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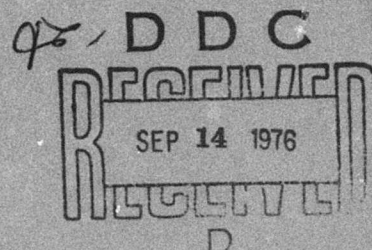
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**USAF BIOENVIRONMENTAL NOISE DATA
HANDBOOK
VOLUME 63
F-15A AIRCRAFT, NEAR AND FAR-FIELD NOISE**

NOVEMBER 1975

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AEROSPACE MEDICAL RESEARCH LABORATORY
AEROSPACE MEDICAL DIVISION
Air Force Systems Command
Wright-Patterson Air Force Base, Ohio 45433



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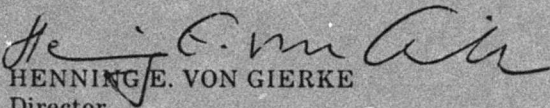
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This technical report has been reviewed and is approved for publication.

FOR THE COMMANDER


HENNING E. VON GIERKE
Director
Biodynamics and Bionics Division
Aerospace Medical Research Laboratory

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C-weighted and A-weighted sound levels, preferred speech interference level, perceived noise level, 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 723104, Measurement of Noise and Vibration Environments of Air Force Operations.

The author gratefully acknowledges Mr. John Cole for his assistance in preparing this report, Capt Nick Farinacci and Mr. Jerry Speakman for their assistance in acquiring the raw data, Mr. Henry Mohlman and Mr. David Eilerman of the University of Dayton for assistance in the mechanics of data processing and Mrs. Norma Peachey and Mr. Mike Patterson for assistance in typing and preparation of the graphics.

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INTRODUCTION

The USAF F-15A is an air superiority fighter-type aircraft powered by two F100-PW-100(1) turbofan engines which are the major source of ground runup noise. A second source of less importance is the aircraft's on-board jet fuel starter; a small jet engine used to supply electrical and air power to start the turbofan engines.

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-15A 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 aerospace ground equipment. The far-field, community-type, noise data in the handbook describe the noise produced during *ground operations* of aircraft, aerospace ground equipment, and other ground-based equipment or facilities.

Volume 1 of this handbook discusses the objectives and design of the handbook, the 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 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-15 aircraft during ground runup operations of its jet fuel starter (JFS) and turbofan engines. For these tests, the aircraft was located on a concrete runup pad at Edwards AFB with no significant reflecting surfaces in the vicinity except the ground plane. Table 1 gives the surface meteorological conditions and the five engine or JFS 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 10 near-field locations where ground crews are usually located for maintenance and/or preflight checkout operations. Similar crew locations are on the right side of the aircraft but were not measured since the noise source is symmetrical (same noise at opposite side). 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.) Because of this problem, no attempts should be made to estimate near-field noise. Instead, we recommend you measure the A-weighted sound levels at such locations.

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 ground crew location 1 and test condition A.

RESULTS

The measured data presented in Table 2 define the sound pressure levels (SPL) produced by the F-15A aircraft at the 10 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-15A Aircraft, Ground Runup, Edwards AFB, CA
 28 January 1974
 Tail #10282

Ground Crew Location

1 through 10

Near Field Grid

Aircraft Engine (and AGE) Operation

A	Jet Fuel Starter (unloaded)
B	Both Engines Idle
C	Both Engines 80% RPM
D	Left Engine Military
E	Left Engine Full Augmentation

Meteorology

Temperature	12.8 C
Bar Pressure	.703 M Hg
Rel Humidity	26 %
Wind — Speed	1 M/Sec
— Direction	340 Deg

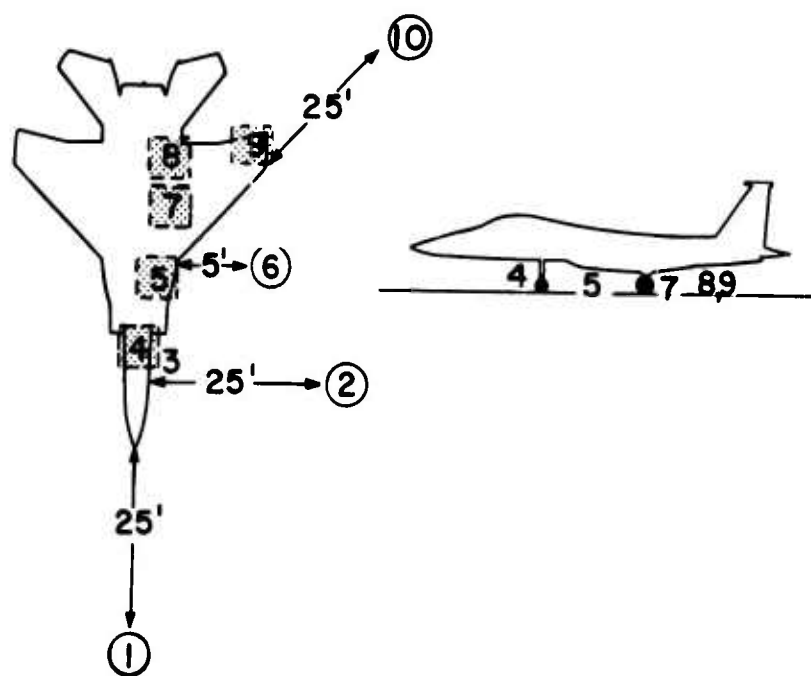


Figure 1. Near-Field Measurement Locations at Pad 18, Edwards AFB, CA

FAR-FIELD NOISE

MEASUREMENTS

AMRL acquired both near- and far-field data during a 1-2-hour test period, thus keeping similar meteorological conditions. Figure 2 shows the ground runup pad, ground cover, aircraft orientation and 19 microphone measurement sites on each of two semicircles. The center of the 75 meter radius semicircle used in surveying the F100-PW-100(1) engines was on the ground directly below the intersection of the aircraft's centerline and the plane passing through both engines' exhaust-nozzle exits. The center of the 35-meter semicircle used in the noise survey of the jet fuel starter was on the ground directly below the aircraft's centerline and the center of the JFS's exhaust-nozzle exit.

Table 4 provides cockpit readouts of engine characteristics (% RPM, 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 38 microphone measurement sites are in the acoustic far-field of their respective source where the sound wave-fronts spherically diverge and the noise source may be regarded as a point source.

During far-field data acquisition test, personnel moved the microphone vertically from 0.5 to 3 meters above the ground at a uniform rate within 5-10 seconds. These samples were then time-integrated (4-8 second time integration period) to derive a root-mean-square sound pressure level. This method of spatial scanning and long time integrating minimizes anomalies frequently produced in data acquired over reflecting surfaces by fixed-height microphones. Such anomalies result from the interaction between direct and ground-reflected sound waves and typically appear as dips or valleys at selected frequencies in the sound pressure level spectra. Although data acquired by a fixed-height microphone are accurate for that specific location and height, they generally are not desirable as a basis for extrapolating to other distances. The scanning technique described provides better baseline data yielding extrapolated levels with fewer such anomalies.

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-15A 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 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 that 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.

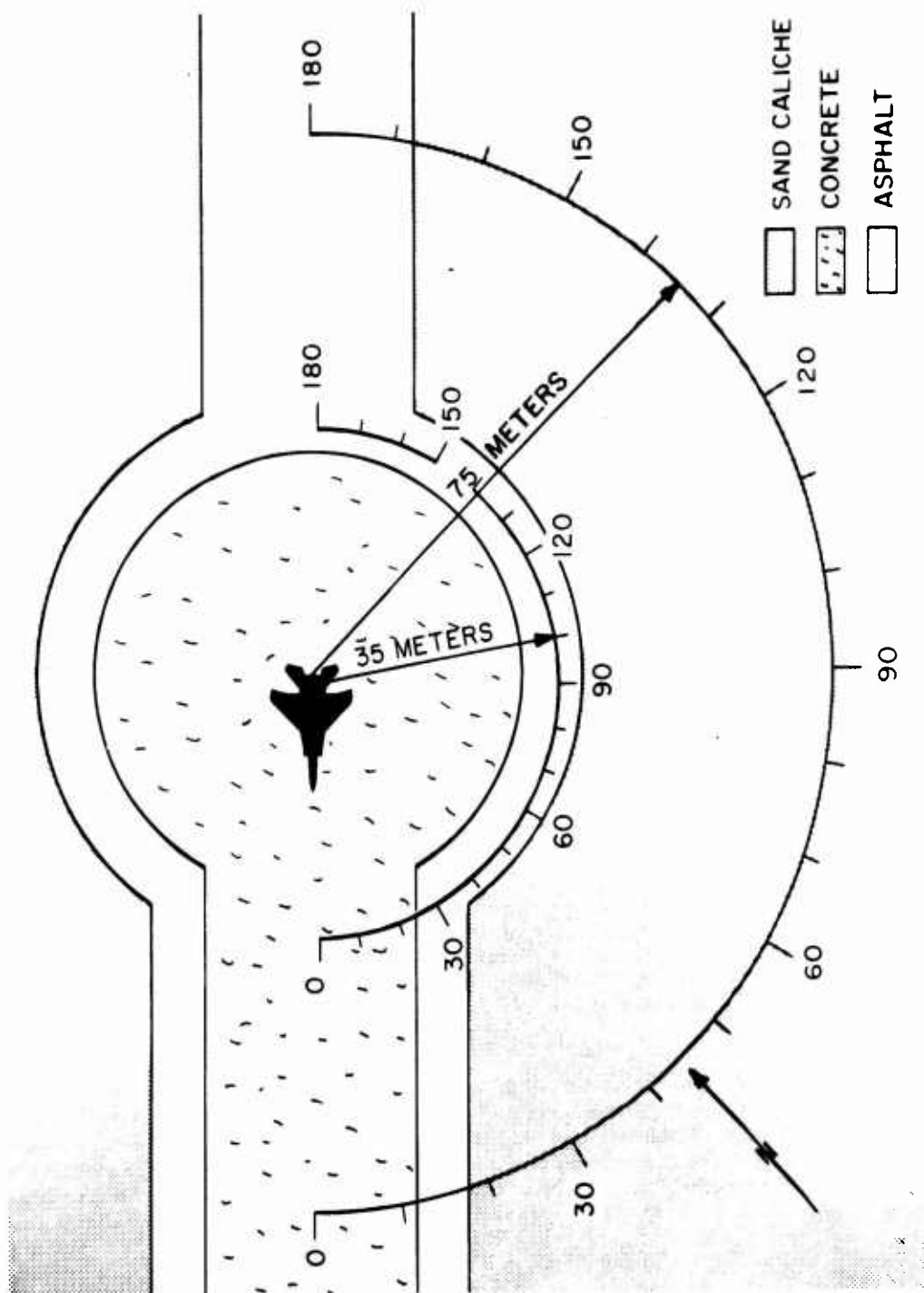


Figure 2. Far-Field Measurement Locations at Pad 18, Edwards AFB, CA

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.

Data excessively influenced by spurious background/electronic noise were eliminated from all figures and tables. No data are presented at the 170 and 180 degree locations for higher power settings because of turbulent air flow behind the aircraft.

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. In some cases, contour levels at these missing data points were estimated and indicated with dashed lines. In a few cases, there are so many data points missing that the octave-band sound pressure level figures have no contours for an entire octave-band (e.g., Figure 11, 31.5 Hz band, jet fuel starter only).

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)										IDENTIFICATION:	
2										OMEGA 3.2	
										TEST 73-067-011	
NOISE SOURCE/SUBJECT:										RUN 01	
F-15A AIRCRAFT											
GROUND CREW										02 DEC 74	
NEAR FIELD NOISE LEVELS										PAGE F1	
LOCATION/CONDITION											
FREQ (HZ)	1/A	2/A	3/A	4/A	5/A	6/A	7/A	8/A	9/A	10/A	
25	63<	62<	64<	65<	71	67<	78	80	68	64<	
31.5	58<	59<	60<	62<	73	68	76	81	66	57<	
40		62<	64<	65<	73	70	77	83	69	61<	
50	63<	66<	64<	65<	74	74	80	85	71	65<	
63		72<	68<	69<	77<	78<	85	89	77<	69<	
80		74<	74<	76<	83	80	89	91	77<	71<	
100	70<	75	81	81	87	83	92	99	87	78	
125	70<	77	80	81	88	84	96	99	84	77	
160	73	79	82	83	87	85	93	99	81	77	
200	69	75	79	85	86	83	93	97	84	78	
250	79	91	87	94	99	98	109	112	93	92	
315	83	94	90	97	102	101	112	115	96	94	
400	80	82	86	89	96	92	103	105	88	81	
500	72	81	85	89	93	90	102	107	93	79	
630	75	85	88	90	98	94	104	111	98	83	
800	74	80	84	84	94	87	99	103	90	85	
1000	75	79	85	85	93	88	100	103	92	86	
1250	75	78	85	84	94	87	98	101	87	82	
1600	72	78	84	82	91	86	95	99	84	79	
2000	69	75	81	80	89	82	95	96	82	77	
2500	66	73	78	77	87	80	93	94	81	78	
3150	64	71	77	77	86	79	94	97	81	78	
4000	63	70	77	77	86	78	93	95	81	76	
5000	63	71	80	79	89	80	95	96	81	74	
6300	64	71	80	79	89	80	95	96	81	74	
8000	64	69	80	79	89	80	96	97	81	74	
10000	70	75	87	86	6	86	101	101	86	76	
OVERALL	38	97	97	101	107	105	116	119	103	98	

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)										IDENTIFICATION:	
2										OMEGA 3-2	
										TEST 73-067-011	
NOISE SOURCE/SUBJECT:										RUN 02	
(OPERATION:											
(F-15A AIRCRAFT											
(GROUND CREW										02 DEC 74	
(NEAR FIELD NOISE LEVELS											
(										PAGE F2	
LOCATION/CONDITION											
FREQ (HZ)	1/B	2/B	3/B	4/B	5/B	6/B	7/B	8/B	9/B	10/B	
25	72	79	86	88	86	84	92	91	88	86	
31.5	74	81	89	90	90	86	90	93	92	87	
40	75	83	92	93	91	87	88	89	87	83	
50	72	80	89	89	90	85	89	88	84	80	
63	74	81	90	91	93	87	92	90	83	80	
80	71	78	86	88	91	85	91	88	82	79	
100	75	80	90	93	91	86	87	88	83	63	
125	76	80	90	92	89	85	90	97	87	83	
160	76	80	91	93	91	87	94	101	89	86	
200	77	78	92	92	90	84	91	93	85	83	
250	77	79	93	93	91	85	90	92	85	82	
315	77	79	93	94	90	86	92	93	89	83	
400	81	86	95	96	98	93	102	100	94	88	
500	81	80	94	95	90	86	92	92	85	88	
630	81	80	94	95	90	86	91	92	87	88	
800	82	81	96	96	95	89	96	95	90	87	
1000	84	83	99	97	91	87	93	93	87	86	
1250	91	87	105	103	96	91	95	95	89	84	
1600	94	90	109	107	98	93	97	96	92	85	
2000	93	91	107	106	96	90	94	93	89	84	
2500	111	109	127	125	113	107	109	107	103	94	
3150	106	106	122	122	109	103	105	104	99	91	
4000	111	106	125	123	108	104	106	106	100	97	
5000	107	105	122	121	106	102	103	102	98	95	
6300	106	103	121	120	103	98	99	98	93	90	
8000	106	104	122	120	103	98	100	100	94	93	
10000	104	101	120	118	100	95	97	97	92	97	
OVERALL	116	114	132	130	117	111	114	113	108	104	

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)										
1/3 OCTAVE BAND										
IDENTIFICATION:										
2										OMEGA 3.2
										TEST 73-067-011
										RUN 03
										02 DEC 74
										PAGE F3
NOISE SOURCE/SUBJECT: (OPERATION:)										
F-15A AIRCRAFT ()										
GROUND CREW ()										
NEAR FIELD NOISE LEVELS ()										
LOCATION/CONDITION										
FREQ (HZ)	1/C	2/C	5/C	6/C	7/C	8/C	9/C	10/C		
25	82	85	94	91	98	97	94	101		
31.5	82	86	95	92	97	96	96	103		
40	84	90	99	93	99	100	98	104		
50	83	90	96	93	101	100	97	106		
63	86	92	98	96	102	101	98	109		
80	89	94	101	97	102	102	100	110		
100	94	97	102	99	103	105	102	113		
125	96	99	105	103	107	109	105	116		
160	95	98	105	104	109	110	107	117		
200	96	99	106	104	111	111	105	113		
250	96	100	108	105	109	111	106	112		
315	96	100	103	106	111	112	110	114		
400	97	100	108	106	112	112	110	116		
500	98	101	109	108	113	113	111	117		
630	98	102	109	108	113	114	110	117		
800	96	102	107	107	114	115	111	116		
1000	97	102	109	108	114	114	111	115		
1250	97	102	109	108	113	114	110	114		
1600	97	103	109	107	113	114	110	113		
2000	97	101	108	106	112	113	109	112		
2500	97	100	107	105	111	112	108	110		
3150	98	100	106	104	110	110	108	108		
4000	103	102	108	106	112	113	109	109		
5000	105	104	113	106	112	112	107	106		
6300	102	104	109	105	109	110	106	105		
8000	101	103	107	104	110	111	107	105		
10000	100	103	107	104	108	109	105	103		
OVERALL	112	115	121	119	124	125	122	127		

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE 1		MEASURED SOUND PRESSURE LEVEL (DB)										IDENTIFICATION:	
2		1/3 OCTAVE BAND											

TABLE 1 MEASURED SOUND PRESSURE LEVEL (DB)										IDENTIFICATION:	
1/3 OCTAVE BAND											
2											
NOISE SOURCE/SUBJECT:											
(OPERATION:											
(											
F-15A AIRCRAFT											
(											
GROUND CREW											
(											
NEAR FIELD NOISE LEVELS											
(											

TABLE: MEASURED SOUND PRESSURE LEVEL (03)										
OCTAVE BAND										
IDENTIFICATION:										
2										
NOISE SOURCE/SUBJECT: (OPERATION:										
F-15A AIRCRAFT (										
GROUND CREW (										
NEAR FIELD NOISE LEVELS (										
LOCATION/CONDITION										
FREQ (HZ)	1/A	2/A	3/A	4/A	5/A	6/A	7/A	8/A	9/A	10/A
31.5	65	66	68	69	77	73	82	86	73	66
63	76	76	75	77	85	83	91	94	80	74
125	84	82	85	87	92	89	99	104	89	82
250	82	96	92	99	104	103	114	117	98	96
500	82	83	91	94	100	97	108	113	99	86
1000	79	84	89	89	98	93	105	109	96	89
2000	74	80	85	85	94	88	100	104	90	85
4000	68	75	82	81	91	83	98	100	85	82
8000	72	77	83	87	97	88	103	103	98	80
OVERALL	88	97	97	101	107	105	116	119	103	98

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)										
2 OCTAVE BAND										
IDENTIFICATION:										
OMEGA 3.2										
TEST 73-067-011										
RUN 02										
02 DEC 74										
PAGE J2										
NOISE SOURCE/SUBJECT: OPERATION:										
F-15A AIRCRAFT										
GROUND CREW										
NEAR FIELD NOISE LEVELS										
LOCATION/CONDITION										
FREQ (HZ)	1/B	2/B	3/B	4/B	5/B	6/B	7/B	8/B	9/B	10/B
31.5	79	86	94	95	94	91	95	96	94	90
63	77	85	93	94	96	90	96	93	88	84
125	80	85	95	97	95	91	98	102	92	89
250	82	83	98	98	95	90	96	97	91	87
500	86	87	99	100	99	94	103	101	95	93
1000	92	89	106	105	99	94	100	99	94	90
2000	111	109	127	125	113	107	109	107	103	95
4000	113	110	128	127	113	108	109	109	104	100
8000	110	107	126	124	107	102	103	103	98	99
OVERALL	116	114	132	130	117	111	114	113	108	104

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)									
2									
OCTAVE BAND									
IDENTIFICATION:									
OMEGA 3.2									
TEST 73-067-011									
RUN 03									
02 DEC 74									
PAGE J3									
NOISE SOURCE/SUBJECT: (OPERATION:									
F-15A AIRCRAFT ()									
GROUND CREW ()									
NEAR FIELD NOISE LEVELS ()									
LOCATION/CONDITION									
FREQ (HZ)									
1/C 2/C 5/C 6/C 7/C 8/C 9/C 10/C									
31.5	87	92	100	97	103	103	101	108	
63	91	97	103	100	107	106	103	113	
125	100	103	109	107	112	113	110	120	
250	101	105	112	110	115	116	112	118	
500	102	106	113	112	117	118	115	122	
1000	101	107	113	112	118	119	115	120	
2000	102	106	113	111	117	117	114	116	
4000	108	107	113	110	116	117	113	113	
8000	106	109	112	109	114	115	111	109	
OVERALL	112	115	121	119	124	125	122	127	

TABLE: MEASURED SOUND PRESSURE LEVEL (D3)										IDENTIFICATION:	
2											
NOISE SOURCE/SUBJECT:										OMEGA 3-2	
F-15A AIRCRAFT										TEST 73-067-011	
GROUND CREW										RUN 04	
NEAR FIELD NOISE LEVELS										02 DEC 74	
										PAGE J4	

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)									
2 OCTAVE BAND									
IDENTIFICATION:									
NOISE SOURCE/SUBJECT: (OPERATION:)									
F-15A AIRCRAFT									
GROUND CREW									
NEAR FIELD NOISE LEVELS ()									
LOCATION/CONDITION									
FREQ (HZ)	2/E	5/E	6/E	7/E	8/E	9/E	10/E		
31.5	109	117	115	117	117	118	123		
63	114	118	119	121	122	119	130		
125	117	122	123	125	127	124	136		
250	119	125	125	128	129	127	138		
500	119	126	128	130	131	130	145		
1000	120	126	128	129	132	131	141		
2000	118	125	127	128	130	130	138		
4000	114	122	124	127	129	129	136		
8000	112	120	122	123	126	126	132		
OVERALL	126	133	134	136	138	137	148		

TABLE: MEASURES OF HUMAN NOISE EXPOSURE										IDENTIFICATION:
3										
NOISE SOURCE/SUBJECT:	(OPERATION:									
F-15A AIRCRAFT	(									OMEGA 3.2
GROUND CREW	(									TEST 73-067-011
NEAR FIELD NOISE LEVELS	(									RUN 02
	(									02 DEC 74
	(									PAGE H2
LOCATION/CONDITION										
	1/B	2/B	3/B	4/B	5/B	6/B	7/B	8/B	9/B	10/B
HAZARD/PROTECTION										
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN D3C) AT EAR										
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN D3A) AT EAR										
MAXIMUM PERMISSIBLE TIME (T IN MINUTES) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)										
NO PROTECTION										
OASLC	115	113	131	129	116	111	113	112	107	103
OASLA	117	115	132	131	117	112	114	113	108	103
T	P	2.2	P	P	P	3.8	2.7	3.2	8	18
MINIMUM QPL EAR MUFFS										
OASLA*	89	87	104	103	89	84	87	87	81	78
T	202	285	15	18	202	480	285	285	807	960
AMERICAN OPTICAL 1700 EAR MUFFS										
OASLA*	83	81	99	97	83	78	81	81	75	73
T	571	807	35	50	571	960	807	807	960	960
V-51R EAR PLUGS										
OASLA*	86	83	101	99	86	81	84	83	78	75
T	339	571	25	36	339	807	490	571	960	960
AMERICAN OPTICAL 1700 EAR MUFFS PLUS V-51R EAR PLUGS										
OASLA*	73	70	88	87	73	67	70	69	64	62
T	960	960	240	285	960	960	960	960	960	960
H-133 GROUND COMMUNICATION UNIT										
OASLA*	90	88	105	104	91	86	88	86	82	75
T	170	240	13	15	143	339	240	339	679	960
COMMUNICATION										
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)										
PSIL	96	95	110	110	104	98	104	103	97	93
ANNOUNCE										
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PND9)										
TONE CORRECTION (C IN DB)										
PNLT	134	131	143	147	135	129	131	130	125	120
C	4	4	4	4	4	3	3	3	3	2

[illegible]

TABLE: MEASURES OF HUMAN NOISE EXPOSURE										IDENTIFICATION:
										OMEGA 3.2
										TEST 73-067-011
										RUN 04
										02 DEC 74
										PAGE H4
NOISE SOURCE/SUBJECT: (OPERATION:)										
F-15A AIRCRAFT ()										
GROUND CREW ()										
NEAR FIELD NOISE LEVELS ()										
LOCATION/CONDITION										
	2/D	5/D	6/D	7/D	8/D	9/D	10/D			
HAZARD/PROTECTION										
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DB) AT EAR										
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DB) AT EAR										
MAXIMUM PERMISSIBLE TIME (T IN MINUTES) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)										
NO PROTECTION										
OASLC	120	128	128	132	132	130	138			
OASLA	120	127	127	131	132	130	137			
T	P	P	P	P	P	P	P			
MINIMUM QPL EAR MUFFS										
OASLA*	95	102	102	106	107	104	114			
T	71	21	21	11	9	15	2.7			
AMERICAN OPTICAL 1700 EAR MUFFS										
OASLA*	89	97	97	100	101	98	108			
T	202	50	50	30	25	42	8			
V-51R EAR PLUGS										
OASLA*	95	102	102	106	106	104	112			
T	71	21	21	11	11	15	3.8			
AMERICAN OPTICAL 1700 EAR MUFFS PLUS V-51R EAR PLUGS										
OASLA*	81	88	89	92	92	91	98			
T	807	240	240	120	120	143	42			
H-133 GROUND COMMUNICATION UNIT										
OASLA*	92	98	99	103	103	102	109			
T	120	42	36	18	18	21	6			
COMMUNICATION										
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)										
PSIL	115	121	122	126	126	124	132			
ANNOYANCE										
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)										
TONE CORRECTION (C IN DB)										
PNLT	132	138	140	144	145	143	149			
C	0	0	1	1	1	0	0			

TABLE: MEASURES OF HUMAN NOISE EXPOSURE									
IDENTIFICATION:									
NOISE SOURCE/SUBJECT: (OPERATION:)									
F-15A AIRCRAFT ()									
GROUND CREW ()									
NEAR FIELD NOISE LEVELS ()									
LOCATION/CONDITION									
2/E	3/E	4/E	5/E	6/E	7/E	8/E	9/E	10/E	
HAZARD/PROTECTION									
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DB) AT EAR									
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DB) AT EAR									
MAXIMUM PERMISSIBLE TIME (T IN MINUTES) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)									
NO PROTECTION									
OASLC	126	132	134	136	138	137	137	148	
OASLA	124	131	133	135	137	137	137	146	P
T	P	P	P	P	P	P	P	P	
MINIMUM QPL EAR MUFFS									
OASLA*	102	108	109	111	113	112	112	124	
T	21	8	6	4.5	3.2	3.8	3.8	P	
AMERICAN OPTICAL 1700 EAR MUFFS									
OASLA*	96	102	104	106	108	106	106	118	
T	60	21	15	11	8	11	11	P	
V-51R EAR PLUGS									
OASLA*	99	105	107	109	111	110	110	122	
T	36	13	9	6	4.5	5	5	P	
AMERICAN OPTICAL 1700 EAR MUFFS PLUS V-51R EAR PLUGS									
OASLA*	86	92	94	95	97	96	96	107	
T	339	120	85	71	50	60	60	9	
H-133 GROUND COMMUNICATION UNIT									
OASLA*	97	103	105	107	109	109	109	118	
T	50	18	13	9	6	6	6	P	
COMMUNICATION									
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)									
PSIL	119	125	128	129	131	130	130	141	
ANNOYANCE									
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)									
TONE CORRECTION (C IN DB)									
PNLT	137	144	146	148	150	150	150	159	
C	0	0	0	0	0	0	0	0	

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

TABLE 4
TEST CONDITIONS
FOR FAR-FIELD NOISE MEASUREMENTS

F-15A Aircraft, Ground Runups, Edwards AFB, CA
28 January 1975
Tail #10282

Aircraft Engine Operation

Jet Fuel Starter	Engines Off
Idle	Both Engines
	63 % RPM, Core Speed
	395 C, Fan Turbine
	Inlet Temperature
	950 LBS/HR, Fuel Flow
80% Runup	Both Engines
	80 % RPM, NC
	925 C, FTIT
	7800 LBS/HR, FF
Intermediate (Military)	Both Engines
	90 % RPM, NC
	925 C, FTIT
	7800 LBS/HR, FF
80%	Left Engine
	80 % RPM, NC
	690 C, FTIT
	4150 LBS/HR, FF
Intermediate (Military)	#1 (Left) Engine
	90 % RPM, NC
	930 C, FTIT
	7850 LBS/HR, FF
Full Augmentation	#1 (Left) Engine
	90 % RPM, NC
	930 C, FTIT
	38,200 LBS/HR, FF

Meteorology

Temperature	12.8 C
Bar Pressure	0.703 M Hg
Rel Humidity	26 %
Wind — Speed	1 M/Sec
— Direction	340 Deg.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)																
1/3 OCTAVE BAND																
DISTANCE = 35 METERS																
NOISE SOURCE/SUBJECT:																
OPERATION:																
METEOROLOGY:																
TEMP = 13 C																
BAR PRESS = .703 M HG																
REL HUMID = 26 %																
F-15A AIRCRAFT																
F100-PW-100(1) ENGINE																
JET FUEL STAKTER ON																
FREE FLOW																
FREQ																
(HZ)																
ANGLE (DEGREES)																
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180																
25																
31.5																
40																
50																
63																
80																
100	66<	65<	69<	70<	68<	67<	68<	69<	67<	68<	70<	68<	70<	69<	69<	69<
125	66<	66<	72<	71<	70<	69<	69<	69<	69<	69<	68<	67<	67<	67<	67<	66<
150	69	67<	69	65<	68<	69	68<	69	69	69	69	69	68<	68<	69	68
200	65	63	63	68	64	65	67	70	69	70	69	69	70	70	69	68
250	73	79	85	85	83	83	71	82	80	80	77	87	88	89	89	86
315	73	79	84	85	83	85	72	82	81	82	79	89	88	89	86	86
400	73	70	73	71	70	75	72	68	67	71	71	75	76	75	73	71
500	71	66	70	71	69	70	69	71	70	72	75	76	77	76	73	70
630	70	71	72	72	72	73	72	75	72	74	77	78	80	81	78	76
800	69	67	68	68	69	71	72	72	71	73	71	74	75	74	76	74
1000	69	69	68	67	68	69	69	69	68	69	69	72	72	73	74	71
1250	70	69	68	67	66	67	68	68	66	66	68	70	71	72	71	66
1600	60	67	67	67	68	67	69	66	66	66	68	71	73	74	71	68
2000	64	64	64	63	63	64	60	64	61	62	64	67	68	70	69	66
2500	62	61	62	60	60	61	62	60	59	60	62	65	66	68	67	64
3150	59	58	60	58	58	59	60	58	59	58	59	63	64	66	63	61
4000	58	58	59	58	58	59	61	57	59	58	65	66	66	62	59	58
5000	58	57	57	58	57	58	58	56	61	57	59	62	62	59	57	55
6300	58	58	59	58	57	58	57	56	62	55	54	57	58	59	56	55
8000	57	58	58	57	56	56	56	56	60	53	54	56	56	55	53	51
10000	62	62	62	61	59	60	60	61	65	55	54<	55	56	56	55	52<
OVERALL	81	83	88	88	87	88	82	86	85	86	84	92	87	92	92	89

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (D3)																	IDENTIFICATION:	
1/3 OCTAVE BAND																		
DISTANCE = 75 METERS																		
NOISE SOURCE/SUBJECT:																		
(OPERATION:)																		
(IDLE POWER)																		
(60% RPM)																		
(90% ENGINES)																		
(FREE FLOW)																		
F-15A AIRCRAFT																		
F100-PW-100(1) ENGINE																		
FAR FIELD NOISE																		
METEOROLOGY:)																		
TEMP = 15 C																		
BAR PRESS = .703 H HG																		
REL HUMID = 26 %																		
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	68<	68<	68<	67<	70	69	70	69	71	74	72	74	74	74	74	74	74	72
31.5	68	68	69	70	71	71	71	71	73	75	75	75	75	76	76	76	75	73
40	66<	66<	65<	67<	68	68	69	69	68	69	70	71	72	73	72	71	70	70
50	60<	62<	61<	63<	63<	64<	63<	64<	64<	64<	64<	64<	64<	64<	64<	64<	64<	63<
63																		
80																		
100	64<	65<	65<	66<	67<	68<	68<	68<	68<	68<	68<	68<	68<	68<	68<	68<	68<	64<
125	66<	66<	66<	67<	67<	67<	67<	67<	67<	67<	67<	67<	67<	67<	67<	67<	67<	64<
160	68	68	69	69	69	69	69	69	69	69	69	69	69	69	69	69	69	62<
200	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	68	62<
250	69	70	67	65	66	65	65	65	64	63	63	63	63	63	63	63	63	59
315	68	68	66	64	65	62	63	61	63	65	67	71	69	70	68	67	63	59
400	70	71	68	67	65	63	64	61	63	65	68	68	68	69	70	68	63	63
500	69	68	66	65	63	59	59	56	59	60	63	64	67	66	64	64	59	59
630	70	68	67	65	61	60	58	55	58	59	63	63	68	66	64	64	61	61
800	71	68	70	67	62	62	62	61	57	50	62	64	65	67	66	66	63	61
1000	70	68	67	63	60	59	58	56	57	51	59	61	63	65	66	64	62	58
1250	75	74	72	68	64	63	62	63	58	58	59	59	63	64	65	62	63	59
1600	81	80	78	75	70	68	67	65	62	61	64	63	63	66	64	65	62	59
2000	77	77	75	73	71	68	66	64	60	58	62	61	62	66	66	62	52	59
2500	92	92	89	88	86	84	81	77	72	67	70	68	71	75	69	70	70	64
3150	94	93	90	87	83	79	76	73	68	61	65	67	72	74	78	71	73	66
4000	90	89	87	86	83	79	76	73	68	61	65	67	72	74	78	71	73	66
5000	89	88	85	84	82	80	78	72	69	63	66	69	69	72	75	66	64	58
6300	83	82	80	79	76	74	73	68	62	54	61	59	59	62	62	55	58	51
8000	79	78	76	74	72	69	67	62	57	50	55	58	55	57	52	53	51	46<
10000	73	72	69	67	65	62	61	55	50	47	53	56	56	53	50	49	45	45
OVERALL	98	97	95	94	91	90	87	84	81	80	82	82	83	83	85	83	81	78

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)																		IDENTIFICATION:	
1/3 OCTAVE BAND																			
DISTANCE = 75 METERS																		OMEGA 1.4	
NOISE SOURCE/SUBJECT:																		TEST 75-002-029	
(OPERATION:																		RUN 02	
(F-15A AIRCRAFT																			
(F100-PW-100(1) ENGINE																		13 C	
(FAR FIELD NOISE																		BAR PRESS = .703 M HG	
(																		REL HUMID = 26 %	
(																		07 MAY 75	
(																		PAGE 2	
(																			
FREQ																			
((HZ)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
(	71	72	74	75	75	75	76	77	77	78	79	81	85	90	91	97	98		
(	73	74	73	74	76	77	76	78	80	81	83	84	89	91	94	98	99		
(	75	76	77	78	78	78	79	79	81	82	83	85	89	94	98	101	101		
(	75	75	77	78	78	78	79	79	81	85	86	88	92	96	100	105	102		
(	77<	77<	79	80	80	80	81	82	84	86	88	89	94	99	104	105	101		
(	81	80	83	82	83	83	83	84	84	86	88	90	92	95	100	106	109	105	
(	95	84	85	86	85	84	84	86	87	90	91	94	96	103	107	112	106		
(	125	87	88	89	90	88	87	88	87	88	92	95	100	106	108	113	110		
(	160	87	87	88	88	87	87	87	88	93	94	97	101	110	112	114	112		
(	200	88	88	88	88	87	87	88	88	92	95	97	101	109	113	111	113		
(	250	89	89	89	90	89	86	87	88	91	94	96	101	107	112	113	112		
(	315	87	88	89	88	88	87	88	88	91	94	97	101	107	107	113	108		
(	400	88	88	89	87	86	84	84	85	88	90	93	95	100	104	108	108	105	
(	500	89	89	88	87	85	83	83	84	87	89	91	93	99	102	104	107	102	
(	630	88	88	86	87	83	83	82	84	88	88	90	91	97	100	102	105	99	
(	800	85	85	87	84	81	82	82	83	87	87	88	91	95	99	102	96		
(	1000	84	84	84	83	79	81	81	81	85	86	88	90	95	98	98	92		
(	1250	83	83	84	81	79	80	81	81	84	85	86	90	94	97	95	96	89	
(	1600	83	84	84	83	79	80	81	81	84	87	88	90	94	96	95	94	88	
(	2000	82	82	83	82	80	81	81	81	83	85	86	89	93	93	92	91	85	
(	2500	80	81	80	80	79	79	79	81	84	85	87	91	90	88	87	82		
(	3150	81	80	80	79	78	78	79	80	83	83	86	88	87	85	84	79		
(	4000	86	84	82	81	80	79	78	79	81	81	83	85	84	82	81	75		
(	5000	84	82	81	80	78	77	75	74	77	78	79	82	81	77	77	71		
(	6300	78	77	75	75	74	74	73	71	71	72	73	74	76	75	72	72	66	
(	8000	74	73	71	70	69	69	67	68	68	70	70	73	72	69	69	64		
(	10000	69	67	66	64	63	62	62	61	62	65	64	68	67	64	64	64		
(	OVERALL	99	99	99	99	97	96	97	99	102	104	106	111	116	119	122	119		
< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.																			

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:		
5																	OMEGA 1.4		
1/3 OCTAVE BAND																	TEST 75-002-029		
DISTANCE = 75 METERS																	RUN 03		
NOISE SOURCE/SUBJECT:																	METEOROLOGY:		
(																	TEMP = 13 C		
(																	BAR PRESS = .703 M HG		
(																	REL HUMID = 26 %		
(																	PAGE 2		
F-15A AIRCRAFT																			
F100-PW-100(1) ENGINE																			
FAR FIELD NOISE																			
FREQ (HZ)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	81	80	80	80	82	82	83	83	84	84	89	90	94	98	102	104	104	101	
31.5	81	81	80	81	82	82	84	86	87	87	92	92	99	101	104	106	105		
40	83	83	83	83	84	85	88	88	90	91	91	95	99	104	107	108	105		
50	83	83	83	85	86	87	87	88	89	91	93	95	99	106	110	111	105		
63	85	84	86	85	87	88	89	89	90	93	96	99	102	108	113	112	106		
80	88	88	89	90	90	91	90	92	92	95	98	101	105	112	117	114	108		
100	91	91	91	92	91	92	93	94	94	98	100	102	107	113	118	117	111		
125	95	96	96	95	94	95	95	96	97	99	101	105	110	116	120	121	113		
160	97	97	97	96	95	95	96	97	97	101	103	108	114	119	120	120	115		
200	95	97	97	96	96	96	96	95	97	99	103	107	113	120	120	117	112		
250	96	96	97	98	97	98	96	96	97	99	104	107	114	119	121	118	111		
315	97	99	99	97	97	95	96	97	99	99	104	106	114	120	120	109			
400	100	99	99	97	97	95	95	97	98	100	103	106	114	117	120	119	107		
500	103	103	102	99	98	94	93	95	97	102	105	109	115	119	119	116	104		
630	102	102	103	101	99	99	95	96	98	101	102	106	110	115	118	115	101		
800	100	100	101	100	98	93	95	96	98	99	99	104	107	114	116	113	99		
1000	97	97	97	96	94	93	98	98	98	99	98	104	105	113	114	111	98		
1250	94	95	96	94	92	95	96	97	98	99	98	104	104	112	113	110	97		
1600	92	95	96	94	93	95	94	96	97	101	99	105	103	113	113	110	96		
2000	90	93	94	94	93	94	94	96	97	100	99	103	102	111	111	108	93		
2500	87	83	90	90	90	92	91	94	95	98	99	102	100	109	110	106	91		
3150	84	86	87	88	88	88	90	92	93	97	96	100	98	108	107	104	88		
4000	84	86	86	88	87	90	89	91	93	98	98	101	99	106	109	105	87		
5000	80	81	81	83	82	85	85	87	88	93	94	97	96	105	105	100	83		
6300	76	77	78	79	79	82	81	84	85	88	90	93	93	102	103	98	80		
8000	72	73	73	75	74	77	77	79	81	86	88	91	92	103	103	98	77		
10000	68	68	69	70	70	72	72	75	76	81	83	87	88	99	99	95	72		
OVERALL	110	110	110	109	108	108	107	108	109	112	114	118	123	129	130	129	121		
LEVEL CORRECTED TO REMOVE BACKGROUND/ELCTRONIC NOISE																			

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: MEASURED SOUND PRESSURE LEVEL (03)																
1/3 OCTAVE BAND																
DISTANCE = 75 METERS																
NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:) IDENTIFICATION:																
(F-15A AIRCRAFT (80% RPM) TEMP = 13 C))																
(F100-PW-100(1) ENGINE (SINGLE ENGINE) BAR PRESS = .703 M HG))																
(FAR FIELD NOISE (FREE FLOW) REL HUMID = 26 %))																
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< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

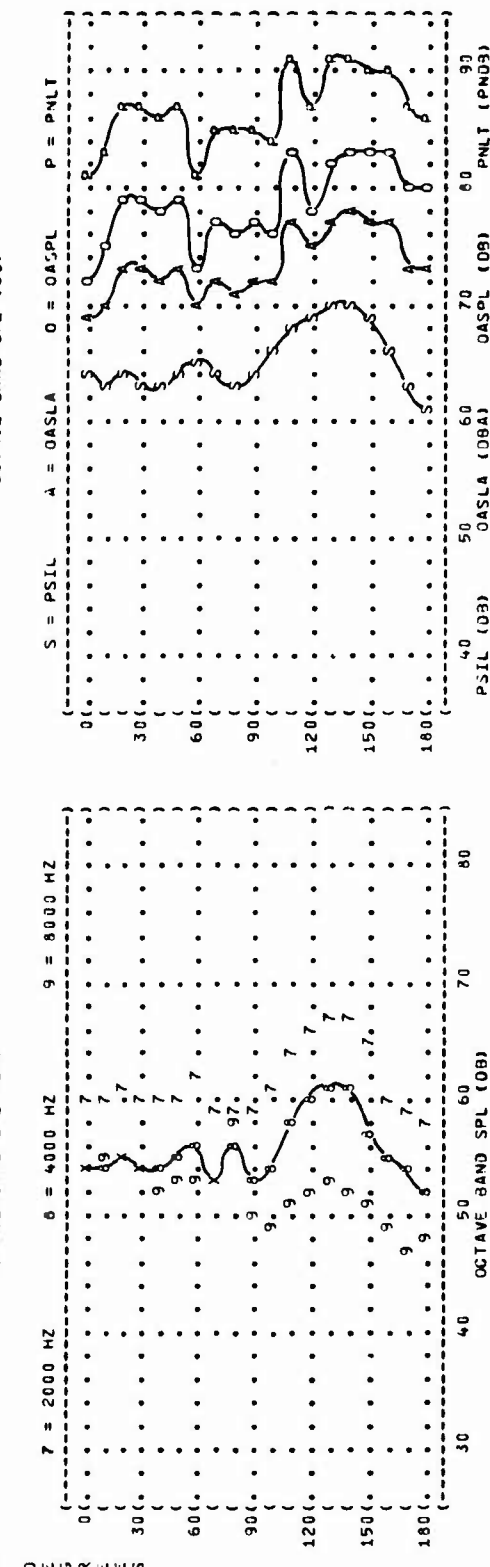
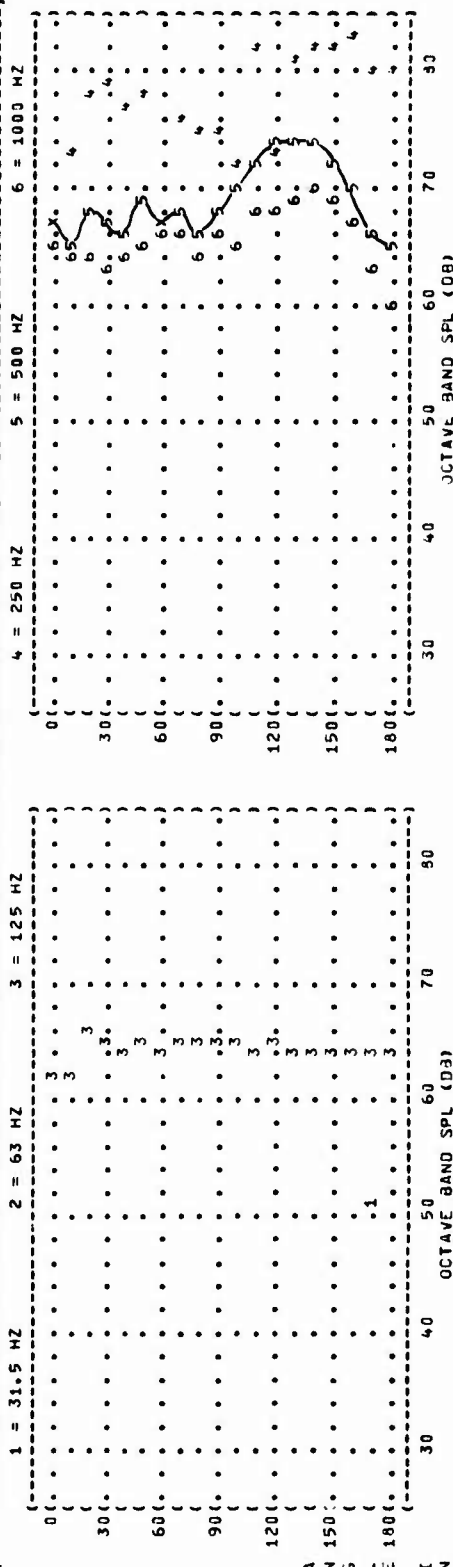
TABLE: MEASURED SOUND PRESSURE LEVEL (DB)																	IDENTIFICATION:		
1/3 OCTAVE BAND																	OMEGA 1.4		
DISTANCE = 75 METERS																	TEST 75-002-029		
NOISE SOURCE/SUBJECT:																	RUN 05		
(OPERATION:																	METEOROLOGY:		
(MILITARY POWER																	TEMP = 13 C		
(90% RPM																	BAR PRESS = .703 M HG		
(SINGLE ENGINE																	REL HUMID = 26 %		
(FREE FLOW																	PAGE 2		
FREQ																	ANGLE (DEGREES)		
(HZ)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	76	77	78	76	79	77	79	81	82	83	85	84	88	93	96	100	101		
31.5	77	77	79	79	80	80	81	84	85	86	88	87	90	98	101	104	104		
40	80	80	80	82	82	83	84	85	87	87	88	88	94	100	105	107	105		
50	81	80	81	83	82	83	85	86	88	88	89	91	97	102	106	111	106		
63	82	83	84	85	85	85	86	88	87	90	92	94	99	106	111	113	107		
80	85	85	87	86	87	86	88	89	90	92	94	95	100	107	114	116	110		
100	88	87	89	88	88	90	90	91	91	94	97	97	103	110	116	118	109		
125	92	91	93	90	91	91	92	93	94	96	98	101	107	114	116	119	111		
160	94	94	95	92	93	92	93	93	96	98	101	104	112	118	120	121	112		
200	95	94	94	93	93	93	94	94	95	98	101	104	110	117	120	118	110		
250	92	93	94	94	94	93	93	94	96	97	101	104	111	118	121	117	109		
315	94	95	97	94	93	92	92	94	96	97	101	105	111	119	118	118	109		
400	96	97	97	95	93	91	90	92	96	95	102	104	111	115	117	117	107		
500	99	99	99	96	92	90	89	91	95	94	99	102	109	114	115	114	105		
630	99	99	101	96	94	93	91	92	95	93	99	100	108	112	115	113	102		
800	97	97	99	97	94	95	92	93	95	92	97	98	104	111	113	111	98		
1000	93	93	95	94	91	94	95	94	95	92	96	97	102	110	112	109	95		
1250	90	92	93	91	89	91	93	94	96	92	96	97	99	110	111	107	95		
1600	88	92	94	92	90	91	92	93	95	93	96	96	97	110	110	105	94		
2000	86	89	91	91	89	91	92	92	94	92	97	95	96	109	106	102	91		
2500	83	86	88	88	87	89	90	91	92	91	96	95	94	107	107	101	89		
3150	81	83	85	86	85	87	88	89	90	90	94	93	92	107	105	100	85		
4000	80	82	83	84	83	86	87	89	89	89	94	93	90	107	105	100	82		
5000	74	76	78	78	78	80	81	83	86	86	91	90	89	104	103	97	77		
6300	71	73	75	75	75	77	78	80	81	81	86	86	84	102	101	95	71		
8000	68	70	71	72	71	73	75	77	78	78	83	84	81	99	100	94	69		
10000	62	63	65	65	65	67	68	70	73	73	78	80	77	99	100	91	67		
OVERALL	106	106	108	106	104	104	104	105	107	107	111	113	120	126	128	128	120		
LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.																			

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

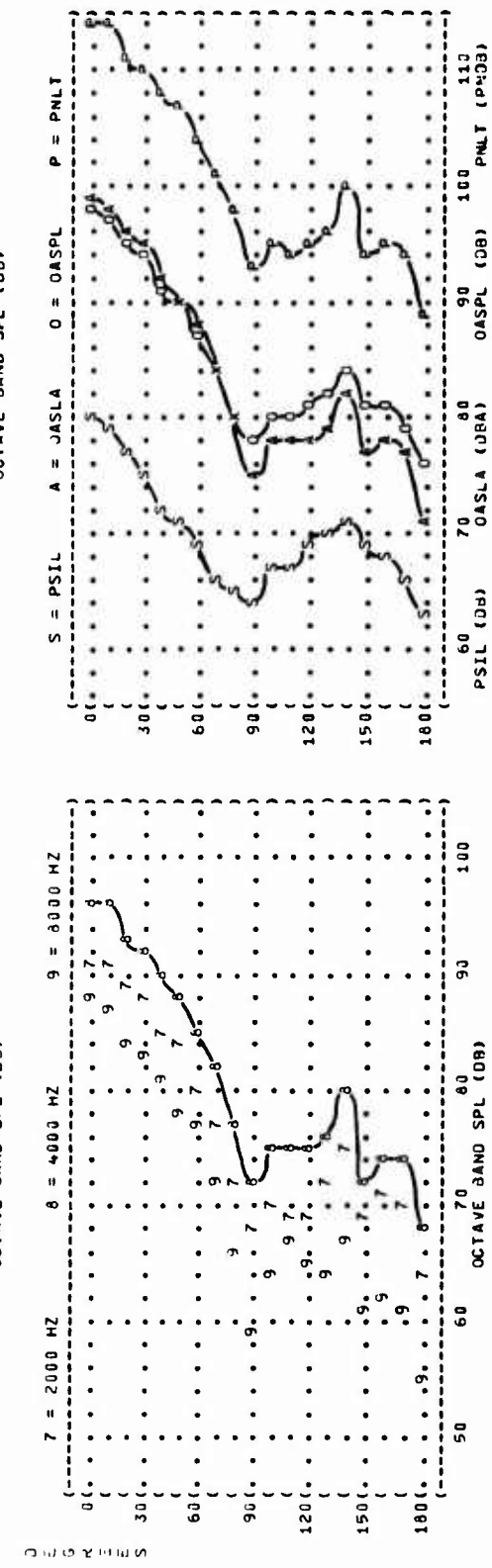
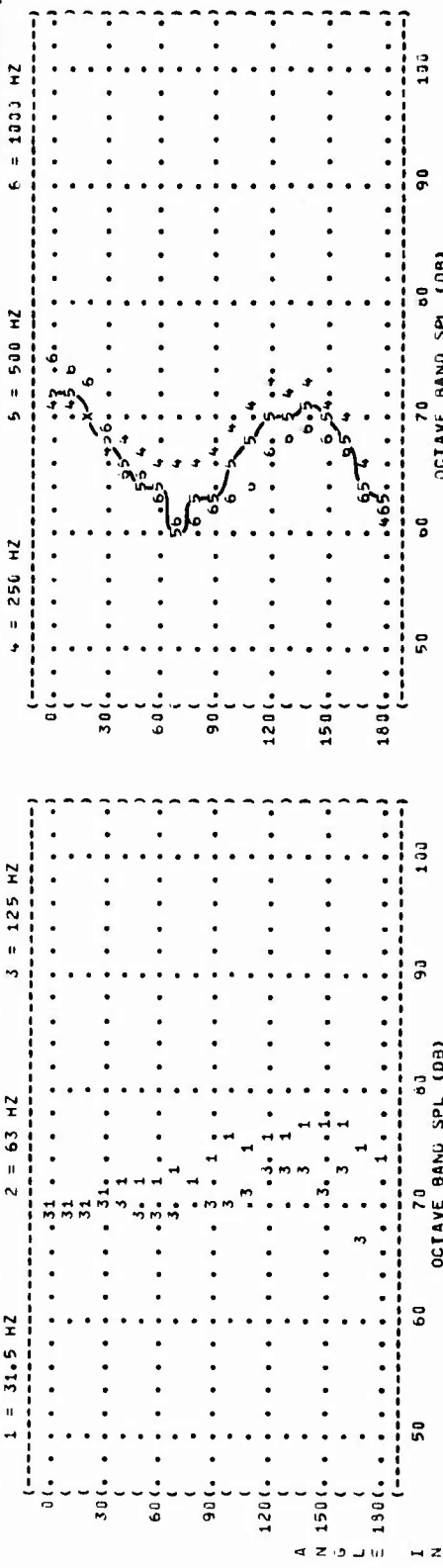
TABLE: MEASURED SOUND PRESSURE LEVEL (DB)																			IDENTIFICATION:	
1/3 OCTAVE BAND																				
DISTANCE = 75 METERS																			OMEGA 1.4	
NOISE SOURCE/SUBJECT:																			TEST 75-002-029	
OPERATION:																			RUN 06	
AFTERBURNER, ZONE 5																				
90% RPM																			TEMP = 13 C	
SINGLE ENGINE																			BAR PRESS = .703 M HG	
FREE FLOW																			REL HUMID = 26 %	
F-15A AIRCRAFT																			07 MAY 75	
F100-PW-100(1) ENGINE																				
FAR FIELD NOISE																			PAGE 2	
FREQ (HZ)	0	10	20	30	40	50	60	70	ANGLE (DEGREES)											
									80	90	100	110	120	130	140	150	160	170	180	
25	90	90	81	90	89	92	92	94	94	92	92	97	111	107	109	107	108			
31.5	89	90	90	90	92	93	93	94	96	96	95	100	105	109	113	107	108			
40	93	93	94	95	95	95	96	96	97	97	98	102	109	113	116	110	109			
50	94	93	93	95	96	95	96	96	98	98	99	104	110	116	118	109	111			
63	96	95	96	96	96	97	96	98	100	101	101	107	114	120	120	106	109			
80	97	98	98	98	99	98	97	100	102	104	104	111	119	123	120	112	112			
100	99	100	95	100	100	100	101	102	104	105	107	108	114	120	124	122	113	112		
125	100	101	102	100	101	101	102	103	104	106	107	112	118	124	123	122	114	113		
160	101	102	101	101	101	102	103	104	106	107	112	118	124	123	122	114	113			
200	101	103	102	102	103	102	103	104	107	108	112	118	126	125	120	113	113			
250	102	103	103	103	103	102	103	104	107	107	111	118	125	124	119	110	110			
315	99	100	103	103	102	102	102	105	107	107	112	120	124	122	117	109	110			
400	99	102	103	102	101	99	100	103	106	106	112	117	123	120	115	108	109			
500	98	100	101	100	100	98	99	101	107	106	112	115	121	118	113	106	107			
630	99	101	103	101	99	99	100	102	106	106	112	113	119	116	112	106	105			
800	97	99	101	99	96	99	99	101	105	106	111	112	117	115	110	103	104			
1000	95	98	99	97	95	98	100	101	106	105	111	111	115	114	109	102	103			
1250	93	96	97	97	94	97	99	101	105	105	110	110	113	113	109	101	200			
1600	92	97	98	97	94	97	99	101	105	106	111	111	114	114	109	101	200			
2000	92	95	96	97	96	98	100	102	104	105	110	109	112	112	107	99	97			
2500	83	91	92	94	93	96	98	99	103	104	109	108	111	111	107	97	95			
3150	85	88	90	91	91	94	97	98	100	103	108	107	110	109	104	95	92			
4000	84	88	89	91	91	94	97	99	101	104	109	108	112	111	105	96	92			
5000	81	84	85	87	87	90	93	94	97	100	105	105	110	109	102	92	87			
6300	77	80	81	82	83	87	89	91	93	97	103	102	109	107	99	88	83			
8000	72	76	77	79	79	82	86	88	91	97	104	103	108	107	100	88	81			
10000	67	70	72	73	74	78	82	85	87	93	100	99	106	106	96	85	76			
OVERALL	111	112	113	112	112	112	113	115	118	119	123	127	133	133	130	122	122			
LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.																				

