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LARGE–SCALE WIND–TUNNEL INVESTIGATION OF THE NOISE CHARACTERISTICS OF A SEMISPAN WING EQUIPPED WITH AN EXTERNALLY BLOWN JET FLAP

Michael D. Falarski

Ames Research Center
and
U. S. Army Air Mobility R&D Laboratory
Moffett Field, Calif. 94035

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SUMMARY

A wind tunnel investigation was made of the noise characteristics of a 4.42 m(14.5 foot) semispan, externally-blown jet flap model. The model was equipped with a single 76.2 cm(30 inch) diameter, ducted fan with a 1.03 pressure ratio. The effects of flap size, fan vertical location, and forward speed on the noise characteristics were studied.

This report presents the data from the investigation in the form of tabulated one-third octave band frequency spectrums and perceived noise levels for each test condition.

INTRODUCTION

STOL aircraft will operate from airports within areas of high density population. They will, therefore, be required to operate at noise levels substantially lower than todays commercial aircraft. For this reason the acoustic, as well as, the aerodynamic characteristics of the Externally-blown Jet Flap(EBF) STOL concept are being investigated. The results of small scale investigation of the noise characteristics of the EBF and several other STOL concepts are reported in reference 1.

This paper presents the results of an investigation undertaken to study the effects of forward speed, flap size, and vertical fan location on the acoustic characteristics of an EBF powered by a low pressure ratio fan. As an acoustic source this type of propulsive device is dominated by the blade-passage tones and not jet exhaust noise.

The model was a 4.42 m(14.5 feet) semispan wing powered by a 76.2 cm(30 inch) diameter ducted fan with a pressure ratio of 1.03. The tests were performed in the Ames 40-by 80-Foot Wind Tunnel.

The longitudinal aerodynamic characteristics were also investigated. They are reported in reference 2.

NOTATION

b	wing semispan measured from the end plate, m(ft).
c_f	flap chord, streamwise, m(ft).
c_w	wing chord, streamwise, m(ft).
C_μ	gross thrust coefficient, $\frac{\text{gross thrust}}{q\ S}$
D	ducted fan exit diameter, m(ft).
L	lift, n(lb).
PNL	perceived noise level, PndB.
q	free-stream dynamic pressure, n/sq m(lb/sq ft).
R	resultant force, $\sqrt{L^2+X^2}$, n(lb).
S	wing area, m^2 (ft^2).
SPL	sound pressure level, dB ref. .0002 microbars.
T	ducted fan gross thrust, n(lb).
X	longitudinal force parallel to thrust axis, n(lb).
α	angle of attack referenced to wing chord, deg.
δ_f	deflection of last flap element referenced to wing chord, deg.
θ	angle of the static resultant force vector with respect to the thrust axis, deg.
Z	vertical location of fan axis with respect to wing chord, cm(in).

MODEL DESCRIPTION

Basic Model

Photographs of the model installed in the wind tunnel and model preparation area are shown in figure 1. The basic geometry of the model is presented in figure 2 and Table I. The end plate was attached to the wing while the fairing was isolated from the model.

The geometry of the ducted fan is presented in figure 3(a) and Table I. The blade plan-form curves for the 8 bladed, 1.03 pressure ratio fan are presented in figure 3(b). The static thrust as a function of fan speed is presented in figure 3(c). Shown in figure 3(d) is the variation of fan gross thrust coefficient with free-stream dynamic pressure.

Flap System

The three flap systems tested are shown in figure 4(a). The reference dimensions for the systems are given in Table I. Flap I is a large chord, triple slotted flap. The geometric details are shown in figure 4(b). This system was made by attaching a modification to the aft flap of flap III. Flap II is a large chord, double slotted flap. For this system the first element of flap I was set at 0°, the first slot sealed and the remaining two elements deflected. Flap III is a smaller chord, double slotted flap. Its basic geometry is shown in figure 4(c) and its coordinates are given in Tables

II and III. This system is very similar to the flap used on the propeller driven, deflected-slipstream STOL model reported in reference 3.

Ducted Fan Pylons

The model was tested with the ducted fan mounted at three vertical distances below the wing. The duct positions are described in figure 5. Mounted on the long pylon, the fan was 1.25 diameters below the wing chord line. The medium pylon positioned the fan .79 diameters below the wing. The cross section of the pylon is also shown in figure 5. With the pylon removed the fan was mounted .33 diameters below the wing, allowing a portion of the fan slipstream to flow over the top of the wing.

TESTS

The tests at forward speed were performed at an angle of attack of 0 degrees. Limited tests were performed at other α's. Gross thrust coefficient was varied by varying free-stream dynamic pressure with the fan rotational speed set at 5000 RPM. The gross thrust was determined from a calibration of fan exit total pressure versus static ducted fan thrust. C_μ was varied from 0 to 6.

The other test variable was flap deflection. Data were recorded at deflections of 0°, 30°, 60°, and 90° for each of the flap systems and pylons.

The static($q = 0$ n/m^2) noise characteristics were investigated with the model installed in the 40-by 80-Foot Wind Tunnel model preparation area as shown in figure 1(b). As shown in figure 6 the microphones were arranged in a semicircle around the undersurface of the wing. The microphones were mounted in the span wise plane of the ducted fan and spaced at 20° increments. This microphone arrangement was the same as used in the wind tunnel, except for the wind tunnel tests, the semicircle radius was 6.1 m(20 ft) instead of 7.62 m(25 ft).

The isolated ducted fan was also tested statically as shown in figure 1(c). In this case the ducted fan was mounted on the long pylon which was attached to a steel spar. The upper portion of the spar was wrapped with sound absorption

material to prevent sound reflection.

The noise data was measured with Bruel and Kjaer 1.27 cm (1/2 in.) diameter, type 4133, condenser microphones and recorded on an Ampex F1300A multichannel tape recorder. For the wind tunnel test the microphones were equipped with wind-shield nose cones and oriented into the wind. During the static tests, microphones 1-5 were also equipped with the nose cones. In this case, all of the microphones were directed at the fan.

CORRECTIONS

The data have been corrected for reverberations in the wind tunnel test section and model preparation area. The test section corrections were derived from an acoustic investigation reported in reference 4. The model preparation area reverberation was measured with the dodecahedron sound system described in reference 4. The static test data has been corrected using these results.

The data recorded in the wind tunnel has been extrapolated to 7.62 m(25 ft), equivalent to the static test distance.

Microphones immersed in the relatively high velocity turbulent fan slipstream had high sound pressure levels at low frequency due to the turbulent airflow and vibration. The data reflects this false sound source, so care must be taken in the interpretation of data at low frequencies.

The one-third octave band frequency analysis was computed with a Bruel and Kjaer Real Time Analyzer. The data were integrated over a period of 30 seconds or longer.

PRESENTATION OF DATA

The results of the EBF semispan acoustic investigation are presented in tabular form in tables V to XXIV. A summary of these tables is given in Table IV. Each table consists of a one-third octave band frequency spectrum, overall sound pressure level, and perceived noise level for each microphone of a given test condition. The uncorrected overall SPL listed in the tables is the OASPL measured directly without reverberation correction. The gain is an indication of the microphone amplifier output level with respect to a microphone calibration level.

The static aerodynamic characteristics of the semispan wing are presented in figure 7. The static turning efficiency and effectiveness are shown in this figure.

REFERENCES

1. Dorsch, R. G.; Krejsa, E.A.; and Olsen, W.A.: Blown Flap Noise Research. AIAA paper 71-745, Am. Inst. Aero. and Astronaut., June, 1971.
2. Falarski, M.D.; and Aiken, T.N.: Large-Scale Wind-Tunnel Investigation of a Semispan Wing Equipped with an Externally-Blown Jet Flap. NASA TMX-62,079, 1971.
3. Page, V.R.; Dickinson, S.C.; and Deckert, W.H.: Large-Scale Wind-Tunnel Tests of a Deflected Slipstream STOL Model with Wings of Various Aspect Ratios. NASA TN D-4448, 1968.
4. Bies, David Alan: Investigation of the Feasibility of Making Acoustic Measurements in the NASA Ames 40-by80-Foot Wind Tunnel. NASA CR-114352, 1971.

TABLE I. - REFERENCE DIMENSIONS

Flap I:	
Wing area, S, $m^2(ft^2)$	11.0(118.4)
Wing chord, c_w, m(ft)	2.49(8.17)
Flap chord, c_f, m(ft)	1.62(5.30)
c_f/c_w	0.65
c_f/D_S	2.12
Flap II:	
Wing area, S, $m^2(ft^2)$	11.0(118.4)
Wing chord, c_w, m(ft)	2.49(8.17)
Flap chord, c_f, m(ft)	1.28(4.19)
c_f/c_w	0.514
c_f/D_S	1.68
Flap III:	
Wing area, S, $m^2(ft^2)$	7.40(79.8)
Wing chord, c_w, m(ft)	1.68(5.5)
Flap chord, c_f, m(ft)	0.71(2.31)
c_f/c_w	0.42
c_f/D_S	0.93
Semispan, b, m(ft)	4.42(14.5)

TABLE I. - Continued

Pylons	Z, m(ft)	Z/D
Long Pylon	0.96(3.13)	1.24
Medium Pylon	0.604(1.98)	0.79
No Pylon	0.253(0.83)	0.33

Ducted Fan	
Duct	
Inside Diameter, m(ft)	0.762(2.5)
Exit Diameter, m(ft)	0.762(2.5)
Chord, m(ft)	0.655(2.146)
Fan Station, percent of duct chord	35.13
Fan	
Planform curves	see figure 3(b)
Number of Blades	8
Hub-to-Tip Diameter Ratio	0.533
Blade Angle at Tip, deg	30
Approx. Blade Tip Clearance, cm(in)	0.81(0.032)
Pressure Ratio	1.03

TABLE II. - COORDINATES FOR FLAP III

FORE FLAP

CHORDWISE STATION	UPPER ORDINATE	LOWER ORDINATE
0	0	0
0.75	4.50	- 6.25
1.50	6.60	- 8.10
2.50	8.64	-10.00
3.75	10.75	-11.74
5.00	12.50	-13.02
10.00	17.20	-15.75
15.00	20.70	-16.65
20.00	23.10	-16.44
25.00	24.85	-15.90
30.00	26.15	-15.45
35.00	26.90	-15.00
40.00	27.41	-14.55
45.00	27.72	-14.09
50.00	27.63	-13.63
62.10	26.65	-12.88
63.70	26.50	0
75.00	24.61	12.50
87.50	22.10	17.65
100.00	19.24	19.00

L.E. RADIUS = 15.00

CHORD = 33.52 cm (13.2 inches)

AFT FLAP

CHORDWISE STATION	UPPER ORDINATE	LOWER ORDINATE
0	0	0
1.16	5.21	-4.18
2.32	7.36	-5.77
3.49	8.95	-6.76
4.65	10.03	-7.54
6.90	11.61	-8.28
9.30	12.91	-8.53
11.61	13.72	-8.39
13.95	14.37	-8.17
18.60	14.92	-7.71
23.22	15.14	-7.29
34.85	13.24	-6.19
46.50	10.91	-5.04
58.10	8.59	-3.94
69.70	6.19	-2.89
81.40	3.87	-1.72
93.00	1.48	-0.69
100.00	-0.09	-0.14

L.E. RADIUS = 8.39

CHORD = 36.06 cm (14.2 inches)

ALL DIMENSIONS IN PERCENT CHORD

TABLE III.- Basic Wing Coordinates

UPPER SURFACE		LOWER SURFACE	
CHORDWISE STATION	ORDINATE	CHORDWISE STATION	ORDINATE
0	0	0	0
0.42	1.93	0.985	-1.63
0.74	2.38	1.37	-1.96
1.39	3.11	2.12	-2.47
3.10	4.45	3.94	-3.33
6.57	6.40	7.52	-4.50
10.05	7.90	11.05	-5.35
13.57	9.13	14.57	-6.01
20.61	11.01	21.55	-6.98
27.75	12.41	28.55	-7.65
34.80	13.41	35.30	-8.05
42.00	14.05	42.47	-8.22
49.00	14.35	49.45	-8.16
57.40	14.30	56.40	-7.87
63.25	13.95	63.35	-7.37
70.25	13.33	70.30	-6.73
77.50	12.49	77.30	-5.88
84.60	11.40	78.70	-5.74
93.80	10.19	84.30	3.94
100.00	8.52	91.30	8.19
		100.00	8.40

Leading Edge Radius - 1.171

CHORD = 1.194 m (47.0 inches)

All Dimensions in Percent Chord

TABLE IV.- INDEX TO DATA TABLES.

TABLE	PYLON	FLAP	δ_f, deg	C_M	T, lb.	
V-1	Isol. Duct	–	–	STATIC	313	
-2	↓	↓	↓		489	
VI-1	LONG	I	0			
-2			30			
-3			60			
-4			90			
VII-1		II	90			
-2			60			
VIII-1		III	0		175	
-2					314	
-3					397	
-4					488	
-5			60			
-6			90			
IX-1	MEDIUM	I		5.7		
-2		↓	↓	2.3		
X-1		II	0	STATIC	488	
-2				2.2		
-3				1.1		
-4				0.62		
-5				0.28		
XI-1			30	STATIC	488	
-2				2.3		
-3				1.1		
-4				0.63		
-5				0.28		
XII-1			60	STATIC	175	
-2					314	
-3					397	
-4					488	
-5				4.9		
-6				4.5		
-7				2.3		$\alpha = -6°$
-8						0
-9						6
-10						12
-11						18
-12	↓	↓	↓	1.1		

TABLE IV. - CONTINUED.

TABLE	PYLON	FLAP	δ_f, deg	C_M	T, lb.
XIII -1	MEDIUM	II	90	STATIC	488
-2	↓	↓	↓	5.6	
-3				4.1	
-4				2.3	
XIV -1		III	0	STATIC	488
-2			30	↓	↓
-3			60		
-4	↓	↓	90	↓	↓
XV -1	NO	I	30	2.4	
-2	↓	↓	↓	1.1	
-3				0.28	
XVI -1			60	4.9	
-2			↓	4.0	
-3		↓		1.1	
XVII -1		II	0	2.3	
-2		↓	↓	1.1	
-3				0.62	
-4				0.28	
XVIII -1			30	STATIC	488
-2			↓	2.2	
-3				1.2	
-4				0.62	
XIX -1			60	STATIC	175
-2			↓	↓	314
-3					397
-4					488
-5				5.3	
-6				3.6	
-7				2.2	
-8			↓	1.1	
XX -1			90	STATIC	488
-2			↓	5.3	
-3				3.6	
-4				2.2	
-5		↓	↓	1.1	
XXI -1		III	0	STATIC	488
-2		↓	↓	3.4	
-3	↓	↓	↓	0.4	

TABLE IV. - CONCLUDED

TABLE	PYLON	FLAP	δ_f, deg	C_M	T, lb.	
XXII-1	NO	III	30	STATIC	488	
2	↓	↓	↓	2.2		
3				1.1		
4				0.27		
XXIII-1			60	STATIC	488	
-2			↓	5.2		
-3	↓	↓	↓	1.1		
XXIV-1	DUCT REMOVED		0	0	q = 1 psf	
-2	↓	↓	↓	↓	= 5 psf	
-3	↓	↓	↓	↓	= 15 psf	

NØISE DATA

TABLE V-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

TEST 0 RUN 20 DELTA 2 CØRRECTED FØR REVERBERATIØNS

MICRØPHØNE:	2	3	4	5	6	7	9	10	1
ANGLE(DEG):	160.0	140.0	120.0	100.0	80.0	60.0	20.0	.0	
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	
GAIN,	10	10	10	10	10	10	10	10	
FREQ(HERTZ)									
12.5	67.0	70.0	70.0	70.0	57.0	57.0	67.0	58.0	
16	64.2	69.0	69.0	69.0	56.0	56.0	66.0	56.0	
20	64.4	68.0	68.0	68.0	55.0	55.0	65.0	56.0	
25	65.6	67.0	67.0	67.0	54.4	56.6	64.0	55.8	
31	67.8	68.0	67.0	67.0	59.6	60.4	70.8	63.4	
40	67.2	67.0	67.0	67.0	58.6	60.2	65.0	60.8	
50	68.4	67.0	67.0	67.0	60.2	60.0	65.0	60.6	
63	71.0	71.6	70.2	69.8	64.6	65.8	68.0	64.2	
80	70.2	70.0	70.8	70.8	66.8	66.2	70.0	66.0	
100	72.2	73.8	72.1	72.2	68.8	69.8	69.6	68.2	
125	77.2	76.2	76.0	74.0	72.7	70.8	74.1	69.4	
160	74.6	75.0	75.8	76.8	74.4	73.6	72.2	71.6	
200	77.6	78.4	77.4	76.0	75.8	76.6	75.0	75.2	
250	80.9	83.1	79.7	79.1	78.3	77.9	77.5	77.9	
315	78.1	80.7	78.9	78.3	76.7	77.1	78.5	76.3	
400	79.2	81.6	78.6	82.8	78.2	79.4	81.6	79.2	
500	103.2	105.6	99.0	105.6	98.0	99.2	104.2	99.4	
630	92.2	94.4	88.2	95.2	87.0	91.0	94.8	91.0	
800	81.4	82.4	80.0	79.8	79.2	79.2	80.6	80.4	
1000	99.9	95.5	100.5	88.7	95.3	91.9	100.5	97.1	
1250	92.1	90.7	94.1	85.3	87.7	87.5	91.1	91.7	
1600	90.6	94.6	92.6	88.2	87.8	91.2	89.8	94.6	
2000	93.8	97.0	95.8	91.2	93.6	92.4	93.8	94.6	
2500	87.5	93.3	89.9	90.7	88.7	89.9	91.5	86.3	
3150	86.2	92.0	86.6	89.0	83.2	86.6	86.6	84.8	
4000	89.2	96.4	89.0	87.8	83.6	88.2	87.8	82.4	
5000	84.4	90.2	83.2	86.7	82.4	82.0	84.2	79.5	
6300	82.6	87.0	81.8	81.8	80.3	82.3	80.5	81.5	
8000	81.6	85.0	80.4	80.0	77.9	79.3	79.1	80.9	
10000	74.6	80.6	75.6	75.6	74.2	75.6	77.8	72.6	
12500	72.6	78.2	73.8	73.8	72.6	73.6	76.6	70.2	
16000	70.2	74.8	71.0	70.6	70.6	71.6	74.2	68.6	
20000	69.8	74.8	72.2	72.0	70.2	72.0	75.6	68.6	
ØVERALL SPL UNCØRR	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
ØVERALL SPL CØRR	104.7	108.7	105.0	106.2	102.3	102.0	103.7	103.9	
PNDB CØRR	113.8	118.7	114.2	115.0	112.0	112.8	113.0	113.0	

NØISE DATA

TABLE V-2. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 20 DELTA 4

MICRØPHØNE:	2	3	4	5	6	7	9	10	1
ANGLE(DEG):	160.0	140.0	120.0	100.0	80.0	60.0	20.0	.0	
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	
GAIN:	10	10	10	10	10	10	10	10	
FREQ(HERTZ)									
12.5	75.0	70.0	70.0	70.0	67.0	67.0	67.0	68.0	
16	69.0	69.0	69.0	69.0	66.0	66.0	66.0	66.0	
20	68.6	68.0	68.0	68.0	65.0	65.0	65.0	65.0	
25	68.8	67.0	67.0	67.0	64.0	64.0	64.0	64.0	
31	71.6	69.2	68.0	67.0	64.0	64.0	65.6	66.4	
40	71.0	69.0	67.0	67.0	64.0	64.0	64.0	64.0	
50	72.4	70.6	70.2	69.6	64.2	64.0	64.0	64.0	
63	75.8	75.6	74.8	74.2	69.6	68.4	67.6	68.4	
80	76.4	77.4	76.4	76.4	72.4	71.8	71.0	71.8	
100	75.6	75.0	76.1	75.6	72.0	72.8	70.6	71.2	
125	80.6	79.4	79.0	76.8	75.7	72.8	75.3	72.6	
160	78.8	80.2	83.0	79.6	80.4	78.0	76.0	75.6	
200	81.8	82.0	81.2	79.8	79.4	79.4	78.8	79.0	
250	83.9	86.9	83.5	82.7	81.7	81.3	81.7	81.7	
315	83.1	85.1	83.3	82.5	81.9	81.1	83.3	81.3	
400	80.8	83.2	83.6	83.0	81.8	81.4	81.6	81.6	
500	84.6	86.4	87.0	83.8	84.4	83.0	82.4	83.2	
630	106.2	109.8	112.4	103.2	107.6	106.6	104.8	108.0	
800	94.2	97.4	97.8	89.8	94.2	92.6	90.8	92.6	
1000	88.3	88.9	86.5	86.1	86.9	88.1	88.3	88.1	
1250	112.1	108.9	106.9	109.1	108.5	111.5	106.9	106.3	
1600	96.4	94.2	92.6	94.2	92.8	94.8	91.6	93.0	
2000	104.6	108.4	107.8	101.6	102.2	111.2	105.0	107.6	
2500	94.5	100.5	95.5	99.9	94.7	95.3	98.3	95.3	
3150	94.6	97.6	96.6	96.0	89.2	96.2	93.4	91.0	
4000	100.2	101.8	97.8	96.0	92.2	94.8	95.6	92.0	
5000	95.2	99.0	93.2	93.1	89.8	90.0	94.0	88.5	
6300	90.0	94.4	91.2	91.0	90.7	90.9	88.1	88.7	
8000	88.8	92.8	89.2	89.6	86.9	88.1	85.9	87.9	
10000	82.4	88.4	84.4	85.4	83.6	84.2	85.6	80.2	
12500	79.4	85.8	81.8	82.6	81.6	81.8	83.0	77.8	
16000	75.2	82.6	78.8	79.8	79.2	79.2	80.8	75.2	
20000	74.8	80.8	77.8	77.8	78.4	78.8	80.4	75.0	
ØVERALL SPL UNCØRR	70.0	70.0	70.0	70.0	70.0	70.0	70.0	70.0	
ØVERALL SPL CØRR	113.8	115.0	114.4	112.3	113.1	114.0	111.0	112.8	
PNDB CØRR	123.2	125.5	124.9	123.0	122.0	124.2	121.9	123.6	

$JØB PTLIST

NØISE DATA

TABLE VI-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 11 DELTA 4

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	114.0	80.0	80.0	80.0	80.0	77.0	77.0	77.0	77.0	77.0
16	114.6	79.0	79.0	79.0	79.0	76.0	76.0	76.0	76.0	76.0
20	113.8	78.0	78.0	78.0	78.0	75.0	75.0	75.0	75.0	75.0
25	112.6	77.0	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
31	113.2	77.0	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
40	112.8	77.0	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
50	112.2	80.0	80.0	79.8	79.2	75.8	74.8	75.0	74.0	74.2
63	111.0	77.0	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
80	109.4	82.8	80.4	80.6	78.6	77.2	75.8	75.2	74.0	74.0
100	109.2	78.8	79.6	79.7	78.4	74.0	75.0	75.2	73.0	74.0
125	109.0	80.8	80.0	81.0	77.8	76.1	74.4	75.5	75.5	74.0
160	104.6	83.0	80.6	81.8	82.4	78.8	78.2	76.6	78.0	74.0
200	105.4	79.8	78.6	80.4	78.4	79.8	78.2	77.0	76.0	76.8
250	103.7	81.1	84.5	84.1	82.5	81.7	80.5	81.3	80.1	80.3
315	100.3	82.3	84.1	84.5	82.7	82.3	80.9	82.5	82.7	79.9
400	95.6	78.2	80.8	83.4	82.2	80.8	80.8	81.4	80.4	80.2
500	96.6	84.0	83.0	85.6	83.6	82.8	81.8	83.8	82.0	81.2
630	104.8	107.8	100.4	99.2	106.2	104.6	100.6	111.0	104.8	102.2
800	97.0	98.2	91.8	89.0	95.4	94.6	90.0	100.4	93.4	90.6
1000	92.9	85.7	87.9	86.5	85.1	86.9	86.1	90.5	88.1	87.7
1250	112.7	106.1	105.3	109.1	106.3	110.1	106.3	110.9	108.3	106.1
1600	99.6	93.6	93.4	96.6	94.4	96.8	93.2	98.8	95.4	94.0
2000	104.6	106.0	105.4	109.0	104.4	103.0	111.6	106.4	107.0	107.6
2500	95.5	93.5	98.3	96.9	99.1	92.3	95.5	96.5	98.7	92.9
3150	93.6	91.2	98.2	96.0	94.2	93.2	95.8	95.2	93.8	89.8
4000	95.6	95.2	100.2	99.6	98.4	92.0	93.8	93.4	94.0	90.2
5000	91.8	91.8	96.8	94.0	94.9	90.8	90.2	92.8	93.8	88.7
6300	86.6	86.6	90.4	88.2	88.0	87.5	87.3	84.5	84.3	86.7
8000	83.0	83.0	82.0	81.0	81.0	80.5	80.5	77.5	78.5	80.5
10000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
12500	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
16000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
20000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
ØVERALL SPL UNCØRR	122.2	114.0	109.6	113.4	113.6	116.8	114.0	115.8	113.6	112.0
ØVERALL SPL CØRR	123.7	112.1	110.7	113.0	111.6	112.3	113.4	115.2	112.3	111.0
PNDB CØRR	127.0	122.4	122.7	124.5	122.1	121.3	125.3	123.4	123.0	122.3

NØISE DATA

TABLE VI-2. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 11 DELTA 7										
MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	117.2	80.0	80.0	80.0	80.0	77.0	77.0	77.0	77.0	77.0
16	116.4	79.0	79.0	79.0	79.0	76.0	76.0	76.0	76.0	76.0
20	113.0	78.0	78.0	78.0	78.0	75.0	75.0	75.0	75.0	75.0
25	111.6	77.0	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
31	112.0	77.0	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
40	111.4	77.0	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
50	109.6	79.6	80.6	81.2	80.0	76.6	75.6	75.8	74.8	74.4
63	109.0	77.0	77.0	78.2	78.0	75.6	74.0	74.0	74.0	74.0
80	107.0	81.0	79.4	81.6	79.6	78.8	76.4	77.6	75.0	75.0
100	105.8	79.4	80.0	80.9	79.0	76.6	76.8	77.0	74.0	74.4
125	106.4	80.6	80.6	81.6	77.8	77.7	75.2	77.1	75.9	74.0
160	104.2	81.4	80.4	84.0	83.2	80.0	79.0	78.4	77.2	76.0
200	102.8	78.2	79.6	80.0	79.4	78.6	78.2	77.8	76.0	77.8
250	100.7	81.1	84.3	83.7	82.1	81.7	81.3	82.5	81.3	79.7
315	98.3	81.7	83.5	84.1	81.9	82.7	83.3	82.3	82.7	80.5
400	92.6	78.6	80.4	83.0	81.8	81.2	81.6	81.0	80.2	80.4
500	94.0	82.8	84.2	85.0	83.6	84.6	84.4	84.2	81.8	81.8
630	101.2	104.0	103.4	105.6	107.0	109.8	112.4	108.8	106.6	105.2
800	94.8	95.2	94.6	94.8	96.0	99.6	101.4	99.2	95.6	93.6
1000	90.9	86.5	88.7	88.1	85.7	87.3	87.1	90.7	88.5	88.3
1250	104.1	108.1	106.1	115.1	105.1	109.9	111.5	113.3	104.7	106.9
1600	92.6	95.6	94.4	102.0	94.0	96.8	97.8	101.6	92.8	95.4
2000	106.0	109.2	110.2	106.6	105.4	102.6	109.0	104.2	109.2	109.4
2500	94.7	93.9	100.9	96.7	95.3	92.7	95.9	97.3	96.7	93.7
3150	91.0	94.6	98.4	96.8	95.4	90.6	98.4	96.2	95.0	92.0
4000	93.6	94.4	100.4	99.6	97.4	91.8	95.0	96.0	95.6	90.8
5000	90.8	91.2	98.8	95.4	96.7	89.8	91.8	90.2	95.4	87.9
6300	85.4	87.2	91.0	90.2	90.2	87.3	88.5	85.3	85.9	85.5
8000	83.0	83.0	82.0	81.0	81.0	80.5	80.5	77.5	78.5	80.5
10000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
12500	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
16000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
20000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
ØVERALL SPL UNCØRR	123.2	113.6	112.0	115.0	112.0	115.8	117.0	119.6	112.0	110.2
ØVERALL SPL CØRR	123.3	112.9	113.4	116.6	111.6	113.8	116.4	115.6	112.7	112.7
PNDB CØRR	125.0	124.2	125.8	125.6	122.5	121.5	125.2	124.1	124.2	123.7

NØISE DATA

TABLE VI-3. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 11 DELTA 11										
MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	89.6	112.6	80.0	80.0	80.0	77.0	77.0	77.0	77.0	77.0
16	84.2	109.6	79.0	79.0	79.0	76.0	76.0	76.0	76.0	76.0
20	83.2	108.4	78.0	78.0	78.0	75.0	75.0	75.0	75.0	75.0
25	80.6	108.8	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
31	85.2	109.6	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
40	83.6	108.2	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
50	84.2	107.6	81.4	81.0	81.0	78.6	77.2	77.4	76.8	76.2
63	82.0	105.6	77.0	78.0	79.0	76.6	75.0	74.6	74.0	74.0
80	84.8	103.8	80.0	82.2	81.8	80.2	80.0	81.0	79.2	77.4
100	84.2	101.8	80.2	81.5	80.6	78.6	80.0	80.6	77.8	77.4
125	84.6	101.2	80.6	82.8	79.4	78.5	76.0	78.1	77.5	75.4
160	87.6	90.0	82.0	83.4	82.6	81.0	78.8	79.8	82.2	76.2
200	84.4	95.4	79.4	81.2	80.2	80.6	79.6	79.8	78.6	79.8
250	84.1	91.7	84.5	84.7	82.7	82.5	80.9	82.9	80.7	80.7
315	82.1	90.3	84.1	84.7	82.7	82.5	82.1	83.1	82.7	80.7
400	78.2	85.8	81.2	82.6	81.6	82.0	81.0	82.2	80.2	80.6
500	82.2	87.0	84.2	85.2	82.8	83.2	83.2	82.6	82.0	82.0
630	98.8	101.6	108.0	105.6	104.2	103.4	110.2	103.0	103.6	107.2
800	90.2	93.6	99.2	95.2	94.0	93.8	99.6	93.8	93.0	95.4
1000	85.3	87.3	87.1	87.9	85.5	86.1	87.3	89.5	88.5	87.5
1250	107.1	108.1	109.1	116.7	106.7	107.1	110.1	109.3	110.7	105.5
1600	94.8	96.0	96.6	104.2	95.0	95.0	96.8	97.6	98.0	94.0
2000	106.0	105.2	103.2	103.2	101.2	108.0	110.2	105.4	107.4	109.8
2500	94.1	95.1	99.5	94.9	98.5	92.5	96.7	98.3	95.7	92.9
3150	91.4	92.6	101.4	99.2	94.2	89.8	98.2	96.2	94.0	89.6
4000	92.6	92.2	99.8	98.0	96.2	90.0	98.0	94.6	95.6	92.0
5000	90.2	90.0	98.8	92.0	93.7	90.4	91.6	92.0	93.0	85.7
6300	85.4	86.0	90.8	88.2	88.2	86.7	88.5	86.1	84.9	84.3
8000	83.0	83.0	82.0	81.0	81.0	80.5	80.5	77.5	78.5	80.5
10000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
12500	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
16000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
20000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
ØVERALL SPL UNCØRR	111.6	114.6	113.8	114.8	113.0	113.6	116.6	115.2	114.6	112.6
ØVERALL SPL CØRR	110.7	119.5	113.6	117.7	110.5	111.8	115.4	112.3	113.4	113.0
PNDB CØRR	121.9	123.5	123.3	126.3	120.3	122.9	125.7	122.4	123.4	123.9

NØISE DATA

TABLE VI-4. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 11 DELTA 15										
MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	80.0	106.4	80.0	80.0	80.0	77.0	77.0	77.0	77.0	77.0
16	79.0	106.4	79.0	79.0	79.0	76.0	76.0	76.0	76.0	76.0
20	79.8	105.8	78.0	78.0	78.0	75.0	75.0	75.0	75.0	75.0
25	77.4	104.6	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
31	82.0	104.4	77.0	77.0	77.0	74.2	75.0	74.8	74.0	74.0
40	84.0	104.4	77.0	77.0	77.0	75.6	74.4	74.0	74.0	74.0
50	86.2	103.4	82.4	82.2	81.4	79.6	78.4	79.2	78.8	78.0
63	84.6	103.6	80.8	81.0	81.2	80.6	77.6	78.6	78.0	78.2
80	84.8	101.4	82.2	82.4	81.8	80.4	80.8	81.0	78.8	80.0
100	85.4	100.0	81.6	81.9	80.8	78.6	79.6	80.4	78.0	78.6
125	84.8	100.0	81.8	82.6	79.2	78.7	84.8	79.9	78.1	77.0
160	83.6	95.2	80.8	85.8	82.6	82.0	79.8	80.0	79.8	79.4
200	83.2	96.0	81.6	81.0	80.6	82.0	80.4	80.2	79.4	80.4
250	83.1	94.9	85.3	84.3	84.1	83.9	86.1	84.1	82.7	81.9
315	81.7	91.1	85.3	84.9	83.9	83.3	82.7	84.7	84.3	81.9
400	79.2	88.2	81.4	83.2	83.2	81.6	82.6	82.6	81.4	81.6
500	82.2	89.4	85.0	86.0	83.6	84.0	83.2	83.4	82.4	82.6
630	97.4	100.0	109.0	107.4	104.2	99.8	99.8	105.2	100.6	106.8
800	89.0	91.8	99.2	95.8	92.8	89.2	89.2	95.2	90.2	94.4
1000	86.3	87.3	89.3	86.7	85.1	87.3	87.3	90.3	88.3	87.7
1250	105.7	104.9	111.3	112.7	102.3	109.1	111.7	110.1	106.9	107.7
1600	92.8	92.2	98.0	99.4	92.0	95.8	97.6	98.0	94.0	95.6
2000	101.6	101.6	105.0	106.6	108.2	105.8	113.8	104.4	104.8	111.2
2500	92.3	94.3	98.9	97.5	97.9	93.7	97.1	96.1	98.7	95.1
3150	90.8	92.6	98.6	97.6	95.6	89.8	95.2	96.4	94.0	91.8
4000	92.0	92.6	101.2	98.8	95.6	91.6	95.0	95.8	95.6	91.4
5000	90.0	89.2	98.8	93.6	94.9	89.2	92.8	90.6	93.6	87.5
6300	85.2	85.2	92.0	89.8	89.0	86.9	89.1	84.7	85.5	85.3
8000	83.0	83.0	82.0	81.0	81.0	80.5	80.5	77.5	78.5	80.5
10000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
12500	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
16000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
20000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
ØVERALL SPL UNCØRR	108.4	117.4	112.2	114.6	111.2	113.0	115.2	115.0	112.4	114.6
ØVERALL SPL CØRR	108.5	115.8	114.9	115.2	111.3	111.6	116.3	112.8	110.6	114.1
PNDB CØRR	119.2	121.4	124.2	124.4	123.7	121.7	127.5	122.1	121.7	125.2

NØISE DATA

TABLE VII-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 12 DELTA 7

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10	1
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0	
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	
GAIN,	0	0	0	0	0	0	0	0	0	0	
FREQ(HERTZ)											
12.5	75.4	108.2	80.0	80.0	80.0	77.0	77.0	77.0	77.0	77.0	
16	77.6	107.4	79.0	79.0	79.0	76.0	76.0	76.0	76.0	76.0	
20	77.8	105.8	78.0	78.0	78.0	75.0	75.0	75.0	75.0	75.0	
25	78.0	105.0	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0	
31	81.6	106.8	77.0	77.0	77.0	74.4	75.6	75.0	74.2	74.2	
40	84.8	106.6	78.8	77.0	77.0	75.8	74.0	74.0	74.0	74.0	
50	85.4	105.2	83.0	83.2	82.0	79.8	78.6	79.8	78.8	78.6	
63	84.8	104.0	81.4	80.6	81.8	81.0	78.6	78.8	78.2	78.6	
80	85.6	103.2	83.4	83.2	83.2	81.2	81.2	82.2	80.8	79.8	
100	85.8	102.4	81.4	82.7	82.2	79.8	81.2	81.6	79.4	79.8	
125	86.4	103.0	81.2	83.0	81.4	85.7	76.6	86.9	79.5	77.6	
160	84.4	98.8	80.8	83.0	83.2	82.4	81.6	81.0	81.4	79.0	
200	83.8	99.0	81.2	82.0	81.0	81.8	80.8	81.6	80.2	80.2	
250	84.7	97.3	85.9	85.1	84.7	85.5	83.5	88.1	82.3	82.5	
315	82.7	94.5	85.1	86.1	85.3	83.7	83.1	85.3	84.5	82.3	
400	80.0	90.0	82.4	83.2	83.2	83.6	82.6	83.6	82.6	82.0	
500	83.8	91.2	86.0	85.8	85.0	84.2	83.2	83.8	82.6	82.6	
630	106.0	105.8	110.8	104.2	108.4	105.4	108.0	104.0	101.0	105.6	
800	97.0	97.4	101.8	93.4	97.4	95.8	96.8	94.2	90.8	93.8	
1000	86.1	89.5	89.7	87.9	85.5	87.7	87.3	91.5	88.5	87.7	
1250	108.7	105.7	109.3	115.3	108.3	109.5	110.9	113.7	106.7	106.3	
1600	96.0	93.4	96.8	102.2	96.8	96.8	97.2	101.6	94.0	94.6	
2000	99.8	102.6	108.0	108.0	108.8	105.4	115.8	107.6	105.4	107.0	
2500	92.5	94.5	102.7	98.5	98.3	93.7	96.9	98.1	99.3	93.7	
3150	91.0	91.0	99.4	98.4	96.2	92.6	94.2	95.6	94.6	91.4	
4000	93.0	92.4	102.8	98.0	95.6	92.0	94.6	94.4	97.2	90.0	
5000	89.2	89.8	102.2	93.6	97.3	90.0	92.8	91.8	93.6	86.9	
6300	84.0	84.8	92.8	88.4	88.6	86.3	89.7	85.3	85.3	84.7	
8000	73.0	83.0	82.0	81.0	81.0	80.5	80.5	77.5	78.5	80.5	
10000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0	
12500	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0	
16000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0	
20000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0	
ØVERALL SPL UNCØRR	111.2	117.2	114.6	114.8	113.8	111.8	116.2	115.6	113.8	112.8	
ØVERALL SPL CØRR	111.6	117.5	115.6	116.8	114.0	112.5	117.7	115.5	110.8	111.6	
PNDT CØRR	120.5	122.8	126.0	125.8	124.9	122.2	129.0	124.5	122.2	122.3	

NØISE DATA

TABLE VII-2. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 12 DELTA 11

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	1
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0	
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	
GAIN,	0	0	0	0	0	0	0	0	0	0	
FREQ(HERTZ)											
12.5	87.2	109.0	80.0	80.0	80.0	77.0	77.0	77.0	77.0	77.0	
16	82.6	108.4	79.0	79.0	79.0	76.0	76.0	76.0	76.0	76.0	
20	79.0	107.4	78.0	78.0	78.0	75.0	75.0	75.0	75.0	75.0	
25	76.0	105.2	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0	
31	78.0	104.8	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0	
40	80.2	103.4	78.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0	
50	81.4	102.6	81.2	81.8	81.8	78.2	78.0	77.8	76.6	76.6	
63	80.6	101.2	77.8	77.4	79.2	76.4	74.8	74.6	74.0	74.0	
80	82.2	99.6	81.4	81.6	81.2	79.2	79.8	79.6	78.0	77.8	
100	81.8	99.0	80.0	81.1	80.4	77.6	80.4	80.2	77.6	77.6	
125	83.0	99.2	80.0	81.8	79.8	79.3	88.4	85.7	78.1	75.8	
160	81.4	93.0	80.2	83.0	81.8	81.2	80.8	80.2	79.0	77.4	
200	81.6	93.4	79.6	80.8	79.8	80.6	79.8	80.6	79.2	79.4	
250	82.3	91.7	84.9	84.5	83.9	83.3	86.7	85.9	80.7	80.9	
315	81.7	89.1	84.3	83.9	82.5	82.5	82.1	83.3	83.1	81.5	
400	79.2	84.6	81.4	82.6	82.0	82.2	82.6	82.8	81.2	81.6	
500	82.2	87.0	84.6	85.0	84.2	83.4	84.4	83.0	82.0	82.0	
630	101.8	104.4	107.6	103.4	108.6	103.2	111.8	105.2	105.6	104.2	
800	92.8	95.4	98.6	92.4	97.4	93.0	100.8	95.6	94.6	93.0	
1000	85.3	87.3	87.7	87.5	85.3	86.3	87.5	90.3	88.1	86.9	
1250	107.5	110.1	108.3	116.3	104.5	105.5	111.7	112.3	107.5	106.5	
1600	95.0	97.0	95.8	103.2	93.2	93.4	97.8	100.2	95.0	94.6	
2000	101.6	103.6	104.2	109.2	106.0	112.2	111.4	104.0	110.6	109.8	
2500	93.9	92.3	98.7	96.5	95.9	92.9	96.7	98.1	99.5	94.5	
3150	91.2	92.0	99.8	98.2	94.0	89.6	93.6	94.0	93.6	91.0	
4000	94.8	93.0	100.8	98.0	95.6	90.2	93.8	94.4	94.8	92.6	
5000	89.2	90.8	97.8	94.0	95.1	90.0	90.4	92.2	92.6	87.1	
6300	84.4	85.8	90.8	88.0	88.8	86.3	89.5	85.3	85.1	86.1	
8000	73.0	83.0	82.0	81.0	81.0	80.5	80.5	77.5	78.5	80.5	
10000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0	
12500	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0	
16000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0	
20000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0	
ØVERALL SPL UNCØRR	111.6	115.0	114.2	116.6	116.4	114.8	117.4	116.2	113.0	111.6	
ØVERALL SPL CØRR	110.1	117.3	113.2	117.7	112.2	113.7	116.7	114.2	113.7	112.6	
PNDB CØRR	119.6	123.0	123.1	126.3	122.7	125.5	126.4	123.3	125.2	124.0	

NØISE DATA

TABLE VIII-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

TEST 0 RUN 13 DELTA	1									
					CØRRECTED FØR REVERBERATIØNS					
MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	105.6	70.0	70.0	70.0	70.0	67.0	67.0	67.0	67.0	67.0
16	105.4	69.0	69.0	69.0	69.0	66.0	66.0	66.0	66.0	66.0
20	106.2	68.0	68.0	68.0	68.0	65.0	65.0	65.0	65.0	65.0
25	104.0	67.0	67.0	67.0	67.0	64.0	64.0	64.0	64.0	64.0
31	104.6	67.4	67.0	67.0	67.0	64.0	64.0	64.0	64.0	64.0
40	103.6	67.0	67.0	67.0	67.0	64.0	64.0	66.4	64.0	64.0
50	103.2	71.0	70.4	70.4	70.0	67.6	67.0	67.0	67.2	66.6
63	102.4	67.0	67.0	67.0	67.0	64.0	64.0	64.0	64.0	64.0
80	101.4	67.0	67.0	67.0	67.0	64.0	64.0	64.0	64.0	64.0
100	101.2	68.8	68.8	68.9	78.2	73.8	77.8	77.4	63.0	64.0
125	101.0	69.4	68.4	71.4	91.8	89.9	91.8	92.7	65.5	64.0
160	99.6	68.0	67.2	72.2	72.6	71.0	73.6	70.4	66.0	65.8
200	98.0	72.2	70.2	71.8	73.4	73.8	74.0	73.8	68.0	68.8
250	95.5	73.5	74.1	74.7	85.9	85.3	86.9	87.3	70.9	69.9
315	92.9	72.7	74.9	74.9	74.5	73.5	73.9	75.1	73.1	73.7
400	91.2	86.6	82.8	90.2	89.2	87.8	91.0	91.2	87.2	92.8
500	89.0	74.2	73.2	75.6	73.8	73.8	74.0	74.2	72.2	74.6
630	89.6	74.0	75.0	77.8	77.2	74.6	77.0	77.2	74.8	75.8
800	90.8	87.6	89.0	94.8	91.8	86.2	89.4	88.4	87.2	79.2
1000	85.3	78.7	81.3	78.1	77.5	76.9	77.3	81.7	77.7	79.5
1250	89.7	92.5	96.9	88.3	88.5	83.3	85.7	92.1	84.1	94.7
1600	84.0	85.6	82.4	82.0	82.0	76.8	76.6	82.0	82.2	80.8
2000	85.8	83.2	84.8	85.4	82.8	84.4	85.6	83.8	84.0	84.6
2500	83.1	78.9	84.3	82.1	83.5	80.3	79.3	82.7	83.7	78.7
3150	80.6	77.4	84.0	77.8	78.2	76.2	79.4	81.4	79.4	75.6
4000	81.6	78.8	84.8	79.8	80.0	74.8	78.0	80.2	79.8	75.2
5000	80.0	74.0	81.0	74.0	75.1	71.2	74.2	74.8	77.6	72.1
6300	81.0	71.0	73.6	71.0	70.0	70.5	70.9	68.7	69.5	70.1
8000	83.0	73.0	72.0	71.0	71.0	70.5	70.5	67.5	68.5	70.5
10000	80.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
12500	80.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	81.0	66.0
16000	80.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
20000	80.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	101.0	66.0
ØVERALL SPL UNCØRR	115.6	96.8	98.4	100.8	101.8	100.8	102.4	101.8	129.8	107.8
ØVERALL SPL CØRR	114.8	96.0	99.0	97.8	97.9	95.4	97.5	98.7	101.8	97.7
PNDB CØRR	113.6	105.9	109.2	106.6	106.6	104.6	106.1	107.2	105.2	106.3

