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USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK: VOLUME 73. T-43A AIR--ETC(U)
JAN 77 R G POWELL

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1 OF 2
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AMRL-TR-75-50
Volume 73

USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK

Volume 73

T-43A Aircraft, Near and Far-Field Noise

JANUARY 1977

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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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FOR THE COMMANDER

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

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The USAF T-43A is a navigator-trainer aircraft powered by two JT8D-9A turbofan engines. This report provides measured and extrapolated data defining the bioacoustic environments produced by this aircraft operating on a concrete runup pad for five power conditions. Near-field data are reported for five locations in a wide variety of physical and psychoacoustic measures: overall and band sound pressure levels, C-weighted and A-weighted sound levels, preferred speech interference level, perceived noise level, and limiting times

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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.

PREFACE

This report was prepared by the Biodynamic Environment Branch, Aerospace Medical Research Laboratory, under Project/Task 723104, Measurement and Prediction of Noise Environments of Air Force Operations.

The author gratefully acknowledges Mr. John Cole for his assistance in preparing this report, Mr. Robert Lee and Mr. Jerry Speakman for their assistance in acquiring the raw data, Mr. Henry Mohlman, Mr. Keith Kettler 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 T-43A is a navigator-trainer aircraft powered by two JT8D-9A turbofan engines. The aircraft was manufactured by the Boeing Company and the engines by United Aircraft, Pratt and Whitney Division. The commercial version of the aircraft is the Boeing 737-200.

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 T-43A aircraft.

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

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

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

Dirct 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 T-43A aircraft during ground runup operations of its turbofan engines and its on-board auxiliary power unit, APU. For these tests, the aircraft was located on a concrete taxiway at Wright-Patterson AFB with no significant reflecting surfaces in the vicinity except the ground plane. Table 1 gives the surface meteorological conditions and the engine/APU 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 five numbered near-field locations where ground crew are usually located for maintenance and/or preflight checkout operations. Also shown are seven measurement locations (one every 30°) located on a 6.1 meter radius semicircle where the exhaust of the APU is at the center. Estimates of noise levels at other locations in the near-field are difficult since the noise source is spatially distributed, i.e., not a point source. The noise levels at near-field locations can vary widely depending upon relative distances from each noise source (intake noise, exhaust noise, panel resonances, internal engine noise through the engine wall, etc.).

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

RESULTS

The measured data presented in Table 2 define the sound pressure levels (SPL) produced by the T-43A aircraft at the six 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

T-43A Aircraft, Ground Runups, Wright-Patterson AFB
10 October 1974
Tail # 20285

Ground Crew Location

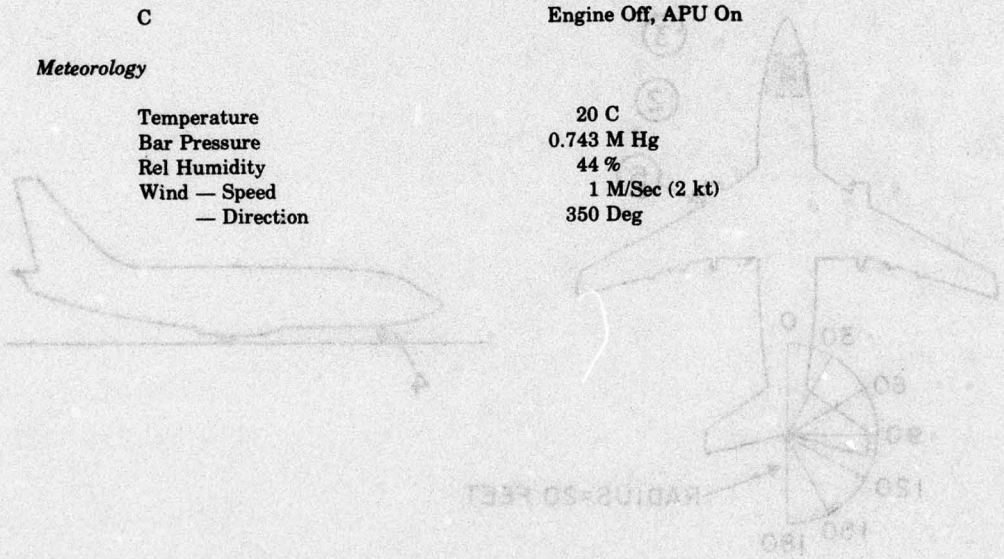
1	Marshall
2	Fire Guard
3	Engine Start
4	FLG Chock Pull
5	Trim Adjustment
6	6.1 Meter (20 ft.) Radius, 30° Increment Mapping of APU

Aircraft Engine Operation

A	Both Idle
B	Both Military Power
C	Engine Off, APU On

Meteorology

Temperature	20 C
Bar Pressure	0.743 M Hg
Rel Humidity	44 %
Wind — Speed	1 M/Sec (2 kt)
— Direction	350 Deg



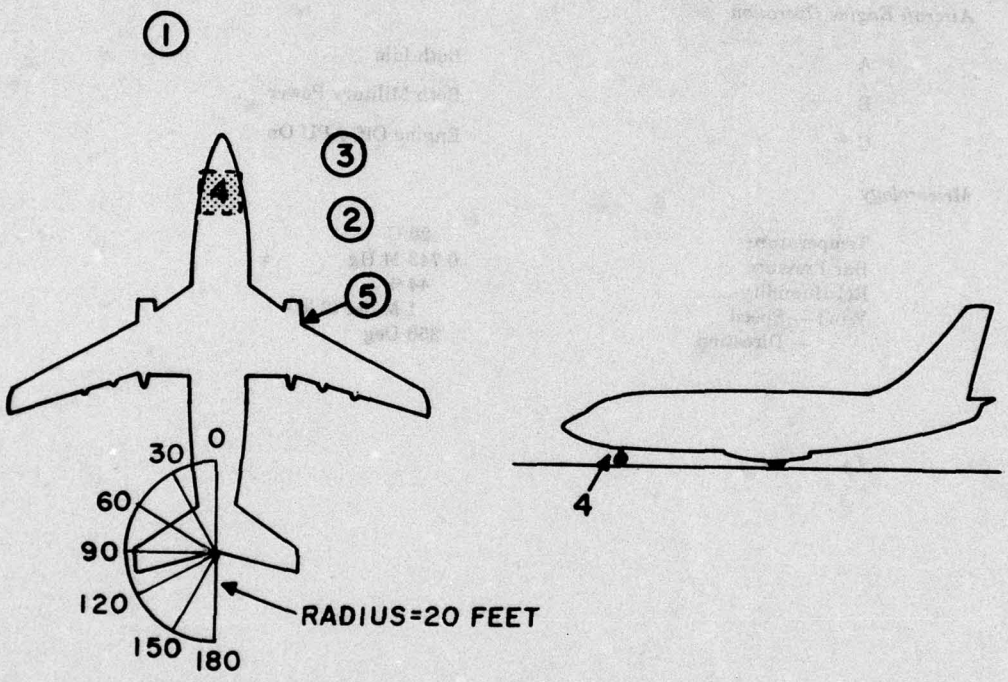


Figure 1. Near-Field Measurement Locations on Taxiway 21 at Wright-Patterson AFB OH

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, (short grass) aircraft orientation and the 19 microphone measurement sites on a semicircle. The center of the 75 meter radius semicircle used in surveying the JT8D-9A engines was on the ground directly below the intersection of the aircraft's centerline and the plane passing through both engines' exhaust-nozzle exits.

Table 4 provides cockpit readouts of some 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 microphone measurement sites are in the acoustic far-field of the source where the sound wavefronts spherically diverge and the noise source may be regarded as a point source.

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

RESULTS

Table 5 lists the overall and 1/3 octave band SPL measured at the far-field locations under meteorological conditions at the time of the test. Data in all other figures and tables are based on these levels. These data were normalized to 100 meters distance and standard meteorological conditions (15 C temperature, 70% relative humidity, 0.760 meter Hg barometric pressure) and used to derive the graphic data in Figure 3 which provides a compact summary of the far-field noise characteristics of the T-43A aircraft in a standard format.

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

Estimates of noise characteristics for intermediate power settings (e.g., 88% engine core speed) and/or different number of engines operating (e.g., single engine) can be determined as explained in Volume 1 of this handbook.

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

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

Test personnel performed noise surveys during quiet periods when the background noise was minimal, e.g., early in the morning when no other aircraft or engine test stands were operating.

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.

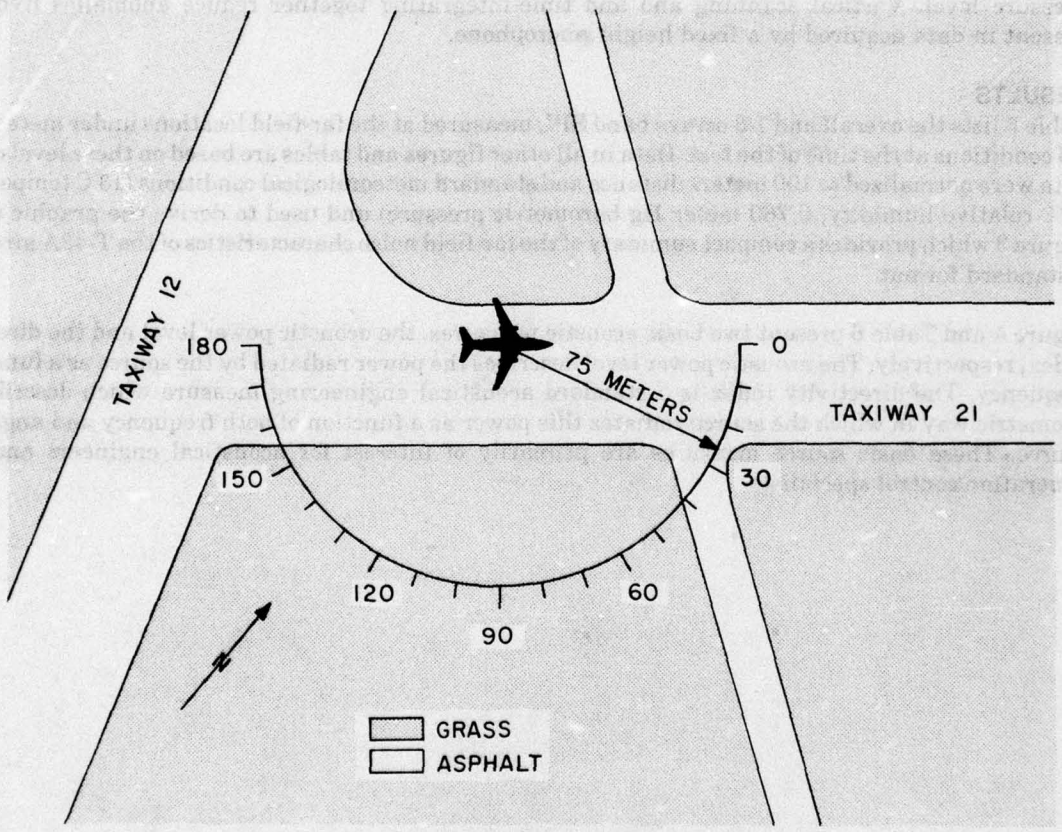


Figure 2. Far-Field Measurement Locations at Wright-Patterson AFB OH

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

IDENTIFICATION: OMEGA 3.2 / TEST 74-083-001 / RUN 01 / 02 APR 75 / PAGE F1

NOISE SOURCE/SUBJECT: T-43A AIRCRAFT, GROUND CREW, NEAR FIELD NOISE LEVELS

OPERATION:

FREQ (HZ)	LOCATION/CONDITION 1/A	2/A	3/A	4/A	5/A	5/B
25	71	80	75	81	87	84
31.5	73	77	77	87	89	87
40	78	79	80	92	91	87
50	76	77	78	93	90	88
63	76	80	76	87	90	90
80	83	84	80	83	94	92
100	87	89	82	90	96	95
125	81	85	82	87	91	97
160	83	87	86	86	92	102
200	81	86	85	89	94	98
250	82	84	85	86	93	100
315	83	88	85	90	99	101
400	87	88	87	92	94	102
500	91	91	87	92	94	102
630	84	94	87	93	95	101
800	86	94	88	95	93	101
1000	89	95	93	97	94	101
1250	94	99	97	102	98	100
1600	98	102	100	102	99	99
2000	97	104	102	102	98	98
2500	99	106	100	103	95	97
3150	103	109	105	110	102	98
4000	99	104	100	106	97	99
5000	96	102	99	105	94	96
6300	95	101	97	103	91	95
8000	93	98	95	101	91	95
10000	89	94	90	98	88	94
OVERALL	108	114	110	115	109	112

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

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

IDENTIFICATION:
OMEGA 3.2
TEST 74-083-002
RUN 01
02 APR 75
PAGE F1

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

FREQ (HZ)	LOCATION/CONDITION ---->	6/C	6/C	6/C	6/C	6/C	6/C	6/C
	ANGLE (DEGREES) ---->	0	30	60	90	120	150	180
	DISTANCE (METERS) ---->	6.1	6.1	6.1	6.1	6.1	6.1	6.1
25		79	80	76	75	75	75	77
31.5		75	77	75	74	76	78	77
40		81	80	79	79	82	82	83
50		77	77	78	78	81	81	81
63		74	74	71<	70<	72<	74	75
80		69<	71<	66<	65<	69<	68<	68<
100		74<	76<	73<	75<	72<	73<	71<
125		78	79	79	81	83	81	81
160		81	83	83	85	85	85	85
200		78	82	82	83	83	84	84
250		74	81	81	82	81	82	82
315		72	80	79	83	85	86	85
400		77	81	79	80	82	82	83
500		79	86	81	83	85	85	85
630		76	80	78	79	81	82	82
800		74	82	78	77	81	82	81
1000		75	84	77	76	80	82	81
1250		78	83	79	77	78	79	77
1600		76	88	82	77	77	79	76
2000		76	89	81	79	78	79	76
2500		75	87	80	78	77	76	74
3150		78	91	81	78	77	75	74
4000		80	94	84	81	79	77	77
5000		75	90	81	78	77	76	75
6300		75	92	81	78	76	75	75
8000		77	95	85	83	80	79	79
10000		82	103	91	86	82	80	80
OVERALL		92	105	96	94	95	95	95

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 2 MEASURED SOUND PRESSURE LEVEL (DB)
OCTAVE BAND

IDENTIFICATION:
OMEGA 3.2
TEST 74-083-001
RUN 01
02 APR 75
PAGE J1

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

LOCATION/CONDITION

FREQ (HZ)	1/A	2/A	3/A	4/A	5/A	5/B
31.5	80	83	82	93	94	91
63	84	86	83	94	96	95
125	89	92	88	92	98	104
250	87	91	90	93	101	104
500	93	96	92	97	99	106
1000	95	101	98	104	100	105
2000	102	109	105	107	102	103
4000	105	111	107	112	103	102
8000	98	103	99	106	95	100
OVERALL	108	114	110	115	109	112

TABLE: 2 MEASURED SOUND PRESSURE LEVEL (DB) OCTAVE BAND

IDENTIFICATION:
OMEGA 3.2
TEST 74-083-002
RUN 01

02 APR 75

PAGE J1

NOISE SOURCE/SUBJECT: T-43A AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

FREQ (HZ)	LOCATION/CONDITION ----> ANGLE (DEGREES) ----> DISTANCE (METERS) ---->	6/C 0 6.1	6/C 30 6.1	6/C 60 6.1	6/C 90 6.1	6/C 120 6.1	6/C 150 6.1	6/C 180 6.1
31.5		84	84	81	81	83	84	85
63		79	79	79	78	82	82	82
125		83	85	84	86	87	87	86
250		80	86	85	87	88	89	88
500		82	88	84	86	88	88	88
1000		80	88	83	81	84	86	85
2000		80	93	86	82	82	83	80
4000		83	97	87	84	82	81	80
8000		84	104	92	88	84	83	83
OVERALL		92	105	96	94	95	95	95

TABLE: MEASURES OF HUMAN NOISE EXPOSURE

3

IDENTIFICATION:

OMEGA 3.2
TEST 74-083-001
RUN 01

02 APR 75

PAGE H1

NOISE SOURCE/SUBJECT: T-43A AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

	LOCATION/CONDITION					
	1/A	2/A	3/A	4/A	5/A	5/B
HAZARD/PROTECTION						
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR						
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR						
MAXIMUM PERMISSIBLE TIME (T IN MINUTES) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)						
NO PROTECTION						
OASLC	107	113	109	114	109	112
OASLA	109	115	111	115	108	110
T	6	2.2	4.5	2.2	8	5
MINIMUM QPL EAR MUFFS						
OASLA*	81	86	82	87	84	88
T	807	339	679	285	480	240
AMERICAN OPTICAL 1700 EAR MUFFS						
OASLA*	74	79	76	81	79	83
T	960	960	960	807	960	571
V-51R EAR PLUGS						
OASLA*	78	84	80	85	81	85
T	960	480	960	404	807	404
AMERICAN OPTICAL 1700 EAR MUFFS PLUS V-51R EAR PLUGS						
OASLA*	65	70	67	72	67	71
T	960	960	960	960	960	960
H-133 GROUND COMMUNICATION UNIT						
OASLA*	83	88	84	89	82	83
T	571	240	480	202	679	571
COMMUNICATION						
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)						
PSIL	97	102	98	103	101	105
ANNOYANCE						
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)						
TONE CORRECTION (C IN DB)						
PNLT	125	130	126	131	125	125
C	2	1	2	2	2	1

* BASED ON CALCULATED SPL SPECTRUM UNDER PROTECTIVE DEVICE.

TABLE: MEASURES OF HUMAN NOISE EXPOSURE

3

IDENTIFICATION:
OMEGA 3.2
TEST 74-083-002
RUN 01
02 APR 75
PAGE H1

NOISE SOURCE/SUBJECT: T-43A AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

LOCATION/CONDITION ---->	6/C	6/C	6/C	6/C	6/C	6/C	6/C
ANGLE (DEGREES) ---->	0	30	60	90	120	150	180
DISTANCE (METERS) ---->	6.1	6.1	6.1	6.1	6.1	6.1	6.1
HAZARD/PROTECTION							
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR							
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR							
MAXIMUM PERMISSIBLE TIME (T IN MINUTES) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)							
NO PROTECTION							
OASLC	90	102	94	93	94	95	94
OASLA	89	104	94	91	91	91	90
T	202	15	85	143	143	143	170
MINIMUM QPL EAR MUFFS							
OASLA*	66	80	71	70	71	71	70
T	960	960	960	960	960	960	960
AMERICAN OPTICAL 1700 EAR MUFFS							
OASLA*	62	77	67	66	66	66	66
T	960	960	960	960	960	960	960
V-51R EAR PLUGS							
OASLA*	62	75	66	65	67	67	67
T	960	960	960	960	960	960	960
AMERICAN OPTICAL 1700 EAR MUFFS PLUS V-51R EAR PLUGS							
OASLA*	49	64	54	52	52	53	52
T	960	960	960	960	960	960	960
H-133 GROUND COMMUNICATION UNIT							
OASLA*	61	75	66	63	63	63	62
T	960	960	960	960	960	960	960
COMMUNICATION							
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)							
PSIL	81	90	84	83	85	86	84
ANNOYANCE							
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)							
TONE CORRECTION (C IN DB)							
PNLT	105	118	108	106	106	106	105
C	1	2	0	0	1	1	1

* BASED ON CALCULATED SPL SPECTRUM UNDER PROTECTIVE DEVICE.

TABLE 4

TEST CONDITIONS FOR FAR-FIELD NOISE MEASUREMENTS

T-43A Aircraft, Ground Runups, Wright-Patterson AFB
10 October 1974
Tail # 20285

Aircraft Engine Operation

Idle	Both Engines 1.05 EPR, Engine Pressure Radio 34 % NC, Core Speed 1050 LBS/HR FF, Fuel Flow
80% Engine Runup	Both Engines 1.50 EPR 80 % NC 4800 LBS/HR FF
85% Engine Runup	Both Engines 1.70 EPR 85 % NC 5800 LBS/HR FF
90% Engine Runup	Both Engines 1.84 EPR 90 % NC 7000 LBS/HR FF
Takeoff Rate Thrust	Both Engines 2.01 EPR 97 % NC 8000 LBS/HR FF

Meteorology

Temperature	20 C
Bar Pressure	0.743 M Hg
Rel Humidity	44 %
Wind	Calm

TABLE: 5

MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 75 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 2

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	63<	61<	63<	63<	65<	66<	67<	66<	66<	69	68	70	70	68	71	72	74	75	76
31.5	61<	63<	63<	63<	64<	64<	65<	67<	66<	66<	65<	66<	67<	70	72	72	74	76	76
40	65<	64<	65<	65<	65<	68	69	68	67<	66<	68	71	72	72	72	74	74	75	78
50	63<	62<	62<	63<	64<	67<	67<	66<	64<	67<	71	72	72	73	72	73	73	74	75
63	66<	64<	65<	62<	66<	67<	69<	67<	67<	68<	70<	73	73	75	76	75	74	74	75
80	73	73	72<	70<	69<	69<	72<	70<	68<	72<	73	71<	74	77	80	79	76	73	73
100	76<	75<	72<	74<	70<	68<	70<	72<	71<	76<	75<	75<	77	78	80	81	79	74<	72<
125	72	71	72	71	70	67<	71	73	73	71	72	73	75	76	77	79	76	73	67<
160	75	73	74	69	69	68	68	65	74	72	76	75	76	78	77	80	78	74	70
200	73	72	74	71	69	66	69	66	70	72	74	71	75	77	75	78	78	75	72
250	76	75	73	72	68	68	66	64	67	69	72	70	73	77	76	77	77	74	72
315	74	74	75	73	69	67	64	64	66	66	69	72	73	77	77	77	77	74	76
400	77	76	75	73	67	66	64	62	63	66	71	74	75	75	76	73	73	72	72
500	79	78	76	75	67	66	65	63	61	68	71	74	75	78	73	73	71	70	69
630	79	78	76	75	69	69	68	65	62	69	72	75	76	79	75	74	70	70	70
800	78	78	76	75	72	70	68	65	63	69	73	75	77	79	75	75	70	70	70
1000	82	82	79	78	75	72	71	66	64	70	74	74	77	77	72	72	68	69	68
1250	88	87	86	84	81	80	80	74	68	73	76	75	79	76	74	73	71	71	72
1600	87	86	88	91	82	82	82	78	70	81	82	82	85	85	81	81	76	80	80
2000	84	83	84	84	83	86	85	79	72	79	82	79	81	82	79	77	72	74	74
2500	88	86	86	84	82	82	79	75	71	76	79	78	81	82	78	77	71	73	73
3150	93	90	89	91	90	89	88	88	80	80	83	80	82	83	78	78	72	75	76
4000	86	85	85	86	83	84	83	78	74	82	84	84	84	83	80	79	74	76	76
5000	85	83	83	83	80	79	79	74	70	77	79	78	80	81	77	75	71	73	73
6300	83	81	81	80	78	76	76	72	67	73	77	76	78	80	75	73	69	71	71
8000	80	78	77	76	74	72	72	67	64	71	74	74	76	78	74	71	67	68	68
10000	74	73	72	71	69	67	66	63	59	65	68	68	70	72	67	65	61	62	63
OVERALL	98	96	96	96	93	93	92	90	85	89	91	90	92	93	91	91	88	88	88

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 5

MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 75 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 2

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	73	74	76	75	77	77	78	80	81	80	83	85	87	93	97	99	97		
31.5	75	76	77	77	77	77	77	79	81	83	84	85	87	92	96	100	98		
40	77	79	79	80	79	79	82	81	84	86	87	88	90	96	100	102	99		
50	76	78	78	79	79	80	82	82	85	86	88	88	92	97	103	104	97		
63	81	80	81	81	81	82	83	84	86	87	90	91	95	100	104	106	97		
80	82	83	81	82	82	84	87	87	87	88	92	93	96	102	107	107	96		
100	85	85	83	85	84	84	87	88	90	91	94	96	99	105	110	111	98		
125	86	85	85	86	83	84	85	88	89	91	93	96	98	103	110	111	99		
160	88	86	88	86	84	85	87	88	90	91	94	96	98	102	109	110	101		
200	90	88	89	88	82	84	85	85	86	88	91	92	96	98	103	107	96		
250	88	88	89	87	81	82	83	83	83	86	88	91	95	97	97	104	94		
315	86	87	88	86	81	80	79	81	83	86	87	90	94	97	95	99	92		
400	86	87	87	86	82	79	79	81	85	87	87	91	93	95	94	96	90		
500	86	86	86	84	82	80	80	82	86	89	89	92	93	95	94	95	87		
630	85	85	86	83	83	81	80	83	87	89	89	92	92	94	93	93	87		
800	85	86	87	83	84	81	80	83	86	88	89	91	92	92	92	91	84		
1000	88	89	88	85	85	82	82	83	85	88	89	90	91	91	91	89	81		
1250	87	89	88	86	86	84	84	84	85	87	89	90	89	89	89	87	79		
1600	89	90	89	87	87	85	86	86	85	88	89	90	89	89	88	85	78		
2000	88	89	88	86	86	84	84	84	87	88	90	91	89	88	87	84	77		
2500	92	92	92	91	90	88	88	87	89	89	91	91	88	86	84	82	76		
3150	101	102	103	102	100	96	98	96	95	94	96	96	93	90	88	86	80		
4000	93	92	91	89	89	86	87	86	90	91	95	95	91	86	84	82	75		
5000	93	93	92	89	89	86	87	85	87	88	94	95	91	85	83	80	74		
6300	95	96	94	93	91	89	89	87	87	88	91	92	89	84	81	79	73		
8000	89	89	88	85	85	82	83	81	84	85	90	90	87	81	78	76	70		
10000	86	87	87	85	84	81	82	79	77	80	85	85	82	77	74	71	64		
OVERALL	104	105	105	104	103	100	101	101	101	103	105	106	108	111	116	118	108		

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 5

MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 75 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 2

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	76	76	77	79	79	78	81	80	83	82	84	87	90	94	100	100	100		
31.5	78	75	78	79	78	81	80	81	83	84	86	89	90	95	100	102	102		
40	80	79	80	81	81	82	84	85	86	87	89	91	93	98	103	105	103		
50	79	80	80	80	81	82	84	84	87	88	90	90	95	100	106	107	101		
63	83	82	83	82	84	84	87	87	89	91	91	94	98	103	108	107	101		
80	85	86	84	84	83	86	89	89	90	92	92	97	100	106	110	109	101		
100	88	87	85	86	86	87	90	91	92	94	96	100	103	109	114	111	101		
125	88	89	88	88	86	87	89	90	92	94	96	99	102	110	115	113	100		
160	92	91	92	89	88	89	90	90	93	95	97	101	103	109	115	114	104		
200	92	91	91	90	87	87	88	87	89	91	94	96	100	103	108	111	102		
250	89	89	90	90	85	86	86	85	86	90	92	96	99	102	104	107	99		
315	89	90	91	89	84	83	84	84	85	88	90	94	98	100	100	102	96		
400	90	89	90	89	84	82	83	86	86	89	91	94	96	98	99	99	94		
500	89	88	89	89	84	82	83	87	89	91	92	96	96	98	98	97	93		
630	87	88	88	88	84	83	84	87	89	91	93	95	96	97	97	95	91		
800	86	85	87	87	84	84	84	87	88	91	93	95	96	96	96	93	87		
1000	86	85	87	88	86	84	84	88	88	90	93	94	96	95	94	91	85		
1250	85	84	86	88	86	85	84	88	88	90	92	94	95	94	92	90	82		
1600	87	87	88	88	87	87	86	89	88	91	93	95	95	94	92	90	81		
2000	86	87	85	85	84	84	84	86	88	91	93	95	94	92	90	88	79		
2500	88	89	87	86	86	85	85	87	88	91	93	94	92	90	88	85	76		
3150	100	100	101	99	98	97	96	92	93	93	96	96	94	91	89	86	77		
4000	89	89	90	88	87	86	86	87	89	92	95	95	93	90	86	83	74		
5000	86	86	86	85	84	83	83	86	85	89	93	94	91	87	83	80	72		
6300	92	91	93	92	89	87	87	85	85	87	90	92	90	85	81	78	70		
8000	83	83	84	82	80	79	79	80	81	85	88	89	87	83	78	75	68		
10000	81	81	82	80	80	77	78	76	76	79	84	84	82	77	73	72	65		
OVERALL	104	104	104	103	101	101	101	101	103	105	107	109	111	116	121	120	112		

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 5

MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 75 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 2

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	75	77	78	79	80	79	82	82	83	83	86	91	93	98	102	103	101		
31.5	78	79	79	79	80	81	82	83	86	87	90	92	93	99	103	103	102		
40	80	80	81	83	82	84	85	86	90	90	91	93	97	102	105	107	102		
50	82	80	82	81	83	84	85	85	89	89	92	94	99	104	108	107	102		
63	84	85	85	85	85	86	88	89	90	91	93	96	101	108	110	109	103		
80	86	88	86	87	85	87	90	91	92	93	95	98	103	110	112	110	101		
100	90	90	86	89	88	89	92	92	96	98	99	101	105	113	116	113	103		
125	91	92	90	89	88	90	91	92	95	97	98	102	106	113	118	113	102		
160	95	94	94	92	90	91	91	93	96	98	100	103	106	112	120	116	102		
200	93	93	93	92	89	89	89	91	92	95	96	100	104	108	115	114	101		
250	91	92	94	91	88	88	88	89	90	94	95	99	103	107	111	112	101		
315	92	93	93	91	87	86	87	87	89	92	95	98	101	106	106	108	98		
400	93	94	94	93	87	86	88	88	90	92	95	98	98	104	106	105	96		
500	91	91	92	92	88	87	89	89	91	93	96	99	99	104	105	103	94		
630	90	90	92	91	89	87	89	90	92	94	97	99	99	104	103	101	91		
800	88	89	90	89	88	87	89	89	92	93	97	99	99	103	100	98	88		
1000	88	88	90	90	89	88	90	90	92	93	97	99	99	102	100	96	85		
1250	87	86	88	89	89	89	90	91	92	93	96	99	98	100	98	94	82		
1600	88	89	89	89	90	89	91	92	92	94	97	98	98	99	97	92	81		
2000	87	86	87	87	88	87	89	89	92	94	97	98	97	98	97	91	80		
2500	89	87	86	86	88	86	88	89	92	94	96	96	96	96	95	88	77		
3150	98	97	95	95	94	95	95	91	94	96	98	99	96	96	94	87	76		
4000	94	93	91	91	91	91	91	90	93	95	98	99	96	94	93	85	75		
5000	87	86	84	84	86	84	87	87	90	93	96	96	92	91	90	82	72		
6300	90	88	87	86	87	86	87	85	87	90	93	94	90	89	87	80	70		
8000	85	84	83	81	82	82	82	81	84	87	90	90	87	86	84	76	68		
10000	81	79	78	76	78	76	77	77	78	82	85	86	82	80	80	72	65		
OVERALL	105	104	104	103	102	102	103	104	106	108	110	112	114	120	125	122	112		

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 5

MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 75 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 2

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	80	80	82	83	82	84	84	85	86	86	86	88	91	98	102	106	104		
31.5	81	82	83	83	83	85	86	86	87	89	90	92	95	101	104	107	104		
40	84	85	85	85	86	86	87	89	91	91	94	96	98	104	108	108	103		
50	84	83	84	85	86	85	87	89	91	93	94	96	100	105	110	109	103		
63	87	87	88	88	89	89	90	91	93	93	95	99	102	110	113	110	105		
80	89	91	89	88	89	91	92	95	94	95	98	100	106	112	116	113	104		
100	93	93	91	91	90	93	94	95	97	99	100	104	108	116	120	114	105		
125	95	95	94	93	91	92	94	96	97	98	101	105	109	116	121	116	105		
160	99	97	98	95	94	95	96	96	99	101	103	106	110	116	123	119	105		
200	94	95	95	95	93	93	94	94	96	97	99	103	108	111	119	117	104		
250	94	96	97	95	92	91	92	93	94	96	98	101	107	111	114	115	105		
315	95	96	96	94	90	90	90	91	91	94	97	101	105	110	111	112	104		
400	97	96	98	96	90	90	90	92	90	96	98	100	104	108	110	108	101		
500	94	95	96	95	90	90	91	93	92	97	99	101	104	107	108	106	98		
630	94	94	95	94	91	91	92	94	94	98	100	103	105	107	107	105	95		
800	92	92	93	94	91	91	92	94	94	97	100	102	104	106	106	103	92		
1000	92	91	93	93	92	93	93	95	94	97	100	103	104	104	105	102	90		
1250	90	89	92	93	92	93	93	95	94	97	99	102	103	104	104	100	87		
1600	90	90	92	93	93	94	95	96	95	98	99	103	104	103	103	99	85		
2000	86	87	89	90	90	92	92	93	96	98	99	102	103	102	102	98	84		
2500	86	87	88	89	89	91	92	93	94	97	98	101	101	100	100	96	81		
3150	89	89	89	89	90	91	92	93	94	99	99	101	101	99	99	94	80		
4000	95	94	93	93	95	93	94	94	95	99	100	103	99	98	98	92	79		
5000	84	85	85	86	86	89	89	90	91	95	97	99	97	94	95	88	75		
6300	83	83	84	84	84	86	86	88	88	93	95	97	95	92	94	85	73		
8000	82	83	83	84	83	84	83	84	85	90	92	94	91	89	91	82	70		
10000	75	76	76	76	76	77	78	79	79	85	86	89	86	85	87	78	66		
OVERALL	106	106	107	106	104	105	106	107	108	111	112	115	118	123	128	125	115		

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

FIGURE: NORMALIZED FARFIELD NOISE LEVELS

3 DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 6

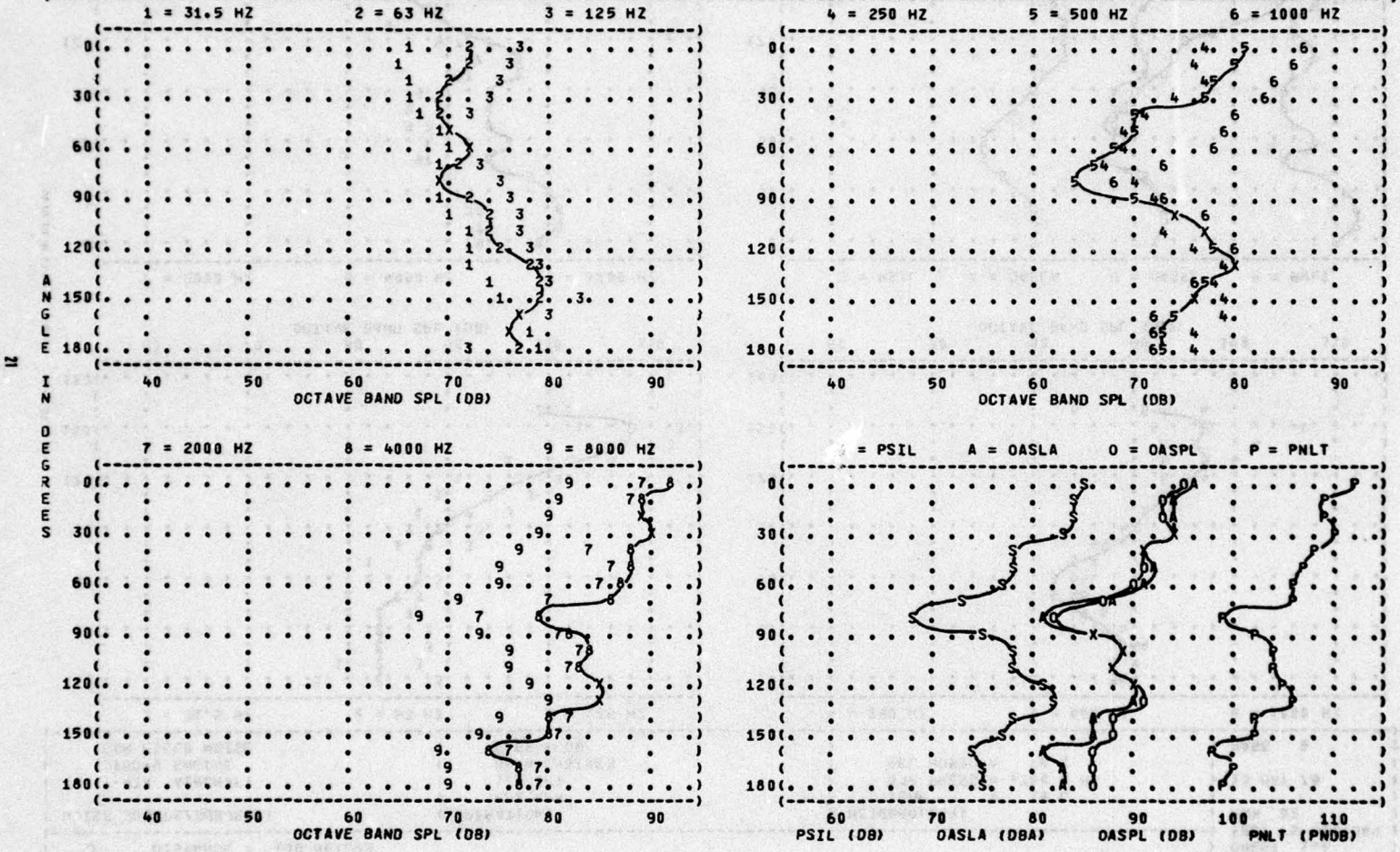


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

3 DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 6

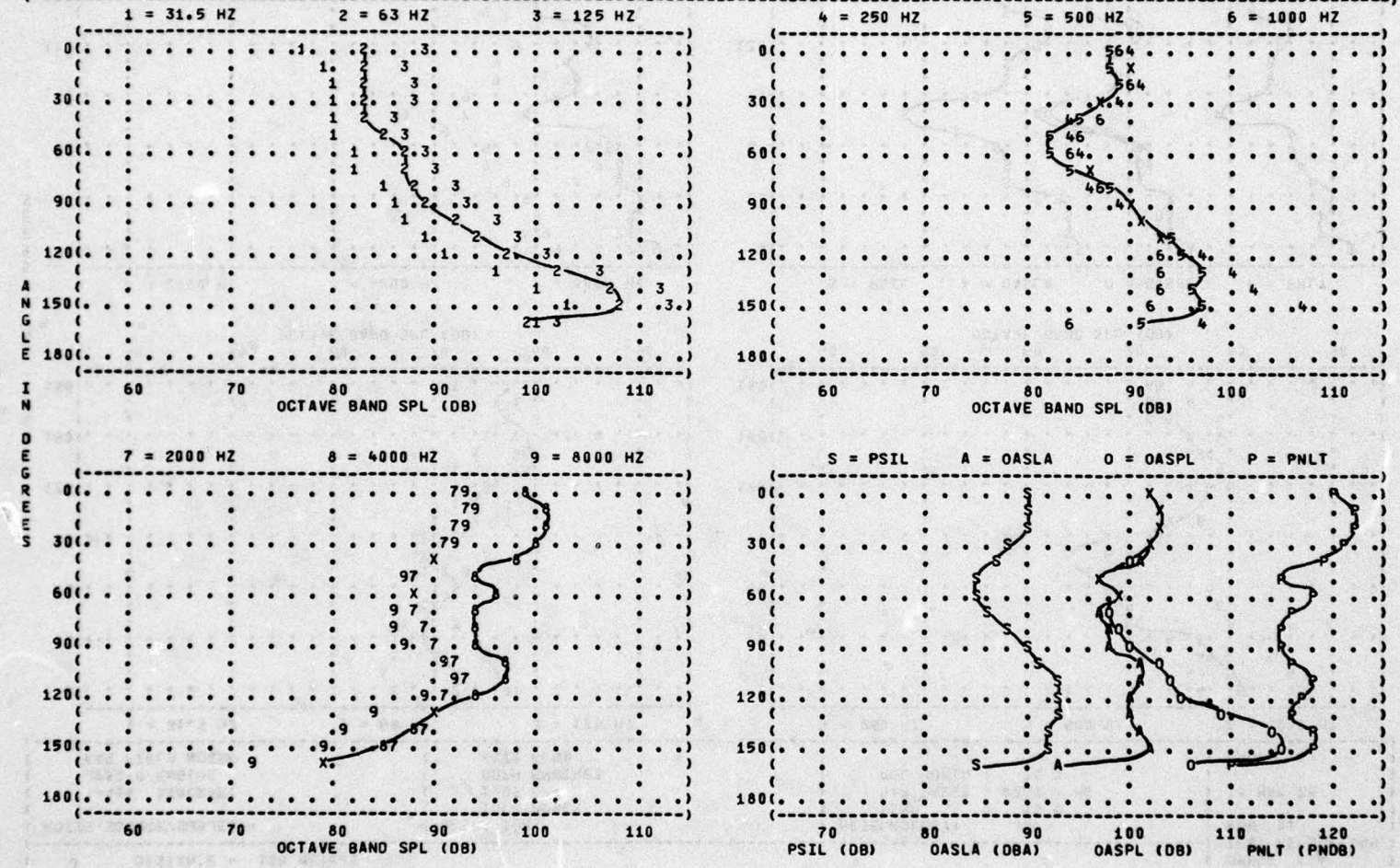


FIGURE: 3 NORMALIZED FARFIELD NOISE LEVELS

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 6

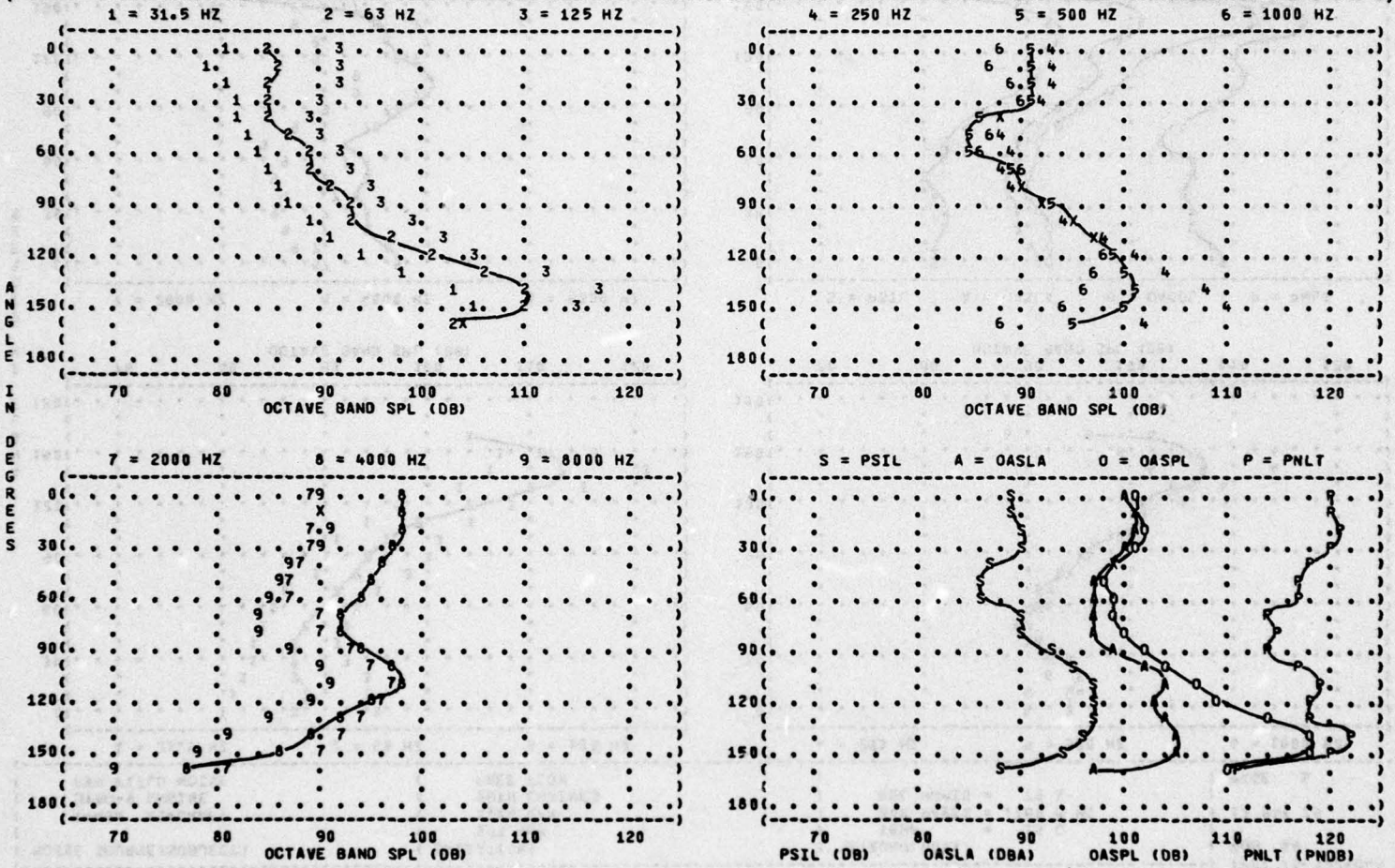


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

3 DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 6

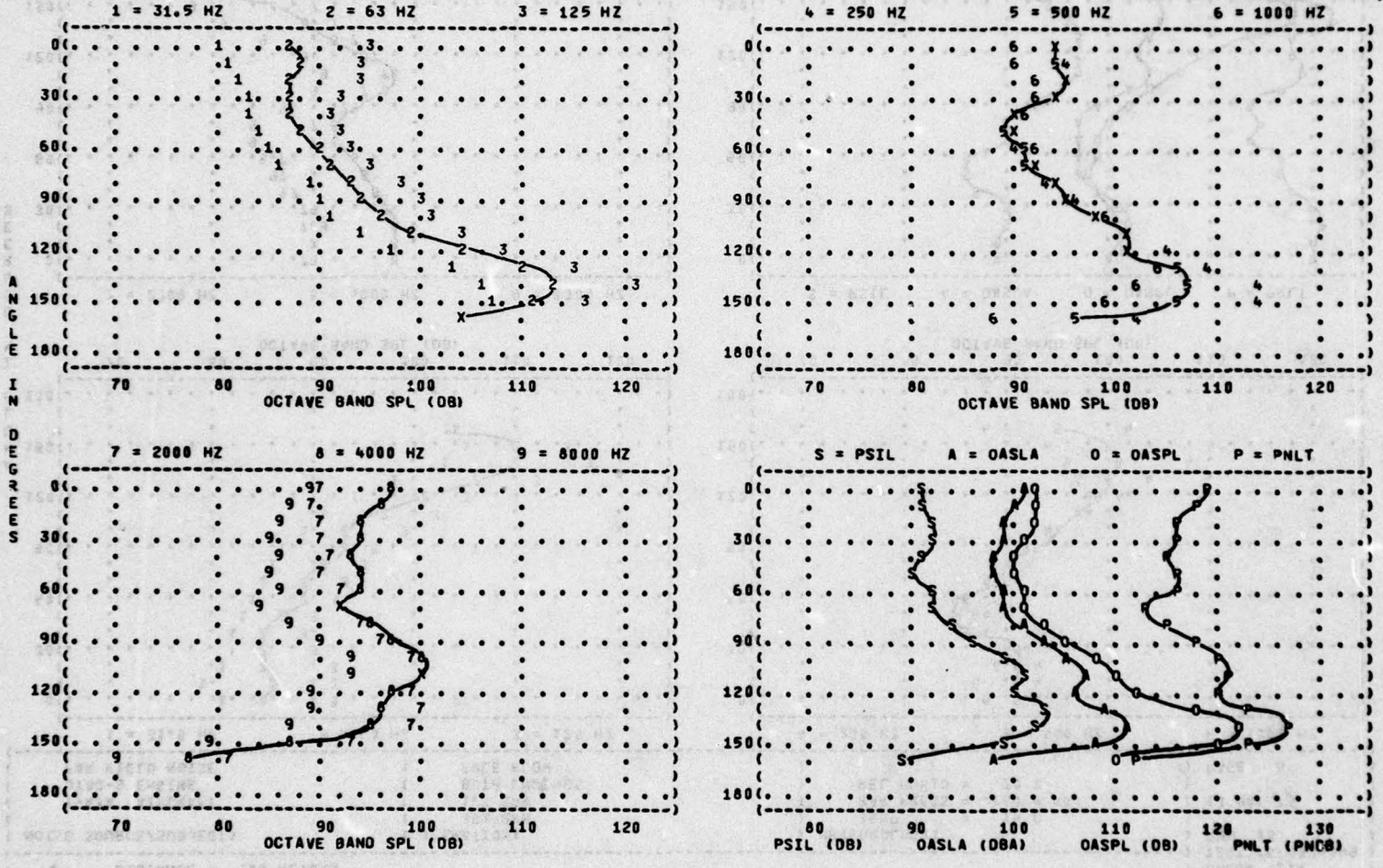


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

3

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:

T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:

MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:

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

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-049
RUN 05

13 MAY 75

PAGE 6

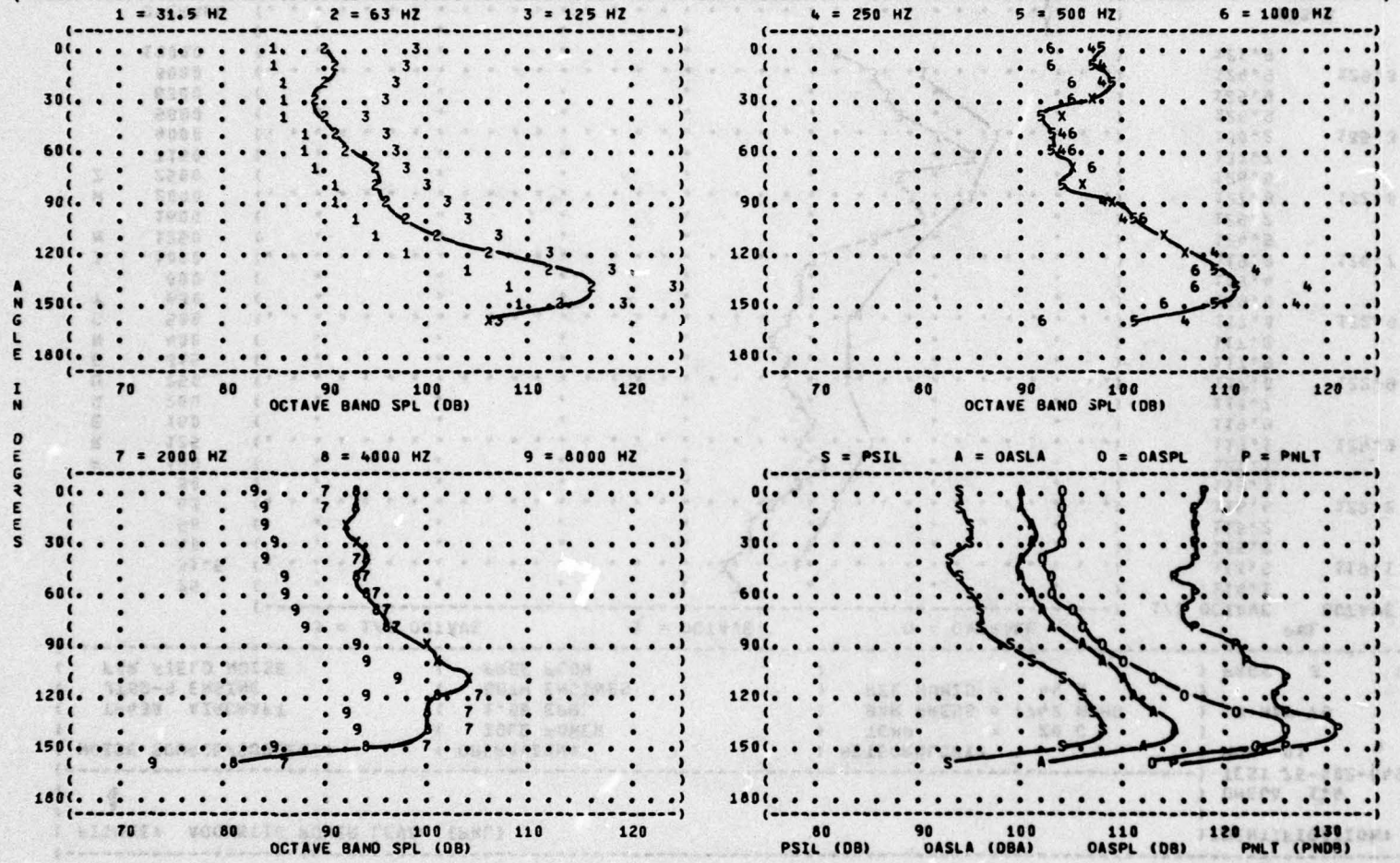


FIGURE: ACOUSTIC POWER LEVEL (PWL)

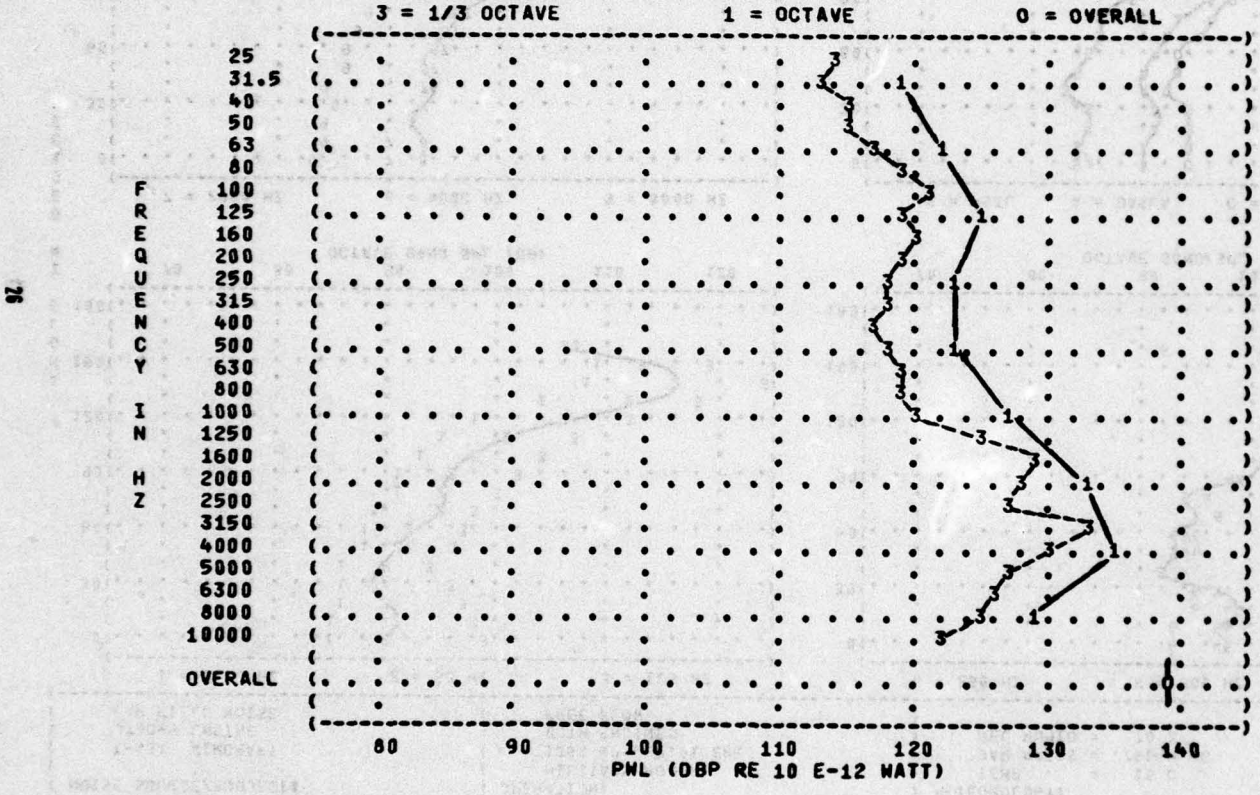
4

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 3



	PWL 1/3 OCTAVE	PWL OCTAVE
25	114.1	
31.5	113.5	119.1
40	115.2	
50	115.2	
63	116.6	122.2
80	119.3	
100	121.1	
125	119.1	124.9
160	119.9	
200	118.7	
250	117.8	122.9
315	117.9	
400	117.2	
500	117.8	122.9
630	119.8	
800	119.4	
1000	119.9	126.7
1250	124.5	
1600	129.2	
2000	127.9	132.8
2500	126.5	
3150	132.7	
4000	130.2	135.3
5000	126.9	
6300	125.9	
8000	124.9	129.3
10000	121.9	
OVERALL		138.8