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

(FIGURE 1 NORMALIZED FARFIELD NOISE LEVELS
 (3 DISTANCE = 100 METERS
 (NOISE SOURCE/SUBJECT: (OPERATIONS:
 (F-15A AIRCRAFT (ENGINES OFF
 (F100-PM-100(1) ENGINE (JET FUEL STARTER ON
 (FAR FIELD NOISE (FREE FLOW
 (IDENTIFICATION:
 () OMEGA 1.4
 () TEST 75-002-052
 () RUN 01
 () TEMP = 15 C
 () BAR PRESS = .760 M HG
 () REL HUMID = 70 %
 () 13 MAY 75
 () PAGE 4



(FIGURE: NORMALIZED FARFIELD NOISE LEVELS
 (3 DISTANCE = 100 METERS
 (NOISE SOURCE/SUBJECT: (OPERATION: (IDLE POWER
 (F-15A AIRCRAFT (60% RPM
 (F100-PW-100(1) ENGINE (BOTH ENGINES
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY: (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (PAGE 5
 (IDENTIFICATION: (OMEGA 1.4
 (TEST 75-002-329
 (RUN 31
 (07 MAY 75
 (



IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-029
 RUN 02
 07 MAY 75
 PAGE 6

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

NOISE SOURCE/SUBJECT:
 F-15A AIRCRAFT
 F100-PH-103(1) ENGINE
 FAR FIELD NOISE

OPERATION:
 60% RPM
 BOTH ENGINES
 FREE FLOW

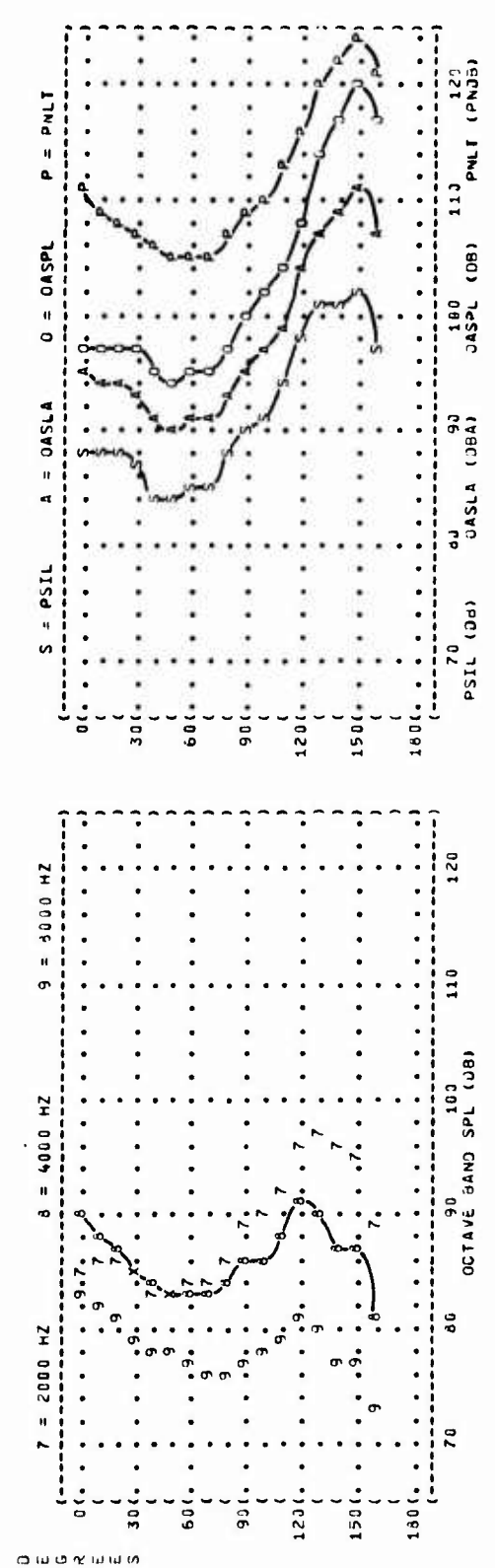
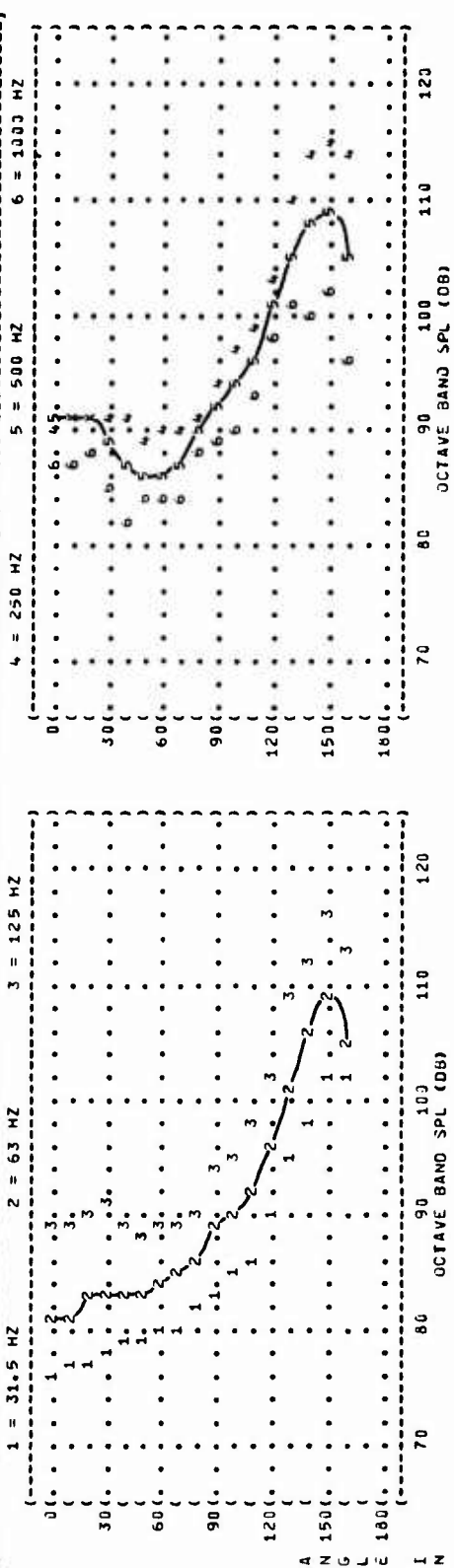


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

3 DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:

F-15A AIRCRAFT

F100-PW-100(1) ENGINE

FAR FIELD NOISE

OPERATION:

MILITARY POWER

90% RPM

BOTH ENGINES

FREE FLOW

METEOROLOGY:

TEMP = 15 C

BAR PRESS = .760 M HG

REL HUMID = 70 %

IDENTIFICATION:

OMEGA 1.4

TEST 75-302-029

RUN 03

07 MAY 75

PAGE 5

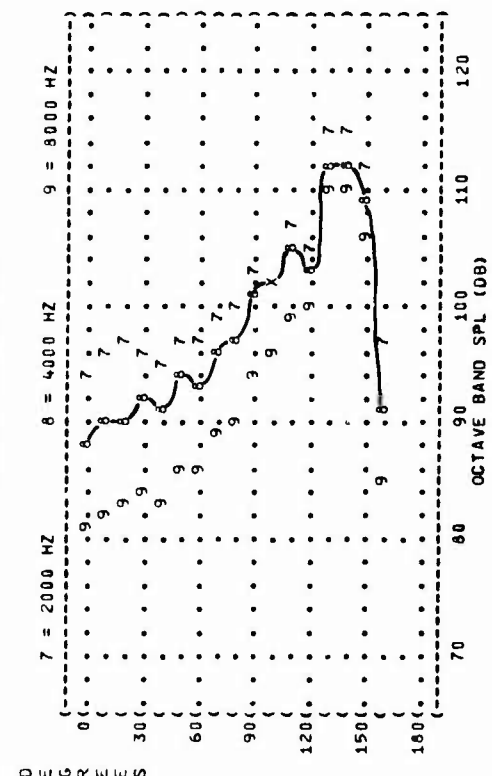
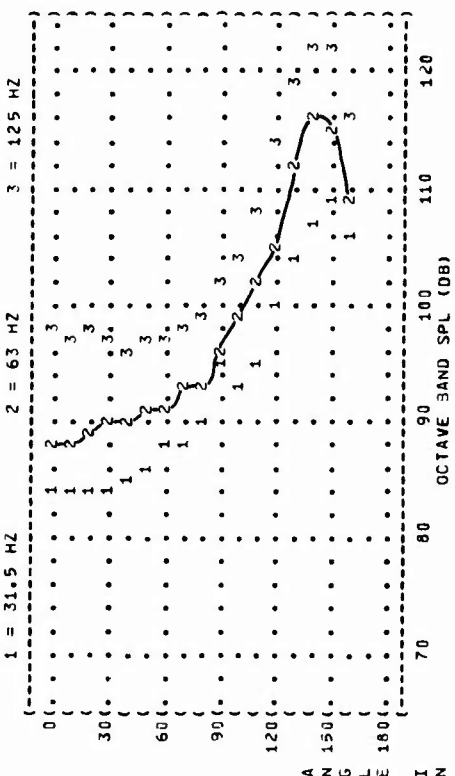
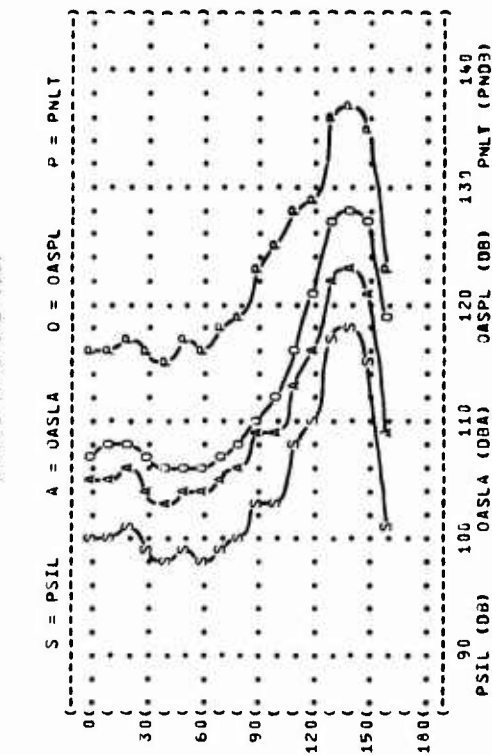
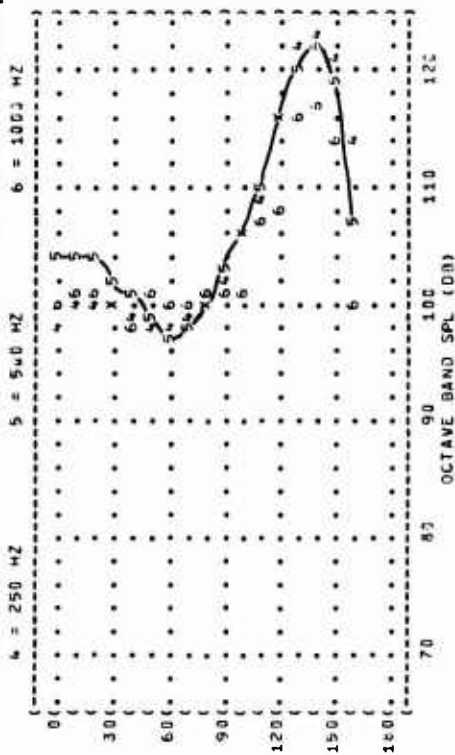


FIGURE 1: NORMALIZED FARFIELD NOISE LEVELS

3 DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:

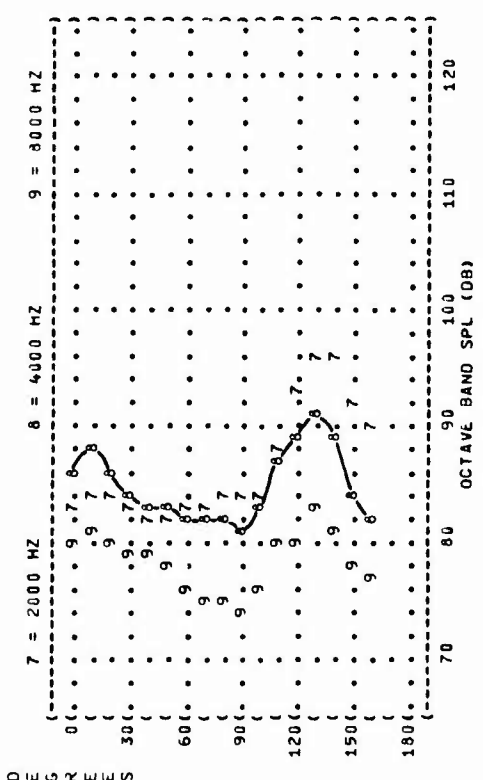
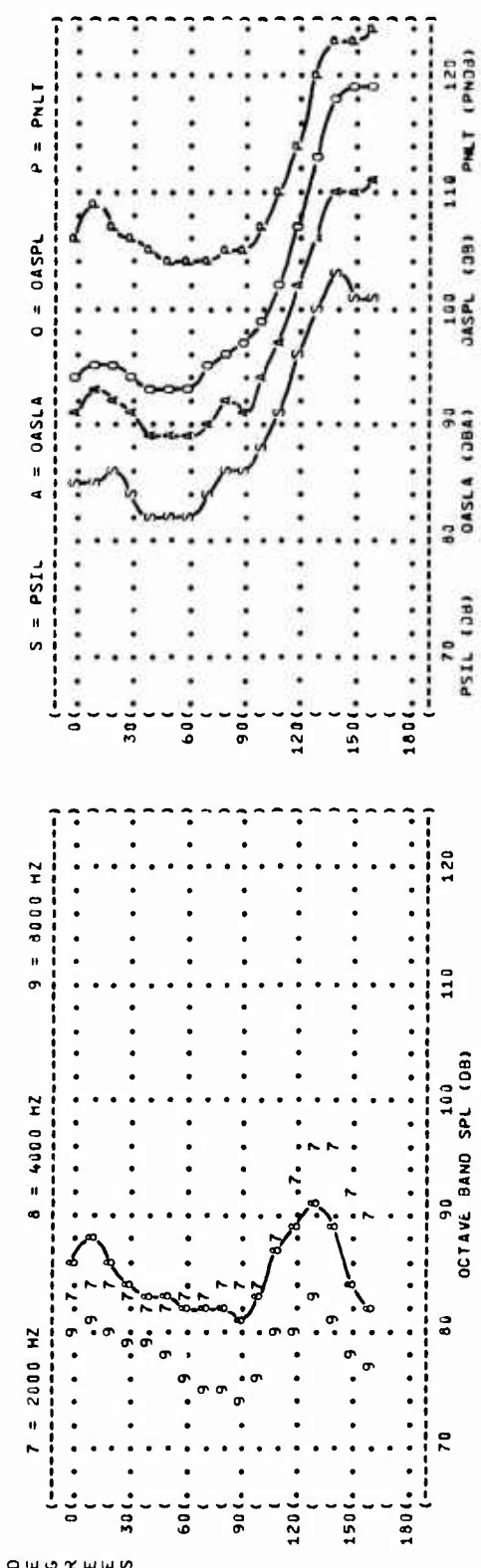
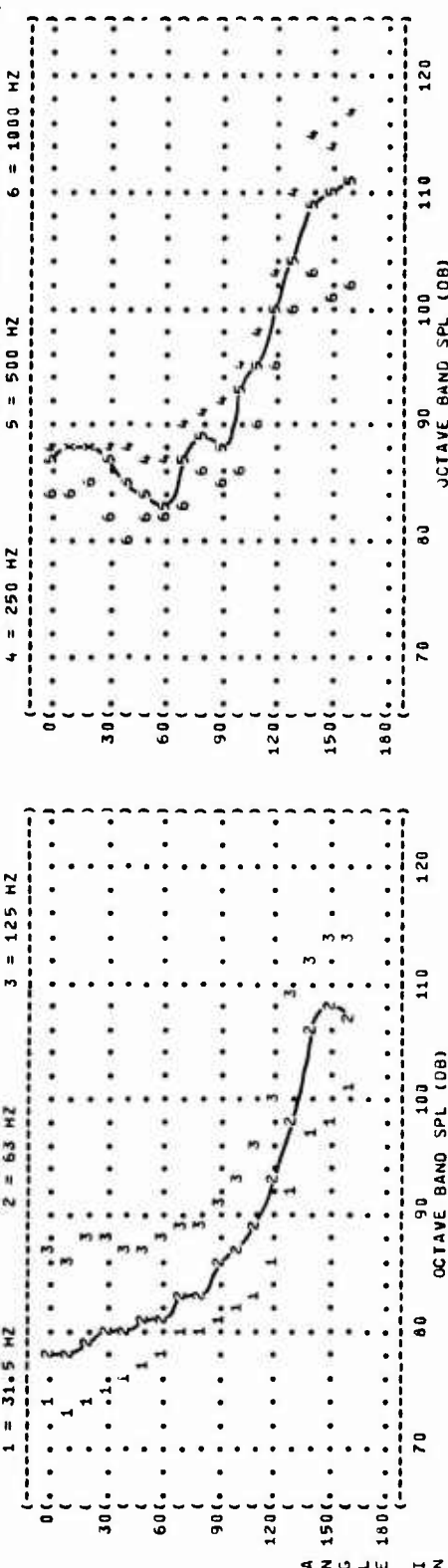
OPERATION:

F-15A AIRCRAFT
 F100-PW-100(1) ENGINE
 FAR FIELD NOISE

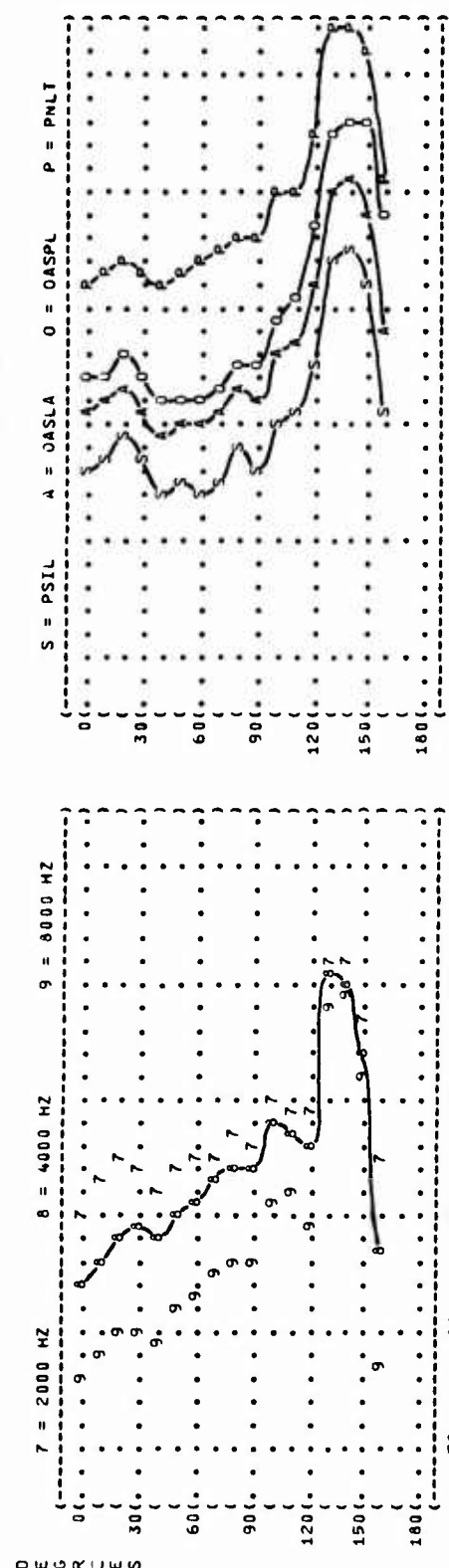
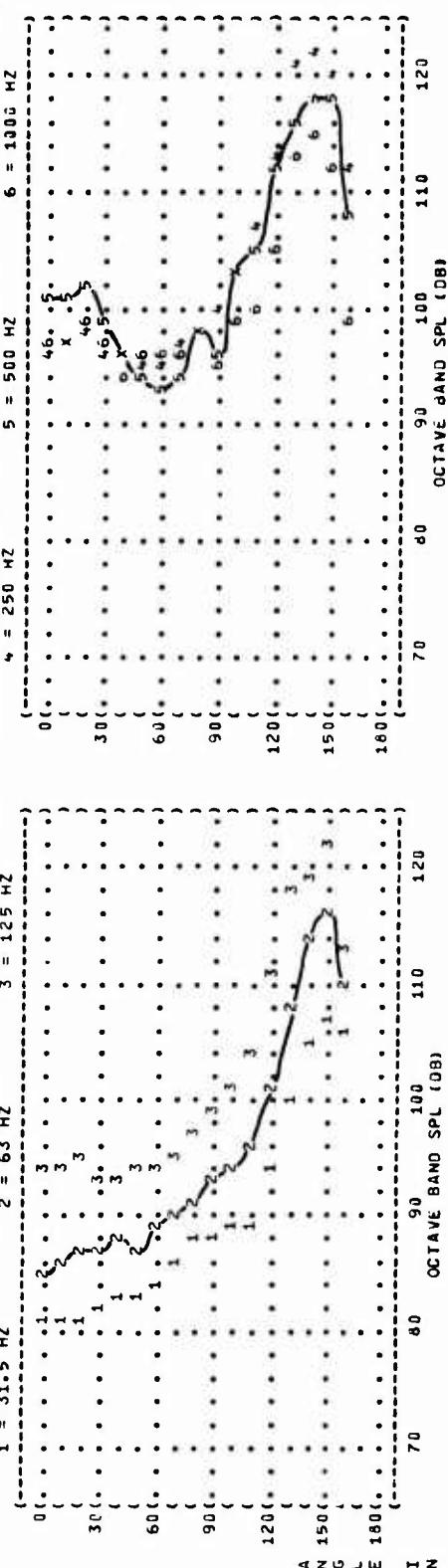
80% RPM
 SINGLE ENGINE
 FREE FLOW

METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .750 M HG
 REL HUMID = 70 %

IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-029
 RUN 04
 07 MAY 75
 PAGE 6



IDENTIFICATION: OMEGA 1.4
 TEST 75-002-029
 RUN 05
 METEOROLOGY: 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %
 PAGE 5



PSIL (DB) A = OASLA O = OASPL P = PNLT
 80 90 100 110 120 130
 OASLA (DB) OASPL (DB) PNLT (PNDB)

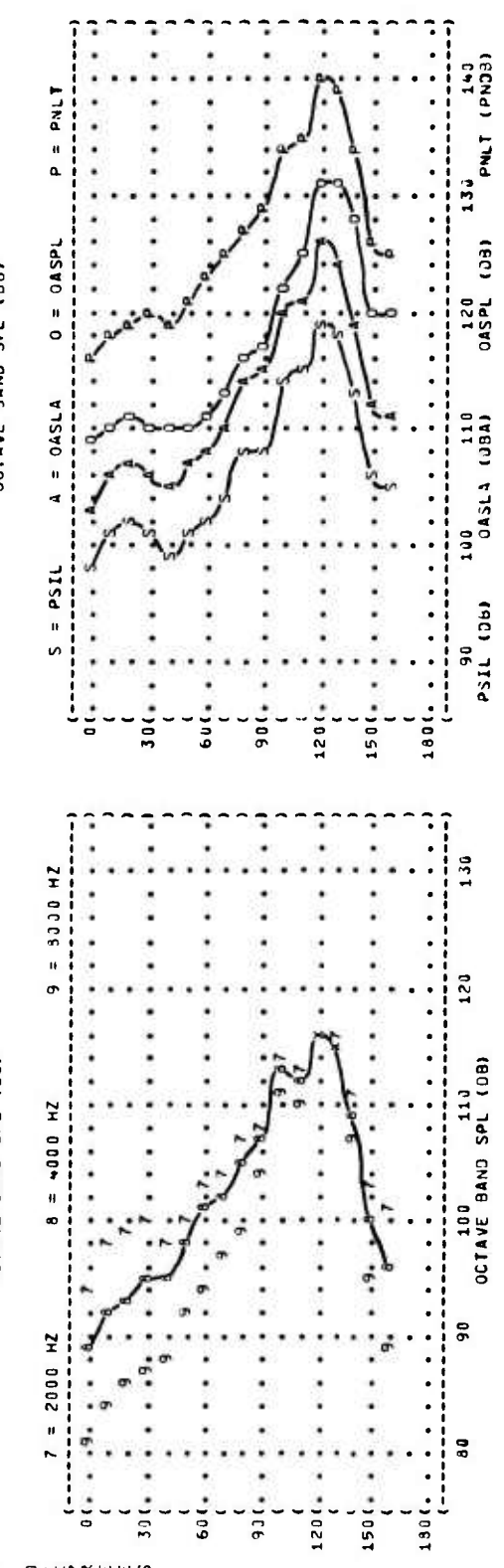
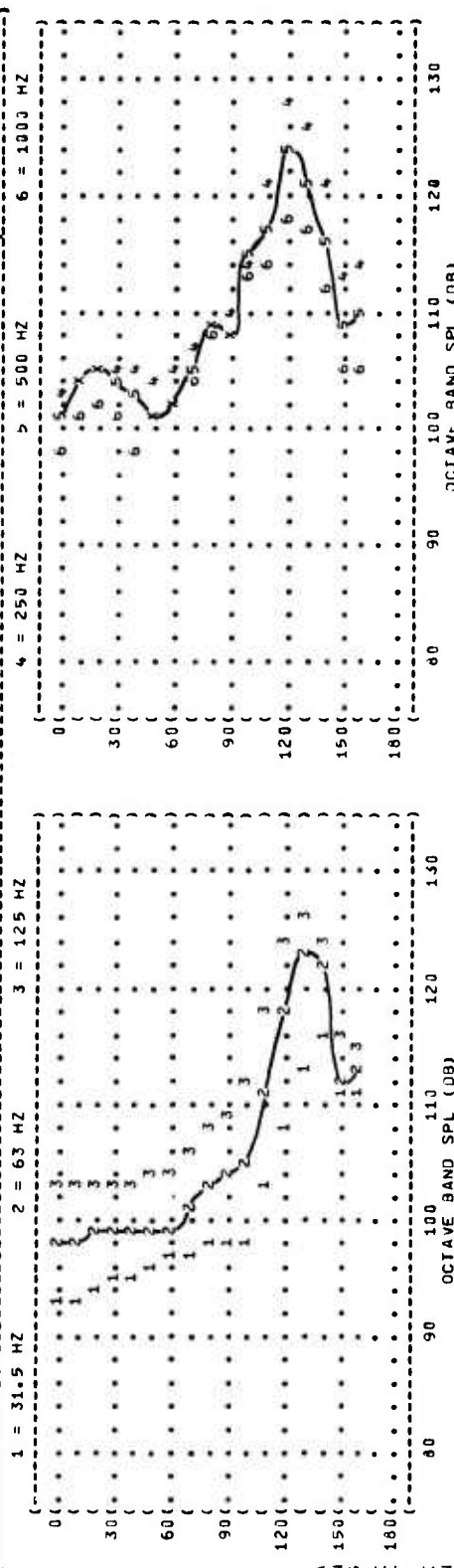
IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-029
 RUN 06
 07 MAY 75
 PAGE 6

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

OPERATIONS:
 AFTERBURNER, ZONE 5
 90% RPM
 SINGLE ENGINE
 FREE FLOW

NOISE SOURCE/SUBJECT:
 F-15A AIRCRAFT
 F100-PN-100(1) ENGINE
 FAR FIELD NOISE

DISTANCE = 100 METERS



((FIGURE: ACOUSTIC POWER LEVEL (PWL)))
 ((4))
 ((NOISE SOURCE/SUBJECT:))
 ((F-15A AIRCRAFT))
 ((F100-PW-100(1) ENGINE))
 ((FAR FIELD NOISE))
 ((OPERATION:))
 ((80% RPM))
 ((BOTH ENGINES))
 ((FREE FLOW))
 ((METEOROLOGY:))
 ((TEMP = 13 C))
 ((BAR PRESS = .703 H HG))
 ((REL HUMID = 26 %))
 ((IDENTIFICATION:))
 ((OMEGA 1.4))
 ((TEST 75-002-029))
 ((RUN 02))
 ((07 MAY 75))
 ((PAGE 3))

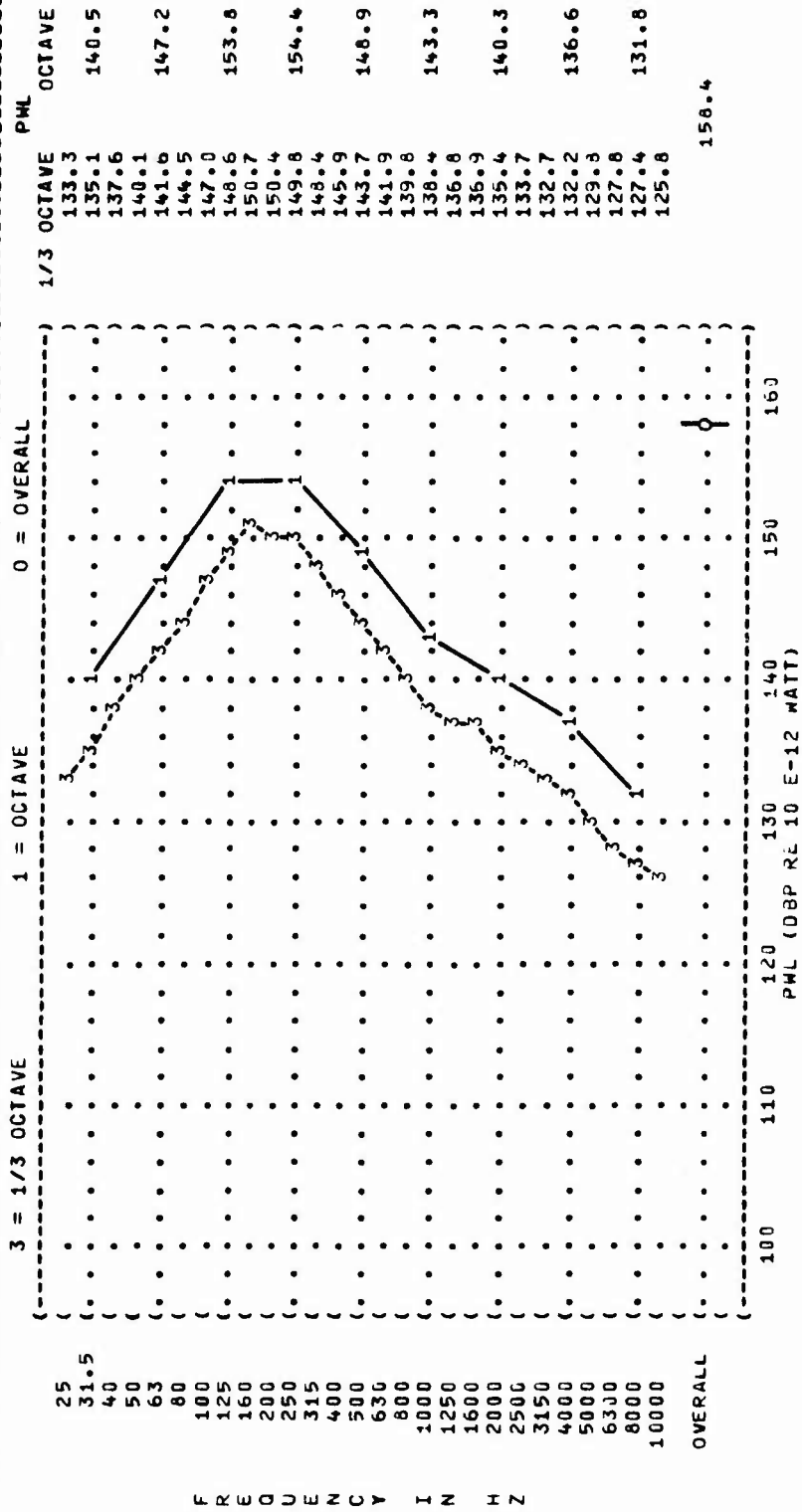


FIGURE: ACOUSTIC POWER LEVEL (PWL)

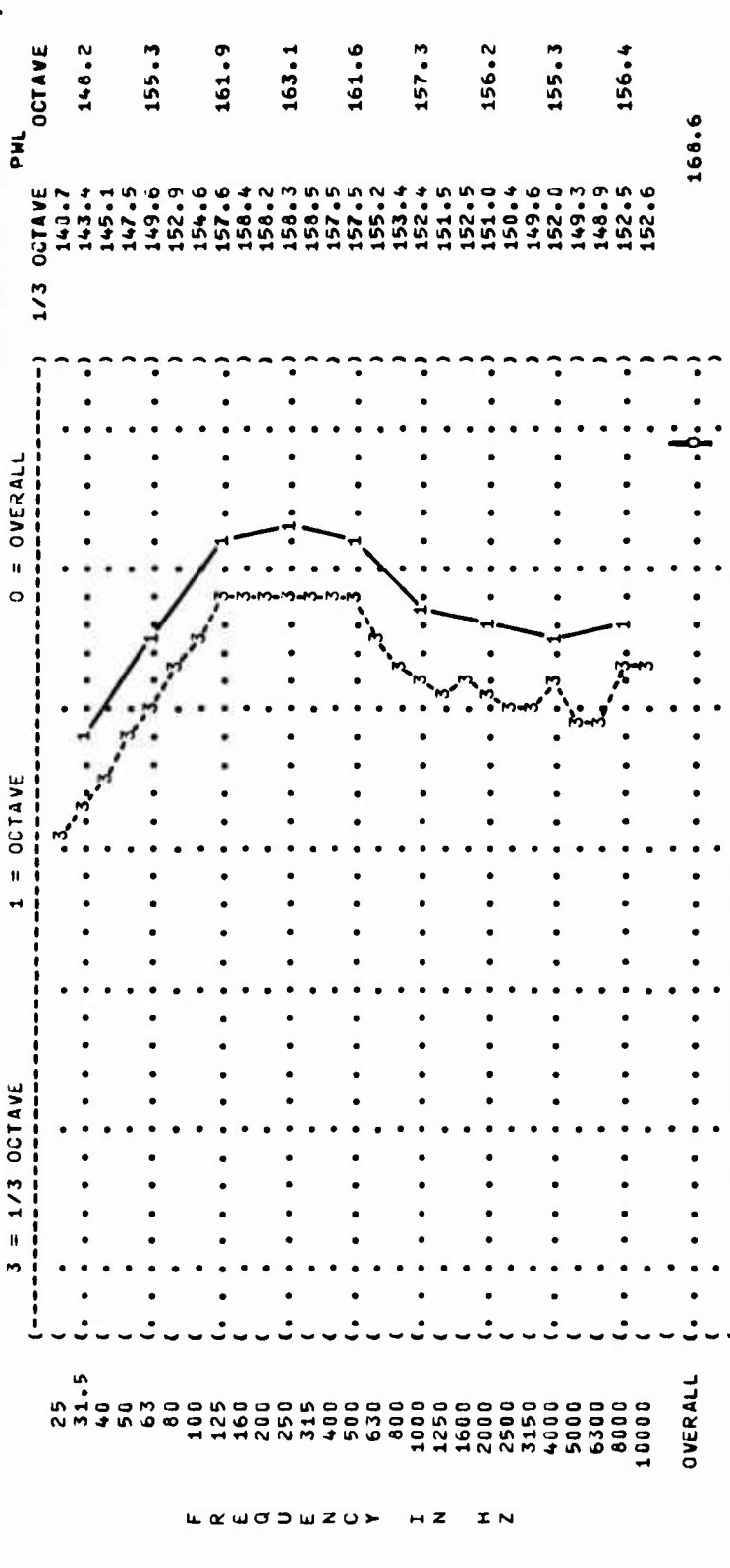
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IDENTIFICATION: OMEGA 1.4
TEST 75-002-029
RUN 03
07 MAY 75
PAGE 3

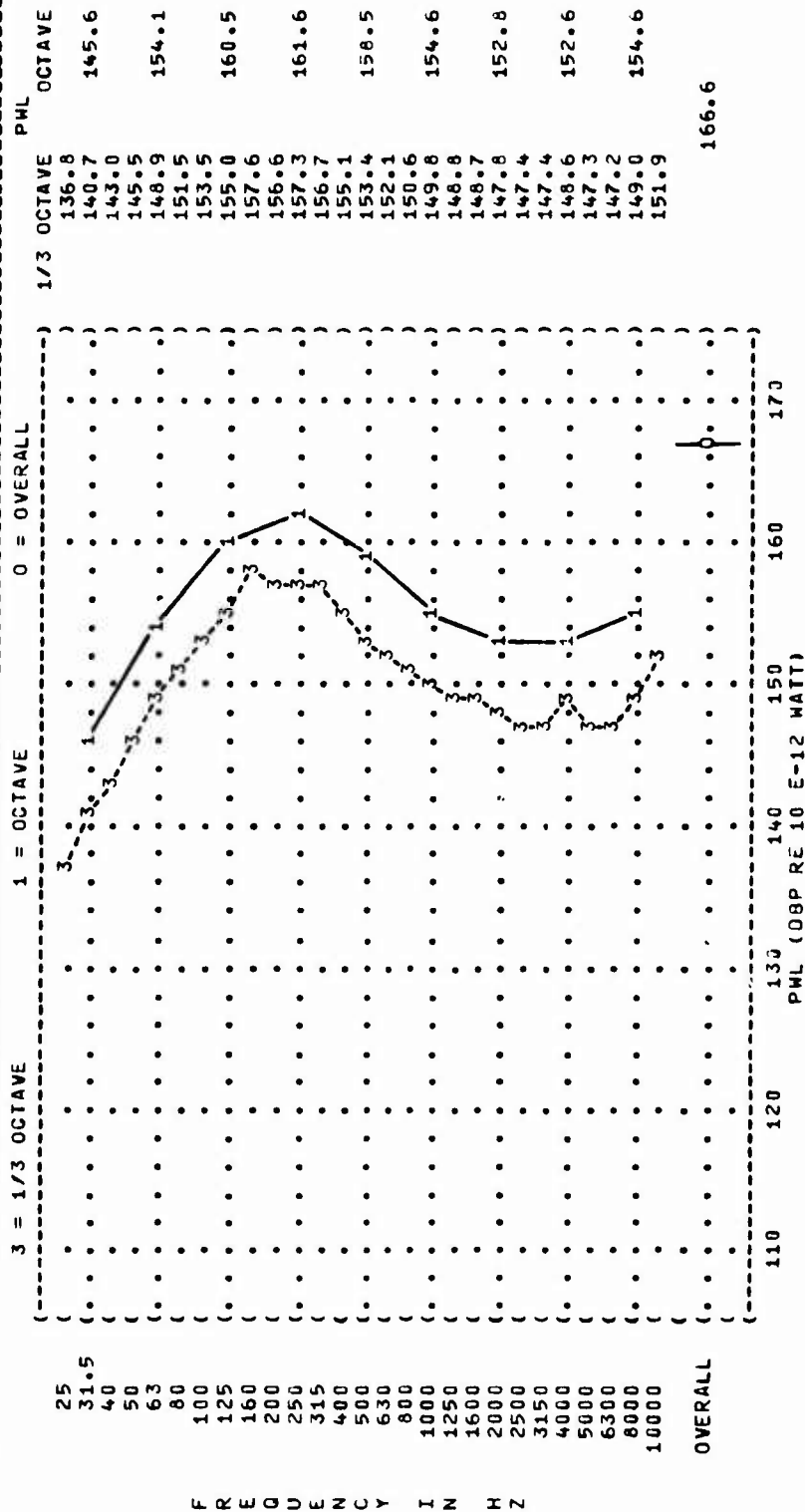
NOISE SOURCE/SUBJECT: F-15A AIRCRAFT
F100-PW-100(1) ENGINE
FAR FIELD NOISE

OPERATIONS: MILITARY POWER
90% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY: TEMP = 13 C
BAR PRESS = .703 H HG
REL HUMID = 26 %



((FIGURE: ACOUSTIC POWER LEVEL (PWL)))
 ((4))
 ((NOISE SOURCE/SUBJECT:))
 ((F-15A AIRCRAFT))
 ((F100-PW-100(1) ENGINE))
 ((FAR FIELD NOISE))
 ((OPERATION:))
 ((MILITARY POWER))
 ((90% RPM))
 ((SINGLE ENGINE))
 ((FREE FLOW))
 ((METEOROLOGY:))
 ((TEMP = 13 C))
 ((BAR PRESS = .703 M HG))
 ((REL HUMID = 26 %))
 ((IDENTIFICATION:))
 ((OMEGA 1.4))
 ((TEST 75-002-029))
 ((RUN 05))
 ((07 MAY 75))
 ((PAGE 3))



(FIGURE: ACOUSTIC POWER LEVEL {PWL})
 (4)
 (NOISE SOURCE/SUBJECT:)
 (F-15A AIRCRAFT)
 (F100-PW-100(1) ENGINE)
 (FAR FIELD NOISE)
 (OPERATION:)
 (AFTERBURNER, ZONE 5)
 (90% RPM)
 (SINGLE ENGINE)
 (FREE FLOW)
 (METEOROLOGY:)
 (TEMP = 13 C)
 (BAR PRESS = .703 M HG)
 (REL HUMID = 26 %)
 (IDENTIFICATION:)
 (OMEGA 1.4)
 (TEST 75-002-029)
 (RUN 06)
 (07 MAY 75)
 (PAGE 3)

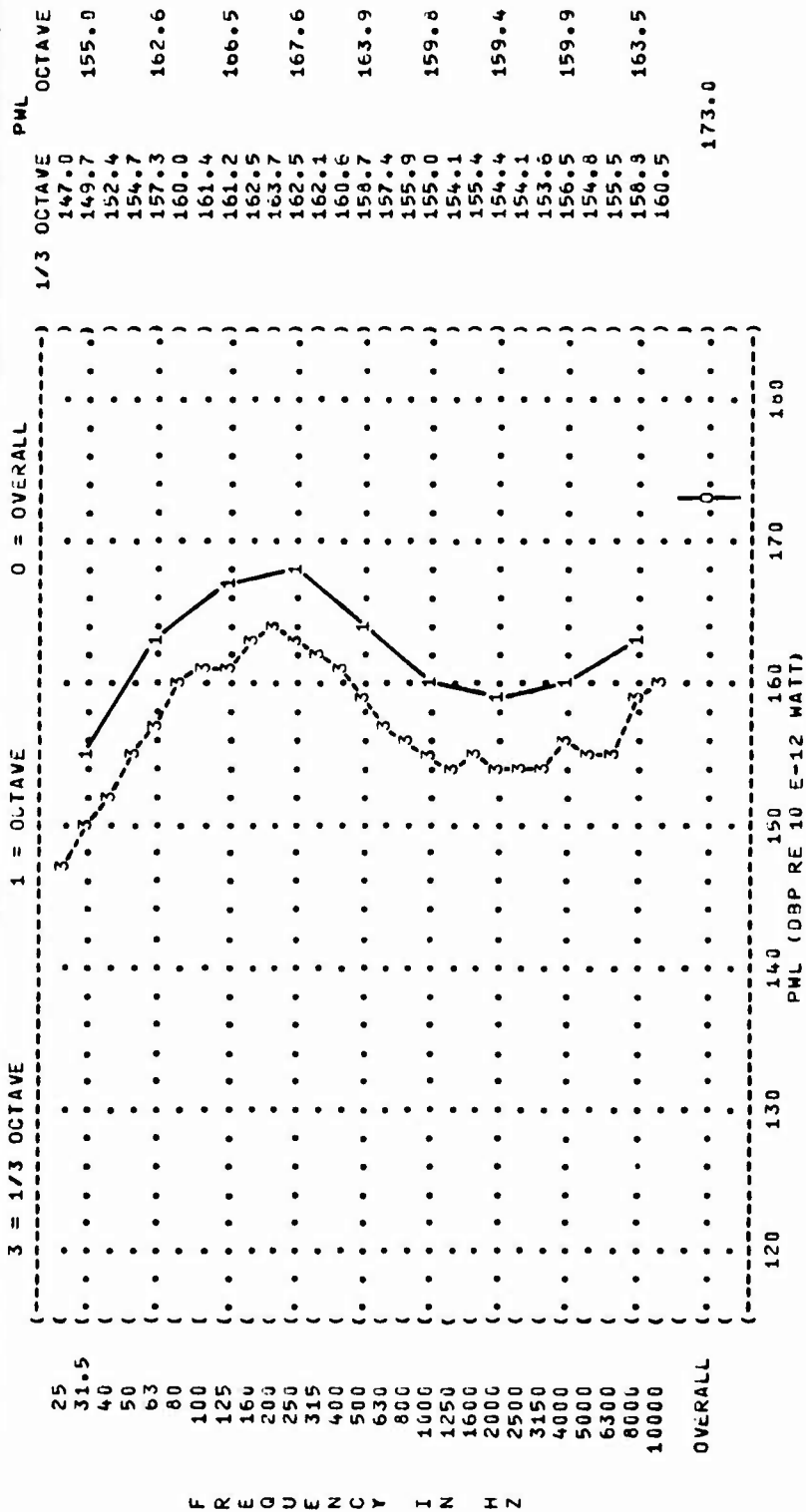


TABLE: DIRECTIVITY INDEX (DB)																
IDENTIFICATION:																
6																
NOISE SOURCE/SUBJECT:																
F-15A AIRCRAFT																
F100-PW-100(1) ENGINE																
FAR FIELD NOISE																
OPERATION:																
IDLE POWER																
60% RPM																
BOTH ENGINES																
FREE FLOW																
METEOROLOGY:																
TEMP = 13 C																
BAR PRESS = .703 M HG																
REL HUMID = 26 %																
PAGE 4																
FREQ (HZ)																
ANGLE (DEGREES)																
1/3 OCTAVE																
25	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4	-4
31.5	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6
40	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3	-3
50	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
63	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
80	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
100	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
125	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
160	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
200	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
250	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
315	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
400	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
500	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
630	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
800	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
1000	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
1250	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
1600	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
2000	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
2500	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
3150	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
4000	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
5000	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
6300	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
8000	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
10000	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
OCTAVE																
31.5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5	-5
63	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2	-2
125	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
250	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
500	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
1000	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
2000	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
4000	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
8000	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
10000	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
OVERALL																
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

TABLE: DIRECTIVITY INDEX (DB)																
IDENTIFICATION:																
6																
NOISE SOURCE/SUBJECT:																
F-15A AIRCRAFT																
F100-PW-100(1) ENGINE																
FAR FIELD NOISE																
OPERATION:																
80% RPM																
BOTH ENGINES																
FREE FLOW																
METEOROLOGY:																
TEMP = 13 C																
BAR PRESS = .703 M HG																
REL HUMID = 26 %																
PAGE 4																
TEST 75-002-029																
RUN 02																
OMEGA 1.4																
FREQ (HZ)																
ANGLE (DEGREES)																
1/3 OCTAVE																
25	-16	-16	-14	-13	-13	-13	-11	-10	-8	-7	-3	2	4	9	10	
31.5	-16	-15	-17	-16	-14	-13	-13	-12	-10	-8	-1	2	5	9	10	
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63	-19	-19	-17	-16	-16	-16	-15	-14	-10	-8	-2	3	8	9	5	
80	-18	-19	-16	-17	-16	-16	-16	-15	-11	-9	-4	1	7	10	6	
100	-17	-17	-16	-15	-17	-17	-17	-16	-11	-8	-3	1	8	11	5	
125	-16	-15	-14	-13	-15	-16	-15	-15	-11	-8	-3	3	5	10	7	
160	-18	-18	-17	-17	-18	-19	-18	-18	-12	-11	-4	5	7	9	7	
200	-17	-17	-16	-17	-18	-18	-17	-17	-10	-8	-4	4	8	6	8	
250	-15	-15	-15	-15	-15	-18	-17	-17	-14	-13	-4	2	7	9	8	
315	-16	-15	-14	-15	-15	-17	-16	-15	-12	-8	-1	4	4	10	5	
400	-13	-12	-11	-13	-14	-16	-16	-15	-10	-6	-0	4	8	8	5	
500	-9	-9	-10	-11	-13	-15	-14	-14	-9	-5	1	4	6	9	4	
630	-8	-8	-8	-9	-13	-13	-14	-12	-8	-5	1	4	6	9	3	
800	-9	-9	-7	-10	-13	-12	-12	-11	-7	-6	2	5	5	8	2	
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1250	-7	-7	-7	-9	-12	-10	-9	-10	-5	-1	3	6	5	6	-1	
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2500	-5	-5	-5	-5	-7	-7	-7	-6	-2	2	5	5	4	2	-4	
3150	-2	-3	-3	-4	-5	-5	-5	-5	-1	2	4	3	1	-0	-5	
4000	5	2	1	-0	-2	-3	-3	-3	-1	0	4	3	-1	-1	-6	
5000	6	4	3	2	-0	-1	-1	-3	-4	1	3	2	-1	-1	-7	
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8000	4	3	2	0	-1	-1	-2	-2	-2	1	3	2	-1	-0	-6	
10000	5	3	2	-0	-1	-2	-2	-3	-2	1	4	3	0	0	-0	
OCTAVE																
31.5	-17	-16	-15	-14	-14	-13	-13	-12	-11	-10	-6	2	5	9	9	
63	-18	-19	-17	-17	-16	-16	-16	-15	-13	-11	-7	2	7	10	6	
125	-17	-17	-16	-15	-17	-18	-17	-17	-16	-12	-4	4	6	10	7	
250	-16	-16	-15	-15	-16	-18	-17	-16	-13	-9	-3	4	7	9	7	
500	-10	-10	-10	-12	-13	-15	-15	-14	-11	-9	1	4	7	9	4	
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2000	-6	-6	-6	-6	-9	-8	-8	-8	-3	-2	1	5	6	4	3	
4000	3	1	-0	-1	-3	-4	-4	-4	-3	-1	2	4	3	1	0	
8000	5	3	2	1	0	-0	-1	-2	-2	-1	3	2	-1	-1	-5	
OVERALL	-14	-14	-13	-14	-15	-16	-16	-15	-14	-11	-9	-2	4	7	9	7

TABLE: DIRECTIVITY INDEX (DB)										IDENTIFICATION:									
6										OMEGA 1.4 TEST 75-002-029 RUN 03 07 MAY 75 PAGE 4									
NOISE SOURCE/SUBJECT:										METEOROLOGY:									
(OPERATION:)										()									
(MILITARY POWER)										()									
(90% RPM)										()									
(BOTH ENGINES)										()									
(FREE FLOW)										()									
FREQ										ANGLE (DEGREES)									
(HZ)										()									
1/3 OCTAVE																			
25																			
31.5																			
40																			
50																			
63																			
80																			
100																			
125																			
160																			
200																			
250																			
315																			
400																			
500																			
630																			
800																			
1000																			
1250																			
1600																			
2000																			
2500																			
3150																			
4000																			
5000																			
6300																			
8000																			
10000																			
OCTAVE																			
31.5																			
63																			
125																			
250																			
500																			
1000																			
2000																			
4000																			
8000																			
OVERALL																			

TABLE: DIRECTIVITY INDEX (DB)																	IDENTIFICATION:		
6																	OMEGA 1.4		
NOISE SOURCE/SUBJECT: (OPERATION:)																	TEST 75-002-029		
(F-15A AIRCRAFT (80% RPM)																	RUN 04		
(F100-PW-100(1) ENGINE (SINGLE ENGINE)																	07 MAY 75		
(FAR FIELD NOISE (FREE FLOW)																	PAGE 4		
FREQ (HZ)																	METEOROLOGY: 13 C		
ANGLE (DEGREES)																	BAR PRESS = .703 M HG		
																	REL HUMID = 26 %		
1/3 OCTAVE																			
25	-16	-16	-15	-13	-14	-12	-8	-8	-10	-7	-5	-8	3	2	6	7	9		
31.5	-18	-18	-16	-16	-14	-14	-10	-11	-10	-10	-6	-3	2	6	6	7	11		
40	-17	-18	-17	-17	-15	-13	-11	-11	-11	-9	-10	-5	1	7	7	8	11		
50	-19	-21	-20	-17	-16	-15	-13	-14	-10	-10	-11	-6	1	5	9	10			
63	-21	-21	-20	-19	-19	-17	-15	-15	-13	-12	-11	-7	-2	8	9	9			
80	-21	-21	-19	-20	-20	-18	-16	-16	-14	-12	-10	-5	-1	7	10	8			
100	-19	-21	-18	-19	-18	-17	-16	-16	-13	-12	-10	-5	0	6	10	8			
125	-17	-18	-15	-15	-16	-17	-16	-16	-15	-12	-10	-5	3	6	10	8			
160	-19	-20	-19	-20	-20	-19	-17	-17	-14	-12	-9	-5	4	7	8	9			
200	-18	-18	-19	-19	-19	-19	-16	-16	-14	-12	-9	-5	2	9	5	9			
250	-18	-19	-20	-18	-20	-20	-17	-17	-16	-14	-9	-5	2	7	7	10			
315	-20	-19	-18	-18	-20	-20	-17	-17	-16	-16	-11	-9	3	5	9	9			
400	-16	-15	-15	-17	-17	-19	-15	-14	-15	-9	-8	-2	2	7	8	9			
500	-14	-13	-14	-15	-16	-19	-15	-13	-13	-10	-7	-1	3	7	7	9			
630	-12	-12	-11	-14	-15	-16	-17	-14	-12	-12	-9	-7	1	3	7	9			
800	-12	-12	-11	-14	-16	-17	-13	-10	-11	-10	-6	-0	4	8	7	8			
1000	-11	-12	-11	-13	-16	-13	-12	-9	-10	-9	-5	-0	5	8	6	7			
1250	-9	-9	-9	-11	-14	-11	-10	-7	-8	-7	-3	1	8	8	4	4			
1600	-8	-7	-6	-8	-10	-10	-8	-6	-6	-6	-2	2	7	7	3	1			
2000	-7	-6	-5	-6	-8	-7	-6	-5	-5	-5	-1	3	7	6	2	-0			
2500	-6	-5	-5	-5	-6	-7	-6	-5	-5	-4	-0	3	6	5	1	-1			
3150	-3	-2	-3	-4	-5	-4	-4	-4	-4	-3	0	4	6	4	-1	-2			
4000	1	3	1	-1	-2	-3	-4	-4	-4	-3	2	3	5	3	-1	-4			
5000	2	4	3	1	-0	-1	-4	-3	-4	-2	1	2	4	3	-1	-5			
6300	2	4	3	1	0	-1	-3	-3	-5	-2	1	2	4	2	-3	-4			
8000	1	3	1	0	-0	-1	-4	-4	-4	-2	1	2	4	3	-0	-2			
10000	-0	1	0	-2	-3	-5	-5	-5	-6	-3	0	0	5	5	3	3			
OCTAVE																			
31.5	-17	-17	-17	-16	-14	-13	-11	-10	-10	-9	-8	-5	2	6	7	10			
63	-21	-21	-19	-19	-19	-18	-17	-15	-13	-11	-10	-6	-1	7	9	9			
125	-18	-19	-17	-18	-18	-18	-17	-16	-14	-12	-10	-5	4	6	9	8			
250	-18	-19	-19	-19	-19	-20	-17	-16	-15	-12	-9	-4	3	8	7	10			
500	-14	-14	-15	-15	-16	-16	-15	-13	-14	-9	-7	-1	2	7	8	9			
1000	-11	-11	-10	-13	-15	-14	-12	-9	-10	-9	-5	-0	5	8	6	7			
2000	-7	-6	-6	-7	-7	-7	-6	-6	-6	-5	-1	3	7	6	2	-0			
4000	-3	-2	-3	-4	-5	-4	-4	-4	-4	-3	0	4	6	4	-1	-2			
5000	2	4	3	1	-0	-1	-4	-3	-4	-2	1	2	4	3	-1	-4			
6300	2	4	3	1	0	-1	-3	-3	-5	-2	1	2	4	2	-3	-5			
8000	1	3	1	0	-0	-1	-4	-4	-4	-2	1	2	4	3	-0	-2			
10000	-0	1	0	-2	-3	-5	-5	-5	-6	-3	0	0	5	5	3	3			
OVERALL																			
	-17	-16	-16	-17	-18	-18	-16	-15	-14	-11	-9	-4	3	7	8	9			

TABLE: DIRECTIVITY INDEX (DB)										IDENTIFICATION:									
6										OMEGA 1.4									
NOISE SOURCE/SUBJECT:										TEST 75-002-029									
F-15A AIRCRAFT										RUN 05									
F100-PW-100(1) ENGINE										07 MAY 75									
FAR FIELD NOISE										PAGE 4									
OPERATION:										METEOROLOGY:									
(MILITARY POWER										TEMP = 13 C									
(90% RPM										BAR PRESS = .703 M HG									
(SINGLE ENGINE										REL HUMID = 26 %									
(FREE FLOW																			
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																			
25	-15	-14	-13	-15	-12	-14	-12	-10	-9	-8	-6	-7	-4	2	5	9	10		
31.5	-18	-18	-16	-17	-15	-13	-14	-12	-10	-9	-8	-8	-5	3	6	9	8		
40	-18	-18	-16	-15	-15	-15	-14	-12	-11	-11	-11	-9	-4	2	7	9	7		
50	-19	-20	-19	-17	-18	-17	-15	-14	-12	-12	-11	-9	-3	2	6	11	6		
63	-22	-20	-19	-19	-19	-19	-17	-17	-16	-13	-12	-9	-5	2	8	10	3		
80	-21	-21	-19	-20	-19	-20	-18	-17	-16	-14	-12	-11	-6	1	8	10	4		
100	-20	-21	-19	-20	-20	-18	-18	-17	-17	-14	-11	-11	-5	2	8	10	1		
125	-18	-18	-17	-19	-19	-19	-17	-17	-16	-13	-11	-8	-2	5	7	10	2		
160	-18	-17	-17	-20	-19	-20	-19	-19	-16	-14	-11	-8	0	6	6	9	-0		
200	-16	-17	-17	-18	-18	-18	-17	-17	-16	-13	-10	-7	-1	6	9	7	-1		
250	-19	-19	-18	-18	-18	-19	-19	-17	-16	-14	-11	-7	-0	6	9	6	-3		
315	-17	-16	-14	-17	-18	-19	-19	-17	-15	-14	-10	-6	-0	8	7	7	-2		
400	-13	-13	-12	-15	-16	-19	-19	-17	-15	-15	-8	-5	1	6	8	8	-3		
500	-9	-9	-9	-12	-16	-18	-18	-17	-14	-14	-8	-6	2	7	7	7	-3		
630	-7	-7	-5	-9	-12	-13	-16	-15	-11	-13	-8	-6	1	5	9	6	-4		
800	-8	-8	-5	-8	-11	-9	-12	-12	-10	-13	-8	-7	-1	6	8	6	-6		
1000	-11	-11	-8	-9	-12	-9	-9	-9	-8	-12	-8	-6	-2	7	9	5	-8		
1250	-12	-10	-9	-11	-13	-11	-10	-9	-7	-10	-7	-6	-3	8	8	4	-7		
1600	-14	-10	-8	-10	-12	-11	-10	-9	-7	-9	-6	-5	-4	8	8	3	-8		
2000	-14	-11	-10	-10	-11	-9	-8	-8	-7	-8	-4	-5	-5	8	8	2	-9		
2500	-16	-13	-12	-12	-12	-11	-9	-8	-8	-8	-3	-4	-6	8	8	2	-10		
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4000	-18	-16	-15	-13	-14	-12	-11	-9	-9	-9	-4	-5	-8	9	7	2	-16		
5000	-22	-20	-18	-17	-18	-15	-15	-13	-10	-9	-5	-6	-6	9	8	1	-19		
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8000	-23	-21	-20	-19	-20	-18	-16	-14	-13	-13	-8	-8	-10	8	9	3	-22		
10000	-29	-27	-25	-25	-26	-23	-22	-20	-18	-17	-13	-10	-14	8	9	0	-24		
OCTAVE																			
31.5	-17	-17	-16	-16	-15	-15	-14	-12	-10	-10	-9	-9	-4	3	7	9	8		
63	-21	-21	-19	-19	-19	-19	-17	-17	-15	-13	-12	-10	-5	2	8	10	4		
125	-18	-19	-17	-20	-19	-19	-18	-16	-16	-14	-11	-8	-1	5	7	10	1		
250	-18	-17	-16	-18	-18	-19	-18	-17	-15	-14	-10	-7	-1	7	8	6	-2		
500	-10	-10	-9	-12	-15	-17	-18	-16	-13	-14	-8	-6	1	6	8	7	-3		
1000	-9	-9	-7	-9	-12	-10	-10	-8	-8	-12	-7	-6	-2	7	8	5	-7		
2000	-14	-11	-9	-10	-12	-10	-9	-7	-7	-8	-4	-5	-5	8	8	3	-9		
4000	-18	-16	-14	-13	-14	-12	-11	-10	-9	-8	-4	-5	-7	9	7	2	-15		
8000	-23	-21	-20	-19	-20	-18	-16	-14	-13	-13	-8	-8	-10	8	9	2	-23		
OVERALL	-14	-14	-13	-15	-16	-16	-16	-15	-13	-13	-9	-7	-1	6	8	8	-1		

TABLE: DIRECTIVITY INDEX (DB)																			IDENTIFICATION:	
6																			OMEGA 1.4	
																			TEST 75-002-029	
NOISE SOURCE/SUBJECT:																			RUN 06	
(OPERATION:)																				
(AFTERBURNER, ZONE 5)																				
(90% RPM)																			13 C	
(F100-PW-100(1) ENGINE)																			BAR PRESS = .703 M HG	
(FAR FIELD NOISE)																			REL HUMID = 26 %	
(FREE FLOW)																			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																				
25	-12	-12	-13	-12	-12	-9	-9	-8	-7	-9	-9	-4	-0	6	7	6	6	6		
31.5	-15	-15	-14	-14	-13	-11	-11	-11	-9	-9	-9	-5	1	5	9	3	4	4		
40	-14	-14	-13	-12	-12	-12	-11	-11	-10	-10	-9	-5	2	6	9	3	2	2		
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3150	-20	-16	-15	-13	-13	-10	-8	-6	-4	-2	4	2	5	5	-0	-9	-13	-13		
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10000	-32	-29	-27	-26	-25	-21	-17	-14	-12	-6	1	0	7	7	-3	-14	-23	-23		
OCTAVE																				
31.5	-14	-14	-13	-13	-12	-11	-11	-10	-9	-9	-9	-5	1	6	9	3	3	3		
63	-16	-17	-16	-16	-15	-16	-16	-14	-12	-11	-10	-4	3	8	7	-2	-1	-1		
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500	-15	-12	-11	-12	-13	-14	-14	-11	-7	-7	-1	2	8	5	0	-7	-6	-6		
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8000	-27	-24	-22	-21	-21	-17	-14	-12	-9	-5	2	1	7	6	-1	-13	-20	-20		
OVERALL																				
-16	-14	-14	-14	-14	-14	-14	-13	-12	-9	-8	-3	0	7	7	4	-4	-4	-4		

