AD-A090 618 AIR FORCE AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATT--ETC F/G 1/3
USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK. VOLUME 130. A-7 AIRC--ETC(U)
JUL 80 R A LEE
UNCLASSIFIED AMRL-TR-75-50-VOL-130 NL

1 OF 2
AD A
090618

(12) LEVEL III

(14) AMRL-TR-75-50 - Volume-130

VOL-131- A079 869
130- A073793

AD A090618

(6)

USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK. Volume 130. A-7 Aircraft In The AF32A-19 And The AF32A-24 Noise Suppressors, Near and Far-Field Noise.

(9) Technical rept.,

(10) Robert A. Lee

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FOR THE COMMANDER

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Director
Biodynamics and Bioengineering Division
Aerospace Medical Research Laboratory

AIR FORCE/56780/1 September 1980 — 300

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE

READ INSTRUCTIONS BEFORE COMPLETING FORM

1. REPORT NUMBER
AMRL-TR-75-50, Volume 130

2. GOVT ACCESSION NO. AD-A090 618

3. RECIPIENT'S CATALOG NUMBER

4. TITLE (and Subtitle)
USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK: A-7 Aircraft In The AF32A-19 And The AF32A-24 Noise Suppressors, Near and Far-Field Noise

5. TYPE OF REPORT & PERIOD COVERED
Volume 130 of a Seri

6. PERFORMING ORG. REPORT NUMBER

7. AUTHOR(s)
Robert A. Lee

8. CONTRACT OR GRANT NUMBER(s)

9. PERFORMING ORGANIZATION NAME AND ADDRESS
Air Force Aerospace Medical Research Laboratory
Aerospace Medical Division, Air Force Systems Command, Wright-Patterson AFB, OH 45433

10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
62202F 7231-07-05
7231-08-07

11. CONTROLLING OFFICE NAME AND ADDRESS
Same as above

12. REPORT DATE
July 1980

13. NUMBER OF PAGES
160

14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)

15. SECURITY CLASS. (of this report)
Unclassified

15a. DECLASSIFICATION DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)
Approved for public release; distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)
Noise
Noise Environments
Bioenvironmental Noise
Aircraft
A-7 Aircraft
Aircraft Noise Suppressor
Suppressors

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)
The AF32A-19 noise suppressor is made by Koppers Environmental Elements Corporation. The AF32A-24 noise suppressor is made by F. C. DeYoung Company. Both suppressors provide acoustical suppression for the A-7 aircraft engine run and runup operations. This report provides measured and extrapolated data defining the bioacoustic environment produced by this aircraft operating in the suppressors for four engine power configurations. Near-field data

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

are reported for 4 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 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 723107, Technology to Define and Assess Environmental Quality of Noise From Air Force Operations.

The author gratefully acknowledges Mr. John Cole, and Mr. Robert Powell for their assistance in preparing this report, Mr. Keith Kettler for his assistance in acquiring the raw data, Mr. Henry Mohlman and Mr. Fred Lampley of the University of Dayton for assistance in the mechanics of data processing, and Mrs. Norma Peachey for assistance in typing this report.

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Table of Contents

	Page
INTRODUCTION	3
NEAR-FIELD NOISE	4
FAR-FIELD NOISE	6

List of Tables

NEAR-FIELD NOISE

1. Measurement Locations and Test Conditions for the AF32A-24 Suppressor 5
2. Measured Sound Pressure Level
   - 1/3 Octave Band 9-10
   - Octave Band 11-12
3. Measures of Human Noise Exposure 13-14

FAR-FIELD NOISE

4. Test Conditions for the AF32A-19 Suppressor 15
5. Test Conditions for the AF32A-24 Suppressor 16
6. Measured Sound Pressure Levels 17-24

List of Figures

NEAR-FIELD NOISE

1. Measurement Locations for the AF32A-24 Suppressor 5

FAR-FIELD NOISE

2. Measurement Locations for the AF32A-19 Suppressor 7
3. Measurement Locations for the AF32A-24 Suppressor 8
4. Normalized Far-Field Noise Levels 25-32
5. Overall Sound Pressure Levels — Contours 33-40
6. C-Weighted Sound Levels — Contours 41-48
7. A-Weighted Sound Levels — Contours 49-56
8. Perceived Noise Levels — Contours 57-64
9. Speech Interference Levels — Contours 65-72
10. Permissible Exposure Times — Contours 73-84
11. Octave Band Sound Pressure Levels — Contours 85-156

INTRODUCTION

The A-7 aircraft, powered by one Allison TF41 A 1 engine, is a single-seat tactical fighter of outstanding target kill capacity. The airfract is manufactured by Vought Systems Division of LTV Aerospace Corporation and code named the Corsair II. The AF32A-19 noise suppressor is manufactured by Koppers Environmental Elements Corporation. The AF32A 24 noise suppressor is made by the E.C. DeYoung Company. Both suppressors were designed to provide noise level reduction for all A-7 aircraft during ground runup operations.

This volume provides measured and extrapolated data defining bioacoustic environments produced by this aircraft during ground runup operations in the AF32A-19 and AF32A-24 noise suppressors. 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 A-7 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, the types of data presented, measurement procedures, instrumentation, data processing, definitions of quantities, symbols, equations, applications, limitations, etc. Volume 2 provides a method and data for adjusting the handbook's far-field noise data, which are for standard meteorological conditions (15°C temperature, 70% rel humidity, 0.760 meters Hg barometric pressure), to derive comparable data for other meteorological conditions. *Refer to Volumes 1 and 2* (references 1 and 2) such information because it is not repeated in other handbook volumes.

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

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

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 AF32A-24 noise suppressor system during ground runup operations of the A-7 aircraft. For these tests the aircraft was located in the AF32A-24 noise supporessor at McEntire ANG Base, South Carolina with no significant reflecting surfaces in the vicinity except the ground plane. Table 1 gives the surface meteorological conditions and the four engine power conditions. The ground-crew chief selected power conditions and near-field locations generally used during routine maintenance or engine runup for preflight checks.

At each near-field location a test engineer randomly moved a hand-held microphone in and around each location, probing all areas where a crew member's head would normally be located. He recorded all the noise samples on magnetic tape. During analysis of each sample, he determined the one-third octave band root-mean-square sound pressure using a 4-second integration time to derive a power-averaged level for each location. Figure 1 shows the four near-field locations where ground crew are usually located for maintenance and/or preflight checkout operations. Estimates of noise levels at other locations are difficult in the near-field 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 A-7 aircraft in the AF32A-24 suppressor at the four 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.

TABLE 1

MEASUREMENT LOCATIONS AND TEST CONDITIONS FOR NEAR-FIELD NOISE MEASUREMENTS

A-7 Aircraft in the AF32A-24 Noise Suppressor
Ground Runup, Test #77-833

Ground Crew Location

1	Control Cab
2	Trim Check Adjustment Position
3	Leak Check Position
4	Fire Marshal Position

Aircraft Engine Operation

A	Idle Power (54.4% RPM)
B	70%
C	85.6% RPM
D	Military Power (97.7% RPM)

Meteorology

Temperature	22.2 C
Bar Pressure	.757 M Hg
Rel Humidity	35 %
Wind — Speed	2 M SEC (4 KTS)
— Direction	130 Deg

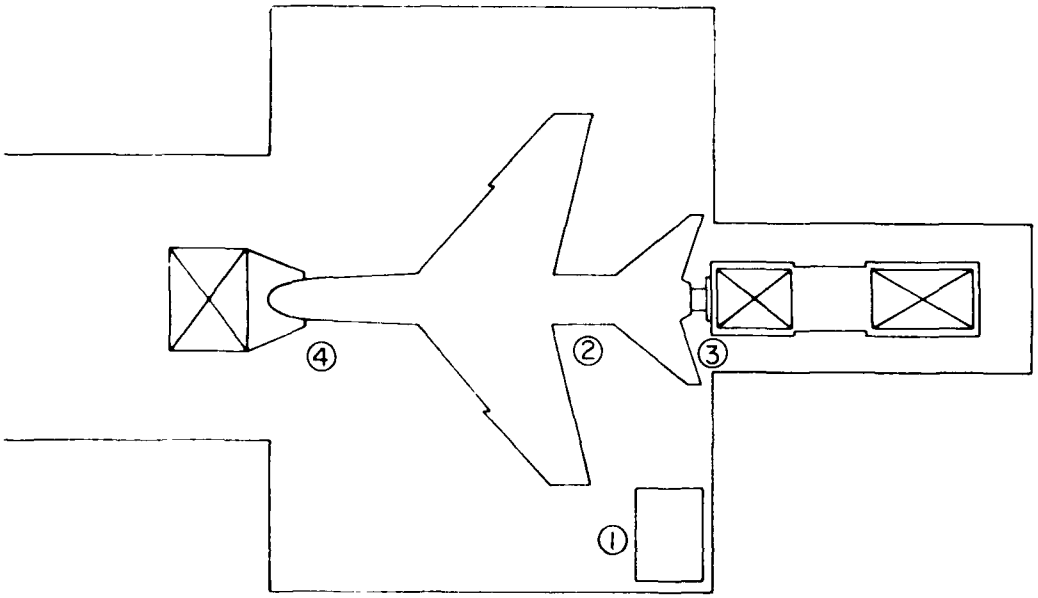


Figure 1. Near-Field Measurement Locations AF32A-24 Noise Suppressor

FAR-FIELD NOISE

MEASUREMENTS

AMRL acquired far-field data during a 1-2 hours test period for each suppressor, thus keeping su meteorological conditions for the duration of each test. Figure 2 shows the ground runup pad, gr cover, aircraft orientation and the 19 microphone measurement sites on a semicircle for the A-7 aircr in the AF32A-19 noise suppressor at Rickenbacker ANG, Ohio. Figure 3 shows this same information the A-7 aircraft in the AF32A-24 noise suppressor at McEntire ANG Base, South Carolina. The cen the 100 meter radius semicircle used in surveying both of these suppressors was on the ground direc below the center of the exhaust stack.

Tables 4 and 5 provide cockpit readouts of engine characteristics (% RPM, fuel flow, etc.) for each pow setting used in these far-field tests. Also listed in these tables are the surface meteorological conditi during data acquisition.

All microphone measurement sites are in the acoustic far-field of their source where the sound wavefr 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 fie location. The microphone was attached to a hand held pole, pointed at the source (0° angle of inciden and vertically scanned from 0.5 to 3 meters for a period of 5-10 seconds during data acquisition at microphone location. These samples were then time-integrated to derive a root-mean-square sou pressure level. Vertical scanning and time-integrating together reduce anomalies frequently presen data acquired by a fixed height microphone.

RESULTS

Table 6 lists the overall and 1/3 octave band SPL measured at the far-field locations un meteorological conditions at the time of the test. Data in all other figures and tables are based on th levels. These data were normalized to 100 meters ditance and standard meteorological conditions (temperature, 70% relative humidity, 0.760 meter Hg barometric pressure) and used to derive the gra data in Figure 4 which provides a compact summary of the far-field noise characteristics of the aircraft operating in the AF32A-19 and AF32A-24 noise suppressors in a standard format.

Estimates of the noise levels for intermediate power settings (e.g., 90% RPM) 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.

Data excessively influenced by spurious background electronic noise were eliminated from all figures and tables. No data were acquired at the 170° and 180° locations for the AF32A-24 suppressor due to interference of a wooded area. Values for these locations were extrapolated from the data at 150° and 160° at each power setting.

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

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.

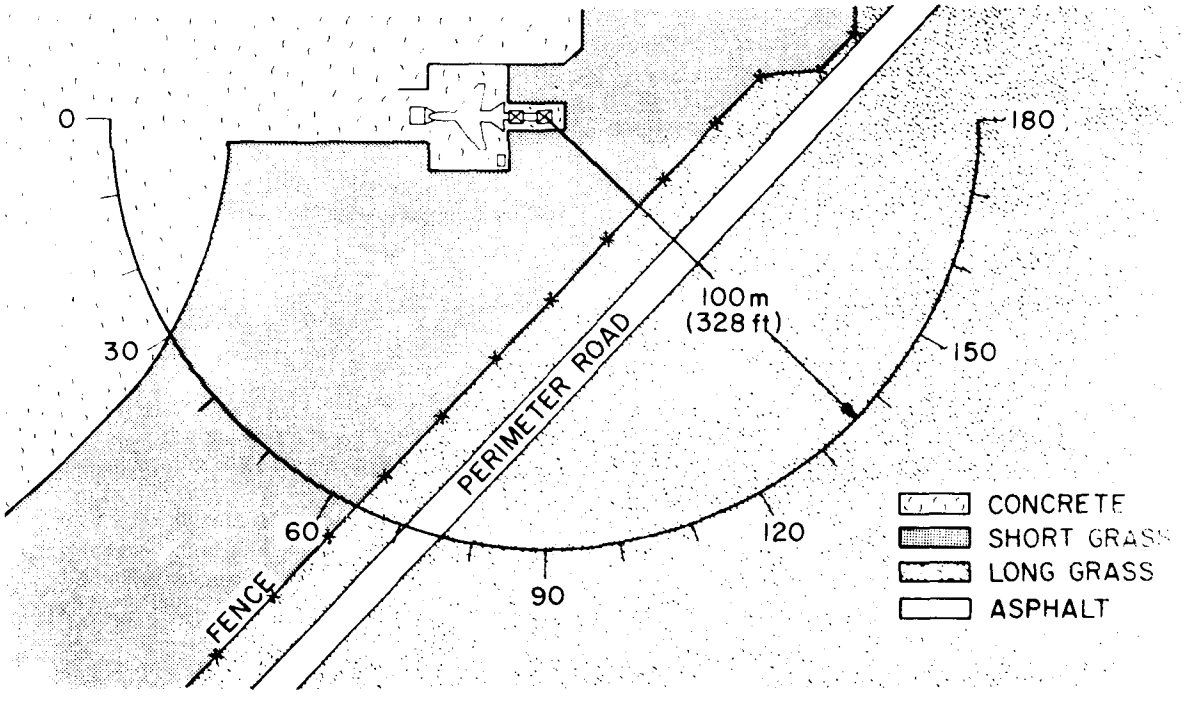


Figure 2. Far-Field Measurement Locations for the AF32A-19 Suppressor at Rickenbacker ANG, Ohio

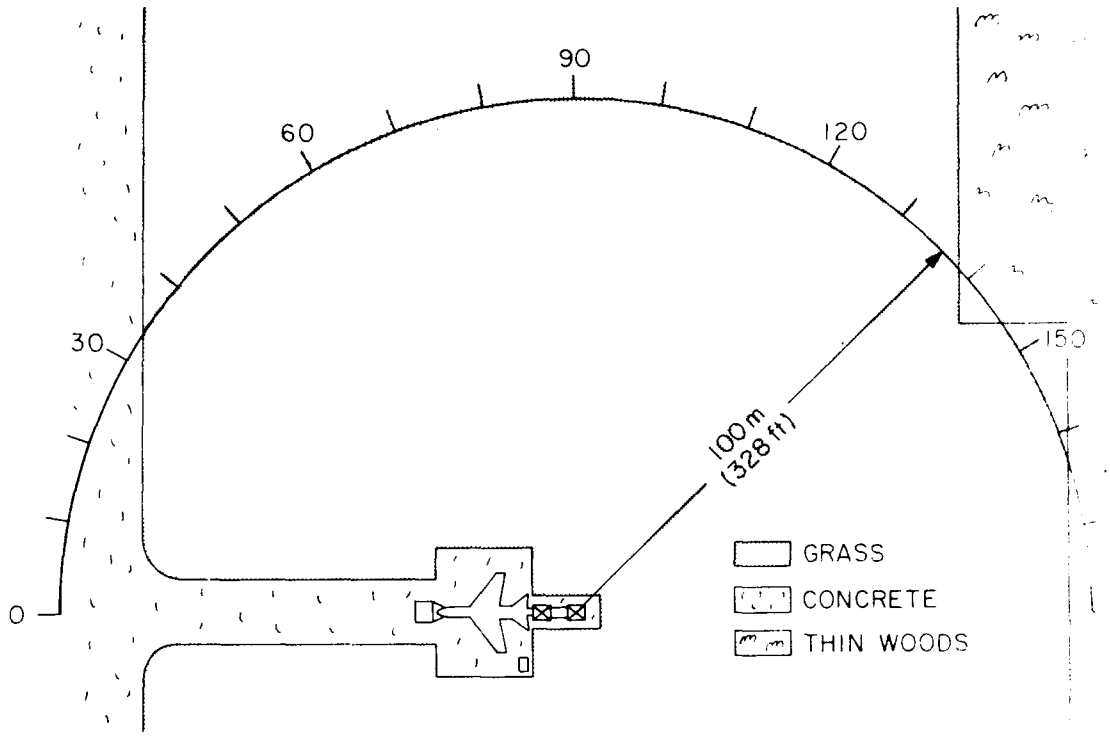


Figure 3. Far-Field Measurement Locations for the AF32A-24 Suppressor at McEntire ANG Base, South Carolina

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

IDENTIFICATION:
OMEGA 3.2
TEST 78-833-001
RUN 01

28 NOV 79

PAGE F1

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
GROUND CREW
NEAR-FIELD NOISE LEVELS

OPERATION:

FREQ (HZ)	LOCATION/CONDITION 1/A	2/A	3/A	4/A	1/B	2/B	3/B	4/B
25	85	85	87	84	91	88	90	87
31.5	83	85	84	84	86	88	90	85
40	85	90	91	87	88	92	92	88
50	86	89	89	91	87	94	96	93
63	82	87	86	86	88	94	94	97
80	84	93	95	84	87	91	93	87
100	81	81	84	76	93	92	94	83
125	90	87	92	76	81	84	88	81
160	73	82	83	79	78	84	88	84
200	76	86	87	79	78	86	89	82
250	71	85	83	80	77	85	86	84
315	73	81	81	77	76	83	83	84
400	77	86	83	81	79	84	85	85
500	93	104	91	88	84	88	89	85
630	80	90	88	86	89	103	95	86
800	81	93	93	85	85	93	94	89
1000	82	90	91	90	85	89	92	88
1250	94	96	101	107	86	94	94	90
1600	84	93	95	92	92	97	99	98
2000	83	94	93	91	94	97	100	101
2500	83	94	94	91	87	92	92	93
3150	80	89	88	88	90	95	94	98
4000	82	93	90	90	88	94	93	96
5000	81	89	90	91	85	89	91	95
6300	80	88	87	91	84	89	90	93
8000	79	87	87	91	84	88	89	91
10000	76	84	85	87	82	86	88	88
OVERALL	100	107	106	108	102	108	107	107

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

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

IDENTIFICATION:
OMEGA 3.2
TEST 78-833-001
RUN 02
28 NOV 79
PAGE F2

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
GROUND CREW
NEAR-FIELD NOISE LEVELS

OPERATION:

FREQ (HZ)	LOCATION/CONDITION 1/C	2/C	3/C	4/C	1/D	2/D	3/D	4/D
25	94	97	98	94	96	96	99	97
31.5	93	94	94	94	95	97	97	98
40	91	92	91	93	93	96	96	98
50	90	91	91	92	90	93	91	94
63	88	92	92	93	90	94	92	95
80	90	94	97	92	90	93	94	93
100	91	92	94	87	91	93	94	90
125	90	94	95	89	93	97	97	92
160	91	94	95	92	95	98	98	96
200	92	98	97	93	95	100	99	97
250	88	95	94	95	94	101	100	98
315	87	93	93	94	95	102	100	98
400	88	92	94	94	97	101	102	99
500	92	95	95	95	100	103	104	100
630	90	94	95	93	99	102	103	100
800	93	100	98	94	98	105	104	101
1000	91	96	98	93	100	106	105	101
1250	90	96	97	93	97	102	103	100
1600	92	98	100	94	98	103	104	101
2000	92	97	98	96	97	102	103	99
2500	105	112	107	102	97	102	104	100
3150	97	105	101	99	96	102	103	99
4000	94	99	100	98	101	107	108	101
5000	92	98	98	99	99	103	106	99
6300	92	96	97	98	96	101	106	97
8000	92	95	97	97	96	100	106	97
10000	92	94	96	94	95	100	104	96
OVERALL	108	114	112	110	111	116	117	113

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

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

IDENTIFICATION:
OMEGA 3.2
TEST 78-833-001
RUN 01

28 NOV 79

PAGE J1

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
GROUND CREW
NEAR-FIELD NOISE LEVELS

OPERATION:

FREQ (HZ)	LOCATION/CONDITION 1/A	2/A	3/A	4/A	1/B	2/B	3/B	4/B
31.5	89	92	93	90	93	94	96	92
63	89	95	96	93	92	98	99	99
125	91	89	93	82	93	93	96	87
250	79	89	89	83	82	89	91	88
500	93	104	93	90	91	103	97	90
1000	95	98	102	107	90	97	98	94
2000	88	98	99	96	97	101	103	103
4000	86	96	94	94	93	98	97	101
8000	83	91	91	95	88	93	94	96
OVERALL	100	107	106	108	102	108	107	107

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

IDENTIFICATION:
OMEGA 3.2
TEST 78-833-001
RUN 02
28 NOV 79
PAGE J2

NOISE SOURCE/SUBJECT: A-7 AIRCRAFT IN THE AF32A-24 SUPPRESSOR GROUND CREW NEAR-FIELD NOISE LEVELS

OPERATION:

FREQ (HZ)	LOCATION/CONDITION 1/C	2/C	3/C	4/C	1/D	2/D	3/D	4/D
31.5	98	99	100	98	100	101	102	102
63	94	97	99	97	95	98	97	99
125	95	98	100	94	98	101	102	98
250	94	100	99	99	99	106	104	102
500	95	98	100	99	103	107	108	104
1000	96	102	103	98	103	109	109	105
2000	105	112	108	103	102	107	109	105
4000	100	106	105	103	104	109	111	105
8000	97	100	101	101	101	105	110	102
OVERALL	108	114	112	110	111	116	117	113

TABLE: MEASURES OF HUMAN NOISE EXPOSURE

3

IDENTIFICATION:
OMEGA 3.2
TEST 78-833-001
RUN 01
28 NOV 79
PAGE H1

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
GROUND CREW
NEAR-FIELD NOISE LEVELS

OPERATION:

	LOCATION/CONDITION							
	1/A	2/A	3/A	4/A	1/B	2/B	3/B	4/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	99	107	105	108	101	107	107	107
OASLA	98	105	105	109	100	106	106	107
T	42	13	13	6	30	11	11	9
MINIMUM QPL EAR MUFFS								
OASLA*	74	82	79	80	76	81	81	80
T	960	679	960	960	960	807	807	960
AMERICAN OPTICAL 1700 EAR MUFFS								
OASLA*	69	77	74	74	71	76	76	75
T	960	960	960	960	960	960	960	960
V-51R EAR PLUGS								
OASLA*	72	81	78	82	72	80	78	77
T	960	807	960	679	960	960	960	960
AMERICAN OPTICAL 1700 EAR MUFFS PLUS V-51R EAR PLUGS								
OASLA*	59	65	66	70	58	66	65	63
T	960	960	960	960	960	960	960	960
H-133 GROUND COMMUNICATION UNIT								
OASLA*	70	76	78	81	73	78	79	80
T	960	960	960	807	960	960	960	960
COMMUNICATION								
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)								
PSIL	92	100	98	98	92	100	99	96
ANNOYANCE								
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)								
TONE CORRECTION (C IN DB)								
PNLT	114	122	120	124	115	123	121	123
C	5	5	3	5	2	4	1	2

* BASED ON CALCULATED SPL SPECTRUM UNDER PROTECTIVE DEVICE.

TABLE: MEASURES OF HUMAN NOISE EXPOSURE

3

IDENTIFICATION:
OMEGA 3.2
TEST 78-833-001
RUN 02
28 NOV 79
PAGE H2

NOISE SOURCE/SUBJECT: A-7 AIRCRAFT IN THE AF32A-24 SUPPRESSOR GROUND CREW NEAR-FIELD NOISE LEVELS

OPERATION:

	LOCATION/CONDITION							
	1/C	2/C	3/C	4/C	1/D	2/D	3/D	4/D
HAZARD/PROTECTION								
C-WEIGHTED OVERALL SOUND LEVEL (OASLC IN DBC) AT EAR								
A-WEIGHTED OVERALL SOUND LEVEL (OASLA IN DBA) AT EAR								
MAXIMUM PERMISSIBLE TIME (T IN MINUTES) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)								
NO PROTECTION								
OASLC	108	114	112	109	110	115	116	112
OASLA	108	115	112	109	110	115	116	111
T	8	2.2	3.8	6	5	2.2	P	4.5
MINIMUM QPL EAR MUFFS								
OASLA*	81	87	86	83	85	90	91	86
T	807	285	339	571	404	170	143	339
AMERICAN OPTICAL 1700 EAR MUFFS								
OASLA*	76	81	80	78	79	84	85	81
T	960	807	960	960	960	480	404	807
V-51R EAR PLUGS								
OASLA*	78	84	83	80	83	88	89	85
T	960	480	571	960	571	240	202	404
AMERICAN OPTICAL 1700 EAR MUFFS PLUS V-51R EAR PLUGS								
OASLA*	65	71	70	67	69	74	76	71
T	960	960	960	960	960	960	960	960
H-133 GROUND COMMUNICATION UNIT								
OASLA*	82	89	86	82	81	87	88	84
T	679	202	339	679	807	285	240	480
COMMUNICATION								
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)								
PSIL	99	104	103	100	103	108	108	105
ANNOYANCE								
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)								
TONE CORRECTION (C IN DB)								
PNLT	126	133	129	125	125	131	131	125
C	3	4	2	2	1	2	0	0

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

TABLE 4

TEST CONDITIONS FOR FAR-FIELD NOISE MEASUREMENTS

A-7 Aircraft in the AF32A-19 Noise Suppressor
Rickenbacker ANG Base, Ohio

Aircraft Engine Operation

Idle Power	Single Engine 55 % RPM
70% RPM Runup	Single Engine 70 % RPM
85% RPM Runup	Single Engine 85 % RPM
Military Power	Single Engine 96 % RPM

Meteorology

Temperature	28.9 C
Bar Pressure	.766 M Hg
Rel Humidity	28 %
Wind — Speed	Calm
— Direction	Calm

TABLE 5

TEST CONDITIONS FOR FAR-FIELD NOISE MEASUREMENTS

A-7 Aircraft in the AF32A-24 Noise Suppressor
McEntire ANG Base, South Carolina

Aircraft Engine Operation

Idle Power	Single Engine 54.5 % RPM 438 C, Exhaust Gas Temperature 1000 LBS/HR Fuel Flow
70% RPM Runup	Single Engine 70.0 % RPM 416 C, EGT 1000 LBS/HR, FF
85% RPM Runup	Single Engine 85.6% RPM 400 C, EGT 3700 LBS/HR, FF
Military Power	Single Engine 97.7 % RPM 572 C, EGT 9000 LBS/HR, FF

Meteorology

Temperature	22.2 C
Bar Pressure	757 M Hg
Rel Humidity	35 %
Wind — Speed	2 M/SEC (4 KTS)
— Direction	130 Deg

TABLE 6 MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 100 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 01
20 NOV 79
PAGE 2

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
IDLE PWR, 55% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

METEOROLOGY:
TEMP = 29 C
BAR PRESS = .766 M HG
REL HUMID = 28 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	65	67	64	67	65	67	66	65	64	63	61<	63	64	65	63	65	66	66	66
31.5	71	77	69	69	72	73	71	70	67	68	67	67	67	68	68	67	66	65	68
40	79	79	78	78	79	81	79	81	77	75	73	74	75	71	71	70	70	70	71
50	80	78	75	78	85	81	81	81	81	81	81	81	77	74	74	74	74	74	78
63	77	76	76	79	76	76	78	76	76	77	79	81	80	78	73	71	69	69	73
80	70	71	72	72	72	73	73	73	72	68<	69<	71	74	73	70	66<	63<	62<	64<
100	64<	63<	65<	66<	67<	66<	63<	64<	68<	68<	63<	62<	64<	66<					
125	66<	62<	67<	66<	66<	64<	64<	65<	66<	66<	63<	60<	62<	61<	58<	58<	58<	57<	
160	60<	60<	66<		60<			61<	60<	60<									
200	62<	62<	62<					57<	58<							58<			
250	62<	62<	63<																
315	60<	60<	58<						55<										
400	60<	62	56<	56<					55<										
500	62	62	60	61	52<	54<	51<	57<	56<	54<	49<	50<	51<	49<	49<	49<	49<	49<	
630	58	60	58	57	52<	54<	54<	53<	58	53<	53<	52<	52<	49<	49<	47<	46<	48<	
800	59	61	58	60	55	57	58	56	58	54	55	55	55	52<	52<	51<	49<	52<	46<
1000	56	59	58	60	57	59	58	58	58	55	56	56	56	54	54	52	50<	51<	46<
1250	59	64	63	66	60	65	64	64	66	61	69	63	68	65	65	64	62	65	52
1600	52	57	58	60	59	63	60	61	60	57	60	60	61	61	60	57	54	56	49
2000	52	59	59	59	59	61	60	60	62	58	60	63	57	63	59	57	54	56	49
2500	50	59	60	61	60	61	58	59	60	56	56	57	55	56	57	55	53	55	48
3150	46	58	56	59	57	58	55	56	55	52	52	51	50	50	51	50	48	51	44
4000	45	55	56	57	57	58	55	56	55	50	49	48	48	48	49	48	47	51	43
5000	43	54	54	55	54	54	52	53	53	47	45	44	44	44	46	45	44	47	39
6300	37	47	48	50	49	50	47	49	48	42	41	40	38	39	41	42	42	42	35
8000	34	43	45	46	46	45	44	45	44	38	36	36	34	34	36	36	36	37	31<
10000	29<	38	39	40	41	39	38	38	37	31<	29<	29<	28<	26<	30<	32<	33<	31<	26<
OVERALL	84	84	82	84	87	85	85	85	84	84	84	84	83	81	79	78	77	78	80

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE 6: MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 100 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 01
20 NOV 79
PAGE 2

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

METEOROLOGY:
TEMP = 22 C
BAR PRESS = .757 M HG
REL HUMID = 35 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	70	70	71	73	72	74	73	76	75	74	71	67	66	64<	64<	66	65<	65<	65<
31.5	69	68	67	71	70	72	72	74	71	71	68	65	65	66	67	69	69	69	69
40	67	68	67	68	68	69	68	68	63<	64	64	63<	65	65	65	64	65	65	65
50	71	71	70	65	65	66	68	63<	63<	61<	60<	60<	64	62<	61<	59<	62<	62<	62<
63	68	66<	66<	64<	62<	62<	59<	59<	57<		59<	61<	61<	58<		59<	60<	60<	60<
80	70	69	70	71	67<	65<	59<			63<	58<								
100	57<	58<	61	60	58<	56<	58<	56<	54<	55<	54<	53<	52<	54<	53<	51<	51<	51<	51<
125	58<	59	61	58<	62	58<	60	62	60	62	60	55<	56<	59	56<	56<	57<	57<	57<
160	54<	54<	55<	54<	55<	52<	53<	52<	49<	53<	52<	49<		46<	47<		50<	50<	50<
200	55	54	55	51<	53<	53<	52<	52<	51<	50<	48<	50<	47<	46<	48<	46<	49<	49<	49<
250	54	52<	52<	51<	50<	49<	51<	49<	47<	50<	50<	46<	45<	46<	45<	47<	46<	46<	46<
315	52<	50<	50<	45<	44<	45<	44<	46<	44<	48<	50<	43<				42<	44<	44<	44<
400	51<	47<	50<	43<	46<	46<	44<	47<	44<	48<	50<	43<	43<	42<	42<	43<	45<	45<	45<
500	54<	53<	55	46<	49<	46<	48<	51<	46<	56	56	49<	46<	47<	46<	47<	51<	51<	51<
630	49<	47<	48<					45<		49<	52<	47<					46<	46<	46<
800	51<	47<	47<					48<	45<	52<	54<	49<					45<	45<	45<
1000	50<	47<	46<		45<		46<	45<	46<	52<	55<	49<		45<	46<	47<	46<	46<	46<
1250	64	57	57	50<	53<	50<	54	53<	55	64	61	53<	53<	50<	53<	53<	61	61	61
1600	51	48<	47<	44<	49	47<	53	47<	49	52	56	48<	43<	44<	45<	43<	46<	46<	46<
2000	49	45<	45<	42<	46	45<	47	45<	45<	50	50	45<	42<	42<	42<	41<	44<	44<	44<
2500	47	43<	45	40<	43<	44<	44<	44<	43<	50	49	44<	40<	41<	43<	40<	44<	44<	44<
3150	44<	40<	41<	36<	39<	39<	40<	41<	39<	47	43<	39<	35<	35<	38<	36<	40<	40<	40<
4000	45<	39<	40<			39<	38<	40<	39<	46<	44<						41<	41<	41<
5000	40<	36<	37<						37<	45<	44<	37<			37<	36<	41<	41<	41<
6300	38<									42<	42<						38<	38<	38<
8000																			
10000																			
OVERALL	77	77	77	77	76	77	77	79	77	77	75	71	71	71	71	72	73	73	73

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE 6: MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 100 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 2

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

METEOROLOGY:
TEMP = 29 C
BAR PRESS = .766 M HG
REL HUMID = 28 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	69	67	68	69	66	68	66	67	66	64	67	69	69	69	69	69	68	71	71
31.5	73	73	71	73	73	73	70	69	68	70	70	70	70	71	71	70	70	69	70
40	83	83	81	84	85	83	78	78	75	77	79	80	79	78	78	77	77	77	80
50	78	82	85	86	83	80	82	81	80	78	78	75	80	80	81	80	79	80	81
63	85	87	89	88	85	87	89	88	89	90	91	90	83	81	84	81	77	79	81
80	85	84	86	87	86	86	83	84	83	83	85	87	86	83	81	77	73	73	78
100	78	76	76	78	77	79	76	77	78	76	75	76	79	76	72	71<	70<	71<	74
125	76	73	76	72	72	75	74	72	72	69	71	69	70	67<	69	69	67<	67<	63<
160	73	73	78	71	71	68<	70<	73	71	71	70<	63<	65<	65<	60<	62<	64<	66<	
200	68	70	72	64<	61<	62<	64<	65<	62<	61<	59<							61<	
250	67<	67<	68<	60<														61<	
315	67	67	65	59<	58<	55<	55<	56<	55<	54<								57<	
400	67	68	63	61<	58<	54<	53<	53<		52<									
500	64	66	64	64	59<	56<	55<	56<	53<	54<	53<	52<	53<	54<	51<			51<	49<
630	67	68	65	65	61	61	60	62	58	60	60	59	61	60	57	55<	54<	56<	53<
800	69	68	66	68	63	64	63	61	60	61	61	61	62	63	60	58	55	59	56
1000	68	67	65	68	66	66	64	63	61	63	62	62	64	65	62	59	56	58	56
1250	63	64	64	68	66	66	64	65	64	62	63	62	64	65	64	61	57	59	54
1600	60	62	65	67	68	70	66	69	67	65	68	64	65	66	67	63	58	61	56
2000	61	63	66	66	67	68	65	66	64	65	64	63	63	68	65	62	59	61	58
2500	54	62	63	65	66	67	62	63	61	60	59	58	58	60	59	57	54	56	51
3150	53	59	63	65	64	64	62	63	62	61	58	57	58	59	57	57	56	57	51
4000	51	59	61	64	62	62	59	60	58	56	55	54	54	56	54	54	53	55	49
5000	48	57	59	61	59	58	55	57	54	51	50	49	50	51	49	49	48	51	45
6300	43	52	56	56	54	54	52	53	49	47	46	45	45	46	44	44	43	46	40
8000	37	46	50	51	48	47	45	47	42	41	39	38	39	39	38	37	36	39	32<
10000	34<	39	44	44	41	41	40	39	35	34<	33<	33<	33<	33<	34<	32<	29<	33<	27<
OVERALL	90	91	93	93	91	91	91	91	91	92	92	92	89	88	88	86	84	85	86

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE 6: MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 100 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 02
20 NOV 79
PAGE 2

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

METEOROLOGY:
TEMP = 22 C
BAR PRESS = .757 M HG
REL HUMID = 35 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	74	73	73	75	76	78	77	78	78	76	73	71	68	67	68	70	73	73	73
31.5	74	74	73	75	74	76	76	74	76	73	71	68	68	70	73	75	76	76	76
40	73	71	70	72	73	72	72	72	70	70	67	66	67	70	68	71	72	72	72
50	80	79	74	71	78	73	71	73	72	73	72	72	76	73	69	70	71	71	71
63	76	77	74	74	74	69	68	68	64<	63<	70	70	71	72	72	73	71	71	71
80	69	69	70	70	69	67<	63<	66<	65<	65<	66<	68<	70	67<	65<	65<	65<	65<	65<
100	68	67	68	70	66	62	63	65	63	67	63	68	69	63	62	65	62	62	62
125	66	67	68	70	67	61	60	58<	59	62	62	62	65	61	60	63	63	63	63
160	58	60	60	62	62	58	60	56<	55<	59	56<	56<	55<	53<	55<	56<	59	59	59
200	57	58	56	56	56	55	56	52<	52<	53<	52<	51<	51<	51<	51<	52<	53<	53<	53<
250	58	57	55	55	55	54	54	50<	50<	52<	52<	50<	49<	50<	50<	51<	51<	51<	51<
315	56	55	52<	52<	52<	50<	52<	47<	48<	50<	50<	47<	47<	49<	48<	47<	48<	48<	48<
400	56	55	53	52<	51<	51<	50<	46<	48<	48<	51<	46<	47<	48<	49<	48<	48<	48<	48<
500	54<	53<	51<	50<	48<	49<	47<		48<	48<	50<	45<	47<	50<	51<	49<	48<	48<	48<
630	54<	54<	51<	52<	48<	50<	47<		48<	50<	50<		47<	50<	50<	51<	48<	48<	48<
800	54<	53<	52<	53<	50<	49<	48<		50<	51<	49<		47<	50<	50<	49<	48<	48<	48<
1000	53<	52<	51<	52<	51<	48<	48<		50<	53<	50<	46<	48<	51<	50<	50<	49<	49<	49<
1250	54	52<	50<	52<	51<	49<	48<	46<	51<	54	50<	46<	48<	52<	51<	50<	48<	48<	48<
1600	57	57	54	57	52	51	49	47<	52	58	51	48	52	56	55	54	51	51	51
2000	60	62	56	59	53	51	50	47	54	59	52	50	55	58	59	57	55	55	55
2500	50	49	48	49	46	44<	43<	41<	46	51	45	42<	44<	50	49	49	46	46	46
3150	54	52	52	53	48	49	46	42<	48	55	47	45	48	54	53	51	50	50	50
4000	51	50	49<	51	46<	47<	44<	40<	46<	53	44<	41<	44<	53	49	48<	48<	48<	48<
5000	44<	44<	41<	44<	41<	40<	37<		43<	48	42<	40<	41<	50	45<	44<	45<	45<	45<
6300	39<	40<	37<	41<	38<	37<			40<	45<	39<	36<	37<	45<	42<	40<	42<	42<	42<
8000										42<				39<	40<		40<	40<	40<
10000																			
OVERALL	83	83	81	82	83	83	81	81	81	80	78	78	80	78	78	80	80	80	80

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 6 MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 100 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
PAGE 2

NOISE SOURCE/SUBJECT:
A-70 AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

METEOROLOGY:
TEMP = 29 C
BAR PRESS = .766 M HG
REL HUMID = 28 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	72	71	71	72	71	71	70	72	73	72	74	73	72	72	73	73	72	71	72
31.5	73	72	75	73	76	74	74	75	76	75	76	75	76	75	77	75	73	75	74
40	81	81	81	82	82	83	81	81	80	80	79	79	79	80	82	81	79	82	81
50	81	81	82	83	82	83	80	83	81	80	80	81	82	84	84	83	78	80	82
63	80	79	79	82	81	82	83	80	81	82	82	80	80	82	82	80	74	74	79
80	81	79	81	82	80	79	80	82	81	82	82	80	78	78	80	77	68<	69<	73
100	82	81	83	83	79	77	77	79	78	77	78	77	77	76	77	78	73	72	69<
125	80	77	82	79	77	74	73	77	75	73	74	73	73	72	73	75	71	70	67<
160	83	85	88	82	81	78	80	82	81	80	75	76	72	71	71	74	72	72	70<
200	86	88	86	83	79	79	79	79	79	76	73	71	70	69	68	72	70	69	69
250	93	94	94	89	87	82	82	84	81	77	74	70	71	75	69<	74	73	68<	69<
315	85	86	83	78	76	74	71	75	75	67	66	64<	67	67	66	67	62<	64<	68
400	84	87	81	81	78	73	70	69	69	67	67	66	66	66	66	67	62	63	63
500	79	84	79	83	76	74	70	71	69	66	65	65	67	69	67	69	65	65	64
630	81	82	79	80	74	73	71	72	71	69	68	70	70	68	68	69	65	65	62
800	80	81	77	82	78	77	74	75	73	72	71	72	75	74	72	73	68	68	66
1000	81	82	77	82	81	79	77	78	76	75	75	76	76	77	76	76	71	70	68
1250	77	80	77	81	81	79	77	78	76	75	75	75	75	76	76	77	72	69	65
1600	72	78	76	81	81	79	75	76	75	74	74	76	75	75	75	75	70	68	63
2000	70	77	76	79	80	79	75	74	73	71	73	73	74	72	72	73	68	66	62
2500	68	76	76	79	80	82	78	77	75	72	72	71	72	72	70	72	68	66	63
3150	66	74	74	77	77	76	73	73	72	67	67	68	68	68	67	69	65	63	60
4000	63	71	73	75	73	71	70	70	67	64	63	64	65	65	65	68	62	59	56
5000	58	67	69	70	69	68	65	65	62	60	58	60	61	61	61	64	58	55	52
6300	53	62	65	64	63	62	61	62	58	56	53	56	57	56	56	60	54	52	48
8000	49	56	59	59	59	56	56	56	52	50	47	49	50	49	51	56	48	45	42
10000	44	50	52	51	52	49	49	47	44	41	39	41	42	41	44	50	40	36	34<
OVERALL	96	98	97	95	94	92	91	92	91	90	89	89	89	89	90	89	85	86	87

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE 6 MEASURED SOUND PRESSURE LEVEL (dB)
1/3 OCTAVE BAND
DISTANCE = 100 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-101
RUN 03
20 NOV 78
PAGE 2

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF323-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
95.6% R
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

METEOROLOGY:
TEMP = 22 C
BAR PRESS = .757 M HG
REL HUMID = 39 %

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	79	81	81	81	83	82	84	82	83	80	77	76	75	76	78	78	78	78
31.5	81	8[illegible]	80	81	81	79	81	80	79	78	76	75	77	75	79	79	80	80	80
40	75	76	76	79	75	75	79	76	74	74	73	73	74	77	78	77	79	79	79
50	74	75	75	75	74	72	72	72	70	73	70	70	71	71	71	71	71	71	71
63	73	74	79	80	76	73	74	77	71	71	71	73	75	77	76	76	74	74	74
80	73	76	76	76	75	73	72	74	72	75	74	75	74	76	76	76	74	74	74
100	73	75	80	80	78	75	74	72	74	76	76	78	76	75	76	76	69	69	69
125	83	83	86	87	83	77	72	71	74	78	78	78	73	75	76	75	78	78	78
160	79	80	81	83	81	73	75	72	72	78	79	76	73	71	75	76	79	79	79
200	81	81	82	80	76	80	73	73	72	77	77	74	71	72	74	74	77	77	77
250	79	77	76	75	74	75	74	66	66	73	73	70	63	68	69	71	73	73	73
315	74	76	68	69	68	63	70	65	62	72	73	69	65	66	66	67	67	67	67
400	74	68	67	70	71	63	71	68	62	72	73	69	65	66	67	68	67	67	67
500	73	67	69	67	67	69	71	69	63	71	72	69	63	70	69	69	67	67	67
630	71	67	67	68	67	66	68	67	62	68	68	65	66	67	67	67	64	64	64
800	69	69	69	69	67	65	68	66	61	66	65	64	66	65	66	67	64	64	64
1000	69	68	69	68	66	67	68	64	62	66	64	63	65	65	66	67	65	65	65
1250	69	68	69	68	66	67	69	63	62	66	63	63	65	64	64	66	65	65	65
1600	69	68	68	67	67	67	69	65	61	66	64	63	64	63	64	65	64	64	64
2000	67	65	65	64	64	65	66	64	58	62	62	61	62	61	61	61	61	61	61
2500	65	63	64	63	62	62	65	63	61	60	60	59	59	60	62	61	60	60	60
3150	62	61	62	61	58	59	62	59	57	57	57	55	55	56	58	58	56	56	56
4000	63	59	61	58	55	57	61	58	55	56	54	54	55	54	57	56	55	55	55
5000	56	55	55	54	52	52	57	55	53	54	53	52	53	52	55	55	53	53	53
6300	53	52	53	51	49	49	52	51	50	51	49	49	49	48	51	50	49	49	49
8000	47<	47<	48<	46<	43<	43<	48<	47<	46<	46<	45<	45<	44<	43<	46<	45<	43<	43<	43<
10000			40<					40<	41<	39<	39<				39<				
OVERALL	90	90	91	91	89	89	88	87	86	88	87	86	86	85	86	87	87	87	87

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 6 MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 100 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 04
20 NOV 79
PAGE 2

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
MILITARY POWER, 96% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

METEOROLOGY:
TEMP = 29 C
BAR PRESS = .766 M HG
REL HUMID = 25 %

FREQ (HZ)	0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
	ANGLE (DEGREES)																		
25	78	76	76	77	78	77	80	78	79	80	80	79	76	77	78	78	78	78	77
31.5	78	77	79	78	80	80	82	81	80	80	81	79	78	79	79	78	77	79	78
40	82	83	83	84	84	85	83	85	83	84	84	83	82	82	83	83	83	84	85
50	87	87	87	88	88	88	87	87	85	85	84	86	86	84	86	86	86	83	86
63	83	83	83	85	87	87	86	85	86	84	85	84	84	82	84	83	81	78	83
80	79	79	80	81	81	83	84	86	85	86	83	84	82	81	80	77	74	73	78
100	84	82	84	82	81	82	82	84	84	84	81	82	79	77	79	78	76	78	73
125	84	80	84	82	81	81	79	80	79	78	76	75	76	76	75	76	77	79	74
160	81	81	83	79	77	77	78	78	77	75	72	71	71	71	70<	71	72	74	71
200	83	84	85	79	75	75	74	76	74	70	71	68	68<	68<	69	70	70	71	71
250	78	83	84	77	73	73	74	75	73	73	75	69<	71	72	69<	68<	67<	70	71
315	85	86	85	78	76	73	77	76	74	74	77	72	73	72	72	70	67	69	69
400	89	91	88	83	79	74	76	74	73	75	76	72	74	73	74	70	66	70	68
500	83	86	87	84	82	76	77	76	75	75	75	74	74	75	76	72	67	72	67
630	82	83	85	86	81	79	77	77	77	75	77	76	76	75	76	72	67	72	67
800	82	81	81	82	81	79	79	79	78	77	79	79	79	78	79	75	70	73	67
1000	78	79	81	83	82	81	82	81	79	81	81	80	80	80	81	77	72	75	69
1250	75	76	79	80	82	81	83	81	80	82	82	79	80	80	82	77	72	73	67
1600	72	75	79	82	82	80	80	80	78	78	79	78	77	77	79	76	72	72	66
2000	72	76	80	82	82	78	78	77	76	75	78	76	76	76	78	75	72	70	63
2500	70	77	81	81	81	76	78	77	75	73	77	76	77	75	77	74	70	70	63
3150	69	76	79	79	78	75	76	75	74	71	73	73	74	73	76	73	69	69	62
4000	68	76	80	78	77	74	75	75	74	70	72	71	72	72	75	71	66	66	60
5000	65	73	77	74	73	69	70	70	70	65	68	67	67	68	72	68	63	63	57
6300	61	69	73	70	69	64	66	67	67	62	66	65	65	66	69	65	60	60	53
8000	55	64	67	65	65	58	60	60	60	55	59	58	59	61	62	58	54	53	46
10000	49	59	61	60	57	52	53	53	53	47	52	51	53	55	55	51	47	46	39
OVERALL	95	97	97	96	95	95	95	95	94	94	93	93	92	92	93	91	90	90	91

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE 6: MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 100 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 04
20 NOV 79
PAGE 2

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

METEOROLOGY:
TEMP = 22 C
BAR PRESS = .757 M HG
REL HUMID = 35 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	83	84	82	82	85	85	86	85	87	85	85	83	83	81	81	81	78	78	78
31.5	83	83	83	82	85	83	84	84	84	81	80	81	82	80	80	81	81	81	81
40	81	81	83	81	83	83	83	83	82	82	82	84	84	84	84	83	80	80	80
50	76	77	79	76	78	80	79	79	78	80	79	80	79	80	80	75	74	74	74
63	80	80	80	79	79	81	79	77	79	80	78	78	79	78	78	78	77	77	77
80	83	83	81	80	80	80	77	76	76	79	79	78	80	78	78	78	77	77	77
100	79	78	79	76	78	77	77	80	80	81	81	80	80	79	79	74	73	73	73
125	86	86	87	87	83	78	76	78	79	83	82	82	81	77	77	76	78	78	78
160	86	86	85	86	86	82	81	79	79	84	83	83	78	76	76	79	81	81	81
200	88	86	87	84	83	84	84	81	81	85	84	84	79	81	81	81	81	81	81
250	87	85	85	83	82	86	85	83	81	84	80	79	79	79	79	81	82	82	82
315	86	82	81	79	80	79	79	78	77	84	84	81	77	77	77	78	79	79	79
400	88	82	82	79	80	81	80	81	78	85	85	79	77	76	76	79	78	78	78
500	86	80	81	80	79	80	79	82	77	84	84	77	79	77	77	80	79	79	79
630	85	80	79	80	79	79	79	81	76	82	81	77	79	76	76	77	75	75	75
800	83	81	80	81	79	80	80	80	77	81	80	77	78	76	76	77	76	76	76
1000	82	81	80	80	78	80	80	79	78	80	79	77	77	76	76	76	76	76	76
1250	81	80	79	78	77	79	79	79	79	79	78	77	76	75	75	74	75	75	75
1600	79	79	79	77	77	78	78	78	78	79	77	76	74	75	75	73	73	73	73
2000	76	77	77	74	74	76	75	76	75	75	74	73	71	72	72	69	70	70	70
2500	74	74	75	72	72	73	73	74	72	73	72	70	69	69	69	67	67	67	67
3150	72	71	72	69	70	71	70	71	69	70	69	68	67	66	66	64	64	64	64
4000	69	69	70	69	69	69	68	69	67	68	68	66	65	64	64	63	63	63	63
5000	65	64	65	65	64	65	63	64	62	64	63	62	61	59	59	59	61	61	61
6300	62	61	62	61	61	61	58	61	59	61	60	59	58	56	56	55	56	56	56
8000	56	56	58	57	57	57	54	56	55	56	55	53	53	51	51	50	51	51	51
10000	46<	46<	48<	47<	46<	45<	44<	45<	45<	47<	46<	42<	43<	40<	40<	41<	44<	44<	44<
OVERALL	97	95	95	94	94	94	94	94	93	95	95	93	92	91	91	91	91	91	91

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

FIGURE: NORMALIZED FARFIELD NOISE LEVELS

4 DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
IDLE PWR, 55% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-933-.01
RUN 01

20 NOV 79

PAGE 6

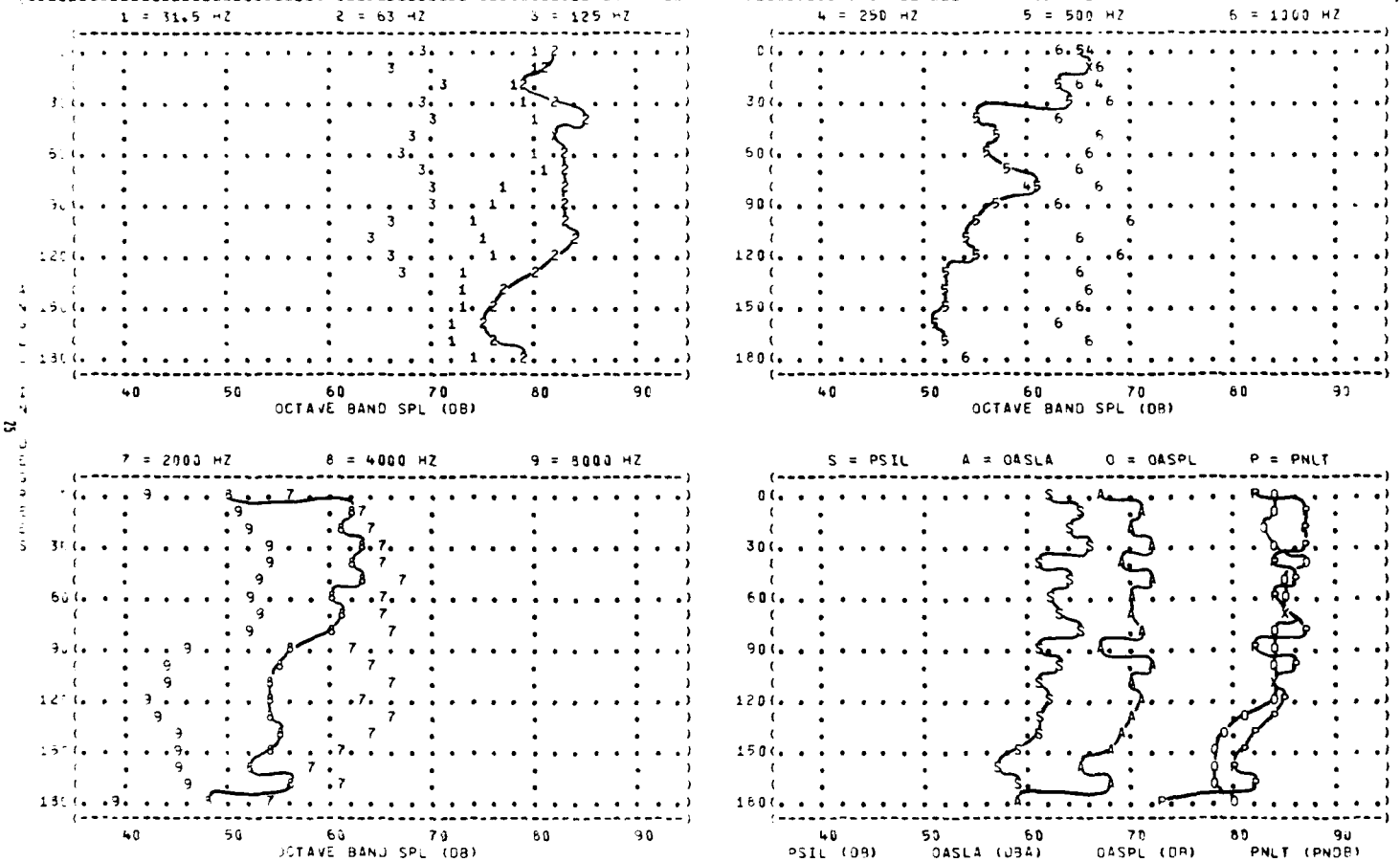


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

4 DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-633-01
RUN 01
20 NOV 79
PAGE 6

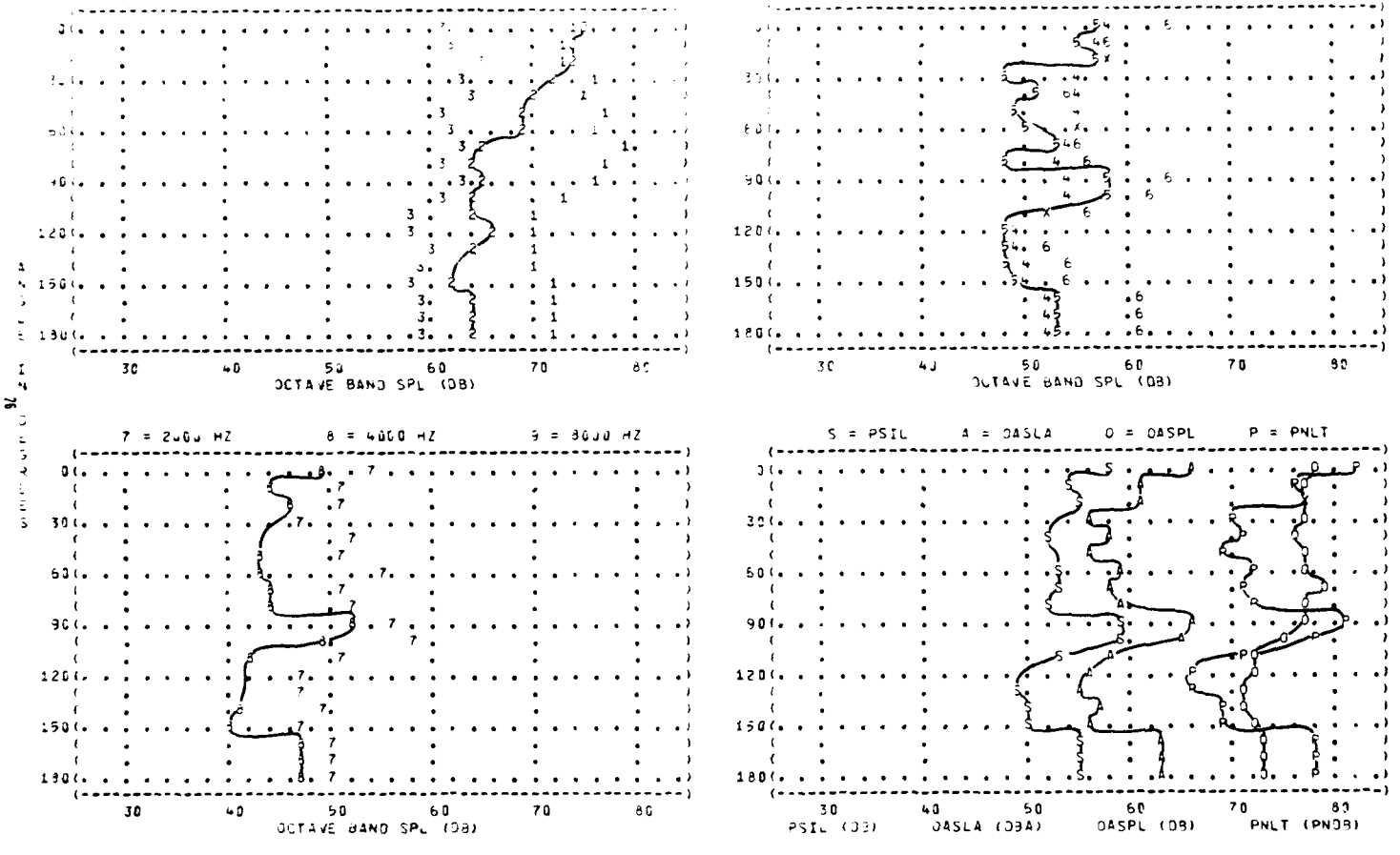


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

4

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
4-70 AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 6

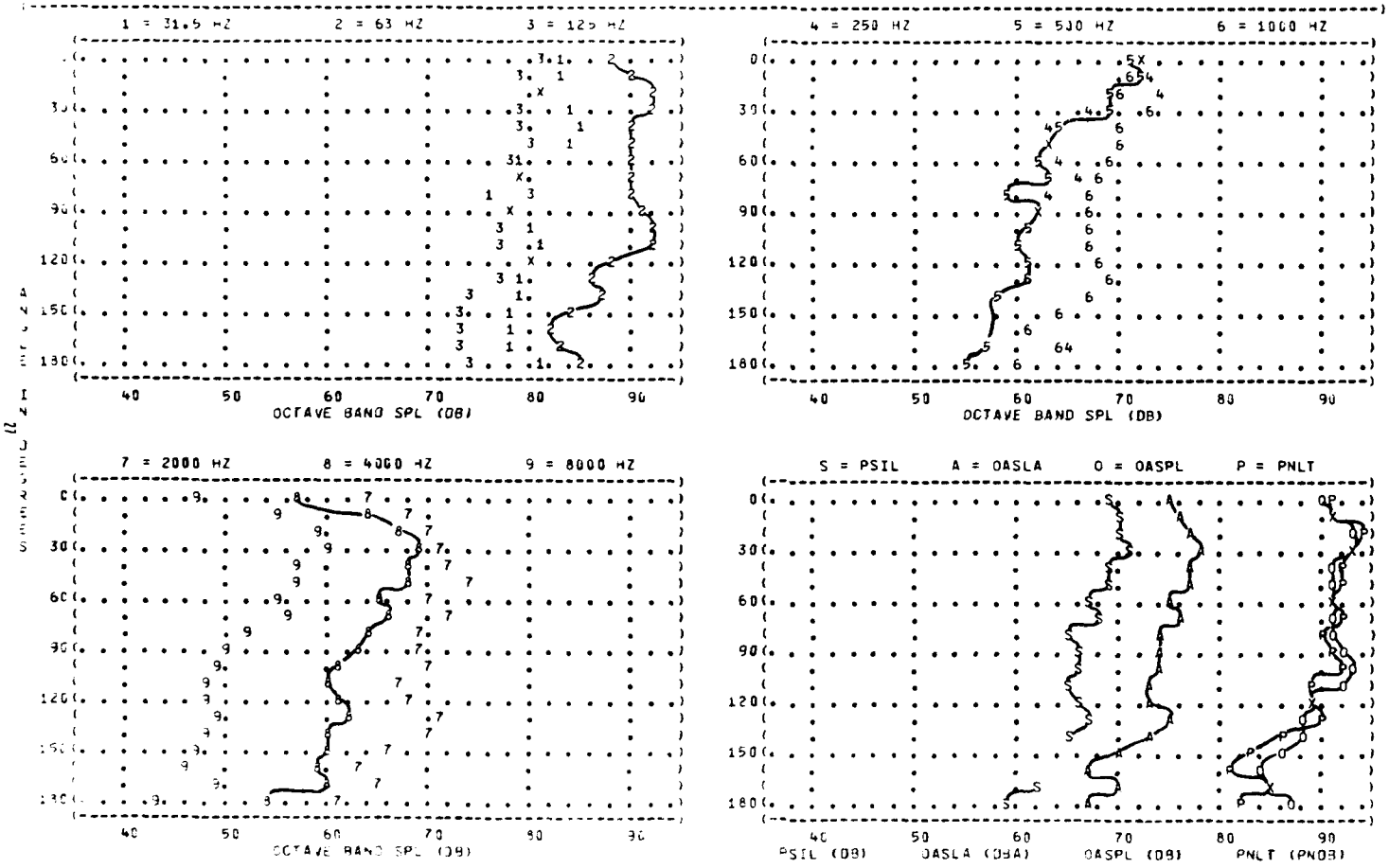


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

4

DISTANCE = 100 METERS

IDENTIFICATION:

OMEGA 1.4
TEST 78-833-001
RUN 02

20 NOV 79

PAGE 6

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

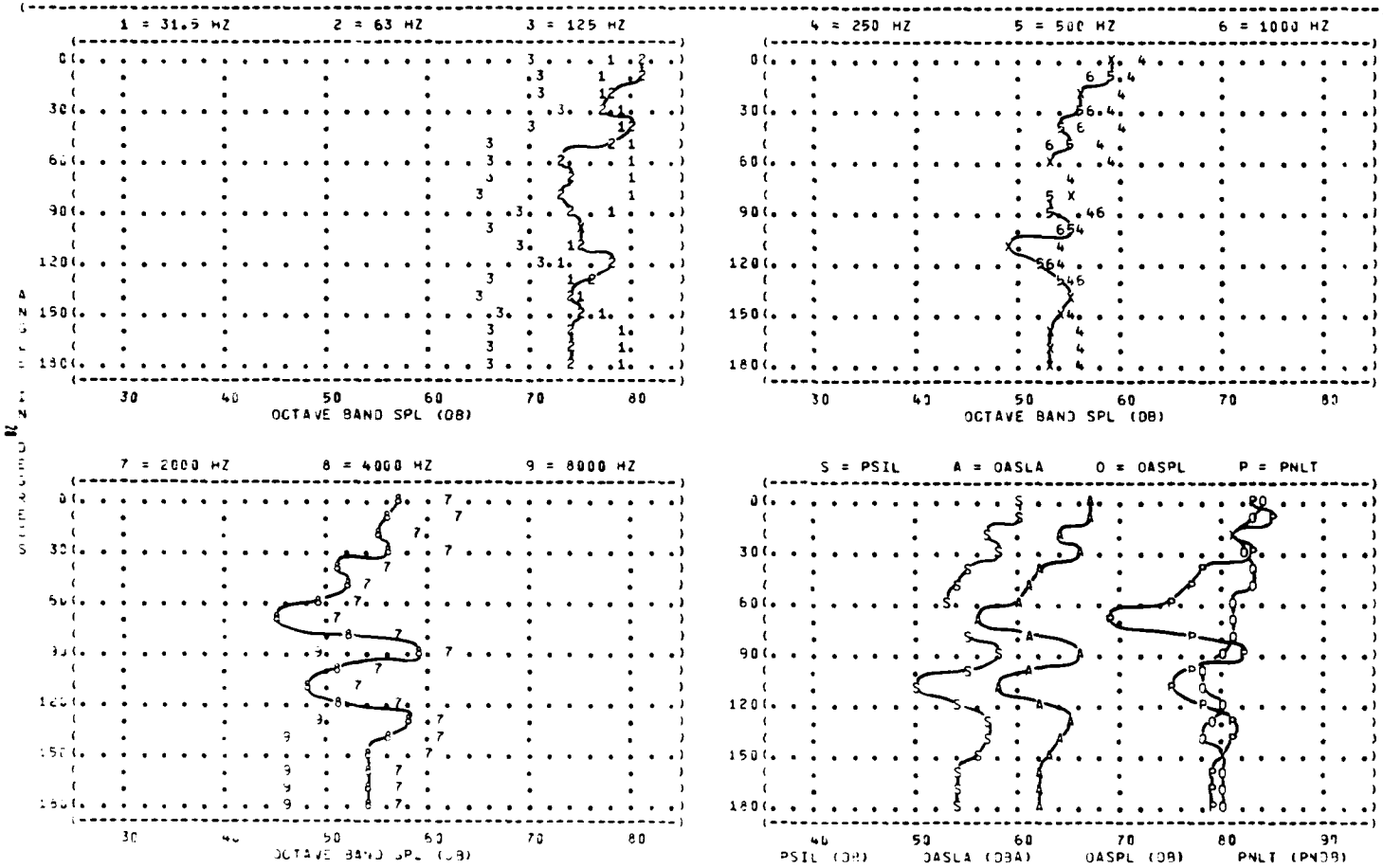


FIGURE: NORMALIZED FARFIELD NOISE SPECTRA

4

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-633-001
RUN 03

20 NOV 79

PAGE 6

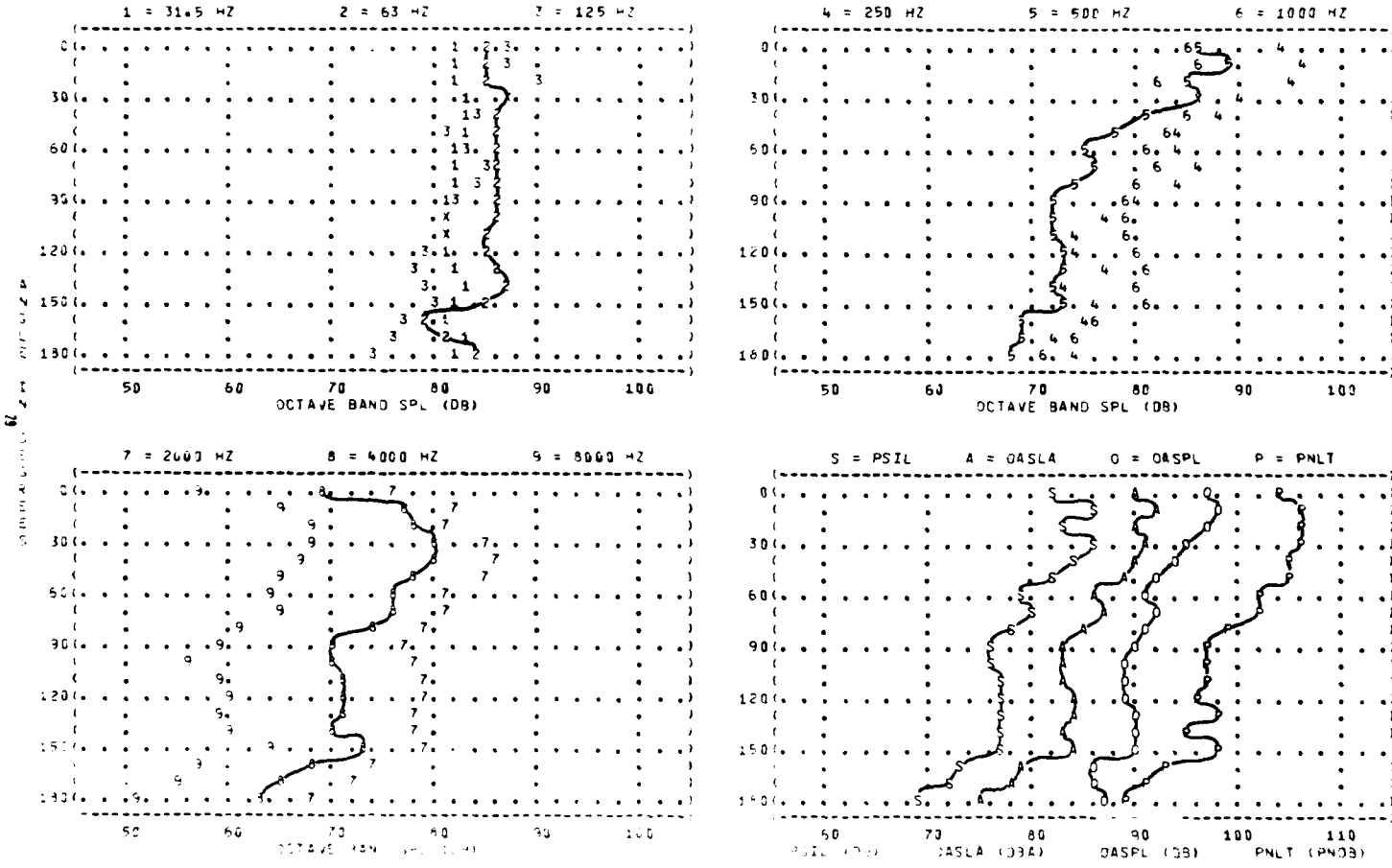


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

4

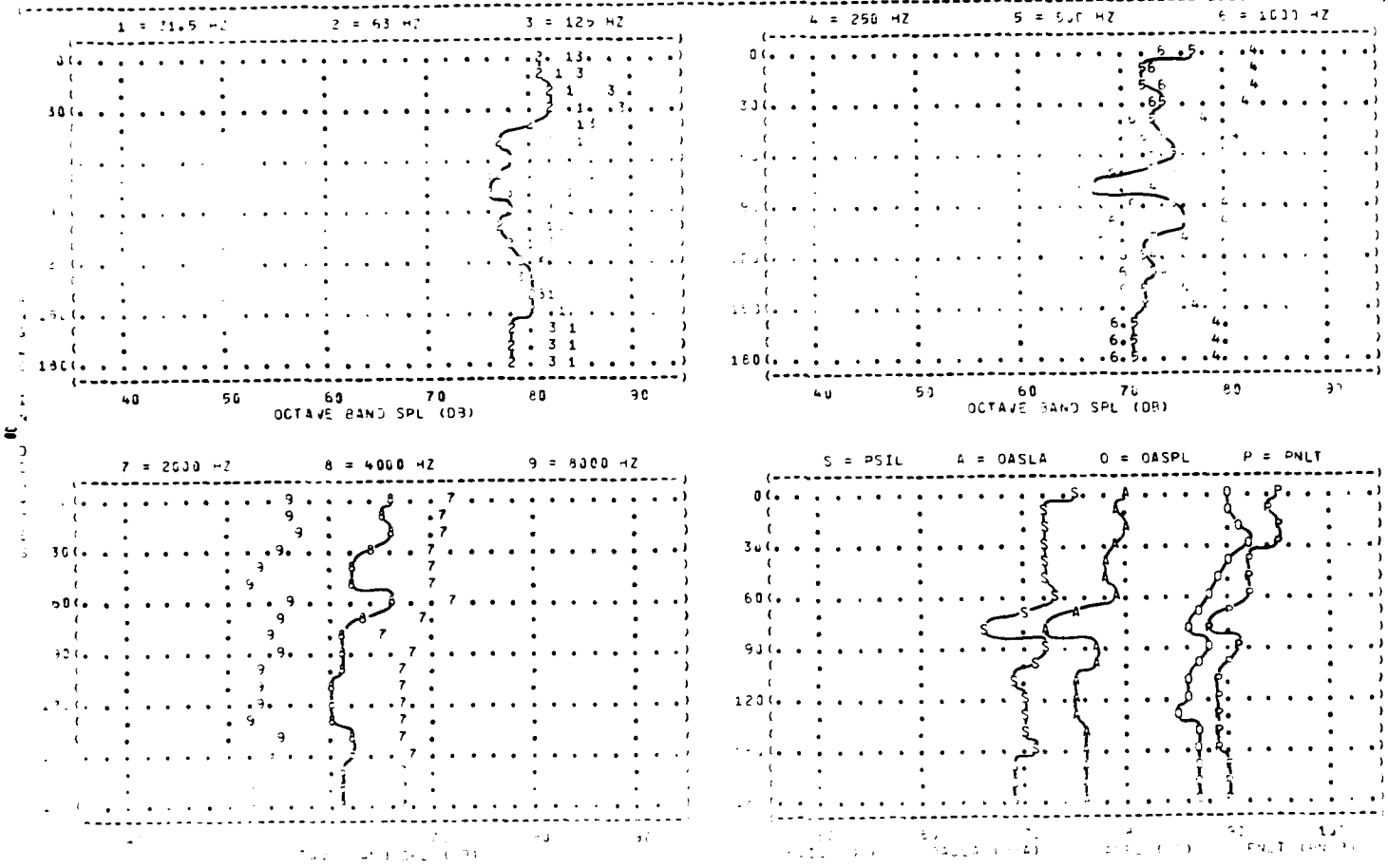
DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.6% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 03
23 NOV 79
PAGE 6



