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NASA TM X-62,284

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NOISE MEASUREMENTS FROM A LARGE–SCALE LIFT FAN TRANSPORT IN THE 40– BY 80–FOOT WIND TUNNEL

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March 1973

NOMENCLATURE

dB	decibel
Hz	Hertz, cycles per second
ips	inches per second
PNdB	perceived noise level, dB
q	tunnel dynamic pressure, N/m^2 (lb/ft^2)
RMS	root mean square
RPM	revolutions per minute
SPL	sound pressure level, dB
V/STOL	vertical and short takeoff and landing
V_∞	free stream velocity, $\sqrt{2q/\rho}$, m/sec (ft/sec)
α	angle of attack, pitch attitude, deg
β_v	angle of exit vanes in lift fan exit vane cascade, deg ($0°$ in direction of maximum lift when $\sigma_v = 0°$)
δ_{cn}	cruise fan exhaust deflection duct angle, deg ($0°$ along thrust axis, $90°$ perpendicular to thrust axis)
σ_v	rotation angle of lift fan exit vane cascade, deg ($0°$ is neutral point, plus rotation in direction of thrust, negative rotation in direction of drag)
ψ	angle of yaw, deg
ρ	density of air SLS, 1.2270 Kg/m^3, or .00238 $slugs/ft^3$

NOISE MEASUREMENTS FROM A LARGE-SCALE LIFT FAN TRANSPORT MODEL IN THE 40- BY 80-FOOT WIND TUNNEL

Adolph Atencio, Jr.

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SUMMARY

Noise data measurements from a large scale lift fan transport model aircraft were made in the Ames Research Center 40- by 80-Foot Wind Tunnel. The model had two lift fans in deep inlets in the forward fuselage and two lift-cruise fans in pods on the aft fuselage. The noise data measurements are presented as listings and plots of SPL versus 1/3-octave center frequency.

INTRODUCTION

Ames Research Center has been taking noise measurements from model aircraft during tests in the 40- by 80-Foot Wind Tunnel. These data are being used to predict noise emission from flying aircraft of the same type and to study basic noise generation. A lift fan transport model with two lift fans in deep inlets in the forward fuselage and two lift-cruise fans mounted on the aft fuselage was tested in the 40- by 80-Foot Wind Tunnel (reference 1). Noise measurements were made at fixed locations in the wind tunnel for selected aerodynamic conditions. Selected data points were reduced and are presented in this report.

MODEL

The lift fan transport model had two lift fans installed in deep inlets in the forward fuselage and two lift-cruise fans installed in pods mounted on the aft fuselage near the tail. (Configuration details are shown in figure 1.) The front lift fans had adjustable exit vane cascades at the exhaust duct exits and the lift-cruise fans had exhaust deflection ducts attached to each pod.

The low mounted wing had an aspect ratio of 8.15 at a 3° dihedral. The wing was swept 23.5° at the quarter chord line and had an NACA 65-412 airfoil section. Overall span was 13.65 meters (44.20 ft). The wing had a 7% chord leading edge slat and a 20% chord trailing edge flap. The flap was deflected to 30° during all of the testing. Figure 2 shows the model as installed in the 40- by 80-Foot Wind Tunnel.

PROPULSION SYSTEM

The lift fans and lift-cruise fans were General Electric X376-B lift fans with a design pressure ratio of 1.10. The fans were .914 meters (3 feet) in diameter and were tip turbine driven by the exhaust from four G.E. T-58 turbojet gas generators (one per fan).

INSTRUMENTATION

B&K 4133, 1.27 cm (1/2-inch) condenser microphones with B&K 2619 cathode followers were used during the test for data acquisition. The microphones were placed in fixed positions in the wind tunnel on 1.83 meter (6 ft) stands. The microphones were connected by cables to signal conditioners and the output from the conditioners was fed to an Ampex 1300A 14 track tape recorder. A B&K 250 Hz, 124 dB piston phone was used to calibrate the microphones to 0.5 volt RMS before each run. Bullet nose cone wind screens were used over the microphone diaphragms and the microphones were pointed into the wind. The microphones had omnidirectional response with the wind screens installed. Table I gives the angles and

distances of each microphone from the model sound sources. The microphone array in the wind tunnel is shown in figure 3. Errors due to microphone system electrical response and tape recorder response are estimated to be less than ± 1/2 dB.

TEST PROCEDURE

Noise data measurements were made at selected aerodynamic conditions (reference 1). Approximately 60 seconds of data were recorded at each point. Model configuration, model attitude, fan speeds, and wind tunnel speed were recorded simultaneously with the acoustic data.

WIND TUNNEL REVERBERATION CORRECTIONS

The wind tunnel reverberation corrections were based on a calibration of the 40- by 80-foot wind tunnel test section with a dodecahedron sound source. The dodecahedron sound source was suspended in the test section and driven with pink noise filtered through a 1/3-octave band filter set. The input power was held constant for each band of noise and the output from the source was recorded. The tunnel airspeed was zero during the calibration. A similar test was conducted with the dodecahedron sound source suspended in an anechoic chamber. The SPL recorded for each 1/3-octave band in the anechoic chamber was subtracted from the SPL recorded in the wind tunnel for similar positions. The differences at each 1/3-octave band were used as corrections to data taken during the lift fan transport test. Further discussion of the method used to correct noise data for reverberation is discussed in references 3 and 4.

DATA REDUCTION

Fifteen to twenty seconds of data from each data point sample were reduced using a B&K 1/3-octave real time analyzer. Output from the analyzer was used with appropriate reverberation corrections to compute 1/3-octave band SPL, overall SPL and PNdB (reference 2). Corrected data are plotted as SPL versus 1/3-octave center frequency. Listings of uncorrected data are also included.

DATA PRESENTATION

The reduced data are presented with and without reverberation corrections as listings. In addition, plots of data corrected for reverberation are included. Figures 4 through 19 show the corrected data and plots. Figure 20 shows the listings for uncorrected data. Figure 21 shows typical wind tunnel background noise for the test velocities. A summary sheet showing the data included in the report is given in Table II.

Analysis of data contained in this report are given in references 4 and 5.

REFERENCES

1. Atencio, Adolph, Jr.; Hall, Leo P.; Kirk, Jerry V.: Low Speed Wind Tunnel Investigation of a Large-Scale Lift Fan STOL Transport Model. NASA TM X-62,231, 1972.

2. Anon: Definitions and Procedures for Computing the Perceived Noise Level of Aircraft Noise. SAE Aerospace Recommended Practice #865A, August 15, 1969.

3. Bies, David Alan: Investigation of the Feasibility of Making Model Acoustic Measurements in the NASA Ames 40- by 80-Foot Wind Tunnel. Bolt Beranek and Newman Inc. NASA CR-114352.

4. Falarski, Michael D.; Koenig, David G.; Soderman, Paul T.: Aspects of Investigating STOL Noise Using Large-Scale Wind-Tunnel Models. NASA TMX-62,164, June 1972.

5. Stimpert, Dale L.: Effect of crossflow velocity on VTOL Lift Fan Blade Passing Frequency Noise Generation. The General Electric Company. NASA CR-114566, February 1973.

6. Stimpert, Dale L.; Fogg, R. G.: Effect of Cross Flow Velocity on the Generation of Lift Fan Jet Noise in VTOL Aircraft. The General Electric Company. NASA CR-114571, February 1973.

TABLE I

Acoustic Angle* and Distance From Source to Microphone ~ $\frac{\text{deg}}{\text{meters (ft)}}$

MICROPHONE	FAN 1	FAN 1&2	FAN 3	FAN 3&4	Four Fan Center
1				4.9° / 32.1 (105.4)	3.7° / 36.6 (120)
2					3.7° / 36.6 (120)
3			8.8° / 17.9 (59)	8.5° / 18.5 (60.7)	
4					7.3° / 18.3 (60)
5	8.1° / 13.8 (45.4)	7.9° / 14.3 (47)	26.6° / 6.1 (20)	22° / 7.3 (24)	
6	16.5° / 6.95 (22.8)	15.5° / 7.4 (24.3)	24.4 / 6.4 (21)	21° / 7.6 (25)	
7	19.5° / 5.9 (195)	17.9° / 6.4 (21)	12.3° / 12.8 (42)		14.5° / 9.45 (31)
8	9.2° / 12.4 (40.8)	9.2° / 12.3 (40.5)			
9		4.6° / 24.5 (80.3)			
10					7.3° / 18.3 (60)
11	23.3° / 5.0 (16.4)		11.2° / 14.1 (46.2)	11.3° / 14.0 (45.9)	

* acute angle between ray path and horizontal

TABLE II

Run Configuration Schedule ~ Noise Data

RUN	Data Point	V_∞ m/sec (ft/sec)	α deg	ψ deg	σ_v deg	β_v deg	δ_{cn} deg	FANS	RPM	μ	Figure No.
1	1	0	0	0	0	0	90	1	2000	0	4a
	2								3000		4b
	3								3600		4c
	4								4000		4d
	9	0	0	0	0	0	90	1&2	2000	0	5a
	10								3000		5b
	11								3600		5c
	12								4000		5d
2	1	9.7 (31.8)	0	0	0	0	90	1&2	3600	0.12	6a
	2					-4					6b
	3					-8					6c
	4					-12					6d
	5					4					6e
	6					8					6f
	7					12					6g
8	1	10.5 (34.3)	0	0	0	0	90	1&2	3600	0.06	7a

TABLE II

Run Configuration Schedule ~ Noise Data

RUN	Data Point	V_∞ m/sec (ft/sec)	α deg	ψ deg	σ_v deg	β_v deg	δ_{cn} deg	FANS	RPM	μ	Figure No.
8	11	13.7 (44.9)	0	0	0	0	90	1&2	3600	0.08	7b
	21	20.5 (67.4)								0.12	7c
	31	28.5 (93.5)								0.17	7d
	39	41.4 (137.2)								0.25	7e
9	28	28.5 (93.5)	0	0	20	0	90	1&2	3600	0.17	8a
10	28				40						8b
16	28				60						8c
17	28				80						8d
18	28				100						8e
19	28				-40						8f
27	1	0	0	0	0	—	90	3	2000	0	9a
	2								3000		9b
	3								3600		9c
	4								4000		9d
	15	10.5 (34.3)	0	0	0	—	90	3&4	3600	0.06	10a
	18	13.7 (44.9)								0.08	10b

TABLE II

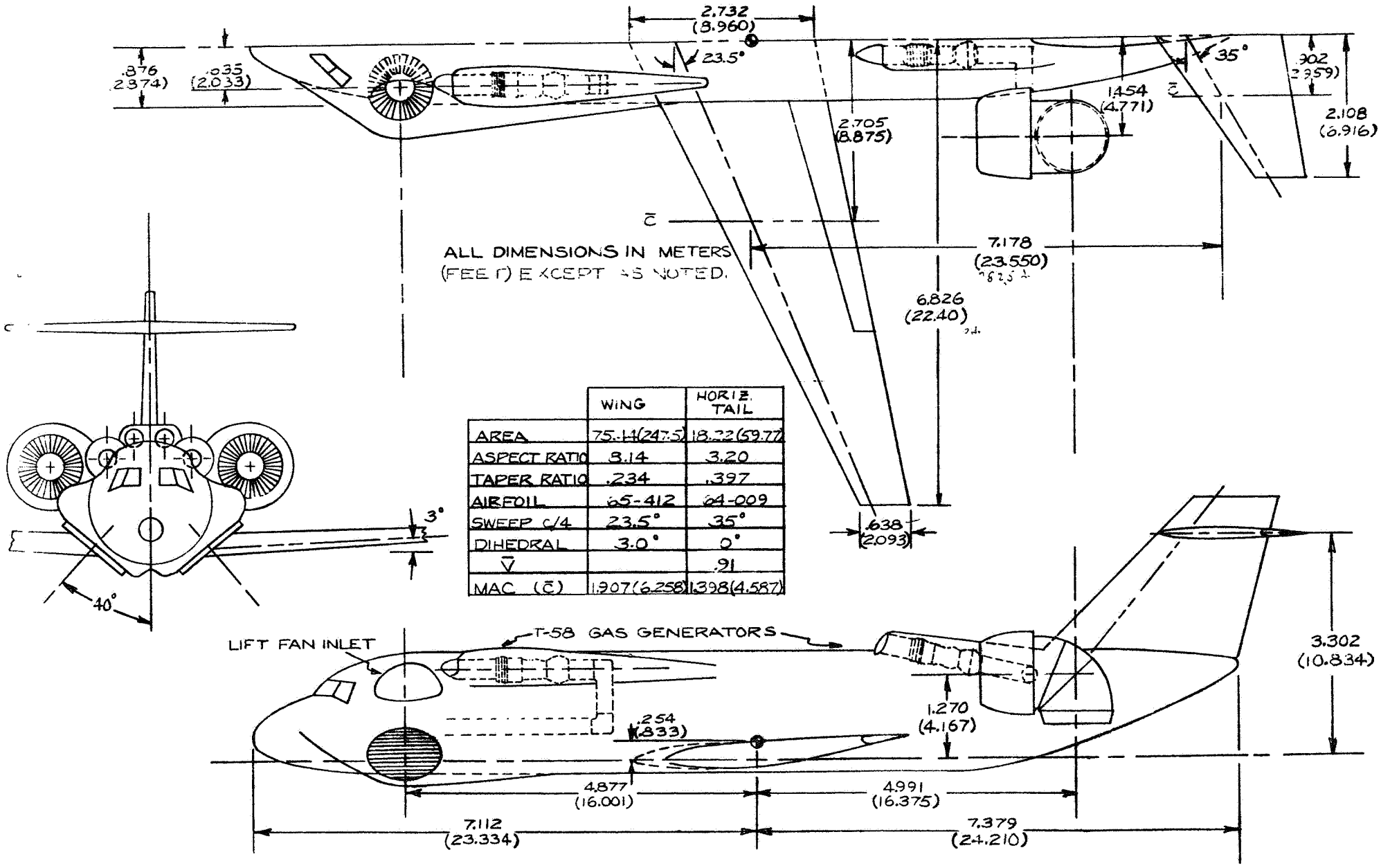
Run Configuration Schedule ~ Noise Data

RUN	Data Point	V_∞ m/sec (ft/sec)	α deg	ψ deg	σ_v deg	β_v deg	δ_{cn} deg	FANS	RPM	μ	Figure No.
27	24	28.5 (93.5)	0	0	0	–	90	3&4	3600	0.17	10c
	27	41.4 (137.2)								0.24	10d
29	1	28.5 (93.5)	-4	0	0	0	90	ALL	3600	0.17	11a
	2		0								11b
	3		4								11c
	4		8								11d
	5		12								11e
34	3	0	0	0	0	–	56	3	3600	0	12
35	9	20.5 (67.4)	0	0	0	–	56	3&4	3600	0.12	13
42	3	0	0	0	0	–	23	3	3600	0	14
	19	20.5 (67.4)	0	0	0	–	23	3&4	3600	0.12	15
52	24	20.5 (67.4)	0	-4	60	0	90	ALL	3600	0.12	16a
	25			-8							16b
	26			0							16c
	27			4							16d
	28			8							16e

TABLE II

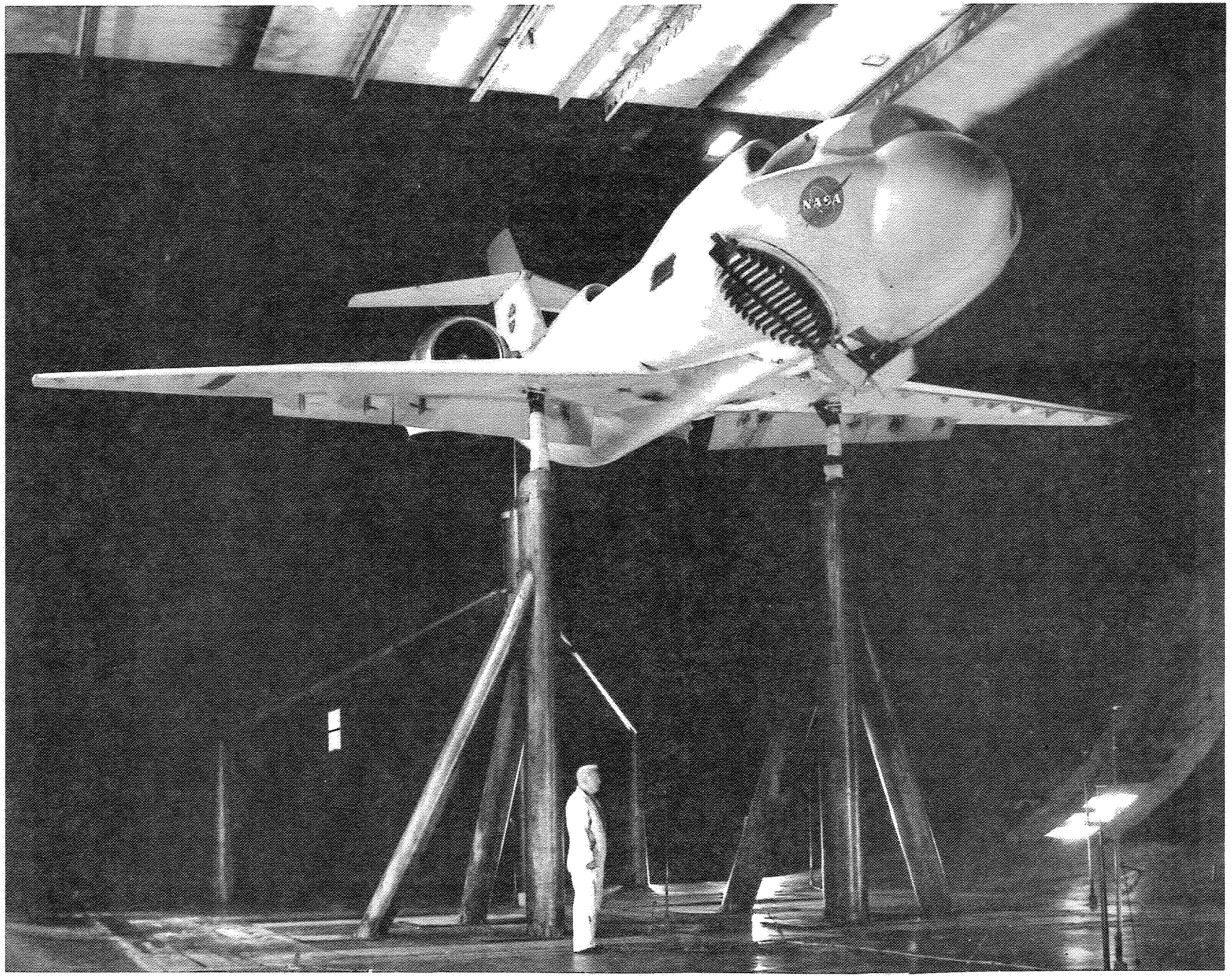
Run Configuration Schedule ~ Noise Data

RUN	Data Point	V_∞ m/sec (ft/sec)	α deg	ψ deg	σ_v deg	β_v deg	δ_{cn} deg	FANS	RPM	μ	Figure No.
70	3	0	0	0	0	0	138.5	3	3600	0	17
	32	20.5 (67.4)	0	0	0	0		3 & 4	3600	0.12	18
72	3	0	0	0	0	0	0	3 & 4	3600	0	19
	Uncorrected Data										20
	Background										21



	WING	HORIZ. TAIL
AREA	75.14(247.5)	18.22(59.77)
ASPECT RATIO	8.14	3.20
TAPER RATIO	.234	.397
AIRFOIL	65-412	64-009
SWEEP C/4	23.5°	35°
DIHEDRAL	3.0°	0°
$\bar{V}$		.91
MAC ($\bar{C}$)	1.907(6.258)	1.398(4.587)

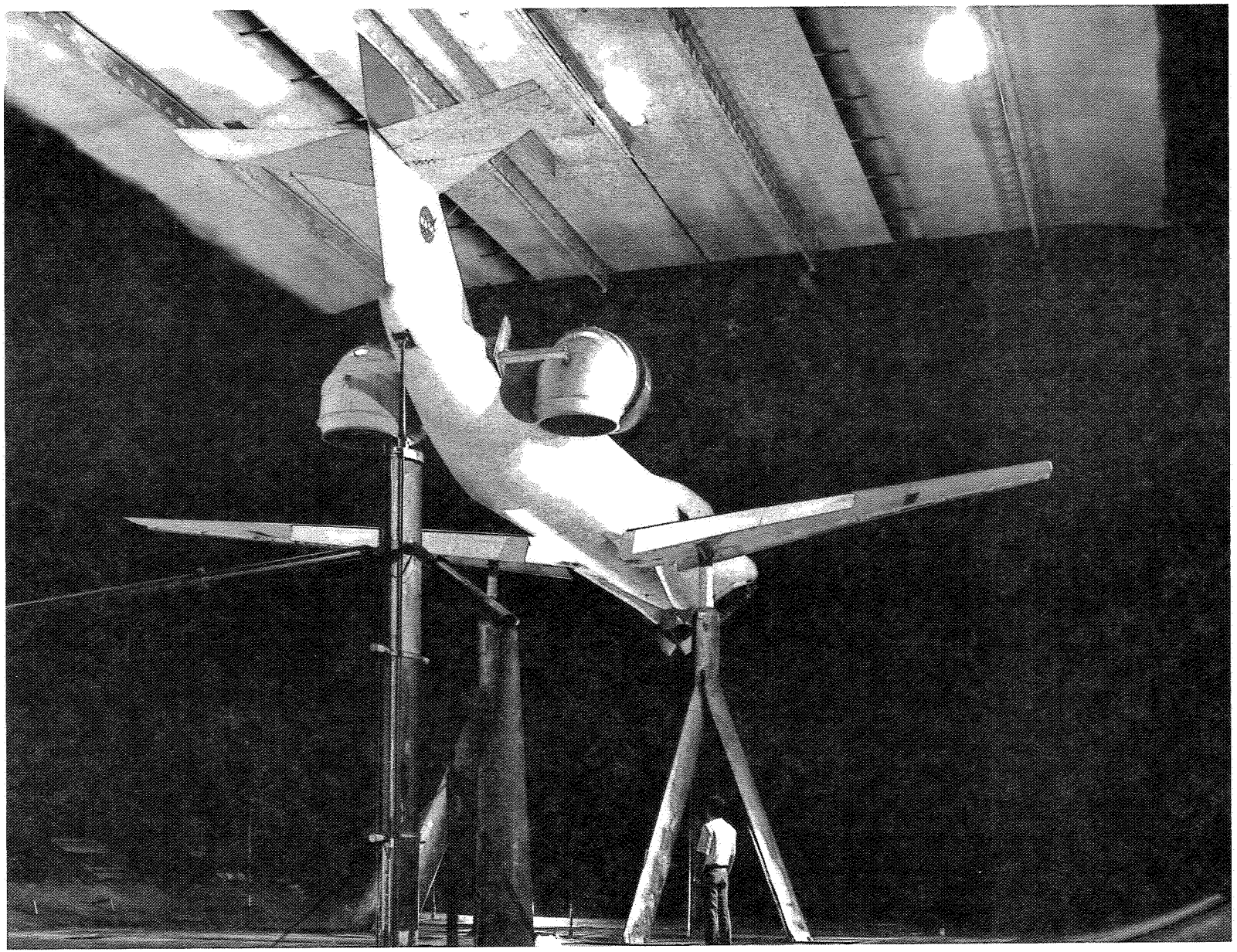
Figure 1.- Lift fan transport model geometry.



(a) Front view.

Figure 2.- Lift fan transport installed in the 40- by 80-foot wind tunnel.

A71-4389



(b) Rear view.

Figure 2.- Concluded.

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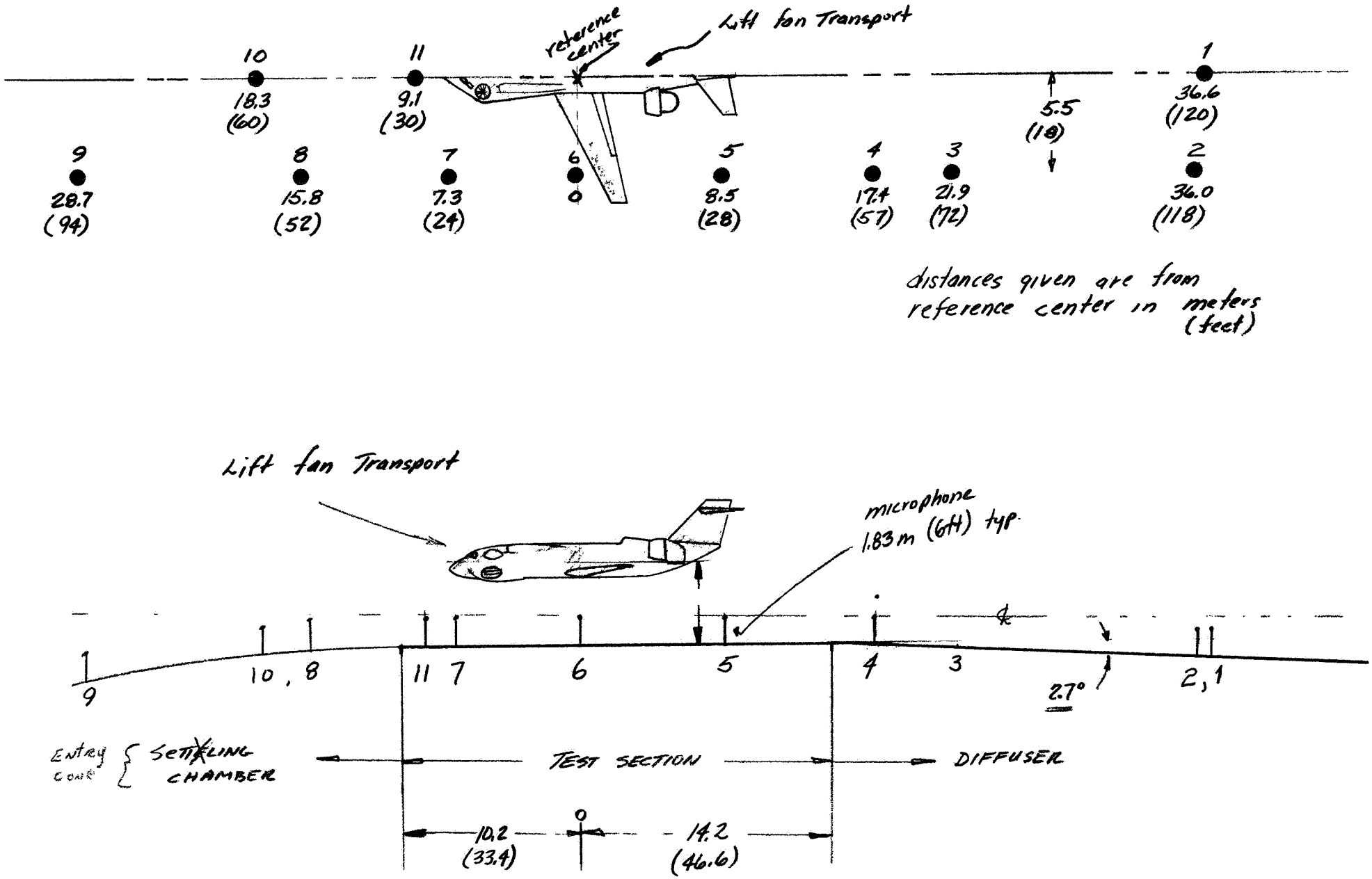
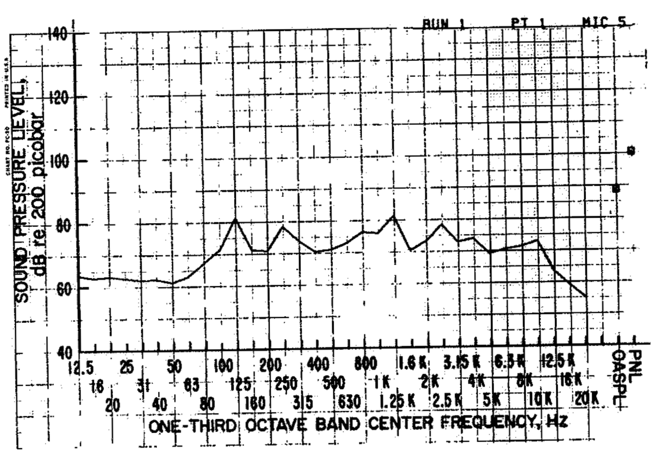
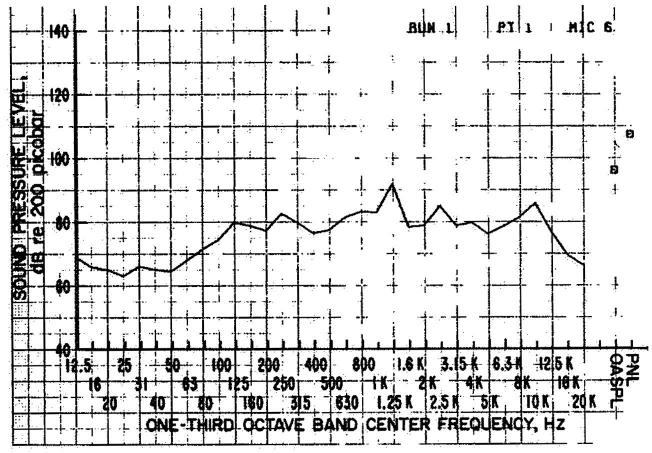
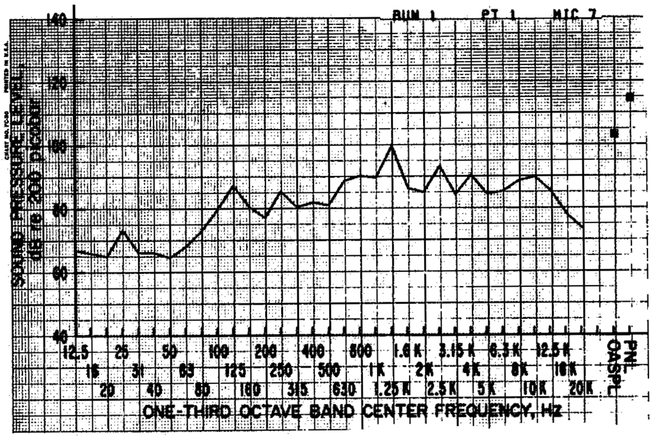
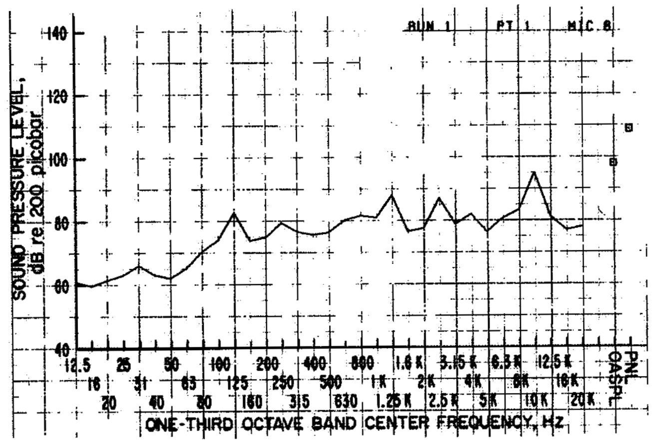


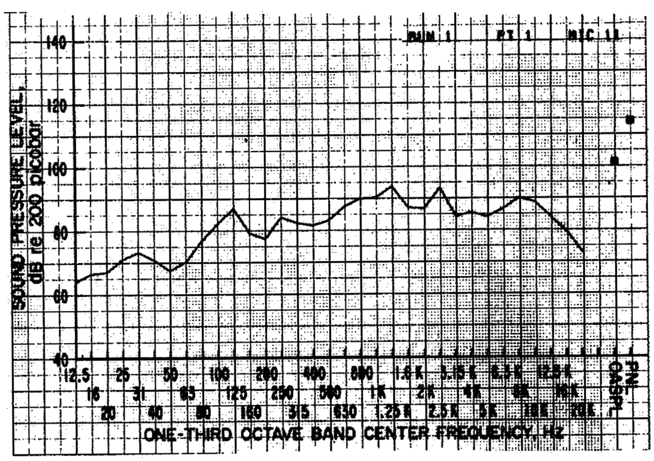
Figure 3.- Wind tunnel microphone array.











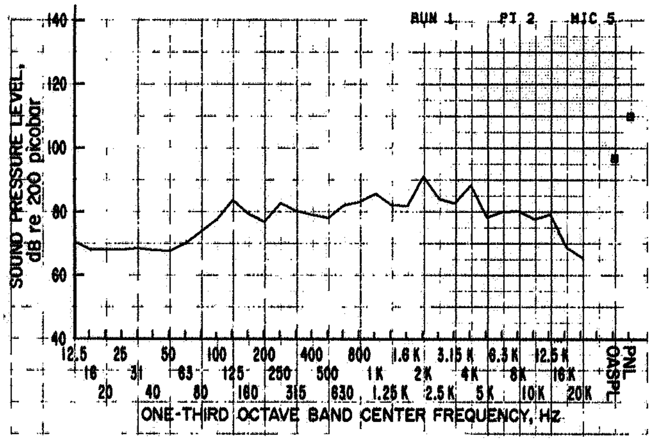
NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIO
SPL IN DB REL. .0002 MICROBAR
CORRECTED FOR REVERBERATIONS

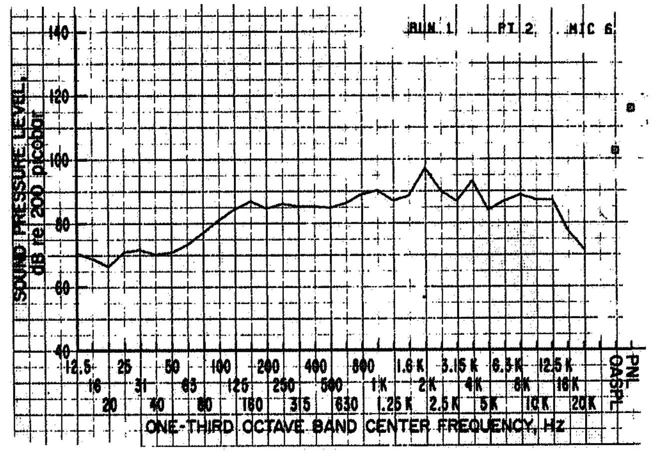
TEST 386 RUN 1 DELTA 1 WCORR 1

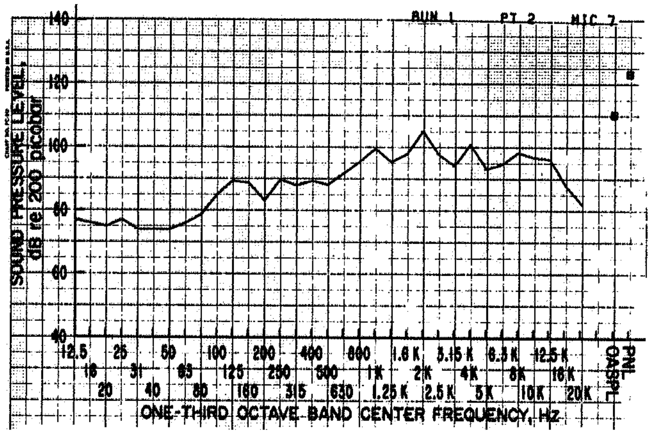
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	8.1	16.5	19.5	9.2	.0	.0	23.3
REF DIST(FT):	.0	.0	.0	.0	45.4	22.8	19.5	40.8	.0	.0	16.4
GAIN,	0	0	0	0	20	20	10	20	20	0	20
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	63.8	69.0	67.0	60.8	68.0	.0	64.0
16	.0	.0	.0	.0	63.0	65.8	66.0	59.6	68.4	.0	66.4
20	.0	.0	.0	.0	63.4	65.0	65.0	61.4	67.6	.0	67.0
25	.0	.0	.0	.0	62.8	63.0	73.4	63.0	69.2	.0	71.0
31	.0	.0	.0	.0	62.2	66.0	66.2	66.0	71.0	.0	73.2
40	.0	.0	.0	.0	62.4	65.0	66.2	63.0	72.0	.0	70.8
50	.0	.0	.0	.0	61.4	64.4	64.6	62.0	74.0	.0	67.4
63	.0	.0	.0	.0	63.2	67.8	68.0	65.2	72.4	.0	70.2
80	.0	.0	.0	.0	67.4	71.4	73.0	70.4	78.0	.0	76.8
100	.0	.0	.0	.0	71.6	74.4	79.8	74.0	80.6	.0	82.2
125	.0	.0	.0	.0	81.4	79.8	87.4	82.6	84.2	.0	87.0
160	.0	.0	.0	.0	71.4	78.8	80.6	73.8	81.0	.0	79.2
200	.0	.0	.0	.0	71.0	77.2	77.2	74.8	82.2	.0	77.4
250	.0	.0	.0	.0	78.6	82.6	85.6	79.4	85.8	.0	84.2
315	.0	.0	.0	.0	74.0	79.8	87.6	76.6	83.2	.0	82.4
400	.0	.0	.0	.0	70.6	76.4	82.0	75.6	81.8	.0	81.6
500	.0	.0	.0	.0	71.2	77.4	81.2	76.4	84.2	.0	83.2
630	.0	.0	.0	.0	73.2	81.4	88.8	80.2	86.0	.0	87.6
800	.0	.0	.0	.0	76.6	83.2	90.4	81.6	86.8	.0	90.0
1000	.0	.0	.0	.0	76.2	83.0	89.8	81.0	87.0	.0	90.4
1250	.0	.0	.0	.0	81.8	91.8	99.8	88.0	99.4	.0	93.8
1600	.0	.0	.0	.0	70.6	78.4	86.4	76.6	87.0	.0	87.2
2000	.0	.0	.0	.0	73.4	78.8	85.2	77.6	86.6	.0	86.8
2500	.0	.0	.0	.0	78.8	85.0	93.4	87.0	91.6	.0	93.4
3150	.0	.0	.0	.0	73.2	78.8	84.4	78.8	85.8	.0	84.4
4000	.0	.0	.0	.0	74.2	79.8	90.6	82.0	86.6	.0	85.6
5000	.0	.0	.0	.0	69.4	76.2	84.6	76.4	84.6	.0	84.2
6300	.0	.0	.0	.0	70.8	78.6	85.4	80.5	83.6	.0	86.8
8000	.0	.0	.0	.0	71.6	81.4	88.8	83.2	83.4	.0	90.2
10000	.0	.0	.0	.0	73.2	85.8	90.0	95.0	95.6	.0	88.8
12500	.0	.0	.0	.0	63.8	76.8	85.4	81.2	82.0	.0	84.0
16000	.0	.0	.0	.0	59.4	69.6	78.2	77.0	70.6	.0	79.4
20000	.0	.0	.0	.0	55.4	66.4	73.6	78.0	67.6	.0	72.8
OVERALL SPL UNCORR	.0	.0	.0	.0	99.8	102.2	110.0	106.0	104.6	.0	107.0
OVERALL SPL CORR	.0	.0	.0	.0	89.1	96.2	103.3	97.9	103.1	.0	101.3
PNDB CORR	.0	.0	.0	.0	100.7	107.4	114.7	108.8	113.8	.0	114.4

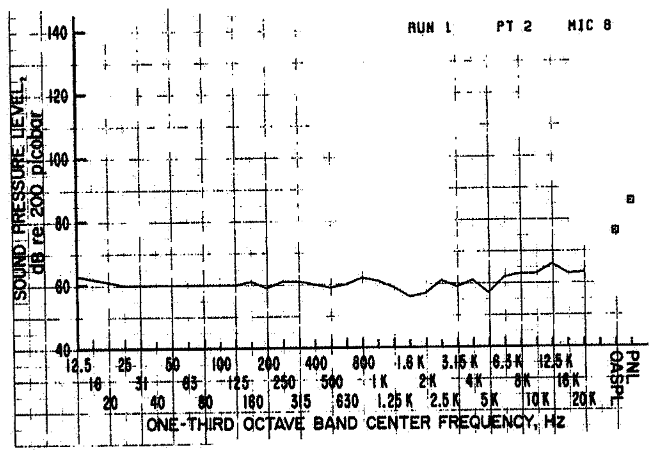
(a) RPM = 2000.

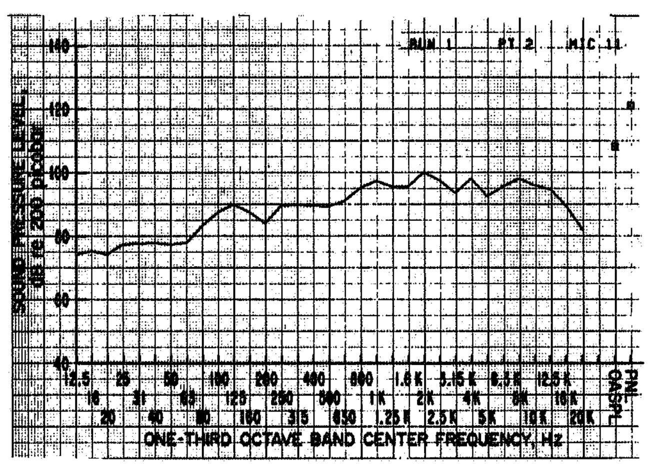
Figure 4.- Run 1, $q_o = 0$, $\alpha = 0^o$, $\psi = 0^o$, $\sigma_v = 0^o$, $\beta_v = 0^o$, $\delta_{cn} = 90^o$, fan 1.











NOISE DATA

TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED. ATENCIO

SPL IN DB REL. .0002 MICROBAR

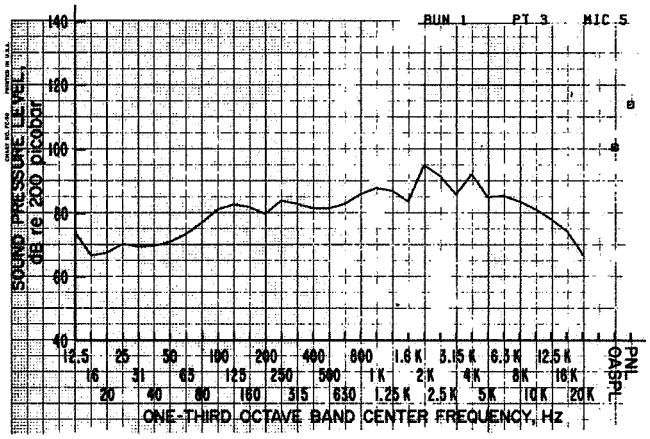
CORRECTED FOR REVERBERATIONS

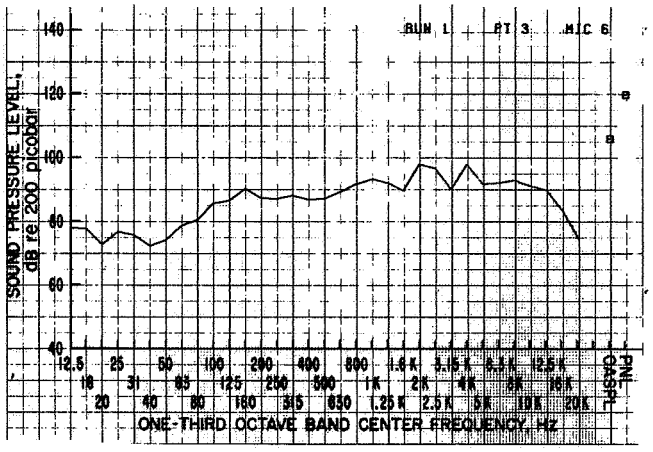
TEST 386 RUN 1 DELTA 2 MCORR 1

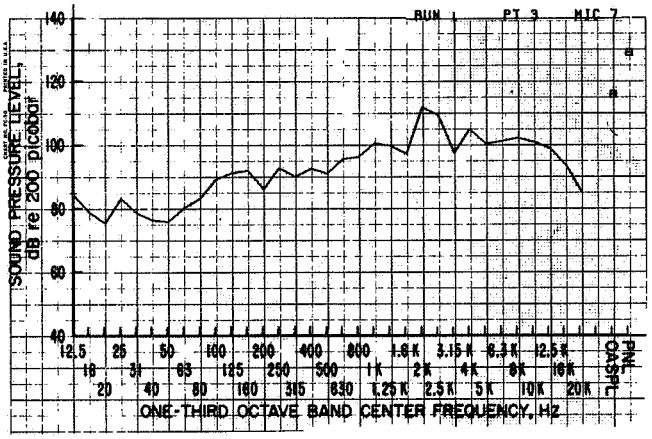
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	8.1	16.5	19.5	9.2	.0	.0	23.3
REF DIST(FT):	.0	.0	.0	.0	45.4	22.8	19.5	40.8	.8	.0	16.4
GAIN,	0	0	0	0	10	10	0	10	[illegible]	0	10
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	70.6	70.6	77.0	63.0	[illegible]	.0	74.2
16	.0	.0	.0	.0	68.2	68.8	76.0	62.0	[illegible]	.0	75.2
20	.0	.0	.0	.0	68.2	66.4	75.0	61.0	[illegible]	.0	74.2
25	.0	.0	.0	.0	68.2	71.0	77.0	60.0	[illegible]	.0	77.4
31	.0	.0	.0	.0	68.6	71.6	74.0	60.0	[illegible]	.0	77.6
40	.0	.0	.0	.0	68.0	70.2	74.0	60.0	[illegible]	.0	77.8
50	.0	.0	.0	.0	67.8	70.8	74.0	60.0	[illegible]	.0	77.4
63	.0	.0	.0	.0	70.2	73.2	76.0	60.0	[illegible]	.0	77.8
80	.0	.0	.0	.0	74.0	77.0	78.8	60.0	[illegible]	.0	83.2
100	.0	.0	.0	.0	77.8	81.0	85.0	60.0	[illegible]	.0	87.4
125	.0	.0	.0	.0	83.8	84.4	89.4	60.0	[illegible]	.0	90.0
160	.0	.0	.0	.0	79.4	86.8	88.8	61.0	[illegible]	.0	87.8
200	.0	.0	.0	.0	77.0	84.6	83.2	59.0	[illegible]	.0	84.0
250	.0	.0	.0	.0	82.8	86.0	89.8	61.0	[illegible]	.0	89.6
315	.0	.0	.0	.0	80.4	85.2	88.0	61.0	[illegible]	.0	89.8
400	.0	.0	.0	.0	79.2	85.2	89.4	60.0	[illegible]	.0	89.6
500	.0	.0	.0	.0	78.2	84.8	88.2	59.0	[illegible]	.0	89.4
630	.0	.0	.0	.0	82.2	88.2	91.8	60.0	[illegible]	.0	91.0
800	.0	.0	.0	.0	83.2	89.0	95.4	62.0	[illegible]	.0	95.2
1000	.0	.0	.0	.0	85.8	90.2	99.6	61.0	[illegible]	.0	97.4
1250	.0	.0	.0	.0	82.2	87.0	95.4	59.0	[illegible]	.0	95.8
1600	.0	.0	.0	.0	82.0	88.6	98.0	56.0	[illegible]	.0	95.6
2000	.0	.0	.0	.0	91.2	97.2	105.2	57.0	[illegible]	.0	100.2
2500	.0	.0	.0	.0	84.2	90.0	97.8	61.0	[illegible]	.0	97.8
3150	.0	.0	.0	.0	82.8	86.8	94.2	59.0	[illegible]	.0	93.6
4000	.0	.0	.0	.0	88.4	93.2	101.0	61.0	[illegible]	.0	98.2
5000	.0	.0	.0	.0	78.4	84.0	93.2	57.0	[illegible]	.0	92.8
6300	.0	.0	.0	.0	80.2	86.8	94.8	62.0	[illegible]	.0	95.6
8000	.0	.0	.0	.0	80.4	88.8	98.4	63.0	[illegible]	.0	98.2
10000	.0	.0	.0	.0	77.8	87.2	96.8	63.0	[illegible]	.0	98.0
12500	.0	.0	.0	.0	79.4	87.2	96.4	66.0	[illegible]	.0	94.8
16000	.0	.0	.0	.0	69.0	77.4	88.0	63.0	[illegible]	.0	89.4
20000	.0	.0	.0	.0	65.8	71.8	82.2	63.4	[illegible]	.0	82.0
OVERALL SPL UNCORR	.0	.0	.0	.0	108.6	110.8	116.6	78.8	[illegible]	.0	114.6
OVERALL SPL CORR	.0	.0	.0	.0	97.0	102.5	110.5	78.4	[illegible]	.0	108.4
PNDB CORR	.0	.0	.0	.0	110.2	115.9	123.4	85.9	[illegible]	.0	121.3

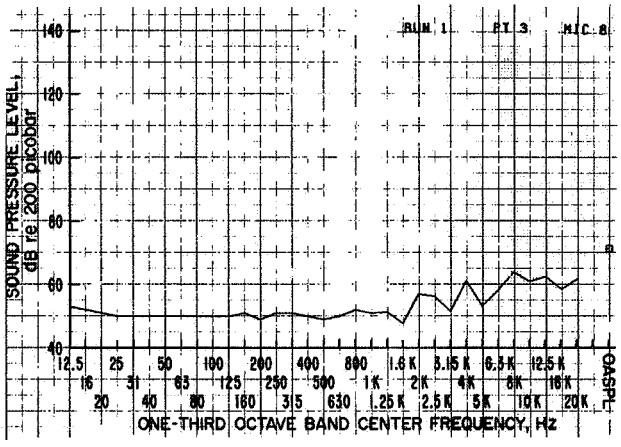
(b) RPM = 3000.

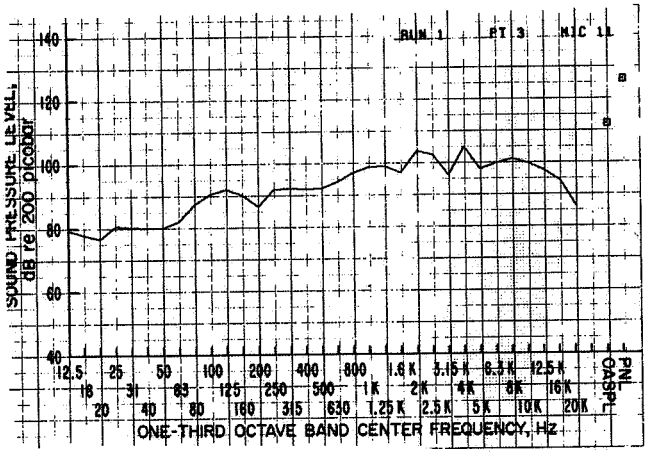
Figure 4.- Continued.











NOISE DATA

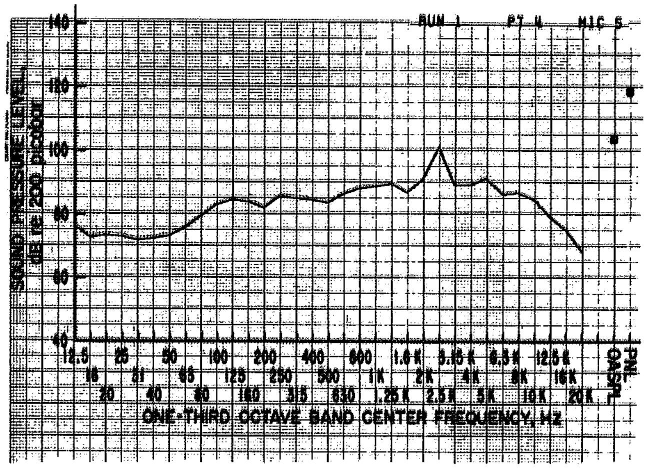
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

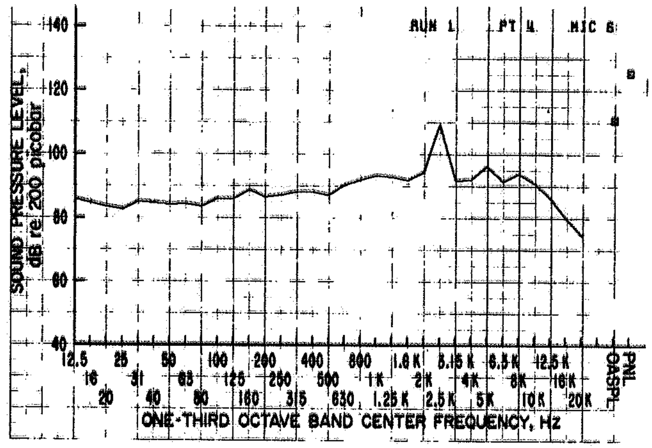
SPL IN DB REL. .0002 MICROBAR

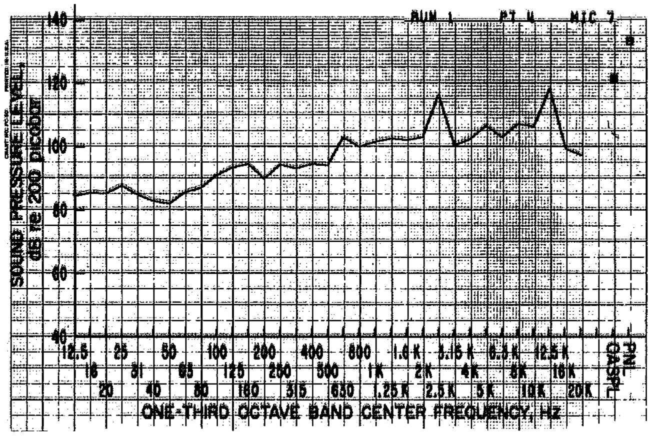
TEST 386 RUN 1	DELTA 3			CORRECTED FOR REVERBERATIONS						MCORR 1	
MICROPHONE!	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG)!	.0	.0	.0	.0	8.1	16.5	19.5	9.2	.0	.0	23.3
REF DIST(FT)!	.0	.0	.0	.0	45.4	22.8	19.5	40.8	.0	.0	16.4
GAIN;	0	0	0	0	10	10	0	10	10	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	74.0	78.0	84.6	93.0	88.8	.0	79.6
16	.0	.0	.0	.0	66.8	77.8	79.0	92.0	85.8	.0	78.0
20	.0	.0	.0	.0	67.6	72.8	75.6	91.0	80.8	.0	76.8
25	.0	.0	.0	.0	70.4	76.8	83.4	90.0	80.0	.0	80.6
31	.0	.0	.0	.0	69.6	75.8	78.8	90.0	80.0	.0	80.4
40	.0	.0	.0	.0	69.8	72.4	76.6	90.0	82.2	.0	80.2
50	.0	.0	.0	.0	71.0	74.2	76.0	90.0	84.0	.0	80.2
63	.0	.0	.0	.0	73.4	78.8	80.4	90.0	89.0	.0	82.8
80	.0	.0	.0	.0	77.0	80.6	83.4	90.0	88.4	.0	87.6
100	.0	.0	.0	.0	81.2	85.8	89.4	90.0	90.6	.0	90.8
125	.0	.0	.0	.0	82.8	86.6	91.4	90.0	92.4	.0	92.2
160	.0	.0	.0	.0	82.0	90.4	92.2	91.0	92.2	.0	90.4
200	.0	.0	.0	.0	79.8	87.4	86.4	49.0	92.0	.0	86.8
250	.0	.0	.0	.0	84.0	87.2	93.0	91.0	92.4	.0	92.2
315	.0	.0	.0	.0	83.0	88.2	90.2	91.0	92.6	.0	92.4
400	.0	.0	.0	.0	81.6	87.0	92.8	90.0	93.0	.0	92.2
500	.0	.0	.0	.0	81.6	87.2	91.2	90.0	93.8	.0	92.4
630	.0	.0	.0	.0	83.0	89.4	95.8	90.0	92.8	.0	94.4
800	.0	.0	.0	.0	86.0	91.8	96.4	92.0	95.2	.0	97.2
1000	.0	.0	.0	.0	88.0	93.4	100.8	91.0	97.6	.0	99.0
1250	.0	.0	.0	.0	87.2	92.2	100.0	92.4	100.6	.0	99.2
1600	.0	.0	.0	.0	83.8	89.8	97.4	47.8	100.4	.0	97.2
2000	.0	.0	.0	.0	95.2	98.0	112.2	57.0	108.0	.0	104.0
2500	.0	.0	.0	.0	91.8	96.0	109.6	56.4	102.2	.0	102.0
3150	.0	.0	.0	.0	86.0	90.2	97.6	51.6	98.0	.0	96.4
4000	.0	.0	.0	.0	92.4	98.0	105.2	61.2	104.4	.0	105.2
5000	.0	.0	.0	.0	85.2	91.8	102.6	53.2	99.8	.0	98.2
6300	.0	.0	.0	.0	85.6	92.2	101.4	58.2	96.0	.0	100.0
8000	.0	.0	.0	.0	83.8	93.0	102.4	64.0	93.0	.0	101.4
10000	.0	.0	.0	.0	81.4	91.2	101.2	63.0	91.2	.0	100.0
12500	.0	.0	.0	.0	78.2	90.0	99.2	62.6	89.2	.0	97.8
16000	.0	.0	.0	.0	74.4	83.6	94.8	58.6	81.6	.0	94.6
20000	.0	.0	.0	.0	67.0	74.0	85.6	51.6	74.4	.0	86.6
OVERALL SPL UNCORR	.0	.0	.0	.0	111.6	114.6	123.6	79.6	112.6	.0	118.8
OVERALL SPL CORR	.0	.0	.0	.0	110.7	113.9	116.2	71.3	112.7	.0	112.4
PNDB CORR	.0	.0	.0	.0	114.1	119.7	129.3	82.9	126.2	.0	126.3

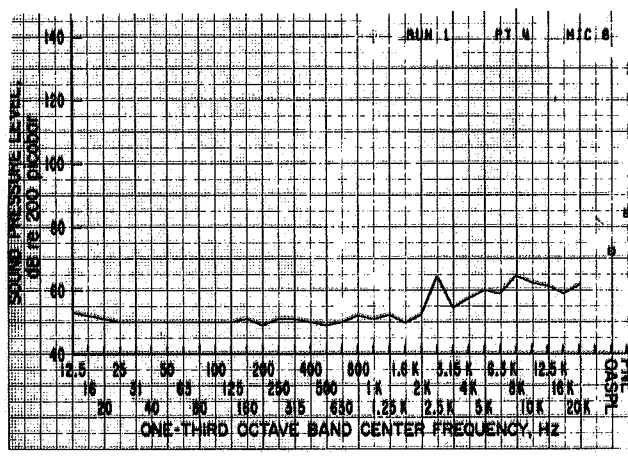
(c) RPM = 3600.

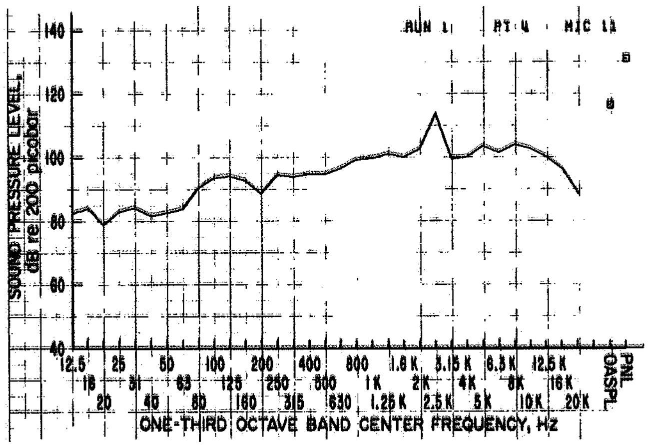
Figure 4.- Continued.











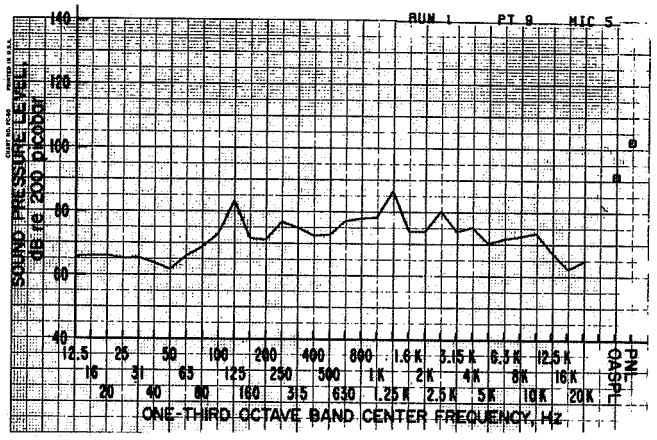
NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED. ATENCIO
SPL IN DB REL. .0002 MICROBAR
CORRECTED FOR REVERBERATIONS

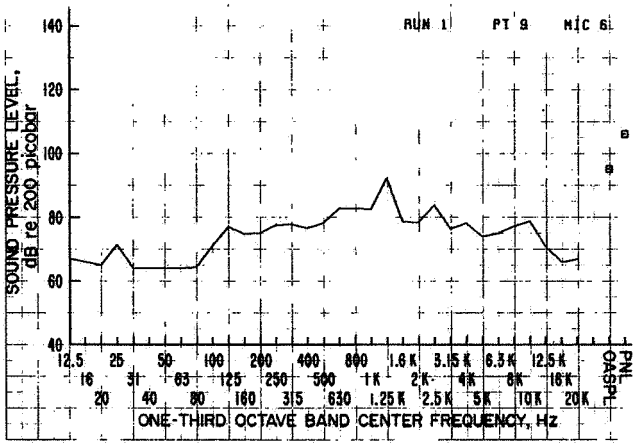
TEST 386 RUN 1 DELTA 4 MCORR 1

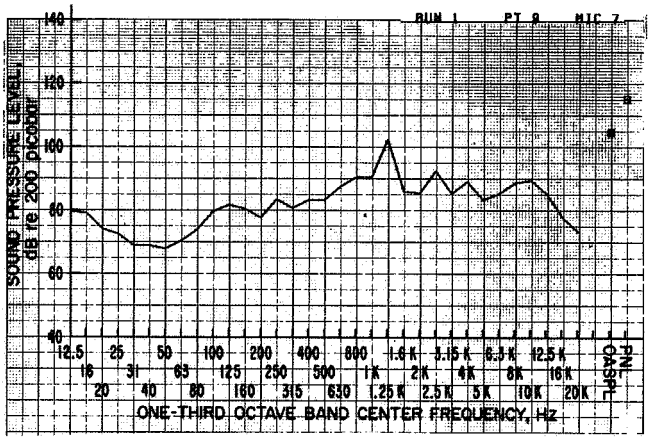
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	8.1	16.5	19.5	9.2	.0	.0	23.3
REF DIST(FT):	.0	.0	.0	.0	45.4	22.8	19.5	40.8	.0	.0	16.4
GAIN:	0	0	0	0	10	10	0	10	10	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	76.4	85.8	84.4	53.0	79.8	.0	82.4
16	.0	.0	.0	.0	72.6	84.6	85.4	52.0	79.2	.0	84.0
20	.0	.0	.0	.0	73.4	83.4	85.2	51.0	78.8	.0	78.8
25	.0	.0	.0	.0	73.0	82.6	87.6	50.0	81.4	.0	83.0
31	.0	.0	.0	.0	71.8	85.0	84.8	50.0	81.4	.0	84.2
40	.0	.0	.0	.0	72.4	84.6	82.6	50.0	83.2	.0	81.6
50	.0	.0	.0	.0	73.2	84.2	82.0	50.0	86.6	.0	82.6
63	.0	.0	.0	.0	75.8	84.4	85.6	50.0	87.0	.0	83.8
80	.0	.0	.0	.0	79.4	83.6	87.0	50.0	89.2	.0	90.4
100	.0	.0	.0	.0	83.0	86.0	91.0	50.0	93.2	.0	93.6
125	.0	.0	.0	.0	84.6	86.0	93.4	50.0	93.6	.0	94.2
160	.0	.0	.0	.0	84.0	88.8	94.6	51.0	94.0	.0	92.8
200	.0	.0	.0	.0	82.0	86.6	89.8	49.0	94.0	.0	88.6
250	.0	.0	.0	.0	85.8	87.2	94.4	51.0	95.0	.0	94.6
315	.0	.0	.0	.0	85.0	88.2	93.2	51.0	94.8	.0	94.0
400	.0	.0	.0	.0	84.6	88.2	94.6	50.0	95.0	.0	94.8
500	.0	.0	.0	.0	83.6	87.2	94.2	49.0	96.0	.0	94.8
630	.0	.0	.0	.0	86.4	90.4	103.0	50.0	97.0	.0	98.6
800	.0	.0	.0	.0	88.2	92.0	100.0	52.0	97.8	.0	99.4
1000	.0	.0	.0	.0	88.8	93.4	101.6	51.0	99.0	.0	99.8
1250	.0	.0	.0	.0	89.6	93.0	102.6	52.2	103.2	.0	101.2
1600	.0	.0	.0	.0	86.8	92.0	102.2	49.8	103.8	.0	100.2
2000	.0	.0	.0	.0	91.0	94.4	103.0	52.2	103.8	.0	102.8
2500	.0	.0	.0	.0	101.0	109.4	116.4	64.4	110.8	.0	113.8
3150	.0	.0	.0	.0	89.2	92.0	100.4	54.4	101.4	.0	99.6
4000	.0	.0	.0	.0	89.2	92.2	102.4	57.4	100.4	.0	100.2
5000	.0	.0	.0	.0	91.2	95.4	106.8	60.0	106.0	.0	103.8
6300	.0	.0	.0	.0	86.4	91.6	103.0	59.0	97.8	.0	101.6
8000	.0	.0	.0	.0	86.8	94.0	107.2	64.6	97.6	.0	104.2
10000	.0	.0	.0	.0	84.6	91.0	106.4	62.4	94.2	.0	102.8
12500	.0	.0	.0	.0	79.2	88.2	118.4	61.4	91.4	.0	100.2
16000	.0	.0	.0	.0	75.2	79.8	99.4	59.0	83.2	.0	96.4
20000	.0	.0	.0	.0	68.4	74.6	97.4	61.8	73.8	.0	88.6
OVERALL SPL UNCORR	.0	.0	.0	.0	114.6	117.6	127.0	81.2	116.4	.0	121.8
OVERALL SPL CORR	.0	.0	.0	.0	103.8	110.8	121.7	72.2	114.9	.0	116.8
PNDB CORR	.0	.0	.0	.0	118.8	125.5	133.5	84.2	129.3	.0	131.3

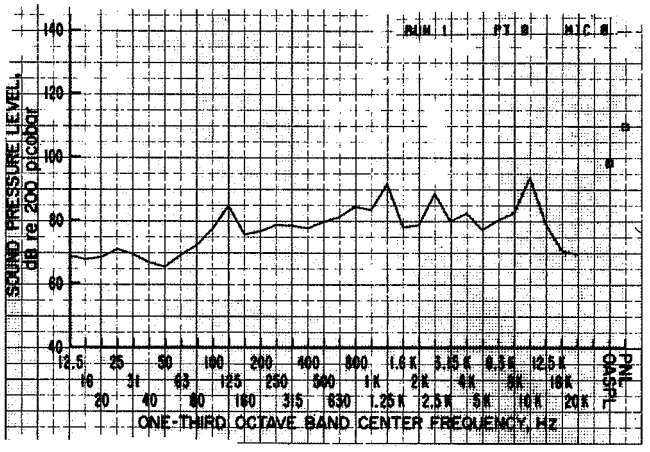
(d) RPM = 4000.

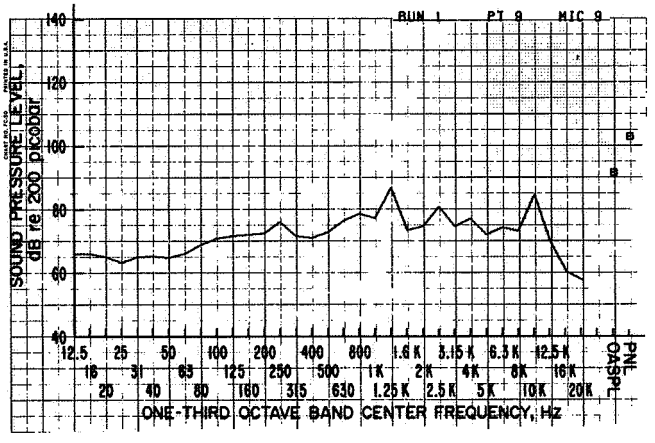
Figure 4.- Concluded.











NOISE DATA

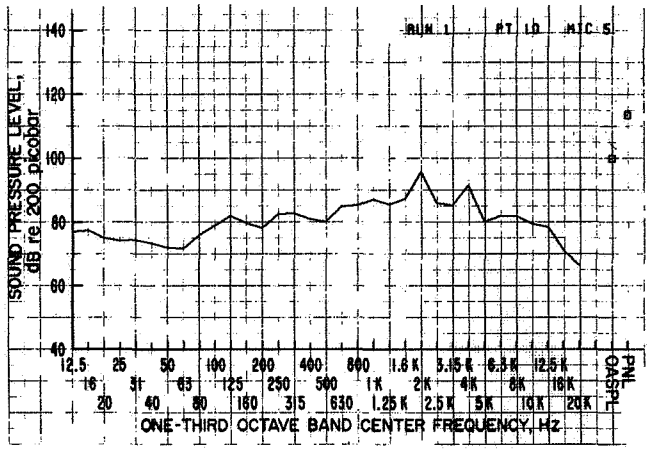
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

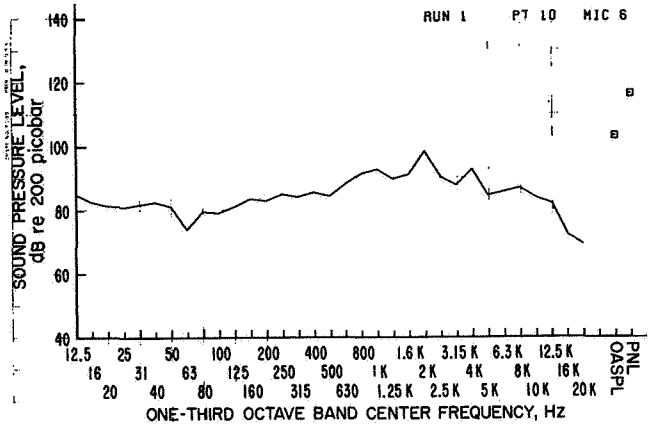
SPL IN DB REL, .0002 MICROBAR

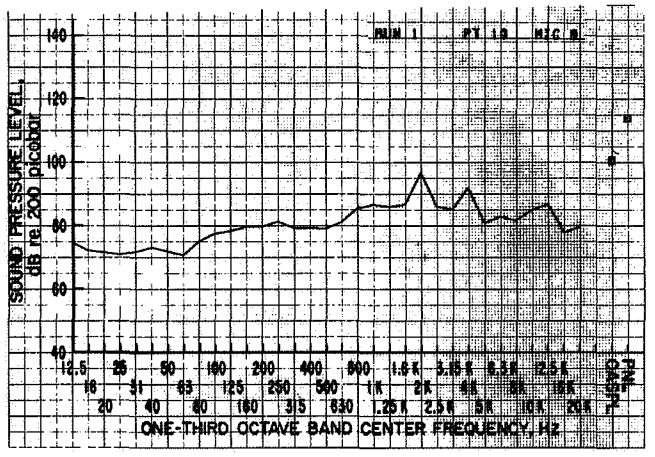
TEST 386 RUN 1	DELTA 9										
MICROPHONE:	1	2	3	4	CORRECTED FOR REVERBERATIONS 5	6	7	8	9	WCORR 2 10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN:	0	0	0	0	10	10	10	10	20	0	0
FREQUENCY(HZ)											
12.5	.0	.0	.0	.0	65.8	67.0	79.8	69.0	66.0	.0	.0
16	.0	.0	.0	.0	66.2	66.0	79.2	68.0	66.0	.0	.0
20	.0	.0	.0	.0	66.2	65.0	74.2	68.6	65.0	.0	.0
25	.0	.0	.0	.0	65.4	71.4	72.6	71.2	63.2	.0	.0
31	.0	.0	.0	.0	65.6	64.0	69.0	69.6	65.0	.0	.0
40	.0	.0	.0	.0	64.8	64.0	69.0	67.0	65.2	.0	.0
50	.0	.0	.0	.0	62.0	64.0	68.0	65.6	64.8	.0	.0
63	.0	.0	.0	.0	66.2	64.0	70.4	69.4	66.0	.0	.0
80	.0	.0	.0	.0	69.0	64.4	74.0	72.4	69.8	.0	.0
100	.0	.0	.0	.0	73.2	71.0	79.8	77.6	72.8	.0	.0
125	.0	.0	.0	.0	83.6	77.0	81.8	84.8	71.6	.0	.0
160	.0	.0	.0	.0	71.8	76.8	80.6	75.8	72.0	.0	.0
200	.0	.0	.0	.0	71.4	75.0	77.9	76.8	72.6	.0	.0
250	.0	.0	.0	.0	77.0	77.6	83.6	76.8	76.8	.0	.0
315	.0	.0	.0	.0	79.2	77.8	80.8	76.4	71.6	.0	.0
400	.0	.0	.0	.0	72.8	76.6	83.4	77.8	71.0	.0	.0
500	.0	.0	.1	.0	73.0	79.2	83.4	79.8	72.8	.0	.0
630	.0	.0	.0	.0	77.4	82.8	87.6	81.4	76.4	.0	.0
800	.0	.0	.0	.0	76.2	82.8	90.6	84.6	78.6	.0	.0
1000	.0	.0	.0	.0	78.6	82.6	90.6	83.6	77.2	.0	.0
1250	.0	.0	.0	.0	86.8	92.2	179.6	91.8	86.8	.0	.0
1600	.0	.0	.0	.0	74.2	78.6	86.0	78.2	73.4	.0	.0
2000	.0	.0	.0	.0	74.2	78.4	85.6	78.8	74.6	.0	.0
2500	.0	.0	.0	.0	80.0	83.8	92.6	85.8	80.8	.0	.0
3150	.0	.0	.0	.0	74.2	78.4	85.4	80.0	74.6	.0	.0
4000	.0	.0	.0	.0	75.6	78.2	89.2	82.6	77.0	.0	.0
5000	.0	.0	.0	.0	78.6	74.0	83.4	77.4	72.8	.0	.0
6300	.0	.0	.0	.0	72.0	75.0	85.4	80.4	74.2	.0	.0
8000	.0	.0	.0	.0	72.8	77.2	88.8	82.6	73.2	.0	.0
10000	.0	.0	.0	.0	73.0	78.0	89.6	93.8	84.6	.0	.0
12500	.0	.0	.0	.0	67.6	70.8	85.2	79.0	69.6	.0	.0
16000	.0	.0	.0	.0	62.6	66.0	77.8	70.8	60.4	.0	.0
20000	.0	.0	.0	.0	65.0	67.0	73.2	69.6	57.8	.0	.0
OVERALL SPL UNCORR	.0	.0	.0	.0	102.0	103.8	110.8	106.4	104.2	.0	.0
OVERALL SPL CORR	.0	.0	.0	.0	91.6	95.3	104.7	96.5	91.6	.0	.0
PNDB CORR	.0	.0	.0	.0	102.6	106.1	115.3	109.9	102.9	.0	.0

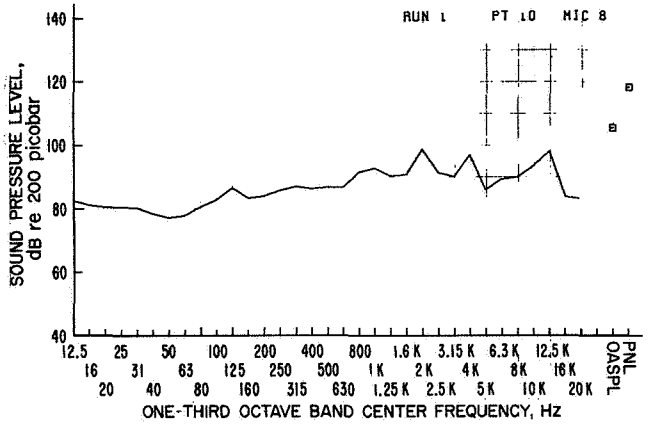
(a) RPM = 2000.

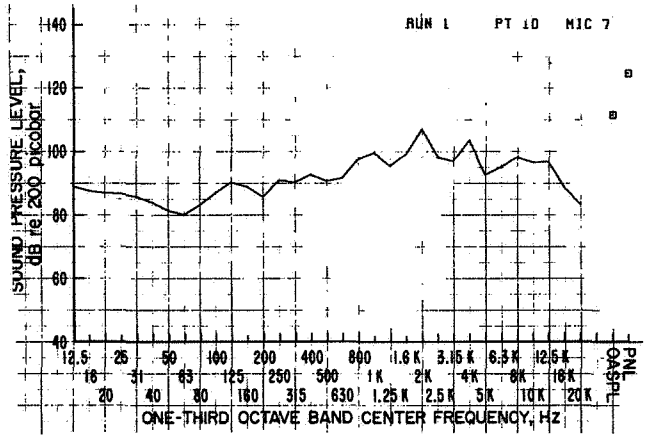
Figure 5.- Run 1, $V_\infty = 0$, $\alpha = 0^\circ$, $\psi = 0^\circ$, $\beta_v = 0^\circ$, $\delta_{cn} = 90$, fans 1 and 2.

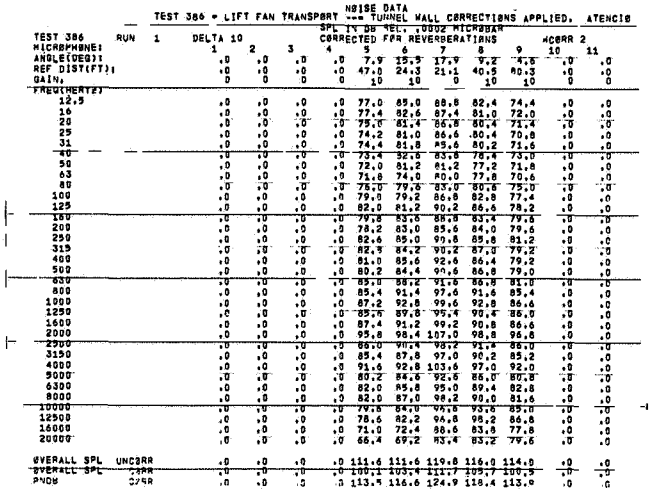












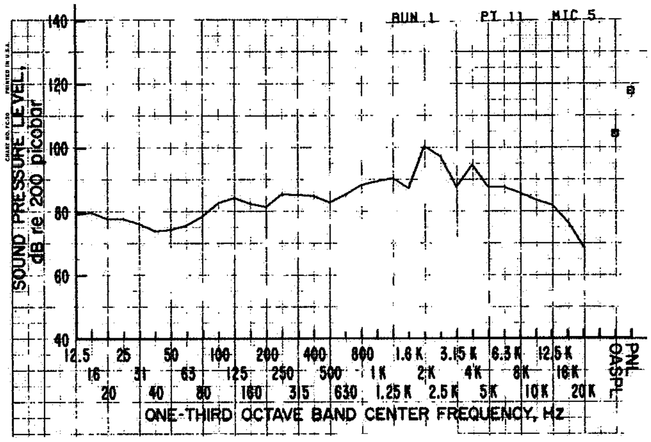
TEST 386 - LIFT FAN TRANSPORT --- NOISE DATA --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

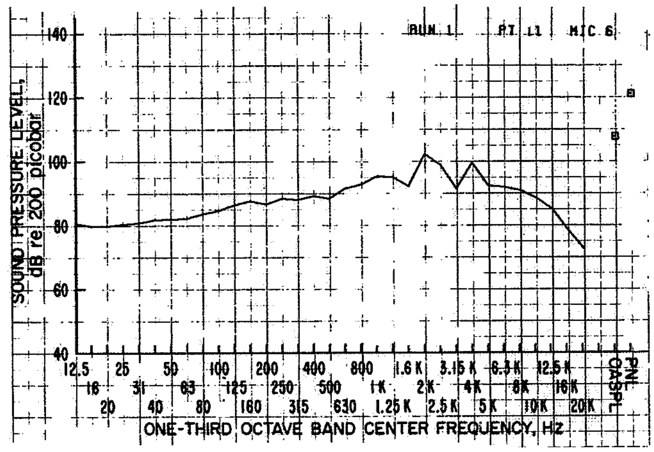
SPL IN DB REL. .0002 MICROBAR

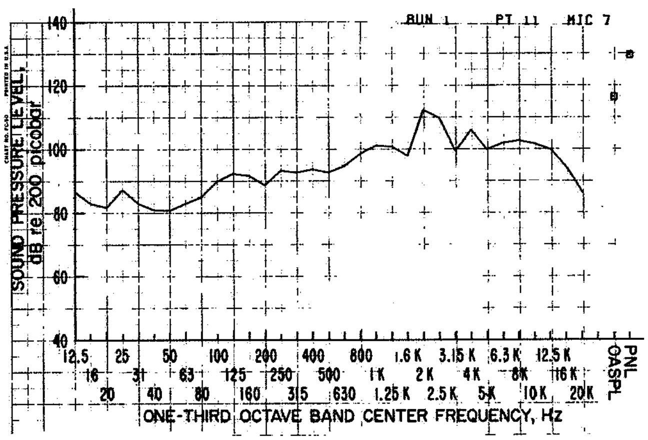
TEST 386 RUN	1	DELTA 10				CORRECTED FOR REVERBERATIONS						HCORR 2	
MICROPHONE:		1	2	3	4	5	6	7	8	9	10	11	
ANGLE(DEG):		.0	.0	.0	.0	7.9	13.5	17.9	9.2	4.6	.0	.0	
REF DIST(FT):		.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0	
GAIN:		0	0	0	0	10	10	0	10	10	0	0	
FREQUENCY(HZ)													
12.5		.0	.0	.0	.0	77.0	85.0	88.8	82.4	74.4	.0	.0	
16		.0	.0	.0	.0	77.4	82.6	87.4	81.0	72.0	.0	.0	
20		.0	.0	.0	.0	79.0	81.4	86.8	80.4	73.4	.0	.0	
25		.0	.0	.0	.0	74.2	81.0	86.6	80.4	70.8	.0	.0	
31		.0	.0	.0	.0	74.4	81.8	85.6	80.2	71.6	.0	.0	
40		.0	.0	.0	.0	73.4	82.6	83.8	78.4	73.0	.0	.0	
50		.0	.0	.0	.0	72.0	81.2	81.2	77.2	71.8	.0	.0	
63		.0	.0	.0	.0	71.8	74.0	80.0	77.8	70.6	.0	.0	
80		.0	.0	.0	.0	75.0	79.6	83.0	80.6	75.0	.0	.0	
100		.0	.0	.0	.0	79.0	79.2	86.8	82.8	77.4	.0	.0	
125		.0	.0	.0	.0	82.0	81.2	90.2	86.6	78.2	.0	.0	
160		.0	.0	.0	.0	79.8	83.6	86.8	83.4	79.4	.0	.0	
200		.0	.0	.0	.0	78.2	83.0	85.6	84.0	79.6	.0	.0	
250		.0	.0	.0	.0	82.6	85.0	90.8	85.8	81.2	.0	.0	
315		.0	.0	.0	.0	82.8	84.2	90.2	87.0	79.2	.0	.0	
400		.0	.0	.0	.0	81.0	85.6	92.6	86.4	79.2	.0	.0	
500		.0	.0	.0	.0	80.2	84.4	90.6	86.8	79.0	.0	.0	
630		.0	.0	.0	.0	85.0	88.2	91.6	86.8	81.0	.0	.0	
800		.0	.0	.0	.0	85.4	91.4	97.6	91.6	85.4	.0	.0	
1000		.0	.0	.0	.0	87.2	92.8	99.0	92.8	86.4	.0	.0	
1250		.0	.0	.0	.0	85.6	89.8	95.4	90.4	86.0	.0	.0	
1600		.0	.0	.0	.0	87.4	91.2	99.2	90.8	86.6	.0	.0	
2000		.0	.0	.0	.0	95.8	98.4	107.0	98.8	98.6	.0	.0	
2500		.0	.0	.0	.0	86.0	90.4	98.2	91.4	86.0	.0	.0	
3150		.0	.0	.0	.0	85.4	87.8	97.0	90.2	85.2	.0	.0	
4000		.0	.0	.0	.0	91.6	92.8	103.6	97.0	92.0	.0	.0	
5000		.0	.0	.0	.0	86.2	84.6	92.6	86.0	80.8	.0	.0	
6300		.0	.0	.0	.0	82.0	85.8	95.0	89.4	82.8	.0	.0	
8000		.0	.0	.0	.0	82.0	87.0	98.2	90.0	81.6	.0	.0	
10000		.0	.0	.0	.0	79.8	84.0	96.6	93.6	85.0	.0	.0	
12500		.0	.0	.0	.0	78.6	82.2	94.8	98.2	86.6	.0	.0	
16000		.0	.0	.0	.0	71.0	72.4	88.6	83.8	77.8	.0	.0	
20000		.0	.0	.0	.0	66.4	69.2	93.4	83.2	79.6	.0	.0	
OVERALL SPL	UNCORR	.0	.0	.0	.0	111.6	111.6	119.8	116.0	114.0	.0	.0	
OVERALL SPL	CORR	.0	.0	.0	.0	109.1	109.4	117.7	109.7	107.9	.0	.0	
PNOY	CORR	.0	.0	.0	.0	113.4	116.6	124.9	118.4	113.0	.0	.0	

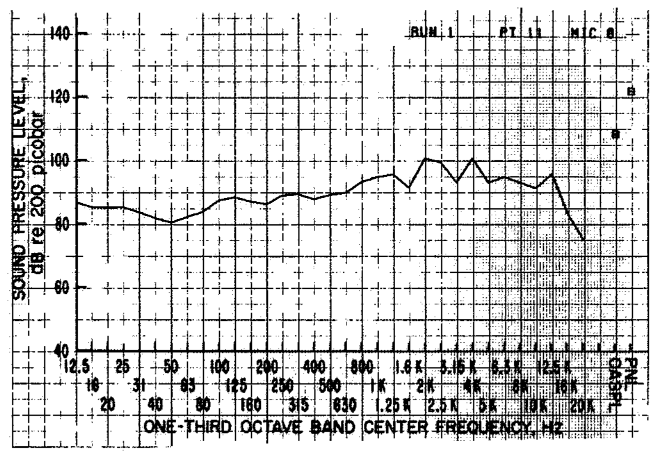
(b) RPM = 3000.

