

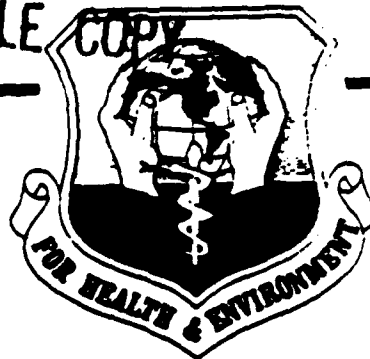
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USAFOEHL REPORT

87-082EH0186FNA



AD-A183 799

FIRST ARTICLE TEST NOISE SURVEY OF THE
A/F32T-9 LARGE TURBO FAN ENGINE ENCLOSED
NOISE SUPPRESSOR SYSTEM, SKY HARBOR IAP,
PHOENIX AZ

JEFFERY C. JENKINS, CAPTAIN, USAF, BSC

TERRY M. FAIRMAN, CAPTAIN, USAF, BSC

June 1987

Final Report

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USAF Occupational and Environmental Health Laboratory
Human Systems Division (AFSC)
Brooks Air Force Base, Texas 78235-5501

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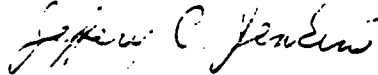
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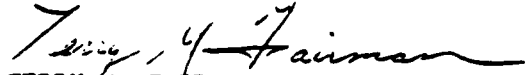
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Commander

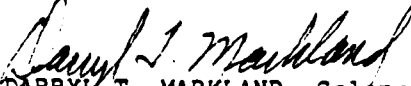
Prepared By:


JEFFERY C. JENKINS, Captain, USAF, BSC
Consultant, Industrial Hygiene Engineer


TERRY M. FAIRMAN, Captain, USAF, BSC
Consultant, Industrial Hygiene Engineer

Reviewed By:


WILEY TAYLOR, Lt Col, USAF, BSC
Chief, Industrial Hygiene Branch


DARRYL T. MARKLAND, Colonel, USAF, BSC
Chief, Consultant Services Division

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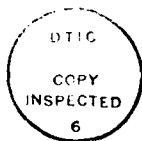
SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED		1b. RESTRICTIVE MARKINGS N/A			
2a. SECURITY CLASSIFICATION AUTHORITY NA		3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release; distribution is unlimited.			
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE NA					
4. PERFORMING ORGANIZATION REPORT NUMBER(S) USAF OEH L Report 87-082EHO186FNA		5. MONITORING ORGANIZATION REPORT NUMBER(S) N/A			
6a. NAME OF PERFORMING ORGANIZATION USAF Occupational and Environmental Health Laboratory		6b. OFFICE SYMBOL (if applicable) ECH	7a. NAME OF MONITORING ORGANIZATION		
6c. ADDRESS (City, State, and ZIP Code) Brooks AFB TX 78235-5501		7b. ADDRESS (City, State, and ZIP Code)			
8a. NAME OF FUNDING/SPONSORING ORGANIZATION Same as 6a		8b. OFFICE SYMBOL (if applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		
8c. ADDRESS (City, State, and ZIP Code)		10. SOURCE OF FUNDING NUMBERS			
		PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) First Article Test Noise Survey of the A/F32T-9 Large Turbo Fan Engine Enclosed Noise Suppressor System, Sky Harbor IAP, Phoenix AZ					
12. PERSONAL AUTHOR(S) Captain Jeffery C. Jenkins, Captain Terry M. Fairman					
13a. TYPE OF REPORT Final		13b. TIME COVERED FROM 86 Nov 12	14. DATE OF REPORT (Year, Month, Day) June 1987		15. PAGE COUNT 162
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number) Engine Test Cell Noise Suppressor F101 Sky Harbor IAP Noise T-9 NSS		
FIELD	GROUP	SUB-GROUP			
19. ABSTRACT (Continue on reverse if necessary and identify by block number) Abstract: The A/F32T-9 Large Turbo Fan Engine, Enclosed Noise Suppressor System (T-9 NSS) at Sky Harbor International Airport, Phoenix AZ was surveyed to determine noise levels at 100 meters, (m). With an F101 engine operating at afterburner power the highest measured Overall Sound Level, A-Weighted (OASLA) was 88.7 dB(A). The measured OASLA values exceeded the 77 dB(A) criterion at all but five of the twenty-four sampling positions. Jeffery C. Jenkins, Captain, USAF, BSC					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS PPT <input checked="" type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION Unclassified		
22a. NAME OF RESPONSIBLE INDIVIDUAL JEFFERY C. JENKINS, Captain, USAF, BSC		22b. TELEPHONE (Include Area Code) (512) 536-3214		22c. OFFICE SYMBOL ECH	

ACKNOWLEDGMENTS

The dedicated efforts of the following survey team members in collecting data during the early morning hours are sincerely appreciated: Maj John C. Ellis, II, 1Lt Laura G. Johrde, 2Lt Anthony T. Zimmer, 2Lt Winston J. Shaffer, II, MSgt Abel B. de la Rosa, and SSgt Michael K. Lazenby. The entire survey ran smoothly thanks to the invaluable work of Mr Art Woytek of SA ALC/MMIMH, Kelly AFB TX, in coordinating the efforts of many different people prior to the survey. We also wish to thank A1C Brian Fallon of the 25 WS-Det 15, Luke AFB, for providing critical on site meteorological data in support of our noise survey. Finally, we want to thank the engine maintenance personnel of the 161 AFEFG, Phoenix ANG Stn for surveying and marking the sampling locations, and for providing ready access to needed working space.

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I. INTRODUCTION

A. Purpose: This report provides the results of the analysis of the noise data recorded during the 12 November 1986 survey of the A/F32T-9 Large Turbo Fan Engine, Enclosed Noise Suppressor System (T-9 NSS) at the 161 AREFG, Sky Harbor International Airport (IAP) AZ. The T-9 NSS item managers, SA-ALC/MMIMH, Kelly AFB TX, requested the noise survey to support their First Article Test (FAT) on the Sky Harbor IAP facility.

B. Problem: Data from the analysis of noise tapes collected during a survey of the first T-9 NSS at McConnell AFB KS, indicated the system was exceeding the contractually specified maximum noise level of 77 decibels, A-weighted (dB(A)) measured at any location 100 meters from the building. (Reference 4 contains a description of the T-9 NSS facility.) However, conditions at the McConnell AFB T-9 NSS site were less than ideal for the collection of noise data recordings. The temperature, humidity, and wind speed were often outside the range of acceptable values for the collection of accurate noise data recordings. Other buildings near the T-9 NSS at McConnell AFB, shielded some measurement locations from direct noise exposure and exposed some measurement locations to reflected noise. Background noise levels during the survey at the McConnell AFB T-9 NSS were high because the site is near an active runway. Given the operational constraints at McConnell AFB, it was impossible to collect noise data recordings that were not affected by takeoff, landing, and flyover noise from aircraft.

Measurements were taken at Sky Harbor IAP to reassess the noise reduction effectiveness of the T-9 NSS under more favorable conditions. The temperature, humidity, and wind speed were within the range of acceptable values during the survey of the facility at the Phoenix IAP. Also the T-9 NSS at the Sky Harbor IAP site is located farther away from surrounding buildings and other sound reflecting sources than the T-9 NSS at the McConnell AFB site. Finally, to minimize the background noise, the survey at the Phoenix IAP was conducted from 0100 to 0400 hours.

The operational shake-down test requirements of the T-9 NSS were satisfied for the eight engines tested at McConnell AFB. It was not practical to transport the eight engines and the required operating personnel to the Sky Harbor IAP and rerun all eight engines to allow the collection of noise data under improved conditions. SA-ALC/MMIMH selected the F101 engine for the limited survey of the T-9 NSS at Sky Harbor IAP because it had produced the highest measured Overall Sound Level, A-weighted (OASLA) values of the eight engines measured during the McConnell AFB KS survey.

C. Scope: Far field noise data are reported and compared with the 77 dB(A) criterion. The results of the Sky Harbor IAP survey are summarized by presenting the measured Overall Sound Pressure Level (OASPL) and the OASLA for background noise (with no engine operating) and with an F101 engine operating at intermediate power and afterburner power at each of the twenty-four 100 meter (m) locations surveyed.

II. DISCUSSION

A. Survey Methods: Far field noise data from the T-9 NSS were collected at a distance of 100 m from the test cell at ten degree increments. The data were collected during the early morning hours (0100 - 0400 hours) when air traffic noise from the airport would be minimal. Figure 1 in Appendix A shows the T-9 NSS orientation relative to 38 possible microphone measurement sites on two 100 m (328 feet) semicircles. The center of the front semicircle was located on the ground directly beneath the intersection of the engine centerline and a plane passing through the exhaust nozzle. The center of the back semicircle was located at the center of the exhaust stack. This two center approach was used because the T-9 NSS is designed with two main exit ports for the noise generated: the air inlets and the exhaust stack. These two exit ports for noise are separated by a relatively large distance (over 100 feet) causing the T-9 NSS to act like a two point noise source. Noise measurements would have to be taken at a much greater distance than the 100 m radius to allow the T-9 NSS to be considered a single point source. Source noise levels measured at a farther distance would have been lower and possibly too close to the background noise levels to allow clear determination of the source characteristics.

Due to the presence of extremely rough terrain outside the installation boundary, noise data could only be collected at 24 of the 38 defined positions. The sampling positions from which data could not be completed included all defined positions from 330 degrees to 210 degrees. The noise levels for the 14 unsampled locations should be approximately equal to the symmetrical locations on the opposite side of the engine axis. Portable tape recording systems were used to obtain approximately 30 seconds of noise data on audio tape for later analysis at USAFOEHL. Three teams recorded data using separate systems at different points to allow data collection within the time allowed by the operating constraints of the engine. The microphone, attached to a hand-held pole, was pointed at the source (0 degree angle of incidence) and vertically scanned from 0.5 to 3 meters for a period of approximately 30 seconds during data acquisition at each measurement location. These samples were then time-integrated on a 1/3 octave band digital frequency analyzer to derive a root-mean-square sound pressure level. Vertical scanning and time-integrating together reduce anomalies frequently present in data acquired with a fixed height microphone.

B. Survey Results: The OASPL and OASLA values are presented as a function of the measurement location and power setting of the F101 engine (Table 1, Appendix A). The OASLA data for afterburner power are also plotted on a polar plot (Fig 2, Appendix A) showing the 77 dB(A) criterion as a reference line. The OASPL and OASLA values were calculated using the results of the 1/3 octave band analysis of recorded data for frequencies from 5 Hz to 10 kHz.

Meteorological data was recorded every fifteen minutes during collection of noise data from 0200-0400 hours. Conditions were extremely stable with a wind speed of 0-2 meters per second, a temperature of 55°F, a relative humidity of 55%, and a barometric pressure of 28.81 inches of mercury.

Background noise levels were measured at each of the 24 microphone locations to obtain an accurate representation of the ambient noise levels at each measurement site. To be certain a measured noise level is coming from the noise source being evaluated, the background noise level should be much lower than the measured total noise level (which includes both the background noise and the noise produced by the source). In practice, measured background levels should be ten or more decibels below the measured total noise levels. The correction for background noise is a function of the difference between the total noise level and the background noise level. The magnitude of the required adjustment for background noise decreases as the difference between the total noise level and the background noise level increases.³

Background corrections were not applied to the OASPL and OASLA values calculated for afterburner power and intermediate power operations of the F101 engine. At afterburner power where the measured total OASLA values exceeded the 77 dBA criterion, the corrections to the OASLA values would be 0.1 dBA or less for all the sampling locations.

Results of the 1/3 octave band analysis of recorded data for the frequency range 5 Hz - 10 kHz are presented both graphically and in table form (Appendix B) for each measurement location.

III. CONCLUSIONS

The Phoenix ANG Station T-9 Noise Suppressor System at the Sky Harbor IAP did not meet the 77 dB(A) criterion for all measurement locations with the F101 engine operating at afterburner power. Only the zero degree position and the first two angles on either side of zero were measured at 77 dB(A) or less. The highest recorded level of 88.7 dB(A) occurred at the 180 degree position (in line with the engine's exhaust). This value exceeds the criterion by 11.7 dB.

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3. Earshen, John J. "Sound Measurement: Instrumentation and Noise Descriptors." In Noise & Hearing Conservation Manual. 4th ed., pp 37-95. Edited by E.H. Berger, W.D. Ward, J.C. Morrill, and L.H. Royster. Akron OH: American Industrial Hygiene Association (1986)
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APPENDIX A

Sampling Locations Schematic and Data Summary

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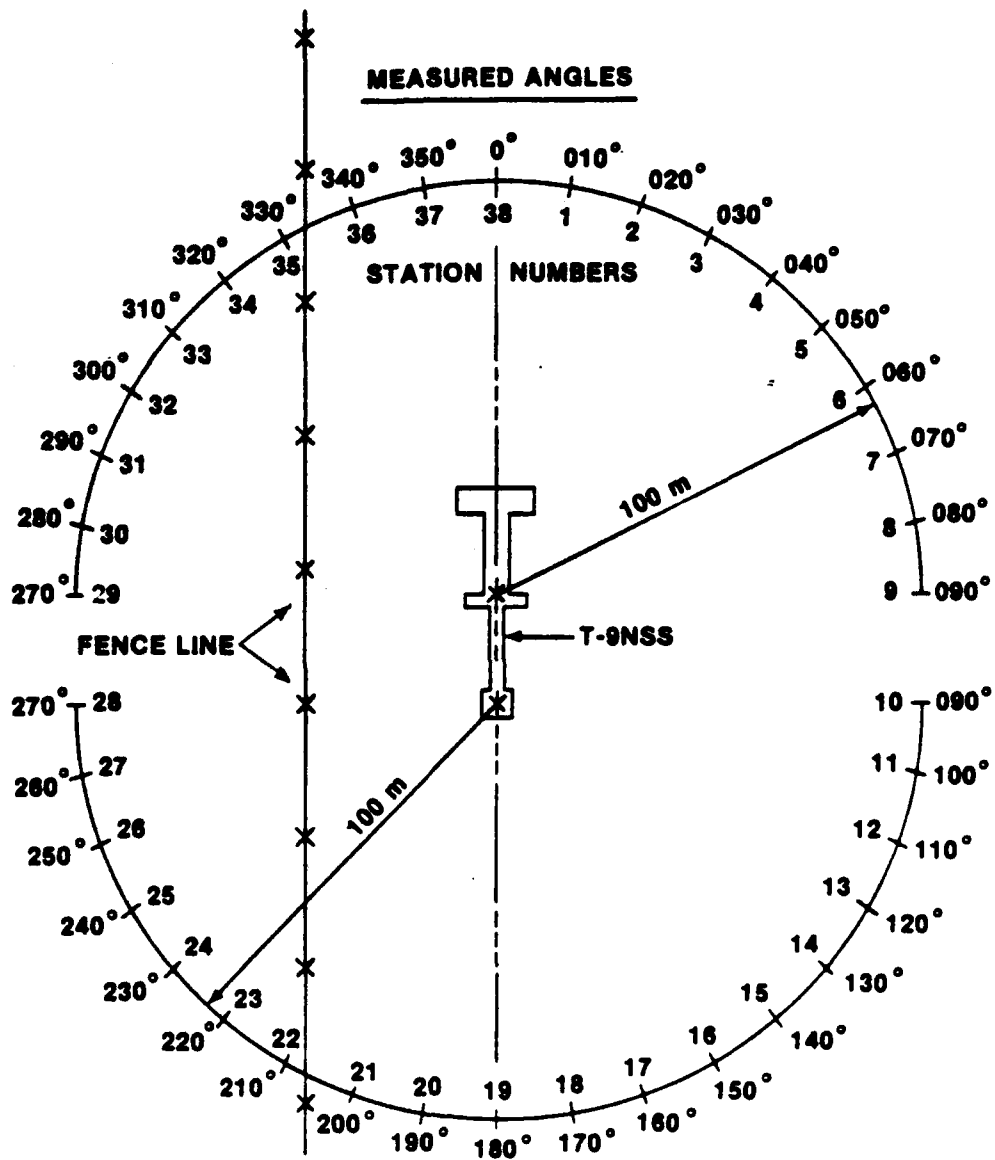
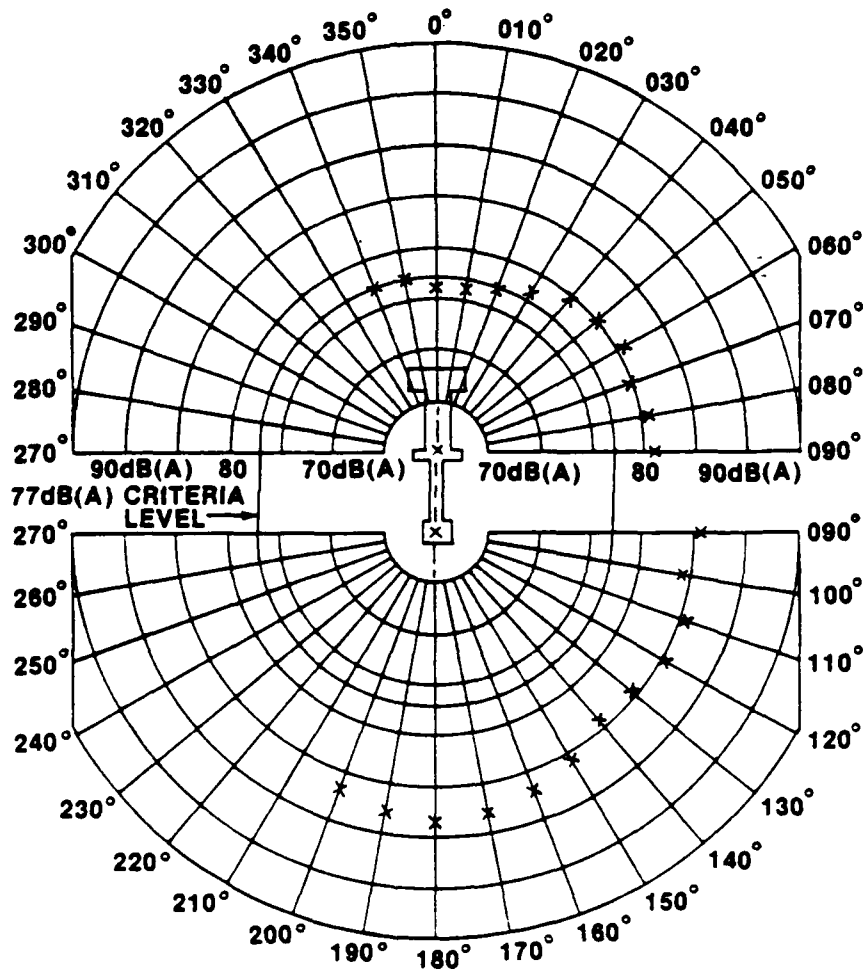


FIGURE 1: SCHEMATIC DIAGRAM OF SAMPLING POSITIONS FOR SURVEY OF A/F32T-9 LARGE TURBO FAN ENGINE ENCLOSED NOISE SUPPRESSOR SYSTEM, SKY HARBOR IAP, PHOENIX, AZ.



**FIGURE 2: OVERALL SOUND LEVEL, A-WEIGHTED (OASLA) [dB(A)]
VERSUS ANGLE FOR AN F101 ENGINE AT AFTERBURNER POWER.
(ALL MEASUREMENTS COLLECTED AT A DISTANCE OF 100 METERS).**

Table 1: Overall Sound Pressure Level (OASPL) and Overall Sound Level, A-Weighted, (OASLA) Versus Angle for the T-9 NSS with an F101 Engine. (All measurements collected at a distance of 100 meters.)

STATION	ANGLE	BACKGROUND		INTERMEDIATE		AFTERBURNER	
		OASPL dB	OASLA dB(A)	OASPL dB	OASLA dB(A)	OASPL dB	OASLA dB(A)
36	340	71.7	57.2	96.0	66.2	104.4	77.3
37	350	71.6	58.5	95.8	66.5	104.3	77.0
38	0	72.2	60.3	96.1	65.4	105.4	75.9
1	10	71.8	58.2	95.0	66.4	104.3	76.2
2	20	71.5	58.2	95.8	66.0	104.5	76.8
3	30	72.0	58.5	96.1	66.6	100.5	77.9
4	40	73.7	59.6	97.4	68.1	106.3	79.6
5	50	72.2	58.5	97.3	68.0	106.8	80.2
6	60	71.4	60.7	97.6	68.6	106.8	80.7
7	70	71.4	59.5	98.3	68.8	105.9	79.7
8	80	70.9	59.2	98.2	69.4	106.1	80.3
9	90	71.2	60.1	97.7	68.6	106.2	81.0
10	90	70.9	59.1	99.0	70.3	108.4	85.4
11	100	74.2	61.4	*91.4	*69.3	107.1	84.0
12	110	70.3	57.0	*91.7	*70.5	108.1	85.8
13	120	70.6	57.6	99.2	72.1	108.3	85.2
14	130	72.0	58.4	100.0	72.2	*105.7	*84.5
15	140	71.4	58.2	100.0	72.5	*106.0	*84.2
16	150	70.9	58.5	100.3	72.5	110.4	85.9
17	160	70.7	57.9	99.3	72.7	110.6	87.0
18	170	70.4	58.2	99.6	72.8	111.0	88.1
19	180	69.9	57.0	101.1	73.2	111.5	88.7
20	190	68.8	52.7	99.6	74.3	110.1	87.7
21	200	68.4	52.2	99.7	72.5	110.4	86.5

* No usable low frequency data available for frequencies below 25 Hz. OASPL and OASLA values calculated for data from 25 Hz to 10 kHz.

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APPENDIX B
1/3 Octave Band Data

LEVEL (Decibels)

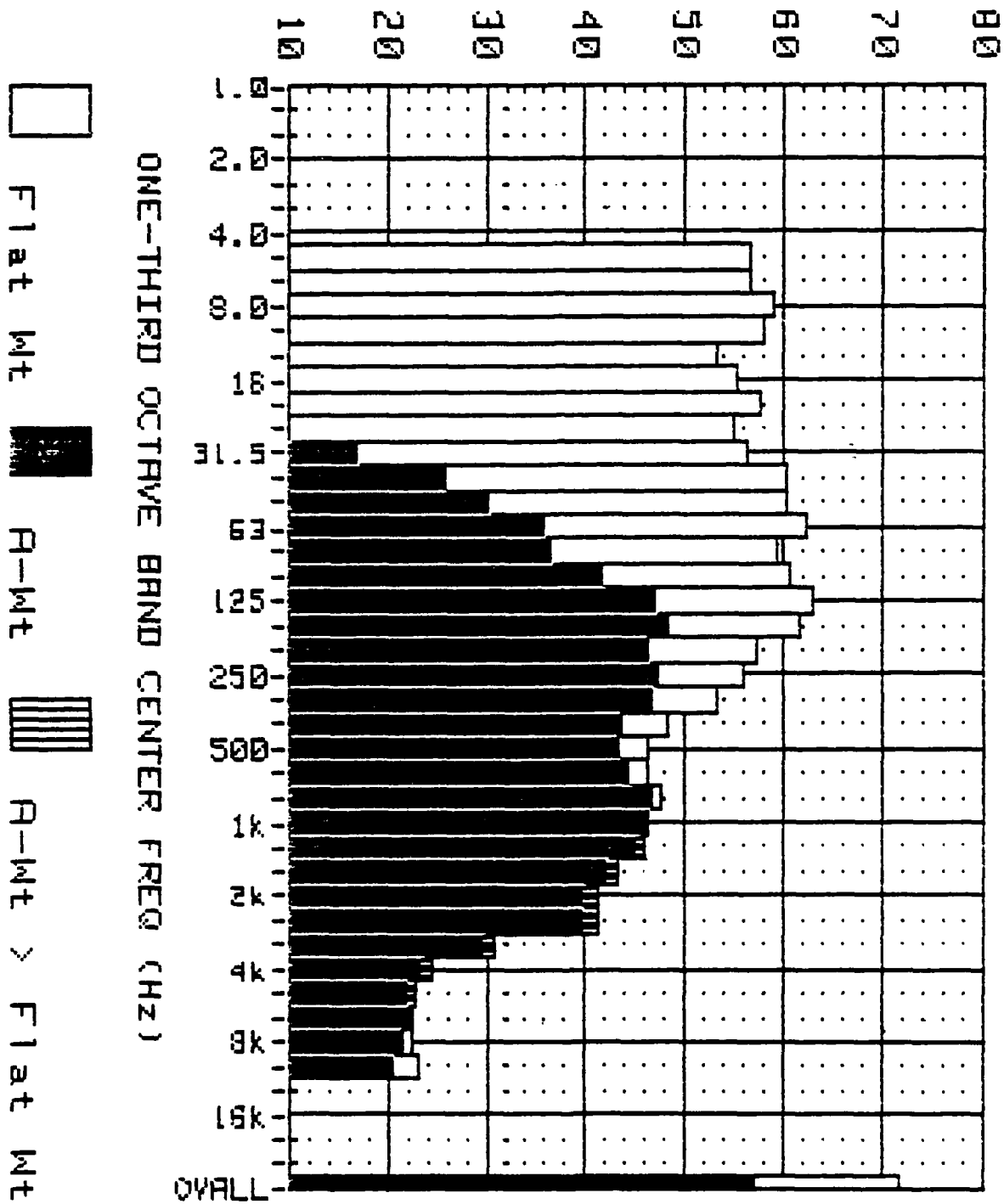


Figure 1: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 36 Angle: 340 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 1: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 36 Angle: 340 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	56.7	0.0	0.0			
6.3	56.5	0.0	0.0			
8	58.9	0.0	0.0	62.6	4.8	43.6
10	57.9	0.0	43.6			
12.5	53.4	0.0	42.2			
16	55.3	0.0	46.8	60.5	8.5	53.0
20	57.5	7.0	51.3			
25	54.8	10.1	50.4			
31.5	56.1	16.7	53.1	62.6	26.4	60.0
40	60.4	25.8	58.4			
50	60.3	30.1	59.0			
63	62.2	36.0	61.4	65.5	39.8	64.6
80	59.1	36.6	58.6			
100	60.6	41.5	60.3			
125	62.9	46.8	62.7	66.5	51.0	66.3
160	61.5	48.1	61.4			
200	57.1	46.2	57.1			
250	55.9	47.3	55.9	60.5	51.5	60.5
315	53.3	46.8	53.3			
400	48.3	43.5	48.3			
500	46.3	43.1	46.3	51.8	48.5	51.8
630	46.3	44.4	46.3			
800	47.5	46.7	47.5			
1000	46.2	46.2	46.2	51.2	51.0	51.2
1250	45.2	45.8	45.2			
1600	42.3	43.3	42.2			
2000	39.9	41.1	39.7	45.6	46.7	45.4
2500	39.8	41.1	39.5			
3150	29.7	30.9	29.2			
4000	23.6	24.6	22.8	31.2	32.3	30.6
5000	22.3	22.8	21.0			
6300	22.3	22.2	20.3			
8000	22.6	21.5	19.6	27.5	26.3	24.4
10000	23.1	20.6	18.7			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 71.7 dB

OASLA = 57.2 dB(A)

OASLC = 69.9 dB(C)

C-A VALUE = +12.7

LEVEL (Decibels)

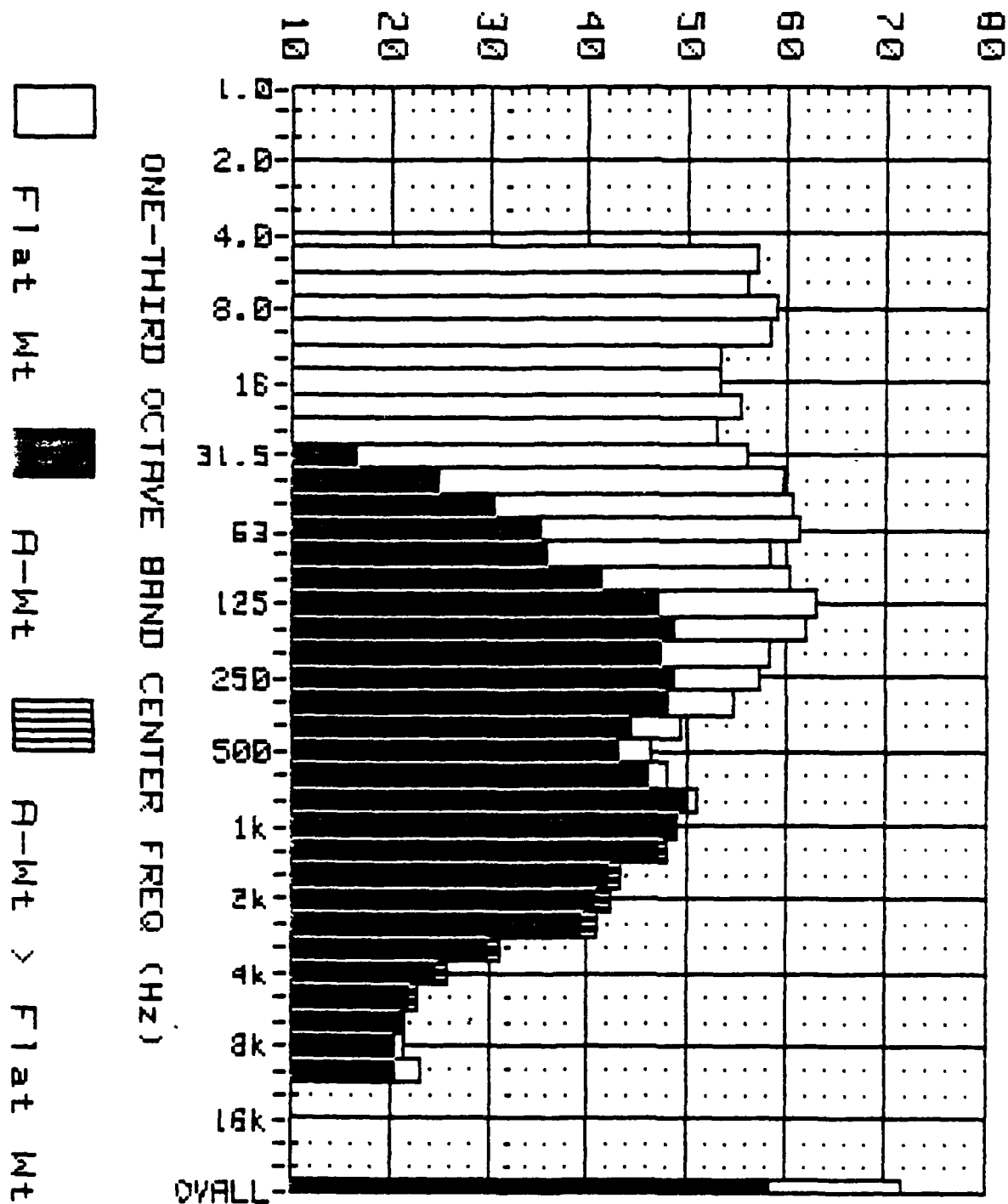


Figure 2: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 37 Angle: 350 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 2: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 37 Angle: 350 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	57.0	0.0	0.0			
6.3	55.9	0.0	0.0			
8	59.0	0.0	0.0	62.6	4.8	43.8
10	58.1	0.0	43.8			
12.5	53.4	0.0	42.2			
16	53.2	0.0	44.7	58.8	6.9	51.0
20	55.2	4.7	49.0			
25	52.8	8.1	48.4			
31.5	55.8	16.4	52.8	61.7	25.6	59.2
40	59.6	25.0	57.6			
50	60.6	30.4	59.3			
63	61.3	35.1	60.5	65.0	39.2	64.1
80	58.4	35.9	57.9			
100	60.4	41.3	60.1			
125	63.1	47.0	62.9	66.8	51.4	66.6
160	62.1	48.7	62.0			
200	58.3	47.4	58.3			
250	57.1	48.5	57.1	61.7	52.8	61.7
315	54.7	48.1	54.7			
400	49.1	44.3	49.1			
500	46.1	42.9	46.1	52.6	49.3	52.6
630	47.8	45.9	47.8			
800	50.8	50.0	50.8			
1000	48.9	48.9	48.9	54.0	53.8	54.0
1250	47.2	47.8	47.2			
1600	42.3	43.3	42.2			
2000	41.0	42.2	40.8	45.9	47.0	45.7
2500	39.6	40.9	39.3			
3150	30.0	31.2	29.5			
4000	24.7	25.7	23.9	31.7	32.7	31.0
5000	22.3	22.8	21.0			
6300	21.3	21.2	19.3			
8000	21.6	20.5	18.6	26.9	25.6	23.7
10000	23.1	20.6	18.7			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 71.6 dB

OASLA = 58.5 dB(A)

OASLC = 70.0 dB(C)

C-A VALUE = +11.5

LEVEL (Decibels)

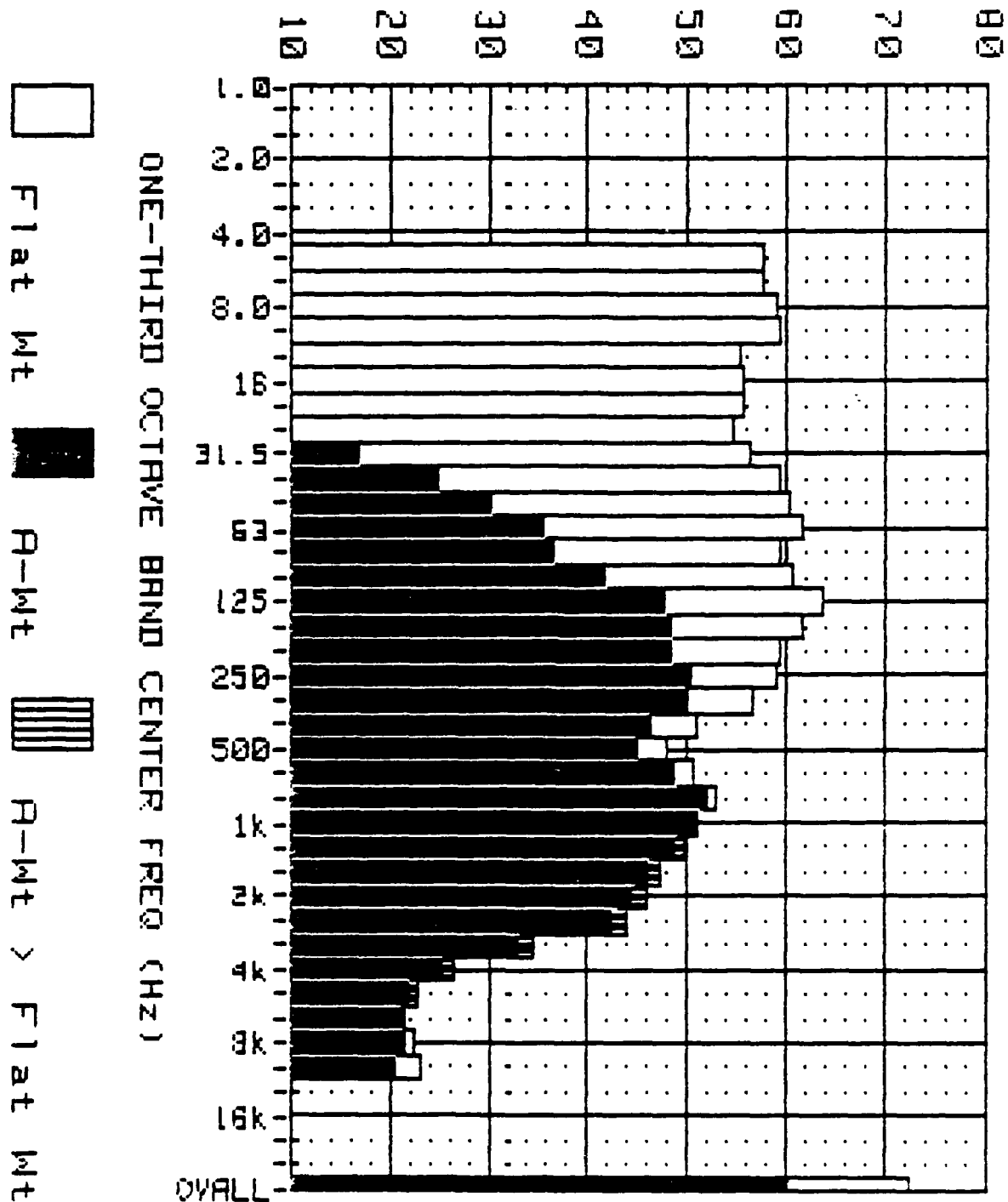


Figure 3: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 38 Angle: 0 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 3: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 38 Angle: 0 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	57.7	0.0	0.0			
6.3	57.6	0.0	0.0			
8	58.8	0.0	0.0	63.3	4.8	44.8
10	59.1	0.0	44.8			
12.5	55.1	0.0	43.9			
16	55.6	0.0	47.1	60.2	7.1	52.1
20	55.5	5.0	49.3			
25	54.5	9.8	50.1			
31.5	56.1	16.7	53.1	61.9	25.5	59.3
40	59.4	24.8	57.4			
50	60.3	30.1	59.0			
63	61.7	35.5	60.9	65.3	39.7	64.4
80	59.2	36.7	58.7			
100	60.6	41.5	60.3			
125	63.7	47.6	63.5	67.0	51.4	66.8
160	61.7	48.3	61.6			
200	59.3	48.4	59.3			
250	58.8	50.2	58.8	63.2	54.4	63.2
315	56.7	50.1	56.7			
400	51.0	46.2	51.0			
500	48.0	44.8	48.0	54.8	51.5	54.8
630	50.4	48.5	50.4			
800	52.8	52.0	52.8			
1000	51.0	51.0	51.0	56.0	55.7	56.0
1250	49.0	49.6	49.0			
1600	46.3	47.3	46.2			
2000	44.6	45.8	44.4	49.5	50.6	49.3
2500	42.5	43.8	42.2			
3150	33.3	34.5	32.8			
4000	25.6	26.6	24.8	34.3	35.4	33.7
5000	22.3	22.8	21.0			
6300	21.3	21.2	19.3			
8000	22.6	21.5	19.6	27.2	25.9	24.0
10000	23.1	20.6	18.7			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 72.2 dB

OASLA = 60.3 dB(A)

OASLC = 70.6 dB(C)

C-A VALUE = +10.3

LEVEL (Decibels)

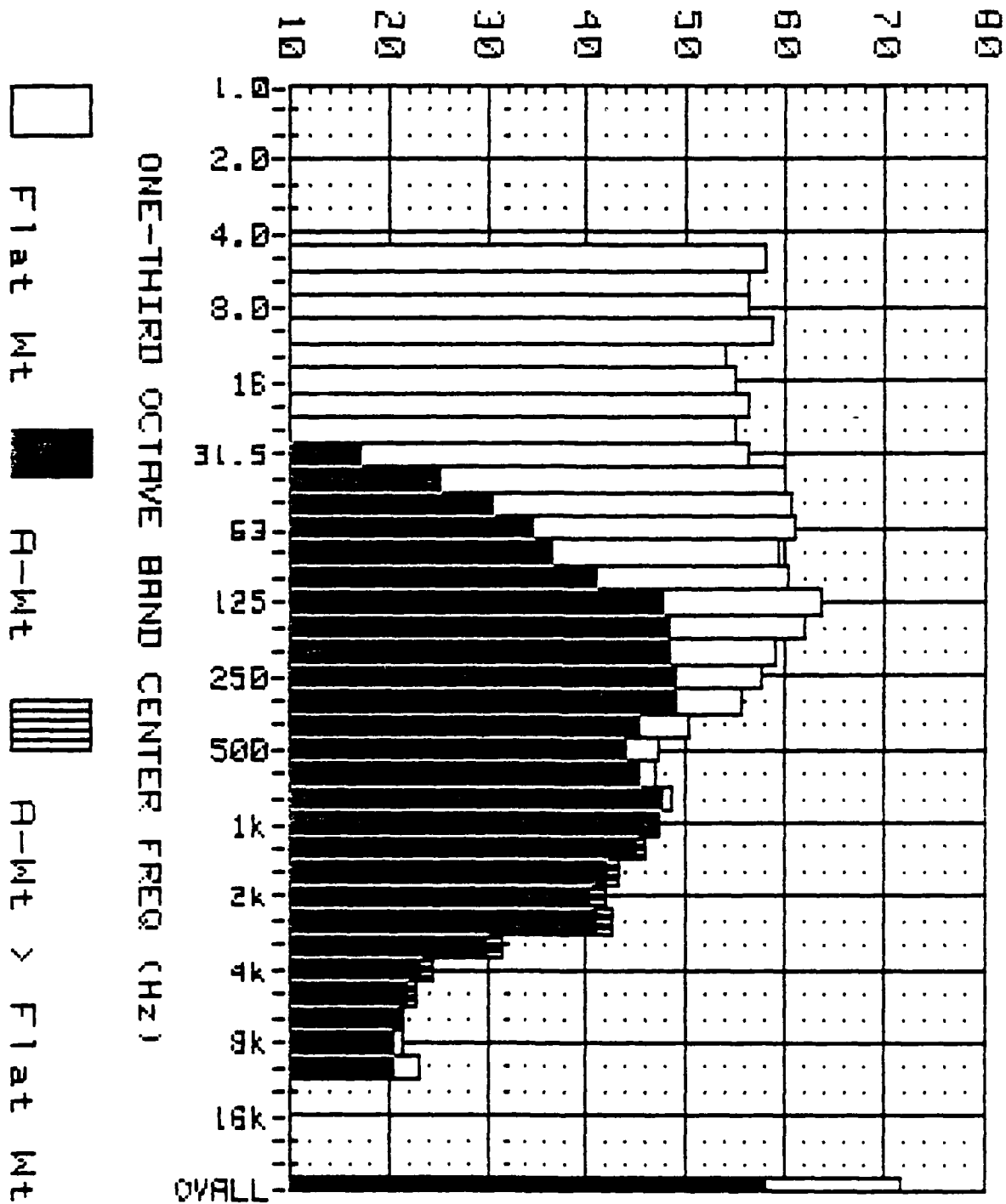


Figure 4: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 1 Angle: 10 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 4: Measured Noise Spectrum Levels.

Location: R/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 1 Angle: 10 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	58.1	0.0	0.0			
6.3	56.4	0.0	0.0			
8	56.2	0.0	0.0	62.0	4.8	44.4
10	58.7	0.0	44.4			
12.5	53.9	0.0	42.7			
16	54.8	0.0	46.3	59.8	7.6	52.1
20	56.2	5.7	50.0			
25	54.9	10.2	50.5			
31.5	56.4	17.0	53.4	62.3	25.9	59.7
40	59.8	25.2	57.8			
50	60.6	30.4	59.3			
63	60.9	34.7	60.1	65.0	39.4	64.1
80	59.1	36.6	58.6			
100	60.1	41.0	59.8			
125	63.6	47.5	63.4	66.8	51.4	66.6
160	61.8	48.4	61.7			
200	59.0	48.1	59.0			
250	57.5	48.9	57.5	62.3	53.4	62.3
315	55.6	49.0	55.6			
400	50.2	45.4	50.2			
500	47.1	43.9	47.1	53.1	49.6	53.1
630	47.0	45.1	47.0			
800	48.5	47.7	48.5			
1000	47.3	47.3	47.3	52.0	51.8	52.0
1250	45.3	45.9	45.3			
1600	42.2	43.2	42.1			
2000	40.5	41.7	40.3	46.1	47.2	45.9
2500	41.1	42.4	40.8			
3150	30.2	31.4	29.7			
4000	23.6	24.6	22.8	31.6	32.7	31.0
5000	22.3	22.8	21.0			
6300	21.3	21.2	19.3			
8000	21.6	20.5	18.6	26.9	25.6	23.7
10000	23.1	20.6	18.7			

OVERALL LEVELS (< 5 - 10000Hz)

OASPL = 71.8 dB

OASLA = 58.2 dB(A)

OASLC = 70.2 dB(C)

C-A VALUE = +12.0

LEVEL (Decibels)

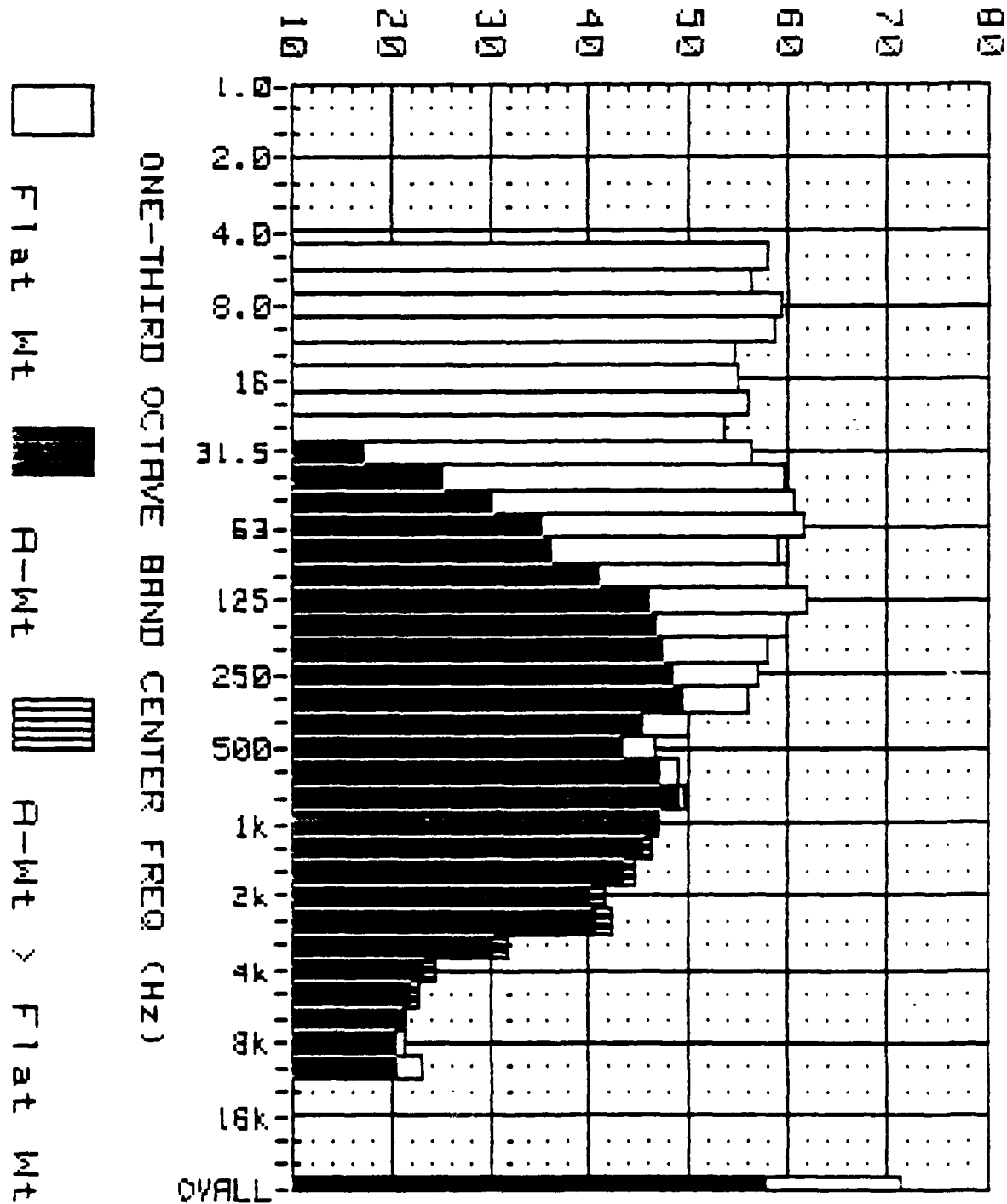


Figure 5: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 MSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 2 Angle: 20 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 5: Measured Noise Spectrum Levels.
 Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 2 Angle: 20 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	57.9	0.0	0.0			
6.3	56.3	0.0	0.0			
8	59.2	0.0	0.0	63.0	4.8	44.4
10	58.7	0.0	44.4			
12.5	54.5	0.0	43.3			
16	54.8	0.0	46.3	59.8	7.3	51.9
20	55.8	5.3	49.6			
25	53.5	8.8	49.1			
31.5	56.4	17.0	53.4	62.0	25.8	59.5
40	59.7	25.1	57.7			
50	60.5	30.3	59.2			
63	61.5	35.3	60.7	65.2	39.4	64.3
80	58.8	36.3	58.3			
100	59.9	40.8	59.6			
125	62.0	45.9	61.8	65.5	49.9	65.3
160	60.0	46.6	59.9			
200	58.0	47.1	58.0			
250	57.0	48.4	57.0	61.8	53.1	61.8
315	55.8	49.2	55.8			
400	50.0	45.2	50.0			
500	46.5	43.3	46.5	53.4	50.1	53.4
630	48.8	46.9	48.8			
800	49.6	48.8	49.6			
1000	46.8	46.8	46.8	52.4	52.2	52.4
1250	45.6	46.2	45.6			
1600	43.5	44.5	43.4			
2000	40.3	41.5	40.1	46.6	47.7	46.4
2500	40.3	42.2	40.6			
3150	30.6	31.8	30.1			
4000	23.6	24.6	22.8	31.9	33.0	31.3
5000	22.3	22.9	21.0			
6300	21.3	21.2	19.3			
8000	21.6	20.5	18.6	26.9	25.6	23.7
10000	23.1	20.6	18.7			

OVERALL LEVELS (<S - 10000Hz)

DASPL = 71.5 dB

OASLA = 58.1 dB(A)

DASLC = 69.6 dB(C)

C-A VALUE = +11.5

LEVEL (Decibels)

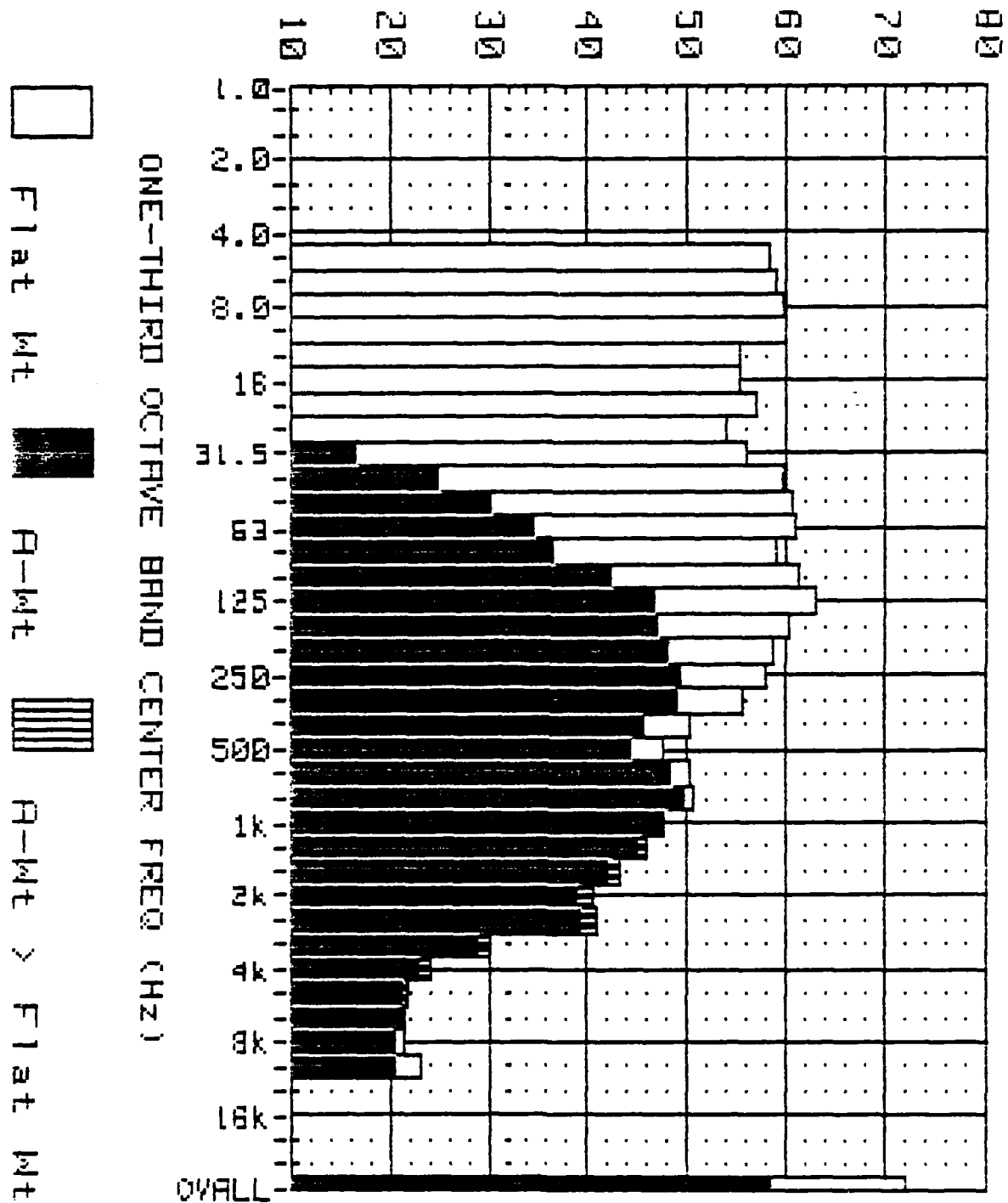


Figure 6: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 3 Angle: 30 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 6: Measured Noise Spectrum Levels.
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 3 Angle: 30 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	58.3	0.0	0.0			
6.3	58.9	0.0	0.0			
8	59.7	0.0	0.0	64.3	4.8	45.6
10	59.9	0.0	45.6			
12.5	55.4	0.0	44.2			
16	55.2	0.0	46.7	60.6	8.0	52.7
20	56.8	6.3	50.6			
25	53.9	9.2	49.5			
31.5	56.0	16.6	53.0	61.9	25.7	59.4
40	59.6	25.0	57.6			
50	60.5	30.3	59.2			
63	60.9	34.7	60.1	65.0	39.3	64.1
80	59.0	36.5	58.5			
100	61.4	42.3	61.1			
125	62.8	46.7	62.6	66.4	50.6	66.2
160	60.4	47.0	60.3			
200	58.7	47.8	58.7			
250	57.9	49.3	57.9	62.3	53.5	62.3
315	55.6	49.0	55.6			
400	50.3	45.5	50.3			
500	47.6	44.4	47.6	54.3	51.2	54.3
630	50.2	48.3	50.2			
800	50.4	49.6	50.4			
1000	47.5	47.5	47.5	53.0	52.7	53.0
1250	45.3	45.9	45.3			
1600	42.1	43.1	42.0			
2000	39.2	40.4	39.0	45.2	46.4	45.1
2500	39.5	40.8	39.2			
3150	29.1	30.3	28.6			
4000	23.0	24.0	22.2	30.6	31.7	30.0
5000	21.3	21.8	20.0			
6300	21.3	21.2	19.3			
8000	21.6	20.5	18.6	26.9	25.6	23.7
10000	23.1	20.6	18.7			

