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USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK: VOLUME 68. B-57G AIR--ETC(U)
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AMRL-TR-75-50
Volume 68

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USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK

Volume 68
B-57G AIRCRAFT, NEAR AND FAR-FIELD NOISE

NOVEMBER 1975

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AEROSPACE MEDICAL DIVISION
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FOR THE COMMANDER

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

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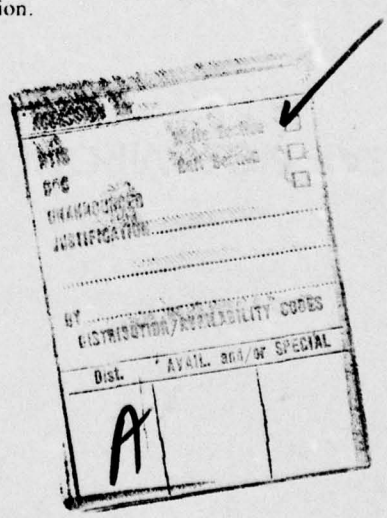

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The USAF B-57G aircraft is a close air support bomber powered by two J65-W-5 turbojet engines. This report provides measured and extrapolated data defining the bioacoustic environments produced by this aircraft operating on a concrete runup pad for three power conditions. Near-field data 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

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

PREFACE

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

The author gratefully acknowledges Mr. John Cole for his assistance in preparing this report, Col Justus Rose and Mr. Robert England for their assistance in acquiring the raw data, Mr. Henry Mohlman and Mr. David Eilerman of the University of Dayton for assistance in the mechanics of data processing and Mrs. Norma Peachey and Mr. Mike Patterson for assistance in typing and preparation of the graphics.

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INTRODUCTION

The USAF B-57G is a close air support bomber-type aircraft powered by two J65-W-5 turbojet engines. The aircraft was manufactured by Martin Marietta and the engines by Curtis Wright, Wright Aeronautical Division.

This volume provides measured and extrapolated data defining bioacoustic environments produced by this aircraft during ground runup operations. Such data are essential to evaluate ear protection requirements, limiting personnel exposure times, voice communication capabilities, and annoyance problems associated with ground runups of the B-57G aircraft.

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

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

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

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

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1. Cole, John N., *USAF Bioenvironmental Noise Data Handbook Volume 1: Organization, Content and Application*, AMRL-TR-75-50 (1), Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, Ohio, 1975.

2. Cole, John N., *USAF Bioenvironmental Noise Data Handbook, Volume 2: Procedure to Evaluate Effects of Non-standard Meteorological Conditions on Far-Field Noise*, AMRL-TR-75-50 (2), AMRL, WPAFB, OH, 1975.

NEAR-FIELD NOISE

MEASUREMENTS

AMRL acquired near-field noise data on the B-57G aircraft during ground runup operations of its turbojet engines. For these tests the aircraft was located on a concrete runup pad at Eglin AFB, FL, with no significant reflecting surfaces in the vicinity except the ground plane. Table 1 gives the surface meteorological conditions that existed while both engines were run at idle power. The ground-crew chief selected the power condition and near-field locations generally used during routine maintenance or engine runup for preflight checks.

At each near-field location a test engineer randomly moved a hand held microphone in and around each location, probing all areas where a crew member's head would normally be located. He recorded all of the noise samples on magnetic tape. During analysis of each sample, he determined the root-mean-square sound pressure using a 4- or 8-second integration time to derive a power-averaged level for each location. Figure 1 shows the four near-field locations where ground crews are usually located for maintenance and/or preflight checkout operations. Estimates of noise levels at other locations in the near-field are difficult since the noise source is spatially distributed, i.e., not a point source. The noise levels at near-field locations can vary widely depending upon relative distances from each noise source (intake noise, exhaust noise, panel resonances, internal engine noise through the engine wall, etc.).

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

RESULTS

The measured data presented in Table 2 define the sound pressure levels (SPL) produced by the B-57G aircraft 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.

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

TABLE 1

MEASUREMENT LOCATIONS AND TEST CONDITIONS
FOR NEAR-FIELD NOISE MEASUREMENTS

B-57G Aircraft, Ground Runup, Eglin, AFB, FL
4 August 1971
Tail #533906

Ground Crew Location

1	Marshall
2	Wheel Chock Pull
3	MLG Pin Pull
4	FLG Pin Pull

Aircraft Engine Operation

A	Both Engines Idle Power

Meteorology

Temperature	30.0 C
Bar Pressure	0.761 M Hg
Rel Humidity	61 %
Wind — Speed	1 M/Sec (2 Kt)
— Direction	360 Deg

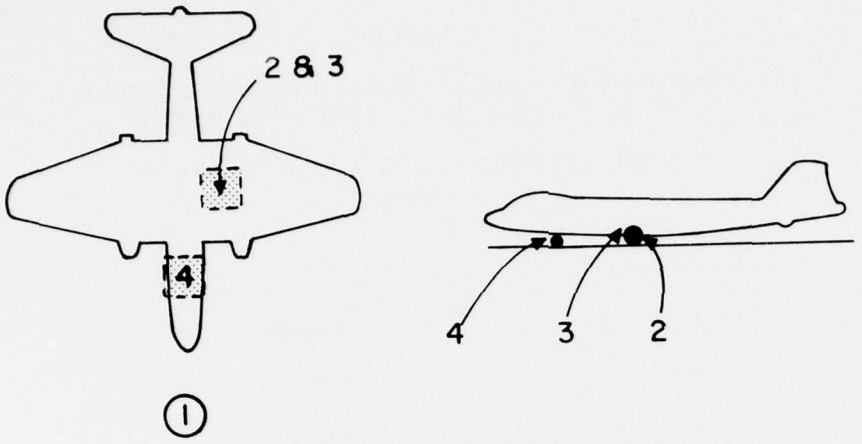


Figure 1. Near-Field Measurement Locations at Hot Cargo Pad, Eglin AFB, FL

FAR-FIELD NOISE

MEASUREMENTS

AMRL acquired both near and far-field data during a 1- 2-hour test period, thus keeping similar meteorological conditions. Figure 2 shows the ground runup pad, ground cover, aircraft orientation and the 19 microphone measurement sites on a semicircle. The center of the 75 meter radius semicircle used in surveying the J65-W-5 engines was on the ground directly below the intersection of the aircraft's centerline and the plane passing through both engines' exhaust-nozzle exits.

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

All 19 microphone measurement sites are in the acoustic far-field of the source where the sound wave-fronts spherically diverge and the noise source may be regarded as a point source.

One portable microphone/tape-recorder system was used to sequentially record the noise at each far-field location. The microphone was hand held 1.7 meters (5½ feet) above the ground and pointed at the source (0° angle of incidence).

RESULTS

Table 5 lists the overall and 1/3 octave band SPL measured at the far-field locations under meteorological conditions at the time of the test. Data in all other figures and tables are based on these levels. These data were also normalized to 100 meters distance and standard meteorological conditions (15°C temperature, 70% relative humidity, 0.760 meter Hg barometric pressure) and used to derive the graphic data in Figure 3 which provides a compact summary of the far-field noise characteristics of the B-57G aircraft in a standard format.

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

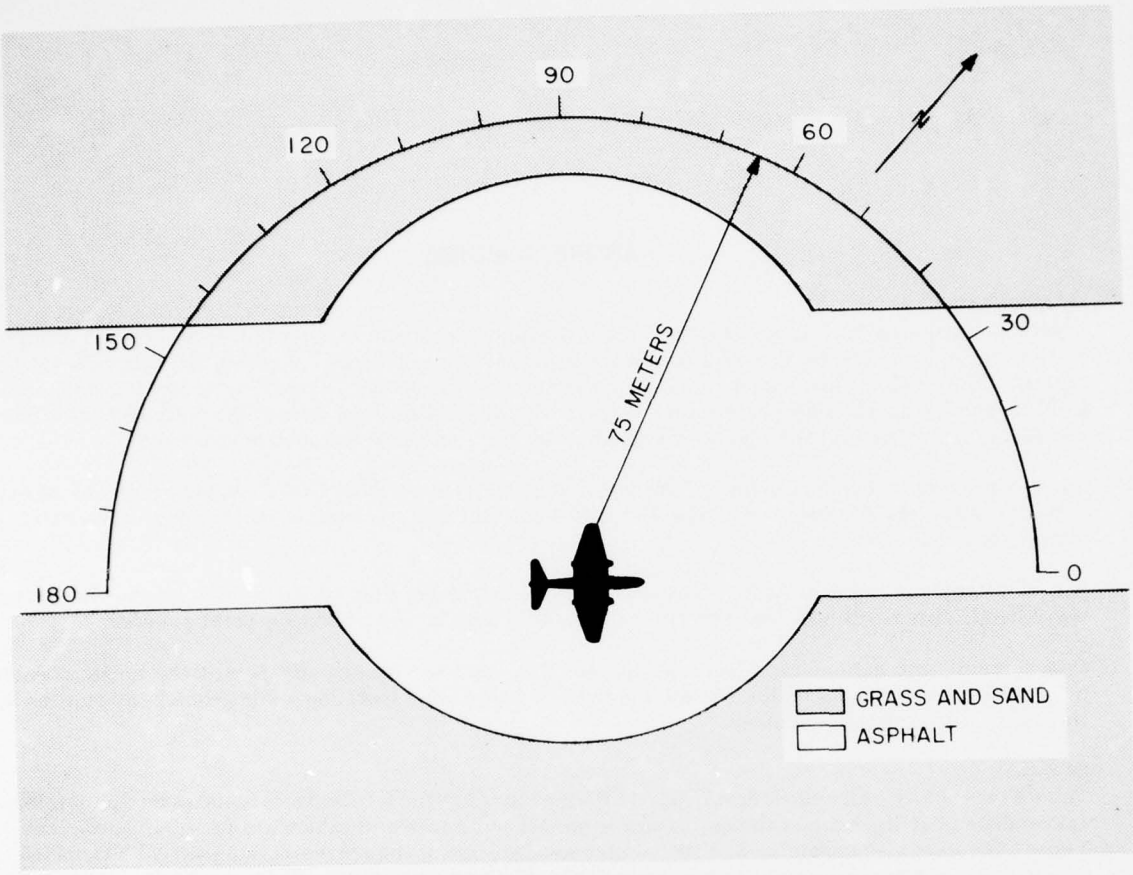


Figure 2. Far-Field Measurement Locations at Hot Cargo Pad, Eglin AFB, FL

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

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

Test personnel performed noise surveys during quiet periods when the background noise was minimal, e.g., early in the morning when no other aircraft or engine test stands were operating. Data eliminated because they were near the background/electronic noise were generally not significant because the levels were so low (e.g., Table 5 and Figure 11 at idle power).

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

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

IDENTIFICATION:
OMEGA 3.2
TEST 71-019-101
RUN 01
04 DEC 74
PAGE F1

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

FREQ (HZ)	LOCATION/CONDITION 1/A	2/A	3/A	4/A
25	83	95	97	90
31.5	81	95	95	93
40	83	96	97	93
50	84	94	96	94
63	87	93	98	97
80	86	90	96	92
100	86	94	90	93
125	87	96	92	95
160	88	95	92	94
200	98	105	100	104
250	88	98	94	96
315	85	98	97	96
400	89	96	96	96
500	94	94	93	98
630	98	95	94	98
800	100	95	95	100
1000	99	96	95	102
1250	101	96	95	103
1600	105	98	98	107
2000	108	100	99	110
2500	110	104	104	115
3150	113	102	101	113
4000	112	100	99	112
5000	110	100	100	114
6300	108	97	97	109
8000	108	94	93	107
10000	104	93	91	105
OVERALL	119	112	111	121

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

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

IDENTIFICATION:
OMEGA 3.2
TEST 71-019-101
RUN 01

04 DEC 74

PAGE J1

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

FREQ (HZ)	LOCATION/CONDITION 1/A	2/A	3/A	4/A
31.5	87	100	101	97
63	90	97	101	99
125	92	100	96	99
250	99	106	102	105
500	100	100	99	102
1000	105	101	100	106
2000	113	106	106	116
4000	116	106	105	118
8000	112	100	99	112
OVERALL	119	112	111	121

TABLE: MEASURES OF HUMAN NOISE EXPOSURE

3

IDENTIFICATION:
OMEGA 3.2
TEST 71-019-101
RUN 01

04 DEC 74

PAGE H1

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

	LOCATION/CONDITION			
	1/A	2/A	3/A	4/A
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	118	112	111	120
OASLA	120	111	110	122
T	P	4.5	5	P
MINIMUM QPL EAR MUFFS				
OASLA*	92	87	85	94
T	120	285	404	85
AMERICAN OPTICAL 1700 EAR MUFFS				
OASLA*	86	82	80	87
T	339	679	960	285
V-51R EAR PLUGS				
OASLA*	89	83	81	91
T	202	571	807	143
AMERICAN OPTICAL 1700 EAR MUFFS PLUS V-51R EAR PLUGS				
OASLA*	76	69	68	78
T	960	960	960	960
H-133 GROUND COMMUNICATION UNIT				
OASLA*	93	85	84	95
T	101	404	480	71
COMMUNICATION				
PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB)				
PSIL	106	102	101	108
ANNOYANCE				
PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB)				
TONE CORRECTION (C IN DB)				
PNLT	135	127	126	137
C	2	1	1	2

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

TABLE 4

TEST CONDITIONS
FOR FAR-FIELD NOISE MEASUREMENTS

B-57G Aircraft, Ground Runups, Eglin AFB, FL
4 August 1971
Tail #533906

Aircraft Engine Operation

Idle	Both Engines 50 % RPM NC (Core Speed)
85% Runup	Both Engines 85 % RPM NC
Maximum Power	Both Engines 101% RPM NC

Meteorology

Temperature	30.0 ° C
Bar Pressure	0.761 M Hg
Rel Humidity	61 %
Wind	Calm

TABLE 5: MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 75 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 2

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 30 C
BAR PRESS = .761 M HG
REL HUMID = 61 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25		67<	66<	66<		67<	67<	67<	71<	70<	71<	71<	71<	73<	75<	73<	74<	76<	73<
31.5		68<	67<	67<			68<	69<	69<	72<	73<	73<	74<	75<	76<	76<	76<	77<	77
40	68<	71<	71<	70<	68<	68<	69<	71<	70<	72<	73<	73<	74<	76<	76	78	79	79	76
50	67<	69<	69<	67<	68<	68<	68<	68<	68<	70<	71<	70<	72<	73<	75	78	77	77	73
63	69<	71<	71<	69<	68<	67<	68<	71<	72<	73<	75<	75<	76<	74<	73<	76<	76<	78	72<
80	73<	72<	73<	71<	68<	69<	73<	74	75	76	76	76	77	76	75	77	77	78	72<
100	72<	72<	72<	70<	70<	70<	71<	72<	73<	72<	74<	74<	74<	76	75	76	76	76	68<
125	73<	72<	72<	72<	72<	70<	69<	73<	75	74	77	76	76	76	75	77	76	76	69<
160	76	75	73	74	73	74	74	77	77	77	79	79	78	78	76	75	75	76	68<
200	86	84	84	83	86	89	82	85	80	84	88	88	90	91	84	82	82	84	77
250	76	74	74	73	75	75	72	75	74	75	78	80	80	80	73	72	71	74	67<
315	77	77	76	76	74	74	72	73	73	73	75	77	77	75	71	68	66	67	62<
400	79	80	79	78	76	75	75	74	75	76	77	80	80	79	75	71	67	68	62
500	80	79	78	77	75	73	73	74	75	73	77	80	81	77	73	69	67	67	63
630	79	80	78	77	77	71	71	70	70	69	72	73	77	70	65	65	62	61	59
800	84	84	83	81	81	76	75	75	75	74	77	79	77	74	69	67	64	63	60
1000	85	86	84	81	81	77	75	74	73	72	77	79	78	71	66	66	63	63	60
1250	84	86	84	82	81	80	76	76	75	73	75	78	75	70	65	64	61	63	59
1600	83	87	86	84	83	81	79	77	75	73	70	73	70	63	61	59	58	61	56
2000	85	89	91	87	87	86	82	80	78	75	72	73	67	62	62	58	58	62	57
2500	87	92	95	90	89	93	87	86	84	79	77	76	70	64	64	62	61	65	61
3150	90	92	93	88	90	88	85	81	80	77	73	74	66	62	63	58	58	62	57
4000	93	94	93	87	89	87	83	81	78	75	72	73	65	61	62	57	57	60	55
5000	88	88	90	86	89	88	86	81	77	73	71	71	63	61	61	55	55	59	54
6300	86	87	88	84	84	83	84	79	75	70	67	68	61	59	60	53	53	57	52
8000	86	87	88	84	83	82	78	74	70	66	64	71	61	57	56	51	51	54	50
10000	82	83	84	80	79	79	75	71	66	61	59	59	53	52	51	45	47	50	46
OVERALL	99	100	101	97	97	98	94	92	90	89	91	92	92	92	88	88	88	89	84

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 5

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 2

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 30 C
BAR PRESS = .761 M HG
REL HUMID = 61 %

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<	73<	70<	73<	73<	73<	73<	77	74<	78	76<	78	79	83	86	87	89	86	
31.5	73<	75<	74<	75<	75<	75<	76<	78	76<	80	80	81	83	85	88	89	92	89	
40	77	76	76	79	78	78	78	78	81	80	82	84	88	90	91	94	93	91	
50	78	78	79	76	77	78	77	79	79	81	82	84	88	91	93	95	94	90	
63	79	80	80	80	79	79	80	82	82	83	84	87	89	92	95	97	94	90	
80	81	80	80	82	79	81	82	83	83	85	86	88	91	94	98	100	96	90	
100	81	82	82	83	83	83	84	84	86	87	88	91	94	97	101	103	97	91	
125	83	84	83	84	83	84	86	87	87	89	90	93	93	97	101	104	97	92	
160	85	86	86	87	86	85	88	89	89	91	92	96	96	98	101	105	97	92	
200	83	84	83	84	83	84	86	87	87	89	90	94	95	97	97	100	90	89	
250	81	81	82	82	82	84	83	86	85	86	88	93	93	94	94	93	83	81	
315	82	81	81	83	82	83	83	83	84	86	87	92	94	94	95	91	79	77	
400	84	83	84	85	84	84	85	86	87	89	90	94	95	95	95	92	78	76	
500	85	85	86	86	84	85	87	89	89	90	92	97	96	95	94	90	78	76	
630	83	82	81	81	81	80	82	84	84	85	87	91	91	91	89	85	73	72	
800	86	86	85	85	85	83	84	85	86	88	89	93	93	92	90	86	75	71	
1000	87	86	84	84	83	82	82	85	85	87	88	90	90	89	87	83	72	70	
1250	88	88	88	87	86	84	83	84	85	86	88	91	90	88	87	82	71	69	
1600	91	90	90	89	88	87	84	85	85	86	86	89	88	86	86	80	69	66	
2000	92	92	91	91	91	89	86	86	85	86	85	87	88	85	85	79	69	63	
2500	94	94	93	92	92	90	87	87	85	86	85	87	86	84	85	77	66	61	
3150	95	94	93	90	91	89	87	87	84	83	83	84	83	81	82	74	64	57	
4000	105	105	106	102	101	99	96	96	91	89	85	85	84	81	83	76	69	63	
5000	99	101	100	97	97	95	92	92	89	86	83	84	81	78	81	72	66	60	
6300	94	94	93	89	91	88	86	85	82	81	79	82	79	74	76	69	62	54	
8000	97	98	97	94	96	92	90	88	85	82	81	82	79	73	76	70	63	55	
10000	93	94	93	90	92	89	87	86	82	80	77	78	76	70	73	67	60	52	
OVERALL	108	108	108	105	105	103	101	101	100	101	101	105	105	106	108	111	105	100	

