0.761	0.743	0.708	0.691	0.643	0.605	0.652	0.678	0.692
0.251	0.039	0.032	0.037	0.002	-0.011	-0.050	-0.036	-0.047	-0.029	-0.014
0.268	0.254	0.254	0.223	0.193	0.167	0.096	0.086	0.114	0.133	0.158
0.286	0.277	0.273	0.249	0.224	0.198	0.138	0.138	0.158	0.172	0.191
0.292	-0.156	-0.142	-0.171	-0.189	-0.203	-0.229	-0.227	-0.222	-0.217	-0.199
0.322	-0.079	0.111	0.007	-0.113	-0.122	-0.136	-0.146	-0.140	-0.075	-0.110
0.352	-0.068	-0.159	-0.136	-0.088	-0.062	-0.105	-0.082	-0.104	-0.174	-0.253
0.381	-0.020	-0.026	0.004	-0.053	-0.084	-0.014	-0.030	-0.048	-0.042	-0.055
0.392	0.132	0.123	0.138	0.098	0.100	0.109	0.110	0.102	0.116	0.081
0.402	0.020	0.017	0.003	0.009	0.000	0.020	0.022	0.013	-0.010	-0.002
0.447	0.024	0.024	0.015	0.011	0.004	0.008	0.009	0.004	0.013	0.003
0.492	0.037	0.029	0.019	0.005	-0.002	0.010	0.011	0.011	0.009	0.011
0.529	0.036	0.039	0.022	0.011	0.006	0.010	0.010	0.008	0.007	0.005
0.592	0.043	0.039	0.038	0.025	0.016	0.013	-0.268	0.013	0.016	0.023
0.655	0.096	0.183	0.056	0.026	0.016	0.046	0.122	0.031	0.009	0.007
0.661	0.013	-0.148	-0.019	-0.061	-0.065	-0.039	0.004	-0.055	-0.079	-0.071
0.687	-0.081	0.053	-0.074	-0.046	-0.022	-0.065	-0.002	-0.088	-0.051	-0.057

(f)  $\alpha = 5.9^\circ$

0.231	1.287	1.266	1.217	1.133	1.088	0.931	0.923	0.966	1.039	1.105
0.234	0.918	0.900	0.845	0.745	0.664	0.436	0.440	0.488	0.588	0.663
0.246	0.800	0.792	0.760	0.707	0.674	0.608	0.574	0.625	0.647	0.676
0.251	0.073	0.062	0.055	0.005	-0.016	-0.064	-0.049	-0.066	-0.040	-0.021
0.268	0.309	0.305	0.262	0.209	0.165	0.062	0.052	0.085	0.118	0.158
0.286	0.322	0.313	0.276	0.233	0.196	0.106	0.106	0.131	0.154	0.189
0.292	-0.055	-0.121	-0.156	-0.185	-0.204	-0.245	-0.243	-0.235	-0.223	-0.205
0.322	-0.057	0.146	0.032	-0.115	-0.131	-0.138	-0.155	-0.156	-0.092	0.092
0.352	-0.050	-0.152	-0.123	-0.099	-0.091	-0.102	-0.088	-0.113	-0.192	-0.262
0.381	-0.005	-0.016	0.005	-0.059	-0.088	0.009	0.002	-0.042	-0.054	-0.071
0.392	0.150	0.131	0.132	0.090	0.062	0.107	0.106	0.100	0.096	0.056
0.402	0.032	0.026	0.001	-0.012	-0.025	0.018	0.023	0.006	-0.053	-0.013
0.447	0.036	0.034	0.008	0.000	-0.010	0.007	0.005	-0.001	-0.008	-0.014
0.492	0.048	0.038	0.018	-0.005	-0.017	0.006	0.005	0.003	-0.005	-0.004
0.529	0.055	0.050	0.024	0.001	-0.006	0.012	0.010	0.000	-0.007	-0.008
0.592	0.060	0.053	0.040	0.013	0.002	0.013	0.011	0.008	0.000	0.009
0.655	0.113	0.195	0.060	0.017	0.002	0.046	0.103	0.013	-0.003	-0.007
0.661	0.030	-0.141	-0.016	-0.070	-0.077	-0.040	0.005	-0.040	-0.090	-0.084
0.687	-0.072	0.064	-0.073	-0.060	-0.035	-0.069	-0.006	-0.095	-0.064	-0.072

TABLE V. - PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_7$  FOR  $M_\infty=1.55$  - Concluded

(g)  $\alpha = 7.9^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.231	1.338	1.317	1.252	1.146	1.083	0.873	0.866	0.920	1.012	1.096
0.234	0.986	0.963	0.890	0.760	0.657	0.349	0.351	0.416	0.554	0.653
0.246	0.832	0.819	0.773	0.697	0.653	0.570	0.534	0.587	0.612	0.652
0.251	0.109	0.093	0.073	0.003	-0.028	-0.083	-0.068	-0.081	-0.058	-0.032
0.268	0.363	0.362	0.299	0.225	0.166	0.029	0.014	0.057	0.101	0.154
0.286	0.368	0.356	0.306	0.235	0.186	0.074	0.075	0.101	0.136	0.174
0.292	-0.071	-0.103	-0.149	-0.182	-0.209	-0.258	-0.258	-0.254	-0.236	-0.214
0.322	-0.031	0.182	0.035	-0.118	-0.144	-0.137	-0.159	-0.171	-0.123	0.050
0.352	-0.029	-0.146	-0.108	-0.114	-0.130	-0.102	-0.097	-0.125	-0.201	-0.229
0.381	0.011	-0.007	0.004	-0.080	-0.098	0.012	0.013	-0.037	-0.081	-0.094
0.392	0.174	0.144	0.119	0.081	0.023	0.107	0.097	0.088	0.029	0.020
0.402	0.043	0.030	0.008	-0.034	-0.067	0.018	0.020	-0.014	-0.039	-0.047
0.447	0.049	0.043	0.003	-0.019	-0.035	0.010	0.003	-0.007	-0.022	-0.037
0.492	0.059	0.045	0.015	-0.024	-0.040	0.002	-0.003	-0.013	-0.026	-0.028
0.529	0.068	0.062	0.024	-0.015	-0.028	0.003	-0.001	-0.007	-0.024	-0.031
0.592	0.078	0.067	0.040	-0.002	-0.020	0.005	0.002	0.000	0.021	-0.014
0.655	0.134	0.206	0.061	0.001	-0.019	0.053	0.104	-0.000	-0.022	-0.029
0.661	0.050	-0.135	-0.016	-0.084	-0.097	-0.028	0.004	-0.052	-0.106	-0.104
0.687	-0.061	0.058	-0.073	-0.080	-0.058	-0.106	-0.001	-0.087	-0.084	-0.094

(h)  $\alpha = 9.9^\circ$

0.231	1.388	1.361	1.284	1.152	1.073	0.812	0.807	0.870	0.980	1.081
0.234	1.049	1.021	0.932	0.770	0.645	0.258	0.264	0.352	0.517	0.637
0.246	0.859	0.845	0.780	0.681	0.619	0.526	0.488	0.537	0.569	0.619
0.251	0.150	0.131	0.092	0.002	-0.041	-0.100	-0.090	-0.104	-0.081	-0.047
0.268	0.417	0.412	0.337	0.239	0.175	-0.006	-0.022	0.010	0.082	0.142
0.286	0.423	0.399	0.329	0.237	0.173	0.055	0.054	0.073	0.104	0.154
0.292	-0.080	-0.086	-0.138	-0.181	-0.218	-0.267	-0.268	-0.269	-0.251	-0.224
0.322	-0.004	0.221	0.047	-0.123	-0.161	-0.137	-0.167	-0.192	-0.157	-0.000
0.352	-0.006	-0.135	-0.089	-0.128	-0.163	-0.105	-0.108	-0.135	-0.220	-0.288
0.381	0.025	0.005	0.003	-0.118	-0.131	0.015	0.015	-0.031	-0.147	-0.146
0.392	0.202	0.162	0.112	0.036	-0.007	0.107	0.083	0.075	0.001	-0.027
0.402	0.066	0.043	0.003	-0.060	-0.106	0.013	0.008	-0.041	-0.052	-0.085
0.447	0.063	0.057	0.008	-0.057	-0.069	0.007	-0.010	-0.028	-0.047	-0.066
0.492	0.072	0.052	0.005	-0.051	-0.072	0.004	-0.013	-0.021	-0.051	-0.061
0.529	0.085	0.061	0.021	-0.038	-0.059	0.001	-0.017	-0.019	-0.042	-0.059
0.592	0.097	0.082	0.037	-0.025	-0.049	0.001	-0.017	-0.013	-0.048	-0.045
0.655	0.154	0.217	0.060	-0.019	-0.048	0.049	0.091	-0.017	-0.047	-0.059
0.661	0.065	-0.129	-0.017	-0.103	-0.123	-0.024	0.003	-0.059	-0.127	-0.130
0.687	-0.045	0.079	-0.073	-0.106	-0.085	-0.169	0.000	-0.090	-0.110	-0.123

TABLE VI. - PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_7$  FOR  $M_\infty = 1.75$