NØISE DATA

TABLE VIII-2. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 13 DELTA 2

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	111.4	70.0	70.0	70.0	70.0	67.0	67.0	67.0	77.0	77.0
16	112.8	69.0	69.0	69.0	69.0	66.0	66.0	66.0	76.0	76.0
20	110.2	68.0	68.0	68.0	68.0	65.0	65.0	65.0	75.0	75.0
25	108.0	67.0	67.0	67.0	67.0	64.0	64.0	64.0	74.0	74.0
31	108.2	68.0	67.4	69.0	68.8	65.4	64.6	64.8	74.0	74.0
40	107.2	67.0	67.0	67.4	67.0	66.0	64.0	64.0	74.0	74.0
50	106.6	71.6	72.2	72.8	72.2	68.6	68.2	67.8	74.6	74.8
63	104.8	70.4	72.0	72.2	72.8	67.8	67.8	65.0	74.0	74.0
80	104.4	70.8	70.8	71.4	71.6	68.4	67.4	66.4	74.0	74.0
100	103.6	73.2	72.8	74.3	73.2	69.8	70.0	70.6	73.0	74.0
125	104.6	74.8	75.2	75.8	74.0	72.5	74.0	72.3	75.5	74.0
160	103.0	73.6	73.6	76.8	75.8	76.2	73.0	70.0	76.0	74.0
200	100.8	76.0	75.2	75.6	75.8	75.8	75.2	74.6	75.0	75.0
250	98.5	77.5	79.1	78.1	78.3	77.7	77.7	77.1	76.1	75.5
315	95.3	76.7	79.1	78.3	77.3	77.3	76.7	77.3	77.9	74.9
400	91.0	79.0	80.4	82.2	81.8	78.4	78.4	77.2	81.8	81.8
500	103.2	105.4	105.6	106.2	104.8	99.8	98.4	93.4	105.8	105.6
630	95.0	95.4	95.6	96.0	96.2	89.6	90.8	86.0	97.8	98.6
800	90.2	79.8	81.2	80.6	79.0	78.2	78.8	80.6	79.2	79.8
1000	91.3	97.3	100.7	101.5	91.9	97.5	93.9	97.1	95.3	96.5
1250	91.1	90.7	93.9	96.5	86.5	89.9	88.7	88.9	88.7	92.3
1600	88.6	84.4	90.6	95.8	89.6	86.4	90.8	86.0	92.0	97.0
2000	91.8	97.6	91.6	93.8	90.0	95.2	91.2	93.6	92.6	94.0
2500	88.1	89.5	91.9	91.9	90.1	86.9	86.9	88.5	91.1	84.9
3150	85.6	86.2	90.6	87.6	86.6	83.8	84.2	86.4	88.8	83.0
4000	88.4	86.6	93.6	88.8	88.0	82.8	86.4	88.8	90.0	83.0
5000	83.8	82.4	89.6	83.0	86.7	80.8	82.2	84.2	86.4	80.1
6300	81.0	77.6	81.8	79.6	78.6	76.7	79.9	77.3	77.5	78.7
8000	83.0	73.0	72.0	71.0	71.0	70.5	70.5	67.5	78.5	80.5
10000	80.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	81.0	76.0
12500	80.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	81.0	76.0
16000	80.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	81.0	76.0
20000	80.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	81.0	76.0
ØVERALL SPL UNCØRR	118.8	108.6	108.6	110.0	109.4	106.6	105.6	101.2	111.8	113.8
ØVERALL SPL CØRR	119.4	107.3	108.1	108.8	106.3	103.6	102.0	101.4	107.6	107.8
PNDB CØRR	118.6	115.2	116.6	116.7	114.7	112.9	111.3	112.2	116.1	115.5

NØISE DATA

TABLE VIII-3. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 13 DELTA 3										
MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	113.0	73.0	72.2	70.0	71.0	67.8	67.2	67.0	77.0	67.0
16	113.4	69.0	69.0	69.0	69.0	66.0	66.0	66.0	76.0	66.0
20	112.4	68.0	68.0	68.0	68.0	65.0	65.0	65.0	75.0	65.0
25	110.2	67.0	67.0	67.0	67.0	64.0	64.0	64.0	74.0	64.0
31	110.8	70.8	70.2	71.0	69.2	65.8	66.8	64.8	74.0	64.0
40	109.0	70.8	71.0	68.8	67.0	66.4	64.0	64.4	74.0	64.0
50	108.2	74.0	72.8	74.4	74.6	70.2	69.0	69.8	74.8	69.2
63	106.8	70.8	72.8	72.8	72.4	65.8	68.0	67.8	74.0	67.0
80	105.4	77.8	75.6	77.4	76.8	74.2	73.0	71.2	74.0	71.0
100	104.8	74.8	76.2	77.5	75.4	72.4	71.8	71.8	73.0	71.0
125	105.4	79.4	74.6	77.2	77.6	78.3	78.4	73.3	75.5	71.4
160	103.2	76.0	75.0	79.2	78.8	77.6	78.8	74.4	76.0	74.0
200	102.2	77.2	77.4	78.6	79.2	77.2	76.0	76.4	75.0	75.2
250	98.7	78.5	84.3	81.7	80.3	80.1	82.7	79.1	77.5	77.9
315	95.3	79.5	81.3	81.3	80.1	79.5	79.5	79.5	78.3	77.1
400	91.6	76.4	78.0	80.2	79.4	79.6	80.6	78.6	78.0	78.0
500	96.2	82.2	83.2	88.6	87.0	87.0	87.0	83.8	88.2	81.0
630	108.6	92.0	94.6	103.6	103.0	102.2	104.2	99.6	105.6	96.4
800	91.4	81.0	82.8	82.8	80.6	81.6	83.2	83.4	82.4	81.2
1000	90.5	87.9	90.3	88.7	82.9	89.1	88.5	94.9	87.3	85.3
1250	103.7	104.3	106.3	106.9	96.9	104.1	104.7	108.7	100.7	97.7
1600	89.4	89.4	93.4	88.0	86.8	87.2	83.6	87.8	85.4	87.8
2000	97.2	98.6	102.6	96.2	93.8	97.0	91.6	93.2	94.0	95.8
2500	91.9	94.7	90.7	95.5	97.9	85.7	89.5	98.1	91.5	88.3
3150	89.0	88.6	93.4	87.6	92.4	84.6	89.8	90.2	92.0	87.4
4000	90.8	89.8	95.0	91.4	91.8	84.4	90.0	90.6	91.6	85.2
5000	88.0	85.0	94.8	88.4	89.1	85.0	87.4	85.0	89.6	83.5
6300	82.6	81.2	86.8	83.2	82.2	80.7	83.9	81.3	81.1	80.3
8000	83.0	73.0	75.0	71.0	71.0	70.5	70.5	67.5	78.5	70.5
10000	80.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	81.0	66.0
12500	80.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	81.0	66.0
16000	80.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	81.0	66.0
20000	80.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	81.0	66.0
ØVERALL SPL UNCØRR	122.4	104.8	108.0	109.2	114.4	110.6	108.8	111.0	106.8	104.4
ØVERALL SPL CØRR	121.2	106.4	109.0	109.4	106.1	107.1	108.1	110.0	107.8	102.5
PNDB CØRR	122.1	116.1	119.6	118.3	117.1	115.5	116.4	118.8	116.3	113.4

NØISE DATA

TABLE VIII-4. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 13 DELTA 4

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	115.8	74.0	70.0	70.0	70.0	67.0	67.0	77.0	77.0	77.0
16	115.0	70.8	69.0	69.0	69.0	66.0	66.0	76.0	76.0	76.0
20	116.8	68.0	68.0	68.0	68.0	65.0	65.0	75.0	75.0	75.0
25	114.0	69.0	68.2	67.0	67.0	64.0	64.0	74.0	74.0	74.0
31	114.0	72.4	71.2	70.8	70.0	67.6	66.6	74.0	74.0	74.0
40	112.0	73.0	71.6	71.6	68.0	66.8	66.6	74.0	74.0	74.0
50	112.0	73.8	74.6	75.4	75.0	71.0	70.0	75.4	75.2	75.6
63	111.6	75.0	75.4	76.0	75.2	71.8	70.0	74.0	74.0	74.0
80	110.0	80.4	82.0	79.4	77.8	74.2	74.2	74.0	74.0	74.0
100	109.6	78.0	78.2	79.5	79.0	74.8	75.0	75.2	73.0	74.0
125	109.8	79.0	78.8	80.8	82.0	82.5	79.6	82.3	75.5	74.0
160	108.4	77.8	76.8	80.6	82.8	82.0	79.6	77.8	76.2	76.8
200	106.4	80.0	79.8	80.0	80.0	79.8	78.8	78.6	76.6	78.0
250	104.5	81.9	85.1	86.1	84.1	83.7	82.3	85.1	80.1	81.3
315	102.9	81.1	84.3	84.3	82.5	82.3	81.5	82.3	83.1	80.9
400	97.2	79.2	81.6	83.2	82.6	82.0	81.6	82.2	80.4	80.8
500	97.8	83.2	85.4	85.2	83.2	83.4	82.6	85.0	81.2	81.8
630	106.8	107.0	111.0	105.6	105.6	104.6	107.2	112.0	96.8	105.2
800	99.4	98.4	102.2	95.0	94.8	94.8	96.6	102.0	87.8	93.4
1000	94.1	86.5	87.9	85.5	85.9	86.5	86.7	89.9	86.9	86.9
1250	108.3	110.1	105.1	107.3	111.3	108.5	109.1	110.5	105.9	103.7
1600	96.4	97.2	93.8	94.6	99.2	95.6	95.6	98.8	93.8	93.4
2000	103.8	102.8	111.0	103.4	99.8	104.0	110.6	101.8	108.6	112.0
2500	96.3	98.1	97.3	94.1	95.3	91.9	97.1	94.7	97.3	93.9
3150	93.0	92.8	100.4	95.0	94.0	89.2	95.2	95.8	93.6	89.0
4000	97.2	93.6	100.4	99.8	96.8	90.6	94.6	93.6	93.6	90.6
5000	90.6	90.6	97.2	94.2	94.1	89.6	91.8	90.8	94.6	86.3
6300	86.2	86.4	90.2	87.6	86.8	86.5	88.7	83.7	84.1	84.3
8000	83.0	75.0	77.8	75.8	75.6	71.7	74.3	77.5	78.5	80.5
10000	80.0	70.0	71.0	69.0	70.0	70.0	70.0	78.0	81.0	76.0
12500	80.0	70.0	71.0	69.0	70.0	70.0	70.0	78.0	81.0	76.0
16000	80.0	70.0	71.0	69.0	70.0	70.0	70.0	78.0	81.0	76.0
20000	80.0	70.0	71.0	69.0	70.0	70.0	70.0	78.0	81.0	76.0
ØVERALL SPL UNCØRR	123.6	113.6	113.6	114.2	113.8	114.2	115.8	117.2	111.4	112.4
ØVERALL SPL CØRR	124.6	113.0	115.3	111.5	113.3	111.4	114.4	115.1	111.3	113.5
PNDB CØRR	126.0	121.7	126.4	121.4	122.4	120.6	125.3	122.4	123.3	125.1

TABLE VIII-5. - SEMISPAN WING-DUCTED FAN EBF STATIC SOUND STUDY NOISE DATA

SPL IN DB REL. .0002 MICROBAR CORRECTED FOR REVERBERATIONS

TEST 0 RUN 13 DELTA 7

MICROPHONE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	116.4	93.2	80.0	70.4	80.0	80.4	77.0	77.0	67.0	77.0
16	116.2	90.6	79.0	69.0	79.0	76.0	76.0	76.0	66.0	76.0
20	115.2	85.2	78.0	73.4	78.0	75.0	75.0	75.0	65.0	75.0
25	113.6	82.8	77.0	67.8	77.0	74.0	74.0	74.0	65.8	74.0
31	114.0	79.2	77.0	72.8	77.0	74.0	74.0	74.0	70.0	74.0
40	113.4	80.0	77.0	74.2	77.0	74.0	74.0	74.0	69.8	74.0
50	112.6	80.6	80.4	78.2	80.4	76.2	76.6	77.4	73.6	76.4
63	111.4	79.8	77.0	79.4	78.4	75.8	74.0	74.0	73.6	74.0
80	110.2	82.0	81.6	80.8	81.4	79.0	79.8	80.6	78.0	76.2
100	109.2	80.4	79.0	81.3	80.2	78.6	79.0	79.6	76.8	76.6
125	109.8	81.8	80.4	82.0	78.6	78.3	76.4	77.7	78.1	75.0
160	107.2	80.0	79.2	81.6	81.0	81.4	79.0	81.8	79.2	76.6
200	106.4	81.0	79.0	82.2	79.8	79.8	80.6	80.6	79.4	78.4
250	103.9	82.3	85.9	84.9	84.3	82.3	82.3	82.9	81.9	81.5
315	101.1	81.7	86.1	85.1	83.5	83.5	83.3	84.7	84.5	81.3
400	96.2	80.0	82.2	84.0	83.8	82.8	82.2	84.4	82.0	82.0
500	98.2	86.2	87.4	85.8	83.2	83.6	83.0	83.6	82.6	83.0
630	108.6	111.8	114.0	108.0	106.6	105.0	102.6	104.4	107.6	105.4
800	101.8	103.2	105.2	97.2	95.8	95.8	92.0	95.4	97.0	94.4
1000	94.5	88.3	90.3	87.9	87.1	88.5	88.1	91.9	89.7	89.5
1250	109.9	111.5	104.9	113.1	111.3	106.1	113.3	110.9	108.5	106.5
1600	98.0	99.2	94.2	100.6	99.8	94.0	99.6	99.8	96.2	95.4
2000	105.6	105.0	106.4	105.0	109.8	104.4	111.4	109.0	106.6	108.6
2500	94.3	94.9	102.1	96.7	98.9	93.1	96.3	98.9	101.5	94.5
3150	93.4	93.2	99.8	95.8	95.2	93.6	94.6	94.6	96.0	93.0
4000	93.4	95.8	102.2	98.0	94.6	94.2	94.8	97.0	96.8	92.6
5000	91.0	92.2	98.6	93.6	95.5	92.4	92.4	93.4	94.2	89.5
6300	85.6	87.0	91.0	88.8	89.4	88.1	88.7	85.5	85.7	86.5
8000	83.0	74.6	82.0	76.4	81.0	80.5	80.5	77.5	73.9	80.5
10000	80.0	70.0	81.0	69.0	80.0	80.0	80.0	78.0	71.0	76.0
12500	80.0	70.0	81.0	69.0	80.0	80.0	80.0	78.0	71.0	76.0
16000	80.0	70.0	81.0	69.0	80.0	80.0	80.0	78.0	71.0	76.0
20000	80.0	70.0	81.0	69.0	80.0	80.0	80.0	78.0	71.0	76.0
OVERALL SPL UNCORR	123.6	116.6	116.4	113.6	115.8	112.6	116.4	116.4	115.8	113.4
OVERALL SPL CORR	124.8	115.7	116.3	115.3	114.9	110.8	116.0	114.3	113.3	112.3
PNDB CORR	126.6	123.3	124.9	124.3	125.5	121.4	126.1	124.8	123.5	123.8

NØISE DATA

TABLE VIII-6. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

TEST 0 RUN 13 DELTA 10 CØRRECTED FØR REVERBERATIØNS

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	118.6	88.4	80.0	70.0	80.0	77.0	77.0	77.0	77.0	67.0
16	117.6	86.4	79.0	69.0	79.0	76.0	76.0	76.0	76.0	66.0
20	118.0	85.2	78.0	70.4	78.0	75.0	75.0	75.0	75.0	65.0
25	115.2	81.8	77.0	68.6	77.0	74.0	74.0	74.0	74.0	65.0
31	114.8	82.4	77.0	72.0	77.0	74.0	74.0	74.0	74.0	67.8
40	114.8	80.0	77.0	73.6	77.0	74.0	74.0	74.0	74.0	70.8
50	112.8	84.0	82.6	80.8	81.0	78.2	77.4	78.2	77.8	74.0
63	112.4	83.0	79.6	80.0	78.8	78.0	75.8	76.2	74.6	77.2
80	112.0	83.2	84.6	82.2	82.2	79.8	80.4	82.4	81.2	80.0
100	111.2	83.4	82.8	82.7	82.2	79.2	81.4	81.8	80.2	80.2
125	110.8	86.4	84.0	83.0	80.0	78.7	77.2	79.7	79.9	77.8
160	107.4	82.0	80.8	86.4	81.8	82.4	82.6	81.2	80.6	79.8
200	109.2	84.2	82.0	83.2	80.8	81.2	81.4	82.2	81.2	80.8
250	106.7	84.1	86.9	86.1	84.3	83.5	82.9	84.5	82.9	82.5
315	103.9	82.7	84.5	84.5	83.1	83.1	81.5	84.1	84.9	81.7
400	99.4	79.8	82.2	83.8	82.8	82.4	81.6	83.0	81.4	81.4
500	100.2	84.4	85.4	85.0	84.0	83.6	83.8	84.4	81.6	82.2
630	106.2	108.4	108.8	106.8	106.2	103.0	111.2	110.0	98.0	101.6
800	100.4	99.6	100.2	98.4	95.2	93.4	100.2	100.6	88.6	91.0
1000	95.5	86.3	87.7	86.1	85.5	86.3	86.5	91.9	88.5	87.1
1250	105.9	108.7	105.3	112.1	108.1	103.9	105.5	115.5	111.1	101.7
1600	94.8	96.0	93.8	99.6	96.2	92.0	92.2	103.8	98.8	91.8
2000	107.0	101.2	104.8	108.2	104.8	105.8	106.4	107.4	111.2	108.4
2500	93.9	93.5	97.1	95.5	95.9	91.3	97.1	98.3	98.5	94.9
3150	91.8	91.0	99.2	97.8	95.6	89.0	96.0	94.6	94.6	90.6
4000	94.4	95.4	100.2	99.4	95.8	91.6	95.2	93.0	94.6	89.8
5000	89.8	91.2	96.8	93.6	94.1	90.6	92.8	91.8	93.0	86.5
6300	84.8	85.4	89.6	87.8	88.2	86.1	89.5	84.1	85.5	84.9
8000	83.0	73.6	82.0	76.4	81.0	80.5	80.5	77.5	78.5	72.7
10000	80.0	70.0	81.0	69.0	80.0	80.0	80.0	78.0	81.0	66.0
11500	80.0	70.0	81.0	69.0	80.0	80.0	80.0	78.0	81.0	66.0
12000	80.0	70.0	81.0	69.0	80.0	80.0	80.0	78.0	81.0	66.0
16000	80.0	70.0	81.0	69.0	80.0	80.0	80.0	78.0	81.0	66.0
OVERALL SPL UNCØRR	126.0	115.4	114.6	110.6	114.0	111.8	114.8	118.0	112.8	111.6
OVERALL SPL CØRR	126.2	112.7	112.8	115.0	112.2	109.8	113.9	117.5	114.7	110.4
PNLB CØRR	127.3	121.0	123.1	124.8	122.3	121.4	123.2	125.8	125.7	122.5

NØISE DATA

TABLE IX-1. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 13 DELTA 3								
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	10	10	20	10	10	10	10
FREQ(HERTZ)								
12.5	89.6	102.2	78.0	75.4	78.0	78.0	78.0	78.0
16	88.6	101.2	77.0	74.6	77.0	77.0	77.0	77.0
20	87.2	99.6	76.0	76.0	76.0	76.0	76.0	76.0
25	85.0	98.0	75.0	76.0	75.0	75.0	75.0	75.0
31	86.0	98.6	75.8	76.6	78.2	78.0	76.8	75.2
40	86.4	96.0	75.0	76.4	76.6	76.4	76.0	75.0
50	86.8	95.6	79.4	78.4	80.4	80.0	81.2	76.2
63	85.0	95.6	79.2	80.8	83.2	79.6	82.2	78.0
80	84.8	92.4	83.8	81.4	82.8	82.6	80.2	79.8
100	84.4	93.4	82.8	82.0	84.4	84.8	83.0	83.6
125	87.2	91.2	82.4	82.8	89.4	91.6	85.8	91.6
160	83.2	90.2	83.6	82.6	87.0	86.2	83.4	84.6
200	84.0	88.4	85.0	84.8	87.6	84.2	83.2	83.2
250	85.6	88.4	86.4	85.0	89.6	87.0	86.8	85.2
315	82.4	87.4	84.0	84.4	84.2	85.4	85.4	85.2
400	83.0	87.4	84.8	84.8	84.6	86.2	86.0	85.4
500	84.2	88.2	85.6	86.0	85.0	87.0	86.2	86.0
630	106.0	109.2	106.4	96.8	101.4	109.8	101.2	106.6
800	95.0	98.4	95.4	88.6	91.0	98.8	91.6	95.6
1000	83.6	88.0	86.6	87.6	88.8	87.8	87.4	89.2
1250	100.8	100.4	101.6	96.0	109.4	104.6	98.6	103.0
1600	92.0	92.8	93.2	91.2	99.8	96.2	91.8	94.6
2000	98.6	101.4	96.8	106.2	108.0	108.8	103.4	100.6
2500	90.4	94.4	96.6	94.6	95.2	98.0	99.8	94.4
3150	88.8	95.8	91.6	93.4	92.2	91.2	91.8	91.6
4000	87.0	93.4	91.8	94.8	92.4	91.0	91.2	90.8
5000	87.6	92.6	90.8	92.2	88.0	91.4	91.4	87.2
6300	83.0	90.2	86.2	90.2	85.6	86.6	85.8	86.4
8000	79.8	87.2	83.2	89.2	81.4	84.2	83.4	84.2
10000	75.6	83.6	81.6	87.8	78.2	80.0	79.4	81.4
12500	73.2	81.6	78.8	87.0	76.0	79.4	79.8	79.6
16000	71.2	80.0	75.0	86.6	75.0	75.0	75.0	76.4
20000	73.6	82.2	75.0	87.2	75.0	75.6	75.0	78.2
OVERALL SPL UNCORR	114.6	117.6	116.6	113.4	117.6	119.2	114.6	115.2
OVERALL SPL CORR	108.8	113.2	109.2	108.5	112.8	113.6	108.1	109.9
PNDB CORR	117.5	121.3	118.5	122.0	123.7	124.5	120.6	119.5

NØISE DATA

TABLE IX-2. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 13 DELTA 13

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	10	10	10	20	10	10	10	10
FREQ(HERTZ)								
12.5	98.8	78.0	78.0	73.0	78.0	78.0	78.0	78.0
16	97.0	77.0	77.0	71.2	77.0	77.0	77.0	77.0
20	96.8	76.0	76.0	72.2	76.0	76.0	76.0	76.0
25	92.8	75.0	75.0	74.6	75.2	76.8	76.0	75.0
31	92.0	76.2	75.6	76.0	77.6	78.8	77.4	75.8
40	93.0	75.0	77.2	77.4	77.6	77.8	77.4	76.0
50	92.6	81.0	79.8	80.2	81.6	81.0	81.0	76.8
63	91.8	79.0	79.6	81.4	78.8	79.6	80.8	77.6
80	90.6	81.6	82.0	81.6	82.2	81.6	80.6	81.0
100	89.4	82.6	83.2	83.0	84.0	83.4	83.2	83.2
125	89.2	86.0	83.2	86.0	86.8	88.2	83.4	90.8
160	85.8	83.2	83.6	83.4	85.0	84.2	82.8	84.0
200	86.2	83.8	86.2	85.4	86.6	85.0	83.4	83.2
250	86.0	86.0	86.4	86.4	87.2	86.8	85.8	85.8
315	85.2	83.4	84.8	85.2	85.8	85.8	85.4	85.4
400	83.6	83.8	84.6	85.0	85.4	86.4	85.8	85.2
500	85.4	87.6	87.2	86.0	85.2	87.2	86.2	86.8
630	104.0	112.0	110.6	100.8	98.8	108.8	100.6	100.0
800	93.2	100.4	99.4	91.0	88.8	97.8	91.4	90.6
1000	85.4	87.6	86.2	87.0	84.8	87.0	87.2	89.6
1250	99.6	108.6	102.2	100.6	97.6	103.8	102.2	110.0
1600	91.4	98.8	93.4	92.6	91.6	96.0	94.4	100.6
2000	99.2	104.6	95.8	104.8	107.0	110.6	107.4	94.4
2500	91.6	93.4	99.8	91.4	94.8	99.2	99.6	95.2
3150	89.8	94.6	92.0	92.2	92.4	93.2	92.8	95.0
4000	88.2	90.8	88.4	90.6	90.8	91.4	89.6	89.4
5000	86.2	91.0	90.0	89.2	92.6	88.0	93.0	88.8
6300	83.4	86.2	87.4	86.4	86.8	85.0	85.6	85.4
8000	80.6	84.4	83.8	84.0	82.8	83.6	83.2	83.6
10000	78.2	81.0	81.8	82.2	79.6	80.6	81.2	81.0
12500	80.4	79.4	81.8	81.0	78.8	79.0	81.6	78.8
16000	83.2	79.0	82.8	79.4	79.0	76.4	84.4	75.2
20000	85.4	82.8	85.0	80.2	82.4	78.2	86.8	76.8
ØVERALL SPL UNCØRR	112.0	119.4	118.4	114.0	113.0	118.4	115.0	115.8
ØVERALL SPL CØRR	109.3	114.7	112.3	108.3	109.0	113.9	110.3	111.9
PNDB CØRR	118.0	122.5	120.8	120.9	122.2	125.4	123.0	121.2

NØISE DATA

TABLE X-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

TEST 0 RUN 3 DELTA 16 CØRRECTED FØR REVERBERATIØNS

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	118.2	80.0	80.0	80.0	80.0	77.0	77.0	77.0	77.0	77.0
16	118.4	79.0	79.0	79.0	79.0	76.0	76.0	76.0	76.0	76.0
20	117.6	78.0	78.0	78.0	78.0	75.0	75.0	75.0	75.0	75.0
25	117.0	77.0	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
31	116.6	80.0	79.6	78.8	78.8	74.2	74.0	74.0	74.0	74.0
40	116.6	78.4	80.2	77.0	77.0	74.0	74.0	74.0	74.0	74.0
50	113.6	82.2	83.0	82.4	80.8	76.6	75.8	76.2	75.6	76.0
63	114.0	80.6	81.6	80.4	80.2	76.6	74.0	74.0	74.0	74.0
80	113.6	82.4	83.4	83.6	82.8	78.2	76.2	77.2	76.4	76.4
100	112.4	81.8	81.6	81.3	80.2	77.2	76.6	77.0	74.4	76.2
125	113.2	84.6	81.8	81.0	79.0	78.1	75.2	76.3	76.7	74.8
160	109.4	86.0	81.4	82.2	83.2	82.2	79.6	77.8	79.6	76.2
200	108.8	82.6	80.8	81.6	80.6	81.6	79.6	79.2	79.0	78.2
250	106.7	82.5	85.1	83.1	82.3	82.5	81.3	81.9	81.1	80.7
315	103.9	82.1	84.3	82.9	81.1	81.5	81.3	82.3	83.9	80.9
400	99.2	79.2	80.4	82.0	82.0	81.8	81.0	81.6	82.2	81.8
500	100.0	83.0	83.6	84.8	83.4	83.6	83.2	83.6	82.2	82.0
630	104.8	102.6	105.0	104.4	102.8	107.2	110.4	109.4	104.6	103.2
800	99.8	94.6	96.2	93.8	92.0	97.6	99.6	99.5	94.0	92.4
1000	96.7	87.5	87.5	85.3	84.9	87.2	86.5	90.9	89.9	89.3
1250	107.1	112.9	104.5	105.5	105.7	109.3	105.3	108.7	110.7	107.3
1600	95.8	100.4	93.0	93.6	94.4	96.8	92.2	97.0	98.0	95.6
2000	103.8	106.2	104.2	105.2	103.6	103.6	107.4	100.2	109.2	108.2
2500	96.9	94.1	102.5	94.3	96.3	94.5	96.9	98.3	98.7	93.7
3150	93.6	91.4	97.2	94.0	95.4	91.0	96.2	94.2	93.8	93.2
4000	95.2	99.0	98.8	96.2	93.6	90.0	94.8	94.4	96.6	92.0
5000	92.0	92.2	99.8	92.8	93.5	90.0	92.2	90.8	95.8	88.9
6300	87.2	87.0	91.2	87.6	87.8	87.3	87.5	84.7	86.7	85.9
8000	83.0	83.0	82.0	81.0	81.0	80.5	80.5	77.5	78.5	80.5
10000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
12500	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
16000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
20000	80.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
ØVERALL SPL UNCØRR	127.2	111.0	112.0	112.4	111.8	114.8	115.8	115.0	114.4	113.6
ØVERALL SPL CØRR	127.0	114.7	111.4	110.7	110.0	112.6	113.6	113.1	114.2	111.9
PNDB CØRR	126.6	123.7	122.9	121.9	121.1	121.1	123.5	121.2	124.8	123.1

NØISE DATA

TABLE X-2. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

TEST 372 RUN 18 DELTA 4		CØRRECTED FØR REVERBERATIØNS						
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN.	20	10	10	10	20	10	10	10
FREQ(HERTZ)								
12.5	86.8	78.0	78.0	78.0	68.0	78.0	78.0	78.0
16	82.2	77.0	77.0	77.0	67.0	77.0	77.0	77.0
20	78.2	76.0	76.0	76.0	66.8	76.0	76.0	76.0
25	74.6	75.0	75.0	75.0	69.6	75.0	75.0	75.0
31	77.2	79.0	77.8	77.0	75.8	76.6	76.2	75.0
40	74.8	75.0	75.2	75.6	72.6	75.0	75.0	75.0
50	77.6	80.6	80.2	80.2	77.8	78.8	79.2	75.0
63	79.2	77.6	81.4	80.2	77.4	75.2	77.0	75.0
80	80.2	81.4	83.8	82.0	77.8	79.0	77.2	77.2
100	81.2	85.0	84.4	83.8	81.4	83.0	80.6	80.2
125	89.0	89.2	83.0	87.0	85.6	89.4	82.4	82.4
160	80.2	85.0	83.4	83.0	82.4	85.2	82.0	83.8
200	82.2	85.0	85.6	84.4	84.0	83.8	83.6	82.6
250	87.0	85.6	86.6	86.2	86.0	86.0	84.8	84.0
315	82.4	83.6	83.6	83.2	83.8	84.0	85.2	84.2
400	82.0	83.8	84.2	83.8	83.0	85.8	85.8	84.4
500	84.0	86.2	85.4	84.4	84.8	86.8	85.8	86.4
630	108.2	107.8	103.6	99.6	105.0	110.4	105.0	105.8
800	97.6	97.4	93.6	90.0	94.8	99.8	95.4	95.4
1000	83.6	86.0	86.6	85.4	84.2	86.8	86.8	87.8
1250	100.4	105.8	104.8	99.6	100.0	106.6	104.8	104.6
1600	92.0	97.0	96.4	92.4	92.8	98.0	96.8	96.0
2000	98.2	101.4	100.4	107.2	106.8	104.2	107.2	100.8
2500	89.6	95.6	97.6	94.0	99.0	99.0	98.2	93.6
3150	89.8	93.0	91.8	89.4	93.2	93.0	92.4	90.6
4000	86.2	89.8	89.6	90.4	89.4	91.6	89.2	88.0
5000	87.0	90.0	90.4	87.6	87.2	89.0	90.6	87.0
6300	82.8	90.8	87.8	86.0	83.6	86.4	86.0	84.8
8000	80.6	84.4	83.6	81.8	80.8	84.0	84.0	82.8
10000	76.8	80.2	80.8	78.0	77.8	80.2	80.0	79.8
12500	73.4	77.6	78.4	76.4	74.8	78.6	75.2	78.0
16000	67.0	75.0	75.0	75.0	70.6	75.0	75.0	75.0
20000	66.0	75.0	75.0	75.0	74.2	75.0	75.0	75.0
ØVERALL SPL UNCØRR	115.0	115.8	115.0	113.6	114.4	118.2	115.2	115.4
ØVERALL SPL CØRR	110.8	111.4	109.4	109.2	110.5	113.4	111.4	109.8
PNDB CØRR	118.3	120.5	119.5	122.0	122.3	122.2	123.0	119.2

NØISE DATA

TABLE X-3. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

TEST 372 RUN 18 DELTA 10		CØRRECTED FØR REVERBERATIØNS						
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	10	10	10	20	10	10	10
FREQ(HERTZ)								
12.5	85.0	78.0	78.0	78.0	68.0	78.0	78.0	78.0
16	81.6	77.0	77.0	77.0	67.0	77.0	77.0	77.0
20	78.2	76.0	76.0	76.0	69.8	76.0	76.0	76.0
25	72.2	75.0	75.0	75.0	70.6	75.0	75.0	75.0
31	75.8	78.2	78.0	76.4	75.0	76.2	75.0	75.0
40	74.8	75.0	75.8	75.0	72.6	75.0	75.0	75.0
50	77.2	80.8	80.6	79.2	77.6	78.0	79.6	75.0
63	78.8	77.0	78.6	78.2	76.8	75.4	78.2	75.0
80	81.2	81.6	83.6	81.4	77.8	78.0	77.0	76.6
100	80.4	83.8	83.8	82.2	81.2	82.8	80.2	79.6
125	84.4	86.4	90.8	87.6	87.6	90.8	85.6	86.2
160	81.0	85.4	83.0	82.2	83.4	84.8	83.6	84.0
200	81.4	83.8	85.4	85.4	84.4	84.2	83.2	83.0
250	84.0	86.0	85.6	87.0	86.8	86.2	86.6	85.2
315	82.2	82.8	83.8	82.8	83.0	83.8	84.6	83.8
400	81.0	83.4	84.2	83.6	84.2	84.6	86.2	84.0
500	84.2	85.6	84.8	84.4	84.0	86.6	86.0	86.4
630	108.6	107.4	105.8	104.4	100.2	109.0	106.8	105.6
800	97.8	96.8	95.8	93.4	89.8	98.6	96.6	95.2
1000	83.4	86.8	86.6	87.0	83.8	87.2	88.0	88.2
1250	102.6	107.4	103.0	100.4	98.4	105.8	106.6	106.8
1600	94.0	98.2	95.0	92.4	90.6	97.0	98.0	97.8
2000	102.4	97.8	103.6	106.4	104.2	104.4	104.0	97.6
2500	94.0	95.4	97.8	92.4	99.2	99.6	96.8	92.8
3150	89.8	92.2	95.2	89.0	90.8	93.6	90.8	91.0
4000	87.2	89.8	90.4	87.0	91.0	94.8	87.8	89.0
5000	87.4	90.8	91.6	88.8	86.8	89.2	89.2	90.2
6300	83.2	89.6	86.4	83.6	82.2	87.0	85.6	86.0
8000	80.6	85.0	84.4	81.8	82.2	84.2	83.8	84.0
10000	77.2	80.0	81.2	77.6	78.0	79.8	79.8	80.2
12500	73.8	78.0	78.6	76.6	74.4	78.4	75.0	78.2
16000	67.6	75.0	75.0	75.0	65.2	75.0	75.0	75.0
20000	66.0	75.0	75.0	75.0	65.0	75.0	75.0	75.0
ØVERALL SPL UNCØRR	116.4	116.8	115.2	113.4	112.8	118.2	117.2	114.8
ØVERALL SPL CØRR	111.0	111.5	110.3	109.8	107.8	112.6	111.6	110.3
PNDB CØRR	119.7	120.4	121.3	121.6	120.4	122.3	121.4	119.5

NØISE DATA

TABLE X-4. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 18 DELTA 12

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	10	10	20	20	10	10	10
FREQ(HERTZ)								
12.5	84.2	78.0	78.0	77.6	77.0	78.0	78.0	78.0
16	81.0	77.0	77.0	67.0	67.0	77.0	77.0	77.0
20	77.8	76.0	76.0	66.0	69.0	76.0	76.0	76.0
25	74.6	75.0	75.0	68.0	67.4	75.0	75.0	75.0
31	76.2	78.0	76.8	74.4	74.6	75.0	75.0	75.0
40	76.0	75.0	75.0	73.8	73.0	75.0	75.0	75.0
50	79.2	80.8	80.0	77.6	78.2	79.8	80.4	75.4
63	78.6	76.6	78.8	78.8	76.2	75.0	76.2	75.0
80	80.2	81.0	81.6	79.8	78.6	78.6	77.0	77.2
100	81.8	84.4	85.0	83.8	82.4	82.8	81.6	80.2
125	88.4	87.8	85.6	87.8	87.2	88.2	87.6	82.4
160	82.8	85.4	83.6	84.4	86.0	86.6	82.8	84.2
200	83.6	84.8	86.8	85.6	85.4	85.0	84.0	85.0
250	85.2	86.6	86.4	86.2	86.2	87.2	86.6	88.0
315	83.4	84.2	85.0	84.2	84.0	84.8	85.8	84.6
400	82.4	84.0	85.0	83.8	83.6	84.6	86.0	85.2
500	82.8	85.6	87.2	84.6	84.2	87.0	86.6	85.6
630	96.6	107.0	111.4	104.8	101.0	110.8	104.6	105.6
800	87.8	97.2	101.2	94.4	92.4	101.0	95.0	95.4
1000	83.2	86.4	86.8	85.6	85.6	87.4	88.2	87.2
1250	99.4	104.8	99.2	99.2	108.0	106.8	104.8	97.6
1600	91.6	96.8	91.6	91.4	99.8	98.8	96.8	91.8
2000	97.8	105.6	98.0	96.6	99.2	104.8	101.6	107.6
2500	91.6	91.8	93.2	91.2	94.2	97.8	99.4	97.4
3150	92.0	89.0	94.6	88.0	90.0	95.8	92.2	92.2
4000	90.0	92.8	91.0	90.2	90.4	90.8	92.0	89.2
5000	86.2	90.4	88.6	87.4	87.6	89.4	91.4	86.4
6300	83.8	87.2	86.2	83.4	82.8	86.8	85.4	86.8
8000	79.6	84.4	83.6	80.8	80.6	84.0	84.0	84.4
10000	77.2	80.4	79.8	77.8	77.6	79.8	79.4	80.2
12500	74.0	78.0	78.2	75.2	74.0	78.2	75.2	78.2
16000	67.8	75.0	75.0	69.2	65.4	75.0	75.0	75.0
20000	66.0	75.0	75.0	65.8	65.2	75.0	75.0	75.0
ØVERALL SPL UNCØRR	107.4	107.2	105.8	107.2	108.2	113.6	105.6	109.8
ØVERALL SPL CØRR	103.5	102.1	100.5	101.7	103.7	108.4	101.4	105.0
PNDB CØRR	112.1	111.2	110.5	110.5	112.2	116.2	113.2	114.1

TABLE X-5. - SEMISPAN WING-DUCTED FAN EBF SOUND STUDY-T372

NOISE DATA

SPL IN DB REL. .0002 MICROBAR

CORRECTED FOR REVERBERATIONS

TEST 372 RUN 18 DELTA 14

MICROPHONE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	20	10	20	20	10	10	10
FREQ(HERTZ)								
12.5	80.0	74.8	78.0	72.2	73.4	78.0	78.0	78.0
16	80.2	74.0	77.0	70.2	74.6	77.0	77.0	77.0
20	83.4	79.6	81.0	84.2	83.8	78.2	76.0	76.0
25	79.6	72.6	75.0	71.0	74.0	75.0	75.0	75.0
31	80.4	76.8	76.8	74.6	75.8	77.2	77.2	75.8
40	81.8	77.4	78.2	78.4	77.6	75.0	76.0	75.8
50	83.0	79.6	81.6	79.2	81.4	79.4	81.8	78.6
63	83.6	79.8	81.0	79.8	79.4	79.4	79.4	76.6
80	84.2	82.2	83.0	81.0	80.6	80.8	79.4	79.2
100	84.2	83.6	85.0	83.4	83.4	83.6	82.6	81.2
125	86.6	87.4	84.8	86.2	86.0	88.2	87.2	83.0
160	85.4	85.2	85.8	84.2	86.2	88.4	83.6	83.8
200	85.4	84.8	87.6	85.6	85.8	85.8	84.8	84.6
250	86.6	86.6	87.8	88.0	87.8	87.0	86.0	87.2
315	84.6	83.8	86.0	84.4	84.6	86.0	86.4	85.4
400	84.0	84.6	86.4	84.8	84.4	86.0	85.8	85.0
500	85.4	86.2	87.0	86.0	85.4	86.6	87.6	86.6
630	104.8	106.6	109.2	108.4	98.0	104.4	108.4	103.0
800	93.8	96.0	97.4	97.4	88.8	93.4	97.6	93.0
1000	84.4	85.6	86.8	86.2	85.0	87.2	88.0	87.8
1250	101.0	100.8	99.6	100.6	103.0	103.6	100.6	101.6
1600	92.2	92.4	91.2	92.2	94.2	94.8	93.4	94.0
2000	96.2	104.2	101.4	98.0	103.6	106.8	103.6	106.6
2500	89.8	91.4	92.0	93.4	91.6	96.8	94.6	93.6
3150	87.4	92.2	93.0	90.4	88.0	91.4	90.6	91.2
4000	88.2	92.0	89.8	93.0	89.4	88.6	89.0	88.0
5000	86.6	91.6	90.0	86.0	88.0	91.2	91.6	86.6
6300	85.2	85.2	86.2	83.8	83.2	86.8	84.8	85.2
8000	80.4	84.4	83.8	80.6	79.8	83.6	83.2	83.4
10000	76.8	81.4	81.4	77.6	77.8	79.6	79.0	80.0
12500	74.4	77.0	78.0	76.0	74.0	78.2	75.4	78.2
16000	69.0	69.6	75.0	70.6	65.0	75.0	75.0	75.0
20000	69.0	66.6	75.0	69.6	65.2	75.0	75.0	75.0
OVERALL SPL UNCORR	112.6	116.4	117.2	114.8	114.0	115.0	115.0	114.4
OVERALL SPL CORR	107.8	110.1	111.0	110.3	107.8	110.7	111.0	109.8
PNDB CORR	116.8	121.1	119.9	119.1	119.9	122.7	120.9	121.9

NØISE DATA

TABLE XI-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

TEST 0 RUN 3 DELTA 12	CØRRECTED FØR REVERBERATIØNS									
MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	112.0	91.0	80.0	80.0	80.0	77.0	77.0	77.0	77.0	77.0
16	111.2	84.4	79.0	79.0	79.0	76.0	76.0	76.0	76.0	76.0
20	109.4	79.6	78.0	78.0	78.0	75.0	75.0	75.0	75.0	75.0
25	107.4	77.0	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
31	104.2	77.6	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
40	103.4	77.0	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
50	101.6	81.0	81.2	81.8	80.8	77.0	76.0	76.6	76.0	75.6
63	100.6	80.0	80.6	81.8	80.6	76.4	74.2	74.0	74.0	74.0
80	98.6	81.8	84.4	83.0	83.4	79.4	78.0	77.4	76.8	76.0
100	97.0	80.0	80.8	81.1	80.8	78.4	78.8	78.0	76.0	76.4
125	95.2	82.6	81.6	82.0	79.2	78.1	76.0	77.7	77.3	75.0
160	92.4	82.0	82.8	84.2	81.4	82.0	80.0	79.6	80.0	76.6
200	92.4	81.0	80.2	81.0	80.0	81.0	79.4	79.6	78.2	77.6
250	91.3	83.3	86.3	82.3	82.5	82.7	81.3	81.7	81.3	80.5
315	88.5	81.7	84.1	83.5	82.1	82.1	81.3	83.3	83.5	80.7
400	85.0	78.8	80.8	82.0	82.0	82.0	80.2	81.6	81.0	82.2
500	87.8	83.2	83.8	84.0	83.0	82.8	82.4	81.6	81.8	82.6
630	107.2	106.6	105.4	104.0	95.4	102.2	107.8	102.0	103.0	106.8
800	98.2	97.2	96.2	93.0	86.6	92.6	96.8	92.4	92.8	95.2
1000	87.7	87.9	89.1	86.3	85.9	86.7	88.5	89.9	90.5	89.1
1250	110.9	112.9	108.7	111.7	109.7	101.9	112.3	100.3	111.9	111.5
1600	98.0	99.6	96.4	98.6	97.8	90.4	98.6	92.2	99.2	99.0
2000	105.4	107.8	108.4	102.6	103.8	102.6	113.4	111.0	109.6	108.8
2500	95.2	93.5	98.7	99.7	96.5	92.5	99.1	96.7	98.3	95.5
3150	95.0	93.4	96.8	96.8	97.2	90.6	96.4	95.4	93.8	91.4
4000	94.0	95.2	101.4	97.8	95.8	92.0	95.4	94.0	95.2	90.6
5000	91.0	92.4	100.2	92.8	92.3	90.8	91.4	91.2	93.4	89.3
6300	85.8	88.6	92.0	87.4	88.0	86.1	87.3	85.5	85.7	87.1
8000	73.2	83.0	82.0	81.0	81.0	80.5	80.5	77.5	78.5	80.5
10000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
12500	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
16000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
20000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
ØVERALL SPL UNCØRR	115.4	113.6	112.0	116.6	113.8	111.4	115.2	112.4	115.4	114.4
ØVERALL SPL CØRR	119.0	115.2	113.6	113.6	111.7	108.0	116.9	112.4	114.7	114.6
PNDB CØRR	123.7	124.1	125.2	123.2	121.5	119.5	127.6	124.8	124.9	124.1