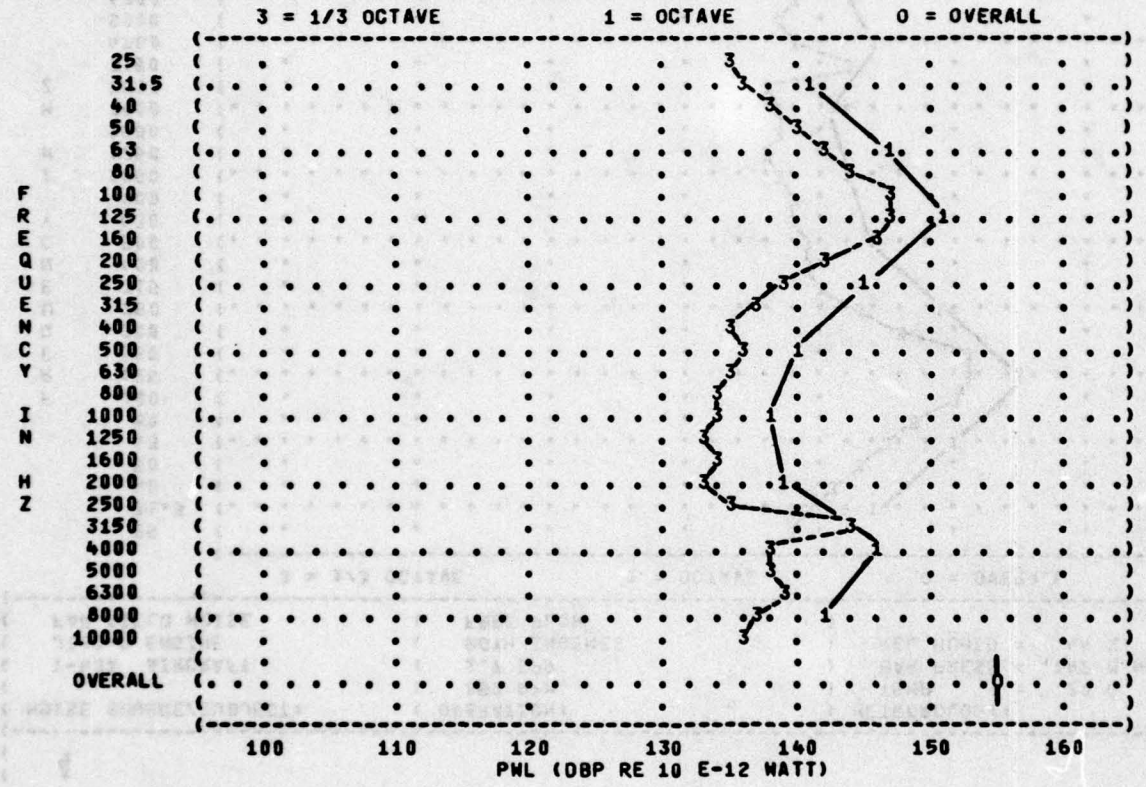
FIGURE: 4 ACOUSTIC POWER LEVEL (PWL)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 3

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %



	PWL 1/3 OCTAVE	PWL OCTAVE
25	135.2	
31.5	135.8	141.5
40	138.4	
50	140.0	
63	141.7	146.9
80	143.9	
100	147.0	
125	146.5	151.3
160	146.1	
200	142.1	
250	139.0	144.6
315	136.6	
400	135.3	
500	135.6	140.0
630	134.9	
800	134.2	
1000	133.6	138.4
1250	132.9	
1600	133.5	
2000	133.4	139.0
2500	135.4	
3150	143.7	
4000	138.0	145.5
5000	137.7	
6300	138.7	
8000	136.8	142.0
10000	135.8	
OVERALL		154.8

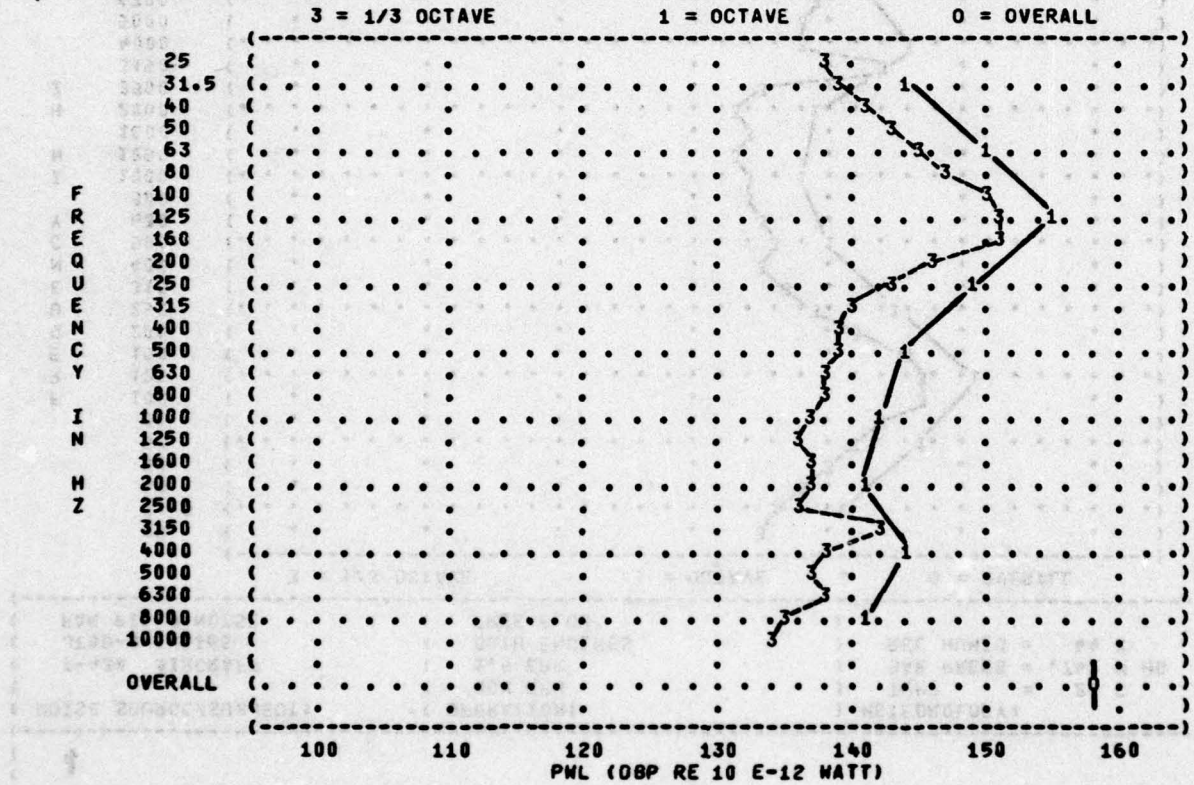
FIGURE: 4 ACOUSTIC POWER LEVEL (PWL)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 3

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %



	PWL 1/3 OCTAVE	PWL OCTAVE
25	137.7	
31.5	138.7	144.3
40	141.3	
50	143.2	
63	144.6	149.9
80	146.7	
100	149.8	
125	150.6	155.4
160	151.2	
200	146.4	
250	143.2	148.8
315	140.3	
400	139.0	
500	138.9	143.5
630	138.4	
800	137.7	
1000	137.1	141.9
1250	136.4	
1600	137.0	
2000	136.6	141.3
2500	136.0	
3150	142.2	
4000	138.3	144.5
5000	136.7	
6300	137.6	
8000	135.2	140.6
10000	133.7	
OVERALL		158.0

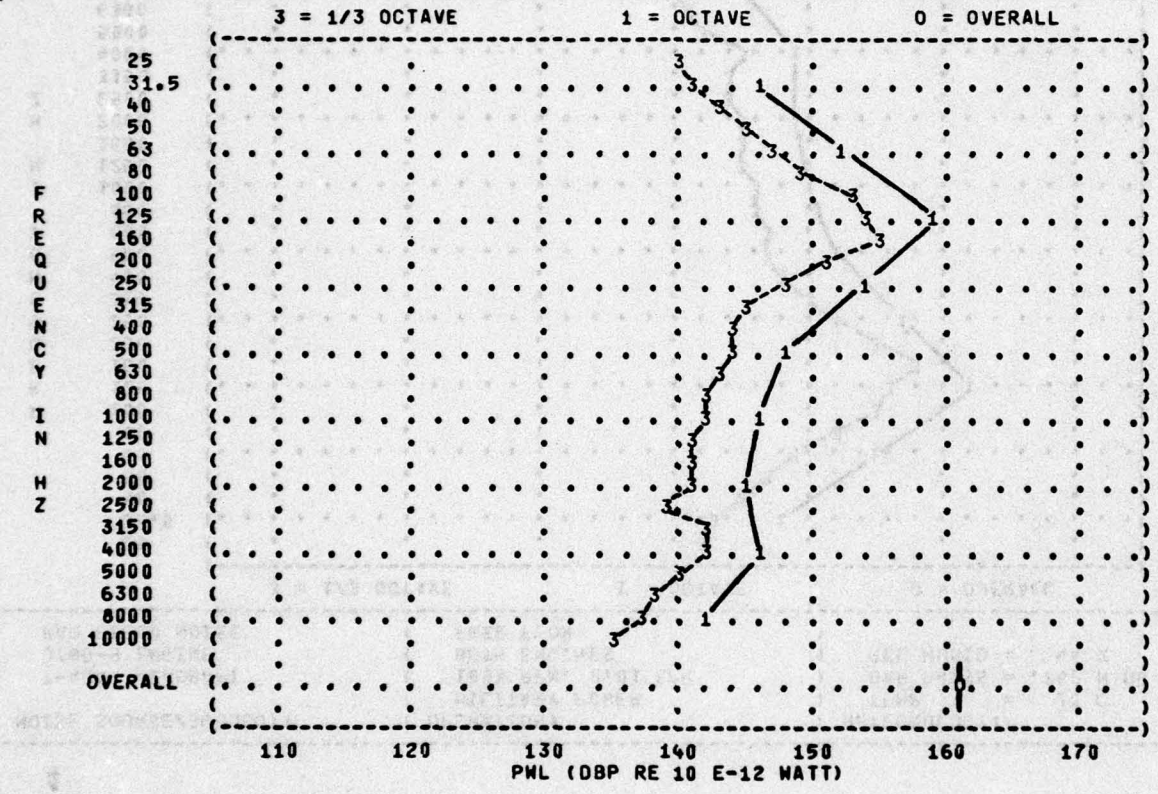
FIGURE: 4 ACOUSTIC POWER LEVEL (PWL)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 3

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %



PWL	1/3 OCTAVE	OCTAVE
25	139.7	
31.5	140.6	146.3
40	143.3	
50	144.8	
63	147.5	152.2
80	149.1	
100	152.5	
125	153.6	158.6
160	155.0	
200	151.0	
250	148.2	153.6
315	145.3	
400	144.0	
500	143.7	148.3
630	143.0	
800	142.3	
1000	141.7	146.4
1250	140.7	
1600	140.8	
2000	140.6	145.1
2500	139.4	
3150	142.4	
4000	141.9	146.2
5000	139.5	
6300	138.5	
8000	137.1	141.8
10000	134.7	
OVERALL		151.3

FIGURE: ACOUSTIC POWER LEVEL (PWL)

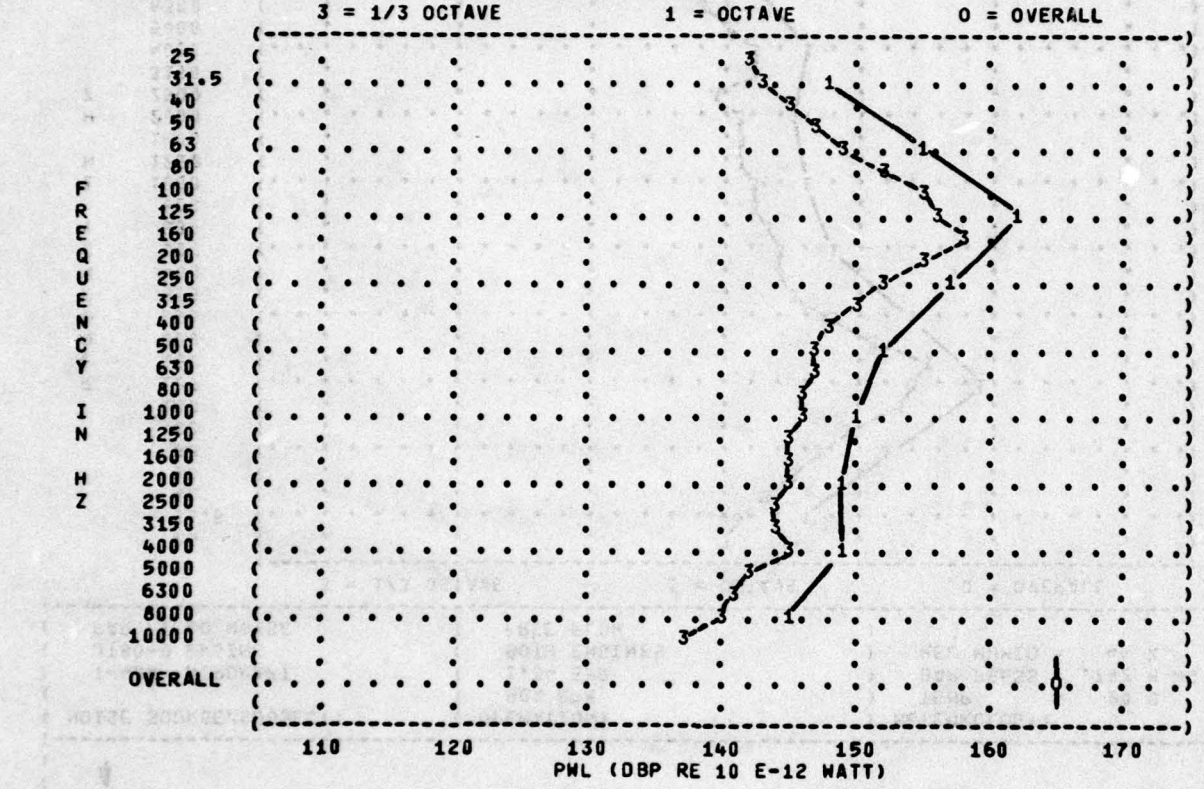
4

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 3



	PWL 1/3 OCTAVE	PWL OCTAVE
25	141.5	
31.5	142.8	148.3
40	145.3	
50	146.8	
63	149.3	154.6
80	151.9	
100	155.4	
125	156.5	161.7
160	158.3	
200	154.6	
250	151.9	157.3
315	149.6	
400	147.8	
500	147.1	152.0
630	146.8	
800	146.0	
1000	145.6	150.3
1250	144.9	
1600	145.4	
2000	144.8	149.4
2500	143.6	
3150	144.1	
4000	145.3	148.8
5000	142.0	
6300	141.3	
8000	140.2	144.7
10000	137.3	
OVERALL	164.5	

TABLE: DIRECTIVITY INDEX (DB)

6

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 4

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25	-6	-7	-6	-5	-4	-3	-2	-3	-3	-0	-1	1	1	-0	3	3	6	6	7
31.5	-7	-5	-5	-5	-4	-4	-3	-1	-2	-2	-3	-2	-1	2	3	4	6	8	8
40	-4	-6	-4	-4	-5	-2	-1	-2	-3	-4	-2	1	2	2	2	4	4	5	6
50	-6	-7	-7	-7	-6	-3	-3	-4	-6	-3	1	2	2	3	2	3	3	4	5
63	-5	-7	-6	-9	-5	-4	-2	-4	-4	-3	-1	1	2	4	4	4	2	2	4
80	-1	-1	-2	-4	-5	-5	-2	-4	-6	-2	-1	-2	-0	3	6	5	2	-1	-1
100	-0	-1	-3	-2	-6	-7	-5	-4	-5	0	-0	-1	2	2	4	6	3	-2	-4
125	-2	-2	-2	-3	-4	-6	-3	-1	-1	-2	-2	-1	1	2	3	6	3	-1	-7
160	0	-1	-0	-5	-5	-7	-7	-9	-1	-2	1	1	1	3	2	6	3	-1	-4
200	-0	-1	1	-2	-4	-7	-4	-7	-3	-2	1	-2	2	4	2	4	4	1	-1
250	3	3	1	-0	-4	-4	-6	-8	-5	-3	-1	-2	1	5	3	4	4	1	-0
315	1	2	3	0	-4	-5	-9	-9	-7	-7	-4	-1	1	5	5	5	4	2	3
400	5	4	3	2	-5	-6	-8	-10	-9	-5	-1	2	3	3	4	1	1	1	0
500	7	6	4	2	-5	-6	-8	-10	-12	-4	-1	2	2	5	0	1	-2	-3	-3
630	6	5	3	1	-4	-4	-5	-8	-12	-4	-2	2	3	6	1	0	-3	-3	-4
800	5	4	3	1	-2	-4	-6	-9	-11	-4	-1	1	4	6	1	1	-4	-4	-4
1000	8	7	5	4	0	-2	-4	-8	-10	-4	-0	-0	3	3	-2	-2	-6	-5	-6
1250	9	8	7	5	2	2	1	-5	-11	-5	-3	-4	1	-2	-5	-5	-8	-8	-7
1600	4	3	5	7	-1	-2	-1	-5	-13	-2	-1	-2	2	2	-2	-2	-7	-3	-4
2000	2	1	3	2	1	5	4	-3	-10	-3	0	-2	-0	-0	-3	-4	-10	-8	-7
2500	8	6	6	4	2	2	-1	-5	-9	-4	-1	-2	1	2	-2	-3	-9	-7	-7
3150	7	4	4	5	4	3	2	2	-6	-6	-3	-6	-4	-3	-8	-8	-14	-11	-10
4000	4	3	3	3	0	2	1	-4	-8	-1	1	1	2	1	-3	-4	-9	-7	-7
5000	6	4	4	4	1	0	0	-4	-9	-2	0	-1	2	2	-2	-4	-8	-6	-6
6300	6	5	4	4	1	-0	-1	-5	-9	-3	0	-0	2	4	-1	-3	-7	-6	-6
8000	6	4	3	3	0	-1	-2	-6	-9	-2	1	1	2	4	0	-2	-7	-5	-5
10000	6	5	4	3	1	-1	-2	-5	-9	-3	0	0	2	4	-1	-3	-7	-6	-5
OCTAVE																			
31.5	-6	-6	-5	-5	-4	-3	-2	-2	-3	-2	-2	0	1	1	3	4	5	6	8
63	-2	-3	-4	-5	-5	-4	-2	-4	-5	-2	-1	-0	1	3	5	5	2	1	2
125	-0	-1	-2	-3	-5	-7	-5	-4	-2	-1	0	-0	1	2	3	6	3	-1	-5
250	2	1	2	-1	-4	-6	-6	-8	-5	-3	-1	-2	1	4	3	4	4	1	1
500	6	5	3	2	-5	-5	-7	-9	-11	-4	-1	2	3	5	2	1	-1	-2	-2
1000	8	7	6	5	1	0	-1	-6	-11	-5	-2	-2	2	2	-3	-3	-7	-6	-6
2000	5	4	5	6	0	2	1	-4	-11	-3	-1	-2	1	1	-2	-3	-8	-5	-5
4000	7	4	4	5	3	3	1	0	-7	-3	-1	-2	-1	-1	-5	-6	-11	-9	-8
8000	6	5	4	3	1	-1	-1	-5	-9	-3	0	-0	2	4	-1	-3	-7	-6	-6
OVERALL	6	4	4	4	1	1	0	-2	-7	-3	-1	-1	1	1	-1	-1	-3	-4	-4

TABLE: DIRECTIVITY INDEX (DI)

6

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 4

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25	-17	-16	-14	-15	-13	-13	-12	-10	-9	-10	-7	-5	-3	3	7	9	7		
31.5	-16	-14	-13	-14	-13	-13	-13	-11	-10	-8	-7	-5	-4	2	6	10	7		
40	-16	-14	-14	-13	-14	-14	-11	-12	-9	-7	-6	-5	-3	3	7	9	6		
50	-19	-17	-16	-16	-16	-14	-13	-13	-10	-9	-7	-7	-3	2	8	9	3		
63	-16	-16	-15	-16	-16	-14	-13	-13	-11	-10	-7	-5	-1	3	7	9	1		
80	-16	-15	-17	-16	-16	-15	-12	-11	-11	-10	-7	-5	-2	3	9	9	-2		
100	-17	-17	-19	-17	-18	-18	-15	-13	-11	-11	-8	-6	-3	3	8	9	-4		
125	-15	-16	-16	-16	-18	-17	-16	-14	-13	-10	-8	-6	-3	2	8	9	-2		
160	-13	-15	-13	-15	-17	-16	-14	-12	-11	-9	-7	-5	-3	1	8	9	0		
200	-7	-9	-8	-9	-15	-13	-11	-11	-11	-8	-6	-5	-1	1	6	10	-1		
250	-5	-6	-5	-6	-12	-12	-11	-10	-10	-7	-5	-3	2	4	4	10	1		
315	-6	-5	-4	-5	-11	-11	-12	-10	-8	-6	-5	-1	2	6	4	8	1		
400	-4	-3	-3	-4	-8	-11	-11	-9	-5	-3	-3	1	3	5	4	6	0		
500	-4	-4	-4	-6	-8	-10	-10	-8	-4	-1	-1	2	3	5	4	5	-3		
630	-5	-4	-3	-7	-7	-9	-10	-7	-3	-1	-0	2	3	4	3	4	-3		
800	-3	-3	-2	-5	-5	-8	-8	-6	-3	-0	1	3	3	4	4	3	-5		
1000	-0	1	0	-3	-3	-6	-6	-5	-3	-0	1	2	3	3	3	1	-7		
1250	0	2	1	-1	-1	-3	-3	-3	-2	-0	2	3	2	2	2	0	-8		
1600	2	3	2	-0	-1	-2	-2	-2	-2	0	2	3	2	1	0	-2	-10		
2000	1	2	1	-1	-2	-3	-3	-3	-1	1	2	3	2	0	-0	-3	-10		
2500	3	3	3	2	1	-1	-1	-2	-0	0	2	2	-1	-3	-5	-7	-13		
3150	4	6	6	6	3	-1	2	-1	-2	-2	-1	-1	-3	-7	-9	-11	-17		
4000	2	2	1	-1	-2	-4	-3	-4	-0	1	4	4	1	-5	-6	-8	-15		
5000	3	3	2	-0	-1	-4	-3	-5	-2	-1	4	5	2	-4	-7	-10	-16		
6300	5	6	5	4	2	-1	-0	-3	-3	-2	1	2	-0	-5	-8	-11	-17		
8000	3	3	3	-0	-1	-4	-3	-4	-2	-1	4	4	2	-4	-7	-9	-16		
10000	4	5	5	3	2	-1	-0	-3	-5	-2	3	3	0	-5	-8	-11	-18		
OCTAVE																			
31.5	-16	-15	-14	-14	-14	-13	-12	-11	-9	-8	-6	-5	-3	2	7	9	7		
63	-16	-16	-16	-16	-16	-15	-12	-12	-11	-10	-7	-6	-2	3	8	9	0		
125	-15	-16	-15	-16	-18	-17	-15	-13	-12	-10	-8	-5	-3	2	8	9	-2		
250	-6	-7	-6	-7	-13	-12	-11	-11	-10	-8	-6	-3	1	3	5	10	0		
500	-4	-4	-3	-5	-7	-10	-10	-8	-4	-2	-1	2	3	5	4	5	-1		
1000	-1	0	-0	-3	-3	-5	-6	-4	-3	-0	1	3	3	3	3	1	-6		
2000	2	3	2	0	0	-2	-2	-2	-1	0	2	3	1	-0	-1	-4	-11		
4000	4	5	5	4	2	-2	1	-1	-2	-2	1	2	-1	-6	-8	-10	-16		
8000	5	5	4	3	1	-1	-1	-3	-3	-1	3	3	1	-5	-8	-10	-17		
OVERALL	-4	-4	-4	-5	-6	-9	-8	-8	-8	-6	-4	-3	-1	2	7	9	-0		

TABLE: DIRECTIVITY INDEX (DB)

6

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 4

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25	-16	-17	-16	-14	-14	-14	-12	-12	-10	-10	-9	-6	-3	2	8	8	7		
31.5	-15	-18	-15	-14	-15	-13	-13	-13	-11	-10	-7	-5	-3	2	7	9	8		
40	-16	-17	-16	-15	-15	-14	-12	-11	-10	-9	-7	-5	-3	2	7	9	7		
50	-19	-18	-18	-18	-17	-16	-14	-14	-11	-10	-8	-8	-3	2	8	9	3		
63	-16	-17	-16	-17	-16	-15	-12	-12	-10	-8	-8	-5	-1	4	9	8	2		
80	-17	-15	-18	-17	-18	-15	-12	-13	-12	-10	-9	-5	-1	5	8	8	-1		
100	-17	-17	-19	-18	-19	-17	-15	-14	-12	-11	-8	-4	-2	5	9	7	-3		
125	-17	-17	-17	-18	-19	-18	-16	-15	-13	-12	-10	-6	-3	5	9	7	-5		
160	-14	-15	-14	-17	-18	-17	-16	-16	-13	-11	-9	-5	-3	3	9	8	-2		
200	-9	-10	-10	-11	-14	-14	-13	-14	-12	-10	-7	-5	-1	2	7	10	1		
250	-9	-9	-8	-8	-13	-12	-12	-13	-12	-8	-6	-2	1	4	6	9	1		
315	-6	-5	-4	-6	-11	-12	-11	-11	-10	-7	-5	-1	3	5	5	7	1		
400	-3	-4	-4	-4	-10	-12	-11	-7	-7	-4	-2	1	3	5	6	6	0		
500	-5	-5	-5	-5	-10	-11	-10	-7	-5	-3	-1	2	3	5	5	4	-1		
630	-6	-5	-4	-4	-9	-10	-9	-5	-4	-2	0	2	4	5	4	3	-2		
800	-6	-7	-5	-5	-8	-8	-8	-5	-4	-1	1	3	4	4	4	1	-5		
1000	-5	-6	-4	-3	-6	-7	-8	-3	-3	-1	1	3	4	4	2	-1	-6		
1250	-6	-7	-4	-3	-5	-6	-6	-3	-3	-1	1	3	4	3	1	-1	-9		
1600	-4	-4	-3	-3	-4	-4	-5	-2	-3	-0	2	4	4	3	1	-1	-10		
2000	-5	-3	-5	-5	-6	-6	-7	-4	-2	0	3	4	4	2	-0	-3	-11		
2500	-2	-0	-2	-4	-4	-5	-5	-3	-2	1	3	4	2	1	-1	-5	-13		
3150	4	5	5	4	3	1	1	-3	-2	-2	1	1	-1	-4	-6	-10	-19		
4000	-2	-1	-1	-2	-3	-4	-4	-3	-2	1	4	5	2	-1	-4	-8	-16		
5000	-3	-2	-2	-4	-5	-6	-5	-3	-3	1	4	6	3	-2	-6	-8	-17		
6300	4	3	5	4	0	-1	-2	-3	-3	-1	1	4	1	-3	-7	-10	-19		
8000	-1	-1	-0	-2	-4	-5	-5	-4	-3	1	4	5	3	-1	-6	-9	-16		
10000	1	1	2	0	-0	-3	-2	-4	-4	-1	4	4	2	-3	-7	-8	-15		
OCTAVE																			
31.5	-16	-17	-16	-15	-15	-13	-12	-12	-10	-9	-8	-5	-3	2	7	9	8		
63	-17	-16	-17	-17	-17	-15	-13	-13	-11	-9	-9	-5	-2	4	8	8	1		
125	-15	-16	-16	-18	-19	-18	-16	-15	-13	-11	-9	-5	-2	4	9	7	-3		
250	-8	-8	-8	-9	-13	-13	-12	-13	-12	-9	-6	-3	0	3	7	9	1		
500	-4	-5	-4	-5	-9	-11	-10	-6	-5	-3	-1	2	3	5	5	4	-1		
1000	-6	-7	-5	-4	-6	-7	-7	-4	-3	-1	1	3	4	4	3	-0	-6		
2000	-3	-2	-3	-4	-5	-5	-5	-3	-2	0	3	4	3	2	-0	-3	-11		
4000	3	3	4	3	1	-0	-0	-3	-2	-1	2	3	0	-3	-6	-9	-18		
8000	3	2	4	3	-0	-2	-2	-3	-3	-1	2	4	2	-2	-7	-10	-17		
OVERALL	-9	-9	-8	-9	-11	-12	-11	-11	-10	-8	-6	-3	-1	4	8	8	-0		

TABLE: DIRECTIVITY INDEX (DB)

6

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 4

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25	-19	-18	-16	-16	-15	-16	-13	-12	-12	-11	-8	-4	-2	3	7	8	7		
31.5	-17	-16	-16	-16	-15	-14	-14	-12	-10	-9	-6	-4	-2	4	7	8	7		
40	-18	-18	-17	-15	-16	-14	-13	-12	-8	-8	-7	-5	-1	4	7	9	4		
50	-18	-19	-17	-18	-16	-15	-15	-15	-11	-10	-7	-6	-0	5	8	8	2		
63	-18	-18	-17	-17	-18	-17	-14	-14	-12	-11	-9	-6	-1	6	8	7	1		
80	-17	-16	-18	-17	-19	-17	-14	-13	-12	-10	-8	-6	-0	6	9	6	-3		
100	-18	-17	-21	-19	-19	-18	-16	-15	-12	-10	-8	-7	-2	6	9	6	-5		
125	-17	-17	-18	-19	-20	-19	-18	-16	-14	-11	-10	-7	-3	5	10	5	-7		
160	-15	-16	-15	-18	-20	-18	-19	-16	-14	-11	-10	-7	-3	2	11	6	-7		
200	-13	-13	-13	-14	-17	-17	-16	-15	-14	-10	-10	-6	-2	2	9	8	-5		
250	-12	-11	-9	-12	-15	-15	-15	-14	-13	-9	-8	-4	-0	4	8	9	-2		
315	-8	-7	-7	-9	-13	-14	-13	-13	-11	-8	-5	-2	1	6	6	8	-2		
400	-5	-5	-5	-6	-11	-13	-10	-10	-9	-6	-4	-0	-0	5	7	7	-3		
500	-7	-7	-6	-7	-11	-11	-9	-9	-7	-5	-2	1	0	6	6	5	-5		
630	-8	-7	-6	-6	-9	-10	-9	-7	-5	-3	-0	2	2	6	5	3	-6		
800	-9	-8	-7	-7	-9	-10	-8	-7	-4	-3	0	3	2	6	4	2	-9		
1000	-8	-8	-6	-6	-7	-8	-6	-6	-4	-3	1	3	3	6	4	0	-11		
1250	-8	-9	-7	-6	-6	-6	-5	-4	-3	-2	1	4	3	5	3	-1	-13		
1600	-7	-6	-6	-6	-5	-6	-4	-3	-3	-1	2	3	3	4	2	-3	-14		
2000	-7	-9	-8	-8	-7	-7	-6	-5	-2	-0	3	4	3	4	2	-4	-15		
2500	-4	-6	-7	-7	-5	-7	-5	-4	-1	1	3	3	3	3	2	-5	-16		
3150	3	1	-1	-0	-2	-1	-1	-4	-1	1	3	4	0	0	-2	-9	-19		
4000	-0	-1	-3	-3	-4	-3	-3	-4	-2	1	4	4	1	0	-1	-9	-20		
5000	-5	-6	-7	-7	-6	-7	-5	-4	-2	2	5	5	1	-1	-2	-9	-20		
6300	1	-1	-2	-3	-2	-3	-2	-4	-2	1	4	5	1	0	-2	-9	-19		
8000	-1	-2	-3	-5	-4	-4	-4	-5	-2	1	4	4	1	-0	-2	-10	-18		
10000	-0	-2	-3	-4	-3	-5	-3	-4	-3	1	5	5	1	-1	-1	-9	-15		
OCTAVE																			
31.5	-18	-18	-16	-15	-16	-15	-13	-12	-9	-9	-7	-4	-1	4	7	8	6		
63	-18	-17	-18	-17	-18	-16	-14	-13	-12	-11	-8	-6	-0	6	8	7	-0		
125	-16	-16	-17	-18	-20	-18	-17	-16	-13	-11	-9	-7	-3	4	10	6	-6		
250	-12	-11	-10	-12	-15	-16	-15	-14	-13	-10	-8	-4	-1	3	9	8	-3		
500	-6	-6	-6	-6	-10	-11	-9	-9	-7	-5	-2	1	1	6	6	5	-4		
1000	-8	-8	-7	-6	-7	-8	-6	-6	-4	-3	1	3	2	6	4	1	-10		
2000	-6	-7	-7	-7	-6	-6	-4	-4	-2	-0	2	3	3	4	2	-3	-15		
4000	1	-0	-2	-2	-3	-2	-2	-4	-1	1	4	4	1	0	-1	-9	-19		
8000	0	-1	-2	-4	-3	-4	-3	-4	-2	1	4	5	1	0	-2	-10	-18		
OVERALL	-11	-12	-12	-12	-14	-14	-13	-12	-10	-8	-6	-3	-1	4	9	6	-3		

TABLE: DIRECTIVITY INDEX (DB)

6

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-049
RUN 05

13 MAY 75

PAGE 4

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 20 C
BAR PRESS = .742 M HG
REL HUMID = 44 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25	-16	-16	-15	-13	-14	-12	-13	-12	-10	-10	-10	-8	-5	2	6	10	7		
31.5	-16	-15	-14	-14	-15	-12	-12	-12	-10	-9	-7	-6	-3	3	7	9	6		
40	-16	-15	-15	-15	-14	-14	-13	-11	-9	-9	-6	-4	-2	4	8	8	3		
50	-17	-18	-18	-17	-16	-17	-15	-13	-10	-9	-7	-6	-1	4	9	8	1		
63	-17	-17	-16	-16	-15	-15	-14	-13	-11	-11	-9	-5	-2	6	9	6	1		
80	-17	-15	-18	-18	-18	-15	-14	-12	-12	-12	-9	-6	-0	5	9	6	-3		
100	-17	-17	-19	-19	-20	-17	-16	-15	-13	-11	-10	-6	-2	6	10	4	-5		
125	-16	-16	-17	-18	-20	-19	-17	-15	-14	-13	-10	-6	-2	5	10	5	-6		
160	-14	-16	-15	-18	-19	-18	-17	-17	-14	-12	-10	-7	-3	3	10	6	-8		
200	-15	-14	-14	-14	-16	-16	-15	-15	-14	-12	-10	-6	-1	2	10	8	-6		
250	-13	-11	-9	-12	-14	-15	-15	-14	-13	-11	-9	-5	0	5	8	9	-2		
315	-9	-8	-8	-10	-14	-14	-15	-14	-13	-10	-7	-3	0	6	7	8	-0		
400	-5	-6	-5	-7	-13	-13	-12	-10	-12	-7	-5	-2	1	5	8	5	-2		
500	-8	-6	-6	-6	-12	-11	-11	-8	-9	-4	-2	-0	3	6	7	5	-4		
630	-7	-7	-6	-7	-10	-10	-10	-7	-8	-4	-1	1	3	5	6	4	-6		
800	-9	-8	-7	-7	-9	-9	-8	-7	-6	-3	-0	2	3	5	6	2	-8		
1000	-8	-9	-7	-7	-8	-7	-7	-5	-6	-3	-0	3	4	4	5	2	-10		
1250	-10	-10	-8	-7	-7	-6	-6	-5	-5	-2	-0	2	4	5	4	1	-12		
1600	-10	-10	-8	-7	-7	-6	-4	-4	-5	-1	-0	3	4	4	4	-0	-15		
2000	-12	-11	-9	-8	-9	-7	-6	-5	-3	-0	1	4	4	4	4	-0	-14		
2500	-11	-10	-9	-8	-8	-6	-5	-4	-3	0	1	4	4	3	3	-1	-16		
3150	-8	-8	-8	-8	-7	-6	-6	-4	-3	2	2	4	3	2	2	-3	-17		
4000	-3	-4	-5	-5	-2	-5	-4	-4	-3	2	2	5	2	-0	-0	-6	-18		
5000	-10	-9	-9	-8	-8	-5	-5	-4	-3	1	3	5	3	0	1	-6	-19		
6300	-9	-9	-8	-8	-8	-6	-6	-4	-4	1	3	5	3	0	2	-7	-19		
8000	-7	-6	-6	-5	-6	-5	-6	-5	-4	1	3	5	2	0	2	-7	-19		
10000	-8	-8	-8	-7	-8	-6	-6	-4	-5	1	3	5	2	1	3	-6	-18		
OCTAVE																			
31.5	-16	-16	-15	-14	-14	-13	-13	-12	-10	-9	-7	-5	-3	3	7	9	5		
63	-17	-16	-17	-17	-16	-16	-14	-12	-12	-11	-9	-6	-1	5	9	7	-1		
125	-15	-16	-17	-18	-19	-18	-17	-16	-14	-12	-10	-7	-2	4	10	5	-7		
250	-13	-12	-11	-12	-15	-15	-15	-15	-13	-11	-9	-5	-0	4	9	8	-3		
500	-5	-7	-5	-7	-12	-11	-11	-9	-10	-5	-3	-0	2	5	7	5	-3		
1000	-9	-9	-7	-7	-8	-7	-7	-5	-6	-3	-0	2	4	5	5	2	-10		
2000	-11	-10	-9	-8	-8	-6	-5	-4	-4	-1	0	4	4	4	4	-0	-15		
4000	-5	-6	-6	-6	-4	-5	-4	-4	-3	2	2	5	3	1	1	-5	-18		
8000	-8	-8	-7	-7	-7	-6	-6	-4	-4	1	3	5	3	0	2	-7	-19		
OVERALL	-13	-13	-12	-13	-14	-14	-13	-12	-11	-8	-6	-4	-1	4	9	6	-4		

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 13

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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

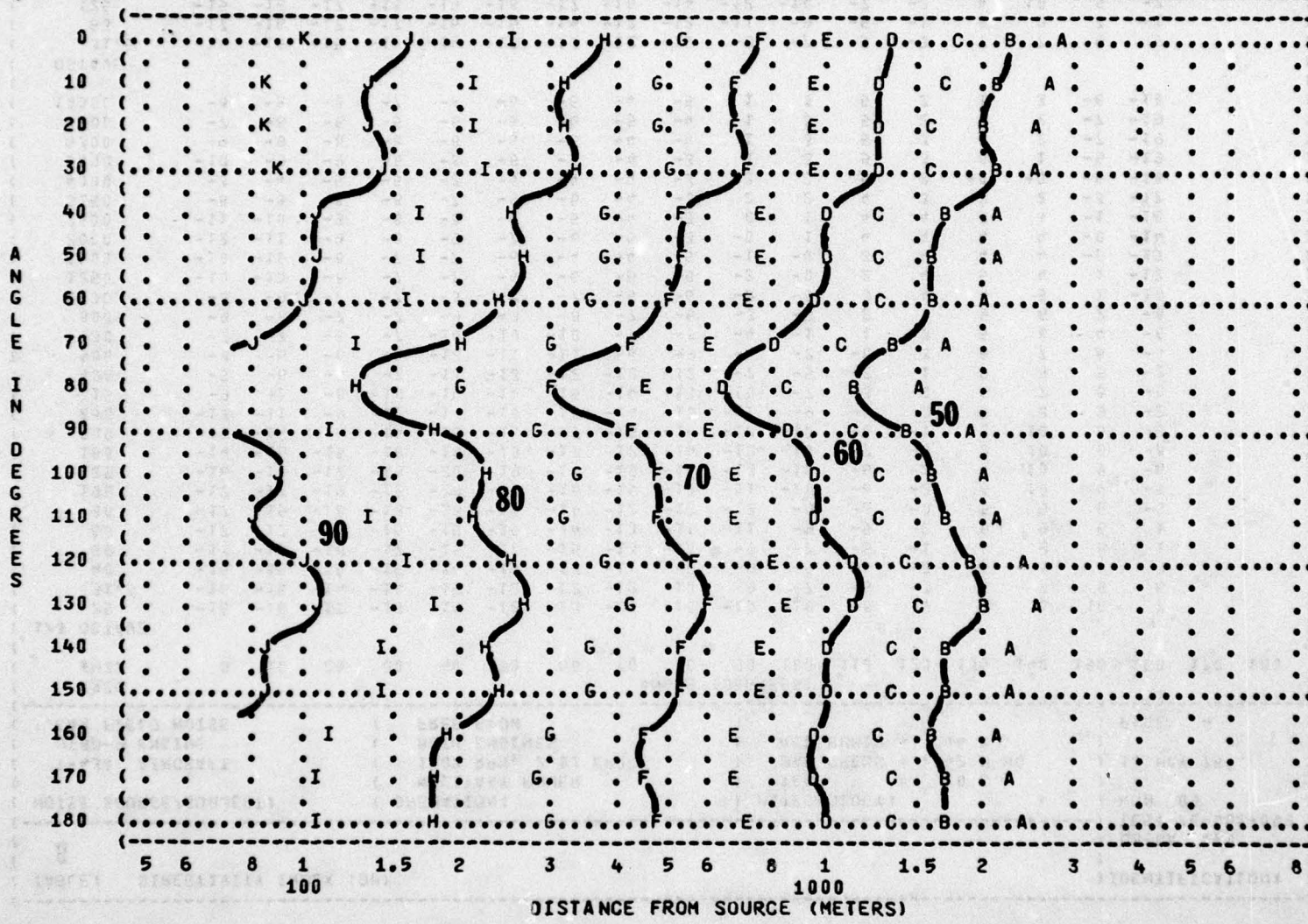


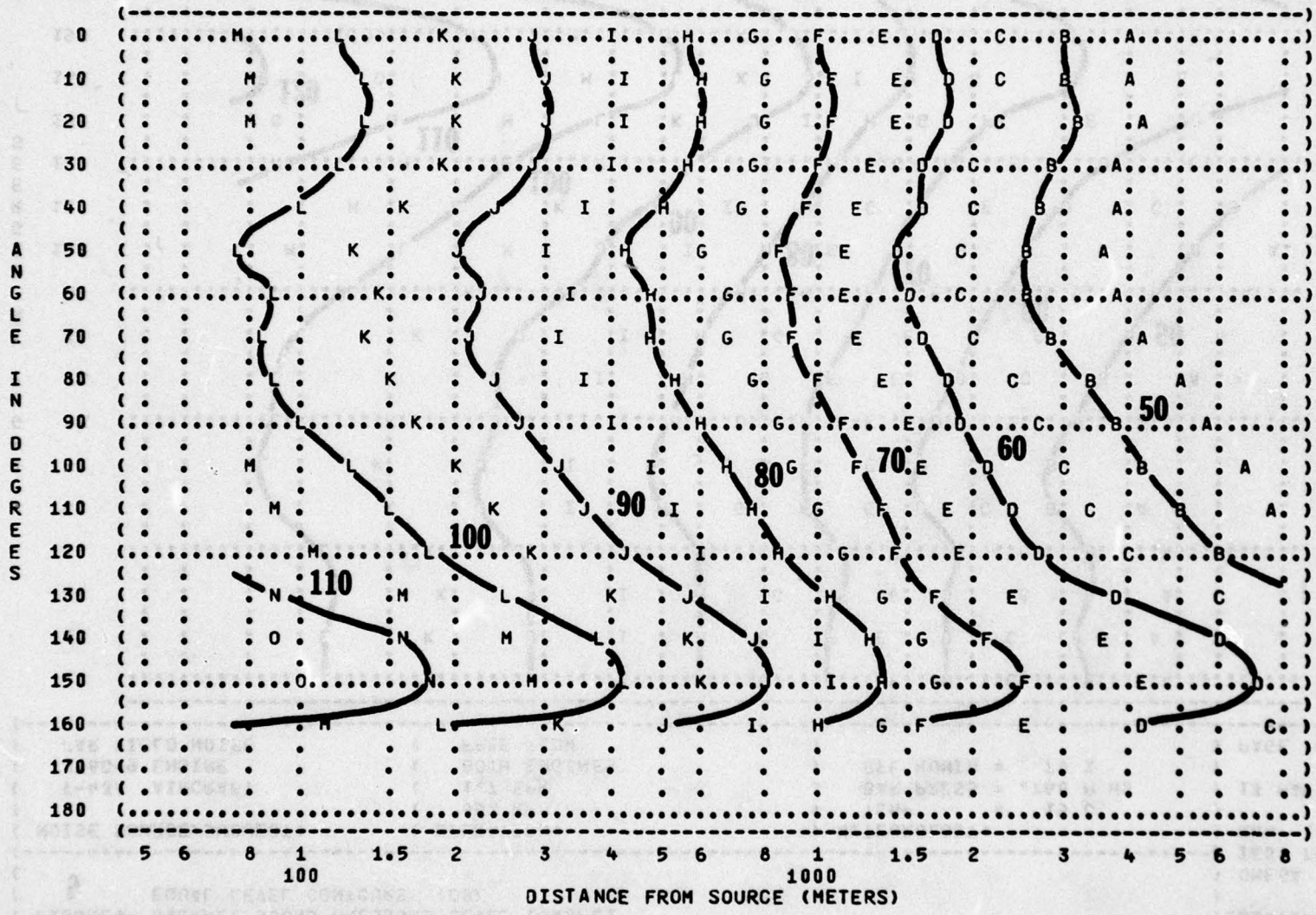
FIGURE 5: OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 13

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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



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

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

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 13

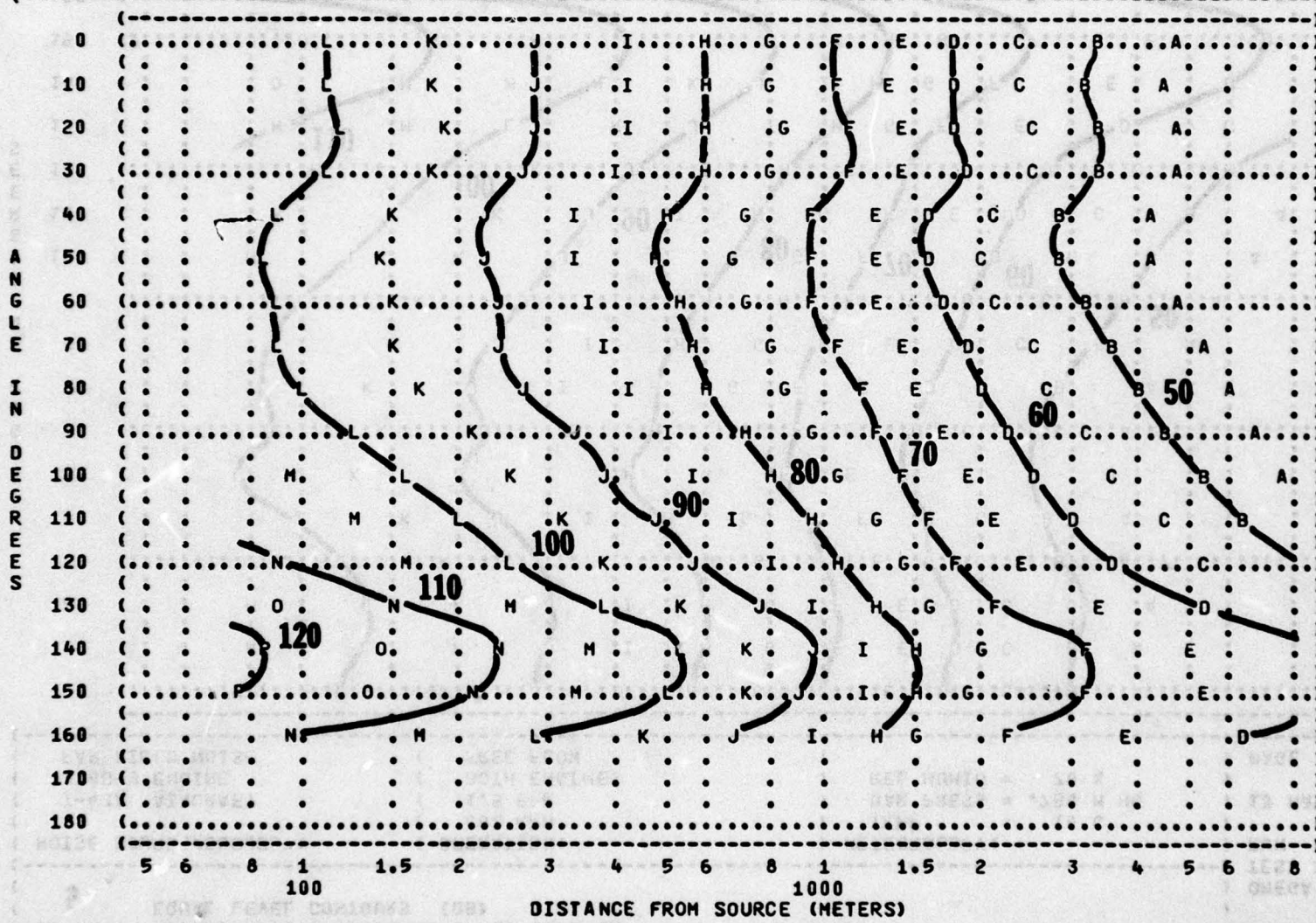


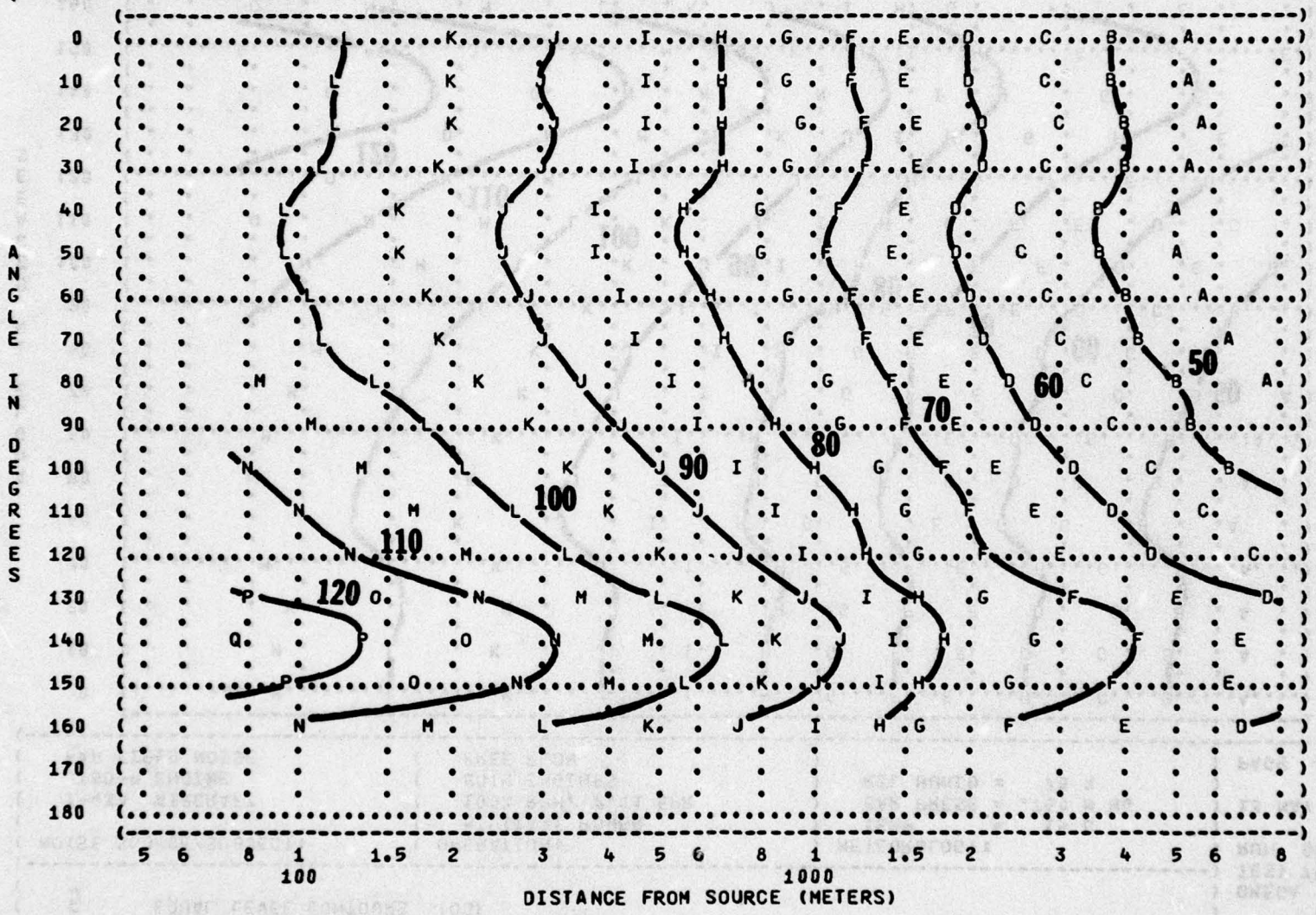
FIGURE 5 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 13

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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



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

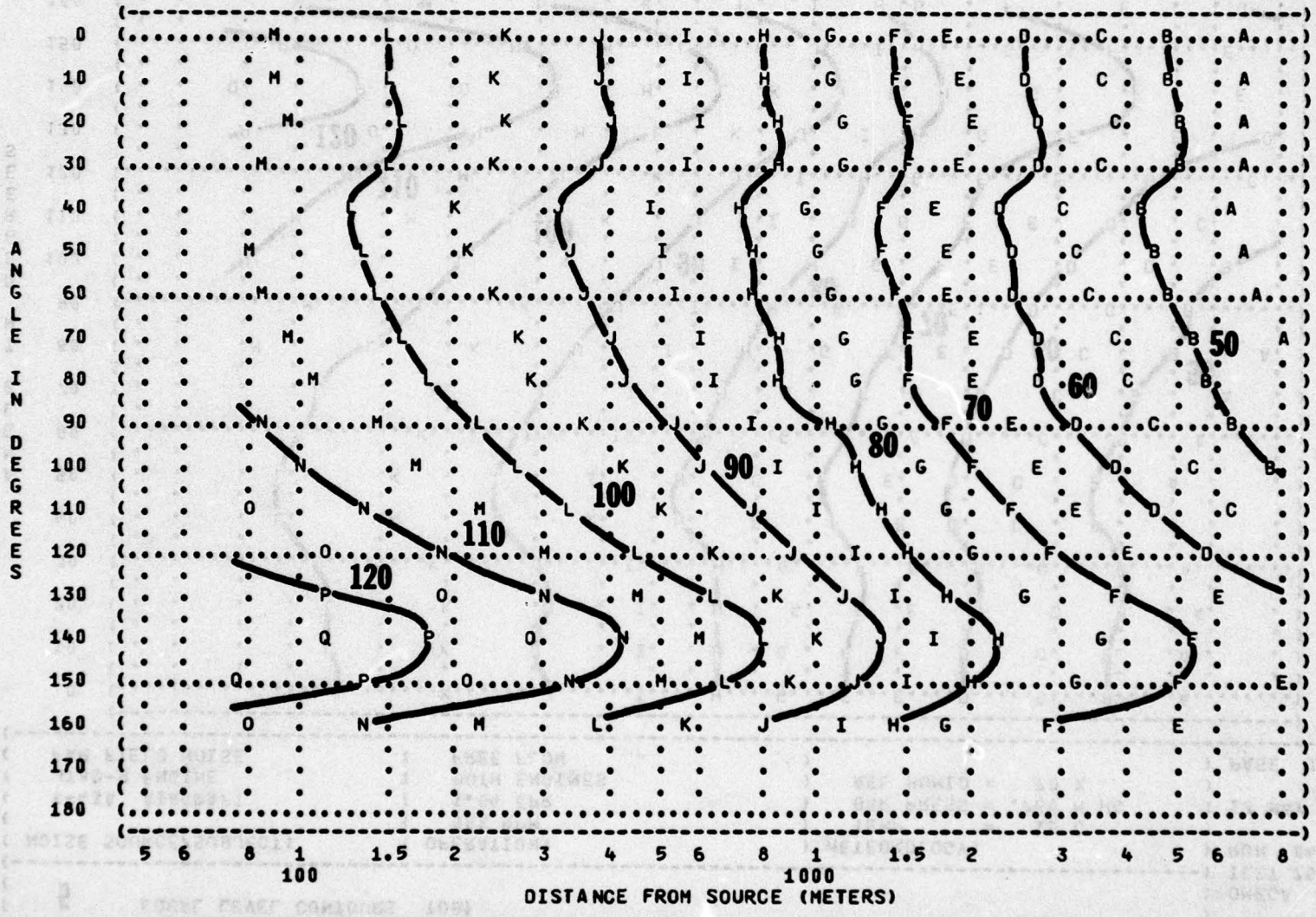
FIGURE 5: OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 13

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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



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

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

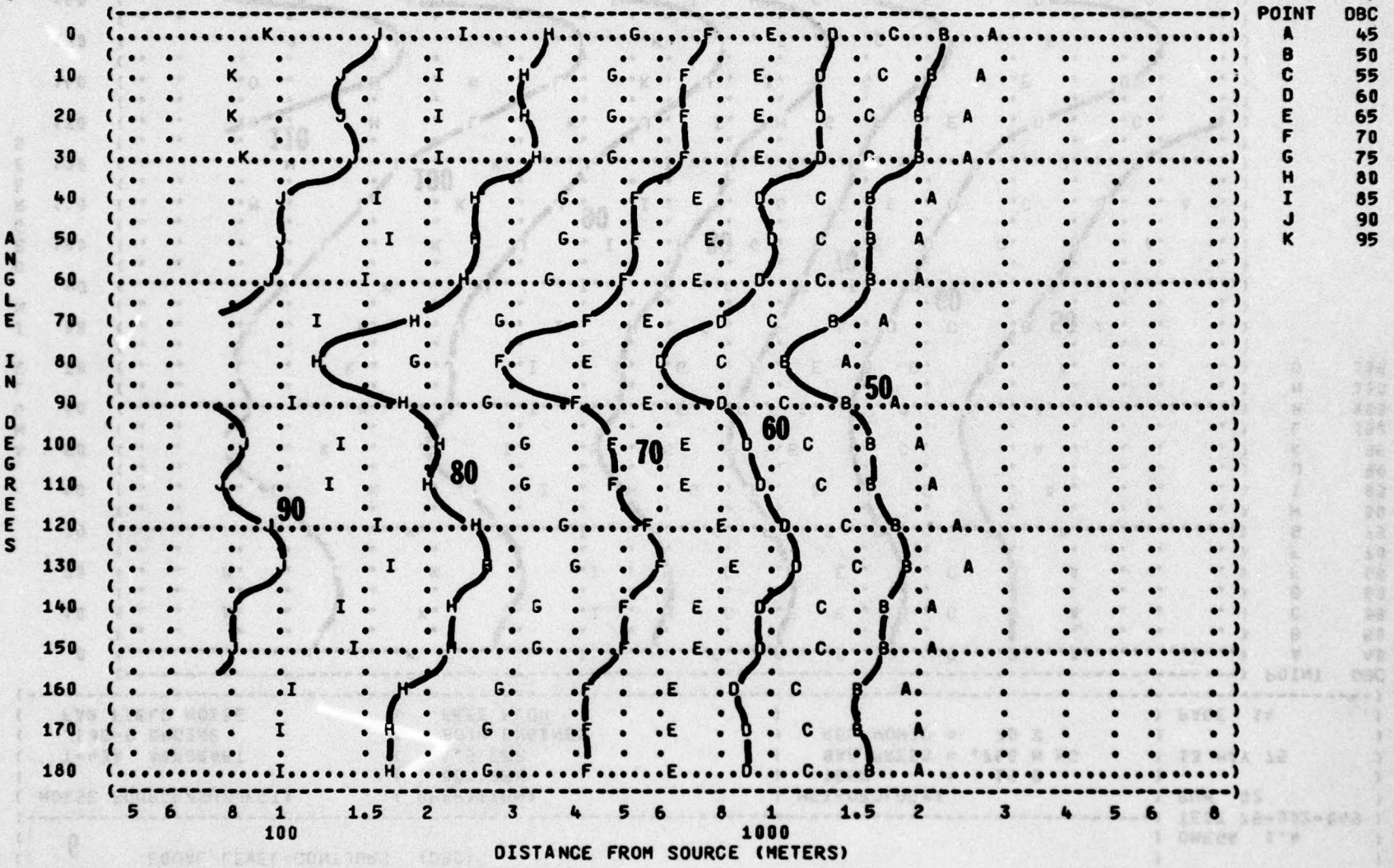
IDENTIFICATION:

OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 14

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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



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

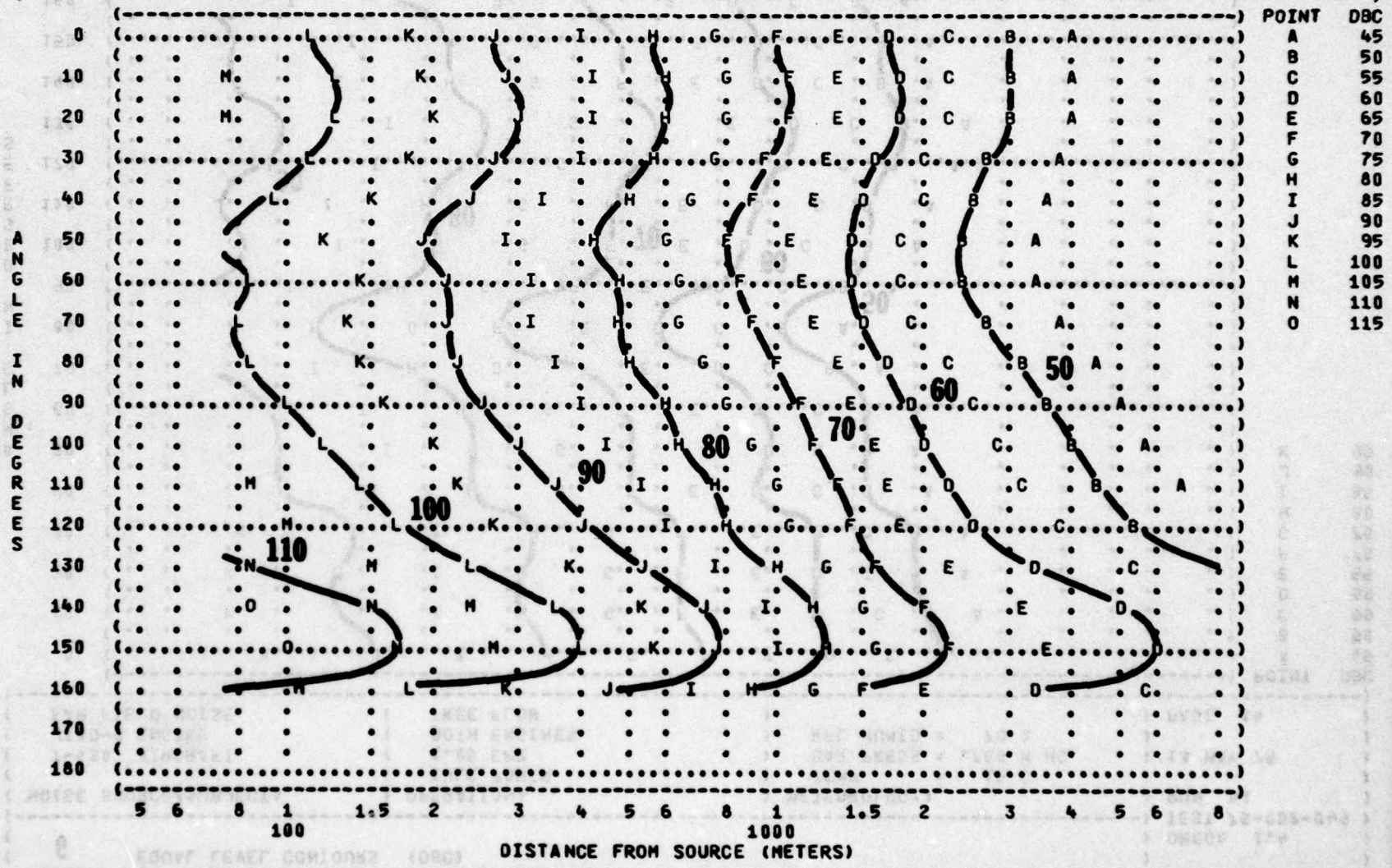
FIGURE 6: C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 14

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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



POINT	DBC
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105
N	110
O	115

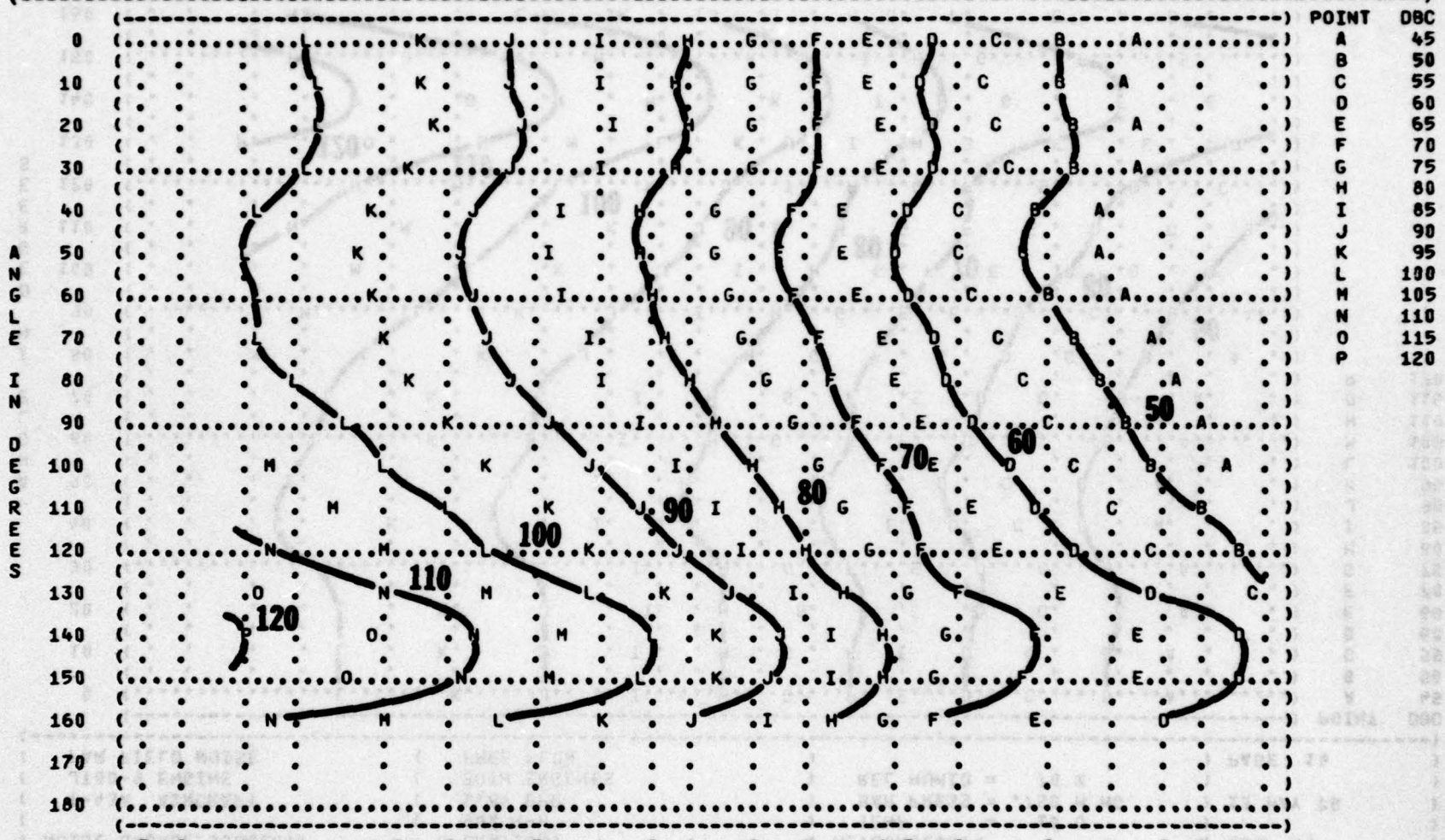
FIGURE: 6 C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 14



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

FIGURE: 6

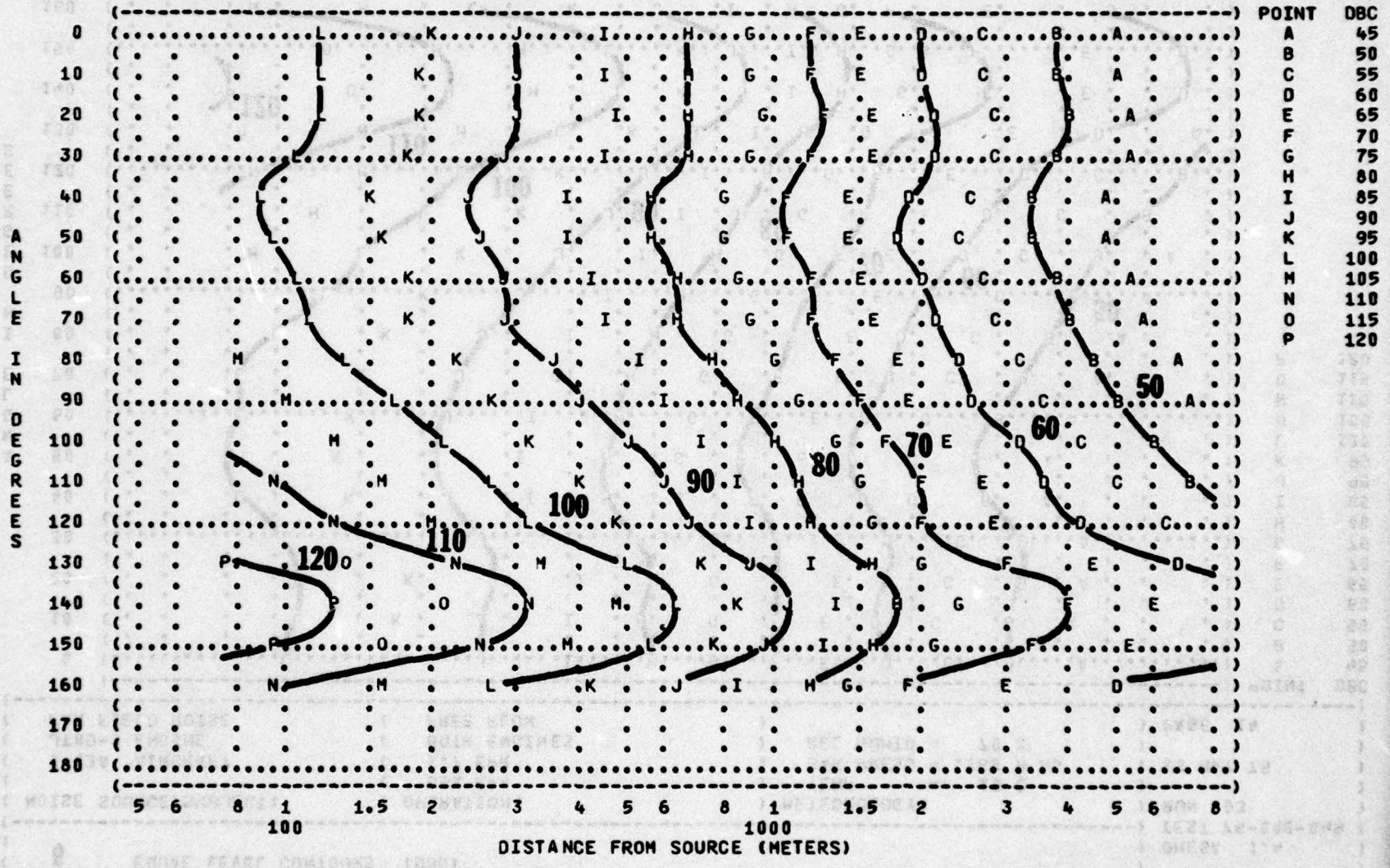
C-WEIGHTED OVERALL SOUND LEVEL (OASLC)
EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 14

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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



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

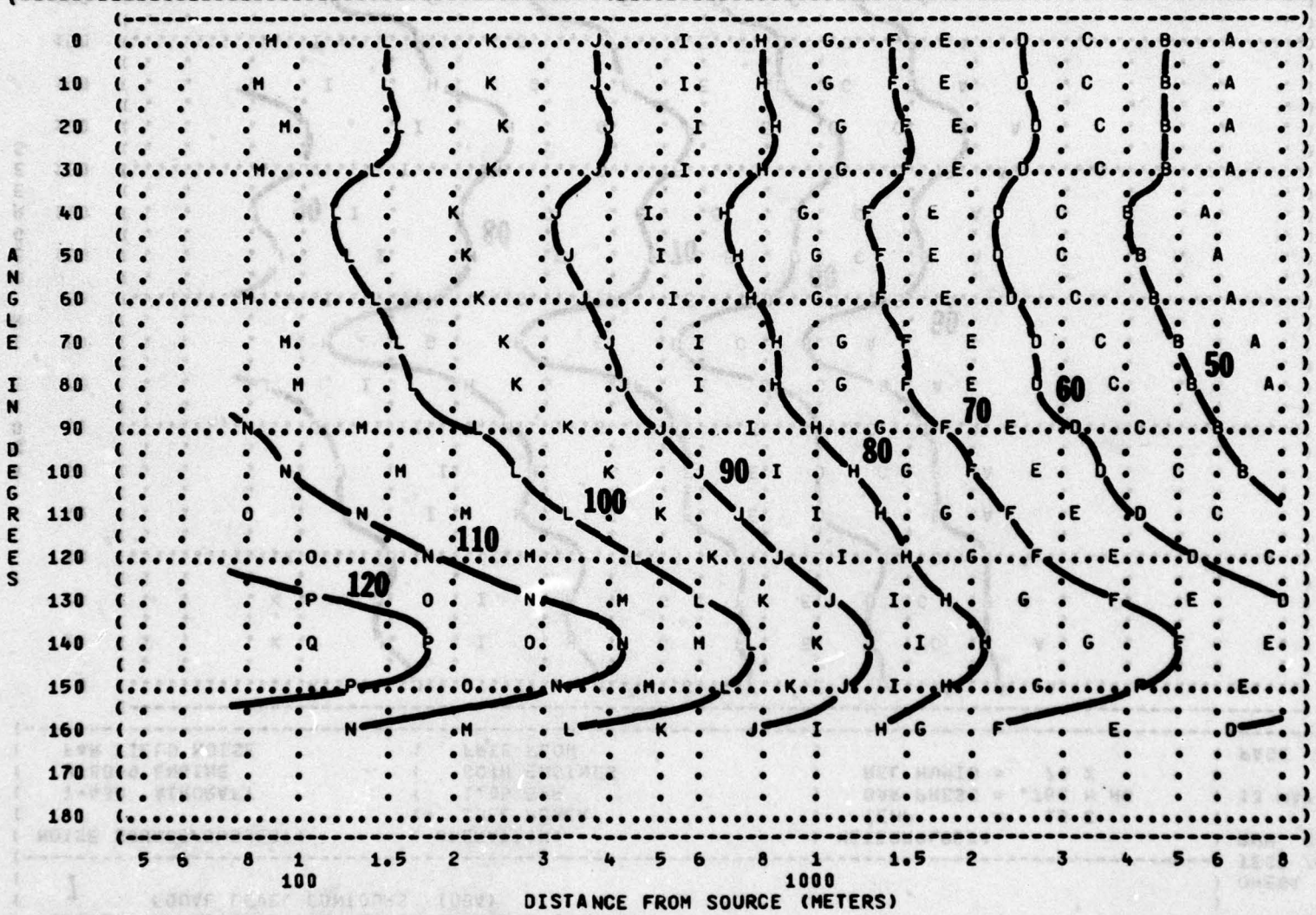
FIGURE 6: C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 14

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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



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

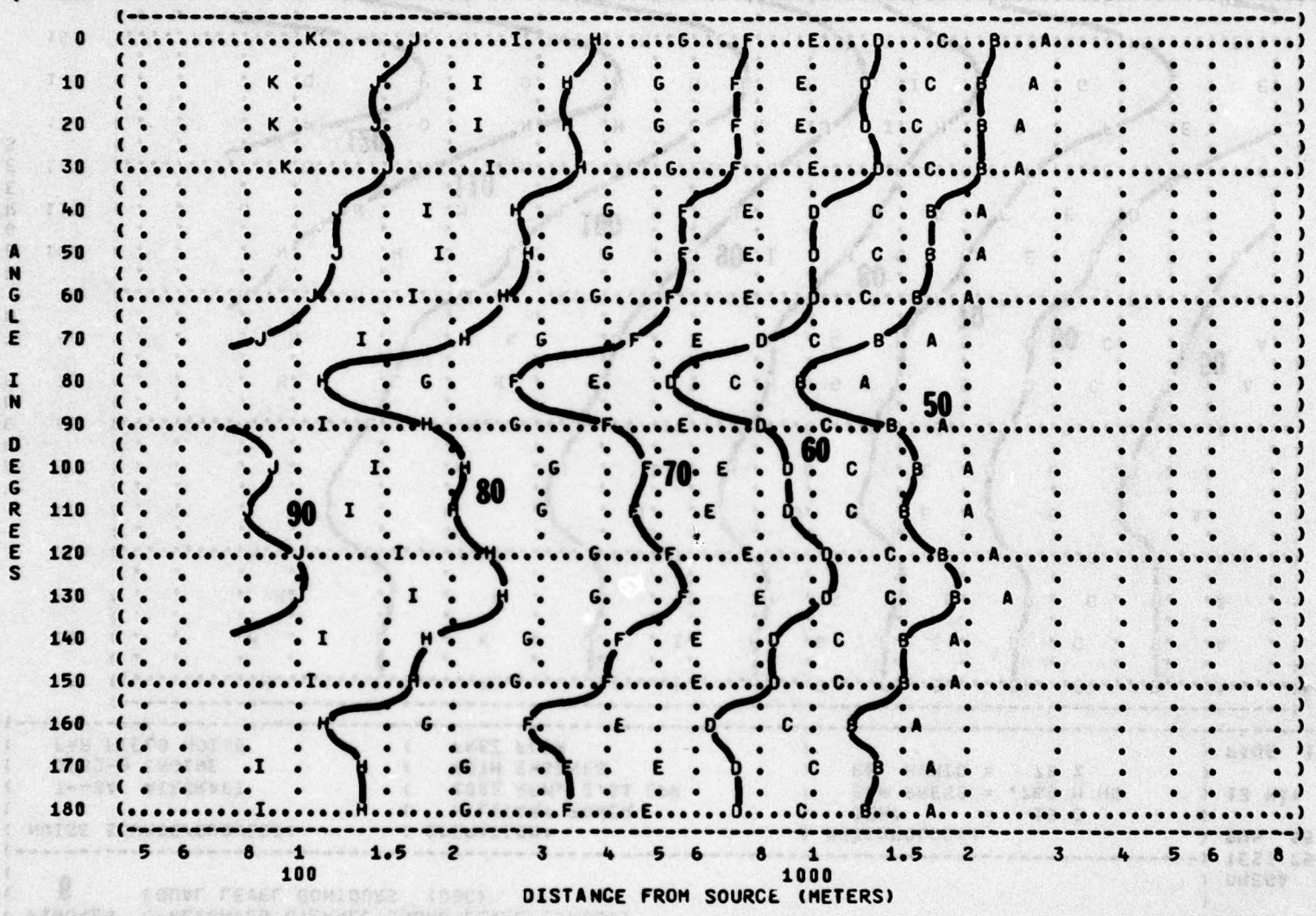
FIGURE: 7 — A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 15

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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



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

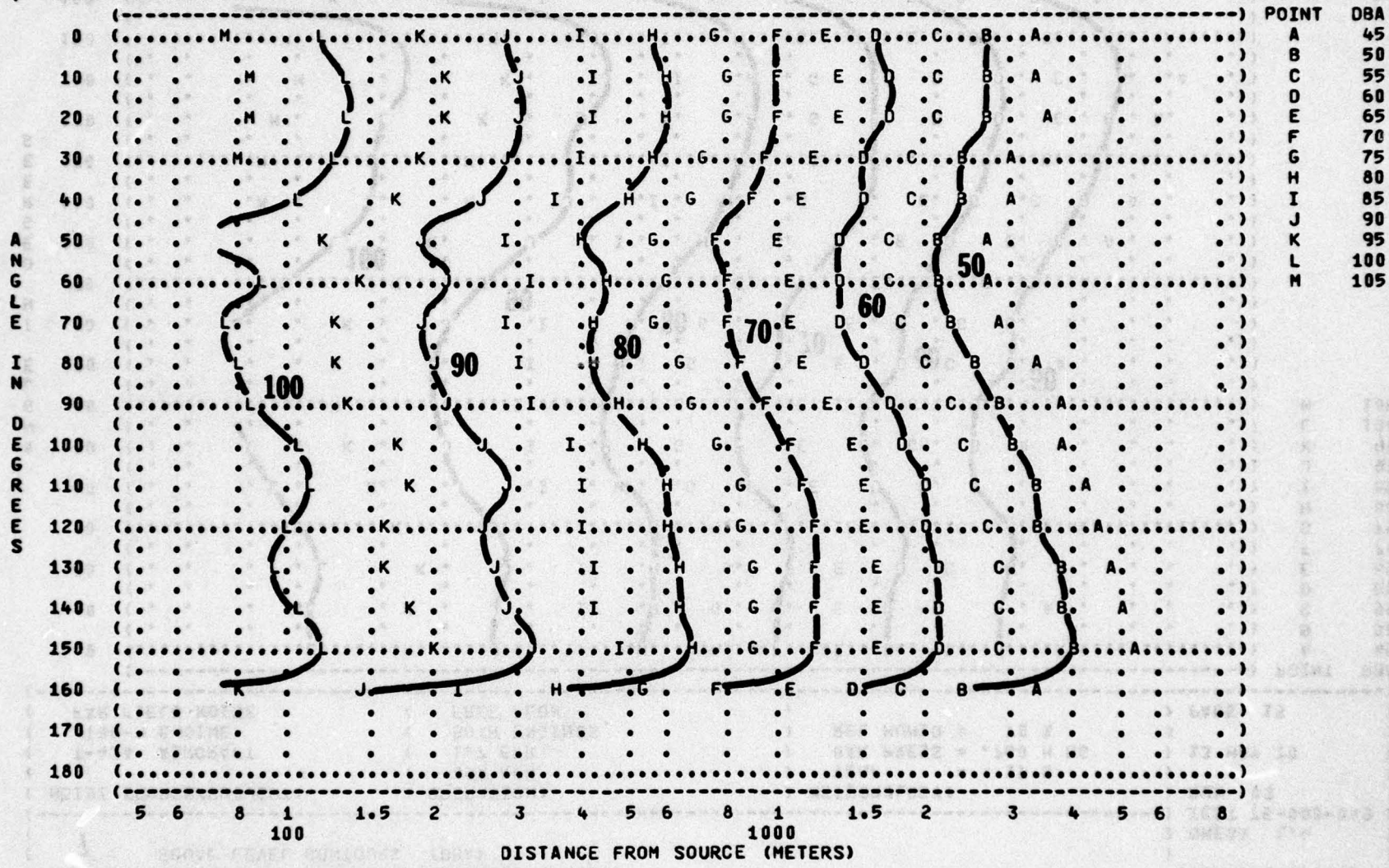
FIGURE: 7 A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 15



POINT	DBA
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105

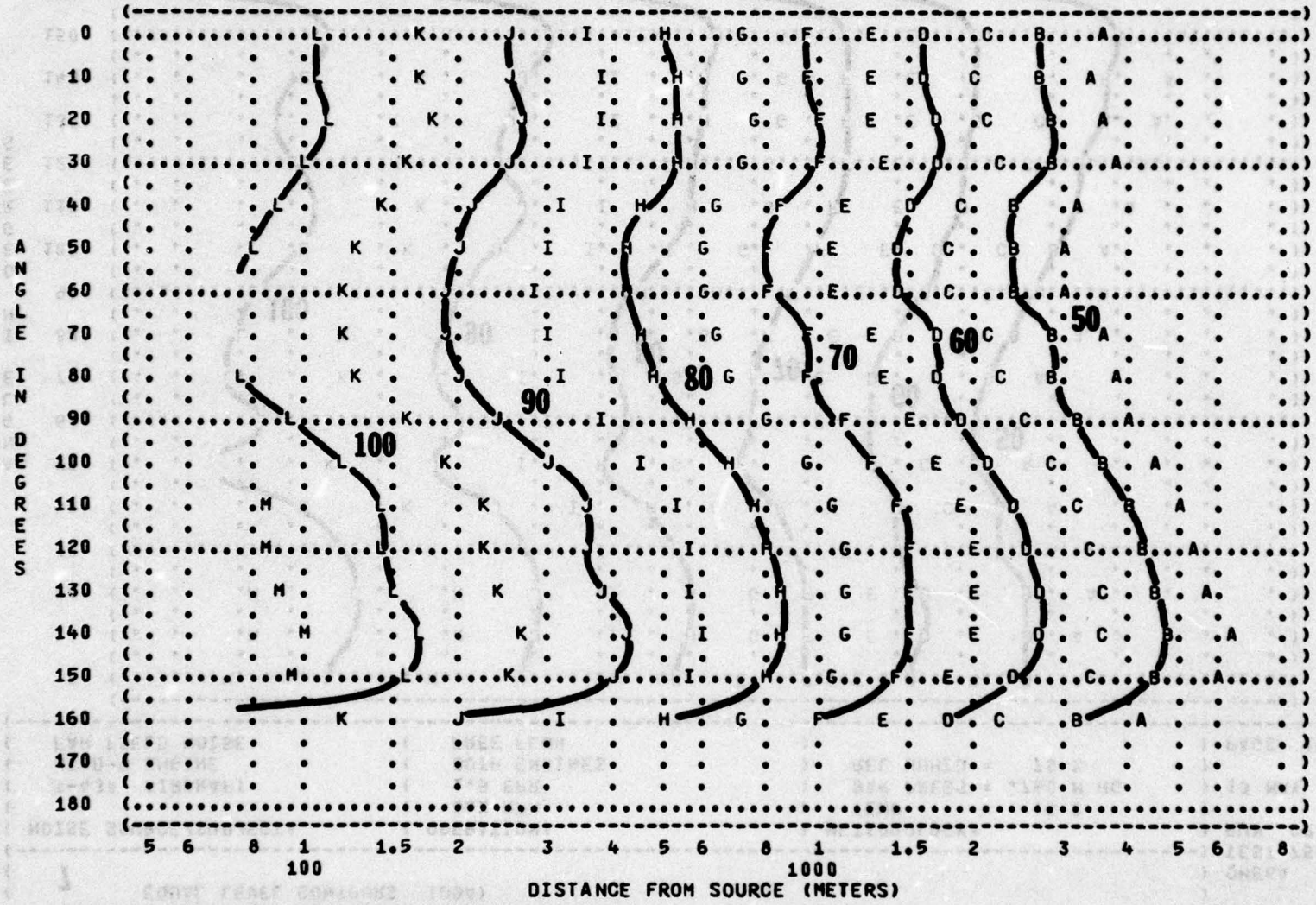
FIGURE: 7 A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 15

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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



POINT	DBA
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 15

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

POINT	DBA
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105
N	110

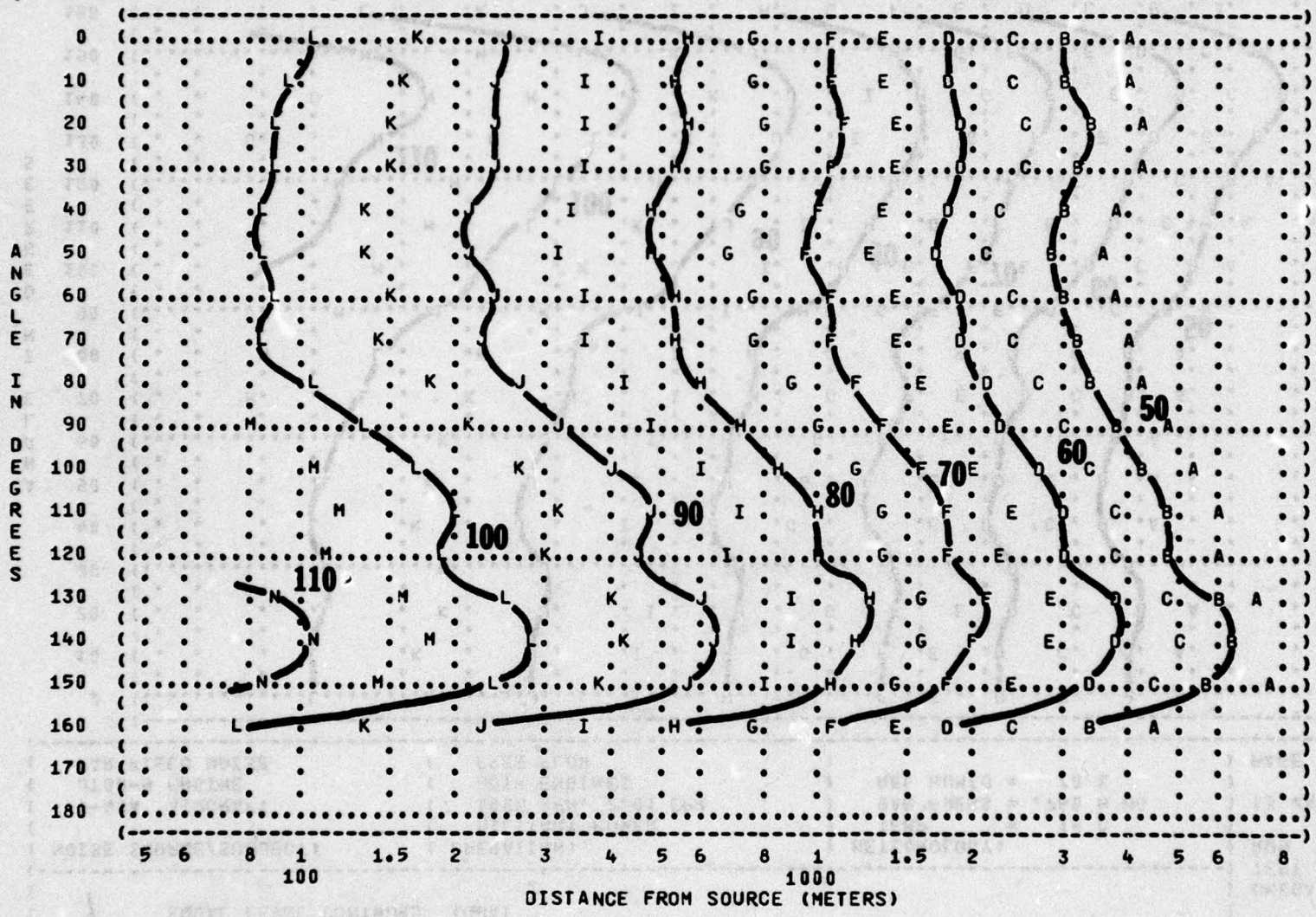


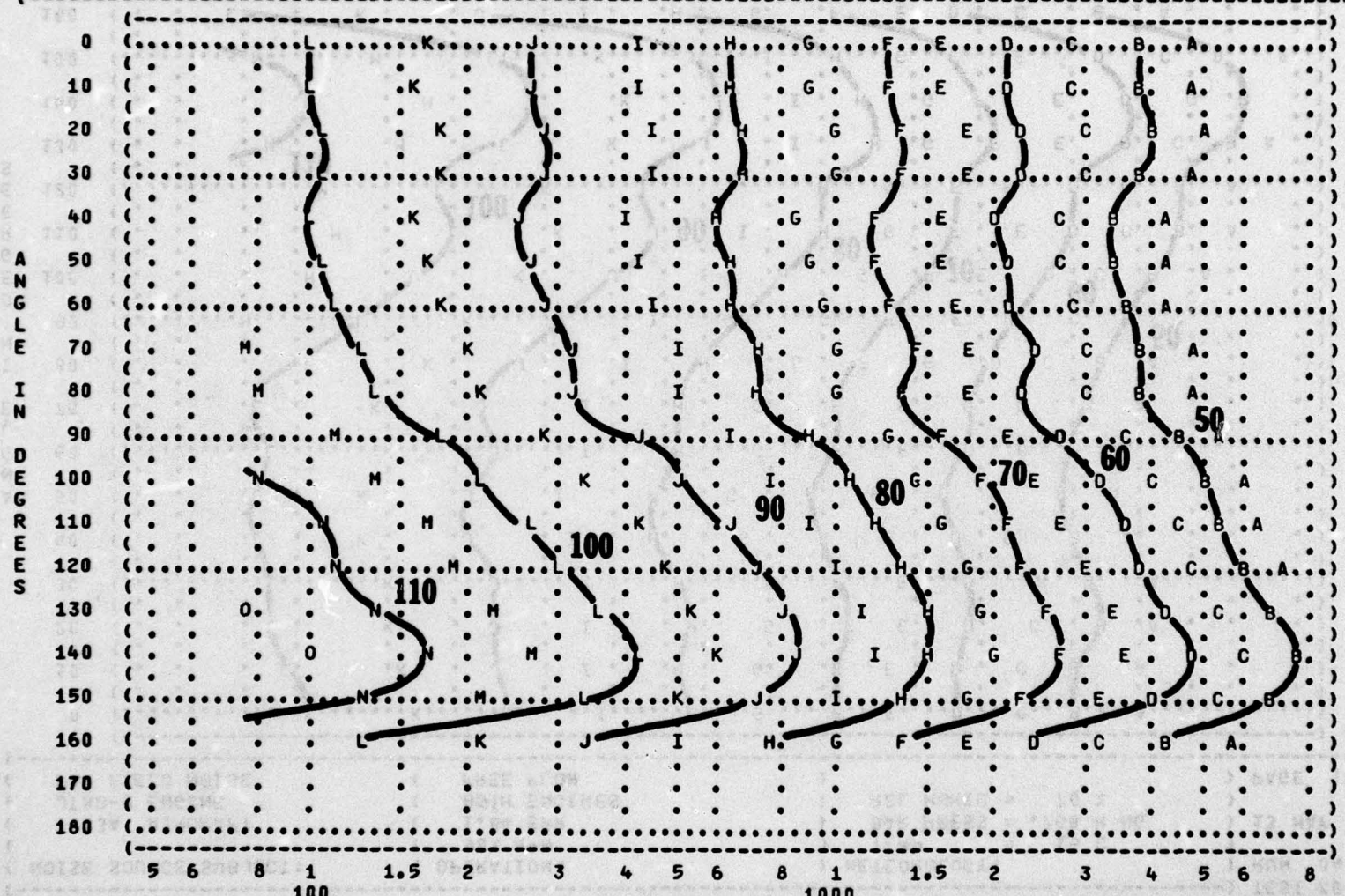
FIGURE: 7 A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 15

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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



POINT	DBA
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105
N	110
O	115

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

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 16

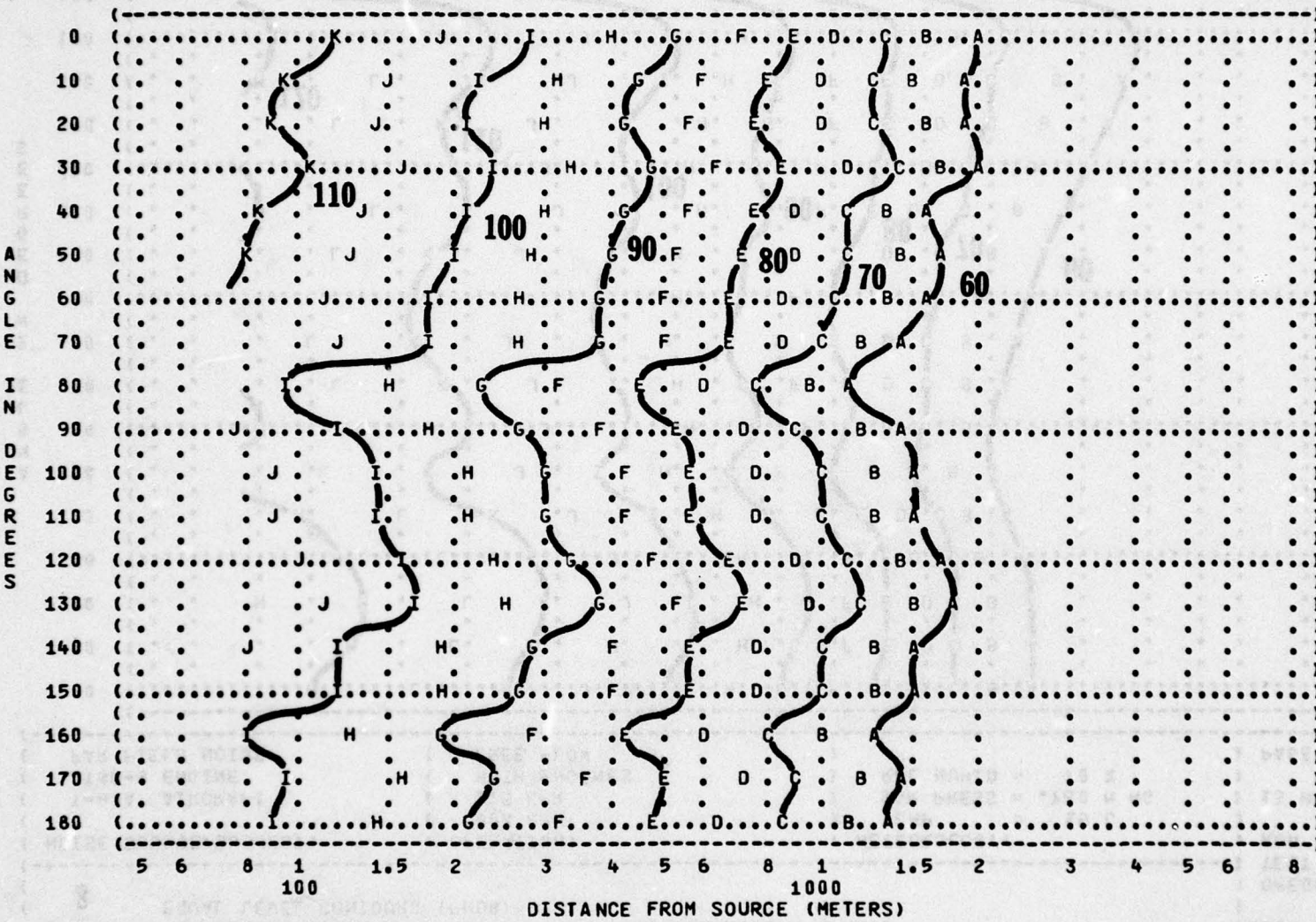


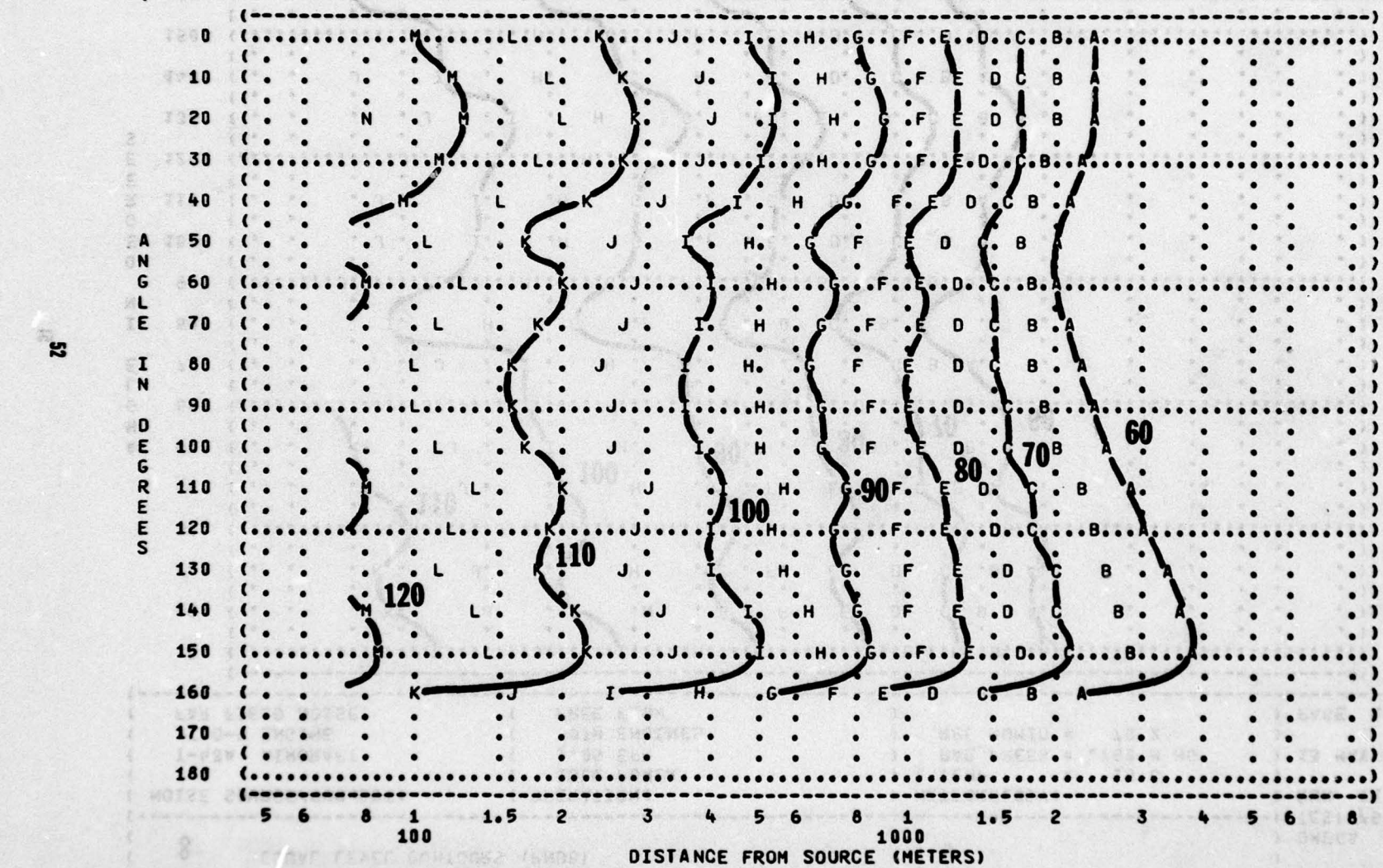
FIGURE: 8 PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT) EQUAL LEVEL CONTOURS (PNDB)

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 16



POINT	PNDB
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

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 16

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

POINT	PNDB
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

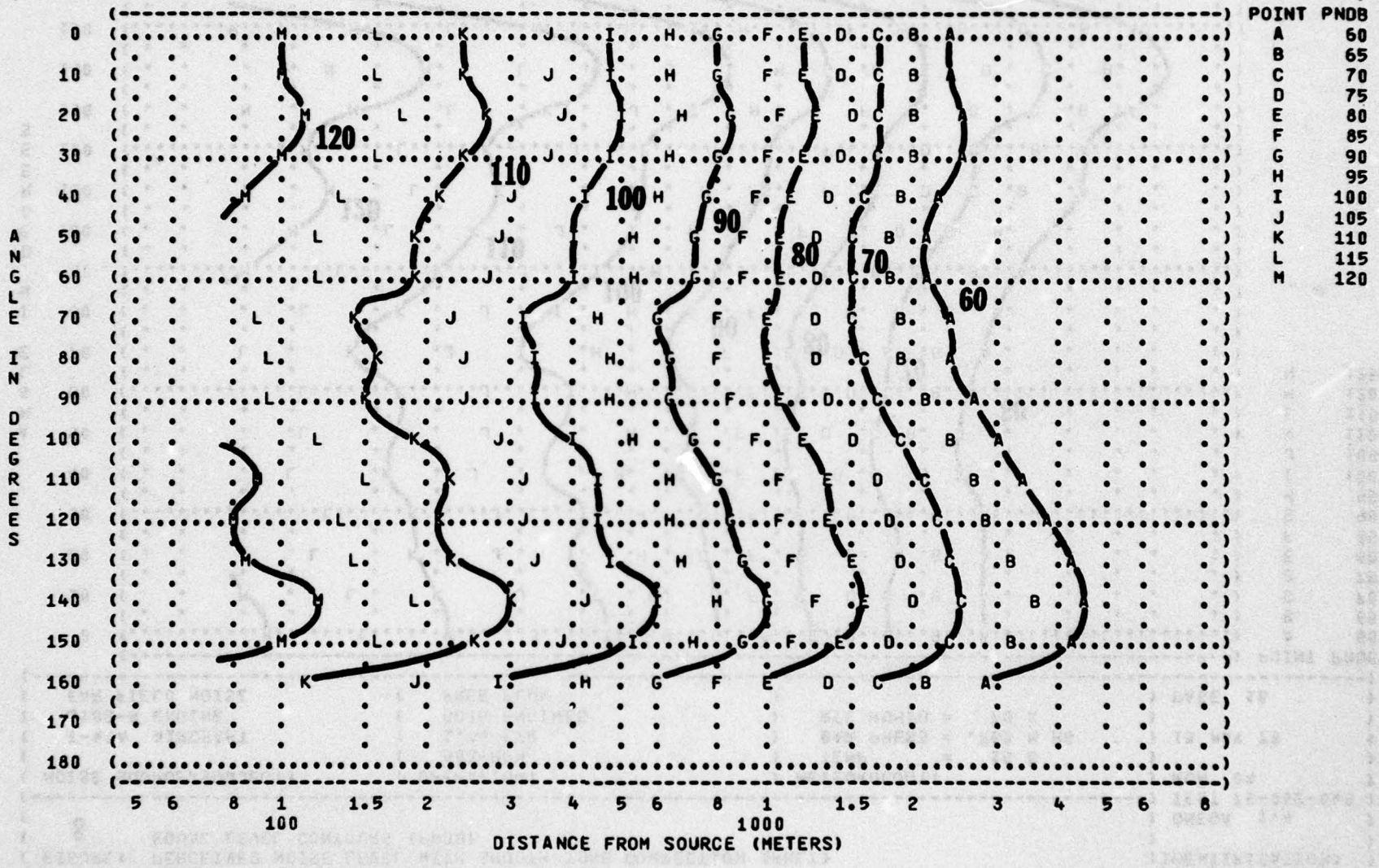


FIGURE: 8 PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT)
EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 16

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

POINT	PNDB
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

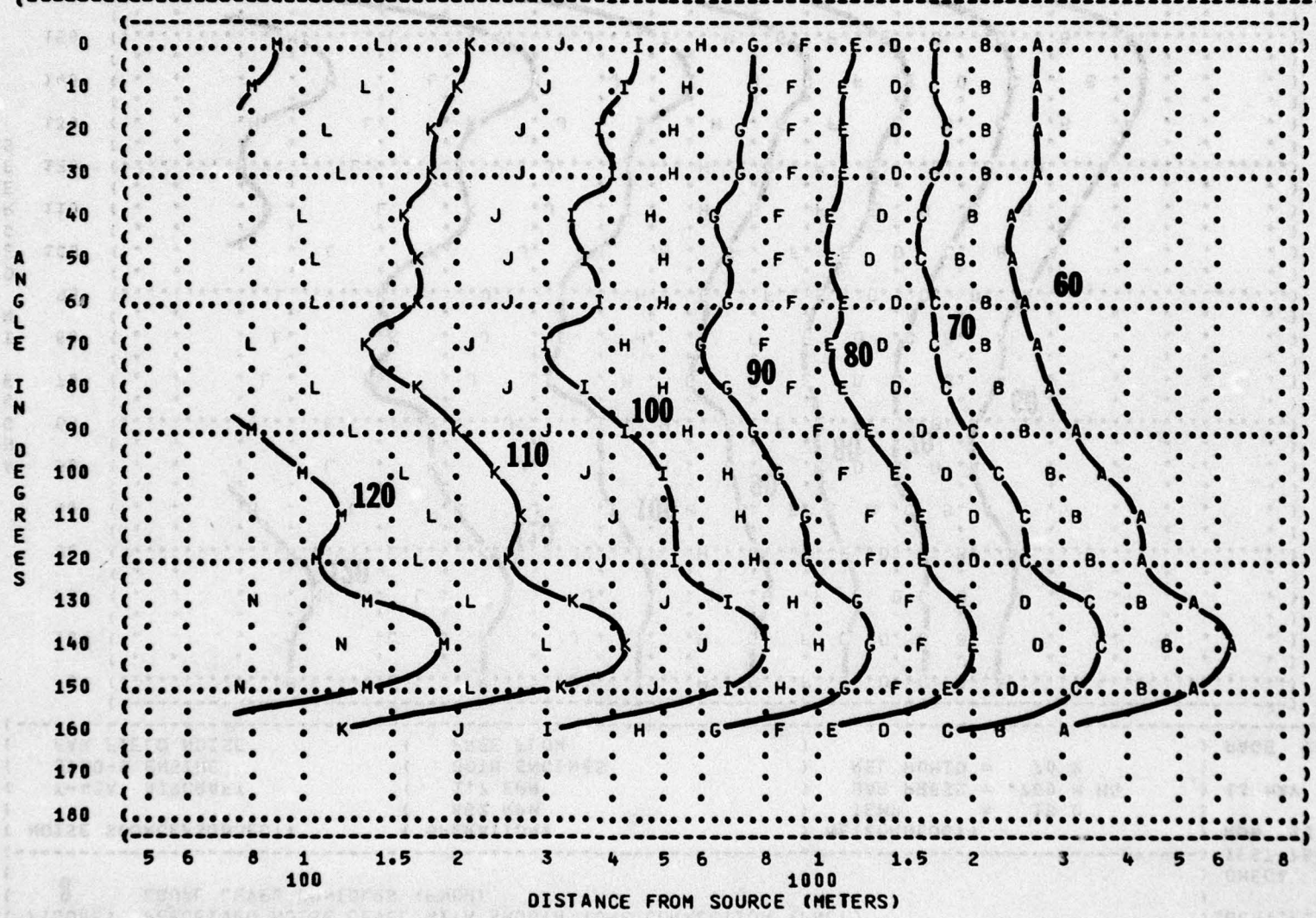


FIGURE 8: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT) EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 16

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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

POINT	PNDB
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

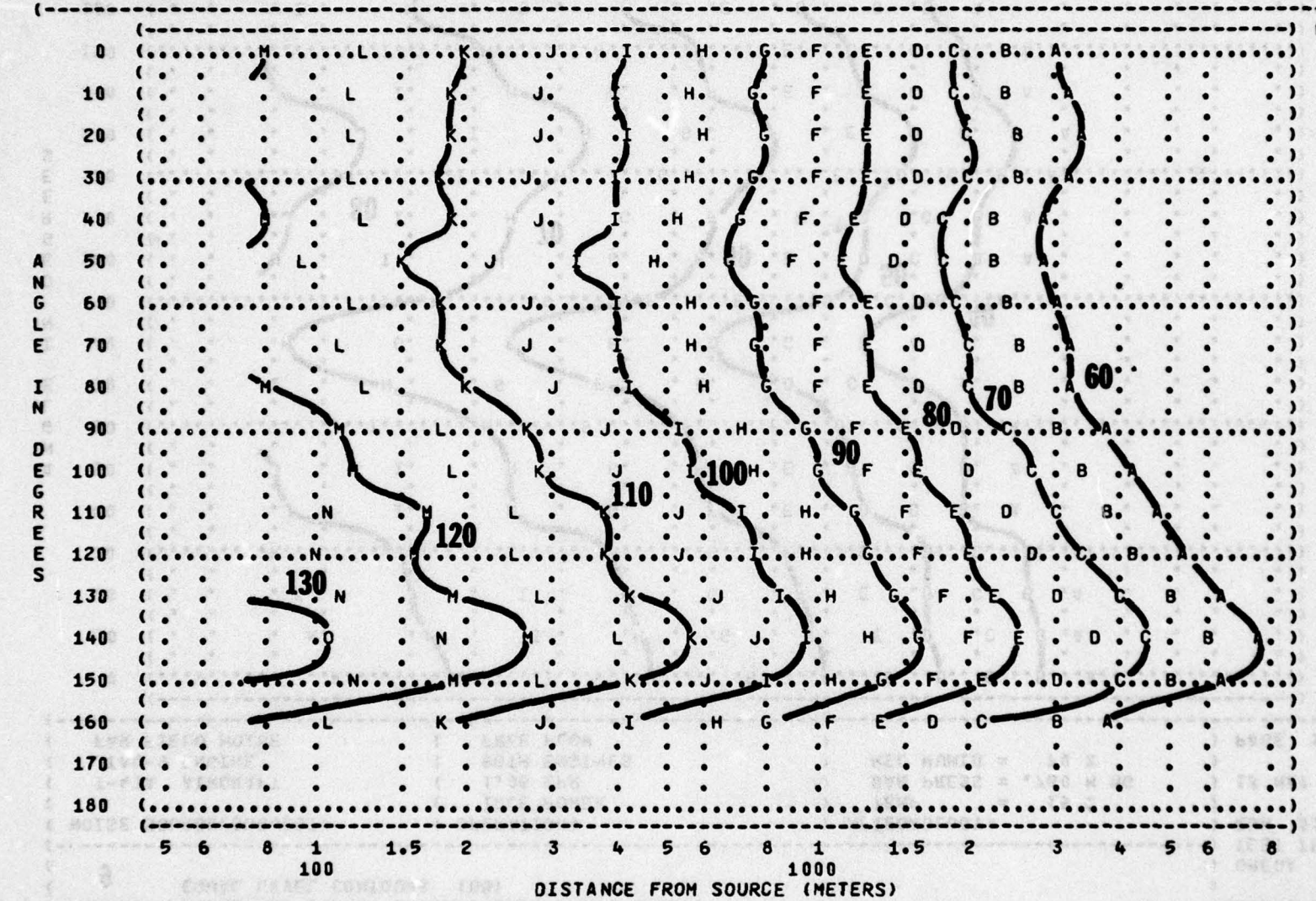


FIGURE 9 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 17

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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