A-7D AIRCRAFT IN THE
AFT?A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

MILITARY POWER, [illegible] RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

RUN 24
20 NOV 79
PAGE 6

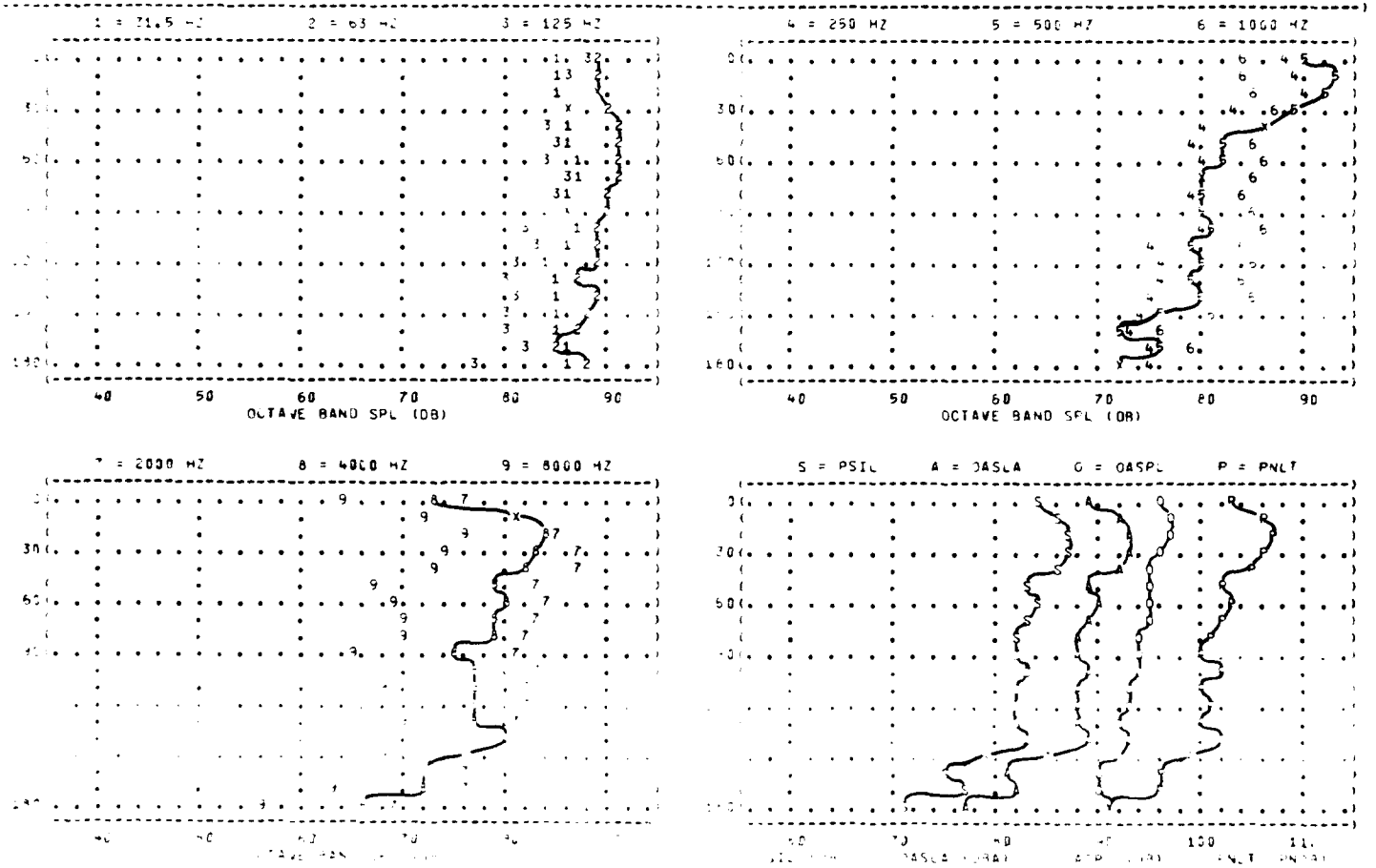
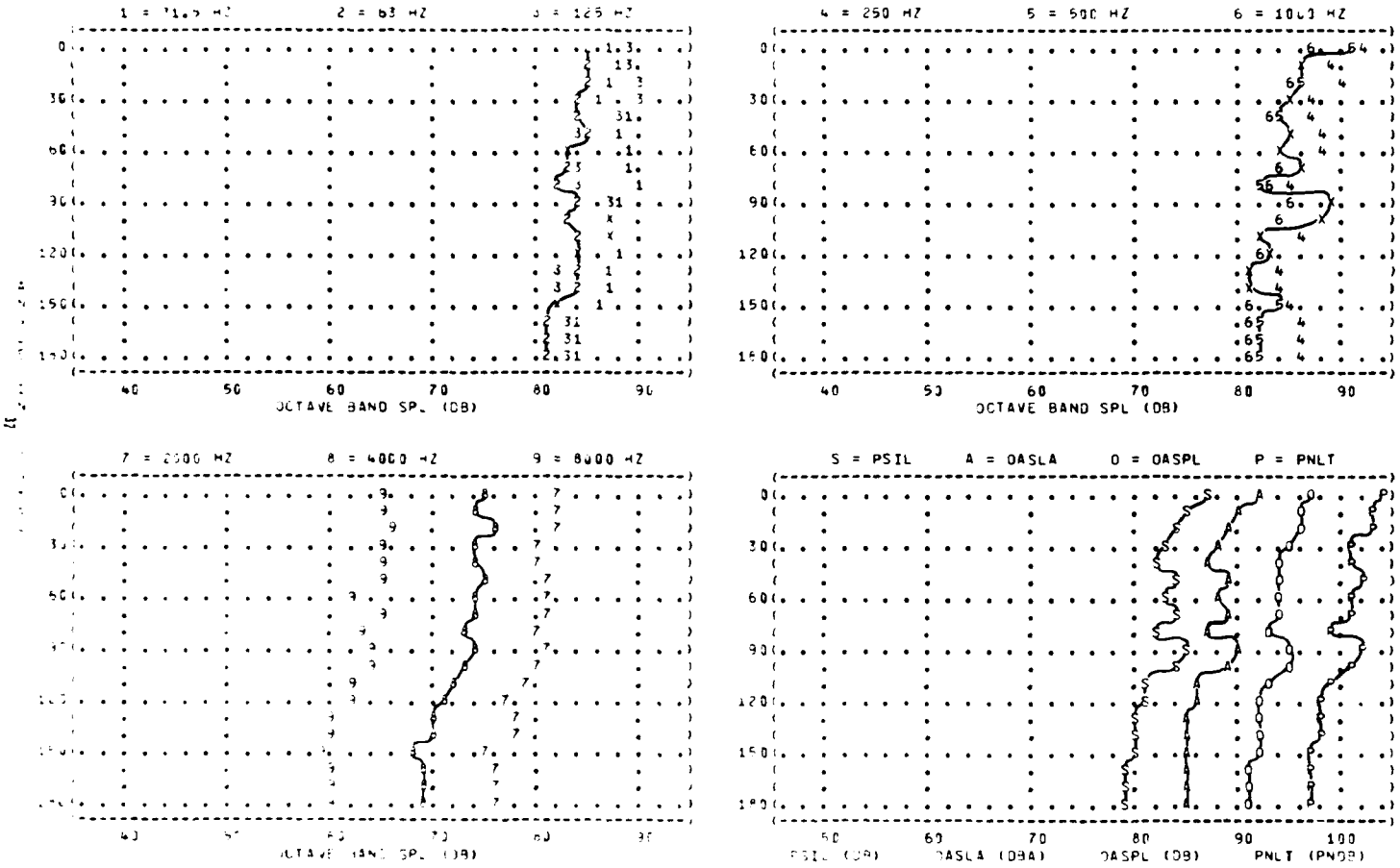


FIGURE 4 NORMALIZED FARFIELD NOISE LEVELS

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:	IDENTIFICATION:
A-7 AIRCRAFT IN THE	MILITARY POWER (97.7%)	TEMP = 15 C	OMEGA 1.4
AF32A-24 SUPPRESSOR	SINGLE ENGINE	BAR PRESS = .760 M HG	TEST 78-833-E01
ENGINE TF41-A-2	GROUND RUNUP (SUPPRESSED)	REL HUMID = 70 %	RUN 04
FAR-FIELD NOISE			20 NOV 79
			PAGE 6



5

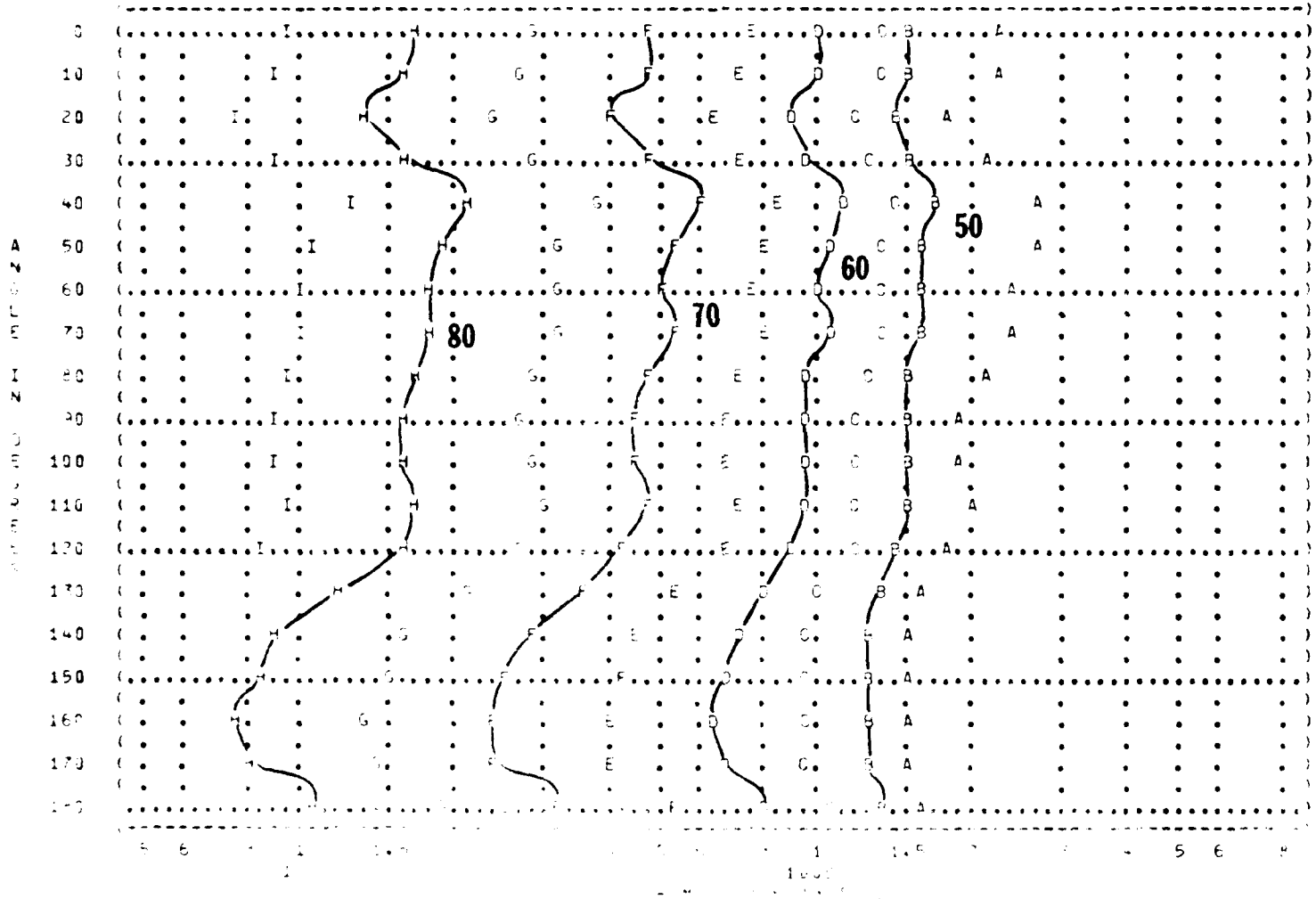
EQUAL LEVEL CONTOURS (DB)

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AFSCA-10 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
IDLE PWR, 55% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-P23-C01
RUN 01
20 NOV 79
PAGE 13



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

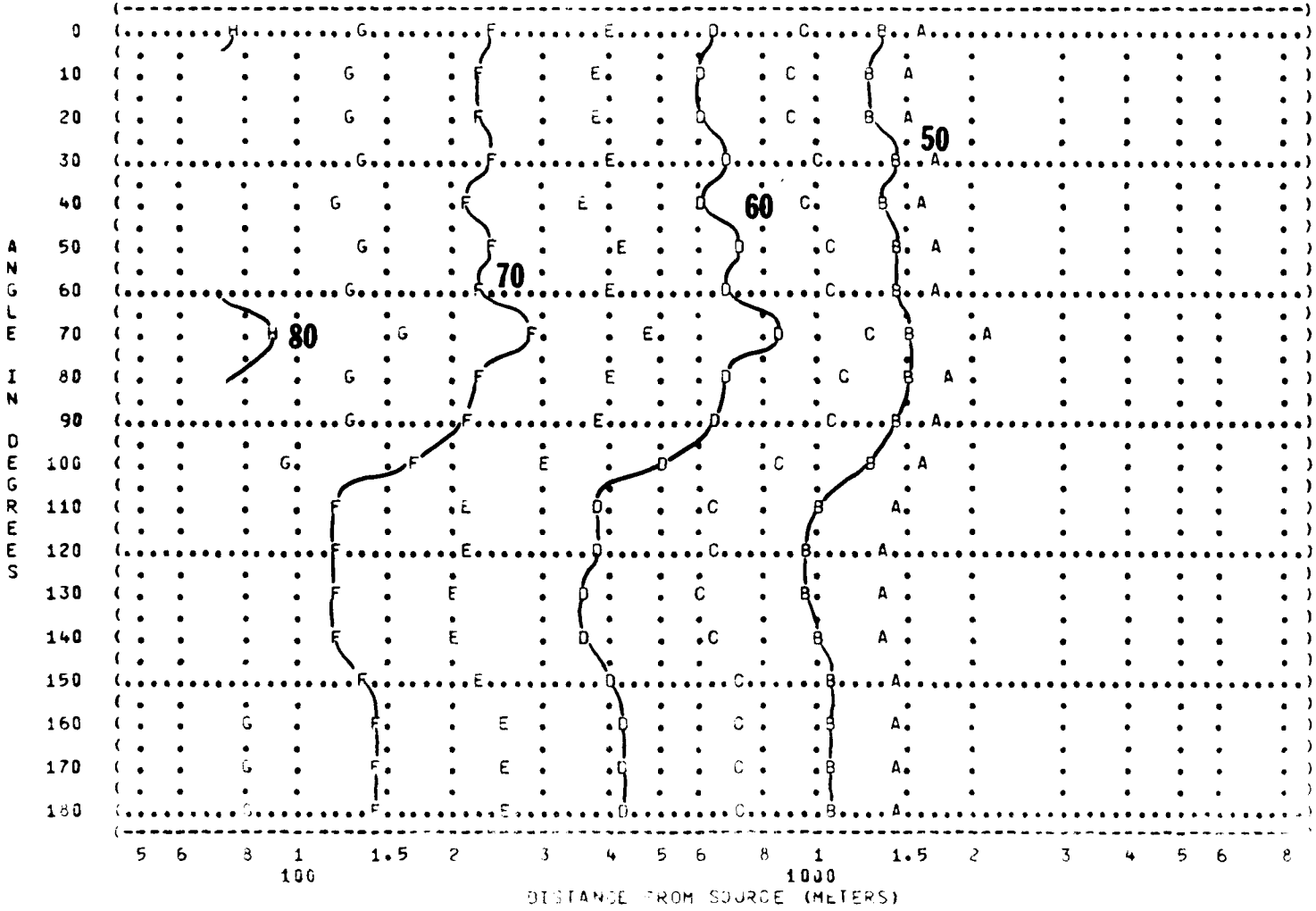
FIGURE 5: OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 01
20 NOV 79
PAGE 13

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

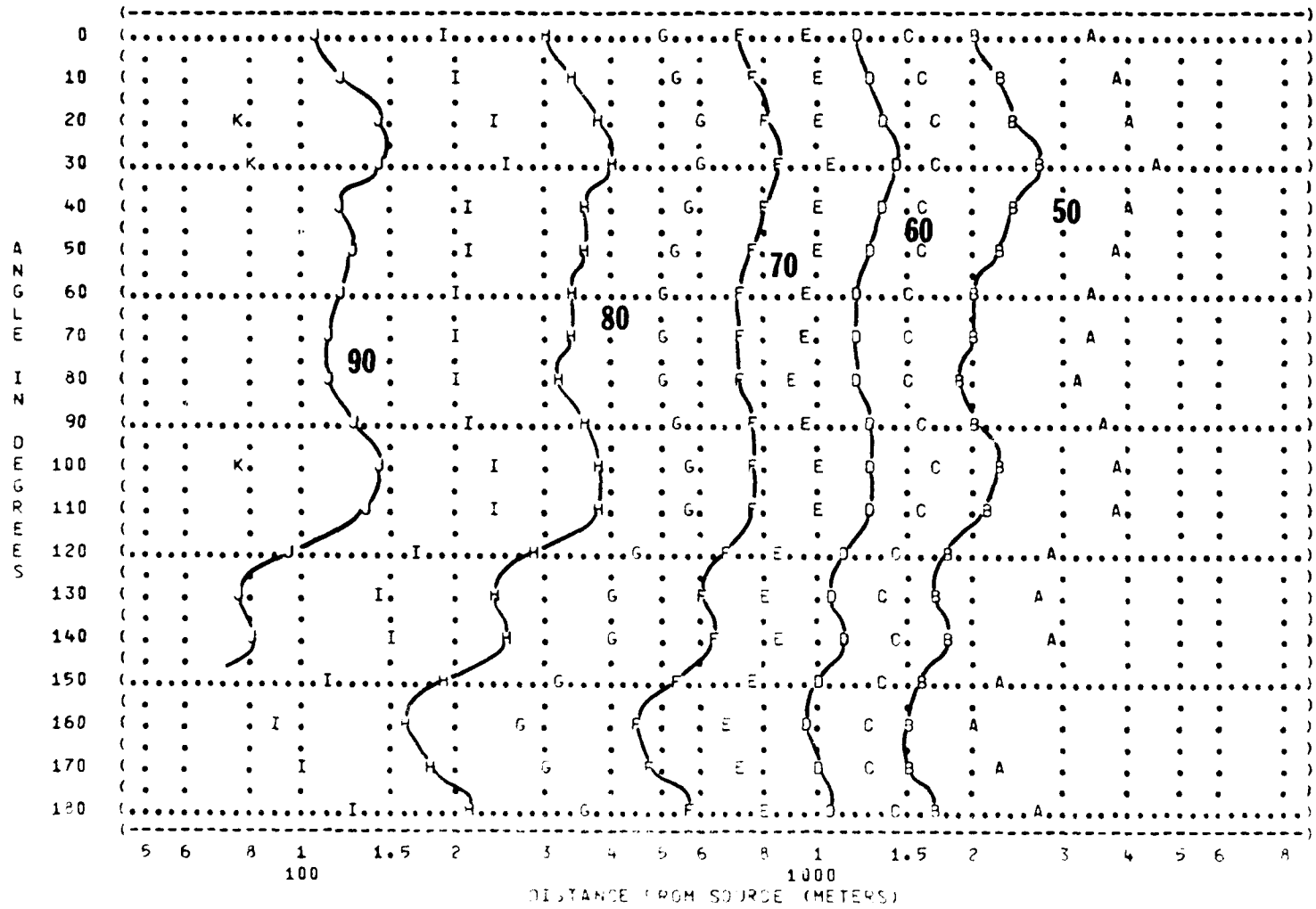
FIGURE 5: OVERALL SOUND PRESSURE LEVEL (OASPL)
EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 13

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

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

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-033-001
RUN 02
20 NOV 79
PAGE 13

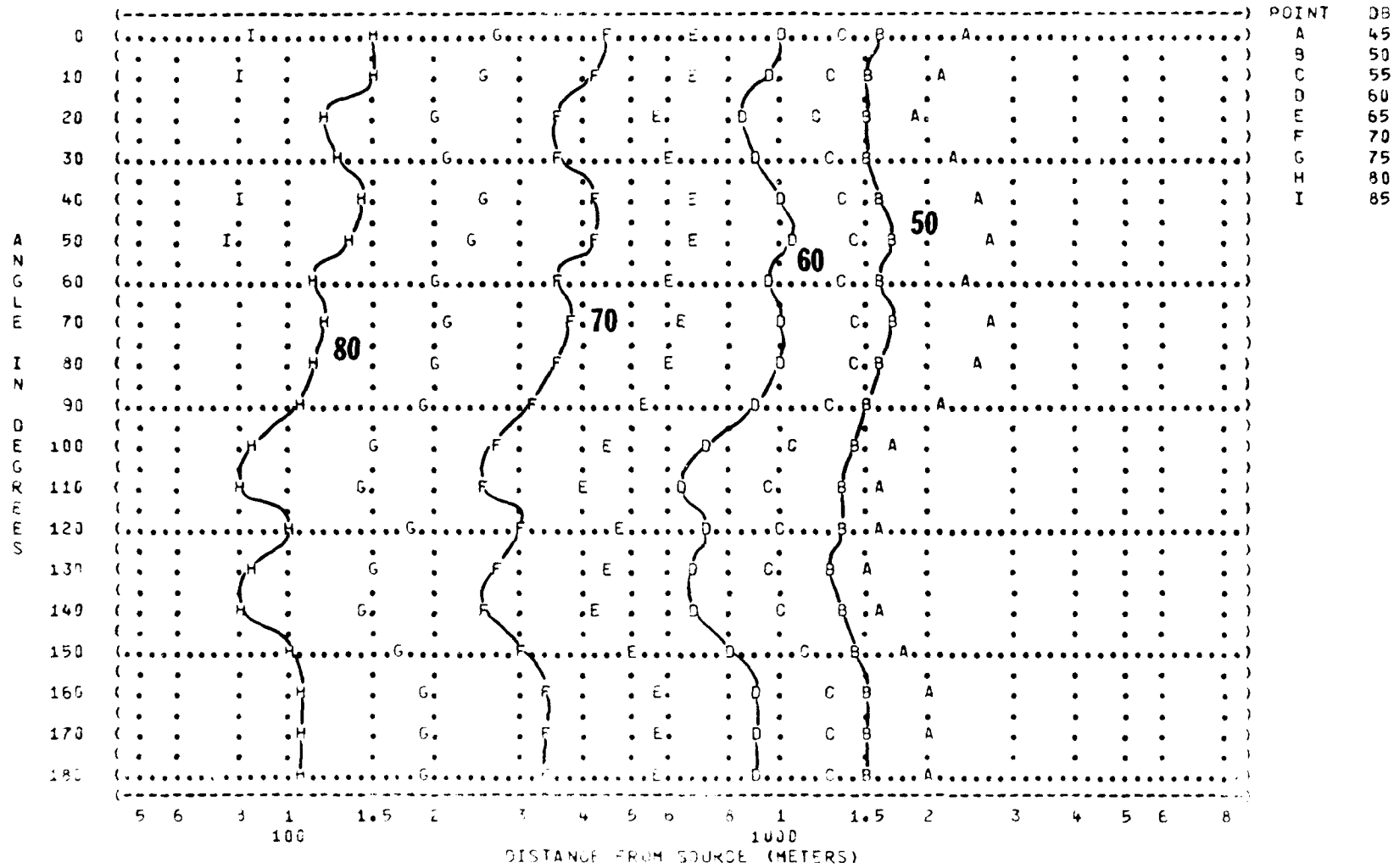


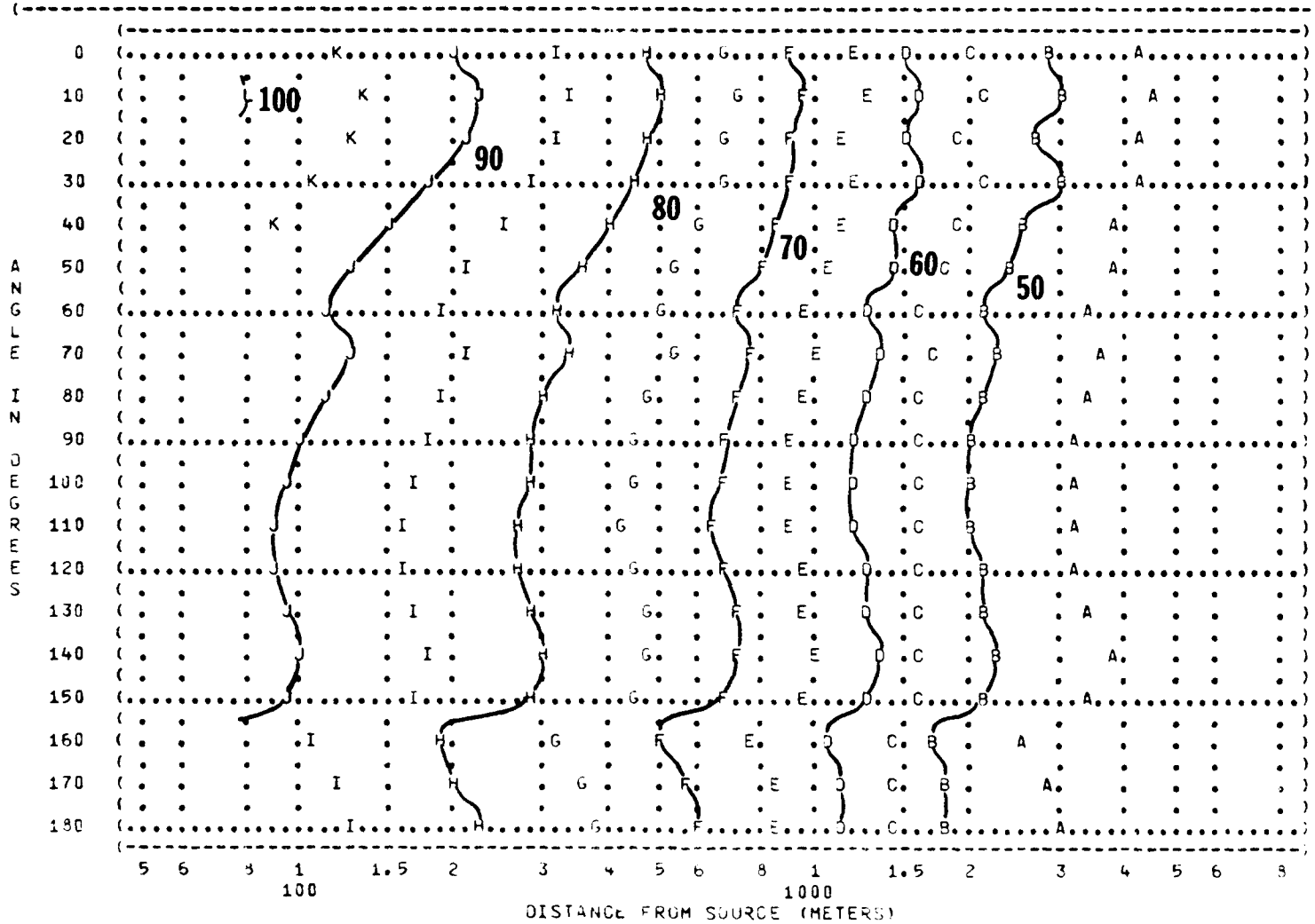
FIGURE: 5 OVERALL SOUND PRESSURE LEVEL (OASPL)
EQUAL LEVEL CONTOURS (DB)

NOISE SOURCE/SUBJECT:
A-70 AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
PAGE 13



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

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-633-02A
RUN 03
20 NOV 79
PAGE 13

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.0% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

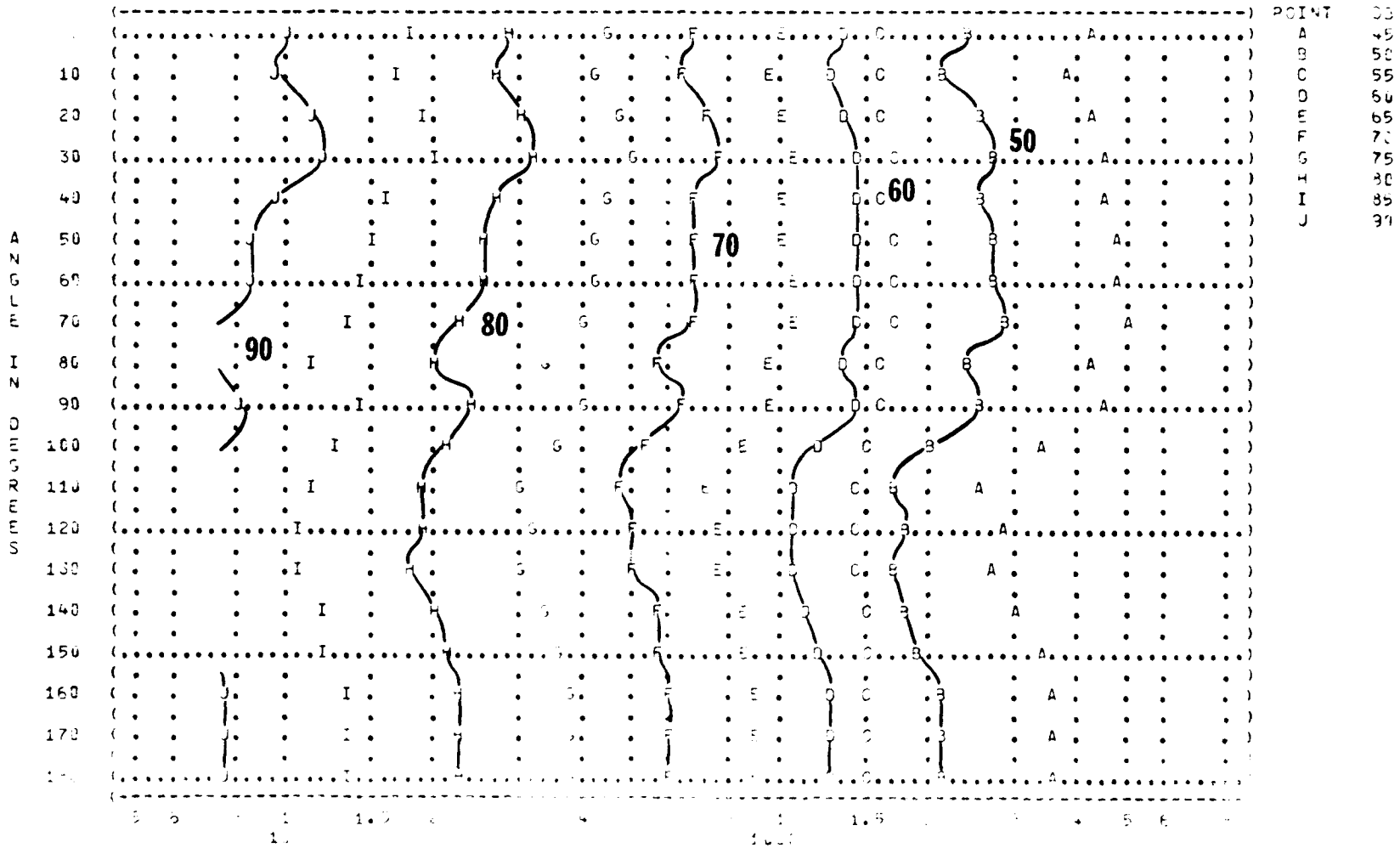


FIGURE 5: OVERALL SOUND PRESSURE LEVEL (OASPL)
EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 04
20 NOV 79
PAGE 13

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
MILITARY POWER, 96% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

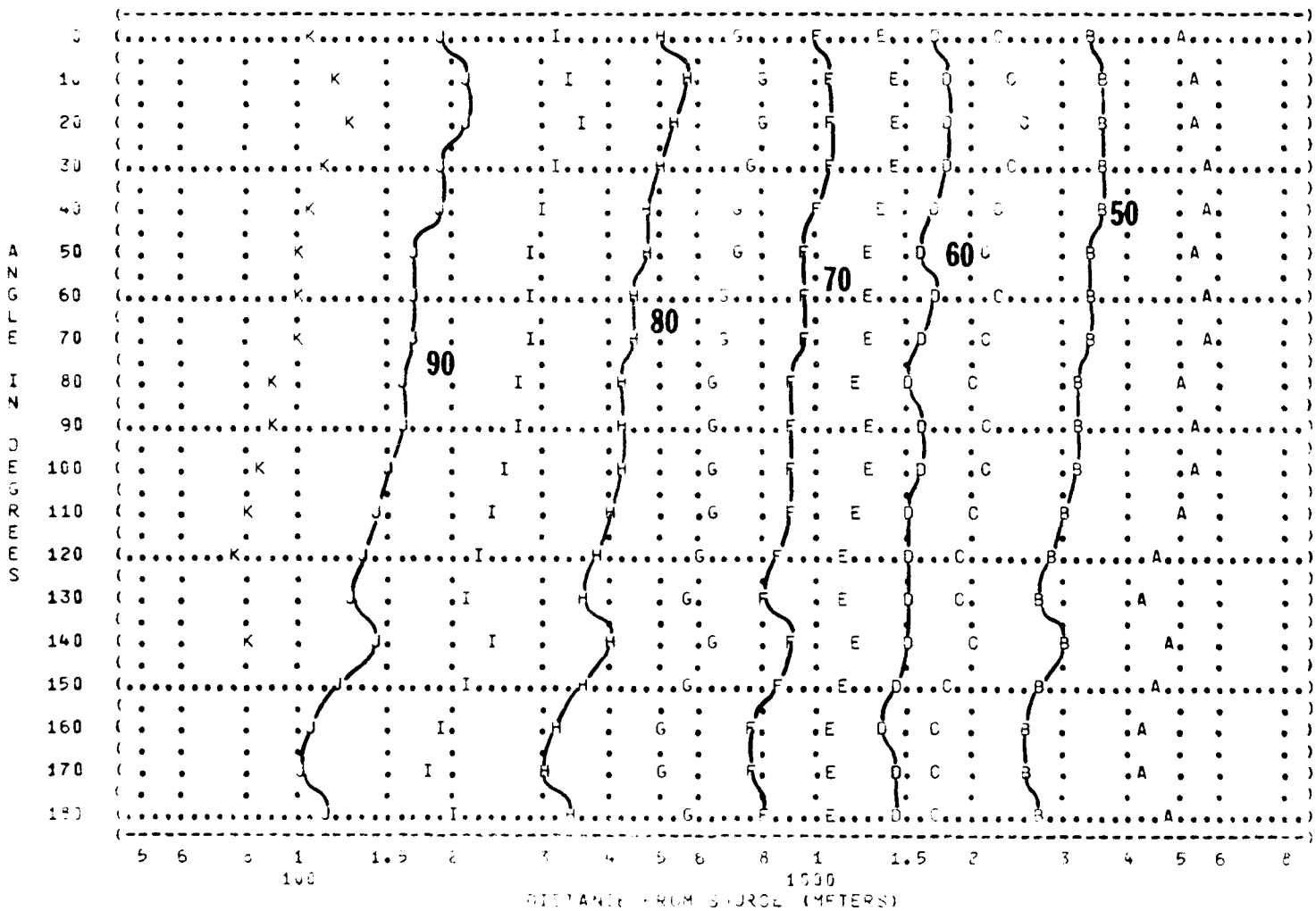
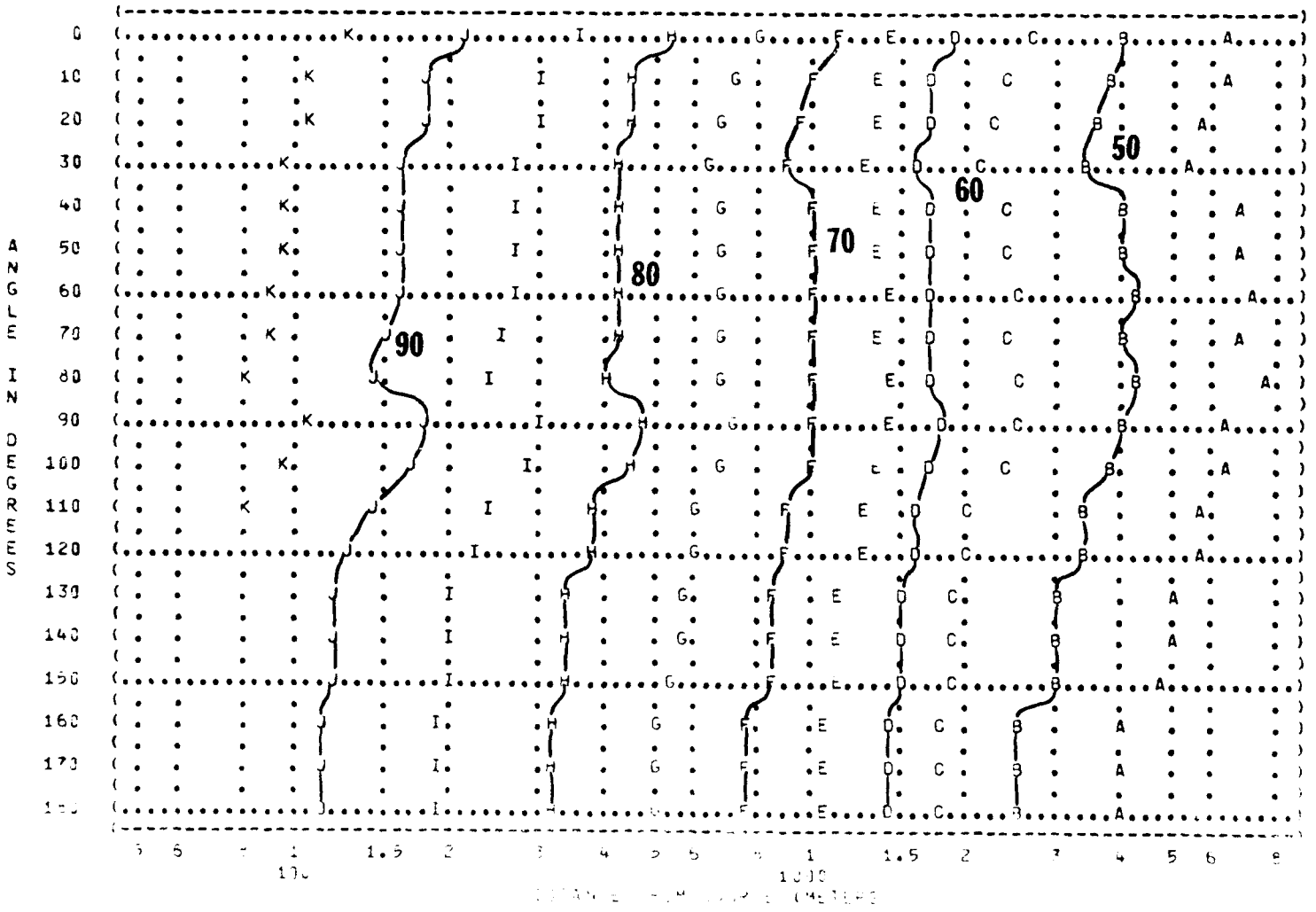


FIGURE 5 SOUND PRESSURE LEVEL (DB)
5 EQUAL LEVEL CONTOURS (DB)

NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:	IDENTIFICATION
A-7 AIRCRAFT IN THE	MILITARY POWER (97.7%)	TEMP = 15 C	OMEGA 1.4
AF32A-24 SUPPRESSOR	SINGLE ENGINE	BAR PRESS = .760 M HG	TEST 78-833-001
ENGINE TF41-A-1	GROUND RUNUP (SUPPRESSED)	REL HUMID = 70 %	RUN 04
FAR-FIELD NOISE			20 NOV 79
			PAGE 13



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

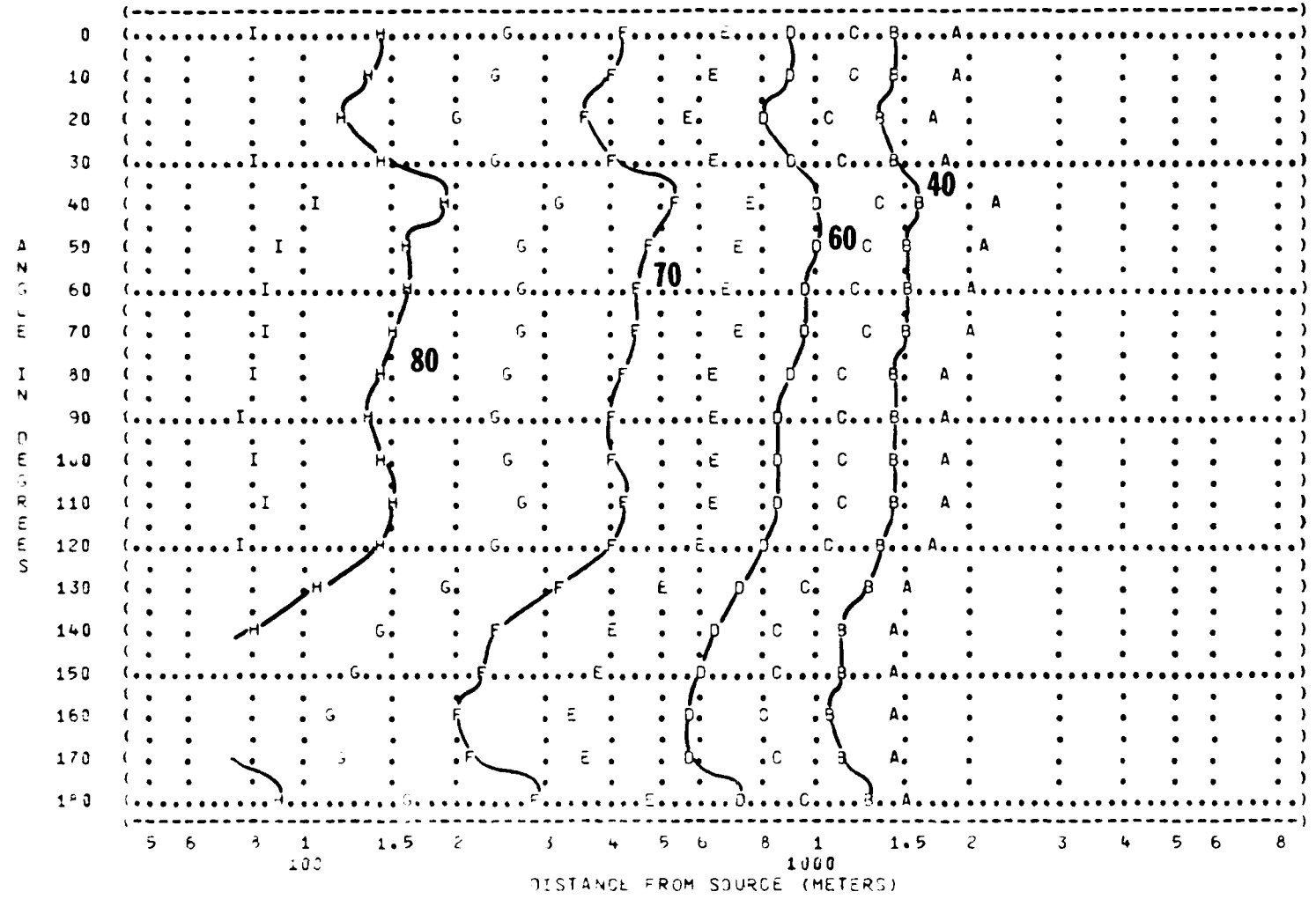
FIGURE 6: C-WEIGHTED OVERALL SOUND LEVEL (OASLC)
EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 01
20 NOV 79
PAGE 14

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
IDLE PWR, 55% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

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

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 01
20 NOV 79
PAGE 14

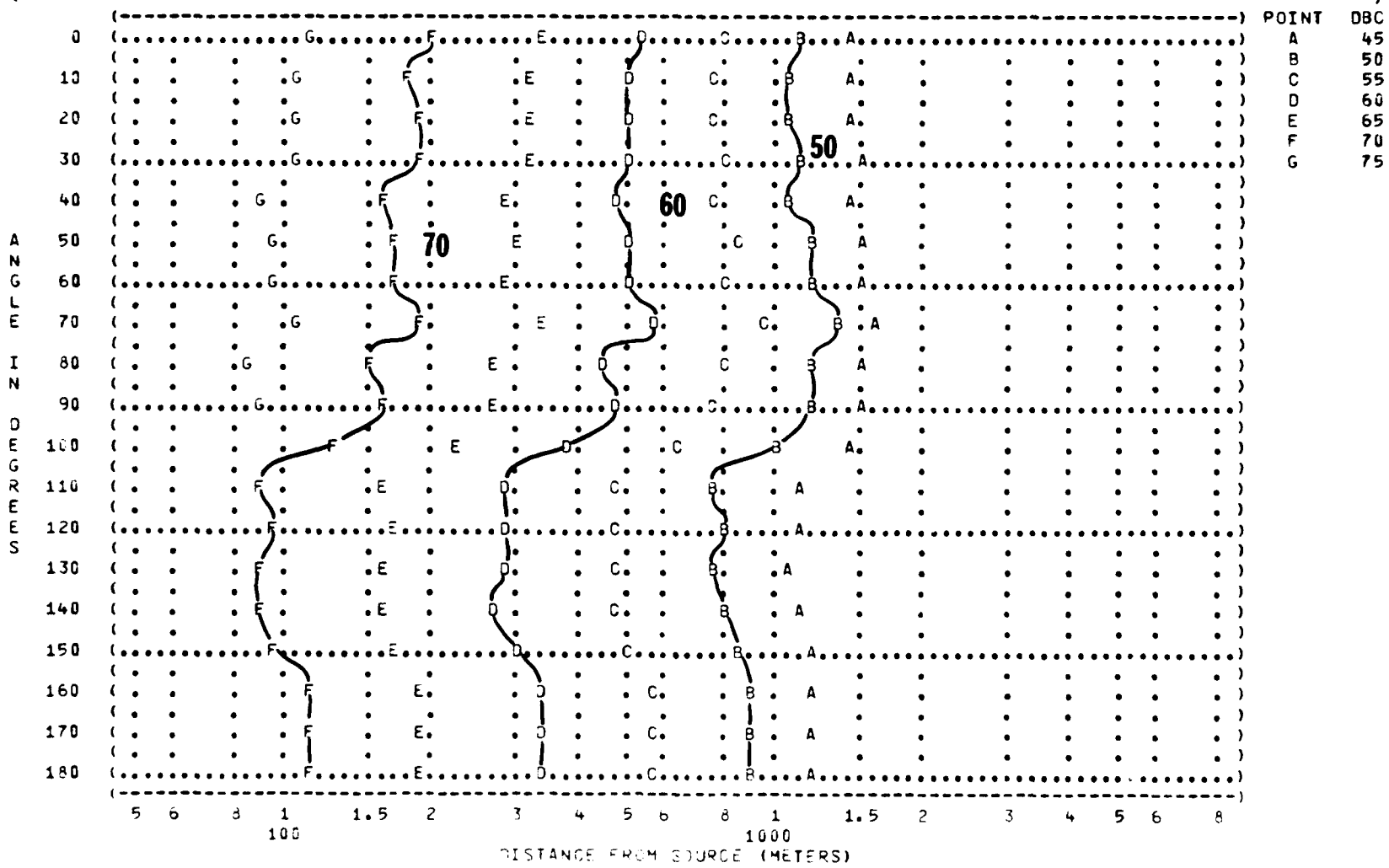


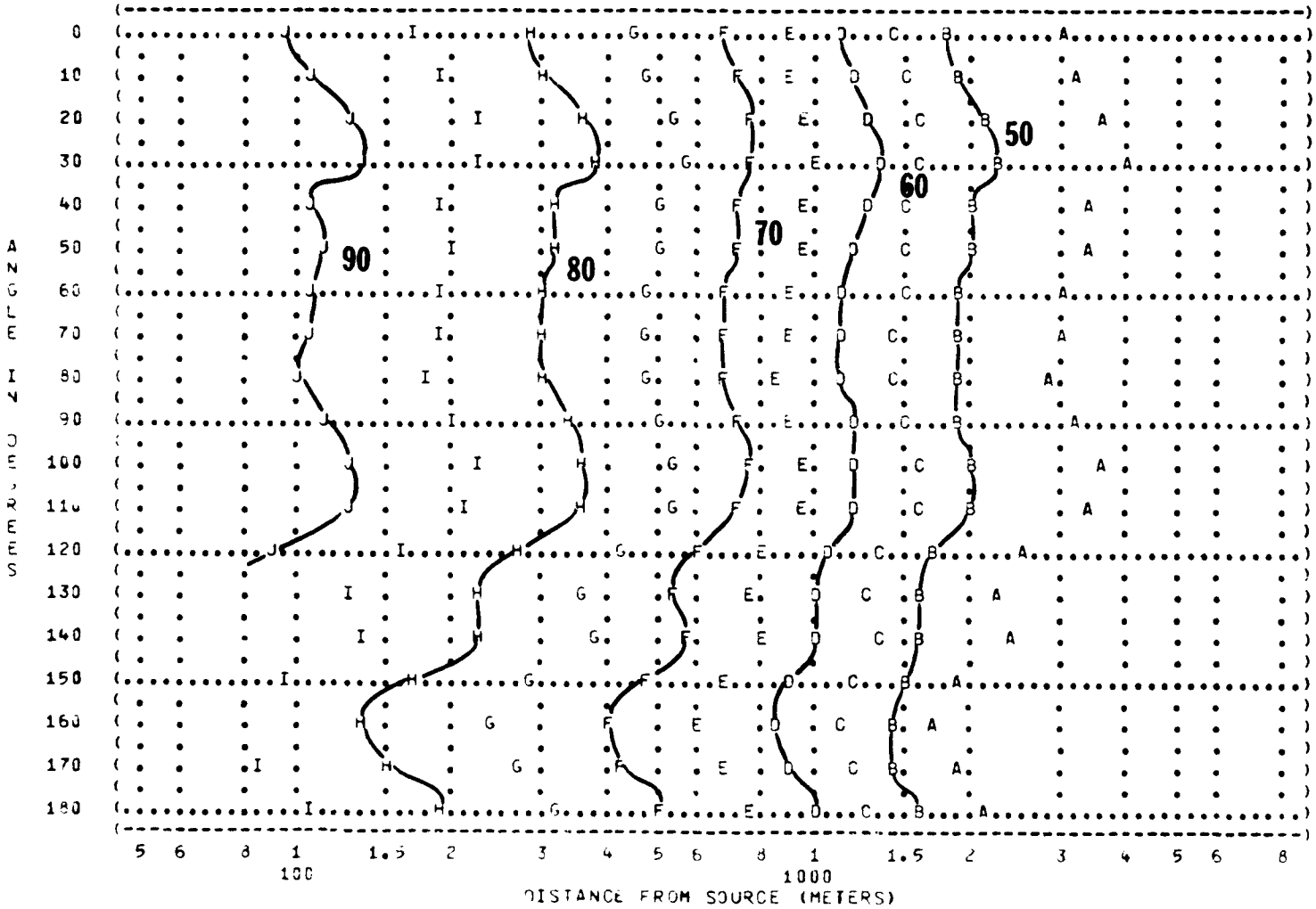
FIGURE 6 C-WEIGHTED OVERALL SOUND LEVEL (OASLC)
EQUAL LEVEL CONTOURS (DBC)

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 14



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

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 02
20 NOV 79
PAGE 14

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

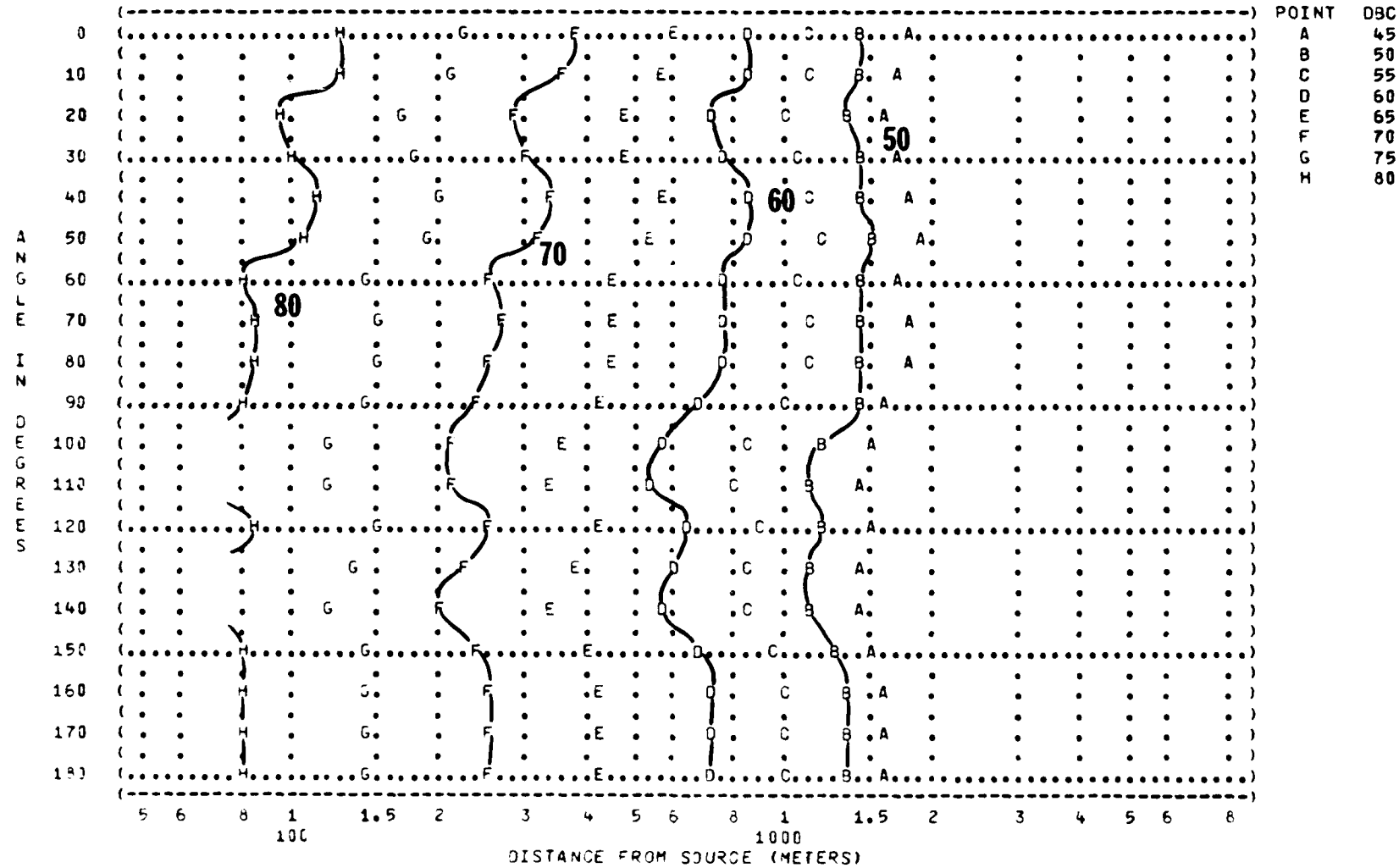


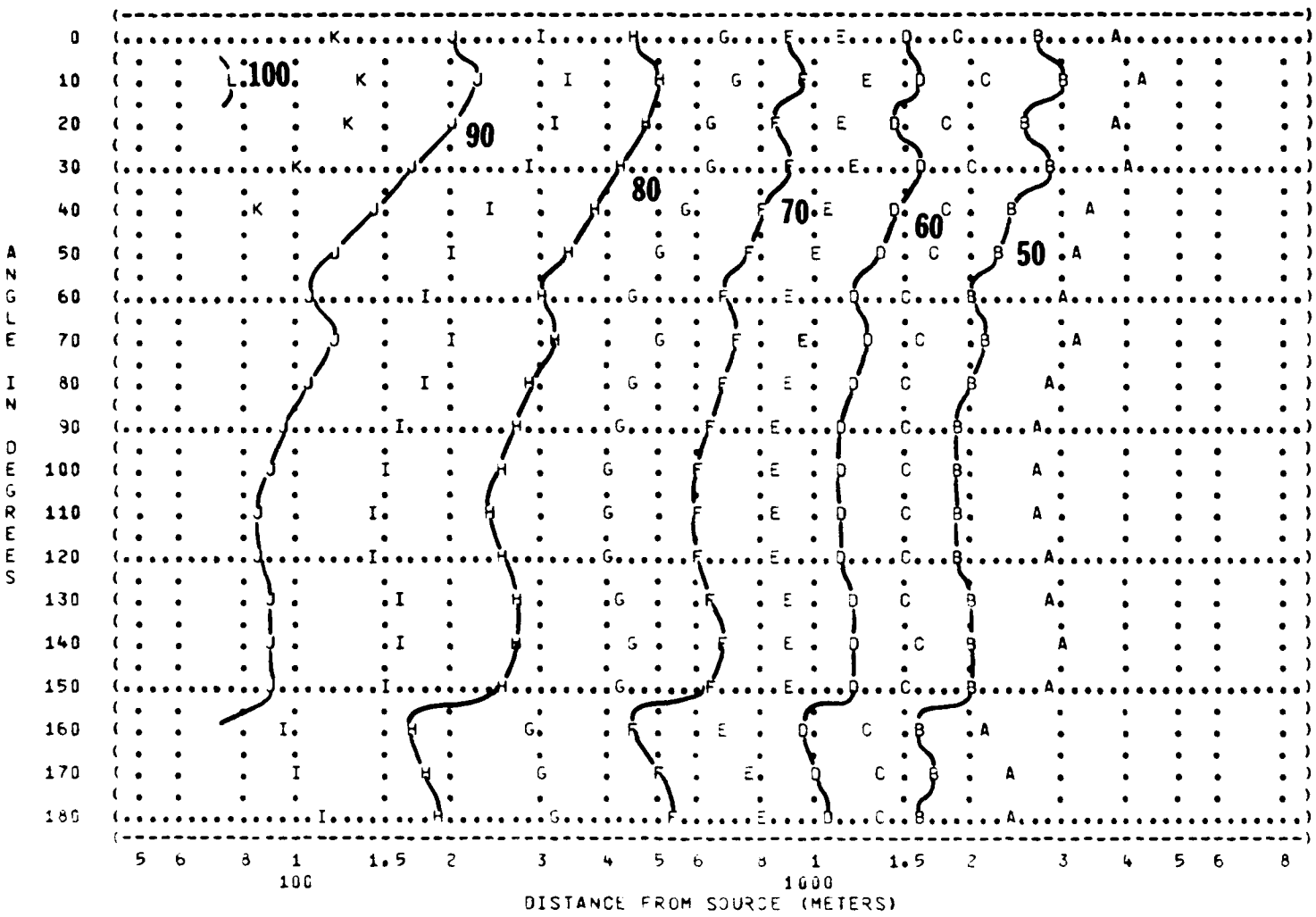
FIGURE 6: C-WEIGHTED OVERALL SOUND LEVEL (DASLC)
EQUAL LEVEL CONTOURS (DBC)

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
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

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 03
20 NOV 79
PAGE 14

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.6% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

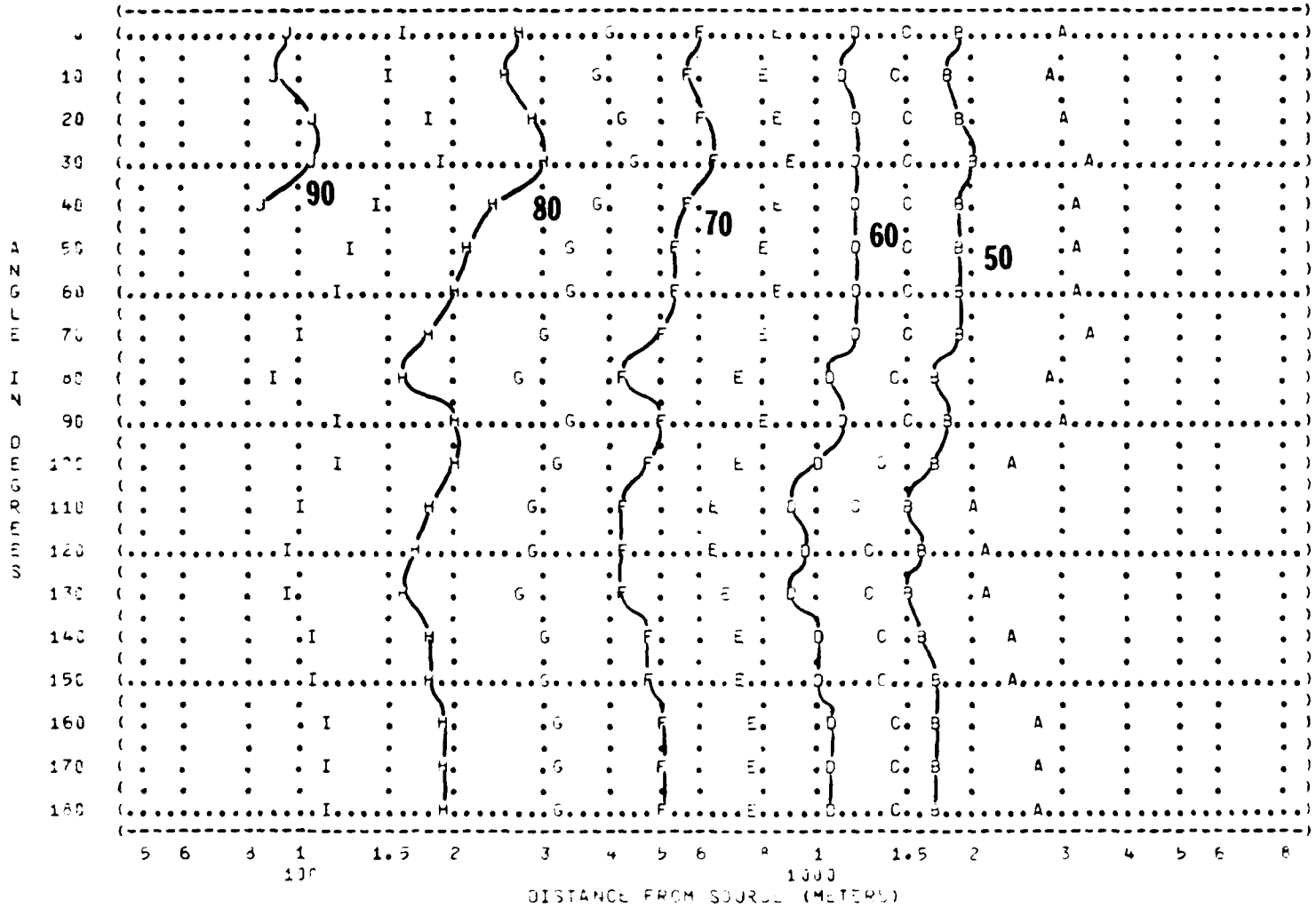


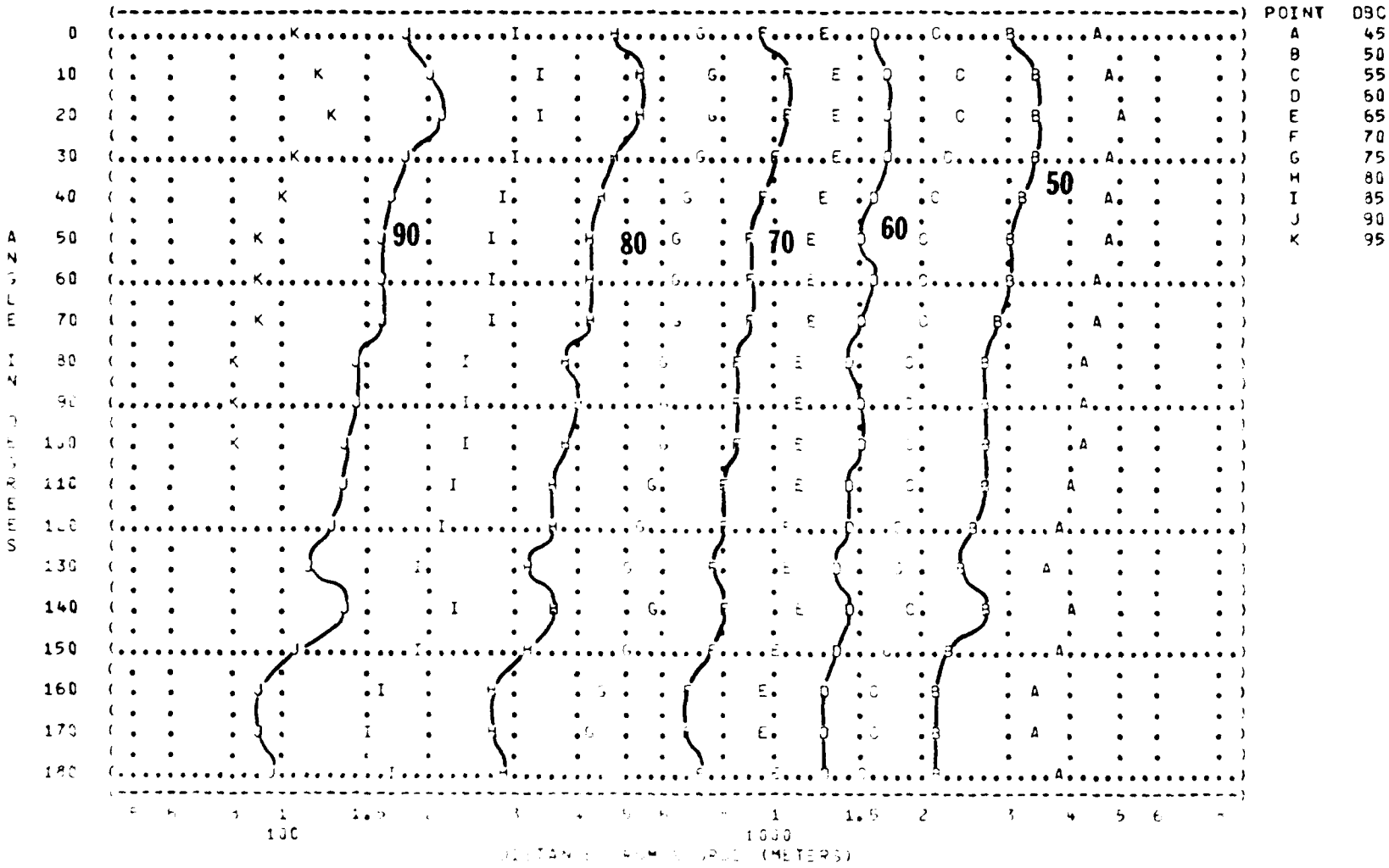
FIGURE: 6 C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
MILITARY POWER, 96% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 04
20 NOV 79
PAGE 14