(a)  $\alpha = -4.0^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.231	1.021	1.021	1.038	1.072	1.123	1.251	1.240	1.214	1.172	1.147
0.234	0.385	0.387	0.419	0.489	0.544	0.746	0.748	0.707	0.632	0.565
0.246	0.631	0.635	0.645	0.680	0.699	0.813	0.769	0.786	0.742	0.717
0.251	0.034	0.025	0.051	0.051	0.067	0.122	0.141	0.105	0.084	0.070
0.268	0.096	0.112	0.112	0.154	0.166	0.250	0.256	0.229	0.195	0.178
0.286	0.132	0.135	0.145	0.175	0.196	0.275	0.267	0.252	0.221	0.202
0.292	-0.164	-0.140	-0.166	-0.151	-0.146	-0.101	-0.103	-0.111	-0.129	-0.139
0.322	-0.108	-0.000	0.009	-0.104	-0.094	-0.024	-0.049	-0.058	-0.030	0.161
0.352	-0.081	-0.134	-0.139	-0.046	-0.053	-0.040	-0.020	-0.009	-0.103	-0.184
0.381	-0.021	-0.028	0.006	-0.089	-0.067	-0.009	-0.036	-0.061	-0.024	-0.049
0.392	0.095	0.097	0.085	0.078	0.073	0.132	0.115	0.077	0.090	0.071
0.402	0.017	-0.009	0.011	0.007	-0.002	0.039	0.019	0.011	0.001	0.017
0.447	0.014	0.020	0.008	0.011	0.008	0.033	0.027	0.013	0.004	-0.002
0.492	0.006	0.005	0.004	-0.000	-0.000	0.031	0.028	0.020	0.009	0.003
0.529	0.009	0.008	0.001	-0.000	0.003	0.035	0.035	0.026	0.012	0.002
0.592	0.005	0.000	0.002	0.006	0.008	0.034	0.034	0.028	0.015	0.013
0.655	0.043	0.103	0.019	0.000	-0.003	0.072	0.183	0.037	0.012	0.000
0.661	-0.013	-0.142	-0.034	-0.068	-0.067	0.011	0.005	-0.018	-0.060	-0.066
0.687	-0.078	0.010	-0.071	-0.051	-0.023	-0.072	0.041	-0.070	-0.044	-0.052

(b)  $\alpha = -2.1^\circ$

0.231	1.075	1.072	1.079	1.093	1.127	1.194	1.183	1.173	1.153	1.147
0.234	0.445	0.444	0.463	0.497	0.521	0.637	0.645	0.624	0.582	0.543
0.246	0.671	0.673	0.678	0.692	0.704	0.771	0.730	0.757	0.733	0.719
0.251	0.051	0.045	0.069	0.060	0.071	0.097	0.121	0.090	0.080	0.072
0.268	0.133	0.146	0.139	0.170	0.173	0.199	0.211	0.203	0.186	0.170
0.286	0.161	0.165	0.172	0.192	0.203	0.231	0.230	0.230	0.208	0.199
0.292	-0.146	-0.131	-0.155	-0.145	-0.142	-0.122	-0.123	-0.128	-0.137	-0.138
0.322	-0.098	0.021	0.013	-0.096	-0.090	-0.062	-0.072	-0.068	-0.019	0.168
0.352	-0.076	-0.135	-0.129	-0.048	-0.036	-0.057	-0.030	-0.028	-0.107	-0.172
0.381	-0.024	-0.028	0.007	-0.067	-0.055	-0.021	-0.050	-0.065	-0.019	-0.036
0.392	0.096	0.103	0.093	0.093	0.087	0.116	0.099	0.091	0.096	0.094
0.402	0.014	-0.004	0.018	0.017	0.014	0.025	0.015	0.015	0.011	0.023
0.447	0.016	0.022	0.017	0.021	0.020	0.027	0.023	0.012	0.009	0.005
0.492	0.008	0.008	0.009	0.008	0.007	0.023	0.023	0.020	0.015	0.013
0.529	0.013	0.013	0.009	0.010	0.011	0.026	0.026	0.023	0.018	0.012
0.592	0.008	0.006	0.010	0.016	0.018	0.021	0.022	0.024	0.020	0.022
0.655	0.049	0.131	0.020	0.009	0.004	0.060	0.168	0.035	0.018	0.008
0.661	-0.012	-0.127	-0.032	-0.059	-0.058	-0.001	0.004	-0.021	-0.054	-0.054
0.687	-0.080	0.017	-0.067	-0.044	-0.015	-0.080	0.031	-0.071	-0.042	-0.045

TABLE VI.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE N<sub>7</sub> FOR M<sub>∞</sub>=1.75 - Continued

(c)  $\alpha = 0.1^\circ$

Axial position x/l	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.231	1.132	1.126	1.122	1.113	1.130	1.140	1.130	1.135	1.137	1.147
0.234	0.527	0.522	0.522	0.520	0.520	0.535	0.548	0.548	0.544	0.532
0.246	0.717	0.719	0.713	0.715	0.718	0.728	0.691	0.731	0.729	0.733
0.251	0.080	0.066	0.086	0.071	0.074	0.075	0.100	0.076	0.075	0.079
0.268	0.163	0.176	0.165	0.182	0.177	0.180	0.174	0.180	0.173	0.169
0.286	0.198	0.201	0.199	0.205	0.203	0.201	0.200	0.209	0.198	0.197
0.292	-0.123	-0.113	-0.138	-0.137	-0.139	-0.139	-0.138	-0.137	-0.141	-0.138
0.322	-0.085	0.047	0.017	-0.090	-0.088	-0.085	-0.088	-0.079	-0.017	0.166
0.352	-0.065	-0.132	-0.124	-0.053	-0.029	-0.069	-0.037	-0.046	-0.105	-0.160
0.381	-0.021	-0.025	0.005	-0.050	-0.065	-0.028	-0.056	-0.056	-0.004	-0.030
0.392	0.103	0.108	0.109	0.100	0.093	0.105	0.094	0.095	0.102	0.106
0.402	0.013	0.008	0.021	0.021	0.023	0.016	0.015	0.015	0.024	0.035
0.447	0.019	0.027	0.020	0.028	0.021	0.020	0.020	0.014	0.009	0.008
0.492	0.014	0.013	0.014	0.014	0.012	0.018	0.018	0.018	0.016	0.015
0.529	0.018	0.021	0.015	0.015	0.014	0.019	0.019	0.020	0.020	0.017
0.592	0.014	0.014	0.017	0.022	0.021	0.012	0.014	0.020	0.020	0.026
0.655	0.060	0.144	0.022	0.015	0.008	0.053	0.152	0.031	0.019	0.012
0.661	-0.004	-0.120	-0.032	-0.054	-0.055	-0.011	0.004	-0.024	-0.052	-0.049
0.687	-0.079	0.027	-0.063	-0.040	-0.011	-0.087	0.018	-0.071	-0.037	-0.042

(d)  $\alpha = 1.9^\circ$

0.231	1.189	1.179	1.161	1.130	1.133	1.094	1.085	1.102	1.124	1.150
0.234	0.636	0.626	0.603	0.557	0.530	0.457	0.474	0.491	0.521	0.540
0.246	0.766	0.761	0.746	0.730	0.716	0.676	0.640	0.690	0.707	0.728
0.251	0.100	0.090	0.104	0.081	0.071	0.050	0.079	0.057	0.063	0.077
0.268	0.198	0.203	0.198	0.189	0.176	0.151	0.142	0.155	0.162	0.168
0.286	0.230	0.230	0.221	0.214	0.202	0.168	0.169	0.187	0.189	0.199
0.292	-0.111	-0.099	-0.126	-0.132	-0.140	-0.157	-0.154	-0.151	-0.146	-0.138
0.322	-0.065	0.081	0.018	-0.086	-0.088	-0.099	-0.101	-0.091	-0.032	0.157
0.352	-0.054	-0.130	-0.122	-0.062	-0.033	-0.077	-0.046	-0.065	-0.116	-0.178
0.381	-0.014	-0.019	0.005	-0.039	-0.064	-0.016	-0.058	-0.048	-0.008	-0.038
0.392	0.116	0.111	0.127	0.102	0.091	0.093	0.089	0.091	0.109	0.101
0.402	0.018	0.022	0.017	0.021	0.018	0.012	0.012	0.010	0.013	0.033
0.447	0.026	0.032	0.024	0.025	0.018	0.017	0.014	0.010	0.010	0.005
0.492	0.021	0.019	0.017	0.013	0.009	0.012	0.012	0.011	0.013	0.014
0.529	0.026	0.028	0.020	0.012	0.012	0.014	0.013	0.014	0.016	0.014
0.592	0.023	0.021	0.024	0.022	0.019	0.007	0.009	0.015	0.017	0.023
0.655	0.063	0.150	0.026	0.015	0.005	0.045	0.131	0.026	0.015	0.010
0.661	0.007	-0.117	-0.027	-0.055	-0.057	-0.023	0.004	-0.029	-0.054	-0.052
0.687	-0.075	0.036	-0.063	-0.042	-0.013	-0.077	0.002	-0.074	-0.041	-0.045

TABLE VI.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_7$  FOR  $M_\infty = 1.75$  - Continued

(e)  $\alpha = 3.9^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.231	1.249	1.231	1.201	1.144	1.128	1.032	1.025	1.053	1.099	1.142
0.234	0.744	0.730	0.690	0.606	0.547	0.384	0.403	0.435	0.499	0.554
0.246	0.808	0.803	0.777	0.731	0.709	0.635	0.601	0.651	0.690	0.711
0.251	0.102	0.114	0.118	0.080	0.069	0.026	0.053	0.032	0.052	0.069
0.268	0.241	0.240	0.211	0.192	0.175	0.114	0.109	0.130	0.146	0.165
0.286	0.263	0.257	0.240	0.213	0.192	0.135	0.137	0.158	0.173	0.192
0.292	-0.094	-0.082	-0.113	-0.131	-0.145	-0.173	-0.171	-0.164	-0.155	-0.138
0.322	-0.034	0.060	-0.031	-0.085	-0.095	-0.110	-0.114	-0.105	-0.059	0.138
0.352	-0.040	-0.131	-0.122	-0.074	-0.052	-0.083	-0.055	-0.083	-0.134	-0.208
0.381	-0.009	-0.013	0.004	-0.037	-0.066	-0.032	-0.059	-0.051	-0.032	-0.049
0.392	0.132	0.122	0.125	0.100	0.076	0.090	0.086	0.080	0.104	0.078
0.402	0.030	0.025	0.024	0.013	0.001	0.018	0.014	0.007	0.003	0.010
0.447	0.033	0.038	0.022	0.016	0.009	0.014	0.012	0.004	0.000	-0.004
0.492	0.029	0.024	0.017	0.005	-0.003	0.008	0.007	0.006	0.004	0.004
0.529	0.033	0.034	0.019	0.007	0.001	0.010	0.008	0.004	0.005	0.004
0.592	0.033	0.029	0.024	0.017	0.008	0.003	0.003	0.006	0.005	0.012
0.655	0.066	0.161	0.028	0.009	-0.004	0.036	0.109	0.012	0.005	0.000
0.661	0.016	-0.117	-0.027	-0.059	-0.066	-0.031	-0.003	-0.050	-0.065	-0.061
0.687	-0.068	0.045	-0.065	-0.049	-0.023	-0.071	-0.012	-0.074	-0.051	-0.056