OVERALL LEVELS (< 5 - 10000Hz)

OASPL = 72.0 dB

OASLA = 58.5 dB(A)

OASLC = 70.0 dB(C)

C-A VALUE = +11.5

LEVEL (Decibels)

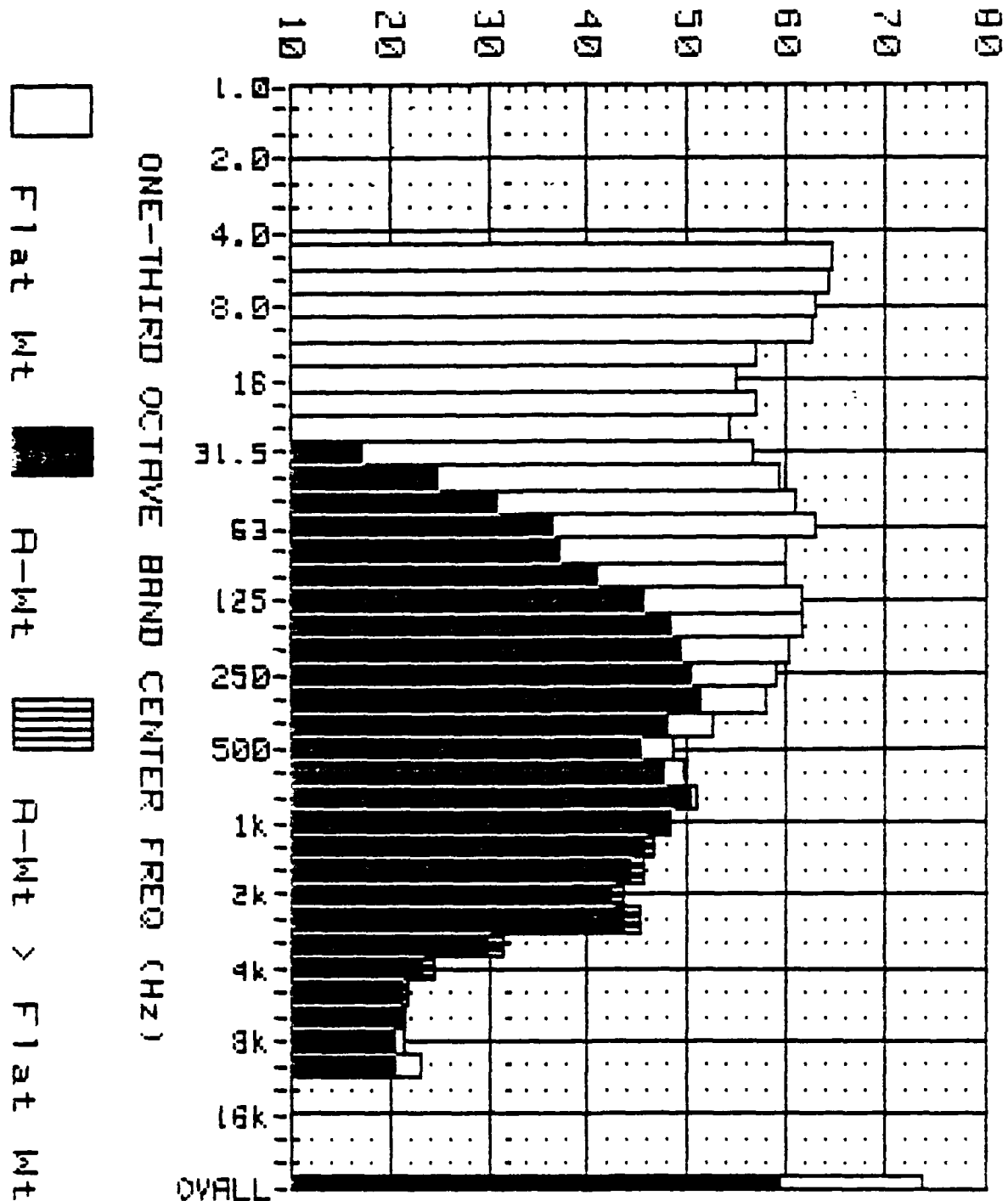


Figure 7: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 4 Angle: 40 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 7: Measured Noise Spectrum Levels.
 Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 4 Angle: 40 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	64.8	0.0	0.0			
6.3	64.2	0.0	0.0			
8	63.0	0.0	0.0	68.1	4.8	48.3
10	62.6	0.0	48.3			
12.5	56.9	0.0	45.7			
16	54.8	0.0	46.3	61.1	8.1	53.0
20	57.0	6.5	50.8			
25	54.4	9.7	50.0			
31.5	56.5	17.1	53.5	62.0	25.6	59.4
40	59.4	24.8	57.4			
50	60.9	30.7	59.6			
63	62.8	36.6	62.0	66.1	40.5	65.2
80	59.8	37.3	59.3			
100	59.9	40.8	59.6			
125	61.7	45.6	61.5	65.9	50.6	65.7
160	61.6	48.2	61.5			
200	60.1	49.2	60.1			
250	59.0	50.4	59.0	63.9	55.2	63.9
315	58.0	51.4	58.0			
400	52.7	47.9	52.7			
500	48.6	45.4	48.6	55.4	51.8	55.4
630	49.4	47.5	49.4			
800	50.9	50.1	50.9			
1000	48.2	48.2	48.2	53.6	53.3	53.6
1250	46.0	46.6	46.0			
1600	44.6	45.6	44.5			
2000	42.5	43.7	42.3	48.5	49.6	48.3
2500	43.8	45.1	43.5			
3150	30.2	31.4	29.7			
4000	23.6	24.6	22.8	31.5	32.6	30.9
5000	21.3	21.8	20.0			
6300	21.3	21.2	19.3			
8000	21.6	20.5	18.6	26.9	25.6	23.7
10000	23.1	20.6	18.7			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 73.7 dB

OASLA = 59.6 dB(A)

OASLC = 70.5 dB(C)

C-A VALUE = +10.9

LEVEL (Decibels)

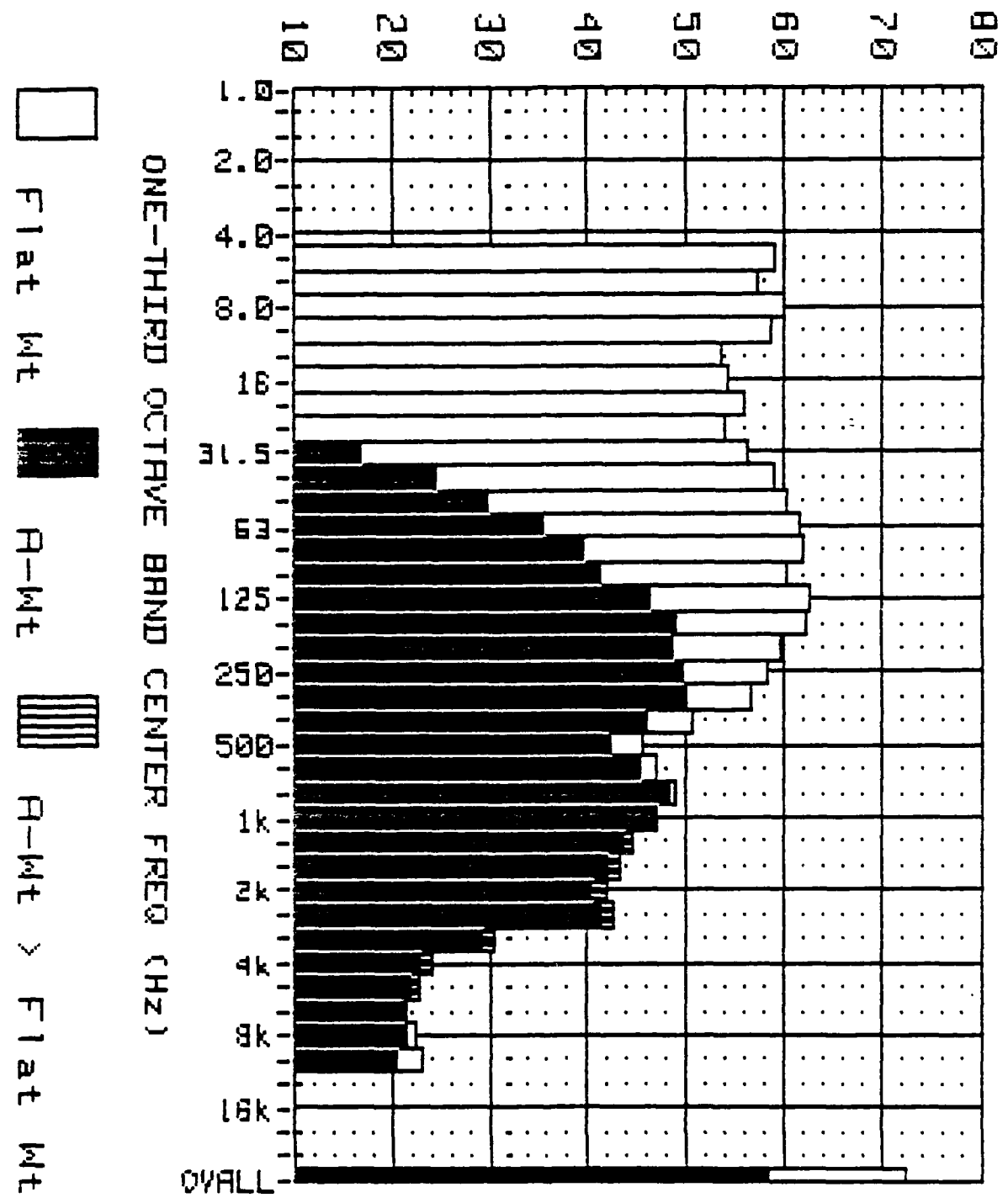


Figure 8: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 5 Angle: 50 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 8: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.

Station: 5 Angle: 50 Degrees; Distance: 100 Meters

Engine: F101; Power: Background; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	58.9	0.0	0.0			
6.3	57.2	0.0	0.0			
8	60.0	0.0	0.0	63.5	4.8	44.2
10	58.5	0.0	44.2			
12.5	53.6	0.0	42.4			
16	54.4	0.0	45.9	59.5	7.4	51.8
20	56.0	5.5	49.8			
25	54.0	9.3	49.6			
31.5	56.3	16.9	53.3	61.7	25.2	59.1
40	59.0	24.4	57.0			
50	60.2	30.0	58.9			
63	61.7	35.5	60.9	66.2	41.4	65.4
80	62.1	39.6	61.6			
100	60.4	41.3	60.1			
125	62.5	46.4	62.3	66.6	51.4	66.5
160	62.4	49.0	62.3			
200	59.6	43.7	59.6			
250	58.2	49.6	58.2	63.1	54.2	63.1
315	56.6	50.0	56.6			
400	50.6	45.8	50.6			
500	45.5	42.3	45.5	53.0	49.4	53.0
630	47.0	45.1	47.0			
800	49.0	48.2	49.0			
1000	46.9	46.9	46.9	51.8	51.6	51.8
1250	43.9	44.5	43.9			
1600	42.3	43.3	42.2			
2000	40.6	41.8	40.4	46.3	47.4	46.1
2500	41.4	42.7	41.1			
3150	29.4	30.6	28.9			
4000	23.0	24.0	22.2	30.9	32.0	30.3
5000	22.3	22.8	21.0			
6300	21.3	21.2	19.3			
8000	22.6	21.5	19.6	27.2	25.9	24.0
10000	23.1	20.6	18.7			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 72.2 dB

OASLA = 58.5 dB(A)

OASLC = 70.5 dB(C)

C-A VALUE = +12.1

LEVEL (Decibels)

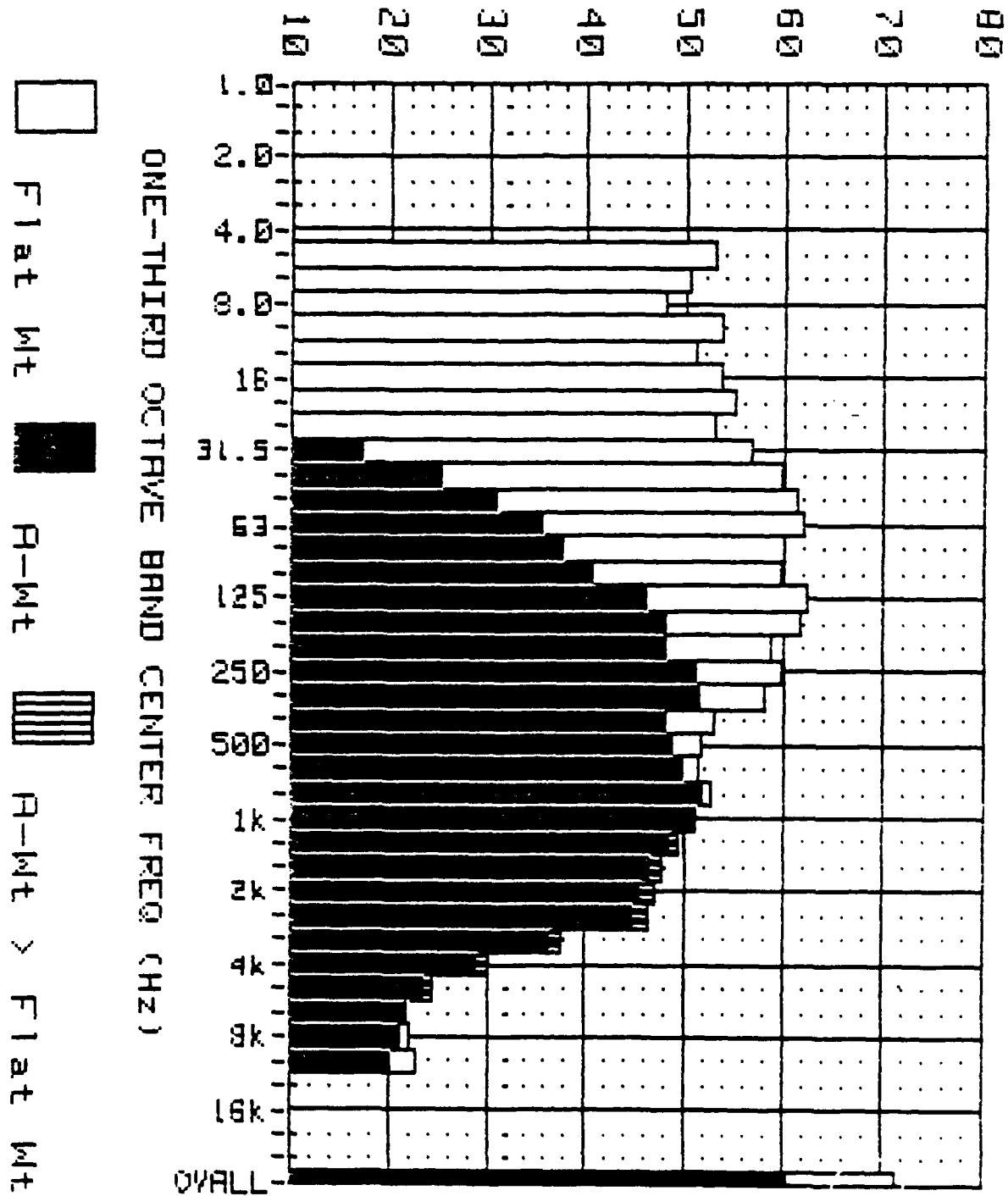


Figure 9: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 6 Angle: 60 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 9: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 6 Angle: 60 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	52.8	0.0	0.0			
6.3	50.2	0.0	0.0			
8	47.9	0.0	0.0	56.0	4.8	39.4
10	53.6	0.0	39.3			
12.5	51.1	0.0	39.9			
16	53.5	0.0	45.0	58.1	6.7	50.5
20	54.7	4.3	48.5			
25	52.9	8.2	48.5			
31.5	56.6	17.2	53.6	62.0	25.8	59.5
40	59.7	25.1	57.7			
50	61.2	31.0	59.9			
63	61.8	35.6	61.0	65.8	40.2	64.9
80	60.0	37.5	59.5			
100	59.6	40.5	59.3			
125	62.2	46.0	61.9	66.0	50.6	65.8
160	61.5	48.1	61.4			
200	58.7	47.8	58.7			
250	59.5	50.9	59.5	63.5	55.0	63.5
315	57.9	51.3	57.9			
400	52.8	48.0	52.8			
500	51.7	48.5	51.7	56.8	53.4	56.8
630	51.4	49.5	51.4			
800	52.5	51.7	52.5			
1000	50.8	50.8	50.8	55.7	55.5	55.7
1250	48.7	49.3	48.7			
1600	46.6	47.6	46.5			
2000	45.7	46.9	45.4	50.5	51.7	50.3
2500	44.9	46.2	44.6			
3150	36.4	37.6	35.9			
4000	29.3	30.3	28.5	37.4	38.5	36.8
5000	23.9	24.4	22.6			
6300	21.8	21.7	19.8			
8000	22.2	21.1	19.2	27.1	25.8	23.9
10000	22.8	20.3	18.4			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 71.4 dB

OASLA = 60.7 dB(A)

OASLC = 70.4 dB(C)

C-A VALUE = +9.8

LEVEL (Decibels)

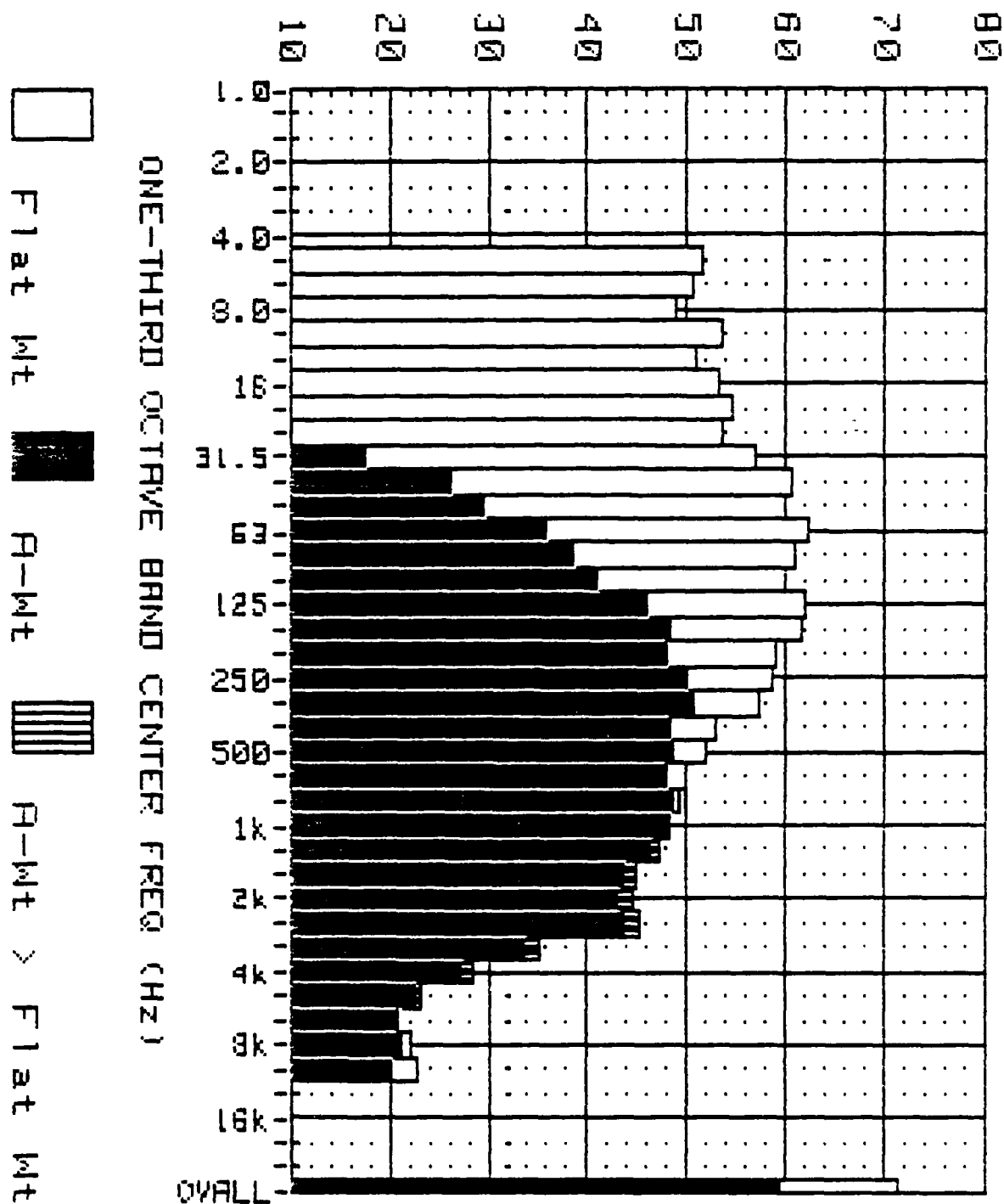


Figure 10: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 7 Angle: 70 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 10: Measured Noise Spectrum Levels.

Location: R/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 7 Angle: 70 Degrees; Distance: 100 Meters

Engine: F101; Power: Background; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	51.7	0.0	0.0			
6.3	50.7	0.0	0.0			
8	49.0	0.0	0.0	56.3	4.8	39.4
10	53.6	0.0	39.3			
12.5	51.0	0.0	39.8			
16	53.2	0.0	44.8	57.9	6.6	50.3
20	54.6	4.1	48.4			
25	53.7	9.0	49.3			
31.5	56.9	17.5	53.9	62.8	26.7	60.3
40	60.7	26.0	58.7			
50	59.9	29.7	58.6			
63	62.2	36.0	61.4	65.9	40.8	65.1
80	61.1	38.6	60.6			
100	59.9	40.8	59.6			
125	61.9	45.8	61.7	66.0	50.7	65.8
160	61.7	48.3	61.6			
200	58.9	48.0	58.9			
250	58.7	50.1	58.7	63.1	54.5	63.1
315	57.2	50.6	57.2			
400	52.9	48.1	52.9			
500	51.8	48.6	51.8	56.4	52.9	56.4
630	49.7	47.9	49.7			
800	49.3	48.5	49.3			
1000	48.1	48.1	48.1	52.9	52.7	52.9
1250	46.6	47.2	46.6			
1600	43.8	44.8	43.6			
2000	43.2	44.5	43.0	48.4	49.6	48.2
2500	43.9	45.2	43.6			
3150	33.9	35.1	33.4			
4000	27.6	28.6	26.8	35.1	36.2	34.5
5000	22.7	23.2	21.4			
6300	20.8	20.7	18.8			
8000	22.2	21.1	19.2	25.8	25.5	23.6
10000	22.8	20.3	18.4			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 71.4 dB

OASLA = 59.5 dB(A)

OASLC = 70.4 dB(C)

C-A VALUE = +10.9

LEVEL (Decibels)

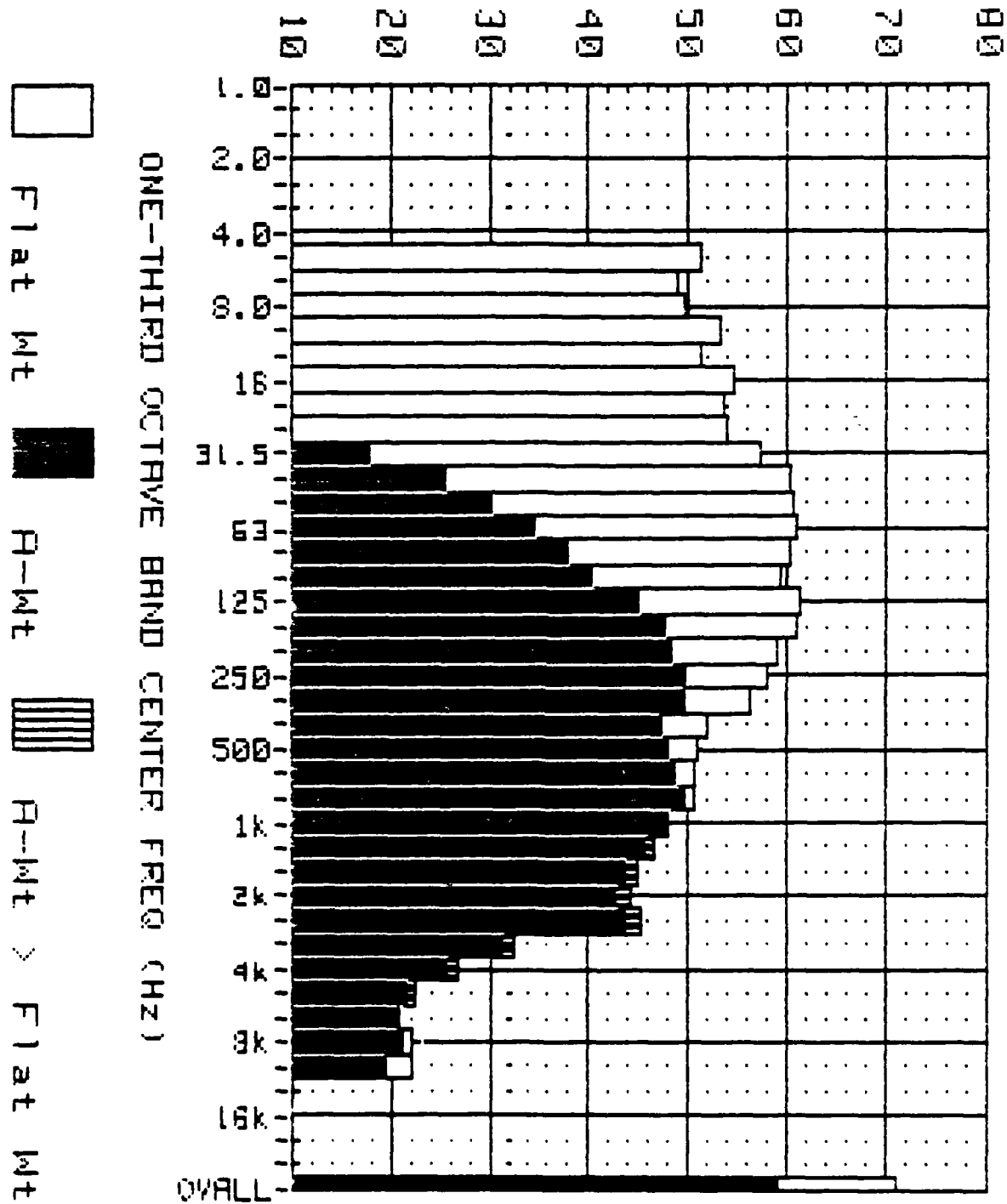


Figure 11: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 8 Angle: 90 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 11: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 8 Angle: 80 Degrees; Distance: 100 Meters

Engine: F101; Power: Background; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	51.2	0.0	0.0			
6.3	48.8	0.0	0.0			
8	49.6	0.0	0.0	55.3	4.8	39.0
10	53.2	0.0	39.0			
12.5	51.1	0.0	39.9			
16	54.5	0.0	46.0	58.0	6.0	50.1
20	53.5	3.0	47.3			
25	53.9	9.2	49.5			
31.5	57.1	17.7	54.1	62.6	26.4	60.1
40	60.3	25.7	58.3			
50	60.5	30.3	59.2			
63	60.9	34.7	60.1	65.3	40.0	64.5
80	60.3	37.8	59.8			
100	59.3	40.2	59.0			
125	61.2	45.0	60.9	65.3	50.0	65.1
160	61.0	47.6	60.9			
200	59.0	48.1	59.0			
250	58.1	49.5	58.1	62.7	53.9	62.7
315	56.2	49.6	56.2			
400	52.0	47.2	52.0			
500	51.1	47.9	51.1	56.0	52.8	56.0
630	50.7	48.8	50.7			
800	50.5	49.7	50.5			
1000	47.8	47.8	47.8	53.2	52.9	53.2
1250	45.8	46.4	45.8			
1600	43.8	44.8	43.6			
2000	42.9	44.2	42.7	48.3	49.5	48.1
2500	43.9	45.2	43.6			
3150	31.4	32.6	30.9			
4000	25.9	26.9	25.1	32.8	34.0	32.2
5000	21.9	22.4	20.6			
6300	20.8	20.7	18.8			
8000	22.2	21.1	19.2	26.5	25.3	23.4
10000	22.0	19.5	17.6			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 70.9 dB

OASLA = 59.2 dB(A)

OASLC = 69.9 dB(C)

C-A VALUE = +10.7

LEVEL (Decibels)

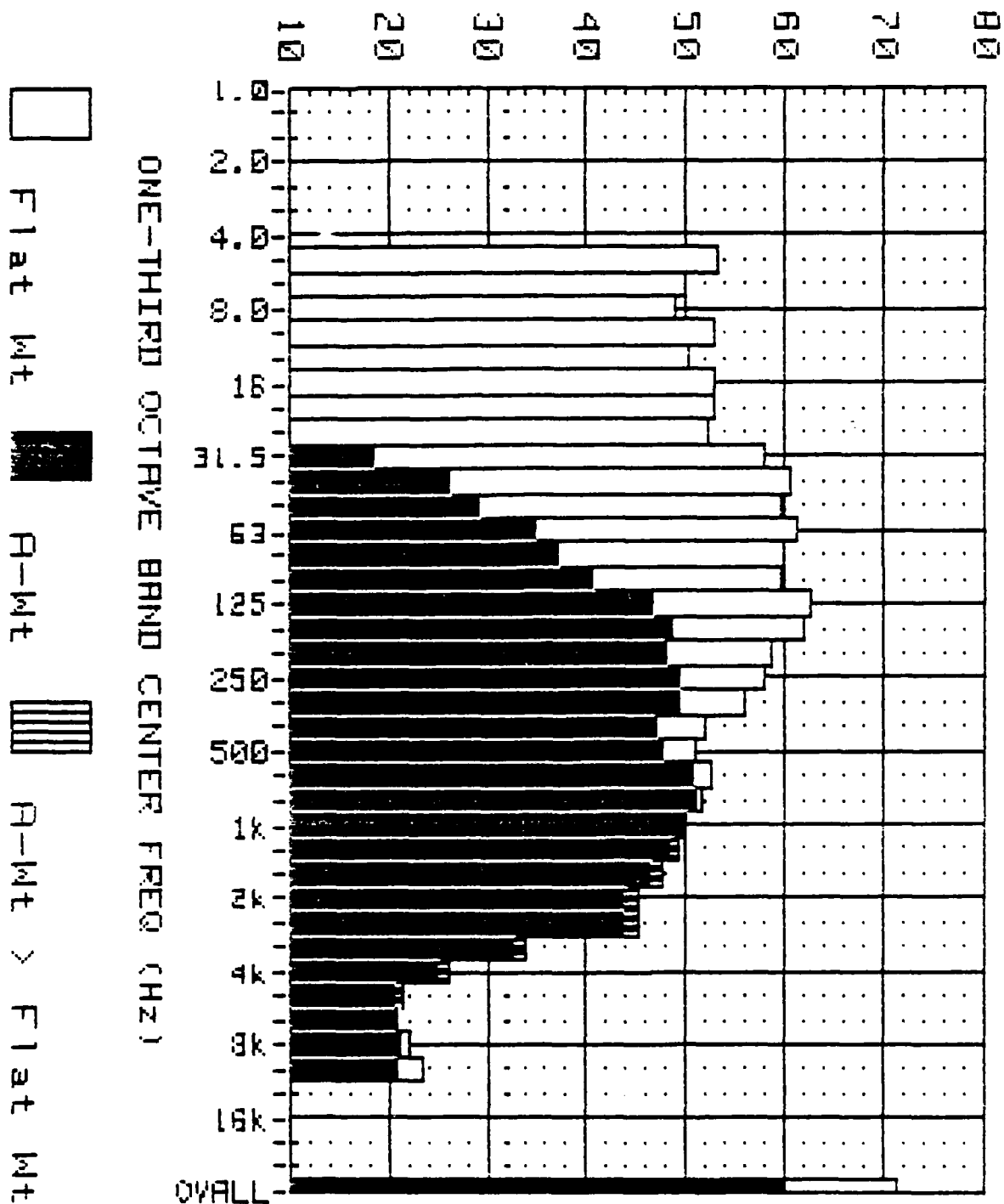


Figure 12: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 9 Angle: 90 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 12: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 9 Angle: 90 Degrees; Distance: 100 Meters

Engine: F101; Power: Background; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	53.3	0.0	0.0			
6.3	50.0	0.0	0.0			
8	48.9	0.0	0.0	55.7	4.8	38.6
10	52.8	0.0	38.5			
12.5	50.4	0.0	39.2			
16	52.8	0.0	44.4	57.0	5.7	49.2
20	53.0	2.5	46.8			
25	52.2	7.5	47.8			
31.5	57.8	18.4	54.8	62.9	26.9	60.5
40	60.8	26.2	58.8			
50	59.5	29.3	58.2			
63	61.2	35.0	60.4	65.0	39.7	64.2
80	59.9	37.3	59.4			
100	59.6	40.5	59.3			
125	62.6	46.5	62.4	66.3	51.0	66.1
160	62.0	48.6	61.9			
200	58.7	47.8	58.7			
250	57.9	49.2	57.9	62.4	53.6	62.4
315	56.0	49.4	56.0			
400	51.8	47.0	51.8			
500	51.0	47.8	51.0	56.6	53.6	56.6
630	52.7	50.8	52.7			
800	51.6	50.8	51.6			
1000	49.7	49.7	49.7	54.9	54.8	54.9
1250	48.7	49.3	48.7			
1600	46.6	47.6	46.5			
2000	43.9	45.2	43.7	49.8	51.0	49.7
2500	44.0	45.3	43.7			
3150	32.7	33.9	32.2			
4000	25.3	26.3	24.5	33.7	34.8	33.1
5000	20.9	21.4	19.6			
6300	20.8	20.7	18.8			
8000	22.2	21.1	19.2	27.0	25.7	23.8
10000	23.4	20.9	19.0			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 71.2 dB

OASLA = 60.1 dB(A)

OASLC = 70.2 dB(C)

C-A VALUE = +10.1

LEVEL (Decibels)

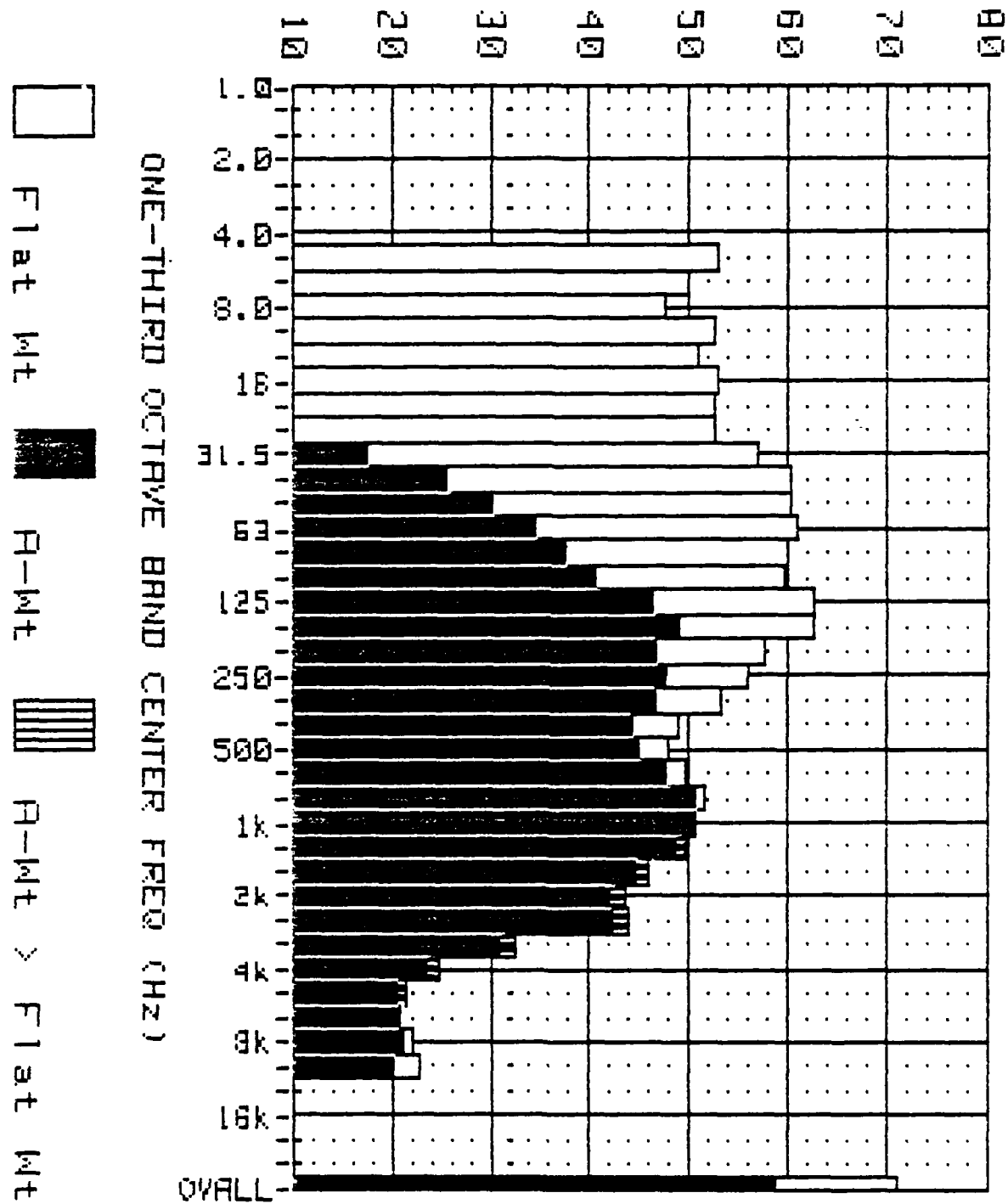


Figure 13: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 10 Angle: 90 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBa; Rel Humidity: 55%; Winds: 0 Knots

TABLE 13: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 10 Angle: 90 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	53.0	0.0	0.0			
6.3	49.8	0.0	0.0			
8	47.7	0.0	0.0	55.2	4.8	38.3
10	52.5	0.0	38.3			
12.5	51.0	0.0	39.8			
16	52.7	0.0	44.3	57.0	5.6	49.0
20	52.7	2.2	46.5			
25	52.6	7.9	48.2			
31.5	56.8	17.4	53.8	62.3	26.2	59.8
40	60.2	25.5	58.2			
50	60.3	30.1	59.0			
63	60.9	34.7	60.1	65.2	39.8	64.3
80	60.1	37.6	59.6			
100	59.6	40.5	59.3			
125	62.5	46.4	62.3	66.5	51.3	66.3
160	62.5	49.1	62.4			
200	57.6	46.7	57.6			
250	56.1	47.5	56.1	60.8	51.7	60.8
315	53.3	46.7	53.3			
400	48.9	44.1	48.9			
500	48.1	44.9	48.1	53.6	50.5	53.6
630	49.5	47.6	49.5			
800	51.4	50.6	51.4			
1000	50.4	50.4	50.4	55.1	54.9	55.1
1250	48.8	49.4	48.8			
1600	44.8	45.8	44.7			
2000	42.3	43.5	42.1	48.1	49.3	48.0
2500	42.6	43.9	42.3			
3150	31.2	32.4	30.7			
4000	23.9	24.9	23.1	32.3	33.4	31.7
5000	20.9	21.4	19.6			
6300	20.8	20.7	18.8			
8000	22.2	21.1	19.2	26.8	25.5	23.6
10000	22.8	20.3	18.4			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 70.9 dB

OASLA = 59.1 dB(A)

OASLC = 69.9 dB(C)

C-A VALUE = +10.9

LEVEL (Decibels)

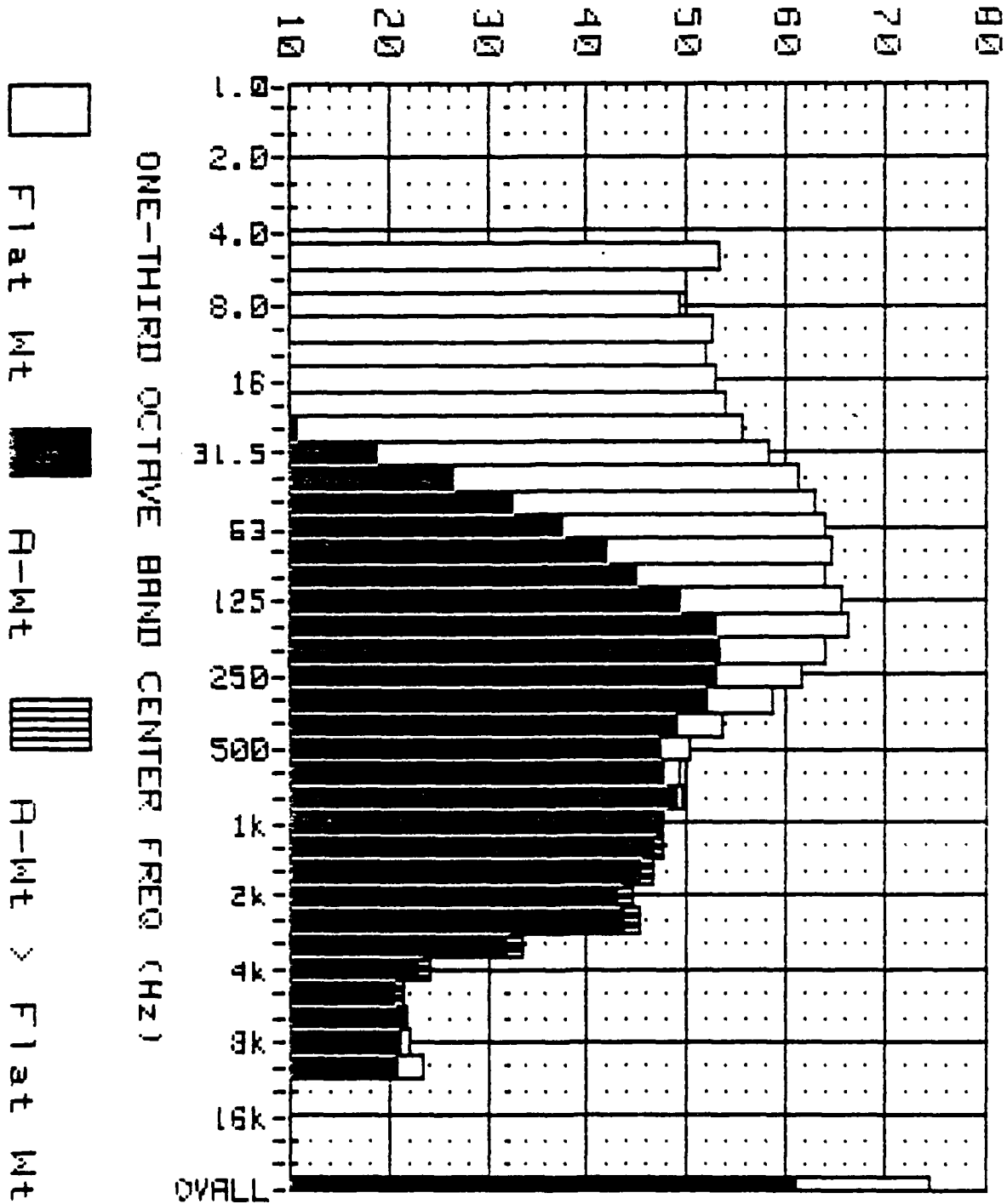


Figure 14: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 11 Angle: 100 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 14: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 11 Angle: 100 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	53.2	0.0	0.0			
6.3	49.9	0.0	0.0			
8	49.1	0.0	0.0	55.5	4.8	38.3
10	52.5	0.0	38.3			
12.5	51.7	0.0	40.5			
16	53.0	0.0	44.6	57.8	6.2	50.0
20	54.0	3.5	47.8			
25	55.5	10.8	51.1			
31.5	58.3	18.9	55.3	63.7	27.4	61.2
40	61.3	26.7	59.3			
50	62.9	32.7	61.6			
63	63.9	37.7	63.1	68.6	43.7	67.7
80	64.5	42.0	64.0			
100	63.9	44.8	63.6			
125	65.5	49.4	65.2	70.1	54.9	69.9
160	66.3	52.9	66.2			
200	64.1	53.2	64.1			
250	61.7	53.1	61.7	66.8	57.6	66.8
315	58.6	52.0	58.6			
400	53.6	48.8	53.6			
500	50.4	47.2	50.4	56.3	52.6	56.3
630	49.4	47.5	49.4			
800	49.6	48.8	49.6			
1000	47.4	47.4	47.4	52.9	52.7	52.9
1250	46.9	47.5	46.9			
1600	45.6	46.6	45.5			
2000	43.3	44.6	43.1	49.1	50.3	49.0
2500	43.9	45.2	43.6			
3150	32.3	33.5	31.8			
4000	23.3	24.3	22.5	33.1	34.2	32.5
5000	20.9	21.4	19.6			
6300	21.8	21.7	19.8			
8000	22.2	21.1	19.2	27.3	26.0	24.1
10000	23.4	20.9	19.0			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 74.2 dB

OASLA = 61.4 dB(A)

OASLC = 73.5 dB(C)

C-A VALUE = +12.1

LEVEL (Decibels)

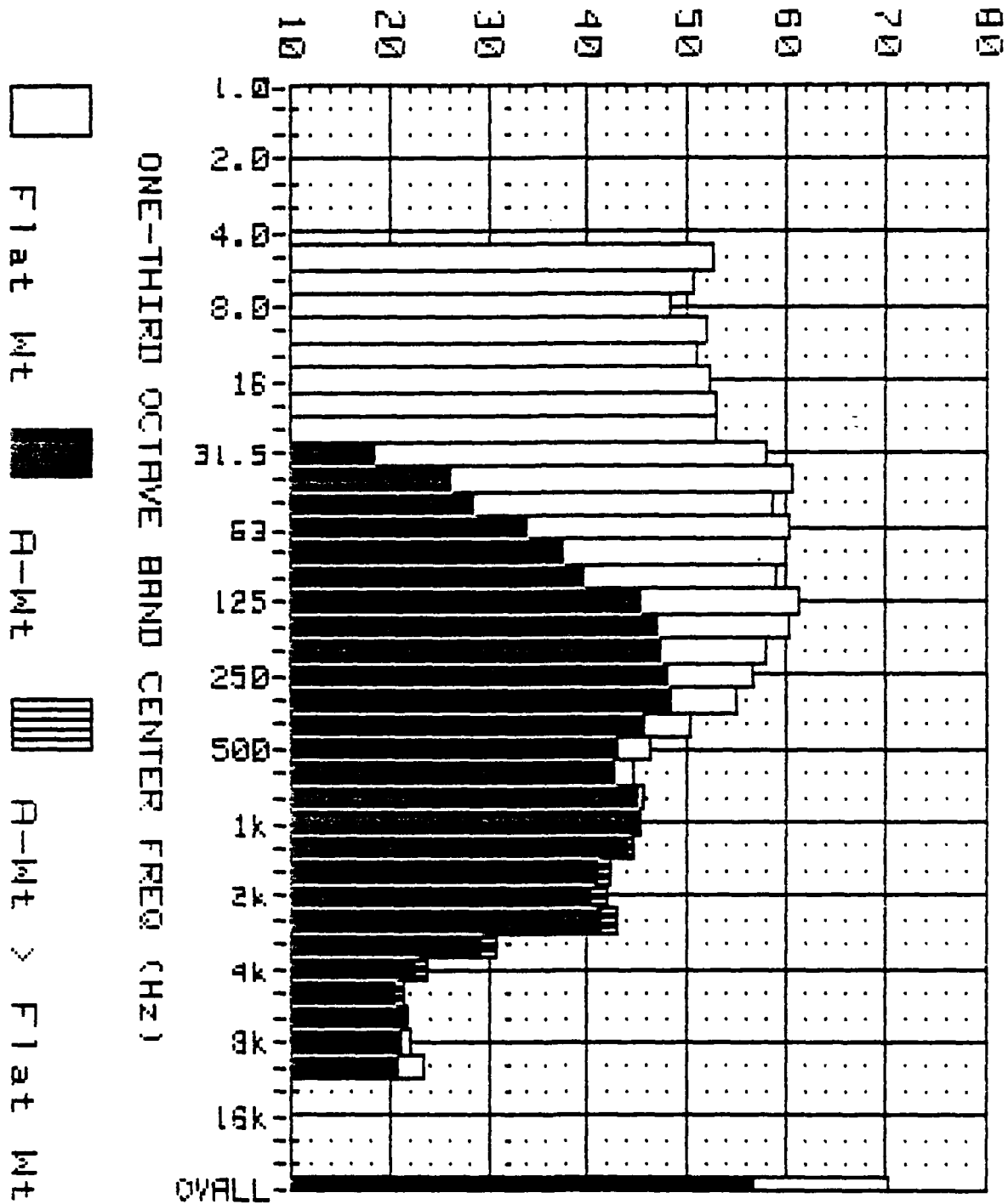


Figure 15: Measured Noise Spectrum (SPL vs R-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 12 Angle: 110 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 15: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 12 Angle: 110 Degrees; Distance: 100 Meters

Engine: F101; Power: Background; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	52.7	0.0	0.0			
6.3	50.6	0.0	0.0			
8	48.3	0.0	0.0	55.3	4.8	37.7
10	52.0	0.0	37.7			
12.5	50.9	0.0	39.7			
16	52.2	0.0	43.8	56.8	5.7	48.9
20	52.7	2.3	46.5			
25	52.8	8.1	48.4			
31.5	57.9	18.5	54.9	62.9	26.8	60.5
40	60.7	26.0	58.7			
50	58.7	28.5	57.4			
63	60.1	33.9	59.3	64.4	39.5	63.6
80	60.1	37.6	59.6			
100	58.8	39.7	58.5			
125	61.3	45.2	61.0	65.0	49.6	64.8
160	60.4	47.0	60.3			
200	58.0	47.1	58.0			
250	56.7	48.1	56.7	61.5	52.6	61.5
315	54.9	48.3	54.9			
400	50.3	45.5	50.3			
500	46.1	42.9	46.1	52.5	48.6	52.5
630	44.6	42.7	44.6			
800	45.7	44.9	45.7			
1000	45.3	45.3	45.3	49.9	49.7	49.9
1250	44.1	44.7	44.1			
1600	41.4	42.4	41.3			
2000	40.6	41.9	40.4	46.0	47.2	45.8
2500	41.6	42.9	41.3			
3150	29.5	30.7	29.0			
4000	22.7	23.7	21.9	30.8	31.9	30.2
5000	20.9	21.4	19.6			
6300	21.9	21.7	19.8			
8000	22.2	21.1	19.2	27.3	26.0	24.1
10000	23.4	20.9	19.0			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 70.3 dB

OASLA = 57.0 dB(A)

OASLC = 69.2 dB(C)

C-A VALUE = +12.1

LEVEL (Decibels)

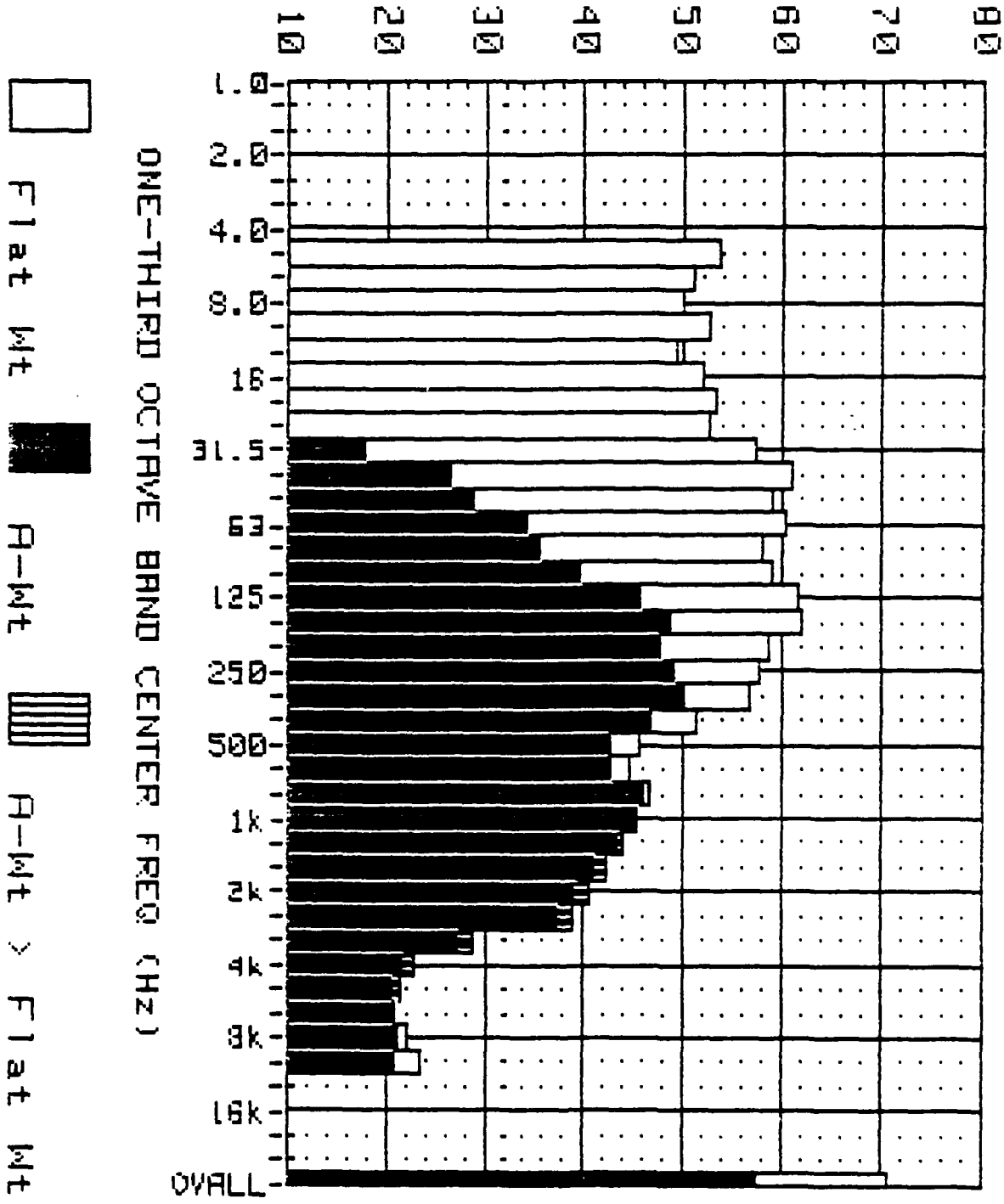


Figure 16: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 13 Angle: 120 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 16: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 13 Angle: 120 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	53.6	0.0	0.0			
6.3	51.0	0.0	0.0			
8	49.9	0.0	0.0	56.0	4.8	38.2
10	52.5	0.0	38.2			
12.5	49.1	0.0	37.9			
16	52.0	0.0	43.5	56.6	5.9	49.1
20	53.3	2.9	47.1			
25	52.5	7.8	48.1			
31.5	57.3	17.9	54.3	63.0	27.1	60.6
40	61.1	26.5	59.1			
50	59.0	28.8	57.7			
63	60.4	34.2	59.6	64.0	38.4	63.1
80	58.0	35.5	57.5			
100	58.8	39.7	58.5			
125	61.7	45.5	61.4	65.7	50.6	65.6
160	61.9	48.5	61.8			
200	58.6	47.7	58.6			
250	57.7	49.1	57.7	62.4	53.7	62.4
315	56.5	49.9	56.5			
400	51.3	46.5	51.3			
500	45.7	42.5	45.7	53.0	49.1	53.0
630	44.6	42.7	44.6			
800	46.6	45.8	46.6			
1000	45.1	45.1	45.1	50.0	49.8	50.0
1250	43.4	44.0	43.4			
1600	41.3	42.2	41.1			
2000	39.3	40.5	39.0	44.4	45.5	44.2
2500	37.6	38.9	37.3			
3150	27.6	28.8	27.1			
4000	21.9	22.9	21.1	29.3	30.4	28.7
5000	20.9	21.4	19.6			
6300	20.8	20.7	18.8			
8000	22.2	21.1	19.2	27.0	25.7	23.8
10000	23.4	20.9	19.0			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 70.6 dB

OASLA = 57.6 dB(A)

OASLC = 69.5 dB(C)

C-A VALUE = +11.9

LEVEL (Decibels)

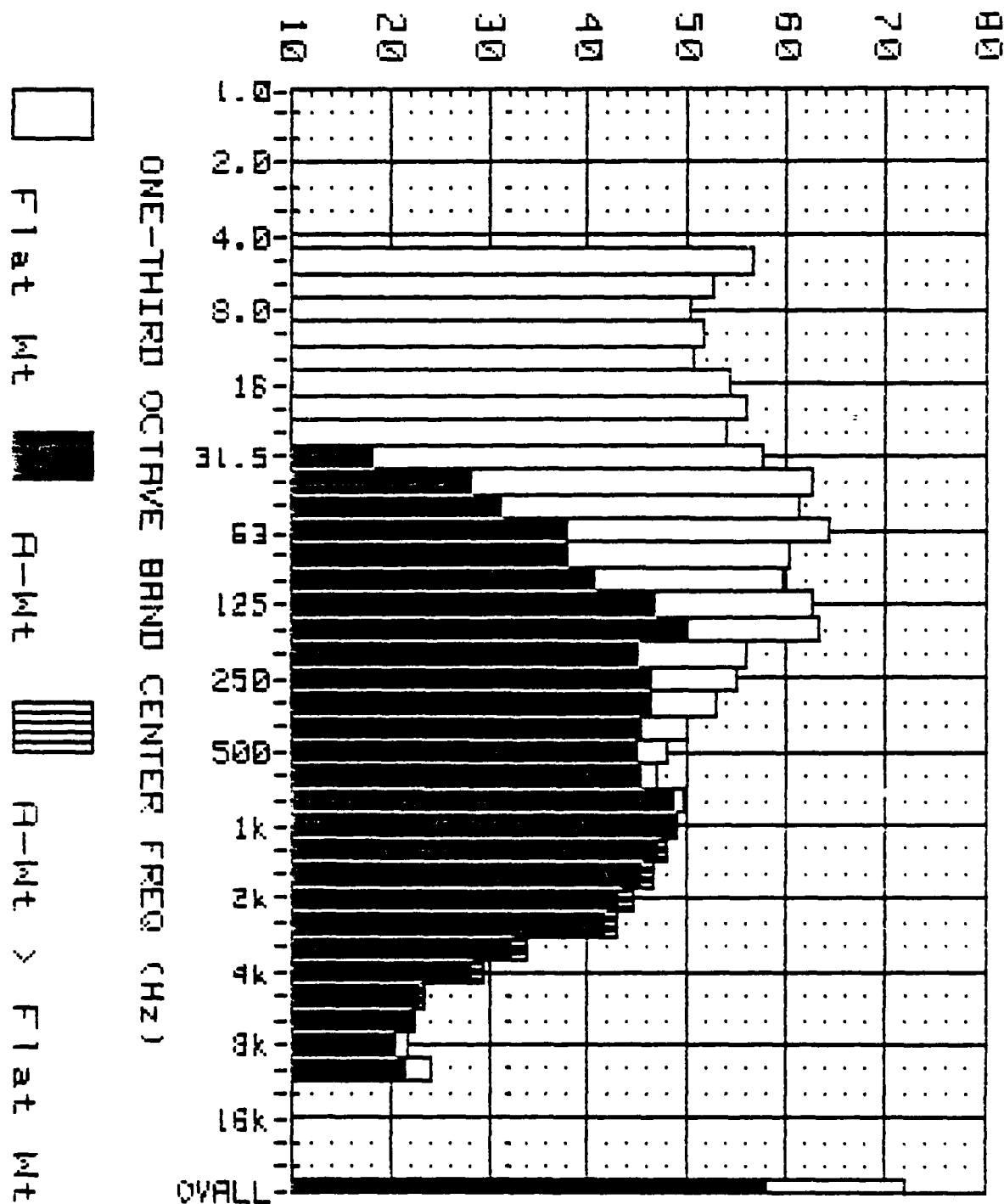


Figure 17: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: R/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 14 Angle: 130 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 17: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.