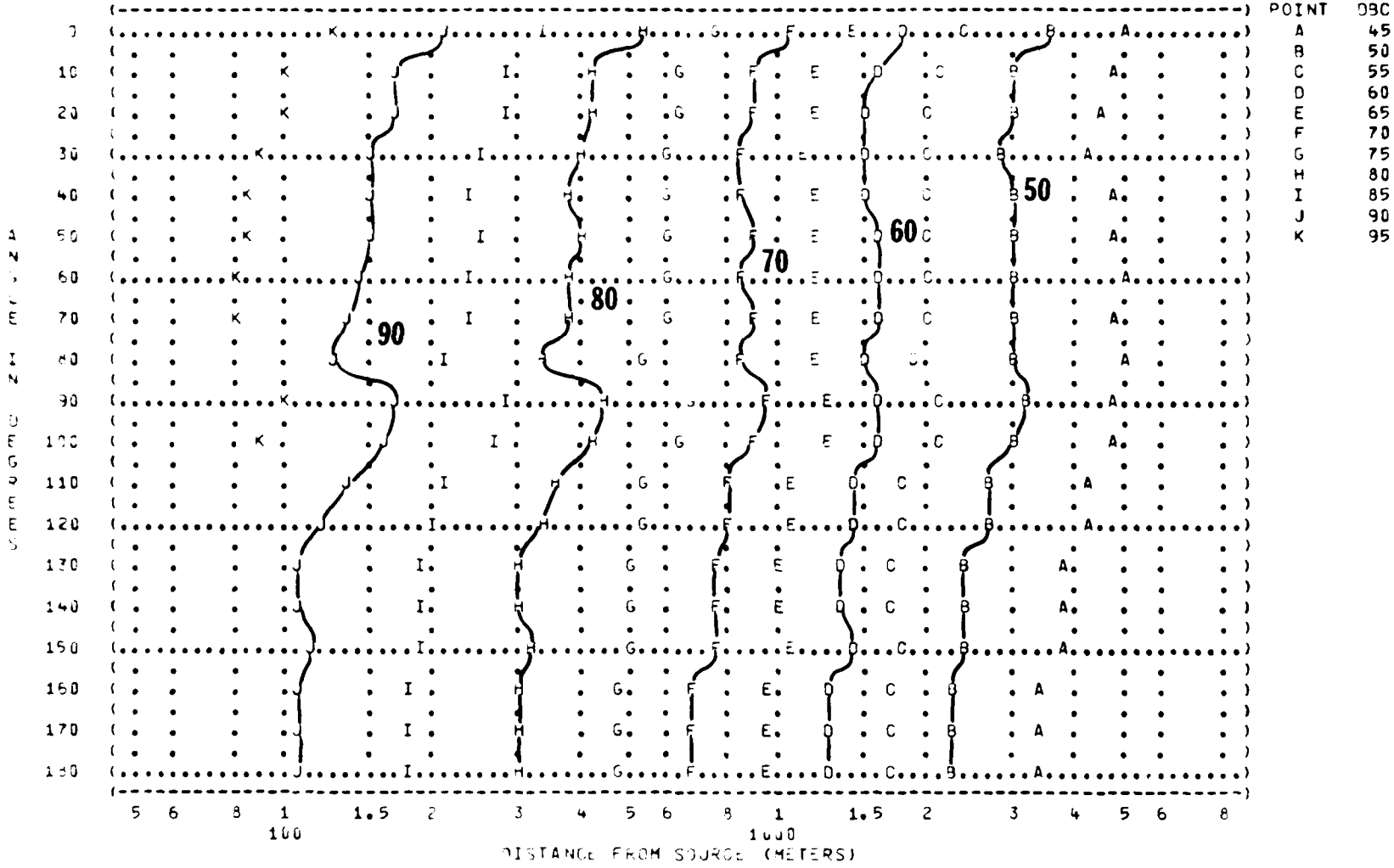


POINT	DBC
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95

FIGURE 6 — A-WEIGHTED OVERALL SOUND LEVEL (ASCC)
EQUAL LEVEL CONTOURS (DBC)

NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:
A-7 AIRCRAFT IN THE	MILITARY POWER (97.7%)	TEMP = 15 C
AF32A-24 SUPPRESSOR	SINGLE ENGINE	BAR PRESS = .760 M HG
ENGINE TF41-A-1	GROUND RUNUP (SUPPRESSED)	REL HUMID = 70 %
FAR-FIELD NOISE		

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 04
20 NOV 79
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

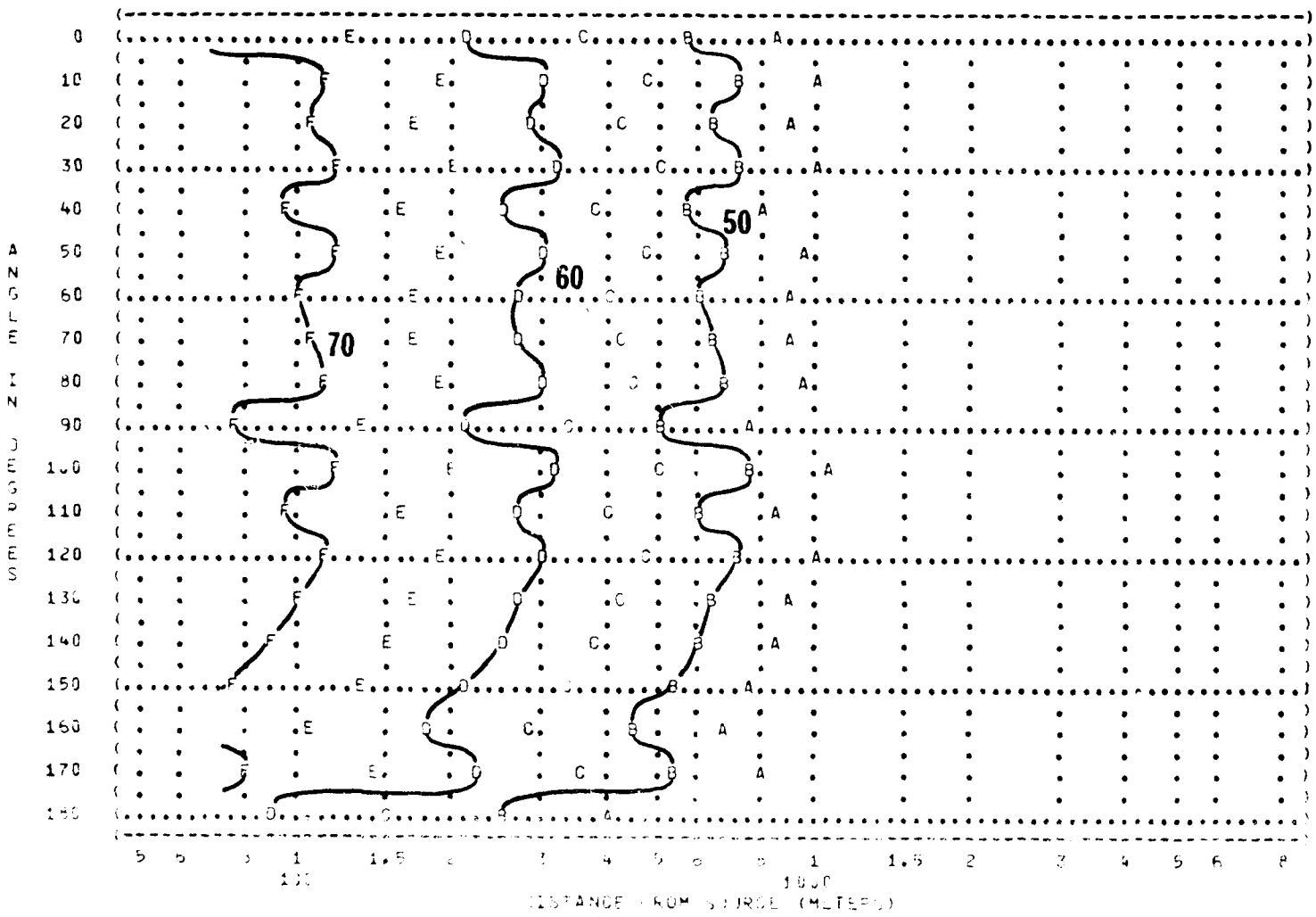
FIGURE 7: A-WEIGHTED OVERALL SOUND LEVEL (DASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 01
20 NOV 79
PAGE 15

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
IDLE PWR, 55% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 01
20 NOV 79
PAGE 15

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

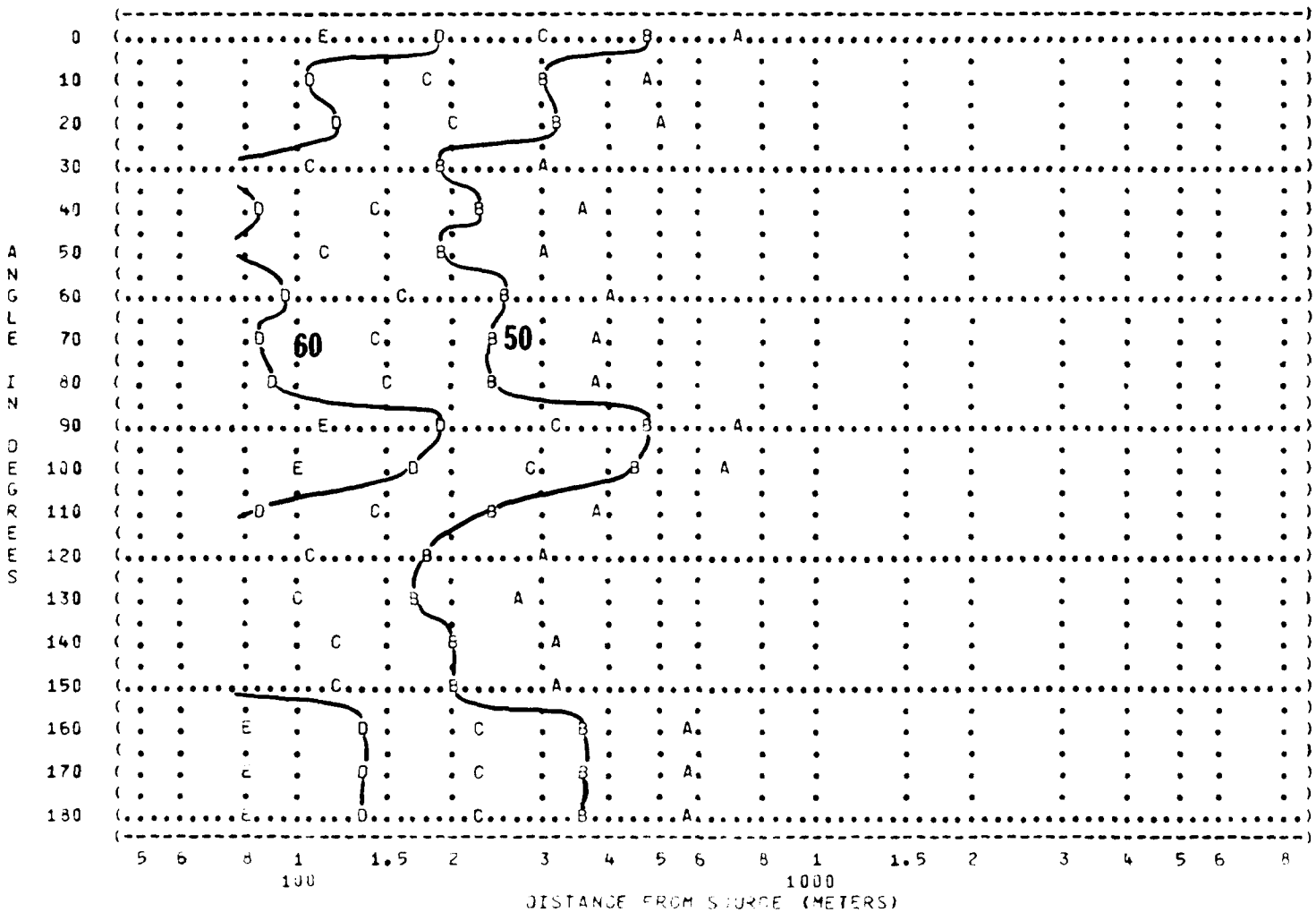


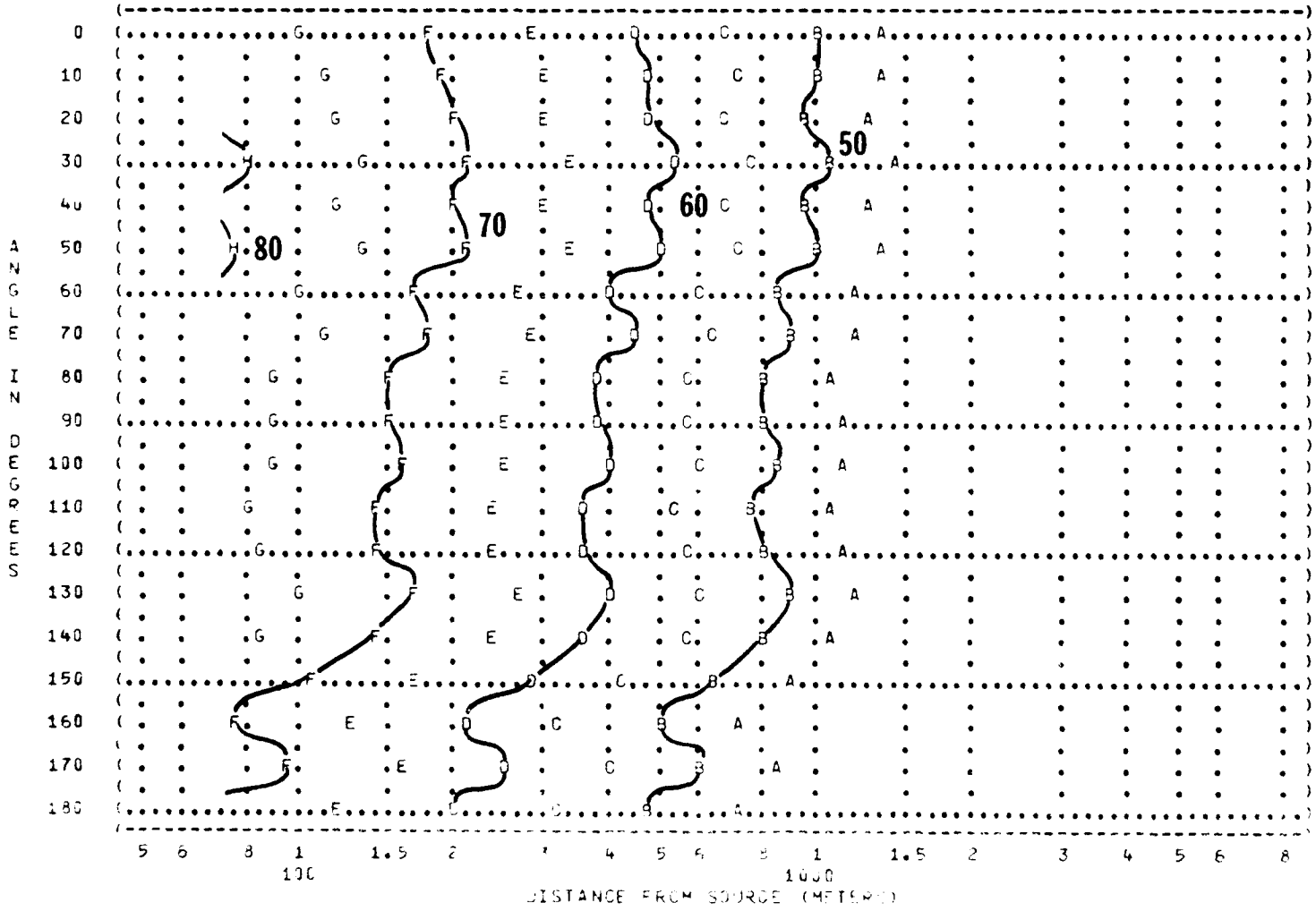
FIGURE 7: A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 15

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

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

IDENTIFICATION:
OMEGA 1.4
TEST 79-837-001
RUN 02
20 NOV 79
PAGE 15

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

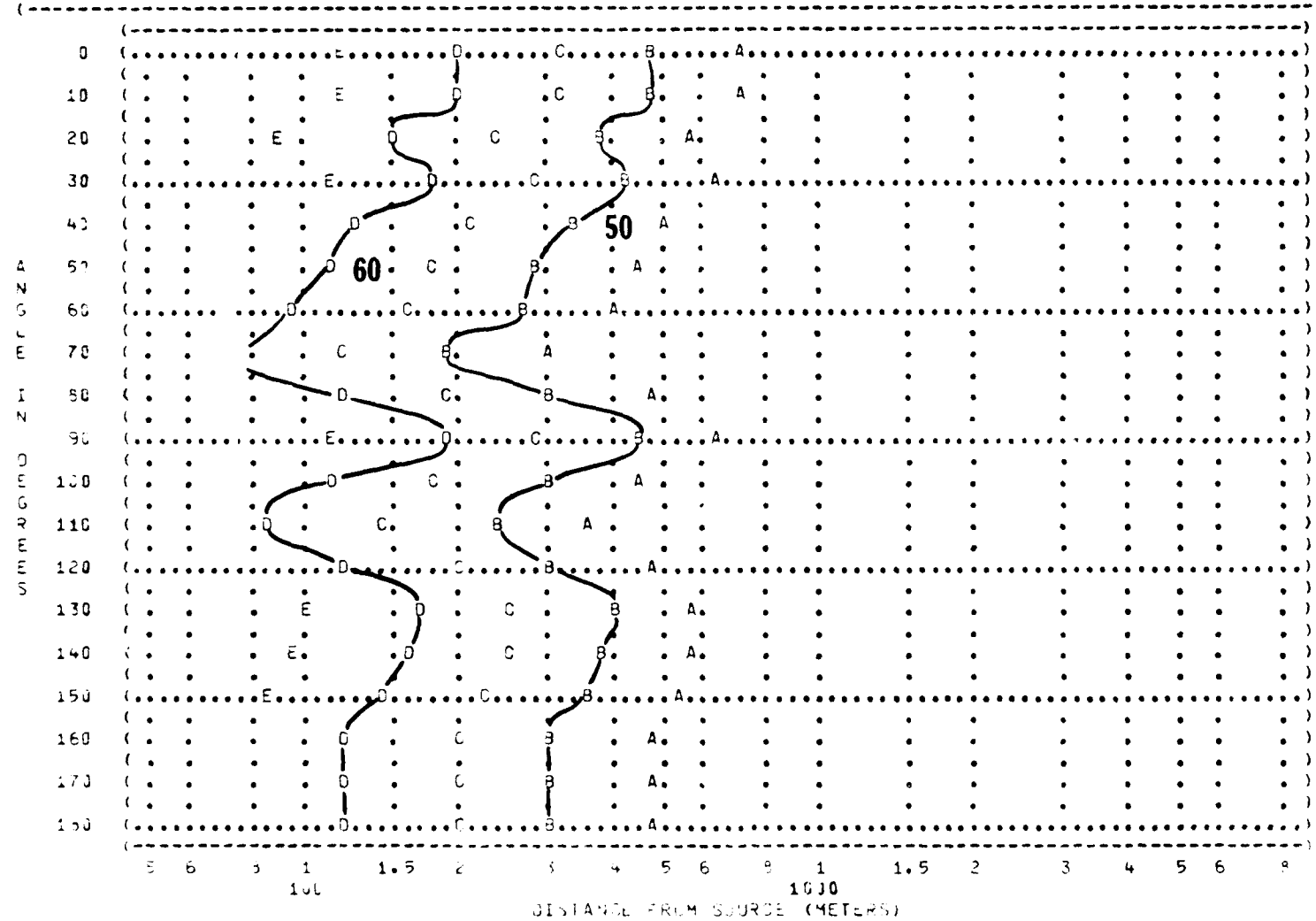


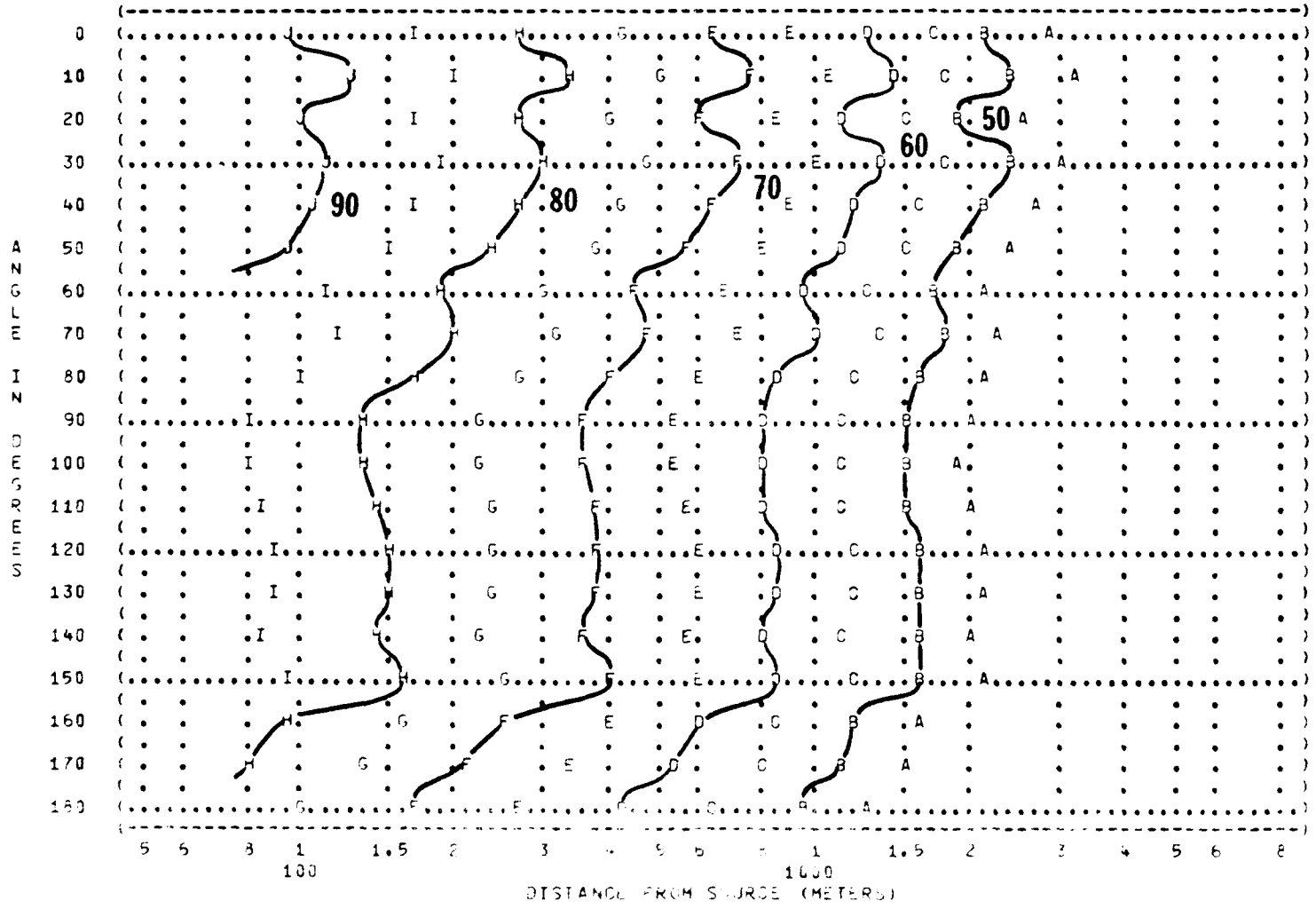
FIGURE 7: A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
PAGE 15

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

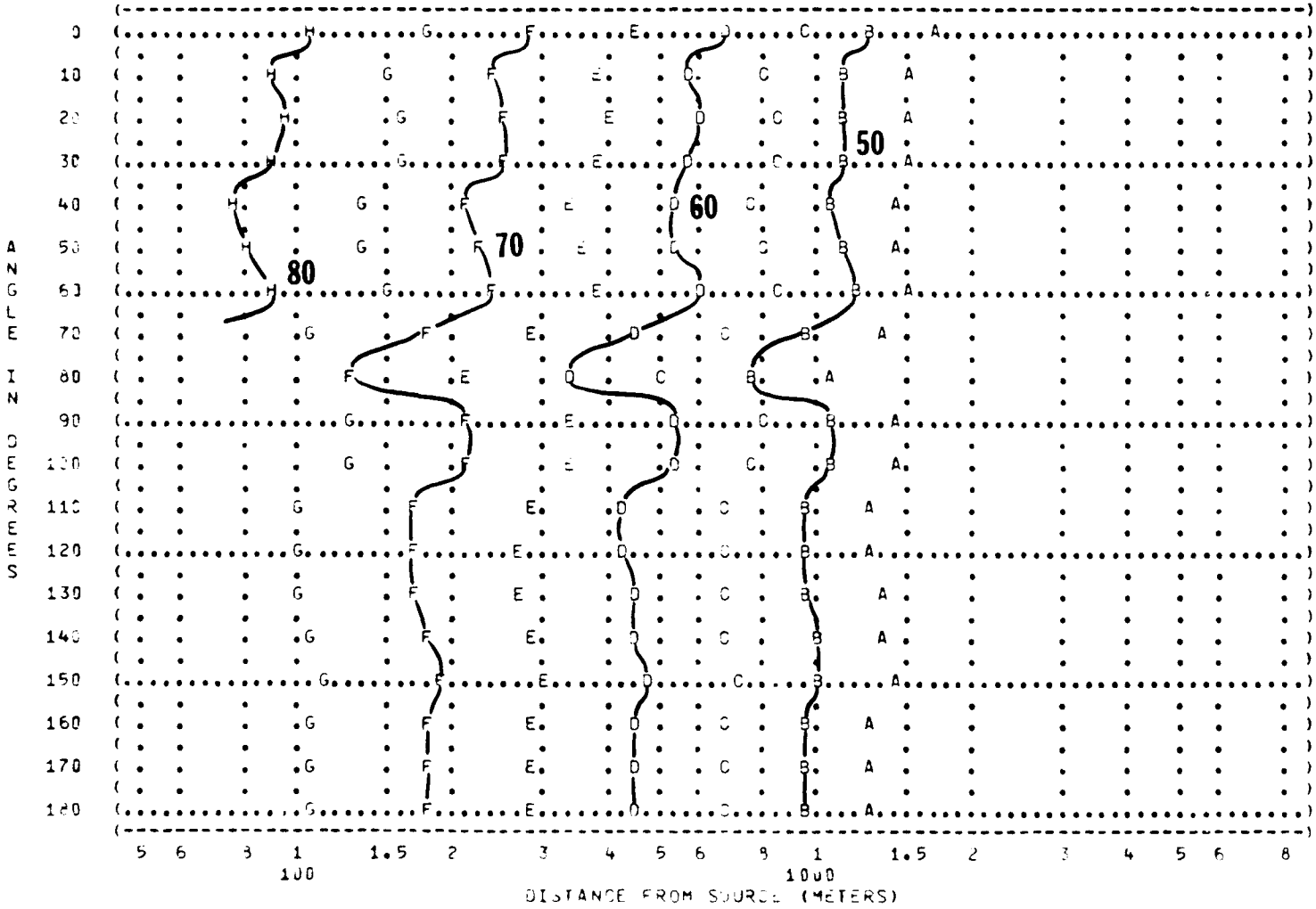
FIGURE 7: A-WEIGHTED OVERALL SOUND LEVEL (DASLA)
EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
PUN 03
20 NOV 79
PAGE 15

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.6% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .7603 M HG
REL HUMID = 70 %



POINT	DBA
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80

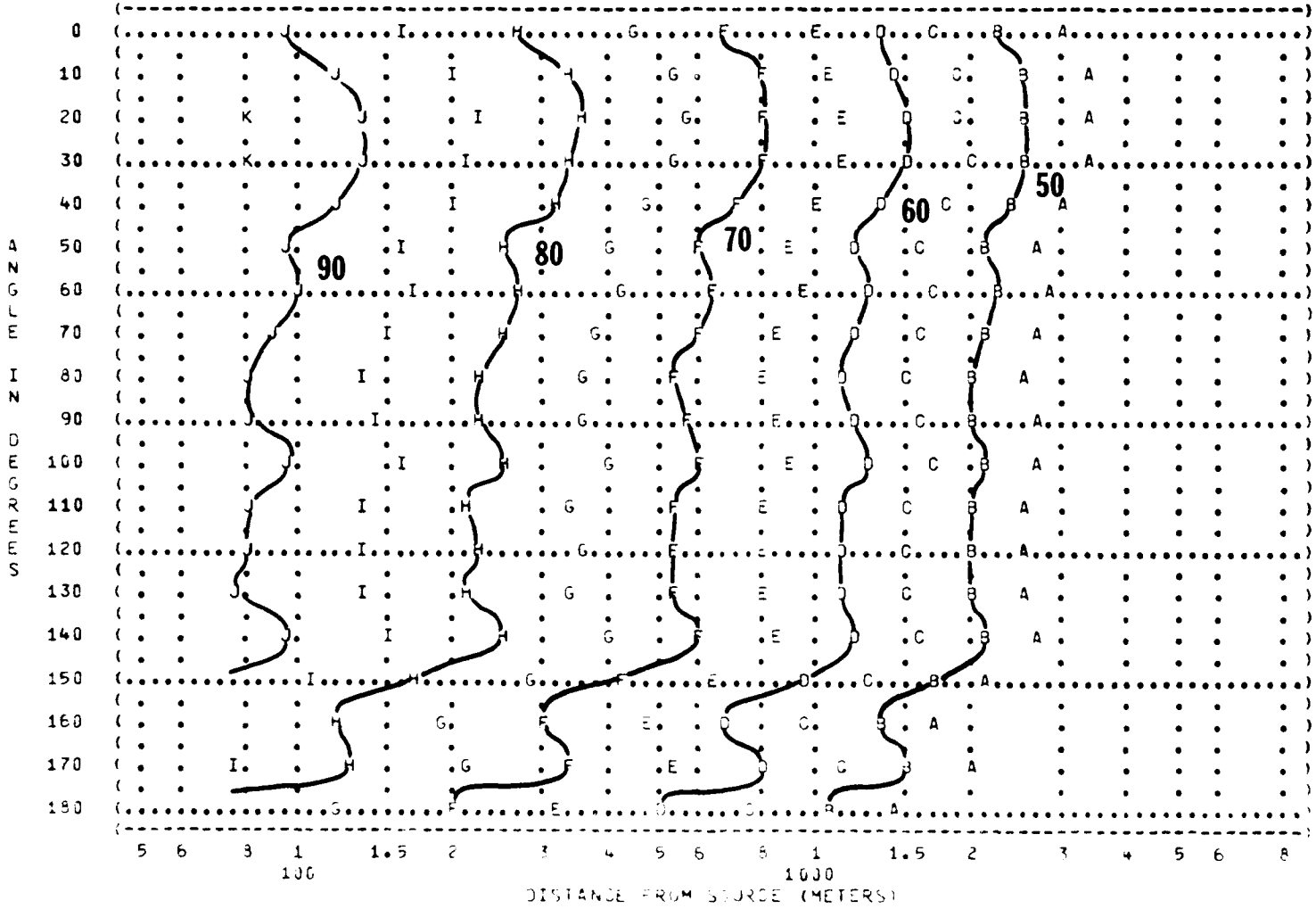
FIGURE 7: A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 04
20 NOV 79
PAGE 15

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
MILITARY POWER, 96% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

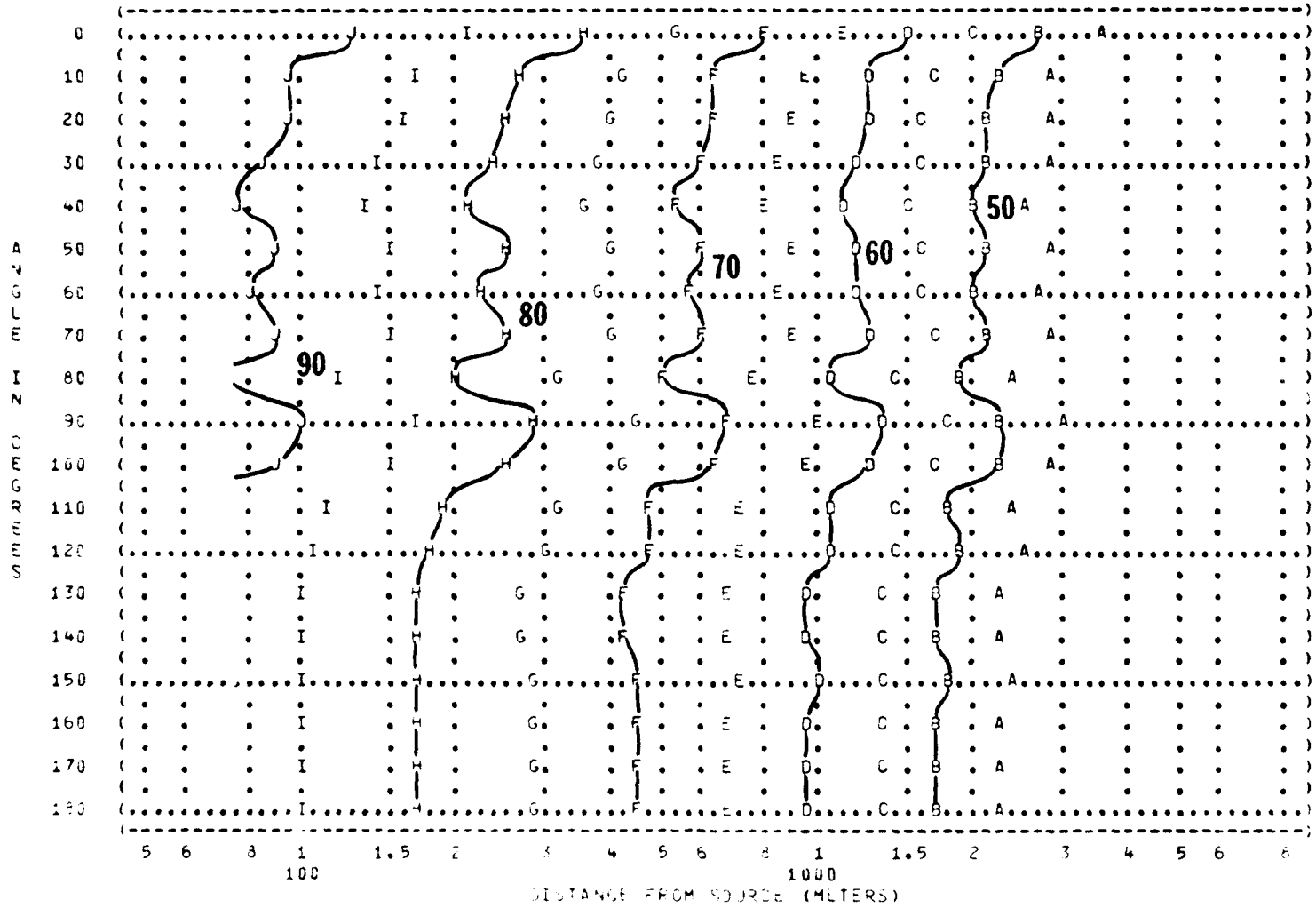
FIGURE 7 A-WEIGHTED OVERALL SOUND LEVEL (DASLA) EQUAL LEVEL CONTOURS (DBA)

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

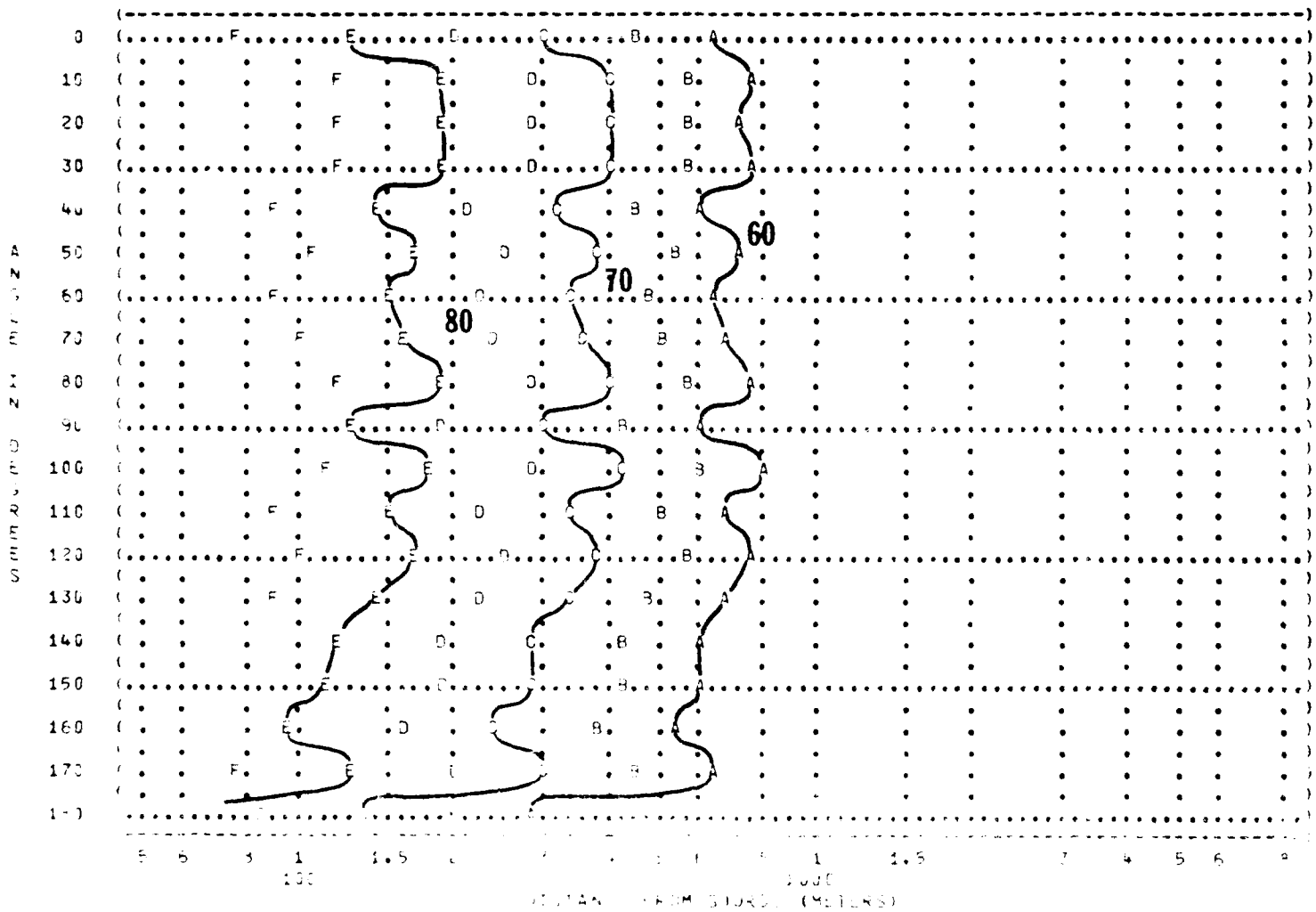
IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 04
20 NOV 79
PAGE 15



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

FIGURE 8: PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT) EQUAL LEVEL CONTOURS (PNDB)

NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:	IDENTIFICATION:
A-7J AIRCRAFT IN THE	IDLE PWR, 55% RPM	TEMP = 15 C	OMEGA 1.4
AF32A-19 SUPPRESSOR	SINGLE ENGINE	BAR PRESS = .760 M HG	TEST 77-833-001
ENGINE TF41-A-1	SUPPRESSED GROUND RUNUP	REL HUMID = 70 %	RUN 01
FAR FIELD NOISE			20 NOV 79
			PAGE 16



POINT	PNDB
A	60
B	65
C	70
D	75
E	80
F	85

FIGURE 8 PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT) EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 01
20 NOV 79
PAGE 16

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

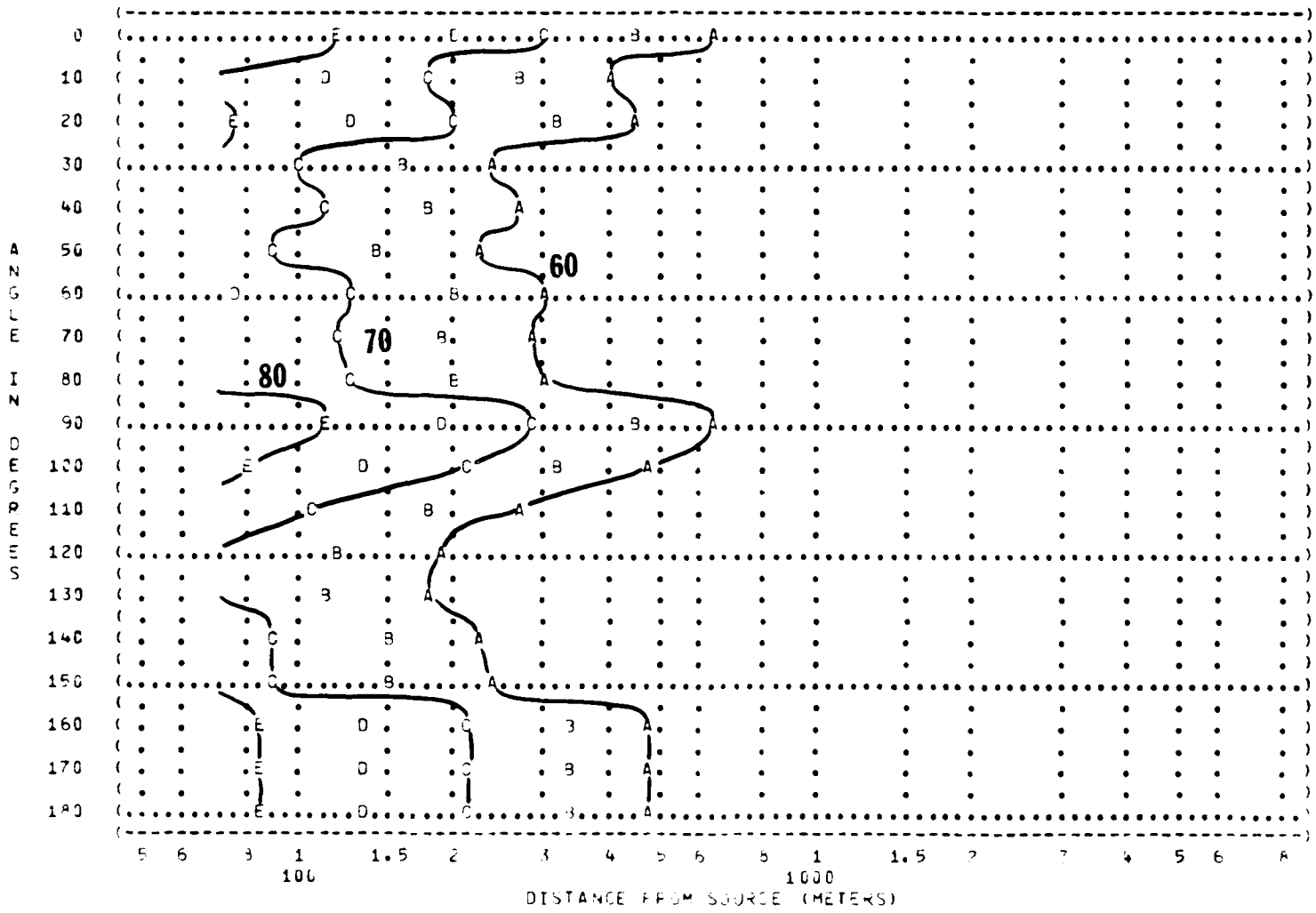


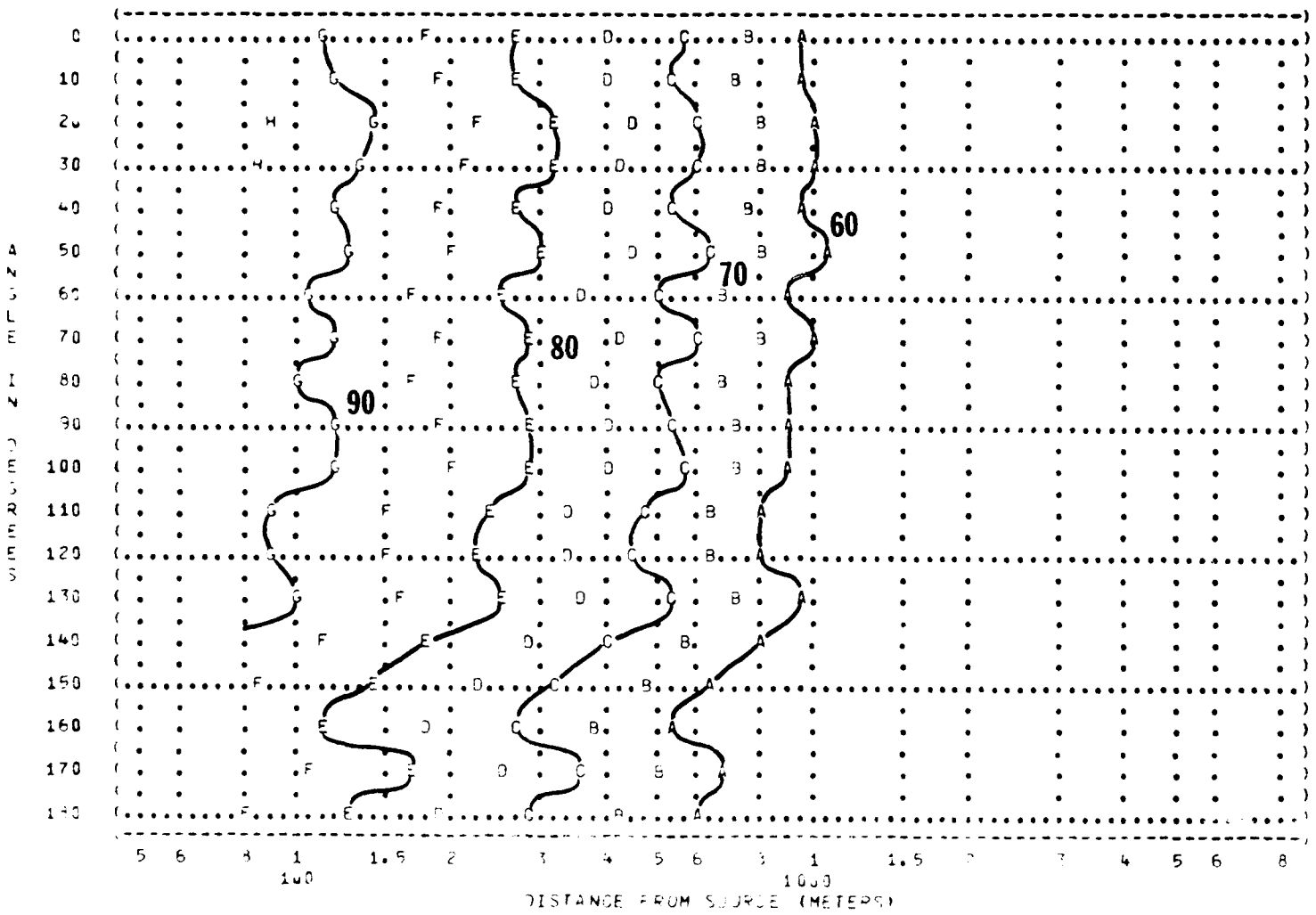
FIGURE 8: PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT)
EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 16

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

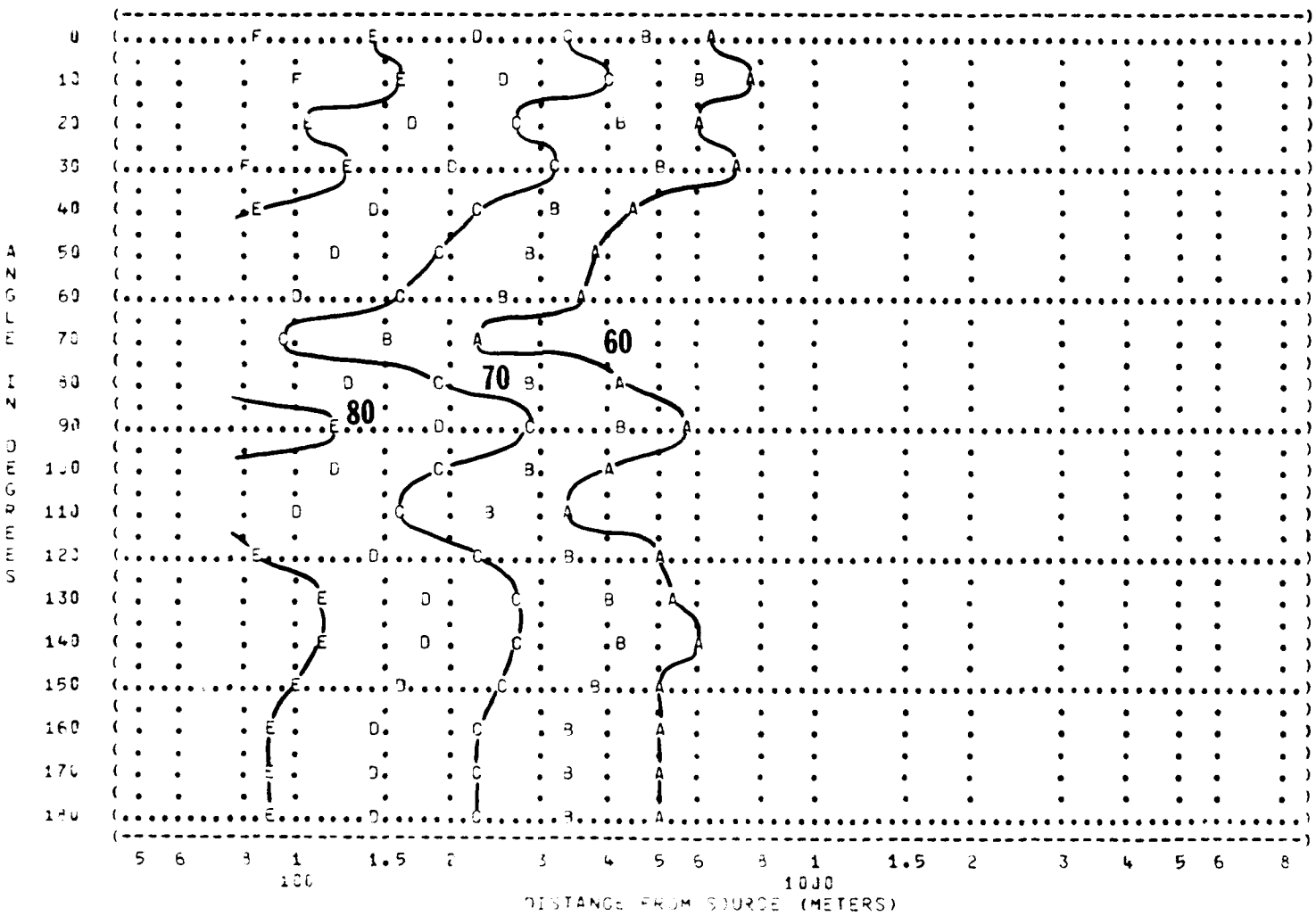
FIGURE 8: PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT)
EQUAL LEVEL CONTOURS (PNDB)

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-0J1
RUN 02
20 NOV 79
PAGE 16



POINT	PNDB
A	60
B	65
C	70
D	75
E	80
F	85

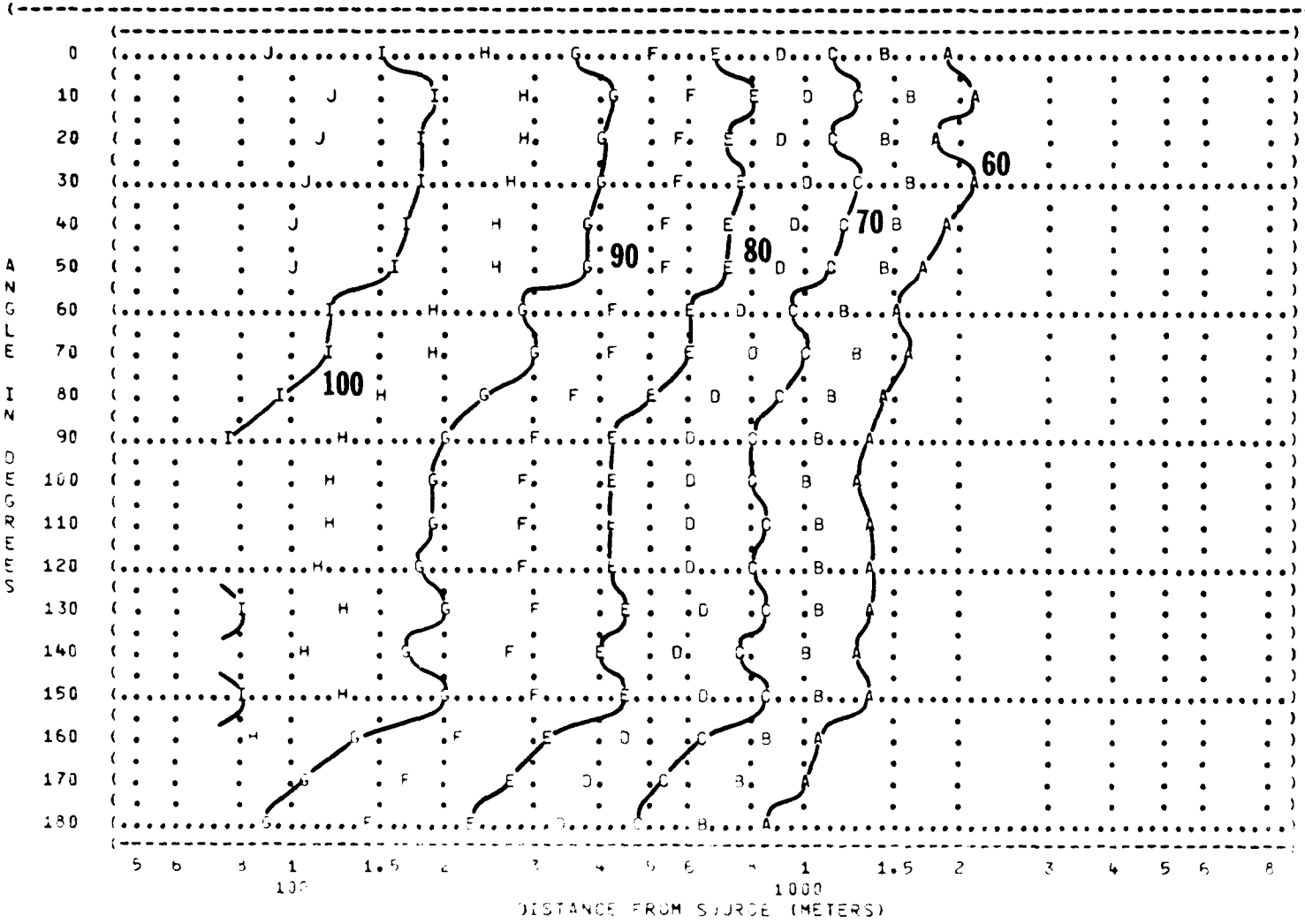
FIGURE 8: PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT)
EQUAL LEVEL CONTOURS (PNDB)

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
PAGE 16



POINT	PNDB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95
I	100
J	105

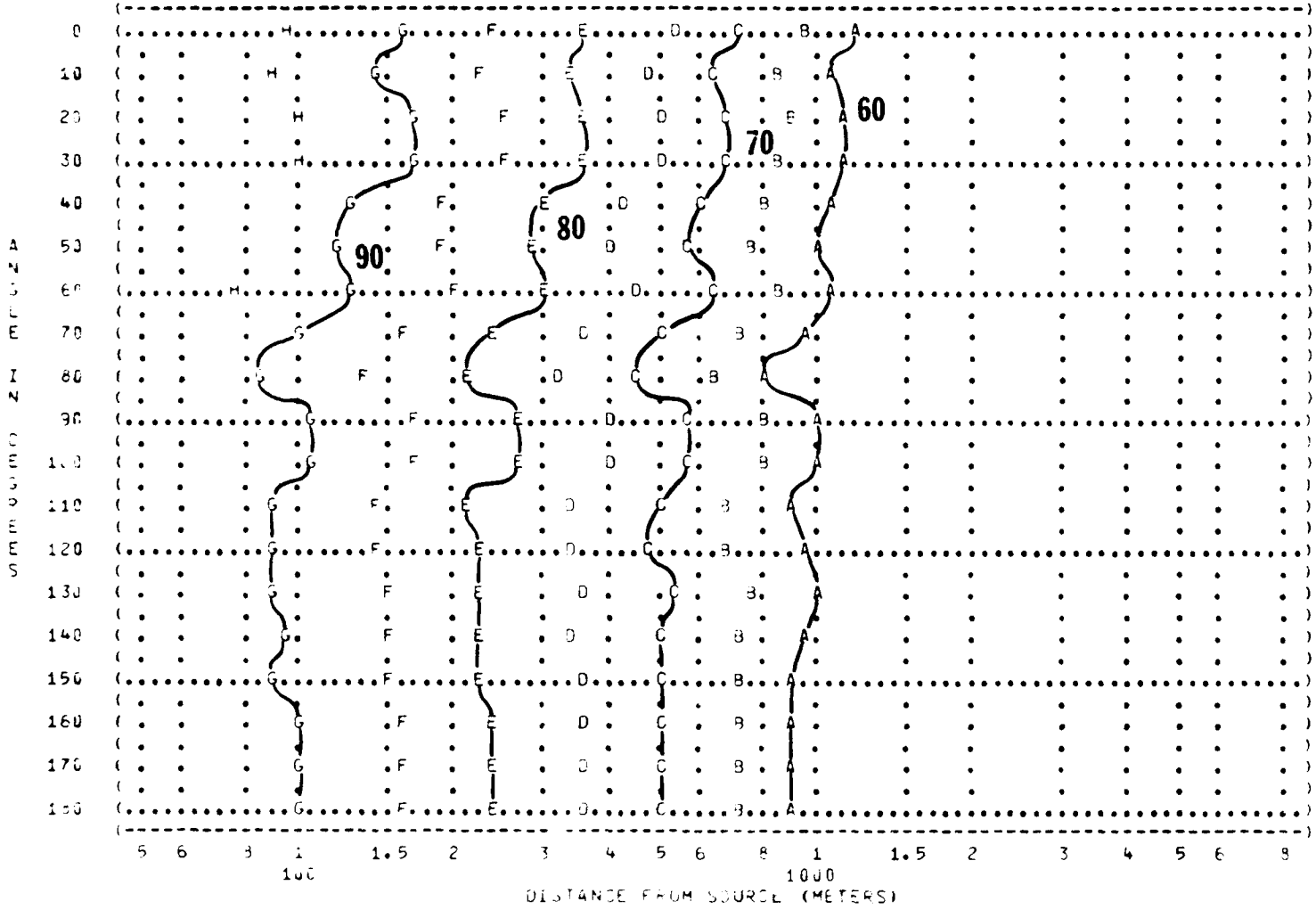
FIGURE 8 PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT)
EQUAL LEVEL CONTOURS (PNDB)

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.6% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-533-C01
RUN 07
20 NOV 79
PAGE 16



POINT	PNDB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95

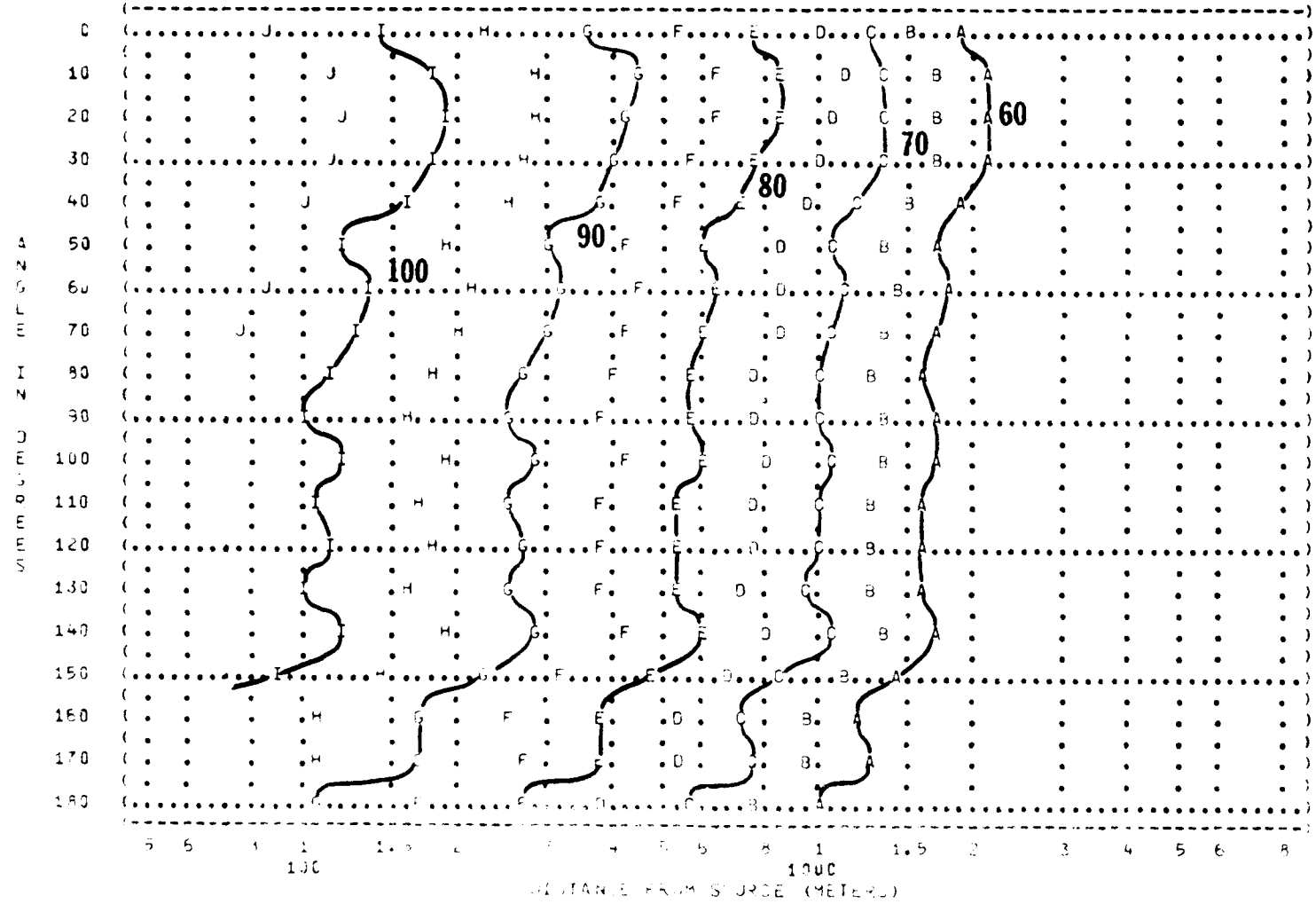
FIGURE 8: PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT) EQUAL LEVEL CONTOURS (PNDB)

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
MILITARY POWER, 96% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 04
20 NOV 79
PAGE 16



POINT	PNDB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95
I	100
J	105

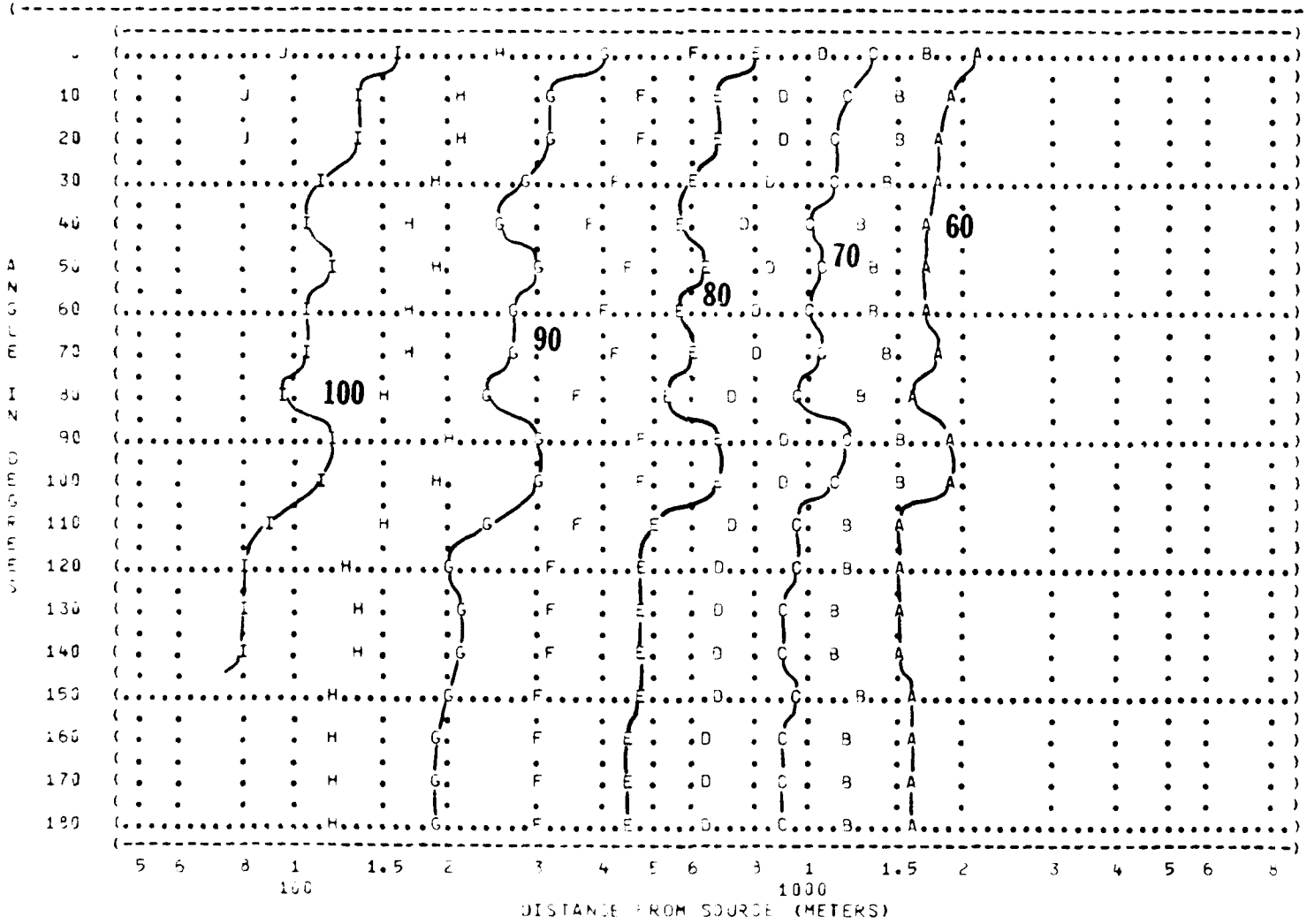
FIGURE 8 : PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT) EQUAL LEVEL CONTOURS (PNdB)

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 79-833-001
RUN 04
20 NOV 79
PAGE 16



POINT	PNdB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95
I	100
J	105

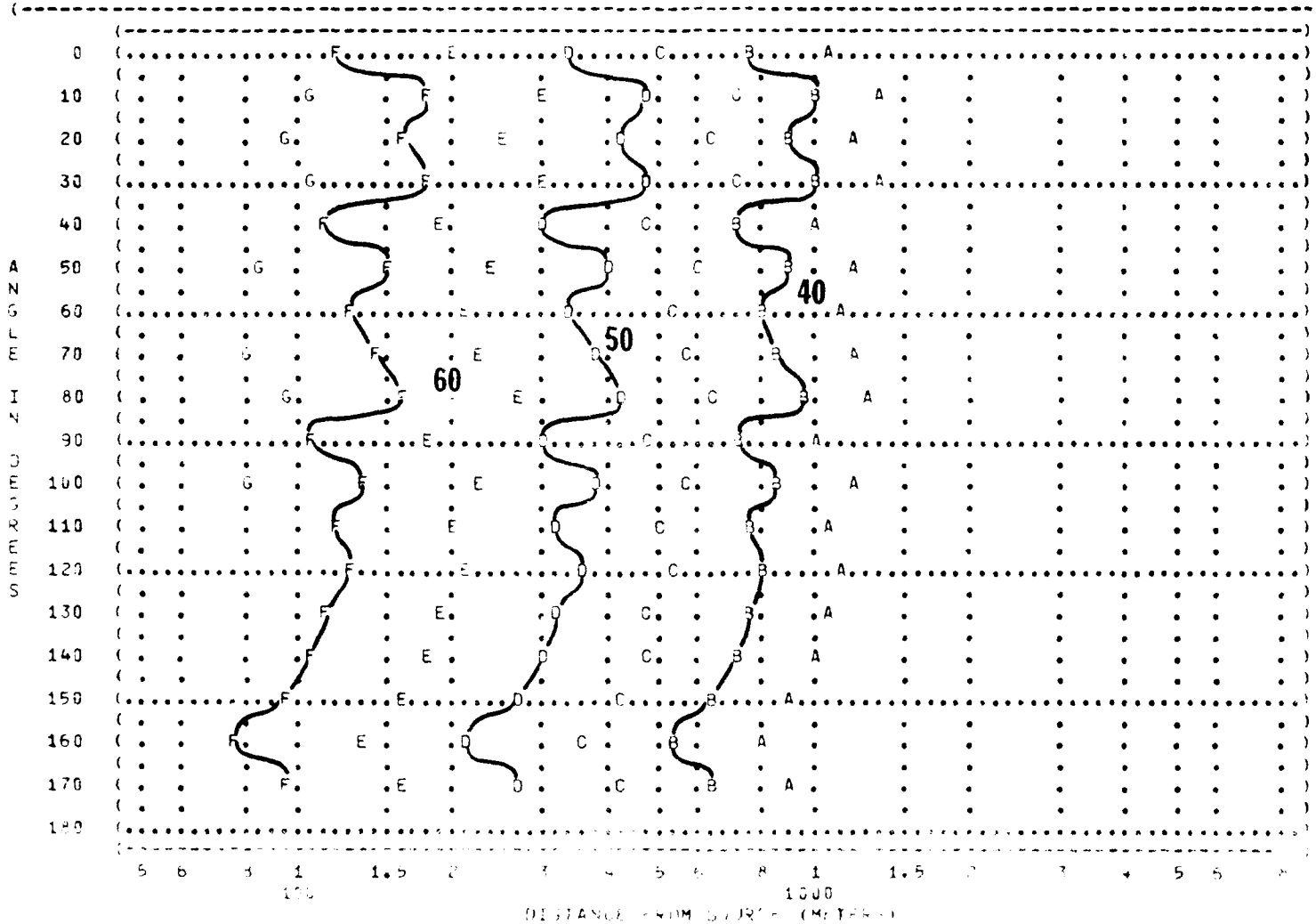
FIGURE: 9 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL)
EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 01
20 NOV 79
PAGE 17