(f)  $\alpha = 5.9^\circ$

0.231	1.300	1.282	1.234	1.157	1.123	0.977	0.969	1.009	1.074	1.135
0.234	0.837	0.816	0.760	0.653	0.568	0.327	0.350	0.395	0.490	0.570
0.246	0.848	0.841	0.799	0.733	0.693	0.585	0.556	0.613	0.658	0.696
0.251	0.160	0.137	0.132	0.083	0.063	0.004	0.033	0.016	0.039	0.063
0.268	0.289	0.287	0.249	0.200	0.163	0.090	0.079	0.104	0.131	0.161
0.286	0.302	0.296	0.264	0.224	0.192	0.107	0.108	0.133	0.160	0.186
0.292	-0.078	-0.066	-0.104	-0.129	-0.148	-0.186	-0.184	-0.176	-0.164	-0.143
0.322	-0.013	0.154	0.036	-0.086	-0.102	-0.116	-0.122	-0.119	-0.076	0.115
0.352	-0.020	-0.121	-0.106	-0.085	-0.062	-0.091	-0.068	-0.100	-0.149	-0.210
0.381	0.004	-0.006	0.004	-0.048	-0.069	-0.018	-0.037	-0.056	-0.053	-0.067
0.392	0.155	0.131	0.119	0.089	0.054	0.089	0.085	0.074	0.076	0.048
0.402	0.048	0.036	0.016	0.004	-0.024	0.019	0.012	0.002	-0.031	-0.008
0.447	0.044	0.046	0.017	0.003	-0.007	0.012	0.009	-0.001	-0.013	-0.020
0.492	0.039	0.031	0.014	-0.007	-0.016	0.005	0.002	-0.001	-0.008	-0.009
0.529	0.045	0.043	0.019	-0.006	-0.014	0.005	0.002	-0.004	-0.010	-0.011
0.592	0.049	0.041	0.025	0.006	-0.006	-0.000	0.001	0.000	-0.009	-0.002
0.655	0.078	0.172	0.031	-0.001	-0.018	0.033	0.095	0.002	-0.009	-0.014
0.661	0.027	-0.117	-0.026	-0.071	-0.078	-0.032	0.003	-0.041	-0.078	-0.075
0.687	-0.057	0.052	-0.064	-0.061	-0.034	-0.076	-0.013	-0.084	-0.066	-0.071

TABLE VI.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE N<sub>7</sub> FOR M<sub>∞</sub>=1.75 - Concluded

(g)  $\alpha = 7.9^\circ$

Axial position x/l	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.231	1.356	1.334	1.274	1.168	1.117	0.923	0.917	0.965	1.051	1.129
0.234	0.928	0.901	0.827	0.691	0.581	0.271	0.296	0.353	0.478	0.582
0.246	0.886	0.874	0.818	0.727	0.665	0.537	0.512	0.568	0.619	0.675
0.251	0.190	0.164	0.148	0.081	0.050	-0.014	0.014	0.006	0.023	0.051
0.268	0.341	0.335	0.288	0.211	0.158	0.061	0.050	0.075	0.114	0.158
0.286	0.348	0.338	0.292	0.230	0.185	0.081	0.082	0.108	0.142	0.182
0.292	-0.054	-0.043	-0.091	-0.126	-0.151	-0.199	-0.197	-0.187	-0.172	-0.150
0.322	0.014	0.163	0.046	-0.087	-0.112	-0.124	-0.137	-0.134	-0.091	0.081
0.352	0.004	-0.117	-0.092	-0.091	-0.107	-0.087	-0.075	-0.118	-0.167	-0.194
0.381	0.015	0.003	0.005	-0.072	-0.082	-0.009	-0.020	-0.063	-0.076	-0.090
0.392	0.174	0.146	0.115	0.067	0.032	0.092	0.081	0.068	0.012	0.009
0.402	0.069	0.050	0.020	-0.013	-0.044	0.022	0.013	-0.015	-0.033	-0.044
0.447	0.057	0.061	0.021	-0.022	-0.033	0.010	0.003	-0.008	-0.028	-0.042
0.492	0.057	0.042	0.010	-0.026	-0.038	0.003	-0.005	-0.016	-0.028	-0.031
0.529	0.061	0.055	0.017	-0.023	-0.034	0.002	-0.006	-0.014	-0.028	-0.033
0.592	0.065	0.054	0.026	-0.008	-0.027	-0.003	-0.004	-0.004	-0.027	-0.024
0.655	0.095	0.184	0.032	-0.016	-0.039	0.030	0.092	-0.007	-0.028	-0.034
0.661	0.045	-0.108	-0.027	-0.084	-0.096	-0.024	0.003	-0.046	-0.095	-0.092
0.687	-0.042	0.062	-0.062	-0.077	-0.049	-0.107	-0.009	-0.085	-0.083	-0.090

(h)  $\alpha = 9.9^\circ$

0.231	1.408	1.382	1.305	1.175	1.104	0.865	0.859	0.918	1.024	1.118
0.234	1.012	0.979	0.886	0.715	0.587	0.217	0.246	0.314	0.469	0.595
0.246	0.919	0.903	0.830	0.717	0.641	0.495	0.468	0.514	0.575	0.647
0.251	0.208	0.191	0.161	0.077	0.037	-0.030	-0.007	-0.027	0.000	0.036
0.268	0.394	0.386	0.321	0.221	0.154	0.027	0.018	0.042	0.092	0.148
0.286	0.400	0.384	0.323	0.234	0.174	0.046	0.048	0.082	0.116	0.167
0.292	-0.029	-0.019	-0.077	-0.121	-0.156	-0.213	-0.210	-0.206	-0.185	-0.156
0.322	0.033	0.145	0.057	-0.092	-0.130	-0.120	-0.138	-0.153	-0.122	0.039
0.352	0.025	-0.107	-0.070	-0.103	-0.139	-0.088	-0.086	-0.132	-0.176	-0.255
0.381	0.032	0.019	0.004	-0.096	-0.117	-0.006	-0.008	-0.066	-0.127	-0.130
0.392	0.198	0.163	0.112	0.029	0.003	0.096	0.072	0.069	-0.019	-0.030
0.402	0.092	0.068	0.026	-0.044	-0.068	0.021	0.007	-0.038	-0.062	-0.083
0.447	0.082	0.077	0.019	-0.043	-0.076	0.011	-0.010	-0.030	-0.051	-0.075
0.492	0.076	0.057	0.007	-0.057	-0.067	0.001	-0.020	-0.025	-0.051	-0.063
0.529	0.082	0.068	0.012	-0.047	-0.062	-0.000	-0.023	-0.025	-0.049	-0.064
0.592	0.087	0.069	0.026	-0.031	-0.055	-0.006	-0.025	-0.019	-0.047	-0.054
0.655	0.113	0.195	0.032	-0.038	-0.064	0.020	0.060	-0.023	-0.053	-0.061
0.661	0.065	-0.101	-0.025	-0.102	-0.118	-0.019	0.004	-0.054	-0.116	-0.117
0.687	-0.025	0.071	-0.063	-0.099	-0.071	-0.127	-0.010	-0.087	-0.104	-0.116

TABLE VII.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE N<sub>7</sub> FOR M<sub>∞</sub>=2.00

(a)  $\alpha = -4.0^\circ$

Axial position x/l	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.231	1.067	1.074	1.099	1.132	1.185	1.295	1.278	1.249	1.201	1.177
0.234	0.403	0.410	0.440	0.490	0.529	0.674	0.670	0.624	0.561	0.510
0.246	0.551	0.568	0.601	0.646	0.683	0.808	0.759	0.762	0.702	0.664
0.251	0.077	0.072	0.100	0.108	0.131	0.186	0.210	0.161	0.134	0.116
0.268	0.109	0.117	0.120	0.161	0.177	0.252	0.261	0.229	0.191	0.166
0.286	0.129	0.132	0.139	0.168	0.188	0.264	0.256	0.237	0.201	0.181
0.292	-0.116	-0.084	-0.121	-0.110	-0.104	-0.061	-0.063	-0.074	-0.094	-0.099
0.322	-0.093	-0.006	0.002	-0.083	-0.075	-0.012	-0.034	-0.041	-0.028	0.152
0.352	-0.073	-0.116	-0.116	-0.035	-0.041	-0.024	-0.018	-0.014	-0.068	-0.161
0.381	-0.018	-0.027	0.020	-0.077	-0.053	-0.012	-0.018	-0.032	-0.030	-0.043
0.392	0.080	0.086	0.064	0.042	0.059	0.125	0.110	0.069	0.077	0.059
0.402	0.018	-0.000	0.004	-0.003	-0.007	0.047	0.035	0.003	0.008	0.018
0.447	0.008	0.016	0.006	0.004	0.000	0.033	0.030	0.016	0.004	-0.001
0.492	0.006	0.000	-0.000	-0.001	-0.000	0.031	0.027	0.017	0.008	0.004
0.529	0.008	0.008	0.003	0.000	0.000	0.031	0.030	0.018	0.008	0.001
0.592	0.001	0.003	0.003	0.002	0.001	0.036	0.033	0.024	0.007	0.006
0.655	0.025	0.084	0.011	0.000	-0.001	0.048	0.163	0.023	0.007	-0.004
0.661	-0.010	-0.104	-0.031	-0.053	-0.051	0.010	0.018	-0.021	-0.049	-0.052
0.687	-0.076	-0.000	-0.059	-0.042	-0.005	-0.059	0.031	-0.055	-0.042	-0.050