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 5

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 2

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 30 C
BAR PRESS = .761 M HG
REL HUMID = 61 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	79	77<	78	79	79	80	81	81	84	85	85	87	90	93	97	97	98	93	
31.5	79	80	80	81	81	81	84	84	86	84	87	88	91	95	99	100	100	95	
40	81	81	83	83	85	83	85	86	87	88	90	92	95	100	102	105	103	97	
50	83	84	85	83	84	85	85	87	89	89	92	94	97	100	103	106	103	96	
63	86	86	85	87	86	86	88	90	92	91	94	95	100	105	107	108	106	97	
80	88	87	88	87	87	87	90	92	92	93	95	99	104	107	112	111	107	99	
100	88	88	90	88	89	91	93	94	95	97	99	101	105	111	115	115	110	99	
125	91	92	93	92	93	92	94	97	97	98	101	103	106	112	116	117	112	99	
160	94	96	97	95	94	95	98	99	100	101	105	106	110	114	116	119	115	101	
200	95	95	94	94	93	93	95	99	100	100	105	106	111	116	114	116	114	98	
250	92	92	92	91	92	92	94	97	97	97	102	103	108	115	114	113	112	96	
315	91	92	93	94	93	93	94	96	96	98	102	103	108	113	115	112	113	96	
400	93	95	97	95	94	94	96	98	100	102	105	106	110	115	115	115	114	97	
500	95	95	97	94	93	94	97	98	100	102	107	109	112	114	116	115	114	95	
630	89	89	90	90	90	89	92	93	95	98	103	103	106	109	109	108	108	89	
800	91	91	94	91	91	91	94	94	95	99	105	106	108	110	111	110	109	89	
1000	88	88	90	88	87	88	91	93	93	97	104	103	105	108	107	106	105	84	
1250	89	90	90	88	87	88	92	92	93	98	104	104	105	106	106	105	103	82	
1600	89	90	90	88	85	87	90	90	91	96	102	102	104	104	104	104	100	77	
2000	90	90	90	87	85	86	89	89	91	96	103	102	104	104	104	102	100	75	
2500	90	90	90	87	84	85	87	88	91	96	103	102	104	105	105	103	99	73	
3150	89	90	89	86	82	82	84	85	88	93	99	99	101	101	102	99	95	70	
4000	95	96	95	91	89	85	88	86	88	93	99	99	101	101	102	99	94	69	
5000	99	100	98	94	93	87	91	87	87	90	95	97	98	99	100	96	91	66	
6300	92	93	91	88	88	83	87	85	85	88	92	95	97	98	98	96	89	64	
8000	89	90	88	85	85	79	84	82	83	86	91	94	96	97	96	94	87	61	
10000	90	90	88	85	84	78	83	80	80	82	89	90	92	94	94	92	84	57	
OVERALL	106	106	107	105	104	104	106	108	109	111	116	117	120	124	125	125	123	109	

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: DIRECTIVITY INDEX (DB)

6

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 4

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 30 C
BAR PRESS = .761 M HG
REL HUMID = 61 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25		-4	-5	-4		-4	-3	-4	0	-1	0	1	1	2	4	3	3	5	3
31.5		-4	-6	-6			-5	-3	-3	-0	1	1	2	3	4	4	4	4	5
40	-5	-2	-2	-4	-5	-5	-4	-3	-3	-2	-1	-0	0	2	3	4	6	5	3
50	-4	-3	-3	-4	-3	-4	-3	-3	-4	-2	-1	-2	0	1	3	6	5	5	2
63	-4	-2	-3	-4	-5	-6	-5	-2	-1	-0	2	2	2	1	0	2	3	4	-1
80	-2	-3	-2	-4	-6	-6	-2	-1	-0	1	1	1	2	1	-0	2	2	3	-3
100	-2	-1	-2	-3	-4	-4	-2	-1	-1	-1	1	0	1	3	2	3	2	3	-5
125	-2	-2	-2	-3	-2	-4	-5	-2	0	-0	2	1	1	1	0	2	1	2	-5
160	-1	-2	-4	-3	-4	-3	-3	0	0	0	2	3	1	1	-1	-2	-2	-1	-9
200	-0	-2	-3	-3	-1	2	-4	-2	-6	-2	1	2	3	4	-3	-4	-5	-2	-9
250	-1	-3	-3	-3	-2	-2	-4	-1	-3	-1	2	3	3	3	-3	-5	-5	-2	-10
315	3	3	1	2	-1	-1	-2	-2	-1	-1	1	3	3	0	-3	-6	-9	-7	-12
400	2	3	2	1	-0	-2	-2	-3	-2	-1	-0	3	3	2	-2	-5	-10	-9	-14
500	4	3	1	1	-1	-3	-3	-2	-2	-3	1	3	4	1	-4	-7	-9	-10	-13
630	6	7	5	3	4	-2	-2	-3	-3	-4	-1	0	4	-3	-8	-9	-12	-12	-14
800	7	7	6	4	4	-1	-2	-2	-2	-3	-0	2	0	-3	-8	-10	-13	-14	-17
1000	8	9	7	4	4	-0	-2	-3	-4	-5	-0	2	1	-6	-11	-11	-14	-14	-17
1250	6	9	7	4	3	2	-1	-2	-3	-4	-3	0	-3	-8	-12	-14	-16	-14	-19
1600	4	9	8	6	4	3	1	-1	-3	-6	-8	-6	-9	-15	-17	-19	-20	-17	-23
2000	3	8	9	5	5	4	1	-2	-4	-7	-10	-9	-15	-20	-20	-23	-24	-20	-25
2500	1	5	9	4	3	7	0	-1	-3	-7	-10	-10	-16	-22	-22	-24	-26	-21	-26
3150	6	8	9	4	5	4	1	-3	-4	-7	-12	-10	-18	-22	-21	-26	-27	-23	-27
4000	10	10	9	3	5	3	-0	-3	-5	-8	-12	-10	-18	-23	-22	-27	-27	-23	-28
5000	5	5	7	3	6	5	3	-1	-6	-9	-12	-12	-19	-21	-22	-28	-28	-24	-29
6300	6	7	8	4	4	4	5	-1	-5	-9	-13	-12	-19	-20	-20	-27	-27	-23	-27
8000	9	9	10	6	4	4	0	-5	-9	-12	-14	-7	-17	-21	-22	-27	-27	-24	-28
10000	7	8	9	5	4	4	1	-4	-8	-14	-16	-15	-21	-22	-23	-29	-28	-25	-29
OCTAVE																			
31.5		-3	-4	-4		-7	-4	-3	-2	-1	0	0	1	2	3	4	5	5	4
63	-3	-3	-2	-4	-5	-5	-3	-2	-1	-0	1	1	2	1	1	3	3	4	-1
125	-1	-2	-3	-3	-3	-4	-3	-0	0	-0	2	2	1	2	0	1	0	1	-7
250	0	-2	-2	-3	-1	2	-4	-2	-5	-2	1	2	3	4	-3	-4	-5	-2	-9
500	4	4	3	1	1	-2	-2	-3	-2	-2	0	3	4	1	-3	-7	-10	-10	-14
1000	7	8	6	4	4	1	-2	-2	-3	-4	-1	1	-0	-5	-10	-11	-14	-14	-17
2000	2	6	9	4	3	6	0	-1	-3	-7	-10	-9	-14	-21	-21	-23	-25	-20	-25
4000	7	8	9	3	6	4	1	-2	-5	-8	-12	-11	-19	-22	-22	-27	-27	-23	-28
8000	8	8	9	5	4	4	3	-2	-6	-11	-14	-10	-18	-21	-21	-27	-27	-24	-28
OVERALL	5	6	7	3	3	4	-0	-2	-4	-5	-3	-2	-1	-1	-6	-6	-6	-5	-10

TABLE: DIRECTIVITY INDEX (DB)

6

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-012
RUN 02

16 APR 75

PAGE 4

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 30 C
BAR PRESS = .761 M HG
REL HUMID = 61 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25	-9	-8	-10	-8	-8	-7	-7	-4	-6	-3	-5	-3	-2	2	5	7	8	6	
31.5	-10	-8	-9	-8	-8	-8	-7	-5	-7	-3	-3	-2	-0	2	5	6	9	6	
40	-10	-10	-10	-8	-8	-9	-9	-8	-6	-6	-5	-2	1	3	4	7	7	4	
50	-10	-9	-9	-11	-10	-10	-10	-8	-8	-6	-5	-3	1	3	6	8	6	2	
63	-10	-9	-9	-9	-10	-10	-9	-7	-7	-6	-5	-2	0	3	6	8	5	1	
80	-11	-11	-11	-10	-12	-10	-9	-8	-8	-6	-5	-3	-0	3	7	9	4	-1	
100	-13	-13	-12	-12	-12	-11	-10	-10	-9	-7	-6	-3	-0	3	7	9	3	-3	
125	-12	-11	-12	-11	-11	-11	-9	-8	-8	-5	-5	-1	-1	3	6	10	2	-3	
160	-11	-10	-10	-9	-10	-10	-8	-7	-7	-5	-4	-0	0	2	5	9	1	-4	
200	-10	-9	-10	-9	-10	-9	-7	-5	-6	-4	-2	1	3	4	4	7	-2	-4	
250	-9	-9	-8	-8	-8	-6	-7	-4	-5	-3	-2	3	4	4	5	3	-6	-8	
315	-7	-8	-9	-7	-7	-7	-7	-7	-6	-4	-2	3	4	5	5	1	-10	-12	
400	-6	-8	-6	-6	-7	-7	-6	-5	-4	-2	-1	4	4	5	4	2	-13	-14	
500	-7	-7	-6	-6	-8	-7	-5	-3	-3	-1	-0	5	4	3	3	-1	-14	-15	
630	-4	-5	-6	-6	-6	-7	-5	-3	-3	-2	0	4	4	4	2	-2	-14	-15	
800	-3	-3	-4	-4	-4	-6	-5	-4	-3	-1	0	4	4	3	1	-3	-14	-18	
1000	0	-1	-2	-3	-3	-4	-5	-1	-2	0	2	4	3	3	1	-4	-15	-16	
1250	2	1	1	0	-1	-3	-4	-3	-2	-0	1	4	3	1	0	-5	-15	-18	
1600	4	3	3	3	2	0	-2	-1	-1	-0	-0	3	1	-1	-1	-6	-17	-21	
2000	5	5	4	3	3	2	-1	-1	-3	-2	-2	0	0	-2	-2	-8	-18	-24	
2500	6	6	5	4	4	2	-1	-1	-3	-2	-3	-1	-2	-3	-3	-11	-21	-27	
3150	8	7	7	4	5	2	0	0	-3	-3	-3	-2	-3	-6	-5	-13	-22	-29	
4000	8	9	9	6	5	3	-1	-1	-6	-8	-12	-11	-13	-16	-13	-20	-28	-34	
5000	7	8	8	5	5	3	-0	-0	-4	-6	-9	-8	-11	-15	-12	-20	-26	-32	
6300	9	8	8	3	6	3	0	-0	-3	-5	-6	-4	-6	-11	-9	-17	-24	-32	
8000	8	9	8	4	7	3	0	-1	-5	-7	-9	-7	-10	-16	-13	-20	-26	-35	
10000	7	8	7	4	6	3	1	-0	-4	-6	-9	-8	-10	-16	-13	-19	-26	-34	
OCTAVE																			
31.5	-10	-9	-10	-8	-8	-8	-8	-6	-6	-4	-4	-2	0	3	5	7	8	5	
63	-10	-10	-10	-10	-11	-10	-9	-8	-8	-6	-5	-3	0	3	6	8	5	0	
125	-12	-11	-11	-10	-11	-11	-9	-8	-7	-6	-5	-1	-0	2	6	9	2	-3	
250	-9	-9	-9	-8	-8	-7	-7	-5	-5	-4	-2	2	3	4	5	5	-4	-6	
500	-6	-7	-6	-6	-7	-7	-5	-4	-3	-2	-0	4	4	4	3	-0	-14	-15	
1000	-0	-1	-2	-2	-3	-4	-5	-3	-2	-1	1	4	3	2	1	-4	-15	-17	
2000	5	5	4	4	3	1	-1	-1	-2	-1	-2	1	0	-2	-2	-8	-19	-23	
4000	8	9	9	5	5	3	-1	-1	-5	-7	-10	-9	-11	-13	-11	-19	-27	-33	
8000	8	8	8	4	6	3	0	-1	-4	-6	-8	-6	-9	-15	-12	-19	-26	-34	
OVERALL	3	3	3	0	0	-2	-4	-4	-5	-4	-4	-0	0	2	4	6	-0	-5	

TABLE: DIRECTIVITY INDEX (DB)

6

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 4

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 30 C
BAR PRESS = .761 M HG
REL HUMID = 61 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25	-11	-14	-12	-12	-12	-10	-9	-9	-6	-5	-5	-4	-0	2	7	7	8	3	
31.5	-13	-13	-12	-11	-11	-12	-9	-8	-6	-8	-5	-4	-1	2	7	8	7	3	
40	-15	-15	-13	-13	-11	-13	-11	-10	-9	-8	-6	-4	-1	4	6	9	7	1	
50	-14	-14	-13	-14	-14	-13	-12	-10	-8	-8	-5	-4	-1	3	6	9	6	-1	
63	-14	-15	-15	-14	-14	-14	-12	-10	-9	-9	-6	-5	-0	4	7	8	6	-3	
80	-16	-17	-16	-16	-17	-16	-14	-11	-11	-10	-8	-5	0	4	8	7	4	-4	
100	-18	-19	-17	-18	-18	-16	-14	-13	-12	-10	-8	-5	-2	4	8	8	4	-7	
125	-17	-16	-16	-16	-16	-16	-14	-12	-12	-10	-7	-5	-3	4	8	8	4	-9	
160	-16	-14	-13	-15	-16	-15	-12	-11	-10	-9	-5	-4	0	4	6	9	5	-9	
200	-14	-14	-15	-15	-16	-16	-14	-10	-9	-9	-4	-3	2	7	5	7	5	-11	
250	-15	-16	-16	-16	-16	-15	-14	-11	-10	-11	-5	-4	0	7	6	5	5	-12	
315	-16	-15	-14	-14	-14	-14	-13	-12	-11	-9	-6	-4	1	5	8	5	6	-12	
400	-16	-14	-12	-14	-15	-15	-13	-11	-9	-7	-4	-3	1	6	6	6	5	-12	
500	-14	-14	-13	-15	-16	-15	-13	-11	-10	-7	-2	-1	3	4	6	6	5	-14	
630	-14	-15	-13	-13	-14	-14	-12	-11	-8	-6	-1	-1	3	6	6	4	5	-14	
800	-14	-14	-11	-14	-14	-14	-11	-11	-10	-6	0	1	3	5	6	5	4	-16	
1000	-14	-14	-12	-14	-15	-14	-11	-9	-9	-5	2	1	3	6	5	4	3	-18	
1250	-12	-12	-11	-13	-15	-13	-10	-9	-9	-4	2	2	4	5	4	4	1	-20	
1600	-11	-10	-10	-12	-15	-13	-10	-10	-9	-4	2	2	4	4	4	4	0	-23	
2000	-10	-10	-10	-13	-15	-14	-11	-11	-9	-4	3	2	4	4	4	2	0	-25	
2500	-10	-10	-10	-13	-16	-15	-13	-12	-9	-4	3	2	4	5	5	3	-1	-27	
3150	-8	-7	-8	-11	-15	-15	-13	-12	-9	-4	2	2	4	4	5	2	-2	-27	
4000	-2	-1	-2	-6	-8	-12	-9	-11	-9	-4	2	2	4	4	5	2	-3	-28	
5000	4	4	3	-1	-2	-8	-4	-9	-8	-5	-0	1	3	4	4	1	-4	-29	
6300	-1	0	-2	-5	-5	-10	-6	-8	-8	-5	-1	2	4	5	5	3	-4	-29	
8000	-2	-2	-3	-7	-7	-12	-8	-9	-8	-6	-0	2	4	5	5	3	-4	-30	
10000	1	1	-0	-4	-5	-10	-6	-9	-8	-7	-0	1	4	5	5	3	-5	-32	
OCTAVE																			
31.5	-14	-14	-13	-12	-11	-12	-10	-10	-8	-7	-6	-4	-1	3	6	8	7	2	
63	-15	-15	-15	-15	-15	-15	-13	-11	-10	-9	-7	-5	0	4	8	8	5	-3	
125	-17	-15	-15	-16	-16	-16	-13	-12	-11	-10	-6	-4	-1	4	7	9	5	-9	
250	-15	-15	-15	-15	-16	-15	-14	-11	-10	-10	-5	-4	1	7	6	6	5	-12	
500	-15	-14	-12	-14	-15	-15	-13	-11	-9	-7	-3	-1	2	5	6	6	5	-13	
1000	-14	-13	-12	-14	-15	-14	-11	-10	-9	-5	1	1	3	5	5	4	3	-17	
2000	-10	-10	-10	-13	-15	-14	-11	-11	-9	-4	3	2	4	4	4	3	-0	-24	
4000	-0	0	-1	-5	-6	-11	-8	-10	-9	-4	2	2	4	4	5	2	-3	-28	
8000	-1	-0	-2	-5	-5	-11	-6	-9	-8	-5	-1	2	4	5	5	3	-4	-30	
OVERALL	-13	-12	-12	-14	-15	-15	-12	-11	-10	-8	-3	-2	1	5	6	7	5	-10	

FIGURE: NORMALIZED FARFIELD NOISE LEVELS

3

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:

B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:

IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:

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

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-012
RUN 01

16 APR 75

PAGE 6

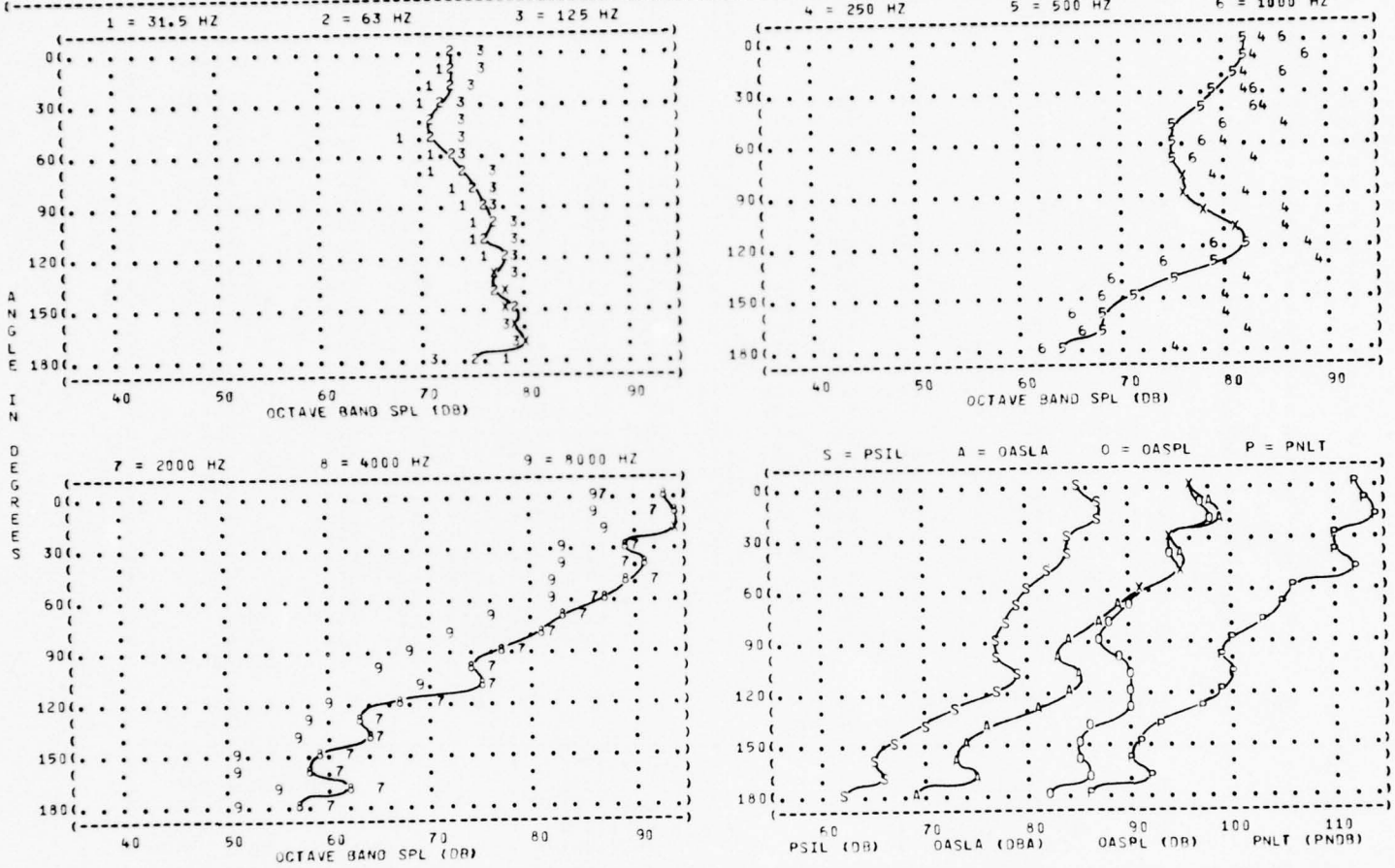


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

3

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:

B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:

85% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:

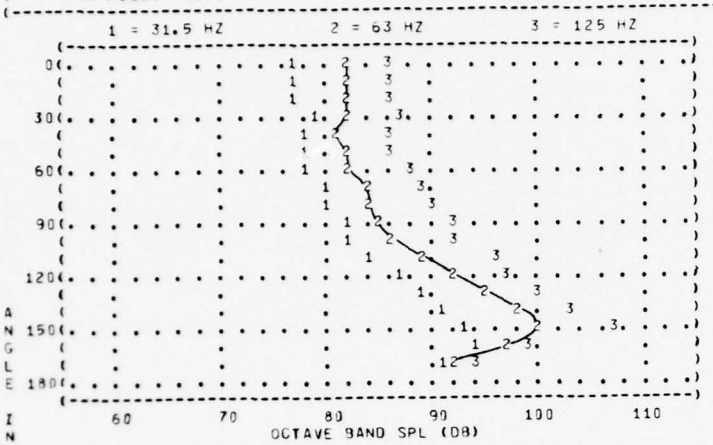
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

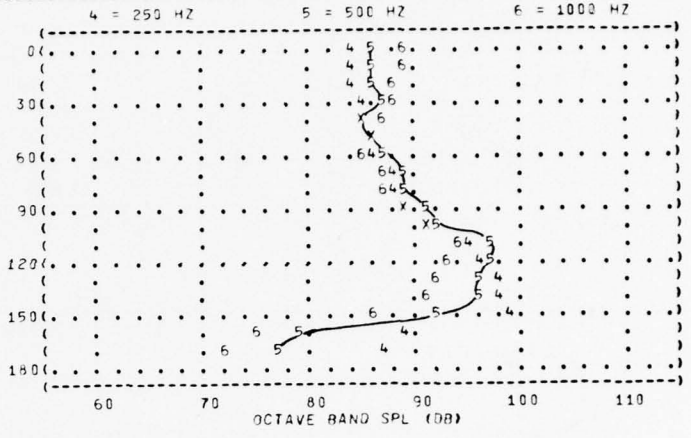
IDENTIFICATION:

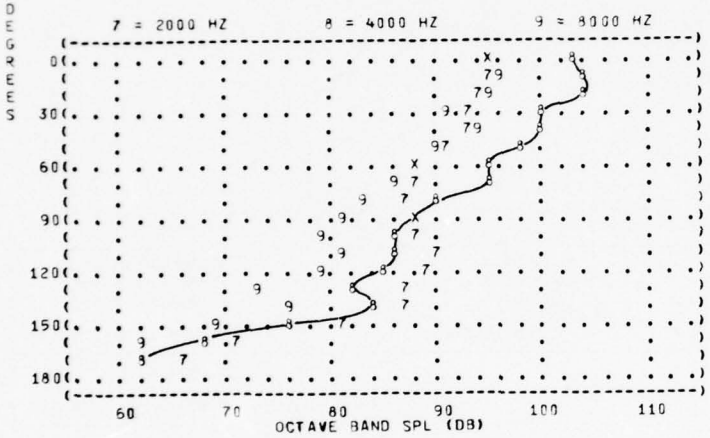
OMEGA 1.4
TEST 75-002-012
RUN 02

16 APP 75

PAGE 6







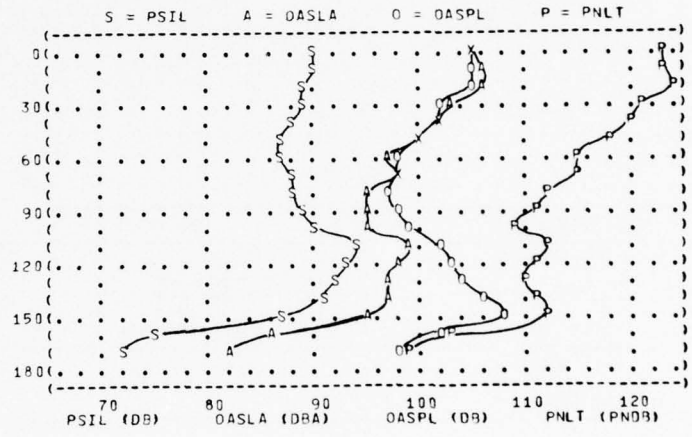


FIGURE 3 NORMALIZED FARFIELD NOISE LEVELS

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 6

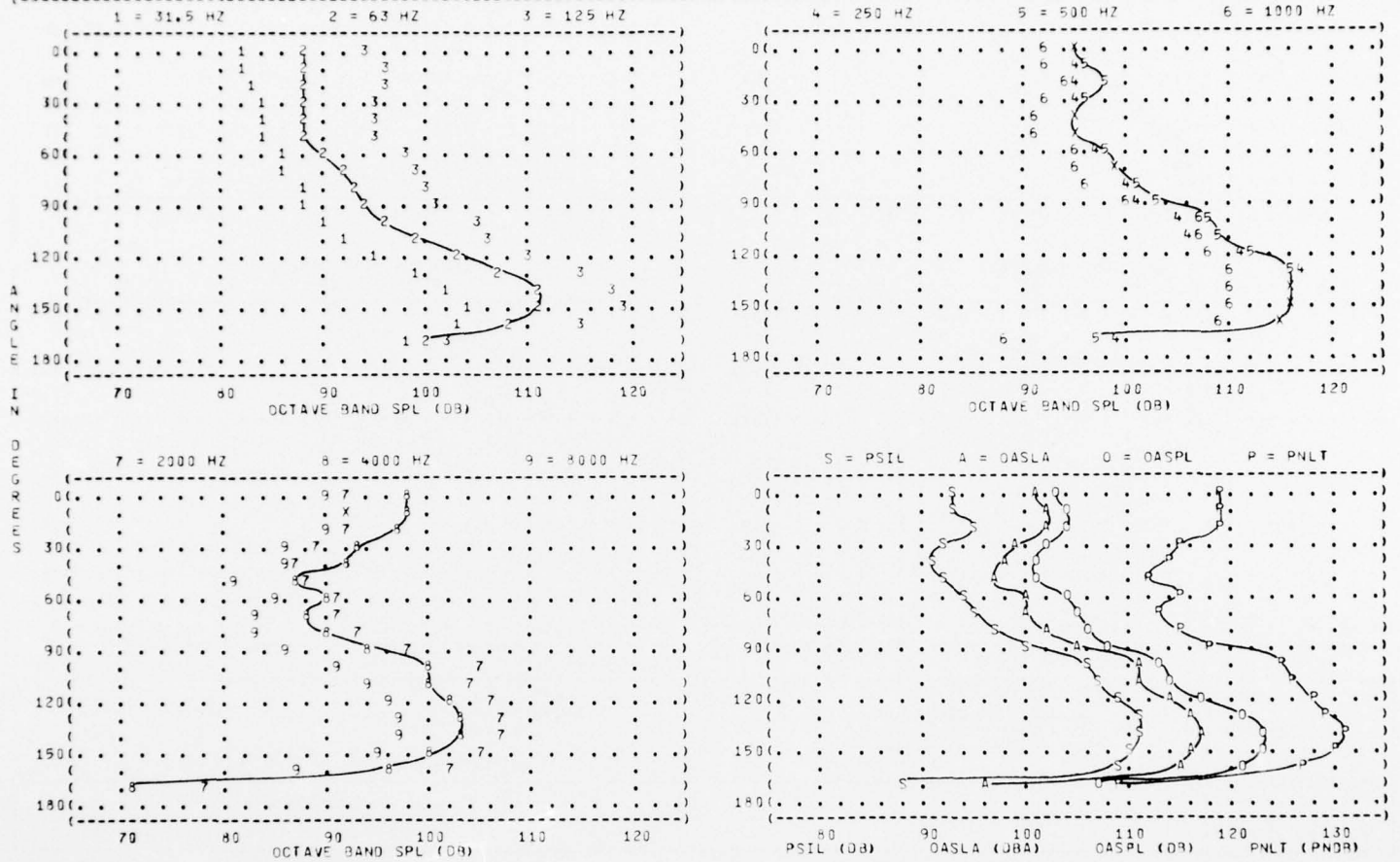


FIGURE: ACOUSTIC POWER LEVEL (PWL)

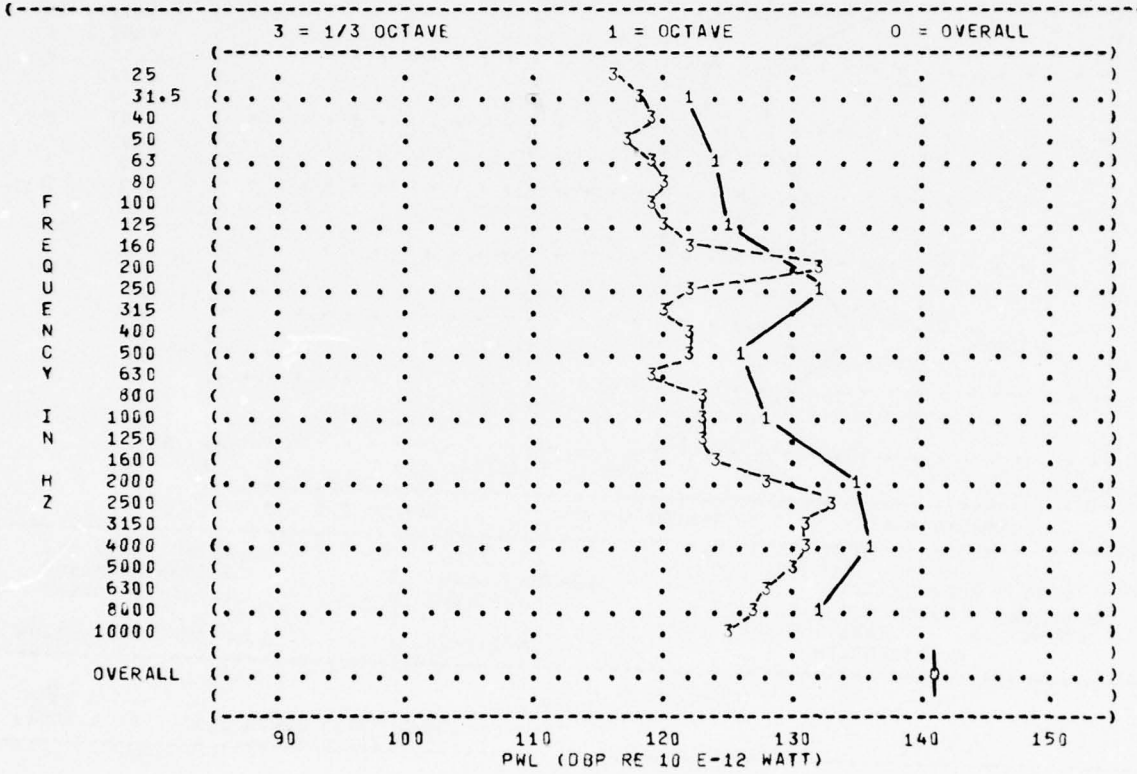
4

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 30 C
BAR PRESS = .761 M HG
REL HUMID = 61 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 3



	PWL 1/3 OCTAVE	PWL OCTAVE
25	116.1	
31.5	117.7	122.4
40	118.7	
50	116.9	
63	118.5	123.6
80	120.3	
100	118.9	
125	120.0	125.3
160	122.0	
200	131.7	
250	121.8	132.4
315	119.7	
400	122.3	
500	121.7	125.9
630	118.7	
800	122.8	
1000	122.9	127.7
1250	123.2	
1600	124.3	
2000	128.1	134.7
2500	133.1	
3150	131.1	
4000	130.8	135.6
5000	130.4	
6300	128.1	
8000	127.5	131.8
10000	124.9	
OVERALL		140.6

FIGURE: ACOUSTIC POWER LEVEL (PWL)

4

NOISE SOURCE/SUBJECT:

B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:

85% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:

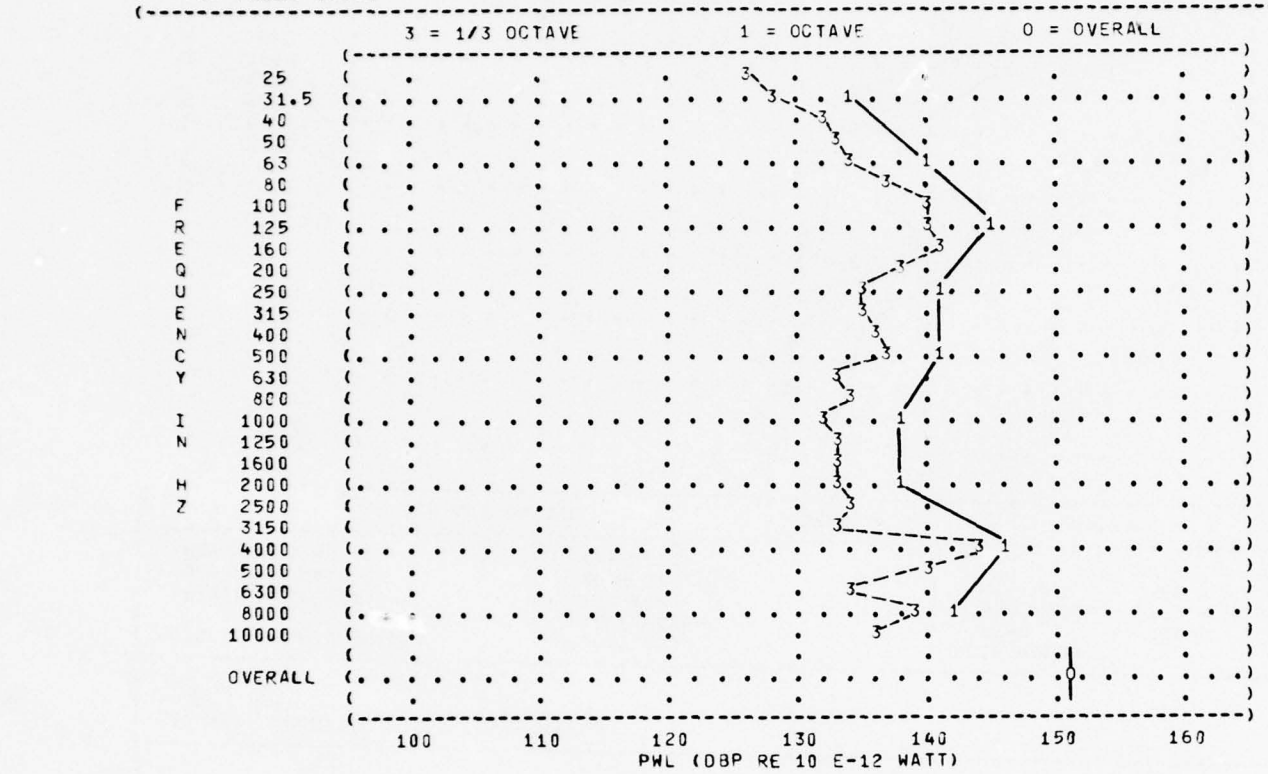
TEMP = 30 C
BAR PRESS = .761 M HG
REL HUMID = 61 %

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-012
RUN 02

16 APR 75

PAGE 3



1/3 OCTAVE	PWL OCTAVE
126.0	
128.4	134.0
131.6	
132.6	
134.3	139.6
136.6	
139.6	
140.1	145.0
141.0	
138.0	
135.1	141.0
134.8	
136.3	
137.3	140.6
132.6	
134.5	
132.3	138.1
132.7	
132.6	
133.4	138.2
134.2	
133.4	
143.8	145.5
139.7	
133.9	
138.8	141.6
136.4	
	151.2