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
IDLE PWR, 55% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

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

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 79-933-001
RUN 51
20 NOV 79
PAGE 17

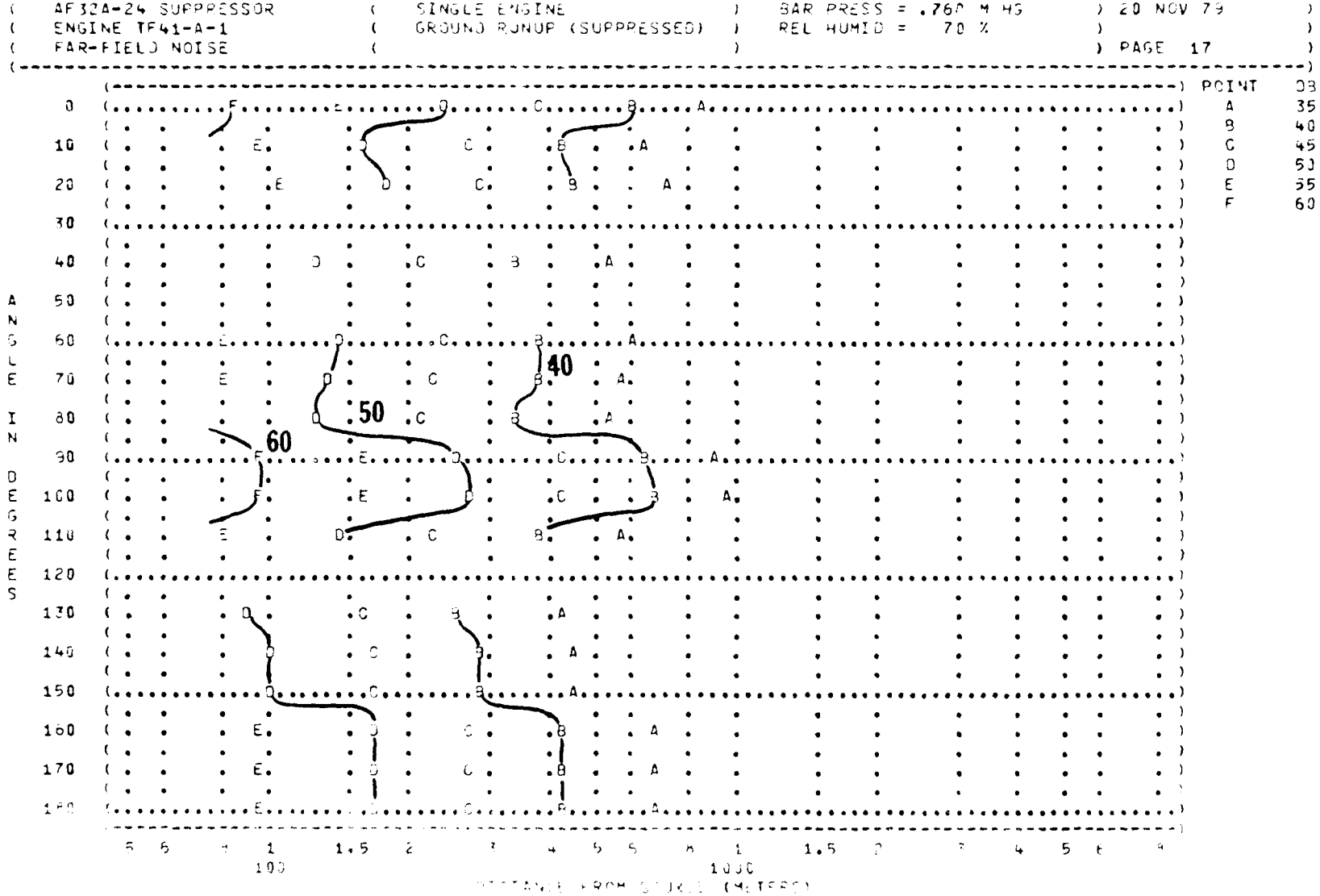


FIGURE: 9 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 17

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

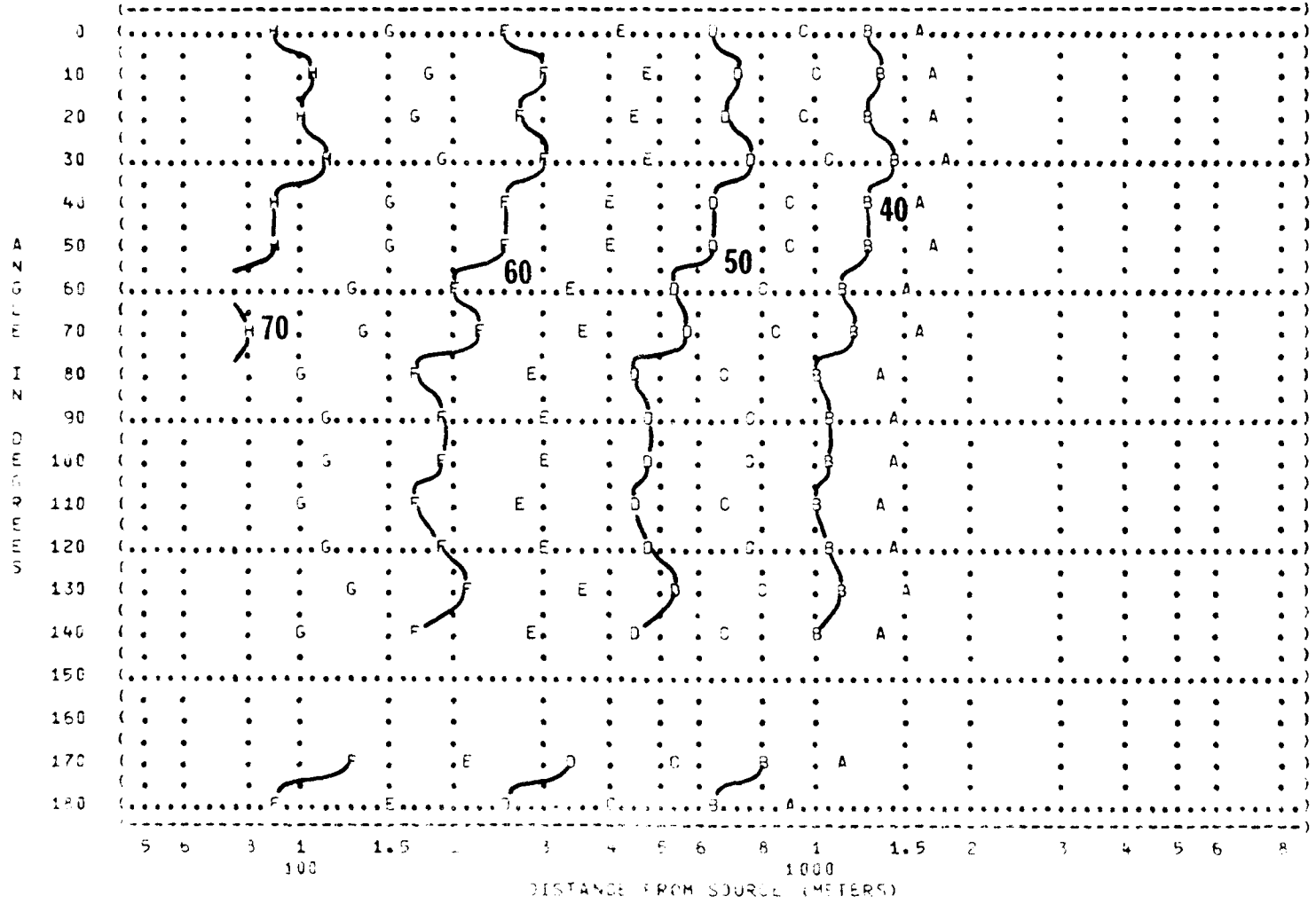


FIGURE 9 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 79-833-001
RUN 02
20 NOV 79
PAGE 17

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

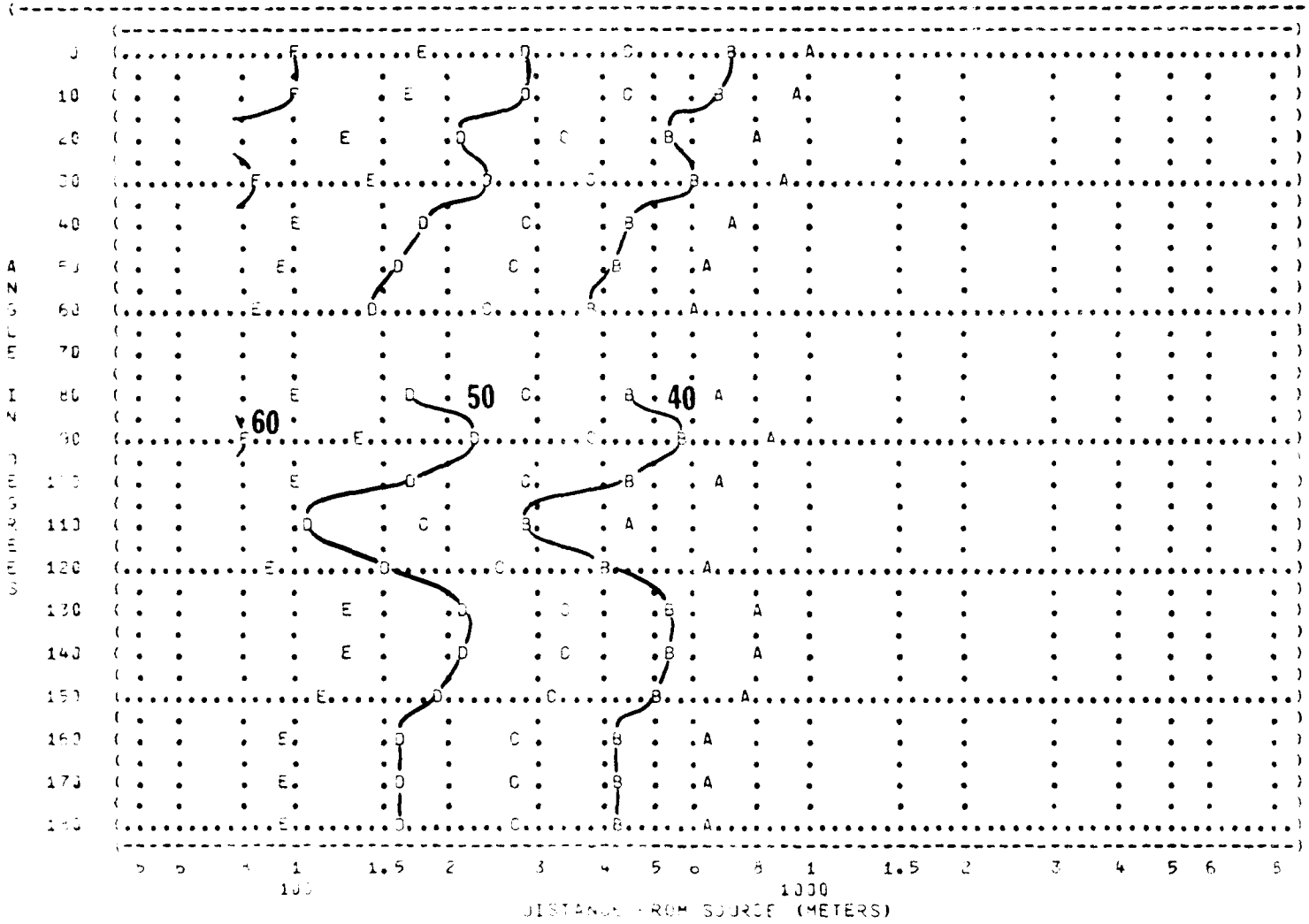


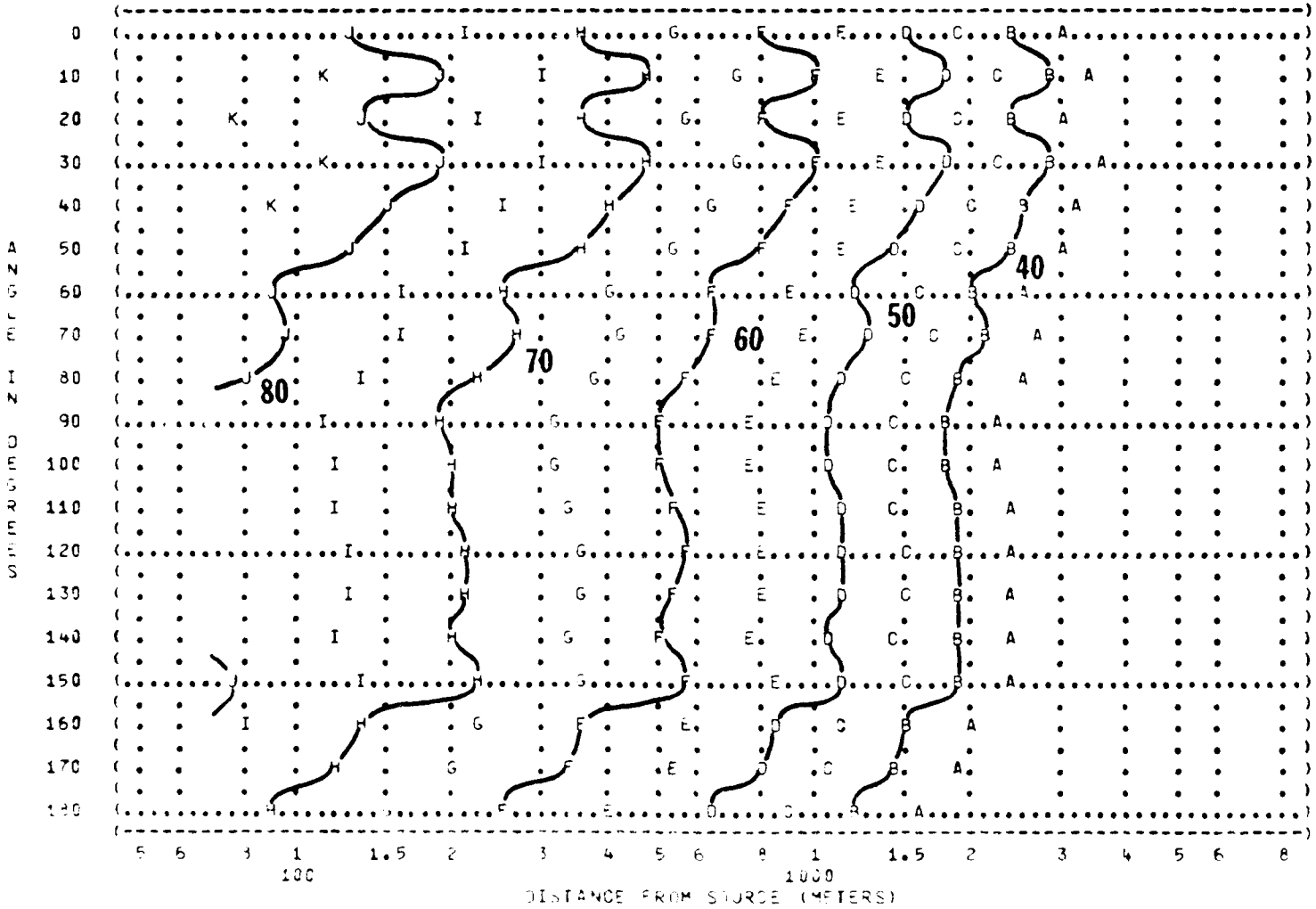
FIGURE 9 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

NOISE SOURCE/SUBJECT:
A-70 AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
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

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

NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:	IDENTIFICATION:
F-7 AIRCRAFT IN THE AFB2A-24 SUPPRESSOR ENGINE TF41-A-1 FAR-FIELD NOISE	85.6% RPM SINGLE ENGINE GROUND MINOR (SUPPRESSED)	TEMP = 15 C BAR PRESS = .760 M HG REL HUMID = 70 %	OMEGA 1.4 TEST 7[illegible]-033-001 RUN 03 20 NOV 79 PAGE 17

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

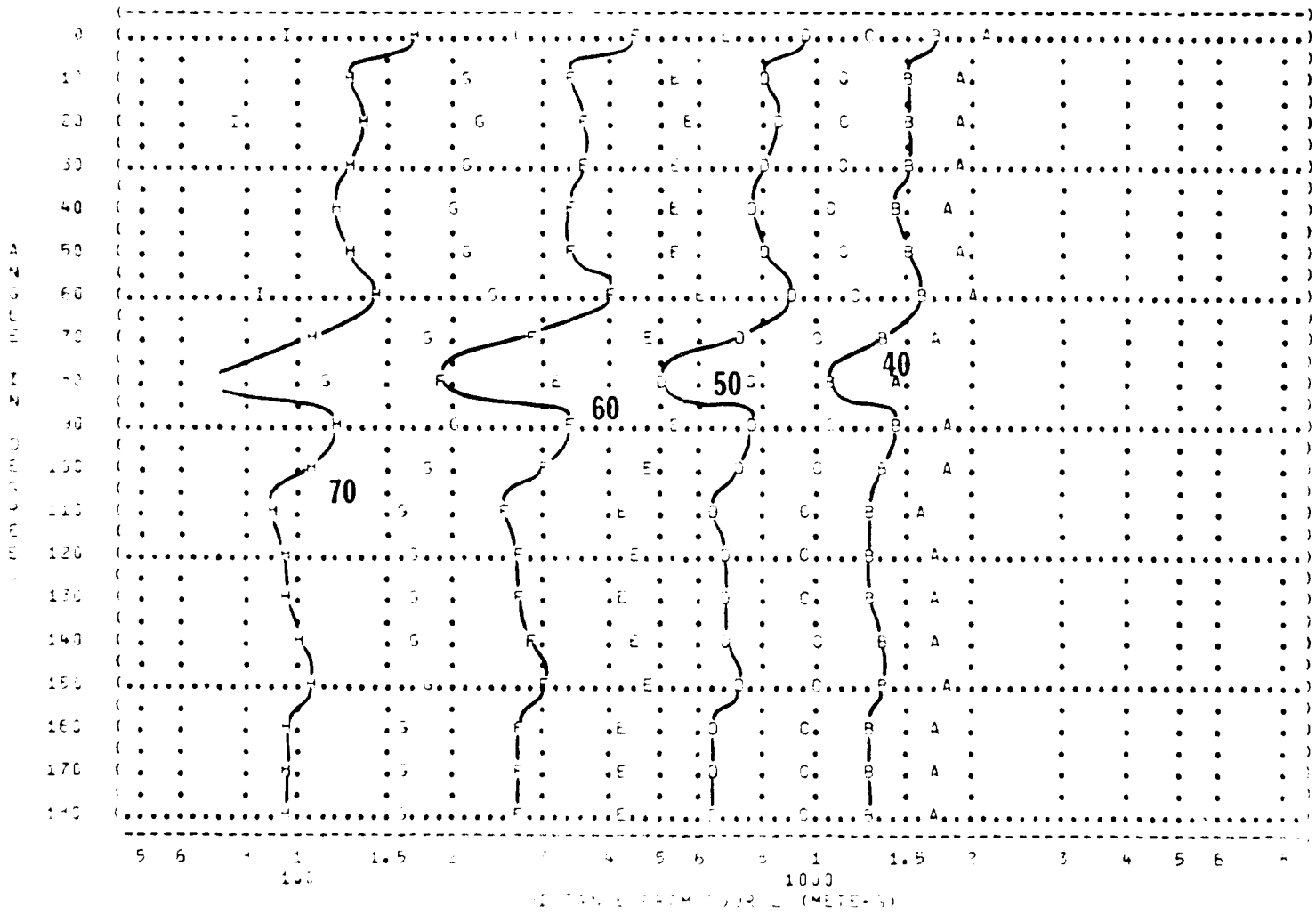


FIGURE 9 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 04
20 NOV 79
PAGE 17

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
MILITARY POWER, 96% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

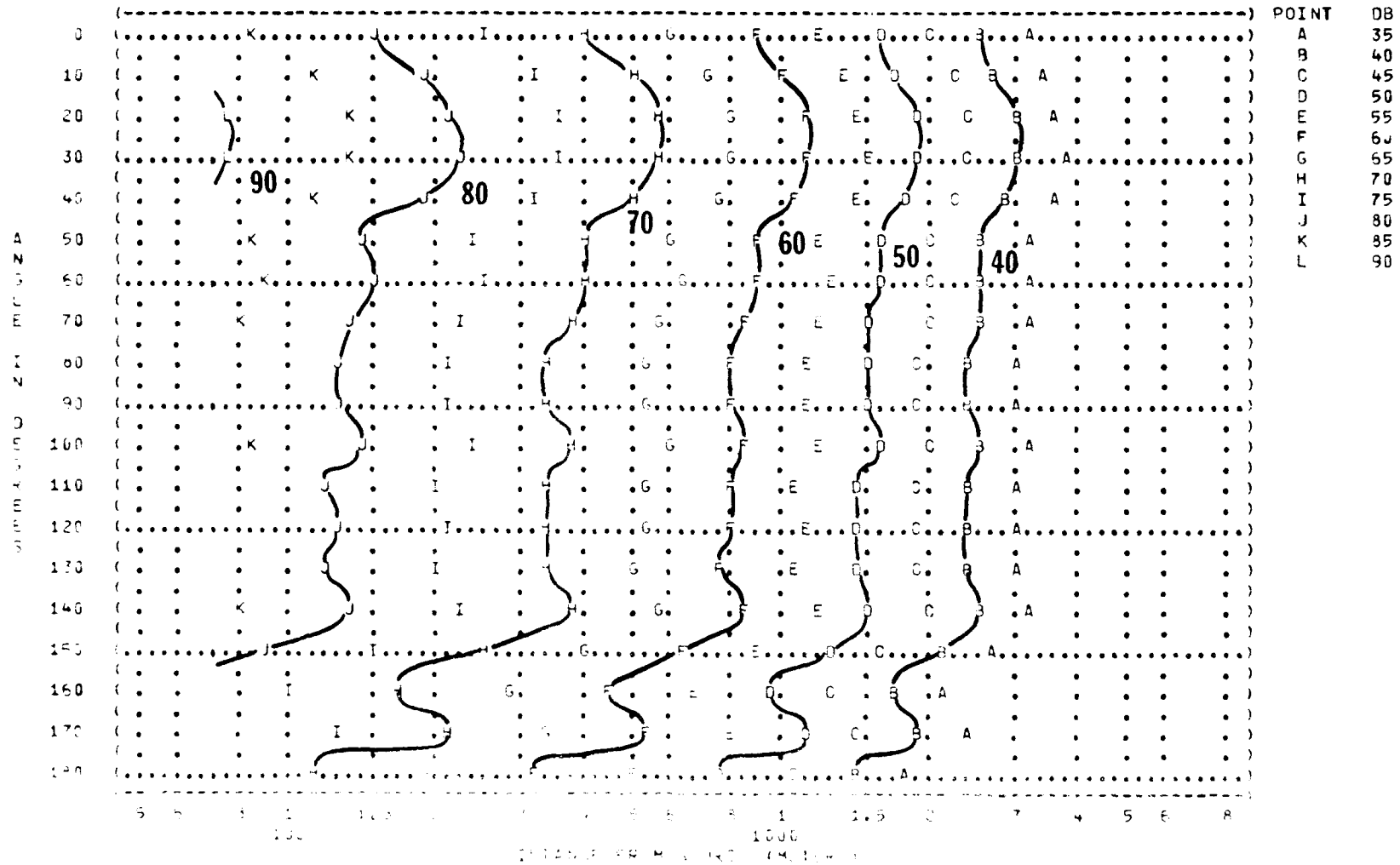


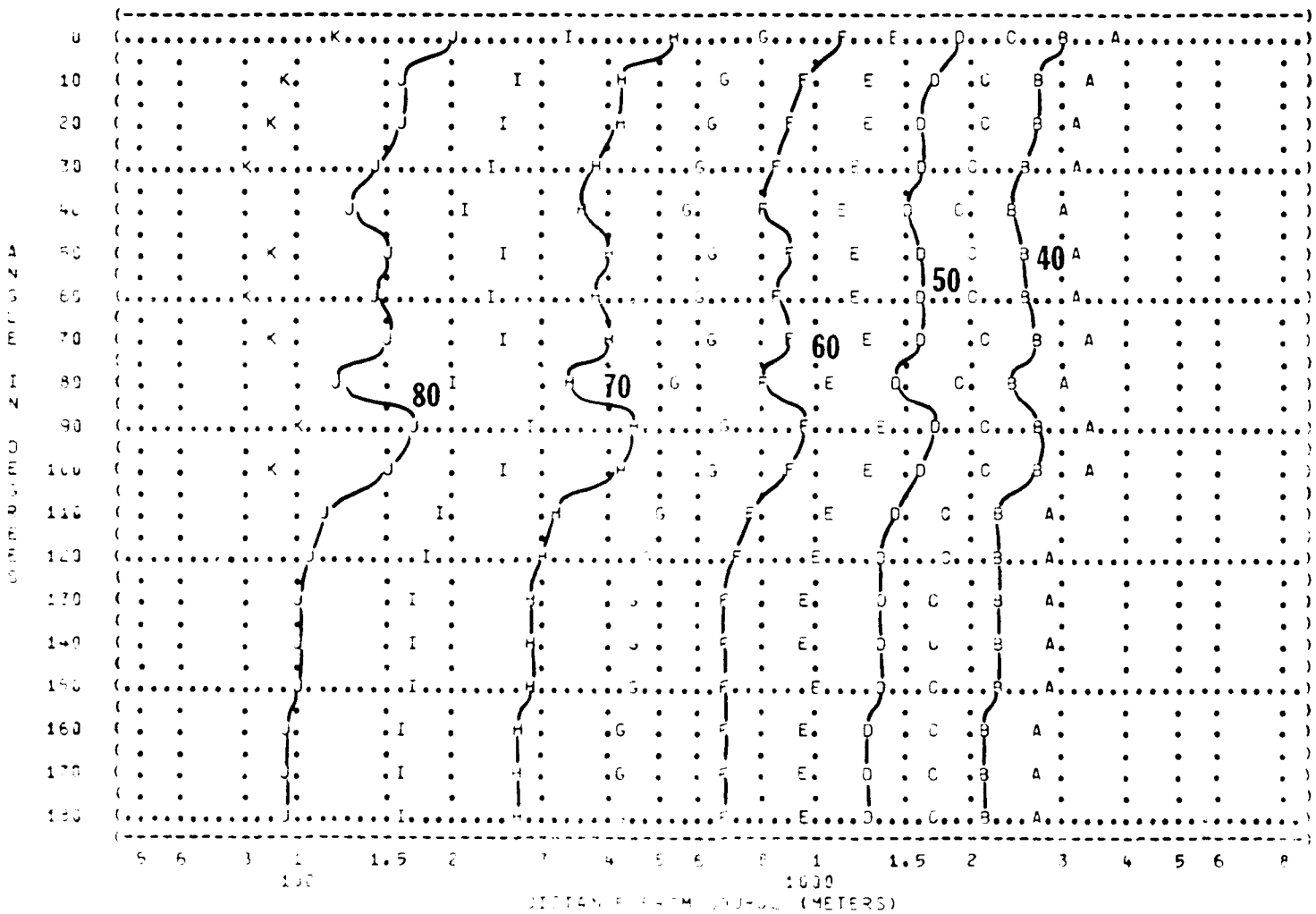
FIGURE 9: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 04
20 NOV 79
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

FIGURE 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 01
20 NOV 79
PAGE 7

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
IDLE PWR, 55% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

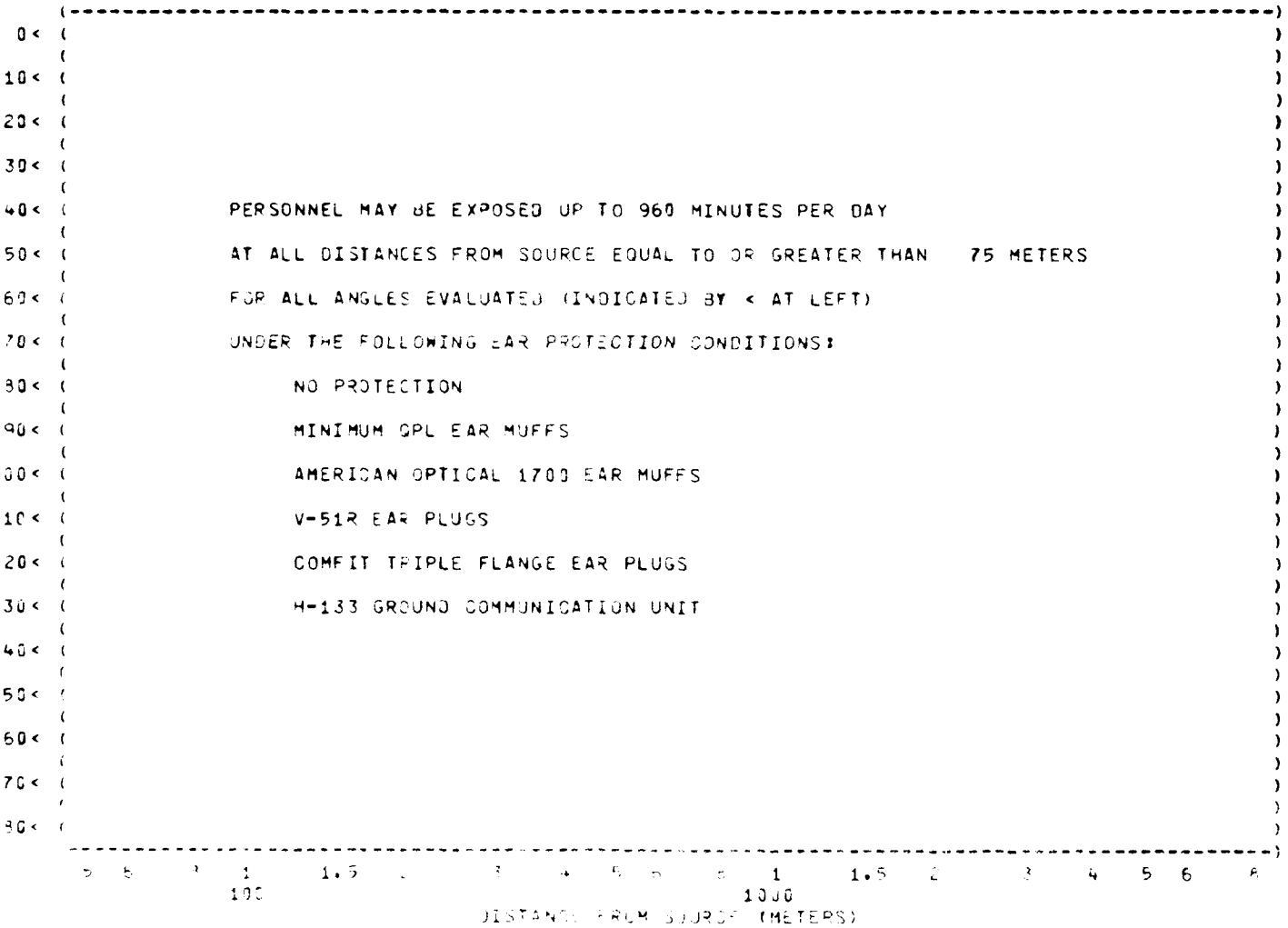


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 01
20 NOV 79
PAGE 7

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

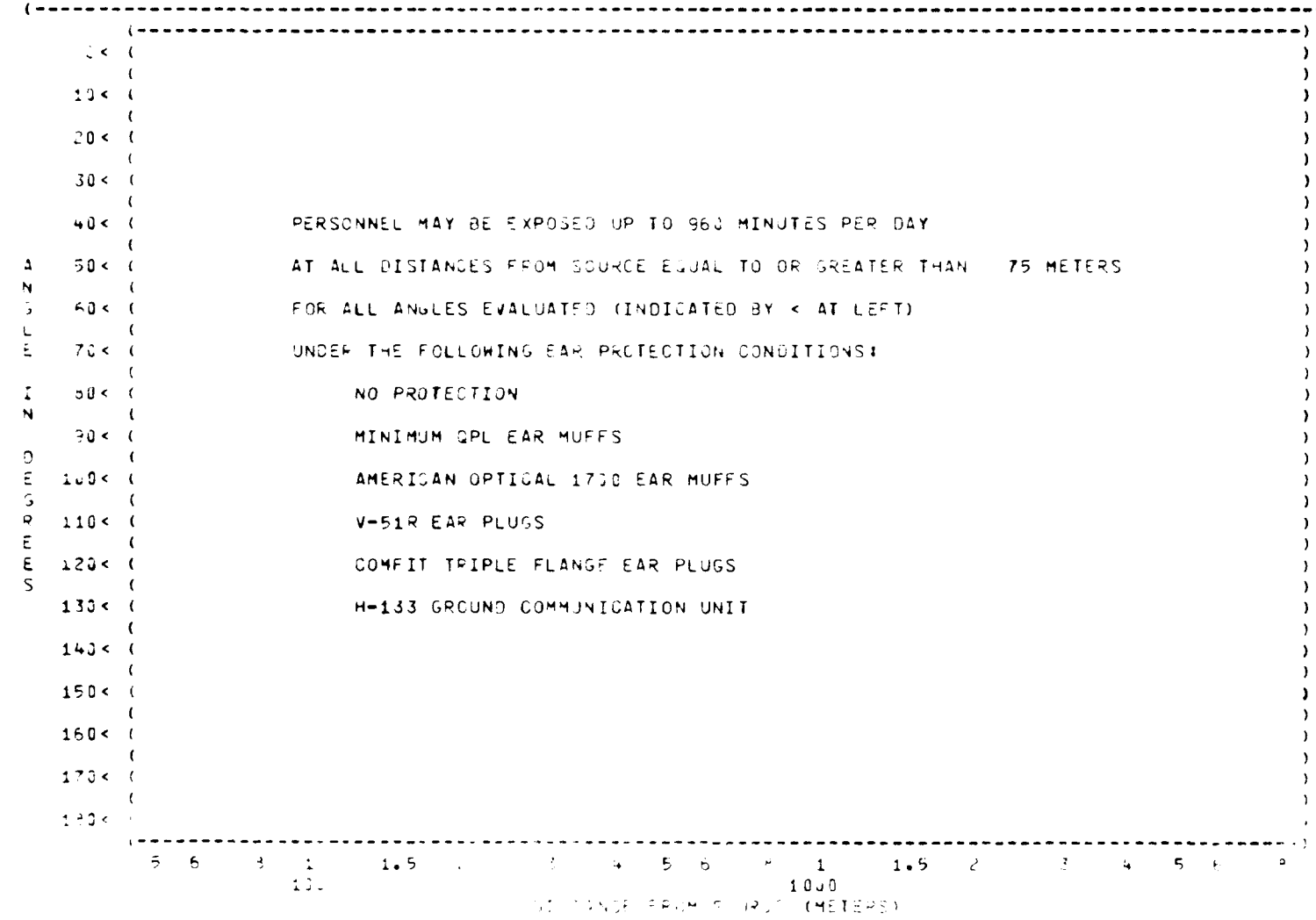


FIGURE: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)

10

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 7

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

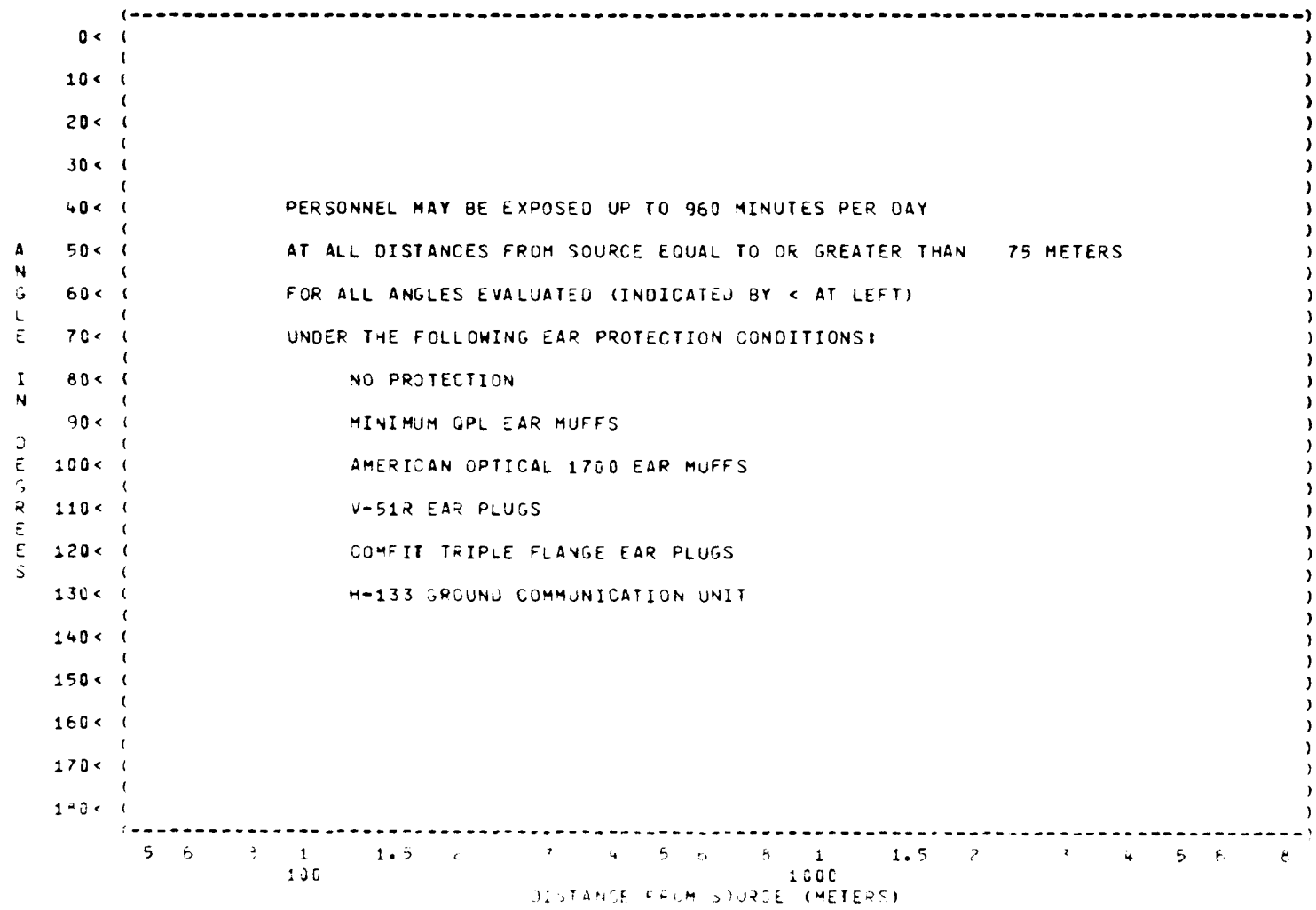


FIGURE 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)

NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:	IDENTIFICATION:
A-7 AIRCRAFT IN THE	70% RPM	TEMP = 15 C	OMEGA 1.4
AF32A-24 SUPPRESSOR	SINGLE ENGINE	BAR PRESS = .760 M HG	TEST 78-833-001
ENGINE TF41-A-1	GROUND RUNUP (SUPPRESSED)	REL HUMID = 70 %	RUN 02
FAR-FIELD NOISE			20 NOV 79
			PAGE 7

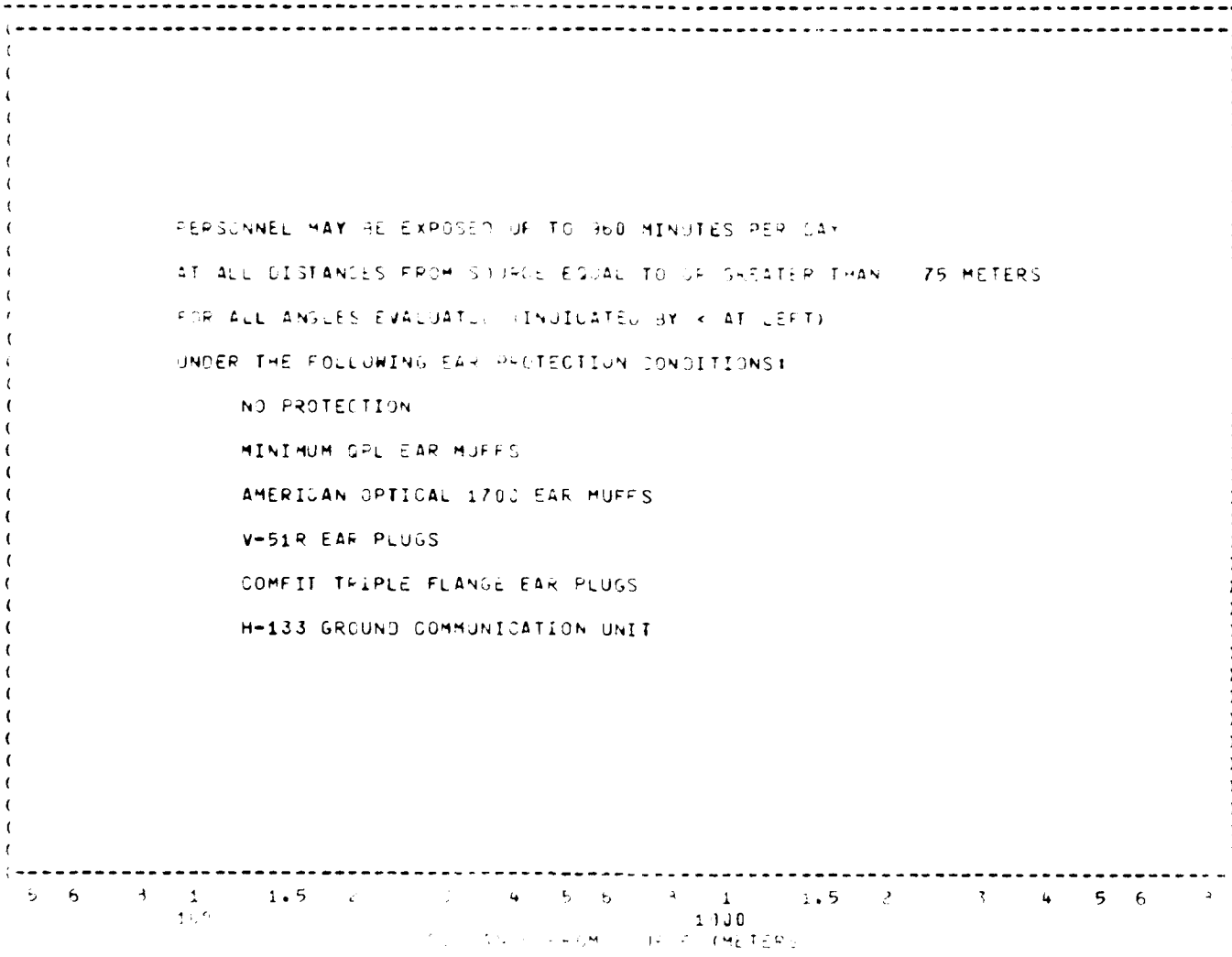


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
PAGE 7

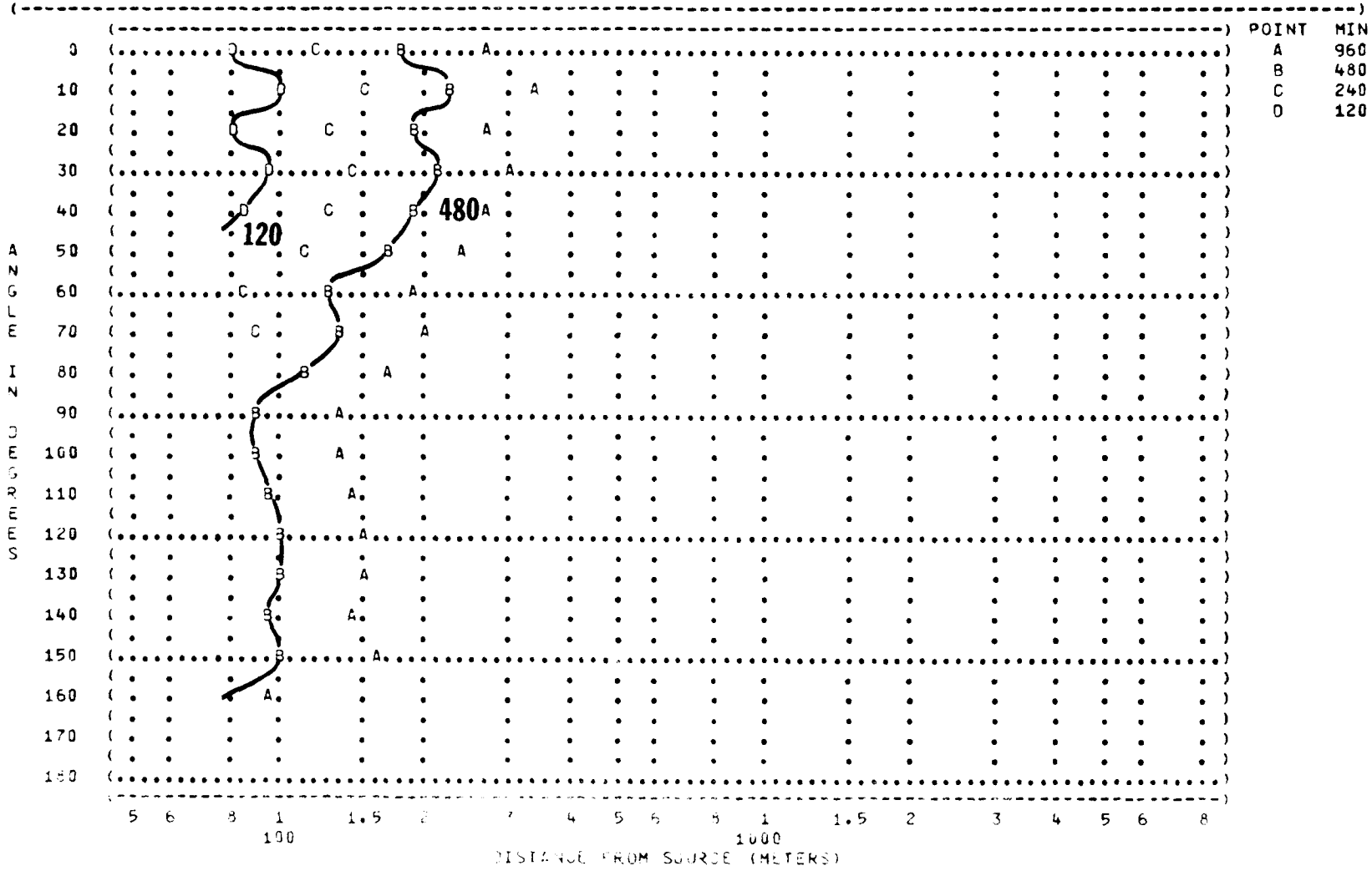
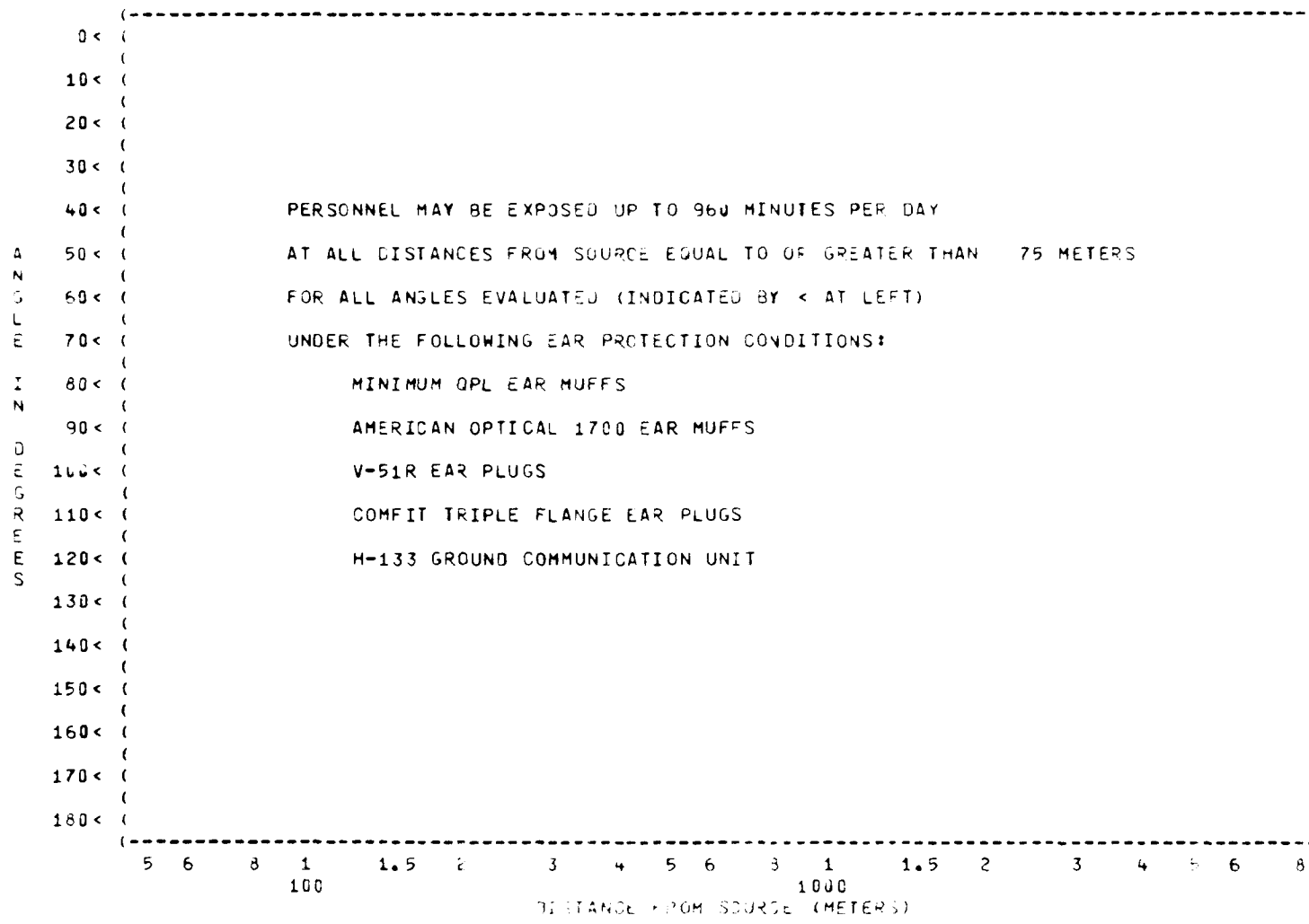


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)

NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:
A-7D AIRCRAFT IN THE	85% RPM, ENGINE RUNUP	TEMP = 15 C
AF32A-19 SUPPRESSOR	SINGLE ENGINE	BAR PRESS = .760 M HG
ENGINE TF41-A-1	SUPPRESSED GROUND RUNUP	REL HUMID = 70 %
FAR FIELD NOISE		

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
PAGE 8



10

NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:	IDENTIFICATION:
A-7 AIRCRAFT IN THE	85.6% RPM	TEMP = 15 C	OMEGA 1.4
AF32A-24 SUPPRESSOR	SINGLE ENGINE	BAR PRESS = .760 M HG	TEST 78-833-001
ENGINE TF41-A-1	GROUND RUNUP (SUPPRESSED)	REL HUMID = 70 %	RUN 03
FAR-FIELD NOISE			20 NOV 79
			PAGE 7

POINT A MIN 960

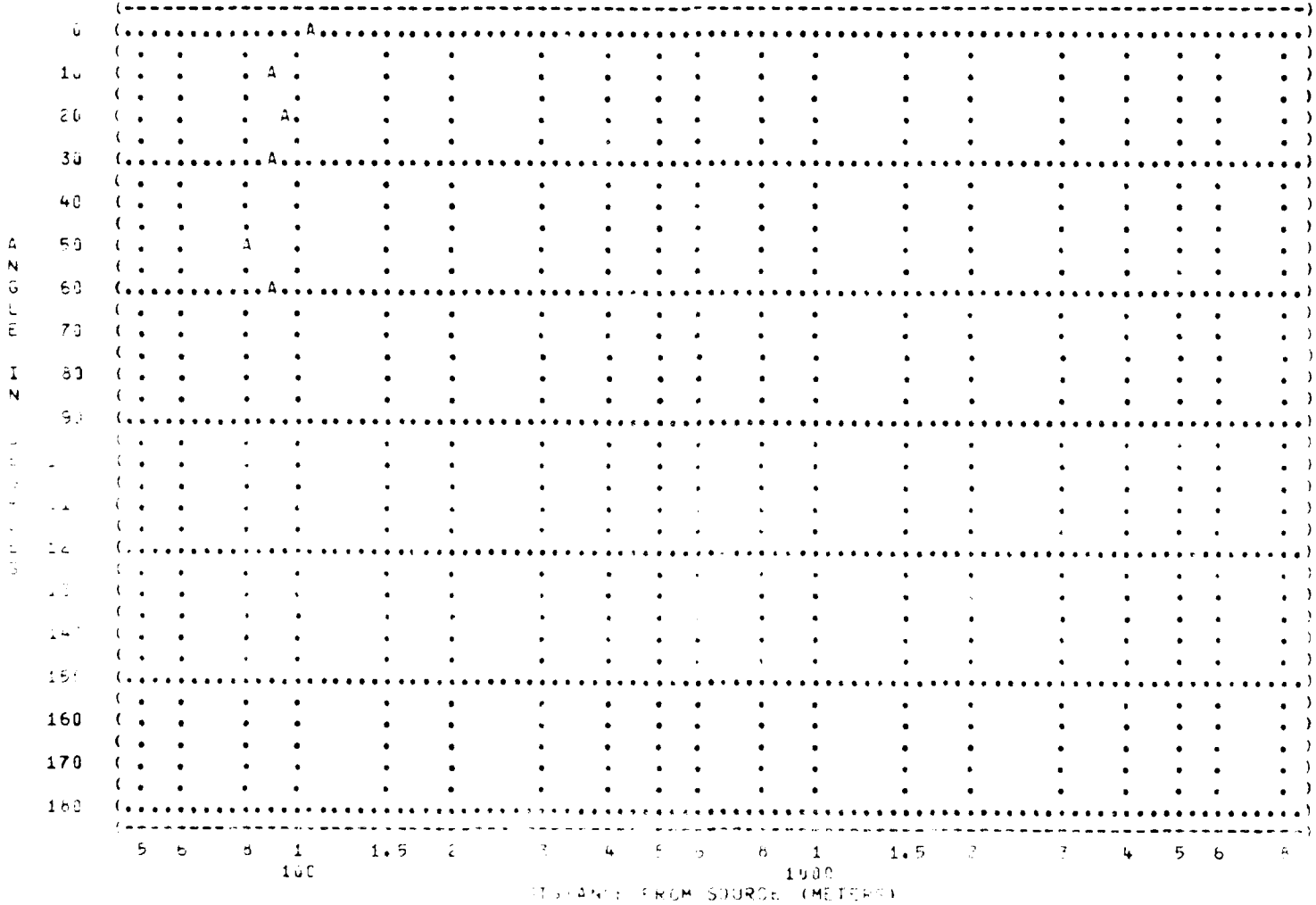


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 07
20 NOV 78
PAGE 8

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AFS?A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.5% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .76 M HG
REL HUMID = 70 %

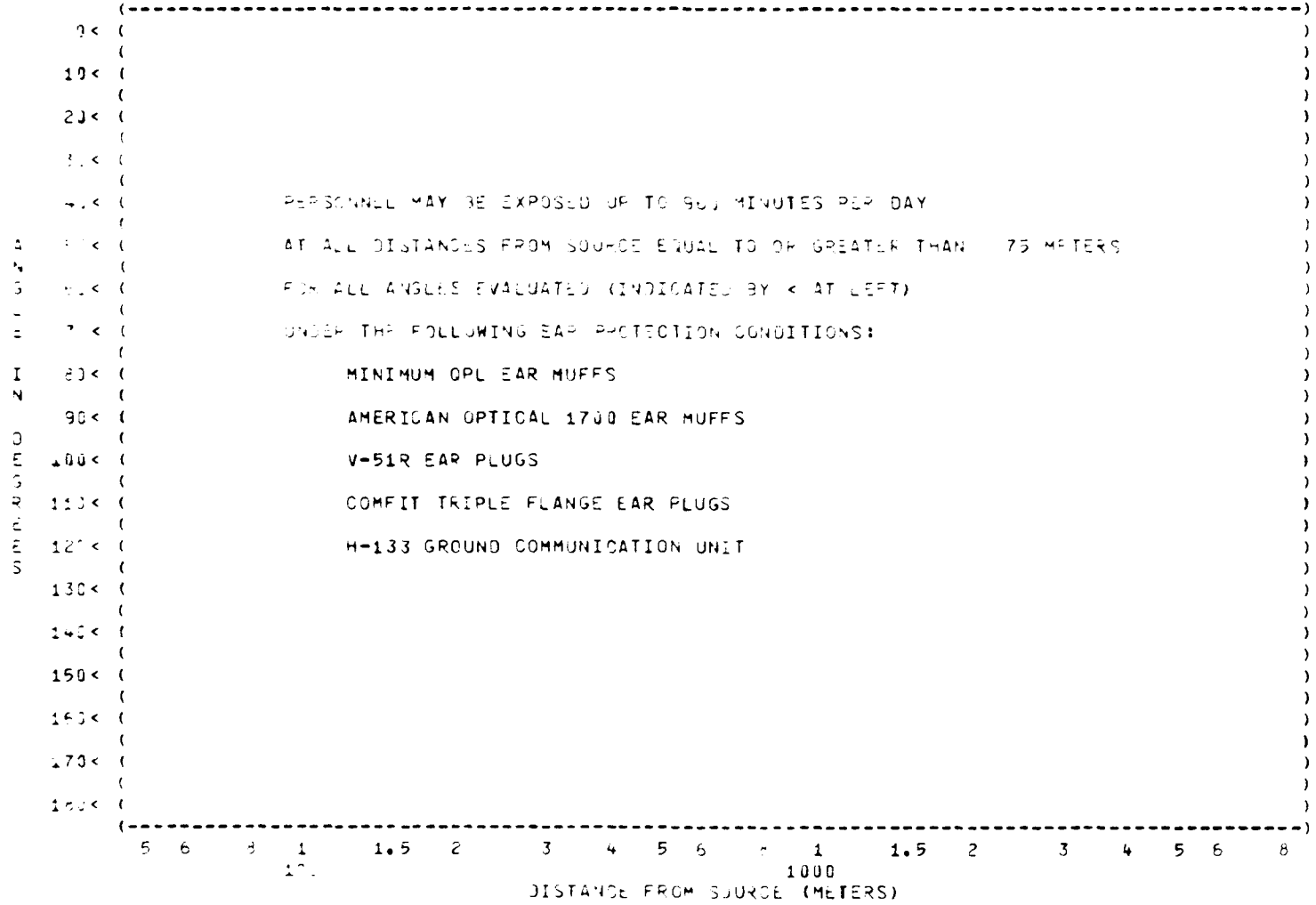


FIGURE: 10

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

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
MILITARY POWER, 96% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 04
20 NOV 79
PAGE 7

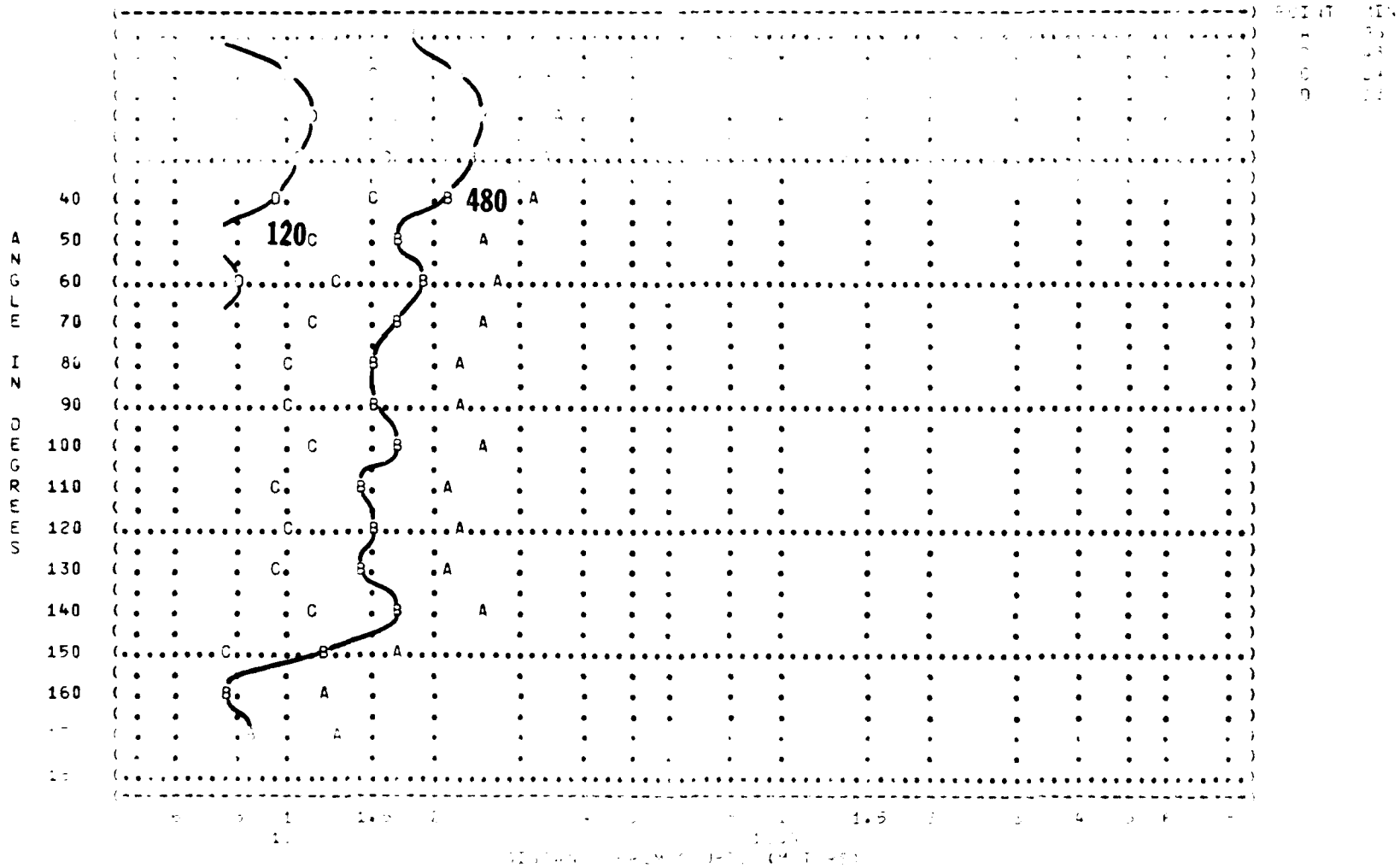


FIGURE : MAXIMUM PERMISSIBLE TIME (T) FOR 90% EAR [illegible] DAY (AFR 1 1-79, JULY 79)
EQUAL TIME CONTOURS (MINUTES)

10

OMEGA 1.4
TEST 77-833-001
RUN 04
20 NOV 79
PAGE 8

NOISE SOURCE/SUBJECT:	OPERATION:	METEOROLOGY:
A-7D AIRCRAFT IN THE	MILITARY POWER, 96% RPM	TEMP = 15 C
AF32A-19 SUPPRESSOR	SINGLE ENGINE	BAR PRESS = .760 M HG
ENGINE TF41-A-1	SUPPRESSED GROUND RUNUP	REL HUMID = 70 %
FAR FIELD NOISE		

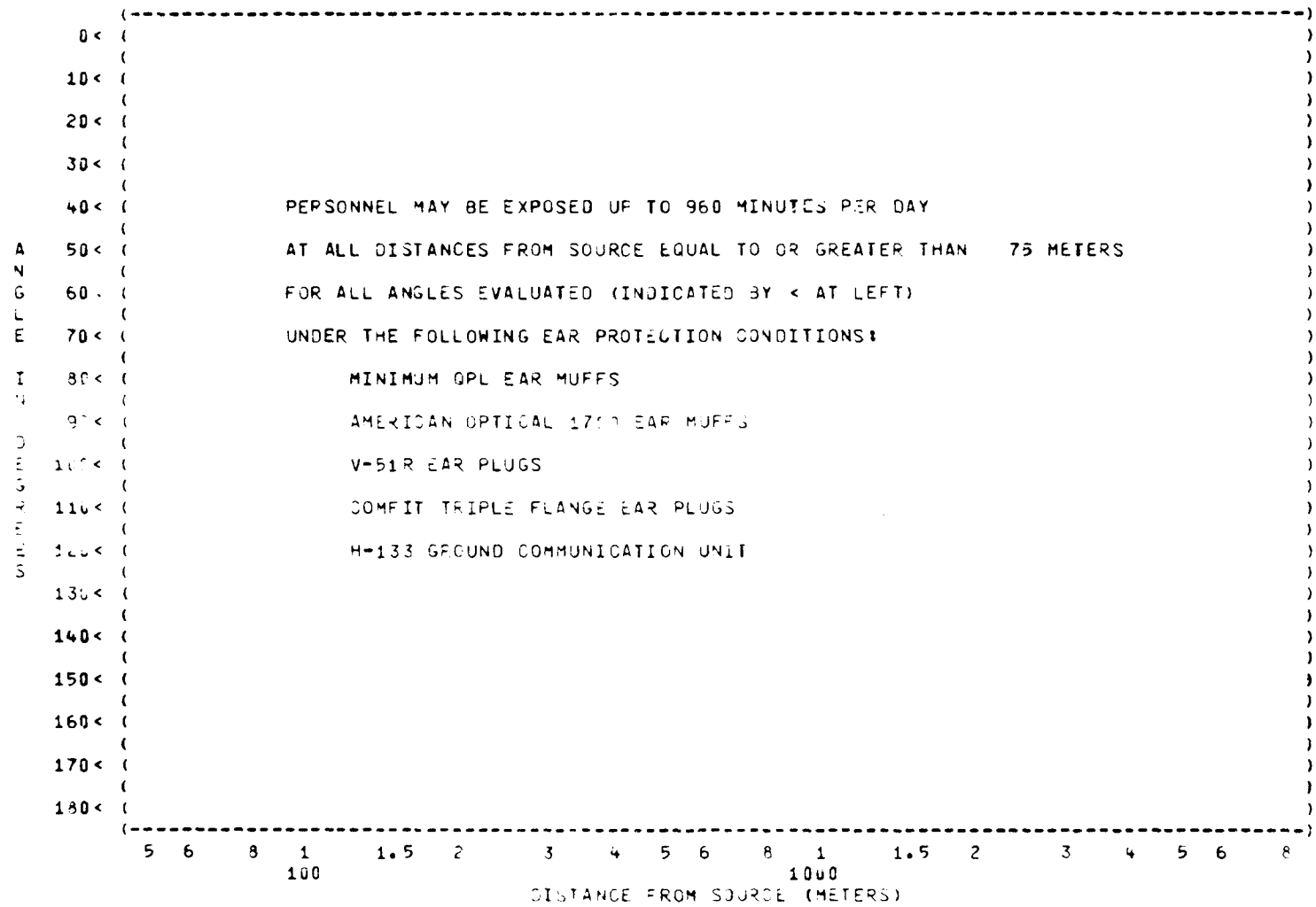


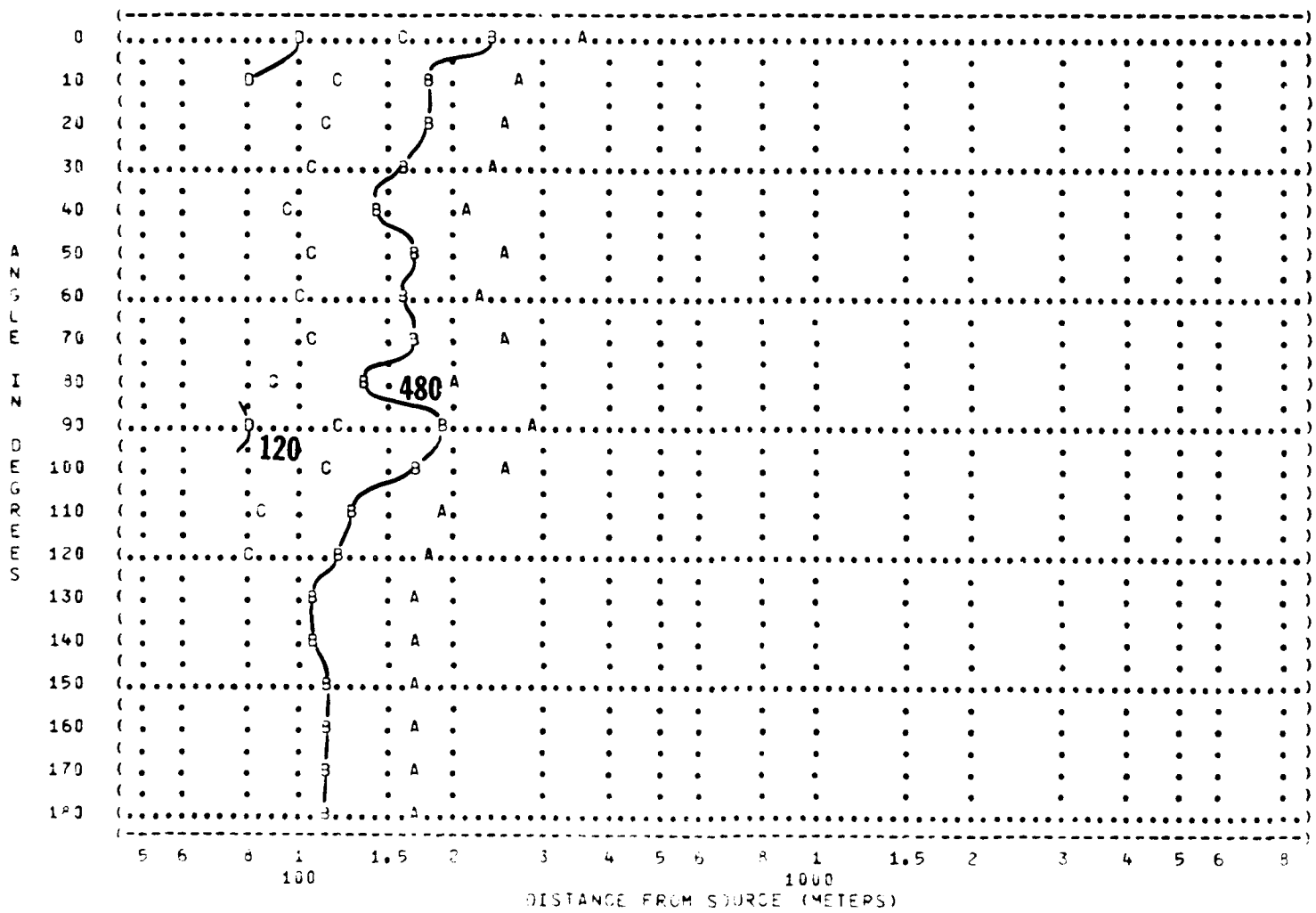
FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 04
20 NOV 79
PAGE 7