(b)  $\alpha = -2.1^\circ$

0.231	1.126	1.128	1.144	1.155	1.190	1.240	1.224	1.210	1.185	1.178
0.234	0.462	0.463	0.482	0.511	0.529	0.593	0.596	0.570	0.537	0.508
0.246	0.607	0.620	0.639	0.669	0.682	0.747	0.706	0.720	0.685	0.674
0.251	0.098	0.092	0.124	0.120	0.133	0.157	0.183	0.141	0.129	0.120
0.268	0.136	0.148	0.149	0.180	0.186	0.215	0.219	0.203	0.183	0.171
0.286	0.159	0.162	0.166	0.183	0.192	0.227	0.222	0.215	0.195	0.185
0.292	-0.105	-0.078	-0.112	-0.103	-0.097	-0.078	-0.080	-0.085	-0.097	-0.098
0.322	-0.083	0.014	0.006	-0.076	-0.069	-0.040	-0.053	-0.050	-0.029	0.159
0.352	-0.064	-0.115	-0.104	-0.031	-0.029	-0.040	-0.025	-0.019	-0.076	-0.147
0.381	-0.018	-0.026	0.021	-0.063	-0.049	-0.017	-0.029	-0.043	-0.015	-0.032
0.392	0.085	0.092	0.075	0.066	0.064	0.112	0.091	0.074	0.085	0.078
0.402	0.017	0.007	0.017	0.010	0.006	0.046	0.021	0.014	0.018	0.029
0.447	0.013	0.021	0.010	0.015	0.012	0.022	0.021	0.017	0.012	0.007
0.492	0.008	0.005	0.006	0.010	0.009	0.020	0.018	0.017	0.014	0.014
0.529	0.012	0.015	0.009	0.009	0.009	0.023	0.023	0.014	0.015	0.010
0.592	0.007	0.008	0.009	0.013	0.011	0.019	0.023	0.020	0.013	0.016
0.655	0.032	0.106	0.013	0.010	0.007	0.041	0.154	0.020	0.014	0.006
0.661	-0.008	-0.095	-0.025	-0.043	-0.042	0.000	0.018	-0.023	-0.043	-0.043
0.687	-0.073	0.007	-0.053	-0.034	0.001	-0.066	0.027	-0.053	-0.035	-0.045

TABLE VII.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE N<sub>7</sub> FOR M<sub>∞</sub> = 2.00 - Continued

(c)  $\alpha = 0.1^\circ$

Axial position x/l	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.231	1.177	1.177	1.180	1.172	1.192	1.190	1.174	1.172	1.170	1.178
0.234	0.521	0.522	0.527	0.531	0.531	0.527	0.534	0.525	0.517	0.509
0.246	0.670	0.679	0.683	0.694	0.698	0.682	0.649	0.677	0.675	0.676
0.251	0.128	0.120	0.147	0.131	0.134	0.127	0.154	0.120	0.118	0.120
0.268	0.171	0.183	0.175	0.195	0.190	0.179	0.180	0.178	0.171	0.168
0.286	0.193	0.195	0.194	0.199	0.197	0.193	0.192	0.197	0.187	0.187
0.292	-0.088	-0.064	-0.096	-0.094	-0.096	-0.095	-0.095	-0.096	-0.100	-0.096
0.322	-0.069	0.041	-0.000	-0.067	-0.065	-0.065	-0.069	-0.060	-0.024	0.158
0.352	-0.054	-0.112	-0.102	-0.035	-0.022	-0.054	-0.031	-0.033	-0.083	-0.136
0.381	-0.016	-0.021	0.023	-0.049	-0.049	-0.023	-0.040	-0.045	-0.010	-0.024
0.392	0.094	0.092	0.092	0.080	0.066	0.098	0.079	0.080	0.087	0.091
0.402	0.019	0.013	0.021	0.018	0.011	0.024	0.018	0.016	0.026	0.043
0.447	0.015	0.024	0.015	0.021	0.018	0.015	0.016	0.014	0.014	0.012
0.492	0.013	0.010	0.014	0.014	0.011	0.013	0.012	0.015	0.016	0.018
0.529	0.016	0.019	0.013	0.014	0.013	0.016	0.016	0.014	0.017	0.015
0.592	0.011	0.012	0.016	0.018	0.016	0.010	0.012	0.017	0.015	0.020
0.655	0.042	0.130	0.016	0.015	0.011	0.039	0.140	0.016	0.014	0.009
0.661	-0.002	-0.092	-0.026	-0.039	-0.038	-0.006	0.018	-0.024	-0.042	-0.040
0.687	-0.070	0.021	-0.048	-0.031	0.004	-0.073	0.014	-0.053	-0.035	-0.043

(d)  $\alpha = 1.9^\circ$

0.231	1.236	1.230	1.221	1.190	1.192	1.133	1.120	1.130	1.151	1.176
0.234	0.591	0.588	0.579	0.555	0.534	0.461	0.472	0.478	0.496	0.507
0.246	0.731	0.741	0.725	0.708	0.685	0.622	0.594	0.628	0.644	0.671
0.251	0.156	0.148	0.167	0.139	0.131	0.096	0.126	0.097	0.104	0.118
0.268	0.207	0.220	0.199	0.204	0.188	0.147	0.147	0.151	0.159	0.165
0.286	0.227	0.228	0.218	0.205	0.194	0.163	0.163	0.169	0.174	0.185
0.292	-0.072	-0.049	-0.083	-0.092	-0.098	-0.111	-0.110	-0.109	-0.107	-0.099
0.322	-0.052	0.070	0.021	-0.063	-0.063	-0.082	-0.083	-0.071	-0.035	0.148
0.352	-0.042	-0.106	-0.100	-0.040	-0.025	-0.067	-0.040	-0.047	-0.089	-0.153
0.381	-0.013	-0.015	0.020	-0.043	-0.050	-0.025	-0.046	-0.043	-0.014	-0.031
0.392	0.104	0.097	0.104	0.087	0.061	0.087	0.077	0.078	0.091	0.083
0.402	0.027	0.021	0.023	0.019	0.004	0.019	0.015	0.014	0.015	0.036
0.447	0.021	0.031	0.018	0.021	0.015	0.011	0.012	0.011	0.010	0.008
0.492	0.018	0.016	0.016	0.011	0.009	0.008	0.008	0.012	0.013	0.014
0.529	0.022	0.024	0.016	0.012	0.010	0.011	0.011	0.013	0.013	0.012
0.592	0.017	0.018	0.021	0.018	0.011	0.006	0.006	0.009	0.011	0.016
0.655	0.047	0.144	0.020	0.015	0.008	0.032	0.120	0.012	0.008	0.006
0.661	0.006	-0.088	-0.021	-0.040	-0.041	-0.015	0.017	-0.025	-0.045	-0.043
0.687	-0.065	0.029	-0.048	-0.033	0.001	-0.076	-0.000	-0.058	-0.040	-0.045



TABLE VII.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_7$  FOR  $M_\infty = 2.00$  - Continued

(e)  $\alpha = 3.9^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.231	1.286	1.277	1.244	1.203	1.188	1.076	1.062	1.086	1.126	1.170
0.234	0.670	0.662	0.635	0.577	0.535	0.401	0.416	0.433	0.474	0.503
0.246	0.799	0.797	0.774	0.723	0.692	0.564	0.543	0.587	0.625	0.659
0.251	0.191	0.177	0.187	0.148	0.131	0.068	0.102	0.077	0.097	0.115
0.268	0.247	0.252	0.218	0.206	0.187	0.117	0.116	0.127	0.147	0.165
0.286	0.261	0.258	0.239	0.212	0.192	0.134	0.135	0.149	0.158	0.177
0.292	-0.054	-0.033	-0.073	-0.087	-0.100	-0.124	-0.124	-0.120	-0.116	-0.100
0.322	-0.021	-0.039	-0.018	-0.051	-0.070	-0.093	-0.093	-0.080	-0.052	-0.135
0.352	-0.026	-0.100	-0.096	-0.043	-0.037	-0.073	-0.047	-0.063	-0.095	-0.173
0.381	-0.005	-0.005	0.020	-0.043	-0.055	-0.027	-0.048	-0.040	-0.023	-0.038
0.392	0.121	0.112	0.110	0.089	0.058	0.080	0.074	0.069	0.092	0.065
0.402	0.042	0.031	0.025	0.017	-0.006	0.019	0.015	0.011	0.011	0.014
0.447	0.032	0.040	0.022	0.015	0.006	0.008	0.009	0.006	0.001	-0.000
0.492	0.028	0.023	0.016	0.005	0.000	0.006	0.004	0.006	0.004	0.006
0.529	0.033	0.033	0.019	0.008	0.002	0.009	0.008	0.004	0.005	0.003
0.592	0.031	0.030	0.024	0.015	0.003	0.003	0.003	0.003	0.000	0.009
0.655	0.053	0.157	0.024	0.010	0.000	0.030	0.105	0.004	0.000	-0.001
0.661	0.017	-0.085	-0.020	-0.046	-0.048	-0.020	0.018	-0.041	-0.054	-0.051
0.687	-0.054	0.039	-0.048	-0.038	-0.004	-0.071	-0.013	-0.055	-0.046	-0.053