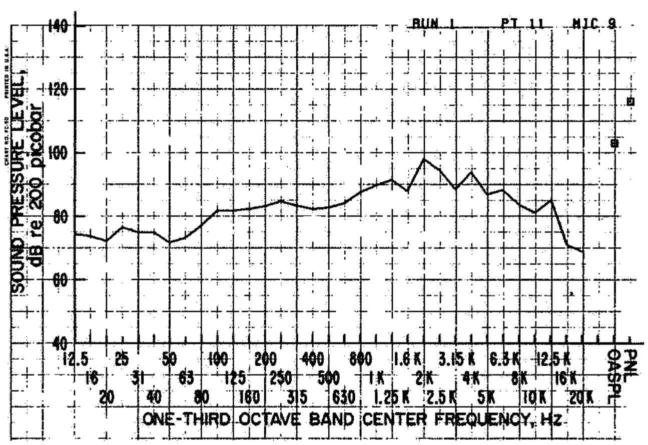
Figure 5.- Continued.











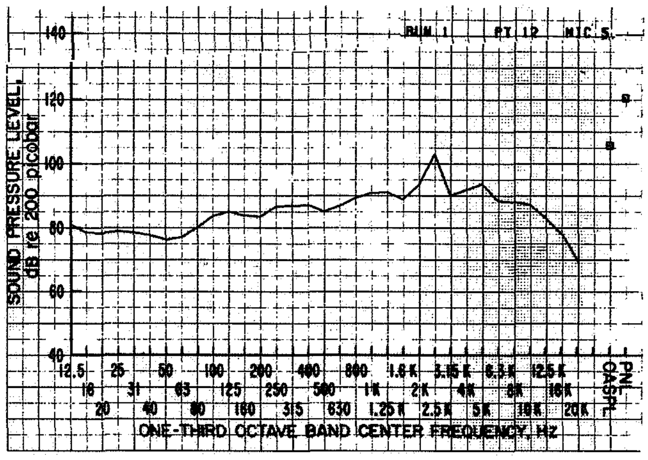
NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIO
SPL IN DB REL. .0002 MICROBAR
CORRECTED FOR REVERBERATIONS

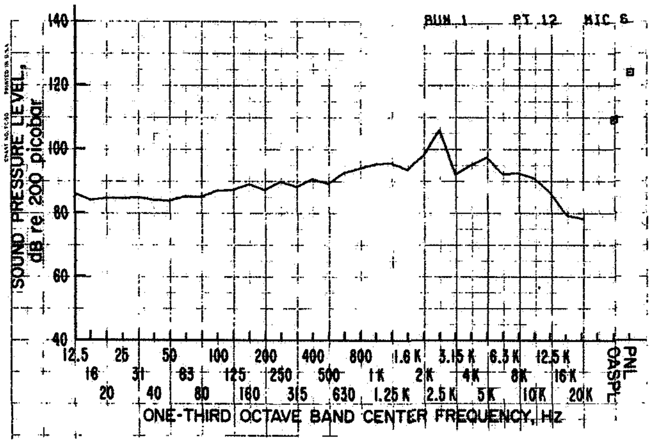
TEST 386 RUN 1 DELTA 11 HCORR 2

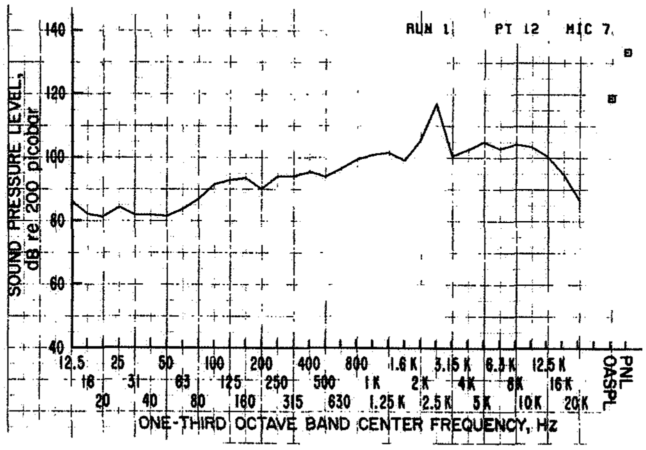
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	10	10	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	79.0	80.6	86.8	87.0	74.4	.0	.0
16	.0	.0	.0	.0	79.6	79.8	93.0	85.4	73.8	.0	.0
20	.0	.0	.0	.0	77.4	79.8	81.8	85.4	72.2	.0	.0
25	.0	.0	.0	.0	77.6	80.4	87.4	85.4	76.6	.0	.0
31	.0	.0	.0	.0	76.0	80.8	83.0	83.8	75.0	.0	.0
40	.0	.0	.0	.0	73.8	81.8	81.0	82.0	75.0	.0	.0
50	.0	.0	.0	.0	74.2	82.0	80.8	80.6	71.8	.0	.0
63	.0	.0	.0	.0	75.6	82.2	83.0	82.4	73.2	.0	.0
80	.0	.0	.0	.0	78.4	83.6	85.0	84.0	77.0	.0	.0
100	.0	.0	.0	.0	82.6	84.6	90.0	87.6	81.8	.0	.0
125	.0	.0	.0	.0	84.2	86.4	92.4	88.6	81.8	.0	.0
160	.0	.0	.0	.0	82.4	87.6	91.8	87.2	82.4	.0	.0
200	.0	.0	.0	.0	81.4	86.6	88.8	86.4	83.2	.0	.0
250	.0	.0	.0	.0	85.4	[illegible]	93.4	89.2	84.8	.0	.0
315	.0	.0	.0	.0	85.2	[illegible]	92.8	89.8	83.4	.0	.0
400	.0	.0	.0	.0	84.8	89.2	93.8	88.0	82.4	.0	.0
500	.0	.0	.0	.0	82.8	88.4	92.8	89.4	82.8	.0	.0
630	.0	.0	.0	.0	85.2	91.8	94.8	90.0	84.2	.0	.0
800	.0	.0	.0	.0	88.2	92.8	95.6	93.4	87.6	.0	.0
1000	.0	.0	.0	.0	89.4	95.4	101.2	95.0	89.8	.0	.0
1250	.0	.0	.0	.0	95.4	95.2	101.0	95.6	91.8	.0	.0
1600	.0	.0	.0	.0	87.2	92.2	98.0	91.6	88.0	.0	.0
2000	.0	.0	.0	.0	100.4	102.4	112.4	100.8	98.2	.0	.0
2500	.0	.0	.0	.0	97.2	99.0	110.0	99.6	94.6	.0	.0
3150	.0	.0	.0	.0	87.6	91.4	99.4	93.2	88.4	.0	.0
4000	.0	.0	.0	.0	94.6	99.6	106.2	100.8	94.0	.0	.0
5000	.0	.0	.0	.0	87.8	92.4	[illegible]	93.2	87.8	.0	.0
6300	.0	.0	.0	.0	87.6	92.0	102.0	95.0	95.4	.0	.0
8000	.0	.0	.0	.0	85.8	91.0	102.8	93.2	83.8	.0	.0
10000	.0	.0	.0	.0	83.6	87.8	101.8	91.4	81.2	.0	.0
12500	.0	.0	.0	.0	82.0	86.2	[illegible]	96.0	85.2	.0	.0
16000	.0	.0	.0	.0	76.6	73.6	94.2	83.2	71.0	.0	.0
20000	.0	.0	.0	.0	68.8	72.6	76.4	75.0	69.0	.0	.0
OVERALL SPL UNCORR	.0	.0	.0	.0	114.8	114.8	124.2	119.4	117.6	.0	.0
OVERALL SPL CORR	.0	.0	.0	.0	[illegible]	[illegible]	115.6	[illegible]	[illegible]	.0	.0
PNDB CORR	.0	.0	.0	.0	117.9	121.1	129.8	122.0	116.5	.0	.0

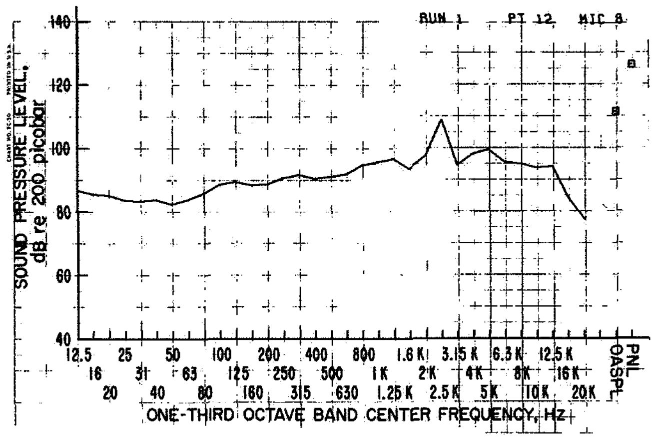
(c) RPM = 3600.

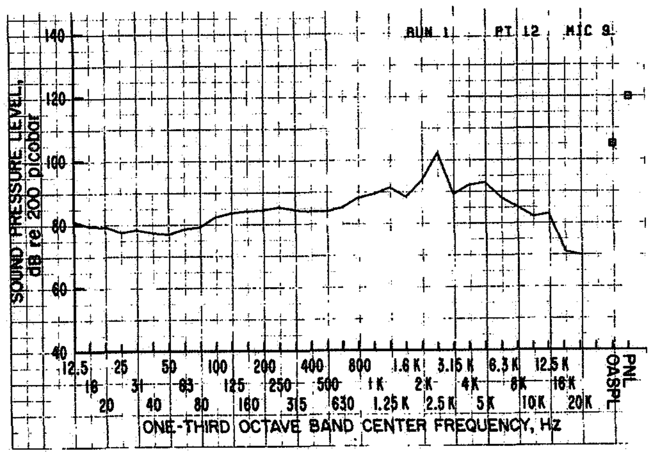
Figure 5.- Continued.









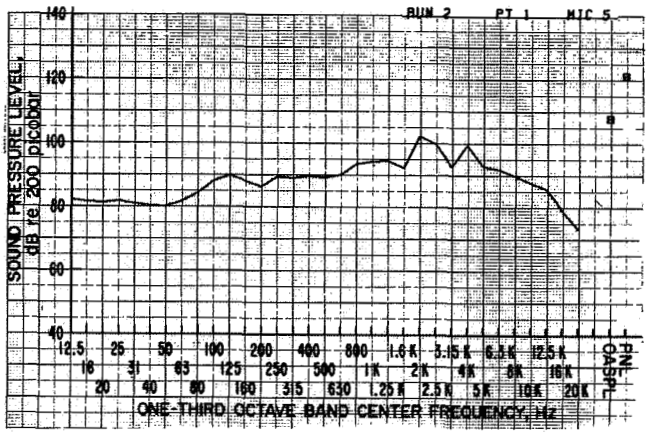


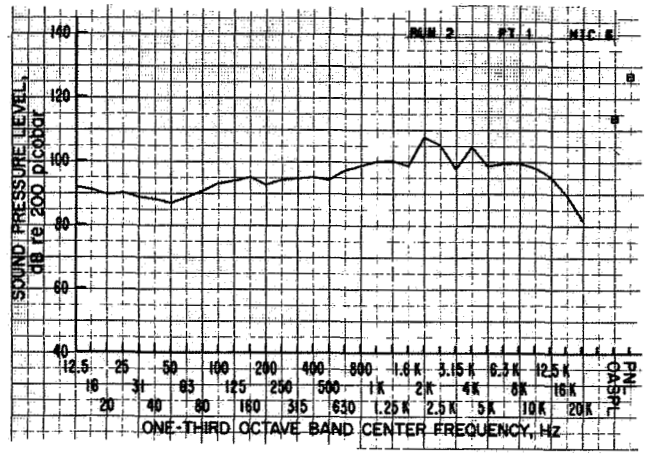
NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED. ATENCIO
SPL IN DB REL. .0002 MICROBAR
CORRECTED FOR REVERBERATIONS
TEST 386 RUN 1 DELTA 12 NCORR 2

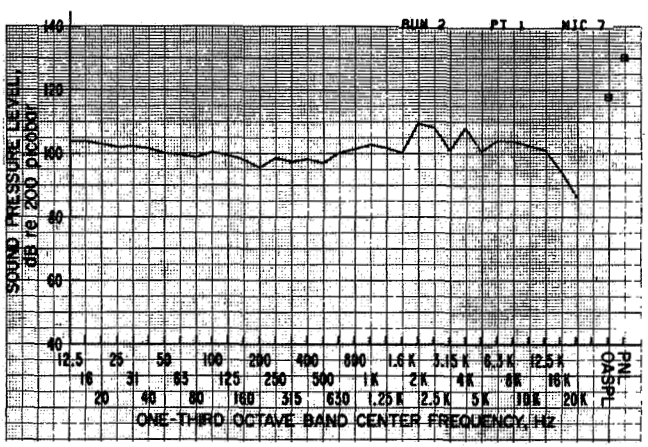
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	13.5	17.9	[illegible]	[illegible]	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	50.3	.0	.0
GAIN:	0	0	0	5	10	0	0	0	[illegible]	9	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	[illegible]	81.2	.0	.0
16	.0	.0	.0	.0	79.4	[illegible]	89.2	85.6	79.4	.0	.0
20	.0	.0	.0	.0	75.2	[illegible]	[illegible]	[illegible]	79.4	.0	.0
25	.0	.0	.0	.0	[illegible]	[illegible]	84.4	83.6	77.6	.0	.0
31	.0	.0	.0	.0	76.4	[illegible]	[illegible]	83.4	76.4	.0	.0
40	.0	.0	.0	.0	77.6	[illegible]	[illegible]	83.8	77.4	.0	.0
50	.0	.0	.0	.0	76.2	84.0	[illegible]	[illegible]	[illegible]	.0	.0
63	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	83.9	76.6	.0	.0
80	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	[illegible]	79.7	.0	.0
100	.0	.0	.0	.0	[illegible]	[illegible]	91.6	[illegible]	[illegible]	.0	.0
125	.0	.0	.0	.0	[illegible]	[illegible]	93.0	[illegible]	[illegible]	.0	.0
160	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.0	.0
200	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.0	.0
250	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.0	.0
315	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.0	.0
400	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	93.4	[illegible]	.0	.0
500	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	91.2	[illegible]	.0	.0
630	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.0	.0
800	.0	.0	.0	.0	89.2	[illegible]	[illegible]	94.8	[illegible]	.0	.0
1000	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	95.4	99.4	.0	.0
1250	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.0	.0
1600	.0	.0	.0	.0	[illegible]	[illegible]	99.2	97.6	[illegible]	.0	.0
2000	.0	.0	.0	.0	93.4	[illegible]	[illegible]	97.4	93.6	.0	.0
2500	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.0	.0
3150	.0	.0	.0	.0	[illegible]	92.2	[illegible]	94.6	[illegible]	.0	.0
4000	.0	.0	.0	.0	[illegible]	95.2	[illegible]	93.2	92.2	.0	.0
5000	.0	.0	.0	.0	[illegible]	97.6	[illegible]	[illegible]	[illegible]	.0	.0
6300	.0	.0	.0	.0	[illegible]	92.4	[illegible]	[illegible]	[illegible]	.0	.0
8000	.0	.0	.0	.0	[illegible]	92.6	[illegible]	[illegible]	[illegible]	.0	.0
10000	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.0	.0
12500	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	94.2	[illegible]	.0	.0
16000	.0	.0	.0	.0	[illegible]	79.4	95.0	84.4	[illegible]	.0	.0
20000	.0	.0	.0	.0	69.6	[illegible]	[illegible]	77.6	[illegible]	.0	.0
OVERALL SPL UNCORR	.0	.0	.0	.0	[illegible]	117.0	126.2	121.4	118.4	.0	.0
OVERALL SPL CORR	.0	.0	.0	.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	.0	.0
PNDB CORR	.0	.0	.0	.0	[illegible]	124.3	133.6	126.5	[illegible]	.0	.0

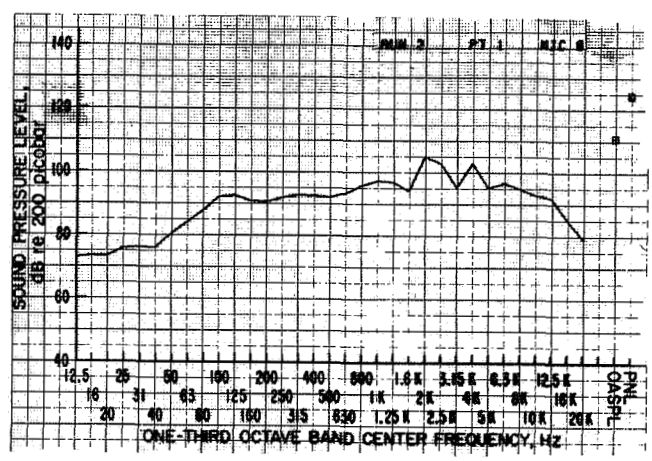
(d) RPM = 4000.

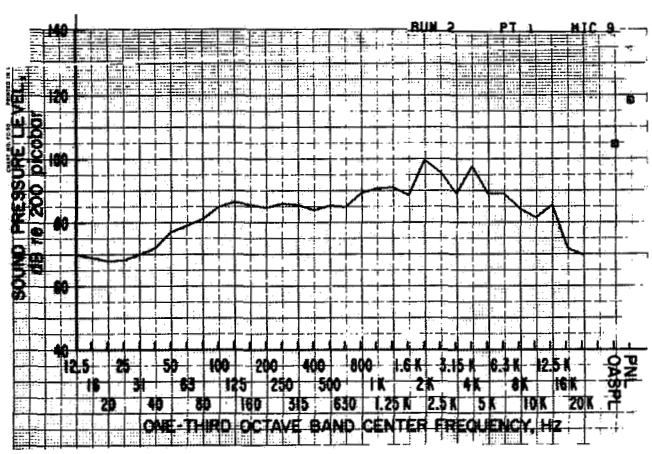
Figure 5.- Concluded.











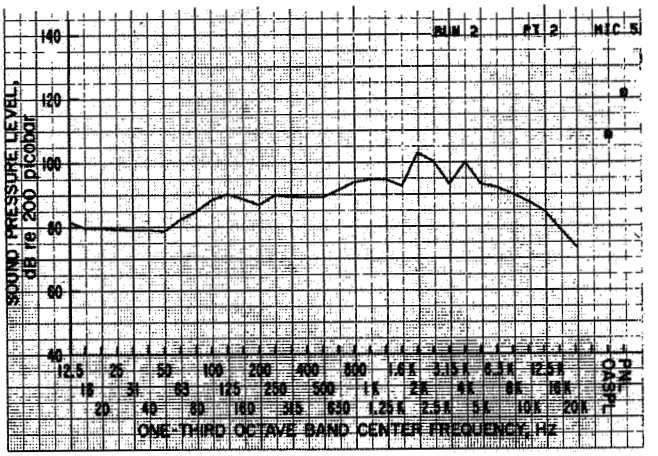
TEST 386 - LIFT FAN TRANSPORT NOISE DATA TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

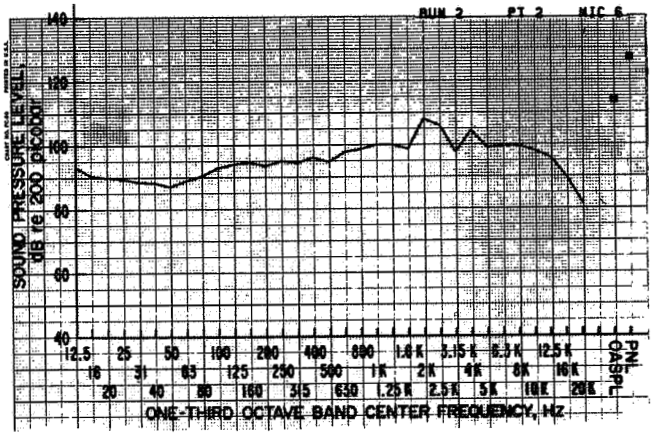
SPL IN DB REL. .0002 MICROBAR

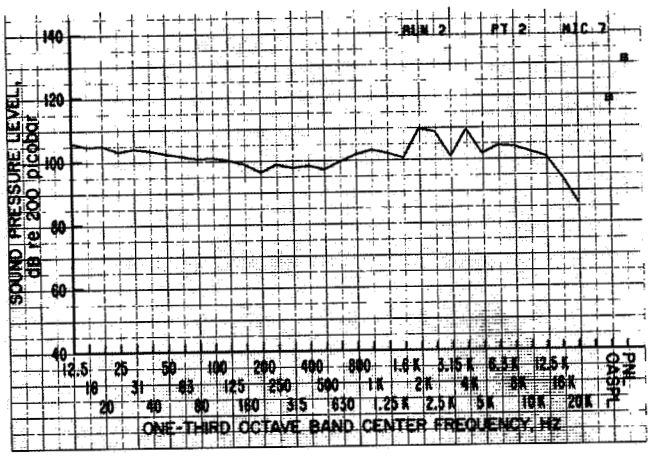
TEST 386	RUN	2	DELTA	1								WCORR	2
				1	2	3	4	5	6	7	8	9	10	11
MICROPHONE:								CORRECTED FOR REVERBERATIONS						
ANGLE(DEG):				.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.8	.0	.0
REF DIST(FT):				.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,				0	0	0	3	0	0	0	0	0	0	0
FREQUENCY)														
12.5				.0	.0	.0	.0	82.2	92.0	104.0	73.0	70.0	.0	.0
16				.0	.0	.0	.0	81.4	91.2	104.0	73.4	69.0	.0	.0
20				.0	.0	.0	.0	81.4	88.6	103.2	73.4	68.0	.0	.0
25				.0	.0	.0	.0	81.8	97.2	102.2	75.8	69.2	.0	.0
31				.0	.0	.1	.1	81.0	89.8	102.4	76.2	73.0	.0	.0
40				.0	.0	.0	.0	83.4	93.2	101.8	76.0	72.6	.0	.0
50				.0	.0	.0	.0	80.2	97.0	102.2	80.6	77.0	.0	.0
63				.0	.0	.0	.1	81.4	95.8	99.8	84.2	79.8	.0	.0
80				.0	.0	.0	.0	84.4	97.8	97.0	87.8	81.2	.0	.0
100				.0	.0	.1	.0	88.2	93.2	101.6	92.2	85.1	.0	.0
125				.0	.0	.0	.0	90.0	94.0	99.6	92.6	86.6	.0	.0
160				.0	.0	.0	.0	88.2	93.2	97.2	91.4	85.8	.0	.0
200				.0	.0	.0	.0	86.4	92.8	95.8	90.6	84.8	.0	.0
250				.0	.0	.0	.0	89.6	94.4	98.8	92.0	86.0	.0	.0
315				.0	.0	.0	.0	89.2	94.8	97.6	92.8	86.6	.0	.0
400				.0	.0	.0	.0	89.4	95.2	99.4	92.6	86.0	.0	.0
500				.0	.0	.0	.0	89.4	94.4	97.2	92.2	85.4	.0	.0
630				.0	.0	.0	.0	91.2	97.4	101.4	93.4	89.0	.0	.0
800				.0	.0	.0	.0	93.4	96.8	101.6	95.8	89.4	.0	.0
1000				.0	.0	.0	.0	94.4	97.2	103.0	97.4	92.8	.0	.0
1250				.0	.0	.0	.0	94.6	97.4	102.8	97.6	91.9	.0	.0
1600				.0	.0	.0	.0	92.4	96.8	101.4	94.2	89.6	.0	.0
2000				.0	.0	.0	.0	102.4	107.8	109.6	105.2	99.8	.0	.0
2500				.0	.0	.0	.0	107.0	109.4	107.4	103.4	98.4	.0	.0
3150				.0	.0	.0	.0	92.8	97.8	101.2	95.4	89.2	.0	.0
4000				.0	.0	.0	.0	99.6	104.8	108.2	103.0	97.8	.0	.0
5000				.0	.0	.0	.0	93.0	99.8	101.8	95.2	89.2	.0	.0
6300				.0	.0	.0	.0	92.8	98.4	104.2	96.8	89.2	.0	.0
8000				.0	.0	.0	.0	90.0	99.8	104.0	95.0	84.4	.0	.0
10000				.0	.0	.0	.0	87.8	94.2	102.8	93.0	81.8	.0	.0
12500				.0	.0	.0	.0	85.8	95.4	101.2	92.0	85.6	.0	.0
16000				.0	.0	.0	.0	79.0	89.6	94.4	85.0	72.0	.0	.0
20000				.0	.0	.0	.0	73.4	81.8	86.4	79.2	69.8	.0	.0
OVERALL SPL	UNCORR			.0	.0	.0	.0	119.8	125.8	124.6	121.8	117.4	.0	.0
OVERALL SPL	CORR			.0	.0	.0	.0	106.0	123.9	119.0	121.1	104.8	.0	.0
PNDB	CORR			.0	.0	.0	.0	121.3	127.1	130.4	124.6	118.5	.0	.0

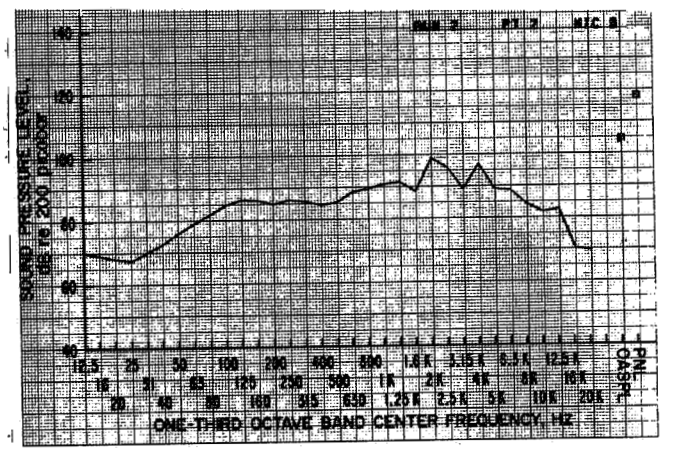
(a) $\beta_y = 0^o$.

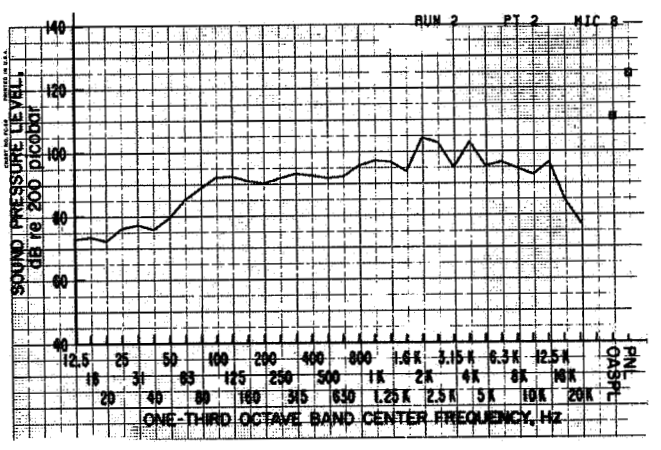
Figure 6.- Run 2, V_∞ = 9.7 m/sec, $\alpha = 0^o$, $\psi = 0^o$, $\sigma_v = 0^o$, $\delta_{cn} = 90^o$, fans 1 and 2., RPM - 360











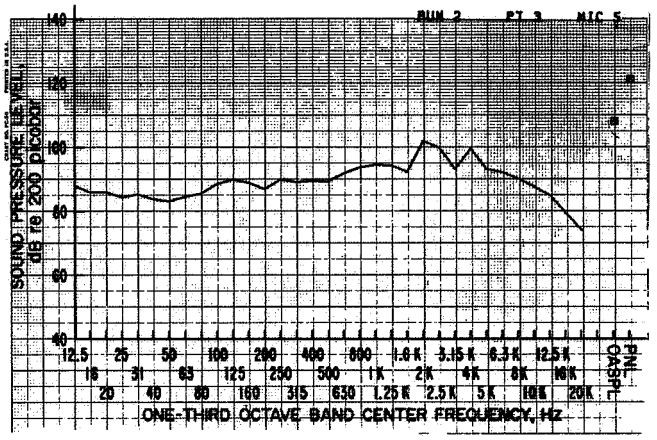
NOISE DATA

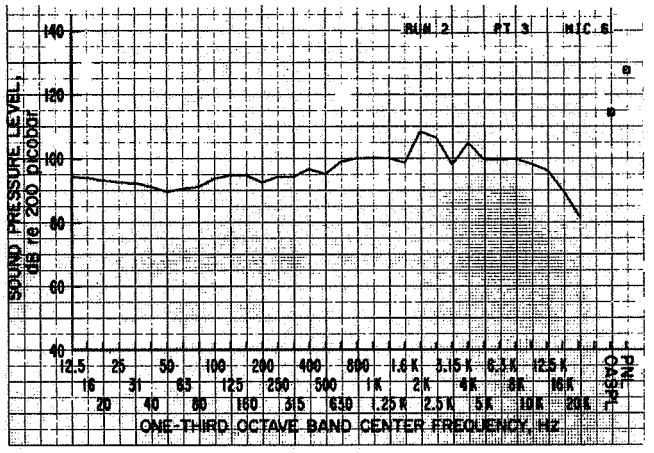
TEST 386 = LIFT FAN TRANSPORT === TUNNEL WALL CORRECTIONS APPLIED. ATENCIO

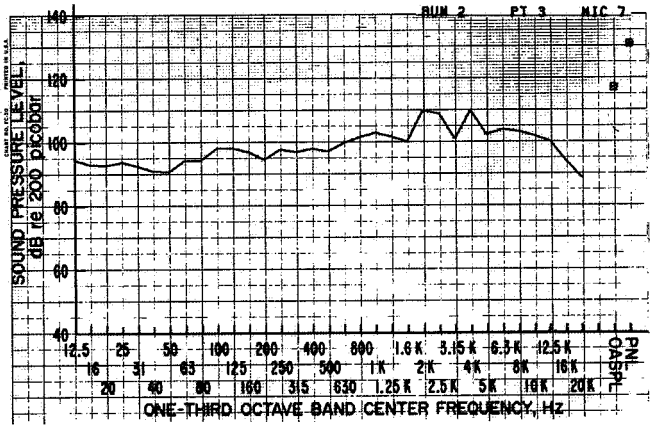
TEST 386 RUN 2	DELTA 2			SPL IN DB REL. 0.0002 MICROBAR CORRECTED FOR REVERBERATIONS					HCRR 2	
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGIT	.0	.0	.0	.0	7.9	19.3	17.9	9.2	4.6	.0	.0
REF DIST(FT))	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	.0	.0	.0	.0	0	0	0	0	0	.0	.0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	81.6	93.4	104.0	73.0	70.8	.0	.0
16	.0	.0	.0	.0	79.6	90.6	104.8	73.4	69.6	.0	.0
20	.0	.0	.0	.0	79.6	90.0	103.6	72.4	68.0	.0	.0
25	.0	.0	.0	.0	79.2	89.6	103.2	76.4	67.4	.0	.0
31	.0	.0	.0	.0	79.0	85.6	104.8	77.4	70.8	.0	.0
40	.0	.0	.0	.0	79.0	85.4	103.4	76.2	72.6	.0	.0
50	.0	.0	.0	.0	78.6	87.2	102.4	79.6	76.0	.0	.0
63	.0	.0	.0	.0	82.4	89.0	101.6	85.4	79.6	.0	.0
80	.0	.0	.0	.0	84.8	90.6	101.8	89.0	81.8	.0	.0
100	.0	.0	.0	.0	86.4	93.0	101.6	92.4	84.6	.0	.0
125	.0	.0	.0	.0	90.2	94.2	101.2	92.6	86.4	.0	.0
160	.0	.0	.0	.0	88.6	94.8	99.0	91.2	88.2	.0	.0
200	.0	.0	.0	.0	86.8	93.6	96.4	97.4	85.0	.0	.0
250	.0	.0	.0	.0	89.8	95.2	94.8	92.6	86.2	.0	.0
315	.0	.0	.0	.0	89.4	94.6	97.8	93.4	85.4	.0	.0
400	.0	.0	.0	.0	89.2	96.2	98.4	92.8	84.6	.0	.0
500	.0	.0	.0	.0	89.2	94.8	97.2	92.0	85.4	.0	.0
630	.0	.0	.0	.0	91.4	95.0	98.6	92.4	87.6	.0	.0
800	.0	.0	.0	.0	93.8	98.8	101.8	95.8	89.6	.0	.0
1000	.0	.0	.0	.0	94.4	101.2	103.2	97.4	91.6	.0	.0
1250	.0	.0	.0	.0	94.6	101.2	102.2	97.8	91.6	.0	.0
1600	.0	.0	.0	.0	92.6	98.8	100.6	94.6	89.6	.0	.0
2000	.0	.0	.0	.0	103.0	108.2	109.8	104.6	99.0	.0	.0
2500	.0	.0	.0	.0	100.2	105.2	106.6	103.0	98.0	.0	.0
3150	.0	.0	.0	.0	93.2	97.8	101.0	95.0	89.2	.0	.0
4000	.0	.0	.0	.0	130.6	134.6	109.4	103.2	97.4	.0	.0
5000	.0	.0	.0	.0	93.2	99.2	101.8	95.6	89.2	.0	.0
6300	.0	.0	.0	.0	92.2	98.8	101.4	96.8	88.8	.0	.0
8000	.0	.0	.0	.0	95.6	98.8	101.8	94.8	88.4	.0	.0
10000	.0	.0	.0	.0	97.6	98.2	102.4	97.4	92.0	.0	.0
12500	.0	.0	.0	.0	84.6	94.0	97.8	96.8	92.4	.0	.0
16000	.0	.0	.0	.0	78.2	89.8	94.2	84.6	73.4	.0	.0
20000	.0	.0	.0	.0	73.4	91.8	95.2	77.2	69.6	.0	.0
OVERALL SPL UNCORR	.0	.0	.0	.0	119.4	121.8	124.4	122.2	117.4	.0	.0
OVERALL SPL CORR	.0	.0	.0	.0	105.8	114.2	116.7	111.4	104.6	.0	.0
PNDB	.0	.0	.0	.0	121.6	127.3	131.1	124.6	118.2	.0	.0

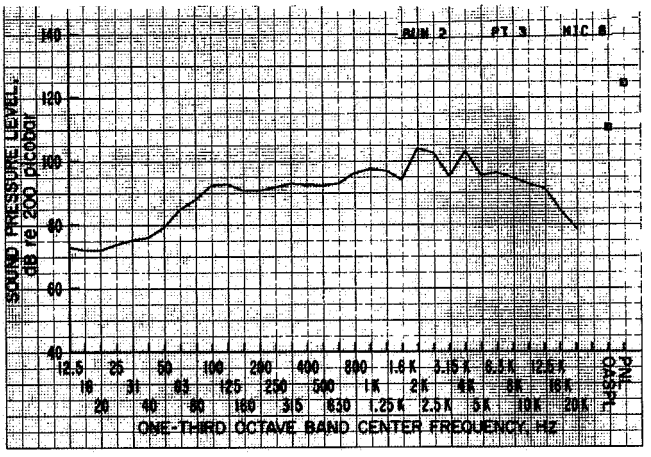
(b) $\beta_v = -4^\circ$.

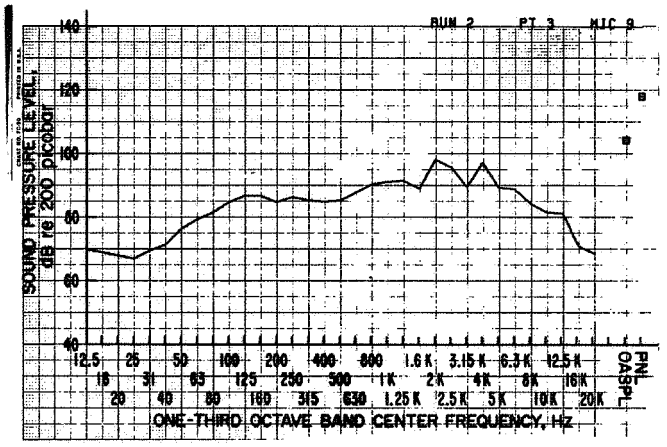
Figure 6.- Continued.











NOISE DATA

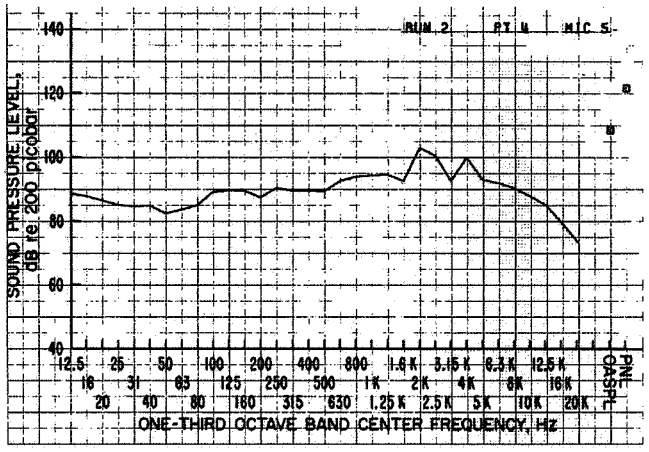
TEST 386 - LIFT FAN TRANSPORT -- TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

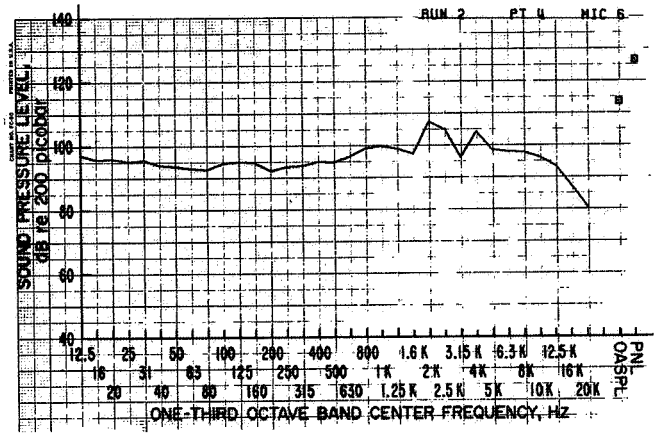
SPL IN DB REL. .0002 MICROBAR

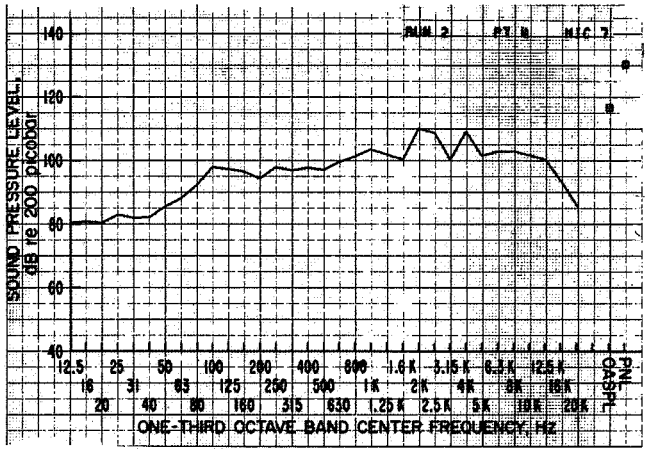
TEST 386 RUN 2	DELTA 3			CORRECTED FOR REVERBERATIONS					WCORR 2	
MICROPHONE)	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG))	.0	.0	.0	.0	7.9	13.5	17.9	9.2	4.5	.0	.0
REF DIST(FT))	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	88.0	94.2	94.6	73.0	70.0	.0	.0
16	.0	.0	.0	.0	86.0	94.0	93.0	72.0	69.0	.0	.0
20	.0	.0	.0	.0	86.0	93.2	92.8	72.0	68.0	.0	.0
25	.0	.0	.0	.0	84.4	92.6	93.8	73.8	67.0	.0	.0
31	.0	.0	.0	.0	85.4	92.4	92.6	75.2	69.6	.0	.0
40	.0	.0	.0	.0	83.8	91.2	91.0	76.0	71.4	.0	.0
50	.0	.0	.0	.0	83.2	89.6	90.8	79.2	76.4	.0	.0
63	.0	.0	.0	.0	84.6	90.6	94.4	84.8	79.4	.0	.0
80	.0	.0	.0	.0	85.6	91.2	94.4	88.0	81.6	.0	.0
100	.0	.0	.0	.0	88.6	93.8	98.2	92.4	84.8	.0	.0
125	.0	.0	.0	.0	90.0	94.8	98.2	92.8	86.8	.0	.0
160	.0	.0	.0	.0	89.0	94.0	97.0	90.8	86.8	.0	.0
200	.0	.0	.0	.0	87.0	92.6	94.6	86.8	84.8	.0	.0
250	.0	.0	.0	.0	90.0	94.4	97.8	91.8	86.4	.0	.0
315	.0	.0	.0	.0	89.2	94.4	97.0	93.0	89.4	.0	.0
400	.0	.0	.0	.0	89.6	96.8	98.0	92.6	85.0	.0	.0
500	.0	.0	.0	.0	89.4	95.2	97.2	92.4	85.4	.0	.0
630	.0	.0	.0	.0	92.0	99.2	99.8	93.0	87.8	.0	.0
800	.0	.0	.0	.0	93.8	100.2	101.6	96.2	90.4	.0	.0
1000	.0	.0	.0	.0	94.6	100.4	103.0	97.6	91.2	.0	.0
1250	.0	.0	.0	.0	94.4	100.2	101.8	97.0	91.6	.0	.0
1600	.0	.0	.0	.0	92.4	98.8	100.2	94.2	89.0	.0	.0
2000	.0	.0	.0	.0	102.0	108.6	110.8	104.0	98.2	.0	.0
2500	.0	.0	.0	.0	100.0	106.0	109.0	102.6	95.8	.0	.0
3150	.0	.0	.0	.0	93.2	98.2	101.0	95.2	89.6	.0	.0
4000	.0	.0	.0	.0	99.6	105.0	110.0	103.2	97.2	.0	.0
5000	.0	.0	.0	.0	93.2	99.8	102.4	96.6	89.4	.0	.0
6300	.0	.0	.0	.0	92.2	99.8	104.0	98.4	89.0	.0	.0
8000	.0	.0	.0	.0	90.2	100.0	103.4	94.8	84.4	.0	.0
10000	.0	.0	.0	.0	87.6	98.4	102.0	92.8	81.6	.0	.0
12500	.0	.0	.0	.0	84.8	96.4	100.2	91.4	81.4	.0	.0
16000	.0	.0	.0	.0	79.2	89.8	94.0	84.4	71.0	.0	.0
20000	.0	.0	.0	.0	74.0	81.8	88.8	78.6	68.8	.0	.0
OVERALL SPL UNCORR	.0	.0	.0	.0	119.4	122.0	124.2	121.0	117.4	.0	.0
OVERALL SPL CORR	.0	.0	.0	.0	108.1	114.6	117.2	110.7	104.4	.0	.0
PNDB CORR	.0	.0	.0	.0	121.4	127.7	131.1	124.6	118.3	.0	.0

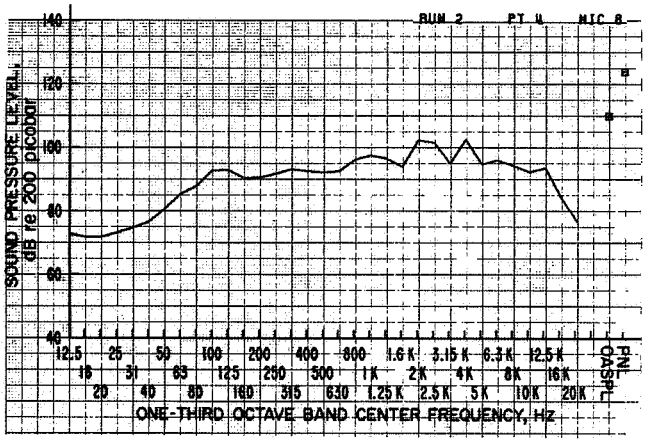
(c) $\beta_v = -8^\circ$.

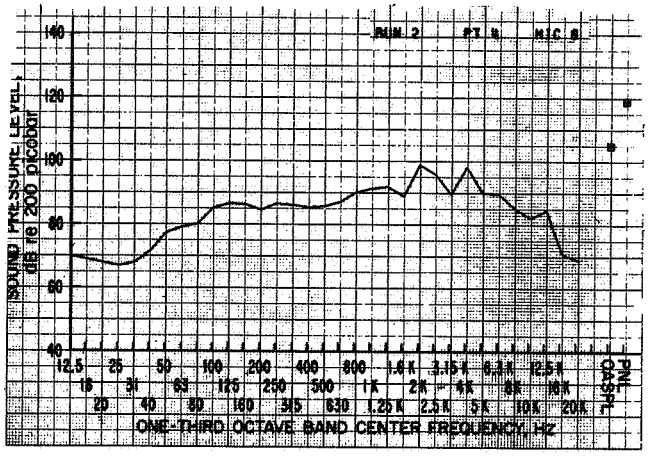
Figure 6.- Continued.











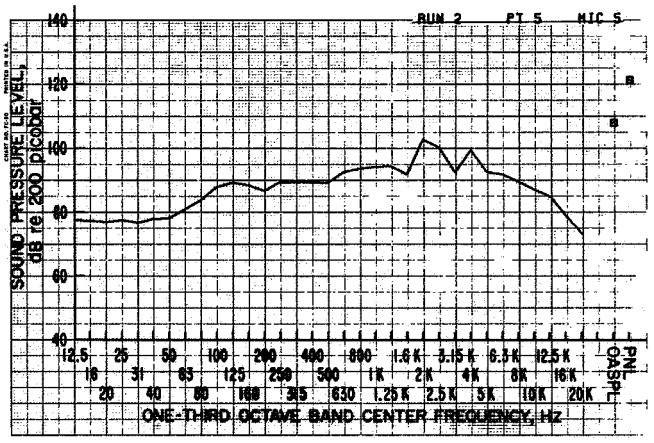
NOISE DATA

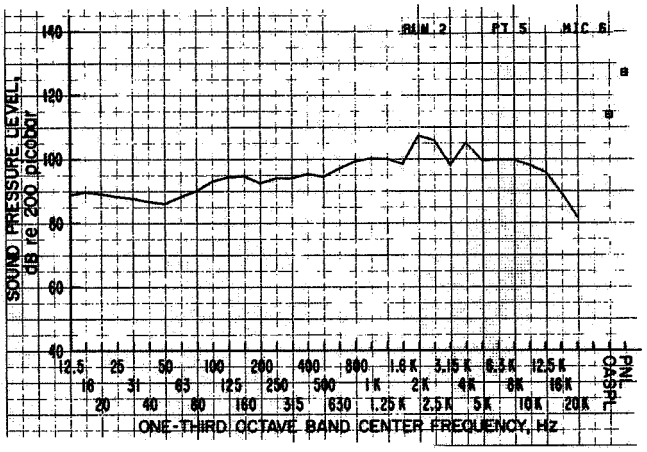
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED. ATENCIO

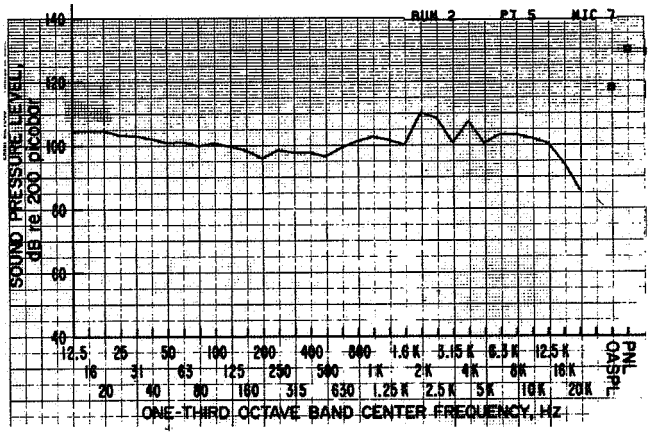
TEST 386 RUN 2	DELTA 4	SPL IN DB REL. .0002 MICROBAR CORRECTED FOR REVERBERATIONS							MCORR 2	
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN:	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	88.6	97.4	89.4	73.0	70.0	.0	.0
16	.0	.0	.0	.0	87.8	96.0	90.8	72.0	69.0	.0	.0
20	.0	.0	.0	.0	86.4	96.2	88.4	72.0	68.0	.0	.0
25	.0	.0	.0	.0	88.0	95.4	83.0	73.4	67.0	.0	.0
31	.0	.0	.0	.0	84.6	95.8	82.0	75.0	68.0	.0	.0
40	.0	.0	.0	.0	84.8	94.2	82.2	76.8	71.6	.0	.0
50	.0	.0	.0	.0	82.4	93.8	85.6	80.8	77.4	.0	.0
63	.0	.0	.0	.0	83.6	93.2	88.2	85.6	79.2	.0	.0
80	.0	.0	.0	.0	89.0	92.8	92.4	88.0	80.2	.0	.0
100	.0	.0	.0	.0	89.2	94.8	94.0	93.0	85.2	.0	.0
125	.0	.0	.0	.0	89.6	95.2	97.4	93.2	86.6	.0	.0
160	.0	.0	.0	.0	89.6	95.0	96.6	95.6	86.4	.0	.0
200	.0	.0	.0	.0	87.4	92.4	94.4	90.8	84.6	.0	.0
250	.0	.0	.0	.0	90.4	93.6	95.0	92.0	86.4	.0	.0
315	.0	.0	.0	.0	89.6	94.0	97.0	93.4	86.2	.0	.0
400	.0	.0	.0	.0	89.6	95.2	97.8	92.8	85.4	.0	.0
500	.0	.0	.0	.0	89.4	95.0	97.2	92.4	85.8	.0	.0
630	.0	.0	.0	.0	92.6	96.8	99.4	92.8	87.2	.0	.0
800	.0	.0	.0	.0	94.0	99.4	101.4	96.4	90.2	.0	.0
1000	.0	.0	.0	.0	94.4	100.0	103.6	97.8	91.4	.0	.0
1250	.0	.0	.0	.0	94.6	99.2	102.0	96.8	92.0	.0	.0
1600	.0	.0	.0	.0	92.4	97.6	101.4	94.2	89.0	.0	.0
2000	.0	.0	.0	.0	103.0	107.6	110.2	102.6	99.0	.0	.0
2500	.0	.0	.0	.0	100.6	105.2	108.6	101.8	98.0	.0	.0
3150	.0	.0	.0	.0	92.8	96.4	100.4	95.2	89.6	.0	.0
4000	.0	.0	.0	.0	100.0	104.4	109.2	102.6	98.2	.0	.0
5000	.0	.0	.0	.0	93.0	98.8	101.6	95.0	90.0	.0	.0
6300	.0	.0	.0	.0	92.0	98.2	103.0	96.2	89.8	.0	.0
8000	.0	.0	.0	.0	90.4	98.0	103.0	94.6	85.2	.0	.0
10000	.0	.0	.0	.0	87.6	96.4	101.8	92.6	82.2	.0	.0
12500	.0	.0	.0	.0	85.0	93.6	100.4	93.8	84.6	.0	.0
16000	.0	.0	.0	.0	79.4	87.2	93.4	84.4	71.4	.0	.0
20000	.0	.0	.0	.0	73.4	80.6	85.6	77.0	69.0	.0	.0
OVERALL SPL UNCORR	.0	.0	.0	.0	119.0	121.6	124.2	120.6	117.8	.0	.0
OVERALL SPL CORR	.0	.0	.0	.0	118.6	119.9	118.6	119.3	119.0	.0	.0
PNDB CORR	.0	.0	.0	.0	121.7	126.7	130.5	124.2	118.9	.0	.0

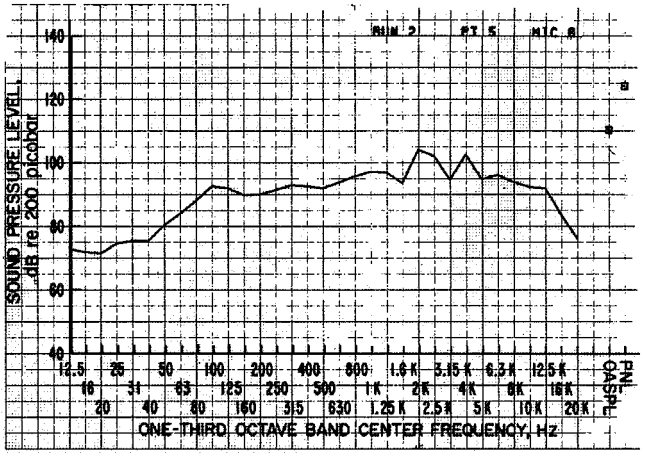
(d) $\beta_v = -12^\circ$.

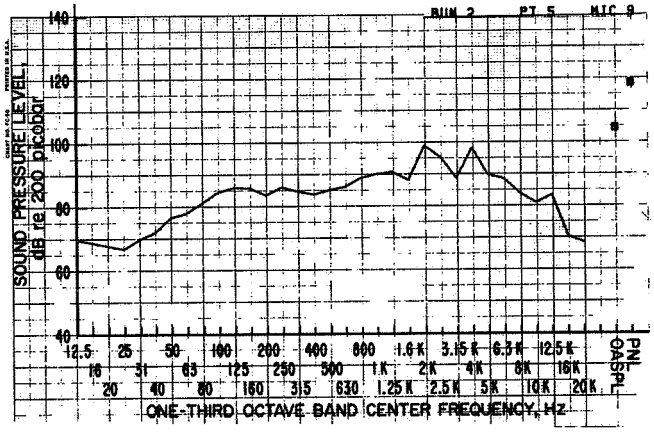
Figure 6.- Continued.











NOISE DATA

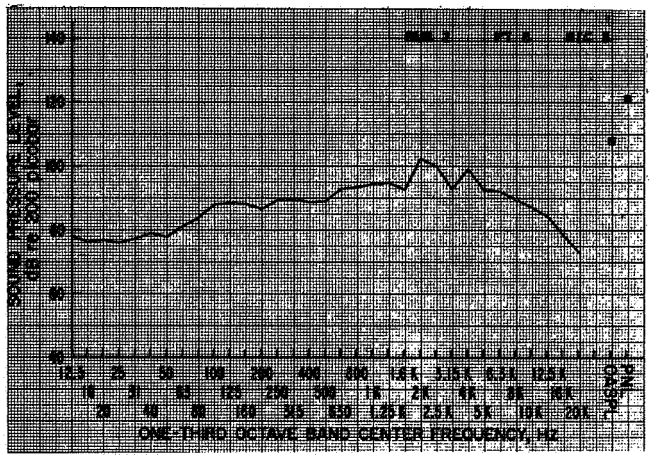
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

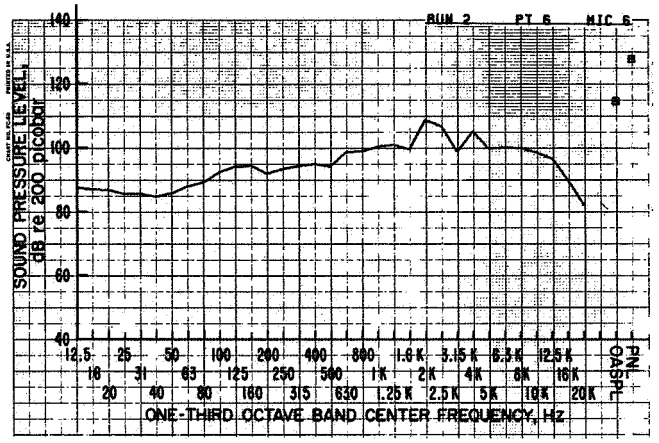
SPL (re .0002 MICROBAR) CORRECTED FOR REVERBERATIONS

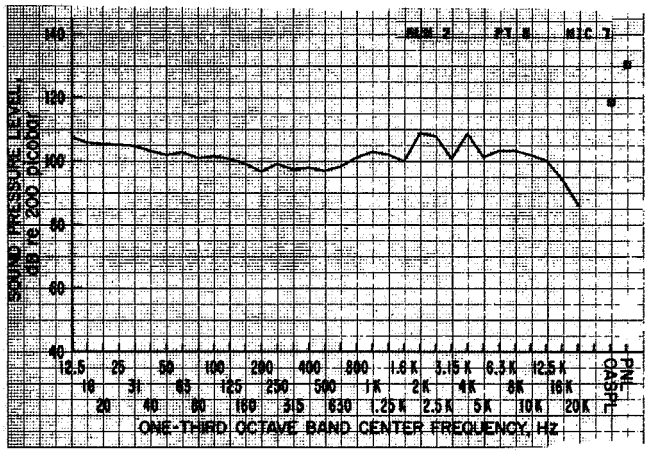
TEST 386 RUN 2	DELTA 5	1	2	3	4	5	6	7	8	9	10	11
MICROPHONE											WCORR 2	
ANGLE(DEG)		.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.5	.0	.0
REF DIST(FT)		.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN		0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)												
12.5		.0	.0	.0	.0	77.6	89.0	104.8	73.0	70.0	.0	.0
16		.0	.0	.0	.0	77.4	89.6	104.8	72.0	69.0	.0	.0
20		.0	.0	.0	.0	77.0	89.2	104.8	71.6	68.0	.0	.0
25		.0	.0	.0	.0	77.6	88.4	103.4	74.8	67.0	.0	.0
31		.0	.0	.0	.0	76.8	87.8	103.2	75.6	70.0	.0	.0
40		.0	.0	.0	.0	78.0	86.0	102.2	75.6	72.2	.0	.0
50		.0	.0	.0	.0	78.2	86.2	101.0	80.6	76.8	.0	.0
63		.0	.0	.0	.0	81.0	88.4	101.2	84.2	78.2	.0	.0
80		.0	.0	.0	.0	83.8	90.2	100.0	88.2	81.4	.0	.0
100		.0	.0	.0	.0	88.0	93.2	100.8	92.8	84.9	.0	.0
125		.0	.0	.0	.0	89.4	94.6	99.6	92.2	86.2	.0	.0
160		.0	.0	.0	.0	86.6	94.8	98.6	90.0	86.0	.0	.0
200		.0	.0	.0	.0	86.6	92.6	96.0	90.2	83.8	.0	.0
250		.0	.0	.0	.0	89.6	94.2	98.6	91.6	86.2	.0	.0
315		.0	.0	.0	.0	89.6	94.2	97.8	93.2	85.0	.0	.0
400		.0	.0	.0	.0	89.6	95.6	97.8	92.8	84.0	.0	.0
500		.0	.0	.0	.0	89.4	94.6	96.6	92.2	85.4	.0	.0
630		.0	.0	.0	.0	92.8	97.2	99.4	94.0	86.4	.0	.0
800		.0	.0	.0	.0	93.8	99.4	101.4	96.8	89.2	.0	.0
1000		.0	.0	.0	.0	94.4	100.4	102.8	97.4	90.4	.0	.0
1250		.0	.0	.0	.0	94.6	100.2	101.8	97.2	91.0	.0	.0
1600		.0	.0	.0	.0	92.0	98.6	100.2	93.8	88.4	.0	.0
2000		.0	.0	.0	.0	103.0	107.4	110.4	104.4	99.2	.0	.0
2500		.0	.0	.0	.0	100.4	106.0	108.6	102.4	99.6	.0	.0
3150		.0	.0	.0	.0	92.6	98.2	100.8	94.8	89.0	.0	.0
4000		.0	.0	.0	.0	99.6	105.2	107.6	102.8	98.4	.0	.0
5000		.0	.0	.0	.0	92.8	99.6	100.6	95.0	90.6	.0	.0
6300		.0	.0	.0	.0	98.0	99.8	103.4	96.4	88.8	.0	.0
8000		.0	.0	.0	.0	89.8	99.8	103.4	94.2	84.2	.0	.0
10000		.0	.0	.0	.0	87.2	98.2	102.2	92.6	81.2	.0	.0
12500		.0	.0	.0	.0	85.0	96.0	100.6	92.2	83.6	.0	.0
16000		.0	.0	.0	.0	78.8	89.4	94.2	83.6	70.6	.0	.0
20000		.0	.0	.0	.0	73.4	81.8	85.8	76.4	66.8	.0	.0
OVERALL SPL	UNCORR	.0	.0	.0	.0	119.4	121.8	124.8	122.2	118.0	.0	.0
OVERALL SPL	CORR	.0	.0	.0	.0	119.3	114.0	118.3	110.7	104.7	.0	.0
PNDB	CORR	.0	.0	.0	.0	121.6	127.3	130.1	124.3	118.8	.0	.0

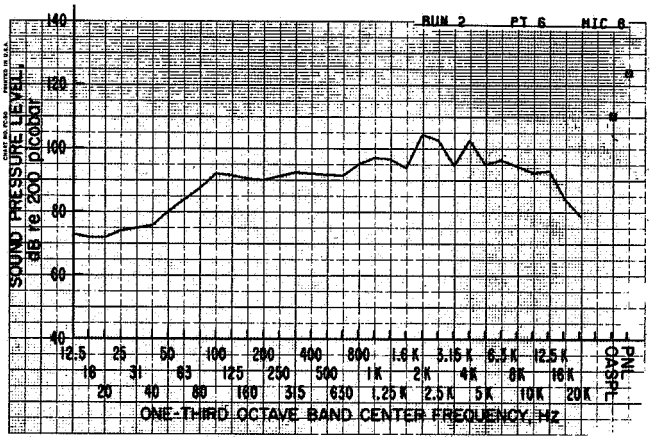
(e) $\beta_v = +4^\circ$.

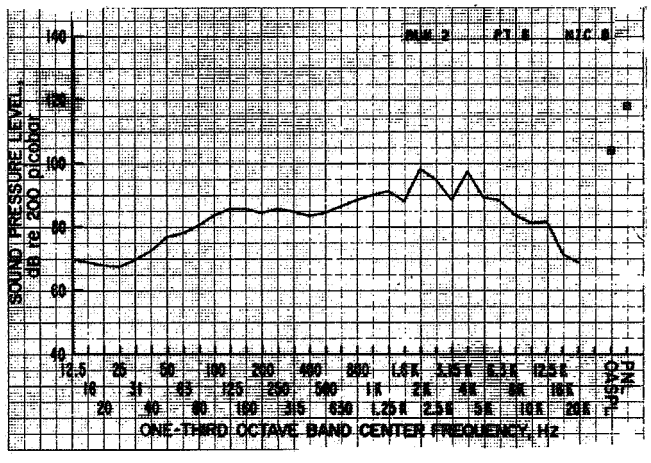
Figure 6.- Continued.











NOISE DATA

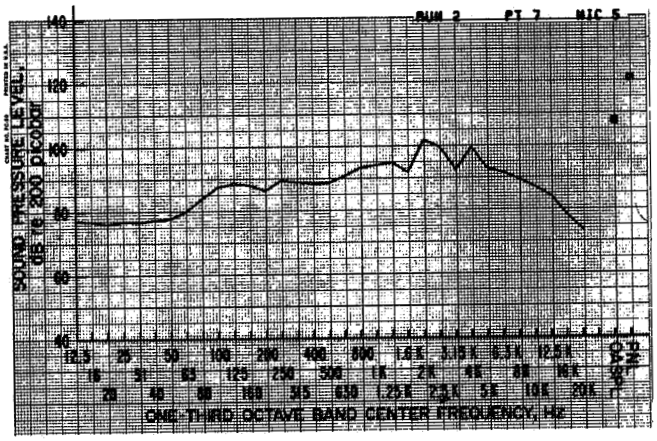
TEST 386 - LIFT FAN TRANSPORT WING TUNNEL WALL CORRECTIONS APPLIED. ATENCIB

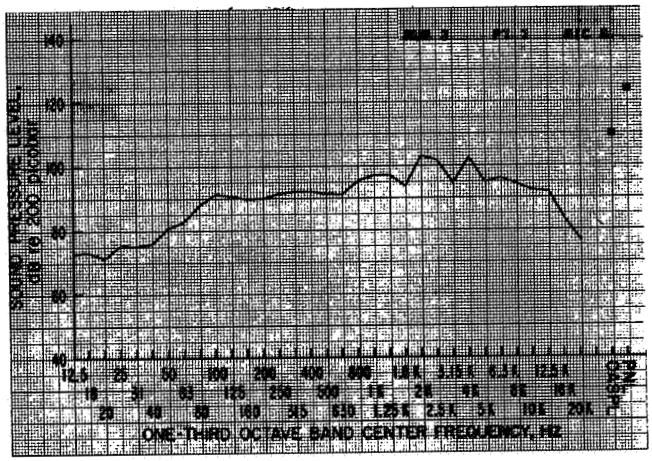
SPL IN DB REL. .0002 MICROBAR

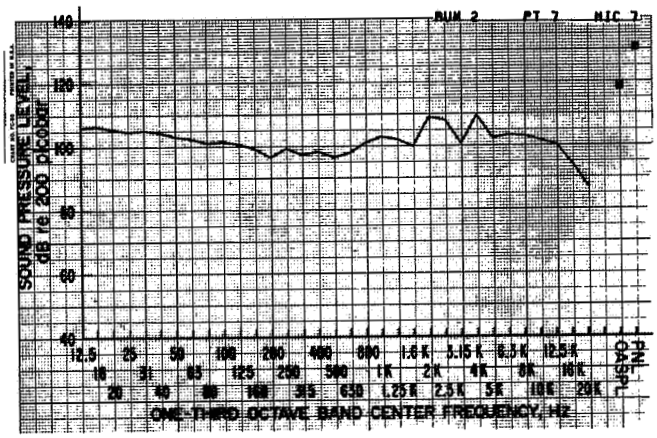
TEST 386 RUN 2 DELTA 6					CORRECTED FOR REVERBERATIONS					HCORR 2	
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	19.9	17.9	9.4	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN:	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	78.0	87.8	107.6	73.0	70.0	.0	.0
16	.0	.0	.0	.0	76.2	87.2	105.8	72.6	69.0	.0	.0
20	.0	.0	.0	.0	76.6	87.0	105.4	72.0	68.0	.0	.0
25	.0	.0	.0	.0	76.0	85.8	105.2	74.2	67.6	.0	.0
31	.0	.0	.0	.0	77.2	89.8	104.8	75.0	69.8	.0	.0
40	.0	.0	.0	.0	79.0	95.0	103.2	79.8	72.6	.0	.0
50	.0	.0	.0	.0	77.8	86.0	102.0	80.2	77.0	.0	.0
63	.0	.0	.0	.0	81.2	88.2	102.8	84.0	78.2	.0	.0
80	.0	.0	.0	.0	83.8	89.4	101.0	87.6	80.6	.0	.0
100	.0	.0	.0	.0	86.0	92.6	101.6	92.2	83.8	.0	.0
125	.0	.0	.0	.0	88.4	94.4	100.8	91.6	85.8	.0	.0
160	.0	.0	.0	.0	88.2	94.6	99.2	90.6	85.8	.0	.0
200	.0	.0	.0	.0	86.6	92.2	96.8	90.2	84.6	.0	.0
250	.0	.0	.0	.0	89.4	93.6	99.2	91.4	85.8	.0	.0
315	.0	.0	.0	.0	89.6	94.6	97.4	92.6	85.0	.0	.0
400	.0	.0	.0	.0	88.8	95.2	98.0	92.2	83.6	.0	.0
500	.0	.0	.0	.0	89.0	94.4	97.0	91.8	84.6	.0	.0
630	.0	.0	.0	.0	92.0	99.0	98.4	93.6	86.6	.0	.0
800	.0	.0	.0	.0	93.4	99.2	101.2	95.2	88.6	.0	.0
1000	.0	.0	.0	.0	94.4	100.6	103.0	97.2	90.2	.0	.0
1250	.0	.0	.0	.0	94.8	101.2	102.2	98.0	91.4	.0	.0
1600	.0	.0	.0	.0	92.6	99.8	100.0	94.0	88.2	.0	.0
2000	.0	.0	.0	.0	102.4	109.0	109.0	104.6	98.4	.0	.0
2500	.0	.0	.0	.0	100.0	107.0	106.0	102.6	95.0	.0	.0
3150	.0	.0	.0	.0	92.8	99.0	100.8	94.8	88.6	.0	.0
4000	.0	.0	.0	.0	99.2	105.4	108.8	102.8	97.6	.0	.0
5000	.0	.0	.0	.0	92.6	100.0	101.4	95.2	89.4	.0	.0
6300	.0	.0	.0	.0	92.2	100.4	103.4	96.6	88.6	.0	.0
8000	.0	.0	.0	.0	89.6	100.2	103.4	94.6	83.8	.0	.0
10000	.0	.0	.0	.0	87.2	98.8	102.0	92.6	81.4	.0	.0
12500	.0	.0	.0	.0	84.4	96.8	100.2	90.2	81.8	.0	.0
16000	.0	.0	.0	.0	76.4	89.8	94.0	84.2	71.4	.0	.0
20000	.0	.0	.0	.0	73.0	82.2	86.0	78.6	69.0	.0	.0
OVERALL SPL UNCORR	.0	.0	.0	.0	119.2	122.6	124.4	122.0	117.4	.0	.0
OVERALL SPL CORR	.0	.0	.0	.0	107.9	114.7	116.7	110.7	104.2	.0	.0
PNDB CORR	.0	.0	.0	.0	121.2	128.0	130.6	124.3	116.2	.0	.0

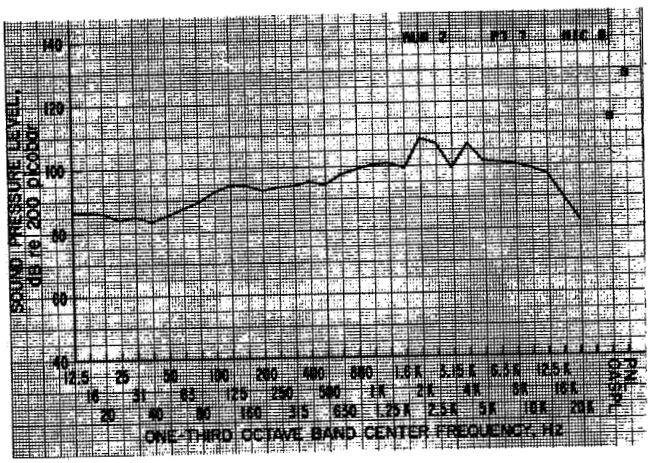
(f) $\beta_v = +8^\circ$.

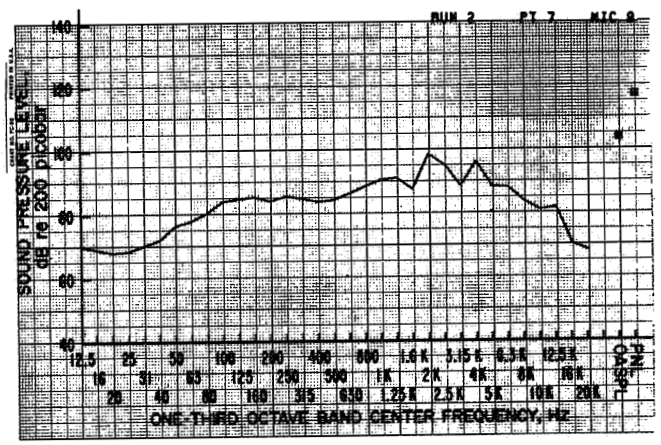
Figure 6.- Continued.











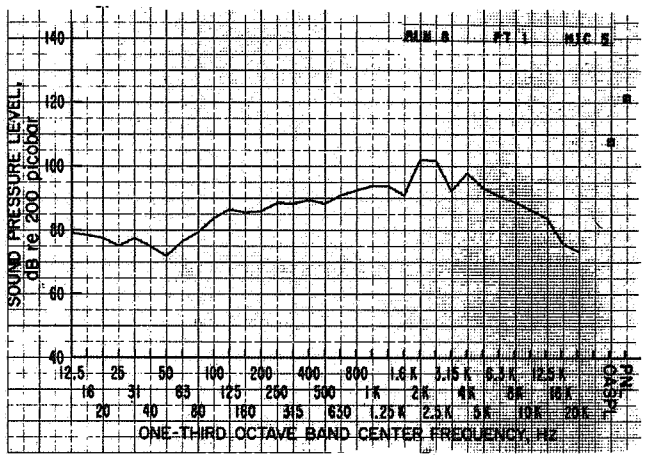
NOISE DATA

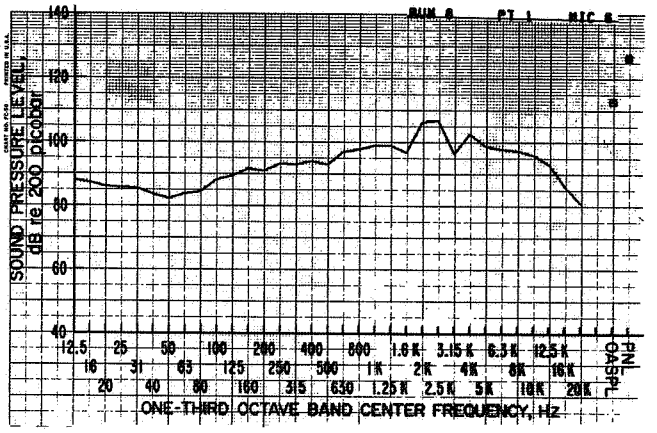
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

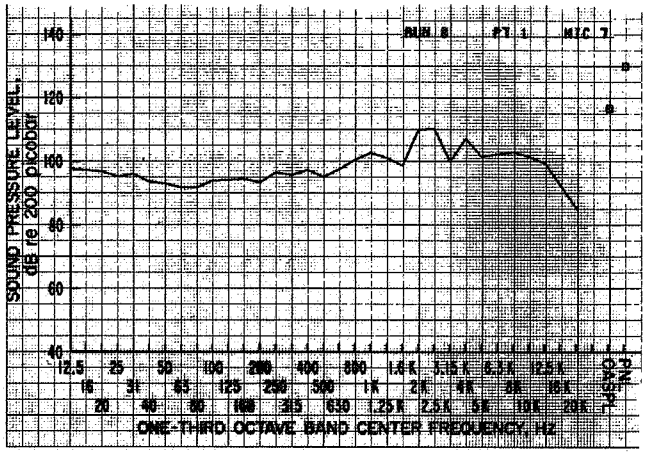
TEST 386 RUN 2	DELTA 7			SPL IN DB REL. 0.0002 MICROBAR							NCORR 2	
	1	2	3	4	5	6	7	8	9	10	11	
MICROPHONE:				CORRECTED FOR REVERBERATIONS								
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.8	.0	.0	
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0	
GAIN,	0	0	0	0	0	0	0	0	0	0	0	
FREQUENCY(HZ)												
12.5	.0	.0	.0	.0	77.2	86.6	116.2	73.0	70.0	.0	.0	
16	.0	.0	.0	.0	77.0	84.4	124.6	73.2	69.0	.0	.0	
20	.0	.0	.0	.0	76.2	84.8	125.6	71.4	68.5	.0	.0	
25	.0	.0	.0	.0	77.0	84.0	124.8	75.4	68.4	.0	.0	
31	.0	.0	.0	.0	76.8	85.0	105.2	75.2	70.2	.0	.0	
40	.0	.0	.0	.0	77.4	85.4	124.6	76.6	72.0	.0	.0	
50	.0	.0	.0	.0	77.8	85.2	103.2	80.8	76.4	.0	.0	
63	.0	.0	.0	.0	80.0	87.4	102.6	82.8	77.8	.0	.0	
80	.0	.0	.0	.0	84.8	89.4	101.2	88.8	80.4	.0	.0	
100	.0	.0	.0	.0	87.6	92.6	101.6	91.4	84.0	.0	.0	
125	.0	.0	.0	.0	88.6	94.6	103.8	90.8	84.8	.0	.0	
160	.0	.0	.0	.0	86.2	94.4	99.4	89.8	85.4	.0	.0	
200	.0	.0	.0	.0	86.4	92.8	96.6	90.0	84.8	.0	.0	
250	.0	.0	.0	.0	89.6	93.8	97.4	91.6	85.6	.0	.0	
315	.0	.0	.0	.0	89.8	94.2	97.4	92.2	84.8	.0	.0	
400	.0	.0	.0	.0	93.6	95.4	98.4	92.2	83.8	.0	.0	
500	.0	.0	.0	.0	94.2	94.4	96.6	91.4	84.4	.0	.0	
630	.0	.0	.0	.0	91.4	97.0	99.8	91.2	85.4	.0	.0	
800	.0	.0	.0	.0	93.4	99.2	111.2	95.4	88.6	.0	.0	
1000	.0	.0	.0	.0	94.2	101.6	113.0	97.2	90.6	.0	.0	
1250	.0	.0	.0	.0	95.0	101.8	112.2	97.2	91.2	.0	.0	
1600	.0	.0	.0	.0	92.8	99.4	107.8	93.8	87.6	.0	.0	
2000	.0	.0	.0	.0	89.0	97.6	103.2	93.2	88.4	.0	.0	
2500	.0	.0	.0	.0	90.8	97.0	102.2	101.4	95.2	.0	.0	
3150	.0	.0	.0	.0	92.6	99.2	1 .8	94.6	88.6	.0	.0	
4000	.0	.0	.0	.0	89.6	104.8	119.6	102.6	96.2	.0	.0	
5000	.0	.0	.0	.0	93.0	101.4	122.6	95.8	89.2	.0	.0	
6300	.0	.0	.0	.0	91.8	101.0	123.4	94.2	88.2	.0	.0	
8000	.0	.3	.0	.0	89.6	100.4	122.2	94.4	83.8	.0	.0	
10000	.0	.0	.0	.0	87.2	99.0	121.6	92.4	81.0	.0	.0	
12500	.0	.0	.0	.0	84.2	97.2	117.4	92.0	81.8	.0	.0	
16000	.0	.0	.0	.0	78.2	89.8	94.2	83.4	79.4	.0	.0	
20000	.0	.0	.0	.0	73.6	82.6	87.0	76.6	68.4	.0	.0	
OVERALL SPL UNCORR	.0	.0	.0	.0	119.4	123.0	125.4	121.7	113.8	.0	.0	
OVERALL SPL CORR	.0	.0	.0	.0	107.8	114.9	114.9	110.0	102.9	.0	.0	
PWDW CORR	.0	.0	.0	.0	121.2	126.4	131.3	123.9	117.4	.0	.0	

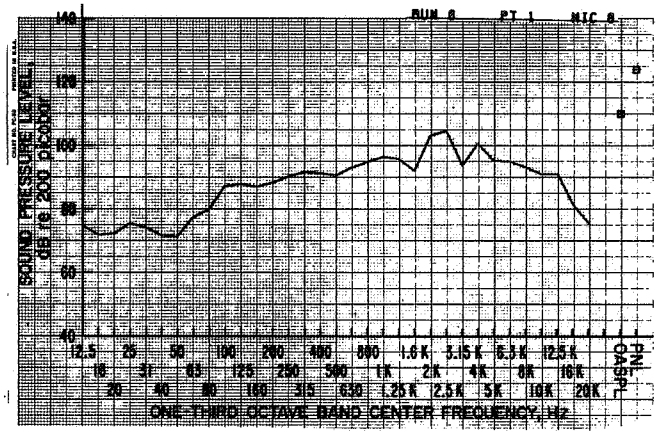
(g) $\beta_v = +12^\circ$.

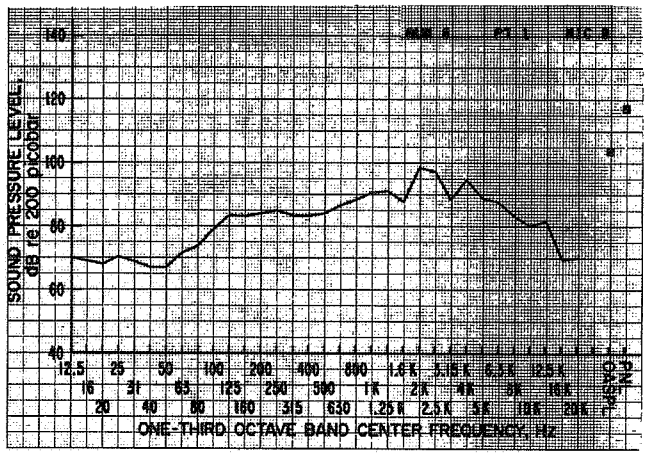
Figure 6.- Concluded.