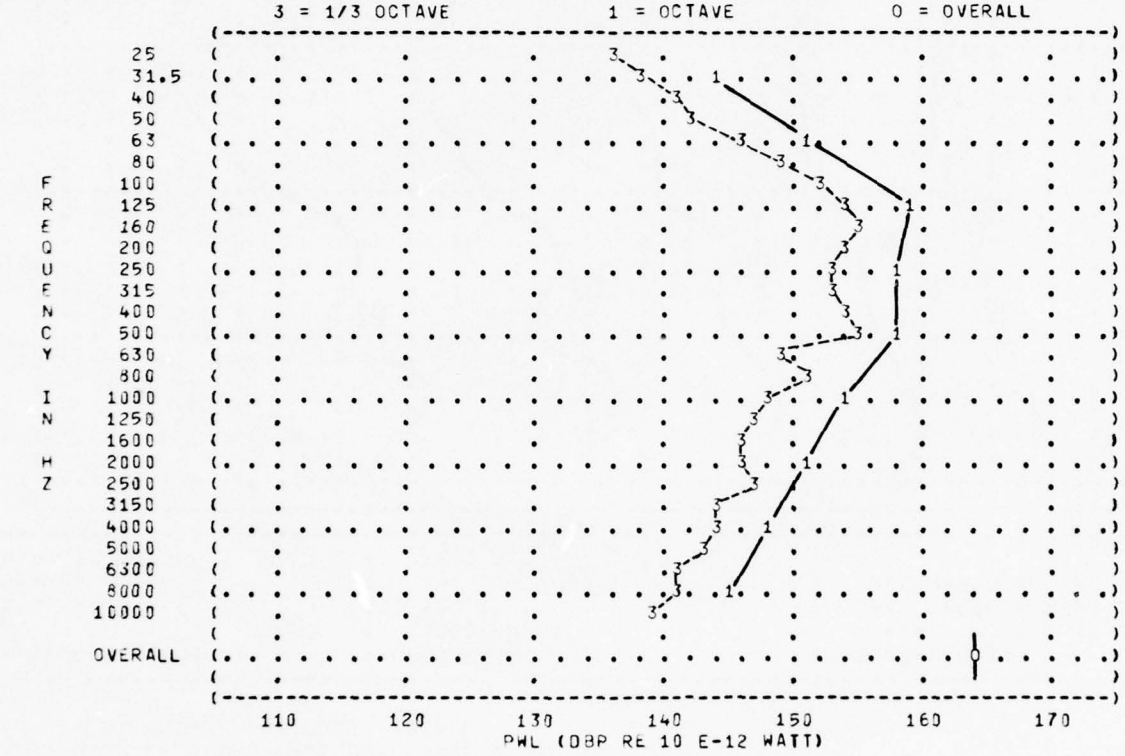
FIGURE: 4 ACOUSTIC POWER LEVEL (PWL)

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 30 C
BAR PRESS = .761 M HG
REL HUMID = 61 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 3



	PWL 1/3 OCTAVE	PWL OCTAVE
25	135.6	
31.5	137.8	143.7
40	141.3	
50	142.4	
63	145.6	151.0
80	148.6	
100	152.1	
125	153.7	158.7
160	155.4	
200	154.4	
250	152.9	158.1
315	152.6	
400	154.3	
500	154.9	158.2
630	149.0	
800	150.6	
1000	147.8	153.6
1250	147.5	
1600	146.0	
2000	146.1	151.0
2500	146.6	
3150	143.7	
4000	144.4	148.5
5000	142.8	
6300	141.2	
8000	140.7	145.2
10000	139.2	
OVERALL	164.3	

FREQUENCY IN HZ

PWL (DBP RE 10 E-12 WATT)

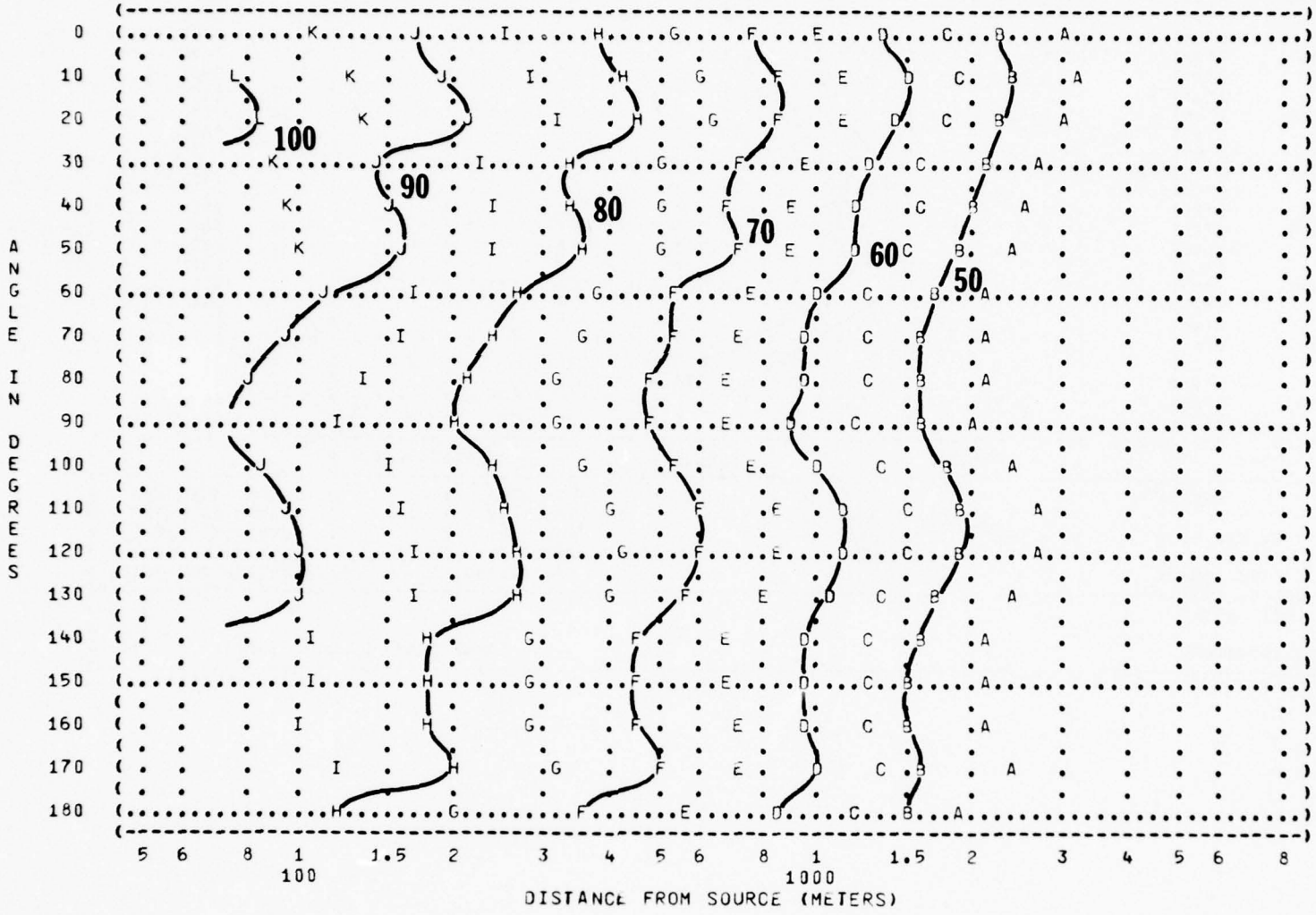
FIGURE 5 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 13

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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



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

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 13

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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

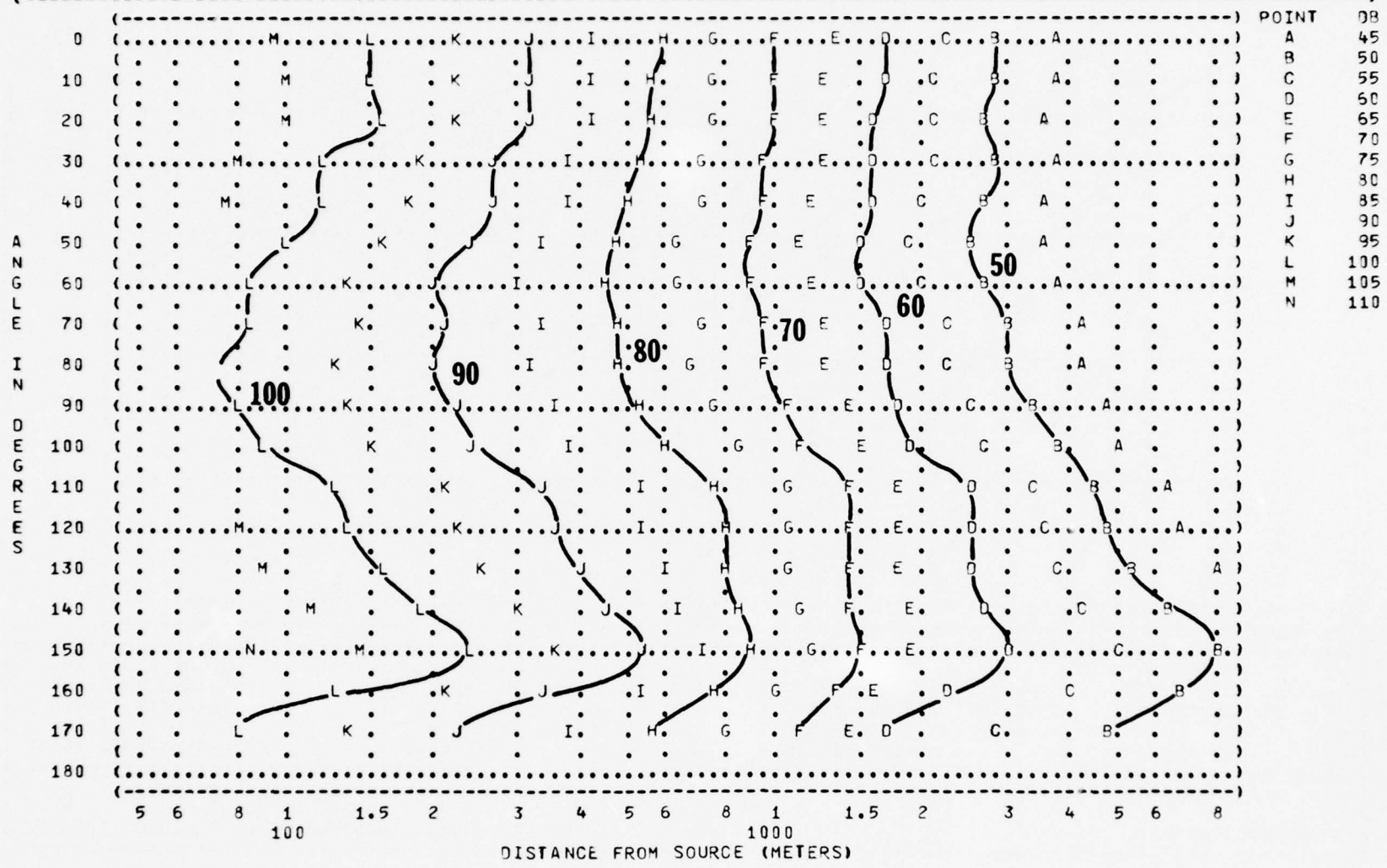


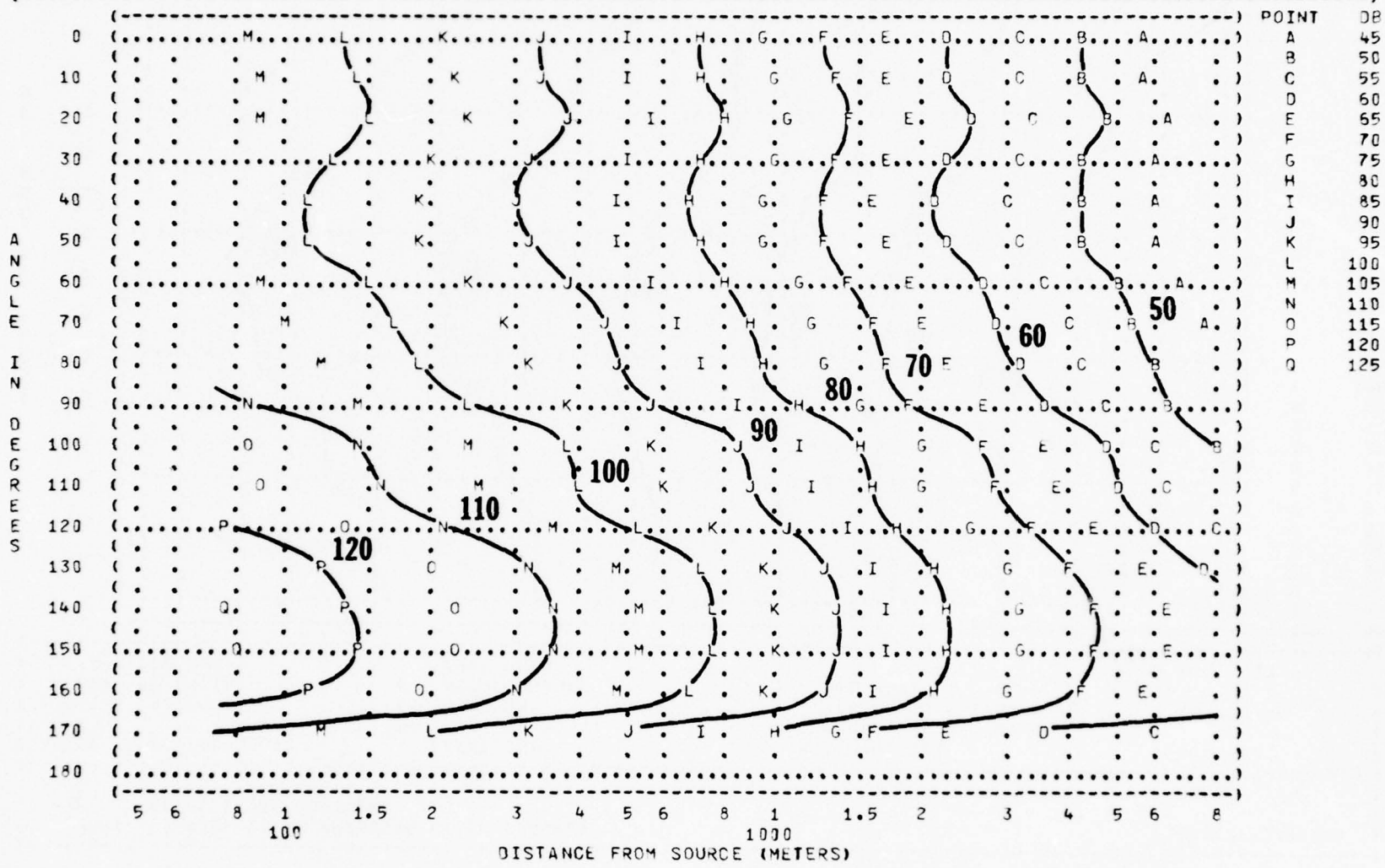
FIGURE: 5 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 13

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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



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

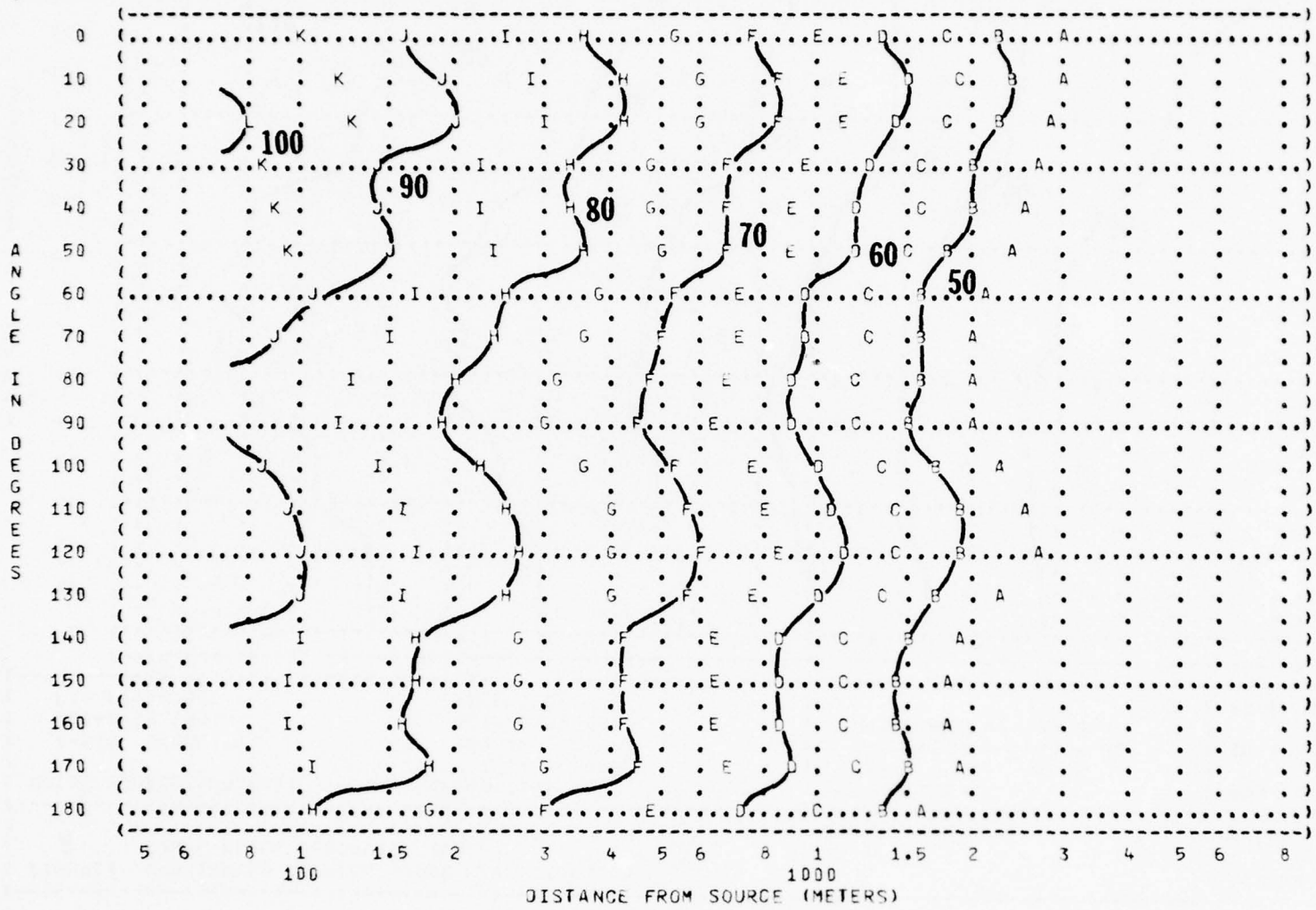
FIGURE: C-WEIGHTED OVERALL SOUND LEVEL (OASLC)
6 EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 14

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-58 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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



