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USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK, VOLUME 125. F-105D A--ETC(U)  
OCT 78 R G POWELL

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AMRL-TR-75-50-VOL-125

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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

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AMRL-TR-75-50  
Volume 125



**USAF BIOENVIRONMENTAL NOISE  
DATA HANDBOOK**  
Volume 125  
**F-105D Aircraft, Near and Far-Field Noise**

**LEVEL III**

October 1978

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FOR THE COMMANDER

  
HENNING E. VON GIERKE  
Director

• Biodynamics and Biomechanics Division  
Aerospace Medical Research Laboratory

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pressure levels, C-weighted and A-weighted sound levels, preferred speech interference level, perceived noise levels, and limiting times for total daily exposure of personnel with and without standard Air Force ear protectors. Far-field data measured at 19 locations are normalized to standard meteorological conditions and extrapolated from 75-8000 meters to derive sets of equal-value contours for these same seven acoustic measures as functions of angle and distance from the source. Refer to Volume 1 of this handbook, "USAF Bioenvironmental Noise Data Handbook, Vol 1: Organization, Content and Application", AMRL-TR-75-50(1) 1975, for discussion of the objective and design of the handbook, the types of data presented, measurement procedures, instrumentation, data processing, definitions of quantities, symbols, equations, applications, limitations, etc.

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## PREFACE

This report was prepared by the Biodynamic Environment Branch, Aerospace Medical Research Laboratory, under Project/Task 723107, Technology to Define and Assess Environmental Quality of Noise, from Air Force Operations. The author gratefully acknowledges Mr. John Cole for his assistance in preparing this report, Mr. Harald Hille for his assistance in acquiring the raw data, Mr. Henry Mohlman, Mr. Keith Kettler and Mr. Fred Lampley of the University of Dayton for assistance in the mechanics of data processing and Mrs. Peggy Massie for typing and assistance in preparation of graphics.

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## INTRODUCTION

The USAF F-105D is a multipurpose, adverse weather fighter-bomber aircraft powered by a J75-P-19W turbojet engine. The aircraft was manufactured by the Republic Aviation Corporation and the engine by United Aircraft, Pratt and Whitney Division.

This volume provides measured and extrapolated data defining bioacoustic environments produced by this aircraft during ground runup operations. Such data are essential to evaluate ear protection requirements, limiting personnel exposure times, voice communication capabilities, and annoyance problems associated with ground runups of the F-105D aircraft.

This volume is one of a series published by the Aerospace Medical Research Laboratory (AMRL) under the same report number (AMRL-TR-75-50) as a multi-volume handbook that quantifies the noise environments produced at flight/ground crew locations and in surrounding communities by operations of Air Force aircraft and ground support equipment. The far-field, community-type noise data in the handbook describe the noise produced during *ground operations* of aircraft, ground support equipment, and other ground-based equipment or facilities.

Volume 1 of this handbook discusses the objectives and design of the handbook, types of data presented, measurement procedures, instrumentation, data processing, definitions of quantities, symbols, equations, applications, limitations, etc. Volume 2 provides a method and data for adjusting the handbook's far-field noise data, which are for standard meteorological conditions (15 C temperature, 70% rel humidity, 0.760 meters Hg barometric pressure), to derive comparable data for other meteorological conditions. *Refer to Volumes 1 and 2* (references 1 and 2) for such information because it is not repeated in other handbook volumes.

A cumulative index lists those aerospace systems contained in the handbook, and identifies the specific volumes containing each type of environmental noise data available (i.e., inflight/flight crew and passenger noise, near-field ground crew noise, far-field/community noise). Volume numbers are assigned sequentially as individual volumes are published. This index is periodically updated as individual volumes are published and is available upon request from AMRL/BBE, Wright-Patterson AFB, OH 45433. Organizations on the distribution list for the handbook will automatically receive a copy of each updated index.

Direct any questions concerning the technical data in this report and other handbook volumes to: AMRL/BBE, Wright-Patterson AFB, OH 45433; AUTOVON 78-53675 or 78-53664; Commercial (513) 255-3675 or (513) 255-3664.

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1. Cole, John N., *USAF Bioenvironmental Noise Data Handbook, Volume 1: Organization, Content and Application*, AMRL-TR-75-50 (1), Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, Ohio, 1975
  2. Cole, John N., *USAF Bioenvironmental Noise Data Handbook Volume 2: Procedure to Evaluate Effects of Non-standard Meteorological Conditions on Far-Field Noise*, AMRL-TR-75-50 (2), AMRL, WPAFB, OH, 1975

## NEAR-FIELD NOISE

### MEASUREMENTS

AMRL acquired near-field noise data on the F-105D aircraft during ground runup operations of its turbojet engine. For these tests, the aircraft was located on a concrete apron at Carswell AFB TX. Table 1 gives the surface meteorological conditions and the engine power conditions. The ground-crew chief selected power conditions and near-field locations generally used during routine maintenance or engine runup for preflight checks.

At each near-field location a test engineer randomly moved a hand-held microphone in and around each location, probing all areas where a crew member's head would normally be located. He recorded all of the noise samples on magnetic tape. During analysis of each sample, he determined the root-mean square sound pressure using a 4- or 8-second integration time to derive a power-averaged level for each location.

Figure 1 shows the eight numbered near-field locations where ground crews are usually located for maintenance and/or preflight checkout operations. Estimates of noise levels at other locations in the near-field are difficult since the noise source is spatially distributed, i.e., not a point source. The noise levels at near-field locations can vary widely depending upon relative distances from each noise source (intake noise, exhaust noise, panel resonances, internal engine noise through the engine wall, etc.).

Table 1 lists the numeric/alphabetic designators used on the data pages in this report to identify the measurement locations and test conditions. For example, the designator 1/A means ground crew location 1 and test conditions A.

### RESULTS

The measured data presented in Table 2 define the sound pressure levels (SPL) produced by the F-105D aircraft at the eight ground crew locations. This table includes the overall, 1/3 octave band, and octave band levels. From these data one can calculate the variety of measures given in Table 3 which are widely used to assess the effects of noise on personnel and their performance.

All near-field data are for the meteorological conditions at the time of test but are valid for all typical airbase meteorology because of the short sound propagation distances involved.

**TABLE 1**

**MEASUREMENT LOCATIONS AND TEST CONDITIONS  
FOR NEAR-FIELD NOISE MEASUREMENTS**

**F-105D Aircraft, Ground Runups, Carswell AFB TX  
13 June 1978  
Tail # 600513**

***Ground Crew Location***

<b>1</b>	<b>Wheel Chocks</b>
<b>2</b>	<b>Marshal</b>
<b>3</b>	<b>Pin Pull FLG</b>
<b>4</b>	<b>Trim Adjustment</b>
<b>5</b>	<b>Hot-Streak Observation</b>
<b>6</b>	<b>Engine Eyelet Observation</b>
<b>7</b>	<b>Telephone Talker</b>
<b>8</b>	<b>Telephone Talker</b>

***Aircraft Engine Operation***

<b>A</b>	<b>Idle</b>
<b>B</b>	<b>80% RPM</b>
<b>C</b>	<b>90% RPM</b>
<b>D</b>	<b>Military Power</b>

***Meteorology***

<b>Temperature</b>	<b>23.9 C</b>
<b>Bar Pressure</b>	<b>0.768 M Hg</b>
<b>Rel Humidity</b>	<b>44 %</b>
<b>Wind — Speed</b>	<b>2.6 M/Sec (5 Kts)</b>
<b>— Direction</b>	<b>030 Deg.</b>

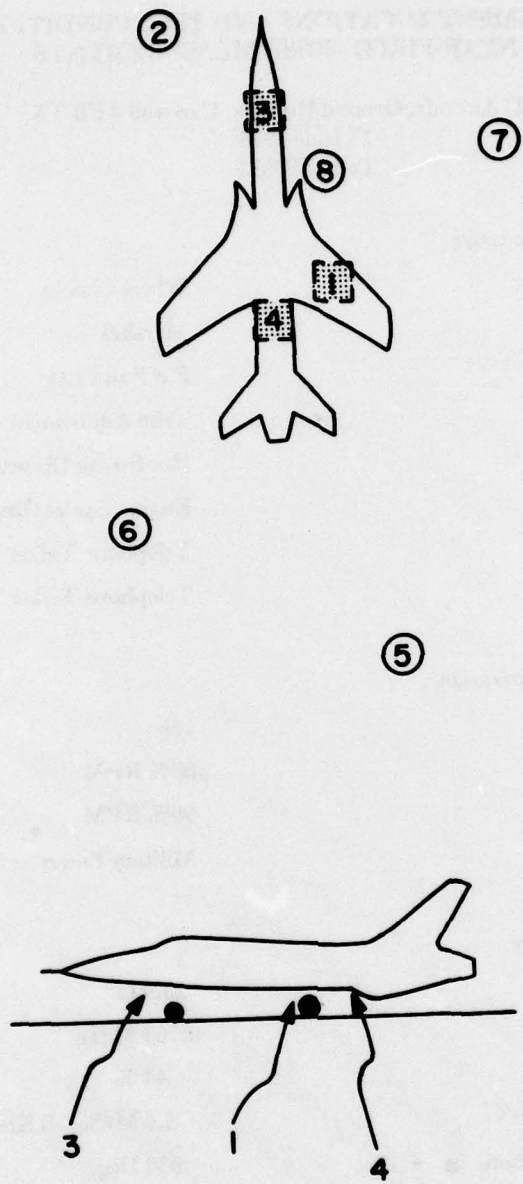


Figure 1. Near-Field Measurement Locations on a Concrete Apron at Carswell AFB TX

## FAR-FIELD NOISE

### MEASUREMENTS

AMRL acquired far-field data during a one hour test period, thus keeping similar meteorological conditions throughout the test. Figure 2 shows the ground runup pad, aircraft orientation and the 19 microphone measurement sites on a semicircle. The center of the 75 meter radius semicircle used in surveying the J75-P-19W engine was on the ground directly below the intersection of the aircraft's centerline and the plane passing through the engine's exhaust-nozzle exit. The ground runup area did not have a blast deflector; therefore, the engine's exhaust was in a "free-flow" condition.

Table 4 provides cockpit readouts of some engine characteristics (Engine Pressure Ratio, fuel flow, etc.) for each power setting used in the far-field tests. Also listed in this table are the surface meteorological conditions during data acquisition.

All microphone measurement sites are in the acoustic far-field of the source where the sound wavefronts spherically diverge and the noise source may be regarded as a point source.

A portable microphone/tape-recorder system was used to sequentially record the noise at each far-field location. The microphone was attached to a hand-held pole, pointed at the source (0° angle of incidence) and vertically scanned from 0.5 to 3 meters for a period of 5-10 seconds during data acquisition at each microphone location. These samples were then time-integrated to derive a root-mean-square sound pressure level. Vertical scanning and time-integrating together reduce anomalies frequently present in data acquired by a fixed height microphone.

### RESULTS

Table 5 lists the overall and 1/3 octave band SPL measured at the far-field locations under meteorological conditions at the time of the test. Data in all other figures and tables are based on these levels. These data were normalized to 100 meters distance and standard meteorological conditions (15 C temperature, 70% relative humidity, 0.760 meter Hg barometric pressure) and used to derive the graphic data in Figure 3 which provides a compact summary of the far-field noise characteristics of the F-105D aircraft in a standard format.

Figure 4 and Table 6 present two basic acoustic measures, the acoustic power level and the directivity index, respectively. The acoustic power level describes the power radiated by the source as a function of frequency. The directivity index is a standard acoustical engineering measure which describes the geometric way in which the source radiates this power as a function of both frequency and angle from source. These basic source measures are primarily of interest for acoustical engineers and noise generation/control specialists.

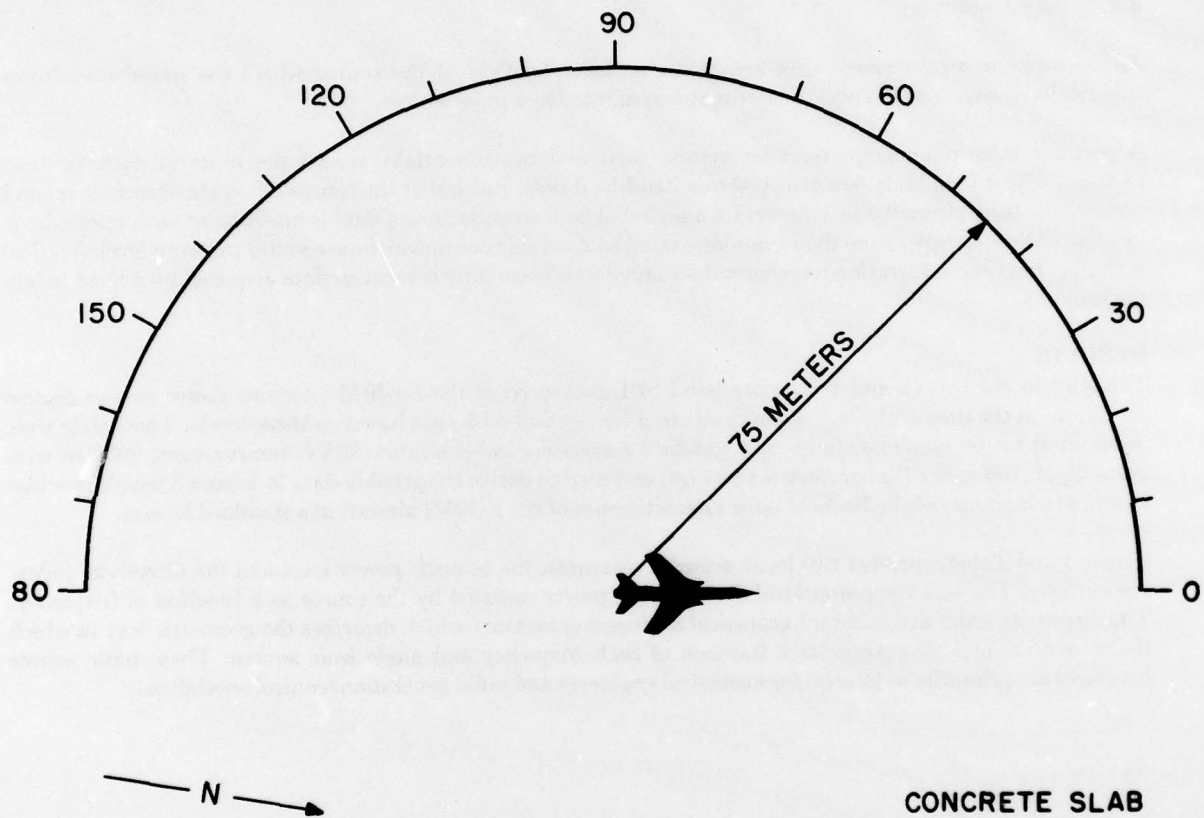


Figure 2. Far-Field Measurement Locations on Concrete Apron at Carswell AFB TX

Estimates of noise characteristics for intermediate power settings (e.g., 88% engine) can be determined as explained in Volume 1 of this handbook.

Figures 5 through 11 are sets of equal noise contours describing seven different measures of noise as a function of angle and distance from the source for standard day meteorology. They are respectively, overall sound pressure level, C-weighted sound level, A-weighted sound level, perceived noise level, speech interference level, permissible exposure times for personnel and octave band sound pressure levels.

Except for the idle power condition no data are presented at the 170 and 180 degree locations because of turbulent air flow behind the aircraft. Typical A-weighted levels for these angles are 10 to 20 dBA below those at the 160 degree location.

Test personnel performed noise surveys during quiet periods when the background noise was minimal, e.g., early in the morning when no other aircraft or engine test stands were operating. Data eliminated because they were near the background/electronic noise were generally not significant because the levels were so low (e.g., Table 5 at idle power).

Volume 2 of the handbook describes the influence of meteorology on far-field noise environments, and provides, if required, the factors necessary to adjust the handbook's standard meteorological day data.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB) 1/3 OCTAVE BAND													IDENTIFICATION:			
2													OMEGA 3-2			
NOISE SOURCE/SUBJECT: ( OPERATION:													TEST 78-013-001			
F-1050 AIRCRAFT													RUN 01			
GROUND CREW													18 JAN 79			
NEAR FIELD NOISE LEVELS (													PAGE F1			
LOCATION/CONDITION																
FREQ (HZ)	1/A	1/B	1/C	1/D	2/A	2/B	3/A	3/B	4/A	4/B	4/C	4/D				
25	83	84	86	92	76	79	82	87	88	85	87	94				
31.5	94	87	91	93	85	80	88	89	99	86	91	97				
40	88	88	92	97	82	85	84	91	93	90	92	98				
50	87	91	94	98	81	86	84	89	89	91	94	98				
63	87	94	97	101	82	88	84	93	90	95	100	103				
80	92	97	101	105	86	90	86	92	92	98	102	106				
100	90	96	101	106	87	92	85	91	94	97	102	107				
125	85	94	99	106	85	91	84	94	86	103	102	110				
160	86	94	101	107	84	89	87	95	86	96	104	110				
200	87	97	103	108	81	90	90	98	90	97	105	112				
250	87	97	105	110	82	91	95	100	86	95	105	111				
315	89	96	103	110	84	93	97	98	87	96	104	110				
400	90	97	103	108	87	91	96	100	92	99	106	110				
500	94	97	104	109	94	93	102	102	93	102	109	112				
630	94	99	105	110	93	96	102	103	91	99	109	115				
800	98	101	106	112	96	99	103	105	94	99	109	117				
1000	97	99	104	111	96	97	104	104	95	97	107	116				
1250	100	99	103	111	101	100	110	106	99	100	107	114				
1600	103	106	105	109	106	106	112	113	101	104	105	113				
2000	100	107	106	109	102	109	109	115	100	105	105	112				
2500	100	103	108	108	102	106	108	111	98	101	106	111				
3150	96	105	110	105	99	107	104	112	93	103	105	109				
4000	98	107	105	107	101	108	106	113	94	102	104	108				
5000	95	102	104	107	97	102	103	108	92	99	101	107				
6300	94	101	103	104	96	101	101	107	91	99	100	105				
8000	92	102	102	103	96	101	101	107	95	104	100	105				
10000	89	99	99	100	92	98	97	104	86	102	98	102				
OVERALL	110	115	116	122	111	116	116	121	109	114	119	125				

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

FREQ (HZ)	MEASURED SOUND PRESSURE LEVEL (DB) 1/3 OCTAVE BAND								LOCATION/CONDITION			8/B	
	5/C	6/A	6/B	6/C	7/A	7/B	7/C	7/D					
25	104	87	96	106	79	77	82	89	82	89	82	82	82
31.5	109	94	100	108	66	82	86	91	87	86	86	86	87
40	113	89	103	111	84	84	88	93	89	88	88	88	89
50	115	88	103	112	82	87	91	96	88	91	91	96	88
63	118	87	104	116	82	88	93	99	90	93	93	99	90
80	121	89	105	118	82	88	94	100	92	94	100	96	92
100	124	89	104	118	85	91	97	101	92	97	101	100	92
125	123	89	102	117	83	92	97	102	93	97	102	102	93
160	121	88	100	115	85	91	98	103	90	98	103	103	90
200	117	83	100	113	80	91	98	105	93	98	105	105	93
250	115	84	102	116	78	91	98	105	92	98	105	105	92
315	112	92	106	119	79	94	99	106	94	99	106	106	94
400	112	93	107	121	83	91	97	103	94	97	103	103	94
500	112	93	105	119	89	91	97	103	94	97	103	103	94
630	113	87	101	117	90	93	98	103	97	98	103	103	97
800	113	86	102	117	90	93	101	107	97	101	107	107	97
1000	109	87	99	116	88	93	101	109	97	101	109	109	97
1250	106	87	97	114	97	91	100	110	97	100	110	110	97
1600	105	89	96	112	96	98	99	105	103	99	105	105	103
2000	103	88	95	110	92	99	99	105	105	99	105	105	105
2500	101	88	93	109	91	95	101	104	102	101	104	104	102
3150	98	86	92	106	89	97	100	102	103	100	102	102	103
4000	96	97	92	104	90	98	97	102	104	98	102	104	104
5000	94	90	91	103	87	93	96	100	99	96	100	100	99
6300	92	89	90	101	86	93	95	98	100	95	98	98	100
8000	92	92	90	101	87	94	95	98	98	95	98	98	100
10000	89	92	88	98	84	93	93	96	98	93	96	96	98
OVERALL	130	104	116	129	103	108	112	118	113	112	118	118	113

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:											
2		OMEGA 3.2											
		TEST 76-013-001											
		RUN 01											
		18 JAN 79											
		PAGE J1											
NOISE SOURCE/SUBJECT:		OPERATIONS:											
F-105 AIRCRAFT													
GROUND CREW													
NEAR FIELD NOISE LEVELS													
LOCATION/CONDITION													
FREQ (HZ)	1/A	1/B	1/C	1/D	2/A	2/B	3/A	3/B	4/A	4/B	4/C	4/D	
31.5	95	91	95	99	67	87	91	94	100	92	95	101	
63	94	99	103	107	66	93	89	96	95	100	104	108	
125	92	100	105	111	90	95	90	99	95	105	100	114	
250	92	102	109	114	87	96	100	103	93	101	109	116	
500	98	102	109	114	97	98	106	107	97	105	113	118	
1000	103	104	109	116	103	104	112	110	102	104	113	121	
2000	106	110	111	113	109	112	115	118	105	108	110	117	
4000	101	110	112	111	104	111	109	116	98	106	108	113	
8000	97	106	106	107	100	105	104	111	97	107	104	109	
OVERALL	110	115	118	122	111	116	118	121	109	114	119	125	

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:								
2	OCTAVE BAND									
NOISE SOURCE/SUBJECT:		OPERATION:								
F-105D AIRCRAFT										
GROUND CREW										
NEAR FIELD NOISE LEVELS										
		LOCATION/CONDITION								
		5/C	6/A	6/B	6/C	7/A	7/B	7/C	7/D	8/B
FREQ (HZ)										
31.5		115	96	105	113	89	87	91	96	92
63		124	92	109	120	87	93	98	103	95
125		127	93	107	122	89	96	102	107	96
250		120	93	108	122	84	97	103	110	98
500		117	97	110	124	93	96	102	108	100
1000		115	92	104	121	98	97	105	113	102
2000		108	93	100	115	98	102	104	110	108
4000		101	98	96	109	94	101	103	106	107
6000		96	96	94	105	91	98	99	102	104
OVERALL		130	104	116	129	103	108	112	118	113

MEASURES OF HUMAN NOISE EXPOSURE											IDENTIFICATION:	
											OMEGA 3.2	
											TEST 78-013-001	
											RUN 01	
											18 JAN 79	
											PAGE M1	
NOISE SOURCE/SUBJECT: ( OPERATIONS )												
F-105 AIRCRAFT ( )												
GROUND CREW ( )												
NEAR FIELD NOISE LEVELS ( )												
LOCATION/CONDITION												
1/A	1/B	1/C	1/D	2/A	2/B	3/A	3/B	4/A	4/B	4/C	4/D	
HAZARD/PROTECTION												
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR												
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR												
MAXIMUM PERMISSIBLE TIME (T IN MINUTES) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)												
NO PROTECTION												
OASLC	109	114	118	122	111	115	118	121	108	114	119	125
OASLA	110	115	117	120	112	116	118	122	108	113	117	124
T	5	2.2	P	P	3.8	P	P	P	8	3.2	P	P
MINIMUM QPL EAR MUFFS												
OASLA*	82	88	92	97	84	88	90	94	82	89	94	99
T	679	240	120	50	480	240	170	85	679	202	85	36
AMERICAN OPTICAL 1700 EAR MUFFS												
OASLA*	76	83	87	91	77	82	84	88	77	84	88	94
T	960	571	285	143	960	679	480	240	960	480	240	85
V-51R EAR PLUGS												
OASLA*	82	86	90	95	83	86	90	92	80	85	92	99
T	679	339	170	71	571	339	170	120	960	404	120	36
AMERICAN OPTICAL 1700 EAR MUFFS PLUS V-51R EAR PLUGS												
OASLA*	68	72	76	81	70	72	77	78	67	72	78	85
T	960	960	960	807	960	960	960	960	960	960	960	404
H-133 GROUND COMMUNICATION UNIT												
OASLA*	82	87	91	93	85	89	91	94	81	86	90	96
T	679	285	143	101	404	202	143	85	807	339	170	60
COMMUNICATION												
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)												
PSIL	102	106	110	115	103	105	111	111	101	106	112	118
ANNOUNCE												
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PND8)												
TONE CORRECTION (C IN DB)												
PNLT	123	130	133	133	126	131	131	136	122	128	131	136
C	1	1	1	0	2	1	1	1	1	1	0	0

\* BASED ON CALCULATED SPL SPECTRUM UNDER PROTECTIVE DEVICE.  
P ADDITIONAL EAR PROTECTION REQUIRED.

MEASURES OF HUMAN NOISE EXPOSURE										IDENTIFICATION:	
										OMEGA 3.2	
										TEST 78-013-001	
										RUN 02	
										18 JAN 79	
										PAGE H2	
										LOCATION/CONDITION	
5/C	6/A	6/B	6/C	7/A	7/B	7/C	7/D	8/B			
HAZARD/PROTECTION											
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN OBC) AT EAR											
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN OBA) AT EAR											
MAXIMUM PERMISSIBLE TIME (T IN MINUTES) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)											
NO PROTECTION											
OASLC	130	104	115	129	103	107	111	118	112		
OASLA	120	102	110	125	103	107	111	117	113		
T	P	21	5	P	18	9	4.5	P	3.2		
MINIMUM OPL EAR MUFFS											
OASLA*	100	79	92	106	76	82	86	92	86		
T	8	960	120	11	960	679	339	120	339		
AMERICAN OPTICAL 1700 EAR MUFFS											
OASLA*	103	74	87	101	71	76	81	87	80		
T	18	960	285	25	960	960	807	285	960		
V-51R EAR PLUGS											
OASLA*	97	76	87	102	76	79	84	91	84		
T	50	960	285	21	960	960	480	143	480		
AMERICAN OPTICAL 1700 EAR MUFFS PLUS V-51R EAR PLUGS											
OASLA*	86	61	72	87	63	65	71	78	70		
T	339	960	960	285	960	960	960	960	960		
H-133 GROUND COMMUNICATION UNIT											
OASLA*	97	73	82	97	76	79	84	89	85		
T	50	960	679	50	960	960	480	202	404		
COMMUNICATION											
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)											
PSIL	113	94	105	120	97	99	104	110	103		
ANNOYANCE											
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)											
TONE CORRECTION (C IN DB)											
PNLT	134	121	123	137	117	123	125	129	128		
C	0	3	0	0	2	1	0	0	1		

\* BASED ON CALCULATED SPL SPECTRUM UNDER PROTECTIVE DEVICE.  
P ADDITIONAL EAR PROTECTION REQUIRED.

**TABLE 4**  
**TEST CONDITIONS**  
**FOR FAR-FIELD NOISE MEASUREMENTS**

**F-105D Aircraft, Ground Runups, Carswell AFB TX**  
**13 June 1978**  
**Tail # 600513**

***Aircraft Engine Operation***

<b>Idle</b>	<b>70 % RPM Core Speed</b> <b>1.17 Engine Pressure Ratio</b> <b>260 C, Exhaust Gas Temperature</b> <b>1700 LBS/HR, Fuel Flow</b>
<b>80% RPM</b>	<b>80 % RPM, NC</b> <b>1.30 EPR</b> <b>322 C, EGT</b> <b>2800 LBS/HR, FF</b>
<b>90% RPM</b>	<b>90 % RPM, NC</b> <b>1.68 EPR</b> <b>422 C, EGT</b> <b>5550 LBS/HR, FF</b>
<b>Military Power</b>	<b>102 % RPM, NC</b> <b>2.41 EPR</b> <b>618 C, EGT</b> <b>11,000 LBS/HR, FF</b>
<b>Afterburner Power</b>	<b>102 % RPM, NC</b> <b>2.41 EPR</b> <b>620 C, EGT</b> <b>11,000 LBS/HR, FF</b> <b>(Plus Afterburner)</b>

***Meteorology***

<b>Temperature</b>	<b>23.9 C</b>
<b>Bar Pressure</b>	<b>0.768 M Hg</b>
<b>Rel Humidity</b>	<b>44 %</b>
<b>Wind — Speed</b>	<b>2.6 M/Sec (5 Kts)</b>
<b>— Direction</b>	<b>030 Deg.</b>

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																		
FREQ (HZ)	ANGLE (DEGREES)	METEOROLOGY:																		
		0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	70<	74	73<	76	70<	73<	71<	68<	65<	71<	70<	67<	72<	72<	72<	72<	72<	70<	71<	68<
31.5	75	76	77	76	76	78	76	75	76	76	76	79	76	79	77	77	77	76	75	74
48	72<	73<	71<	73<	70<	73<	74<	70<	69<	73<	70<	71<	74<	73<	73<	73<	73<	72<	72<	72<
50	66<	68<	69<	71<	69<	73<	74<	66<	67<	69<	67<	68<	71<	70<	70<	70<	70<	71<	69<	71<
63																				
80																				
100																				
125	68<	69<	71<	78<	72<	73<	72<	71<	71<	71<	72<	72<	73<	73<	72<	72<	70<	70<	70<	64<
160	70	71	72	73	72	72	71	70	71	72	72	75	74	75	74	72	71	69	69	64<
200	71	72	73	73	71	70	68	68	71	72	73	74	77	78	75	73	68	67	68	62<
250	73	75	75	73	71	70	68	71	72	73	73	74	78	78	76	74	67	68	68	62<
315	72	74	73	70	69	71	70	71	72	73	73	74	78	79	75	73	70	68	68	61<
400	75	75	73	71	74	74	71	69	71	73	72	76	75	75	72	67	67	67	63	58
500	76	77	75	78	77	73	73	71	72	75	73	75	76	75	69	67	67	66	66	60
630	76	76	77	77	74	75	73	72	72	73	72	75	76	76	68	66	65	66	61	
800	73	76	78	78	77	77	74	74	73	71	73	70	73	71	67	67	66	66	60	
1000	76	77	79	79	77	77	75	74	73	72	73	69	73	71	68	68	66	66	60	
1250	85	85	83	84	84	81	80	76	75	74	78	73	74	74	70	72	72	69	63	
1600	92	89	87	88	89	85	83	77	75	74	77	73	75	75	72	70	73	71	66	
2000	91	85	86	86	86	84	79	75	73	72	75	70	73	72	69	68	70	70	63	
2500	84	81	82	82	84	80	76	73	71	70	72	68	72	71	67	67	67	66	61	
3150	83	82	82	82	82	79	76	72	69	68	70	68	72	71	67	65	65	64	58	
4000	85	84	84	85	83	81	77	73	73	72	77	77	82	80	76	71	68	65	60	
5000	80	79	78	79	79	75	71	68	66	67	70	69	75	72	68	66	64	61	56	
6300	78	78	77	78	76	73	70	69	68	67	71	72	74	72	71	66	63	60	54	
8000	76	75	74	75	74	71	66	66	65	68	70	71	74	73	69	67	63	59	53	
10000	71	71	70	71	70	65	62	61	64	66	67	72	70	66	64	60	55	49<		
OVERALL	96	94	93	94	94	92	89	86	86	88	86	89	89	86	85	84	82	79		

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																		
1/3 OCTAVE BAND		OMEGA 1.4																		
DISTANCE = 75 METERS		TEST 78-013-001																		
NOISE SOURCE/SUBJECT:		RUN 02																		
( ( OPERATION:		METEOROLOGY: = 24 C																		
( ( 80% RPM		BAR PRESS = .760 M HG																		
( ( FREE FLOW		REL HUMID = 44 %																		
( ( FAR FIELD NOISE		PAGE 2																		
FREQ (HZ)	ANGLE (DEGREES)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	67<	70<	70<	70<	70<	70<	70<	70<	69<	69<	70<	70<	71<	72<	75	79	80	84		
31.5	71<	72	72	72	72	72	71	73	72	73	72	72	74	75	79	82	86	87		
40	73<	73<	73<	74<	73<	74<	74<	76<	73<	76<	75<	76<	79	83	87	89	91			
50	72<	71<	72<	74<	74<	74<	74<	75<	75<	76<	76<	77	78	81	85	88	90	92		
63	73<	72<	73<	75<	76<	75<	75<	77<	76<	78<	77<	79	80	81	86	90	93	94		
80	76<	74<	75<	77<	76<	76<	76<	78<	78<	79<	80<	82	82	83	87	90	94	95		
100	77<	76<	78<	79<	79<	79<	79<	80<	78<	80<	81	82	83	85	87	90	95	94		
125	78	77	78	79	79	79	78	79	79	82	81	83	83	84	87	89	93	92		
160	78	77	79	79	79	79	78	80	80	82	82	84	84	86	88	90	98	90		
200	79	79	79	79	81	82	81	82	82	82	83	85	85	87	89	90	88	88		
250	81	80	80	81	82	79	81	81	83	82	85	86	88	89	90	88	87			
315	77	79	79	78	80	80	80	81	82	84	85	87	87	87	89	88	89	84		
400	80	79	79	81	83	81	83	84	85	83	85	87	87	87	89	88	89	84		
500	80	79	78	80	81	80	81	83	83	84	83	86	86	86	87	86	85	81		
630	82	80	79	80	80	78	81	81	80	81	81	84	84	86	84	83	79			
800	81	79	80	80	79	78	81	81	81	81	80	84	83	83	82	81	77			
1000	78	77	79	77	77	77	76	79	78	79	78	81	81	81	82	79	78	73		
1250	80	78	79	78	77	77	77	79	77	77	77	81	80	79	81	80	76	71		
1600	89	86	87	85	85	85	84	83	79	78	78	81	81	80	80	77	75	72		
2000	93	89	88	88	89	86	84	84	80	78	79	80	80	78	79	76	76	73		
2500	87	84	83	82	82	79	79	77	75	76	76	78	78	77	77	75	71	67		
3150	89	87	87	85	83	82	82	79	75	74	74	76	76	75	75	72	71	66		
4000	90	88	89	87	86	85	81	77	74	75	75	76	76	75	72	71	68			
5000	85	82	82	81	80	78	78	76	75	77	75	76	79	77	75	73	71	64		
6300	83	81	81	80	79	77	76	75	76	74	75	80	78	75	72	70	62			
8000	81	80	80	78	77	75	74	72	72	72	73	76	75	73	72	69	61			
10000	76	76	76	74	72	71	67	67	68	68	70	71	70	68	66	63	56			
OVERALL	98	96	96	95	94	94	94	93	94	94	96	96	97	99	100	102	102			

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)		IDENTIFICATION:																	
1/3 OCTAVE BAND		OMEGA 1.4																	
DISTANCE = 75 METERS		TEST 78-013-001																	
NOISE SOURCE/SUBJECT:		RUN 03																	
( OPERATION:		METEOROLOGY:																	
( ( 90% RPM		TEMP = 24 C																	
( ( FREE FLOW		BAR PRESS = .768 M HG																	
( ( FAR FIELD NOISE		REL HUMID = 44 %																	
		PAGE 2																	
FREQ (HZ)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	75	73<	75	75	74	76	75	79	78	78	75	78	78	83	86	89	92		
31.5	75	73	76	75	77	77	77	80	81	79	80	81	84	88	91	96	97		
40	77<	76<	76<	77<	78	79	80	83	83	83	82	84	87	92	96	98	100		
50	77	77	76	78	80	80	80	82	83	85	84	85	90	96	99	102	102		
63	77<	76<	77<	80	81	80	81	83	84	86	86	88	92	98	102	106	105		
80	80<	79<	81<	83	82	83	84	85	86	88	88	89	94	101	105	108	106		
100	83	81	85	84	85	85	86	88	88	89	89	91	94	102	108	110	108		
125	83	83	85	85	85	85	87	88	88	90	91	92	96	101	106	111	107		
160	83	83	86	86	87	86	87	89	88	90	91	94	98	102	103	110	108		
200	86	84	86	86	87	88	88	89	90	91	93	95	99	104	105	105	105		
250	88	88	89	89	89	89	90	91	92	93	94	96	99	103	105	103	104		
315	83	85	87	86	87	87	87	88	89	90	92	94	96	99	102	103	102		
400	83	86	87	87	88	88	88	89	90	92	94	96	99	101	101	101	98		
500	84	84	86	87	88	87	89	90	89	92	93	96	98	100	100	98	95		
630	84	83	86	87	88	88	88	90	90	92	92	94	97	99	98	97	94		
800	82	82	85	88	88	88	88	90	91	90	92	93	95	97	99	98	96		
1000	81	80	83	87	88	87	89	89	89	90	91	93	95	97	96	94	91		
1250	81	81	80	85	86	85	86	88	88	88	90	92	94	95	94	92	90		
1600	85	84	83	85	86	86	86	88	87	88	88	90	92	93	94	92	90		
2000	90	88	88	88	89	87	86	87	87	86	88	91	91	91	90	87	83		
2500	80	86	88	88	88	88	87	86	85	86	87	89	90	89	88	85	80		
3150	84	85	84	85	85	86	85	86	85	84	86	88	89	87	85	82	76		
4000	87	84	84	84	84	83	83	83	83	83	83	84	86	85	82	80	73		
5000	83	82	82	82	82	81	81	81	81	81	82	83	84	84	81	79	72		
6300	81	80	79	80	80	79	80	82	84	82	82	82	82	82	79	76	70		
8000	79	77	77	78	78	78	77	78	81	81	81	81	81	82	82	78	75		
10000	74	73	72	74	73	72	72	74	74	75	76	76	78	77	74	71	67		
OVERALL	98	97	99	99	100	99	100	101	101	103	104	106	109	112	115	117	116		

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE 1 MEASURED SOUND PRESSURE LEVEL (DB)																			
1/3 OCTAVE BAND																			
DISTANCE = 75 METERS																			
NOISE SOURCE/SUBJECT: ( OPERATION: ) METEOROLOGY:																			
F-1050 AIRCRAFT ( MILITARY POWER ) TEMP = 24 C																			
J75-P-19W ENGINE ( FREE FLOW ) BAR PRESS = .768 M HG																			
FAR FIELD NOISE ( ) REL HUMID = 44 %																			
IDENTIFICATION:																			
OMEGA 1.4																			
TEST 78-013-001																			
RUN 04																			
18 SEP 78																			
PAGE 2																			
ANGLE (DEGREES)																			
FREQ (HZ)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	76	76	79	80	81	80	80	80	83	83	83	85	89	94	95	99	100	100	100
31.5	81	79	80	82	81	82	84	84	85	86	86	86	91	98	100	103	105	105	105
40	82	82	83	84	84	86	88	88	90	90	91	91	96	100	106	108	107	107	107
50	84	83	83	85	86	86	87	88	89	90	92	94	99	104	109	111	108	108	108
63	85	84	86	86	88	88	88	89	90	91	92	94	96	103	108	112	114	114	114
80	86	86	87	88	88	89	90	91	92	93	95	96	100	104	111	116	117	112	112
100	89	88	90	90	91	92	92	93	95	96	98	101	105	113	118	118	114	114	114
125	90	89	91	91	93	93	94	94	96	97	99	100	102	107	113	120	115	115	115
160	92	92	93	93	94	94	96	96	98	99	100	105	109	116	117	120	116	116	116
200	93	93	93	93	94	95	96	96	98	99	102	105	110	119	117	116	117	117	117
250	91	93	94	95	95	96	96	97	100	101	103	106	111	118	119	118	118	118	118
315	89	94	94	95	94	95	98	98	99	101	104	108	112	117	120	118	116	116	116
400	89	93	93	95	94	95	98	98	99	100	103	107	110	116	117	118	114	114	114
500	91	92	94	95	94	95	98	98	99	100	103	107	110	114	116	115	111	111	111
630	90	92	94	95	94	95	98	97	99	99	102	107	109	113	115	114	110	110	110
800	89	92	95	96	96	96	99	98	100	100	102	108	109	113	115	113	108	108	108
1000	87	90	94	95	96	96	99	99	99	99	100	106	108	111	114	111	107	107	107
1250	85	88	91	93	94	95	99	98	100	99	99	106	107	110	113	110	105	105	105
1600	85	87	89	92	94	94	98	97	99	98	98	106	107	109	112	108	103	103	103
2000	83	87	89	91	92	93	96	95	97	97	98	104	105	107	110	107	100	100	100
2500	81	85	87	89	90	91	95	94	96	96	96	104	104	105	109	105	98	98	98
3150	81	85	87	89	91	91	93	93	93	95	95	102	101	105	107	102	96	96	96
4000	79	83	85	88	89	90	91	91	91	94	94	101	100	103	105	100	94	94	94
5000	76	80	83	85	86	87	91	90	93	93	91	99	99	102	104	100	95	95	95
6300	74	78	81	83	84	85	89	88	91	91	88	97	97	100	103	98	92	92	92
8000	73	76	79	81	82	82	87	87	90	90	87	96	97	100	103	99	92	92	92
10000	69	72	75	77	78	78	84	82	85	87	83	93	94	97	102	97	89	89	89
OVERALL	101	103	105	106	106	107	109	109	111	111	113	118	121	126	129	128	125	125	125

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE 1 MEASURED SOUND PRESSURE LEVEL (DB)													IDENTIFICATION:						
1/3 OCTAVE BAND																			
DISTANCE = 75 METERS													OMEGA 1.4						
NOISE SOURCE/SUBJECT:													TEST 78-013-001						
( OPERATION:													) RUN 05						
( AFTERBURNER POWER													) 18 SEP 78						
( FREE FLOW													) PAGE 2						
METEOROLOGY:																			
TEMP = 24 C																			
BAR PRESS = .768 M HG																			
REL HUMID = 44 %																			
ANGLE (DEGREES)																			
FREQ (HZ)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	91	90	91	92	92	92	92	93	94	93	93	96	100	104	106	107	109		
31.5	92	93	93	92	91	95	95	96	95	96	96	96	100	105	107	112	111	112	
40	95	94	94	94	94	94	96	97	97	98	99	103	108	112	115	115	112	112	
50	95	94	94	95	97	97	97	99	98	101	102	105	112	116	118	117	112	112	
63	94	96	95	96	97	98	98	101	100	103	103	109	115	119	120	118	113	113	
80	97	96	97	99	98	99	100	102	101	104	105	112	119	122	122	118	114	114	
100	99	99	102	101	101	101	102	103	103	106	108	113	120	125	123	120	116	116	
125	99	100	101	100	100	102	103	104	105	108	111	115	120	126	124	121	116	116	
160	101	102	101	102	103	103	103	106	105	109	111	118	122	123	124	122	116	116	
200	101	102	102	100	102	103	105	107	106	110	112	119	125	124	122	120	115	115	
250	100	102	101	103	104	105	106	108	106	111	114	120	124	124	120	118	114	114	
315	95	100	100	101	103	103	104	107	108	111	114	119	123	123	121	116	112	112	
400	97	102	101	102	103	103	106	107	108	111	115	118	122	121	119	115	110	110	
500	96	98	100	101	102	102	105	107	107	112	114	117	120	120	117	112	108	108	
630	96	98	99	101	102	102	105	107	107	111	113	116	119	118	115	111	106	106	
800	94	97	100	101	103	103	106	109	108	112	113	116	118	118	114	110	104	104	
1000	91	95	98	100	103	102	104	106	107	110	111	114	117	115	112	107	101	101	
1250	89	93	97	99	102	102	104	107	106	110	110	114	116	114	111	106	99	99	
1600	88	93	97	99	102	102	104	107	106	109	110	112	114	113	110	105	98	98	
2000	88	93	96	99	102	102	104	106	103	108	109	110	113	111	108	103	96	96	
2500	86	91	94	96	99	100	102	105	102	107	108	110	111	110	107	102	94	94	
3150	86	91	94	96	100	101	103	105	101	105	106	108	110	109	106	100	93	93	
4000	86	90	93	95	98	99	101	103	99	102	104	106	108	107	104	99	91	91	
5000	88	90	92	92	96	96	98	101	98	101	104	106	107	107	104	98	91	91	
6300	81	85	88	90	94	95	96	100	96	99	103	104	107	105	103	96	89	89	
8000	78	83	86	88	92	93	95	97	95	99	103	104	107	104	102	95	88	88	
10000	76	79	82	84	88	89	91	94	93	97	101	100	104	102	100	92	85	85	
OVERALL	110	111	112	113	115	115	117	119	118	122	124	128	133	134	132	129	125	125	

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

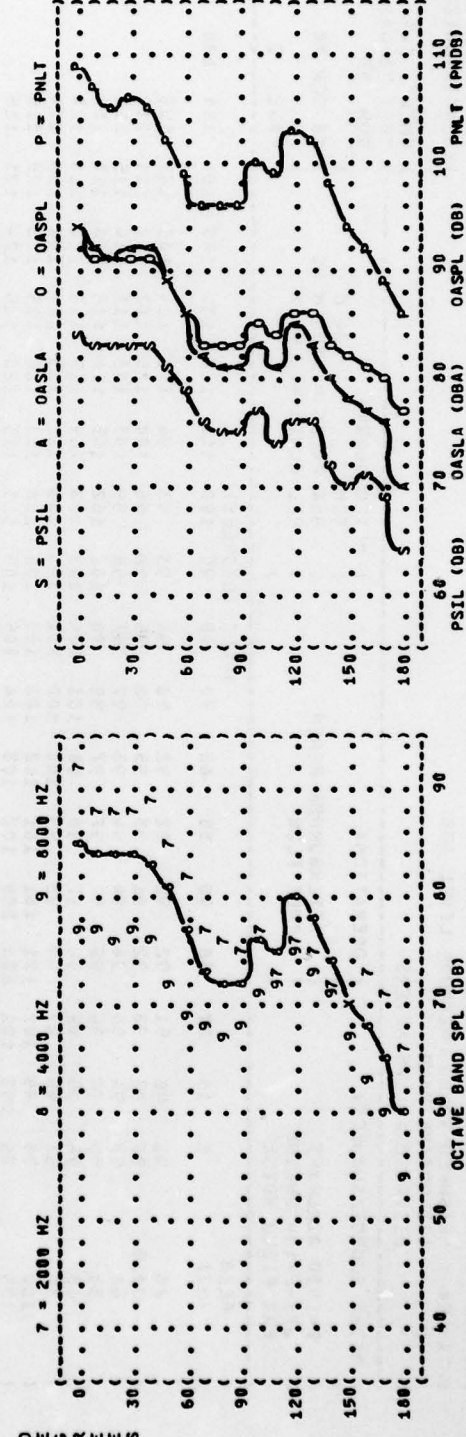
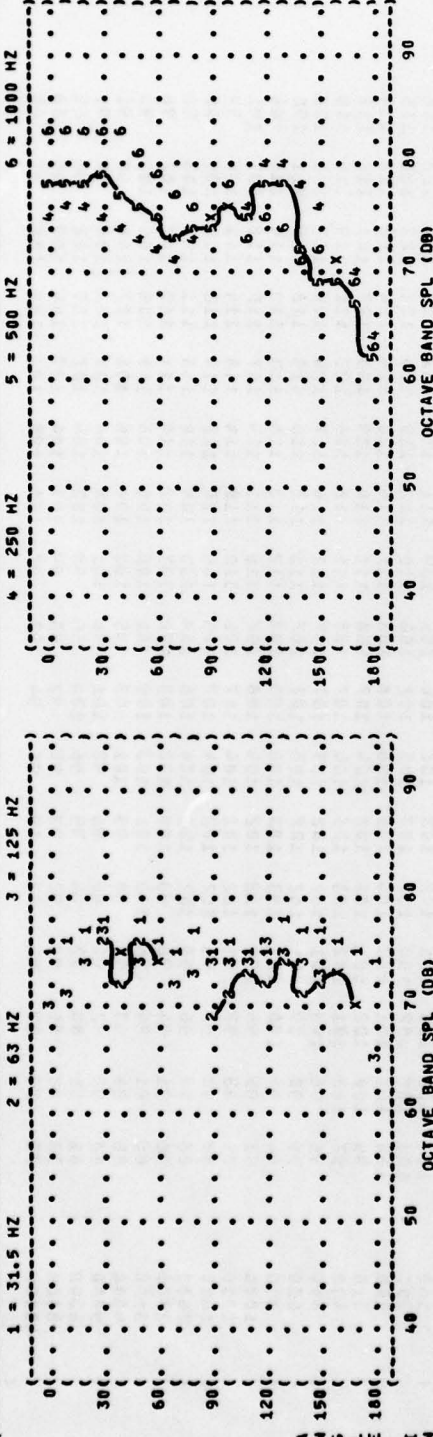
FIGURE 1: NORMALIZED FARFIELD NOISE LEVELS