Station: 14 Angle: 130 Degrees; Distance: 100 Meters

Engine: F101; Power: Background; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	56.7	0.0	0.0			
6.3	52.7	0.0	0.0			
8	50.2	0.0	0.0	56.4	4.8	37.3
10	51.6	0.0	37.3			
12.5	50.6	0.0	39.4			
16	54.4	0.0	45.9	59.0	7.5	51.6
20	56.0	5.5	49.8			
25	54.0	9.3	49.6			
31.5	57.6	18.2	54.6	64.3	28.6	61.9
40	62.7	28.1	60.7			
50	61.4	31.2	60.1			
63	64.2	38.1	63.5	67.1	41.4	66.2
80	60.3	37.8	59.8			
100	59.6	40.5	59.3			
125	62.7	46.6	62.5	66.9	51.9	66.7
160	63.4	50.0	63.3			
200	55.9	45.1	55.9			
250	54.9	46.3	54.9	59.5	50.7	59.5
315	53.0	46.4	53.0			
400	50.0	45.2	50.0			
500	48.0	44.8	48.0	53.2	49.8	53.2
630	47.0	45.1	47.0			
800	49.5	48.7	49.5			
1000	49.0	49.0	49.0	53.5	53.3	53.5
1250	47.4	48.0	47.4			
1600	45.4	46.4	45.3			
2000	43.3	44.5	43.1	48.5	49.7	48.4
2500	41.7	43.0	41.4			
3150	32.7	33.9	32.2			
4000	28.7	29.7	27.9	34.4	35.5	33.8
5000	23.0	23.5	21.7			
6300	22.4	22.3	20.4			
8000	21.7	20.6	19.7	27.6	26.3	24.4
10000	24.0	21.5	19.6			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 72.0 dB

OASLA = 58.4 dB(A)

OASLC = 70.8 dB(C)

C-A VALUE = +12.4

LEVEL (Decibels)

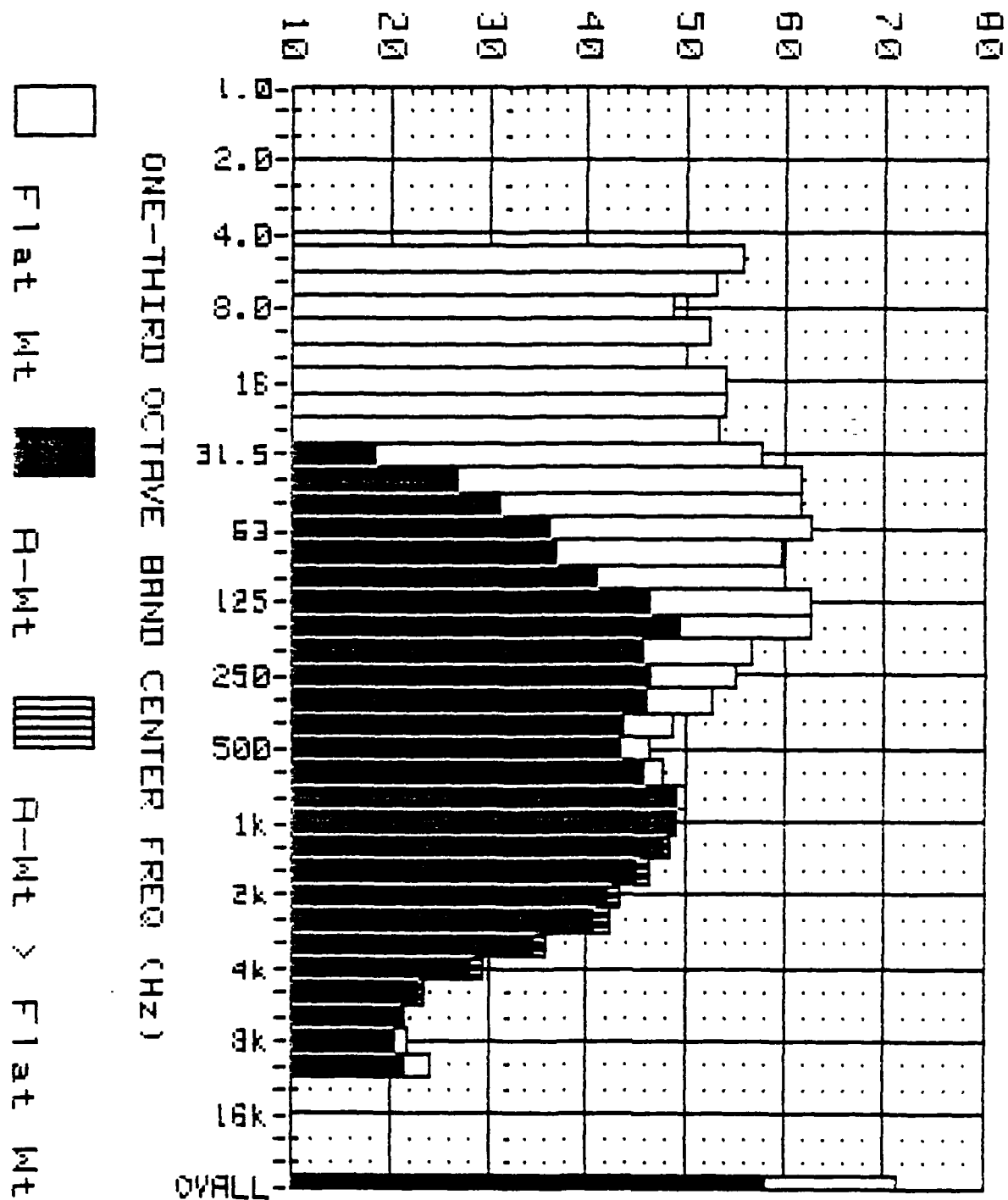


Figure 18: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 15 Angle: 140 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 18: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 15 Angle: 140 Degrees; Distance: 100 Meters

Engine: F101; Power: Background; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	55.6	0.0	0.0			
6.3	52.8	0.0	0.0			
8	48.7	0.0	0.0	56.3	4.8	37.9
10	52.2	0.0	37.9			
12.5	49.8	0.0	38.7			
16	53.8	0.0	45.3	57.7	6.2	50.0
20	53.9	3.4	47.7			
25	53.2	8.5	48.9			
31.5	57.8	18.4	54.7	63.5	27.6	61.1
40	61.6	27.0	59.6			
50	61.5	31.3	60.2			
63	62.6	36.4	61.8	66.1	40.3	65.2
80	59.5	37.0	59.0			
100	60.0	40.9	59.7			
125	62.5	46.4	62.3	66.7	51.5	66.5
160	62.8	49.4	62.6			
200	56.5	45.6	56.5			
250	54.9	46.3	54.9	59.7	50.7	59.7
315	52.5	45.9	52.5			
400	48.5	43.7	48.5			
500	46.4	43.1	46.4	52.3	49.0	52.3
630	47.4	45.5	47.4			
800	49.3	49.0	49.8			
1000	49.0	49.0	49.0	53.7	53.6	53.7
1250	47.3	48.4	47.8			
1600	45.3	46.3	45.2			
2000	42.1	43.3	41.9	48.0	49.1	47.8
2500	40.9	42.2	40.6			
3150	34.9	36.0	34.3			
4000	29.4	29.4	27.6	35.9	37.0	35.3
5000	23.0	23.5	21.7			
6300	21.4	21.2	19.4			
8000	21.7	20.6	18.7	27.3	25.9	24.0
10000	24.0	21.5	19.6			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 71.4 dB

OASLA = 58.2 dB(A)

OASLC = 70.2 dB(C)

C-A VALUE = +12.0

LEVEL (Decibels)

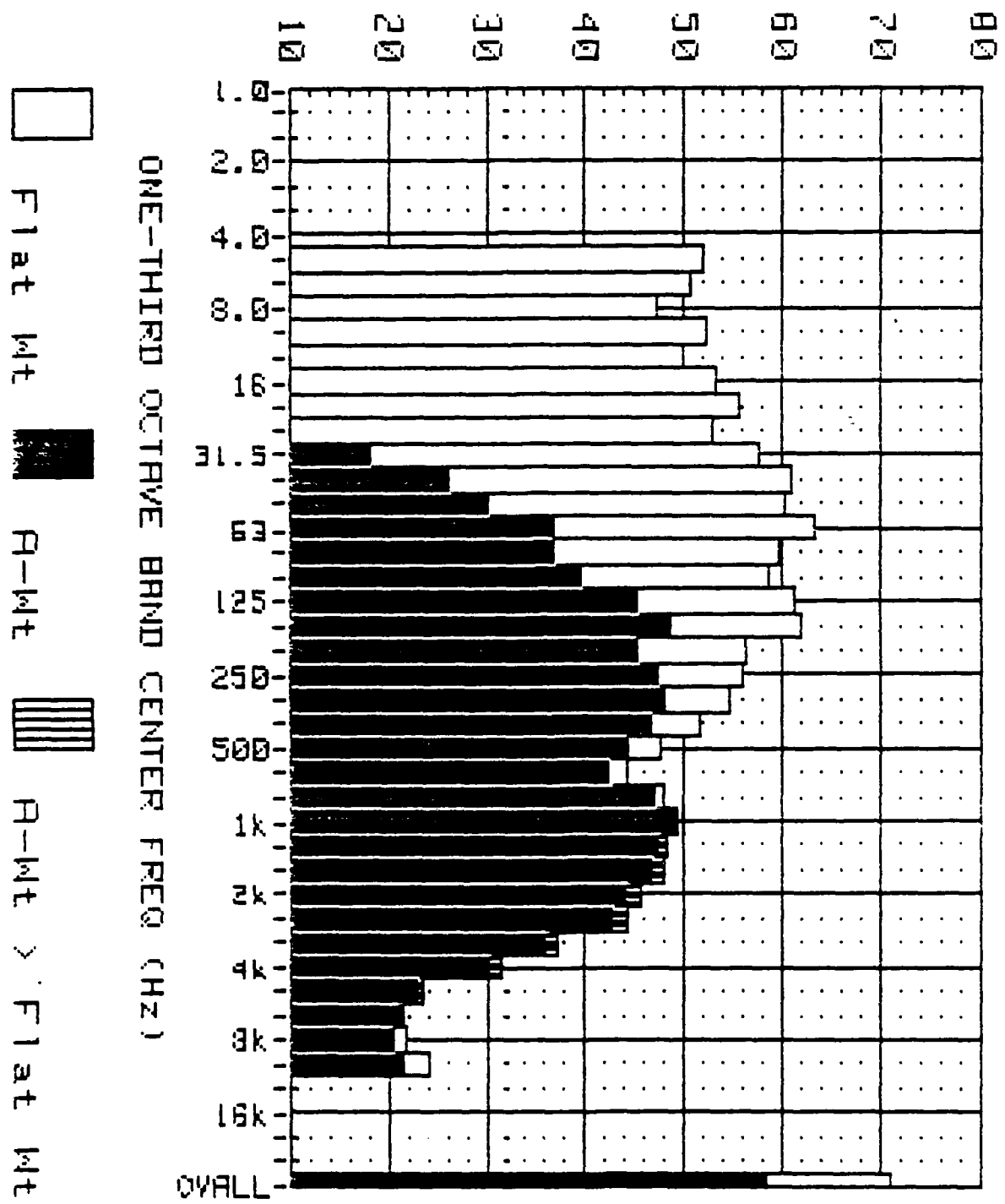


Figure 19: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 16 Angle: 150 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 19: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 16 Angle: 150 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [<A>BP]	C-WT SOUND LEVEL [<C>BP]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [<A>BP]	C-WT OCTAVE BAND SL [<C>BP]
5	52.0	0.0	0.0			
6.3	50.4	0.0	0.0			
8	47.3	0.0	0.0	55.1	4.8	37.8
10	52.1	0.0	37.8			
12.5	49.8	0.0	38.7			
16	53.3	0.0	44.8	58.3	7.2	50.9
20	55.5	5.0	49.3			
25	52.8	8.1	48.5			
31.5	57.5	18.1	54.5	62.9	26.9	60.4
40	60.8	26.2	58.8			
50	60.3	30.1	59.0			
63	63.2	37.0	62.4	66.1	40.4	65.2
80	59.5	37.0	59.0			
100	58.6	39.5	58.3			
125	61.3	45.2	61.0	65.6	50.6	65.5
160	62.0	48.6	61.9			
200	56.2	45.3	56.2			
250	55.9	47.3	55.9	60.4	51.8	60.4
315	54.6	48.0	54.6			
400	51.6	46.8	51.6			
500	47.6	44.4	47.6	53.6	49.6	53.6
630	44.3	42.4	44.3			
800	47.8	47.0	47.8			
1000	49.2	49.2	49.2	53.0	53.0	53.0
1250	47.6	48.2	47.6			
1600	47.0	48.0	46.9			
2000	44.2	45.4	44.0	49.8	51.0	49.7
2500	42.9	44.2	42.6			
3150	36.1	37.3	35.6			
4000	30.7	31.7	29.9	37.3	38.4	36.7
5000	23.0	23.5	21.7			
6300	21.4	21.2	19.4			
8000	21.7	20.6	18.7	27.3	25.9	24.0
10000	24.0	21.5	19.6			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 70.9 dB

OASLA = 58.5 dB(A)

OASLC = 69.9 dB(C)

C-A VALUE = +11.4

LEVEL (Decibels)

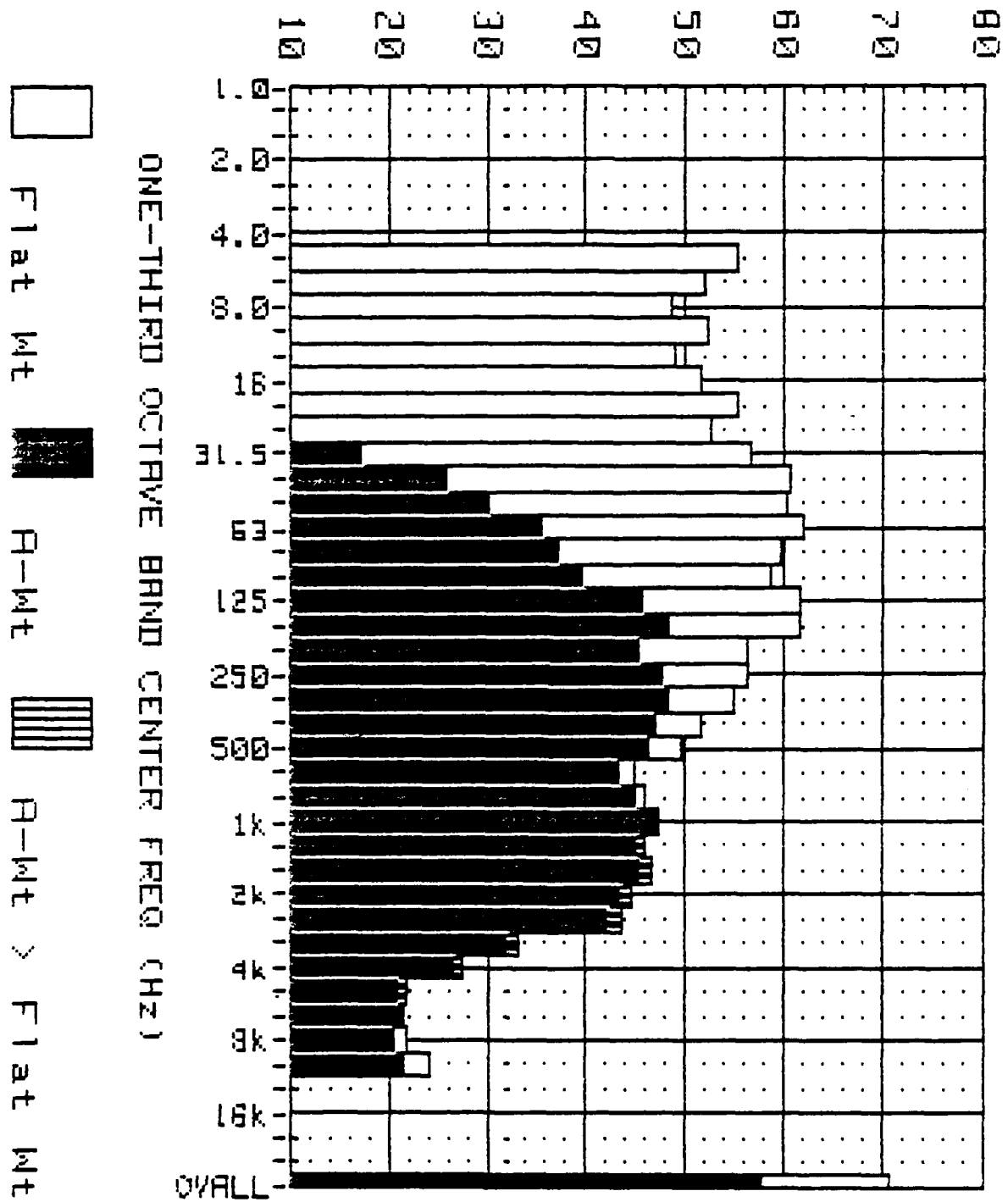


Figure 20: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 MSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 17 Angle: 160 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 20: Measured Noise Spectrum Levels.

Location: A/F32I-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 17 Angle: 160 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	55.3	0.0	0.0			
6.3	51.8	0.0	0.0			
8	48.6	0.0	0.0	55.9	4.8	37.9
10	52.2	0.0	37.9			
12.5	48.9	0.0	37.7			
16	51.6	0.0	43.1	57.5	7.0	50.3
20	55.2	4.8	49.0			
25	52.6	7.9	48.2			
31.5	56.5	17.1	53.5	62.4	26.5	60.0
40	60.5	25.9	58.5			
50	60.4	30.2	59.1			
63	61.9	35.7	61.1	65.5	39.9	64.6
80	59.6	37.1	59.1			
100	58.8	39.7	58.5			
125	61.6	45.5	61.4	65.7	50.5	65.5
160	61.8	48.4	61.7			
200	56.3	45.4	56.3			
250	56.3	47.7	56.3	60.6	52.1	60.6
315	54.9	48.4	54.9			
400	51.7	46.9	51.7			
500	49.5	46.3	49.5	54.2	50.5	54.2
630	45.0	43.1	45.0			
800	45.8	45.0	45.8			
1000	47.2	47.2	47.2	50.9	50.9	50.9
1250	45.3	45.9	45.3			
1600	45.4	46.4	45.3			
2000	43.4	44.6	43.2	48.7	49.8	48.5
2500	42.3	43.6	42.0			
3150	32.1	33.3	31.6			
4000	26.7	27.7	25.9	33.4	34.5	32.8
5000	21.2	21.7	19.9			
6300	21.4	21.2	19.4			
8000	21.7	20.6	18.7	27.3	25.9	24.0
10000	24.0	21.5	19.6			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 70.7 dB
 OASLC = 69.6 dB(C)

OASLA = 57.9 dB(A)
 C-A VALUE = +11.7

LEVEL (Decibels)

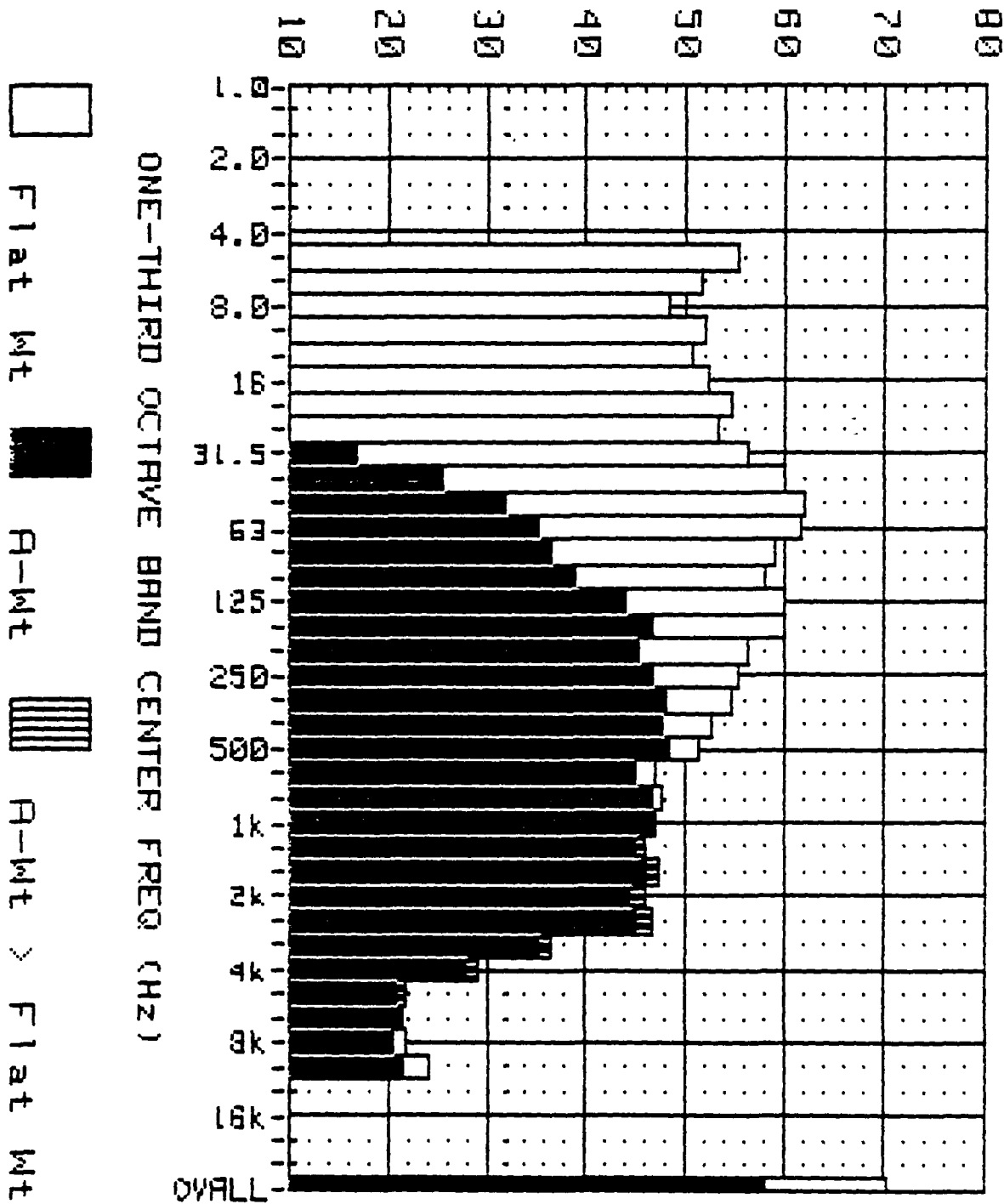


Figure 21: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 18 Angle: 170 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 21: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 18 Angle: 170 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	55.1	0.0	0.0			
6.3	51.5	0.0	0.0			
8	48.2	0.0	0.0	55.5	4.8	37.5
10	51.8	0.0	37.5			
12.5	50.5	0.0	39.3			
16	52.2	0.0	43.7	57.5	6.6	50.0
20	54.5	4.0	48.3			
25	53.2	8.5	48.8			
31.5	56.3	16.9	53.2	62.1	26.0	59.6
40	60.0	25.4	58.0			
50	62.0	31.8	60.7			
63	61.6	35.4	60.8	65.8	39.7	64.9
80	58.9	36.4	58.4			
100	58.0	38.9	57.7			
125	60.1	44.0	59.9	64.2	49.0	64.0
160	60.1	46.6	59.9			
200	56.2	45.3	56.2			
250	55.3	46.7	55.3	60.2	51.5	60.2
315	54.5	47.9	54.5			
400	52.6	47.8	52.6			
500	51.4	48.1	51.4	55.6	51.9	55.6
630	46.8	44.9	46.8			
800	47.4	46.6	47.4			
1000	46.8	46.8	46.8	51.3	51.2	51.3
1250	45.2	45.8	45.2			
1600	46.2	47.1	46.0			
2000	44.7	45.9	44.5	50.2	51.3	50.0
2500	45.2	46.5	44.9			
3150	35.4	36.6	34.9			
4000	29.3	29.2	27.5	36.3	37.4	35.7
5000	21.2	21.7	19.9			
6300	21.4	21.2	19.4			
8000	21.7	20.6	18.7	27.3	25.9	24.0
10000	24.0	21.5	19.6			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 70.4 dB

OASLA = 58.2 dB(A)

OASLC = 69.2 dB(C)

C-A VALUE = +11.0

LEVEL (Decibels)

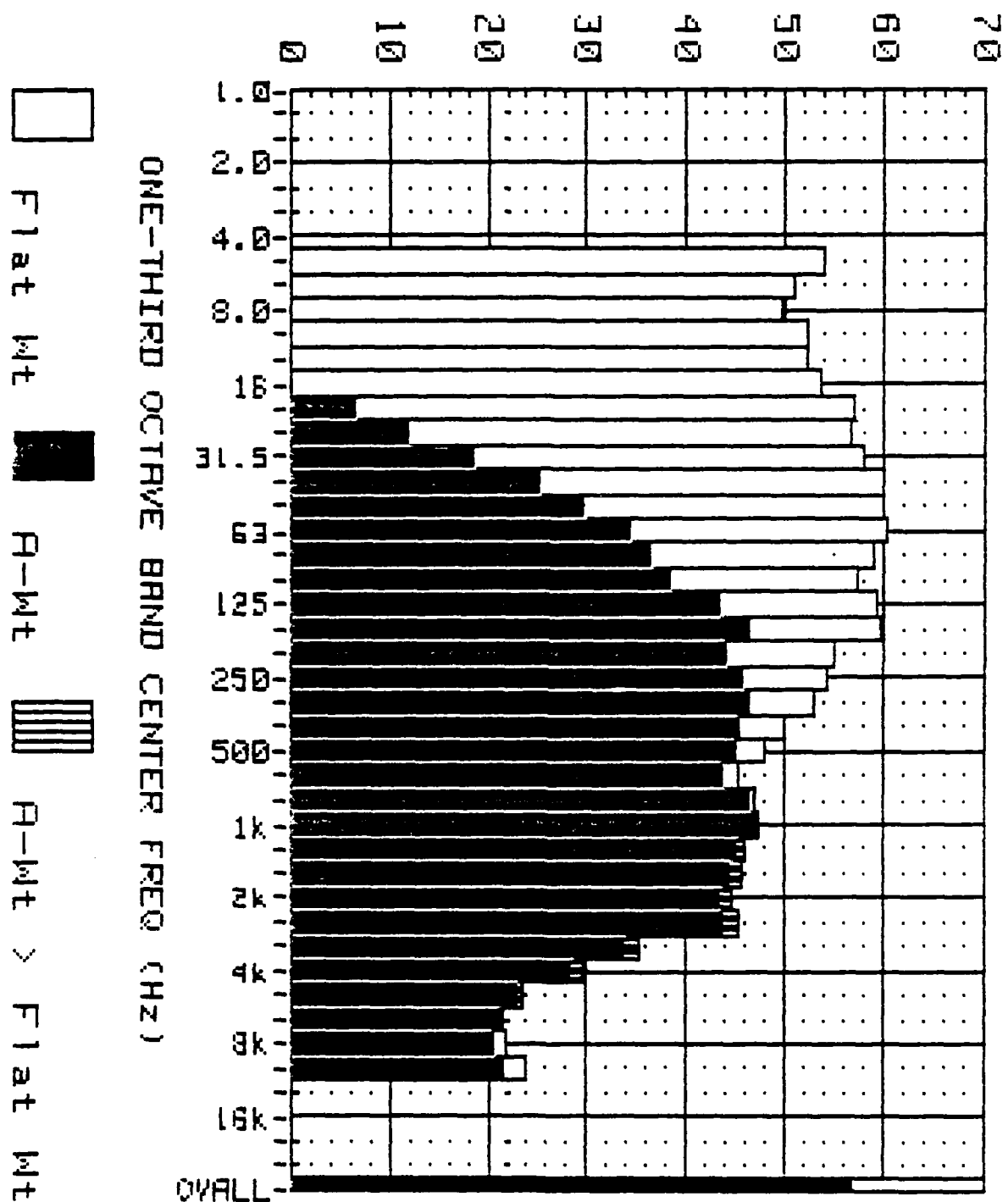


Figure 22: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 19 Angle: 180 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 22: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 19 Angle: 180 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	53.8	0.0	0.0			
6.3	50.8	0.0	0.0			
8	49.7	0.0	0.0	55.8	4.8	38.0
10	52.3	0.0	38.0			
12.5	52.4	0.0	41.1			
16	53.5	0.0	45.0	59.5	8.1	52.1
20	57.0	6.4	50.7			
25	56.7	12.0	52.3			
31.5	58.0	18.6	54.9	63.1	26.2	60.3
40	59.8	25.2	57.8			
50	59.8	29.6	58.5			
63	60.4	34.2	59.6	64.5	38.9	63.6
80	58.8	36.3	58.3			
100	57.3	38.2	57.0			
125	59.3	43.1	59.1	63.6	48.4	63.4
160	59.7	46.3	59.6			
200	54.9	44.0	54.9			
250	54.2	45.6	54.2	58.8	50.1	58.8
315	52.8	46.3	52.8			
400	50.0	45.2	50.0			
500	48.1	44.9	48.1	53.0	49.3	53.0
630	45.4	43.5	45.4			
800	47.0	46.2	47.0			
1000	47.2	47.2	47.2	51.4	51.3	51.4
1250	45.4	46.0	45.4			
1600	44.7	45.7	44.6			
2000	43.5	44.7	43.3	48.8	50.0	48.7
2500	44.0	45.3	43.7			
3150	33.9	35.1	33.4			
4000	28.7	29.7	27.9	35.3	36.4	34.7
5000	23.0	23.5	21.7			
6300	21.4	21.2	19.4			
8000	21.7	20.6	18.7	27.3	25.9	24.0
10000	24.0	21.5	19.6			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 69.9 dB

OASLA = 57.0 dB(A)

OASLC = 68.4 dB(C)

C-A VALUE = +11.4

LEVEL (Decibels)

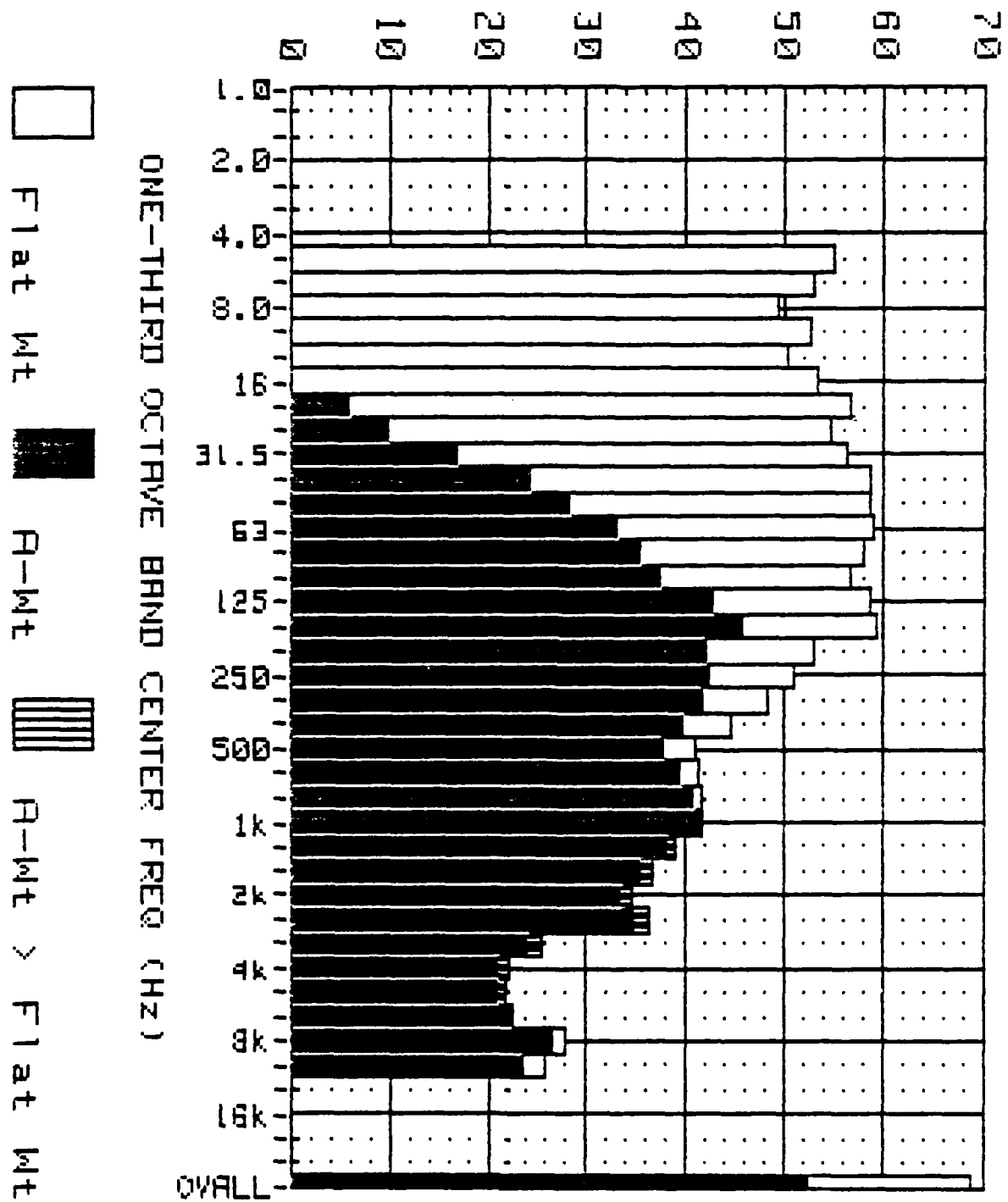


Figure 23: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 20 Angle: 190 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 23: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 20 Angle: 190 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	54.8	0.0	0.0			
6.3	52.9	0.0	0.0			
8	49.4	0.0	0.0	56.6	4.8	38.2
10	52.5	0.0	38.2			
12.5	50.2	0.0	39.0			
16	53.4	0.0	44.9	58.8	7.7	51.6
20	56.5	5.9	50.2			
25	54.6	9.9	50.2			
31.5	56.4	17.0	53.3	61.6	25.0	59.0
40	58.7	24.1	56.7			
50	58.5	28.3	57.2			
63	59.0	32.8	58.2	63.2	37.8	62.4
80	57.9	35.4	57.4			
100	56.5	37.3	56.2			
125	58.7	42.6	58.5	63.0	47.9	62.8
160	59.2	45.8	59.1			
200	52.9	42.0	52.9			
250	50.9	42.3	50.9	55.8	46.7	55.8
315	48.1	41.5	43.1			
400	44.6	39.8	44.6			
500	40.8	37.6	40.8	47.3	43.8	47.3
630	41.3	39.4	41.3			
800	41.5	40.7	41.5			
1000	41.5	41.5	41.5	45.5	45.3	45.5
1250	38.4	39.0	38.4			
1600	35.6	36.6	35.5			
2000	33.5	34.7	33.3	39.5	40.7	39.4
2500	34.9	36.2	34.6			
3150	24.2	25.4	23.7			
4000	21.2	22.3	20.4	27.2	29.2	26.4
5000	21.2	21.7	19.9			
6300	22.4	22.3	20.4			
8000	27.7	26.6	24.7	30.6	29.3	27.4
10000	26.0	23.5	21.6			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 68.8 dB

OASLA = 52.7 dB(A)

OASLC = 67.0 dB(C)

C-A VALUE = +14.4

LEVEL (Decibels)

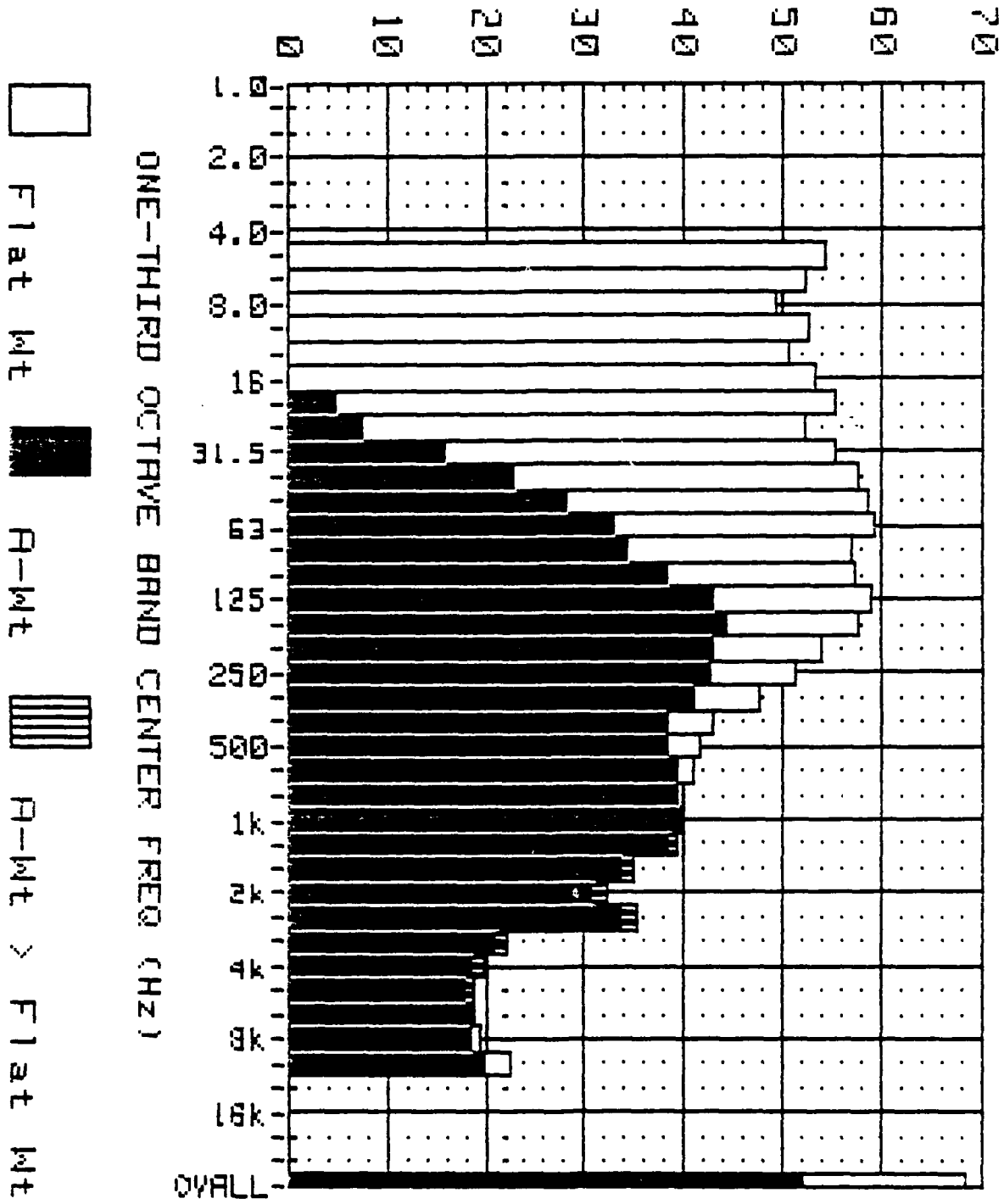


Figure 24: Measured Noise Spectrum (SPL vs R-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 21 Angle: 200 Degrees; Distance: 100 Meters
 Engine: F101; Power: Background; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 24: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 21 Angle: 200 Degrees; Distance: 100 Meters

Engine: F101; Power: Background; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	54.4	0.0	0.0			
6.3	52.3	0.0	0.0			
8	49.2	0.0	0.0	56.3	4.8	38.2
10	52.5	0.0	38.2			
12.5	50.8	0.0	39.6			
16	53.3	0.0	44.8	58.3	7.0	50.8
20	55.3	4.9	49.1			
25	52.4	7.6	48.0			
31.5	55.3	16.0	52.4	60.4	23.9	57.8
40	57.6	23.0	55.6			
50	58.5	28.3	57.2			
63	59.3	33.0	58.5	63.1	37.3	62.2
80	56.8	34.3	56.3			
100	57.3	38.2	57.0			
125	59.1	43.0	58.9	62.8	47.2	62.6
160	57.7	44.3	57.6			
200	53.9	43.0	53.9			
250	51.3	42.7	51.3	56.4	47.1	56.4
315	47.5	40.9	47.5			
400	43.0	38.2	43.0			
500	41.6	38.4	41.6	46.7	43.3	46.7
630	41.0	39.1	41.0			
800	39.9	39.1	39.9			
1000	39.4	39.4	39.4	44.1	44.0	44.1
1250	38.7	39.3	38.7			
1600	33.9	34.9	33.8			
2000	31.0	32.2	30.8	37.9	39.0	37.7
2500	33.8	35.1	33.5			
3150	21.1	22.3	20.6			
4000	18.9	19.9	18.1	24.3	25.3	23.6
5000	18.2	18.7	16.9			
6300	18.8	18.7	16.8			
8000	19.5	18.4	16.5	25.3	23.8	21.9
10000	22.5	20.0	18.1			

OVERALL LEVELS (5 - 10000Hz)

OASPL = 68.4 dB

OASLA = 52.2 dB(A)

OASLC = 66.7 dB(C)

C-A VALUE = +14.6

LEVEL (Decibels)

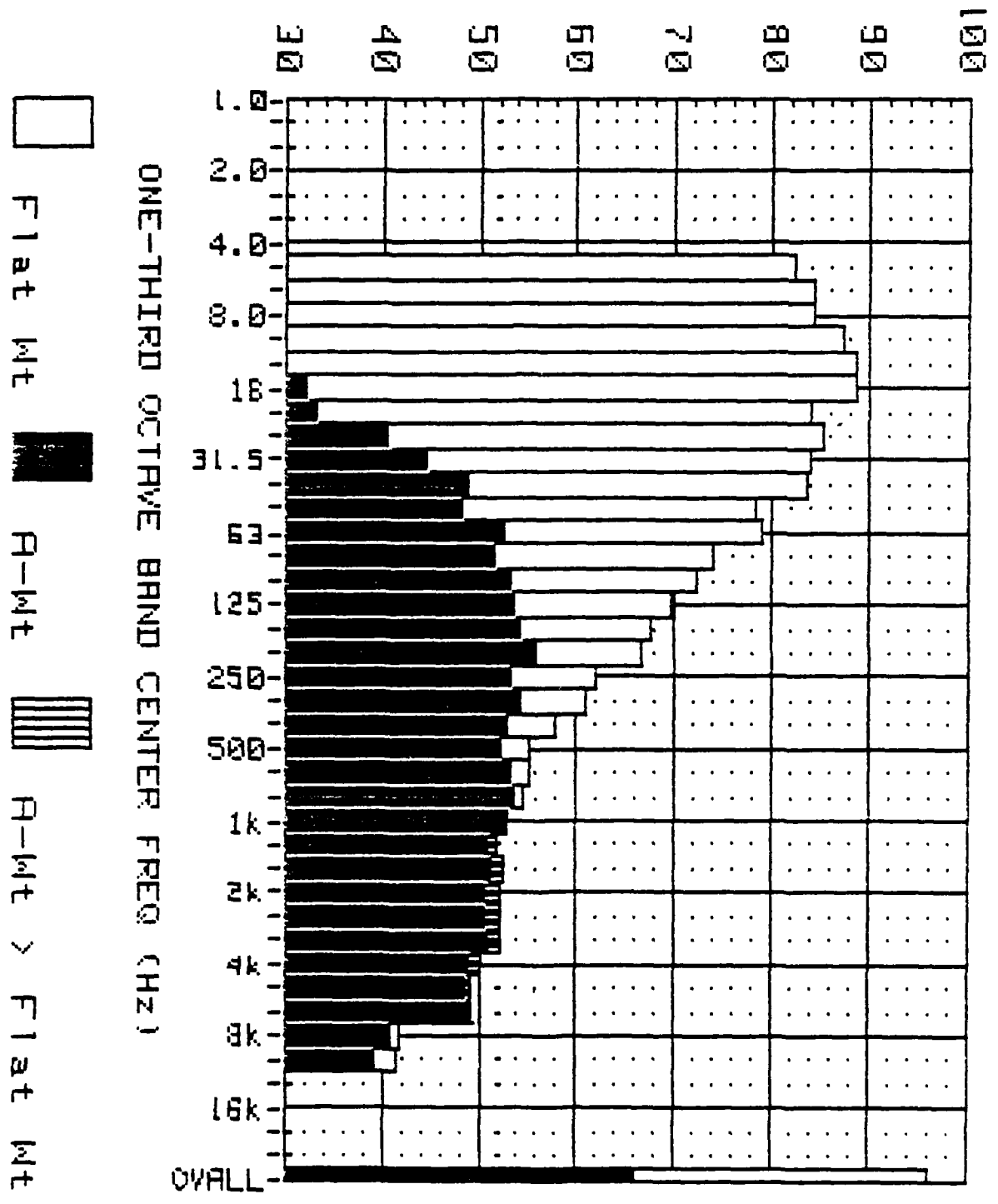


Figure 25: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 36 Angle: 340 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 25: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 36 Angle: 340 Degrees; Distance: 100 Meters