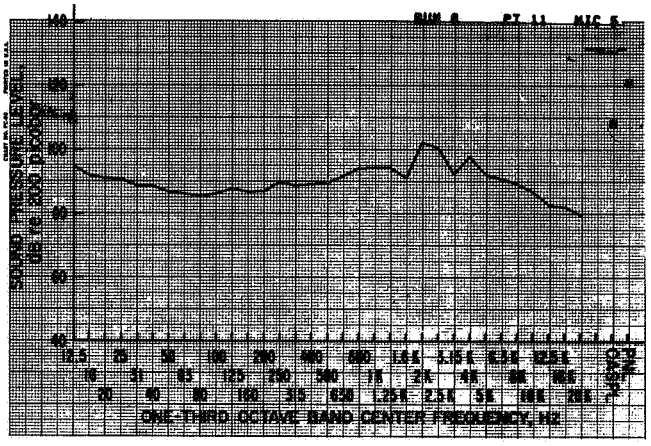
TEST 386 LIFT FAN TRANSPORT --- NOISE DATA --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

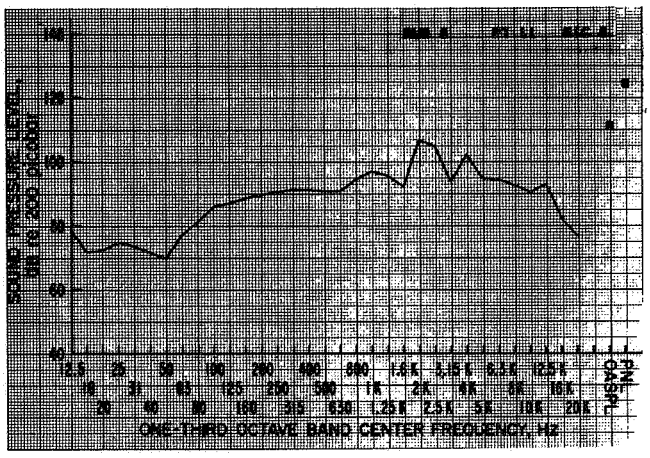
SPL IN DB REL. .0002 MICROBAR

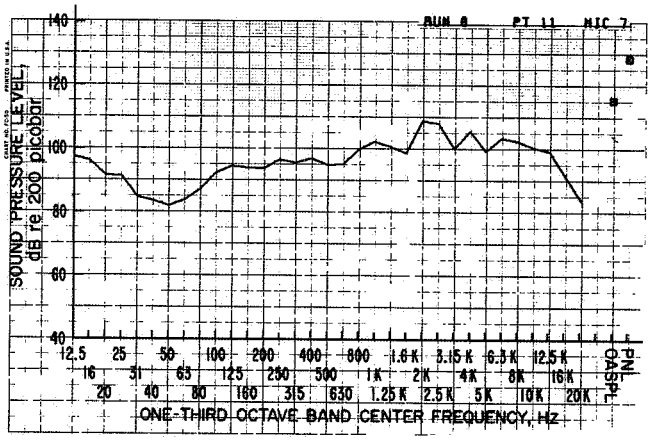
TEST 386 RUN 8	DELTA 1	2	3	4	5	6	7	8	9	WCORR 2 10	11
MICROPHONE#	1										
ANGLE(DEG)†	.0	.0	.0	.0	7.9	19.5	17.9	9.2	4.8	.0	.0
REF DIST(FT)‡	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	79.2	86.2	97.6	75.0	70.0	.0	.0
16	.0	.0	.0	.0	78.6	87.4	97.2	72.0	69.0	.0	.0
20	.0	.0	.0	.0	77.6	86.2	96.8	72.4	68.0	.0	.0
25	.0	.0	.0	.0	75.2	85.8	95.2	75.6	70.4	.0	.0
31	.0	.0	.0	.0	77.6	85.6	96.0	74.4	68.8	.0	.0
40	.0	.0	.0	.0	75.0	83.8	93.6	71.8	67.0	.0	.0
50	.0	.0	.0	.0	72.0	82.4	93.0	71.4	67.0	.0	.0
63	.0	.0	.0	.0	76.6	84.0	91.8	77.6	71.6	.0	.0
80	.0	.0	.0	.0	79.4	84.6	91.8	80.0	73.8	.0	.0
100	.0	.0	.0	.0	83.8	86.4	94.0	87.4	79.0	.0	.0
125	.0	.0	.0	.0	86.6	89.6	94.2	88.0	83.4	.0	.0
160	.0	.0	.0	.0	85.6	91.8	94.6	87.2	83.2	.0	.0
200	.0	.0	.0	.0	86.0	91.2	93.4	88.4	84.0	.0	.0
250	.0	.0	.0	.0	88.6	93.4	96.6	90.4	85.0	.0	.0
315	.0	.0	.0	.0	88.4	93.2	95.8	91.8	83.4	.0	.0
400	.0	.0	.0	.0	89.6	94.2	97.4	91.4	83.4	.0	.0
500	.0	.0	.0	.0	88.4	93.2	95.2	90.8	84.0	.0	.0
630	.0	.0	.0	.0	91.0	97.2	97.6	93.2	86.6	.0	.0
800	.0	.0	.0	.0	92.6	98.0	100.6	95.0	88.4	.0	.0
1000	.0	.0	.0	.0	94.0	99.2	102.8	96.6	90.6	.0	.0
1250	.0	.0	.0	.0	94.0	99.2	101.2	96.7	91.2	.0	.0
1600	.0	.0	.0	.0	91.0	97.0	98.8	92.2	87.8	.0	.0
2000	.0	.0	.0	.0	102.2	106.6	110.2	103.4	98.6	.0	.0
2500	.0	.0	.0	.0	102.0	107.0	110.4	104.8	97.4	.0	.0
3150	.0	.0	.0	.0	92.4	96.6	100.0	93.8	88.4	.0	.0
4000	.0	.0	.0	.0	98.0	102.8	107.2	100.8	94.5	.0	.0
5000	.0	.0	.0	.0	93.4	99.0	103.6	95.4	88.8	.0	.0
6300	.0	.0	.0	.0	90.8	96.0	102.4	95.2	87.8	.0	.0
8000	.0	.0	.0	.0	89.0	97.6	103.0	93.4	83.2	.0	.0
10000	.0	.0	.0	.0	86.4	96.2	101.0	91.2	80.2	.0	.0
12500	.0	.0	.0	.0	84.0	93.2	99.4	91.2	81.8	.0	.0
16000	.0	.0	.0	.0	76.0	86.2	92.2	81.4	69.6	.0	.0
20000	.0	.0	.0	.0	73.6	81.0	89.0	73.6	70.2	.0	.0
OVERALL SPL UNCORR	.0	.0	.0	.0	119.6	121.8	123.6	120.2	116.4	.0	.0
OVERALL SPL CORR	.0	.0	.0	.0	119.6	121.8	123.6	120.2	116.4	.0	.0
PNDB CORR	.0	.0	.0	.0	121.6	126.8	130.3	124.1	117.3	.0	.0

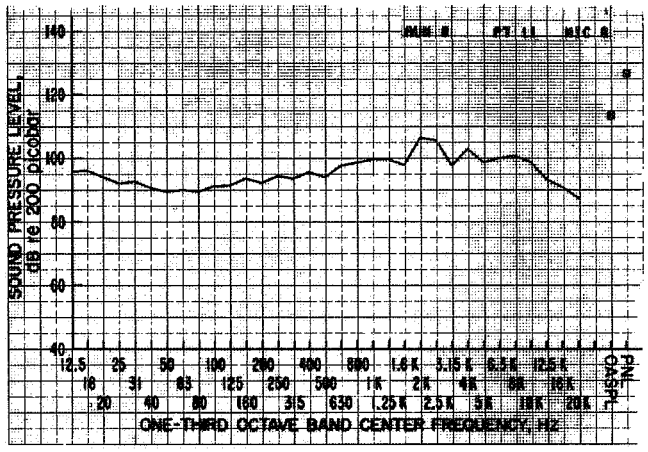
(a) V_∞ = 10.5 m/sec

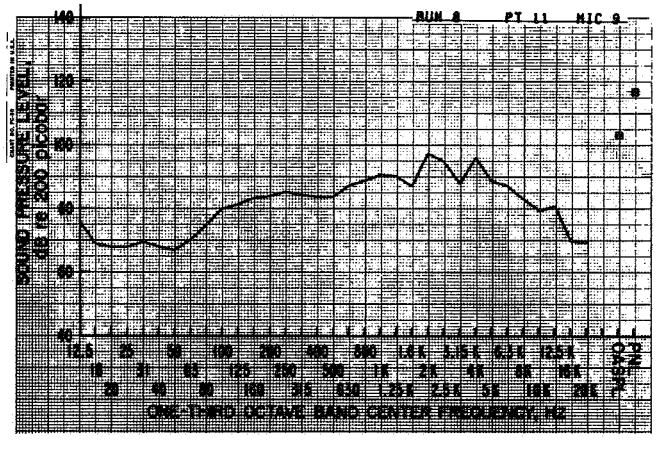
Figure 7.- Run 8, $\alpha = 0^o$, $\psi = 0^o$, $\sigma_v = 0^o$, $\beta_v = 0^o$, $\delta_{cn} = 90^o$, fans 1 and 2, RPM = 3600.











NOISE DATA

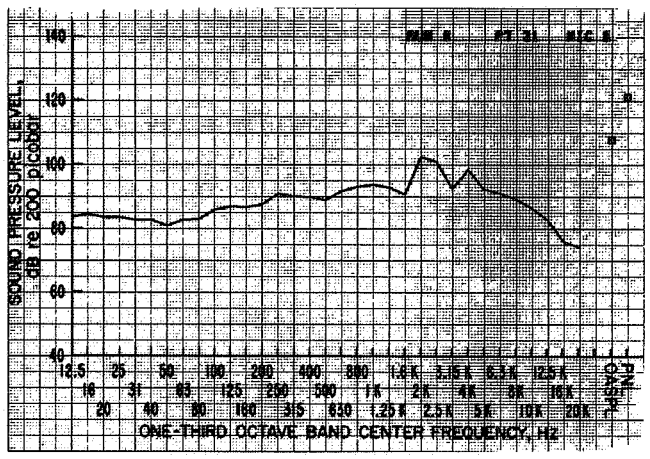
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIB

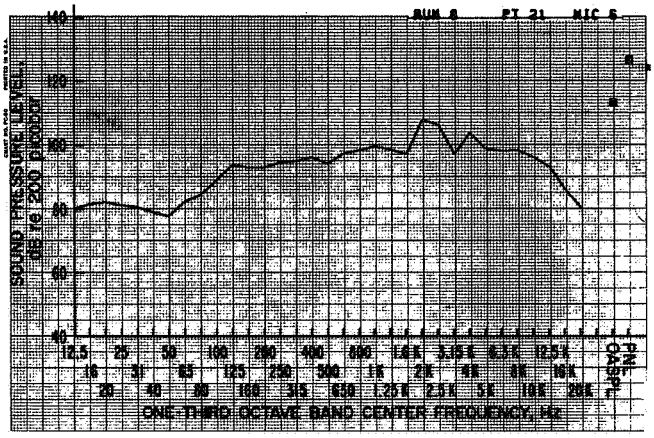
SPL IN DB REL. .0002 MICROBAR

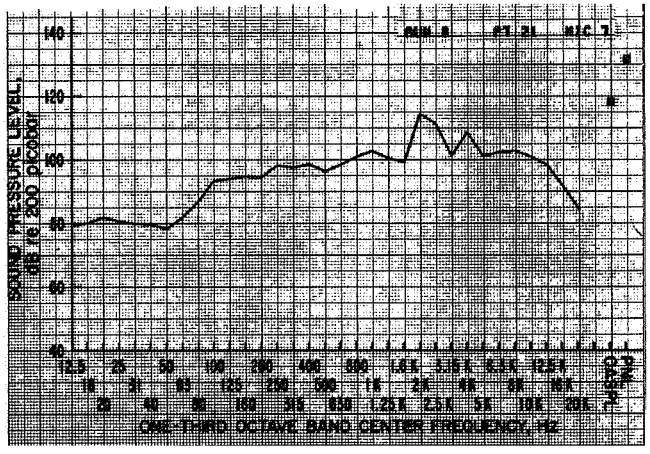
TEST 386 RUN 8	DELTA 11			CORRECTED FOR REVERBERATIONS					MCBRR 2	
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGJ)	.0	.0	.0	.0	7.9	15.3	17.9	9.2	4.6	.0	.0
REF DIST(FT))	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	94.8	96.8	97.4	78.8	76.0	.0	.0
16	.0	.0	.0	.0	91.8	96.2	96.2	72.0	69.0	.0	.0
20	.0	.0	.0	.0	91.0	94.2	91.6	72.4	68.0	.0	.0
25	.0	.0	.0	.0	90.8	92.2	91.4	75.0	68.0	.0	.0
31	.0	.0	.0	.0	88.6	92.8	84.8	73.8	69.6	.0	.0
40	.0	.0	.0	.0	88.6	90.8	83.6	71.8	68.0	.0	.0
50	.0	.0	.0	.0	86.8	89.6	82.0	70.0	67.0	.0	.0
63	.0	.0	.0	.0	86.2	90.2	83.8	77.4	70.2	.0	.0
80	.0	.0	.0	.0	85.4	89.6	87.2	81.4	74.8	.0	.0
100	.0	.0	.0	.0	86.2	91.4	92.4	86.2	80.0	.0	.0
125	.0	.0	.0	.0	87.8	91.6	94.6	87.2	81.4	.0	.0
160	.0	.0	.0	.0	86.8	93.8	94.0	88.8	83.4	.0	.0
200	.0	.0	.0	.0	87.0	92.4	93.8	89.8	84.0	.0	.0
250	.0	.0	.0	.0	89.8	94.6	96.6	90.8	85.4	.0	.0
315	.0	.0	.0	.0	88.8	93.0	95.6	91.4	84.4	.0	.0
400	.0	.0	.0	.0	89.2	95.8	97.0	91.4	83.8	.0	.0
500	.0	.0	.0	.0	89.6	94.2	95.0	91.0	83.8	.0	.0
630	.0	.0	.0	.0	91.0	97.0	99.2	93.0	87.4	.0	.0
800	.0	.0	.0	.0	94.2	98.6	100.0	94.6	89.0	.0	.0
1000	.0	.0	.0	.0	94.4	99.8	102.4	97.2	90.8	.0	.0
1250	.0	.0	.0	.0	94.4	99.6	100.8	95.8	90.4	.0	.0
1600	.0	.0	.0	.0	91.2	98.0	98.8	92.4	87.2	.0	.0
2000	.0	.0	.0	.0	102.4	106.6	109.0	107.0	97.6	.0	.0
2500	.0	.0	.0	.0	100.6	105.6	108.2	105.0	95.0	.0	.0
3150	.0	.0	.0	.0	92.4	97.8	100.2	93.6	88.0	.0	.0
4000	.0	.0	.0	.0	98.0	103.0	105.8	102.4	96.2	.0	.0
5000	.0	.0	.0	.0	92.2	98.8	99.4	94.8	88.8	.0	.0
6300	.0	.0	.0	.0	91.0	100.2	103.6	94.6	87.4	.0	.0
8000	.0	.0	.0	.0	89.4	100.8	102.6	92.8	83.2	.0	.0
10000	.0	.0	.0	.0	86.0	98.0	101.6	90.4	79.6	.0	.0
12500	.0	.0	.0	.0	82.6	93.4	99.4	93.2	80.8	.0	.0
16000	.0	.0	.0	.0	82.2	91.0	91.4	82.0	69.8	.0	.0
20000	.0	.0	.0	.0	79.6	87.4	83.8	76.8	69.6	.0	.0
OVERALL SPL UNCORR	.0	.0	.0	.0	119.2	120.6	123.0	123.0	117.0	.0	.0
OVERALL SPL CORR	.0	.0	.0	.0	108.4	113.6	115.6	111.2	103.4	.0	.0
PNDB	.0	.0	.0	.0	121.2	126.9	128.8	124.5	117.1	.0	.0

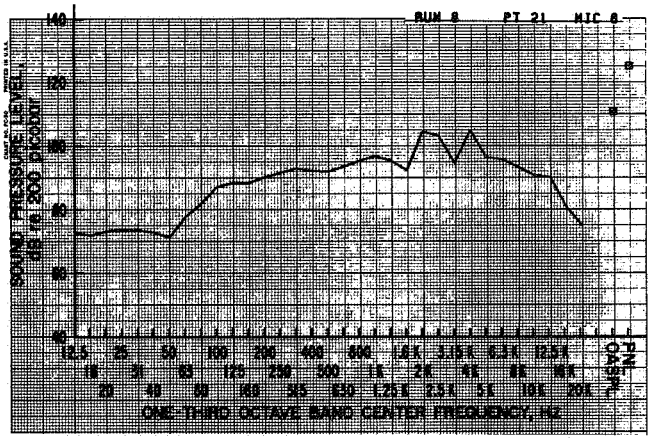
(b) V_∞ = 13.7 m/sec

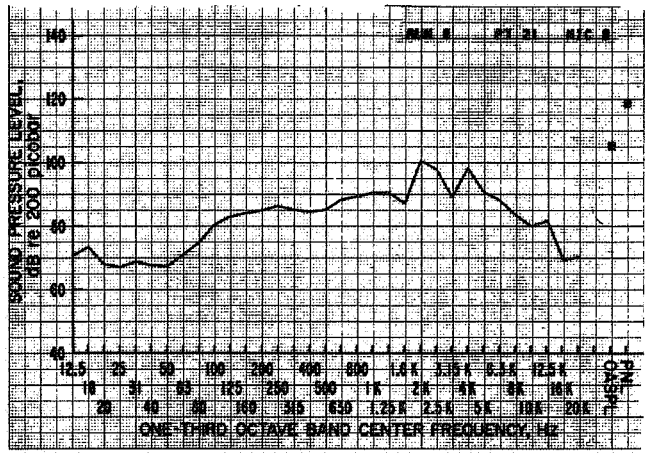
Figure 7.- Continued.











NOISE DATA

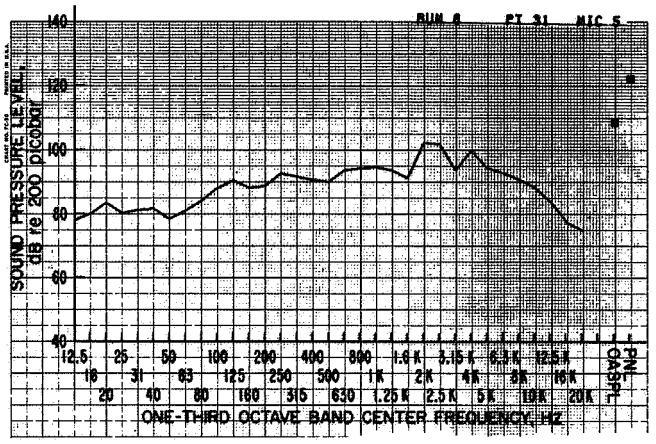
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED. ATENCIO

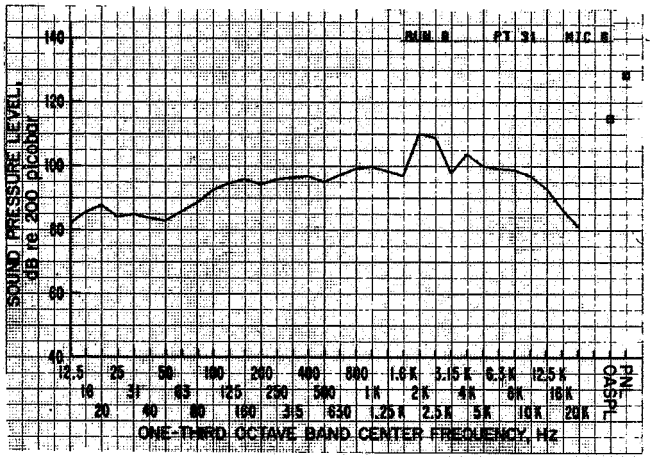
SPL IN DB REL. .0002 MICROBAR

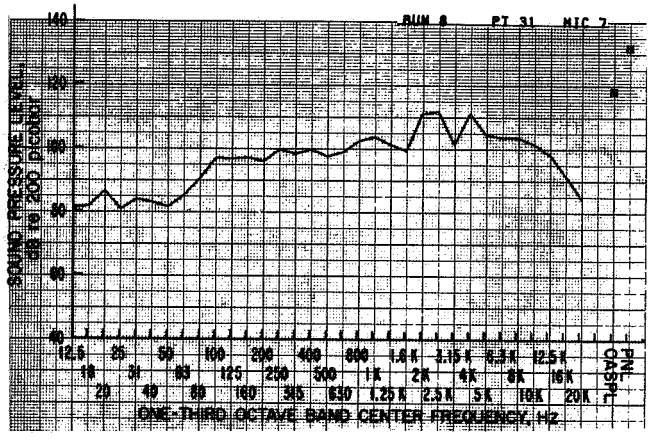
TEST 386 RUN 8	DELTA 21										
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGT)	.0	.0	.0	.0	77.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN:	0	0	0	0	0	0	0	0	0	0	0
FREQUENCY(HZ)											
12.5	.0	.0	.0	.0	83.8	80.0	79.6	73.0	70.6	.0	.0
16	.0	.0	.0	.0	84.6	81.6	80.2	72.0	73.4	.0	.0
20	.0	.0	.0	.0	83.6	82.2	82.0	73.4	68.0	.0	.0
25	.0	.0	.0	.0	83.6	81.2	80.8	73.8	67.0	.0	.0
31	.0	.0	.0	.0	82.8	80.4	80.0	73.6	68.8	.0	.0
40	.0	.0	.0	.0	82.8	79.0	79.8	73.0	67.6	.0	.0
50	.0	.0	.0	.0	81.0	77.8	78.4	71.4	67.4	.0	.0
63	.0	.0	.0	.0	82.8	82.4	82.0	77.8	71.0	.0	.0
80	.0	.0	.0	.0	83.0	84.4	87.0	82.8	74.8	.0	.0
100	.0	.0	.0	.0	86.0	89.0	93.6	87.4	80.6	.0	.0
125	.0	.0	.0	.0	87.0	93.8	94.2	88.6	83.0	.0	.0
160	.0	.0	.0	.0	86.8	93.0	95.0	88.6	84.2	.0	.0
200	.0	.0	.0	.0	87.6	93.0	94.6	90.4	85.0	.0	.0
250	.0	.0	.0	.0	91.0	94.6	98.4	91.8	86.4	.0	.0
315	.0	.0	.0	.0	90.2	95.0	97.8	93.2	85.2	.0	.0
400	.0	.0	.0	.0	90.0	96.2	98.8	92.4	84.6	.0	.0
500	.0	.0	.0	.0	89.0	94.2	96.6	92.2	85.2	.0	.0
630	.0	.0	.0	.0	91.6	97.4	98.8	93.8	86.4	.0	.0
800	.0	.0	.0	.0	93.2	98.4	101.2	95.6	89.4	.0	.0
1000	.0	.0	.0	.0	93.8	99.6	103.0	97.0	90.6	.0	.0
1250	.0	.0	.0	.0	93.0	98.6	100.8	95.6	90.0	.0	.0
1600	.0	.0	.0	.0	90.8	97.2	99.4	92.6	87.2	.0	.0
2000	.0	.0	.0	.0	102.6	106.0	114.6	104.8	100.8	.0	.0
2500	.0	.0	.0	.0	101.0	108.4	111.8	103.4	98.0	.0	.0
3150	.0	.0	.0	.0	92.6	97.2	101.4	94.8	89.2	.0	.0
4000	.0	.0	.0	.0	98.6	103.8	108.8	105.2	98.4	.0	.0
5000	.0	.0	.0	.0	92.4	98.8	101.4	96.6	90.8	.0	.0
6300	.0	.0	.0	.0	91.2	98.2	102.6	96.0	88.2	.0	.0
8000	.0	.0	.0	.0	89.4	98.4	103.0	93.6	83.6	.0	.0
10000	.0	.0	.0	.0	88.6	96.2	101.2	91.0	80.0	.0	.0
12500	.0	.0	.0	.0	82.8	93.2	98.6	90.4	81.8	.0	.0
16000	.0	.0	.0	.0	76.0	86.0	91.8	81.2	69.4	.0	.0
20000	.0	.0	.0	.0	74.4	80.4	84.6	75.2	70.4	.0	.0
OVERALL SPL UNCORR	.0	.0	.0	.0	119.8	121.6	126.0	122.4	119.0	.0	.0
OVERALL SPL CORR	.0	.0	.0	.0	107.9	113.4	118.9	111.1	105.3	.0	.0
PNDB CORR	.0	.0	.0	.0	121.3	126.9	131.8	125.3	118.9	.0	.0

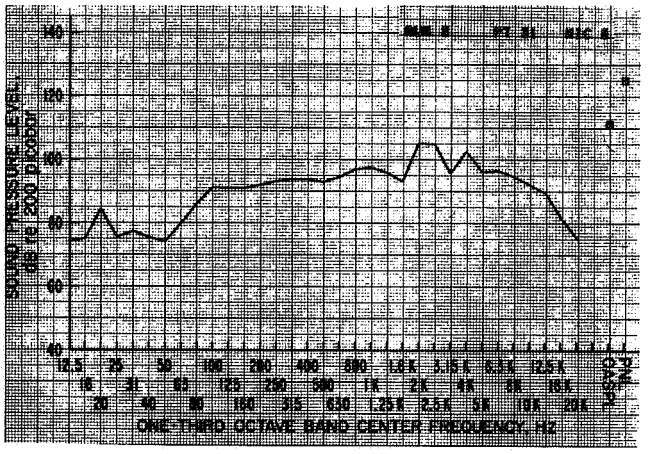
(c) V_∞ = 20.5 m/sec

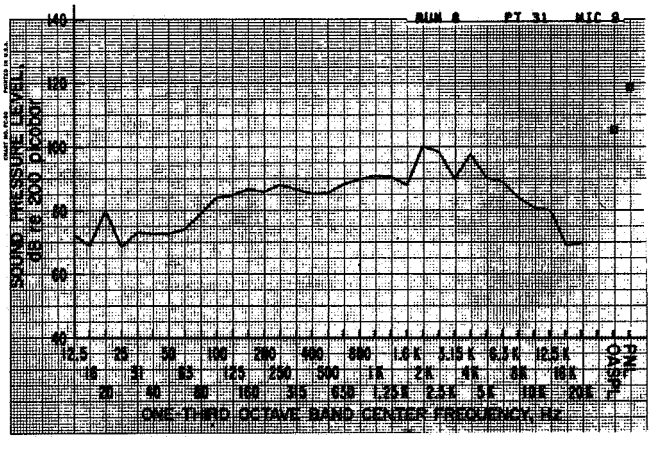
Figure 7.- Continued.











NOISE DATA

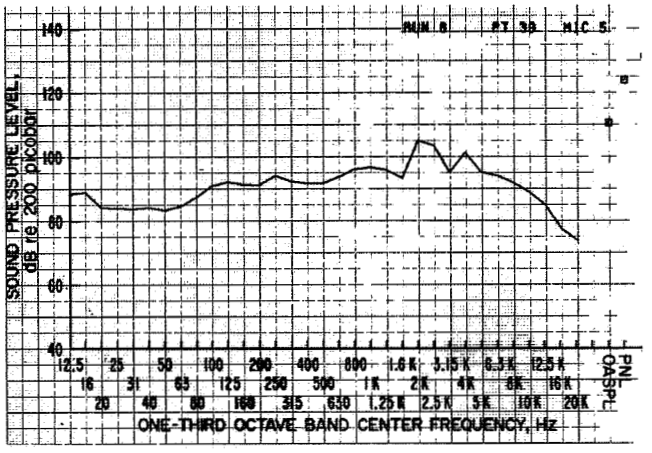
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENC10

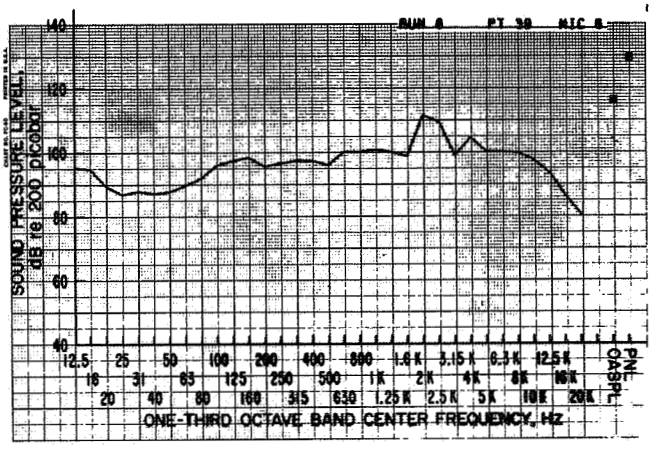
SPL IN DB REL. .0002 MICROBAR

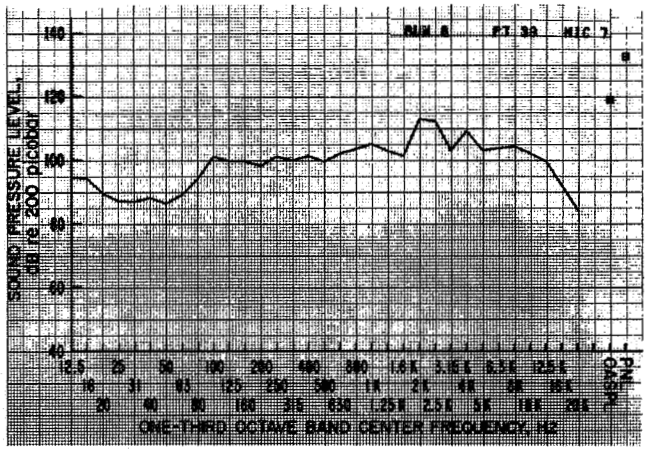
TEST 386 RUN 8	DELTA 31	CORRECTED FOR REVERBERATIONS								WCORR 2	
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQUENCY:											
12.5	.0	.0	.0	.0	78.2	82.0	81.6	74.2	72.4	.0	.0
16	.0	.0	.0	.0	80.2	85.4	82.0	75.0	69.0	.0	.0
20	.0	.0	.0	.0	83.6	87.6	86.8	84.4	80.0	.0	.0
25	.0	.0	.0	.0	80.4	84.0	81.0	75.4	68.6	.0	.0
31	.0	.0	.0	.0	81.4	84.8	84.2	77.4	73.2	.0	.0
40	.0	.0	.0	.0	81.8	83.6	83.2	75.4	72.6	.0	.0
50	.0	.0	.0	.0	78.6	82.8	81.8	74.2	72.8	.0	.0
63	.0	.0	.0	.0	81.2	85.6	85.4	79.8	74.2	.0	.0
80	.0	.0	.0	.0	84.2	88.4	90.8	86.0	79.0	.0	.0
100	.0	.0	.0	.0	88.2	92.4	97.2	91.2	84.2	.0	.0
125	.0	.0	.0	.0	90.6	94.6	97.0	91.0	89.0	.0	.0
160	.0	.0	.0	.0	88.4	95.8	97.4	91.0	88.8	.0	.0
200	.0	.0	.0	.0	88.8	94.2	96.2	92.0	86.0	.0	.0
250	.0	.0	.0	.0	92.6	95.8	100.6	93.2	88.2	.0	.0
315	.0	.0	.0	.0	91.8	96.4	98.6	93.8	88.8	.0	.0
400	.0	.0	.0	.0	90.8	96.8	100.0	93.8	85.4	.0	.0
500	.0	.0	.0	.0	90.2	95.0	97.8	93.0	89.6	.0	.0
630	.0	.0	.0	.0	93.8	97.2	99.2	94.6	88.4	.0	.0
800	.0	.0	.0	.0	94.4	99.2	102.6	97.0	90.0	.0	.0
1000	.0	.0	.0	.0	94.8	99.8	104.0	97.6	91.0	.0	.0
1250	.0	.0	.0	.0	93.8	98.4	103.6	96.0	90.8	.0	.0
1600	.0	.0	.0	.0	91.4	97.0	99.6	93.2	88.2	.0	.0
2000	.0	.0	.0	.0	102.4	110.2	111.4	105.2	100.4	.0	.0
2500	.0	.0	.0	.0	102.0	109.0	112.0	105.0	98.6	.0	.0
3150	.0	.0	.0	.0	93.8	97.8	101.6	95.8	90.0	.0	.0
4000	.0	.0	.0	.0	100.0	103.8	111.4	102.6	97.8	.0	.0
5000	.0	.0	.0	.0	94.6	100.0	106.8	98.2	90.4	.0	.0
6300	.0	.0	.0	.0	93.0	99.2	103.8	96.6	89.2	.0	.0
8000	.0	.0	.0	.0	91.0	98.8	103.8	94.8	84.2	.0	.0
10000	.0	.0	.0	.0	88.4	97.0	101.8	92.2	81.0	.0	.0
12500	.0	.0	.0	.0	83.8	93.0	99.4	89.6	80.2	.0	.0
16000	.0	.0	.0	.0	77.6	86.4	91.8	81.4	69.2	.0	.0
20000	.0	.0	.0	.0	75.0	81.0	84.6	75.0	70.0	.0	.0
OVERALL SPL UNCORR	.0	.0	.0	.0	120.2	123.4	126.8	122.4	118.0	.0	.0
OVERALL SPL CORR	.0	.0	.0	.0	108.8	119.0	118.4	111.4	109.6	.0	.0
PNDB CORR	.0	.0	.0	.0	122.4	128.6	132.2	125.1	118.9	.0	.0

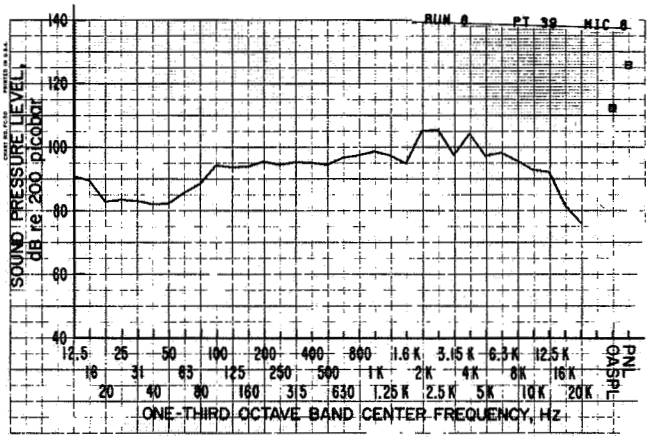
(d) V_∞ = 28.5 m/sec

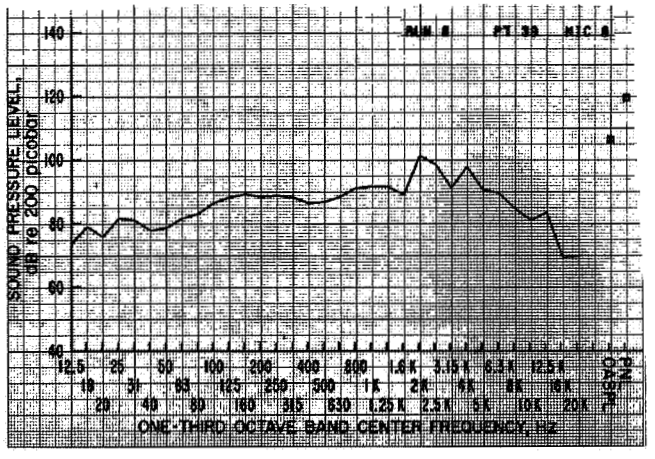
Figure 7.- Continued.











NOISE DATA

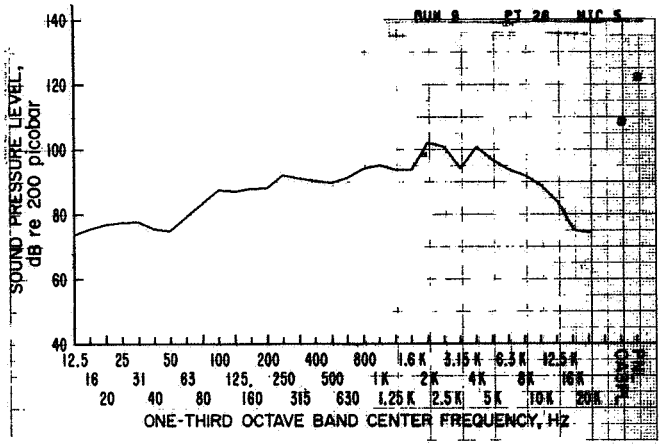
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

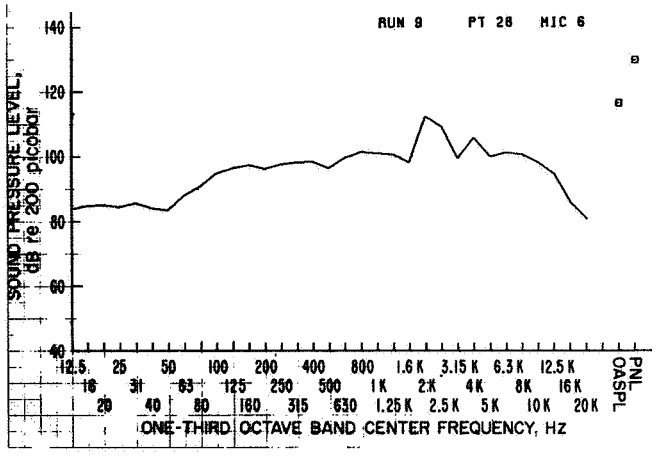
SPL IN DB REL. .0002 MICROBAR

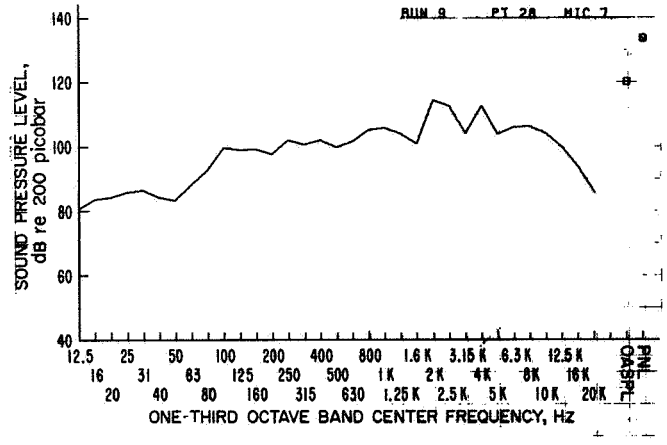
TEST 386 RUN 8	DELTA 39				CORRECTED FOR REVERBERATIONS					MCBR 2	
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.9	17.9	9.2	4.5	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN:	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	86.4	95.4	94.8	91.0	73.8	.0	.0
16	.0	.0	.0	.0	89.0	95.0	94.6	89.6	79.2	.0	.0
20	.0	.0	.0	.0	84.2	89.6	89.8	83.9	76.8	.0	.0
25	.0	.0	.0	.0	84.0	87.0	87.4	83.4	81.6	.0	.0
31	.0	.0	.0	.0	93.8	98.0	97.2	93.2	81.2	.0	.0
40	.0	.0	.0	.0	84.2	97.4	88.4	82.2	78.0	.0	.0
50	.0	.0	.0	.0	83.4	87.8	86.6	82.4	79.8	.0	.0
63	.0	.0	.0	.0	84.6	89.8	89.4	85.8	81.4	.0	.0
80	.0	.0	.0	.0	87.6	92.0	94.4	88.6	83.2	.0	.0
100	.0	.0	.0	.0	91.0	96.2	101.4	94.4	84.6	.0	.0
125	.0	.0	.0	.0	92.2	97.6	100.0	93.8	86.4	.0	.0
160	.0	.0	.0	.0	91.4	95.6	97.0	94.0	89.4	.0	.0
200	.0	.0	.0	.0	91.2	95.8	98.4	95.6	88.6	.0	.0
250	.0	.0	.0	.0	94.2	98.8	101.4	94.6	89.0	.0	.0
315	.0	.0	.0	.0	92.6	97.6	101.2	98.4	93.4	.0	.0
400	.0	.0	.0	.0	91.8	97.6	101.6	97.2	86.6	.0	.0
500	.0	.0	.0	.0	91.8	96.2	99.8	94.6	87.0	.0	.0
630	.0	.0	.0	.0	93.8	101.4	102.4	98.4	88.6	.0	.0
800	.0	.0	.0	.0	96.2	101.4	103.8	97.6	91.4	.0	.0
1000	.0	.0	.0	.0	95.8	101.0	103.4	98.4	91.8	.0	.0
1250	.0	.0	.0	.0	98.0	101.4	103.2	97.8	91.8	.0	.0
1600	.0	.0	.0	.0	93.4	99.0	101.6	95.0	89.2	.0	.0
2000	.0	.0	.0	.0	105.2	111.8	113.2	105.4	101.6	.0	.0
2500	.0	.0	.0	.0	103.6	109.8	112.6	105.0	98.2	.0	.0
3150	.0	.0	.0	.0	98.2	99.2	103.4	97.6	91.4	.0	.0
4000	.0	.0	.0	.0	101.4	104.8	109.4	104.4	98.0	.0	.0
5000	.0	.0	.0	.0	95.2	100.4	103.4	97.4	90.8	.0	.0
6300	.0	.0	.0	.0	94.2	100.4	104.0	99.4	89.8	.0	.0
8000	.0	.0	.0	.0	92.0	100.0	104.6	96.0	84.8	.0	.0
10000	.0	.0	.0	.0	89.8	97.8	102.4	93.0	81.2	.0	.0
12500	.0	.0	.0	.0	85.0	93.4	99.8	92.4	83.6	.0	.0
16000	.0	.0	.0	.0	77.4	86.2	92.0	81.8	69.6	.0	.0
20000	.0	.0	.0	.0	74.0	80.4	84.4	76.4	70.0	.0	.0
OVERALL SPL UNCORR	.0	.0	.0	.0	121.8	124.4	126.6	123.0	119.8	.0	.0
~~OVERALL SPL CORR~~	.0	.0	.0	.0	110.7	116.4	119.2	117.8	116.0	.0	.0
PNDB CORR	.0	.0	.0	.0	124.0	129.8	132.6	126.2	119.8	.0	.0

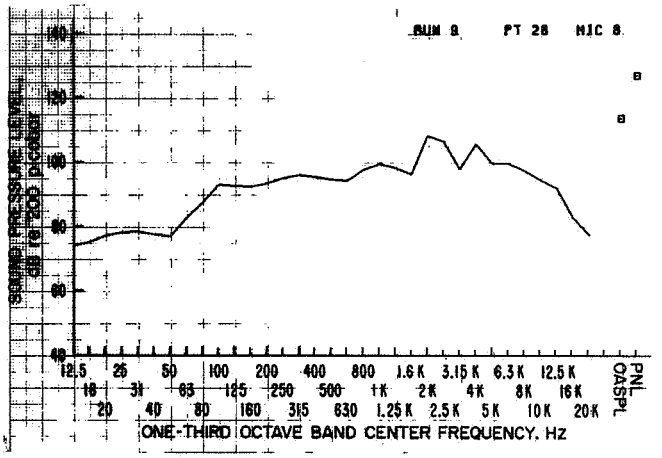
(e) V_∞ = 41.4 m/sec

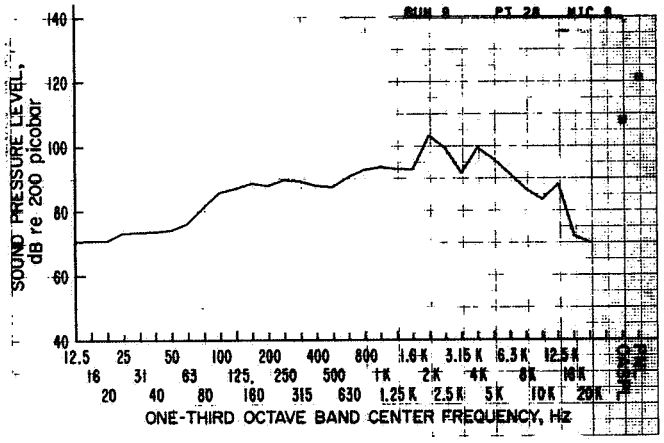
Figure 7.- Concluded.











NOISE DATA

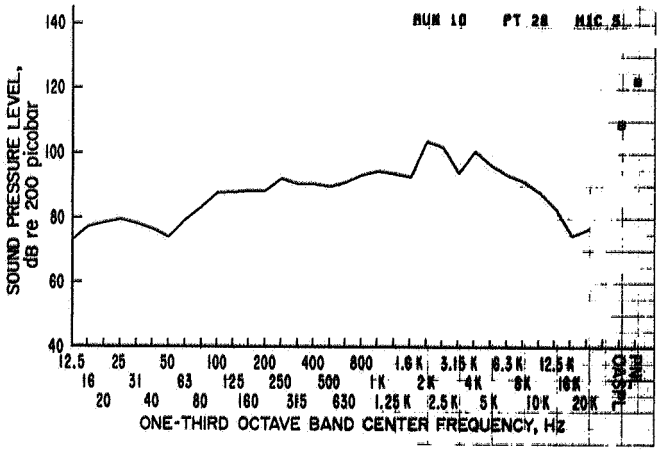
TEST 386 LIFT FAN TRANSPORT TUNNEL WALL CORRECTIONS APPLIED.

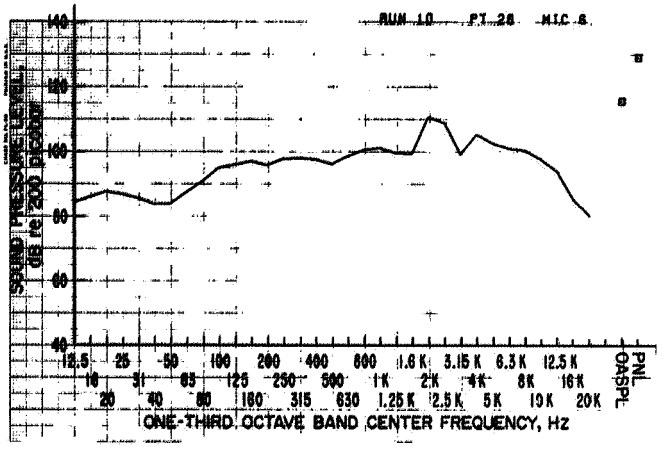
SPL IN Db REL .0002 MICROBAR
CORRECTED FOR REVERBERATIONS

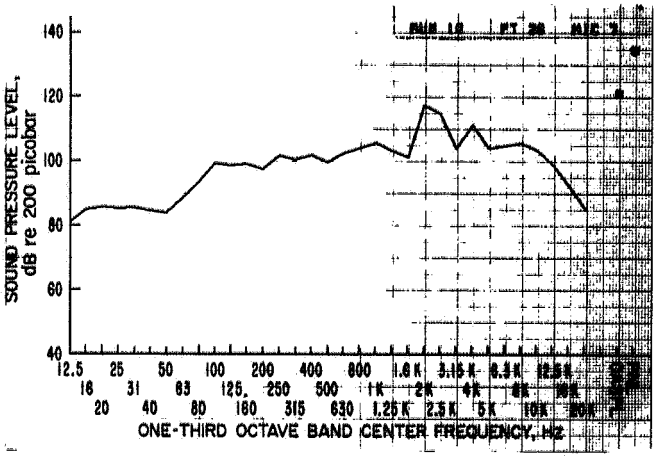
TEST 386 RUN 9 DELTA 28	1	2	3	4	5	6	7	8	9	10	11
MICROPHONE:											
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN:	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	74.0	83.8	80.8	74.4	70.6	.0	.0
16	.0	.0	.0	.0	75.8	84.8	83.8	75.4	70.8	.0	.0
20	.0	.0	.0	.0	77.2	85.0	84.4	77.4	70.8	.0	.0
25	.0	.0	.0	.0	77.8	84.4	86.0	78.4	73.2	.0	.0
31	.0	.0	.0	.0	78.0	85.6	86.6	78.6	73.4	.0	.0
40	.0	.0	.0	.0	75.8	84.0	84.4	77.8	73.6	.0	.0
50	.0	.0	.0	.0	75.2	83.4	83.4	77.2	74.0	.0	.0
63	.0	.0	.0	.0	79.4	88.0	88.2	82.8	76.7	.0	.0
80	.0	.0	.0	.0	83.6	90.8	92.8	87.6	81.0	.0	.0
100	.0	.0	.0	.0	87.8	94.8	99.8	93.2	85.8	.0	.0
125	.0	.0	.0	.0	87.4	96.4	99.2	92.8	87.6	.0	.0
160	.0	.0	.0	.0	88.2	97.4	99.4	92.6	88.6	.0	.0
200	.0	.0	.0	.0	88.4	96.2	97.8	93.6	87.8	.0	.0
250	.0	.0	.0	.0	92.4	97.6	102.2	95.2	89.6	.0	.0
315	.0	.0	.0	.0	91.4	99.2	101.8	96.2	89.2	.0	.0
400	.0	.0	.0	.0	90.6	98.4	102.2	95.6	87.8	.0	.0
500	.0	.0	.0	.0	90.	96.4	100.0	94.8	87.4	.0	.0
630	.0	.0	.0	.0	91.6	99.6	101.8	94.4	90.6	.0	.0
800	.0	.0	.0	.0	94.4	101.4	105.4	97.8	92.4	.0	.0
1000	.0	.0	.0	.0	95.4	101.0	106.0	99.6	93.6	.0	.0
1250	.0	.0	.0	.0	94.6	100.6	105.2	98.4	93.4	.0	.0
1600	.0	.0	.0	.0	94.4	99.2	104.0	98.4	93.4	.0	.0
2000	.0	.0	.0	.0	102.4	112.4	114.6	108.4	103.4	.0	.0
2500	.0	.0	.0	.0	101.6	109.2	112.8	106.6	99.4	.0	.0
3150	.0	.0	.0	.0	94.4	99.4	104.2	98.4	91.4	.0	.0
4000	.0	.0	.0	.0	101.	109.6	112.8	105.8	99.6	.0	.0
5000	.0	.0	.0	.0	97.	104.0	104.0	99.6	96.4	.0	.0
6300	.0	.0	.0	.0	94.	101.2	102.2	99.4	91.4	.0	.0
8000	.0	.0	.0	.0	92.8	101.6	101.4	97.6	86.6	.0	.0
10000	.0	.0	.0	.0	89.	98.2	101.2	94.6	83.6	.0	.0
12500	.0	.0	.0	.0	94.	94.6	99.8	92.2	84.2	.0	.0
16000	.0	.0	.0	.0	79.2	85.8	92.6	83.4	72.4	.0	.0
20000	.0	.0	.0	.0	74.6	80.8	86.8	77.6	70.1	.0	.0
OVERALL SPL A-SCALE	.0	.0	.0	.0	120.4	124.2	124.2	124.3	120.	.0	.0
OVERALL SPL C-SCALE	.0	.0	.0	.0	120.6	126.5	127.3	113.9	109.	.0	.0
PNL	.0	.0	.0	.0	122.6	130.1	133.9	127.3	121.4	.0	.0

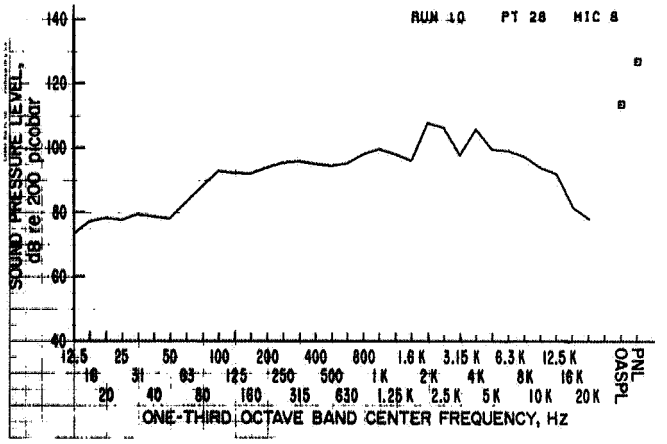
a.) $\sigma_v = 20^o$

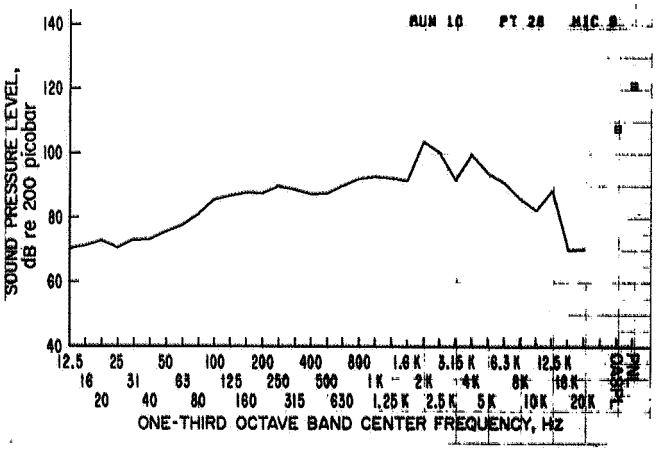
Figure 8.- V_∞ = 28.5 m/sec, $\alpha = 0^o$, $\psi = 0^o$, $\beta_v = 0^o$, $\delta_{cn} = 90^o$, fans 1 and 2, RPM = 3600.











NOISE DATA

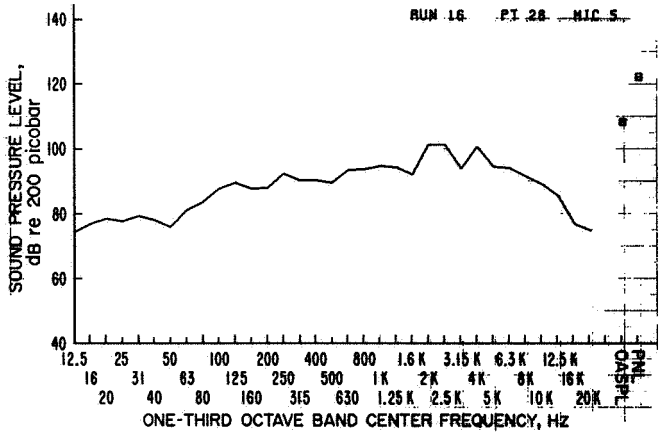
TEST 386 = LIFT FAN TRANSPORT = TUNNEL WALL CORRECTIONS APPLIED.

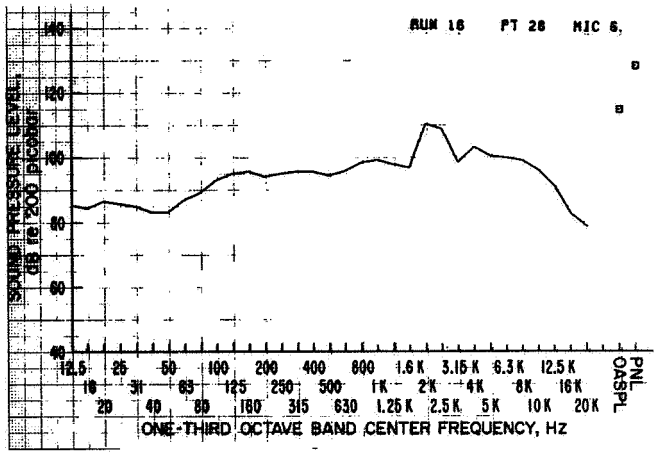
SPL IN DB REL. .0002 MICROBAR
CORRECTED FOR REVERBERATIONS

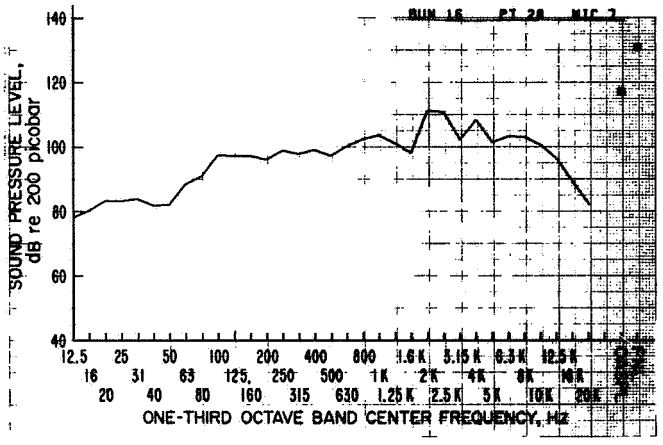
TEST 386	RUN 10	DELTA 28										
MICROPHONE!		1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGI)!		.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT)!		.0	.0	.0	.0	47.6	24.3	21.1	40.5	80.5	.0	.0
GAIN!		0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)												
12.5		.0	.0	.0	.0	73.0	84.2	81.2	73.4	70.4	.0	.0
16		.0	.0	.0	.0	77.2	86.0	85.0	77.4	71.2	.0	.0
20		.0	.0	.0	.0	78.4	87.6	85.8	78.4	72.6	.0	.0
25		.0	.0	.0	.0	79.4	86.8	85.4	77.8	70.6	.0	.0
31		.0	.0	.0	.0	78.2	85.6	85.6	79.6	73.0	.0	.0
40		.0	.0	.0	.0	76.4	83.8	84.6	78.8	73.2	.0	.0
50		.0	.0	.0	.0	74.0	83.8	84.0	78.2	73.6	.0	.0
63		.0	.0	.0	.0	79.2	87.4	86.6	83.2	77.6	.0	.0
80		.0	.0	.0	.0	83.2	90.8	93.6	88.2	81.0	.0	.0
100		.0	.0	.0	.0	87.6	95.0	99.4	93.0	85.6	.0	.0
125		.0	.0	.0	.0	87.8	96.0	98.8	92.4	84.8	.0	.0
160		.0	.0	.0	.0	88.2	97.0	99.2	93.2	87.8	.0	.0
200		.0	.0	.0	.0	88.2	95.8	97.6	94.0	87.6	.0	.0
250		.0	.0	.0	.0	92.0	97.8	101.8	95.6	89.8	.0	.0
315		.0	.0	.0	.0	90.4	98.0	100.6	96.0	88.8	.0	.0
400		.0	.0	.0	.0	93.4	97.6	102.0	95.2	87.4	.0	.0
500		.0	.0	.0	.0	89.6	96.2	99.8	94.6	87.6	.0	.0
630		.0	.0	.0	.0	91.0	98.6	102.6	95.4	90.0	.0	.0
800		.0	.0	.0	.0	93.2	100.6	104.2	98.2	92.2	.0	.0
1000		.0	.0	.0	.0	94.4	101.2	105.8	99.8	92.5	.0	.0
1250		.0	.0	.0	.0	93.6	99.8	103.4	98.2	92.4	.0	.0
1600		.0	.0	.0	.0	92.6	99.4	101.4	96.2	91.6	.0	.0
2000		.0	.0	.0	.0	103.6	110.8	117.6	108.0	103.8	.0	.0
2500		.0	.0	.0	.0	101.6	109.0	115.0	106.4	100.4	.0	.0
3150		.0	.0	.0	.0	93.8	99.2	104.0	97.8	91.4	.0	.0
4000		.0	.0	.0	.0	100.6	105.4	111.4	104.0	99.6	.0	.0
5000		.0	.0	.0	.0	96.2	102.6	104.2	99.6	94.0	.0	.0
6300		.0	.0	.0	.0	93.2	101.0	105.0	99.2	93.4	.0	.0
8000		.0	.0	.0	.0	91.2	100.4	105.8	97.4	88.0	.0	.0
10000		.0	.0	.0	.0	87.8	97.6	103.6	94.0	82.4	.0	.0
12500		.0	.0	.0	.0	82.6	93.8	99.0	92.0	86.6	.0	.0
16000		.0	.0	.0	.0	74.6	85.2	92.4	81.6	70.2	.0	.0
20000		.0	.0	.0	.0	75.6	84.4	85.2	78.0	70.5	.0	.0
OVERALL SPL	UNCORR	.0	.0	.0	.0	120.6	124.4	126.8	124.4	121.0	.0	.0
OVERALL SPL	CORR	.0	.0	.0	.0	109.0	115.9	121.5	113.7	108.1	.0	.0
PNDB	CORR	.0	.0	.0	.0	122.4	129.4	134.8	127.3	121.5	.0	.0

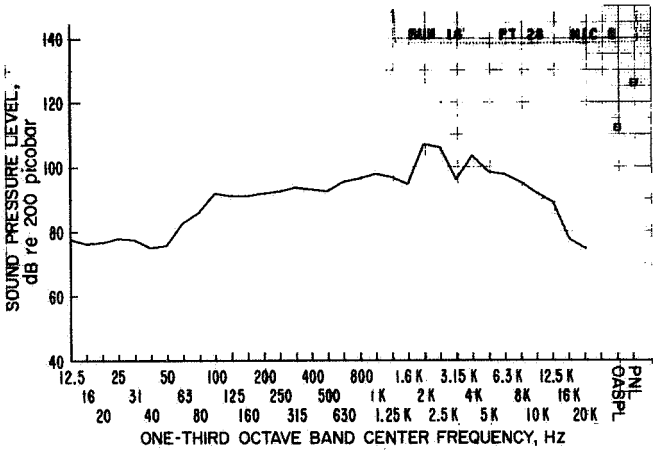
(b) $\sigma_y = 40^\circ$, Run 10.

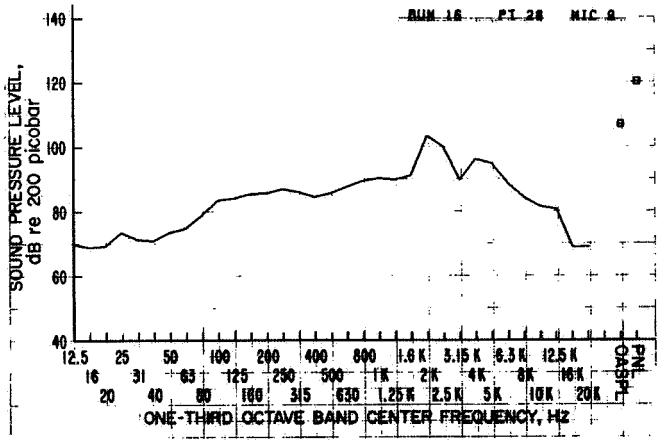
Figure 8.- Continued.

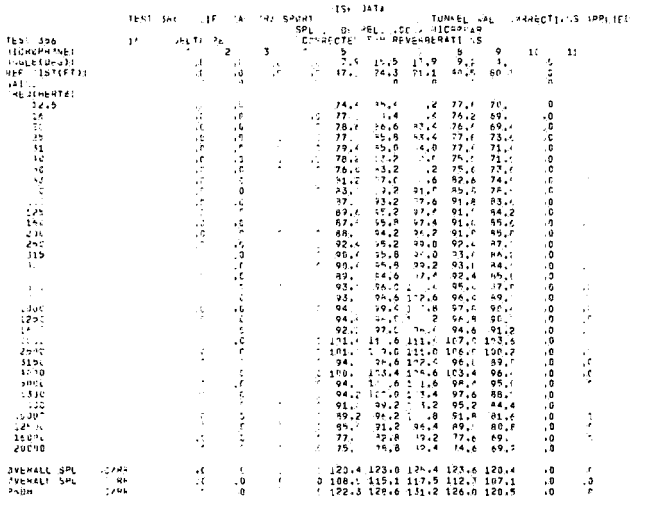






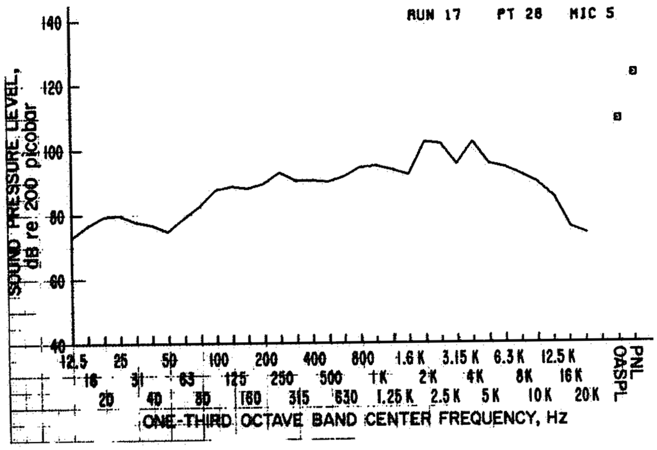


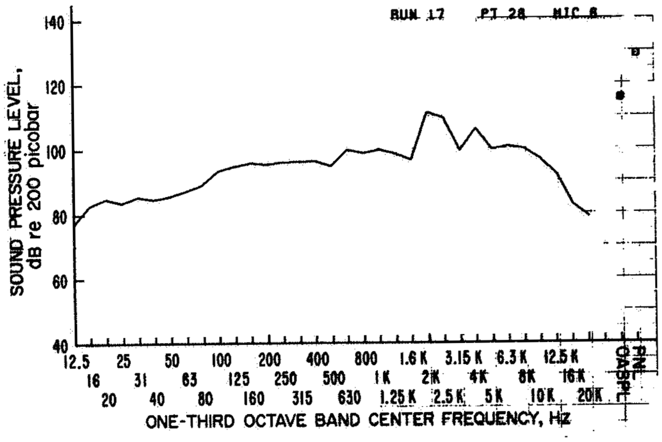


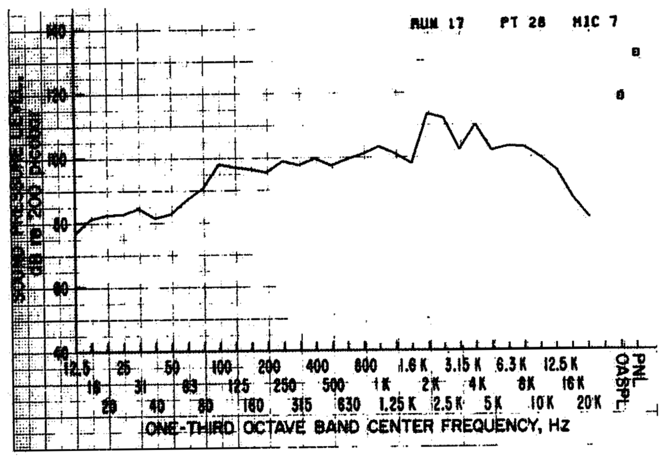


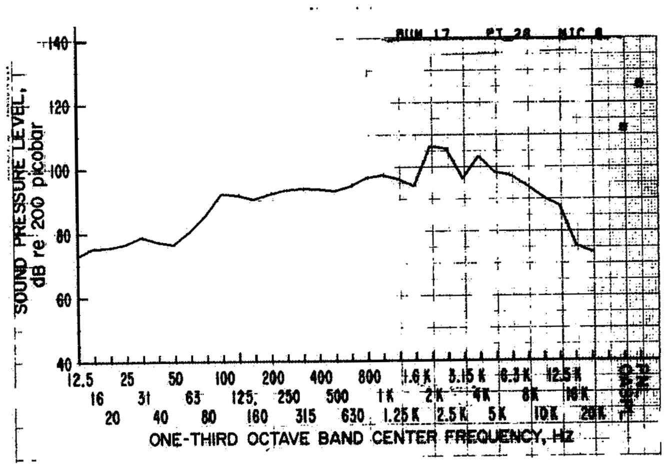
(c) $\sigma_v = 60^\circ$, Run 16.

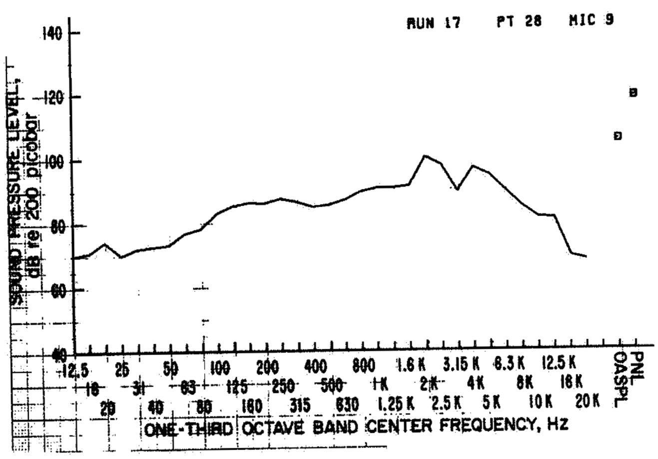
Figure 8.- Continued.











TEST 386 LIFT FAN TRANSPORT — ISE DATA — TUNNEL WALL CORRECTIONS APPLIED.

SPL , DB REL. .0002 MICROBAR

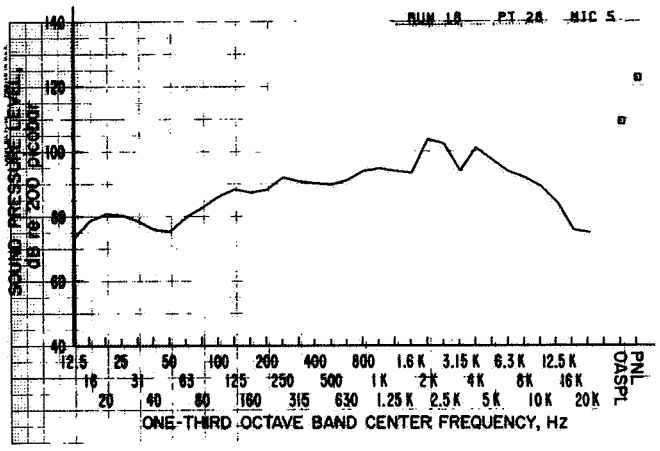
CORRECTED FOR REVERBERATIONS

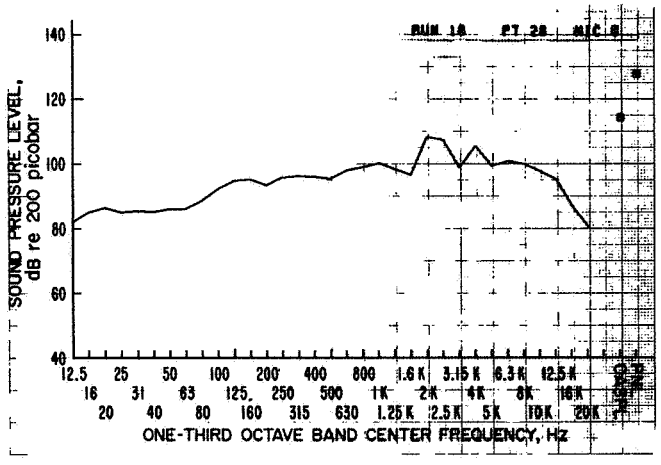
TEST 386 RUN 17 DELTA 28

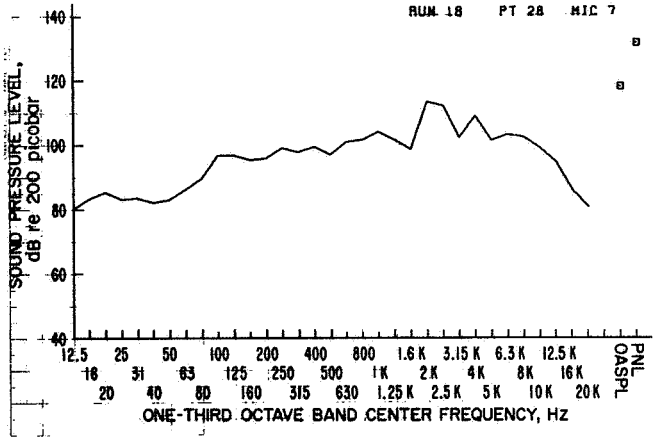
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	[illegible]	.0	47.2	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	[illegible]	[illegible]	[illegible]	0	0	0	[illegible]	0	0
FREQ(HERTZ)											
12.5	.0	.0		[illegible]	73.0	77.0	77.0	73.0	70.0	.0	.0
16	.0	.0			76.6	82.8	81.4	75.4	70.8	.0	.0
20	.0	.0			79.4	84.8	82.6	75.6	74.2	.0	.0
25	.0	.0	.0	.0	79.5	83.6	82.8	76.6	70.0	.0	.0
31	.0	.0	.0	.0	77.8	85.4	84.6	78.8	72.0	.0	.0
40	.0	.0	[illegible]	.0	76.8	84.6	81.6	77.2	72.6	.0	.0
50	.0	.0	.0	[illegible]	74.8	85.6	82.8	76.4	73.2	.0	.0
63	.0	.0	.0	[illegible]	78.8	87.2	87.2	80.4	76.8	.0	.0
80	.0	.0	.0	.0	82.6	89.0	90.8	85.4	78.2	.0	[illegible]
100	.0	.0	.0	.0	87.6	93.4	98.2	92.2	83.0	.0	.0
125	.0	.0	.0	.0	88.6	94.8	97.2	91.6	85.2	.0	[illegible]
160	.0	.0	.0	.0	88.0	95.8	96.6	90.4	86.2	.0	.0
200	.0	.0	.0	.0	89.4	95.4	95.6	92.0	86.0	.0	.0
250	.0	.0	.0	.0	92.8	76.0	99.0	93.2	87.4	.0	.0
315	.0	.0	.0	.0	93.4	96.2	97.8	93.6	86.4	.0	[illegible]
400	.0	.0	.0	.0	90.4	96.4	99.8	93.4	84.8	.0	.0
500	.0	.0	.0	.0	90.0	94.8	97.6	92.8	85.4	.0	.0
630	.0	.0	.0	[illegible]	91.6	99.8	99.6	94.2	87.0	.0	.0
800	.0	.0	.0	[illegible]	94.4	98.8	101.2	96.8	89.4	.0	[illegible]
1000	.0	.0	.0	[illegible]	94.6	99.8	103.4	97.6	90.0	.0	.0
1250	.0	.0	.0	.0	93.6	98.6	101.2	96.4	90.6	.0	.0
1600	.0	.0	.0	.0	92.0	96.6	98.2	94.2	91.2	.0	[illegible]
2000	.0	.0	.0	.0	102.2	111.4	113.6	106.6	100.2	.0	.0
2500	.0	.0	.0	.0	101.6	109.6	112.2	105.8	97.6	.0	.0
3150	.0	.0	.0	.0	95.2	99.4	102.4	96.4	89.4	.0	.0
4000	.0	.0	.0	.0	102.2	106.2	110.2	103.4	96.8	.0	.0
5000	.0	.0	.0	.0	95.4	99.8	102.2	98.4	94.6	.0	.0
6300	.0	.0	.0	.0	94.2	100.8	103.4	97.4	89.6	.0	.0
8000	.0	.0	.0	.0	92.0	100.0	103.2	94.2	84.6	.0	.0
10000	.0	.0	.0	.0	89.4	96.8	100.0	90.6	81.2	.0	.0
12500	.0	.0	.0	.0	85.4	92.0	96.0	88.0	81.0	.0	.0
16000	.0	.0	.0	.0	75.6	82.8	87.4	75.6	69.2	.0	.0
20000	.0	.0	.0	[illegible]	73.0	79.0	81.4	73.6	68.0	.0	.0
OVERALL SPL UNCORR	.0	.0	.0	.0	120.4	124.8	126.0	123.4	118.6	.0	.0
OVERALL SPL CORR	.0	.0	.0	.0	109.6	115.9	118.5	112.1	105.4	.0	.0
PNDB CORR	.0	.0	.0	[illegible]	123.1	129.4	131.9	125.8	118.7	.0	.0

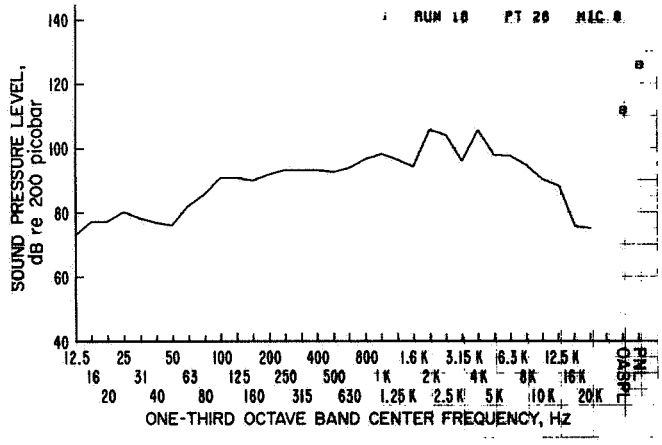
(d) $\sigma_v = 80^{o}$, Run 17.

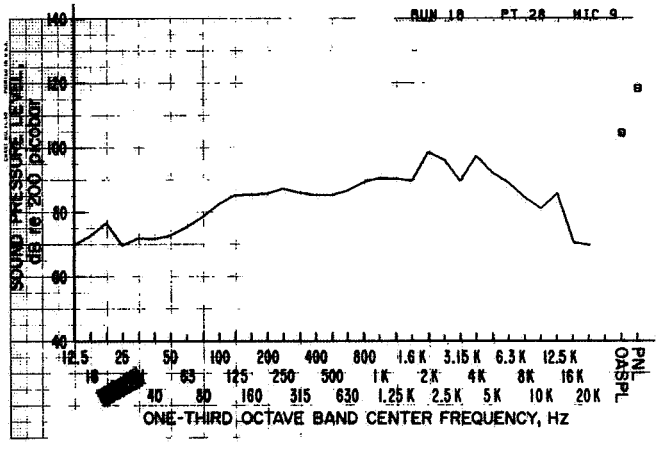
Figure 8.- Continued.

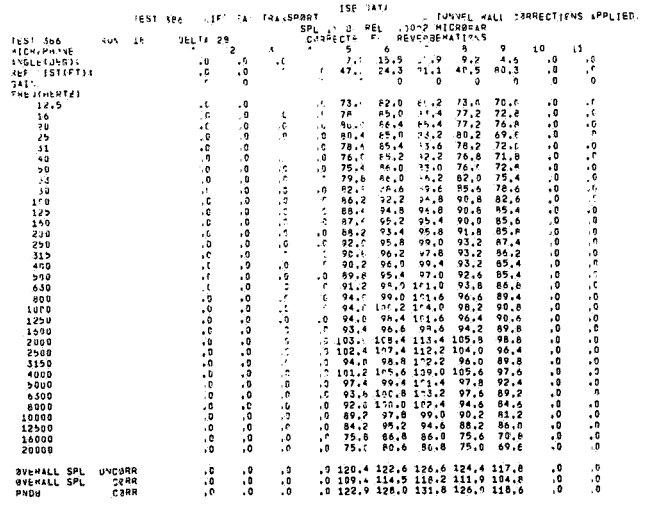












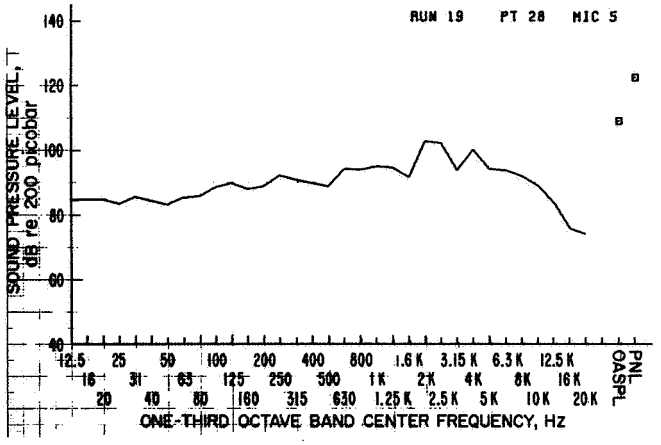
ISE DATA

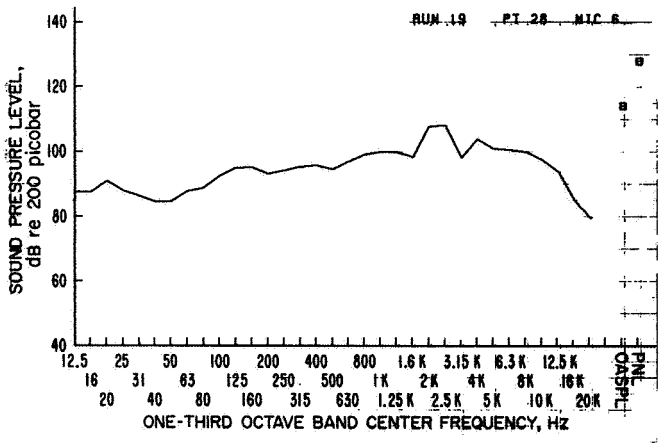
TEST 586 LIFT FA TRANSPART — TUNNEL WALL CORRECTIONS APPLIED.

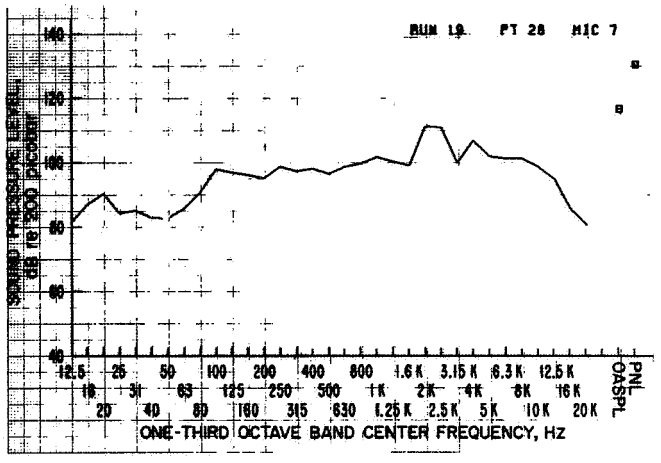
TEST 586	RUN 18	DELTA 28				SPL AT 0 REL TO 0.2 MICROBAR CORRECTED FOR REVERBERATIONS							
MIC/PHONE		1	2	3	4	5	6	7	8	9	10	11	
ANGLE(DEG)		.0	.0	.0		7.1	15.5	2.9	9.2	4.5	.0	.0	
REF (STEP)		.0	.0			47.1	24.3	41.1	40.5	80.3	.0	.0	
DAT		0	0			0	0	0	0	0	0	0	
FREQ(HERTZ)													
12.5		.0	.0			73.1	82.0	61.2	73.8	70.6	.0	.0	
16		.0	.0	.0		78	85.0	71.4	77.2	72.8	.0	.0	
20		.0	.0	.0		80.1	86.4	86.4	77.2	76.8	.0	.0	
25		.0	.0	.0		80.4	85.0	93.2	80.2	69.6	.0	.0	
31		.0	.0		.0	78.4	85.4	93.6	78.2	72.6	.0	.0	
40		.0	.0		.0	76.6	85.2	92.2	76.8	71.8	.0	.0	
50		.0	.0	.0	.0	75.4	86.0	93.0	76.6	72.4	.0	.0	
63		.0	.0	.0		79.8	86.0	94.2	82.0	75.4	.0	.0	
80		.0	.0	.0	.0	82.8	88.6	93.6	85.6	78.6	.0	.0	
100		.0	.0	.0		86.2	92.2	94.8	90.8	82.6	.0	.0	
125		.0	.0	.0		88.4	94.8	94.8	90.6	85.4	.0	.0	
160		.0	.0	.0		87.6	95.2	95.4	90.0	85.6	.0	.0	
200		.0	.0	.0	.0	88.2	93.4	95.8	91.8	85.8	.0	.0	
250		.0	.0	.0	.0	92.0	95.8	99.0	93.2	87.4	.0	.0	
315		.0	.0			96.1	96.2	97.8	93.2	86.2	.0	.0	
400		.0	.0	.0		98.2	96.0	99.4	93.2	89.4	.0	.0	
500		.0	.0	.0	.0	89.8	95.4	97.0	92.6	85.4	.0	.0	
630		.0	.0			91.2	98.0	101.0	93.8	86.8	.0	.0	
800		.0	.0	.0		94.0	99.0	101.6	96.6	89.4	.0	.0	
1000		.0	.0	.0		94.0	100.2	104.0	98.2	90.8	.0	.0	
1250		.0	.0	.0	.0	94.0	98.4	101.6	96.4	90.6	.0	.0	
1600		.0	.0			93.4	96.6	98.6	94.2	89.8	.0	.0	
2000		.0	.0	.0	.0	103.1	108.4	113.4	105.8	98.8	.0	.0	
2500		.0	.0	.0	.0	102.4	107.4	112.2	104.0	96.4	.0	.0	
3150		.0	.0	.0	.0	94.0	98.8	102.2	96.0	89.8	.0	.0	
4000		.0	.0	.0	.0	101.2	105.6	109.0	105.6	97.6	.0	.0	
5000		.0	.0	.0	.0	97.4	99.4	101.4	97.8	92.4	.0	.0	
6300		.0	.0	.0	.0	93.6	100.8	103.2	97.6	89.2	.0	.0	
8000		.0	.0	.0	.0	92.6	100.0	102.4	94.6	84.6	.0	.0	
10000		.0	.0	.0	.0	89.2	97.8	99.0	90.2	81.2	.0	.0	
12500		.0	.0	.0	.0	84.2	95.2	94.6	88.2	86.0	.0	.0	
16000		.0	.0	.0	.0	75.8	86.8	86.0	75.6	70.8	.0	.0	
20000		.0	.0	.0	.0	75.0	80.6	80.8	75.0	69.6	.0	.0	
OVERALL SPL	UNCORR	.0	.0	.0	.0	120.4	122.6	126.6	124.4	117.8	.0	.0	
OVERALL SPL	CORR	.0	.0	.0	.0	109.4	114.5	118.2	111.9	104.8	.0	.0	
PNDB	CORR	.0	.0	.0	.0	122.9	128.0	131.8	126.9	118.6	.0	.0	

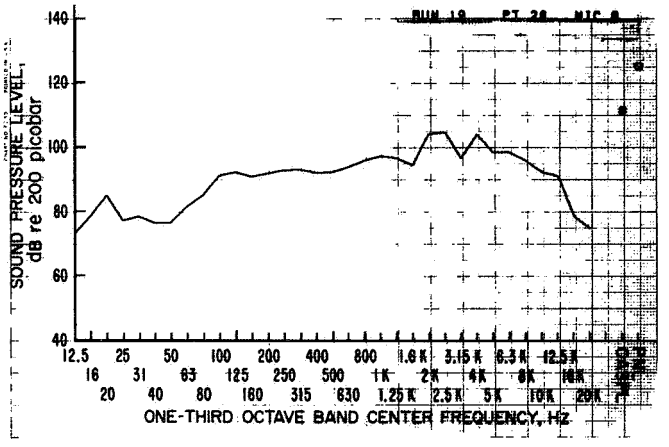
(e) $\sigma_v = 100^\circ$, Run 18.

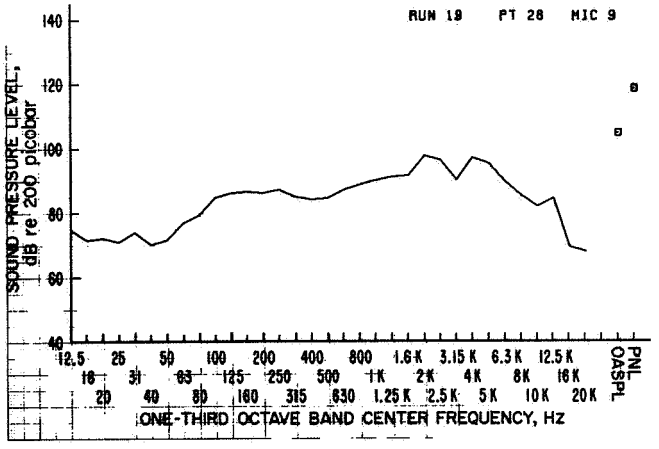
Figure 8.- Continued.