NØISE DATA

TABLE XI-2. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 170 DELTA 4							
MICRØPHØNE:	2	4	5	6	7	8	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	0	10	20	20	20	10	10
FREQ(HERTZ)							
12.5	115.6	78.0	68.0	68.0	68.0	78.0	78.0
16	116.2	77.0	67.0	67.0	67.0	77.0	77.0
20	114.0	76.0	67.6	68.4	66.6	76.0	76.0
25	113.2	75.0	69.6	70.2	69.0	75.0	75.0
31	113.8	76.2	74.8	75.0	74.4	75.2	75.0
40	113.4	75.0	75.2	74.4	73.6	75.0	75.0
50	111.6	80.0	77.8	77.0	78.6	79.0	75.6
63	111.8	77.4	80.2	80.0	78.2	76.6	75.0
80	111.2	81.0	86.0	83.4	80.2	80.2	78.6
100	111.0	83.6	83.4	83.2	83.0	83.6	81.2
125	108.8	89.0	83.6	83.6	85.2	89.4	83.4
160	108.2	85.4	83.0	83.0	83.8	85.4	84.0
200	107.0	83.8	85.8	84.8	84.0	83.6	82.8
250	105.6	85.4	85.4	85.6	84.8	85.6	83.2
315	103.4	83.2	82.8	83.0	83.2	83.8	84.6
400	101.2	84.0	85.4	83.6	82.8	85.0	83.6
500	99.8	85.8	85.6	83.4	84.2	86.0	86.6
630	108.0	106.8	107.4	100.6	104.0	107.4	102.8
800	99.6	95.6	95.0	89.8	92.0	94.6	90.6
1000	94.8	86.0	85.8	85.2	86.8	88.6	87.2
1250	100.8	105.0	98.6	102.8	108.0	112.2	99.6
1600	94.0	95.8	90.0	92.4	98.0	102.0	91.8
2000	100.2	105.6	98.4	106.8	96.4	105.4	105.0
2500	91.8	93.4	90.2	94.0	96.8	97.2	90.8
3150	90.2	90.4	89.8	87.6	88.2	89.6	93.6
4000	88.2	91.6	88.8	91.4	89.2	87.0	88.2
5000	88.0	90.2	90.6	87.4	87.6	89.8	85.2
6300	85.2	89.0	87.6	83.6	83.2	85.2	86.8
8000	85.0	83.0	83.0	81.0	81.4	83.0	83.4
10000	85.0	80.6	80.0	77.2	77.6	78.2	79.2
12500	85.0	77.4	77.0	75.0	74.6	78.0	77.8
16000	85.0	75.0	70.6	68.2	65.0	75.0	75.0
20000	85.0	75.0	66.6	65.0	65.0	75.0	75.0
ØVERALL SPL UNCØRR	128.6	118.4	114.8	115.8	114.6	120.2	112.0
ØVERALL SPL CØRR	124.4	111.3	109.2	109.5	110.5	114.6	108.6
PNDB CØRR	124.2	122.1	118.3	121.8	119.8	123.2	120.7

NØISE DATA

TABLE XI-3. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

TEST 372 RUN 170 DELTA 10	CØRRECTED FØR REVERBERATIØNS						
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN:	0	10	10	10	20	10	10	20
FREQ(HERTZ)								
12.5	115.4	78.0	78.0	78.0	68.0	78.0	78.0	68.0
16	116.2	77.0	77.0	77.0	67.0	77.0	77.0	67.0
20	115.8	76.0	76.0	76.0	67.6	76.0	76.0	66.0
25	114.6	75.0	75.0	75.0	68.8	75.0	75.0	66.2
31	115.6	75.2	76.0	76.2	75.0	75.4	75.0	68.0
40	114.8	75.0	75.0	75.0	73.0	75.0	75.0	67.6
50	114.0	79.6	79.4	79.4	77.6	78.6	79.4	72.2
63	113.2	76.0	78.0	78.6	78.2	76.6	77.0	75.2
80	111.8	80.0	84.8	82.4	79.8	81.0	78.6	76.0
100	111.6	82.8	83.6	84.0	82.8	84.8	81.8	82.6
125	110.4	86.6	84.0	83.2	84.8	85.6	85.6	84.4
160	108.8	85.6	83.8	84.0	83.6	82.8	83.6	84.6
200	108.2	83.8	85.8	85.0	84.8	82.8	83.2	84.0
250	106.6	85.4	86.4	86.4	85.8	85.8	85.8	86.8
315	105.0	83.2	84.2	83.4	83.0	82.2	84.4	83.2
400	103.4	83.6	84.6	83.6	83.8	84.6	85.2	84.4
500	101.4	85.4	85.8	83.0	84.8	86.8	85.6	85.2
630	106.6	106.6	108.8	96.2	103.6	109.4	105.0	103.4
800	99.4	95.8	97.0	87.0	92.6	96.8	93.2	91.8
1000	97.2	86.0	87.2	86.0	84.8	87.0	87.4	87.6
1250	102.6	107.2	105.0	97.0	101.2	107.0	104.6	106.4
1600	97.2	97.2	94.6	90.4	93.0	97.2	95.2	96.0
2000	96.0	106.4	99.6	105.6	106.6	109.8	106.4	102.6
2500	91.8	91.8	96.0	93.8	98.6	98.8	98.2	90.6
3150	88.0	89.2	93.8	92.8	89.8	92.0	92.8	89.0
4000	88.8	93.8	87.0	89.0	86.8	89.2	89.6	88.2
5000	89.0	93.6	87.8	88.8	89.0	89.6	93.2	84.6
6300	85.0	87.2	85.6	83.6	82.6	83.2	88.0	84.2
8000	85.0	83.4	82.8	80.0	80.2	81.6	88.0	82.4
10000	85.0	81.0	80.6	76.0	78.2	79.4	88.4	80.6
12500	85.0	76.8	77.6	75.8	74.2	77.6	89.6	78.0
16000	85.0	75.0	75.0	75.0	65.0	75.0	90.8	70.8
20000	85.0	75.0	75.0	75.0	65.0	75.0	93.4	66.6
ØVERALL SPL UNCØRR	127.2	117.6	116.6	112.8	116.0	120.2	129.2	112.8
ØVERALL SPL CØRR	125.3	112.2	111.4	107.6	110.0	114.1	111.2	109.8
PNDB CØRR	124.2	122.7	119.9	120.7	121.9	124.8	122.8	119.7

NØISE DATA

TABLE XI-4. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 170 DELTA 12								
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	0	10	10	20	10	10	10	20
FREQ(HERTZ)								
12.5	115.8	80.2	78.2	80.6	80.4	80.4	78.0	69.6
16	115.8	77.0	77.0	68.6	77.0	77.0	77.0	67.0
20	117.4	76.0	76.0	70.6	76.0	76.0	76.0	66.0
25	117.2	75.0	75.0	70.2	75.0	75.0	75.0	66.6
31	117.6	76.8	76.2	74.6	75.8	75.0	75.0	69.0
40	116.2	75.0	75.4	74.6	75.0	75.0	75.0	68.8
50	115.2	80.4	79.6	77.4	79.4	78.8	79.2	72.8
63	114.6	77.6	79.0	80.0	77.8	76.6	77.4	75.0
80	113.0	79.8	84.2	82.0	80.4	79.6	78.0	77.0
100	113.0	83.6	84.2	83.8	83.8	83.2	81.6	80.8
125	111.2	85.4	83.2	83.2	84.8	85.4	84.6	81.4
160	110.2	84.4	82.8	82.8	83.8	86.0	82.6	83.6
200	108.8	83.6	85.8	85.2	85.0	82.8	84.6	83.8
250	107.6	85.2	86.8	86.6	86.2	84.6	86.0	86.8
315	106.8	83.8	84.6	83.8	83.6	83.6	87.6	81.0
400	105.0	84.0	86.0	83.8	84.2	86.4	85.6	82.8
500	102.6	85.0	85.6	83.6	84.8	87.0	84.0	85.4
630	104.6	106.0	108.0	101.2	104.8	111.8	104.0	99.4
800	99.8	95.0	96.8	90.8	93.6	99.6	93.8	89.6
1000	97.8	85.8	87.8	87.0	85.8	86.8	87.4	87.8
1250	100.0	107.8	108.6	94.6	107.6	103.6	107.6	100.0
1600	94.2	98.6	98.6	88.8	97.6	93.8	97.2	92.4
2000	100.2	100.8	101.2	101.0	97.4	106.4	106.6	107.2
2500	92.2	96.8	94.8	91.4	96.6	98.6	93.6	91.0
3150	90.4	92.6	94.2	95.4	90.2	97.8	89.2	87.4
4000	88.6	94.2	87.6	90.6	89.2	88.2	88.0	85.2
5000	88.2	90.6	89.6	87.8	85.8	88.4	90.2	87.6
6300	86.6	85.8	85.0	82.6	82.0	85.8	84.2	84.4
8000	85.0	84.6	83.6	80.2	81.6	83.2	82.0	82.2
10000	85.0	79.8	79.8	77.8	76.8	78.2	78.4	80.0
12500	85.0	77.4	77.8	74.6	75.6	77.6	75.0	77.2
16000	85.0	75.0	75.0	68.6	75.0	75.0	75.0	70.4
20000	85.0	75.0	75.0	65.0	75.0	75.0	75.0	66.8
ØVERALL SPL UNCØRR	128.4	115.6	118.8	113.4	113.4	118.0	114.4	112.6
ØVERALL SPL CØRR	126.5	111.4	112.5	106.1	110.5	114.0	111.6	109.0
PNDB CØRR	125.1	120.8	121.1	118.4	119.7	123.1	122.4	121.6

TABLE XI-5. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

NØISE DATA

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 170 DELTA 14								
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	0	20	10	10	20	10	10	20
FREQ(HERTZ)								
12.5	113.2	75.0	78.0	78.0	73.4	78.0	78.0	68.0
16	115.4	75.0	77.0	77.0	73.6	77.0	77.0	70.2
20	116.8	77.6	76.2	77.8	81.0	76.0	76.0	76.6
25	117.2	74.2	75.0	75.0	73.6	75.0	75.0	70.6
31	119.2	77.4	78.6	76.6	76.6	76.8	76.0	74.2
40	118.6	78.0	77.2	76.4	76.6	75.6	75.0	72.8
50	117.6	80.8	82.4	81.6	80.2	80.4	80.2	77.0
63	116.8	80.8	80.0	79.4	78.8	79.0	79.0	77.4
80	116.0	80.6	83.2	82.2	80.2	81.0	80.4	78.0
100	115.0	84.4	85.4	83.6	84.2	84.0	83.0	81.6
125	113.6	87.8	86.8	83.8	89.6	87.8	84.6	86.2
160	112.0	85.4	86.0	83.6	85.0	83.8	83.0	83.0
200	111.6	84.2	87.6	84.6	85.0	83.0	83.0	83.2
250	110.6	87.0	87.2	85.0	87.6	87.4	85.6	84.4
315	108.8	85.0	84.8	83.8	84.6	83.2	87.0	84.0
400	106.8	83.4	84.2	84.2	84.2	83.2	86.0	84.2
500	105.4	85.2	85.6	84.4	85.6	86.6	86.0	86.0
630	105.6	105.6	107.0	104.6	95.0	109.0	103.4	106.4
800	102.2	94.6	94.4	94.2	87.4	98.0	92.4	94.8
1000	100.4	85.4	87.2	86.8	86.0	88.2	88.0	87.4
1250	103.8	106.6	104.6	101.2	109.2	108.2	104.4	107.0
1600	98.2	97.6	94.6	92.8	99.0	98.8	96.0	97.4
2000	97.6	108.4	101.2	102.0	101.6	103.6	105.0	101.4
2500	92.8	93.8	91.8	95.4	95.2	98.8	94.8	96.6
3150	93.0	91.4	91.6	92.4	90.2	93.8	90.2	90.0
4000	90.2	90.6	87.8	91.2	93.2	88.8	91.2	85.8
5000	89.6	91.6	87.6	85.4	87.4	89.8	92.0	85.2
6300	87.2	83.6	85.8	82.2	84.6	86.8	84.4	83.6
8000	86.6	84.6	84.0	82.0	79.6	82.6	82.0	82.2
10000	85.0	79.4	81.0	75.6	76.2	78.2	78.4	79.6
12500	85.0	78.6	77.8	75.2	73.4	77.4	75.0	76.6
16000	85.0	68.4	75.0	75.0	65.0	75.0	75.0	70.2
20000	86.0	65.0	75.0	75.0	65.0	75.0	75.0	67.2
ØVERALL SPL UNCØRR	132.2	114.8	112.0	116.4	113.2	115.4	115.4	117.2
ØVERALL SPL CØRR	127.7	112.4	110.4	108.7	110.9	113.0	110.0	111.1
PNDB CØRR	126.7	123.7	119.6	119.5	120.6	121.8	121.5	119.7

NØISE DATA

TABLE XII-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 3 DELTA 1										
MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	78.4	100.8	80.0	80.0	80.0	77.0	77.0	77.0	77.0	77.0
16	68.8	98.2	79.0	79.0	79.0	76.0	76.0	76.0	76.0	76.0
20	66.8	98.8	78.0	78.0	78.0	75.0	75.0	75.0	75.0	75.0
25	65.8	97.8	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
31	66.8	98.0	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
40	70.0	96.0	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
50	71.6	95.0	77.4	78.2	77.0	74.0	74.0	74.0	74.0	74.0
63	71.4	93.2	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
80	70.0	92.8	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
100	71.2	92.2	77.0	77.5	77.0	74.0	75.0	75.0	73.0	74.0
125	73.2	90.8	78.0	78.0	76.0	75.5	74.0	75.5	75.5	74.0
160	72.2	90.2	77.0	79.0	78.0	77.0	77.0	76.0	76.0	74.0
200	72.6	89.6	77.0	77.0	76.0	76.0	76.0	76.0	75.0	75.0
250	72.1	86.1	79.5	77.5	76.5	75.5	75.5	76.5	75.5	75.5
315	72.5	83.1	78.5	77.5	77.3	75.5	75.5	76.5	76.5	74.5
400	86.8	85.0	86.2	86.2	96.2	88.6	94.2	92.6	87.4	82.2
500	73.8	79.8	77.0	77.0	76.8	76.0	75.0	75.0	74.0	74.0
630	73.4	78.4	78.0	78.0	78.0	77.0	78.0	78.0	77.0	78.0
800	86.8	90.4	86.0	90.6	83.8	90.6	88.8	92.6	86.2	84.6
1000	77.5	78.5	80.3	76.5	76.5	79.7	77.5	80.3	79.5	80.9
1250	89.5	86.3	94.7	85.1	86.1	93.7	88.5	83.1	87.3	96.5
1600	77.8	79.8	80.2	82.0	79.0	76.6	78.2	84.2	82.0	83.4
2000	83.8	86.2	88.2	87.8	82.6	84.8	84.2	85.0	86.0	85.8
2500	78.1	79.1	85.7	80.7	84.9	77.3	82.1	82.7	83.5	80.1
3150	74.2	76.6	82.2	78.0	80.0	76.0	80.2	80.0	80.6	78.4
4000	75.2	77.4	85.2	82.0	81.0	78.0	80.2	80.0	81.4	77.2
5000	71.6	74.4	83.0	79.0	80.5	78.0	78.0	78.0	80.0	75.5
6300	66.8	71.0	81.0	80.0	80.0	80.5	80.5	77.5	77.5	78.5
8000	63.0	73.0	82.0	81.0	81.0	80.5	80.5	77.5	78.5	80.5
10000	60.0	70.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
12500	60.0	70.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
16000	60.0	70.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
20000	60.0	70.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
ØVERALL SPL UNCØRR	97.0	107.0	99.0	99.2	103.0	100.0	96.6	100.0	100.8	99.8
ØVERALL SPL CØRR	94.2	107.8	98.9	96.9	98.9	98.0	98.0	97.9	96.0	98.4
PNDB CØRR	103.5	108.4	109.7	108.0	108.4	107.6	107.4	107.0	107.1	108.6

TABLE XII-2. - SEMISPAN WING-DUCTED FAN EBF STATIC SOUND STUDY NOISE DATA

SPL IN DB REL. .0002 MICROBAR

TEST 0 RUN 3 DELTA 2 CORRECTED FOR REVERBERATIONS

MICROPHONE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	73.4	105.8	80.0	80.0	80.0	77.0	77.0	77.0	77.0	77.0
16	72.0	105.4	79.0	79.0	79.0	76.0	76.0	76.0	76.0	76.0
20	69.8	102.4	78.0	78.0	78.0	75.0	75.0	75.0	75.0	75.0
25	70.8	103.6	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
31	73.0	102.4	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
40	75.8	100.8	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
50	75.2	99.4	78.6	79.4	78.6	75.6	74.6	75.0	74.0	74.2
63	79.0	98.2	79.2	80.4	80.6	76.2	74.0	74.0	74.0	74.0
80	77.8	96.0	77.6	78.4	79.0	76.8	76.0	76.2	74.4	74.0
100	77.0	96.4	77.0	77.5	77.0	74.0	75.2	75.2	73.2	74.0
125	78.6	97.0	78.0	78.0	76.0	75.5	74.0	75.5	75.5	74.0
160	78.0	93.8	77.0	79.0	78.0	77.2	77.0	76.2	76.0	74.0
200	78.2	93.2	77.0	77.4	76.2	76.2	76.0	76.0	75.0	75.2
250	79.5	90.7	81.9	78.5	78.7	78.5	76.5	77.9	77.9	75.9
315	76.5	86.9	79.7	77.5	76.7	77.5	76.3	77.5	77.7	75.5
400	77.4	83.4	77.6	80.6	78.8	78.0	79.2	78.8	78.6	77.8
500	102.0	99.0	100.8	104.4	99.2	99.2	101.8	100.4	99.8	97.2
630	91.6	89.4	90.0	93.6	89.8	89.0	93.2	92.4	91.0	90.0
800	79.2	83.6	80.2	78.6	78.8	78.0	79.8	79.8	79.8	81.0
1000	92.5	96.9	95.7	97.7	96.3	92.3	98.5	95.9	90.7	98.1
1250	86.9	90.7	90.3	92.3	89.5	86.9	91.7	88.5	87.3	93.1
1600	84.0	89.4	87.8	91.4	86.6	88.2	85.2	90.8	86.6	97.4
2000	92.2	92.4	95.0	98.2	88.2	94.4	94.0	96.6	94.2	95.8
2500	86.7	87.1	90.1	88.7	89.5	85.5	87.7	91.3	91.1	88.5
3150	82.8	84.8	89.6	87.2	88.0	82.6	85.6	86.6	89.8	84.0
4000	84.8	87.4	94.0	89.0	88.4	84.6	88.8	88.4	88.6	85.4
5000	81.2	83.4	89.8	83.0	85.5	81.0	81.6	83.8	86.6	81.5
6300	75.6	79.4	83.2	80.0	80.0	80.5	81.7	77.5	78.3	78.5
8000	63.0	73.0	82.0	81.0	81.0	80.5	80.5	77.5	78.5	80.5
10000	60.0	70.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
12500	60.0	70.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
16000	60.0	70.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
20000	60.0	70.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
OVERALL SPL UNCORR	106.2	113.0	107.4	109.0	108.0	104.2	107.2	105.0	109.4	107.2
OVERALL SPL CORR	103.8	113.1	104.7	107.1	103.1	102.4	105.1	104.4	103.2	104.3
PNDB CORR	112.3	114.9	115.9	116.3	112.5	112.8	113.7	114.8	113.6	114.3

NØISE DATA

TABLE XII-3. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

TEST 0 RUN 3 DELTA 3				CØRRECTED FØR REVERBERATIØNS						
MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	71.8	108.6	80.0	80.0	80.0	77.0	77.0	77.0	77.0	77.0
16	73.4	107.8	79.0	79.0	79.0	76.0	76.0	76.0	76.0	76.0
20	73.6	109.6	78.0	78.0	78.0	75.0	75.0	75.0	75.0	75.0
25	73.6	106.8	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
31	75.4	106.0	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
40	77.8	105.8	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
50	78.2	103.6	79.8	80.8	80.0	76.8	75.6	76.4	75.4	75.0
63	79.6	103.4	78.8	79.6	80.2	77.0	75.0	74.0	74.0	74.0
80	80.8	102.0	81.6	83.4	82.2	80.2	79.2	78.6	76.8	75.8
100	81.0	100.0	77.8	78.9	78.8	77.0	77.8	78.2	76.0	76.0
125	82.0	101.6	79.2	80.0	78.0	77.3	74.4	75.7	75.9	74.0
160	80.0	96.4	77.8	81.4	81.2	79.0	79.8	77.0	78.4	77.0
200	80.6	97.6	79.0	80.0	79.0	79.6	78.2	77.0	77.2	77.0
250	80.7	94.9	83.7	80.7	80.3	80.5	79.1	79.7	79.7	78.3
315	78.5	92.3	81.9	80.5	79.3	79.7	78.9	79.1	81.1	77.7
400	76.8	88.0	77.6	79.6	79.6	78.8	78.8	79.2	78.4	79.2
500	86.8	92.8	84.2	87.8	83.8	82.0	87.0	85.6	86.2	87.4
630	101.6	106.0	97.8	102.2	98.0	94.0	104.2	102.4	102.6	105.4
800	82.6	88.2	83.6	82.4	81.0	81.0	82.2	83.4	83.6	84.0
1000	90.7	88.5	88.7	88.5	87.7	89.1	88.5	92.3	90.7	91.7
1250	107.1	100.5	103.7	106.9	103.5	104.1	104.3	105.5	104.1	108.9
1600	89.8	87.0	90.4	89.2	88.4	87.8	86.4	88.2	88.4	91.8
2000	98.4	94.2	98.0	97.2	94.8	96.6	96.4	94.8	93.8	99.4
2500	94.3	92.9	97.7	90.3	97.5	92.1	97.1	97.7	97.9	91.9
3150	86.8	90.0	96.4	89.2	91.4	89.0	91.4	91.4	92.6	90.2
4000	90.0	91.2	97.6	92.2	91.0	90.6	91.2	90.6	91.4	90.2
5000	85.0	87.4	94.4	86.8	92.1	84.4	87.0	87.4	89.0	84.7
6300	79.6	82.8	86.8	84.0	84.0	81.1	86.9	81.3	81.7	80.5
8000	67.0	73.0	82.0	81.0	81.0	80.5	80.5	77.5	78.5	80.5
10000	60.0	70.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
12500	60.0	70.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
16000	60.0	70.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
20000	60.0	70.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
ØVERALL SPL UNCØRR	108.8	117.0	106.4	109.0	108.6	104.8	108.4	110.0	111.4	111.8
ØVERALL SPL CØRR	109.1	117.3	107.8	109.1	106.6	106.1	108.5	108.4	107.9	111.2
PNDB CØRR	118.1	119.5	119.3	118.4	117.6	116.2	117.6	117.7	117.8	119.5

NØISE DATA

TABLE XII-4. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 3 DELTA 4	1	2	3	4	5	6	7	8	9	10
MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	72.4	111.8	80.0	80.0	80.0	77.0	77.0	77.0	77.0	77.0
16	72.6	111.2	79.0	79.0	79.0	76.0	76.0	76.0	76.0	76.0
20	74.8	110.6	78.0	78.0	78.0	75.0	75.0	75.0	75.0	75.0
25	74.8	109.4	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
31	76.2	108.6	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
40	80.8	108.6	77.0	77.0	77.0	74.0	74.0	74.0	74.0	74.0
50	82.0	106.8	81.6	81.8	81.4	78.0	77.2	78.0	76.6	76.2
63	82.2	106.4	80.8	81.0	82.8	80.4	77.4	75.8	75.8	76.2
80	83.0	104.8	86.0	84.2	85.0	82.6	84.0	82.2	79.6	78.8
100	84.6	103.8	82.0	82.1	82.8	80.8	82.0	82.2	79.0	78.0
125	84.8	103.8	82.0	83.0	80.6	80.1	77.2	77.9	78.9	76.8
160	81.8	100.8	82.8	84.2	84.4	81.4	84.8	79.6	80.8	76.8
200	83.6	100.6	82.2	82.4	81.4	81.6	81.6	80.6	79.6	79.8
250	84.7	97.9	86.7	83.7	83.1	83.3	82.1	83.3	82.3	81.5
315	82.7	95.3	85.1	84.3	82.9	82.1	81.5	83.3	84.5	81.5
400	80.0	90.6	81.0	83.2	82.6	82.4	81.6	81.4	82.0	81.0
500	83.6	92.4	83.4	86.0	83.0	83.8	84.8	82.0	81.8	82.4
630	105.6	101.6	102.8	109.6	103.4	106.6	113.4	95.0	98.8	104.8
800	96.0	93.8	93.8	97.8	92.0	96.0	102.0	87.2	88.8	92.2
1000	87.7	89.5	88.1	87.9	86.1	86.3	87.5	90.1	88.9	88.1
1250	113.1	106.1	109.3	117.1	106.5	104.1	104.1	106.7	106.9	111.7
1600	99.6	93.4	96.4	103.2	94.4	91.8	92.2	95.2	94.0	98.4
2000	105.6	102.4	110.8	102.2	103.6	109.8	114.8	108.0	110.0	108.6
2500	93.9	92.7	97.7	98.7	98.5	94.9	97.1	95.5	98.9	96.3
3150	90.2	91.2	95.4	93.6	94.6	90.4	94.2	96.0	94.4	91.4
4000	94.2	92.8	101.2	98.8	94.0	92.2	93.6	93.0	93.6	92.8
5000	88.2	89.8	98.4	91.6	93.5	88.8	90.2	92.8	95.2	87.7
6300	82.8	85.4	91.6	88.0	87.2	85.3	88.7	85.5	84.1	86.5
8000	73.0	83.0	82.0	81.0	81.0	80.5	80.5	77.5	78.5	80.5
10000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
12500	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
16000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
20000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
ØVERALL SPL UNCØRR	113.6	120.8	113.0	115.8	111.8	114.0	116.6	113.0	113.4	114.0
ØVERALL SPL CØRR	114.8	119.8	114.3	118.4	110.6	112.6	117.7	111.3	112.6	114.3
PNDB CØRR	123.3	122.7	126.2	126.6	121.3	124.2	128.2	123.1	124.6	123.9

TABLE XII-5. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

NØISE DATA

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 16 DELTA 3	2	4	5	6	7
MICRØPHØNE:					
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0
GAIN,	10	20	20	20	20
FREQ(HERTZ)					
12.5	93.6	68.0	68.0	68.0	68.0
16	90.6	67.0	67.0	67.0	67.0
20	90.2	70.0	70.6	71.8	71.4
25	88.0	71.0	72.4	73.6	73.0
31	86.8	75.0	76.4	77.2	76.6
40	83.8	74.4	77.6	79.0	77.4
50	86.2	80.4	81.2	82.2	81.6
63	84.0	78.0	81.0	83.8	80.0
80	85.0	81.6	85.6	85.0	82.4
100	84.0	82.8	84.4	86.0	84.4
125	89.8	83.2	87.2	93.8	88.8
160	84.2	84.8	84.8	85.6	85.2
200	83.8	84.6	86.8	87.4	86.6
250	84.8	85.4	86.8	86.6	87.6
315	83.0	84.2	85.6	85.2	85.2
400	82.8	84.6	86.2	85.2	85.0
500	83.6	87.4	86.2	85.0	85.6
630	101.0	112.0	105.0	98.0	98.0
800	90.8	101.2	94.6	89.0	89.0
1000	85.0	86.4	86.8	86.8	87.4
1250	104.8	101.0	98.8	101.0	106.6
1600	96.2	92.8	91.2	93.2	97.8
2000	104.2	100.8	97.2	105.2	104.4
2500	92.4	90.8	94.2	94.6	94.8
3150	90.4	89.8	93.4	90.8	91.6
4000	89.0	90.2	91.6	92.8	88.4
5000	88.6	89.0	89.8	89.8	88.0
6300	84.4	88.2	86.0	87.4	84.0
8000	80.8	83.2	83.2	86.6	81.2
10000	76.8	79.8	81.0	86.2	79.6
12500	76.0	76.2	78.8	87.0	76.0
16000	75.0	69.6	72.6	87.6	66.6
20000	76.2	68.6	67.8	88.8	65.2
ØVERALL SPL UNCØRR	114.6	117.4	115.2	114.8	115.0
ØVERALL SPL CØRR	109.5	113.2	108.0	108.7	109.9
PNDB CØRR	120.7	121.2	117.8	121.6	121.1

NØISE DATA

TABLE XII-6. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 16 DELTA 5

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN:	10	10	10	20	10	10	10	10
FREQ(HERTZ)								
12.5	94.2	78.0	78.0	68.0	78.0	78.0	78.0	78.0
16	90.0	77.0	77.0	68.0	77.0	77.0	77.0	77.0
20	89.0	76.0	76.0	71.0	76.0	76.0	76.0	76.0
25	88.2	75.0	75.0	71.8	75.0	75.0	75.0	75.0
31	88.6	76.4	77.6	76.8	78.0	77.8	75.8	75.0
40	87.8	75.6	78.2	79.0	77.2	75.2	75.8	75.0
50	87.8	81.2	80.8	80.0	81.8	81.4	81.4	76.2
63	85.2	78.6	80.8	81.4	79.6	79.2	80.8	76.2
80	84.2	81.6	86.0	83.8	82.6	82.8	80.8	79.4
100	83.6	84.2	84.4	84.4	85.2	85.0	82.6	82.4
125	89.0	85.0	85.6	89.6	90.6	84.8	87.2	85.6
160	84.0	85.8	84.4	83.8	86.6	85.0	83.0	83.0
200	82.8	84.6	87.0	86.0	86.0	85.2	84.4	83.4
250	85.0	85.8	86.6	86.4	87.0	87.6	86.6	85.6
315	83.4	85.0	85.4	85.4	85.2	85.8	86.6	85.2
400	83.0	85.2	86.0	85.8	85.6	85.6	86.0	85.0
500	84.0	88.0	86.2	86.2	85.8	86.6	87.0	86.2
630	98.6	113.2	101.8	106.4	103.2	97.0	108.2	102.8
800	89.2	102.6	91.8	96.0	93.0	88.8	97.6	93.0
1000	84.8	87.0	85.6	86.6	85.8	88.6	88.8	88.8
1250	98.6	103.4	97.8	99.4	99.6	110.6	110.0	106.8
1600	91.2	95.2	91.4	92.0	92.2	101.6	100.8	98.2
2000	101.4	97.0	104.0	100.2	104.8	105.2	104.8	103.6
2500	91.0	94.6	91.4	96.8	93.8	102.0	98.4	95.0
3150	92.8	90.8	95.6	90.2	88.8	94.2	93.4	92.6
4000	90.0	90.0	90.8	88.8	88.0	88.6	89.2	89.0
5000	88.2	91.2	91.0	90.0	89.6	90.4	91.0	89.4
6300	84.8	89.2	88.4	85.4	85.2	87.0	85.4	86.6
8000	81.0	84.0	84.2	81.4	82.0	82.8	83.0	83.0
10000	77.8	80.0	80.4	78.8	79.0	80.0	79.0	80.2
12500	78.0	78.0	79.0	76.6	76.2	78.6	75.4	78.8
16000	77.6	75.0	75.0	70.8	75.0	75.0	75.0	75.0
20000	80.8	75.6	75.0	66.6	75.0	75.0	75.0	75.0
ØVERALL SPL UNCØRR	110.8	118.2	112.4	114.4	113.8	117.8	119.0	112.6
ØVERALL SPL CØRR	106.7	114.4	108.0	109.2	108.8	112.9	113.7	110.4
PNDB CØRR	118.7	122.2	120.7	119.0	120.9	122.6	122.6	121.0

NØISE DATA

TABLE XII-7. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 16 DELTA 9	2	4	5	6	7	8	9	10
MICRØPHØNE:								
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	10	10	20	10	10	10	10	10
FREQ(HERTZ)								
12.5	111.4	78.0	68.0	78.0	78.0	78.0	78.0	78.0
16	111.2	77.0	67.0	77.0	77.0	77.0	77.0	77.0
20	109.4	76.0	69.2	76.0	76.0	76.0	76.0	76.0
25	109.0	75.0	71.2	75.0	75.0	75.0	75.0	75.0
31	108.8	76.2	75.6	77.0	77.4	76.8	75.6	75.0
40	108.2	75.0	76.8	77.6	75.4	75.0	75.0	75.0
50	106.8	80.8	79.4	80.6	81.0	80.6	81.0	76.0
63	105.6	77.6	80.6	80.8	79.0	78.8	79.8	75.0
80	104.4	82.0	83.2	84.4	82.4	82.2	80.8	80.0
100	103.6	84.4	84.6	85.2	85.6	84.6	83.6	82.6
125	102.4	89.4	88.8	88.0	90.6	84.8	86.8	86.8
160	101.0	85.2	84.6	84.0	87.2	85.0	82.8	84.4
200	99.4	85.2	86.6	85.8	85.8	85.6	84.4	84.0
250	98.2	86.0	86.0	87.0	88.0	87.4	86.6	85.0
315	96.4	84.8	84.8	85.6	85.2	85.8	85.6	85.6
400	94.0	84.6	85.2	85.2	85.0	86.0	85.0	85.0
500	92.8	87.4	85.4	86.4	86.8	85.8	86.4	87.0
630	102.4	111.2	103.4	108.4	109.2	98.6	106.0	109.4
800	92.6	99.2	91.8	96.0	96.8	89.0	94.2	97.0
1000	88.8	85.8	86.6	86.0	86.8	88.4	88.0	88.2
1250	102.4	102.6	103.0	98.6	106.0	110.0	106.2	104.6
1600	93.6	93.4	93.8	90.2	96.8	99.8	97.0	94.8
2000	98.6	102.8	104.4	99.6	111.0	101.0	106.8	102.4
2500	93.0	96.6	91.2	99.6	97.4	94.0	95.8	94.2
3150	88.8	92.8	88.8	91.0	90.6	90.2	91.4	94.0
4000	88.0	90.4	88.4	87.6	89.6	89.8	93.6	91.6
5000	87.0	89.8	87.0	87.8	88.6	88.8	87.8	88.0
6300	85.0	87.4	85.0	83.2	85.4	85.0	85.6	86.2
8000	85.0	84.8	83.6	81.6	82.4	83.2	83.6	83.4
10000	85.0	80.0	81.4	76.6	79.2	81.2	78.2	80.8
12500	85.0	77.6	78.0	76.0	76.4	78.6	75.0	79.2
16000	85.0	75.0	71.6	75.0	75.0	75.0	75.0	75.0
20000	85.0	76.4	67.8	75.0	75.0	75.0	75.0	75.0
ØVERALL SPL UNCØRR	121.6	118.4	115.6	114.8	119.6	115.6	116.6	117.0
ØVERALL SPL CØRR	119.3	113.0	109.1	110.4	114.4	111.5	111.8	111.9
PNDB CØRR	120.8	121.4	120.7	119.6	125.6	121.2	122.9	120.7

NØISE DATA

TABLE XII-8. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 16 DELTA 10								
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	10	10	20	10	10	10	10	10
FREQ(HERTZ)								
12.5	96.2	78.0	68.0	78.0	78.0	78.0	78.0	78.0
16	93.6	77.0	67.0	77.0	77.0	77.0	77.0	77.0
20	89.8	76.0	68.2	76.0	76.0	76.0	76.0	76.0
25	89.0	75.0	71.6	75.0	75.0	75.0	75.0	75.0
31	88.2	76.4	76.6	77.6	77.6	77.4	76.4	75.0
40	87.0	75.0	77.4	77.4	76.6	75.4	75.2	75.0
50	86.8	81.0	80.2	81.0	81.6	81.4	81.6	76.2
63	85.2	77.8	80.6	82.0	80.0	78.4	79.2	76.0
80	85.0	81.6	82.8	83.6	81.6	82.0	80.2	79.6
100	84.0	83.8	84.2	85.2	85.4	84.4	83.6	82.6
125	87.0	89.2	88.4	86.4	90.2	84.4	87.0	87.4
160	83.8	84.6	83.4	82.8	84.6	85.2	83.0	84.0
200	83.2	84.2	85.8	86.0	85.6	84.6	84.2	83.8
250	86.2	85.6	86.4	88.0	86.8	87.6	86.6	85.6
315	83.2	84.2	84.0	85.0	84.6	84.8	85.2	85.4
400	82.4	84.0	84.6	85.0	85.0	85.6	85.0	84.8
500	85.0	85.8	84.8	86.2	87.2	86.6	86.4	85.8
630	106.2	105.8	100.6	108.6	111.0	102.6	106.4	104.0
800	94.6	94.2	89.6	96.6	98.4	91.4	94.6	92.8
1000	84.4	86.4	86.8	86.4	85.2	86.2	89.6	88.4
1250	104.4	103.4	106.4	104.0	97.4	100.4	111.6	107.4
1600	94.8	94.2	96.8	94.2	90.8	94.0	101.0	97.2
2000	98.2	100.0	105.4	100.4	106.4	110.8	104.2	97.0
2500	92.8	93.2	96.8	93.0	94.8	97.8	95.8	92.8
3150	90.2	90.4	92.2	89.6	89.8	93.6	89.6	92.4
4000	88.6	92.6	89.2	86.8	88.0	90.4	89.2	89.0
5000	86.0	88.8	91.6	87.2	88.0	89.2	90.6	87.2
6300	83.6	86.6	87.6	85.0	84.0	84.2	84.4	86.0
8000	80.2	83.6	83.4	82.6	82.6	84.0	83.4	83.0
10000	76.8	79.6	81.6	78.8	78.8	79.6	78.6	80.2
12500	76.2	77.6	80.2	76.8	76.4	78.4	75.2	78.4
16000	75.0	75.0	78.2	75.0	75.0	75.0	75.0	75.0
20000	77.6	75.0	79.4	75.0	75.0	75.0	75.0	75.0
ØVERALL SPL UNCØRR	115.2	114.4	112.4	117.0	116.2	117.4	114.2	113.2
ØVERALL SPL CØRR	110.0	109.4	110.4	111.0	112.9	112.3	113.9	110.1
PNDB CØRR	118.1	119.0	122.0	119.4	122.2	124.9	122.7	119.6

NØISE DATA

TABLE XII-9. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 16 DELTA 12								
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN:	20	20	10	20	10	10	20	20
FREQ(HERTZ)								
12.5	84.0	68.0	78.0	68.0	78.0	78.0	68.0	68.0
16	84.6	67.0	77.0	68.8	77.0	77.0	67.0	67.0
20	89.0	70.0	76.0	71.4	76.0	76.0	73.0	68.4
25	83.2	70.0	75.0	73.8	75.0	75.0	75.2	69.8
31	82.2	74.6	76.2	76.6	77.4	77.4	74.4	71.0
40	83.4	74.2	76.8	77.4	76.2	76.0	75.6	72.2
50	82.4	78.6	80.2	78.8	81.4	80.8	79.4	73.8
63	82.2	77.0	78.6	80.2	78.8	78.0	79.6	76.4
80	83.2	80.4	85.0	83.8	81.6	81.4	78.8	79.4
100	82.8	82.6	84.2	83.8	84.4	84.4	82.2	81.8
125	88.2	86.6	84.8	86.2	87.8	90.6	86.6	84.8
160	83.0	83.6	83.8	84.8	83.4	85.4	83.0	84.4
200	82.4	82.8	85.6	85.8	85.2	84.8	83.8	83.6
250	83.8	83.8	86.2	86.0	86.2	87.2	85.8	86.2
315	82.0	82.4	84.6	83.8	84.0	85.0	84.6	85.2
400	81.6	83.4	84.4	84.8	84.2	85.6	86.4	85.0
500	82.8	85.8	85.2	85.0	85.2	86.8	86.0	86.4
630	101.2	109.0	102.8	103.0	105.4	110.4	103.2	101.4
800	90.8	98.4	92.6	92.4	94.6	100.4	93.8	92.2
1000	83.8	86.4	86.2	86.2	86.8	87.0	87.4	87.6
1250	102.8	107.2	101.0	104.2	108.6	104.4	107.0	104.8
1600	94.4	98.4	92.8	95.8	99.8	96.4	98.4	96.4
2000	99.6	103.0	98.6	99.0	100.6	105.0	103.6	104.4
2500	90.4	98.4	92.8	92.0	92.2	95.8	94.6	93.0
3150	88.8	93.8	94.2	93.8	92.0	93.2	89.6	90.8
4000	87.2	90.4	89.8	90.6	89.4	89.4	89.2	93.0
5000	87.0	89.0	91.0	89.2	86.8	88.8	89.4	88.2
6300	83.4	86.6	88.8	86.8	84.0	87.0	86.8	84.6
8000	80.2	85.0	84.6	84.2	80.4	83.8	82.8	82.8
10000	76.2	81.2	81.2	79.8	77.0	79.6	78.8	80.4
12500	73.4	79.6	79.0	78.2	75.2	77.8	74.4	77.2
16000	67.2	79.0	75.0	73.6	75.0	75.0	67.6	71.6
20000	66.2	85.0	75.2	73.4	75.0	75.0	67.2	68.8
ØVERALL SPL UNCØRR	111.6	116.6	113.6	111.8	113.8	117.8	116.6	116.2
ØVERALL SPL CØRR	107.4	112.6	107.4	108.6	111.5	113.1	110.6	109.4
PNDB CØRR	117.6	121.4	118.3	118.6	120.5	122.3	120.9	121.0

NØISE DATA

TABLE XII-10. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 16 DELTA 13								
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	20	10	20	10	10	10	10
FREQ(HERTZ)								
12.5	83.0	68.0	78.0	68.0	78.0	78.0	78.0	78.0
16	79.8	67.0	77.0	67.0	77.0	77.0	77.0	77.0
20	85.0	69.2	76.0	71.4	76.0	76.0	76.0	76.0
25	79.0	70.0	75.0	74.4	76.0	75.6	75.6	75.0
31	79.8	74.6	77.4	77.2	77.8	78.2	77.2	75.0
40	82.2	74.0	77.0	77.8	76.8	76.2	75.4	75.0
50	81.6	78.4	78.8	78.2	81.2	80.8	80.8	76.6
63	80.6	78.0	78.0	79.8	78.8	78.8	79.4	75.6
80	83.8	80.4	85.6	86.0	81.4	82.4	80.2	81.2
100	82.4	82.8	83.8	84.2	83.8	83.6	83.6	83.2
125	87.0	87.8	85.0	84.8	86.2	89.2	84.6	83.0
160	82.2	83.4	83.0	82.4	84.8	84.8	85.0	83.8
200	82.0	82.8	85.0	85.6	86.0	84.8	84.8	83.6
250	84.8	85.0	87.0	86.8	87.0	86.0	86.8	85.4
315	82.0	84.0	84.4	83.6	84.2	84.6	85.4	85.6
400	81.8	84.0	85.0	84.2	84.6	85.2	85.4	85.4
500	82.4	85.0	85.2	85.4	85.8	85.8	85.4	85.8
630	100.8	104.8	101.4	99.2	106.6	105.2	99.4	103.0
800	91.4	95.0	92.2	90.4	97.0	95.2	90.8	93.8
1000	84.2	86.4	88.2	85.0	86.8	87.6	87.8	88.2
1250	105.4	106.6	110.8	103.4	104.6	109.0	105.8	104.2
1600	97.0	98.6	102.4	95.6	96.6	100.6	97.8	96.6
2000	100.4	97.2	97.8	104.8	106.8	104.2	103.8	103.6
2500	91.8	93.6	95.6	94.8	93.6	98.6	94.6	94.4
3150	90.6	96.4	91.2	92.0	92.4	94.2	92.4	92.2
4000	88.6	91.2	90.6	90.6	94.4	92.6	90.4	94.6
5000	87.4	89.4	93.2	88.6	89.6	91.8	91.6	88.2
6300	83.6	85.0	88.0	86.6	84.8	87.0	86.4	86.2
8000	79.6	82.8	85.2	84.8	81.4	85.2	83.6	84.2
10000	75.8	79.4	80.8	81.2	77.0	80.2	79.2	80.6
12500	72.8	75.4	76.0	78.8	75.0	78.0	75.0	79.0
16000	67.0	68.0	75.0	72.2	75.0	75.0	75.0	75.0
20000	68.0	65.6	75.0	66.6	75.0	75.0	75.0	75.0
ØVERALL SPL UNCØRR	115.0	115.6	116.6	113.4	117.8	116.2	115.2	115.0
ØVERALL SPL CØRR	108.6	110.2	112.4	108.8	111.6	112.4	109.5	109.5
PNDB CØRR	118.5	119.7	122.0	121.2	122.9	122.3	121.0	121.0