Engine: F101; Power: Intermediate; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	82.4	0.0	0.0			
6.3	84.4	0.0	0.0			
8	84.2	0.0	0.0	90.3	17.2	73.1
10	87.4	17.0	73.1			
12.5	88.6	25.2	77.4			
16	88.7	32.0	80.2	92.3	36.1	83.4
20	83.8	33.3	77.6			
25	85.2	40.5	80.8			
31.5	83.9	44.5	80.9	89.1	50.7	85.9
40	83.6	49.0	81.6			
50	78.3	48.1	77.0			
63	78.9	52.7	78.1	82.3	55.9	81.3
80	73.9	51.4	73.4			
100	72.3	53.2	72.0			
125	69.5	53.4	69.3	75.0	58.4	74.8
160	67.5	54.1	67.4			
200	66.7	55.8	66.7			
250	61.9	53.3	61.9	68.7	59.3	68.7
315	60.7	54.1	60.7			
400	57.8	53.0	57.8			
500	55.3	52.1	55.3	61.0	57.6	61.0
630	55.2	53.3	55.2			
800	54.3	53.5	54.3			
1000	52.9	52.9	52.9	57.8	57.6	57.8
1250	51.1	51.7	51.1			
1600	51.3	52.3	51.2			
2000	50.8	52.0	50.6	55.8	57.0	55.6
2500	50.9	52.2	50.6			
3150	51.1	52.3	50.6			
4000	49.1	50.1	48.3	54.5	55.5	53.8
5000	48.7	49.2	47.4			
6300	49.2	49.1	47.2			
8000	41.8	40.7	38.8	50.5	50.0	48.1
10000	41.5	39.0	37.1			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 96.0 dB

OASLA = 66.2 dB(A)

OASLC = 89.0 dB(C)

C-A VALUE = +22.9

LEVEL (Decibels)

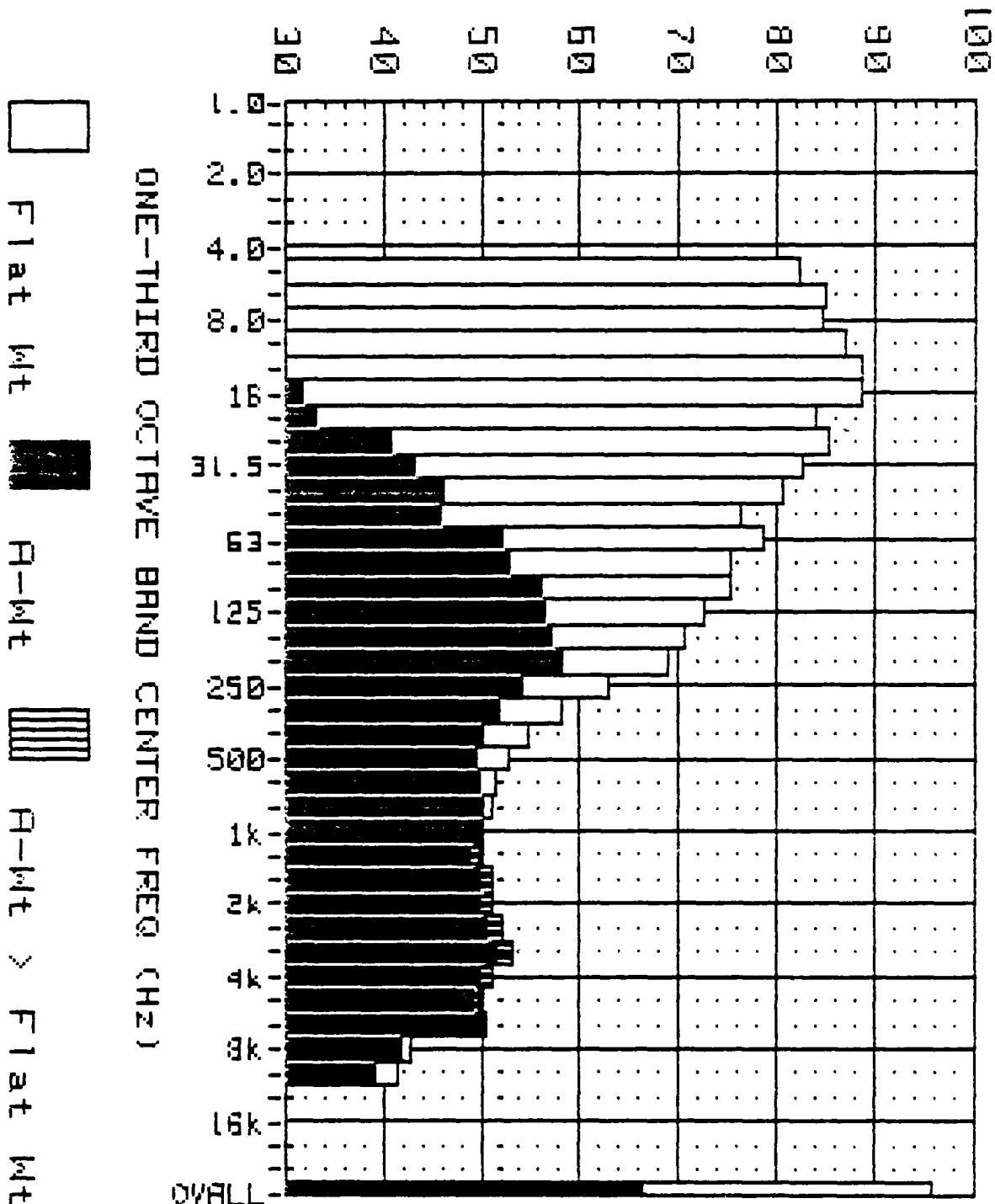


Figure 26: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 37 Angle: 350 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 26: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 37 Angle: 350 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	82.2	0.0	0.0			
6.3	84.9	0.0	0.0			
9	84.7	0.0	0.0	90.4	16.8	72.7
10	87.0	16.6	72.7			
12.5	88.5	25.1	77.3			
16	88.5	31.8	80.0	92.2	36.0	83.2
20	83.8	33.3	77.6			
25	85.4	40.7	81.0			
31.5	82.5	43.1	79.5	88.1	48.6	84.6
40	80.7	46.1	78.7			
50	76.2	46.0	74.9			
63	78.5	52.2	77.7	81.6	56.0	80.8
80	75.4	52.9	74.9			
100	75.2	56.1	74.9			
125	72.7	56.6	72.5	78.0	61.4	77.8
160	70.6	57.2	70.5			
200	69.1	58.2	69.1			
250	62.9	54.3	62.9	70.3	60.3	70.3
315	58.3	51.7	58.3			
400	55.0	50.2	55.0			
500	52.7	49.5	52.7	58.1	54.6	58.1
630	51.6	49.7	51.6			
800	51.1	50.3	51.1			
1000	49.7	49.7	49.7	54.9	54.7	54.9
1250	49.2	49.8	49.2			
1600	50.1	51.1	50.0			
2000	50.1	51.3	49.9	55.1	56.3	54.9
2500	50.7	52.0	50.4			
3150	52.0	53.2	51.5			
4000	50.0	51.0	49.2	55.4	56.4	54.6
5000	49.4	49.9	48.1			
6300	50.4	50.3	48.4			
8000	42.8	41.7	39.8	51.5	51.1	49.2
10000	41.5	39.0	37.1			

OVERALL LEVELS (5 - 10000 Hz)

OR SPL = 95.8 dB

OR SLA = 66.5 dB(A)

OR SLC = 88.5 dB(C)

C-A VALUE = +22.0

LEVEL (Decibels)

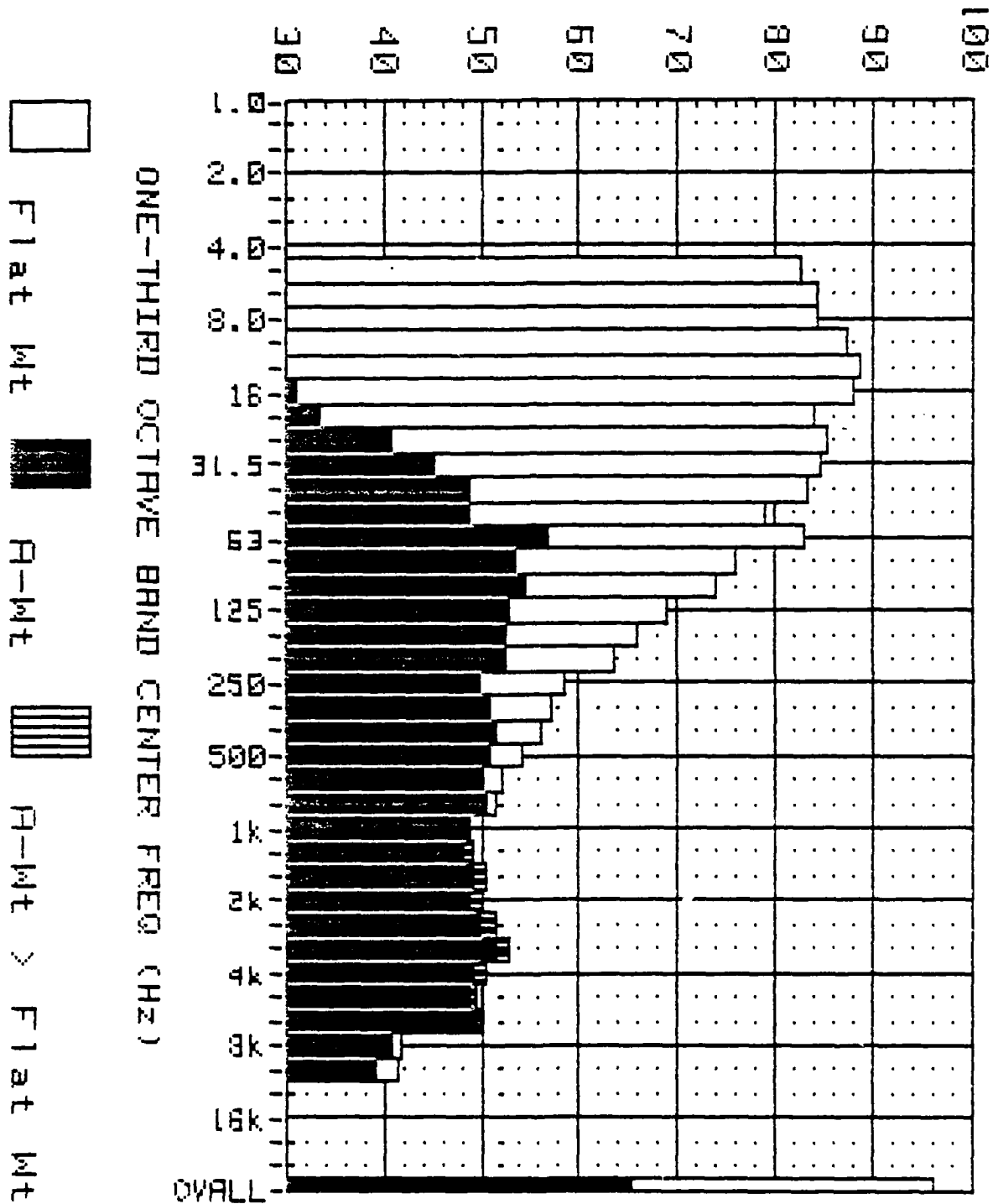


Figure 27: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 38 Angle: 0 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 27: Measured Noise Spectrum Levels.

Location: R/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 38 Angle: 0 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	82.7	0.0	0.0			
6.3	84.4	0.0	0.0			
8	84.4	0.0	0.0	90.3	17.1	73.0
10	87.3	16.9	73.0			
12.5	88.5	25.1	77.3			
16	87.8	31.1	79.3	91.9	35.8	83.0
20	83.9	33.4	77.7			
25	85.4	40.7	81.0			
31.5	84.6	45.2	81.6	89.3	50.8	86.1
40	83.3	48.7	81.3			
50	79.1	48.9	77.8			
63	83.0	56.8	82.2	85.0	58.9	84.1
80	76.0	53.5	75.5			
100	73.8	54.7	73.5			
125	68.9	52.8	68.7	75.5	58.2	75.3
160	66.0	52.6	65.9			
200	63.5	52.6	63.5			
250	58.6	50.0	58.6	65.4	56.0	65.4
315	57.3	50.7	57.3			
400	56.2	51.4	56.2			
500	54.1	50.9	54.1	59.2	55.6	59.2
630	52.1	50.2	52.1			
800	51.4	50.6	51.4			
1000	48.7	48.7	48.7	54.5	54.3	54.5
1250	48.5	49.1	48.5			
1600	49.6	50.6	49.5			
2000	49.0	50.2	48.8	54.5	55.6	54.2
2500	50.3	51.6	50.0			
3150	51.7	52.9	51.2			
4000	49.4	50.4	48.6	55.0	56.0	54.2
5000	49.1	49.6	47.9			
6300	49.7	49.6	47.7			
8000	41.8	40.7	38.8	50.9	50.4	48.5
10000	41.5	39.0	37.1			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 96.1 dB

OASLA = 65.4 dB(A)

OASLC = 89.6 dB(C)

C-A VALUE = +24.2

LEVEL (Decibels)

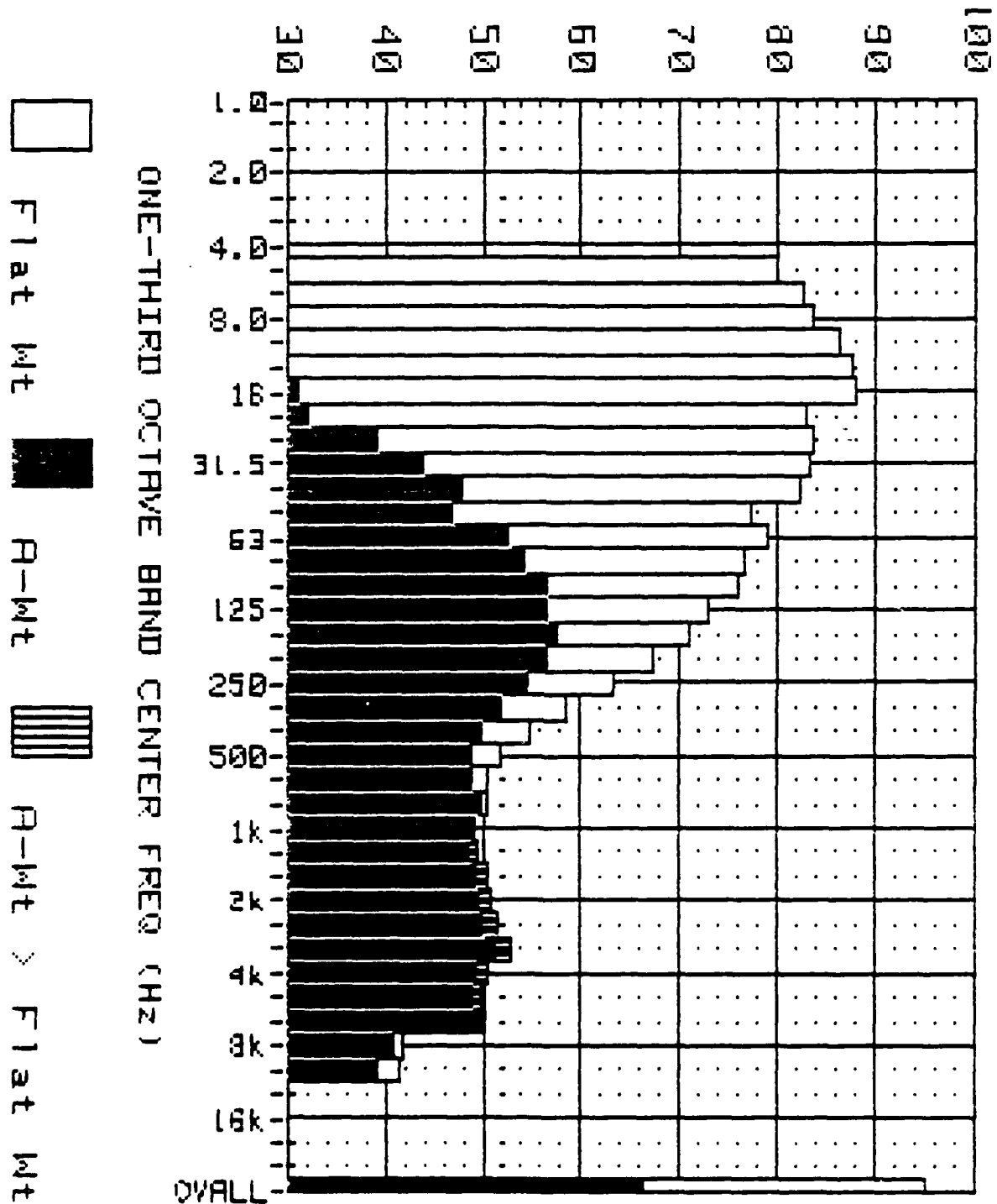


Figure 28: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 1 Angle: 10 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 28: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.

Station: 1 Angle: 10 Degrees; Distance: 100 Meters

Engine: F101; Power: Intermediate; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	80.1	0.0	0.0			
6.3	82.8	0.0	0.0			
8	83.7	0.0	0.0	89.2	16.0	71.9
10	86.2	15.8	71.9			
12.5	87.5	24.1	76.3			
16	87.9	31.2	79.4	91.4	35.2	82.4
20	82.8	32.3	76.6			
25	83.7	39.0	79.3			
31.5	83.4	44.0	80.4	87.9	49.6	84.8
40	82.3	47.7	80.3			
50	77.2	47.0	75.9			
63	78.9	52.7	78.1	82.4	57.0	81.6
80	76.7	54.2	76.2			
100	75.8	56.7	75.5			
125	72.8	56.7	72.6	78.4	61.8	78.2
160	71.0	57.6	70.9			
200	67.4	56.5	67.4			
250	63.1	54.5	63.1	69.1	59.5	69.1
315	58.6	52.0	58.6			
400	54.8	50.0	54.3			
500	51.9	48.7	51.9	57.6	53.9	57.6
630	50.6	48.7	50.6			
800	50.5	49.7	50.5			
1000	49.3	49.3	49.3	54.4	54.2	54.4
1250	48.7	49.4	48.7			
1600	49.4	50.4	49.3			
2000	49.7	50.9	49.5	54.6	55.8	54.4
2500	50.3	51.6	50.0			
3150	51.6	52.8	51.1			
4000	49.4	50.4	48.6	55.0	56.0	54.2
5000	49.2	49.7	47.9			
6300	50.0	49.9	48.0			
8000	41.8	40.7	38.8	51.1	50.7	48.8
10000	41.5	39.0	37.1			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 95.0 dB

OASLA = 66.4 dB(A)

OASLC = 38.5 dB(C)

C-A VALUE = +22.1

LEVEL (Decibels)

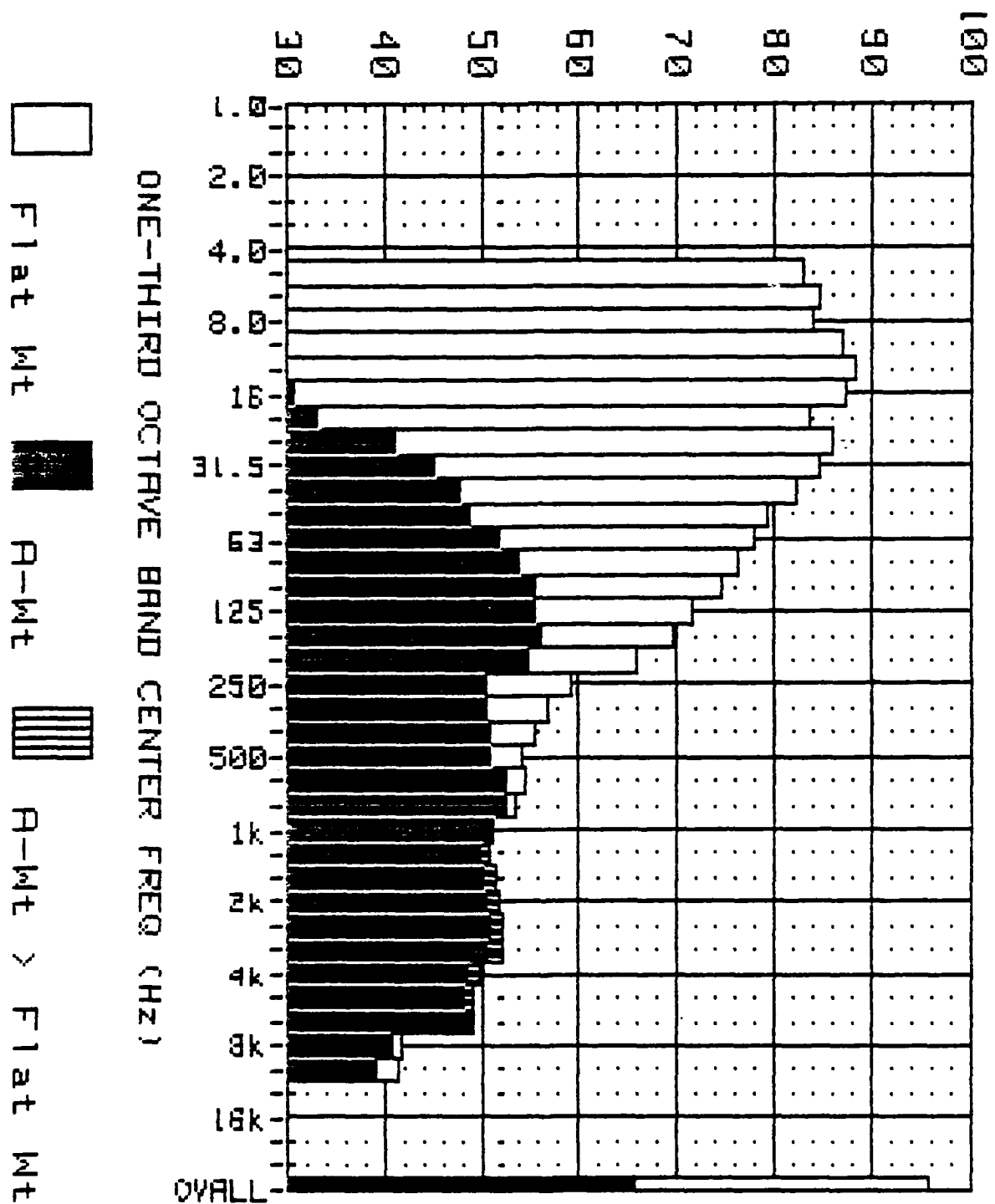


Figure 29: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 2 Angle: 20 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 29: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 2 Angle: 20 Degrees; Distance: 100 Meters

Engine: F101; Power: Intermediate; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	83.0	0.0	0.0			
6.3	84.7	0.0	0.0			
8	84.1	0.0	0.0	90.2	16.8	72.7
10	87.0	16.6	72.7			
12.5	88.2	24.8	77.0			
16	87.4	30.7	78.9	91.6	35.5	82.6
20	83.6	33.1	77.4			
25	85.9	41.2	81.5			
31.5	84.7	45.3	81.7	89.3	50.3	86.0
40	82.4	47.8	80.4			
50	79.2	49.0	77.9			
63	78.1	51.9	77.3	82.8	56.8	81.8
80	76.4	53.9	75.9			
100	74.5	55.4	74.2			
125	71.7	55.6	71.5	77.2	60.5	76.9
160	69.5	56.1	69.4			
200	65.9	55.0	65.9			
250	59.1	50.5	59.1	67.1	57.3	67.1
315	57.0	50.4	57.0			
400	55.5	50.7	55.5			
500	54.2	51.0	54.2	59.5	56.2	59.5
630	54.4	52.5	54.4			
800	53.3	52.5	53.3			
1000	51.1	51.1	51.1	56.5	56.3	56.5
1250	50.1	50.8	50.1			
1600	50.5	51.5	50.4			
2000	50.7	51.9	50.5	55.5	56.7	55.3
2500	51.0	52.3	50.7			
3150	50.9	52.1	50.4			
4000	48.9	49.9	48.1	54.3	55.3	53.6
5000	48.5	49.0	47.3			
6300	49.0	48.9	47.0			
8000	41.8	40.7	38.8	50.4	49.9	48.0
10000	41.5	39.0	37.1			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 95.8 dB

OASLA = 66.0 dB(A)

OASLC = 89.1 dB(C)

C-A VALUE = +23.1

LEVEL (Decibels)

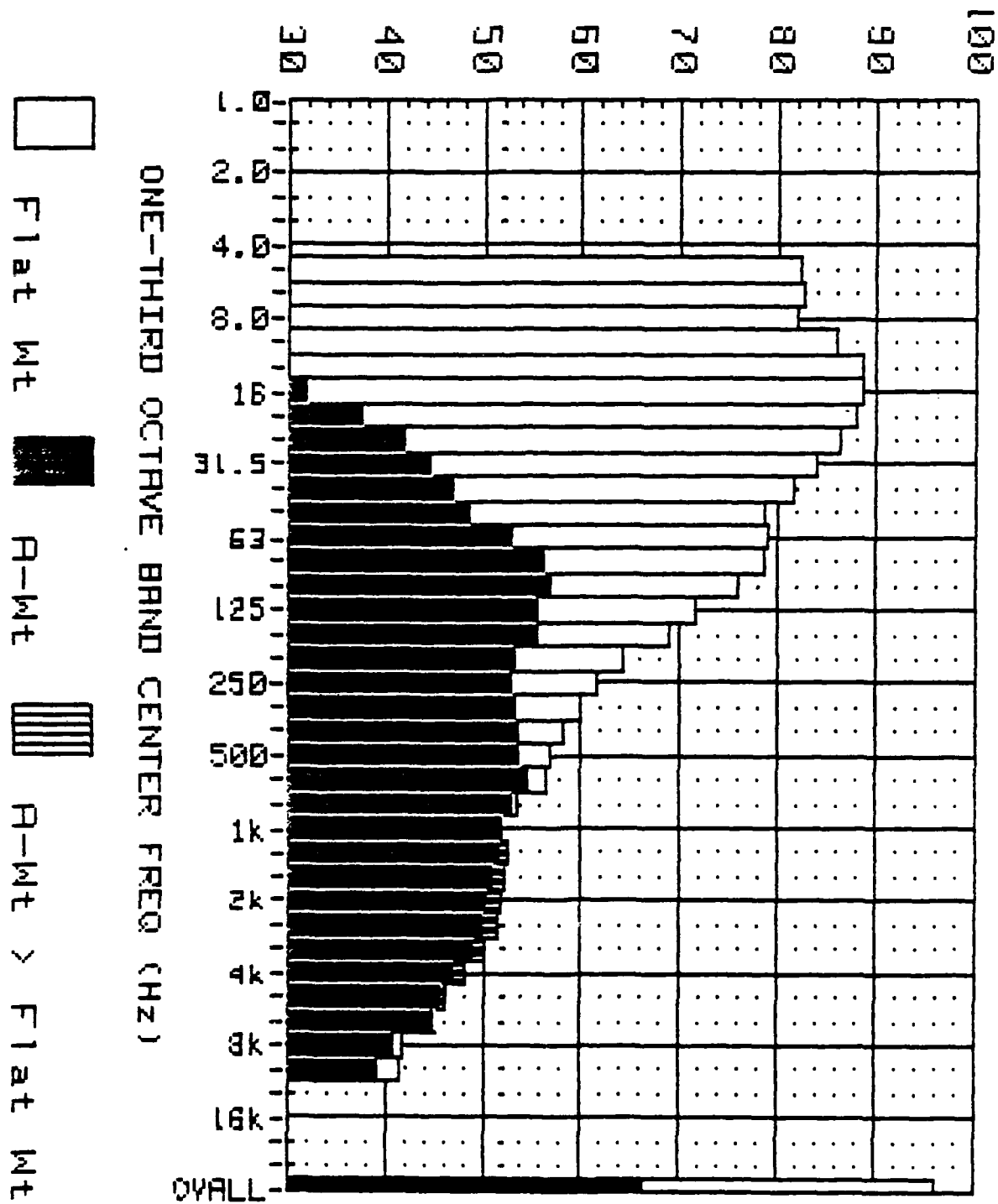


Figure 30: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 MSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 3 Angle: 30 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 30: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 3 Angle: 30 Degrees; Distance: 100 Meters

Engine: F101; Power: Intermediate; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	82.2	0.0	0.0			
6.3	82.6	0.0	0.0			
8	82.1	0.0	0.0	88.7	15.9	71.8
10	86.1	15.7	71.8			
12.5	88.6	25.2	77.4			
16	88.5	31.8	80.0	93.2	38.8	84.9
20	88.1	37.6	81.9			
25	86.4	41.7	82.0			
31.5	83.8	44.4	80.8	89.1	49.6	85.7
40	81.5	46.9	79.5			
50	78.8	48.6	77.5			
63	79.1	52.9	78.3	83.6	58.3	82.8
80	78.7	56.2	78.2			
100	75.9	56.8	75.6			
125	71.7	55.6	71.5	77.9	60.8	77.6
160	69.0	55.6	68.9			
200	64.1	53.2	64.1			
250	61.6	53.0	61.6	66.9	57.9	66.9
315	59.8	53.2	59.8			
400	58.2	53.4	58.2			
500	56.7	53.5	56.7	62.0	58.7	62.0
630	56.6	54.7	56.6			
800	53.6	52.8	53.6			
1000	51.9	51.9	51.9	57.3	57.2	57.3
1250	51.7	52.4	51.7			
1600	51.0	52.0	50.9			
2000	50.5	51.7	50.3	55.3	56.5	55.1
2500	50.1	51.4	49.8			
3150	49.0	50.2	48.5			
4000	47.0	48.0	46.2	52.2	53.2	51.5
5000	45.7	46.2	44.4			
6300	44.9	44.8	42.9			
8000	41.8	40.7	38.8	47.8	47.0	45.1
10000	41.5	39.0	37.1			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 96.1 dB

OASLA = 66.6 dB(A)

OASLC = 89.8 dB(C)

C-A VALUE = +23.2

LEVEL (Decibels)

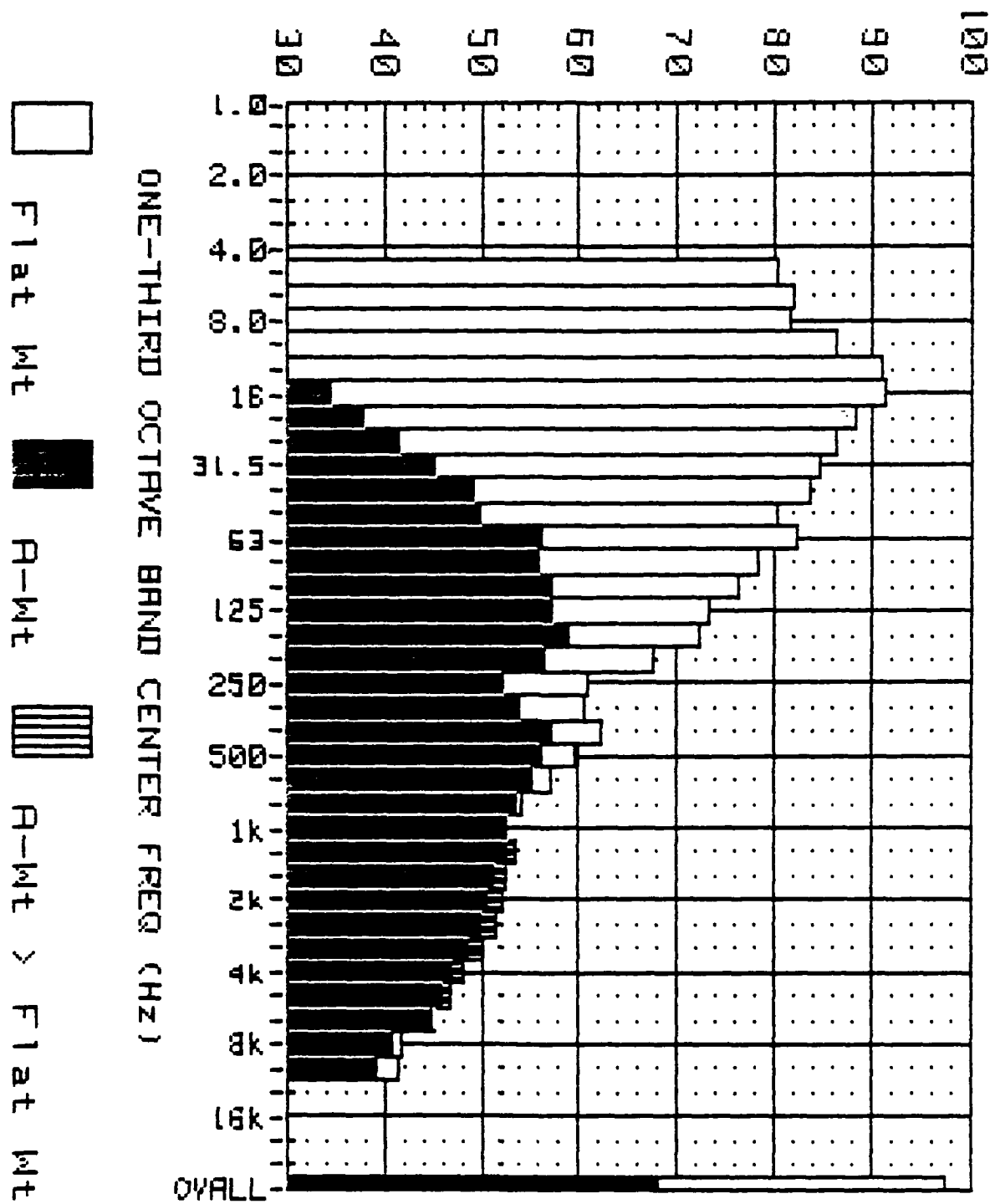


Figure 31: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32I-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 4 Angle: 40 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 31: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.

Station: 4 Angle: 40 Degrees; Distance: 100 Meters

Engine: F101; Power: Intermediate; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	80.2	0.0	0.0			
6.3	81.9	0.0	0.0			
8	81.6	0.0	0.0	88.6	16.2	72.1
10	86.4	16.0	72.1			
12.5	91.0	27.6	79.8			
16	91.2	34.5	82.7	95.1	39.8	86.5
20	88.4	37.9	82.2			
25	86.3	41.6	81.9			
31.5	84.6	45.2	81.6	89.8	51.1	86.5
40	83.7	49.1	81.7			
50	80.2	50.0	78.9			
63	82.4	56.2	81.6	85.4	59.5	84.5
80	78.4	55.9	77.9			
100	76.3	57.2	76.0			
125	73.3	57.2	73.1	79.1	62.7	78.9
160	72.4	59.0	72.3			
200	67.5	56.6	67.5			
250	60.8	52.2	60.8	69.0	59.3	69.0
315	60.4	53.8	60.4			
400	62.1	57.3	62.1			
500	59.5	56.3	59.5	64.8	61.1	64.8
630	57.1	55.2	57.1			
800	54.2	53.4	54.2			
1000	52.5	52.5	52.5	58.0	57.9	58.0
1250	52.7	53.3	52.7			
1600	51.6	52.6	51.5			
2000	50.8	52.0	50.6	55.7	56.9	55.5
2500	50.3	51.6	50.0			
3150	48.8	50.0	48.3			
4000	47.0	48.0	46.2	52.2	53.2	51.5
5000	46.2	46.6	44.9			
6300	44.9	44.8	42.9			
8000	41.8	40.7	38.8	47.8	47.0	45.1
10000	41.5	39.0	37.1			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 97.4 dB

OASLA = 68.1 dB(A)

OASLC = 91.1 dB(C)

C-A VALUE = +23.0

LEVEL (Decibels)

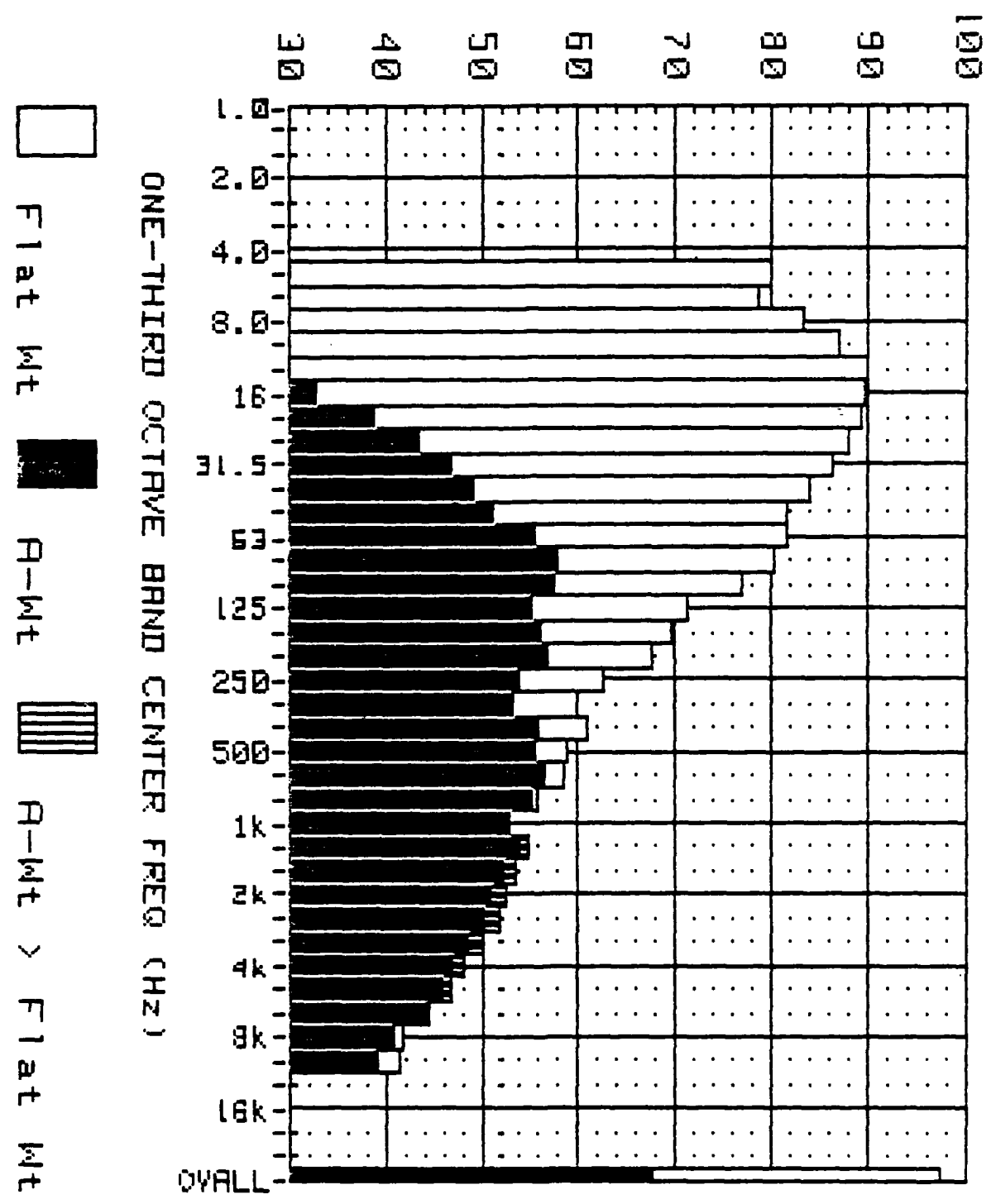


Figure 32: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 5 Angle: 50 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 32: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 5 Angle: 50 Degrees; Distance: 100 Meters

Engine: F101; Power: Intermediate; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	80.0	0.0	0.0			
6.3	78.6	0.0	0.0			
8	83.3	0.0	0.0	88.8	16.6	72.5
10	86.8	16.4	72.5			
12.5	89.8	26.4	78.6			
16	89.5	32.8	81.0	94.3	39.9	86.0
20	89.2	38.7	83.0			
25	88.1	43.4	83.7			
31.5	86.2	46.8	83.2	91.2	51.9	87.8
40	83.9	49.3	81.9			
50	81.6	51.4	80.3			
63	81.7	55.4	80.9	86.0	60.4	85.1
80	80.3	57.8	79.8			
100	76.8	57.7	76.5			
125	71.2	55.1	71.0	78.4	61.2	78.2
160	69.5	56.1	69.4			
200	67.7	56.8	67.7			
250	62.6	54.0	62.6	69.4	59.7	69.4
315	59.9	53.3	59.9			
400	60.8	56.0	60.8			
500	58.7	55.5	58.7	64.2	60.8	64.2
630	58.4	56.5	58.4			
800	55.8	55.0	55.8			
1000	52.9	52.9	52.9	59.2	59.1	59.2
1250	54.1	54.7	54.1			
1600	52.3	53.3	52.2			
2000	51.3	52.5	51.1	56.2	57.4	56.0
2500	50.5	51.8	50.2			
3150	48.8	50.0	48.3			
4000	47.3	48.3	46.5	52.3	53.3	51.5
5000	46.2	46.6	44.9			
6300	44.4	44.3	42.4			
8000	41.8	40.7	38.8	47.5	46.7	44.8
10000	41.5	39.0	37.1			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 97.3 dB

OASLA = 68.0 dB(A)

OASLC = 91.5 dB(C)

C-A VALUE = +23.5

LEVEL (Decibels)

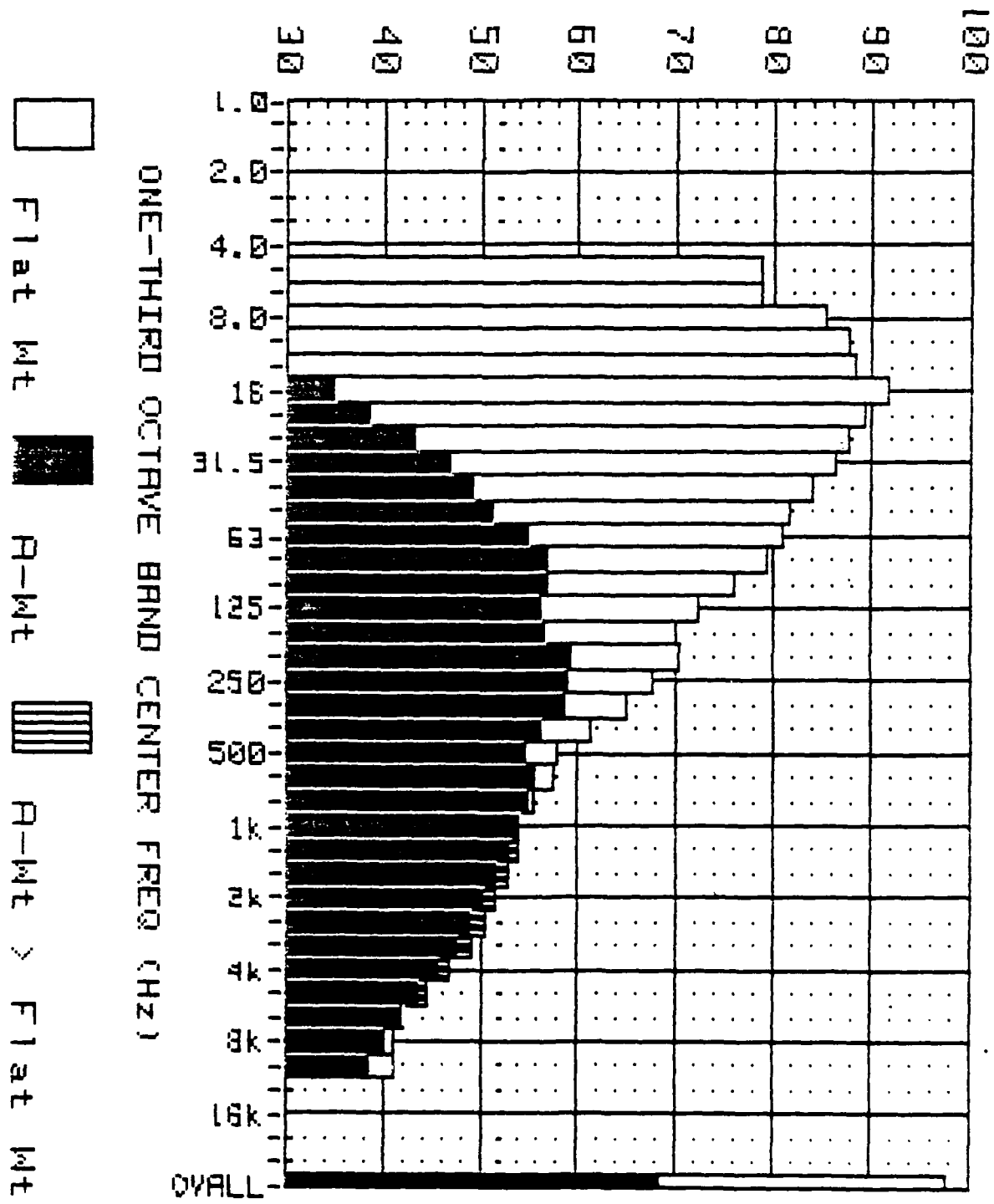


Figure 33: Measured Noise Spectrum (SPL vs A-Weight Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 6 Angle: 60 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 knots

TABLE 33: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 6 Angle: 60 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	78.5	0.0	0.0			
6.3	79.5	0.0	0.0			
8	85.3	0.0	0.0	90.0	17.4	73.4
10	87.7	17.3	73.4			
12.5	88.4	25.0	77.2			
16	91.6	34.9	83.1	94.7	40.3	86.6
20	89.1	38.6	82.9			
25	87.8	43.0	83.3			
31.5	86.2	46.8	83.2	91.0	51.8	87.6
40	83.8	49.2	81.8			
50	81.5	51.2	80.2			
63	81.0	54.8	80.2	85.4	59.6	84.5
80	79.3	56.8	78.8			
100	76.0	56.9	75.7			
125	72.3	56.2	72.1	78.2	61.3	78.0
160	70.0	56.6	69.9			
200	70.3	59.4	70.3			
250	67.6	59.0	67.6	72.9	63.7	72.9
315	65.0	58.4	65.0			
400	61.2	56.4	61.2			
500	57.8	54.6	57.8	63.9	60.4	63.9
630	57.6	55.7	57.6			
800	55.6	54.8	55.6			
1000	54.0	54.0	54.0	59.1	59.0	59.1
1250	53.1	53.7	53.1			
1600	51.9	52.9	51.8			
2000	50.4	51.6	50.1	55.4	56.5	55.2
2500	49.2	50.5	49.0			
3150	47.8	49.0	47.3			
4000	45.8	46.8	45.0	50.9	51.9	50.2
5000	43.9	44.4	42.6			
6300	41.8	41.7	39.8			
8000	41.2	40.1	38.2	46.2	45.1	43.2
10000	41.1	38.6	36.7			

OVERALL LEVELS (5 - 10000 Hz)

ORASPL = 97.6 dB

ORASLA = 68.6 dB(A)

ORASLC = 91.5 dB(C)

C-A VALUE = +22.9

LEVEL (Decibels)

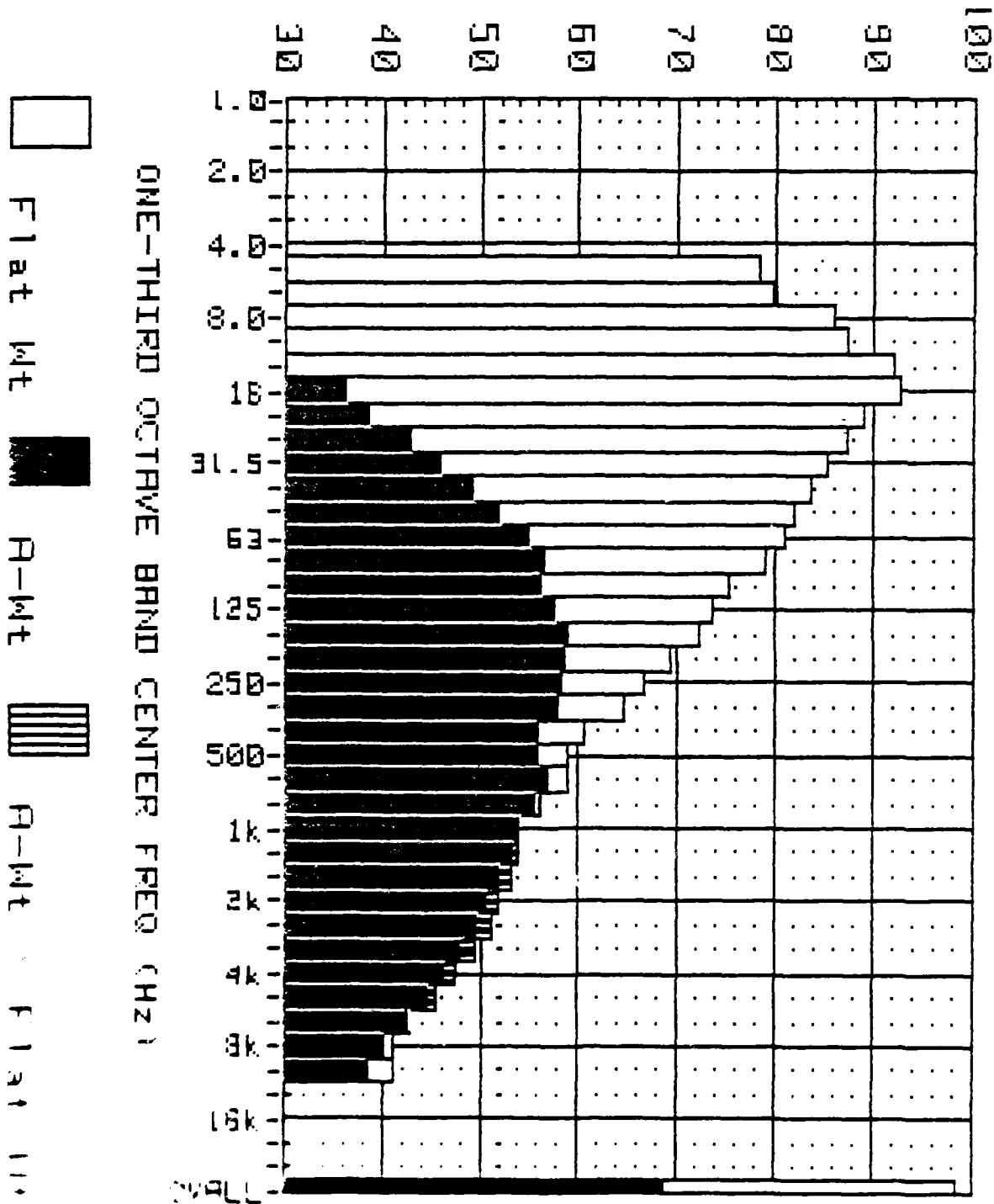


Figure 59: Measured Noise Spectrum (SPL vs A-Weight Levels).
 Sky Harbor IAP, Phoenix, AZ.
 Angle: 90 Degrees; Distance: 100 Meters
 Temp: 55 Degrees F
 Rel Humidity: 55%; Winds: 0 Knots

TABLE 34: Measured Noise Spectrum Levels.

Location: A/F32T-9 MSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 7 Angle: 70 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	78.3	0.0	0.0			
6.3	79.7	0.0	0.0			
8	85.9	0.0	0.0	90.0	16.9	72.9
10	87.2	16.8	72.9			
12.5	91.8	28.4	80.6			
16	92.7	36.0	84.2	96.2	40.7	87.6
20	89.0	38.5	82.9			
25	87.5	42.7	83.1			
31.5	85.2	45.8	82.2	90.5	51.4	87.1
40	83.7	49.1	81.7			
50	82.1	51.8	80.7			
63	81.0	54.8	80.2	85.6	59.5	84.7
80	78.9	56.4	78.4			
100	75.4	56.3	75.1			
125	73.6	57.5	73.4	78.7	62.5	78.5
160	72.3	59.0	72.3			
200	69.4	58.5	69.4			
250	66.7	58.1	66.7	72.1	62.9	72.1
315	64.4	57.8	64.4			
400	60.7	55.9	60.7			
500	59.0	55.7	59.0	64.3	61.0	64.3
630	58.8	56.9	58.8			
800	56.2	55.4	56.2			
1000	53.8	53.8	53.8	59.4	59.2	59.4
1250	53.3	54.0	53.3			
1600	52.1	53.1	52.0			
2000	50.8	52.0	50.5	55.8	56.9	55.6
2500	49.9	51.2	49.6			
3150	48.3	49.5	47.8			
4000	46.4	47.4	45.6	51.5	52.5	50.9
5000	44.9	45.4	43.6			
6300	42.6	42.5	40.6			
8000	41.2	40.1	38.2	46.5	45.5	43.6
10000	41.1	38.6	36.7			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 98.3 dB

OASLA = 68.8 dB(A)

OASLC = 91.7 dB(C)

C-A VALUE = +22.9

LEVEL (Decibels)

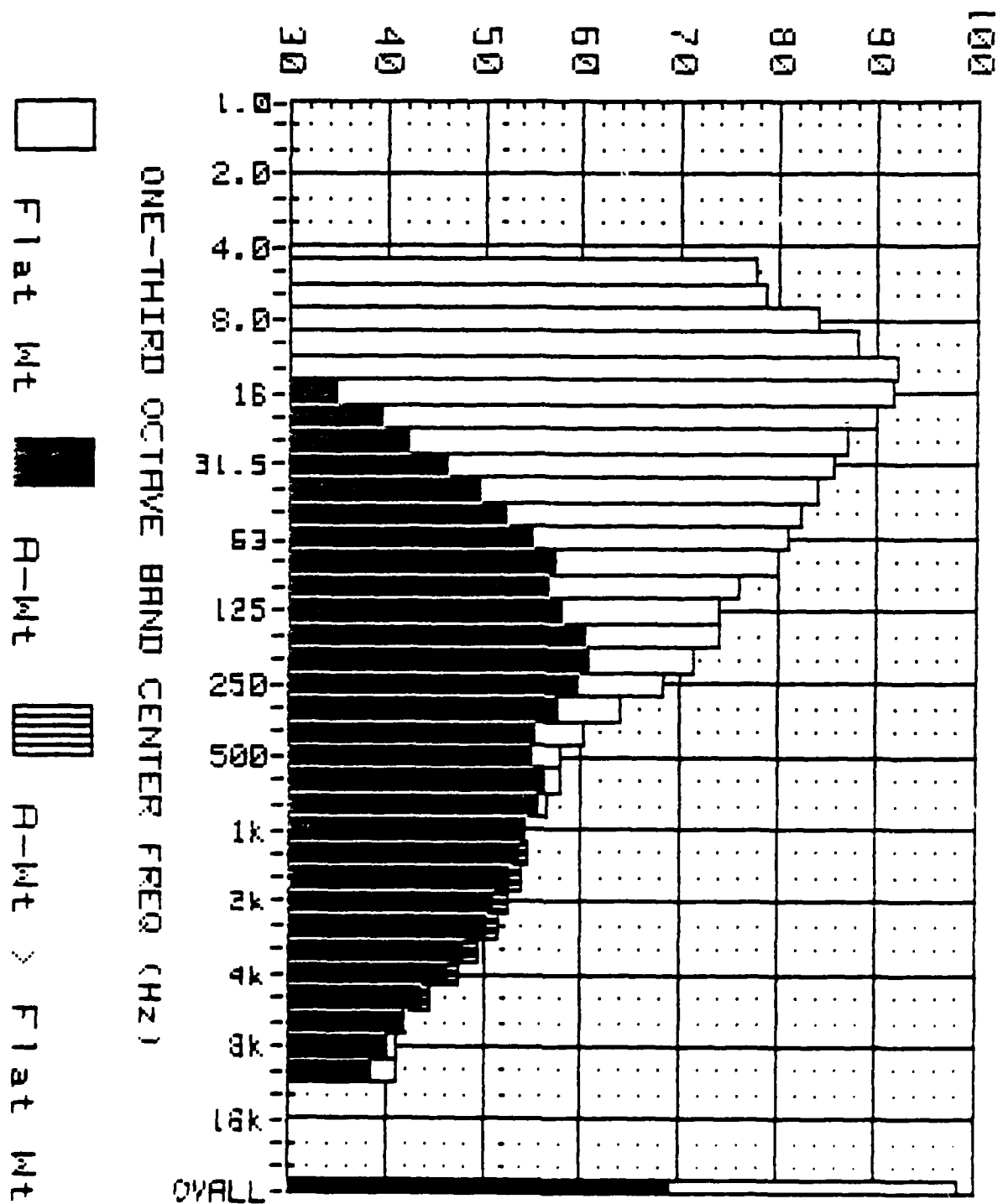


Figure 35: Measured Noise Spectrum (SPL vs A-Weight Levels).
 Location: A/F321-9 MSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 8 Angle: 80 Degrees: Distance: 100 Meters
 Engine: F101: Power: Intermediate: Temp: 55 Degrees F
 Bar Press: 975.6 mBar: Rel Humidity: 55%: Winds: 0 Knots

TABLE 35: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.