TEST 386 LIFT FAN TRANSPORT NOISE DATA TUNNEL WALL CORRECTIONS APPLIED

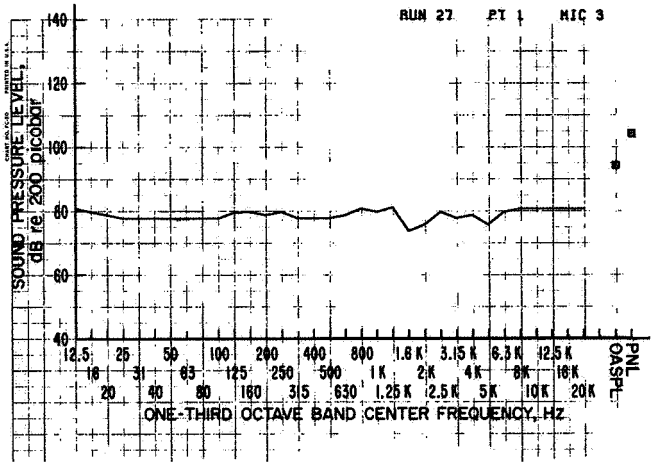
SPL IN DB REL. .0002 MICROBAR

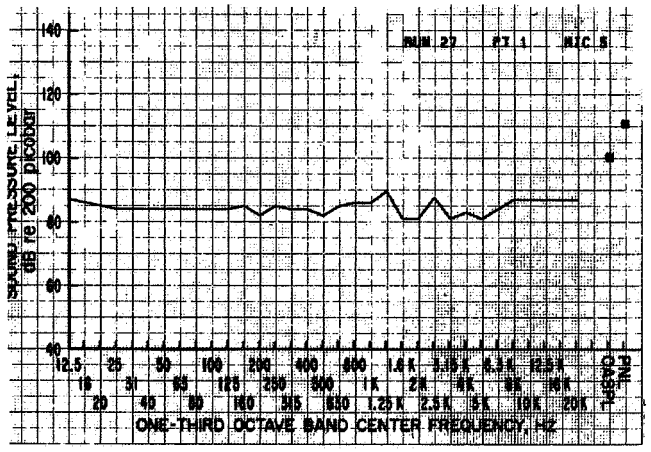
TEST 386 RUN 19 DELTA 28 — CORRECTED FOR REVERBERATIONS

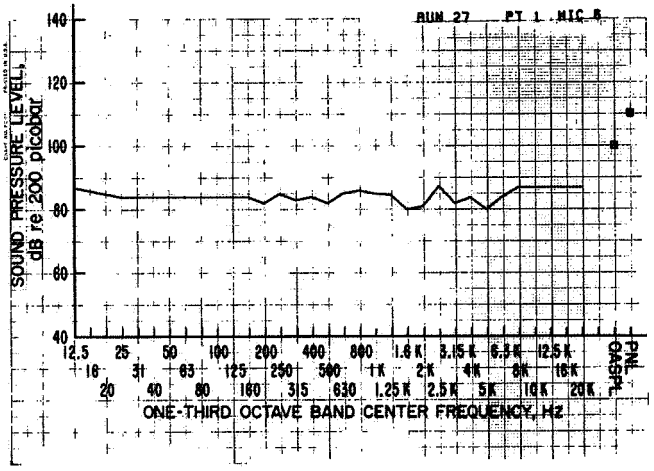
	1	2	3	4	5	6	7	8	9	10	11
MICROPHONE											
ANGLE(DEG)	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT)	.0	.0	.0	.0	47.5	24.3	21.1	40.5	80.3	.0	.0
GAIN	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	84.6	87.8	91.6	73.4	74.8	.0	.0
16	.0	.0	.0	.0	84.8	87.8	87.2	79.0	71.6	.0	.0
20	.0	.0	.0	.0	84.8	91.2	90.4	85.4	72.2	.0	.0
25	.0	.0	.0	.0	83.4	88.2	84.4	77.6	71.0	.0	.0
31	.0	.0	.0	.3	85.6	86.6	85.2	78.8	74.0	.0	.0
40	.0	.0	.0	.5	84.2	84.8	83.0	76.8	70.2	.0	.0
50	.0	.0	.0	.7	83.2	84.8	82.8	75.8	71.6	.0	.0
63	.0	.0	.0	.6	85.4	88.0	85.8	81.8	76.8	.0	.0
80	.0	.0	.0	.0	85.8	89.0	90.8	85.4	79.4	.0	.0
100	.0	.0	.0	.0	88.6	92.8	96.0	91.6	84.8	.0	.0
125	.0	.0	.0	.0	89.8	95.2	97.0	92.6	86.2	.0	.0
160	.0	.0	.0	.0	88.6	95.4	96.2	91.2	86.6	.0	.0
200	.0	.0	.0	.0	88.8	93.4	95.2	92.2	86.2	.0	.0
250	.0	.0	.0	.0	92.2	94.4	98.8	93.2	87.2	.0	.0
315	.0	.0	.0	.0	90.8	95.6	97.4	93.4	85.0	.0	.0
400	.0	.0	.0	.0	89.8	96.0	99.2	92.4	84.2	.0	.0
500	.0	.0	.0	.0	88.8	94.8	96.6	92.6	84.6	.0	.0
630	.0	.0	.0	.0	94.2	97.2	98.8	94.2	87.2	.0	.0
800	.0	.0	.0	.0	94.0	99.4	99.8	96.2	88.8	.0	.0
1000	.0	.0	.0	.0	95.0	101.2	101.8	97.6	90.2	.0	.0
1250	.0	.0	.0	.0	94.6	100.2	100.4	97.0	91.2	.0	.0
1600	.0	.0	.0	.0	91.6	98.6	99.2	94.8	91.6	.0	.0
2000	.0	.0	.0	.0	102.8	108.2	111.4	104.6	97.8	.0	.0
2500	.0	.0	.0	.0	102.2	108.4	111.0	105.0	96.4	.0	.0
3150	.0	.0	.0	.0	93.8	98.4	100.0	97.0	90.2	.0	.0
4000	.0	.0	.0	.0	100.2	104.2	107.0	104.4	97.2	.0	.0
5000	.0	.0	.0	.0	94.2	101.2	102.0	98.8	95.4	.0	.0
6300	.0	.0	.0	.0	93.6	100.8	101.4	98.6	89.8	.0	.0
8000	.0	.0	.0	.0	92.0	100.2	101.4	96.2	85.4	.0	.0
10000	.0	.0	.0	.0	89.0	97.8	98.8	92.6	82.0	.0	.0
12500	.0	.0	.0	.0	83.8	94.0	95.0	91.4	84.6	.0	.0
16000	.0	.0	.0	.0	75.6	85.2	85.8	78.8	69.4	.0	.0
20000	.0	.0	.0	.0	74.0	79.8	80.8	75.2	68.0	.0	.0
OVERALL SPL UNCORR	.0	.0	.0	.0	120.6	123.2	123.4	123.8	118.4	.0	.0
OVERALL SPL CORR	.0	.0	.0	.0	109.0	114.6	116.8	111.8	104.8	.0	.0
PNDB CORR	.0	.0	.0	.0	122.6	126.5	130.6	125.7	118.6	.0	.0

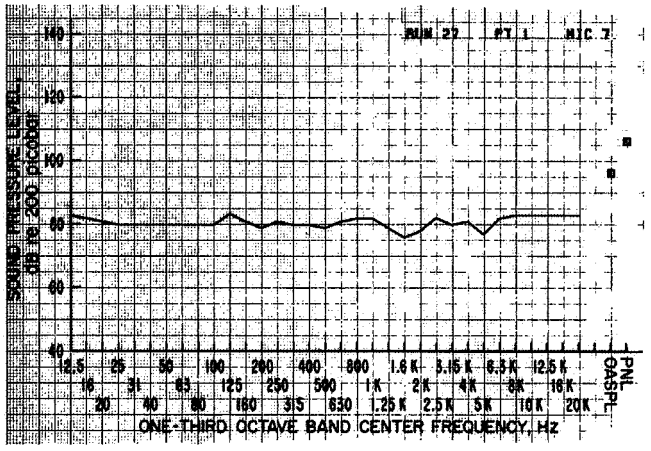
(f) $\sigma_v = -40^\circ$, Run 19.

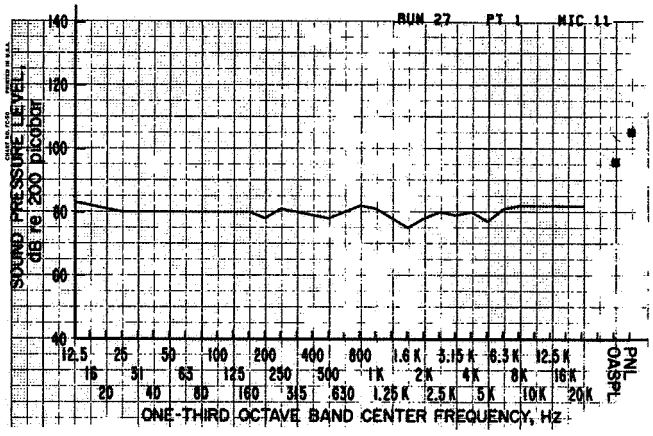
Figure 8.- Concluded.

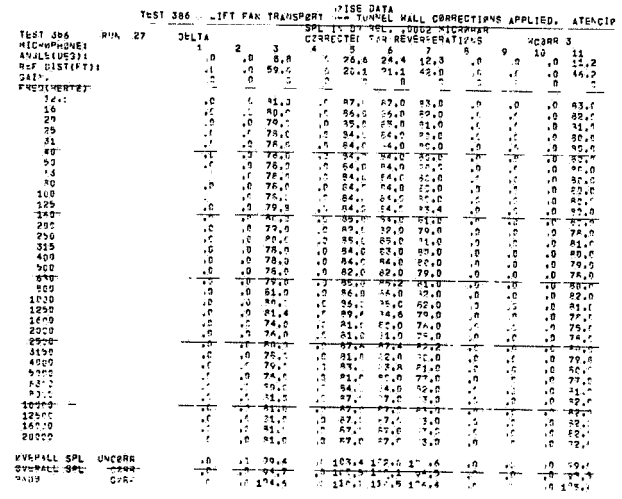






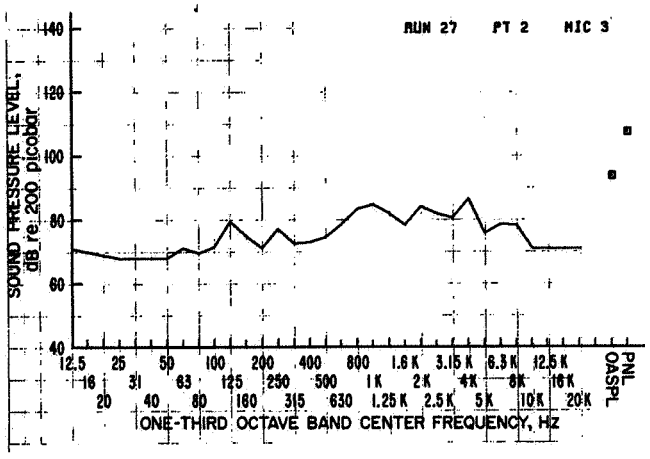


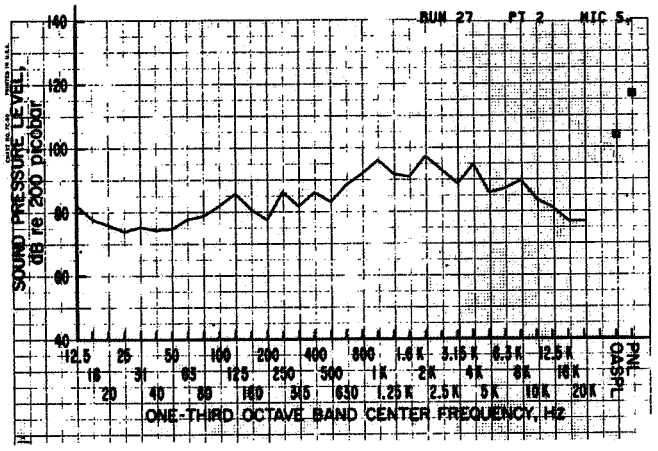


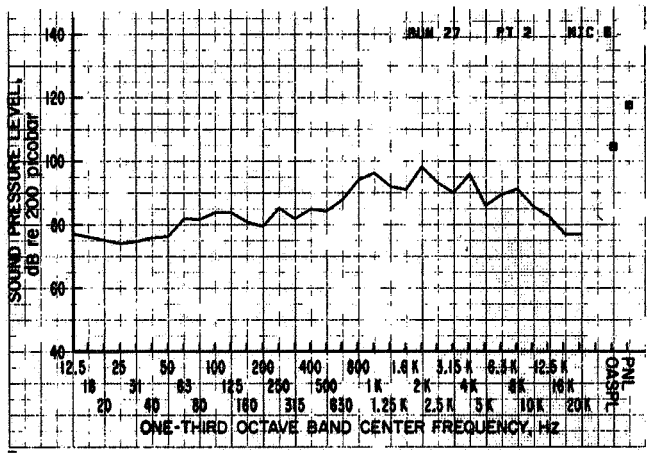


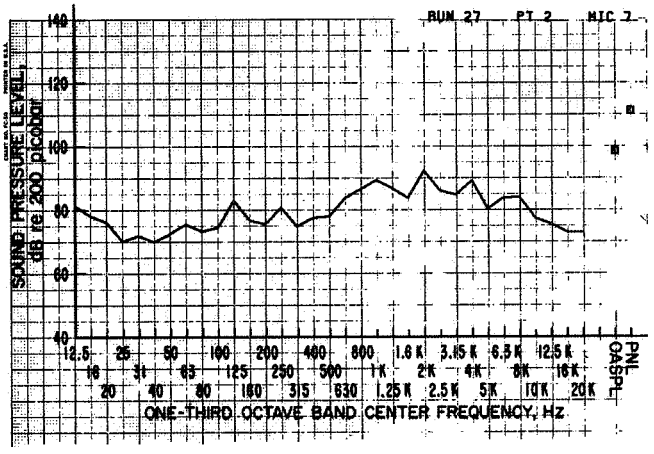
(a) RPM = 2000.

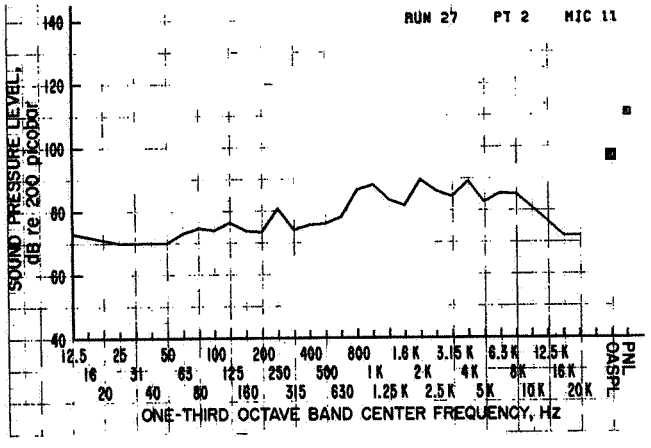
Figure 9.- Run 27, $V_\infty = 0$, $\alpha = 0^o$, $\psi = 0^o$, $\sigma_v = 0^o$, β_v = closed, $\delta_{cn} = 90^o$, Fan 3.











NOISE DATA

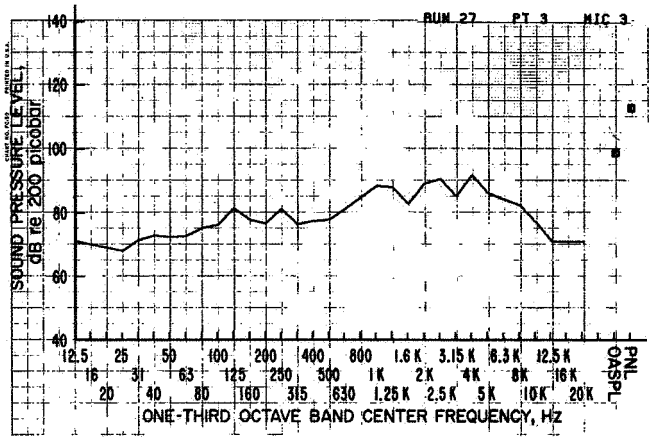
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

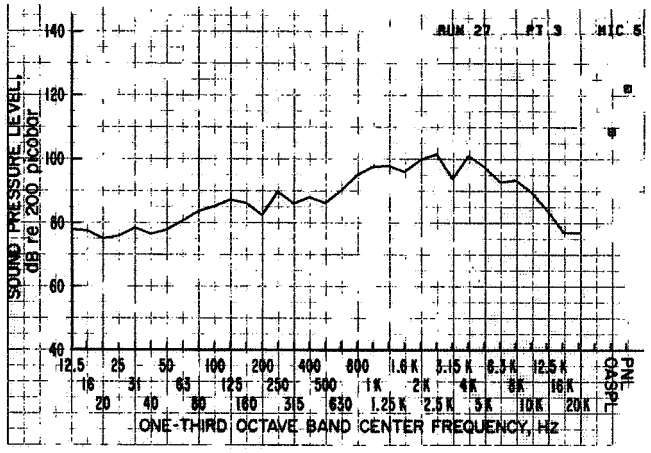
SPL IN DB REL .0002 MICROBAR

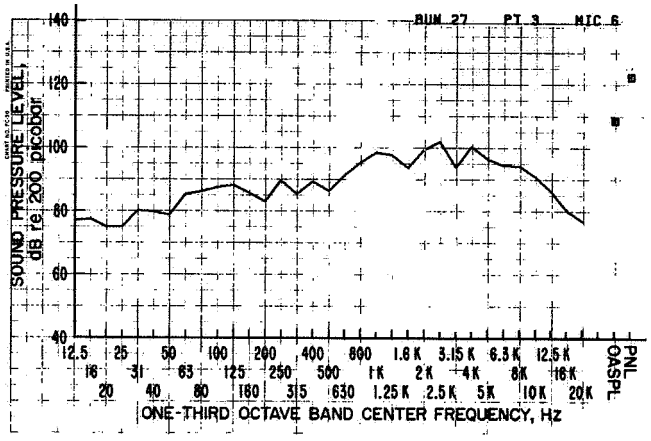
TEST 386 RUN 27	DELTA 2										WCORR 3
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	8.8	.0	26.6	24.4	12.3	.0	.0	.0	11.2
REF DIST(FT):	.0	.0	59.0	.0	20.1	21.1	42.0	.0	.0	.0	46.2
GAIN:	-	0	10	0	10	10	10	0	0	0	10
FREQ(HERTZ)											
12.5	.0	.0	71.0	.0	82.2	77.0	81.4	.0	.0	.0	73.0
16	.0	.0	70.0	.0	77.8	76.0	78.2	.0	.0	.0	72.0
20	.0	.0	69.0	.0	78.0	75.0	76.2	.0	.0	.0	71.0
25	.0	.0	69.0	.0	74.0	74.0	76.2	.0	.0	.0	70.0
31	.0	.0	68.0	.0	75.4	74.6	72.0	.0	.0	.0	70.0
40	.0	.0	68.0	.0	74.4	75.8	78.0	.0	.0	.0	70.0
50	.0	.0	68.2	.0	74.8	76.2	72.6	.0	.0	.0	70.0
63	.0	.0	71.2	.0	77.6	81.8	75.6	.0	.0	.0	73.0
80	.0	.0	69.4	.0	78.0	81.2	73.4	.0	.0	.0	74.6
100	.0	.0	71.4	.0	82.0	83.8	74.6	.0	.0	.0	74.0
125	.0	.0	79.6	.0	85.8	83.8	83.0	.0	.0	.0	76.4
160	.0	.0	79.0	.0	91.8	87.8	91.8	.0	.0	.0	75.8
200	.0	.0	73.2	.0	77.6	79.4	75.6	.0	.0	.0	73.4
250	.0	.0	77.2	.0	86.4	85.2	90.8	.0	.0	.0	80.8
315	.0	.0	72.6	.0	81.8	81.8	74.8	.0	.0	.0	74.0
400	.0	.0	73.0	.0	86.2	84.8	77.6	.0	.0	.0	75.6
500	.0	.0	74.6	.0	83.2	84.2	77.0	.0	.0	.0	76.8
630	.0	.0	78.4	.0	88.6	87.8	83.8	.0	.0	.0	78.0
800	.0	.0	83.4	.0	92.0	94.0	86.6	.0	.0	.0	86.6
1000	.0	.0	84.8	.0	96.2	96.2	90.4	.0	.0	.0	88.2
1250	.0	.0	82.0	.0	91.8	92.0	86.8	.0	.0	.0	83.4
1600	.0	.0	78.4	.0	91.0	91.0	83.8	.0	.0	.0	81.6
2000	.0	.0	84.2	.0	97.4	98.2	92.4	.0	.0	.0	89.8
2500	.0	.0	82.0	.0	93.2	93.2	88.0	.0	.0	.0	88.2
3150	.0	.0	80.6	.0	88.6	90.0	84.8	.0	.0	.0	84.4
4000	.0	.0	86.6	.0	94.8	95.8	89.2	.0	.0	.0	89.2
5000	.0	.0	79.8	.0	86.0	88.0	80.4	.0	.0	.0	82.6
6300	.0	.0	78.6	.0	87.2	89.4	83.8	.0	.0	.0	85.4
8000	.0	.0	78.4	.0	86.4	91.2	84.0	.0	.0	.0	85.2
10000	.0	.0	71.0	.0	83.8	83.8	77.4	.0	.0	.0	81.0
12500	.0	.0	71.0	.0	81.2	82.6	75.6	.0	.0	.0	76.6
16000	.0	.0	71.0	.0	77.0	77.0	73.0	.0	.0	.0	72.8
20000	.0	.0	71.0	.0	77.0	77.0	73.0	.0	.0	.0	72.0
OVERALL SPL UNCORR	.0	.0	105.8	.0	112.2	112.4	105.6	.0	.0	.0	107.6
OVERALL SPL CORR	.0	.2	93.8	.0	104.1	104.7	96.6	.0	.2	.0	97.9
PNDB CORR	.0	.0	107.6	.0	116.9	117.7	111.5	.0	.0	.0	111.0

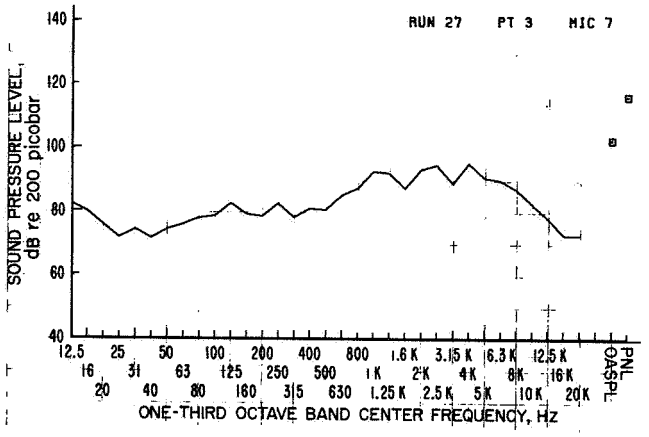
(b) RPM = 3000.

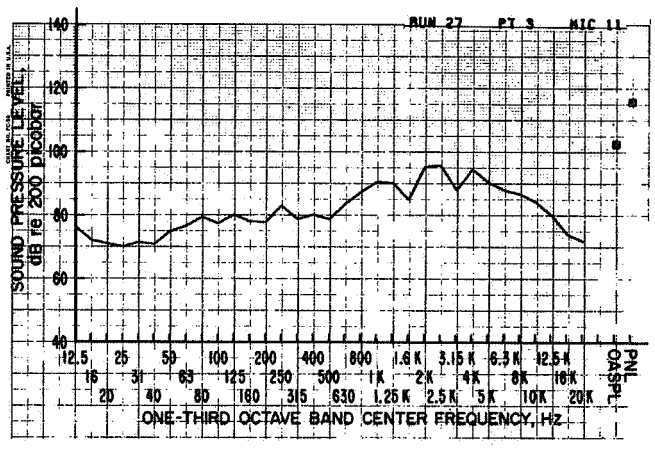
Figure 9.- Continued.











NOISE DATA

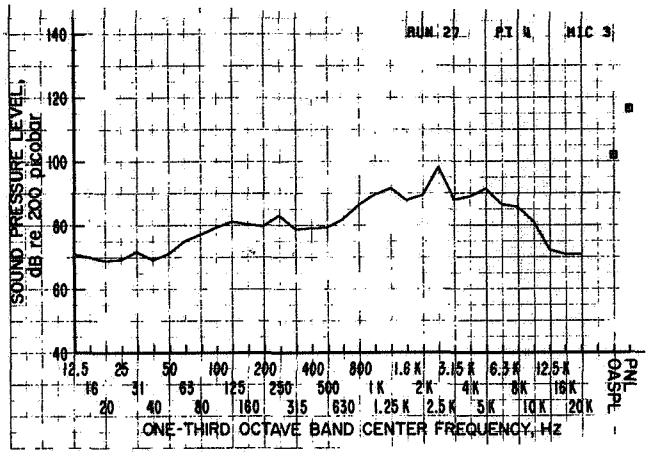
TEST 386 LIFT FAN TRANSPORT ... TUNNEL WALL CORRECTIONS APPLIED, ATEMCIO

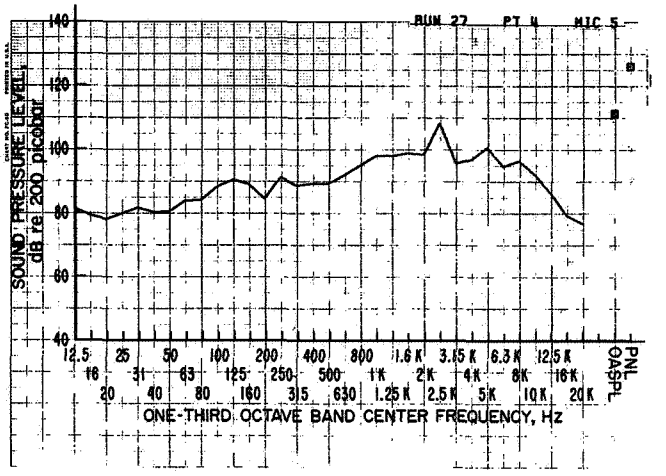
SPL IN DB REL. TO 0.0002 MICROBAR

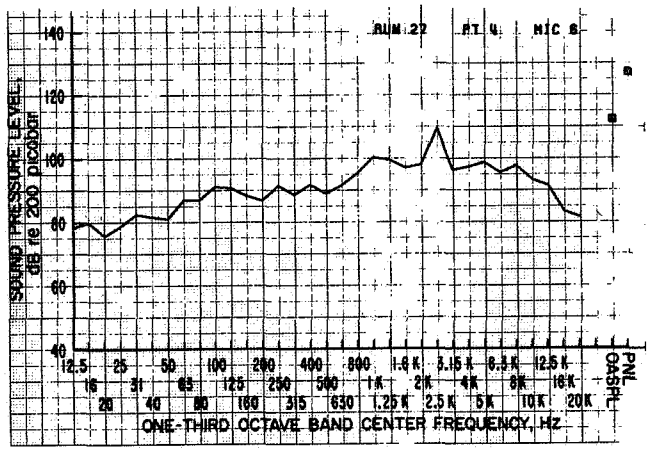
TEST 386 RUN 27	DELTA 3	CORRECTED FOR REVERBERATIONS								MCORR 3
MICROPHONE	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	8.8	.0	26.6	24.4	17.3	.0	.0	.0	11.2
REF DIST(FT):	.0	.0	59.0	.0	20.1	21.1	42.0	.0	.0	.0	46.2
GAIN:	0	0	10	0	10	10	10	0	0	0	10
FREQ(HERTZ)											
12.5	.0	.0	71.0	.0	77.8	77.0	82.6	.0	.0	.0	76.2
16	.0	.0	70.0	.0	77.4	77.4	80.2	.0	.0	.0	72.0
20	.0	.0	69.0	.0	75.0	75.0	76.0	.0	.0	.0	71.6
25	.0	.0	68.0	.0	75.8	75.0	72.0	.0	.0	.0	70.0
31	.0	.0	71.4	.0	78.4	80.2	74.6	.0	.0	.0	71.4
40	.0	.0	72.8	.0	76.4	79.8	71.8	.0	.0	.0	70.8
50	.0	.0	72.4	.0	77.8	78.8	74.6	.0	.0	.0	74.8
63	.0	.0	72.6	.0	80.6	85.4	79.2	.0	.0	.0	76.6
80	.0	.0	75.2	.0	83.6	86.2	78.2	.0	.0	.0	79.4
100	.0	.0	76.2	.0	85.2	87.6	78.8	.0	.0	.0	77.4
125	.0	.0	81.4	.0	87.2	88.2	82.8	.0	.0	.0	80.2
160	.0	.0	77.0	.0	86.2	85.8	79.4	.0	.0	.0	78.0
200	.0	.0	76.6	.0	82.4	83.0	78.8	.0	.0	.0	77.8
250	.0	.0	81.2	.0	89.8	89.8	82.8	.0	.0	.0	83.0
315	.0	.0	76.4	.0	86.0	85.4	78.4	.0	.0	.0	78.8
400	.0	.0	77.4	.0	88.0	89.4	81.2	.0	.0	.0	80.2
500	.0	.0	77.8	.0	86.2	86.4	81.8	.0	.0	.0	78.8
630	.0	.0	81.2	.0	90.2	91.4	85.4	.0	.0	.0	83.6
800	.0	.0	84.6	.0	95.0	95.4	87.6	.0	.0	.0	87.4
1000	.0	.0	88.4	.0	97.6	98.6	93.0	.0	.0	.0	90.6
1250	.0	.0	88.0	.0	97.8	97.8	92.4	.0	.0	.0	90.2
1600	.0	.0	92.8	.0	96.0	93.8	97.6	.0	.0	.0	85.0
2000	.0	.0	89.2	.0	99.8	99.6	93.6	.0	.0	.0	95.4
2500	.0	.0	90.6	.0	101.6	102.0	95.0	.0	.0	.0	95.8
3150	.0	.0	85.2	.0	93.6	94.0	89.2	.0	.0	.0	88.0
4000	.0	.0	91.8	.0	101.0	100.6	95.6	.0	.0	.0	94.6
5000	.0	.0	86.2	.0	97.6	96.6	91.0	.0	.0	.0	90.6
6300	.0	.0	84.2	.0	92.8	94.6	90.2	.0	.0	.0	88.0
8000	.0	.0	82.4	.0	93.4	94.4	87.4	.0	.0	.0	86.8
10000	.0	.0	77.0	.0	89.6	91.0	82.8	.0	.0	.0	84.2
12500	.0	.0	71.0	.0	83.6	86.2	78.2	.0	.0	.0	80.0
16000	.0	.0	71.0	.0	77.0	80.2	73.6	.0	.0	.0	74.0
20000	.0	.0	71.0	.0	77.0	77.0	73.0	.0	.0	.0	72.0
OVERALL SPL UNCORR	.0	.0	111.4	.0	115.8	116.4	113.6	.0	.0	.0	114.4
OVERALL SPL CORR	.0	.0	98.7	.0	108.7	108.4	103.0	.0	.0	.0	102.9
PNDB CORR	.0	.0	112.8	.0	122.4	122.6	116.8	.0	.0	.0	116.1

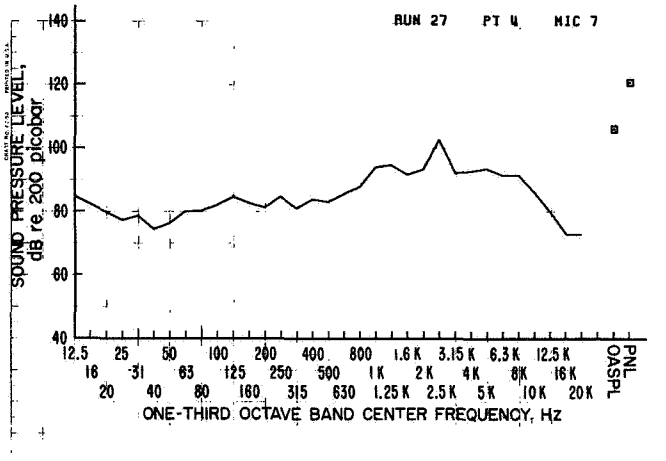
(c) RPM = 3600.

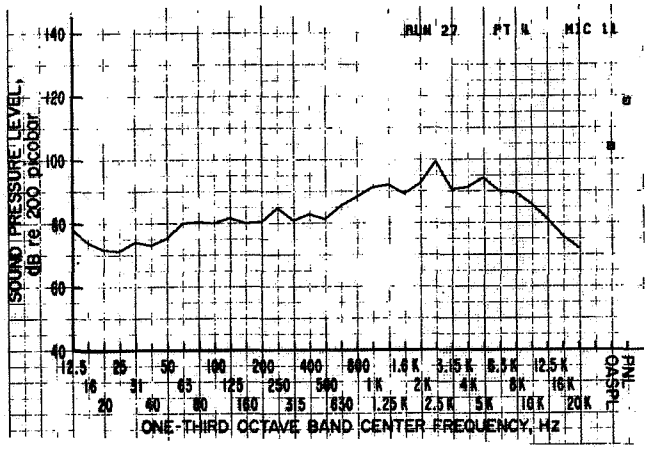
Figure 9.- Continued.











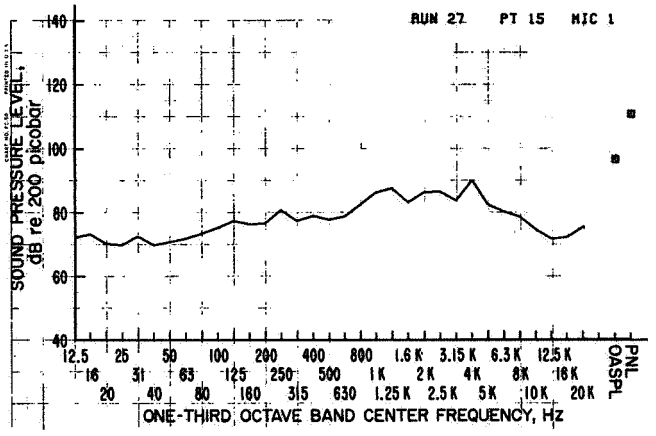
NOISE DATA

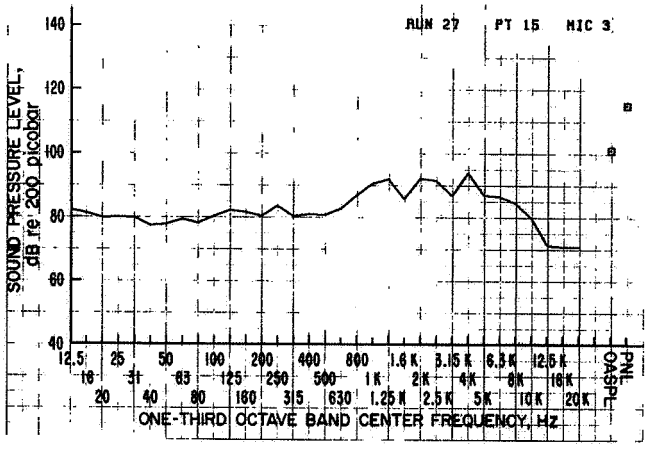
TEST 386 = LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

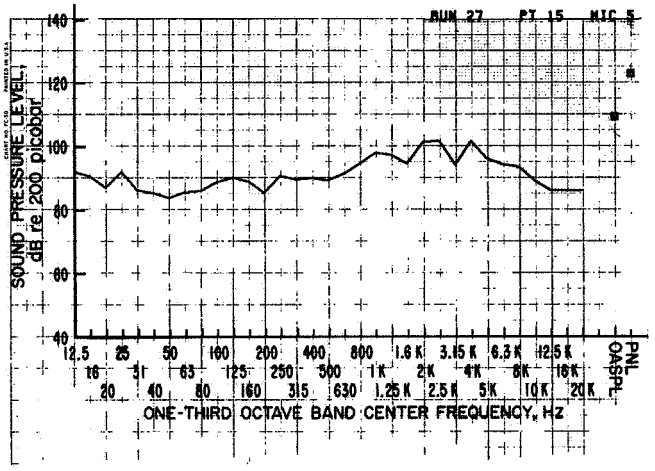
TEST 386 RUN 27	DELTA 4	SPL IN DB REL. .0002 MICROBAR CORRECTED FOR REVERBERATIONS							MCORR 3	
MICROPHONE(	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG))	.0	.0	5.8	.0	26.6	24.4	12.3	.0	.0	.0	11.2
REF DIST(FT))	.0	.0	59.0	.0	20.1	21.1	42.0	.0	.0	.0	46.2
GAIN,	0	0	10	0	10	10	10	0	0	0	10
FREQ(HERTZ)											
12.5	.0	.0	71.0	.0	81.6	78.2	85.0	.0	.0	.0	78.0
16	.0	.0	70.0	.0	79.4	79.8	82.4	.0	.0	.0	73.8
20	.0	.0	69.0	.0	78.2	75.6	80.0	.0	.0	.0	71.0
25	.0	.0	69.4	.0	80.0	78.6	77.4	.0	.0	.0	71.2
31	.0	.0	71.8	.0	81.8	82.4	78.8	.0	.0	.0	74.0
40	.0	.0	69.2	.0	80.4	81.6	74.6	.0	.0	.0	73.0
50	.0	.0	71.2	.0	80.6	81.0	76.4	.0	.0	.0	75.2
63	.0	.0	75.2	.0	84.0	87.0	84.2	.0	.0	.0	80.0
80	.0	.0	77.2	.0	84.2	87.0	80.4	.0	.0	.0	85.4
100	.0	.0	79.4	.0	88.4	91.2	89.2	.0	.0	.0	80.0
125	.0	.0	81.2	.0	90.6	90.8	84.8	.0	.0	.0	86.6
160	.0	.0	80.4	.0	89.2	88.4	82.8	.0	.0	.0	87.0
200	.0	.0	79.8	.0	84.6	86.8	81.4	.0	.0	.0	80.4
250	.0	.0	83.2	.0	91.4	91.6	84.8	.0	.0	.0	84.8
315	.0	.0	78.8	.0	88.8	88.6	81.2	.0	.0	.0	80.8
400	.0	.0	79.2	.0	89.4	91.8	84.0	.0	.0	.0	82.6
500	.0	.0	79.4	.0	89.4	89.0	83.2	.0	.0	.0	81.2
630	.0	.0	82.0	.0	92.2	91.6	85.8	.0	.0	.0	85.4
800	.0	.0	86.4	.0	95.2	95.4	88.0	.0	.0	.0	88.2
1000	.0	.0	89.6	.0	98.2	100.4	94.2	.0	.0	.0	91.2
1250	.0	.0	91.6	.0	98.2	99.6	94.8	.0	.0	.0	92.0
1600	.0	.0	87.8	.0	99.0	97.2	91.6	.0	.0	.0	89.2
2000	.0	.0	89.4	.0	98.6	98.0	93.4	.0	.0	.0	92.4
2500	.0	.0	98.2	.0	108.4	109.0	102.8	.0	.0	.0	99.4
3150	.0	.0	88.8	.0	95.8	96.4	92.2	.0	.0	.0	90.6
4000	.0	.0	89.0	.0	97.0	97.4	92.6	.0	.0	.0	91.2
5000	.0	.0	91.4	.0	100.8	98.8	93.6	.0	.0	.0	94.2
6300	.0	.0	86.6	.0	94.8	95.6	91.6	.0	.0	.0	89.2
8000	.0	.0	85.8	.0	96.6	97.8	91.6	.0	.0	.0	89.6
10000	.0	.0	81.2	.0	92.2	93.4	86.2	.0	.0	.0	86.0
12500	.0	.0	72.4	.0	86.6	91.6	80.0	.0	.0	.0	81.2
16000	.0	.0	71.0	.0	79.6	83.4	73.0	.0	.0	.0	75.8
20000	.0	.0	71.0	.0	77.0	81.6	73.0	.0	.0	.0	72.8
OVERALL SPL UNCORR	.0	.0	114.0	.0	118.4	119.6	115.8	.0	.0	.0	115.0
OVERALL SPL CORR	.0	.0	102.0	.0	111.5	112.9	106.2	.0	.0	.0	103.9
PNDB CORR	.0	.0	116.7	.0	126.3	127.1	120.9	.0	.0	.0	118.5

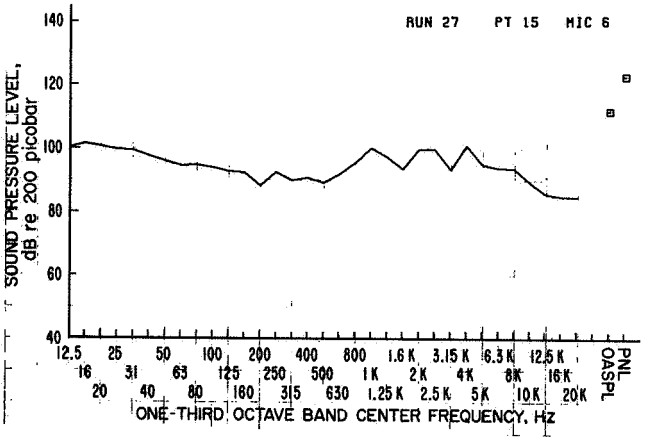
(d) RPM = 4000.

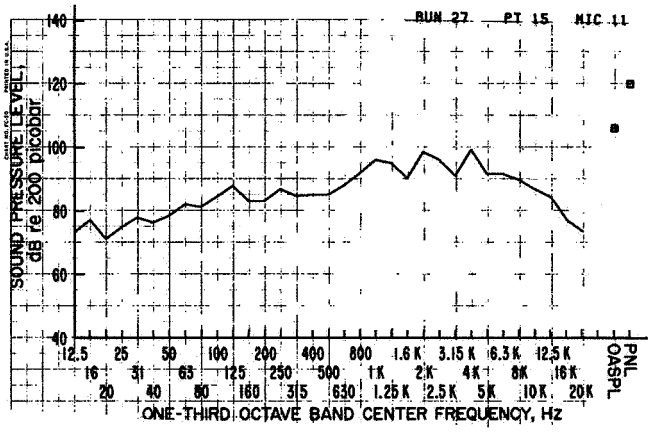
Figure 9.- Concluded.

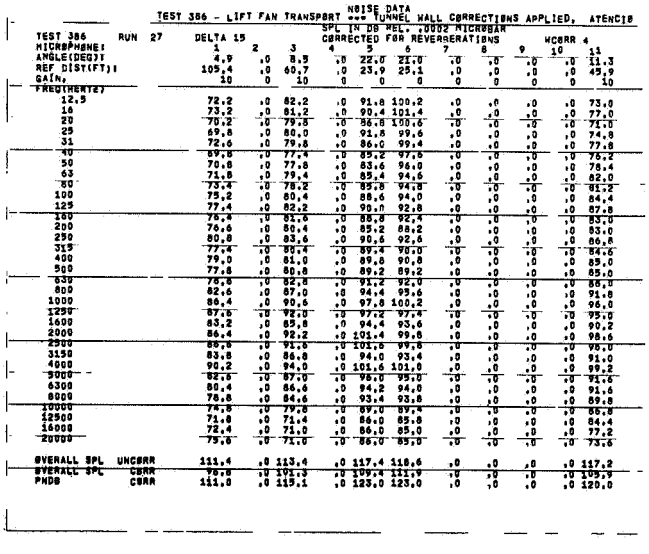












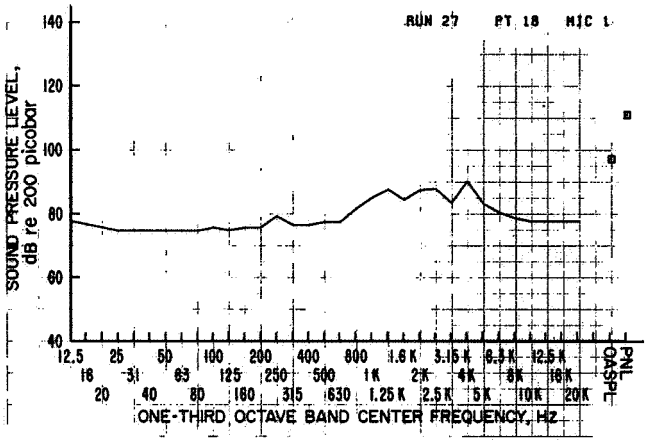
TEST 386 - LIFT FAN TRANSPORT *** NOISE DATA *** TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

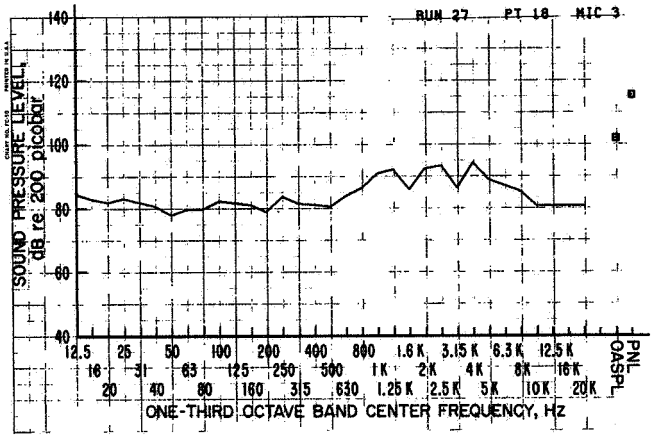
SPL IN DB REL. .0002 MICROBAR

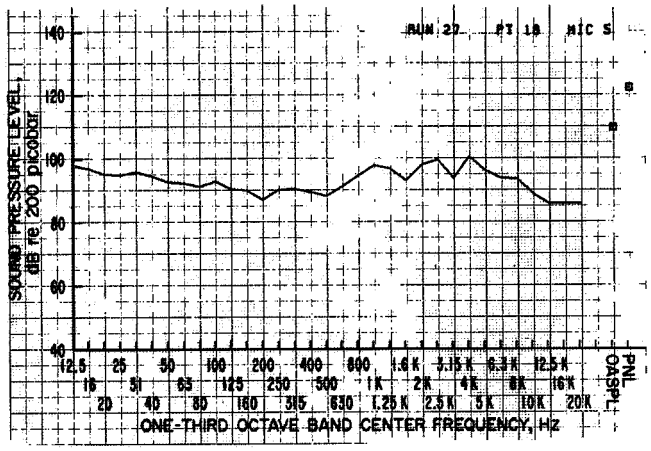
TEST 386 RUN 27	DELTA 15				CORRECTED FOR REVERBERATIONS						WCORR 4	
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11	
ANGLE(DEG):	4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3	
REF DIST(FT):	105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9	
GAIN,	10	0	10	0	0	0	0	0	0	0	10	
FREQUENCY(HZ)												
12.5	72.2	.0	82.2	.0	91.8	100.2	.0	.0	.0	.0	73.0	
16	73.2	.0	81.2	.0	90.4	101.4	.0	.0	.0	.0	77.0	
20	70.2	.0	79.8	.0	86.8	100.6	.0	.0	.0	.0	71.0	
25	69.8	.0	80.0	.0	91.6	99.6	.0	.0	.0	.0	74.8	
31	72.6	.0	79.8	.0	86.0	99.4	.0	.0	.0	.0	77.8	
40	69.8	.0	77.4	.0	85.2	97.6	.0	.0	.0	.0	75.2	
50	70.8	.0	77.8	.0	83.6	96.0	.0	.0	.0	.0	78.4	
63	71.8	.0	79.4	.0	85.4	94.6	.0	.0	.0	.0	82.0	
80	73.4	.0	78.2	.0	85.8	94.8	.0	.0	.0	.0	81.2	
100	75.2	.0	80.4	.0	88.6	94.0	.0	.0	.0	.0	84.4	
125	77.4	.0	82.2	.0	90.0	92.8	.0	.0	.0	.0	87.8	
160	78.4	.0	83.6	.0	88.8	92.4	.0	.0	.0	.0	83.0	
200	76.6	.0	80.4	.0	85.2	88.2	.0	.0	.0	.0	83.0	
250	80.8	.0	83.6	.0	90.6	92.6	.0	.0	.0	.0	86.8	
315	77.4	.0	80.4	.0	89.4	90.0	.0	.0	.0	.0	84.6	
400	79.0	.0	81.0	.0	89.8	90.8	.0	.0	.0	.0	85.0	
500	77.8	.0	80.8	.0	89.2	89.2	.0	.0	.0	.0	85.0	
630	75.8	.0	82.8	.0	91.2	92.0	.0	.0	.0	.0	88.0	
800	82.6	.0	87.0	.0	94.4	95.6	.0	.0	.0	.0	91.8	
1000	84.4	.0	90.6	.0	97.8	100.2	.0	.0	.0	.0	96.0	
1250	87.6	.0	92.0	.0	97.2	97.4	.0	.0	.0	.0	95.0	
1600	83.2	.0	85.8	.0	94.4	93.6	.0	.0	.0	.0	90.2	
2000	86.4	.0	92.2	.0	101.4	99.8	.0	.0	.0	.0	98.6	
2500	86.8	.0	91.6	.0	101.6	99.8	.0	.0	.0	.0	98.0	
3150	83.8	.0	86.8	.0	94.0	93.4	.0	.0	.0	.0	91.0	
4000	90.2	.0	94.0	.0	101.6	101.0	.0	.0	.0	.0	99.2	
5000	82.6	.0	87.0	.0	96.0	95.0	.0	.0	.0	.0	91.6	
6300	86.4	.0	86.6	.0	94.2	94.0	.0	.0	.0	.0	91.6	
8000	78.8	.0	84.6	.0	93.4	93.8	.0	.0	.0	.0	89.8	
10000	74.8	.0	79.8	.0	89.0	89.4	.0	.0	.0	.0	87.8	
12500	71.8	.0	71.4	.0	86.0	85.8	.0	.0	.0	.0	84.4	
16000	72.4	.0	71.0	.0	86.0	85.0	.0	.0	.0	.0	77.2	
20000	79.6	.0	71.0	.0	86.0	85.0	.0	.0	.0	.0	73.6	
OVERALL SPL UNCORR	111.4	.0	113.4	.0	117.4	118.6	.0	.0	.0	.0	117.2	
OVERALL SPL CORR	79.8	.0	101.3	.0	109.4	111.9	.0	.0	.0	.0	105.9	
PNDB CORR	111.0	.0	115.1	.0	123.0	123.0	.0	.0	.0	.0	120.0	

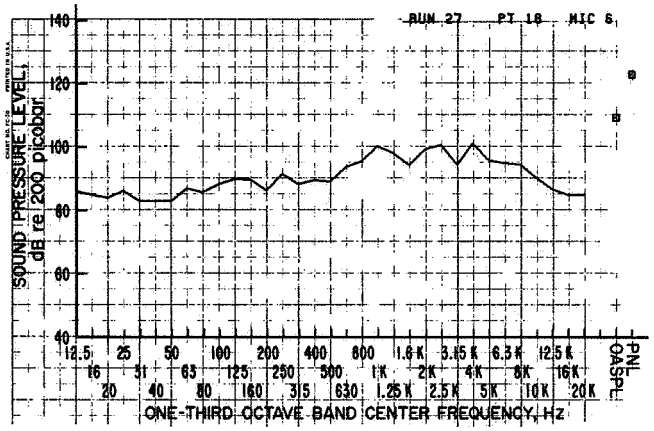
(a) V_∞ = 10.5 m/sec

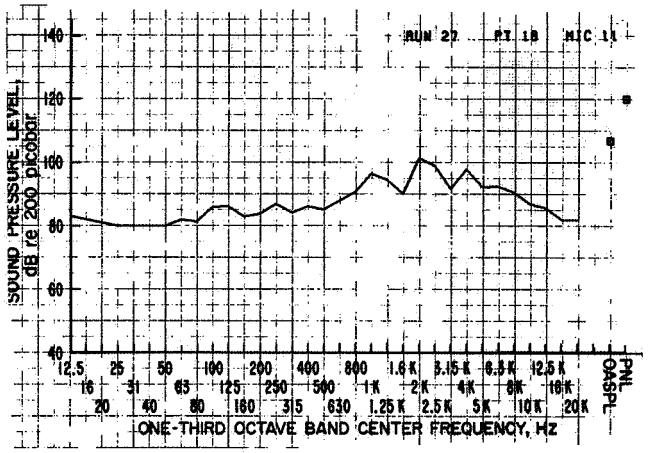
Figure 10.- Run 27, $\alpha = 0^o$, $\psi = 0^o$, $\sigma_v = 0^o$, β_v = closed, $\delta_{cn} = 90^o$, Fans 3 and 4, RPM = 3600.











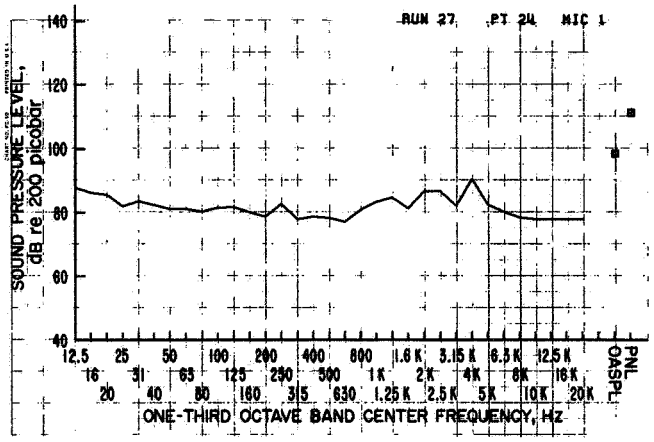
NOISE DATA

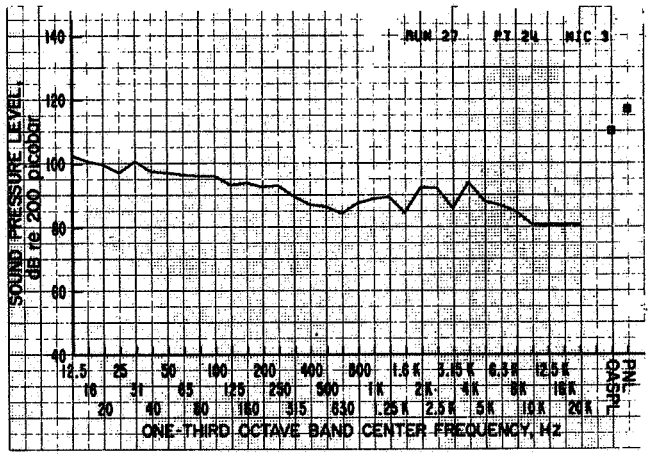
TEST 386 = LIFT FAN TRANSPORT === TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

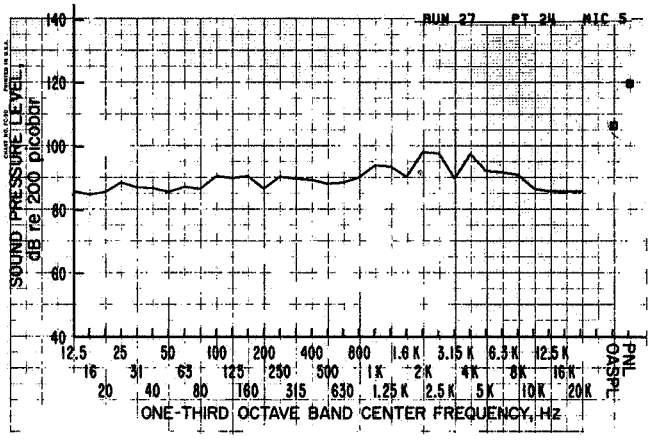
TEST 386 RUN 27	DELTA 18	SPL IN DB REL .0002 MICROBAR CORRECTED FOR REVERBERATIONS									#CORR 4
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGTY	4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT)(	109.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	78.0	.0	84.8	.0	98.0	86.0	.0	.0	.0	.0	83.0
16	77.0	.0	83.2	.0	97.0	85.0	.0	.0	.0	.0	82.0
20	76.0	.0	82.2	.0	95.2	84.0	.0	.0	.0	.0	81.0
25	75.0	.0	83.4	.0	95.0	86.2	.0	.0	.0	.0	80.8
31	75.0	.0	82.2	.0	96.0	83.0	.0	.0	.0	.0	80.0
40	75.0	.0	81.0	.0	94.6	83.0	.0	.0	.0	.0	80.0
50	75.0	.0	78.2	.0	92.8	83.0	.0	.0	.0	.0	80.0
63	75.0	.0	80.0	.0	92.4	87.0	.0	.0	.0	.0	80.0
80	75.0	.0	80.0	.0	91.4	85.6	.0	.0	.0	.0	81.4
100	74.9	.0	82.6	.0	93.0	88.4	.0	.0	.0	.0	86.0
125	75.2	.0	86.0	.0	90.6	90.0	.0	.0	.0	.0	86.2
160	76.0	.0	81.4	.0	90.2	89.0	.0	.0	.0	.0	85.0
200	76.0	.0	79.2	.0	87.2	86.4	.0	.0	.0	.0	83.6
250	79.6	.0	84.0	.0	90.4	91.6	.0	.0	.0	.0	87.0
315	76.6	.0	81.8	.0	90.6	86.4	.0	.0	.0	.0	84.0
400	76.8	.0	81.4	.0	89.6	89.6	.0	.0	.0	.0	86.2
500	77.8	.0	80.8	.0	88.4	89.2	.0	.0	.0	.0	85.2
630	77.8	.0	84.2	.0	91.4	93.8	.0	.0	.0	.0	88.0
800	82.0	.0	86.6	.0	94.8	95.6	.0	.0	.0	.0	90.8
1000	85.4	.0	91.2	.0	98.0	100.4	.0	.0	.0	.0	96.6
1250	88.0	.0	92.4	.0	97.0	98.2	.0	.0	.0	.0	94.6
1600	84.8	.0	86.2	.0	93.2	94.4	.0	.0	.0	.0	90.2
2000	87.6	.0	92.6	.0	98.2	99.4	.0	.0	.0	.0	101.6
2500	88.2	.0	93.6	.0	99.8	100.8	.0	.0	.0	.0	99.2
3150	83.8	.0	86.6	.0	94.0	94.6	.0	.0	.0	.0	91.8
4000	90.6	.0	94.6	.0	100.8	101.2	.0	.0	.0	.0	98.0
5000	82.6	.0	89.2	.0	98.6	98.0	.0	.0	.0	.0	92.4
6300	80.8	.0	87.4	.0	94.0	95.0	.0	.0	.0	.0	90.6
8000	79.0	.0	85.6	.0	93.8	94.6	.0	.0	.0	.0	90.6
10000	78.0	.0	84.0	.0	89.0	90.4	.0	.0	.0	.0	87.0
12500	78.0	.0	81.0	.0	86.0	86.8	.0	.0	.0	.0	85.8
16000	78.0	.0	81.0	.0	86.0	85.0	.0	.0	.0	.0	83.0
20000	78.0	.0	81.0	.0	86.0	85.0	.0	.0	.0	.0	82.0
OVERALL SPL UNCORR	112.0	.0	114.2	.0	117.6	117.4	.0	.0	.0	.0	118.0
~~OVERALL SPL CORR~~	~~97.5~~	~~.0~~	~~100.3~~	~~.0~~	~~110.0~~	~~109.4~~	~~.0~~	~~.0~~	~~.0~~	~~.0~~	~~107.1~~
PNDB CORR	111.4	.0	115.8	.0	122.6	123.0	.0	.0	.0	.0	120.2

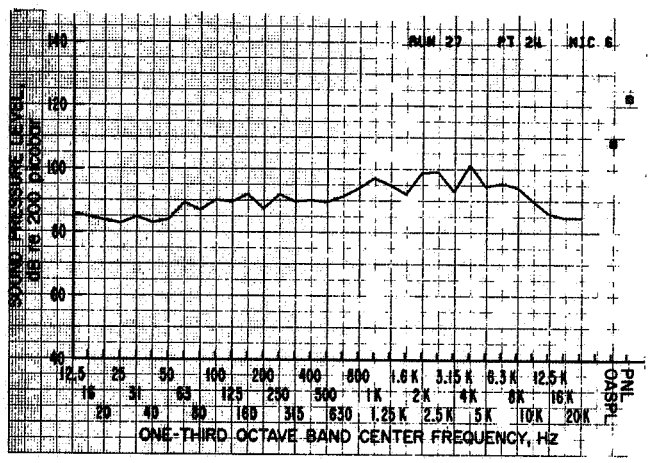
(b) V_∞ = 13.7 m/sec

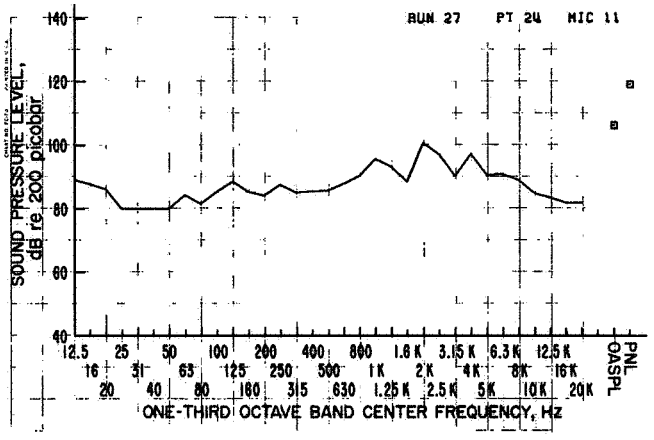
Figure 10.- Continued.











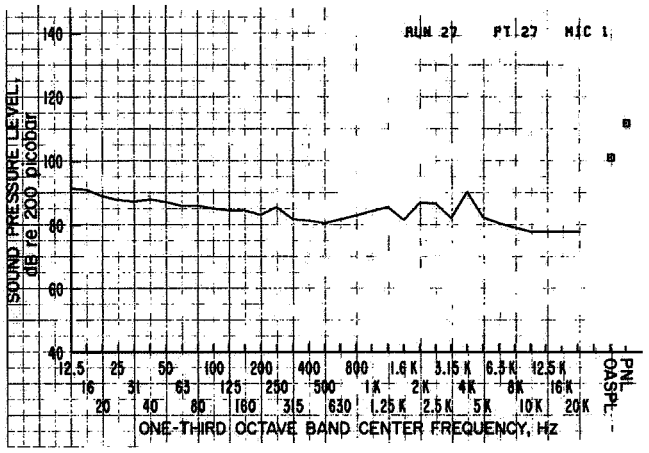
NOISE DATA

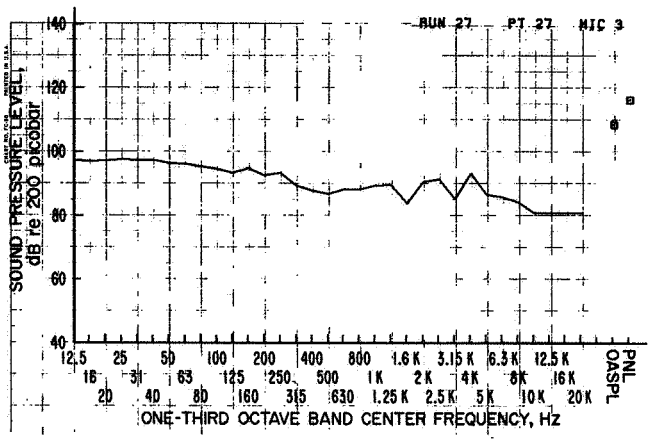
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

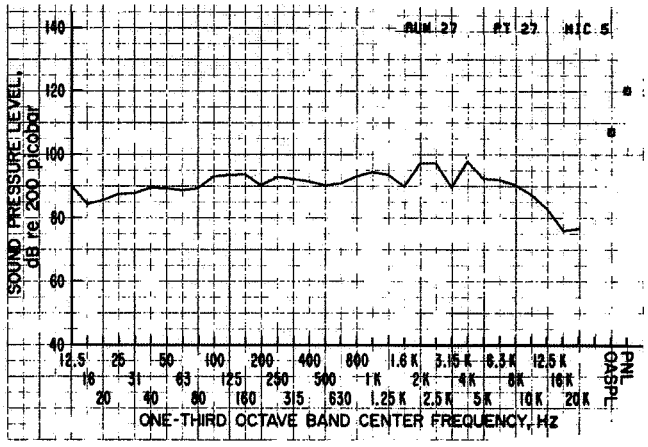
TEST 386 RUN 27	DELTA 24	SPL IN DB RE .0002 MICROBAR CORRECTED FOR REVERBERATIONS									MCBRR 4
MICROPHONE!	1 2	3	4	5	6	7	8	9	10	11	
ANGLE(DEGIT	-4.9 .0	8.9	.0	22.0	21.0	.0	.0	.0	.0	11.9	
REF DIST(FT))	105.4 .0	60.7	.0	23.9	29.1	.0	.0	.0	.0	49.9	
GAIN,	0 0	0	0	0	0	0	0	0	0	0	
FREQUENCIES)											
12.5	87.8 .0	102.6	.0	86.0	86.0	.0	.0	.0	.0	89.2	
16	86.2 .0	100.8	.0	85.0	85.0	.0	.0	.0	.0	87.8	
20	85.8 .0	99.6	.0	85.8	84.0	.0	.0	.0	.0	86.2	
25	82.0 .0	97.2	.0	86.8	83.0	.0	.0	.0	.0	85.0	
31	83.6 .0	100.8	.0	87.2	85.0	.0	.0	.0	.0	88.0	
40	82.4 .0	97.8	.0	87.0	83.2	.0	.0	.0	.0	86.0	
50	81.2 .0	97.2	.0	85.8	84.2	.0	.0	.0	.0	86.0	
63	81.2 .0	96.6	.0	87.4	89.6	.0	.0	.0	.0	84.4	
80	80.4 .0	96.2	.0	88.8	87.2	.0	.0	.0	.0	81.6	
100	81.8 .0	96.2	.0	90.8	90.4	.0	.0	.0	.0	85.4	
125	81.8 .0	93.4	.0	90.2	89.8	.0	.0	.0	.0	85.6	
160	80.2 .0	94.0	.0	90.8	92.2	.0	.0	.0	.0	89.4	
200	78.8 .0	92.8	.0	86.8	87.6	.0	.0	.0	.0	84.2	
250	82.8 .0	93.2	.0	90.6	92.2	.0	.0	.0	.0	87.6	
315	79.0 .0	89.8	.0	90.0	90.0	.0	.0	.0	.0	85.2	
400	78.8 .0	87.2	.0	89.6	90.4	.0	.0	.0	.0	85.6	
500	78.4 .0	86.6	.0	88.4	89.8	.0	.0	.0	.0	85.8	
630	77.2 .0	84.4	.0	88.0	91.6	.0	.0	.0	.0	85.0	
800	81.0 .0	87.6	.0	90.4	94.2	.0	.0	.0	.0	88.4	
1000	83.4 .0	89.0	.0	94.2	97.4	.0	.0	.0	.0	91.8	
1250	84.8 .0	89.6	.0	93.8	99.2	.0	.0	.0	.0	93.4	
1600	81.4 .0	86.6	.0	90.6	92.4	.0	.0	.0	.0	88.6	
2000	86.8 .0	92.6	.0	98.4	99.2	.0	.0	.0	.0	100.8	
2500	88.8 .0	92.4	.0	98.0	99.4	.0	.0	.0	.0	97.2	
3150	82.2 .0	86.0	.0	90.0	93.2	.0	.0	.0	.0	90.4	
4000	90.6 .0	94.2	.0	97.8	101.6	.0	.0	.0	.0	97.4	
5000	82.6 .0	88.2	.0	92.4	94.8	.0	.0	.0	.0	90.8	
6300	80.4 .0	87.0	.0	92.0	95.8	.0	.0	.0	.0	91.0	
8000	78.6 .0	85.0	.0	91.2	94.6	.0	.0	.0	.0	89.2	
10000	78.0 .0	81.0	.0	86.8	90.2	.0	.0	.0	.0	85.0	
12500	78.0 .0	81.0	.0	86.0	86.2	.0	.0	.0	.0	83.6	
16000	78.0 .0	81.0	.0	86.0	85.0	.0	.0	.0	.0	82.0	
20000	78.0 .0	81.0	.0	86.0	85.0	.0	.0	.0	.0	82.0	
OVERALL SPL UNCORR	113.0 .0	119.6	.0	115.0	116.8	.0	.0	.0	.0	117.2	
OVERALL SPL CORR	98.8 .0	110.3	.0	106.0	108.8	.0	.0	.0	.0	108.3	
PNDB CORR	111.3 .0	117.1	.0	120.0	122.8	.0	.0	.0	.0	119.4	

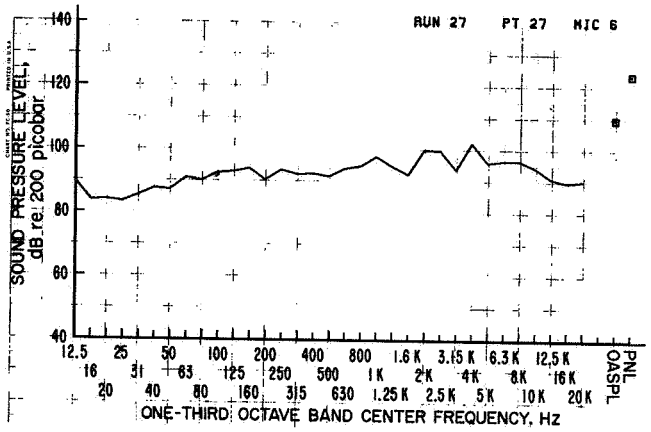
(c) V_∞ = 28.5 m/sec

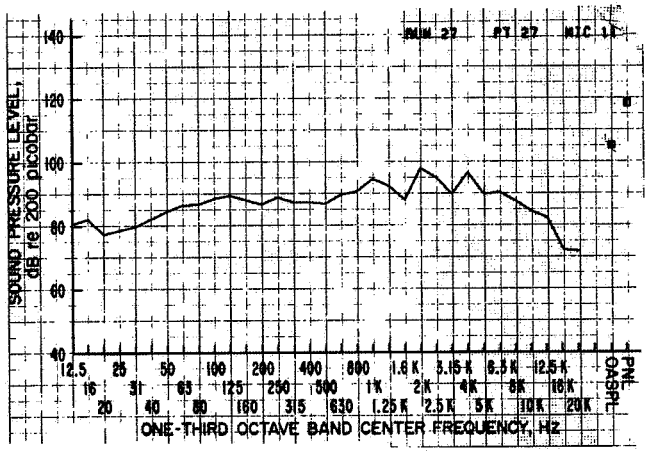
Figure 10.- Continued.











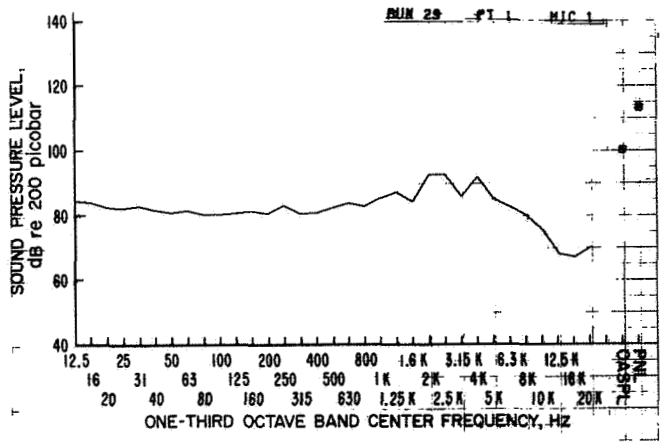
NOISE DATA

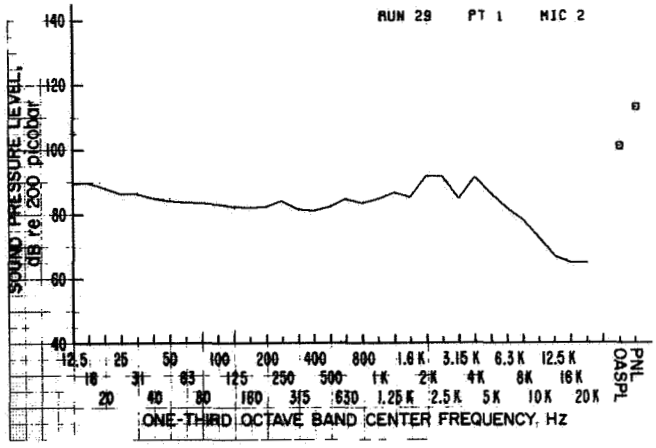
TEST 386 = LIFT FAN TRANSPORT === TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

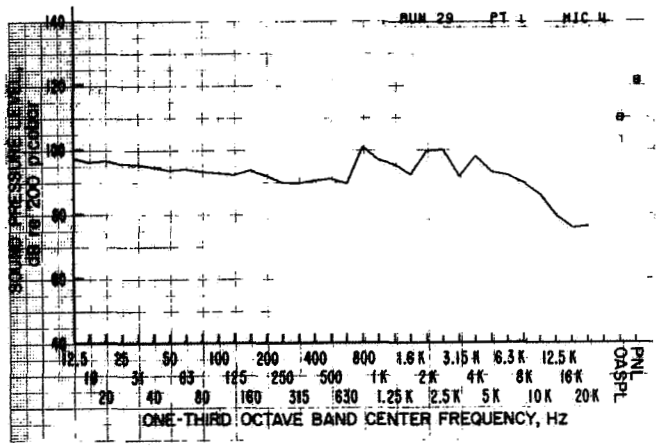
TEST 386 RUN 27	DELTA 27	SPL IN DB REL. .0002 MICROBAR CORRECTED FOR REVERBERATIONS								WCORR 4	
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT):	109.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN,	0	0	0	0	10	10	0	0	0	0	10
FREQUENCY:											
12.5	91.4	.0	97.4	.0	90.4	90.0	.0	.0	.0	.0	80.6
16	91.0	.0	97.2	.0	84.6	84.0	.0	.0	.0	.0	82.2
20	89.0	.0	97.4	.0	85.8	84.2	.0	.0	.0	.0	77.4
25	87.8	.0	97.8	.0	87.8	83.6	.0	.0	.0	.0	78.6
31	87.4	.0	97.6	.0	88.0	85.6	.0	.0	.0	.0	79.8
40	88.0	.0	97.6	.0	89.8	87.8	.0	.0	.0	.0	82.2
50	87.2	.0	96.6	.0	89.6	87.4	.0	.0	.0	.0	84.6
63	86.0	.0	96.4	.0	89.0	91.2	.0	.0	.0	.0	86.6
80	85.6	.0	95.6	.0	89.6	90.4	.0	.0	.0	.0	85.8
100	85.2	.0	94.8	.0	93.4	92.8	.0	.0	.0	.0	88.6
125	84.6	.0	93.6	.0	93.8	93.2	.0	.0	.0	.0	89.6
160	84.6	.0	93.0	.0	94.0	94.2	.0	.0	.0	.0	88.2
200	83.2	.0	92.8	.0	93.6	93.6	.0	.0	.0	.0	86.8
250	83.6	.0	93.6	.0	93.2	93.8	.0	.0	.0	.0	89.0
315	81.8	.0	89.6	.0	92.6	92.4	.0	.0	.0	.0	87.4
400	81.4	.0	88.0	.0	91.8	92.6	.0	.0	.0	.0	87.4
500	80.6	.0	87.0	.0	90.6	91.8	.0	.0	.0	.0	87.0
630	81.8	.0	88.4	.0	91.2	94.2	.0	.0	.0	.0	89.6
800	83.0	.0	88.4	.0	93.4	95.0	.0	.0	.0	.0	90.8
1000	84.4	.0	89.6	.0	94.6	98.0	.0	.0	.0	.0	94.8
1250	83.6	.0	89.8	.0	94.0	99.0	.0	.0	.0	.0	97.6
1600	81.6	.0	84.0	.0	90.2	92.4	.0	.0	.0	.0	88.2
2000	87.0	.0	90.8	.0	97.6	100.2	.0	.0	.0	.0	98.2
2500	88.8	.0	92.6	.0	97.6	100.0	.0	.0	.0	.0	95.2
3150	82.2	.0	85.4	.0	90.0	94.0	.0	.0	.0	.0	90.0
4000	90.4	.0	93.4	.0	98.2	102.4	.0	.0	.0	.0	96.8
5000	82.4	.0	86.8	.0	92.8	96.2	.0	.0	.0	.0	90.0
6300	80.6	.0	86.0	.0	92.4	96.8	.0	.0	.0	.0	90.6
8000	79.2	.0	84.4	.0	90.8	96.8	.0	.0	.0	.0	87.6
10000	78.0	.0	81.0	.0	87.8	94.8	.0	.0	.0	.0	84.8
12500	76.0	.0	81.0	.0	83.4	91.2	.0	.0	.0	.0	82.6
16000	78.0	.0	81.0	.0	76.4	90.0	.0	.0	.0	.0	72.4
20000	78.0	.0	81.0	.0	77.0	90.6	.0	.0	.0	.0	72.0
OVERALL SPL UNCORR	114.2	.0	119.6	.0	115.4	117.8	.0	.0	.0	.0	116.2
OVERALL SPL CORR	121.2	.0	126.0	.0	127.6	132.0	.0	.0	.0	.0	125.0
PNDB CORR	112.0	.0	116.6	.0	120.7	124.0	.0	.0	.0	.0	118.8

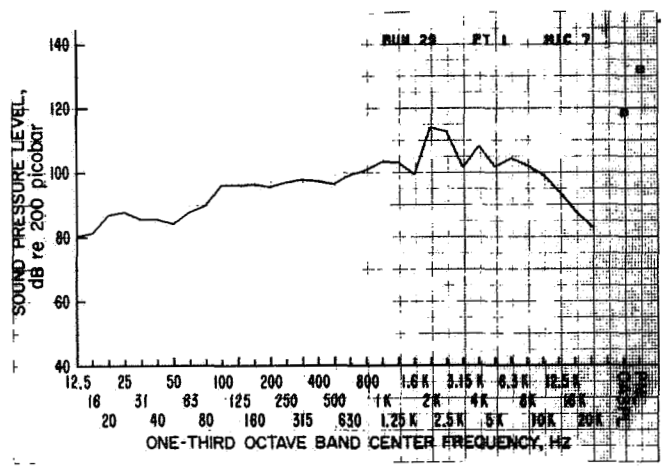
(d) V_∞ = 41.4 m/sec

Figure 10.- Concluded.







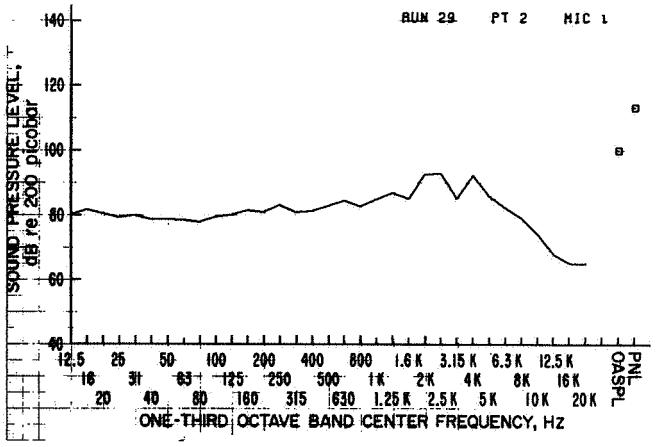


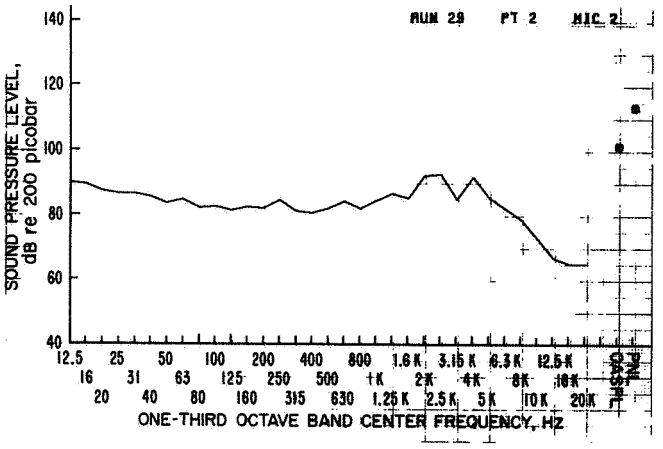
TEST 386 LIFT FAN TRANSPORT NOISE DATA TUNNEL WALL CORRECTIONS APPLIED

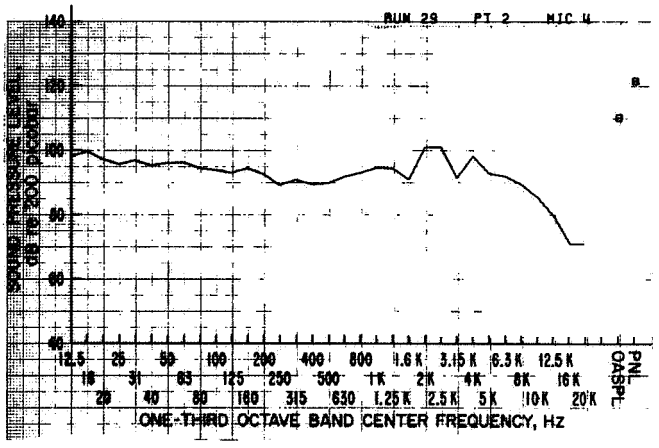
TEST 386	RUN 29	DELTA 1			SPL IN DB REL. .0002 MICROBAR CORRECTED FOR REVERBERATIONS									
MICROPHONE:		1	2	3	4	5	6	7	8	9	10	11		
ANGLE(DEG):		3.7	3.7	.0	7.3	.0	.0	14.5	.0	.0	7.3	.0		
REF DIST(FT):		120.0	120.0	.0	60.0	.0	.0	31.0	.0	.0	60.0	.0		
GAIN:		0	0	0	0	0	0	0	0	0	0	0		
FREQ(HERTZ)														
12.5		84.8	89.4	.0	97.6	.0	.0	80.4	.0	.0	.0	.0		
16		84.4	89.6	.0	96.4	.0	.0	81.4	.0	.0	.0	.0		
20		82.8	88.0	.0	96.8	.0	.0	77.0	.0	.0	.0	.0		
25		82.6	86.2	.0	95.8	.0	.0	87.8	.0	.0	.0	.0		
31		83.2	86.2	.0	95.6	.0	.0	85.6	.0	.0	.0	.0		
40		82.0	84.8	.0	94.8	.0	.0	85.6	.0	.0	.0	.0		
50		81.2	84.0	.0	93.8	.0	.0	84.2	.0	.0	.0	.0		
63		81.8	83.6	.0	94.2	.0	.0	87.8	.0	.0	.0	.0		
80		80.6	83.4	.0	93.4	.0	.0	89.8	.0	.0	.0	.0		
100		80.6	83.0	.0	93.0	.0	.0	96.2	.0	.0	.0	.0		
125		81.0	82.2	.0	92.4	.0	.0	96.2	.0	.0	.0	.0		
160		81.6	82.0	.0	93.8	.0	.0	96.4	.0	.0	.0	.0		
200		80.8	82.2	.0	92.2	.0	.0	94.6	.0	.0	.0	.0		
250		83.4	84.0	.0	90.0	.0	.0	97.0	.0	.0	.0	.0		
315		80.8	81.4	.0	89.8	.0	.0	97.8	.0	.0	.0	.0		
400		81.0	81.0	.0	90.6	.0	.0	97.4	.0	.0	.0	.0		
500		82.4	82.2	.0	91.2		.0	98.4	.0	.0	.0	.0		
630		84.0	84.6	.0	89.6	.0	.0	99.4	.0	.0	.0	.0		
800		83.0	83.4	.0	101.2	.0	.0	100.8	.0	.0	.0	.0		
1000		85.6	84.6	.0	97.8	.0	.0	103.4	.0	.0	.0	.0		
1250		87.4	86.6	.0	95.4	.0	.0	101.2	.0	.0	.0	.0		
1600		84.4	85.2	.0	92.4		.0	99.4	.0	.0	.0	.0		
2000		92.6	91.8	.0	99.4	.0	.0	114.0	.0	.0	.0	.0		
2500		92.8	91.6	.0	100.2	.0	.0	112.8	.0	.0	.0	.0		
3150		86.0	84.8	.0	91.9	.0	.0	101.6	.0	.0	.0	.0		
4000		92.0	91.4	.0	98.2	.0	.0	110.2	.0	.0	.0	.0		
5000		89.2	86.4	.0	93.2	.0	.0	111.8	.0	.0	.0	.0		
6300		82.8	81.6	.0	92.2	.0	.0	114.4	.0	.0	.0	.0		
8000		88.2	78.2		89.5		.0	112.2	.0	.0	.0	.0		
10050		75.6	72.6		86.2		.0	94.2	.0	.0	.0	.0		
12500		68.2	66.8	.0	79.6	.0	.0	94.0	.0	.0	.0	.0		
16300		67.2	65.0	.0	75.6	.0	.0	87.6	.0	.0	.0	.0		
20050		70.2	65.0	.0	76.4	.0	.0	93.0	.0	.0	.0	.0		
OVERALL SPL	/OCTAVE	118.6	118.2		121.2		.0	127.2	.0	.0	.0	.0		
OVERALL SPL	/3RD	100.4	101.1		110.2		.0	118.5	.0	.0	.0	.0		
OVERALL SPL	/1RD	113.6	113.2		121.7		.0	132.1	.0	.0	.0	.0		

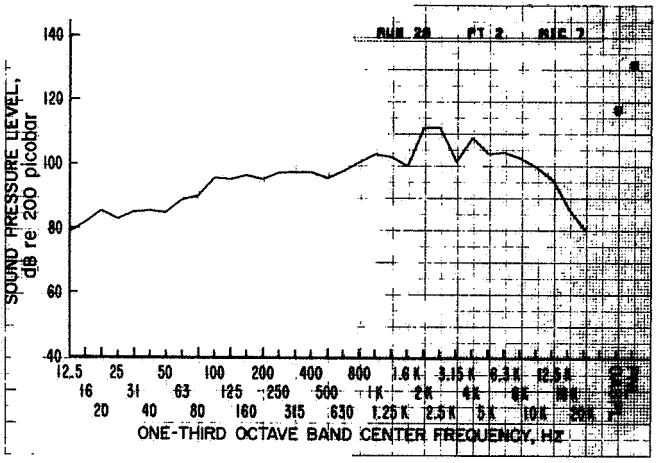
(a) $\alpha = -4^{\circ}$.