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)

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 04
20 NOV 79
PAGE 8

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

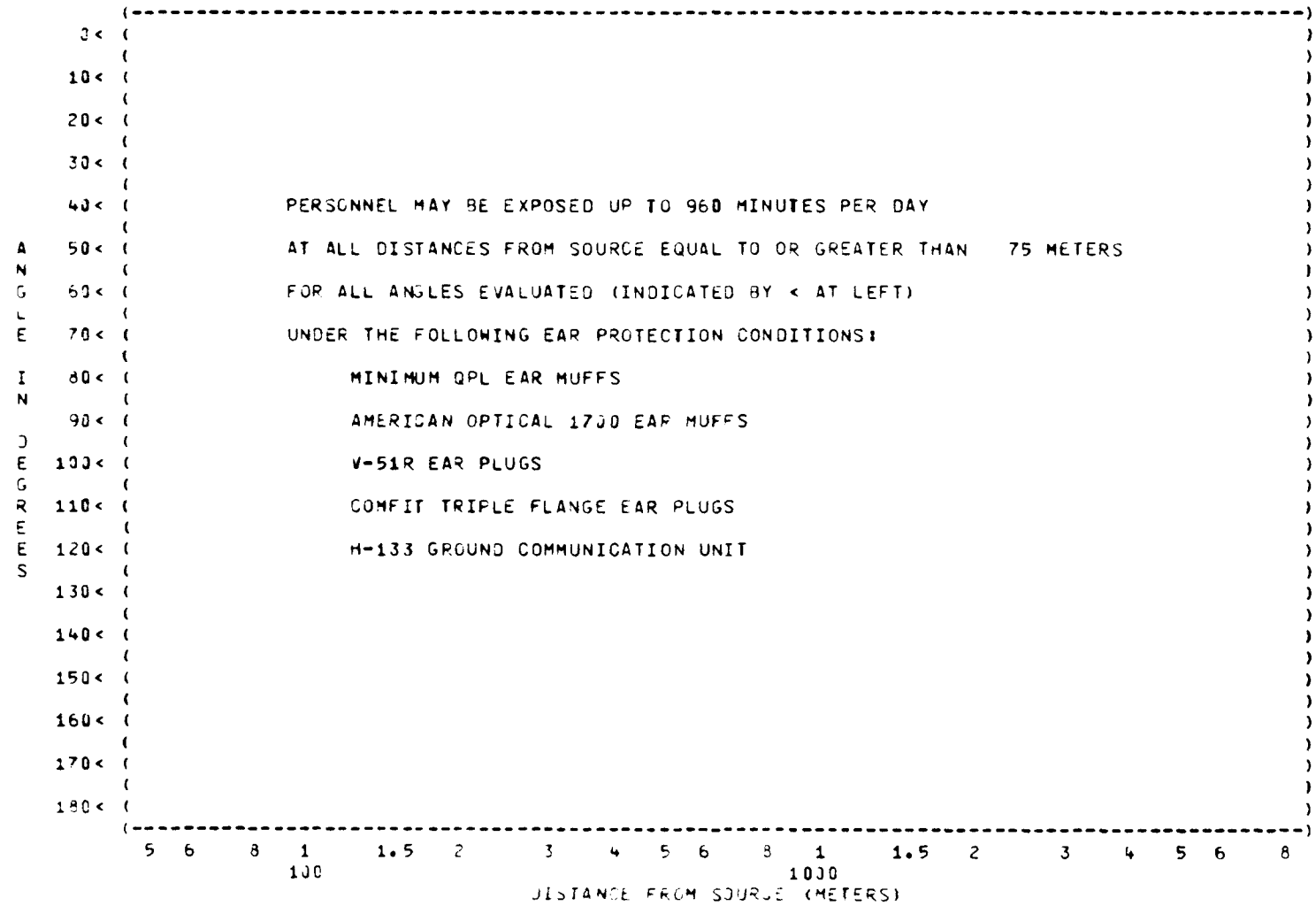


FIGURE: 11

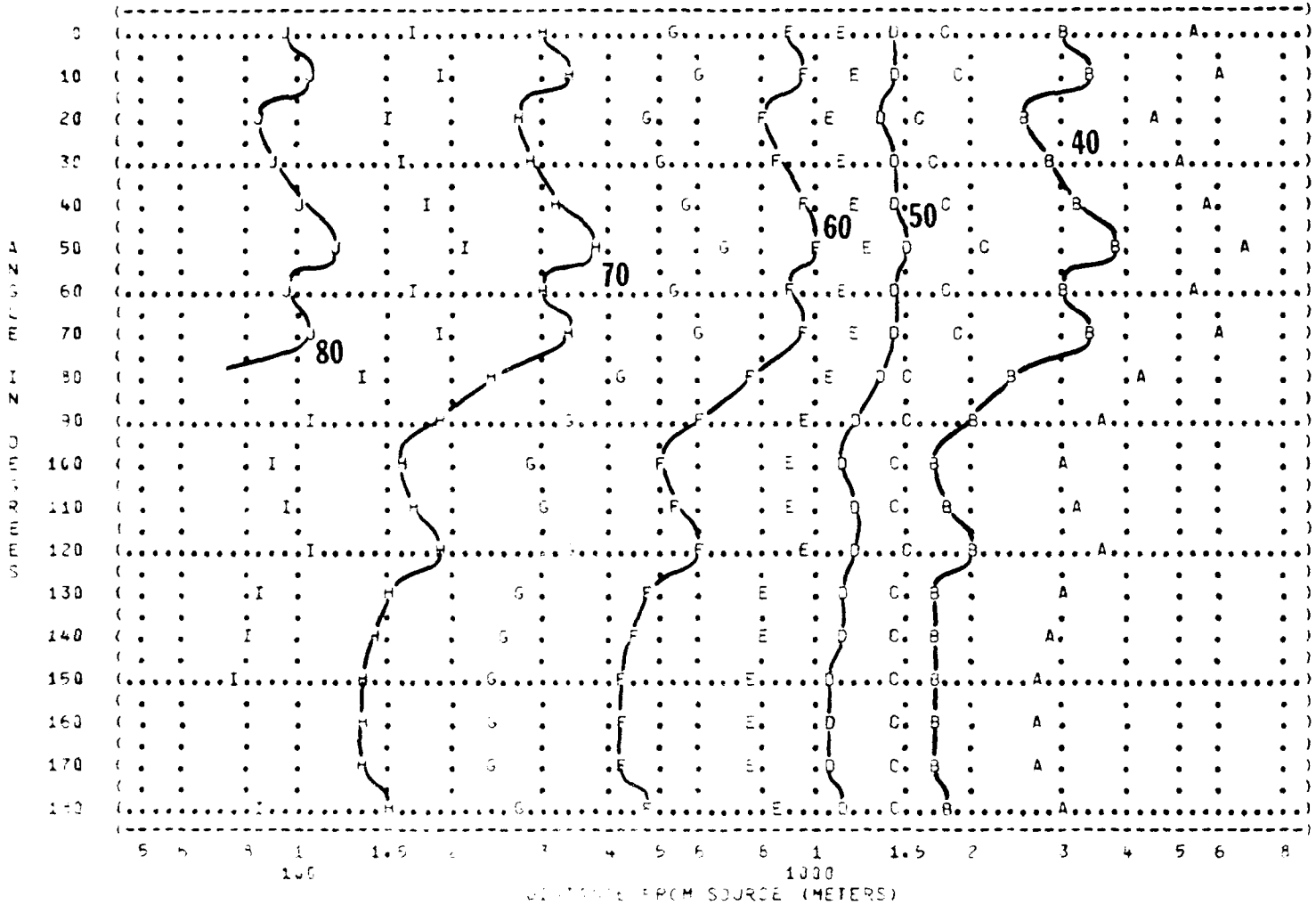
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF30A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
IDLE PWR, 55% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-(01
RUN 01
20 NOV 79
PAGE 18



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 (DB)
EQUAL LEVEL CONTOURS (DB)
63 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT: A-7D AIRCRAFT IN THE AF32A-14 SUPPRESSOR ENGINE TF41-A-1 FAR FIELD NOISE	OPERATION: IDLE PWR, 55% RPM SINGLE ENGINE SUPPRESSED GROUND RUNUP	METEOROLOGY: TEMP = 15 C BAR PRESS = .760 M HG REL HUMID = 70 %	IDENTIFICATION: OMEGA 1.4 TEST 77-033-001 RUN 01 20 NOV 79 PAGE 19

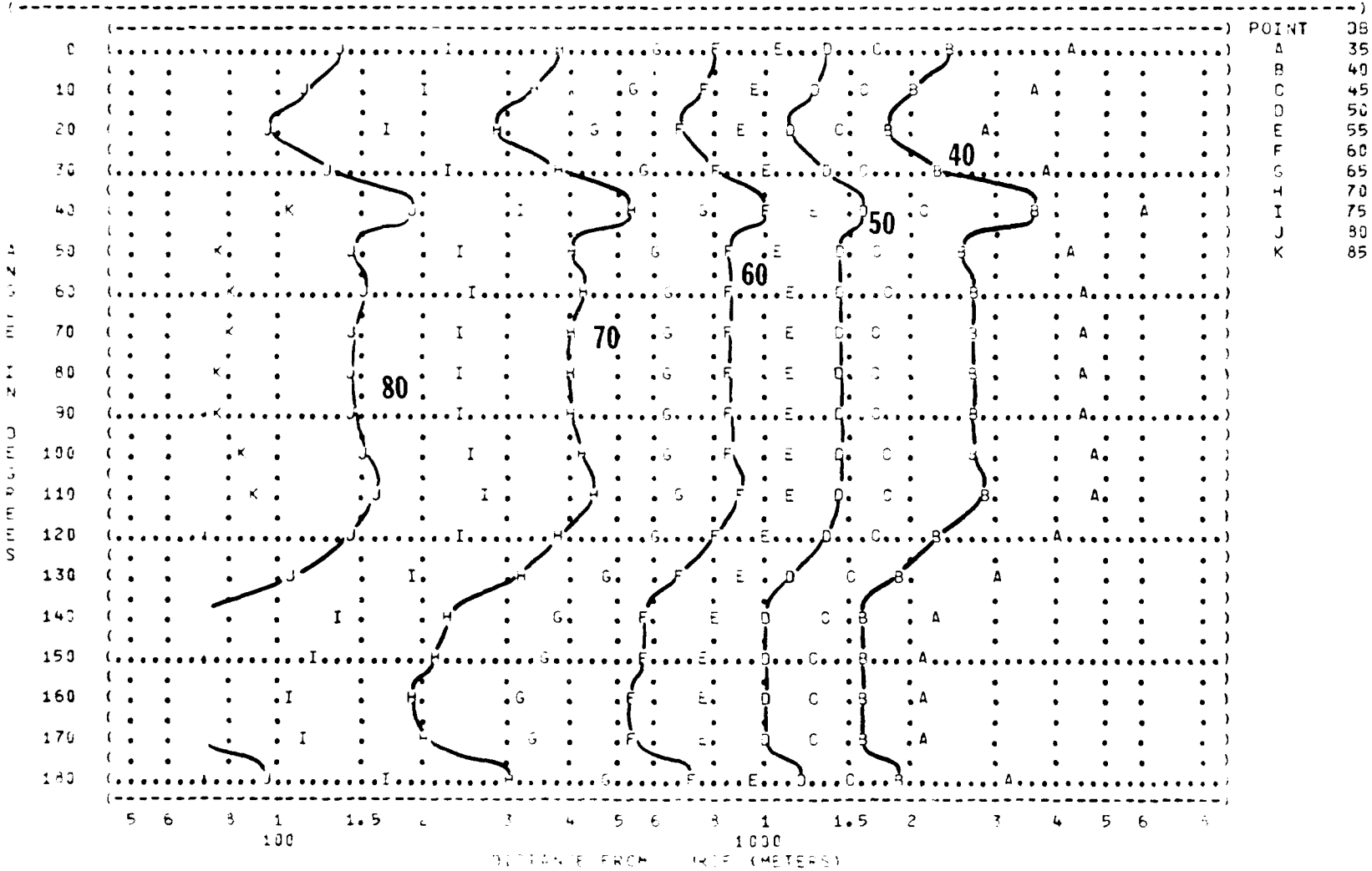


FIGURE: 11

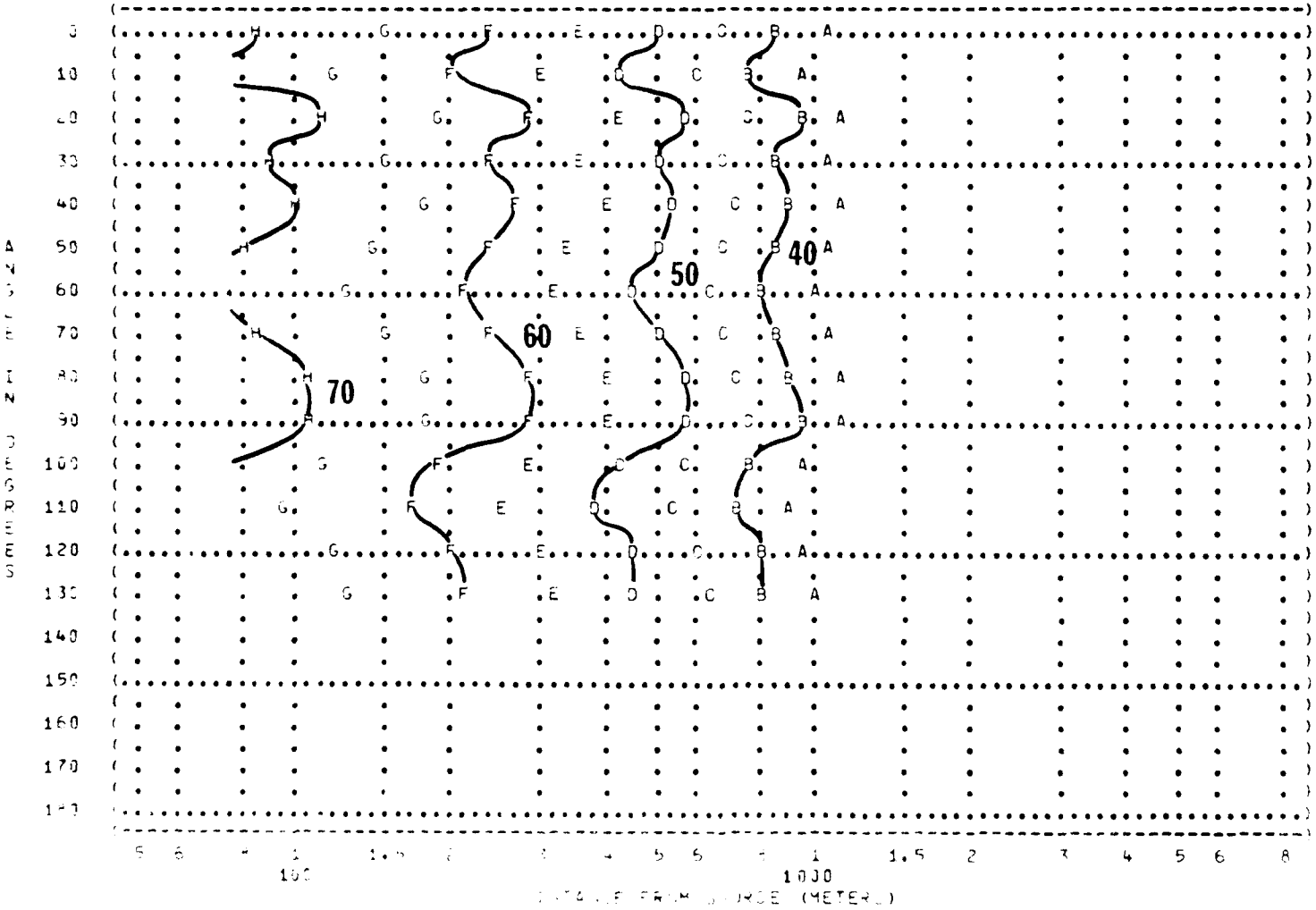
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
125 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
IDLE PWR, 55% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 01
20 NOV 79
PAGE 20



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

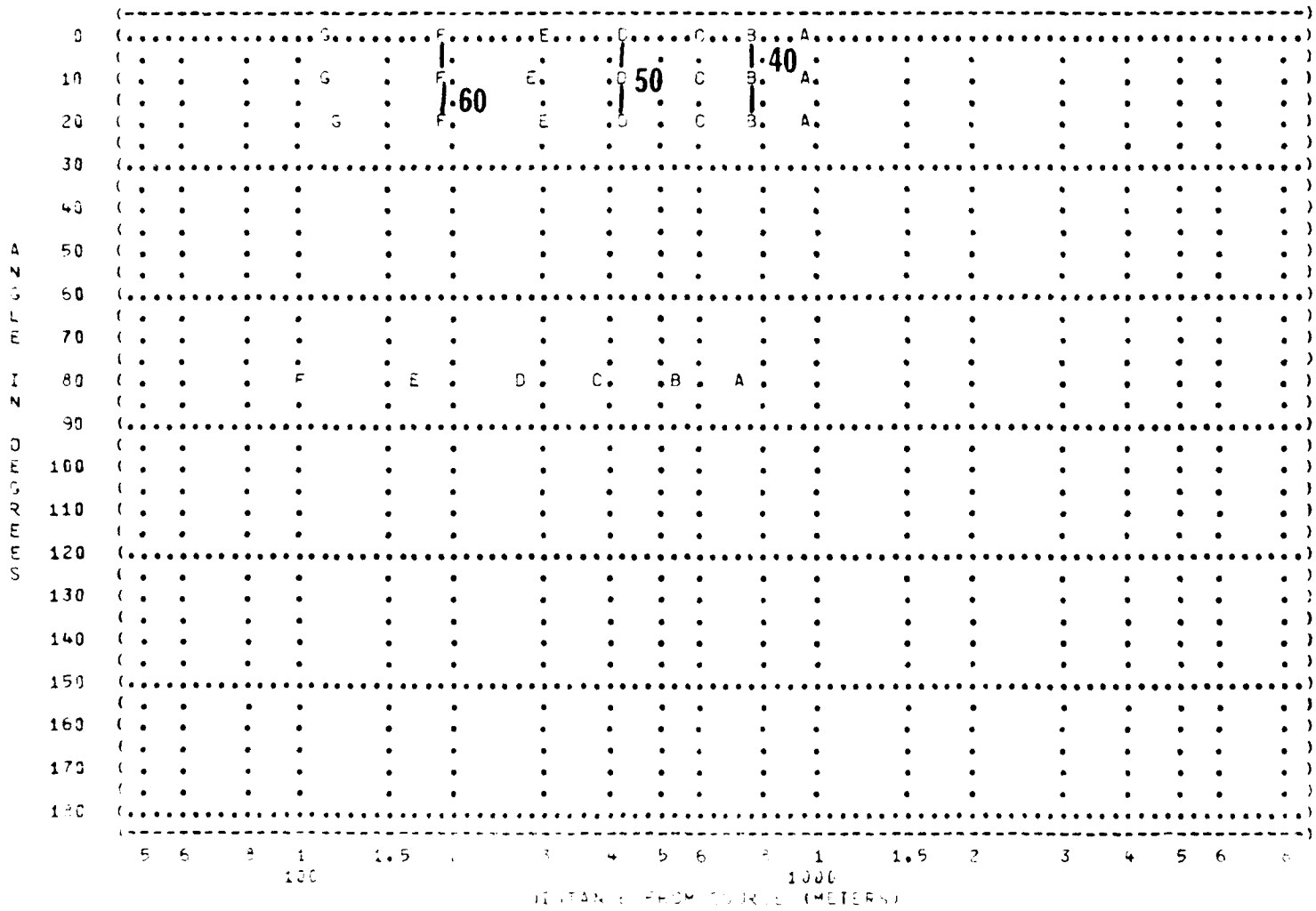
FIGUR 1 SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
11 250 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 01
20 NOV 79
PAGE 21

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
IDLE PWR, 55% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

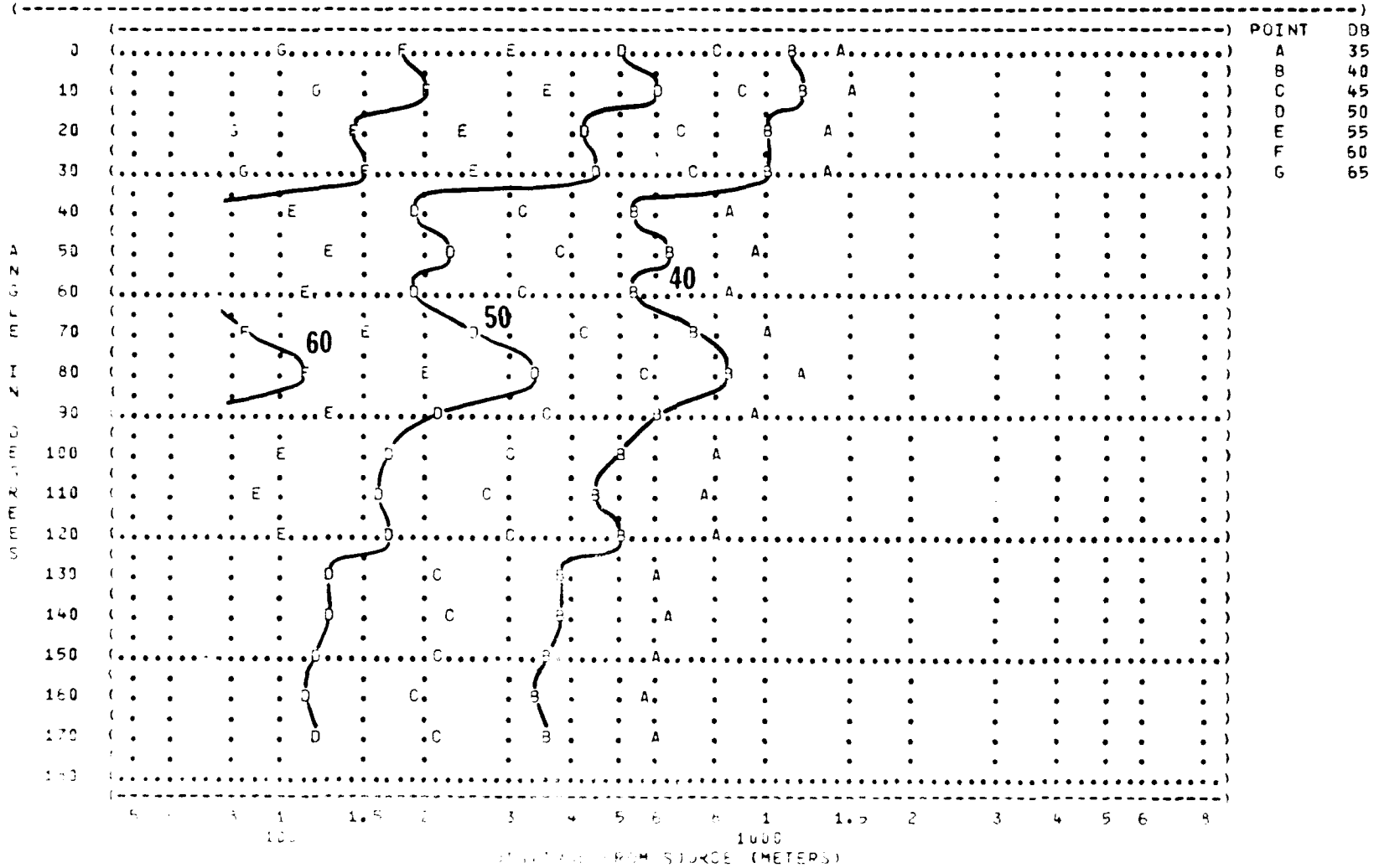
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
IDLE PWR, 55% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 01
20 NOV 79
PAGE 22



11

IDENTIFICATION:
OMEGA 1.4
TEST 833-031
RUN 01
20 NOV 79
PAGE 23

METEOROLOGY:
TEMP F 15 C
BAR PRESS .760 M HG
REL HUMI 70 %

OPERATION:
IDLE PWR, 55% RPM
INDUCE ENGINE
SUPPRESSED GROUND RUN

A-7D AIR PART IN THE
AF33A-16 TURBOFAN
ENGINE TF41-A-1
FAR FIELD NOISE

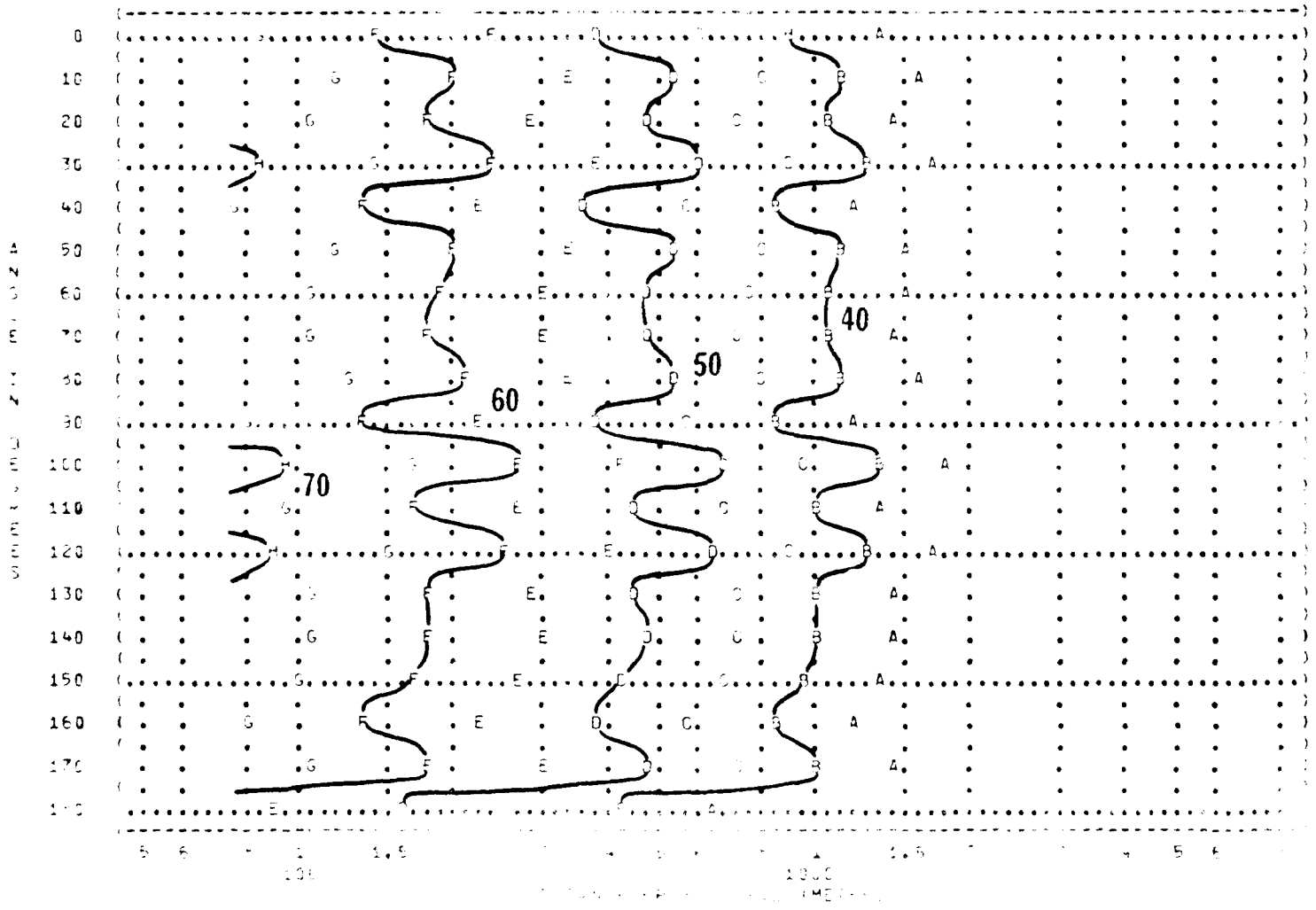


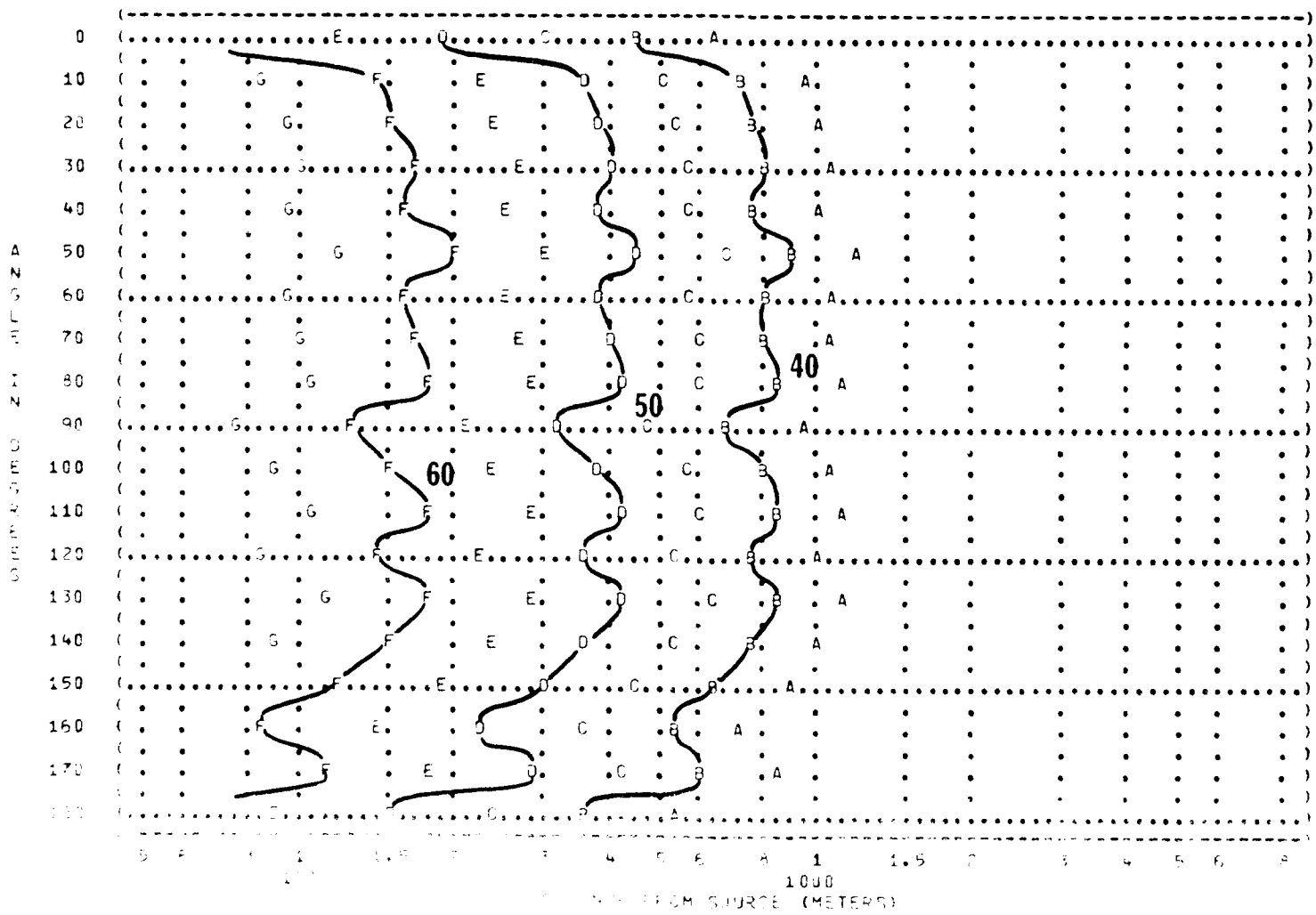
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
IDLE PWR, 55% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 01
20 NOV 79
PAGE 24



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65

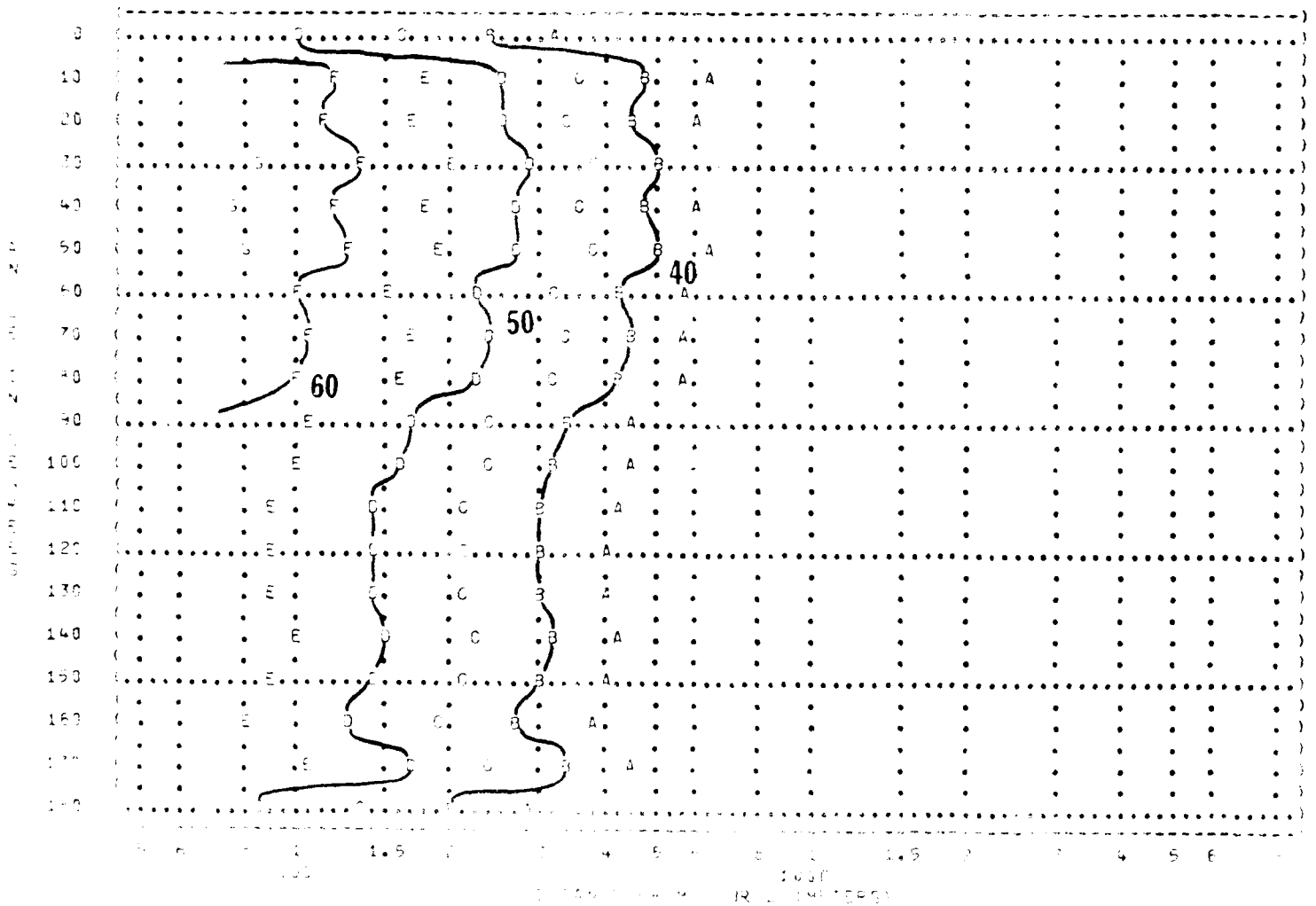
FIGURE 11 — SOUND PRESSURE LEVEL (DB)
EQUAL LEVEL CONTOURS (DB)
4000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 01
20 NOV 79
PAGE 25

NOISE SOURCE/SUBJECT:
A-7E AIRCRAFT IN THE
BF32A-13 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
IDLE PWR, 55% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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



AD-A090 618 AIR FORCE AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATT--ETC F/G 1/3
USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK. VOLUME 130. A-7 AIRC--ETC(U)
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UNCLASSIFIED AMRL-TR-75-50-VOL-130 NL

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 01
20 NOV 79
PAGE 26

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
IDLE PWR, 55% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

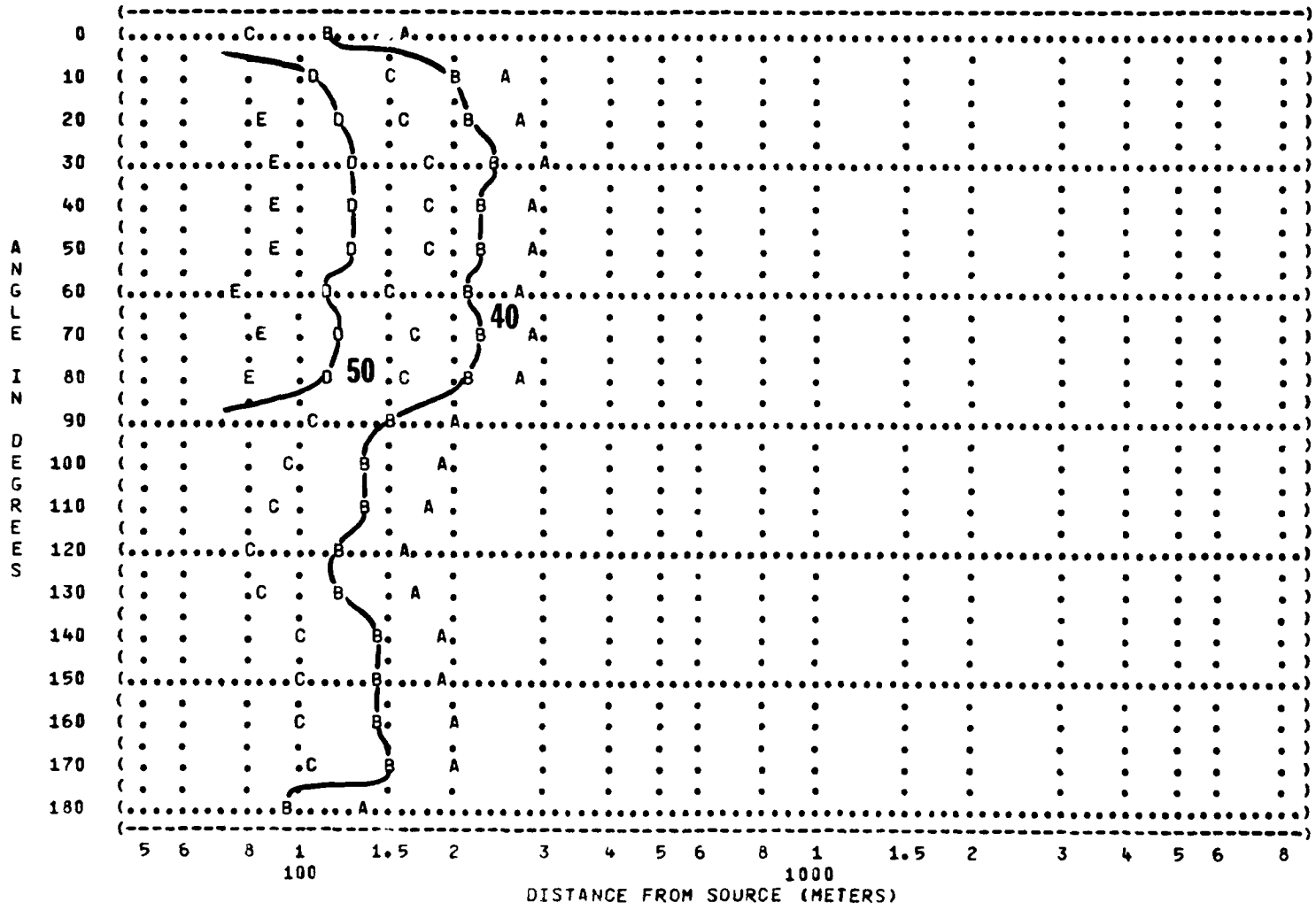


FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
31.5 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-C01
RUN 01
20 NOV 79
PAGE 18

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

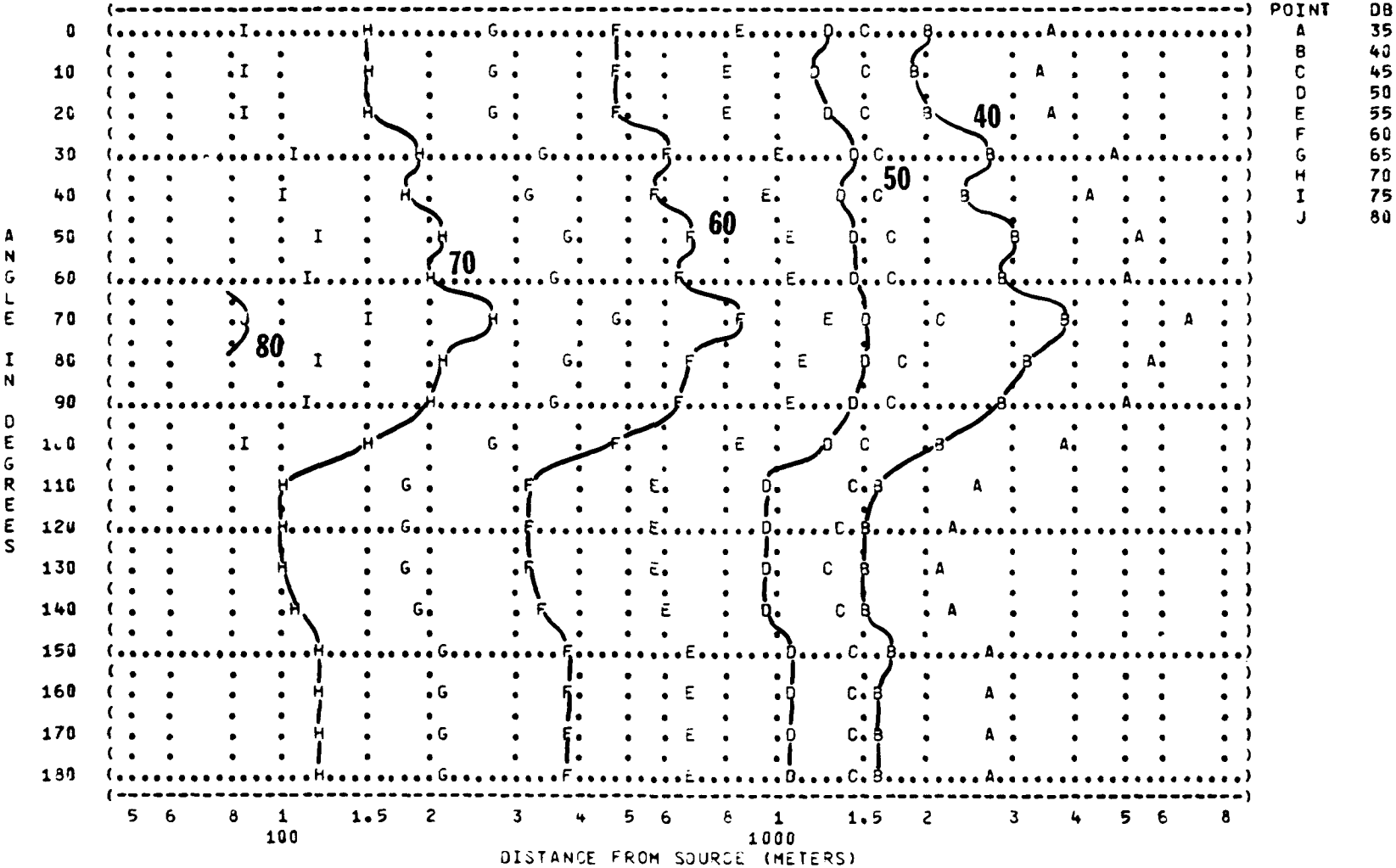


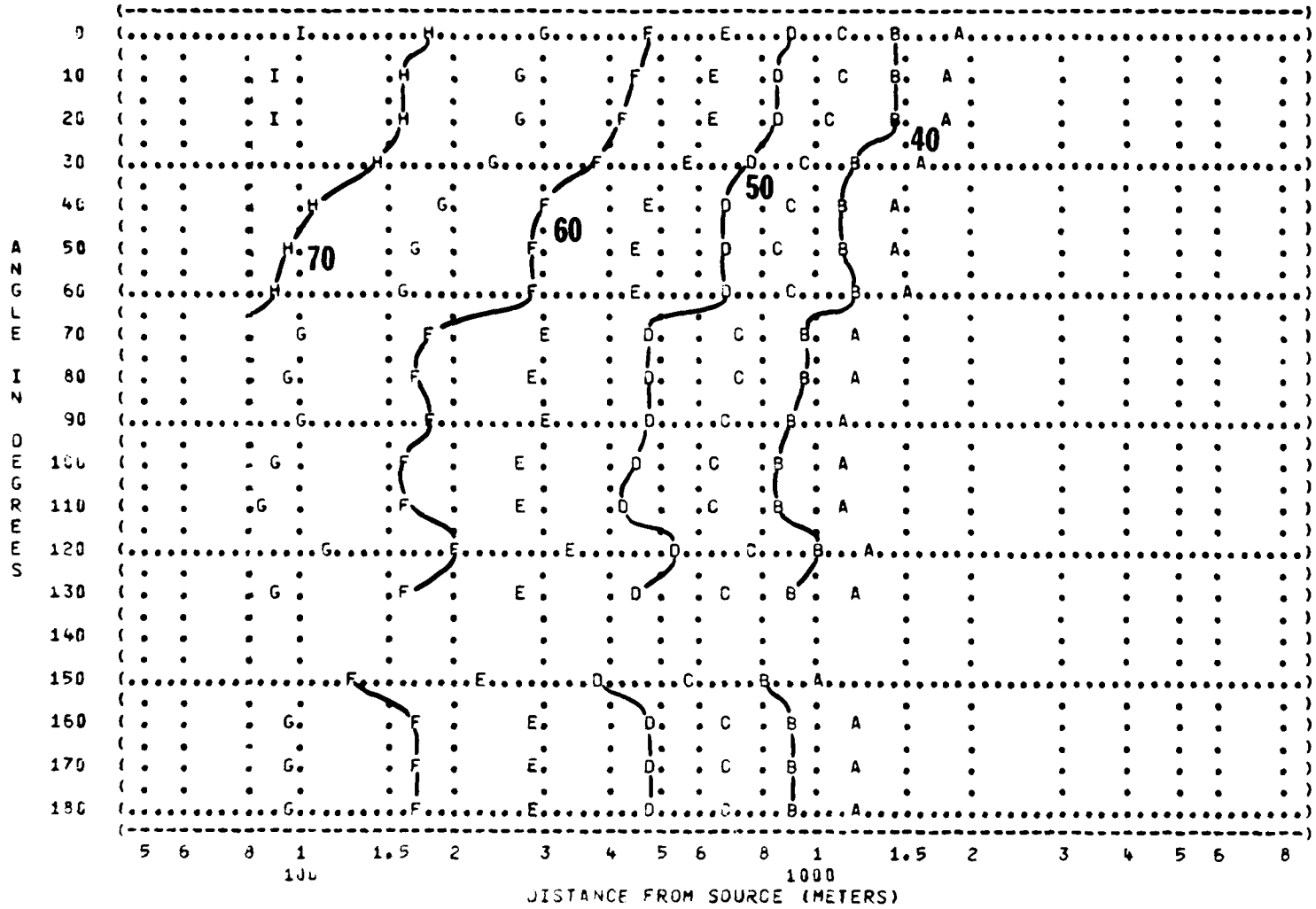
FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
63 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 01
20 NOV 79
PAGE 19



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

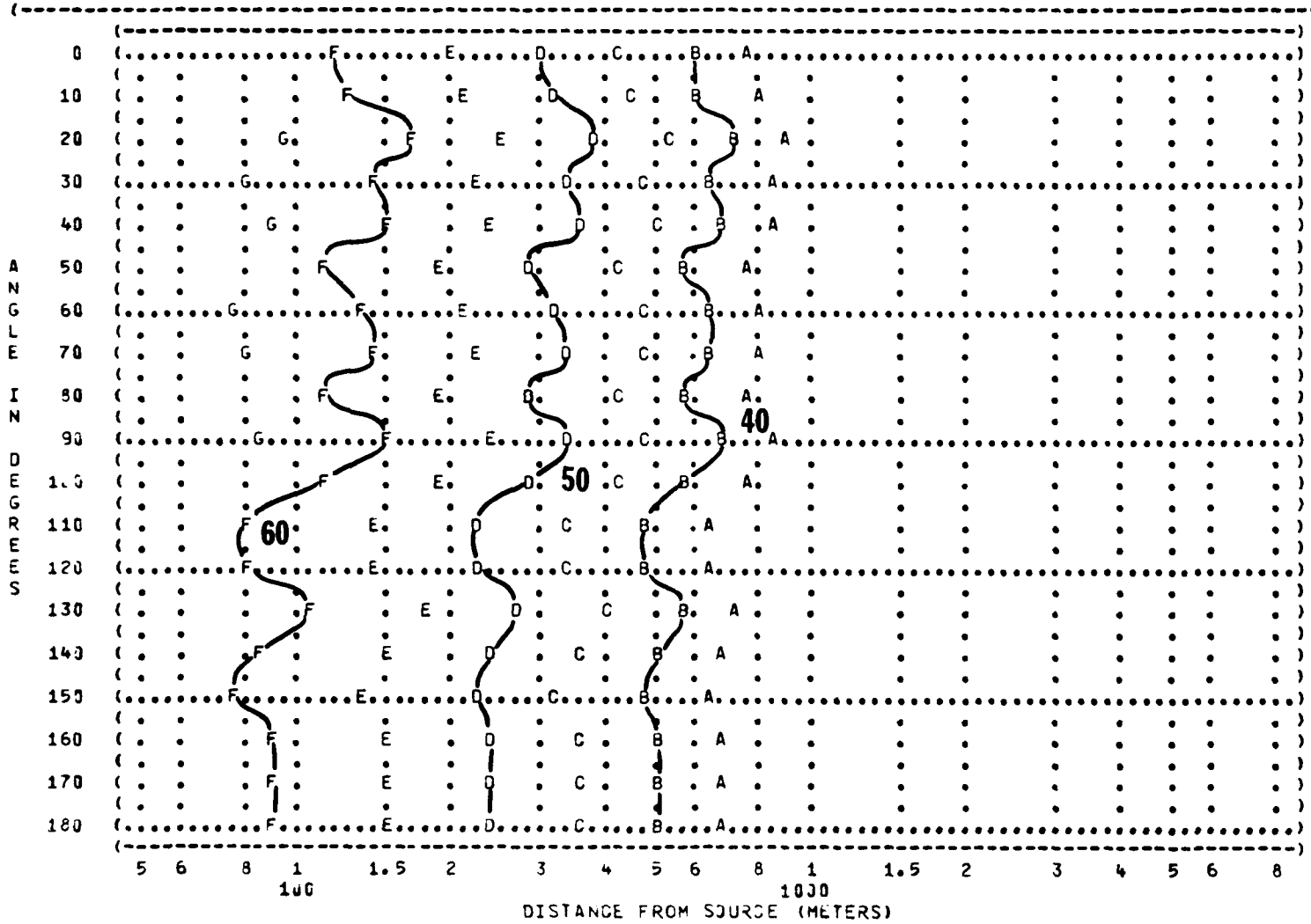
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 125 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 01
20 NOV 79
PAGE 20

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

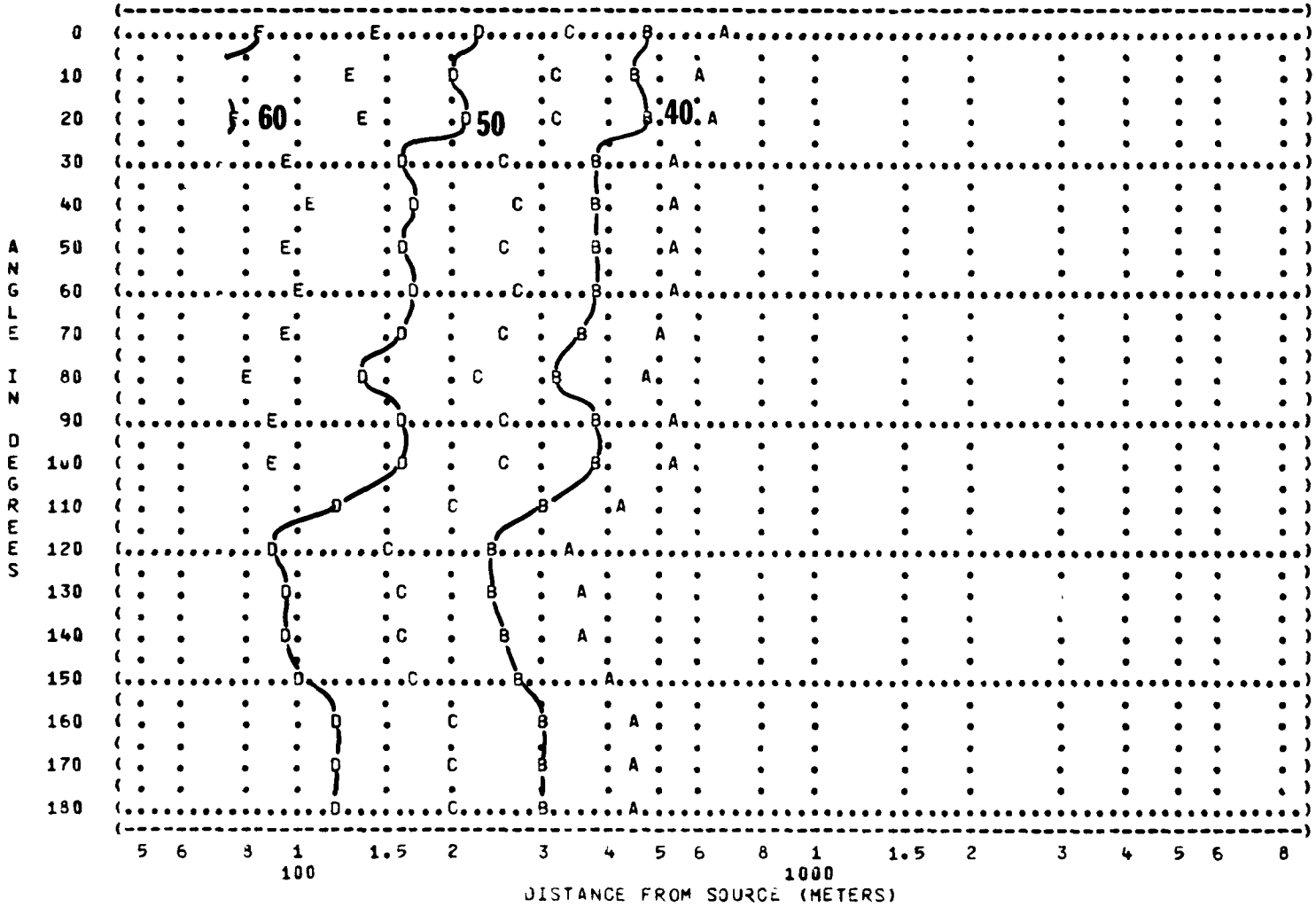
FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 01
20 NOV 79
PAGE 21



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60

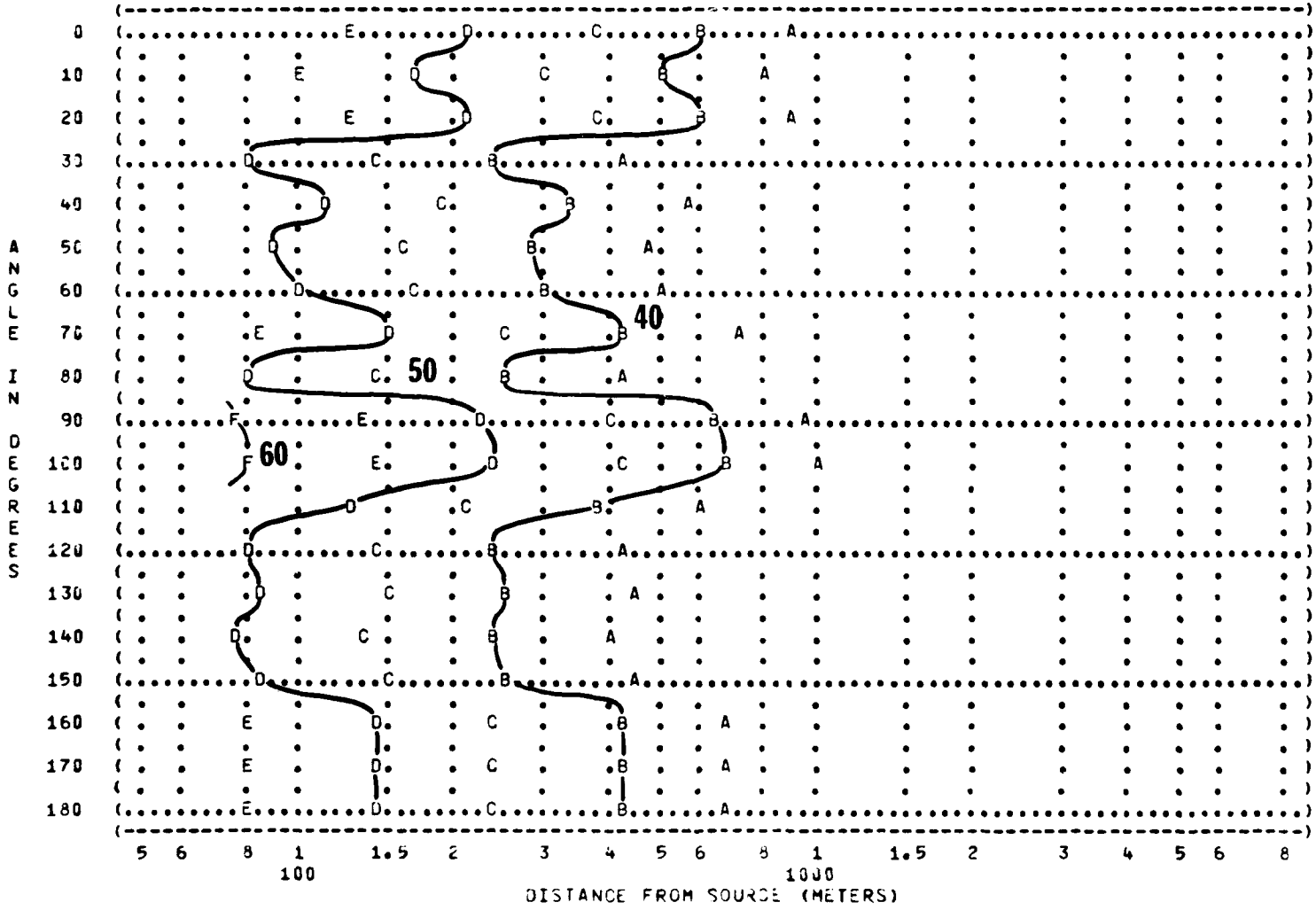
FIGURE 11 SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 01
20 NOV 79
PAGE 22



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 01
20 NOV 79
PAGE 23

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

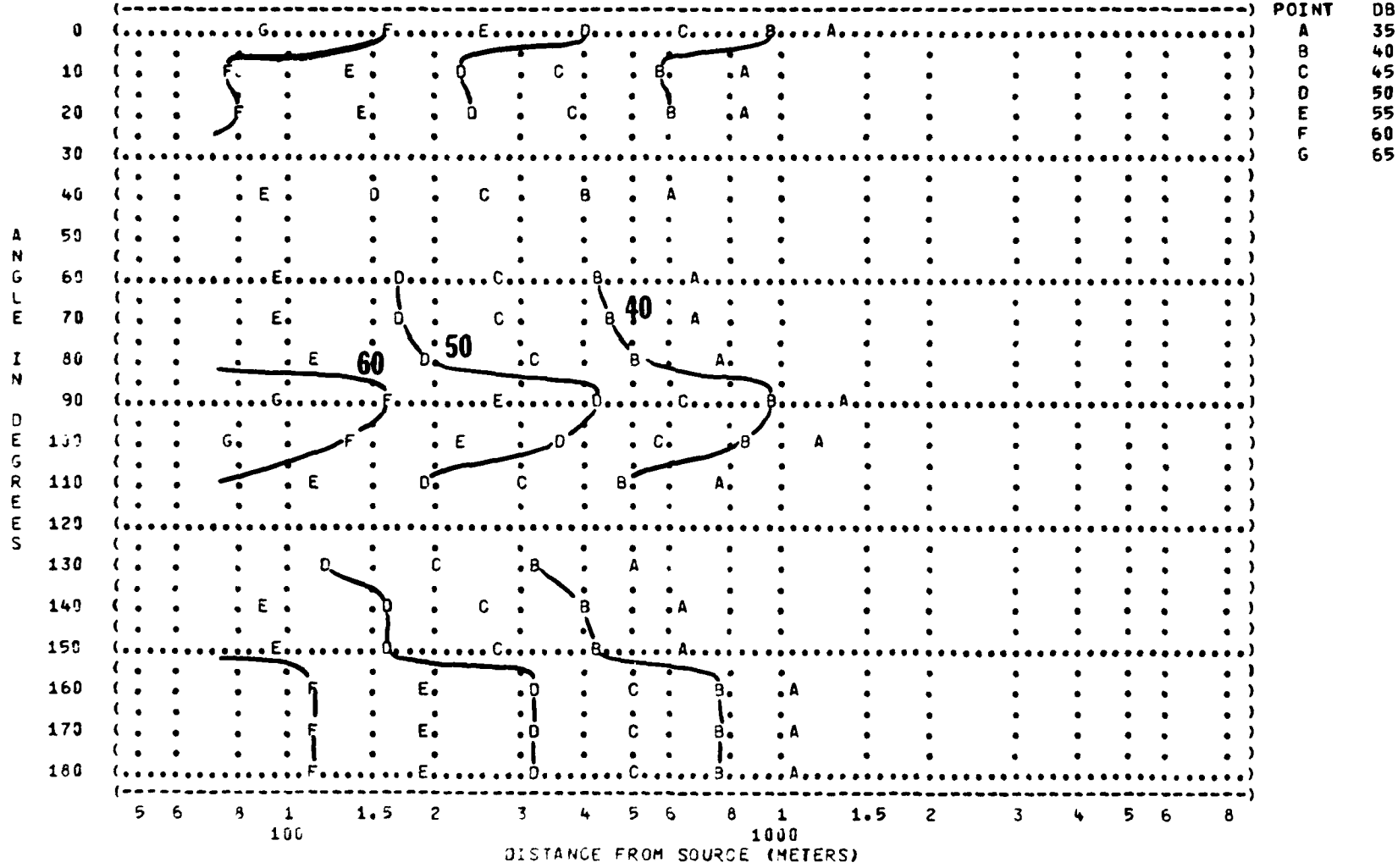


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 01
20 NOV 79
PAGE 24

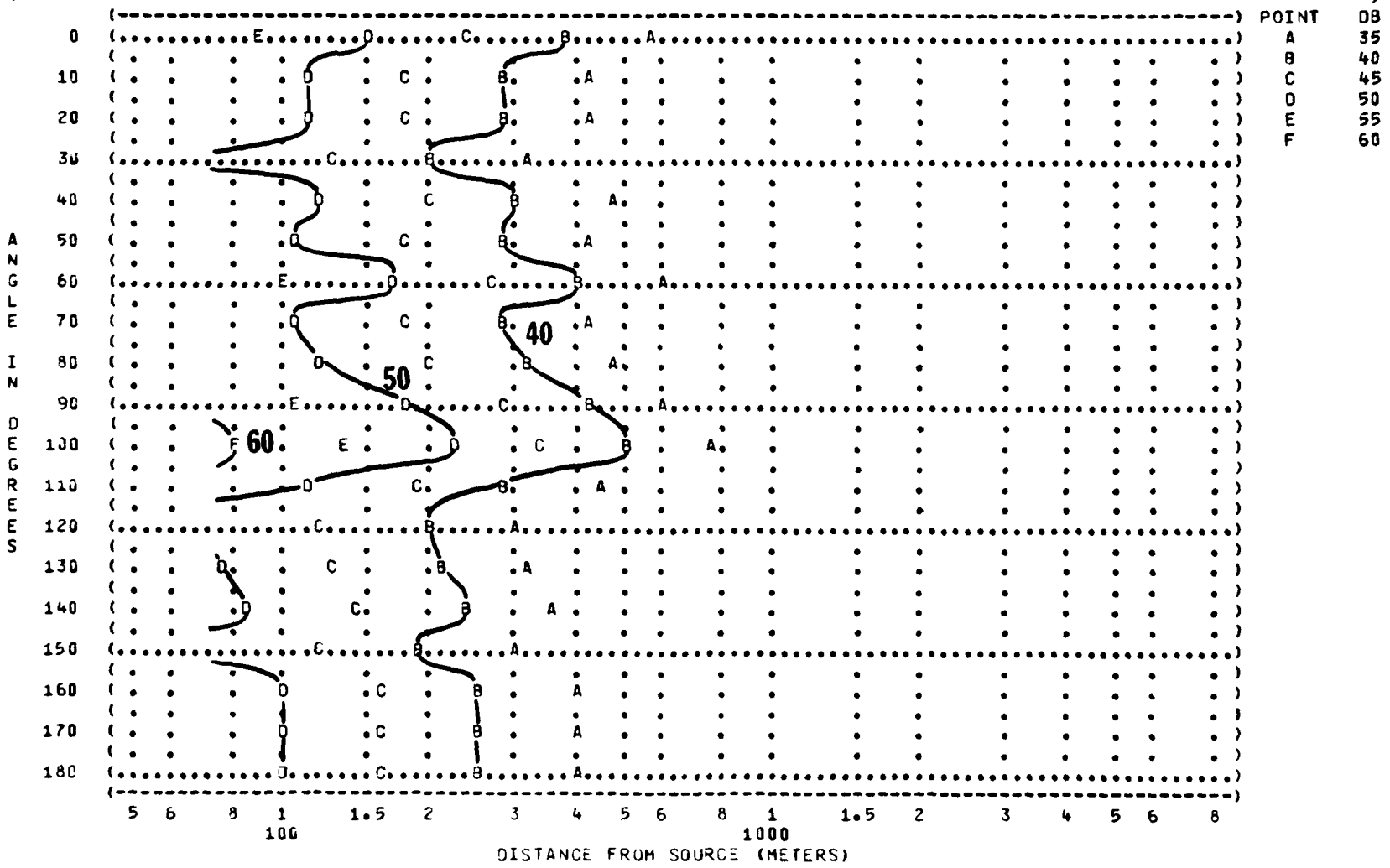


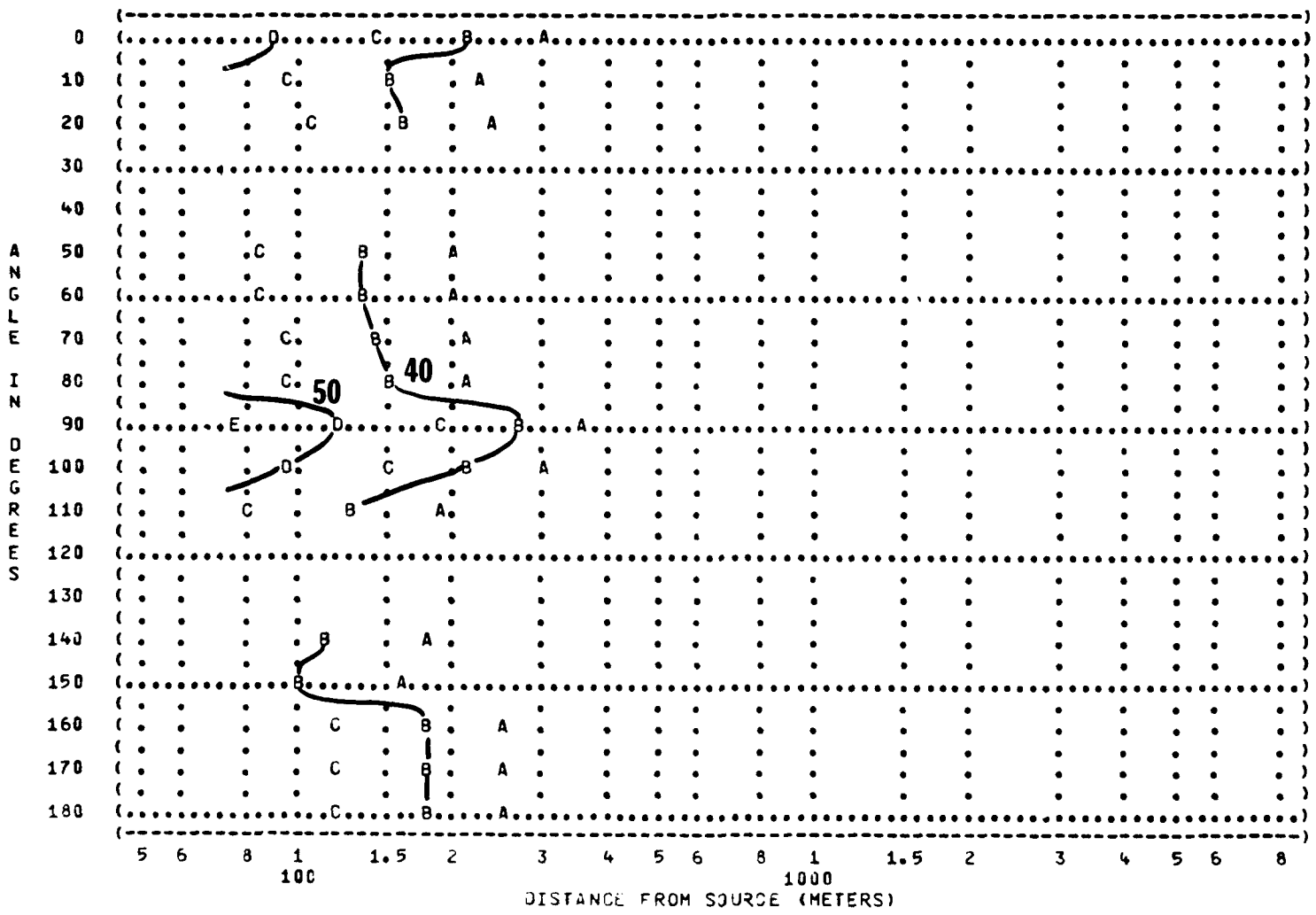
FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
4300 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
IDLE POWER (54.4% RPM)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 01
20 NOV 79
PAGE 25