NØISE DATA

TABLE XII-11. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 16 DELTA 14

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN:	20	20	10	10	10	10	10	10
FREQ(HERTZ)								
12.5	99.0	68.6	78.0	78.0	78.0	78.0	78.0	78.0
16	97.2	67.6	77.0	77.0	77.0	77.0	77.0	77.0
20	96.2	69.2	76.0	76.0	76.0	76.0	76.0	76.0
25	93.8	69.6	75.0	75.0	76.0	76.8	76.2	75.0
31	93.2	73.6	76.2	78.0	78.8	78.4	79.2	76.0
40	92.0	75.0	76.6	77.8	78.0	77.6	77.8	75.6
50	91.2	79.0	80.0	80.2	81.6	81.2	81.6	77.4
63	91.2	77.2	78.8	79.8	79.6	78.6	80.8	77.0
80	90.6	79.6	83.2	85.4	82.6	82.0	82.4	81.2
100	89.2	81.8	83.0	84.0	84.2	83.6	84.4	83.6
125	89.2	87.2	84.0	86.8	85.6	87.6	86.6	87.2
160	88.2	83.2	82.6	81.8	83.2	84.4	85.0	84.0
200	86.4	82.4	84.4	85.6	85.0	84.8	84.6	84.0
250	87.2	84.2	86.0	87.0	86.6	86.0	86.4	85.6
315	84.6	83.4	84.8	84.4	84.0	84.8	86.0	84.4
400	83.6	84.0	84.4	85.0	84.8	84.8	86.0	84.8
500	84.2	84.2	85.6	86.8	85.6	85.8	87.4	87.2
630	100.8	100.2	106.6	110.2	106.2	105.8	110.2	110.2
800	91.8	90.6	96.4	100.2	96.2	96.2	100.2	100.4
1000	84.6	85.6	87.8	87.0	86.6	86.6	88.4	88.8
1250	101.0	97.8	109.8	102.0	100.2	105.4	107.4	103.8
1600	93.4	92.2	101.2	94.2	92.8	97.2	99.2	96.2
2000	98.0	106.0	105.6	98.2	98.8	101.0	103.6	102.2
2500	90.2	95.4	93.2	95.2	96.8	99.2	99.8	95.2
3150	89.2	94.0	94.6	91.8	92.2	93.6	97.0	92.6
4000	88.4	94.8	91.4	90.6	94.2	91.0	91.4	91.0
5000	88.0	91.2	91.0	89.6	90.0	88.2	92.6	93.2
6300	83.6	84.6	88.8	86.0	86.0	85.6	89.6	86.4
8000	80.0	81.2	86.0	84.8	82.8	84.0	86.6	83.8
10000	76.6	78.0	82.0	80.0	78.8	80.0	79.8	80.6
12500	74.8	74.2	80.0	79.0	76.0	78.0	75.0	78.2
16000	72.4	66.6	75.0	75.0	75.0	75.0	75.0	75.0
20000	74.0	65.0	75.0	75.0	75.0	75.0	75.0	75.0
ØVERALL SPL UNCØRR	112.6	112.0	115.0	117.4	113.6	115.4	121.0	117.8
ØVERALL SPL CØRR	108.6	108.6	113.2	111.9	109.2	110.5	113.6	112.5
PNDB CØRR	117.4	121.7	122.9	120.5	118.8	120.3	122.6	121.1

NØISE DATA

TABLE XII-12. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

TEST 372 RUN 16 DELTA 15 CØRRECTED FØR REVERBERATIØNS

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	10	10	20	10	10	10	10
FREQ(HERTZ)								
12.5	99.6	78.0	78.0	68.0	78.0	78.0	78.0	78.0
16	98.0	77.0	77.0	67.0	77.0	77.0	77.0	77.0
20	96.6	76.0	76.0	66.0	79.8	76.0	76.0	76.0
25	92.0	75.0	75.0	65.0	81.6	75.0	75.0	75.0
31	91.6	76.6	76.6	66.8	86.2	76.6	75.6	75.0
40	89.6	75.0	77.6	67.2	86.0	75.2	75.4	75.0
50	89.4	80.8	80.4	70.6	90.6	80.2	80.8	76.0
63	87.8	78.4	79.6	70.8	89.0	78.0	78.6	75.4
80	85.0	82.6	82.2	73.8	92.2	83.0	80.0	78.0
100	84.6	84.0	84.4	74.6	94.0	84.2	83.4	82.0
125	87.2	86.0	84.8	76.0	94.6	87.8	87.8	83.2
160	84.4	85.2	83.6	74.4	93.8	84.0	85.2	84.4
200	83.6	84.0	85.6	76.0	96.2	85.4	84.8	83.2
250	85.4	86.4	87.2	77.0	96.8	85.8	86.4	85.0
315	82.6	84.4	84.6	75.0	94.0	85.2	85.0	84.6
400	81.8	84.6	85.0	75.0	94.4	85.4	86.2	84.2
500	83.6	86.8	86.8	76.8	94.6	87.8	86.6	86.6
630	104.6	109.8	110.0	101.4	110.2	110.6	106.4	108.8
800	95.0	100.2	100.2	91.8	101.6	101.0	97.4	99.4
1000	83.8	85.8	86.2	76.8	95.4	87.6	88.0	88.2
1250	104.0	99.6	98.8	95.0	116.4	106.6	106.4	96.6
1600	96.4	93.2	91.8	87.4	108.4	98.8	98.8	92.2
2000	100.6	105.6	99.4	89.2	112.2	104.0	106.8	108.4
2500	89.6	93.2	91.0	83.8	109.0	98.8	99.6	97.8
3150	89.4	90.2	92.2	80.8	103.4	93.6	93.8	92.8
4000	88.8	92.4	90.8	79.6	98.8	88.6	92.8	88.2
5000	86.8	90.2	89.4	78.2	97.8	91.6	91.0	86.8
6300	83.6	87.8	87.2	75.8	93.6	86.8	85.6	86.0
8000	80.4	84.4	84.0	72.0	90.4	84.0	84.0	83.6
10000	77.0	79.8	79.6	68.4	88.4	80.0	79.0	80.6
12500	74.4	78.2	78.8	67.0	84.2	78.4	75.4	78.8
16000	68.8	75.0	75.0	65.0	76.0	75.0	75.0	75.0
20000	69.4	75.0	75.0	65.0	75.0	75.0	75.0	75.0
ØVERALL SPL UNCØRR	113.2	116.6	118.4	109.2	124.6	118.6	116.2	118.2
ØVERALL SPL CØRR	110.3	112.2	111.5	103.3	119.8	113.5	112.3	112.4
PNDB CØRR	118.8	122.1	120.1	111.2	130.2	122.3	123.5	123.5

TABLE XIII-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SOUND STUDY NOISE DATA

SPL IN DB REL. .0002 MICROBAR CORRECTED FOR REVERBERATIONS

TEST 0 RUN 3 DELTA 8

MICROPHONE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	74.0	80.0	101.2	80.0	80.0	77.0	77.0	77.0	77.0	77.0
16	75.0	79.0	99.8	79.0	79.0	76.0	76.0	76.0	76.0	76.0
20	75.8	78.0	99.8	78.0	78.0	75.0	75.0	75.0	75.0	75.0
25	76.0	77.0	98.6	77.0	77.0	74.0	74.0	74.0	74.0	74.0
31	79.0	78.8	99.2	77.0	77.0	74.2	74.0	74.0	74.0	74.0
40	82.4	82.2	99.4	77.0	77.0	75.6	74.0	74.0	74.0	74.0
50	83.2	86.0	99.4	83.0	83.6	81.0	80.0	80.8	79.6	79.2
63	84.4	85.0	98.0	84.0	85.2	83.0	81.2	79.8	80.0	80.6
80	83.0	85.0	95.8	85.8	87.2	82.6	83.4	82.4	82.8	81.6
100	82.4	85.0	94.4	82.9	83.0	80.8	82.0	83.0	81.0	80.8
125	84.0	85.2	93.4	83.0	81.2	80.3	78.0	79.5	80.3	78.6
160	82.4	82.8	90.4	83.4	84.6	84.4	83.2	81.8	81.2	80.8
200	82.0	84.4	89.8	82.8	82.2	82.8	82.0	81.8	80.8	81.4
250	81.7	85.1	91.5	83.9	83.9	84.1	82.9	83.9	83.1	82.1
315	80.1	82.9	88.5	83.9	83.3	83.9	82.7	83.7	84.3	82.3
400	77.6	80.4	84.0	83.0	83.2	83.2	82.0	82.8	82.4	82.2
500	89.6	83.6	86.4	86.4	83.8	84.2	83.6	83.6	82.6	82.8
630	105.2	101.8	106.4	110.6	103.6	102.2	107.8	108.6	101.8	107.6
800	84.2	93.4	97.4	99.6	92.4	93.0	97.0	98.8	91.4	96.0
1000	85.7	86.5	89.9	86.7	85.1	86.7	87.9	90.7	89.3	88.5
1250	99.7	110.1	108.3	111.3	103.9	105.7	110.9	110.9	108.5	109.3
1600	88.6	97.6	96.4	98.6	92.8	93.8	98.0	99.2	95.8	97.2
2000	97.0	103.4	108.8	106.8	103.8	111.8	116.2	103.8	106.6	106.2
2500	93.1	93.5	101.7	98.1	97.1	94.1	97.9	98.9	101.7	94.5
3150	89.0	93.0	99.4	96.8	96.0	90.8	94.2	96.6	96.8	91.2
4000	89.2	94.6	103.0	98.0	94.4	93.0	96.2	93.8	95.6	90.6
5000	84.2	90.8	101.4	93.8	97.3	90.0	91.0	91.2	94.4	88.3
6300	79.0	86.0	94.0	89.0	89.8	87.1	89.9	84.5	86.3	86.9
8000	73.0	83.0	82.0	81.0	81.0	80.5	80.5	77.5	78.5	80.5
10000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
12500	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
16000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
20000	70.0	80.0	81.0	79.0	80.0	80.0	80.0	78.0	81.0	76.0
OVERALL SPL UNCORR	107.0	111.2	115.4	130.0	111.6	114.4	116.6	116.8	112.6	114.4
OVERALL SPL CORR	107.6	112.1	115.4	115.4	109.9	113.4	118.0	114.1	112.2	113.1
PNDB CORR	116.2	121.7	126.6	124.4	121.6	125.5	129.4	122.9	123.3	122.5

NØISE DATA

TABLE XIII-2. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 14 DELTA 2								
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	10	10	20	20	10	10	10
FREQ(HERTZ)								
12.5	78.0	78.0	88.0	78.0	68.0	78.0	78.0	78.0
16	77.0	77.0	87.0	77.0	67.0	77.0	77.0	77.0
20	76.0	76.0	86.0	80.0	70.8	76.0	80.0	76.4
25	75.0	75.0	85.0	83.4	73.4	75.0	82.4	79.2
31	75.6	76.0	87.2	86.0	77.0	78.4	85.0	82.2
40	76.6	76.0	88.0	88.4	77.0	75.2	85.6	82.8
50	80.4	79.6	89.8	89.0	79.8	80.8	88.4	84.0
63	80.8	78.2	90.0	91.4	80.2	79.6	89.2	86.8
80	84.6	81.6	96.4	94.6	81.8	83.0	89.6	90.4
100	82.2	83.4	93.6	94.0	84.4	85.0	92.4	93.0
125	87.8	87.6	93.0	94.6	88.6	90.2	93.4	99.6
160	82.2	86.8	93.4	94.4	83.6	85.4	91.8	93.2
200	81.0	83.6	95.0	95.6	85.0	84.6	93.6	93.0
250	84.2	85.0	95.6	96.0	86.4	86.4	96.2	95.4
315	82.6	83.8	94.0	94.4	83.4	85.2	94.0	94.2
400	81.0	83.0	94.6	94.6	84.0	85.0	95.0	93.6
500	83.8	86.8	96.8	95.4	85.2	88.0	96.4	96.0
630	106.0	108.4	119.2	114.6	105.2	111.4	118.6	113.0
800	92.4	94.6	105.4	101.6	91.4	97.4	104.8	100.2
1000	84.0	86.4	97.4	96.0	85.2	88.2	97.8	99.0
1250	103.6	98.2	116.0	110.2	100.6	108.2	116.4	118.2
1600	93.0	90.2	104.6	101.0	92.2	96.6	104.8	106.6
2000	98.2	102.6	107.0	113.6	107.2	104.4	108.4	109.6
2500	92.4	95.6	105.4	101.0	97.6	100.2	107.0	102.8
3150	89.6	91.6	105.6	98.2	90.0	92.8	100.2	100.8
4000	86.2	89.4	99.2	98.6	88.2	89.4	99.8	97.4
5000	87.2	92.2	101.6	97.2	90.6	88.8	101.2	98.6
6300	83.2	90.0	96.8	94.4	85.2	86.6	96.2	95.6
8000	78.8	83.2	93.0	91.0	83.6	84.2	95.0	92.2
10000	75.0	79.4	91.6	87.6	81.0	78.8	93.0	90.0
12500	75.0	78.8	89.2	86.0	79.4	78.0	91.2	87.2
16000	75.0	76.6	86.8	79.6	77.6	75.0	90.8	80.8
20000	75.0	79.8	89.8	78.2	79.4	75.0	92.6	77.8
ØVERALL SPL UNCØRR	113.8	115.8	126.4	125.6	114.6	119.0	128.8	125.6
ØVERALL SPL CØRR	109.1	110.6	121.8	118.6	110.6	114.2	121.6	120.5
PNDB CØRR	117.4	120.3	130.3	129.9	122.5	122.4	129.9	130.0

NØISE DATA

TABLE XIII-3. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 14 DELTA 5

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	20	10	10	10	10	10	10
FREQ(HERTZ)								
12.5	76.0	68.0	88.0	88.0	78.0	78.0	78.0	78.0
16	72.4	67.0	87.0	87.0	77.0	77.0	77.0	77.0
20	79.0	71.2	86.0	86.0	76.8	76.0	79.6	76.6
25	71.8	70.0	85.0	85.0	78.2	75.0	80.8	77.8
31	74.8	75.0	86.6	87.6	82.0	76.8	83.6	81.8
40	77.6	73.8	86.8	88.0	81.6	76.0	83.2	81.6
50	79.6	79.4	91.0	91.2	85.0	80.4	87.8	84.6
63	80.8	78.0	90.2	91.0	81.8	79.2	87.8	85.8
80	83.6	81.6	95.8	95.2	84.6	82.4	87.8	89.6
100	83.2	83.6	94.6	94.2	85.6	85.8	90.2	92.2
125	88.0	90.6	99.6	93.2	88.6	91.8	92.2	96.2
160	82.2	85.2	94.2	95.4	85.0	85.4	90.4	92.4
200	81.6	83.6	96.0	95.8	85.0	84.4	91.8	92.6
250	84.4	84.4	96.8	96.8	86.8	85.4	94.2	94.4
315	81.8	83.2	94.4	94.0	84.2	84.8	92.4	94.4
400	81.6	83.2	95.2	94.2	84.6	85.8	92.8	94.0
500	83.4	86.6	96.6	96.0	85.4	88.0	95.8	95.8
630	100.6	108.8	119.0	114.8	104.0	111.6	120.0	117.8
800	88.2	95.4	105.6	101.8	90.4	97.8	106.0	103.8
1000	84.2	85.4	97.4	96.0	86.0	88.0	96.0	97.0
1250	105.2	98.2	116.8	106.2	104.0	108.8	113.4	113.0
1600	94.4	90.0	105.6	98.8	93.2	97.4	102.4	103.4
2000	95.8	102.8	108.8	111.0	103.8	104.2	107.8	117.2
2500	91.6	94.8	102.8	101.8	97.4	100.8	103.0	101.0
3150	89.0	90.8	103.6	99.2	94.6	93.2	98.0	104.2
4000	86.6	89.4	101.2	99.8	88.6	91.0	96.0	97.2
5000	86.8	90.4	99.8	97.4	88.2	90.0	99.0	95.2
6300	82.2	88.0	96.2	96.0	85.0	86.0	92.8	97.0
8000	78.8	83.0	92.8	91.8	82.2	83.6	91.4	91.8
10000	75.6	79.0	90.8	87.6	76.6	78.6	88.8	89.0
12500	73.6	76.2	88.2	87.0	75.6	78.0	87.0	87.4
16000	67.6	67.8	85.0	85.0	75.0	75.0	88.6	85.6
20000	67.4	65.4	85.0	85.0	75.0	75.6	92.2	89.0
ØVERALL SPL UNCØRR	112.4	114.4	127.2	122.8	117.0	118.6	119.4	121.2
ØVERALL SPL CØRR	107.7	110.8	122.0	117.7	109.7	114.5	121.6	121.7
PNDB CØRR	117.4	120.2	130.2	128.5	120.9	122.6	129.4	132.5

TABLE XIII-4. - SEMISPAN WING-DUCTED FAN EBF SOUND STUDY-T372

NOISE DATA
SPL IN DB REL. .0002 MICROBAR
CORRECTED FOR REVERBERATIONS

TEST 372 RUN 14 DELTA 9

MICROPHONE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	10	10	20	20	10	10	10
FREQ(HERTZ)								
12.5	80.4	78.0	88.0	82.6	68.0	78.0	78.0	78.0
16	76.2	77.0	87.0	81.8	69.2	77.0	77.0	77.0
20	79.8	76.0	86.0	81.6	71.2	76.0	76.0	76.0
25	74.2	75.0	85.0	83.4	73.4	75.0	77.0	75.0
31	74.8	77.6	88.8	86.6	76.6	76.6	78.8	75.0
40	78.0	75.0	87.8	87.6	76.2	75.2	77.8	75.0
50	80.2	81.2	91.2	89.4	80.6	80.8	83.0	76.6
63	78.6	78.6	90.8	90.0	79.4	79.6	79.0	75.0
80	81.6	81.4	93.8	93.4	82.6	83.8	81.2	80.8
100	83.2	82.6	93.8	93.2	83.8	85.6	83.4	82.2
125	90.2	83.2	94.2	94.4	88.0	92.6	85.2	84.2
160	82.2	84.2	94.6	93.6	83.8	85.6	82.8	82.8
200	82.0	83.6	95.6	95.4	86.0	85.0	83.8	82.8
250	85.0	85.8	97.6	96.6	88.0	88.0	86.6	84.8
315	82.0	84.2	95.0	94.4	84.6	85.6	85.2	84.4
400	81.8	84.8	95.6	94.8	84.8	85.2	86.0	84.8
500	83.4	87.8	96.6	95.0	85.0	87.6	86.8	86.6
630	104.8	110.4	117.4	112.8	96.8	109.4	107.8	106.4
800	92.0	97.2	104.4	100.6	86.8	95.6	94.2	92.8
1000	84.0	86.6	97.2	96.2	85.6	87.0	88.4	87.8
1250	104.6	102.6	113.2	106.4	100.0	99.4	101.6	99.0
1600	94.2	93.4	102.8	99.6	91.0	90.6	91.8	91.2
2000	96.8	106.2	107.4	108.6	103.4	100.0	100.8	104.2
2500	88.6	93.8	100.8	101.6	90.8	96.8	94.2	97.4
3150	88.0	91.2	101.8	101.6	92.8	89.2	89.2	89.6
4000	89.4	91.0	102.6	103.0	90.0	88.2	87.4	87.8
5000	86.6	90.0	97.6	100.2	89.4	88.4	88.8	87.4
6300	83.2	87.4	96.8	97.6	83.8	85.8	84.6	85.8
8000	79.2	83.6	93.4	96.2	81.6	84.0	83.6	83.0
10000	75.6	79.0	90.2	94.0	77.6	78.6	77.6	79.6
12500	73.2	78.2	88.6	92.8	74.8	77.8	75.0	78.6
16000	67.0	75.0	85.0	91.4	65.4	75.0	75.0	75.0
20000	66.2	75.4	85.0	92.8	65.0	75.0	75.0	76.4
OVERALL SPL UNCORR	112.8	117.2	126.6	123.2	112.6	117.2	115.8	114.6
OVERALL SPL CORR	108.8	112.8	119.9	116.6	106.9	111.1	110.1	109.7
PNDB CORR	117.5	122.5	128.8	127.8	119.7	119.8	119.1	120.7

TABLE XIV-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SOUND STUDY NOISE DATA

SPL IN DB REL. .0002 MICROBAR

TEST 0 RUN 6 DELTA 4 CORRECTED FOR REVERBERATIONS

MICROPHONE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	114.6	76.0	80.0	70.0	70.0	67.0	67.0	67.0	67.0	67.0
16	113.4	69.2	79.0	69.0	69.0	66.0	66.0	66.0	66.0	66.0
20	113.4	69.4	78.0	70.8	70.2	65.4	65.0	65.0	65.0	65.0
25	111.4	71.0	77.0	67.0	67.0	64.0	64.0	64.0	64.0	64.0
31	112.0	72.0	77.0	72.2	72.8	68.8	67.2	65.0	67.0	66.2
40	111.8	71.6	77.0	70.0	68.6	66.4	65.0	65.6	64.0	67.2
50	109.8	77.2	80.4	77.4	76.0	71.2	70.0	71.0	71.0	71.0
63	108.6	78.0	78.6	80.2	79.2	75.4	72.4	70.4	70.2	72.2
80	107.8	80.4	82.2	81.6	80.4	76.0	74.4	73.6	73.6	74.8
100	106.0	79.6	79.8	79.5	78.4	75.6	75.4	74.8	73.8	75.2
125	106.4	81.0	80.2	80.6	79.2	77.7	75.8	76.3	75.7	73.2
160	103.8	80.6	80.8	83.6	81.8	80.4	79.8	77.2	78.8	75.6
200	102.2	81.6	80.6	80.8	79.8	80.6	79.8	78.6	78.0	77.4
250	100.1	82.3	84.9	81.3	81.1	81.9	81.1	81.9	80.3	79.9
315	97.9	80.5	83.3	81.7	80.5	80.9	80.7	82.3	82.3	80.1
400	93.4	78.6	80.6	81.4	81.6	81.4	80.6	80.6	80.6	80.0
500	93.8	83.2	83.0	83.8	82.0	82.0	81.8	81.2	81.8	81.8
630	104.2	108.2	99.8	103.2	101.6	103.6	105.0	102.8	103.4	99.2
800	96.6	99.0	91.4	92.4	91.0	93.6	93.6	93.2	92.8	89.0
1000	89.7	85.1	85.9	84.5	83.7	86.1	86.1	88.9	87.5	86.7
1250	105.3	105.3	107.3	109.5	101.9	107.5	108.7	108.3	106.7	103.9
1600	93.4	93.2	95.0	96.6	91.2	95.0	95.2	96.4	94.0	93.4
2000	104.8	104.0	108.0	106.4	103.8	109.2	113.2	105.2	108.4	112.6
2500	93.3	92.3	98.1	93.5	94.7	93.7	95.7	97.7	99.5	95.1
3150	92.0	90.4	97.2	93.4	92.0	89.0	93.8	93.8	95.8	90.0
4000	94.6	92.8	98.6	95.4	94.0	88.8	92.2	91.8	95.6	89.4
5000	90.4	90.4	96.6	91.6	93.1	89.0	89.8	88.6	93.2	86.7
6300	85.6	85.6	89.2	86.2	86.0	84.7	87.7	83.5	84.5	85.9
8000	83.0	73.8	82.0	73.8	74.8	73.1	74.3	69.9	72.1	72.7
10000	80.0	70.0	81.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
12500	80.0	70.0	81.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
16000	80.0	70.0	81.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
20000	80.0	70.0	81.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
OVERALL SPL UNCORR	120.6	114.4	110.8	109.4	110.2	111.2	113.8	114.0	115.6	112.4
OVERALL SPL CORR	122.3	111.6	112.1	112.4	108.3	112.5	115.2	111.4	112.2	113.6
PNDB CORR	124.6	120.8	124.0	122.5	120.2	123.4	126.5	121.5	123.6	125.2

NØISE DATA

TABLE XIV-2. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 6 DELTA 7	1	2	3	4	5	6	7	8	9	10
MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	113.6	78.0	80.0	70.0	70.0	67.0	67.0	67.0	67.0	69.0
16	113.8	73.6	79.0	69.0	69.0	66.0	66.0	66.0	66.0	66.0
20	113.2	71.4	78.0	71.8	70.4	66.2	65.8	65.0	65.0	65.0
25	113.0	70.8	77.0	67.0	67.0	64.4	64.0	64.0	64.0	64.0
31	111.8	74.8	77.0	73.4	73.2	69.8	68.4	67.8	67.0	65.8
40	110.8	72.4	77.0	72.2	71.6	68.2	66.8	68.8	65.4	69.2
50	110.2	77.8	80.2	78.2	77.0	72.6	71.8	72.8	70.4	70.8
63	109.6	78.2	78.0	80.6	80.8	76.8	74.8	73.2	71.8	73.4
80	108.2	81.0	83.0	83.6	83.4	80.2	77.6	78.4	75.8	77.2
100	107.8	79.2	80.0	79.9	80.0	77.2	77.2	77.6	75.4	75.2
125	108.2	81.4	79.8	81.0	79.0	78.1	75.2	75.7	76.3	74.8
160	105.2	81.8	80.2	84.0	81.8	81.6	81.6	79.2	78.0	76.2
200	104.8	81.2	80.2	81.8	81.6	82.6	80.4	80.4	79.4	79.4
250	103.3	81.7	85.3	81.5	81.7	81.9	81.1	82.5	81.3	80.7
315	99.7	81.1	84.1	83.1	81.1	81.1	80.9	81.9	83.3	80.3
400	96.0	78.8	80.8	82.2	81.4	81.8	80.8	81.2	81.6	80.2
500	99.6	81.8	83.8	84.6	82.6	83.4	84.2	83.0	81.6	80.8
630	103.4	97.2	107.0	104.4	100.6	107.2	113.0	109.8	99.0	100.4
800	101.2	89.6	98.4	94.4	90.4	97.6	102.2	100.0	89.6	90.0
1000	98.3	85.7	86.9	85.5	84.1	85.7	86.9	89.3	88.3	87.7
1250	104.9	106.1	108.5	111.3	106.9	98.5	108.5	109.1	97.9	105.7
1600	94.4	94.2	96.8	98.6	95.8	88.0	95.0	97.6	88.6	94.4
2000	105.4	102.6	113.2	105.6	108.0	100.0	106.6	109.8	102.4	109.8
2500	95.7	96.7	97.9	93.1	97.1	91.9	93.7	96.9	97.7	92.1
3150	92.4	94.6	97.2	94.4	94.2	91.0	91.8	96.4	99.0	91.0
4000	93.2	95.0	98.6	94.4	93.2	89.4	93.4	92.0	96.8	89.8
5000	89.8	90.8	98.0	92.8	93.9	88.4	92.0	90.0	93.2	88.1
6300	83.6	85.8	89.8	86.8	87.4	85.7	88.3	84.1	85.1	84.9
8000	83.0	73.8	82.0	74.0	75.6	71.9	74.5	71.1	73.1	73.1
10000	80.0	70.0	81.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
12500	80.0	70.0	81.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
16000	80.0	70.0	81.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
20000	80.0	70.0	81.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
ØVERALL SPL UNCØRR	125.2	107.8	114.8	113.2	113.0	113.2	117.6	115.4	109.0	111.0
ØVERALL SPL CØRR	122.6	109.2	115.7	113.5	111.6	109.2	115.4	114.8	107.5	111.9
PNDB CØRR	125.7	120.0	127.6	122.5	123.3	117.9	123.1	124.9	119.8	123.4

TABLE XIV-3. - SEMISPAN WING-DUCTED FAN EBF STATIC SOUND STUDY NOISE DATA

SPL IN DB REL. .0002 MICROBAR

TEST 0 RUN 6 DELTA 11 CORRECTED FOR REVERBERATIONS

MICROPHONE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	99.2	112.4	80.0	70.0	70.0	67.0	67.0	70.8	67.0	67.0
16	96.8	110.6	79.0	69.0	69.0	66.0	66.0	66.0	66.0	66.0
20	94.8	108.6	78.0	72.8	72.2	68.8	67.8	66.4	65.0	65.0
25	94.6	106.2	77.0	68.0	68.8	65.0	64.2	64.0	64.8	64.0
31	93.0	107.2	77.0	73.2	74.2	70.6	69.0	67.2	68.0	66.0
40	91.2	107.0	77.0	75.0	76.6	71.8	69.2	70.0	69.8	70.6
50	90.4	105.8	81.4	79.4	78.8	75.8	74.4	75.0	73.0	72.8
63	87.4	104.0	79.6	82.8	84.2	82.4	80.0	77.8	77.6	77.2
80	86.4	103.8	82.6	84.8	85.6	83.0	80.8	82.4	79.8	80.6
100	84.6	103.0	81.2	80.5	81.6	80.0	80.4	80.4	78.4	78.0
125	87.8	102.6	82.0	82.4	85.0	82.9	83.4	80.1	78.3	75.8
160	85.8	98.8	80.4	83.6	82.6	83.6	82.4	81.0	80.2	78.6
200	86.2	99.6	81.4	81.4	82.0	83.0	81.4	81.6	80.0	79.6
250	85.7	97.1	86.3	82.5	85.5	84.5	85.1	83.9	82.7	81.5
315	84.3	93.5	84.1	83.5	82.9	82.3	81.7	83.1	83.7	80.9
400	80.2	89.4	80.6	82.8	83.6	82.8	82.4	82.6	82.4	81.0
500	83.8	92.0	83.8	85.2	84.2	84.4	84.4	83.6	82.6	81.8
630	100.4	101.2	106.2	106.4	104.6	106.4	111.0	107.8	100.4	102.2
800	92.4	93.8	97.2	96.0	94.0	96.4	100.2	98.4	90.2	91.2
1000	86.1	88.7	87.1	85.9	86.1	86.3	86.7	89.3	87.9	87.5
1250	105.7	108.1	108.1	112.3	110.7	106.5	110.3	107.5	101.7	101.5
1600	93.6	95.6	96.2	99.4	99.0	94.2	96.8	96.0	90.6	92.8
2000	105.6	102.0	110.4	102.2	101.2	106.8	110.0	98.8	105.6	112.6
2500	92.5	92.5	99.1	93.1	94.9	93.7	96.3	96.9	101.7	95.1
3150	90.2	90.4	99.6	94.4	95.6	90.8	97.4	95.4	97.2	92.0
4000	92.8	92.0	101.2	95.0	94.2	89.8	93.8	93.0	96.0	89.6
5000	91.0	90.2	99.0	93.4	92.9	88.6	90.2	89.6	92.6	87.5
6300	83.2	84.2	90.0	85.8	87.2	86.9	87.3	83.1	84.5	84.5
8000	73.0	83.0	82.0	75.0	76.0	72.5	73.5	69.9	72.3	72.5
10000	70.0	80.0	81.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
12500	70.0	80.0	81.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
16000	70.0	80.0	81.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
20000	70.0	80.0	81.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
OVERALL SPL UNCORR	110.6	118.4	113.0	115.6	113.2	113.2	115.8	114.4	111.2	111.6
OVERALL SPL CORR	110.9	119.0	114.4	114.1	112.7	111.8	115.6	111.8	109.7	113.6
PNDB CORR	121.6	122.5	126.3	123.0	122.1	122.4	125.4	120.2	121.9	125.4

NØISE DATA

TABLE XIV-4. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 6 DELTA 15

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	72.0	113.4	70.0	70.0	70.0	67.0	67.6	67.0	67.0	67.0
16	71.0	111.0	69.0	69.0	69.0	66.0	66.0	66.0	66.0	66.0
20	72.2	110.2	72.4	74.2	73.0	70.0	70.8	69.4	67.2	65.0
25	74.8	109.4	70.4	69.0	67.4	65.8	65.4	64.8	65.8	66.4
31	76.4	109.0	72.8	72.8	72.4	69.8	69.8	69.6	68.6	67.8
40	79.8	109.0	75.8	75.0	74.0	71.4	69.2	71.0	69.2	70.4
50	81.8	108.4	79.0	78.4	78.6	75.2	74.0	74.8	74.4	73.4
63	82.0	107.6	80.6	80.4	82.4	79.6	77.6	76.8	76.6	77.6
80	82.2	106.0	82.4	83.6	83.2	80.6	80.2	81.0	80.0	79.2
100	83.0	105.2	81.6	80.3	79.8	78.4	79.0	79.2	77.2	78.4
125	86.4	105.8	83.0	82.4	81.0	80.5	76.8	79.3	79.3	76.6
160	84.6	102.2	81.6	84.2	82.0	83.0	82.0	81.0	80.4	78.4
200	85.8	102.0	82.4	82.0	80.8	82.6	81.8	81.4	80.2	81.0
250	86.1	99.5	86.7	83.3	82.3	82.9	82.7	84.3	83.1	82.7
315	84.7	96.7	85.1	83.5	81.7	82.3	82.1	83.7	84.9	82.7
400	81.4	92.8	81.8	82.8	83.4	83.4	82.0	83.2	83.0	82.4
500	84.2	94.6	85.4	84.8	84.2	84.8	84.6	84.8	83.2	82.6
630	104.8	103.4	109.6	106.2	107.2	108.0	110.4	109.8	103.8	105.4
800	96.0	96.4	100.8	95.6	96.6	98.2	99.8	100.2	93.4	94.2
1000	86.1	90.7	87.7	85.5	85.1	86.5	87.5	90.1	87.9	87.3
1250	107.5	109.1	108.5	111.3	109.5	109.3	112.5	112.7	106.7	104.9
1600	95.2	96.8	96.6	98.8	98.0	96.8	99.0	101.0	94.2	94.0
2000	106.2	101.8	112.4	105.4	101.8	107.6	109.4	102.0	104.2	111.4
2500	94.9	95.1	100.7	93.1	95.9	93.7	97.1	94.3	97.1	94.5
3150	90.8	91.4	96.8	93.2	94.0	89.8	96.0	94.6	95.8	91.2
4000	92.6	93.8	101.6	97.4	95.0	91.6	92.4	92.8	95.8	91.0
5000	89.8	90.0	100.2	93.6	93.1	88.6	89.8	89.2	93.4	86.5
6300	83.6	85.8	89.6	87.0	87.0	85.5	85.9	83.1	84.7	84.9
8000	73.0	83.0	77.8	74.8	75.4	71.7	73.5	70.3	72.3	72.9
10000	70.0	80.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
12500	70.0	80.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
16000	70.0	80.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
20000	70.0	80.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
ØVERALL SPL UNCØRR	111.2	121.6	114.6	112.6	113.4	115.0	114.2	114.8	114.0	112.4
ØVERALL SPL CØRR	111.7	120.6	116.1	113.8	112.7	113.5	116.1	115.2	110.8	113.4
PNDB CØRR	122.3	124.0	127.6	122.8	121.6	123.2	125.1	123.3	121.4	124.9

NØISE DATA

TABLE XV-1. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 25 DELTA 4

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	0	10	10	20	20	10	20	20
FREQ(HERTZ)								
12.5	114.6	78.0	78.0	68.0	68.8	78.0	68.0	68.0
16	114.6	77.0	77.0	67.0	67.0	77.0	67.0	67.0
20	113.4	76.0	76.0	68.8	71.6	76.0	69.2	66.0
25	112.8	75.0	75.0	72.2	73.8	75.0	71.2	65.0
31	112.4	76.6	76.4	76.4	75.0	77.8	73.0	67.6
40	112.4	75.0	75.8	75.8	74.4	75.0	71.6	66.4
50	112.4	79.0	78.6	77.0	76.2	78.0	76.6	70.4
63	111.0	76.0	79.0	78.8	75.4	75.8	78.4	72.2
80	110.6	82.6	82.8	80.8	78.6	79.2	76.8	74.6
100	110.2	85.6	84.0	82.2	81.8	83.2	81.2	79.8
125	109.2	91.4	86.6	85.2	87.6	87.0	89.4	87.6
160	107.6	84.2	83.2	82.2	85.4	82.2	80.4	82.8
200	107.0	83.4	83.8	84.0	83.0	83.4	81.8	81.6
250	105.6	85.4	85.6	87.0	84.6	87.2	85.0	84.8
315	103.6	82.6	83.4	83.0	83.6	85.4	84.0	84.6
400	101.8	83.6	83.4	83.0	82.8	85.2	84.2	83.8
500	100.6	86.2	84.4	82.6	83.6	84.4	84.4	85.6
630	102.0	108.8	100.2	94.0	92.0	102.2	103.2	104.6
800	97.2	94.8	87.4	84.6	85.2	88.8	90.2	91.2
1000	94.4	86.6	85.0	84.4	85.2	87.8	87.4	87.8
1250	97.4	109.0	102.6	99.4	104.4	107.2	106.4	106.4
1600	92.0	96.8	91.4	88.8	94.0	96.0	94.8	95.2
2000	98.8	96.8	97.0	98.2	108.0	108.6	95.8	101.8
2500	91.8	91.6	97.2	88.0	95.8	95.2	88.6	93.4
3150	88.6	90.0	90.4	86.6	93.4	90.4	93.2	86.6
4000	86.2	87.4	89.2	87.0	87.6	86.6	89.8	87.8
5000	85.0	86.6	86.0	82.4	88.4	86.6	88.4	85.6
6300	85.0	85.2	83.8	80.8	86.2	83.2	85.0	83.2
8000	85.0	84.8	82.4	78.0	84.6	81.0	83.4	81.2
10000	85.0	78.8	80.8	74.8	82.8	76.8	80.2	79.6
12500	85.0	77.0	82.8	72.8	81.4	76.6	79.8	76.0
16000	86.8	75.4	84.6	67.0	81.0	75.0	80.2	71.0
20000	91.0	79.2	87.8	66.8	83.0	75.0	82.8	69.0
ØVERALL SPL UNCØRR	126.8 1	117.4	113.0	109.8	114.2	117.0	114.2	112.8
ØVERALL SPL CØRR	123.5 1	112.6	106.9	103.7	110.3	112.0	109.2	110.0
PNDB CØRR	123.0 1	120.5	117.7	115.6	122.7	123.9	118.7	119.3

NØISE DATA

TABLE XV-2. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 25 DELTA 10

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	0	10	20	20	20	10	20	20
FREQ(HERTZ)								
12.5	116.0	78.0	68.0	68.0	68.0	78.0	68.0	68.0
16	117.8	77.0	67.0	67.0	67.0	77.0	67.0	67.0
20	116.8	76.0	69.0	69.2	69.8	76.0	69.8	66.0
25	116.6	75.0	70.4	72.0	72.0	75.0	69.8	65.0
31	115.8	76.8	75.0	75.6	74.4	75.6	73.2	67.6
40	114.4	75.0	74.6	74.2	72.6	75.0	71.4	66.4
50	114.2	79.8	76.6	75.8	77.0	78.0	76.6	70.6
63	113.2	75.8	78.2	78.8	76.8	75.0	77.2	72.2
80	112.0	81.0	80.4	80.6	78.2	78.4	77.4	75.2
100	111.4	84.6	82.0	82.6	82.4	82.2	79.8	79.2
125	109.8	92.2	85.2	89.4	87.2	85.6	81.8	87.4
160	109.2	83.6	81.0	82.4	85.0	82.8	80.0	81.6
200	108.0	82.6	82.8	84.2	83.2	83.8	82.2	81.2
250	106.4	85.6	85.2	86.2	85.2	85.6	86.4	85.2
315	104.8	83.0	82.8	82.8	83.2	84.6	84.0	84.2
400	102.8	84.0	82.8	83.6	83.2	84.4	84.2	83.8
500	101.0	86.4	84.6	83.2	84.8	85.6	84.8	85.2
630	103.4	110.2	105.2	100.4	107.4	106.2	101.4	100.2
800	97.6	96.2	91.4	87.8	93.6	92.6	88.8	87.6
1000	95.8	86.6	84.8	84.8	85.4	86.8	87.2	87.8
1250	98.4	107.6	100.2	98.2	104.6	106.8	105.8	108.8
1600	93.4	95.6	91.6	87.8	94.4	96.6	94.0	96.8
2000	100.6	95.2	107.2	93.4	108.4	110.6	93.2	104.8
2500	91.4	98.6	91.6	91.6	93.8	94.0	90.0	91.4
3150	89.2	91.6	93.2	86.2	88.2	86.6	89.6	85.2
4000	87.6	90.2	88.0	83.0	79.0	85.2	89.6	88.6
5000	85.4	85.4	87.2	82.6	80.2	84.8	86.2	86.0
6300	85.0	84.8	85.6	79.8	75.8	82.8	83.2	81.6
8000	85.0	83.2	82.6	77.8	64.4	81.2	81.4	80.8
10000	85.0	78.8	81.4	73.2	63.0	76.2	76.4	79.0
12500	85.0	75.8	81.2	71.6	62.2	76.2	72.2	75.4
16000	86.8	75.0	81.8	66.4	62.6	75.0	71.6	70.8
20000	90.8	77.0	83.8	65.2	65.6	75.0	75.2	69.6
ØVERALL SPL UNCØRR	129.2	117.8	115.2	109.2	96.8	118.8	111.4	115.8
ØVERALL SPL CØRR	125.9	112.8	110.4	104.3	112.1	113.4	108.1	111.1
PNDB CØRR	124.3	120.6	122.1	113.8	122.5	124.5	117.7	120.7

NØISE DATA

TABLE XV-3. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

TEST 372 RUN 25 DELTA 14	CØRRECTED FØR REVERBERATIØNS						
MICRØPHØNE:	4	5	6	7	8	9	10
ANGLE(DEG):	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	20	20	20	10	20	20
FREQ(HERTZ)							
12.5	73.4	76.0	70.0	73.4	78.0	72.0	68.0
16	73.0	73.6	69.8	72.0	77.0	72.6	71.2
20	81.4	77.0	73.2	79.6	77.6	79.8	78.2
25	74.4	73.0	70.8	73.0	75.0	72.4	70.6
31	78.0	78.0	79.6	81.0	79.2	78.2	77.0
40	78.0	76.6	75.6	75.6	78.8	78.0	73.0
50	80.0	77.8	79.6	80.0	82.4	77.2	76.8
63	81.2	78.6	78.8	80.0	77.2	78.0	75.8
80	82.2	80.8	80.2	80.4	80.4	79.6	78.4
100	84.2	82.2	82.8	82.6	82.8	81.0	82.6
125	90.0	82.2	87.4	87.0	85.6	81.8	92.0
160	82.2	83.8	83.0	85.4	82.8	80.6	82.2
200	84.2	83.2	85.0	84.8	83.2	82.2	82.2
250	85.6	85.0	88.6	87.0	85.8	85.0	87.0
315	84.2	84.6	83.6	84.8	85.8	85.0	85.2
400	84.2	85.6	84.8	84.8	85.2	84.6	84.6
500	86.0	86.8	85.0	85.0	86.2	85.2	85.2
630	108.8	104.2	97.4	102.6	107.4	103.6	103.0
800	95.2	91.6	86.4	90.0	93.4	90.8	90.2
1000	86.8	87.2	85.2	84.6	86.0	87.6	87.2
1250	109.8	100.0	105.6	96.0	102.0	107.6	104.0
1600	98.0	91.8	94.2	89.2	93.8	96.0	93.6
2000	98.0	102.4	101.8	105.0	110.2	101.2	106.0
2500	90.6	98.2	93.2	92.8	93.0	96.2	93.0
3150	89.6	98.2	89.6	91.4	91.2	92.6	88.0
4000	86.0	95.6	82.4	87.2	86.4	89.0	84.4
5000	88.2	96.0	82.2	87.0	89.4	87.8	85.6
6300	83.8	92.8	78.6	80.2	83.2	86.0	81.2
8000	82.2	90.0	75.8	76.8	80.8	84.4	79.4
10000	77.6	88.8	73.2	74.0	76.2	82.0	76.6
12500	74.2	87.6	71.8	72.0	76.0	80.8	73.6
16000	68.8	88.0	66.2	69.0	75.0	80.8	67.2
20000	70.0	89.2	65.2	72.6	75.0	82.2	66.0
ØVERALL SPL UNCØRR	117.6	115.0	113.8	114.6	118.0	116.4	114.6
ØVERALL SPL CØRR	113.0	109.4	108.3	108.1	112.8	110.5	109.9
PNDB CØRR	121.0	121.3	118.5	120.3	124.3	120.0	121.2

NØISE DATA

TABLE XVI-1. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 24 DELTA 3

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	10	10	20	10	10	10	10
FREQ(HERTZ)								
12.5	83.0	78.0	78.0	68.0	78.0	78.0	78.0	78.0
16	84.4	77.0	77.0	67.0	77.0	77.0	77.0	77.0
20	87.0	76.0	76.0	70.0	76.0	76.0	76.0	76.0
25	84.0	75.0	75.0	73.6	75.0	75.0	75.0	75.0
31	81.6	77.0	77.6	77.8	79.2	79.2	77.8	75.0
40	79.8	75.0	76.2	76.8	75.4	75.0	75.0	75.0
50	80.4	81.6	79.6	78.8	81.8	81.0	80.6	75.4
63	80.6	78.2	80.6	81.4	79.0	78.2	79.6	75.0
80	79.4	82.4	83.4	81.6	80.8	81.4	78.4	76.4
100	81.0	85.2	84.2	83.4	83.8	84.8	82.2	80.0
125	81.2	88.4	85.8	83.2	86.8	92.4	84.2	82.6
160	81.6	83.6	82.4	82.0	85.2	82.4	81.0	82.4
200	82.8	83.4	84.8	85.0	85.8	84.4	83.0	81.8
250	86.4	85.2	87.6	87.0	88.4	87.0	85.8	86.2
315	81.8	84.0	84.0	83.8	84.2	85.8	86.8	86.2
400	81.8	84.4	84.4	84.0	85.8	85.0	85.0	85.0
500	83.6	86.8	87.0	85.2	86.4	87.6	86.0	86.2
630	97.8	109.2	109.6	106.0	109.2	110.0	101.8	106.2
800	85.4	94.8	95.4	91.8	94.4	95.2	89.4	91.8
1000	83.4	88.4	85.6	85.2	85.8	88.2	88.4	88.6
1250	96.8	112.0	102.0	99.2	103.4	109.6	105.2	103.0
1600	87.4	99.6	92.2	89.2	94.8	97.4	94.8	92.8
2000	98.2	103.4	107.0	101.6	111.0	108.6	107.8	104.8
2500	90.0	95.8	91.4	92.6	97.8	93.4	93.0	90.0
3150	86.2	89.2	91.2	87.6	88.6	88.4	89.8	92.2
4000	85.6	89.2	88.0	86.6	86.2	88.4	89.6	88.8
5000	83.2	91.2	85.8	84.6	86.2	90.6	89.4	88.4
6300	81.0	85.2	83.6	82.2	84.6	83.6	84.6	85.4
8000	76.6	82.2	81.0	80.0	78.8	82.8	82.2	82.8
10000	72.8	77.6	77.2	76.0	75.8	78.2	77.2	79.8
12500	70.6	76.2	76.6	74.2	75.0	76.8	75.0	77.4
16000	65.0	75.0	75.0	68.0	75.0	75.0	75.0	75.0
20000	65.0	75.0	75.0	65.0	75.0	75.0	75.0	75.0
ØVERALL SPL UNCØRR	110.0	122.2	118.4	113.2	118.0	119.6	115.0	114.6
ØVERALL SPL CØRR	103.8	114.6	112.3	108.6	114.0	114.5	110.9	110.2
PNDB CØRR	115.5	123.0	122.4	118.6	125.1	124.1	122.7	121.0