Figure 11.- Run 29, V_{∞} = 28.5 m/sec, $\psi = 0^{\circ}$, $\sigma_v = 0^{\circ}$, $\beta_v = 0^{\circ}$, $\delta_{cn} = 90^{\circ}$, all four fans, RPM = 3600.









NOISE DATA

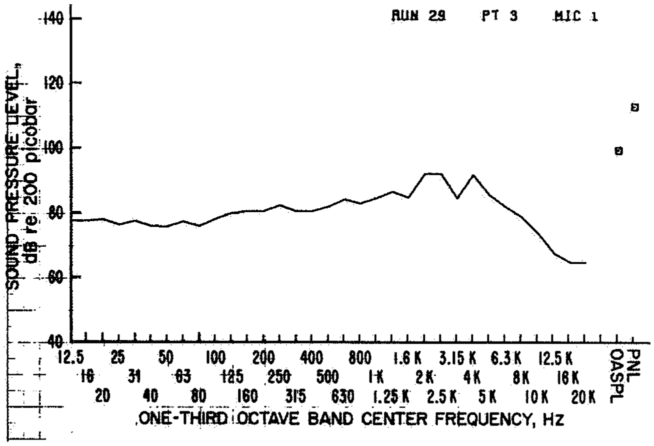
TEST 386 - LIFT FAN TRANSPORT - TUNNEL WALL CORRECTIONS APPLIED.

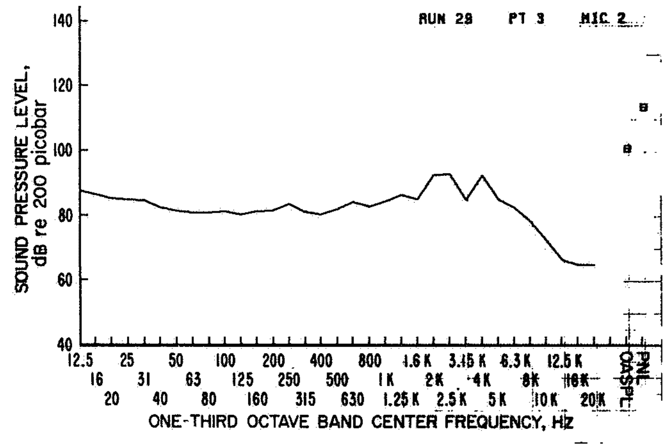
SPL IN DB REL. .0002 MICROBAR

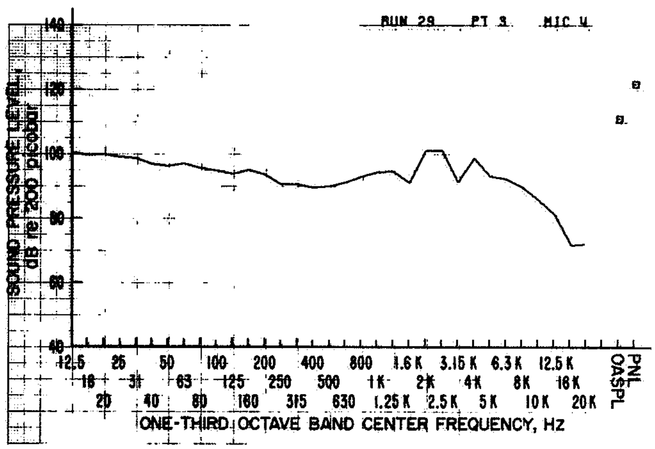
TEST 386 RUN 29	DELTA 2			CORRECTED FOR REVERBERATIONS							
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	3.7	3.7	.0	7.3	.0	.0	14.5	.0	.0	7.3	.0
REF DIST(FT):	120.0	120.0	.0	60.0	.0	.0	31.0	.0	.0	60.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	86.0	90.2	.0	98.0	.0	.0	79.2	.0	.0	.0	.0
16	81.6	89.6	.0	99.6	.0	.0	82.2	.0	.0	.0	.0
20	80.4	87.6	.0	97.2	.0	.0	85.8	.0	.0	.0	.0
25	79.2	86.8	.0	95.6	.0	.0	83.2	.0	.0	.0	.0
31	79.8	86.8	.0	96.8	.0	.0	85.4	.0	.0	.0	.0
40	78.6	85.8	.0	95.2	.0	.0	85.8	.0	.0	.0	.0
50	78.6	83.8	.0	96.0	.0	.0	85.2	.0	.0	.0	.0
63	78.4	85.0	.0	96.2	.0	.0	89.2	.0	.0	.0	.0
80	77.8	82.4	.0	94.4	.0	.0	90.4	.0	.0	.0	.0
100	79.4	82.8	.0	93.8	.0	.0	96.0	.0	.0	.0	.0
125	80.0	81.6	.0	93.0	.0	.0	95.6	.0	.0	.0	.0
160	81.4	82.6	.0	94.4	.0	.0	96.8	.0	.0	.0	.0
200	80.8	82.2	.0	92.6	.0	.0	95.6	.0	.0	.0	.0
250	83.0	84.8	.0	89.2	.0	.0	97.6	.0	.0	.0	.0
315	80.8	85.4	.0	90.8	.0	.0	97.8	.0	.0	.0	.0
400	81.2	80.8	.0	89.4	.0	.0	97.8	.0	.0	.0	.0
500	82.8	82.2	.0	89.8	.0	.0	96.0	.0	.0	.0	.0
630	84.4	84.4	.0	91.8	.0	.0	98.2	.0	.0	.0	.0
800	82.6	82.2	.0	93.0	.0	.0	101.0	.0	.0	.0	.0
1000	84.8	84.6	.0	94.6	.0	.0	103.4	.0	.0	.0	.0
1250	86.8	86.8	.0	94.4	.0	.0	102.6	.0	.0	.0	.0
1600	85.0	85.4	.0	91.0	.0	.0	99.8	.0	.0	.0	.0
2000	92.6	92.4	.0	101.0	.0	.0	111.8	.0	.0	.0	.0
2500	92.8	92.8	.0	101.2	.0	.0	111.8	.0	.0	.0	.0
3150	85.0	85.0	.0	91.4	.0	.0	101.0	.0	.0	.0	.0
4000	92.2	92.0	.0	98.2	.0	.0	108.6	.0	.0	.0	.0
5000	85.6	85.6	.0	92.8	.0	.0	103.6	.0	.0	.0	.0
6300	82.2	82.2	.0	92.0	.0	.0	104.0	.0	.0	.0	.0
8000	79.0	78.8	.0	89.4	.0	.0	102.2	.0	.0	.0	.0
10000	74.0	72.8	.0	85.4	.0	.0	99.4	.0	.0	.0	.0
12500	67.8	66.8	.0	79.6	.0	.0	95.4	.0	.0	.0	.0
16000	65.0	65.0	.0	71.0	.0	.0	86.4	.0	.0	.0	.0
20000	65.0	65.0	.0	71.0	.0	.0	80.0	.0	.0	.0	.0
OVERALL SPL UNCORR	117.8	119.0	.0	122.0	.0	.0	128.2	.0	.0	.0	.0
OVERALL SPL CORR	99.9	101.5	.0	110.4	.0	.0	117.6	.0	.0	.0	.0
PNDB CORR	113.5	113.6	.0	121.8	.0	.0	131.5	.0	.0	.0	.0

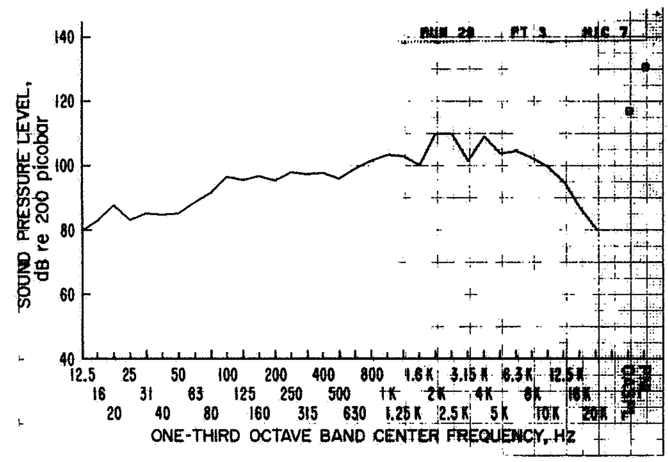
(b) $\alpha = 0^{o}$.

Figure 11.- Continued.









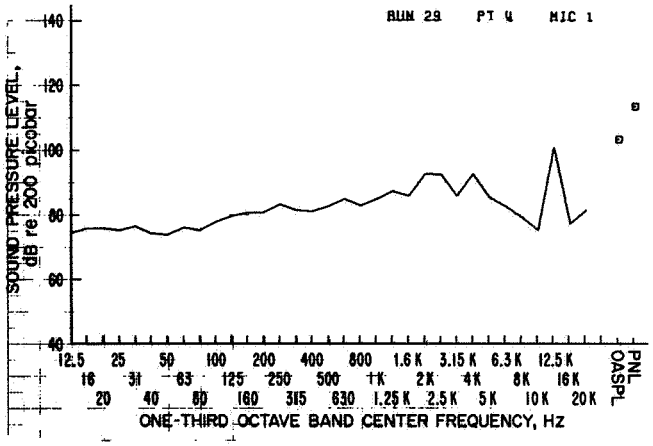
TEST 386 .1F FAN TRANSPARENT NOISE DATA TUNNEL WALL CORRECTIONS APPLIED
SPL IN DB REL. .0002 MICROBAR
CORRECTED FOR REVERBERATIONS

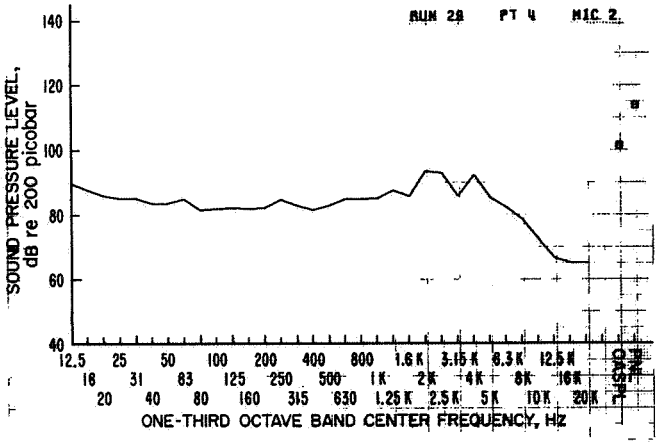
TEST 386 RUN 29 DELTA 3

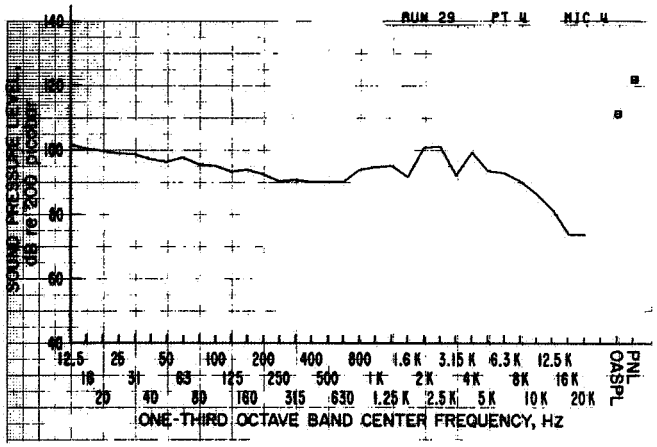
MICROPHONE	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	3.[illegible]	3.[illegible]	.0	7.[illegible]	.0	.0	14.5			7.3	
REF DIST(FT):	120.0	120.0	.0	60.0	.0	.0	31.0	.0	.0	60.0	.0
GAIN,	0					0	0			0	
FREQ(HERTZ)											
12.5	77.6	83.0		100.4			79.6			.0	
16	77.8	86.8	.0	99.4	.0	.0	82.8	.0		.0	
20	78.2	85.6	.0	99.[illegible]	.0	.0	87.6			.0	
25	76.6	85.2	.0	99.0	.0	.0	83.0	.0	.0	.0	.0
31	77.8	85.0	.0	98.7	.0	.0	85.0	.0	.0	.0	.0
40	76.2	82.8	.0	96.8		.0	84.6	.0	.0	.0	
50	76.0	81.8	.0	96.2	.0	.0	85.0	.0	.0	.0	.0
63	77.6	81.2	.0	97.0	.0	.0	88.4	.0		.0	.0
80	76.2	81.2	.0	95.6	.0	.0	91.4	.0		.0	.0
100	78.4	81.6	.0	94.8	.0	.0	96.4	.0	.0	.0	.0
125	80.2	80.6	.0	93.8		.0	95.4	.0	.0	.0	.0
160	80.8	81.6		95.[illegible]		.0	96.6	.0	.0	.0	.0
200	80.8	81.8	.0	93.6	.0	.0	95.2	.0	.0	.0	.0
250	82.6	83.8	.0	90.4	.0	.0	97.8	.0	.0	.0	.0
315	80.6	81.4	.0	90.6	.0	.0	97.2	.0	.0	.0	.0
400	80.8	80.6	.0	89.6	.0	.0	97.6	.0	.0	.0	.0
500	82.2	82.2	.0	90.0	.0	.0	95.8	.0	.0	.0	.0
630	84.4	84.4	.0	91.2	.0	.0	99.0	.0	.0	.0	.0
800	83.2	83.0	.0	93.0	.0	.0	101.4	.0	.0	.0	.0
1000	84.8	84.6	.0	94.4	.0	.0	103.2	.0		.0	.0
1250	86.2	86.6	.0	94.6	.0	.0	102.8	.0	.0	.0	.0
1600	85.0	85.2	.0	91.2	.0	.0	100.0	.0		.0	.0
2000	92.4	92.8	.0	101.2	.0	.0	109.8	.0	.0	.0	.0
2500	92.4	93.0	.0	101.2	.0	.0	109.8	.0	.0	.0	.0
3150	84.6	85.0	.0	91.4	.0	.0	101.2	.0	.0	.0	.0
4000	92.0	92.6	.0	98.8	.0	.0	109.0	.0	.0	.0	.0
5000	85.6	85.2	.0	93.2	.0	.0	103.6	.0	.0	.0	.0
6300	82.2	82.6	.0	92.4	.0	.0	104.4	.0	.0	.0	.0
8000	79.0	78.4	.0	89.8	.0	.0	102.2	.0	.0	.0	.0
10000	74.0	72.6	.0	85.8	.0	.0	99.4	.0	.0	.0	.0
12500	67.8	66.4	.0	81.2	.0	.0	94.6	.0	.0	.0	.0
16000	65.0	65.0	.0	71.8	.0	.0	85.4	.0	.0	.0	.0
20000	65.0	65.0	.0	72.2	.0	.0	80.0	0	.0	.0	.0
OVERALL SPL [illegible]	117.4	118.2		121.8	.0	.0	126.4	.0	.0	.0	.0
OVERALL SPL [illegible]	99.6	100.9	.0	111.3		.0	114.8	.0	.0	.0	.0
PNDB CORR	113.3	113.7	.0	122.1		.0	130.5	.0	0	.0	.0

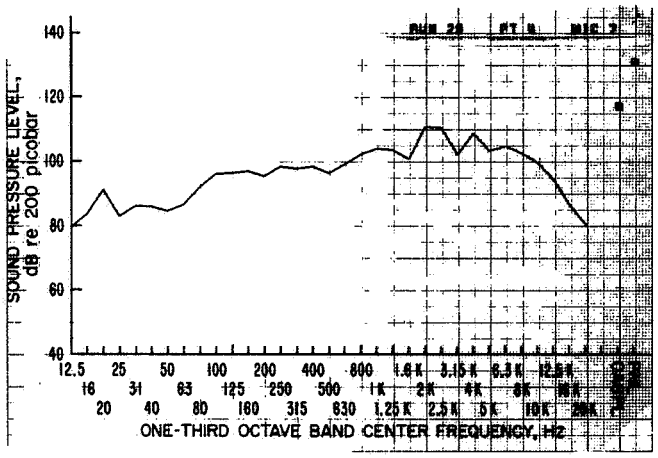
(c) $\alpha = 4^{\circ}$.

Figure 11.- Continued.









ISE DATA

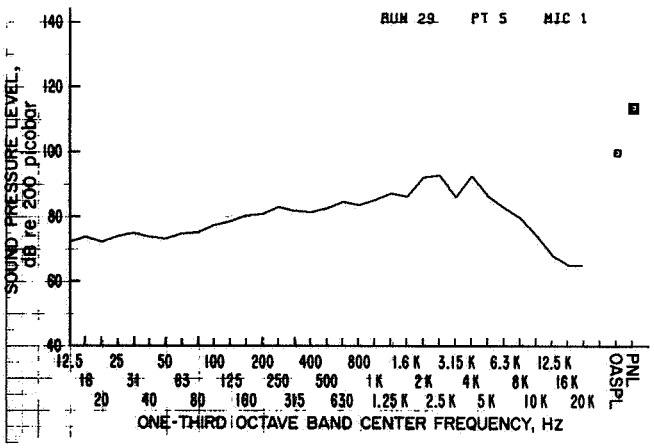
TEST 386 .IFT FAR TRANSPART TUNNEL WALL CORRECTIONS APPLIED.

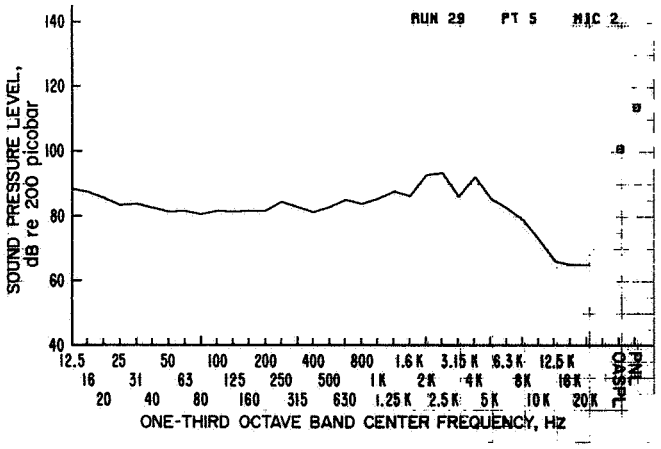
SPL IN DB REL .0002 MICROBAR

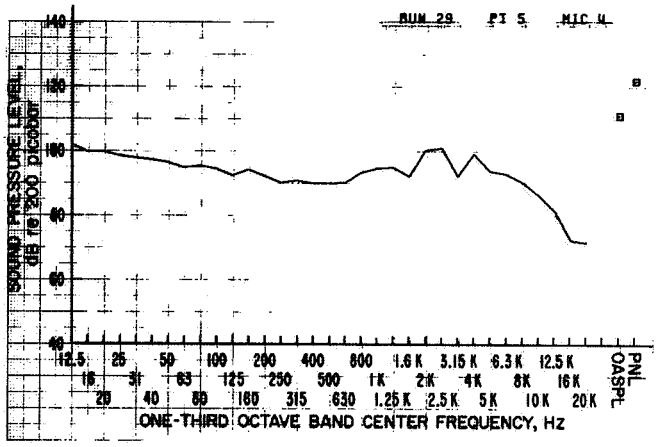
TEST 386	RUN 29	DELTA	4		CORRECTED FOR REVERBERATIONS							
MICROPHONE:		1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):		3.7	3.7	.0	7.3	.0	.0	14.5	.0	.0	7.3	.0
REF DIST(FT):		120.0	120.0	.0	60.0	.0	.0	11.0	.0	.0	60.0	.0
GAIN:		0	0		0		0	0	0	0	0	
FREQ(HERTZ)												
12.5		74.4	89.6	.0	101.8	.0	.0	79.6	.0	.0	.0	.0
16		75.8	87.6	.0	100.4	.0	.0	83.8	.0	.0	.0	.0
20		75.8	85.8	.0	99.1	.0	.0	81.2	.0	.0	.0	.0
25		75.2	85.0	.0	99.0	.0	.0	83.0	.0	.0	.0	.0
31		76.4	85.0	.0	98.8	.0	.0	86.2	.0	.0	.0	.0
40		74.2	83.4	.0	97.2	.0	.0	86.0	.0	.0	.0	.0
50		73.8	83.4	.0	96.4	.0	.0	84.6	.0	.0	.0	.0
63		76.0	84.8	.0	97.8	.0	.0	86.6	.0	.0	.0	.0
80		75.2	81.4	.0	95.6	.0	.0	92.0	.0	.0	.0	.0
100		77.6	81.8	.0	95.2	.0	.0	95.2	.0	.0	.0	.0
125		79.6	82.0	.0	93.4	.0	.0	96.4	.0	.0	.0	.0
160		80.6	81.8	.0	94.0	.0	.0	97.0	.0	.0	.0	.0
200		80.6	82.0	.0	92.6	.0	.0	95.4	.0	.0	.0	.0
250		83.2	84.6	.0	90.4	.0	.0	98.4	.0	.0	.0	.0
315		81.4	82.8	.0	90.8	.0	.0	97.8	.0	.0	.0	.0
400		81.0	81.4	.0	90.2	.0	.0	98.4	.0	.0	.0	.0
500		82.6	82.8	.0	90.2	.0	.0	96.4	.0	.0	.0	.0
630		84.8	84.8	.0	90.2	.0	.0	99.2	.0	.0	.0	.0
800		82.8	84.8	.0	94.0	.0	.0	102.2	.0	.0	.0	.0
1000		84.8	85.0	.0	94.8	.0	.0	104.0	.0	.0	.0	.0
1250		87.2	87.4	.0	95.2	.0	.0	104.6	.0	.0	.0	.0
1600		85.6	85.6	.0	91.8	.0	.0	100.8	.0	.0	.0	.0
2000		92.6	93.4	.0	101.0	.0	.0	110.8	.0	.0	.0	.0
2500		92.4	92.8	.0	101.2	.0	.0	113.4	.0	.0	.0	.0
3150		88.6	88.6	.0	92.2	.0	.0	112.2	.0	.0	.0	.0
4000		92.6	92.2	.0	99.4	.0	.0	118.8	.0	.0	.0	.0
5000		88.4	88.2	.0	93.6	.0	.0	113.4	.0	.0	.0	.0
6300		82.6	82.2	.0	93.0	.0	.0	114.8	.0	.0	.0	.0
8000		79.2	78.4	.0	90.4	.0	.0	112.6	.0	.0	.0	.0
10000		75.2	72.2	.0	86.4	.0	.0	99.6	.0	.0	.0	.0
12500		100.8	66.4	.0	81.4	.0	.0	94.2	.0	.0	.0	.0
16000		77.2	65.3	.0	73.8	.0	.0	86.2	.0	.0	.0	.0
20000		81.4	65.0	.0	73.4	.0	.0	90.2	.0	.0	.0	.0
OVERALL SPL	UNCORR	130.0	118.4	.0	122.8	.0	.0	126.2	.0	.0	.0	.0
OVERALL SPL	CORR	103.3	101.3	.0	111.6	.0	.0	117.3	.0	.0	.0	.0
PNDB	CORR	113.6	113.8	.0	122.3	.0	.0	131.0	.0	.0	.0	.0

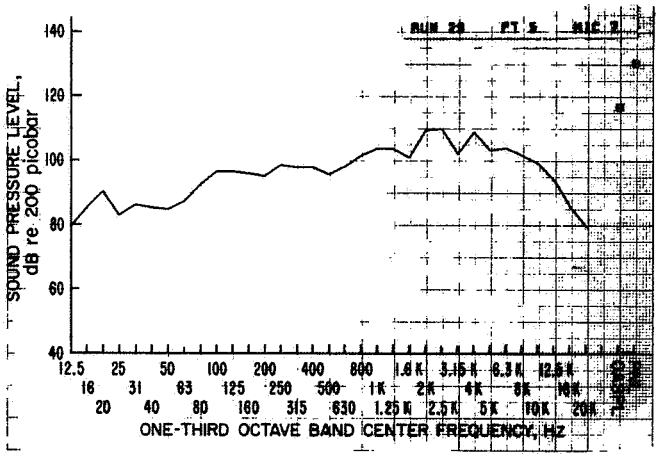
(d) $\alpha = 8^{o}$.

Figure 11.- Continued.









NOISE DATA

TEST 386 .1FT FAN TRANSPONT TUNNEL WALL CORRECTIONS APPLIED

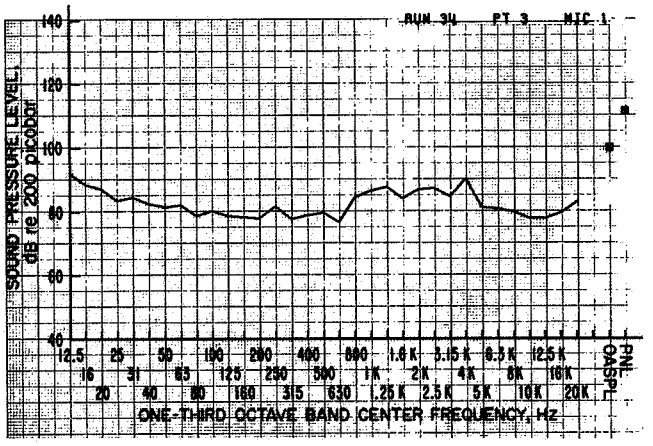
SPL IN DL REL .0002 MICROBAR

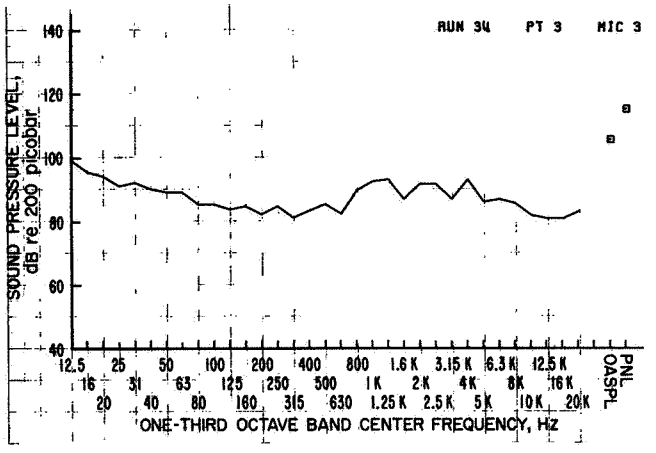
CORRECTED FOR REVERBERATIONS

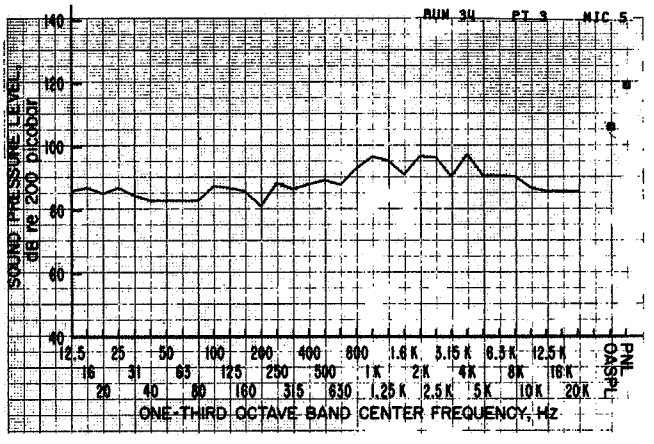
TEST 386 RUN 29	DELTA 5										
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	3.7	3.7	.0	7.5	.0	.0	14.5	.0	.0	7.3	.0
REF DIST(FT):	120.0	120.0	.0	60.0	.0	.0	31.0	.0	.0	60.0	.0
GAIN:	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	72.2	88.4	.0	101.8	.0	.0	79.4	.0	.0	.0	.0
16	73.8	87.4	.0	99.6	.0	.0	85.4	.0	.0	.0	.0
20	72.2	85.6	.0	99.6	.0	.0	90.4	.0	.0	.0	.0
25	74.0	83.4	.0	98.4	.0	.0	93.0	.0	.0	.0	.0
31	75.0	83.8	.0	97.8	.0	.0	86.2	.0	.0	.0	.0
40	73.8	82.6	.0	97.2	.0	.0	85.4	.0	.0	.0	.0
50	73.2	81.4	.0	96.4	.0	.0	84.8	.0	.0	.0	.0
63	74.8	81.6	.0	94.5	.0	.0	87.2	.0	.0	.0	.0
80	75.2	80.6	.0	95.4	.0	.0	92.4	.0	.0	.0	.0
100	77.4	81.6	.0	94.4	.0	.0	94.6	.0	.0	.0	.0
125	78.6	81.4	.0	92.4	.0	.0	96.6	.0	.0	.0	.0
160	80.4	81.6	.0	94.2	.0	.0	94.0	.0	.0	.0	.0
200	80.8	81.6	.0	92.2	.0	.0	95.2	.0	.0	.0	.0
250	83.0	84.4	.0	90.2	.0	.0	98.6	.0	.0	.0	.0
315	81.8	82.8	.0	90.8	.0	.0	98.0	.0	.0	.0	.0
400	81.4	81.2	.0	90.0	.0	.0	96.0	.0	.0	.0	.0
500	82.6	82.8	.0	90.0	.0	.0	95.8	.0	.0	.0	.0
630	84.6	85.0	.0	90.2	.0	.0	96.2	.0	.0	.0	.0
800	83.6	83.8	.0	93.4	.0	.0	101.6	.0	.0	.0	.0
1000	85.2	85.4	.0	94.6	.0	.0	103.8	.0	.0	.0	.0
1250	87.2	87.6	.0	95.0	.0	.0	103.8	.0	.0	.0	.0
1600	86.2	86.2	.0	92.2	.0	.0	101.0	.0	.0	.0	.0
2000	92.2	92.8	.0	100.4	.0	.0	109.6	.0	.0	.0	.0
2500	92.8	93.4	.0	101.0	.0	.0	110.0	.0	.0	.0	.0
3150	86.0	86.0	.0	92.2	.0	.0	102.2	.0	.0	.0	.0
4000	92.6	92.2	.0	99.2	.0	.0	109.0	.0	.0	.0	.0
5000	86.4	85.4	.0	93.8	.0	.0	103.4	.0	.0	.0	.0
6300	82.6	82.4	.0	93.0	.0	.0	104.8	.0	.0	.0	.0
8000	79.6	78.8	.0	90.4	.0	.0	101.8	.0	.0	.0	.0
10000	74.2	72.6	.0	86.4	.0	.0	99.2	.0	.0	.0	.0
12500	68.0	66.0	.0	81.4	.0	.0	94.0	.0	.0	.0	.0
16000	65.0	65.0	.0	72.4	.0	.0	85.6	.0	.0	.0	.0
20000	65.0	65.0	.0	71.6	.0	.0	79.6	.0	.0	.0	.0
OVERALL SPL UNCORR	118.2	118.6	.0	122.0	.0	.0	126.2	.0	.0	.0	.0
OVERALL SPL CORR	99.8	101.1	.0	111.2	.0	.0	116.9	.0	.0	.0	.0
PNDB CORR	113.7	113.9	.0	122.0	.0	.0	130.6	.0	.0	.0	.0

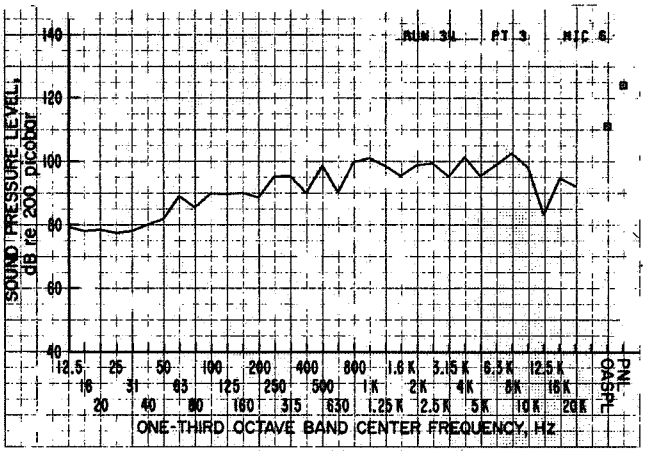
(e) $\alpha = 12^{o}$.

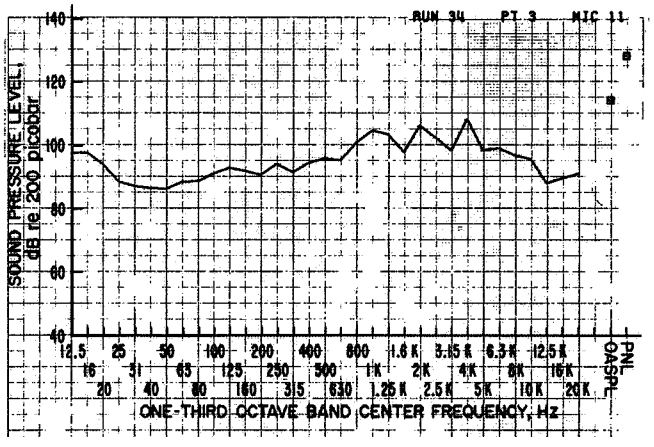
Figure 11.- Concluded.











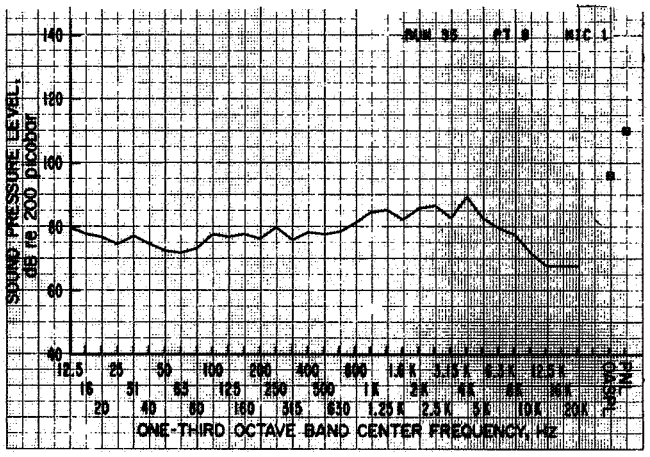
NOISE DATA

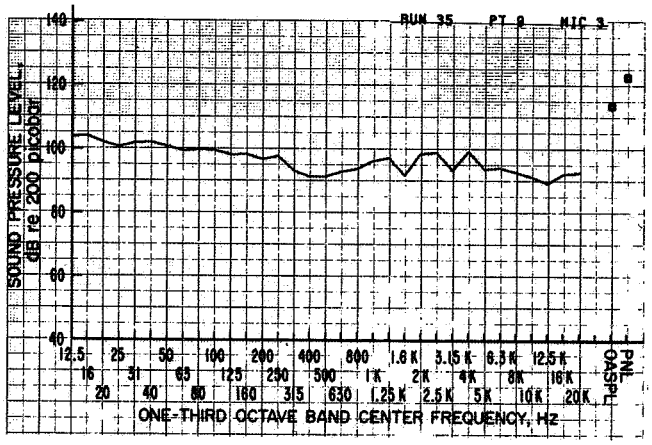
TEST 386 • LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED. ATENCIO

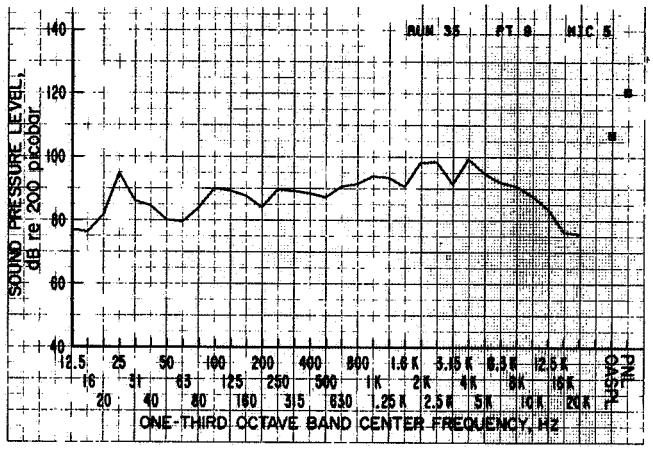
SPL IN DB REL. .0002 MICROBAR

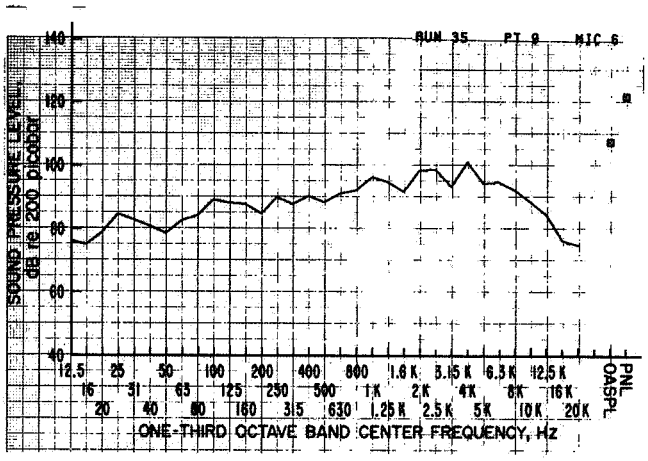
TEST 386 RUN 34	DELTA 3				CORRECTED FOR REVERBERATIONS					WCORR 4	
MICROPHONE!	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGJ)	4.9	.0	8.3	.0	22.0	25.0	.0	.0	.0	.0	11.3
REF DIST(FT))	105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	92.0	.0	99.2	.0	86.0	79.4	.0	.0	.0	.0	97.8
16	88.6	.0	95.6	.0	87.0	78.2	.0	.0	.0	.0	97.8
20	87.2	.0	94.2	.0	85.2	76.6	.0	.0	.0	.0	94.0
25	83.6	.0	91.2	.0	87.0	77.6	.0	.0	.0	.0	88.6
31	84.6	.0	92.2	.0	84.6	78.2	.0	.0	.0	.0	87.2
40	82.6	.0	90.2	.0	83.0	80.2	.0	.0	.0	.0	86.6
50	81.6	.0	89.2	.0	83.0	82.0	.0	.0	.0	.0	86.4
63	82.2	.0	89.2	.0	83.0	89.2	.0	.0	.0	.0	88.6
80	78.8	.0	85.4	.0	83.0	85.8	.0	.0	.0	.0	88.8
100	80.4	.0	85.4	.0	87.6	90.0	.0	.0	.0	.0	91.2
125	78.8	.0	83.8	.0	87.0	89.8	.0	.0	.0	.0	93.0
160	78.4	.0	84.8	.0	88.0	90.2	.0	.0	.0	.0	92.0
200	78.0	.0	83.2	.0	86.2	88.8	.0	.0	.0	.0	90.8
250	81.8	.0	86.8	.0	88.6	93.4	.0	.0	.0	.0	94.2
315	77.8	.0	81.2	.0	86.6	93.6	.0	.0	.0	.0	91.6
400	79.0	.0	83.4	.0	88.2	90.2	.0	.0	.0	.0	94.6
500	79.8	.0	83.4	.0	89.4	96.8	.0	.0	.0	.0	96.0
630	78.8	.0	82.4	.0	86.0	90.4	.0	.0	.0	.0	93.4
800	84.6	.0	89.8	.0	93.2	100.0	.0	.0	.0	.0	101.0
1000	86.6	.0	92.6	.0	96.8	101.2	.0	.0	.0	.0	104.8
1250	87.8	.0	93.2	.0	95.8	98.8	.0	.0	.0	.0	103.6
1600	84.2	.0	87.0	.0	91.2	95.6	.0	.0	.0	.0	98.0
2000	87.0	.0	91.8	.0	97.0	99.0	.0	.0	.0	.0	106.4
2500	87.4	.0	91.8	.0	98.6	99.8	.0	.0	.0	.0	112.8
3150	84.8	.0	87.0	.0	90.6	95.4	.0	.0	.0	.0	98.6
4000	90.4	.0	93.2	.0	97.6	101.6	.0	.0	.0	.0	108.4
5000	91.4	.0	96.2	.0	90.8	95.8	.0	.0	.0	.0	98.6
6300	81.0	.0	87.0	.0	90.8	99.0	.0	.0	.0	.0	99.2
8000	80.0	.0	85.8	.0	90.6	102.8	.0	.0	.0	.0	97.0
10000	79.2	.0	83.2	.0	87.2	98.4	.0	.0	.0	.0	95.6
12500	78.0	.0	81.0	.0	86.0	83.4	.0	.0	.0	.0	88.2
16000	79.8	.0	81.0	.0	86.0	95.0	.0	.0	.0	.0	89.8
20000	83.2	.0	83.2	.0	86.0	92.4	.0	.0	.0	.0	91.2
OVERALL SPL UNCORR	119.0	.0	118.8	.0	114.2	116.8	.0	.0	.0	.0	124.6
OVERALL SPL CORR	120.0	.0	119.8	.0	119.3	121.3	.0	.0	.0	.0	114.4
PNDB CORR	111.6	.0	115.5	.0	119.5	124.3	.0	.0	.0	.0	128.5

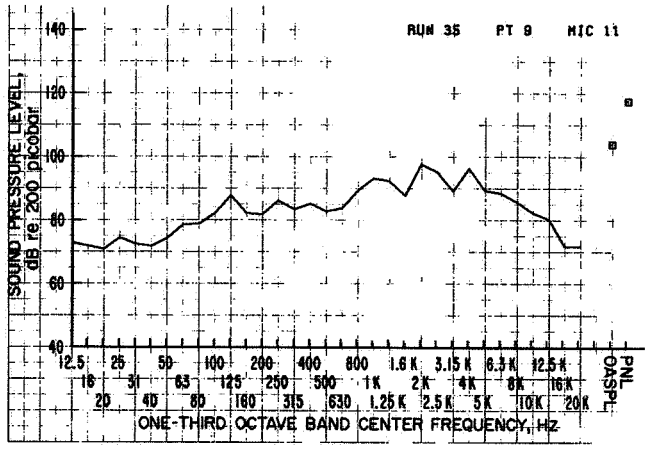
Figure 12.- Run 34, $V_\infty = 0$, $\alpha = 0^o$, $\psi = 0^o$, $\sigma_v = 0^o$, β_v = closed, $\delta_{cn} = 56^o$, Fan 3, RPM = 3600.







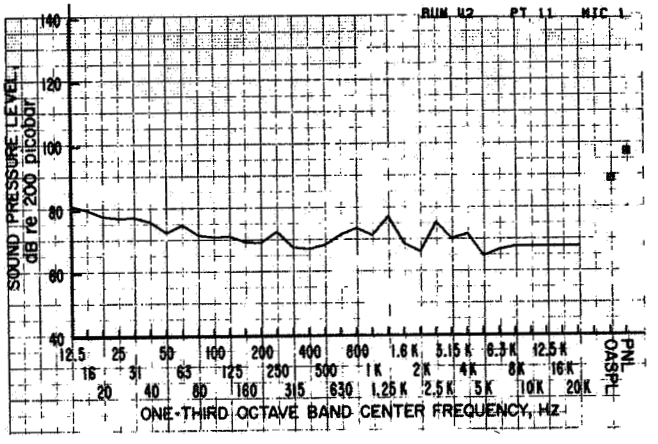


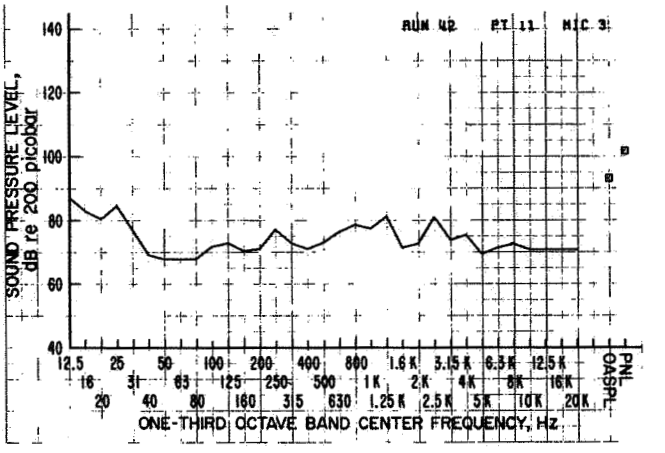


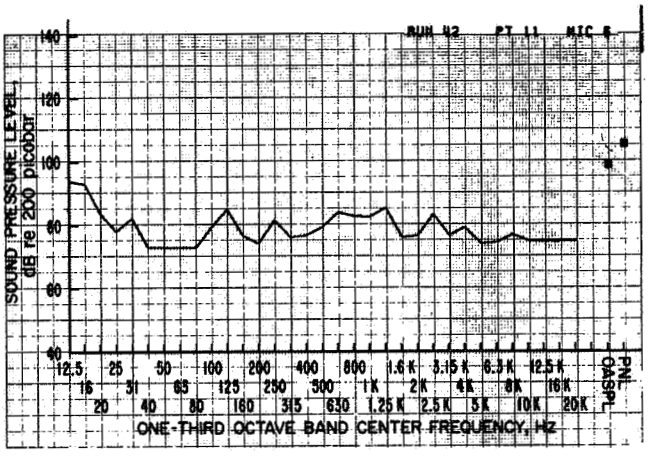
TEST 386 = LIFT FAN TRANSPORT *** NOISE DATA *** TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

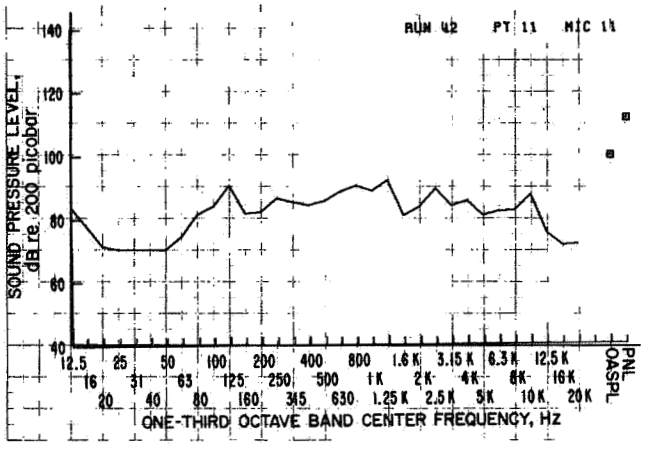
TEST 386 RUN 35	DELTA 9		SPL IN DB REL .0002 MICROBAR								
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGT	8.9	.0 8.5	.0	22.0	21.0	.0	.0	.0	.0	.0	11.3
REF DIST(FT):	109.4	.0 60.7	.0	23.9	25.1	.0	.0	.0	.0	.0	49.9
GAIN,	10	0 10	0	10	10	0	0	0	0	0	10
FREQTHERTZ)											
12.9	79.6	.0 104.0	.0	77.0	76.0	.0	.0	.0	.0	.0	73.0
16	77.8	.0 104.2	.0	76.4	75.0	.0	.0	.0	.0	.0	72.0
20	76.8	.0 102.4	.0	81.6	78.8	.0	.0	.0	.0	.0	71.0
25	74.6	.0 100.8	.0	94.8	84.6	.0	.0	.0	.0	.0	74.6
31	77.2	.0 102.0	.0	86.2	82.8	.0	.0	.0	.0	.0	72.6
40	74.8	.0 102.2	.0	84.6	80.8	.0	.0	.0	.0	.0	72.0
50	72.6	.0 101.0	.0	80.2	78.6	.0	.0	.0	.0	.0	74.4
63	72.0	.0 99.6	.0	79.6	82.6	.0	.0	.0	.0	.0	76.8
80	73.4	.0 100.0	.0	84.0	84.2	.0	.0	.0	.0	.0	79.0
100	77.8	.0 99.8	.0	90.2	89.2	.0	.0	.0	.0	.0	82.4
125	77.0	.0 98.4	.0	89.4	88.2	.0	.0	.0	.0	.0	88.0
160	77.8	.0 98.6	.0	87.8	87.8	.0	.0	.0	.0	.0	82.4
200	76.4	.0 97.0	.0	84.2	84.8	.0	.0	.0	.0	.0	82.0
250	80.0	.0 98.0	.0	89.8	90.0	.0	.0	.0	.0	.0	86.4
315	78.0	.0 93.4	.0	89.6	87.8	.0	.0	.0	.0	.0	83.6
400	79.4	.0 91.6	.0	88.6	90.4	.0	.0	.0	.0	.0	85.4
500	77.8	.0 91.6	.0	87.4	88.4	.0	.0	.0	.0	.0	85.4
630	78.6	.0 93.2	.0	90.8	91.2	.0	.0	.0	.0	.0	84.0
800	81.4	.0 94.0	.0	91.6	92.2	.0	.0	.0	.0	.0	89.6
1000	84.8	.0 96.6	.0	94.0	96.4	.0	.0	.0	.0	.0	93.4
1250	85.4	.0 97.4	.0	93.6	94.8	.0	.0	.0	.0	.0	92.6
1600	82.4	.0 92.0	.0	90.6	91.6	.0	.0	.0	.0	.0	88.0
2000	86.0	.0 98.8	.0	96.4	98.6	.0	.0	.0	.0	.0	98.0
2500	84.8	.0 99.2	.0	98.8	99.8	.0	.0	.0	.0	.0	99.4
3150	83.0	.0 93.6	.0	91.6	93.4	.0	.0	.0	.0	.0	89.4
4000	89.6	.0 99.6	.0	99.6	101.2	.0	.0	.0	.0	.0	96.6
5000	89.0	.0 94.0	.0	93.0	94.4	.0	.0	.0	.0	.0	89.6
6300	79.8	.0 94.4	.0	92.2	94.8	.0	.0	.0	.0	.0	88.8
8000	77.8	.0 93.0	.0	91.0	92.4	.0	.0	.0	.0	.0	86.0
10000	72.0	.0 91.6	.0	88.0	88.6	.0	.0	.0	.0	.0	82.6
12500	68.0	.0 89.6	.0	83.8	84.6	.0	.0	.0	.0	.0	80.6
16000	68.0	.0 92.6	.0	76.6	76.4	.0	.0	.0	.0	.0	72.0
20000	68.0	.0 93.0	.0	76.0	79.0	.0	.0	.0	.0	.0	72.0
OVERALL SPL UNCORR	111.2	.0 124.8	.0	115.4	115.8	.0	.0	.0	.0	.0	115.8
OVERALL SPL CORR	90.3	.0 114.1	.0	97.6	107.0	.0	.0	.0	.0	.0	104.2
PNDB CORR	110.4	.0 122.9	.0	120.9	122.0	.0	.0	.0	.0	.0	117.8

Figure 13.- Run 35, V_∞ = 20.5 m/sec., $\alpha = 0^o$, $\psi = 0^o$, $\sigma_v = 0^o$, β_v = closed, $\delta_{cn} = 56^o$, Fans 3 and 4, RPM=3600.





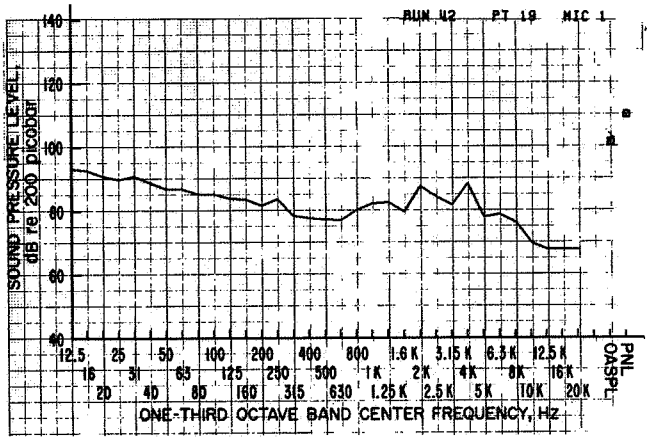


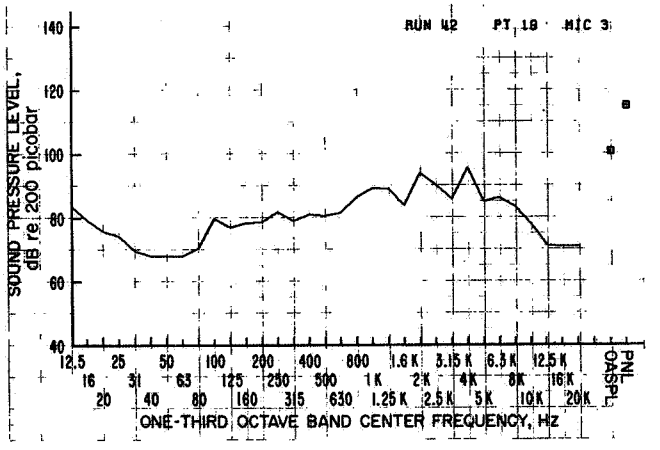


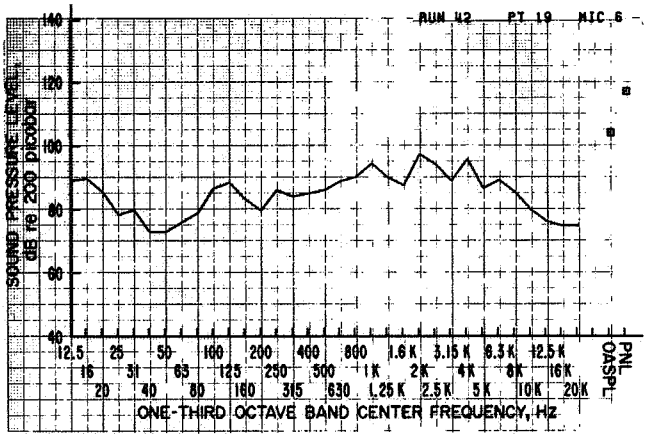
TEST 386 - LIFT FAN TRANSPORT NOISE DATA *** TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

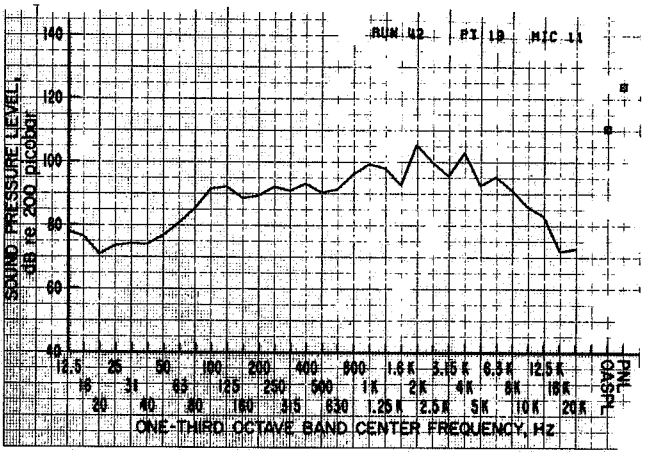
TEST 386 RUN 42	DELTA 11	SPL IN DB REL. .0002 MICROBAR CORRECTED FOR REVERBERATIONS									
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.5
REF DIST(FT):	105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN,	10	0	10	0	0	0	0	0	0	0	0
FREQUENCY:											
12.5	81.0	.0	87.4	.0	.0	93.8	.0	.0	.0	.0	83.2
16	79.8	.0	83.2	.0	.0	93.0	.0	.0	.0	.0	77.2
20	77.8	.0	80.6	.0	.0	83.6	.0	.0	.0	.0	71.0
25	77.2	.0	84.8	.0	.0	78.0	.0	.0	.0	.0	76.0
31	77.4	.0	77.0	.0	.0	82.2	.0	.0	.0	.0	70.0
40	76.0	.0	89.2	.0	.0	73.0	.0	.0	.0	.0	70.0
50	72.6	.0	68.0	.0	.0	73.0	.0	.0	.0	.0	70.0
63	75.0	.0	68.0	.0	.0	73.0	.0	.0	.0	.0	74.2
80	71.8	.0	68.0	.0	.0	73.0	.0	.0	.0	.0	81.2
100	71.2	.0	72.0	.0	.0	79.4	.0	.0	.0	.0	83.8
125	71.4	.0	73.0	.0	.0	85.0	.0	.0	.0	.0	90.4
160	69.0	.0	70.0	.0	.0	76.8	.0	.0	.0	.0	81.6
200	69.4	.0	71.2	.0	.0	74.2	.0	.0	.0	.0	82.0
250	72.8	.0	77.4	.0	.0	81.6	.0	.0	.0	.0	86.4
315	67.8	.0	73.0	.0	.0	78.2	.0	.0	.0	.0	83.2
400	67.4	.0	71.2	.0	.0	76.8	.0	.0	.0	.0	84.2
500	68.6	.0	73.2	.0	.0	79.4	.0	.0	.0	.0	85.6
630	71.8	.0	76.8	.0	.0	84.0	.0	.0	.0	.0	88.8
800	73.8	.0	78.6	.0	.0	82.8	.0	.0	.0	.0	90.4
1000	71.6	.0	77.6	.0	.0	82.6	.0	.0	.0	.0	89.8
1250	77.4	.0	81.4	.0	.0	89.4	.0	.0	.0	.0	92.2
1600	68.8	.0	71.6	.0	.0	76.2	.0	.0	.0	.0	81.8
2000	66.4	.0	72.8	.0	.0	76.6	.0	.0	.0	.0	83.8
2500	79.6	.0	81.2	.0	.0	83.4	.0	.0	.0	.0	87.6
3150	70.4	.0	74.0	.0	.0	76.8	.0	.0	.0	.0	84.2
4000	72.6	.0	75.6	.0	.0	79.2	.0	.0	.0	.0	85.8
5000	69.0	.0	69.6	.0	.0	74.2	.0	.0	.0	.0	81.2
6300	67.0	.0	71.6	.0	.0	74.6	.0	.0	.0	.0	82.6
8000	66.0	.0	72.8	.0	.0	77.0	.0	.0	.0	.0	82.8
10000	66.0	.0	71.0	.0	.0	75.0	.0	.0	.0	.0	87.8
12500	66.0	.0	71.0	.0	.0	75.0	.0	.0	.0	.0	75.8
16000	66.0	.0	71.0	.0	.0	75.0	.0	.0	.0	.0	72.0
20000	66.0	.0	71.0	.0	.0	75.0	.0	.0	.0	.0	72.4
OVERALL SPL UNCORR	104.6	.0	101.2	.0	.0	101.2	.0	.0	.0	.0	111.4
OVERALL SPL CORR	97.3	.0	93.9	.0	.0	93.9	.0	.0	.0	.0	120.1
PNDB CORR	97.5	.0	102.1	.0	.0	105.7	.0	.0	.0	.0	112.2

Figure 14.- Run 42, $V_\infty = 0$, $\alpha = 0^\circ$, $\psi = 0^\circ$, $\sigma_v = 0^\circ$, β_v = closed, $\delta_{cn} = 23^\circ$, Fan 3, RPM = 3600.







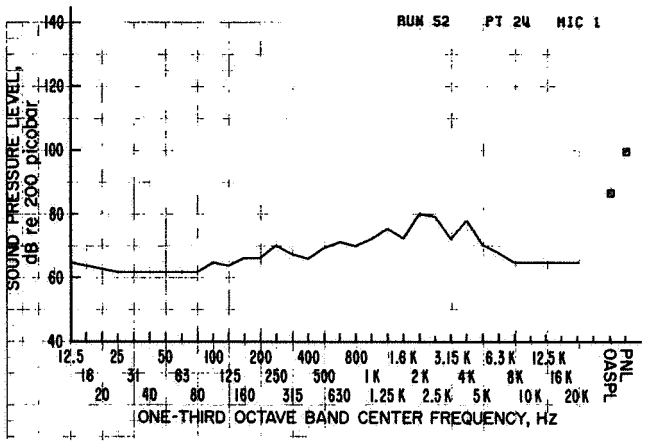


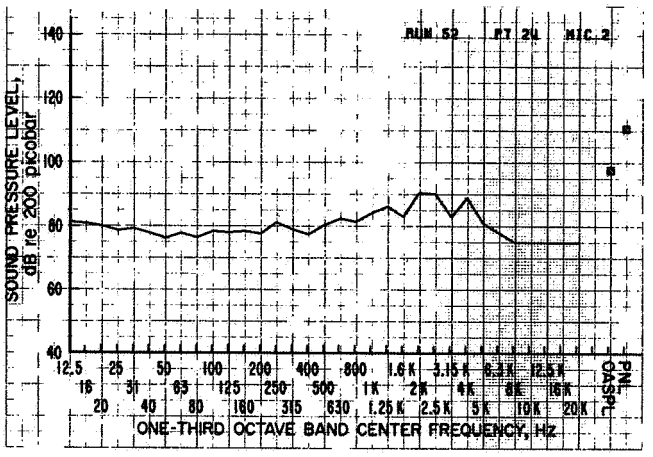
NOISE DATA

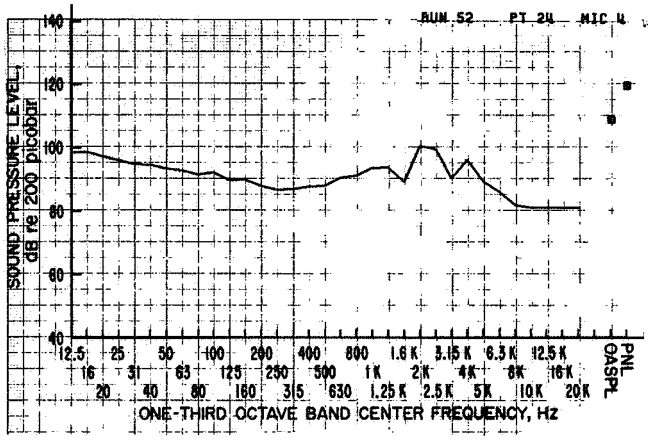
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIA

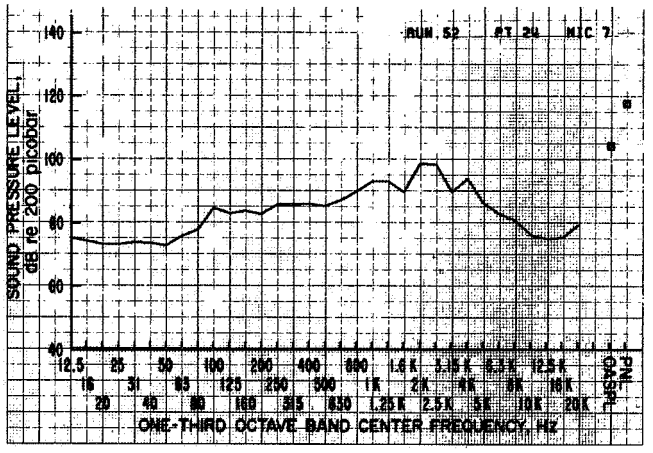
TEST 386 RUN 42	DELTA 19			SPL IN DB REL. .0002 MICROBAR CORRECTED FOR REVERBERATIONS						MCORR 4	
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT):	105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN,	10	0	10	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	93.4	.0	83.6	.0	.0	89.2	.0	.0	.0	.0	78.2
16	92.8	.0	79.2	.0	.0	89.8	.0	.0	.0	.0	76.6
20	91.0	.0	75.8	.0	.0	85.6	.0	.0	.0	.0	71.0
25	90.0	.0	74.2	.0	.0	76.4	.0	.0	.0	.0	73.8
31	91.0	.0	69.6	.0	.0	80.0	.0	.0	.0	.0	74.4
40	89.0	.0	68.0	.0	.0	73.0	.0	.0	.0	.0	74.2
50	87.0	.0	68.0	.0	.0	73.0	.0	.0	.0	.0	77.0
63	87.0	.0	68.0	.0	.0	76.0	.0	.0	.0	.0	81.0
80	89.4	.0	70.6	.0	.0	79.0	.0	.0	.0	.0	85.6
100	85.4	.0	79.8	.0	.0	86.8	.0	.0	.0	.0	91.8
125	84.0	.0	77.0	.0	.0	82.6	.0	.0	.0	.0	92.4
160	83.8	.0	78.4	.0	.0	83.4	.0	.0	.0	.0	88.8
200	81.6	.0	78.6	.0	.0	79.8	.0	.0	.0	.0	89.6
250	83.8	.0	81.0	.0	.0	86.2	.0	.0	.0	.0	92.4
315	78.6	.0	79.0	.0	.0	84.2	.0	.0	.0	.0	91.2
400	77.8	.0	81.0	.0	.0	85.2	.0	.0	.0	.0	93.4
500	77.4	.0	80.6	.0	.0	86.2	.0	.0	.0	.0	90.6
630	77.6	.0	81.0	.0	.0	89.0	.0	.0	.0	.0	91.6
800	80.4	.0	86.4	.0	.0	90.4	.0	.0	.0	.0	96.4
1000	82.4	.0	89.2	.0	.0	94.6	.0	.0	.0	.0	99.6
1250	83.8	.0	89.0	.0	.0	90.2	.0	.0	.0	.0	98.2
1600	79.8	.0	83.8	.0	.0	87.8	.0	.0	.0	.0	93.0
2000	87.8	.0	94.0	.0	.0	97.6	.0	.0	.0	.0	175.8
2500	84.8	.0	90.2	.0	.0	94.4	.0	.0	.0	.0	100.2
3150	82.0	.0	85.8	.0	.0	89.2	.0	.0	.0	.0	95.8
4000	80.6	.0	95.6	.0	.0	96.0	.0	.0	.0	.0	103.2
5000	78.2	.0	89.0	.0	.0	86.8	.0	.0	.0	.0	92.8
6300	79.0	.0	86.2	.0	.0	89.4	.0	.0	.0	.0	95.6
8000	76.6	.0	83.4	.0	.0	85.6	.0	.0	.0	.0	91.4
10000	76.0	.0	78.0	.0	.0	80.0	.0	.0	.0	.0	86.2
12500	68.0	.0	71.2	.0	.0	76.4	.0	.0	.0	.0	83.2
16000	66.0	.0	71.0	.0	.0	75.0	.0	.0	.0	.0	72.2
20000	68.0	.0	71.0	.0	.0	75.0	.0	.0	.0	.0	73.0
OVERALL SPL UNCORR	115.6	.0	112.6	.0	.0	112.2	.0	.0	.0	.0	121.4
OVERALL SPL CORR	101.0	.0	100.9	.0	.0	104.4	.0	.0	.0	.0	110.7
PNDB CORR	110.1	.0	115.3	.0	.0	117.4	.0	.0	.0	.0	124.1

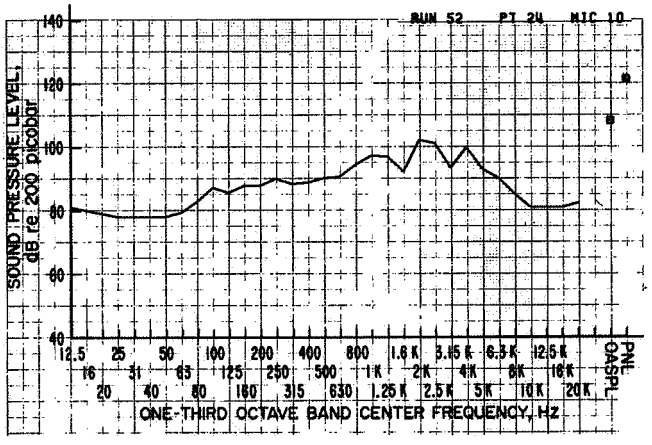
Figure 15.- Run 42, V_∞ = 20.5 m/sec., $\alpha = 0^o$, $\psi = 0^o$, $\sigma_v = 0^o$, β_v = closed, $\delta_{cn} = 23^o$, Fans 3 and 4, RPM = 3600.











NOISE DATA

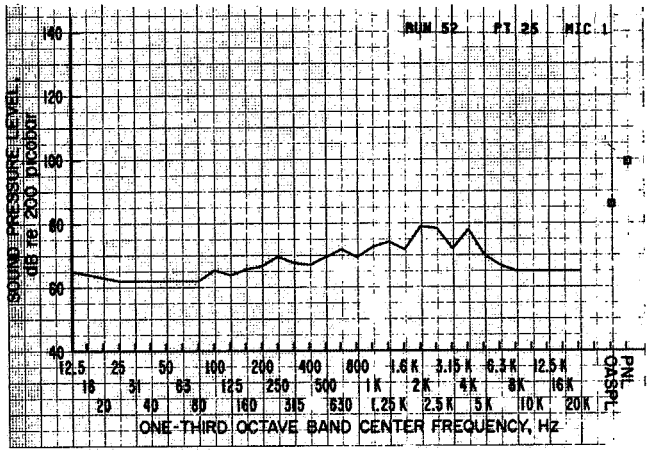
TEST 386 = LIFT FAN TRANSPORT *** TUNNEL WALL CORRECTIONS APPLIED. ATENCIÓ

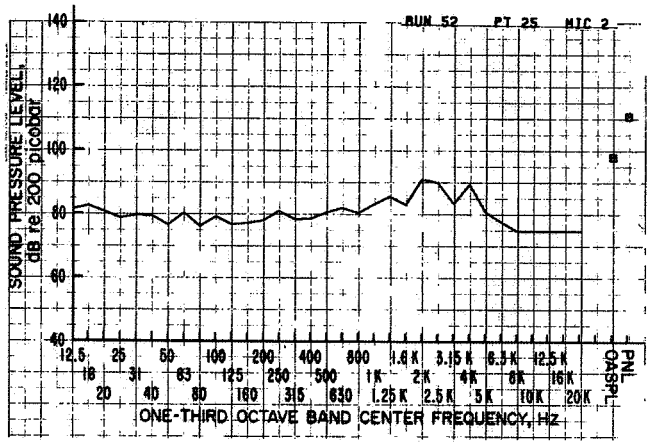
SPL IN DB REL. .0002 MICROBAR

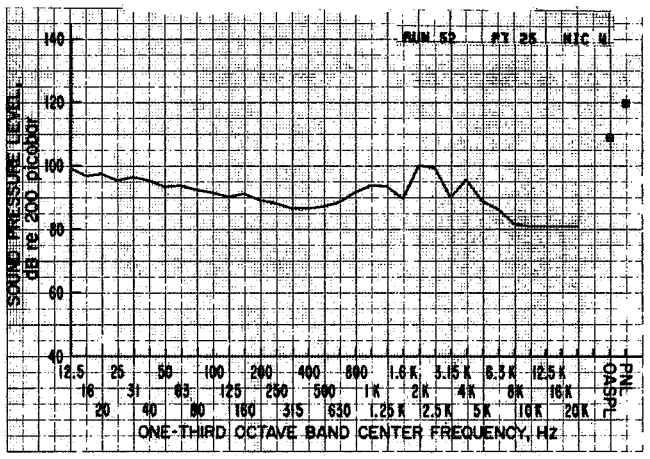
TEST 386 RUN 52	DELTA 24			CORRECTED FAR REVERBERATIONS					MCBRR 5	
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGR)	3.7	3.7	.0	7.3	.0	.0	14.5	.0	.0	7.3	.0
REF DIST(FT):	120.0	120.0	.0	60.0	.0	.0	31.0	.0	.0	60.0	.0
GAIN:	10	0	0	9	0	0	10	0	0	0	0
FREQ(HERTZ)											
12.5	65.0	81.2	.0	98.2	.0	.0	75.0	.0	.0	81.0	.0
16	64.0	80.8	.0	98.4	.0	.0	74.0	.0	.0	80.0	.0
20	63.0	80.0	.0	97.0	.0	.0	73.0	.0	.0	79.0	.0
25	62.0	78.6	.0	95.8	.0	.0	73.0	.0	.0	78.0	.0
31	62.0	79.2	.0	96.6	.0	.0	73.6	.0	.0	78.6	.0
40	62.0	77.8	.0	94.4	.0	.0	73.4	.0	.0	77.8	.0
50	62.0	76.2	.0	93.2	.0	.0	72.6	.0	.0	76.0	.0
63	62.0	77.8	.0	92.6	.0	.0	75.6	.0	.0	79.4	.0
80	62.0	76.4	.0	91.4	.0	.0	77.6	.0	.0	82.8	.0
100	65.0	78.4	.0	92.0	.0	.0	84.6	.0	.0	87.2	.0
125	64.0	78.0	.0	89.6	.0	.0	82.6	.0	.0	85.6	.0
160	58.4	76.4	.0	89.8	.0	.0	83.6	.0	.0	87.8	.0
200	66.4	77.6	.0	87.8	.0	.0	82.6	.0	.0	87.6	.0
250	77.4	81.2	.0	86.6	.0	.0	85.6	.0	.0	90.0	.0
315	87.6	79.0	.0	85.8	.0	.0	85.8	.0	.0	88.4	.0
400	86.2	77.4	.0	87.6	.0	.0	85.8	.0	.0	88.8	.0
500	89.6	80.4	.0	87.8	.0	.0	85.2	.0	.0	90.2	.0
630	91.4	82.4	.0	90.4	.0	.0	87.0	.0	.0	91.0	.0
800	90.2	81.4	.0	91.0	.0	.0	89.8	.0	.0	94.4	.0
1000	92.4	84.2	.0	93.4	.0	.0	93.0	.0	.0	97.2	.0
1250	89.8	86.2	.0	92.6	.0	.0	93.0	.0	.0	97.0	.0
1600	92.6	85.6	.0	89.0	.0	.0	89.6	.0	.0	92.2	.0
2000	90.2	90.6	.0	100.4	.0	.0	98.6	.0	.0	102.2	.0
2500	94.4	91.2	.0	99.4	.0	.0	99.6	.0	.0	101.2	.0
3150	92.4	83.0	.0	90.2	.0	.0	89.6	.0	.0	93.4	.0
4000	96.2	89.0	.0	94.6	.0	.0	92.8	.0	.0	99.8	.0
5000	90.6	81.0	.0	89.2	.0	.0	86.2	.0	.0	92.0	.0
6300	88.0	78.0	.0	86.0	.0	.0	83.8	.0	.0	90.2	.0
8000	85.0	75.0	.0	81.8	.0	.0	80.8	.0	.0	85.2	.0
10000	85.0	75.0	.0	81.0	.0	.0	79.0	.0	.0	81.0	.0
12500	85.0	75.0	.0	81.0	.0	.0	75.0	.0	.0	81.0	.0
16000	85.0	75.0	.0	81.0	.0	.0	75.4	.0	.0	81.0	.0
20000	89.0	79.0	.0	81.0	.0	.0	79.4	.0	.0	82.4	.0
OVERALL SPL UNCORR	104.4	115.8	.0	120.2	.0	.0	113.4	.0	.0	120.2	.0
OVERALL SPL CORR	99.7	97.9	.0	106.2	.0	.0	104.4	.0	.0	106.5	.0
PNDB CORR	99.9	110.8	.0	119.7	.0	.0	117.8	.0	.0	121.5	.0

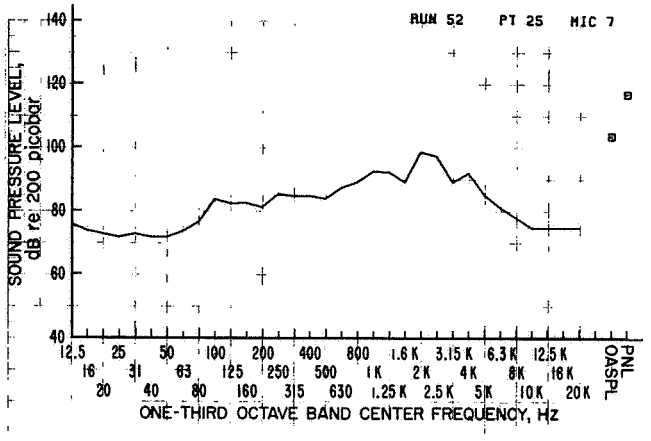
(a) $\psi = -4^{\circ}$.

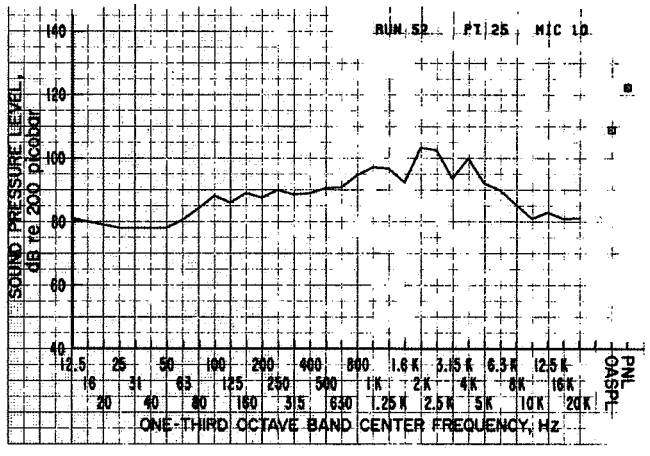
Figure 16.- Run 52, $V_{\infty} = 20.5$, $\alpha = 0^{\circ}$, $\beta_v = 0^{\circ}$, $\delta_{cn} = 90^{\circ}$, all fans, RPM = 3600.











NOISE DATA

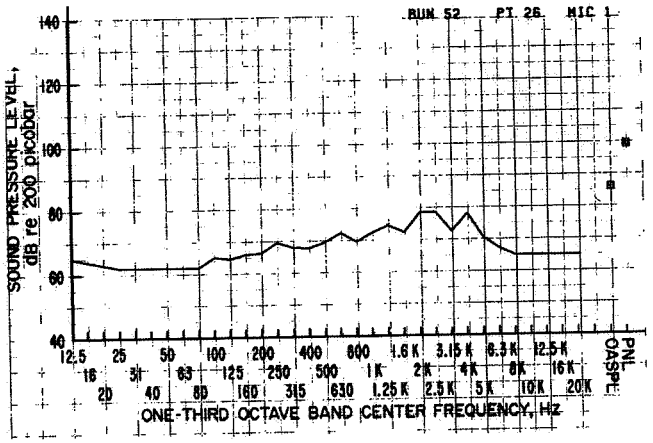
TEST 386 - LIFT FAN TRANSPORT -- TUNNEL WALL CORRECTIONS APPLIED. ATENCIO

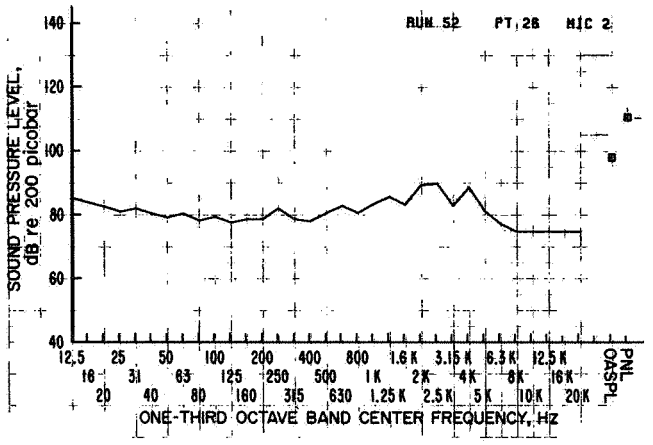
SPL re DB REF. .0002 MICROBAR

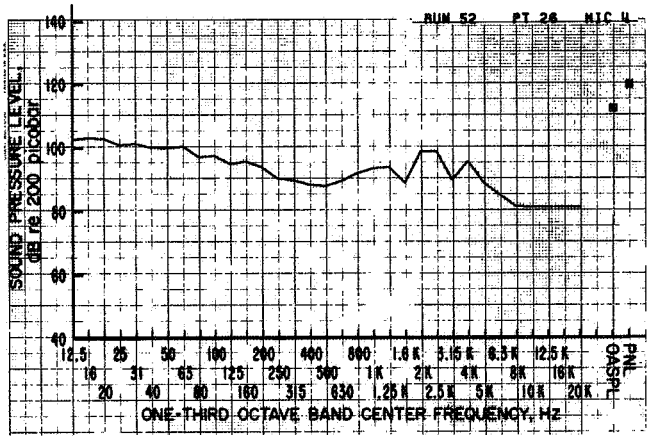
TEST 386 RUN 52	DELTA 25			CORRECTED FOR REVERBERATIONS							#CORR 5	
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11	
ANGLE(DEG):	3.7	3.7	.0	7.3	.0	.0	14.5	.0	.0	7.3	.0	
REF DIST(FT):	120.0	120.0	.0	60.0	.0	.0	31.0	.0	.0	60.0	.0	
GAIN,	10	0	0	0	0	0	10	0	0	0	0	
FREQUENCY(Z)												
12.5	65.0	81.8	.0	99.2	.0	.0	76.0	.0	.0	81.8	.0	
16	64.0	82.8	.0	96.8	.0	.0	74.0	.0	.0	80.8	.0	
20	63.0	81.8	.0	97.4	.0	.0	73.0	.0	.0	79.8	.0	
25	62.0	79.0	.0	95.4	.0	.0	72.0	.0	.0	78.0	.0	
31	62.0	79.8	.0	96.4	.0	.0	73.0	.0	.0	78.8	.0	
40	62.0	79.0	.0	95.4	.0	.0	72.0	.0	.0	78.0	.0	
50	62.0	76.8	.0	93.4	.0	.0	72.0	.0	.0	76.0	.0	
63	62.0	80.6	.0	93.8	.0	.0	73.8	.0	.0	80.6	.0	
80	62.0	76.4	.0	92.4	.0	.0	73.8	.0	.0	84.2	.0	
100	65.4	79.4	.0	91.6	.0	.0	64.0	.0	.0	88.2	.0	
125	63.8	77.0	.0	90.2	.0	.0	52.6	.0	.0	84.0	.0	
160	65.6	77.4	.0	91.2	.0	.0	52.8	.0	.0	89.0	.0	
200	66.4	76.2	.0	89.2	.0	.0	51.4	.0	.0	87.6	.0	
250	69.6	81.2	.0	88.2	.0	.0	49.4	.0	.0	90.0	.0	
315	67.6	78.6	.0	88.6	.0	.0	48.0	.0	.0	88.6	.0	
400	67.0	78.8	.0	86.6	.0	.0	45.0	.0	.0	89.0	.0	
500	69.4	80.8	.0	87.2	.0	.0	44.2	.0	.0	90.6	.0	
630	71.8	82.2	.0	88.0	.0	.0	45.0	.0	.0	92.0	.0	
800	69.4	80.6	.0	91.6	.0	.0	89.4	.0	.0	94.6	.0	
1000	72.6	83.4	.0	93.8	.0	.0	92.8	.0	.0	97.2	.0	
1250	74.2	85.8	.0	93.6	.0	.0	92.6	.0	.0	96.8	.0	
1600	71.8	83.2	.0	89.6	.0	.0	89.4	.0	.0	92.4	.0	
2000	79.0	91.2	.0	100.2	.0	.0	99.0	.0	.0	103.4	.0	
2500	78.4	90.2	.0	99.4	.0	.0	97.6	.0	.0	102.8	.0	
3150	72.0	83.6	.0	90.0	.0	.0	89.4	.0	.0	93.6	.0	
4000	78.0	89.6	.0	95.6	.0	.0	92.2	.0	.0	100.8	.0	
5000	70.0	81.0	.0	88.8	.0	.0	85.4	.0	.0	92.2	.0	
6300	66.8	77.8	.0	86.4	.0	.0	81.4	.0	.0	90.0	.0	
8000	65.0	75.0	.0	81.6	.0	.0	78.2	.0	.0	85.4	.0	
10000	65.0	75.0	.0	81.0	.0	.0	75.0	.0	.0	82.4	.0	
12500	65.0	75.0	.0	81.0	.0	.0	75.0	.0	.0	83.0	.0	
16000	65.0	75.0	.0	81.0	.0	.0	75.0	.0	.0	81.0	.0	
20000	65.0	75.0	.0	81.0	.0	.0	75.0	.0	.0	81.2	.0	
OVERALL SPL UNCORR	104.0	115.8	.0	119.6	.0	.0	114.0	.0	.0	122.0	.0	
OVERALL SPL CORR	98.1	98.2	.0	109.0	.0	.0	104.0	.0	.0	109.0	.0	
PNDB CORR	99.4	111.1	.0	119.7	.0	.0	117.2	.0	.0	122.3	.0	

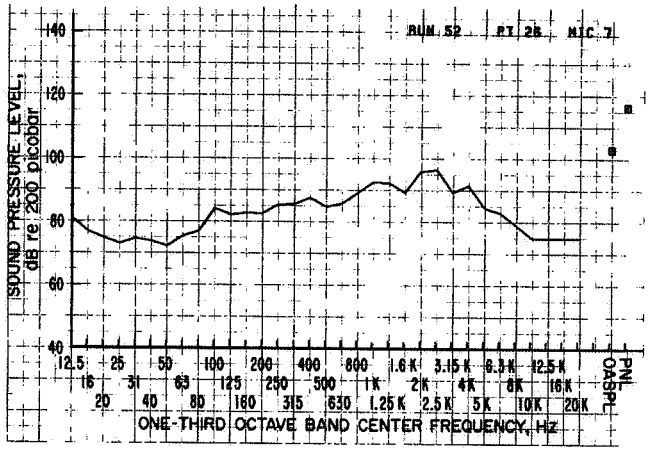
(b) $\psi = -8^{o}$.