3 DISTANCE = 100 METERS  
 NOISE SOURCE/SUBJECT: F-105D AIRCRAFT  
 J75-P-19H ENGINE  
 FAR FIELD NOISE

IDENTIFICATION:  
 OMEGA 1.4  
 TEST 78-013-001  
 RUN 01

METEOROLOGY 1:  
 TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %

PAGE 6



D E R E S  
 S = PSIL A = OASLA O = OASPL P = PNLT  
 PSIL (DB) OASLA (DBA) OASPL (DB) PNLT (PNDB)

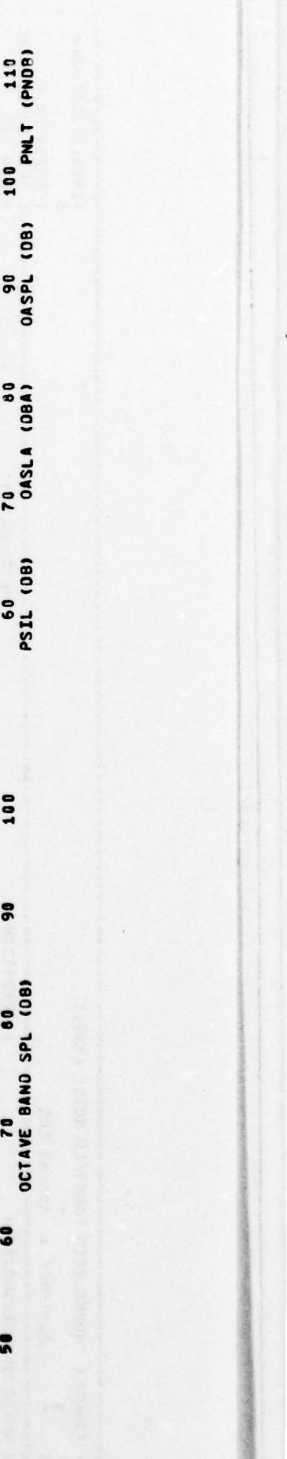
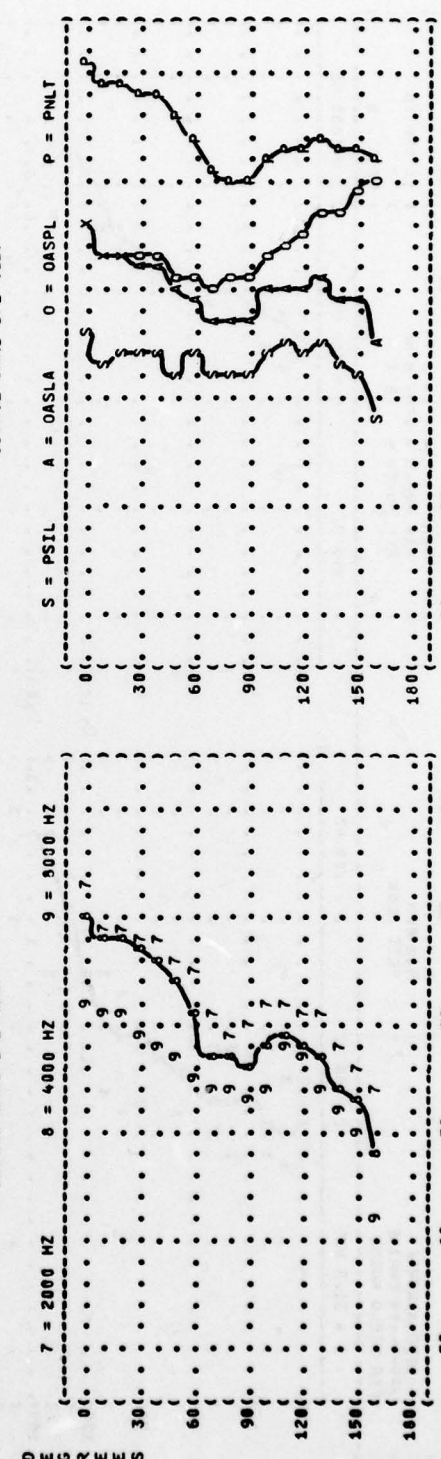
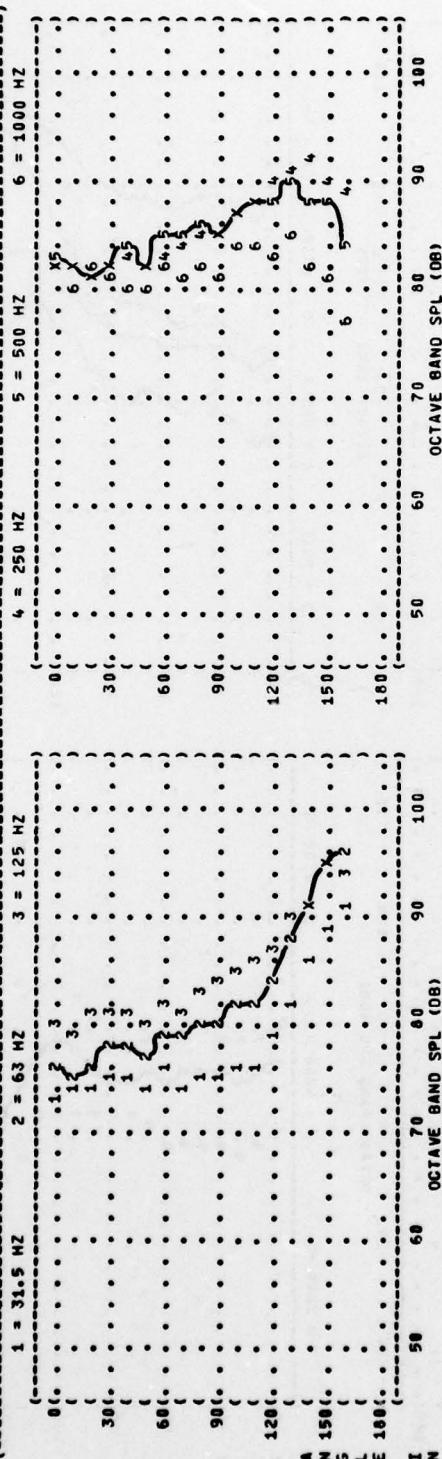
IDENTIFICATION: OMEGA 1.4  
 TEST 78-013-001  
 RUN 02

METEOROLOGY: TEMP = 15 C  
 BAR PRESS = 760 M HG  
 REL HUMID = 70 %

OPERATION: F-1050 AIRCRAFT  
 J75-P-19N ENGINE  
 FAR FIELD NOISE

NOISE SOURCE/SUBJECT: 1 = 31.5 HZ 2 = 63 HZ 3 = 125 HZ 4 = 250 HZ 5 = 500 HZ 6 = 1000 HZ

FIGURE 3 NORMALIZED FARFIELD NOISE LEVELS  
 DISTANCE = 100 METERS



IN

DE

GR

EE

SS

7 = 2000 HZ

8 = 4000 HZ

9 = 8000 HZ

PSIL (DB)

OASLA (DBA)

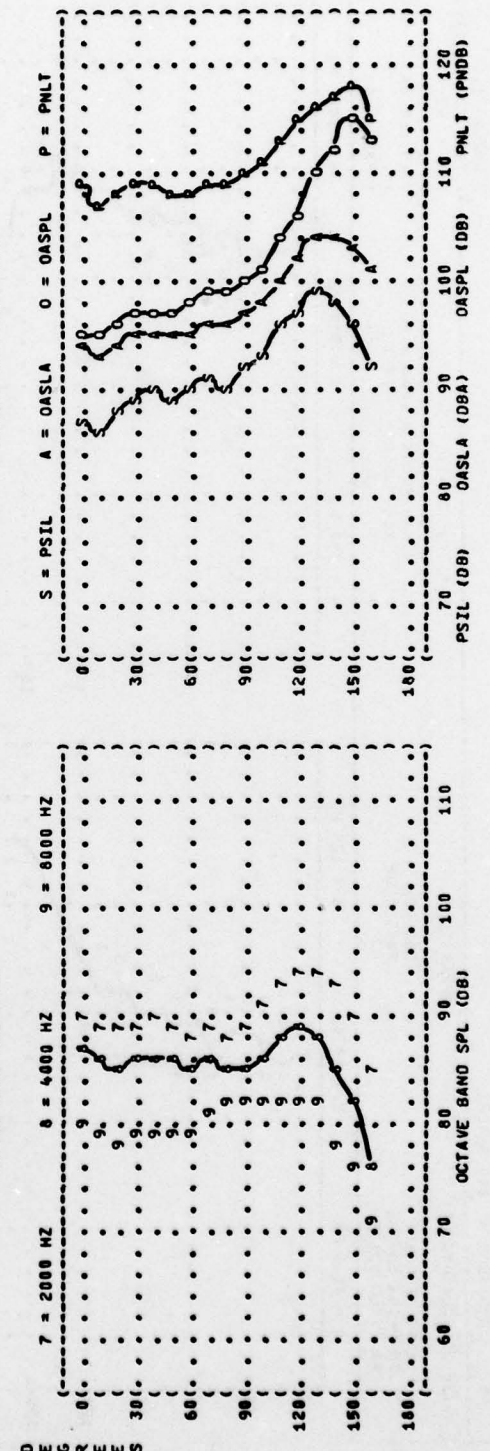
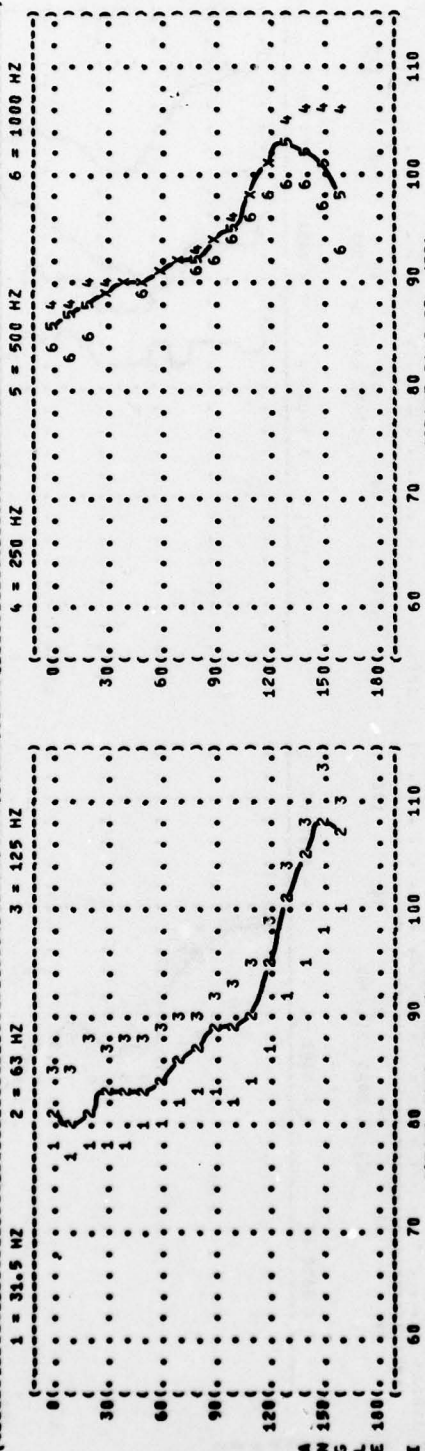
OASPL (DB)

P = PNLT

PNLT (PNDR)

FIGURE: NORMALIZED FARFIELD NOISE LEVELS

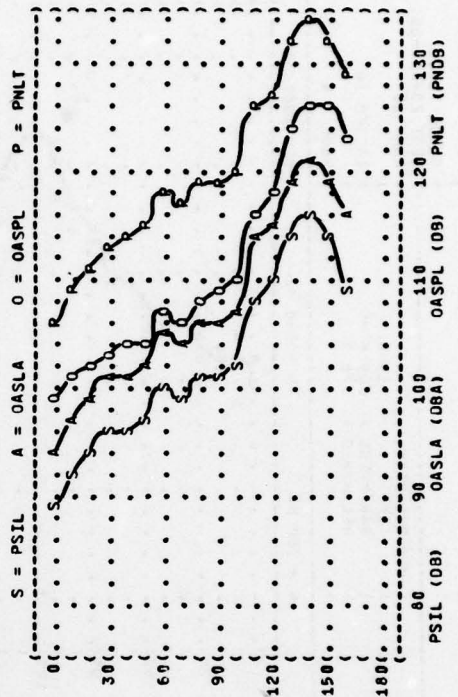
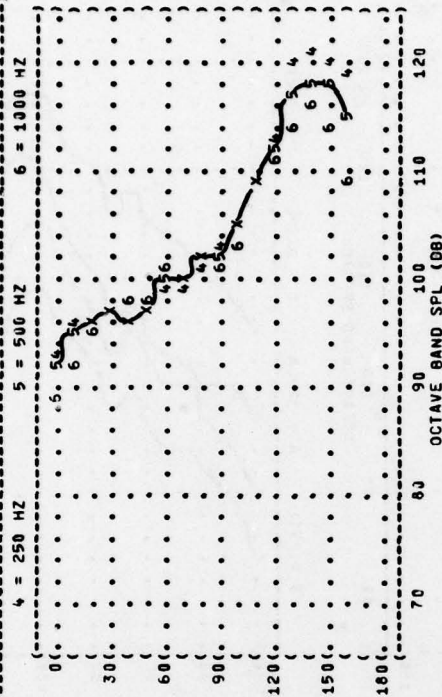
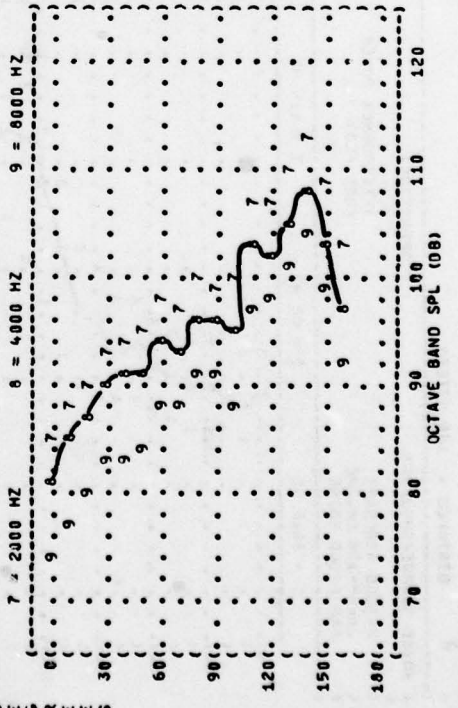
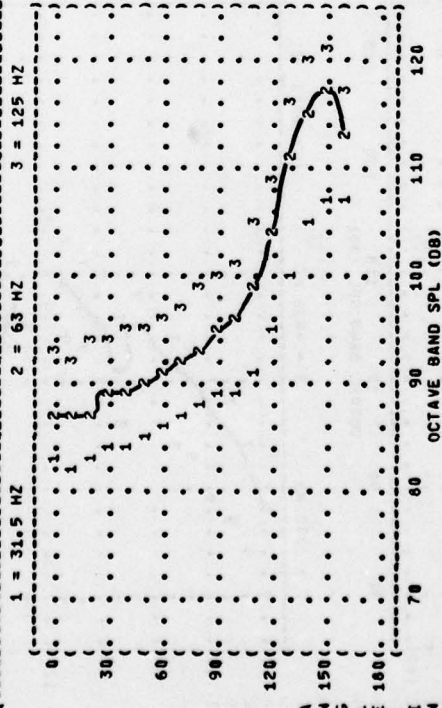
3 DISTANCE = 100 METERS  
 NOISE SOURCE/SUBJECT: F-105B AIRCRAFT  
 J75-P-15H ENGINE  
 FAR FIELD NOISE  
 METEOROLOGY: TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %  
 OPERATION: 90% RPM  
 FREE FLOW  
 IDENTIFICATION: OMEGA 1.4  
 TEST 78-013-001  
 RUN 03  
 18 SEP 78  
 PAGE 6



IDENTIFICATION: OMEGA 1.4  
 TEST 78-013-001  
 RUN 04  
 METEOROLOGY: TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %  
 PAGE 6

FIGURE 1 NORMALIZED FARFIELD NOISE LEVELS  
 DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT: F-1050 AIRCRAFT  
 J75-P-19M ENGINE  
 FAR FIELD NOISE



A M 150  
 G C  
 L E 100  
 I N

D E  
 G R  
 E E  
 S

FIGURE: NORMALIZED FARFIELD NOISE LEVELS

3 DISTANCE = 100 METERS  
 NOISE SOURCE/SUBJECT: F-105D AIRCRAFT  
 J75-P-19W ENGINE  
 FAR FIELD NOISE

IDENTIFICATION: OMEGA 1.4  
 TEST 78-013-001  
 RUN 05  
 10 SEP 78  
 PAGE 6

METEOROLOGY: TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %

OPERATION: AFTERBURNER POWER  
 FREE FLOW

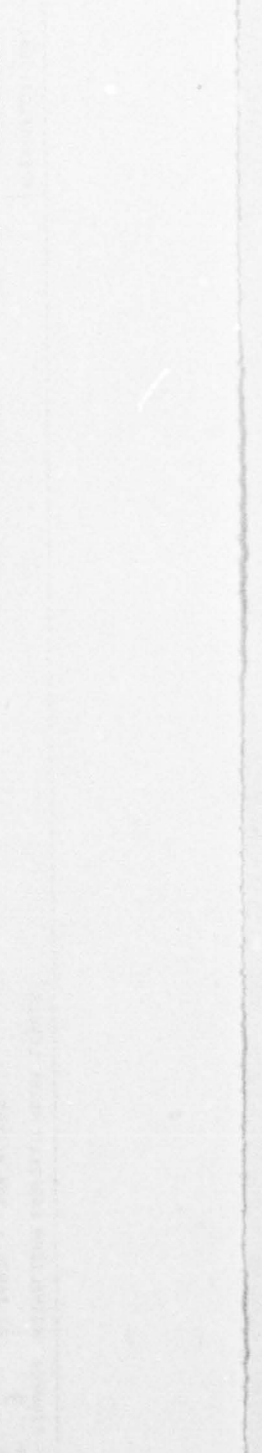
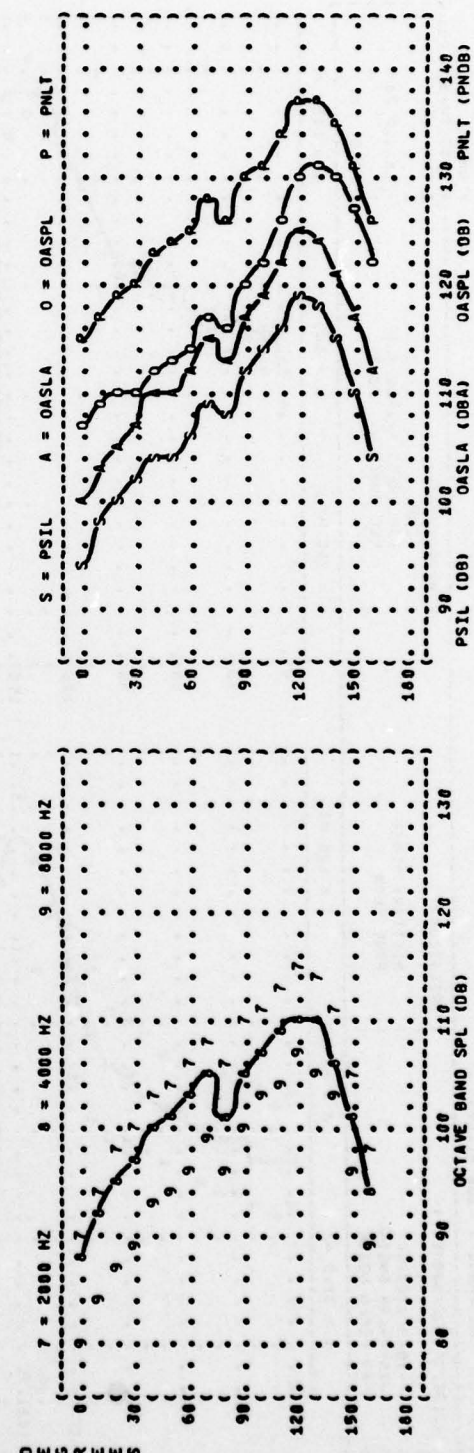
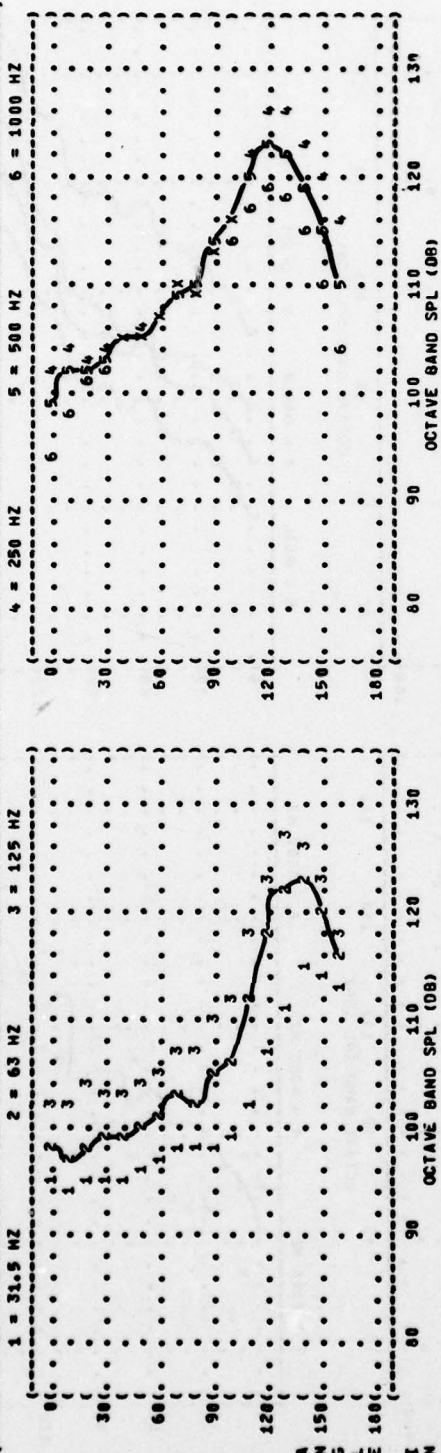


FIGURE 4: ACOUSTIC POWER LEVEL (PWL)

NOISE SOURCE/SUBJECT: ( OPERATION: ) METEOROLOGY: TEMPERATURE = 24 C  
 F-105D AIRCRAFT ( IDLE ) BAR PRESS = .768 M HG  
 J75-P-19M ENGINE ( FREE FLOW ) REL HUMID = 44 %  
 FAR FIELD NOISE ( )

IDENTIFICATION: OMEGA 1.4  
 TEST 78-013-001  
 RUN 01  
 18 SEP 70  
 PAGE 3

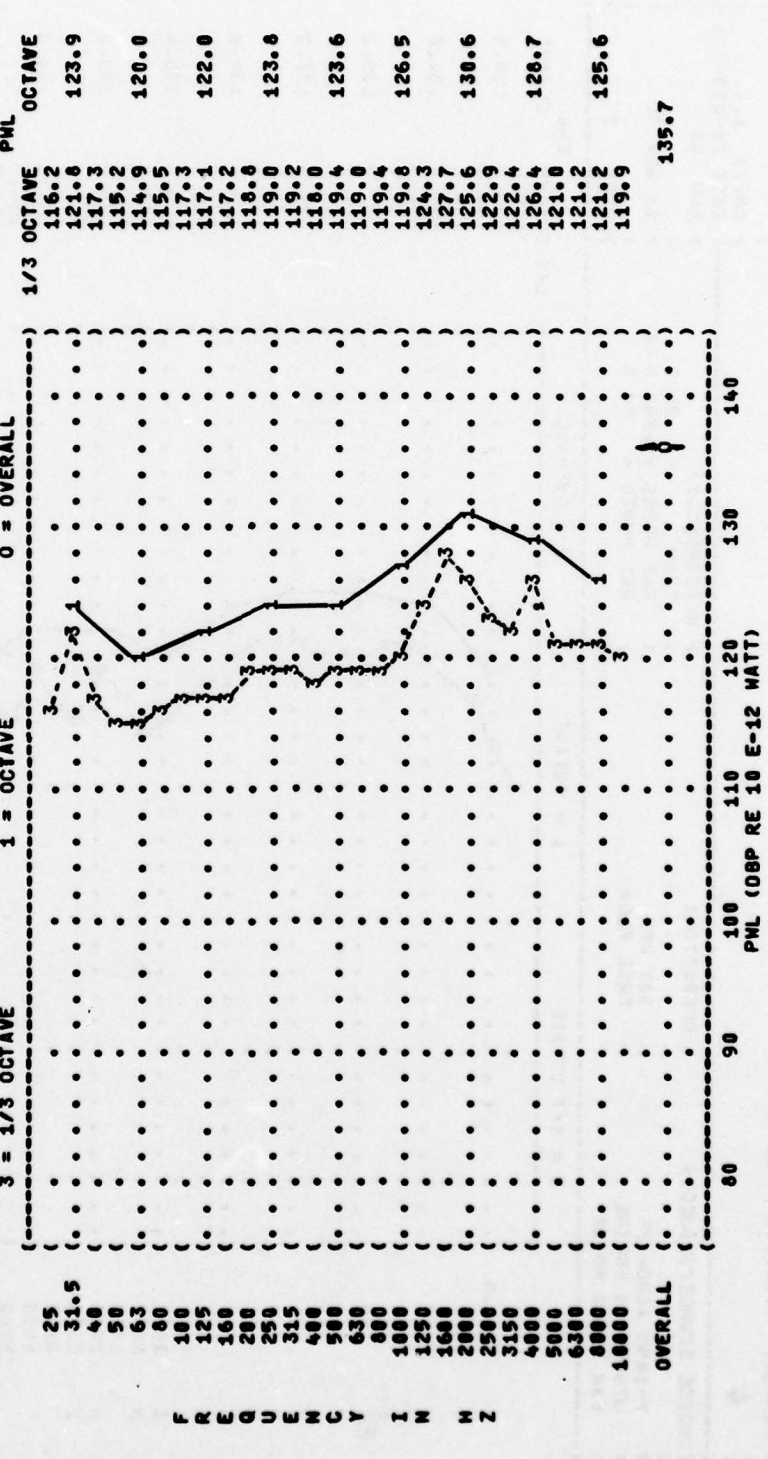








FIGURE: ACOUSTIC POWER LEVEL (PWL)  
 4

IDENTIFICATION:  
 OMEGA 1.4  
 TEST 70-013-001  
 RUN 05

NOISE SOURCE/SUBJECT:  
 OPERATION:  
 F-105D AIRCRAFT  
 AFTERBURNER POWER = 24 C  
 J75-9-19M ENGINE  
 FREE FLOW  
 BAR PRESS = .768 M HG  
 REL HUMID = 44 %  
 FAR FIELD NOISE  
 PAGE 3

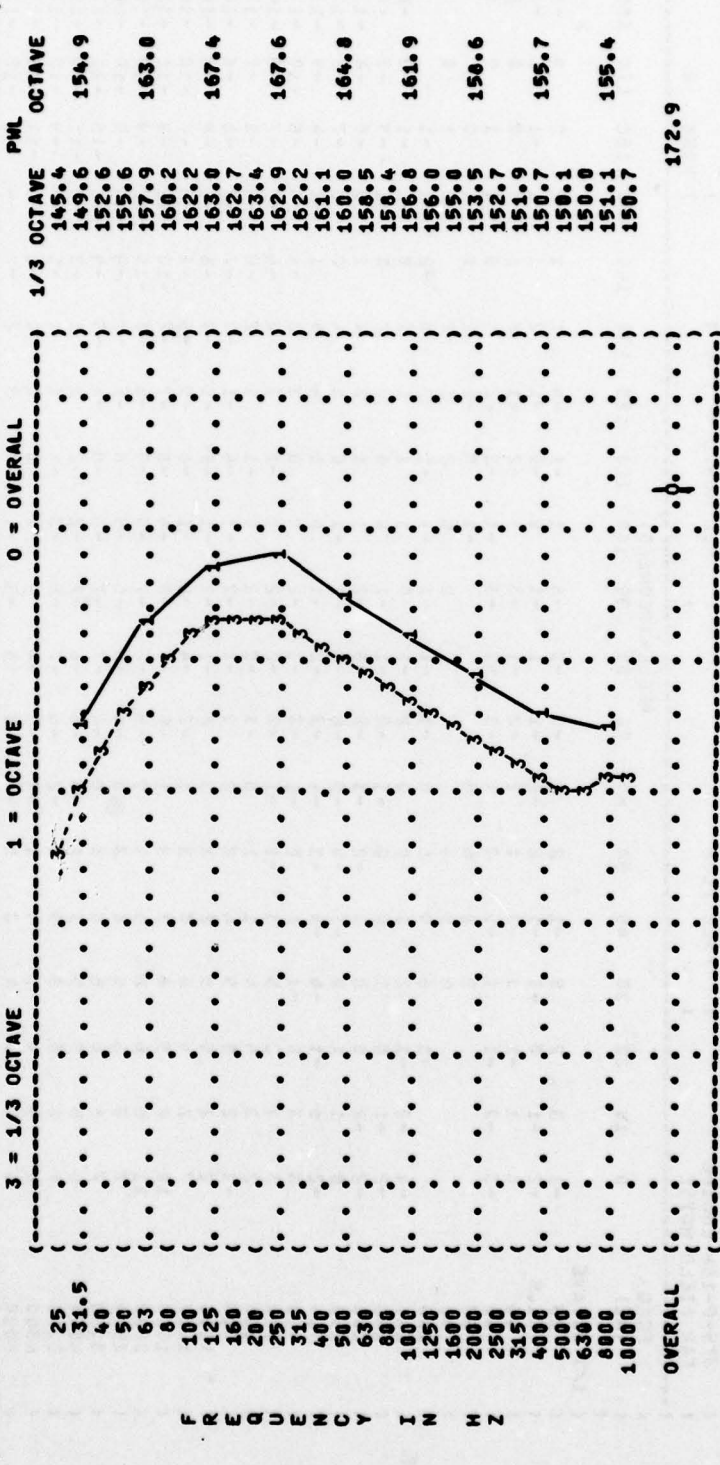


TABLE: DIRECTIVITY INDEX (DB)		IDENTIFICATION:																		
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		TEST 78-013-001																		
		RUN 01																		
NOISE SOURCE/SUBJECT:		METEOROLOGY:																		
		TEMP = 24 C																		
		BAR PRESS = .768 M HG																		
		REL HUMID = 44 %																		
		PAGE 4																		
FREQ (HZ)	ANGLE (DEGREES)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																				
25		-1	3	-2	5	-1	2	0	-3	-3	-6	1	-1	-4	1	1	2	0	0	-3
31.5		-2	-1	0	-1	-1	2	-1	-1	1	-1	0	-1	-1	1	1	1	-1	-1	-3
40		0	1	-1	1	-2	1	2	-2	-1	-3	1	-2	-1	3	1	1	0	0	0
50		-3	-2	-1	1	-1	3	4	-3	-3	-3	-1	-2	-2	1	0	0	1	0	1
63																				
80																				
100		-4	-3	-1	6	0	4	0	-1	-1	0	0	2	1	2	0	1	0	0	0
125		-2	-1	0	1	0	0	0	-2	-1	0	1	1	1	1	0	-1	-1	-1	-2
160		-2	-2	0	0	0	-2	-3	-5	-3	-1	0	0	3	2	0	-1	-3	-3	-8
200		0	1	1	0	-3	-4	-5	-6	-3	-1	1	1	3	4	2	0	-5	-6	-12
315		-2	0	-1	-4	-5	-3	-4	-3	-2	-1	0	0	4	5	1	-1	-4	-5	-13
400		3	3	0	-1	1	2	-1	-2	-3	-2	0	0	3	3	-1	-5	-5	-10	-14
500		2	3	3	4	4	1	0	-1	-2	-2	1	-1	2	2	-6	-8	-8	-7	-13
630		-1	2	5	5	4	3	0	0	-1	-2	0	-1	1	-3	-7	-8	-8	-8	-14
800		2	2	5	5	5	2	3	0	-1	-2	-1	-5	-1	-3	-6	-6	-6	-7	-14
1000		7	7	4	6	5	3	3	1	-2	-4	-1	-6	-5	-5	-8	-6	-7	-10	-16
1250		10	6	6	6	6	7	3	1	-5	-7	-4	-8	-7	-7	-10	-12	-9	-10	-16
1600		11	6	6	6	6	6	4	0	-6	-7	-5	-9	-6	-8	-10	-12	-9	-10	-16
2000		7	5	6	6	6	6	3	0	-4	-6	-5	-8	-5	-7	-9	-10	-9	-10	-16
2500		7	6	6	6	6	6	3	0	-4	-7	-6	-8	-4	-5	-9	-11	-10	-11	-17
3150		6	5	5	5	5	3	1	-3	-6	-6	-7	-8	3	1	-3	-8	-11	-14	-19
4000		7	6	5	6	5	4	2	-2	-6	-7	-6	-7	1	-1	-5	-8	-9	-13	-17
5000		6	5	4	5	4	3	0	-2	-3	-4	-4	-2	0	2	-1	-6	-10	-13	-18
6300		5	4	3	4	3	0	-5	-5	-6	-6	-3	-1	0	3	-2	-2	-8	-12	-18
8000		4	4	3	4	3	-2	-5	-6	-6	-6	-3	-1	0	3	-1	-4	-7	-12	-18
10000																				
OCTAVE																				
31.5		-1	0	0	1	-1	2	0	-2	0	-2	0	-1	-1	2	1	1	-1	-1	-2
63		-5	-3	0	4	0	4	2	-2	-3	-3	-1	0	0	1	-1	0	1	-2	-10
125		-1	0	0	-1	-2	-3	-4	-5	-3	-1	0	0	4	5	2	0	-5	-6	-12
250		2	3	2	3	2	0	-1	-2	-2	0	-1	2	2	-3	-7	-7	-7	-8	-14
500		5	5	4	5	4	3	1	-1	-2	-3	-1	-5	-3	-4	-7	-10	-9	-15	-19
1000		7	6	6	6	6	7	3	0	-5	-6	-7	-9	-6	-7	-10	-11	-9	-10	-16
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4000		5	4	3	4	3	0	-5	-5	-6	-6	-3	-1	0	3	-2	-2	-8	-12	-18
8000		4	4	3	4	3	-2	-5	-6	-6	-6	-3	-1	0	3	-1	-4	-7	-12	-18
OVERALL		7	5	4	5	4	2	0	-3	-4	-4	-2	-3	0	0	-3	-4	-5	-7	-10

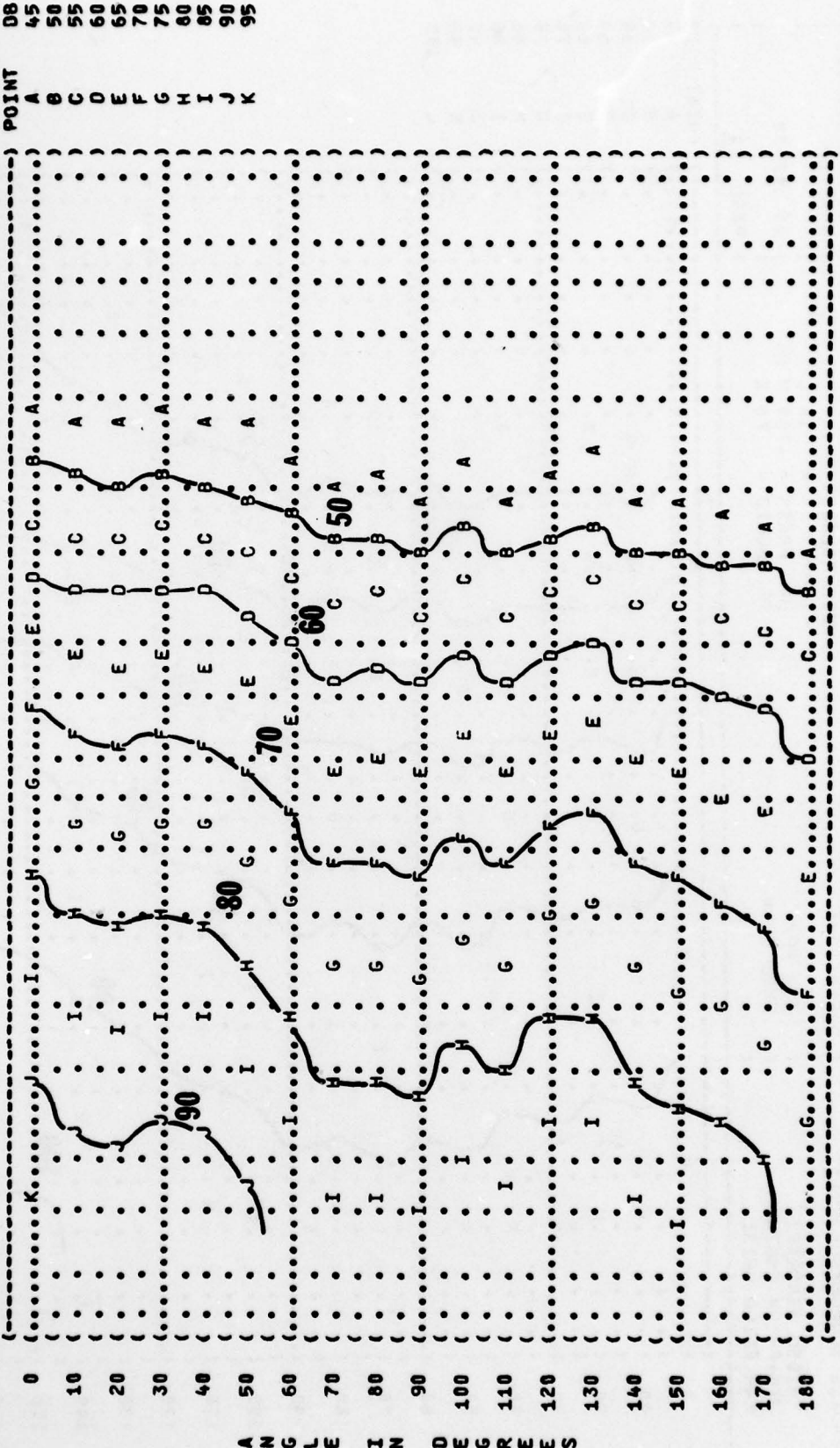
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6		OMEGA 1.4																		
		TEST 78-013-001																		
		RUN 02																		
		18 SEP 78																		
		PAGE 4																		
NOISE SOURCE/SUBJECT:		METEOROLOGY:																		
		TEMP = 24 C																		
		BAR PRESS = .768 H HG																		
		REL HUMID = 44 %																		
FREQ (HZ)		ANGLE (DEGREES)																		
		0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																				
25	-7	-4	-4	-4	-4	-2	-4	-4	-5	-5	-4	-4	-2	0	5	6	9			
31.5	-7	-7	-6	-6	-6	-6	-5	-6	-6	-6	-6	-4	-3	1	4	8	9			
40	-8	-9	-9	-8	-8	-8	-8	-8	-6	-7	-5	-5	-5	1	5	8	10			
50	-11	-11	-10	-9	-9	-9	-7	-8	-6	-6	-5	-5	-2	3	5	8	10			
63	-11	-13	-12	-9	-10	-8	-8	-7	-8	-5	-4	-4	-3	2	5	9	9			
80	-9	-10	-11	-9	-10	-8	-8	-7	-6	-4	-4	-3	-1	1	5	8	10			
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8000	7	5	6	3	3	3	1	-1	-2	-3	-2	1	0	-1	-3	-6	-14			
10000	7	6	6	4	4	3	1	-3	-3	-2	0	1	0	-2	-4	-7	-14			
OCTAVE																				
31.5	-8	-7	-7	-7	-6	-7	-5	-7	-6	-6	-5	-5	-2	1	5	8	10			
63	-10	-12	-11	-9	-9	-9	-8	-8	-7	-7	-5	-4	-3	2	5	8	9			
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10000	7	6	6	4	4	3	1	-3	-3	-2	0	1	0	-2	-4	-7	-14			
OVERALL	2	-1	-1	-1	-1	-3	-3	-4	-3	-3	-1	0	0	2	3	5	5			

TABLE: DIRECTIVITY INDEX (DB)		IDENTIFICATION:																		
6		OMEGA 1.4																		
NOISE SOURCE/SUBJECT:		TEST 76-013-001																		
(		RUN 03																		
(		18 SEP 70																		
(		PAGE 4																		
(		METEOROLOGY:																		
(		TEMP = 24 C																		
(		BAR PRESS = .760 M HG																		
(		REL HUMID = 44 %																		
(		OPERATION:																		
(		90% RPM																		
(		FREE FLOW																		
(		FAR FIELD NOISE																		
FREQ (HZ)		ANGLE (DEGREES)																		
		0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE	25	-7	-9	-7	-7	-8	-6	-7	-3	-4	-4	-7	-4	-4	1	4	7	10		
	31.5	-12	-14	-12	-11	-12	-10	-10	-7	-6	-8	-8	-6	-3	1	4	9	10		
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	50	-16	-17	-15	-15	-13	-13	-13	-12	-10	-9	-9	-8	-4	3	6	6	9	9	
	63	-19	-20	-19	-17	-16	-17	-15	-13	-12	-10	-10	-9	-4	2	6	10	9	9	
	80	-18	-19	-18	-16	-15	-15	-14	-13	-11	-11	-9	-9	-4	2	7	9	8	8	
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	125	-17	-17	-15	-15	-15	-15	-13	-12	-12	-11	-10	-8	-4	1	5	11	7	7	
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	500	-11	-11	-9	-8	-7	-7	-6	-5	-5	-3	-2	1	3	5	5	3	1	1	
	630	-10	-11	-8	-6	-6	-6	-6	-4	-3	-2	-2	1	4	5	4	3	0	0	
	800	-12	-12	-9	-6	-5	-6	-4	-3	-4	-2	-1	1	3	5	4	3	-1	-1	
	1000	-11	-12	-9	-5	-4	-5	-3	-3	-3	-2	-1	1	3	5	4	2	-1	-2	
	1250	-9	-9	-10	-6	-5	-5	-4	-3	-4	-2	0	2	4	4	4	2	-2	-2	
	1600	-5	-5	-6	-5	-4	-4	-4	-2	-3	-2	0	3	3	4	3	0	-4	-6	
	2000	2	0	0	0	0	-1	-3	-1	-2	0	0	2	3	2	2	-1	-2	-8	
	2500	1	-1	0	0	1	-1	-2	-1	-2	-2	0	2	3	2	1	-2	-8	-8	
	3150	-2	-1	-2	-1	1	0	-1	0	-1	-1	0	2	2	2	1	-4	-9	-9	
	4000	3	1	1	1	1	0	0	0	-1	0	1	1	2	1	-1	-4	-10	-10	
	5000	1	0	0	0	0	-1	-1	-1	-1	0	0	1	2	2	-1	-3	-10	-11	
	6300	0	-2	-2	-1	-1	-2	-2	-2	0	1	1	1	1	1	-2	-5	-10	-10	
	8000	-1	-3	-3	-2	-2	-2	-2	-2	0	1	1	2	2	2	-2	-5	-10	-10	
	10000	0	-1	-2	-1	-2	-2	-2	-2	0	0	2	2	3	2	-1	-4	-10	-10	
OCTAVE	31.5	-12	-13	-12	-12	-12	-10	-10	-8	-7	-7	-8	-6	-3	2	5	8	10		
	63	-17	-18	-15	-15	-14	-15	-14	-12	-12	-10	-10	-9	-4	2	6	9	8		
	125	-12	-12	-10	-10	-10	-9	-9	-8	-7	-6	-4	-2	1	5	6	6	6		
	250	-11	-11	-9	-8	-7	-7	-6	-5	-5	-3	-2	0	3	5	5	4	1		
	500	-11	-11	-9	-6	-5	-6	-4	-3	-3	-2	-1	1	3	5	4	2	-1		
	1000	-2	-2	-1	-1	-1	-1	-1	0	2	1	1	1	1	1	1	2	2	-1	
	2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4000	1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	
	8000	-1	-2	-2	-1	-1	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	
	10000	-1	-2	-2	-1	-1	-2	-2	-2	0	2	1	1	2	2	1	-2	-4	-10	
OVERALL		-11	-12	-10	-10	-9	-10	-9	-8	-8	-6	-5	-3	0	3	6	8	7		

TABLE: DIRECTIVITY INDEX (DB)		IDENTIFICATIONS																	
6		OMEGA 1.4																	
NOISE SOURCE/SUBJECT:		TEST 78-013-001																	
		RUN 04																	
F-1050 AIRCRAFT		24 C																	
J75-P-19W ENGINE		BAR PRESS = .768 M HG																	
FAR FIELD NOISE		REL HUMID = 44 %																	
		PAGE 4																	
		METEOROLOGY:																	
		TEMP																	
		BAR PRESS = .768 M HG																	
		REL HUMID = 44 %																	
		OPERATION:																	
		MILITARY POWER																	
		FREE FLOW																	
		ANGLE (DEGREES)																	
FREQ (HZ)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE	-12	-12	-11	-11	-10	-10	-10	-11	-6	-7	-6	-6	-2	3	3	4	9	9	9
25	-13	-16	-14	-13	-13	-12	-11	-11	-10	-9	-10	-8	-4	3	3	5	9	10	10
31.5	-17	-17	-17	-16	-15	-15	-13	-11	-11	-9	-10	-8	-3	1	1	7	9	8	8
40	-18	-18	-19	-17	-16	-16	-14	-14	-13	-12	-9	-7	-3	3	7	9	6	6	6
50	-20	-21	-21	-19	-19	-17	-16	-16	-13	-13	-11	-9	-2	3	8	9	6	6	6
63	-22	-22	-21	-20	-20	-19	-18	-17	-16	-15	-14	-11	-4	3	8	9	4	4	4
80	-20	-21	-20	-19	-19	-18	-17	-16	-15	-14	-11	-9	-5	3	8	9	4	4	4
100	-20	-21	-19	-19	-17	-17	-16	-16	-14	-13	-11	-9	-4	2	8	9	4	4	4
125	-19	-19	-18	-18	-17	-17	-16	-15	-14	-13	-12	-10	-6	1	5	6	9	6	6
160	-18	-18	-18	-18	-17	-16	-15	-15	-13	-12	-10	-6	-1	7	6	7	6	6	6
200	-21	-19	-18	-17	-16	-16	-15	-15	-13	-12	-10	-6	-1	6	7	6	6	6	6
250	-23	-18	-18	-17	-16	-16	-14	-14	-12	-11	-9	-6	0	5	8	6	4	4	4
315	-18	-17	-16	-16	-15	-15	-13	-12	-10	-9	-6	-3	0	6	7	8	4	4	4
400	-18	-17	-15	-14	-14	-13	-12	-12	-10	-9	-6	-2	1	5	7	6	2	2	2
500	-18	-15	-14	-12	-14	-13	-10	-11	-9	-9	-6	-1	1	6	7	6	2	2	2
630	-19	-16	-13	-11	-12	-11	-9	-10	-8	-8	-6	-1	2	5	7	5	1	1	1
800	-19	-16	-13	-11	-10	-10	-9	-7	-9	-7	-7	-6	1	2	5	8	5	1	1
1000	-20	-18	-15	-12	-11	-11	-6	-8	-5	-7	-6	1	2	5	8	5	0	0	0
1250	-20	-17	-15	-12	-11	-10	-7	-8	-6	-6	-6	1	2	5	8	4	-2	-2	-2
1600	-19	-16	-14	-12	-10	-9	-7	-8	-5	-6	-5	2	2	4	8	4	-2	-2	-2
2000	-21	-17	-15	-13	-11	-10	-6	-7	-5	-6	-5	2	2	4	8	3	-3	-3	-3
2500	-19	-15	-13	-11	-9	-8	-6	-7	-5	-6	-5	3	2	5	7	3	-4	-4	-4
3150	-19	-15	-13	-10	-9	-9	-7	-7	-4	-4	-5	-6	3	1	5	2	-4	-4	-4
4000	-21	-17	-14	-12	-11	-10	-6	-7	-4	-4	-6	-6	2	2	5	7	-2	-2	-2
5000	-21	-17	-14	-12	-11	-10	-7	-7	-4	-4	-6	-6	2	2	5	8	-3	-3	-3
6300	-23	-20	-16	-14	-13	-13	-8	-8	-5	-5	-8	1	2	5	8	4	-4	-4	-4
8000	-24	-20	-17	-15	-14	-15	-9	-10	-7	-6	-9	0	1	4	9	4	-4	-4	-4
OCTAVE	-15	-16	-16	-14	-14	-13	-12	-11	-10	-9	-10	-8	-3	2	6	9	9	9	9
31.5	-21	-21	-20	-19	-19	-18	-17	-16	-14	-13	-11	-8	-3	3	8	9	5	5	5
63	-20	-20	-19	-18	-17	-16	-15	-13	-13	-11	-9	-5	-1	4	8	9	5	5	5
125	-20	-18	-18	-17	-16	-15	-15	-12	-11	-9	-7	-2	1	6	7	6	5	5	5
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4000	-19	-16	-13	-11	-9	-9	-6	-7	-4	-4	-5	-8	1	2	5	8	-3	-3	-3
8000	-22	-19	-16	-13	-13	-12	-8	-8	-5	-5	-8	1	2	5	8	3	-3	-3	-3
OVERALL	-20	-18	-17	-15	-14	-12	-12	-10	-10	-6	-3	0	5	7	7	7	4	4	4