Station: 8 Angle: 80 Degrees; Distance: 100 Meters

Engine: F101; Power: Intermediate; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	77.7	0.0	0.0			
6.3	79.7	0.0	0.0			
8	84.1	0.0	0.0	89.8	17.7	73.7
10	87.9	17.5	73.6			
12.5	91.9	28.5	80.7			
16	91.6	34.9	83.1	96.0	40.9	87.4
20	89.8	39.3	83.6			
25	86.9	42.2	82.5			
31.5	85.7	46.3	82.7	90.4	51.7	87.2
40	84.1	49.5	82.1			
50	82.3	52.0	80.9			
63	81.0	54.8	80.2	85.9	60.0	85.0
80	79.8	57.3	79.3			
100	75.8	56.7	75.5			
125	73.9	57.8	73.7	79.4	63.3	79.1
160	73.8	60.4	73.7			
200	71.4	60.5	71.4			
250	68.3	59.7	68.3	73.6	64.1	73.6
315	64.0	57.4	64.0			
400	60.2	55.4	60.2			
500	58.0	54.7	58.0	63.6	60.2	63.6
630	58.0	56.1	58.0			
800	56.4	55.6	56.4			
1000	54.2	54.2	54.2	59.8	59.6	59.8
1250	54.0	54.6	54.0			
1600	52.8	53.8	52.7			
2000	51.1	52.4	50.9	56.3	57.5	56.1
2500	50.3	51.6	50.0			
3150	48.3	49.5	47.8			
4000	46.4	47.4	45.6	51.3	52.4	50.6
5000	43.9	44.4	42.6			
6300	41.8	41.7	39.8			
8000	41.2	40.1	38.2	46.2	45.1	43.2
10000	41.1	38.6	36.7			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 98.2 dB

OASLA = 69.4 dB(A)

OASLC = 91.8 dB(C)

C-A VALUE = +22.5

LEVEL (Decibels)

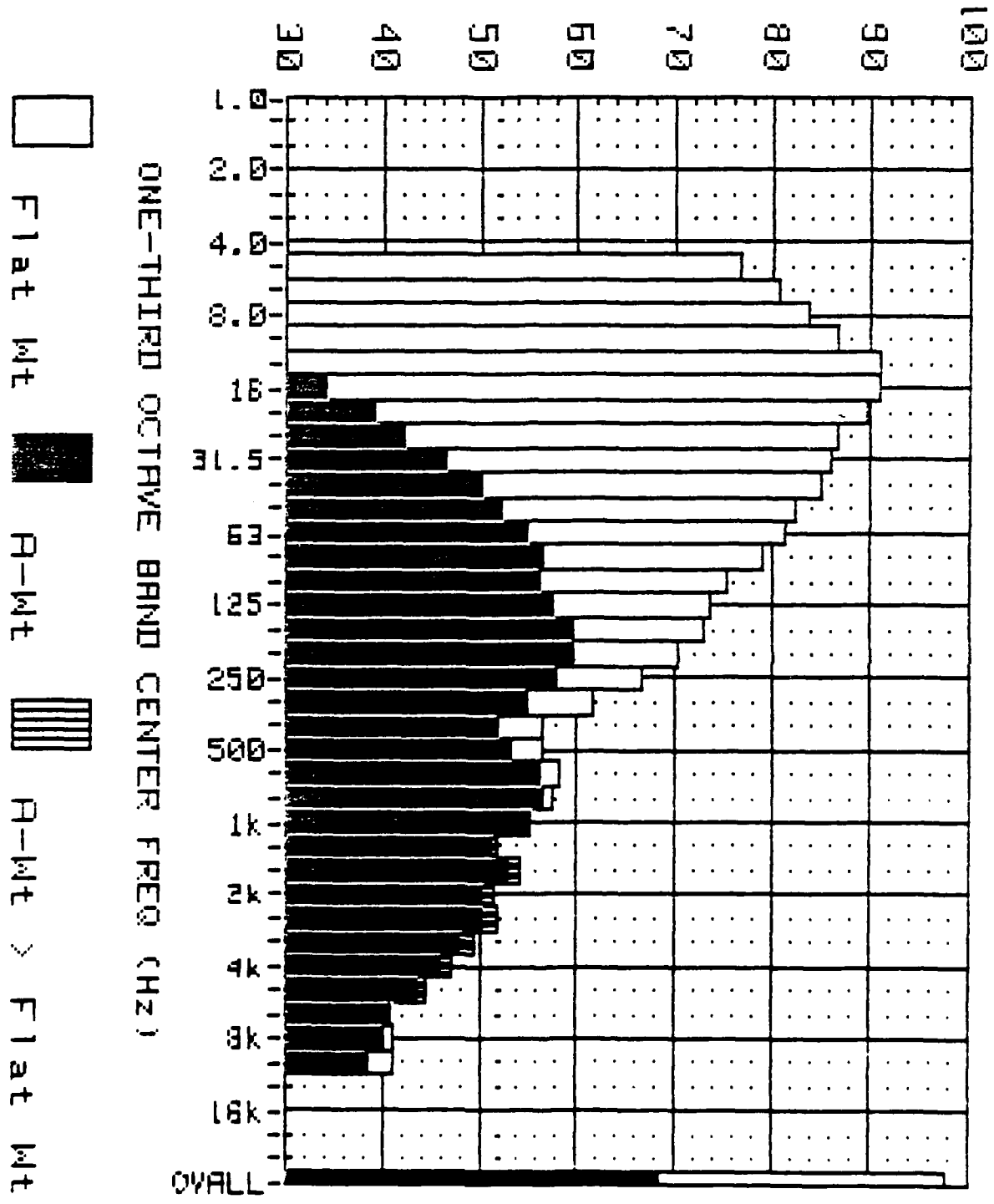


Figure 36: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 9 Angle: 90 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 36: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 9 Angle: 90 Degrees; Distance: 100 Meters

Engine: F101; Power: Intermediate; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	76.5	0.0	0.0			
6.3	80.5	0.0	0.0			
8	83.5	0.0	0.0	89.1	16.5	72.5
10	86.8	16.3	72.5			
12.5	90.8	27.4	79.6			
16	91.0	34.3	82.5	95.3	40.5	86.9
20	89.5	39.0	83.3			
25	86.8	42.0	82.4			
31.5	86.0	46.6	83.0	90.7	52.3	87.5
40	84.9	50.3	82.9			
50	82.3	52.0	80.9			
63	81.1	54.9	80.3	85.8	59.6	84.8
80	79.0	56.5	78.5			
100	75.3	56.2	75.0			
125	73.6	57.5	73.4	78.8	62.7	78.6
160	73.0	59.6	72.9			
200	70.4	59.5	70.4			
250	66.6	58.0	66.6	72.3	62.6	72.3
315	61.5	54.9	61.5			
400	56.7	51.9	56.7			
500	56.4	53.1	56.4	61.9	58.9	61.9
630	58.2	56.3	58.2			
800	57.4	56.6	57.4			
1000	55.1	55.1	55.1	60.0	59.7	60.0
1250	51.4	52.0	51.4			
1600	53.2	54.2	53.1			
2000	50.4	51.6	50.2	56.4	57.5	56.2
2500	50.5	51.8	50.3			
3150	48.3	49.5	47.8			
4000	46.1	47.1	45.3	51.2	52.3	50.5
5000	43.9	44.4	42.6			
6300	40.8	40.7	38.8			
8000	41.2	40.1	38.2	45.8	44.7	42.8
10000	41.1	38.6	36.7			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 97.7 dB

OASLA = 68.6 dB(A)

OASLC = 91.6 dB(C)

C-A VALUE = +23.0

LEVEL (Decibels)

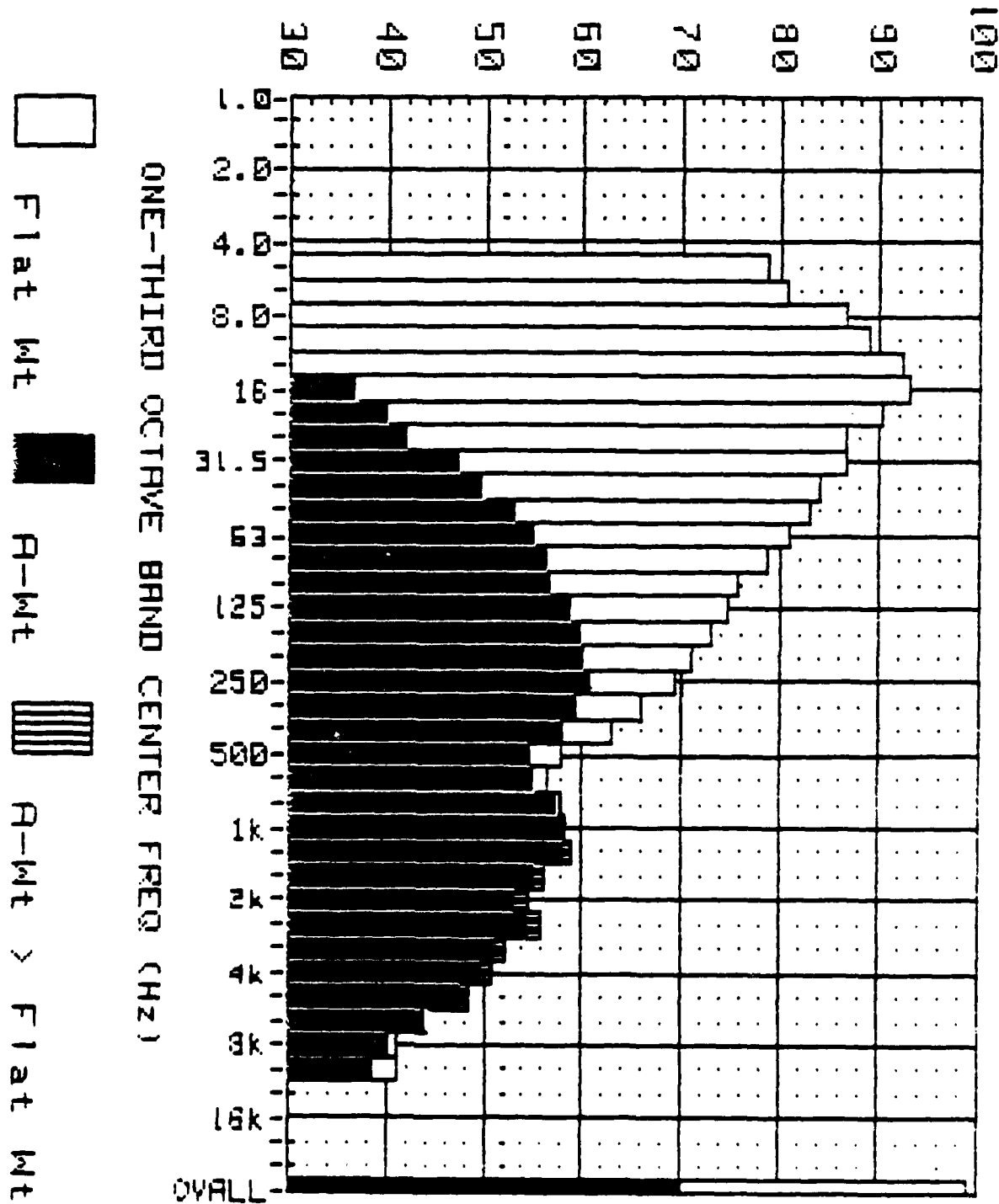


Figure 37: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F321-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 10 Angle: 90 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 37: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 10 Angle: 90 Degrees; Distance: 100 Meters

Engine: F101; Power: Intermediate; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	78.7	0.0	0.0			
6.3	80.7	0.0	0.0			
8	86.6	0.0	0.0	91.4	18.8	74.8
10	89.1	18.7	74.8			
12.5	92.2	28.8	91.0			
16	93.1	36.4	84.6	96.8	41.8	88.3
20	90.5	40.0	84.3			
25	86.7	42.0	82.3			
31.5	86.7	47.3	83.7	90.7	51.9	87.5
40	84.0	49.4	82.0			
50	83.1	52.8	81.8			
63	81.0	54.8	80.2	86.0	59.6	85.0
80	79.6	56.1	78.1			
100	75.7	56.6	75.4			
125	74.5	58.4	74.3	79.3	63.1	79.1
160	73.0	59.6	72.9			
200	70.9	60.0	70.9			
250	69.2	60.6	69.2	73.9	64.7	73.9
315	65.8	59.2	65.8			
400	62.8	58.0	62.8			
500	57.8	54.5	57.8	64.7	60.8	64.7
630	56.7	54.8	56.7			
800	57.9	57.1	57.9			
1000	58.3	58.3	58.3	62.9	62.9	62.9
1250	58.3	58.9	58.3			
1600	55.2	56.2	55.1			
2000	53.1	54.3	52.9	59.2	60.3	59.0
2500	54.6	55.9	54.3			
3150	51.1	52.3	50.6			
4000	49.9	50.9	49.1	54.6	55.6	53.8
5000	47.9	48.4	46.6			
6300	43.8	43.7	41.8			
8000	41.2	40.1	38.2	47.0	46.1	44.2
10000	41.1	38.6	36.7			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 99.0 dB

OASLA = 70.3 dB(A)

OASLC = 92.3 dB(C)

C-A VALUE = +22.0

LEVEL (Decibels)

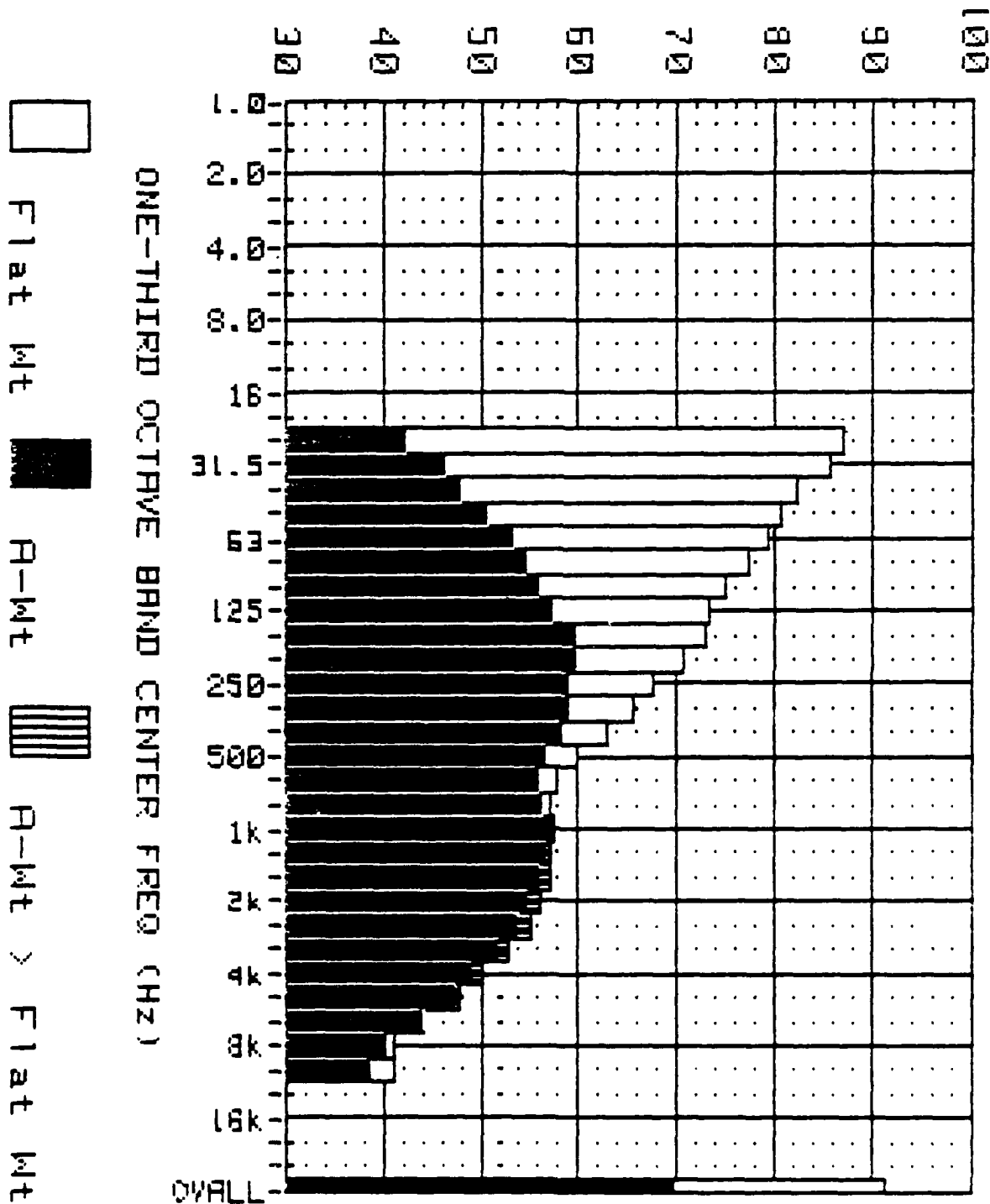


Figure 38: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 11 Angle: 100 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 38: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.

Station: 11 Angle: 100 Degrees; Distance: 100 Meters

Engine: F101; Power: Intermediate; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
25	87.0	42.2	82.6			
31.5	85.7	46.3	82.7	90.2	50.8	86.8
40	82.4	47.7	80.3			
50	80.6	50.4	79.3			
63	79.3	53.1	78.5	84.0	57.9	83.1
80	77.2	54.7	76.7			
100	75.0	55.9	74.8			
125	73.3	57.2	73.1	78.7	62.6	78.4
160	73.0	59.6	72.9			
200	70.4	59.5	70.4			
250	67.4	58.8	67.4	73.0	63.9	73.0
315	65.6	59.0	65.6			
400	62.9	58.1	62.9			
500	59.9	56.7	59.9	65.5	61.8	65.5
630	57.8	55.9	57.8			
800	57.1	56.3	57.1			
1000	57.4	57.4	57.4	61.9	61.8	61.9
1250	56.8	57.4	56.8			
1600	56.1	57.1	56.0			
2000	54.9	56.1	54.7	59.8	61.0	59.7
2500	53.8	55.1	53.5			
3150	51.7	52.9	51.2			
4000	49.3	50.3	48.5	54.6	55.6	53.9
5000	47.4	47.9	46.2			
6300	43.8	43.7	41.8			
8000	41.2	40.1	38.2	47.0	46.1	44.2
10000	41.1	38.6	36.7			

OVERALL LEVELS (25 - 10000 Hz)

OASPL = 91.4 dB

OASLA = 69.9 dB(A)

OASLC = 88.9 dB(C)

C-A VALUE = +19.0

LEVEL (Decibels)

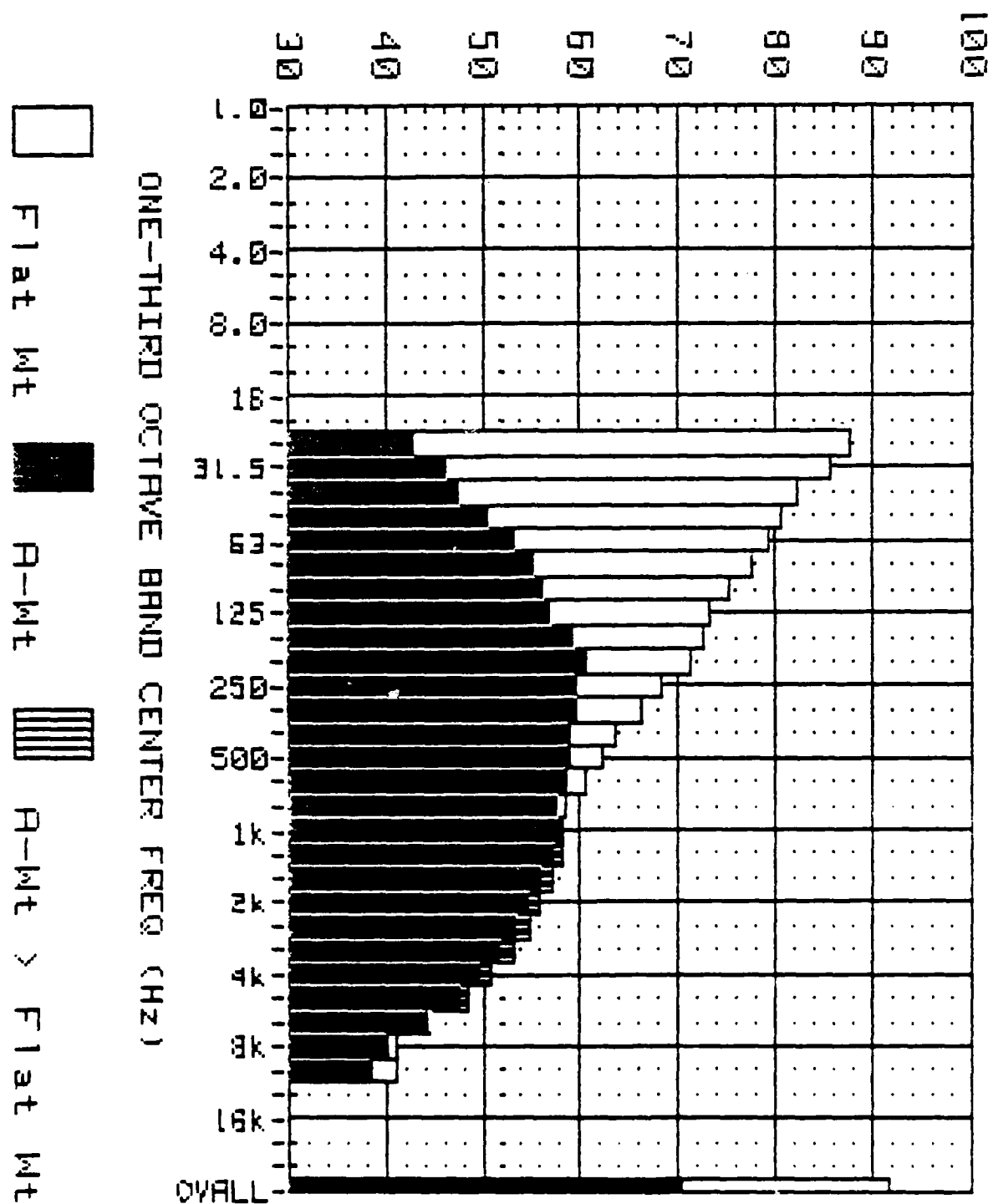


Figure 39: Measured Noise Spectrum (SPL vs A-Weight Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 12 Angle: 110 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 39: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 12 Angle: 110 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
25	87.5	42.8	83.1			
31.5	85.7	46.3	82.7	90.4	50.7	87.0
40	82.2	47.6	80.2			
50	80.6	50.4	79.3			
63	79.2	53.0	78.5	84.1	58.1	83.2
80	77.7	55.2	77.2			
100	75.3	56.1	75.0			
125	73.1	57.0	72.9	78.6	62.4	78.4
160	72.6	59.2	72.5			
200	71.3	60.4	71.3			
250	68.2	59.6	68.2	73.9	64.7	73.9
315	66.3	59.7	66.3			
400	63.6	58.8	63.6			
500	62.1	58.9	62.1	67.0	63.5	67.0
630	60.4	58.5	60.4			
800	58.5	57.7	58.5			
1000	58.3	58.3	58.3	62.9	62.9	62.9
1250	57.7	58.3	57.7			
1600	56.1	57.1	56.0			
2000	54.7	55.9	54.5	59.7	60.9	59.5
2500	53.6	54.9	53.3			
3150	51.9	53.1	51.4			
4000	49.9	50.9	49.1	55.0	56.0	54.2
5000	47.9	48.4	46.6			
6300	44.3	44.2	42.3			
8000	41.2	40.1	38.2	47.3	46.4	44.5
10000	41.1	38.6	36.7			

OVERALL LEVELS (25 - 10000 Hz)

OASPL = 91.7 dB

OASLA = 70.5 dB(A)

OASLC = 89.1 dB(C)

C-A VALUE = +18.5

LEVEL (Decibels)

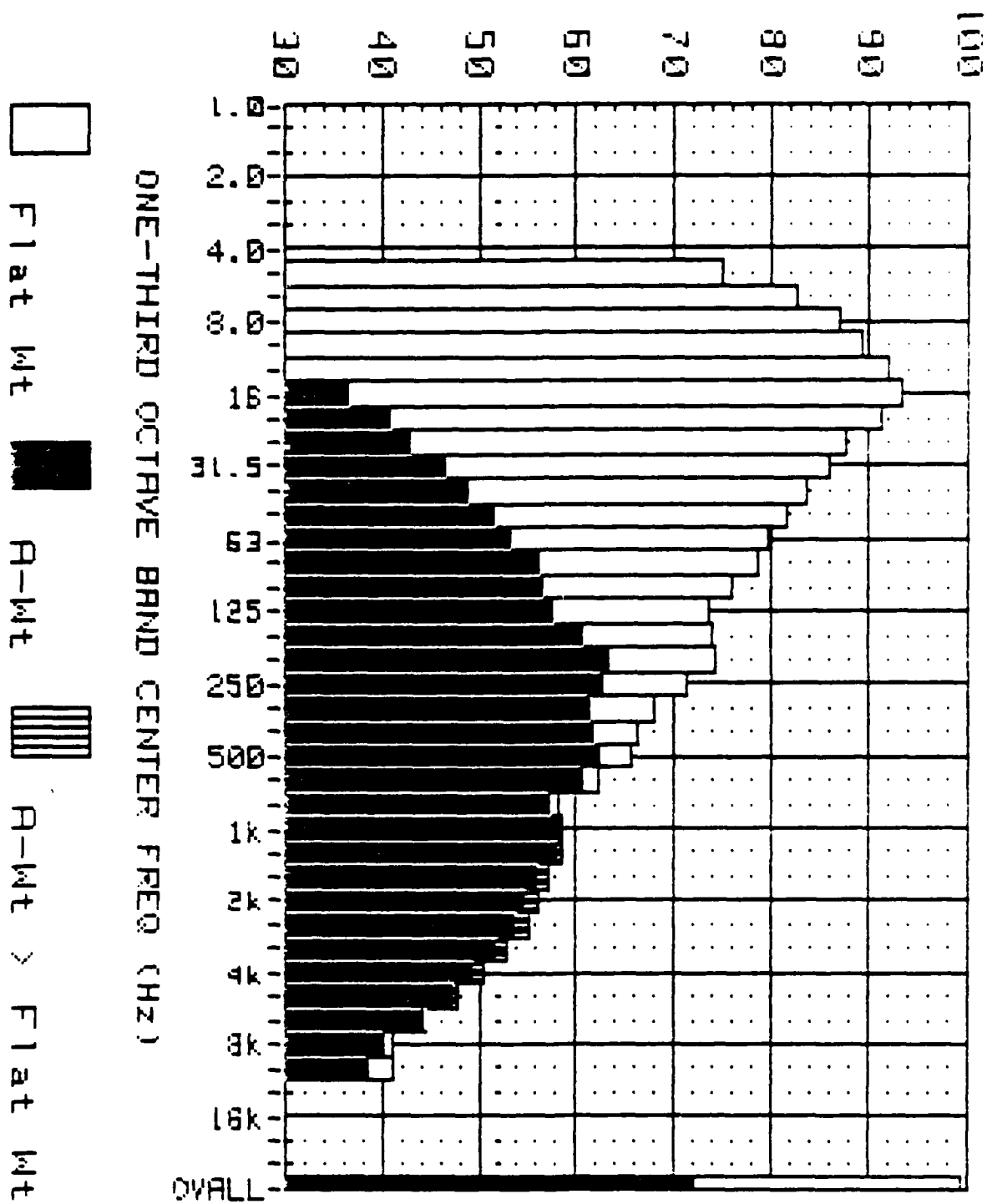


Figure 40: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 13 Angle: 120 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 40: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 13 Angle: 120 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	75.0	0.0	0.0			
6.3	82.5	0.0	0.0			
8	87.0	0.0	0.0	91.9	19.1	75.1
10	89.3	18.9	75.0			
12.5	92.1	28.7	80.9			
16	93.2	36.5	84.7	97.0	42.3	88.7
20	91.2	40.8	85.1			
25	87.7	43.0	83.3			
31.5	86.1	46.6	83.1	90.8	51.6	87.4
40	83.5	48.9	81.5			
50	81.8	51.5	80.4			
63	79.5	53.3	78.7	84.9	58.8	84.0
80	78.6	56.1	78.1			
100	75.8	56.7	75.5			
125	73.5	57.4	73.3	79.3	63.4	79.1
160	74.0	60.7	74.0			
200	74.2	63.3	74.2			
250	71.3	62.7	71.3	76.6	67.2	76.6
315	67.8	61.2	67.8			
400	66.3	61.5	66.3			
500	65.5	62.3	65.5	69.8	66.2	69.8
630	62.4	60.5	62.4			
800	58.1	57.3	58.1			
1000	58.4	58.4	58.4	63.0	62.9	63.0
1250	58.1	58.7	58.1			
1600	56.1	57.1	56.0			
2000	54.8	56.1	54.6	59.8	61.0	59.6
2500	53.9	55.2	53.6			
3150	51.7	52.9	51.2			
4000	49.6	50.6	48.8	54.7	55.7	54.1
5000	47.4	47.9	46.2			
6300	44.3	44.2	42.3			
8000	41.2	40.1	38.2	47.3	46.4	44.1
10000	41.1	38.6	36.7			

OVERALL LEVELS @ 5000 Hz
 OASPL = 99.2 dB
 OASLC = 92.3 dB(C)

AD-A103 799

FIRST ARTICLE TEST NOISE SURVEY OF THE A/F32T-9 LARGE
TURBO FAN ENGINE EN. (U) AIR FORCE OCCUPATIONAL AND
ENVIRONMENTAL HEALTH LAB BROOKS AF..

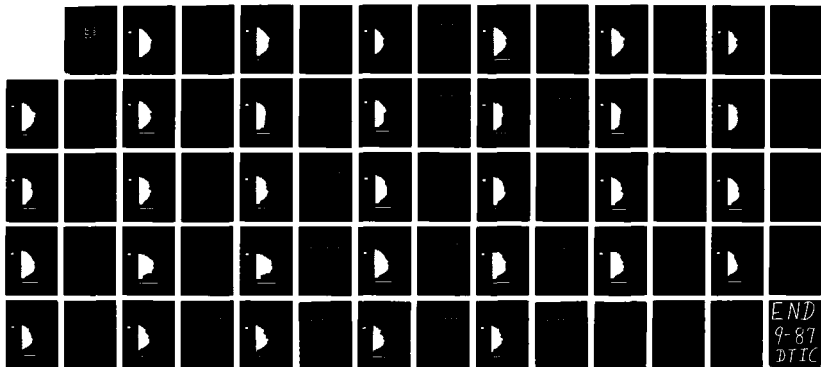
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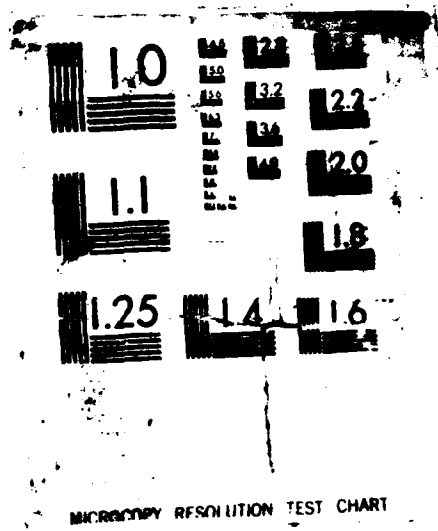
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MICROCOPY RESOLUTION TEST CHART

LEVEL (Decibels)

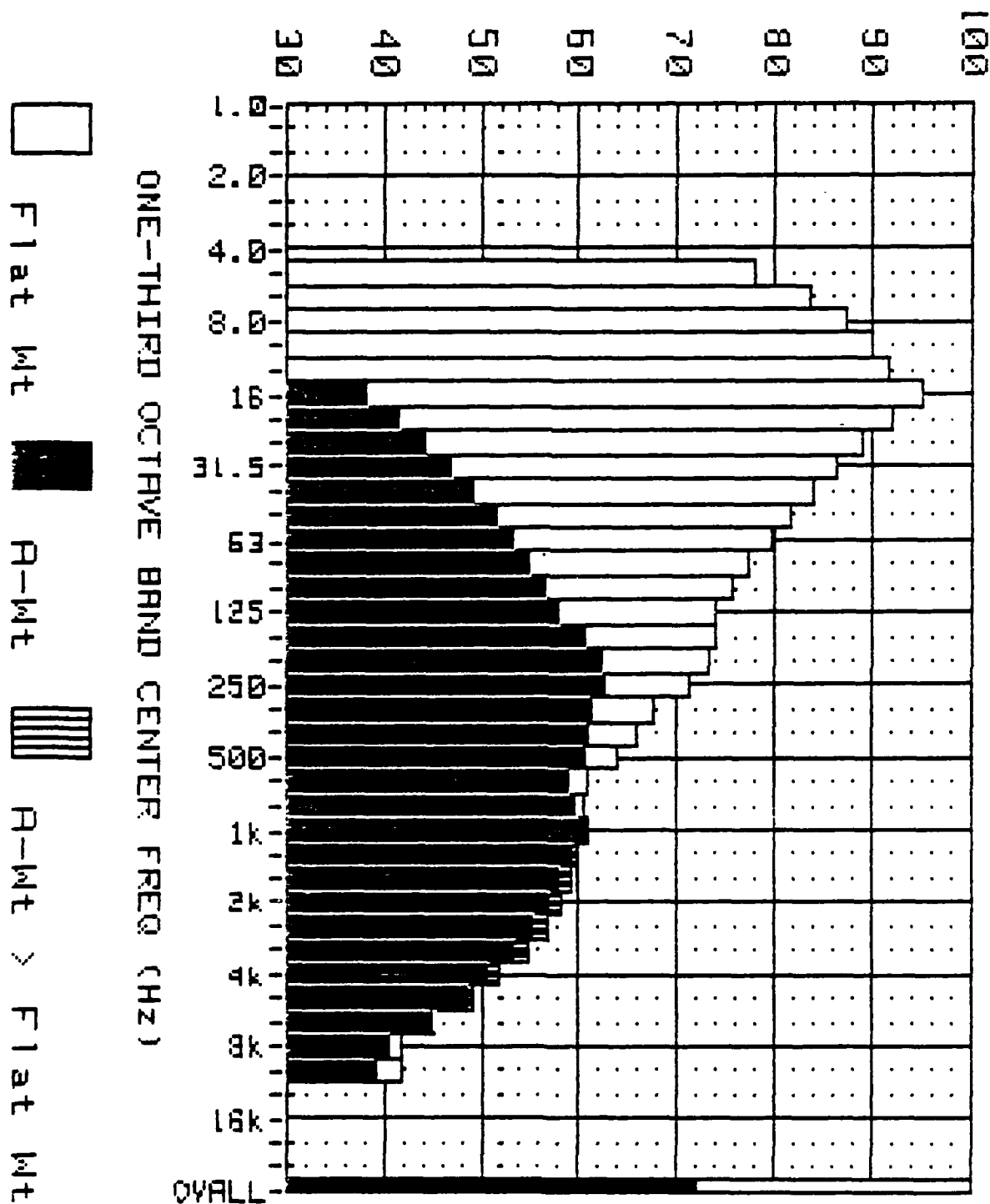


Figure 41: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 14 Angle: 130 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 41: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 14 Angle: 130 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	77.8	0.0	0.0			
6.3	83.5	0.0	0.0			
8	87.5	0.0	0.0	92.5	19.7	75.8
10	90.0	19.6	75.8			
12.5	91.6	28.2	80.4			
16	95.0	38.3	86.5	97.9	43.3	89.7
20	92.0	41.5	85.8			
25	89.0	44.3	84.6			
31.5	86.3	46.9	83.3	91.6	52.0	88.1
40	83.9	49.3	81.9			
50	81.7	51.5	80.4			
63	79.6	53.4	78.8	84.6	58.2	83.7
80	77.4	54.9	76.9			
100	75.7	56.6	75.4			
125	74.1	58.0	73.9	79.4	63.5	79.2
160	74.0	60.6	73.9			
200	73.3	62.4	73.3			
250	71.3	62.7	71.3	76.1	66.9	76.1
315	67.7	61.1	67.7			
400	65.8	61.0	65.8			
500	63.8	60.6	63.8	68.7	65.0	68.7
630	60.7	58.8	60.7			
800	60.5	59.7	60.5			
1000	60.7	60.7	60.7	65.0	64.9	65.0
1250	59.4	60.0	59.4			
1600	58.1	59.1	58.0			
2000	57.0	58.2	56.8	61.8	62.9	61.6
2500	55.5	56.8	55.2			
3150	53.6	54.8	53.1			
4000	50.9	51.9	50.1	56.3	57.3	55.6
5000	48.7	49.2	47.4			
6300	44.9	44.8	42.9			
8000	41.7	40.6	38.7	47.9	47.0	45.1
10000	41.7	39.2	37.3			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 100.0 dB

OASLA = 72.2 dB(A)

OASLC = 93.0 dB(C)

C-A VALUE = +20.8

LEVEL (Decibels)

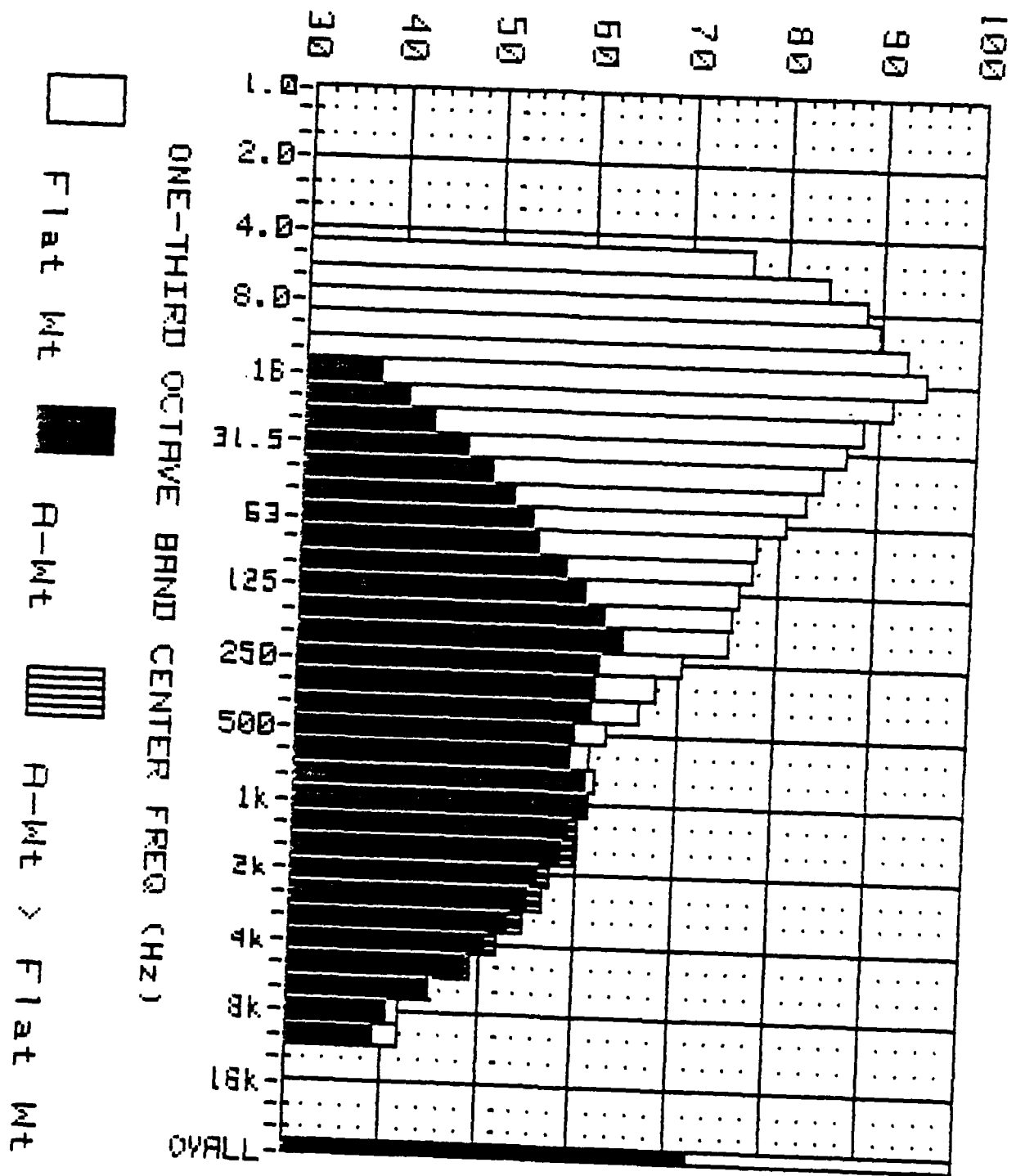


Figure 42: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 15 Angle: 140 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 42: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 15 Angle: 140 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	76.2	0.0	0.0			
6.3	84.3	0.0	0.0			
8	88.3	0.0	0.0	92.8	19.4	75.5
10	89.7	19.3	75.5			
12.5	92.5	29.1	81.3			
16	94.6	37.9	86.1	97.8	42.8	89.4
20	91.2	40.8	85.1			
25	88.3	43.6	83.9			
31.5	86.8	47.4	83.8	91.6	52.4	88.2
40	84.4	49.8	82.4			
50	82.5	52.2	81.2			
63	80.5	54.3	79.7	85.4	58.8	84.4
80	77.5	55.0	77.0			
100	77.1	58.0	76.8			
125	75.9	59.8	75.7	80.9	64.9	80.7
160	75.1	61.7	75.0			
200	74.8	63.9	74.8			
250	70.3	61.7	70.3	76.7	67.2	76.7
315	67.7	61.1	67.7			
400	65.8	61.0	65.8			
500	62.5	59.3	62.5	68.3	64.6	68.3
630	60.8	58.9	60.8			
800	61.4	60.6	61.4			
1000	60.8	60.8	60.8	65.3	65.2	65.3
1250	59.2	59.8	59.2			
1600	58.5	59.4	58.3			
2000	56.0	57.2	55.8	61.5	62.7	61.4
2500	55.1	56.4	54.8			
3150	53.2	54.4	52.7			
4000	50.7	51.7	49.9	56.0	57.0	55.3
5000	48.7	49.2	47.4			
6300	44.9	44.8	42.9			
8000	41.7	40.6	38.7	47.9	47.0	45.1
10000	41.7	39.2	37.3			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 100.0 dB

OASLA = 72.5 dB(A)

OASLC = 93.0 dB(C)

C-A VALUE = +20.5

LEVEL (Decibels)

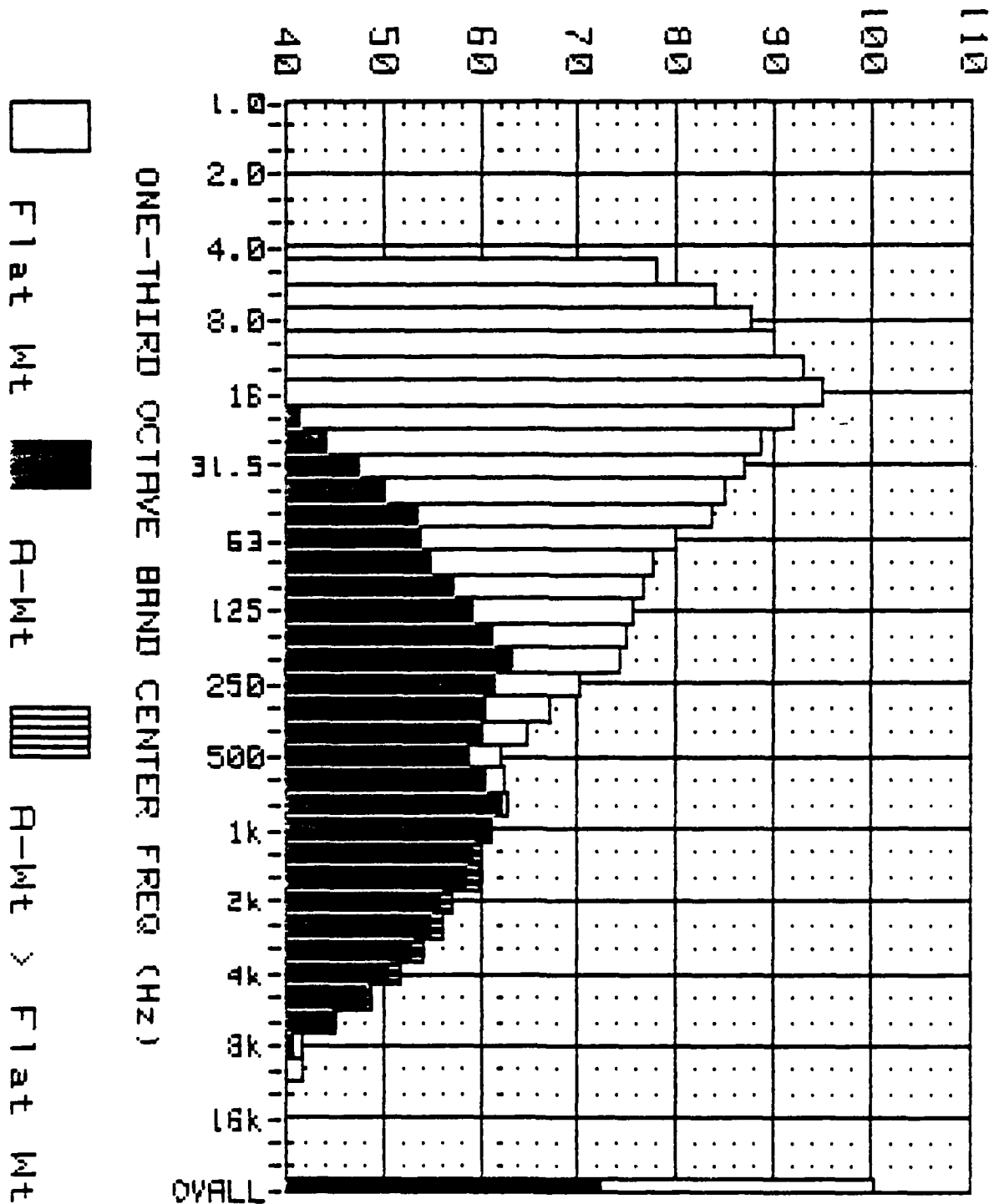


Figure 43: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 16 Angle: 150 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 43: Measured Noise Spectrum Levels.