TABLE XVI-2. - SEMISPAN WING-DUCTED FAN EBF SOUND STUDY-T372

NOISE DATA

SPL IN DB REL. .0002 MICROBAR

CORRECTED FOR REVERBERATIONS

TEST 372 RUN 24 DELTA 5

MICROPHONE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	20	10	10	10	20	20	20
FREQ(HERTZ)								
12.5	84.2	68.0	78.0	78.0	78.0	68.0	68.0	71.2
16	82.8	67.0	77.0	77.0	77.0	67.0	67.0	71.2
20	88.6	73.0	76.0	76.0	76.0	72.0	71.0	71.8
25	78.8	71.6	75.0	76.0	75.0	74.8	75.4	71.6
31	78.4	75.8	77.6	77.6	79.0	76.8	76.4	74.4
40	79.6	74.0	78.2	78.6	76.2	74.0	74.4	72.6
50	80.4	78.0	79.2	80.8	80.2	78.6	80.2	75.0
63	81.0	78.4	81.0	83.0	80.2	78.4	80.4	76.0
80	79.2	82.0	82.8	81.4	80.8	79.6	78.4	79.2
100	81.2	83.6	83.8	83.8	84.4	83.8	81.6	79.2
125	84.6	88.4	84.8	84.4	88.4	91.6	85.0	82.4
160	81.4	83.6	82.0	83.8	87.6	80.6	83.4	82.2
200	81.0	84.0	85.2	85.2	84.8	83.8	83.2	82.8
250	84.8	89.2	88.4	88.2	86.8	88.4	87.0	85.8
315	81.8	84.2	84.4	85.0	85.0	86.2	86.0	85.6
400	82.6	85.0	84.6	84.4	85.0	85.6	85.0	85.4
500	83.8	86.6	86.2	87.8	86.8	86.2	85.4	87.8
630	103.6	108.8	108.2	112.0	110.4	106.8	105.2	109.8
800	90.4	94.6	94.2	98.0	96.2	93.0	91.6	96.2
1000	84.2	86.2	86.4	85.4	86.2	86.2	88.2	88.0
1250	99.2	106.6	106.2	99.6	105.4	102.6	101.6	100.4
1600	89.2	94.8	94.8	89.6	94.4	93.0	91.4	91.4
2000	96.4	98.0	105.6	96.8	105.4	107.2	101.0	101.2
2500	91.0	94.4	95.2	94.6	98.0	94.4	94.8	92.4
3150	85.8	89.2	92.0	86.8	90.4	90.8	91.2	92.6
4000	87.2	86.8	88.6	89.6	85.2	88.0	88.8	89.8
5000	82.6	91.2	88.2	86.4	85.0	90.0	91.4	89.0
6300	80.4	85.0	84.0	83.0	82.0	83.6	85.0	87.4
8000	76.2	82.6	82.0	80.2	78.6	82.0	82.2	86.6
10000	73.0	78.2	78.0	75.6	76.2	78.8	77.0	85.0
12500	70.4	74.4	77.0	75.4	75.0	76.8	72.2	84.0
16000	65.0	68.2	75.0	75.0	75.0	73.4	65.0	83.4
20000	65.0	67.0	75.0	75.0	75.0	72.6	66.0	83.4
OVERALL SPL UNCORR	111.8	116.0	117.4	117.4	117.6	118.0	113.8	114.6
OVERALL SPL CORR	106.5	111.6	112.1	112.9	113.0	111.3	108.7	111.4
PNDB CORR	115.3	119.6	122.0	120.5	121.9	122.6	119.2	120.1

TABLE XVI-3. - SEMISPAN WING-DUCTED FAN EBF SOUND STUDY-T372

NOISE DATA

SPL IN DB REL. .0002 MICROBAR

CORRECTED FOR REVERBERATIONS

TEST 372 RUN 24 DELTA 16								
MICROPHONE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	10	10	20	20	20	20	20
FREQ(HERTZ)								
12.5	92.4	78.0	78.0	68.0	68.0	68.0	68.0	68.0
16	90.8	77.0	77.0	67.0	67.0	67.0	67.0	67.0
20	98.6	76.0	76.0	70.4	71.0	71.0	70.0	66.0
25	85.6	75.0	75.0	73.6	74.0	73.2	73.2	68.2
31	82.6	75.6	77.0	76.2	77.0	76.2	74.8	71.2
40	89.6	75.0	77.2	76.4	75.8	75.8	74.8	70.0
50	85.4	80.2	79.2	78.0	79.8	78.0	78.8	73.0
63	84.0	78.0	80.8	81.0	79.0	78.4	79.2	75.4
80	80.6	82.4	82.8	81.4	80.6	80.6	78.2	78.8
100	82.0	83.2	83.6	84.0	83.2	84.2	82.0	80.2
125	84.6	84.0	83.4	84.6	84.4	86.0	84.6	87.4
160	81.8	83.6	81.0	82.8	85.6	82.4	81.2	80.4
200	81.4	82.6	84.4	85.2	85.0	84.0	83.0	82.6
250	84.8	86.2	86.4	87.4	86.6	87.2	85.2	86.8
315	82.6	85.0	85.0	84.2	84.8	85.2	85.6	85.8
400	82.0	84.4	84.4	84.6	85.0	85.0	85.4	85.0
500	83.8	86.2	85.8	84.6	85.8	86.6	85.6	86.4
630	99.4	108.6	107.6	103.8	109.0	108.0	104.6	108.4
800	86.6	95.2	94.0	90.8	95.2	93.4	91.4	93.8
1000	83.6	87.2	87.2	86.4	85.0	86.0	87.8	87.4
1250	101.6	109.8	108.6	106.8	100.8	98.8	108.8	102.8
1600	90.8	98.4	97.4	95.0	91.6	91.2	96.4	91.6
2000	98.2	100.2	106.4	101.2	106.0	106.2	96.4	99.2
2500	88.8	96.8	91.8	89.0	95.8	92.8	96.2	89.6
3150	85.4	91.2	89.8	91.0	90.0	90.2	91.8	89.0
4000	84.0	87.0	87.4	85.0	87.0	87.2	89.0	86.0
5000	82.6	87.4	85.6	83.2	86.2	89.8	91.6	84.0
6300	79.6	85.0	83.8	81.6	81.0	84.2	84.0	84.0
8000	75.8	81.8	80.8	79.6	78.0	81.8	80.8	81.8
10000	71.6	78.0	76.8	77.0	76.2	78.4	76.4	79.6
12500	69.6	76.2	76.2	75.0	72.2	75.6	71.4	76.8
16000	65.0	75.0	75.0	72.2	65.0	71.4	65.0	72.2
20000	65.0	75.0	75.0	73.2	68.0	70.6	66.4	70.8
OVERALL SPL UNCORR	112.0	117.6	115.6	114.8	117.4	115.6	116.0	115.0
OVERALL SPL CORR	106.8	113.1	112.8	109.8	111.7	111.0	111.1	110.4
PNDB CORR	115.9	121.4	122.3	118.8	121.7	121.7	120.4	118.5

TABLE XVII-1. - SEMISPAN WING-DUCTED FAN EBF SOUND STUDY-T372

NOISE DATA
SPL IN DB REL. .0002 MICROBAR
CORRECTED FOR REVERBERATIONS

TEST 372 RUN 19 DELTA 4								
MICROPHONE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	20	20	20	10	20	10	20
FREQ(HERTZ)								
12.5	81.2	68.0	71.4	78.0	78.0	68.0	78.0	68.0
16	74.4	67.0	70.4	77.0	77.0	67.0	77.0	67.0
20	73.6	68.8	71.4	76.0	76.0	66.0	76.0	66.0
25	71.6	72.8	72.6	75.0	75.0	65.0	75.0	65.0
31	77.4	78.8	78.2	78.0	79.6	68.6	76.4	65.0
40	75.4	75.0	76.6	75.8	75.0	65.0	75.0	65.0
50	79.0	79.4	77.6	79.6	79.8	69.0	79.8	65.0
63	79.8	78.4	79.4	79.0	77.2	67.6	79.4	65.0
80	80.8	82.6	83.0	80.4	80.4	70.8	77.2	66.2
100	82.8	85.0	83.4	81.6	83.8	72.8	81.2	69.6
125	91.0	93.4	91.0	86.0	89.4	73.8	87.2	77.6
160	82.0	86.0	81.0	81.2	84.2	75.2	80.8	71.4
200	82.2	82.8	83.6	83.2	84.6	73.2	82.6	72.0
250	85.4	85.4	86.2	86.8	87.6	76.0	85.6	75.2
315	83.2	83.8	83.8	83.4	84.6	74.2	85.2	75.4
400	82.0	83.6	84.0	83.8	84.0	75.0	85.0	75.4
500	83.2	86.2	85.0	85.6	83.8	75.6	85.4	76.2
630	98.2	110.2	97.8	108.6	103.6	94.6	102.8	92.0
800	89.2	100.2	89.8	98.4	93.8	84.8	93.6	82.0
1000	84.4	86.2	87.6	85.8	85.4	77.4	89.0	78.6
1250	103.6	103.4	105.6	103.2	100.0	97.0	110.0	88.0
1600	95.4	95.2	97.2	94.6	92.6	88.4	101.2	81.6
2000	98.4	96.4	102.0	101.0	105.4	94.0	102.6	96.0
2500	94.4	97.0	93.2	96.6	98.4	90.2	93.0	83.0
3150	90.2	91.8	93.6	90.4	90.8	84.0	89.0	83.6
4000	87.6	92.8	91.8	86.2	90.8	81.4	89.4	81.8
5000	87.6	90.6	92.4	85.0	87.8	79.2	90.0	77.8
6300	84.2	86.8	90.0	83.2	83.4	75.4	85.8	74.4
8000	80.0	84.0	88.8	81.6	81.6	72.4	84.0	74.4
10000	77.2	81.6	86.8	77.4	79.4	70.4	81.6	70.6
12500	76.4	78.6	85.6	76.8	80.4	69.8	82.8	69.0
16000	76.6	75.0	85.6	75.0	82.2	69.0	85.0	67.2
20000	79.2	76.2	86.8	77.4	86.8	71.6	88.4	70.6
OVERALL SPL UNCORR	112.0	117.6	113.4	114.4	115.0	105.8	118.2	102.8
OVERALL SPL CORR	107.0	112.2	109.1	111.1	109.4	101.3	112.2	98.8
PNDB CORR	117.4	120.8	120.4	119.4	121.5	111.7	121.4	111.5

NØISE DATA

TABLE XVII-2. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

TEST 372 RUN 19 DELTA 10 CØRRECTED FØR REVERBERATIØNS

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	10	20	10	20	20	20	20
FREQ(HERTZ)								
12.5	77.8	78.0	74.4	88.0	68.0	68.0	68.0	68.0
16	74.8	77.0	71.6	87.0	67.0	67.0	68.6	67.0
20	72.4	76.0	71.8	86.0	68.2	66.2	69.0	66.0
25	71.2	75.6	73.0	85.0	69.4	70.0	70.6	65.0
31	74.8	83.4	75.6	85.2	74.6	74.2	73.0	65.6
40	75.2	79.0	75.6	85.0	72.8	71.0	72.2	65.2
50	78.2	84.8	76.6	88.0	76.6	74.6	75.6	70.2
63	78.2	81.4	78.2	87.2	76.0	76.0	76.0	71.0
80	79.0	87.2	79.6	90.0	78.2	78.6	76.6	75.4
100	81.8	88.2	81.8	92.4	81.2	81.6	79.0	79.0
125	88.2	96.4	87.8	96.0	85.2	82.0	81.0	84.0
160	81.4	85.4	82.0	91.0	85.0	82.4	82.0	81.2
200	82.6	83.6	83.2	93.6	83.8	83.6	82.4	81.6
250	86.8	86.8	84.6	95.2	85.8	86.4	86.6	85.8
315	83.2	84.6	84.2	93.4	83.0	84.0	84.2	85.6
400	82.4	84.4	83.8	93.0	83.8	85.2	85.0	84.8
500	84.4	86.8	85.4	95.2	84.2	85.4	85.4	85.8
630	104.8	108.8	103.0	118.8	104.0	104.6	104.8	100.8
800	94.2	97.8	92.8	107.6	93.2	93.6	93.8	90.6
1000	84.8	87.4	86.8	95.8	86.6	87.2	87.8	87.6
1250	101.6	109.8	100.4	112.2	109.2	104.2	106.8	104.2
1600	93.2	100.4	92.6	103.0	99.8	95.0	97.6	95.0
2000	103.2	105.2	100.0	110.8	98.8	102.4	107.0	100.0
2500	91.0	93.0	93.8	101.4	97.4	98.2	94.4	90.4
3150	95.2	93.4	95.2	99.2	89.0	91.2	91.6	91.8
4000	87.2	89.6	93.2	96.2	88.0	89.4	91.8	88.2
5000	86.6	87.0	93.2	97.8	88.6	88.2	90.4	85.0
6300	84.8	87.6	91.8	94.8	82.4	83.2	88.0	82.8
8000	80.8	84.2	89.6	91.8	81.2	82.6	85.2	83.2
10000	78.4	82.2	87.4	87.6	79.0	79.0	82.8	79.4
12500	77.8	80.2	86.2	86.6	77.0	76.6	80.8	76.4
16000	78.4	81.0	85.8	85.0	75.8	73.0	80.2	70.8
20000	79.6	84.4	87.2	86.0	78.2	72.0	81.8	69.4
ØVERALL SPL UNCØRR	113.6	117.8	112.6	127.6	113.6	114.4	116.6	114.6
ØVERALL SPL CØRR	109.0	113.8	108.0	120.8	111.5	109.6	111.7	107.8
PNDB CØRR	120.0	122.8	119.5	129.1	120.7	120.1	122.9	118.1

NØISE DATA

TABLE XVII-3. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 19 DELTA 12								
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	20	20	20	10	20	20	20
FREQ(HERTZ)								
12.5	78.8	70.2	71.2	78.0	78.6	68.0	68.2	68.0
16	74.8	67.0	67.0	77.0	77.0	67.0	67.0	67.0
20	72.8	70.8	70.2	76.0	80.2	67.0	67.2	66.0
25	74.4	69.0	68.8	75.0	77.2	68.8	68.6	65.0
31	76.2	75.6	75.2	76.2	81.4	74.0	72.6	66.8
40	77.2	73.8	74.8	75.0	80.0	71.8	71.2	68.2
50	78.8	77.2	76.4	78.0	83.6	74.6	76.4	72.0
63	78.4	77.0	77.6	76.2	82.4	75.2	76.2	71.8
80	78.8	80.8	80.4	79.4	85.6	78.2	76.2	74.4
100	82.2	83.6	82.6	82.6	87.2	81.2	80.2	78.4
125	86.4	92.2	88.8	89.2	90.6	82.0	87.6	86.0
160	83.0	84.2	82.4	84.0	88.4	84.6	80.4	80.8
200	83.0	83.8	84.8	84.2	90.2	84.0	83.0	82.4
250	84.8	87.2	86.6	85.4	92.8	86.0	86.2	85.8
315	84.0	83.6	84.6	83.6	90.8	84.6	85.6	85.0
400	82.0	83.4	83.8	83.8	91.0	84.8	85.0	84.6
500	83.6	86.6	84.2	85.0	92.8	85.0	85.6	86.6
630	102.0	110.8	99.2	108.8	114.8	100.6	104.0	104.8
800	91.8	100.2	89.6	98.0	103.8	90.8	93.4	94.0
1000	84.8	85.8	87.6	85.2	93.4	86.6	88.8	88.0
1250	104.0	106.0	108.6	100.2	106.4	105.8	109.8	102.4
1600	95.4	97.2	99.4	91.8	99.4	96.8	100.2	94.2
2000	93.6	92.4	99.0	101.4	112.8	102.4	100.2	104.6
2500	97.2	92.4	91.6	95.2	103.4	99.4	93.0	92.0
3150	91.2	93.8	92.4	91.2	101.2	93.2	89.6	88.0
4000	87.2	89.6	89.4	87.2	101.6	90.6	88.0	88.8
5000	85.0	91.8	89.2	86.8	101.0	89.0	87.6	84.4
6300	81.6	85.2	86.6	83.4	98.4	83.6	85.4	82.6
8000	78.2	83.8	85.2	81.2	96.2	81.6	82.8	83.0
10000	75.4	81.2	82.4	76.8	93.8	79.2	80.0	79.0
12500	73.8	78.0	80.2	76.4	93.8	76.8	76.4	75.6
16000	73.2	75.4	79.2	75.0	94.2	73.2	75.2	70.0
20000	75.8	76.6	81.0	76.2	96.0	72.2	77.8	68.8
ØVERALL SPL UNCØRR	113.4	118.0	115.2	115.2	114.4	116.2	117.0	114.4
ØVERALL SPL CØRR	107.7	112.9	110.4	110.8	118.3	109.5	111.9	109.5
PNDB CØRR	117.6	120.8	120.3	119.4	129.6	120.3	121.0	120.6

NØISE DATA

TABLE XVII-4. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 19 DELTA 14

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	10	20	20	20	20	20	20
FREQ(HERTZ)								
12.5	78.2	78.0	73.8	78.0	73.2	68.0	70.2	69.0
16	78.8	77.0	73.6	77.0	72.4	67.0	71.2	71.2
20	81.0	81.0	81.0	81.2	81.8	68.2	77.6	78.0
25	76.0	75.0	72.6	75.0	71.8	65.0	70.8	70.0
31	79.0	77.6	77.8	77.0	75.0	70.6	79.6	73.4
40	79.8	77.8	77.0	78.0	75.8	65.0	75.6	73.2
50	82.2	81.2	78.4	78.8	79.2	70.2	78.2	77.8
63	81.6	83.0	80.0	78.6	78.6	68.4	78.2	76.4
80	81.8	82.2	80.4	79.8	80.0	69.2	79.2	78.0
100	82.8	84.6	82.4	81.4	82.0	71.6	80.6	78.8
125	85.6	91.8	86.2	84.6	83.2	73.8	85.0	84.6
160	80.8	86.4	82.6	81.2	83.4	72.2	80.6	81.2
200	82.8	86.4	84.6	84.2	84.8	74.0	82.6	82.4
250	85.8	87.8	86.2	86.2	86.8	76.2	85.4	85.6
315	84.6	85.4	84.8	84.0	84.4	75.0	85.2	85.2
400	83.8	85.6	84.0	84.0	84.6	75.6	84.8	85.0
500	84.8	86.0	84.8	86.0	85.2	75.2	86.2	86.4
630	105.8	103.4	97.6	110.6	98.8	91.2	108.2	105.2
800	94.2	91.8	88.2	98.6	88.4	80.0	96.6	93.8
1000	85.0	86.6	86.6	86.0	86.6	77.8	88.6	88.4
1250	99.6	107.2	106.0	101.6	107.2	100.2	109.2	106.2
1600	91.0	97.6	96.4	92.2	97.0	90.4	99.0	96.2
2000	97.4	105.0	105.8	101.4	99.2	98.0	101.6	95.2
2500	87.8	95.6	94.2	94.2	92.0	89.8	96.6	89.2
3150	89.6	91.2	93.6	88.2	88.0	86.2	90.2	92.2
4000	89.6	89.6	90.8	88.2	89.4	78.8	88.2	89.2
5000	85.6	86.8	90.6	84.2	87.6	79.0	92.4	84.2
6300	82.2	84.8	91.0	81.8	81.8	73.8	86.6	82.2
8000	79.0	83.4	88.4	78.2	79.2	70.8	85.6	80.8
10000	76.6	80.4	86.4	75.2	76.8	68.8	84.2	78.2
12500	76.2	79.2	84.8	75.0	75.0	68.8	82.8	74.8
16000	76.4	79.8	84.8	75.0	72.8	68.2	83.0	69.4
20000	78.4	83.8	86.2	75.0	76.4	71.2	84.6	68.8
ØVERALL SPL UNCØRR	111.4	116.4	115.2	117.8	115.2	107.0	117.2	113.8
ØVERALL SPL CØRR	108.1	111.0	110.2	112.1	109.2	103.3	112.9	109.7
PNDB CØRR	116.9	121.8	122.2	119.9	118.9	113.8	121.5	118.5

NØISE DATA

TABLE XVIII-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 8 DELTA 3

MICRØPHØNE:	1	2	3	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)									
12.5	80.0	112.8	77.4	76.8	71.4	77.6	73.4	72.2	72.0
16	75.0	112.6	73.6	71.0	66.0	70.0	66.0	66.0	66.0
20	76.8	110.8	75.8	78.6	73.8	74.2	71.0	66.8	65.0
25	71.6	109.6	69.8	72.2	67.8	68.2	67.4	67.8	64.4
31	76.4	109.8	76.8	76.4	72.8	72.6	70.6	70.0	69.0
40	75.8	109.2	78.4	76.4	71.8	71.4	70.0	69.2	70.6
50	79.0	109.2	80.8	79.0	74.8	76.2	77.0	74.4	73.4
63	79.8	108.8	84.6	84.6	80.6	78.4	76.0	75.0	77.2
80	80.8	108.6	86.2	85.4	81.8	79.6	78.8	77.0	76.8
100	79.6	106.8	83.2	81.0	78.2	78.8	79.0	76.4	77.0
125	82.8	106.8	84.4	80.6	79.1	77.2	77.3	78.5	76.6
160	80.0	103.8	81.6	83.0	85.2	80.0	80.0	78.6	77.0
200	80.8	103.0	82.8	81.2	87.4	79.4	79.4	79.0	79.2
250	81.9	101.1	86.9	82.5	90.7	82.5	82.5	82.5	81.1
315	79.7	97.7	84.3	81.5	84.9	81.5	82.5	80.7	81.1
400	77.8	93.0	81.0	81.2	86.2	81.4	83.8	80.0	81.6
500	81.8	94.8	84.6	84.2	87.6	81.6	84.2	82.4	82.6
630	100.4	106.2	107.2	100.2	103.4	108.6	111.0	104.0	105.6
800	91.4	98.2	98.0	90.4	94.0	97.2	101.8	93.2	93.6
1000	85.3	91.9	88.3	84.3	89.1	86.9	90.5	89.5	88.5
1250	108.1	105.9	109.1	99.1	107.3	102.3	111.9	111.3	110.9
1600	94.2	93.6	97.4	89.6	94.6	89.6	99.8	98.2	98.0
2000	105.4	103.4	110.0	95.4	98.4	109.4	109.6	110.6	106.2
2500	94.9	95.7	98.5	92.3	88.1	99.1	95.7	97.5	94.5
3150	89.6	91.8	101.4	94.8	82.0	93.6	93.2	92.0	92.2
4000	95.2	93.0	103.2	95.0	79.4	91.8	93.6	95.2	91.8
5000	88.6	90.6	98.2	94.1	76.2	91.2	93.2	93.8	86.1
6300	82.6	83.6	90.4	88.0	71.7	88.1	85.1	84.5	85.3
8000	73.0	83.0	80.0	76.0	70.5	74.5	72.3	72.5	73.9
10000	70.0	80.0	71.0	70.0	70.0	70.0	68.0	71.0	66.0
12500	70.0	80.0	71.0	70.0	70.0	70.0	68.0	71.0	66.0
16000	70.0	80.0	71.0	70.0	70.0	70.0	68.0	71.0	66.0
20000	70.0	80.0	71.0	70.0	70.0	70.0	68.0	71.0	66.0
ØVERALL SPL UNCØRR	110.2	127.6	113.2	108.0	99.0	111.4	116.4	115.6	120.0
ØVERALL SPL CØRR	111.0	121.2	114.8	105.8	109.7	113.0	116.2	114.8	113.4
PNDB CØRR	121.3	124.3	126.4	117.4	118.1	124.1	125.2	125.2	122.2

NØISE DATA

TABLE XVIII-2. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

TEST 372 RUN 20 DELTA 4		CØRRECTED FØR REVERBERATIØNS						
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	0	10	10	10	10	10	20	10
FREQ(HERTZ)								
12.5	118.4	78.0	78.0	78.0	78.0	78.0	68.0	78.0
16	118.6	77.0	77.0	77.0	77.0	77.0	67.0	77.0
20	116.4	76.0	76.0	76.0	76.0	76.0	68.2	76.0
25	115.4	75.0	75.0	75.0	75.0	75.0	71.6	75.0
31	115.4	78.8	78.4	77.4	77.8	77.8	74.4	75.0
40	114.4	75.0	76.0	76.2	75.0	75.0	73.6	75.0
50	113.4	80.6	79.4	79.4	79.8	79.2	77.2	75.0
63	113.0	78.8	81.2	81.4	78.0	78.6	79.6	75.0
80	111.6	81.8	82.6	80.6	79.2	79.6	77.8	76.8
100	111.8	85.0	84.0	83.0	83.4	82.8	81.0	80.4
125	110.2	89.4	88.8	86.2	91.0	86.2	85.4	86.6
160	108.4	84.2	82.6	81.6	85.8	83.6	80.4	81.8
200	106.8	83.4	83.2	83.2	84.0	83.4	81.8	81.4
250	105.4	85.8	85.4	85.6	86.2	86.8	86.6	85.6
315	103.4	83.8	83.6	84.0	83.0	84.6	84.8	85.6
400	101.2	83.2	84.2	84.4	83.8	84.6	84.6	85.2
500	99.4	84.8	86.0	86.4	86.0	87.2	85.6	87.0
630	102.4	105.6	108.4	111.6	109.6	108.8	105.0	110.2
800	95.6	94.2	96.8	99.4	97.4	97.0	93.6	97.8
1000	93.6	87.6	86.8	85.8	86.8	86.6	87.8	88.6
1250	101.0	110.2	108.6	99.8	99.0	100.8	105.8	106.0
1600	93.2	100.2	98.6	91.6	92.6	92.6	95.8	95.6
2000	100.2	96.8	103.8	106.0	110.0	106.6	99.6	104.2
2500	90.2	91.0	91.2	95.4	95.2	99.8	89.6	92.4
3150	89.6	91.2	90.2	87.0	87.2	95.4	89.6	90.8
4000	86.6	88.8	90.4	86.6	87.0	88.4	88.6	90.4
5000	85.0	93.2	88.8	83.4	89.2	86.0	90.8	86.2
6300	85.0	88.6	85.0	83.4	82.6	84.2	84.4	83.6
8000	85.0	84.4	82.2	81.0	79.8	81.0	81.6	82.4
10000	85.0	80.8	77.0	75.8	75.2	78.4	77.2	79.2
12500	85.0	76.4	76.8	75.2	75.0	77.0	71.8	77.0
16000	85.0	75.0	75.0	75.0	75.0	75.0	65.0	75.0
20000	85.0	75.0	75.0	75.0	75.0	75.0	66.2	75.0
ØVERALL SPL UNCØRR	128.0	116.4	117.2	117.8	118.8	117.0	114.0	118.4
ØVERALL SPL CØRR	126.0	112.3	112.8	113.4	113.4	112.0	109.7	112.8
PNDB CØRR	123.8	121.5	121.3	121.8	124.2	122.7	118.7	121.3

NØISE DATA

TABLE XVIII-3. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 20 DELTA 10								
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	0	10	10	20	20	10	10	10
FREQ(HERTZ)								
12.5	117.6	78.0	78.0	68.0	68.0	78.0	78.0	78.0
16	117.6	77.0	77.0	67.0	67.0	77.0	77.0	77.0
20	119.2	76.0	76.0	68.4	68.6	76.0	76.0	76.0
25	116.0	75.0	75.0	69.8	69.8	75.0	75.0	75.0
31	117.0	77.6	76.2	74.6	74.2	76.0	76.2	75.0
40	114.8	75.0	75.8	75.6	73.2	75.0	75.0	75.0
50	114.0	80.2	79.0	77.2	78.2	79.4	78.8	75.0
63	113.4	77.6	80.0	80.4	77.2	76.6	76.6	75.0
80	112.2	81.6	81.8	80.4	78.4	80.0	77.2	77.6
100	110.6	84.8	83.2	81.8	82.2	82.4	80.0	79.8
125	108.8	87.0	88.2	83.6	88.4	88.0	83.2	85.8
160	107.2	84.0	82.0	81.8	84.8	83.8	82.2	81.4
200	106.8	83.6	84.8	83.8	84.4	83.6	82.0	81.8
250	105.0	83.8	87.2	86.2	86.6	86.8	86.0	84.8
315	103.6	83.8	84.4	83.6	83.0	84.0	85.4	84.8
400	100.8	83.6	83.4	83.6	83.6	85.0	84.8	84.8
500	99.0	84.8	84.2	85.0	84.8	86.6	85.4	86.0
630	106.6	105.0	103.0	106.8	106.6	107.8	100.4	106.0
800	97.6	93.4	91.0	94.4	94.2	95.2	90.0	93.4
1000	94.0	87.2	86.4	85.0	85.8	87.0	89.4	89.0
1250	99.2	110.0	103.2	101.4	105.0	104.0	111.0	108.8
1600	92.8	100.0	93.4	91.8	94.6	94.6	100.4	97.8
2000	100.2	103.2	101.2	100.4	105.6	106.6	105.6	104.4
2500	90.2	91.6	94.0	90.6	93.6	100.0	94.0	93.4
3150	88.8	93.0	88.6	89.0	89.4	92.4	90.2	93.0
4000	86.6	89.6	86.6	87.2	85.4	89.6	87.4	89.0
5000	86.6	90.2	89.6	85.6	84.6	86.6	89.8	84.6
6300	85.0	87.6	84.2	80.6	82.2	83.2	84.6	83.6
8000	85.0	84.0	81.2	79.4	77.6	81.0	82.2	82.2
10000	85.0	80.8	76.8	75.8	75.2	77.8	76.6	78.6
12500	85.0	76.4	76.8	72.8	71.6	77.0	75.0	76.6
16000	85.0	75.0	75.0	66.8	65.0	75.0	75.0	75.0
20000	85.0	75.0	75.0	65.0	66.0	75.0	75.0	75.0
ØVERALL SPL UNCØRR	129.6	117.8	114.0	113.6	116.0	118.2	117.2	118.4
ØVERALL SPL CØRR	126.4	112.5	108.3	109.2	111.0	111.9	112.9	112.1
PNDB CØRR	123.8	121.6	118.9	118.2	121.3	122.7	122.0	121.3

NØISE DATA

TABLE XVIII-4. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

TEST 372 RUN 20 DELTA 12		CØRRECTED FØR REVERBERATIØNS						
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	0	10	20	20	20	20	20	20
FREQ(HERTZ)								
12.5	113.6	79.2	75.2	71.6	68.0	68.0	68.0	69.2
16	115.4	77.0	67.2	67.2	67.0	67.0	67.0	67.0
20	118.2	76.0	74.6	75.2	75.0	66.0	66.0	66.0
25	117.4	75.0	70.6	70.6	70.8	65.0	65.0	66.0
31	118.2	77.6	75.8	74.6	74.2	66.8	65.0	68.6
40	116.4	75.6	74.6	75.0	74.0	65.0	65.0	68.8
50	115.0	79.6	78.0	75.8	78.0	68.6	68.8	71.8
63	113.2	76.8	78.6	77.6	75.8	65.0	66.0	71.2
80	112.6	81.6	80.6	79.6	79.6	69.2	66.8	75.4
100	112.2	84.6	82.8	82.4	82.0	72.0	70.8	80.6
125	109.2	87.2	89.4	84.8	85.6	77.6	74.6	91.2
160	108.0	84.2	81.4	82.6	82.2	73.6	72.6	81.8
200	106.6	83.4	84.8	84.0	85.0	74.2	72.6	82.6
250	104.8	85.4	86.6	87.0	86.8	75.6	76.8	86.0
315	103.0	84.0	85.2	84.6	84.4	74.6	76.0	85.8
400	100.8	83.8	83.8	84.6	84.4	75.2	75.4	85.0
500	99.0	85.6	84.2	85.2	84.2	76.0	75.8	86.0
630	101.2	108.0	103.6	107.6	97.0	96.8	96.8	100.2
800	95.8	98.2	92.6	97.0	87.0	85.8	85.6	89.8
1000	94.6	86.8	85.4	85.6	85.8	77.8	78.8	87.6
1250	98.6	107.6	98.4	99.6	106.0	99.6	98.8	103.4
1600	93.0	99.4	90.8	91.8	96.4	90.4	89.2	94.0
2000	98.2	99.6	103.2	104.4	104.0	94.4	93.0	98.6
2500	91.2	95.8	94.0	94.4	93.2	88.8	82.8	89.2
3150	91.2	93.2	95.6	90.2	88.2	86.0	78.6	91.6
4000	87.6	88.6	89.0	87.0	88.8	78.6	78.4	89.6
5000	85.0	90.8	88.4	87.0	89.2	78.4	79.2	85.2
6300	85.0	86.4	83.4	80.6	82.0	73.6	75.8	82.8
8000	85.0	83.4	82.4	78.8	78.2	71.0	71.6	83.0
10000	85.0	81.2	78.8	76.0	74.8	67.8	67.8	78.6
12500	85.0	76.2	75.4	73.6	72.2	66.6	65.0	75.6
16000	85.0	75.0	68.6	68.8	65.0	65.0	65.0	69.2
20000	85.0	75.0	65.8	67.8	65.0	65.0	65.0	66.0
ØVERALL SPL UNCØRR	127.6	116.8	113.8	117.2	114.6	108.0	106.2	114.6
ØVERALL SPL CØRR	126.2	112.0	108.2	110.4	109.2	103.0	102.2	107.1
PNDB CØRR	123.1	120.7	120.1	120.6	120.2	112.1	110.8	117.4

NØISE DATA

TABLE XIX-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 8 DELTA 4

MICRØPHØNE:	1	2	3	5	6	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	100.0	80.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0
FREQ(HERTZ)								
12.5	72.8	88.0	92.4	70.0	67.0	67.0	67.0	71.8
16	69.0	85.2	90.2	69.0	66.0	66.0	66.0	66.0
20	68.0	84.8	87.8	68.0	65.0	65.0	65.0	65.0
25	67.0	82.4	84.8	67.0	64.0	64.0	64.0	64.0
31	67.0	83.0	82.6	69.2	65.8	64.0	64.0	64.0
40	68.6	81.0	79.6	68.2	65.0	64.0	64.0	65.2
50	73.8	82.2	79.8	76.4	69.8	73.6	68.2	69.0
63	67.0	77.0	75.4	72.0	67.8	65.2	64.0	65.0
80	68.6	77.0	74.4	73.4	68.8	68.0	66.4	65.8
100	69.6	78.2	73.8	71.2	68.0	69.6	66.6	67.4
125	72.2	79.0	73.2	70.2	68.5	66.7	66.7	65.0
160	71.0	77.0	71.6	72.4	72.2	68.2	68.6	66.6
200	76.4	78.0	73.2	72.8	74.6	71.6	69.4	71.4
250	74.3	77.5	75.3	72.5	73.9	72.3	71.5	70.3
315	73.9	76.5	75.1	73.1	70.7	73.9	76.5	72.7
400	90.4	84.0	88.6	90.2	83.0	89.6	92.6	89.6
500	97.0	77.0	75.4	73.6	71.8	73.0	74.6	73.2
630	94.0	78.0	75.8	77.4	72.2	75.0	75.6	77.0
800	92.2	88.0	93.2	93.4	80.0	85.8	88.6	87.4
1000	85.5	79.3	81.5	77.9	76.7	80.1	79.7	81.3
1250	87.9	95.3	94.9	86.5	87.5	88.5	89.3	98.5
1600	81.2	83.2	83.2	79.8	77.8	81.0	81.6	85.4
2000	80.4	88.8	87.8	81.2	83.6	82.2	85.6	85.0
2500	77.5	80.1	86.1	82.3	79.1	83.1	81.7	78.9
3150	76.0	78.6	82.8	79.4	72.2	79.0	79.2	76.8
4000	75.8	81.0	84.4	77.2	74.8	78.6	80.0	74.8
5000	71.8	80.0	80.6	74.3	71.0	73.4	76.8	71.7
6300	71.0	81.0	72.8	70.0	70.5	67.5	68.7	69.9
8000	73.0	83.0	72.0	71.0	70.5	67.5	68.5	70.5
10000	70.0	80.0	71.0	70.0	70.0	68.0	71.0	66.0
12500	70.0	80.0	71.0	70.0	70.0	68.0	71.0	66.0
16000	70.0	80.0	71.0	70.0	70.0	68.0	71.0	66.0
20000	70.0	80.0	71.0	70.0	70.0	68.0	71.0	66.0
ØVERALL SPL UNCØRR	97.0	97.8	100.6	97.8	95.8	97.6	99.2	101.8
ØVERALL SPL CØRR	100.8	99.7	101.0	96.8	92.1	94.8	96.7	99.9
PNDB CØRR	108.2	109.3	109.1	105.6	103.0	104.9	105.8	108.8

TABLE XIX-2. - SEMISPAN WING-DUCTED FAN EBF STATIC SOUND STUDY NOISE DATA

SPL IN DB REL. .0002 MICROBAR CORRECTED FOR REVERBERATIONS

TEST 0 RUN 8 DELTA 5

MICROPHONE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	75.6	88.8	94.4	70.0	70.6	67.0	68.2	68.0	67.0	67.2
16	69.0	88.4	92.8	69.0	69.0	66.0	66.0	66.0	66.0	66.0
20	69.6	86.8	91.0	72.8	73.2	67.0	67.8	67.0	65.0	65.0
25	69.2	86.6	87.8	67.0	67.6	65.6	65.0	65.0	64.6	64.2
31	71.0	85.8	86.6	72.4	72.2	68.8	68.2	66.0	67.0	64.8
40	74.2	85.2	85.0	73.8	72.4	69.8	68.0	67.2	66.6	68.2
50	75.6	87.2	84.2	78.8	78.2	73.8	73.0	73.8	71.4	71.6
63	75.0	82.8	85.2	81.4	80.6	76.4	76.0	74.4	72.6	74.2
80	75.8	82.2	84.8	80.0	79.8	75.2	74.2	75.2	72.8	72.8
100	76.0	81.8	81.8	77.7	77.2	73.4	75.2	75.4	72.4	73.0
125	77.4	81.2	80.8	78.0	75.4	74.1	73.0	72.7	72.9	71.4
160	75.8	77.8	78.4	77.4	78.0	80.4	76.0	75.2	74.2	72.4
200	78.2	78.0	78.0	79.2	78.0	75.8	77.8	74.8	74.8	74.4
250	77.7	79.5	80.9	77.9	78.3	78.7	74.9	76.7	76.9	75.9
315	76.3	76.5	79.5	79.1	77.7	76.7	74.5	77.5	77.1	76.1
400	75.0	78.0	77.6	78.2	82.0	75.8	78.6	77.8	77.2	80.0
500	96.4	103.4	98.6	91.8	104.8	94.4	99.4	90.8	96.8	103.0
630	86.8	93.4	89.2	83.0	95.6	85.8	91.6	85.2	89.0	96.8
800	78.4	79.4	80.8	78.8	79.2	77.4	79.8	81.8	80.8	80.4
1000	89.1	90.5	92.5	88.7	83.9	95.5	93.9	103.5	89.1	94.1
1250	85.1	87.5	90.3	88.5	84.1	88.5	89.1	93.7	87.1	92.5
1600	85.2	86.8	89.2	91.4	86.8	82.2	92.6	93.0	88.6	95.6
2000	90.0	91.6	99.4	92.6	89.8	87.2	91.8	93.6	93.2	92.6
2500	85.3	87.3	92.3	85.9	89.5	84.5	86.5	90.5	89.7	85.1
3150	83.2	85.0	89.2	88.6	89.6	80.4	84.2	86.2	86.2	84.0
4000	85.4	88.0	94.2	89.2	87.4	83.0	87.0	87.2	86.6	85.0
5000	80.4	84.0	91.0	84.6	86.7	81.8	81.4	85.0	84.4	80.9
6300	75.6	81.0	82.8	78.4	78.6	78.7	78.5	78.9	77.9	78.7
8000	73.0	83.0	72.0	71.0	71.0	70.5	70.5	67.5	68.5	70.5
10000	70.0	80.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
12500	70.0	80.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
16000	70.0	80.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
20000	70.0	80.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
OVERALL SPL UNCORR	102.0	108.4	107.6	103.6	111.0	106.0	106.6	107.0	103.2	109.2
OVERALL SPL CORR	99.6	105.6	105.7	99.9	106.1	99.9	102.8	105.3	101.0	105.7
PNDB CORR	109.8	114.3	117.0	112.0	114.6	108.8	111.8	114.1	112.1	113.7

NØISE DATA

TABLE XIX-3. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 8 DELTA 6

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	75.2	92.6	96.4	70.6	70.6	68.8	70.6	68.8	67.6	70.0
16	73.4	92.2	95.6	69.0	69.0	66.0	66.6	66.0	66.0	66.0
20	72.4	91.0	92.8	73.8	73.8	69.8	69.8	69.2	65.6	65.0
25	72.6	89.6	88.2	69.2	70.4	67.4	67.8	66.6	66.0	64.4
31	74.4	89.8	88.0	75.4	76.2	72.2	71.8	69.4	69.8	68.6
40	76.2	87.8	88.6	75.0	73.4	69.8	69.6	68.6	68.4	69.8
50	77.2	86.4	87.4	81.0	79.8	75.6	74.6	75.6	73.0	73.0
63	75.6	86.4	89.2	82.2	82.0	78.6	75.8	73.8	72.8	73.2
80	77.6	86.0	87.0	84.6	84.4	78.4	77.8	76.4	75.4	75.2
100	78.2	85.4	85.4	79.7	79.2	76.2	77.4	77.2	74.6	74.4
125	80.6	84.0	85.2	80.6	83.2	77.9	78.0	81.7	75.5	75.0
160	79.4	81.0	83.0	81.8	81.2	80.0	81.8	79.6	76.6	76.0
200	79.4	81.2	84.0	80.8	78.4	80.0	78.6	79.0	76.4	76.0
250	80.5	82.1	82.9	82.1	85.7	81.1	83.1	84.5	78.7	76.9
315	78.7	80.3	81.7	81.7	81.7	81.3	78.5	83.5	79.9	76.9
400	76.8	77.2	79.8	81.4	81.8	80.2	79.2	80.2	78.2	80.0
500	85.8	87.8	87.6	89.4	83.6	83.2	84.2	84.6	84.6	89.8
630	100.8	102.8	102.6	104.6	98.2	96.2	98.6	101.6	102.4	108.6
800	82.0	83.2	83.8	82.8	80.2	80.0	81.4	83.8	82.6	84.6
1000	83.5	88.1	87.1	85.5	82.7	92.3	89.9	91.7	92.5	84.7
1250	99.3	104.1	99.1	102.3	94.9	107.7	106.3	105.3	106.5	93.7
1600	87.2	86.8	92.8	87.2	86.0	90.4	85.8	90.4	86.2	87.8
2000	94.0	95.0	100.8	95.0	93.6	100.8	96.2	98.4	93.4	94.4
2500	89.5	92.1	93.7	98.1	93.5	88.5	93.9	92.1	91.3	91.5
3150	88.0	89.4	93.8	90.0	91.4	88.0	93.0	89.2	90.0	87.8
4000	87.0	90.8	99.6	92.2	91.6	85.4	90.0	91.4	92.2	88.0
5000	83.8	87.4	95.2	87.2	93.3	84.4	87.4	89.0	87.4	85.5
6300	79.0	82.0	87.0	82.2	84.0	80.5	83.5	80.1	81.3	82.5
8000	73.0	73.0	75.8	71.0	71.0	70.5	70.5	67.5	68.5	70.5
10000	70.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
12500	70.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
16000	70.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
20000	70.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
ØVERALL SPL UNCØRR	105.6	109.6	108.4	111.8	111.4	110.4	105.8	108.8	108.6	113.4
ØVERALL SPL CØRR	104.5	108.1	108.8	108.0	103.5	109.2	108.1	108.1	108.6	109.3
PNDB CØRR	113.4	116.8	120.3	117.8	115.1	118.0	117.7	117.5	117.5	116.9