TABLE 1 DIRECTIVITY INDEX (DB)		IDENTIFICATION:																		
6		OMEGA 1.4																		
NOISE SOURCE/SUBJECT:		TEST 78-013-001																		
( ( OPERATION:		RUN 05																		
( ( AFTERBURNER POWER		24 C																		
( ( FREE FLOW		BAR PRESS = .768 M HG																		
( ( F-105D AIRCRAFT		REL HUMID = 44 %																		
( ( J75-P-19M ENGINE		18 SEP 78																		
( ( FAR FIELD NOISE		PAGE 4																		
FREQ		ANGLE (DEGREES)																		
( ( (HZ)		0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																		
( (	1/3 OCTAVE	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
( (	25	-9	-11	-9	-8	-8	-8	-8	-8	-6	-8	-8	-5	-1	4	6	7	8	7	8
( (	31.5	-12	-12	-11	-12	-13	-9	-9	-8	-9	-8	-9	-5	0	2	8	7	8	7	8
( (	40	-13	-14	-13	-13	-13	-13	-12	-10	-10	-9	-8	-5	0	4	8	8	8	4	4
( (	50	-15	-16	-16	-14	-14	-14	-14	-14	-12	-9	-8	-5	1	6	8	6	6	2	2
( (	63	-18	-17	-17	-17	-16	-15	-14	-12	-13	-10	-9	-4	2	7	8	5	1	1	1
( (	80	-18	-19	-18	-16	-17	-16	-15	-13	-14	-11	-10	-3	4	7	7	3	3	3	-1
( (	100	-18	-18	-15	-16	-16	-16	-15	-14	-14	-11	-9	-4	3	8	6	3	3	-2	-2
( (	125	-18	-18	-16	-18	-17	-16	-14	-13	-13	-10	-7	-3	2	9	6	3	4	4	-1
( (	160	-17	-16	-15	-17	-16	-15	-14	-11	-12	-8	-7	0	5	5	7	4	2	3	-3
( (	200	-17	-16	-16	-18	-16	-15	-13	-11	-12	-8	-6	1	7	6	4	2	4	2	-4
( (	250	-18	-15	-16	-15	-14	-13	-11	-9	-11	-6	-3	2	6	6	3	1	-4	1	-5
( (	315	-22	-17	-17	-16	-14	-14	-13	-10	-9	-6	-3	2	6	6	4	-1	-5	4	-6
( (	400	-19	-14	-15	-14	-13	-12	-10	-8	-7	-4	-1	3	6	6	3	0	-6	0	-6
( (	500	-19	-16	-15	-14	-13	-12	-10	-8	-7	-3	-1	3	6	6	2	2	-2	-7	-7
( (	630	-17	-15	-14	-12	-11	-11	-8	-6	-6	-2	0	3	6	5	2	2	-2	-7	-9
( (	800	-19	-16	-13	-11	-10	-10	-7	-4	-5	-1	0	3	6	5	2	2	-3	-9	-9
( (	1000	-20	-16	-13	-11	-9	-9	-7	-3	-4	-1	0	4	6	4	1	1	-4	-10	-10
( (	1250	-21	-17	-14	-11	-8	-8	-6	-3	-4	0	0	4	6	4	1	1	-4	-11	-11
( (	1600	-21	-16	-12	-10	-7	-7	-5	-2	-3	0	1	3	5	4	1	1	-4	-11	-11
( (	2000	-19	-15	-12	-9	-6	-6	-4	-1	-4	0	1	2	5	4	1	1	-5	-12	-12
( (	2500	-21	-16	-12	-10	-7	-6	-4	-2	-4	0	1	3	5	4	1	1	-5	-12	-12
( (	3150	-20	-14	-11	-9	-6	-5	-2	0	-4	0	1	3	5	4	1	1	-5	-12	-12
( (	4000	-17	-13	-10	-9	-5	-4	-2	0	-5	-1	1	3	5	4	1	1	-4	-12	-12
( (	5000	-14	-12	-11	-10	-7	-6	-4	-2	-5	-1	1	3	5	4	1	1	-4	-12	-12
( (	6300	-20	-16	-13	-12	-8	-7	-5	-2	-5	-2	1	3	6	4	2	2	-5	-12	-12
( (	8000	-23	-18	-15	-13	-9	-8	-6	-4	-6	-2	2	3	6	4	2	2	-6	-13	-13
( (	10000	-22	-19	-16	-14	-10	-9	-7	-4	-5	-1	3	3	6	4	4	2	-6	-13	-13
( (	OCTAVE																			
( (	31.5	-12	-13	-12	-12	-12	-11	-10	-9	-9	-9	-8	-5	0	4	7	7	7	6	6
( (	63	-17	-18	-17	-16	-16	-15	-14	-12	-13	-10	-9	-4	3	7	7	4	4	0	0
( (	125	-18	-17	-16	-17	-16	-15	-15	-13	-13	-10	-8	-2	4	8	6	4	4	-2	-2
( (	250	-18	-16	-16	-16	-15	-14	-14	-10	-11	-7	-4	2	6	6	4	1	1	-4	-4
( (	500	-18	-15	-14	-13	-12	-12	-10	-7	-7	-3	-1	3	6	5	3	-1	-7	-7	-7
( (	1000	-20	-16	-13	-11	-9	-9	-7	-3	-4	-1	0	3	6	5	1	-4	-10	-10	-10
( (	2000	-20	-15	-12	-10	-6	-6	-4	-2	-4	0	1	3	5	4	1	1	-4	-12	-12
( (	4000	-17	-13	-11	-9	-6	-6	-5	-3	-1	-4	-1	1	3	5	4	1	-4	-12	-12
( (	8000	-21	-13	-11	-9	-6	-5	-3	-1	-4	-1	1	3	5	4	1	1	-4	-12	-12
( (	10000	-21	-17	-14	-13	-8	-8	-6	-3	-5	-2	2	3	6	4	4	2	-5	-13	-13
( (	OVERALL	-18	-16	-15	-15	-13	-12	-11	-8	-9	-5	-3	1	5	6	5	2	2	-3	-3

) IDENTIFICATION: )  
 ) OMEGA 1.4 )  
 ) TEST 78-013-001 )  
 ) RUN 01 )  
 ) METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 M HG )  
 ) REL HUMID = 70 % )  
 ) OPERATION: )  
 ) IDLE )  
 ) FREE FLOW )  
 ) FAR FIELD NOISE )  
 ) PAGE 13 )



) POINT DB  
 ) A 45  
 ) B 50  
 ) C 55  
 ) D 60  
 ) E 65  
 ) F 70  
 ) G 75  
 ) H 80  
 ) I 85  
 ) J 90  
 ) K 95

DISTANCE FROM SOURCE (METERS)

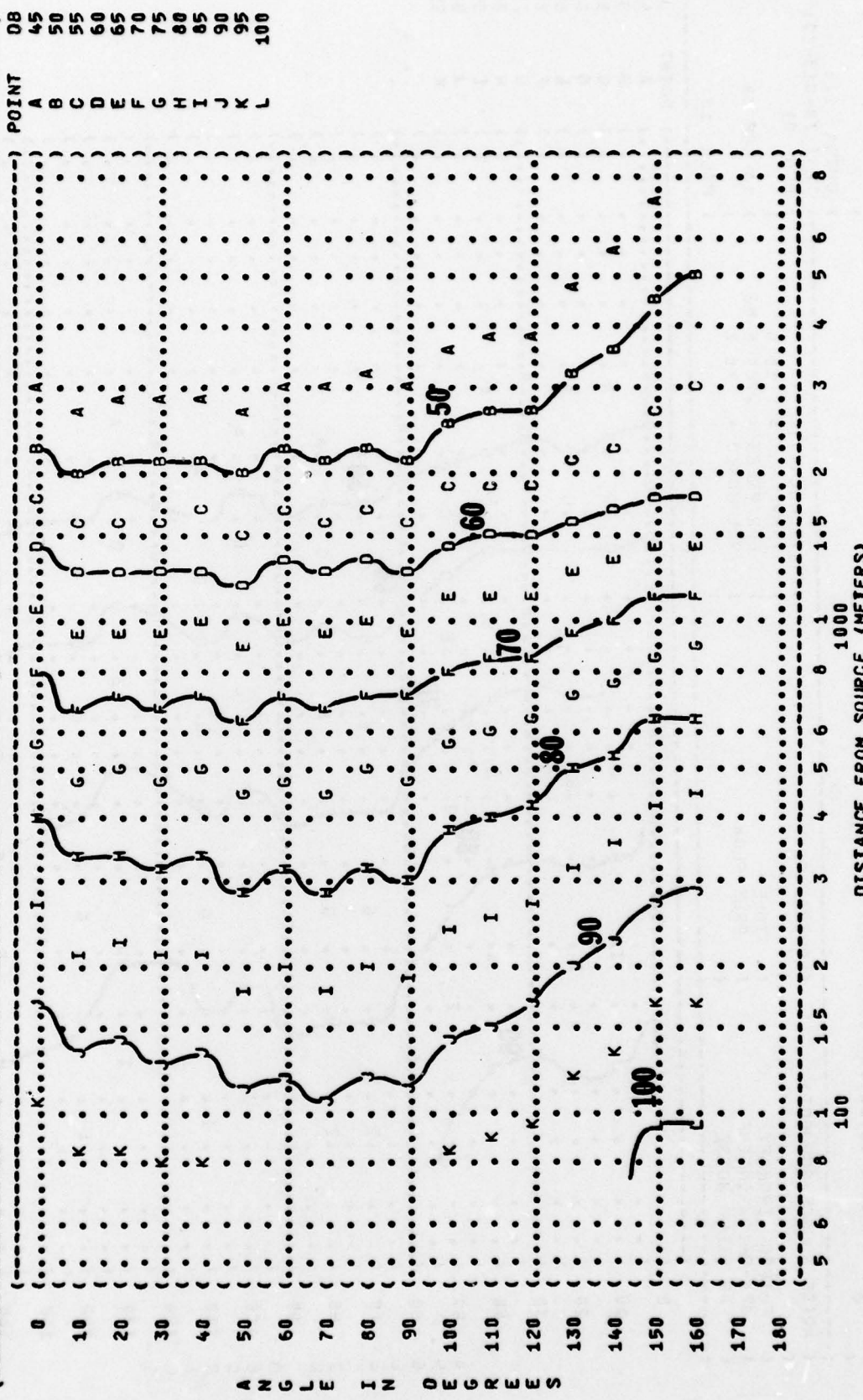
FIGURE 1 OVERALL SOUND PRESSURE LEVEL (OASPL)  
 EQUAL LEVEL CONTOURS (DB)

5

NOISE SOURCE/SUBJECT: ( OPERATION: )  
 ( ( 80% RPM )  
 ( ( FREE FLOW )  
 F-105D AIRCRAFT  
 J75-P-19W ENGINE  
 FAR FIELD NOISE

METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 M HG )  
 ) REL HUMID = 70 % )

IDENTIFICATIONS: )  
 ) OMEGA 1.4 )  
 ) TEST 78-013-001 )  
 ) RUN 02 )  
 ) 18 SEP 78 )  
 ) PAGE 13 )



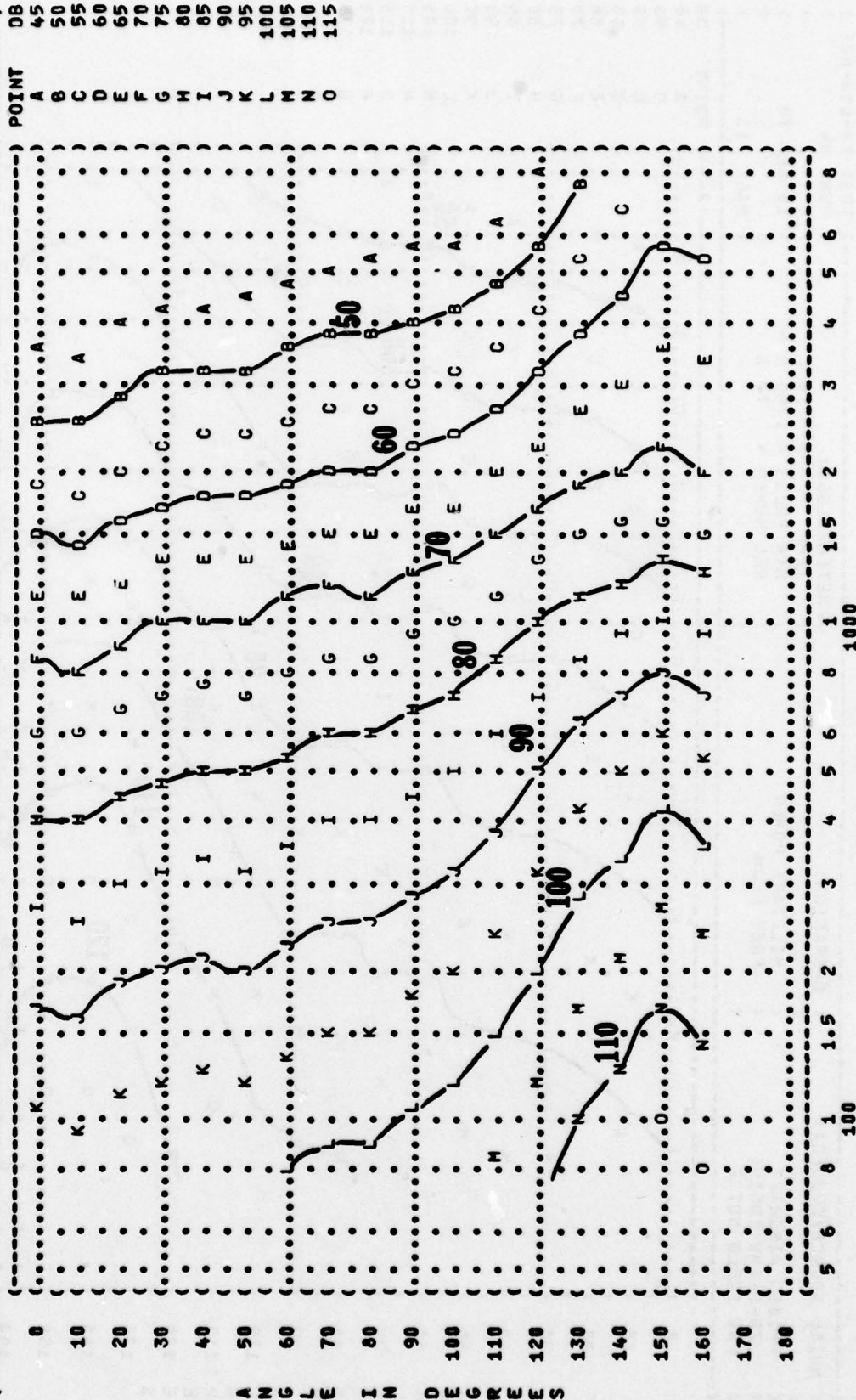
DISTANCE FROM SOURCE (METERS)

A N G L E I N D E G R E E S

FIGURE 1 OVERALL SOUND PRESSURE LEVEL (OASPL)  
 EQUAL LEVEL CONTOURS (DB)

5

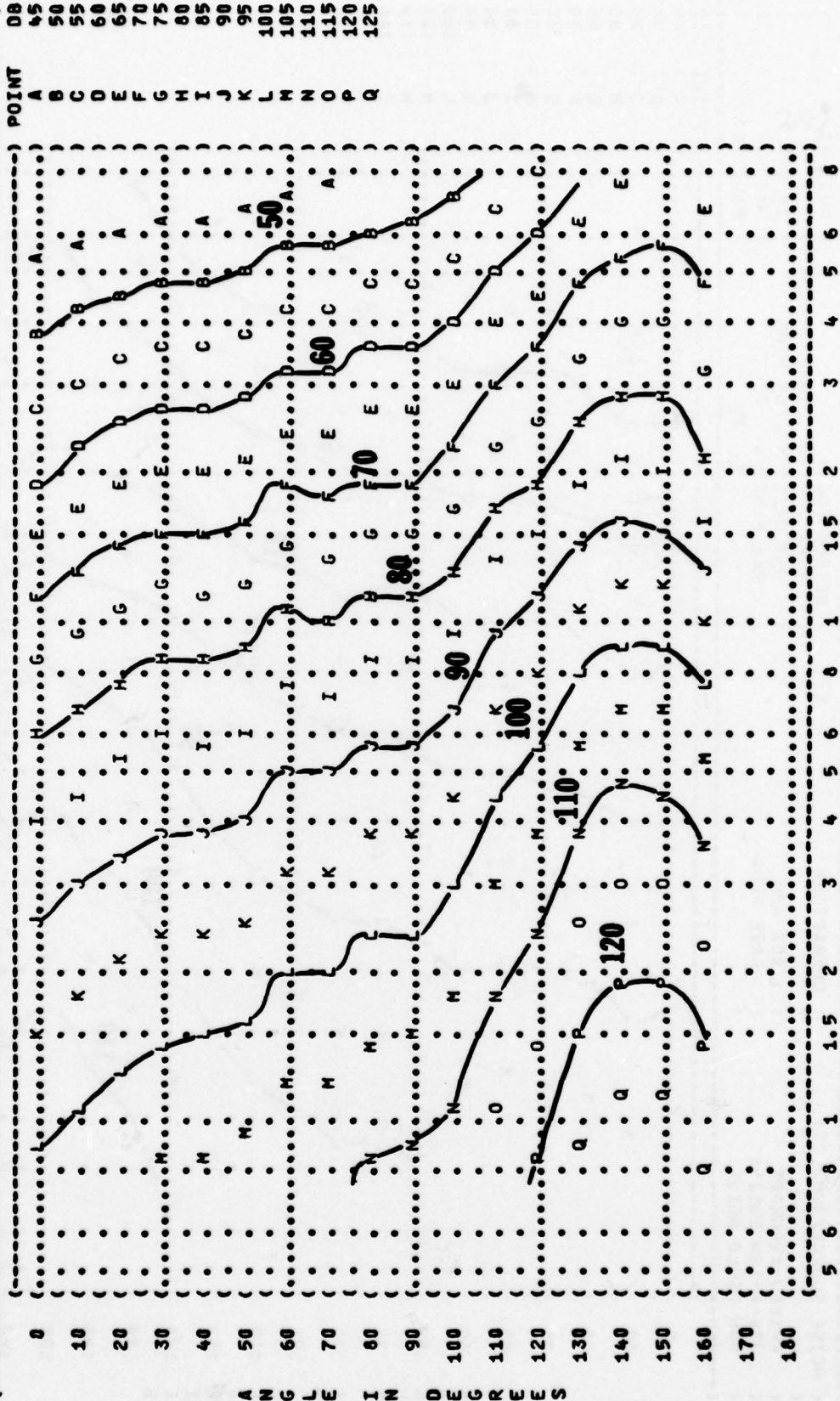
IDENTIFICATION: )  
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 TEST 78-013-001 )  
 RUN 03 )  
 METEOROLOGY: )  
 TEMP = 15 C )  
 BAR PRESS = .760 M HG )  
 REL HUMID = 70 % )  
 OPERATION: )  
 90% RPM )  
 FREE FLOW )  
 F-1050 AIRCRAFT )  
 J75-P-19M ENGINE )  
 FAR FIELD NOISE )  
 18 SEP 78 )  
 PAGE 13 )



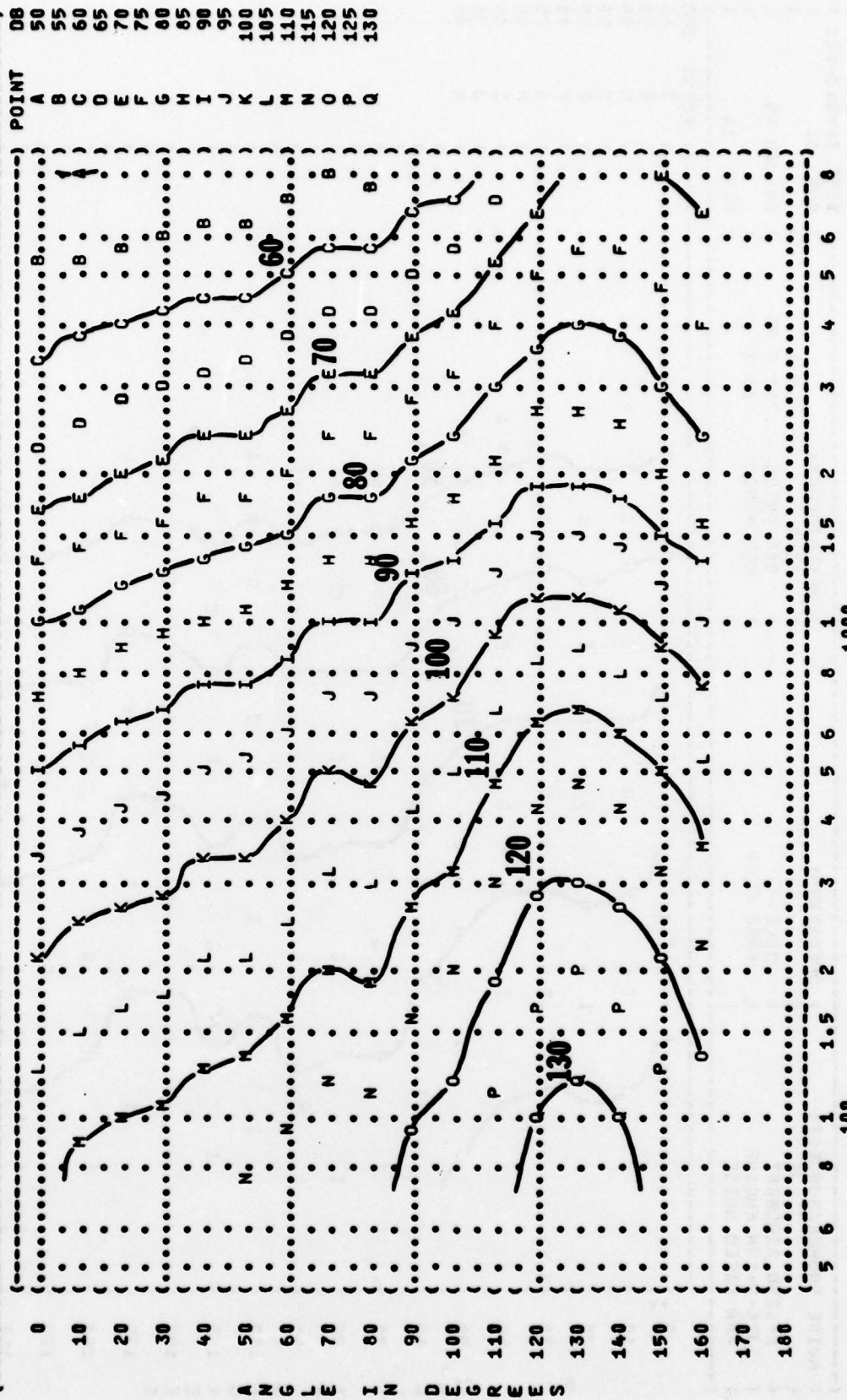
DISTANCE FROM SOURCE (METERS)

FIGURE 5: OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION: )  
 )  
 ) OMEGA 1-4  
 ) TEST 78-013-001  
 ) RUN 04  
 )  
 ) METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 M HG )  
 ) REL HUMID = 70 % )  
 )  
 ) OPERATION: )  
 ) MILITARY POWER )  
 ) FREE FLOW )  
 )  
 ) NOISE SOURCE/SUBJECT: )  
 ) F-1050 AIRCRAFT )  
 ) J75-P-19M ENGINE )  
 ) FAR FIELD NOISE )  
 )  
 ) PAGE 13 )



( ( FIGURE 1 OVERALL SOUND PRESSURE LEVEL (OASPL)  
 ( ( EQUAL LEVEL CONTOURS (DB)  
 ( ( 5  
 ( ( NOISE SOURCE/SUBJECT: ( OPERATION:  
 ( ( F-1050 AIRCRAFT ( AFTERBURNER POWER  
 ( ( J75-P-19W ENGINE ( FREE FLOW  
 ( ( FAR FIELD NOISE ( )  
 ( ( METEOROLOGY: ( )  
 ( ( TEMP = 15 C ( )  
 ( ( BAR PRESS = .760 M HG ( ) 18 SEP 78  
 ( ( REL HUMID = 70 % ( )  
 ( ( PAGE 13 ( )  
 ( ( IDENTIFICATION: ( )  
 ( ( OMEGA 1.4 ( )  
 ( ( TEST 78-013-001 ( )  
 ( ( RUN 05 ( )



DISTANCE FROM SOURCE (METERS)

A N G L E I N D E G R E E S

FIGURE 6 C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION: OMEGA 1.4  
 TEST 78-013-001  
 RUN 01  
 24 JAN 79  
 PAGE 14

METEOROLOGY: TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %

OPERATION: ( )  
 ( ) IDLE  
 ( ) FREE FLOW

NOISE SOURCE/SUBJECT: F-1050 AIRCRAFT  
 J75-P-19W ENGINE  
 FAR FIELD NOISE

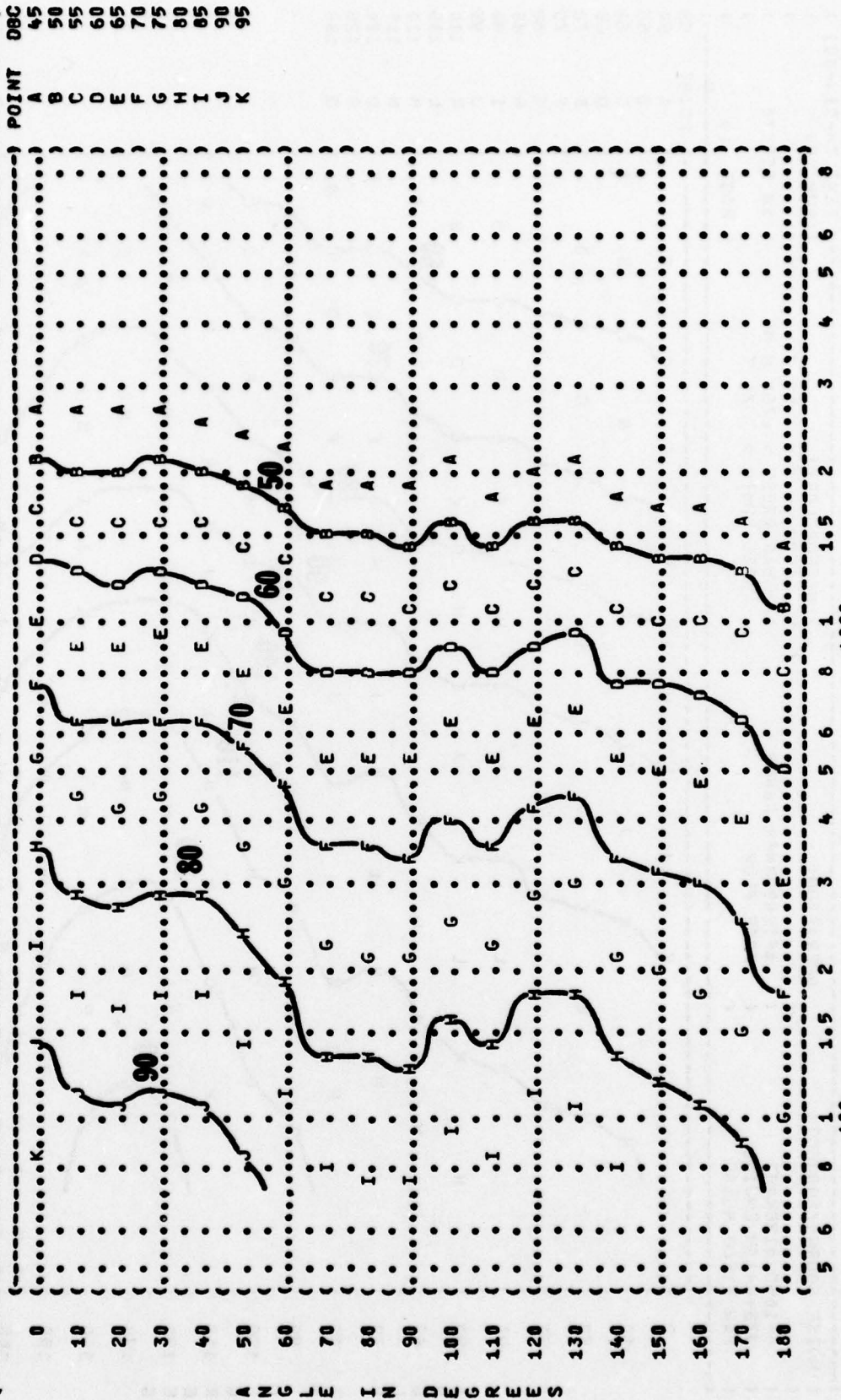
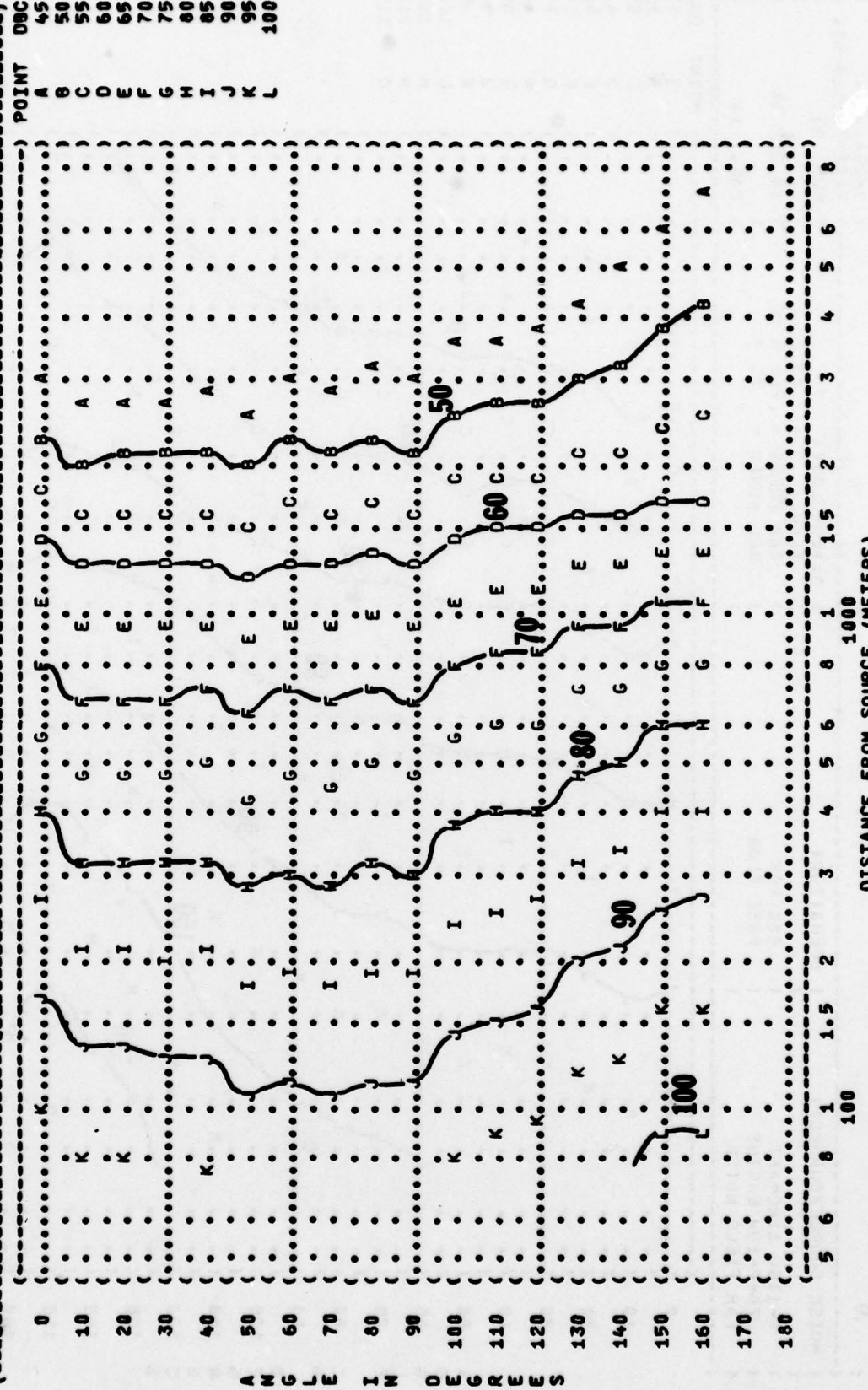


FIGURE: C-WEIGHTED OVERALL SOUND LEVEL (OASLC)  
 6 EQUAL LEVEL CONTOURS (DBC)

NOISE SOURCE/SUBJECT: ( OPERATION: ) METEOROLOGY: )  
 F-105D AIRCRAFT ( 80% RPM ) TEMP = 15 C )  
 J75-P-19W ENGINE ( FREE FLOW ) BAR PRESS = .760 M HG )  
 FAR FIELD NOISE ( ) REL HUMID = 70 % )

IDENTIFICATION: )  
 OMEGA 1.4 )  
 TEST 78-013-001 )  
 RUN 02 )  
 18 SEP 78 )  
 PAGE 14 )



DISTANCE FROM SOURCE (METERS)

FIGURE: C-WEIGHTED OVERALL SOUND LEVEL (OASLC)  
 EQUAL LEVEL CONTOURS (DBC)

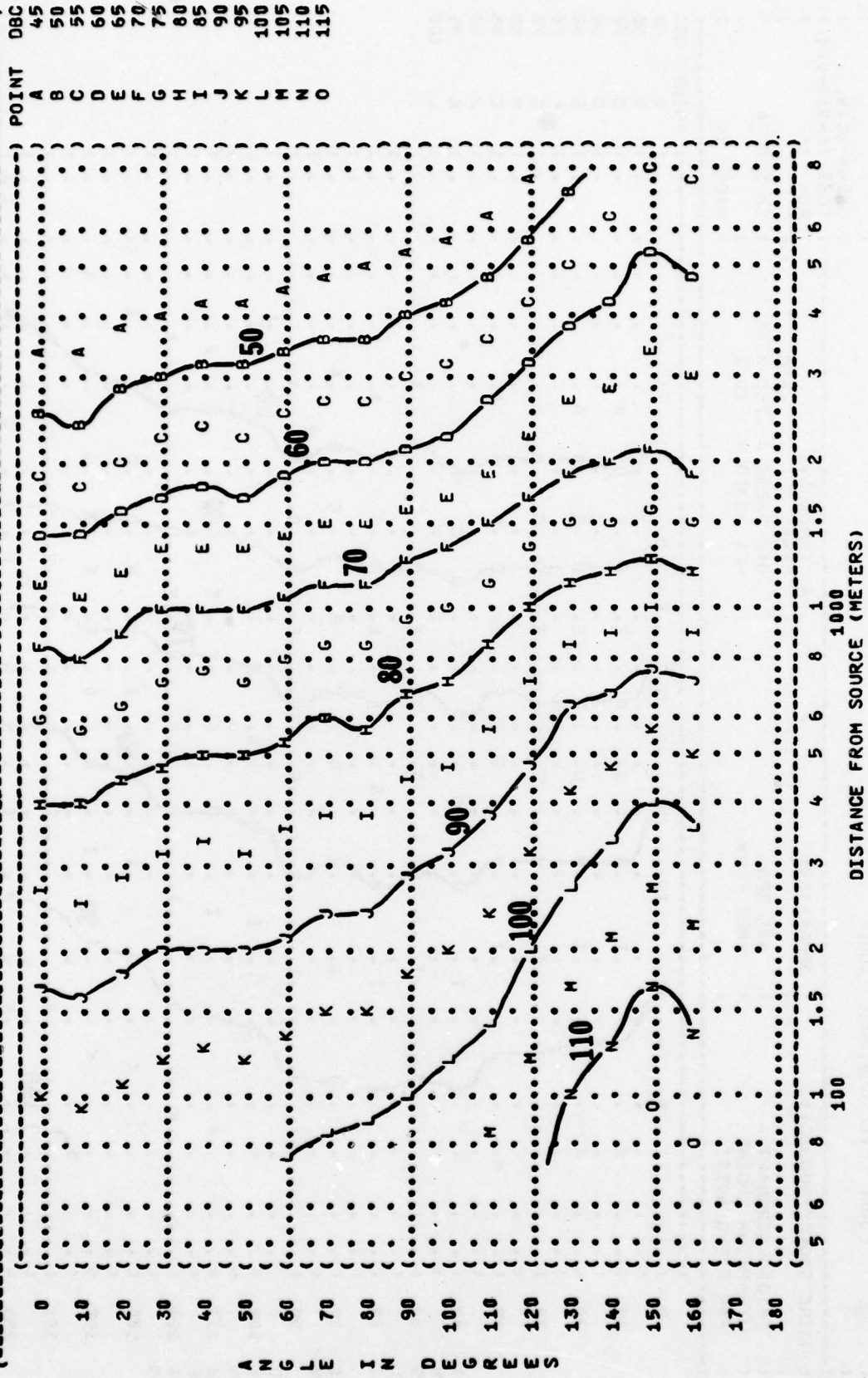
6

NOISE SOURCE/SUBJECT: ( OPERATION:  
 ( ( ( 90% RPM  
 ( ( ( FREE FLOW  
 ( ( ( FAR FIELD NOISE

METEOROLOGY:  
 ( ) TEMP = 15 C  
 ( ) BAR PRESS = .760 M HG  
 ( ) REL HUMID = 70 %

IDENTIFICATION:  
 ( ) OMEGA 1.4  
 ( ) TEST 78-013-001  
 ( ) RUN 03

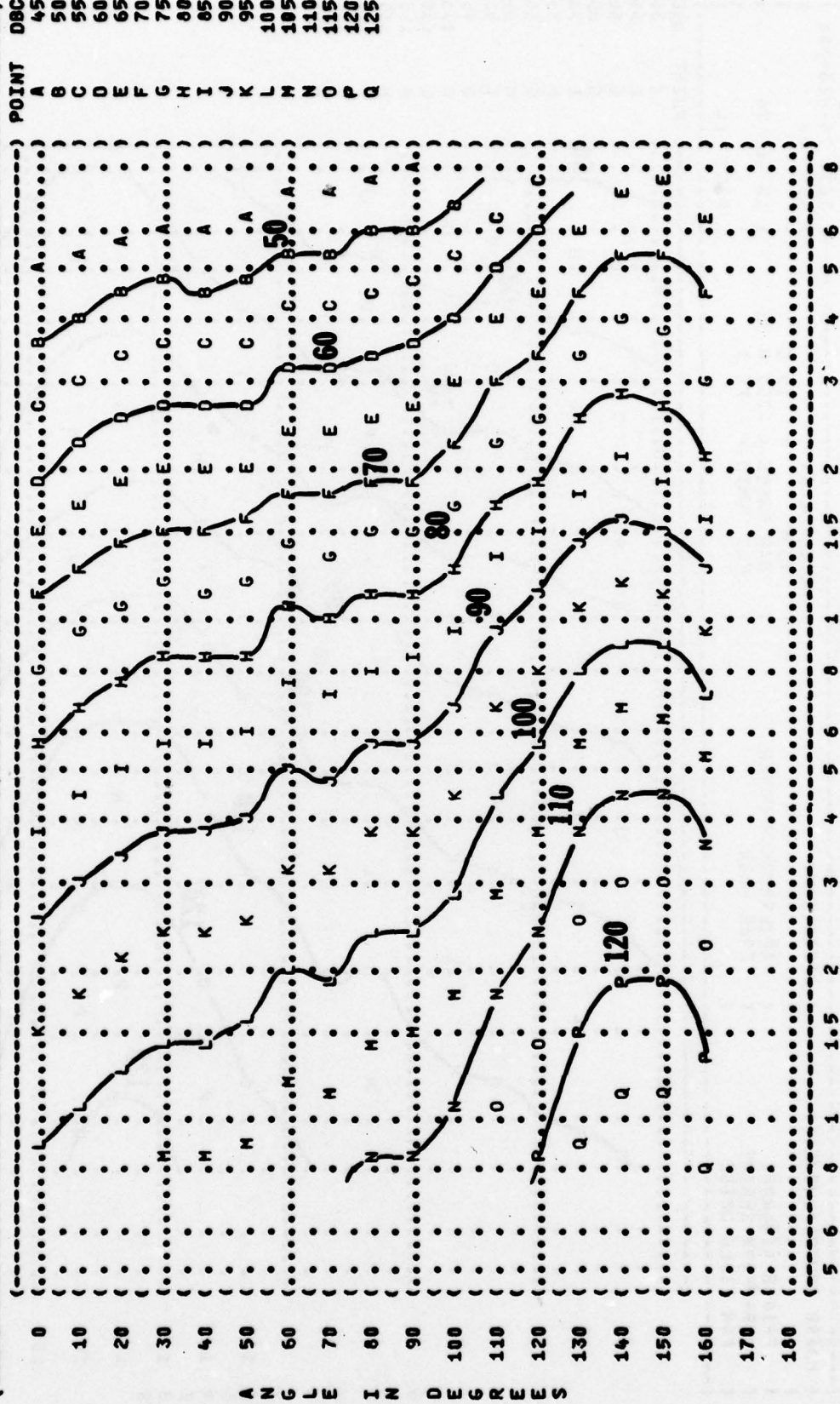
18 SEP 78  
 PAGE 14



A N G L E I N D E G R E E S

FIGURE: C-WEIGHTED OVERALL SOUND LEVEL (OASLC)  
 EQUAL LEVEL CONTOURS (DBC)

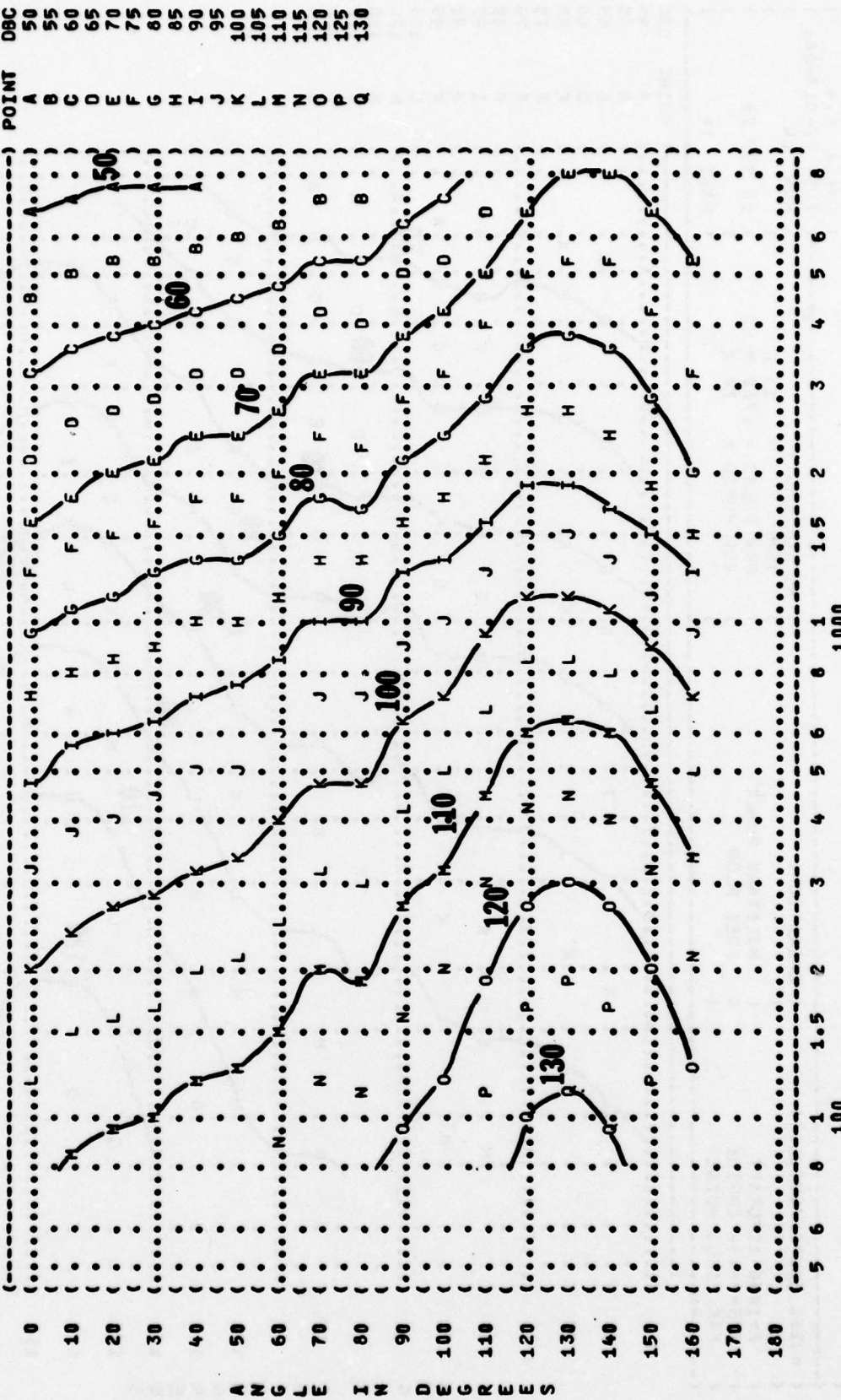
IDENTIFICATIONS )  
 OMEGA 1.4 )  
 TEST 78-013-001 )  
 RUN 04 )  
 METEOROLOGY: )  
 TEMP = 15 C )  
 BAR PRESS = .760 M HG )  
 REL HUMID = 70 % )  
 OPERATION: )  
 MILITARY POWER )  
 FREE FLOW )  
 NOISE SOURCE/SUBJECT: )  
 F-1050 AIRCRAFT )  
 J75-P-19W ENGINE )  
 FAR FIELD NOISE )  
 PAGE 14 )



A N G L E I N D E G R E E S

FIGURE 6 C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION: )  
 OMEGA 1.4 )  
 TEST 78-013-001 )  
 RUN 05 )  
 METEOROLOGY: )  
 TEMP = 15 C )  
 BAR PRESS = .760 M HG )  
 REL HUMID = 70 % )  
 OPERATION: )  
 AFTERBURNER POWER )  
 FREE FLOW )  
 SUBJECT: )  
 F-105D AIRCRAFT )  
 J75-P-19M ENGINE )  
 FAR FIELD NOISE )



DISTANCE FROM SOURCE (METERS)

FIGURE: A-WEIGHTED OVERALL SOUND LEVEL (OASLA)  
 EQUAL LEVEL CONTOURS (OBA)