Location: A/F32T-9 MSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 16 Angle: 150 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	77.9	0.0	0.0			
6.3	83.8	0.0	0.0			
8	87.5	0.0	0.0	92.6	19.7	75.8
10	90.0	19.6	75.8			
12.5	92.8	29.4	81.6			
16	95.0	38.3	86.5	98.2	43.4	89.9
20	92.0	41.5	85.8			
25	88.8	44.1	84.3			
31.5	86.9	47.5	83.9	91.9	52.7	88.5
40	84.8	50.2	82.8			
50	83.6	53.4	82.3			
63	80.0	53.8	79.2	85.8	58.9	84.8
80	77.5	55.0	77.0			
100	76.4	57.3	76.1			
125	75.5	59.4	75.3	80.4	64.4	80.1
160	74.8	61.4	74.7			
200	74.3	63.4	74.3			
250	70.3	61.7	70.3	76.3	66.8	76.3
315	67.1	60.5	67.1			
400	65.0	60.2	65.0			
500	62.2	59.0	62.2	68.2	64.7	68.2
630	62.5	60.6	62.5			
800	62.9	62.1	62.9			
1000	61.1	61.1	61.1	66.1	65.9	66.1
1250	59.4	60.0	59.4			
1600	58.8	59.8	58.7			
2000	56.0	57.2	55.8	61.7	62.8	61.6
2500	55.0	56.3	54.7			
3150	53.0	54.2	52.5			
4000	50.9	51.9	50.1	55.9	56.9	55.2
5000	48.3	48.8	47.0			
6300	44.9	44.8	42.9			
8000	41.7	40.6	38.7	47.9	47.0	45.1
10000	41.7	39.2	37.3			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 100.3 dB

OASLA = 72.5 dB(A)

OASLC = 93.4 dB(C)

C-A VALUE = +20.9

LEVEL (Decibels)

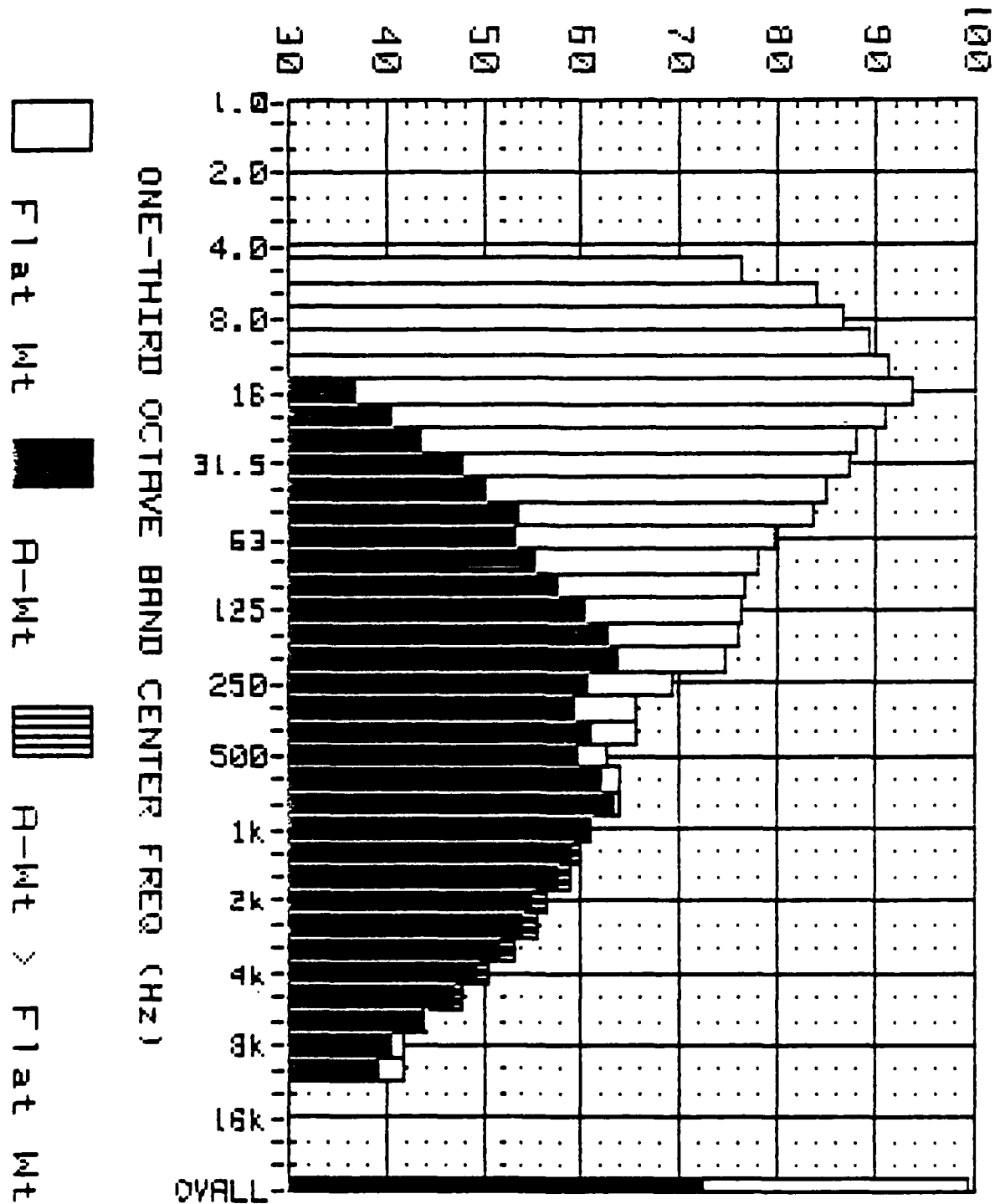


Figure 44: Measured Noise Spectrum (SPL vs A-Weight Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 17 Angle: 160 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 44: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 17 Angle: 160 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	76.2	0.0	0.0			
6.3	84.1	0.0	0.0			
8	86.8	0.0	0.0	92.0	19.0	75.0
10	89.3	18.9	75.0			
12.5	91.4	28.0	80.2			
16	93.5	36.8	85.0	96.8	42.1	88.5
20	90.8	40.3	84.6			
25	88.1	43.4	83.7			
31.5	87.2	47.8	84.2	91.6	52.7	88.3
40	84.8	50.2	82.8			
50	83.8	53.5	82.5			
63	79.5	53.3	78.7	85.9	58.9	84.8
80	77.8	55.3	77.3			
100	76.5	57.4	76.2			
125	76.3	60.2	76.1	81.0	65.3	80.8
160	76.0	62.6	76.0			
200	74.5	63.6	74.5			
250	69.3	60.7	69.3	76.0	66.3	76.0
315	65.7	59.1	65.7			
400	65.7	60.9	65.7			
500	62.7	59.5	62.7	69.0	65.7	69.0
630	63.9	62.0	63.9			
800	63.9	63.1	63.9			
1000	60.8	60.8	60.8	66.5	66.3	66.5
1250	59.3	59.9	59.3			
1600	58.0	59.0	57.8			
2000	55.1	56.4	54.9	60.8	62.0	60.7
2500	54.2	55.5	53.9			
3150	51.9	53.1	51.4			
4000	49.6	50.6	48.8	54.8	55.8	54.0
5000	47.3	47.8	46.0			
6300	43.8	43.7	41.8			
8000	41.7	40.6	38.7	47.3	46.4	44.5
10000	41.7	39.2	37.3			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 99.3 dB

OASLA = 72.7 dB(A)

OASLC = 92.8 dB(C)

C-A VALUE = +20.1

LEVEL (Decibels)

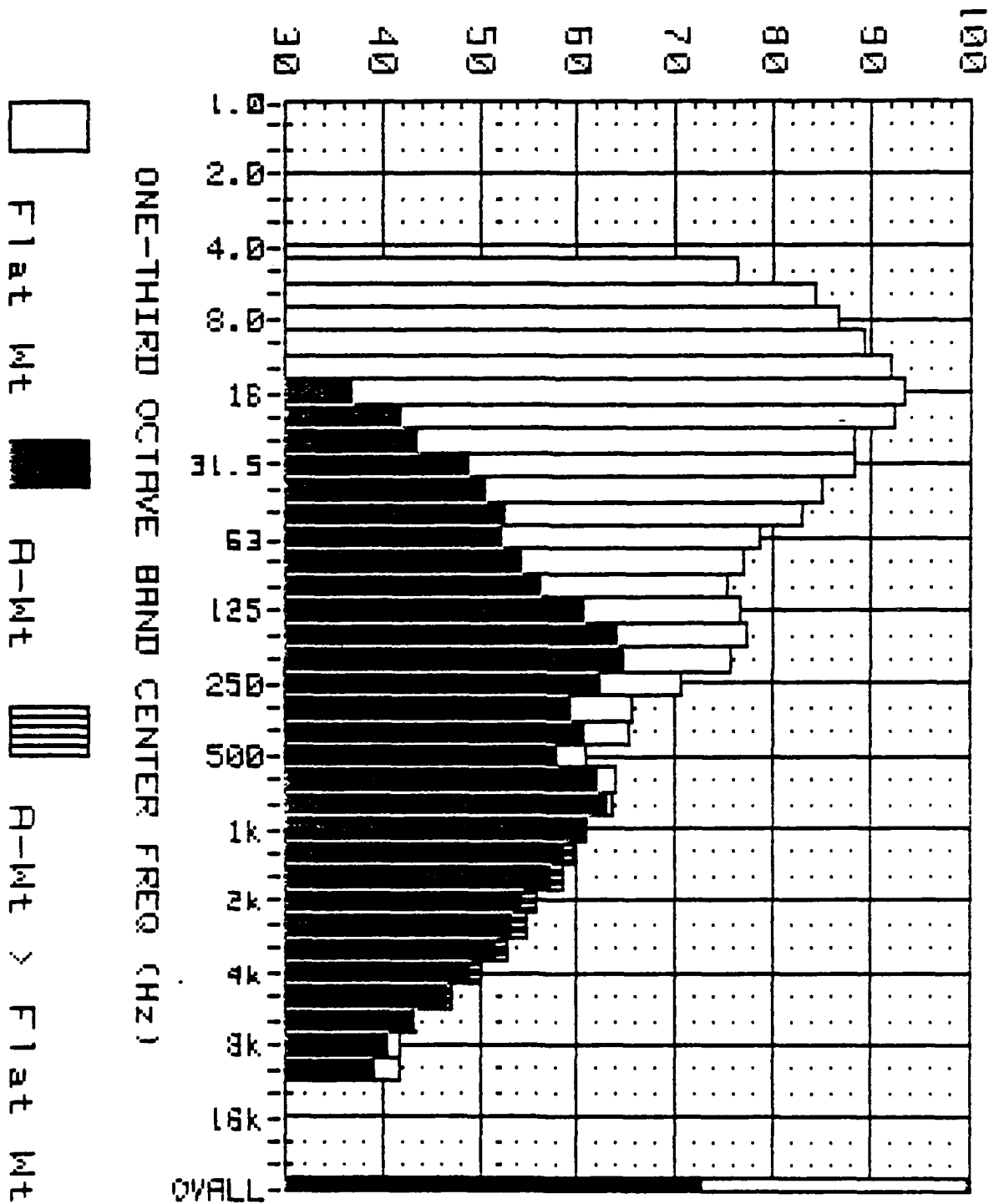


Figure 45: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 18 Angle: 170 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 45: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 18 Angle: 170 Degrees; Distance: 100 Meters

Engine: F101; Power: Intermediate; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	76.1	0.0	0.0			
6.3	84.3	0.0	0.0			
8	86.7	0.0	0.0	91.9	18.9	74.9
10	89.2	18.8	74.9			
12.5	91.9	28.5	80.7			
16	93.4	36.7	84.9	97.3	43.1	89.2
20	92.2	41.7	86.1			
25	88.3	43.6	83.9			
31.5	88.2	48.8	85.2	92.2	53.2	88.9
40	85.0	50.4	83.0			
50	82.9	52.7	81.6			
63	78.5	52.3	77.7	84.9	57.9	83.9
80	76.8	54.3	76.3			
100	75.4	56.3	75.1			
125	76.7	60.6	76.5	81.2	65.9	81.0
160	77.1	63.7	77.0			
200	75.5	64.6	75.5			
250	70.7	62.1	70.7	77.0	67.2	77.0
315	65.7	59.1	65.7			
400	65.3	60.5	65.3			
500	61.0	57.8	61.0	68.5	65.2	68.5
630	63.9	62.0	63.9			
800	63.6	62.8	63.6			
1000	60.9	60.9	60.9	66.3	66.0	66.3
1250	58.8	59.4	58.8			
1600	57.6	58.6	57.5			
2000	54.5	55.7	54.3	60.3	61.5	60.2
2500	53.6	54.9	53.3			
3150	51.7	52.9	51.2			
4000	49.1	50.1	48.3	54.4	55.4	53.7
5000	46.7	47.2	45.4			
6300	43.2	43.1	41.3			
8000	41.7	40.6	38.7	47.1	46.1	44.2
10000	41.7	39.2	37.3			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 99.6 dB

OASLA = 72.8 dB(A)

OASLC = 93.2 dB(C)

C-A VALUE = +20.3

LEVEL (Decibels)

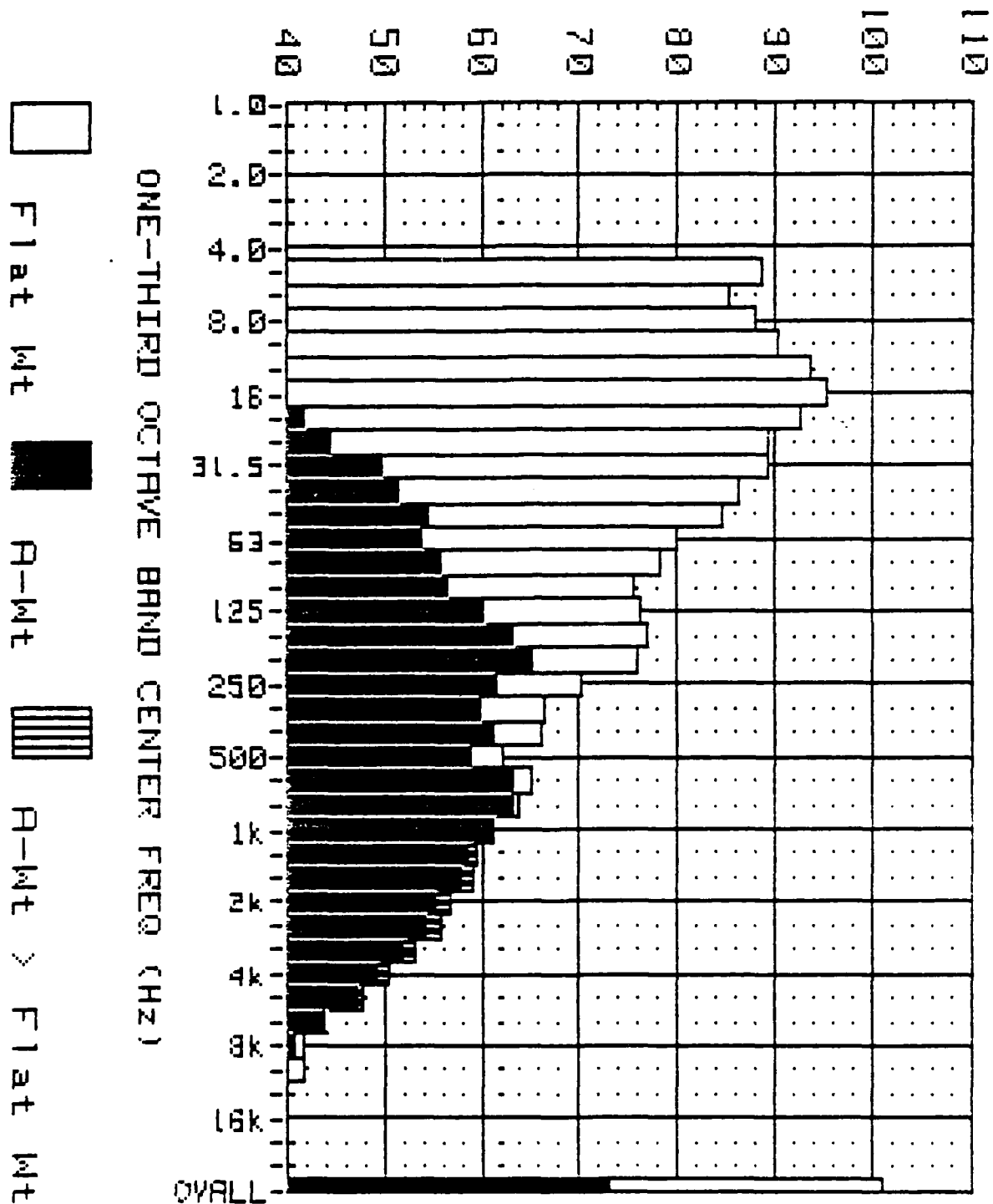


Figure 46: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 19 Angle: 180 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 46: Measured Noise Spectrum Levels.

Location: A/F32T-9 MSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 19 Angle: 180 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	88.7	0.0	0.0			
6.3	85.2	0.0	0.0			
8	88.1	0.0	0.0	93.0	19.8	75.9
10	90.2	19.8	75.9			
12.5	93.6	30.2	82.4			
16	95.2	38.5	86.7	98.7	43.8	90.3
20	92.5	42.0	86.3			
25	89.2	44.5	84.8			
31.5	89.2	49.8	86.2	93.1	54.3	89.9
40	86.2	51.6	84.2			
50	84.6	54.4	83.3			
63	80.0	53.8	79.2	86.5	59.5	85.5
80	78.3	55.8	77.8			
100	75.7	56.6	75.4			
125	76.2	60.1	76.0	81.0	65.6	80.8
160	76.8	63.4	76.7			
200	76.0	65.1	76.0			
250	70.2	61.6	70.2	77.3	67.5	77.3
315	66.5	59.9	66.5			
400	66.1	61.3	66.1			
500	62.2	59.0	62.2	69.5	66.3	69.5
630	65.1	63.2	65.1			
800	64.0	63.2	64.0			
1000	61.1	61.1	61.1	66.6	66.3	66.6
1250	58.8	59.4	58.8			
1600	58.3	59.3	58.2			
2000	55.4	56.7	55.2	61.1	62.3	61.0
2500	54.5	55.8	54.2			
3150	52.0	53.2	51.5			
4000	49.4	50.4	48.6	54.8	55.8	54.0
5000	47.3	47.8	46.0			
6300	43.8	43.7	41.8			
8000	41.7	40.6	38.7	47.3	46.4	44.5
10000	41.7	39.2	37.3			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 101.1 dB

OASLA = 73.2 dB(A)

OASLC = 94.2 dB(C)

C-A VALUE = +21.0

LEVEL (Decibels)

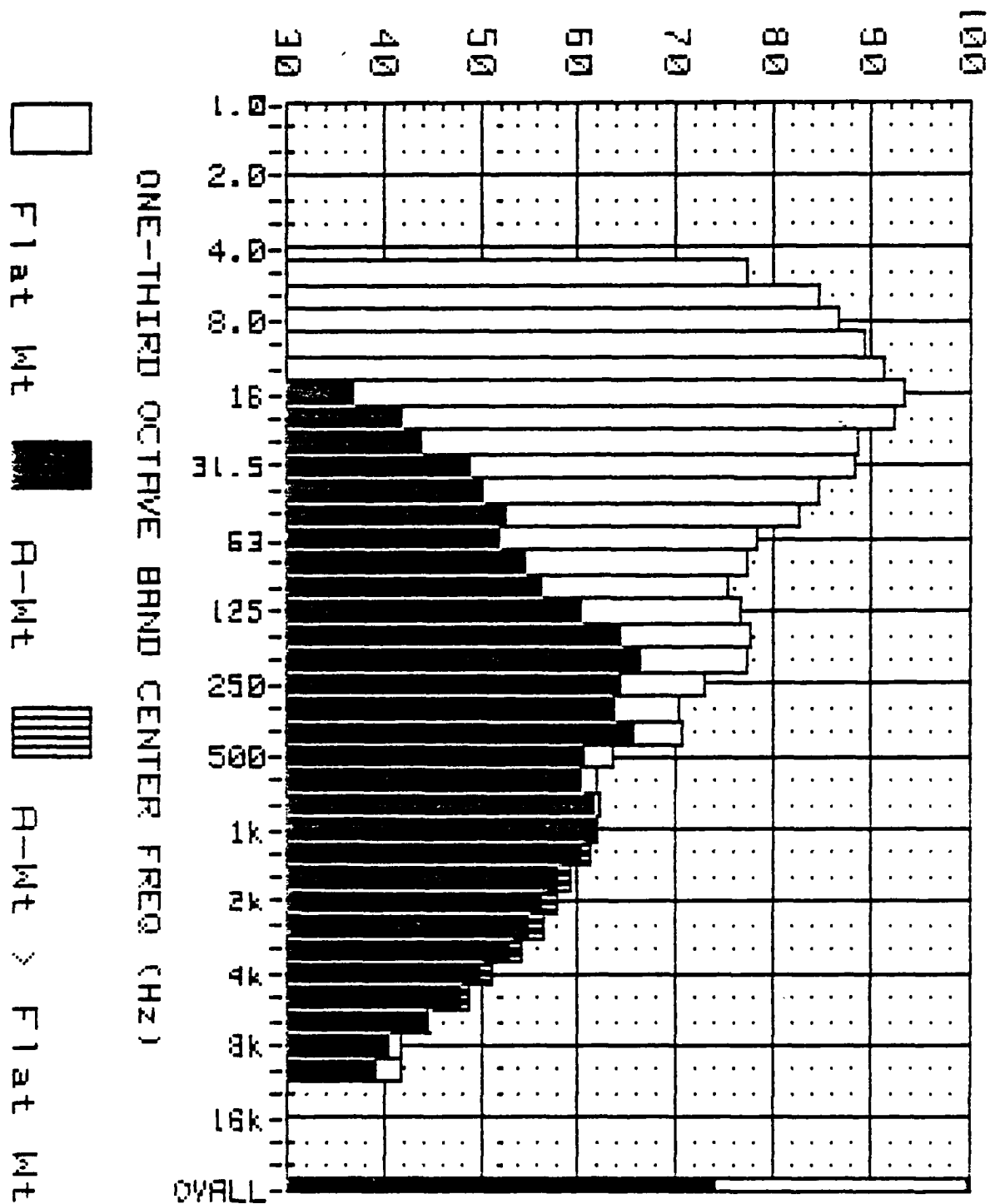


Figure 47: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 20 Angle: 190 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 47: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 20 Angle: 190 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	77.2	0.0	0.0			
6.3	84.6	0.0	0.0			
8	86.7	0.0	0.0	92.1	19.2	75.2
10	89.5	19.0	75.2			
12.5	91.4	28.0	80.2			
16	93.4	36.7	84.9	97.2	43.1	89.2
20	92.3	41.8	86.1			
25	88.6	43.9	84.2			
31.5	88.2	48.8	85.2	92.2	53.0	88.9
40	84.7	50.1	82.7			
50	82.7	52.5	81.4			
63	78.2	52.0	77.4	84.8	57.9	83.7
80	77.1	54.6	76.6			
100	75.2	56.1	74.9			
125	76.5	60.4	76.3	81.3	66.2	81.1
160	77.6	64.2	77.5			
200	77.3	66.4	77.3			
250	72.9	64.3	72.9	79.2	69.7	79.2
315	70.1	63.5	70.1			
400	70.5	65.7	70.5			
500	63.7	60.5	63.7	71.8	67.7	71.8
630	62.0	60.1	62.0			
800	62.3	61.5	62.3			
1000	61.8	61.8	61.8	66.4	66.2	66.4
1250	60.5	61.1	60.5			
1600	58.3	59.3	58.2			
2000	56.5	57.7	56.3	61.7	62.8	61.5
2500	55.2	56.5	54.9			
3150	53.1	54.3	52.6			
4000	50.3	51.3	49.5	55.8	56.8	55.1
5000	48.3	48.8	47.0			
6300	44.4	44.3	42.4			
8000	41.7	40.6	38.7	47.6	46.7	44.8
10000	41.7	39.2	37.3			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 99.6 dB

OASLA = 74.3 dB(A)

OASLC = 93.2 dB(C)

L-A VALUE = +19.0

LEVEL (Decibels)

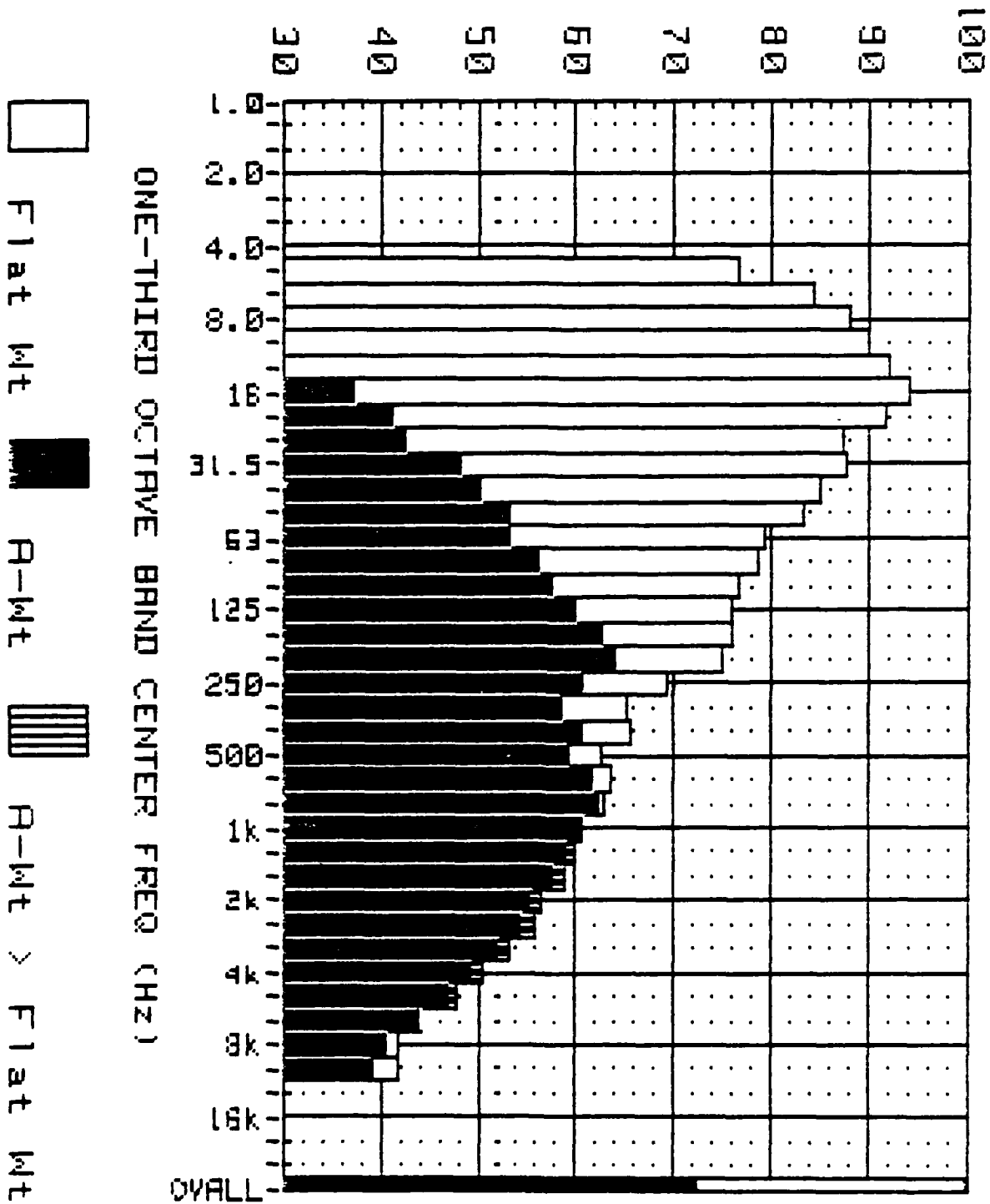


Figure 48: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 HSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 21 Angle: 200 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 48: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 21 Angle: 200 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	76.6	0.0	0.0			
6.3	84.2	0.0	0.0			
8	87.8	0.0	0.0	92.6	19.5	75.5
10	89.9	19.5	75.6			
12.5	91.9	28.5	80.7			
16	94.0	37.3	85.5	97.4	42.9	89.2
20	91.7	41.3	85.6			
25	87.2	42.5	82.8			
31.5	87.7	48.3	84.7	91.5	52.8	88.3
40	84.9	50.3	82.9			
50	83.4	53.2	82.1			
63	79.3	53.1	78.5	85.8	59.2	84.7
80	78.7	56.2	78.2			
100	76.5	57.4	76.2			
125	75.9	59.8	75.7	80.9	65.2	80.7
160	76.0	62.6	75.9			
200	74.8	63.9	74.8			
250	69.2	60.6	69.2	76.2	66.3	76.2
315	65.1	58.5	65.1			
400	65.5	60.7	65.5			
500	62.6	59.4	62.6	68.8	65.4	68.8
630	63.4	61.5	63.4			
800	62.9	62.1	62.9			
1000	60.4	60.4	60.4	65.9	65.6	65.9
1250	59.1	59.7	59.1			
1600	57.8	58.8	57.7			
2000	55.4	56.7	55.2	60.9	62.1	60.8
2500	54.5	55.8	54.2			
3150	52.1	53.3	51.6			
4000	49.6	50.6	48.8	54.9	55.9	54.2
5000	47.3	47.8	46.0			
6300	43.8	43.7	41.8			
8000	41.7	40.6	38.7	47.3	46.4	44.5
10000	41.7	39.2	37.3			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 99.7 dB

OASLA = 72.5 dB(A)

OASLC = 93.0 dB(C)

C-A VALUE = +20.5

LEVEL (Decibels)

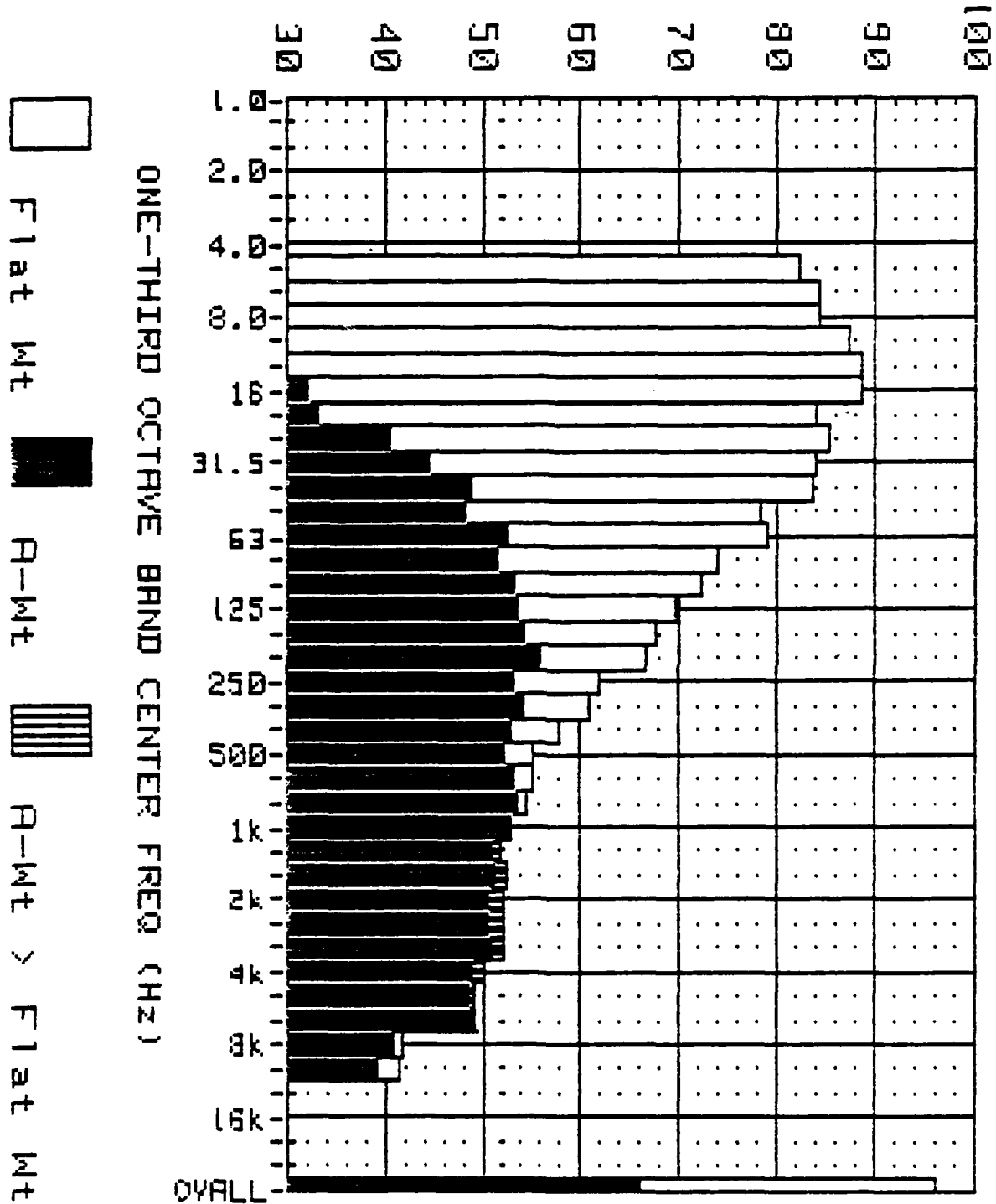


Figure 49: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 36 Angle: 340 Degrees; Distance: 100 Meters
 Engine: F101; Power: Intermediate; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 49: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 36 Angle: 340 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	86.8	0.0	0.0			
6.3	89.0	0.0	0.0			
8	91.2	0.0	0.0	96.5	23.4	79.5
10	93.8	23.4	79.5			
12.5	97.2	33.8	86.0			
16	97.2	40.5	88.7	101.1	45.4	92.3
20	93.8	43.3	87.6			
25	94.4	49.7	90.0			
31.5	94.0	54.6	91.0	98.9	61.0	95.9
40	94.1	59.5	92.1			
50	90.7	60.5	89.4			
63	86.3	60.1	85.5	92.4	64.6	91.3
80	81.2	58.7	80.7			
100	80.5	61.4	80.2			
125	78.5	62.4	78.3	83.6	67.2	83.4
160	76.8	63.4	76.7			
200	75.9	65.0	75.9			
250	74.0	65.4	74.0	79.4	70.6	79.4
315	73.5	66.9	73.5			
400	69.6	64.8	69.6			
500	68.7	65.5	68.7	73.6	70.3	73.6
630	68.0	66.1	68.0			
800	67.1	66.3	67.1			
1000	66.4	66.4	66.4	71.0	70.8	71.0
1250	64.8	65.4	64.8			
1600	63.7	64.7	63.6			
2000	62.1	63.3	61.9	67.3	68.4	67.1
2500	61.5	62.8	61.2			
3150	59.7	60.9	59.2			
4000	57.6	58.6	56.8	62.8	63.8	62.1
5000	56.1	56.6	54.8			
6300	53.7	53.6	51.7			
8000	51.7	50.6	48.7	57.2	56.3	54.4
10000	51.5	49.0	47.1			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 104.4 dB

OASLA = 77.3 dB(A)

OASLC = 98.7 dB(C)

C-A VALUE = +21.4

LEVEL (Decibels)

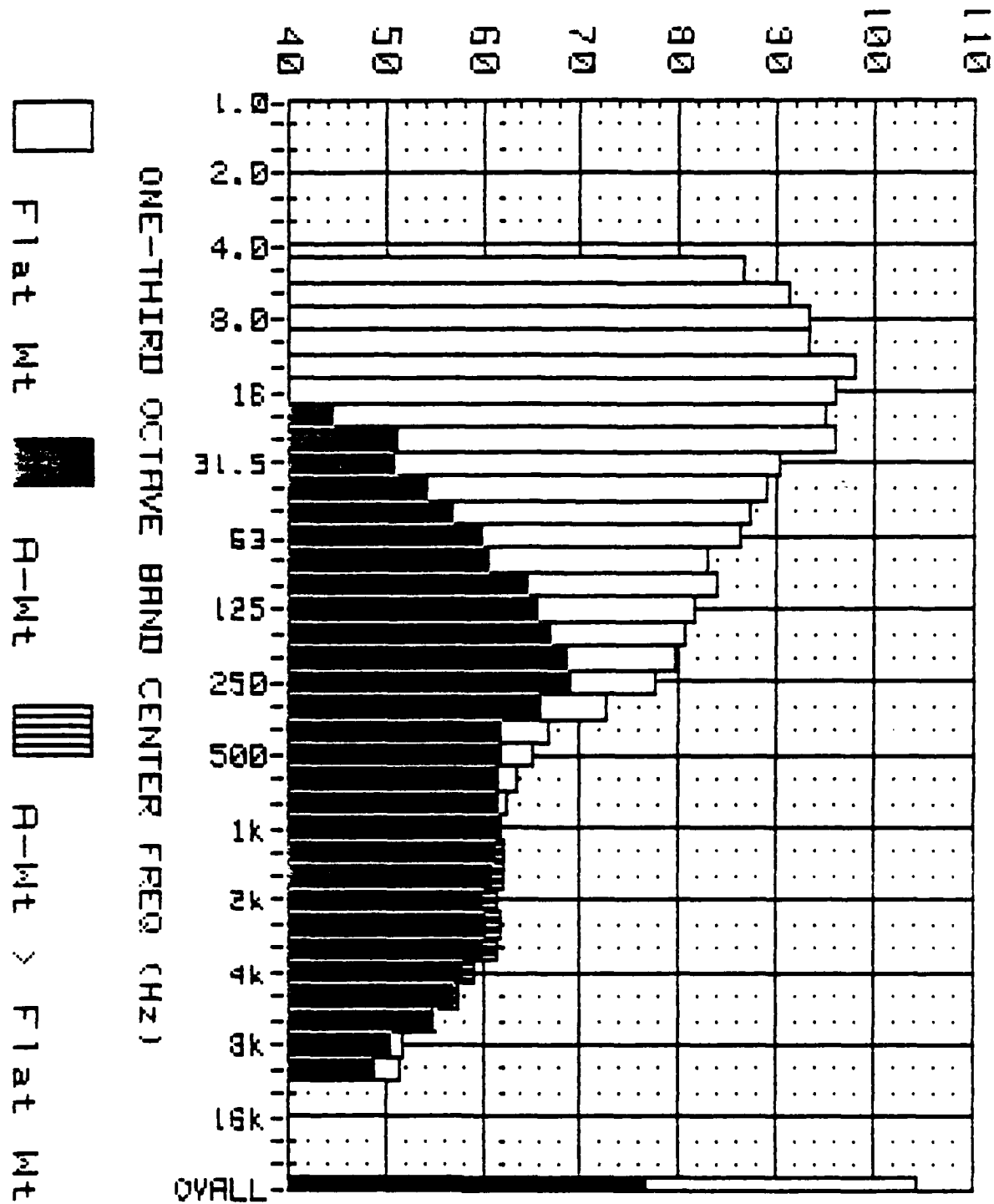


Figure 50: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 37 Angle: 350 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 knots

TABLE 50: Measured Noise Spectrum Levels.
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 37 Angle: 350 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	86.6	0.0	0.0			
6.3	91.2	0.0	0.0			
8	93.2	0.0	0.0	97.4	23.0	79.1
10	93.4	23.0	79.1			
12.5	97.9	34.5	86.7			
16	96.0	39.3	87.5	101.2	46.0	92.5
20	95.0	44.5	88.8			
25	96.0	51.3	91.6			
31.5	90.3	50.9	87.3	97.7	57.2	93.9
40	88.9	54.3	86.9			
50	87.2	57.0	85.9			
63	86.2	60.0	85.4	90.6	64.1	89.6
80	82.9	60.4	82.4			
100	83.8	64.7	83.5			
125	81.5	65.4	81.3	86.9	70.6	86.7
160	80.4	67.0	80.3			
200	79.5	68.6	79.5			
250	77.4	68.8	77.4	82.1	72.7	82.1
315	72.6	66.0	72.6			
400	66.8	62.0	66.8			
500	65.1	61.9	65.1	70.1	66.6	70.1
630	63.4	61.5	63.4			
800	62.4	61.6	62.4			
1000	61.9	61.9	61.9	66.7	66.6	66.7
1250	61.5	62.1	61.5			
1600	61.3	62.3	61.2			
2000	60.2	61.4	60.0	65.5	66.6	65.3
2500	60.5	61.8	60.2			
3150	60.2	61.4	59.7			
4000	58.3	59.3	57.5	63.5	64.4	62.7
5000	57.0	57.5	55.7			
6300	54.8	54.7	52.8			
8000	51.7	50.6	48.7	57.7	56.9	55.0
10000	51.5	49.0	47.1			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 104.3 dB

OASLA = 77.0 dB(A)

OASLC = 97.7 dB(C)

C-A VALUE = +20.7

LEVEL (Decibels)

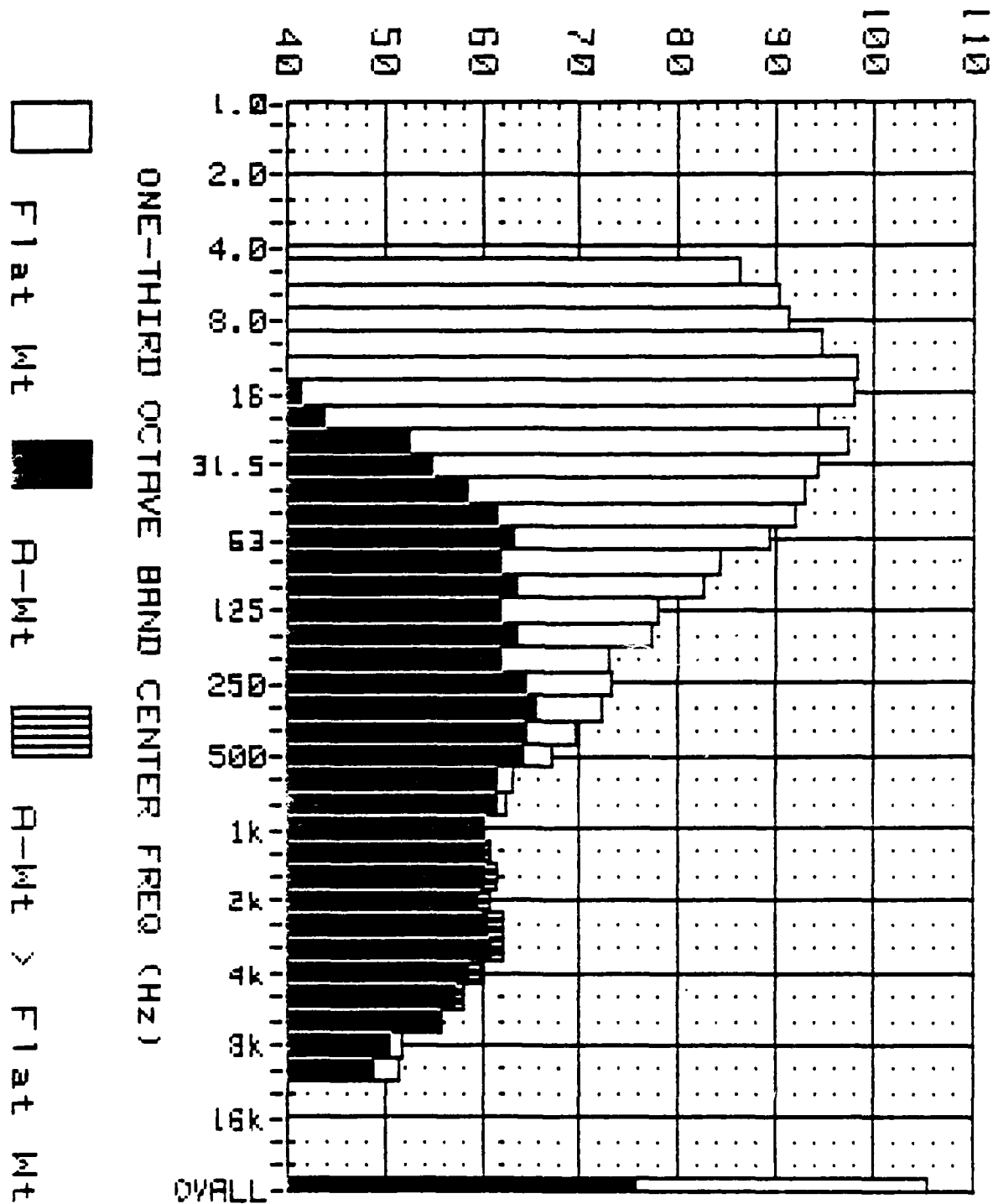


Figure 51: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 38 Angle: 0 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 51: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 38 Angle: 0 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	86.4	0.0	0.0			
6.3	90.3	0.0	0.0			
8	91.3	0.0	0.0	97.2	24.1	80.2
10	94.5	24.1	80.2			
12.5	98.2	34.8	87.0			
16	98.1	41.4	89.6	102.0	46.1	93.1
20	94.3	43.8	88.1			
25	97.3	52.6	92.9			
31.5	94.3	54.9	91.3	100.0	60.8	96.6
40	93.1	58.5	91.1			
50	91.8	61.6	90.5			
63	89.4	63.2	88.6	94.2	67.0	93.2
80	84.2	61.7	83.7			
100	82.7	63.6	82.4			
125	77.9	61.8	77.7	84.8	67.9	84.5
160	77.1	63.7	77.0			
200	72.8	61.9	72.8			
250	73.2	64.6	73.2	77.6	69.1	77.6
315	72.3	65.7	72.3			
400	69.4	64.6	69.4			
500	67.3	64.1	67.3	72.1	68.3	72.1
630	63.3	61.4	63.3			
800	62.4	61.6	62.4			
1000	60.1	60.1	60.1	65.8	65.7	65.8
1250	60.4	61.0	60.4			
1600	60.6	61.6	60.5			
2000	59.7	60.9	59.5	65.1	66.3	64.9
2500	60.7	62.0	60.4			
3150	61.1	62.3	60.6			
4000	58.9	59.9	58.1	64.2	65.2	63.4
5000	57.6	58.1	56.3			
6300	55.7	55.6	53.7			
8000	51.7	50.6	48.7	58.2	57.5	55.6
10000	51.5	49.0	47.1			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 105.4 dB

OASLA = 75.9 dB(A)

OASLC = 99.6 dB(C)

C-A VALUE = +23.7

LEVEL (Decibels)

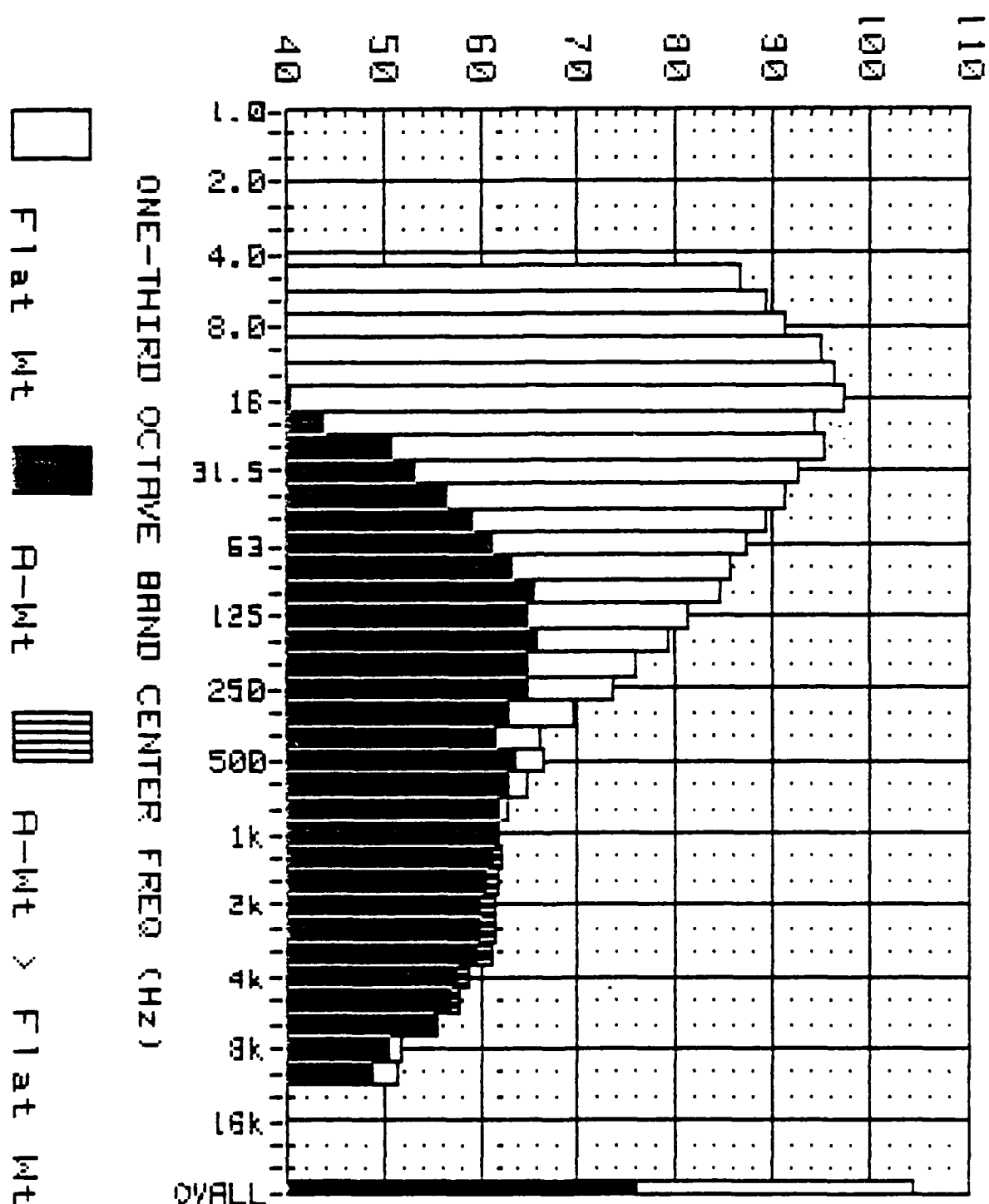


Figure 52: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 1 Angle: 10 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 52: Measured Noise Spectrum Levels.
 Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 1 Angle: 10 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	86.5	0.0	0.0			
6.3	89.2	0.0	0.0			
8	91.2	0.0	0.0	97.2	24.6	80.7
10	95.0	24.6	80.7			
12.5	96.2	32.8	85.0			
16	97.3	40.6	88.8	100.8	45.6	92.3
20	94.2	43.7	88.0			
25	95.4	50.7	91.0			
31.5	92.5	53.1	89.5	98.2	58.9	94.7
40	91.2	56.6	89.2			
50	89.4	59.2	88.1			
63	87.4	61.2	86.6	92.5	66.3	91.6
80	85.7	63.2	85.2			
100	84.6	65.5	84.3			
125	81.1	65.0	80.9	87.0	70.3	86.8
160	79.3	65.9	79.2			
200	75.9	65.0	75.9			
250	73.6	65.0	73.6	78.5	69.2	78.5
315	69.6	63.0	69.6			
400	66.2	61.4	66.2			
500	66.6	63.4	66.6	70.7	67.4	70.7
630	64.7	62.8	64.7			
800	62.7	61.9	62.7			
1000	61.9	61.9	61.9	66.8	66.7	66.8
1250	61.5	62.1	61.5			
1600	60.9	61.9	60.8			
2000	60.3	61.5	60.1	65.3	66.4	65.1
2500	60.3	61.6	60.0			
3150	59.9	61.1	59.4			
4000	58.0	59.0	57.2	63.3	64.3	62.5
5000	57.3	57.8	56.0			
6300	55.3	55.2	53.3			
8000	51.7	50.6	48.7	58.0	57.2	55.3
10000	51.5	49.0	47.1			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 104.3 dB

OASLA = 76.2 dB(A)

OASLC = 98.3 dB(C)

C-A VALUE = +22.1

LEVEL (Decibels)

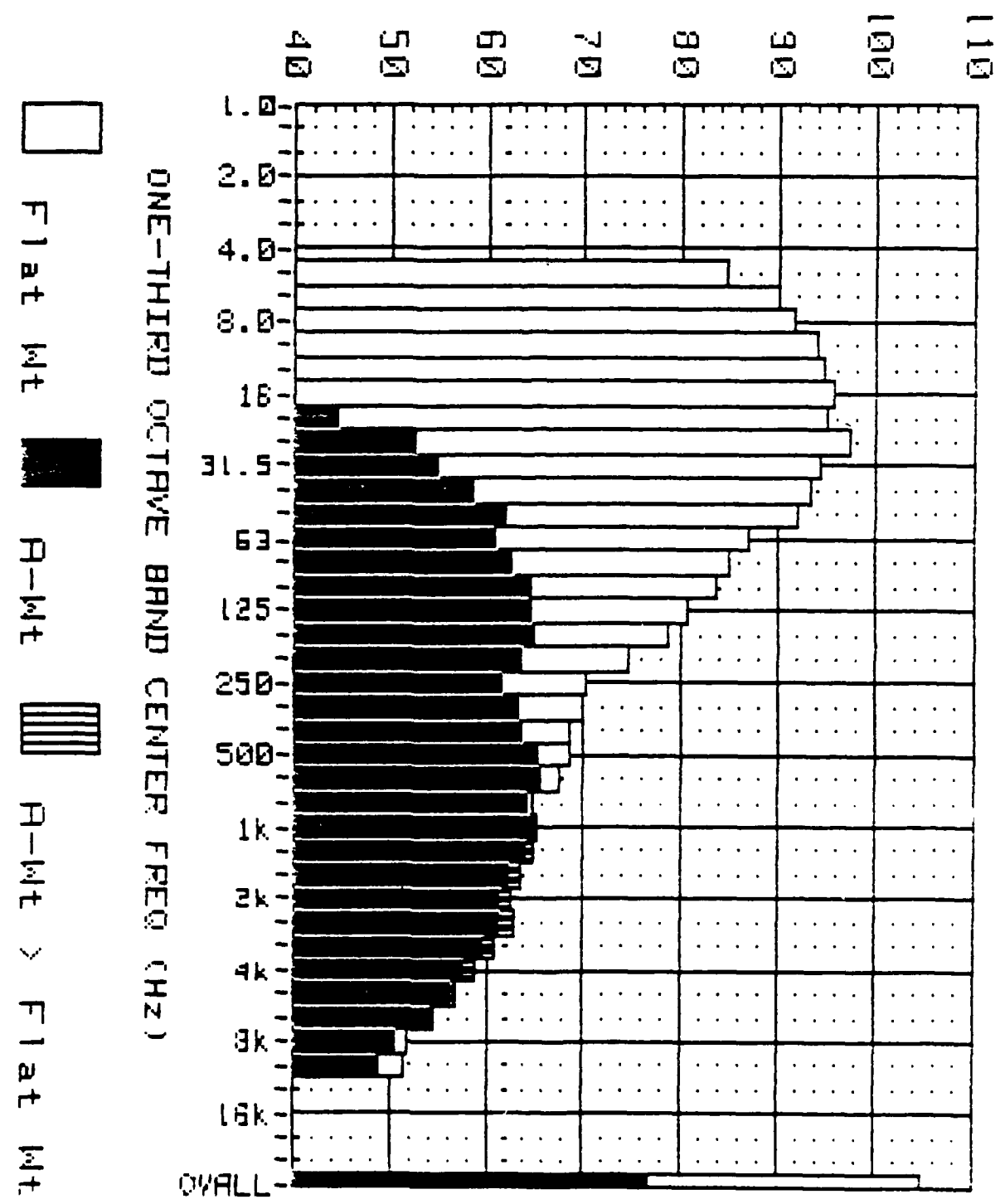


Figure 53: Measured Noise Spectrum (SPL vs A-Weight Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 2 Angle: 20 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 53: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 2 Angle: 20 Degrees; Distance: 100 Meters

Engine: F101; Power: Afterburner; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	84.7	0.0	0.0			
6.3	89.9	0.0	0.0			
8	91.8	0.0	0.0	97.0	23.7	79.9
10	94.1	23.7	79.9			
12.5	94.7	31.3	83.5			
16	95.8	39.1	87.3	99.9	45.7	91.8
20	95.0	44.5	88.8			
25	97.3	52.6	92.9			
31.5	94.4	55.0	91.4	100.1	60.9	96.7
40	93.2	58.6	91.2			
50	92.1	61.9	90.8			
63	86.9	60.7	86.1	93.9	66.5	92.8
80	85.0	62.5	84.5			
100	83.5	64.4	83.2			
125	80.6	64.5	80.4	86.1	69.4	85.9
160	78.4	65.0	78.3			
200	74.6	63.7	74.6			
250	70.1	61.5	70.1	76.9	67.7	76.9
315	69.9	63.3	69.9			
400	68.5	63.7	68.5			
500	68.5	65.3	68.5	72.9	69.7	72.9
630	67.4	65.5	67.4			
800	65.0	64.2	65.0			
1000	65.1	65.1	65.1	69.5	69.5	69.5
1250	64.2	64.8	64.2			
1600	62.6	63.6	62.5			
2000	61.4	62.6	61.2	66.6	67.8	66.4
2500	61.4	62.7	61.1			
3150	59.7	60.9	59.2			
4000	57.8	58.8	57.0	62.9	63.9	62.2
5000	56.4	56.9	55.1			
6300	54.3	54.2	52.4			
8000	51.7	50.6	48.7	57.5	56.6	54.7
10000	51.5	49.0	47.1			

OVERALL LEVELS (5 - 10000 Hz)

DASPL = 104.5 dB

OASLA = 76.8 dB(A)

DASLC = 99.4 dB(C)

C-A VALUE = +22.6

LEVEL (Decibels)

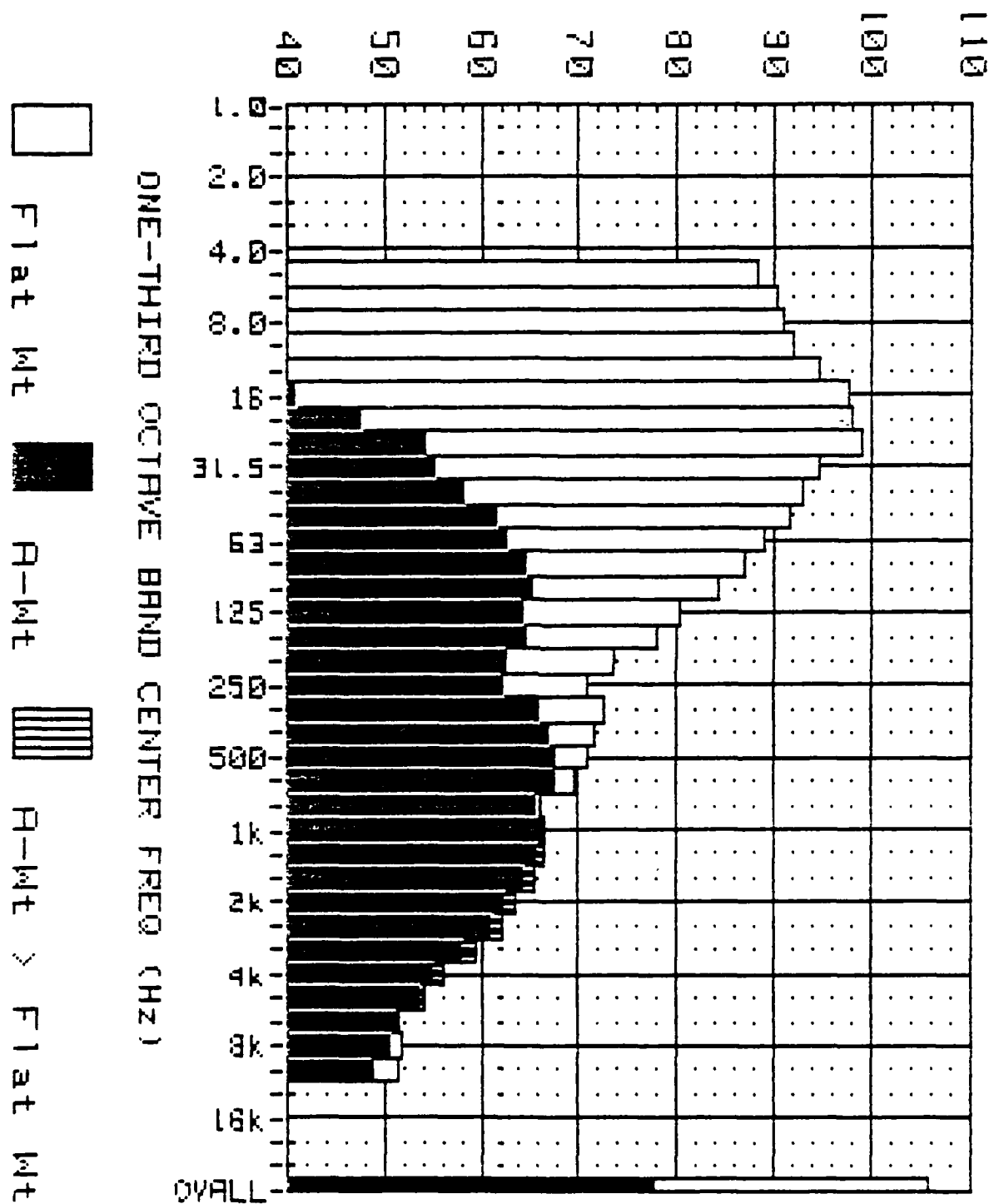


Figure 54: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 3 Angle: 30 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 54: Measured Noise Spectrum Levels.