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

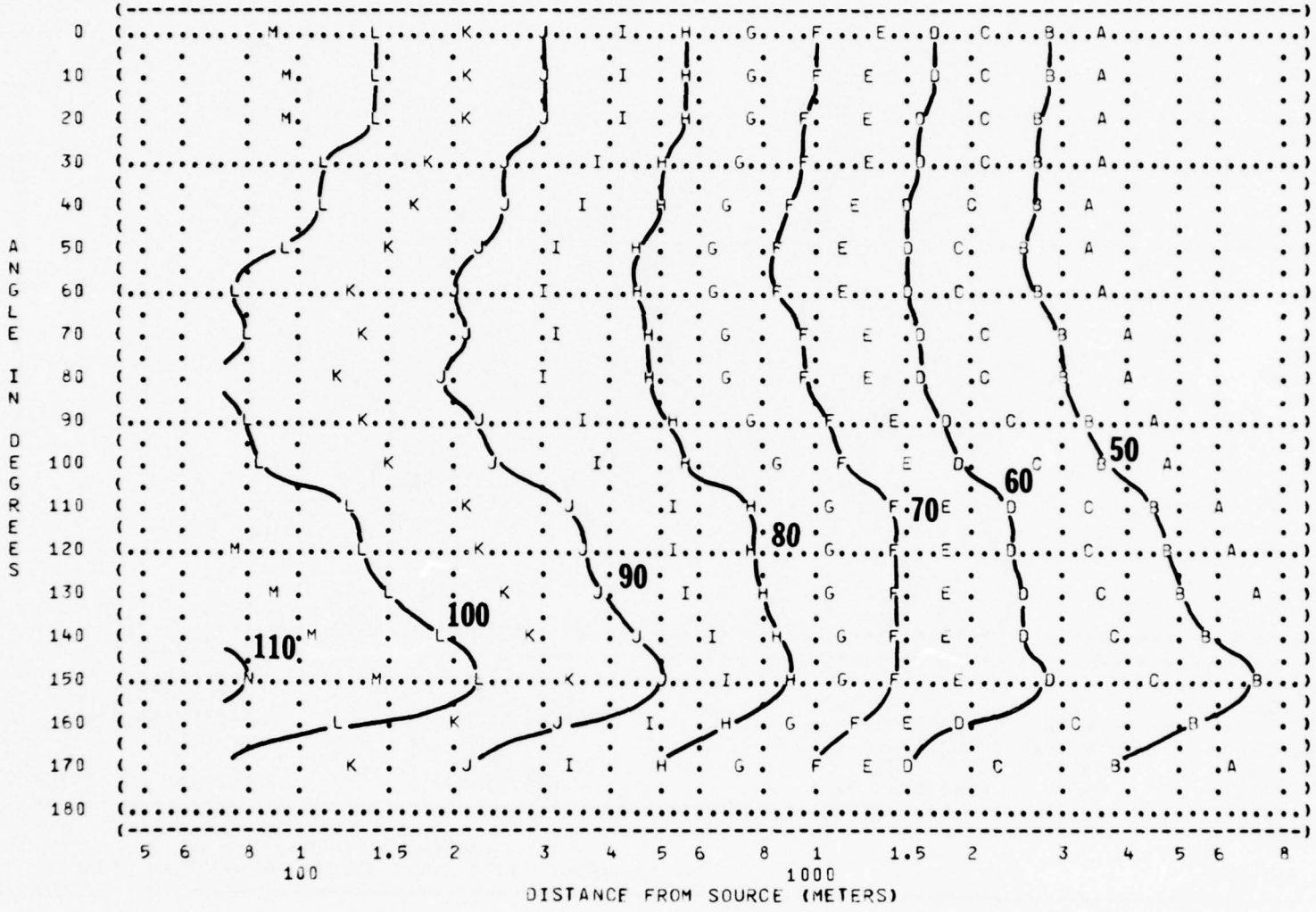
FIGURE: 6 C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 14

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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



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

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 14

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

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

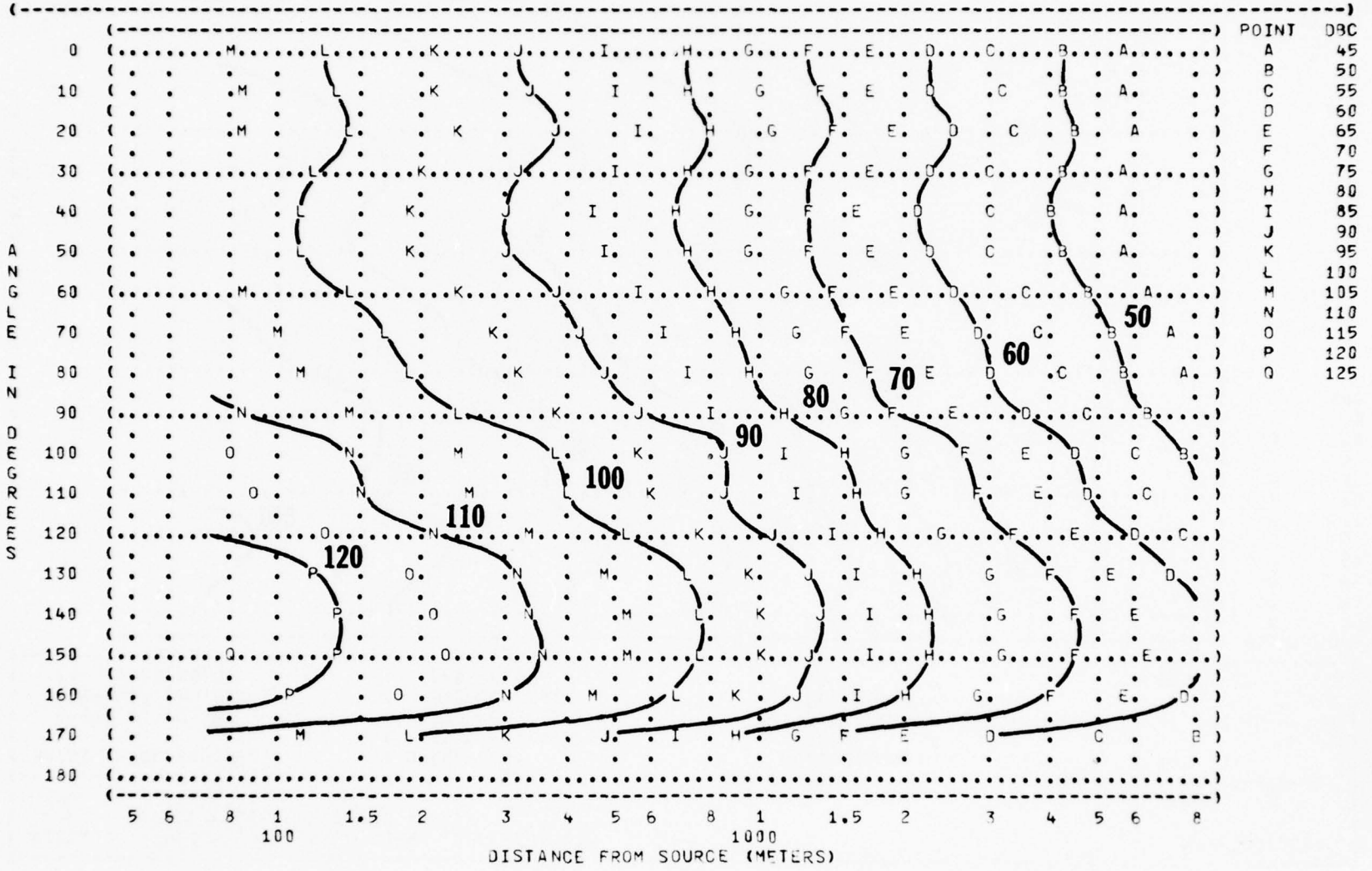


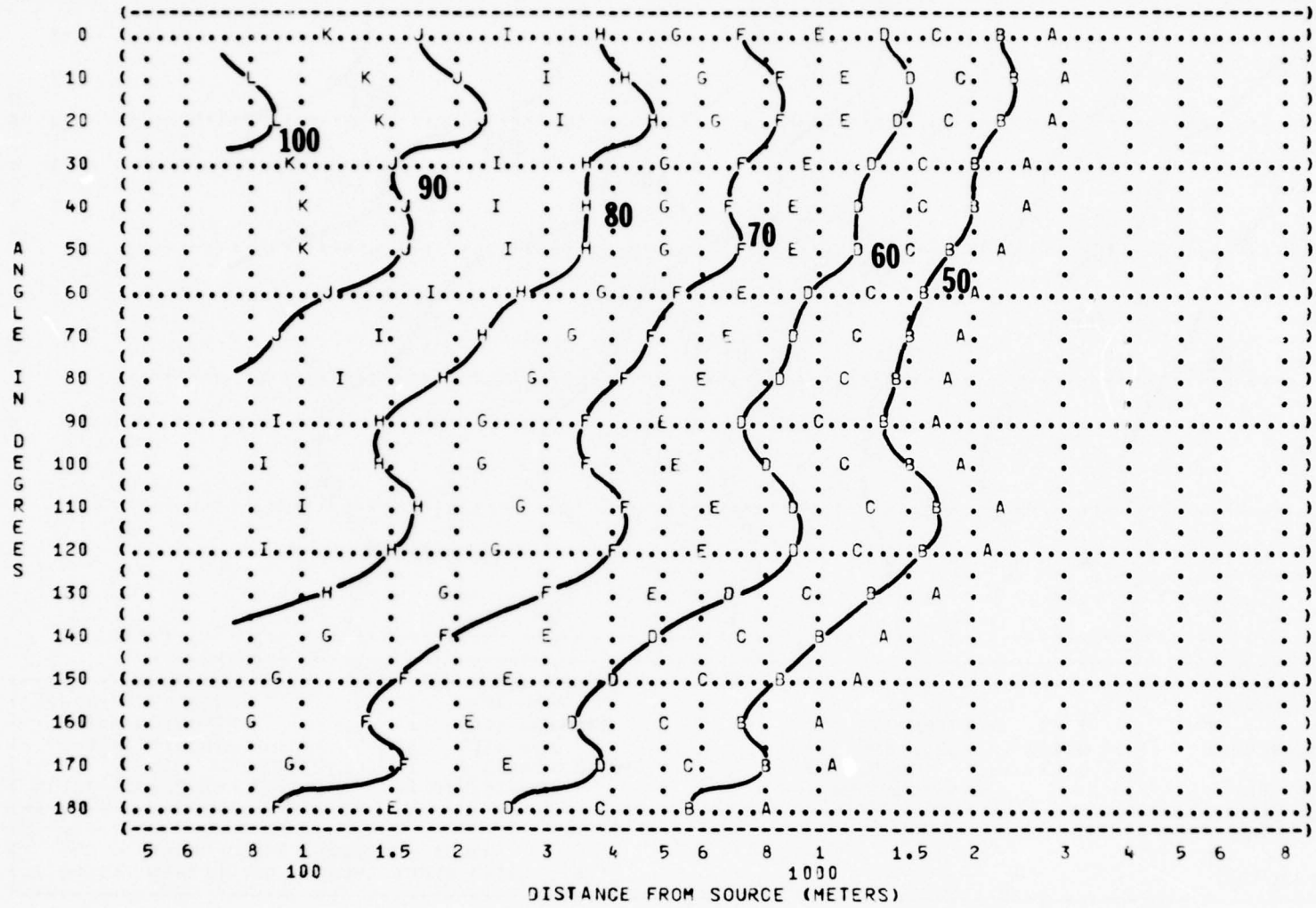
FIGURE 7 A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 15

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5R ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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



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

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 15

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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

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

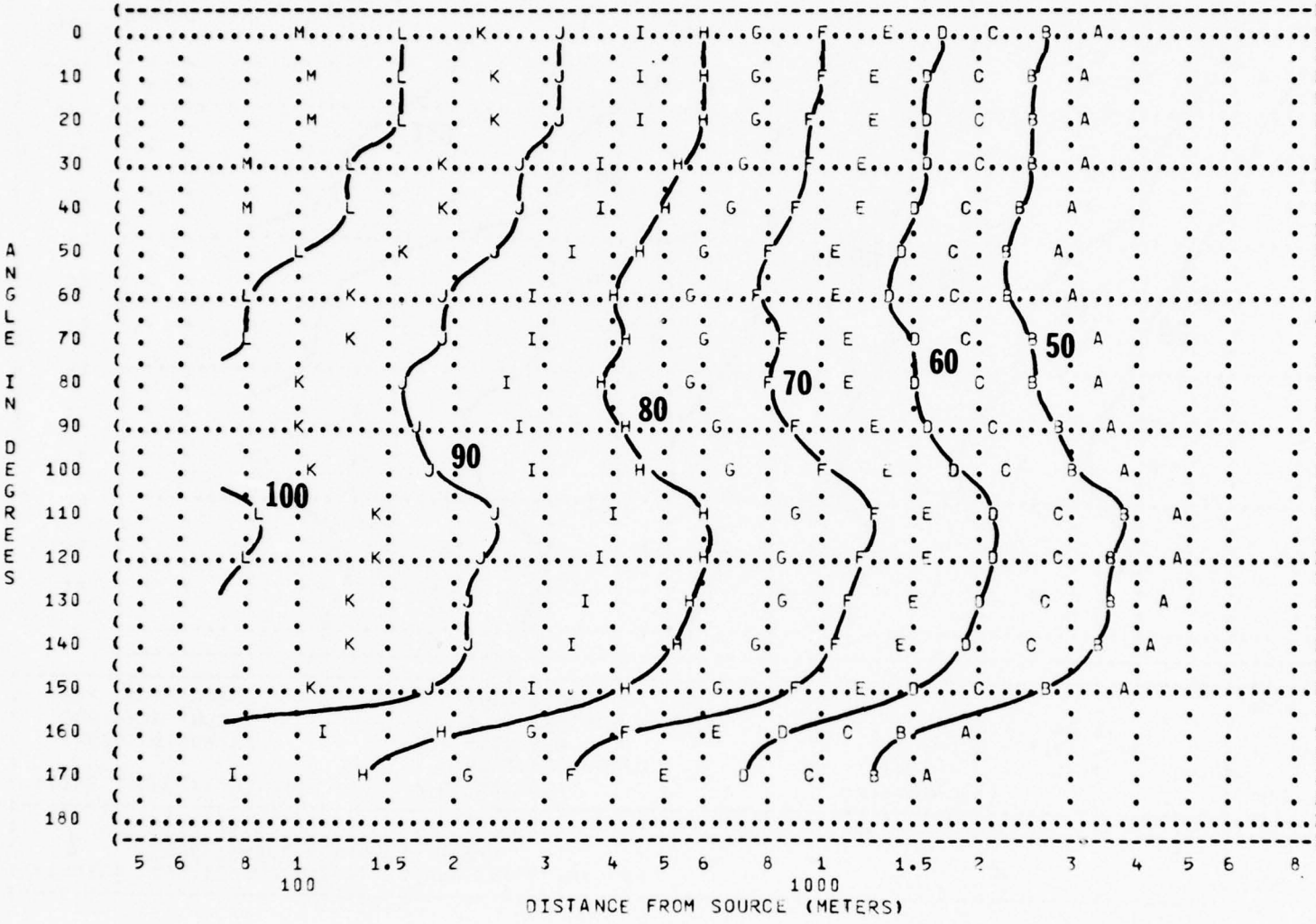


FIGURE 7: A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 15

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

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

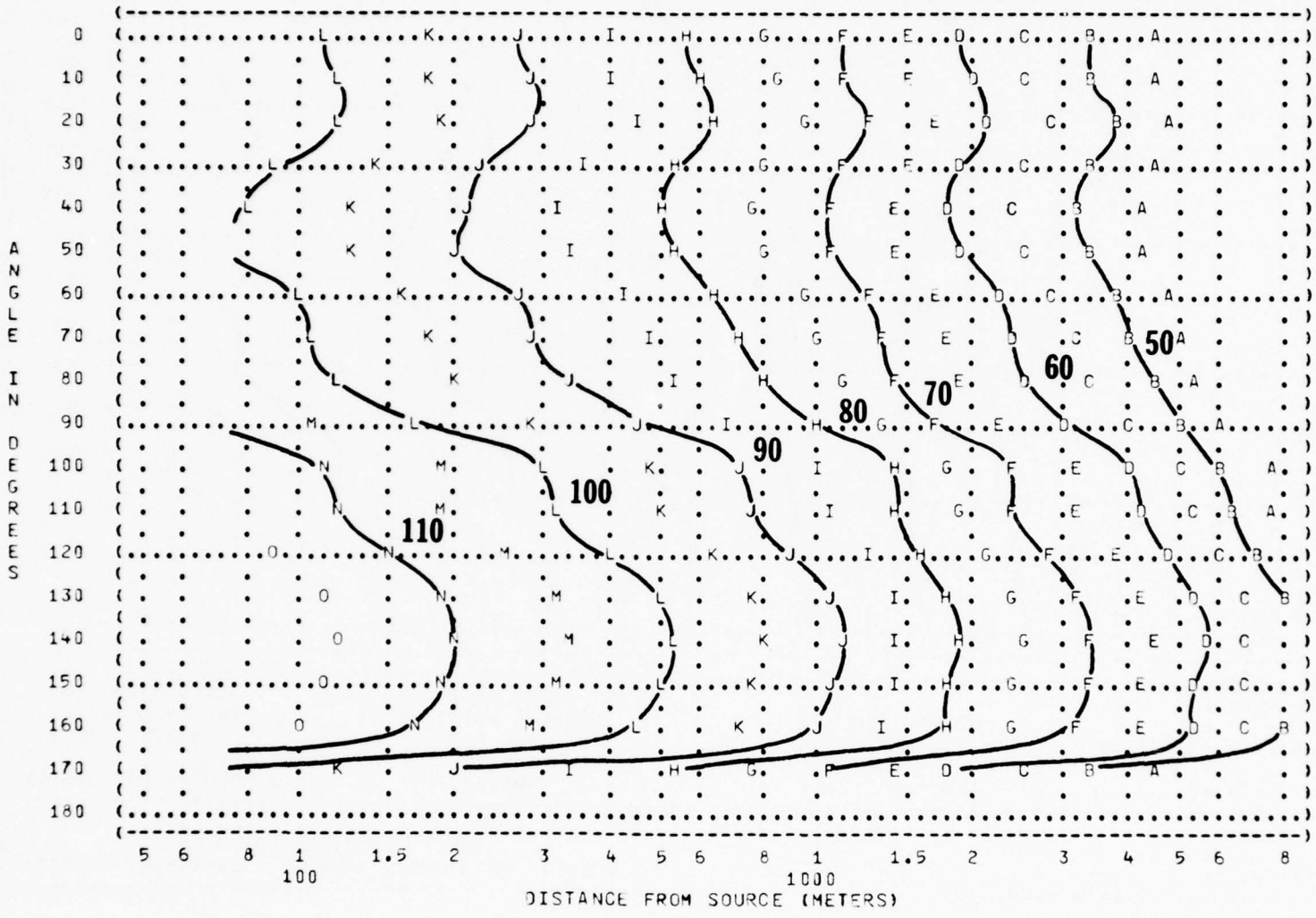


FIGURE 8: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT) EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 16

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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

POINT	PNDB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95
I	100
J	105
K	110
L	115