(f)  $\alpha = 5.9^\circ$

0.231	1.335	1.323	1.287	1.210	1.177	1.018	1.006	1.039	1.099	1.159
0.234	0.766	0.752	0.704	0.606	0.537	0.341	0.360	0.389	0.451	0.501
0.246	0.859	0.860	0.816	0.737	0.688	0.507	0.494	0.544	0.607	0.654
0.251	0.229	0.209	0.206	0.153	0.129	0.045	0.075	0.055	0.084	0.112
0.268	0.289	0.296	0.254	0.213	0.177	0.091	0.097	0.105	0.131	0.158
0.286	0.298	0.298	0.265	0.219	0.182	0.106	0.106	0.124	0.141	0.168
0.292	-0.033	-0.018	-0.061	-0.085	-0.102	-0.139	-0.138	-0.134	-0.124	-0.105
0.322	-0.012	0.140	0.045	-0.059	-0.077	-0.100	-0.101	-0.093	-0.071	0.114
0.352	-0.007	-0.090	-0.084	-0.055	-0.056	-0.079	-0.056	-0.079	-0.109	-0.172
0.381	0.006	0.004	0.020	-0.050	-0.061	-0.025	-0.043	-0.048	-0.041	-0.055
0.392	0.139	0.115	0.103	0.068	0.049	0.077	0.071	0.060	0.060	0.040
0.402	0.055	0.044	0.021	0.008	-0.018	0.020	0.015	0.003	-0.020	0.000
0.447	0.042	0.050	0.025	0.000	-0.012	0.006	0.006	-0.001	-0.013	-0.016
0.492	0.036	0.032	0.013	-0.006	-0.016	0.004	0.002	-0.002	-0.009	-0.010
0.529	0.047	0.043	0.020	-0.003	-0.013	0.003	0.003	-0.003	-0.007	-0.011
0.592	0.046	0.041	0.025	0.003	-0.010	-0.002	-0.002	-0.003	0.015	-0.007
0.655	0.068	0.169	0.026	0.000	-0.014	0.025	0.101	-0.003	-0.014	-0.018
0.661	0.031	-0.081	-0.019	-0.053	-0.062	-0.025	0.017	-0.033	-0.067	-0.065
0.687	-0.043	0.046	-0.050	-0.049	-0.017	-0.077	-0.013	-0.065	-0.060	-0.070

TABLE VII. - PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE N<sub>7</sub> FOR M<sub>∞</sub>=2.00 - Concluded

(g)  $\alpha = 7.9^\circ$

Axial position x/l	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.231	1.368	1.366	1.314	1.215	1.165	0.960	0.951	0.994	1.073	1.148
0.234	0.856	0.837	0.771	0.639	0.544	0.295	0.316	0.348	0.432	0.505
0.246	0.916	0.911	0.854	0.746	0.678	0.455	0.449	0.506	0.573	0.646
0.251	0.250	0.236	0.223	0.153	0.120	0.022	0.051	0.033	0.070	0.104
0.268	0.333	0.332	0.293	0.220	0.168	0.067	0.062	0.079	0.110	0.148
0.286	0.339	0.332	0.289	0.228	0.179	0.084	0.080	0.096	0.121	0.161
0.292	-0.013	0.001	-0.048	-0.080	-0.107	-0.149	-0.148	-0.144	-0.133	-0.109
0.322	0.026	0.146	0.053	-0.061	-0.086	-0.107	-0.110	-0.105	-0.080	0.086
0.352	0.018	-0.082	-0.069	-0.067	-0.079	-0.079	-0.064	-0.100	-0.126	-0.173
0.381	0.022	0.016	0.020	-0.062	-0.080	-0.024	-0.034	-0.057	-0.062	-0.078
0.392	0.157	0.133	0.104	0.047	0.026	0.074	0.065	0.049	-0.002	0.002
0.402	0.073	0.051	0.023	-0.011	-0.034	0.018	0.011	-0.013	-0.034	-0.036
0.447	0.362	0.065	0.027	-0.015	-0.045	0.004	0.000	-0.011	-0.032	-0.043
0.492	0.055	0.045	0.016	-0.029	-0.041	0.001	-0.004	-0.016	-0.029	-0.036
0.529	0.064	0.057	0.018	-0.024	-0.037	0.001	-0.005	-0.015	-0.026	-0.033
0.592	0.062	0.054	0.025	-0.013	-0.033	-0.005	-0.010	-0.012	-0.035	-0.030
0.655	0.082	0.180	0.026	-0.015	-0.035	0.008	0.086	-0.011	-0.034	-0.039
0.661	0.046	-0.076	-0.019	-0.067	-0.080	-0.026	0.017	-0.040	-0.084	-0.085
0.687	-0.029	0.054	-0.051	-0.065	-0.035	-0.091	-0.012	-0.074	-0.076	-0.090

(h)  $\alpha = 9.9^\circ$

0.231	1.434	1.414	1.345	1.222	1.154	0.903	0.892	0.946	1.044	1.137
0.234	0.946	0.923	0.839	0.675	0.555	0.241	0.265	0.312	0.413	0.512
0.246	0.967	0.955	0.883	0.749	0.655	0.402	0.404	0.461	0.544	0.631
0.251	0.275	0.259	0.237	0.153	0.107	0.003	0.029	0.009	0.051	0.091
0.268	0.381	0.376	0.322	0.226	0.160	0.042	0.034	0.053	0.089	0.138
0.286	0.388	0.375	0.317	0.231	0.170	0.058	0.053	0.072	0.108	0.153
0.292	0.011	0.023	-0.033	-0.079	-0.111	-0.162	-0.161	-0.158	-0.142	-0.113
0.322	0.064	0.098	0.063	-0.062	-0.095	-0.111	-0.119	-0.120	-0.100	0.055
0.352	0.042	-0.076	-0.055	-0.075	-0.103	-0.079	-0.072	-0.117	-0.135	-0.206
0.381	0.054	0.036	0.020	-0.073	-0.109	-0.025	-0.027	-0.069	-0.101	-0.113
0.392	0.181	0.157	0.109	0.026	-0.016	0.075	0.055	0.044	-0.035	-0.031
0.402	0.096	0.071	0.037	-0.033	-0.066	0.015	0.004	-0.035	-0.068	-0.069
0.447	0.087	0.085	0.029	-0.029	-0.078	0.005	-0.010	-0.029	-0.058	-0.084
0.492	0.077	0.064	0.019	-0.054	-0.081	-0.001	-0.019	-0.026	-0.049	-0.069
0.529	0.084	0.074	0.023	-0.057	-0.068	0.000	-0.020	-0.027	-0.048	-0.063
0.592	0.085	0.072	0.021	-0.034	-0.060	-0.007	-0.027	-0.024	-0.055	-0.057
0.655	0.100	0.191	0.029	-0.033	-0.061	-0.003	0.050	-0.026	-0.054	-0.067
0.661	0.064	-0.070	-0.019	-0.084	-0.103	-0.030	0.017	-0.052	-0.102	-0.109
0.687	-0.014	0.065	-0.051	-0.082	-0.055	-0.096	-0.014	-0.079	-0.096	-0.116

TABLE VIII. - PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_7$  FOR  $M_\infty = 2.35$

(a)  $\alpha = -4.0^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.231	1.075	1.080	1.111	1.144	1.196	1.303	1.285	1.258	1.210	1.187
0.234	0.393	0.405	0.435	0.478	0.513	0.633	0.634	0.594	0.540	0.497
0.246	0.478	0.493	0.528	0.571	0.611	0.754	0.716	0.703	0.639	0.599
0.251	0.687	0.683	0.125	0.125	0.148	0.212	0.241	0.185	0.157	0.138
0.268	0.091	0.100	0.104	0.145	0.166	0.228	0.236	0.207	0.175	0.149
0.286	0.106	0.114	0.125	0.148	0.169	0.238	0.228	0.212	0.179	0.158
0.292	-0.077	-0.036	-0.085	-0.074	-0.067	-0.032	-0.034	-0.044	-0.063	-0.064
0.322	-0.076	-0.019	-0.040	-0.067	-0.058	-0.003	-0.023	-0.023	-0.024	0.140
0.352	-0.063	-0.095	-0.083	-0.040	-0.038	-0.014	-0.018	-0.016	-0.035	-0.130
0.381	-0.018	-0.032	0.007	-0.056	-0.045	-0.022	-0.008	-0.010	-0.030	-0.035
0.392	0.055	0.057	0.044	0.023	0.047	0.100	0.087	0.077	0.050	0.048
0.402	0.010	0.001	0.004	-0.008	0.000	0.042	0.034	0.013	0.010	0.015
0.447	0.010	0.018	0.001	0.001	-0.002	0.032	0.027	0.016	0.003	-0.000
0.492	0.004	0.001	-0.000	-0.006	-0.005	0.031	0.027	0.017	0.006	0.005
0.529	0.005	0.005	-0.000	-0.002	-0.002	0.033	0.029	0.017	0.008	0.000
0.592	-0.000	0.000	0.000	0.004	0.001	0.029	0.026	0.022	0.000	0.002
0.655	0.010	0.069	0.004	0.002	0.001	0.036	0.155	0.015	0.005	-0.004
0.661	-0.013	-0.068	-0.024	-0.039	-0.037	0.010	0.004	-0.018	-0.038	-0.042
0.687	-0.060	-0.008	-0.047	-0.042	0.015	-0.039	0.022	-0.040	-0.045	-0.053