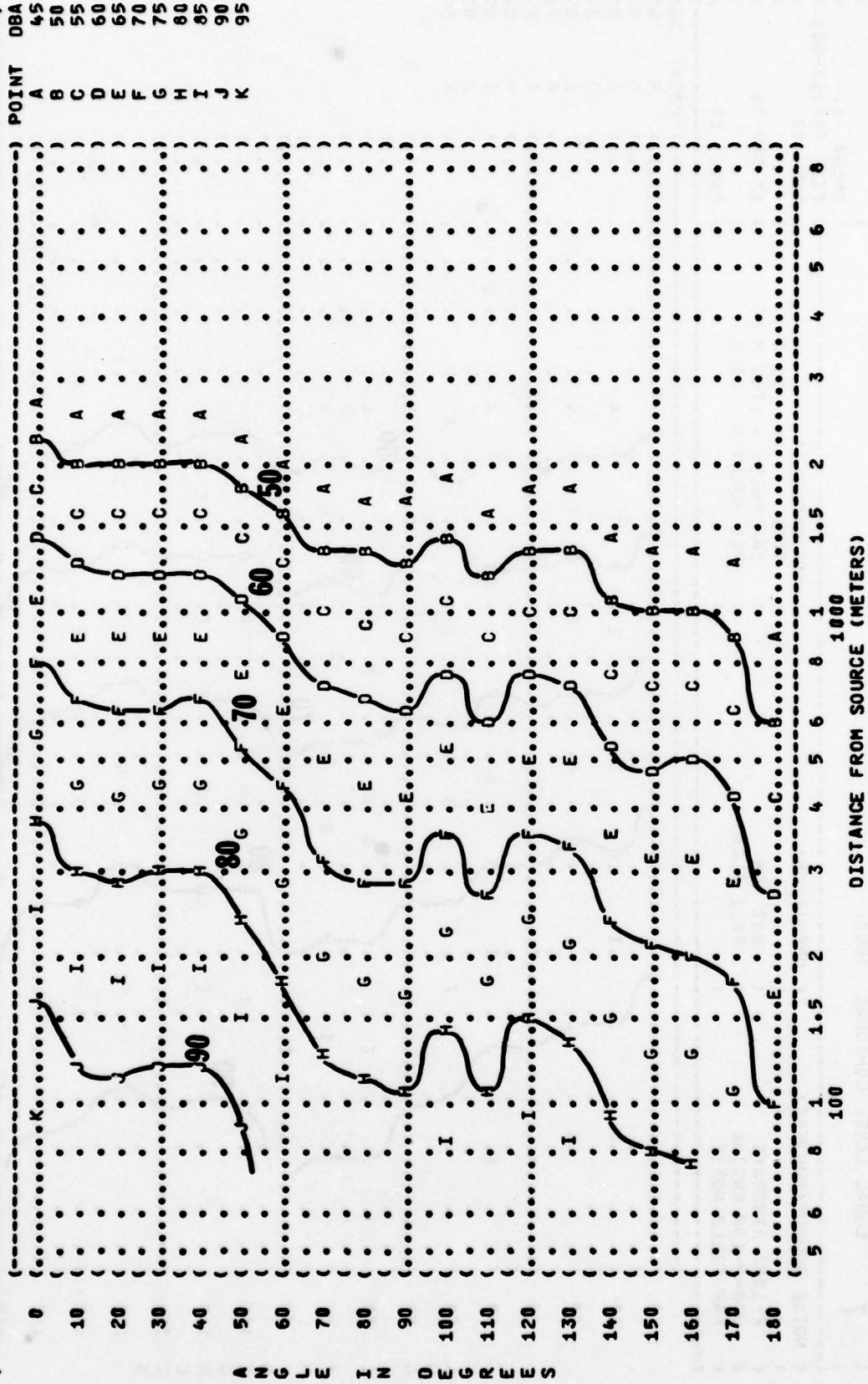
7

NOISE SOURCE/SUBJECT: ( OPERATION:  
 ( ( ( IDLE  
 ( ( ( FREE FLOW  
 ( ( ( FAR FIELD NOISE

METEOROLOGY:  
 TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %

IDENTIFICATION:  
 OMEGA 1.4  
 TEST 78-013-001  
 RUN 01

18 SEP 78  
 PAGE 15

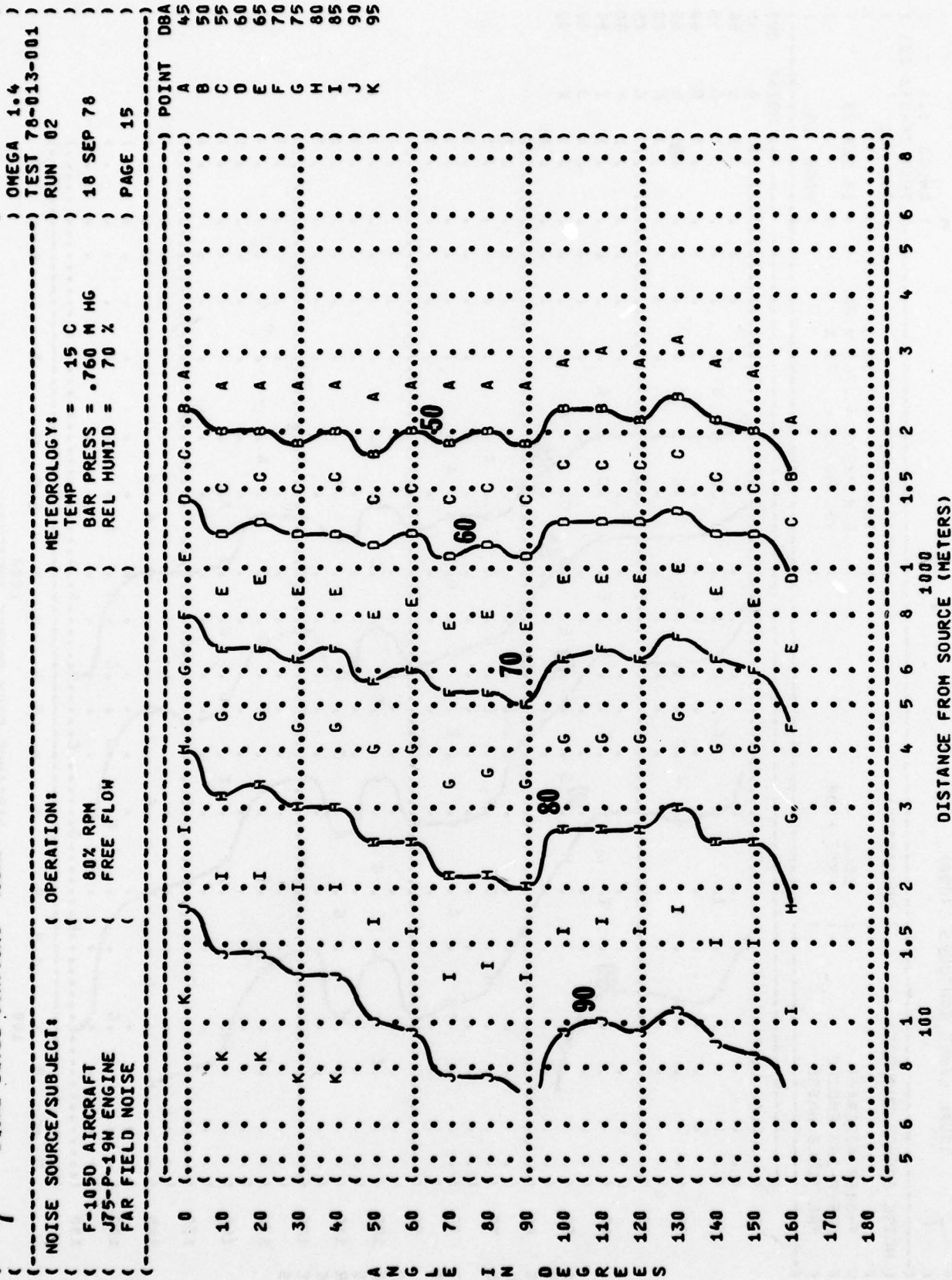


A N G L E I N D E G R E E S

D I S T A N C E F R O M S O U R C E ( M E T E R S )

POINT OBA  
 A 45  
 B 50  
 C 55  
 D 60  
 E 65  
 F 70  
 G 75  
 H 80  
 I 85  
 J 90  
 K 95

FIGURE 7 A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)



A M G L E I N D G R E E S

DISTANCE FROM SOURCE (METERS)

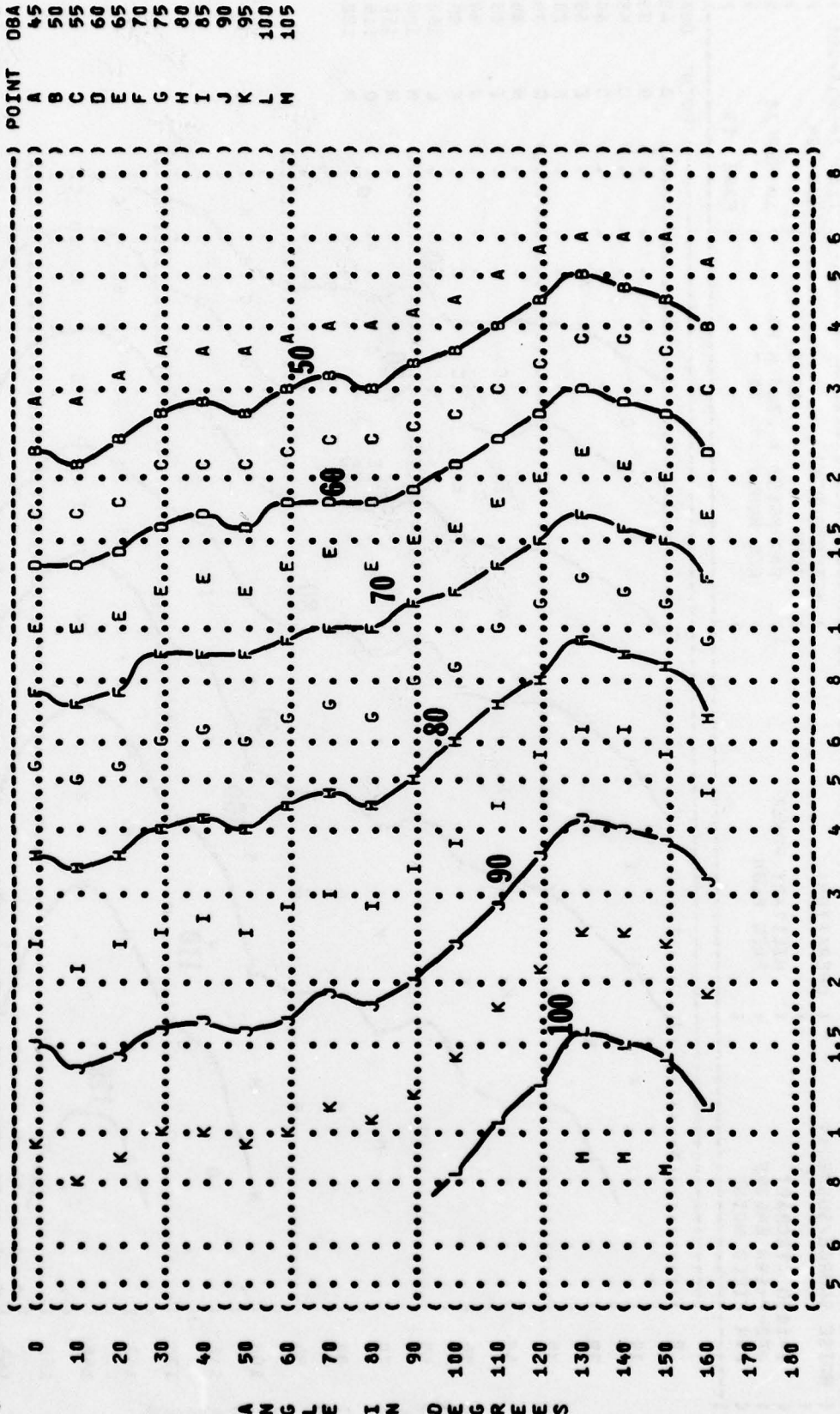
FIGURE 7: A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION: OMEGA 1.4  
 TEST 78-013-001  
 RUN 03  
 16 SEP 78  
 PAGE 15

METEOROLOGY:  
 TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %

OPERATION:  
 90% RPM  
 FREE FLOW

SUBJECT: F-105 AIRCRAFT  
 J75-P-19H ENGINE  
 F-7 FIELD NOISE



DISTANCE FROM SOURCE (METERS)

FIGURE: A-WEIGHTED OVERALL SOUND LEVEL (OASLA)  
 EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:  
 OMEGA 1.4  
 TEST 78-013-001  
 RUN 04  
 METEOROLOGY:  
 TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %  
 OPERATION:  
 MILITARY POWER  
 FREE FLOW  
 F-1050 AIRCRAFT  
 J75-P-19M ENGINE  
 FAR FIELD NOISE

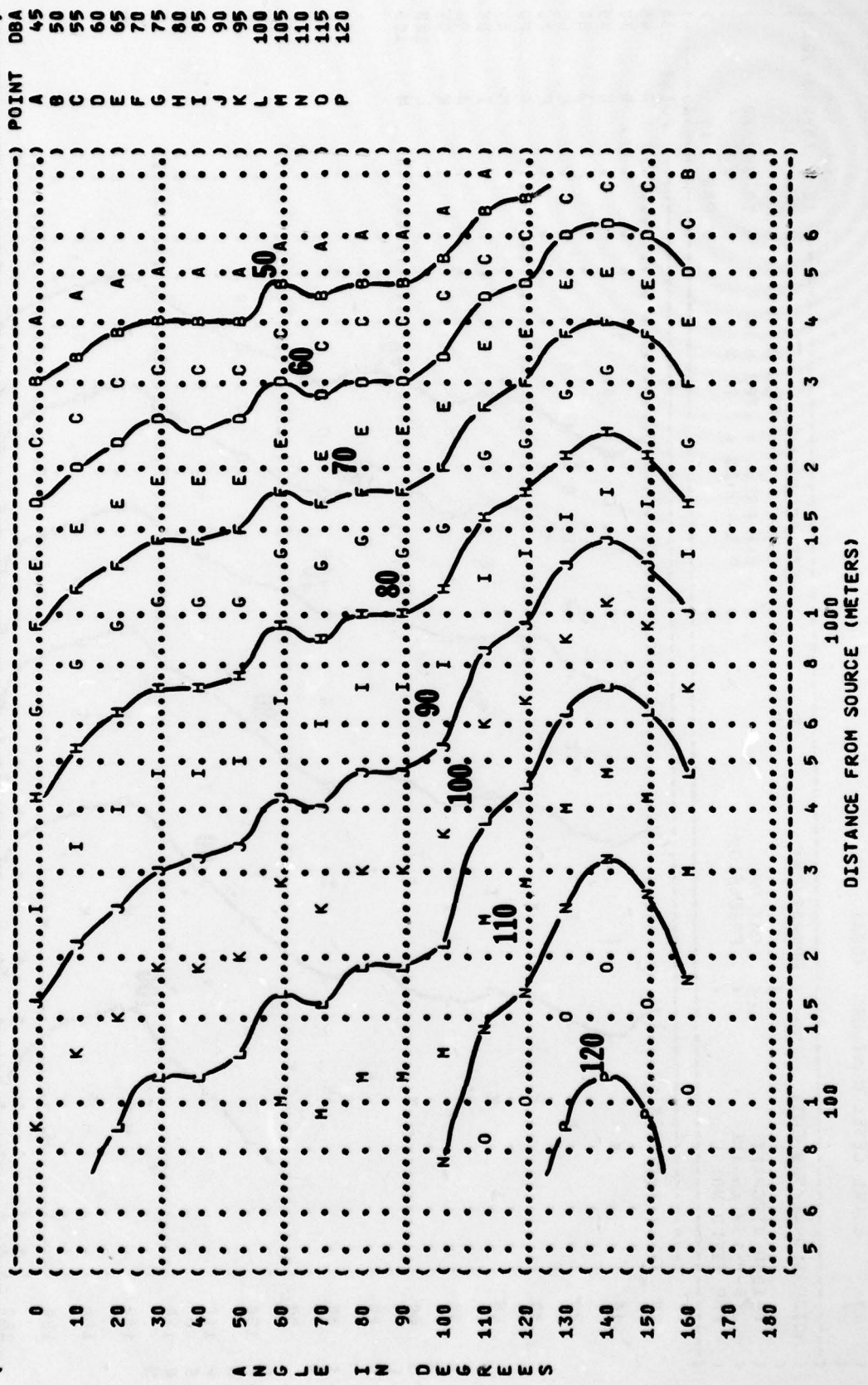
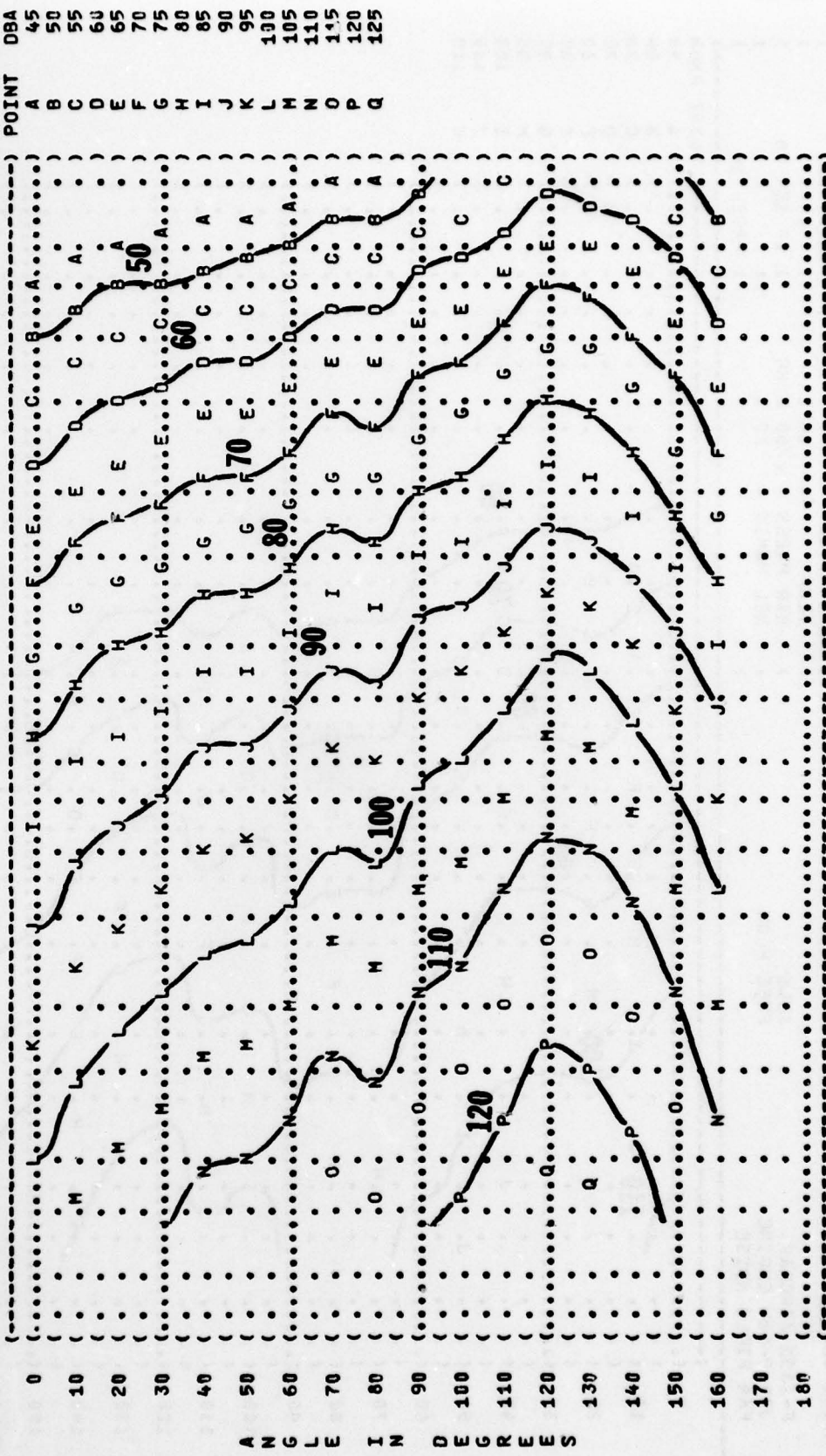


FIGURE 1 A-WEIGHTED OVERALL SOUND LEVEL (OASLA)  
EQUIL LEVEL CONTOURS (DBA)

7

NOISE SOURCE/SUBJECT: ( OPERATION: )  
 F-105D AIRCRAFT ( AFTERBURNER POWER = 15 C )  
 J75-P-19W ENGINE ( FREE FLOW ) ( BAR PRESS = .760 M HG )  
 FAR FIELD NOISE ( ) ( REL HUMID = 70 % )  
 ) METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) ) )  
 ) ) )  
 ) ) )  
 ) ) )

IDENTIFICATION: )  
 ) ) )  
 ) OMEGA 1.4 )  
 ) TEST 78-013-001 )  
 ) RUN 05 )  
 ) ) )  
 ) 24 JAN 79 )  
 ) ) )  
 ) PAGE 15 )



DISTANCE FROM SOURCE (METERS)

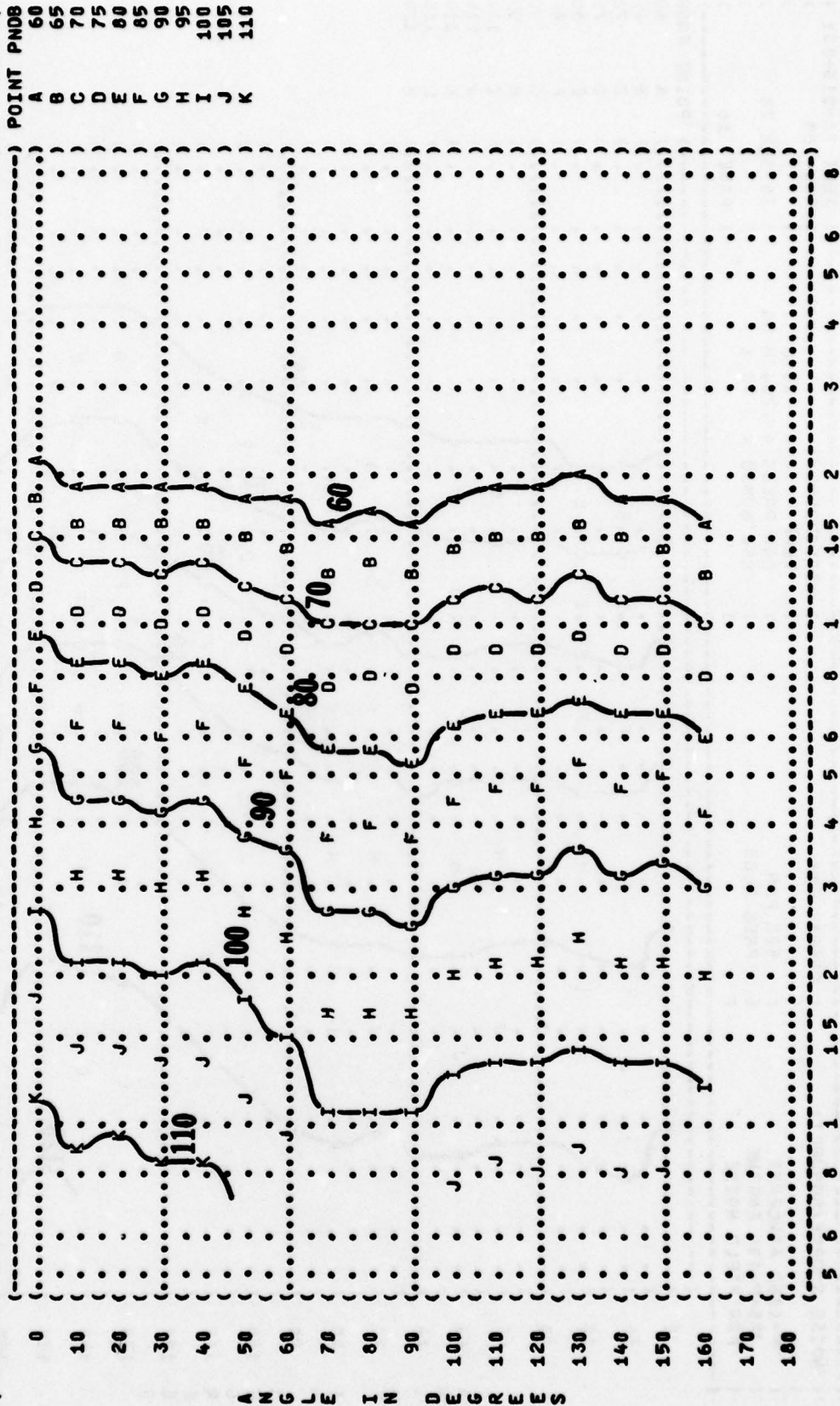


FIGURE: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT)  
 EQUAL LEVEL CONTOURS (PNDB)

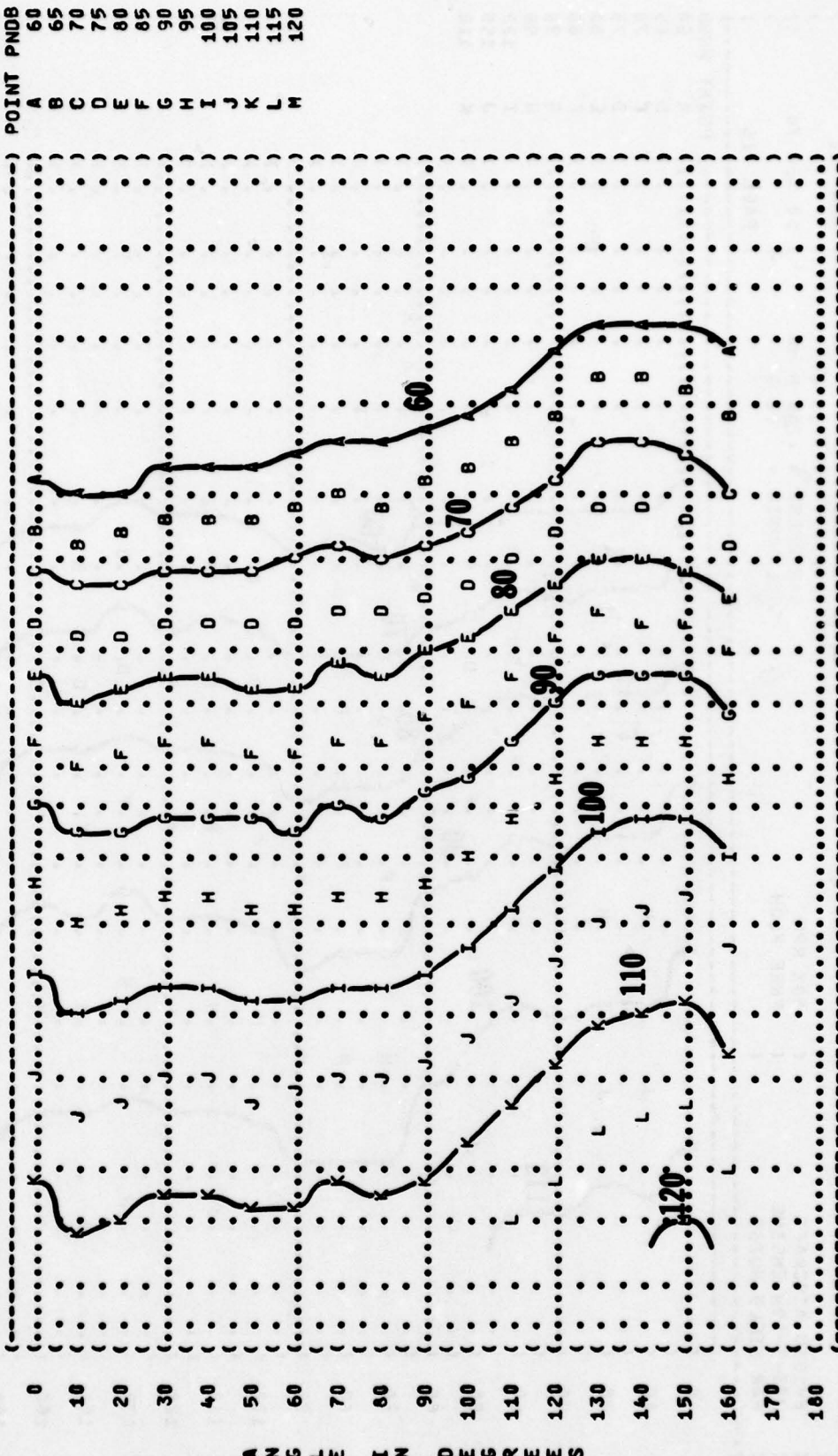
IDENTIFICATION:  
 OMEGA 1.4  
 TEST 78-013-001  
 RUN 02

METEOROLOGY:  
 TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %

NOISE SOURCE/SUBJECT: OPERATION:  
 F-105D AIRCRAFT ( 80% RPM  
 J75-P-19W ENGINE ( FREE FLOW  
 FAR FIELD NOISE (



( ) IDENTIFICATION: )  
 ( ) OMEGA 1.4 )  
 ( ) TEST 78-013-001 )  
 ( ) RUN 03 )  
 ( ) METEOROLOGY: )  
 ( ) TEMP = 15 C )  
 ( ) BAR PRESS = .760 M HG )  
 ( ) REL HUMID = 70 % )  
 ( ) PAGE 16 )  
 ( ) OPERATION: )  
 ( ) 90% RPM )  
 ( ) FREE FLOW )  
 ( ) FAR FIELD NOISE )



( ) NOISE SOURCE/SUBJECT: ( )  
 ( ) F-105D AIRCRAFT ( )  
 ( ) J75-P-19M ENGINE ( )  
 ( ) FAR FIELD NOISE ( )

DISTANCE FROM SOURCE (METERS)



FIGURE 8 PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT)  
EQUAL LEVEL CONTOURS (PNDB)

NOISE SOURCE/SUBJECT: ( OPERATION: )  
 F-1050 AIRCRAFT ( AFTERBURNER POWER )  
 J75-P-19W ENGINE ( FREE FLOW )  
 FAR FIELD NOISE ( )

METEOROLOGY:  
 TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %

IDENTIFICATION:  
 OMEGA 1.4  
 TEST 78-013-001  
 RUN 05  
 24 JAN 79  
 PAGE 16

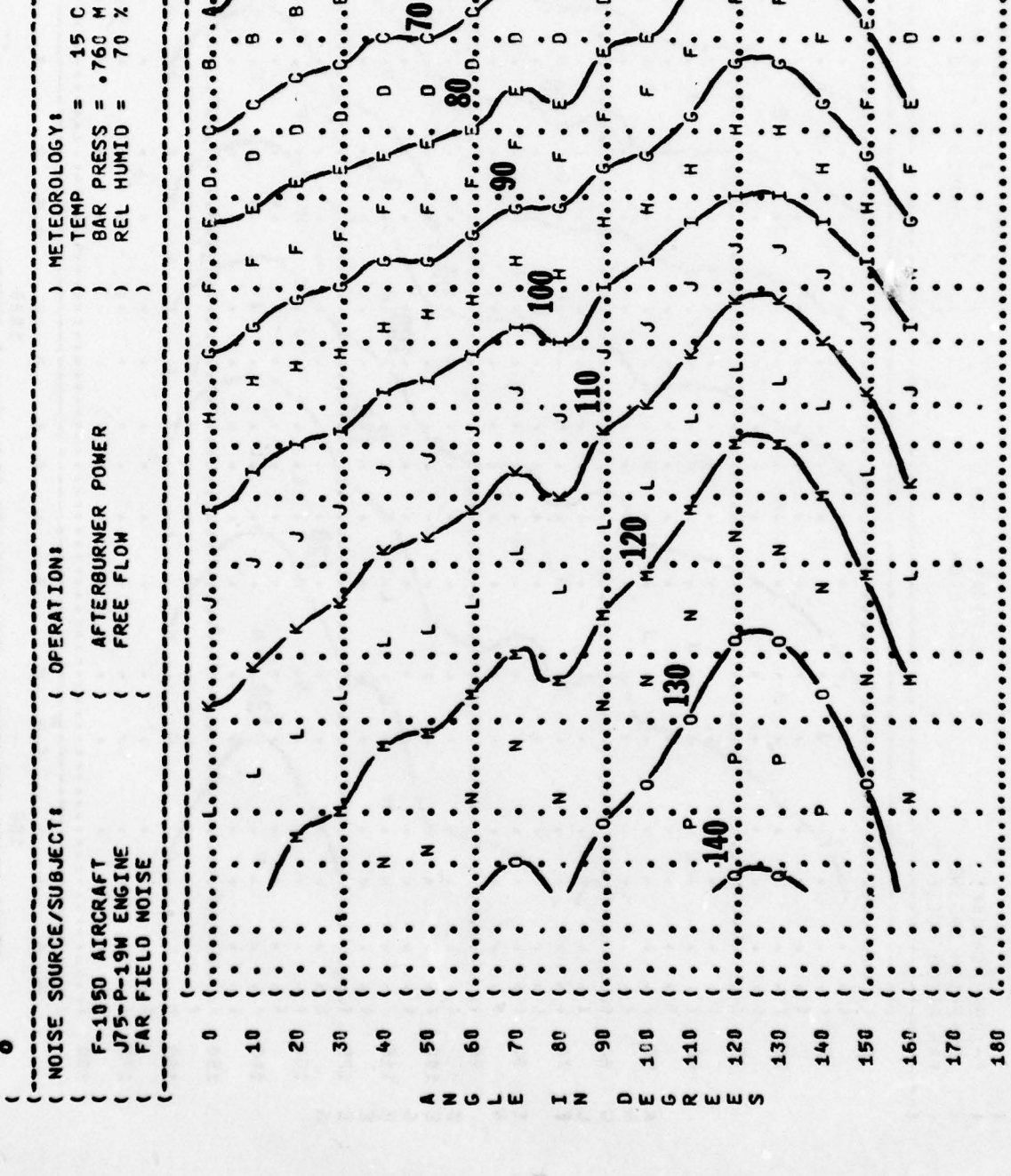
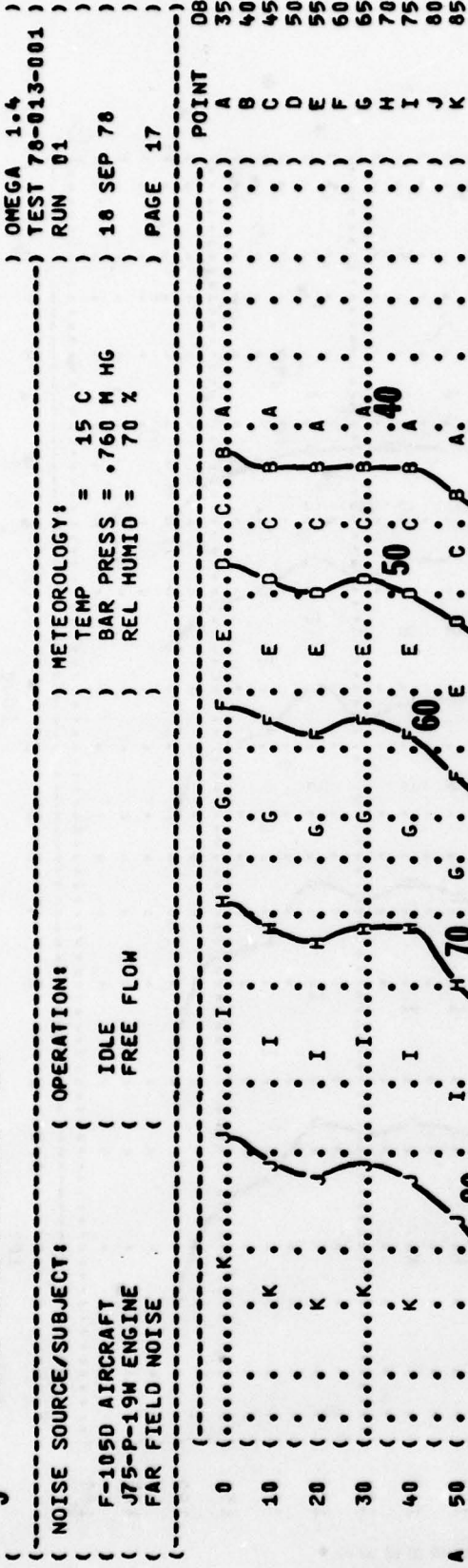


FIGURE 1: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)  
 EQUAL LEVEL CONTOURS (DB)



IDENTIFICATION:  
 OMEGA 1.4  
 TEST 78-013-001  
 RUN 01  
 18 SEP 78  
 PAGE 17

METEOROLOGY:  
 TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %

OPERATIONS:  
 F-105D AIRCRAFT  
 J75-P-19W ENGINE  
 FAR FIELD NOISE  
 IDLE  
 FREE FLOW

NOISE SOURCE/SUBJECT:

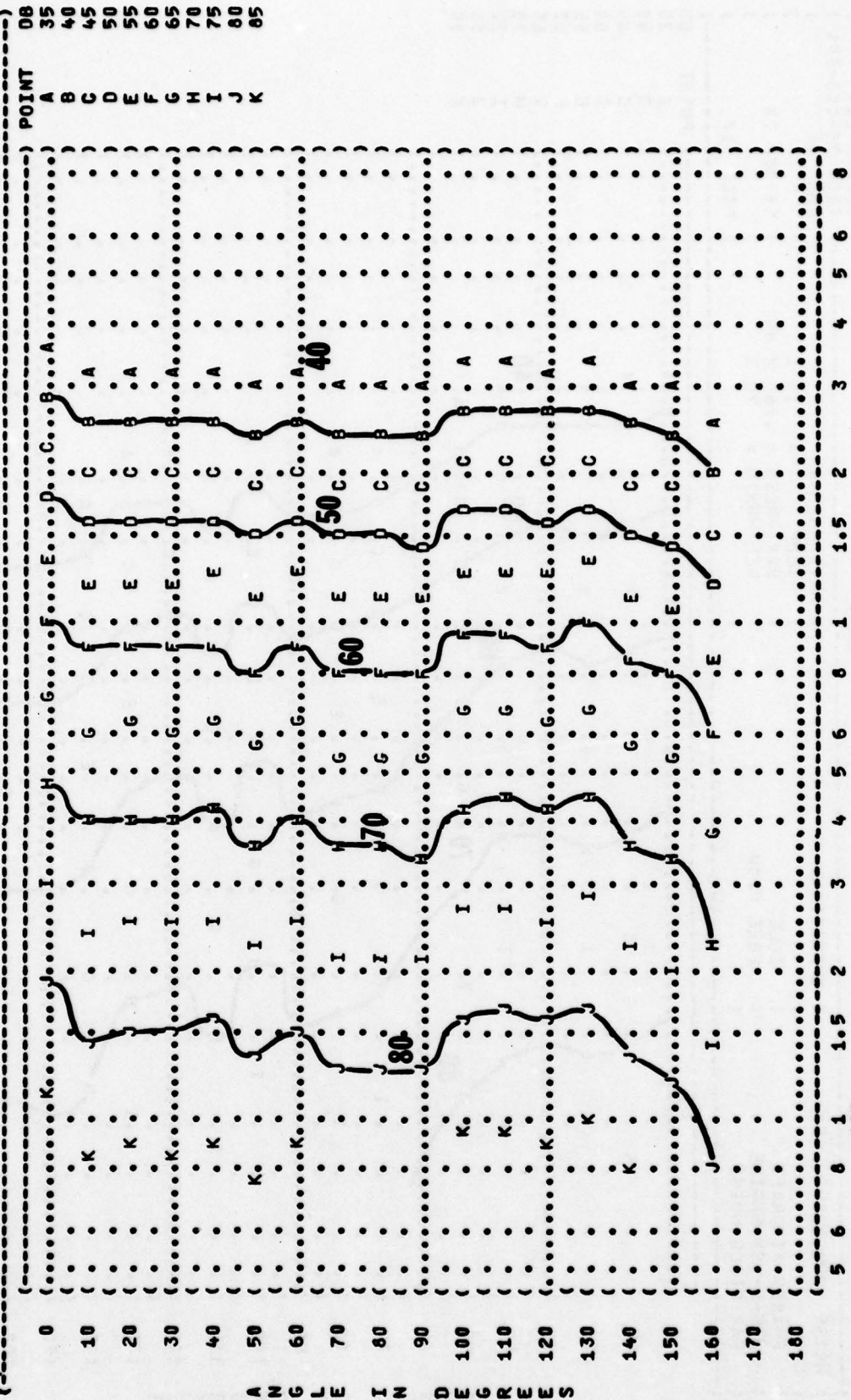
FIGURE 9: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)  
EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION: )  
OMEGA 1.4 )  
TEST 78-013-001 )  
RUN 02 )  
16 SEP 78 )  
PAGE 17 )

METEOROLOGY: )  
TEMP = 15 C )  
BAR PRESS = .760 M HG )  
REL HUMID = 70 % )

OPERATIONS: )  
80% RPM )  
FREE FLOW )

NOISE SOURCE/SUBJECT: ( )  
F-1050 AIRCRAFT ( )  
J75-P-19M ENGINE ( )  
FAR FIELD NOISE ( )



DISTANCE FROM SOURCE (METERS)

FIGURE 9 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:  
 OMEGA 1.4  
 TEST 78-013-001  
 RUN 03  
 18 SEP 78  
 PAGE 17

METEOROLOGY:  
 TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %

OPERATION:  
 90% RPH  
 FREE FLOW

NOISE SOURCE/SUBJECT:  
 F-105D AIRCRAFT  
 J75-P-19M ENGINE  
 FAR FIELD NOISE

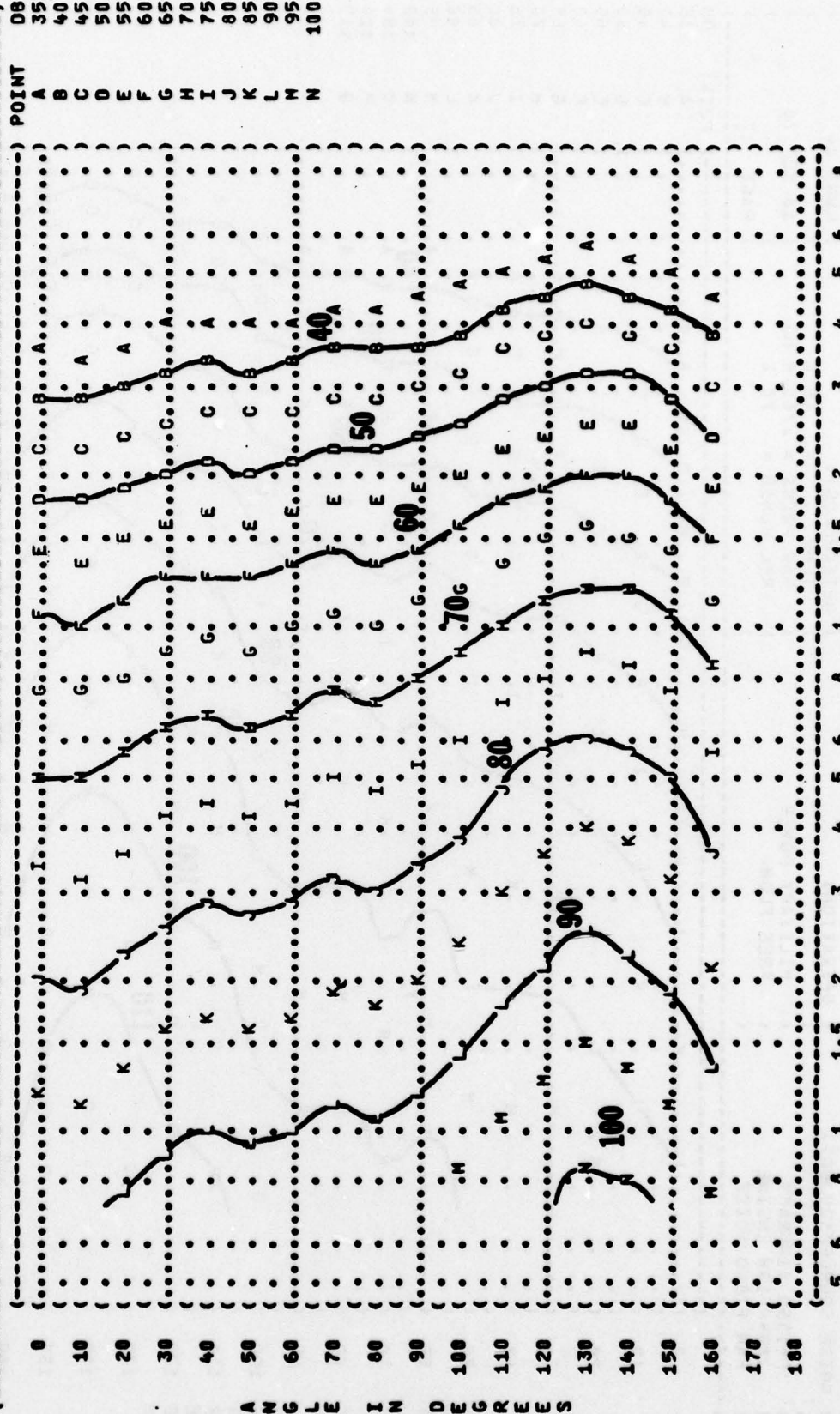
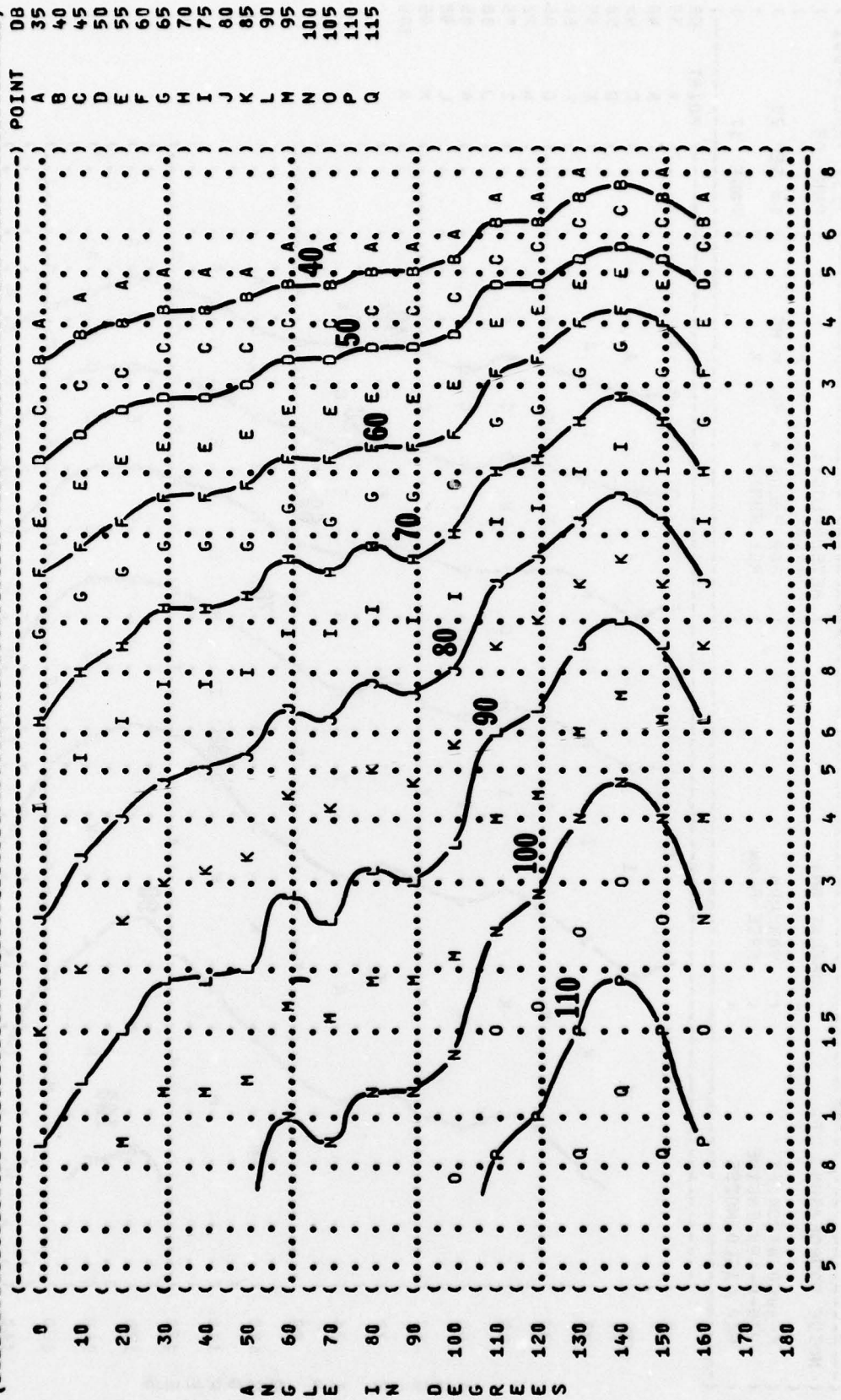


FIGURE: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)  
 EQUAL LEVEL CONTOURS (DB)