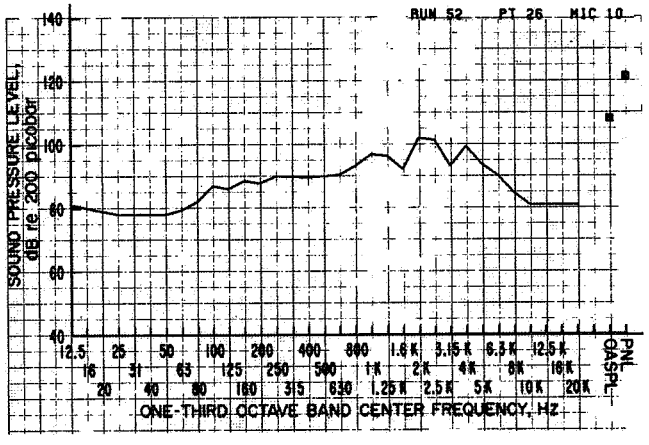
Figure 16.- Continued.











NOISE DATA

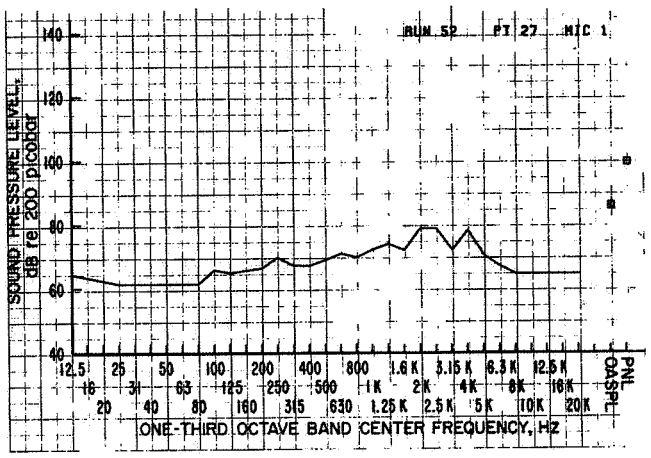
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENGIS

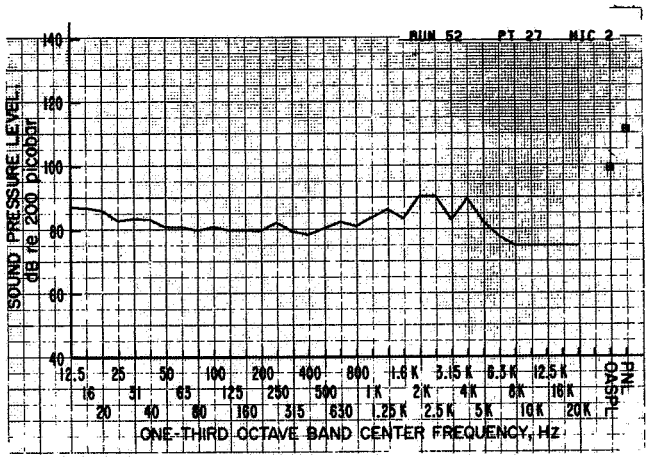
SPL IN DB REL. .0002 MICROBAR

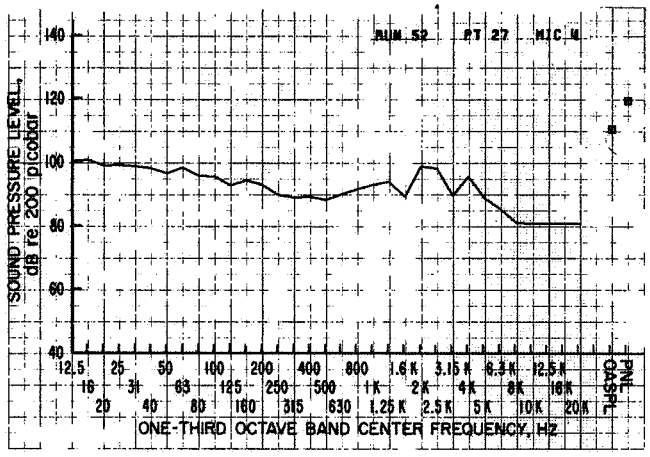
TEST 386 MICROPHONE:	RUN 52	DELTA 26		3	CORRECTED FOR REVERBERATIONS 4	5	6	7	8	9	HCORR 9 10	11
ANGLE(DEGS):		9.7	9.7	.0	7.3	.0	.0	14.9	.0	.0	7.3	.0
REF DIST(FT):		120.0	120.0	.0	60.0	.0	.0	31.6	.0	.0	60.0	.0
GAIN:		10	0	0	0	0	0	10	0	0	0	0
FREQUENCY(HZ)												
12.5		85.0	85.4	.0	102.4	.0	.0	81.0	.0	.0	85.0	.0
16		84.0	84.0	.0	102.8	.0	.0	76.6	.0	.0	80.0	.0
20		83.0	82.8	.0	102.6	.0	.0	74.8	.0	.0	79.0	.0
25		82.0	81.2	.0	100.6	.0	.0	73.0	.0	.0	78.0	.0
31		82.0	82.2	.0	101.0	.0	.0	74.6	.0	.0	78.0	.0
40		82.0	80.6	.0	99.8	.0	.0	73.6	.0	.0	78.0	.0
50		82.0	79.4	.0	99.6	.0	.0	72.2	.0	.0	78.0	.0
63		82.0	80.6	.0	100.2	.0	.0	75.4	.0	.0	79.4	.0
80		82.0	78.4	.0	98.0	.0	.0	77.0	.0	.0	82.0	.0
100		85.2	79.6	.0	97.2	.0	.0	84.2	.0	.0	87.0	.0
125		84.6	77.8	.0	94.6	.0	.0	82.2	.0	.0	86.0	.0
160		86.0	78.6	.0	95.4	.0	.0	82.8	.0	.0	88.6	.0
200		86.4	78.8	.0	93.6	.0	.0	82.6	.0	.0	87.6	.0
250		89.6	82.2	.0	90.0	.0	.0	85.4	.0	.0	90.6	.0
315		88.0	78.8	.0	89.4	.0	.0	85.6	.0	.0	89.6	.0
400		87.8	78.2	.0	88.0	.0	.0	87.6	.0	.0	89.6	.0
500		89.6	80.8	.0	87.6	.0	.0	84.8	.0	.0	90.0	.0
630		92.4	83.0	.0	89.2	.0	.0	85.8	.0	.0	92.4	.0
800		89.6	80.8	.0	91.6	.0	.0	89.2	.0	.0	93.2	.0
1000		92.4	83.6	.0	93.2	.0	.0	92.6	.0	.0	96.8	.0
1250		94.8	85.8	.0	95.6	.0	.0	92.4	.0	.0	96.4	.0
1600		92.4	83.4	.0	88.6	.0	.0	89.4	.0	.0	92.2	.0
2000		98.6	89.6	.0	98.6	.0	.0	96.0	.0	.0	102.8	.0
2500		98.6	90.0	.0	98.8	.0	.0	96.8	.0	.0	101.4	.0
3150		92.6	83.8	.0	89.6	.0	.0	89.4	.0	.0	93.2	.0
4000		98.2	88.8	.0	95.4	.0	.0	91.6	.0	.0	99.4	.0
5000		90.6	81.4	.0	88.6	.0	.0	84.6	.0	.0	93.4	.0
6300		87.2	77.4	.0	84.8	.0	.0	83.0	.0	.0	90.2	.0
8000		85.0	75.0	.0	81.2	.0	.0	79.0	.0	.0	84.8	.0
10000		85.0	75.0	.0	81.0	.0	.0	75.0	.0	.0	81.0	.0
12500		85.0	75.0	.0	81.0	.0	.0	75.0	.0	.0	81.0	.0
16000		85.0	75.0	.0	81.0	.0	.0	75.0	.0	.0	81.0	.0
20000		85.0	75.0	.0	81.0	.0	.0	75.0	.0	.0	81.0	.0
OVERALL SPL	UNCORR	104.2	115.6	.0	122.8	.0	.0	112.8	.0	.0	121.2	.0
OVERALL SPL	CORR	99.2	98.3	.0	112.2	.0	.0	103.0	.0	.0	108.2	.0
PNDB	CORR	99.6	110.7	.0	119.8	.0	.0	116.5	.0	.0	121.6	.0

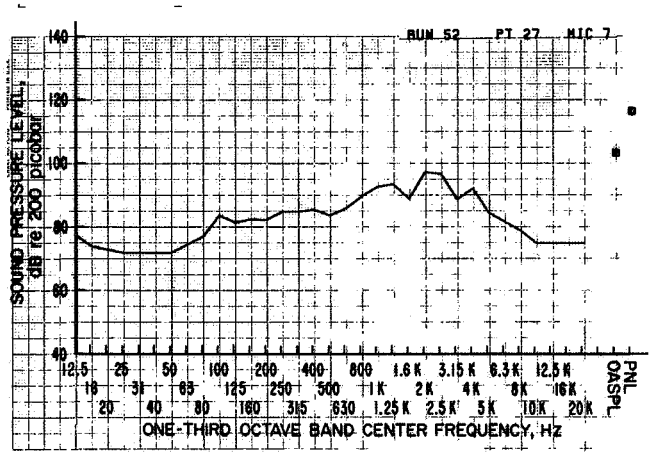
(c) $\psi = 0^{\circ}$.

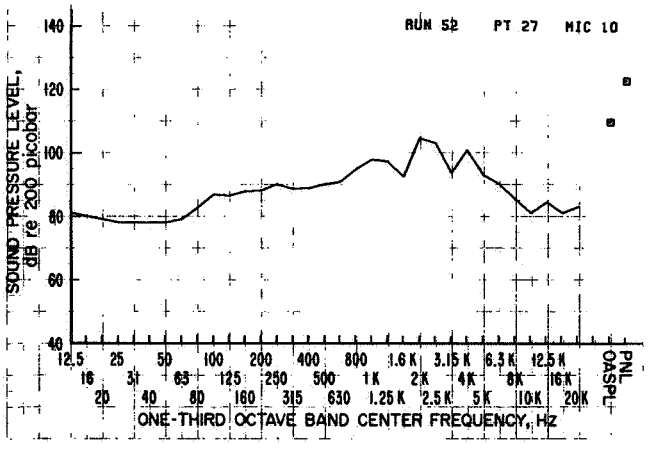
Figure 16.- Continued.











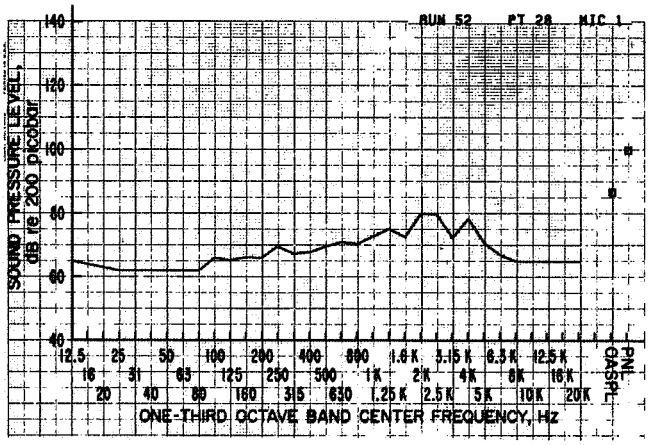
NOISE DATA

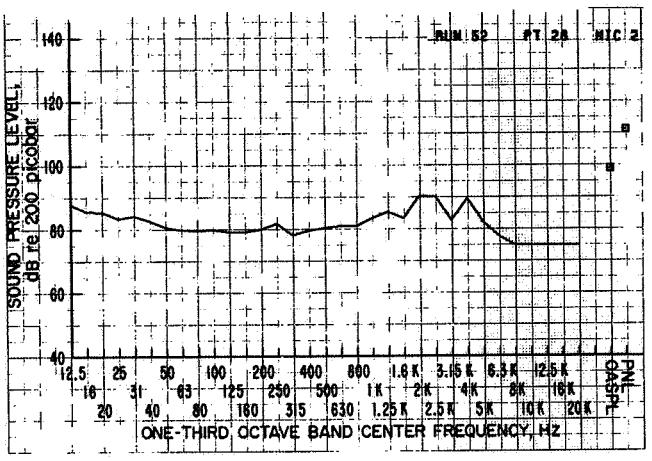
TEST 386 - LIFT FAN TRANSPORT --- TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

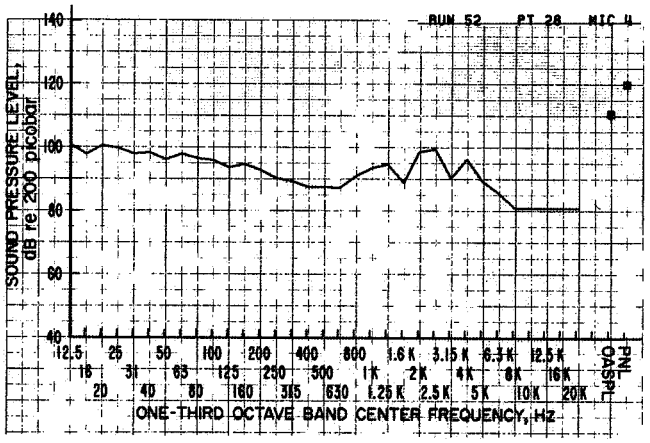
TEST 386 RUN 52	DELTA 27		SPL IN DB REL. 20UO2 MICROBAR CORRECTED FOR REVERBERATIONS										
MICROPHONE)	1	2	3	4	5	6	7	8	9	10	11		
ANGLE(DEGJ)	3.7	3.7	.0	7.3	.0	.0	14.5	.0	.0	7.3	.0		
REF DIST(FT))	120.0	120.0	.0	60.0	.0	.0	31.0	.0	.0	60.0	.0		
GAIN,	10	0	0	0	0	0	10	0	0	0	0		
FREQUENCY)													
12.5	65.0	87.0	.0	100.6	.0	.0	77.4	.0	.0	81.0	.0		
16	64.0	86.8	.0	101.0	.0	.0	74.0	.0	.0	80.0	.0		
20	63.0	86.0	.0	99.2	.0	.0	73.0	.0	.0	79.0	.0		
25	62.0	82.8	.0	99.4	.0	.0	72.0	.0	.0	78.0	.0		
31	62.0	83.4	.0	99.0	.0	.0	72.0	.0	.0	78.0	.0		
40	62.0	80.2	.0	98.4	.0	.0	72.0	.0	.0	78.0	.0		
50	62.0	80.8	.0	96.8	.0	.0	72.0	.0	.0	78.0	.0		
63	62.0	80.8	.0	98.6	.0	.0	74.6	.0	.0	79.0	.0		
80	62.0	79.8	.0	96.0	.0	.0	77.2	.0	.0	82.6	.0		
100	66.4	80.8	.0	95.8	.0	.0	83.8	.0	.0	86.8	.0		
125	69.4	79.8	.0	93.0	.0	.0	81.4	.0	.0	86.4	.0		
160	68.2	79.8	.0	94.0	.0	.0	82.0	.0	.0	87.8	.0		
200	66.8	79.6	.0	93.2	.0	.0	82.4	.0	.0	88.0	.0		
250	70.2	82.2	.0	90.0	.0	.0	85.0	.0	.0	90.0	.0		
315	67.8	79.4	.0	89.2	.0	.0	83.0	.0	.0	88.0	.0		
400	67.6	78.4	.0	89.4	.0	.0	85.6	.0	.0	88.8	.0		
500	69.4	80.4	.0	88.4	.0	.0	83.8	.0	.0	90.0	.0		
630	71.4	82.4	.0	90.2	.0	.0	86.0	.0	.0	90.8	.0		
800	70.2	81.0	.0	91.6	.0	.0	86.8	.0	.0	94.8	.0		
1000	72.6	83.6	.0	93.2	.0	.0	92.6	.0	.0	97.8	.0		
1250	74.6	86.2	.0	94.2	.0	.0	93.8	.0	.0	97.2	.0		
1600	72.4	83.4	.0	89.4	.0	.0	89.0	.0	.0	92.4	.0		
2000	79.2	90.4	.0	99.0	.0	.0	97.4	.0	.0	104.6	.0		
2500	79.2	90.4	.0	98.4	.0	.0	96.8	.0	.0	103.0	.0		
3150	72.4	83.0	.0	89.8	.0	.0	88.8	.0	.0	93.6	.0		
4000	78.6	89.6	.0	95.8	.0	.0	92.2	.0	.0	100.8	.0		
5000	70.8	82.4	.0	89.0	.0	.0	84.8	.0	.0	93.0	.0		
6300	67.4	77.6	.0	85.6	.0	.0	81.8	.0	.0	90.2	.0		
8000	65.0	75.0	.0	81.2	.0	.0	79.0	.0	.0	85.4	.0		
10000	65.0	75.0	.0	81.0	.0	.0	79.0	.0	.0	81.0	.0		
12500	65.0	75.0	.0	81.0	.0	.0	75.0	.0	.0	84.4	.0		
16000	65.0	75.0	.0	81.0	.0	.0	75.0	.0	.0	81.0	.0		
20000	65.0	75.0	.0	81.0	.0	.0	75.0	.0	.0	83.0	.0		
OVERALL SPL UNCORR	104.4	116.2	.0	122.0	.0	.0	114.8	.0	.0	123.0	.0		
OVERALL SPL CORR	99.5	99.2	.0	110.8	.0	.0	103.4	.0	.0	109.6	.0		
PNDB CORR	99.9	111.3	.0	119.7	.0	.0	116.6	.0	.0	122.7	.0		

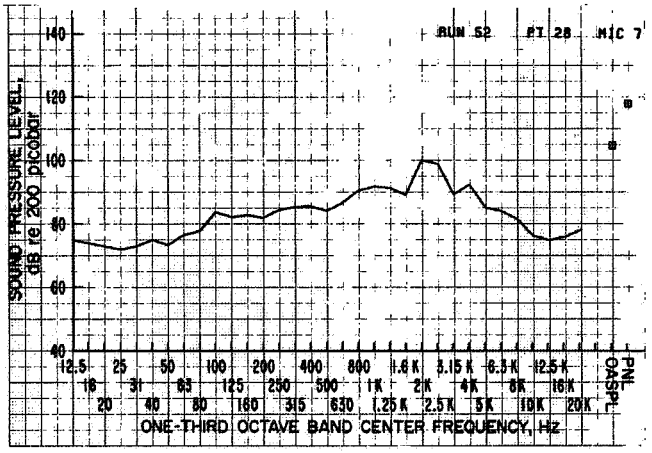
(d) $\psi = +4^{o}$.

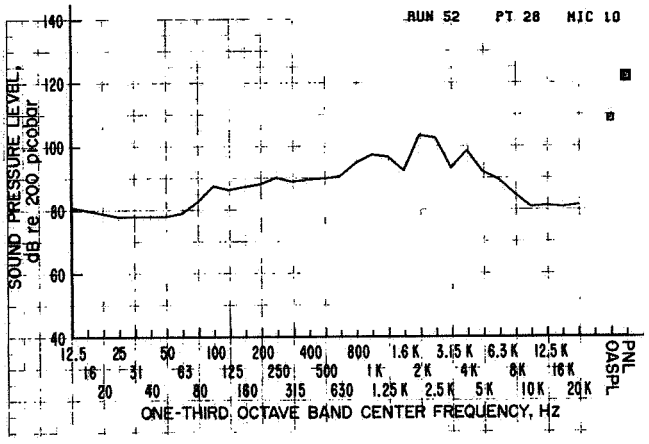
Figure 16.- Continued.











NOISE DATA

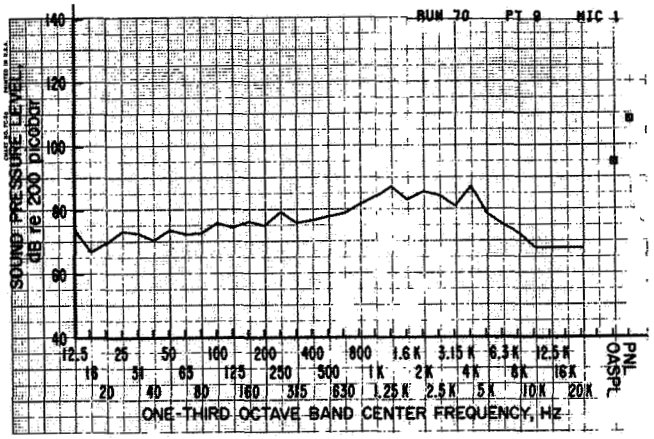
TEST 386 = LIFT FAN TRANSPERT === TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

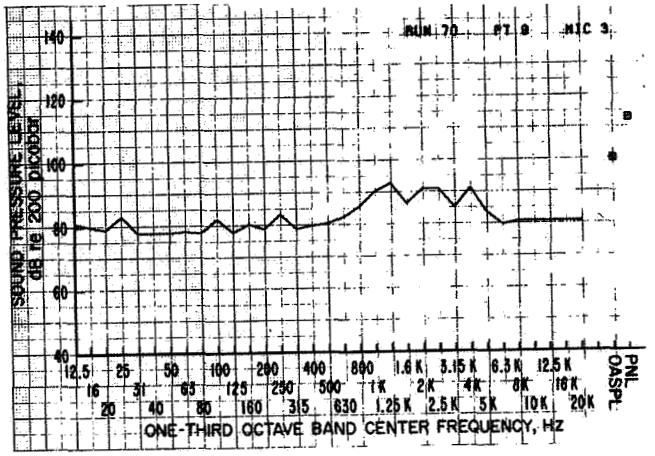
SPL IN DB REL. .0002 MICROBAR

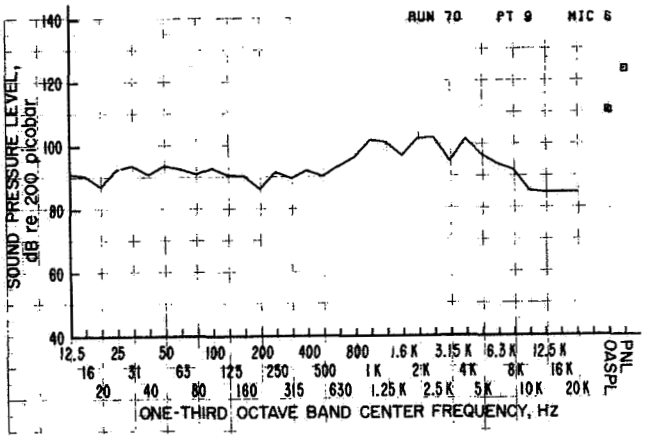
TEST 386 RUN 52	DELTA 28			CORRECTED FOR REVERBERATIONS						WCORR 5	
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGT	3.7	3.7	.0	3.3	.0	.0	14.5	.0	.0	7.3	.0
REF DIST(FT)=	120.0	120.0	.0	60.0	.0	.0	31.0	.0	.0	60.0	.0
GAIN=	10	0	0	0	0	0	10	0	0	0	0
FREQUENCY(HERTZ)											
12.5	85.0	87.8	.0	100.8	.0	.0	75.0	.0	.0	81.0	.0
16	84.0	89.6	.0	97.6	.0	.0	74.0	.0	.0	80.0	.0
20	83.0	85.4	.0	100.6	.0	.0	73.0	.0	.0	79.0	.0
25	82.0	83.4	.0	99.8	.0	.0	72.0	.0	.0	78.0	.0
31	82.0	84.2	.0	98.0	.0	.0	73.0	.0	.0	78.0	.0
40	82.0	86.6	.0	98.4	.0	.0	75.0	.0	.0	79.0	.0
50	82.0	80.6	.0	96.2	.0	.0	73.4	.0	.0	78.0	.0
63	82.0	79.8	.0	98.0	.0	.0	76.6	.0	.0	79.0	.0
80	82.0	79.6	.0	95.8	.0	.0	77.8	.0	.0	82.0	.0
100	84.0	79.8	.0	96.0	.0	.0	83.8	.0	.0	87.6	.0
125	85.2	79.2	.0	93.6	.0	.0	82.2	.0	.0	86.4	.0
160	86.2	79.2	.0	94.9	.0	.0	82.8	.0	.0	87.4	.0
200	86.0	80.0	.0	93.0	.0	.0	82.0	.0	.0	86.2	.0
250	89.6	81.8	.0	90.4	.0	.0	84.4	.0	.0	90.2	.0
315	87.4	78.2	.0	89.4	.0	.0	85.4	.0	.0	89.0	.0
400	87.8	79.6	.0	87.6	.0	.0	85.6	.0	.0	89.6	.0
500	89.6	80.4	.0	87.6	.0	.0	84.2	.0	.0	90.0	.0
630	91.0	81.0	.0	87.4	.0	.0	86.6	.0	.0	90.8	.0
800	90.4	81.0	.0	91.0	.0	.0	90.6	.0	.0	94.8	.0
1000	92.8	83.4	.0	93.6	.0	.0	91.8	.0	.0	97.4	.0
1250	93.2	85.4	.0	94.8	.0	.0	91.4	.0	.0	96.8	.0
1600	92.6	83.4	.0	92.6	.0	.0	89.2	.0	.0	92.4	.0
2000	90.0	90.4	.0	98.8	.0	.0	100.2	.0	.0	103.6	.0
2500	93.8	90.2	.0	99.6	.0	.0	99.0	.0	.0	102.8	.0
3150	92.4	82.8	.0	90.4	.0	.0	89.4	.0	.0	93.2	.0
4000	88.4	89.6	.0	96.4	.0	.0	92.4	.0	.0	98.6	.0
5000	90.8	82.2	.0	89.4	.0	.0	89.2	.0	.0	92.0	.0
6300	87.0	77.8	.0	85.8	.0	.0	84.2	.0	.0	89.6	.0
8000	85.0	75.0	.0	81.0	.0	.0	81.6	.0	.0	85.0	.0
10000	85.0	75.0	.0	81.0	.0	.0	78.4	.0	.0	81.8	.0
12500	85.0	75.0	.0	81.0	.0	.0	75.0	.0	.0	81.4	.0
16000	85.0	75.0	.0	81.0	.0	.0	76.0	.0	.0	81.0	.0
20000	89.0	79.0	.0	81.0	.0	.0	78.2	.0	.0	81.6	.0
OVERALL SPL UNCORR	104.8	116.6	.0	121.4	.0	.0	114.6	.0	.0	121.8	.0
OVERALL SPL CORR	86.8	99.0	.0	119.7	.0	.0	104.7	.0	.0	120.9	.0
PNDB CORR	100.1	111.1	.0	120.2	.0	.0	118.1	.0	.0	122.3	.0

(e) $\psi = +8^{o}$.

Figure 16.- Concluded.







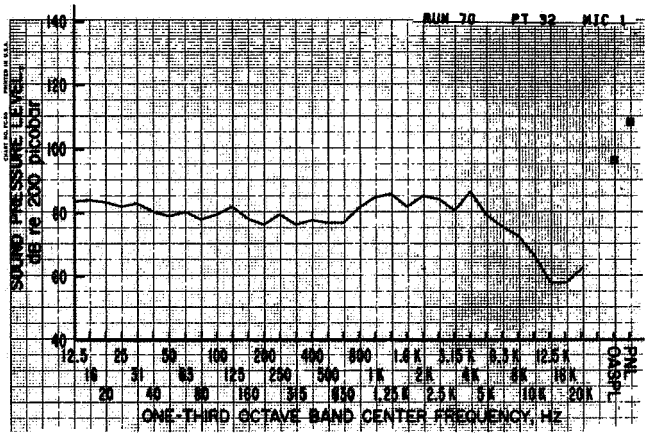
NOISE DATA

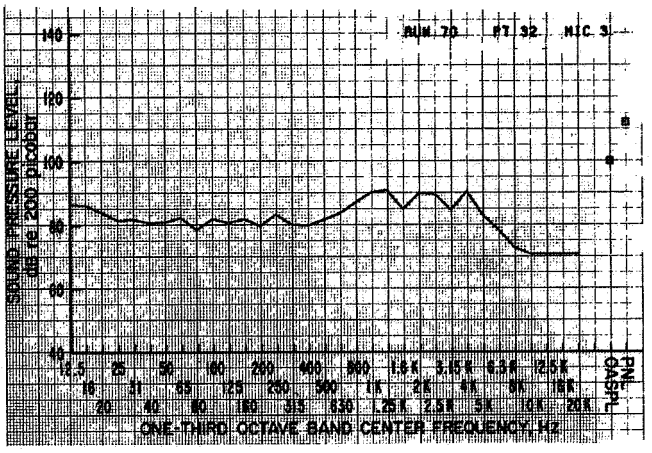
TEST 386 = LIFT FAN TRANSPORT *** TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

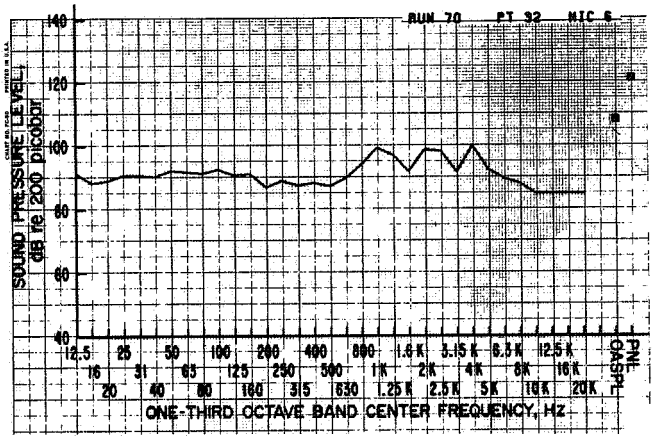
SPL IN DB REL. .0002 MICROBAR

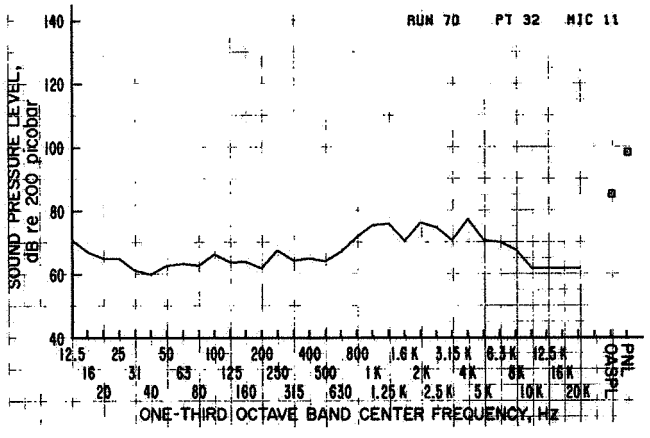
TEST 386 RUN 70	DELTA 9	2	3	4	5	6	7	8	9	10	11
MICROPHONE!	1			CORRECTED FOR REVERBERATIONS						MCBRR 4	
ANGLE(DEGIT	4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT)!	195.4	.0	60.7	.0	23.9	29.1	.0	.0	.0	.0	45.9
GAIN,	10	0	10	0	0	10	0	0	0	0	0
FREQUENCY(Z)											
12.5	73.8	.0	81.0	.0	.0	91.2	.0	.0	.0	.0	80.0
16	67.0	.0	80.0	.0	.0	90.6	.0	.0	.0	.0	84.8
20	69.8	.0	79.0	.0	.0	87.2	.0	.0	.0	.0	77.2
25	73.4	.0	83.2	.0	.0	92.6	.0	.0	.0	.0	77.8
31	72.8	.0	78.0	.0	.0	93.8	.0	.0	.0	.0	78.2
40	73.6	.0	78.0	.0	.0	91.0	.0	.0	.0	.0	80.4
50	73.8	.0	78.0	.0	.0	93.8	.0	.0	.0	.0	79.8
63	72.6	.0	78.4	.0	.0	92.8	.0	.0	.0	.0	78.6
80	72.8	.0	78.0	.0	.0	91.2	.0	.0	.0	.0	79.2
100	74.0	.0	82.2	.0	.0	93.0	.0	.0	.0	.0	78.6
125	74.6	.0	78.0	.0	.0	90.8	.0	.0	.0	.0	73.4
160	76.4	.0	80.6	.0	.0	90.6	.0	.0	.0	.0	74.0
200	75.2	.0	79.0	.0	.0	86.4	.0	.0	.0	.0	70.0
250	79.4	.0	83.6	.0	.0	91.8	.0	.0	.0	.0	74.2
315	78.0	.0	79.0	.0	.0	89.6	.0	.0	.0	.0	71.6
400	76.8	.0	80.0	.0	.0	92.2	.0	.0	.0	.0	73.0
500	78.0	.0	80.6	.0	.0	90.4	.0	.0	.0	.0	69.4
630	79.0	.0	82.6	.0	.0	93.0	.0	.0	.0	.0	73.4
800	81.8	.0	85.8	.0	.0	96.4	.0	.0	.0	.0	73.8
1000	84.2	.0	90.6	.0	.0	101.8	.0	.0	.0	.0	74.6
1250	87.4	.0	93.0	.0	.0	101.0	.0	.0	.0	.0	74.0
1600	83.2	.0	86.6	.0	.0	94.8	.0	.0	.0	.0	70.8
2000	85.8	.0	91.2	.0	.0	102.2	.0	.0	.0	.0	73.4
2500	84.8	.0	91.2	.0	.0	102.4	.0	.0	.0	.0	73.2
3150	81.2	.0	85.4	.0	.0	99.0	.0	.0	.0	.0	69.0
4000	87.4	.0	91.4	.0	.0	102.0	.0	.0	.0	.0	73.0
5000	78.8	.0	84.0	.0	.0	97.0	.0	.0	.0	.0	67.8
6300	79.4	.0	80.0	.0	.0	94.0	.0	.0	.0	.0	61.0
8000	72.6	.0	81.0	.0	.0	92.2	.0	.0	.0	.0	72.0
10000	68.0	.0	81.0	.0	.0	87.0	.0	.0	.0	.0	62.0
12500	68.0	.0	81.0	.0	.0	85.0	.0	.0	.0	.0	52.0
16000	68.0	.0	81.0	.0	.0	85.0	.0	.0	.0	.0	32.0
20000	68.0	.0	81.0	.0	.0	85.0	.0	.0	.0	.0	32.0
OVERALL SPL UNCORR	109.8	.0	112.4	.0	.0	119.2	.0	.0	.0	.0	97.4
OVERALL SPL CORR	99.2	.0	109.6	.0	.0	111.1	.0	.0	.0	.0	94.1
PNDB CORR	109.6	.0	113.3	.0	.0	124.0	.0	.0	.0	.0	94.1

Figure 17.- Run 70, $V_\infty = 0$, $\alpha = 0^\circ$, $\psi = 0^\circ$, $\sigma_v = 0^\circ$, $\beta_v = 0^\circ$, $\delta_{cn} = 138.5^\circ$, Fan 3, RPM = 3600.







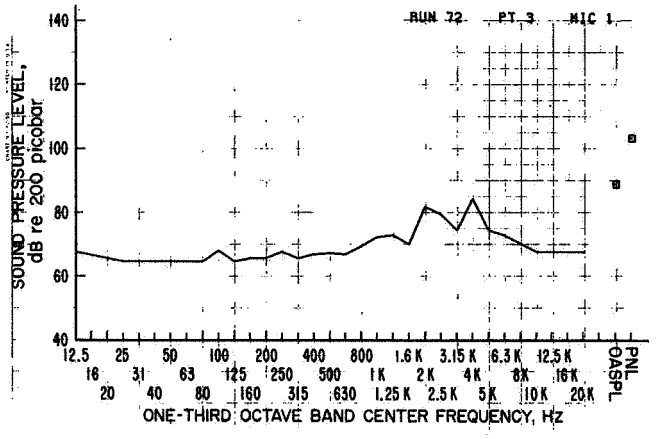


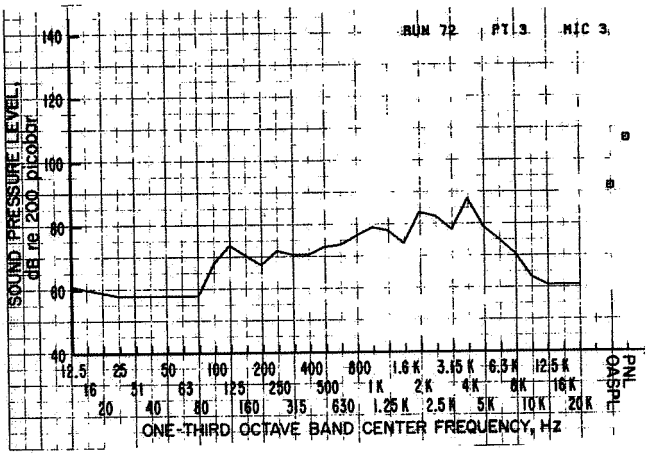
NOISE DATA

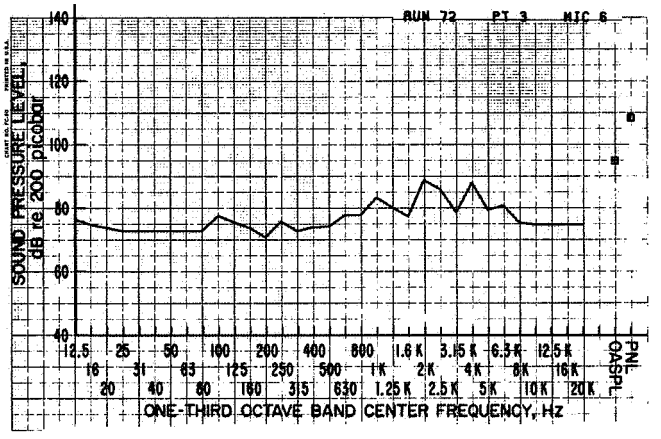
TEST 386 = LIFT FAN TRANSPORT === TUNNEL WALL CORRECTIONS APPLIED. ATENCIO

TEST 386 RUN 70		DELTA 32	SPL IN DB REL. .0002 MICROBAR CORRECTED FOR REVERBERATIONS							WCORR 4	
MICROPHONE:		1	2	3	4	5	6	7	8	10	11
ANGLE(DEGTT		6.9	.0	6.5	.0	22.0	21.0	.0	.0	.0	13.9
REF DIST(FT))		105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	49.9
GAIN:		20	0	20	0	0	10	0	0	0	10
FREQ(HERTZ)											
12.5		83.4	.0	86.4	.0	.0	91.4	.0	.0	.0	.0	79.8
16		83.6	.0	86.2	.0	.0	88.4	.0	.0	.0	.0	67.0
20		83.2	.0	84.0	.0	.0	89.0	.0	.0	.0	.0	69.0
25		81.8	.0	81.6	.0	.0	90.6	.0	.0	.0	.0	69.0
31		82.8	.0	81.8	.0	.0	90.8	.0	.0	.0	.0	69.2
40		80.2	.0	80.6	.0	.0	90.4	.0	.0	.0	.0	68.6
50		78.8	.0	81.0	.0	.0	92.2	.0	.0	.0	.0	62.8
63		80.2	.0	82.4	.0	.0	91.6	.0	.0	.0	.0	63.4
80		77.8	.0	78.6	.0	.0	91.4	.0	.0	.0	.0	62.8
100		79.4	.0	82.0	.0	.0	92.6	.0	.0	.0	.0	64.4
125		81.8	.0	80.8	.0	.0	90.8	.0	.0	.0	.0	63.8
160		78.0	.0	82.0	.0	.0	91.2	.0	.0	.0	.0	64.0
200		76.2	.0	79.8	.0	.0	87.0	.0	.0	.0	.0	62.0
250		79.4	.0	83.4	.0	.0	89.0	.0	.0	.0	.0	67.4
315		76.2	.0	80.2	.0	.0	87.6	.0	.0	.0	.0	64.6
400		77.6	.0	80.0	.0	.0	88.4	.0	.0	.0	.0	65.0
500		76.8	.0	81.8	.0	.0	87.4	.0	.0	.0	.0	64.2
630		78.8	.0	83.8	.0	.0	89.8	.0	.0	.0	.0	67.2
800		81.6	.0	87.2	.0	.0	94.2	.0	.0	.0	.0	71.8
1000		84.8	.0	90.4	.0	.0	99.4	.0	.0	.0	.0	75.6
1250		83.8	.0	91.0	.0	.0	97.2	.0	.0	.0	.0	76.0
1400		81.8	.0	83.4	.0	.0	92.0	.0	.0	.0	.0	67.6
2000		85.2	.0	90.0	.0	.0	98.8	.0	.0	.0	.0	76.4
2500		84.2	.0	89.8	.0	.0	98.4	.0	.0	.0	.0	74.8
3150		80.6	.0	84.8	.0	.0	91.8	.0	.0	.0	.0	70.8
4000		86.6	.0	90.6	.0	.0	100.0	.0	.0	.0	.0	77.4
5000		79.2	.0	83.2	.0	.0	92.6	.0	.0	.0	.0	70.0
6300		75.6	.0	78.6	.0	.0	89.8	.0	.0	.0	.0	70.2
8000		72.6	.0	73.0	.0	.0	88.2	.0	.0	.0	.0	67.8
10000		68.4	.0	71.0	.0	.0	85.0	.0	.0	.0	.0	62.0
12500		68.0	.0	71.0	.0	.0	85.0	.0	.0	.0	.0	62.0
16000		68.0	.0	71.0	.0	.0	85.0	.0	.0	.0	.0	62.0
20000		62.6	.0	71.0	.0	.0	85.0	.0	.0	.0	.0	62.0
OVERALL SPL	UNCORR	110.4	.0	112.2	.0	.0	116.6	.0	.0	.0	.0	96.4
OVERALL SPL	CORR	98.4	.0	100.1	.0	.0	108.4	.0	.0	.0	.0	89.4
PNDB	CORR	108.3	.0	112.4	.0	.0	121.4	.0	.0	.0	.0	98.7

Figure 18.- Run 70, V_∞ = 20.5 m/sec., $\alpha = 0^o$, $\psi = 0^o$, $\sigma_v = 0^o$, $\beta_v = 0^o$, $\delta_{cn} = 138.5^o$, Fans 3 and 4, RPM = 3600.







NOISE DATA

TEST 386 - LIFT FAN TRANSPORT === TUNNEL WALL CORRECTIONS APPLIED, ATENCIO

SPL IN DB REL. .0002 MICROBAR

TEST 386 RUN 72	DELTA 3			CORRECTED FOR REVERBERATIONS					MCBRR 4		
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG)T	4.9	.0	9.5	.0	22.0	25.0	.0	.0	.0	.0	13.3
REF DIST(FT):	105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN:	10	0	20	0	0	10	0	0	0	0	10
FREQ(HERTZ)											
12.5	68.0	.0	61.0	.0	.0	76.6	.0	.0	.0	.0	73.0
16	67.0	.0	60.0	.0	.0	75.0	.0	.0	.0	.0	72.0
20	66.0	.0	59.0	.0	.0	74.0	.0	.0	.0	.0	71.0
25	65.0	.0	58.0	.0	.0	73.0	.0	.0	.0	.0	70.0
31	65.0	.0	58.0	.0	.0	73.0	.0	.0	.0	.0	70.0
40	65.0	.0	58.0	.0	.0	73.0	.0	.0	.0	.0	70.0
50	65.0	.0	58.0	.0	.0	73.0	.0	.0	.0	.0	70.0
63	65.0	.0	58.0	.0	.0	73.0	.0	.0	.0	.0	70.0
80	65.0	.0	58.0	.0	.0	73.0	.0	.0	.0	.0	70.0
100	68.4	.0	68.2	.0	.0	77.8	.0	.0	.0	.0	70.0
125	65.0	.0	73.8	.0	.0	75.8	.0	.0	.0	.0	70.0
160	66.0	.0	70.6	.0	.0	74.0	.0	.0	.0	.0	70.0
200	66.0	.0	67.6	.0	.0	71.0	.0	.0	.0	.0	68.0
250	68.0	.0	72.0	.0	.0	76.0	.0	.0	.0	.0	71.0
315	68.0	.0	70.8	.0	.0	73.0	.0	.0	.0	.0	70.0
400	67.2	.0	70.8	.0	.0	74.2	.0	.0	.0	.0	69.0
500	67.6	.0	73.2	.0	.0	74.4	.0	.0	.0	.0	68.0
630	67.2	.0	75.8	.0	.0	76.0	.0	.0	.0	.0	70.0
800	69.8	.0	76.6	.0	.0	78.0	.0	.0	.0	.0	72.0
1000	72.6	.0	79.2	.0	.0	83.6	.0	.0	.0	.0	71.0
1250	73.2	.0	78.2	.0	.0	80.4	.0	.0	.0	.0	68.0
1600	70.4	.0	74.2	.0	.0	77.6	.0	.0	.0	.0	65.0
2000	62.2	.0	63.8	.0	.0	69.0	.0	.0	.0	.0	75.0
2500	79.8	.0	82.6	.0	.0	86.2	.0	.0	.0	.0	71.2
3150	74.8	.0	76.4	.0	.0	78.8	.0	.0	.0	.0	69.0
4000	84.6	.0	88.0	.0	.0	88.2	.0	.0	.0	.0	70.0
5000	74.8	.0	79.2	.0	.0	79.6	.0	.0	.0	.0	67.0
6300	73.2	.0	75.2	.0	.0	81.0	.0	.0	.0	.0	71.0
8000	70.6	.0	70.8	.0	.0	75.6	.0	.0	.0	.0	72.0
10000	68.0	.0	63.6	.0	.0	75.0	.0	.0	.0	.0	95.0
12500	68.0	.0	61.0	.0	.0	75.0	.0	.0	.0	.0	.0
16000	68.0	.0	61.0	.0	.0	75.0	.0	.0	.0	.0	.0
20000	68.0	.0	61.0	.0	.0	75.0	.0	.0	.0	.0	.0
OVERALL SPL UNCORR	102.0	.0	105.2	.0	.0	103.6	.0	.0	.0	.0	.0
OVERALL SPL CORR	89.1	.0	92.1	.0	.0	99.3	.0	.0	.0	.0	.0
PNDB CORR	103.6	.0	107.0	.0	.0	108.8	.0	.0	.0	.0	95.9

Figure 19.- Run 72, $V_\infty = 0$, $\alpha = 0^o$, $\psi = 0^o$, $\sigma_v = 0^o$, $\beta_v = 0^o$, $\delta_{cn} = 0^o$, Fans 3 and 4, RPM = 3600.

NOISE DATA
TEST 386 LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 1 DELTA 1 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	20	20	10	20	20	0	20
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	73.8	76.0	73.0	70.8	68.0	.0	69.0
16	.0	.0	.0	.0	73.0	72.8	72.0	69.6	68.4	.0	71.4
20	.0	.0	.0	.0	73.4	72.0	71.0	71.4	67.6	.0	72.0
25	.0	.0	.0	.0	72.6	70.0	79.4	73.0	69.2	.0	76.0
31	.0	.0	.0	.0	72.2	73.0	72.2	76.0	71.0	.0	78.2
40	.0	.0	.0	.0	72.4	72.0	72.2	73.0	72.0	.0	75.8
50	.0	.0	.0	.0	71.4	71.4	70.6	72.0	74.0	.0	72.4
63	.0	.0	.0	.0	73.2	74.8	74.0	75.2	72.4	.0	75.2
80	.0	.0	.0	.0	77.4	78.4	79.0	80.4	78.0	.0	81.8
100	.0	.0	.0	.0	81.6	81.4	85.8	84.0	80.6	.0	87.2
125	.0	.0	.0	.0	91.4	86.8	93.4	92.6	84.2	.0	92.0
160	.0	.0	.0	.0	80.4	84.8	85.6	82.8	81.0	.0	83.2
200	.0	.0	.0	.0	82.0	85.2	85.2	85.8	82.2	.0	85.4
250	.0	.0	.0	.0	87.6	88.6	90.6	88.4	85.8	.0	89.2
315	.0	.0	.0	.0	84.0	89.8	86.6	85.6	83.2	.0	87.4
400	.0	.0	.0	.0	81.6	83.4	88.0	85.6	81.8	.0	87.6
500	.0	.0	.0	.0	83.2	85.4	89.2	87.4	84.2	.0	90.2
630	.0	.0	.0	.0	83.2	88.4	93.8	90.2	86.0	.0	92.6
800	.0	.0	.0	.0	84.6	88.2	94.4	89.6	86.8	.0	93.0
1000	.0	.0	.0	.0	85.2	89.0	93.8	90.0	87.0	.0	94.4
1250	.0	.0	.0	.0	93.6	100.8	107.8	99.0	99.4	.0	100.8
1600	.0	.0	.0	.0	85.6	89.4	95.4	90.6	87.0	.0	96.2
2000	.0	.0	.0	.0	85.4	88.8	94.2	90.6	86.6	.0	94.8
2500	.0	.0	.0	.0	88.6	91.0	98.4	96.0	91.6	.0	97.4
3150	.0	.0	.0	.0	84.2	87.8	93.4	89.8	85.8	.0	92.4
4000	.0	.0	.0	.0	84.2	87.8	97.6	91.0	86.6	.0	92.6
5000	.0	.0	.0	.0	82.4	88.2	93.8	89.4	84.6	.0	93.2
6300	.0	.0	.0	.0	79.8	84.6	91.4	88.8	83.6	.0	91.8
8000	.0	.0	.0	.0	79.6	85.4	91.8	90.2	83.4	.0	92.2
10000	.0	.0	.0	.0	81.2	89.8	93.0	102.0	95.8	.0	90.8
12500	.0	.0	.0	.0	71.8	80.8	88.4	88.2	82.0	.0	86.0
16000	.0	.0	.0	.0	67.4	73.6	81.2	84.0	70.6	.0	81.4
20000	.0	.0	.0	.0	63.4	70.4	76.6	85.0	67.6	.0	74.8
OVERALL SPL	.0	.0	.0	.0	99.8	102.2	110.0	106.0	104.6	.0	107.0
PNDB	.0	.0	.0	.0	111.1	115.0	121.3	117.9	113.8	.0	119.5

NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 1 DELTA 2 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	10	10	0	10	10	0	10
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	80.6	77.6	83.0	73.0	75.2	.0	79.2
16	.0	.0	.0	.0	78.2	75.8	82.0	72.0	73.8	.0	80.2
20	.0	.0	.0	.0	78.2	73.4	81.0	71.0	72.6	.0	79.2
25	.0	.0	.0	.0	76.2	76.0	83.0	70.0	76.6	.0	82.4
31	.0	.0	.0	.0	78.6	76.6	80.0	70.0	77.0	.0	82.6
40	.0	.0	.0	.0	78.0	77.2	80.0	70.0	79.2	.0	82.8
50	.0	.0	.0	.0	77.8	77.8	80.0	70.0	81.4	.0	82.4
63	.0	.0	.0	.0	80.2	80.2	82.0	70.0	80.2	.0	82.8
80	.0	.0	.0	.0	84.0	84.0	84.8	70.0	84.2	.0	88.2
100	.0	.0	.0	.0	87.8	88.0	91.0	70.0	86.6	.0	92.4
125	.0	.0	.0	.0	93.8	91.4	95.4	70.0	88.4	.0	95.8
160	.0	.0	.0	.0	88.4	92.8	93.8	70.0	89.6	.0	91.6
200	.0	.0	.0	.0	88.0	92.6	91.2	70.0	88.4	.0	92.0
250	.0	.0	.0	.0	91.8	92.0	94.8	70.0	90.2	.0	94.6
315	.0	.0	.0	.0	90.4	91.2	94.0	70.0	89.8	.0	94.8
400	.0	.0	.0	.0	90.2	92.2	95.4	70.0	88.6	.0	95.6
500	.0	.0	.0	.0	93.2	92.8	96.2	70.0	90.6	.0	96.4
630	.0	.0	.0	.0	92.2	93.2	98.8	70.0	89.6	.0	98.0
800	.0	.0	.0	.0	91.2	94.0	99.4	70.0	92.4	.0	98.2
1000	.0	.0	.0	.0	94.8	96.2	103.6	70.0	95.6	.0	101.4
1250	.0	.0	.0	.0	94.2	98.0	103.4	70.0	95.4	.0	102.8
1600	.0	.0	.0	.0	97.0	99.6	107.0	70.0	99.2	.0	104.6
2000	.0	.0	.0	.0	103.2	107.2	114.2	70.0	105.6	.0	108.2
2500	.0	.0	.0	.0	94.2	96.0	102.8	70.0	94.4	.0	101.8
3150	.0	.0	.0	.0	93.8	95.8	103.2	70.0	94.8	.0	101.6
4000	.0	.0	.0	.0	98.4	101.2	108.0	70.0	100.0	.0	105.2
5000	.0	.0	.0	.0	91.4	94.0	102.2	70.0	92.8	.0	101.8
6300	.0	.0	.0	.0	89.2	92.8	100.8	70.0	90.6	.0	100.6
8000	.0	.0	.0	.0	88.4	92.8	101.4	70.0	89.6	.0	100.2
10000	.0	.0	.0	.0	89.8	91.2	99.0	70.0	94.4	.0	98.0
12500	.0	.0	.0	.0	87.4	91.2	99.4	73.0	94.8	.0	96.8
16000	.0	.0	.0	.0	77.0	81.4	91.0	70.0	77.2	.0	91.4
20000	.0	.0	.0	.0	73.8	75.8	85.2	70.4	73.4	.0	84.0
OVERALL SPL	.0	.0	.0	.0	108.6	110.8	116.6	78.8	109.8	.0	114.6
PNDB	.0	.0	.0	.0	121.3	124.9	131.1	95.8	122.9	.0	127.8

NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 1 DELTA 3 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	10	10	0	10	10	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	84.0	85.0	90.6	63.0	88.8	.0	84.6
16	.0	.0	.0	.0	76.8	84.8	85.0	62.0	85.0	.0	83.0
20	.0	.0	.0	.0	77.6	79.8	81.6	61.0	80.8	.0	81.8
25	.0	.0	.0	.0	80.4	83.8	89.4	60.0	80.0	.0	85.8
31	.0	.0	.0	.0	79.6	82.8	84.8	60.0	80.0	.0	85.4
40	.0	.0	.0	.0	79.8	79.4	82.6	60.0	82.2	.0	85.2
50	.0	.0	.0	.0	81.0	81.2	82.0	60.0	84.0	.0	85.2
63	.0	.0	.0	.0	83.4	85.8	86.4	60.0	85.0	.0	87.2
80	.0	.0	.0	.0	87.0	87.6	89.4	60.0	88.4	.0	92.6
100	.0	.0	.0	.0	91.2	92.8	95.4	60.0	90.6	.0	95.8
125	.0	.0	.0	.0	92.8	93.6	97.4	60.0	92.4	.0	97.2
160	.0	.0	.0	.0	91.0	96.4	97.2	60.0	92.2	.0	94.4
200	.0	.0	.0	.0	90.8	95.4	94.4	60.0	92.0	.0	94.8
250	.0	.0	.0	.0	93.0	93.2	96.0	60.0	92.4	.0	97.2
315	.0	.0	.0	.0	93.0	94.2	96.2	60.0	92.8	.0	97.4
400	.0	.0	.0	.0	92.6	94.0	99.8	60.0	93.0	.0	98.2
500	.0	.0	.0	.0	93.6	95.2	99.2	60.0	93.8	.0	99.4
630	.0	.0	.0	.0	93.0	96.4	100.8	60.0	92.8	.0	99.4
800	.0	.0	.0	.0	94.0	96.8	100.4	60.0	95.2	.0	100.2
1000	.0	.0	.0	.0	97.0	99.4	104.8	60.0	97.8	.0	103.0
1250	.0	.0	.0	.0	99.2	101.2	[illegible]	62.4	100.8	.0	106.2
1600	.0	.0	.0	.0	98.8	100.8	106.4	61.8	100.4	.0	106.2
2000	.0	.0	.0	.0	107.2	108.0	121.2	70.0	108.0	.0	112.0
2500	.0	.0	.0	.0	101.8	102.8	114.6	69.4	102.2	.0	108.8
3150	.0	.0	.0	.0	97.0	99.2	106.6	62.6	98.0	.0	104.4
4000	.0	.0	.0	.0	102.4	106.0	112.2	70.2	104.4	.0	112.2
5000	.0	.0	.0	.0	98.2	101.8	109.6	65.2	99.8	.0	107.2
6300	.0	.0	.0	.0	94.6	98.2	107.4	66.2	96.0	.0	105.0
8000	.0	.0	.0	.0	91.8	97.0	105.4	71.0	93.0	.0	103.4
10000	.0	.0	.0	.0	89.4	95.2	104.2	68.0	91.2	.0	102.0
12500	.0	.0	.0	.0	86.2	94.0	102.2	69.6	95.2	.0	99.8
16000	.0	.0	.0	.0	82.4	87.6	97.0	65.6	81.6	.0	96.6
20000	.0	.0	.0	.0	75.0	76.8	80.6	60.8	74.4	.0	[illegible]
OVERALL SPL	.0	.0	.0	.0	111.8	114.6	123.6	79.6	112.6	.0	118.8
PNDB	.0	.0	.0	.0	125.2	127.4	137.0	92.1	126.2	.0	132.8

NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 1 DELTA 4 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	10	10	0	10	10	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	86.4	92.8	90.4	63.0	79.8	.0	87.4
16	.0	.0	.0	.0	82.6	91.6	91.4	62.0	79.2	.0	89.0
20	.0	.0	.0	.0	83.4	90.4	91.2	61.0	78.8	.0	83.8
25	.0	.0	.0	.0	83.0	89.6	93.6	60.0	81.4	.0	88.0
31	.0	.0	.0	.0	81.8	92.0	90.8	60.0	81.4	.0	89.2
40	.0	.0	.0	.0	82.4	91.6	88.8	60.0	83.2	.0	86.6
50	.0	.0	.0	.0	83.2	91.2	88.0	60.0	86.6	.0	87.6
63	.0	.0	.0	.0	85.8	91.4	91.6	60.0	87.0	.0	88.8
80	.0	.0	.0	.0	89.4	90.6	93.0	60.0	89.2	.0	95.4
100	.0	.0	.0	.0	93.0	93.0	97.0	60.0	93.2	.0	98.6
125	.0	.0	.0	.0	94.6	93.0	99.4	60.0	93.6	.0	99.2
160	.0	.0	.0	.0	93.0	94.8	99.6	60.0	94.0	.0	96.8
200	.0	.0	.0	.0	93.0	94.6	97.8	60.0	94.0	.0	96.6
250	.0	.0	.0	.0	94.8	93.2	99.4	60.0	95.0	.0	99.6
315	.0	.0	.0	.0	95.0	94.2	99.2	60.0	94.8	.0	99.0
400	.0	.0	.0	.0	95.6	95.2	100.6	60.0	95.0	.0	100.8
500	.0	.0	.0	.0	95.6	95.2	102.2	60.0	96.0	.0	101.8
630	.0	.0	.0	.0	96.4	97.4	108.0	60.0	97.0	.0	101.6
800	.0	.0	.0	.0	96.2	97.0	104.0	60.0	97.8	.0	102.4
1000	.0	.0	.0	.0	97.8	99.4	105.6	60.0	99.0	.0	103.8
1250	.0	.0	.0	.0	101.6	102.0	110.6	63.2	103.2	.0	108.2
1600	.0	.0	.0	.0	101.8	103.0	111.2	63.8	103.8	.0	109.2
2000	.0	.0	.0	.0	103.0	104.4	112.0	65.2	103.8	.0	110.8
2500	.0	.0	.0	.0	111.0	115.4	121.4	73.4	110.8	.0	117.8
3150	.0	.0	.0	.0	100.2	101.0	109.4	65.4	101.4	.0	107.6
4000	.0	.0	.0	.0	99.2	100.2	109.4	66.4	100.4	.0	107.2
5000	.0	.0	.0	.0	104.2	106.4	115.6	73.0	106.0	.0	112.6
6300	.0	.0	.0	.0	95.4	97.6	109.0	67.0	97.8	.0	106.6
8000	.0	.0	.0	.0	94.8	98.0	110.2	71.6	97.6	.0	106.2
10000	.0	.0	.0	.0	92.6	95.0	109.4	69.4	94.2	.0	104.8
12500	.0	.0	.0	.0	87.2	90.2	121.4	68.4	91.4	.0	102.2
16000	.0	.0	.0	.0	83.2	83.8	102.4	66.0	83.2	.0	98.4
20000	.0	.0	.0	.0	78.4	78.6	100.4	68.8	73.6	.0	90.6
OVERALL SPL	.0	.0	.0	.0	114.6	117.6	127.0	81.2	116.4	.0	121.8
PNDB	.0	.0	.0	.0	129.1	132.2	139.2	93.7	129.5	.0	136.2

NOISE DATA
TEST 386 LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 1 DELTA 9 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	10	10	10	10	20	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	75.8	73.0	85.8	79.0	79.0	.0	.0
16	.0	.0	.0	.0	76.2	72.0	85.2	78.0	79.0	.0	.0
20	.0	.0	.0	.0	76.2	71.0	80.2	78.6	78.0	.0	.0
25	.0	.0	.0	.0	75.4	77.4	78.6	81.2	76.2	.0	.0
31	.0	.0	.0	.0	75.6	70.0	75.0	79.6	78.0	.0	.0
40	.0	.0	.0	.0	74.0	70.0	75.0	77.0	78.2	.0	.0
50	.0	.0	.0	.0	72.0	70.0	74.0	75.6	77.8	.0	.0
63	.0	.0	.0	.0	76.2	70.0	76.4	79.4	79.0	.0	.0
80	.0	.0	.0	.0	79.0	70.4	80.0	82.4	81.8	.0	.0
100	.0	.0	.0	.0	83.2	77.0	85.8	87.6	83.8	.0	.0
125	.0	.0	.0	.0	93.6	83.0	87.8	94.8	84.6	.0	.0
160	.0	.0	.0	.0	81.8	80.8	86.6	84.8	84.0	.0	.0
200	.0	.0	.0	.0	82.4	83.0	85.8	87.8	84.4	.0	.0
250	.0	.0	.0	.0	86.0	83.6	88.6	87.8	87.0	.0	.0
315	.0	.0	.0	.0	85.2	84.8	87.8	87.6	84.6	.0	.0
400	.0	.0	.0	.0	83.8	83.6	89.4	87.8	85.0	.0	.0
500	.0	.0	.0	.0	85.0	86.2	91.4	90.8	86.8	.0	.0
630	.0	.0	.0	.0	87.4	88.8	93.6	91.4	89.4	.0	.0
800	.0	.0	.0	.0	86.2	87.8	94.6	92.6	89.6	.0	.0
1000	.0	.0	.0	.0	87.6	88.6	95.6	92.6	89.2	.0	.0
1250	.0	.0	.0	.0	97.8	100.2	110.8	102.8	99.8	.0	.0
1600	.0	.0	.0	.0	88.2	88.6	96.0	92.2	89.4	.0	.0
2000	.0	.0	.0	.0	87.2	87.4	94.6	91.8	88.6	.0	.0
2500	.0	.0	.0	.0	90.6	89.8	97.6	97.8	92.8	.0	.0
3150	.0	.0	.0	.0	85.2	85.4	93.4	91.0	87.6	.0	.0
4000	.0	.0	.0	.0	85.6	86.2	96.2	91.6	88.0	.0	.0
5000	.0	.0	.0	.0	83.8	84.0	93.4	90.4	87.0	.0	.0
6300	.0	.0	.0	.0	81.0	81.0	91.4	88.4	85.2	.0	.0
8000	.0	.0	.0	.0	80.8	81.2	91.8	89.6	85.2	.0	.0
10000	.0	.0	.0	.0	81.8	82.8	92.6	100.8	98.6	.0	.0
12500	.0	.0	.0	.0	75.6	74.8	88.2	86.0	81.6	.0	.0
16000	.0	.0	.0	.0	70.6	70.0	80.8	77.8	72.4	.0	.0
20000	.0	.0	.0	.0	73.0	71.0	76.2	76.8	69.8	.0	.0
OVERALL SPL	.0	.0	.0	.0	102.0	103.8	110.8	108.4	104.2	.0	.0
PNDB	.0	.0	.0	.0	113.0	113.8	122.8	119.4	115.4	.0	.0

NOISE DATA
TEST 386 LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 1 DELTA 10 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	10	10	0	10	10	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	[illegible]	91.0	94.8	92.4	87.4	.0	.0
16	.0	.0	.0	.0	87.4	88.6	93.4	91.0	85.0	.0	.0
20	.0	.0	.0	.0	[illegible]	87.4	92.8	90.4	94.4	.0	.0
25	.0	.0	.0	.0	84.2	87.0	92.6	93.4	93.8	.0	.0
31	.0	.0	.0	.0	84.4	87.8	91.6	93.2	84.6	.0	.0
40	.0	.0	.0	.0	83.4	86.6	89.8	88.4	86.0	.0	.0
50	.0	.0	.0	.0	[illegible]	87.2	87.2	87.2	84.8	.0	.0
63	.0	.0	.0	.0	81.8	90.0	86.0	87.8	83.6	.0	.0
80	.0	.0	.0	.0	86.0	[illegible]	[illegible]	90.8	88.0	.0	.0
100	.0	.0	.0	.0	89.0	85.2	92.8	92.8	90.4	.0	.0
125	.0	.0	.0	.0	[illegible]	87.2	94.2	96.6	91.2	.0	.0
160	.0	.0	.0	.0	89.8	[illegible]	[illegible]	92.4	91.6	.0	.0
200	.0	.0	.0	.0	89.2	91.0	93.6	[illegible]	91.6	.0	.0
250	.0	.0	.0	.0	91.6	91.0	95.8	94.8	92.2	.0	.0
315	.0	.0	.0	.0	92.8	91.2	97.2	[illegible]	92.2	.0	.0
400	.0	.0	.0	.0	92.0	92.6	98.6	96.4	93.2	.0	.0
500	.0	.0	.0	.0	92.2	92.4	99.6	97.8	93.0	.0	.0
630	.0	.0	.0	.0	93.0	94.2	[illegible]	98.8	94.0	.0	.0
800	.0	.0	.0	.0	93.4	96.4	101.6	99.6	96.4	.0	.0
1000	.0	.0	.0	.0	96.2	98.8	104.6	101.8	98.6	.0	.0
1250	.0	.0	.0	.0	95.6	[illegible]	103.4	101.4	[illegible]	.0	.0
1600	.0	.0	.0	.0	101.4	101.2	109.2	104.8	102.6	.0	.0
2000	.0	.0	.0	.0	108.8	107.4	115.0	111.8	[illegible]	.0	.0
2500	.0	.0	.0	.0	96.0	98.4	[illegible]	100.4	98.0	.0	.0
3150	.0	.0	.0	.0	96.4	96.8	105.0	101.2	98.2	.0	.0
4000	.0	.0	.0	.0	101.4	[illegible]	110.6	106.0	103.0	.0	.0
5000	.0	.0	.0	.0	93.2	94.8	102.6	[illegible]	94.8	.0	.0
6300	.0	.0	.0	.0	91.0	91.8	101.0	97.4	93.8	.0	.0
8000	.0	.0	.0	.0	[illegible]	91.0	101.2	[illegible]	93.4	.0	.0
10000	.0	.0	.0	.0	87.6	[illegible]	99.6	100.8	97.0	.0	.0
12500	.0	.0	.0	.0	86.4	86.2	99.8	105.2	96.8	.0	.0
16000	.0	.0	.0	.0	79.0	76.4	91.6	90.8	89.8	.0	.0
20000	.0	.0	.0	.0	74.4	77.2	85.4	[illegible]	91.6	.0	.0
OVERALL SPL	.0	.0	0	[illegible]	111.6	111.6	119.8	116.0	114.0	.0	[illegible]
PNDB	[illegible]	.0	[illegible]	[illegible]	125.3	124.7	132.7	129.2	127.3	.0	.0

(a) Run 1.

Figure 20.- Uncorrected data listings.

NOISE DATA

TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 1 DELTA 11 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	10	10	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	89.0	86.6	92.8	97.0	87.4	.0	.0
16	.0	.0	.0	.0	89.6	85.8	89.0	95.4	86.6	.0	.0
20	.0	.0	.0	.0	87.6	85.8	87.8	95.4	85.2	.0	.0
25	.0	.0	.0	.0	87.6	86.4	93.4	95.4	89.6	.0	.0
31	.0	.0	.0	.0	86.0	86.8	89.0	93.8	88.0	.0	.0
40	.0	.0	.0	.0	83.8	87.8	87.0	92.0	88.0	.0	.0
50	.0	.0	.0	.0	84.2	88.0	86.8	90.6	84.8	.0	.0
63	.0	.0	.0	.0	85.6	88.2	89.0	92.4	86.2	.0	.0
80	.0	.0	.0	.0	85.4	89.6	91.0	94.0	90.0	.0	.0
100	.0	.0	.0	.0	92.6	90.6	96.0	97.6	94.8	.0	.0
125	.0	.0	.0	.0	94.2	92.4	98.4	98.6	94.8	.0	.0
160	.0	.0	.0	.0	92.4	93.6	97.8	96.2	94.4	.0	.0
200	.0	.0	.0	.0	92.4	94.6	96.8	97.4	95.2	.0	.0
250	.0	.0	.0	.0	94.4	94.4	98.4	98.2	95.8	.0	.0
315	.0	.0	.0	.0	95.2	95.0	99.8	98.6	96.4	.0	.0
400	.0	.0	.0	.0	95.8	96.2	99.8	98.0	96.4	.0	.0
500	.0	.0	.0	.0	94.8	96.4	100.8	100.4	96.8	.0	.0
630	.0	.0	.0	.0	95.2	97.6	[illegible]	100.0	97.2	.0	.0
800	.0	.0	.0	.0	96.2	97.8	102.6	101.4	96.6	.0	.0
1000	.0	.0	.0	.0	98.4	101.4	104.2	104.0	101.8	.0	.0
1250	.0	.0	.0	.0	101.4	103.2	109.0	106.8	104.8	.0	.0
1600	.0	.0	.0	.0	101.2	102.2	108.0	105.6	104.0	.0	.0
2000	.0	.0	.0	.0	113.4	111.4	121.4	113.8	112.2	.0	.0
2500	.0	.0	.0	.0	107.2	109.0	115.0	108.6	106.6	.0	.0
3150	.0	.0	.0	.0	98.6	100.4	107.4	104.2	101.6	.0	.0
4000	.0	.0	.0	.0	104.6	107.6	113.2	109.8	105.0	.0	.0
5000	.0	.0	.0	.0	100.6	102.4	110.0	106.2	[illegible]	.0	.0
6300	.0	.0	.0	.0	96.6	98.0	108.0	103.0	99.4	.0	.0
8000	.0	.0	.0	.0	93.8	95.0	105.8	100.2	95.8	.0	.0
10000	.0	.0	.0	.0	91.8	92.6	104.0	98.4	93.2	.0	.0
12500	.0	.0	.0	.0	90.0	89.2	103.0	103.0	97.2	.0	.0
16000	.0	.0	.0	.0	84.6	82.6	97.2	97.2	83.0	.0	.0
20000	.0	.0	.0	.0	76.8	76.8	89.4	82.0	81.0	.0	.0
OVERALL SPL	.0	.0	.0	.0	114.9	114.8	124.2	119.4	117.6	.0	.0
PNDB	.0	.0	.0	.0	129.8	129.1	137.6	132.1	129.7	.0	.0

NOISE DATA

TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 1 DELTA 12 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	10	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	90.8	92.2	92.2	96.8	94.2	.0	.0
16	.0	.0	.0	.0	88.4	90.2	88.2	95.6	92.6	.0	.0
20	.0	.0	.0	.0	89.2	[illegible]	[illegible]	95.2	92.4	.0	.0
25	.0	.0	.0	.0	86.8	90.8	90.4	93.6	90.6	.0	.0
31	.0	.0	.0	.0	88.4	91.0	88.0	93.4	91.4	.0	.0
40	.0	.0	.0	.0	87.6	[illegible]	[illegible]	93.3	90.4	.0	.0
50	.0	.0	.0	.0	86.2	90.0	87.6	92.4	90.6	.0	.0
63	.0	.0	.0	.0	87.0	91.4	89.8	93.8	91.6	.0	.0
80	.0	.0	.0	.0	90.0	91.2	94.0	95.8	92.2	.0	.0
100	.0	.0	.0	.0	93.6	93.2	97.6	96.8	95.4	.0	.0
125	.0	.0	.0	.0	95.0	93.4	99.0	99.6	96.6	.0	.0
160	.0	.0	.0	.0	93.8	95.2	99.6	97.4	96.2	.0	.0
200	.0	.0	.0	.0	94.4	95.4	98.2	99.8	96.4	.0	.0
250	.0	.0	.0	.0	95.6	96.0	99.2	99.8	96.4	.0	.0
315	.0	.0	.0	.0	96.8	95.4	101.2	100.8	97.4	.0	.0
400	.0	.0	.0	.0	98.0	97.8	101.6	100.6	98.0	.0	.0
500	.0	.0	.0	.0	97.0	97.4	102.0	102.2	98.0	.0	.0
630	.0	.0	.0	.0	96.8	96.8	102.6	102.0	98.2	.0	.0
800	.0	.0	.0	.0	97.2	99.2	103.4	102.8	99.2	.0	.0
1000	.0	.0	.0	.0	99.8	101.6	106.0	104.8	101.4	.0	.0
1250	.0	.0	.0	.0	102.0	103.8	109.6	107.4	104.4	.0	.0
1600	.0	.0	.0	.0	102.8	103.8	109.2	107.6	104.4	.0	.0
2000	.0	.0	.0	.0	106.4	107.2	114.6	110.6	107.6	.0	.0
2500	.0	.0	.0	.0	113.0	112.2	122.2	118.0	114.4	.0	.0
3150	.0	.0	.0	.0	[illegible]	101.2	103.6	105.6	102.2	.0	.0
4000	.0	.0	.0	.0	101.8	103.2	109.6	107.2	103.2	.0	.0
5000	.0	.0	.0	.0	106.6	107.8	[illegible]	112.6	108.0	.0	.0
6300	.0	.0	.0	.0	97.4	98.4	109.0	103.6	99.2	.0	.0
8000	.0	.0	.0	.0	96.0	96.6	107.4	102.6	97.2	.0	.0
10000	.0	.0	.0	.0	93.2	99.0	105.6	100.8	94.2	.0	.0
12500	.0	.0	.0	.0	91.0	[illegible]	103.6	101.2	95.0	.0	.0
16000	.0	.0	.0	.0	86.0	93.4	99.0	91.4	83.0	.0	.0
20000	.0	.0	.0	.0	77.6	[illegible]	[illegible]	[illegible]	[illegible]	.0	.0
OVERALL SPL	.0	.0	.0	.0	117.0	117.0	126.2	121.4	118.6	.0	.0
PNDB	.0	.0	.0	.0	131.3	130.9	139.4	[illegible]	132.4	.0	.0

NOISE DATA

TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 2 DELTA 1 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	92.2	98.0	110.0	83.0	83.0	.0	.0
16	.0	.0	.0	.0	91.6	97.2	110.0	83.4	82.0	.0	.0
20	.0	.0	.0	.0	91.4	95.6	109.2	83.4	81.0	.0	.0
25	.0	.0	.0	.0	91.8	96.2	108.2	85.8	81.2	.0	.0
31	.0	.0	.0	.0	91.0	94.8	108.4	86.2	83.0	.0	.0
40	.0	.0	.0	.0	90.4	94.2	107.8	88.0	85.0	.0	.0
50	.0	.0	.0	.0	90.2	93.0	106.2	90.6	90.0	.0	.0
63	.0	.0	.0	.0	91.8	94.8	105.8	94.2	92.0	.0	.0
80	.0	.0	.0	.0	94.4	96.8	105.0	97.8	94.2	.0	.0
100	.0	.0	.0	.0	98.2	99.2	106.6	102.2	98.0	.0	.0
125	.0	.0	.0	.0	100.0	100.0	105.6	102.6	99.6	.0	.0
160	.0	.0	.0	.0	98.2	101.2	104.2	99.8	97.6	.0	.0
200	.0	.0	.0	.0	97.4	100.8	103.8	101.6	96.8	.0	.0
250	.0	.0	.0	.0	98.6	100.4	103.8	101.0	97.0	.0	.0
315	.0	.0	.0	.0	99.2	101.8	104.6	101.8	98.6	.0	.0
400	.0	.0	.0	.0	100.8	102.2	104.4	102.6	98.0	.0	.0
500	.0	.0	.0	.0	101.4	102.4	105.2	103.2	99.4	.0	.0
630	.0	.0	.0	.0	100.2	103.4	106.4	103.4	98.0	.0	.0
800	.0	.0	.0	.0	101.6	103.8	105.6	103.8	100.4	.0	.0
1000	.0	.0	.0	.0	103.4	106.2	108.0	106.4	102.8	.0	.0
1250	.0	.0	.0	.0	109.6	108.4	110.0	108.0	104.2	.0	.0
1600	.0	.0	.0	.0	106.4	108.8	110.4	108.2	104.6	.0	.0
2000	.0	.0	.0	.0	115.4	116.8	118.6	118.2	113.8	.0	.0
2500	.0	.0	.0	.0	110.0	111.4	113.4	112.0	107.8	.0	.0
3150	.0	.0	.0	.0	103.8	106.8	109.2	106.4	102.2	.0	.0
4000	.0	.0	.0	.0	109.6	112.8	115.2	112.0	108.8	.0	.0
5000	.0	.0	.0	.0	106.0	108.8	110.8	108.2	104.2	.0	.0
6300	.0	.0	.0	.0	101.0	105.6	110.2	104.8	100.2	.0	.0
8000	.0	.0	.0	.0	98.0	103.8	107.0	102.0	96.4	.0	.0
10000	.0	.0	.0	.0	95.8	102.2	105.6	100.0	93.6	.0	.0
12500	.0	.0	.0	.0	93.8	99.4	104.2	99.0	97.6	.0	.0
16000	.0	.0	.0	.0	87.0	93.6	97.4	92.0	84.0	.0	.0
20000	.0	.0	.0	.0	81.4	85.8	89.4	86.2	81.8	.0	.0
OVERALL SPL	.0	.0	.0	.0	119.8	121.8	124.6	121.8	117.4	.0	.0
PNDB	.0	.0	.0	.0	132.9	135.0	137.4	135.8	131.4	.0	.0

NOISE DATA

TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 2 DELTA 2 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	91.6	99.4	112.0	83.0	83.0	.0	.0
16	.0	.0	.0	.0	89.6	96.6	110.8	83.6	82.0	.0	.0
20	.0	.0	.0	.0	89.6	98.0	111.0	82.4	81.0	.0	.0
25	.0	.0	.0	.0	89.2	95.6	109.2	86.4	80.4	.0	.0
31	.0	.0	.0	.0	89.0	94.6	110.0	87.4	83.0	.0	.0
40	.0	.0	.0	.0	89.0	94.4	109.4	88.0	85.6	.0	.0
50	.0	.0	.0	.0	88.6	93.2	108.4	89.6	89.0	.0	.0
63	.0	.0	.0	.0	92.4	95.0	107.6	95.4	92.0	.0	.0
80	.0	.0	.0	.0	94.8	96.6	106.8	99.0	94.8	.0	.0
100	.0	.0	.0	.0	98.4	99.0	107.0	102.4	97.8	.0	.0
125	.0	.0	.0	.0	100.2	100.2	106.2	102.6	99.4	.0	.0
160	.0	.0	.0	.0	98.6	100.8	105.0	100.2	98.2	.0	.0
200	.0	.0	.0	.0	97.8	101.6	104.4	101.4	97.0	.0	.0
250	.0	.0	.0	.0	98.8	101.2	103.8	101.0	97.2	.0	.0
315	.0	.0	.0	.0	99.4	101.8	104.8	102.4	98.8	.0	.0
400	.0	.0	.0	.0	100.2	103.2	104.4	102.8	98.6	.0	.0
500	.0	.0	.0	.0	101.2	102.8	105.2	103.0	99.4	.0	.0
630	.0	.0	.0	.0	101.4	104.0	105.8	102.4	101.6	.0	.0
800	.0	.0	.0	.0	101.8	103.8	105.8	103.8	100.6	.0	.0
1000	.0	.0	.0	.0	103.6	106.2	108.2	106.4	103.0	.0	.0
1250	.0	.0	.0	.0	109.8	108.2	110.2	108.0	104.8	.0	.0
1600	.0	.0	.0	.0	106.6	108.8	110.6	108.0	104.6	.0	.0
2000	.0	.0	.0	.0	116.0	117.2	118.8	117.4	113.0	.0	.0
2500	.0	.0	.0	.0	110.2	112.2	113.8	112.0	108.0	.0	.0
3150	.0	.0	.0	.0	104.2	106.8	109.0	106.0	102.2	.0	.0
4000	.0	.0	.0	.0	110.0	112.6	116.4	112.2	108.0	.0	.0
5000	.0	.0	.0	.0	106.2	109.2	111.8	108.6	104.2	.0	.0
6300	.0	.0	.0	.0	101.2	105.8	110.4	104.8	99.8	.0	.0
8000	.0	.0	.0	.0	98.0	103.8	107.0	101.8	96.4	.0	.0
10000	.0	.0	.0	.0	95.8	102.2	105.4	99.8	94.0	.0	.0
12500	.0	.0	.0	.0	92.6	100.0	103.8	103.8	94.8	.0	.0
16000	.0	.0	.0	.0	86.8	93.8	97.2	91.6	82.4	.0	.0
20000	.0	.0	.0	.0	81.4	85.8	89.2	84.2	81.8	.0	.0
OVERALL SPL	.0	.0	.0	.0	119.4	121.8	124.4	122.0	117.4	.0	.0
PNDB	.0	.0	.0	.0	133.3	135.3	138.0	135.3	131.0	.0	.0

NOISE DATA

TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 2 DELTA 3 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	98.0	100.2	100.6	83.0	83.0	.0	.0
16	.0	.0	.0	.0	96.0	100.0	99.0	82.0	82.0	.0	.0
20	.0	.0	.0	.0	96.0	99.2	98.8	82.0	81.0	.0	.0
25	.0	.0	.0	.0	94.4	98.6	99.8	83.8	80.0	.0	.0
31	.0	.0	.0	.0	95.4	98.4	98.6	85.2	82.6	.0	.0
40	.0	.0	.0	.0	93.8	97.2	97.0	86.0	84.4	.0	.0
50	.0	.0	.0	.0	93.2	95.6	96.8	89.2	89.4	.0	.0
63	.0	.0	.0	.0	94.6	96.6	100.4	94.8	92.4	.0	.0
80	.0	.0	.0	.0	95.6	97.2	100.4	98.0	94.6	.0	.0
100	.0	.0	.0	.0	98.6	99.8	104.2	102.4	97.8	.0	.0
125	.0	.0	.0	.0	100.0	100.8	104.2	102.8	99.8	.0	.0
160	.0	.0	.0	.0	99.0	100.8	103.0	99.8	98.8	.0	.0
200	.0	.0	.0	.0	98.0	100.6	102.6	101.8	96.8	.0	.0
250	.0	.0	.0	.0	99.0	100.4	102.8	100.8	97.4	.0	.0
315	.0	.0	.0	.0	99.2	101.4	104.0	102.0	98.4	.0	.0
400	.0	.0	.0	.0	100.6	103.8	104.0	102.6	99.0	.0	.0
500	.0	.0	.0	.0	101.4	103.2	105.2	103.4	99.4	.0	.0
630	.0	.0	.0	.0	102.0	105.2	105.8	103.0	100.8	.0	.0
800	.0	.0	.0	.0	101.8	105.2	105.6	104.2	101.4	.0	.0
1000	.0	.0	.0	.0	103.6	106.4	108.0	106.6	103.2	.0	.0
1250	.0	.0	.0	.0	105.4	108.2	109.8	108.0	104.6	.0	.0
1600	.0	.0	.0	.0	106.4	108.8	110.2	108.2	105.0	.0	.0
2000	.0	.0	.0	.0	115.0	117.6	119.0	117.0	112.2	.0	.0
2500	.0	.0	.0	.0	110.0	112.8	114.0	111.6	107.8	.0	.0
3150	.0	.0	.0	.0	104.2	107.2	109.0	106.2	102.6	.0	.0
4000	.0	.0	.0	.0	109.6	113.0	117.0	112.2	108.2	.0	.0
5000	.0	.0	.0	.0	106.2	109.8	112.4	108.6	104.4	.0	.0
6300	.0	.0	.0	.0	101.2	105.8	110.0	104.4	100.0	.0	.0
8000	.0	.0	.0	.0	98.2	104.0	106.4	101.8	96.4	.0	.0
10000	.0	.0	.0	.0	95.6	102.4	105.0	99.8	93.6	.0	.0
12500	.0	.0	.0	.0	92.8	100.4	103.2	98.4	93.4	.0	.0
16000	.0	.0	.0	.0	87.2	93.8	97.0	91.4	83.0	.0	.0
20000	.0	.0	.0	.0	82.0	85.8	91.8	85.6	80.8	.0	.0
OVERALL SPL	.0	.0	.0	.0	119.4	122.0	124.2	121.0	117.4	.0	.0
PNDB	.0	.0	.0	.0	132.8	135.7	138.0	135.0	130.7	.0	.0

NOISE DATA

TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 2 DELTA 4 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	98.6	103.4	86.4	83.0	83.0	.0	.0
16	.0	.0	.0	.0	97.8	102.0	86.8	82.0	82.0	.0	.0
20	.0	.0	.0	.0	96.4	102.2	86.4	82.0	81.0	.0	.0
25	.0	.0	.0	.0	95.0	101.4	89.0	83.4	80.0	.0	.0
31	.0	.0	.0	.0	94.6	101.8	88.0	85.0	81.0	.0	.0
40	.0	.0	.0	.0	94.8	100.2	88.2	86.8	84.6	.0	.0
50	.0	.0	.0	.0	92.4	99.8	91.6	90.8	90.4	.0	.0
63	.0	.0	.0	.0	93.6	99.2	94.2	95.6	92.2	.0	.0
80	.0	.0	.0	.0	95.0	98.8	98.4	98.0	93.2	.0	.0
100	.0	.0	.0	.0	99.2	100.8	104.0	103.0	98.2	.0	.0
125	.0	.0	.0	.0	99.6	101.2	103.4	103.2	99.6	.0	.0
160	.0	.0	.0	.0	99.6	101.0	102.6	99.8	98.4	.0	.0
200	.0	.0	.0	.0	98.4	100.4	102.4	101.8	96.6	.0	.0
250	.0	.0	.0	.0	99.4	99.6	103.0	101.0	97.6	.0	.0
315	.0	.0	.0	.0	99.8	101.0	104.0	102.4	99.2	.0	.0
400	.0	.0	.0	.0	100.6	102.2	103.8	102.8	99.4	.0	.0
500	.0	.0	.0	.0	101.4	103.0	105.2	103.4	99.8	.0	.0
630	.0	.0	.0	.0	102.8	102.8	105.6	102.8	100.2	.0	.0
800	.0	.0	.0	.0	102.0	104.4	105.4	104.4	101.2	.0	.0
1000	.0	.0	.0	.0	103.4	106.0	108.6	106.8	103.4	.0	.0
1250	.0	.0	.0	.0	109.8	107.2	110.0	107.8	105.0	.0	.0
1600	.0	.0	.0	.0	106.6	107.6	110.4	108.2	105.0	.0	.0
2000	.0	.0	.0	.0	116.0	116.6	119.2	115.6	113.0	.0	.0
2500	.0	.0	.0	.0	110.8	111.2	113.8	110.8	108.0	.0	.0
3150	.0	.0	.0	.0	103.6	105.4	108.4	106.2	102.6	.0	.0
4000	.0	.0	.0	.0	110.0	112.4	116.2	111.8	109.2	.0	.0
5000	.0	.0	.0	.0	106.0	108.8	111.8	108.0	105.0	.0	.0
6300	.0	.0	.0	.0	101.0	104.2	109.0	104.2	100.8	.0	.0
8000	.0	.0	.0	.0	98.4	102.0	106.0	101.6	97.8	.0	.0
10000	.0	.0	.0	.0	95.8	100.4	104.8	99.8	94.2	.0	.0
12500	.0	.0	.0	.0	93.0	97.6	103.4	100.8	96.6	.0	.0
16000	.0	.0	.0	.0	87.4	91.2	96.4	91.4	83.0	.0	.0
20000	.0	.0	.0	.0	81.4	84.8	88.8	84.0	81.0	.0	.0
OVERALL SPL	.0	.0	.0	.0	119.0	121.6	124.2	120.6	117.8	.0	.0
PNDB	.0	.0	.0	.0	133.4	134.7	137.4	134.2	131.3	.0	.0

(b) Run 1, Run 2.