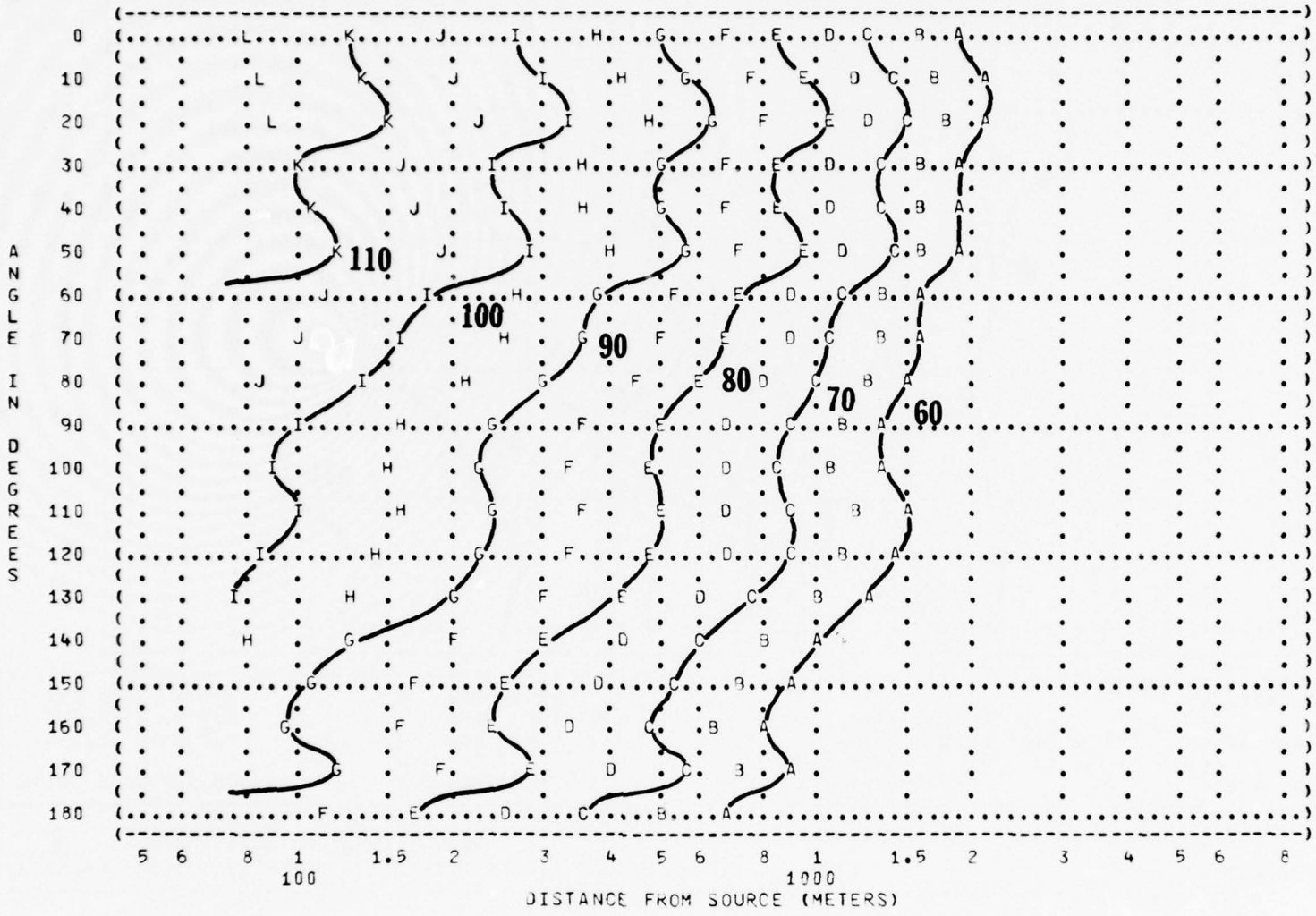


FIGURE 8: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT) EQUAL LEVEL CONTOURS (PNDB)

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 16

POINT	PNDB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95
I	100
J	105
K	110
L	115
M	120
N	125

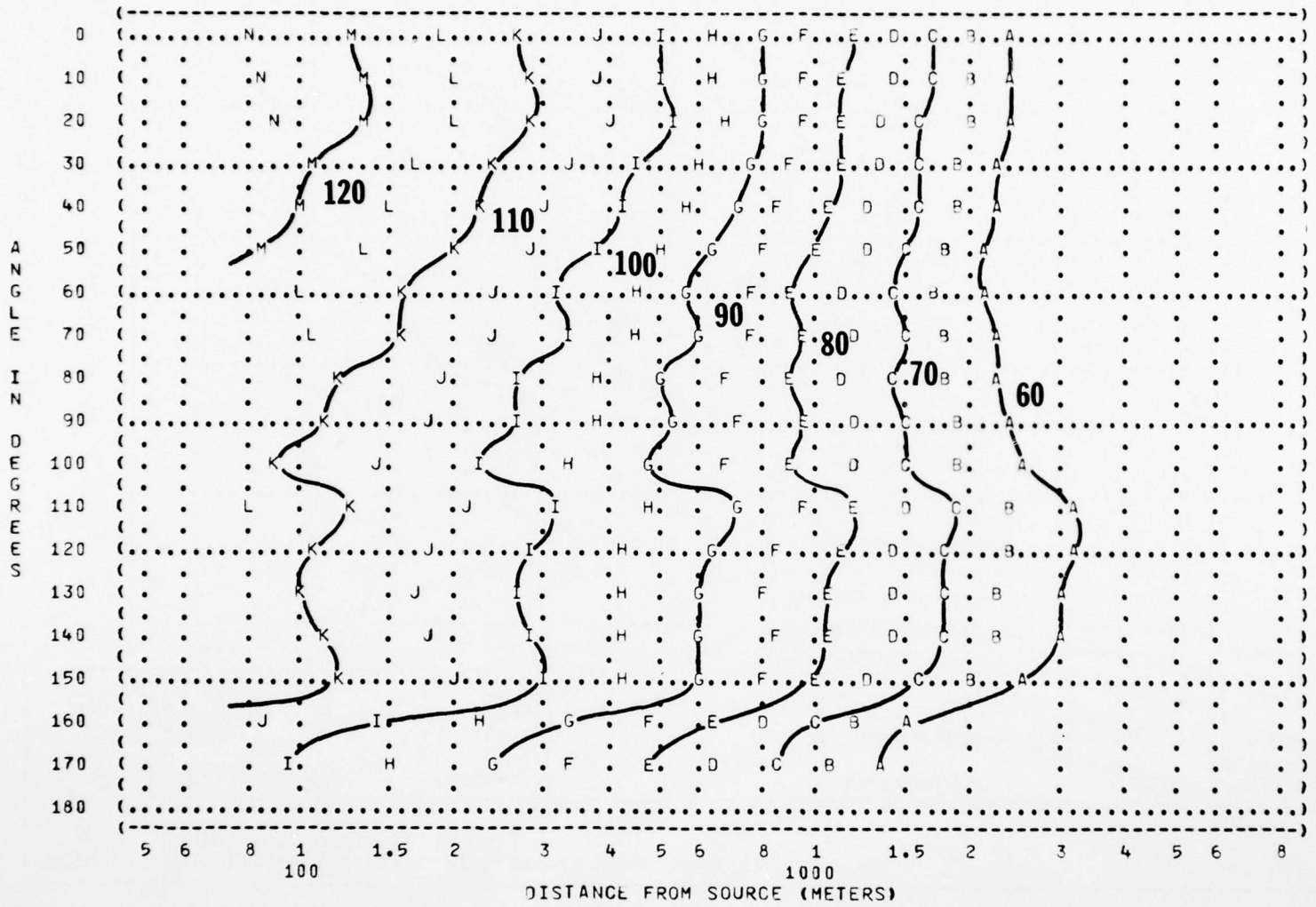


FIGURE 8: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT) EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 16

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

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

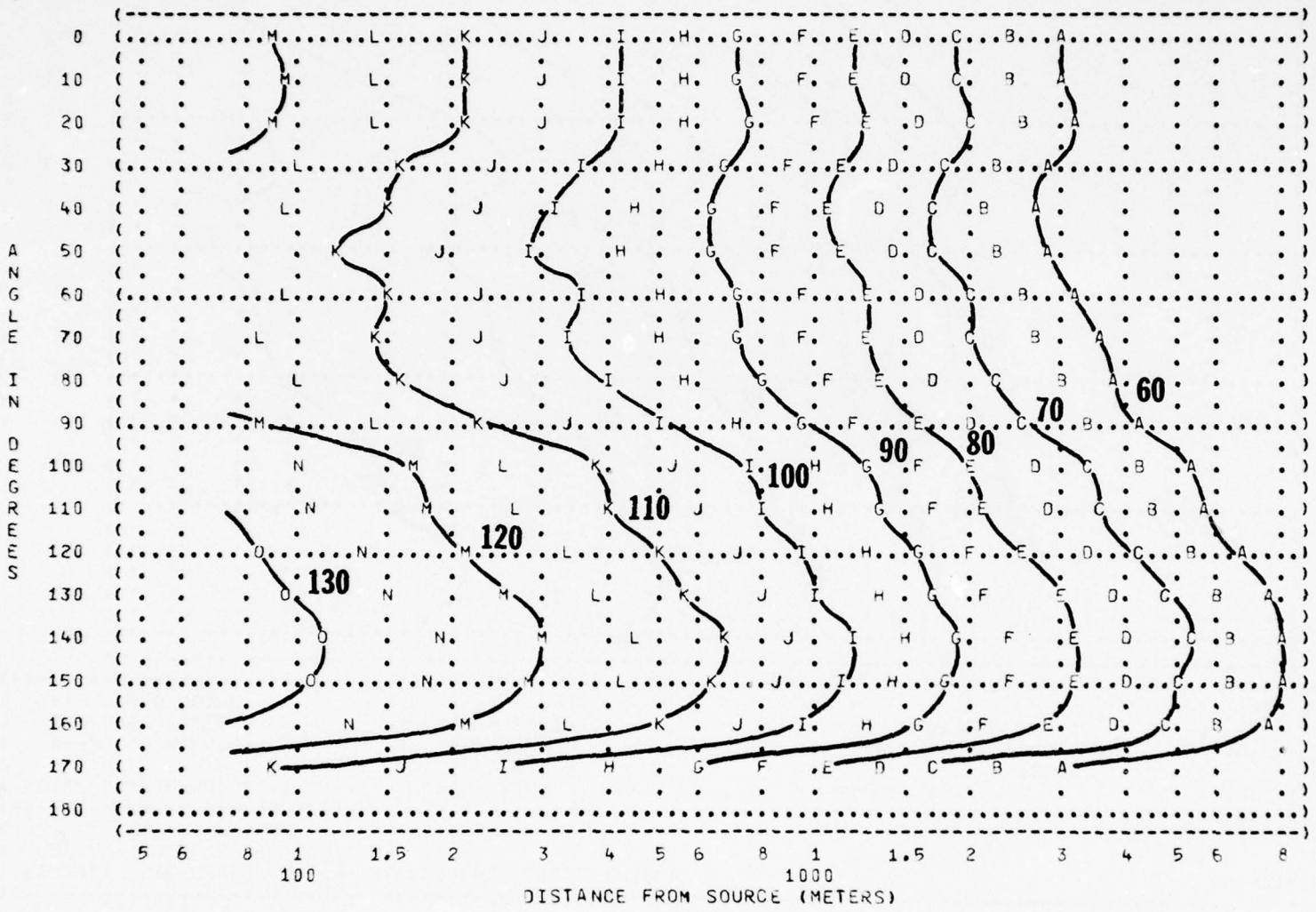


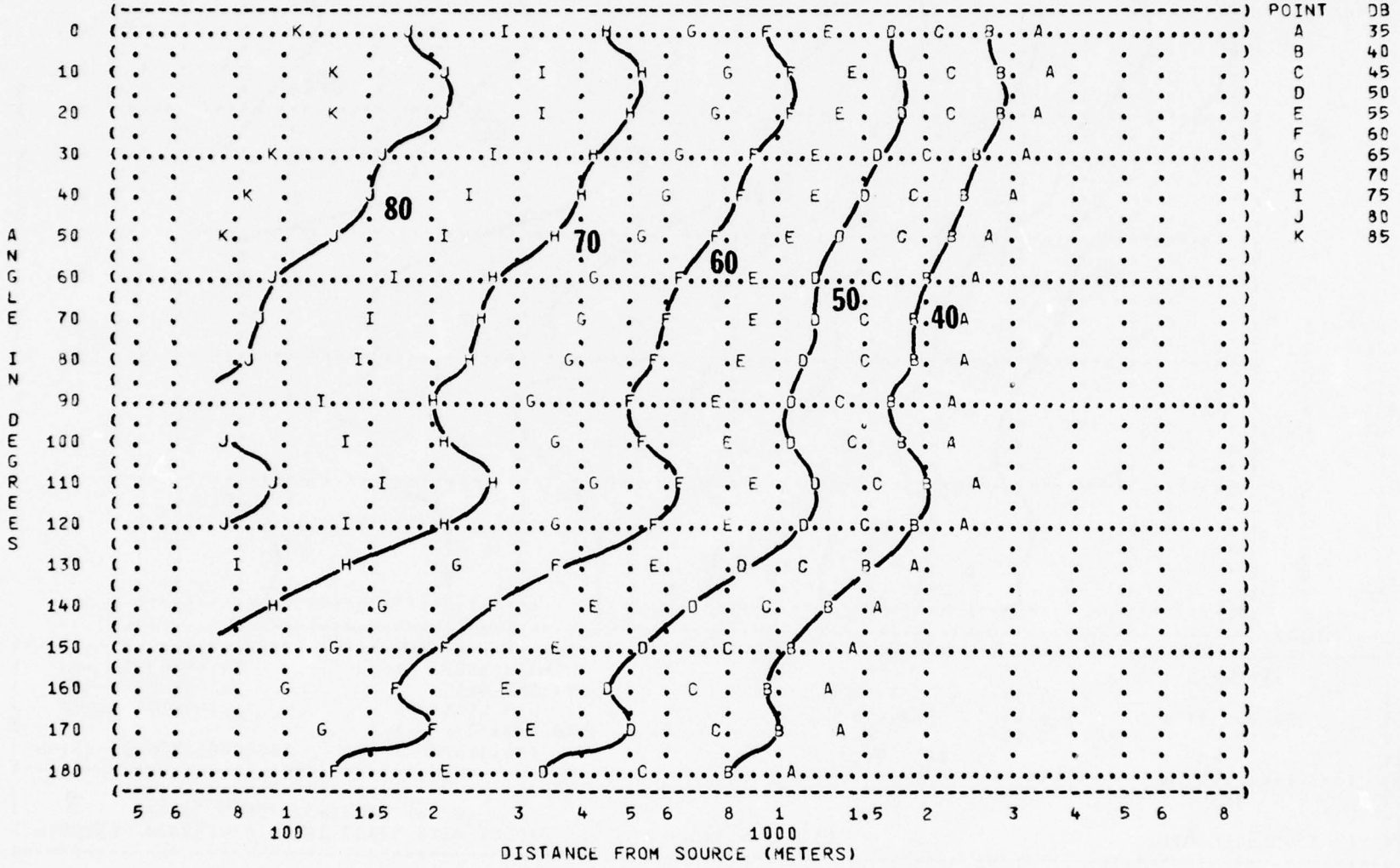
FIGURE: 9 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 17

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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



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

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 17

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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