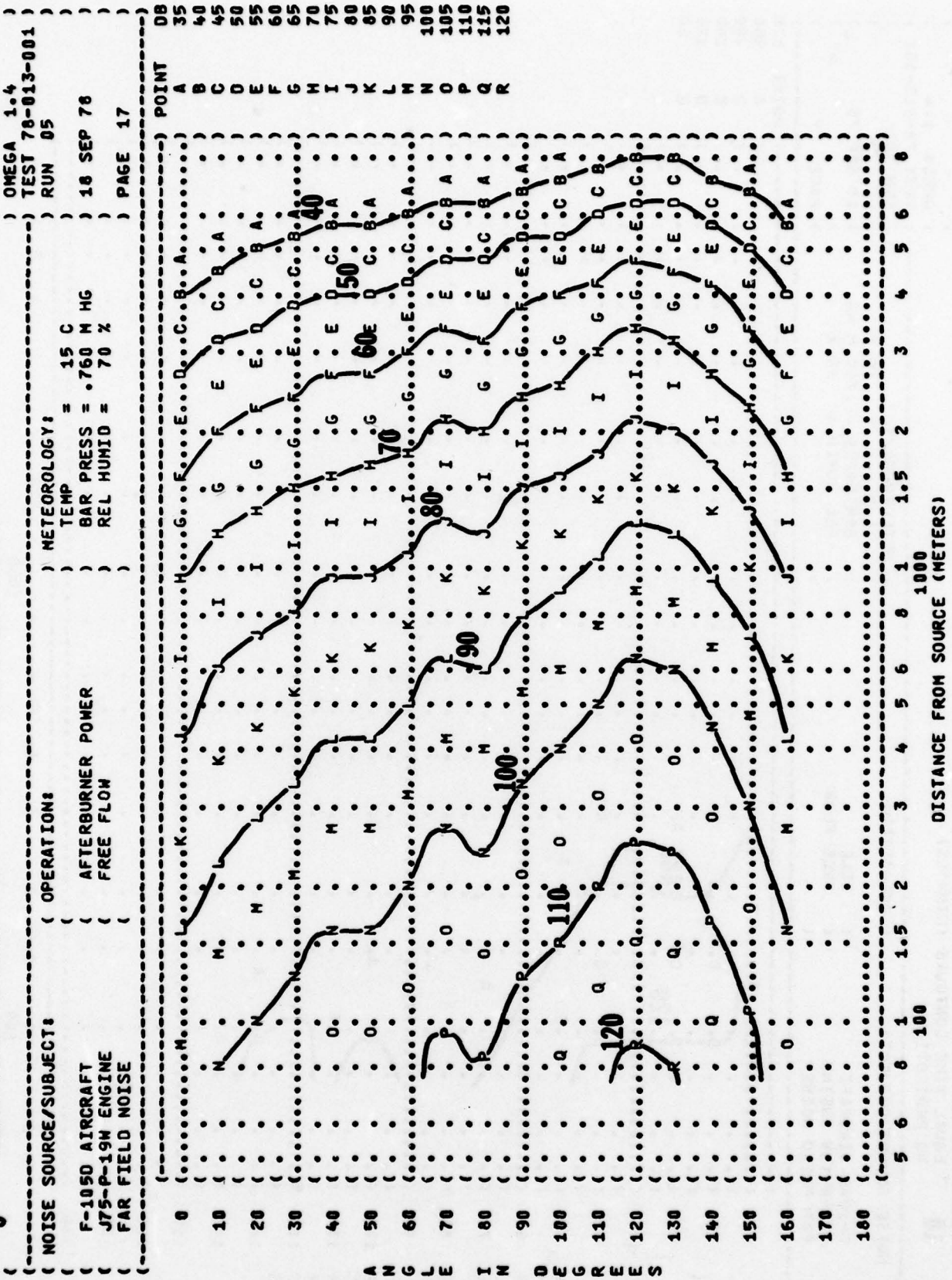
9

NOISE SOURCE/SUBJECT: ( OPERATION: ) METEOROLOGY: ) IDENTIFICATION: )  
 F-1050 AIRCRAFT ( MILITARY POWER ) TEMP = 15 C ) OMEGA 1.4 )  
 J75-P-19M ENGINE ( FREE FLOW ) BAR PRESS = .760 M HG ) TEST 78-013-001 )  
 FAR FIELD NOISE ( ) REL HUMID = 70 % ) RUN 04 ) PAGE 17 )



DISTANCE FROM SOURCE (METERS)

FIGURE 9: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)



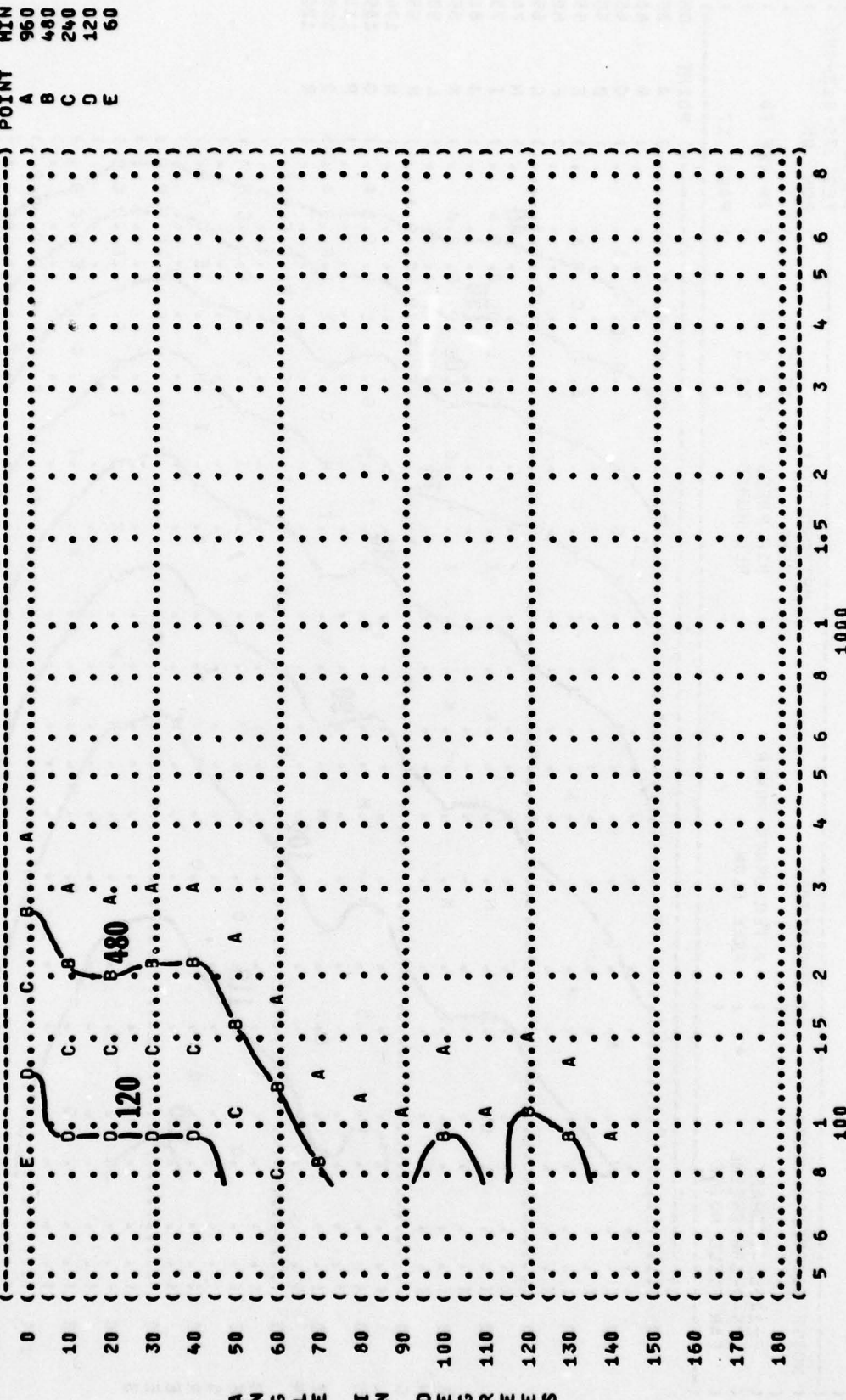
DISTANCE FROM SOURCE (METERS)

IDENTIFICATION: OMEGA 1.4  
 TEST 78-013-001  
 RUN 05  
 METEOROLOGY: TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %  
 OPERATION: AFTERBURNER POWER  
 FREE FLOW  
 SUBJECT: F-1050 AIRCRAFT  
 J75-P-19M ENGINE  
 FAR FIELD NOISE  
 PAGE 17

POINT DB  
 A 35  
 B 40  
 C 45  
 D 50  
 E 55  
 F 60  
 G 65  
 H 70  
 I 75  
 J 80  
 K 85  
 L 90  
 M 95  
 N 100  
 O 105  
 P 110  
 Q 115  
 R 120

A N G L E I M D E G R E E S

( ( FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73) ) IDENTIFICATION: )  
 ( ( 10 EQUAL TIME CONTOURS (MINUTES) ) ) OMEGA 1.4 )  
 ( ( NO PROTECTION ) ) TEST 78-013-001 )  
 ( ( NOISE SOURCE/SUBJECT: ) OPERATION: ) METEOROLOGY: )  
 ( ( F-1050 AIRCRAFT ) ( ) TEMP = 15 C )  
 ( ( J75-P-19M ENGINE ) ( ) BAR PRESS = .760 M HG )  
 ( ( FAR FIELD NOISE ) ( ) FREE FLOW ) ( ) REL HUMID = 70 % )  
 ( ( ) ( ) ) ( ) PAGE 7 )



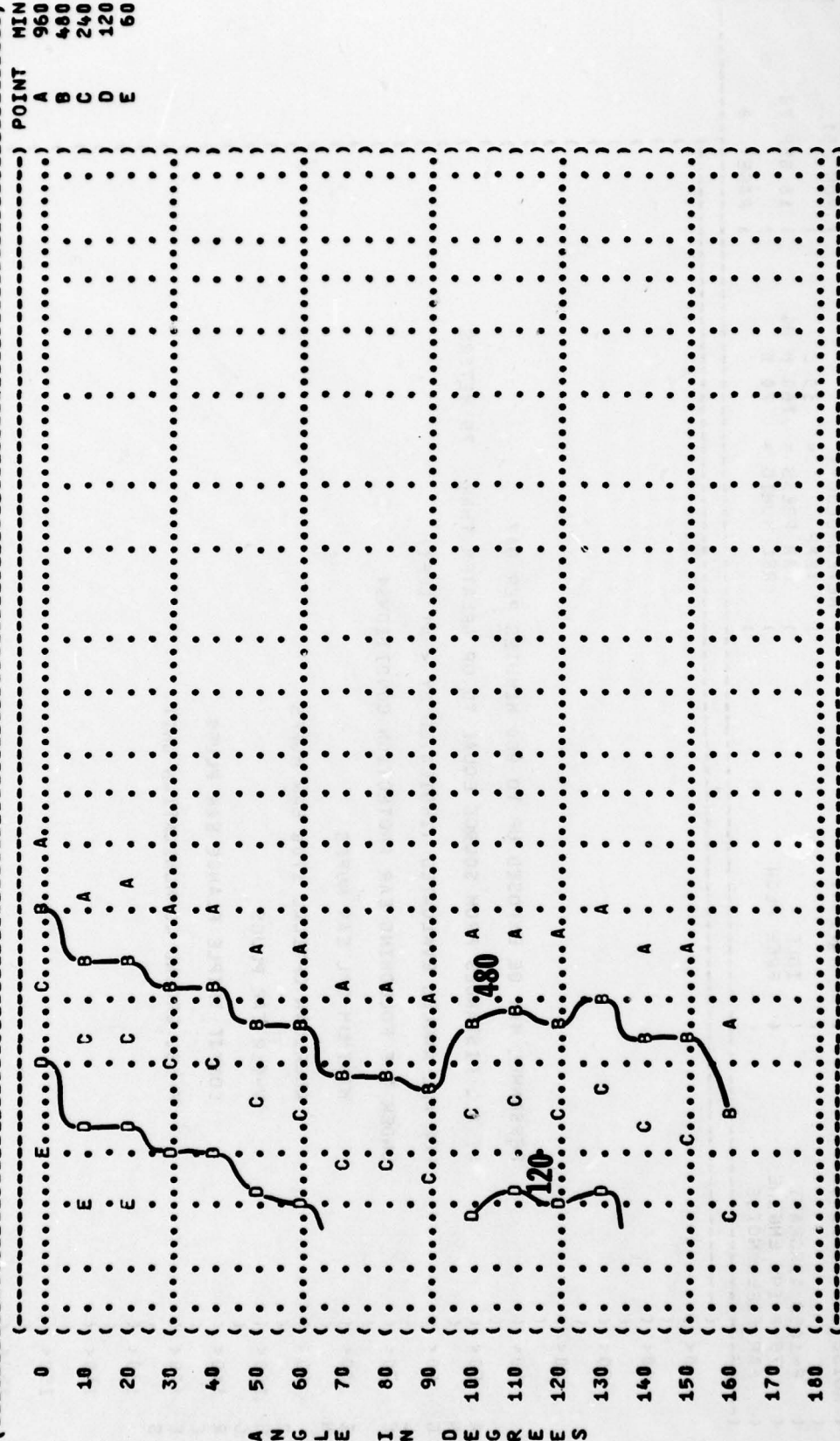
DISTANCE FROM SOURCE (METERS)



```

( ( FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73) ) ) IDENTIFICATIONS:
( ( 10 EQUAL TIME CONTOURS (MINUTES) ) ) ) )
( ( NO PROTECTION ) ) ) )
( ( NOISE SOURCE/SUBJECT: ) ) OPERATION: ) METEOROLOGY: ) TEMP = 15 C ) ) )
( ( F-1050 AIRCRAFT ) ) ) ) ) BAR PRESS = .760 M HG ) ) )
( ( J75-P-19M ENGINE ) ) ) ) ) REL HUMID = 70 % ) ) )
( ( FAR FIELD NOISE ) ) ) ) ) PAGE 7 ) ) )

```



DISTANCE FROM SOURCE (METERS)

FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)

10

EQUAL TIME CONTOURS (MINUTES)

IDENTIFICATION:

OMEGA 1.4  
TEST 78-013-001

RUN 02

METEOROLOGY:  
TEMP = 15 C  
BAR PRESS = .760 M HG  
REL HUMID = 70 %

OPERATIONS:

80% RPM  
FREE FLOW

F-1050 AIRCRAFT  
J75-P-19M ENGINE  
FAR FIELD NOISE

0<  
10<  
20<  
30<  
40<  
50<  
60<  
70<  
80<  
90<  
100<  
110<  
120<  
130<  
140<  
150<  
160<  
170  
180

PERSONNEL MAY BE EXPOSED UP TO 960 MINUTES PER DAY  
AT ALL DISTANCES FROM SOURCE EQUAL TO OR GREATER THAN 75 METERS  
FOR ALL ANGLES EVALUATED (INDICATED BY < AT LEFT)

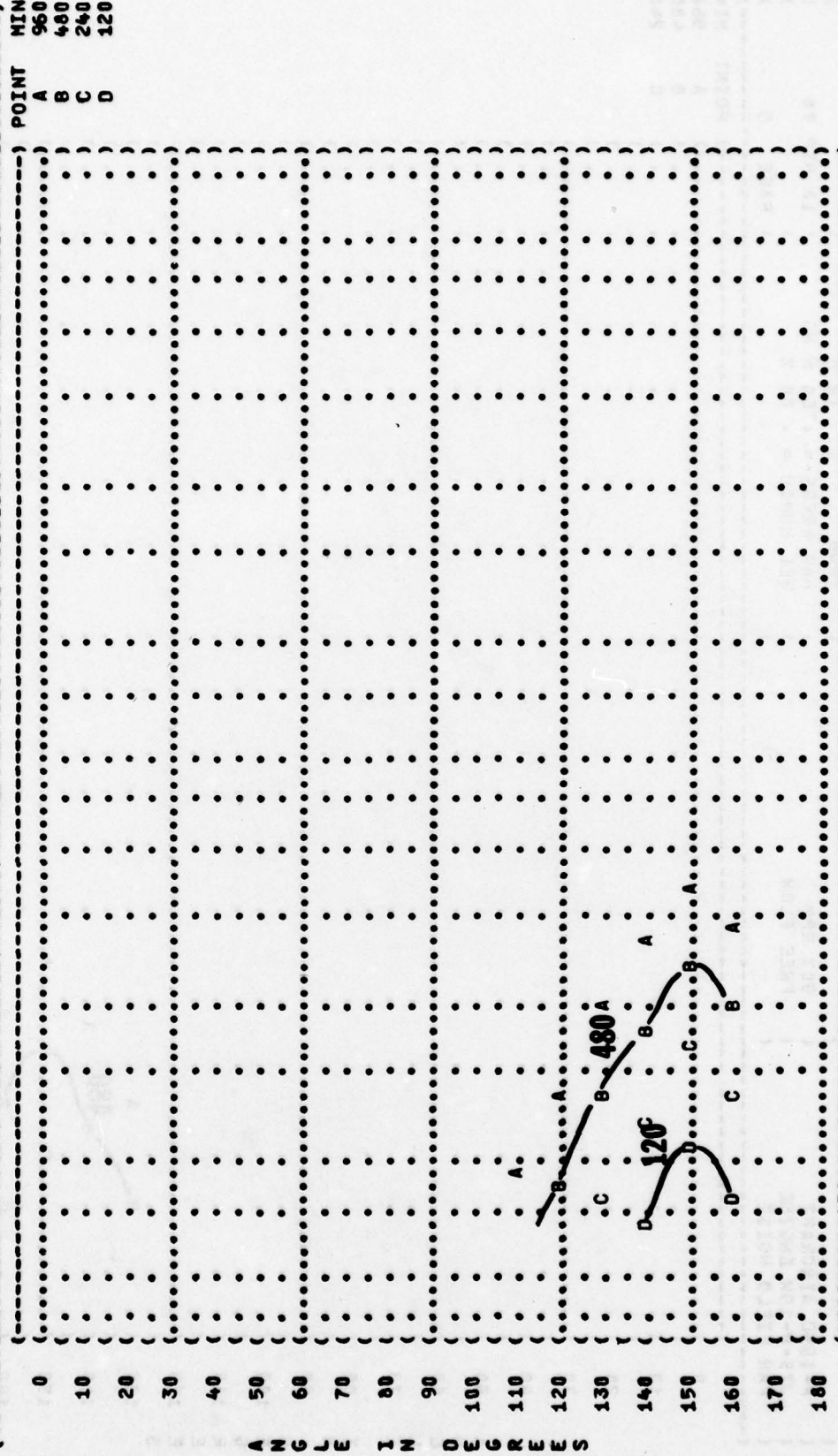
UNDER THE FOLLOWING EAR PROTECTION CONDITIONS:

- MINIMUM QPL EAR MUFFS
- AMERICAN OPTICAL 1700 EAR MUFFS
- V-51R EAR PLUGS
- COMFIT TRIPLE FLANGE EAR PLUGS
- H-133 GROUND COMMUNICATION UNIT

5 6 8 1 1.5 2 3 4 5 6 8 1000  
100  
DISTANCE FROM SOURCE (METERS)



( FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73) ) IDENTIFICATION: )  
 ( 10 EQUAL TIME CONTOURS (MINUTES) ) OMEGA 1.4 )  
 ( MINIMUM QPL EAR MUFFS ) TEST 78-013-001 )  
 ( NOISE SOURCE/SUBJECT: ) OPERATION: ) METEOROLOGY: )  
 ( F-1050 AIRCRAFT ) ( ) TEMP = 15 C )  
 ( J75-P-19W ENGINE ) ( 90% RPM ) BAR PRESS = .760 M HG )  
 ( FAR FIELD NOISE ) ( FREE FLOW ) REL HUMID = 70 % )  
 ( ) ( ) PAGE 8 )





( ( FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73) ) IDENTIFICATION: )  
 ( ( EQUAL TIME CONTOURS (MINUTES) ) )  
 ( ( 10 V-51R EAR PLUGS ) )  
 ( ( NOISE SOURCE/SUBJECT: ) OPERATION: ) METEOROLOGY: )  
 ( ( F-105D AIRCRAFT ) ) TEMP = 15 C )  
 ( ( J75-P-19M ENGINE ) ) 90% RPH ) BAR PRESS = .760 M HG )  
 ( ( FAR FIELD NOISE ) ) FREE FLOW ) REL HUMID = 70 % )  
 ( ( ) ) ) PAGE 10 )  
 ( ( ) ) ) POINT MIN )  
 ( ( ) ) ) A 960 )  
 ( ( ) ) ) B 480 )

A N G L E I N D E G R E E S

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

5 6 8 1 1.5 2 3 4 5 6 8 10 100 1000

DISTANCE FROM SOURCE (METERS)

( FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73) ) IDENTIFICATION: )  
 ( ) )  
 ( ( 10 ) ) OMEGA 1.4 )  
 ( COMFIT TRIPLE FLANGE EAR PLUGS ) TEST 78-013-001 )  
 ( ) ) RUN 03 )  
 ( NOISE SOURCE/SUBJECT: ( OPERATION: ) METEOROLOGY: )  
 ( ) ) TEMP = 15 C )  
 ( ( F-105D AIRCRAFT ( 90% RPM ) BAR PRESS = 0.760 M HG ) 18 SEP 78 )  
 ( ( J75-P-19W ENGINE ( FREE FLOW ) REL HUMID = 70 % ) )  
 ( ( FAR FIELD NOISE ( ) ) PAGE 11 )  
 ( ) ) )

POINT	DISTANCE FROM SOURCE (METERS)											MIN
	0	1	1.5	2	3	4	5	6	8	1000	8	
0	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	A 960
10	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	B 480
20	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
30	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
40	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
50	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
60	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
70	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
80	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
90	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
100	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
110	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
120	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
130	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
140	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
150	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
160	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
170	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	
180	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	

A N G L E I N D E G R E E S

DISTANCE FROM SOURCE (METERS)

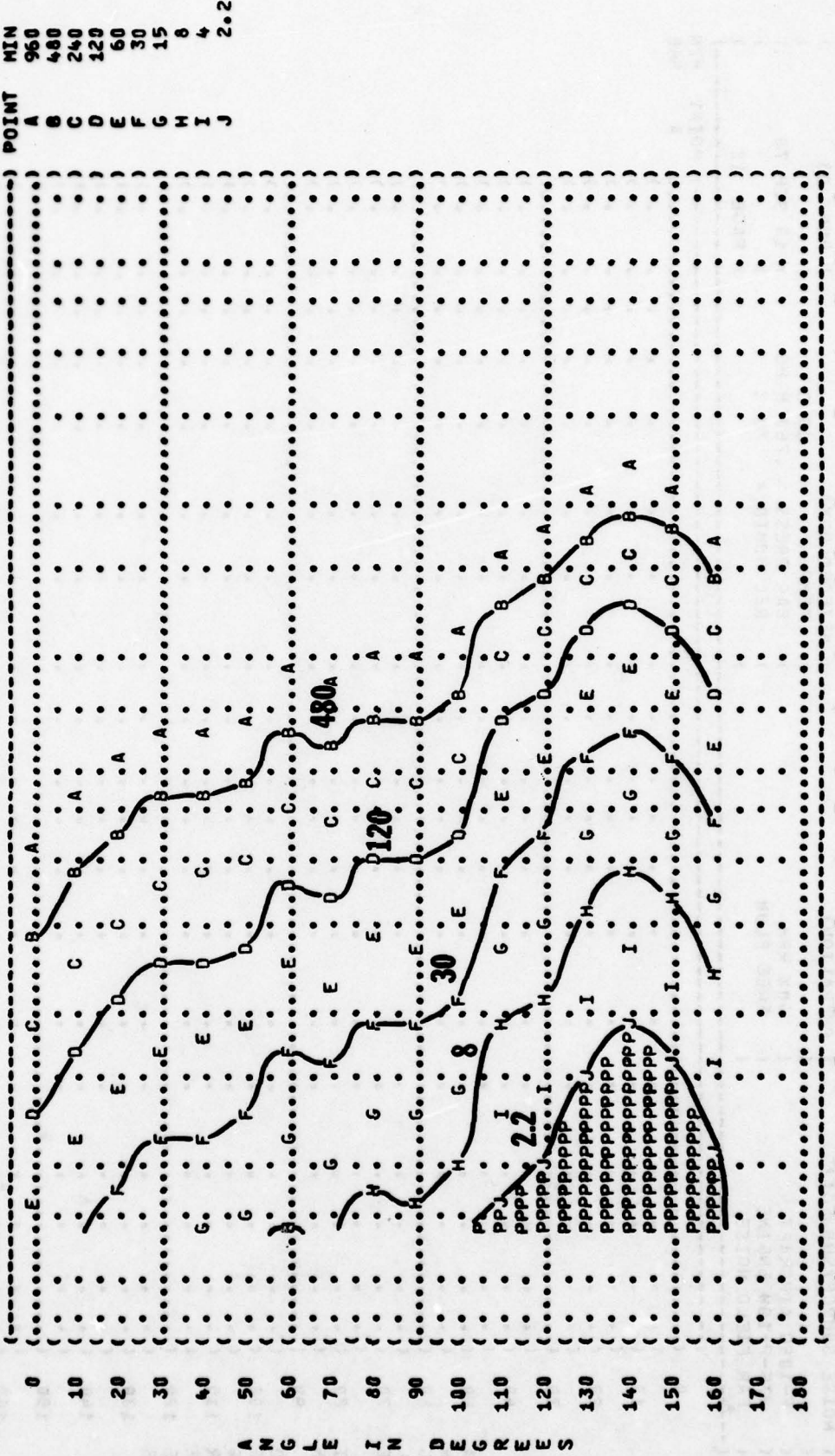


) IDENTIFICATION: )  
 ) OMEGA 1.4 )  
 ) TEST 78-013-001 )  
 ) RUN 04 )  
 ) 10 SEP 78 )  
 ) PAGE 7 )

) METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 M HG )  
 ) REL HUMID = 70 % )

) OPERATION: )  
 ) MILITARY POWER )  
 ) FREE FLOW )  
 )

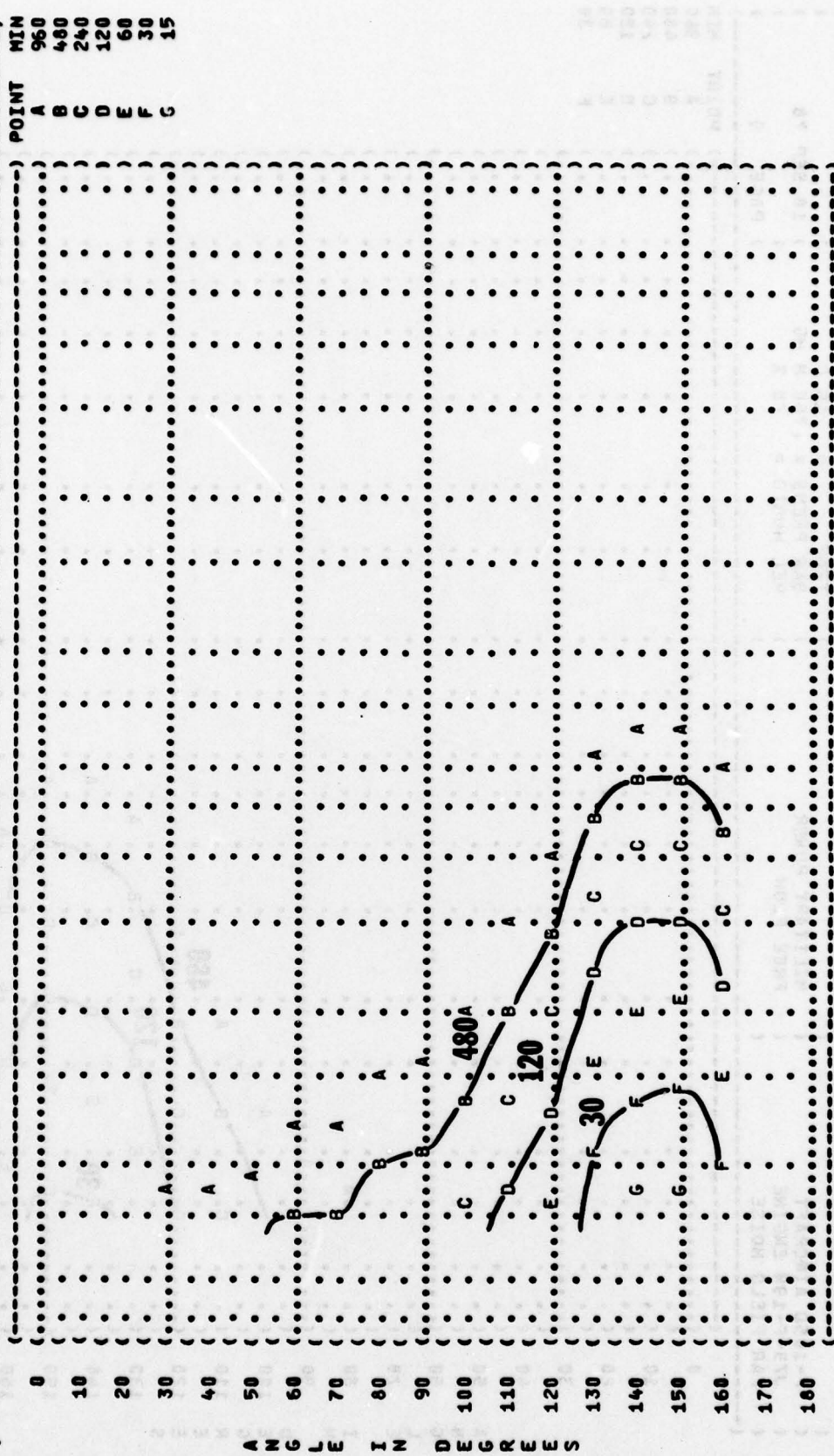
) NOISE SOURCE/SUBJECT: )  
 ) F-105D AIRCRAFT )  
 ) J75-P-19W ENGINE )  
 ) FAR FIELD NOISE )



POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30
G	15
H	8
I	4
J	2.2

P ADDITIONAL EAR PROTECTION REQUIRED.

( ( FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73) ) IDENTIFICATION: )  
 ( ( 10 EQUAL TIME CONTOURS (MINUTES) ) )  
 ( ( MINIMUM QPL EAR MUFFS ) )  
 ( ( NOISE SOURCE/SUBJECT: ) OPERATION: ) METEOROLOGY: )  
 ( ( F-1050 AIRCRAFT ) ) TEMP = 15 C )  
 ( ( J75-P-19M ENGINE ) ) MILITARY POWER ) BAR PRESS = .760 M HG )  
 ( ( FAR FIELD NOISE ) ) FREE FLOW ) REL HUMID = 70 % )  
 ( ( ) ) ) OMEGA 1.4 )  
 ( ( ) ) ) TEST 78-013-001 )  
 ( ( ) ) ) RUN 04 )  
 ( ( ) ) ) 18 SEP 78 )  
 ( ( ) ) ) PAGE 8 )  
 ( ( ) ) ) POINT ) MIN

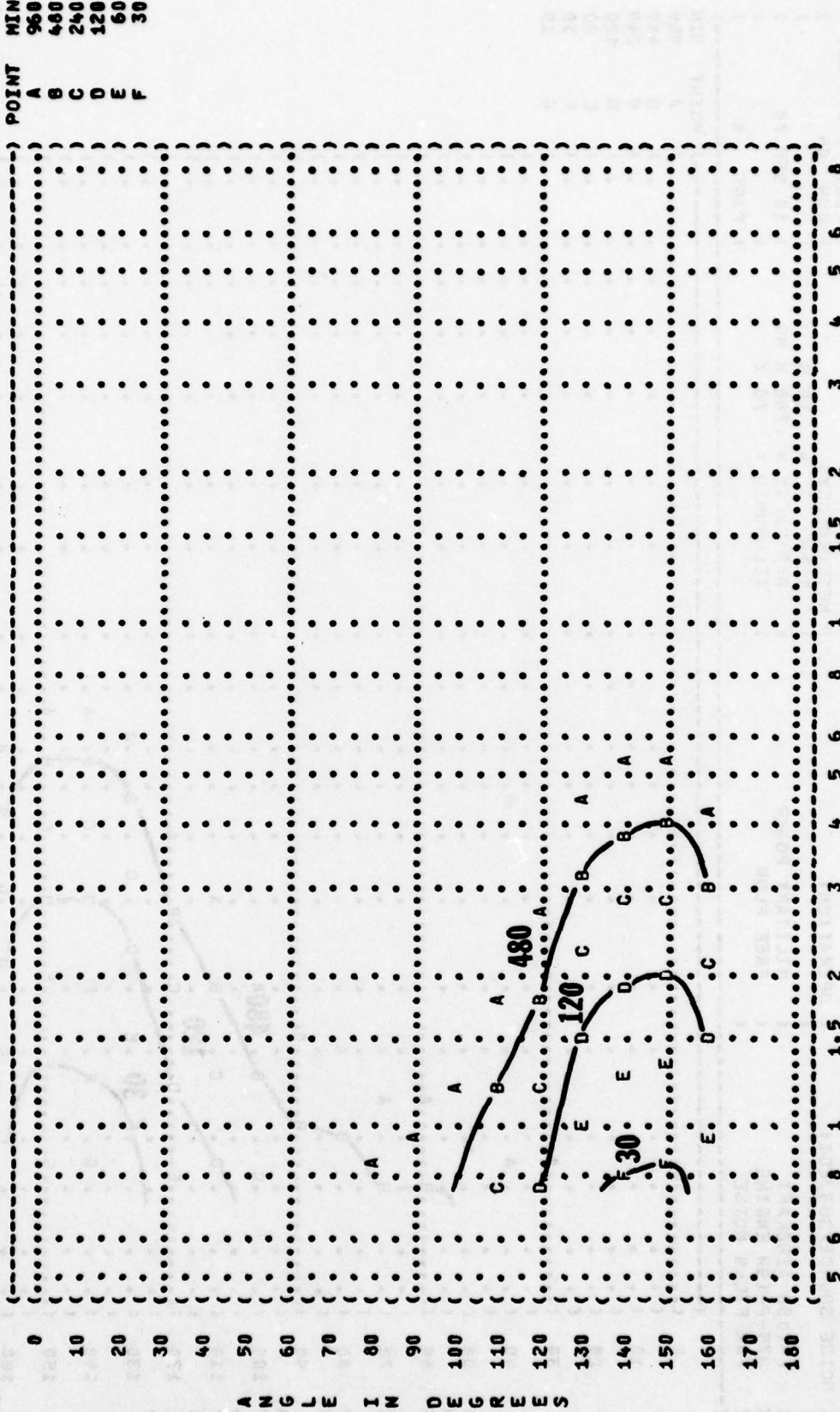


0  
 10  
 20  
 30  
 40  
 50  
 60  
 70  
 80  
 90  
 100  
 110  
 120  
 130  
 140  
 150  
 160  
 170  
 180

5 6 8 1 1.5 2 3 4 5 6 8 100 1000  
 DISTANCE FROM SOURCE (METERS)

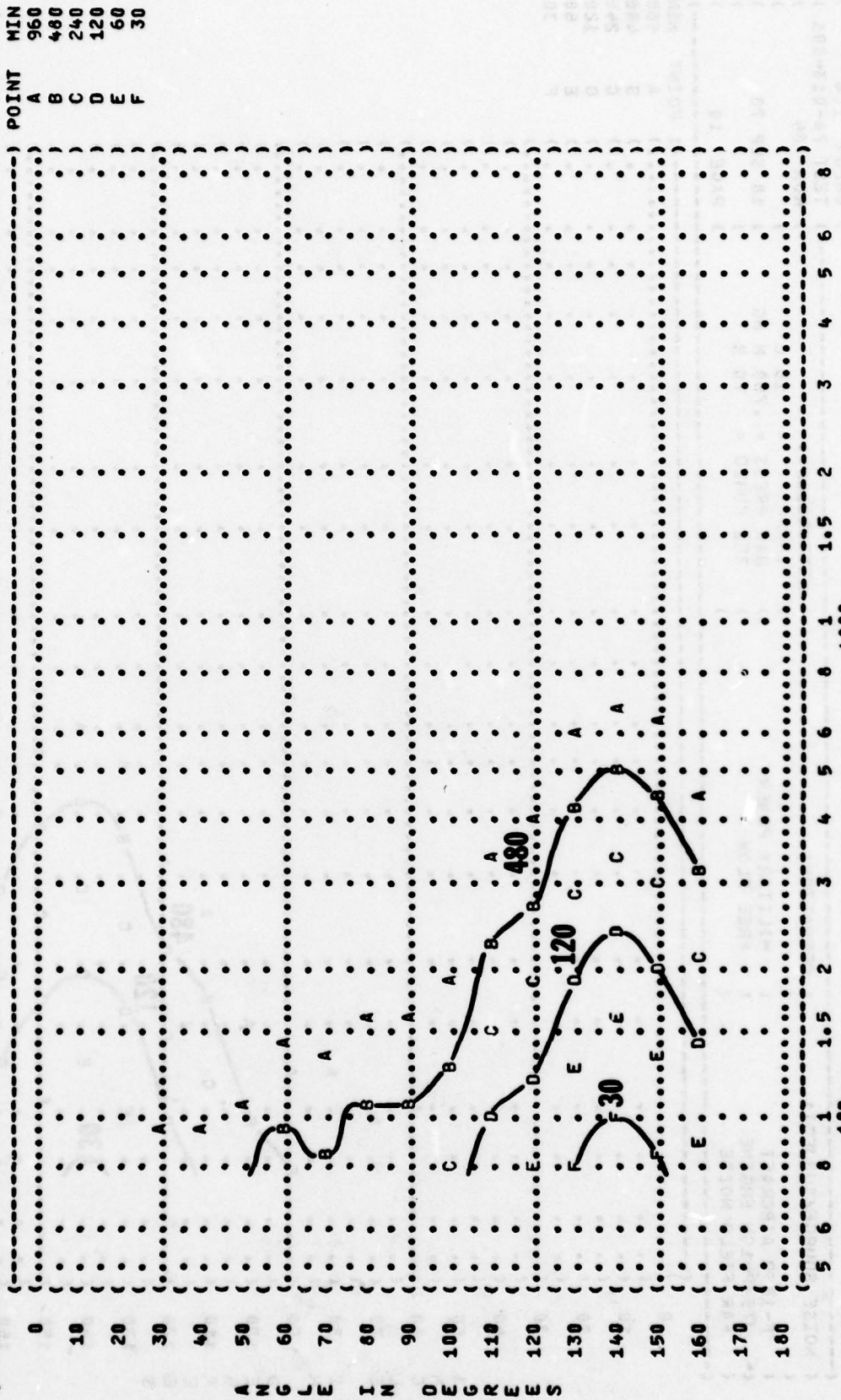
A N G L E I N D E G R E E S

) IDENTIFICATION: )  
 ) OMEGA 1.4 )  
 ) TEST 78-013-001 )  
 ) RUN 04 )  
 ) METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 M HG )  
 ) REL HUMID = 70 % )  
 ) 10 SEP 78 )  
 ) PAGE 9 )



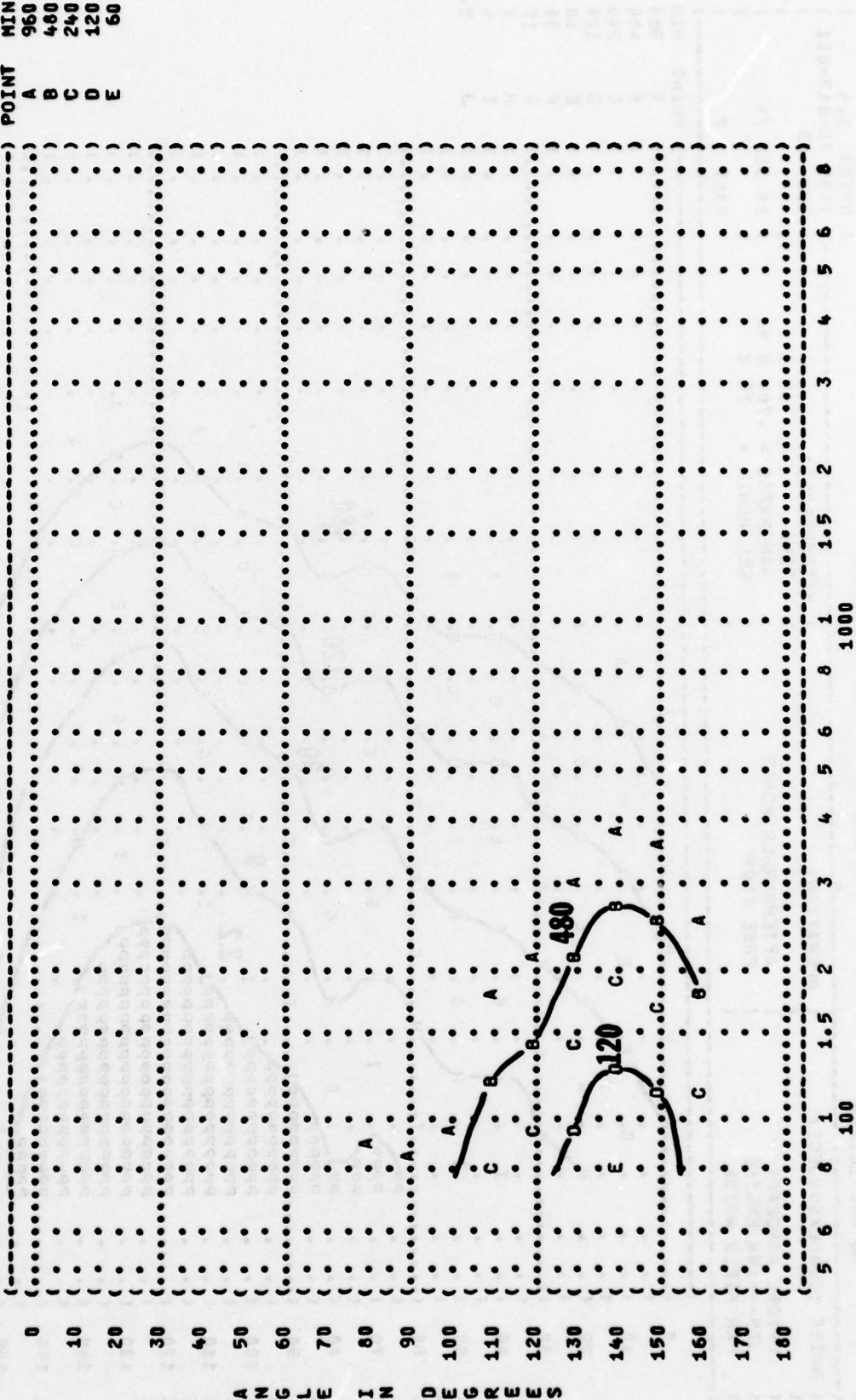


) IDENTIFICATION: )  
 ) OMEGA 1.4 )  
 ) TEST 78-013-001 )  
 ) RUN 04 )  
 ) METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 M HG )  
 ) REL HUMID = 70 % )  
 ) 18 SEP 78 )  
 ) PAGE 11 )



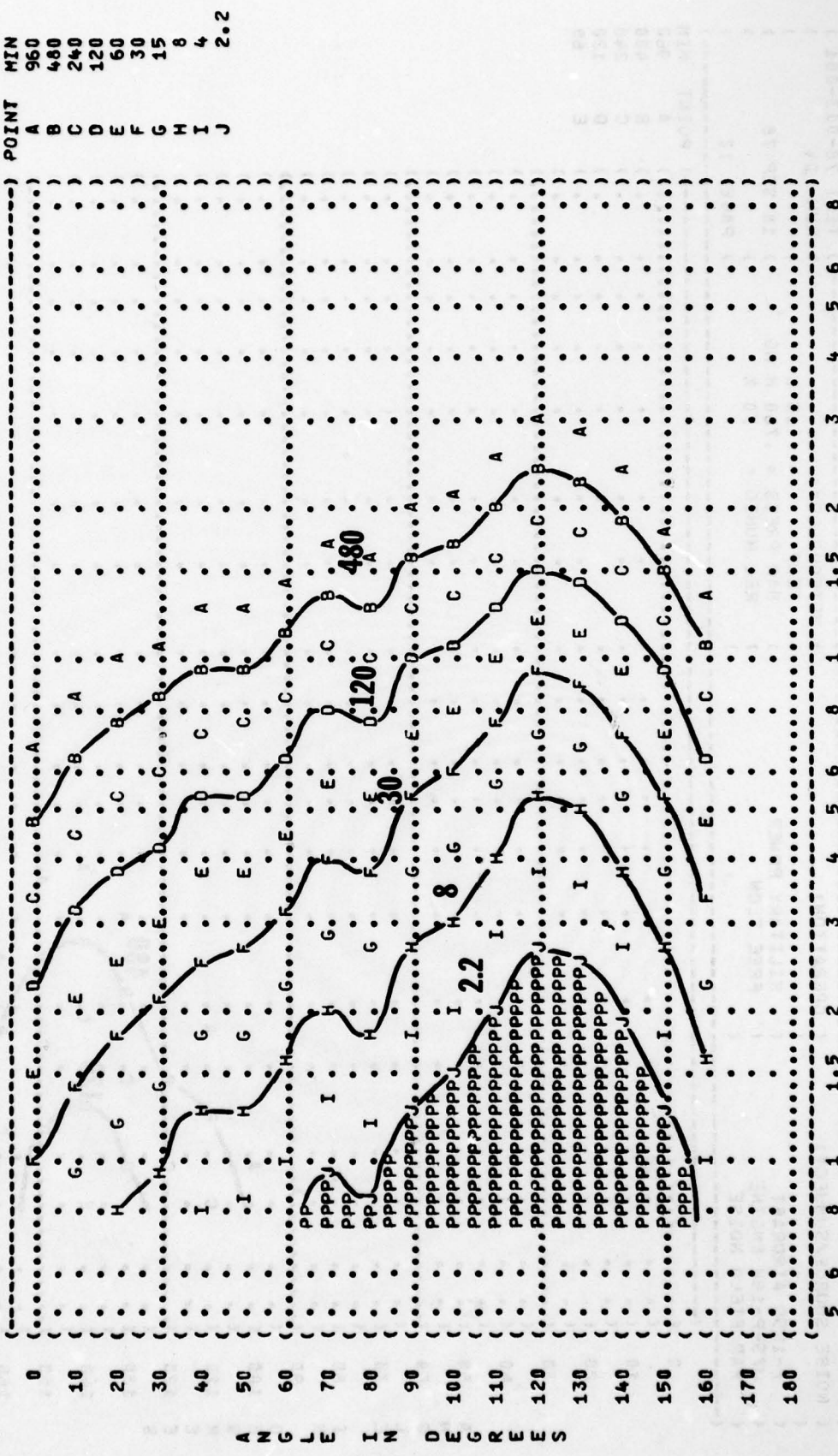
DISTANCE FROM SOURCE (METERS)

) IDENTIFICATION: )  
 ) OMEGA 1.4 )  
 ) TEST 78-013-001 )  
 ) RUN 04 )  
 ) METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 H MG )  
 ) REL HUMID = 70 % )  
 ) 18 SEP 78 )  
 ) PAGE 12 )  
 ) POINT MIN )



DISTANCE FROM SOURCE (METERS)

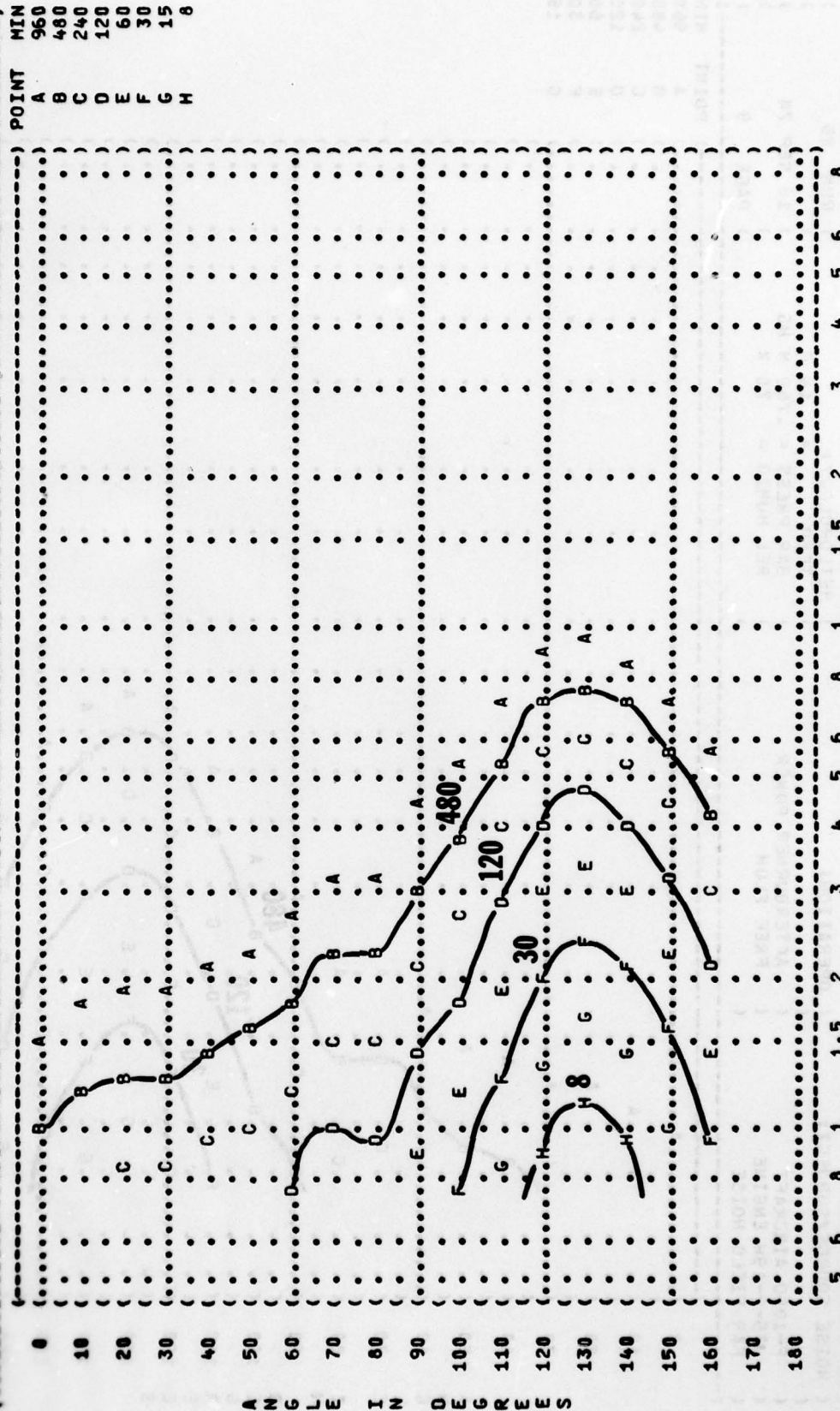
( FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73) ) IDENTIFICATION: )  
 ( 10 EQUAL TIME CONTOURS (MINUTES) ) )  
 ( NO PROTECTION ) ) OMEGA 1.4  
 ( NOISE SOURCE/SUBJECT: ) OPERATION: ) METEOROLOGY: ) TEST 78-013-001 )  
 ( ) ) RUN 05 )  
 ( F-1050 AIRCRAFT ) TEMP = 15 C )  
 ( J75-P-19M ENGINE ) AFTERBURNER POWER ) BAR PRESS = .760 M HG )  
 ( FAR FIELD NOISE ) FREE FLOW ) REL HUMID = 70 % )  
 ( ) ) PAGE 7 )



DISTANCE FROM SOURCE (METERS)

P ADDITIONAL EAR PROTECTION REQUIRED.