(b)  $\alpha = -2.1^\circ$

0.231	1.133	1.134	1.151	1.163	1.201	1.252	1.237	1.224	1.201	1.193
0.234	0.450	0.460	0.471	0.500	0.515	0.570	0.577	0.555	0.526	0.500
0.246	0.537	0.549	0.573	0.598	0.619	0.682	0.654	0.655	0.621	0.602
0.251	0.111	0.107	0.145	0.137	0.152	0.179	0.210	0.161	0.148	0.136
0.268	0.117	0.126	0.126	0.156	0.165	0.194	0.198	0.182	0.164	0.150
0.286	0.135	0.142	0.148	0.162	0.172	0.206	0.199	0.191	0.172	0.161
0.292	-0.066	-0.028	-0.075	-0.067	-0.065	-0.046	-0.047	-0.052	-0.065	-0.063
0.322	-0.065	-0.004	-0.024	-0.056	-0.055	-0.027	-0.041	-0.032	-0.029	0.143
0.352	-0.052	-0.089	-0.084	-0.038	-0.030	-0.028	-0.026	-0.025	-0.042	-0.125
0.381	-0.018	-0.028	0.008	-0.049	-0.038	-0.027	-0.015	-0.017	-0.014	-0.026
0.392	0.061	0.062	0.059	0.042	0.049	0.085	0.071	0.061	0.069	0.062
0.402	0.011	0.006	0.014	0.007	0.004	0.031	0.023	0.016	0.021	0.031
0.447	0.011	0.021	0.007	0.015	0.010	0.020	0.020	0.016	0.011	0.008
0.492	0.009	0.007	0.005	0.005	0.005	0.021	0.020	0.017	0.010	0.012
0.529	0.010	0.012	0.005	0.006	0.006	0.024	0.022	0.017	0.014	0.009
0.592	0.004	0.005	0.008	0.014	0.012	0.017	0.017	0.018	0.010	0.011
0.655	0.017	0.092	0.008	0.011	0.010	0.027	0.144	0.014	0.011	0.004
0.661	-0.008	-0.064	-0.017	-0.029	-0.028	0.002	0.005	-0.019	-0.033	-0.033
0.687	-0.060	0.000	-0.040	-0.033	0.022	-0.048	0.017	-0.038	-0.037	-0.045

TABLE VIII. - PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE  $N_7$  FOR  $M_\infty = 2.35$  - Continued

(c)  $\alpha = 0.1^\circ$

Axial position $x/l$	Radial position, $\theta$ , deg									
	0	30	45	72	90	180	200	225	252	270
0.231	1.177	1.177	1.175	1.184	1.191	1.198	1.175	1.175	1.183	1.193
0.234	0.509	0.508	0.514	0.518	0.519	0.522	0.517	0.509	0.504	0.496
0.246	0.600	0.611	0.621	0.625	0.622	0.617	0.597	0.607	0.598	0.600
0.251	0.147	0.139	0.171	0.148	0.154	0.145	0.179	0.136	0.136	0.137
0.268	0.148	0.158	0.150	0.176	0.169	0.161	0.161	0.156	0.155	0.151
0.286	0.164	0.169	0.170	0.175	0.176	0.173	0.169	0.170	0.166	0.164
0.292	-0.053	-0.017	-0.065	-0.062	-0.062	-0.062	-0.062	-0.063	-0.068	-0.061
0.322	-0.055	0.021	-0.019	-0.053	-0.054	-0.049	-0.056	-0.043	-0.032	0.138
0.352	-0.042	-0.083	-0.077	-0.030	-0.027	-0.041	-0.030	-0.028	-0.054	-0.123
0.381	-0.016	-0.022	0.007	-0.046	-0.035	-0.030	-0.023	-0.036	-0.006	-0.021
0.392	0.071	0.069	0.069	0.057	0.049	0.074	0.058	0.059	0.072	0.067
0.402	0.019	0.012	0.020	0.019	0.005	0.021	0.014	0.017	0.024	0.041
0.447	0.014	0.027	0.015	0.019	0.013	0.013	0.015	0.013	0.012	0.012
0.492	0.015	0.011	0.011	0.010	0.010	0.014	0.014	0.015	0.016	0.016
0.529	0.016	0.017	0.011	0.015	0.011	0.017	0.018	0.015	0.016	0.012
0.592	0.009	0.012	0.015	0.020	0.016	0.010	0.011	0.016	0.010	0.015
0.655	0.023	0.118	0.015	0.016	0.013	0.024	0.132	0.011	0.011	0.008
0.661	-0.003	-0.064	-0.019	-0.024	-0.025	-0.001	0.004	-0.020	-0.031	-0.029
0.687	-0.058	0.013	-0.035	-0.028	0.024	-0.056	0.006	-0.039	-0.035	-0.041

(d)  $\alpha = 1.9^\circ$

0.231	1.236	1.230	1.210	1.200	1.200	1.143	1.129	1.141	1.162	1.173
0.234	0.569	0.566	0.559	0.536	0.518	0.457	0.466	0.467	0.483	0.493
0.246	0.664	0.671	0.665	0.639	0.621	0.556	0.541	0.562	0.577	0.596
0.251	0.179	0.171	0.192	0.159	0.154	0.115	0.150	0.115	0.125	0.137
0.268	0.187	0.193	0.179	0.180	0.169	0.129	0.129	0.146	0.145	0.151
0.286	0.198	0.201	0.195	0.185	0.176	0.140	0.136	0.143	0.154	0.161
0.292	-0.040	-0.006	-0.054	-0.056	-0.064	-0.076	-0.076	-0.076	-0.075	-0.062
0.322	-0.032	0.012	-0.021	-0.046	-0.057	-0.065	-0.065	-0.048	-0.045	0.134
0.352	-0.030	-0.076	-0.075	-0.032	-0.036	-0.053	-0.043	-0.042	-0.062	-0.131
0.381	-0.016	-0.013	0.008	-0.047	-0.035	-0.034	-0.032	-0.043	-0.006	-0.027
0.392	0.083	0.079	0.081	0.064	0.046	0.062	0.050	0.058	0.075	0.063
0.402	0.027	0.019	0.022	0.025	0.002	0.012	0.008	0.016	0.018	0.035
0.447	0.019	0.033	0.019	0.017	0.010	0.009	0.012	0.009	0.008	0.011
0.492	0.019	0.016	0.013	0.010	0.007	0.008	0.008	0.009	0.012	0.013
0.529	0.023	0.023	0.012	0.011	0.007	0.011	0.010	0.009	0.011	0.008
0.592	0.015	0.017	0.017	0.019	0.012	0.003	0.004	0.010	0.004	0.011
0.655	0.026	0.128	0.018	0.015	0.010	0.021	0.111	0.005	0.006	0.004
0.661	0.001	-0.062	-0.016	-0.026	-0.028	-0.011	0.003	-0.024	-0.035	-0.033
0.687	-0.051	0.021	-0.033	-0.027	0.022	-0.060	-0.005	-0.043	-0.040	-0.044

TABLE VIII.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE N<sub>7</sub> FOR M<sub>∞</sub> = 2.35 - Continued

(e)  $\alpha = 3.9^\circ$

Axial position x/l	Radial position, $\theta$ , deg									
	0	10	45	72	90	180	200	225	252	270
0.231	1.303	1.294	1.271	1.217	1.203	1.091	1.079	1.101	1.143	1.187
0.234	0.635	0.628	0.605	0.559	0.522	0.404	0.422	0.436	0.467	0.492
0.246	0.737	0.739	0.716	0.661	0.621	0.497	0.487	0.519	0.557	0.594
0.251	0.215	0.204	0.216	0.170	0.152	0.086	0.122	0.093	0.116	0.136
0.268	0.227	0.231	0.200	0.193	0.173	0.104	0.103	0.114	0.132	0.149
0.286	0.234	0.233	0.217	0.193	0.174	0.114	0.112	0.123	0.141	0.156
0.292	-0.023	0.006	-0.042	-0.053	-0.065	-0.088	-0.087	-0.084	-0.080	-0.064
0.322	-0.009	0.032	-0.010	-0.041	-0.056	-0.075	-0.072	-0.055	-0.055	0.126
0.352	-0.013	-0.068	-0.073	-0.034	-0.046	-0.061	-0.051	-0.052	-0.075	-0.142
0.381	-0.009	-0.005	0.008	-0.047	-0.043	-0.035	-0.038	-0.046	-0.015	-0.035
0.392	0.099	0.090	0.089	0.068	0.048	0.055	0.045	0.057	0.068	0.050
0.402	0.039	0.029	0.025	0.021	0.001	0.009	0.008	0.007	0.010	0.018
0.447	0.032	0.045	0.026	0.012	0.000	0.006	0.008	0.003	0.000	0.001
0.492	0.030	0.026	0.016	0.004	-0.000	0.006	0.006	0.004	0.003	0.002
0.529	0.035	0.032	0.016	0.006	-0.000	0.007	0.005	0.002	0.003	0.001
0.592	0.027	0.027	0.020	0.015	0.005	-0.000	0.000	0.003	-0.002	0.003
0.655	0.036	0.142	0.022	0.011	0.002	0.018	0.102	-0.000	-0.002	-0.002
0.661	0.011	-0.059	-0.013	-0.029	-0.035	-0.014	0.003	-0.031	-0.044	-0.041
0.687	-0.042	0.028	-0.034	-0.030	0.016	-0.059	-0.011	-0.042	-0.044	-0.052

(f)  $\alpha = 5.9^\circ$

0.231	1.353	1.343	1.304	1.227	1.196	1.034	1.020	1.054	1.117	1.178
0.234	0.706	0.692	0.655	0.577	0.520	0.348	0.369	0.392	0.451	0.489
0.246	0.807	0.805	0.765	0.679	0.624	0.451	0.446	0.476	0.533	0.589
0.251	0.250	0.236	0.239	0.177	0.151	0.059	0.097	0.071	0.104	0.133
0.268	0.267	0.272	0.236	0.202	0.168	0.079	0.077	0.093	0.119	0.145
0.286	0.271	0.268	0.241	0.199	0.167	0.087	0.085	0.100	0.126	0.152
0.292	-0.005	0.020	-0.033	-0.053	-0.068	-0.100	-0.100	-0.095	-0.087	-0.067
0.322	-0.000	0.122	0.040	-0.046	-0.063	-0.084	-0.084	-0.067	-0.068	0.107
0.352	-0.000	-0.063	-0.071	-0.045	-0.050	-0.071	-0.054	-0.066	-0.087	-0.145
0.381	0.003	0.003	0.007	-0.048	-0.055	-0.035	-0.044	-0.048	-0.030	-0.050
0.392	0.114	0.098	0.087	0.053	0.039	0.049	0.042	0.045	0.041	0.026
0.402	0.050	0.041	0.026	0.012	-0.007	0.010	0.006	-0.000	-0.016	0.002
0.447	0.048	0.058	0.027	0.004	-0.021	0.005	0.005	-0.005	-0.015	-0.015
0.492	0.044	0.038	0.021	-0.009	-0.016	0.002	0.000	-0.004	-0.011	-0.011
0.529	0.047	0.044	0.016	-0.008	-0.017	0.001	0.000	-0.009	-0.012	-0.015
0.592	0.040	0.037	0.021	0.004	-0.010	-0.004	-0.004	-0.004	-0.018	-0.012
0.655	0.048	0.156	0.023	0.000	-0.013	0.014	0.104	-0.009	-0.017	-0.018
0.661	0.022	-0.055	-0.013	-0.040	-0.048	-0.017	0.003	-0.032	-0.055	-0.055
0.687	-0.031	0.033	-0.037	-0.041	0.003	-0.064	-0.009	-0.051	-0.060	-0.067