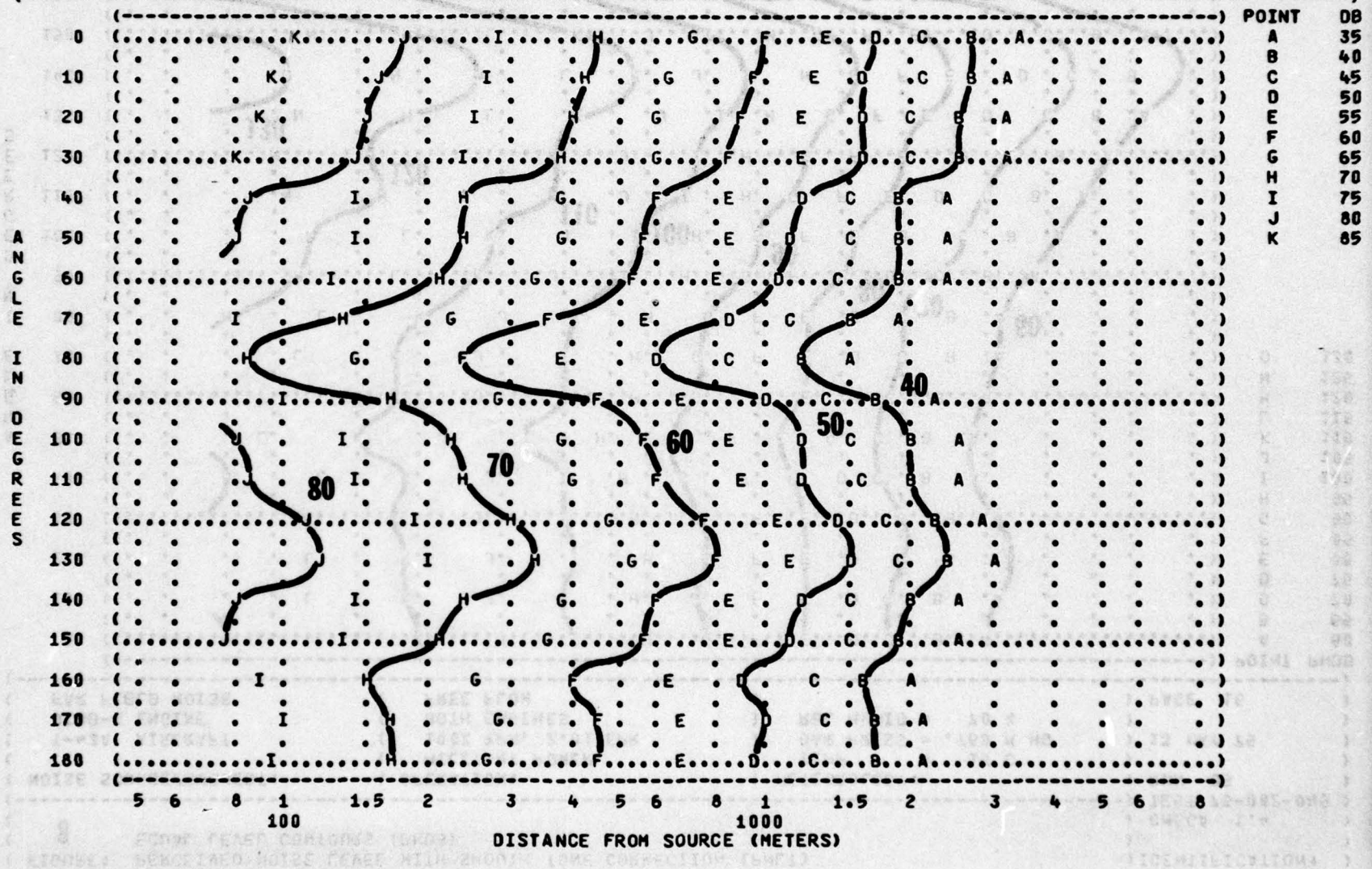


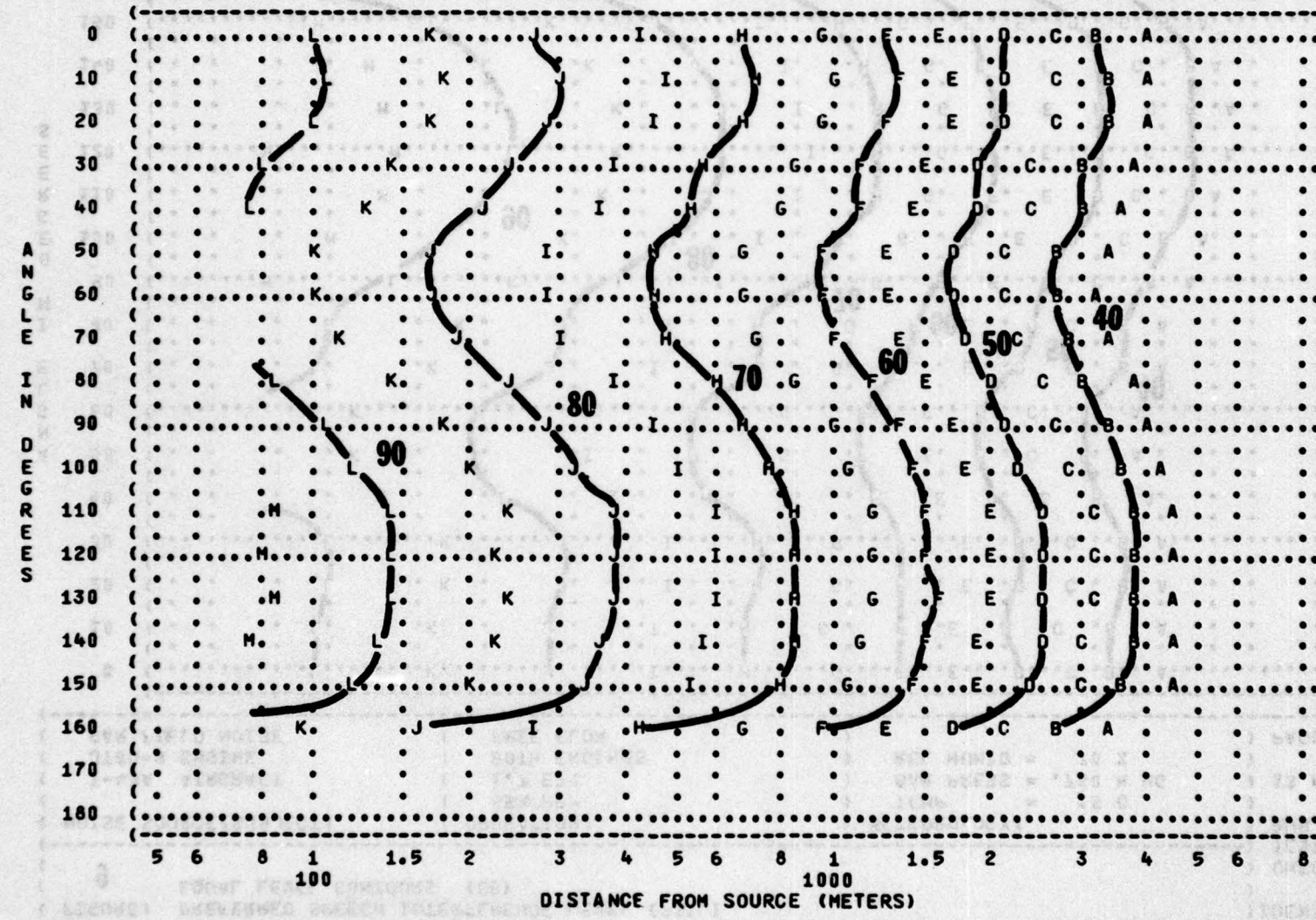
FIGURE 9: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)
EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 17

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 17

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100

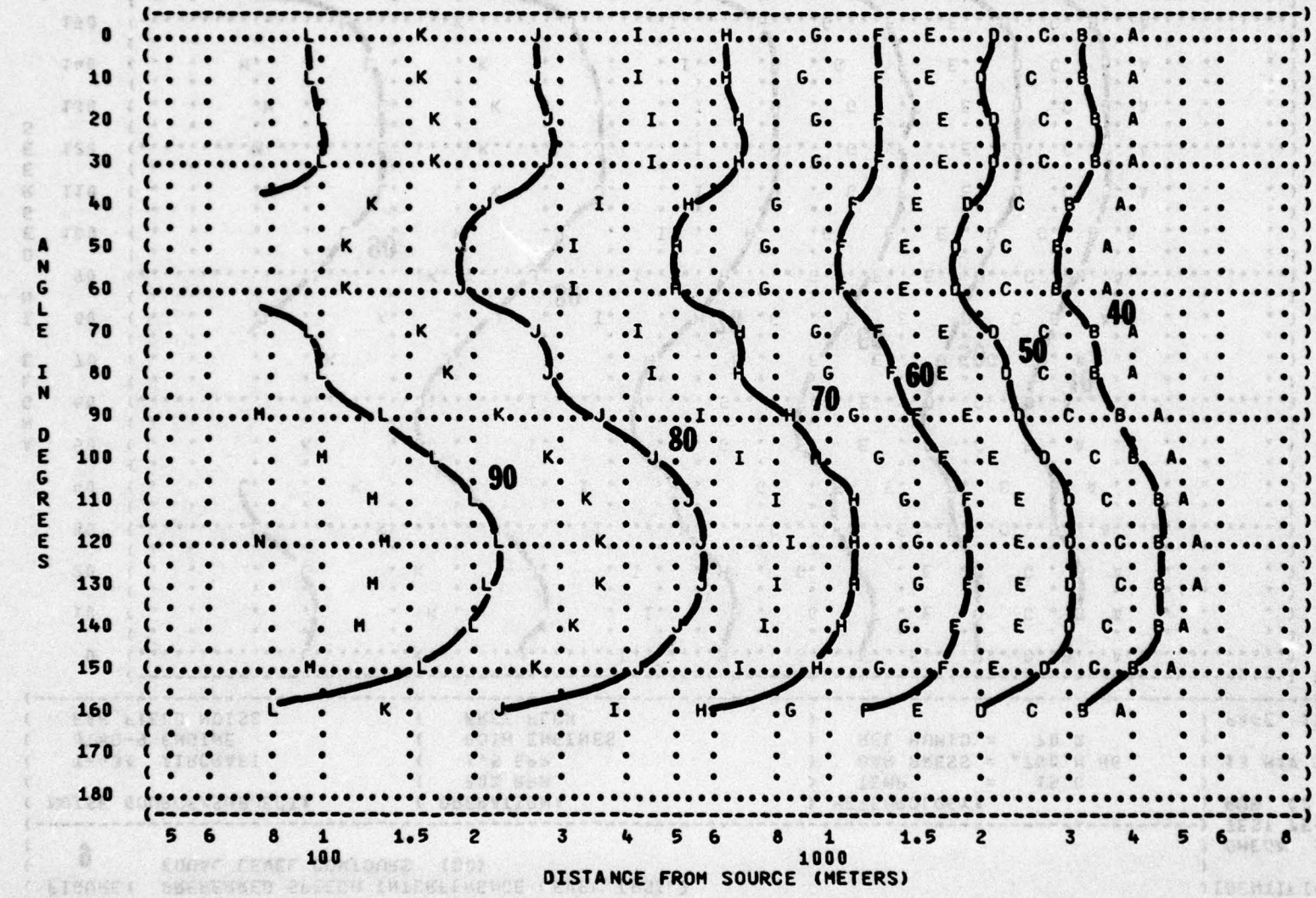


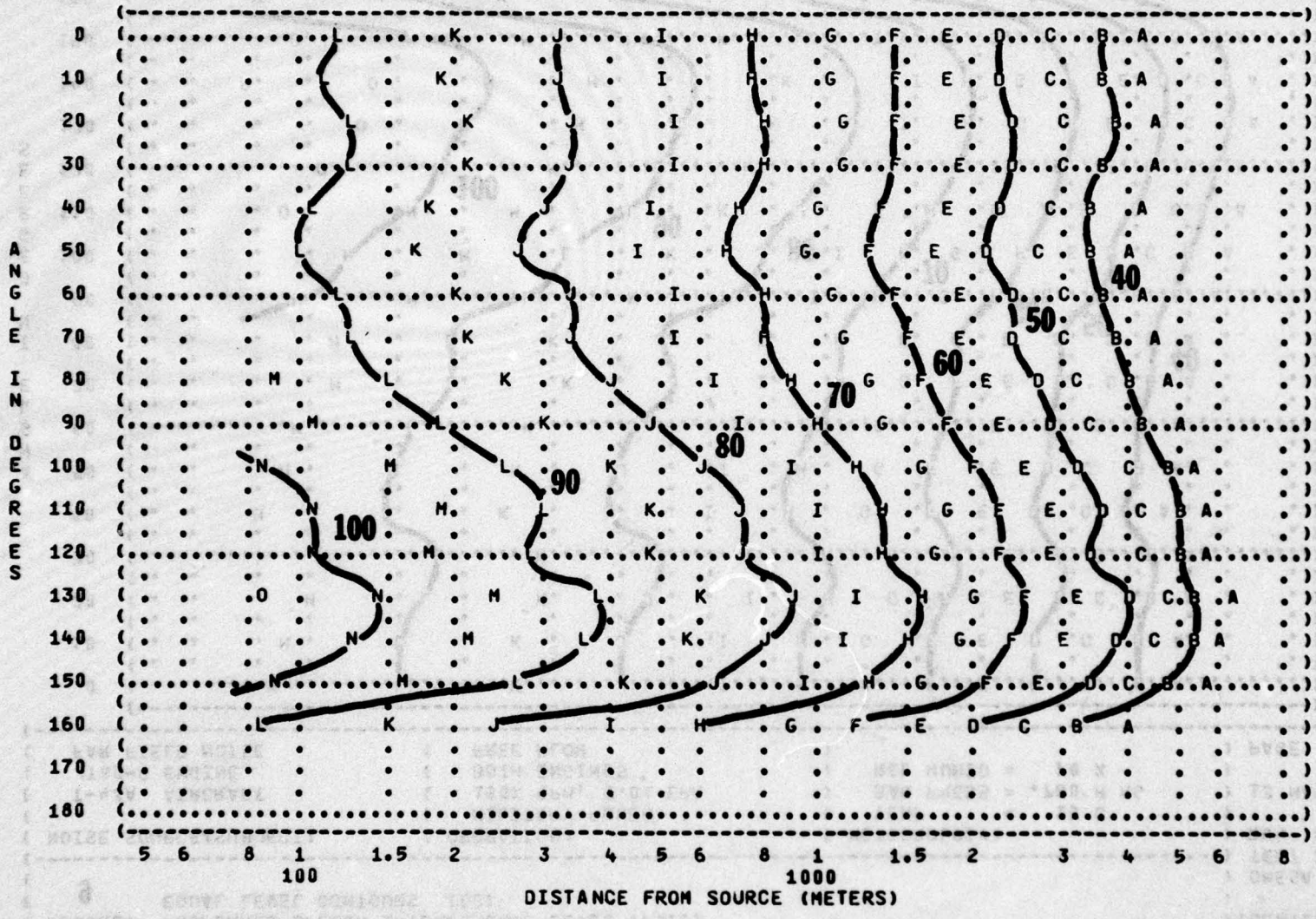
FIGURE 9 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 17

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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



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

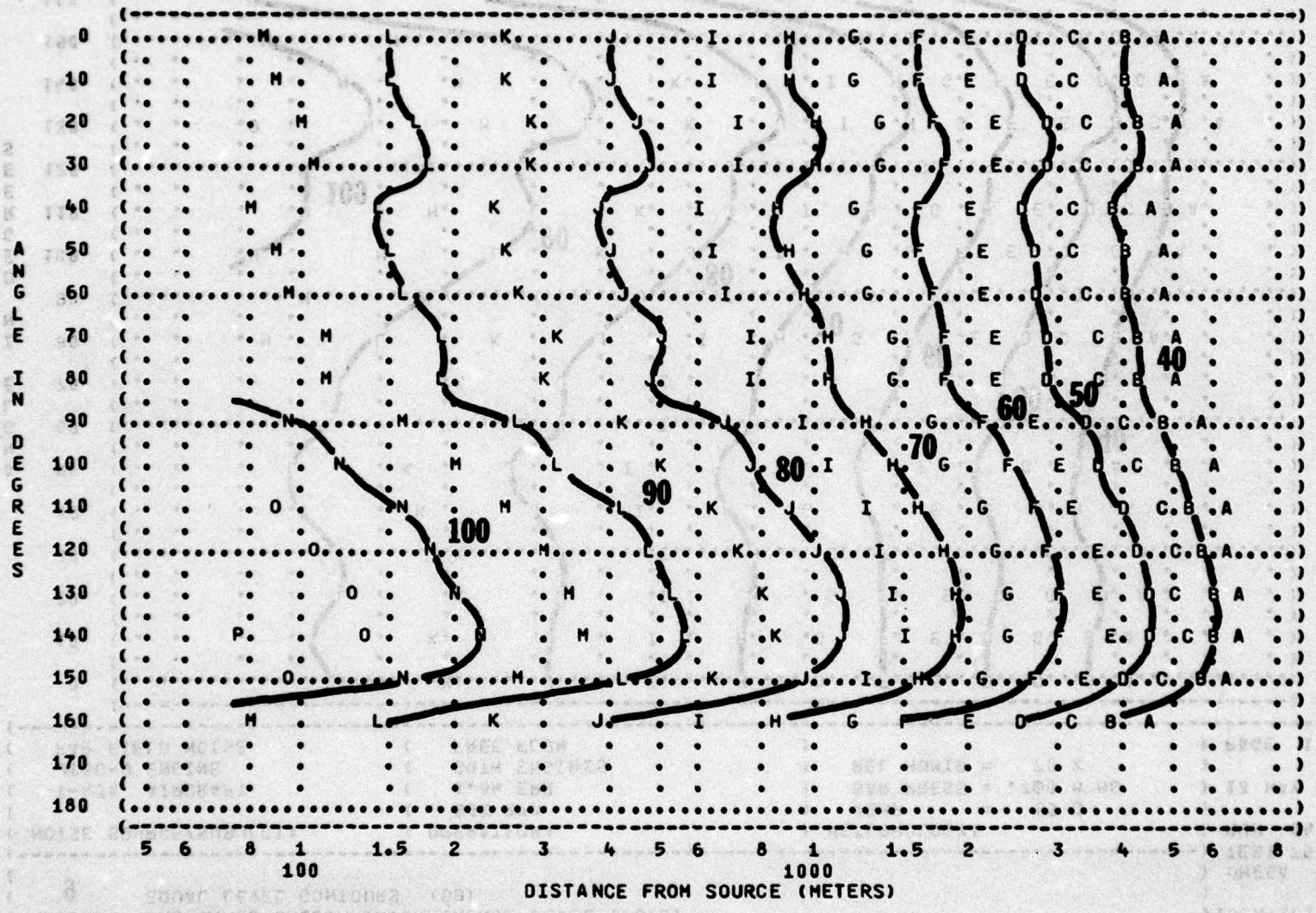
FIGURE 9 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 17



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

FIGURE: 10

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 7

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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

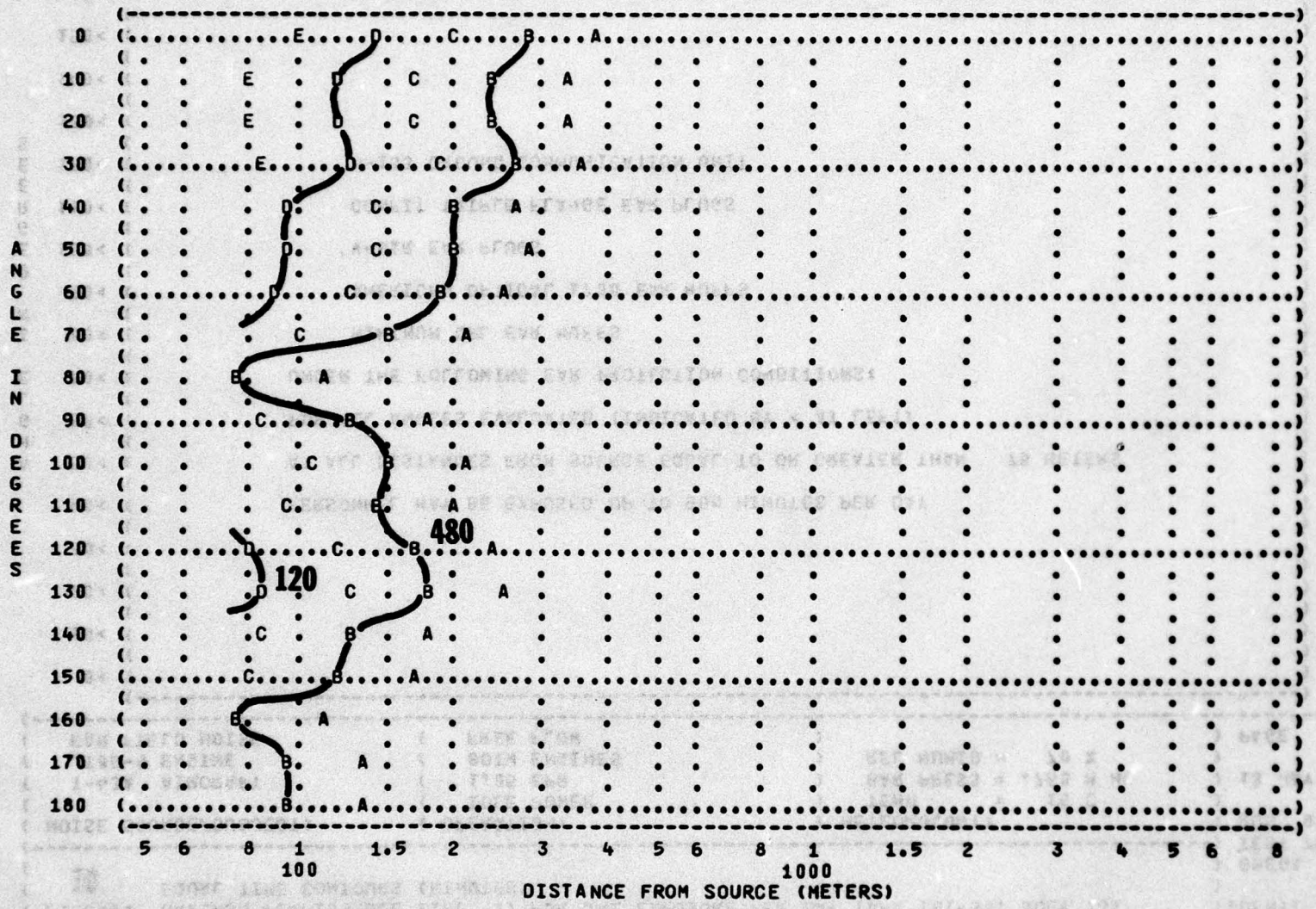


FIGURE: 10	MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73) EQUAL TIME CONTOURS (MINUTES)	IDENTIFICATION:
NOISE SOURCE/SUBJECT: T-43A AIRCRAFT JT8D-9 ENGINE FAR FIELD NOISE	OPERATION: IDLE POWER 1.05 EPR BOTH ENGINES FREE FLOW	METEOROLOGY: TEMP = 15 C BAR PRESS = .760 M HG REL HUMID = 70 %	OMEGA 1.4 TEST 75-002-049 RUN 01 13 MAY 75 PAGE 8

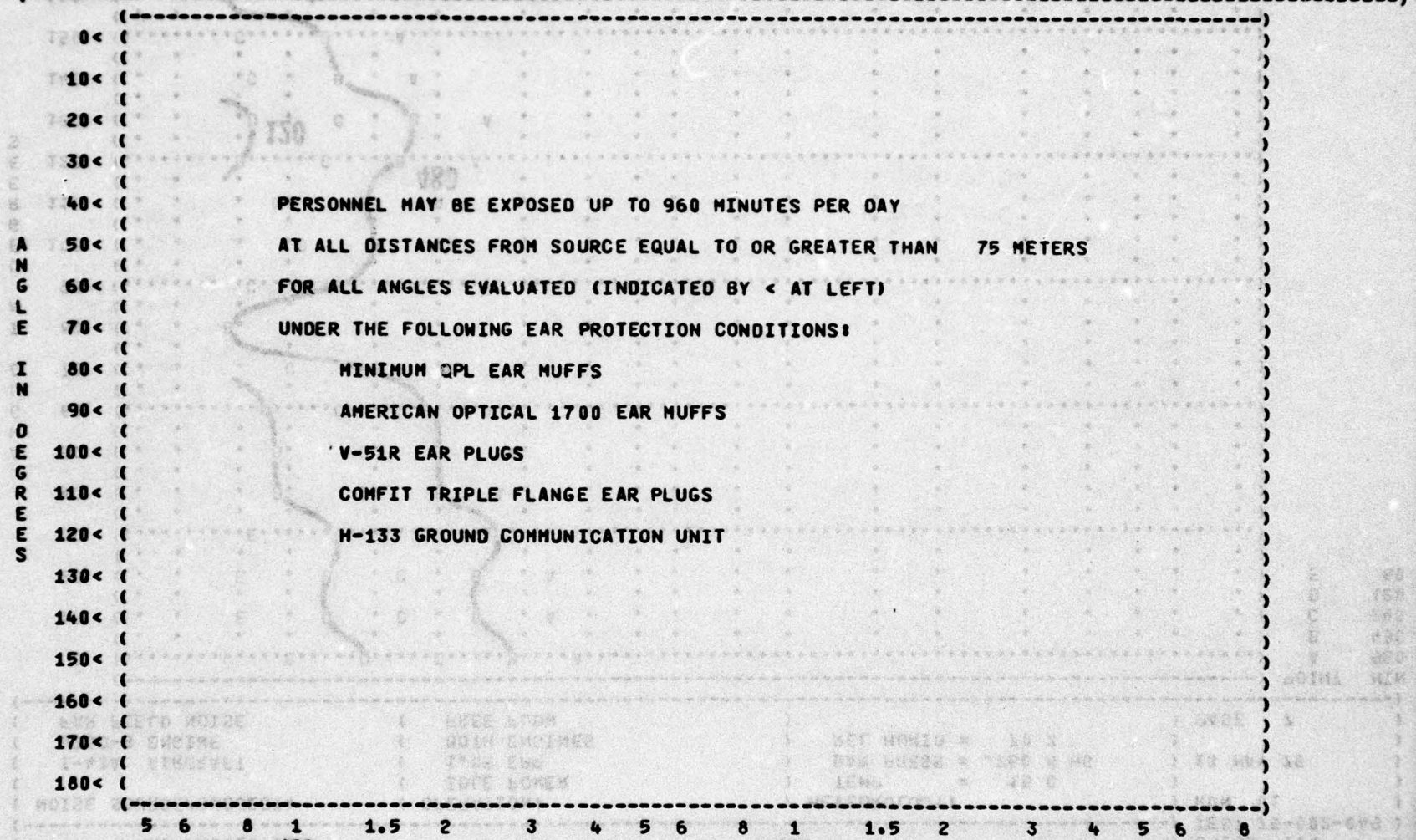


FIGURE: 10

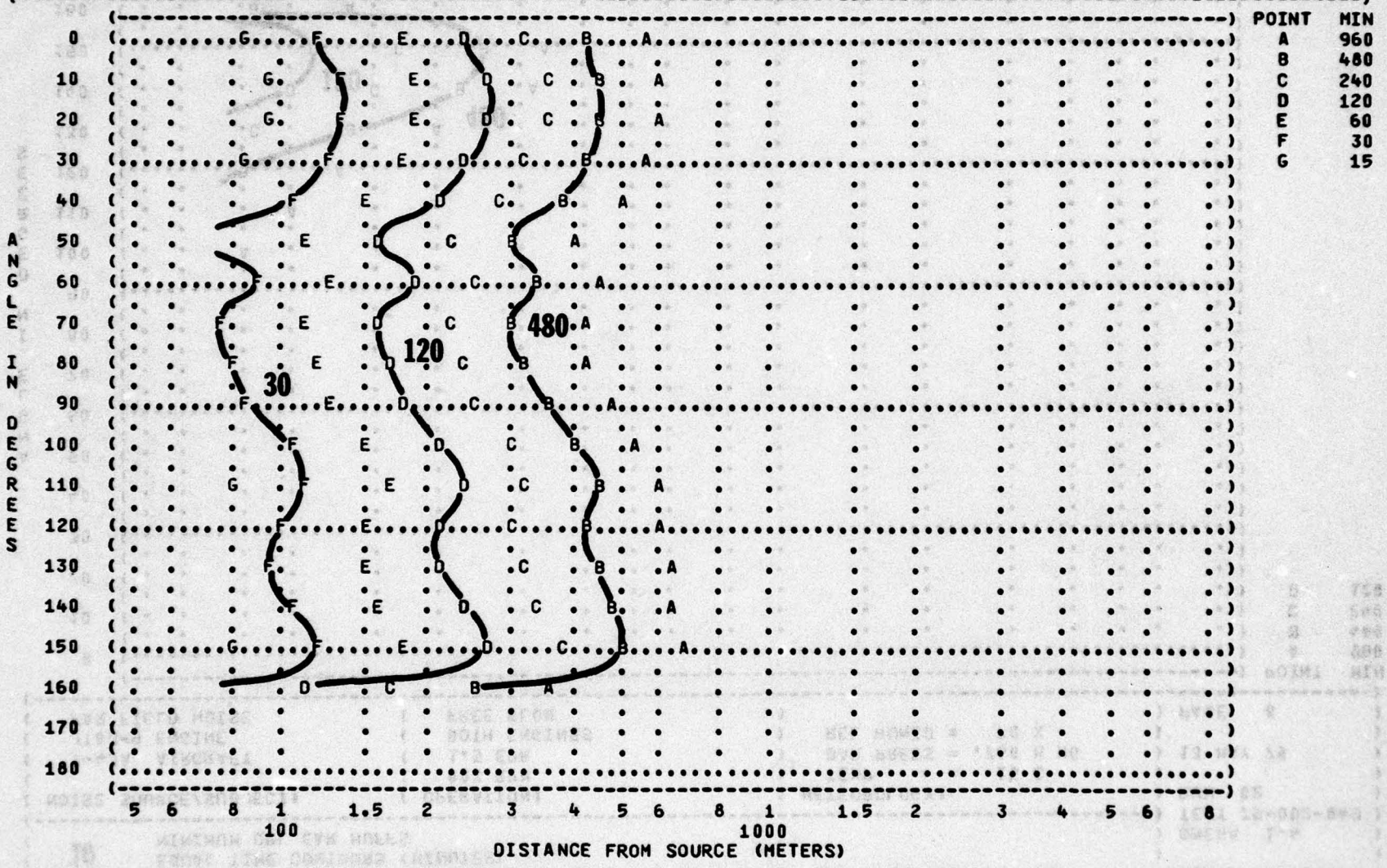
MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 7

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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



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

FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
MINIMUM QPL EAR MUFFS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 8

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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

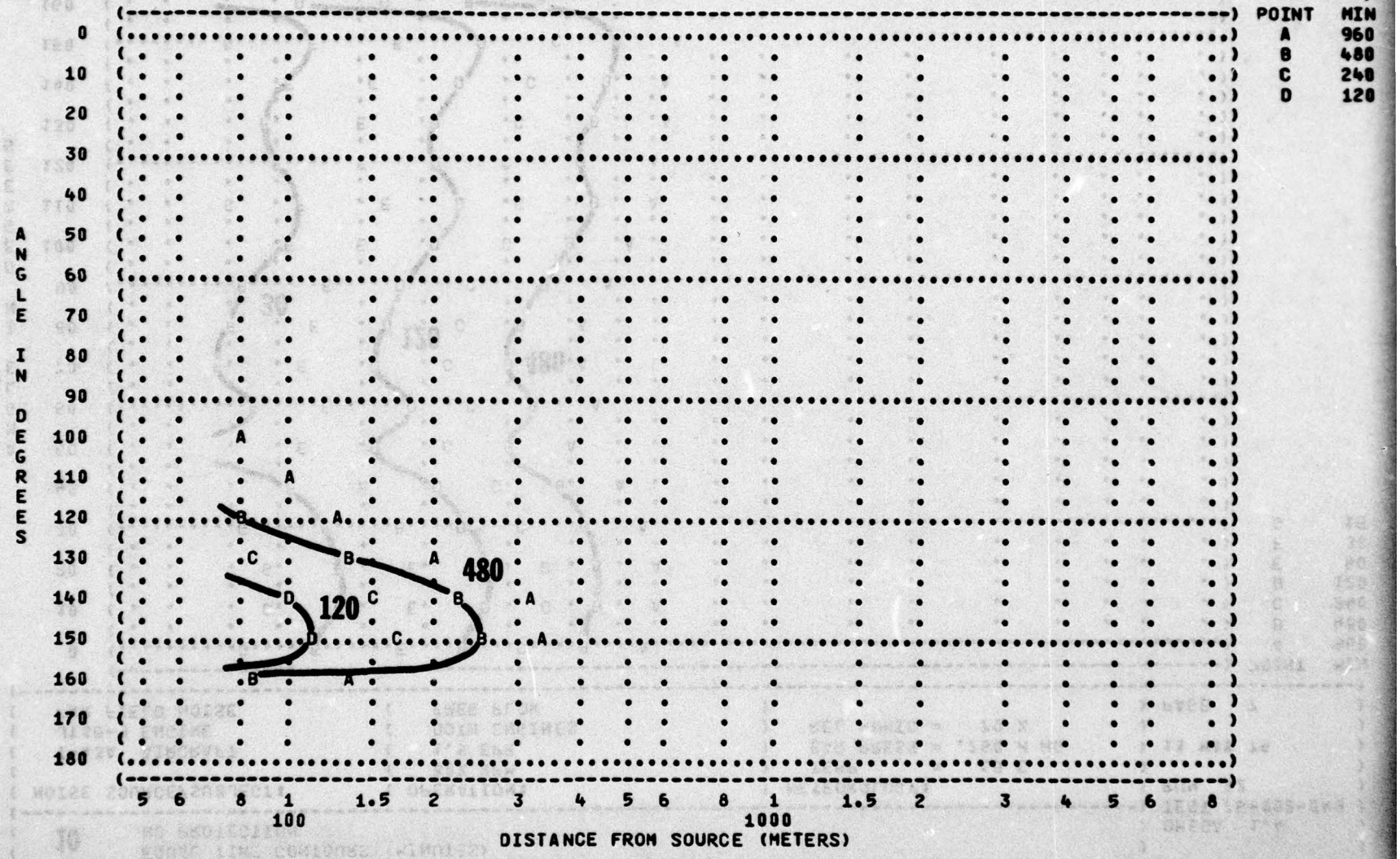


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
AMERICAN OPTICAL 1700 EAR MUFFS

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 9

POINT	MIN
A	960
B	480
C	240

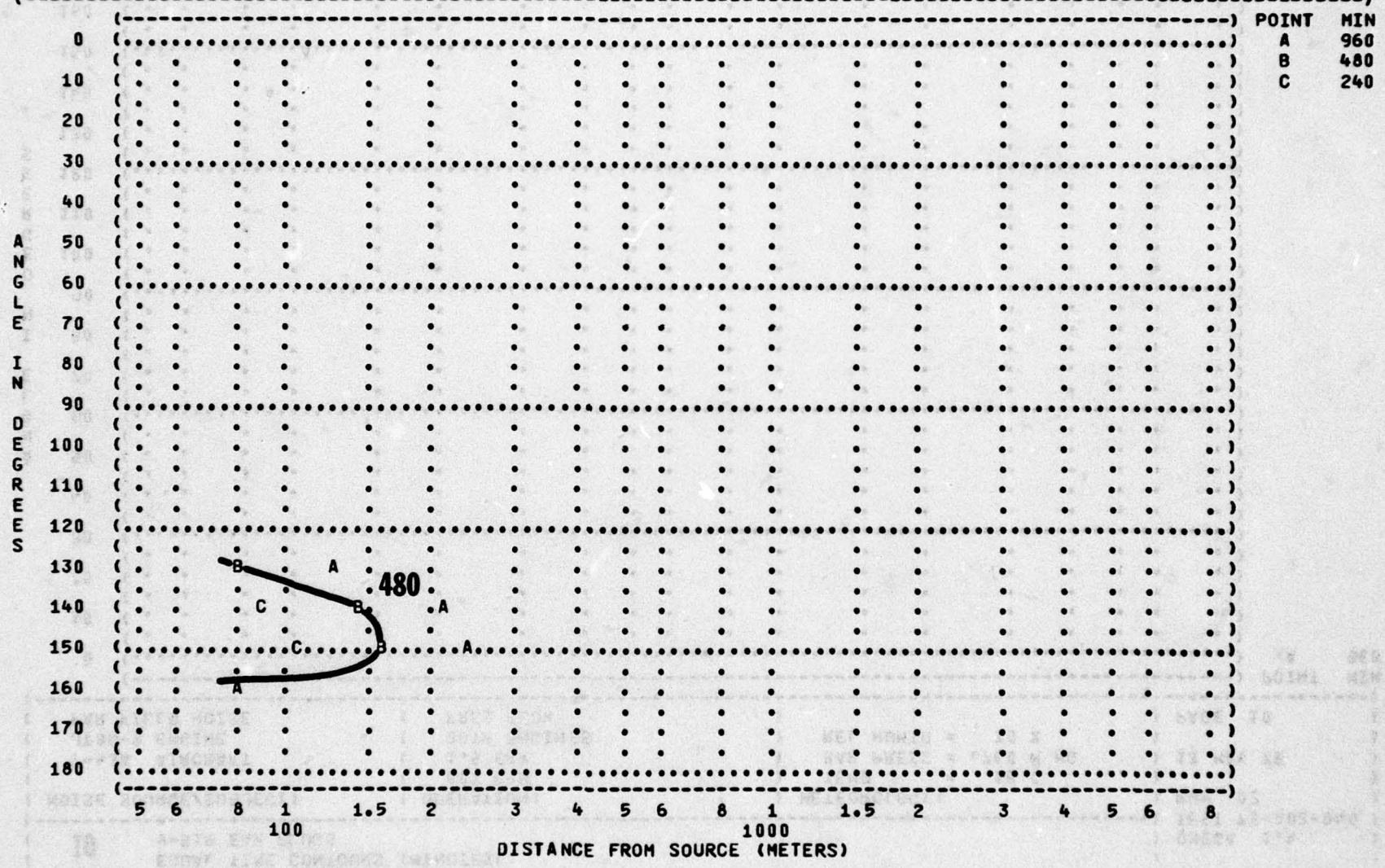


FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
V-51R EAR PLUGS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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

13 MAY 75

PAGE 10

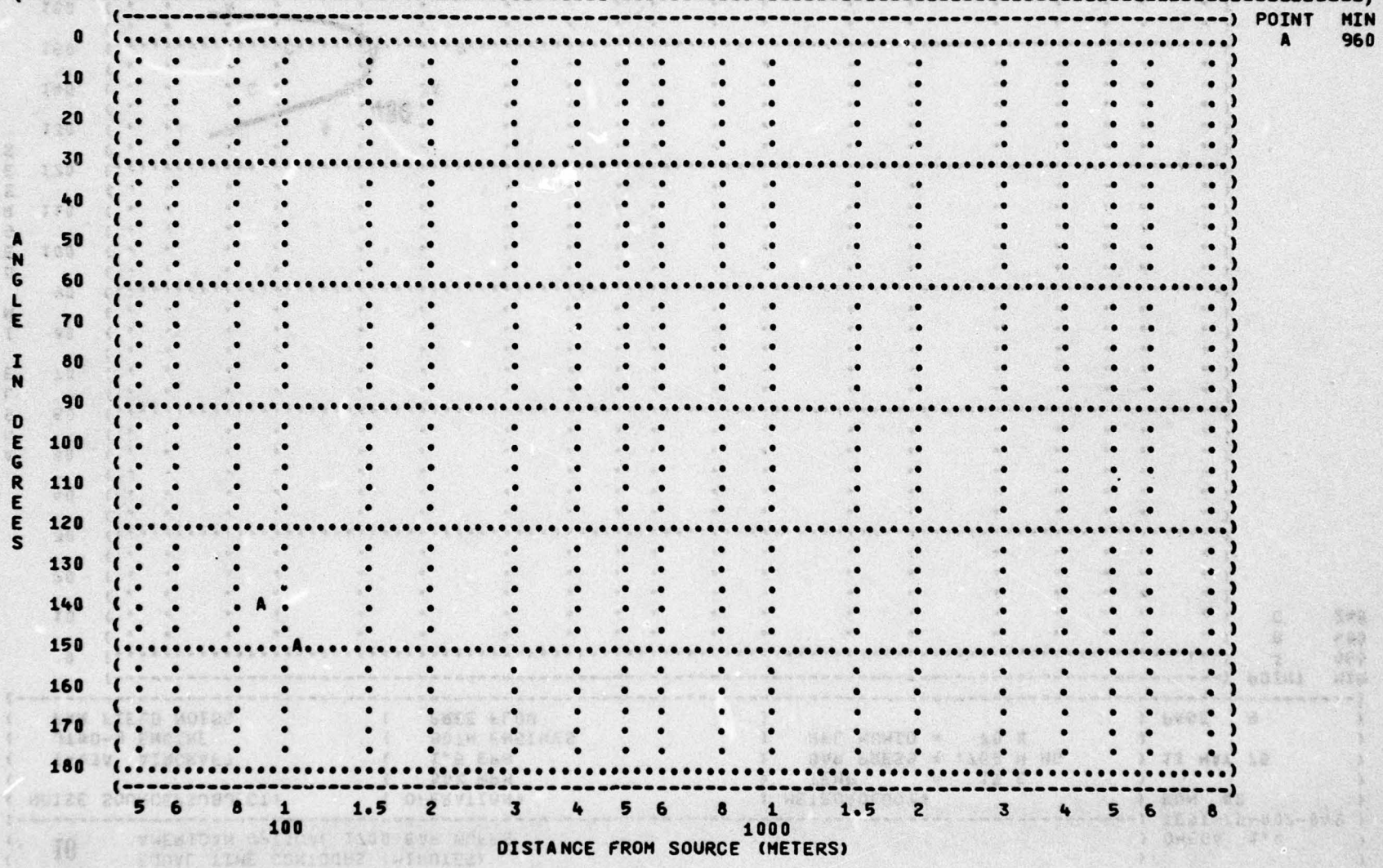


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
COMFIT TRIPLE FLANGE EAR PLUGS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 11

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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

POINT	MIN
A	960
B	480

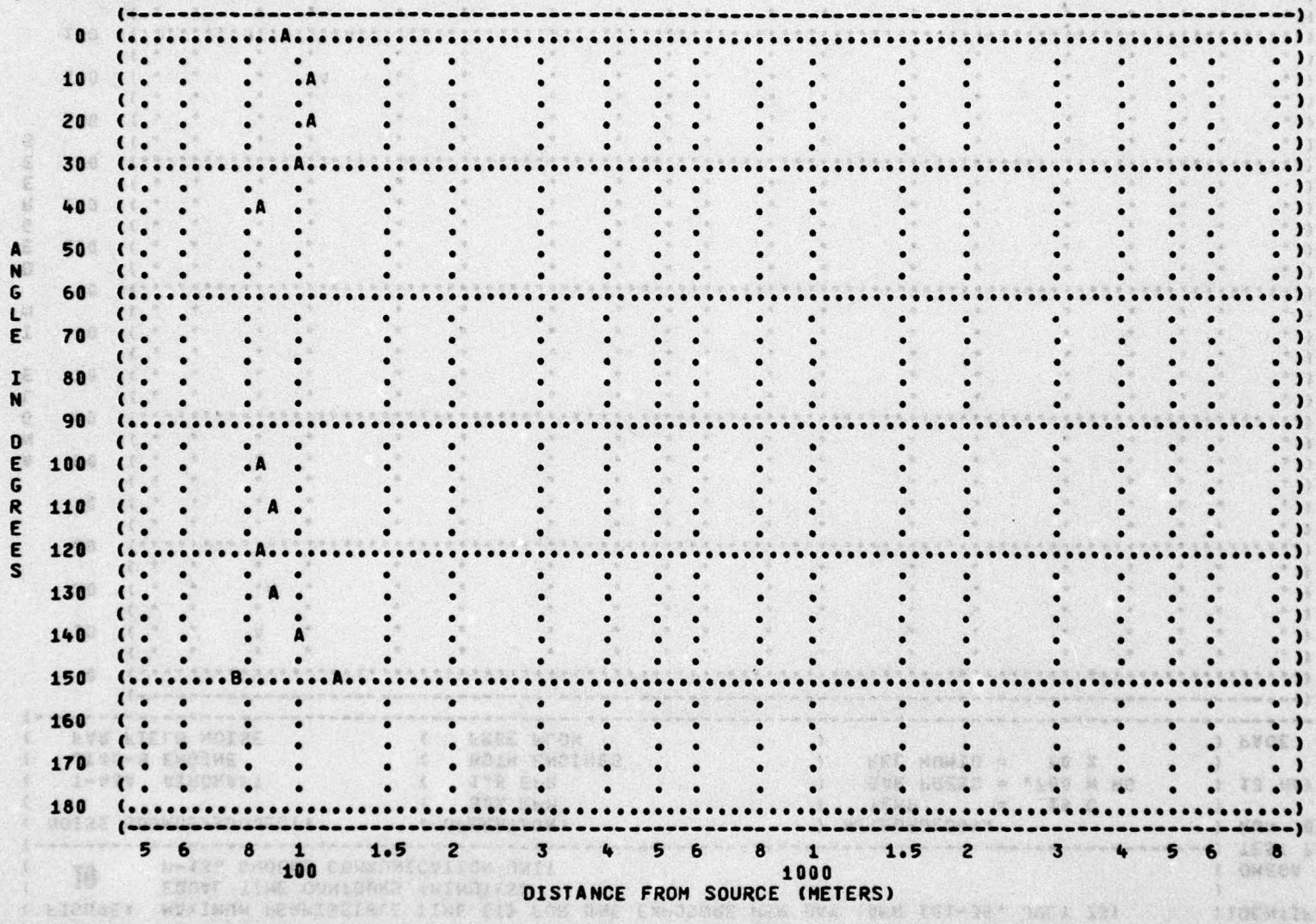


FIGURE: 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
H-133 GROUND COMMUNICATION UNIT

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 12

POINT	MIN
A	960
B	480

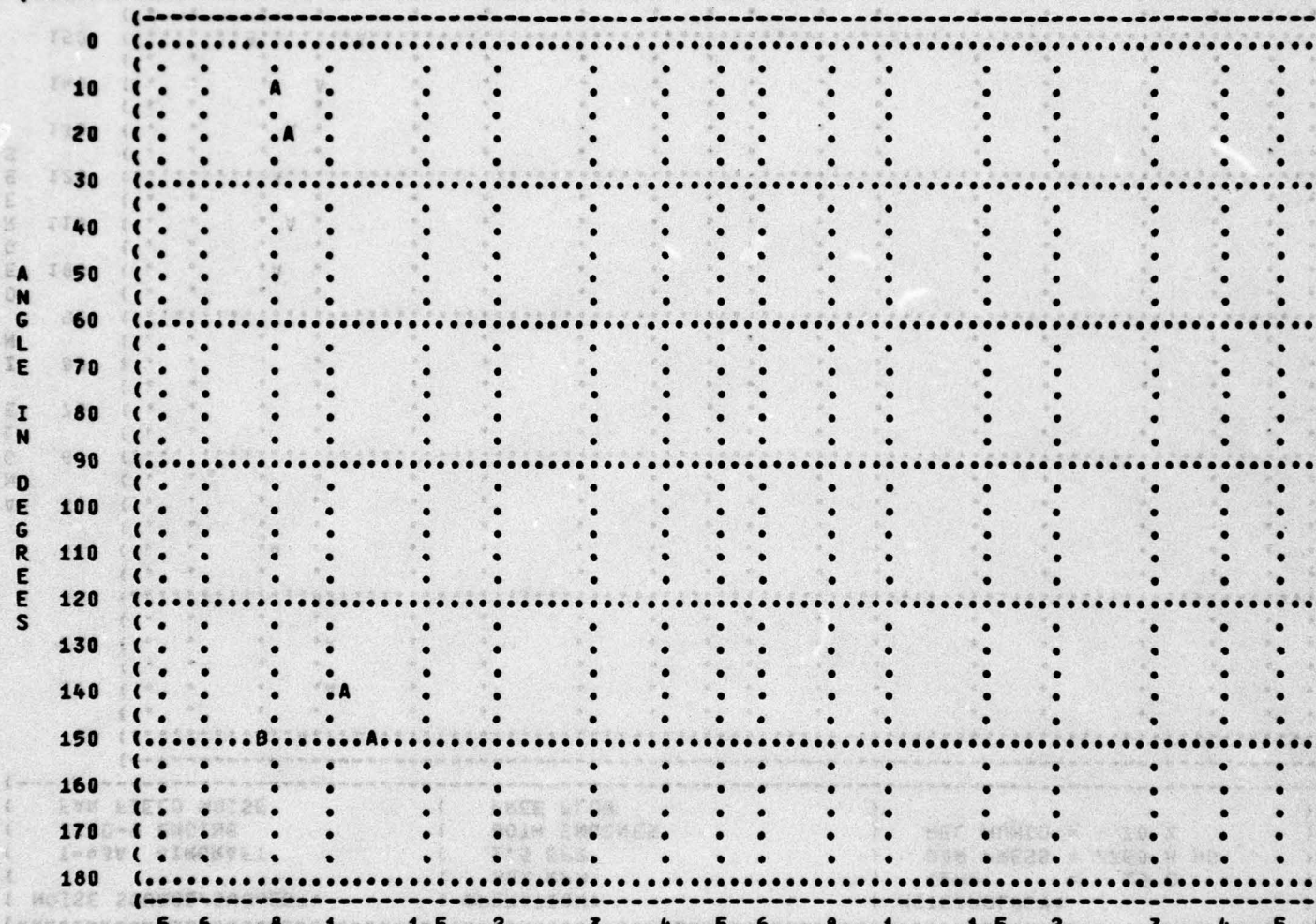


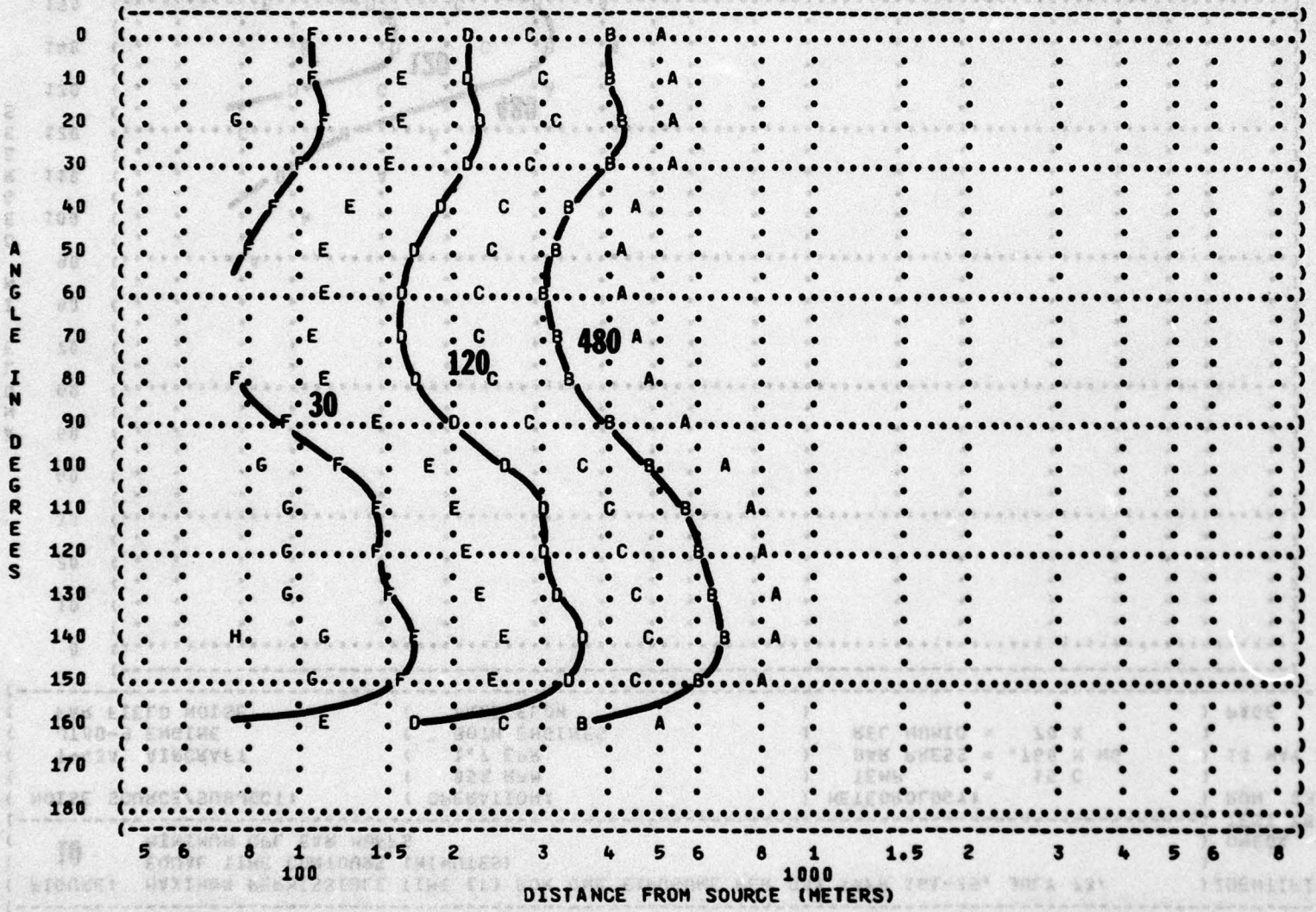
FIGURE: 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 7

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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



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

FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
MINIMUM QPL EAR MUFFS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 8

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

POINT	MIN
A	960
B	480
C	240
D	120
E	60

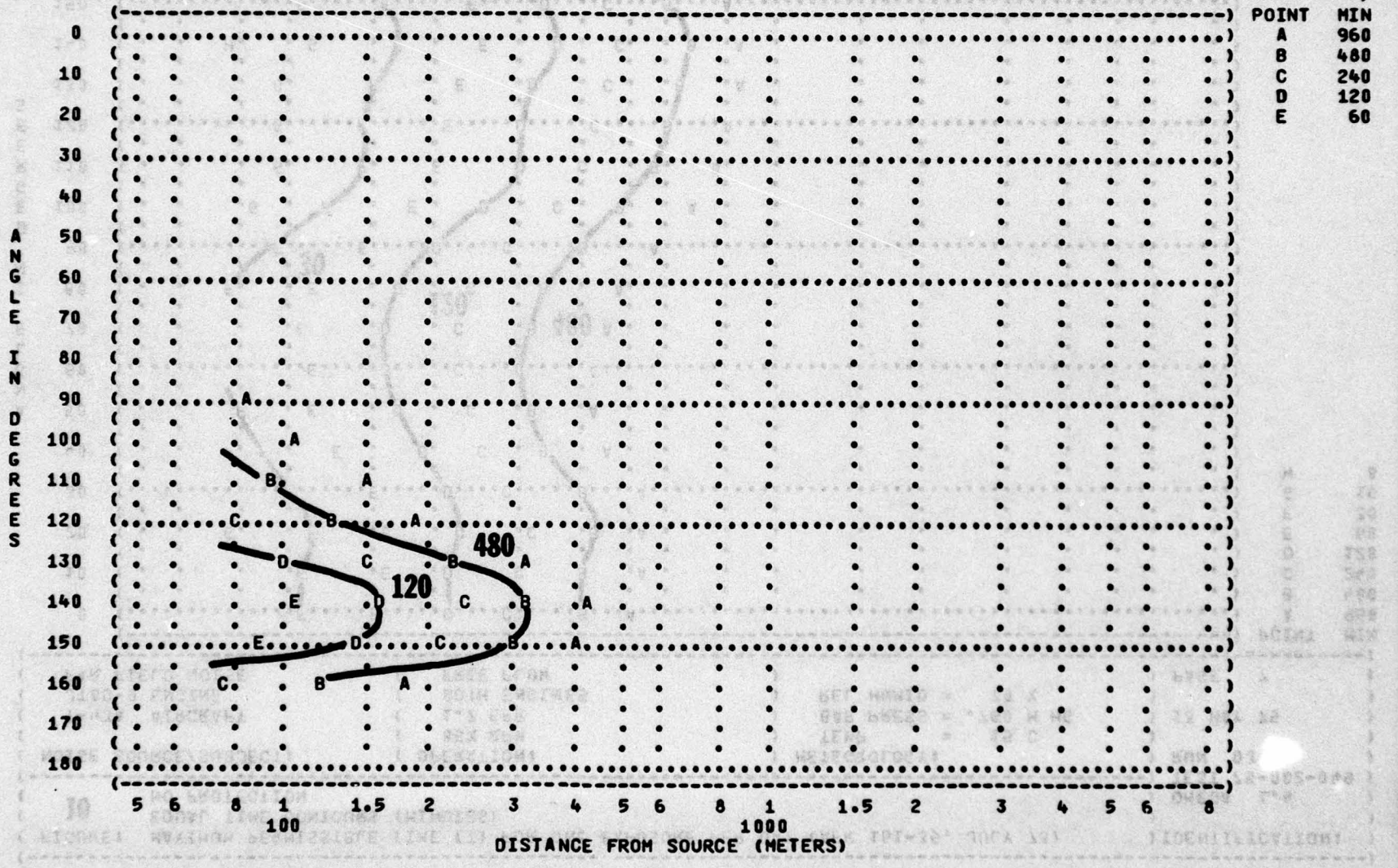


FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
AMERICAN OPTICAL 1700 EAR MUFFS

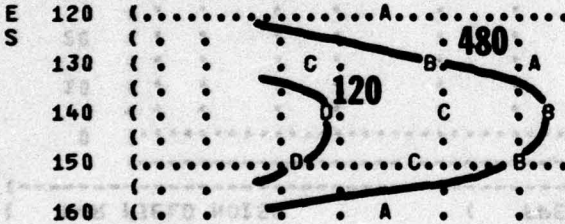
IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 9

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

POINT	MIN
A	960
B	480
C	240
D	120



ANGLE IN DEGREES

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

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

100 1000

DISTANCE FROM SOURCE (METERS)