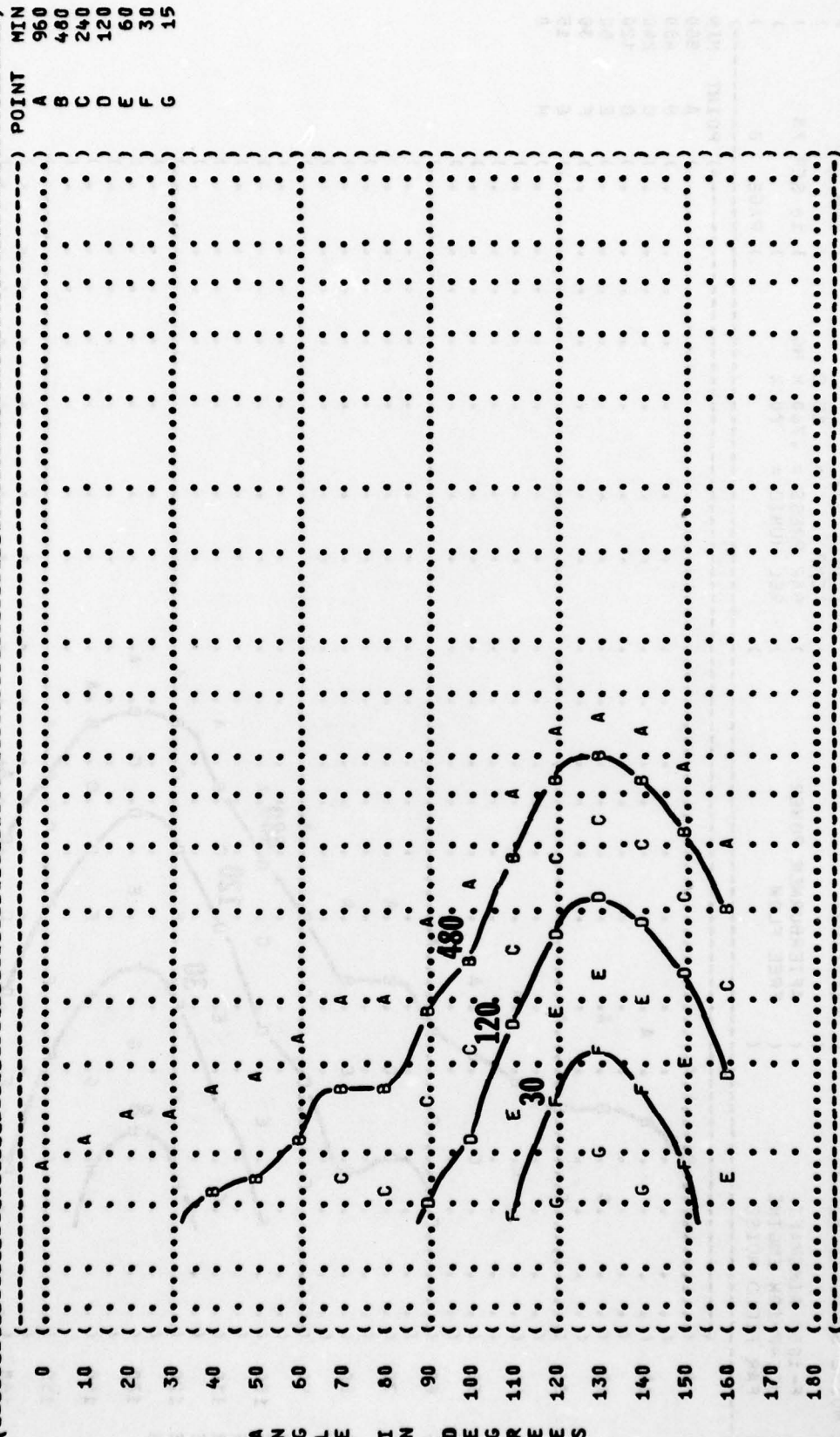
FIGURE 1 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73) IDENTIFICATION:  
 EQUAL TIME CONTOURS (MINUTES)  
 MINIMUM QPL EAR MUFFS  
 NOISE SOURCE/SUBJECT: ( OPERATION: ) METEOROLOGY: OMEGA 1.4  
 F-1050 AIRCRAFT ( ) TEMP = 15 C TEST 78-013-001  
 J79-P-19M ENGINE ( ) AFTERBURNER POWER ( ) BAR PRESS = .760 M HG RUN 05  
 FAR FIELD NOISE ( ) FREE FLOW ( ) REL HUMID = 70 % PAGE 8



POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30
G	15
H	8

DISTANCE FROM SOURCE (METERS)

( ) IDENTIFICATION: )  
 ( ) MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73) )  
 ( ) EQUAL TIME CONTOURS (MINUTES) )  
 ( ) AMERICAN OPTICAL 1700 EAR MUFFS )  
 ( ) OMEGA 1.4 )  
 ( ) TEST 76-013-001 )  
 ( ) RUN 05 )  
 ( ) NOISE SOURCE/SUBJECT: ( OPERATION: ) METEOROLOGY: )  
 ( ) TEMP = 15 C )  
 ( ) AFTERBURNER POWER ) BAR PRESS = .760 M HG )  
 ( ) FREE FLOW ) REL HUMID = 70 % )  
 ( ) F-105D AIRCRAFT )  
 ( ) J75-P-19H ENGINE )  
 ( ) FAR FIELD NOISE )  
 ( ) PAGE 9 )



( ) POINT MIN )  
 ( ) A 960 )  
 ( ) B 480 )  
 ( ) C 240 )  
 ( ) D 120 )  
 ( ) E 60 )  
 ( ) F 30 )  
 ( ) G 15 )

DISTANCE FROM SOURCE (METERS)

FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)

IDENTIFICATION: )

10 EQUAL TIME CONTOURS (MINUTES)

OMEGA 1.4

V-51R EAR PLUGS

TEST 78-013-001

NOISE SOURCE/SUBJECT: ( OPERATION: )

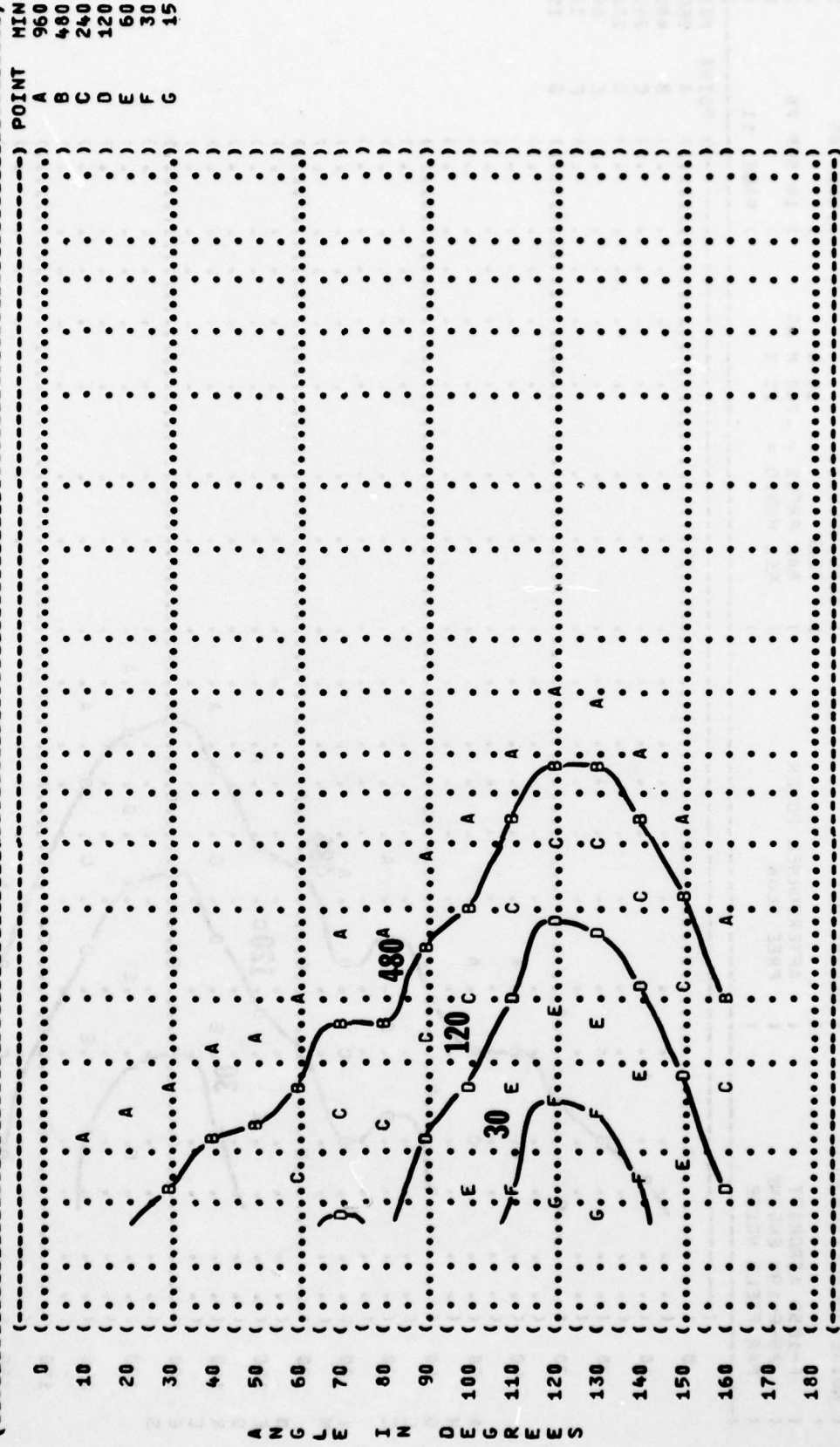
METEOROLOGY: )

F-1050 AIRCRAFT ( AFTERBURNER POWER ) TEMP = 15 C

J75-P-19H ENGINE ( FREE FLOW ) BAR PRESS = .760 M HG

FAR FIELD NOISE ( ) REL HUMID = 70 %

PAGE 10



DISTANCE FROM SOURCE (METERS)



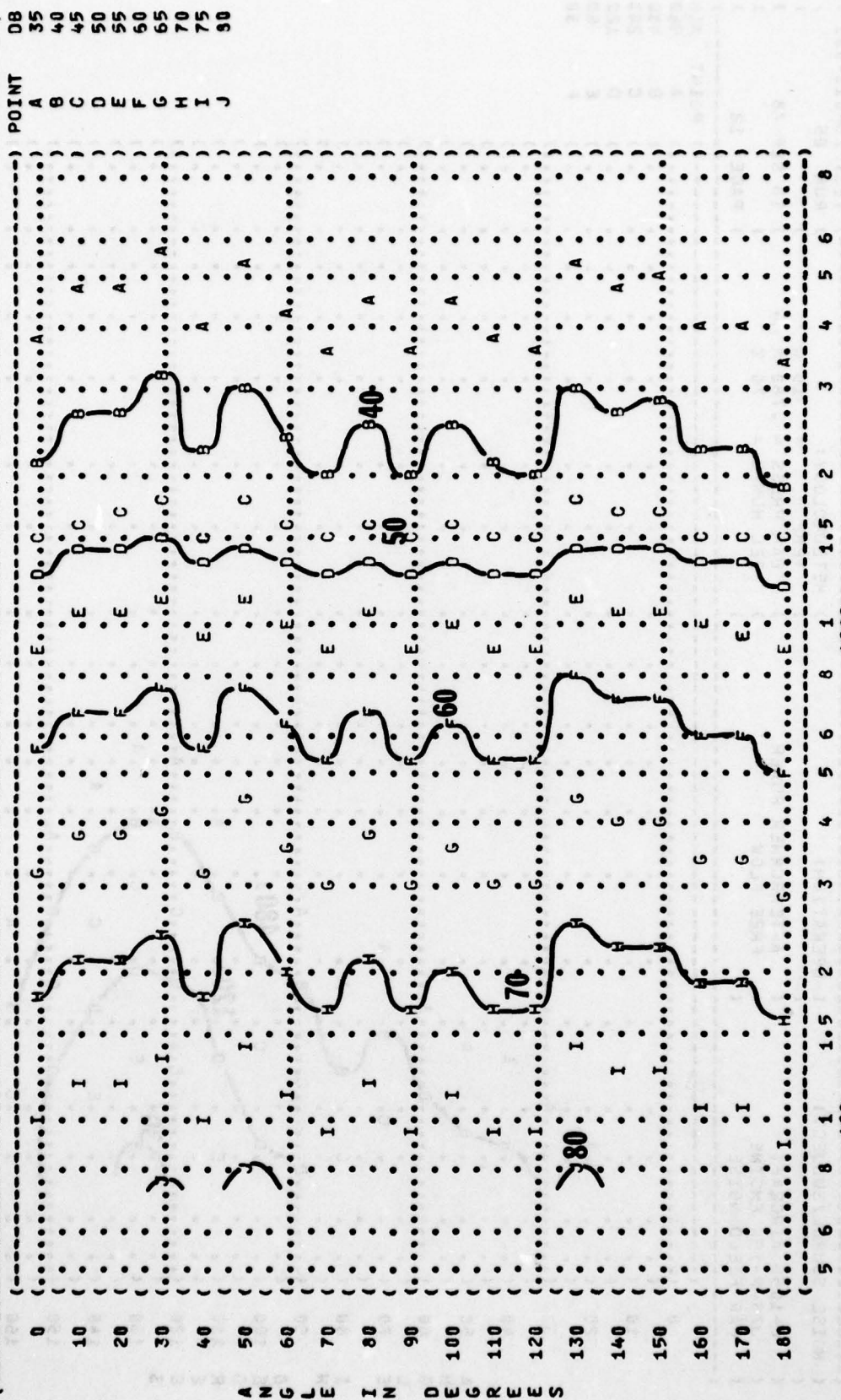


IDENTIFICATION: )  
 ) OMEGA 1.4  
 TEST 78-013-001 )  
 RUN 01 )  
 )  
 ) 18 SEP 78 )  
 ) PAGE 18 )

METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 M HG )  
 ) REL HUMID = 70 % )

OPERATION: )  
 ) IDLE )  
 ) FREE FLOW )

NOISE SOURCE/SUBJECT: )  
 ) F-1050 AIRCRAFT )  
 ) J75-P-19W ENGINE )  
 ) FAR FIELD NOISE )



DISTANCE FROM SOURCE (METERS)

ANGLE IN DEGREES

FIGURE: SOUND PRESSURE LEVEL (SPL)  
 EQUAL LEVEL CONTOURS (DB)  
 63 HZ OCTAVE BAND

11

NOISE SOURCE/SUBJECT:

OPERATION:  
 ( ) IDLE  
 ( ) FREE FLOW

METEOROLOGY:

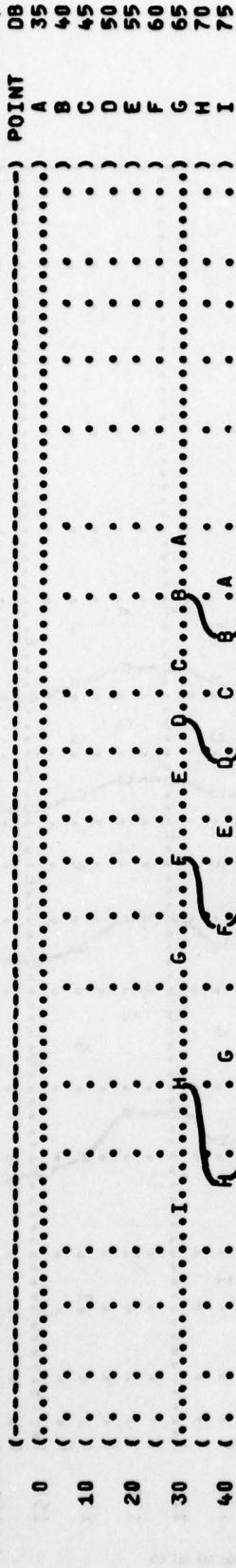
TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %

IDENTIFICATION:  
 OMEGA 1.4  
 TEST 78-013-001

RUN 01

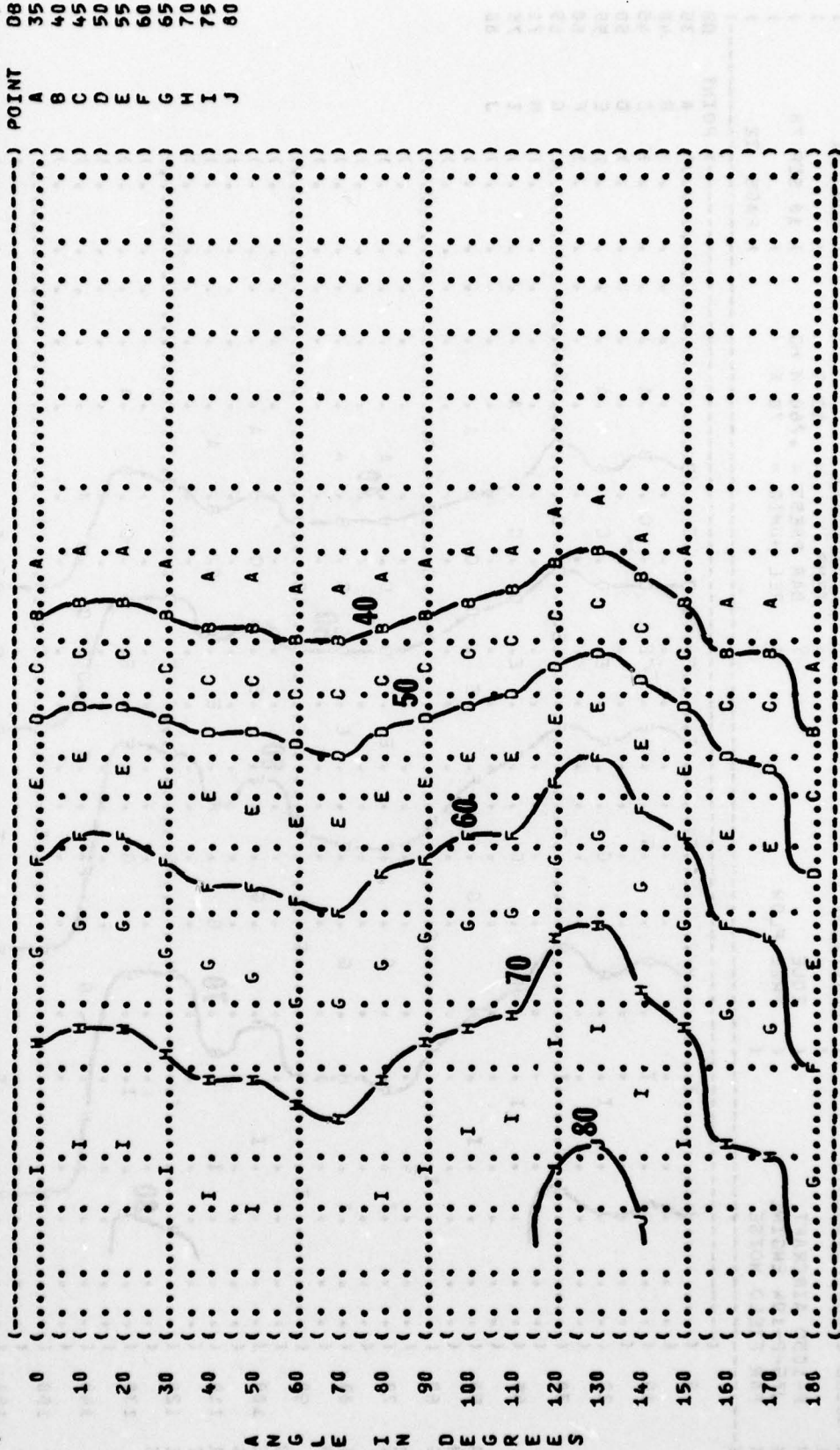
18 SEP 78

PAGE 19





IDENTIFICATION: )  
 ) OMEGA 1.4  
 TEST 78-013-001 )  
 RUN 01 )  
 METEOROLOGY: )  
 TEMP = 15 C )  
 BAR PRESS = .750 M HG )  
 REL HUMID = 70 % )  
 OPERATION: )  
 IDLE )  
 FREE FLOW )  
 F-105D AIRCRAFT )  
 J75-P-19M ENGINE )  
 FAR FIELD NOISE )  
 PAGE 21 )

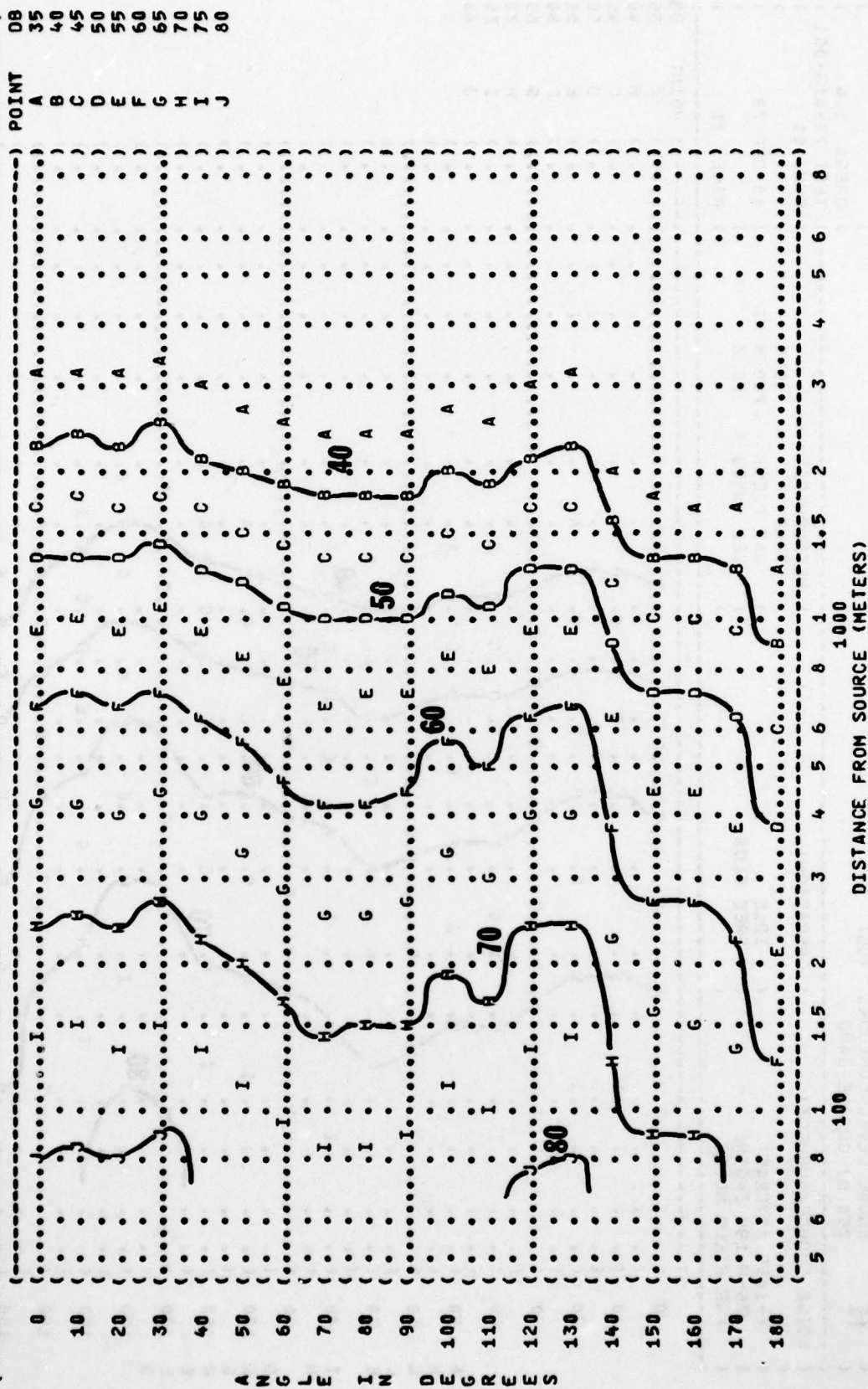


IDENTIFICATION: )  
 ) OMEGA 1.4  
 ) TEST 78-013-001  
 ) RUN 01  
 ) 18 SEP 78  
 ) PAGE 22

METEOROLOGY: )  
 ) TEMP = 15 C  
 ) BAR PRESS = .760 M HG  
 ) REL HUMID = 70 %

OPERATION: )  
 ) F-1050 AIRCRAFT  
 ) J75-P-19M ENGINE  
 ) FAR FIELD NOISE

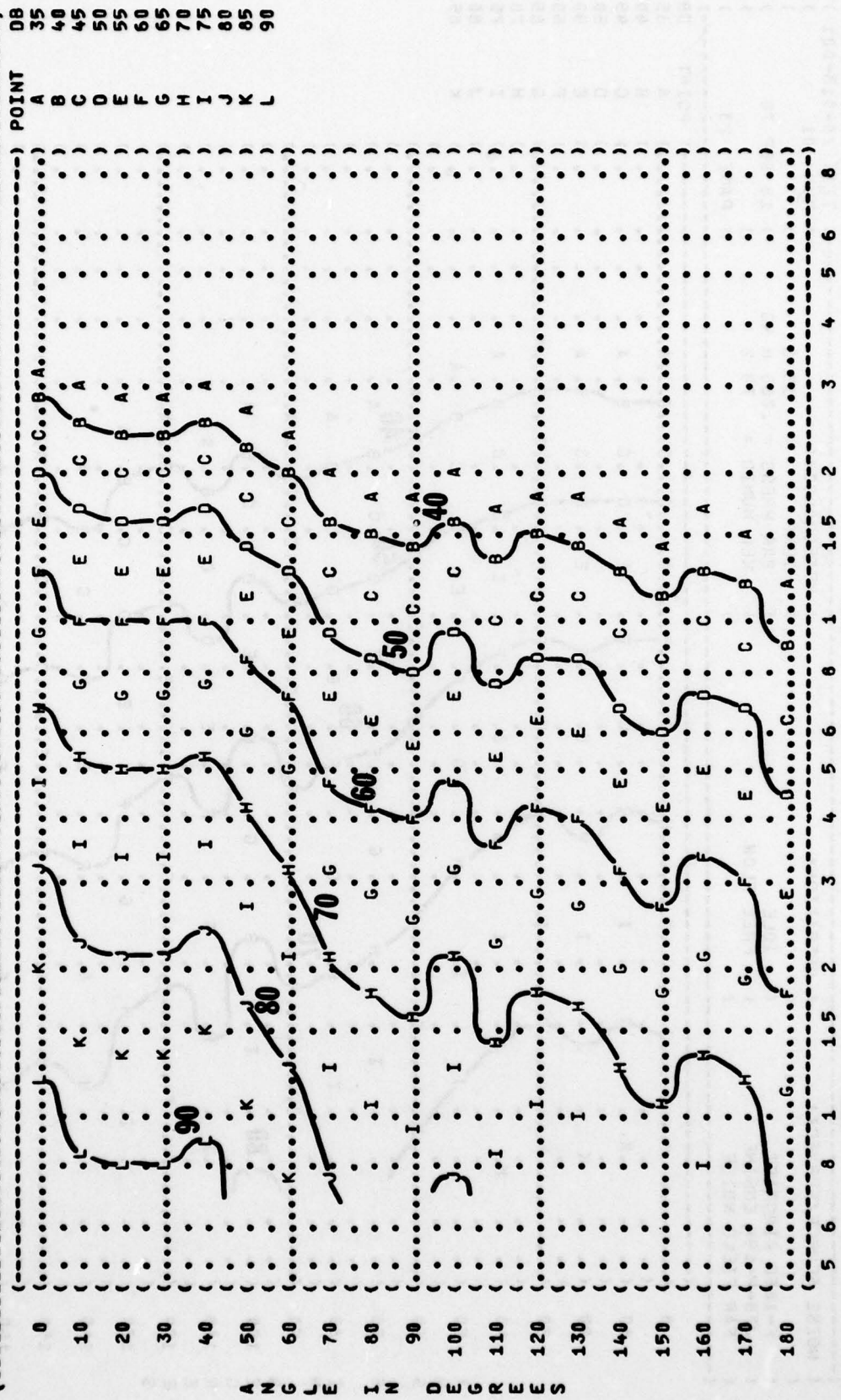
NOISE SOURCE/SUBJECT: )  
 ) IDLE  
 ) FREE FLOW



A N G L E I N D E G R E E S



) IDENTIFICATION: )  
 ) )  
 ) OMEGA 1.4 )  
 ) TEST 78-013-001 )  
 ) RUN 01 )  
 ) )  
 ) METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 M HG )  
 ) REL HUMID = 70 % )  
 ) )  
 ) OPERATION: )  
 ) IDLE )  
 ) FREE FLOW )  
 ) )  
 ) NOISE SOURCE/SUBJECT: )  
 ) F-105D AIRCRAFT )  
 ) J75-P-19M ENGINE )  
 ) FAR FIELD NOISE )



DISTANCE FROM SOURCE (METERS)

100

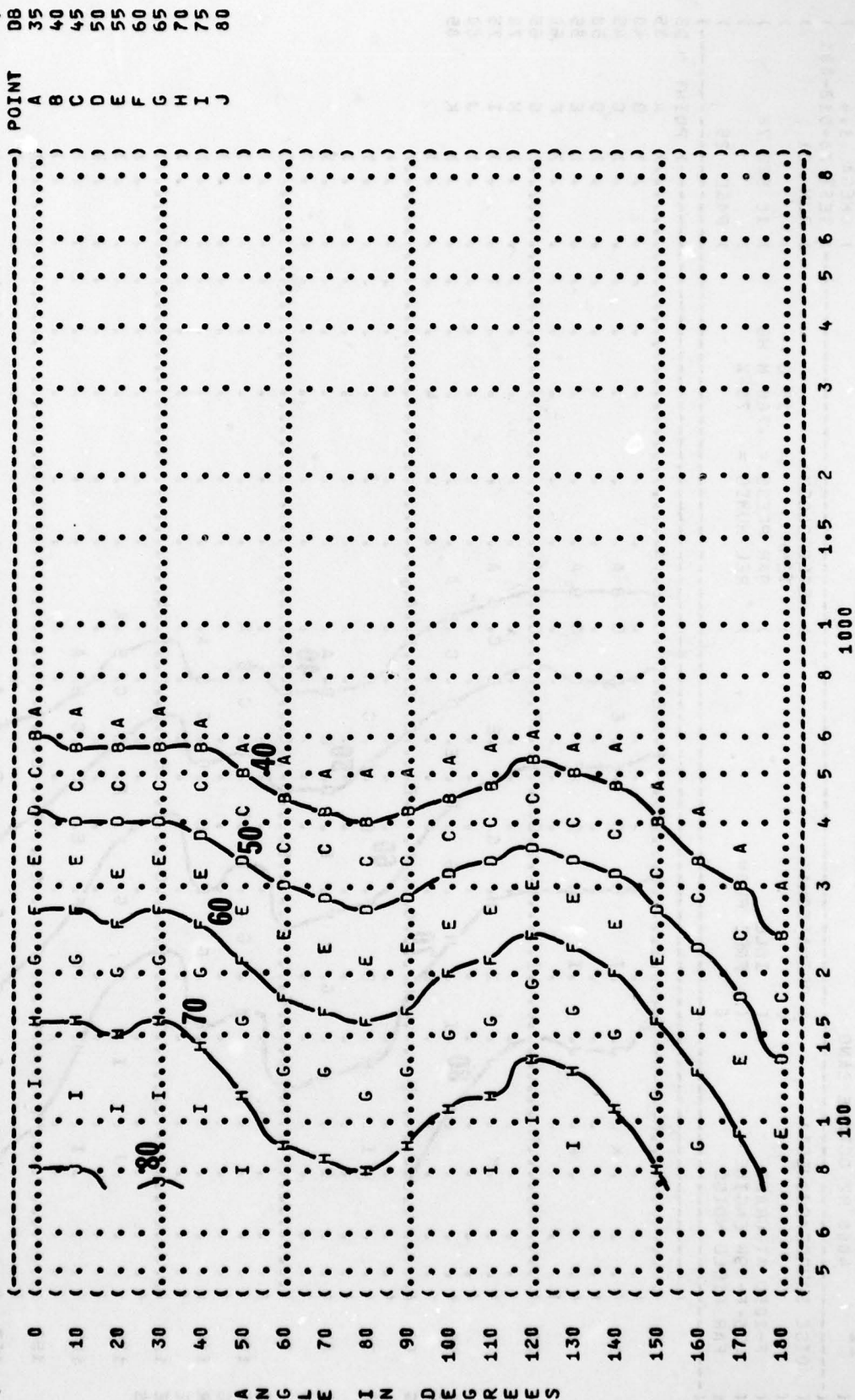
1000

) POINT )  
 ) A )  
 ) B )  
 ) C )  
 ) D )  
 ) E )  
 ) F )  
 ) G )  
 ) H )  
 ) I )  
 ) J )  
 ) K )  
 ) L )  
 ) DB )  
 ) 35 )  
 ) 40 )  
 ) 45 )  
 ) 50 )  
 ) 55 )  
 ) 60 )  
 ) 65 )  
 ) 70 )  
 ) 75 )  
 ) 80 )  
 ) 85 )  
 ) 90 )

A N G L E I N D E G R E E S



) IDENTIFICATION: )  
 ) OMEGA 1.4 )  
 ) TEST 78-013-001 )  
 ) RUN 01 )  
 ) METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 M HG )  
 ) REL HUMID = 70 % )  
 ) 18 SEP 78 )  
 ) PAGE 26 )  
 ) POINT DB )  
 ) A 35 )  
 ) B 40 )  
 ) C 45 )  
 ) D 50 )  
 ) E 55 )  
 ) F 60 )  
 ) G 65 )  
 ) H 70 )  
 ) I 75 )  
 ) J 80 )



DISTANCE FROM SOURCE (METERS)

AD-A073 616

AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OH F/G 1/3  
USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK. VOLUME 125. F-105D A--ETC(U)  
OCT 78 R G POWELL

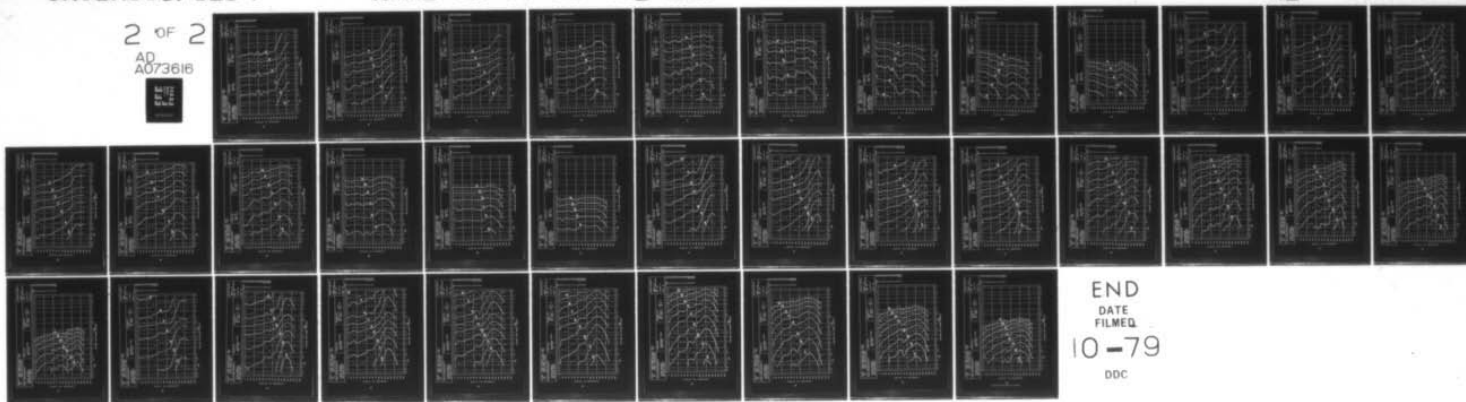
UNCLASSIFIED

AMRL-TR-75-50-VOL-125

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2 OF 2

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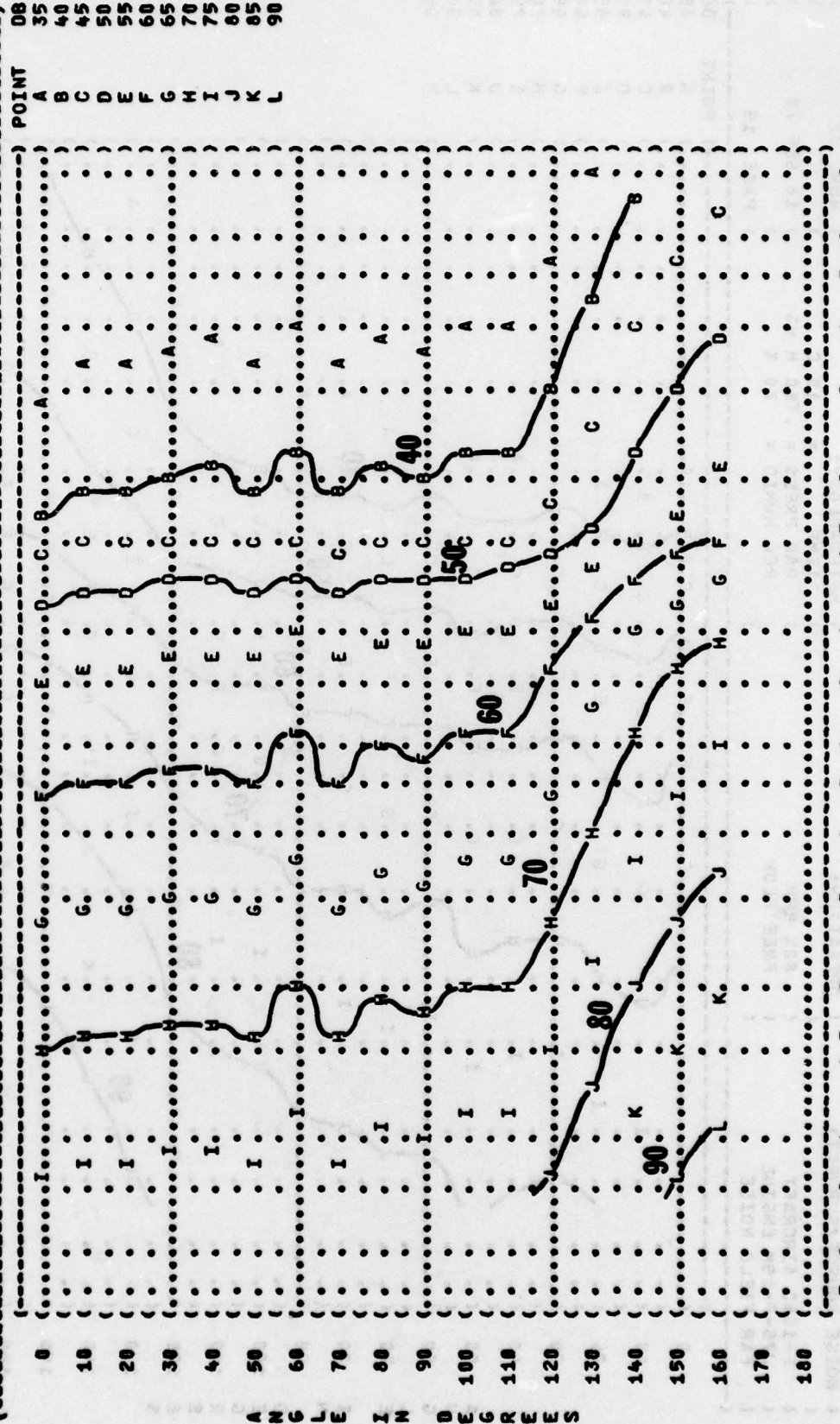


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DATE  
FILMED  
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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

( FIGURE: SOUND PRESSURE LEVEL (SPL)  
 ( 11 EQUAL LEVEL CONTOURS (DB)  
 ( 31.5 HZ OCTAVE BAND  
 ( NOISE SOURCE/SUBJECT: ( OPERATION:  
 ( F-1050 AIRCRAFT ( 90% RPM  
 ( J75-P-19M ENGINE ( FREE FLOW  
 ( FAR FIELD NOISE ( )  
 ( ) METEOROLOGY: ( )  
 ( ) TEMP = 15 C  
 ( ) BAR PRESS = .760 M HG  
 ( ) REL HUMID = 70 %  
 ( ) OMEGA 1.4  
 ( ) TEST 78-013-001  
 ( ) RUN 02  
 ( ) 18 SEP 78  
 ( ) PAGE 18  
 ( ) IDENTIFICATIONS )



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90

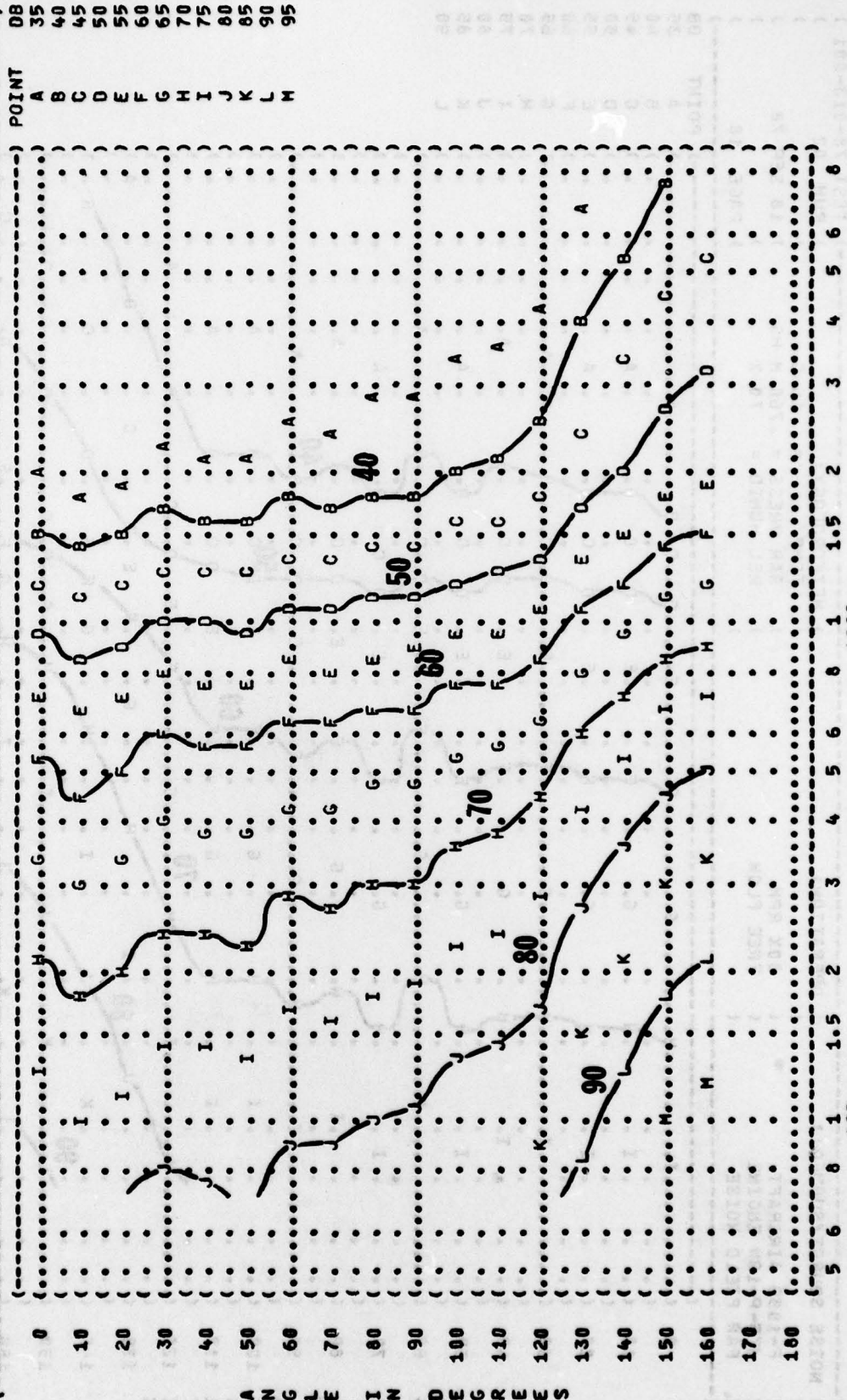
FIGURE 1 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