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

```
(-------------------------------------------------------------------------------------------------------------------)
( FIGURE:  SOUND PRESSURE LEVEL (SPL)                                                                  )IDENTIFICATION:  )
(    11    EQUAL LEVEL CONTOURS  (DB)                                                                  )                 )
(          8000 HZ OCTAVE BAND                                                                         ) OMEGA  1.4      )
(-------------------------------------------------------------------------------------------------------) TEST 78-833-001 )
( NOISE SOURCE/SUBJECT:          ( OPERATION:                      ) METEOROLOGY:                       ) RUN  01         )
(   A-7 AIRCRAFT IN THE          (   IDLE POWER (54.4% RPM)        )   TEMP       =   15 C              )                 )
(   AF32A-24 SUPPRESSOR          (   SINGLE ENGINE                 )   BAR PRESS = .760 M HG            ) 20 NOV 79       )
(   ENGINE TF41-A-1              (   GROUND RUNUP (SUPPRESSED)     )   REL HUMID =   70 %               )                 )
(   FAR-FIELD NOISE              (                                 )                                    ) PAGE  26        )
(-------------------------------------------------------------------------------------------------------------------)
(                                                                                                                   )
(          NO CONTOUR DATA---EITHER NO INPUT DATA WERE COMPUTED (=9999.0)                                           )
(          OR MINIMUM CONTOUR LEVEL REQUESTED IS GREATER THAN MAXIMUM COMPUTED LEVEL.                               )
(                                                                                                                   )
(-------------------------------------------------------------------------------------------------------------------)
```

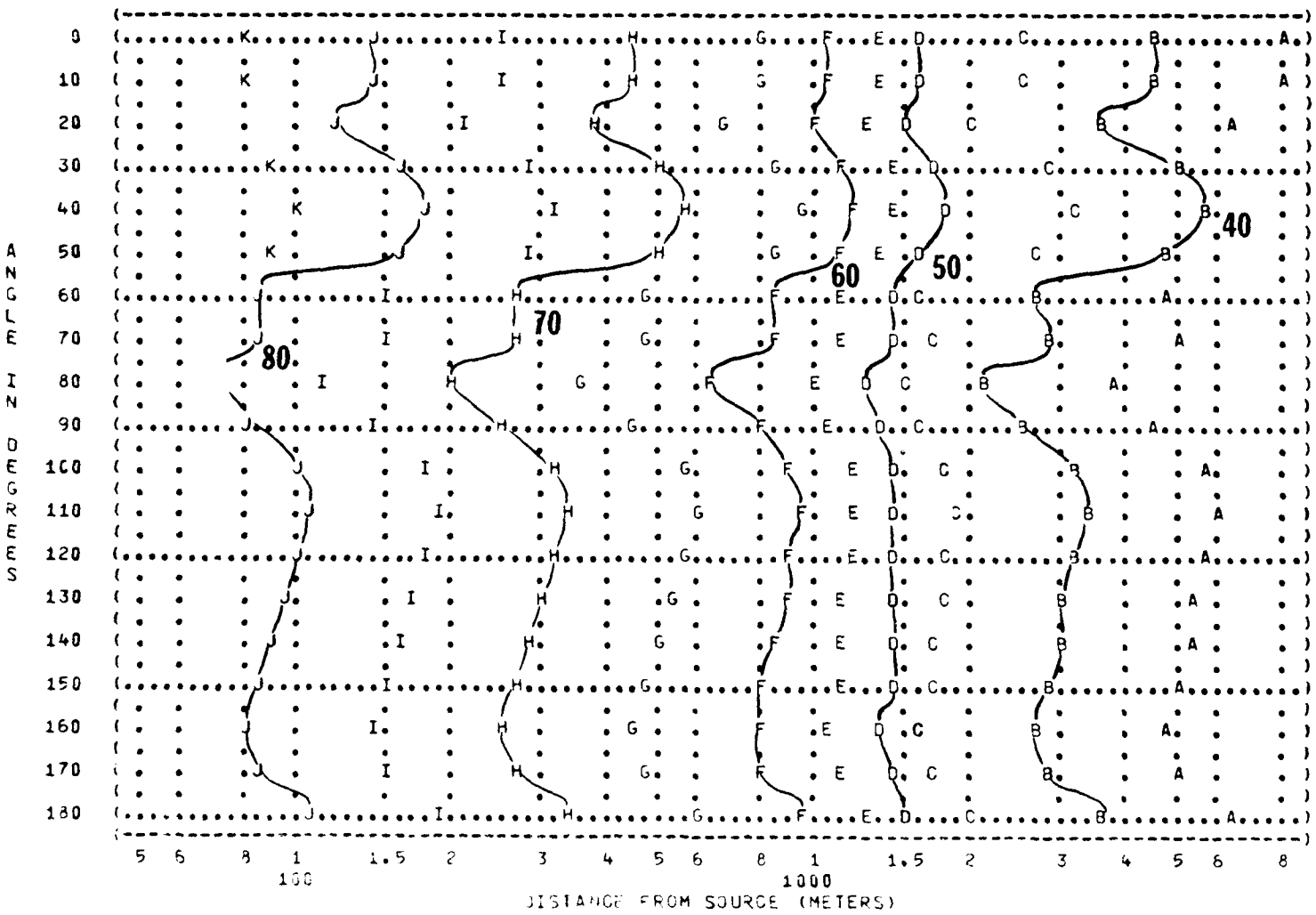
FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-70 AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
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

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

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 19

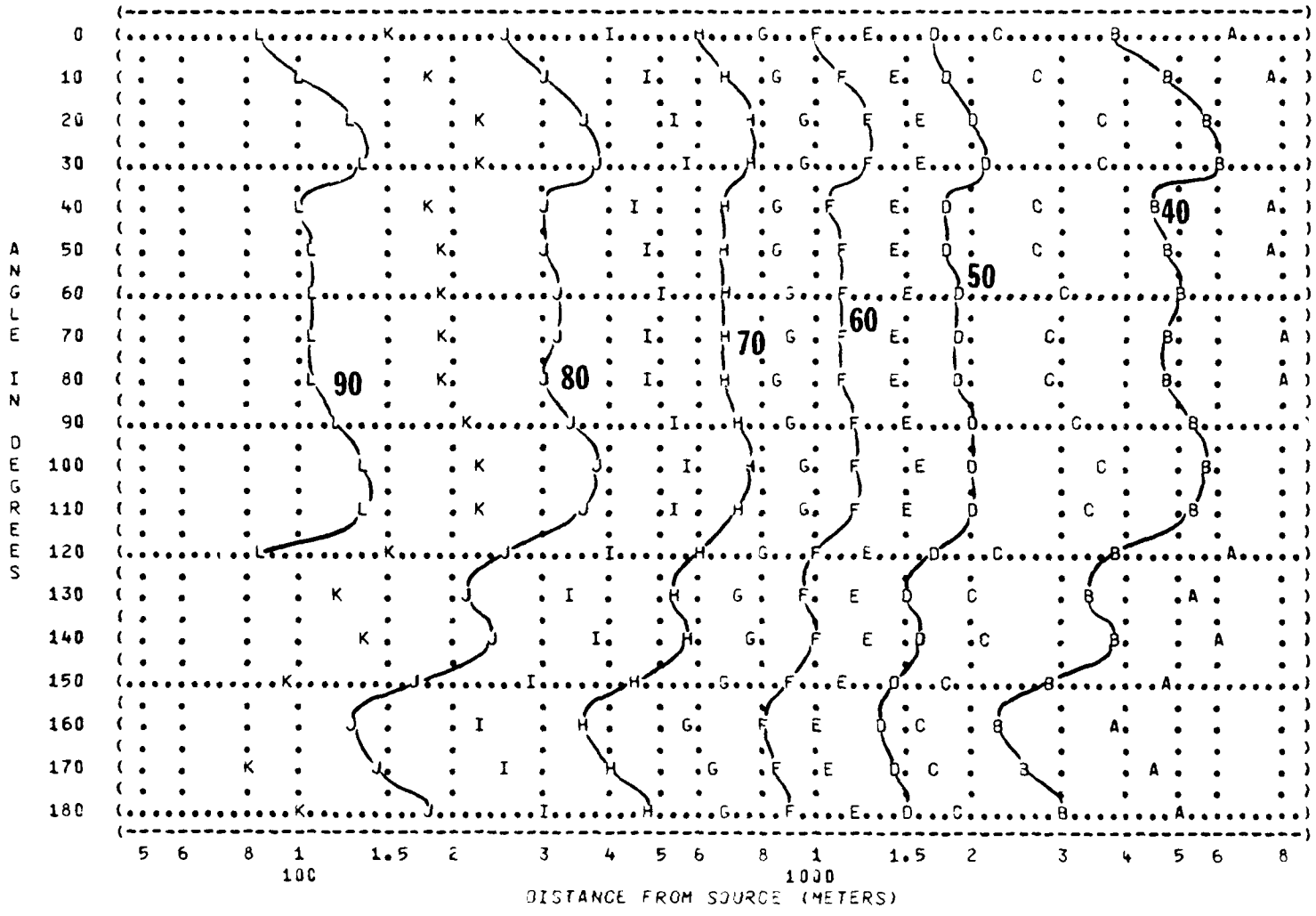


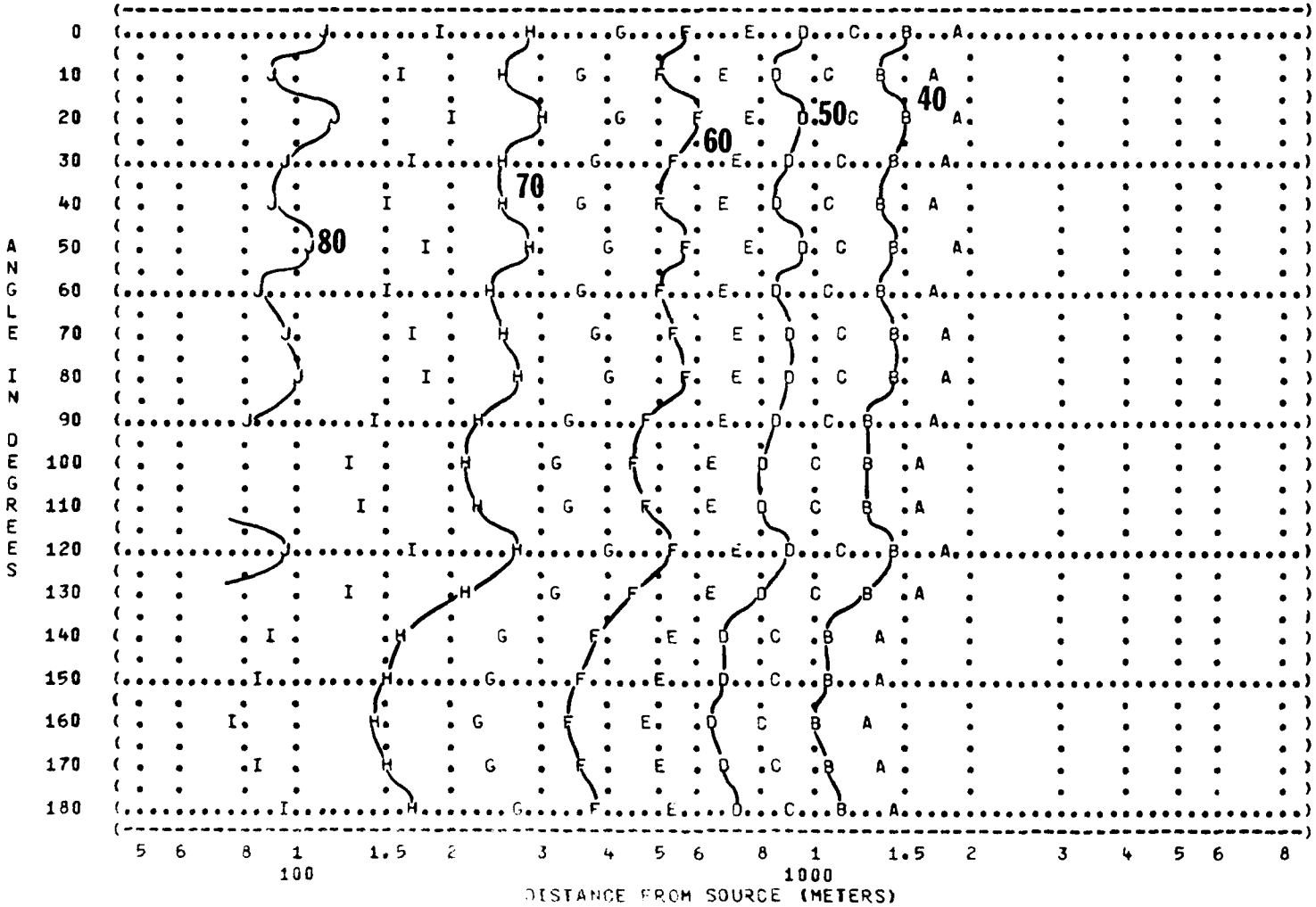
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 125 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 20



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

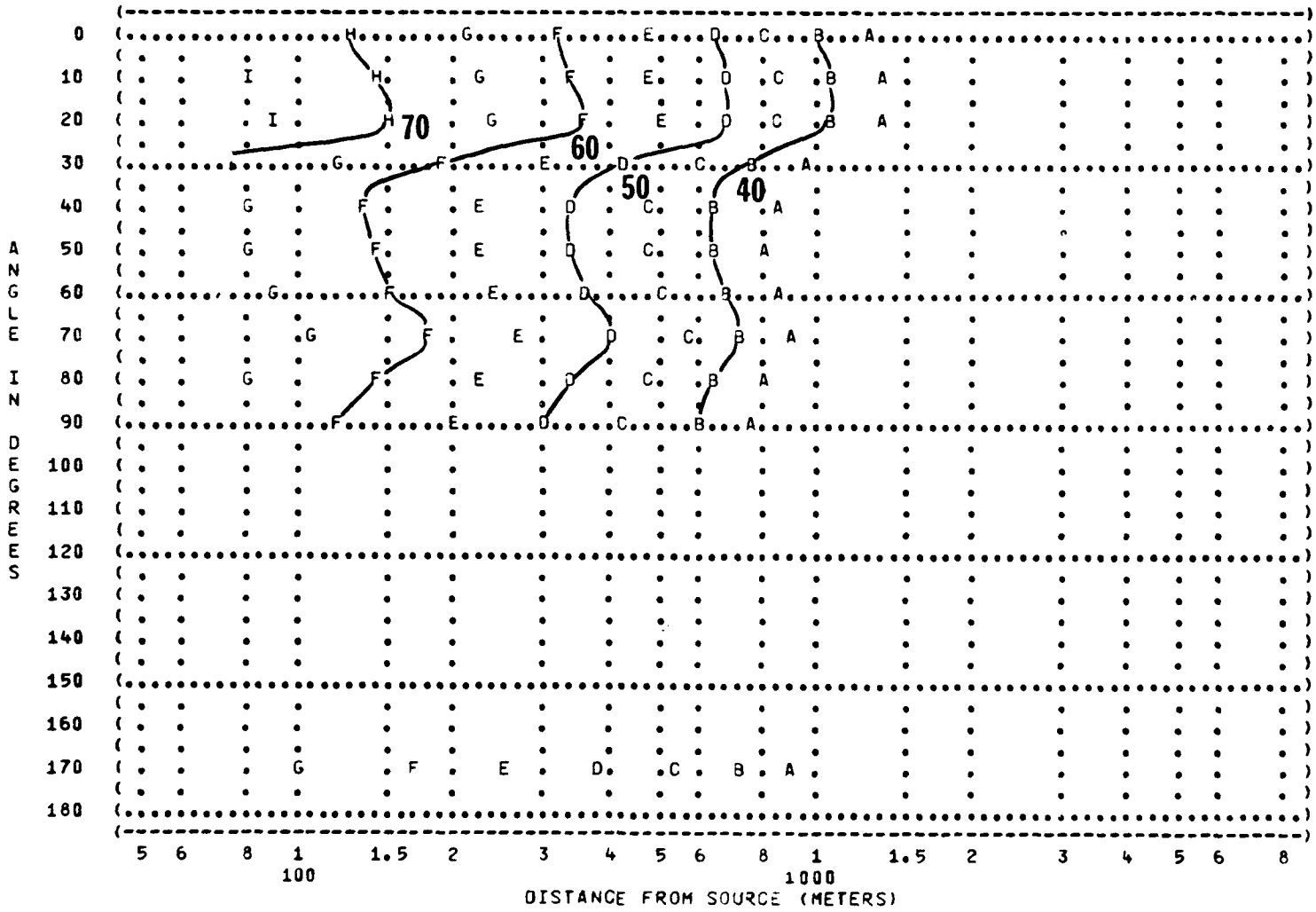
FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 21



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

FIGURE: 11

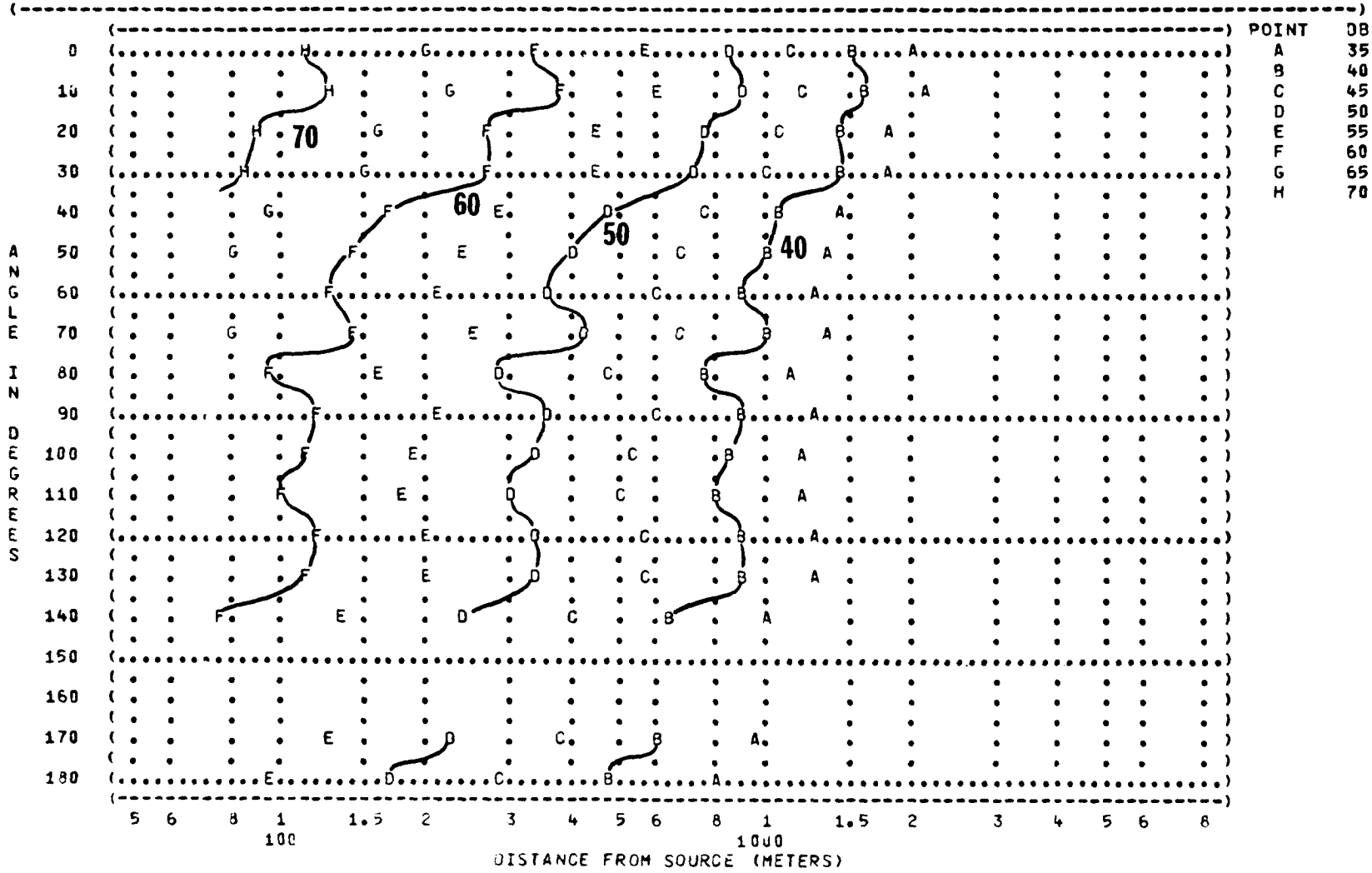
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
500 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 22

NOISE SOURCE/SUBJECT:
A-70 AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

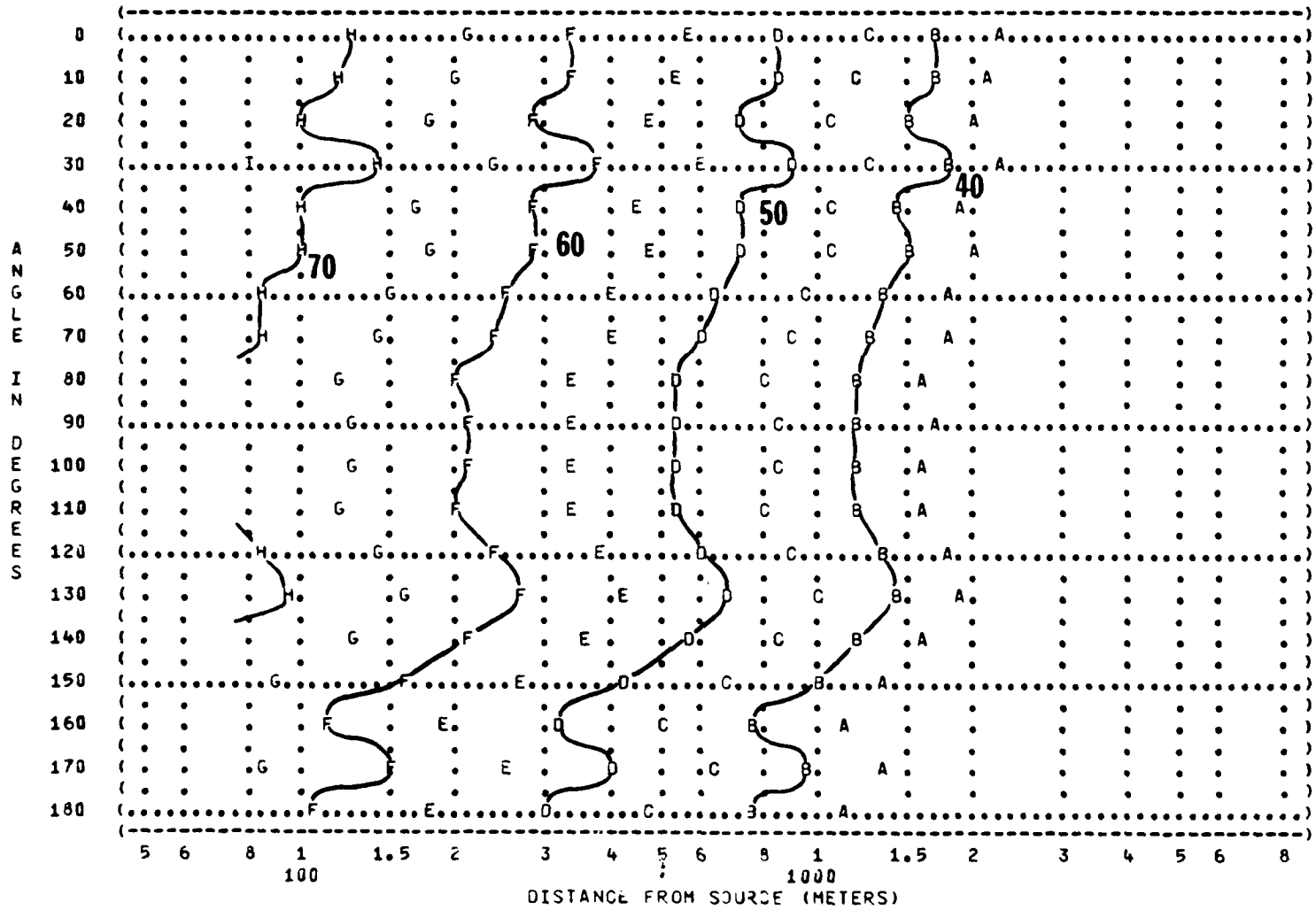
FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 23



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

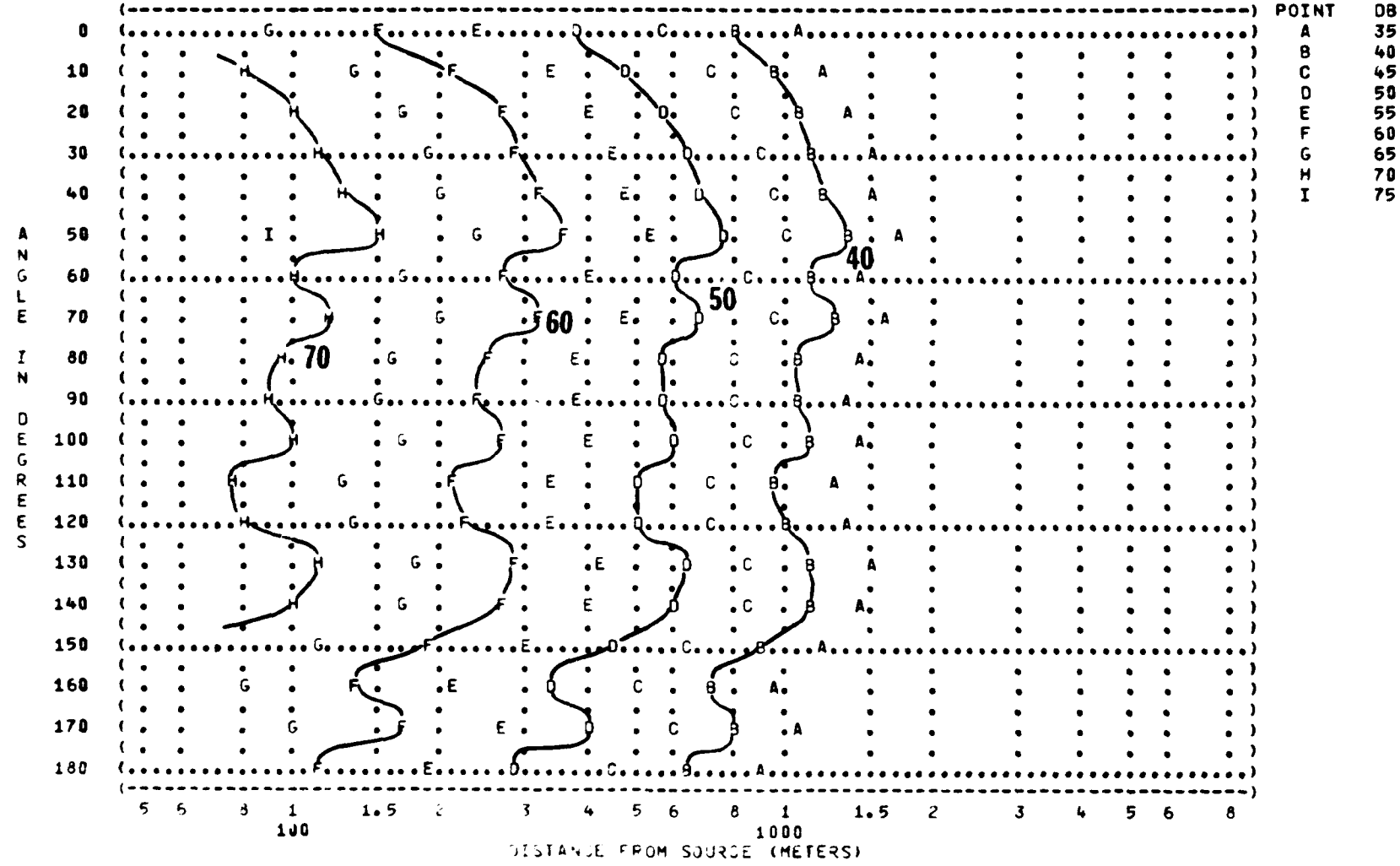
FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 24



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

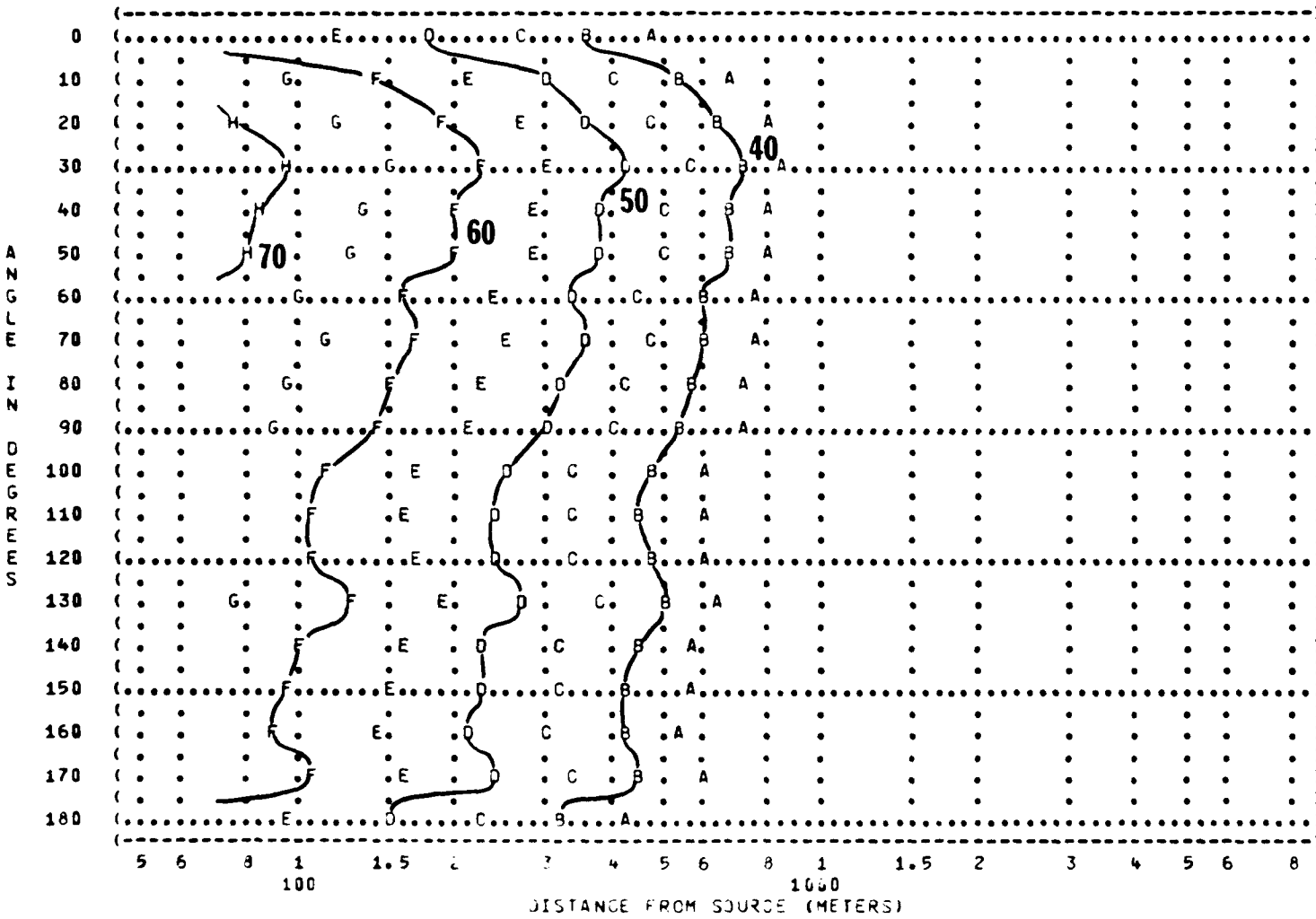
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 25

NOISE SOURCE/SUBJECT:
A-70 AIRCRAFT IN T E
AF32A-19 SUPPRESSO
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

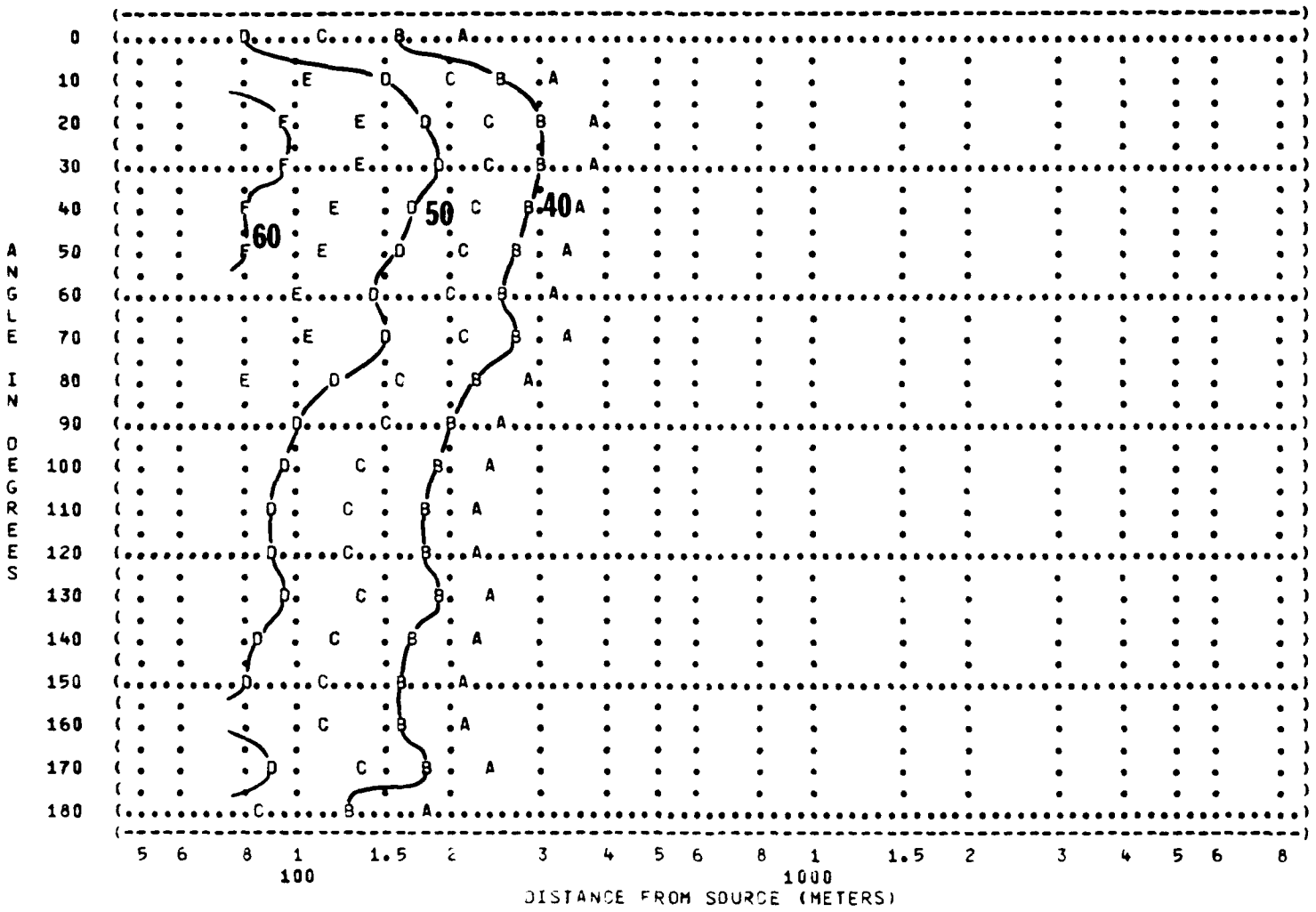
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
70% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 02
20 NOV 79
PAGE 26



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60

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

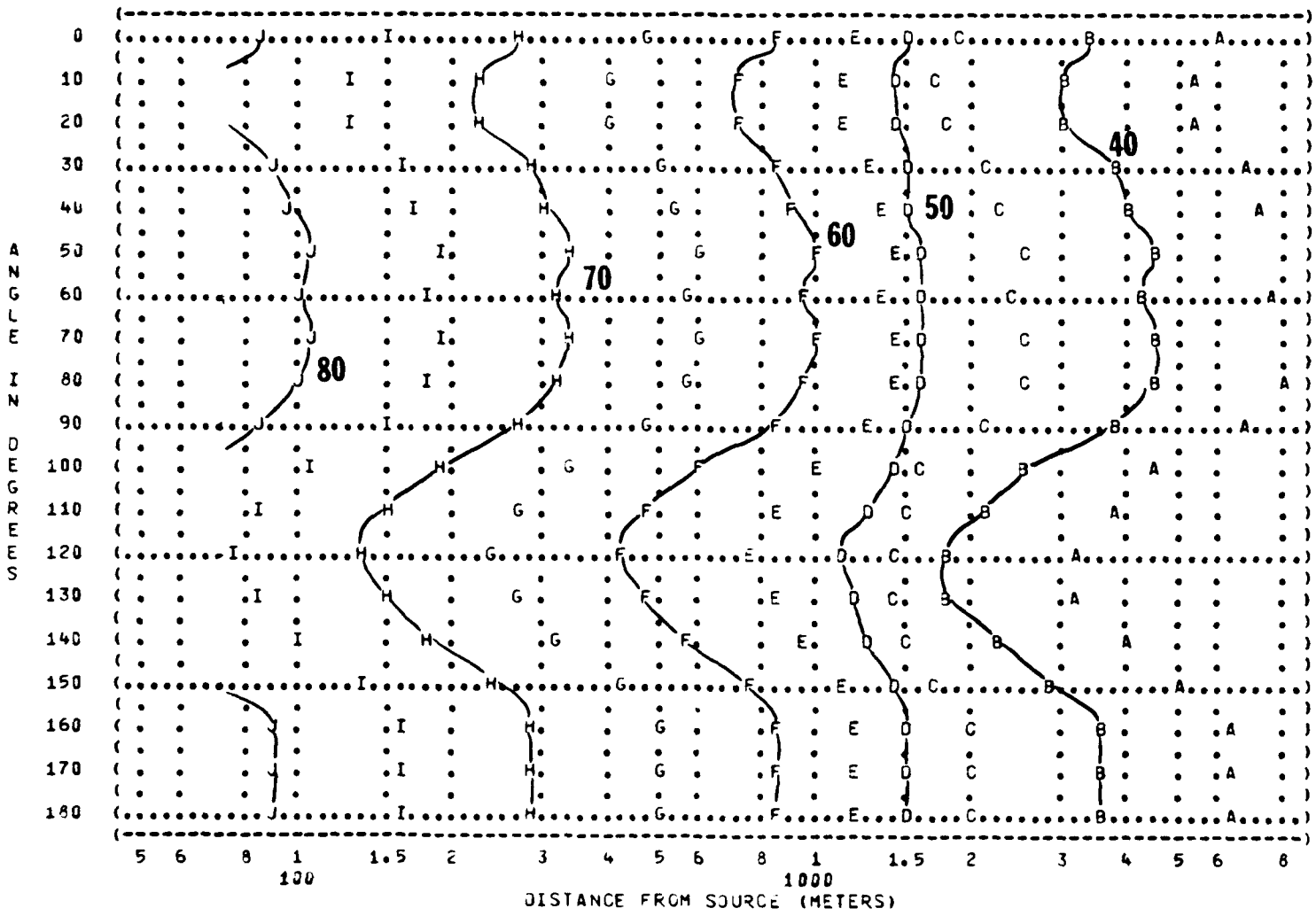
NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 02

20 NOV 79



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

FIGURE: 11

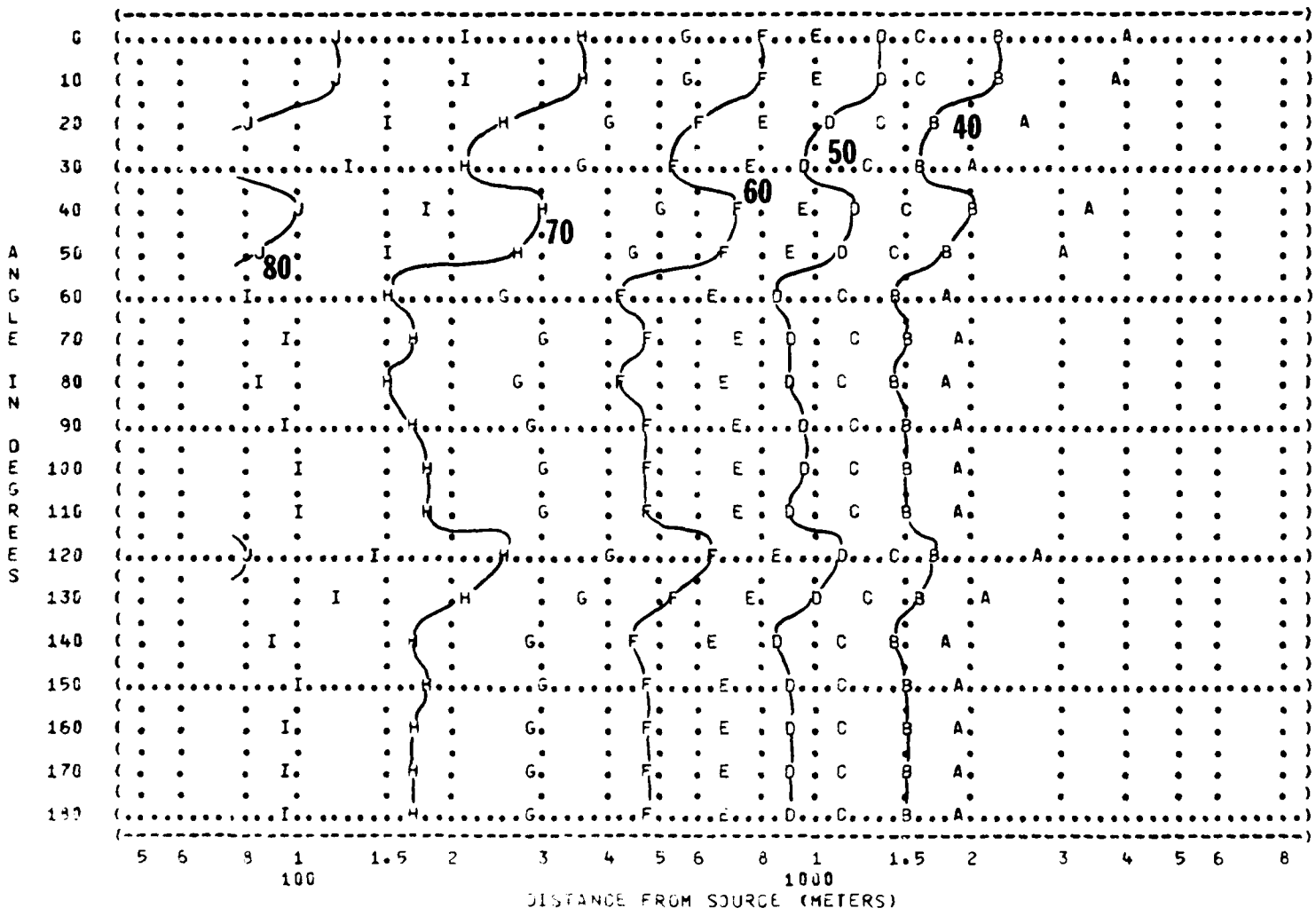
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
63 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 02
20 NOV 79
PAGE 19



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

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 02
20 NOV 79
PAGE 20

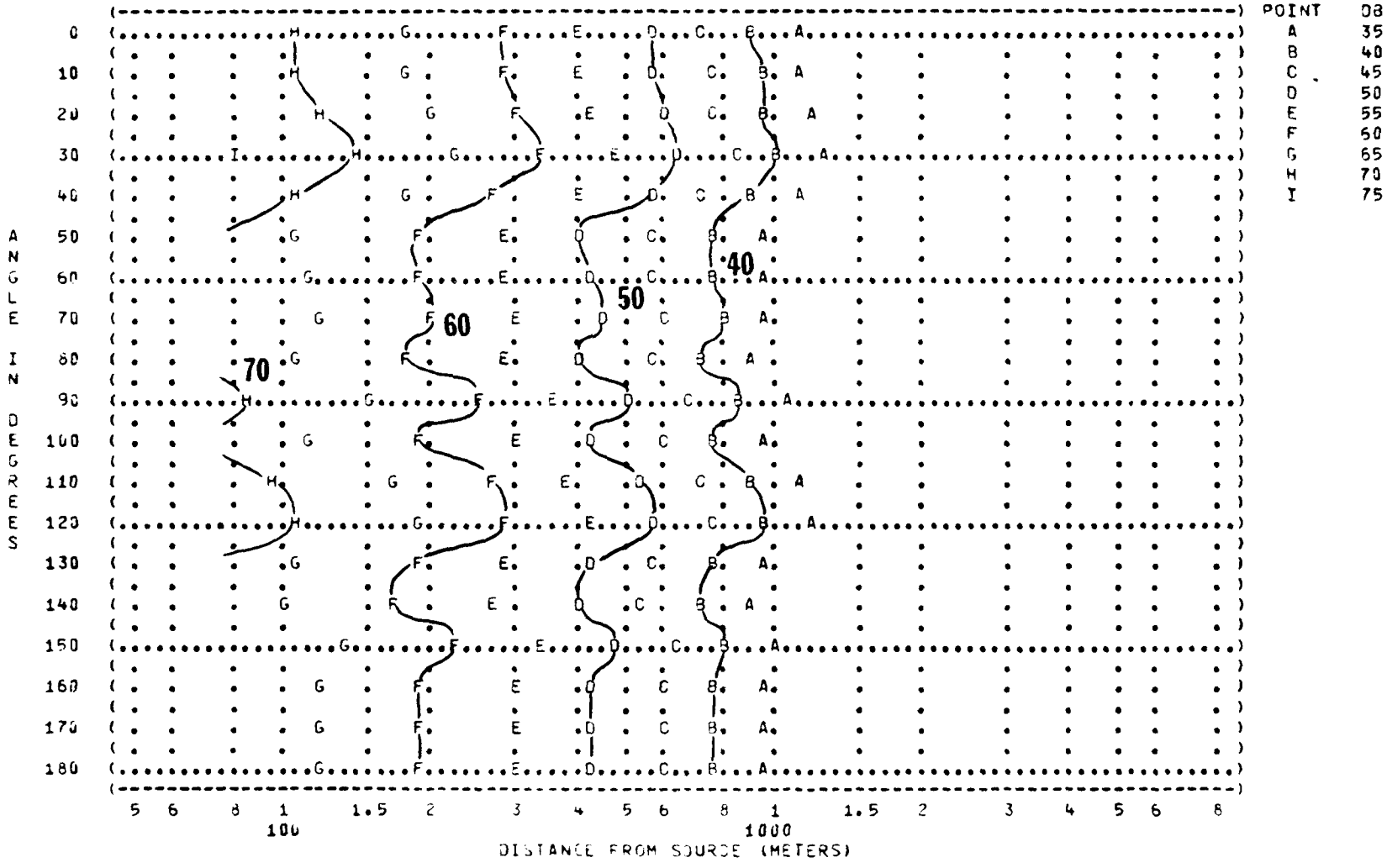


FIGURE: 11

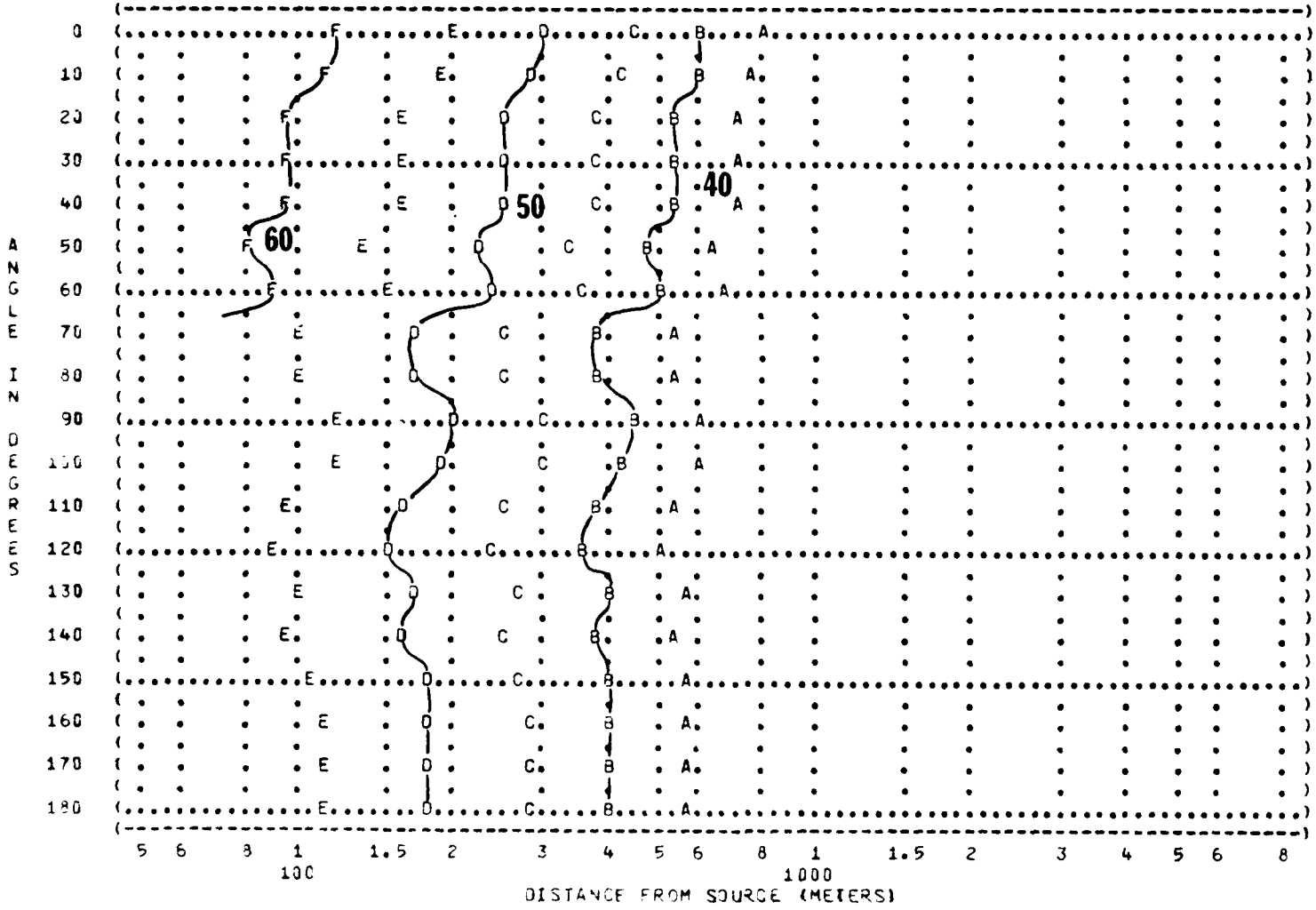
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 02
20 NOV 79
PAGE 21



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60

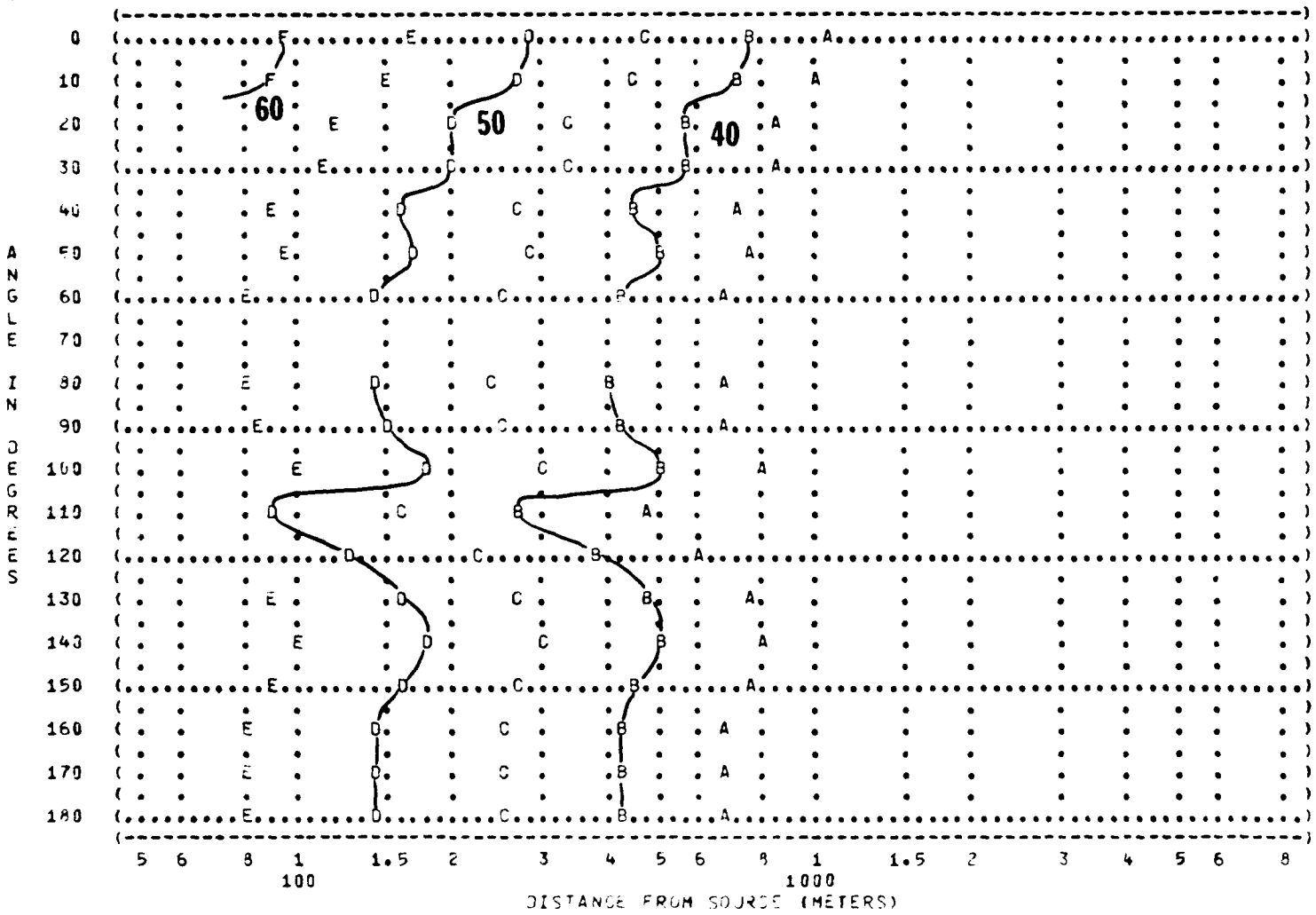
FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-C01
RUN 02
20 NOV 79
PAGE 22



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60

FIGURE: 11

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

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 02
20 NOV 79
PAGE 23

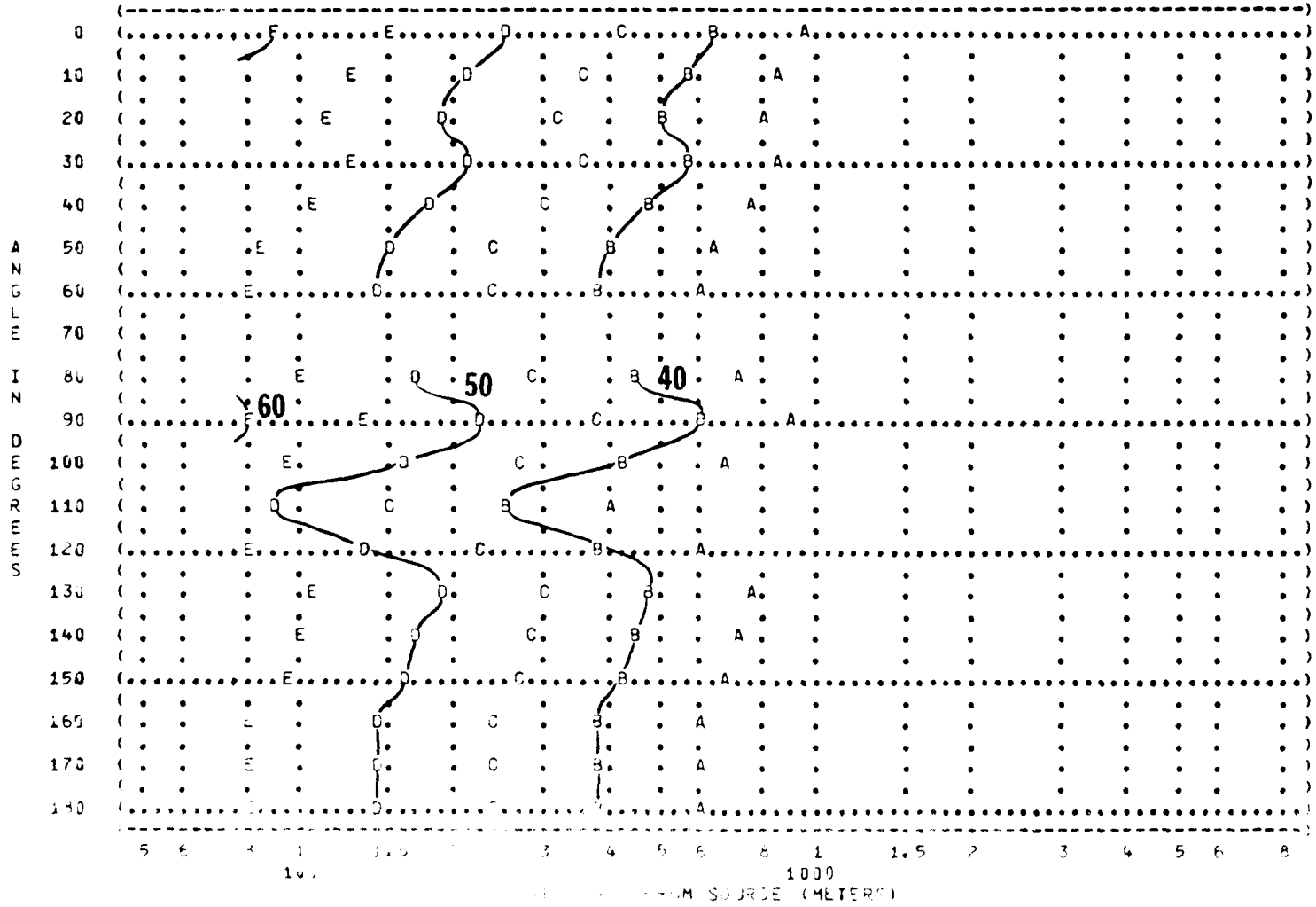


FIGURE 11 SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
2000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 02
20 NOV 79
PAGE 24

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

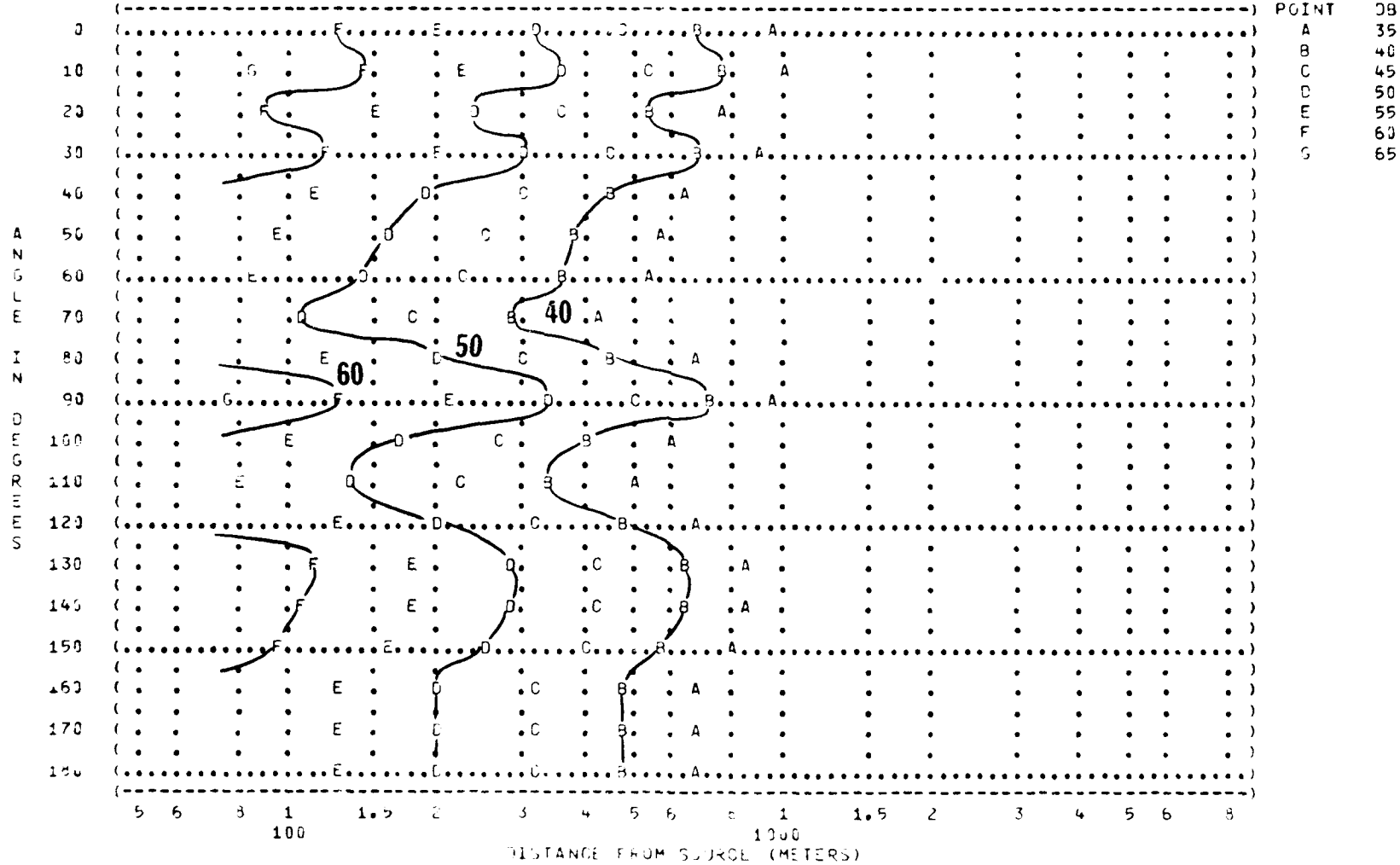


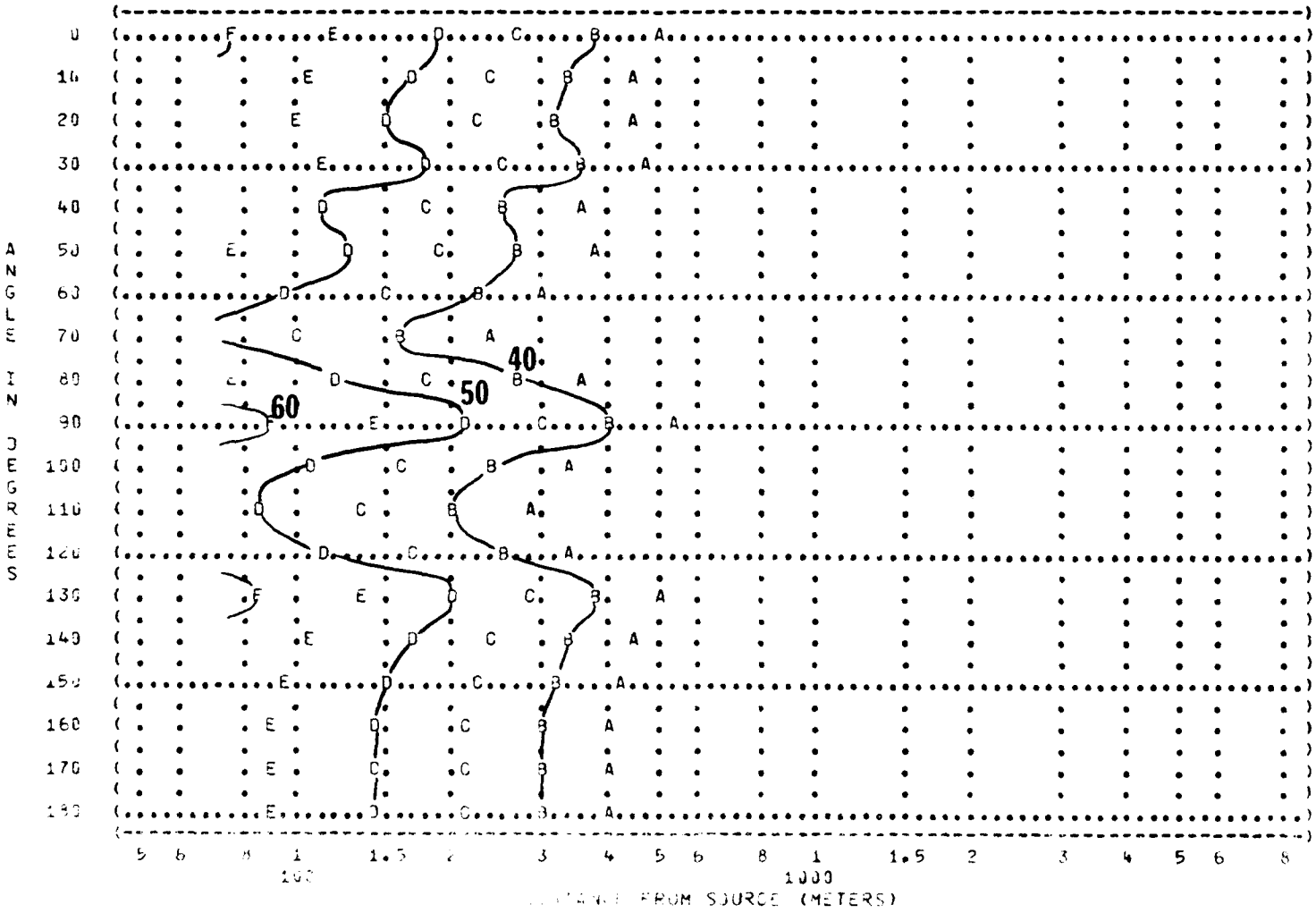
FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
4000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 02
20 NOV 79
PAGE 25

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

FIGURE: 11

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

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
70% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 02
20 NOV 79
PAGE 26