TABLE VIII.- PRESSURE COEFFICIENTS OVER THE BODY WITH NOSE N<sub>7</sub> FOR M<sub>∞</sub>=2.35 - Concluded

(g)  $\alpha = 7.9^\circ$

Axial position x/l	Radial position, $\theta$ , deg									
	0	20	45	72	90	180	200	225	252	270
0.231	1.407	1.391	1.338	1.238	1.189	0.981	0.968	1.012	1.092	1.169
0.234	0.788	0.770	0.711	0.599	0.520	0.297	0.320	0.354	0.431	0.489
0.246	0.879	0.871	0.813	0.701	0.628	0.397	0.395	0.440	0.515	0.587
0.251	0.258	0.270	0.259	0.186	0.149	0.033	0.070	0.048	0.091	0.128
0.268	0.310	0.311	0.264	0.210	0.167	0.053	0.051	0.068	0.105	0.140
0.286	0.315	0.309	0.268	0.206	0.167	0.061	0.062	0.079	0.108	0.144
0.292	0.015	0.040	-0.018	-0.047	-0.072	-0.112	-0.111	-0.108	-0.097	-0.071
0.322	0.033	0.106	0.050	-0.043	-0.067	-0.091	-0.092	-0.082	-0.073	0.088
0.352	0.023	-0.057	-0.060	-0.053	-0.063	-0.073	-0.058	-0.083	-0.099	-0.152
0.381	0.013	0.016	0.006	-0.051	-0.075	-0.036	-0.047	-0.058	-0.049	-0.069
0.392	0.132	0.117	0.090	0.038	0.009	0.047	0.038	0.025	-0.007	-0.004
0.402	0.268	0.055	0.034	-0.004	-0.031	0.010	0.003	-0.017	-0.038	-0.025
0.447	0.069	0.074	0.030	-0.009	-0.041	0.002	0.001	-0.014	-0.038	-0.043
0.492	0.061	0.054	0.025	-0.022	-0.047	-0.000	-0.006	-0.017	-0.032	-0.037
0.529	0.064	0.057	0.020	-0.028	-0.043	-0.002	-0.006	-0.017	-0.033	-0.041
0.592	0.058	0.053	0.021	-0.012	-0.033	-0.007	-0.011	-0.015	-0.037	-0.036
0.655	0.066	0.171	0.023	-0.014	-0.034	0.001	0.088	-0.018	-0.037	-0.041
0.661	0.037	-0.050	-0.013	-0.054	-0.067	-0.023	0.003	-0.034	-0.073	-0.074
0.687	-0.016	0.042	-0.039	-0.054	-0.012	-0.071	-0.017	-0.063	-0.076	-0.087

(h)  $\alpha = 9.9^\circ$

0.231	1.458	1.438	1.369	1.245	1.178	0.926	0.914	0.968	1.065	1.157
0.234	0.875	0.852	0.772	0.623	0.522	0.256	0.281	0.322	0.414	0.485
0.246	0.952	0.940	0.863	0.720	0.617	0.351	0.352	0.404	0.488	0.580
0.251	0.325	0.307	0.286	0.196	0.146	0.010	0.050	0.030	0.079	0.124
0.268	0.360	0.355	0.297	0.217	0.155	0.033	0.032	0.046	0.089	0.135
0.286	0.361	0.351	0.294	0.213	0.156	0.044	0.045	0.056	0.090	0.138
0.292	0.041	0.059	-0.003	-0.046	-0.074	-0.116	-0.118	-0.115	-0.103	-0.073
0.322	0.064	0.104	0.058	-0.040	-0.072	-0.094	-0.097	-0.091	-0.082	0.067
0.352	0.047	-0.047	-0.043	-0.058	-0.077	-0.072	-0.064	-0.100	-0.102	-0.166
0.381	0.031	0.035	0.007	-0.054	-0.090	-0.034	-0.043	-0.070	-0.073	-0.096
0.392	0.154	0.141	0.100	0.029	-0.019	0.049	0.033	0.014	-0.040	-0.030
0.402	0.092	0.075	0.048	-0.014	-0.057	0.007	-0.000	-0.033	-0.066	-0.046
0.447	0.096	0.096	0.039	-0.022	-0.062	0.001	-0.009	-0.029	-0.069	-0.072
0.492	0.086	0.074	0.031	-0.038	-0.067	-0.002	-0.016	-0.030	-0.057	-0.077
0.529	0.088	0.077	0.028	-0.039	-0.079	-0.003	-0.019	-0.030	-0.053	-0.079
0.592	0.082	0.072	0.028	-0.030	-0.067	-0.011	-0.029	-0.025	-0.056	-0.064
0.655	0.088	0.192	0.028	-0.041	-0.056	-0.007	0.050	-0.029	-0.055	-0.064
0.661	0.057	-0.040	-0.006	-0.077	-0.088	-0.031	0.004	-0.048	-0.094	-0.096
0.687	0.002	0.059	-0.038	-0.073	-0.028	-0.070	-0.035	-0.075	-0.090	-0.113

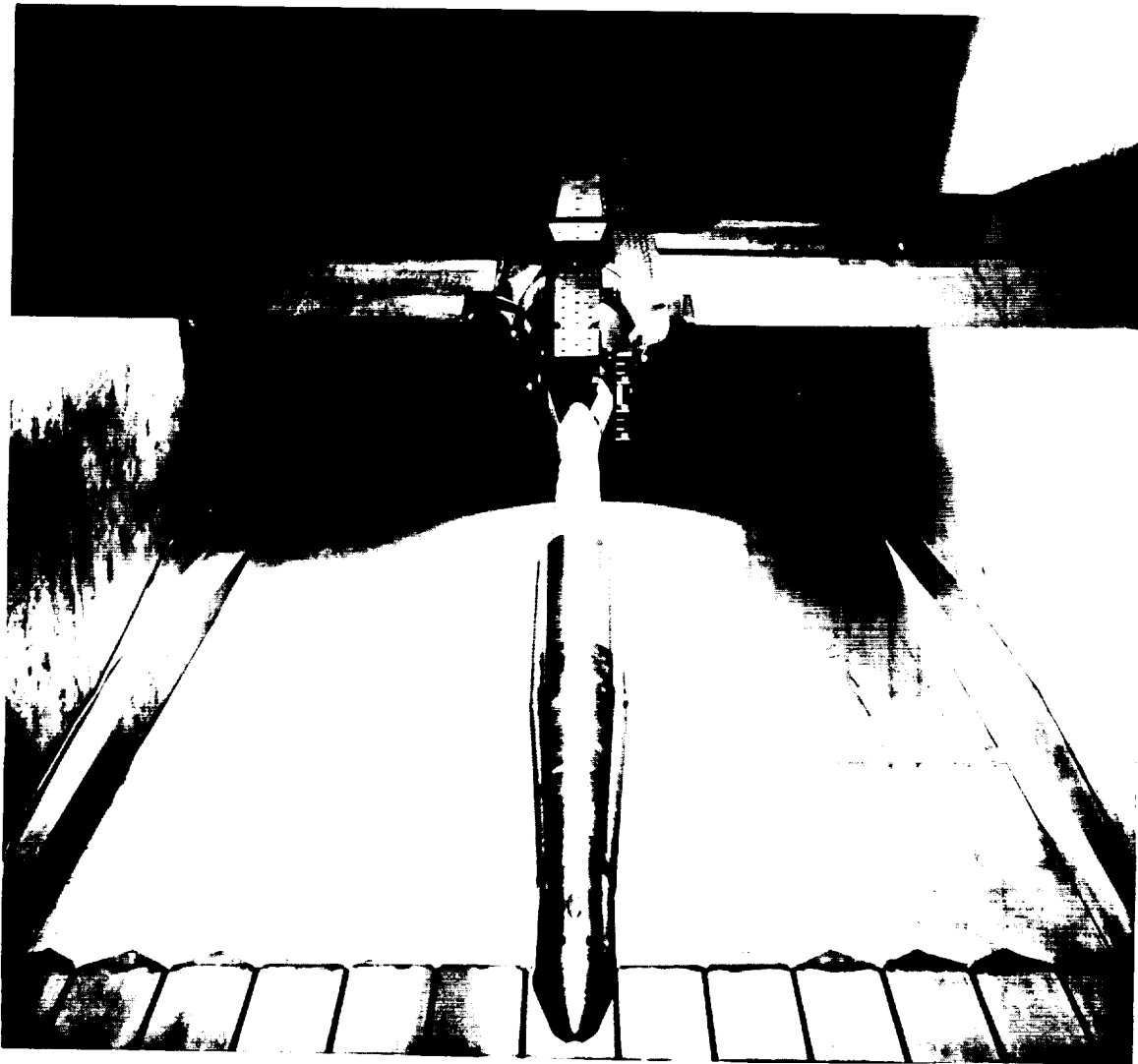
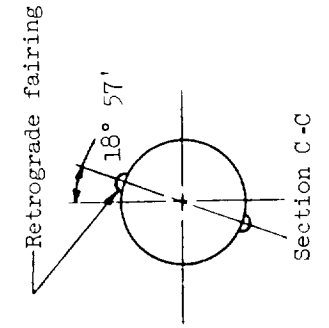
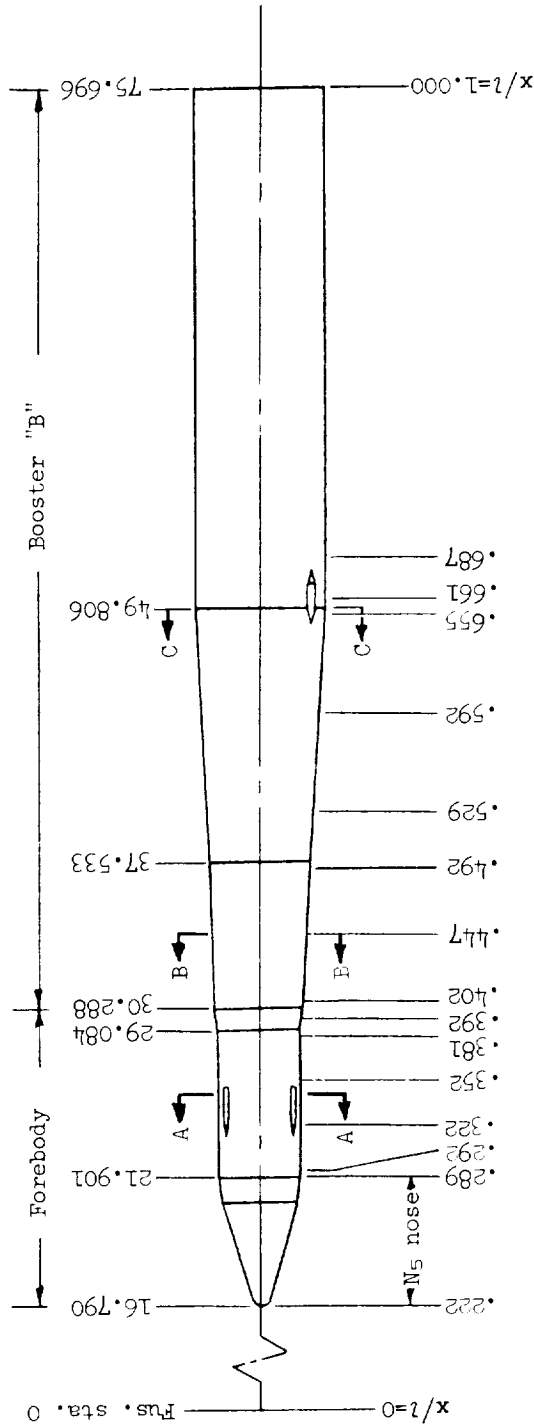
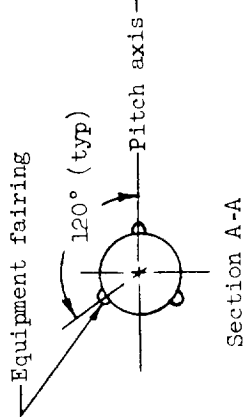
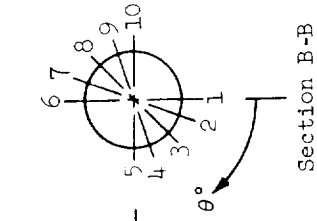