IDENTIFICATION:  
 OMEGA 1.4  
 TEST 78-013-001  
 RUN 02

METEOROLOGY:  
 TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %

OPERATION:  
 80% RPM  
 FREE FLOW

NOISE SOURCE/SUBJECT:  
 F-105D AIRCRAFT  
 J75-P-19W ENGINE  
 FAR FIELD NOISE

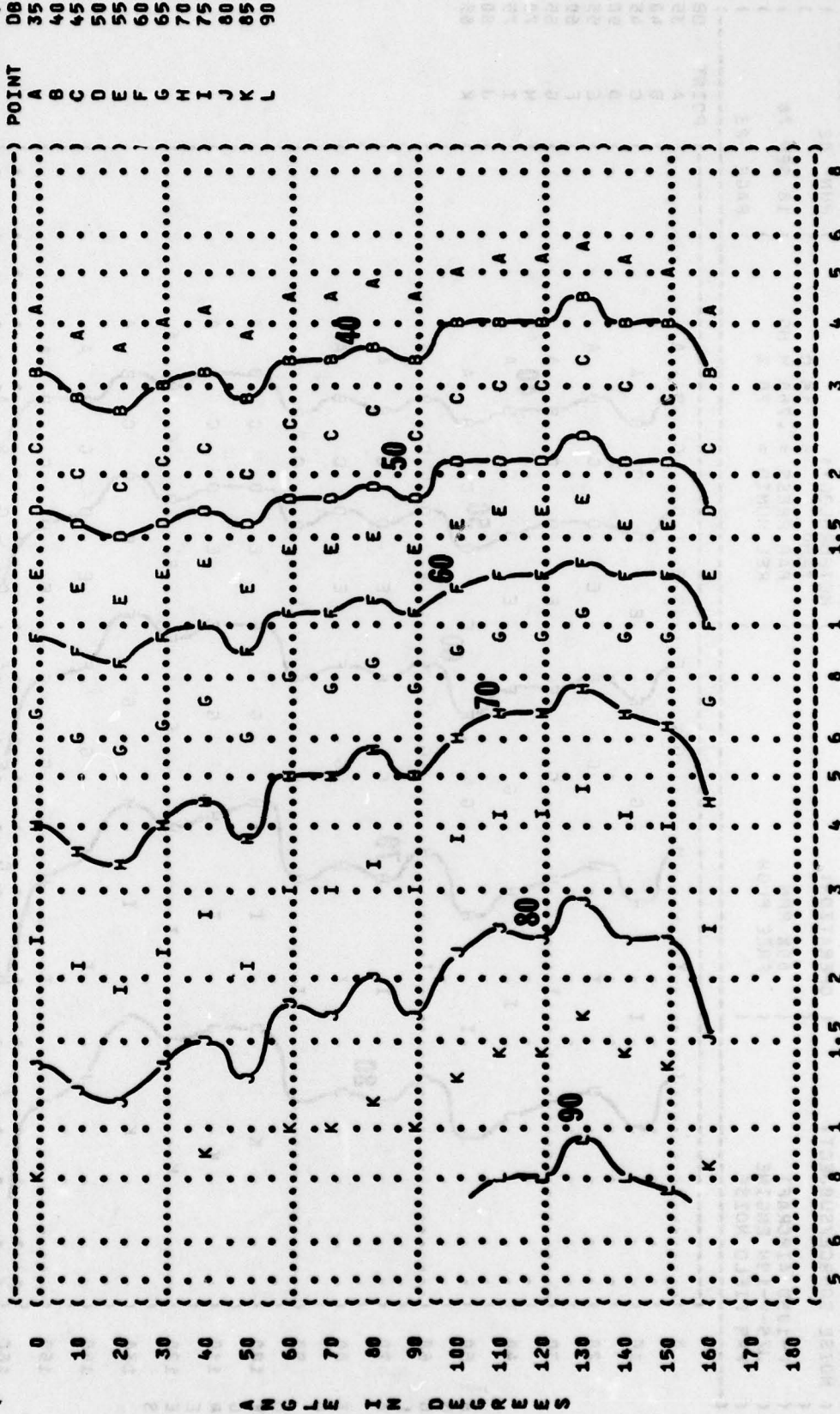


DISTANCE FROM SOURCE (METERS)





) IDENTIFICATION: )  
 ) OMEGA 1.4 )  
 ) TEST 78-013-001 )  
 ) RUN 02 )  
 ) METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 M HG )  
 ) REL HUMID = 70 % )  
 ) OPERATION: )  
 ) 80% RPM )  
 ) FREE FLOW )  
 ) NOISE SOURCE/SUBJECT: )  
 ) F-105D AIRCRAFT )  
 ) J75-P-19M ENGINE )  
 ) FAR FIELD NOISE )  
 ) PAGE 22 )



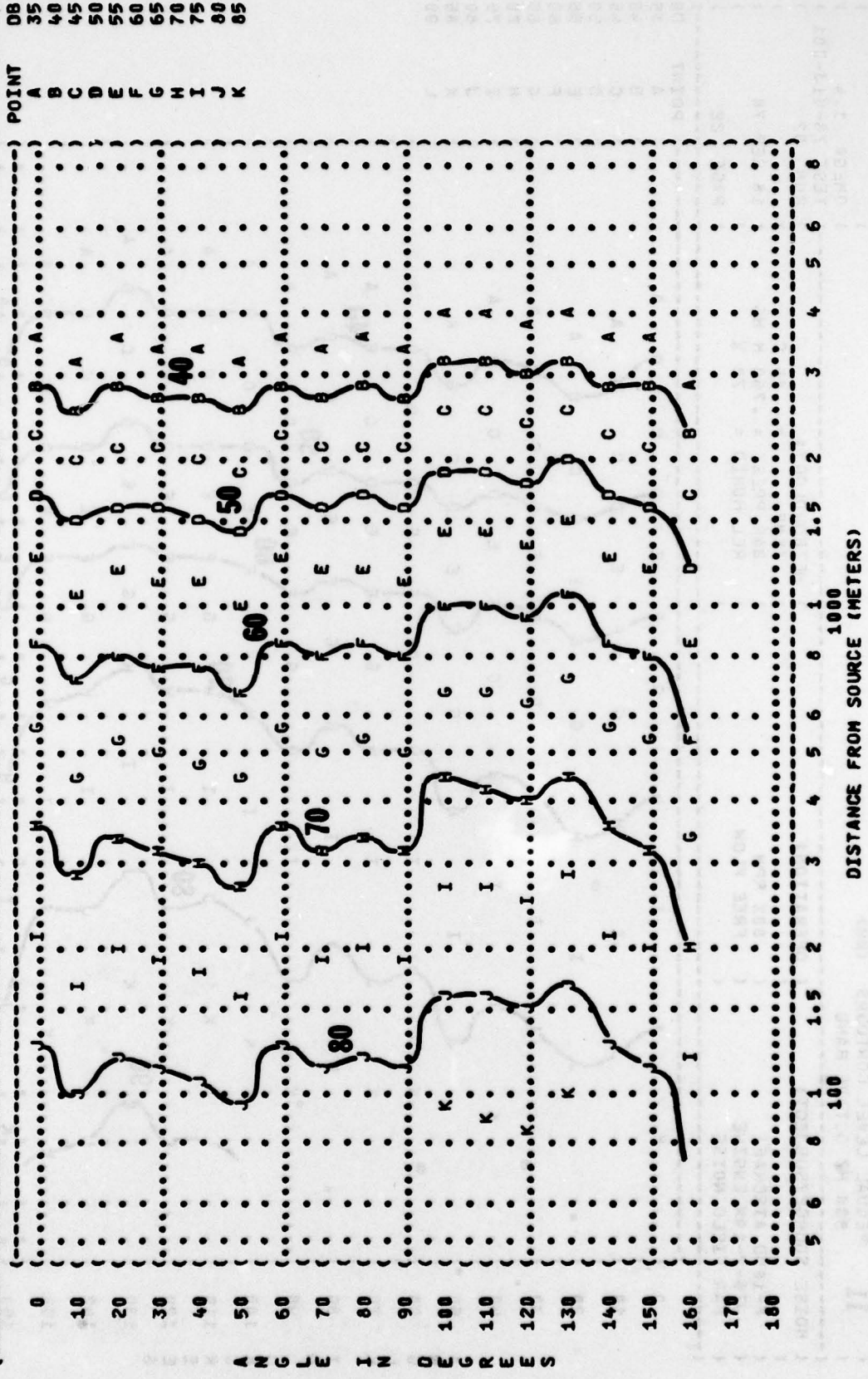
DISTANCE FROM SOURCE (METERS)

FIGURE: SOUND PRESSURE LEVEL (SPL)  
EQUAL LEVEL CONTOURS (DB)  
11 1000 HZ OCTAVE BAND

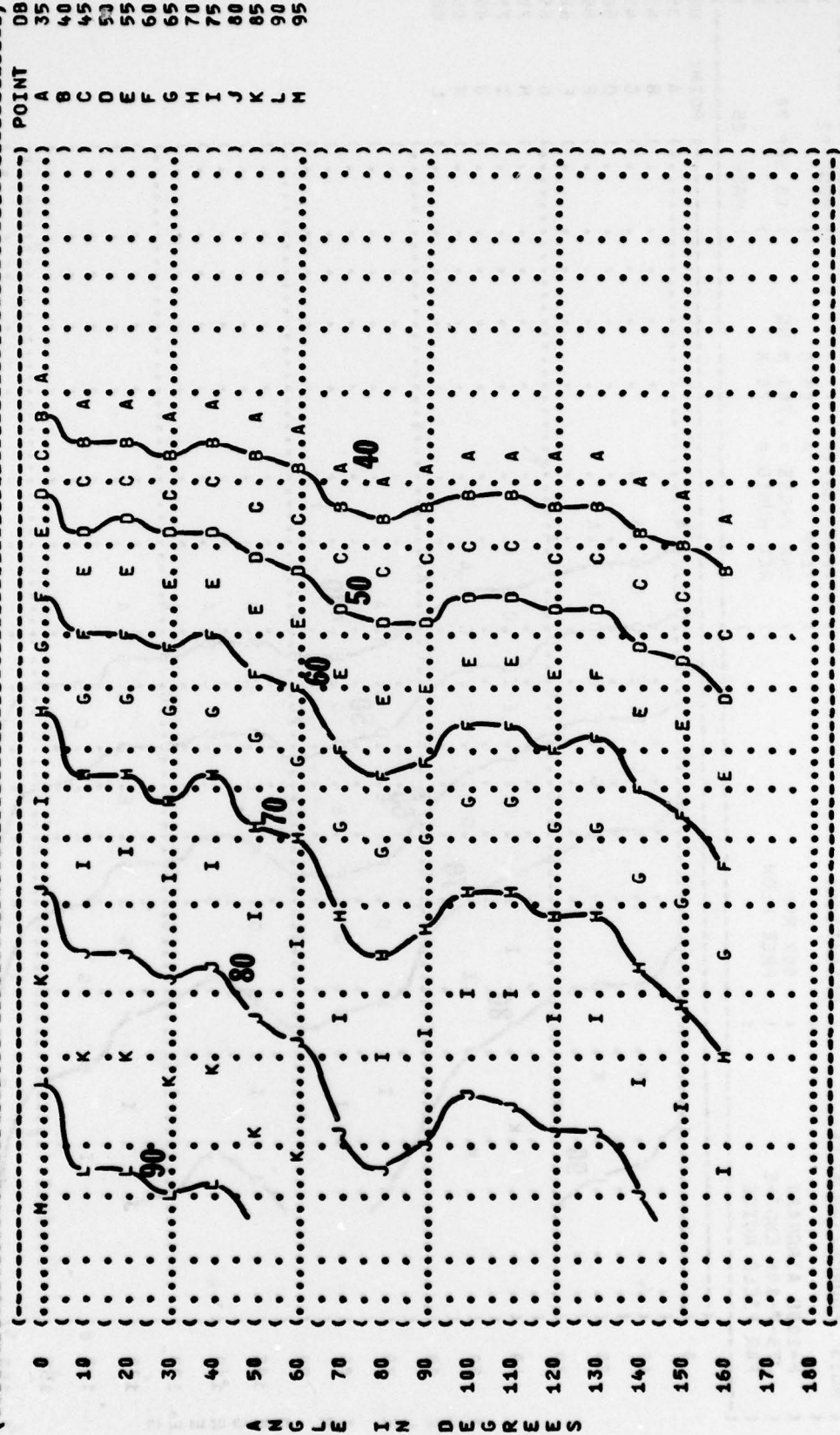
NOISE SOURCE/SUBJECT: ( OPERATION)  
( ( 80% RPM  
( ( FREE FLOW  
( ( FAR FIELD NOISE

METEOROLOGY:  
( TEMP = 15 C  
( BAR PRESS = .760 M HG  
( REL HUMID = 70 %

IDENTIFICATION:  
( OMEGA 1.4  
( TEST 78-013-001  
( RUN 02  
( 18 SEP 78  
( PAGE 23



) IDENTIFICATION: )  
 ) OMEGA 1.4 )  
 ) TEST 70-013-001 )  
 ) RUN 02 )  
 ) METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 M HG )  
 ) REL HUMID = 70 % )  
 ) PAGE 24 )  
 )  
 ) OPERATIONS: )  
 ) 80% RPM )  
 ) FREE FLOW )  
 )  
 ) NOISE SOURCE/SUBJECT: )  
 ) F-1050 AIRCRAFT )  
 ) J75-P-19H ENGINE )  
 ) FAR FIELD NOISE )

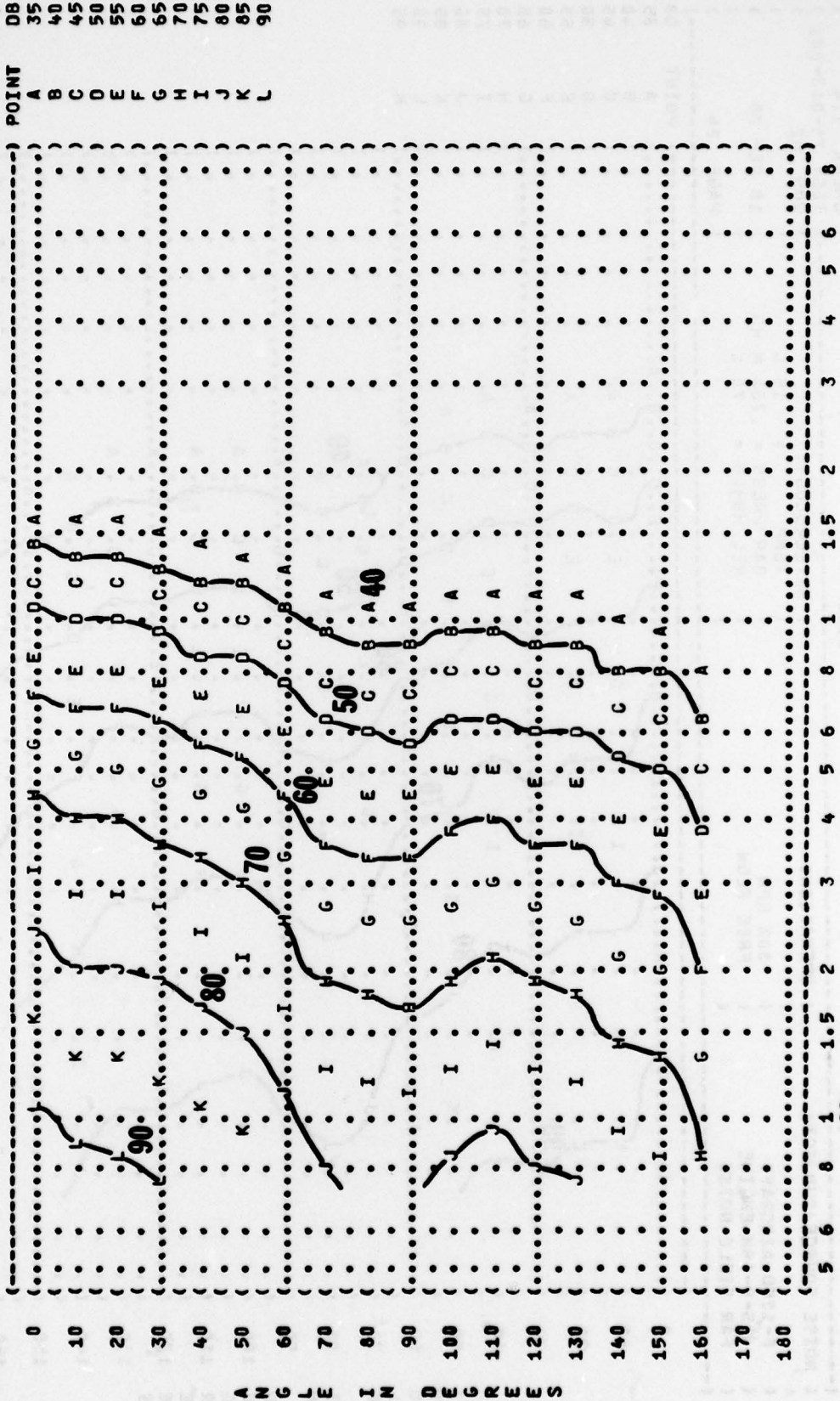


) POINT ) DB  
 ) A 35  
 ) B 40  
 ) C 45  
 ) D 53  
 ) E 55  
 ) F 60  
 ) G 65  
 ) H 70  
 ) I 75  
 ) J 80  
 ) K 85  
 ) L 90  
 ) M 95

DISTANCE FROM SOURCE (METERS)

) FIGURE: SOUND PRESSURE LEVEL (SPL)  
 ) EQUAL LEVEL CONTOURS (DB)  
 ) 11  
 ) 2000 HZ OCTAVE BAND

IDENTIFICATION: )  
 OMEGA 1.4 )  
 TEST 78-013-001 )  
 RUN 02 )  
 METEOROLOGY: )  
 TEMP = 15 C )  
 BAR PRESS = .760 M HG )  
 REL HUMID = 70 % )  
 OPERATION: )  
 80% RPM )  
 FREE FLOW )  
 NOISE SOURCE/SUBJECT: )  
 F-1050 AIRCRAFT )  
 J75-P-19H ENGINE )  
 FAR FIELD NOISE )



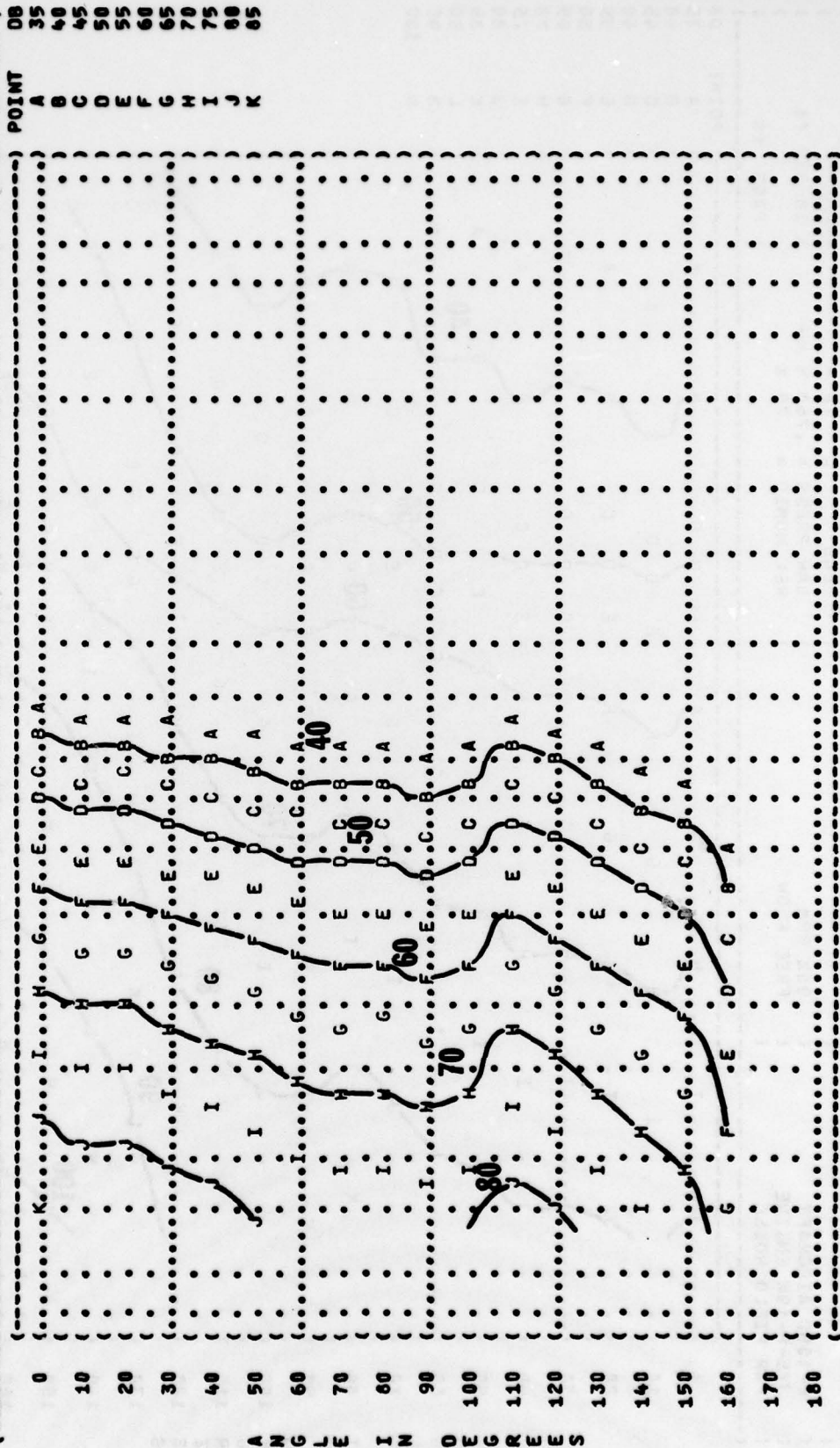
POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90

FIGURE 3 SOUND PRESSURE LEVEL {SPL} EQUAL LEVEL CONTOURS (DB)  
**11** 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT: ( OPERATION: )  
 ( F-105D AIRCRAFT ( 80% RPM )  
 ( J75-P-19H ENGINE ( FREE FLOW )  
 ( FAR FIELD NOISE ( )

METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 H HG )  
 ) REL HUMID = 70 % )

IDENTIFICATION: )  
 ) OMEGA 1.4 )  
 ) TEST 78-013-001 )  
 ) RUN 02 )  
 ) 18 SEP 78 )  
 ) PAGE 26 )



DISTANCE FROM SOURCE (METERS)

FIGURE 11 SOUND PRESSURE LEVEL {SPL} EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT: F-105D AIRCRAFT J75-P-19M ENGINE FAR FIELD NOISE  
 OPERATION: 90% RPM FREE FLOW  
 METEOROLOGY: TEMP = 15 C BAR PRESS = .760 M HG REL HUMID = 70 %  
 IDENTIFICATION: OMEGA 1.4 TEST 78-013-001 RUN 03 18 SEP 78 PAGE 18

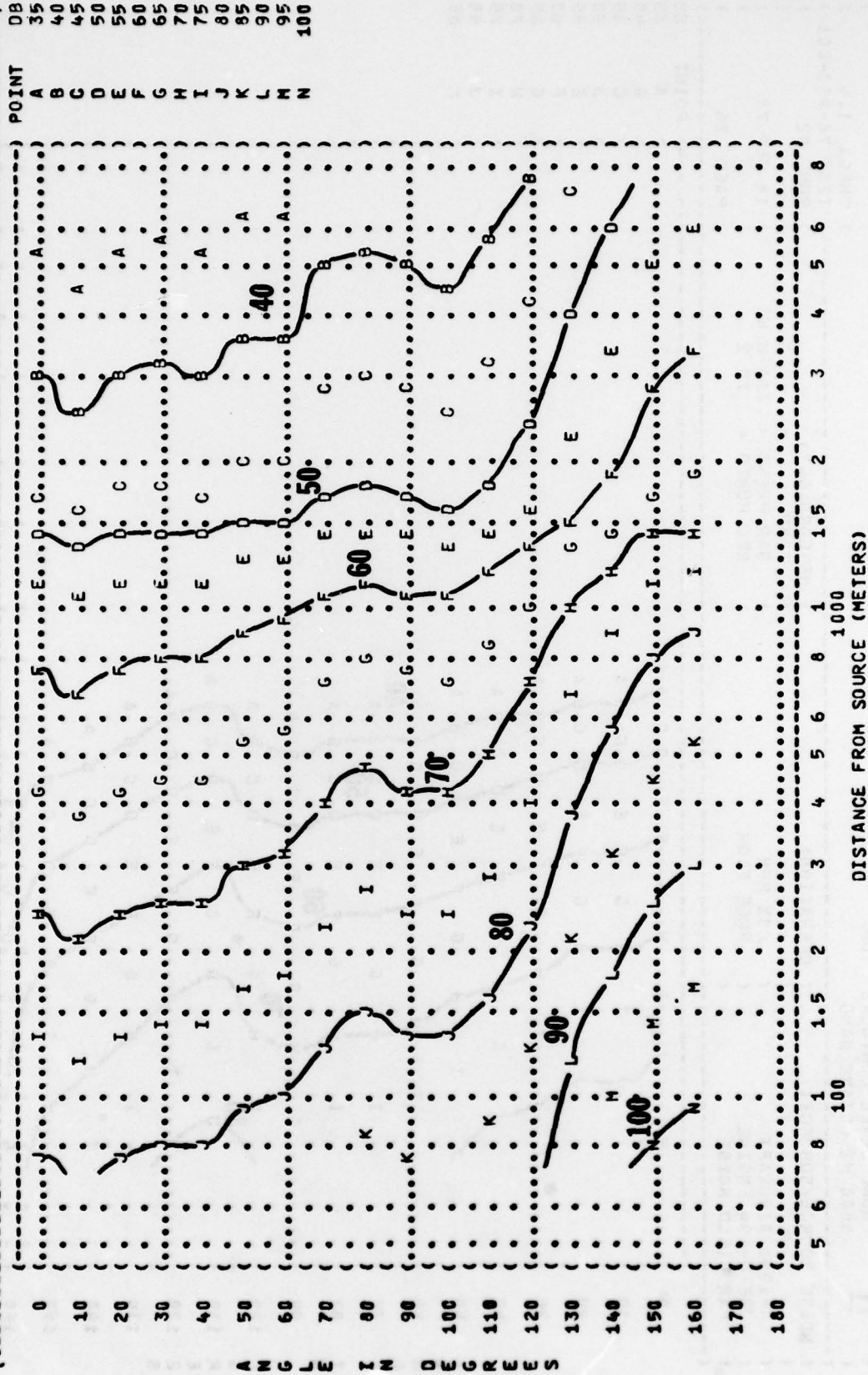
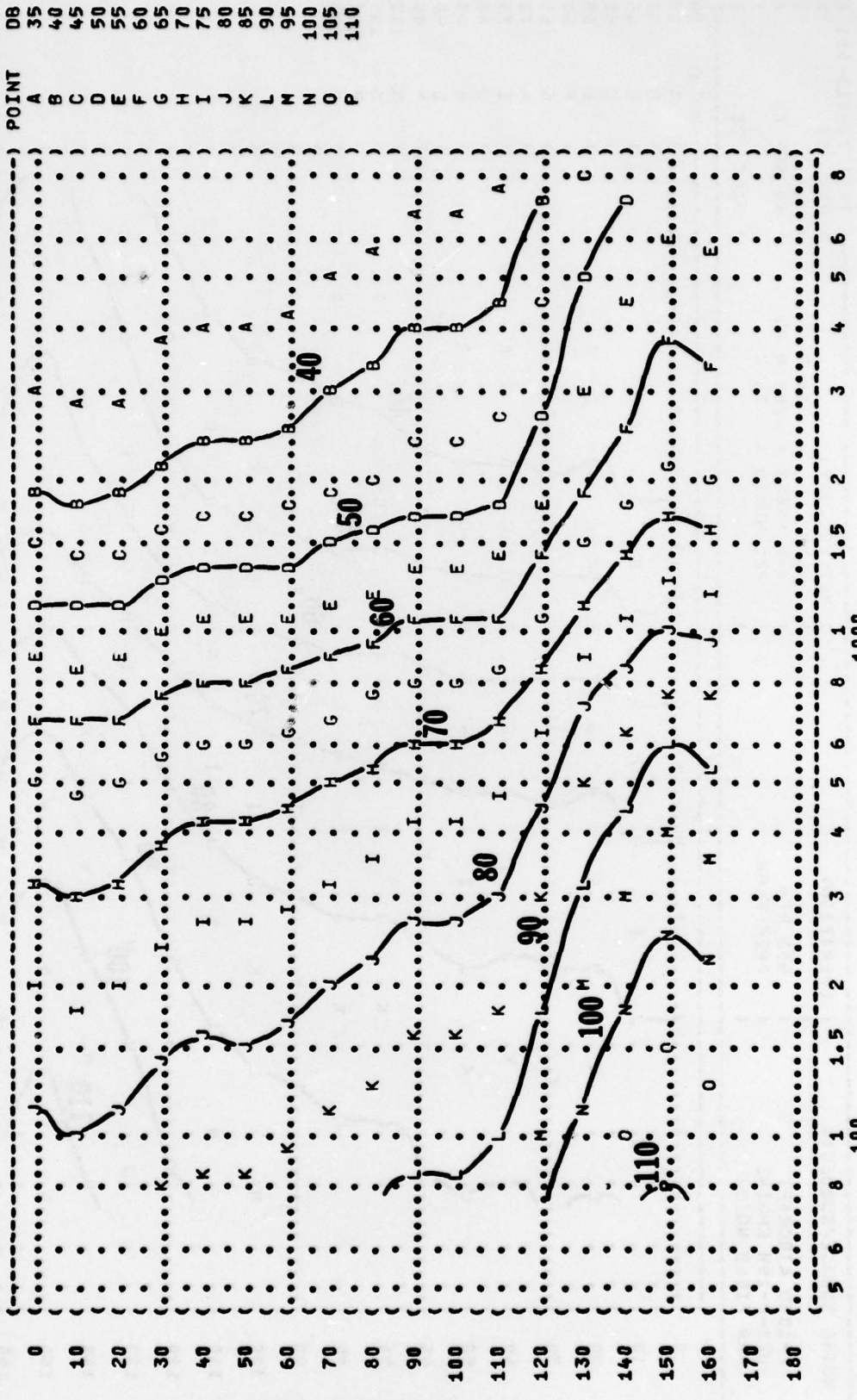


FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

IDENTIFICATION: OMEGA 1.4  
 TEST 76-013-001  
 RUN 03  
 METEOROLOGY: 15 C  
 TEMP = 18 SEP 78  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %  
 OPERATION: 90% RPM  
 FREE FLOW  
 NOISE SOURCE/SUBJECT: F-105D AIRCRAFT  
 J75-P-19W ENGINE  
 FAR FIELD NOISE



0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180

DISTANCE FROM SOURCE (METERS)

( FIGURE: SOUND PRESSURE LEVEL (SPL)  
 ( EQUAL LEVEL CONTOURS (DB)  
 ( 11 125 HZ OCTAVE BAND

( NOISE SOURCE/SUBJECT: ( OPERATION:

( F-105D AIRCRAFT ( 90% RPM  
 ( J75-P-19M ENGINE ( FREE FLOW  
 ( FAR FIELD NOISE (

( METEOROLOGY: (

( TEMP = 15 C (

( BAR PRESS = .760 M HG (

( REL HUMID = 70 % (

( IDENTIFICATION: (

( OMEGA 1.4 (

( TEST 78-013-001 (

( RUN 03 (

( 18 SEP 78 (

( PAGE 20 (

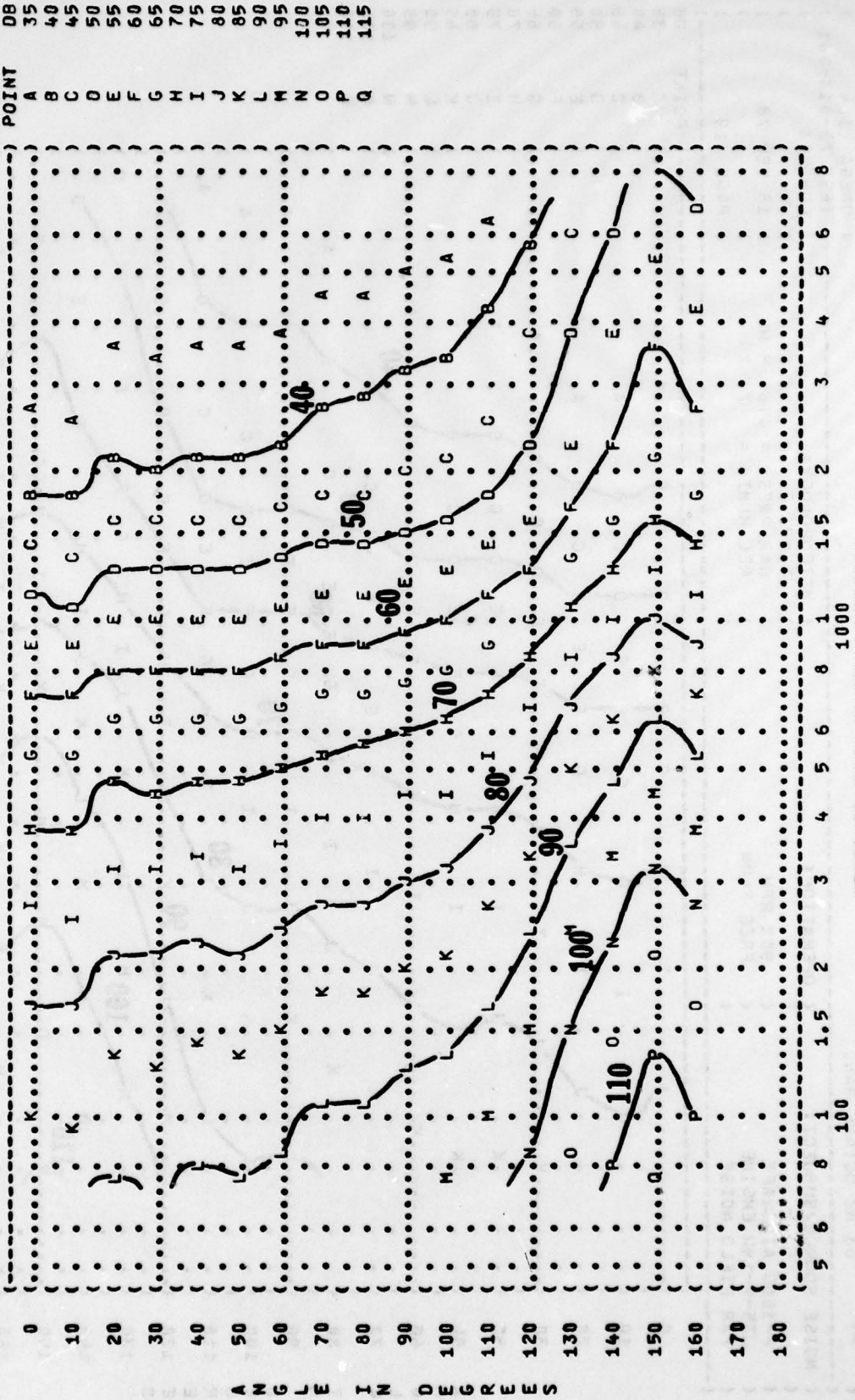


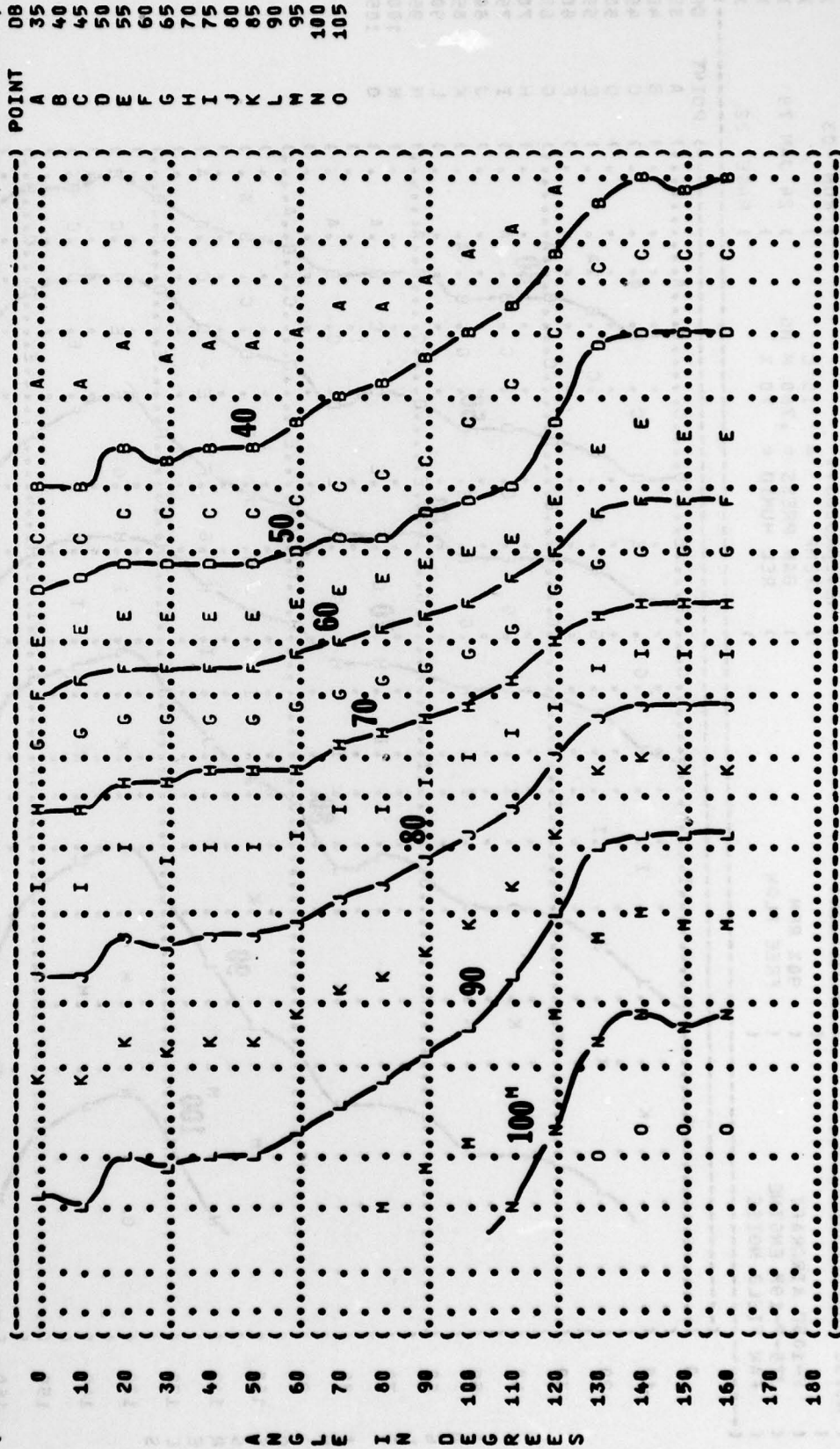
FIGURE: SOUND PRESSURE LEVEL [SPL]  
 11 EQUAL LEVEL CONTOURS (DB)  
 250 HZ OCTAVE BAND

IDENTIFICATION:  
 OMEGA 1.4  
 TEST 76-013-001  
 RUN 03

NOISE SOURCE/SUBJECT: ( OPERATIONS:  
 ( ( ( 90X RPM  
 ( ( ( FREE FLOW  
 ( ( ( )

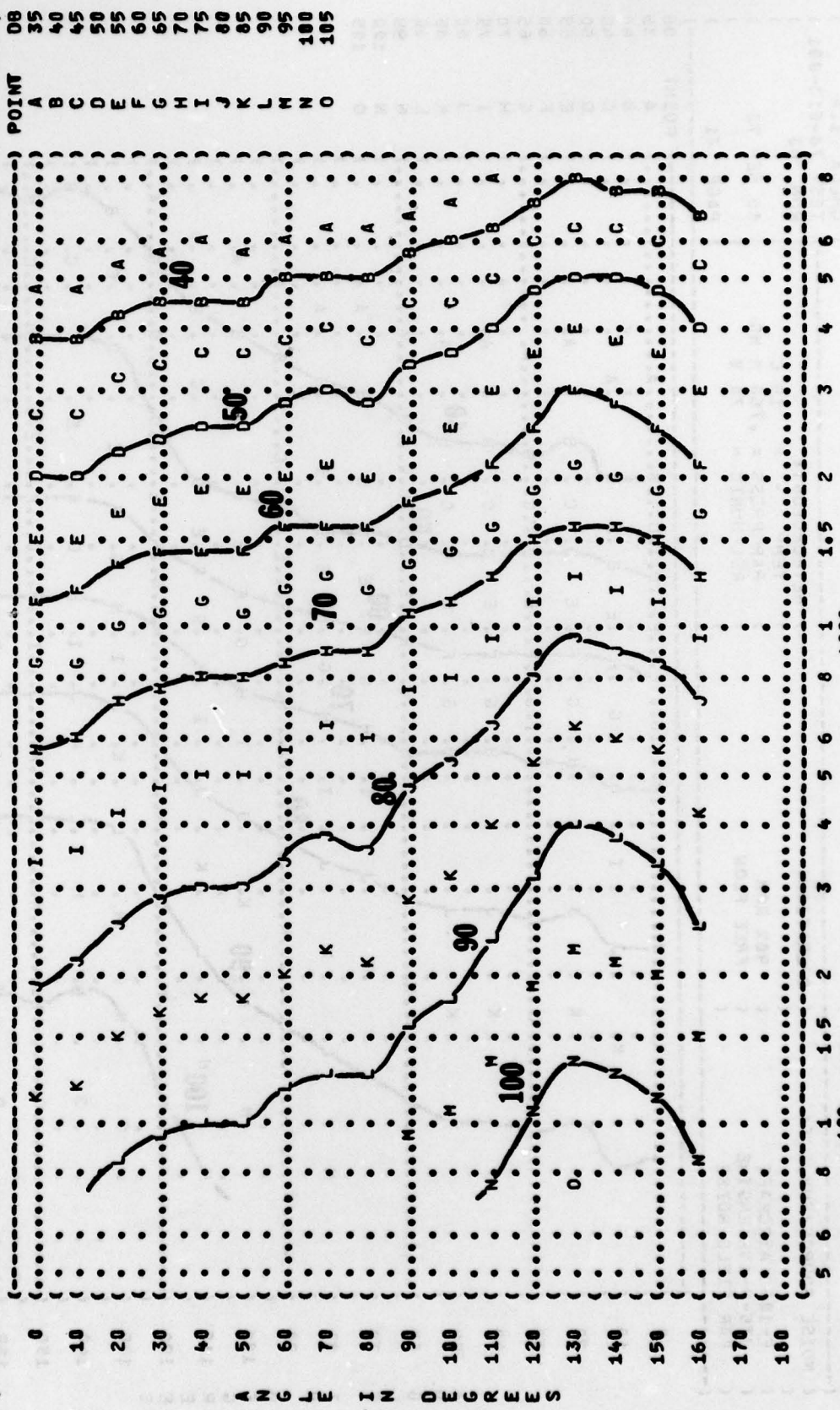
METEOROLOGY:  
 TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %

18 SEP 78  
 PAGE 21



IDENTIFICATION: )  
 )  
 OMEGA 1.4 )  
 TEST 78-013-001 )  
 RUN 03 )  
 METEOROLOGY: )  
 TEMP = 15 C )  
 BAR PRESS = .760 M HG )  
 24 JAN 79 )  
 REL HUMID = 70 % )  
 PAGE 22 )

OPERATION: )  
 90% RPM )  
 FREE FLOW )  
 FAR FIELD NOISE )



DISTANCE FROM SOURCE (METERS)

( FIGURE: SOUND PRESSURE LEVEL (SPL)  
 ( EQUAL LEVEL CONTOURS (DB)  
 ( 11 1000 HZ OCTAVE BAND  
 ( NOISE SOURCE/SUBJECT: ( OPERATION: ( METEOROLOGY:  
 ( F-105D AIRCRAFT ( 90% RPM ( TEMP = 15 C  
 ( J75-P-19M ENGINE ( FREE FLOW ( BAR PRESS = .760 M HG  
 ( FAR FIELD NOISE ( ( REL HUMID = 70 %  
 ( IDENTIFICATION: ) OMEGA 1.4  
 ( TEST 78-013-001 )  
 ( RUN 03 )  
 ( 18 SEP 78 )  
 ( PAGE 23 )

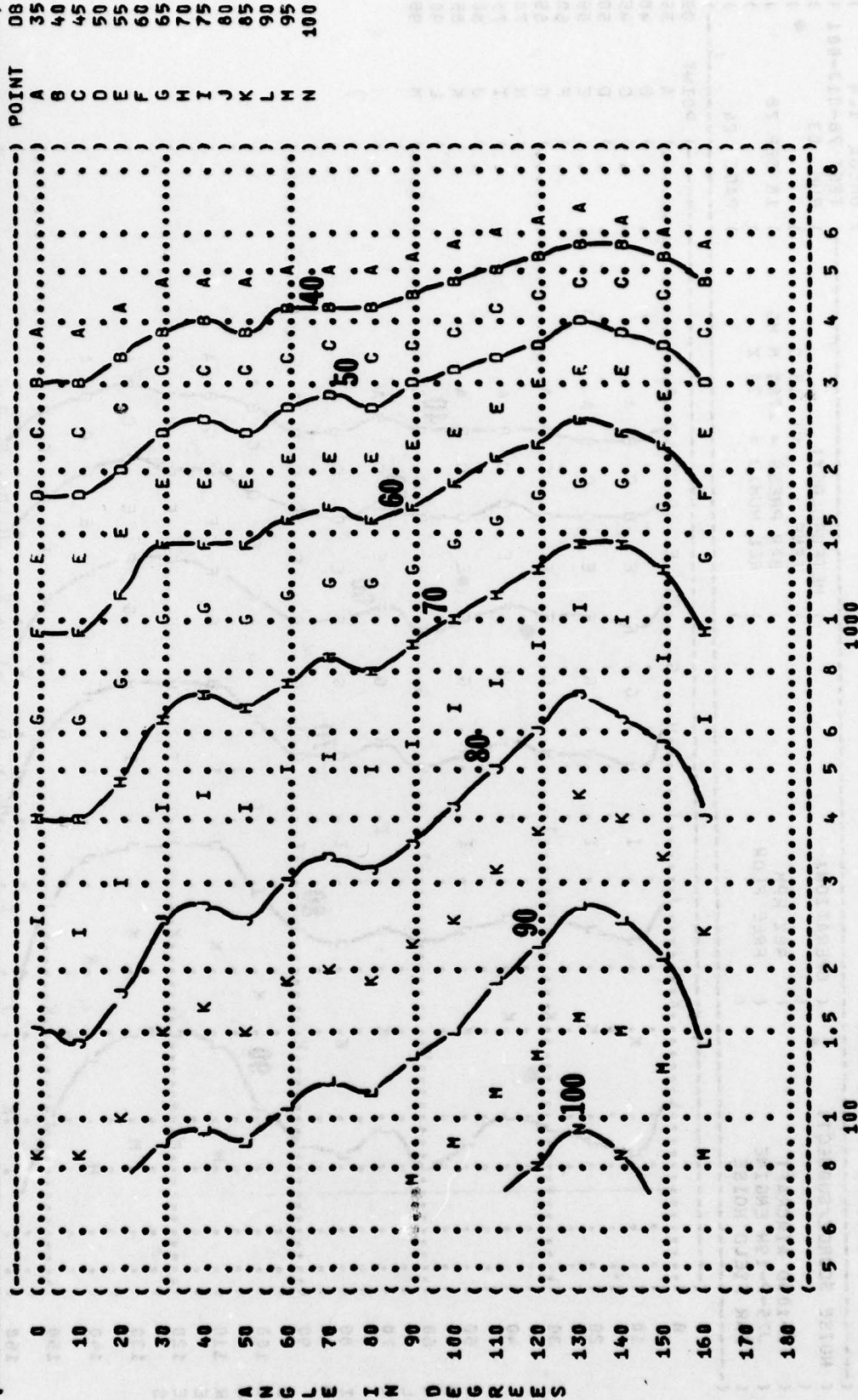




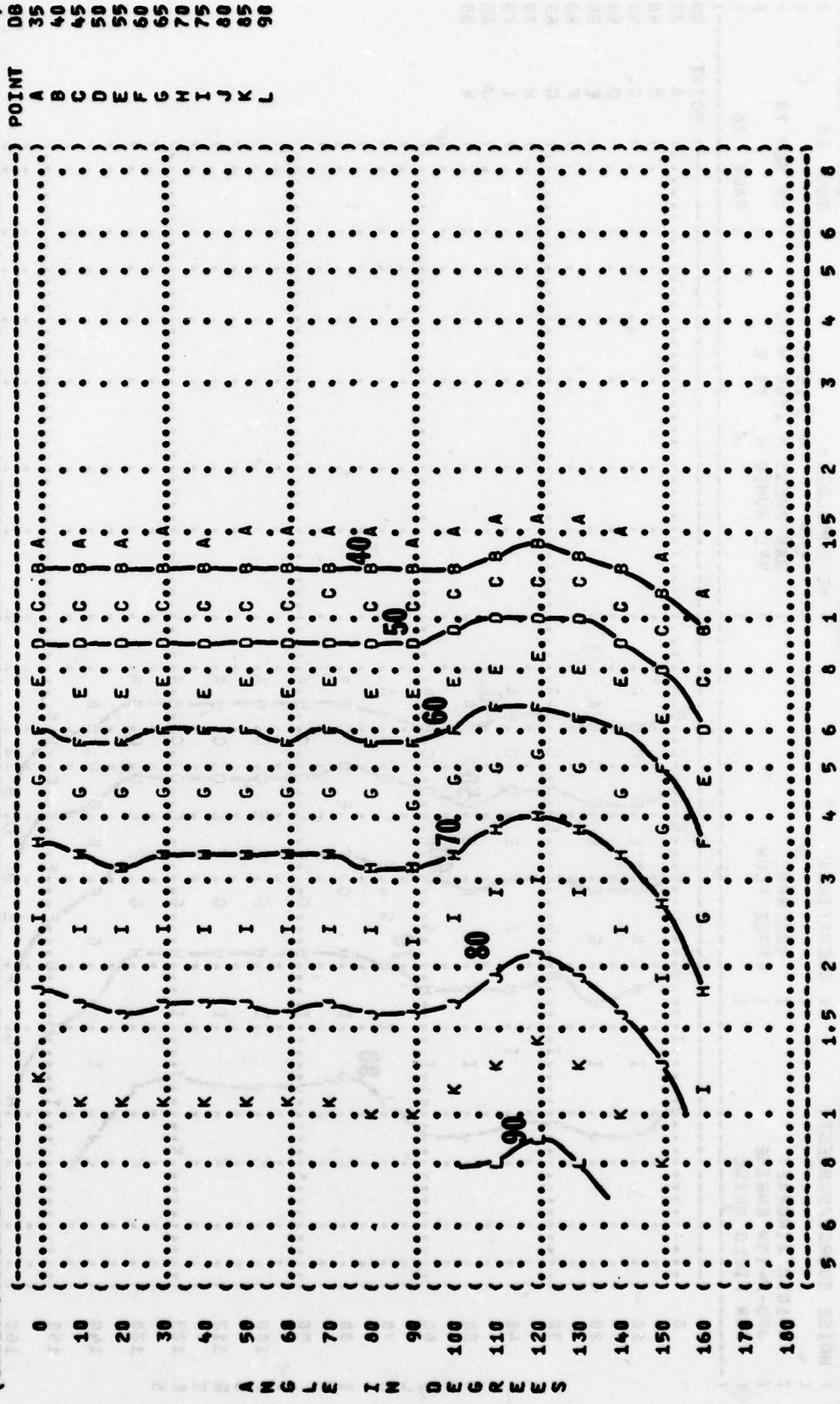
FIGURE: SOUND PRESSURE LEVEL (SPL)  
 EQUAL LEVEL CONTOURS (DB)  
 4000 HZ OCTAVE BAND