((FIGURE: OVERALL SOUND PRESSURE LEVEL (OASPL)
 ((5 EQUAL LEVEL CONTOURS (DB)
 ((NOISE SOURCE/SUBJECT: (OPERATION:
 ((F-15A AIRCRAFT (IDLE POWER
 ((F100-PW-100(1) ENGINE (60% RPM
 ((FAR FIELD NOISE (BOTH ENGINES
 (((FREE FLOW
 ((METEOROLOGY:
 ((TEMP = 15 C
 ((BAR PRESS = .760 M HG
 ((REL HUMID = 70 %
 ((IDENTIFICATION:
 ((OMEGA 1.4
 ((TEST 75-002-029
 ((RUN 01
 ((07 MAY 75
 ((PAGE 13

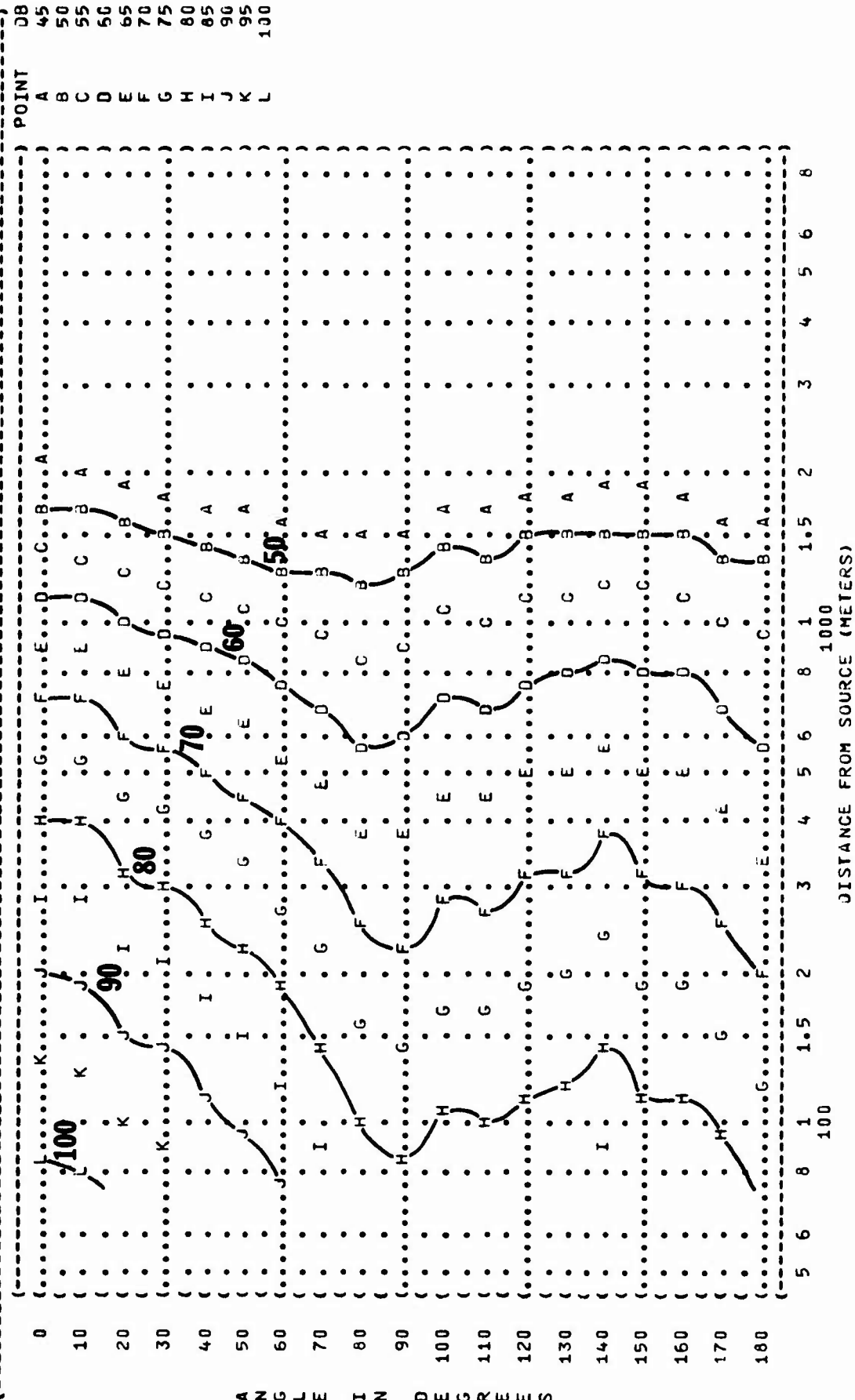


FIGURE: OVERALL SOUND PRESSURE LEVEL (OASPL)
EQUAL LEVEL CONTOURS (DB)

5

NOISE SOURCE/SUBJECT:

OPERATION:

METEOROLOGY:

IDENTIFICATION:

OMEGA 1.4

TEST 75-002-029

RUN 02

TEMP = 15 C

BAR PRESS = .760 M HG

REL HUMID = 70 %

F-15A AIRCRAFT

80% RPM

F100-PW-100(1) ENGINE

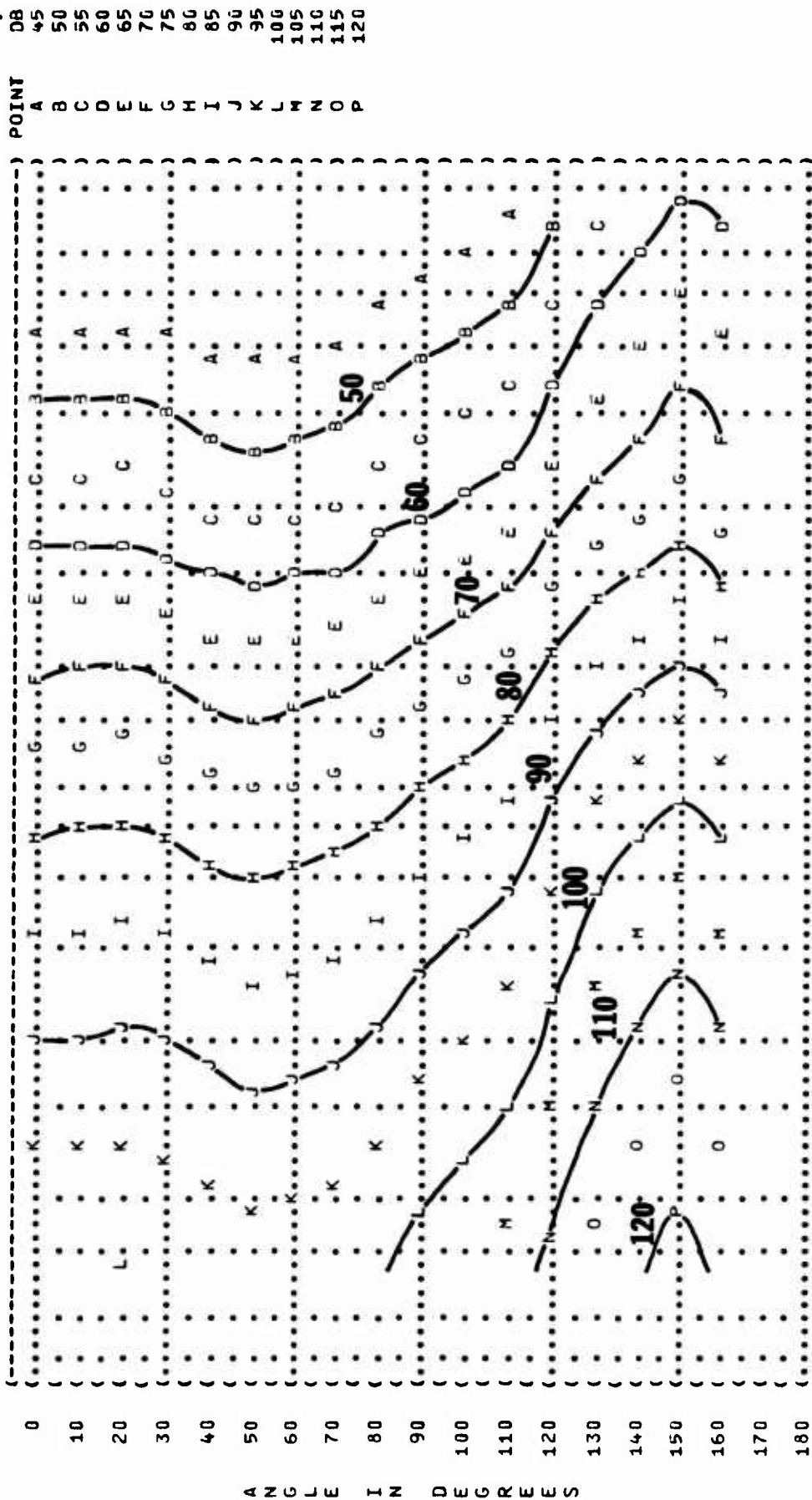
BOTH ENGINES

FAR FIELD NOISE

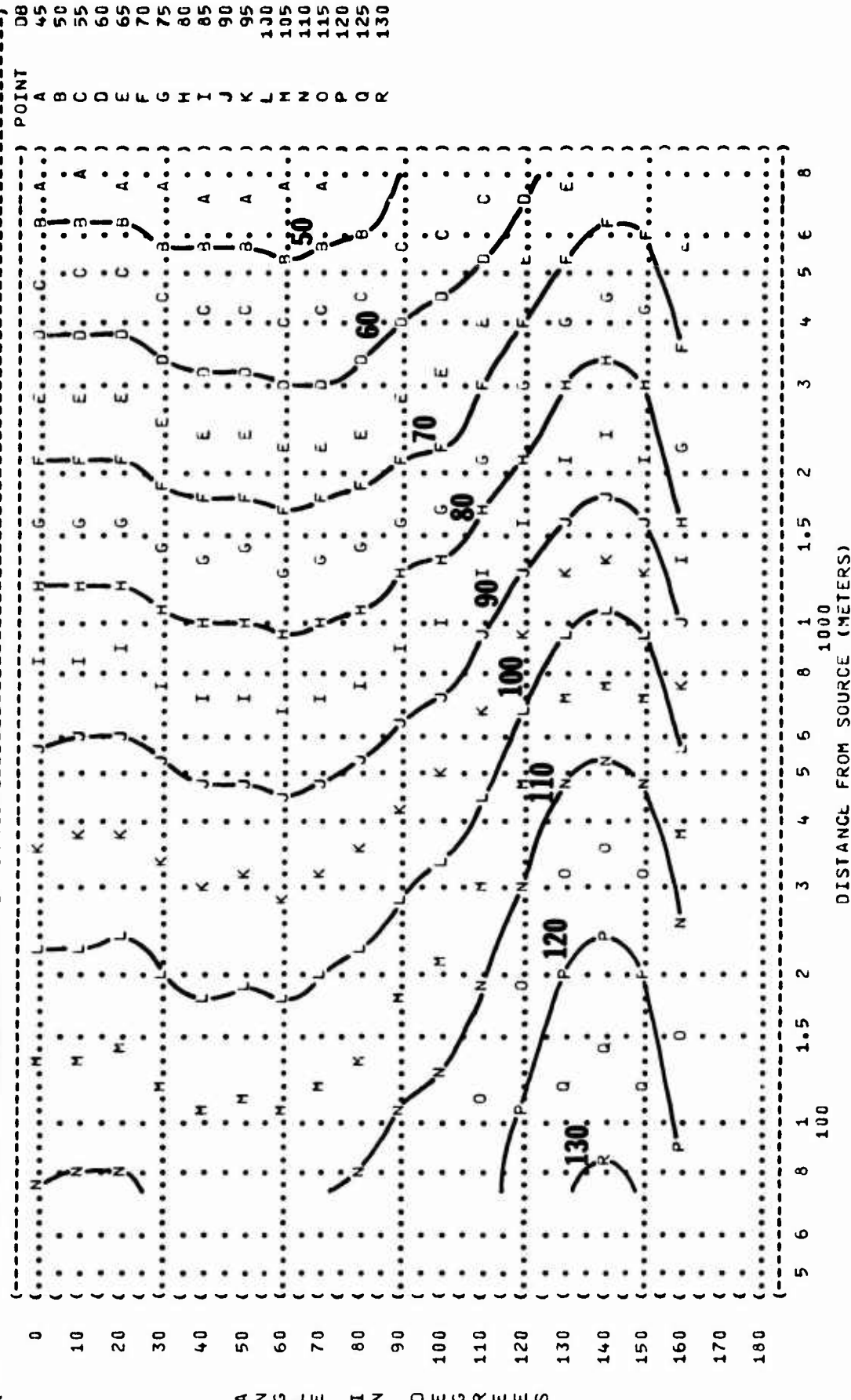
FREE FLOW

07 MAY 75

PAGE 13



(FIGURE: OVERALL SOUND PRESSURE LEVEL (OASPL)
 (5
 (EQUAL LEVEL CONTOURS (DB)
 () IDENTIFICATION:)
 () OMEGA 1.4
 () TEST 75-002-029)
 () RUN 03)
 () METEOROLOGY:)
 () TEMP = 15 C)
 () BAR PRESS = .760 M HG)
 () REL HUMID = 70 %)
 () OPERATION:)
 () MILITARY POWER)
 () 90% RPM)
 () BOTH ENGINES)
 () FREE FLOW)
 () FAR FIELD NOISE)
 () PAGE 13)



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

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IDENTIFICATION:
)
)
) OME : 1.4
) TEST 75-002-029
) RUN 04
)
) 07 MAY 75
)
) PAGE 13
)

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METEOROLOGY:

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

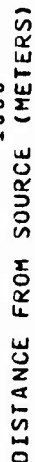
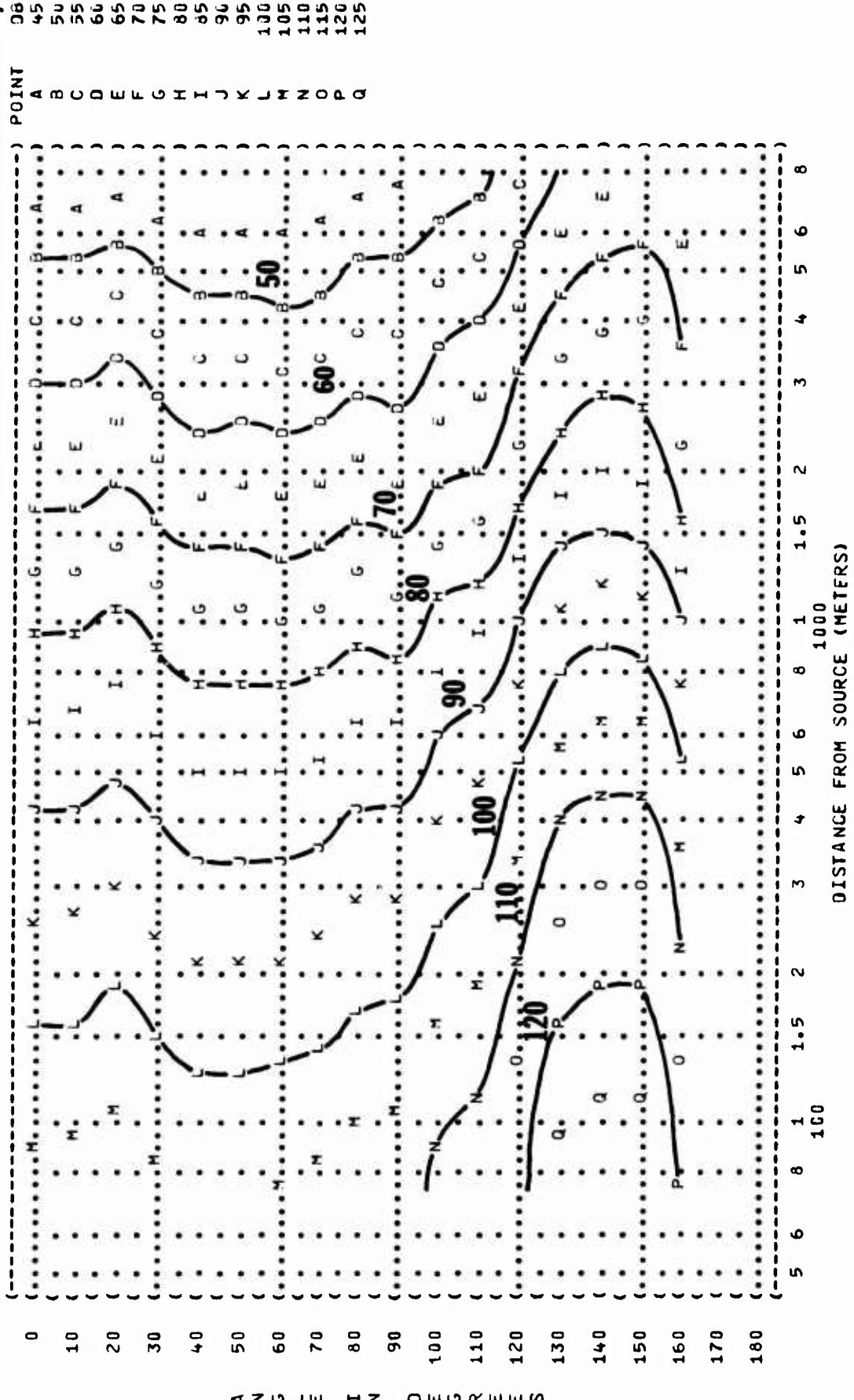


FIGURE: OVERALL SOUND PRESSURE LEVEL (OASPL)
EQUAL LEVEL CONTOURS (D3)

5

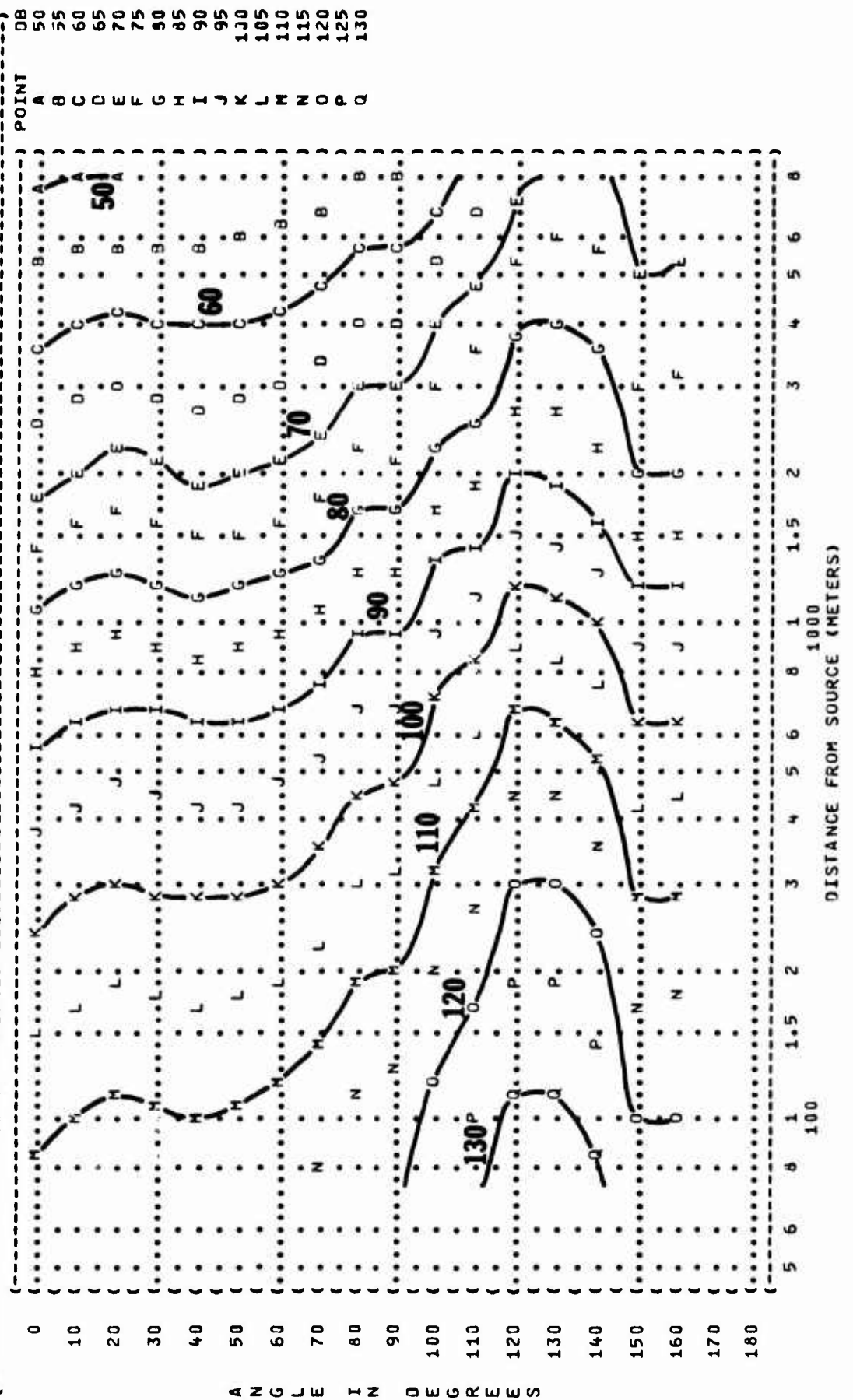
NOISE SOURCE/SUBJECT: OPERATION: METEOROLOGY:
F-15A AIRCRAFT MILITARY POWER TEMP = 15 C
F100-PW-100(1) ENGINE 90% RPM JAR PRESS = .760 M HG
FAR FIELD NOISE SINGLE ENGINE REL HUMID = 70 %
FREE FLOW

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-029
RUN 05
07 MAY 75
PAGE 13



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

(FIGURE: OVERALL SOUND PRESSURE LEVEL (OASPL)
 (5
 (EQUAL LEVEL CONTOURS (DB)
 () IDENTIFICATION:)
 ()
 () OMEGA 1.4
 () TEST 75-002-029
 () RUN 06
 ()
 (NOISE SOURCE/SUBJECT:) METEOROLOGY:)
 () AFTERBURNER, ZONE 5) TEMP = 15 C
 () F-15A AIRCRAFT) 90% RPM) BAR PRESS = .760 M HG
 () F100-PW-100(1) ENGINE) SINGLE ENGINE) REL HUMID = 70 %
 () FAR FIELD NOISE) FREE FLOW)
 () PAGE 13
 ()



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( FIGURE : C-WEIGHTED OVERALL SOUND LEVEL {OASLC}  
    EQUAL LEVEL CONTOURS   (DBC)  
  
6  
-----  
( NOISE SOURCE/SUBJECT :           ) OPERATION :  
( F-15A AIRCRAFT              ) ENGINES OFF  
( F100-PW-100(1) ENGINE        ) JET FUEL STARTER ON  
( FAR FIELD NOISE               ) FREE FLOW  
  
          METEOROLOGY :  
            TEMP      = 15 C  
            BAR PRESS = .760 M HG  
            REL HUMID = 70 %  
  
IDENTIFICATION:  
OMEGA 1.4  
TEST 75-002-052  
RUN 01  
13 MAY 75  
PAGE 12
```

[illegible]

F-15A AIRCRAFT	(	ENGINES OFF	)	BAR PRESS = .760 M HG	)	13 MAY 75
F100-PW-100(1) ENGINE	(	JET FJEL STARTER ON	)	REL HUMID = 70 %	)	
FAR FIELD NOISE	(	FREE FLOW	)		)	PAGE 12

F-15A AIRCRAFT	(	ENGINES OFF	)	BAR PRESS = .760 M HG	)	13 MAY 75
F100-PW-100(1) ENGINE	(	JET FJEL STARTER ON	)	REL HUMID = 70 %	)	
FAR FIELD NOISE	(	FREE FLOW	)		)	PAGE 12

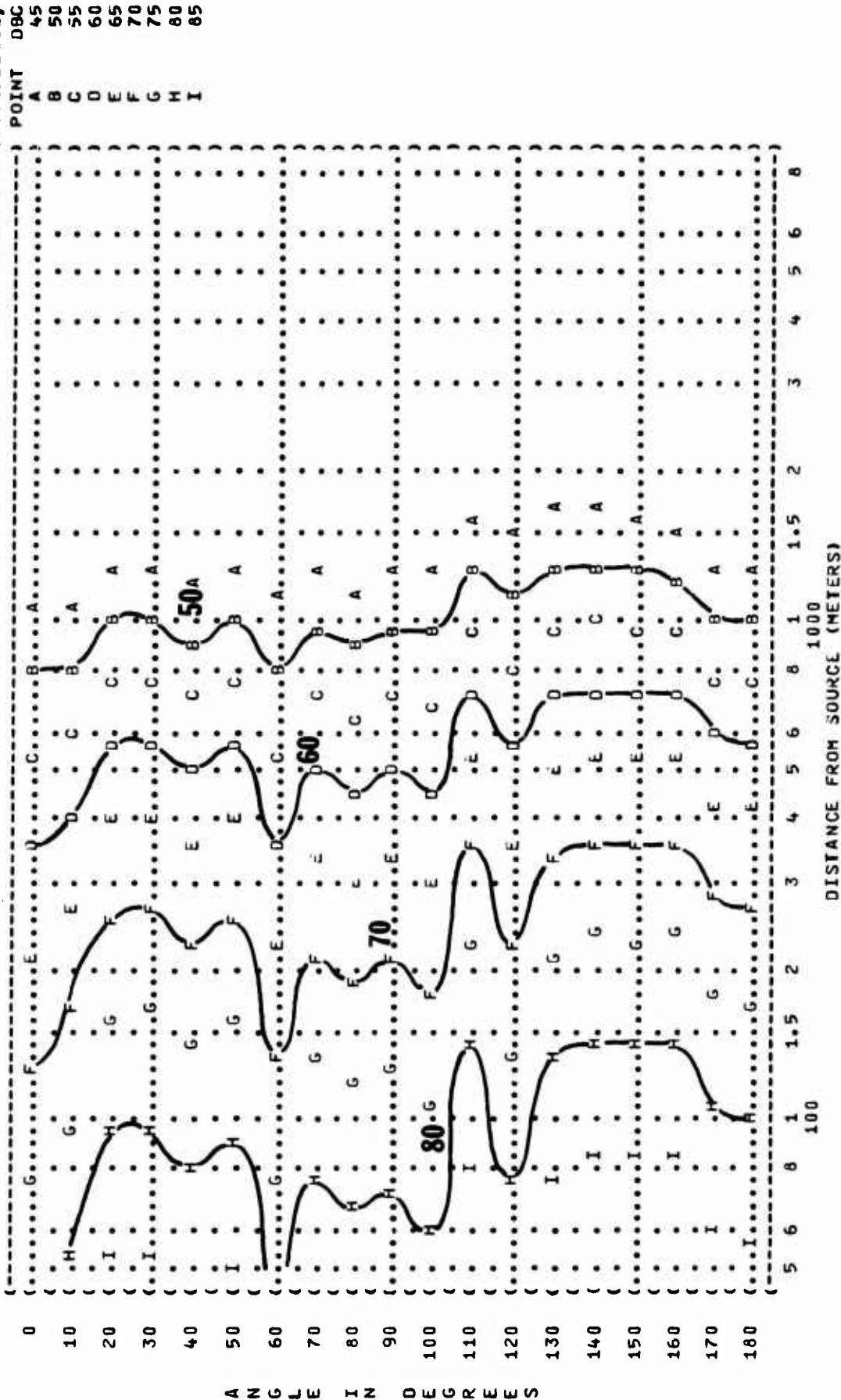
F-15A AIRCRAFT	(	ENGINES OFF	)	BAR PRESS = .760 M HG	)	13 MAY 75
F100-PW-100(1) ENGINE	(	JET FJEL STARTER ON	)	REL HUMID = 70 %	)	
FAR FIELD NOISE	(	FREE FLOW	)		)	PAGE 12

[illegible][illegible]

F-15A AIRCRAFT	(	ENGINES OFF	)	BAR PRESS = .760 M HG	)	13 MAY 75
F100-PW-100(1) ENGINE	(	JET FJEL STARTER ON	)	REL HUMID = 70 %	)	
FAR FIELD NOISE	(	FREE FLOW	)		)	PAGE 12

F-15A AIRCRAFT	(	ENGINES OFF	)	BAR PRESS = .760 M HG	)	13 MAY 75
F100-PW-100(1) ENGINE	(	JET FJEL STARTER ON	)	REL HUMID = 70 %	)	
FAR FIELD NOISE	(	FREE FLOW	)		)	PAGE 12

F-15A AIRCRAFT	(	ENGINES OFF	)	BAR PRESS = .760 M HG	)	13 MAY 75
F100-PW-100(1) ENGINE	(	JET FJEL STARTER ON	)	REL HUMID = 70 %	)	
FAR FIELD NOISE	(	FREE FLOW	)		)	PAGE 12



07 MAY 75
PAGE 14

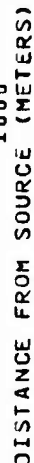
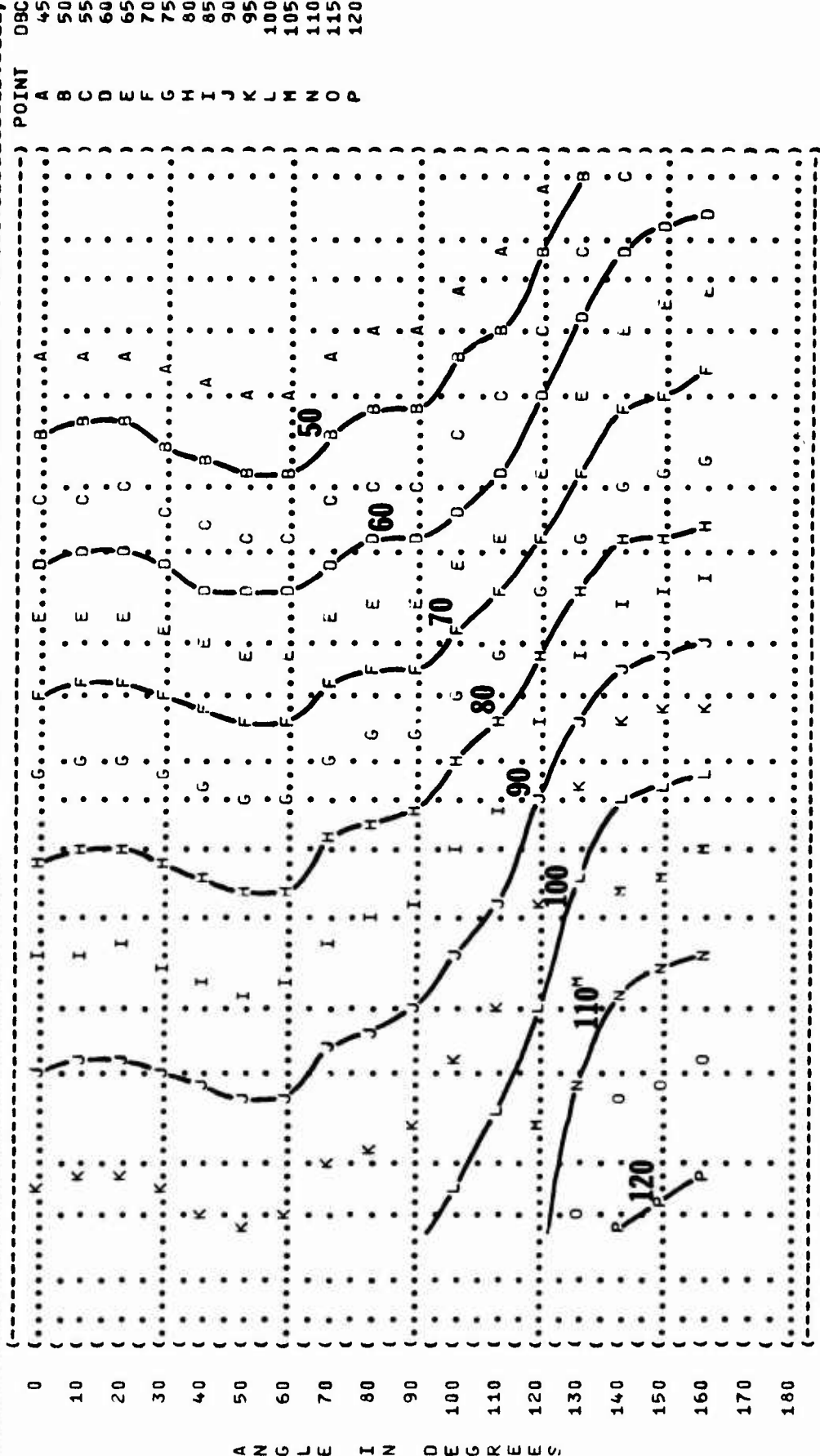


FIGURE 1 C-WEIGHTED OVERALL SOUND LEVEL (OASLC)
EQUAL LEVEL CONTOURS (DBC)

6

IDENTIFICATION: OMEGA 1.4
TEST 75-002-029
RUN 04
METEOROLOGY: TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %
OPERATION: 80% RPM
SINGLE ENGINE
FREE FLOW
NOISE SOURCE/SUBJECT: F-15A AIRCRAFT
F100-PW-100(1) ENGINE
FAR FIELD NOISE
PAGE 14



DISTANCE FROM SOURCE (METERS)

FIGURE 1: C-WEIGHTED OVERALL SOUND LEVEL {OASLC} EQUAL LEVEL CONTOURS (DBC)

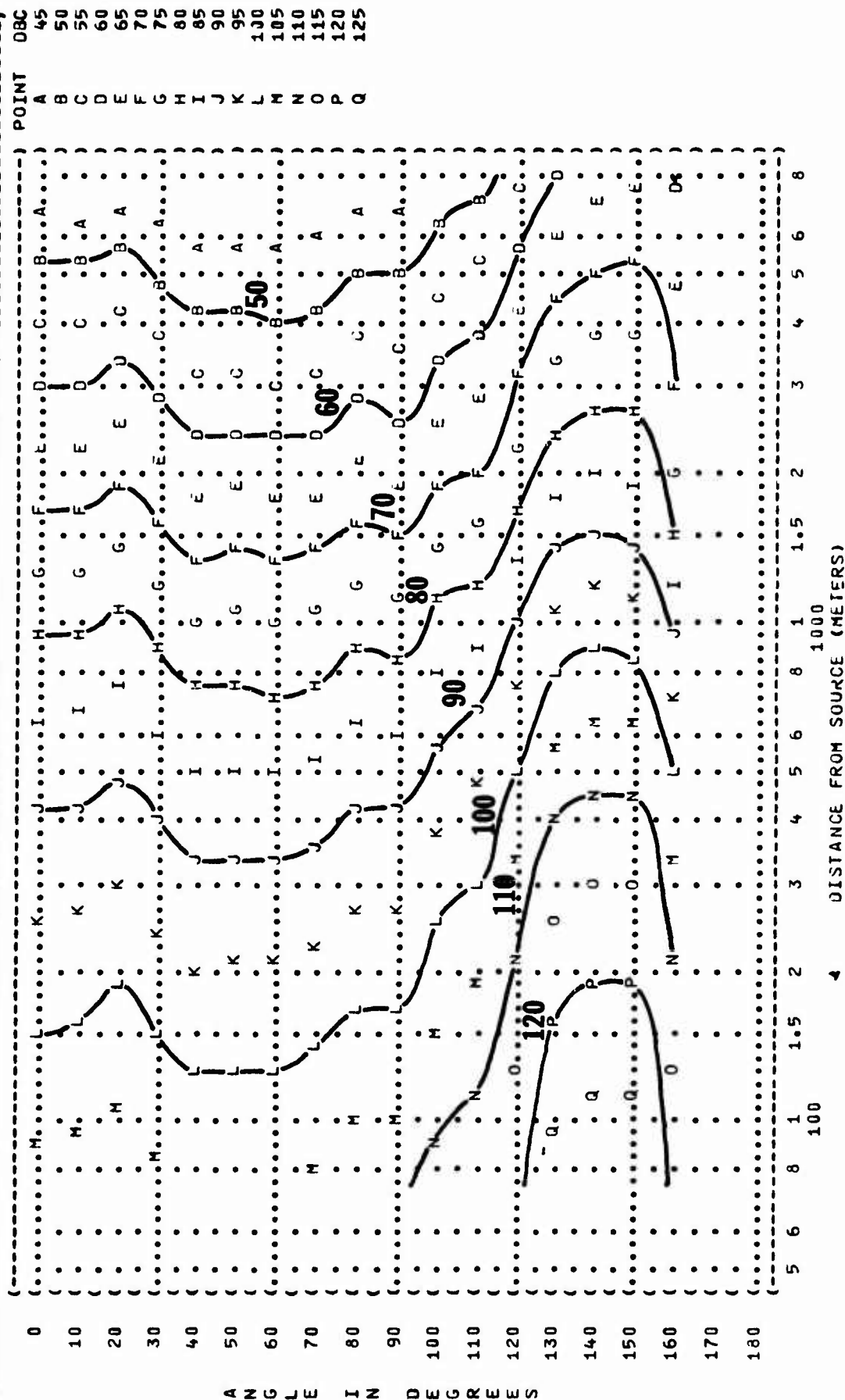
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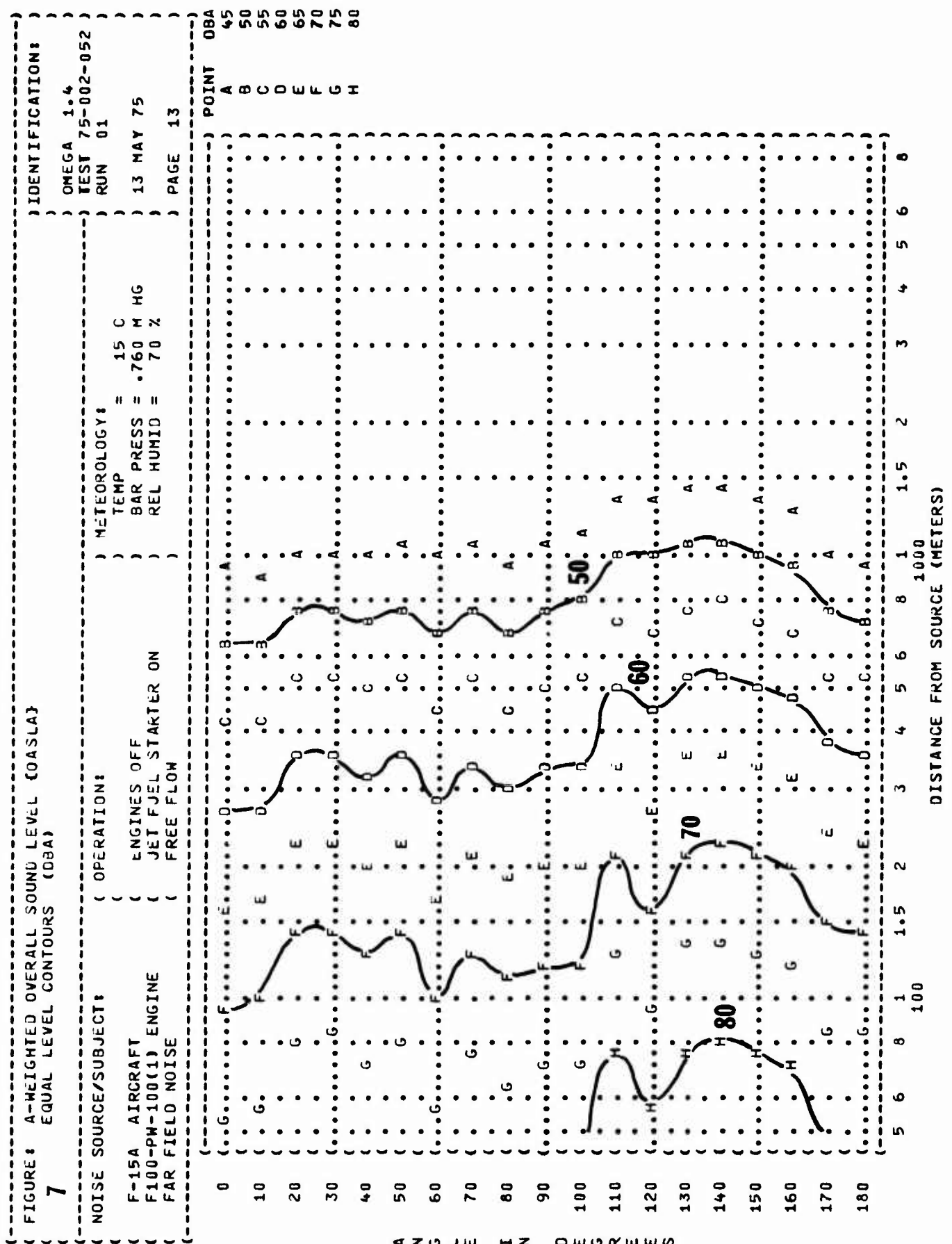
FIGURE: C-WEIGHTED OVERALL SOUND LEVEL {OASLC}
        EQUAL LEVEL CONTOURS (DBC)

6

-----
NOISE SOURCE/SUBJECT:      ( OPERATION:
F-15A AIRCRAFT              ( MILITARY POWER
F100-PW-100(1) ENGINE      ( 90% RPM
FAR FIELD NOISE             ( SINGLE ENGINE
                             ( FREE FLOW
                             )
                             ) METEOROLOGY:
                             ) TEMP = 15 C
                             ) BAR PRESS = .760 M HG
                             ) REL HUMID = 70 %
                             )
                             ) PAGE 14
) IDENTIFICATION:
) OMEGA 1.4
) TEST 75-002-02
) RUN 05

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


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IDENTIFICATION:
OMEGA 1.4
TEST 75-002-029
RUN 02
07 MAY 75
PAGE 15

```

OMEGA 1.4
TEST 75-002-029
RUN 02
07 MAY 75
PAGE 15

METEOROLOGY:

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

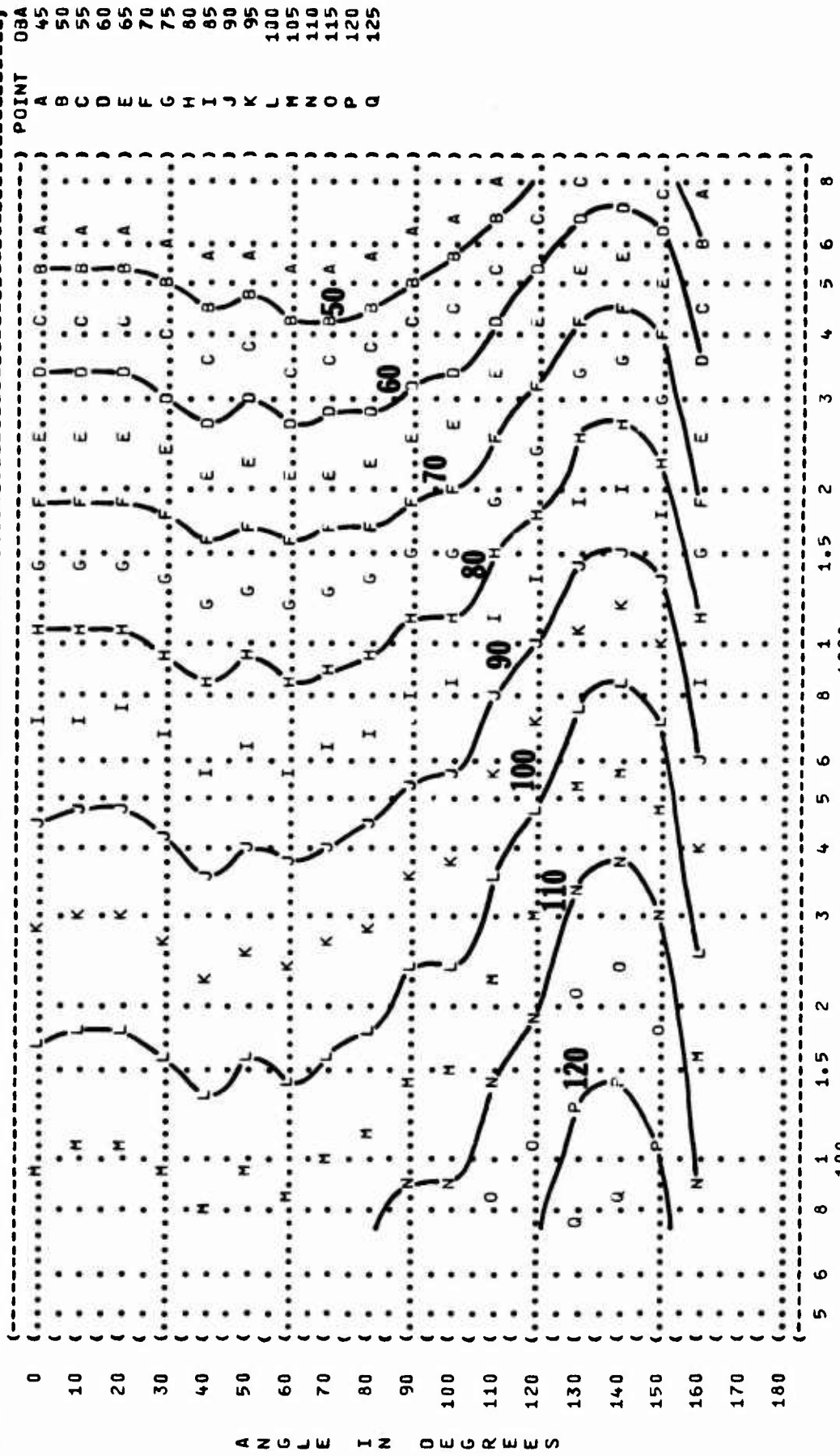
420 LE HZ DEUGDEWS

DISTANCE FROM SOURCE (METERS)

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

7

IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-029
 RUN 03
 METEOROLOGY:
 TEMP = 15 C
 BAR PRESS = .760 M HG
 REL HUMID = 70 %
 OPERATION:
 MILITARY POWER
 90% RPM
 BOTH ENGINES
 FREE FLOW
 NOISE SOURCE/SUBJECT:
 F-15A AIRCRAFT
 F100-PW-100(1) ENGINE
 FAR FIELD NOISE
 07 MAY 75
 PAGE 15



DISTANCE FROM SOURCE (METERS)

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

7

NOISE SOURCE/SUBJECT:

F-15A AIRCRAFT
F100-PM-100(1) ENGINE
FAR FIELD NOISE

OPERATION:

80% RPM
SINGLE ENGINE
FREE FLOW

METEOROLOGY:

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

IDENTIFICATION:

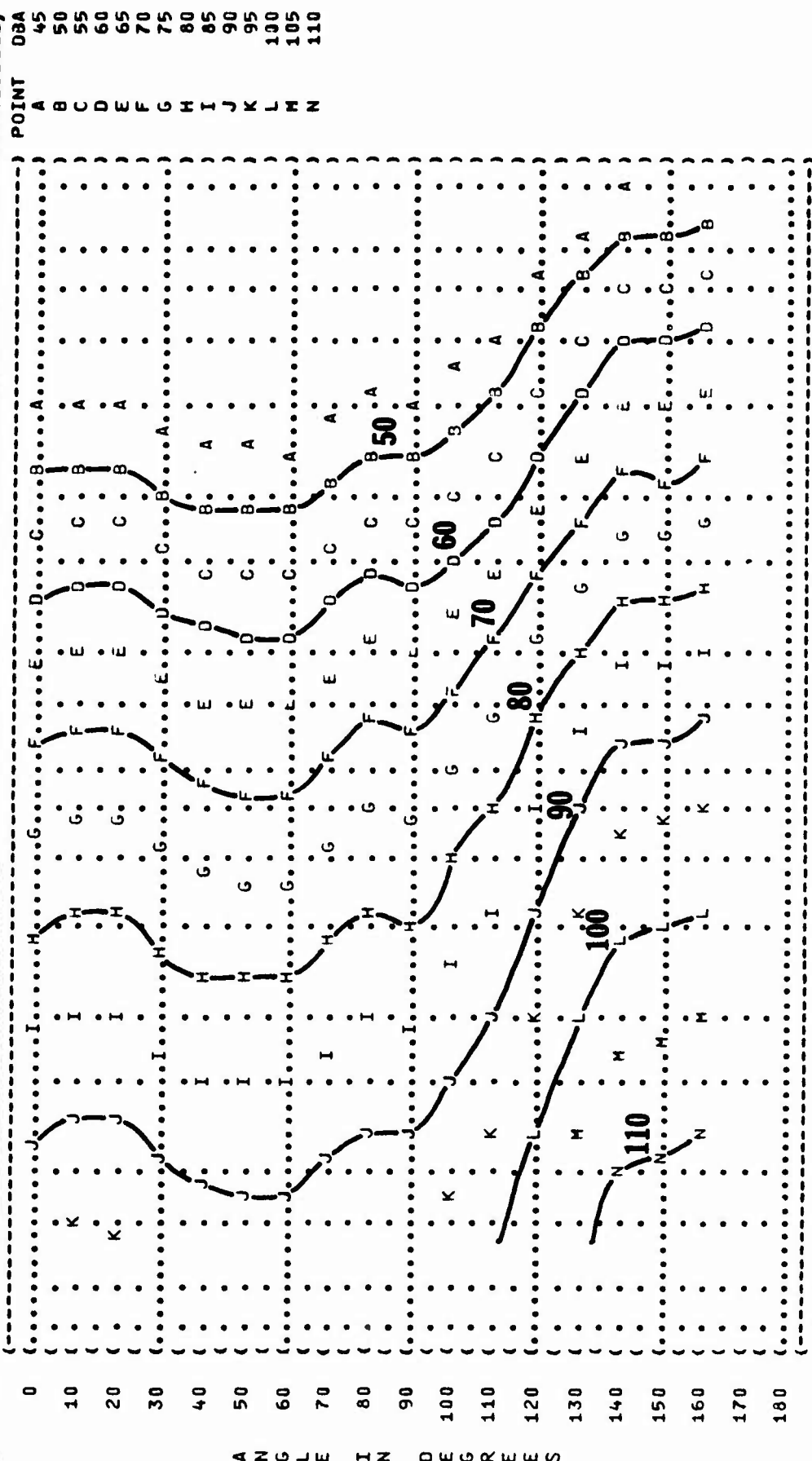
OMEGA 1.4

TEST 75-002-029

RUN 04

07 MAY 75

PAGE 15



DISTANCE FROM SOURCE (METERS)

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

1

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

7

NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:	IDENTIFICATION:
F-15A AIRCRAFT	(MILITARY POWER	TEMP = 15 C	OMEGA 1.4
F100-PW-100(1) ENGINE	(90% RPM	BAR PRESS = .760 M HG	TEST 75-002-02
FAR FIELD NOISE	(SINGLE ENGINE	REL HUMID = 70 %	RUN 05
	(FREE FLOW		07 MAY 75
			PAGE 15

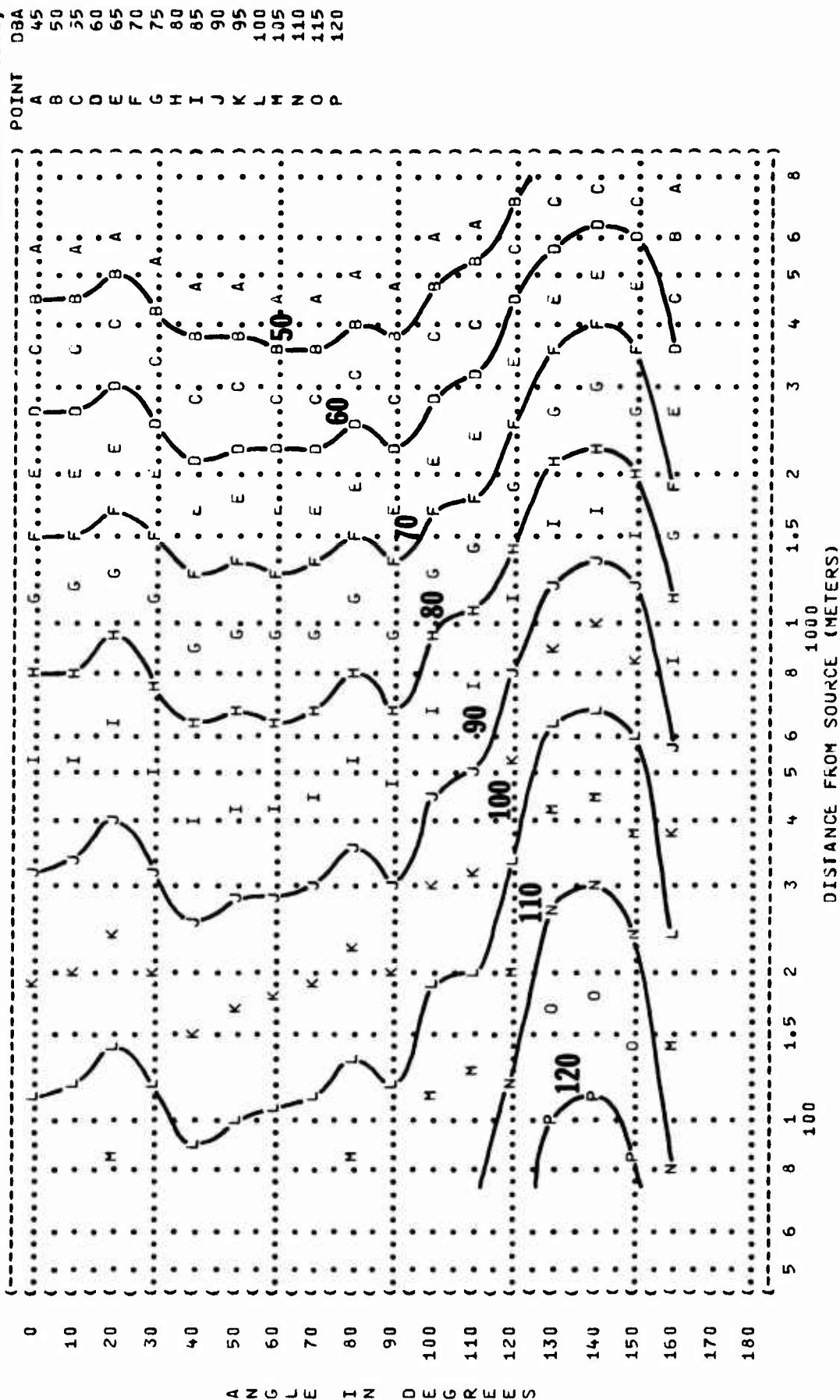
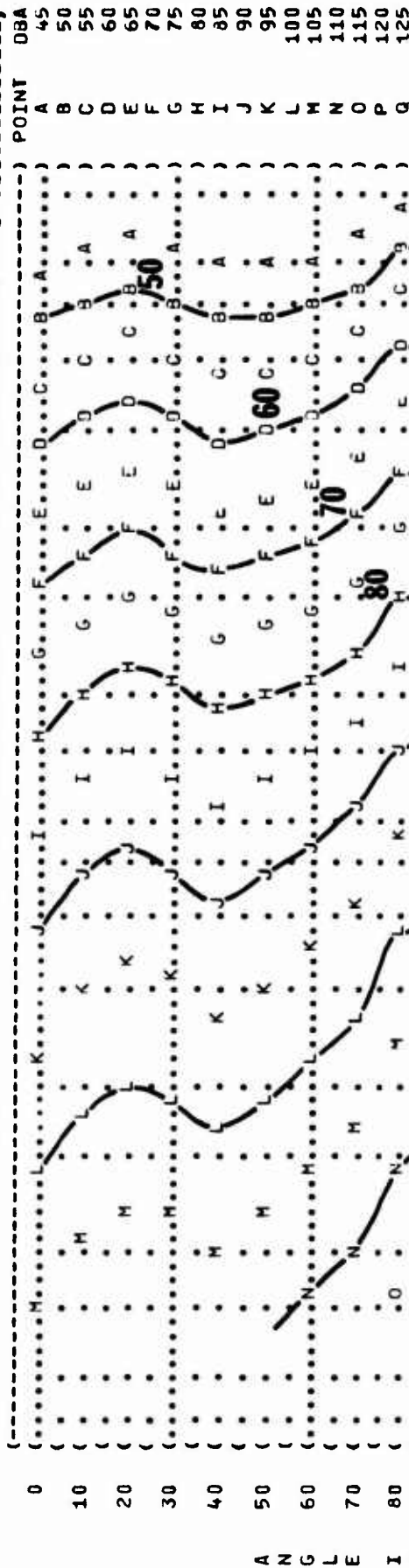


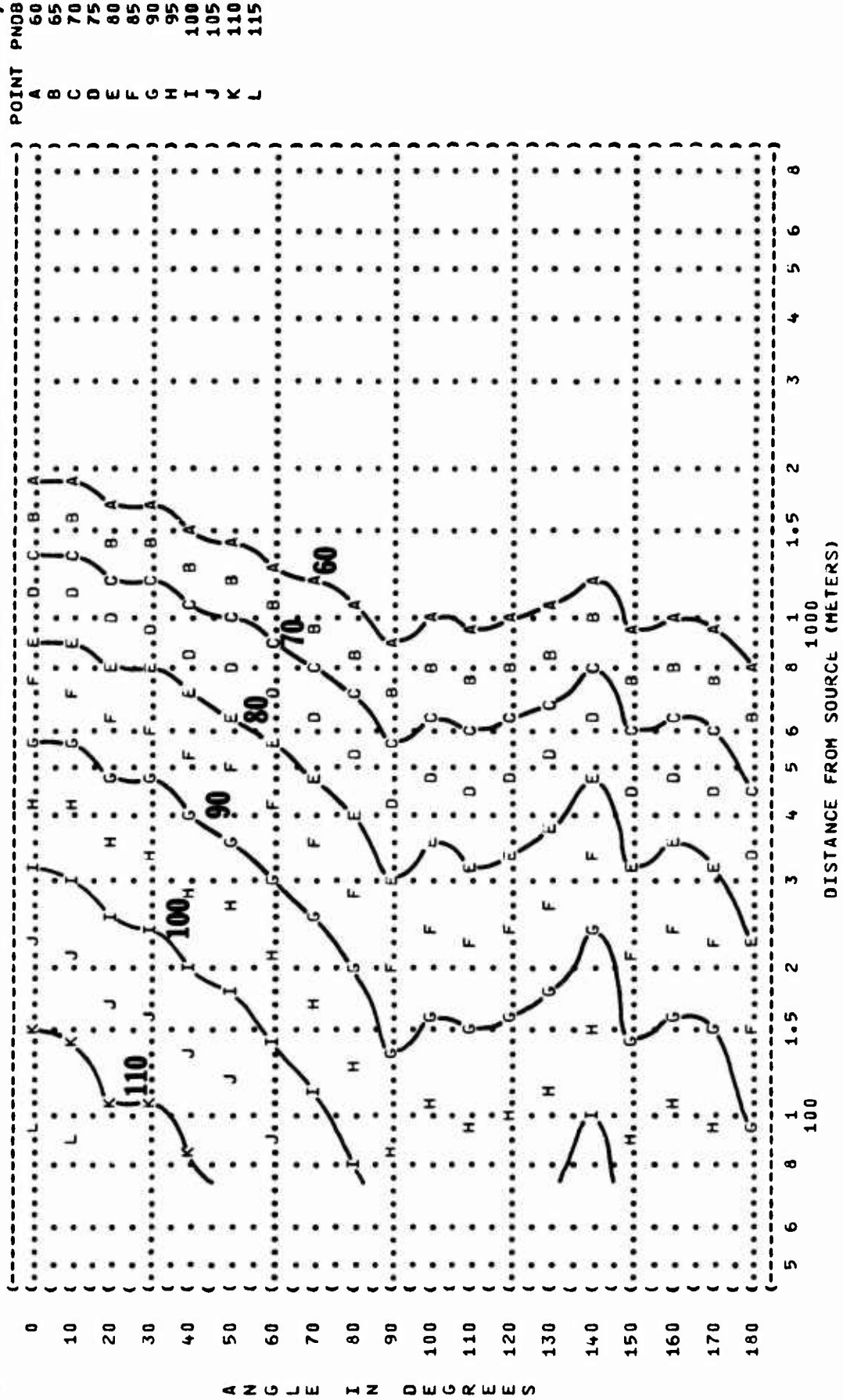
FIGURE: A-WEIGHTED OVERALL SOUND LEVEL (OASLA)
EQUAL LEVEL CONTOURS (DBA)