FIGURE: 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
V-51R EAR PLUGS

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 10

POINT	MIN
A	960
B	480

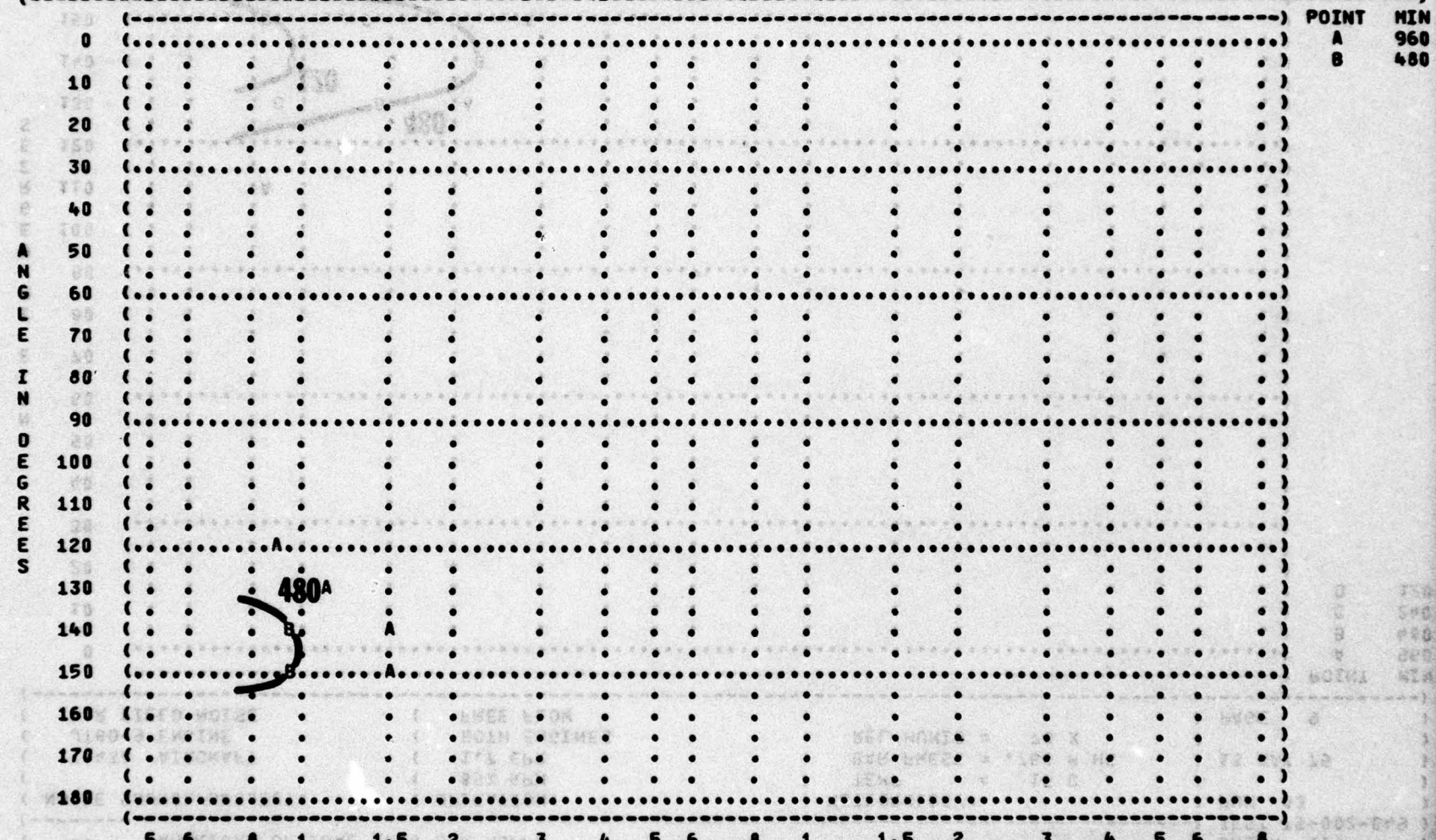


FIGURE: 10

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

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 11

POINT	MIN
A	960
B	480

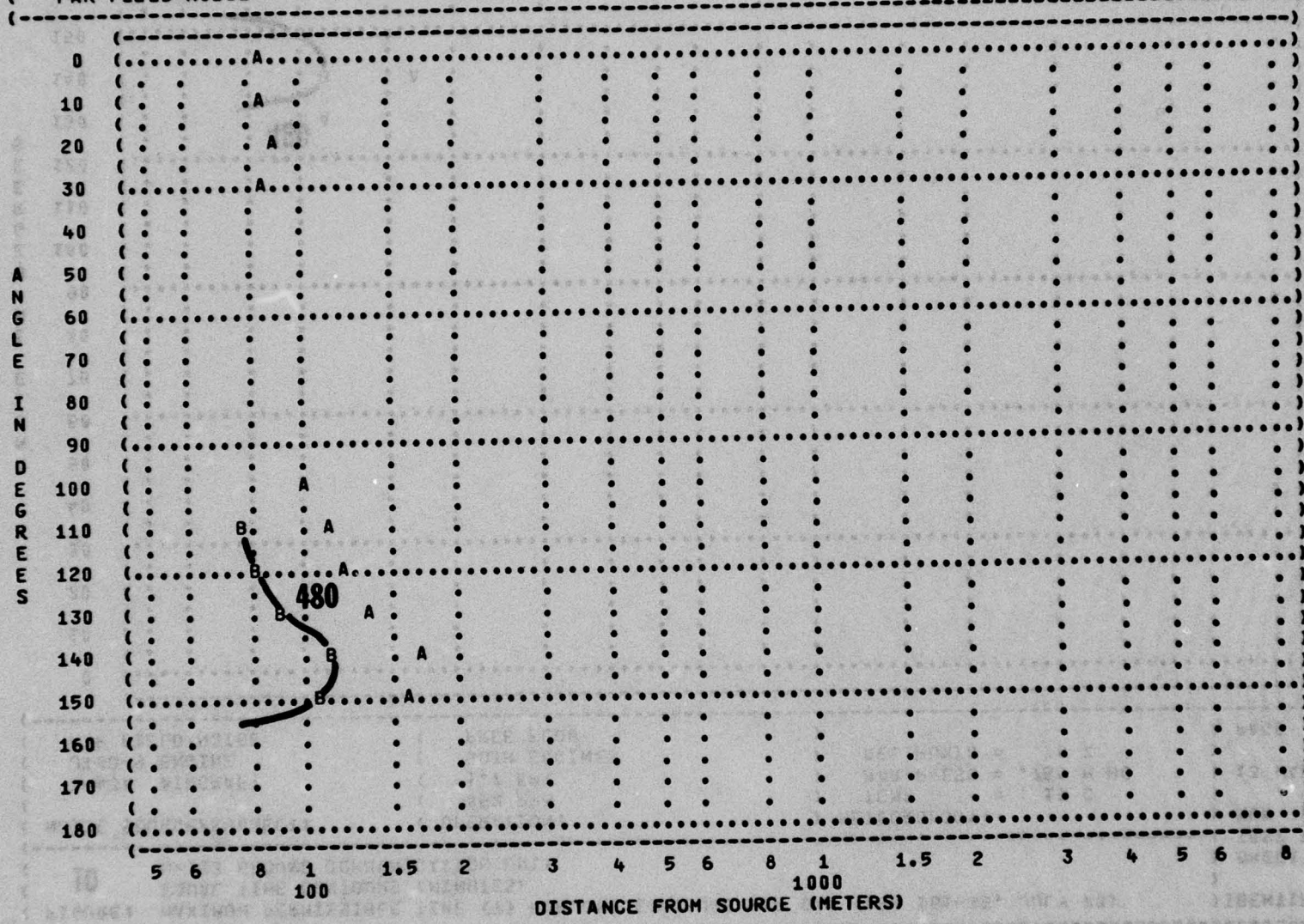


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
H-133 GROUND COMMUNICATION UNIT

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 12

POINT	MIN
A	960
B	480

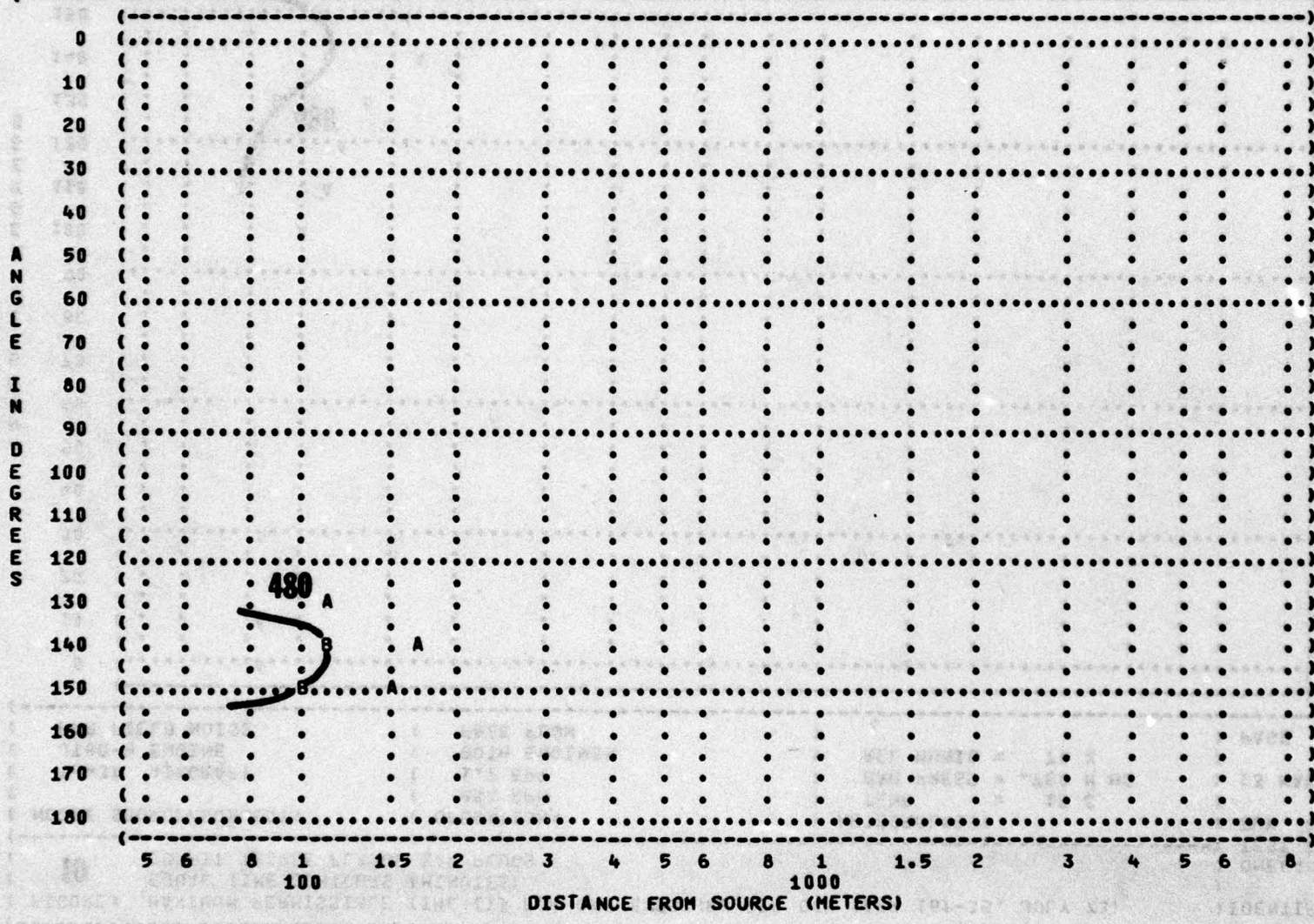


FIGURE: 10

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

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 7

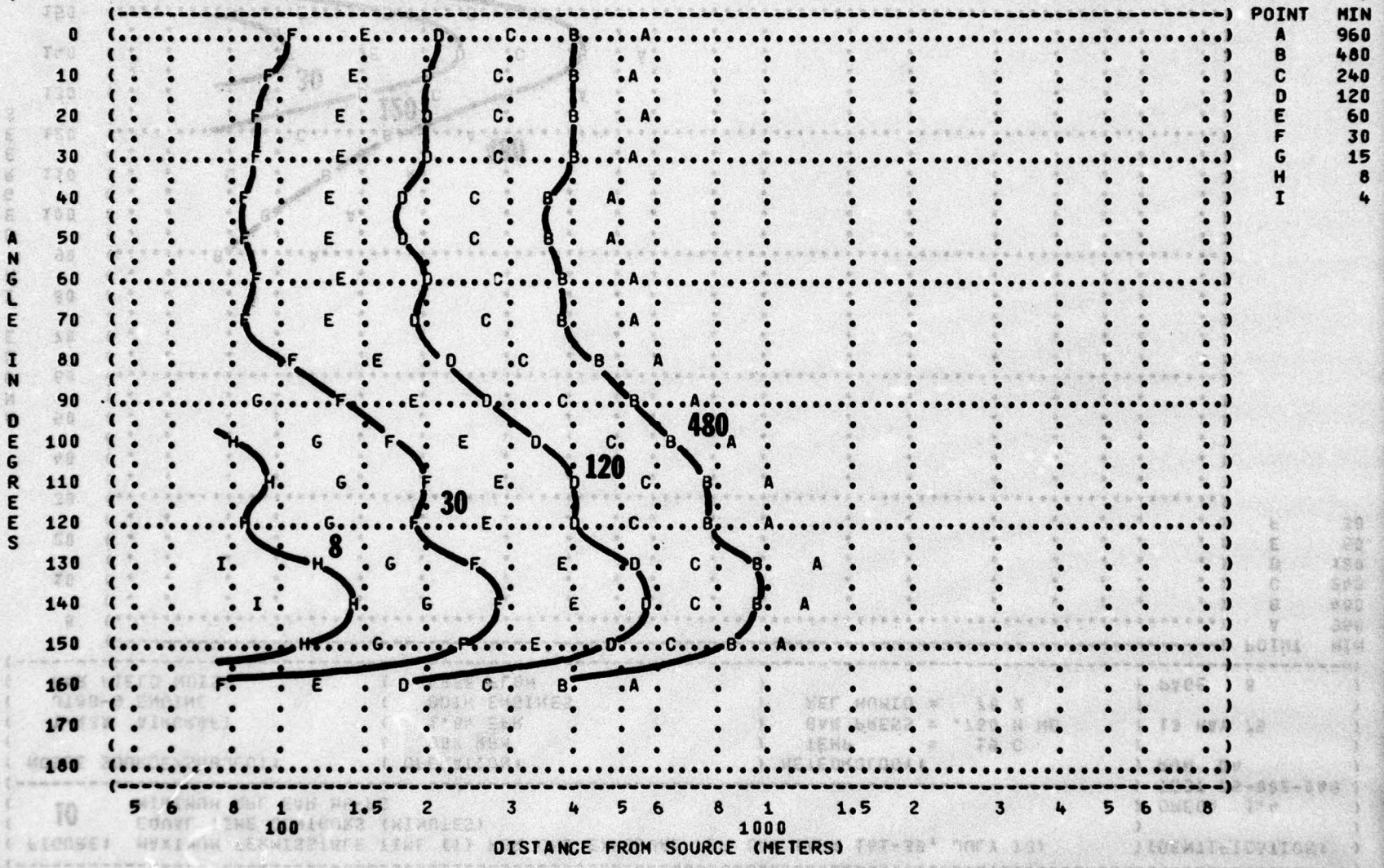


FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
MINIMUM QPL EAR MUFFS

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 8

POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30

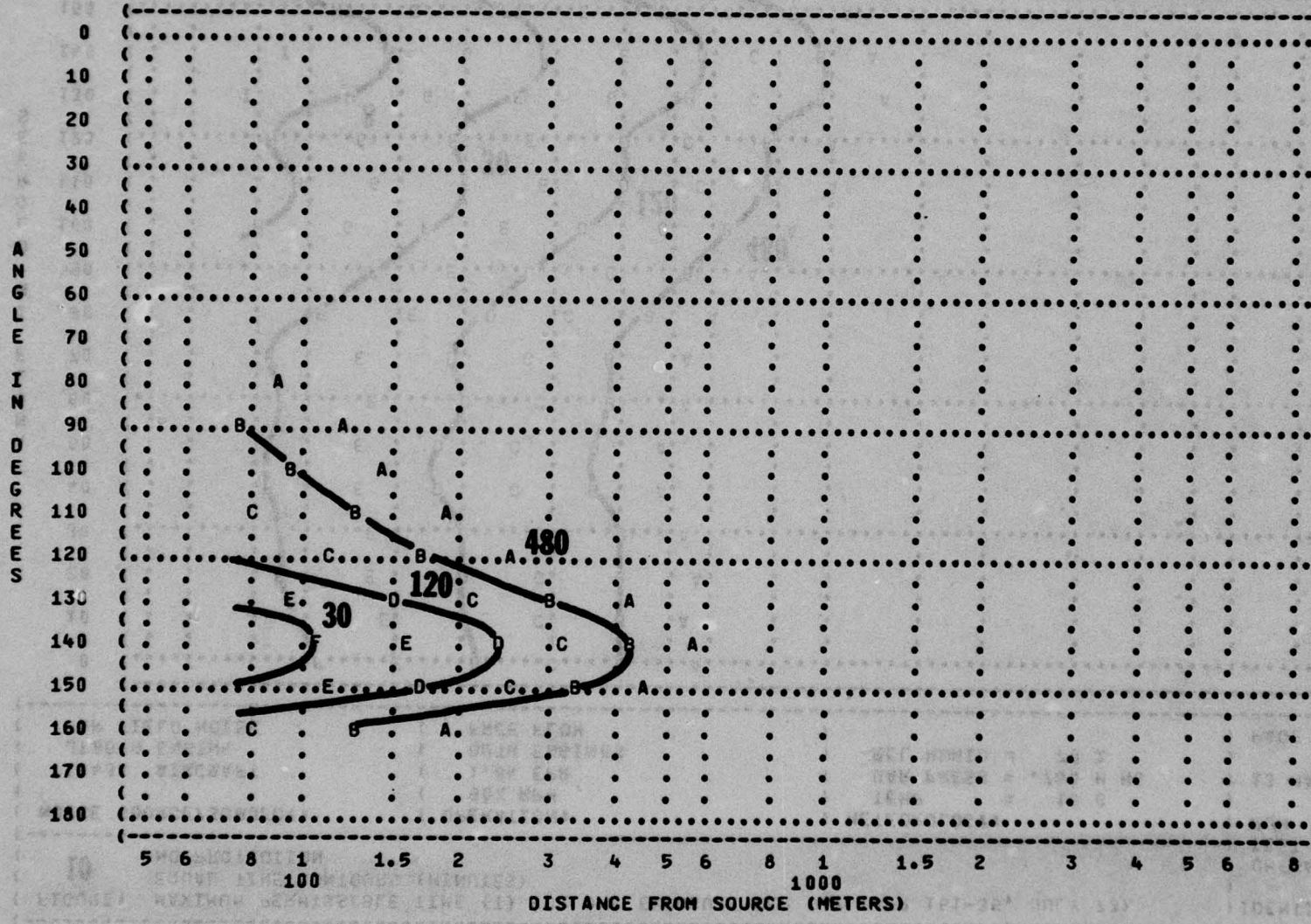


FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
AMERICAN OPTICAL 1700 EAR MUFFS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

13 MAY 75

PAGE 9

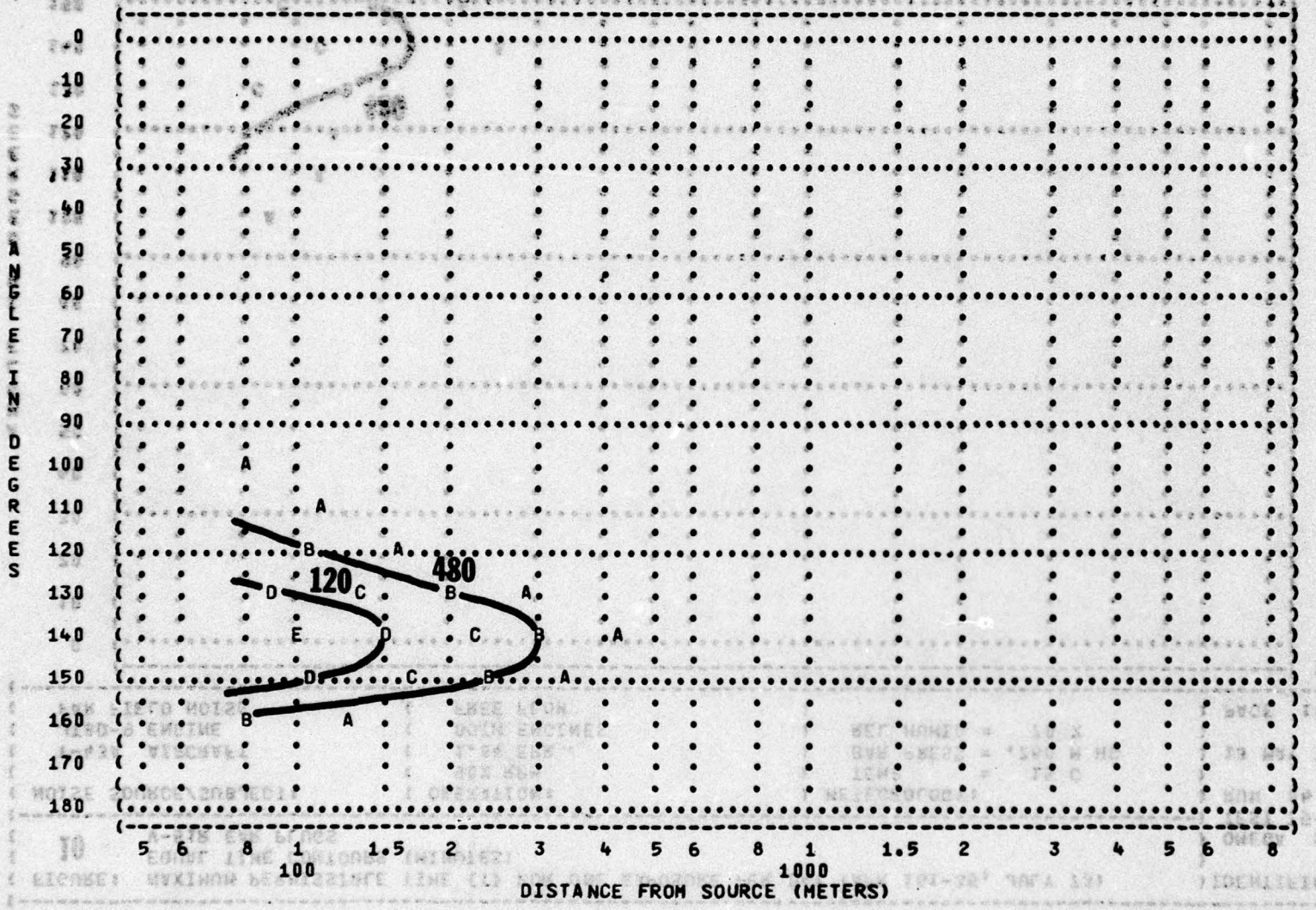


FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
V-51R EAR PLUGS

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 10

POINT	MIN
A	960
B	480
C	240

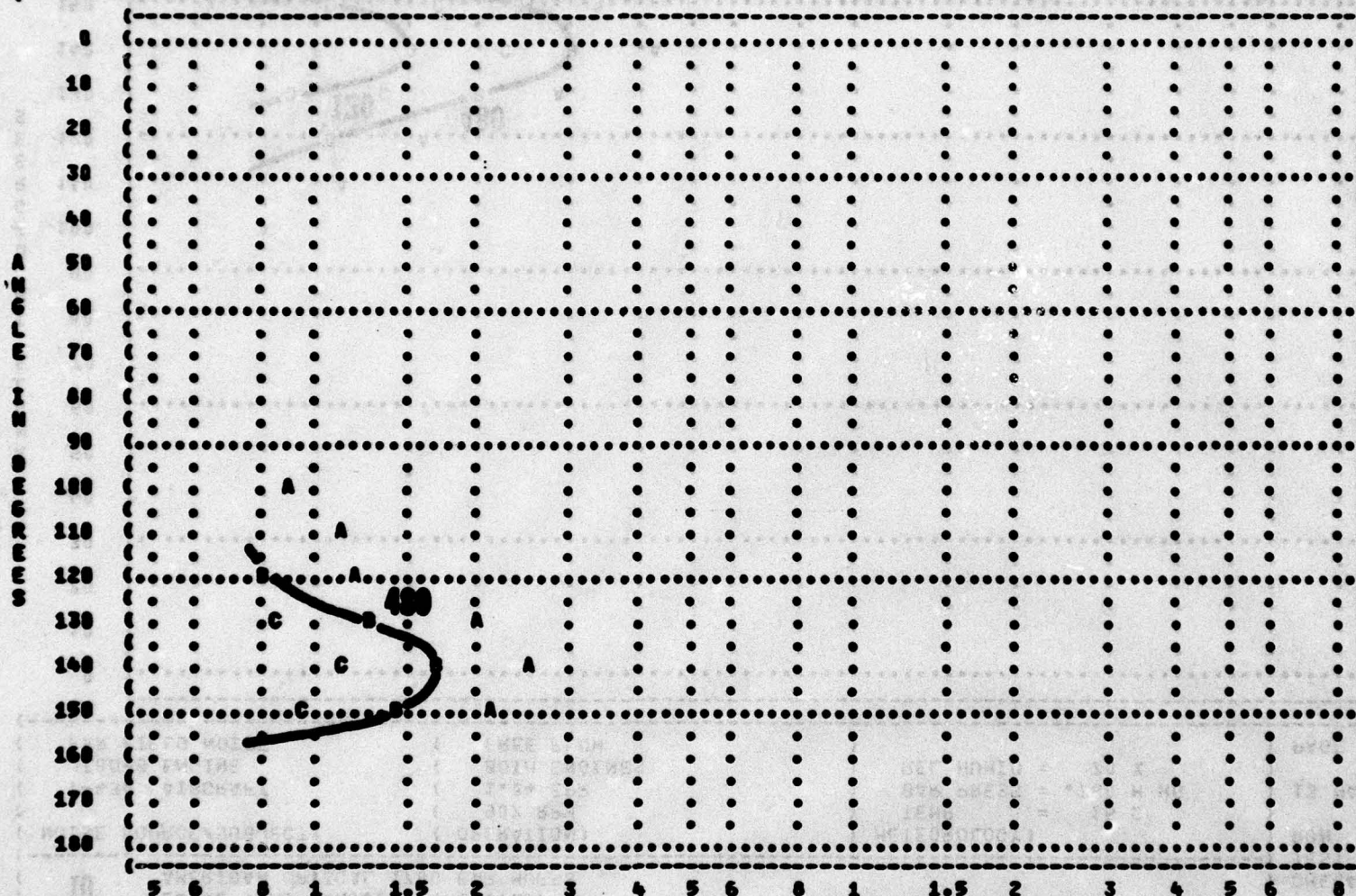


FIGURE 18 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
COMFIT TRIPLE FLANGE EAR PLUGS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04

13 MAY 75

PAGE 11

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

POINT	MIN
A	960
B	480
C	240
D	120

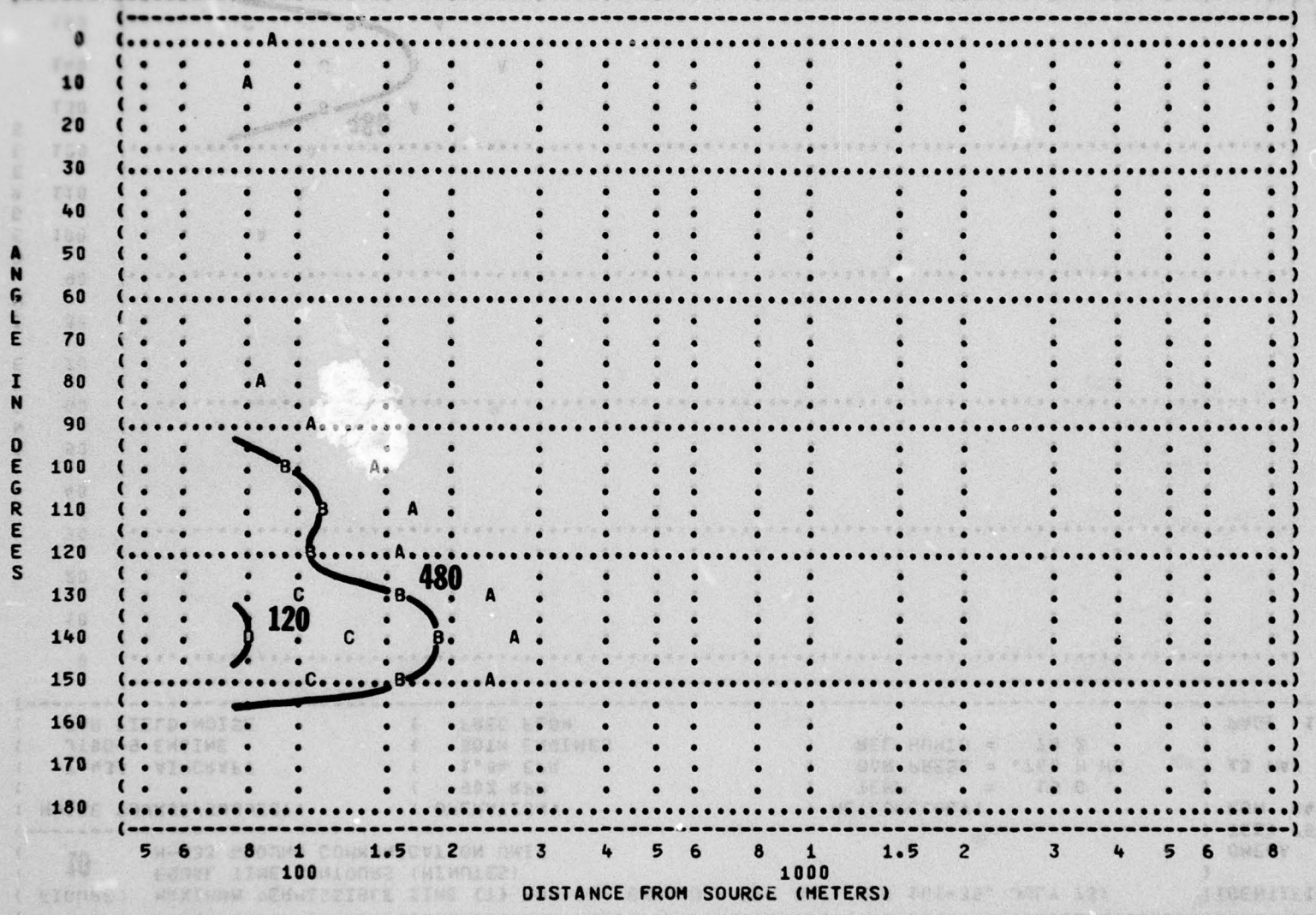


FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
H-133 GROUND COMMUNICATION UNIT

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 12

POINT	MIN
A	960
B	480
C	240

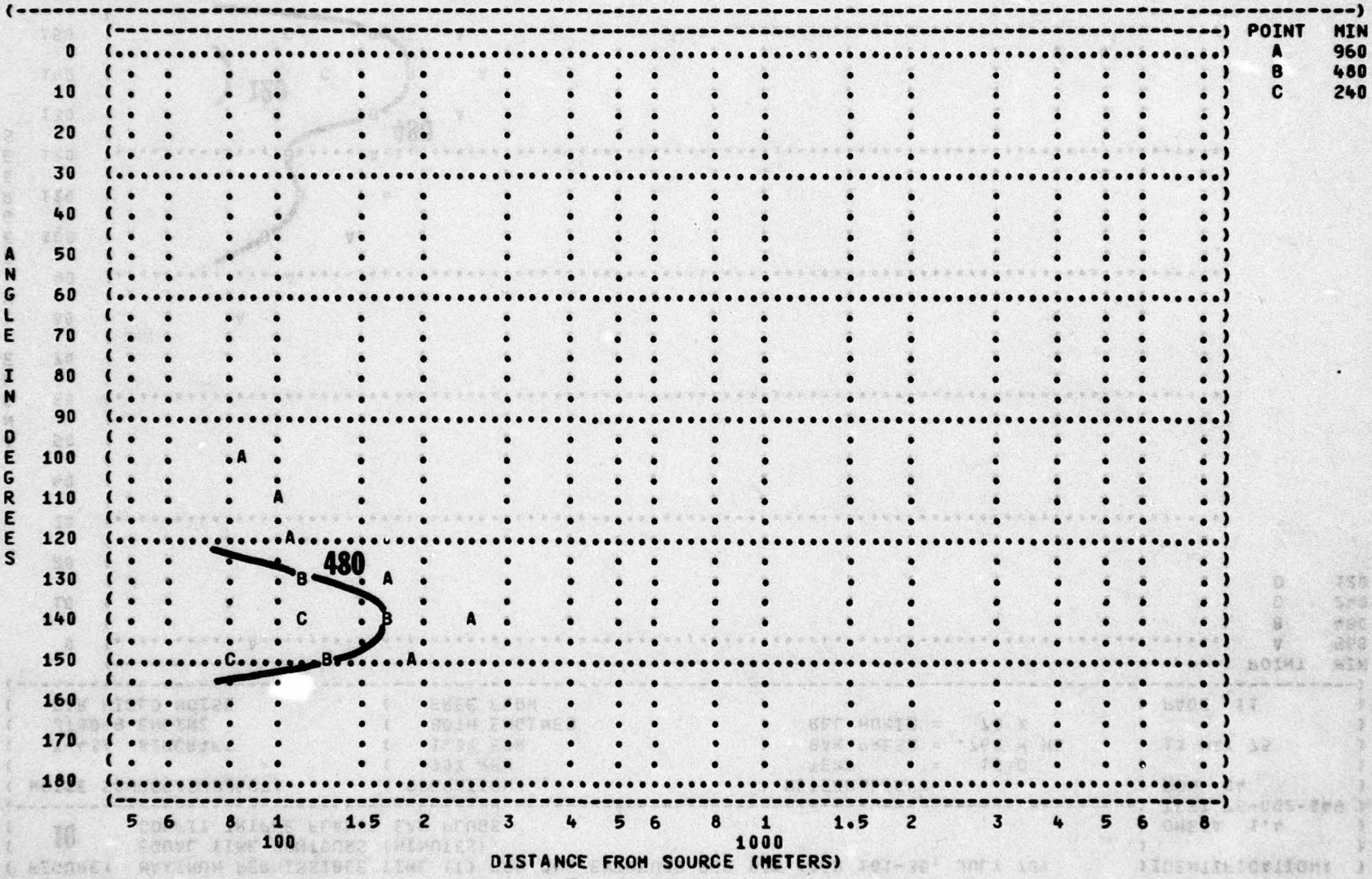


FIGURE: 10

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05

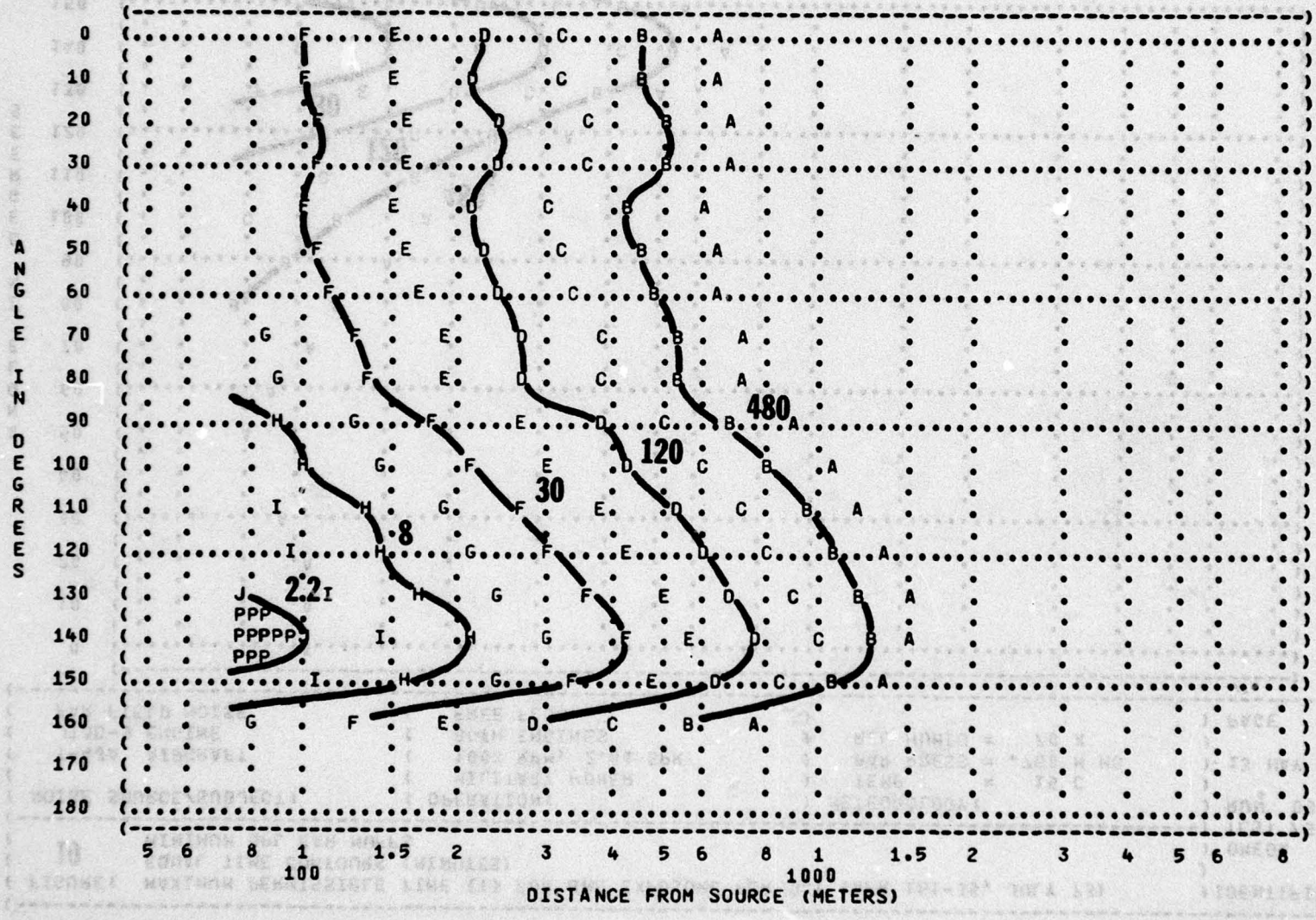
NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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

13 MAY 75

PAGE 7



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

P ADDITIONAL EAR PROTECTION REQUIRED.

FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
MINIMUM QPL EAR MUFFS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 8

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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

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

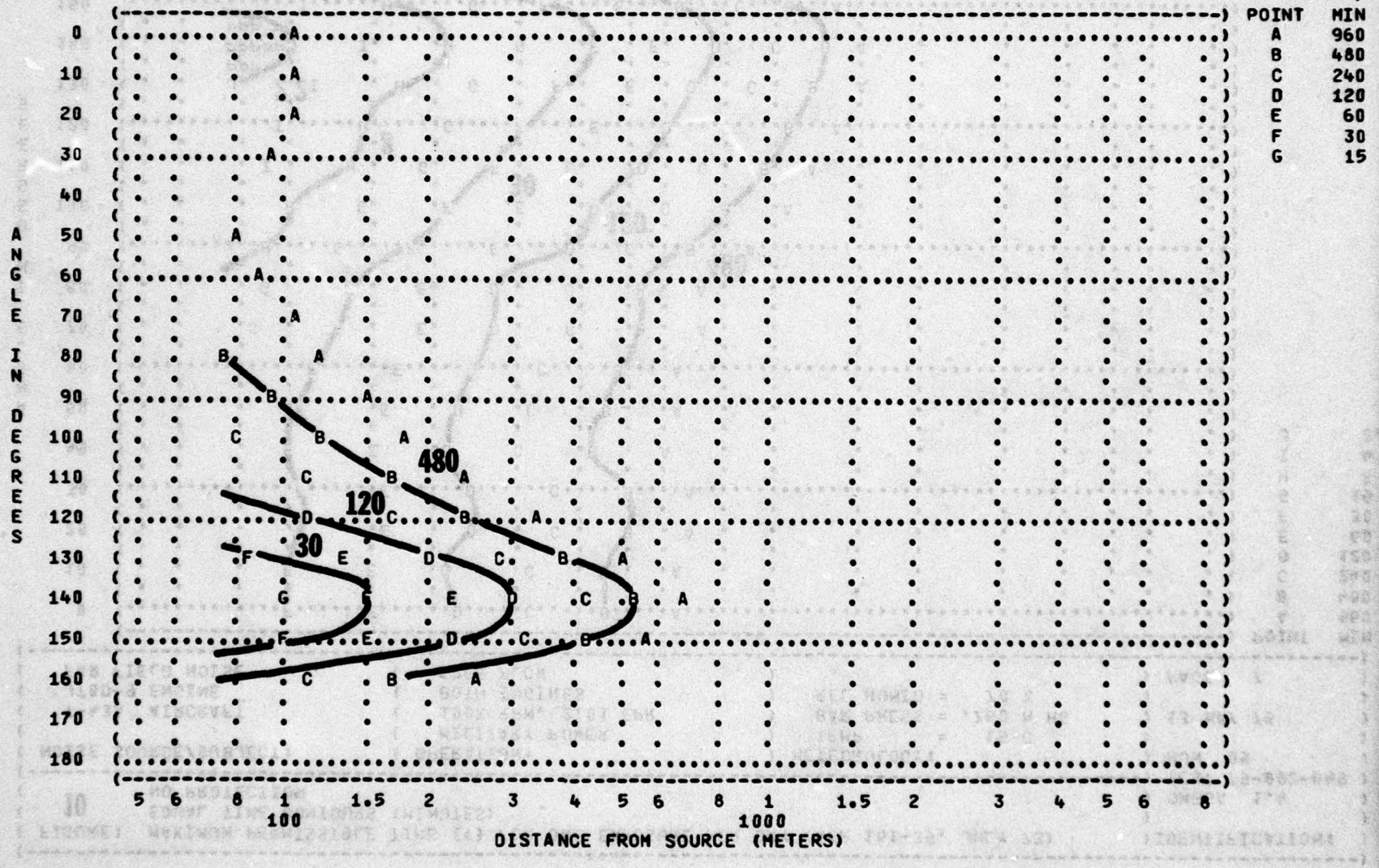


FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
AMERICAN OPTICAL 1700 EAR MUFFS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 9

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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

POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30

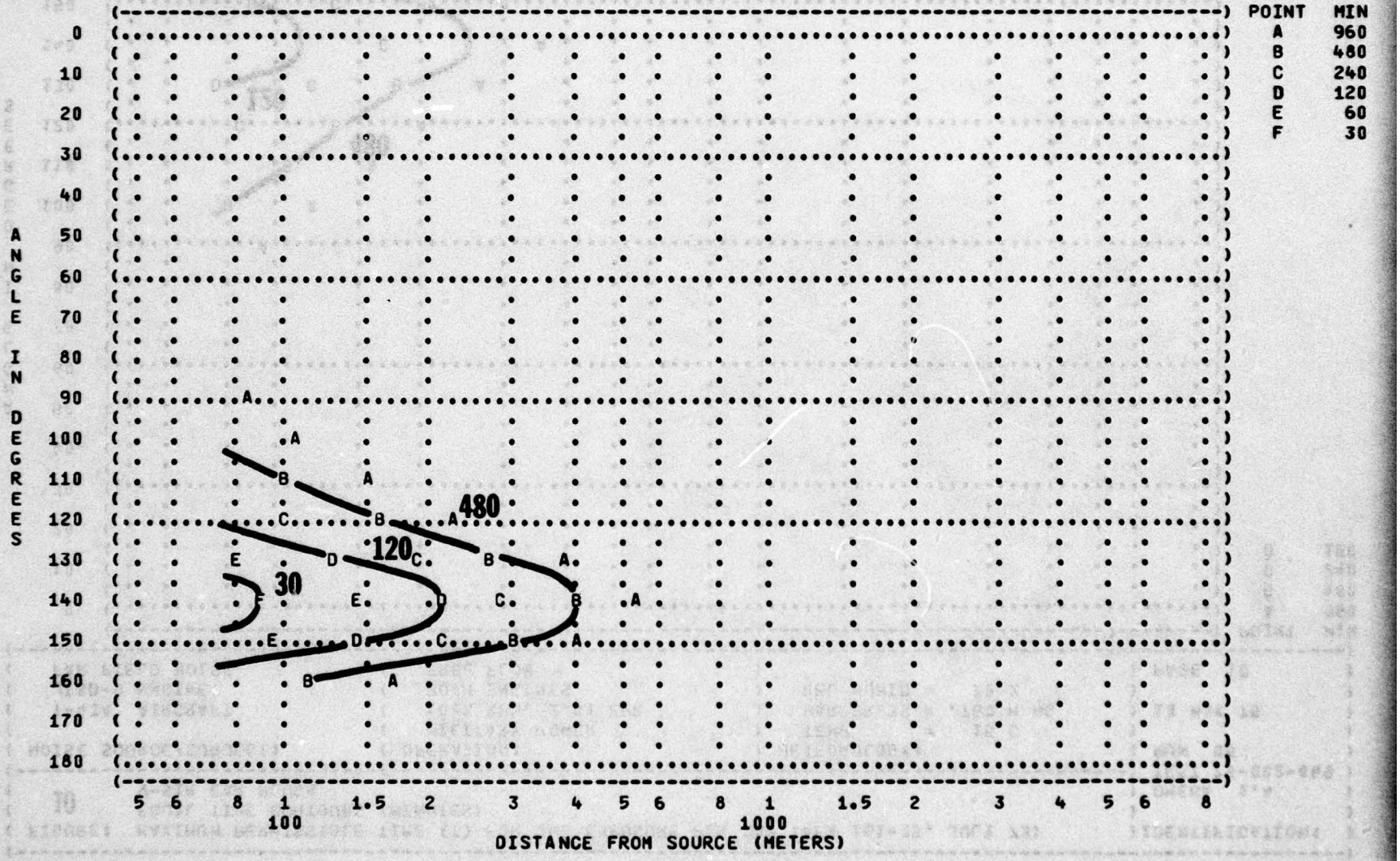


FIGURE: 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
V-51R EAR PLUGS

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 10

POINT	MIN
A	960
B	480
C	240
D	120

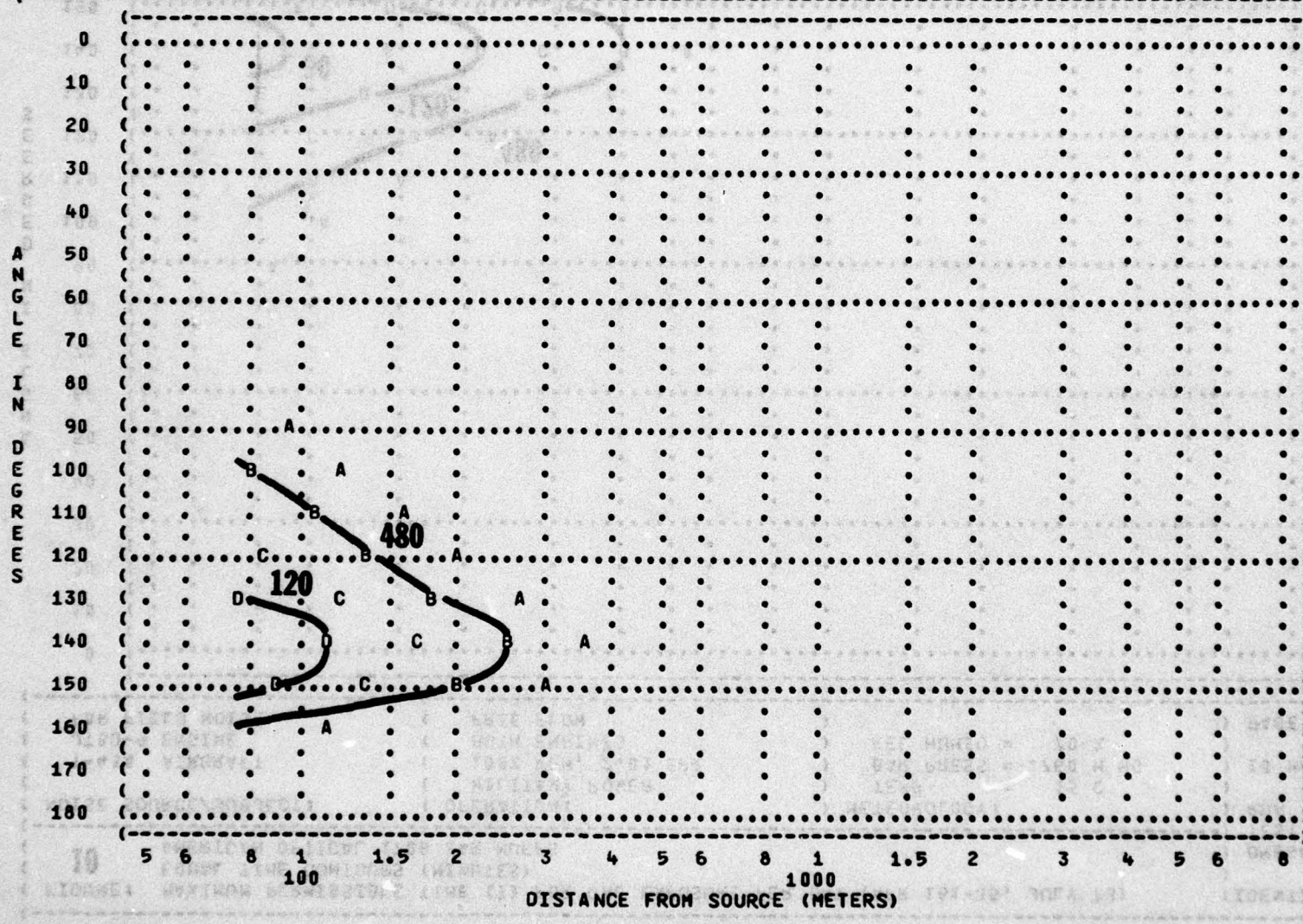


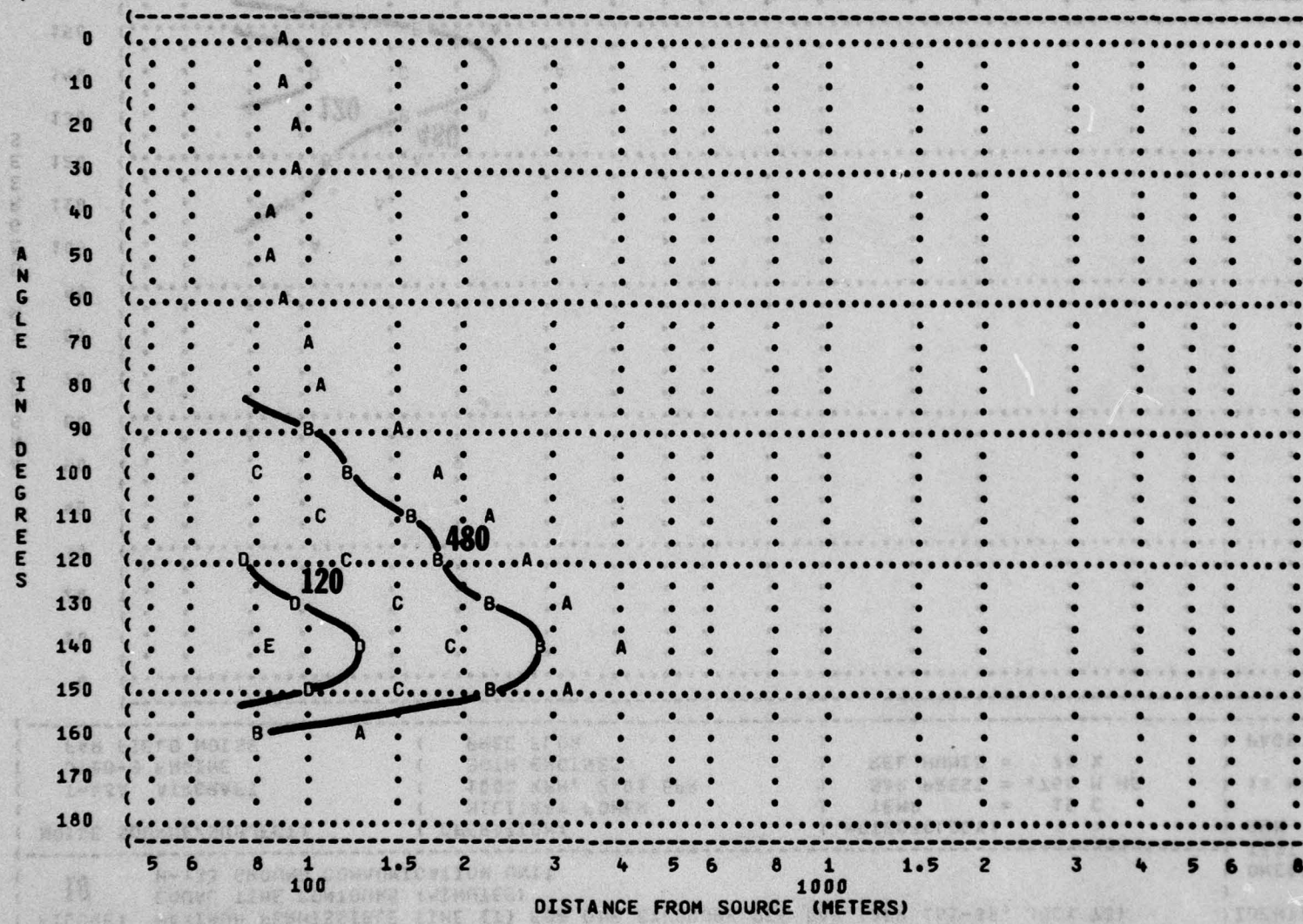
FIGURE: 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
COMFIT TRIPLE FLANGE EAR PLUGS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 11

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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



POINT	MIN
A	960
B	480
C	240
D	120
E	60

FIGURE: 10

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
H-133 GROUND COMMUNICATION UNIT

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 12

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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

POINT	MIN
A	960
B	480
C	240
D	120

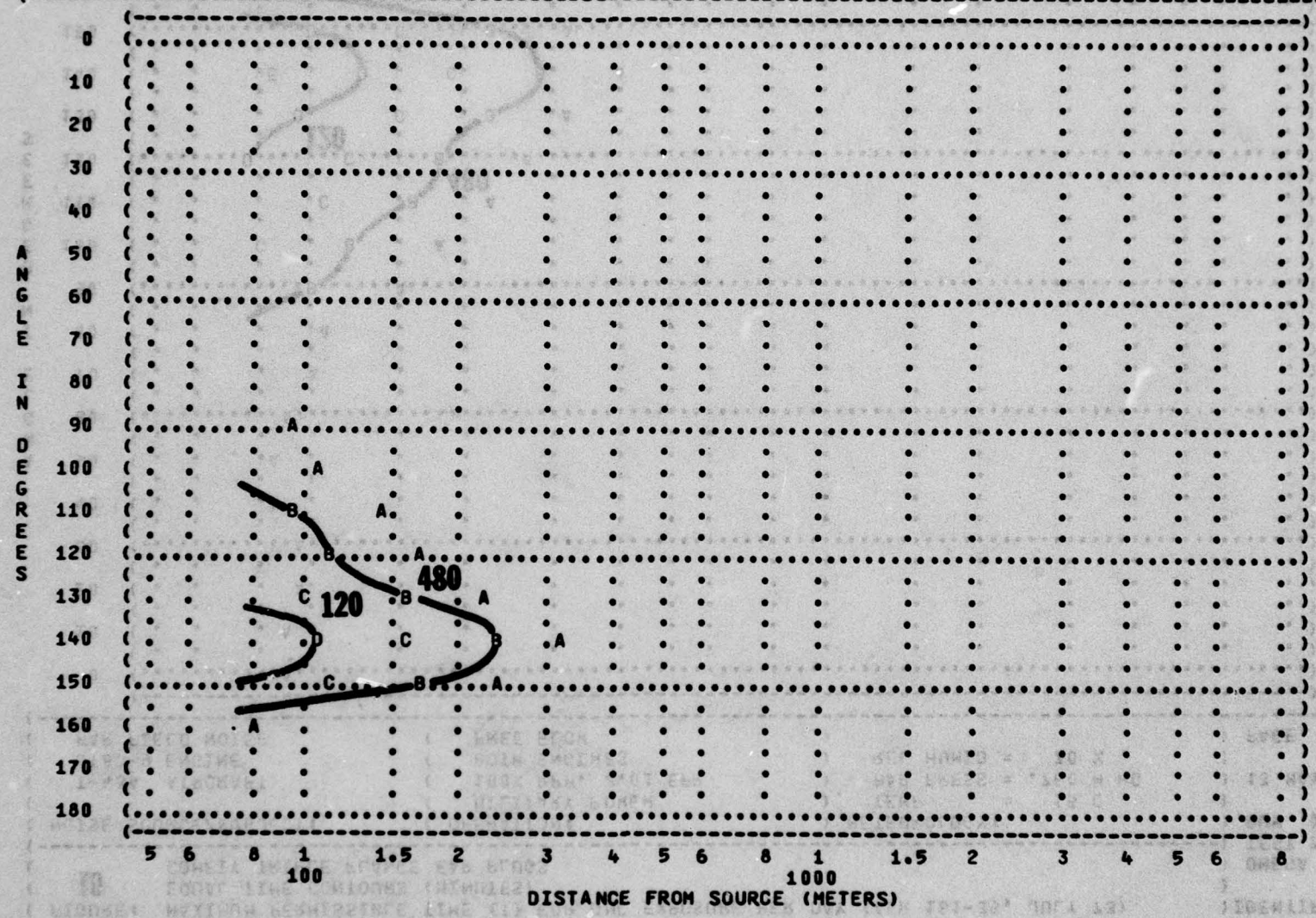


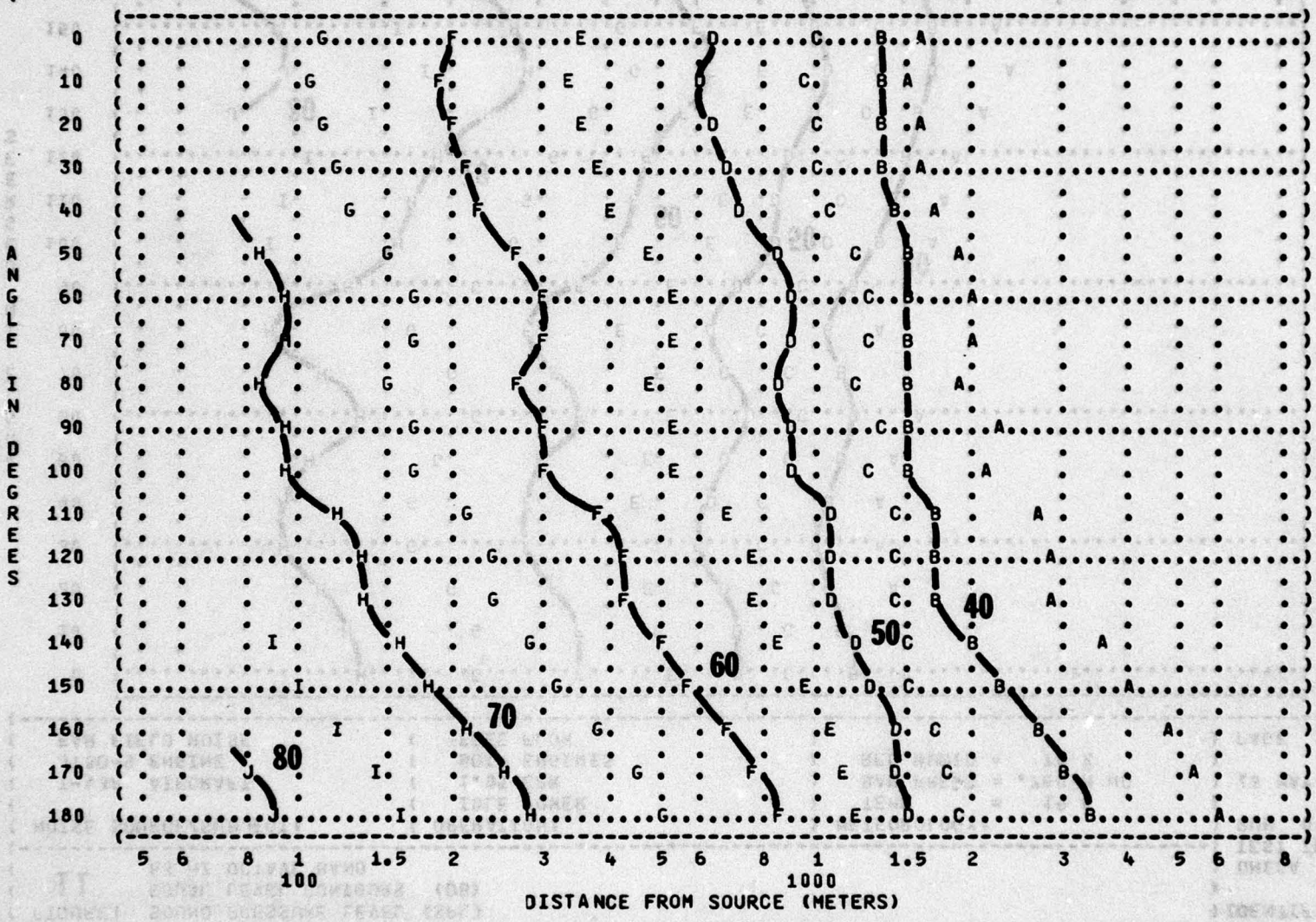
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 18