IDENTIFICATION:  
 OMEGA 1.4  
 TEST 76-013-001  
 RUN 03

NOISE SOURCE/SUBJECT: ( OPERATION:  
 F-1050 AIRCRAFT ( 90% RPM  
 J75-P-19W ENGINE ( FREE FLOW  
 FAR FIELD NOISE ( )

METEOROLOGY:  
 TEMP = 15 C  
 BAR PRESS = .760 H HG  
 REL HUMID = 70 %

10 SEP 78  
 PAGE 25



DISTANCE FROM SOURCE (METERS)

100  
1000







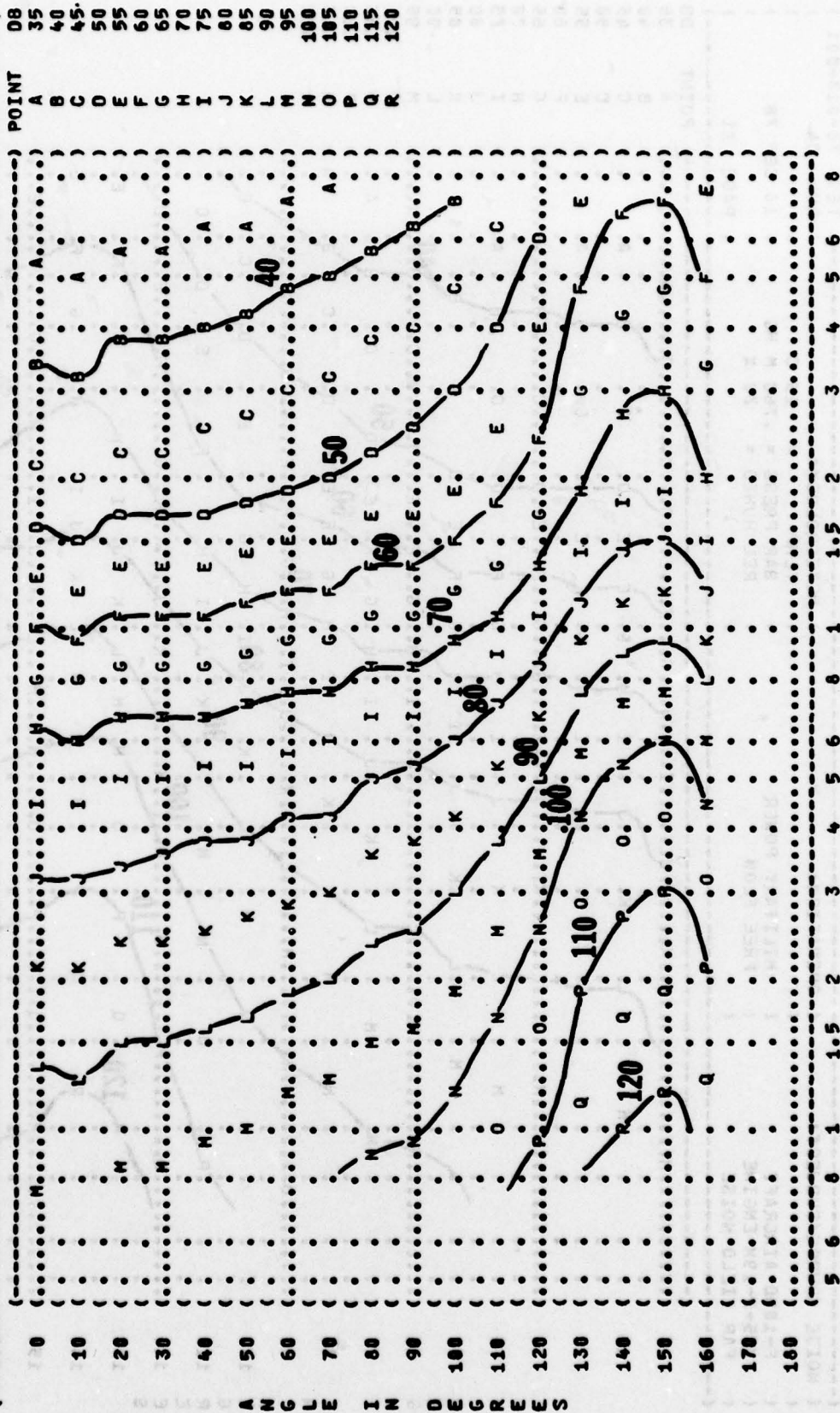
FIGURE: SOUND PRESSURE LEVEL (SPL)  
 EQUAL LEVEL CONTOURS (DB)  
 125 HZ OCTAVE BAND

11

NOISE SOURCE/SUBJECT: ( OPERATION: )  
 ( F-105D AIRCRAFT ( MILITARY POWER )  
 ( J75-P-19W ENGINE ( FREE FLOW )  
 ( FAR FIELD NOISE ( )

METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 M HG )  
 ) REL HUMID = 70 % )

IDENTIFICATIONS )  
 ) OMEGA 1.4 )  
 ) TEST 78-013-001 )  
 ) RUN 04 )  
 ) 18 SEP 78 )  
 ) PAGE 20 )



DISTANCE FROM SOURCE (METERS)

FIGURE: SOUND PRESSURE LEVEL (SPL)  
 EQUAL LEVEL CONTOURS (DB)  
 250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT: ( OPERATION:  
 F-105 AIRCRAFT ( MILITARY POWER  
 J75-P-19W ENGINE ( FREE FLOW  
 FAR FIELD NOISE (

METEOROLOGY:  
 TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %

IDENTIFICATION:  
 OMEGA 1.4  
 TEST 78-013-001  
 RUN 04

18 SEP 78  
 PAGE 21

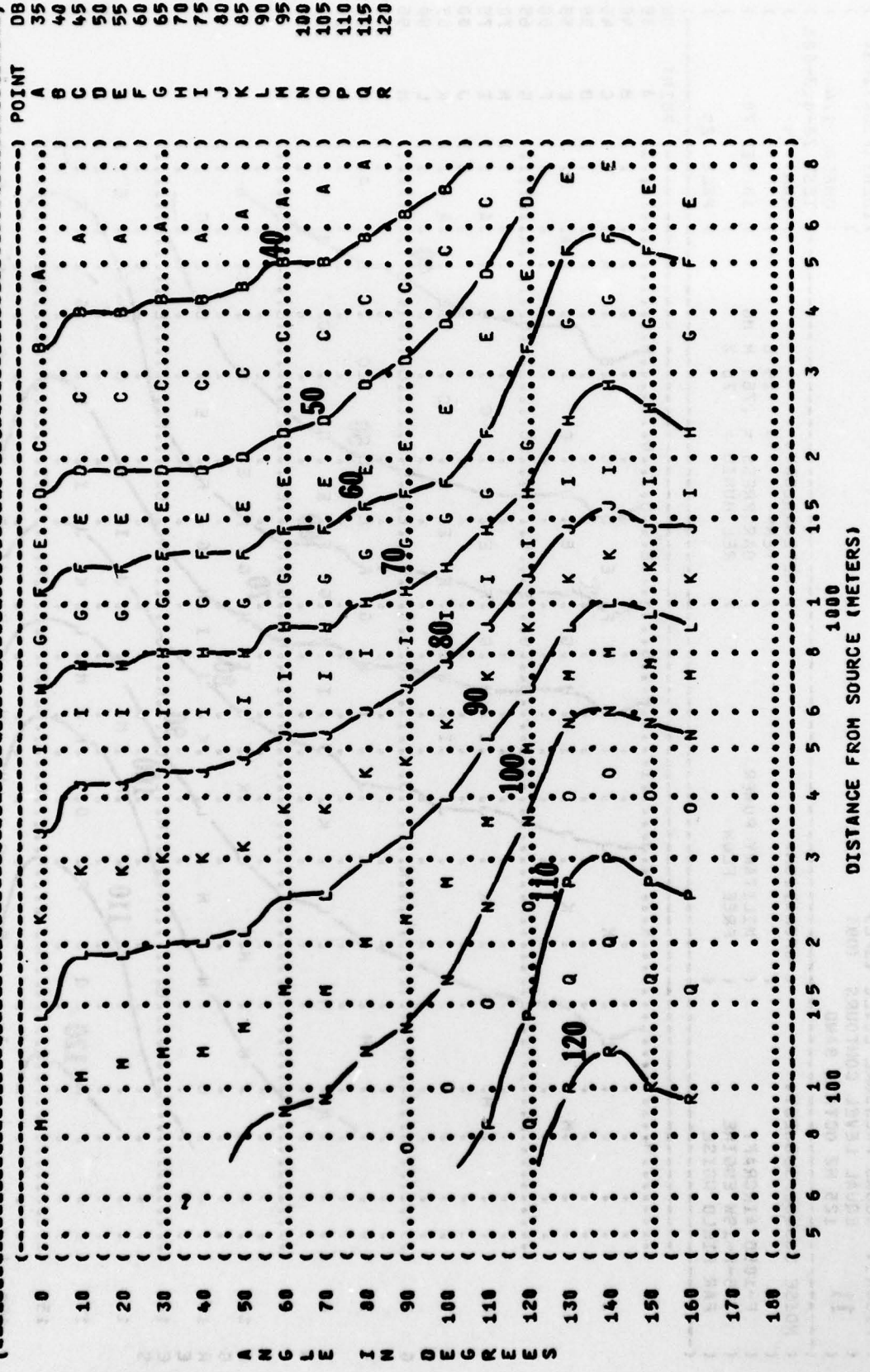


FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT: ( OPERATION: )  
 F-1050 AIRCRAFT ( MILITARY POWER )  
 J75-P-19W ENGINE ( FREE FLOW )  
 FAR FIELD NOISE ( )

METEOROLOGY: )  
 TEMP = 15 C )  
 BAR PRESS = .760 M HG )  
 REL HUMID = 70 % )

IDENTIFICATION: )  
 OMEGA 1.4 )  
 TEST 78-013-001 )  
 RUN 04 )  
 10 SEP 78 )  
 PAGE 22 )

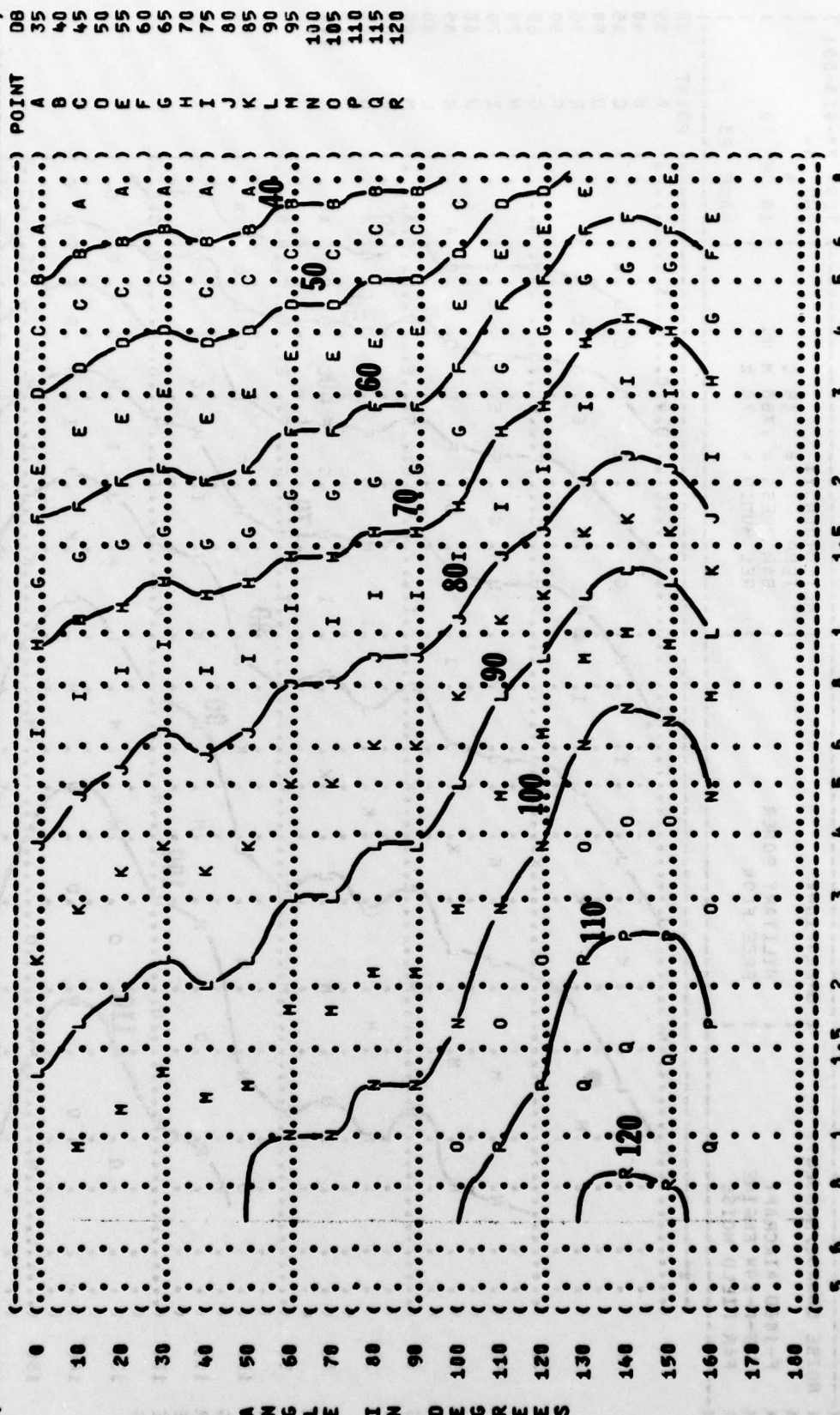




FIGURE: SOUND PRESSURE LEVEL (SPL)  
 EQUAL LEVEL CONTOURS (DB)  
 2000 HZ OCTAVE BAND

11

NOISE SOURCE/SUBJECT:

( OPERATION:

( F-1050 AIRCRAFT  
 ( J75-P-19W ENGINE  
 ( FAR FIELD NOISE

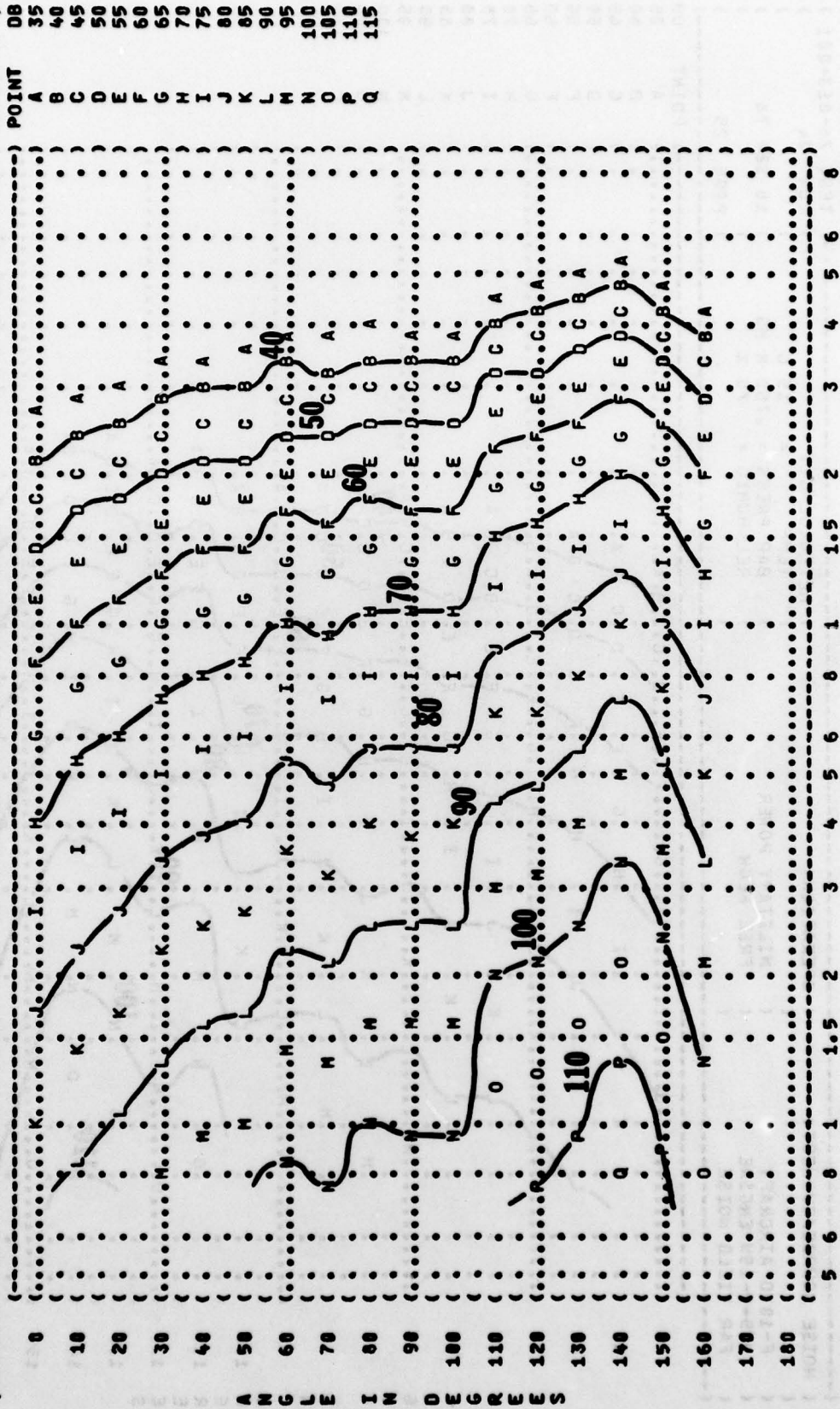
METEOROLOGY:

TEMP = 15 C  
 BAR PRESS = .760 M HG  
 REL HUMID = 70 %

IDENTIFICATION:

OMEGA 1.4  
 TEST 78-013-001  
 RUN 04

PAGE 24



IDENTIFICATION: )  
 OMEGA 1.4 )  
 TEST 78-013-001 )  
 RUN 04 )  
 METEOROLOGY: )  
 TEMP = 15 C )  
 BAR PRESS = .760 M HG )  
 REL HUMID = 70 % )  
 OPERATION: )  
 MILITARY POWER )  
 FREE FLOW )  
 SUBJECT: )  
 F-105 AIRCRAFT )  
 J75-P-19M ENGINE )  
 FAR FIELD NOISE )

FIGURE: SOUND PRESSURE LEVEL (SPL)  
 EQUAL LEVEL CONTOURS (DB)  
 4000 HZ OCTAVE BAND  
 11

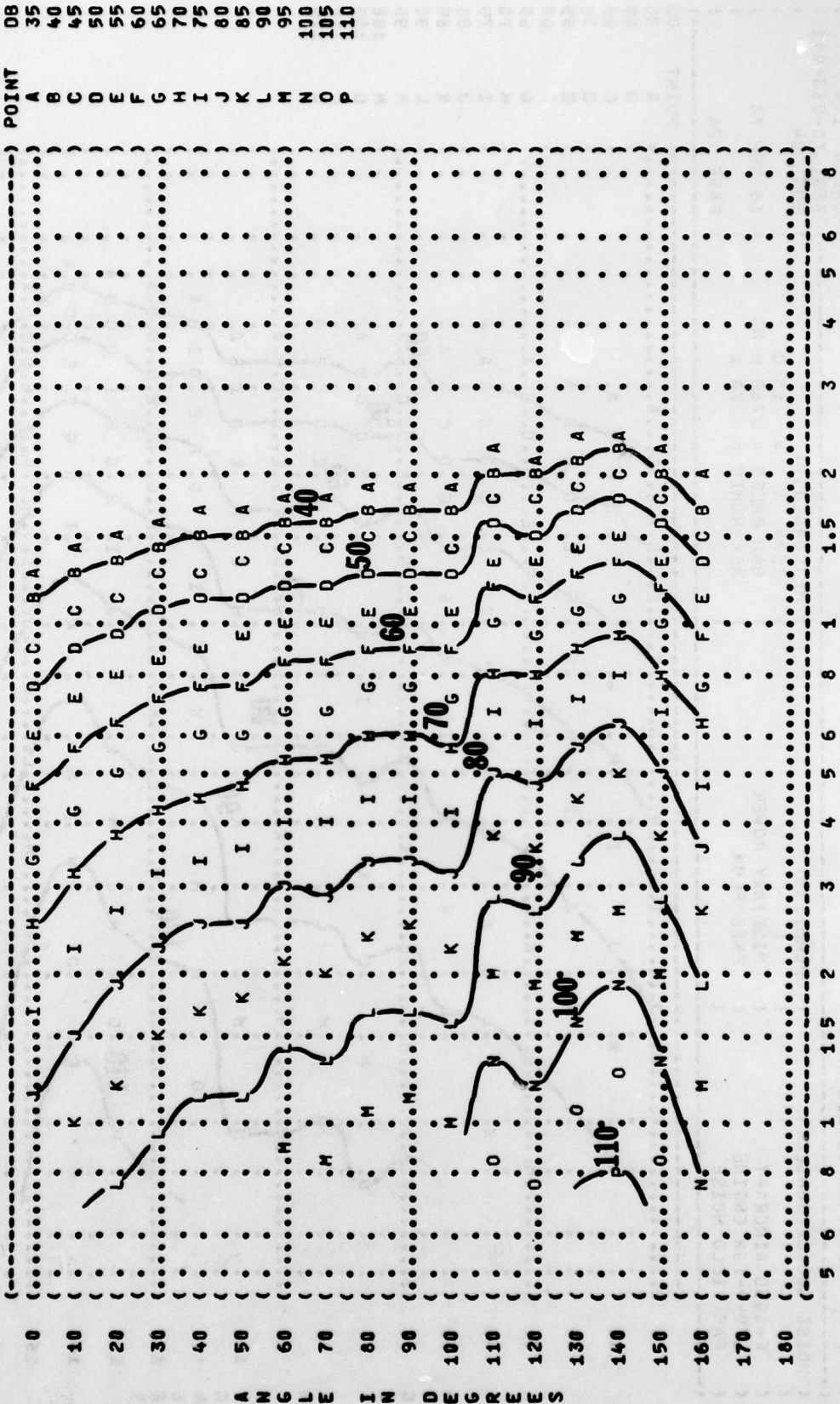


FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT: ( OPERATION: ) METEOROLOGY: )

F-1050 AIRCRAFT ( MILITARY POWER ) TEMP = 15 C )

J75-P-19H ENGINE ( FREE FLOW ) BAR PRESS = .760 M HG )

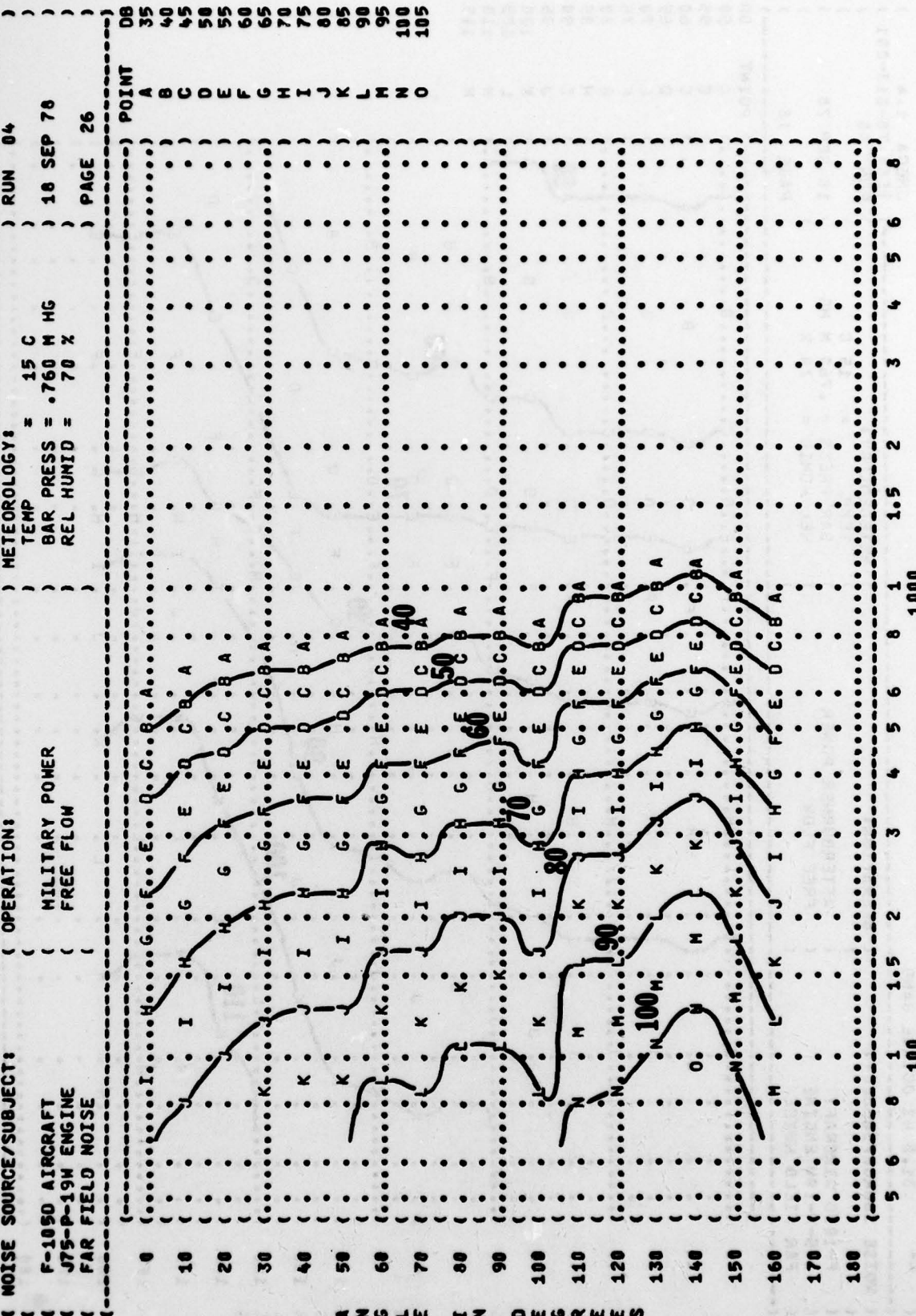
FAR FIELD NOISE ( ) REL HUMID = 70 % )

IDENTIFICATIONS: ) OMEGA 1.4 )

TEST 78-013-001 ) RUN 04 )

10 SEP 78 )

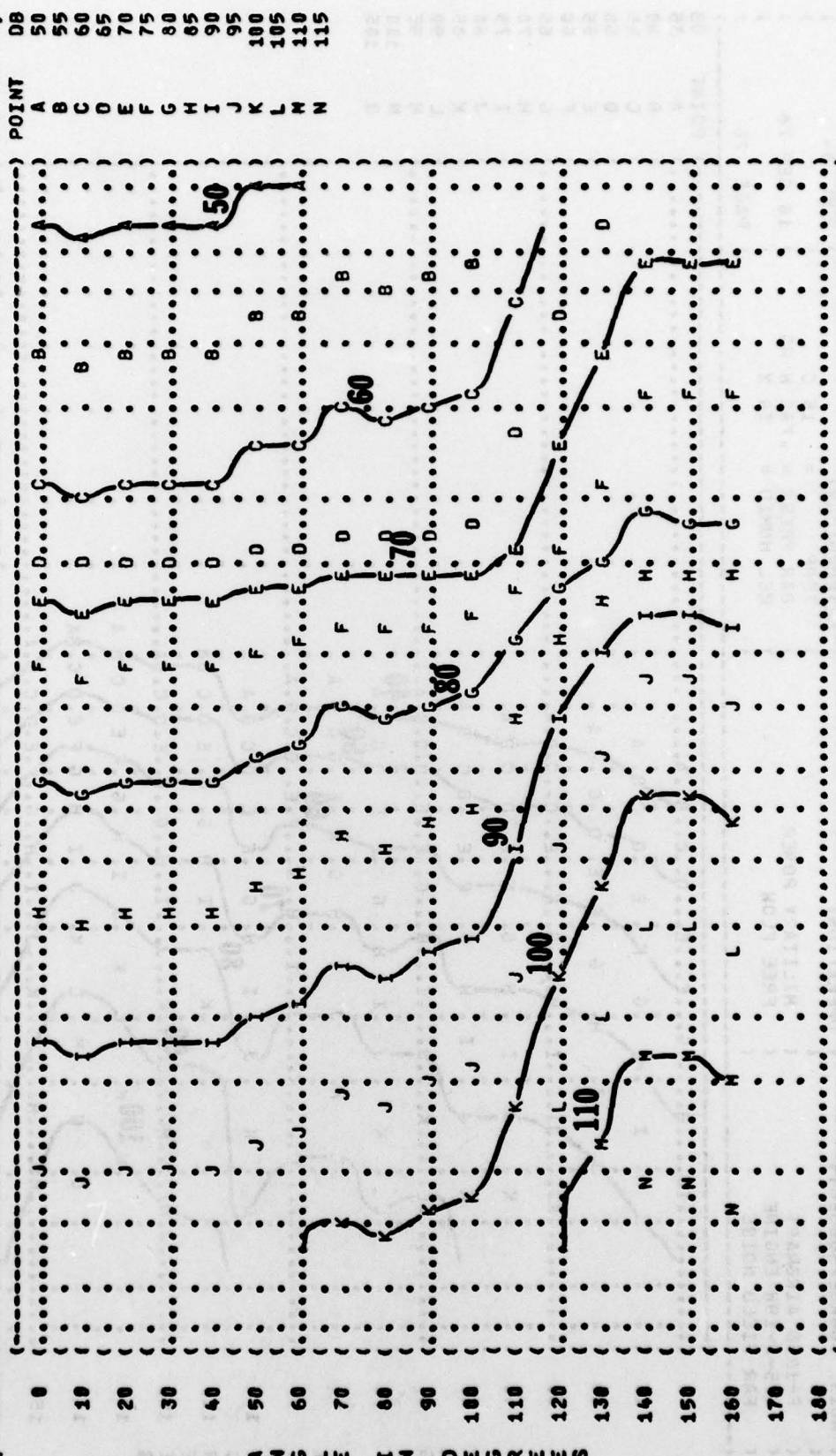
PAGE 26 )



5 6 8 1 1.5 2 3 4 5 6 8 100 1000

DISTANCE FROM SOURCE (METERS)

) IDENTIFICATION: )  
 ) OMEGA 1.4 )  
 ) TEST 78-013-001 )  
 ) RUN 05 )  
 ) 18 SEP 78 )  
 ) PAGE 18 )  
 ) METEOROLOGY: )  
 ) TEMP = 15 C )  
 ) BAR PRESS = .760 M HG )  
 ) REL HUMID = 70 % )  
 ) OPERATION: )  
 ) AFTERBURNER POWER )  
 ) FREE FLOW )  
 ) NOISE SOURCE/SUBJECT: )  
 ) F-1050 AIRCRAFT )  
 ) J75-P-19W ENGINE )  
 ) FAR FIELD NOISE )



5 6 0 1 1.5 2 3 4 5 6 0 100  
 DISTANCE FROM SOURCE (METERS)

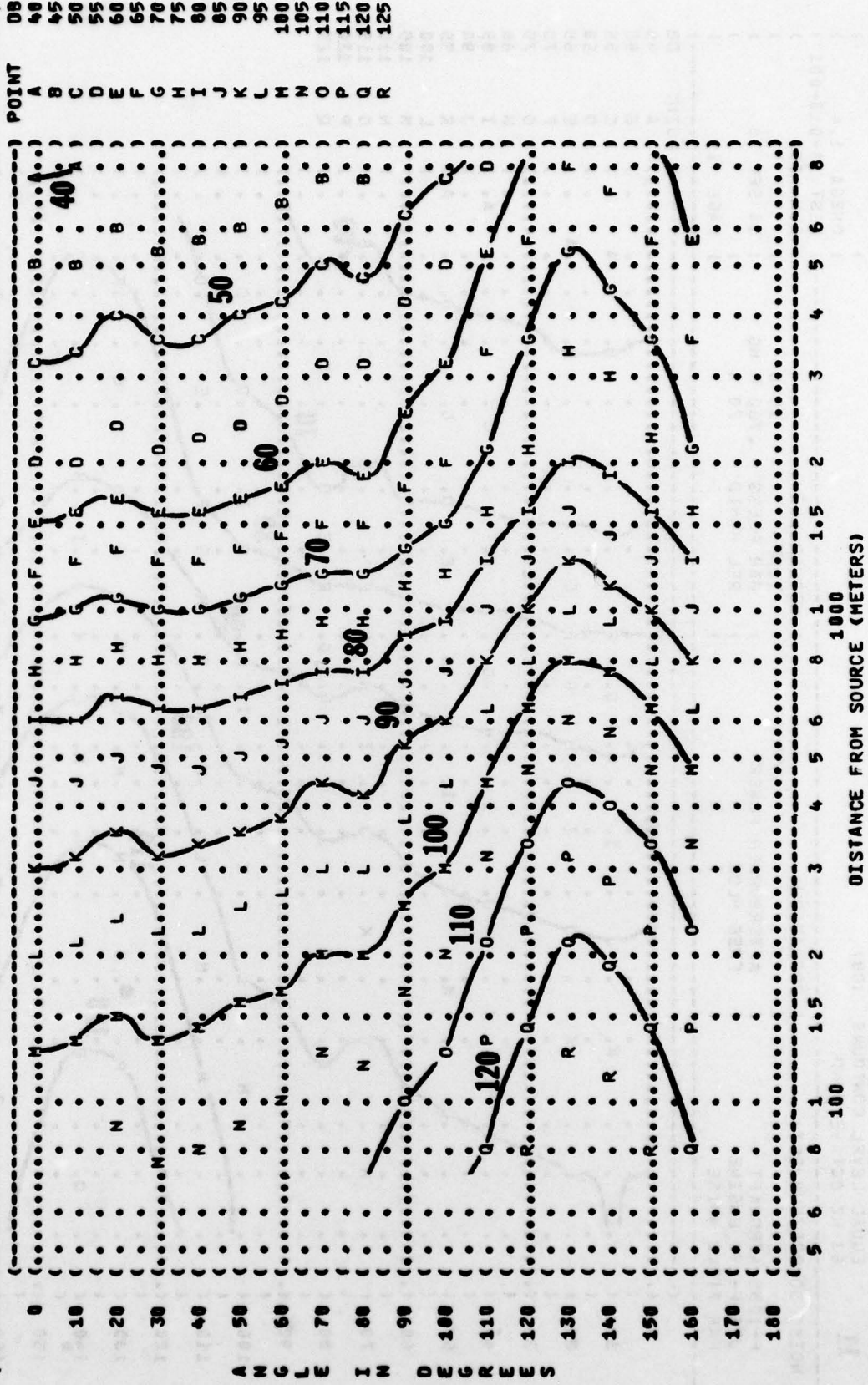


IDENTIFICATION: )  
 ) OMEGA 1.4  
 ) TEST 78-013-001  
 ) RUN 05  
 ) 24 JAN 79  
 ) PAGE 20

METEOROLOGY:  
 ) TEMP = 15 C  
 ) BAR PRESS = .760 M HG  
 ) REL HUMID = 70 %

OPERATION:  
 ) AFTERBURNER POWER  
 ) FREE FLOW

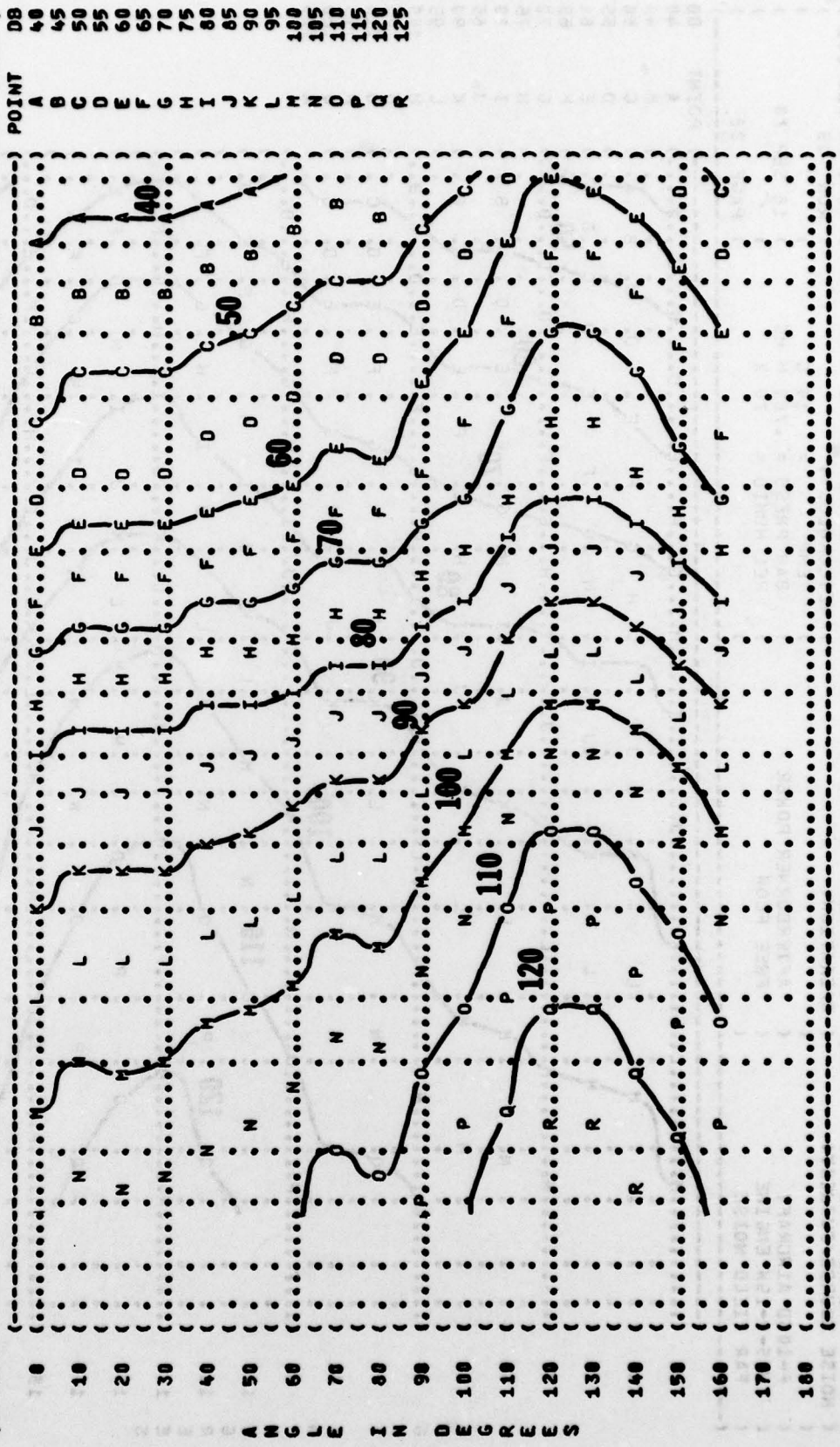
NOISE SOURCE/SUBJECT:  
 ) F-1050 AIRCRAFT  
 ) J75-P-19W ENGINE  
 ) FAR FIELD NOISE



IDENTIFICATION: ) OMEGA 1.4  
 TEST 78-013-001  
 RUN 05  
 METEOROLOGY: ) TEMP = 15 C  
 ) BAR PRESS = .760 M HG  
 ) REL HUMID = 70 %  
 ) PAGE 21

OPERATION: )  
 AFTERBURNER POWER )  
 FREE FLOW )

SUBJECT: )  
 F-105D AIRCRAFT )  
 J75-P-19H ENGINE )  
 FAR FIELD NOISE )



POINT DB  
 A 40  
 B 45  
 C 50  
 D 55  
 E 60  
 F 65  
 G 70  
 H 75  
 I 80  
 J 85  
 K 90  
 L 95  
 M 100  
 N 105  
 O 110  
 P 115  
 Q 120  
 R 125

5 6 8 1 1.5 2 3 4 5 6 8 1000  
 DISTANCE FROM SOURCE (METERS)



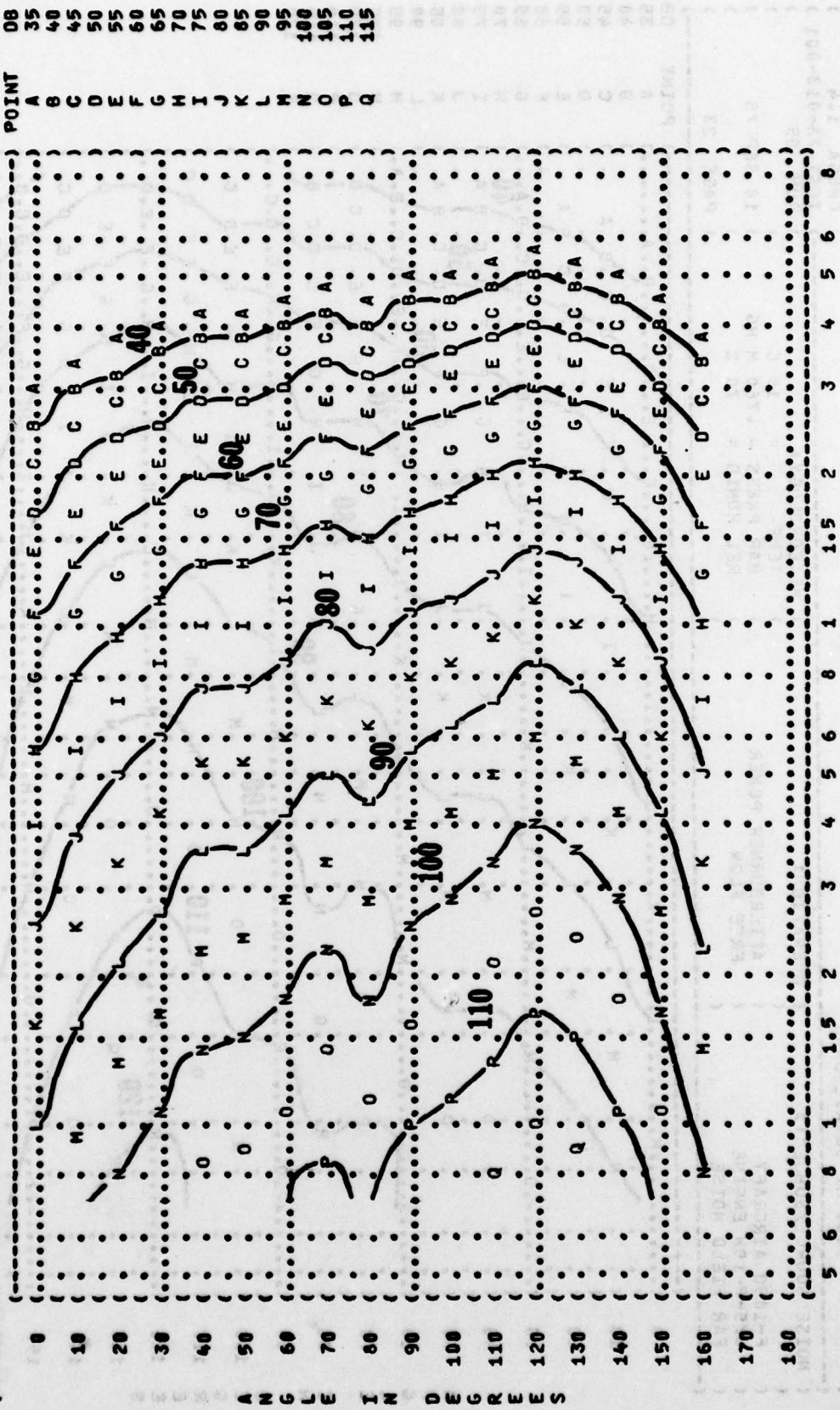


IDENTIFICATION: )  
 OMEGA 1.4 )  
 TEST 78-013-001 )  
 RUN 05 )  
 18 SEP 78 )  
 PAGE 24 )

METEOROLOGY: )  
 TEMP = 15 C )  
 BAR PRESS = .760 M HG )  
 REL HUMID = 70 % )

OPERATION: )  
 AFTERBURNER POWER )  
 FREE FLOW )

NOISE SOURCE/SUBJECT: )  
 F-1050 AIRCRAFT )  
 J75-P-19H ENGINE )  
 FAR FIELD NOISE )



DISTANCE FROM SOURCE (METERS)

FIGURE 1 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

11

NOISE SOURCE/SUBJECT:

F-105 AIRCRAFT  
J75-P-19W ENGINE  
FAR FIELD NOISE

OPERATION:

AFTERBURNER POWER  
FREE FLOW

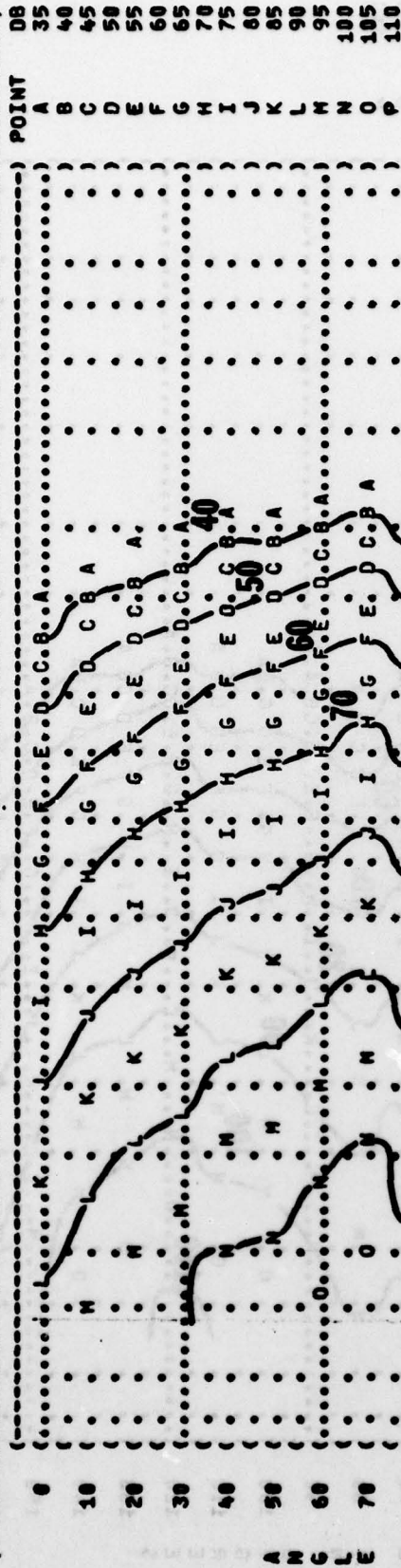
METEOROLOGY:

TEMP = 15 C  
BAR PRESS = .760 M HG  
REL HUMID = 70 %

IDENTIFICATION:

OMEGA 1.4  
TEST 76-013-001  
RUN 05

18 SEP 78  
PAGE 25



DISTANCE FROM SOURCE (METERS)