Figure 1.- Photograph of the Lockheed WS-117L model.

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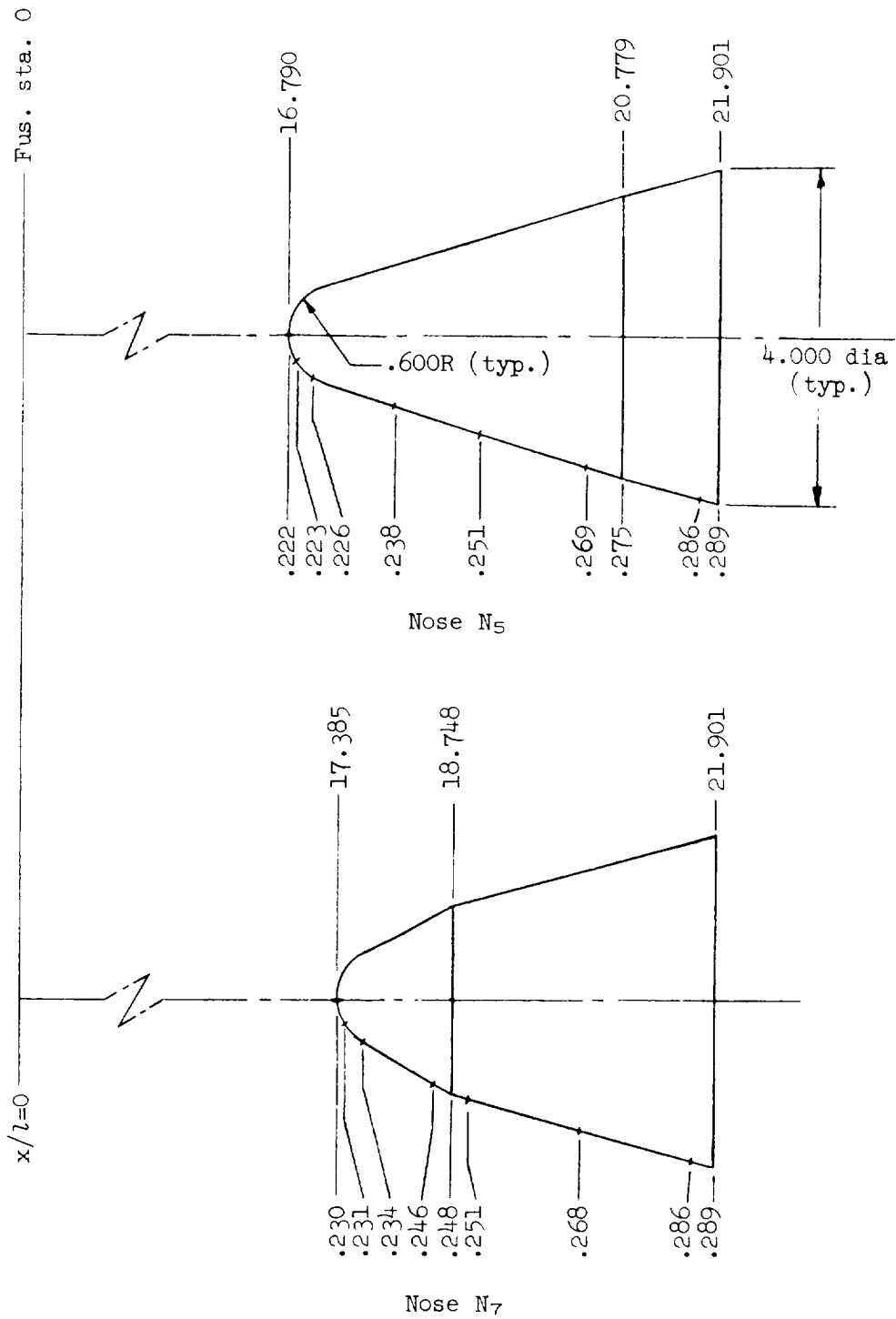
Orifice	$\theta^\circ$
1	0
2	20
3	45
4	72
5	90
6	180
7	200
8	225
9	252
10	270



Note: Fuselage stations in inches.

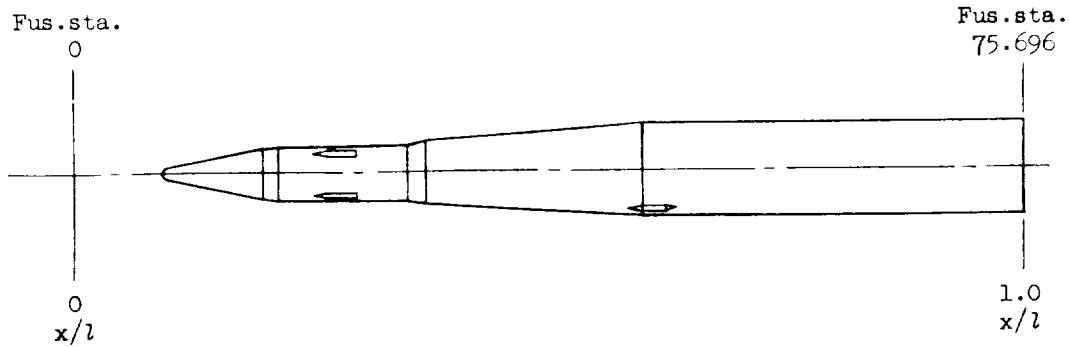
Figure 2.- General arrangement of the model.





Note: Fuselage stations in inches.

Figure 3.- Nose details of the model.



N <sub>5</sub> nose				N <sub>7</sub> nose			
x/l	Fuselage station	Surface angle, deg	Local body dia, in.	x/l	Fuselage station	Surface angle, deg	Local body dia, in.
.222	16.790	90.0	0	.230	17.385	90.0	0
.223	16.864	60.0	0.600	.231	17.472	60.0	0.600
.226	17.074	30.0	1.040	.234	17.706	31.3	1.010
.238	18.031	17.5	1.659	.246	18.593	31.3	2.088
.251	19.001	17.5	2.267	.251	18.972	15.0	2.434
.269	20.341	17.5	3.114	.268	20.311	15.0	3.154
.286	21.683	15.0	3.870	.286	21.654	15.0	3.870
.292	22.126	0	4.000	.292	22.093	0	4.000
.322	24.359	0	4.000	Same as N <sub>5</sub>			
.352	26.612	0	4.000				
.381	28.821	0	4.000				
.392	29.679	5.8	4.122				
.402	30.457	3.0	4.265				
.447	33.844	3.0	4.518				
.492	37.262	3.0	4.974				
.529	40.012	3.2	5.284				
.592	44.792	3.2	5.828				
.655	49.585	3.2	6.376				
.661	50.025	0	6.400				
.687	52.031	0	6.400				

Figure 4.- Pressure orifice locations on the model.