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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



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

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 19

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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

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

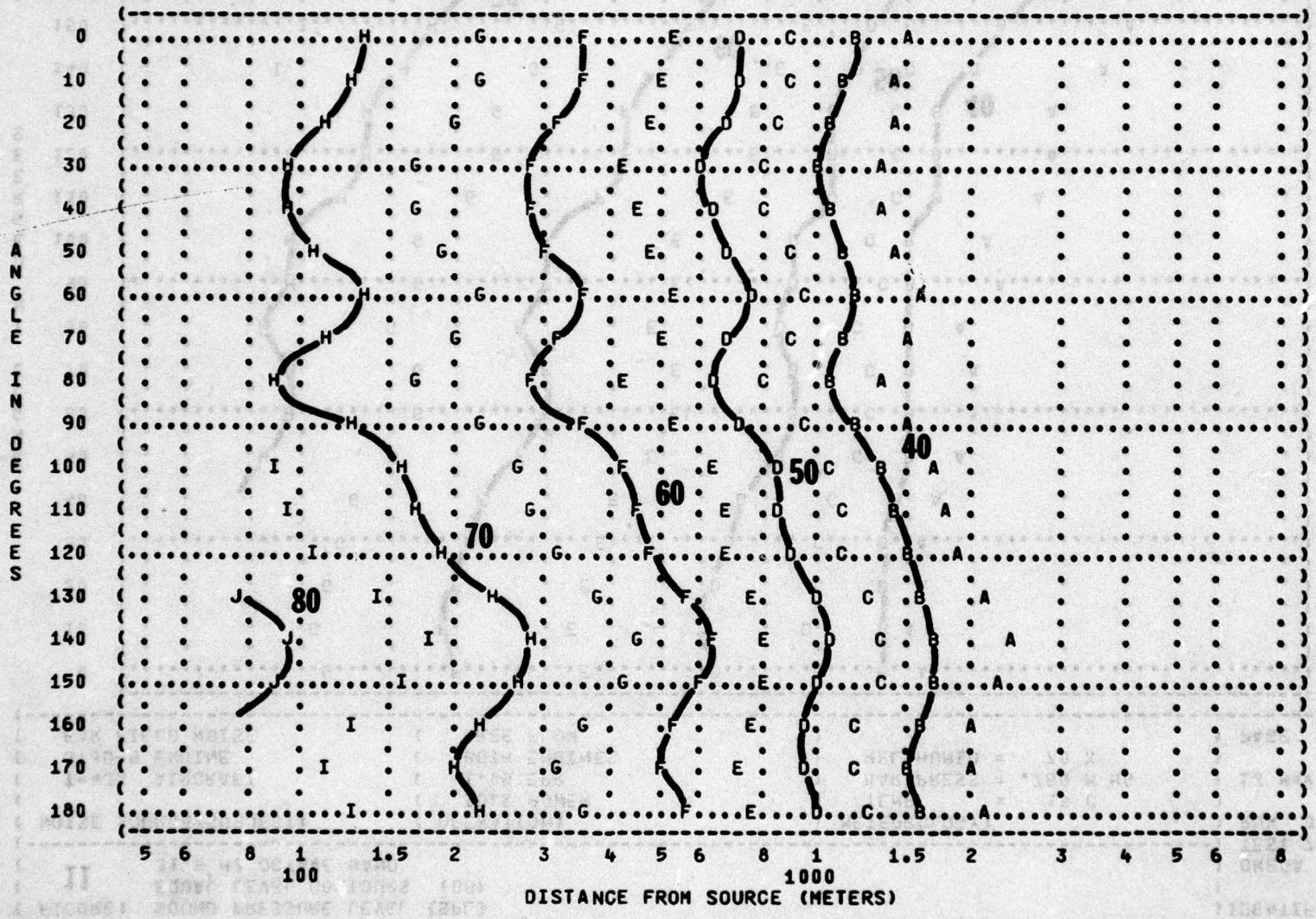


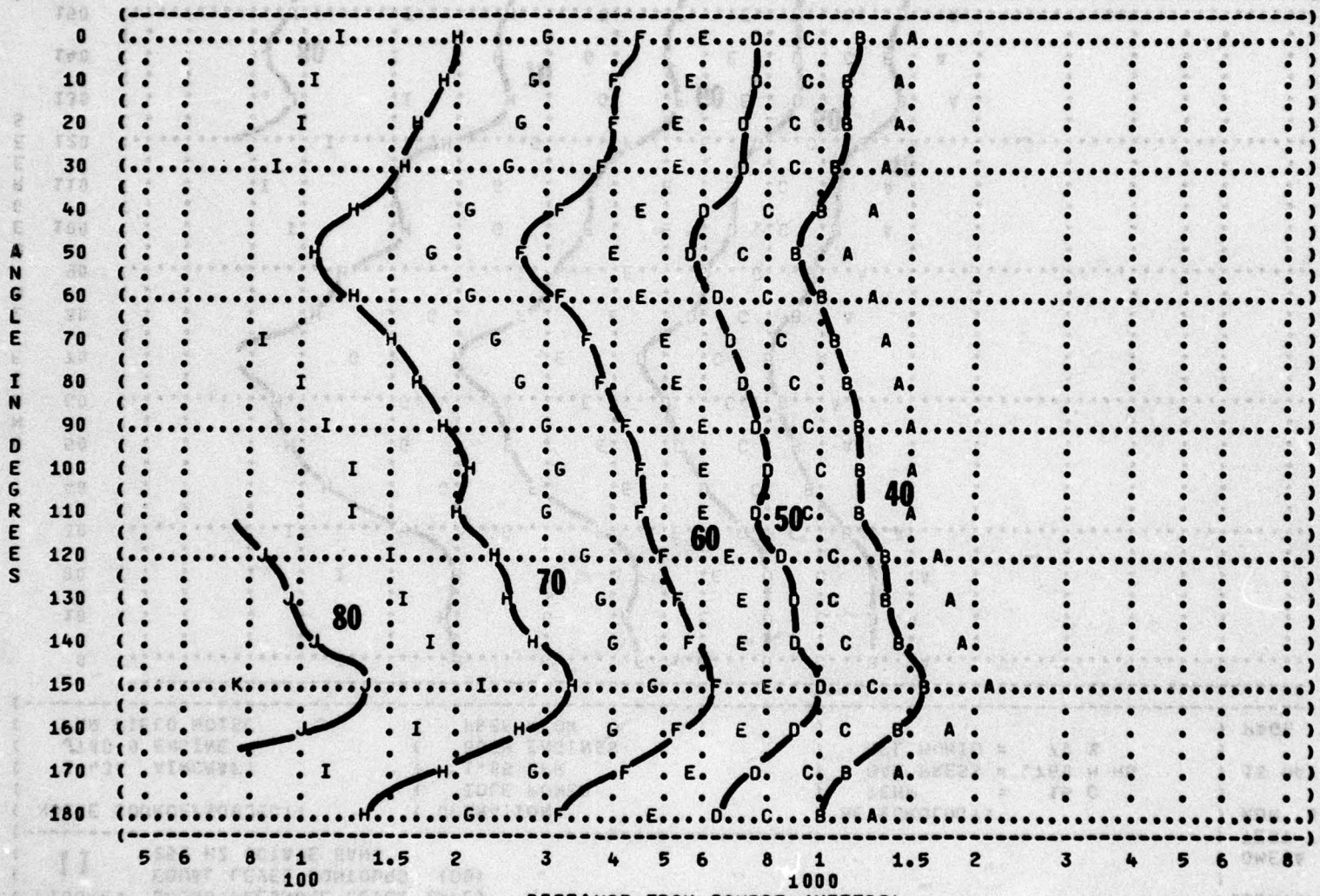
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 125 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 20

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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



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

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

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 21

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

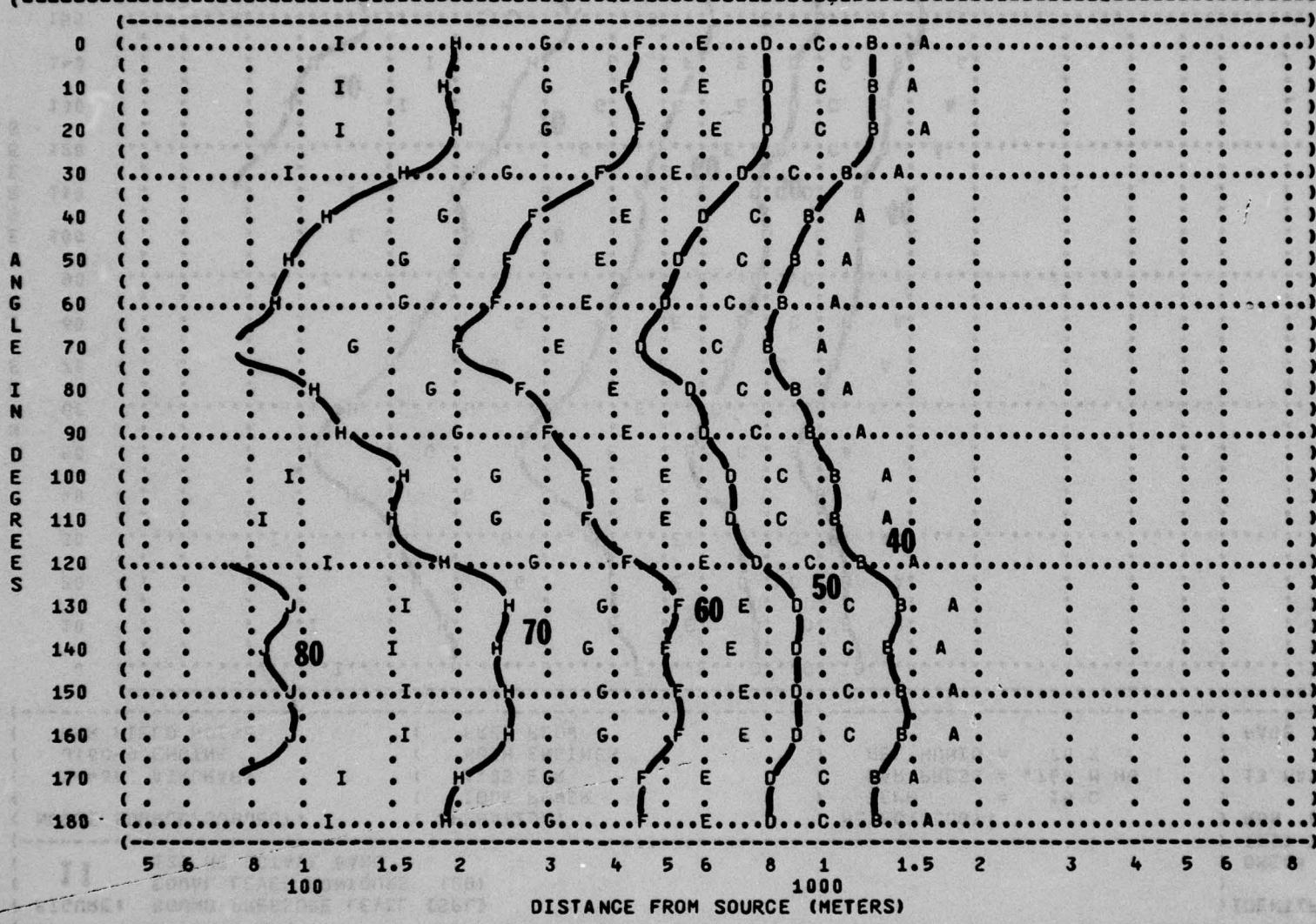


FIGURE: 11

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

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01

13 MAY 75

PAGE 22

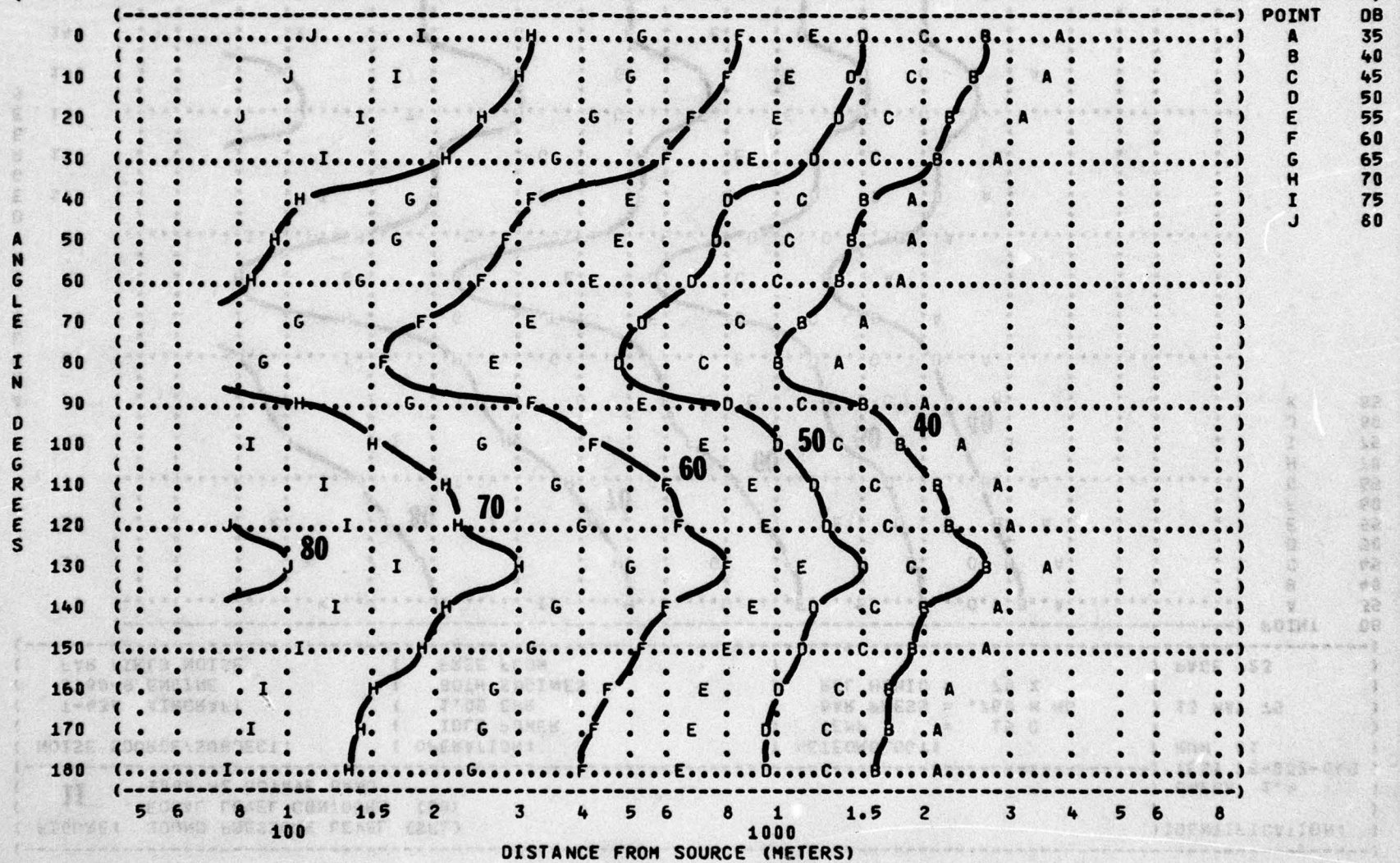


FIGURE: 11

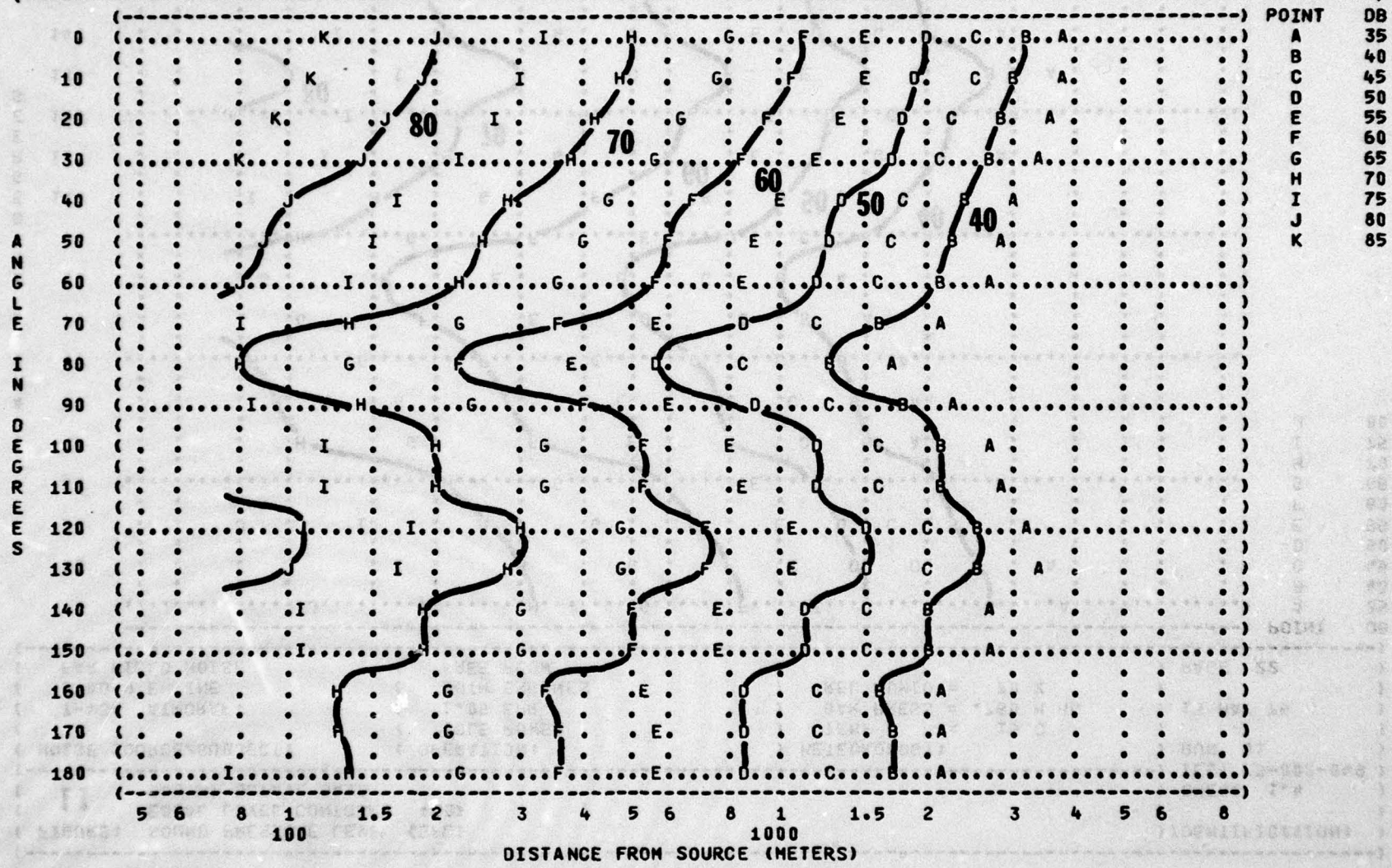
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
1000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 23

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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



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

AD-A048 833 AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO F/G 20/1
USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK: VOLUME 73. T-43A AIR--ETC(U)
JAN 77 R G POWELL
UNCLASSIFIED AMRL-TR-75-50-VOL-73 NL

2 OF 2
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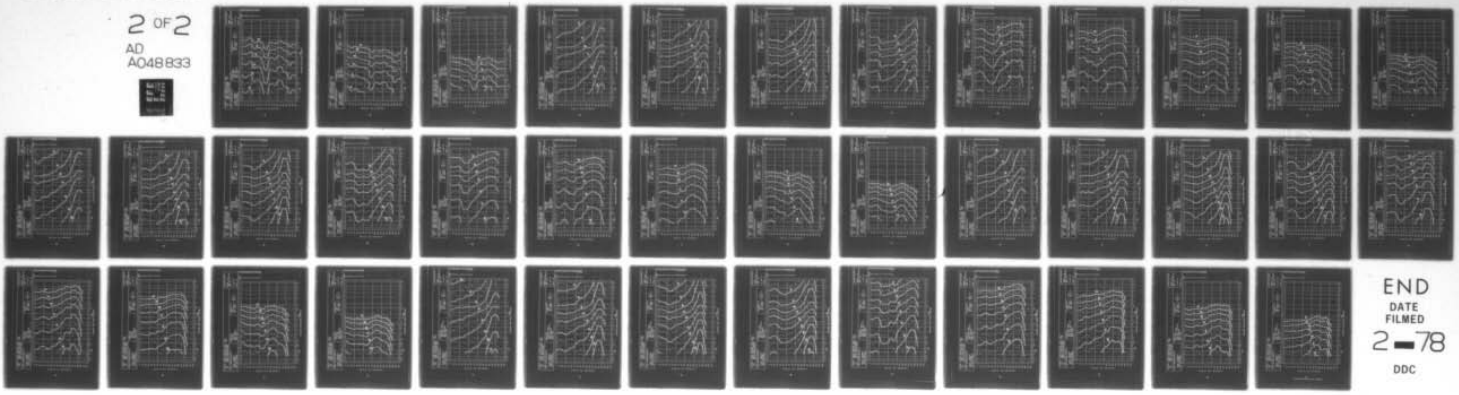


END
DATE
FILMED
2-78
DDC

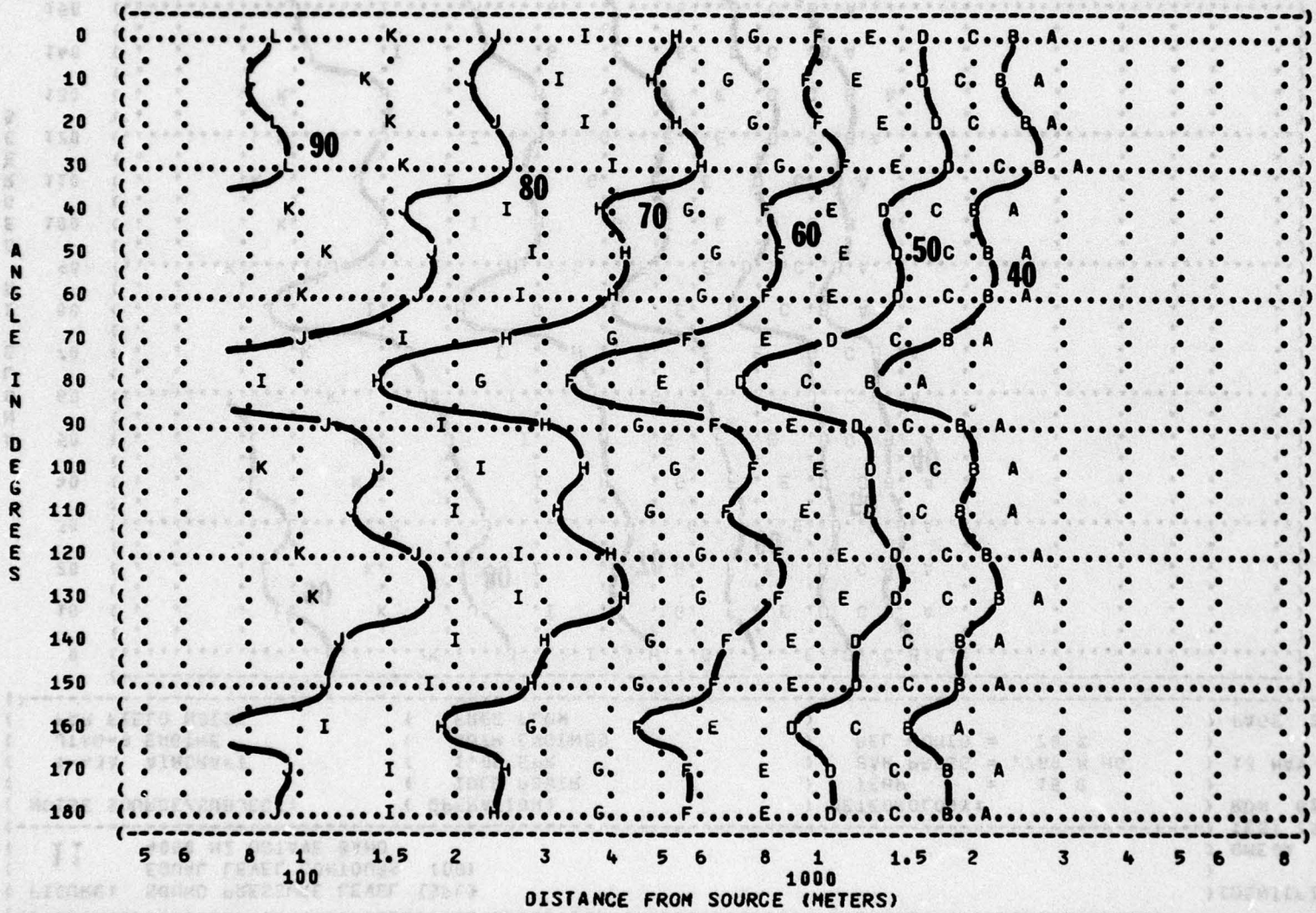
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 24

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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



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

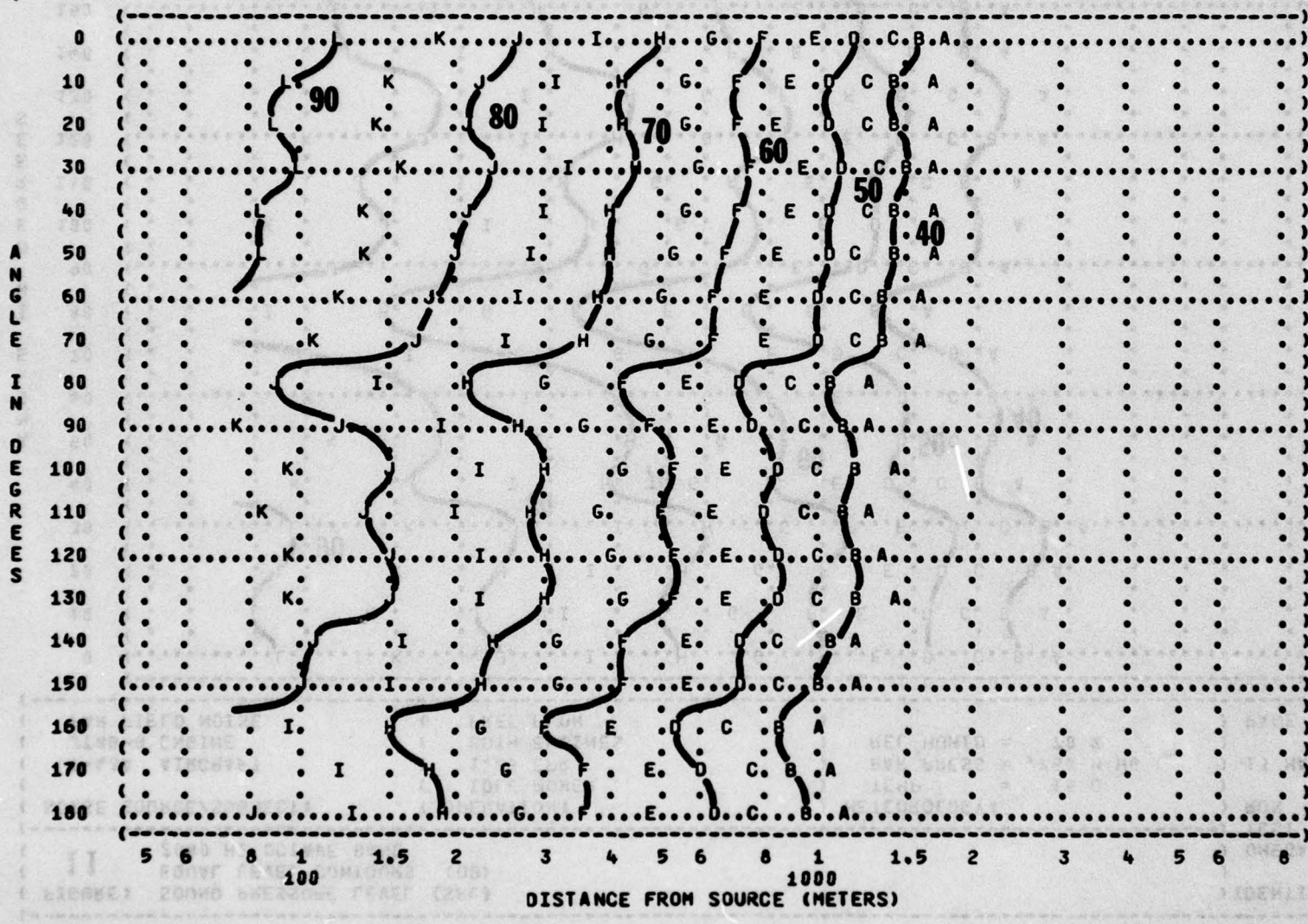
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 25

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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



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

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

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
1.05 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 01
13 MAY 75
PAGE 26

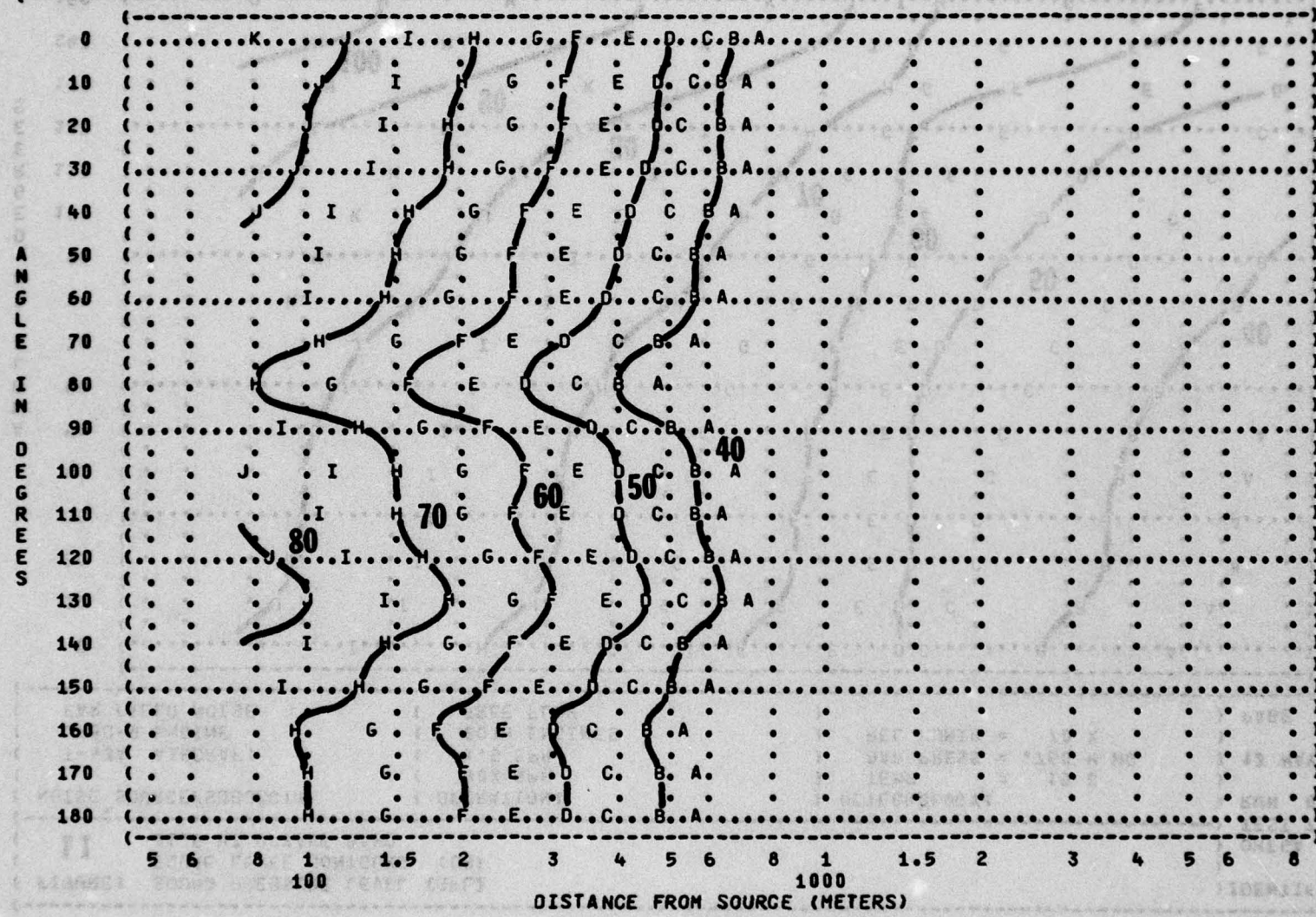


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

IDENTIFICATION: OMEGA 1.4 TEST 75-002-049 RUN 02 13 MAY 75 PAGE 18

NOISE SOURCE/SUBJECT: T-43A AIRCRAFT; JT8D-9 ENGINE; FAR FIELD NOISE

OPERATION: 80% RPM; 1.5 EPR; BOTH ENGINES; FREE FLOW

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

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

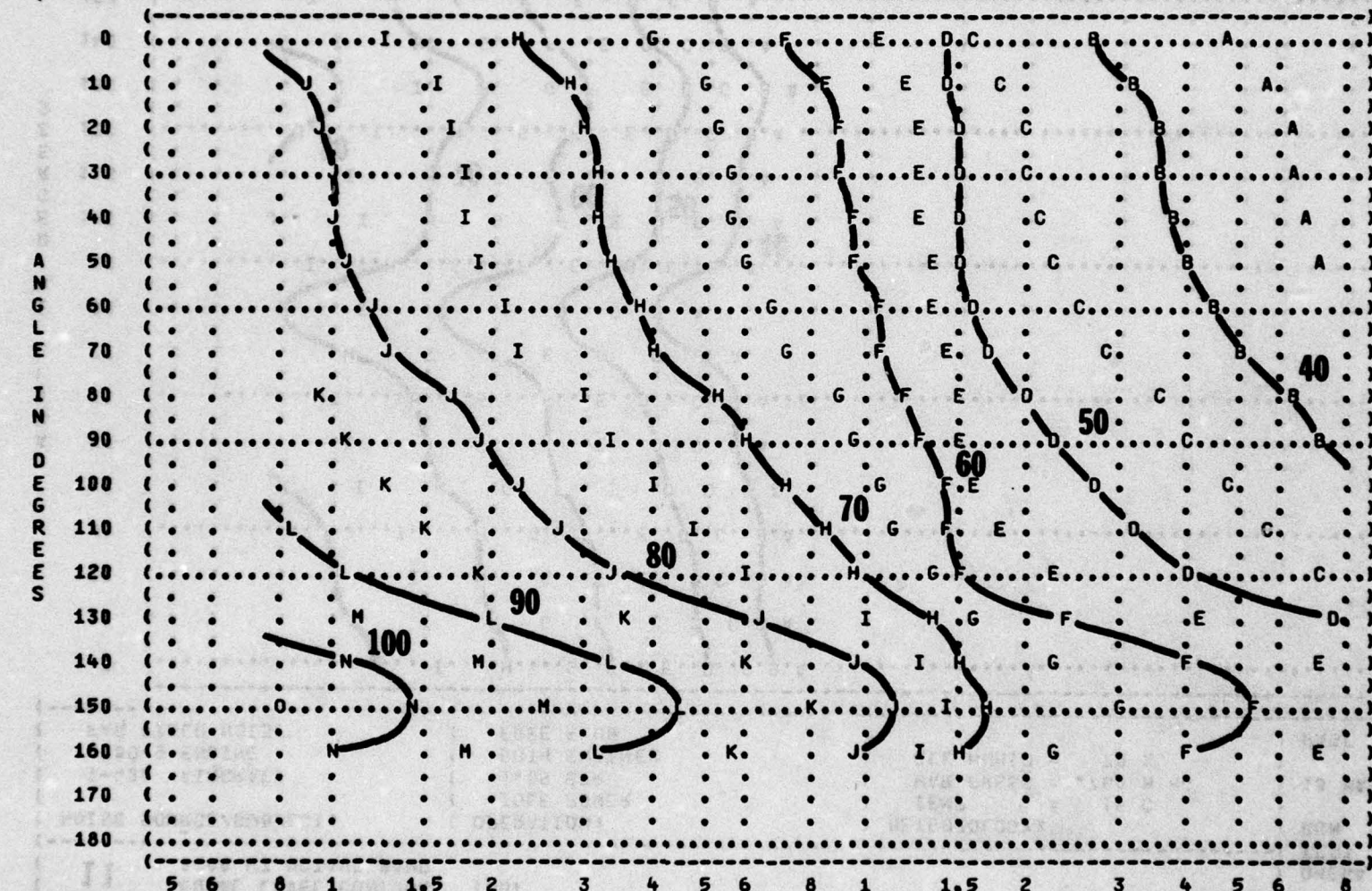


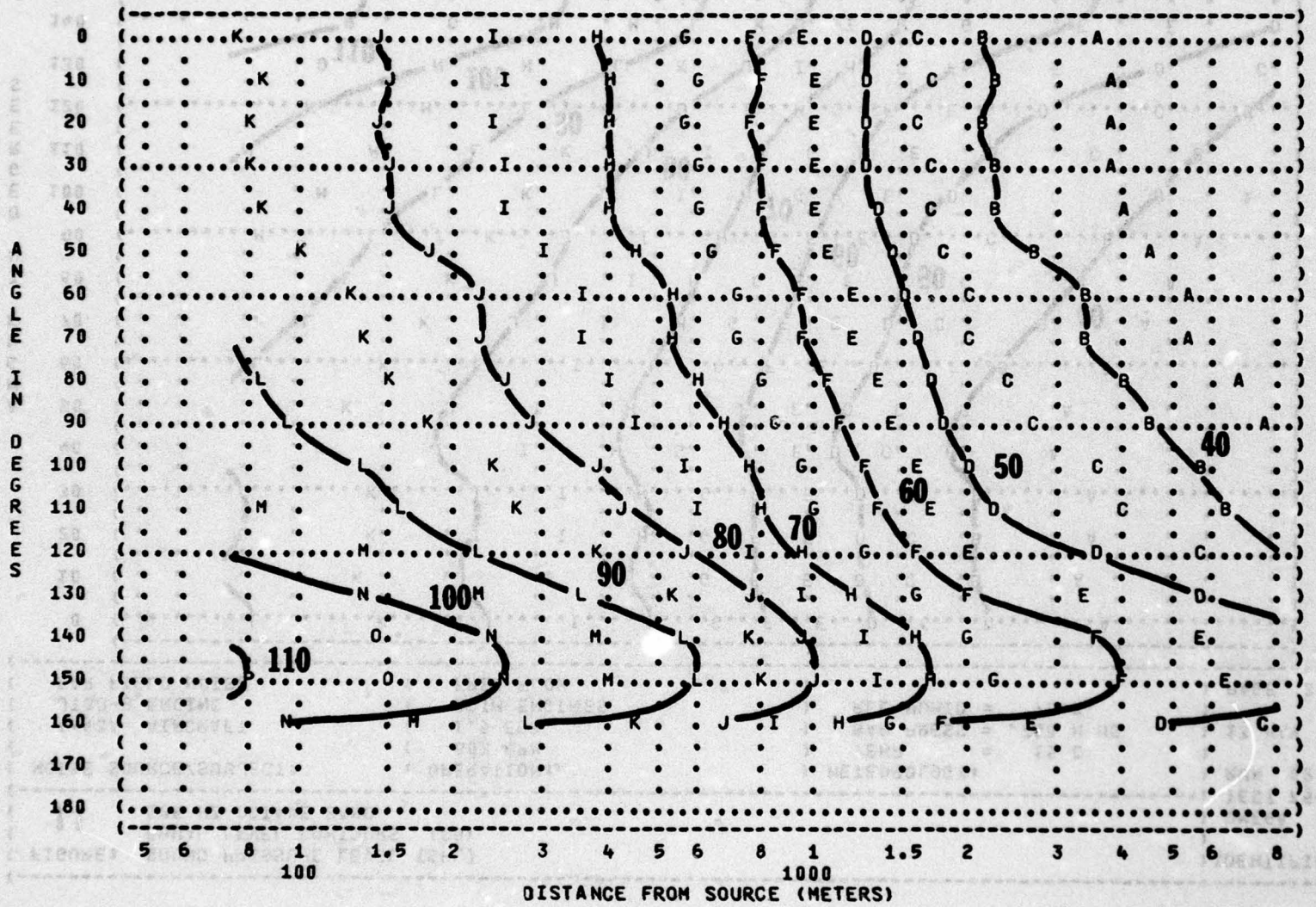
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 19



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

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

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 20

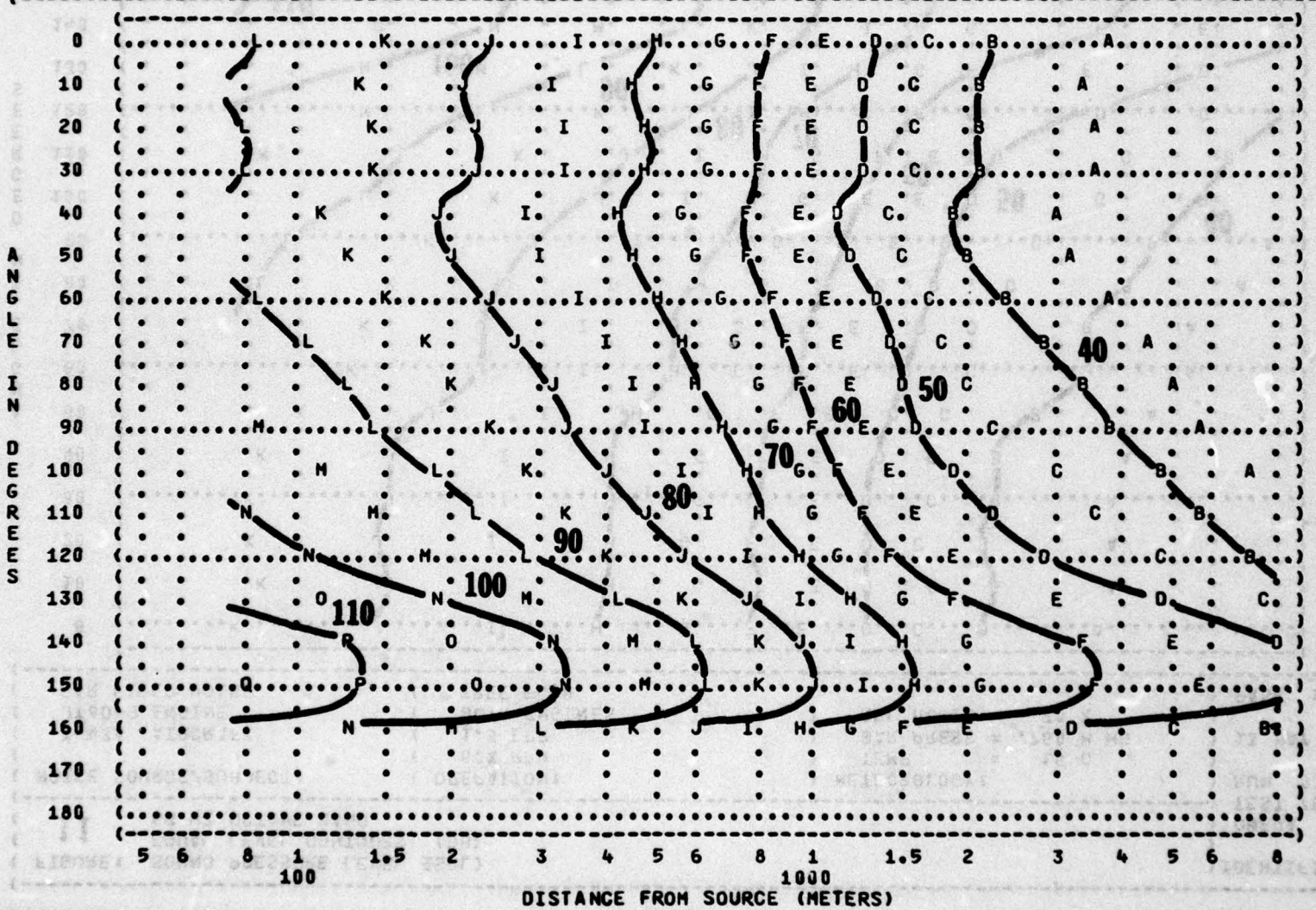


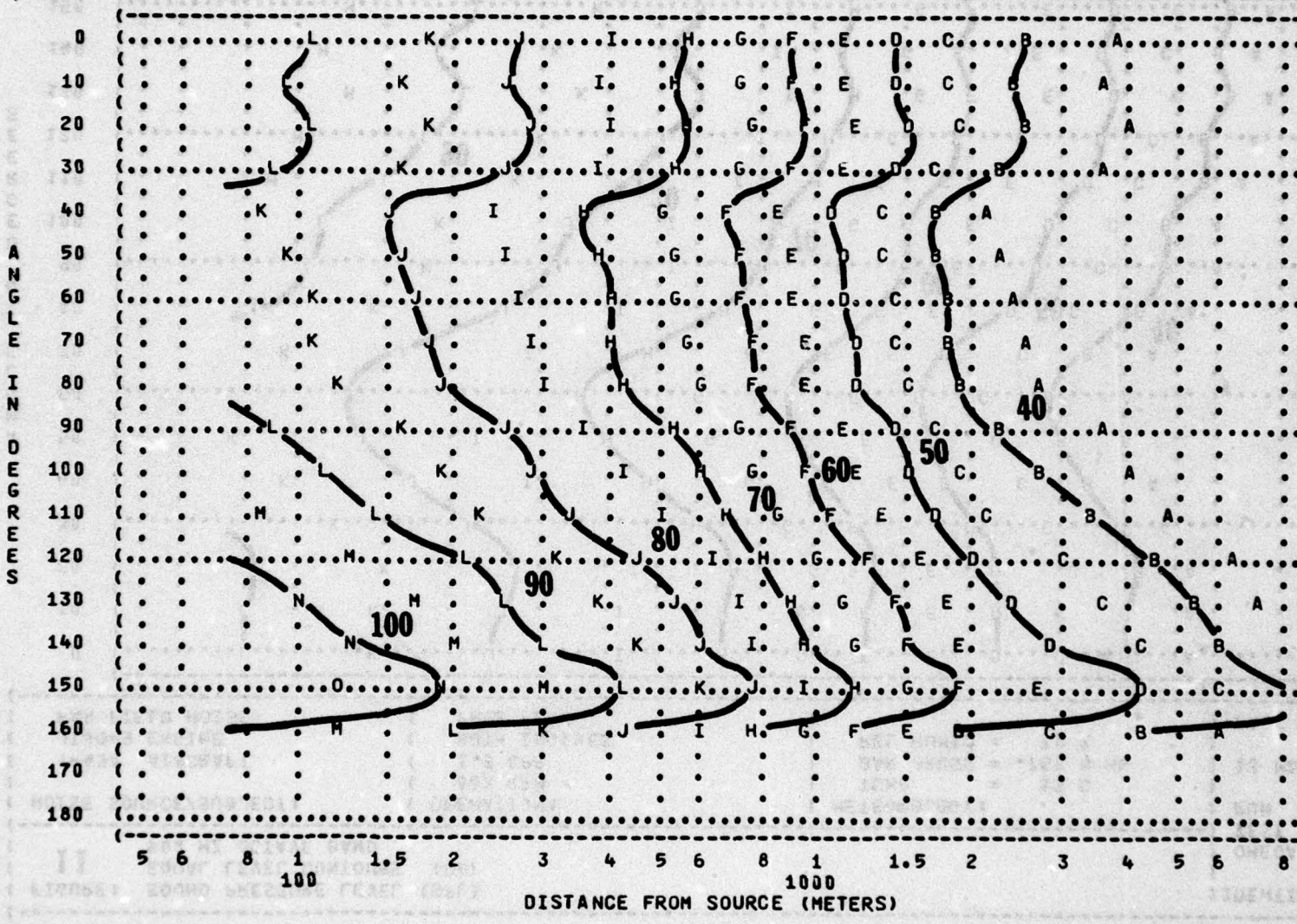
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 21

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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



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

FIGURE: 11

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 22

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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

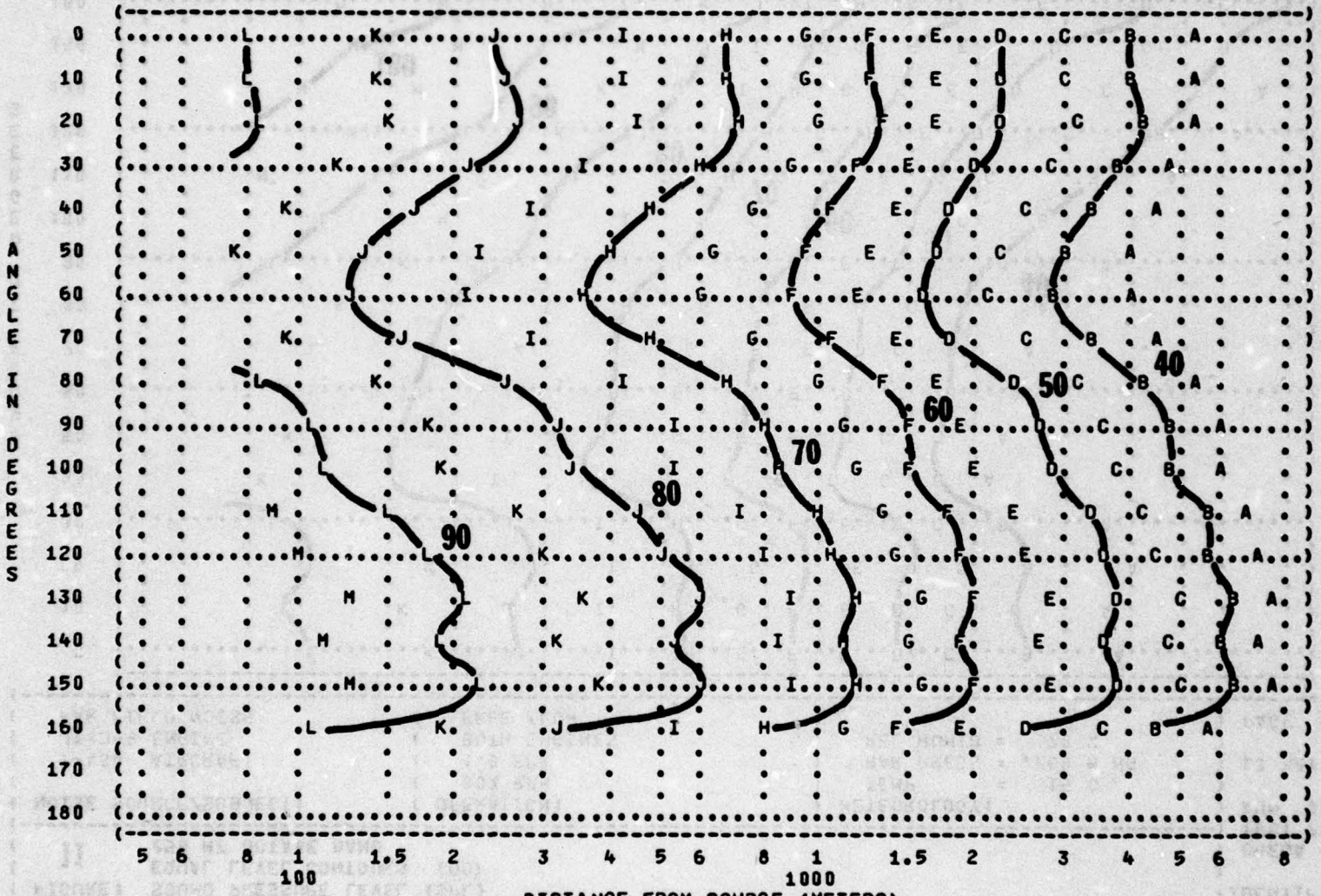


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 23

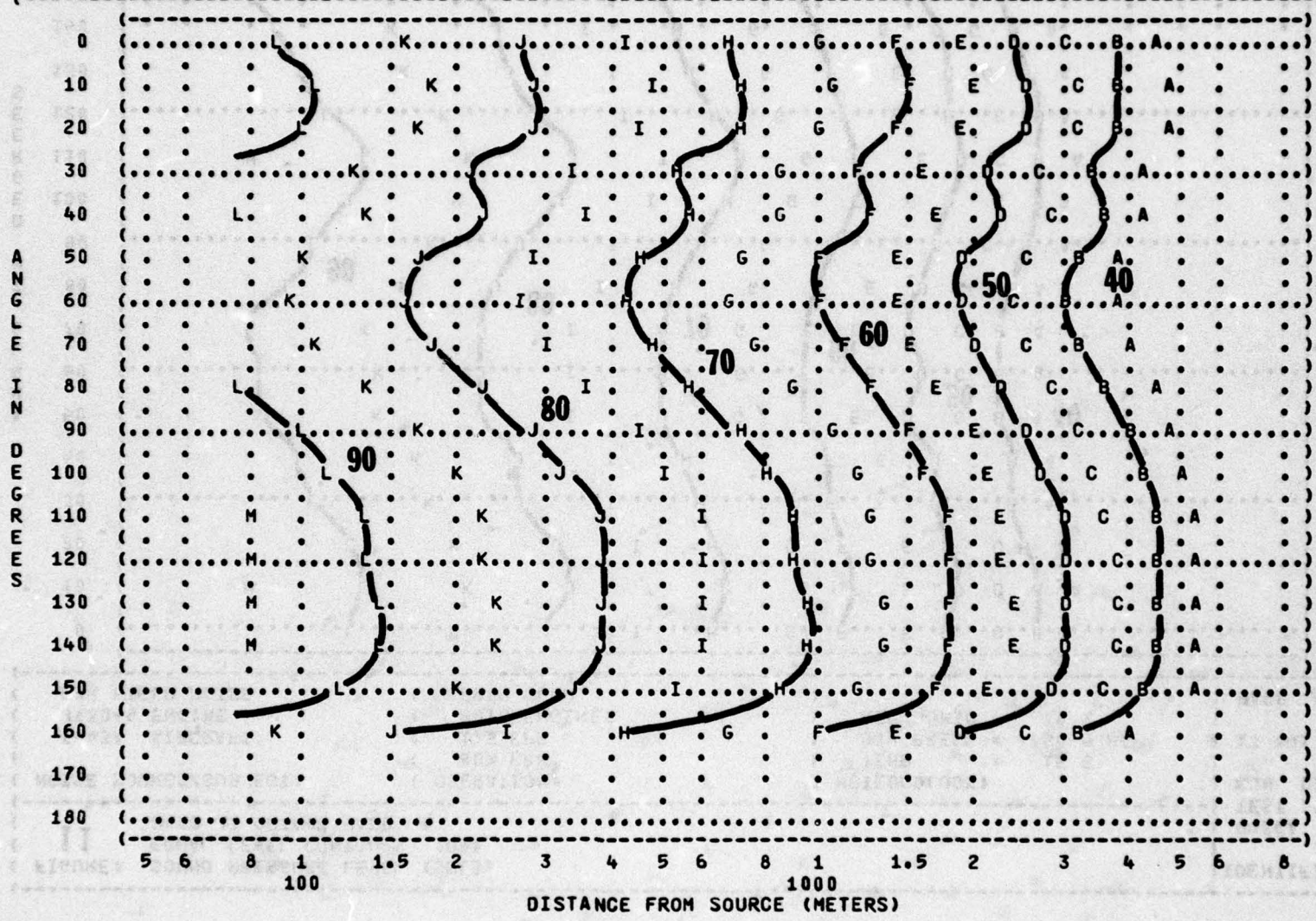


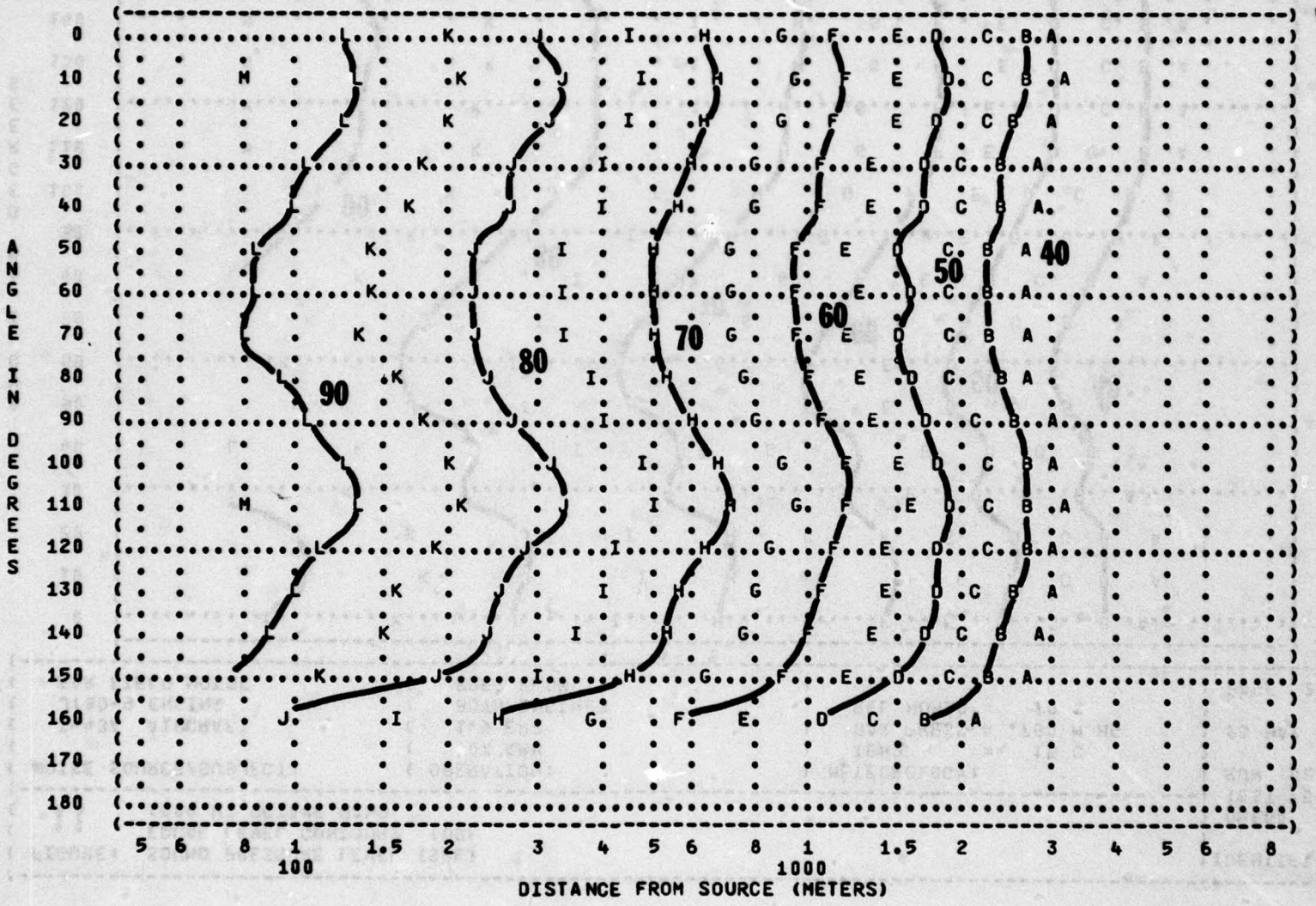
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 24