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

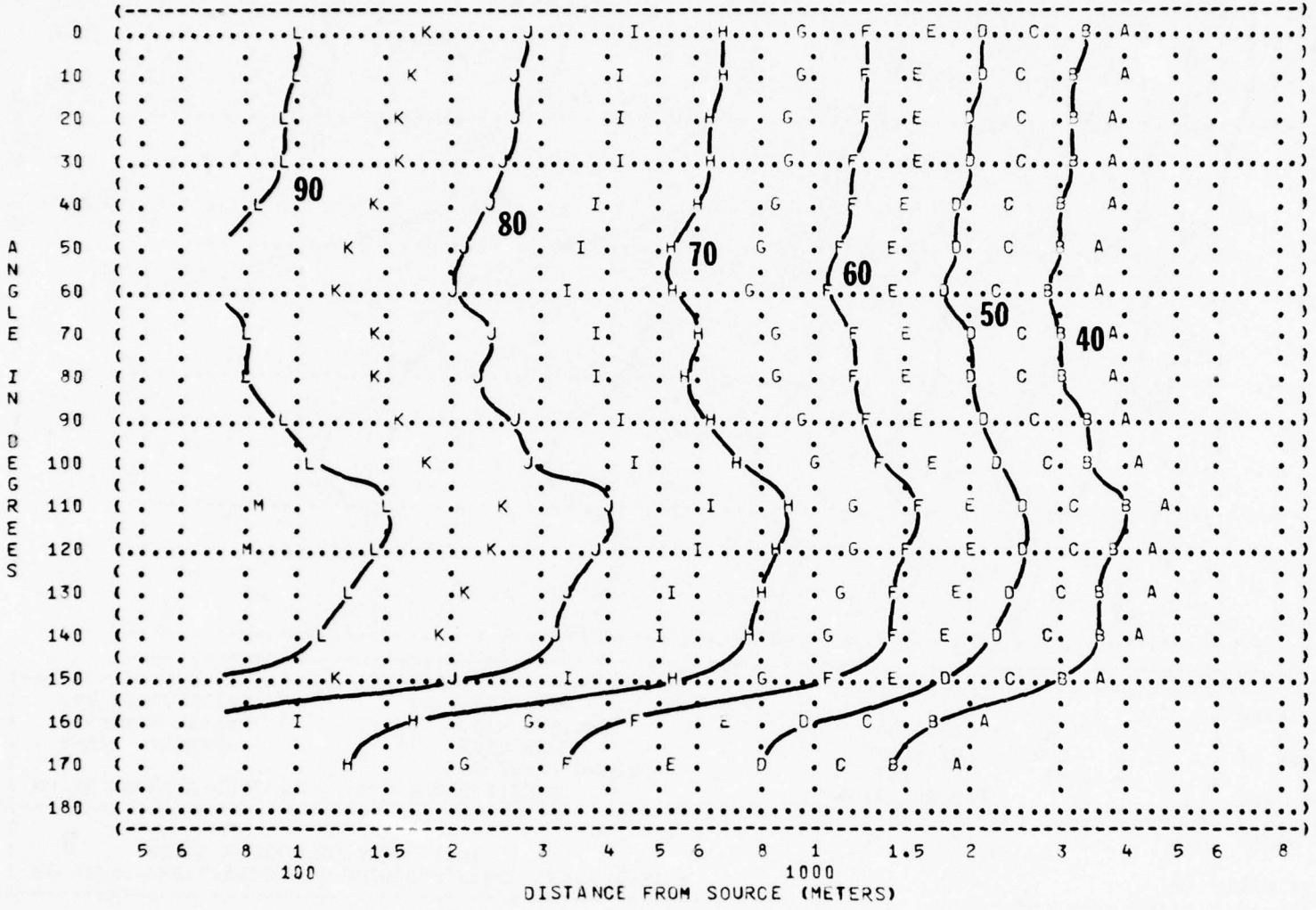


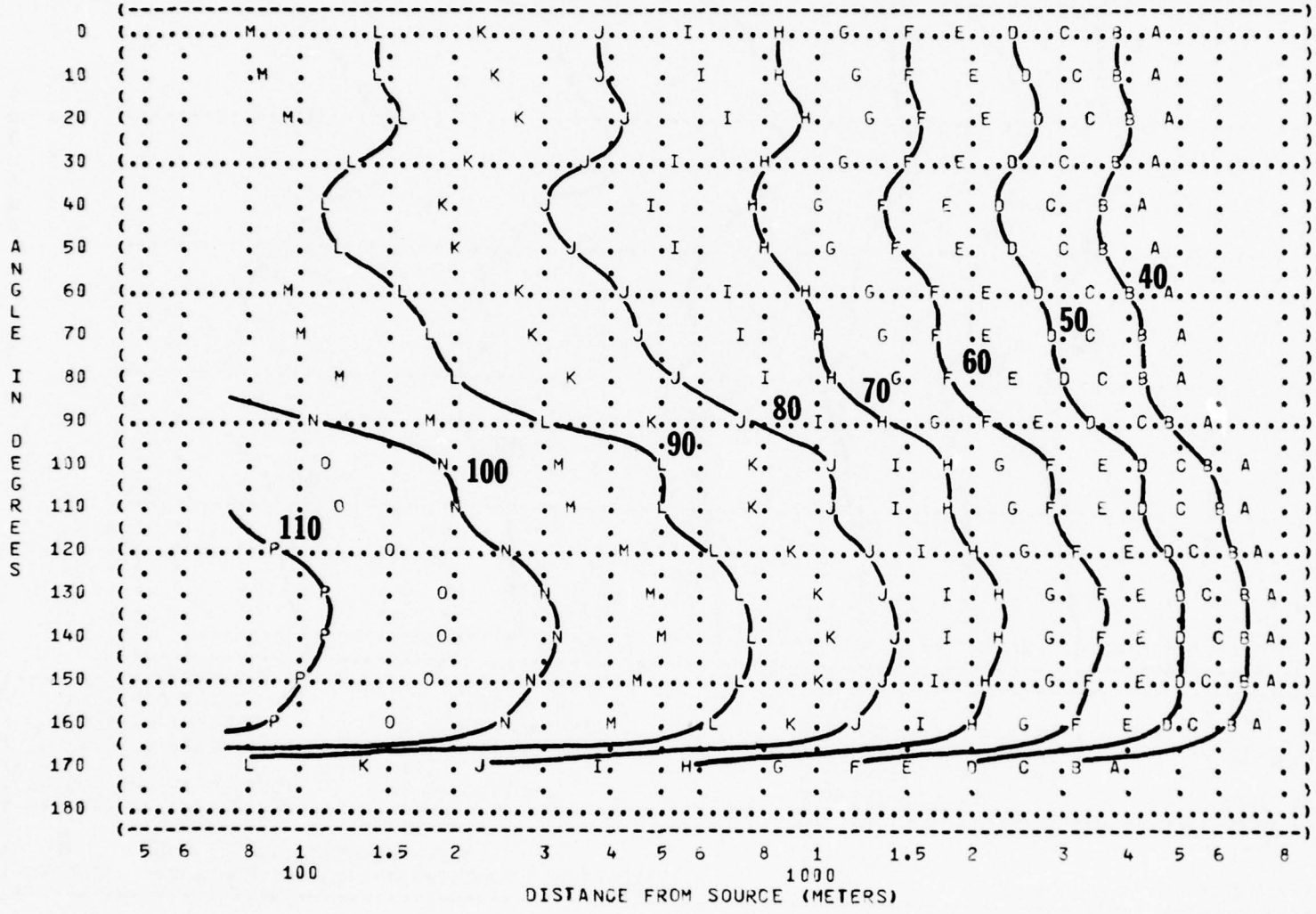
FIGURE: 9 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 17

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-58 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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



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

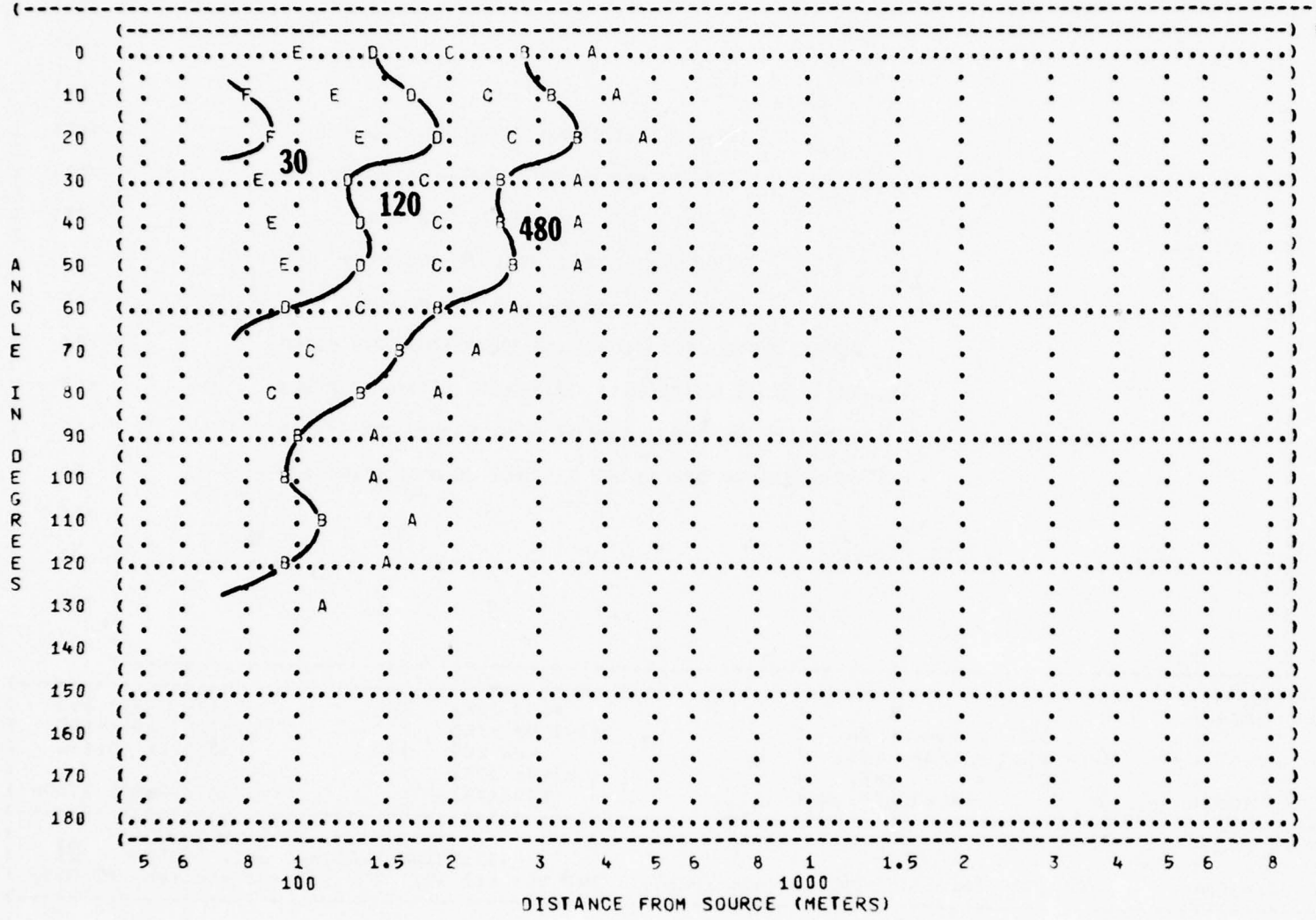
FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 7

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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



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

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 8

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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

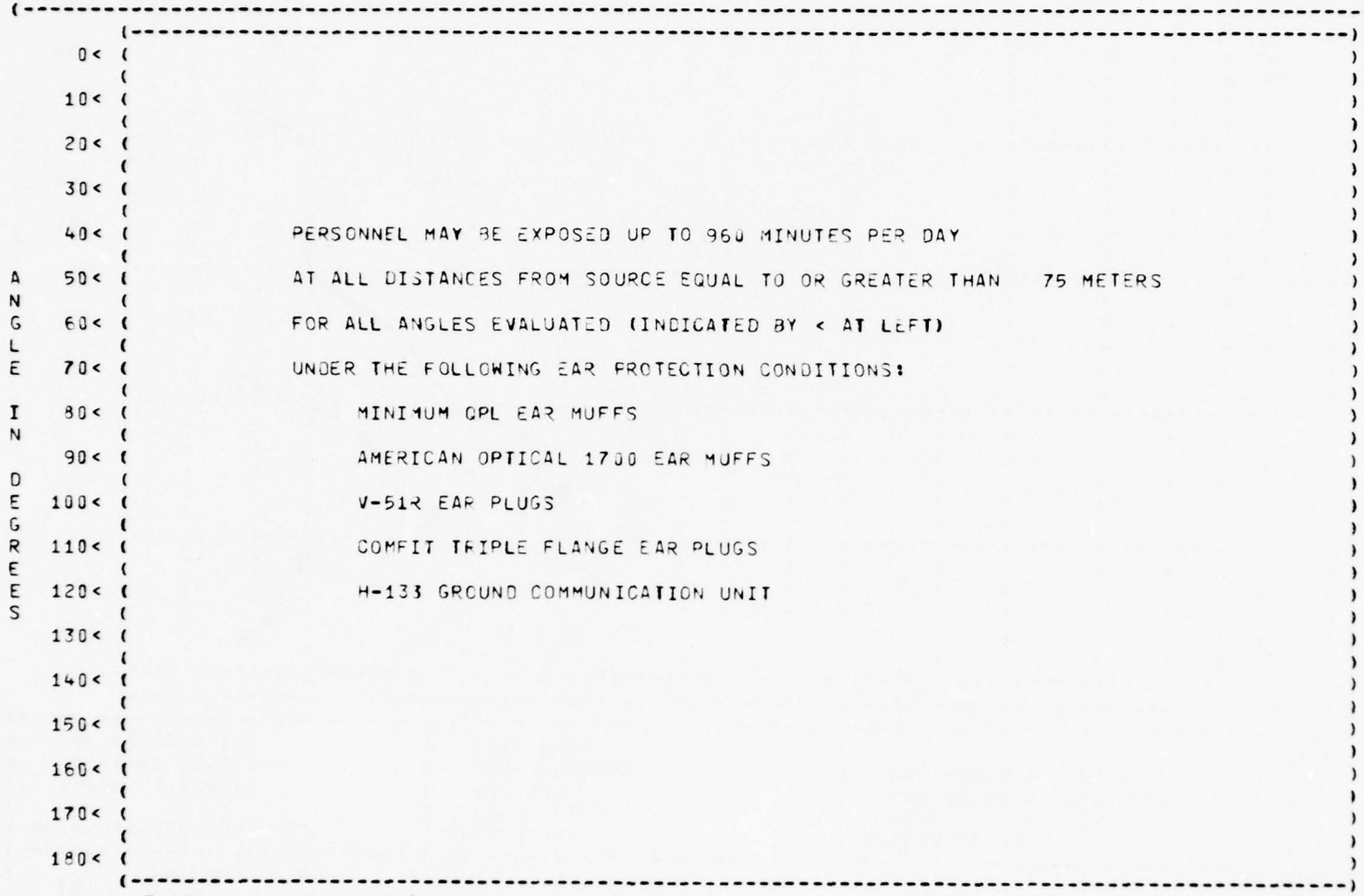


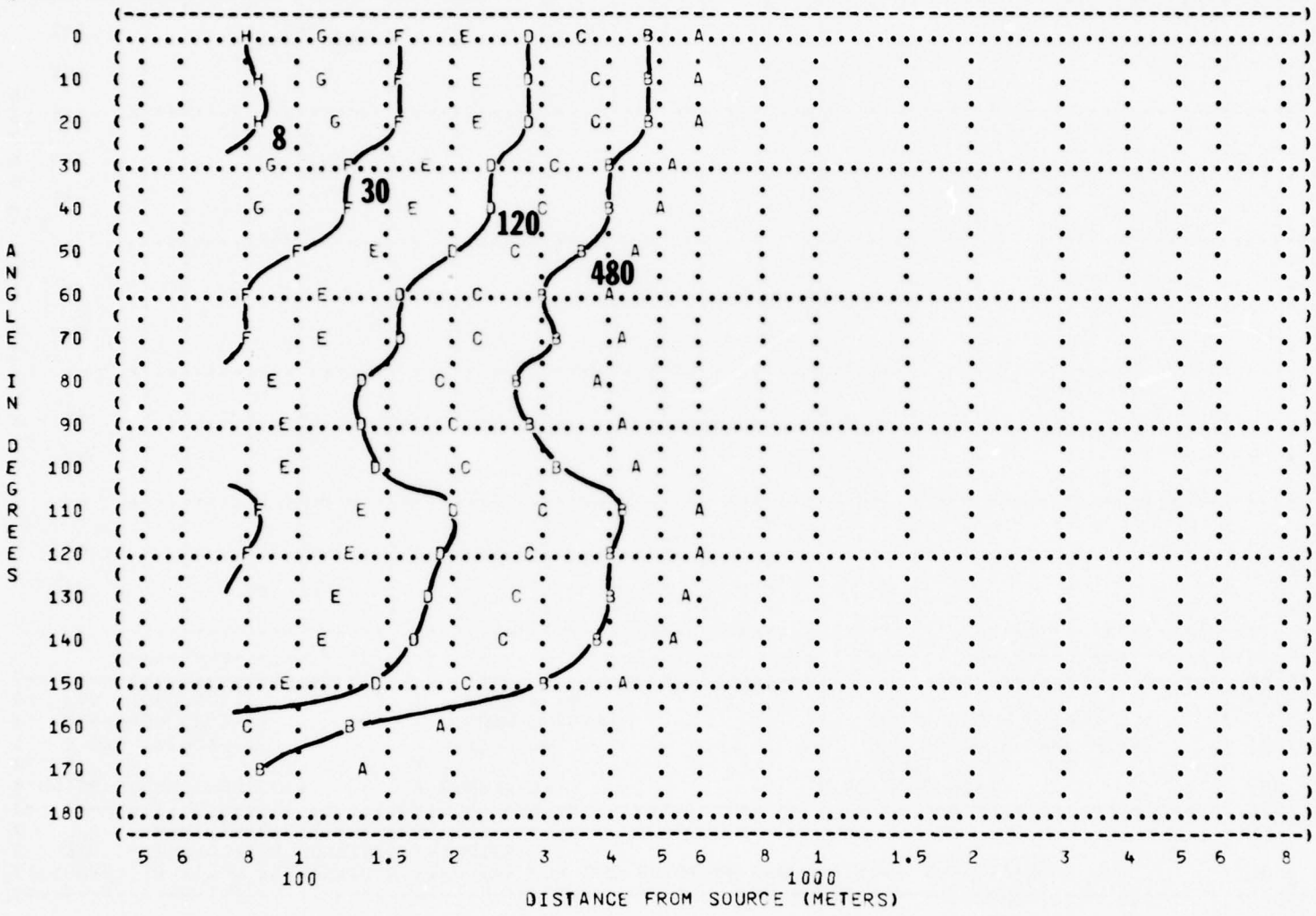
FIGURE: 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 7

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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



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

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 8

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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