Location: A/F32T-9 MSS. Sky Harbor IAP. Phoenix. AZ.

Station: 3 Angle: 30 Degrees; Distance: 100 Meters

Engine: F101; Power: Afterburner; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	88.1	0.0	0.0			
6.3	90.2	0.0	0.0			
8	90.9	0.0	0.0	95.8	21.7	77.7
10	92.0	21.6	77.7			
12.5	94.7	31.3	83.5			
16	97.6	40.9	89.1	101.7	48.4	94.0
20	98.0	47.5	91.8			
25	99.0	54.3	94.6			
31.5	94.6	55.2	91.6	101.1	61.1	97.5
40	92.9	58.3	90.9			
50	91.6	61.4	90.3			
63	88.9	62.7	88.1	94.4	67.8	93.4
80	87.0	64.5	86.5			
100	84.4	65.3	84.1			
125	80.3	64.2	80.1	86.5	69.5	86.2
160	78.0	64.6	77.9			
200	73.5	62.6	73.5			
250	70.7	62.1	70.7	77.2	68.7	77.2
315	72.6	66.0	72.6			
400	71.6	66.8	71.6			
500	70.9	67.7	70.9	75.5	72.2	75.5
630	69.5	67.6	69.5			
800	66.3	65.5	66.3			
1000	66.6	66.6	66.6	71.1	71.0	71.1
1250	66.0	66.5	66.0			
1600	64.5	65.5	64.4			
2000	62.4	63.6	62.2	67.6	68.8	67.5
2500	61.0	62.3	60.7			
3150	58.2	59.4	57.7			
4000	55.2	56.3	54.5	60.9	61.9	60.2
5000	53.7	54.2	52.4			
6300	51.4	51.2	49.4			
8000	51.7	50.6	48.7	56.3	55.2	53.3
10000	51.5	49.0	47.1			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 105.5 dB

OASLA = 77.9 dB(A)

OASLC = 100.4 dB(C)

C-A VALUE = +22.4

LEVEL (Decibels)

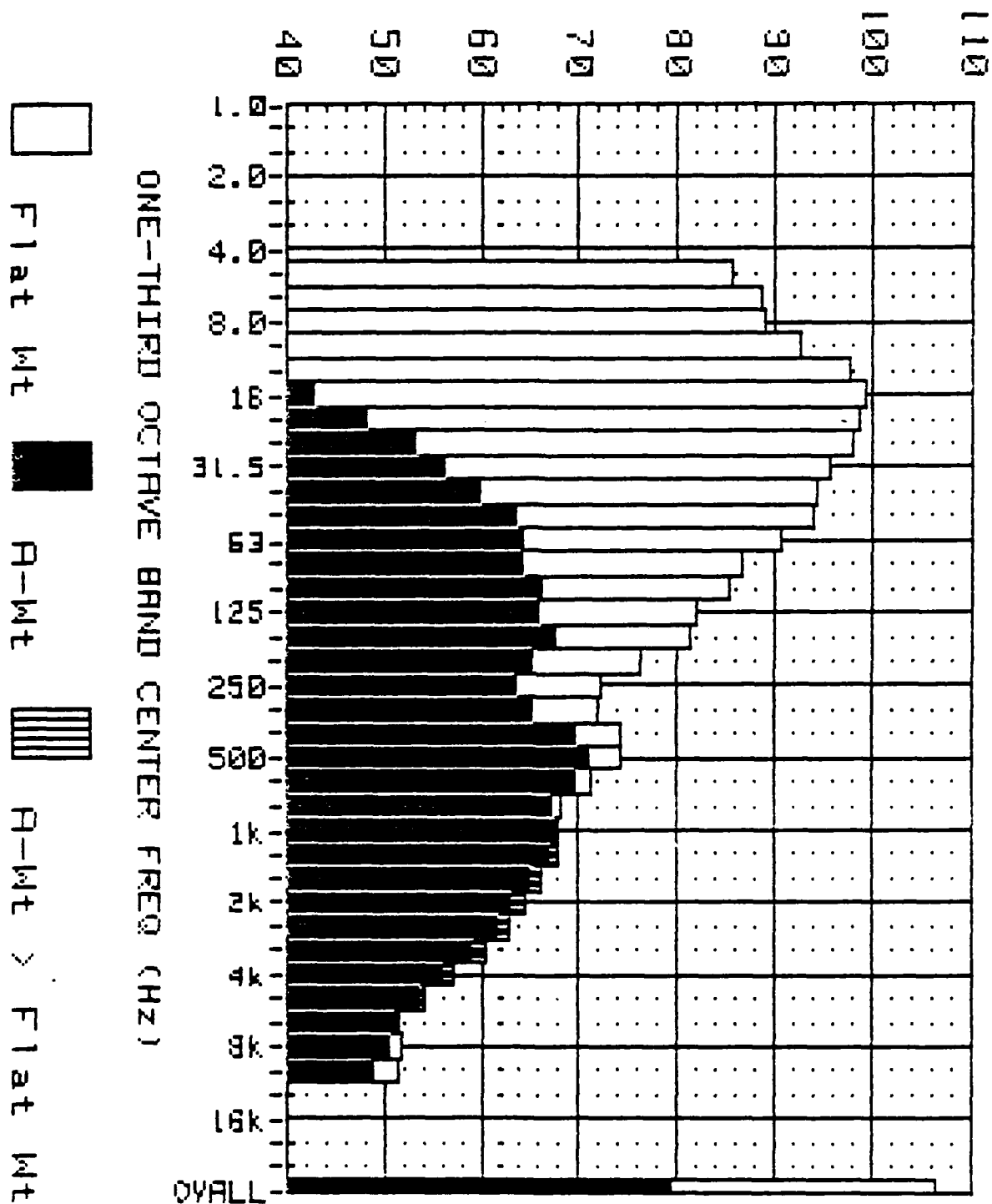


Figure 55: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 4 Angle: 40 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 55: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.

Station: 4 Angle: 40 Degrees; Distance: 100 Meters

Engine: F101; Power: Afterburner; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	85.5	0.0	0.0			
6.3	88.6	0.0	0.0			
8	88.9	0.0	0.0	95.2	22.3	78.3
10	92.6	22.2	78.3			
12.5	97.7	34.3	86.5			
16	99.5	42.8	91.0	103.4	49.3	95.3
20	98.5	48.0	92.3			
25	97.8	53.1	93.4			
31.5	95.5	56.1	92.5	100.9	61.9	97.6
40	94.4	59.8	92.4			
50	93.8	63.6	92.5			
63	90.5	64.3	89.7	96.0	68.8	94.9
80	86.6	64.1	86.1			
100	85.2	66.1	84.9			
125	82.0	65.9	81.8	87.9	71.4	87.7
160	81.1	67.7	81.0			
200	76.2	65.3	76.2			
250	72.1	63.5	72.1	78.6	69.5	78.6
315	71.7	65.1	71.7			
400	74.3	69.5	74.3			
500	74.1	70.9	74.1	78.2	74.8	78.2
630	71.3	69.4	71.3			
800	68.1	67.3	68.1			
1000	67.8	67.8	67.8	72.5	72.4	72.5
1250	67.2	67.8	67.2			
1600	65.3	66.3	65.2			
2000	63.3	64.5	63.1	68.5	69.6	68.3
2500	61.7	63.0	61.4			
3150	59.2	60.4	58.7			
4000	56.1	57.1	55.3	61.7	62.7	61.0
5000	53.7	54.2	52.4			
6300	51.4	51.2	49.4			
8000	51.7	50.6	48.7	56.3	55.2	53.3
10000	51.5	49.0	47.1			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 106.3 dB

OASLA = 79.6 dB(A)

OASLC = 101.1 dB(C)

C-A VALUE = +21.6

LEVEL (Decibels)

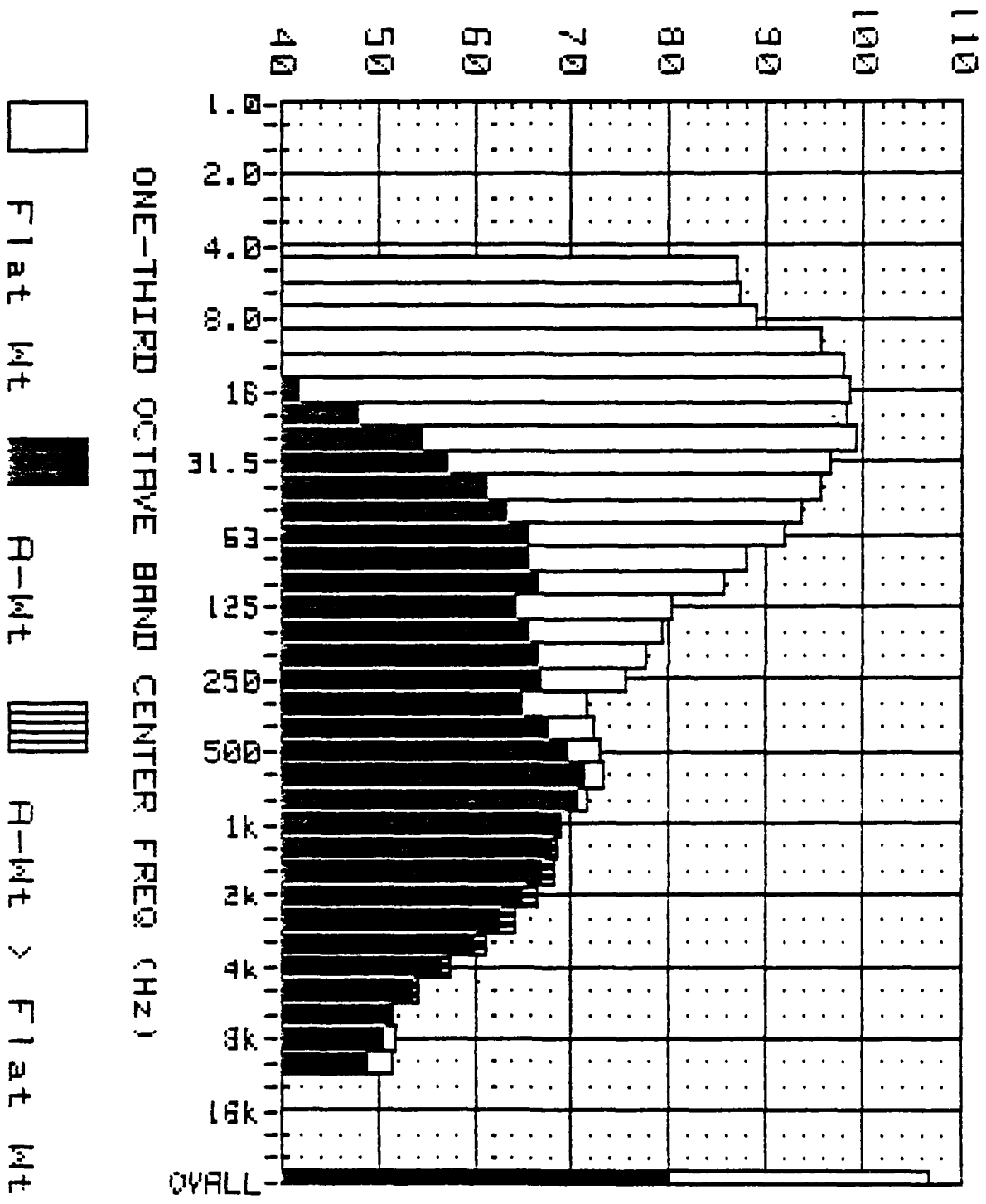


Figure 56: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 5 Angle: 50 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 56: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 5 Angle: 50 Degrees; Distance: 100 Meters

Engine: F101; Power: Afterburner; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	86.8	0.0	0.0			
6.3	87.3	0.0	0.0			
8	89.0	0.0	0.0	96.9	25.2	31.3
10	95.6	25.2	31.3			
12.5	98.1	34.7	36.9			
16	98.7	42.0	40.2	103.1	49.0	55.0
20	98.3	47.8	42.1			
25	99.3	54.6	44.9			
31.5	96.5	57.1	43.5	102.2	63.2	68.8
40	95.7	61.1	43.7			
50	93.5	63.3	42.2			
63	91.8	65.6	41.0	96.4	69.7	75.4
80	88.0	65.5	37.5			
100	85.7	66.6	35.4			
125	80.2	64.1	30.0	87.5	70.4	77.2
160	79.1	65.7	29.0			
200	77.4	66.5	27.4			
250	75.4	66.8	25.4	80.2	70.9	80.2
315	71.6	65.0	21.6			
400	72.3	67.5	22.3			
500	72.9	69.7	22.9	77.6	74.5	77.6
630	73.1	71.2	23.1			
800	71.4	70.6	21.4			
1000	68.9	68.9	18.9	74.5	74.2	74.5
1250	68.0	68.6	18.0			
1600	67.1	68.1	17.0			
2000	65.3	66.5	15.1	70.2	71.3	70.0
2500	62.8	64.1	12.5			
3150	60.0	61.2	9.5			
4000	56.7	57.7	5.8	62.3	63.4	61.6
5000	53.7	54.2	2.4			
6300	51.4	51.2	-1.4			
8000	51.7	50.6	-1.7	56.3	55.2	53.3
10000	51.5	49.0	-1.1			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 106.8 dB

OASLA = 80.2 dB(A)

OASLC = 101.8 dB(C)

C-A VALUE = +21.6

LEVEL (Decibels)

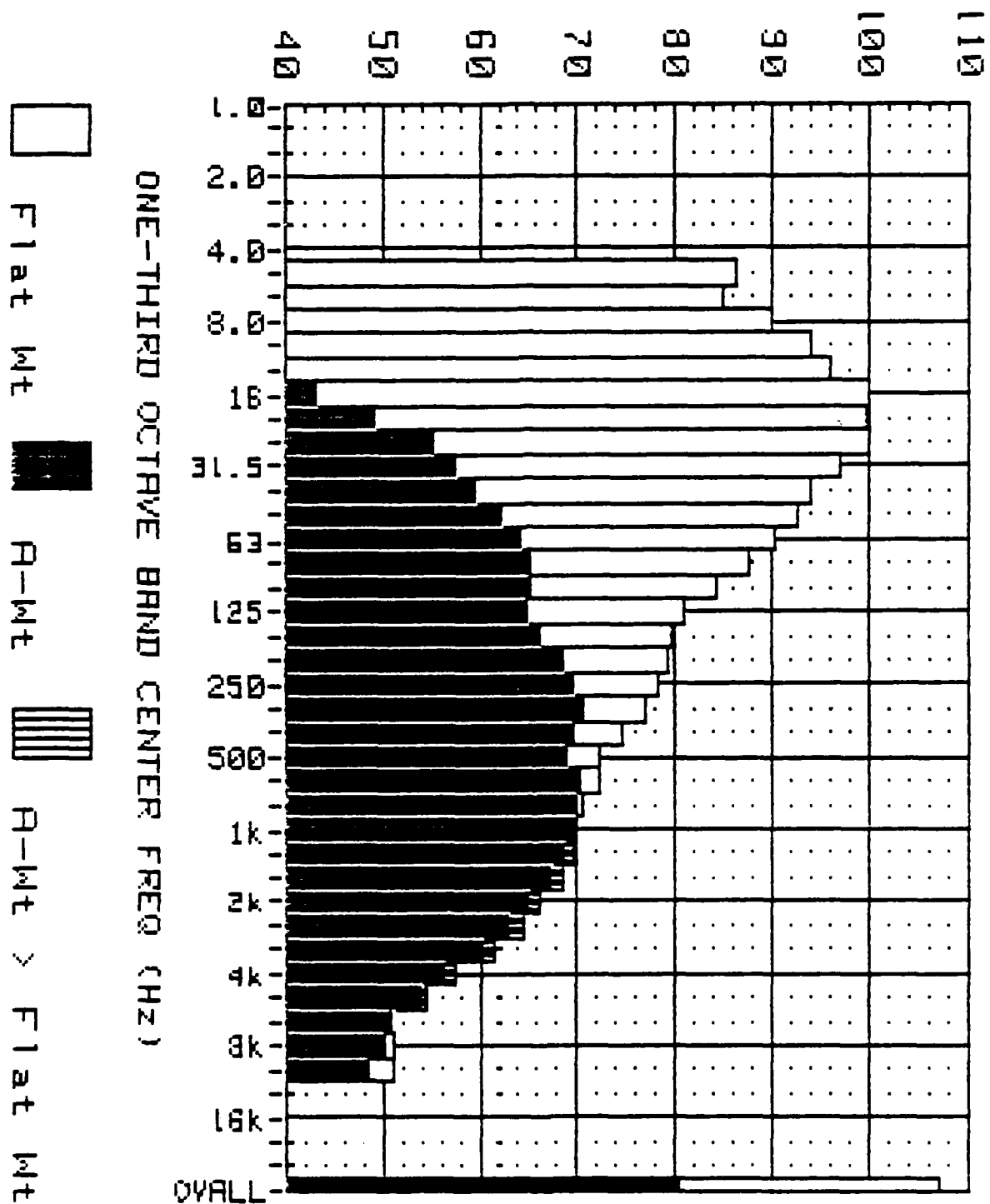


Figure 57: Measured Noise Spectrum (SPL vs R-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 6 Angle: 60 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 57: Measured Noise Spectrum Levels.

Location: A/F32T-9 MSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 6 Angle: 60 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	86.4	0.0	0.0			
6.3	84.8	0.0	0.0			
8	89.9	0.0	0.0	95.7	23.5	79.6
10	93.9	23.5	79.6			
12.5	96.0	32.6	84.8			
16	99.8	43.1	91.3	103.6	50.2	95.9
20	99.7	49.2	93.4			
25	99.9	55.2	95.5			
31.5	96.9	57.5	93.9	102.3	62.4	98.8
40	94.0	59.4	92.0			
50	92.6	62.4	91.3			
63	90.4	64.2	89.6	95.4	68.8	94.4
80	87.6	65.1	87.1			
100	84.4	65.3	84.1			
125	81.0	64.9	80.8	86.9	70.2	86.7
160	79.5	66.1	79.4			
200	79.3	68.4	79.3			
250	78.3	69.7	78.3	83.1	74.3	83.1
315	77.0	70.4	77.0			
400	74.4	69.6	74.4			
500	72.1	68.9	72.1	77.8	74.4	77.8
630	72.1	70.1	72.1			
800	70.6	69.8	70.6			
1000	69.4	69.4	69.4	74.5	74.3	74.5
1250	68.9	69.5	68.9			
1600	67.5	68.5	67.4			
2000	65.1	66.3	64.9	70.4	71.5	70.2
2500	63.2	64.5	62.9			
3150	60.4	61.6	59.9			
4000	56.4	57.4	55.6	62.5	63.5	61.8
5000	54.0	54.5	52.7			
6300	50.9	50.8	48.9			
8000	51.2	50.1	48.2	55.9	54.7	52.8
10000	51.1	48.6	46.7			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 106.8 dB

OASLA = 80.7 dB(A)

OASLC = 101.8 dB(C)

C-A VALUE = +21.0

LEVEL (Decibels)

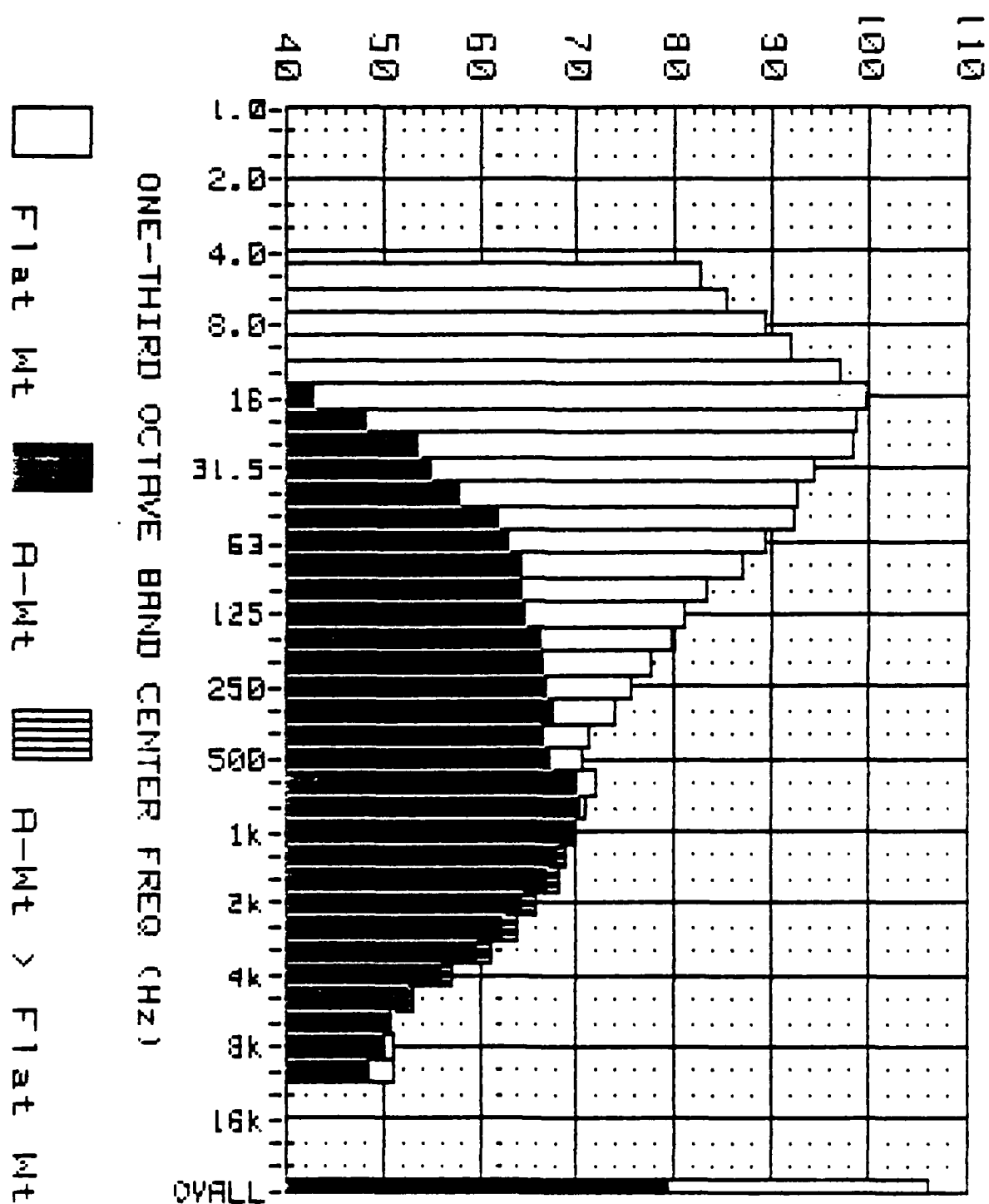


Figure 58: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 7 Angle: 70 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 58: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 7 Angle: 70 Degrees; Distance: 100 Meters

Engine: F101; Power: Afterburner; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL <dB>	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL <dB>	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	82.6	0.0	0.0			
6.3	85.2	0.0	0.0			
8	89.1	0.0	0.0	94.3	21.6	77.6
10	91.9	21.5	77.6			
12.5	96.8	33.4	85.6			
16	99.5	42.8	91.0	103.3	49.4	95.3
20	98.8	48.2	92.5			
25	98.3	53.5	93.9			
31.5	94.3	54.8	91.2	100.5	60.6	96.9
40	92.5	57.9	90.5			
50	92.2	62.0	90.9			
63	89.1	62.9	88.3	94.7	67.9	93.7
80	86.8	64.3	86.3			
100	83.3	64.2	83.0			
125	80.8	64.7	80.6	86.3	69.9	86.1
160	79.7	66.3	79.6			
200	77.5	66.6	77.5			
250	75.5	66.9	75.5	80.7	71.8	80.7
315	74.0	67.4	74.0			
400	71.2	66.4	71.2			
500	70.5	67.3	70.5	76.0	72.9	76.0
630	71.8	69.9	71.8			
800	70.9	70.1	70.9			
1000	69.4	69.4	69.4	74.4	74.3	74.4
1250	68.4	69.0	68.4			
1600	67.2	68.2	67.1			
2000	64.5	65.7	64.3	69.9	71.1	69.8
2500	62.6	63.9	62.3			
3150	59.9	61.1	59.4			
4000	56.1	57.1	55.3	61.9	63.0	61.3
5000	52.8	53.3	51.5			
6300	50.9	50.8	48.9			
8000	51.2	50.1	48.2	55.9	54.7	52.8
10000	51.1	48.6	46.7			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 105.9 dB

OASLA = 79.7 dB(A)

OASLC = 100.5 dB(C)

C-A VALUE = +20.8

LEVEL (Decibels)

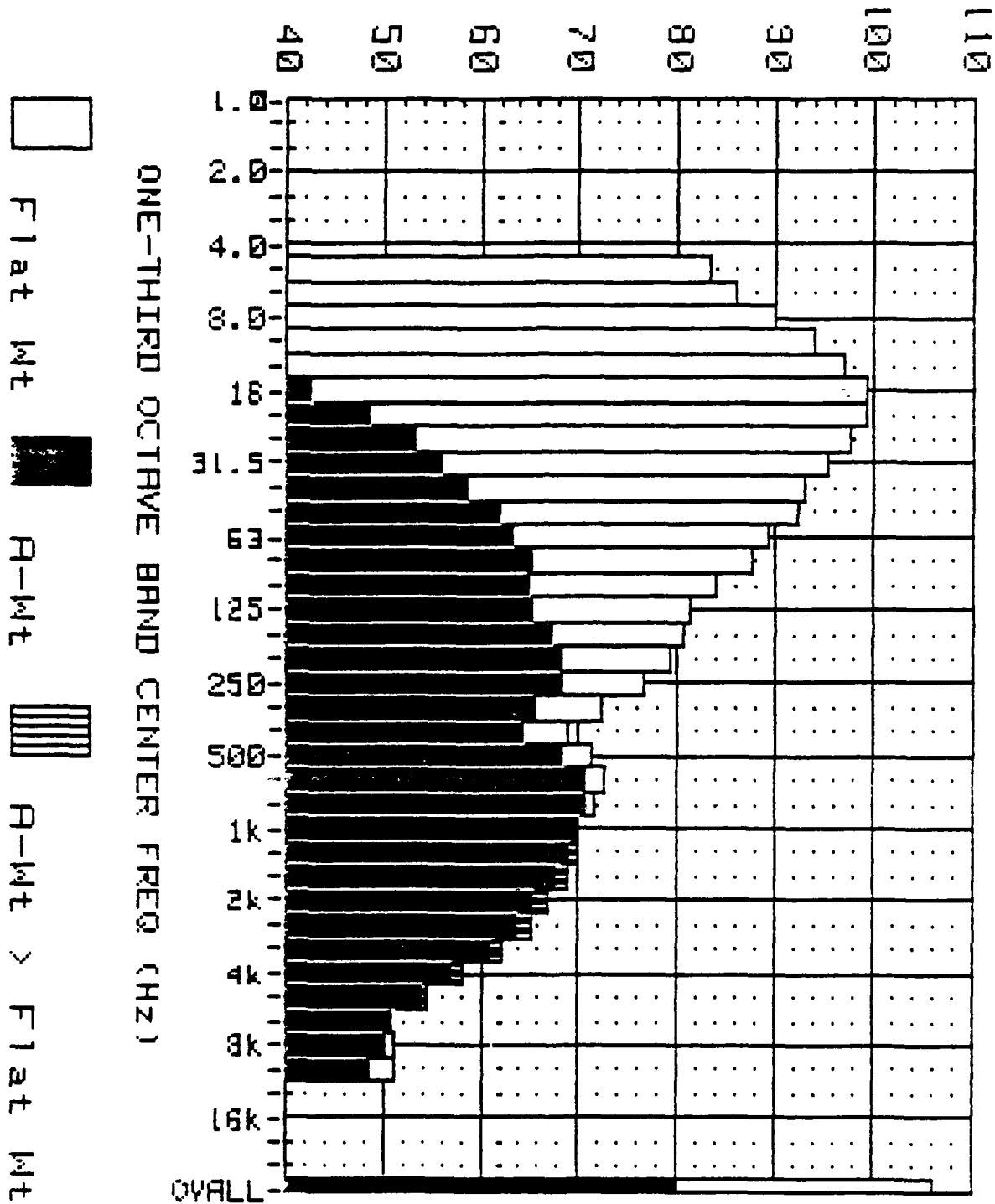


Figure 59: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 8 Angle: 80 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 59: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 8 Angle: 80 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	83.4	0.0	0.0			
6.3	85.9	0.0	0.0			
8	89.9	0.0	0.0	95.9	23.6	79.7
10	94.0	23.6	79.7			
12.5	97.0	33.6	85.8			
16	99.2	42.5	90.7	103.3	49.7	95.5
20	99.2	48.7	92.9			
25	97.8	53.0	93.3			
31.5	95.3	55.8	92.2	100.5	61.1	97.1
40	93.0	58.4	91.0			
50	92.2	62.0	90.9			
63	89.4	63.2	88.6	94.9	68.4	93.9
80	87.6	65.1	87.1			
100	83.9	64.8	83.6			
125	81.2	65.1	81.0	86.9	70.6	86.7
160	80.5	67.1	80.4			
200	79.2	68.3	79.2			
250	76.7	68.1	76.7	81.7	72.3	81.7
315	72.2	65.6	72.2			
400	69.0	64.2	69.0			
500	71.3	68.1	71.3	76.0	73.2	76.0
630	72.6	70.6	72.6			
800	71.4	70.6	71.4			
1000	69.8	69.8	69.8	75.0	74.9	75.0
1250	69.3	69.9	69.3			
1600	67.8	68.8	67.7			
2000	65.5	66.7	65.3	70.8	71.9	70.6
2500	63.8	65.1	63.5			
3150	61.1	62.3	60.6			
4000	57.3	58.3	56.5	63.1	64.2	62.5
5000	54.0	54.5	52.7			
6300	50.9	50.8	48.9			
8000	51.2	50.1	48.2	55.9	54.7	52.8
10000	51.1	48.6	46.7			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 106.1 dB

OASLA = 80.3 dB(A)

OASLC = 100.7 dB(C)

C-A VALUE = +20.5

LEVEL (Decibels)

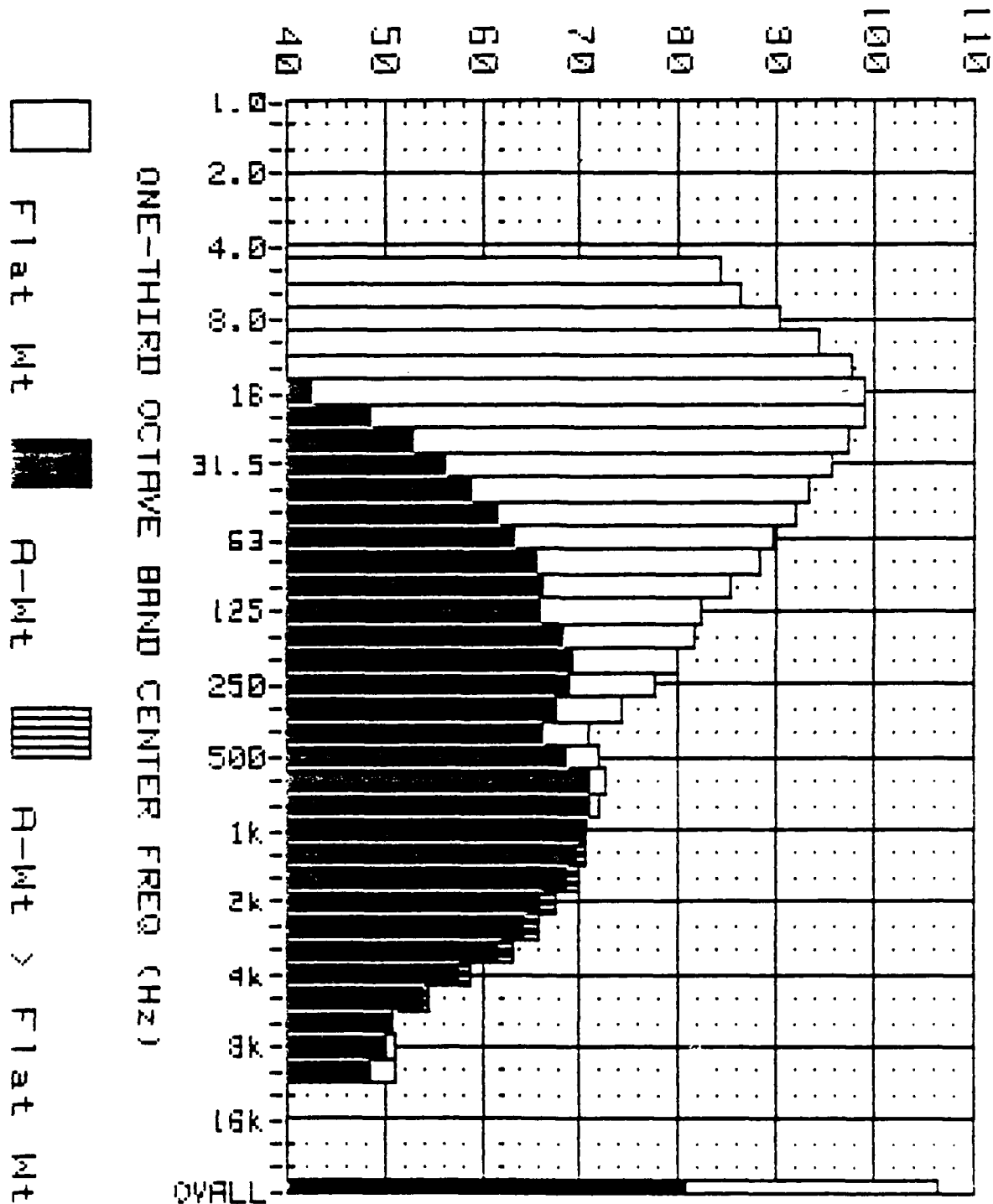


Figure 60: Measured Noise Spectrum (SPL vs A-Weight Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 9 Angle: 90 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 60: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 9 Angle: 90 Degrees; Distance: 100 Meters

Engine: F101; Power: Afterburner; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	84.3	0.0	0.0			
6.3	86.3	0.0	0.0			
8	90.1	0.0	0.0	96.1	23.8	79.9
10	94.2	23.8	79.9			
12.5	97.7	34.3	86.5			
16	99.1	42.4	90.6	103.4	49.5	95.4
20	99.0	48.5	92.7			
25	97.5	52.7	93.0			
31.5	95.5	56.1	92.5	100.5	61.3	97.1
40	93.4	58.8	91.4			
50	91.8	61.6	90.5			
63	89.5	63.3	88.7	94.9	68.6	93.9
80	88.1	65.6	87.6			
100	85.4	66.3	85.1			
125	82.1	66.0	81.9	88.1	71.7	87.9
160	81.5	68.1	81.4			
200	80.0	69.1	80.0			
250	77.4	68.8	77.4	82.6	73.3	82.5
315	74.2	67.6	74.2			
400	70.9	66.1	70.9			
500	71.8	68.6	71.8	76.6	73.7	76.6
630	72.7	70.8	72.7			
800	71.7	70.9	71.7			
1000	70.5	70.5	70.5	75.6	75.4	75.6
1250	70.0	70.6	70.0			
1600	68.8	69.8	68.7			
2000	66.3	67.5	66.1	71.7	72.8	71.5
2500	64.4	65.7	64.1			
3150	61.9	63.1	61.4			
4000	57.7	58.7	56.9	63.7	64.8	63.1
5000	54.0	54.5	52.7			
6300	50.9	50.8	48.9			
8000	51.2	50.1	48.2	55.9	54.7	52.8
10000	51.1	48.6	46.7			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 106.2 dB

OASLA = 81.0 dB(A)

OASLC = 100.8 dB(C)

C-A VALUE = +19.8

LEVEL (Decibels)

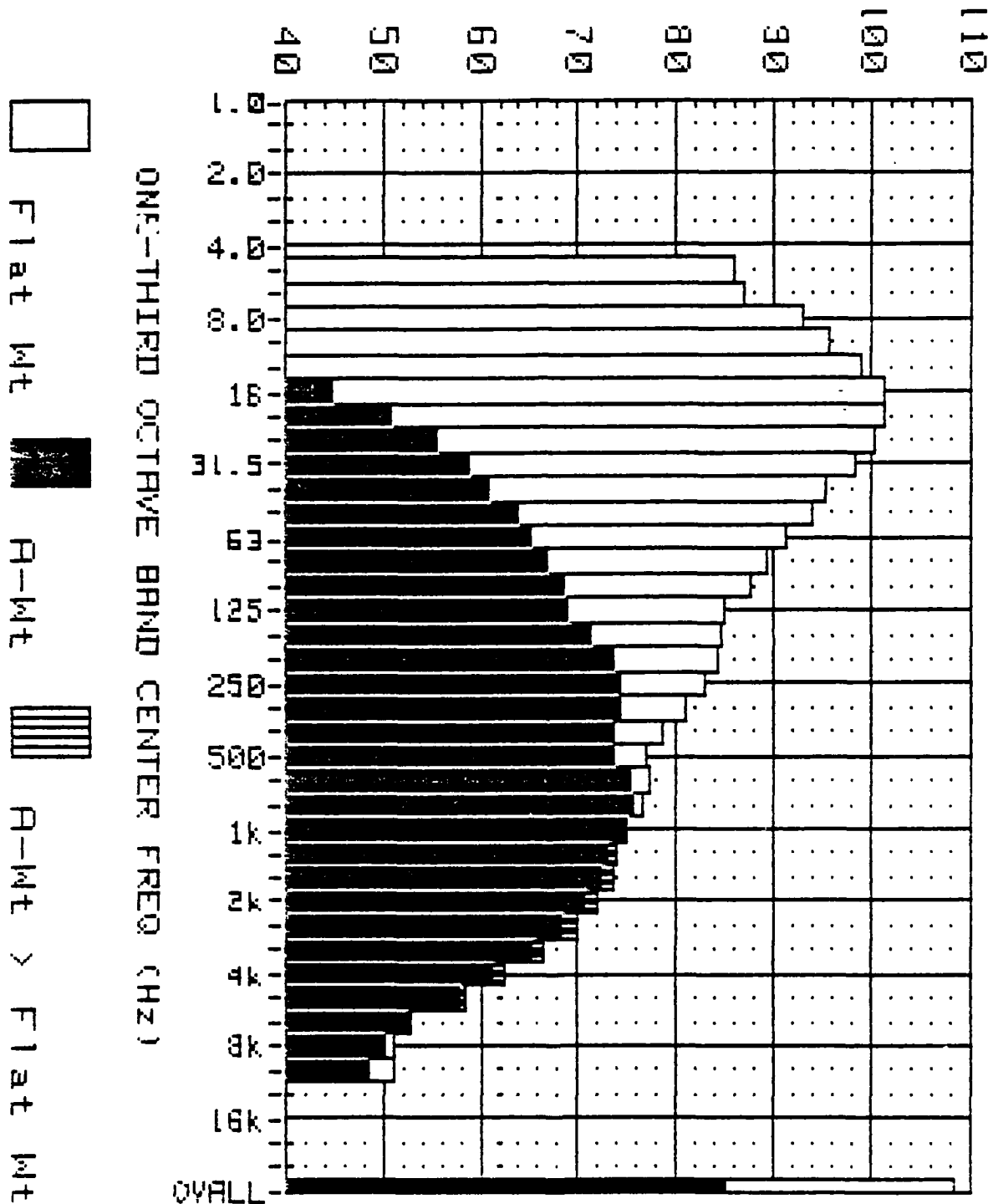


Figure 61: Measured Noise Spectrum (SPL vs A-Weight Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 10 Angle: 90 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 61: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 10 Angle: 90 Degrees; Distance: 100 Meters

Engine: F101; Power: Afterburner; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	85.9	0.0	0.0			
6.3	87.0	0.0	0.0			
8	92.9	0.0	0.0	97.8	25.2	81.3
10	95.6	25.2	81.3			
12.5	98.9	35.5	87.7			
16	101.4	44.7	92.9	105.4	51.8	97.6
20	101.3	50.8	95.1			
25	100.3	55.5	95.8			
31.5	98.2	58.8	95.2	103.1	63.6	99.7
40	95.4	60.8	93.4			
50	93.9	63.7	92.6			
63	91.3	65.1	90.5	96.7	70.2	95.7
80	89.3	66.8	88.8			
100	87.5	68.4	87.2			
125	85.0	68.9	84.8	90.6	74.4	90.4
160	84.5	71.1	84.4			
200	84.4	73.5	84.4			
250	82.9	74.3	82.9	87.7	78.8	87.7
315	80.8	74.2	80.8			
400	78.4	73.6	78.4			
500	76.9	73.7	76.9	82.3	79.0	82.3
630	77.2	75.3	77.2			
800	76.4	75.6	76.4			
1000	74.8	74.8	74.8	79.8	79.6	79.8
1250	73.4	74.0	73.4			
1600	72.7	73.7	72.6			
2000	70.7	71.9	70.5	75.7	76.9	75.6
2500	68.6	69.9	68.3			
3150	65.5	66.7	65.0			
4000	61.4	62.4	60.6	67.4	68.5	66.8
5000	58.0	58.5	56.7			
6300	52.7	52.6	50.7			
8000	51.2	50.1	48.2	56.5	55.5	53.6
10000	51.1	48.6	46.7			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 108.4 dB

OASLA = 85.4 dB(A)

OASLC = 103.2 dB(C)

C-A VALUE = +17.8

LEVEL (Decibels)

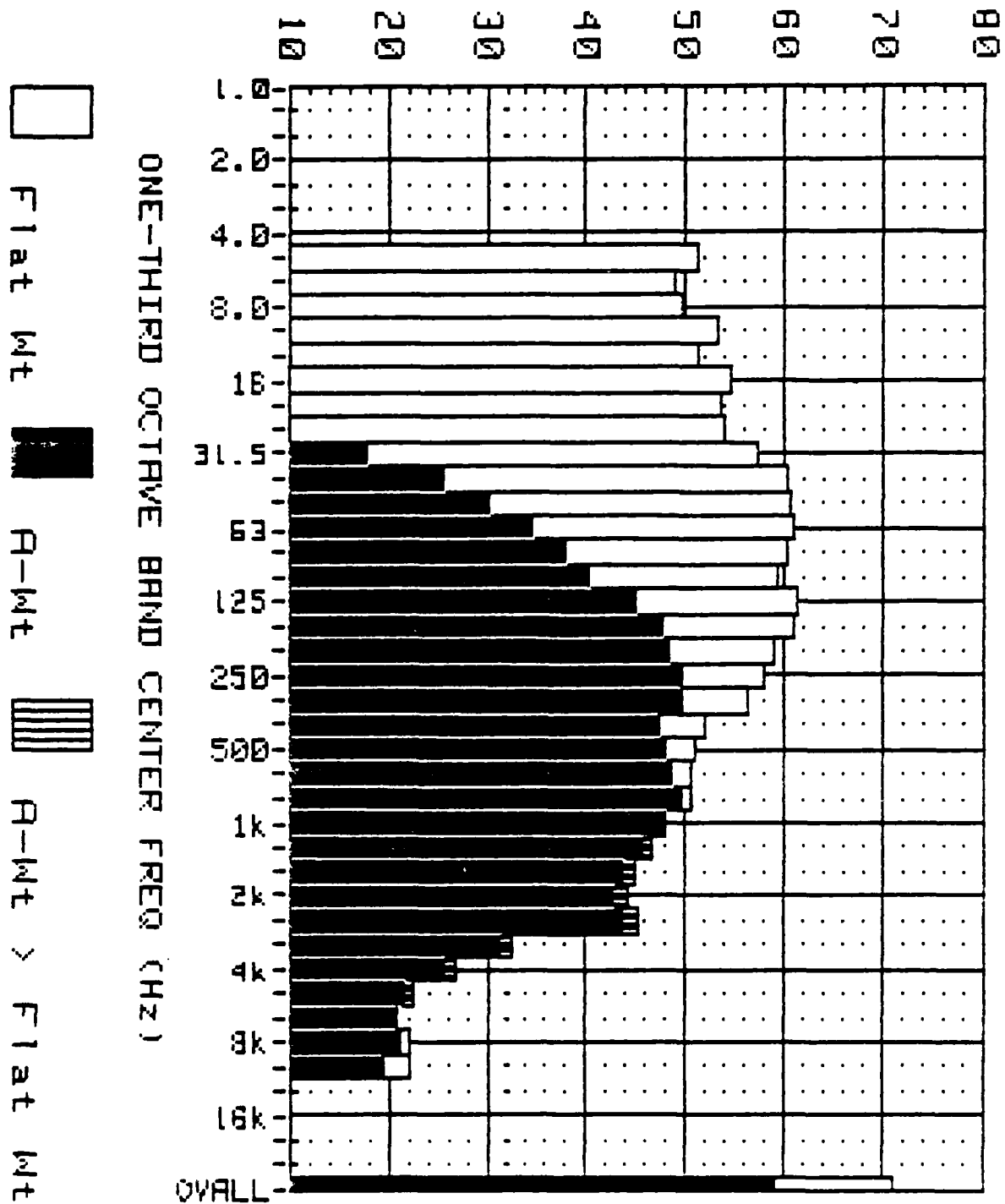


Figure 62: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 8 Angle: 80 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 62: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 8 Angle: 80 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	51.2	0.0	0.0			
6.3	48.8	0.0	0.0			
8	49.6	0.0	0.0	55.8	4.8	39.0
10	53.2	0.0	39.0			
12.5	51.1	0.0	39.9			
16	54.5	0.0	46.0	58.0	6.0	50.1
20	53.5	3.0	47.3			
25	53.9	9.2	49.5			
31.5	57.1	17.7	54.1	62.6	26.4	60.1
40	60.3	25.7	58.3			
50	60.5	30.3	59.2			
63	60.9	34.7	60.1	65.3	40.0	64.5
80	60.3	37.8	59.8			
100	59.3	40.2	59.0			
125	61.2	45.0	60.9	65.3	50.0	65.1
160	61.0	47.6	60.9			
200	59.0	48.1	59.0			
250	58.1	49.5	58.1	62.7	53.9	62.7
315	56.2	49.6	56.2			
400	52.0	47.2	52.0			
500	51.1	47.9	51.1	56.0	52.8	56.0
630	50.7	48.8	50.7			
800	50.5	49.7	50.5			
1000	47.8	47.8	47.8	53.2	52.9	53.2
1250	45.8	46.4	45.8			
1600	43.8	44.8	43.6			
2000	42.9	44.2	42.7	48.3	49.5	48.1
2500	43.9	45.2	43.6			
3150	31.4	32.6	30.9			
4000	25.9	26.9	25.1	32.8	34.0	32.2
5000	21.9	22.4	20.6			
6300	20.8	20.7	18.8			
8000	22.2	21.1	19.2	26.5	25.3	23.4
10000	22.0	19.5	17.6			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 70.9 dB

OASLA = 59.2 dB(A)

OASLC = 69.9 dB(C)

C-A VALUE = +10.7

LEVEL (Decibels)

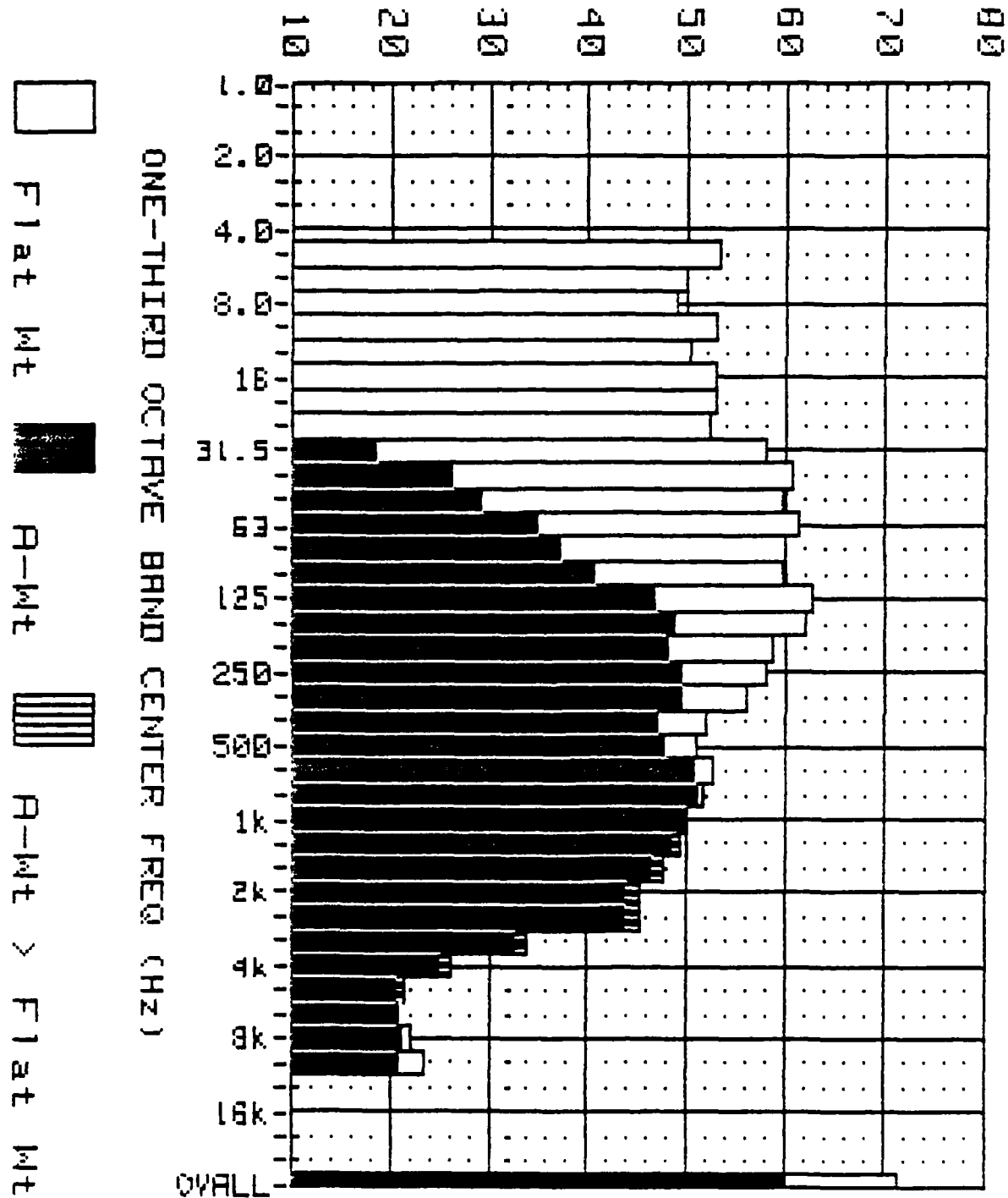


Figure 63: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 9 Angle: 90 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 63: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 9 Angle: 90 Degrees; Distance: 100 Meters