7

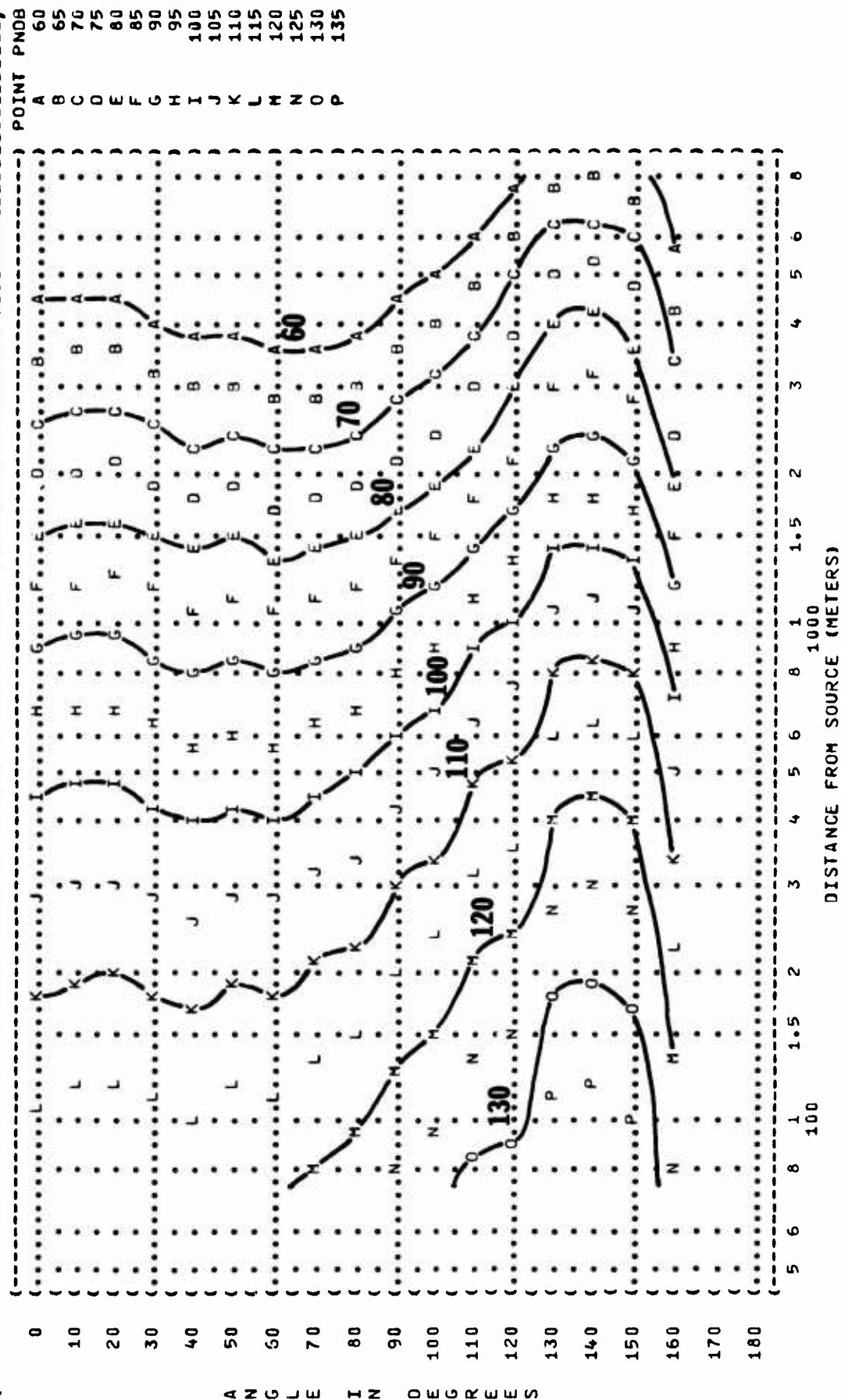
IDENTIFICATION: OMEGA 1.4
TEST 75-002-029
RUN 06
METEOROLOGY: TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %
OPERATION: AFTERBURNER, ZONE 5
F-15A AIRCRAFT 90% RPM
F100-PM-100(1) ENGINE SINGLE ENGINE
FAR FIELD NOISE FREE FLOW

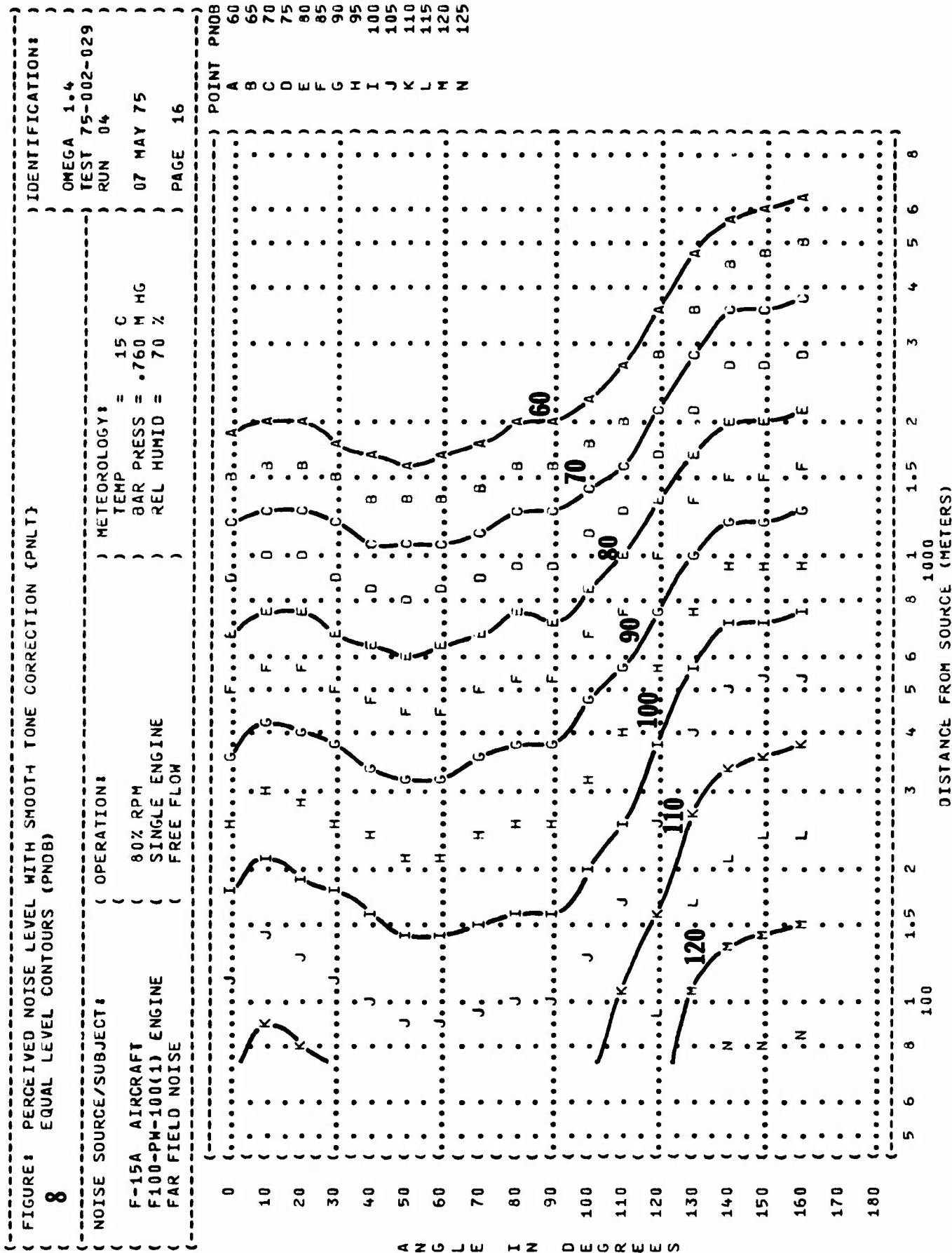


(FIGURE: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT)
 (8
 (EQUAL LEVEL CONTOURS (PNDB)
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (IDLE POWER
 (F100-PW-100(1) ENGINE (60% RPM
 (FAR FIELD NOISE (BOTH ENGINES
 ((FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 01
 (PAGE 16




```
(-----)
( FIGURE: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION {PNLT} ) IDENTIFICATION:
(      8      EQUAL LEVEL CONTOURS (PNDB) )
( ) )
( ) OMEGA 1.4
( ) TEST 75-002-029
( ) RUN 03
(-----)
( NOISE SOURCE/SUBJECT: ) METEOROLOGY:
( ) OPERATION: ) TEMP = 15 C
( ) MILITARY POWER )
( ) 90% RPM ) BAR PRESS = .760 M HG
( ) BOTH ENGINES ) REL HUMID = 70 %
( ) FREE FLOW )
( F-15A AIRCRAFT )
( F100-PW-100(1) ENGINE )
( FAR FIELD NOISE )
( ) PAGE 16
```





POINT	PNOB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95
I	100
J	105
K	110
L	115
M	120
N	125
O	130
P	135
Q	140

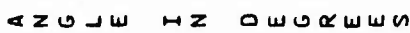


FIGURE: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)
 EQUAL LEVEL CONTOURS (DB)

9

IDENTIFICATION: OMEGA 1.4
 TEST 75-002-029

NOISE SOURCE/SUBJECT: OPERATION: METEOROLOGY: RUN 01

F-15A AIRCRAFT IDLE POWER = 15 C
 F100-PW-100(1) ENGINE 60% RPM BAR PRESS = .760 M HG
 FAR FIELD NOISE BOTH ENGINES REL HUMID = 70 %
 FREE FLOW

PAGE 17

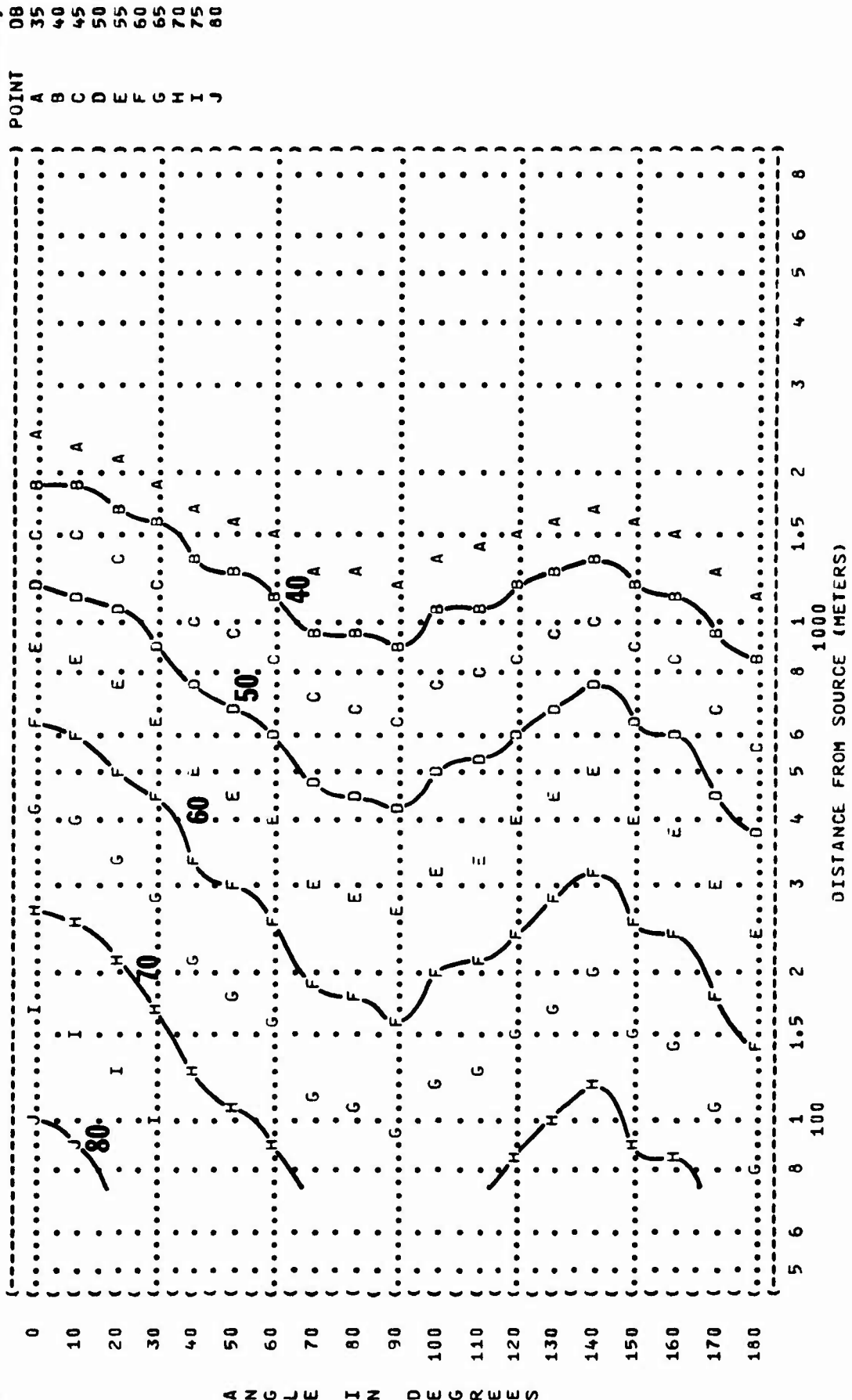


FIGURE: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)
EQUAL LEVEL CONTOURS (DB)

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IDENTIFICATION:
) ) OMEGA 1.4
) ) TEST 75-002-029
) ) RUN 03
) ) 
) ) 07 MAY 75
) ) 
) ) PAGE 17
) )

```

NOISE SOURCE/SUBJECT:	OPERATION:
F-15A AIRCRAFT	MILITARY
F100-PM-100(1) ENGINE	90% RPM
FAR FIELD NOISE	BOTH ENG
	FREE FLOW

```

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

```

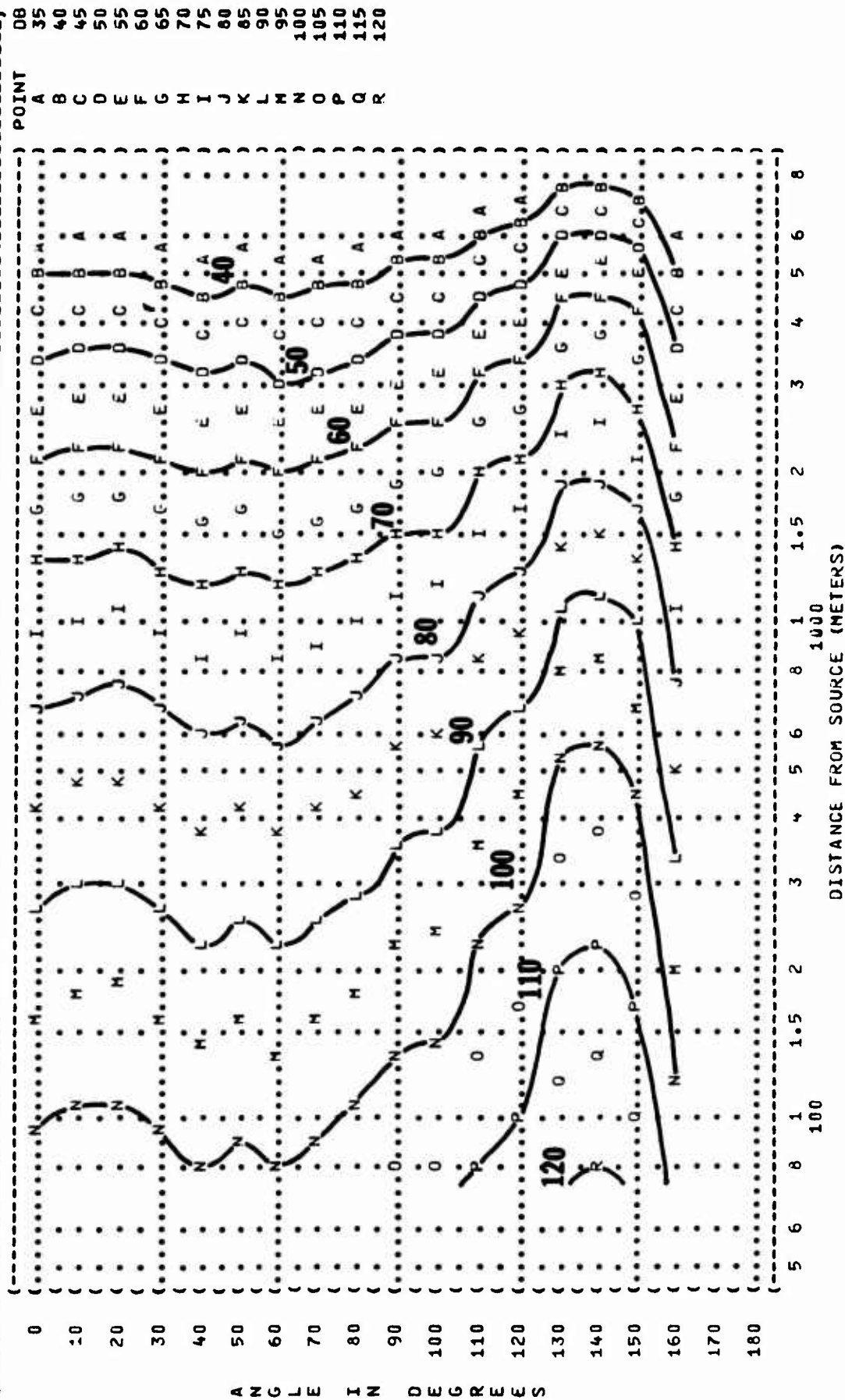
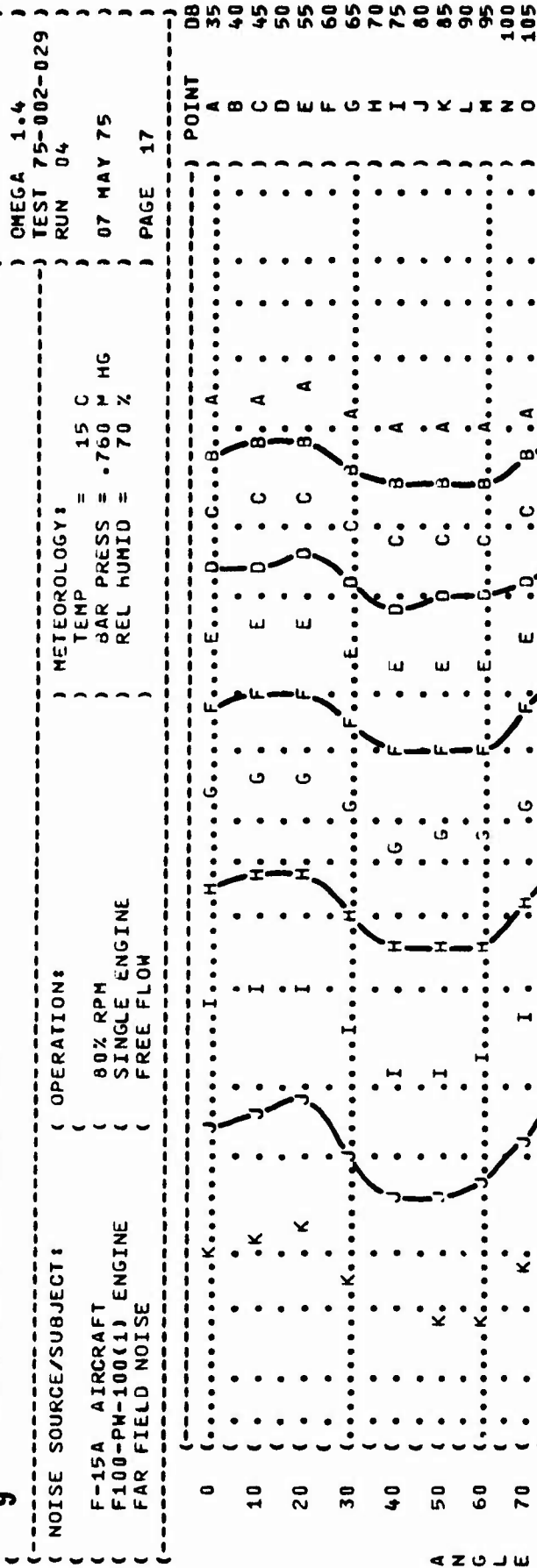


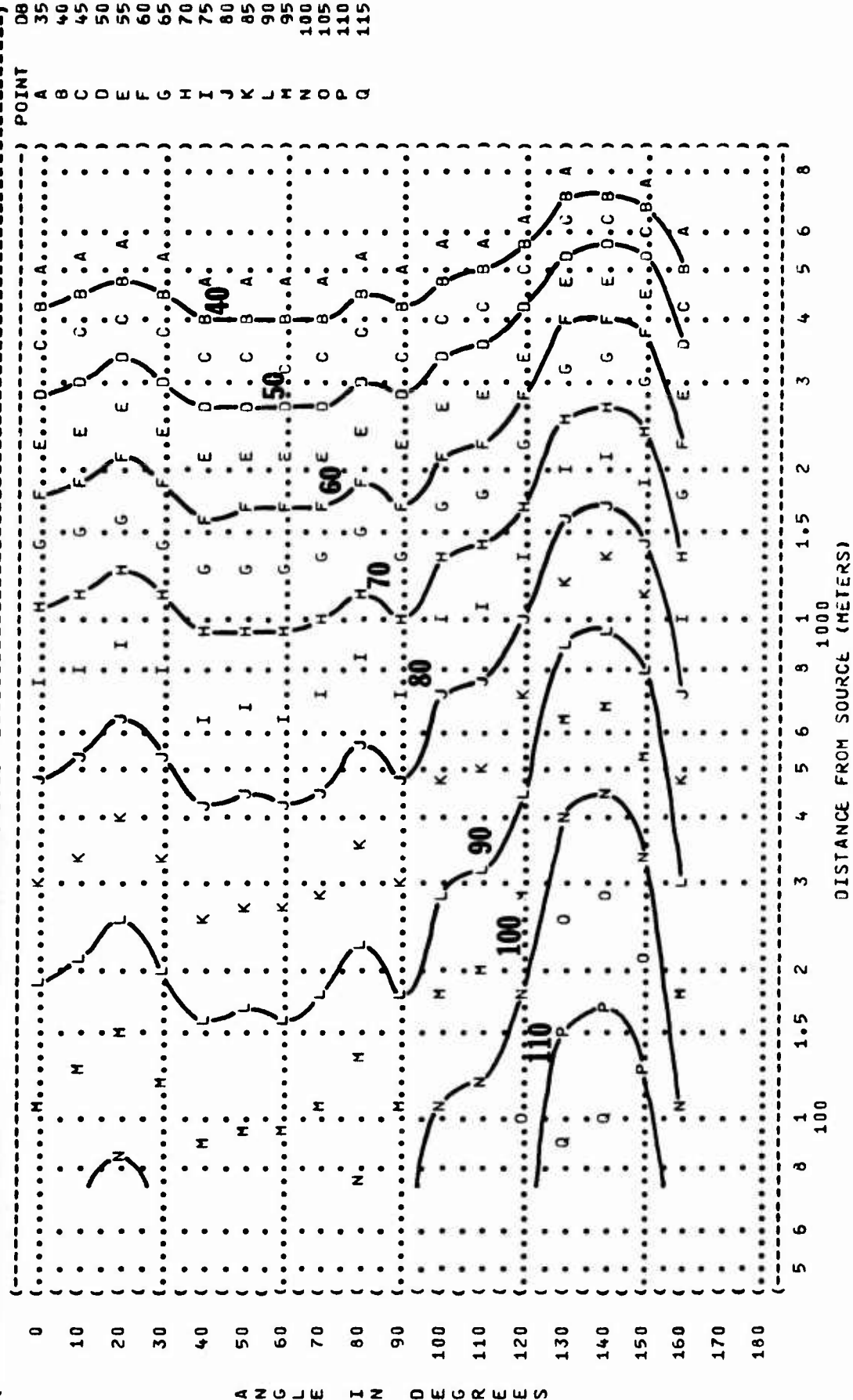
FIGURE 9: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)
EQUAL LEVEL CONTOURS (DB)



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

DISTANCE FROM SOURCE (METERS)

(FIGURE: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)
 (9 EQUAL LEVEL CONTOURS (DB)
 () IDENTIFICATION:
 () OMEGA 1.4
 () TEST 75-002-029
 () RUN 05
 () METEOROLOGY:
 () TEMP = 15 C
 () BAR PRESS = .760 M HG
 () REL HUMID = 70 %
 () OPERATION:
 () MILITARY POWER
 () 90% RPM
 () SINGLE ENGINE
 () FREE FLOW
 () NOISE SOURCE/SUBJECT:
 () F-15A AIRCRAFT
 () F100-PW-100(1) ENGINE
 () FAR FIELD NOISE
 () PAGE 17



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

DISTANCE FROM SOURCE (METERS)

FIGURE 8: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)
EQUAL LEVEL CONTOURS (DB)

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FIGURE:  PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)
           EQUAL LEVEL CONTOURS  (DB)
           9
-----
NOISE SOURCE/SUBJECT:  ( OPERATION:  ) METEOROLOGY:
F-15A AIRCRAFT          ( AFTERBURNER, ZONE 5      ) TEMP = 15 C
F100-PW-100(1) ENGINE  ( 90% RPM                  ) BAR PRESS = .760 M HG
FAR FIELD NOISE         ( SINGLE ENGINE            ) REL HUMID = 70 %
                                           ( FREE FLOW      )
) IDENTIFICATION:
)
) OMEGA 1.4
) TEST 75-002-02
) RUN 06
) 07 MAY 75
) PAGE 17

```

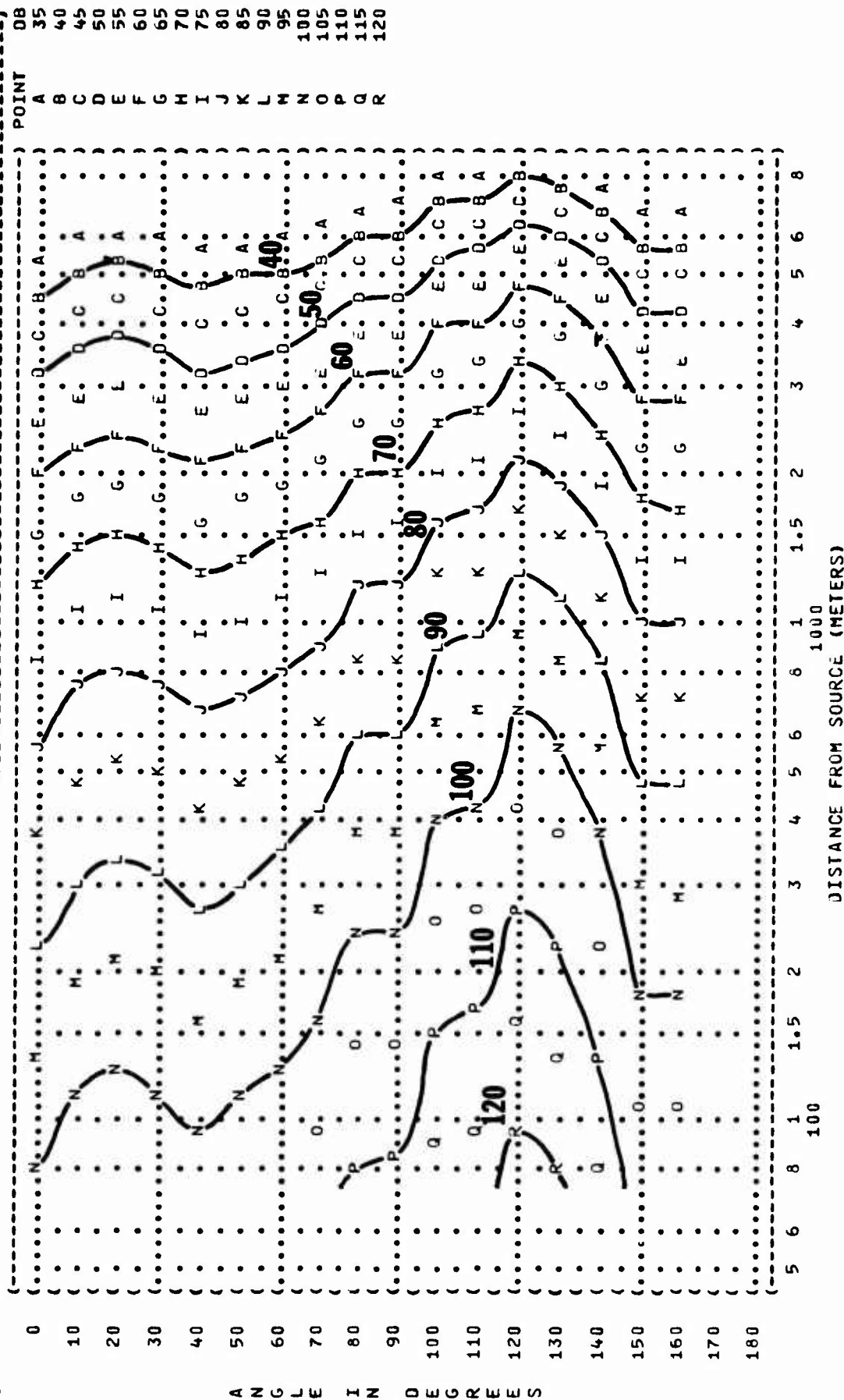


FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
 EQUAL TIME CONTOURS (MINUTES)

10

NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:)
 (((TEMP = 15 C)
 (F-15A AIRCRAFT (ENGINES OFF) BAR PRESS = .760 M HG)
 (F100-PW-100(1) ENGINE (JET FUEL STARKER ON) REL HUMID = 70 %)
 (FAR FIELD NOISE (FREE FLOW)))

IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-052
 RUN 01
 13 MAY 75
 PAGE 6

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

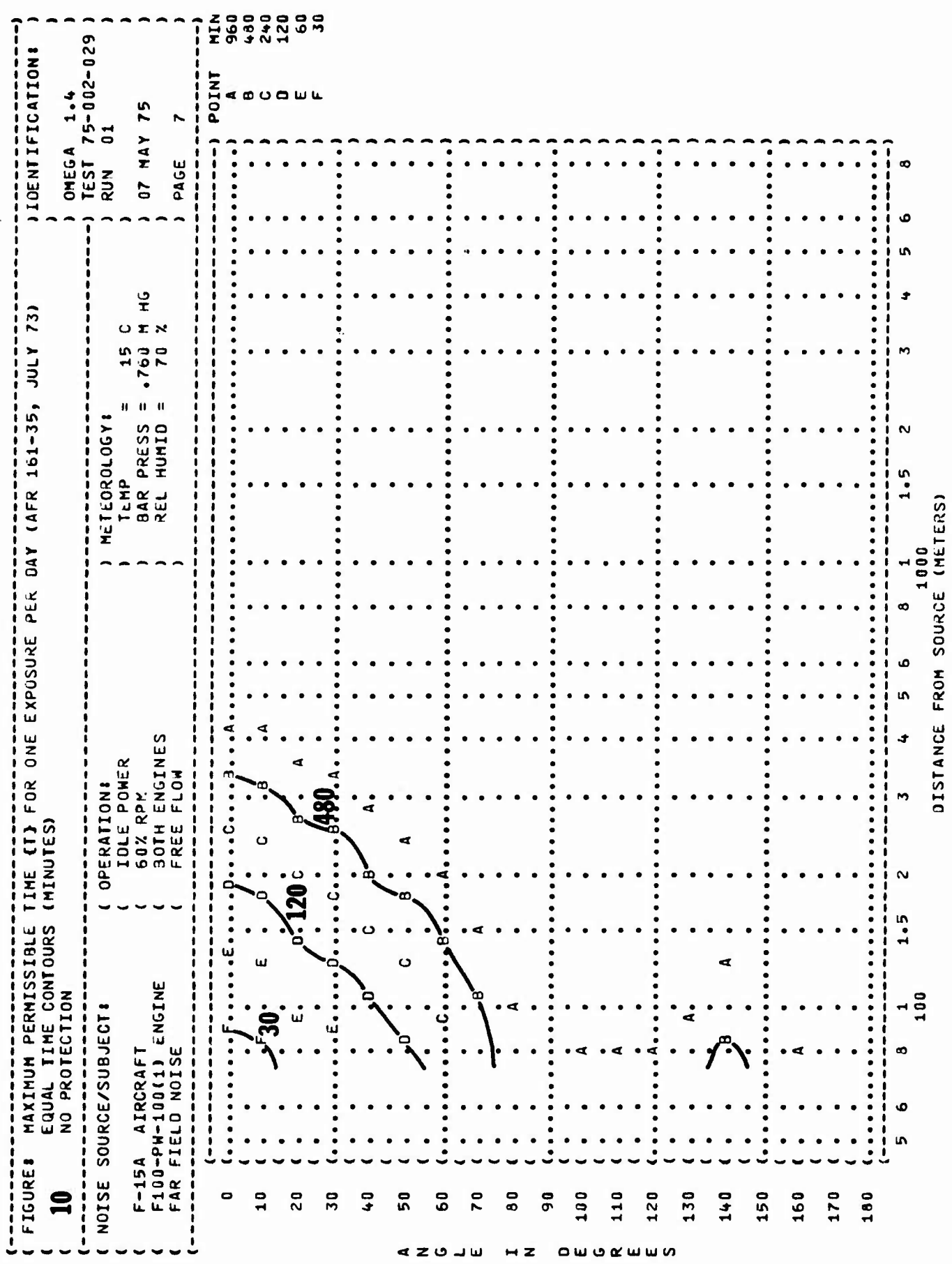
A
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S

PERSONNEL MAY BE EXPOSED UP TO 960 MINUTES PER DAY
 AT ALL DISTANCES FROM SOURCE EQUAL TO OR GREATER THAN 50 METERS
 FOR ALL ANGLES EVALUATED (INDICATED BY < AT LEFT)
 UNDER THE FOLLOWING EAR PROTECTION CONDITIONS:

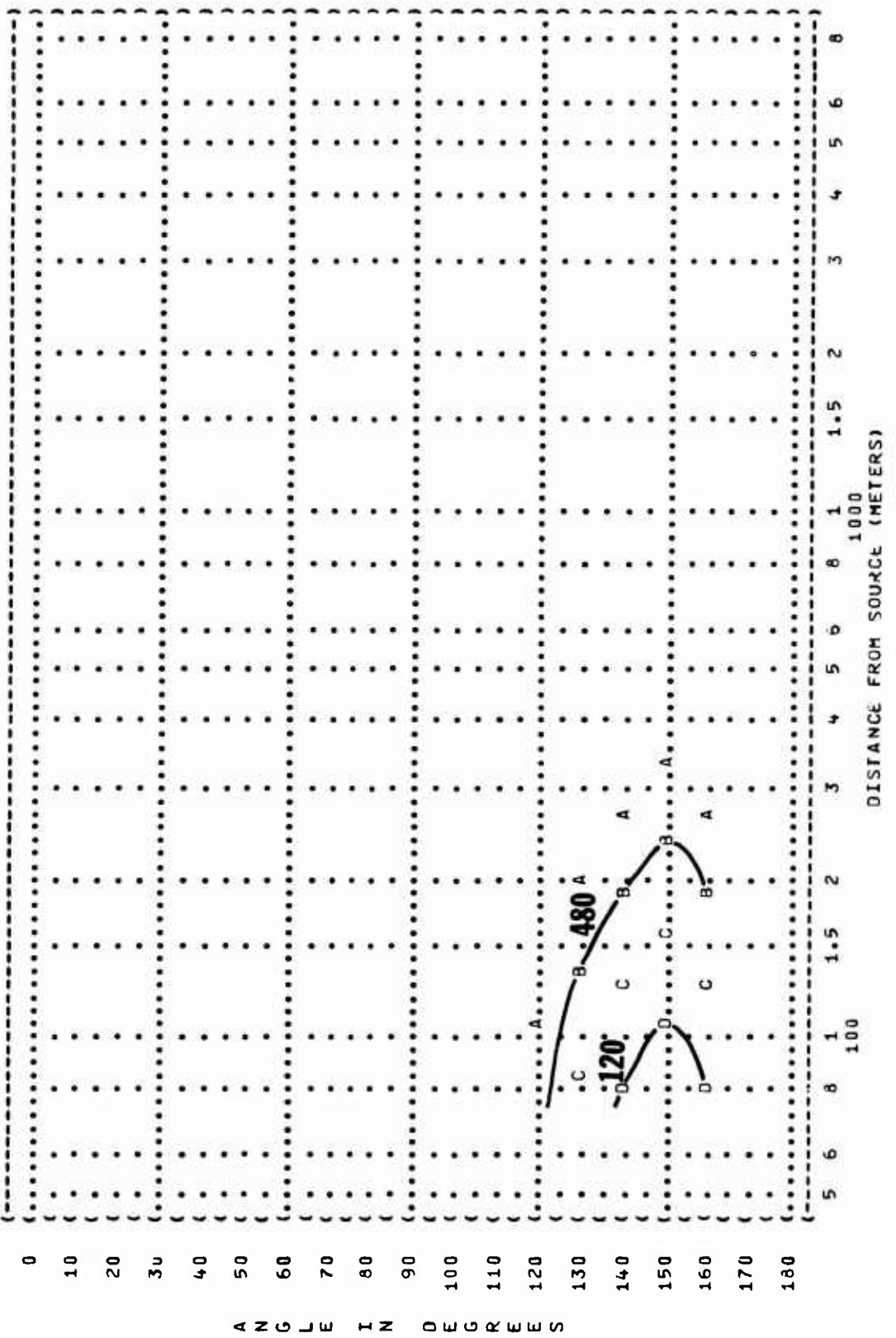
- MINIMUM QPL EAR MUFFS
- AMERICAN OPTICAL 1700 EAR MUFFS
- V-51R EAR PLUGS
- COMFIT TRIPLE FLANGE EAR PLUGS
- H-133 GROUND COMMUNICATION UNIT

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

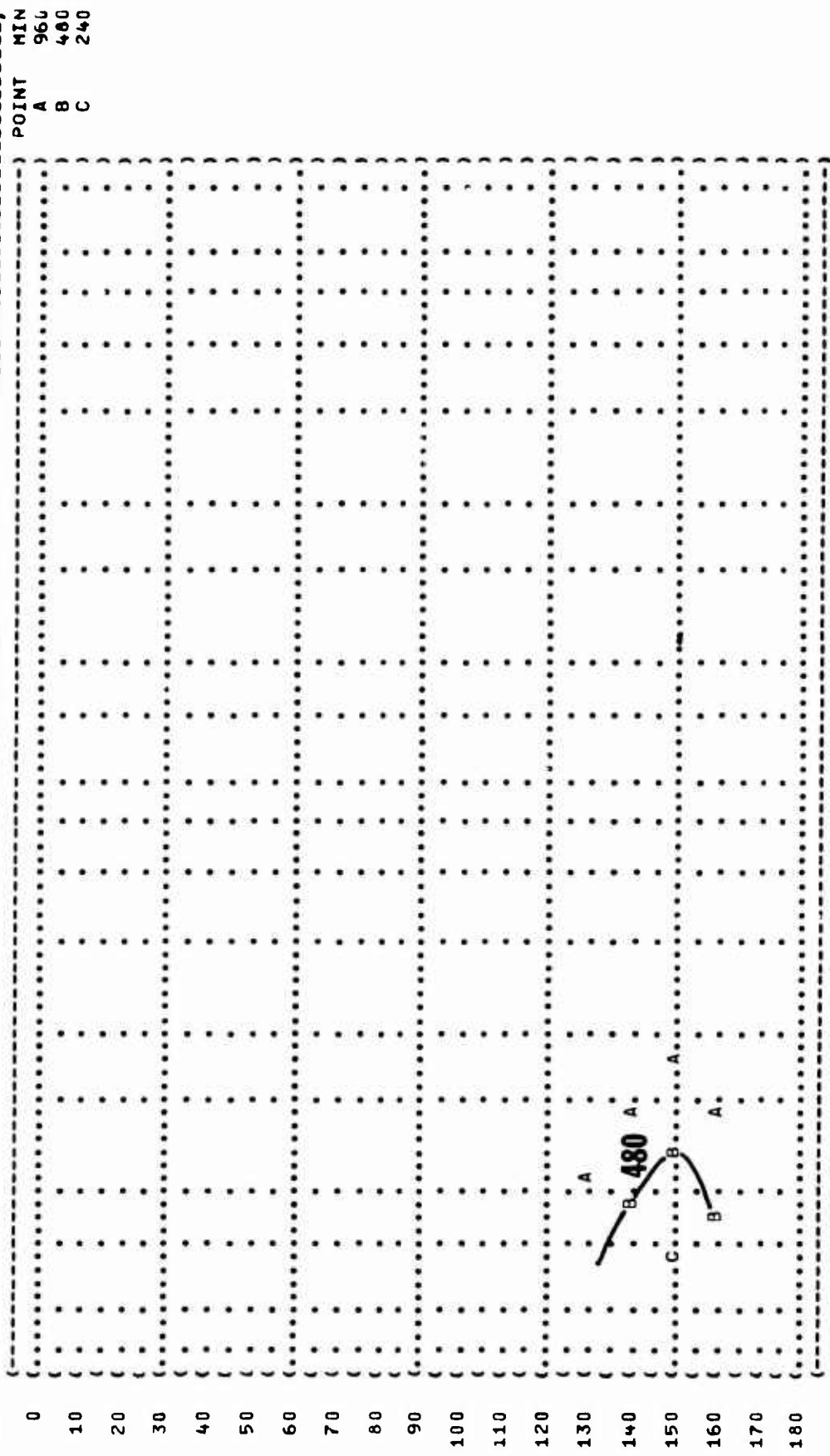


(FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)) IDENTIFICATION:)
 (EQUAL TIME CONTOURS (MINUTES)))
 (AMERICAN OPTICAL 17J0 EAR MUFFS))
 (NOISE SOURCE/SUBJECT:) OPERATION:) METEOROLOGY:)
 (F-15A AIRCRAFT) (80% RPM) TEMP = 15 C)
 (F100-PW-100(1) ENGINE) (BOTH ENGINES) BAR PRESS = .760 M HG)
 (FAR FIELD NOISE) (FREE FLOW) REL HUMID = 70 %)
 () () 07 MAY 75)
 () () PAGE 9)

POINT MIN
 A 960
 B 480
 C 240
 D 120



(FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 1b1-35, JULY 73)) IDENTIFICATION:)
 (10 EQUAL TIME CONTOURS (MINUTES)))
 (H-133 GROUND COMMUNICATION UNIT))
 (NOISE SOURCE/SUBJECT:) OPERATION:) METEOROLOGY:)
 (F-15A AIRCRAFT) (80% RPM) TEMP = 15 C)
 (F100-PW-100(1) ENGINE) (BOTH ENGINES) BAK PRESS = .760 M HG)
 (FAR FIELD NOISE) (FREE FLOW) REL HUMID = 70 %)
 () () RUN 02)
 () () 07 MAY 75)
 () () PAGE 12)



POINT MIN
 A 960
 B 480
 C 240

DISTANCE FROM SOURCE (METERS)

A N G L E I N 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)

NO PROTECTION

NOISE SOURCE/SUBJECT:)

OPERATION:)

MILITARY POWER)

90% RPM)

90TH ENGINES)

FREE FLOW)

METEOROLOGY:)

TEMP = 15 C)

BAR PRESS = .760 M HG)

REL HUMID = 70 %)

F-15A AIRCRAFT)

F100-PW-100(1) ENGINE)

FAR FIELD NOISE)

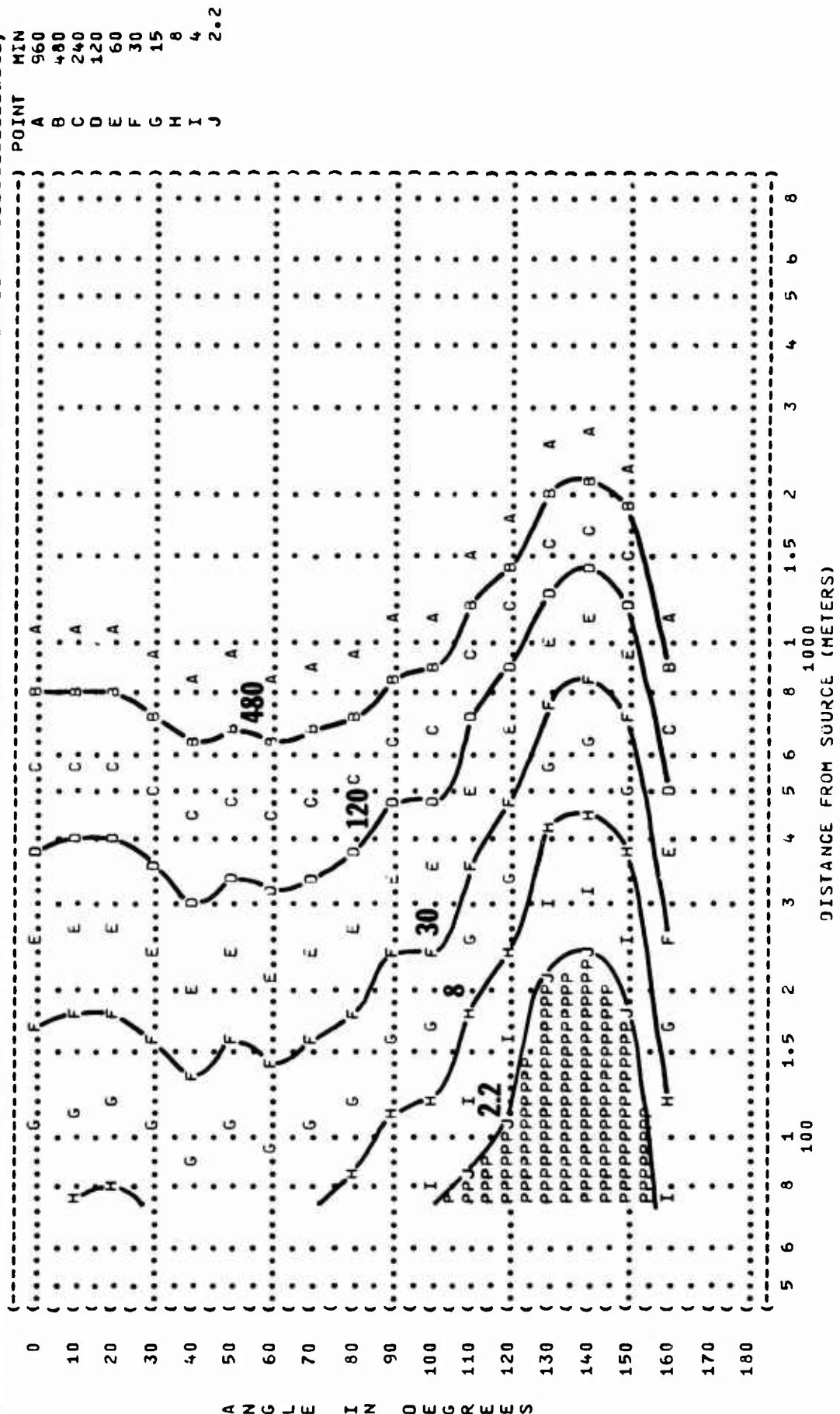
OMEGA 1.4)

TEST 75-002-029)

RUN 03)

07 MAY 75)

PAGE 7)



P ADDITIONAL EAR PROTECTION REQUIRED.

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

10 EQUAL TIME CONTOURS (MINUTES)

MINIMUM QPL EAR MUFFS

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

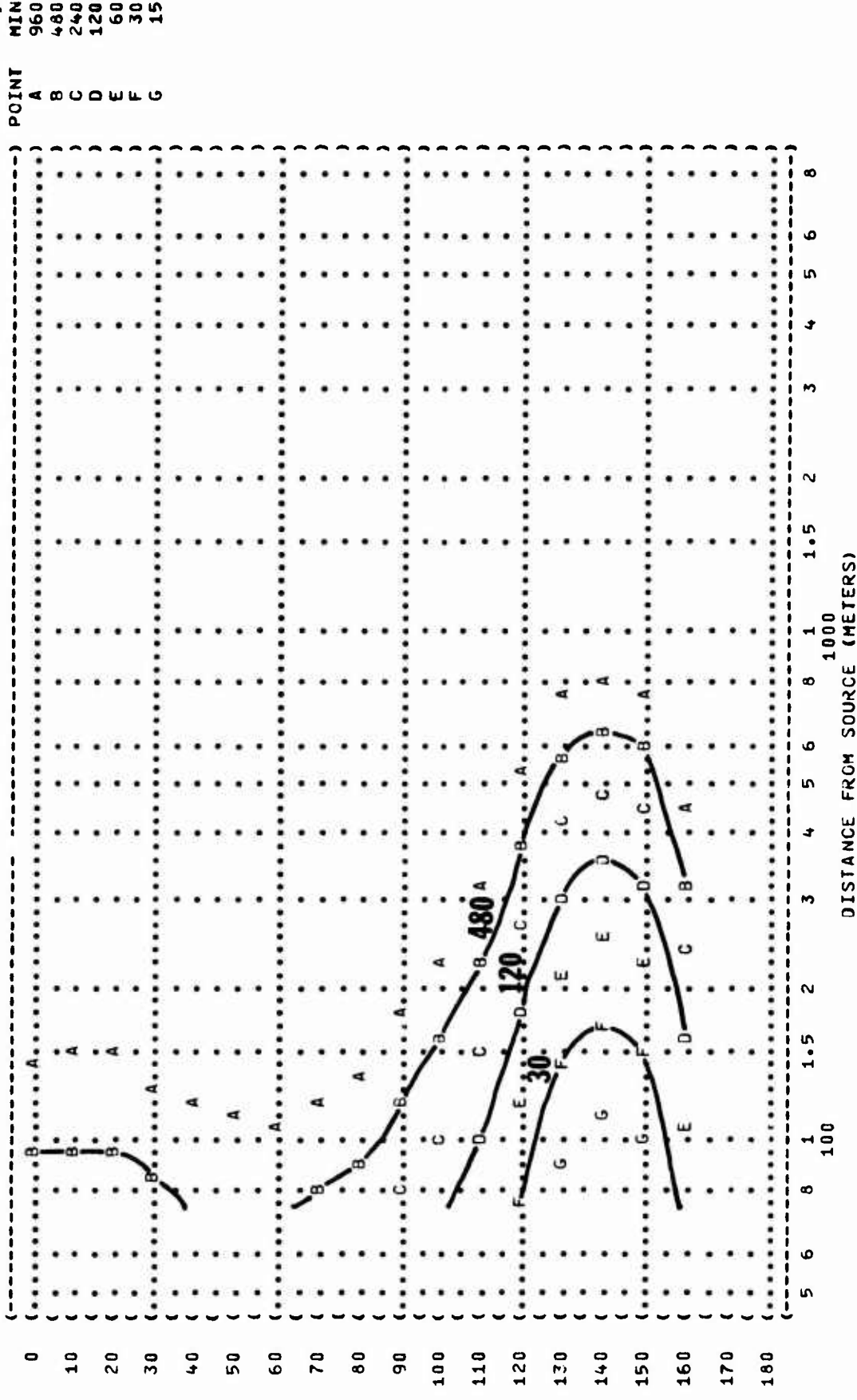
(F-15A AIRCRAFT (MILITARY POWER)) OMEGA 1.4

(F100-PW-100(1) ENGINE (90% RPM)) TEST 75-002-029

(FAR FIELD NOISE (BOTH ENGINES)) RUN 03

((FREE FLOW)) 07 MAY 75

(()) PAGE 8



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

POINT MIN

A 960

B 480

C 240

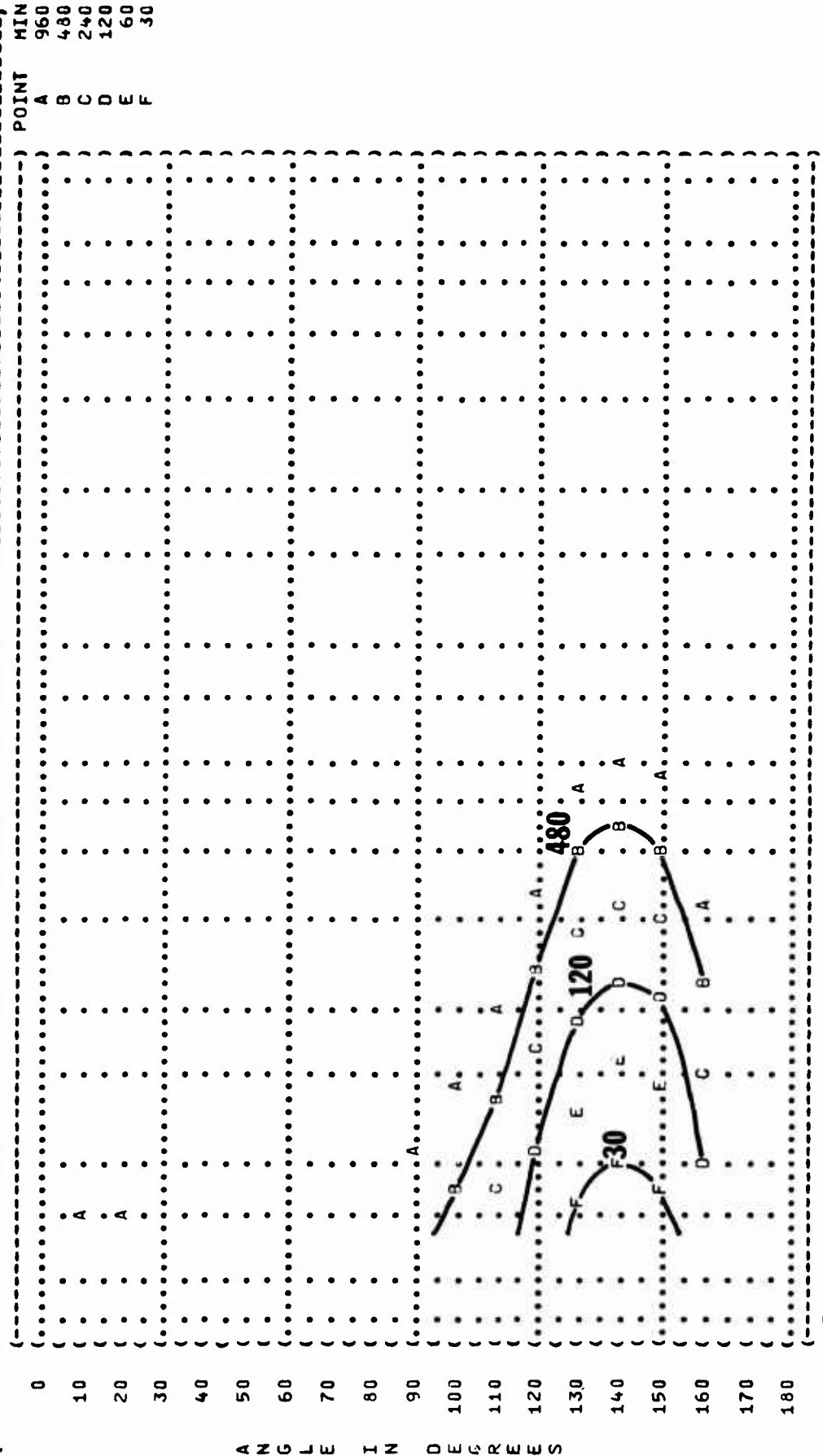
D 120

E 60

F 30

G 15

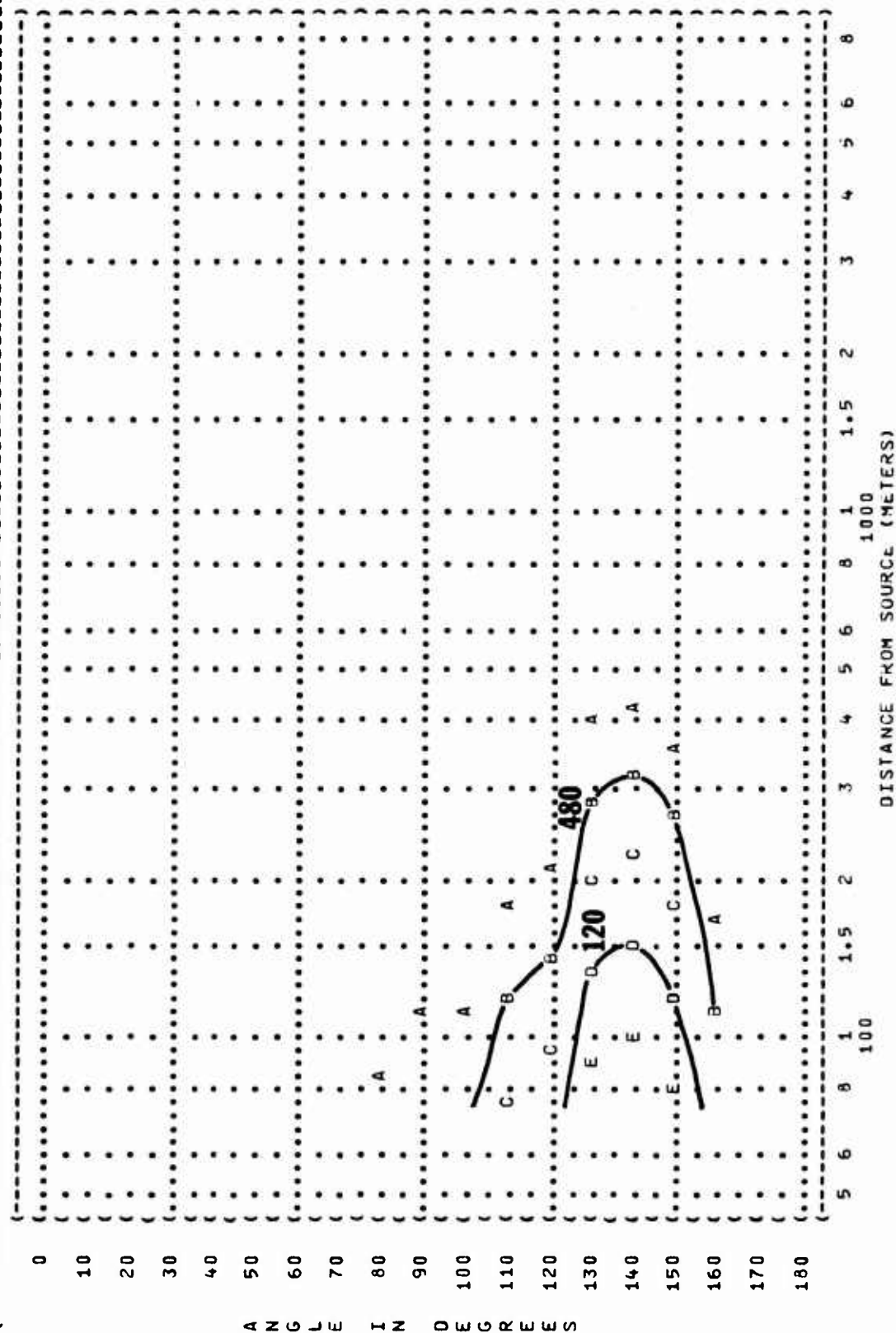
(FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)) IDENTIFICATION:)
 (EQUAL TIME CONTOURS (MINUTES)))
 (10 AMERICAN OPTICAL 1700 EAR MUFFS))
 (NOISE SOURCE/SUBJECT:))
 (F-15A AIRCRAFT))
 (F100-PW-100(1) ENGINE))
 (FAR FIELD NOISE))
 (OPERATION:))
 (MILITARY POWER))
 (90% RPM))
 (BOTH ENGINES))
 (FREE FLOW))
 (METEOROLOGY:))
 (TEMP = 15 C))
 (BAR PRESS = .760 M HG))
 (REL HUMID = 70 %))
 (07 MAY 75))
 (PAGE 9))
 (TEST 75-002-029))
 (RUN 03))
 (OMEGA 1.4))