NØISE DATA

TABLE XIX-4. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 8 DELTA 7

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	74.8	94.0	93.8	73.4	73.8	70.8	73.6	72.6	70.6	70.6
16	74.4	94.8	93.4	72.6	69.8	66.0	67.4	66.0	66.0	67.8
20	74.8	95.2	89.4	77.4	76.6	72.6	73.0	70.2	67.0	66.6
25	74.8	95.2	87.2	69.8	71.2	67.8	68.8	68.6	68.8	68.2
31	77.2	92.6	87.0	77.0	77.4	73.2	74.0	71.0	70.8	71.2
40	79.6	89.8	85.2	77.6	78.4	73.0	72.0	72.0	70.6	73.0
50	79.6	88.4	85.8	82.0	82.0	77.6	76.8	77.8	75.2	75.0
63	80.8	87.6	86.0	85.8	85.2	81.2	79.4	78.0	76.6	78.6
80	81.2	86.0	86.8	86.4	85.4	81.4	79.8	79.6	78.2	78.0
100	81.6	85.0	84.6	83.3	81.8	78.6	81.0	80.2	76.8	78.0
125	83.2	85.8	85.4	83.8	81.4	80.1	78.2	78.7	78.1	78.0
160	82.4	83.0	83.2	84.0	83.6	83.0	83.4	80.8	79.6	78.8
200	83.0	82.8	84.0	83.6	82.4	83.0	81.0	81.4	79.2	79.8
250	82.9	85.1	86.5	84.9	87.9	83.7	82.3	84.9	81.9	81.9
315	82.3	82.9	85.3	84.9	83.3	80.9	82.1	83.5	82.9	82.3
400	79.6	80.0	82.0	83.6	83.8	81.8	82.4	83.4	81.2	81.6
500	82.8	83.4	84.6	85.6	83.0	84.6	83.0	83.0	82.0	82.8
630	103.4	105.8	106.2	107.6	98.0	107.2	107.6	103.6	106.2	109.6
800	95.4	97.2	98.2	96.2	89.2	96.6	97.4	92.0	95.0	98.6
1000	84.5	85.7	88.3	86.5	85.7	86.1	86.9	89.5	88.3	88.1
1250	103.9	108.3	108.5	105.9	104.5	107.1	106.7	106.3	102.1	109.5
1600	92.2	96.0	96.6	95.0	93.2	94.6	93.0	94.8	90.4	97.2
2000	106.4	104.6	102.4	104.2	96.4	103.8	106.6	110.8	105.4	103.8
2500	93.5	93.3	97.5	93.3	96.7	89.1	99.7	97.7	98.5	91.3
3150	89.8	92.8	99.2	95.2	94.0	88.6	94.4	95.4	93.4	89.8
4000	91.4	94.6	101.8	97.2	93.6	88.8	94.8	94.8	93.0	88.0
5000	90.2	92.0	98.2	93.8	94.3	87.8	89.8	90.8	96.4	86.5
6300	83.6	86.4	90.6	86.4	89.4	84.5	87.7	86.7	85.3	84.3
8000	73.0	75.0	78.4	74.8	76.8	72.1	74.3	71.3	71.5	74.3
10000	70.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
12500	70.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
16000	70.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
20000	70.0	70.0	71.0	69.0	70.0	70.0	70.0	68.0	71.0	66.0
ØVERALL SPL UNCØRR	110.8	113.6	112.2	112.2	109.0	113.0	117.0	113.6	114.0	116.2
ØVERALL SPL CØRR	110.2	112.4	112.8	111.7	107.7	111.5	112.5	113.2	110.6	113.5
PNDB CØRR	121.7	121.8	123.3	121.9	118.4	120.4	122.9	125.1	121.8	120.8

TABLE XIX-5. - SEMISPAN WING-DUCTED FAN EBF SOUND STUDY-T372

NOISE DATA

SPL IN DB REL. .0002 MICROBAR

CORRECTED FOR REVERBERATIONS

TEST 372 RUN 21 DELTA 3

MICROPHONE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	10	20	20	20	10	10	10
FREQ(HERTZ)								
12.5	78.8	78.0	68.0	76.0	68.0	78.0	78.0	78.0
16	76.2	77.0	67.0	74.8	67.0	77.0	77.0	77.0
20	82.8	76.0	71.2	75.8	71.2	76.0	76.0	76.0
25	75.8	75.0	73.2	76.0	75.0	75.8	75.0	75.0
31	78.6	75.0	77.2	78.4	78.2	78.8	78.0	75.0
40	79.0	75.0	78.6	78.2	77.6	77.4	78.2	75.0
50	81.4	82.2	81.4	80.2	82.4	82.8	82.8	77.2
63	82.8	79.4	83.4	83.6	82.6	82.0	83.0	77.2
80	80.8	82.8	85.8	83.6	82.0	82.8	81.0	79.0
100	83.4	86.2	86.4	85.2	85.8	85.6	85.0	82.0
125	86.6	89.6	87.8	88.8	91.4	86.0	88.6	84.2
160	84.0	86.0	85.2	84.2	89.2	84.6	82.0	82.8
200	83.4	85.2	87.8	86.4	87.6	86.2	84.8	83.0
250	86.4	86.0	88.0	86.4	87.6	88.4	87.6	86.2
315	83.6	85.2	87.4	86.8	86.4	87.8	87.6	87.0
400	83.0	85.8	86.2	86.6	86.4	87.2	87.0	86.2
500	84.2	87.0	87.4	87.8	87.2	88.2	87.2	86.6
630	99.4	111.2	105.4	106.6	102.6	106.6	101.6	104.6
800	89.6	101.4	95.2	96.6	92.4	96.0	91.8	94.2
1000	83.6	86.4	85.6	89.0	86.4	86.0	88.2	87.6
1250	103.6	99.2	97.8	99.6	106.4	100.6	107.4	102.6
1600	95.0	92.2	90.4	93.6	97.6	93.0	98.6	94.8
2000	100.6	98.2	94.8	102.0	100.6	102.4	105.0	102.8
2500	91.2	93.4	90.8	97.0	97.0	101.4	94.2	94.4
3150	87.4	91.8	95.0	96.8	89.2	95.4	91.6	91.0
4000	85.2	95.4	89.4	96.8	89.6	87.8	89.0	88.4
5000	84.0	90.4	87.6	97.0	87.4	89.6	90.0	86.4
6300	80.4	87.8	84.4	96.0	82.2	84.0	84.8	83.8
8000	76.6	83.4	82.4	95.8	78.8	82.6	82.0	84.2
10000	72.8	78.2	78.2	95.0	76.4	78.8	77.8	80.2
12500	70.8	76.8	75.8	95.0	72.8	77.0	75.0	77.8
16000	66.8	75.0	69.8	95.0	65.0	75.0	75.0	75.0
20000	68.4	75.0	66.2	95.6	65.0	75.0	75.0	75.2
OVERALL SPL UNCORR	113.2	118.0	113.2	115.4	114.8	115.6	114.8	111.0
OVERALL SPL CORR	107.3	112.6	107.9	111.1	109.8	110.3	110.9	109.1
PNDB CORR	117.8	121.1	117.7	122.1	119.5	121.2	121.8	120.1

NØISE DATA

TABLE XIX-6. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 21 DELTA 5

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	0	20	20	10	10	10	10
FREQ(HERTZ)								
12.5	80.6	115.0	68.0	73.4	78.0	78.0	78.0	78.0
16	79.8	113.8	67.0	71.4	77.0	77.0	77.0	77.0
20	85.0	113.4	69.0	72.8	76.0	76.0	76.0	76.0
25	78.8	112.2	71.6	74.0	75.0	75.0	75.4	75.0
31	78.2	112.6	76.0	77.6	78.6	78.0	77.6	75.0
40	80.2	112.2	79.2	78.6	78.2	75.6	77.4	75.0
50	83.8	112.4	80.8	80.0	83.8	83.6	83.6	78.2
63	82.4	112.0	82.8	82.8	80.8	81.6	81.6	76.8
80	82.4	109.8	85.8	84.2	83.6	83.6	81.2	79.2
100	84.4	109.8	85.8	84.8	86.0	86.0	84.2	81.2
125	90.8	108.0	85.6	89.0	90.4	86.8	89.0	87.4
160	81.8	105.6	85.4	83.8	85.6	84.4	83.2	82.6
200	83.0	105.2	87.0	85.8	88.4	85.8	85.2	83.0
250	86.0	102.8	88.0	87.2	88.8	87.8	87.4	86.6
315	84.0	100.6	86.8	86.0	86.2	87.6	88.0	86.2
400	83.2	98.4	86.4	86.2	86.2	86.8	87.0	86.2
500	84.2	97.6	86.8	86.2	87.2	88.0	87.2	87.0
630	100.6	104.0	103.6	98.8	98.8	108.0	100.2	103.2
800	91.2	96.8	94.4	90.6	89.8	98.0	91.6	93.6
1000	83.6	93.4	86.4	87.2	86.6	88.0	89.2	88.4
1250	99.8	105.4	103.8	107.0	104.4	111.0	111.2	103.8
1600	92.0	97.0	95.8	98.8	96.0	102.4	102.6	96.2
2000	95.8	97.8	96.8	97.4	102.2	99.6	94.2	103.2
2500	90.2	94.2	91.6	91.8	94.4	100.0	93.2	90.4
3150	91.0	92.8	91.4	91.2	90.4	93.0	93.2	93.4
4000	86.4	91.0	87.8	92.2	89.0	89.0	89.6	92.6
5000	85.0	88.2	89.0	89.2	88.0	88.8	87.0	87.8
6300	81.0	85.0	85.6	88.6	83.0	84.4	83.8	84.4
8000	77.0	85.0	81.8	87.4	81.2	82.8	81.4	84.0
10000	72.4	85.0	79.4	85.6	75.4	78.6	77.2	80.2
12500	70.0	85.0	76.2	85.2	75.0	77.8	75.0	78.0
16000	65.0	85.0	70.6	85.0	75.0	75.0	75.0	75.0
20000	65.8	85.0	67.6	86.4	75.0	75.0	75.0	75.2
ØVERALL SPL UNCØRR	111.6	126.0	114.2	114.0	112.8	119.8	118.0	114.8
ØVERALL SPL CØRR	105.5	123.3	108.4	109.4	108.4	113.9	112.5	109.2
PNDB CØRR	115.6	123.6	118.0	119.8	119.8	122.8	121.8	120.5

NØISE DATA

TABLE XIX-7. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 21 DELTA 10								
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	20	20	10	20	10	10	20
FREQ(HERTZ)								
12.5	88.4	68.0	68.0	78.0	68.0	78.0	78.0	68.0
16	87.6	67.0	67.0	77.0	67.0	77.0	77.0	67.6
20	91.4	66.0	69.6	76.0	71.6	76.0	76.0	69.8
25	84.0	66.0	71.8	75.0	74.0	75.8	75.0	71.0
31	85.2	73.2	77.2	78.0	77.8	78.8	77.6	73.4
40	86.4	70.8	76.4	77.4	77.0	75.2	76.2	73.2
50	85.4	78.2	80.8	83.0	83.4	83.8	83.8	75.6
63	84.6	76.0	82.4	84.2	82.0	81.2	81.8	77.0
80	83.6	76.4	83.2	83.2	82.8	82.8	80.6	78.6
100	85.4	80.8	86.4	86.2	86.2	85.2	84.4	81.4
125	87.0	88.0	89.6	88.6	90.2	86.0	89.4	87.2
160	83.2	77.4	82.6	83.4	87.0	85.6	82.6	80.4
200	83.2	80.6	86.4	87.2	86.2	84.4	84.6	83.0
250	85.6	84.2	87.8	90.2	86.4	88.0	87.6	86.6
315	83.8	79.4	86.4	86.6	85.6	87.6	87.2	86.4
400	83.4	82.0	86.2	85.4	85.8	87.6	86.4	85.2
500	84.4	99.8	87.0	88.4	86.4	87.0	86.8	85.4
630	99.8	87.0	105.6	112.6	100.2	102.6	104.6	96.6
800	89.8	79.8	95.0	101.4	89.4	91.6	94.0	88.0
1000	84.2	99.0	86.2	86.2	86.6	86.2	89.0	88.2
1250	102.6	87.0	105.4	98.6	108.4	105.4	109.6	103.0
1600	93.6	87.8	96.0	91.4	98.8	96.2	100.0	94.2
2000	99.0	88.6	97.4	106.0	101.2	97.8	105.8	95.2
2500	91.4	84.6	92.0	94.0	98.4	97.2	92.2	88.8
3150	88.6	81.8	94.2	94.0	92.2	94.6	90.8	90.2
4000	86.2	83.0	92.2	86.8	90.2	87.6	91.8	89.6
5000	84.4	79.0	89.0	87.6	90.2	87.6	88.4	87.0
6300	80.2	78.2	84.2	83.4	81.4	83.4	84.2	84.4
8000	76.6	75.2	82.2	80.8	80.6	81.6	82.0	83.8
10000	72.4	70.4	78.0	76.0	76.4	78.2	77.6	81.6
12500	70.0	66.8	75.8	73.0	72.6	76.8	73.0	78.8
16000	65.8	65.0	69.8	75.0	65.0	75.0	75.0	74.2
20000	67.4	66.0	66.8	75.0	65.0	75.0	75.0	72.2
ØVERALL SPL UNCØRR	114.2	109.0	115.8	119.2	113.8	114.4	117.6	111.2
ØVERALL SPL CØRR	107.0	103.6	109.9	114.2	110.7	109.0	112.6	105.9
PNDB CØRR	117.1	111.8	119.2	122.4	120.7	119.0	122.5	116.6

NØISE DATA

TABLE XIX-8. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

TEST 372 RUN 21 DELTA 15 — CØRRECTED FØR REVERBERATIØNS

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	20	20	10	10	10	10	20
FREQ(HERTZ)								
12.5	95.8	68.0	68.0	78.0	78.0	78.0	78.0	68.0
16	95.6	67.0	67.6	77.0	77.0	77.0	77.0	67.0
20	97.0	67.6	71.2	76.0	76.0	76.0	76.0	69.4
25	92.2	67.0	72.4	75.6	76.8	76.8	77.0	72.0
31	92.6	72.6	76.4	79.8	79.0	78.8	79.0	73.8
40	92.6	72.6	77.0	80.0	78.2	77.4	77.4	74.2
50	89.6	77.6	79.2	82.4	83.8	82.8	83.0	75.8
63	86.8	76.2	83.2	84.2	81.8	82.6	81.4	76.6
80	84.8	77.6	83.8	85.2	84.0	83.6	81.0	80.2
100	86.0	82.0	86.2	85.8	86.8	86.2	84.4	81.0
125	87.2	91.0	87.0	88.0	89.0	87.2	86.4	81.6
160	81.6	80.2	82.8	87.0	84.4	84.4	81.8	81.8
200	84.2	81.0	85.4	86.6	87.0	85.6	84.4	82.6
250	86.6	83.4	86.6	86.8	86.8	87.4	86.8	85.8
315	83.6	80.0	86.4	87.0	86.8	87.4	87.4	87.0
400	83.6	80.2	85.6	86.2	86.0	87.6	86.4	85.4
500	84.6	88.0	87.2	88.2	87.6	88.0	87.2	86.2
630	100.2	80.4	108.4	112.4	103.6	108.6	102.8	103.4
800	89.2	78.8	96.8	101.2	92.4	97.0	92.0	92.6
1000	83.8	96.6	85.6	86.6	86.8	87.0	88.0	87.8
1250	100.6	85.4	102.2	106.6	107.6	103.8	108.2	96.0
1600	91.2	86.0	93.0	97.0	97.6	94.6	98.0	89.6
2000	100.0	91.4	98.8	103.2	104.6	100.6	101.8	101.0
2500	90.2	90.8	92.2	94.6	99.0	96.2	92.6	92.2
3150	89.4	84.4	90.2	92.2	92.2	95.0	93.0	91.2
4000	86.0	84.6	86.8	86.6	88.0	92.0	89.0	91.6
5000	83.6	79.0	87.8	86.4	88.2	90.2	89.8	85.4
6300	80.4	77.0	86.4	84.2	83.0	83.2	85.0	83.4
8000	77.0	75.0	82.8	80.8	78.6	81.4	82.6	82.4
10000	72.6	70.4	78.2	76.2	76.0	77.6	76.6	80.8
12500	69.8	66.6	75.8	75.0	75.0	76.6	75.0	77.4
16000	65.0	65.0	72.0	75.0	75.0	75.0	75.0	72.6
20000	66.4	65.0	71.8	75.0	75.0	75.0	75.0	70.8
ØVERALL SPL UNCØRR	111.4	105.4	115.6	118.2	116.8	116.8	115.2	111.8
ØVERALL SPL CØRR	107.8	100.7	110.5	114.4	111.3	111.3	110.8	107.0
PNDB CØRR	117.4	111.8	119.1	122.1	121.7	120.2	120.5	118.5

NØISE DATA

TABLE XX-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 8 DELTA 11

MICRØPHØNE:	1	2	3	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)									
12.5	74.0	99.4	88.2	72.6	69.8	72.4	71.8	72.4	70.0
16	73.2	97.4	86.4	69.0	66.0	68.0	68.8	68.8	67.2
20	73.6	95.0	85.2	74.2	69.4	68.8	68.4	69.2	66.6
25	73.6	94.2	82.4	71.2	67.4	67.8	67.6	69.8	67.6
31	78.0	95.6	81.2	77.6	73.8	74.6	72.2	72.6	71.8
40	80.4	94.0	81.4	78.0	74.0	73.0	73.0	73.2	73.4
50	82.8	92.6	84.0	83.8	79.2	79.6	79.8	77.4	76.4
63	83.2	91.8	85.2	86.6	83.0	81.4	80.4	79.0	79.8
80	84.2	91.0	85.6	87.0	83.2	82.8	83.0	81.4	80.4
100	85.0	90.0	82.8	83.6	81.0	82.8	82.4	80.4	80.2
125	86.2	89.6	84.8	85.2	83.5	80.0	83.9	80.5	78.6
160	85.8	87.2	83.8	85.8	85.2	84.6	83.0	82.0	80.8
200	86.6	87.4	83.8	89.4	85.4	84.2	82.8	82.0	82.0
250	86.9	87.1	87.5	87.7	86.9	85.9	86.3	83.5	83.3
315	84.5	85.3	85.9	86.7	84.5	83.9	85.7	84.7	83.5
400	81.4	82.0	83.0	86.0	84.0	83.6	84.8	82.8	83.4
500	83.8	85.0	85.2	85.8	84.4	84.0	85.0	82.8	81.8
630	103.2	106.4	103.8	101.2	97.8	108.6	107.2	98.6	99.4
800	94.6	97.6	95.4	91.0	89.0	97.8	97.4	89.6	88.2
1000	84.5	85.1	88.3	85.3	86.1	86.9	89.7	89.3	87.7
1250	105.5	100.5	108.9	104.5	104.1	107.9	106.3	110.1	109.1
1600	93.0	89.6	96.6	93.4	92.0	94.6	95.4	97.4	97.8
2000	103.0	105.8	104.2	108.0	106.8	110.0	109.4	104.8	105.6
2500	94.7	92.5	101.1	97.3	92.3	97.1	97.7	101.7	96.7
3150	90.6	91.2	100.0	94.2	89.8	93.8	95.8	93.4	93.8
4000	91.2	93.8	101.2	93.4	90.2	97.4	93.4	93.8	89.6
5000	89.6	89.6	100.0	96.1	88.2	90.4	90.4	94.8	86.7
6300	82.2	84.4	91.6	88.2	84.9	86.7	85.1	84.9	83.7
8000	73.0	73.0	79.4	76.4	71.7	74.3	70.7	72.7	73.5
10000	70.0	70.0	71.0	70.0	70.0	70.0	68.0	71.0	66.0
12500	70.0	70.0	71.0	70.0	70.0	70.0	68.0	71.0	66.0
16000	70.0	70.0	71.0	70.0	70.0	70.0	68.0	71.0	66.0
20000	70.0	70.0	71.0	70.0	70.0	70.0	68.0	71.0	66.0
ØVERALL SPL UNCØRR	110.2	113.0	113.6	111.6	110.4	112.8	114.0	115.2	113.0
ØVERALL SPL CØRR	109.7	111.6	112.8	111.1	109.6	114.2	113.2	112.4	111.6
PNDB CØRR	120.2	122.0	123.4	123.6	121.7	125.1	124.6	122.1	121.6

NØISE DATA

TABLE XX-2. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 22 DELTA 3

MICRØPHØNE:	2	3	5	6	7	8	9	10
ANGLE(DEG):	160.0	140.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	10	20	20	20	20	10	10	10
FREQ(HERTZ)								
12.5	104.6	92.4	68.0	68.0	68.0	78.0	78.0	78.0
16	104.2	89.4	67.0	67.0	67.0	77.0	77.0	77.0
20	104.4	89.0	66.4	68.4	68.4	76.0	76.0	76.0
25	103.2	87.6	70.0	71.2	73.6	75.0	75.0	75.0
31	102.2	88.0	76.0	77.0	77.8	78.6	78.2	75.2
40	101.0	86.8	77.6	77.4	77.6	77.0	77.0	75.4
50	101.0	87.4	81.0	82.4	83.6	83.8	83.8	79.0
63	100.8	86.0	83.4	85.2	83.0	83.0	85.2	78.6
80	99.0	85.8	86.6	86.8	84.2	85.8	83.0	83.4
100	97.2	85.4	86.4	86.2	86.6	87.8	85.2	84.4
125	95.8	84.8	90.2	90.0	91.6	95.8	86.6	90.8
160	91.2	83.6	83.2	85.0	86.0	88.4	83.6	82.6
200	91.6	84.4	86.8	87.6	87.8	87.2	85.2	82.8
250	90.8	85.0	86.0	87.4	88.0	88.8	87.6	86.8
315	88.0	84.0	85.0	85.8	85.8	86.8	87.0	86.0
400	87.0	85.2	84.8	85.2	84.8	86.6	86.6	86.6
500	86.8	87.4	84.4	85.2	85.2	87.8	86.6	87.2
630	101.0	102.4	97.0	101.2	102.2	111.4	105.4	108.0
800	90.6	94.2	87.4	91.0	91.2	100.4	94.8	96.8
1000	86.2	88.8	85.6	85.8	86.8	87.8	89.2	88.6
1250	108.0	101.4	102.8	104.6	106.8	109.2	111.0	102.6
1600	98.8	94.6	93.8	95.2	97.2	99.8	101.6	94.4
2000	99.0	99.6	96.8	95.4	103.0	94.8	100.8	105.4
2500	92.2	96.4	89.0	92.8	95.2	96.6	96.2	93.8
3150	89.4	97.6	91.0	89.8	89.2	93.6	92.4	91.2
4000	86.6	94.8	88.8	91.0	88.0	91.0	91.2	90.0
5000	85.8	94.2	88.8	85.8	86.8	87.4	88.0	88.0
6300	82.0	93.2	84.8	85.4	84.8	85.0	85.6	84.8
8000	77.4	93.2	82.2	81.6	80.4	83.0	82.6	83.0
10000	75.0	92.6	78.2	76.8	76.2	78.6	78.0	79.8
12500	75.0	92.6	76.0	75.0	72.8	77.8	75.0	78.0
16000	75.0	92.8	70.4	68.6	65.0	75.0	75.0	75.0
20000	75.0	93.4	66.4	65.0	65.0	75.0	75.0	75.0
ØVERALL SPL UNCØRR	115.4	114.4	113.8	114.6	116.6	120.2	117.6	115.8
ØVERALL SPL CØRR	114.5	109.3	106.1	107.9	110.1	114.3	113.1	111.3
PNDB CØRR	120.7	120.7	116.8	118.0	120.5	122.0	122.4	121.9

TABLE XX-3. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

NØISE DATA

TEST 372 RUN 22 DELTA 5

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

MICRØPHØNE:	1	2	4	5	6	7	8	9	10
ANGLE(DEG):		160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):		20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,		10	20	20	10	10	10	10	20
FREQ(HERTZ)									
12.5		104.6	68.0	68.0	78.0	78.0	78.0	78.0	68.0
16		103.2	67.0	67.0	77.0	77.0	77.0	77.0	67.0
20		104.0	67.8	66.2	76.0	76.0	76.0	76.0	66.6
25		102.6	69.6	68.0	75.0	75.0	75.0	75.0	69.6
31		103.4	76.2	76.2	76.8	78.8	78.2	76.6	74.2
40		103.2	75.2	78.2	78.6	78.0	77.0	78.2	75.4
50		101.2	82.6	81.6	83.8	84.8	85.8	84.0	76.4
63		100.4	81.4	83.6	84.0	82.4	82.4	84.4	78.4
80		98.8	83.2	85.0	85.2	84.6	84.2	83.0	80.6
100		97.4	85.4	86.8	87.0	87.0	87.6	85.6	83.6
125		95.2	84.4	92.2	88.8	92.6	95.4	85.8	91.8
160		92.2	84.2	83.4	86.4	87.8	86.0	84.2	83.8
200		90.8	85.0	85.8	87.4	88.2	87.0	85.4	83.4
250		91.0	84.8	87.2	87.8	89.0	89.0	88.0	86.8
315		88.8	83.4	84.8	86.8	87.6	87.2	86.4	86.6
400		87.6	84.2	84.8	85.8	86.0	86.0	86.0	86.0
500		86.8	86.2	84.6	85.8	86.4	86.2	86.8	86.0
630		97.6	108.4	97.4	104.8	107.6	103.2	104.4	100.2
800		87.6	96.8	87.8	93.6	96.2	92.2	93.2	90.0
1000		85.2	85.6	86.6	86.2	86.6	87.8	89.4	88.2
1250		101.2	98.4	105.6	104.0	107.0	108.6	110.8	102.4
1600		91.8	91.0	96.2	94.6	97.0	99.2	100.8	94.2
2000		97.6	104.4	101.0	97.4	97.6	104.0	96.0	107.2
2500		91.4	94.0	90.2	97.6	97.6	101.2	91.4	94.0
3150		88.4	94.2	89.8	89.6	91.8	93.6	89.4	93.6
4000		86.8	90.4	87.4	89.0	88.2	89.0	89.6	91.2
5000		84.4	90.8	87.2	87.4	87.0	88.4	88.8	87.4
6300		81.2	89.0	85.0	84.0	84.0	85.0	84.8	84.6
8000		77.6	83.6	82.0	82.0	81.0	83.6	82.6	83.4
10000		75.0	79.8	78.2	77.0	76.6	79.4	77.4	81.4
12500		75.0	76.6	75.8	75.6	75.0	77.6	75.0	78.6
16000		75.0	69.0	69.6	75.0	75.0	75.0	75.0	74.4
20000		75.2	68.0	66.8	75.0	75.0	75.0	75.0	72.4
ØVERALL SPL UNCØRR		118.6	116.2	114.2	115.8	117.8	116.2	118.0	115.8
ØVERALL SPL CØRR		113.4	110.9	108.4	109.1	111.5	111.9	112.5	109.9
PNDB CØRR		117.7	121.3	118.9	118.8	120.2	122.1	121.6	122.5

NØISE DATA

TABLE XX-4. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

TEST 372 RUN 22 DELTA 10		CØRRECTED FØR REVERBERATIØNS						
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN:	10	10	20	20	10	10	10	20
FREQ(HERTZ)								
12.5	106.4	78.0	68.0	68.0	78.0	78.0	78.0	68.0
16	105.2	77.0	67.0	67.0	77.0	77.0	77.0	67.0
20	104.2	76.0	67.6	68.8	76.0	76.0	76.0	67.6
25	103.4	75.0	68.0	69.8	75.0	75.0	75.0	70.6
31	103.0	77.8	76.2	76.6	78.8	78.6	77.2	74.0
40	101.4	76.8	78.4	78.0	77.6	77.6	78.4	75.0
50	100.8	83.8	81.0	81.6	85.2	84.2	84.0	76.6
63	99.6	82.0	83.8	85.8	83.6	83.4	84.8	79.8
80	98.2	83.6	85.0	85.6	85.2	84.4	83.6	83.6
100	98.2	85.4	86.0	85.6	87.0	87.0	85.6	83.6
125	97.2	87.0	88.6	86.6	91.8	93.4	86.6	90.0
160	95.2	86.8	84.4	86.2	87.6	86.8	85.0	83.4
200	93.0	85.2	86.4	87.8	88.8	87.8	86.0	83.2
250	92.2	87.0	88.0	87.0	88.0	89.0	87.0	85.6
315	91.4	83.6	85.4	86.2	86.6	87.6	86.8	86.0
400	90.6	84.2	84.4	85.0	86.2	86.8	86.6	85.8
500	90.0	85.8	84.4	85.4	85.6	87.2	87.6	86.2
630	98.6	108.8	98.6	105.0	101.4	110.2	111.2	104.6
800	90.0	97.2	88.6	93.8	90.2	98.6	99.8	93.8
1000	87.6	86.0	85.8	86.0	87.2	88.2	88.8	88.0
1250	106.2	101.6	105.0	106.4	109.2	109.8	109.0	100.0
1600	96.4	92.8	95.6	96.6	99.2	100.0	99.4	93.0
2000	100.4	98.6	97.4	95.8	103.2	99.0	104.0	107.8
2500	90.0	94.4	90.2	91.2	98.2	99.4	94.0	92.8
3150	88.6	93.0	90.2	89.2	89.8	94.0	89.6	90.2
4000	87.2	92.6	88.2	90.6	88.2	89.8	93.0	89.6
5000	84.8	90.2	88.2	85.6	88.0	88.0	88.2	86.4
6300	82.0	87.4	85.6	84.0	84.2	85.0	85.4	83.8
8000	78.8	83.0	82.0	81.4	79.6	82.8	82.2	82.6
10000	75.0	79.0	78.4	76.0	76.0	78.6	77.6	80.2
12500	75.0	77.0	76.2	74.2	75.0	77.4	75.0	76.8
16000	75.0	75.0	69.8	68.2	75.0	75.0	75.0	72.4
20000	76.8	75.0	66.6	65.0	75.0	75.0	75.0	73.0
ØVERALL SPL UNCØRR	117.4	116.0	113.0	115.0	115.8	118.4	118.4	115.4
ØVERALL SPL CØRR	114.6	110.8	107.6	109.9	111.6	114.0	114.3	110.6
PNDB CØRR	119.9	119.8	118.0	119.0	121.2	122.4	122.2	122.7

TABLE XX-5. - SEMISPAN WING-DUCTED FAN EBF SOUND STUDY-T372

NOISE DATA

SPL IN DB REL. .0002 MICROBAR

CORRECTED FOR REVERBERATIONS

TEST 372 RUN 22 DELTA 15

MICROPHONE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	10	20	20	20	10	10	20	10
FREQ(HERTZ)								
12.5	108.0	68.0	68.0	68.0	78.0	78.0	73.0	78.0
16	108.0	67.0	67.0	67.0	77.0	77.0	71.6	77.0
20	105.6	67.0	66.2	69.0	76.0	76.0	73.8	76.0
25	105.6	69.4	68.8	71.4	75.0	75.0	73.4	75.0
31	105.6	75.8	75.2	76.0	78.2	78.8	77.0	76.2
40	104.6	76.6	78.6	78.8	78.6	78.0	78.6	77.0
50	105.0	81.8	81.8	82.2	85.6	85.2	81.8	79.8
63	102.4	81.2	83.6	85.8	83.6	83.2	84.6	80.2
80	102.2	83.8	85.2	85.2	85.6	85.2	82.2	84.4
100	100.8	85.8	86.6	86.4	87.0	87.6	84.6	85.0
125	98.4	88.8	87.8	88.0	89.4	90.0	85.8	92.2
160	97.0	84.4	83.2	86.0	86.8	86.2	81.8	83.8
200	94.6	85.0	87.2	88.0	89.6	87.8	84.6	84.0
250	93.0	86.6	87.0	88.4	89.4	89.2	86.8	87.4
315	91.0	83.2	85.4	85.8	87.0	87.8	85.8	86.2
400	90.4	84.0	84.8	85.4	86.0	87.2	85.6	85.8
500	90.6	86.0	84.8	85.6	85.6	87.4	86.8	87.6
630	101.0	109.4	104.8	105.2	101.0	109.4	107.8	107.6
800	91.0	97.8	93.4	93.6	90.4	98.2	96.6	96.4
1000	86.6	85.6	86.2	85.0	86.2	87.6	87.6	87.6
1250	104.4	101.4	105.4	101.4	105.6	105.4	103.8	96.4
1600	94.8	92.2	95.4	92.2	96.6	96.2	94.4	90.6
2000	98.2	100.0	94.6	101.0	105.4	95.8	100.4	105.4
2500	90.6	94.2	90.6	95.6	98.0	98.8	90.6	93.6
3150	89.8	89.6	90.2	90.6	90.0	93.0	94.0	89.8
4000	87.4	96.2	88.4	88.6	87.2	89.6	90.8	93.4
5000	85.8	90.8	88.8	85.6	90.8	88.8	90.8	86.6
6300	82.8	84.6	83.6	81.6	83.8	85.4	87.0	84.8
8000	79.0	83.6	80.8	80.6	80.6	81.8	84.8	84.0
10000	75.0	79.0	79.0	76.2	75.8	78.8	83.0	79.8
12500	75.2	76.2	75.8	74.4	75.0	77.0	81.8	77.6
16000	75.0	70.4	70.4	68.6	75.0	75.0	82.0	75.0
20000	76.8	72.4	67.6	66.2	75.0	75.0	84.2	75.0
OVERALL SPL UNCORR	119.8	116.0	112.4	112.6	114.4	114.2	116.0	115.2
OVERALL SPL CORR	116.4	111.3	109.2	108.8	110.2	112.0	110.7	110.6
PNDB CORR	119.6	120.2	118.4	119.1	121.9	120.6	119.7	121.6

NØISE DATA

TABLE XXI-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 10 DELTA 7

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
GAIN,	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)										
12.5	115.2	76.4	80.0	80.0	80.0	77.0	67.0	67.0	67.0	67.0
16	115.6	74.2	79.0	79.0	79.0	76.0	66.0	66.0	66.0	66.0
20	113.8	74.6	78.0	78.0	78.0	75.0	65.6	65.0	65.0	65.0
25	113.2	74.8	77.0	77.0	77.0	74.0	64.0	64.0	64.0	64.0
31	112.8	76.8	77.0	77.0	77.0	74.0	67.0	65.6	66.4	65.4
40	113.0	77.6	77.2	77.0	77.0	74.0	68.8	69.0	66.4	71.0
50	111.6	80.2	81.2	81.2	80.4	75.2	73.4	73.0	71.2	71.4
63	111.0	81.6	82.2	82.2	81.0	76.6	74.4	73.8	72.2	73.0
80	109.8	84.0	84.6	85.4	84.6	78.8	76.8	76.6	75.8	75.4
100	108.6	83.0	82.2	82.5	82.6	77.6	78.8	77.2	75.2	75.8
125	109.0	84.2	84.2	82.6	86.6	81.5	82.6	83.9	76.3	75.4
160	105.8	81.6	80.8	82.2	81.4	80.0	79.4	78.0	77.2	76.6
200	105.8	81.6	81.0	80.8	79.6	80.0	79.2	79.2	78.0	77.8
250	103.3	84.3	85.5	82.9	86.1	83.5	84.5	85.1	80.9	80.5
315	101.1	82.9	84.3	83.3	82.3	81.3	82.3	83.7	83.3	80.9
400	96.8	80.4	81.6	82.4	83.2	81.6	82.4	82.6	80.2	81.0
500	97.6	84.8	84.4	84.0	83.8	82.8	83.6	83.0	81.0	82.6
630	105.0	108.6	107.0	104.4	108.0	104.2	110.6	105.4	99.0	107.4
800	98.6	99.4	97.2	93.4	96.8	93.8	99.4	95.2	89.0	95.6
1000	93.3	86.5	87.9	85.1	85.9	85.9	87.3	89.9	87.9	87.9
1250	107.7	105.7	107.9	104.5	106.5	103.5	111.7	110.3	103.3	110.9
1600	95.4	93.2	93.4	92.6	94.8	91.0	97.8	98.4	91.0	98.2
2000	103.8	105.2	107.2	106.4	104.8	106.2	110.8	107.4	105.0	107.0
2500	93.1	96.9	99.5	93.7	99.9	91.7	96.9	97.7	99.7	93.3
3150	91.2	93.8	98.4	93.6	94.4	91.4	95.0	93.6	94.8	91.4
4000	92.8	93.0	102.0	96.0	95.2	89.8	93.8	93.8	94.8	89.8
5000	90.6	91.4	97.4	93.8	92.1	90.4	90.6	90.4	92.2	87.9
6300	84.8	85.4	90.2	87.4	86.4	84.7	87.3	83.5	84.5	83.9
8000	83.0	74.0	82.0	81.0	81.0	80.5	73.5	70.1	72.7	72.5
10000	80.0	70.0	81.0	79.0	80.0	80.0	70.0	68.0	71.0	66.0
12500	80.0	70.0	81.0	79.0	80.0	80.0	70.0	68.0	71.0	66.0
16000	80.0	70.0	81.0	79.0	80.0	80.0	70.0	68.0	71.0	66.0
20000	80.0	70.0	81.0	79.0	80.0	80.0	70.0	68.0	71.0	66.0
ØVERALL SPL UNCØRR	124.0	112.0	112.0	112.8	114.8	109.6	116.6	115.0	110.4	113.2
ØVERALL SPL CØRR	123.8	112.3	113.4	110.8	112.3	110.1	116.2	113.5	109.2	113.9
PNDB CØRR	125.2	122.1	124.5	122.5	122.4	121.5	125.8	123.3	121.1	122.6

NØISE DATA

TABLE XXI-2. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 27 DELTA 3								
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	20	10	20	10	20	20	10
FREQ(HERTZ)								
12.5	87.8	68.0	78.0	68.0	78.0	68.0	68.0	78.0
16	82.8	67.0	77.0	67.0	77.0	67.0	67.0	77.0
20	75.4	68.8	76.0	67.0	76.0	66.6	66.0	76.0
25	71.8	69.2	75.0	67.8	75.0	68.0	65.8	75.0
31	72.0	73.4	75.2	73.6	75.0	72.0	69.2	75.0
40	74.2	73.0	75.8	75.2	75.0	69.4	71.0	75.0
50	76.4	77.8	79.0	76.2	80.4	77.2	76.4	75.0
63	78.6	76.0	78.0	78.2	76.0	77.4	79.4	75.0
80	78.8	82.2	83.0	81.2	80.0	78.8	76.6	76.0
100	81.0	84.8	84.8	83.4	83.4	82.6	81.0	80.4
125	80.2	88.8	87.2	84.8	89.0	87.0	84.6	87.4
160	80.0	82.0	81.6	83.2	84.2	82.4	79.2	80.8
200	81.4	82.6	83.2	82.8	84.4	82.8	82.2	81.4
250	84.2	84.6	86.2	84.8	86.8	84.8	85.2	84.2
315	81.2	82.0	82.2	81.8	82.0	84.0	84.2	84.2
400	80.4	82.8	83.6	82.6	83.8	84.2	84.4	84.0
500	83.0	84.0	84.2	83.4	86.4	84.4	85.8	85.4
630	101.2	100.6	102.8	99.0	109.2	100.0	107.2	103.6
800	86.4	86.6	88.0	85.6	93.0	86.8	92.0	89.2
1000	82.0	87.0	87.0	84.8	84.2	85.0	86.4	87.0
1250	93.0	108.4	109.0	105.0	100.6	95.0	100.0	104.8
1600	86.2	94.8	95.2	93.0	89.6	88.8	90.8	94.4
2000	99.4	97.4	100.0	106.8	101.6	103.4	104.4	108.4
2500	90.2	93.6	96.2	94.8	93.4	88.4	89.4	92.0
3150	89.8	86.6	92.8	90.2	89.8	88.2	84.8	87.8
4000	83.4	89.4	89.6	85.6	86.2	93.2	86.4	87.6
5000	84.8	86.6	86.8	83.2	83.2	87.2	88.2	86.0
6300	78.8	84.2	83.8	83.0	80.4	87.2	86.8	85.4
8000	74.8	81.0	81.6	79.4	78.0	79.2	80.8	81.0
10000	70.6	76.2	76.2	76.0	75.0	78.4	74.8	77.2
12500	67.8	72.6	75.0	74.0	73.0	74.6	69.8	76.0
16000	65.0	65.2	75.0	68.8	75.0	69.8	65.0	75.0
20000	65.0	65.4	75.0	68.6	75.0	66.6	66.4	75.0
ØVERALL SPL UNCØRR	109.2 1	114.4	116.4	114.4	129.8	112.4	114.4	115.4
ØVERALL SPL CØRR	104.8 1	110.0	111.0	109.9	110.8	106.5	110.0	111.3
PNDB CØRR	116.0 1	119.4	120.4	121.5	118.9	119.3	120.2	122.8

NØISE DATA

TABLE XXI-3. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 27 DELTA 7	2	4	5	6	7	8	9	10
MICRØPHØNE:								
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	20	20	20	20	20	20	20
FREQ(HERTZ)								
12.5	77.0	75.0	73.6	72.6	74.6	72.4	74.0	68.0
16	79.0	74.8	69.2	71.2	74.4	70.8	73.6	70.0
20	83.8	82.0	73.6	77.8	84.0	77.8	78.4	75.8
25	79.4	72.8	72.2	71.2	71.8	69.4	71.0	70.2
31	81.4	77.0	77.6	78.6	78.4	74.4	77.8	73.2
40	80.4	78.2	75.2	77.6	78.4	76.6	76.0	74.2
50	81.4	78.4	78.8	79.8	80.0	78.8	76.8	75.0
63	82.0	80.4	80.0	79.2	79.0	78.0	78.8	74.8
80	82.4	80.8	82.8	79.8	80.0	78.8	79.0	79.8
100	84.2	83.2	84.4	82.8	82.4	83.0	80.0	79.6
125	84.4	87.8	88.6	85.0	85.6	85.2	81.4	86.8
160	84.4	83.8	85.2	80.8	85.0	80.0	80.6	81.4
200	83.6	83.4	85.4	83.4	84.6	83.2	82.0	82.0
250	85.2	85.4	87.0	85.6	86.0	86.0	86.2	86.4
315	84.6	83.4	85.8	84.0	84.4	85.8	85.2	84.8
400	83.4	83.8	84.6	83.6	84.6	85.0	84.4	84.2
500	83.6	85.0	85.6	85.6	84.2	85.0	84.8	85.4
630	100.4	103.0	102.0	106.8	97.0	101.4	98.8	96.6
800	86.6	88.8	87.6	91.2	85.2	87.4	86.8	86.0
1000	82.8	85.6	86.2	84.4	84.8	85.8	87.6	86.4
1250	96.2	106.4	106.6	96.0	104.2	101.6	106.2	101.4
1600	89.4	93.6	93.0	87.6	92.0	90.8	92.8	92.8
2000	105.4	103.0	96.8	100.8	103.4	103.4	96.8	108.2
2500	92.4	88.4	93.6	94.2	87.6	95.4	88.2	90.4
3150	83.8	86.4	90.0	85.8	85.0	91.4	87.6	87.8
4000	84.6	88.8	86.4	83.2	85.8	87.8	87.8	89.8
5000	82.4	88.4	86.6	81.8	82.8	87.2	87.4	87.6
6300	79.6	83.0	81.4	80.0	78.6	84.8	83.6	82.2
8000	75.6	81.0	78.4	76.6	76.4	81.4	80.2	80.8
10000	72.2	76.6	77.6	72.8	73.0	76.6	75.6	77.8
12500	69.8	73.8	73.0	71.2	70.2	74.6	70.2	75.0
16000	65.0	66.2	68.0	65.8	65.0	69.8	65.0	71.6
20000	65.0	65.6	65.8	65.4	65.0	66.2	66.2	72.0
ØVERALL SPL UNCØRR	112.8 1	114.8	113.8	115.2	112.2	113.2	113.2	115.4
ØVERALL SPL CØRR	107.6 1	109.7	108.9	108.7	107.8	107.9	108.0	109.7
PNDB CØRR	119.8 I	119.7	118.5	117.7	118.9	119.8	117.7	122.2

NØISE DATA

TABLE XXII-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 0 RUN 10 DELTA 10