Engine: F101; Power: Afterburner; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	53.3	0.0	0.0			
6.3	50.0	0.0	0.0			
8	48.9	0.0	0.0	55.7	4.8	38.6
10	52.8	0.0	38.5			
12.5	50.4	0.0	39.2			
16	52.8	0.0	44.4	57.0	5.7	49.2
20	53.0	2.5	46.8			
25	52.2	7.5	47.8			
31.5	57.8	18.4	54.8	62.9	26.9	60.5
40	60.8	26.2	58.8			
50	59.5	29.3	58.2			
63	61.2	35.0	60.4	65.0	39.7	64.2
80	59.9	37.3	59.4			
100	59.6	40.5	59.3			
125	62.6	46.5	62.4	66.3	51.0	66.1
160	62.0	48.6	61.9			
200	58.7	47.8	58.7			
250	57.9	49.2	57.9	62.4	53.6	62.4
315	56.0	49.4	56.0			
400	51.8	47.0	51.8			
500	51.0	47.8	51.0	56.6	53.6	56.6
630	52.7	50.8	52.7			
800	51.6	50.8	51.6			
1000	49.7	49.7	49.7	54.9	54.8	54.9
1250	48.7	49.3	48.7			
1600	46.6	47.6	46.5			
2000	43.9	45.2	43.7	49.8	51.0	49.7
2500	44.0	45.3	43.7			
3150	32.7	33.9	32.2			
4000	25.3	26.3	24.5	33.7	34.8	33.1
5000	20.9	21.4	19.6			
6300	20.8	20.7	18.8			
8000	22.2	21.1	19.2	27.0	25.7	23.8
10000	23.4	20.9	19.0			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 71.2 dB

OASLA = 60.1 dB(A)

OASLC = 70.2 dB(C)

C-A VALUE = +10.1

LEVEL (Decibels)

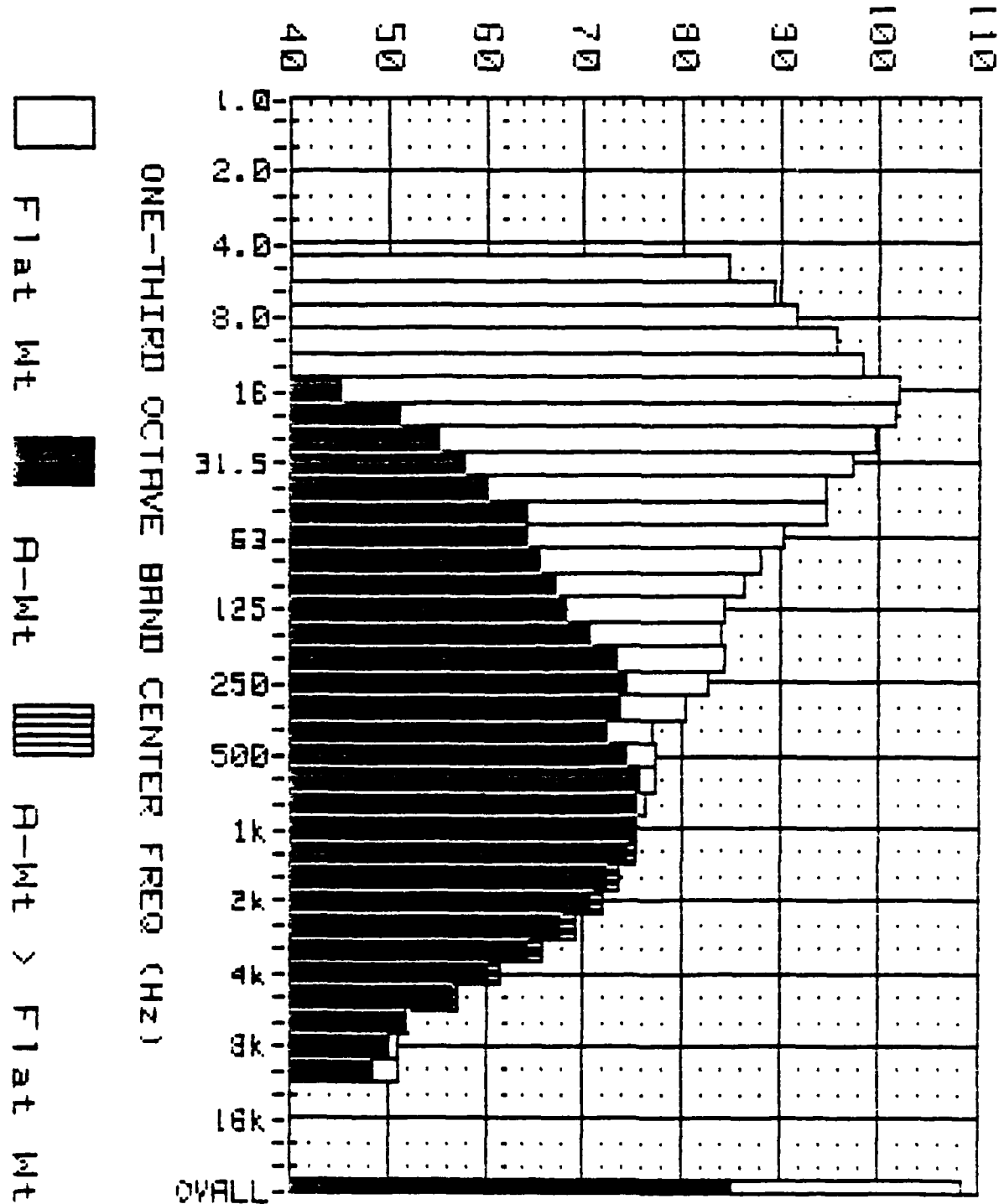


Figure 64: Measured Noise Spectrum (SPL vs A-Weight Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 13 R Angle: 120 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 64: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 13 R Angle: 120 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	84.7	0.0	0.0			
6.3	89.1	0.0	0.0			
8	91.7	0.0	0.0	97.7	25.1	81.2
10	95.5	25.1	81.2			
12.5	98.4	35.0	87.2			
16	101.9	45.2	93.4	105.6	52.1	97.9
20	101.6	51.0	95.4			
25	99.8	55.0	95.4			
31.5	97.3	57.9	94.3	102.5	62.9	99.0
40	94.7	60.1	92.7			
50	94.6	64.4	93.3			
63	90.3	64.1	89.5	96.6	69.5	95.5
80	88.0	65.5	87.5			
100	86.4	67.3	86.1			
125	84.4	68.3	84.2	89.8	73.6	89.6
160	83.8	70.4	83.7			
200	84.2	73.3	84.2			
250	82.7	74.1	82.7	87.5	78.5	87.5
315	80.3	73.7	80.3			
400	76.9	72.1	76.9			
500	77.3	74.1	77.3	82.0	78.9	82.0
630	77.4	75.5	77.4			
800	76.1	75.3	76.1			
1000	75.3	75.3	75.3	80.1	80.0	80.1
1250	74.5	75.0	74.5			
1600	72.7	73.7	72.6			
2000	70.7	71.9	70.5	75.6	76.8	75.5
2500	67.9	69.2	67.6			
3150	64.7	65.9	64.2			
4000	60.4	61.4	59.6	66.5	67.6	65.9
5000	56.7	57.2	55.4			
6300	51.9	51.8	49.9			
8000	51.2	50.1	48.2	56.2	55.1	53.2
10000	51.1	48.6	46.7			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 108.3 dB

OASLA = 85.2 dB(A)

OASLC = 102.9 dB(C)

C-A VALUE = +17.7

LEVEL (Decibels)

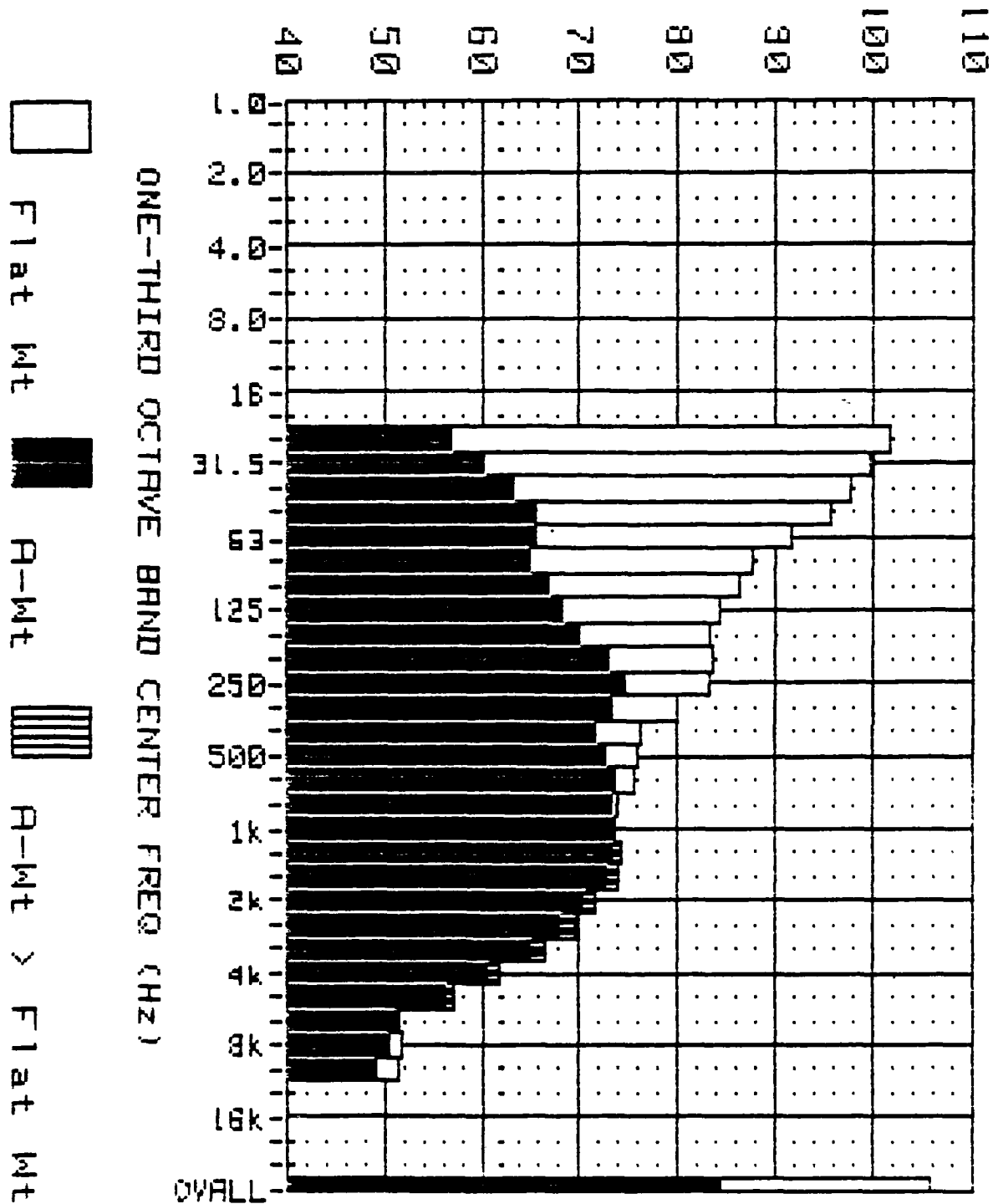


Figure 65: Measured Noise Spectrum (SPL vs A-Weight Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 14 Angle: 130 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 65: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 14 Angle: 130 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
25	101.7	57.0	97.3			
31.5	99.6	60.2	96.6	104.7	65.6	101.4
40	97.7	63.1	95.7			
50	95.7	65.5	94.4			
63	91.6	65.4	90.8	97.6	70.1	96.5
80	87.4	64.9	86.9			
100	86.1	67.0	85.8			
125	84.2	68.1	84.0	89.4	73.2	89.2
160	83.2	69.8	83.1			
200	83.7	72.8	83.7			
250	83.3	74.7	83.3	87.3	78.4	87.3
315	79.8	73.2	79.8			
400	76.3	71.5	76.3			
500	75.8	72.6	75.8	80.6	77.4	80.6
630	75.5	73.6	75.5			
800	74.0	73.2	74.0			
1000	73.7	73.7	73.7	78.6	78.5	78.6
1250	73.7	74.3	73.7			
1600	72.8	73.8	72.8			
2000	70.5	71.7	70.3	75.7	76.8	75.5
2500	68.3	69.6	68.0			
3150	65.3	66.5	64.8			
4000	61.0	62.0	60.2	67.1	68.2	66.4
5000	56.6	57.1	55.2			
6300	51.3	51.2	49.3			
8000	51.7	50.6	48.7	56.3	55.1	53.2
10000	51.5	49.0	47.1			

OVERALL LEVELS (25 - 10000 Hz)

OASPL = 105.7 dB

OASLA = 84.5 dB(A)

OASLC = 102.9 dB(C)

C-A VALUE = +18.4

LEVEL (Decibels)

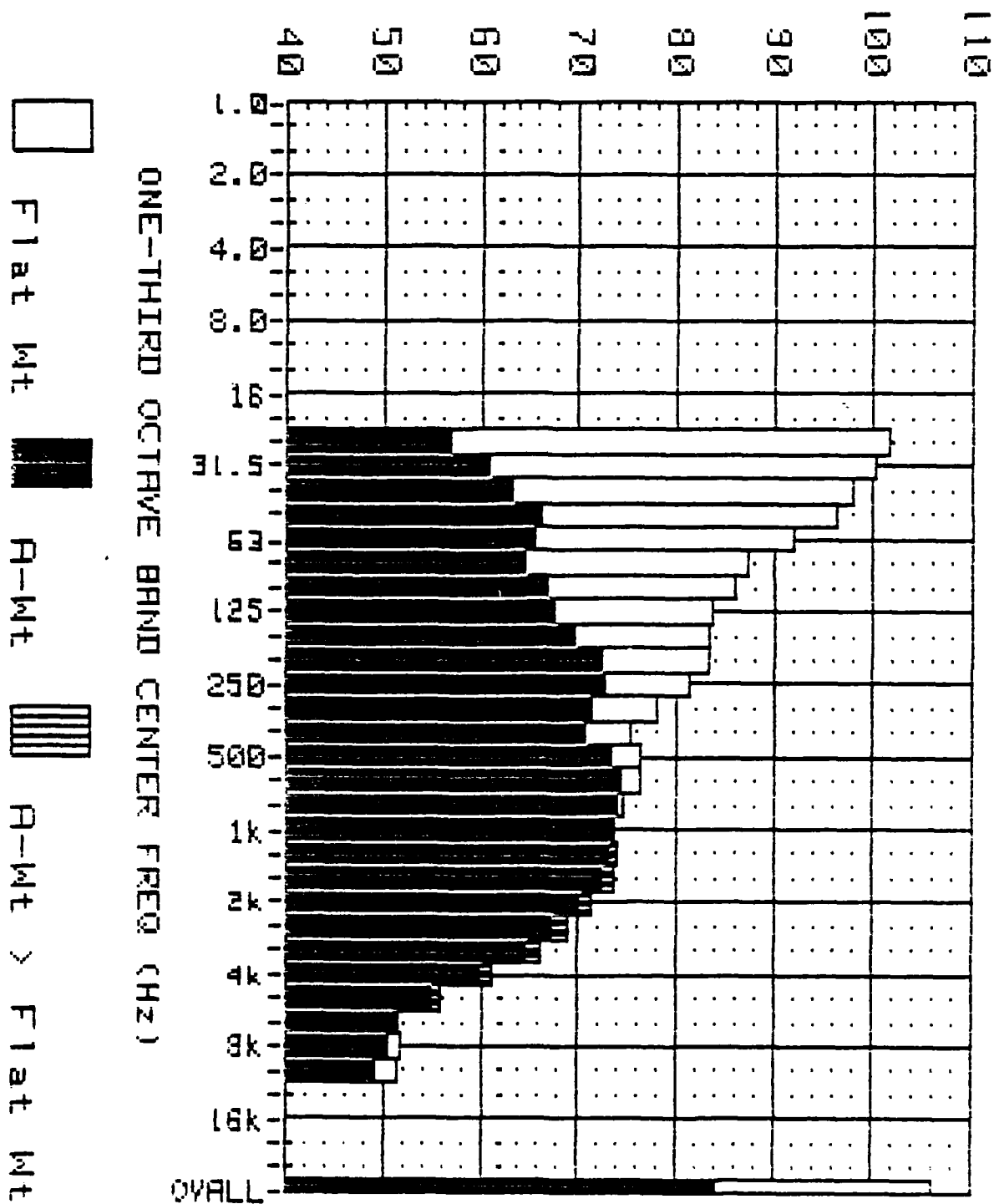


Figure 66: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 15 Angle: 140 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 66: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 15 Angle: 140 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
25	101.7	57.0	97.3			
31.5	100.4	61.0	97.4	105.0	65.9	101.7
40	97.8	63.2	95.8			
50	96.4	66.2	95.1			
63	91.8	65.6	91.0	98.1	70.3	97.0
80	87.1	64.6	86.6			
100	86.0	66.9	85.7			
125	83.7	67.6	83.5	89.2	73.0	89.0
160	83.1	69.7	83.0			
200	83.2	72.3	83.2			
250	81.2	72.6	81.2	86.0	76.9	86.0
315	77.9	71.3	77.9			
400	75.4	70.6	75.4			
500	76.3	73.1	76.3	80.7	77.7	80.7
630	76.2	74.3	76.2			
800	74.6	73.8	74.6			
1000	73.6	73.6	73.6	78.7	78.6	78.7
1250	73.3	73.9	73.3			
1600	72.7	73.7	72.6			
2000	70.1	71.3	69.9	75.4	76.5	75.2
2500	67.5	68.8	67.2			
3150	64.9	66.1	64.4			
4000	60.2	61.2	59.4	66.5	67.6	65.9
5000	55.1	55.6	53.8			
6300	51.3	51.2	49.3			
8000	51.7	50.6	48.7	56.3	55.1	53.2
10000	51.5	49.0	47.1			

OVERALL LEVELS (25 - 10000 Hz)

OASPL = 106.0 dB

OASLA = 84.2 dB(A)

OASLC = 103.2 dB(C)

C-A VALUE = +19.0

LEVEL (Decibels)

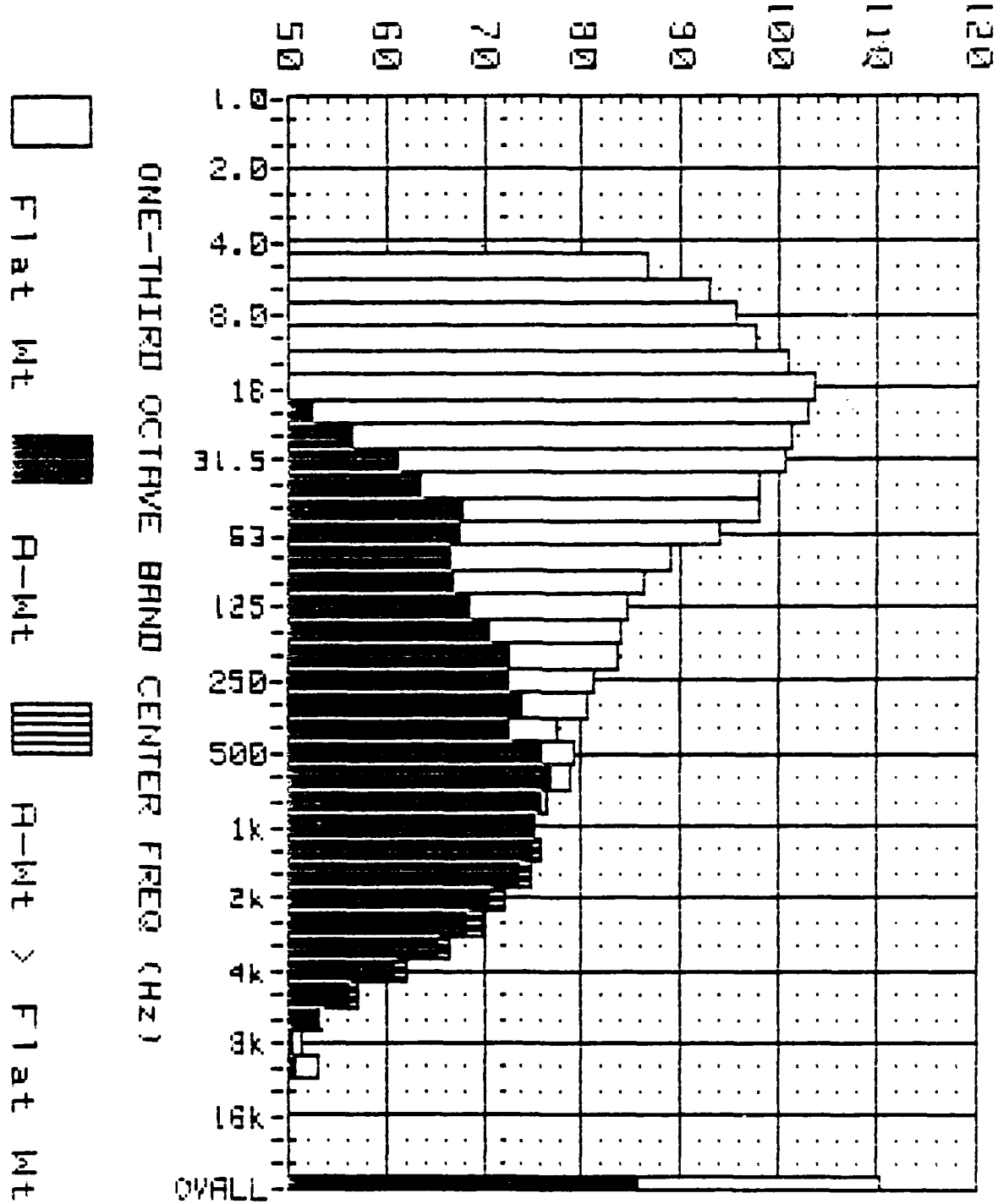


Figure 67: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32I-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 16 Angle: 150 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 67: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 16 Angle: 150 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	86.4	0.0	0.0			
6.3	92.9	0.0	0.0			
8	95.7	0.0	0.0	100.6	27.2	83.3
10	97.6	27.2	83.3			
12.5	100.9	37.5	89.7			
16	103.7	47.0	95.2	107.5	53.7	99.6
20	103.1	52.6	96.9			
25	101.2	56.5	96.8			
31.5	100.7	61.3	97.7	104.9	66.0	101.6
40	98.0	63.4	96.0			
50	98.1	67.9	96.8			
63	93.8	67.6	93.0	99.8	72.1	98.7
80	89.0	66.5	88.5			
100	86.1	66.9	85.8			
125	84.7	68.6	84.5	99.8	73.7	89.5
160	84.0	70.6	83.9			
200	83.5	72.6	83.5			
250	81.3	72.7	81.3	86.7	77.9	86.7
315	80.6	74.0	80.6			
400	77.5	72.7	77.5			
500	79.2	76.0	79.2	83.4	80.3	83.4
630	78.9	77.0	78.9			
800	76.7	75.9	76.7			
1000	75.2	75.2	75.2	80.5	80.4	80.5
1250	75.1	75.7	75.1			
1600	73.8	74.8	73.7			
2000	70.9	72.1	70.7	76.4	77.5	76.2
2500	68.6	69.9	68.3			
3150	65.4	66.6	64.9			
4000	61.2	62.2	60.4	67.2	68.3	66.6
5000	56.6	57.1	55.3			
6300	53.2	53.1	51.2			
8000	51.6	50.5	48.6	57.5	56.4	54.5
10000	53.2	50.8	48.9			

OVERALL LEVELS (<5 - 10000 Hz)

OASPL = 110.4 dB

OASLA = 85.9 dB(A)

OASLC = 105.2 dB(C)

C-A VALUE = +19.3

LEVEL (Decibels)

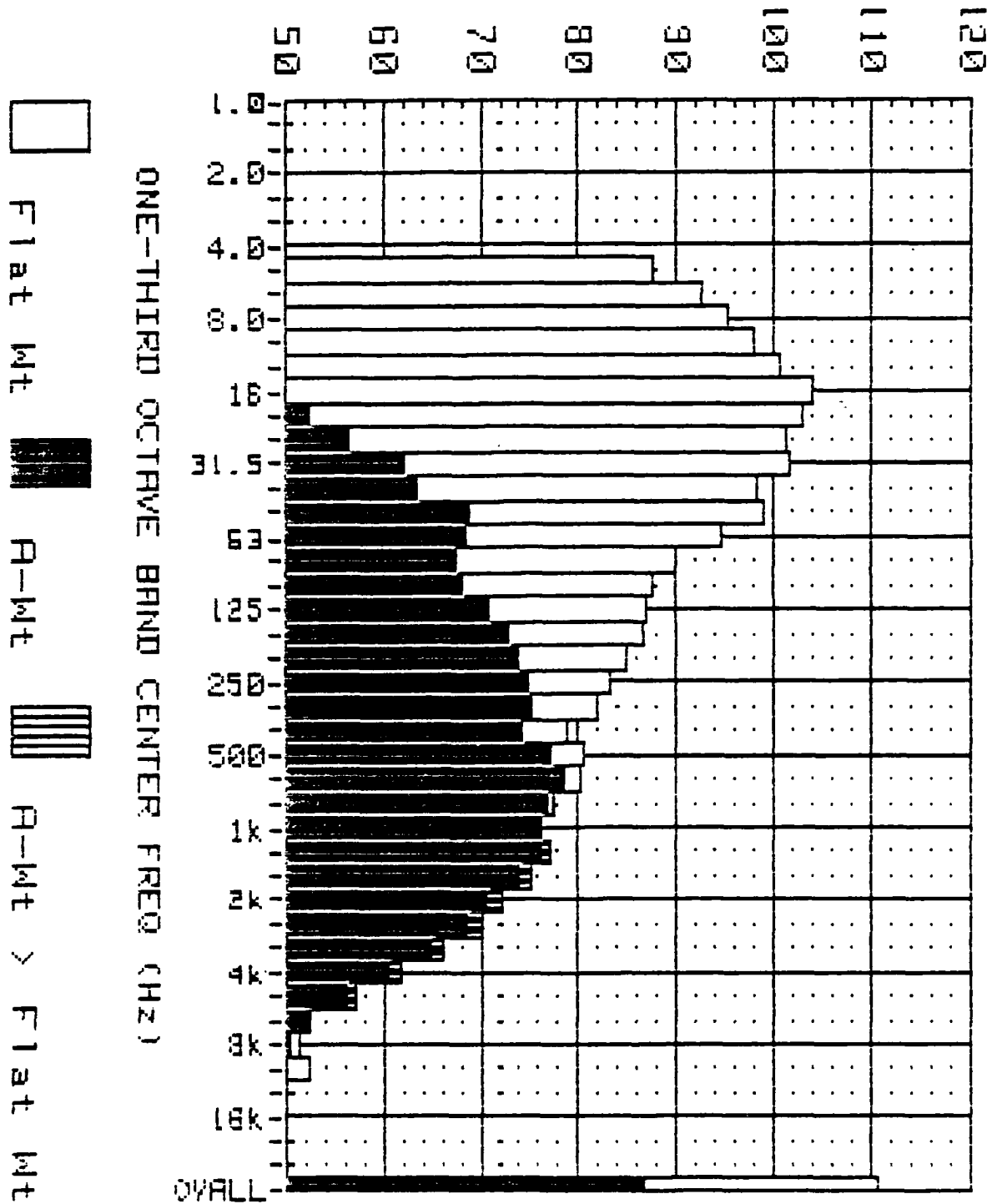


Figure 68: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 17 Angle: 160 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 68: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 17 Angle: 160 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	87.7	0.0	0.0			
6.3	92.5	0.0	0.0			
8	95.3	0.0	0.0	100.5	27.4	83.5
10	97.8	27.4	83.5			
12.5	100.7	37.3	89.5			
16	103.8	47.1	95.3	107.4	53.6	99.5
20	102.9	52.4	96.7			
25	101.3	56.6	96.9			
31.5	101.5	62.1	98.5	105.3	66.4	102.1
40	98.3	63.6	96.3			
50	99.1	68.9	97.8			
63	94.7	68.5	93.9	100.8	73.1	99.7
80	90.0	67.4	89.5			
100	87.5	68.3	87.2			
125	86.9	70.8	86.7	91.7	75.9	91.5
160	86.4	73.0	86.3			
200	84.9	74.0	84.9			
250	83.4	74.8	83.4	88.3	79.4	88.3
315	81.8	75.2	81.8			
400	79.0	74.2	79.0			
500	80.5	77.3	80.5	84.7	81.7	84.7
630	80.3	78.4	80.3			
800	77.5	76.8	77.5			
1000	76.2	76.2	76.2	81.6	81.5	81.6
1250	76.5	77.1	76.5			
1600	74.2	75.2	74.1			
2000	70.9	72.1	70.7	76.6	77.7	76.5
2500	68.8	70.1	68.4			
3150	65.0	66.2	64.5			
4000	60.7	61.7	59.9	66.8	67.9	66.2
5000	56.6	57.1	55.3			
6300	52.4	52.2	50.4			
8000	51.6	50.5	48.6	56.9	55.8	53.9
10000	52.4	49.9	48.0			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 110.6 dB

OASLA = 87.0 dB(A)

OASLC = 105.7 dB(C)

C-A VALUE = +18.6

LEVEL (Decibels)

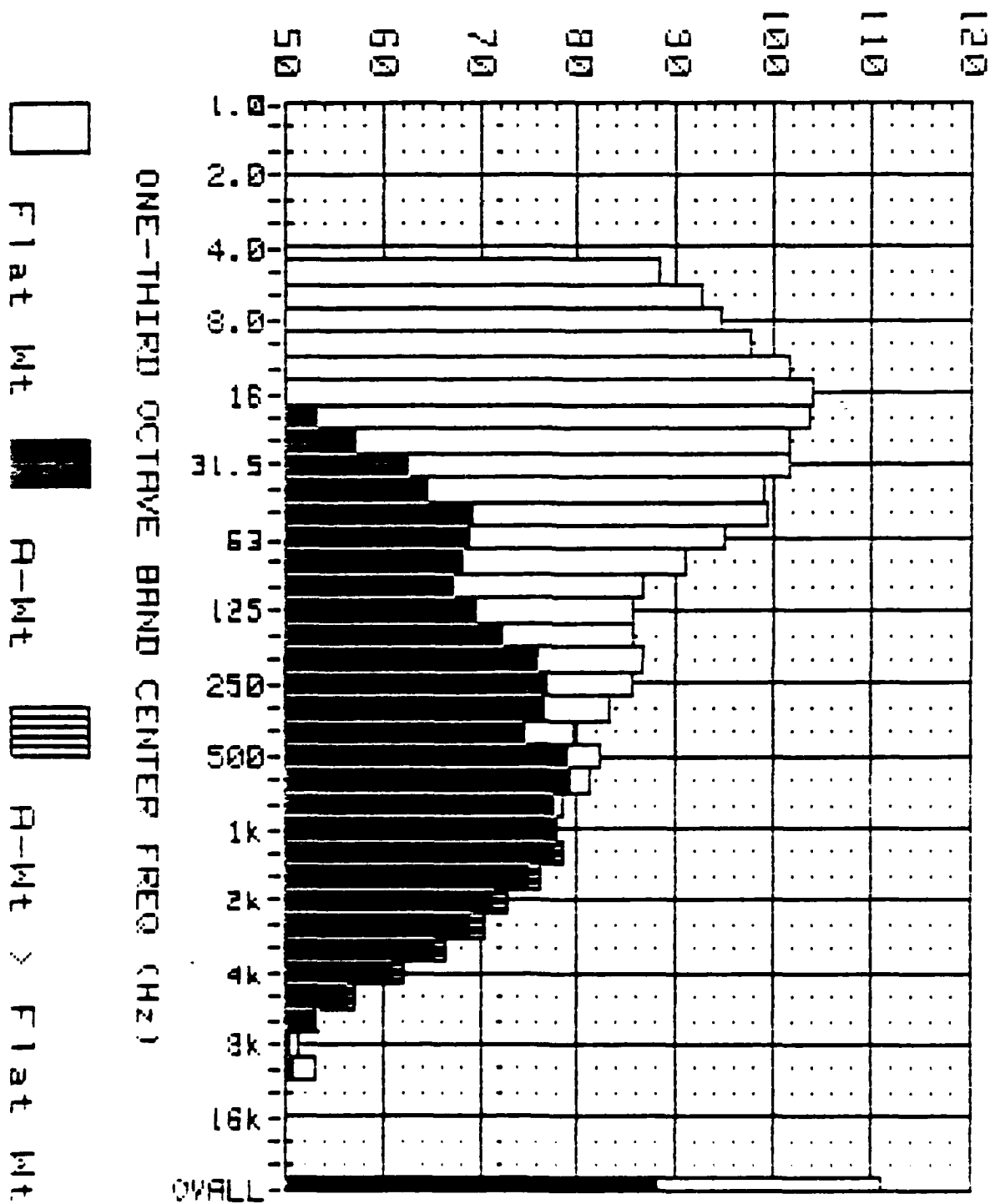


Figure 69: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 MSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 18 Angle: 170 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 69: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 18 Angle: 170 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	88.3	0.0	0.0			
6.3	92.7	0.0	0.0			
8	94.6	0.0	0.0	100.1	27.1	83.2
10	97.5	27.1	83.2			
12.5	101.4	38.1	90.2			
16	103.8	47.1	95.3	107.9	54.3	100.1
20	103.8	53.3	97.6			
25	101.8	57.1	97.4			
31.5	101.8	62.4	98.8	105.8	67.0	102.6
40	99.1	64.5	97.1			
50	99.3	69.1	98.1			
63	94.9	68.7	94.1	101.1	73.5	100.0
80	90.8	68.3	90.3			
100	86.5	67.3	86.2			
125	85.6	69.5	85.4	90.7	74.9	90.5
160	85.6	72.2	85.5			
200	86.7	75.8	86.7			
250	85.5	76.9	85.5	90.1	81.2	90.1
315	83.2	76.6	83.2			
400	79.5	74.7	79.5			
500	82.2	79.0	82.2	85.8	82.8	85.8
630	81.1	79.2	81.1			
800	78.5	77.7	78.5			
1000	77.9	77.9	77.9	82.9	82.8	82.9
1250	78.0	78.5	78.0			
1600	75.2	76.2	75.1			
2000	71.5	72.7	71.3	77.4	78.5	77.3
2500	69.1	70.4	68.9			
3150	65.4	66.6	64.9			
4000	61.0	62.0	60.2	67.1	68.2	66.5
5000	56.6	57.1	55.3			
6300	53.2	53.1	51.2			
8000	51.6	50.5	48.6	57.5	56.4	54.5
10000	53.2	50.8	48.9			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 111.0 dB

OASLA = 88.1 dB(A)

OASLC = 106.1 dB(C)

C-A VALUE = +18.0

LEVEL (Decibels)

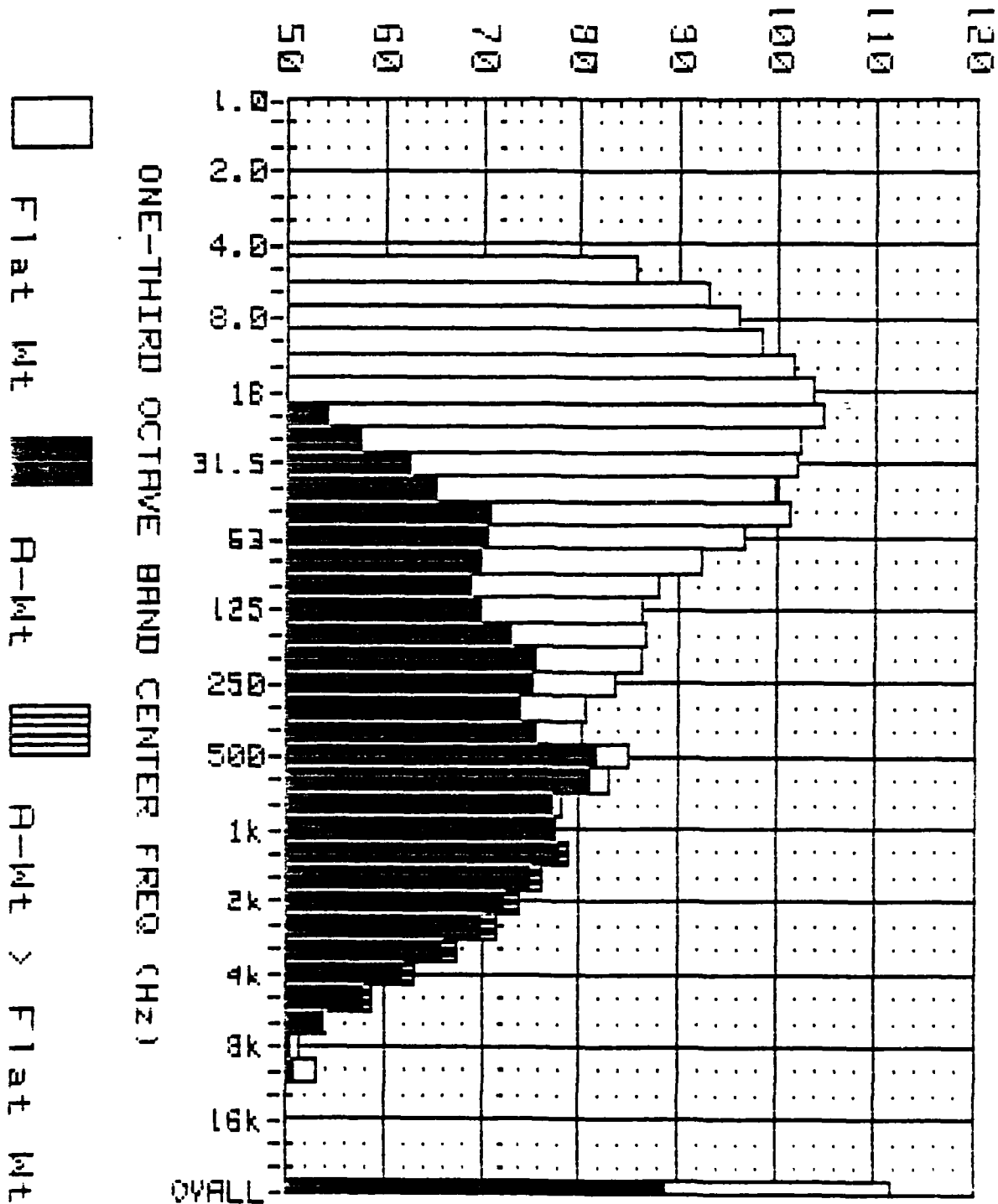


Figure 70: Measured Noise Spectrum (SPL vs A-Weight Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 19 Angle: 180 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 70: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 19 Angle: 180 Degrees; Distance: 100 Meters

Engine: F101; Power: Afterburner; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	85.7	0.0	0.0			
6.3	93.0	0.0	0.0			
8	95.9	0.0	0.0	100.9	27.7	83.8
10	98.1	27.7	83.8			
12.5	101.4	38.1	90.2			
16	103.7	47.0	95.2	108.2	54.9	100.5
20	104.6	54.1	98.4			
25	102.3	57.6	97.9			
31.5	101.9	62.5	98.9	106.2	67.4	102.9
40	99.7	65.1	97.7			
50	101.2	71.0	99.9			
63	96.6	70.4	95.8	102.9	75.2	101.7
80	92.2	69.8	91.7			
100	87.8	68.8	87.5			
125	86.1	70.0	85.9	91.6	75.7	91.4
160	86.4	73.0	86.3			
200	86.4	75.5	86.4			
250	83.6	75.0	83.6	88.9	79.6	88.9
315	80.6	74.0	80.6			
400	80.4	75.6	80.4			
500	84.9	81.7	84.9	87.8	84.9	87.8
630	82.8	80.9	82.8			
800	78.2	77.4	78.2			
1000	77.4	77.4	77.4	82.7	82.7	82.7
1250	78.3	78.9	78.3			
1600	75.3	76.3	75.2			
2000	72.6	73.8	72.4	77.9	79.0	77.8
2500	70.1	71.4	69.9			
3150	66.3	67.5	65.8			
4000	62.1	63.1	61.3	68.2	69.2	67.5
5000	58.2	58.7	56.9			
6300	53.7	53.6	51.7			
8000	51.6	50.5	48.6	57.7	56.6	54.7
10000	53.2	50.8	48.9			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 111.5 dB

OASLA = 88.7 dB(A)

OASLC = 106.9 dB(C)

C-A VALUE = +18.2

LEVEL (Decibels)

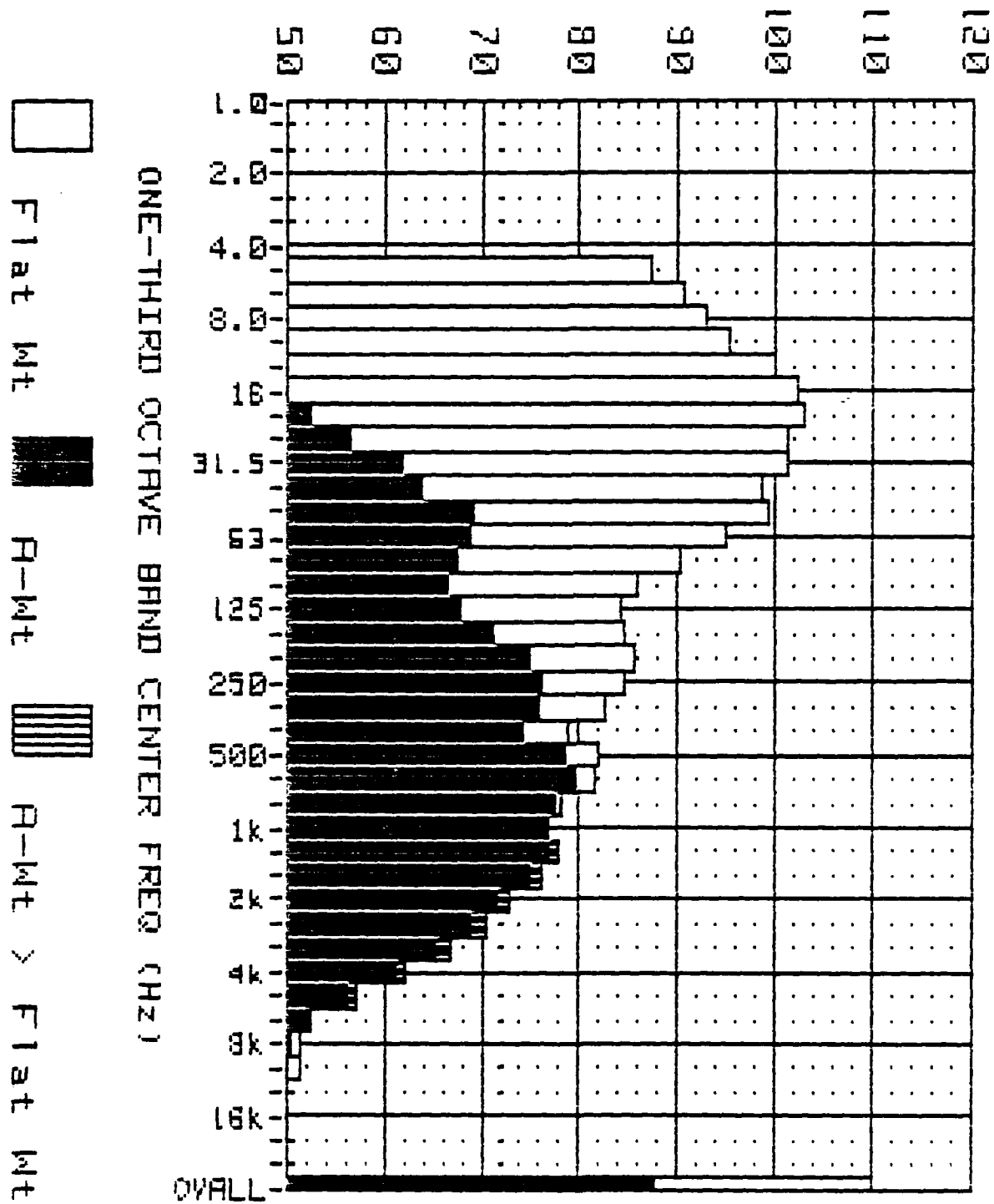


Figure 71: Measured Noise Spectrum (SPL vs A-Weight Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 20 Angle: 190 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 71: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.
 Station: 20 Angle: 190 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	87.3	0.0	0.0			
6.3	90.7	0.0	0.0			
8	93.0	0.0	0.0	98.1	24.9	81.0
10	95.3	24.9	81.0			
12.5	100.1	36.7	88.9			
16	102.2	45.5	93.7	106.6	53.3	98.9
20	102.9	52.4	96.7			
25	101.3	56.6	96.9			
31.5	101.4	62.0	98.4	105.3	66.5	102.1
40	98.5	63.9	96.5			
50	99.3	69.1	98.0			
63	95.0	68.8	94.2	101.0	73.3	99.9
80	90.1	67.6	89.6			
100	85.8	66.7	85.5			
125	84.1	68.0	83.9	89.7	73.9	89.5
160	84.7	71.3	84.6			
200	85.7	74.8	85.7			
250	84.6	76.0	84.6	89.2	80.4	89.2
315	82.6	76.0	82.6			
400	78.9	74.1	78.9			
500	81.9	78.7	81.9	85.7	82.8	85.7
630	81.4	79.5	81.4			
800	78.2	77.5	78.2			
1000	76.9	76.9	76.9	82.3	82.2	82.3
1250	77.3	77.9	77.3			
1600	75.0	76.0	75.0			
2000	71.8	73.0	71.6	77.4	78.5	77.3
2500	69.3	70.6	69.0			
3150	65.6	66.8	65.1			
4000	61.3	62.3	60.5	67.4	68.4	66.7
5000	56.6	57.1	55.3			
6300	52.4	52.2	50.4			
8000	51.6	50.5	48.6	56.6	55.5	53.6
10000	51.4	48.9	47.0			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 110.1 dB

OASLA = 87.7 dB(A)

OASLC = 105.6 dB(C)

C-A VALUE = +17.8

LEVEL (Decibels)

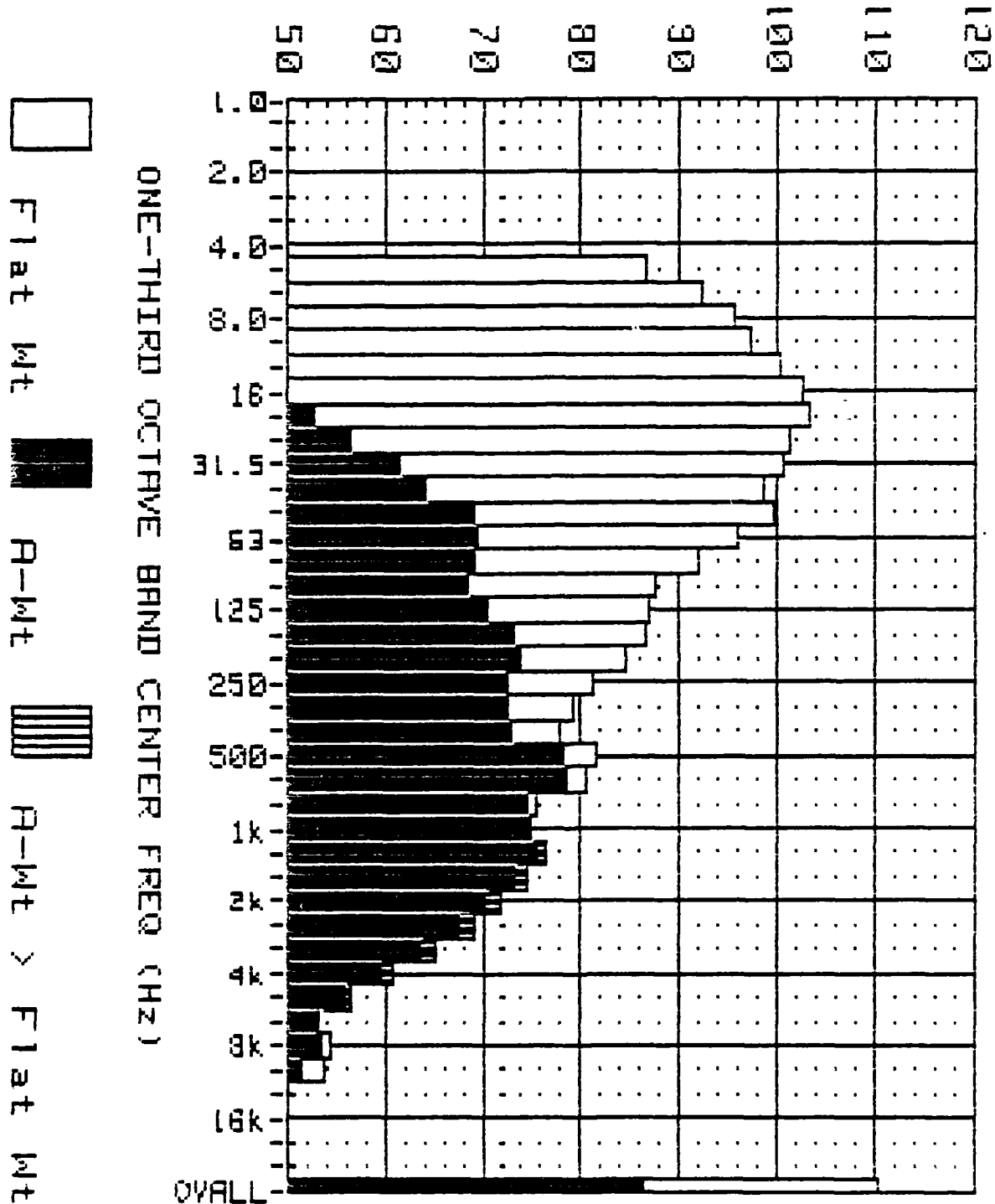


Figure 72: Measured Noise Spectrum (SPL vs A-Wt Levels).
 Location: A/F32T-9 NSS, Sky Harbor IAP, Phoenix, AZ.
 Station: 21 Angle: 200 Degrees; Distance: 100 Meters
 Engine: F101; Power: Afterburner; Temp: 55 Degrees F
 Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

TABLE 72: Measured Noise Spectrum Levels.

Location: A/F32T-9 NSS. Sky Harbor IAP. Phoenix. AZ.

Station: 21 Angle: 200 Degrees; Distance: 100 Meters

Engine: F101; Power: Afterburner; Temp: 55 Degrees F

Bar Press: 975.6 mBar; Rel Humidity: 55%; Winds: 0 Knots

FREQ (Hz)	SOUND PRESSURE LEVEL (dB)	A-WT SOUND LEVEL [dB(A)]	C-WT SOUND LEVEL [dB(C)]	OCTAVE BAND SPL (dB)	A-WT OCTAVE BAND SL [dB(A)]	C-WT OCTAVE BAND SL [dB(C)]
5	86.7	0.0	0.0			
6.3	92.4	0.0	0.0			
8	95.5	0.0	0.0	100.3	26.9	83.0
10	97.3	26.9	83.0			
12.5	100.3	36.8	89.0			
16	102.6	45.9	94.1	107.0	53.7	99.3
20	103.3	52.8	97.1			
25	101.3	56.6	96.9			
31.5	100.8	61.4	97.8	105.1	66.4	101.9
40	98.7	64.1	96.7			
50	99.6	69.4	98.3			
63	95.8	69.6	95.0	101.6	74.2	100.5
80	91.7	69.3	91.2			
100	87.7	68.6	87.4			
125	86.8	70.7	86.6	91.8	76.0	91.6
160	86.6	73.2	86.5			
200	84.7	73.8	84.7			
250	81.3	72.7	81.3	87.1	77.8	87.1
315	79.2	72.6	79.2			
400	77.8	73.0	77.8			
500	81.4	78.2	81.4	84.9	82.0	84.9
630	80.5	78.6	80.5			
800	75.3	74.5	75.3			
1000	74.7	74.7	74.7	80.1	80.1	80.1
1250	76.0	76.5	76.0			
1600	73.5	74.5	73.4			
2000	70.5	71.7	70.3	76.0	77.1	75.8
2500	67.8	69.1	67.5			
3150	63.9	65.1	63.4			
4000	59.9	60.9	59.1	65.8	66.9	65.2
5000	56.0	56.5	54.7			
6300	53.2	53.1	51.2			
8000	54.6	53.5	51.6	58.7	57.5	55.6
10000	53.8	51.3	49.4			

OVERALL LEVELS (5 - 10000 Hz)

OASPL = 110.4 dB

OASLA = 86.5 dB(A)

OASLC = 105.8 dB(C)

C-A VALUE = +19.2

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