ANGLE IN DEGREES

DISTANCE FROM SOURCE (METERS)

FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)	IDENTIFICATION:
EQUAL TIME CONTOURS (MINUTES)	
H-133 GROUND COMMUNICATION UNIT	OMEGA 1.4
	TEST 75-002-029
	RUN 03
NOISE SOURCE/SUBJECT:	METEOROLOGY:
(MILITARY POWER	TEMP = 15 C
(90% RPM	BAR PRESS = .760 M HG
(30TH ENGINES	REL HUMID = 70 %
(FREE FLOW	
F-15A AIRCRAFT	
F100-PW-100(1) ENGINE	07 MAY 75
FAR FIELD NOISE	PAGE 12
	POINT
0	A 960
10	B 480
	C 240
	D 120
20	E 60



103

(FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)) IDENTIFICATION:)
 (EQUAL TIME CONTOURS (MINUTES)))
 (**10** H-133 GROUND COMMUNICATION UNIT))
 (NOISE SOURCE/SUBJECT:) OPERATION:) METEOROLOGY:)
 (F-15A AIRCRAFT) (80% RPM) TEMP = 15 C)
 (F100-PW-100(1) ENGINE) (SINGLE ENGINE) BAR PRESS = .760 M HG)
 (FAR FIELD NOISE) (FREE FLOW) REL HUMID = 70 %)
 () ()) 07 MAY 75)
 () ()) PAGE 12)
 () ()))

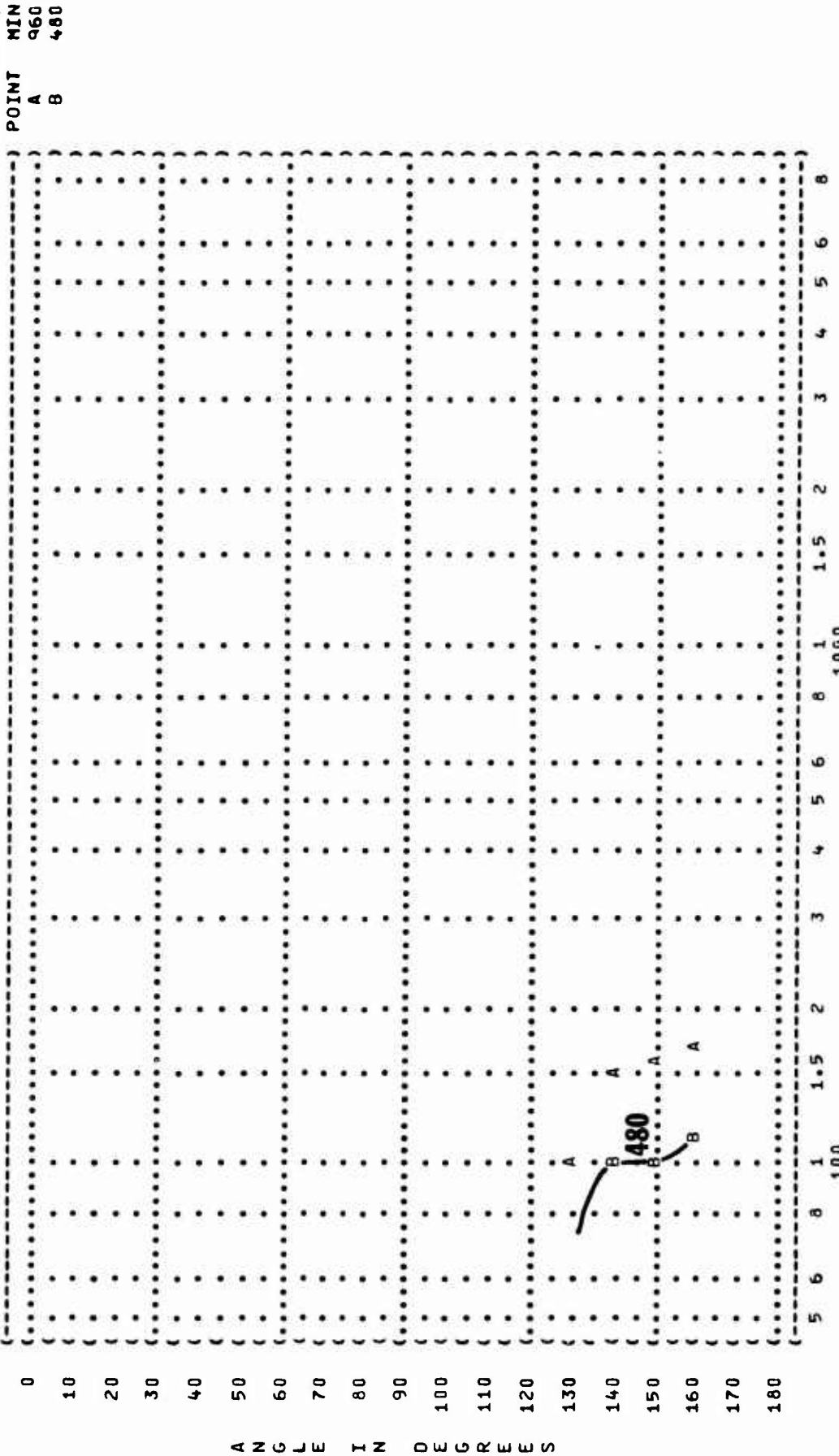


FIGURE 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

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

10 EQUAL TIME CONTOURS (MINUTES)

H-133 GROUND COMMUNICATION UNIT

NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY: (TEMP = 15 C) OMEGA 1.4
 (F-15A AIRCRAFT (MILITARY POWER)) TEST 75-002-029
 (F100-PW-100(1) ENGINE (90% RPM)) RUN 05
 (FAR FIELD NOISE (SINGLE ENGINE)) 07 MAY 75
 (FREE FLOW)) PAGE 12

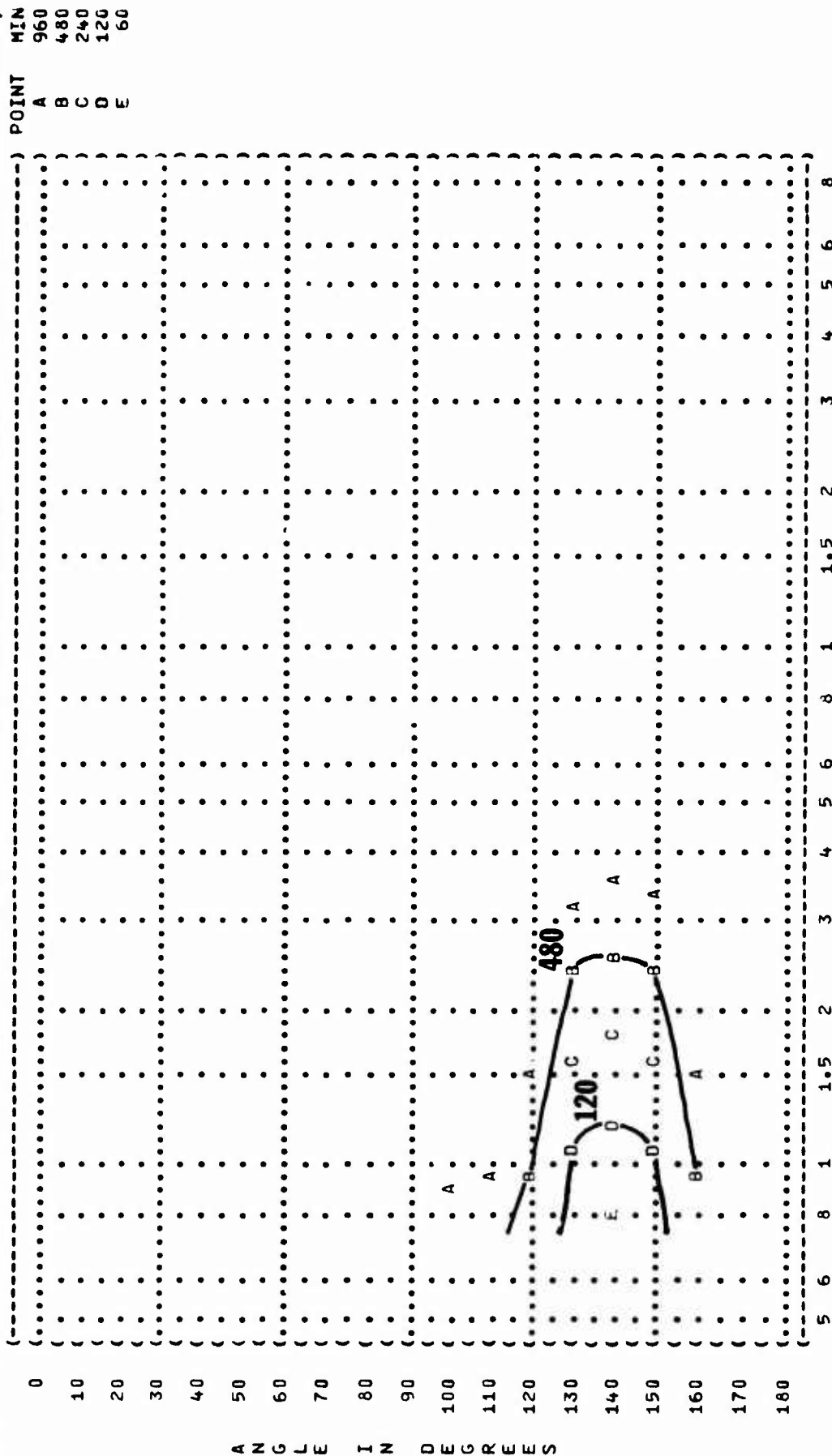


FIGURE 1. MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)

10 EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

10

NO PROTECTION

DISSEMINATION SOURCE/SUBJECT:

(OPERATION:

((AFTERBURNER, ZONE 5

F-15A AIRCRAFT

F100-PW-100(1) ENGINE

FAR FIELD NOISE

1) METEOROLOGY:

TEMP

1) BAR PRESS = .760 H HG

) REL HUMID = 70 %

(FREE FLOW

OMEGA 1.4

TEST 75-002-029

RUN 06

07 MAY 7

	MIN										POINT
0	(.	(.	G.	F.	C.	D.	C.	B.	A.	A.	A
10	(.	H.	G.	F.	E.	D.	C.	B.	A.	.	B
20	(.	H.	G.	F.	E.	D.	C.	B.	A.	.	C
30	(.	H.	G.	F.	E.	D.	C.	B.	A.	.	D
40	(.	H.	G.	F.	E.	D.	C.	B.	A.	.	E
	(.	H.	G.	F.	E.	D.	C.	B.	A.	.	F
	(.	H.	G.	F.	E.	D.	C.	B.	A.	.	G
	(.	H.	G.	F.	E.	D.	C.	B.	A.	.	H
	(.	H.	G.	F.	E.	D.	C.	B.	A.	.	I
	(.	H.	G.	F.	E.	D.	C.	B.	A.	.	J

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



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

IDENTIFICATION:

10 EQUAL TIME CONTOURS (MINUTES)

V-51R EAR PLUGS

NOISE SOURCE/SUBJECT:

OPERATION:

AFTERBURNER, ZONE 5

90% RPM

SINGLE ENGINE

FREE FLOW

METEOROLOGY:

TEMP = 15 C

BAR PRESS = .760 H HG

REL HUMID = 70 %

F-15A AIRCRAFT

F100-PW-100(1) ENGINE

FAR FIELD NOISE

OMEGA 1.4

TEST 75-002-029

RUN 06

07 MAY 75

PAGE 10

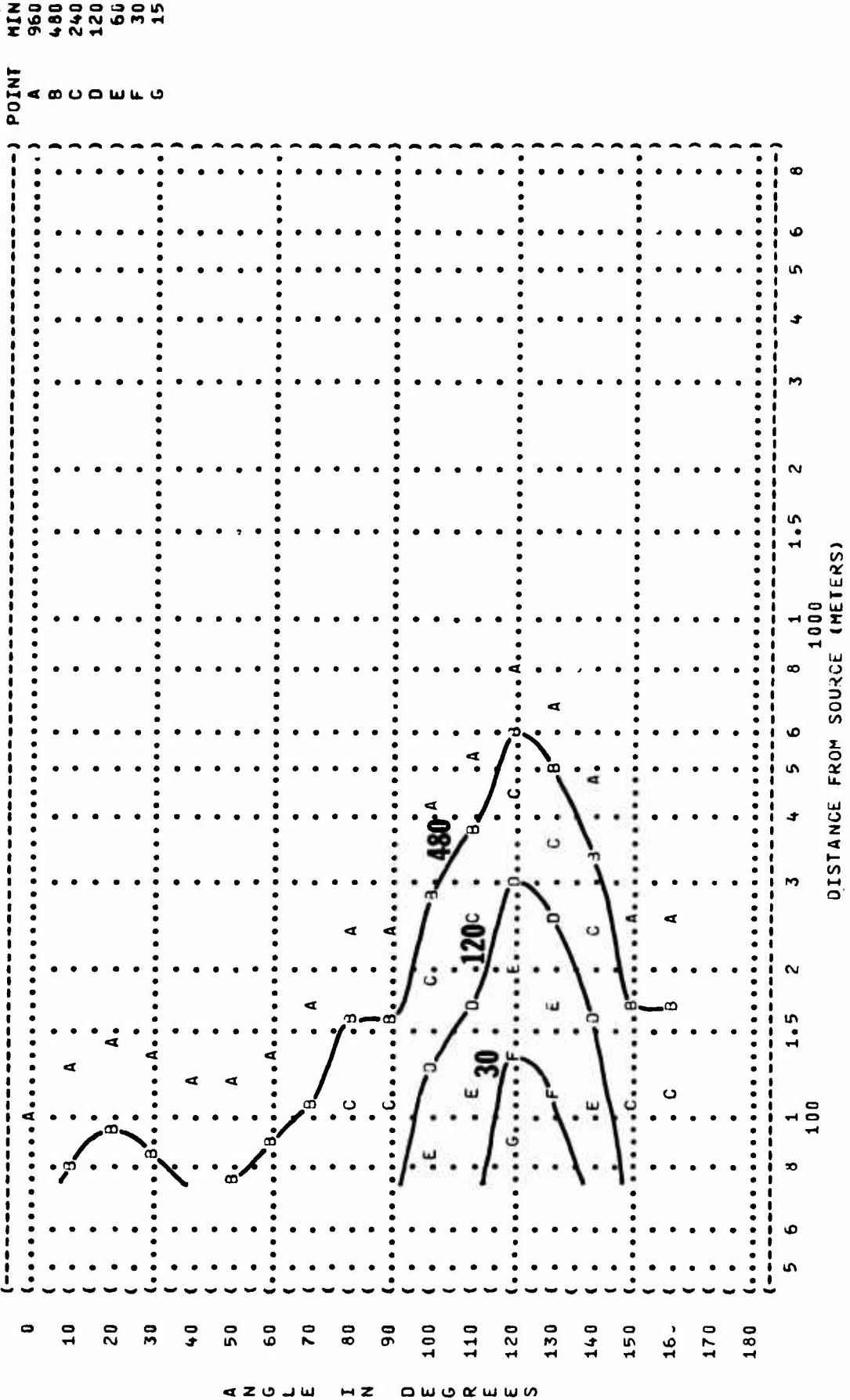
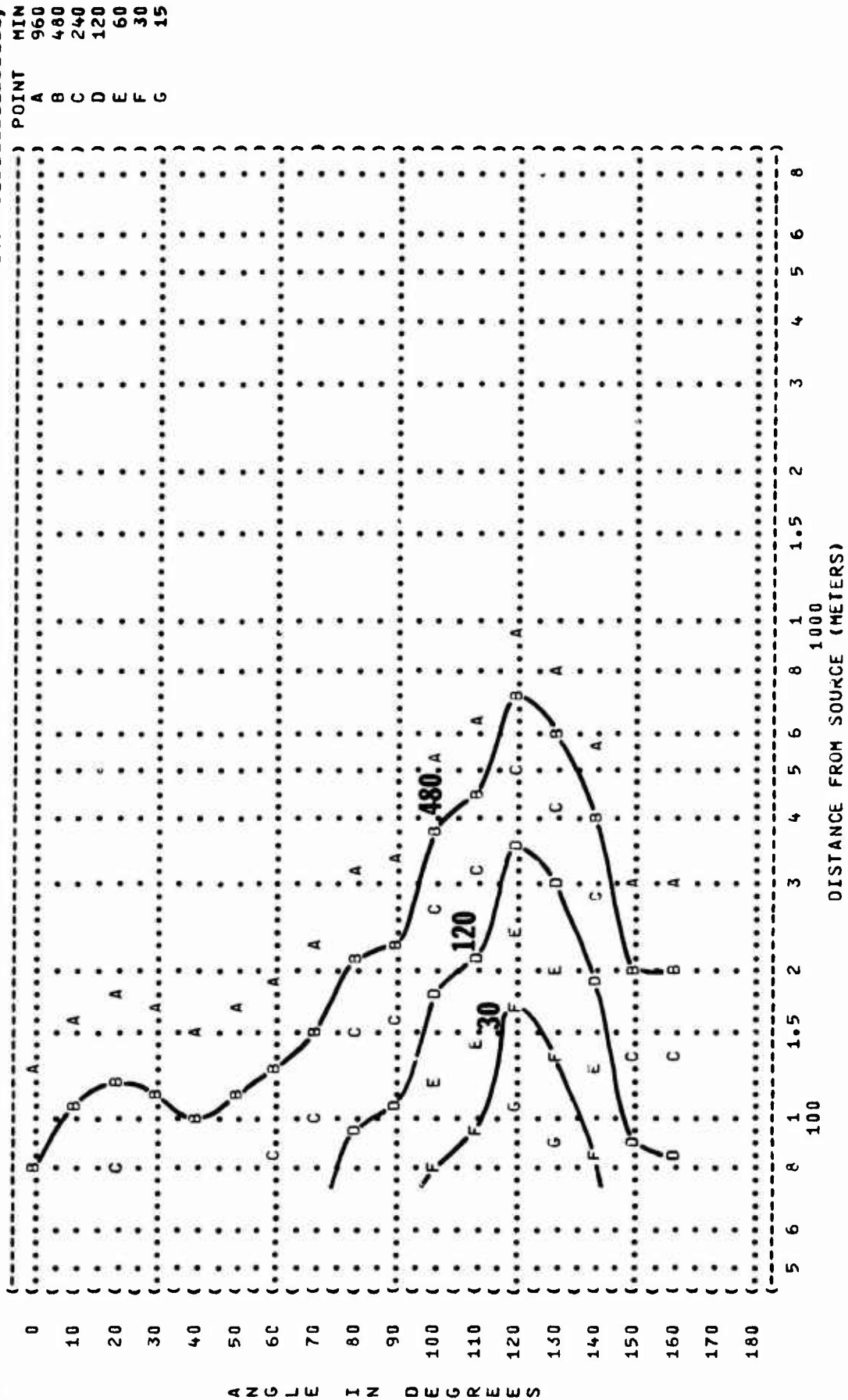


FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
10
COMFIT TRIPLE FLANGE EAR PLUGS
IDENTIFICATION:)
OMEGA 1.4)

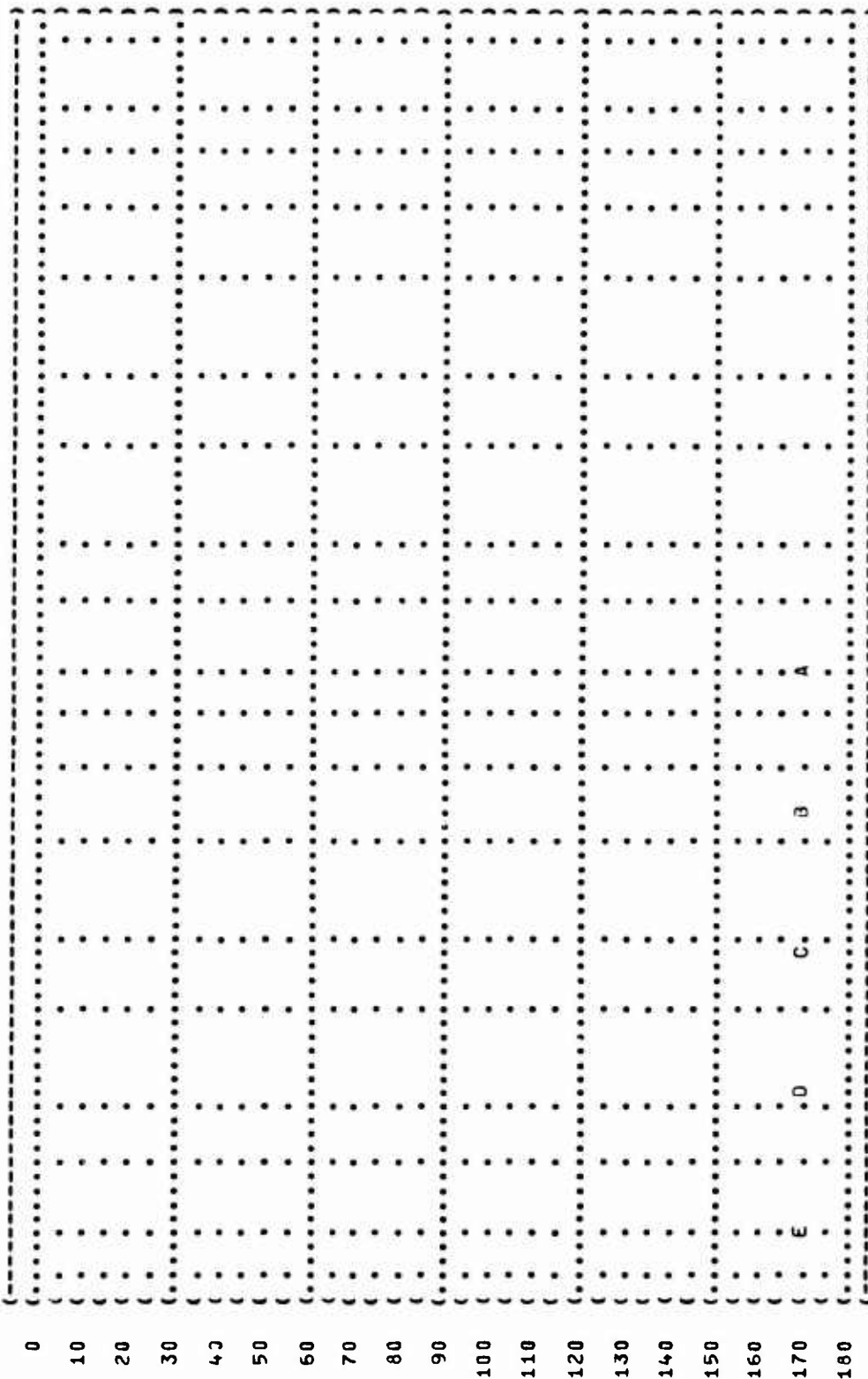
NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:	TEST:
F-15A AIRCRAFT	AFTERBURNER, ZONE 5	TEMP = 15 C	75-002-029
F100-PW-100(1) ENGINE	90% RPM	BAR PRESS = .760 M HG	RUN 06
FAR FIELD NOISE	SINGLE ENGINE	REL HUMID = 70 %	07 MAY 75
	FREE FLOW		PAGE 11



(FIGURE: SOUND PRESSURE LEVEL (SPL))
 (EQUAL LEVEL CONTOURS (DB))
 (11 31.5 HZ OCTAVE BAND)
 (NOISE SOURCE/SUBJECT:)
 (F-15A AIRCRAFT)
 (F100-PW-100(1) ENGINE)
 (FAR FIELD NOISE)
 (OPERATION:)
 (ENGINES OFF)
 (JET FUEL STARTER ON)
 (FREE FLOW)
 (METEOROLOGY:)
 (TEMP = 15 C)
 (BAR PRESS = .760 M HG)
 (REL HUMID = 70 %)
 (IDENTIFICATION:)
 (OMEGA 1.4)
 (TEST 75-002-052)
 (RUN 01)
 (13 MAY 75)
 (PAGE 16)

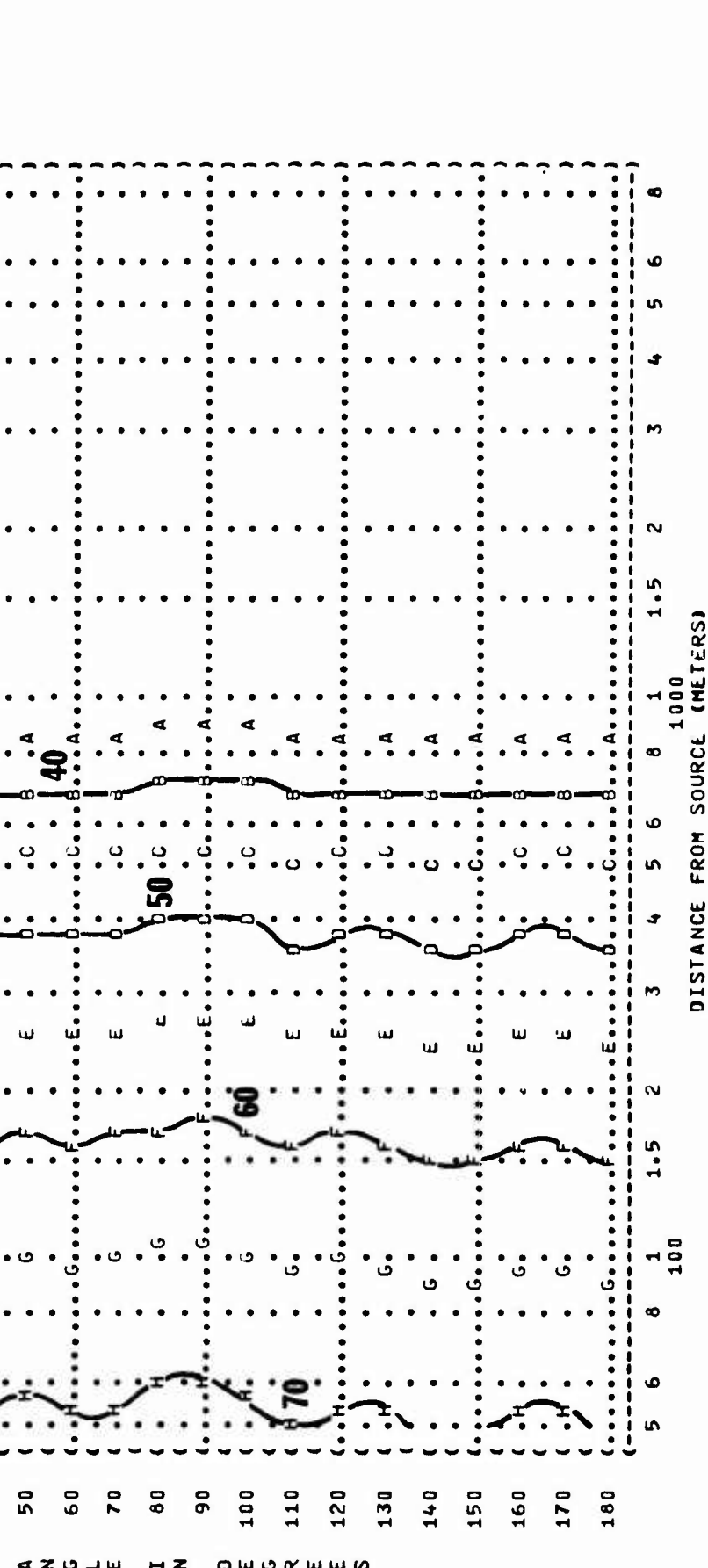
POINT DB
 A 35
 B 40
 C 45
 D 50
 E 55

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



DISTANCE FROM SOURCE (METERS)

((FIGURE: SOUND PRESSURE LEVEL (SPL)) IDENTIFICATION:)
 ((11 EQUAL LEVEL CONTOURS (DB)))
 ((125 HZ OCTAVE BAND))
 ((NOISE SOURCE/SUBJECT:))
 ((F-15A AIRCRAFT))
 ((F100-PW-100(1) ENGINE))
 ((FAR FIELD NOISE))
 ((OPERATION:))
 ((ENGINES OFF))
 ((JET FUEL STARTER ON))
 ((FREE FLOW))
 ((METEOROLOGY:))
 ((TEMP = 15 C))
 ((BAR PRESS = .760 M HG))
 ((REL HUMID = 70 %))
 ((OMEGA 1.4))
 ((TEST 75-002-052))
 ((RUN 01))
 ((13 MAY 75))
 ((PAGE 18))



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

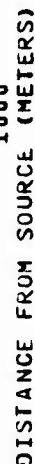
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(F-15A AIRCRAFT
(F100-PW-100(1) ENGINE
(FAR FIELD NOISE

(OPERATION:
(ENGINES OFF
(JET FUEL STARTER ON
(FREE FLOW

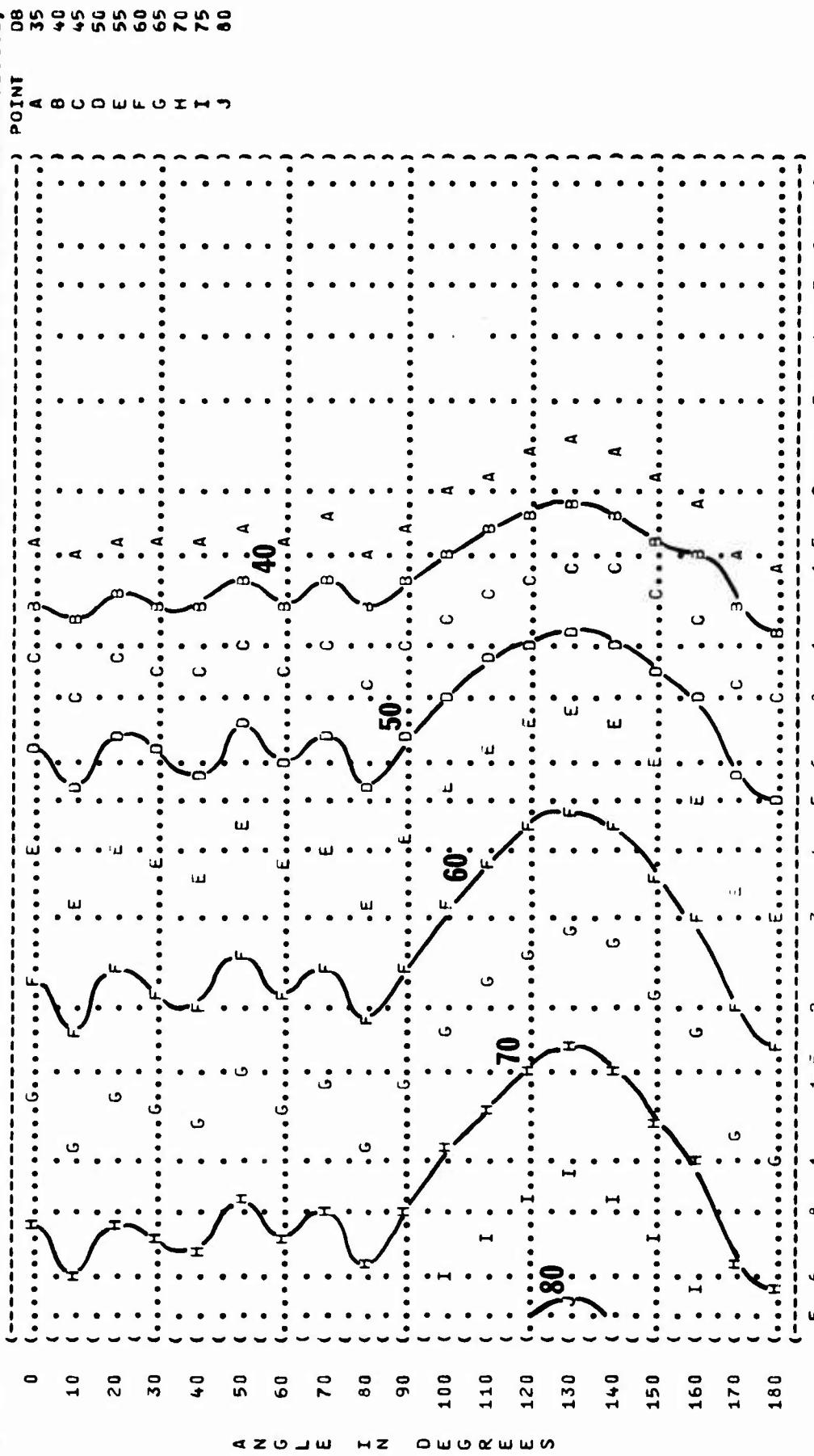
(METEOROLOGY:
(TEMP = 15 C
(BAR PRESS = .760 M HG
(REL HUMID = 70 %

(IDENTIFICATION:
(OMEGA 1.4
(TEST 75-002-052
(RUN 01
(13 MAY 75
(PAGE 19

(NOISE SOURCE/SUBJECT:	(OPERATION:	(METEOROLOGY:	(TEST 75-002-092
(F-15A AIRCRAFT	(	(TEMP = 15 C	(RUN 01
(F100-PW-100(1) ENGINE	(ENGINES OFF	(BAR PRESS = .760 M HG	(13 MAY 75
(FAR FIELD NOISE	(JET FUEL STARTER ON	(REL HUMID = 70 %	(
(	(FREE FLOW	(	(PAGE 19

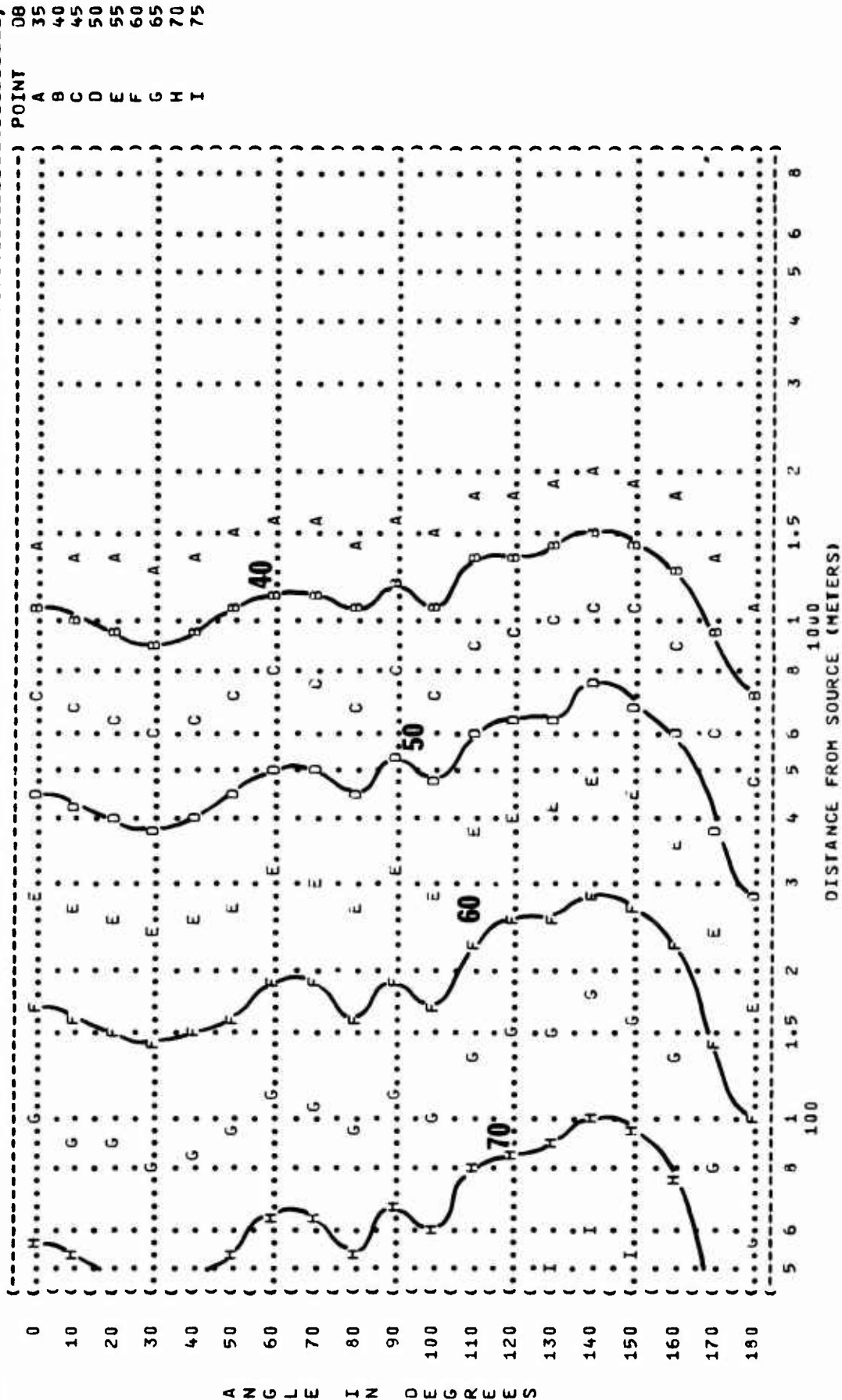


(FIGURE: SOUND PRESSURE LEVEL {SPL}
 (EQUAL LEVEL CONTOURS (DB)
 (11 500 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (ENGINES OFF
 (F100-PW-100(1) ENGINE (JET FUEL STARTER ON
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-052
 (RUN 01
 (13 MAY 75
 (PAGE 20



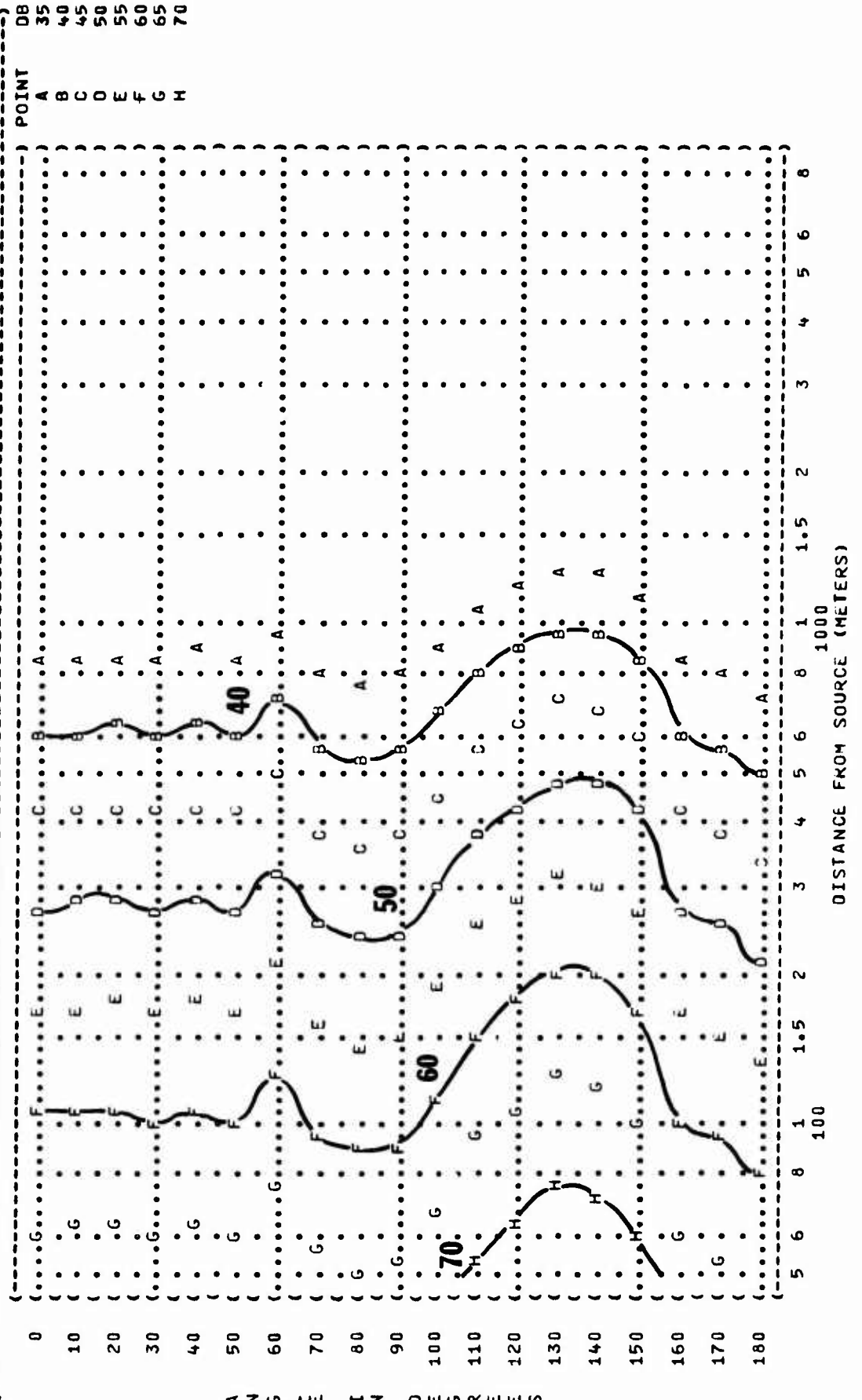
ANGLING DEGREE S

(FIGURE: SOUND PRESSURE LEVEL {SPL}
 (EQUAL LEVEL CONTOURS (DB)
 (**11** 1000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (ENGINES OFF
 (F100-PM-100(1) ENGINE (JET FUEL STARTER ON
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-052
 (RUN 01
 (13 MAY 75
 (PAGE 21

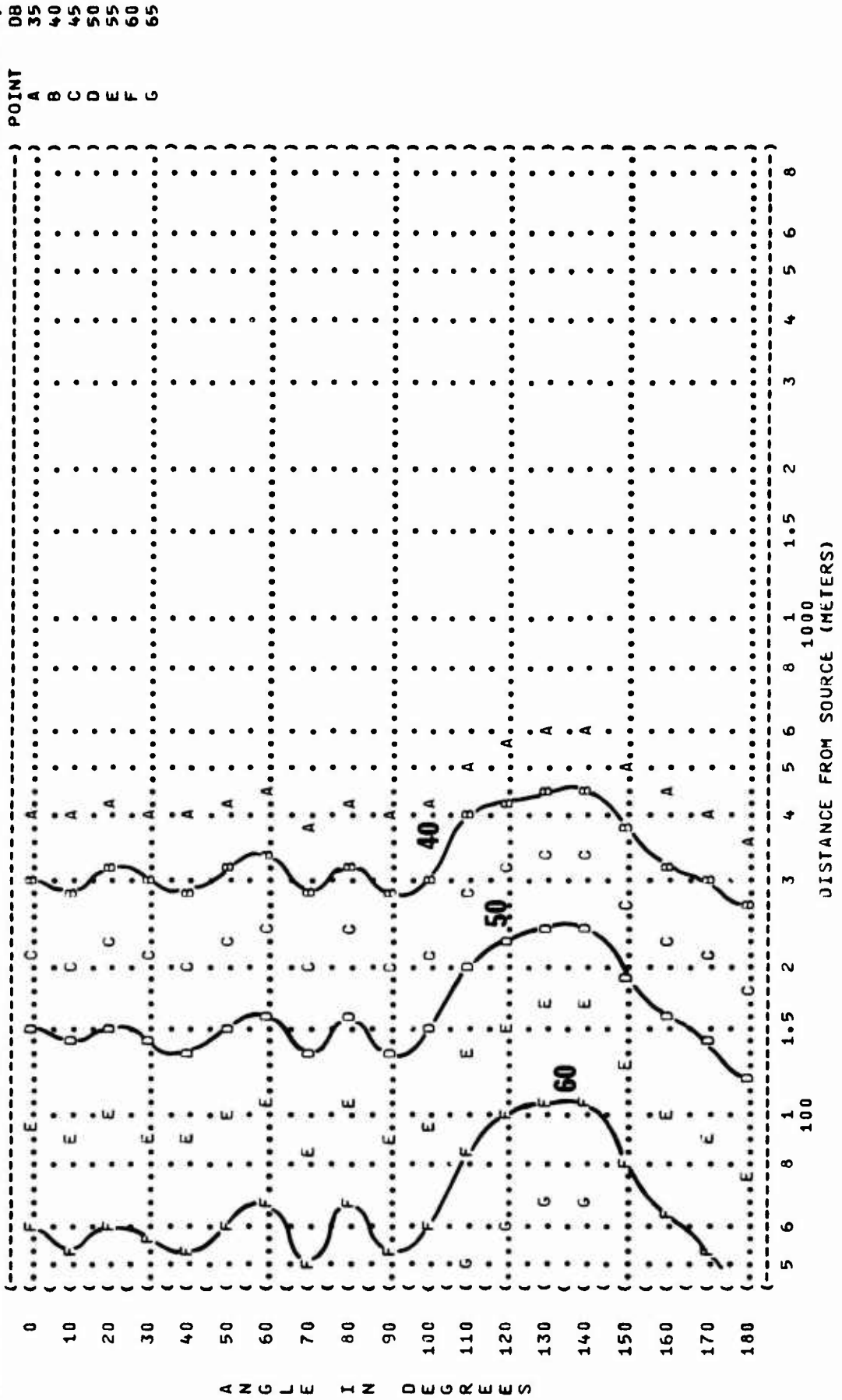


A N G L E I N D E G R E E S

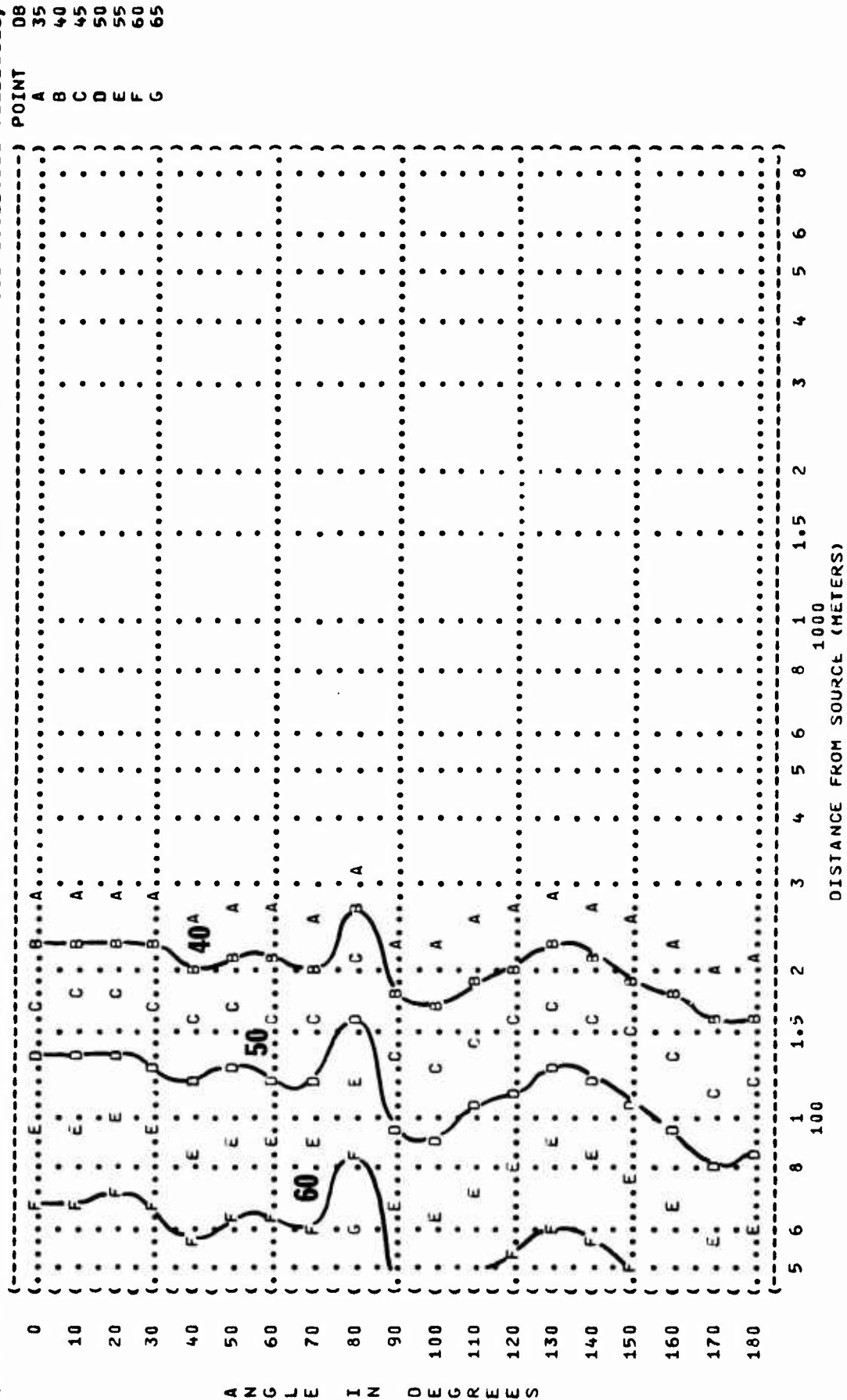
(FIGURE: SOUND PRESSURE LEVEL (SPL))
 (EQUAL LEVEL CONTOURS (DB))
 (11 2000 HZ OCTAVE BAND)
 (NOISE SOURCE/SUBJECT:)
 (F-15A AIRCRAFT)
 (F100-PW-100(1) ENGINE)
 (FAR FIELD NOISE)
 (OPERATION:)
 (ENGINES OFF)
 (JET FUEL STARTER ON)
 (FREE FLOW)
 (METEOROLOGY:)
 (TEMP = 15 C)
 (BAR PRESS = .760 M HG)
 (REL HUMID = 70 %)
 (IDENTIFICATION:)
 (OMEGA 1.4)
 (TEST 75-002-052)
 (RUN 01)
 (13 MAY 75)
 (PAGE 22)



(FIGURE: SOUND PRESSURE LEVEL (SPL))
 (11 EQUAL LEVEL CONTOURS (DB))
 (4000 HZ OCTAVE BAND)
 (NOISE SOURCE/SUBJECT:)
 (F-15A AIRCRAFT)
 (F100-PW-100(1) ENGINE)
 (FAR FIELD NOISE)
 (OPERATION:)
 (ENGINES OFF)
 (JET FUEL STARKER ON)
 (FREE FLOW)
 (METEOROLOGY:)
 (TEMP = 15 C)
 (BAR PRESS = .760 M HG)
 (REL HUMID = 70 %)
 (IDENTIFICATION:)
 (OMEGA 1.4)
 (TEST 75-002-052)
 (RUN 01)
 (13 MAY 75)
 (PAGE 23)

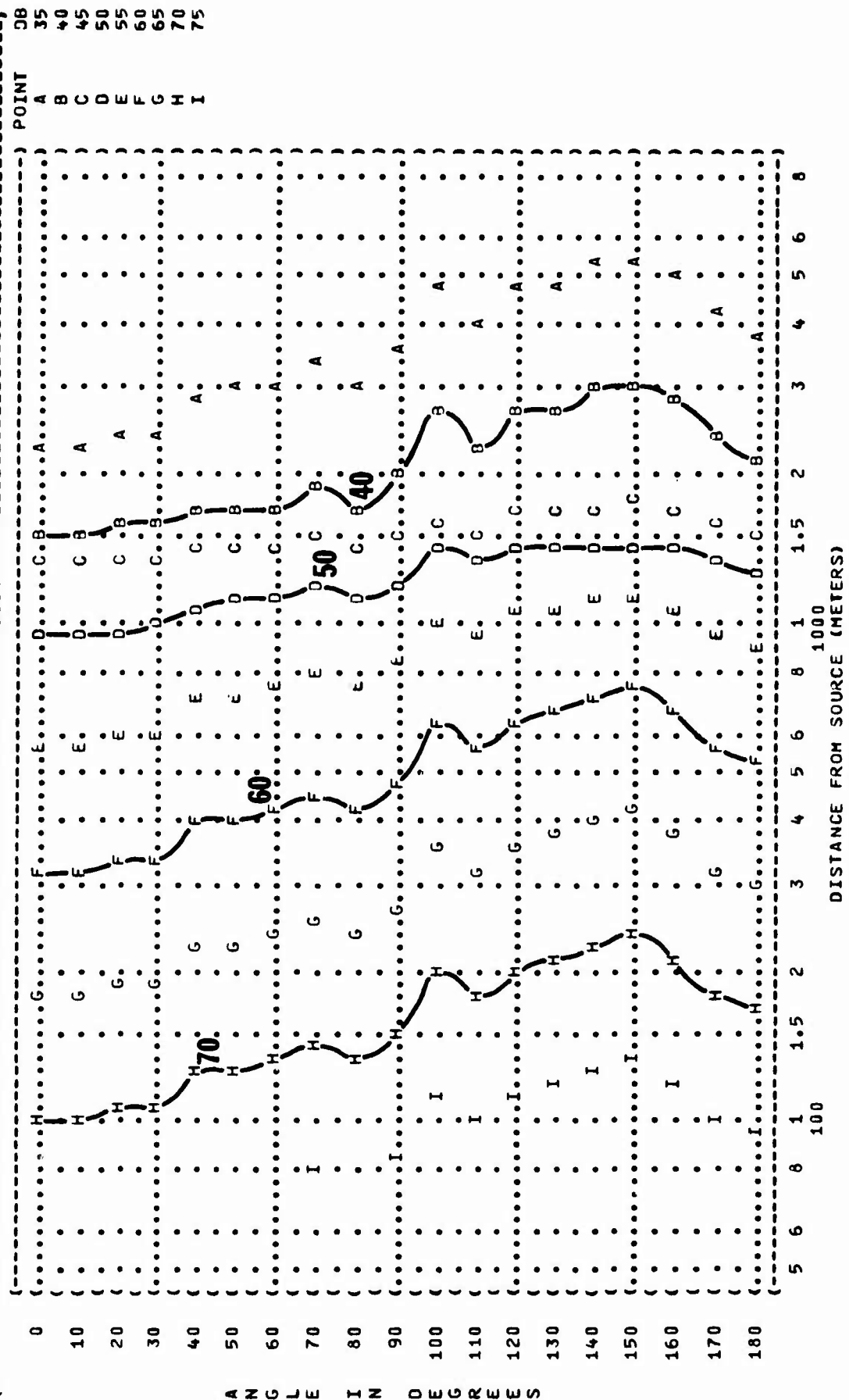


(FIGURE: SOUND PRESSURE LEVEL (SPL))
 (EQUAL LEVEL CONTOURS (DB))
 (11 8000 HZ OCTAVE BAND)
 (NOISE SOURCE/SUBJECT:)
 (OPERATION:)
 (F-15A AIRCRAFT)
 (F100-PH-100(1) ENGINE)
 (FAR FIELD NOISE)
 (METEOROLOGY:)
 (TEMP = 15 C)
 (BAR PRESS = .760 H HG)
 (REL HUMID = 70 %)
 (IDENTIFICATION:)
 (OMEGA 1.4)
 (TEST 75-002-052)
 (RUN 01)
 (13 MAY 75)
 (PAGE 24)

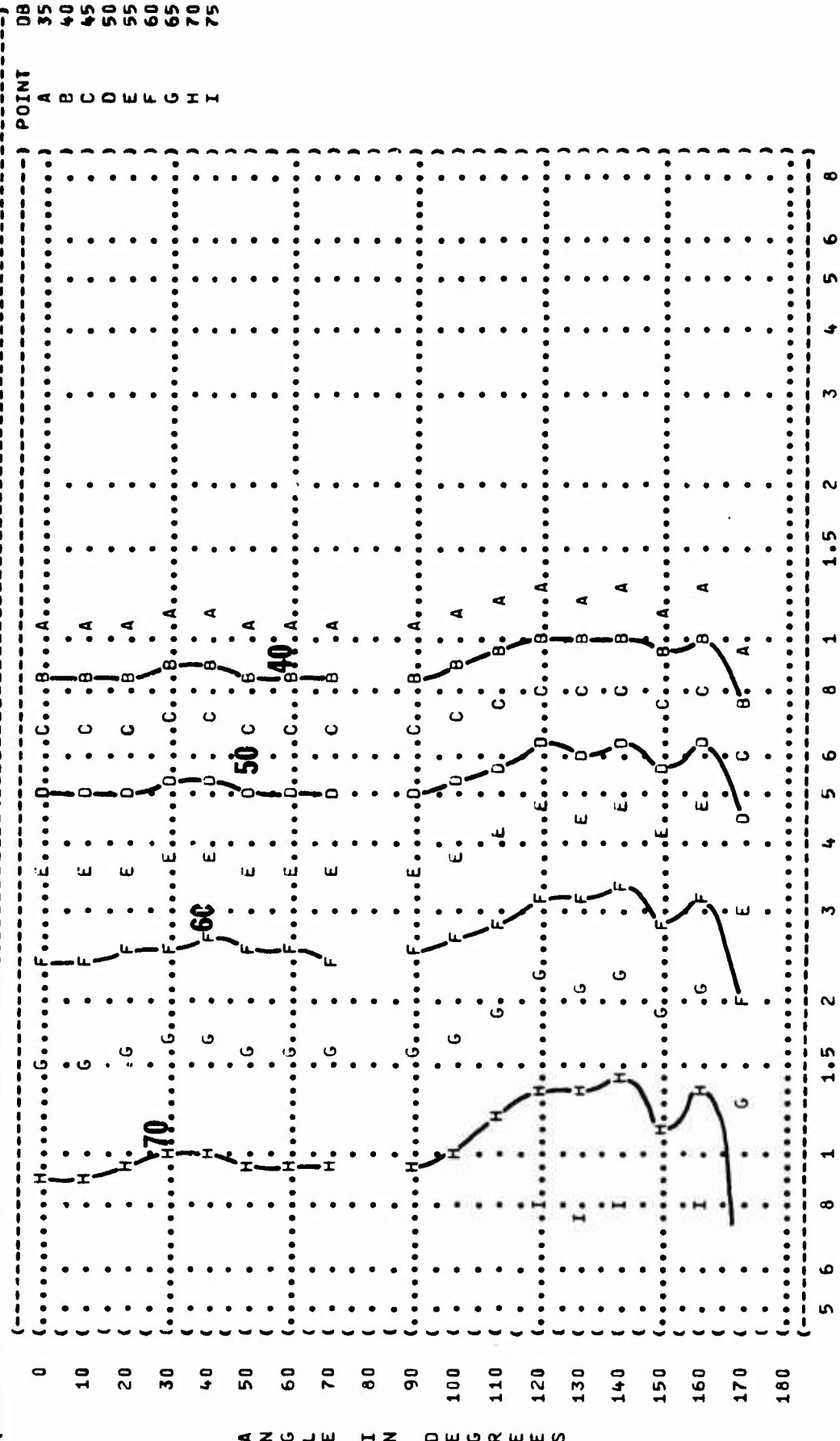


A N G L E I N D E C R E E S

(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (EQUAL LEVEL CONTOURS (DB)
 (11 31.5 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPEKATION:
 (F-15A AIRCRAFT (IDLE POWER
 (F100-PH-100(1) ENGINE (60% RPM
 (FAR FIELD NOISE (BOTH ENGINES
 ((FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 01
 (07 MAY 75
 (PAGE 18