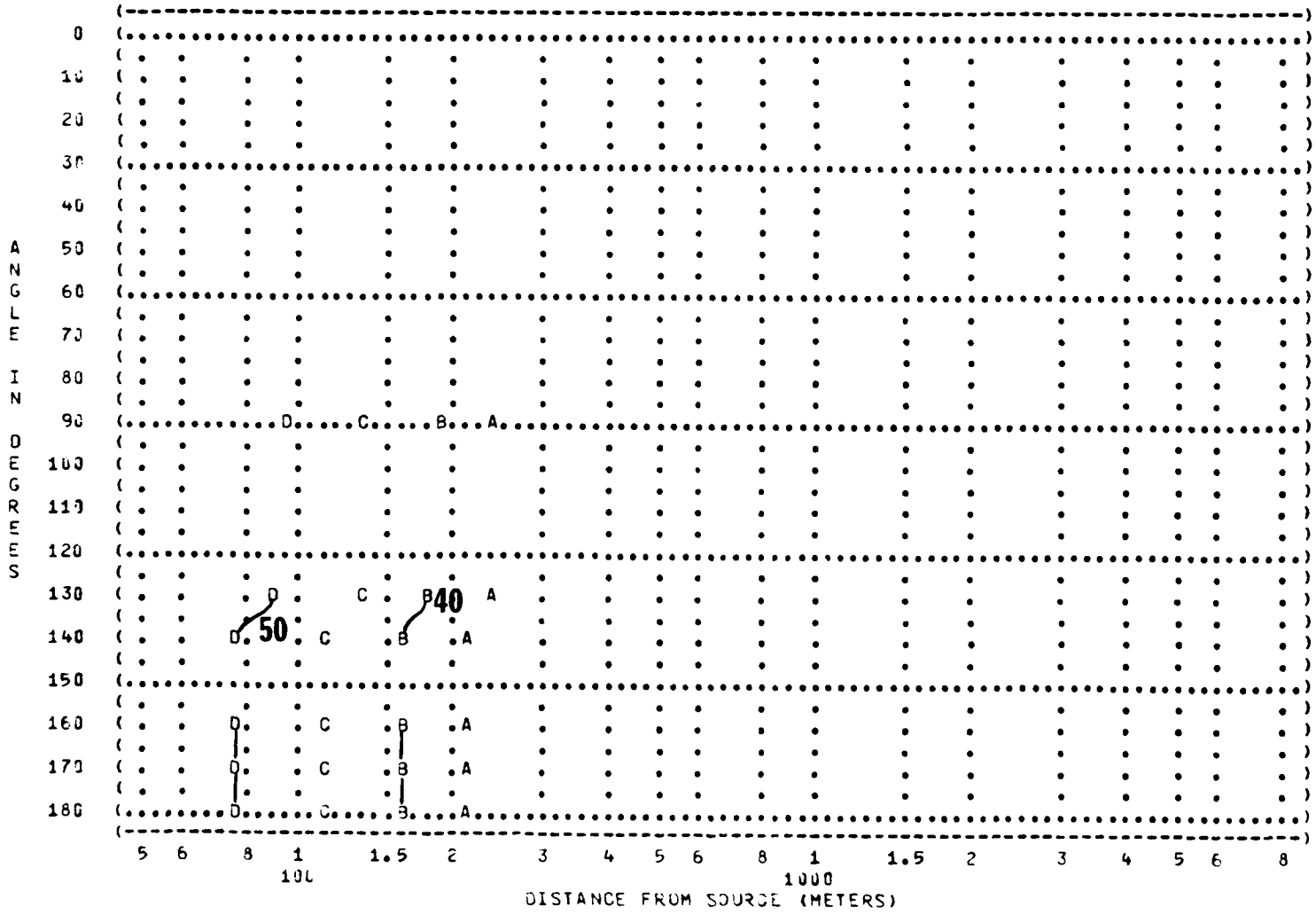


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
PAGE 18

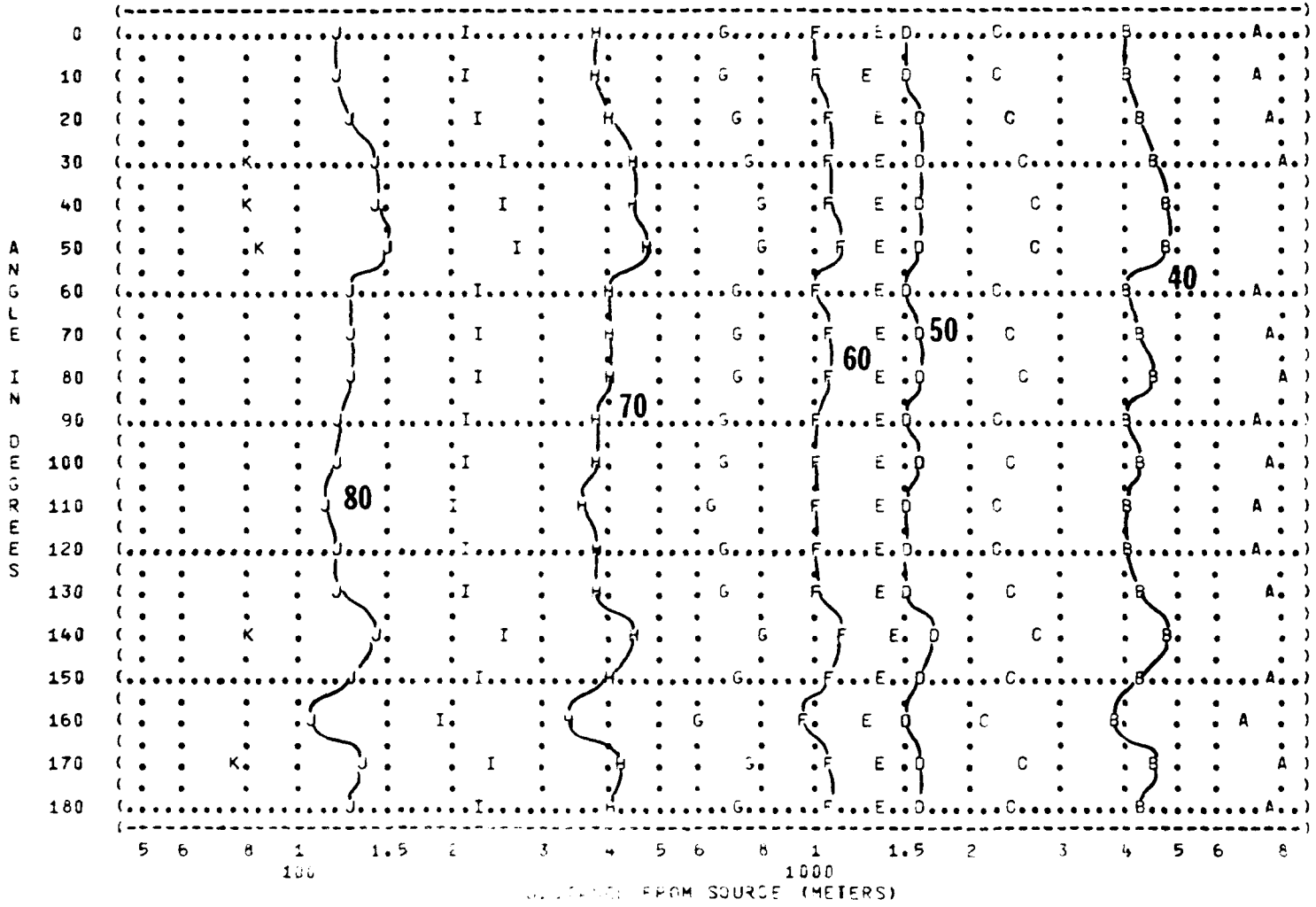


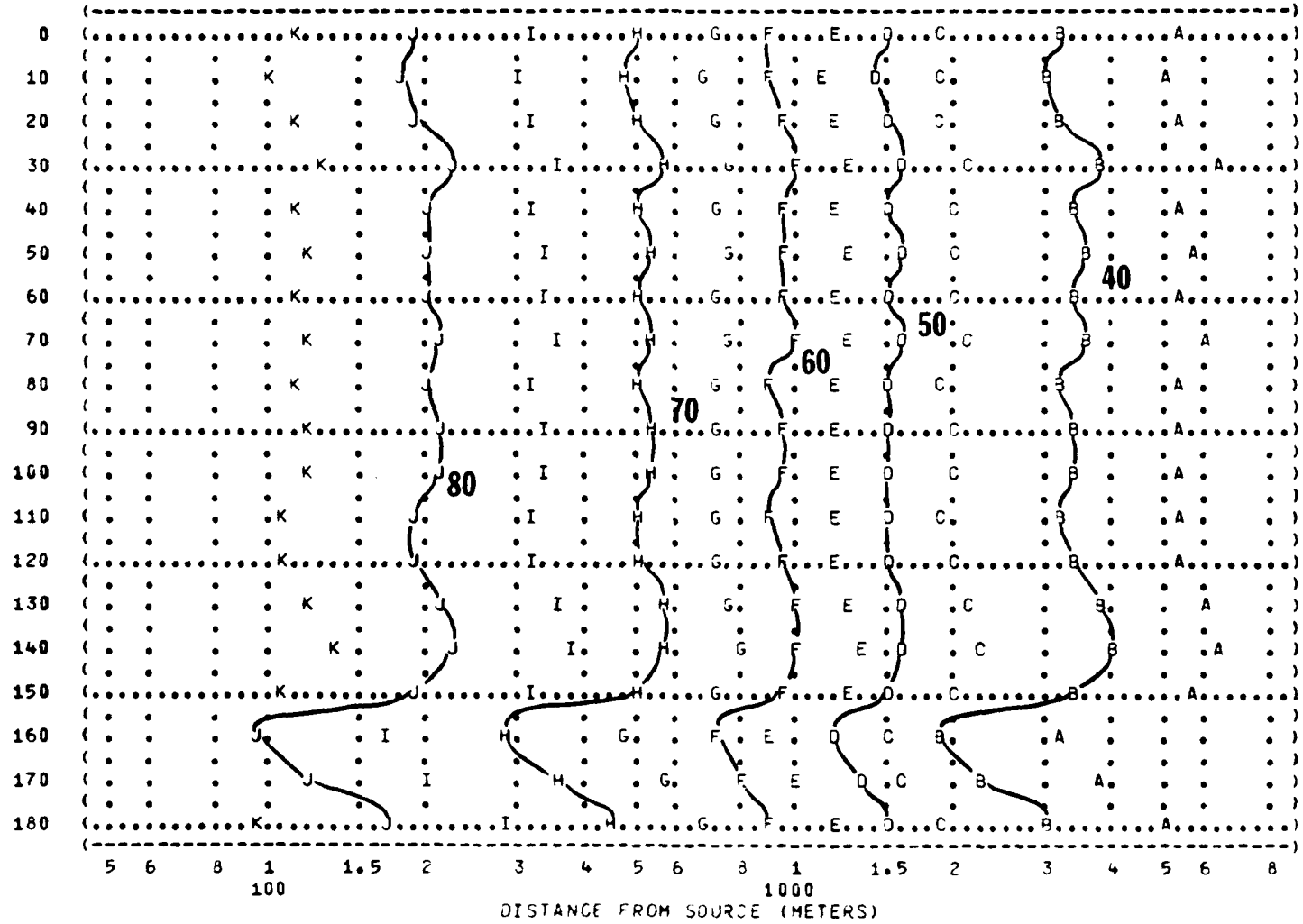
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
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

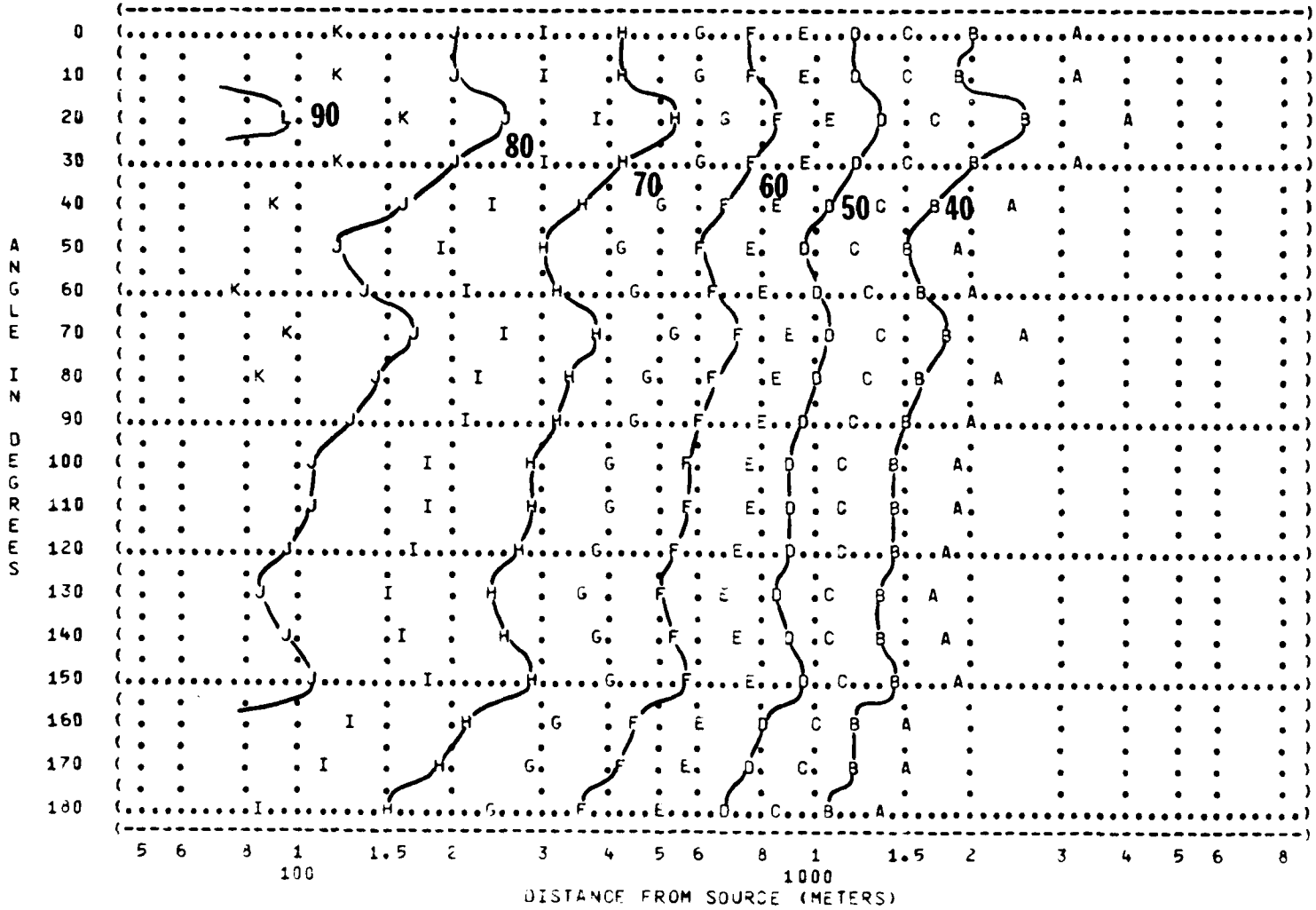
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 125 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
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

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

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-D01
RUN 03
20 NOV 79
PAGE 21

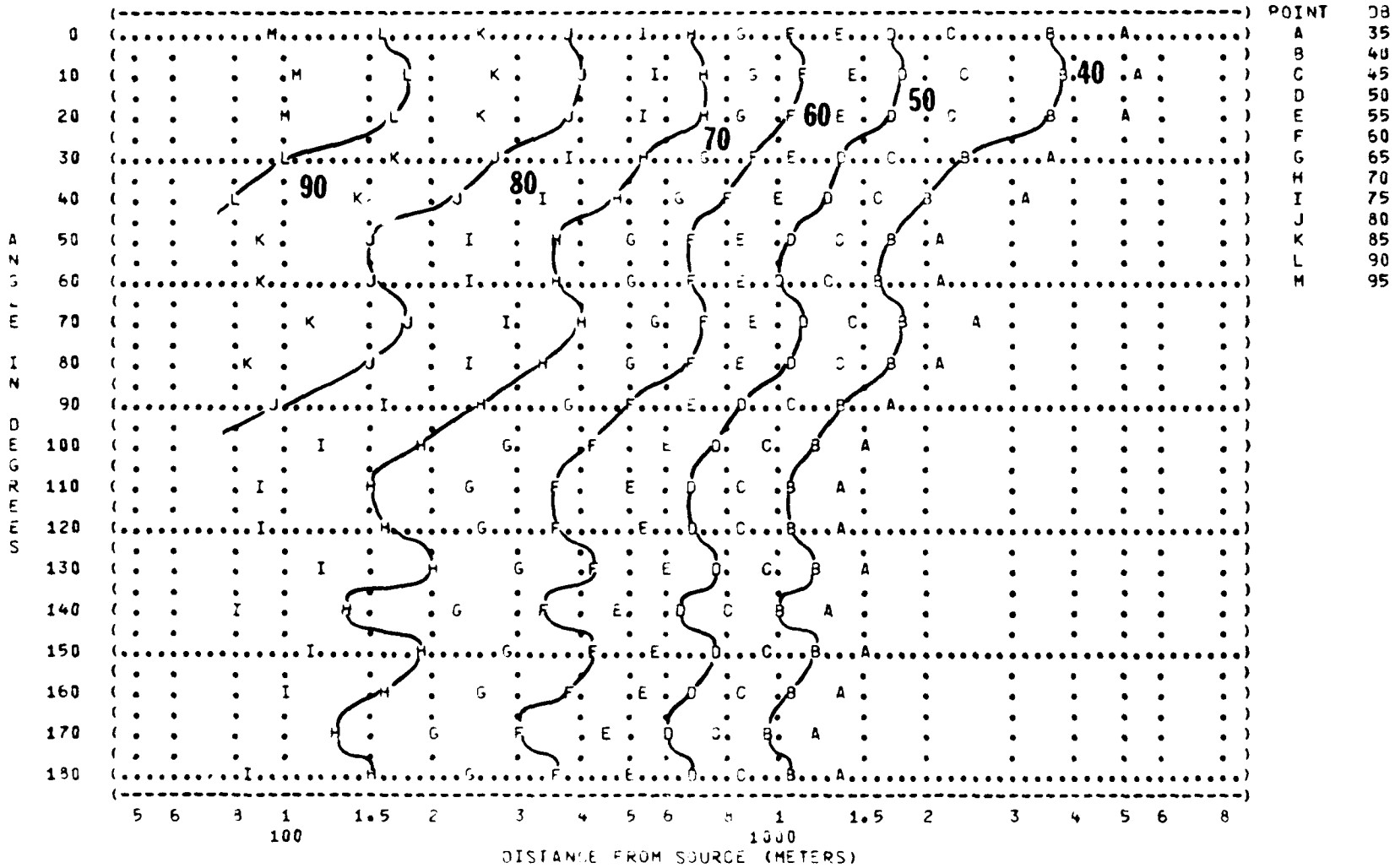


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 500 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
PAGE 22

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

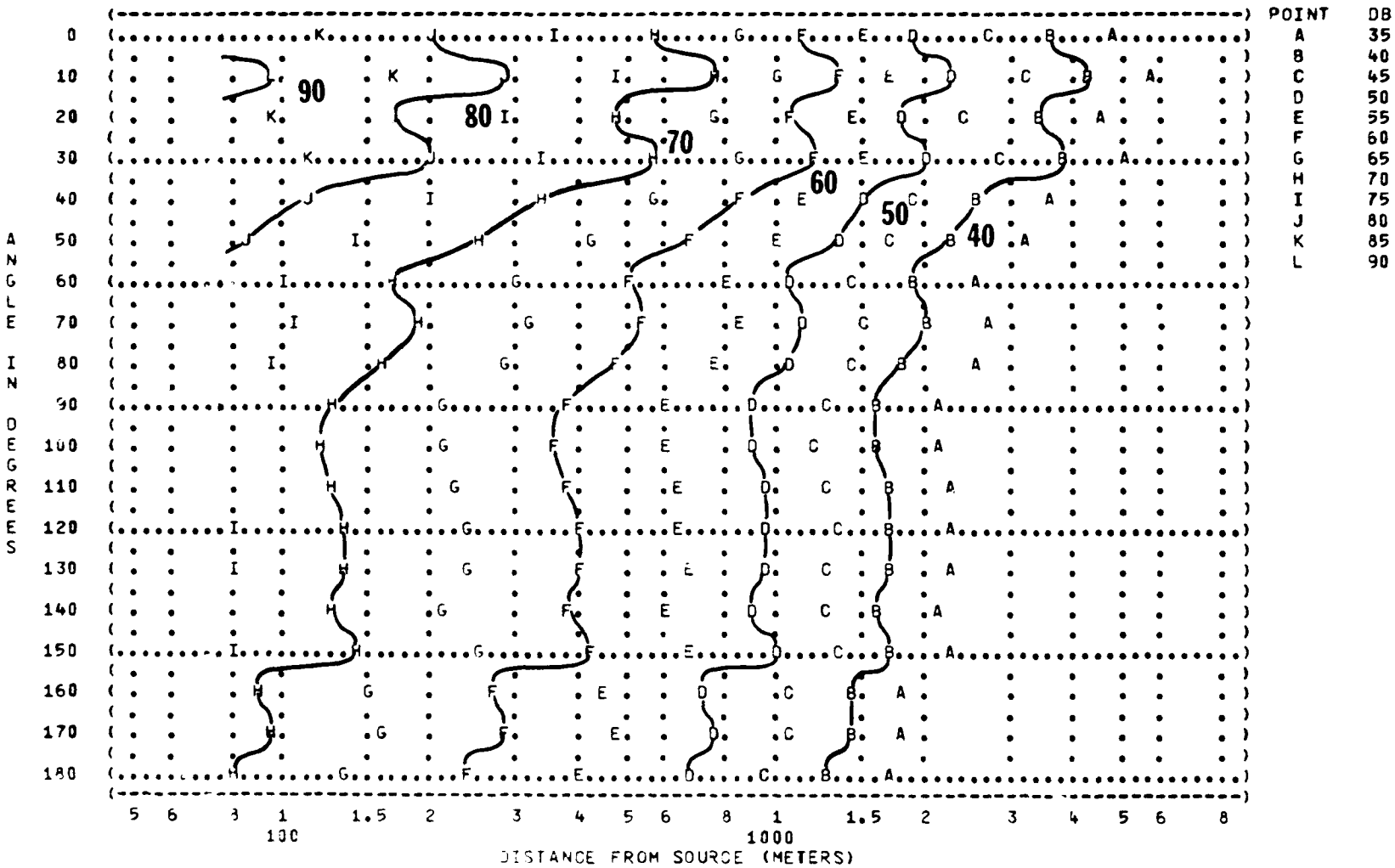


FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

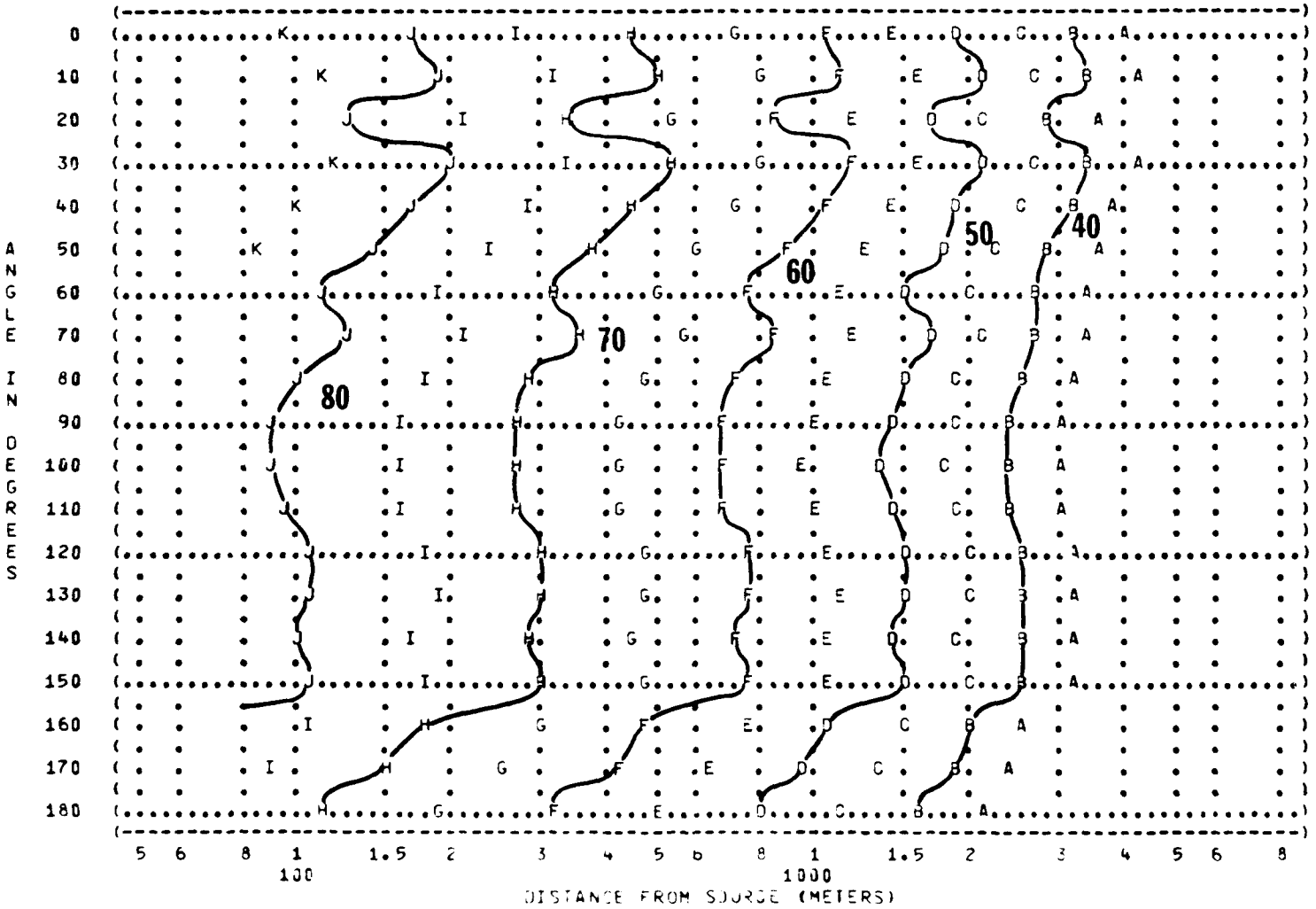
OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03

20 NOV 79

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

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
PAGE 24

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

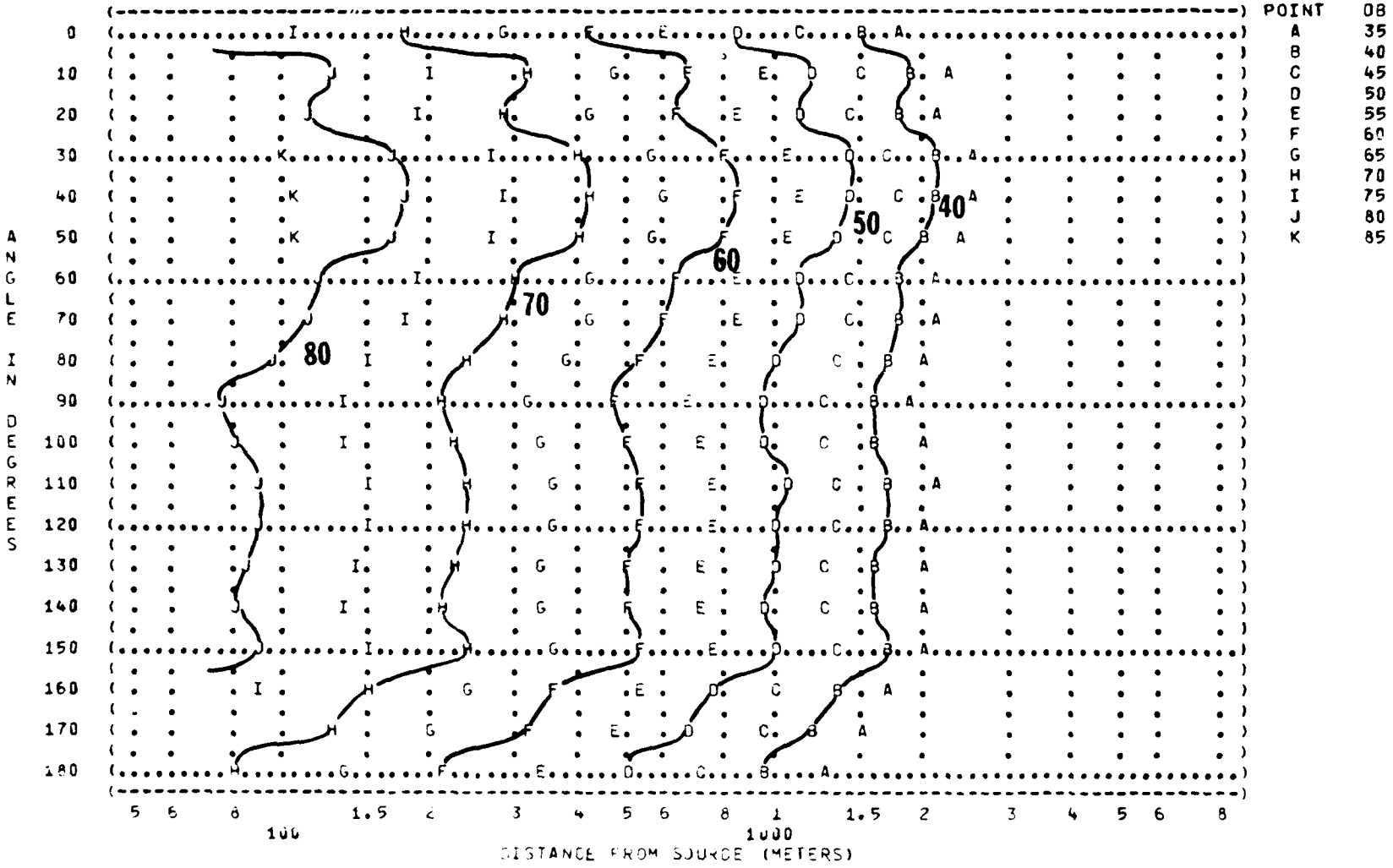


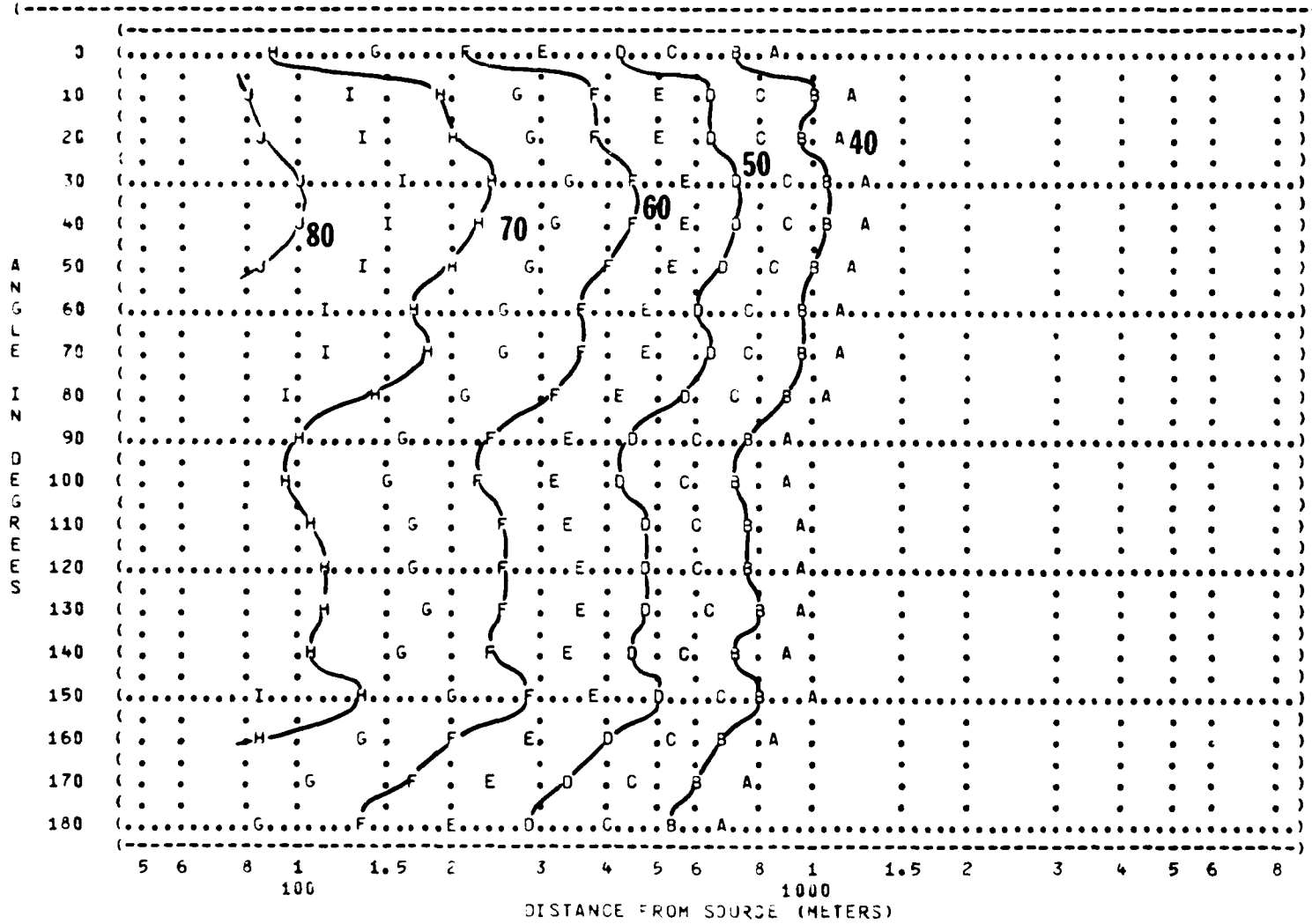
FIGURE 11 SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
4000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
PAGE 25

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

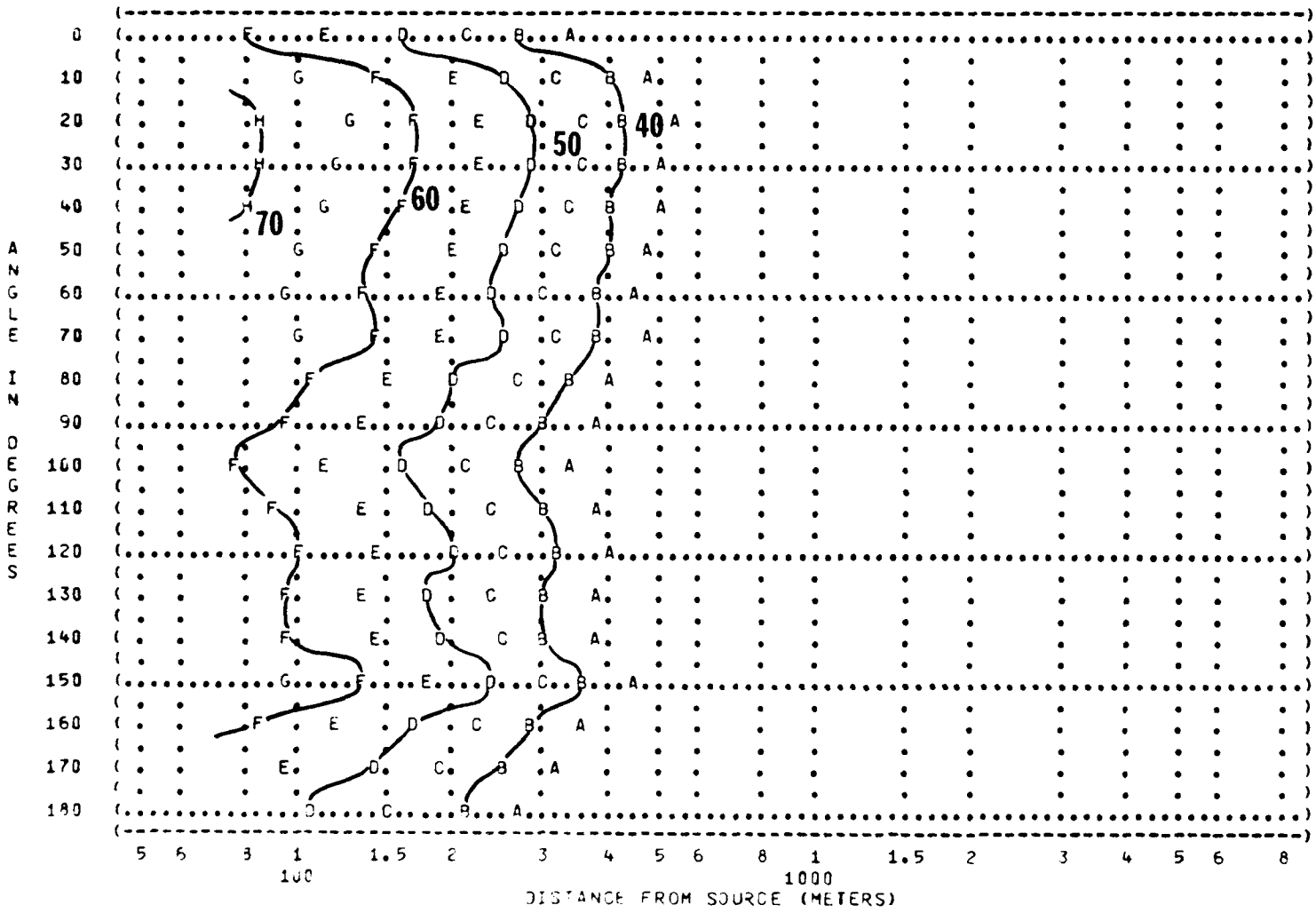
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
85% RPM, ENGINE RUNUP
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 03
20 NOV 79
PAGE 26



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

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 03
20 NOV 79
PAGE 18

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.6% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

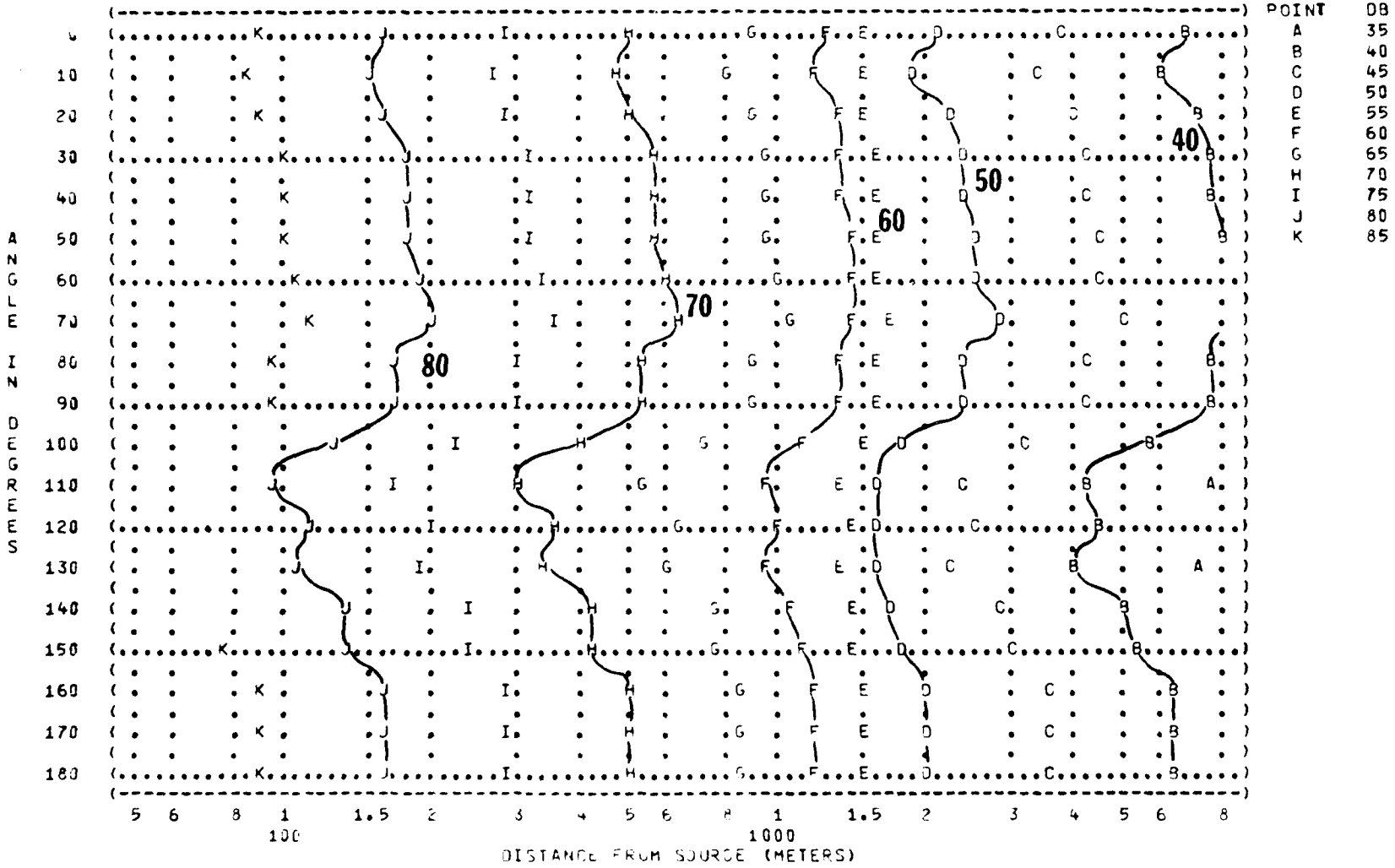


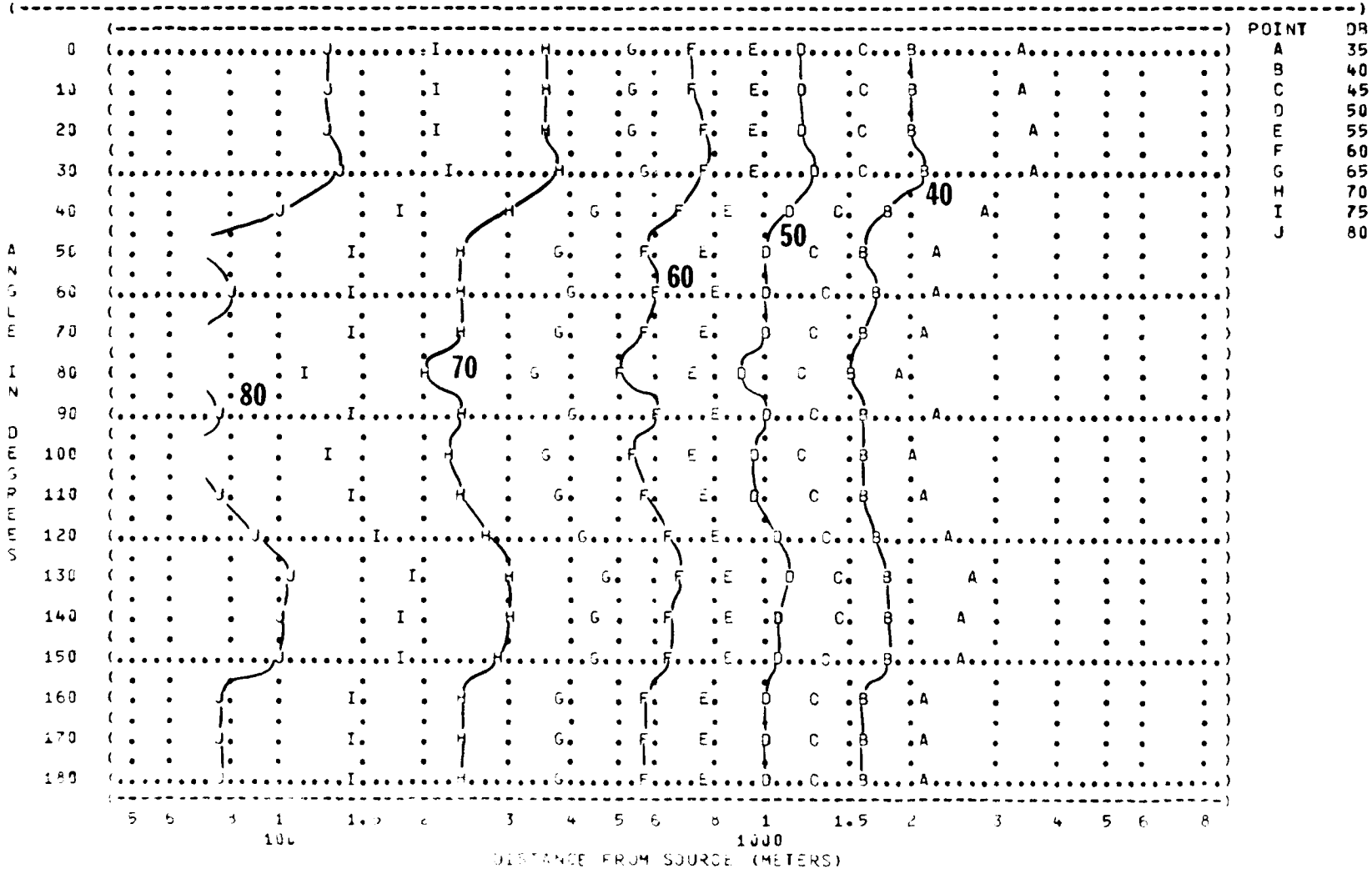
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 03
20 NOV 79
PAGE 19

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.6% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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



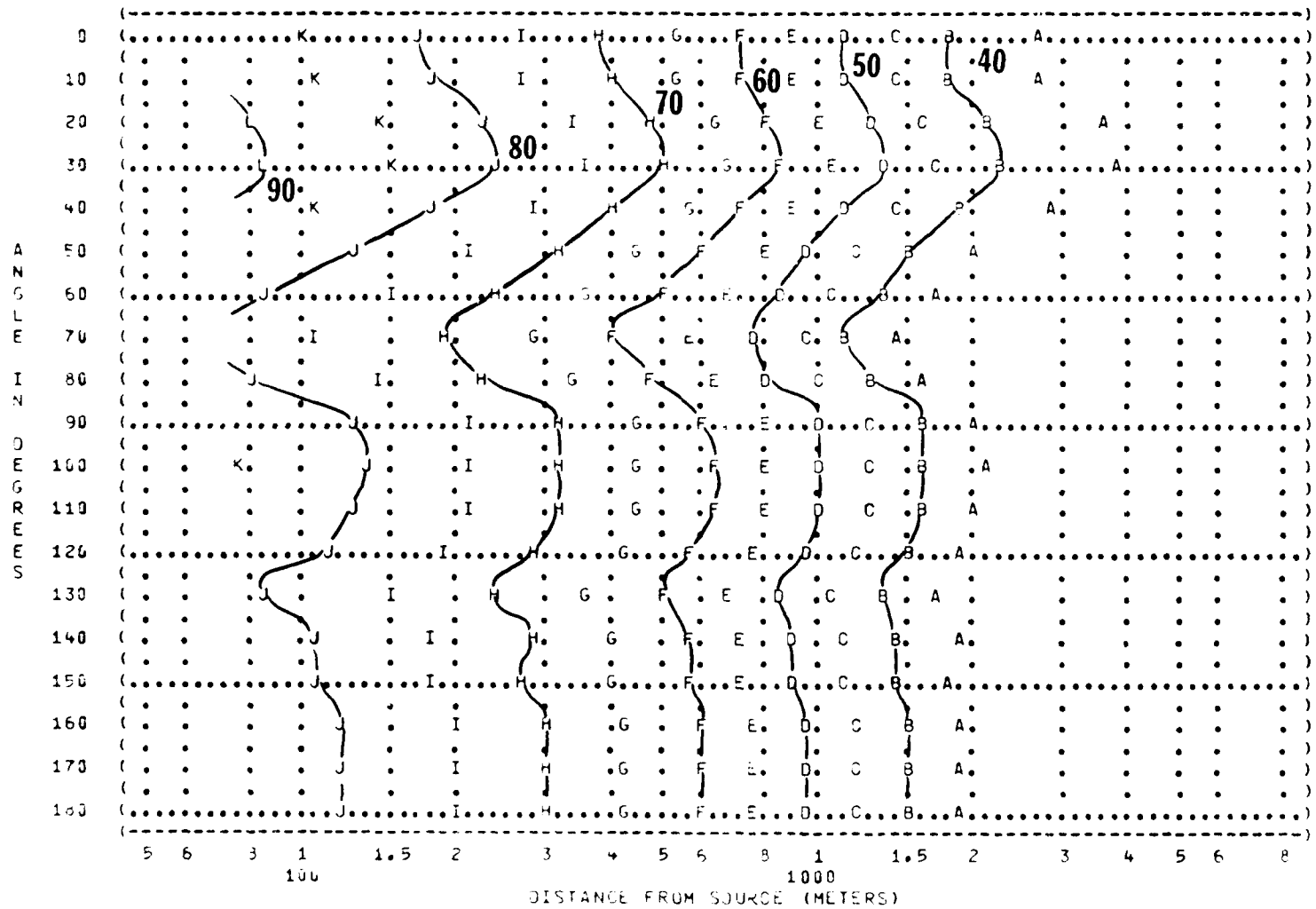
FIGUR : 11 SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
125 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-L01
RUN 03
20 NOV 79
PAGE 20

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.6% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

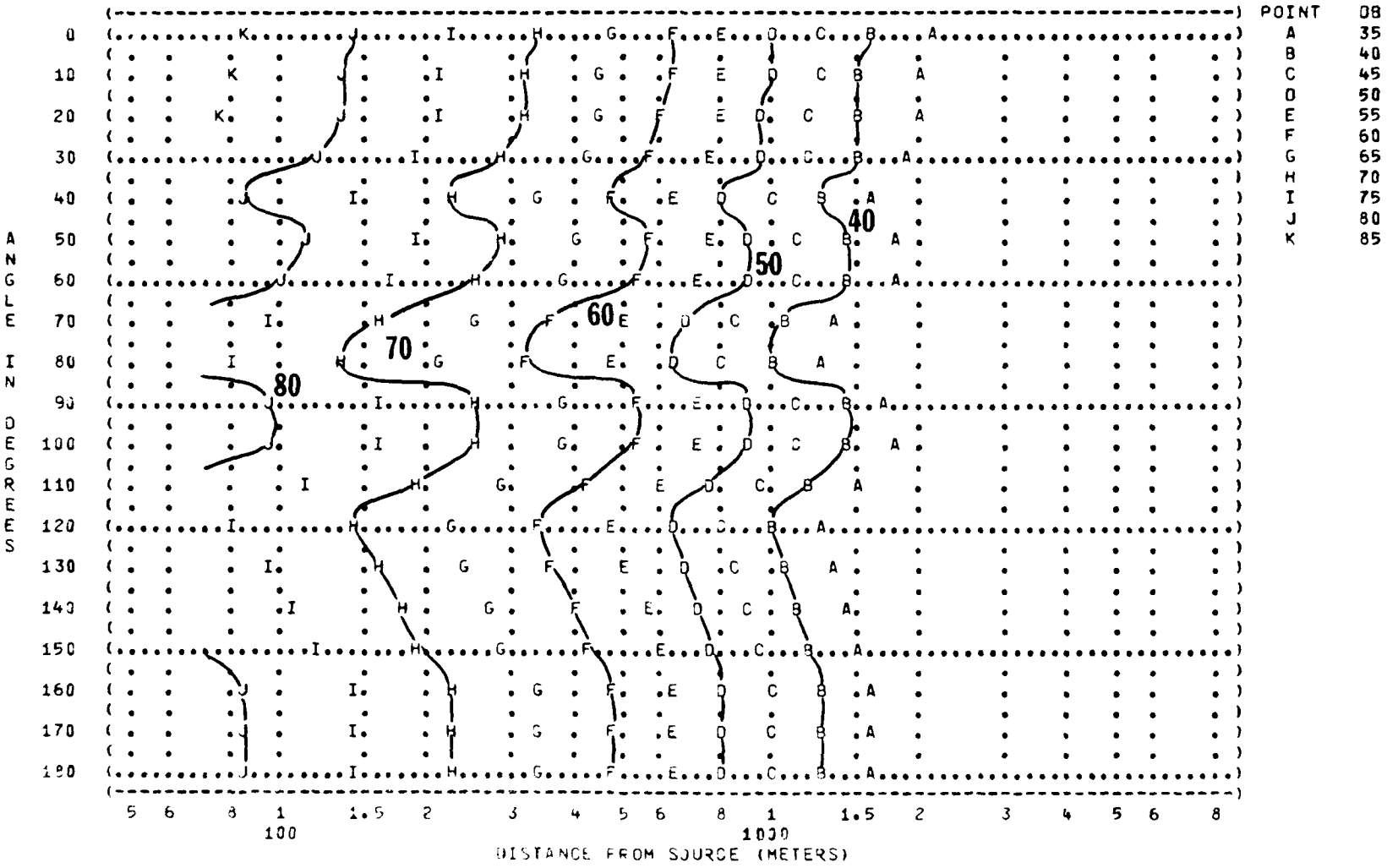
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.6% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 03
20 NOV 79
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

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

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.6% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-C01
RUN 03
20 NOV 79
PAGE 22

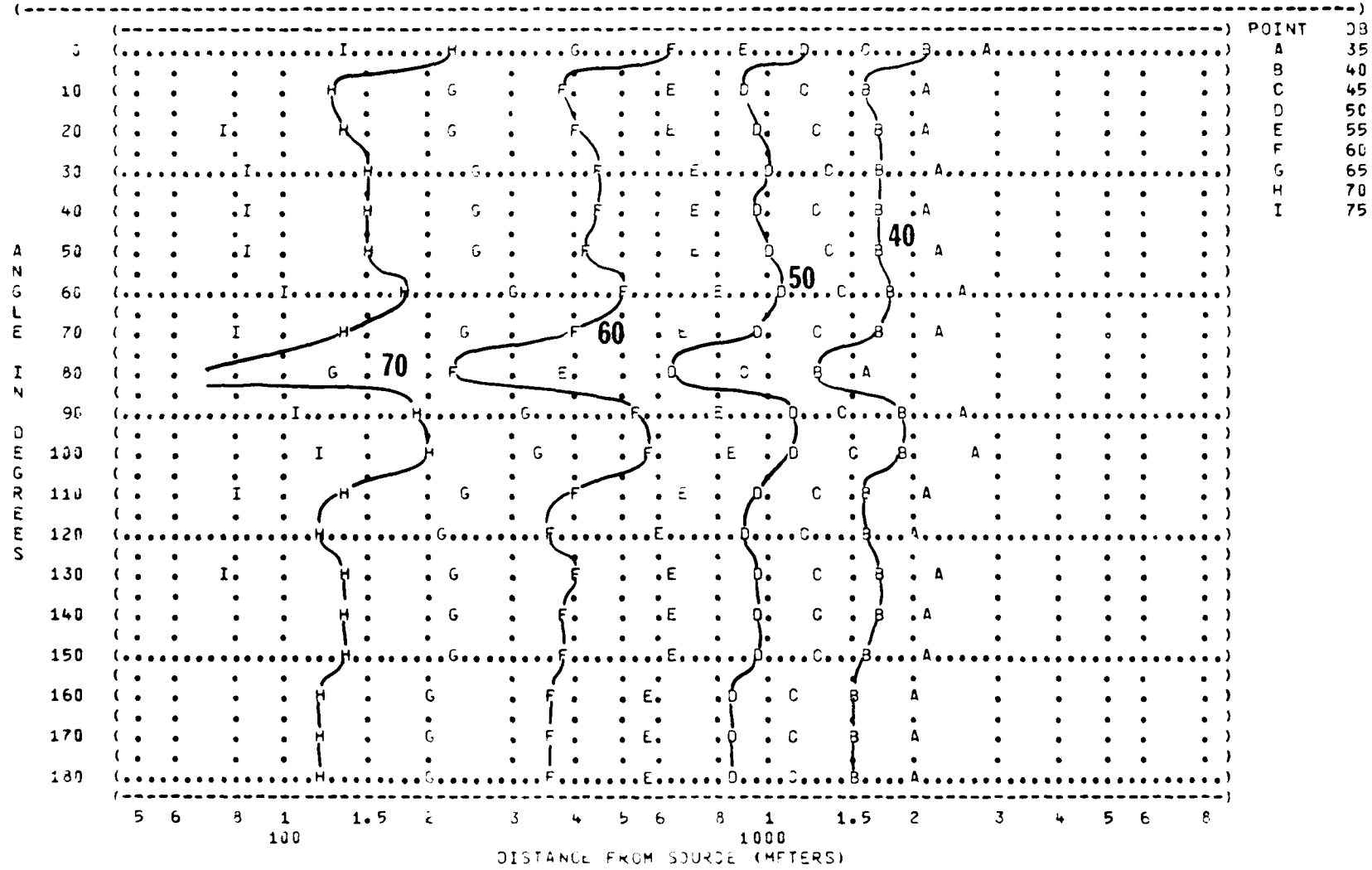


FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.6% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 03
20 NOV 79
PAGE 23

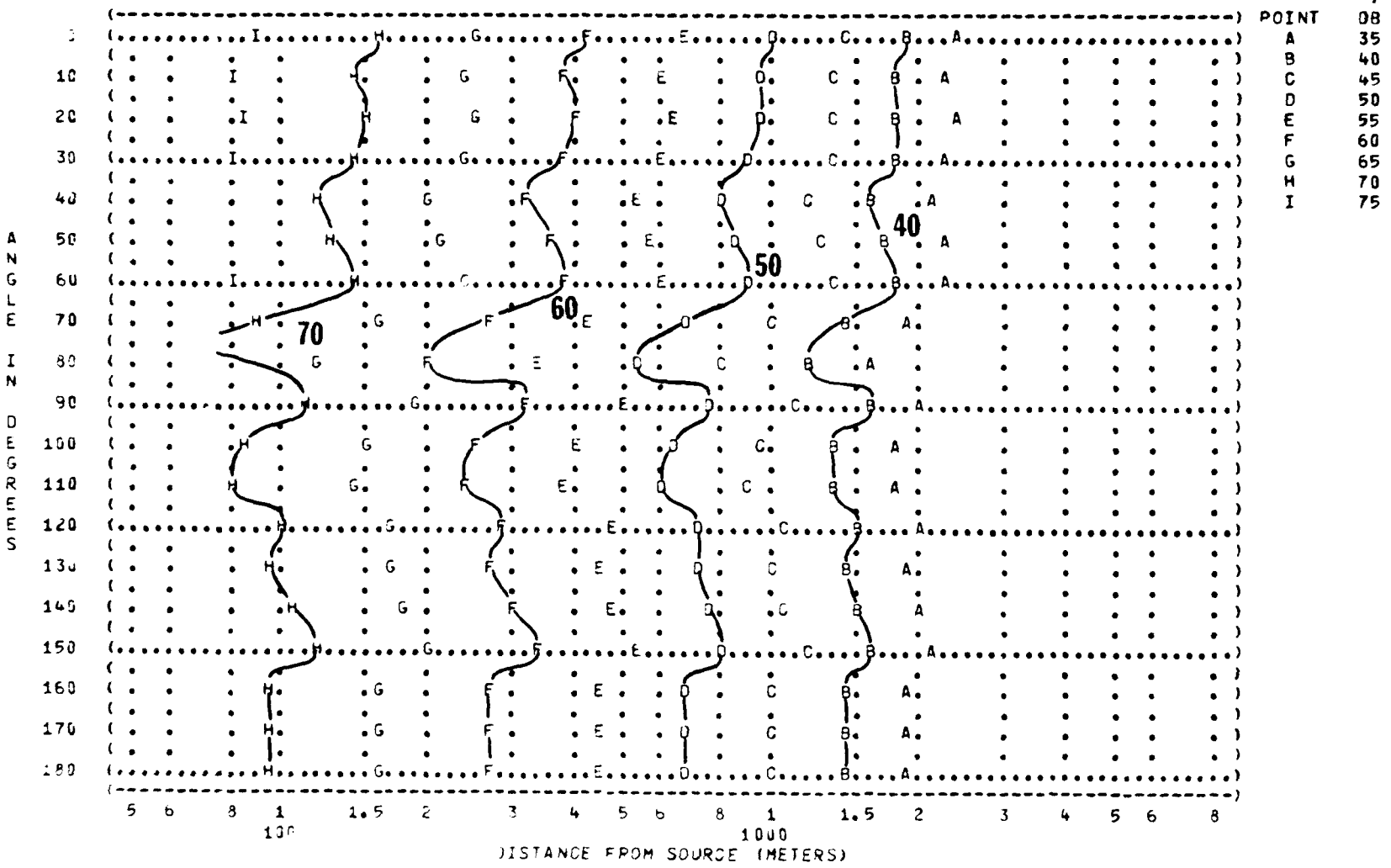


FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.6% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 03

20 NOV 79

PAGE 24

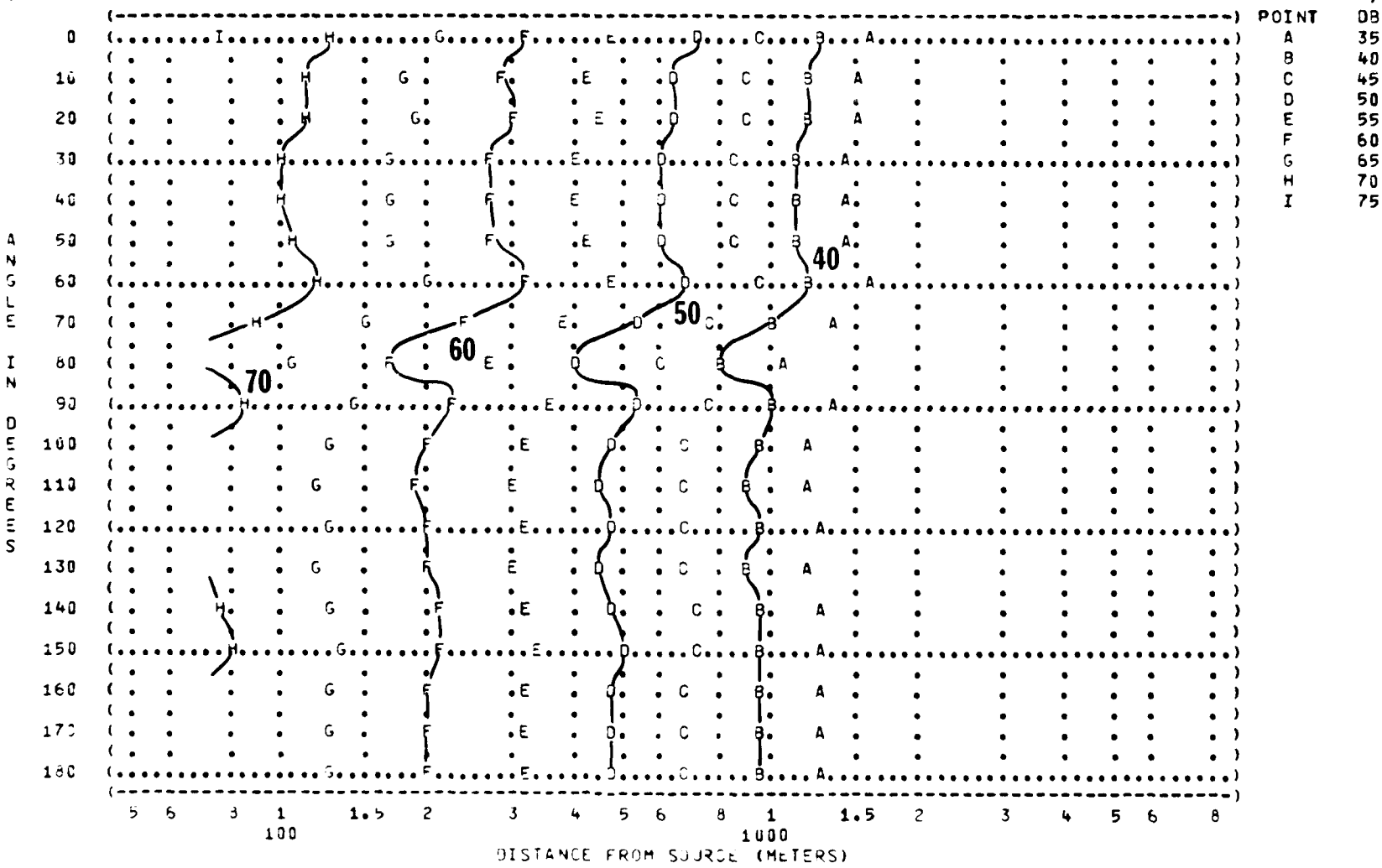


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 03
20 NOV 79
PAGE 25

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.6% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

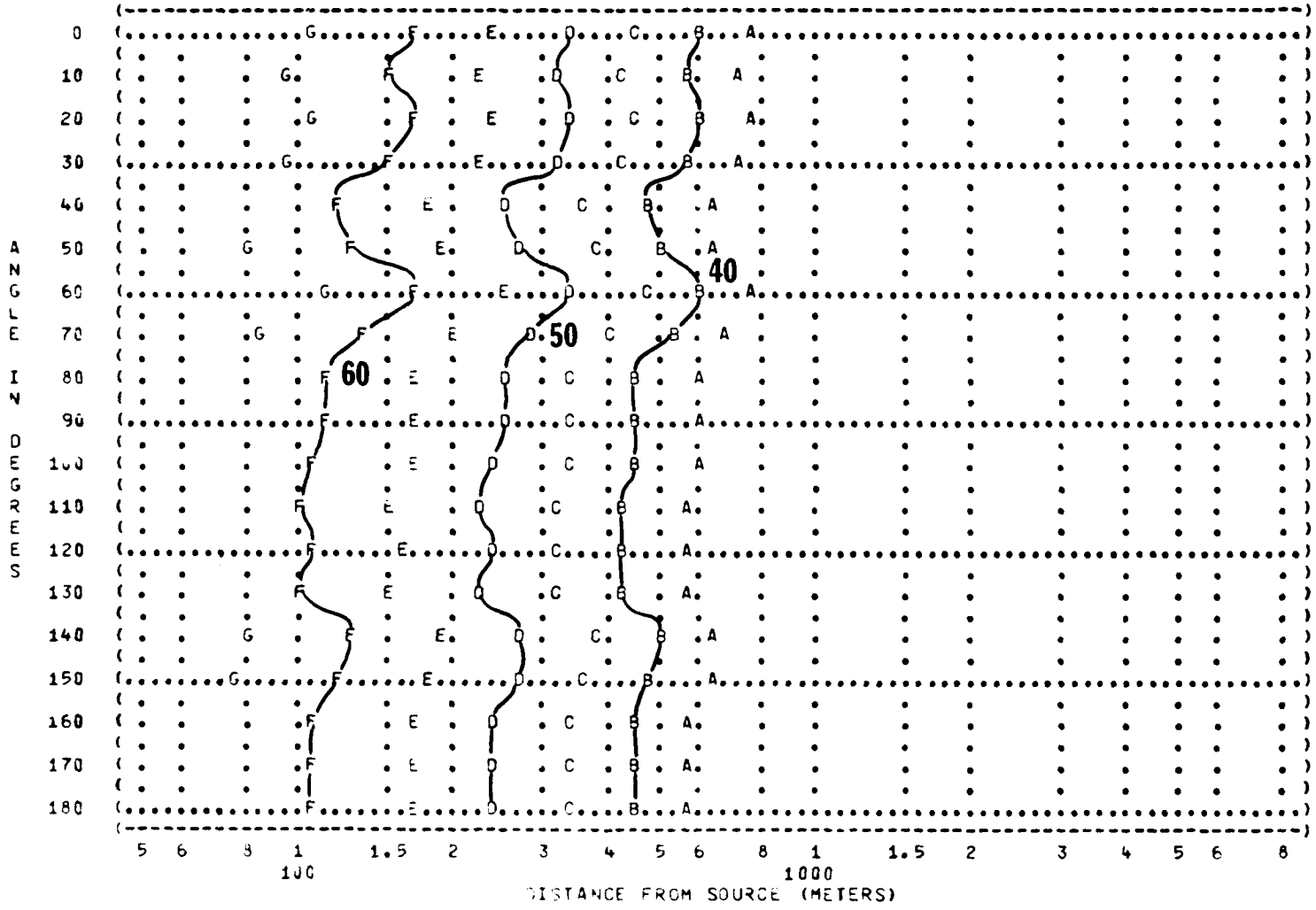


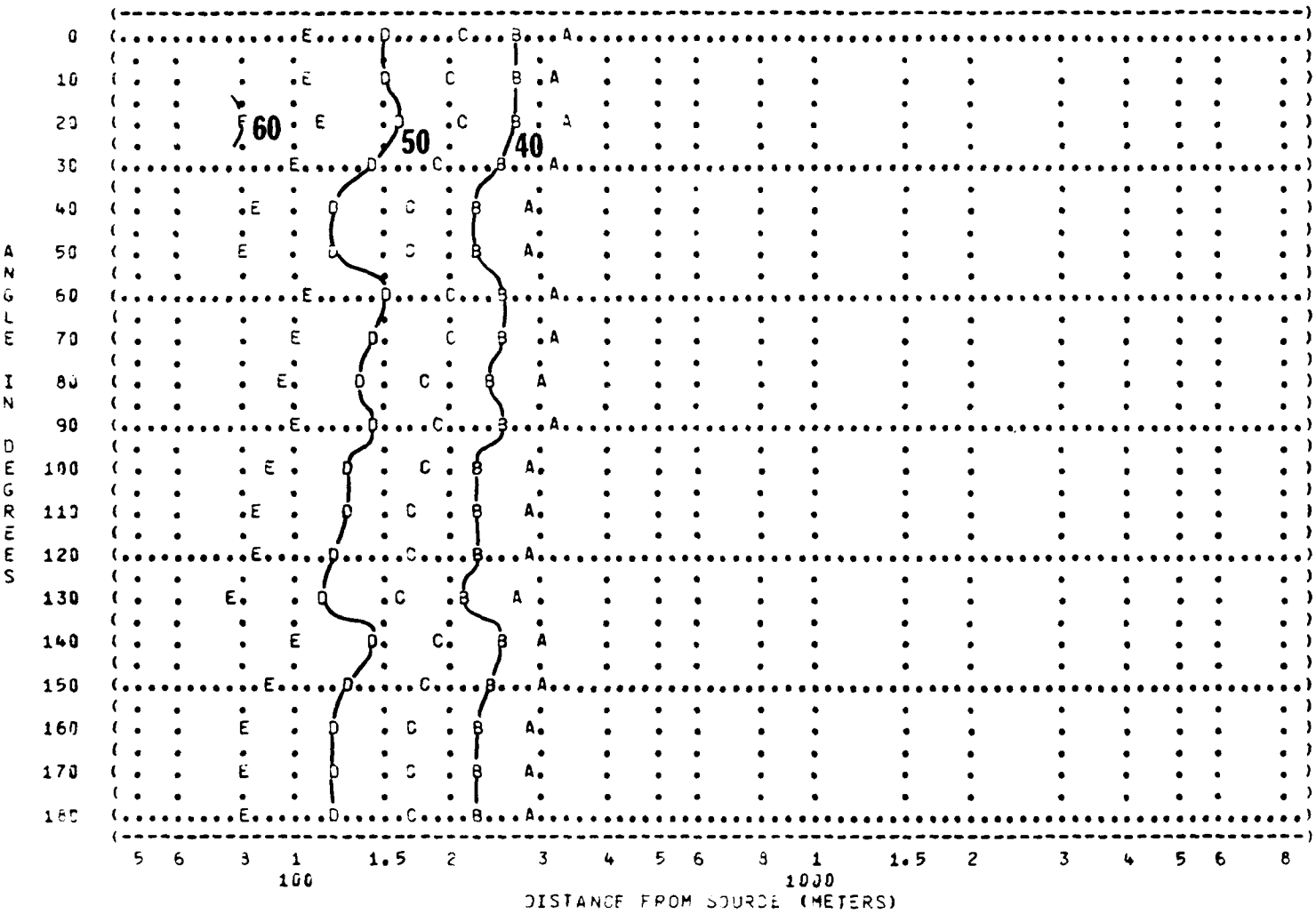
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
85.6% RPM
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 03
20 NOV 79
PAGE 26