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

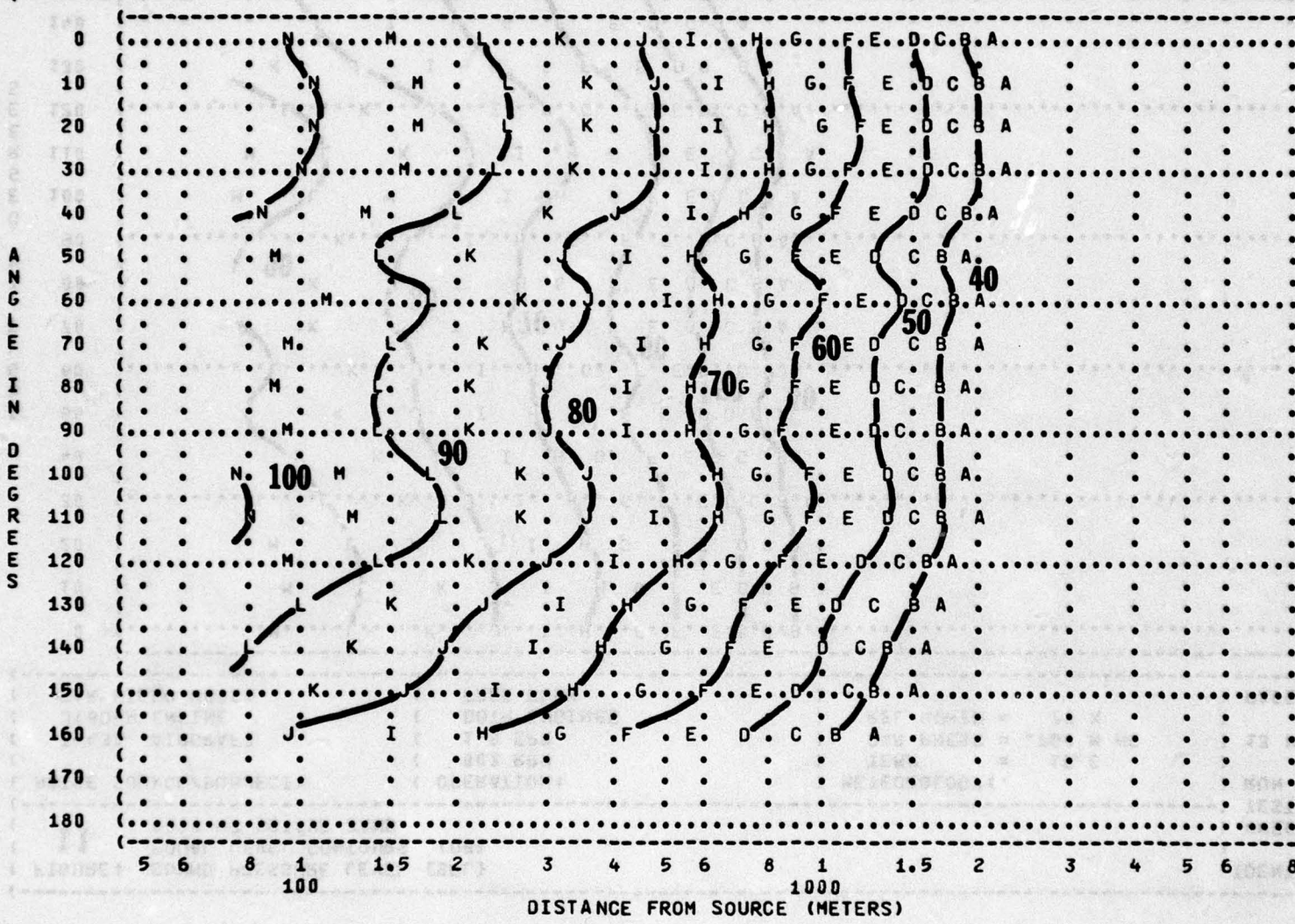
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 25

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100

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

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
1.5 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 02
13 MAY 75
PAGE 26

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

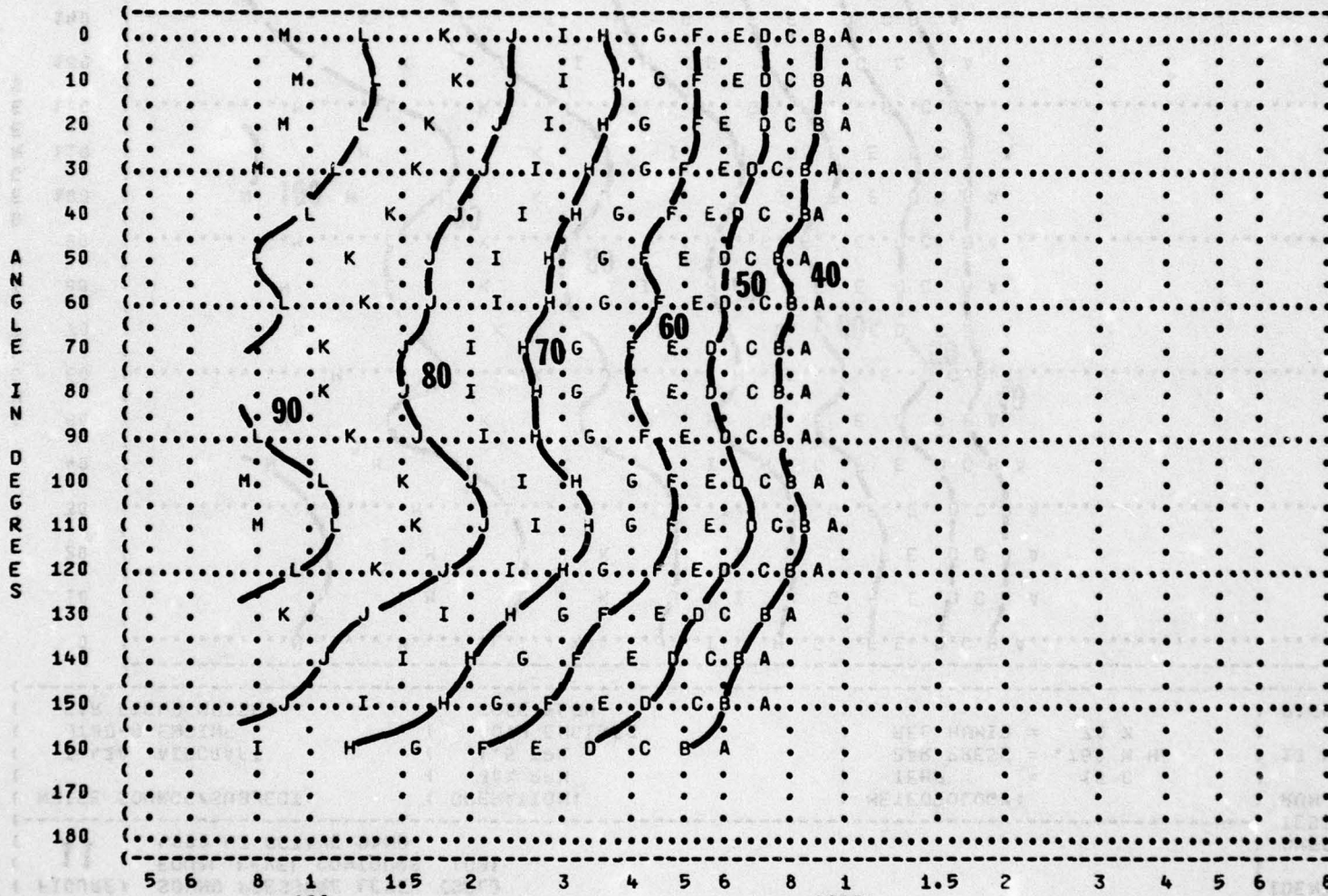


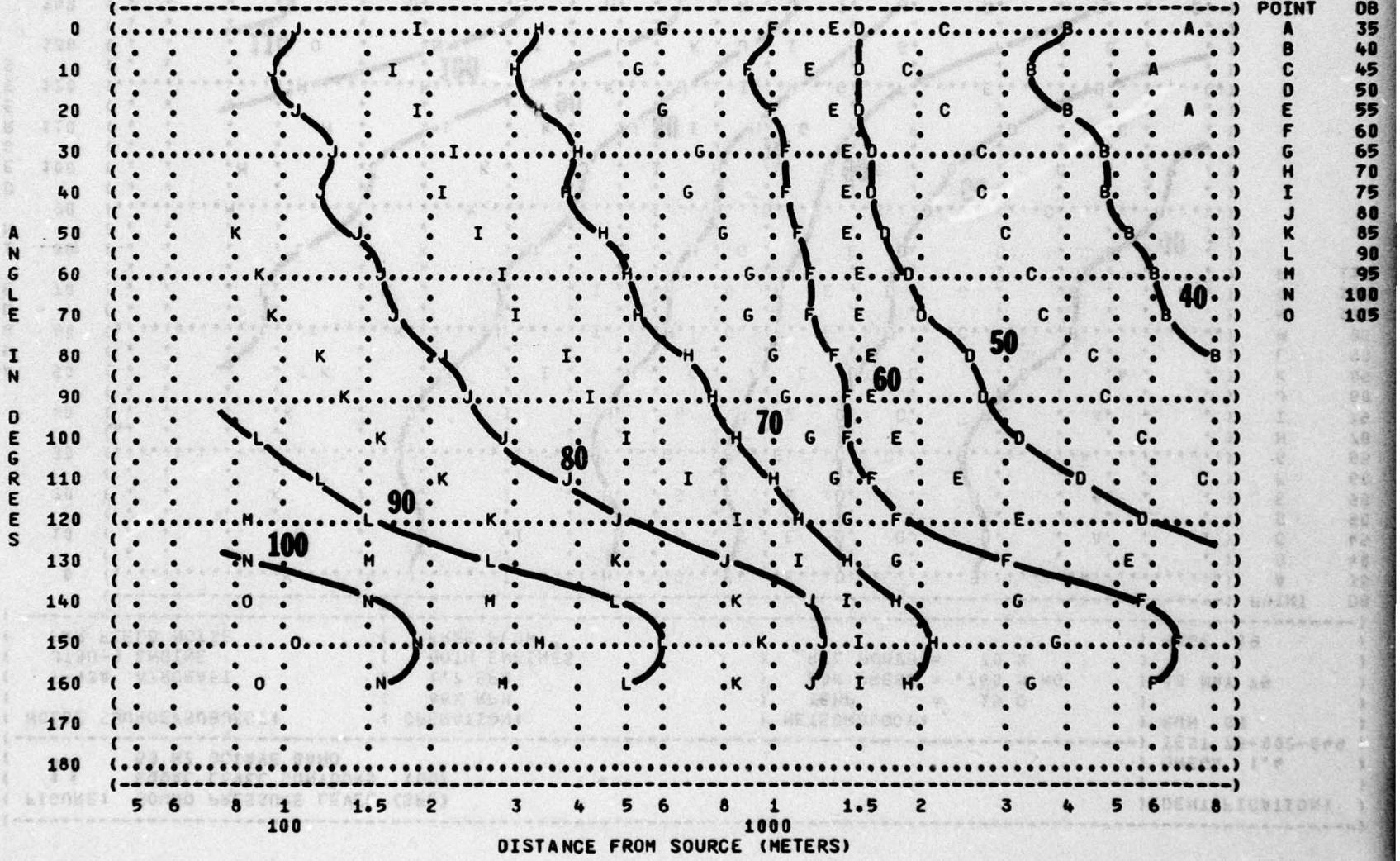
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 18



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

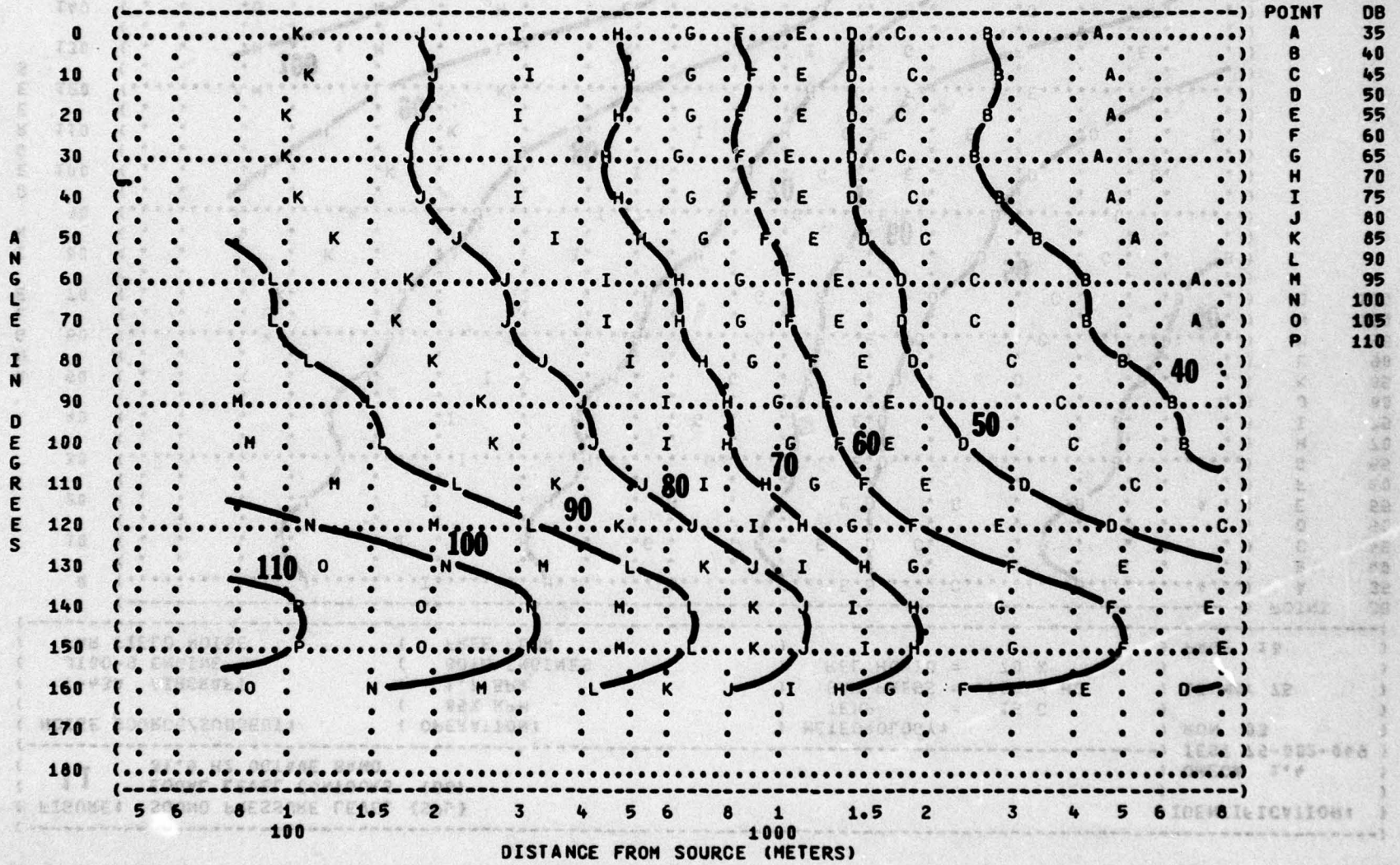
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 19



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

FIGURE: 11

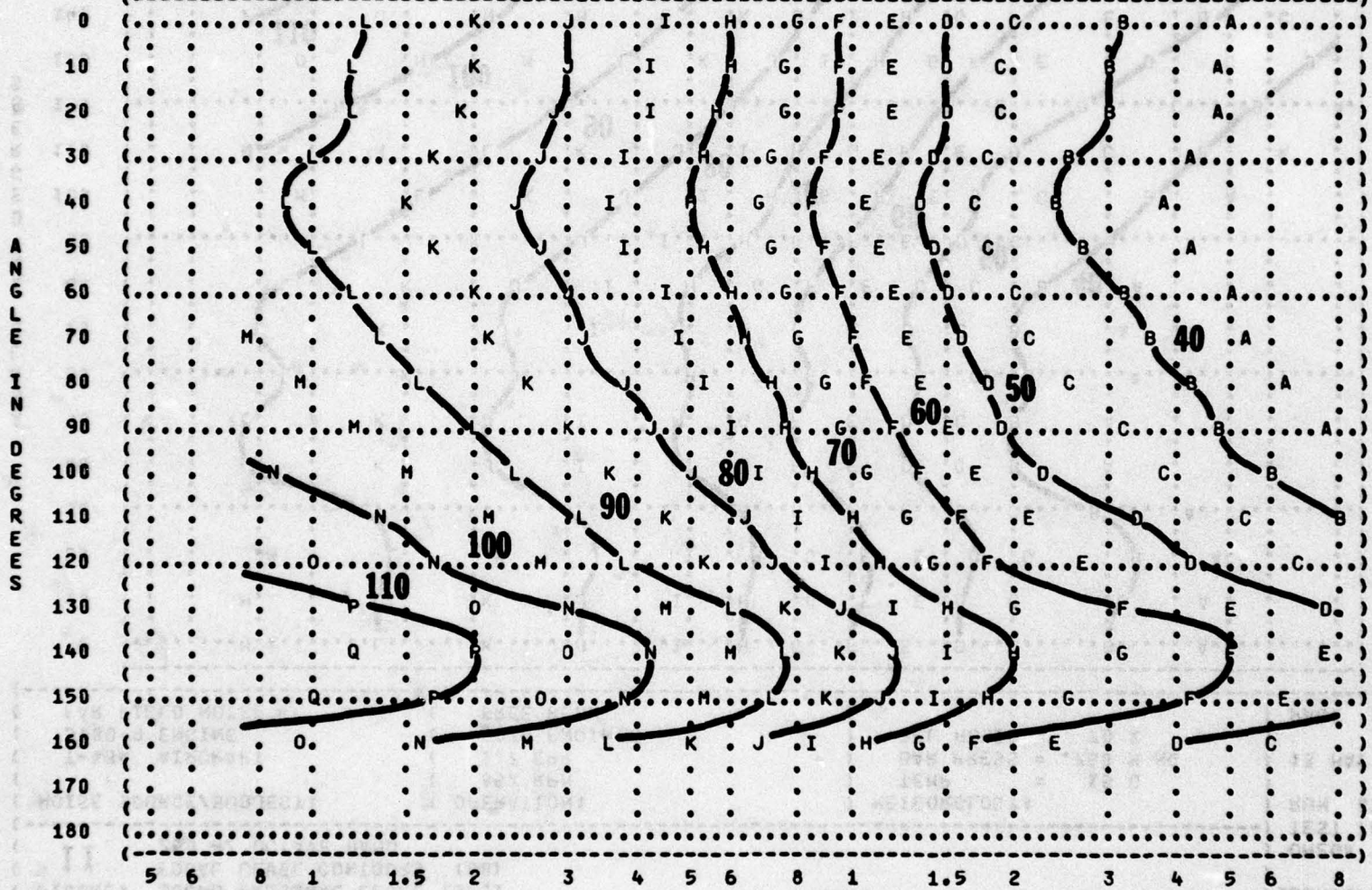
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
125 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 20



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

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

IDENTIFICATION: OMEGA 1.4 / TEST 75-002-049 / RUN 03 / 13 MAY 75 / PAGE 21

NOISE SOURCE/SUBJECT: T-43A AIRCRAFT; JT8D-9 ENGINE; FAR FIELD NOISE

OPERATION: 85% RPM; 1.7 EPR; BOTH ENGINES; FREE FLOW

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

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

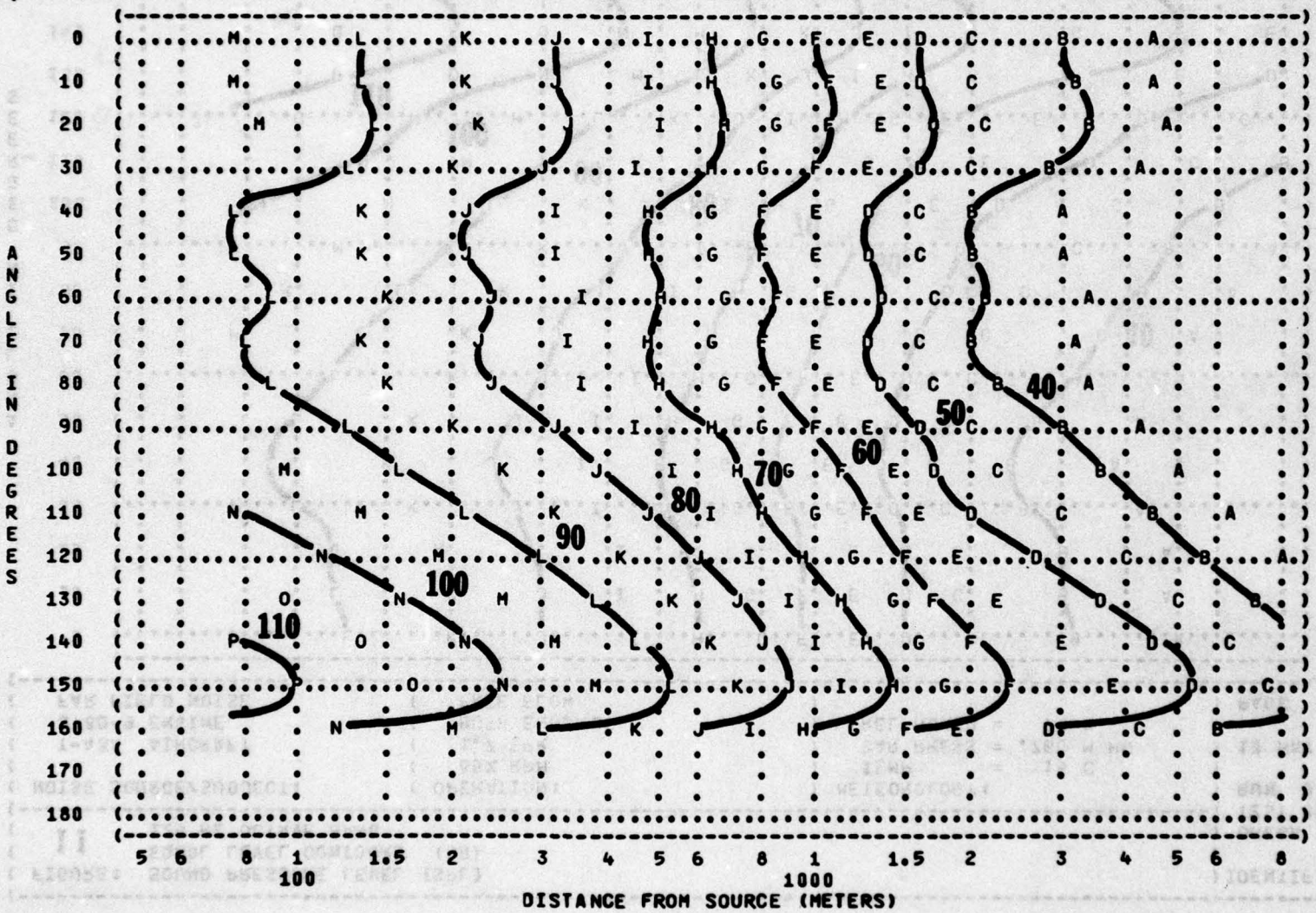


FIGURE: 11

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03

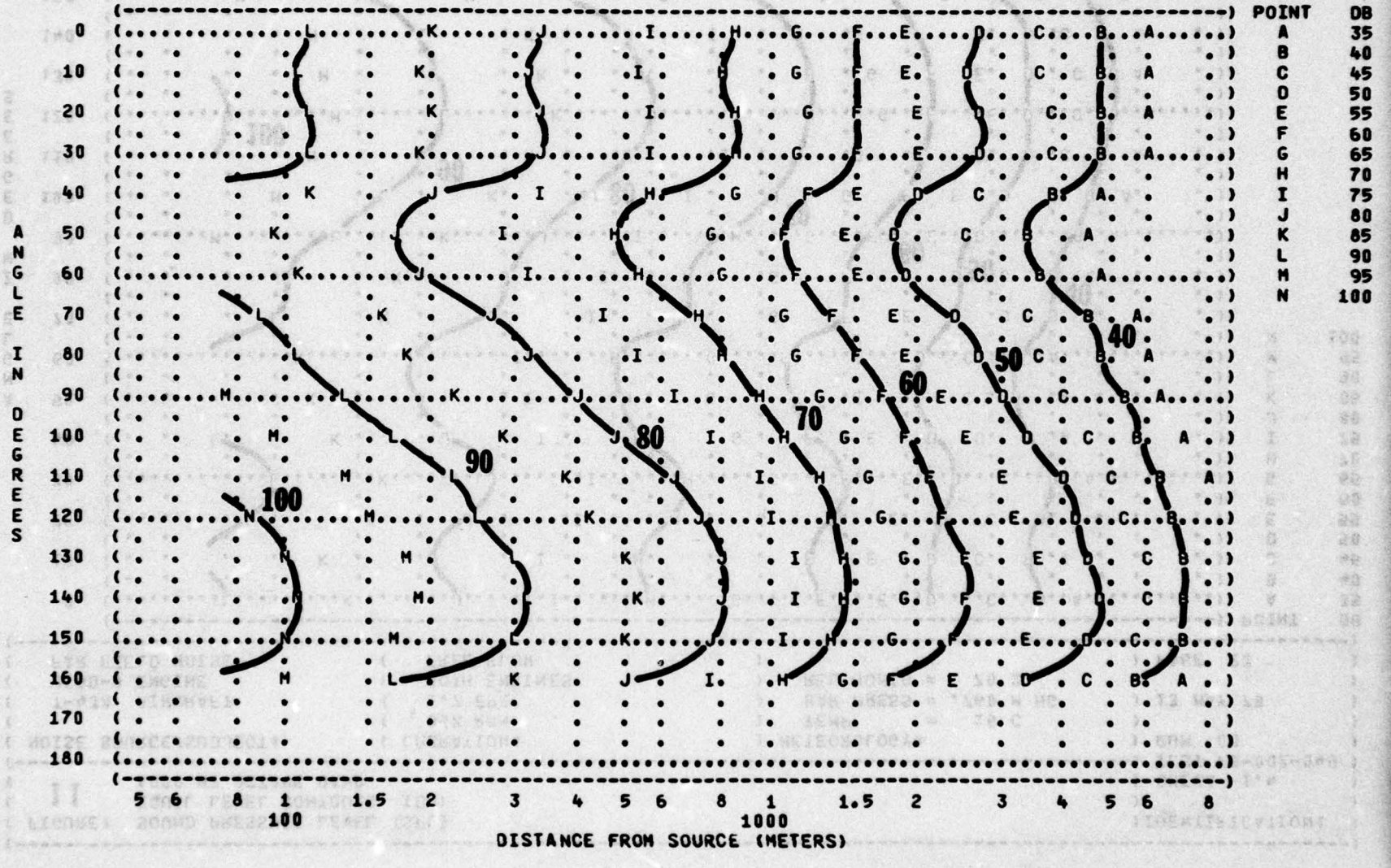
13 MAY 75

PAGE 22

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100

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

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 23

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100

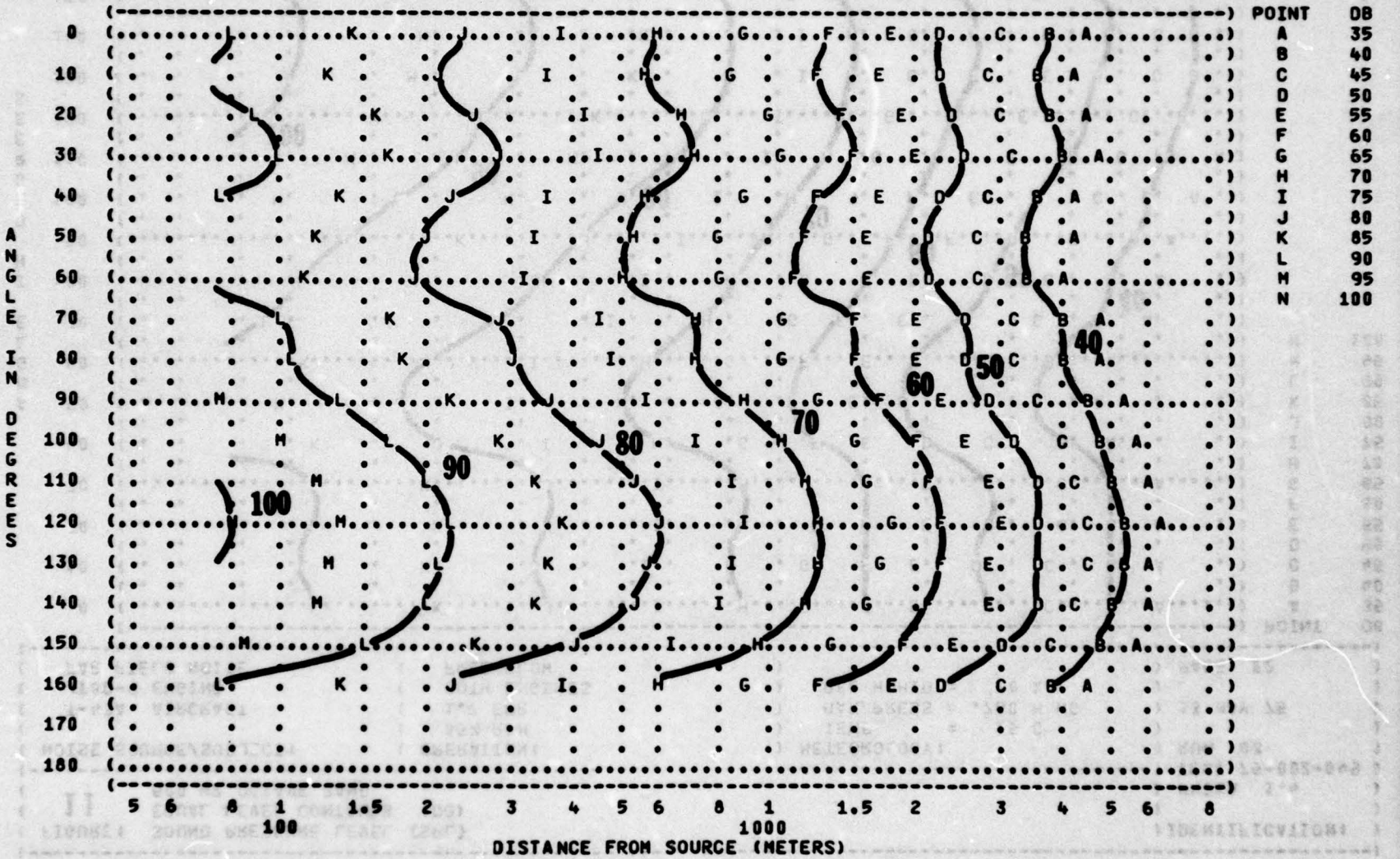


FIGURE: 11

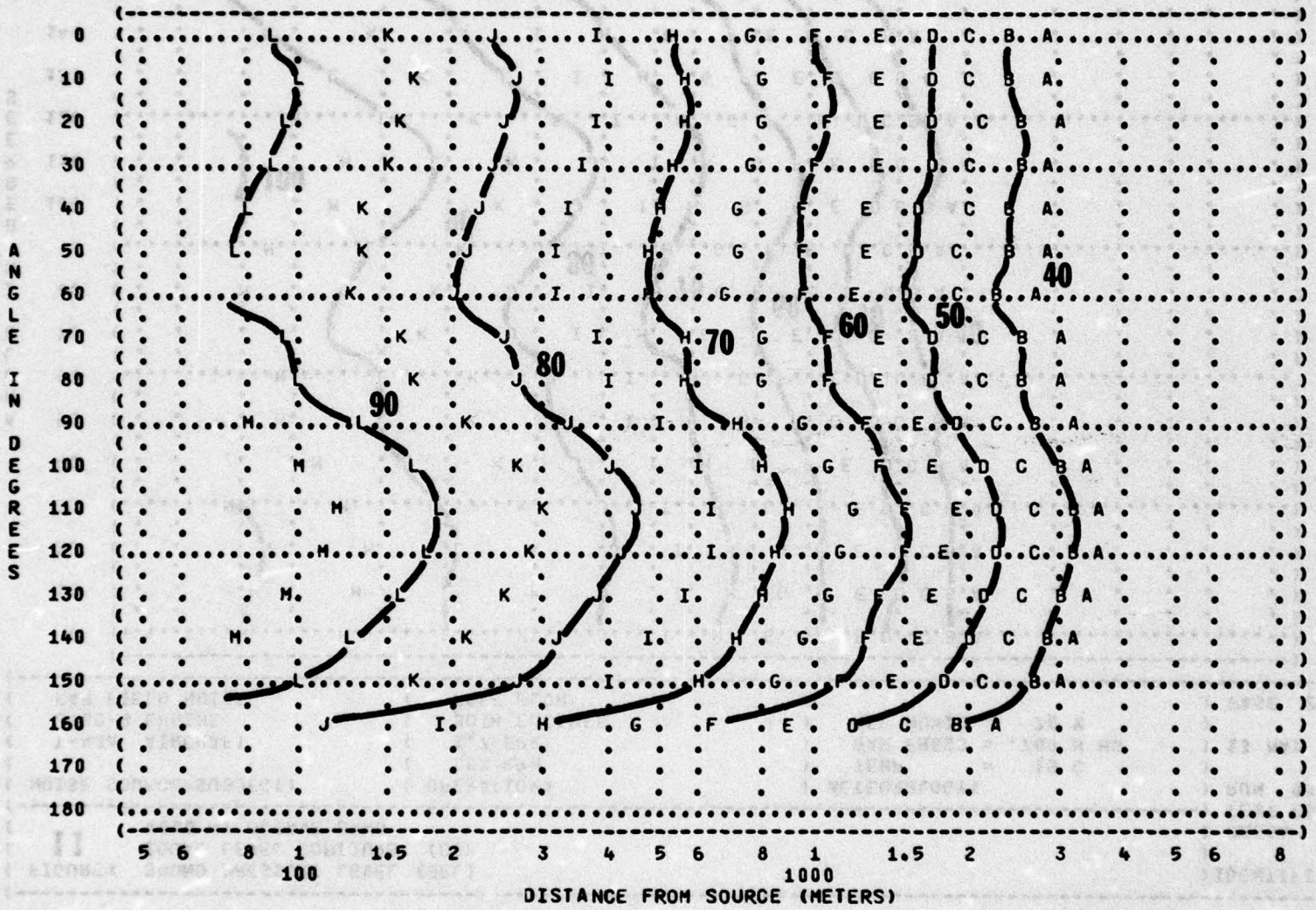
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 24



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

FIGURE: 11

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 25

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100

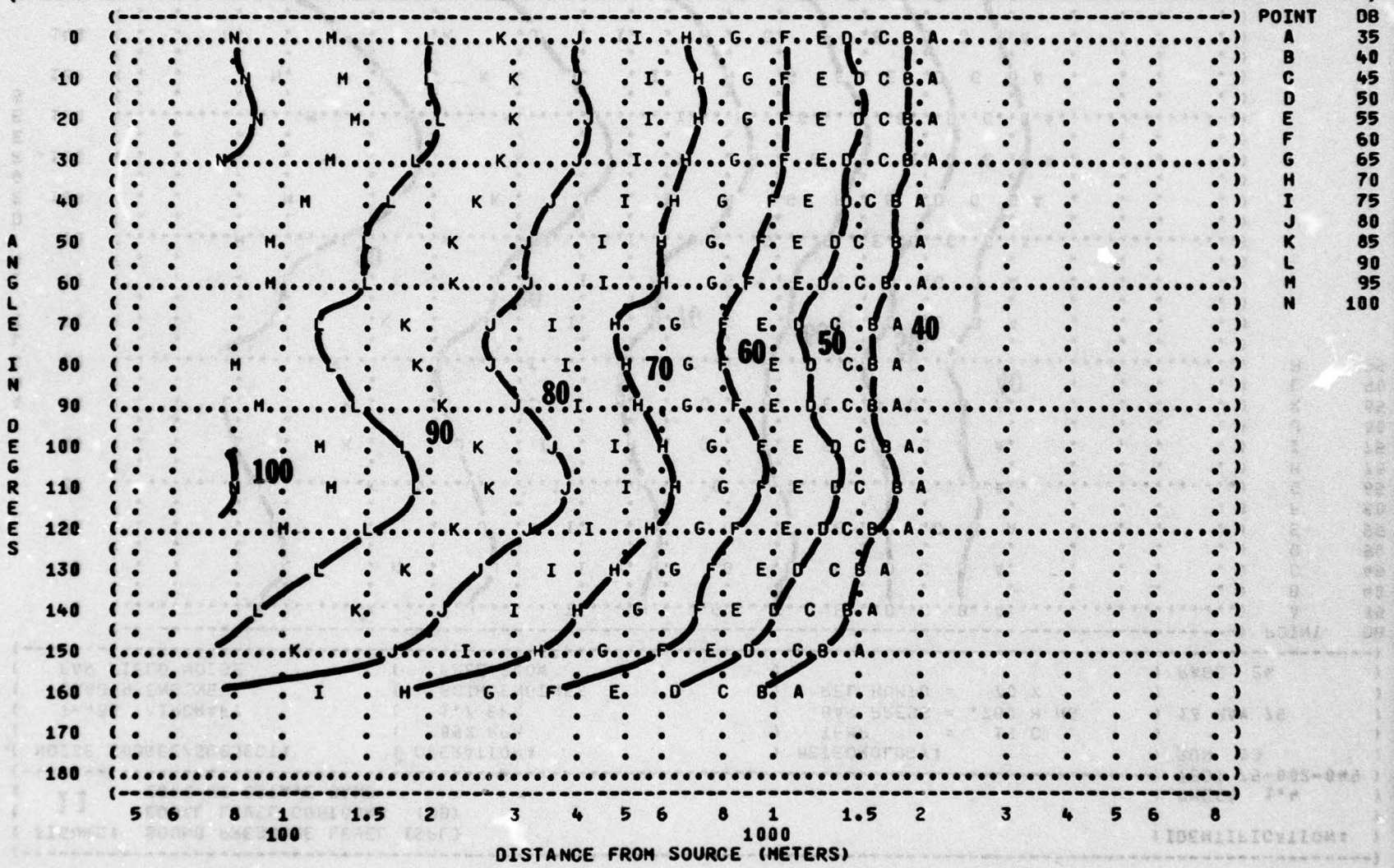


FIGURE: 11

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

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
1.7 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 03
13 MAY 75
PAGE 26

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

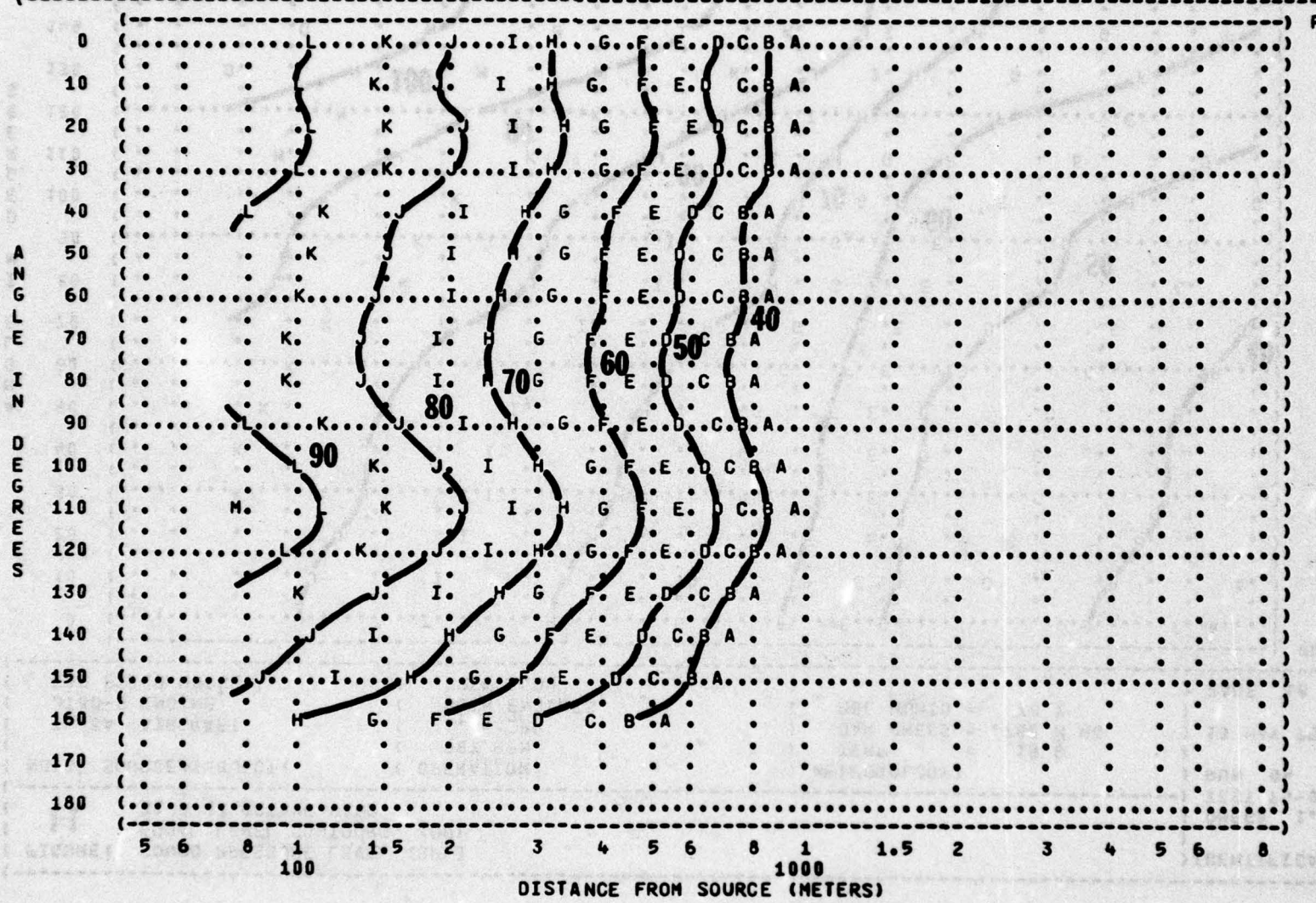


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 18

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

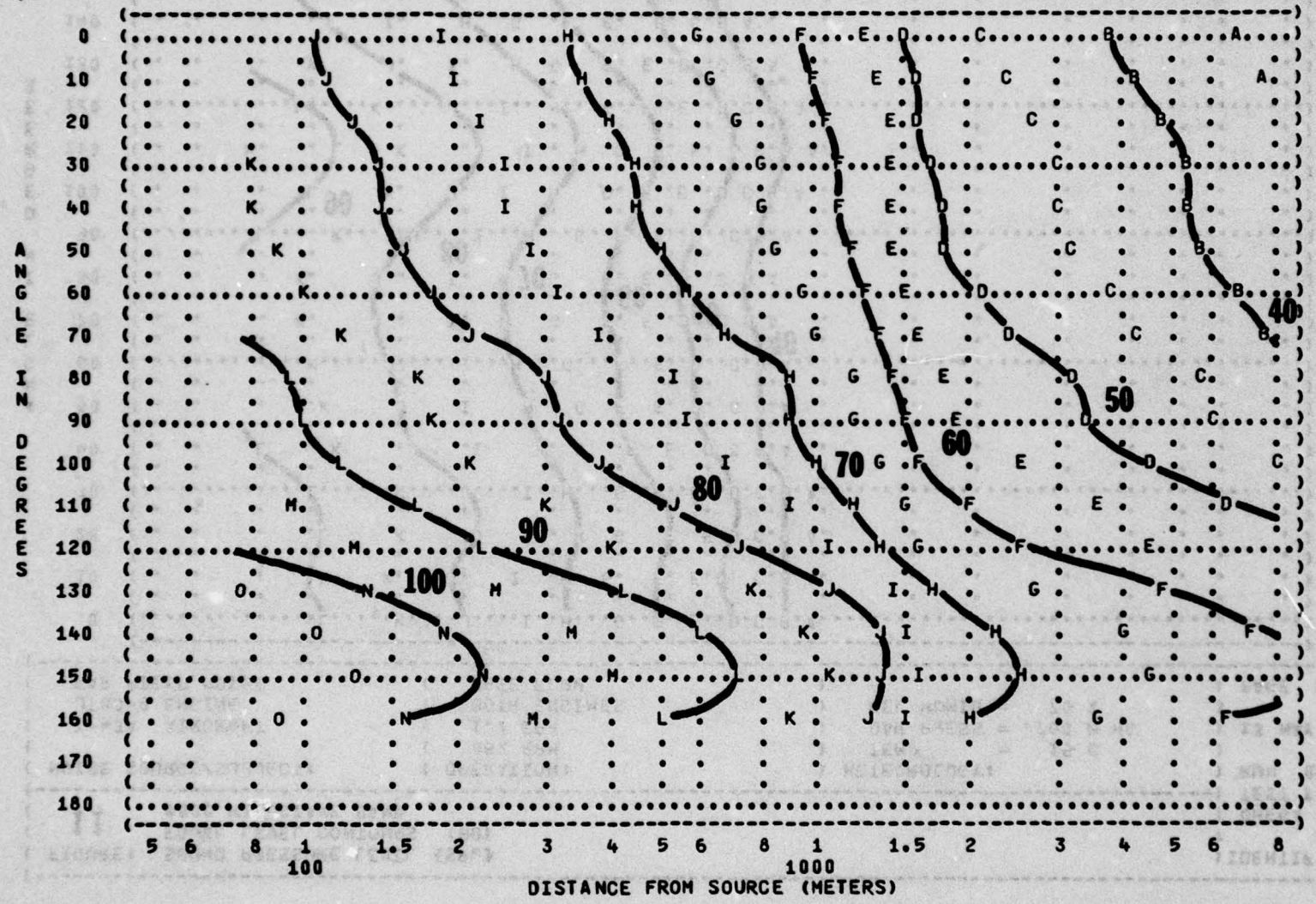


FIGURE: 11

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 19

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

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

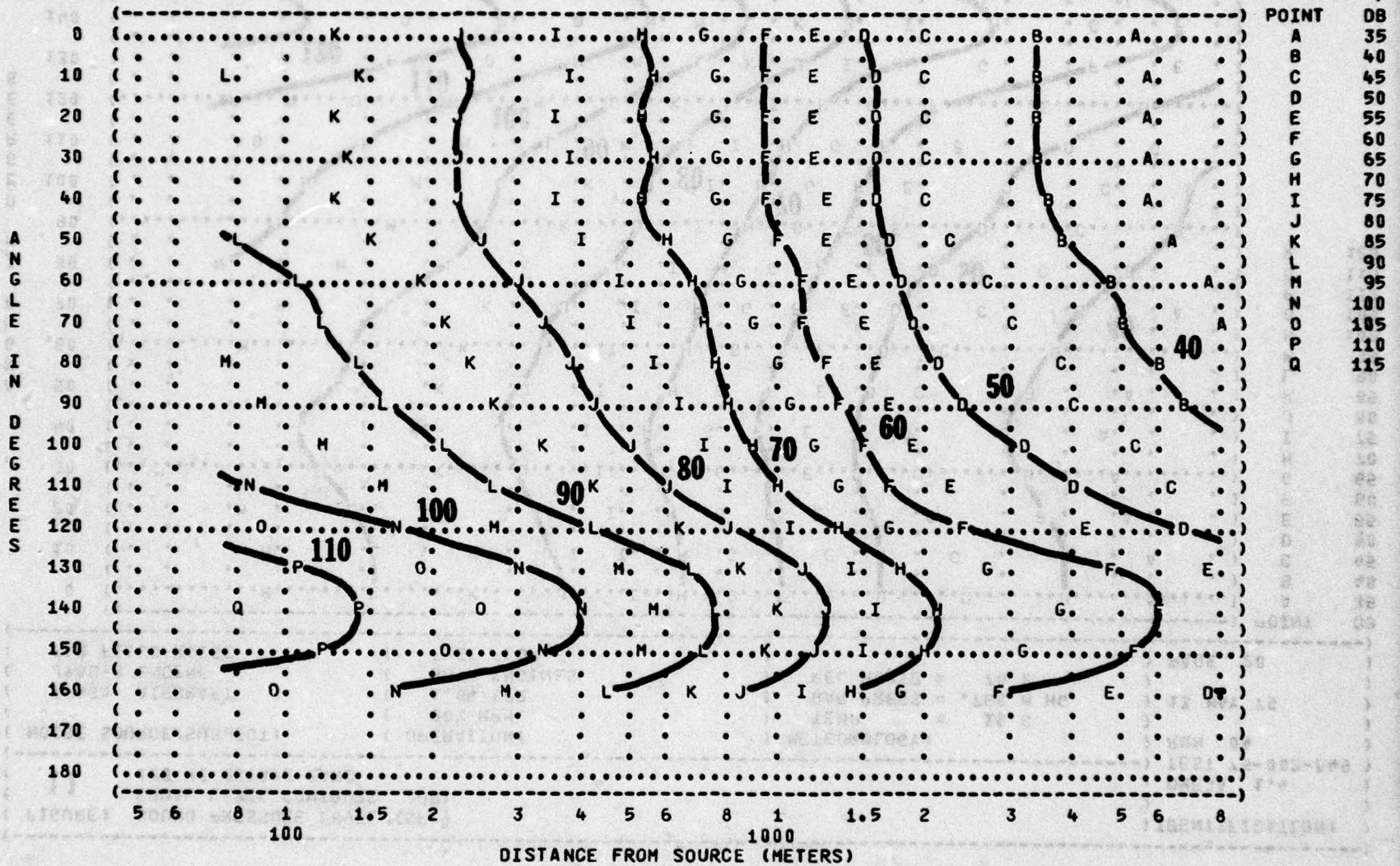


FIGURE: 11

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 20

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

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

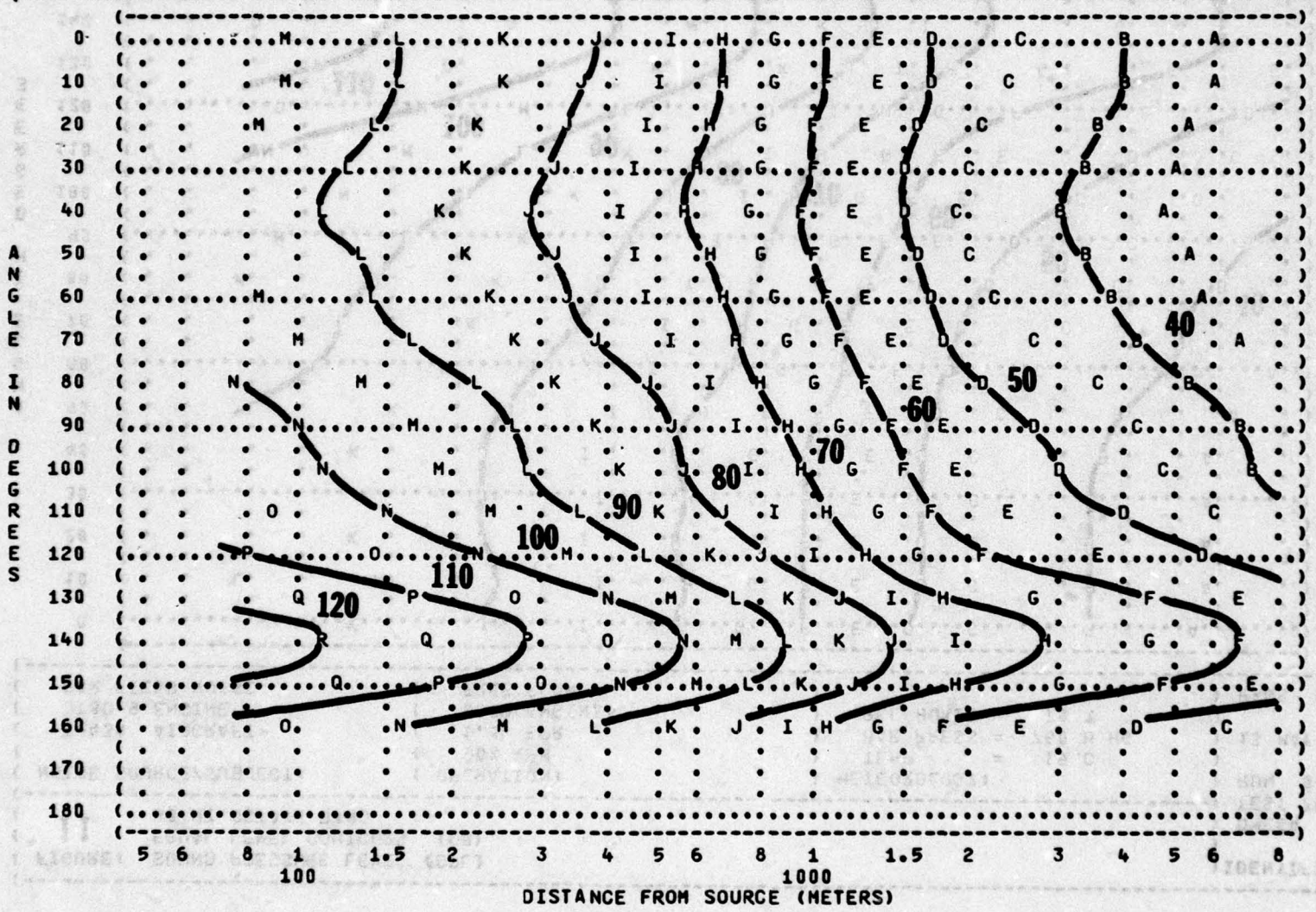


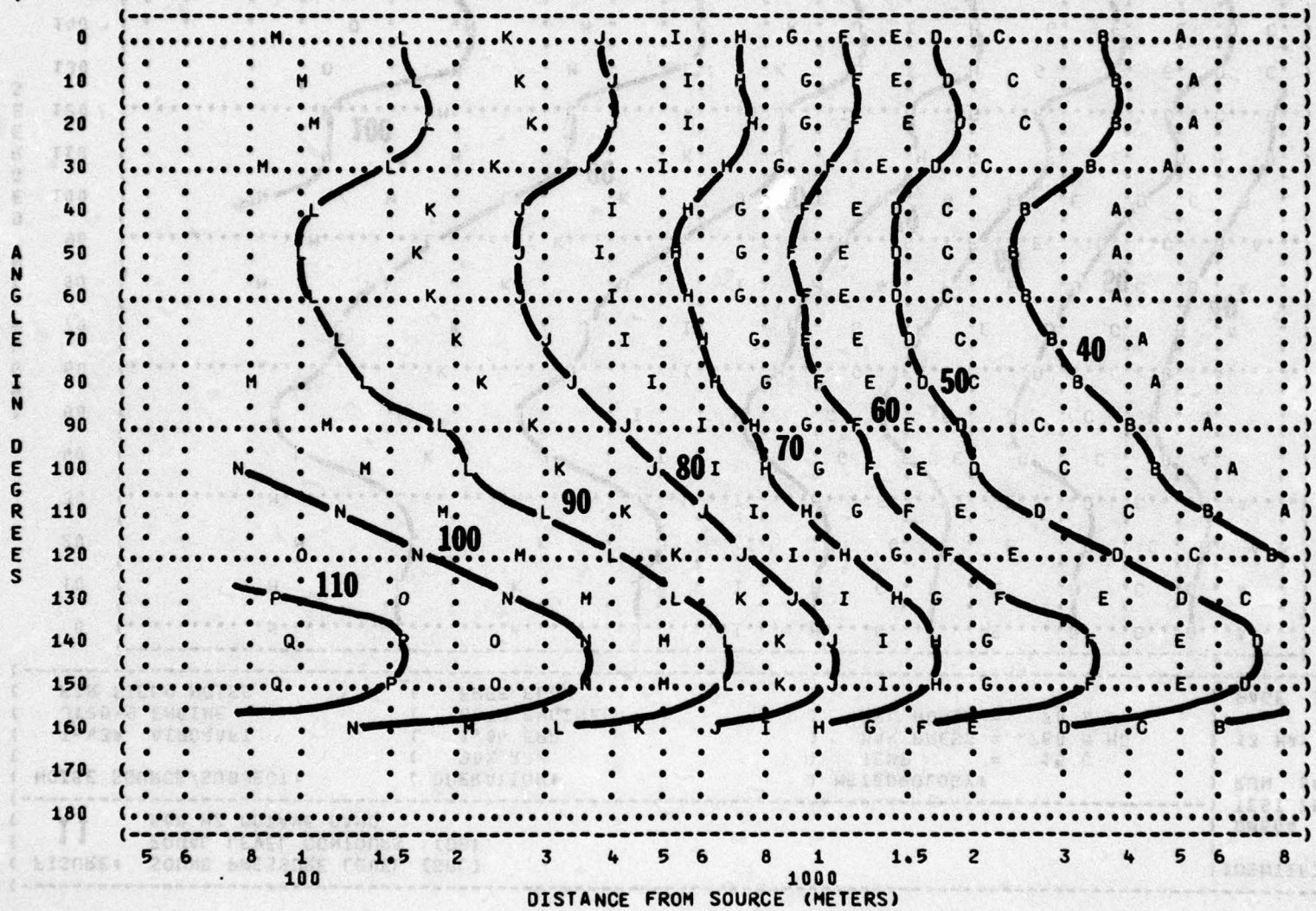
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 21