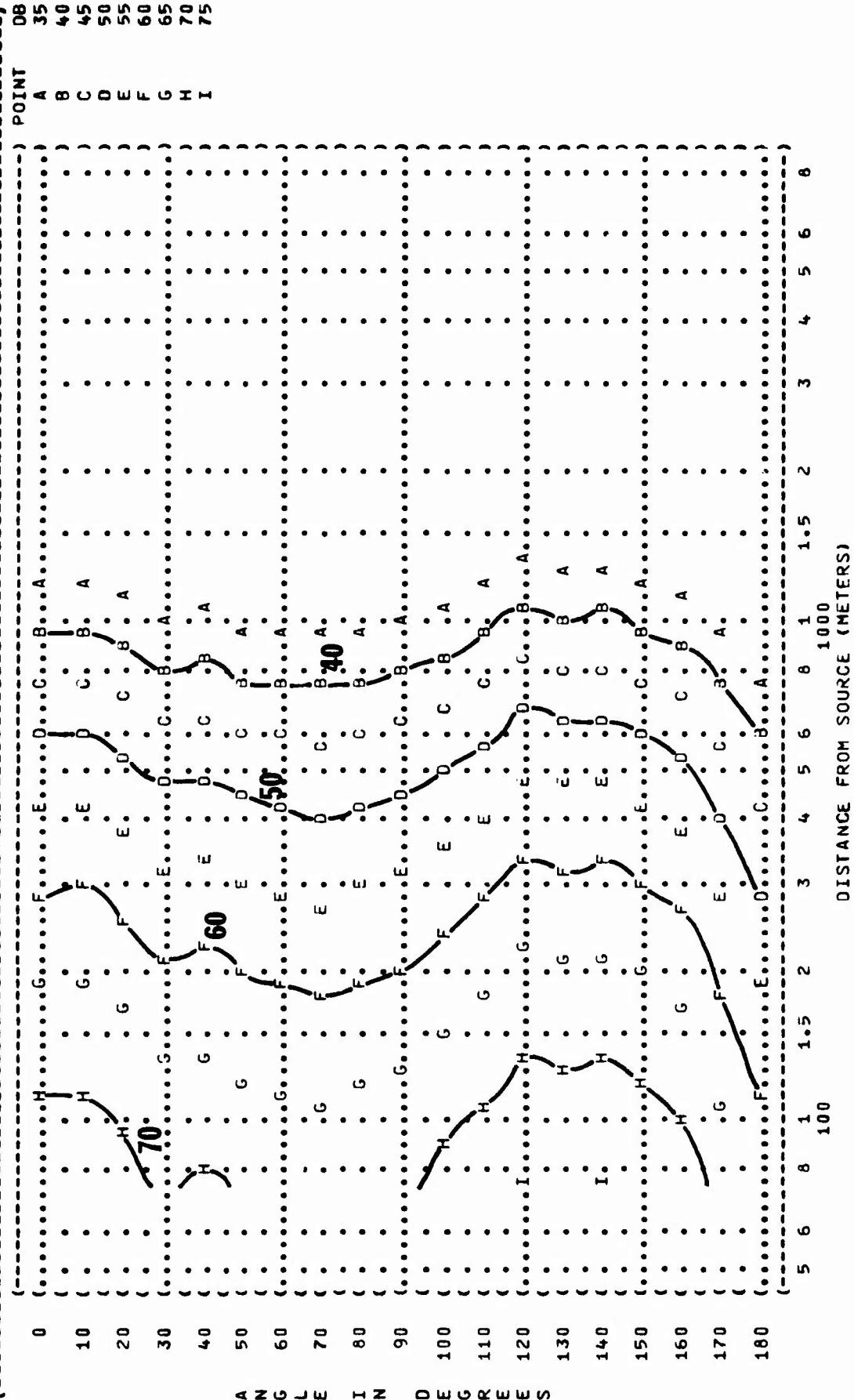


(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (EQUAL LEVEL CONTOURS (DB)
 (11 125 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (IDLE POWER
 (F100-PW-100(1) ENGINE (60% RPM
 (FAR FIELD NOISE (BOTH ENGINES
 ((FREE FLOW
 (METEOROLOGY: (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION: (OMEGA 1.4
 (TEST 75-002-029 (RUN 01
 (07 MAY 75
 (PAGE 20

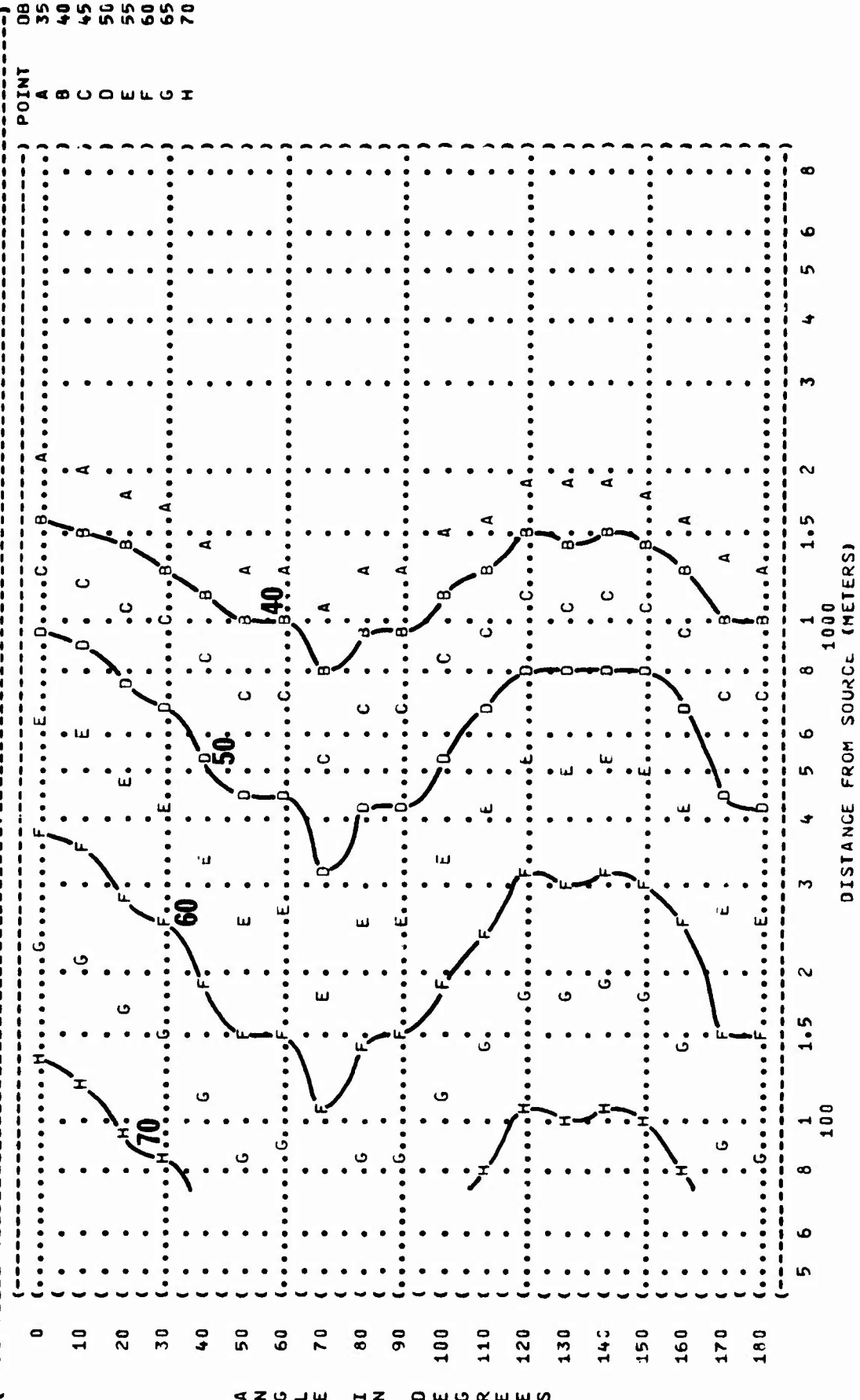


A N G L E I N D E G R E E S

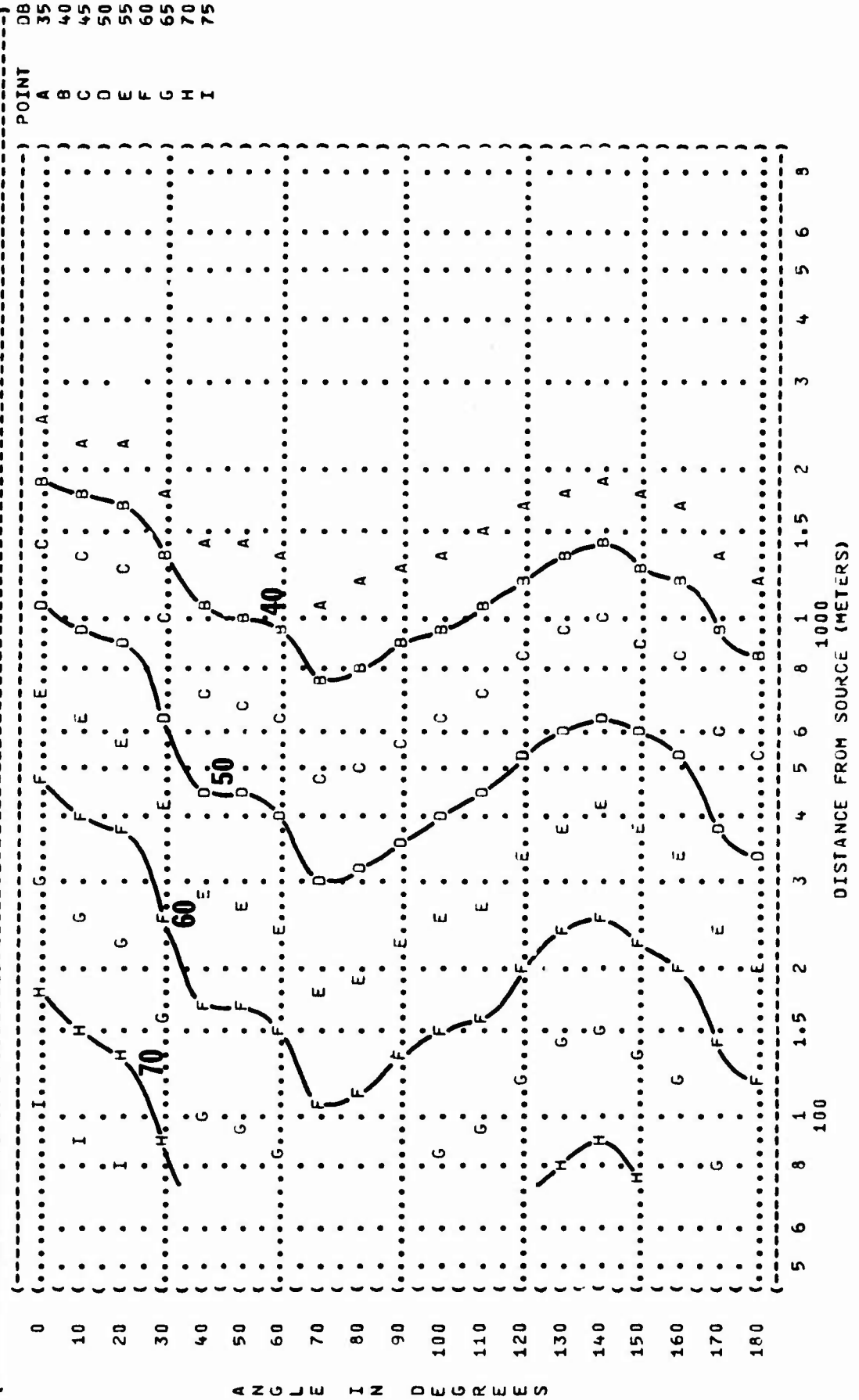
(FIGURE: SOUND PRESSURE LEVEL (SPL))
 (11 EQUAL LEVEL CONTOURS (DB))
 (250 HZ OCTAVE BAND)
 (NOISE SOURCE/SUBJECT:)
 (F-15A AIRCRAFT)
 (F100-PW-100(1) ENGINE)
 (FAR FIELD NOISE)
 (OPERATION:)
 (IDLE POWER)
 (60% RPM)
 (BOTH ENGINES)
 (FREE FLOW)
 (METEOROLOGY:)
 (TEMP = 15 C)
 (BAR PRESS = .760 M HG)
 (REL HUMID = 70 %)
 (IDENTIFICATION:)
 (OMEGA 1.4)
 (TEST 75-002-029)
 (RUN 01)
 (07 MAY 75)
 (PAGE 21)



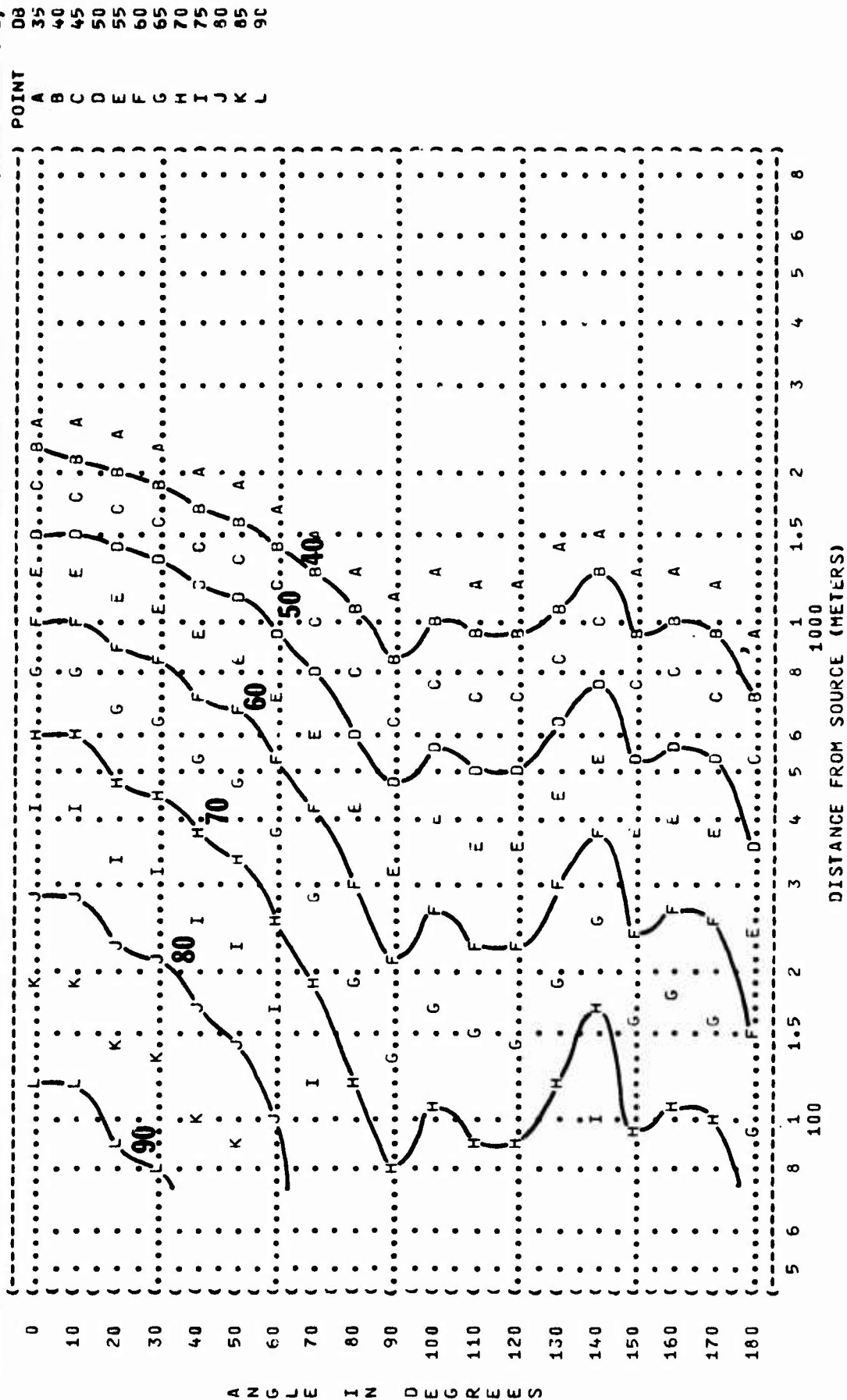
(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (EQUAL LEVEL CONTOURS (DB)
 (11 500 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT:
 (F-15A AIRCRAFT
 (F100-PW-100(1) ENGINE
 (FAR FIELD NOISE
 (OPERATION:
 (IDLE POWER
 (60% RPM
 (BOTH ENGINES
 (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 01
 (07 MAY 75
 (PAGE 22



(FIGURE: SOUND PRESSURE LEVEL (SPL))
 (EQUAL LEVEL CONTOURS (DB))
 (11 1000 HZ OCTAVE BAND)
 (NOISE SOURCE/SUBJECT:)
 (F-15A AIRCRAFT)
 (F100-PW-100(1) ENGINE)
 (FAR FIELD NOISE)
 (OPERATION:)
 (IDLE POWER)
 (60% RPM)
 (BOTH ENGINES)
 (FREE FLOW)
 (METEOROLOGY:)
 (TEMP = 15 C)
 (BAR PRESS = .760 M HG)
 (REL HUMID = 70 %)
 (IDENTIFICATION:)
 (OMEGA 1.4)
 (TEST 75-002-029)
 (RUN 01)
 (07 MAY 75)
 (PAGE 23)



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (2000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (IDLE POWER
 (F100-PW-100(1) ENGINE (60% RPM
 (FAR FIELD NOISE (BOTH ENGINES
 (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 01
 (07 MAY 75
 (PAGE 24



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (4000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (IDLE POWER
 (F100-PW-100(1) ENGINE (60% RPM
 (FAR FIELD NOISE (BOTH ENGINES
 (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 01
 (07 MAY 75
 (PAGE 25

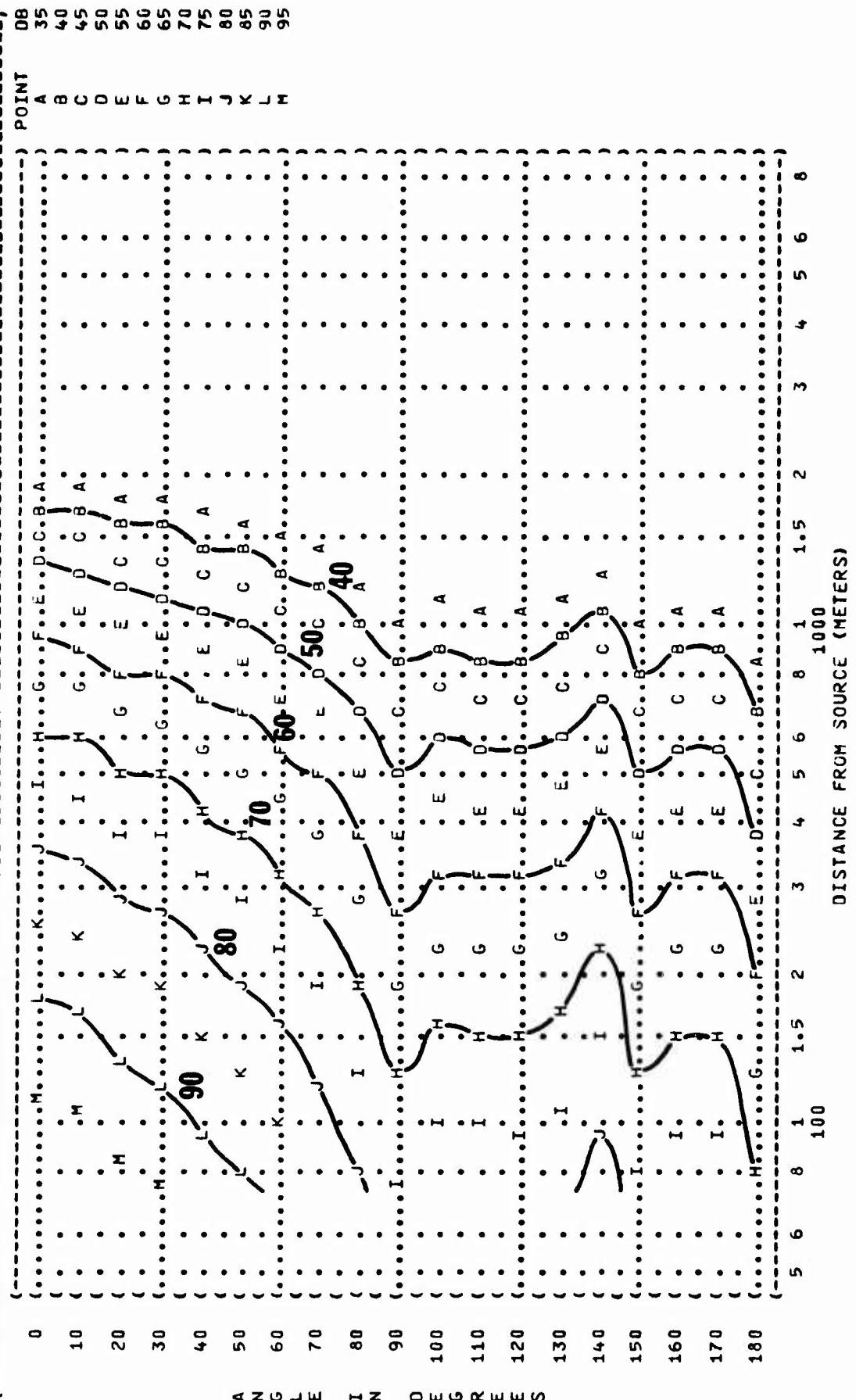
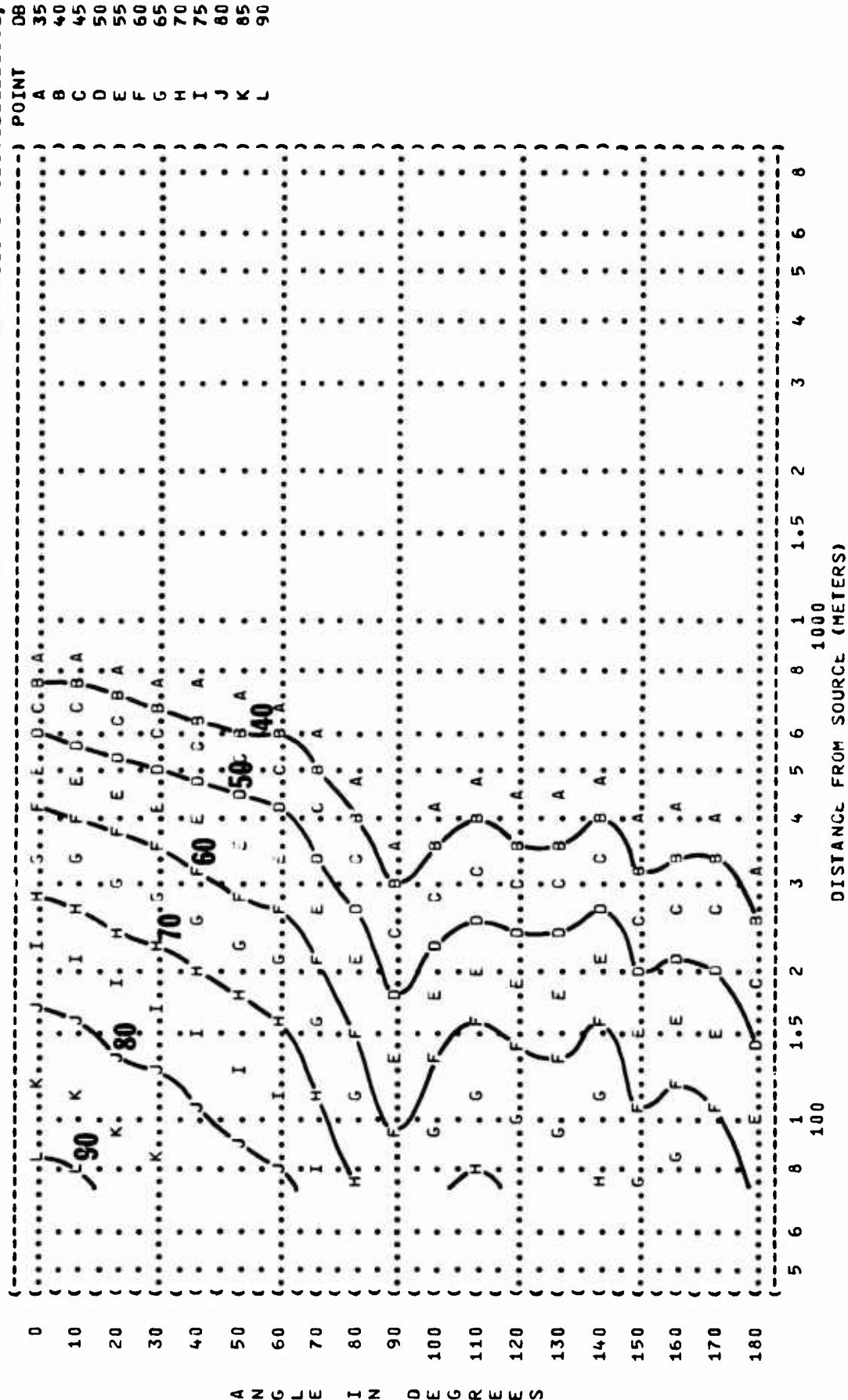


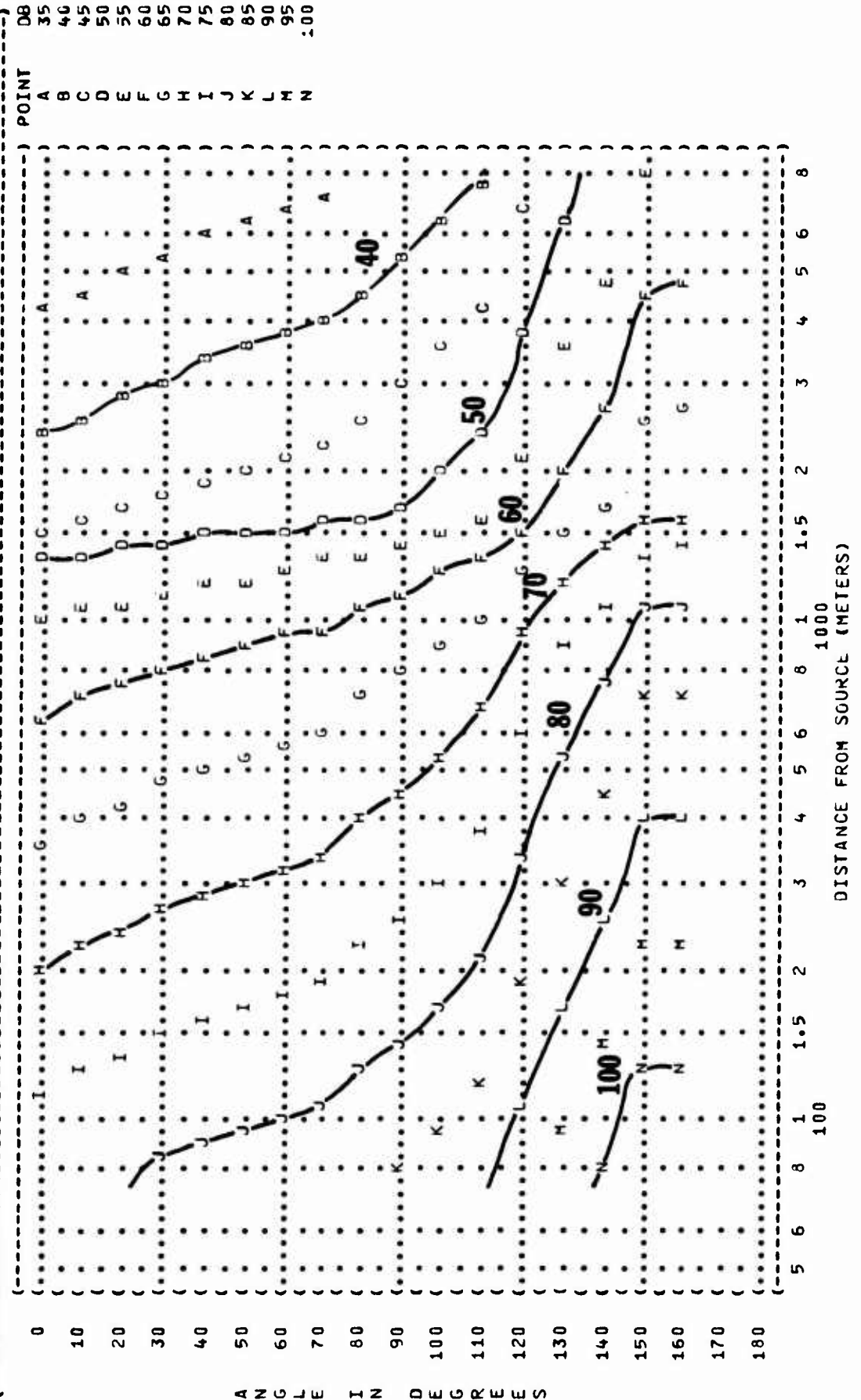
FIGURE: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
8000 HZ OCTAVE BAND

11

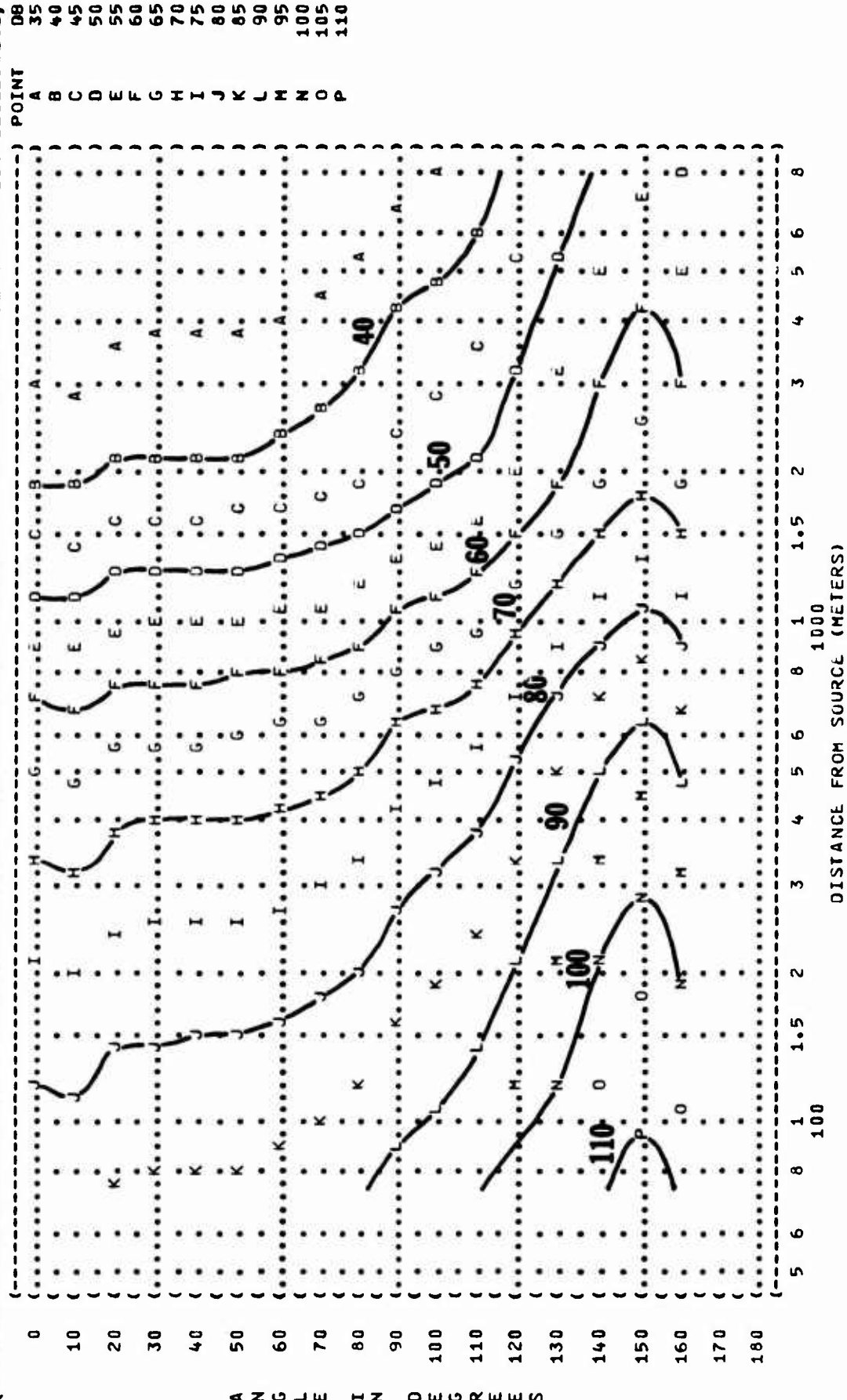
IDENTIFICATION: OMEGA 1.4
TEST 75-002-029
RUN 01
METEOROLOGY: TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %
OPERATION: IDLE POWER
60% RPM
BOTH ENGINES
FREE FLOW
NOISE SOURCE/SUBJECT: F-15A AIRCRAFT
F100-PW-100(1) ENGINE
FAR FIELD NOISE



(FIGURE: SOUND PRESSURE LEVEL (SPL))
 (11 EQUAL LEVEL CONTOURS (DB))
 (31.5 HZ OCTAVE BAND)
 (NOISE SOURCE/SUBJECT:)
 (F-15A AIRCRAFT)
 (F100-PW-100(1) ENGINE)
 (FAR FIELD NOISE)
 (OPERATION:)
 (80% RPM)
 (80% ENGINES)
 (FREE FLOW)
 (METEOROLOGY:)
 (TEMP = 15 C)
 (BAR PRESS = .760 M HG)
 (REL HUMID = 70 %)
 (IDENTIFICATION:)
 (OMEGA 1.4)
 (TEST 75-002-029)
 (RUN 02)
 (07 MAY 75)
 (PAGE 18)



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (63 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (80% RPM
 (F100-PW-100(1) ENGINE (BOTH ENGINES
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 02
 (07 MAY 75
 (PAGE 19



```

) IDENTIFICATION: )
) )
) OMEGA 1.4 )
) TEST 75-002-029 )
) RUN 02 )

```

OMEGA 1.4

OMEGA 1.4
TEST 75-002-029

METEOROLOGY:
TEMP
BAR PRESS
REL HUMID

(OPERATION:
(
(80% RPM
(BOTH ENG:
(FREE FLOI

80% RPM
BOTH ENDS
FREE FLO

BAR PRESS = .760 M HG
REL HUMID = 70 %

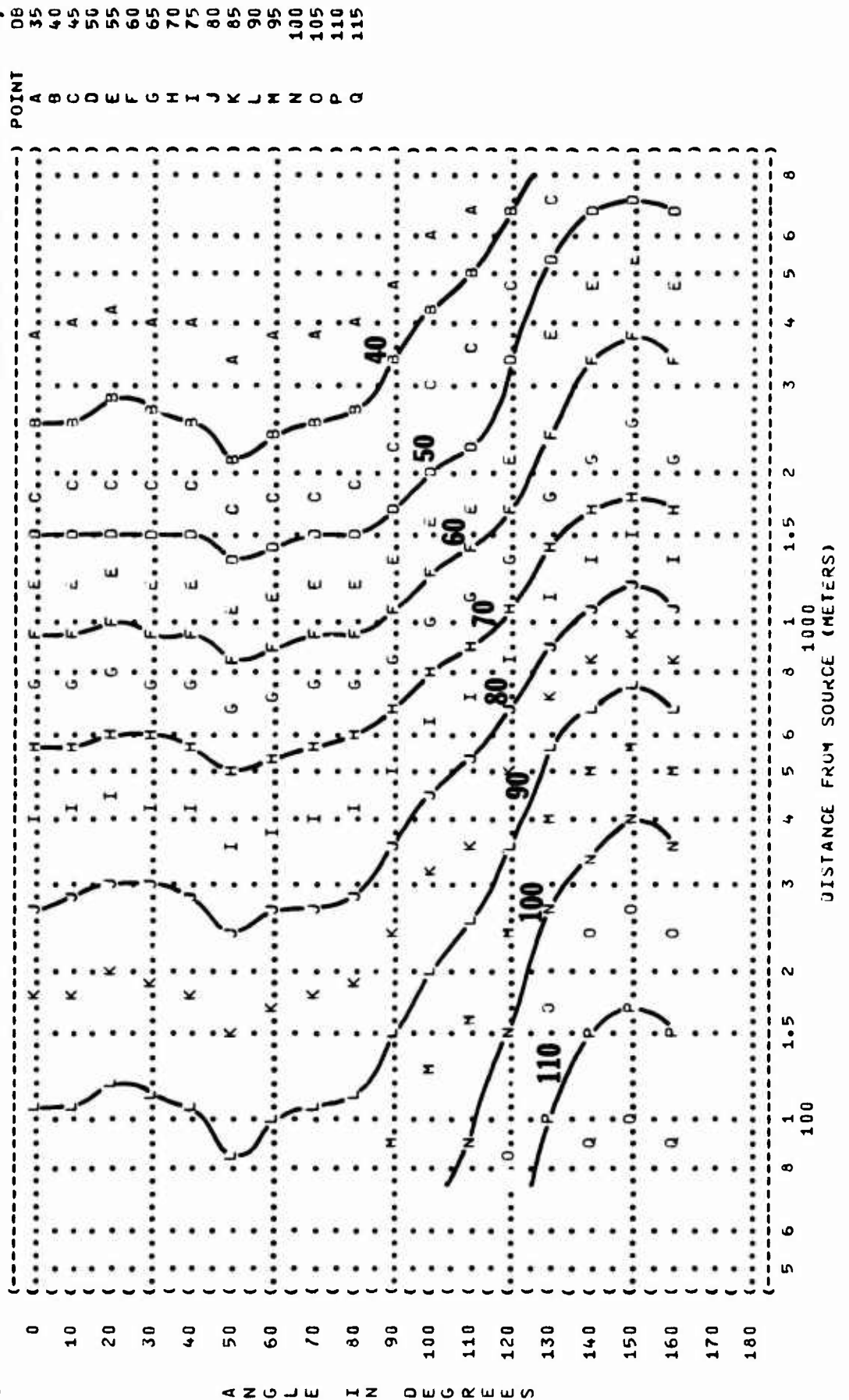
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A B C D E F G H I J K L M N O P Q

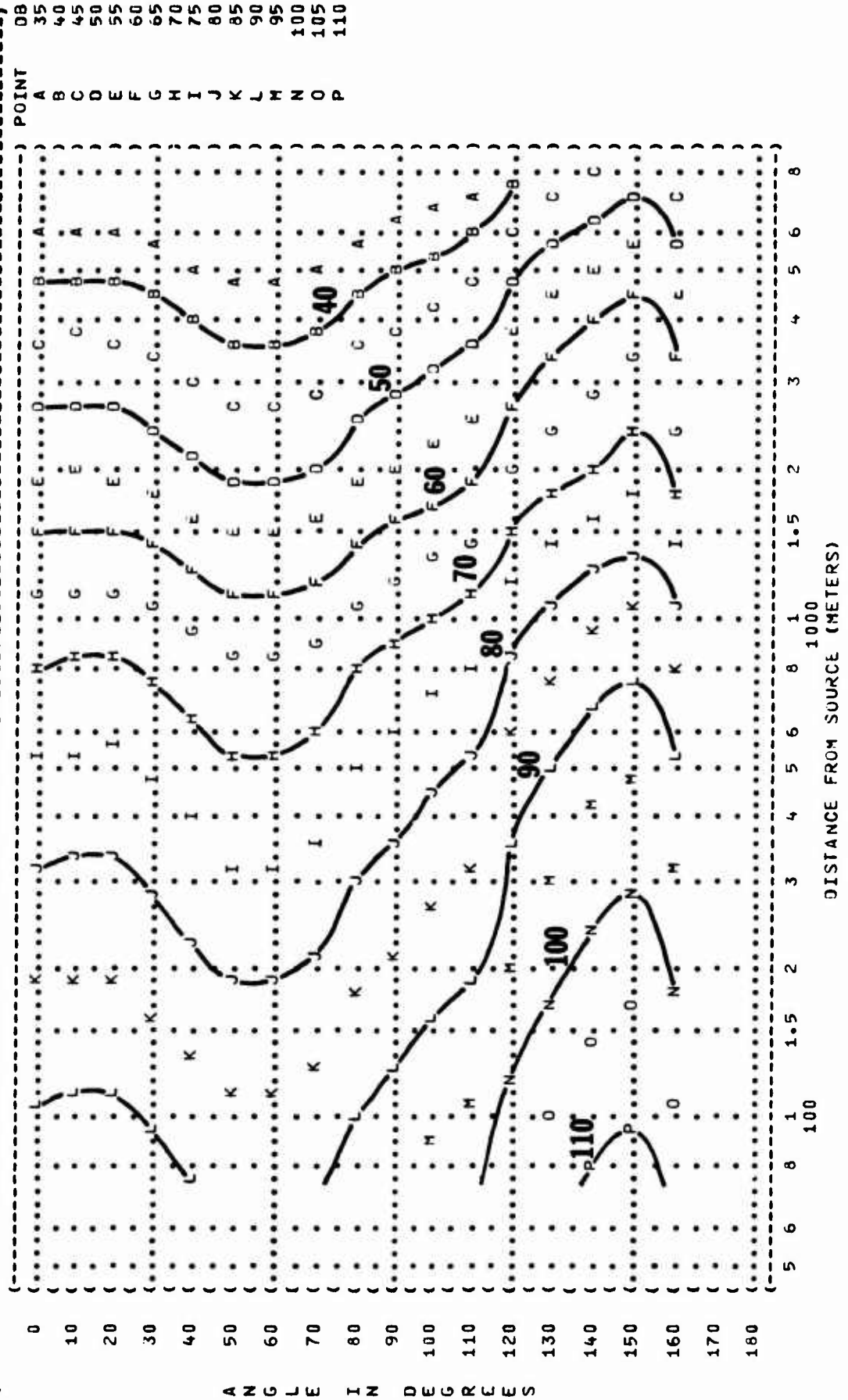
AZU JW HZ DEUDWWS

DISTANCE FROM SOURCE (METERS)

(FIGURE: SOUND PRESSURE LEVEL (SPL))
 (EQUAL LEVEL CONTOURS (DB))
 (11 250 HZ OCTAVE BAND)
 (NOISE SOURCE/SUBJECT:)
 (OPERATION:)
 (F-15A AIRCRAFT)
 (F100-PH-100(1) ENGINE)
 (FAR FIELD NOISE)
 (METEOROLOGY:)
 (TEMP = 15 C)
 (BAR PRESS = .760 M HG)
 (REL HUMID = 70 %)
 (IDENTIFICATION:)
 (OMEGA 1.4)
 (TEST 75-002-029)
 (RUN 02)
 (07 MAY 75)
 (PAGE 21)



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (500 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (80% RPM
 (F100-PW-100(1) ENGINE (BOTH ENGINES
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (07 MAY 75
 (PAGE 22
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 02



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

(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (EQUAL LEVEL CONTOURS (DB)
 (**11** 1000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (80% RPM
 (F100-PW-100(1) ENGINE (BOTH ENGINES
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 02
 (PAGE 23

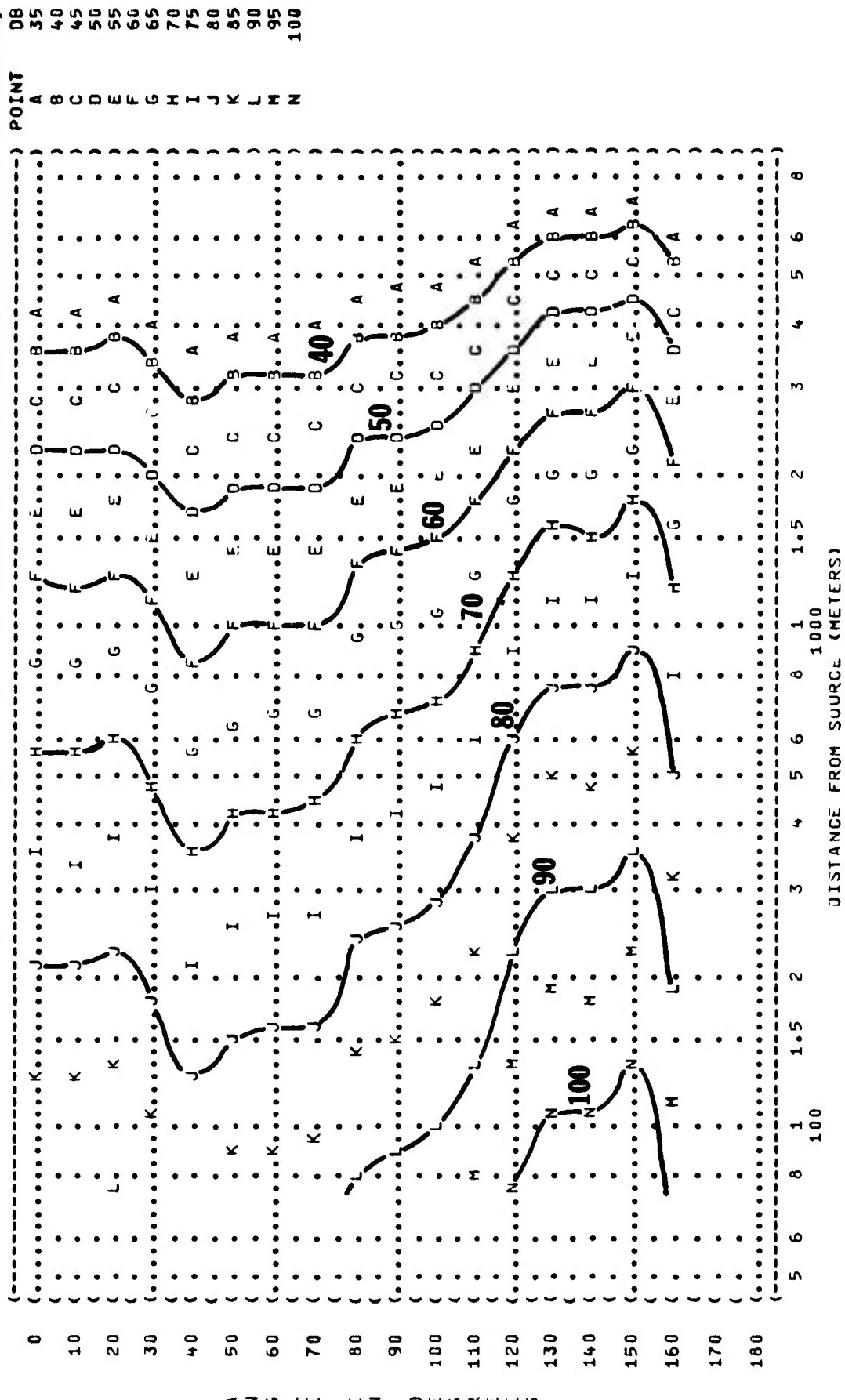


FIGURE: SOUND PRESSURE LEVEL {SPL}
EQUAL LEVEL CONTOURS (DB)
2000 HZ OCTAVE BAND

11

NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:) IDENTIFICATION:)
(() TEMP = 15 C))
((80% RPM))
((BOTH ENGINES))
((FREE FLOW))

F-15A AIRCRAFT
F100-PW-100(1) ENGINE
FAR FIELD NOISE

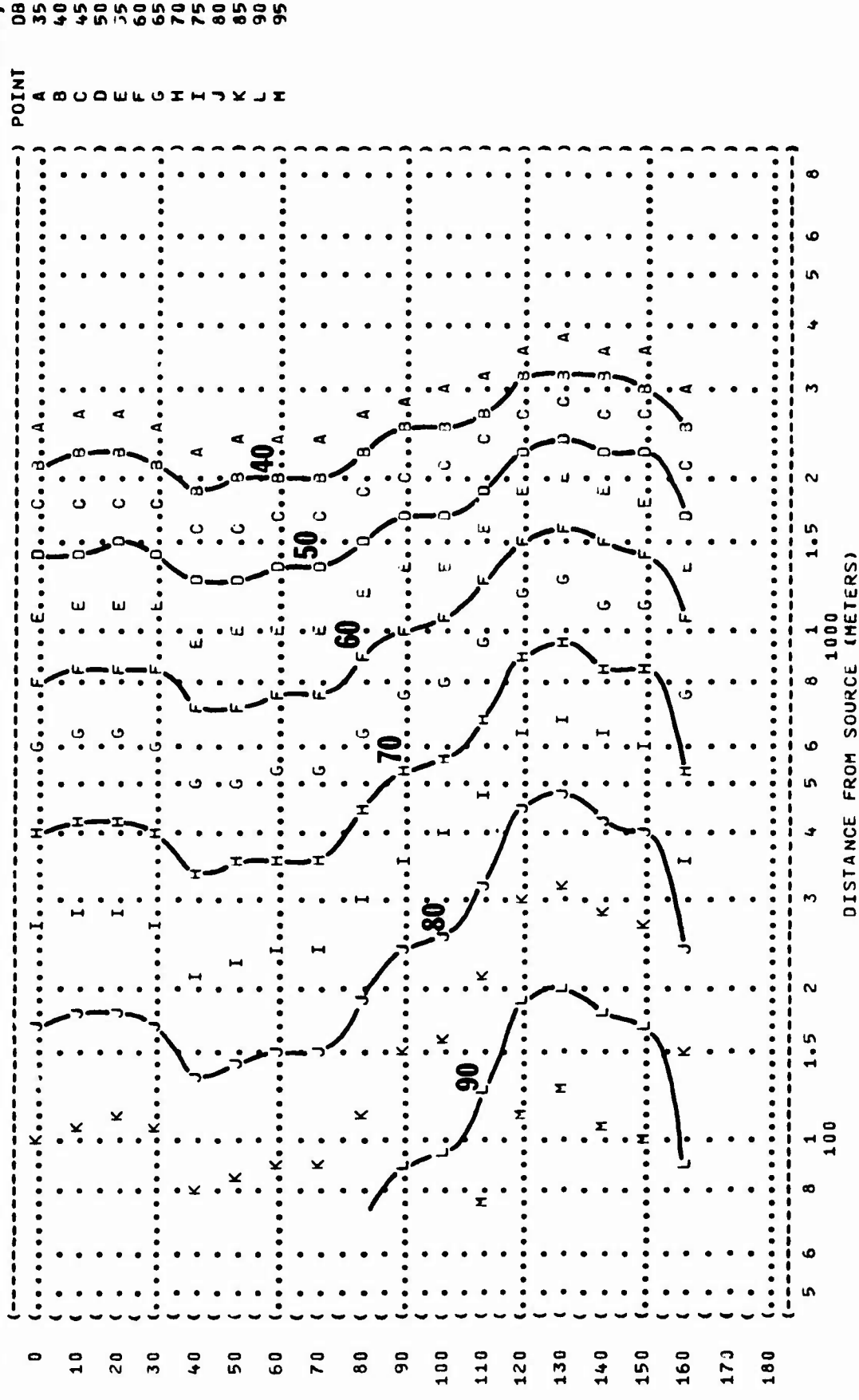
OMEGA 1.4
TEST 75-002-029
RUN 02
07 MAY 75
PAGE 24

NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:	TEST
F-15A AIRCRAFT		TEMP = 15 C	75-002-029
F100-PW-100(1) ENGINE	80% RPM	BAR PRESS = .760 M HG	RUN 02
FAR FIELD NOISE	BOTH ENGINES	REL HUMID = 70 %	07 MAY 75
	FREE FLOW		PAGE 24

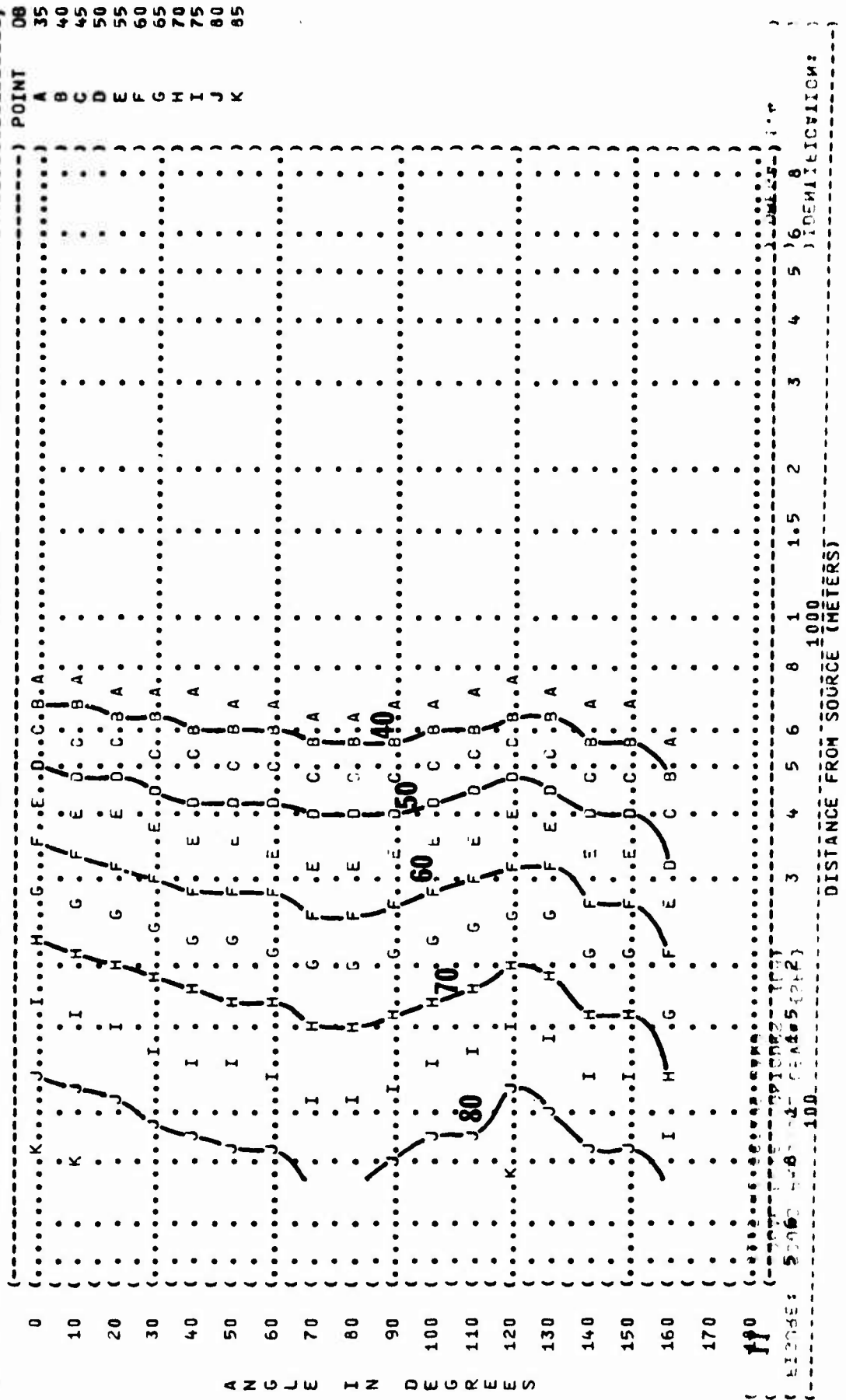
F-15A AIRCRAFT (80% RPM) 150 BAR PRESS = .760 M HG) 07 MAY 75)

F100-PW-100(1) ENGINE (BOTH ENGINES)
REL HUMID = 70 %

FAR FIELD NOISE (FREE FLOW) PAGE 24)



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (EQUAL LEVEL CONTOURS (DB)
 (11 8000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (80% RPM
 (F100-PW-100(1) ENGINE (BOTH ENGINES
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (PAGE 26
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-J02-029
 (RUN 02
 (07 MAY 75
 ()

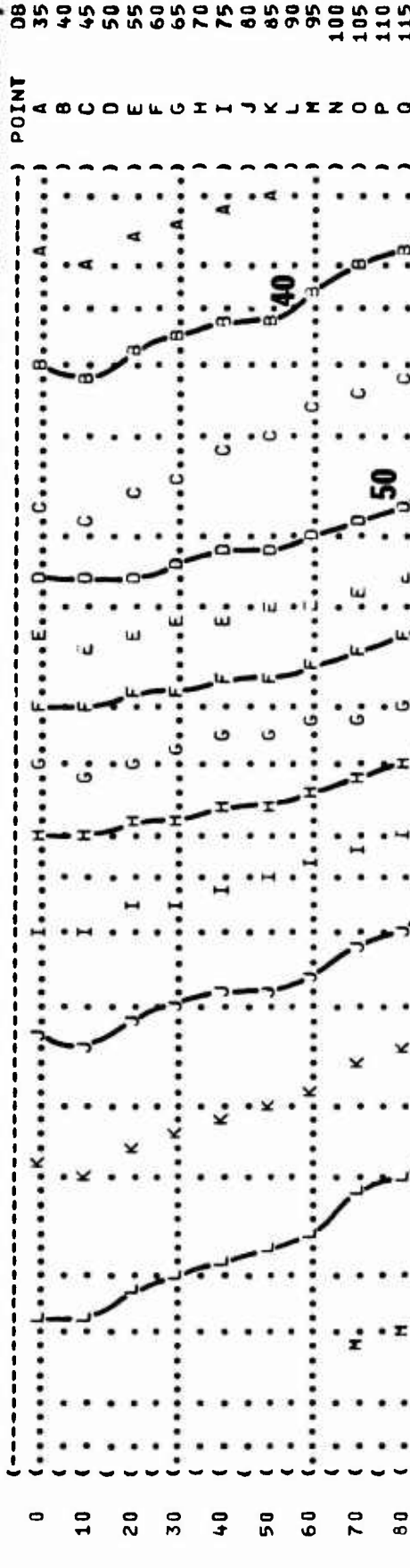


$\frac{d}{dt} \left(\frac{1}{2} m v^2 + U(r) \right) = \frac{d}{dt} \left(\frac{1}{2} m v^2 \right) + \frac{d}{dt} U(r)$

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

11

IDENTIFICATION: OMEGA 1.4
TEST 75-002-029
RUN 03
METEOROLOGY: TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %
OPERATION: MILITARY POWER
90% RPM
BOTH ENGINES
FREE FLOW