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10	1
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0	
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	
GAIN,	0	0	0	0	0	0	0	0	0	0	
FREQ(HERTZ)											
12.5	114.0	84.0	80.0	80.0	81.8	77.0	68.0	69.8	67.0	70.4	
16	111.2	79.6	79.0	79.0	79.0	76.0	66.0	66.0	66.0	66.0	
20	109.6	78.4	78.0	78.0	78.0	75.0	67.0	65.0	65.0	65.0	
25	107.8	75.8	77.0	77.0	77.0	74.0	64.2	64.0	64.0	64.0	
31	108.4	77.2	77.0	77.0	77.0	74.0	69.6	68.6	68.6	66.8	
40	104.8	76.0	77.8	77.0	77.0	74.0	69.4	70.2	68.0	69.2	
50	104.4	80.0	82.2	82.0	80.8	76.8	73.4	73.6	71.6	72.0	
63	101.8	81.0	82.0	83.0	82.4	78.0	77.6	74.8	72.6	74.6	
80	100.6	83.2	85.4	86.2	85.8	80.8	78.8	78.0	76.6	76.8	
100	99.8	81.8	81.8	82.5	82.0	78.0	79.8	77.4	76.8	77.4	
125	99.2	84.2	84.0	83.4	81.4	78.9	78.8	78.3	78.1	76.2	
160	96.0	80.8	82.0	83.2	82.8	81.6	82.0	80.2	79.8	78.0	
200	95.6	82.0	81.6	83.2	82.8	81.8	82.2	81.0	80.8	80.2	
250	93.3	86.3	86.5	84.9	84.5	83.7	84.5	85.1	83.5	83.1	
315	90.7	83.5	85.1	85.5	84.5	82.7	84.1	85.7	84.5	82.7	
400	86.4	81.6	83.0	84.6	84.4	82.4	83.6	83.8	82.2	81.8	
500	89.4	85.4	85.4	86.4	85.8	83.2	84.6	83.0	81.6	83.0	
630	108.0	108.4	103.4	103.6	108.4	95.6	109.6	100.8	102.2	106.4	
800	98.8	98.8	94.8	92.8	97.2	87.4	98.2	91.4	91.8	94.8	
1000	87.1	87.1	88.9	85.9	85.7	86.7	87.3	90.1	88.9	88.1	
1250	107.5	105.9	110.9	108.1	106.7	103.1	110.9	109.5	103.5	103.5	
1600	95.0	93.6	98.0	95.8	95.0	91.2	97.0	97.6	91.8	93.2	
2000	103.6	105.4	103.8	104.0	99.4	102.4	108.0	104.6	106.6	108.0	
2500	92.1	94.1	100.3	94.7	96.5	93.7	96.1	98.7	101.3	94.7	
3150	90.2	93.8	96.6	95.4	95.2	89.2	95.4	95.4	94.4	91.8	
4000	93.0	95.2	101.0	96.4	95.2	89.8	94.0	92.8	94.2	91.0	
5000	90.0	92.4	97.2	94.0	93.9	88.8	92.4	91.4	94.8	88.1	
6300	84.8	87.2	90.0	87.8	87.4	86.3	88.9	84.5	85.3	84.7	
8000	83.0	75.6	82.0	81.0	81.0	80.5	74.5	71.3	72.1	72.9	
10000	80.0	70.0	81.0	79.0	80.0	80.0	70.0	68.0	71.0	66.0	
12500	80.0	70.0	81.0	79.0	80.0	80.0	70.0	68.0	71.0	66.0	
16000	80.0	70.0	81.0	79.0	80.0	80.0	70.0	68.0	71.0	66.0	
20000	80.0	70.0	81.0	79.0	80.0	80.0	70.0	68.0	71.0	66.0	
ØVERALL SPL UNCØRR	117.4	113.2	114.2	111.6	113.8	109.6	116.8	101.2	102.6	113.0	
ØVERALL SPL CØRR	119.6	112.3	113.4	111.4	111.9	107.1	114.9	112.0	110.6	111.6	
PNDB CØRR	122.8	122.3	123.5	121.8	120.5	119.0	124.2	121.7	122.5	122.7	

NØISE DATA

TABLE XXII-2. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

TEST 372 RUN 32 DELTA 5		CØRRECTED FØR REVERBERATIØNS						
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	10	10	10	20	20	20	20	20
FREQ(HERTZ)								
12.5	115.2	88.0	78.0	68.0	78.0	78.0	78.0	78.0
16	114.2	87.0	77.0	67.0	77.0	77.0	77.0	77.0
20	112.8	86.0	76.0	69.2	76.0	76.0	76.0	76.0
25	109.8	85.0	75.0	68.8	75.0	75.0	75.0	75.0
31	107.8	85.0	75.0	75.0	75.8	75.0	75.0	75.0
40	106.6	85.0	76.8	77.4	75.0	75.0	75.0	75.0
50	104.0	87.6	81.4	78.6	82.4	80.6	82.8	78.4
63	102.8	85.0	81.6	81.4	78.2	78.8	81.2	75.0
80	100.8	85.6	86.2	84.0	82.8	81.4	79.8	78.0
100	99.6	88.8	87.4	86.8	86.8	86.2	84.8	82.0
125	98.2	92.0	92.6	87.0	92.0	92.2	89.8	91.8
160	93.8	86.8	85.2	84.4	88.2	84.6	85.0	85.8
200	96.0	86.6	87.6	88.0	88.6	87.8	86.4	84.8
250	94.0	89.6	90.8	89.2	90.8	90.6	90.6	88.8
315	92.6	88.0	87.8	87.8	88.0	90.4	88.6	88.2
400	90.4	87.6	89.2	88.4	88.4	88.4	87.6	87.6
500	90.2	89.6	90.0	88.8	87.8	88.2	88.8	89.4
630	102.0	105.8	103.4	108.6	101.6	100.8	106.0	107.4
800	90.4	93.0	91.4	95.4	90.2	90.4	93.4	94.6
1000	86.8	90.0	89.4	88.6	87.8	89.4	90.6	90.0
1250	101.2	110.8	109.8	105.6	106.0	102.6	112.0	103.6
1600	92.6	99.8	98.6	95.0	96.6	96.0	100.0	94.2
2000	106.0	109.6	109.2	106.4	112.2	113.2	103.8	104.8
2500	95.0	100.8	98.6	92.6	93.2	100.2	94.6	97.4
3150	91.4	92.0	92.6	88.6	89.8	93.2	91.4	92.4
4000	87.8	92.4	92.6	86.4	87.0	88.8	91.4	93.2
5000	87.2	90.4	92.6	84.4	87.4	88.8	91.6	90.6
6300	83.6	88.2	86.8	83.2	85.0	86.8	88.2	87.6
8000	79.6	85.0	84.2	80.4	79.8	84.6	83.4	85.8
10000	75.2	85.0	80.4	77.6	76.6	81.6	78.4	84.4
12500	75.0	85.0	78.0	75.4	75.0	79.2	75.0	82.8
16000	75.0	85.0	75.0	70.2	75.0	75.6	75.0	81.0
20000	78.0	85.0	76.6	69.6	75.0	76.0	75.0	81.4
ØVERALL SPL UNCØRR	119.2	119.8	118.4	117.4	118.2	120.0	117.0	118.2
ØVERALL SPL CØRR	120.7	114.6	113.7	112.3	113.8	114.3	114.0	111.3
PNDB CØRR	123.0	125.6	125.0	122.4	125.8	126.8	123.3	122.2

NØISE DATA

TABLE XXII-3. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

TEST 372 RUN 32 DELTA 14		CØRRECTED FØR REVERBERATIØNS						
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	10	10	20	10	20	10	20	20
FREQ(HERTZ)								
12.5	109.0	78.0	78.0	78.0	78.0	78.0	78.0	78.0
16	109.8	77.0	77.0	77.0	77.0	77.0	77.0	77.0
20	108.2	76.0	76.0	76.0	76.0	76.0	76.0	76.0
25	105.8	75.0	75.0	75.0	75.0	75.0	75.0	75.0
31	103.4	75.0	75.0	75.6	75.2	75.2	75.0	75.0
40	100.0	76.2	78.2	76.4	75.0	75.0	75.0	75.0
50	98.8	81.2	81.0	81.6	81.6	81.0	80.6	78.0
63	96.2	78.6	80.4	81.8	78.2	78.4	79.2	75.0
80	95.4	84.8	85.0	83.4	82.6	82.0	79.8	77.8
100	95.2	87.4	86.8	86.2	85.4	85.6	83.6	81.8
125	93.4	90.0	88.8	87.2	87.4	87.2	88.4	91.2
160	91.6	87.4	83.8	85.0	88.6	87.0	84.0	83.6
200	88.8	86.8	87.4	89.0	89.8	89.4	86.6	84.6
250	90.2	89.4	89.6	90.4	89.8	90.8	90.2	88.0
315	88.4	87.8	89.6	90.0	89.6	91.0	89.0	88.6
400	87.2	88.2	88.2	88.4	88.0	89.6	87.4	87.2
500	88.4	89.6	89.2	89.8	88.2	89.8	88.8	89.2
630	107.4	109.6	101.4	110.0	103.2	105.6	105.4	106.8
800	94.4	95.8	89.8	96.0	91.0	93.4	93.2	93.6
1000	86.4	89.8	89.0	88.4	87.8	90.0	90.8	89.2
1250	100.6	111.0	108.2	100.4	106.2	108.4	112.0	101.0
1600	91.6	99.2	96.6	92.6	95.6	98.2	99.8	94.6
2000	103.8	102.2	104.6	108.2	108.8	112.6	100.8	110.8
2500	94.4	96.4	99.0	95.2	92.4	96.8	95.2	97.0
3150	91.0	92.6	90.4	88.4	92.8	92.4	89.8	90.2
4000	88.4	91.4	93.4	87.8	88.8	89.2	91.0	94.6
5000	86.0	91.0	90.4	87.0	87.0	88.8	92.0	92.0
6300	84.2	86.2	86.0	85.6	84.8	86.4	89.0	87.4
8000	79.6	86.2	83.2	80.8	80.4	85.4	83.8	86.2
10000	75.0	80.8	79.8	77.0	76.8	80.6	78.4	83.4
12500	75.0	78.2	77.0	76.0	75.0	78.6	75.0	82.2
16000	75.0	75.0	75.0	75.0	75.0	75.0	75.0	80.0
20000	75.2	76.8	75.0	75.6	75.0	76.0	75.0	81.0
ØVERALL SPL UNCØRR	117.6	120.0	115.8	116.6	117.4	120.2	118.4	116.4
ØVERALL SPL CØRR	116.5	114.3	111.3	112.9	112.0	115.0	113.7	113.1
PNDB CØRR	121.3	123.0	122.1	123.5	123.8	126.8	123.0	125.4

TABLE XXII-4. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372 NØISE DATA

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 32 DELTA 24								
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	20	10	10	20	20	10	10	20
FREQ(HERTZ)								
12.5	86.8	81.2	80.2	80.8	77.2	81.2	79.6	78.6
16	89.0	80.6	78.2	77.6	77.6	78.2	78.8	77.0
20	88.4	84.4	77.8	78.6	84.0	79.0	81.6	76.0
25	88.0	81.4	78.8	78.8	78.4	77.0	81.4	82.4
31	88.0	81.8	81.0	79.8	80.2	79.0	80.8	79.6
40	88.4	90.6	85.0	85.0	85.6	81.0	86.0	85.2
50	89.6	88.2	89.6	87.0	88.6	85.6	88.2	83.4
63	88.0	88.0	85.2	84.0	88.8	82.8	85.0	83.0
80	87.6	89.0	87.0	86.2	87.0	86.8	88.0	85.6
100	89.0	88.6	88.6	87.2	87.0	87.8	87.6	85.2
125	89.0	88.4	89.6	88.2	89.2	88.6	88.8	87.4
160	87.4	87.4	87.8	88.0	90.8	87.0	87.2	86.0
200	88.0	89.2	90.6	89.2	89.2	89.6	88.4	86.0
250	89.4	90.0	91.2	90.2	90.2	90.8	90.2	88.2
315	88.0	89.8	91.4	89.8	89.8	91.0	90.8	89.0
400	88.8	90.2	91.2	90.0	90.8	91.4	91.2	88.8
500	91.2	92.4	92.8	92.2	91.8	92.2	92.6	90.4
630	105.2	111.4	106.4	106.2	104.4	108.6	104.8	101.0
800	92.2	97.6	93.6	93.2	92.0	95.0	92.6	91.2
1000	87.6	89.6	89.6	88.8	88.4	90.4	91.4	91.4
1250	100.6	108.4	107.0	103.8	104.0	109.0	111.2	104.4
1600	91.0	96.6	95.6	92.4	93.0	98.4	99.2	96.4
2000	101.4	103.2	105.8	97.2	98.4	112.2	107.2	111.0
2500	94.0	98.2	97.4	100.8	95.4	95.6	100.0	97.2
3150	88.2	90.0	90.8	89.8	89.8	90.8	91.2	93.8
4000	86.4	89.0	90.0	87.2	89.0	89.8	89.4	95.4
5000	84.8	92.4	91.0	89.0	89.2	91.4	90.4	95.2
6300	82.8	91.4	86.2	83.8	84.0	87.0	90.0	92.0
8000	79.0	87.0	84.2	80.8	79.8	85.0	85.8	90.0
10000	76.2	79.4	81.6	77.2	76.8	80.4	79.2	88.4
12500	75.2	77.6	78.8	75.2	73.6	78.4	75.2	87.8
16000	70.0	75.0	75.0	70.6	66.6	75.0	75.0	86.8
20000	67.0	76.6	77.0	68.0	66.6	75.8	76.6	87.6
ØVERALL SPL UNCØRR	114.2	119.8	118.0	114.0	115.2	119.2	116.2	117.2
ØVERALL SPL CØRR	109.0	114.3	112.1	110.0	109.1	115.5	114.8	113.0
PNDB CØRR	119.3	122.6	123.1	120.7	118.7	126.9	124.2	126.1

NØISE DATA

TABLE XXIII-1. - SEMISPAN WING-DUCTED FAN EBF STATIC SØUND STUDY

SPL IN DB REL. .0002 MICRØBAR

TEST 0 RUN 10 DELTA 14 CØRRECTED FØR REVERBERATIØNS

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10	1
ANGLE(DEG):	180.0	160.0	140.0	120.0	100.0	80.0	60.0	40.0	20.0	.0	
REF DIST(FT):	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	
GAIN,	0	0	0	0	0	0	0	0	0	0	
FREQ(HERTZ)											
12.5	73.8	109.8	80.0	80.0	80.0	77.0	68.6	70.2	67.0	68.6	
16	70.2	110.0	79.0	79.0	79.0	76.0	66.0	66.0	66.0	66.0	
20	73.0	110.8	78.0	78.0	78.0	75.0	70.0	68.2	65.0	65.0	
25	73.4	108.6	77.0	77.0	77.0	74.0	65.6	64.8	64.6	64.4	
31	76.2	108.0	77.0	77.0	77.0	74.0	70.8	70.4	69.4	67.4	
40	77.2	107.4	77.2	77.0	77.0	74.0	71.0	73.8	71.0	70.8	
50	79.8	107.4	81.6	82.6	82.4	79.0	75.4	75.8	74.4	74.4	
63	80.2	106.8	81.4	83.6	84.0	80.6	79.2	77.4	76.4	77.4	
80	81.6	106.0	85.4	85.2	86.4	82.2	81.2	80.8	79.8	78.6	
100	83.4	105.6	82.2	83.1	83.8	81.2	82.6	80.8	78.6	78.6	
125	85.4	106.8	84.4	83.8	82.0	81.1	80.2	80.9	80.1	76.4	
160	84.4	103.0	82.2	85.2	84.0	84.6	85.4	84.4	83.0	80.2	
200	86.8	103.0	82.0	83.6	83.2	83.2	85.0	84.6	82.0	81.2	
250	86.5	100.3	86.5	84.7	84.7	84.7	84.7	86.9	83.9	84.7	
315	84.7	97.7	84.7	85.3	84.5	83.7	83.9	85.7	84.7	82.5	
400	82.2	92.8	81.6	83.6	84.4	82.2	83.2	83.8	81.6	82.4	
500	85.6	93.8	83.2	85.8	84.8	83.2	83.8	83.6	82.0	83.6	
630	106.2	101.2	94.0	107.2	101.8	99.2	106.2	105.8	99.4	110.0	
800	97.2	95.2	88.4	96.8	91.6	90.4	96.0	96.6	89.8	98.4	
1000	86.5	90.5	87.7	85.5	85.7	85.1	86.7	90.9	88.1	88.3	
1250	109.1	107.9	105.3	106.9	110.1	103.5	109.1	112.1	105.7	109.7	
1600	96.4	95.6	93.8	94.8	98.6	91.6	95.8	100.4	93.6	97.4	
2000	106.0	101.2	109.4	101.4	98.4	106.6	111.2	107.4	105.8	111.0	
2500	93.5	93.9	97.5	96.3	95.7	93.7	95.5	95.3	96.9	92.7	
3150	91.0	91.0	100.6	98.0	93.0	90.0	93.0	95.4	92.0	93.0	
4000	93.6	93.4	102.8	98.2	94.6	90.6	96.2	93.8	93.4	91.8	
5000	90.6	89.6	98.4	92.8	94.3	89.2	92.0	93.0	92.6	89.5	
6300	84.4	84.6	90.4	87.8	88.6	86.9	88.3	86.9	84.5	85.3	
8000	73.0	83.0	82.0	81.0	81.0	80.5	74.7	74.3	72.5	73.3	
10000	70.0	80.0	81.0	79.0	80.0	80.0	70.0	68.0	71.0	66.0	
12500	70.0	80.0	81.0	79.0	80.0	80.0	70.0	68.0	71.0	66.0	
16000	70.0	80.0	81.0	79.0	80.0	80.0	70.0	68.0	71.0	66.0	
20000	70.0	80.0	81.0	79.0	80.0	80.0	70.0	68.0	71.0	66.0	
ØVERALL SPL UNCØRR	112.0	119.0	111.8	113.4	102.2	110.6	113.6	114.6	112.4	116.2	
ØVERALL SPL CØRR	112.6	119.7	112.4	111.7	111.9	109.5	114.5	114.6	110.0	115.3	
PNDB CØRR	122.5	123.3	125.2	121.1	121.7	121.8	125.7	123.9	121.7	125.4	

TABLE XXIII-2. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

NØISE DATA

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 33 DELTA 4

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	10	20	20	20	10	10	20	20
FREQ(HERTZ)								
12.5	104.2	68.0	68.0	68.0	78.0	78.0	68.0	70.6
16	103.2	67.0	67.0	67.0	77.0	77.0	67.0	70.4
20	103.6	71.2	71.8	71.8	76.0	76.0	69.0	70.2
25	102.2	72.2	70.8	72.4	75.0	75.0	71.0	73.0
31	100.0	76.2	76.8	77.4	78.6	78.2	75.8	77.0
40	98.2	77.0	78.6	79.2	79.0	76.4	77.2	74.6
50	97.0	81.8	81.2	81.8	84.6	82.8	82.6	76.0
63	94.6	80.8	83.8	84.6	83.0	82.0	82.8	78.0
80	93.0	84.6	85.8	85.4	84.8	84.6	82.0	80.0
100	93.6	87.4	87.0	87.8	87.6	88.6	86.4	82.8
125	92.2	88.2	85.8	91.0	89.2	88.6	89.6	84.8
160	88.6	84.2	85.8	84.8	87.8	87.4	85.8	86.6
200	88.2	85.6	86.8	87.6	90.2	89.8	87.6	85.2
250	88.2	86.6	87.4	88.4	89.8	90.8	89.0	86.4
315	85.8	85.4	85.8	86.4	87.4	89.0	88.0	87.2
400	84.8	85.8	86.4	86.4	87.0	88.6	87.6	87.0
500	87.0	86.6	87.4	87.0	90.6	90.0	87.6	88.2
630	106.0	102.0	105.6	102.6	114.2	112.0	103.8	102.8
800	91.8	89.0	91.8	89.8	99.0	96.8	90.6	91.2
1000	86.6	88.4	87.8	86.8	87.8	89.6	89.6	91.0
1250	103.0	109.8	106.8	102.4	104.4	110.2	108.4	105.6
1600	91.8	97.0	94.8	93.4	96.2	97.8	95.8	96.0
2000	98.2	100.4	98.6	108.8	112.4	107.0	101.8	109.6
2500	94.8	96.2	97.4	91.2	94.8	91.6	99.0	95.8
3150	92.2	90.0	94.6	88.4	89.6	89.8	92.8	97.4
4000	88.0	90.0	88.8	87.8	91.2	88.2	92.2	95.2
5000	86.6	92.0	88.8	87.0	89.8	88.6	91.8	94.4
6300	85.0	85.6	86.8	85.6	85.0	89.8	87.2	92.8
8000	80.8	84.4	81.4	81.6	81.4	85.2	83.0	90.6
10000	76.6	79.6	79.2	76.4	78.8	79.6	79.2	89.4
12500	75.0	76.2	76.4	75.8	75.0	78.0	73.2	88.4
16000	75.0	68.8	70.4	71.0	75.0	75.0	66.0	86.6
20000	75.0	68.0	66.8	70.0	75.0	75.0	67.6	87.2
ØVERALL SPL UNCØRR	116.0	118.2	115.4	116.0	121.4	120.2	116.8	118.2
ØVERALL SPL CØRR	113.1	111.6	110.6	110.9	116.9	115.3	111.3	112.6
PNDB CØRR	118.6	121.3	120.0	123.3	126.8	123.8	121.3	125.3

NØISE DATA

TABLE XXIII-3. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 33 DELTA 15								
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	10	10	20	20	10	10	20	10
FREQ(HERTZ)								
12.5	109.4	78.0	68.0	72.0	78.0	78.0	68.0	78.0
16	108.6	77.0	67.0	70.8	77.0	77.0	67.0	77.0
20	108.4	76.0	69.6	72.0	76.0	76.0	68.8	76.0
25	105.6	75.0	72.0	72.8	75.0	75.0	72.4	75.0
31	104.6	76.8	76.6	77.0	78.0	77.8	75.4	75.0
40	103.2	76.8	79.0	78.8	77.8	76.8	77.0	75.0
50	101.4	82.6	80.0	78.8	83.2	81.6	80.6	75.2
63	100.8	80.0	81.6	81.0	79.8	80.2	81.8	75.8
80	99.8	84.8	83.8	83.0	84.2	84.0	80.4	78.8
100	99.4	85.4	85.4	85.8	87.0	86.4	84.8	82.2
125	98.2	89.6	87.4	87.6	87.8	87.2	90.2	87.6
160	99.8	86.4	83.0	83.6	86.2	85.6	84.4	84.2
200	96.2	86.0	86.8	86.2	88.8	88.2	87.0	85.2
250	96.2	86.2	87.6	87.2	88.6	89.8	88.8	87.6
315	93.8	86.2	86.2	86.0	86.8	88.6	88.6	88.2
400	93.0	86.2	86.6	86.0	86.4	87.6	87.8	87.0
500	94.8	87.8	87.8	86.8	89.6	90.0	87.6	88.4
630	103.0	105.4	104.6	100.6	113.2	111.4	104.2	105.4
800	94.8	92.0	91.0	89.4	98.8	96.8	91.4	92.2
1000	93.0	88.6	88.2	87.0	87.8	89.4	89.8	89.2
1250	104.4	109.8	108.6	97.2	104.0	108.2	108.6	98.4
1600	97.2	97.6	96.4	89.6	93.0	96.2	97.0	92.8
2000	101.0	97.4	99.6	100.6	104.0	103.8	104.6	108.4
2500	100.2	95.4	99.8	98.0	94.6	98.0	99.6	93.6
3150	95.8	89.8	92.0	90.8	90.8	95.0	92.0	90.4
4000	95.0	92.6	90.0	92.0	92.4	91.4	93.0	93.0
5000	93.6	92.4	87.8	90.6	89.4	89.6	90.0	91.2
6300	92.6	86.4	85.6	87.4	84.6	87.8	85.8	86.4
8000	90.2	85.2	82.0	85.4	81.2	84.8	83.2	83.4
10000	89.0	81.4	79.2	83.8	77.0	80.6	79.2	81.2
12500	87.8	77.2	75.8	82.6	75.0	78.4	73.4	78.6
16000	87.0	75.0	70.4	81.8	75.0	75.0	66.8	75.0
20000	88.4	75.4	66.8	82.8	75.0	75.2	69.0	75.6
ØVERALL SPL UNCØRR	119.8	116.8	115.2	113.2	118.8	119.2	116.0	116.4
ØVERALL SPL CØRR	117.1	112.0	111.3	106.7	114.6	114.2	111.9	111.1
PNDB CØRR	123.3	121.6	120.9	119.1	122.5	122.4	122.3	123.4

NØISE DATA

TABLE XXIV -1. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

TEST 372 RUN 39 DELTA 3								
MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	30	30	30	30	30	30	30	30
FREQ(HERTZ)								
12.5	48.0	48.0	48.0	48.0	48.0	48.0	48.0	48.0
16	47.0	47.0	47.0	47.0	47.0	47.0	47.0	47.0
20	49.0	46.0	48.2	50.2	49.2	46.0	47.2	46.0
25	45.8	45.0	45.0	45.0	45.0	45.0	45.0	45.0
31	50.0	48.8	50.4	47.0	47.6	47.2	46.6	47.8
40	46.0	45.4	45.0	45.0	45.6	45.0	45.0	45.0
50	50.8	50.2	49.6	50.2	51.2	50.4	50.4	50.8
63	57.2	52.6	49.0	55.2	56.0	50.8	47.6	52.6
80	55.0	57.0	55.0	58.6	60.6	57.0	60.2	52.2
100	62.0	57.0	65.2	69.2	70.4	60.6	65.6	62.8
125	75.2	64.4	79.2	83.2	84.6	73.8	79.4	76.4
160	58.8	58.0	58.4	61.2	62.4	56.4	60.2	57.8
200	69.4	64.4	65.4	67.4	62.8	63.8	65.0	65.8
250	78.4	71.2	73.4	76.8	71.0	70.8	73.8	91.4
315	64.0	63.8	61.8	61.2	62.0	61.0	63.0	83.0
400	63.2	62.8	59.6	60.2	60.8	61.0	62.0	81.4
500	64.6	66.6	63.4	64.6	65.6	67.0	62.4	94.6
630	59.0	60.4	58.6	58.6	58.8	59.0	60.6	89.6
800	55.6	56.0	55.8	54.8	54.8	57.4	55.4	86.2
1000	54.4	54.8	54.4	54.4	55.6	64.6	55.6	84.2
1250	54.6	52.8	53.4	53.0	54.4	53.4	54.4	83.8
1600	50.8	51.2	50.6	50.8	50.2	70.8	50.2	80.0
2000	48.6	47.6	46.8	47.8	47.4	68.0	48.0	78.0
2500	45.2	46.0	45.0	45.2	45.4	75.0	45.0	75.2
3150	45.0	45.0	45.0	45.0	45.0	75.0	45.0	75.0
4000	45.0	45.0	45.0	45.0	45.0	75.0	45.0	75.0
5000	45.0	45.0	45.0	45.0	45.0	75.0	45.0	75.0
6300	45.0	45.0	45.0	45.2	45.0	75.0	45.0	75.0
8000	45.8	46.8	47.0	48.4	47.4	76.8	48.0	78.6
10000	45.0	45.0	45.0	45.0	45.0	75.0	45.0	75.2
12500	45.8	45.8	45.0	46.2	45.0	75.0	45.4	76.8
16000	48.0	47.0	46.0	47.4	46.0	76.0	46.8	78.6
20000	51.8	51.0	50.0	51.4	50.4	80.0	50.6	82.0
ØVERALL SPL UNCØRR	85.6	80.2	95.8	99.0	90.6	112.0	86.6	113.4
ØVERALL SPL CØRR	81.0	75.2	80.9	84.6	85.2	86.8	81.2	98.7
PNDB CØRR	85.4	81.1	83.4	86.1	86.6	97.5	83.9	106.6

TABLE XXIV -2. - SEMISPAN WING-DUCTED FAN EBF SOUND STUDY-T372 NOISE DATA

SPL IN DB REL. .0002 MICROBAR

CORRECTED FOR REVERBERATIONS

TEST 372 RUN 39 DELTA 11

MICROPHONE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	30	30	30	30	30	30	30	30
FREQ(HERTZ)								
12.5	61.4	61.4	56.8	56.4	56.4	56.0	55.4	49.2
16	61.2	60.2	53.6	52.2	55.0	53.4	55.2	53.2
20	62.2	60.4	56.0	54.2	57.4	53.0	57.0	57.4
25	61.8	60.8	53.4	53.2	55.8	53.4	55.6	56.0
31	65.0	61.4	55.6	56.4	58.2	55.8	57.0	55.6
40	65.0	63.6	56.8	54.8	57.0	57.0	56.6	55.0
50	66.0	65.4	58.4	58.4	60.6	58.8	57.0	57.4
63	66.4	65.0	57.2	58.6	59.6	57.0	56.6	56.0
80	65.8	65.6	58.8	57.8	59.4	57.4	58.8	56.8
100	68.6	67.6	64.2	65.4	63.8	66.6	62.8	69.4
125	79.0	74.8	76.2	79.0	75.2	80.0	73.8	83.2
160	66.0	66.6	62.6	62.8	61.6	61.0	60.2	61.2
200	68.6	68.4	67.2	66.8	68.2	65.4	68.8	65.0
250	75.6	74.0	74.6	75.2	75.2	73.2	76.8	70.4
315	70.2	69.6	72.8	69.0	65.8	65.6	64.0	66.0
400	62.0	63.6	62.6	61.6	63.8	61.8	63.4	61.6
500	63.6	65.6	62.8	63.8	66.6	65.8	64.4	64.0
630	61.0	61.2	60.8	60.6	60.4	60.4	61.4	62.0
800	57.8	57.8	57.8	57.4	57.4	56.6	57.0	57.2
1000	59.4	59.2	58.8	59.2	59.2	59.4	60.2	59.6
1250	61.0	60.8	59.6	60.8	60.6	62.0	62.6	63.4
1600	52.6	52.6	52.2	52.8	53.2	53.0	52.6	53.4
2000	50.4	49.8	50.0	50.2	51.6	50.4	49.6	49.8
2500	48.0	48.2	48.6	48.4	49.8	48.0	48.0	48.2
3150	46.8	46.2	47.0	46.6	47.8	46.0	46.0	46.8
4000	46.0	45.4	46.4	46.2	48.0	45.4	46.4	46.8
5000	45.0	45.0	45.8	45.4	46.4	45.0	45.8	46.0
6300	45.2	45.6	46.0	45.8	46.8	45.2	46.0	47.2
8000	47.2	48.0	47.8	48.4	47.6	48.2	57.8	49.6
10000	45.0	45.0	45.0	45.0	45.0	75.0	65.0	46.8
12500	46.8	45.0	45.2	46.0	45.0	75.4	65.0	47.2
16000	47.8	46.2	46.0	46.4	45.6	75.2	75.4	48.0
20000	51.6	50.0	49.8	50.2	49.6	79.2	79.4	51.8
OVERALL SPL UNCORR	87.2	83.8	86.0	86.4	84.0	116.6	114.8	88.8
OVERALL SPL CORR	82.6	80.5	80.5	81.6	80.0	85.2	83.6	84.1
PNDB CORR	85.6	84.6	84.6	84.9	84.9	87.6	86.0	86.7

NØISE DATA

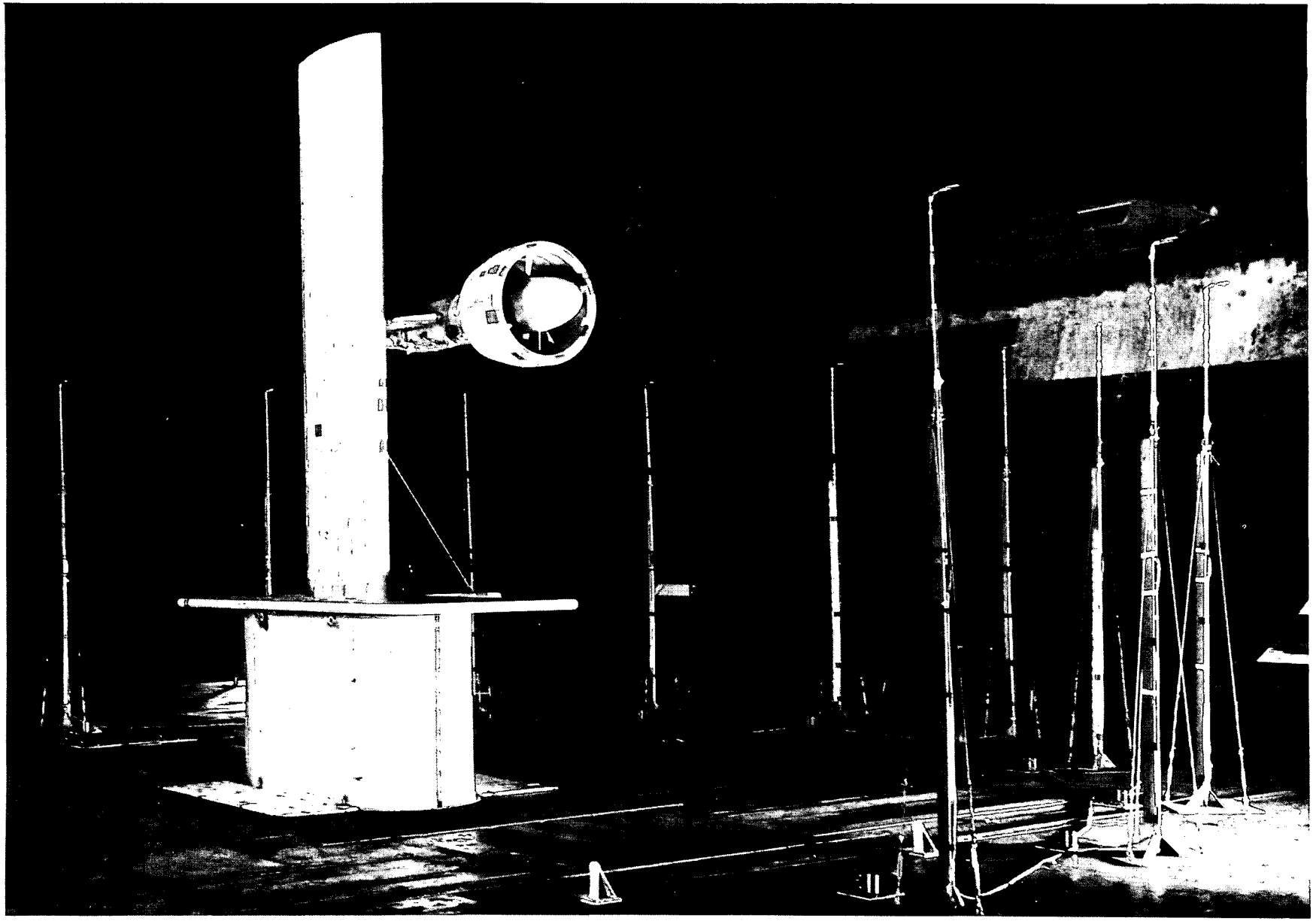
TABLE XXIV-3. - SEMISPAN WING-DUCTED FAN EBF SØUND STUDY-T372

SPL IN DB REL. .0002 MICRØBAR

CØRRECTED FØR REVERBERATIØNS

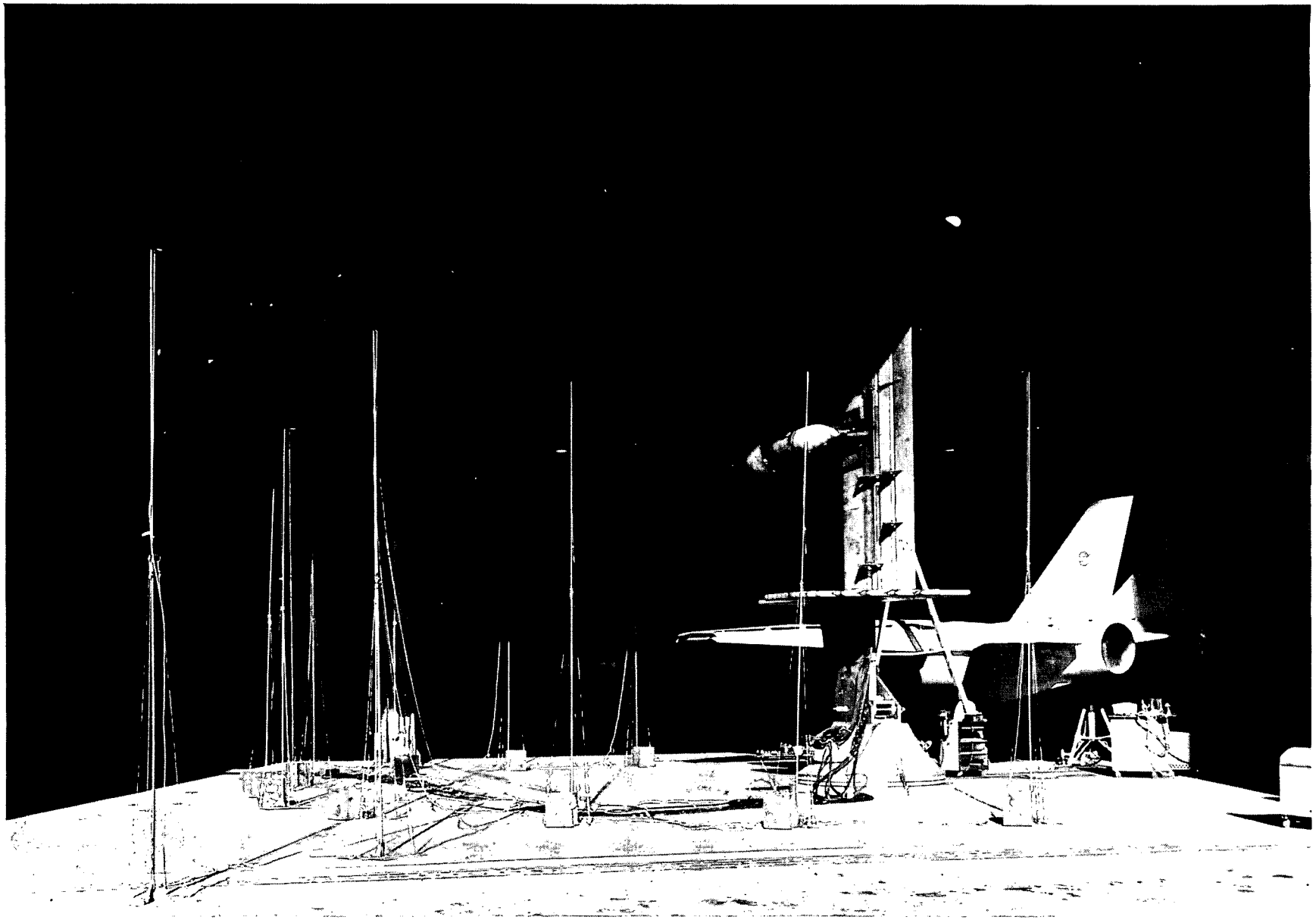
TEST 372 RUN 39 DELTA 19

MICRØPHØNE:	2	4	5	6	7	8	9	10
ANGLE(DEG):	160.0	120.0	100.0	80.0	60.0	40.0	20.0	.0
REF DIST(FT):	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
GAIN,	30	30	30	30	30	30	30	30
FREQ(HERTZ)								
12.5	69.4	69.8	66.6	67.6	66.8	64.4	66.0	60.6
16	71.2	68.8	66.2	65.6	63.6	63.0	66.0	64.8
20	80.8	81.0	79.2	77.2	75.6	76.2	76.8	74.2
25	72.6	67.6	67.8	66.4	66.0	65.6	66.0	63.8
31	72.6	71.8	70.2	67.4	70.0	72.2	72.0	66.0
40	76.2	74.4	71.2	67.2	67.0	70.0	71.4	64.2
50	75.4	72.4	71.4	71.4	70.8	70.6	71.0	69.0
63	76.6	73.0	70.0	70.8	71.6	67.2	68.0	68.2
80	77.4	72.4	72.2	69.8	70.8	69.0	71.2	70.6
100	77.6	73.2	74.8	72.0	72.0	71.8	72.4	73.2
125	76.6	79.4	76.8	78.2	82.4	79.8	76.4	80.8
160	75.0	71.6	73.4	70.8	72.0	69.4	70.0	69.8
200	74.8	72.4	75.8	71.0	71.8	71.4	70.8	70.4
250	77.8	76.8	78.4	73.0	73.4	77.2	74.0	74.0
315	74.8	72.0	75.6	71.6	71.8	71.2	73.4	71.6
400	73.0	70.8	74.8	71.8	70.8	70.8	71.2	70.4
500	76.4	72.8	76.2	74.8	72.2	74.8	74.6	73.2
630	69.6	68.2	70.8	67.6	67.4	67.2	67.2	66.8
800	68.0	66.0	69.4	65.4	66.6	65.0	65.8	65.0
1000	67.0	66.4	68.8	65.8	67.4	66.0	66.2	66.0
1250	68.2	67.0	68.6	66.8	67.8	66.6	68.2	68.0
1600	69.8	68.4	68.4	67.6	69.2	67.6	69.8	69.4
2000	75.0	74.8	74.4	74.4	76.2	85.2	76.6	75.6
2500	63.8	64.8	64.8	64.2	66.0	76.0	68.6	65.0
3150	60.0	60.0	61.0	60.2	61.8	79.2	60.0	59.0
4000	59.8	60.8	61.6	60.2	62.4	80.0	60.8	60.0
5000	57.6	58.2	59.0	58.8	60.2	77.6	58.8	57.8
6300	56.8	58.0	58.8	58.0	59.6	77.0	58.0	56.8
8000	56.0	57.2	57.8	57.4	58.4	75.6	56.8	56.2
10000	55.2	55.0	56.4	56.2	55.6	75.0	55.0	55.0
12500	56.6	55.0	56.2	55.6	55.0	75.0	55.0	55.0
16000	53.2	55.0	55.0	52.8	55.0	75.0	55.0	55.0
20000	53.8	55.0	55.4	52.8	55.0	75.0	55.0	55.0
ØVERALL SPL UNCØRR	93.2	91.0	92.0	89.6	91.6	110.4	90.8	90.4
ØVERALL SPL CØRR	88.9	87.5	87.6	85.7	86.9	90.9	85.9	85.8
PNDB CØRR	95.4	94.5	95.2	94.0	95.4	103.5	95.3	94.5



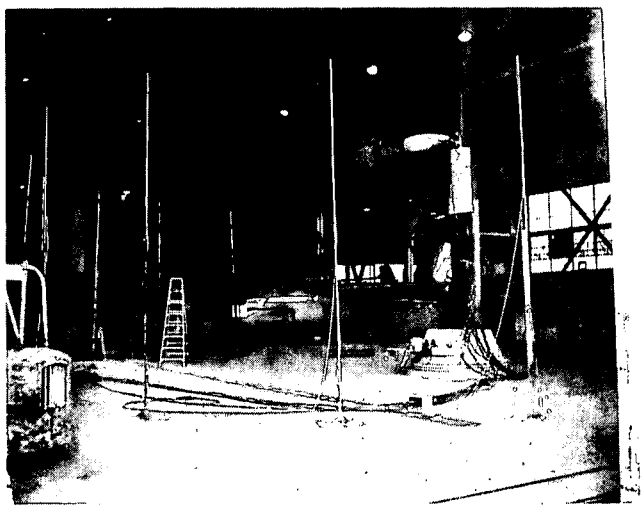
(a) Model installed in the wind tunnel

Figure 1.-Model installation.

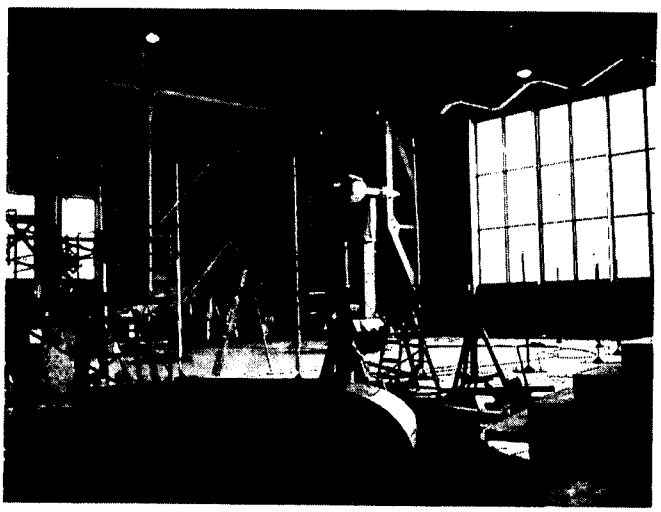


(b) Model installed in the model preparation area

Figure 1.- Continued.



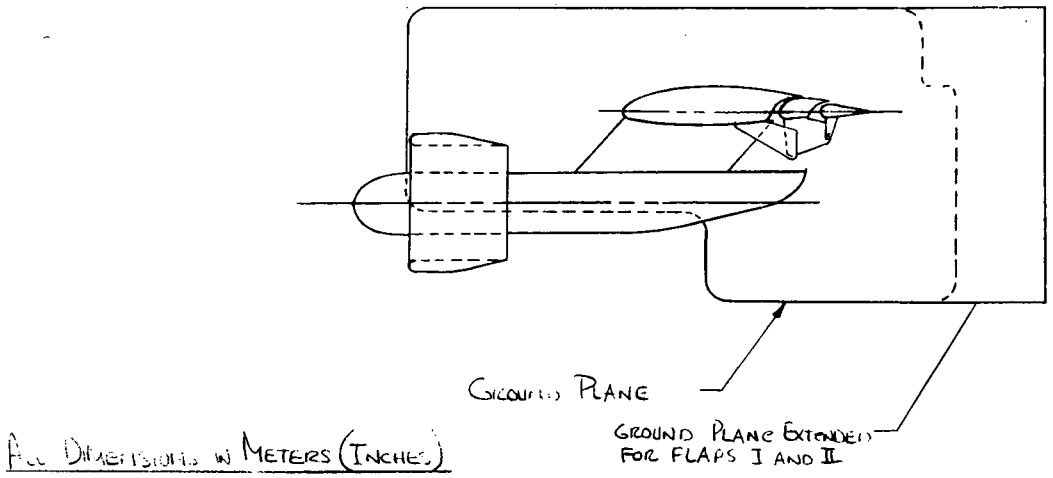
Three-quarter rear view



Three-quarter front view

(c) Isolated ducted fan installed in the model preparation area

Figure 1.- Concluded.