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60

FIGURE 11

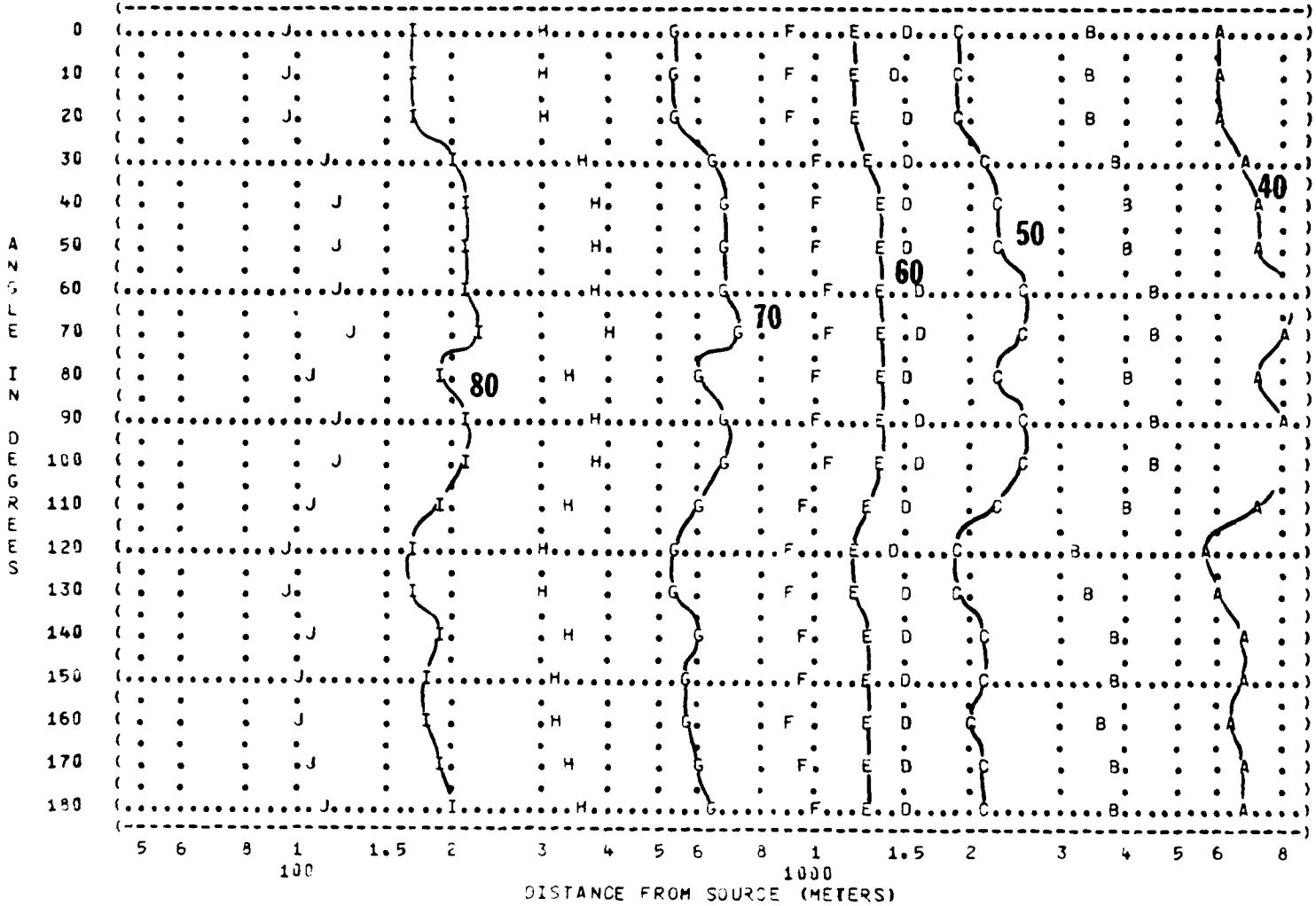
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
MILITARY POWER, 96% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 04
20 NOV 79
PAGE 18



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

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

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
MILITARY POWER, 96% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 04
20 NOV 79
PAGE 19

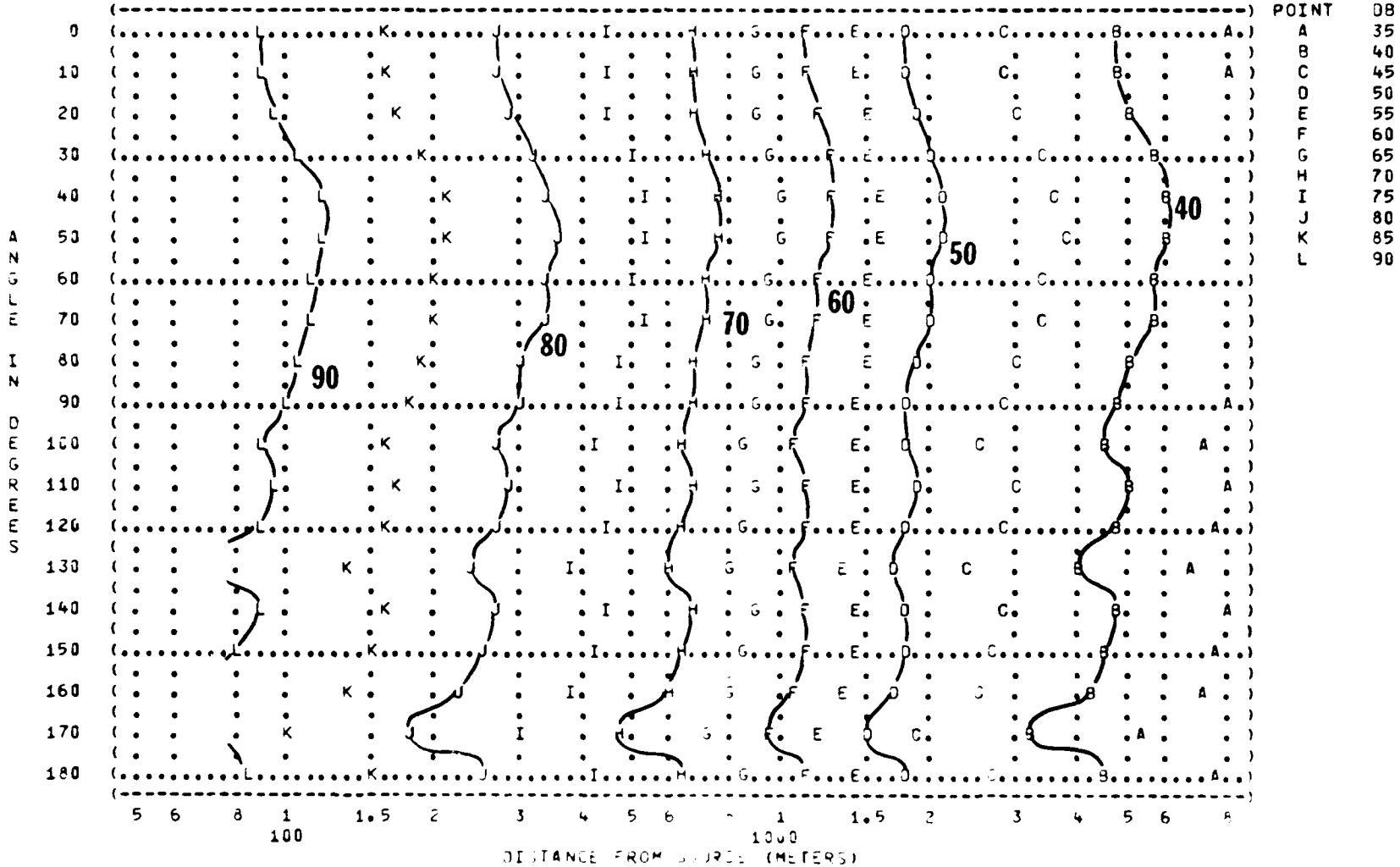


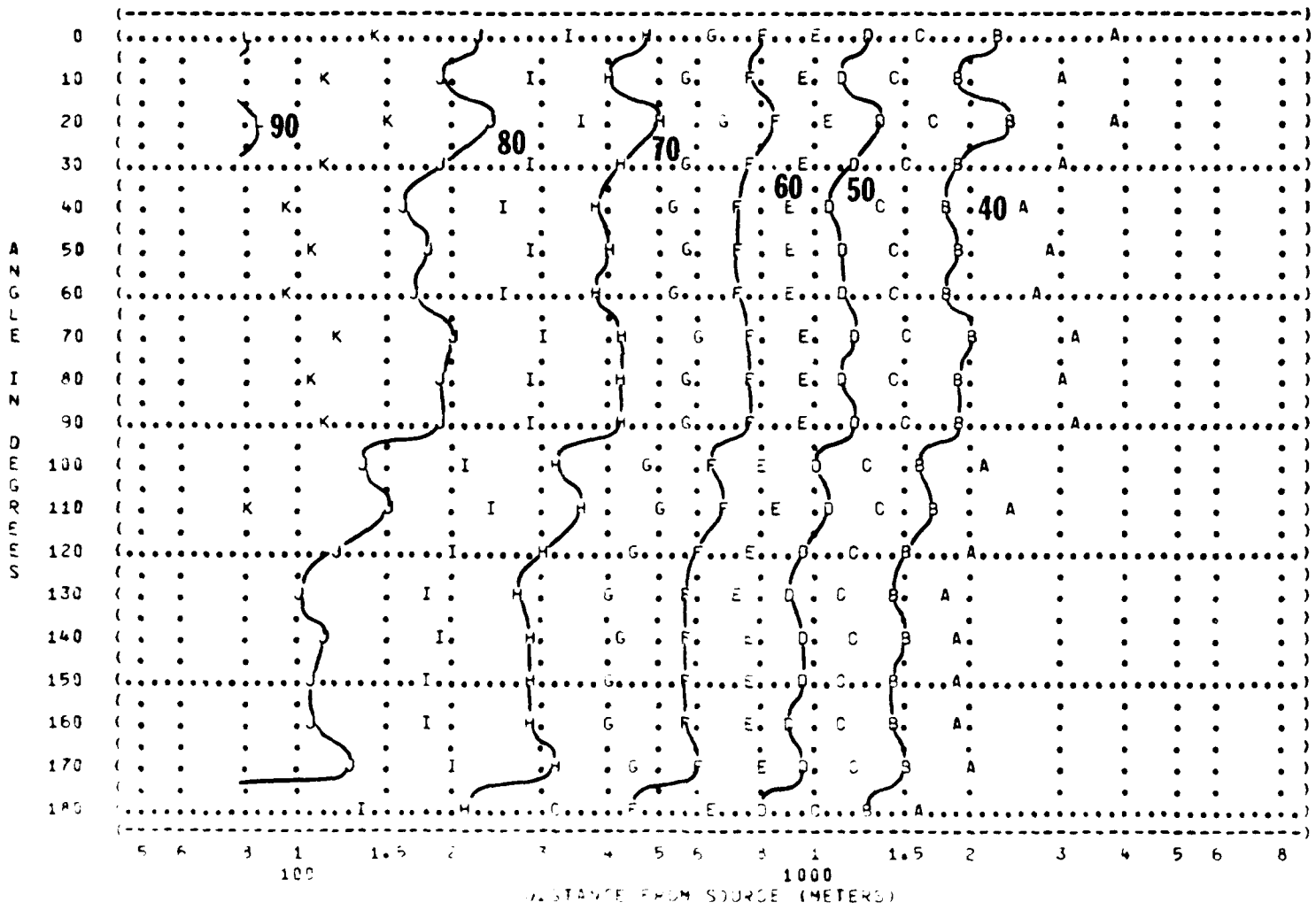
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 125 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
MILITARY POWER, 96% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 04
20 NOV 79
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

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

IDENTIFICATION
OMEGA 1.4
TEST 77-[illegible]3-001
RUN 04
20 NOV 7[illegible]
PAGE 21

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
MILITARY POWER, 96% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

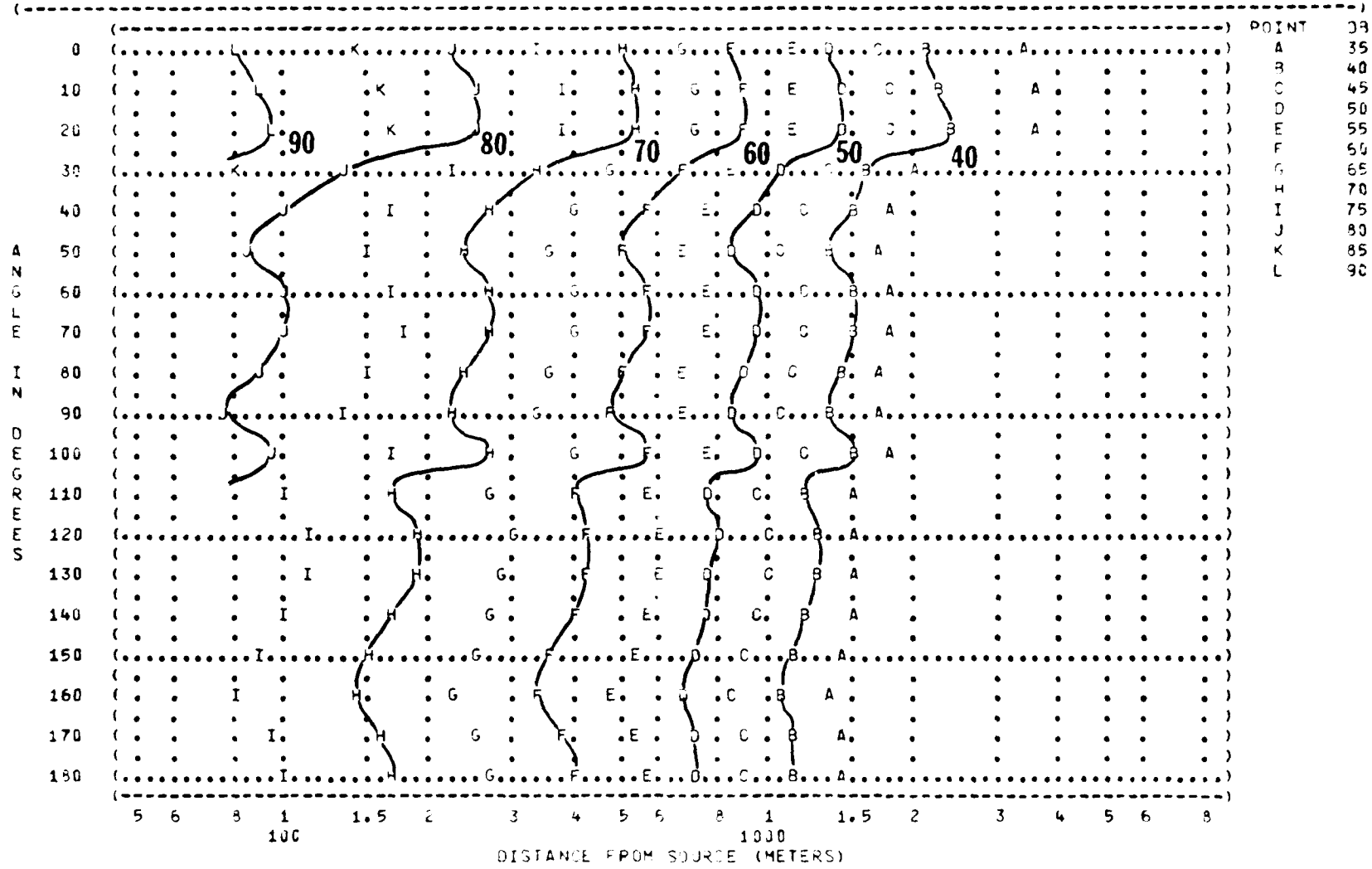


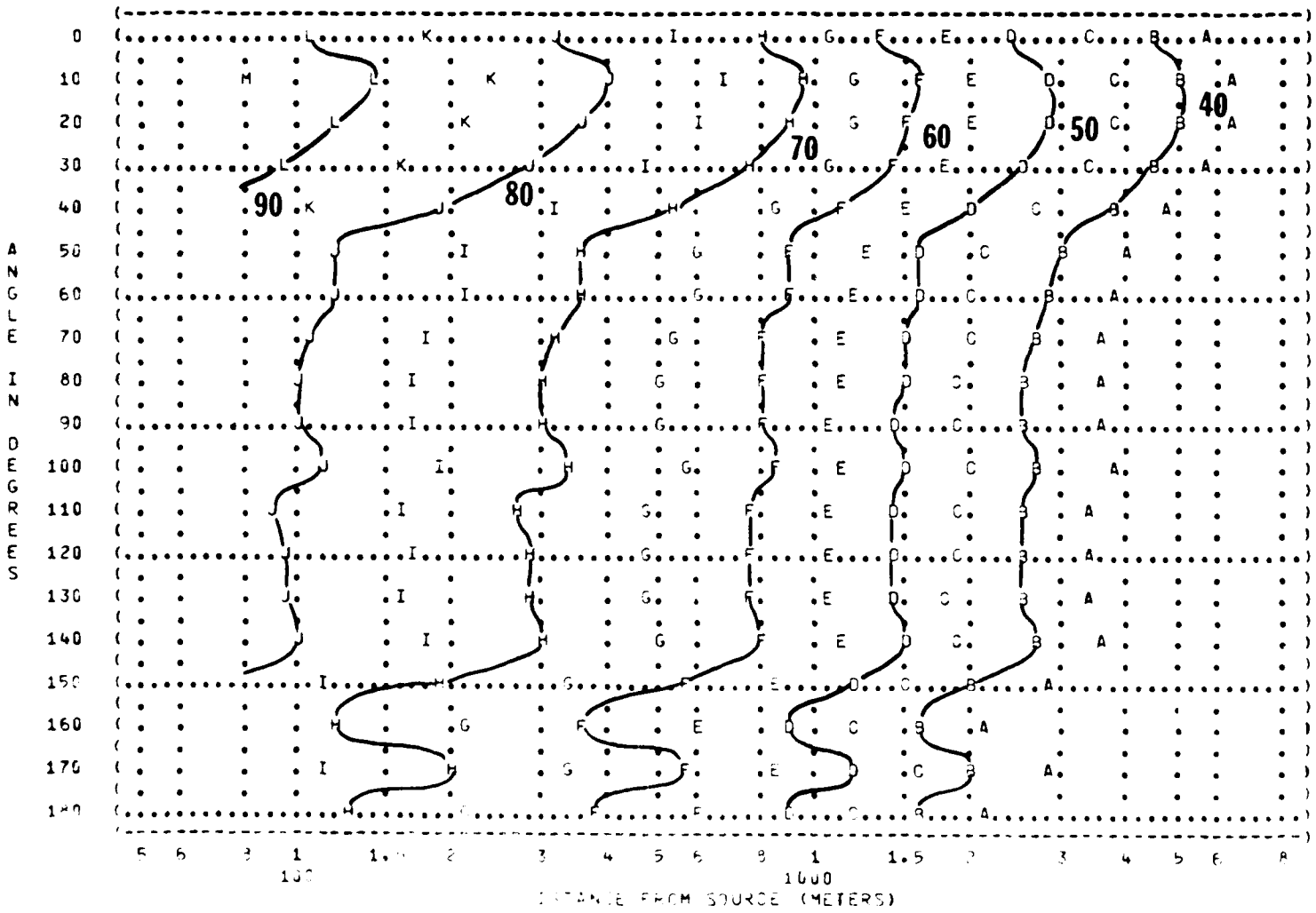
FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
MILITARY POWER, 96% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 04
20 NOV 79
PAGE 22



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) 1000 HZ OCTAVE BAND

IDENTIFICATION: OMEGA 1.4 TEST 77-833-001 RUN 04 20 NOV 79 PAGE 23

NOISE SOURCE/SUBJECT: A-7D AIRCRAFT IN THE AF32A-19 SUPPRESSOR ENGINE TF41-A-1 FAR FIELD NOISE

OPERATION: MILITARY POWER, 96% RPM SINGLE ENGINE SUPPRESSED GROUND RUNUP

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

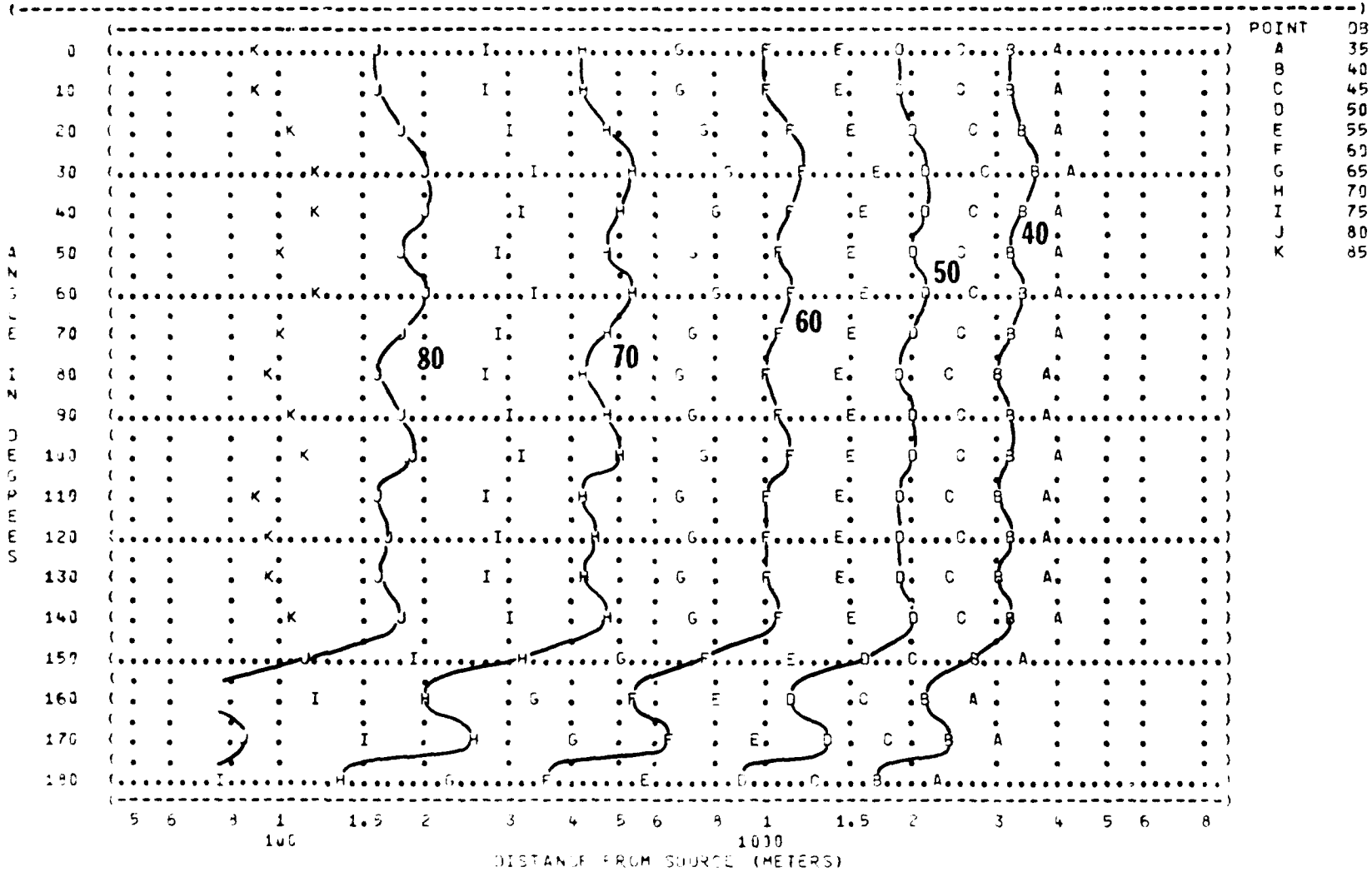


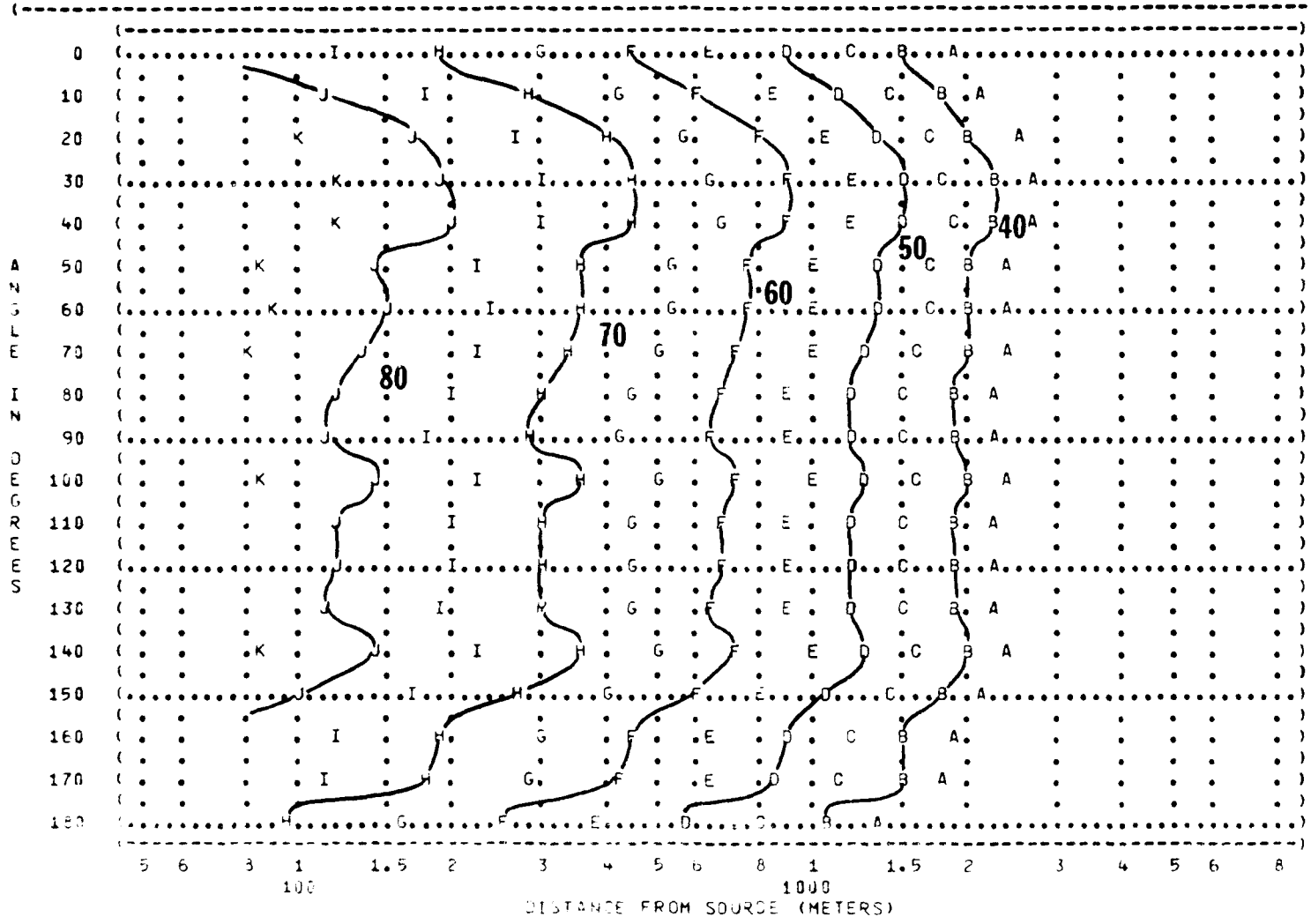
FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
MILITARY POWER, 96% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 04
20 NOV 79
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

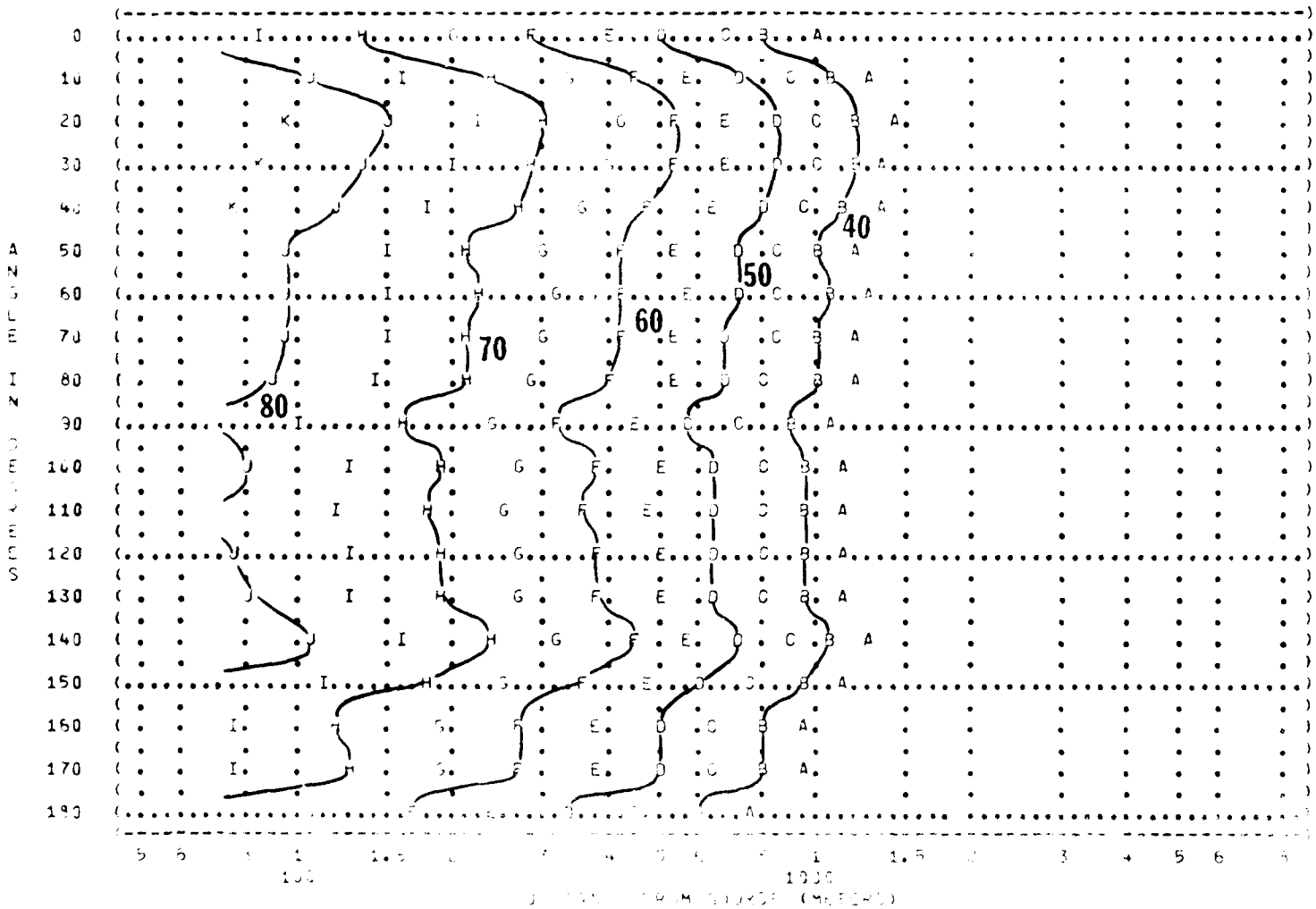
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT: A-7D AIRCRAFT IN THE AF32A-19 SUPPRESSOR ENGINE TF41-A-1 FAR FIELD NOISE

OPERATION: MILITARY POWER, 96% RPM; SINGLE ENGINE; SUPPRESSED GROUND RUNUP

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

IDENTIFICATION: OMEGA 1.4; TEST 77-833-001; RUN 04; 20 NOV 79; 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

FIGURE: 11

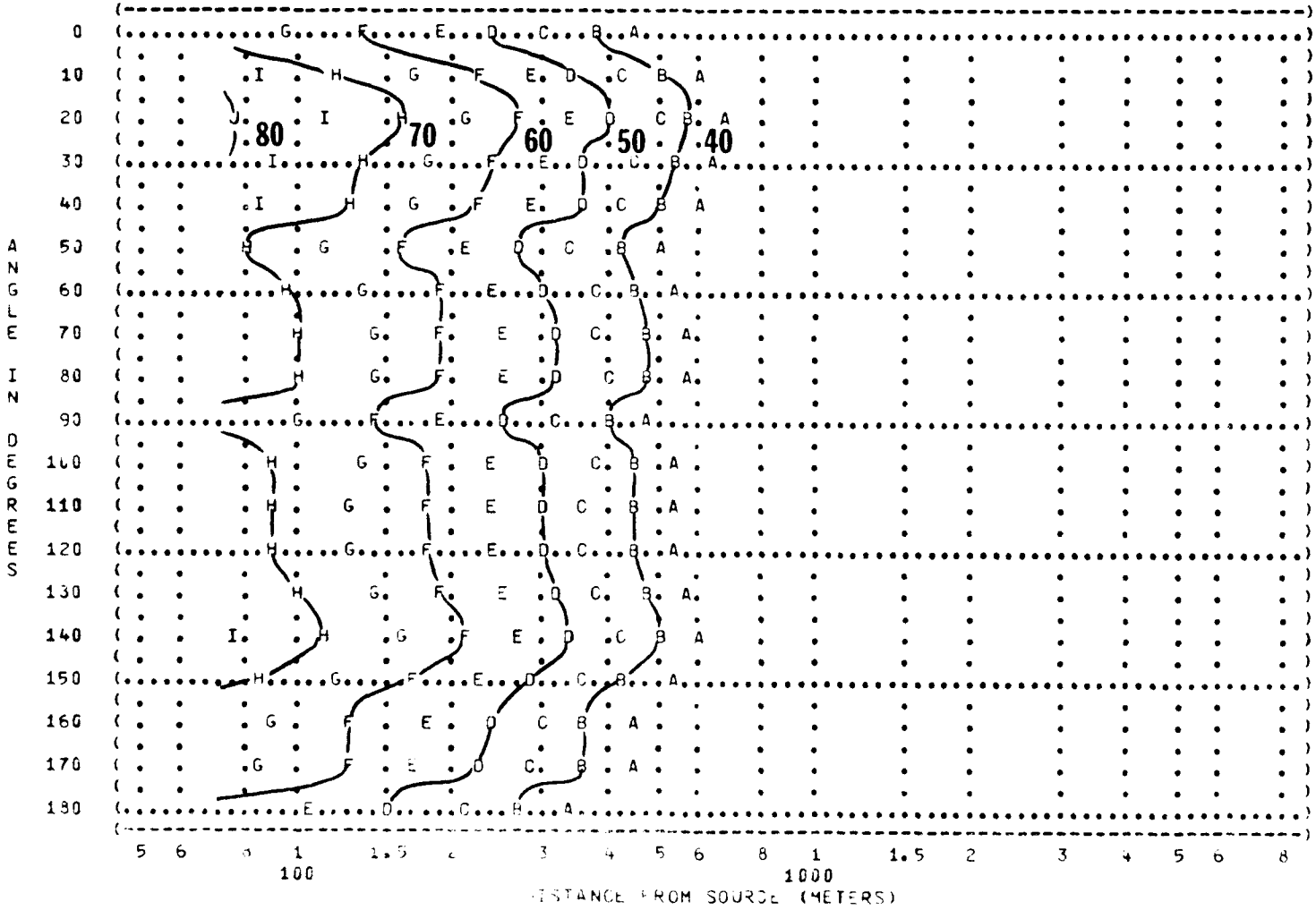
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7D AIRCRAFT IN THE
AF32A-19 SUPPRESSOR
ENGINE TF41-A-1
FAR FIELD NOISE

OPERATION:
MILITARY POWER, 96% RPM
SINGLE ENGINE
SUPPRESSED GROUND RUNUP

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

IDENTIFICATION:
OMEGA 1.4
TEST 77-833-001
RUN 04
20 NOV 79
PAGE 26



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) 31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 04
20 NOV 79
PAGE 18

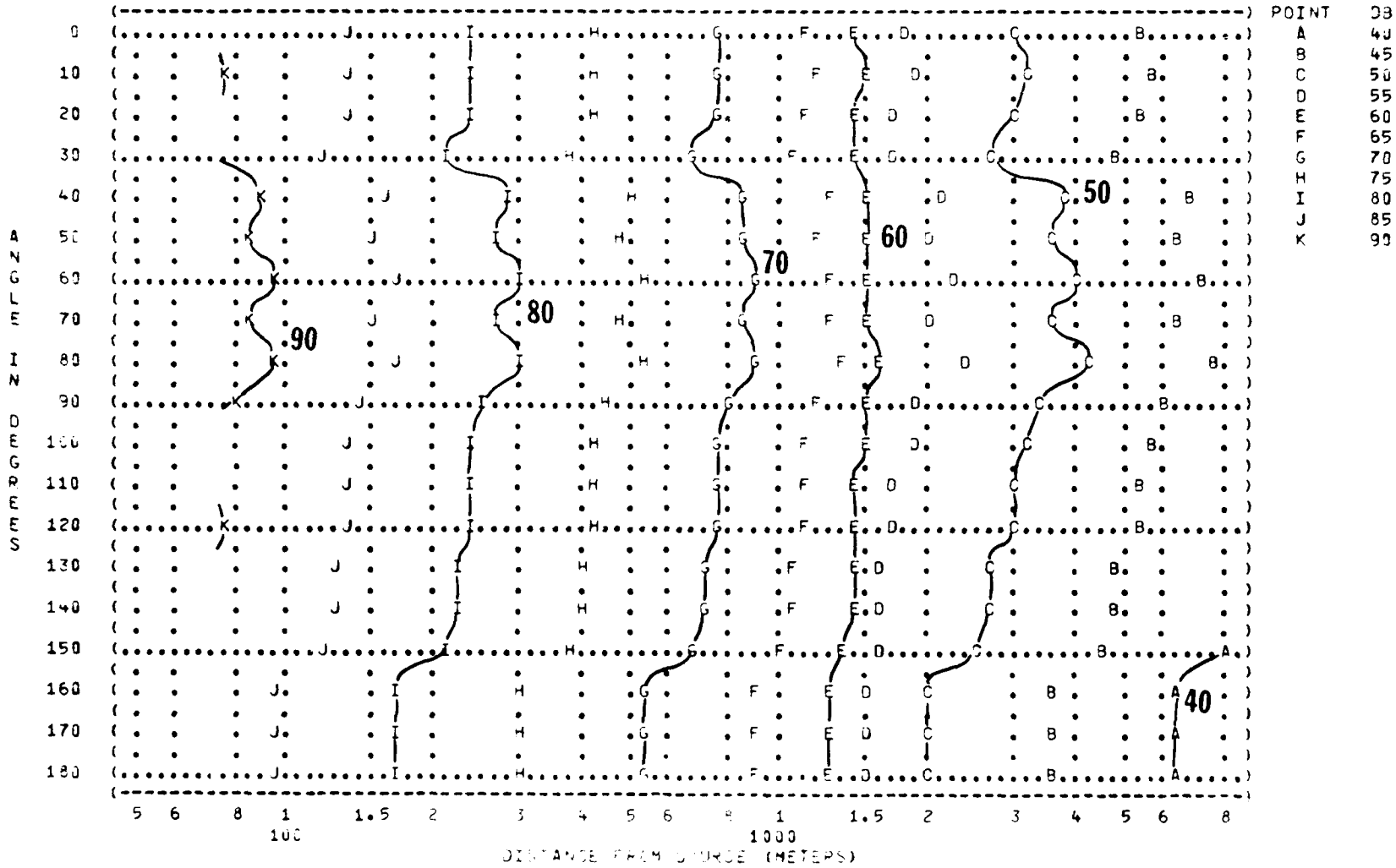


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 04
20 NOV 79
PAGE 19

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

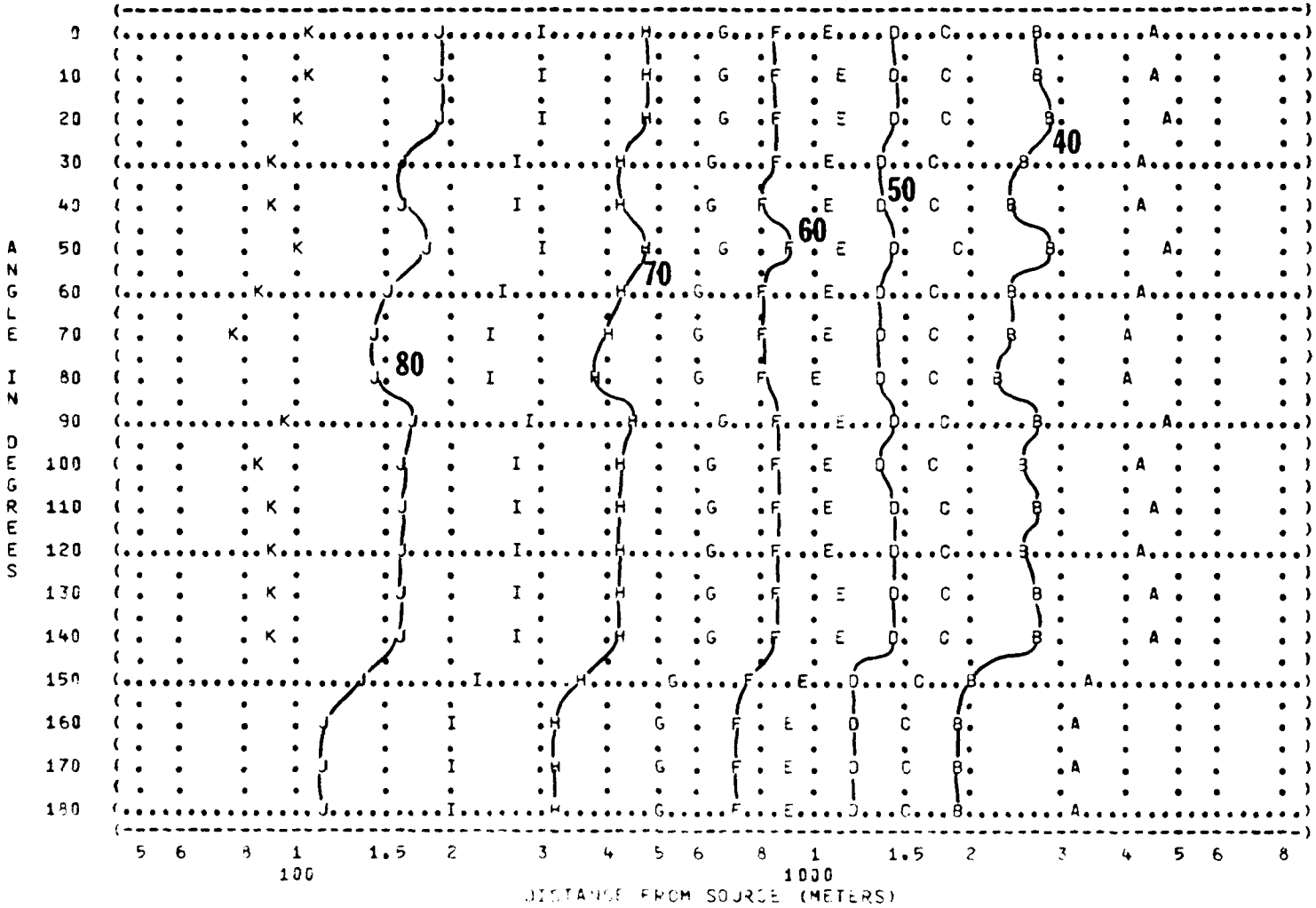


FIGURE 11 SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
125 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-C01
RUN 04
20 NOV 79
PAGE 20

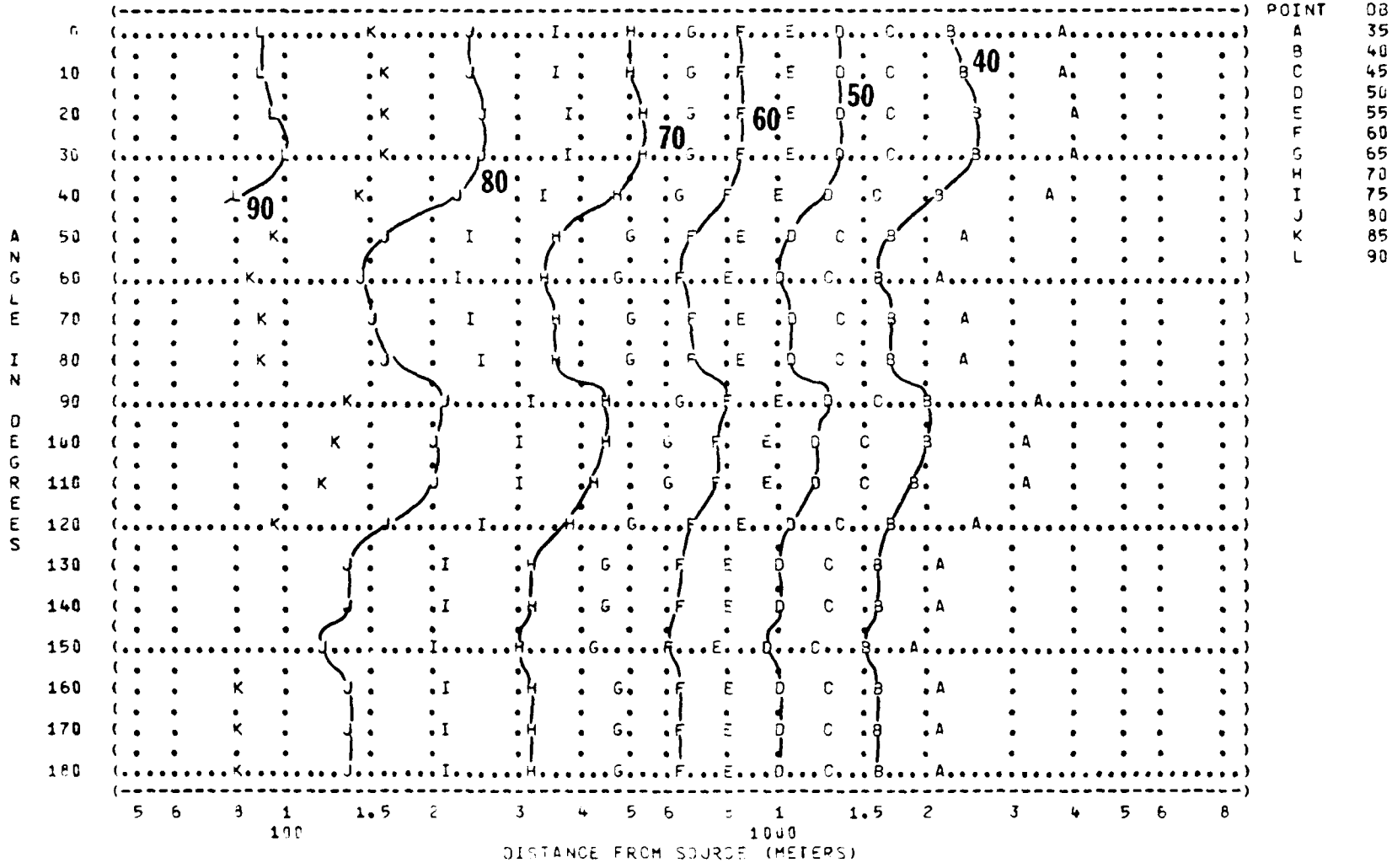


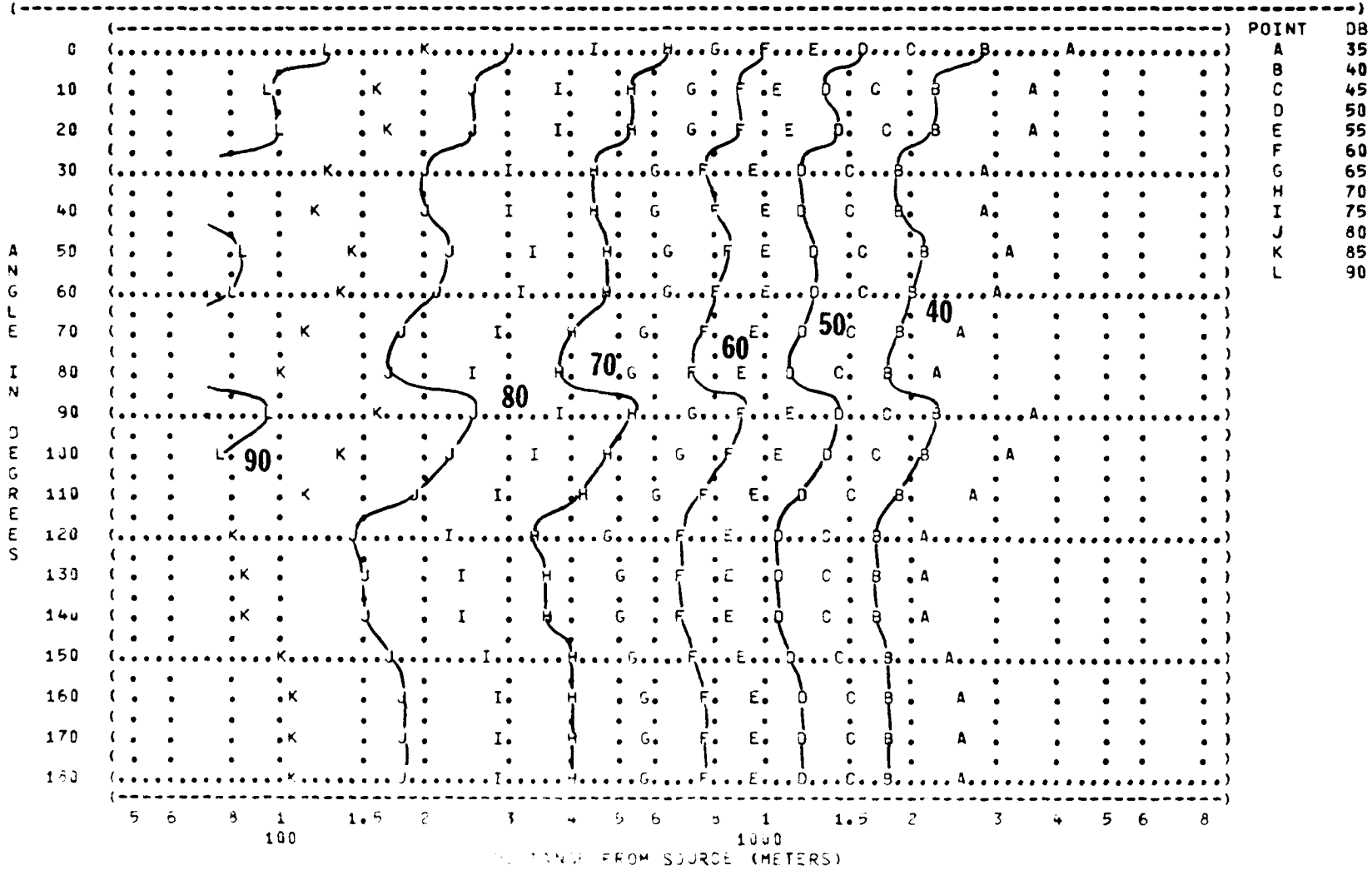
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 04
20 NOV 79
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

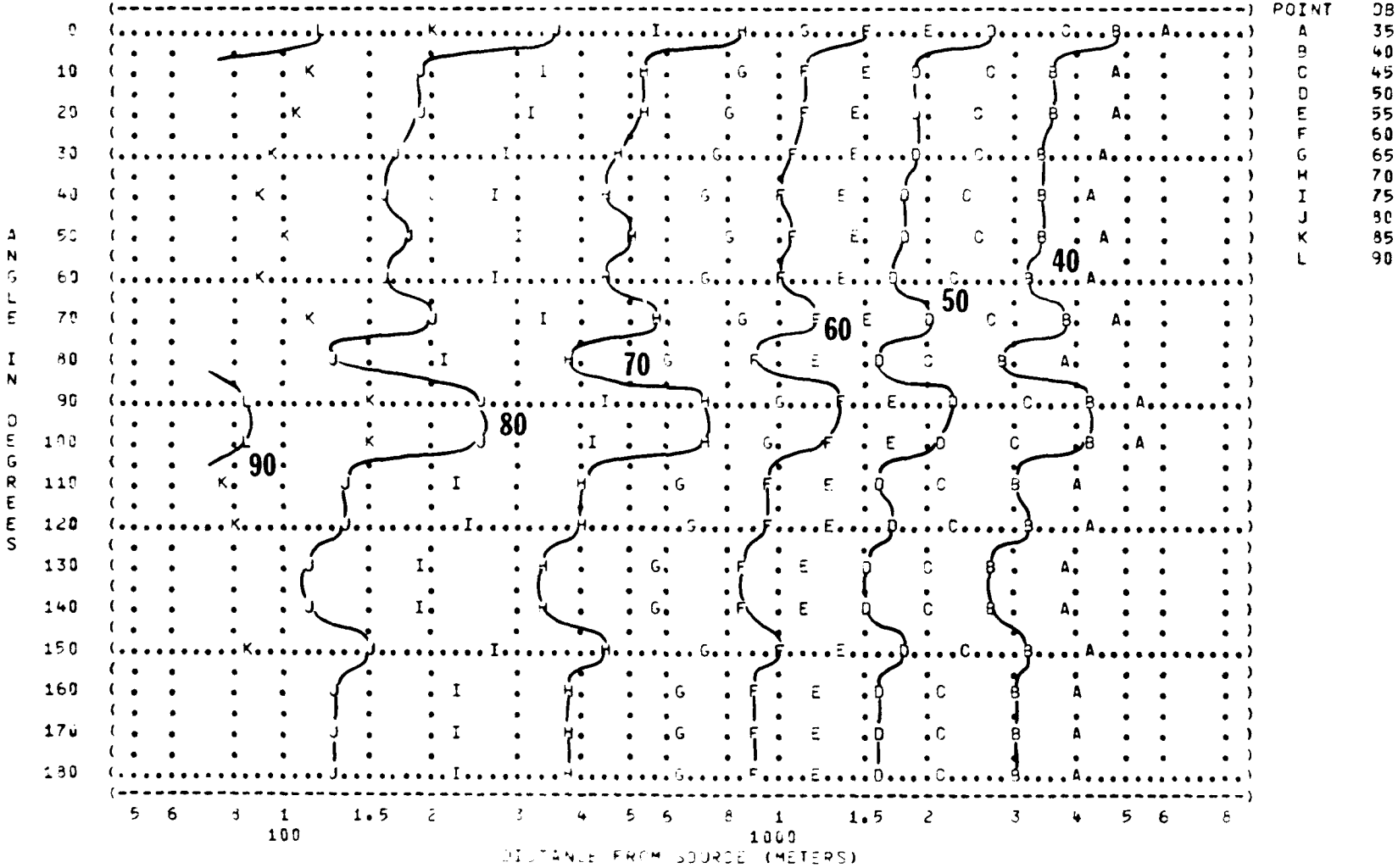
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 500 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 04
20 NOV 79
PAGE 22

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

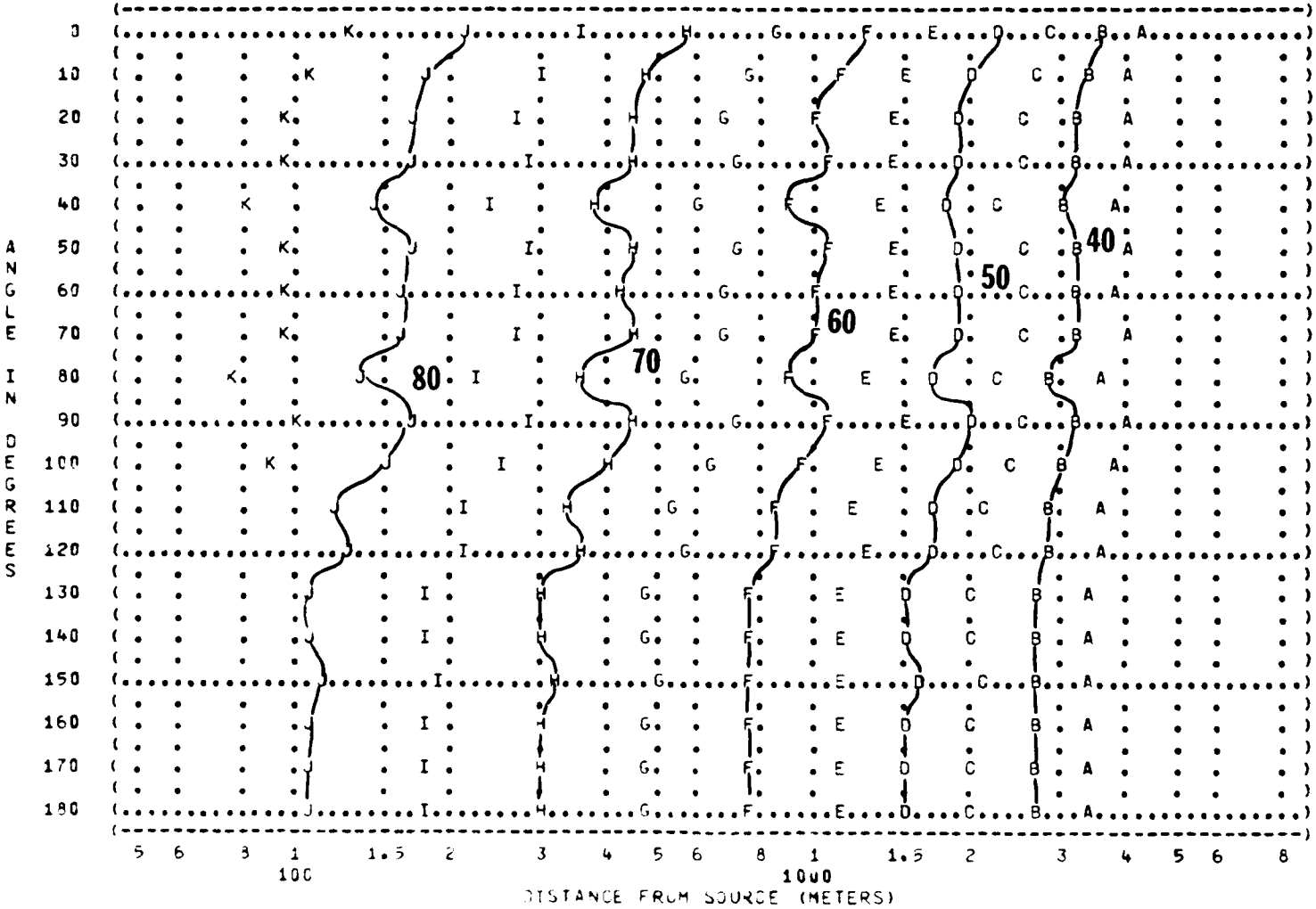
FIGURE 11: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 04
20 NOV 79
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

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

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 04
20 NOV 79
PAGE 24

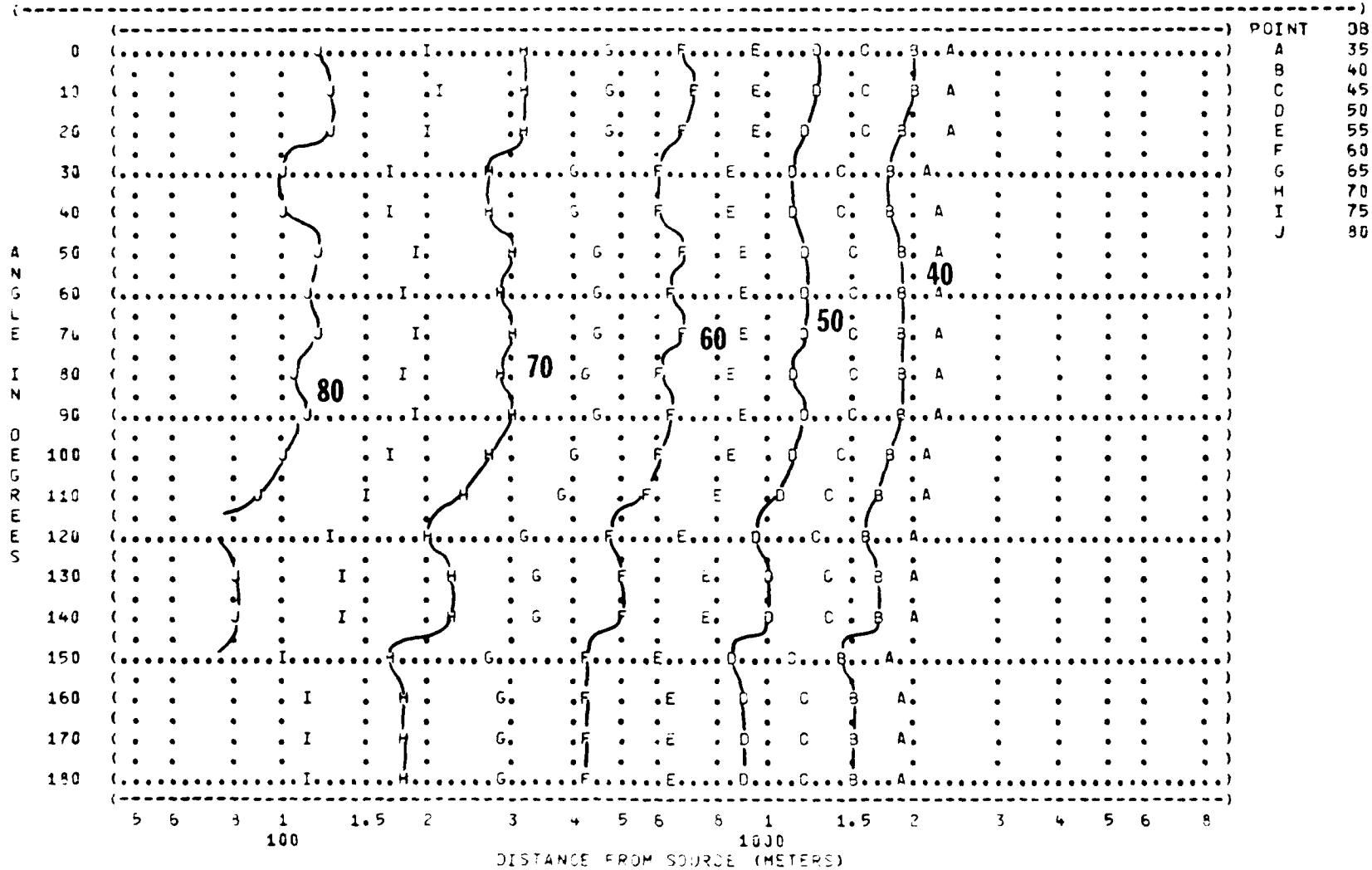


FIGURE: 11

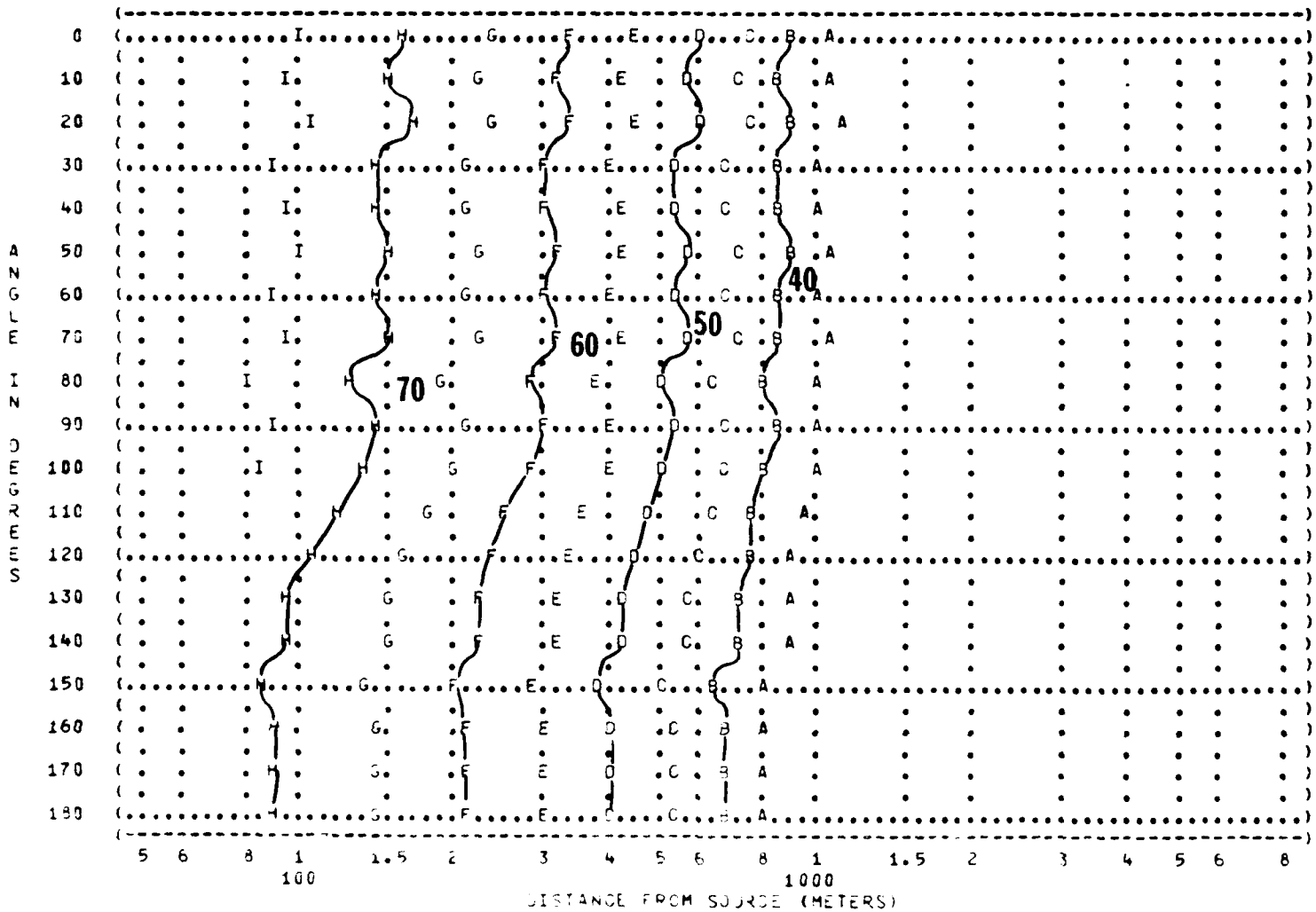
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
4000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 04
20 NOV 79
PAGE 25

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

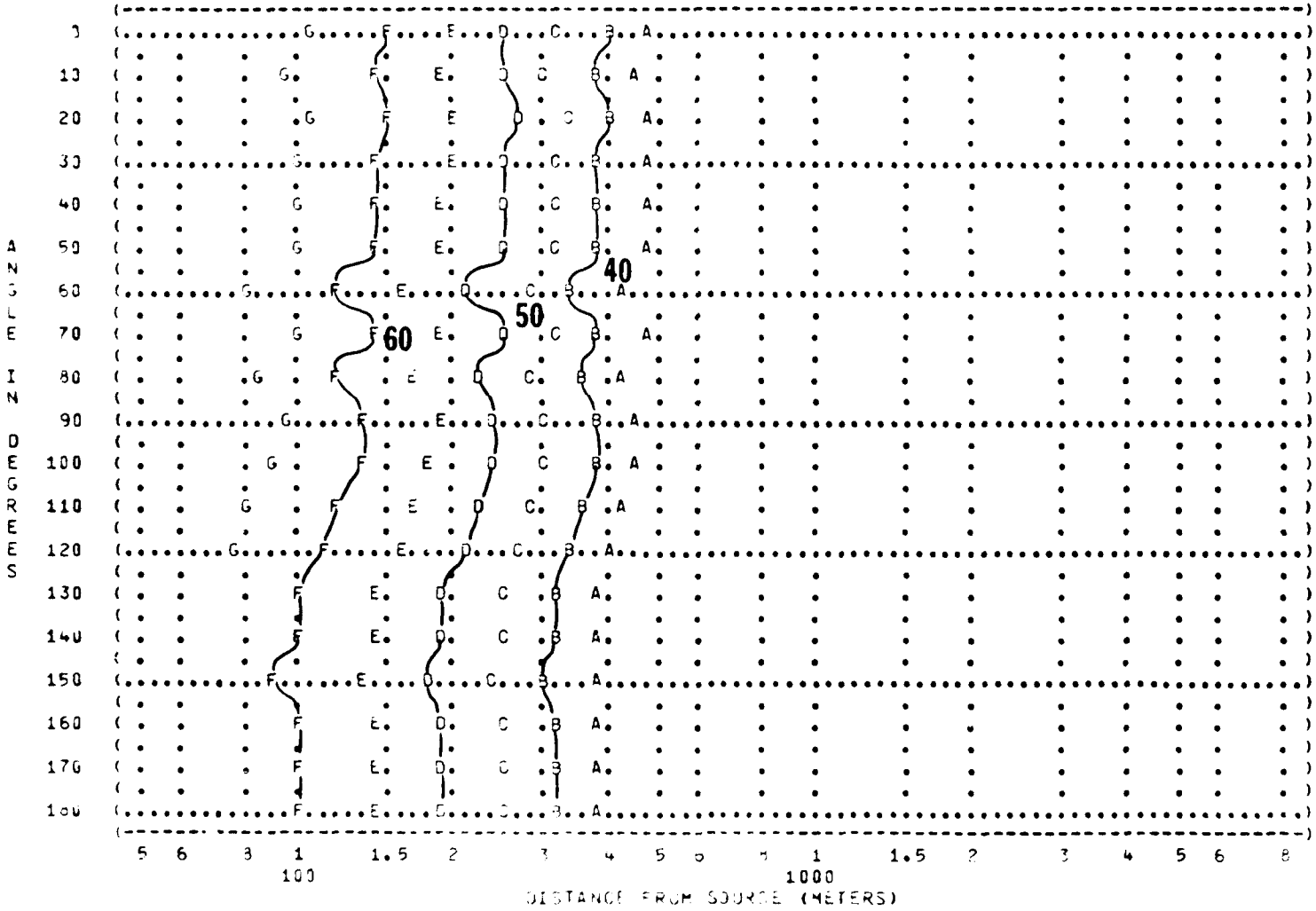
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 78-833-001
RUN 04
20 NOV 79
PAGE 26

NOISE SOURCE/SUBJECT:
A-7 AIRCRAFT IN THE
AF32A-24 SUPPRESSOR
ENGINE TF41-A-1
FAR-FIELD NOISE

OPERATION:
MILITARY POWER (97.7%)
SINGLE ENGINE
GROUND RUNUP (SUPPRESSED)

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

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