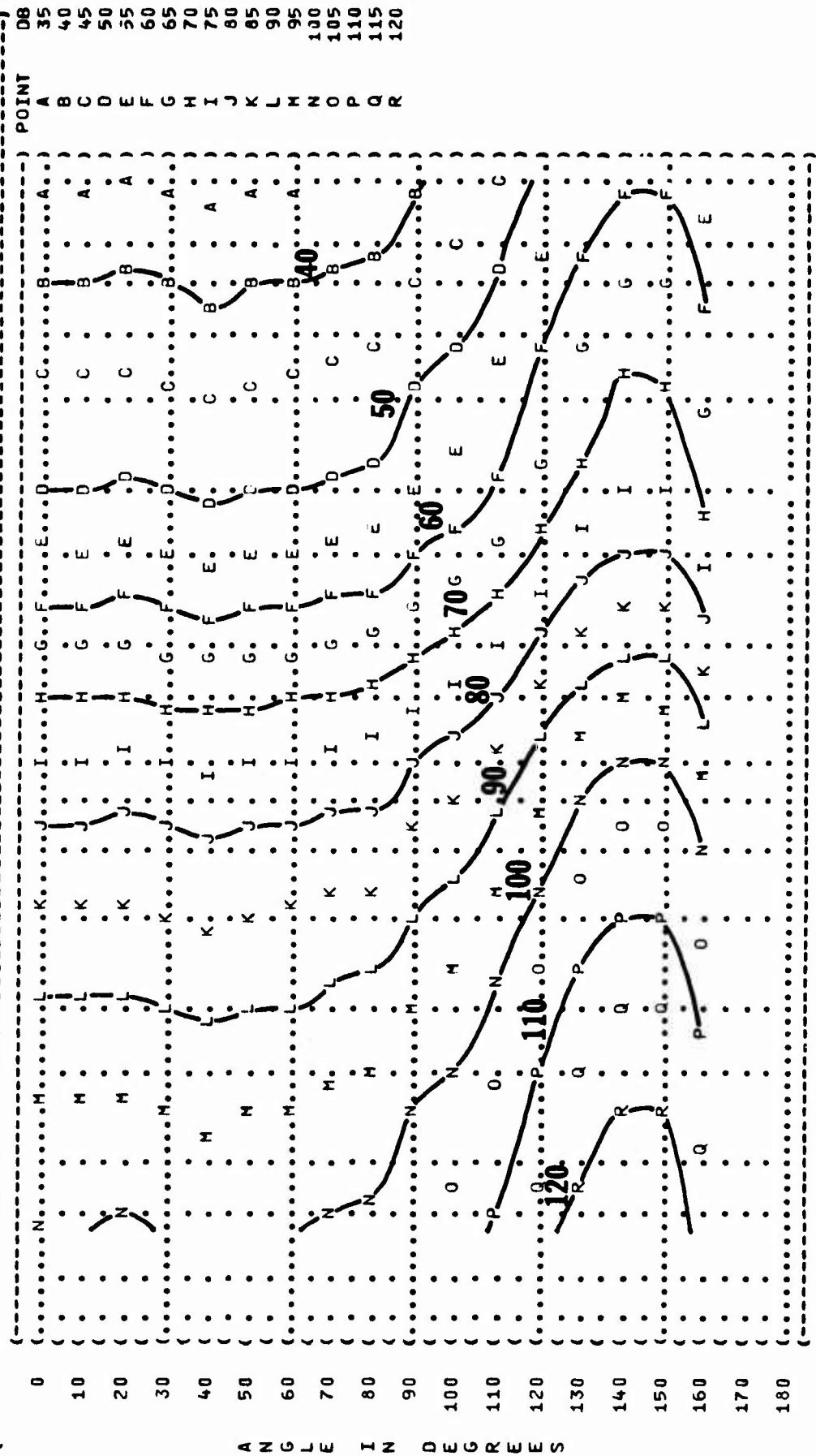


AGLEINDEGR EES

5.56 Hz (1/10) 1.5 2 3 4 5 6 8 1000
EQUIV. LEVEL CONTOURS (dB)
SOURCE: 10000 RPM 20000 RPM 40000 RPM

DISTANCE FROM SOURCE (METERS)

(FIGURE: SOUND PRESSURE LEVEL (SPL)) IDENTIFICATION:)
 (EQUAL LEVEL CONTOURS (DB))
 (11 125 HZ OCTAVE BAND)
 (NOISE SOURCE/SUBJECT:)
 (F-15A AIRCRAFT)
 (F100-PH-100(1) ENGINE)
 (FAR FIELD NOISE)
 (OPERATION:)
 (MILITARY POWER)
 (90% RPM)
 (BOTH ENGINES)
 (FREE FLOW)
 (METEOROLOGY:)
 (TEMP = 15 C)
 (BAR PRESS = .760 M HG)
 (REL HUMID = 70 %)
 (TEST 75-002-029)
 (RUN 03)
 (OMEGA 1.4)
 (PAGE 20)



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

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

FIGURE: SOUND PRESSURE LEVEL
EQUAL LEVEL CONTOURS
250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:	OPERATION:
F-15A AIRCRAFT	(MILITARY
F100-PW-100(1) ENGINE	(902 RPM
FAR FIELD NOISE	(BOTH ENGINE
	(FREE FLOW

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

75
1



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

11

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-029
RUN 03
METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %
OPERATION:
MILITARY POWER
90% RPM
BOTH ENGINES
FREE FLOW
F-15A AIRCRAFT
F100-PW-100(1) ENGINE
FAR FIELD NOISE

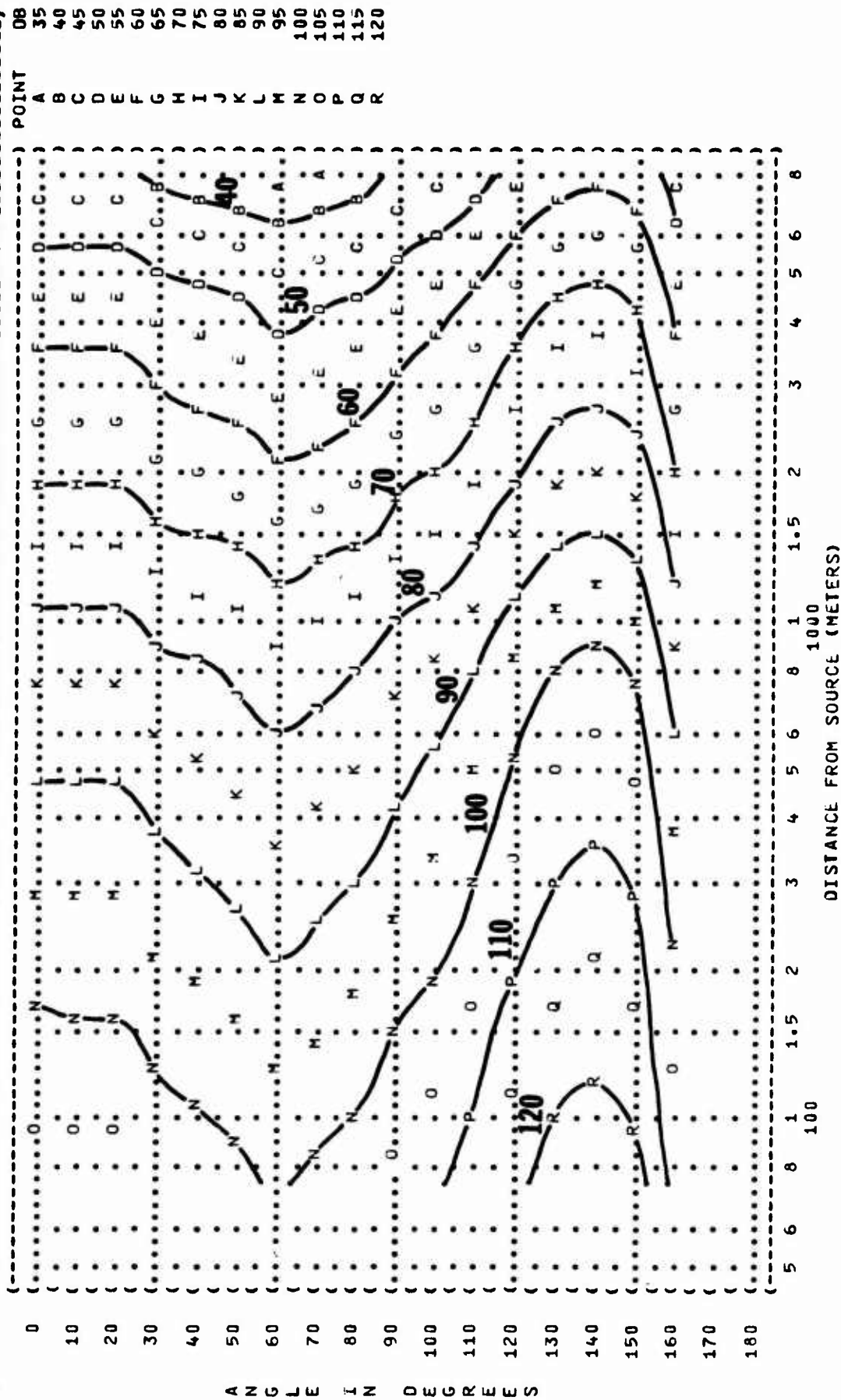
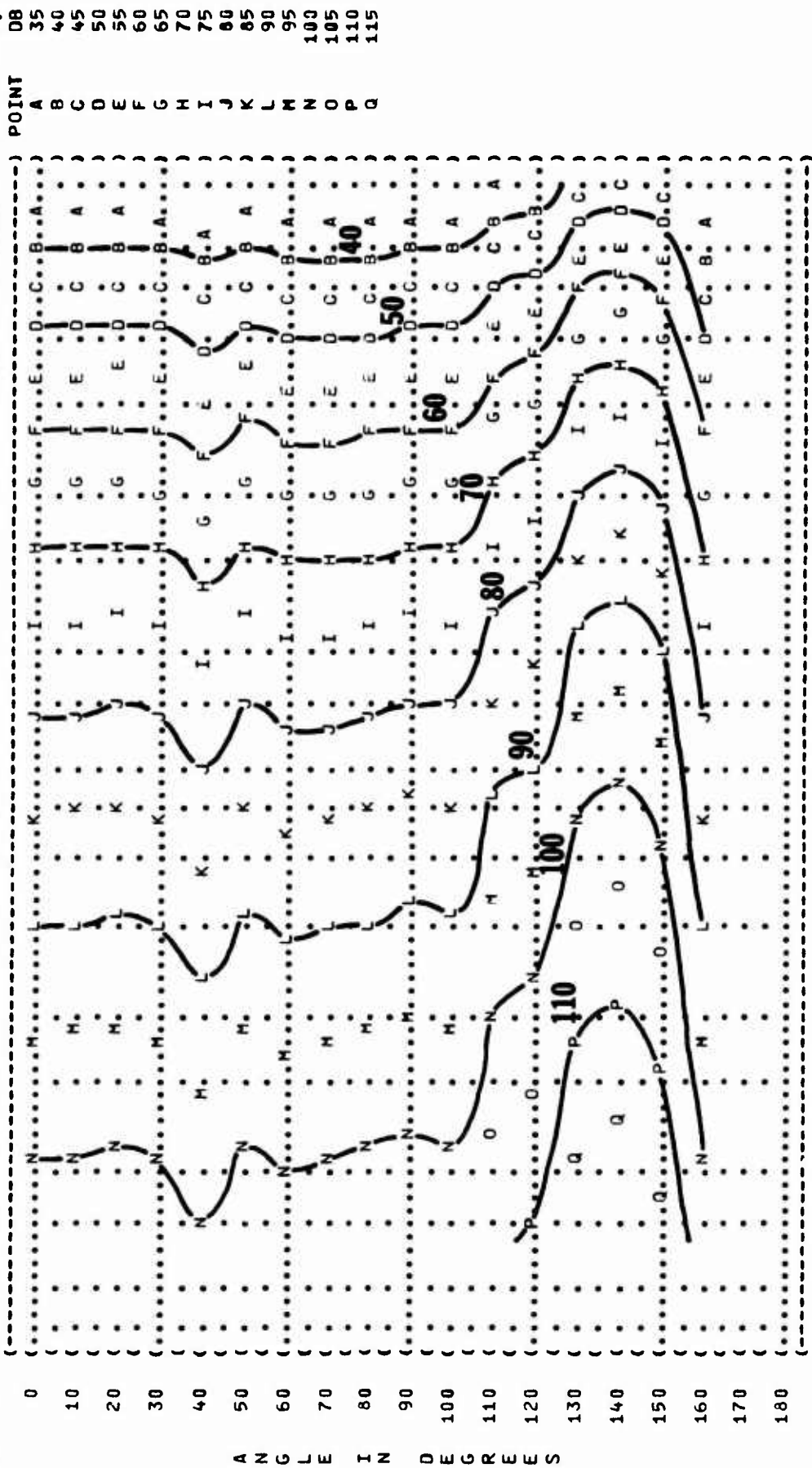


FIGURE: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
11 1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT: (OPERATION:)
(F-15A AIRCRAFT (MILITARY POWER)
(F100-PW-100(1) ENGINE (90% RPM)
(FAR FIELD NOISE (BOTH ENGINES)
(FREE FLOW)

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

IDENTIFICATION:)
(OMEGA 1.4)
(TEST 75-002-029)
(RUN 03)
(07 MAY 75)
(PAGE 23)



ANGLE IN DEGREES

DISTANCE FROM SOURCE (METERS)

(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (EQUAL LEVEL CONTOURS (DB)
 (11 2000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT:
 ((OPERATION:
 ((MILITARY POWER
 ((90% RPM
 (F-15A AIRCRAFT
 (F100-PW-100(1) ENGINE
 (FAR FIELD NOISE
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 03
 (07 MAY 75
 (PAGE 24

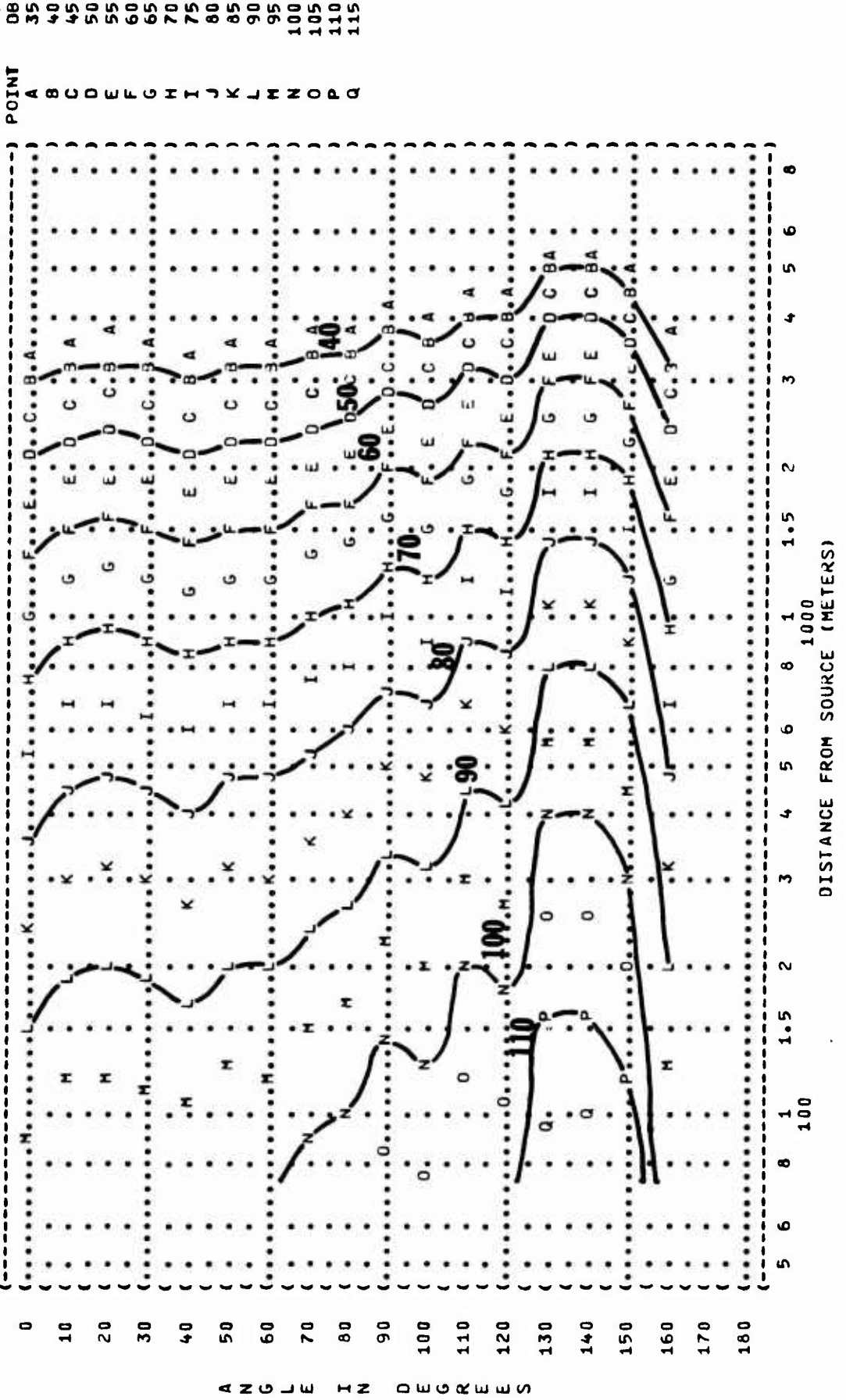
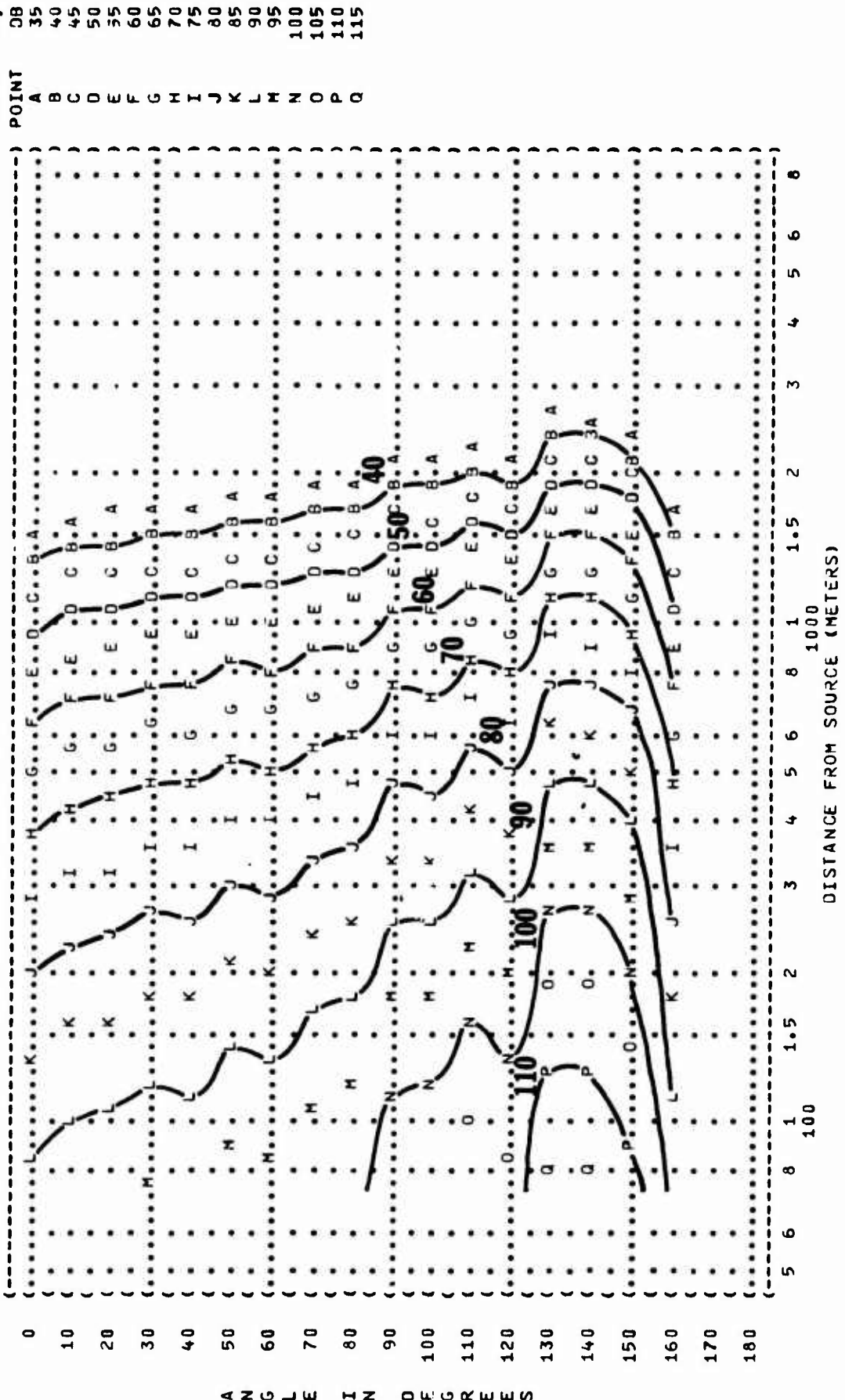


FIGURE: SOUND PRESSURE LEVEL (SPL)
 EQUAL LEVEL CONTOURS (DB)
 4000 HZ OCTAVE BAND

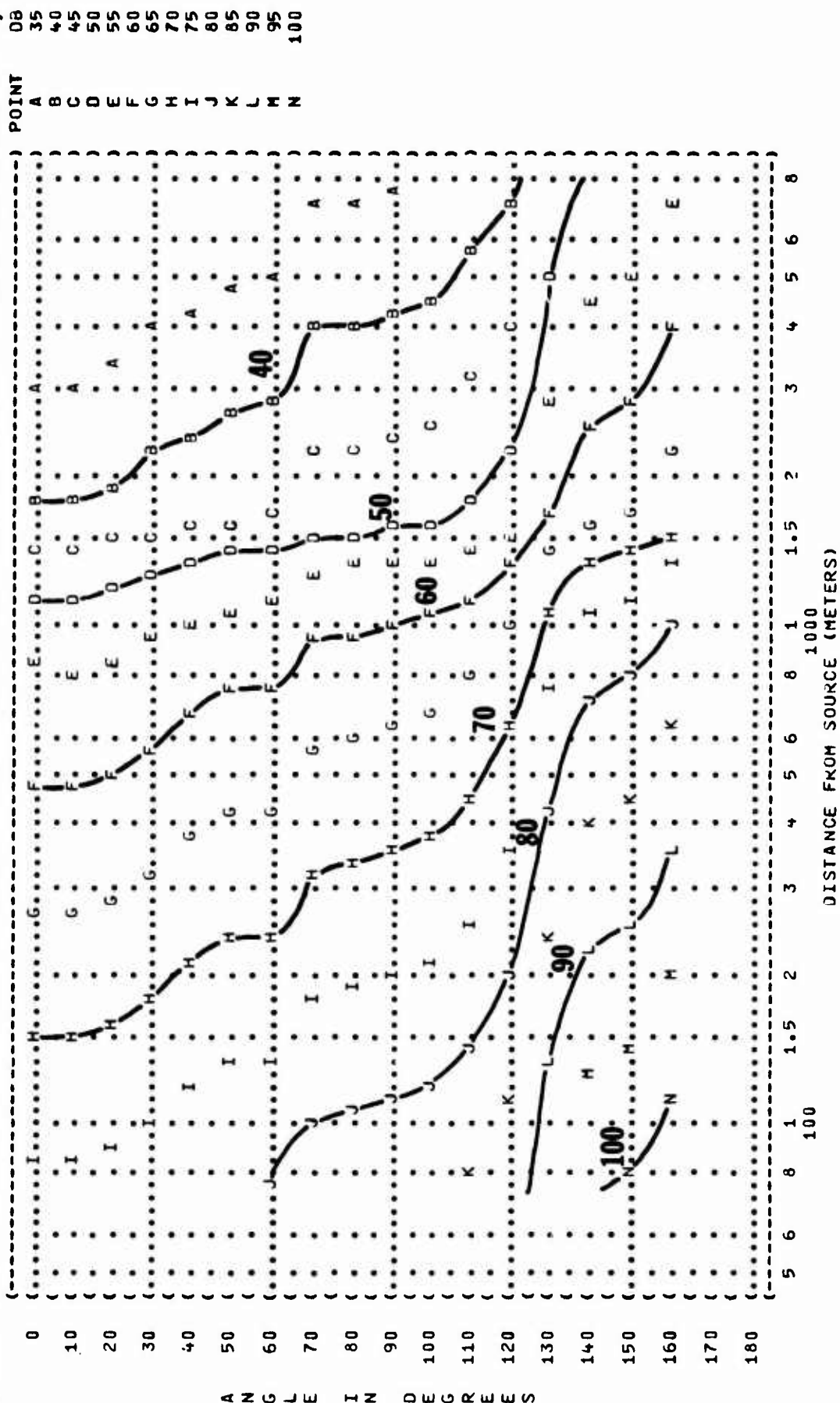
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NOISE SOURCE/SUBJECT: (OPERATION:) METEOROLOGY:)
 (F-15A AIRCRAFT (MILITARY POWER) TEMP = 15 C)
 (F100-PW-100(1) ENGINE (90% RPM) BAR PRESS = .760 M HG)
 (FAR FIELD NOISE (BOTH ENGINES) REL HUMID = 70 %)
 (FREE FLOW))

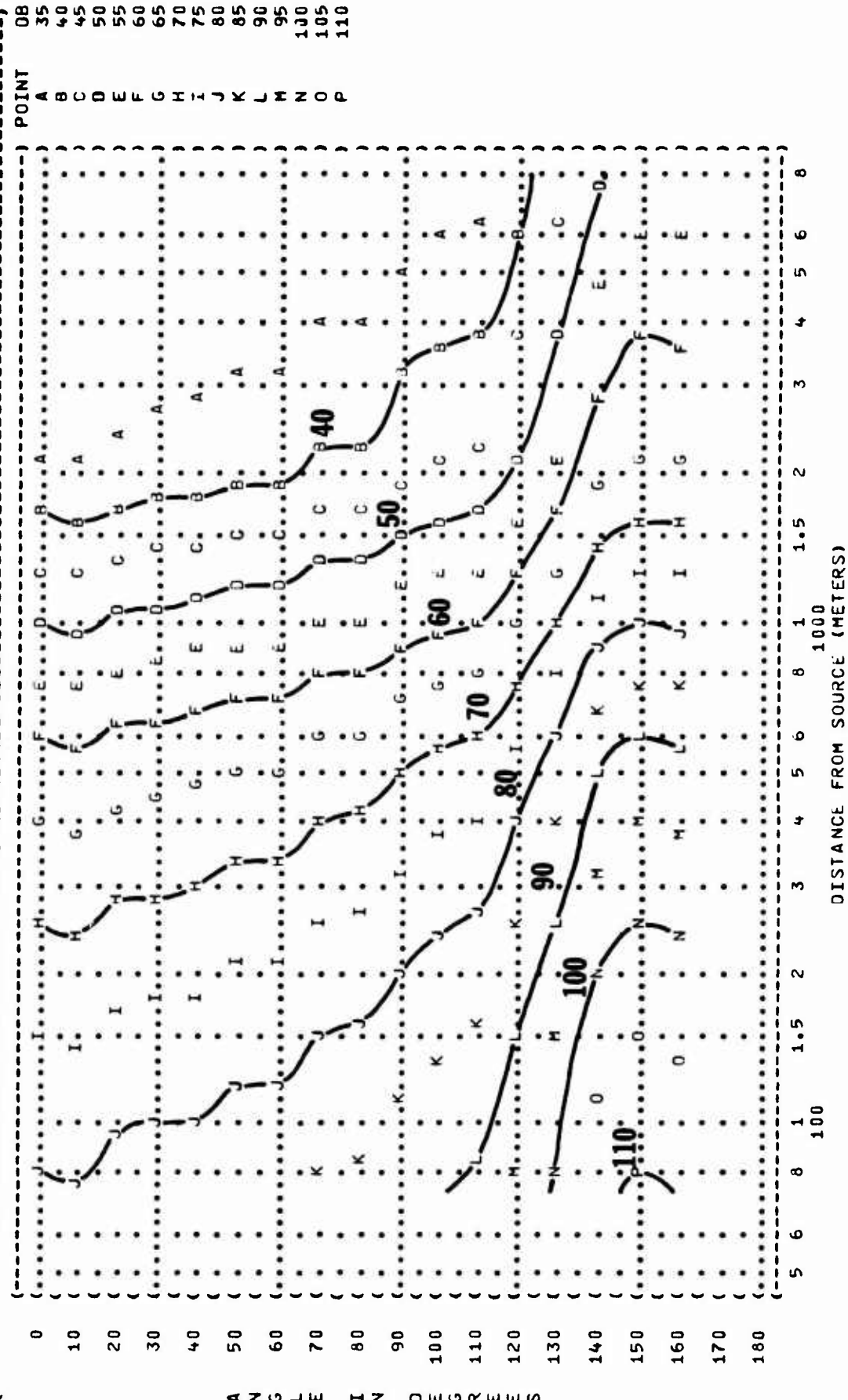
IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-029
 RUN 03
 07 MAY 75
 PAGE 25



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (EQUAL LEVEL CONTOURS (DB)
 (11 31.5 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (80% RPM
 (F100-PW-100(1) ENGINE (SINGLE ENGINE
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029)
 (RUN 04)
 (07 MAY 75)
 (PAGE 18)



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (EQUAL LEVEL CONTOURS (DB)
 (11 63 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (80% RPM
 (F100-PW-100(1) ENGINE (SINGLE ENGINE
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (RUN 04
 (07 MAY 75
 (PAGE 19
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029



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

```
IDENTIFICATION: )
)
) OMEGA 1.4 )
) TEST 75-002-029 )
) RUN 04 )
```

OMEGA 1.4
TEST 75-003
RUN 04

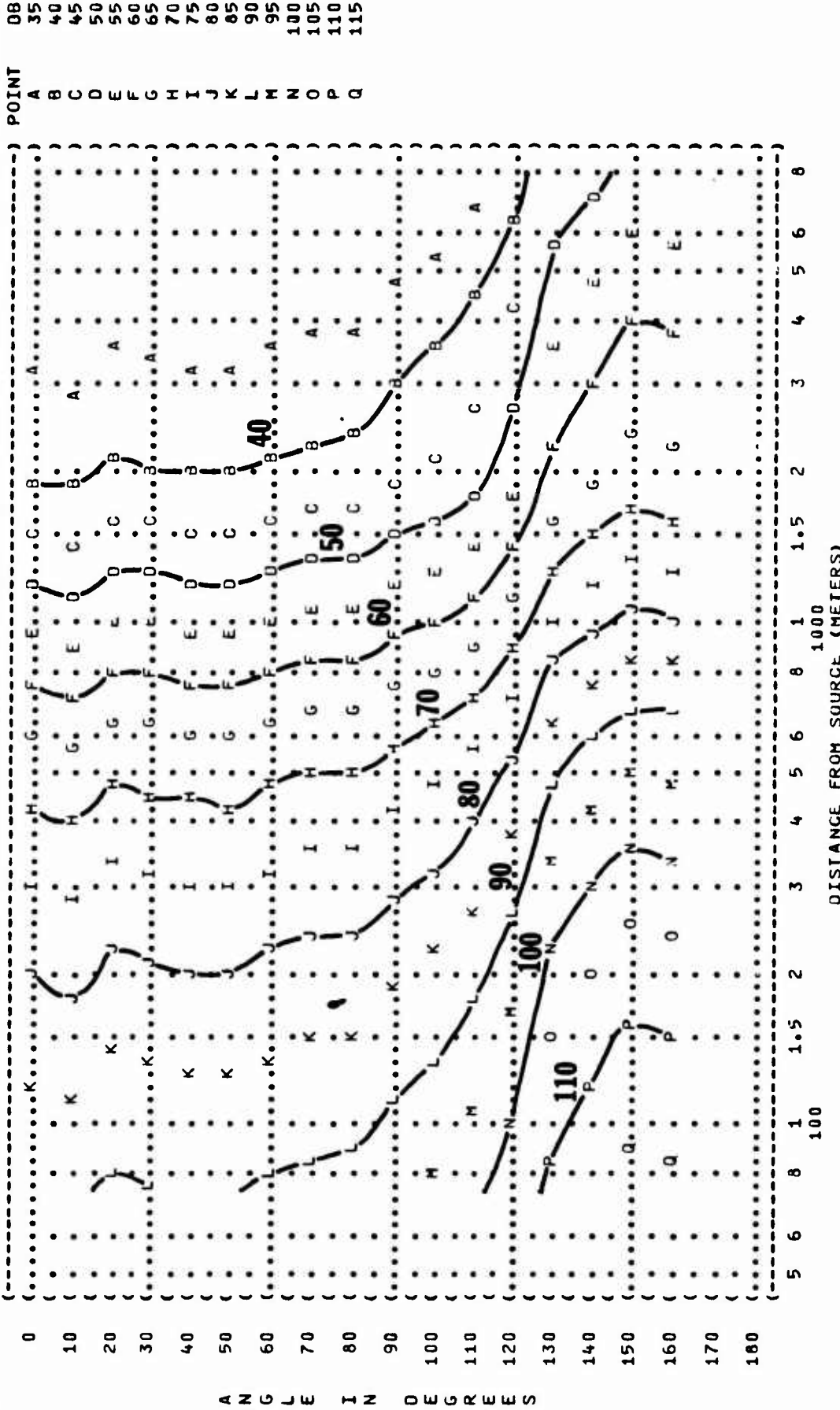
METEOROLOGY:

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

BAR PRESS = .760

REL HUMID - 70 %

), PAGE 20



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (EQUAL LEVEL CONTOURS (DB)
 (11 250 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (80% RPM
 (F100-PW-100(1) ENGINE (SINGLE ENGINE
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY: (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION: (OMEGA 1.4
 (TEST 75-002-029
 (RUN 04
 (07 MAY 75
 (PAGE 21

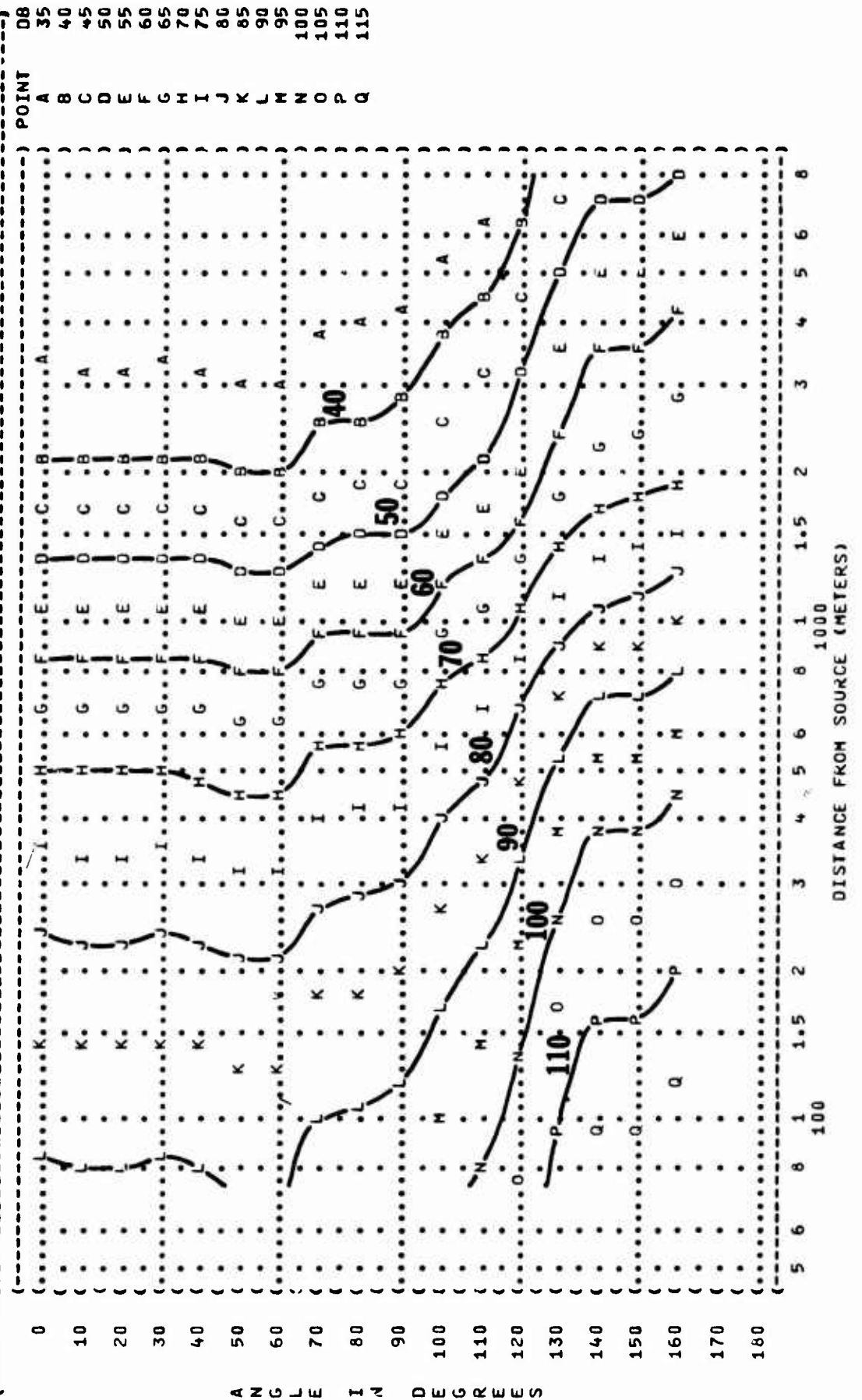


FIGURE	SOUND PRESSURE LEVEL EQUAL LEVEL CONTOURS 500 HZ OCTAVE BAND	{SPL}	DB	IDENTIFICATION
11				OMEGA 1.4
NOISE SOURCE/SUBJECT				TEST 75-002-029
OPERATION				RUN 04
METEOROLOGY				
TEMP = 15 C				
80% RPM				
BAR PRESS = .760 M HG				07 MAY 75
SINGLE ENGINE				
REL HUMID = 70 %				
FREE FLOW				PAGE 22
F-15A AIRCRAFT				
F100-PW-100(1) ENGINE				
FAR FIELD NOISE				

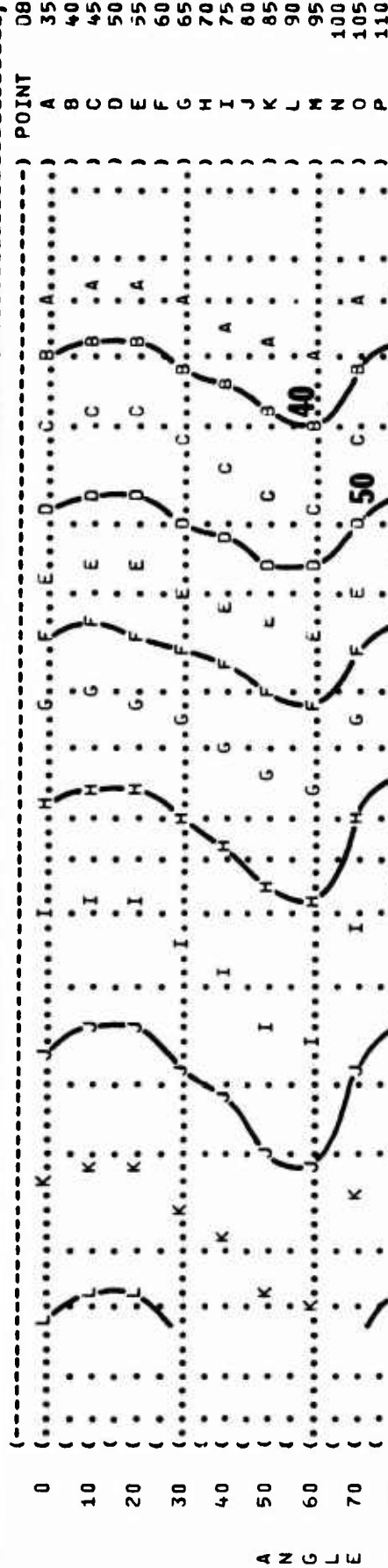


FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS 1000 HZ OCTAVE BAND

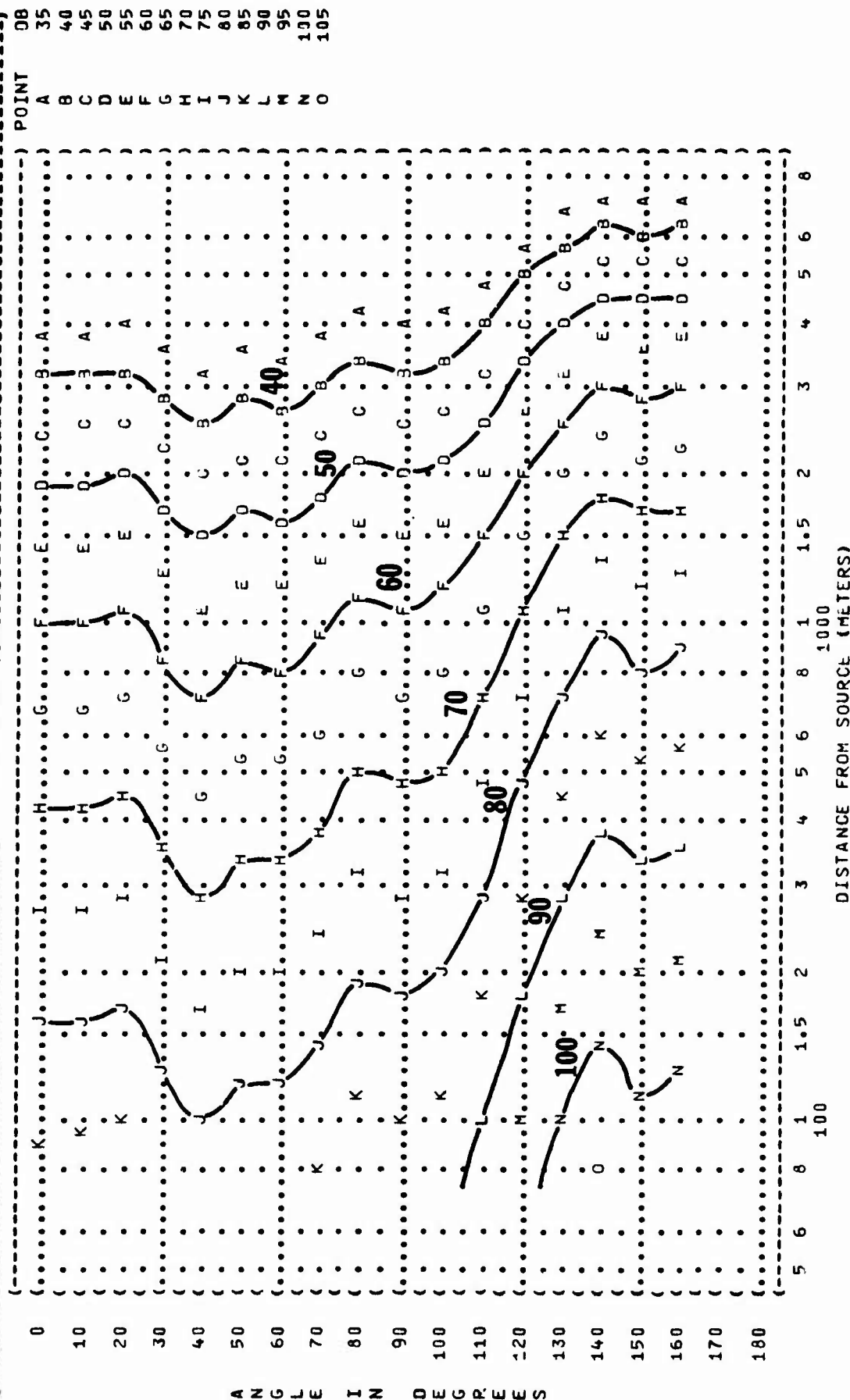
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OMEGA 1.4
TEST 75-002-02
RUN 04

METEOROLOGY:

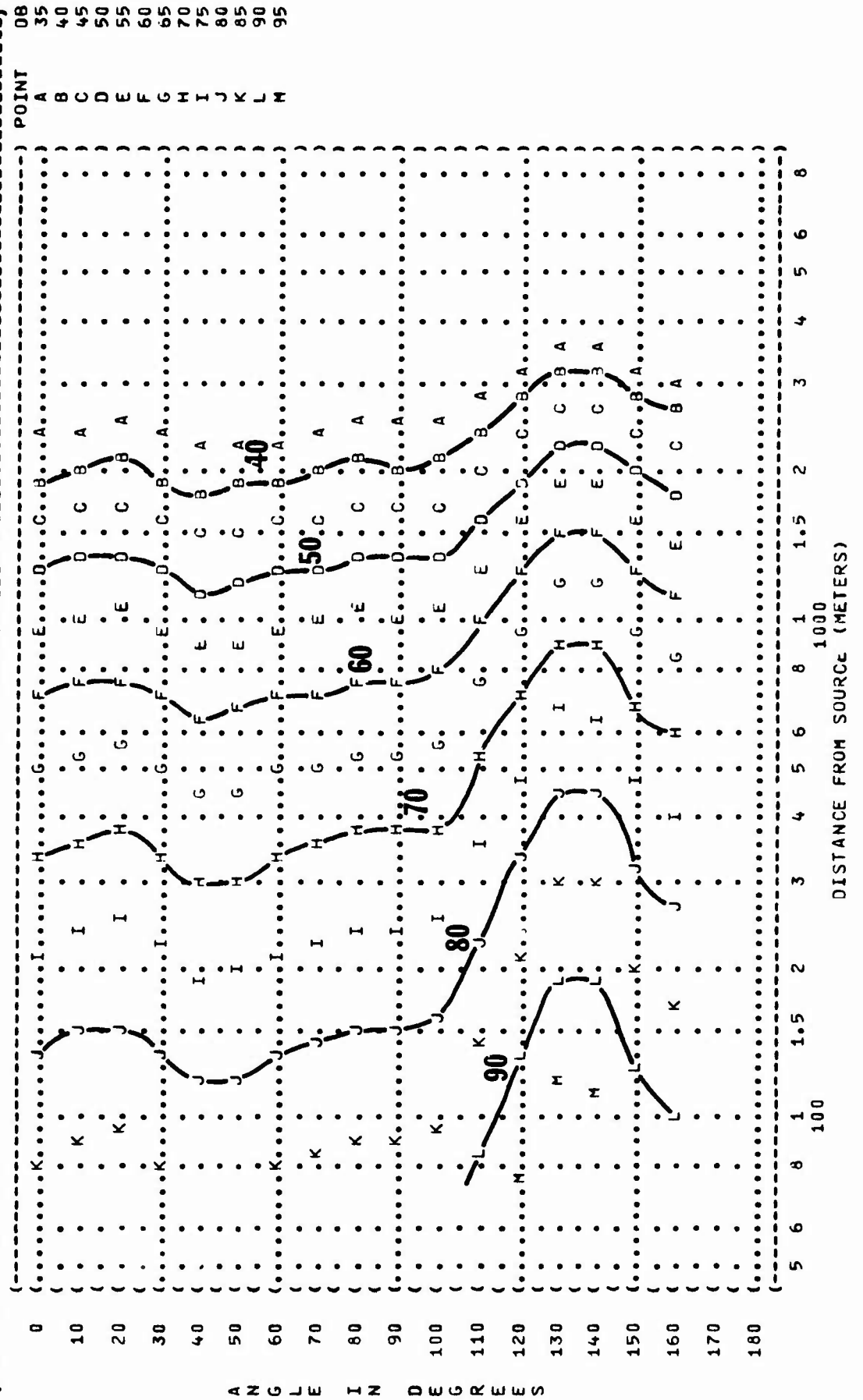
OPERATIONS:

NOISE SOURCE/SUBJECT:

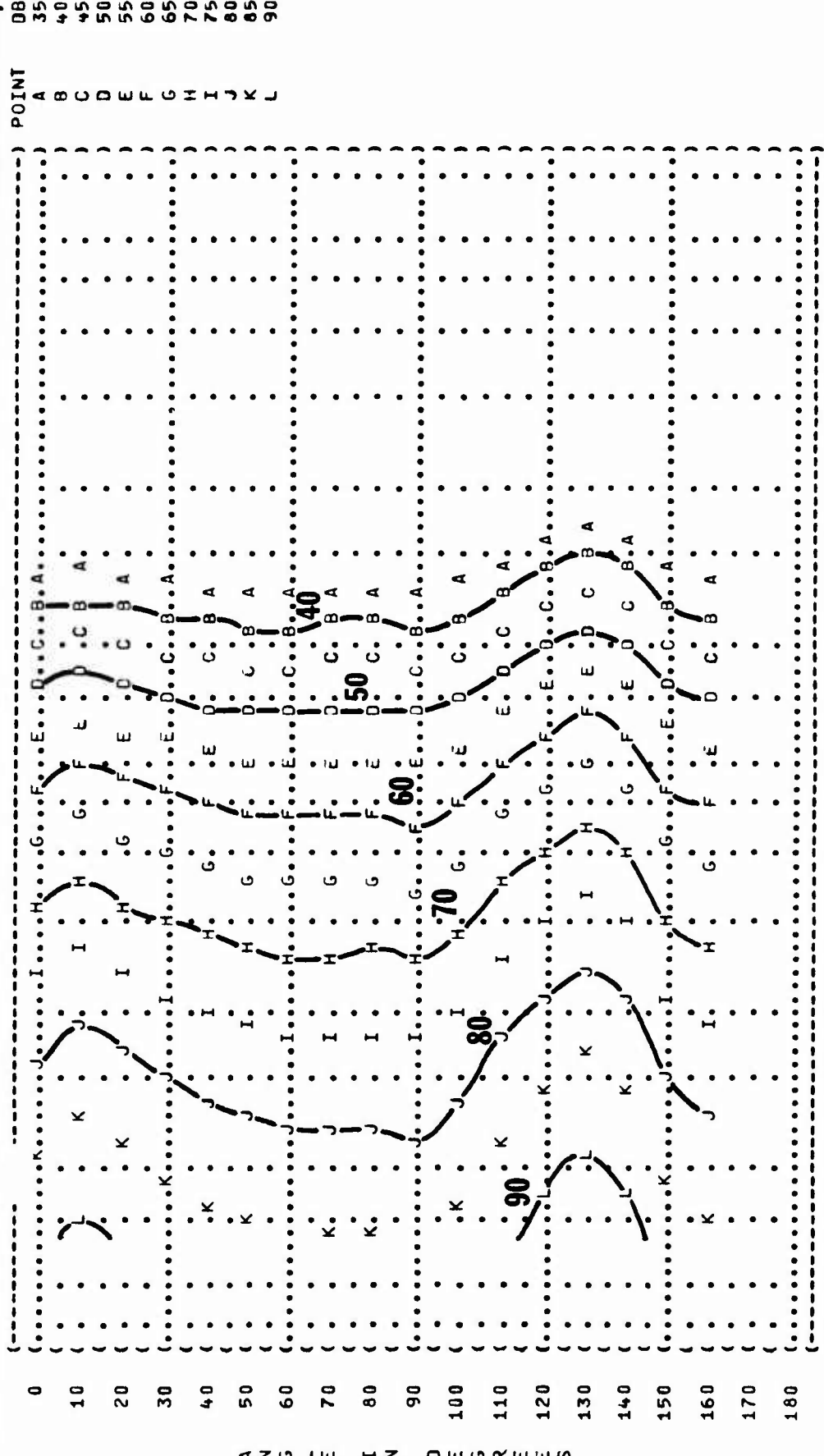
PAGE 23



(FIGURE: SOUND PRESSURE LEVEL {SPL}
 (11 EQUAL LEVEL CONTOURS (DB)
 (2000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (80% RPM
 (F100-PW-100(1) ENGINE (SINGLE ENGINE
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY: (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION: (OMEGA 1.4
 (TEST 75-002-029
 (RUN 04
 (07 MAY 75
 (PAGE 24

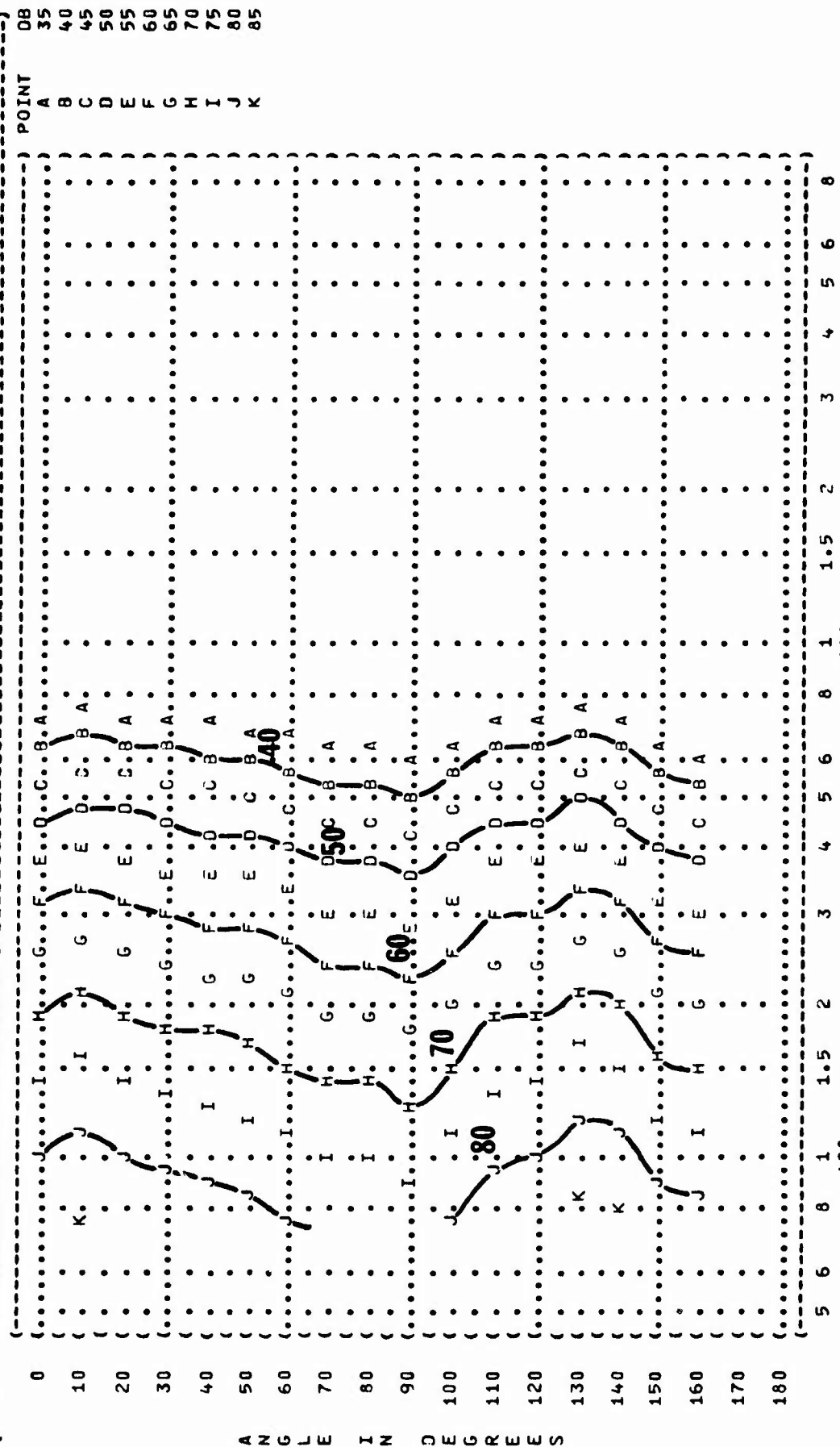


(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (4000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (80% RPM
 (F100-PW-100(1) ENGINE (SINGLE ENGINE
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 04
 (07 MAY 75
 (PAGE 25



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

(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (EQUAL LEVEL CONTOURS (DB)
 (11 8000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (80% RPM
 (F100-PW-100(1) ENGINE (SINGLE ENGINE
 (FAR FIELD NOISE (FREE FLOW
 (METEOROLOGY: (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION: (OMEGA 1.4
 (TEST 75-002-029
 (RUN 04
 (07 MAY 75
 (PAGE 26



DISTANCE FROM SOURCE (METERS)

(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (EQUAL LEVEL CONTOURS (DB)
 (11 31.5 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT:
 (F-15A AIRCRAFT
 (F100-PW-100(1) ENGINE
 (FAR FIELD NOISE
 (OPERATION:
 (MILITARY POWER
 (90% RPM
 (SINGLE ENGINE
 (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 05
 (07 MAY 75
 (PAGE 18

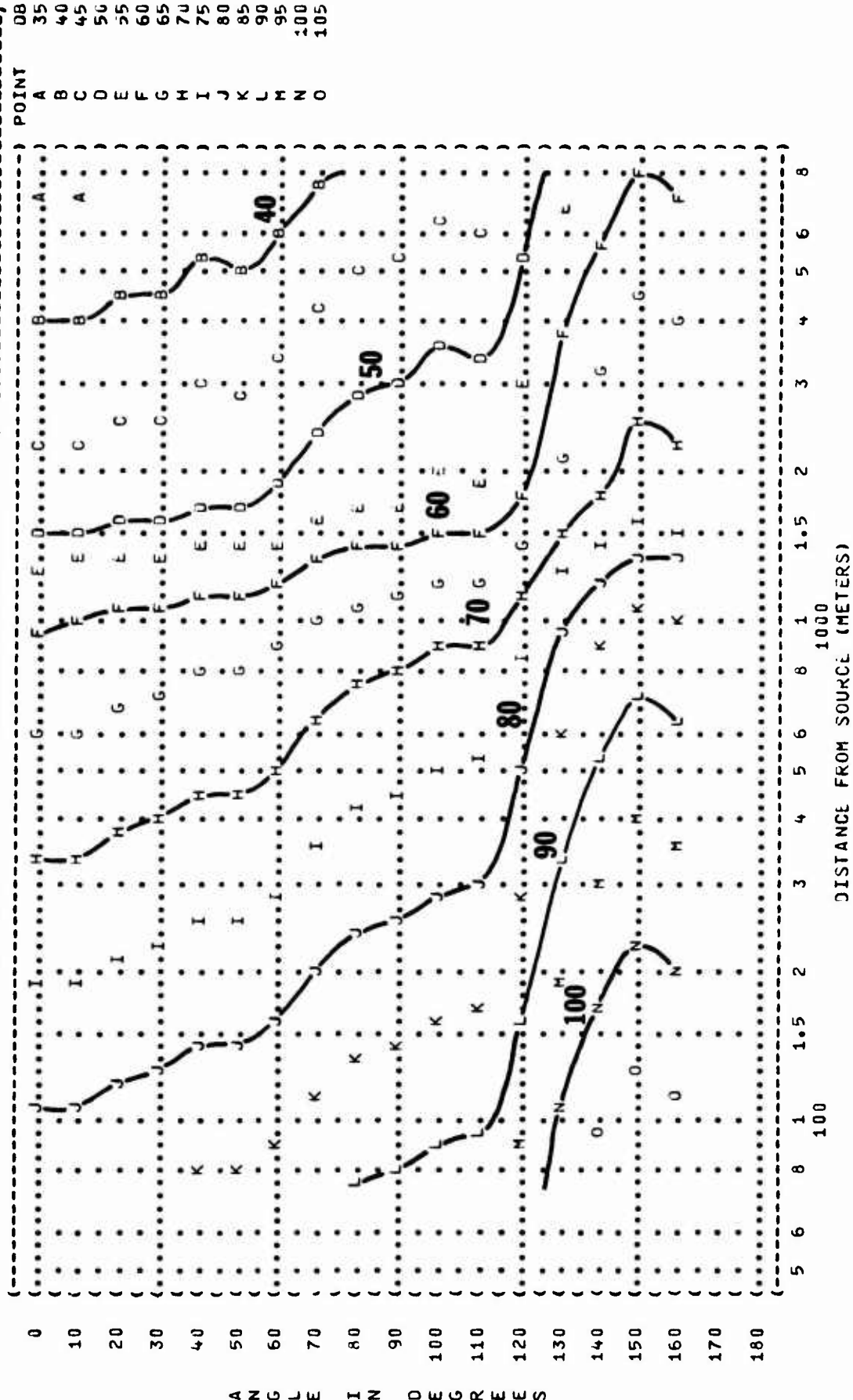


FIGURE: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
63 HZ OCTAVE BAND

11

NOISE SOURCE/SUBJECT:

F-15A AIRCRAFT
F100-PW-100(1) ENGINE
FAR FIELD NOISE

OPERATION:

MILITARY POWER
90% RPM
SINGLE ENGINE
FREE FLOW

METEOROLOGY:

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

IDENTIFICATION:

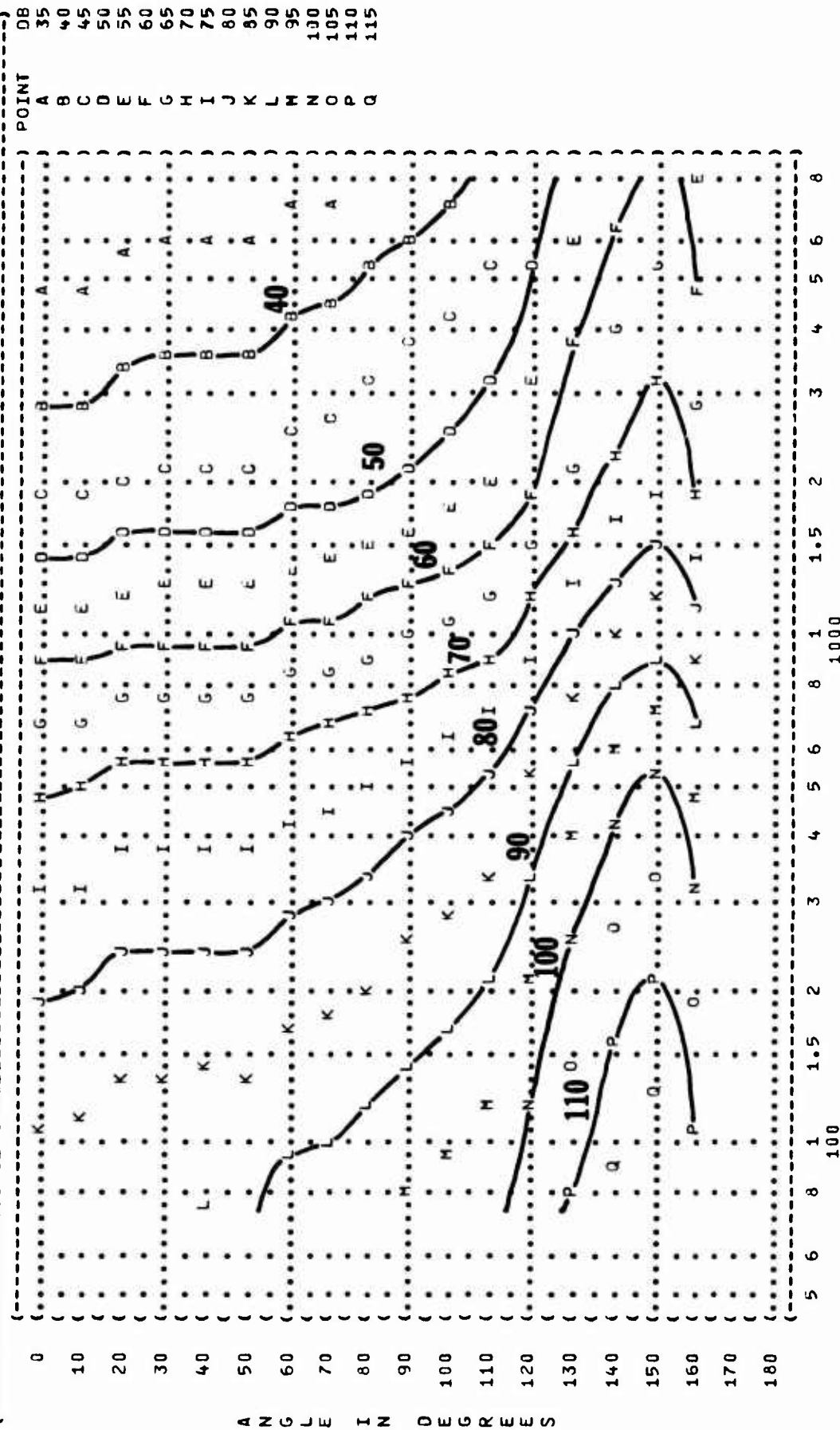
OMEGA 1.4

TEST 75-002-029

RUN 05

07 MAY 75

PAGE 19



(FIGURE: SOUND PRESSURE LEVEL {SPL}
 (11 EQUAL LEVEL CONTOURS (DB)
 (125 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (MILITARY POWER
 (F100-PW-100(1) ENGINE (90% RPM
 (FAR FIELD NOISE (SINGLE ENGINE
 (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 05
 (07 MAY 75
 (PAGE 20

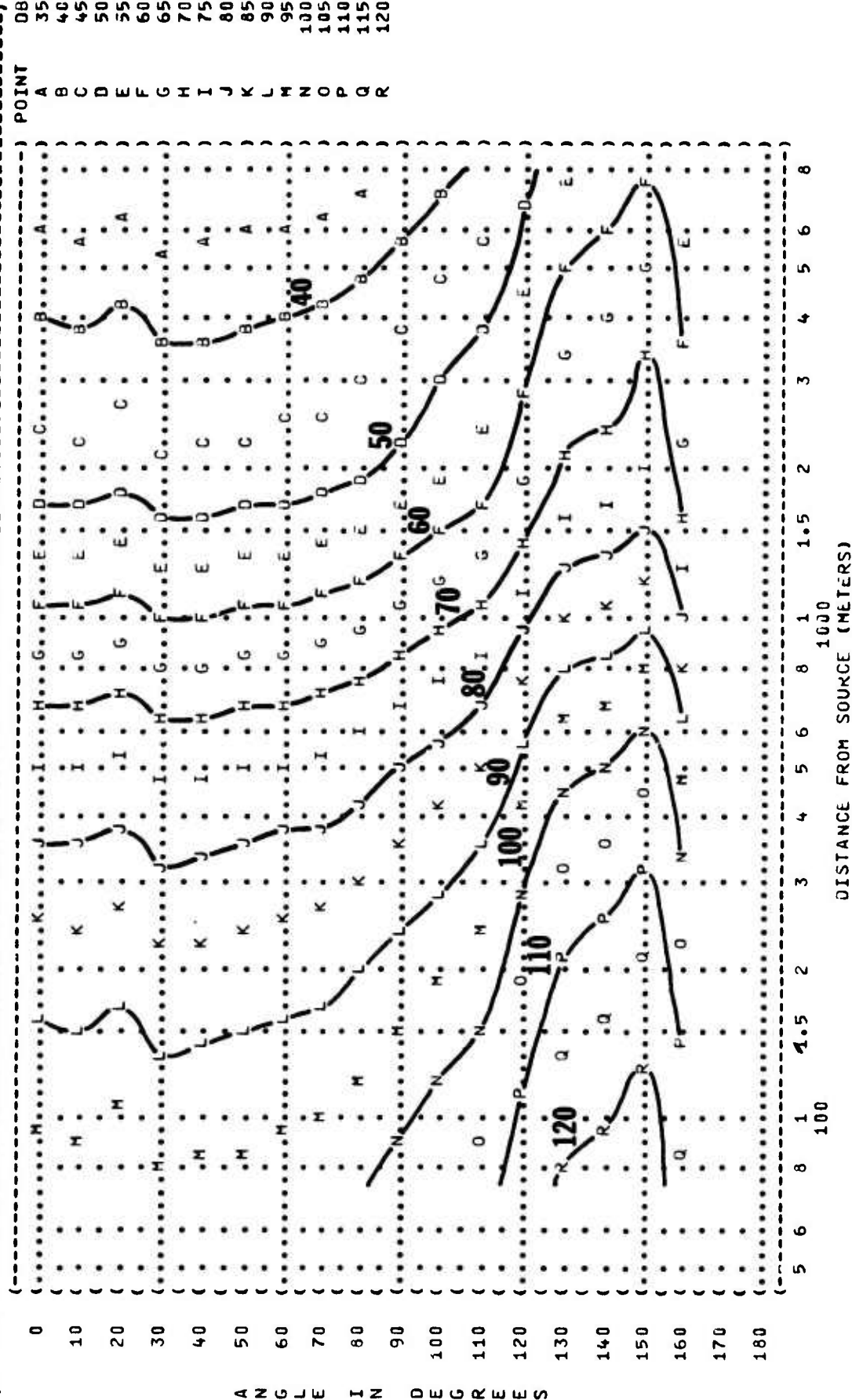


FIGURE: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
250 HZ OCTAVE BAND

11

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-029
RUN 05
07 MAY 75
PAGE 21

NOISE SOURCE/SUBJECT:

OPERATION:

MILITARY POWER

METEOROLOGY:

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

F-15A AIRCRAFT

F100-PW-100(1) ENGINE

FAR FIELD NOISE

90% RPM

SINGLE ENGINE

FREE FLOW

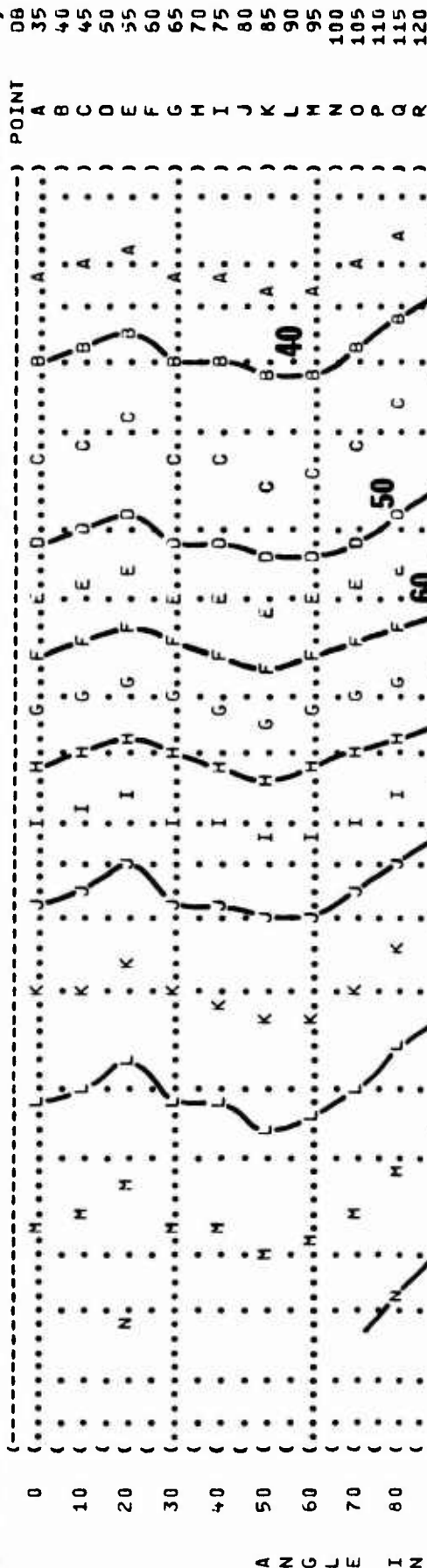


FIGURE: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
500 HZ OCTAVE BAND

11

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-029
RUN 05
METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %
OPERATIONS:
MILITARY POWER
90% RPM
SINGLE ENGINE
FREE FLOW
NOISE SOURCE/SUBJECT:
F-15A AIRCRAFT
F100-PW-100(1) ENGINE
FAR FIELD NOISE

07 MAY 75

PAGE 22

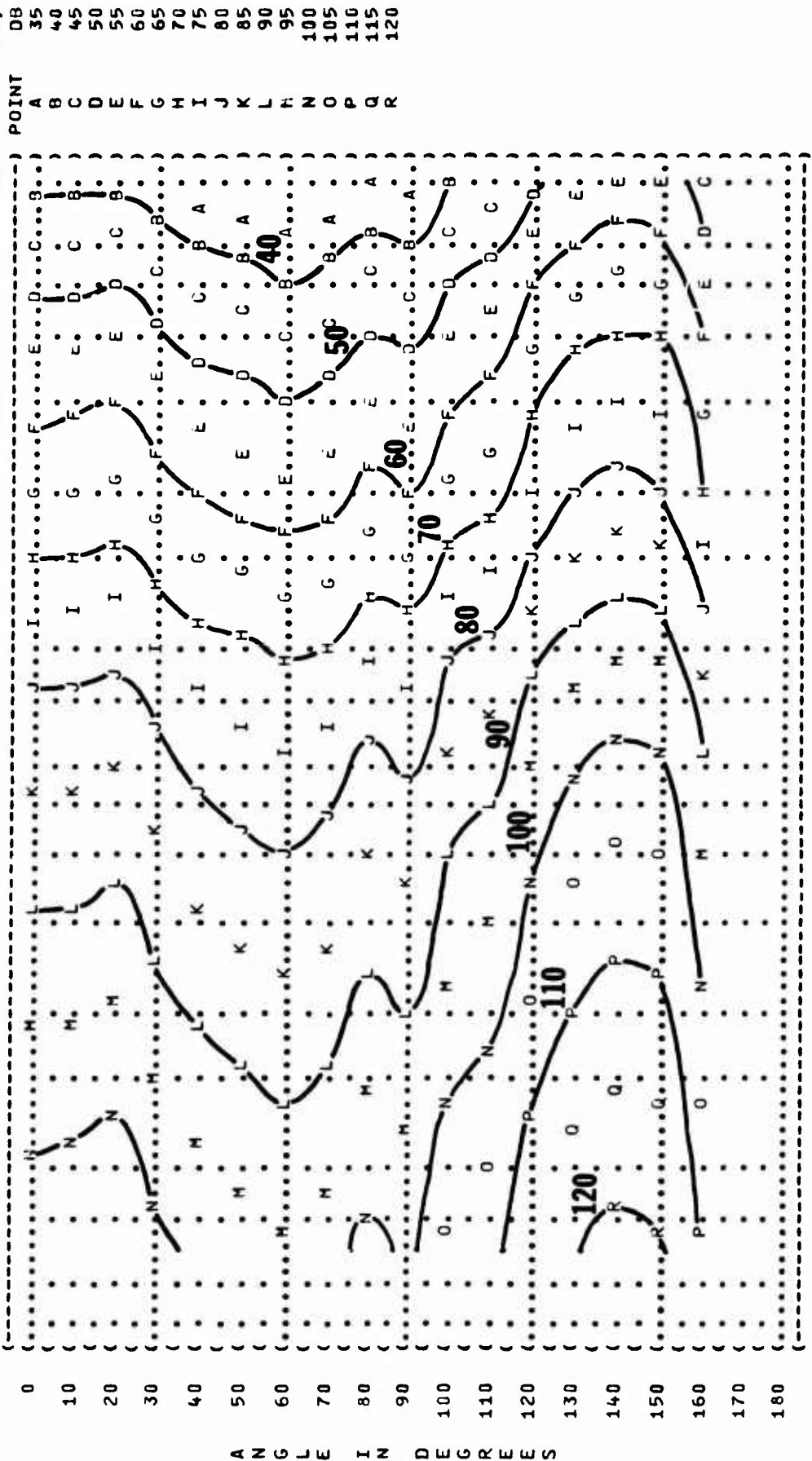
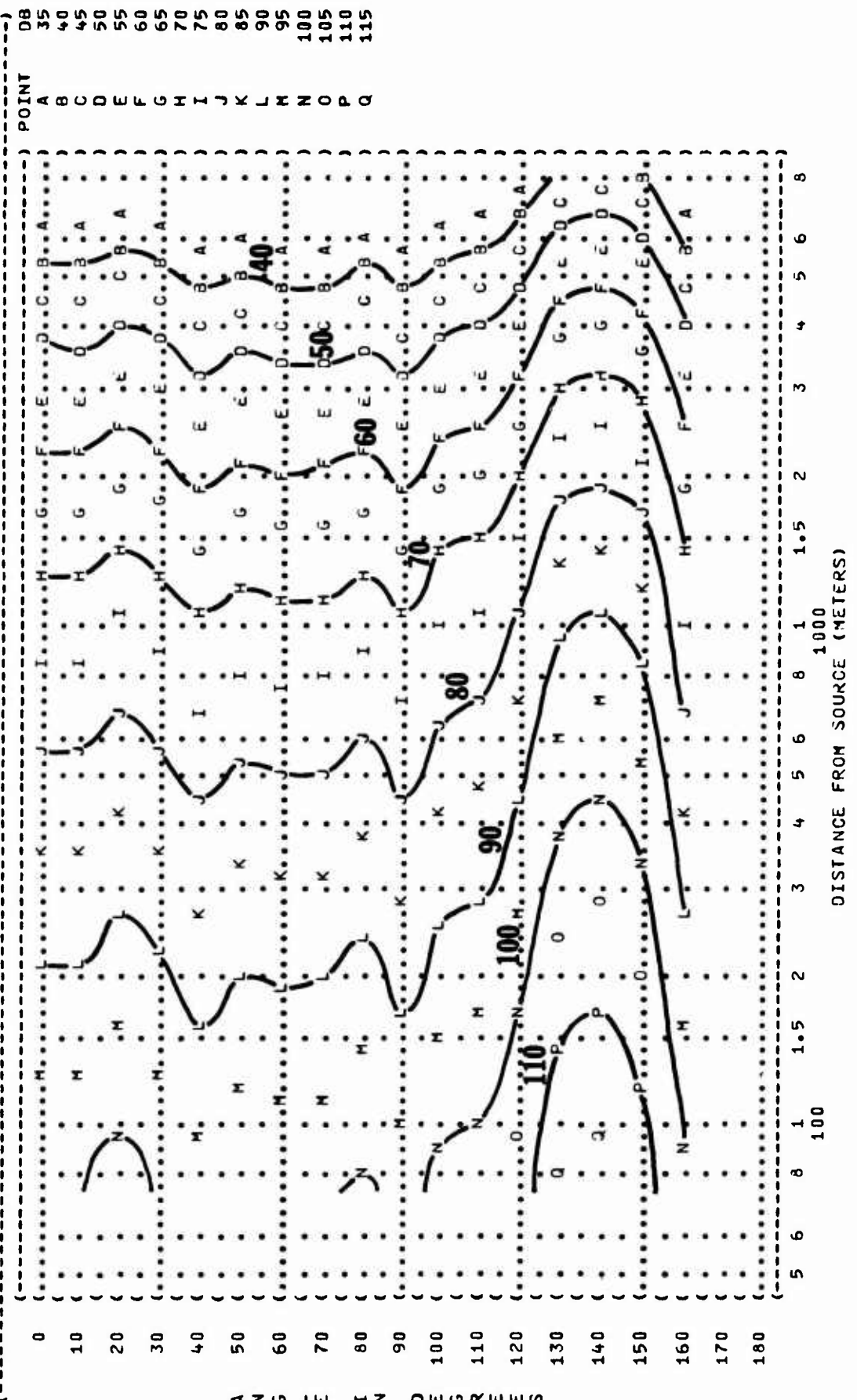


FIGURE: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
1000 HZ OCTAVE BAND

11

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-029
RUN 05
METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %
OPERATION:
MILITARY POWER
90% RPM
SINGLE ENGINE
FREE FLOW
NOISE SOURCE/SUBJECT:
F-15A AIRCRAFT
F100-PW-100(1) ENGINE
FAR FIELD NOISE



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IDENTIFICATION:
OMEGA 1.4
TEST 75-002-029
RUN 05
07 MAY 75
PAGE 24
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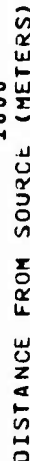
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TEMP = 15 C

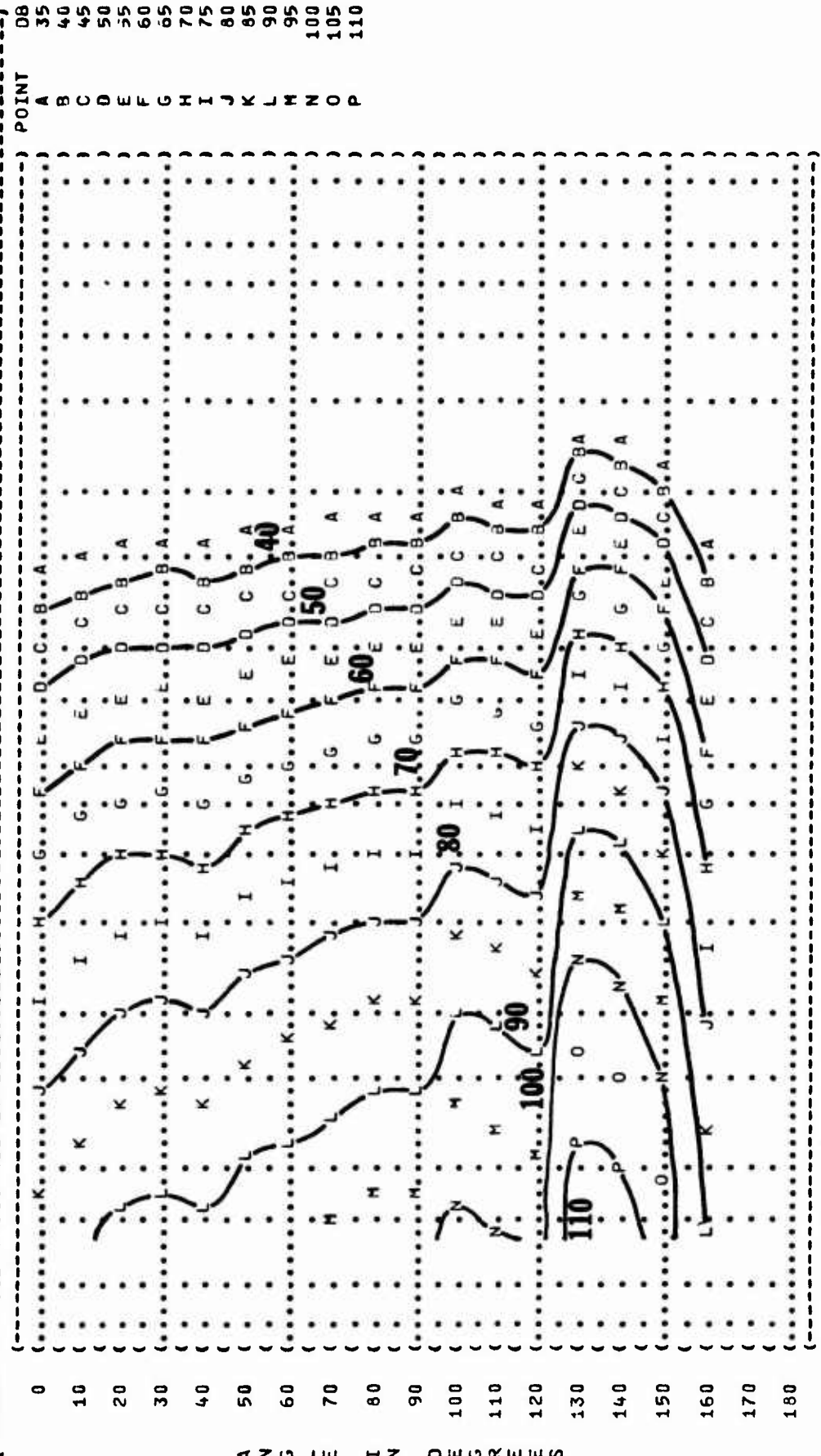
BAR PRESS = .760 M HG

REL HUMID = 70 %

PAGE 24

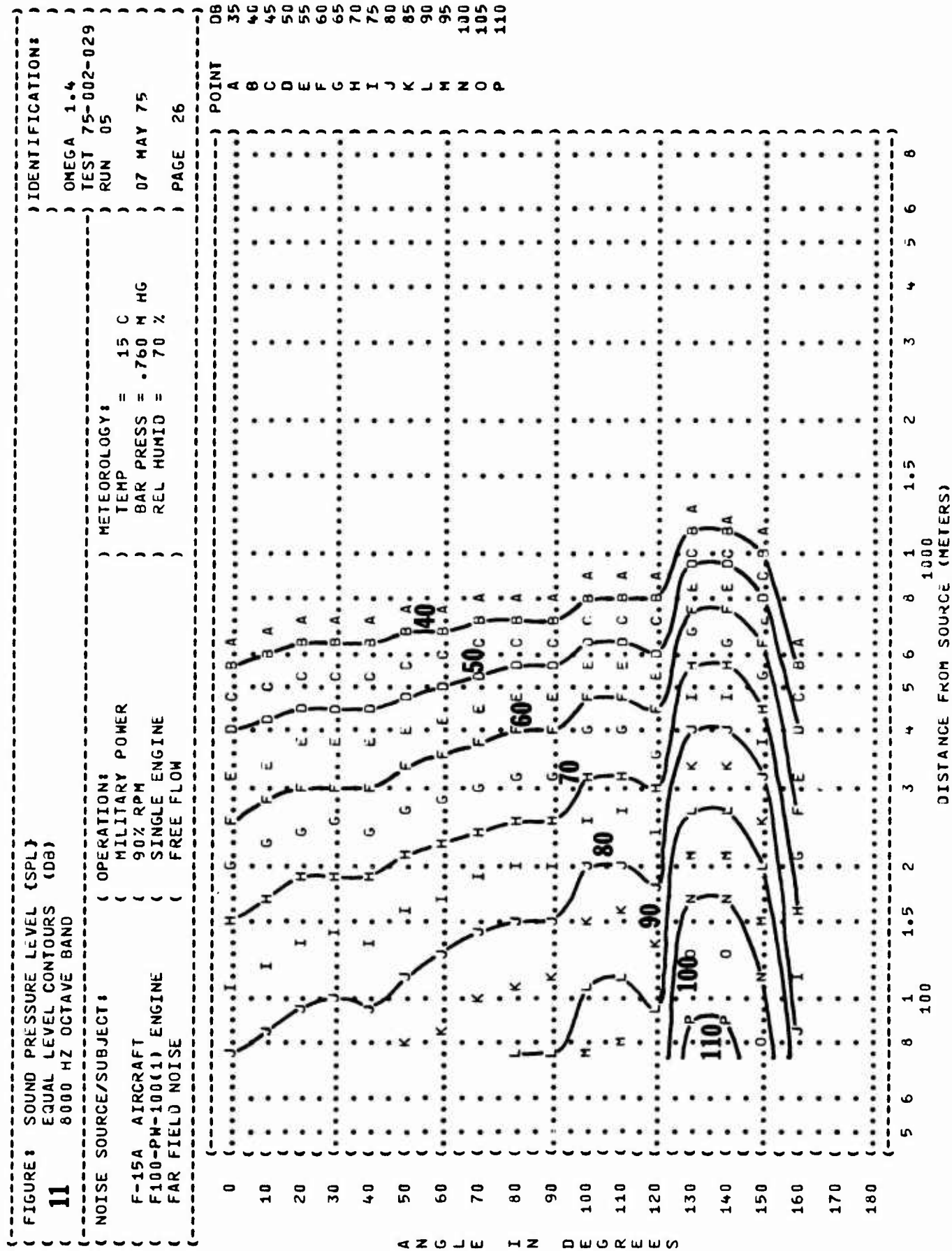


(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (EQUAL LEVEL CONTOURS (DB)
 (11 4000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT: (OPERATION:
 (F-15A AIRCRAFT (MILITARY POWER
 (F100-PW-100(1) ENGINE (90% RPM
 (FAR FIELD NOISE (SINGLE ENGINE
 (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 05
 (07 MAY 75
 (PAGE 25



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

DISTANCE FROM SOURCE (METERS)



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (31.5 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT:
 ((OPERATION:
 ((AFTERBURNER, ZONE 5
 ((90% RPM
 ((SINGLE ENGINE
 ((FREE FLOW
 (F-15A AIRCRAFT
 (F100-PW-100(1) ENGINE
 (FAR FIELD NOISE
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 06
 (07 MAY 75
 (PAGE 18

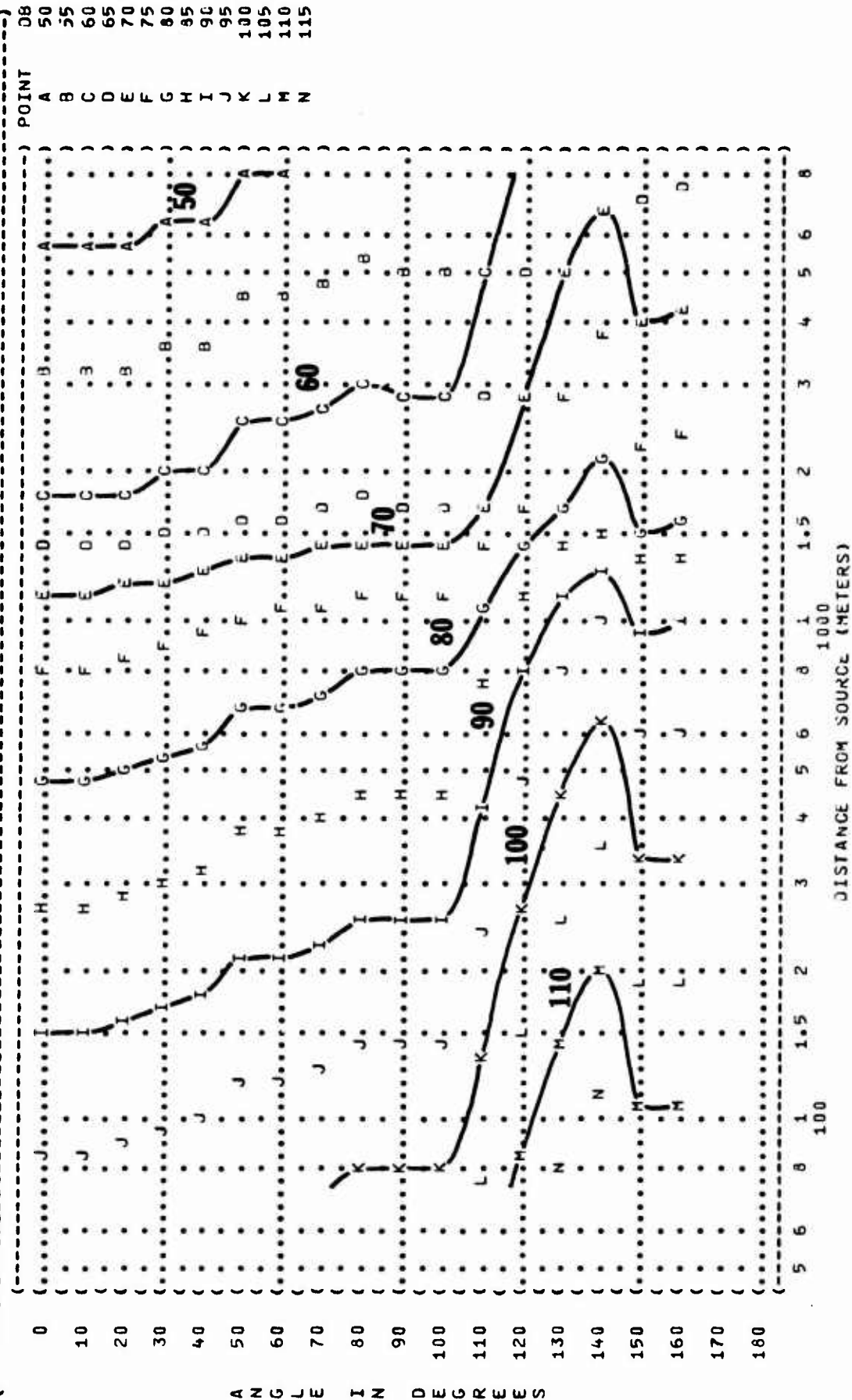


FIGURE: SOUND PRESSURE LEVEL (SPL)
 EQUAL LEVEL CONTOURS (DB)
 63 HZ OCTAVE BAND

11

IDENTIFICATION:
 OMEGA 1.4
 TEST 75-002-029
 RUN 06

NOISE SOURCE/SUBJECT:
 OPERATION:
 AFTERBURNER, ZONE 5
 90% RPM
 SINGLE ENGINE
 FREE FLOW

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

F-15A AIRCRAFT
 F100-PW-100(1) ENGINE
 FAR FIELD NOISE

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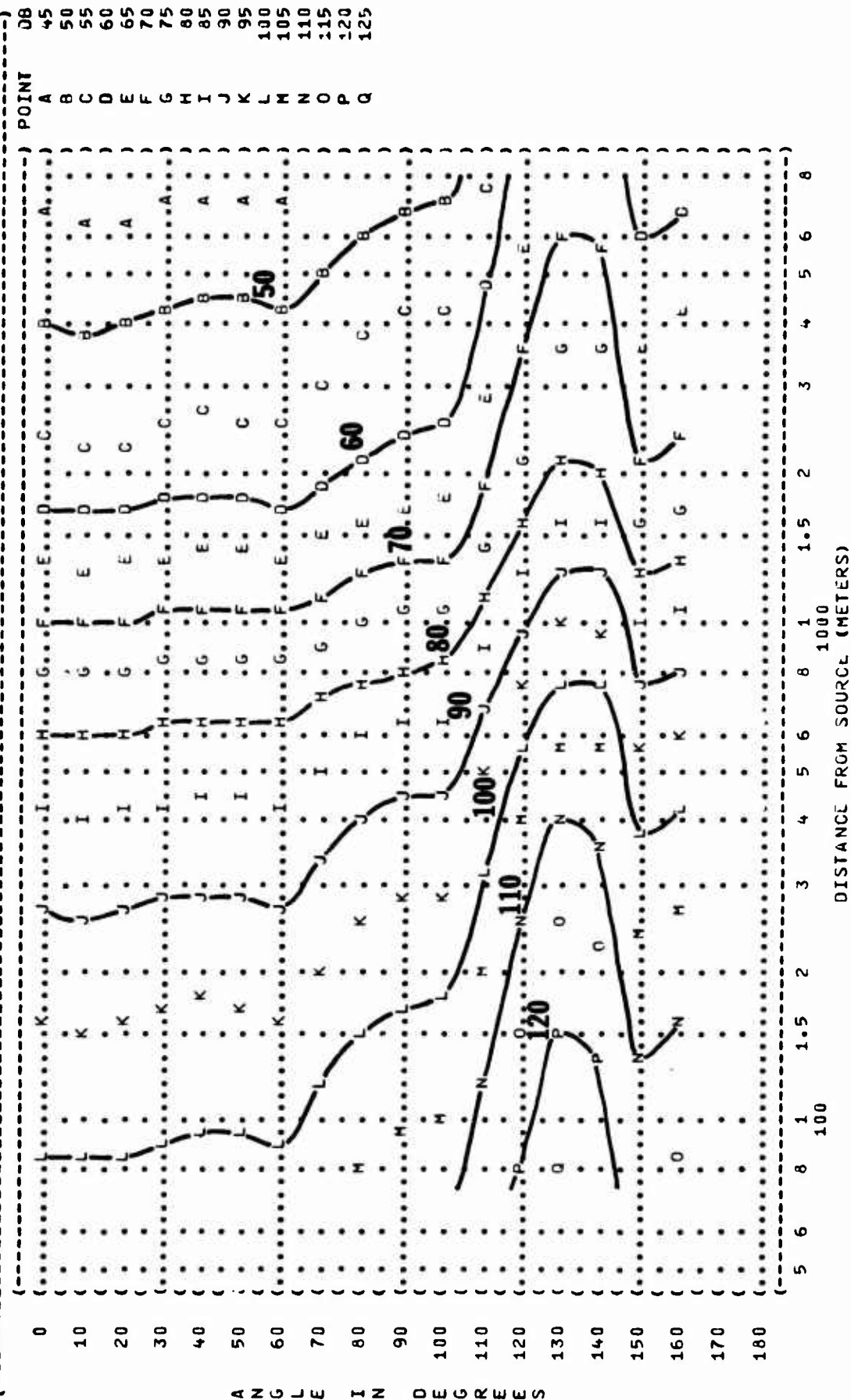


FIGURE: SOUND PRESSURE LEVEL (SPL)

EQUAL LEVEL CONTOURS (DB)

125 HZ OCTAVE BAND

11

NOISE SOURCE/SUBJECT:

F-15A AIRCRAFT
F100-PW-100(1) ENGINE
FAR FIELD NOISE

OPERATION:

AFTERBURNER, ZONE 5
90% RPM
SINGLE ENGINE
FREE FLOW

METEOROLOGY:

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

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-029
RUN 06

07 MAY 75

PAGE 20

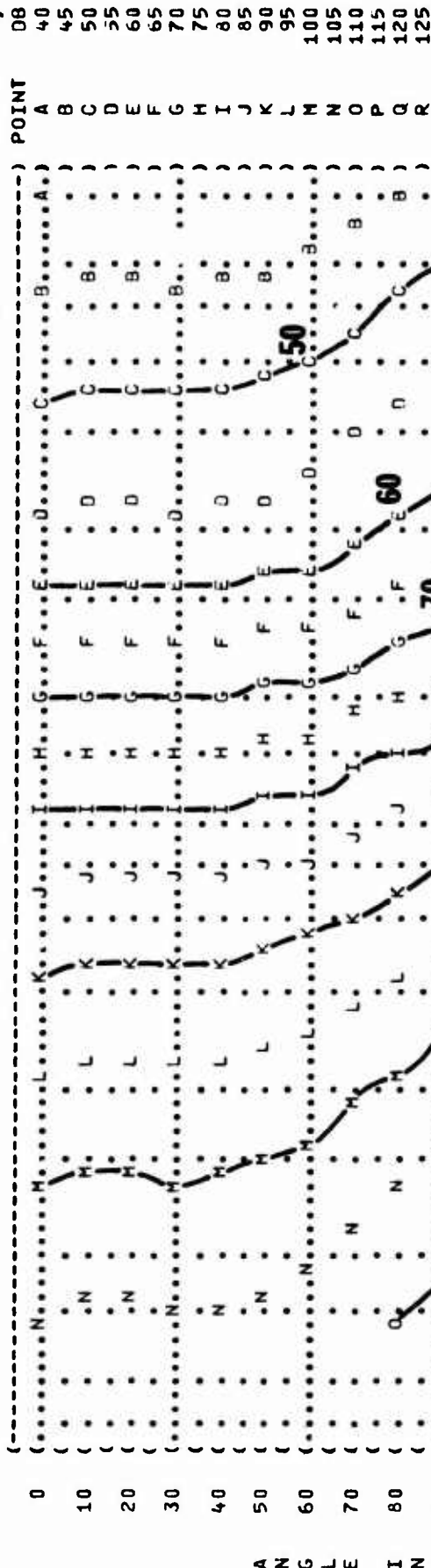


FIGURE: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
250 HZ OCTAVE BAND

11

NOISE SOURCE/SUBJECT:

OPERATION:

METEOROLOGY:

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-029
RUN 06

F-15A AIRCRAFT
F100-PW-100(1) ENGINE
FAR FIELD NOISE

AFTERBURNER, ZONE 5
90% RPM
SINGLE ENGINE
FREE FLOW

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

PAGE 21

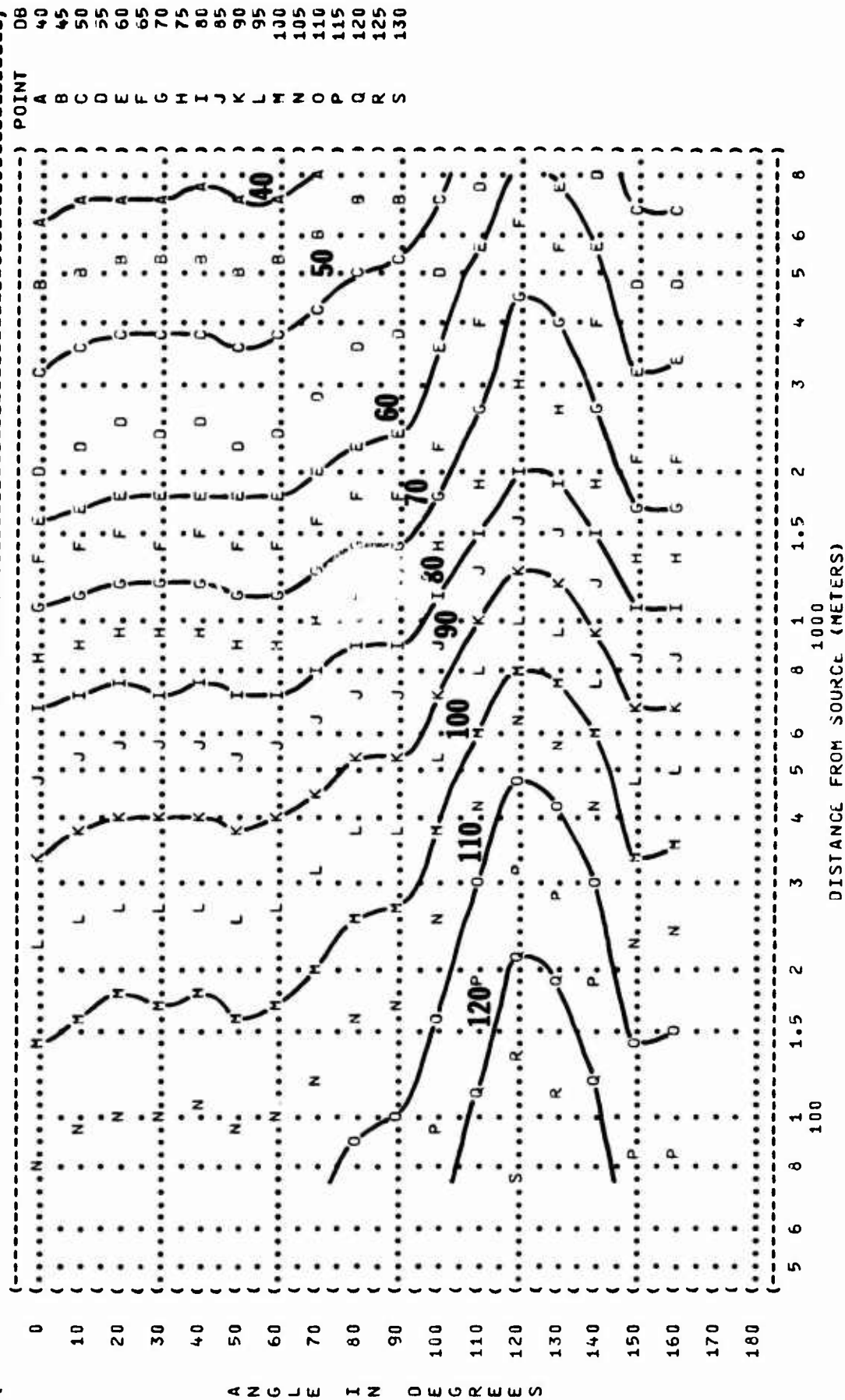


FIGURE: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
500 HZ OCTAVE BAND

11

NOISE SOURCE/SUBJECT:

F-15A AIRCRAFT
F100-PW-100(1) ENGINE
FAR FIELD NOISE

OPERATION:

AFTERBURNER, ZONE 5
90% RPM
SINGLE ENGINE
FREE FLOW

METEOROLOGY:

TEMP = 15 C
BAR PRESS = .750 M HG
REL HUMID = 70 %

IDENTIFICATION:

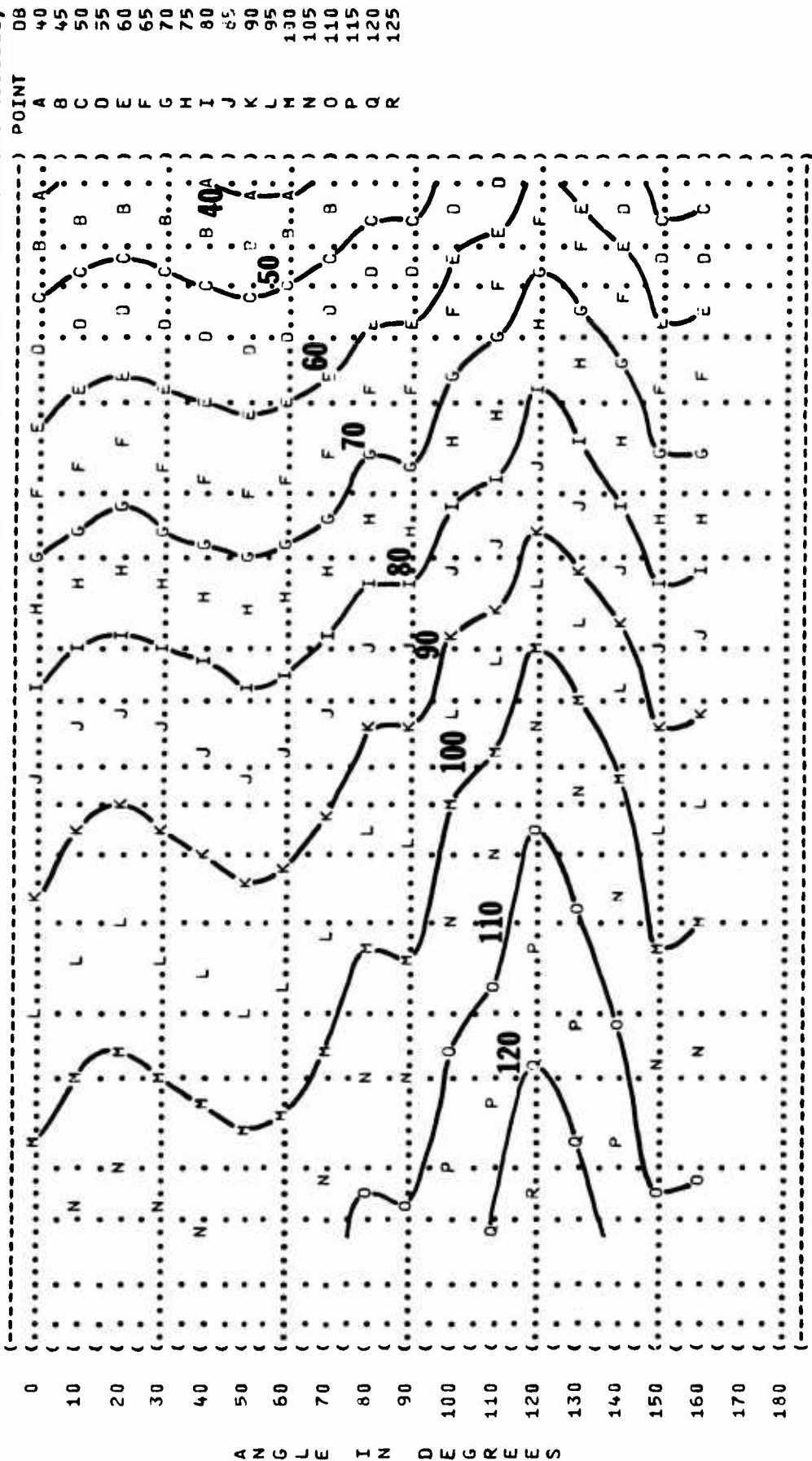
OMEGA 1.4

TEST 75-002-029

RUN 06

07 MAY 75

PAGE 22



11

OMEGA 1.4

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

ANGIE IN DEGREE

1000
DISTANCE FROM SOURCE (METERS)

(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (11 EQUAL LEVEL CONTOURS (DB)
 (2000 HZ OCTAVE BAND
 (NOISE SOURCE/SUBJECT:
 (F-15A AIRCRAFT
 (F100-PW-100(1) ENGINE
 (FAR FIELD NOISE
 (OPERATION:
 (AFTERBURNER, ZONE 5
 (90% RPM
 (SINGLE ENGINE
 (FREE FLOW
 (METEOROLOGY:
 (TEMP = 15 C
 (BAR PRESS = .760 M HG
 (REL HUMID = 70 %
 (IDENTIFICATION:
 (OMEGA 1.4
 (TEST 75-002-029
 (RUN 06
 (07 MAY 75
 (PAGE 24

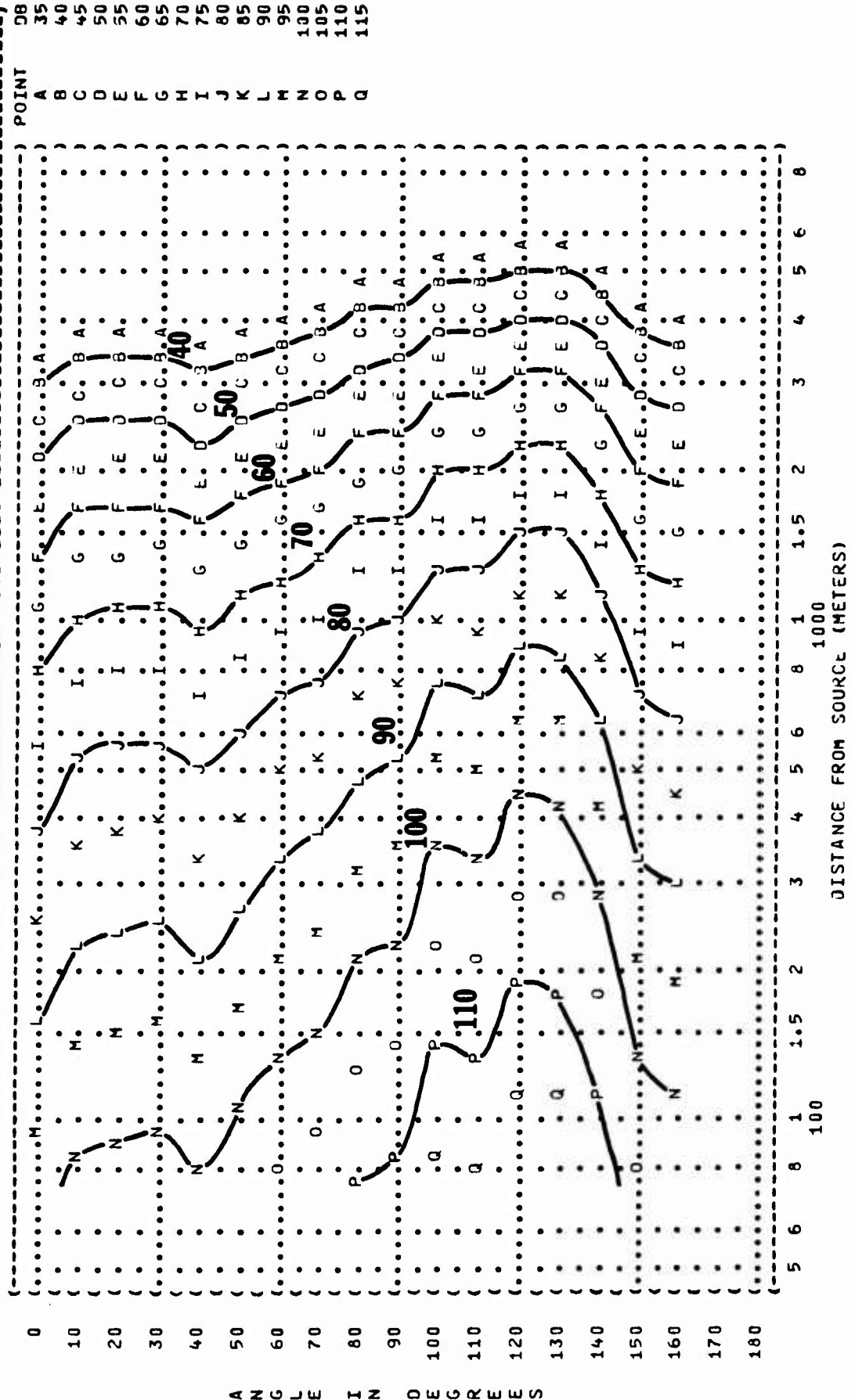
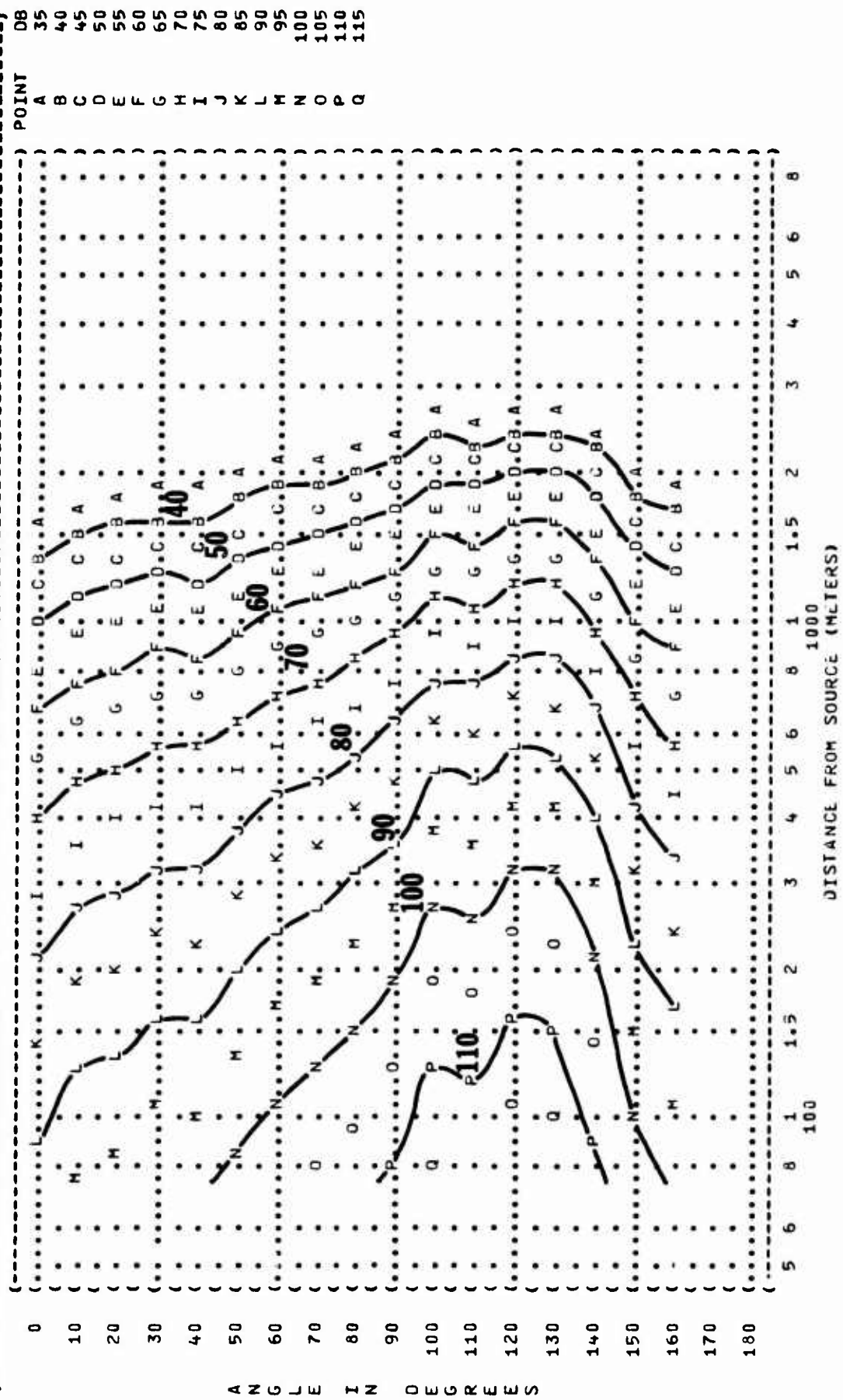


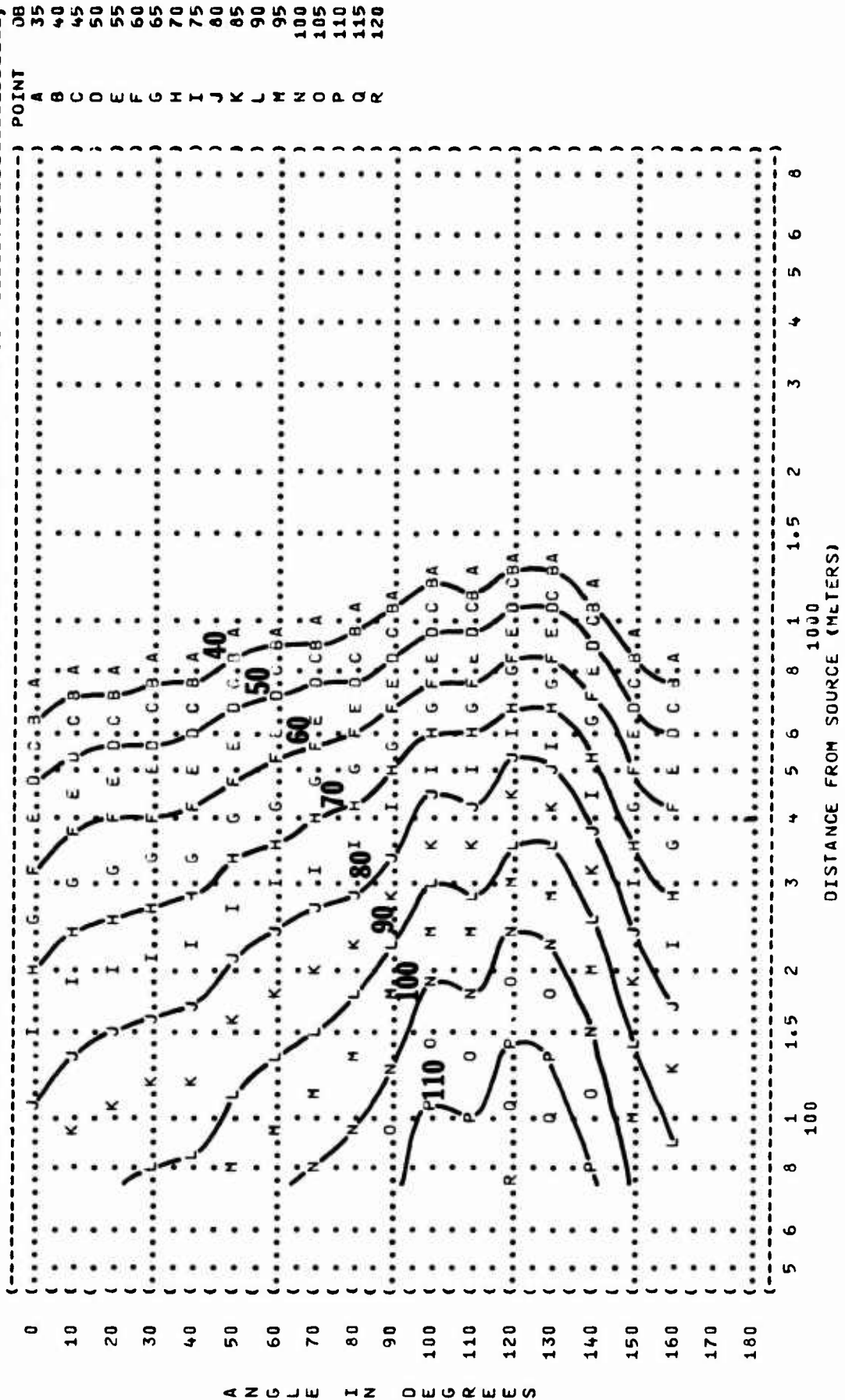
FIGURE: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
4000 HZ OCTAVE BAND

11

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-029
RUN 06
METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %
OPERATION:
AFTERBURNER, ZONE 5
90% RPM
SINGLE ENGINE
FREE FLOW
NOISE SOURCE/SUBJECT:
F-15A AIRCRAFT
F100-PW-100(1) ENGINE
FAR FIELD NOISE



(FIGURE: SOUND PRESSURE LEVEL (SPL)
 (EQUAL LEVEL CONTOURS (DB)
 (8000 HZ OCTAVE BAND
 (11
 (NOISE SOURCE/SUBJECT: (OPERATION: (METEOROLOGY:
 (F-15A AIRCRAFT (AFTERBURNER, ZONE 5 (TEMP = 15 C
 (F100-PW-100(1) ENGINE (90% RPM (BAR PRESS = .760 M HG
 (FAR FIELD NOISE (SINGLE ENGINE (REL HUMID = 70 %
 ((FREE FLOW)
 (IDENTIFICATION:)
 (OMEGA 1.4
 (TEST 75-002-029)
 (RUN 06)
 (07 MAY 75)
 (PAGE 26)



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