Figure 20.- Continued.

NOISE DATA

TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 2 DELTA 5 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	87.6	95.0	110.8	83.0	83.0	.0	.0
16	.0	.0	.0	.0	87.4	95.8	110.8	82.0	82.0	.0	.0
20	.0	.0	.0	.0	87.0	95.2	110.8	81.6	81.0	.0	.0
25	.0	.0	.0	.0	87.6	94.4	109.4	84.8	80.0	.0	.0
31	.0	.0	.0	.0	86.8	93.8	109.2	85.6	83.0	.0	.0
40	.0	.0	.0	.0	88.0	92.8	108.2	85.6	85.2	.0	.0
50	.0	.0	.0	.0	88.2	92.2	107.0	90.6	89.8	.0	.0
63	.0	.0	.0	.0	91.0	94.4	107.2	94.2	91.2	.0	.0
80	.0	.0	.0	.0	93.8	96.2	106.0	98.2	94.4	.0	.0
100	.0	.0	.0	.0	98.0	99.2	106.8	102.8	97.8	.0	.0
125	.0	.0	.0	.0	99.4	100.6	105.8	102.2	99.2	.0	.0
160	.0	.0	.0	.0	98.6	100.8	104.6	99.0	98.0	.0	.0
200	.0	.0	.0	.0	97.8	100.6	104.0	101.2	95.8	.0	.0
250	.0	.0	.0	.0	98.6	100.2	103.6	100.6	97.2	.0	.0
315	.0	.0	.0	.0	99.6	101.2	104.8	102.2	98.0	.0	.0
400	.0	.0	.0	.0	100.6	102.6	103.8	102.8	98.0	.0	.0
500	.0	.0	.0	.0	101.4	102.6	104.6	103.2	99.4	.0	.0
630	.0	.0	.0	.0	102.8	103.2	105.4	104.0	99.4	.0	.0
800	.0	.0	.0	.0	101.8	104.4	105.4	104.0	100.2	.0	.0
1000	.0	.0	.0	.0	103.4	106.4	107.8	106.4	102.4	.0	.0
1250	.0	.0	.0	.0	105.6	108.2	109.8	108.2	104.0	.0	.0
1600	.0	.0	.0	.0	106.0	108.6	110.2	107.8	104.4	.0	.0
2000	.0	.0	.0	.0	116.0	116.4	119.4	117.4	113.2	.0	.0
2500	.0	.0	.0	.0	110.4	112.0	113.6	111.4	107.6	.0	.0
3150	.0	.0	.0	.0	103.6	107.2	108.8	105.8	102.0	.0	.0
4000	.0	.0	.0	.0	109.6	113.2	114.6	111.8	109.4	.0	.0
5000	.0	.0	.0	.0	105.8	109.6	110.6	108.0	105.0	.0	.0
6300	.0	.0	.0	.0	101.0	105.8	109.4	104.4	99.8	.0	.0
8000	.0	.0	.0	.0	97.8	103.8	106.4	101.2	96.2	.0	.0
10000	.0	.0	.0	.0	95.2	102.2	105.2	99.6	93.2	.0	.0
12500	.0	.0	.0	.0	93.0	100.0	103.6	99.2	95.6	.0	.0
16000	.0	.0	.0	.0	86.8	93.4	97.2	90.8	82.6	.0	.0
20000	.0	.0	.0	.0	81.4	85.8	88.6	83.4	80.8	.0	.0
OVERALL SPL	.0	.0	.0	.0	119.4	121.8	124.8	122.2	118.0	.0	.0
PNDB	.0	.0	.0	.0	133.2	134.9	137.7	135.1	131.1	.0	.0

NOISE DATA

TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 2 DELTA 6 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	88.0	93.8	113.6	83.0	83.0	.0	.0
16	.0	.0	.0	.0	86.2	93.2	111.8	82.0	82.0	.0	.0
20	.0	.0	.0	.0	86.8	93.0	111.4	82.0	81.0	.0	.0
25	.0	.0	.0	.0	86.0	91.8	111.2	84.2	80.6	.0	.0
31	.0	.0	.0	.0	87.2	91.8	110.8	85.0	82.8	.0	.0
40	.0	.0	.0	.0	89.0	91.0	109.2	85.8	85.6	.0	.0
50	.0	.0	.0	.0	87.8	92.0	108.0	90.2	90.0	.0	.0
63	.0	.0	.0	.0	91.2	94.2	108.8	94.0	91.2	.0	.0
80	.0	.0	.0	.0	93.8	95.4	107.0	97.6	93.6	.0	.0
100	.0	.0	.0	.0	98.0	98.6	107.6	102.2	96.8	.0	.0
125	.0	.0	.0	.0	98.4	100.4	106.8	101.6	98.8	.0	.0
160	.0	.0	.0	.0	98.2	100.6	105.2	99.6	97.8	.0	.0
200	.0	.0	.0	.0	97.6	100.2	104.8	101.2	96.6	.0	.0
250	.0	.0	.0	.0	98.4	99.6	104.2	100.4	96.8	.0	.0
315	.0	.0	.0	.0	99.6	101.6	104.4	101.6	98.0	.0	.0
400	.0	.0	.0	.0	99.8	102.2	104.0	102.2	97.6	.0	.0
500	.0	.0	.0	.0	101.0	102.4	105.0	102.8	98.6	.0	.0
630	.0	.0	.0	.0	103.0	105.0	104.4	101.6	99.6	.0	.0
800	.0	.0	.0	.0	101.4	104.2	105.2	103.2	99.6	.0	.0
1000	.0	.0	.0	.0	103.4	106.6	108.0	106.2	102.2	.0	.0
1250	.0	.0	.0	.0	105.8	109.2	110.2	107.8	104.4	.0	.0
1600	.0	.0	.0	.0	106.6	109.8	110.0	108.0	104.2	.0	.0
2000	.0	.0	.0	.0	115.4	118.0	118.0	117.6	112.4	.0	.0
2500	.0	.0	.0	.0	110.0	113.0	113.0	111.8	107.0	.0	.0
3150	.0	.0	.0	.0	103.8	108.0	108.8	105.8	101.6	.0	.0
4000	.0	.0	.0	.0	109.2	113.4	115.8	111.8	108.6	.0	.0
5000	.0	.0	.0	.0	105.6	110.0	111.4	108.2	104.4	.0	.0
6300	.0	.0	.0	.0	101.2	106.4	109.4	104.6	99.6	.0	.0
8000	.0	.0	.0	.0	97.6	104.2	106.4	101.6	95.8	.0	.0
10000	.0	.0	.0	.0	95.2	102.8	105.0	99.6	93.4	.0	.0
12500	.0	.0	.0	.0	92.4	100.8	103.2	100.2	93.8	.0	.0
16000	.0	.0	.0	.0	86.4	93.8	97.0	91.2	83.4	.0	.0
20000	.0	.0	.0	.0	81.0	86.2	89.0	85.8	81.0	.0	.0
OVERALL SPL	.0	.0	.0	.0	119.2	122.6	124.4	122.0	117.4	.0	.0
PNDB	.0	.0	.0	.0	132.8	135.9	137.9	135.1	130.5	.0	.0

NOISE DATA

TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 2 DELTA 7 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	87.2	92.6	112.2	83.0	83.0	.0	.0
16	.0	.0	.0	.0	87.0	92.4	112.6	83.2	82.0	.0	.0
20	.0	.0	.0	.0	86.2	92.0	111.6	81.4	81.0	.0	.0
25	.0	.0	.0	.0	87.0	90.0	110.8	85.4	81.4	.0	.0
31	.0	.0	.0	.0	86.8	91.0	111.2	85.2	83.2	.0	.0
40	.0	.0	.0	.0	87.4	89.4	110.6	86.0	85.0	.0	.0
50	.0	.0	.0	.0	87.8	91.2	109.2	90.8	89.4	.0	.0
63	.0	.0	.0	.0	90.0	93.4	108.6	92.8	90.8	.0	.0
80	.0	.0	.0	.0	94.0	95.4	107.2	98.0	93.4	.0	.0
100	.0	.0	.0	.0	97.6	98.6	107.6	101.4	97.0	.0	.0
125	.0	.0	.0	.0	98.6	100.6	106.8	100.8	97.8	.0	.0
160	.0	.0	.0	.0	98.2	100.4	105.4	98.8	97.4	.0	.0
200	.0	.0	.0	.0	97.4	100.8	104.6	101.0	96.0	.0	.0
250	.0	.0	.0	.0	98.6	99.8	104.4	100.6	96.6	.0	.0
315	.0	.0	.0	.0	99.0	101.2	104.4	101.2	97.8	.0	.0
400	.0	.0	.0	.0	99.6	102.4	104.4	102.2	97.8	.0	.0
500	.0	.0	.0	.0	100.8	102.4	104.6	102.4	98.4	.0	.0
630	.0	.0	.0	.0	101.0	103.6	104.0	101.2	99.4	.0	.0
800	.0	.0	.0	.0	101.4	104.2	105.2	103.4	99.6	.0	.0
1000	.0	.0	.0	.0	103.2	106.6	108.0	106.2	102.6	.0	.0
1250	.0	.0	.0	.0	106.0	109.0	110.2	108.2	104.2	.0	.0
1600	.0	.0	.0	.0	106.0	109.4	110.0	107.8	103.6	.0	.0
2000	.0	.0	.0	.0	115.0	117.6	118.2	116.2	112.6	.0	.0
2500	.0	.0	.0	.0	109.8	113.0	113.2	110.8	107.2	.0	.0
3150	.0	.0	.0	.0	103.6	108.2	108.8	105.6	101.6	.0	.0
4000	.0	.0	.0	.0	109.6	114.8	116.6	111.6	107.2	.0	.0
5000	.0	.0	.0	.0	106.0	111.4	112.6	108.0	103.4	.0	.0
6300	.0	.0	.0	.0	100.8	107.0	109.4	104.2	99.2	.0	.0
8000	.0	.0	.0	.0	97.6	104.4	106.2	101.4	95.8	.0	.0
10000	.0	.0	.0	.0	95.2	103.0	104.8	99.4	93.0	.0	.0
12500	.0	.0	.0	.0	92.2	101.2	103.4	99.0	93.8	.0	.0
16000	.0	.0	.0	.0	86.2	93.8	97.2	90.4	82.4	.0	.0
20000	.0	.0	.0	.0	81.6	86.6	90.0	83.6	80.4	.0	.0
OVERALL SPL	.0	.0	.0	.0	119.4	123.0	125.4	121.0	118.0	.0	.0
PNDB	.0	.0	.0	.0	132.6	136.0	137.9	134.3	130.4	.0	.0

NOISE DATA

TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 8 DELTA 1 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	89.2	94.2	103.6	85.0	83.0	.0	.0
16	.0	.0	.0	.0	88.6	93.4	103.2	82.0	82.0	.0	.0
20	.0	.0	.0	.0	87.6	92.2	102.8	82.4	81.0	.0	.0
25	.0	.0	.0	.0	85.2	91.8	101.2	85.6	83.4	.0	.0
31	.0	.0	.0	.0	87.6	91.6	102.0	84.4	81.8	.0	.0
40	.0	.0	.0	.0	85.0	89.8	99.6	81.8	80.0	.0	.0
50	.0	.0	.0	.0	82.0	88.4	99.0	81.4	80.0	.0	.0
63	.0	.0	.0	.0	86.4	90.0	97.8	87.6	84.6	.0	.0
80	.0	.0	.0	.0	89.4	93.6	97.8	90.0	86.8	.0	.0
100	.0	.0	.0	.0	93.8	94.4	100.0	97.4	92.0	.0	.0
125	.0	.0	.0	.0	96.6	95.6	100.2	98.0	96.4	.0	.0
160	.0	.0	.0	.0	95.6	97.8	100.6	96.2	95.2	.0	.0
200	.0	.0	.0	.0	97.0	99.2	101.4	99.4	96.0	.0	.0
250	.0	.0	.0	.0	97.6	99.4	101.6	99.4	96.0	.0	.0
315	.0	.0	.0	.0	98.4	100.2	102.8	100.8	96.4	.0	.0
400	.0	.0	.0	.0	100.6	101.2	103.4	101.4	97.4	.0	.0
500	.0	.0	.0	.0	100.4	101.2	103.2	101.8	98.0	.0	.0
630	.0	.0	.0	.0	101.0	103.2	103.6	103.2	99.6	.0	.0
800	.0	.0	.0	.0	100.6	103.0	104.6	103.0	99.4	.0	.0
1000	.0	.0	.0	.0	103.0	105.2	107.8	105.6	102.6	.0	.0
1250	.0	.0	.0	.0	105.0	107.2	109.2	107.0	104.2	.0	.0
1600	.0	.0	.0	.0	105.0	107.0	108.8	106.2	103.8	.0	.0
2000	.0	.0	.0	.0	115.2	115.6	119.2	116.4	112.6	.0	.0
2500	.0	.0	.0	.0	112.0	113.0	115.4	113.8	109.4	.0	.0
3150	.0	.0	.0	.0	103.4	105.6	108.0	104.8	101.4	.0	.0
4000	.0	.0	.0	.0	108.0	110.8	114.2	109.8	105.8	.0	.0
5000	.0	.0	.0	.0	106.4	109.0	111.6	108.4	103.8	.0	.0
6300	.0	.0	.0	.0	99.8	104.0	108.4	103.2	98.8	.0	.0
8000	.0	.0	.0	.0	97.0	101.6	106.0	100.4	95.2	.0	.0
10000	.0	.0	.0	.0	94.4	100.2	104.6	98.2	92.2	.0	.0
12500	.0	.0	.0	.0	92.0	97.2	102.4	98.2	93.8	.0	.0
16000	.0	.0	.0	.0	84.0	90.2	95.2	88.4	81.6	.0	.0
20000	.0	.0	.0	.0	81.6	85.0	88.0	82.6	82.2	.0	.0
OVERALL SPL	.0	.0	.0	.0	119.6	121.8	123.6	120.2	118.4	.0	.0
PNDB	.0	.0	.0	.0	[illegible]	133.8	137.1	134.1	[illegible]	.0	.0

NOISE DATA

TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 8 DELTA 11 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	104.9	102.0	103.4	88.8	89.0	.0	.0
16	.0	.0	.0	.0	101.8	102.2	102.2	82.0	82.0	.0	.0
20	.0	.0	.0	.0	101.0	101.2	97.6	82.4	81.0	.0	.0
25	.0	.0	.0	.0	100.8	98.2	97.4	85.0	81.0	.0	.0
31	.0	.0	.0	.0	98.6	98.8	[illegible]	83.8	82.6	.0	.0
40	.0	.0	.0	.0	98.4	98.8	[illegible]	81.8	81.0	.0	.0
50	.0	.0	.0	.0	96.8	95.6	88.0	80.0	80.0	.0	.0
63	.0	.0	.0	.0	96.2	96.2	89.8	87.4	83.2	.0	.0
80	.0	.0	.0	.0	95.4	95.6	93.2	91.4	87.8	.0	.0
100	.0	.0	.0	.0	96.2	97.4	98.4	96.2	93.0	.0	.0
125	.0	.0	.0	.0	97.8	97.6	100.6	97.2	94.4	.0	.0
160	.0	.0	.0	.0	96.8	99.8	[illegible]	97.8	95.4	.0	.0
200	.0	.0	.0	.0	98.0	100.4	101.8	100.8	96.0	.0	.0
250	.0	.0	.0	.0	98.8	100.6	101.6	99.8	96.4	.0	.0
315	.0	.0	.0	.0	98.8	[illegible]	102.6	[illegible]	97.4	.0	.0
400	.0	.0	.0	.0	100.2	102.8	103.0	101.4	97.8	.0	.0
500	.0	.0	.0	.0	101.6	102.2	103.8	102.0	97.8	.0	.0
630	.0	.0	.0	.0	101.8	103.8	101.2	101.0	[illegible]	.0	.0
800	.0	.0	.0	.0	102.2	103.8	104.0	102.6	100.0	.0	.0
1000	.0	.0	.0	.0	103.4	105.8	107.4	106.2	102.8	.0	.0
1250	.0	.0	.0	.0	105.4	107.8	108.8	106.8	103.4	.0	.0
1600	.0	.0	.0	.0	105.2	108.0	108.8	106.4	103.2	.0	.0
2000	.0	.0	.0	.0	113.4	115.6	118.0	120.0	111.6	.0	.0
2500	.0	.0	.0	.0	110.6	111.8	113.2	114.0	107.0	.0	.0
3150	.0	.0	.0	.0	103.4	106.8	108.2	104.8	101.0	.0	.0
4000	.0	.0	.0	.0	108.0	111.0	112.8	111.4	107.2	.0	.0
5000	.0	.0	.0	.0	105.2	108.8	109.4	107.8	103.8	.0	.0
6300	.0	.0	.0	.0	100.0	104.2	109.6	102.6	98.4	.0	.0
8000	.0	.0	.0	.0	97.4	104.8	105.6	99.8	95.2	.0	.0
10000	.0	.0	.0	.0	94.8	102.8	103.8	97.8	91.6	.0	.0
12500	.0	.0	.0	.0	90.6	97.4	102.4	100.2	92.8	.0	.0
16000	.0	.0	.0	.0	90.2	95.0	94.4	89.0	81.8	.0	.0
20000	.0	.0	.0	.0	87.6	91.4	[illegible]	[illegible]	81.6	.0	.0
OVERALL SPL	.0	.0	.0	.0	119.2	120.6	123.0	123.0	117.0	.0	.0
PNDB	.0	.0	.0	.0	132.7	134.3	135.0	136.0	129.7	.0	.0

NOISE DATA

TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 8 DELTA 21 SPL IN DB REL. .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	93.8	96.0	85.6	83.0	83.6	.0	.0
16	.0	.0	.0	.0	94.6	97.6	86.2	82.0	86.4	.0	.0
20	.0	.0	.0	.0	93.4	88.2	88.0	83.4	81.0	.0	.0
25	.0	.0	.0	.0	93.6	87.2	94.8	83.8	80.0	.0	.0
31	.0	.0	.0	.0	92.8	86.6	84.0	83.6	81.8	.0	.0
40	.0	.0	.0	.0	92.8	85.0	85.8	83.0	80.6	.0	.0
50	.0	.0	.0	.0	91.0	83.8	84.4	81.4	80.4	.0	.0
63	.0	.0	.0	.0	92.8	88.4	88.0	87.8	84.0	.0	.0
80	.0	.0	.0	.0	93.3	90.4	93.0	92.0	87.8	.0	.0
100	.0	.0	.0	.0	96.0	95.0	99.6	97.4	93.6	.0	.0
125	.0	.0	.0	.0	97.0	99.8	100.2	98.6	96.0	.0	.0
160	.0	.0	.0	.0	98.8	99.0	101.0	97.6	96.2	.0	.0
200	.0	.0	.0	.0	98.6	101.0	102.6	101.4	97.0	.0	.0
250	.0	.0	.0	.0	100.0	102.6	103.4	100.8	97.4	.0	.0
315	.0	.0	.0	.0	103.2	102.0	104.8	102.2	98.2	.0	.0
400	.0	.0	.0	.0	101.0	103.2	104.8	102.4	98.6	.0	.0
500	.0	.0	.0	.0	101.0	102.2	104.6	103.2	99.2	.0	.0
630	.0	.0	.0	.0	101.8	103.4	104.6	103.8	101.4	.0	.0
800	.0	.0	.0	.0	101.2	103.4	105.2	103.6	100.4	.0	.0
1000	.0	.0	.0	.0	102.8	105.6	108.0	106.0	102.6	.0	.0
1250	.0	.0	.0	.0	104.0	106.6	109.8	106.6	103.6	.0	.0
1600	.0	.0	.0	.0	104.8	107.2	109.4	106.6	103.2	.0	.0
2000	.0	.0	.0	.0	115.6	117.0	123.6	117.8	114.8	.0	.0
2500	.0	.0	.0	.0	111.0	112.4	116.6	112.4	110.0	.0	.0
3150	.0	.0	.0	.0	103.6	106.2	109.4	105.8	102.2	.0	.0
4000	.0	.0	.0	.0	108.6	111.8	115.8	114.2	109.4	.0	.0
5000	.0	.0	.0	.0	105.4	108.8	111.4	109.8	105.8	.0	.0
6300	.0	.0	.0	.0	100.2	104.2	108.6	104.8	99.2	.0	.0
8000	.0	.0	.0	.0	97.4	102.4	106.0	100.6	95.6	.0	.0
10000	.0	.0	.0	.0	94.8	102.2	104.2	98.0	92.0	.0	.0
12500	.0	.0	.0	.0	90.8	97.2	101.6	97.4	93.8	.0	.0
16000	.0	.0	.0	.0	84.0	90.0	94.8	88.2	81.4	.0	.0
20000	.0	.0	.0	.0	82.4	84.4	87.8	82.2	82.4	.0	.0
OVERALL SPL	.0	.0	.0	.0	119.8	121.6	126.0	122.4	119.0	.0	.0
PNDB	.0	.0	.0	.0	132.8	134.7	139.8	135.2	131.0	.0	.0

(c) Run 2, Run 8.

Figure 20.- Continued.

NOISE DATA

TEST 386 = LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS, A, ATENCIO

TEST 386 RUN 8 DELTA 31 SPL IN DB REL .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	88.2	86.0	87.6	84.2	85.4	.0	.0
16	.0	.0	.0	.0	90.2	91.4	86.0	85.6	82.0	.0	.0
20	.0	.0	.0	.0	93.6	93.6	92.8	94.4	93.0	.0	.0
25	.0	.0	.0	.0	90.4	90.0	87.8	85.4	81.6	.0	.0
31	.0	.0	.0	.0	91.4	90.8	90.2	87.4	86.2	.0	.0
40	.0	.0	.0	.0	91.8	89.6	89.2	85.4	85.8	.0	.0
50	.0	.0	.0	.0	88.6	88.8	87.8	84.2	85.8	.0	.0
63	.0	.0	.0	.0	91.2	91.6	91.4	89.8	87.2	.0	.0
80	.0	.0	.0	.0	94.2	94.4	95.8	96.0	92.0	.0	.0
100	.0	.0	.0	.0	98.2	98.4	103.2	101.8	97.2	.0	.0
125	.0	.0	.0	.0	100.6	100.6	103.0	101.0	98.0	.0	.0
160	.0	.0	.0	.0	98.4	101.8	103.4	100.8	98.6	.0	.0
200	.0	.0	.0	.0	99.8	102.2	104.2	103.6	98.0	.0	.0
250	.0	.0	.0	.0	101.6	101.8	105.0	102.2	99.2	.0	.0
315	.0	.0	.0	.0	101.8	103.4	105.6	102.8	99.8	.0	.0
400	.0	.0	.0	.0	101.8	103.8	106.0	103.8	99.4	.0	.0
500	.0	.0	.0	.0	102.2	103.0	105.8	104.0	99.6	.0	.0
630	.0	.0	.0	.0	103.0	105.2	105.2	104.6	101.4	.0	.0
800	.0	.0	.0	.0	102.4	104.2	106.6	105.0	101.0	.0	.0
1000	.0	.0	.0	.0	103.8	105.8	106.8	106.6	103.0	.0	.0
1250	.0	.0	.0	.0	104.6	106.4	107.6	107.0	103.8	.0	.0
1600	.0	.0	.0	.0	105.4	107.0	109.6	107.2	104.2	.0	.0
2000	.0	.0	.0	.0	115.4	119.2	120.4	118.2	114.4	.0	.0
2500	.0	.0	.0	.0	112.0	113.0	117.0	114.0	110.6	.0	.0
3150	.0	.0	.0	.0	104.8	106.8	109.6	106.8	103.0	.0	.0
4000	.0	.0	.0	.0	110.6	111.6	116.4	111.4	108.8	.0	.0
5000	.0	.0	.0	.0	107.6	110.0	114.8	109.2	105.4	.0	.0
6300	.0	.0	.0	.0	102.0	105.2	109.8	104.6	100.2	.0	.0
8000	.0	.0	.0	.0	99.0	102.8	106.8	101.8	96.2	.0	.0
10000	.0	.0	.0	.0	98.4	101.0	104.8	99.2	93.0	.0	.0
12500	.0	.0	.0	.0	91.8	97.0	101.4	96.6	92.2	.0	.0
16000	.0	.0	.0	.0	85.6	90.4	94.8	90.4	81.2	.0	.0
20000	.0	.0	.0	.0	83.0	85.0	87.6	82.0	82.0	.0	.0
OVERALL SPL	.0	.0	.0	.0	120.2	123.4	126.8	122.4	118.0	.0	.0
PNDB	.0	.0	.0	.0	133.4	136.3	139.1	135.7	132.0	.0	.0

NOISE DATA

TEST 386 = LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS, A, ATENCIO

TEST 386 RUN 8 DELTA 39 SPL IN DB REL .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	7.9	15.5	17.9	9.2	4.6	.0	.0
REF DIST(FT):	.0	.0	.0	.0	47.0	24.3	21.1	40.5	80.3	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	98.4	101.4	100.8	101.0	96.8	.0	.0
16	.0	.0	.0	.0	99.0	101.0	100.6	99.6	92.2	.0	.0
20	.0	.0	.0	.0	94.2	95.6	95.8	93.0	89.0	.0	.0
25	.0	.0	.0	.0	94.0	93.0	93.4	93.6	94.8	.0	.0
31	.0	.0	.0	.0	93.8	94.0	93.2	93.2	94.2	.0	.0
40	.0	.0	.0	.0	94.2	93.4	94.4	92.2	91.0	.0	.0
50	.0	.0	.0	.0	93.4	93.8	92.6	92.4	91.8	.0	.0
63	.0	.0	.0	.0	94.6	95.8	95.4	95.8	94.6	.0	.0
80	.0	.0	.0	.0	97.4	98.0	100.4	98.6	95.2	.0	.0
100	.0	.0	.0	.0	101.0	102.2	107.4	104.4	99.6	.0	.0
125	.0	.0	.0	.0	102.2	103.6	106.0	103.8	101.4	.0	.0
160	.0	.0	.0	.0	101.4	104.6	106.0	103.0	101.4	.0	.0
200	.0	.0	.0	.0	102.2	103.8	106.4	106.6	100.6	.0	.0
250	.0	.0	.0	.0	103.2	102.8	106.4	103.6	100.0	.0	.0
315	.0	.0	.0	.0	102.4	104.6	107.2	104.4	101.4	.0	.0
400	.0	.0	.0	.0	102.8	104.6	107.6	105.2	100.6	.0	.0
500	.0	.0	.0	.0	103.8	104.2	107.8	105.6	101.0	.0	.0
630	.0	.0	.0	.0	103.6	106.4	108.4	106.0	103.0	.0	.0
800	.0	.0	.0	.0	104.2	105.4	107.8	105.6	102.4	.0	.0
1000	.0	.0	.0	.0	105.8	107.0	110.4	107.8	103.8	.0	.0
1250	.0	.0	.0	.0	107.0	108.4	111.2	108.8	104.8	.0	.0
1600	.0	.0	.0	.0	107.4	109.0	111.8	109.0	105.2	.0	.0
2000	.0	.0	.0	.0	118.2	120.8	122.4	118.4	115.6	.0	.0
2500	.0	.0	.0	.0	113.6	115.8	117.8	114.0	110.8	.0	.0
3150	.0	.0	.0	.0	106.2	108.2	111.4	108.6	104.4	.0	.0
4000	.0	.0	.0	.0	111.4	112.8	116.4	113.4	109.0	.0	.0
5000	.0	.0	.0	.0	108.2	110.4	114.4	110.0	105.8	.0	.0
6300	.0	.0	.0	.0	103.2	106.4	110.0	106.4	100.8	.0	.0
8000	.0	.0	.0	.0	100.0	104.0	107.6	103.0	96.8	.0	.0
10000	.0	.0	.0	.0	97.0	101.8	105.4	100.0	93.2	.0	.0
12500	.0	.0	.0	.0	93.0	97.4	102.8	99.4	95.6	.0	.0
16000	.0	.0	.0	.0	85.6	90.2	95.0	88.8	81.6	.0	.0
20000	.0	.0	.0	.0	82.0	84.4	87.4	83.4	82.0	.0	.0
OVERALL SPL	.0	.0	.0	.0	121.8	124.4	126.6	123.0	119.8	.0	.0
PNDB	.0	.0	.0	.0	135.9	137.8	139.9	136.6	133.1	.0	.0

NOISE DATA

TEST 386 LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS

TEST 386 RUN 9 DELTA 28 SPL IN DB REL .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
REF DIST(FT):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	84.4	89.8	86.8	84.4	83.6	.0	.0
16	.0	.0	.0	.0	85.6	89.8	89.8	85.4	83.8	.0	.0
20	.0	.0	.0	.0	87.2	91.0	90.4	87.4	83.6	.0	.0
25	.0	.0	.0	.0	87.8	90.4	92.0	88.4	86.2	.0	.0
31	.0	.0	.0	.0	88.0	91.6	92.6	88.6	86.4	.0	.0
40	.0	.0	.0	.0	85.4	90.0	90.4	87.6	86.6	.0	.0
50	.0	.0	.0	.0	85.2	89.4	89.4	87.2	87.0	.0	.0
63	.0	.0	.0	.0	89.4	94.0	94.2	92.8	89.1	.0	.0
80	.0	.0	.0	.0	93.6	96.8	98.8	97.6	94.0	.0	.0
100	.0	.0	.0	.0	97.8	100.8	105.8	103.2	98.6	.0	.0
125	.0	.0	.0	.0	97.4	102.4	105.2	102.8	100.0	.0	.0
160	.0	.0	.0	.0	98.2	103.4	105.4	101.6	100.6	.0	.0
200	.0	.0	.0	.0	99.4	104.2	106.8	104.6	99.8	.0	.0
250	.0	.0	.0	.0	101.4	103.6	107.2	104.2	100.6	.0	.0
315	.0	.0	.0	.0	101.4	105.2	107.8	105.2	102.2	.0	.0
400	.0	.0	.0	.0	101.6	105.4	108.2	105.2	101.6	.0	.0
500	.0	.0	.0	.0	102.7	104.4	108.0	105.8	101.4	.0	.0
630	.0	.0	.0	.0	101.6	105.6	107.8	104.4	103.6	.0	.0
800	.0	.0	.0	.0	102.4	106.4	109.4	105.8	103.8	.0	.0
1000	.0	.0	.0	.0	104.4	107.0	111.0	108.0	104.8	.0	.0
1250	.0	.0	.0	.0	105.0	108.6	112.2	109.4	106.0	.0	.0
1600	.0	.0	.0	.0	108.0	108.2	111.0	110.0	108.8	.0	.0
2000	.0	.0	.0	.0	115.4	121.4	123.6	121.4	117.4	.0	.0
2500	.0	.0	.0	.0	113.0	115.2	117.8	115.6	111.4	.0	.0
3150	.0	.0	.0	.0	105.4	108.4	112.2	109.0	104.6	.0	.0
4000	.0	.0	.0	.0	111.0	113.8	119.8	114.8	110.6	.0	.0
5000	.0	.0	.0	.0	110.0	110.0	114.0	112.8	111.0	.0	.0
6300	.0	.0	.0	.0	103.0	107.2	112.2	107.8	102.4	.0	.0
8000	.0	.0	.0	.0	100.2	104.6	109.4	104.6	98.6	.0	.0
10000	.0	.0	.0	.0	97.0	102.2	107.2	101.6	95.4	.0	.0
12500	.0	.0	.0	0	92.0	98.6	102.8	99.2	100.2	.0	.0
16000	.0	.0	.0	.0	83.2	89.8	96.6	90.0	84.0	.0	.0
20000	.0	.0	.0	.0	82.6	84.8	88.8	84.6	82.0	.0	.0
OVERALL SPL	.0	.0	.0	.0	120.4	124.2	128.2	124.0	120.8	.0	.0
PNDB	.0	.0	.0	.0	133.6	138.1	141.1	138.5	134.7	.0	.0

NOISE DATA

TEST 386 LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS

TEST 386 RUN 10 DELTA 28 SPL IN DB REL .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
REF DIST(FT):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	83.0	90.2	87.2	83.4	83.4	.0	.0
16	.0	.0	.0	.0	87.2	92.0	91.0	87.4	84.2	.0	.0
20	.0	.0	.0	.0	88.4	93.6	91.8	88.4	85.8	.0	.0
25	.0	.0	.0	.0	89.4	92.8	91.4	87.8	83.6	.0	.0
31	.0	.0	.0	.0	88.2	91.6	91.6	89.6	86.0	.0	.0
40	.0	.0	.0	.0	86.4	89.8	90.6	88.8	86.2	.0	.0
50	.0	.0	.0	.0	84.0	89.8	90.0	88.2	88.6	.0	.0
63	.0	.0	.0	.0	89.2	93.4	94.6	93.2	90.6	.0	.0
80	.0	.0	.0	.0	93.2	96.8	99.6	98.2	94.0	.0	.0
100	.0	.0	.0	.0	97.4	101.0	105.4	103.0	98.6	.0	.0
125	.0	.0	.0	.0	97.8	102.0	104.8	102.4	99.8	.0	.0
160	.0	.0	.0	.0	98.2	103.0	105.2	101.2	99.8	.0	.0
200	.0	.0	.0	.0	99.2	103.8	105.6	105.0	99.6	.0	.0
250	.0	.0	.0	.0	101.4	103.8	106.8	104.6	100.8	.0	.0
315	.0	.0	.0	.0	100.4	105.0	107.6	105.0	101.6	.0	.0
400	.0	.0	.0	.0	101.4	104.6	108.0	105.2	101.4	.0	.0
500	.0	.0	.0	.0	101.6	104.2	107.8	105.6	101.6	.0	.0
630	.0	.0	.0	.0	101.0	104.6	108.6	105.4	103.0	.0	.0
800	.0	.0	.0	.0	101.2	105.6	108.2	106.2	103.2	.0	.0
1000	.0	.0	.0	.0	103.4	107.2	110.8	108.8	104.8	.0	.0
1250	.0	.0	.0	.0	104.6	107.6	111.4	109.2	105.4	.0	.0
1600	.0	.0	.0	.0	106.6	109.4	111.4	110.2	107.6	.0	.0
2000	.0	.0	.0	.0	116.6	119.8	120.6	118.2	117.8	.0	.0
2500	.0	.0	.0	.0	111.8	115.0	120.0	115.4	112.4	.0	.0
3150	.0	.0	.0	.0	104.8	108.2	112.0	108.8	104.8	.0	.0
4000	.0	.0	.0	.0	110.6	113.4	119.4	115.0	110.8	.0	.0
5000	.0	.0	.0	.0	109.2	112.6	114.2	112.6	109.0	.0	.0
6300	.0	.0	.0	.0	102.2	107.0	111.0	107.2	102.6	.0	.0
8000	.0	.0	.0	.0	99.2	104.4	108.8	104.4	98.0	.0	.0
10000	.0	.0	.0	.0	95.8	101.6	106.6	101.0	94.4	.0	.0
12500	.0	.0	.0	.0	90.8	97.8	102.0	99.0	100.8	.0	.0
16000	.0	.0	.0	.0	82.6	89.2	95.4	88.6	82.2	.0	.0
20000	.0	.0	.0	.0	84.6	84.4	88.2	85.0	82.6	.0	.0
OVERALL SPL	.0	.0	.0	.0	120.6	124.4	128.8	124.4	121.0	.0	.0
PNDB	.0	.0	.0	.0	133.9	137.3	142.6	138.2	134.8	.0	.0

NOISE DATA

TEST 386 LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS

TEST 386 RUN 16 DELTA 28 SPL IN DB REL .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
REF DIST(FT):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	84.4	91.4	84.2	87.6	83.8	.0	.0
16	.0	.0	.0	.0	87.0	90.4	86.4	86.2	82.6	.0	.0
20	.0	.0	.0	.0	88.6	92.6	89.4	86.6	82.4	.0	.0
25	.0	.0	.0	.0	87.8	91.8	89.4	87.8	86.6	.0	.0
31	.0	.0	.0	.0	89.4	91.0	89.0	87.4	86.4	.0	.0
40	.0	.0	.0	.0	88.2	89.2	88.0	85.0	84.0	.0	.0
50	.0	.0	.0	.0	86.6	89.2	88.2	85.6	86.6	.0	.0
63	.0	.0	.0	.0	91.2	93.0	94.6	92.6	87.8	.0	.0
80	.0	.0	.0	.0	93.6	96.2	97.0	95.8	91.2	.0	.0
100	.0	.0	.0	.0	97.6	99.2	103.6	101.8	96.6	.0	.0
125	.0	.0	.0	.0	99.6	101.2	103.4	101.0	97.2	.0	.0
160	.0	.0	.0	.0	97.6	101.8	103.8	100.0	97.6	.0	.0
200	.0	.0	.0	.0	99.2	102.2	104.2	102.0	97.8	.0	.0
250	.0	.0	.0	.0	101.4	101.2	104.0	101.4	98.6	.0	.0
315	.0	.0	.0	.0	100.4	102.8	105.0	102.6	99.2	.0	.0
400	.0	.0	.0	.0	101.4	102.8	105.2	103.2	98.6	.0	.0
500	.0	.0	.0	.0	101.6	102.6	105.4	103.4	99.2	.0	.0
630	.0	.0	.0	.0	103.6	102.0	106.4	104.2	99.8	.0	.0
800	.0	.0	.0	.0	101.9	103.6	106.6	104.4	100.6	.0	.0
1000	.0	.0	.0	.0	103.6	105.4	108.8	106.8	102.4	.0	.0
1250	.0	.0	.0	.0	105.4	106.0	109.2	107.8	103.6	.0	.0
1600	.0	.0	.0	.0	106.2	107.2	109.4	108.6	104.8	.0	.0
2000	.0	.0	.0	.0	114.4	119.6	120.4	120.0	117.6	.0	.0
2500	.0	.0	.0	.0	111.4	115.0	116.0	115.0	112.2	.0	.0
3150	.0	.0	.0	.0	105.0	107.6	110.4	107.0	102.4	.0	.0
4000	.0	.0	.0	.0	110.4	111.4	115.6	112.4	107.4	.0	.0
5000	.0	.0	.0	.0	107.6	110.6	111.6	111.4	110.0	.0	.0
6300	.0	.0	.0	.0	103.2	106.0	109.4	105.6	99.8	.0	.0
8000	.0	.0	.0	.0	99.6	103.2	107.2	102.2	96.4	.0	.0
10000	.0	.0	.0	.0	97.2	102.2	103.8	99.8	93.6	.0	.0
12500	.0	.0	.0	.0	93.6	98.2	99.4	96.4	92.8	.0	.0
16000	.0	.0	.0	.0	85.6	88.8	92.2	84.6	81.6	.0	.0
20000	.0	.0	.0	.0	83.4	82.8	85.4	81.6	81.2	.0	.0
OVERALL SPL	.0	.0	.0	.0	120.4	123.0	126.4	123.6	119.4	.0	.0
PNDB	.0	.0	.0	.0	132.9	136.5	138.2	136.9	133.9	.0	.0

NOISE DATA

TEST 386 LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS

TEST 386 RUN 17 DELTA 28 SPL IN DB REL .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
REF DIST(FT):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	83.0	83.0	83.0	83.0	83.0	.0	.0
16	.0	.0	.0	.0	86.6	88.8	87.4	85.4	83.8	.0	.0
20	.0	.0	.0	.0	89.4	90.8	88.6	85.6	87.2	.0	.0
25	.0	.0	.0	.0	89.8	89.6	88.8	86.6	83.0	.0	.0
31	.0	.0	.0	.0	87.8	91.4	90.6	88.8	85.6	.0	.0
40	.0	.0	.0	.0	86.8	90.6	87.6	87.2	85.6	.0	.0
50	.0	.0	.0	.0	84.8	91.6	88.8	86.4	86.2	.0	.0
63	.0	.0	.0	.0	88.8	93.2	93.2	90.4	89.8	.0	.0
80	.0	.0	.0	.0	92.6	95.4	96.8	95.4	91.2	.0	.0
100	.0	.0	.0	.0	97.6	99.4	104.2	102.2	96.0	.0	.0
125	.0	.0	.0	.0	98.6	100.8	103.2	101.6	98.2	.0	.0
160	.0	.0	.0	.0	98.0	101.8	102.6	99.4	98.2	.0	.0
200	.0	.0	.0	.0	100.4	103.4	103.6	103.0	98.0	.0	.0
250	.0	.0	.0	.0	100.8	102.0	104.0	102.2	97.4	.0	.0
315	.0	.0	.0	.0	100.4	103.2	104.8	102.6	99.4	.0	.0
400	.0	.0	.0	.0	101.4	103.4	105.8	103.4	98.8	.0	.0
500	.0	.0	.0	.0	102.0	102.8	105.6	103.8	99.4	.0	.0
630	.0	.0	.0	.0	101.6	103.8	105.6	104.2	100.0	.0	.0
800	.0	.0	.0	.0	102.4	103.8	105.2	104.8	100.4	.0	.0
1000	.0	.0	.0	.0	103.8	105.8	108.4	106.6	102.6	.0	.0
1250	.0	.0	.0	.0	104.6	106.6	109.2	107.4	103.6	.0	.0
1600	.0	.0	.0	.0	105.4	106.6	108.2	108.2	107.2	.0	.0
2000	.0	.0	.0	.0	115.2	120.4	122.6	119.6	114.2	.0	.0
2500	.0	.0	.0	.0	111.6	115.6	117.2	114.8	109.6	.0	.0
3150	.0	.0	.0	.0	108.2	108.4	110.4	107.4	102.4	.0	.0
4000	.0	.0	.0	.0	112.2	114.2	117.2	112.4	107.8	.0	.0
5000	.0	.0	.0	.0	108.4	109.8	112.2	111.4	109.6	.0	.0
6300	.0	.0	.0	.0	103.2	106.8	109.4	105.4	100.6	.0	.0
8000	.0	.0	.0	.0	100.0	104.0	107.2	101.2	96.8	.0	.0
10000	.0	.0	.0	.0	97.4	101.8	103.0	97.6	93.2	.0	.0
12500	.0	.0	.0	.0	93.0	96.0	99.0	95.0	93.0	.0	.0
16000	.0	.0	.0	.0	83.8	86.8	91.4	82.6	81.2	.0	.0
20000	.0	.0	.0	.0	81.8	83.0	84.4	80.6	80.0	.0	.0
OVERALL SPL	.0	.0	.0	.0	120.4	124.8	126.8	123.4	118.6	.0	.0
PNDB	.0	.0	.0	.0	133.5	137.3	139.4	136.7	132.0	.0	.0

(d) Run 8, Run 9, Run 10, Run 16, Run 17.

Figure 20.- Continued.

NØISE DATA

TEST 386 LIFT FAN TRANSPØRT NØ TUNNEL WALL CØRRECTIØNS

TEST 386 RUN 18 DELTA 28 SPL IN DB REL. .0002 MICRØBAR

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
REF DIST(FT):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	83.4	88.0	86.2	83.0	83.0	.0	.0
16	.0	.0	.0	.0	88.5	91.0	89.4	87.2	85.8	.0	.0
20	.0	.0	.0	.0	90.6	92.4	91.4	87.2	89.8	.0	.0
25	.0	.0	.0	.0	90.4	91.0	89.2	90.2	82.8	.0	.0
31	.0	.0	.0	.0	88.6	91.4	89.6	88.2	85.0	.0	.0
40	.0	.0	.0	.0	86.0	91.2	88.2	86.8	84.8	.0	.0
50	.0	.0	.0	.0	85.4	92.0	89.0	86.0	85.8	.0	.0
63	.0	.0	.0	.0	89.2	92.0	92.2	92.0	88.4	.0	.0
80	.0	.0	.0	.0	92.8	94.6	95.6	95.6	91.6	.0	.0
100	.0	.0	.0	.0	96.2	98.2	102.8	100.8	95.6	.0	.0
125	.0	.0	.0	.0	98.4	100.8	102.8	100.8	98.4	.0	.0
160	.0	.0	.0	.0	97.4	101.2	101.4	99.0	97.6	.0	.0
200	.0	.0	.0	.0	99.2	101.4	103.8	102.8	97.8	.0	.0
250	.0	.0	.0	.0	101.0	101.8	104.0	102.2	98.4	.0	.0
315	.0	.0	.0	.0	100.6	103.2	104.8	102.2	99.2	.0	.0
400	.0	.0	.0	.0	101.2	103.0	105.4	103.2	99.4	.0	.0
500	.0	.0	.0	.0	101.8	103.4	105.0	103.6	99.4	.0	.0
630	.0	.0	.0	.0	101.2	104.0	107.0	103.8	99.6	.0	.0
800	.0	.0	.0	.0	102.5	104.0	105.6	104.6	100.4	.0	.0
1000	.0	.0	.0	.0	103.8	106.2	109.0	107.2	102.8	.0	.0
1250	.0	.0	.0	.0	105.0	106.4	109.6	107.4	103.6	.0	.0
1600	.0	.0	.0	.0	107.4	106.6	108.6	108.2	105.8	.0	.0
2000	.0	.0	.0	.0	116.8	117.4	122.4	118.8	112.8	.0	.0
2500	[illegible]	.0	.0	.0	112.4	113.4	117.2	113.0	108.4	.0	.0
3150	.0	.0	.0	.0	105.0	107.8	110.2	107.0	102.8	.0	.0
4000	.0	.0	.0	.0	111.2	113.6	116.0	114.6	108.6	.0	.0
5000	.0	.0	.0	.0	110.4	109.4	111.4	110.8	107.4	.0	.0
6300	.0	.0	.0	.0	102.8	106.8	109.2	105.6	100.2	.0	.0
8000	.0	.0	.0	.0	100.0	104.0	105.4	101.6	96.6	.0	.0
10000	.0	.0	.0	.0	97.2	101.8	102.0	97.2	93.2	.0	.0
12500	.0	.0	.0	.0	92.2	99.2	97.6	95.2	98.0	.0	.0
16000	.0	.0	.0	.0	83.8	90.8	89.0	82.6	82.8	.0	.0
20000	.0	.0	.0	.0	83.0	84.6	83.8	82.0	81.8	.0	.0
ØVERALL SPL	.0	.0	.0	[illegible]	120.4	122.6	126.6	124.4	117.8	.0	.0
PNDB	.0	.0	.0	.0	134.3	135.5	139.2	136.2	131.1	.0	.0

NØISE DATA

TEST 386 LIFT FAN TRANSPØRT NØ TUNNEL WALL CØRRECTIØNS

TEST 386 RUN 19 DELTA 28 SPL IN DB REL. .0002 MICRØBAR

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
REF DIST(FT):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GAIN,	0	0	0	0	[illegible]	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	.0	.0	94.6	93.8	87.6	83.4	87.8	.0	.0
16	.0	.0	.0	.0	94.8	93.8	93.2	89.0	84.6	.0	.0
20	.0	.0	.0	.0	94.8	97.2	96.4	95.4	85.2	.0	.0
25	.0	.0	.0	.0	93.4	94.2	90.4	87.6	84.0	.0	.0
31	.0	.0	.0	.0	95.6	92.6	91.2	88.8	87.0	.0	.0
40	.0	.0	.0	.0	94.4	90.8	89.0	86.8	83.2	.0	.0
50	.0	.0	.0	.0	93.2	90.8	88.8	86.8	84.6	.0	.0
63	.0	.0	.0	.0	95.4	94.0	91.8	91.8	89.8	.0	.0
80	.0	.0	.0	.0	95.8	95.0	96.8	95.4	92.4	.0	.0
100	.0	.0	.0	.0	98.6	98.8	104.0	101.6	97.8	.0	.0
125	.0	.0	.0	.0	99.8	101.2	103.0	102.6	99.2	.0	.0
160	.0	.0	.0	.0	98.0	101.4	102.2	100.2	98.6	.0	.0
200	.0	.0	.0	.0	99.8	101.4	103.2	103.2	98.2	.0	.0
250	.0	.0	.0	.0	101.2	100.4	103.8	102.2	98.2	.0	.0
315	.0	.0	.0	.0	100.8	102.6	104.4	102.4	98.0	.0	.0
400	.0	.0	.0	.0	100.8	103.0	104.2	102.4	98.2	.0	.0
500	.0	.0	.0	.0	100.8	102.8	104.6	103.6	98.6	.0	.0
630	.0	.0	.0	.0	104.2	103.2	104.8	104.2	100.2	.0	.0
800	.0	.0	.0	.0	102.0	104.4	103.8	104.2	99.8	.0	.0
1000	.0	.0	.0	.0	104.0	106.2	106.8	106.6	102.2	.0	.0
1250	.0	.0	.0	.0	105.6	108.2	108.4	108.0	104.2	.0	.0
1600	.0	.0	.0	.0	105.6	108.6	109.2	108.8	107.6	.0	.0
2000	.0	.0	.0	.0	115.8	117.2	120.4	117.6	111.8	.0	.0
2500	.0	.0	.0	.0	112.2	114.4	116.0	114.0	108.4	.0	.0
3150	.0	.0	.0	.0	104.8	107.4	108.0	108.0	103.2	.0	.0
4000	.0	.0	.0	.0	110.2	112.2	114.0	113.4	108.2	.0	.0
5000	.0	.0	.0	.0	107.2	111.2	112.0	111.8	110.4	.0	.0
6300	.0	.0	.0	.0	102.8	106.8	107.4	106.8	100.8	.0	.0
8000	.0	.0	.0	.0	100.0	104.2	104.4	103.2	97.4	.0	.0
10000	.0	.0	.0	.0	97.0	101.8	101.8	99.6	94.0	.0	.0
12500	.0	.0	.0	.0	91.8	98.0	98.0	98.4	96.6	.0	.0
16000	.0	.0	.0	.0	83.9	89.2	88.8	85.8	81.4	.0	.0
20000	.0	.0	0	.0	82.0	83.8	83.8	82.2	80.0	.0	.0
ØVERALL SPL	.0	.0	.0	.0	120.6	123.2	123.4	123.8	118.4	.0	.0
PNDB	.0	.0	0	.0	133.6	135.6	137.7	135.9	131.2	.0	.0

NØISE DATA

TEST 386 - LIFT FAN TRANSPØRT --- NØ TUNNEL WALL CØRRECTIØNS, A. ATENCIØ

TEST 386 RUN 27 DELTA 1 SPL IN DB REL. .0002 MICRØBAR

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	8.8	.0	26.6	24.4	12.3	.0	.0	.0	11.2
REF DIST(FT):	.0	.0	59.0	.0	20.1	21.1	42.0	.0	.0	.0	46.2
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	.0	.0	93.0	.0	93.0	93.0	93.0	.0	.0	.0	93.0
16	.0	.0	92.0	.0	92.0	92.0	92.0	.0	.0	.0	92.0
20	.0	.0	91.0	.0	91.0	91.0	91.0	.0	.0	.0	91.0
25	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
31	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
40	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
50	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
63	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
80	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
100	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
125	.0	.0	91.8	.0	90.0	90.0	93.4	.0	.0	.0	90.0
160	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
200	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
250	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
315	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
400	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
500	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
630	.0	.0	90.0	.0	90.0	91.2	90.0	.0	.0	.0	90.0
800	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
1000	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
1250	.0	.0	93.4	.0	97.6	92.6	90.0	.0	.0	.0	90.0
1600	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
2000	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
2500	.0	.0	90.0	.0	92.6	92.4	91.2	.0	.0	.0	90.0
3150	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
4000	.0	.0	90.0	.0	90.0	90.8	90.0	.0	.0	.0	90.0
5000	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
6300	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
8000	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
10000	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
12500	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
16000	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
20000	.0	.0	90.0	.0	90.0	90.0	90.0	.0	.0	.0	90.0
ØVERALL SPL	.0	.0	99.4	.0	103.4	102.0	100.6	.0	.0	.0	99.0
PNDB	.0	.0	115.9	.0	116.7	118.5	116.0	.0	.0	.0	115.8

NØISE DATA

TEST 386 - LIFT FAN TRANSPØRT --- NØ TUNNEL WALL CØRRECTIØNS, A. ATENCIØ

TEST 386 RUN 27 DELTA 2 SPL IN DB REL. .0002 MICRØBAR

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	8.8	.0	26.6	24.4	12.3	.0	.0	.0	11.2
REF DIST(FT):	.0	.0	59.0	.0	20.1	21.1	42.0	.0	.0	.0	46.2
GAIN,	0	0	10	0	10	10	10	0	0	0	10
FREQ(HERTZ)											
12.5	.0	.0	83.0	.0	88.2	83.0	91.4	.0	.0	.0	83.0
16	.0	.0	82.0	.0	83.8	82.0	88.2	.0	.0	.0	82.0
20	.0	.0	81.0	.0	82.0	81.0	86.2	.0	.0	.0	81.0
25	.0	.0	80.0	.0	80.0	80.0	80.2	.0	.0	.0	80.0
31	.0	.0	80.0	.0	81.4	80.6	82.0	.0	.0	.0	80.0
40	.0	.0	80.0	.0	80.4	81.8	80.0	.0	.0	.0	80.0
50	.0	.0	80.0	.0	80.8	82.2	82.6	.0	.0	.0	80.0
63	.0	.0	83.2	.0	83.8	87.8	85.6	.0	.0	.0	83.0
80	.0	.0	81.6	.0	84.8	87.6	83.4	.0	.0	.0	84.6
100	.0	.0	83.6	.0	88.0	89.8	84.6	.0	.0	.0	84.0
125	.0	.0	91.6	.0	91.8	89.8	93.0	.0	.0	.0	86.4
160	.0	.0	85.0	.0	85.8	86.8	85.8	.0	.0	.0	83.8
200	.0	.0	82.2	.0	85.6	87.4	86.6	.0	.0	.0	85.4
250	.0	.0	87.2	.0	91.4	90.2	89.8	.0	.0	.0	89.8
315	.0	.0	84.6	.0	87.8	88.8	84.8	.0	.0	.0	84.0
400	.0	.0	85.0	.0	92.2	90.8	87.6	.0	.0	.0	86.6
500	.0	.0	86.6	.0	91.2	92.2	89.0	.0	.0	.0	88.0
630	.0	.0	89.6	.0	93.6	93.8	92.8	.0	.0	.0	88.0
800	.0	.0	92.4	.0	96.0	98.0	94.6	.0	.0	.0	94.6
1000	.0	.0	94.8	.0	100.2	101.2	97.4	.0	.0	.0	97.2
1250	.0	.0	94.0	.0	99.8	100.0	97.8	.0	.0	.0	95.4
1600	.0	.0	94.4	.0	100.0	101.0	97.8	.0	.0	.0	96.6
2000	.0	.0	98.2	.0	106.4	107.2	104.4	.0	.0	.0	101.8
2500	.0	.0	92.0	.0	98.2	98.2	95.0	.0	.0	.0	96.2
3150	.0	.0	92.6	.0	97.8	98.0	94.8	.0	.0	.0	95.4
4000	.0	.0	97.6	.0	101.8	102.8	98.2	.0	.0	.0	99.2
5000	.0	.0	89.8	.0	95.0	96.0	93.4	.0	.0	.0	95.6
6300	.0	.0	88.6	.0	93.2	95.4	91.8	.0	.0	.0	94.4
8000	.0	.0	87.4	.0	92.8	94.2	91.0	.0	.0	.0	93.2
10000	.0	.0	80.0	.0	86.8	88.8	84.4	.0	.0	.0	89.0
12500	.0	.0	80.0	.0	84.2	85.6	82.6	.0	.0	.0	84.6
16000	.0	.0	80.0	.0	80.0	80.0	80.0	.0	.0	.0	80.0
20000	.0	.0	80.0	.0	80.0	80.0	80.0	.0	.0	.0	80.0
ØVERALL SPL	.0	.0	105.8	.0	112.2	112.4	108.6	.0	.0	.0	107.6
PNDB	.0	.0	118.9	.0	124.4	125.2	122.3	.0	.0	.0	121.3

NØISE DATA

TEST 386 - LIFT FAN TRANSPØRT --- NØ TUNNEL WALL CØRRECTIØNS, A. ATENCIØ

TEST 386 RUN 27 DELTA 3 SPL IN DB REL. .0002 MICRØBAR

MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	8.8	.0	26.6	24.4	12.3	.0	.0	.0	11.2
REF DIST(FT):	.0	.0	59.0	.0	20.1	21.1	42.0	.0	.0	.0	46.2
GAIN,	0	0	10	0	10	10	10	0	0	0	10
FREQ(HERTZ)											
12.5	.0	.0	83.0	.0	83.8	83.0	92.6	.0	.0	.0	86.2
16	.0	.0	82.0	.0	83.4	83.4	90.2	.0	.0	.0	82.0
20	.0	.0	81.0	.0	81.0	81.0	86.0	.0	.0	.0	81.0
25	.0	.0	80.0	.0	81.8	81.0	82.0	.0	.0	.0	80.0
31	.0	.0	83.4	.0	84.4	86.2	84.6	.0	.0	.0	81.4
40	.0	.0	84.8	.0	82.4	85.8	81.8	.0	.0	.0	80.8
50	.0	.0	84.4	.0	83.8	84.8	84.6	.0	.0	.0	84.8
63	.0	.0	84.6	.0	86.6	91.4	86.2	.0	.0	.0	86.6
80	.0	.0	87.2	.0	89.6	92.2	88.2	.0	.0	.0	89.4
100	.0	.0	88.2	.0	91.2	93.6	88.8	.0	.0	.0	87.4
125	.0	.0	93.4	.0	93.2	94.2	92.8	.0	.0	.0	90.2
160	.0	.0	87.8	.0	91.2	91.8	88.4	.0	.0	.0	88.0
200	.0	.0	87.6	.0	90.4	91.0	89.8	.0	.0	.0	89.8
250	.0	.0	91.2	.0	94.8	94.8	91.8	.0	.0	.0	92.0
315	.0	.0	88.4	.0	92.0	92.4	88.4	.0	.0	.0	88.8
400	.0	.0	89.4	.0	94.0	95.4	91.2	.0	.0	.0	91.2
500	.0	.0	89.8	.0	94.2	94.4	91.8	.0	.0	.0	90.8
630	.0	.0	92.2	.0	95.2	97.4	94.4	.0	.0	.0	93.6
800	.0	.0	93.8	.0	99.0	99.4	95.6	.0	.0	.0	95.4
1000	.0	.0	98.4	.0	101.6	103.6	101.0	.0	.0	.0	99.6
1250	.0	.0	100.0	.0	105.8	105.8	103.4	.0	.0	.0	102.2
1600	.0	.0	98.8	.0	105.0	103.8	101.6	.0	.0	.0	100.0
2000	.0	.0	103.2	.0	108.8	108.6	105.6	.0	.0	.0	107.4
2500	.0	.0	100.6	.0	106.6	107.0	104.0	.0	.0	.0	105.8
3150	.0	.0	97.2	.0	102.8	102.0	99.2	.0	.0	.0	99.0
4000	.0	.0	102.8	.0	108.0	107.6	104.6	.0	.0	.0	104.6
5000	.0	.0	100.2	.0	106.6	106.6	104.0	.0	.0	.0	103.8
6300	.0	.0	94.2	.0	98.8	100.6	98.2	.0	.0	.0	97.0
8000	.0	.0	91.4	.0	96.4	97.4	94.4	.0	.0	.0	94.8
10000	.0	.0	88.0	.0	92.8	94.0	89.8	.0	.0	.0	92.2
12500	.0	.0	80.0	.0	86.8	89.2	85.2	.0	.0	.0	88.0
16000	.0	.0	80.0	.0	80.0	83.2	80.0	.0	.0	.0	82.0
20000	.0	.0	80.0	.0	80.0	80.0	80.0	.0	.0	.0	80.0
ØVERALL SPL	.0	.0	111.4	.0	115.8	116.4	113.6	.0	.0	.0	114.4
PNDB	.0	.0	124.2	.0	129.3	129.3	126.4	.0	.0	.0	128.5

NØISE DATA

TEST 386 - LIFT FAN TRANSPØRT --- NØ TUNNEL WALL CØRRECTIØNS, A. ATENCIØ

TEST 386 RUN 27 DELTA 4 SPL IN DB REL. .0002 MICRØBAR

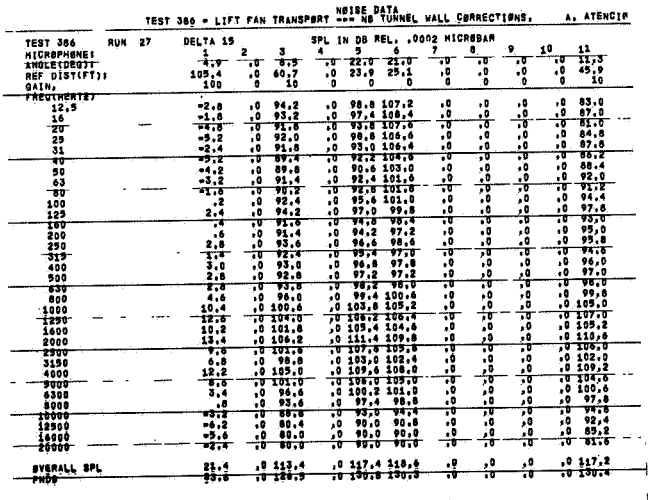
MICRØPHØNE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	8.8	.0	26.6	24.4	12.3	.0	.0	.0	11.2
REF DIST(FT):	.0	.0	59.0	.0	20.1	21.1	42.0	.0	.0	.0	46.2
GAIN,	0	0	10	0	10	10	10	0	0	0	10
FREQ(HERTZ)											
12.5	.0	.0	83.0	.0	87.6	84.2	95.0	.0	.0	.0	88.0
16	.0	.0	82.0	.0	85.4	85.8	92.4	.0	.0	.0	83.8
20	.0	.0	81.0	.0	84.2	81.6	90.0	.0	.0	.0	81.6
25	.0	.0	81.4	.0	86.0	84.6	87.4	.0	.0	.0	81.2
31	.0	.0	83.8	.0	87.8	88.4	88.8	.0	.0	.0	84.0
40	.0	.0	81.2	.0	86.4	87.6	84.6	.0	.0	.0	83.0
50	.0	.0	83.2	.0	86.6	87.0	86.4	.0	.0	.0	85.2
63	.0	.0	87.2	.0	90.0	93.0	90.2	.0	.0	.0	90.0
80	.0	.0	89.2	.0	90.2	93.0	90.4	.0	.0	.0	90.4
100	.0	.0	91.4	.0	94.4	97.2	92.2	.0	.0	.0	90.0
125	.0	.0	93.2	.0	96.6	96.8	94.8	.0	.0	.0	91.6
160	.0	.0	90.4	.0	94.2	94.4	91.8	.0	.0	.0	90.0
200	.0	.0	90.8	.0	92.6	94.8	92.4	.0	.0	.0	92.4
250	.0	.0	93.2	.0	96.4	96.6	93.8	.0	.0	.0	93.8
315	.0	.0	90.8	.0	94.8	95.6	91.2	.0	.0	.0	90.8
400	.0	.0	91.2	.0	95.4	97.8	94.0	.0	.0	.0	93.8
500	.0	.0	91.4	.0	97.4	97.0	94.2	.0	.0	.0	93.2
630	.0	.0	93.0	.0	97.2	97.6	94.8	.0	.0	.0	95.4
800	.0	.0	95.4	.0	99.2	99.4	96.0	.0	.0	.0	96.2
1000	.0	.0	99.6	.0	102.2	105.4	102.2	.0	.0	.0	100.2
1250	.0	.0	103.6	.0	106.2	107.6	105.8	.0	.0	.0	104.0
1600	.0	.0	103.8	.0	108.0	107.2	105.8	.0	.0	.0	104.2
2000	.0	.0	103.4	.0	107.6	107.0	105.4	.0	.0	.0	104.4
2500	.0	.0	108.2	.0	113.4	114.6	111.8	.0	.0	.0	109.4
3150	.0	.0	100.0	.0	104.8	104.4	102.2	.0	.0	.0	101.6
4000	.0	.0	100.0	.0	104.0	104.4	101.8	.0	.0	.0	101.2
5000	.0	.0	105.4	.0	109.8	108.8	106.6	.0	.0	.0	107.2
6300	.0	.0	96.6	.0	100.8	101.6	99.6	.0	.0	.0	99.0
8000	.0	.0	94.8	.0	99.6	100.8	98.6	.0	.0	.0	97.6
10000	.0	.0	90.2	.0	95.2	96.4	93.2	.0	.0	.0	94.0
12500	.0	.0	81.4	.0	89.6	94.6	87.0	.0	.0	.0	89.2
16000	.0	.0	80.0	.0	82.6	86.4	80.0	.0	.0	.0	83.8
20000	.0	.0	80.0	.0	80.0	84.6	80.0	.0	.0	.0	80.0
ØVERALL SPL	.0	.0	114.0	.0	118.4	119.6	115.8	.0	.0	.0	115.0
PNDB	.0	.0	127.6	.0	132.2	133.0	130.4	.0	.0	.0	128.9

$EØF

$ASSIGN 2=CR,3=PR,4=LP,8=TY

(e) Run 19, Run 27.

Figure 20.- Continued.

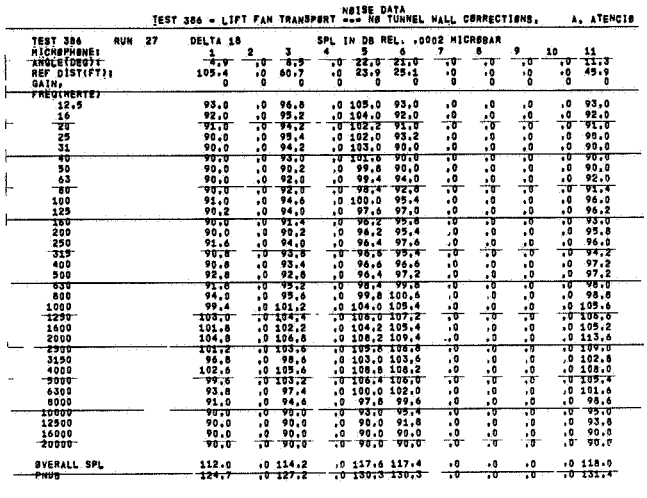


TEST 386 - LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS, A. ATENCIO

NOISE DATA

TEST 386 RUN 27 DELTA 15 SPL IN DB REL, .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGT	4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT):	105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN,	100	0	10	0	0	0	0	0	0	0	10
FREQ(HERTZ)											
12.5	-2.8	.0	94.2	.0	98.8	107.2	.0	.0	.0	.0	83.0
16	-1.8	.0	93.2	.0	97.4	108.4	.0	.0	.0	.0	87.0
20	-4.8	.0	91.8	.0	93.8	107.6	.0	.0	.0	.0	81.0
25	-5.2	.0	92.0	.0	98.8	106.6	.0	.0	.0	.0	84.8
31	-2.4	.0	91.8	.0	93.0	106.4	.0	.0	.0	.0	87.8
40	-5.2	.0	89.4	.0	94.2	104.8	.0	.0	.0	.0	86.2
50	-4.2	.0	89.8	.0	90.6	103.0	.0	.0	.0	.0	88.4
63	-3.2	.0	91.4	.0	92.4	101.6	.0	.0	.0	.0	92.0
80	-1.6	.0	90.2	.0	92.6	101.8	.0	.0	.0	.0	91.2
100	.2	.0	92.4	.0	95.6	101.8	.0	.0	.0	.0	94.4
125	2.4	.0	94.2	.0	97.0	99.8	.0	.0	.0	.0	97.8
160	.4	.0	91.6	.0	94.8	98.4	.0	.0	.0	.0	93.0
200	.6	.0	91.4	.0	94.2	97.2	.0	.0	.0	.0	93.0
250	2.8	.0	93.6	.0	96.6	98.6	.0	.0	.0	.0	95.8
315	1.4	.0	92.4	.0	95.4	97.0	.0	.0	.0	.0	94.0
400	3.0	.0	93.0	.0	96.8	97.8	.0	.0	.0	.0	96.0
500	2.8	.0	92.8	.0	97.2	97.2	.0	.0	.0	.0	97.0
630	2.8	.0	93.8	.0	96.2	96.0	.0	.0	.0	.0	96.0
800	4.6	.0	96.8	.0	99.4	100.6	.0	.0	.0	.0	99.8
1000	10.4	.0	100.6	.0	103.8	105.2	.0	.0	.0	.0	105.0
1250	12.6	.0	104.0	.0	106.2	106.6	.0	.0	.0	.0	107.0
1600	10.2	.0	101.8	.0	105.4	104.8	.0	.0	.0	.0	105.2
2000	13.4	.0	106.2	.0	111.4	109.6	.0	.0	.0	.0	110.6
2500	9.0	.0	103.4	.0	107.6	105.8	.0	.0	.0	.0	106.0
3150	6.8	.0	98.8	.0	103.0	102.4	.0	.0	.0	.0	102.0
4000	12.2	.0	105.0	.0	109.6	108.0	.0	.0	.0	.0	109.2
5000	8.6	.0	101.0	.0	106.0	103.0	.0	.0	.0	.0	104.6
6300	3.4	.0	94.6	.0	100.2	101.0	.0	.0	.0	.0	100.6
8000	.8	.0	93.6	.0	97.4	98.8	.0	.0	.0	.0	97.8
10000	-3.2	.0	88.6	.0	93.0	94.4	.0	.0	.0	.0	94.0
12500	-6.2	.0	80.4	.0	90.0	90.8	.0	.0	.0	.0	92.4
16000	-5.6	.0	80.4	.0	90.0	90.0	.0	.0	.0	.0	85.2
20000	-2.4	.0	80.0	.0	90.0	90.0	.0	.0	.0	.0	81.6
OVERALL SPL	21.4	.0	113.4	.0	117.4	118.6	.0	.0	.0	.0	117.2
PNDB	33.6	.0	124.9	.0	130.8	130.3	.0	.0	.0	.0	130.4

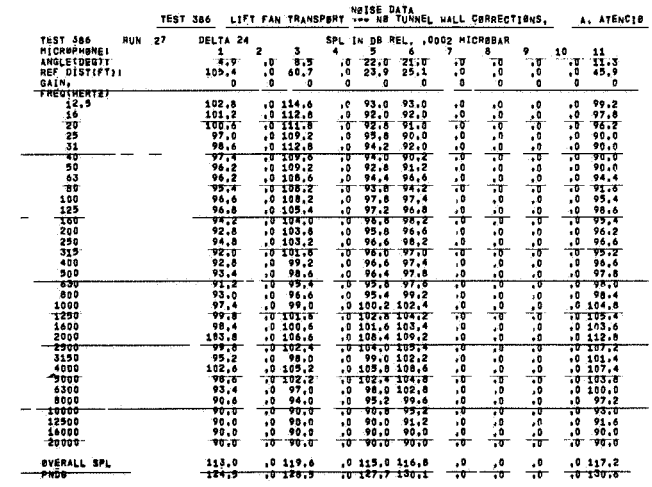


TEST 386 - LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS, A. ATENCIO

NOISE DATA

TEST 386 RUN 27 DELTA 18 SPL IN DB REL, .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGT	4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT):	105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	93.0	.0	96.8	.0	105.0	93.0	.0	.0	.0	.0	83.0
16	92.0	.0	95.2	.0	104.0	92.0	.0	.0	.0	.0	92.0
20	91.0	.0	94.2	.0	102.2	91.0	.0	.0	.0	.0	91.0
25	90.0	.0	93.4	.0	102.0	93.2	.0	.0	.0	.0	90.0
31	90.0	.0	94.2	.0	103.0	90.0	.0	.0	.0	.0	90.0
40	90.0	.0	93.0	.0	101.0	90.0	.0	.0	.0	.0	90.0
50	90.0	.0	90.2	.0	99.8	90.0	.0	.0	.0	.0	90.0
63	90.0	.0	92.0	.0	99.4	94.0	.0	.0	.0	.0	92.0
80	90.0	.0	92.0	.0	98.4	92.0	.0	.0	.0	.0	91.4
100	91.0	.0	94.6	.0	100.0	95.4	.0	.0	.0	.0	96.0
125	90.2	.0	94.0	.0	97.6	97.0	.0	.0	.0	.0	96.2
160	90.0	.0	91.4	.0	96.2	95.8	.0	.0	.0	.0	93.0
200	90.0	.0	90.2	.0	96.2	95.4	.0	.0	.0	.0	93.8
250	91.6	.0	94.0	.0	98.4	97.6	.0	.0	.0	.0	96.0
315	90.8	.0	93.8	.0	96.6	95.4	.0	.0	.0	.0	94.2
400	90.8	.0	93.4	.0	96.6	96.6	.0	.0	.0	.0	97.2
500	92.8	.0	92.8	.0	96.4	97.2	.0	.0	.0	.0	97.2
630	91.6	.0	93.2	.0	98.2	97.8	.0	.0	.0	.0	98.0
800	94.0	.0	95.6	.0	99.8	100.6	.0	.0	.0	.0	98.8
1000	99.4	.0	101.2	.0	104.0	105.4	.0	.0	.0	.0	105.6
1250	103.0	.0	104.4	.0	106.0	107.2	.0	.0	.0	.0	106.0
1600	101.8	.0	102.2	.0	104.2	105.4	.0	.0	.0	.0	105.2
2000	104.8	.0	106.6	.0	108.2	109.4	.0	.0	.0	.0	113.6
2500	101.2	.0	103.6	.0	105.8	106.8	.0	.0	.0	.0	109.0
3150	96.8	.0	98.6	.0	103.0	103.6	.0	.0	.0	.0	102.8
4000	102.6	.0	105.6	.0	108.8	108.2	.0	.0	.0	.0	109.2
5000	99.6	.0	103.2	.0	106.4	106.0	.0	.0	.0	.0	104.6
6300	93.8	.0	97.4	.0	100.0	102.0	.0	.0	.0	.0	101.6
8000	91.0	.0	94.6	.0	97.8	99.6	.0	.0	.0	.0	98.6
10000	90.0	.0	90.0	.0	93.0	95.4	.0	.0	.0	.0	95.0
12500	90.0	.0	90.0	.0	90.0	91.8	.0	.0	.0	.0	93.8
16000	90.0	.0	90.0	.0	90.0	90.0	.0	.0	.0	.0	90.0
20000	90.0	.0	90.0	.0	90.0	90.0	.0	.0	.0	.0	90.0
OVERALL SPL	112.0	.0	114.2	.0	117.6	117.4	.0	.0	.0	.0	118.0
PNDB	124.7	.0	127.2	.0	130.3	130.3	.0	.0	.0	.0	131.4

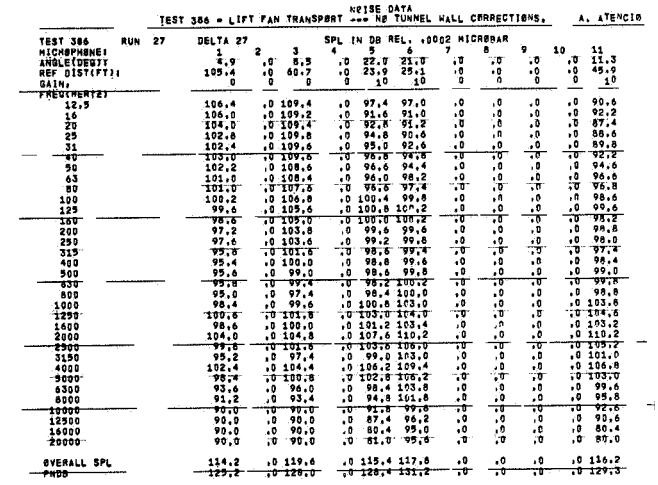


TEST 386 - LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS, A. ATENCIO

NOISE DATA

TEST 386 RUN 27 DELTA 24 SPL IN DB REL, .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGT	4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT):	105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	102.8	.0	114.6	.0	93.0	93.0	.0	.0	.0	.0	99.2
16	101.2	.0	112.8	.0	92.0	92.0	.0	.0	.0	.0	97.8
20	100.6	.0	111.8	.0	92.8	91.8	.0	.0	.0	.0	96.2
25	97.0	.0	109.2	.0	95.8	90.0	.0	.0	.0	.0	90.0
31	98.6	.0	112.8	.0	94.2	92.0	.0	.0	.0	.0	90.0
40	97.4	.0	109.6	.0	94.0	90.2	.0	.0	.0	.0	90.0
50	96.2	.0	109.2	.0	92.8	91.2	.0	.0	.0	.0	90.0
63	96.2	.0	108.6	.0	94.4	94.6	.0	.0	.0	.0	94.4
80	99.4	.0	108.2	.0	93.6	94.2	.0	.0	.0	.0	91.6
100	96.6	.0	108.2	.0	97.8	97.4	.0	.0	.0	.0	95.4
125	96.8	.0	105.4	.0	97.2	96.8	.0	.0	.0	.0	98.6
160	94.2	.0	104.0	.0	96.6	96.2	.0	.0	.0	.0	99.4
200	92.8	.0	103.6	.0	95.8	96.6	.0	.0	.0	.0	96.2
250	94.8	.0	103.2	.0	96.6	98.2	.0	.0	.0	.0	96.6
315	92.0	.0	101.6	.0	96.0	97.0	.0	.0	.0	.0	95.2
400	92.8	.0	99.2	.0	96.6	97.4	.0	.0	.0	.0	96.6
500	93.0	.0	98.6	.0	96.8	97.6	.0	.0	.0	.0	97.8
630	91.2	.0	99.4	.0	97.8	97.6	.0	.0	.0	.0	98.0
800	93.0	.0	96.6	.0	95.4	99.2	.0	.0	.0	.0	98.4
1000	97.4	.0	99.0	.0	100.2	102.4	.0	.0	.0	.0	104.8
1250	99.8	.0	101.4	.0	102.6	104.2	.0	.0	.0	.0	105.4
1600	98.4	.0	100.6	.0	101.6	103.4	.0	.0	.0	.0	103.6
2000	103.8	.0	106.6	.0	108.4	109.2	.0	.0	.0	.0	112.8
2500	99.6	.0	102.4	.0	104.0	105.4	.0	.0	.0	.0	107.2
3150	95.2	.0	98.0	.0	99.6	102.2	.0	.0	.0	.0	101.4
4000	102.6	.0	105.2	.0	105.0	108.6	.0	.0	.0	.0	107.4
5000	98.6	.0	102.2	.0	102.4	104.8	.0	.0	.0	.0	103.8
6300	93.4	.0	97.8	.0	98.0	102.8	.0	.0	.0	.0	100.0
8000	90.6	.0	94.0	.0	95.2	99.6	.0	.0	.0	.0	97.2
10000	90.0	.0	90.0	.0	90.8	95.2	.0	.0	.0	.0	93.0
12500	90.0	.0	90.0	.0	90.0	91.2	.0	.0	.0	.0	91.6
16000	90.0	.0	90.0	.0	90.0	90.0	.0	.0	.0	.0	90.0
20000	90.0	.0	90.0	.0	90.0	90.0	.0	.0	.0	.0	90.0
OVERALL SPL	113.0	.0	119.6	.0	115.0	116.8	.0	.0	.0	.0	117.2
PNDB	124.9	.0	128.9	.0	127.7	130.1	.0	.0	.0	.0	130.6