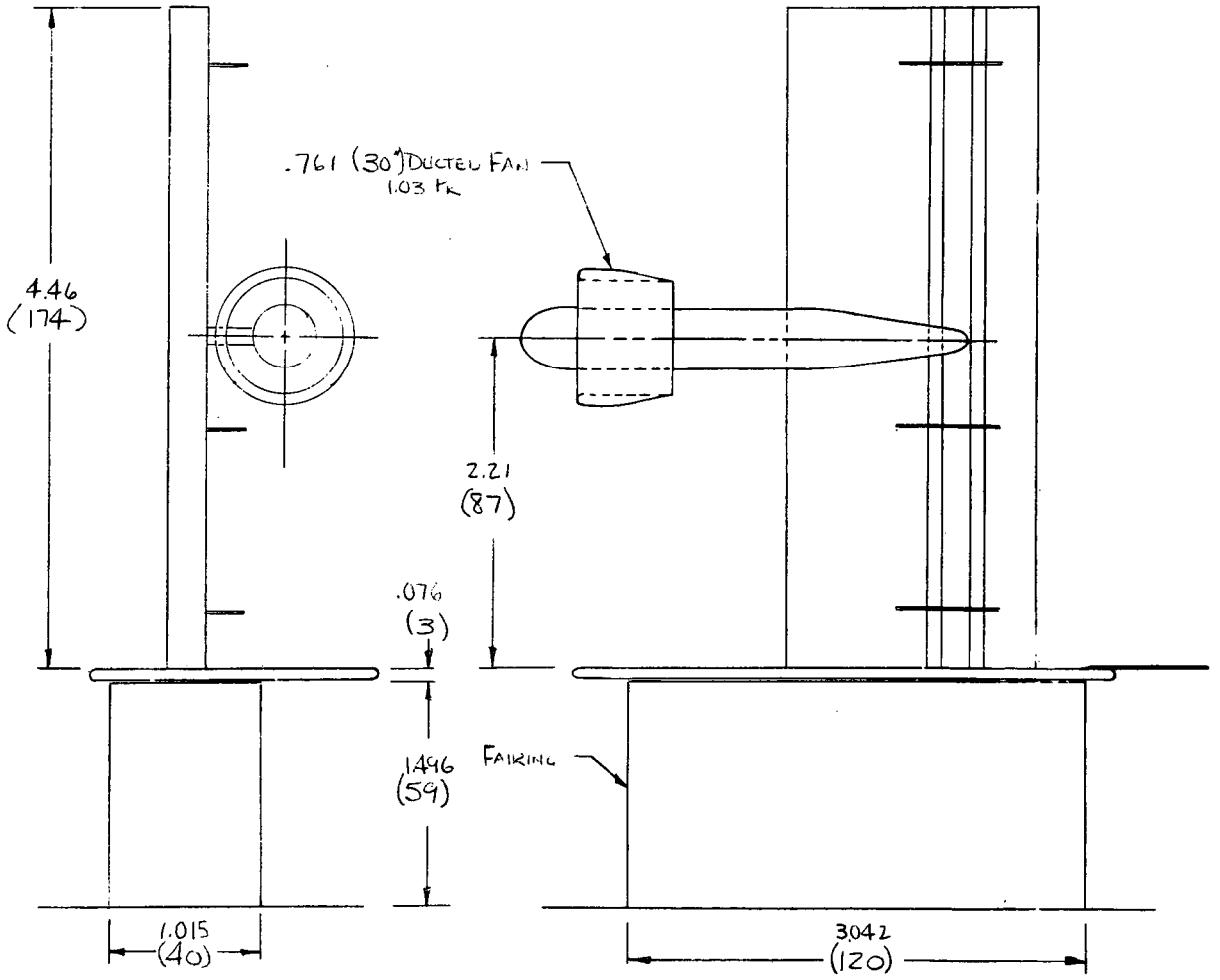
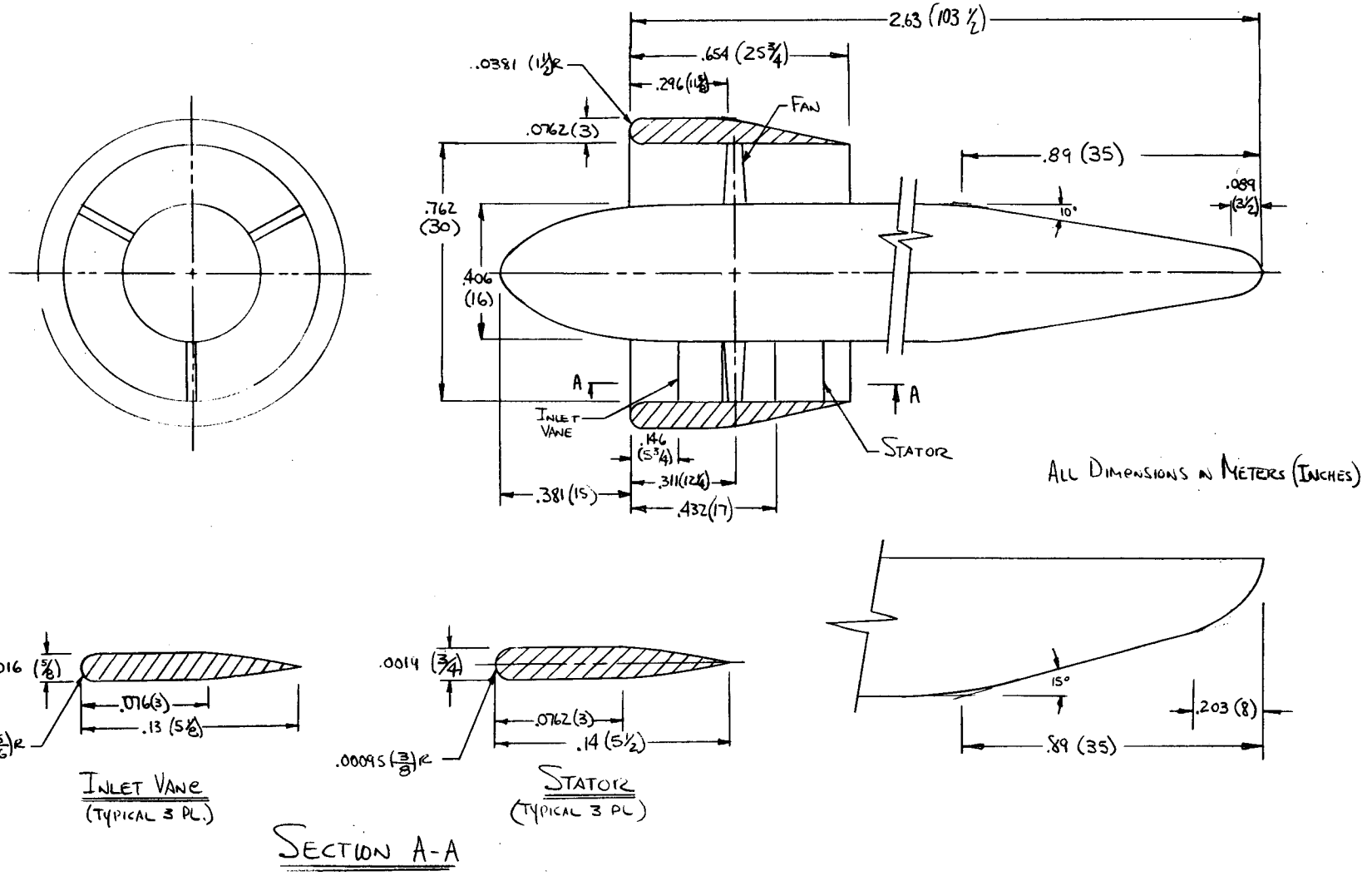
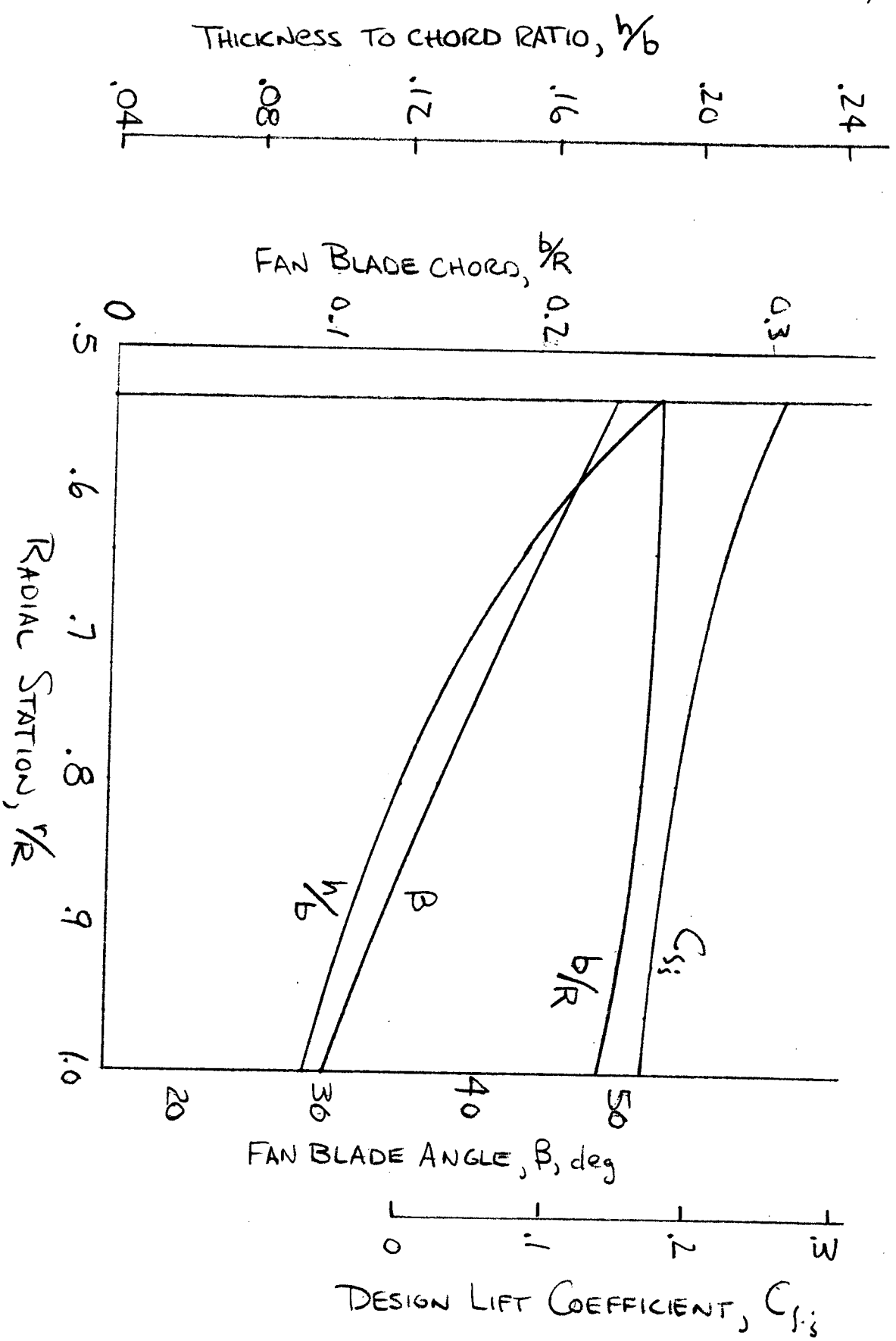


Figure 2.- Basic model geometry.



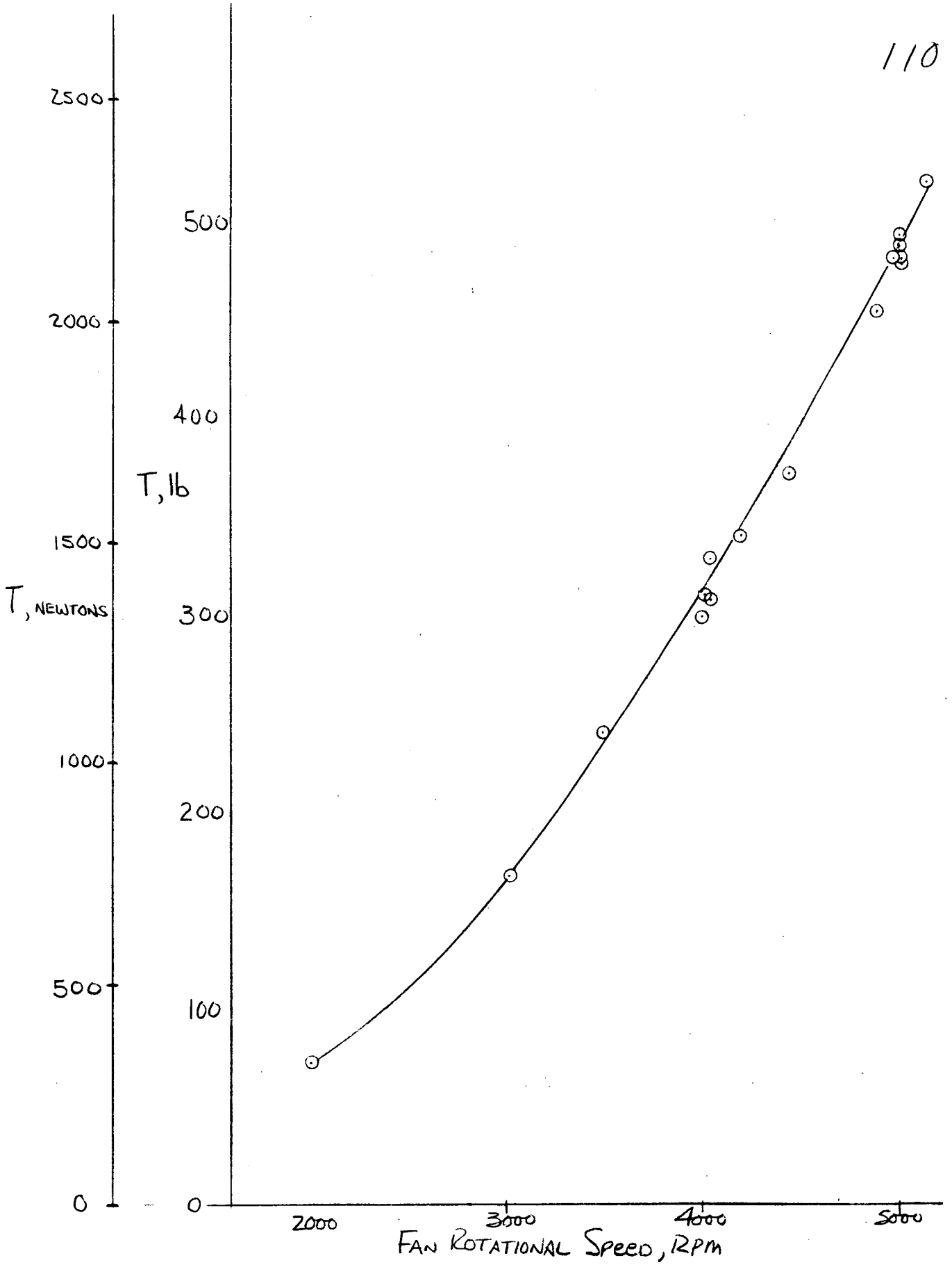
(a) Basic geometry

Figure 3.- Ducted fan geometry and fan characteristics.



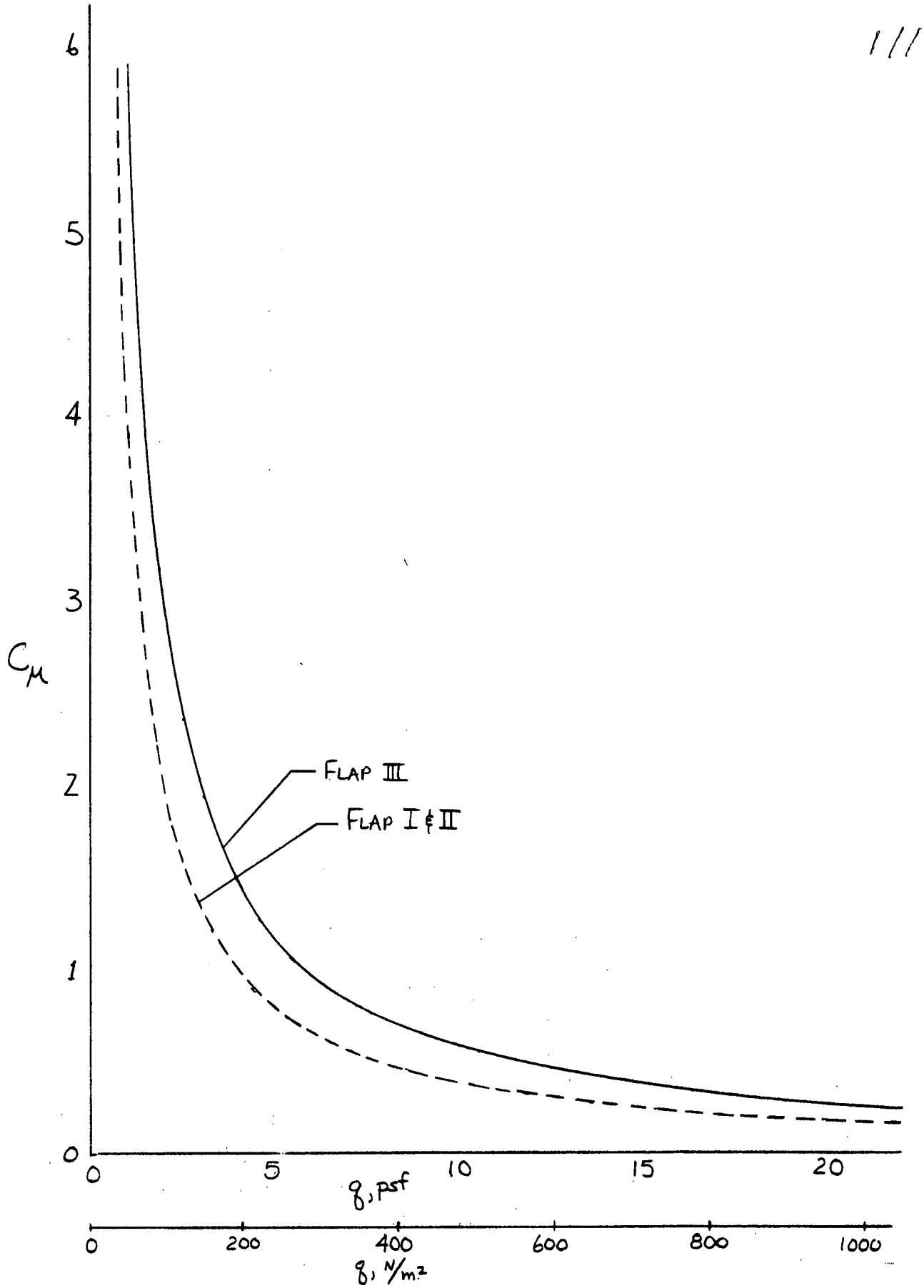
(b) Fan blade planform characteristics

Figure 3.- Continued.



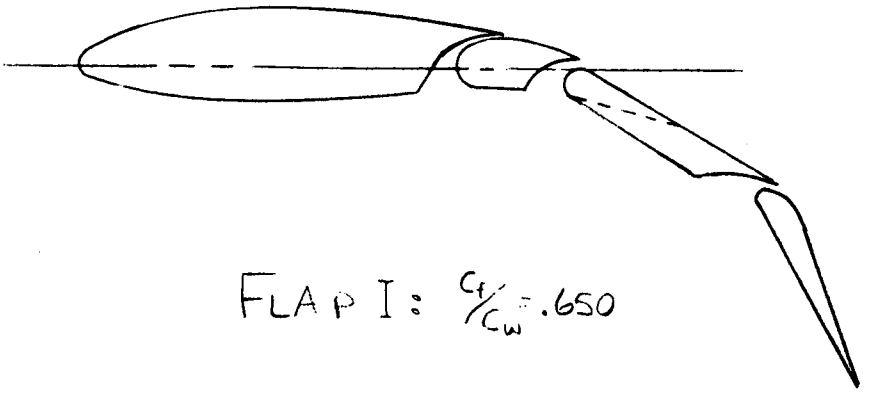
(c) Static thrust as a function of fan speed

Figure 3.- Continued.

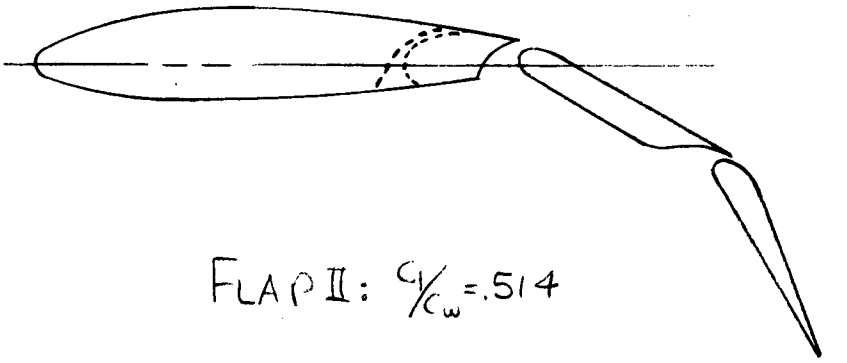


(d) Gross thrust coefficient as a function of q

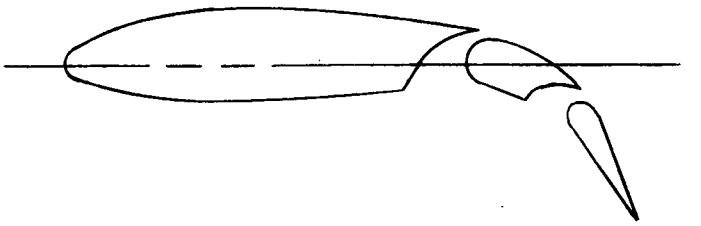
Figure 3.- Concluded.



FLAP I: $c_f/c_w = .650$



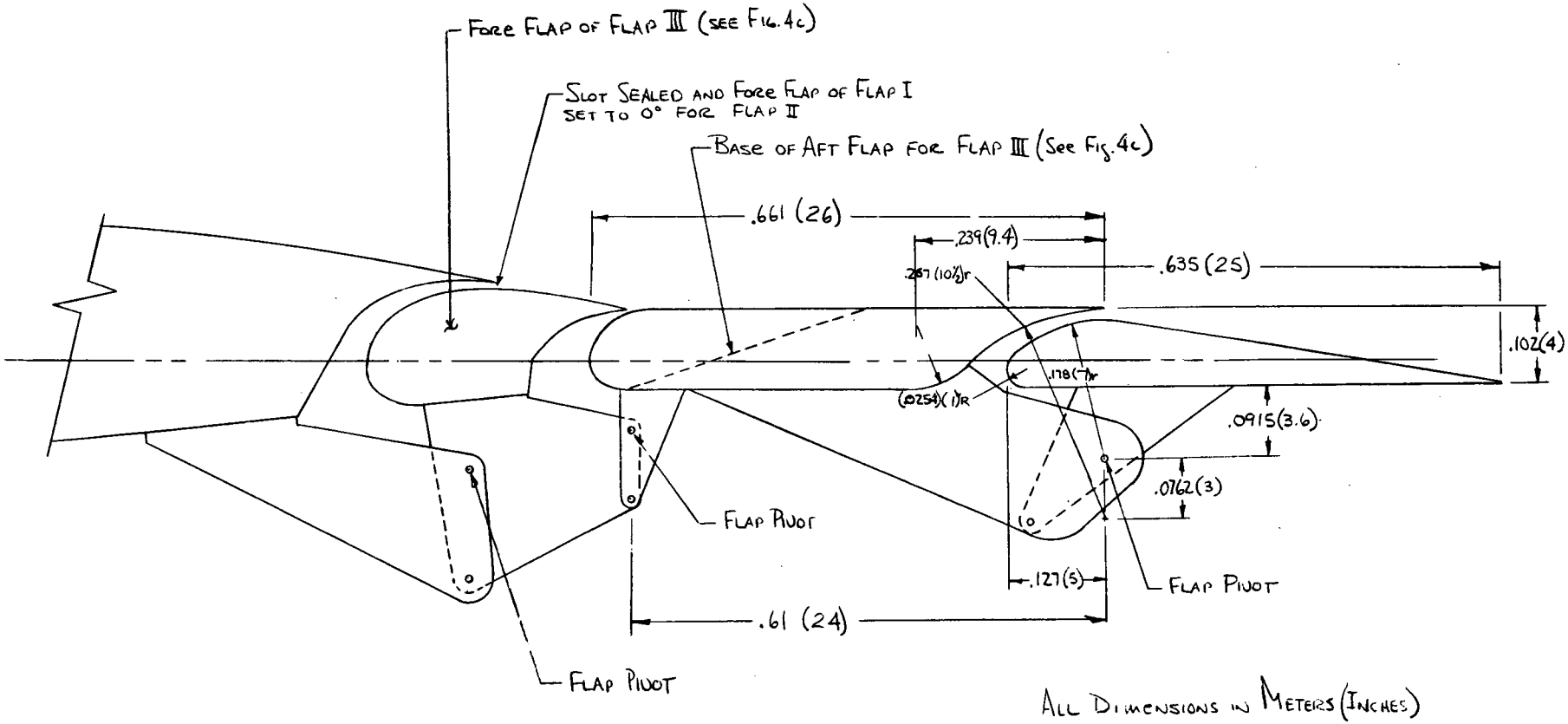
FLAP II: $c_f/c_w = .514$



FLAP III: $c_f/c_w = .420$

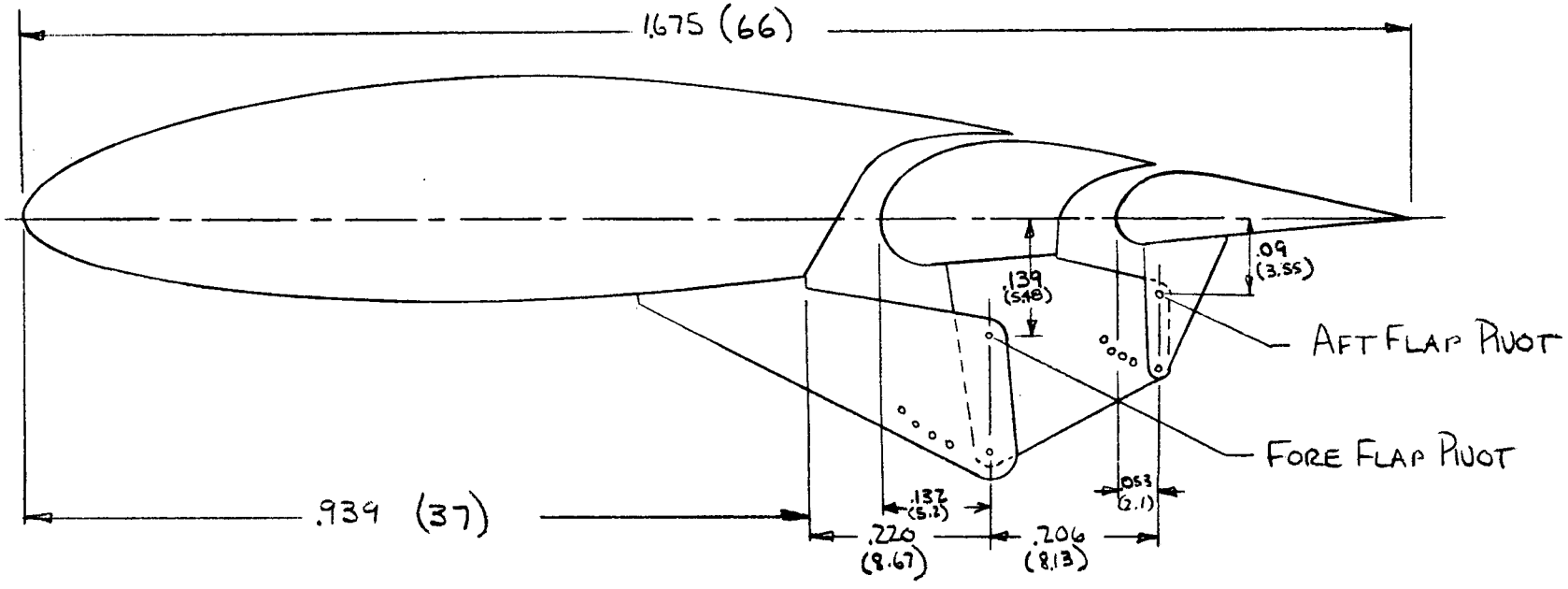
(a) General characteristics

Figure 4.- Geometry of the flap systems.



(b) Basic geometry of flaps I and II

Figure 4.- Continued.



ALL DIMENSIONS IN METERS (INCHES)
SEE TABLE II

(c) Basic geometry of flap III

Figure 4.- Concluded.

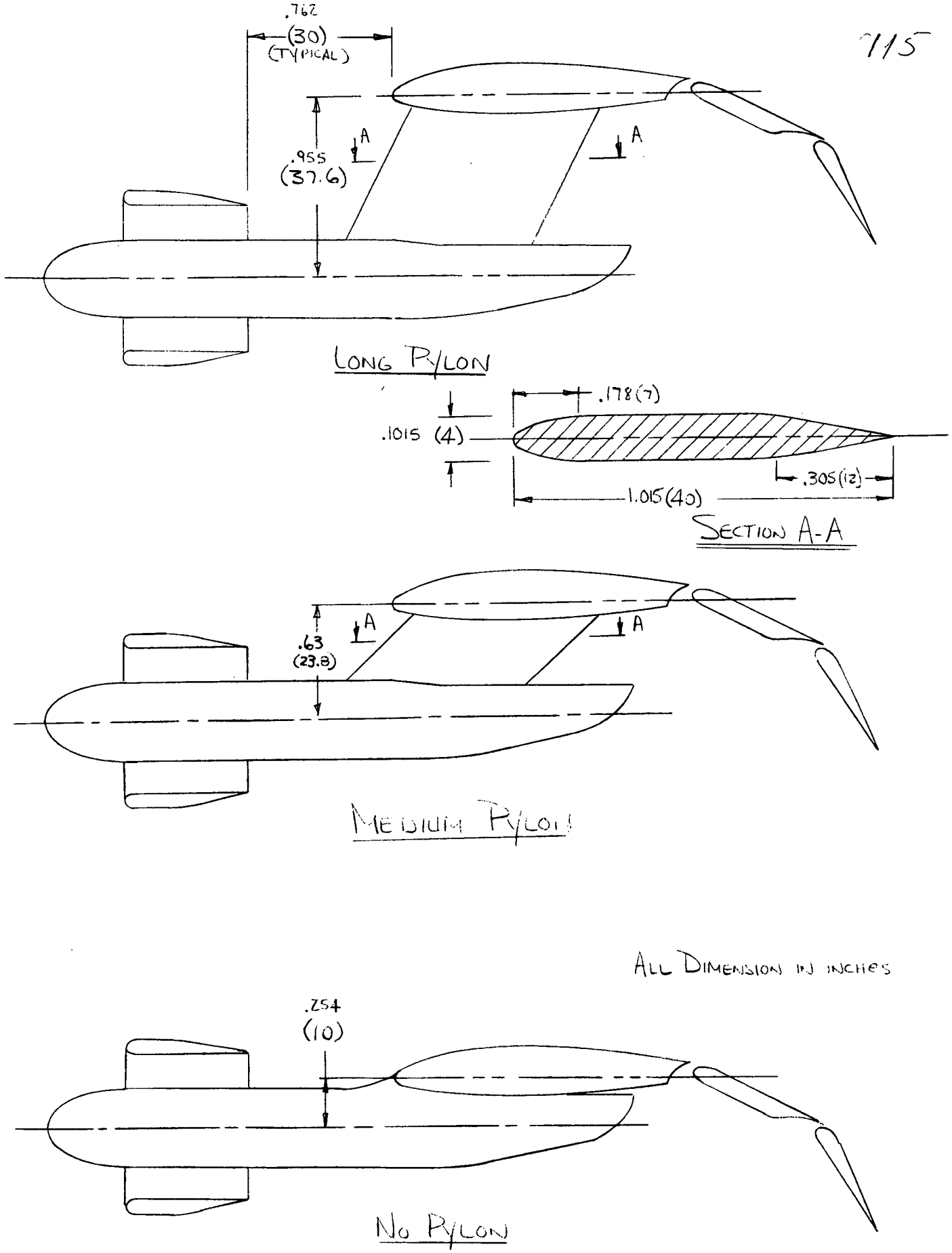
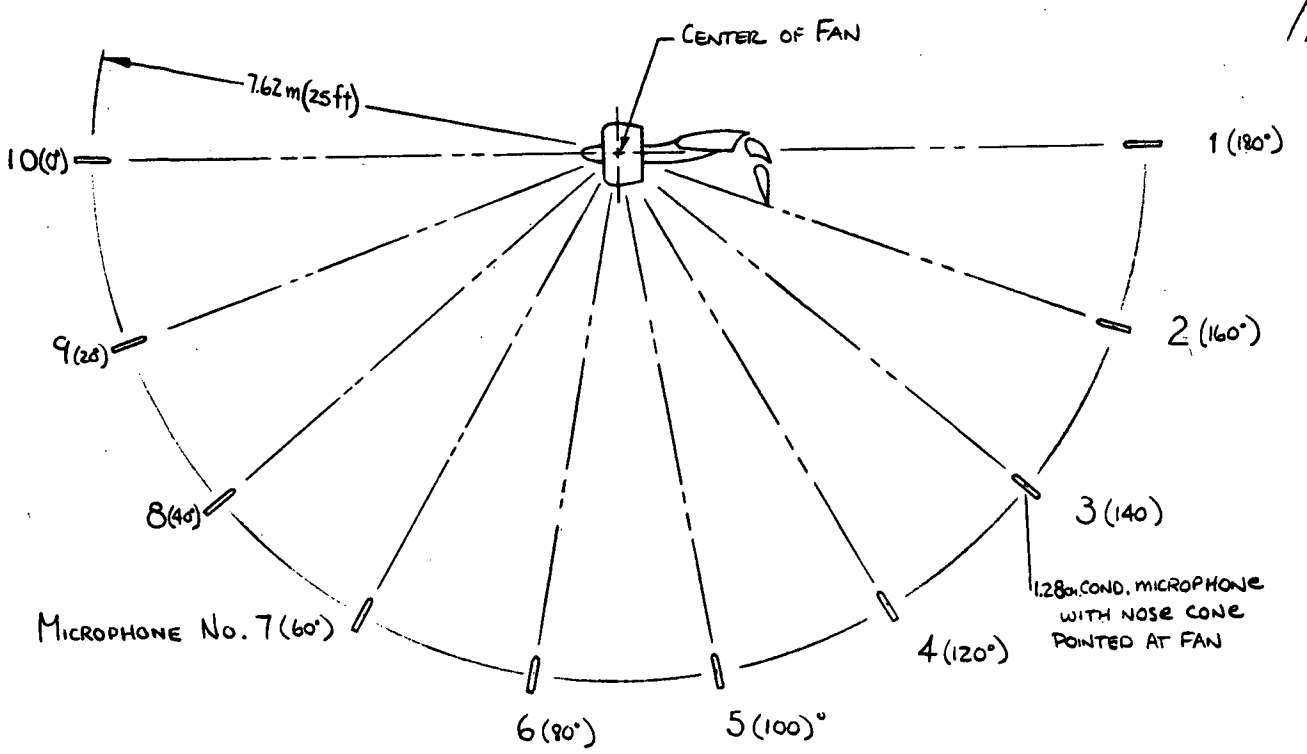
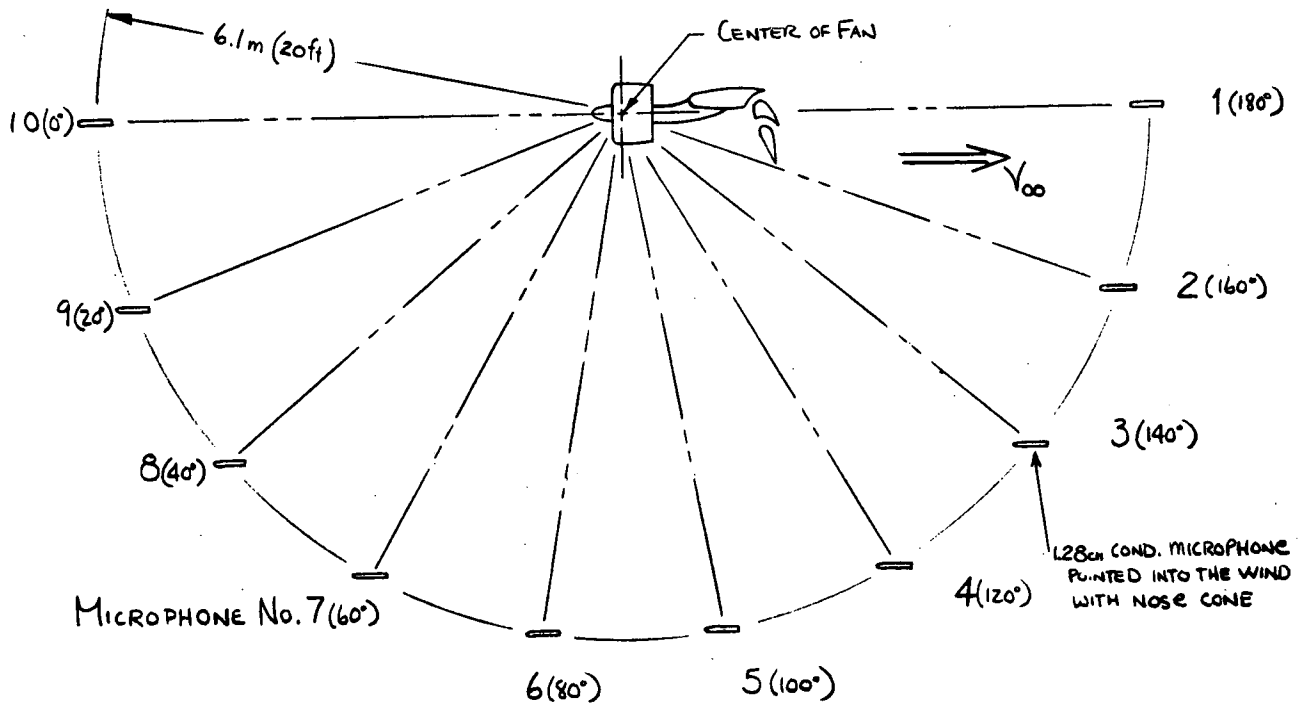


Figure 5.- Geometry of the ducted fan pylons.

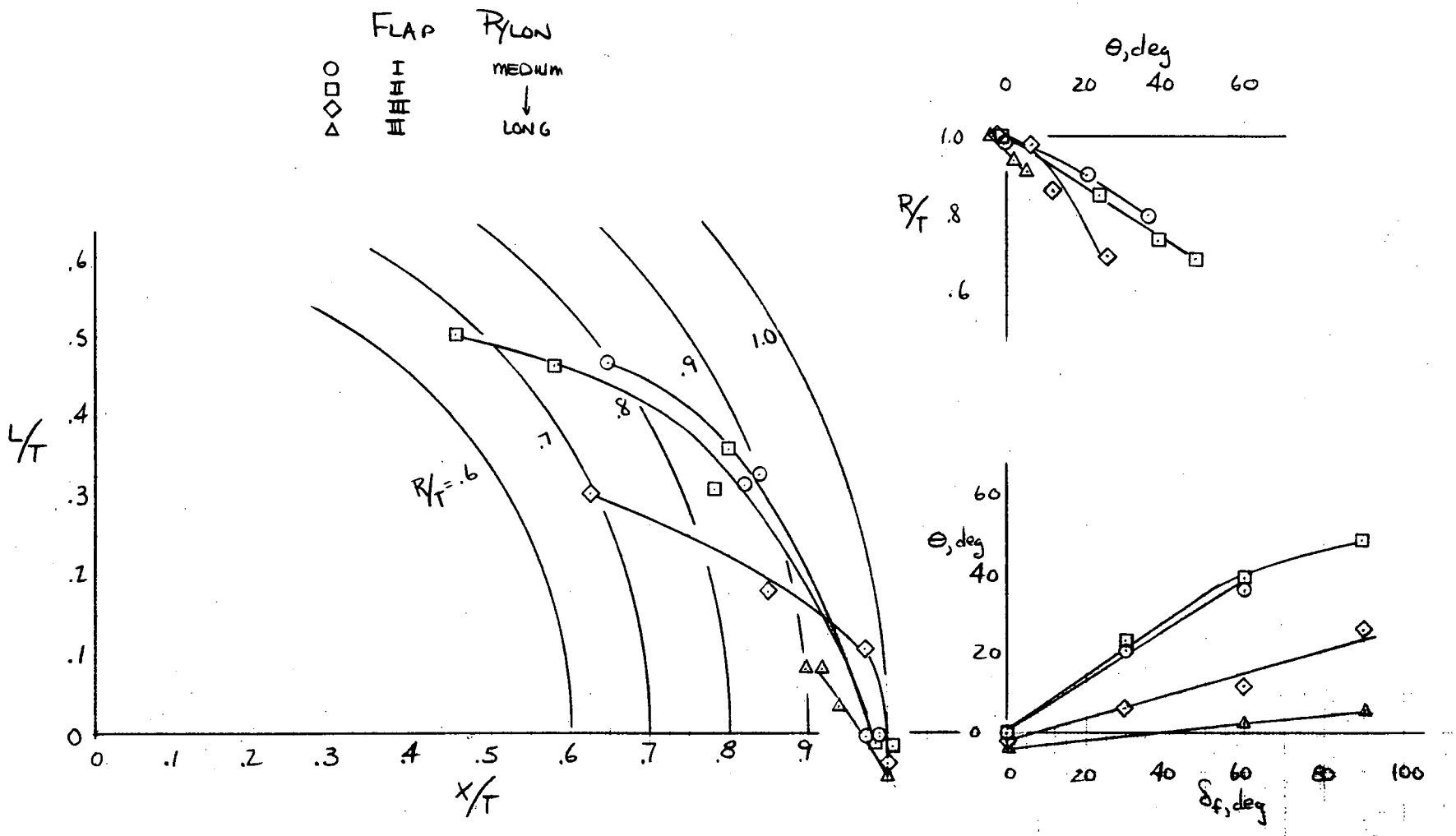


STATIC TEST MICROPHONE ARRANGEMENT



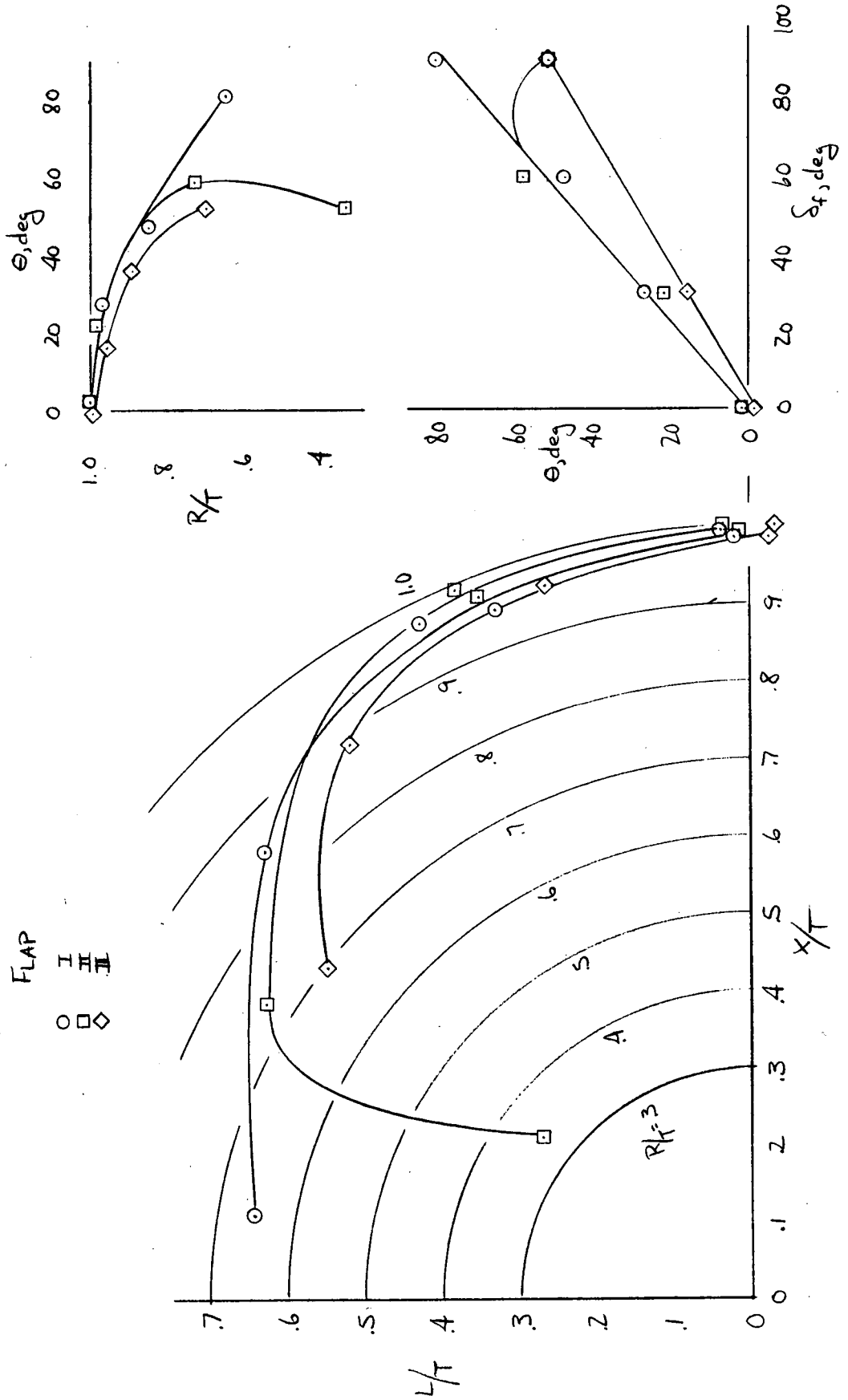
WIND TUNNEL TEST MICROPHONE ARRANGEMENT

Figure 6.- Wind tunnel and static test microphone arrangement.



(a) Medium and long pylons

Figure 7.- Static longitudinal aerodynamic characteristics.



(b) No pylon

Figure 7.- Concluded.