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

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 22

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

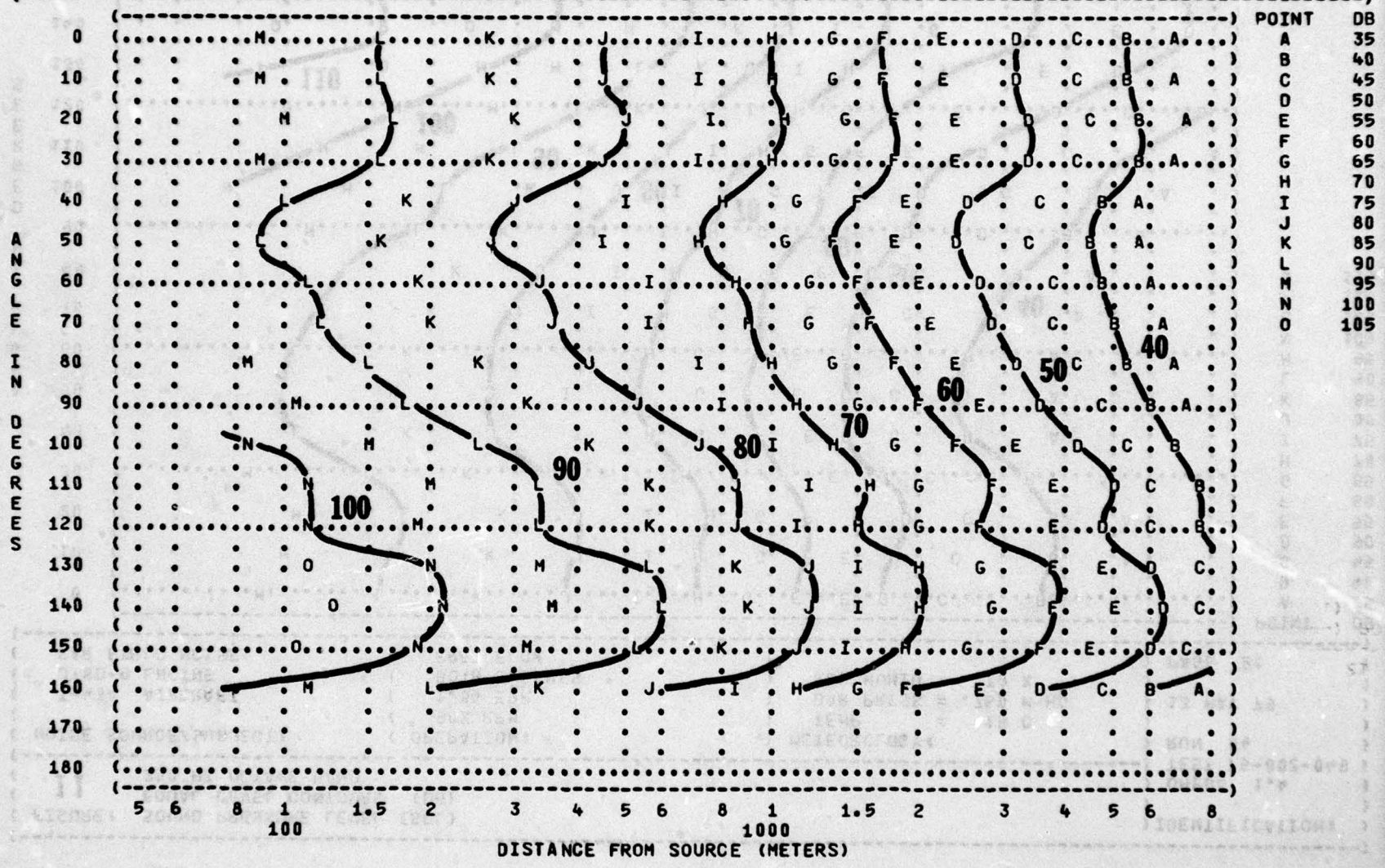


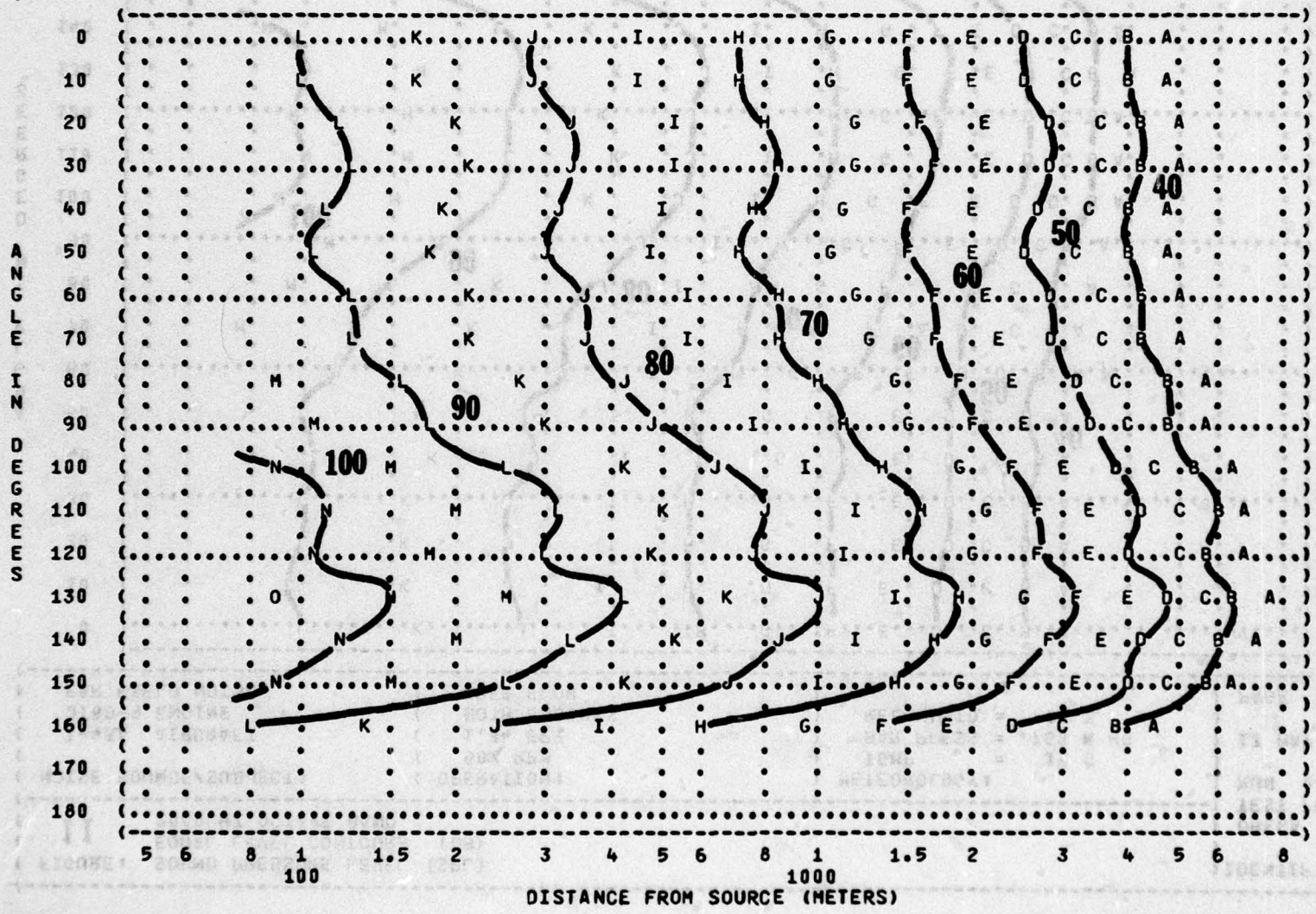
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 23



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

FIGURE: 11

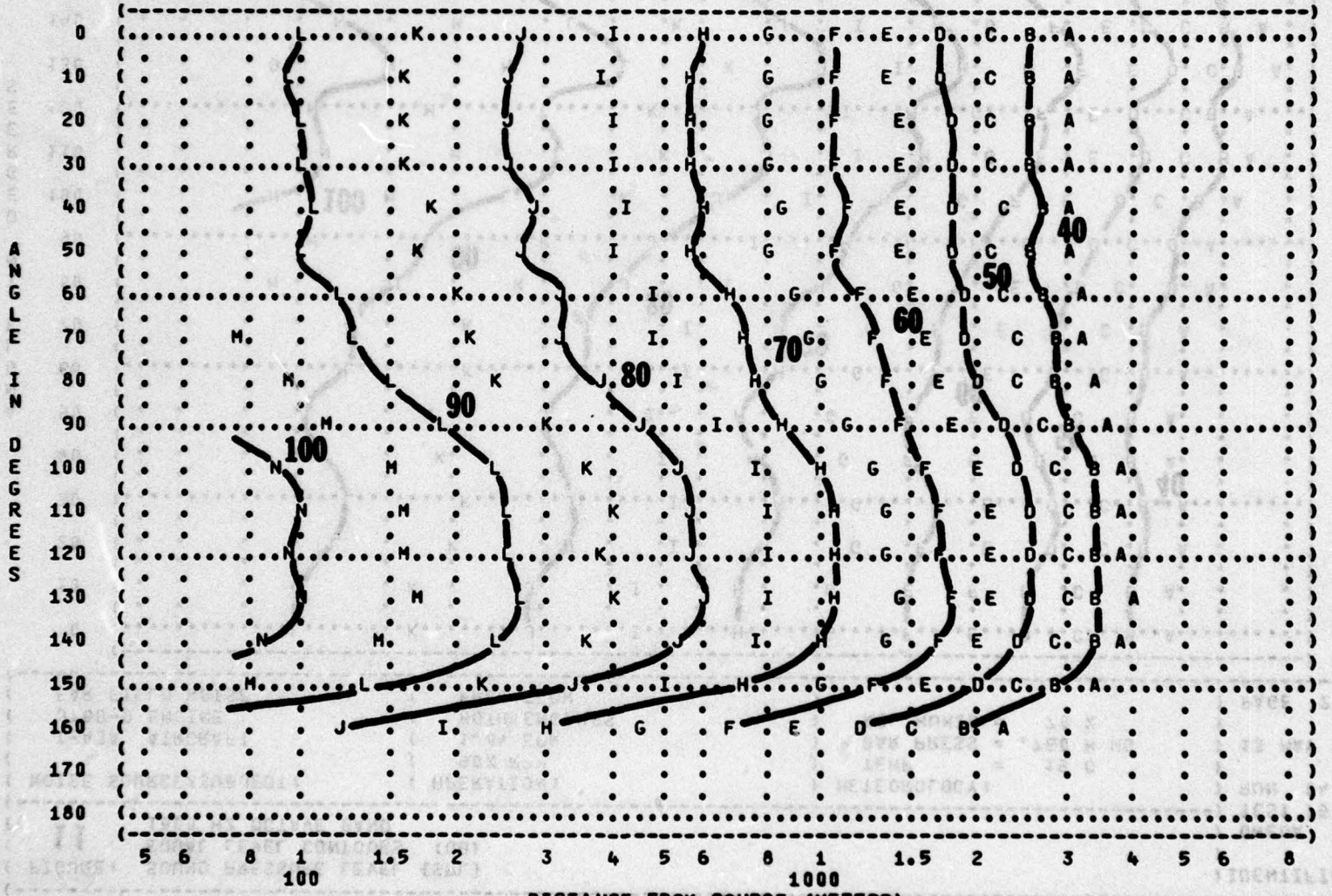
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
2000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 24

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100

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

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 25

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100

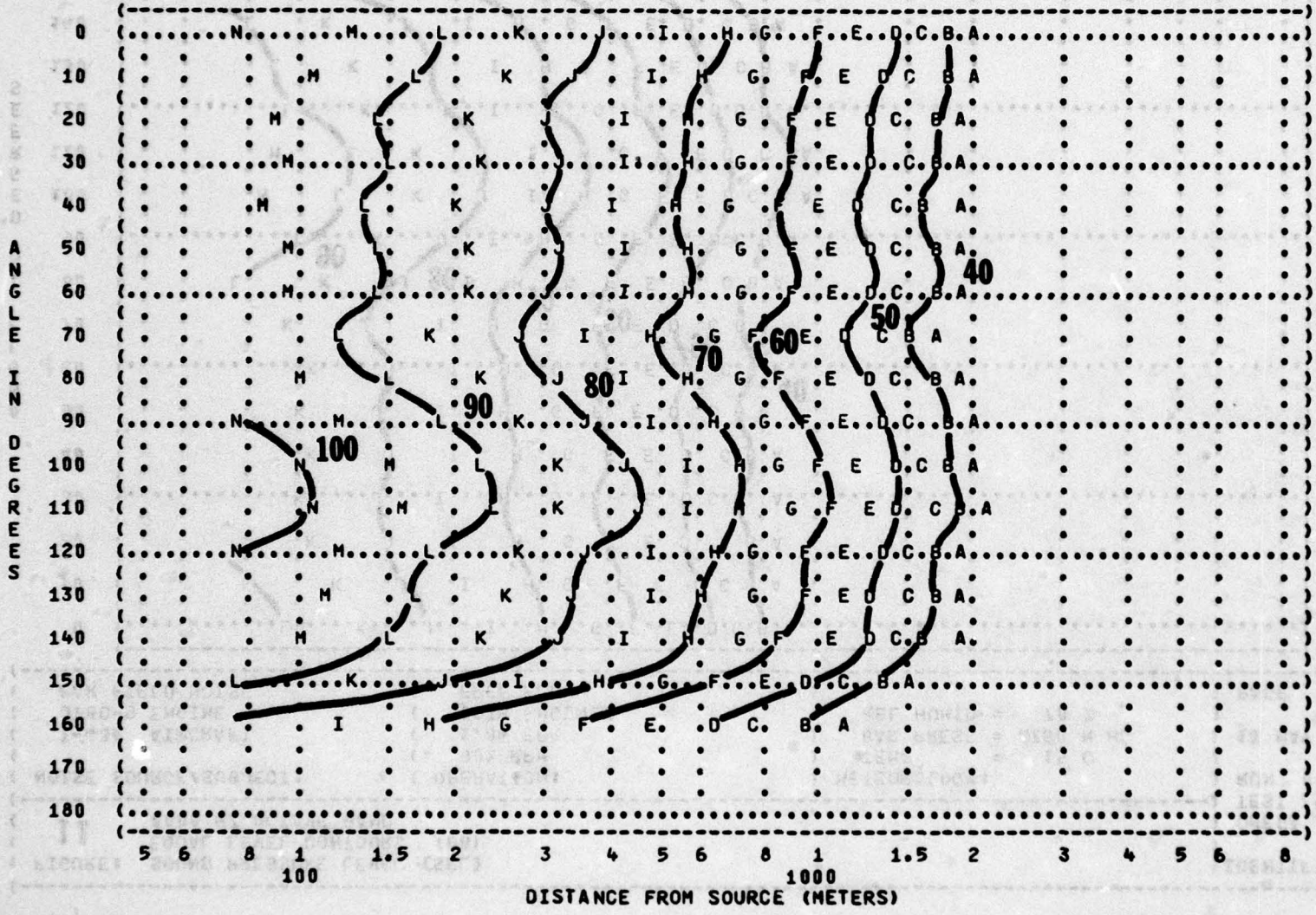


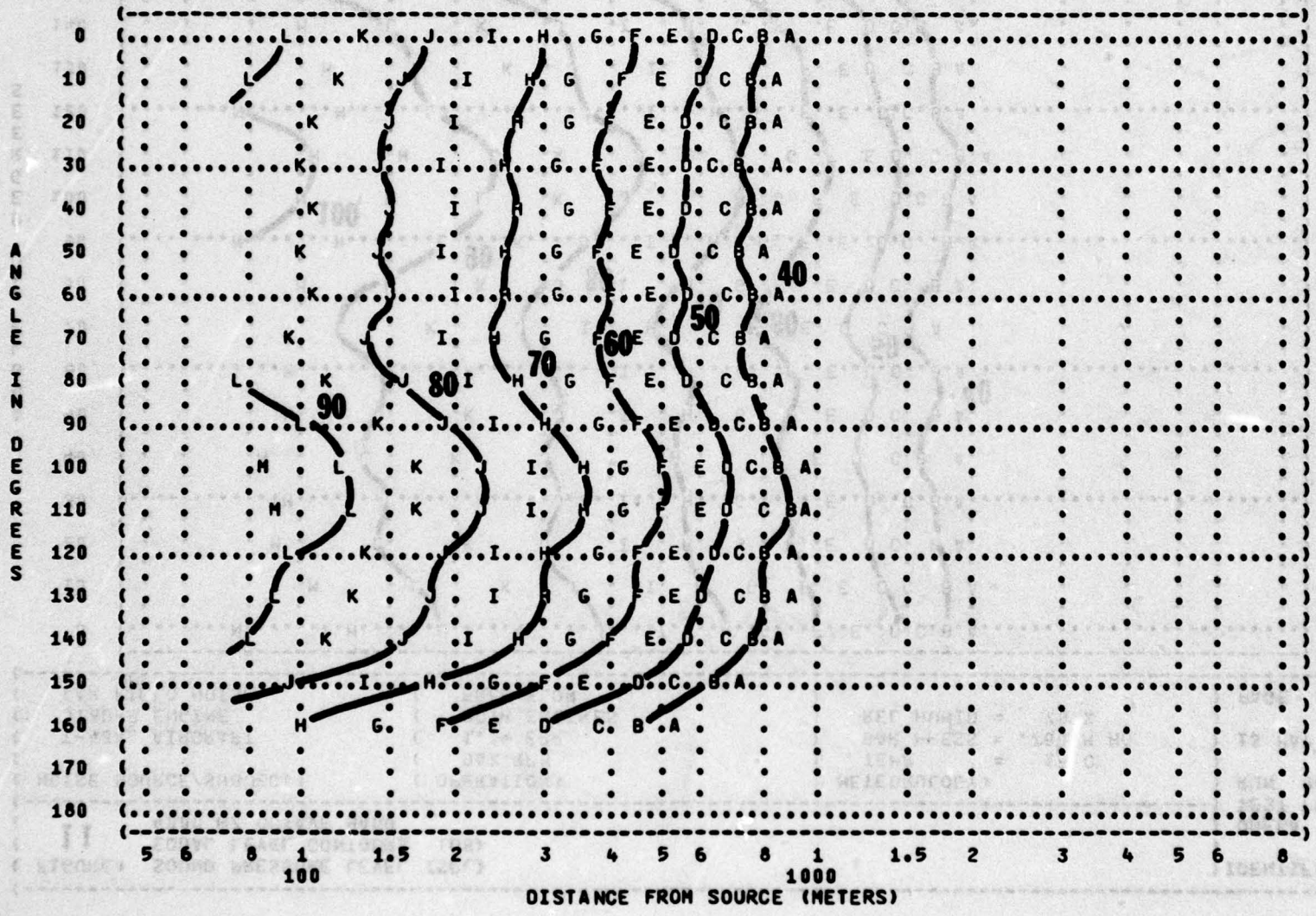
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
1.84 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 04
13 MAY 75
PAGE 26



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

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

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 18

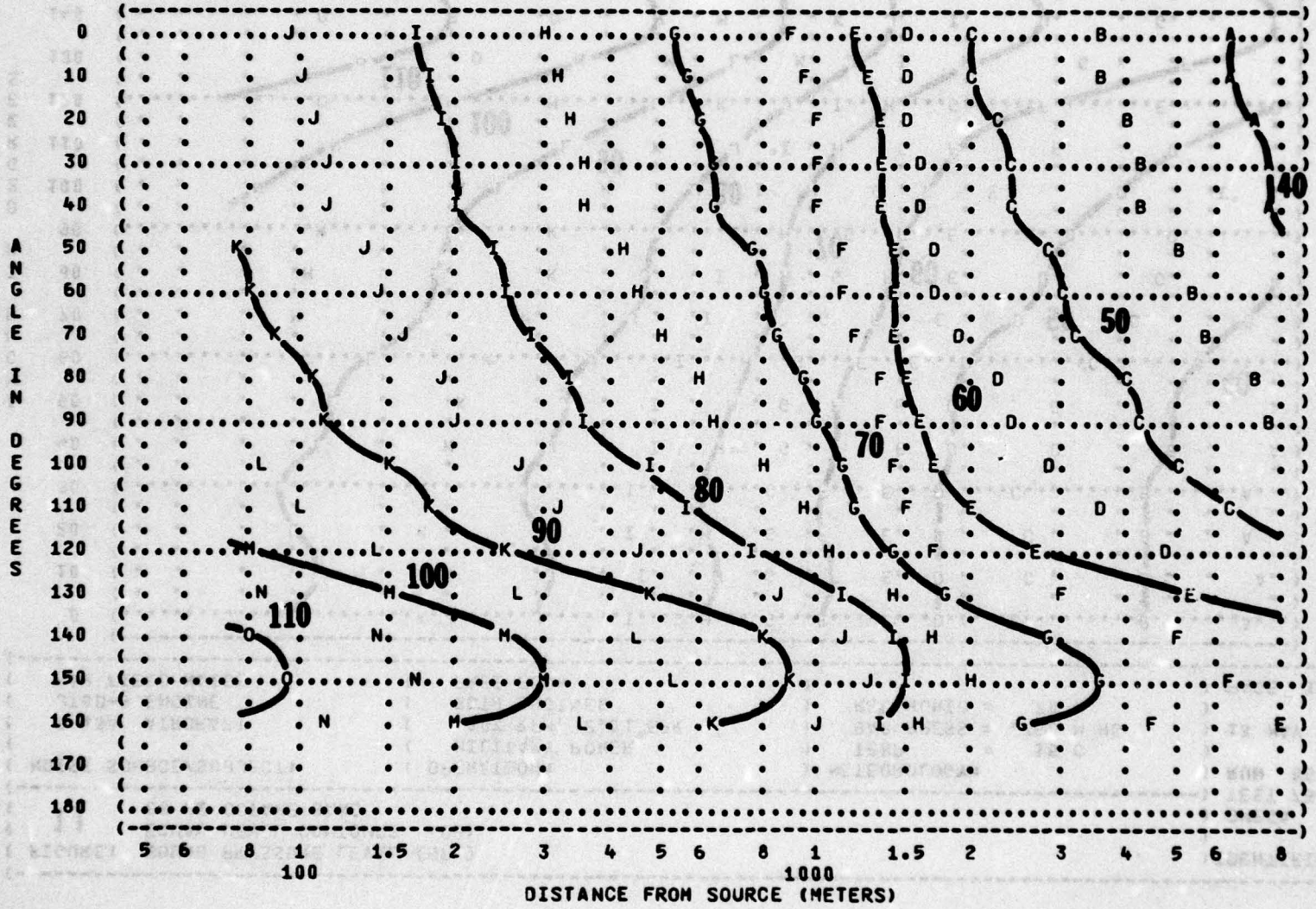


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

IDENTIFICATION: OMEGA 1.4 TEST 75-002-049 RUN 05 13 MAY 75 PAGE 19

NOISE SOURCE/SUBJECT: T-43A AIRCRAFT; JT8D-9 ENGINE; FAR FIELD NOISE

OPERATION: MILITARY POWER; 100% RPM, 2.01 EPR; BOTH ENGINES; FREE FLOW

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

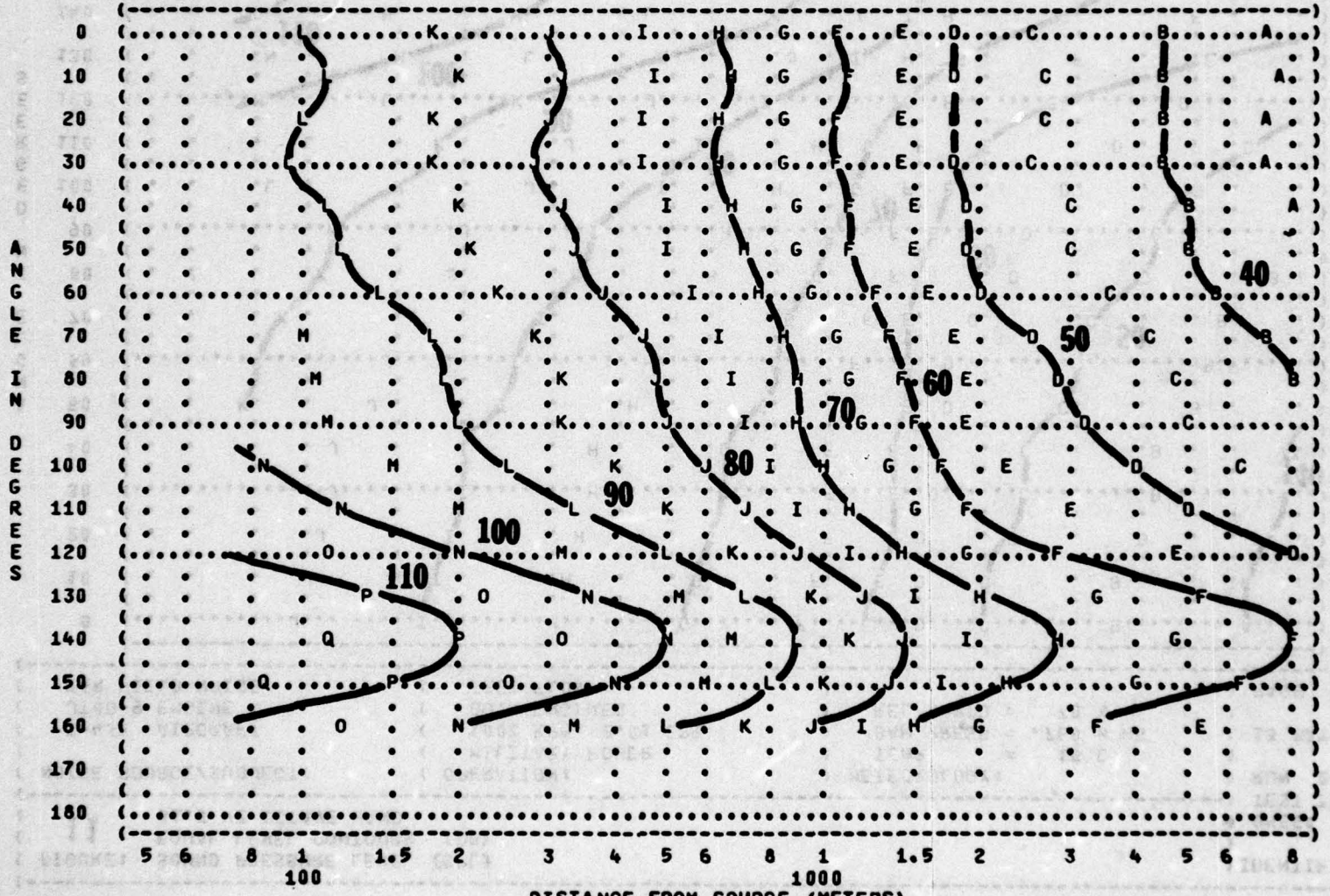


FIGURE: 11

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 20

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105
P	110
Q	115
R	120
S	125

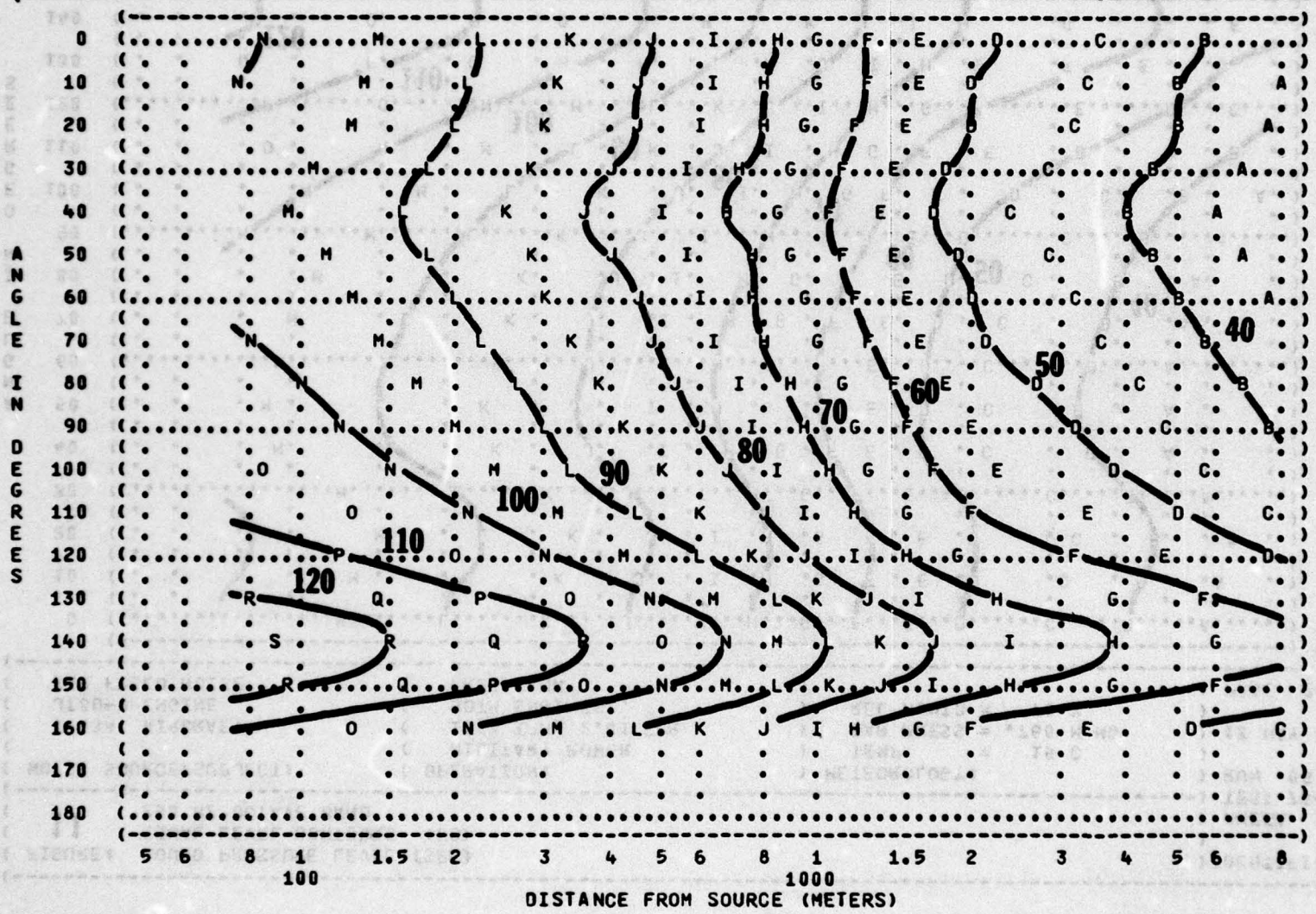


FIGURE: 11

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 21

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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

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

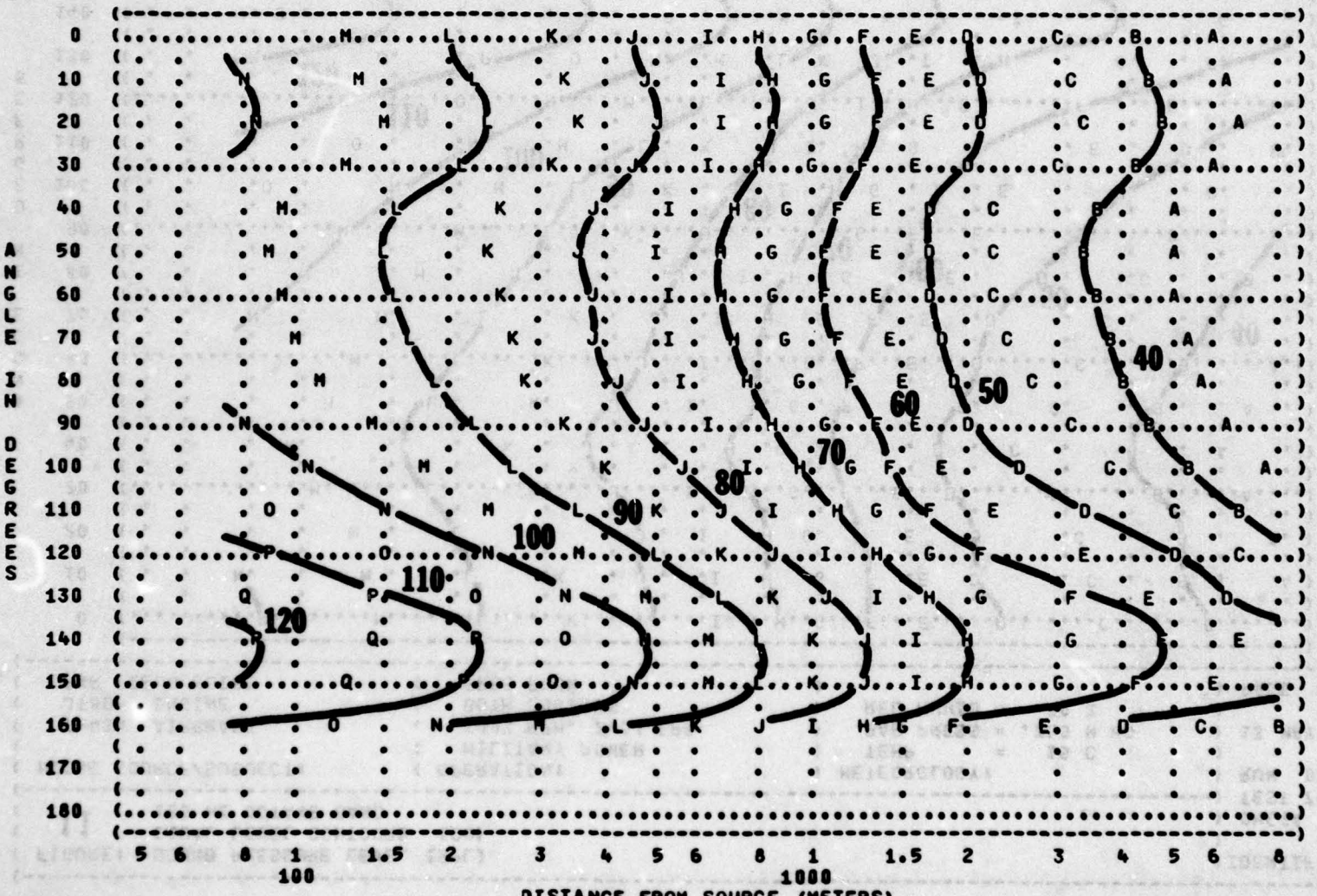


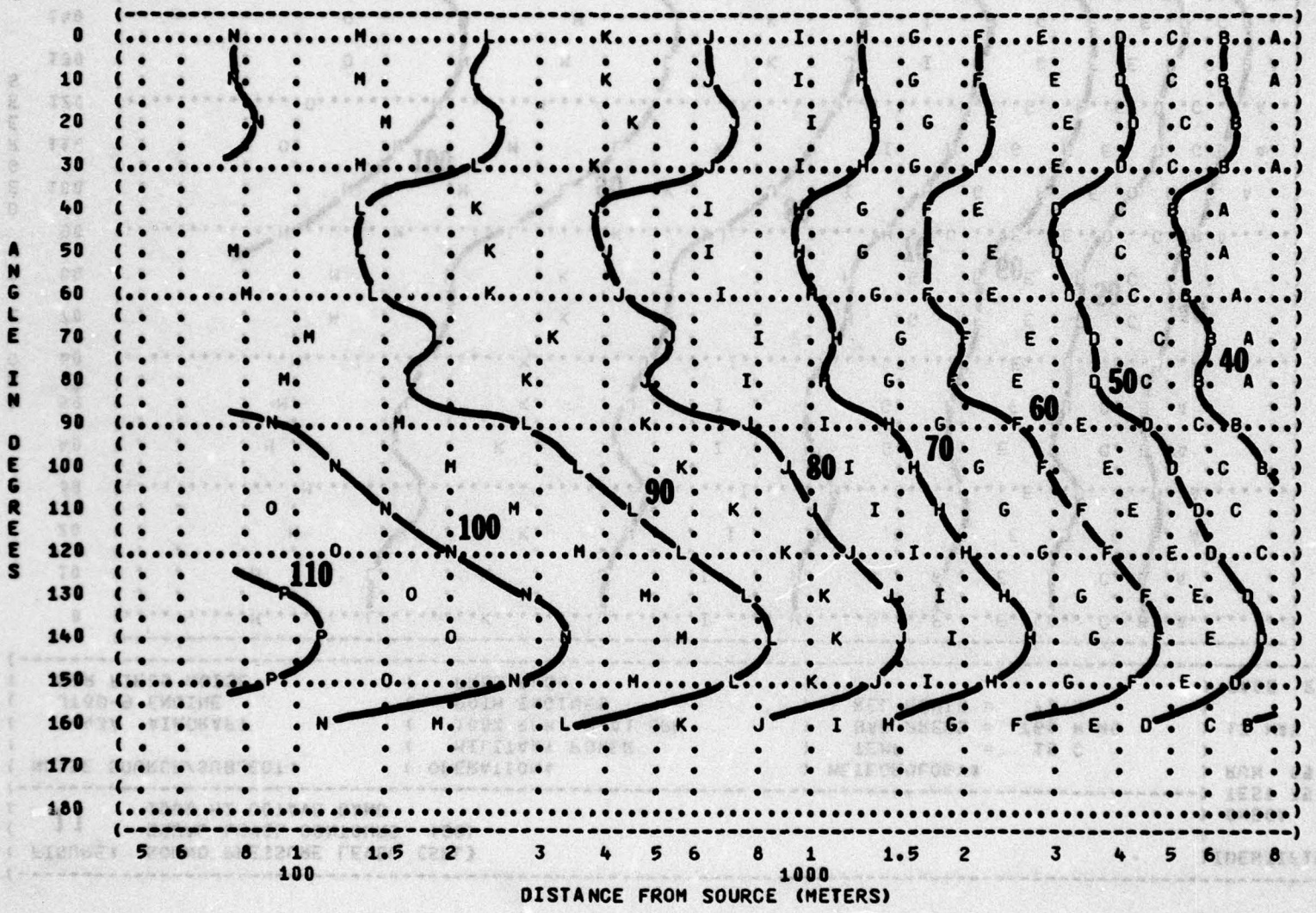
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 500 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 22

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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



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

FIGURE: 11

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

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 23

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

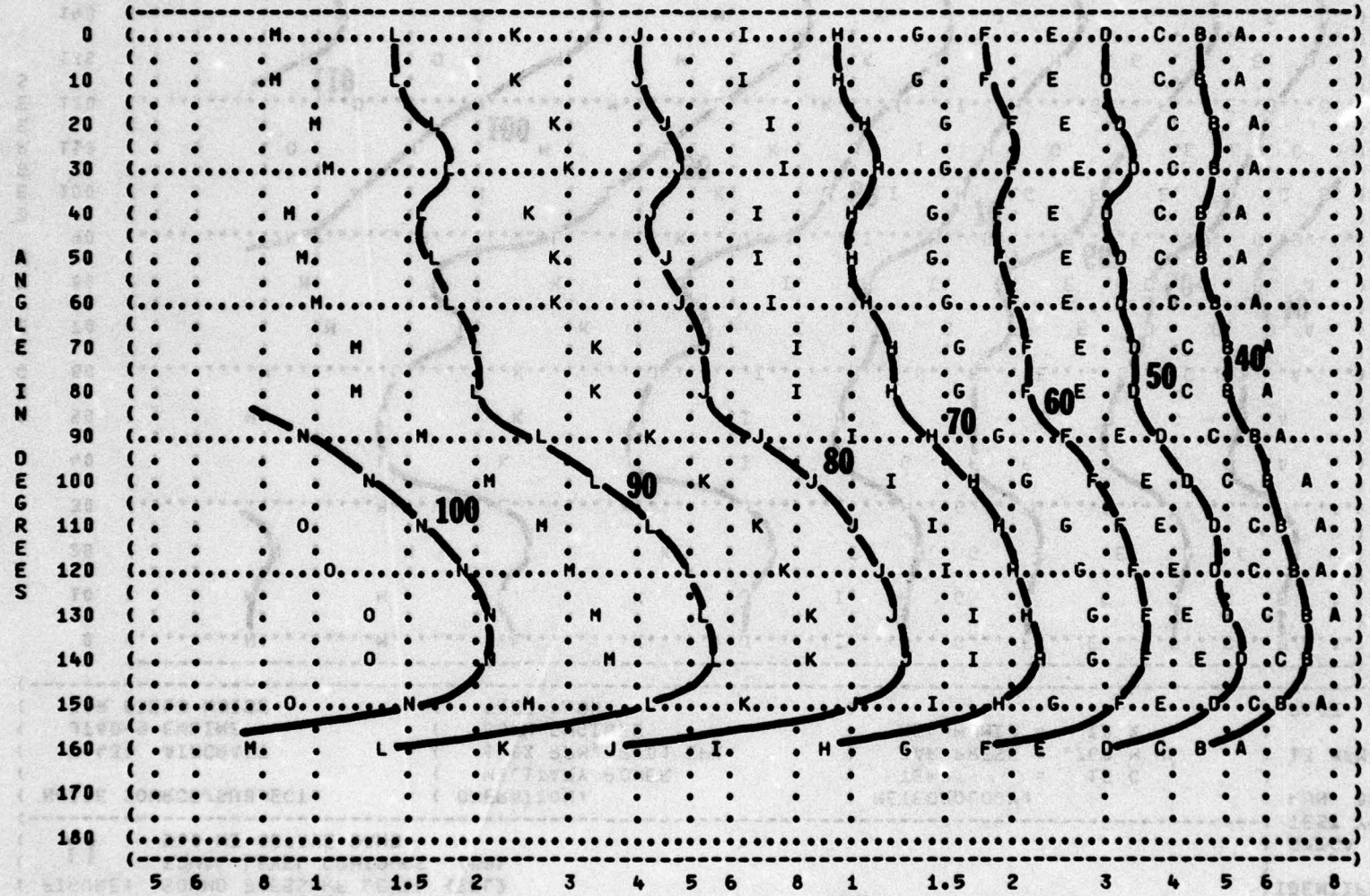


FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 24

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

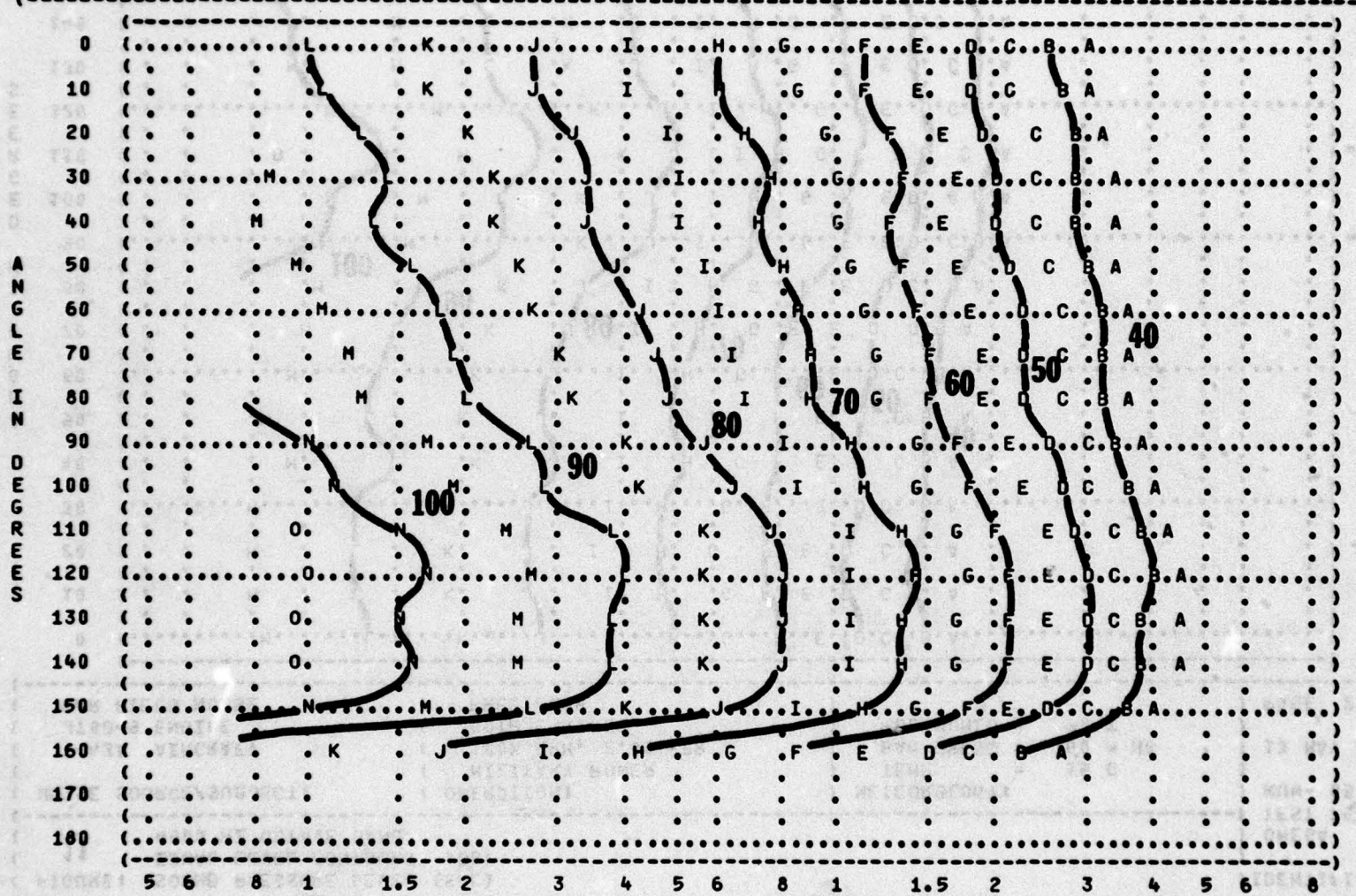


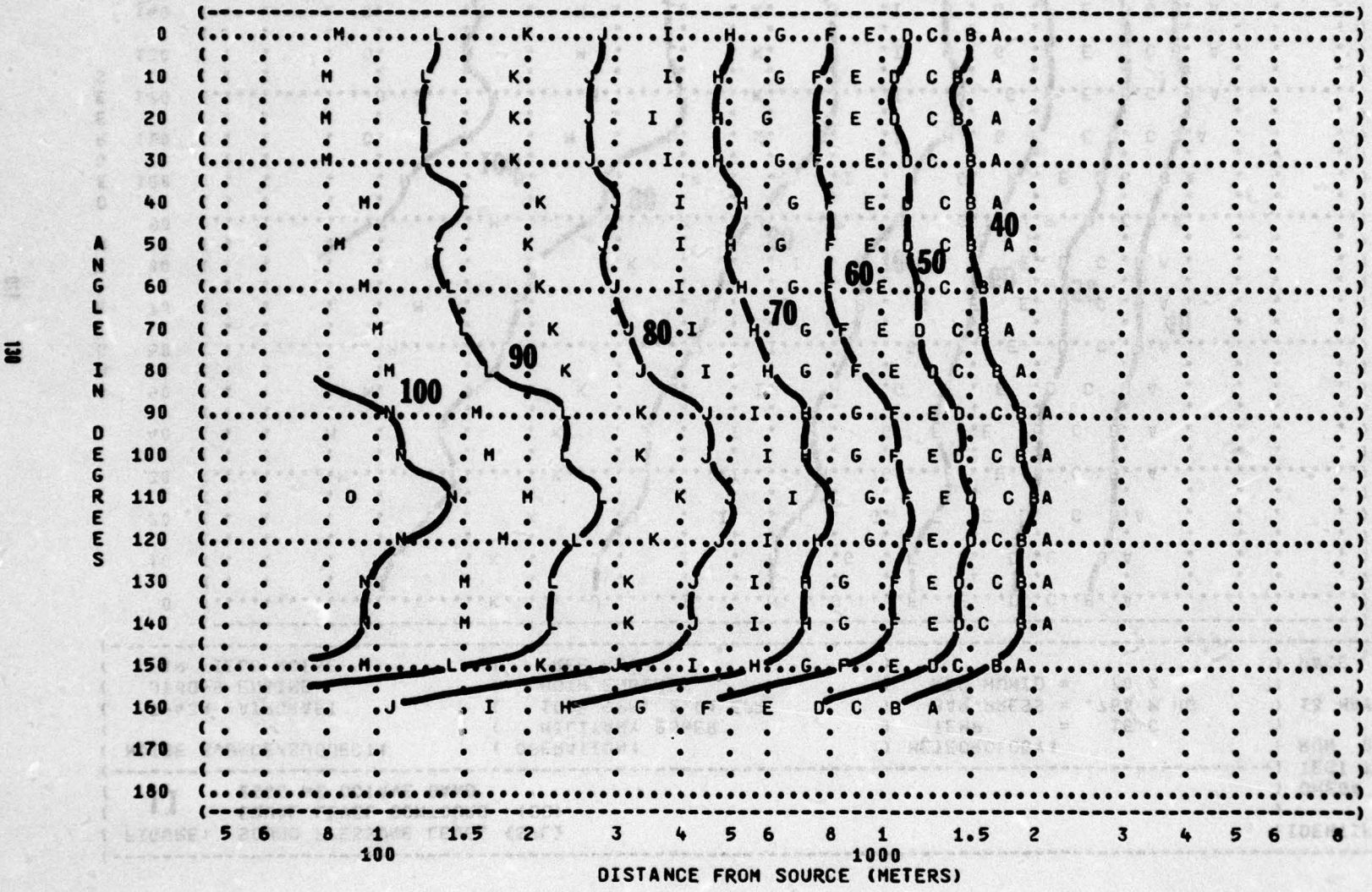
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 25



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

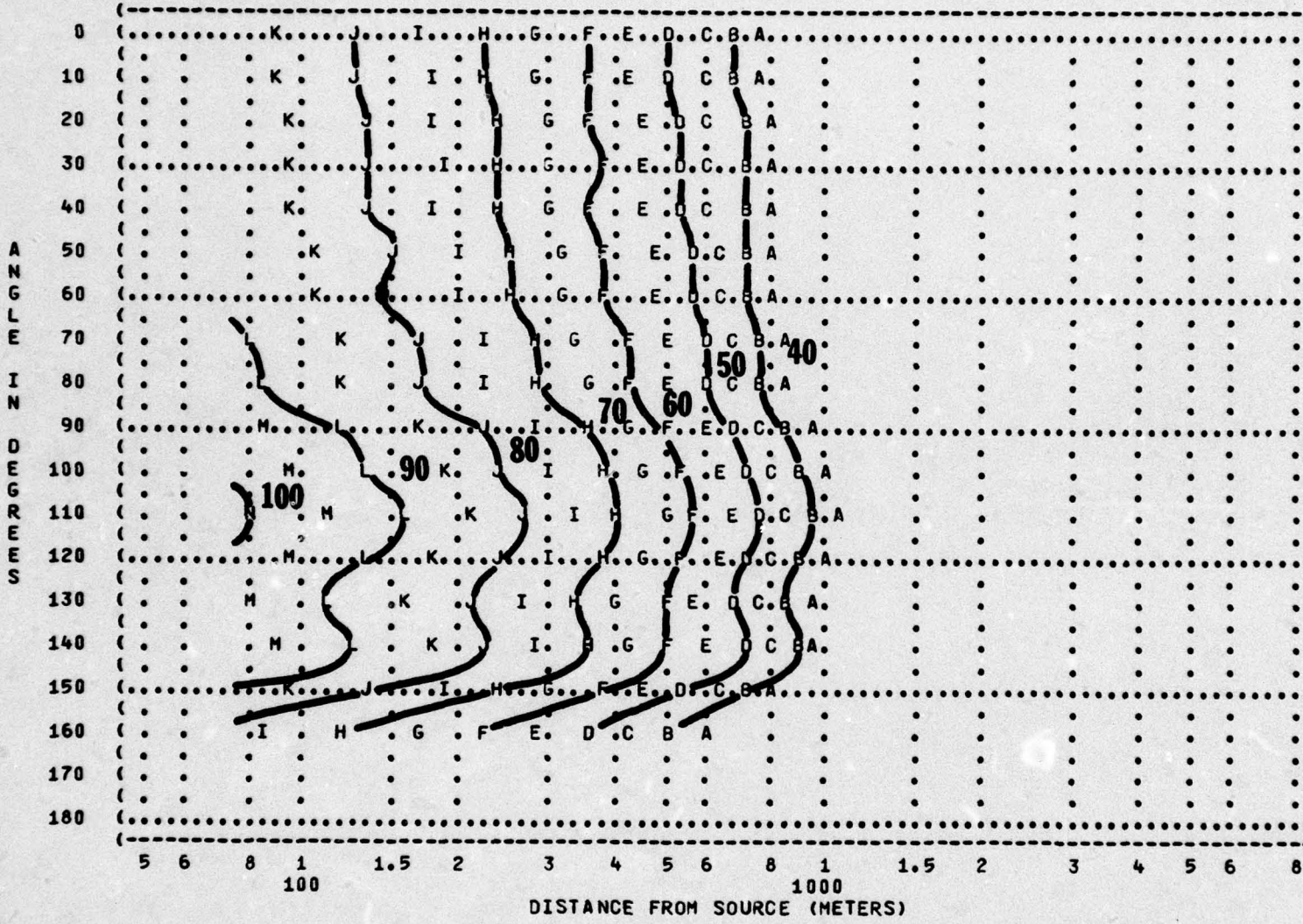
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
T-43A AIRCRAFT
JT8D-9 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
100% RPM, 2.01 EPR
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-049
RUN 05
13 MAY 75
PAGE 26



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100

*U.S.Government Printing Office: 1977 — 757-080/237