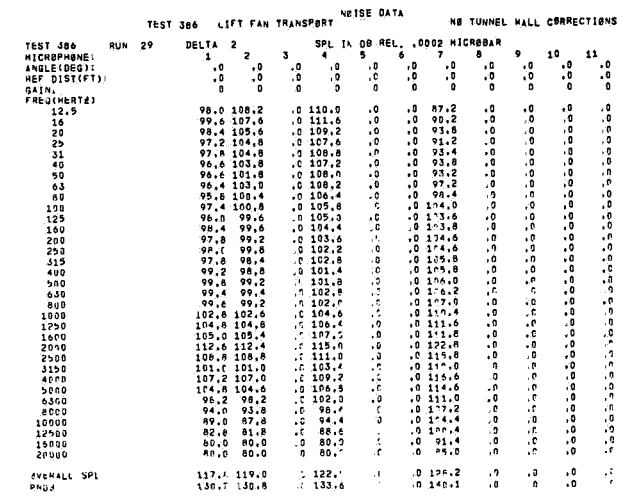


TEST 386 - LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS, A. ATENCIO

NOISE DATA

TEST 386 RUN 27 DELTA 27 SPL IN DB REL, .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGT	4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT):	105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN,	0	0	0	0	10	10	0	0	0	0	10
FREQ(HERTZ)											
12.5	106.4	.0	109.4	.0	97.4	97.0	.0	.0	.0	.0	90.6
16	106.0	.0	109.2	.0	91.6	91.0	.0	.0	.0	.0	92.2
20	104.0	.0	109.4	.0	92.6	91.2	.0	.0	.0	.0	87.4
25	102.8	.0	109.8	.0	94.8	90.6	.0	.0	.0	.0	88.6
31	102.4	.0	109.6	.0	95.0	92.6	.0	.0	.0	.0	89.8
40	103.0	.0	109.6	.0	96.8	94.8	.0	.0	.0	.0	92.2
50	102.2	.0	108.6	.0	96.6	94.4	.0	.0	.0	.0	94.6
63	101.0	.0	108.4	.0	96.0	98.2	.0	.0	.0	.0	96.6
80	101.0	.0	107.6	.0	98.6	97.4	.0	.0	.0	.0	96.8
100	100.2	.0	106.8	.0	100.4	99.8	.0	.0	.0	.0	98.6
125	99.6	.0	105.6	.0	100.8	100.2	.0	.0	.0	.0	99.6
160	98.6	.0	105.0	.0	100.0	100.2	.0	.0	.0	.0	99.2
200	97.2	.0	103.8	.0	99.6	99.6	.0	.0	.0	.0	99.8
250	97.6	.0	103.6	.0	99.2	99.8	.0	.0	.0	.0	98.0
315	95.8	.0	101.6	.0	98.6	99.4	.0	.0	.0	.0	97.4
400	95.4	.0	100.0	.0	98.8	99.6	.0	.0	.0	.0	98.4
500	95.6	.0	99.0	.0	98.6	99.8	.0	.0	.0	.0	99.0
630	95.8	.0	99.6	.0	98.2	100.2	.0	.0	.0	.0	99.8
800	95.0	.0	97.4	.0	98.4	100.0	.0	.0	.0	.0	98.8
1000	98.4	.0	99.6	.0	100.8	103.0	.0	.0	.0	.0	103.6
1250	100.6	.0	101.8	.0	103.0	104.6	.0	.0	.0	.0	104.6
1600	98.6	.0	100.0	.0	101.2	103.4	.0	.0	.0	.0	103.2
2000	104.0	.0	104.8	.0	107.6	110.2	.0	.0	.0	.0	110.2
2500	99.8	.0	101.6	.0	103.6	106.0	.0	.0	.0	.0	105.2
3150	95.2	.0	97.4	.0	99.0	103.0	.0	.0	.0	.0	101.0
4000	102.4	.0	104.4	.0	106.2	109.4	.0	.0	.0	.0	106.8
5000	98.4	.0	100.8	.0	102.8	106.2	.0	.0	.0	.0	103.0
6300	93.6	.0	96.0	.0	98.4	103.8	.0	.0	.0	.0	99.6
8000	91.2	.0	93.4	.0	94.8	101.8	.0	.0	.0	.0	95.8
10000	90.0	.0	90.0	.0	91.8	99.8	.0	.0	.0	.0	92.6
12500	90.0	.0	90.0	.0	87.4	96.2	.0	.0	.0	.0	90.6
16000	90.0	.0	90.0	.0	80.4	95.0	.0	.0	.0	.0	80.4
20000	90.0	.0	90.0	.0	81.0	95.6	.0	.0	.0	.0	80.0
OVERALL SPL	114.2	.0	119.6	.0	115.4	117.8	.0	.0	.0	.0	116.2
PNDB	129.2	.0	128.0	.0	126.4	131.2	.0	.0	.0	.0	129.3

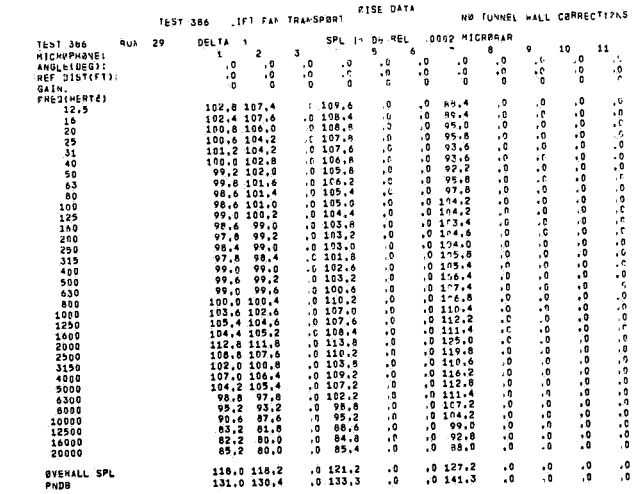


TEST 386 - LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS

NOISE DATA

TEST 386 RUN 29 DELTA 2 SPL IN DB REL, .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
REF DIST(FT):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	98.0	108.2	.0	110.0	.0	.0	87.2	.0	.0	.0	.0
16	99.6	107.6	.0	111.6	.0	.0	90.2	.0	.0	.0	.0
20	98.4	105.6	.0	109.2	.0	.0	93.8	.0	.0	.0	.0
25	97.2	104.8	.0	107.6	.0	.0	91.2	.0	.0	.0	.0
31	97.8	104.8	.0	108.8	.0	.0	93.4	.0	.0	.0	.0
40	96.6	103.8	.0	107.2	.0	.0	93.8	.0	.0	.0	.0
50	96.6	101.8	.0	108.0	.0	.0	93.2	.0	.0	.0	.0
63	96.4	103.0	.0	108.2	.0	.0	97.2	.0	.0	.0	.0
80	95.8	100.4	.0	106.4	.0	.0	98.4	.0	.0	.0	.0
100	97.4	100.8	.0	105.8	.0	.0	104.0	.0	.0	.0	.0
125	96.0	99.6	.0	105.3	.0	.0	103.6	.0	.0	.0	.0
160	98.4	99.6	.0	104.4	.0	.0	103.8	.0	.0	.0	.0
200	97.8	99.2	.0	103.6	.0	.0	104.6	.0	.0	.0	.0
250	98.0	99.8	.0	102.2	.0	.0	104.6	.0	.0	.0	.0
315	97.8	98.4	.0	102.8	.0	.0	105.8	.0	.0	.0	.0
400	99.2	98.8	.0	101.4	.0	.0	105.8	.0	.0	.0	.0
500	99.0	99.2	.0	101.8	.0	.0	106.0	.0	.0	.0	.0
630	99.4	99.4	.0	102.8	.0	.0	106.2	.0	.0	.0	.0
800	99.6	99.2	.0	102.0	.0	.0	107.0	.0	.0	.0	.0
1000	102.8	102.6	.0	104.6	.0	.0	110.4	.0	.0	.0	.0
1250	104.2	104.8	.0	106.4	.0	.0	111.6	.0	.0	.0	.0
1600	105.0	105.4	.0	107.2	.0	.0	111.8	.0	.0	.0	.0
2000	112.6	112.4	.0	115.0	.0	.0	122.8	.0	.0	.0	.0
2500	108.8	108.8	.0	111.0	.0	.0	115.8	.0	.0	.0	.0
3150	101.6	101.0	.0	103.4	.0	.0	117.0	.0	.0	.0	.0
4000	107.2	107.0	.0	109.2	.0	.0	116.6	.0	.0	.0	.0
5000	104.8	104.6	.0	106.5	.0	.0	114.6	.0	.0	.0	.0
6300	96.2	98.2	.0	102.0	.0	.0	111.0	.0	.0	.0	.0
8000	94.0	93.8	.0	96.6	.0	.0	107.2	.0	.0	.0	.0
10000	89.0	87.8	.0	94.4	.0	.0	104.4	.0	.0	.0	.0
12500	82.8	81.8	.0	88.6	.0	.0	100.4	.0	.0	.0	.0
16000	80.0	80.0	.0	80.0	.0	.0	91.4	.0	.0	.0	.0
20000	80.0	80.0	.0	80.0	.0	.0	89.0	.0	.0	.0	.0
OVERALL SPL	117.6	119.0	.0	122.1	.0	.0	126.2	.0	.0	.0	.0
PNDB	130.7	130.8	.0	133.6	.0	.0	140.1	.0	.0	.0	.0



TEST 386 - LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS

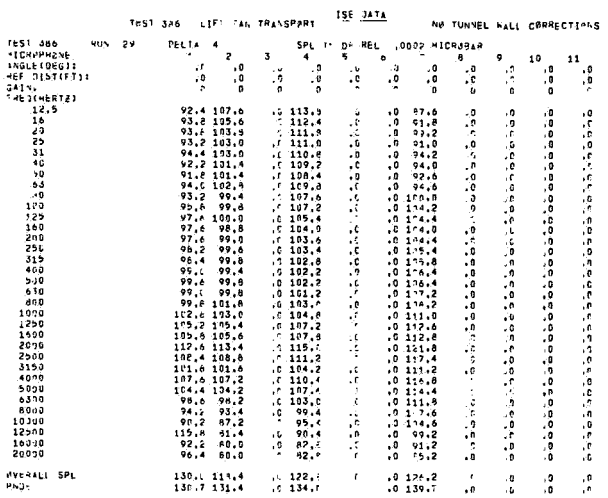
NOISE DATA

TEST 386 RUN 29 DELTA 1 SPL IN DB REL, .0002 MICROBAR

MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
REF DIST(FT):	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GAIN,	0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	102.8	107.4	.0	109.6	.0	.0	86.4	.0	.0	.0	.0
16	102.4	107.6	.0	108.4	.0	.0	89.4	.0	.0	.0	.0
20	100.8	106.0	.0	108.8	.0	.0	95.0	.0	.0	.0	.0
25	100.6	104.2	.0	107.8	.0	.0	95.8	.0	.0	.0	.0
31	101.2	104.2	.0	107.6	.0	.0	93.6	.0	.0	.0	.0
40	100.0	102.8	.0	106.8	.0	.0	93.6	.0	.0	.0	.0
50	99.2	102.8	.0	105.8	.0	.0	92.2	.0	.0	.0	.0
63	99.8	101.6	.0	106.2	.0	.0	95.8	.0	.0	.0	.0
80	98.6	101.4	.0	105.4	.0	.0	97.8	.0	.0	.0	.0
100	98.6	101.0	.0	105.0	.0	.0	104.2	.0	.0	.0	.0
125	99.0	100.2	.0	104.4	.0	.0	104.2	.0	.0	.0	.0
160	98.6	99.0	.0	103.8	.0	.0	103.4	.0	.0	.0	.0
200	98.4	99.2	.0	103.2	.0	.0	104.6	.0	.0	.0	.0
250	98.4	99.8	.0	103.0	.0	.0	104.0	.0	.0	.0	.0
315	97.8	98.4	.0	101.8	.0	.0	105.8	.0	.0	.0	.0
400	99.0	99.0	.0	102.6	.0	.0	105.4	.0	.0	.0	.0
500	99.6	99.2	.0	103.2	.0	.0	106.4	.0	.0	.0	.0
630	99.0	99.6	.0	100.6	.0	.0	107.4	.0	.0	.0	.0
800	100.0	100.4	.0	101.2	.0	.0	106.8	.0	.0	.0	.0
1000	103.6	102.6	.0	107.0	.0	.0	110.4	.0	.0	.0	.0
1250	105.4	104.6	.0	107.6	.0	.0	112.2	.0	.0	.0	.0
1600	104.4	105.6	.0	108.4	.0	.0	111.4	.0	.0	.0	.0
2000	112.8	111.8	.0	113.8	.0	.0	125.0	.0	.0	.0	.0
2500	108.6	107.6	.0	110.2	.0	.0	119.8	.0	.0	.0	.0
3150	102.0	100.8	.0	103.8	.0	.0	110.6	.0	.0	.0	.0
4000	107.0	106.4	.0	109.2	.0	.0	116.2	.0	.0	.0	.0
5000	104.2	105.4	.0	107.2	.0	.0	112.8	.0	.0	.0	.0
6300	98.8	97.8	.0	102.2	.0	.0	111.4	.0	.0	.0	.0
8000	95.2	93.2	.0	98.8	.0	.0	107.2	.0	.0	.0	.0
10000	90.6	87.6	.0	95.2	.0	.0	104.2	.0	.0	.0	.0
12500	83.2	81.8	.0	88.6	.0	.0	99.0	.0	.0	.0	.0
16000	82.2	80.0	.0	84.8	.0	.0	92.8	.0	.0	.0	.0
20000	85.2	80.0	.0	85.4	.0	.0	88.8	.0	.0	.0	.0
OVERALL SPL	116.0	118.2	.0	121.2	.0	.0	127.2	.0	.0	.0	.0
PNDB	131.0	130.4	.0	133.3	.0	.0	141.3	.0	.0	.0	.0

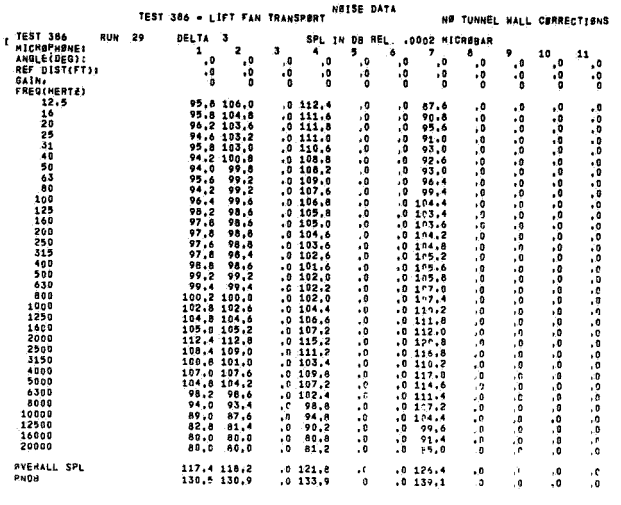
(f) Run 27, Run 29.

Figure 20.- Continued.



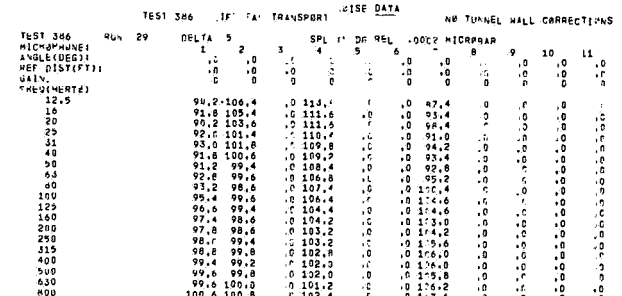
TEST 386 LIFT FAN TRANSPORT NOISE DATA NO TUNNEL WALL CORRECTIONS

TEST 386 RUN 29	DELTA 4	SPL IN DB REL .0002 MICROBAR									
MICROPHONE		1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
REF DIST(FT):		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GAIN:		0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)												
12.5		92.4	107.6	.0	113.5	.0	.0	87.6	.0	.0	.0	.0
16		93.8	105.6	.0	112.4	.0	.0	91.8	.0	.0	.0	.0
20		93.6	103.9	.0	111.8	.0	.0	93.2	.0	.0	.0	.0
25		93.2	103.0	.0	111.0	.0	.0	91.0	.0	.0	.0	.0
31		94.4	103.0	.0	110.6	.0	.0	94.2	.0	.0	.0	.0
40		92.2	101.4	.0	109.2	.0	.0	94.0	.0	.0	.0	.0
50		91.8	101.4	.0	108.4	.0	.0	92.6	.0	.0	.0	.0
63		94.0	102.9	.0	109.3	.0	.0	94.6	.0	.0	.0	.0
80		93.2	99.4	.0	107.6	.0	.0	170.8	.0	.0	.0	.0
100		95.8	99.8	.0	107.2	.0	.0	174.2	.0	.0	.0	.0
125		97.4	100.0	.0	105.4	.0	.0	174.4	.0	.0	.0	.0
160		97.6	98.8	.0	104.9	.0	.0	174.0	.0	.0	.0	.0
200		97.6	99.0	.0	103.6	.0	.0	174.4	.0	.0	.0	.0
250		98.2	99.6	.0	103.4	.0	.0	175.4	.0	.0	.0	.0
315		98.4	99.8	.0	102.8	.0	.0	175.8	.0	.0	.0	.0
400		99.0	99.4	.0	102.2	.0	.0	176.4	.0	.0	.0	.0
500		99.4	99.8	.0	102.2	.0	.0	176.4	.0	.0	.0	.0
630		99.0	99.8	.0	101.2	.0	.0	177.2	.0	.0	.0	.0
800		99.8	101.8	.0	103.4	.0	.0	176.2	.0	.0	.0	.0
1000		102.6	103.0	.0	104.8	.0	.0	111.0	.0	.0	.0	.0
1250		105.2	105.4	.0	107.2	.0	.0	177.6	.0	.0	.0	.0
1600		105.6	105.6	.0	107.8	.0	.0	112.8	.0	.0	.0	.0
2000		112.6	113.4	.0	115.7	.0	.0	121.8	.0	.0	.0	.0
2500		108.4	108.8	.0	111.2	.0	.0	117.4	.0	.0	.0	.0
3150		101.8	101.6	.0	104.2	.0	.0	111.2	.0	.0	.0	.0
4000		107.6	107.2	.0	110.2	.0	.0	116.8	.0	.0	.0	.0
5000		104.4	104.2	.0	107.4	.0	.0	114.4	.0	.0	.0	.0
6300		98.6	98.2	.0	103.0	.0	.0	111.8	.0	.0	.0	.0
8000		94.2	93.4	.0	99.4	.0	.0	107.6	.0	.0	.0	.0
10300		90.2	87.2	.0	95.4	.0	.0	104.6	.0	.0	.0	.0
12500		119.8	91.4	.0	90.4	.0	.0	99.2	.0	.0	.0	.0
16000		92.2	80.0	.0	87.2	.0	.0	91.2	.0	.0	.0	.0
20000		96.4	80.0	.0	82.9	.0	.0	85.2	.0	.0	.0	.0
OVERALL SPL		130.1	114.4	.0	122.1	.0	.0	126.2	.0	.0	.0	.0
PNDB		130.7	131.4	.0	134.7	.0	.0	139.7	.0	.0	.0	.0



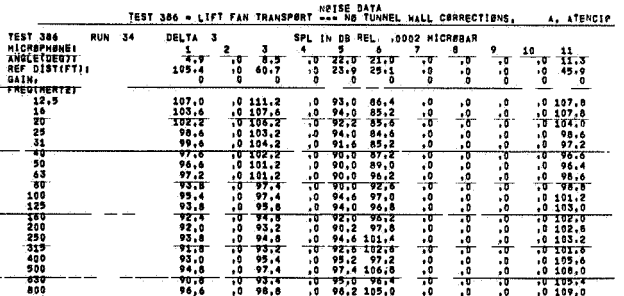
TEST 386 - LIFT FAN TRANSPORT NOISE DATA NO TUNNEL WALL CORRECTIONS

TEST 386 RUN 29	DELTA 3	SPL IN DB REL .0002 MICROBAR									
MICROPHONE		1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
REF DIST(FT):		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GAIN:		0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)												
12.5		95.8	106.0	.0	112.4	.0	.0	87.6	.0	.0	.0	.0
16		95.8	104.8	.0	111.6	.0	.0	90.8	.0	.0	.0	.0
20		96.2	103.6	.0	111.8	.0	.0	95.6	.0	.0	.0	.0
25		94.6	103.2	.0	111.0	.0	.0	91.0	.0	.0	.0	.0
31		95.8	103.0	.0	110.6	.0	.0	93.0	.0	.0	.0	.0
40		94.2	100.8	.0	108.8	.0	.0	92.6	.0	.0	.0	.0
50		94.0	99.8	.0	108.2	.0	.0	93.0	.0	.0	.0	.0
63		95.6	99.2	.0	109.0	.0	.0	96.4	.0	.0	.0	.0
80		94.2	99.2	.0	107.6	.0	.0	99.4	.0	.0	.0	.0
100		96.4	99.6	.0	106.8	.0	.0	104.4	.0	.0	.0	.0
125		98.2	98.6	.0	105.8	.0	.0	103.4	.0	.0	.0	.0
160		97.8	98.6	.0	105.0	.0	.0	103.6	.0	.0	.0	.0
200		97.8	98.8	.0	104.6	.0	.0	104.2	.0	.0	.0	.0
250		97.6	98.8	.0	103.6	.0	.0	104.8	.0	.0	.0	.0
315		97.8	98.4	.0	102.6	.0	.0	105.2	.0	.0	.0	.0
400		98.8	98.6	.0	101.6	.0	.0	105.6	.0	.0	.0	.0
500		99.2	99.2	.0	102.0	.0	.0	105.8	.0	.0	.0	.0
630		99.4	99.4	.0	102.2	.0	.0	177.0	.0	.0	.0	.0
800		100.2	100.8	.0	102.0	.0	.0	107.4	.0	.0	.0	.0
1000		102.8	102.6	.0	104.4	.0	.0	110.2	.0	.0	.0	.0
1250		104.8	104.6	.0	106.6	.0	.0	111.8	.0	.0	.0	.0
1600		105.8	105.2	.0	107.2	.0	.0	112.0	.0	.0	.0	.0
2000		112.4	112.8	.0	115.2	.0	.0	120.8	.0	.0	.0	.0
2500		108.4	109.0	.0	111.2	.0	.0	116.8	.0	.0	.0	.0
3150		100.8	101.0	.0	103.4	.0	.0	110.2	.0	.0	.0	.0
4000		107.0	107.0	.0	109.8	.0	.0	117.0	.0	.0	.0	.0
5000		104.8	104.2	.0	107.2	.0	.0	114.6	.0	.0	.0	.0
6300		98.2	98.6	.0	102.4	.0	.0	111.4	.0	.0	.0	.0
8000		94.0	93.4	.0	98.8	.0	.0	107.2	.0	.0	.0	.0
10000		89.0	87.6	.0	94.8	.0	.0	104.4	.0	.0	.0	.0
12500		82.8	81.4	.0	90.2	.0	.0	99.6	.0	.0	.0	.0
16000		80.0	80.0	.0	80.8	.0	.0	91.4	.0	.0	.0	.0
20000		80.0	80.0	.0	81.2	.0	.0	85.0	.0	.0	.0	.0
OVERALL SPL		117.4	118.2	.0	121.8	.0	.0	126.4	.0	.0	.0	.0
PNDB		130.5	130.9	.0	133.9	0	.0	139.1	0	.0	.0	.0



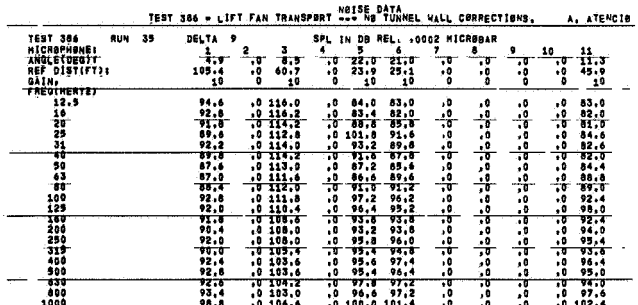
TEST 386 LIFT FAN TRANSPORT NOISE DATA NO TUNNEL WALL CORRECTIONS

TEST 386 RUN 29	DELTA 5	SPL IN DB REL .0002 MICROBAR									
MICROPHONE		1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
REF DIST(FT):		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
GAIN:		0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)												
12.5		98.2	106.4	.0	114.4	.0	.0	87.4	0	.0	.0	.0
16		91.8	105.4	.0	111.6	.0	.0	91.4	0	.0	.0	.0
20		90.2	103.6	.0	111.5	.0	.0	98.4	0	.0	.0	.0
25		92.6	101.4	.0	110.4	.0	.0	91.0	0	.0	.0	.0
31		93.0	101.8	.0	109.8	.0	.0	94.2	0	.0	.0	.0
40		91.8	100.6	.0	109.2	.0	.0	93.4	0	.0	.0	.0
50		91.2	99.4	.0	108.4	.0	.0	92.8	0	.0	.0	.0
63		92.8	99.6	.0	108.8	.0	.0	95.2	0	.0	.0	.0
80		93.2	98.8	.0	107.4	.0	.0	170.4	0	.0	.0	.0
100		95.4	99.6	.0	106.4	.0	.0	174.6	0	.0	.0	.0
125		96.6	99.4	.0	104.4	.0	.0	174.6	0	.0	.0	.0
160		97.4	98.6	.0	104.2	.0	.0	173.0	0	.0	.0	.0
200		97.8	98.6	.0	103.2	.0	.0	174.2	0	.0	.0	.0
250		98.2	99.4	.0	103.2	.0	.0	175.6	0	.0	.0	.0
315		98.8	99.8	.0	102.8	.0	.0	176.0	0	.0	.0	.0
400		99.4	99.2	.0	102.3	.0	.0	176.0	0	.0	.0	.0
500		99.6	99.8	.0	102.0	.0	.0	175.8	0	.0	.0	.0
630		99.6	100.0	.0	101.2	.0	.0	176.2	0	.0	.0	.0
800		100.6	100.8	.0	102.4	.0	.0	177.4	0	.0	.0	.0
1000		103.2	103.4	.0	104.6	.0	.0	110.8	0	.0	.0	.0
1250		105.2	105.6	.0	107.0	.0	.0	112.8	0	.0	.0	.0
1600		106.2	106.2	.0	108.2	.0	.0	113.0	0	.0	.0	.0
2000		112.2	112.8	.0	114.4	.0	.0	120.6	0	.0	.0	.0
2500		108.6	109.4	.0	111.0	.0	.0	117.0	0	.0	.0	.0
3150		102.0	102.0	.0	104.2	.0	.0	111.2	0	.0	.0	.0
4000		107.6	107.2	.0	110.2	.0	.0	117.0	0	.0	.0	.0
5000		105.4	104.4	.0	107.8	.0	.0	114.4	0	.0	.0	.0
6300		98.8	98.4	.0	103.0	.0	.0	111.0	0	.0	.0	.0
8000		94.6	93.8	.0	99.4	.0	.0	176.8	0	.0	.0	.0
10000		89.2	87.6	.0	95.4	.0	.0	174.2	0	.0	.0	.0
12500		83.0	81.0	.0	90.4	.0	.0	99.0	0	.0	.0	.0
16000		80.0	80.0	.0	81.4	.0	.0	91.6	0	.0	.0	.0
20000		80.0	80.0	.0	80.8	.0	.0	84.6	0	.0	.0	.0
OVERALL SPL		118.2	118.6	.0	122.0	.0	.0	126.2	0	.0	.0	.0
PNDB		130.6	131.1	.0	133.6	.0	.0	139.7	0	.0	.0	.0



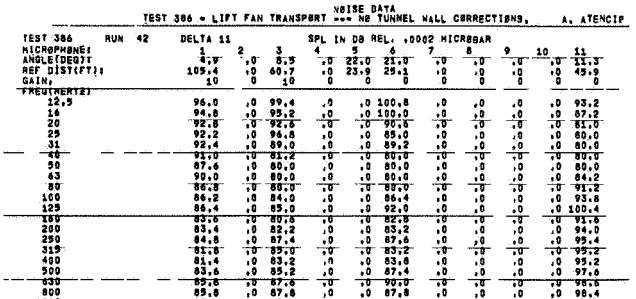
TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A, ATENCIO NOISE DATA

TEST 386 RUN 34	DELTA 3	SPL IN DB REL .0002 MICROBAR									
MICROPHONE:		1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):		4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT):		105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN:		0	0	0	0	0	0	0	0	0	0	0
FREQ(HERTZ)												
12.5		107.0	.0	111.2	.0	93.0	86.4	.0	.0	.0	.0	107.8
16		103.6	.0	107.6	.0	94.0	89.2	.0	.0	.0	.0	107.8
20		102.2	.0	105.2	.0	92.2	85.6	.0	.0	.0	.0	104.0
25		98.6	.0	103.2	.0	94.0	84.6	.0	.0	.0	.0	98.6
31		99.6	.0	104.2	.0	91.6	85.2	.0	.0	.0	.0	97.2
40		97.6	.0	102.2	.0	90.0	87.2	.0	.0	.0	.0	96.6
50		96.6	.0	101.2	.0	90.0	89.0	.0	.0	.0	.0	96.4
63		97.2	.0	101.2	.0	90.0	96.2	.0	.0	.0	.0	98.6
80		93.8	.0	97.4	.0	90.0	92.6	.0	.0	.0	.0	96.8
100		99.4	.0	97.4	.0	94.6	97.0	.0	.0	.0	.0	101.2
125		93.8	.0	95.8	.0	94.0	96.8	.0	.0	.0	.0	103.0
160		92.4	.0	94.8	.0	92.0	96.2	.0	.0	.0	.0	102.0
200		92.0	.0	93.2	.0	90.2	97.8	.0	.0	.0	.0	102.8
250		93.8	.0	94.8	.0	94.6	101.4	.0	.0	.0	.0	105.0
315		91.8	.0	93.2	.0	92.6	102.6	.0	.0	.0	.0	101.6
400		93.0	.0	95.4	.0	95.2	97.2	.0	.0	.0	.0	105.6
500		94.8	.0	97.4	.0	97.4	106.8	.0	.0	.0	.0	108.0
630		90.8	.0	93.4	.0	95.0	96.4	.0	.0	.0	.0	103.4
800		96.6	.0	98.8	.0	96.2	105.0	.0	.0	.0	.0	109.0
1000		99.6	.0	102.6	.0	102.8	106.2	.0	.0	.0	.0	113.8
1250		101.6	.0	103.2	.0	104.6	107.6	.0	.0	.0	.0	115.6
1600		101.2	.0	103.0	.0	102.2	106.6	.0	.0	.0	.0	113.0
2000		104.0	.0	105.8	.0	107.0	109.0	.0	.0	.0	.0	118.4
2500		100.6	.0	101.8	.0	102.0	105.6	.0	.0	.0	.0	112.6
3150		97.8	.0	99.0	.0	99.6	104.4	.0	.0	.0	.0	109.6
4000		102.4	.0	104.2	.0	105.6	108.6	.0	.0	.0	.0	118.4
5000		97.4	.0	100.2	.0	100.8	105.6	.0	.0	.0	.0	111.6
6300		94.0	.0	97.0	.0	96.8	106.0	.0	.0	.0	.0	108.2
8000		92.0	.0	94.8	.0	94.8	107.8	.0	.0	.0	.0	105.0
10000		90.0	.0	91.0	.0	91.0	103.4	.0	.0	.0	.0	103.8
12500		90.0	.0	90.0	.0	90.0	88.4	.0	.0	.0	.0	96.2
16000		91.8	.0	90.0	.0	90.0	100.0	.0	.0	.0	.0	97.8
20000		95.2	.0	92.2	.0	90.0	97.4	.0	.0	.0	.0	99.2
OVERALL SPL		119.0	.0	118.8	.0	114.2	116.0	.0	.0	.0	.0	124.6
PNDB		124.9	.0	126.8	.0	127.2	131.0	.0	.0	.0	.0	136.8



TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A, ATENCIO NOISE DATA

TEST 386 RUN 39	DELTA 9	SPL IN DB REL .0002 MICROBAR									
MICROPHONE:		1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):		4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT):		105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN:		10	0	10	0	10	10	0	0	0	0	10
FREQ(HERTZ)												
12.5		94.6	.0	116.0	.0	84.0	83.0	.0	.0	.0	.0	83.0
16		92.8	.0	116.2	.0	83.4	82.0	.0	.0	.0	.0	82.0
20		91.8	.0	114.2	.0	88.8	85.8	.0	.0	.0	.0	81.0
25		89.6	.0	112.8	.0	101.8	91.6	.0	.0	.0	.0	84.6
31		92.2	.0	114.0	.0	93.2	89.8	.0	.0	.0	.0	82.6
40		89.8	.0	114.2	.0	91.6	87.8	.0	.0	.0	.0	82.0
50		87.6	.0	113.8	.0	87.2	85.6	.0	.0	.0	.0	84.4
63		87.0	.0	111.6	.0	86.6	89.6	.0	.0	.0	.0	88.8
80		88.4	.0	112.9	.0	91.0	93.2	.0	.0	.0	.0	89.0
100		92.8	.0	111.8	.0	97.2	96.2	.0	.0	.0	.0	92.4
125		92.0	.0	110.4	.0	96.4	95.2	.0	.0	.0	.0	98.0
160		91.8	.0	108.6	.0	93.6	93.8	.0	.0	.0	.0	92.4
200		90.4	.0	108.0	.0	93.2	93.8	.0	.0	.0	.0	94.0
250		92.0	.0	108.0	.0	95.8	96.0	.0	.0	.0	.0	95.4
315		90.0	.0	109.4	.0	95.4	94.8	.0	.0	.0	.0	93.6
400		92.4	.0	109.6	.0	95.6	97.4	.0	.0	.0	.0	96.4
500		92.8	.0	109.6	.0	95.4	96.4	.0	.0	.0	.0	99.0
630		92.0	.0	109.2	.0	97.8	97.2	.0	.0	.0	.0	96.0
800		93.4	.0	108.0	.0	96.6	97.2	.0	.0	.0	.0	97.6
1000		98.8	.0	106.6	.0	100.0	101.4	.0	.0	.0	.0	102.4
1250		100.4	.0	109.4	.0	102.6	103.8	.0	.0	.0	.0	104.6
1600		99.4	.0	108.0	.0	101.8	102.8	.0	.0	.0	.0	103.0
2000		103.0	.0	112.8	.0	108.4	108.6	.0	.0	.0	.0	110.0
2500		99.8	.0	109.2	.0	104.0	104.0	.0	.0	.0	.0	103.4
3150		96.0	.0	105.6	.0	100.6	102.4	.0	.0	.0	.0	100.4
4000		101.6	.0	110.6	.0	107.6	108.2	.0	.0	.0	.0	106.6
5000		99.0	.0	108.0	.0	105.0	104.4	.0	.0	.0	.0	102.6
6300		92.8	.0	104.4	.0	98.2	101.8	.0	.0	.0	.0	97.8
8000		89.8	.0	102.0	.0	95.0	97.4	.0	.0	.0	.0	94.0
10000		86.0	.0	100.6	.0	92.0	93.8	.0	.0	.0	.0	90.6
12500		80.0	.0	98.6	.0	87.8	89.6	.0	.0	.0	.0	88.6
16000		80.0	.0	101.6	.0	80.6	81.4	.0	.0	.0	.0	80.0
20000		80.0	.0	102.0	.0	80.0	80.0	.0	.0	.0	.0	80.0
OVERALL SPL		111.2	.0	124.8	.0	115.4	115.8	.0	.0	.0	.0	115.8
PNDB		129.9	.0	134.3	.0	128.7	129.4	.0	.0	.0	.0	128.4

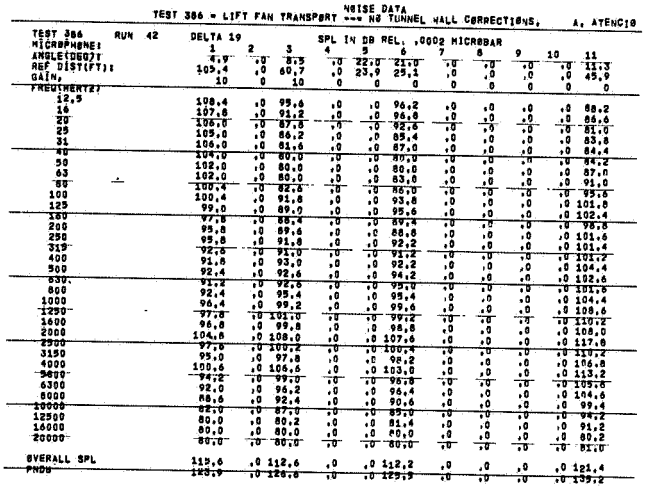


TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A, ATENCIO NOISE DATA

TEST 386 RUN 42	DELTA 11	SPL IN DB REL .0002 MICROBAR									
MICROPHONE:		1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG):		4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT):		105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN:		10	0	10	0	0	0	0	0	0	0	0
FREQ(HERTZ)												
12.5		96.0	.0	99.4	.0	100.8	.0	.0	.0	.0	.0	93.2
16		94.8	.0	99.2	.0	100.0	.0	.0	.0	.0	.0	87.2
20		92.8	.0	92.6	.0	90.6	.0	.0	.0	.0	.0	81.0
25		92.2	.0	94.8	.0	89.0	.0	.0	.0	.0	.0	80.0
31		92.4	.0	89.0	.0	89.2	.0	.0	.0	.0	.0	80.0
40		91.0	.0	81.2	.0	88.0	.0	.0	.0	.0	.0	80.0
50		87.6	.0	80.6	.0	80.0	.0	.0	.0	.0	.0	80.0
63		90.0	.0	80.0	.0	80.0	.0	.0	.0	.0	.0	84.2
80		86.8	.0	80.0	.0	80.0	.0	.0	.0	.0	.0	91.2
100		86.2	.0	84.0	.0	86.4	.0	.0	.0	.0	.0	93.8
125		86.4	.0	85.0	.0	92.0	.0	.0	.0	.0	.0	100.4
160		83.6	.0	80.6	.0	82.8	.0	.0	.0	.0	.0	91.6
200		83.4	.0	82.2	.0	83.2	.0	.0	.0	.0	.0	94.0
250		84.8	.0	87.4	.0	87.6	.0	.0	.0	.0	.0	99.4
315		81.8	.0	89.0	.0	83.2	.0	.0	.0	.0	.0	99.2
400		81.4	.0	83.2	.0	83.8	.0	.0	.0	.0	.0	95.2
500		83.6	.0	85.2	.0	87.4	.0	.0	.0	.0	.0	97.6
630		89.6	.0	87.6	.0	90.0	.0	.0	.0	.0	.0	96.6
800		85.8	.0	87.8	.0	87.8	.0	.0	.0	.0	.0	98.4
1000		85.6	.0	87.6	.0	87.6	.0	.0	.0	.0	.0	97.8
1250		92.4	.0	93.4	.0	94.4	.0	.0	.0	.0	.0	104.2
1600		83.8	.0	87.6	.0	87.2	.0	.0	.0	.0	.0	96.0
2000		86.2	.0	86.8	.0	86.4	.0	.0	.0	.0	.0	95.8
2500		88.6	.0	91.2	.0	89.4	.0	.0	.0	.0	.0	99.6
3150		83.4	.0	86.0	.0	85.8	.0	.0	.0	.0	.0	95.2
4000		84.0	.0	86.6	.0	86.2	.0	.0	.0	.0	.0	95.8
5000		83.2	.0	85.6	.0	84.2	.0	.0	.0	.0	.0	94.2
6300		80.0	.0	81.6	.0	81.6	.0	.0	.0	.0	.0	91.6
8000		80.0	.0	81.8	.0	82.0	.0	.0	.0	.0	.0	90.8
10000		80.0	.0	80.0	.0	80.0	.0	.0	.0	.0	.0	89.8
12500		80.0	.0	80.0	.0	80.0	.0	.0	.0	.0	.0	83.8
16000		80.0	.0	80.0	.0	80.0	.0	.0	.0	.0	.0	80.0
20000		80.0	.0	80.0	.0	80.0	.0	.0	.0	.0	.0	80.4
OVERALL SPL		104.6	.0	101.2	.0	101.2	.0	.0	.0	.0	.0	111.4
PNDB		111.3	.0	113.0	.0	112.6	.0	.0	.0	.0	.0	122.5

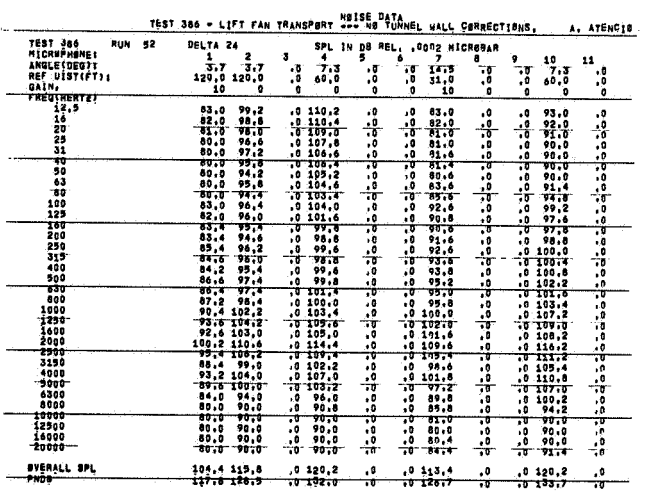
(g) Run 29, Run 34, Run 35, Run 42.

Figure 20.- Continued.



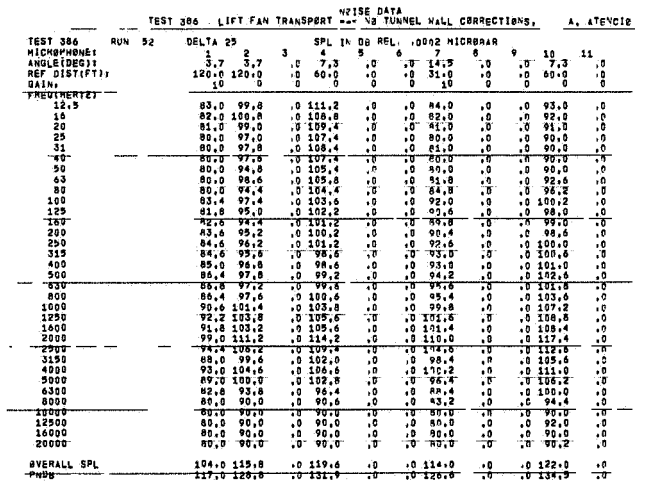
NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A, ATENCIO

TEST 386 RUN 42	DELTA 19				SPL IN DB REL, .0002 MICROBAR						
MICRPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG)T	4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT):	109.4	.0	60.7	.0	23.9	25.4	.0	.0	.0	.0	45.9
GAIN,	10	0	10	0	0	0	0	0	0	0	0
FREQ(HERTZ)											
12.5	108.4	.0	99.6	.0	.0	96.2	.0	.0	.0	.0	88.2
16	107.8	.0	91.2	.0	.0	96.6	.0	.0	.0	.0	86.6
20	106.0	.0	87.8	.0	.0	92.6	.0	.0	.0	.0	81.0
25	105.0	.0	86.2	.0	.0	85.4	.0	.0	.0	.0	83.8
31	106.0	.0	81.6	.0	.0	87.0	.0	.0	.0	.0	84.4
40	104.0	.0	80.0	.0	.0	80.0	.0	.0	.0	.0	84.2
50	102.0	.0	80.0	.0	.0	80.0	.0	.0	.0	.0	87.0
63	102.0	.0	80.0	.0	.0	83.0	.0	.0	.0	.0	91.0
80	100.4	.0	82.6	.0	.0	86.0	.0	.0	.0	.0	95.6
100	100.4	.0	91.8	.0	.0	93.8	.0	.0	.0	.0	101.8
125	99.0	.0	89.6	.0	.0	95.6	.0	.0	.0	.0	102.4
160	97.8	.0	88.4	.0	.0	89.4	.0	.0	.0	.0	99.8
200	95.8	.0	89.6	.0	.0	88.8	.0	.0	.0	.0	101.6
250	98.8	.0	91.8	.0	.0	92.2	.0	.0	.0	.0	101.4
315	92.6	.0	91.0	.0	.0	91.2	.0	.0	.0	.0	101.2
400	91.8	.0	93.0	.0	.0	92.2	.0	.0	.0	.0	104.4
500	92.4	.0	92.6	.0	.0	94.2	.0	.0	.0	.0	102.6
630	93.2	.0	92.6	.0	.0	95.0	.0	.0	.0	.0	101.6
800	92.4	.0	95.4	.0	.0	95.4	.0	.0	.0	.0	104.4
1000	96.4	.0	99.2	.0	.0	99.6	.0	.0	.0	.0	108.6
1250	97.8	.0	101.0	.0	.0	99.2	.0	.0	.0	.0	110.2
1600	96.8	.0	99.8	.0	.0	98.8	.0	.0	.0	.0	108.0
2000	104.6	.0	98.2	.0	.0	107.6	.0	.0	.0	.0	117.8
2500	97.6	.0	100.2	.0	.0	102.4	.0	.0	.0	.0	110.2
3150	95.0	.0	97.8	.0	.0	98.2	.0	.0	.0	.0	110.2
4000	100.6	.0	106.6	.0	.0	103.0	.0	.0	.0	.0	113.2
5000	94.2	.0	99.0	.0	.0	98.8	.0	.0	.0	.0	105.6
6300	92.0	.0	96.2	.0	.0	96.4	.0	.0	.0	.0	104.6
8000	88.6	.0	92.4	.0	.0	90.6	.0	.0	.0	.0	99.4
10000	88.0	.0	87.0	.0	.0	85.0	.0	.0	.0	.0	94.2
12500	80.0	.0	80.2	.0	.0	81.4	.0	.0	.0	.0	91.2
16000	80.0	.0	80.0	.0	.0	80.0	.0	.0	.0	.0	89.2
20000	80.0	.0	80.0	.0	.0	80.0	.0	.0	.0	.0	91.0
OVERALL SPL	115.6	.0	112.6	.0	.0	112.2	.0	.0	.0	.0	121.4
PNDB	143.9	.0	129.8	.0	.0	129.9	.0	.0	.0	.0	139.2



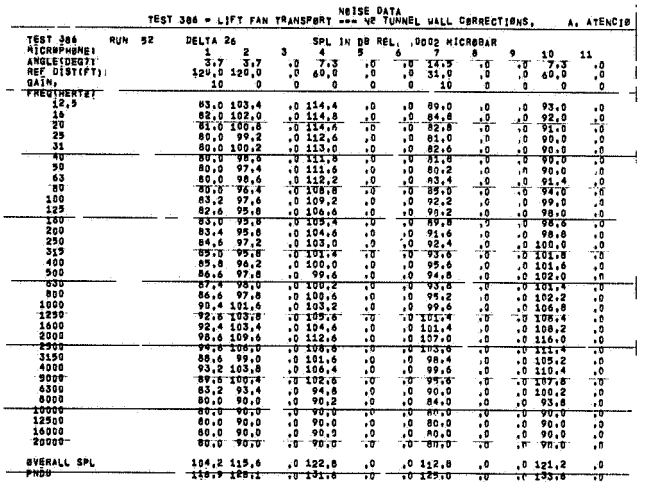
NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A, ATENCIO

TEST 386 RUN 52	DELTA 24				SPL IN DB REL, .0002 MICROBAR						
MICRPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG)T	3.7	3.7	.0	7.3	.0	.0	14.5	.0	.0	7.3	.0
REF DIST(FT):	129.0	120.0	.0	60.0	.0	.0	31.0	.0	.0	60.0	.0
GAIN,	10	0	0	0	0	0	10	0	0	0	0
FREQ(HERTZ)											
12.5	83.0	99.2	.0	110.2	.0	.0	83.0	.0	.0	93.0	.0
16	82.0	98.8	.0	110.4	.0	.0	82.0	.0	.0	92.0	.0
20	81.0	98.0	.0	109.0	.0	.0	81.0	.0	.0	91.0	.0
25	80.0	96.6	.0	107.8	.0	.0	81.0	.0	.0	90.0	.0
31	80.0	97.2	.0	106.6	.0	.0	81.4	.0	.0	90.0	.0
40	80.0	99.0	.0	108.4	.0	.0	81.4	.0	.0	90.0	.0
50	80.0	94.2	.0	105.2	.0	.0	80.6	.0	.0	90.0	.0
63	80.0	95.8	.0	104.6	.0	.0	83.6	.0	.0	91.4	.0
80	80.0	97.4	.0	103.4	.0	.0	85.6	.0	.0	94.8	.0
100	83.0	96.4	.0	104.0	.0	.0	92.6	.0	.0	99.2	.0
125	82.0	96.0	.0	101.6	.0	.0	90.8	.0	.0	97.6	.0
160	83.4	95.4	.0	99.8	.0	.0	90.6	.0	.0	97.6	.0
200	83.4	94.6	.0	98.8	.0	.0	91.6	.0	.0	98.8	.0
250	85.4	96.2	.0	99.6	.0	.0	92.6	.0	.0	100.0	.0
315	84.6	98.0	.0	98.8	.0	.0	93.6	.0	.0	100.4	.0
400	84.2	95.4	.0	99.6	.0	.0	93.8	.0	.0	100.8	.0
500	86.6	97.4	.0	99.8	.0	.0	95.2	.0	.0	102.2	.0
630	86.4	97.6	.0	101.4	.0	.0	95.0	.0	.0	101.6	.0
800	87.2	98.4	.0	100.0	.0	.0	99.8	.0	.0	101.6	.0
1000	90.4	102.2	.0	103.4	.0	.0	100.0	.0	.0	107.2	.0
1250	92.6	104.2	.0	109.6	.0	.0	102.0	.0	.0	109.0	.0
1600	92.4	103.0	.0	105.0	.0	.0	101.6	.0	.0	108.2	.0
2000	100.2	110.6	.0	114.4	.0	.0	109.6	.0	.0	116.2	.0
2500	99.4	108.2	.0	109.4	.0	.0	109.4	.0	.0	111.2	.0
3150	88.4	99.0	.0	102.2	.0	.0	98.6	.0	.0	105.4	.0
4000	93.2	104.0	.0	107.0	.0	.0	101.8	.0	.0	110.8	.0
5000	89.6	100.0	.0	103.2	.0	.0	97.2	.0	.0	107.0	.0
6300	84.0	94.0	.0	96.0	.0	.0	89.8	.0	.0	100.2	.0
8000	85.0	90.0	.0	90.8	.0	.0	85.8	.0	.0	94.2	.0
10000	80.0	90.0	.0	90.0	.0	.0	81.0	.0	.0	90.0	.0
12500	80.0	90.0	.0	90.0	.0	.0	80.0	.0	.0	90.0	.0
16000	80.0	90.0	.0	90.0	.0	.0	80.4	.0	.0	90.0	.0
20000	80.0	90.0	.0	90.0	.0	.0	84.4	.0	.0	91.4	.0
OVERALL SPL	104.4	115.8	.0	120.2	.0	.0	113.4	.0	.0	120.2	.0
PNDB	117.8	128.9	.0	132.0	.0	.0	126.7	.0	.0	133.7	.0



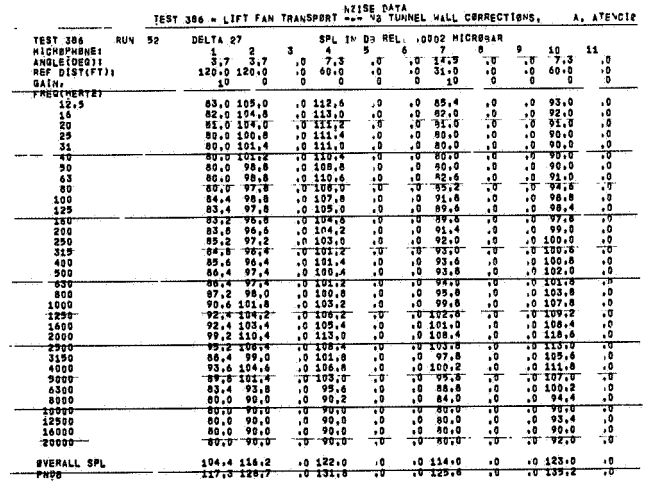
NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A, ATENCIO

TEST 386 RUN 52	DELTA 25				SPL IN DB REL, .0002 MICROBAR						
MICRPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG)T	3.7	3.7	.0	7.3	.0	.0	14.5	.0	.0	7.3	.0
REF DIST(FT):	120.0	120.0	.0	60.0	.0	.0	31.0	.0	.0	60.0	.0
GAIN,	10	0	0	0	0	0	10	0	0	0	0
FREQ(HERTZ)											
12.5	83.0	99.8	.0	111.2	.0	.0	84.0	.0	.0	93.0	.0
16	82.0	100.8	.0	108.8	.0	.0	82.0	.0	.0	92.0	.0
20	81.0	99.0	.0	109.4	.0	.0	81.0	.0	.0	91.0	.0
25	80.0	97.0	.0	107.4	.0	.0	80.0	.0	.0	90.0	.0
31	80.0	97.8	.0	108.4	.0	.0	81.0	.0	.0	90.0	.0
40	80.0	97.6	.0	107.4	.0	.0	80.0	.0	.0	90.0	.0
50	80.0	94.8	.0	105.4	.0	.0	80.0	.0	.0	90.0	.0
63	80.0	98.6	.0	105.8	.0	.0	81.8	.0	.0	92.6	.0
80	80.0	94.4	.0	104.4	.0	.0	84.8	.0	.0	96.2	.0
100	83.4	97.4	.0	103.6	.0	.0	92.0	.0	.0	100.2	.0
125	81.8	95.0	.0	102.2	.0	.0	90.6	.0	.0	98.0	.0
160	82.6	94.4	.0	101.2	.0	.0	89.8	.0	.0	99.0	.0
200	83.6	95.2	.0	100.2	.0	.0	90.4	.0	.0	98.6	.0
250	84.6	96.2	.0	101.2	.0	.0	92.6	.0	.0	100.0	.0
315	84.6	95.6	.0	98.6	.0	.0	93.0	.0	.0	100.6	.0
400	85.0	96.8	.0	98.6	.0	.0	93.0	.0	.0	101.0	.0
500	86.4	97.8	.0	99.2	.0	.0	94.2	.0	.0	102.6	.0
630	86.8	97.2	.0	99.6	.0	.0	95.6	.0	.0	101.8	.0
800	86.4	97.6	.0	100.6	.0	.0	95.4	.0	.0	103.6	.0
1000	90.6	101.4	.0	103.8	.0	.0	99.8	.0	.0	107.2	.0
1250	92.2	103.8	.0	109.6	.0	.0	101.6	.0	.0	108.8	.0
1600	91.8	103.2	.0	105.6	.0	.0	101.4	.0	.0	108.4	.0
2000	99.0	111.2	.0	114.2	.0	.0	110.0	.0	.0	117.4	.0
2500	98.4	108.2	.0	109.4	.0	.0	109.0	.0	.0	112.6	.0
3150	88.0	99.4	.0	102.0	.0	.0	98.4	.0	.0	105.6	.0
4000	93.0	104.6	.0	106.6	.0	.0	102.2	.0	.0	111.0	.0
5000	89.0	100.0	.0	102.8	.0	.0	96.4	.0	.0	106.2	.0
6300	82.8	93.8	.0	96.4	.0	.0	88.4	.0	.0	100.0	.0
8000	80.0	90.0	.0	90.6	.0	.0	83.2	.0	.0	94.4	.0
10000	80.0	90.0	.0	90.0	.0	.0	80.0	.0	.0	90.0	.0
12500	80.0	90.0	.0	90.0	.0	.0	80.0	.0	.0	92.0	.0
16000	80.0	90.0	.0	90.0	.0	.0	80.0	.0	.0	90.0	.0
20000	80.0	90.0	.0	90.0	.0	.0	80.0	.0	.0	90.2	.0
OVERALL SPL	104.0	115.8	.0	119.6	.0	.0	114.0	.0	.0	122.0	.0
PNDB	117.0	128.8	.0	131.9	.0	.0	126.9	.0	.0	134.9	.0



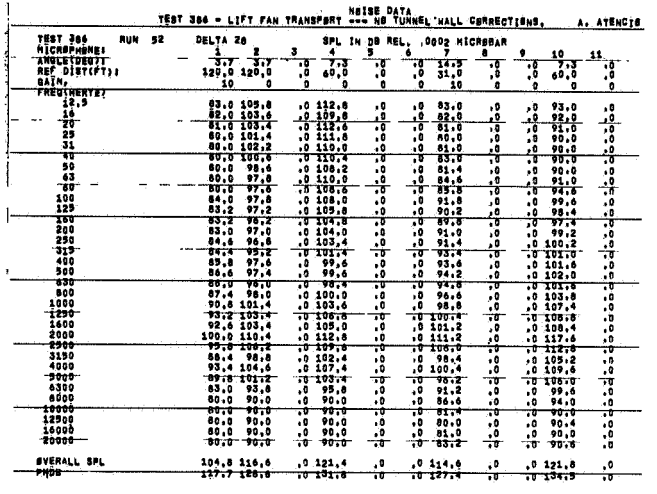
NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A, ATENCIO

TEST 386 RUN 52	DELTA 26				SPL IN DB REL, .0002 MICROBAR						
MICRPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG)T	3.7	3.7	.0	7.3	.0	.0	14.5	.0	.0	7.3	.0
REF DIST(FT):	129.0	120.0	.0	60.0	.0	.0	31.0	.0	.0	60.0	.0
GAIN,	10	0	0	0	0	0	10	0	0	0	0
FREQ(HERTZ)											
12.5	83.0	103.4	.0	114.4	.0	.0	89.0	.0	.0	93.0	.0
16	82.0	102.0	.0	114.8	.0	.0	84.8	.0	.0	92.0	.0
20	81.0	100.8	.0	114.4	.0	.0	82.8	.0	.0	91.0	.0
25	80.0	99.2	.0	112.6	.0	.0	81.0	.0	.0	90.0	.0
31	80.0	100.2	.0	113.0	.0	.0	82.6	.0	.0	90.0	.0
40	80.0	98.6	.0	111.8	.0	.0	81.8	.0	.0	90.0	.0
50	80.0	97.4	.0	111.6	.0	.0	80.2	.0	.0	90.0	.0
63	80.0	98.6	.0	112.2	.0	.0	83.4	.0	.0	91.4	.0
80	80.0	96.4	.0	108.8	.0	.0	85.0	.0	.0	94.0	.0
100	83.2	97.6	.0	109.2	.0	.0	92.2	.0	.0	99.0	.0
125	82.6	95.8	.0	106.4	.0	.0	90.2	.0	.0	98.0	.0
160	83.0	95.8	.0	105.4	.0	.0	89.8	.0	.0	98.6	.0
200	83.4	95.8	.0	104.6	.0	.0	91.6	.0	.0	98.6	.0
250	84.6	97.2	.0	103.0	.0	.0	92.4	.0	.0	100.0	.0
315	85.0	95.8	.0	101.4	.0	.0	93.6	.0	.0	101.8	.0
400	85.8	96.2	.0	100.0	.0	.0	95.6	.0	.0	101.6	.0
500	86.6	97.8	.0	99.6	.0	.0	94.8	.0	.0	102.6	.0
630	87.4	98.0	.0	100.2	.0	.0	93.8	.0	.0	101.4	.0
800	86.6	97.8	.0	100.6	.0	.0	94.2	.0	.0	102.2	.0
1000	90.4	101.6	.0	103.6	.0	.0	99.6	.0	.0	106.8	.0
1250	92.6	103.8	.0	109.6	.0	.0	101.4	.0	.0	108.4	.0
1600	92.4	103.4	.0	104.6	.0	.0	101.4	.0	.0	108.2	.0
2000	98.6	109.6	.0	112.6	.0	.0	107.0	.0	.0	116.0	.0
2500	94.6	106.0	.0	108.0	.0	.0	103.0	.0	.0	111.4	.0
3150	88.6	99.0	.0	101.6	.0	.0	98.4	.0	.0	105.2	.0
4000	93.2	103.8	.0	106.4	.0	.0	99.6	.0	.0	110.4	.0
5000	89.6	100.4	.0	102.6	.0	.0	95.6	.0	.0	107.6	.0
6300	83.2	93.6	.0	96.8	.0	.0	90.0	.0	.0	100.2	.0
8000	80.0	90.0	.0	90.2	.0	.0	84.0	.0	.0	93.8	.0
10000	80.0	90.0	.0	90.0	.0	.0	80.0	.0	.0	90.0	.0
12500	80.0	90.0	.0	90.0	.0	.0	80.0	.0	.0	90.0	.0
16000	80.0	90.0	.0	90.0	.0	.0	80.0	.0	.0	90.0	.0
20000	80.0	90.0	.0	90.0	.0	.0	80.0	.0	.0	90.2	.0
OVERALL SPL	104.2	115.6	.0	122.8	.0	.0	112.8	.0	.0	121.2	.0
PNDB	118.9	129.1	.0	131.8	.0	.0	129.0	.0	.0	133.8	.0



NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A, ATENCIO

TEST 386 RUN 52	DELTA 27				SPL IN DB REL, .0002 MICROBAR						
MICRPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG)T	3.7	3.7	.0	7.3	.0	.0	14.5	.0	.0	7.3	.0
REF DIST(FT):	120.0	120.0	.0	60.0	.0	.0	31.0	.0	.0	60.0	.0
GAIN,	10	0	0	0	0	0	10	0	0	0	0
FREQ(HERTZ)											
12.5	83.0	105.0	.0	112.6	.0	.0	85.4	.0	.0	93.0	.0
16	82.0	104.8	.0	113.0	.0	.0	82.8	.0	.0	92.0	.0
20	81.0	104.0	.0	111.2	.0	.0	81.0	.0	.0	91.0	.0
25	80.0	100.8	.0	111.4	.0	.0	80.0	.0	.0	90.0	.0
31	80.0	101.4	.0	111.0	.0	.0	80.0	.0	.0	90.0	.0
40	80.0	101.2	.0	110.4	.0	.0	80.0	.0	.0	90.0	.0
50	80.0	98.8	.0	108.8	.0	.0	80.0	.0	.0	90.0	.0
63	80.0	98.8	.0	110.6	.0	.0	82.6	.0	.0	91.0	.0
80	80.0	97.8	.0	108.0	.0	.0	85.2	.0	.0	94.6	.0
100	84.4	98.8	.0	107.8	.0	.0	91.6	.0	.0	98.8	.0
125	83.4	97.8	.0	105.0	.0	.0	89.6	.0	.0	98.4	.0
160	83.2	96.8	.0	104.6	.0	.0	89.6	.0	.0	97.6	.0
200	83.8	96.6	.0	104.2	.0	.0	91.4	.0	.0	99.0	.0
250	85.2	97.2	.0	103.0	.0	.0	92.0	.0	.0	100.0	.0
315	84.8	96.4	.0	101.2	.0	.0	93.0	.0	.0	100.6	.0
400	85.6	96.4	.0	101.4	.0	.0	93.6	.0	.0	100.8	.0
500	86.4	97.4	.0	100.4	.0	.0	93.8	.0	.0	102.0	.0
630	86.4	97.4	.0	101.2	.0	.0	94.0	.0	.0	101.8	.0
800	87.2	98.0	.0	100.8	.0	.0	95.8	.0	.0	103.8	.0
1000	90.6	101.8	.0	103.2	.0	.0	99.8	.0	.0	107.8	.0
1250	92.4	104.2	.0	108.2	.0	.0	102.0	.0	.0	109.2	.0
1600	92.4	103.4	.0	105.4	.0	.0	101.0	.0	.0	108.4	.0
2000	99.2	110.4	.0	113.0	.0	.0	108.4	.0	.0	116.6	.0
2500	95.2	106.6	.0	108.4	.0	.0	103.8	.0	.0	113.0	.0
3150	88.4	99.0	.0	101.8	.0	.0	97.8	.0	.0	105.6	.0
4000	93.6	104.6	.0	106.8	.0	.0	100.2	.0	.0	111.8	.0
5000	89.8	101.4	.0	103.0	.0	.0	99.6	.0	.0	107.0	.0
6300	83.4	93.8	.0	95.6	.0	.0	88.8	.0	.0	100.2	.0
8000	80.0	90.0	.0	90.2	.0	.0	84.0	.0	.0	94.4	.0
10000	80.0	90.0	.0	90.0	.0	.0	80.0	.0	.0	90.0	.0
12500	80.0	90.0	.0	90.0	.0	.0	80.0	.0	.0	90.4	.0
16000	80.0	90.0	.0	90.0	.0	.0	80.0	.0	.0	90.0	.0
20000	80.0	90.0	.0	90.0	.0	.0	80.0	.0	.0	92.0	.0
OVERALL SPL	104.4	116.2	.0	122.0	.0	.0	114.0	.0	.0	123.0	.0
PNDB	117.3	128.7	.0	131.8	.0	.0	128.8	.0	.0	135.2	.0



NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- NO TUNNEL WALL CORRECTIONS, A, ATENCIO

TEST 386 RUN 52	DELTA 28				SPL IN DB REL, .0002 MICROBAR						
MICRPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEG)T	3.7	3.7	.0	7.3	.0	.0	14.5	.0	.0	7.3	.0
REF DIST(FT):	129.0	120.0	.0	60.0	.0	.0	31.0	.0	.0	60.0	.0
GAIN,	10	0	0	0	0	0	10	0	0	0	0
FREQ(HERTZ)											
12.5	83.0	103.6	.0	112.6	.0	.0	83.0	.0	.0	93.0	.0
16	82.0	103.6	.0	109.8	.0	.0	82.0	.0	.0	92.0	.0
20	81.0	103.4	.0	112.6	.0	.0	81.0	.0	.0	91.0	.0
25	80.0	101.4	.0	111.8	.0	.0	80.0	.0	.0	90.0	.0
31	80.0	102.2	.0	110.0	.0	.0	81.0	.0	.0	90.0	.0
40	80.0	100.6	.0	110.4	.0	.0	83.0	.0	.0	90.0	.0
50	80.0	98.6	.0	108.2	.0	.0	81.4	.0	.0	90.0	.0
63	80.0	98.6	.0	110.8	.0	.0	84.6	.0	.0	91.0	.0
80	80.0	97.6	.0	108.6	.0	.0	85.8	.0	.0	94.8	.0
100	84.0	97.8	.0	108.0	.0	.0	91.8	.0	.0	99.6	.0
125	83.2	97.2	.0	105.8	.0	.0	90.2	.0	.0	98.4	.0
160	83.2	96.2	.0	104.8	.0	.0	89.8	.0	.0	97.4	.0
200	83.0	97.0	.0	104.0	.0	.0	91.0	.0	.0	99.2	.0
250	84.6	96.8	.0	103.4	.0	.0	91.4	.0	.0	100.2	.0
315	84.4	95.2	.0	101.4	.0	.0	93.4	.0	.0	101.0	.0
400	85.8	97.6	.0	100.6	.0	.0	93.6	.0	.0	101.6	.0
500	86.6	97.4	.0	99.6	.0	.0	94.2	.0	.0	102.2	.0
630	86.9	98.0	.0	98.4	.0	.0	94.8	.0	.0	101.8	.0
800	87.4	98.0	.0	100.0	.0	.0	96.6	.0	.0	103.8	.0
1000	90.8	101.4	.0	103.4	.0	.0	98.8	.0	.0	107.4	.0
1250	93.2	103.4	.0	108.6	.0	.0	100.4	.0	.0	108.8	.0
1600	92.6	103.4	.0	105.0	.0	.0	101.2	.0	.0	108.4	.0
2000	100.0	110.4	.0	112.8	.0	.0	111.2	.0	.0	117.6	.0
2500	95.2	106.8	.0	108.2	.0	.0	105.2	.0	.0	112.8	.0
3150	88.4	98.8	.0	102.4	.0	.0	98.4	.0	.0	105.2	.0
4000	93.4	104.6	.0	107.4	.0	.0	100.4	.0	.0	109.6	.0
5000	89.8	101.2	.0	103.4	.0	.0	96.2	.0	.0	105.0	.0
6300	83.0	93.6	.0	95.8	.0	.0	91.2	.0	.0	99.6	.0
8000	80.0	90.0	.0	90.0	.0	.0	86.4	.0	.0	94.0	.0
10000	80.0	90.0	.0	90.0	.0	.0	81.4	.0	.0	90.0	.0
12500	80.8	90.0	.0	90.0	.0	.0	80.0	.0	.0	90.4	.0
16000	80.0	90.0	.0	90.0	.0	.0	81.0	.0	.0	90.0	.0
20000	80.0	90.0	.0	90.0	.0	.0	83.2	.0	.0	90.6	.0
OVERALL SPL	104.8	116.6	.0	121.4	.0	.0	114.6	.0	.0	121.8	.0
PNDB	117.7	128.9	.0	131.8	.0	.0	127.4	.0	.0	134.9	.0

(h) Run 42, Run 52.

Figure 20.- Continued.

NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 70	DELTA 9			SPL IN DB REL. .0002 MICROBAR							
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGT	4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT):	105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN,	10	0	10	0	0	10	0	0	0	0	0
FREQUENCY)											
12.5	88.8	.0	93.0	.0	.0	98.2	.0	.0	.0	.0	91.2
16	82.0	.0	92.0	.0	.0	97.6	.0	.0	.0	.0	91.8
20	84.8	.0	91.0	.0	.0	94.2	.0	.0	.0	.0	89.2
25	86.4	.0	95.2	.0	.0	99.6	.0	.0	.0	.0	87.0
31	87.8	.0	90.0	.0	.0	100.8	.0	.0	.0	.0	88.2
40	85.6	.0	90.0	.0	.0	98.0	.0	.0	.0	.0	92.4
50	88.8	.0	90.0	.0	.0	100.8	.0	.0	.0	.0	89.8
63	87.6	.0	90.4	.0	.0	99.8	.0	.0	.0	.0	88.6
80	87.6	.0	90.0	.0	.0	98.2	.0	.0	.0	.0	89.2
100	91.0	.0	94.2	.0	.0	100.0	.0	.0	.0	.0	86.6
125	89.6	.0	90.0	.0	.0	97.6	.0	.0	.0	.0	83.4
160	90.4	.0	90.6	.0	.0	98.8	.0	.0	.0	.0	84.0
200	89.2	.0	90.0	.0	.0	99.4	.0	.0	.0	.0	82.0
250	91.4	.0	93.6	.0	.0	97.6	.0	.0	.0	.0	83.2
315	90.0	.0	91.0	.0	.0	98.8	.0	.0	.0	.0	81.6
400	90.8	.0	92.0	.0	.0	99.2	.0	.0	.0	.0	84.0
500	93.0	.0	92.6	.0	.0	98.4	.0	.0	.0	.0	80.4
630	93.0	.0	93.6	.0	.0	99.6	.0	.0	.0	.0	83.4
800	93.8	.0	94.8	.0	.0	101.4	.0	.0	.0	.0	81.8
1000	98.2	.0	100.6	.0	.0	106.8	.0	.0	.0	.0	83.8
1250	102.4	.0	105.0	.0	.0	110.0	.0	.0	.0	.0	86.0
1600	100.2	.0	102.6	.0	.0	107.8	.0	.0	.0	.0	85.8
2000	102.8	.0	105.2	.0	.0	112.2	.0	.0	.0	.0	85.4
2500	97.6	.0	101.2	.0	.0	108.4	.0	.0	.0	.0	83.2
3150	94.2	.0	97.4	.0	.0	104.0	.0	.0	.0	.0	80.0
4000	99.4	.0	102.4	.0	.0	109.0	.0	.0	.0	.0	85.0
5000	94.8	.0	98.0	.0	.0	107.0	.0	.0	.0	.0	80.6
6300	86.4	.0	90.0	.0	.0	101.0	.0	.0	.0	.0	80.0
8000	84.6	.0	90.0	.0	.0	97.2	.0	.0	.0	.0	80.0
10000	80.0	.0	90.0	.0	.0	90.0	.0	.0	.0	.0	80.0
12500	80.0	.0	90.0	.0	.0	90.0	.0	.0	.0	.0	80.0
16000	80.0	.0	90.0	.0	.0	90.0	.0	.0	.0	.0	80.0
20000	80.0	.0	90.0	.0	.0	90.0	.0	.0	.0	.0	80.0
OVERALL SPL	109.8	.0	112.4	.0	.0	119.2	.0	.0	.0	.0	99.8
PNDB	122.1	.0	124.7	.0	.0	131.4	.0	.0	.0	.0	109.8

NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 70	DELTA 32			SPL IN DB REL. .0002 MICROBAR							
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGT	4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT))	105.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN,	20	0	20	0	0	10	0	0	0	0	10
FREQUENCY)											
12.5	98.4	.0	98.4	.0	.0	98.4	.0	.0	.0	.0	80.8
16	98.8	.0	98.2	.0	.0	99.4	.0	.0	.0	.0	77.8
20	98.2	.0	96.0	.0	.0	95.0	.0	.0	.0	.0	75.0
25	96.8	.0	93.6	.0	.0	97.8	.0	.0	.0	.0	79.0
31	97.8	.0	93.8	.0	.0	97.8	.0	.0	.0	.0	71.2
40	99.2	.0	92.8	.0	.0	97.4	.0	.0	.0	.0	70.0
50	93.8	.0	93.0	.0	.0	99.2	.0	.0	.0	.0	72.8
63	99.2	.0	94.4	.0	.0	98.8	.0	.0	.0	.0	73.4
80	92.8	.0	90.6	.0	.0	96.4	.0	.0	.0	.0	72.8
100	94.4	.0	94.0	.0	.0	99.6	.0	.0	.0	.0	76.4
125	96.8	.0	92.8	.0	.0	97.6	.0	.0	.0	.0	73.8
160	92.0	.0	92.0	.0	.0	97.2	.0	.0	.0	.0	74.0
200	90.2	.0	90.8	.0	.0	96.0	.0	.0	.0	.0	74.0
250	91.4	.0	93.4	.0	.0	95.8	.0	.0	.0	.0	76.6
315	90.2	.0	92.2	.0	.0	94.6	.0	.0	.0	.0	74.4
400	91.6	.0	92.0	.0	.0	95.4	.0	.0	.0	.0	76.0
500	91.8	.0	93.8	.0	.0	95.4	.0	.0	.0	.0	76.2
630	90.6	.0	94.8	.0	.0	95.8	.0	.0	.0	.0	77.2
800	93.6	.0	96.2	.0	.0	99.2	.0	.0	.0	.0	79.8
1000	98.8	.0	100.4	.0	.0	104.4	.0	.0	.0	.0	84.6
1250	100.8	.0	103.0	.0	.0	106.2	.0	.0	.0	.0	88.0
1600	98.8	.0	101.0	.0	.0	103.0	.0	.0	.0	.0	85.6
2000	102.2	.0	104.0	.0	.0	108.8	.0	.0	.0	.0	86.4
2500	97.2	.0	99.8	.0	.0	104.4	.0	.0	.0	.0	84.8
3150	93.6	.0	96.8	.0	.0	100.8	.0	.0	.0	.0	81.8
4000	98.6	.0	101.6	.0	.0	107.0	.0	.0	.0	.0	87.4
5000	95.2	.0	97.2	.0	.0	102.6	.0	.0	.0	.0	83.0
6300	88.6	.0	88.6	.0	.0	96.8	.0	.0	.0	.0	79.2
8000	84.6	.0	82.8	.0	.0	93.2	.0	.0	.0	.0	75.8
10000	78.4	.0	80.0	.0	.0	90.0	.0	.0	.0	.0	70.0
12500	70.0	.0	80.0	.0	.0	90.0	.0	.0	.0	.0	70.0
16000	70.0	.0	80.0	.0	.0	90.0	.0	.0	.0	.0	70.0
20000	74.6	.0	80.0	.0	.0	90.0	.0	.0	.0	.0	70.0
OVERALL SPL	119.4	.0	112.2	.0	.0	116.6	.0	.0	.0	.0	96.4
PNDB	121.9	.0	123.9	.0	.0	128.7	.0	.0	.0	.0	109.2

NOISE DATA
TEST 386 - LIFT FAN TRANSPORT --- NB TUNNEL WALL CORRECTIONS, A. ATENCIO

TEST 386 RUN 72	DELTA 3			SPL IN DB REL. .0002 MICROBAR							
MICROPHONE:	1	2	3	4	5	6	7	8	9	10	11
ANGLE(DEGT	4.9	.0	8.5	.0	22.0	21.0	.0	.0	.0	.0	11.3
REF DIST(FT))	109.4	.0	60.7	.0	23.9	25.1	.0	.0	.0	.0	45.9
GAIN,	10	0	20	0	0	10	0	0	0	0	10
FREQUENCY)											
12.5	83.0	.0	73.0	.0	.0	83.6	.0	.0	.0	.0	83.0
16	82.0	.0	72.0	.0	.0	82.0	.0	.0	.0	.0	82.0
20	81.0	.0	71.0	.0	.0	81.0	.0	.0	.0	.0	81.0
25	80.0	.0	70.0	.0	.0	80.0	.0	.0	.0	.0	80.0
31	80.0	.0	70.0	.0	.0	80.0	.0	.0	.0	.0	80.0
40	80.0	.0	70.0	.0	.0	80.0	.0	.0	.0	.0	80.0
50	80.0	.0	70.0	.0	.0	80.0	.0	.0	.0	.0	80.0
63	80.0	.0	70.0	.0	.0	80.0	.0	.0	.0	.0	80.0
80	80.0	.0	70.0	.0	.0	80.0	.0	.0	.0	.0	80.0
100	83.4	.0	68.2	.0	.0	84.8	.0	.0	.0	.0	80.0
125	80.0	.0	69.6	.0	.0	82.8	.0	.0	.0	.0	80.0
160	80.0	.0	68.6	.0	.0	80.0	.0	.0	.0	.0	80.0
200	80.0	.0	70.6	.0	.0	80.0	.0	.0	.0	.0	80.0
250	80.0	.0	68.0	.0	.0	82.0	.0	.0	.0	.0	80.0
315	80.0	.0	68.0	.0	.0	80.0	.0	.0	.0	.0	80.0
400	81.2	.0	68.6	.0	.0	81.2	.0	.0	.0	.0	80.0
500	82.6	.0	65.2	.0	.0	82.4	.0	.0	.0	.0	80.0
630	81.2	.0	64.6	.0	.0	84.0	.0	.0	.0	.0	80.0
800	81.6	.0	69.6	.0	.0	83.0	.0	.0	.0	.0	80.0
1000	86.6	.0	89.2	.0	.0	88.6	.0	.0	.0	.0	80.0
1250	88.2	.0	90.2	.0	.0	89.4	.0	.0	.0	.0	80.0
1600	87.4	.0	90.2	.0	.0	88.6	.0	.0	.0	.0	80.0
2000	89.2	.0	97.8	.0	.0	99.0	.0	.0	.0	.0	87.0
2500	92.8	.0	92.6	.0	.0	96.2	.0	.0	.0	.0	84.2
3150	87.8	.0	90.4	.0	.0	87.8	.0	.0	.0	.0	80.0
4000	96.6	.0	99.0	.0	.0	99.2	.0	.0	.0	.0	80.0
5000	90.8	.0	90.2	.0	.0	89.8	.0	.0	.0	.0	80.0
6300	86.2	.0	80.2	.0	.0	86.0	.0	.0	.0	.0	80.0
8000	82.6	.0	79.8	.0	.0	80.6	.0	.0	.0	.0	80.0
10000	80.0	.0	72.6	.0	.0	80.0	.0	.0	.0	.0	80.0
12500	80.0	.0	70.0	.0	.0	80.0	.0	.0	.0	.0	80.0
16000	80.0	.0	70.0	.0	.0	80.0	.0	.0	.0	.0	80.0
20000	80.0	.0	70.0	.0	.0	80.0	.0	.0	.0	.0	80.0
OVERALL SPL	102.0	.0	109.2	.0	.0	103.6	.0	.0	.0	.0	90.2
PNDB	116.8	.0	119.8	.0	.0	119.8	.0	.0	.0	.0	107.9

(i) Run 70, Run 72.

Figure 20.- Concluded.

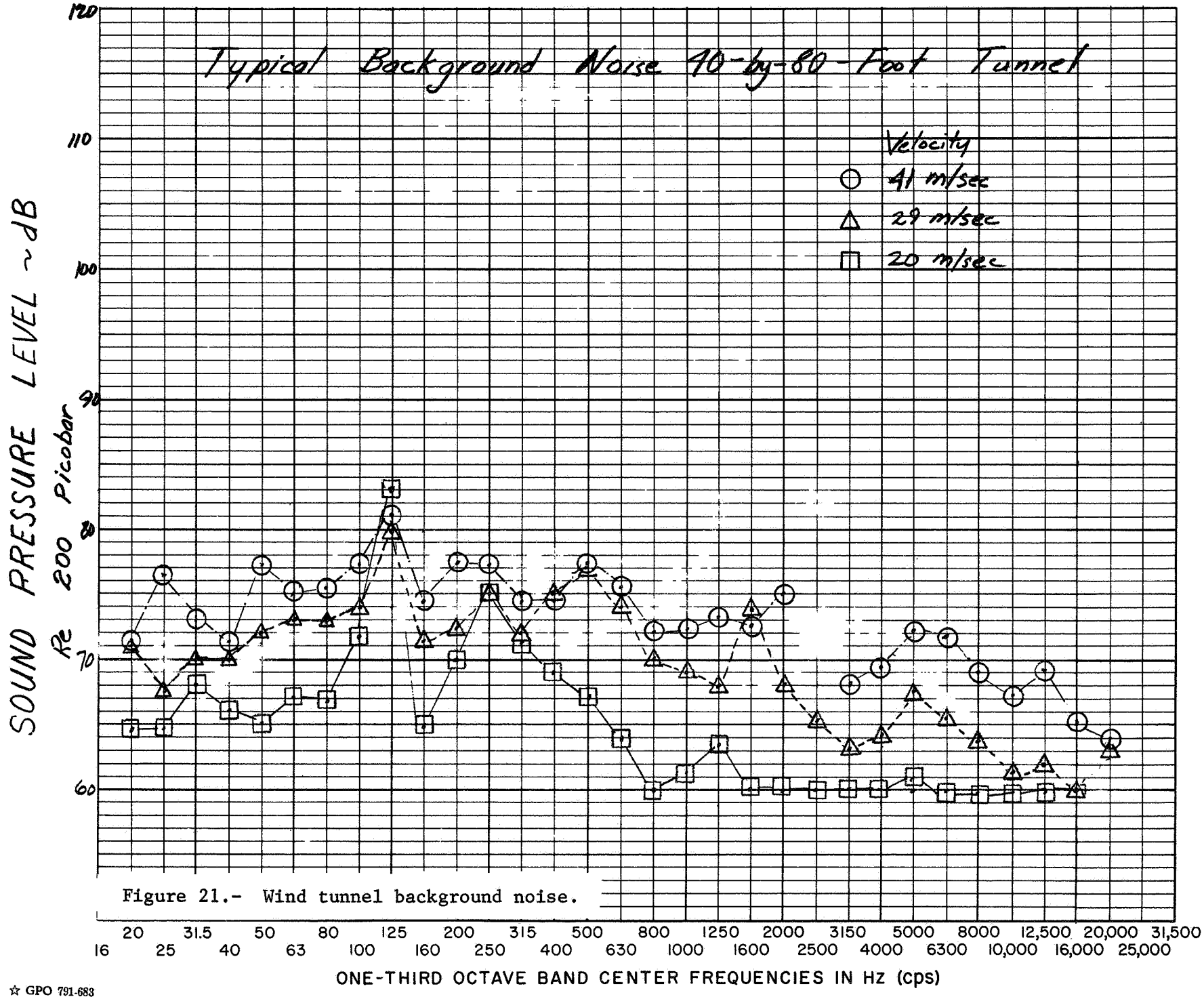


Figure 21.- Wind tunnel background noise.