POINT	MIN
A	960
B	480
C	240

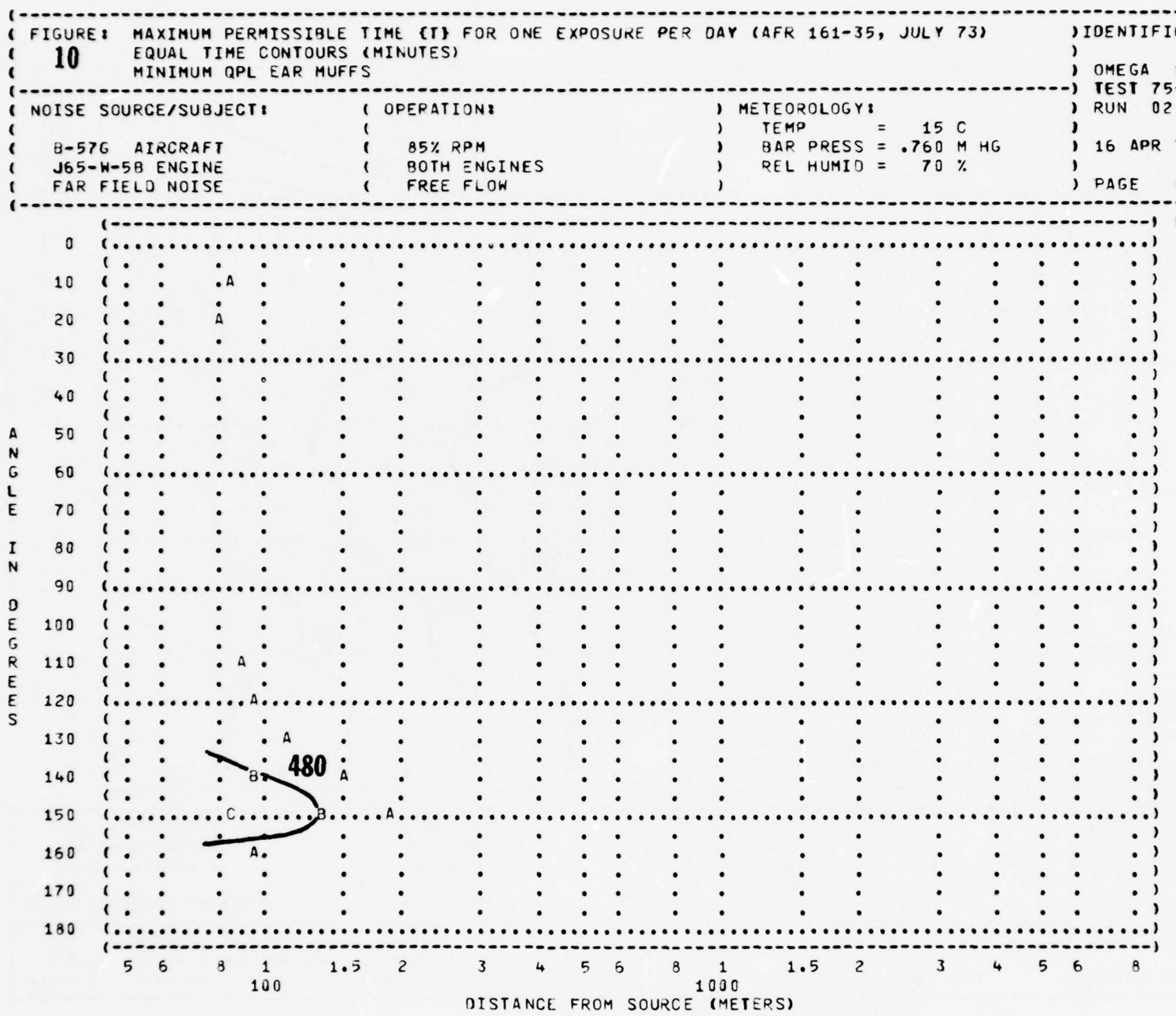


FIGURE: 10

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

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 9

POINT	MIN
A	960
B	480

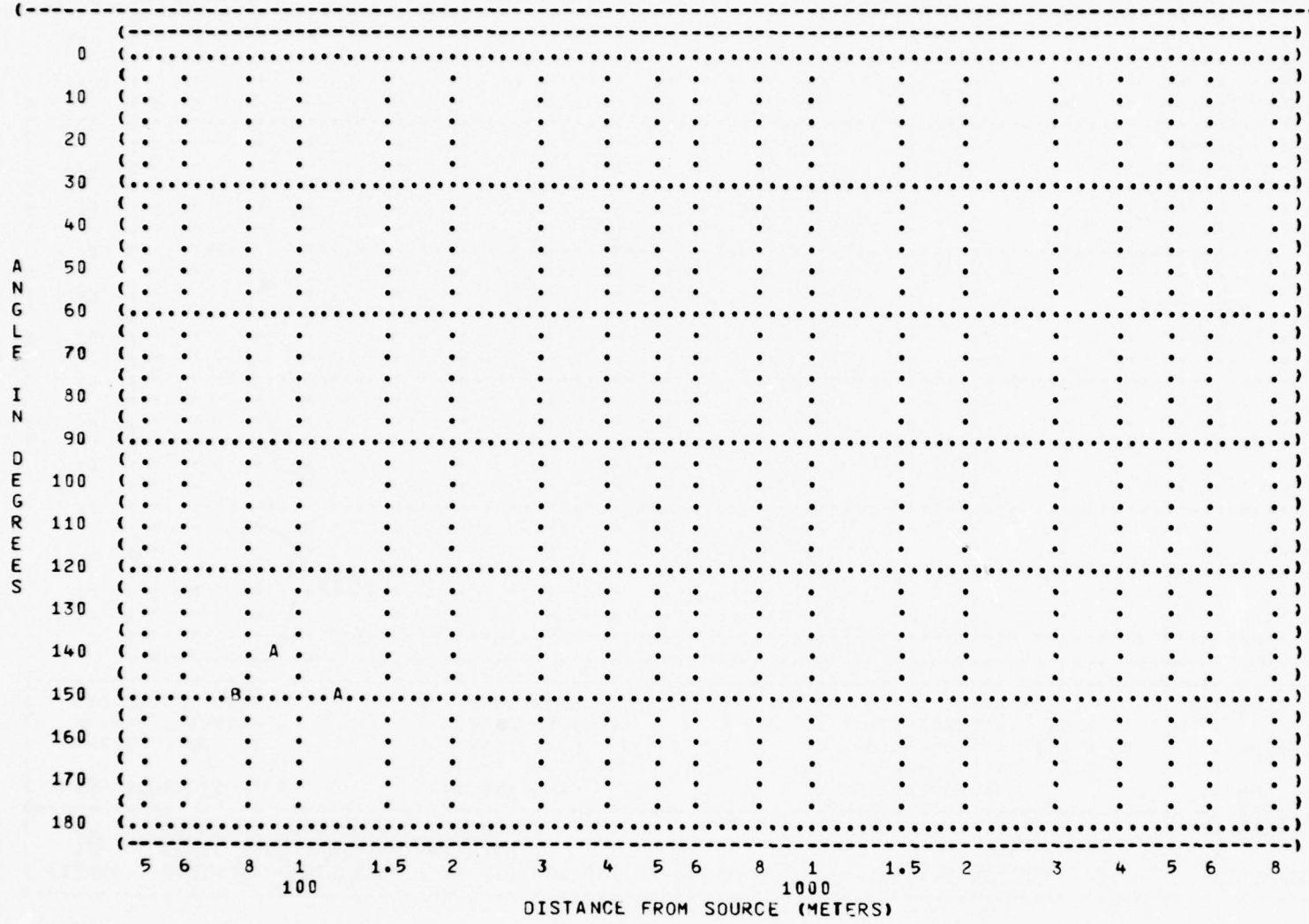


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
COMFIT TRIPLE FLANGE EAR PLUGS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 10

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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

POINT	MIN
A	960
B	480

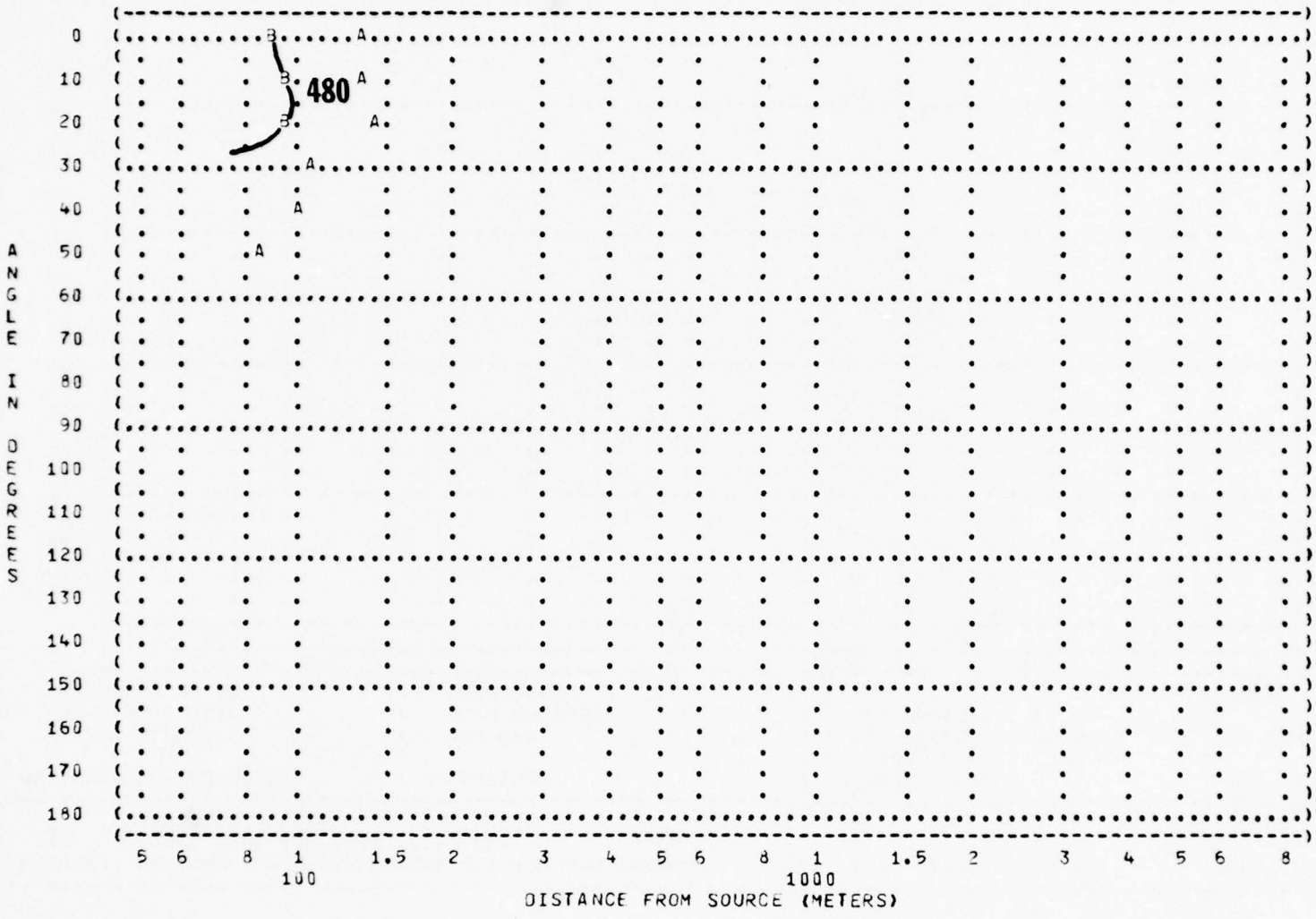


FIGURE: 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 11

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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

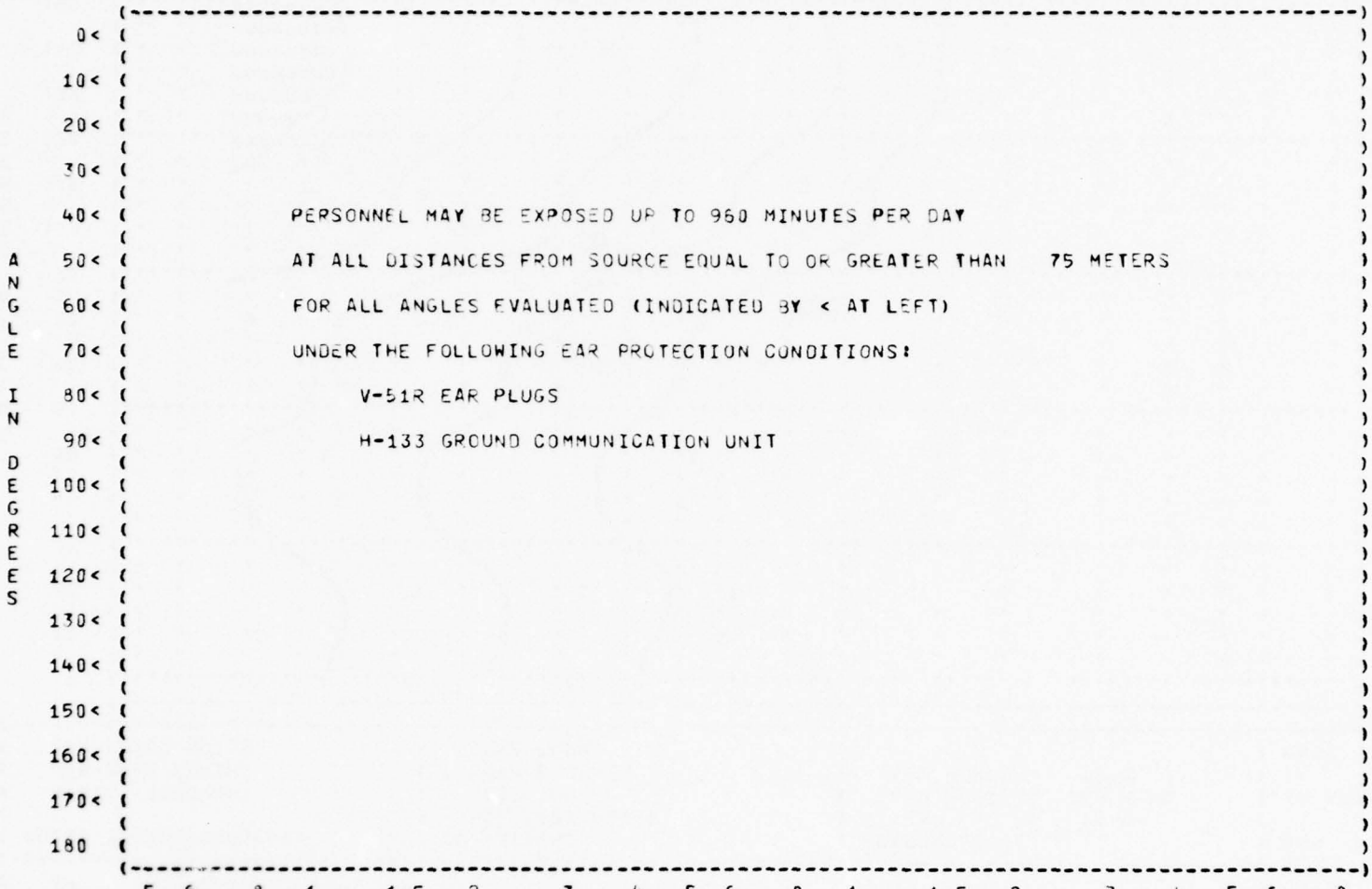


FIGURE: 10

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

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
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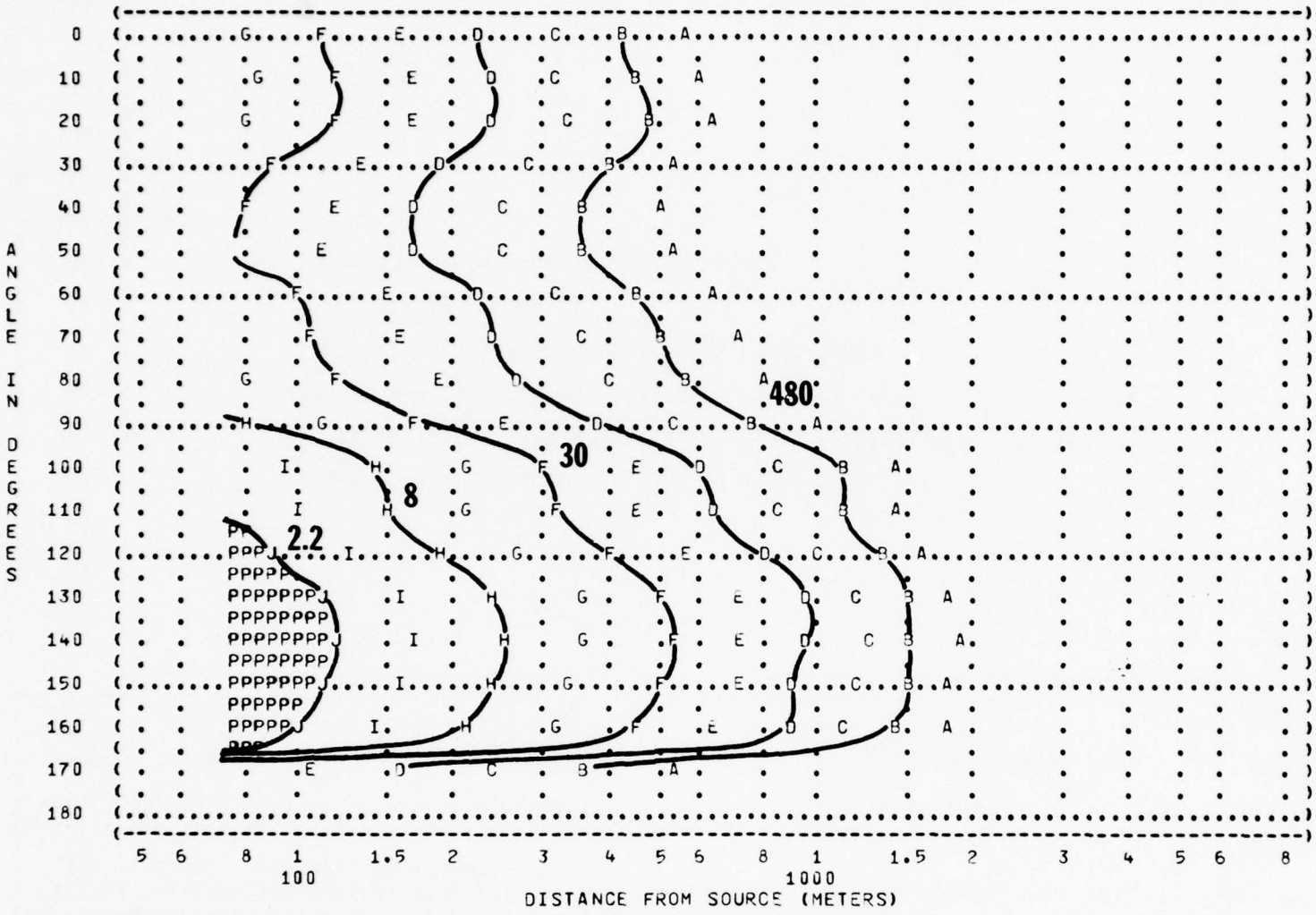
PAGE 7



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

P ADDITIONAL EAR PROTECTION REQUIRED.

FIGURE: 10

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

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 8

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

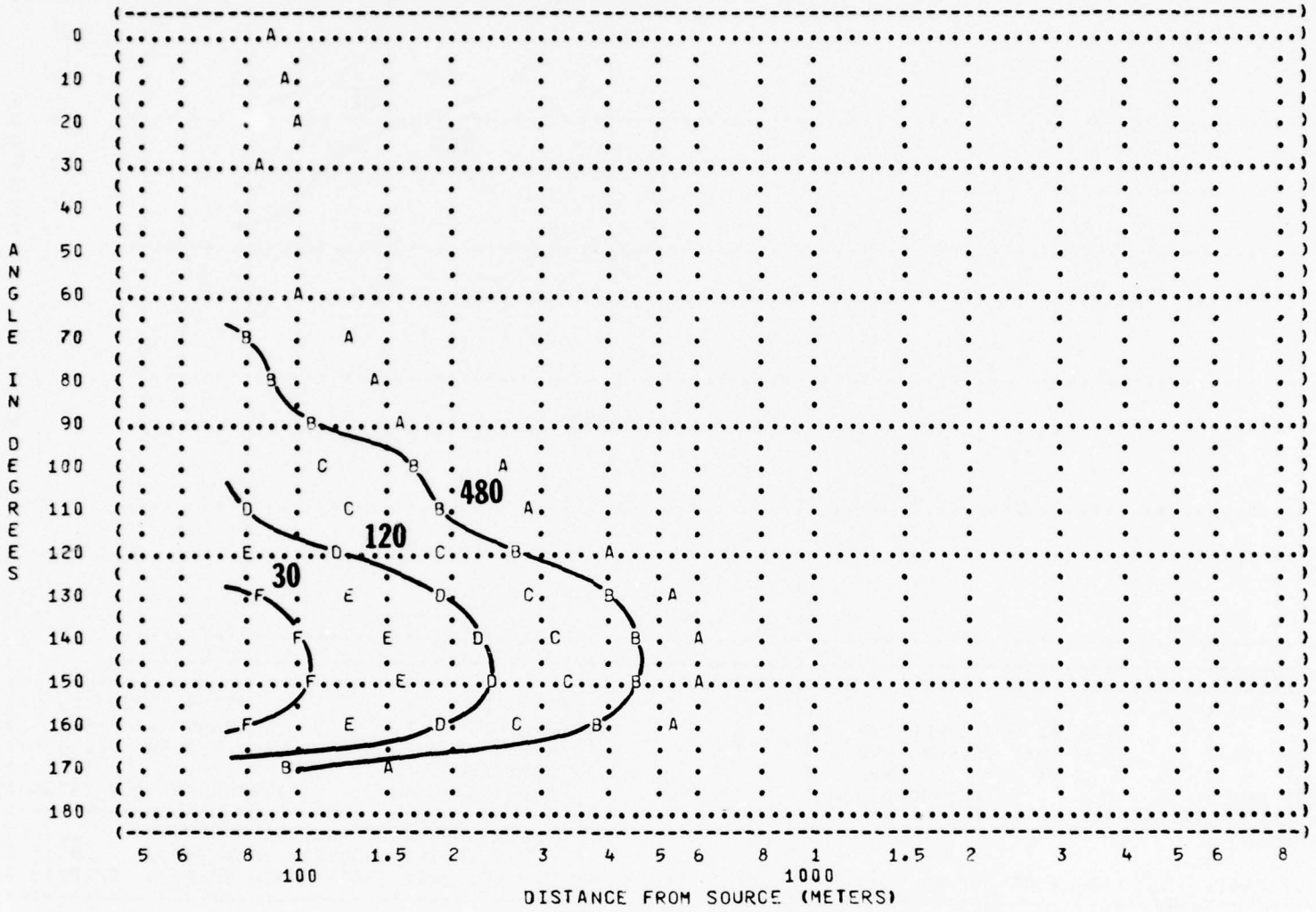


FIGURE: 10

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
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NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

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

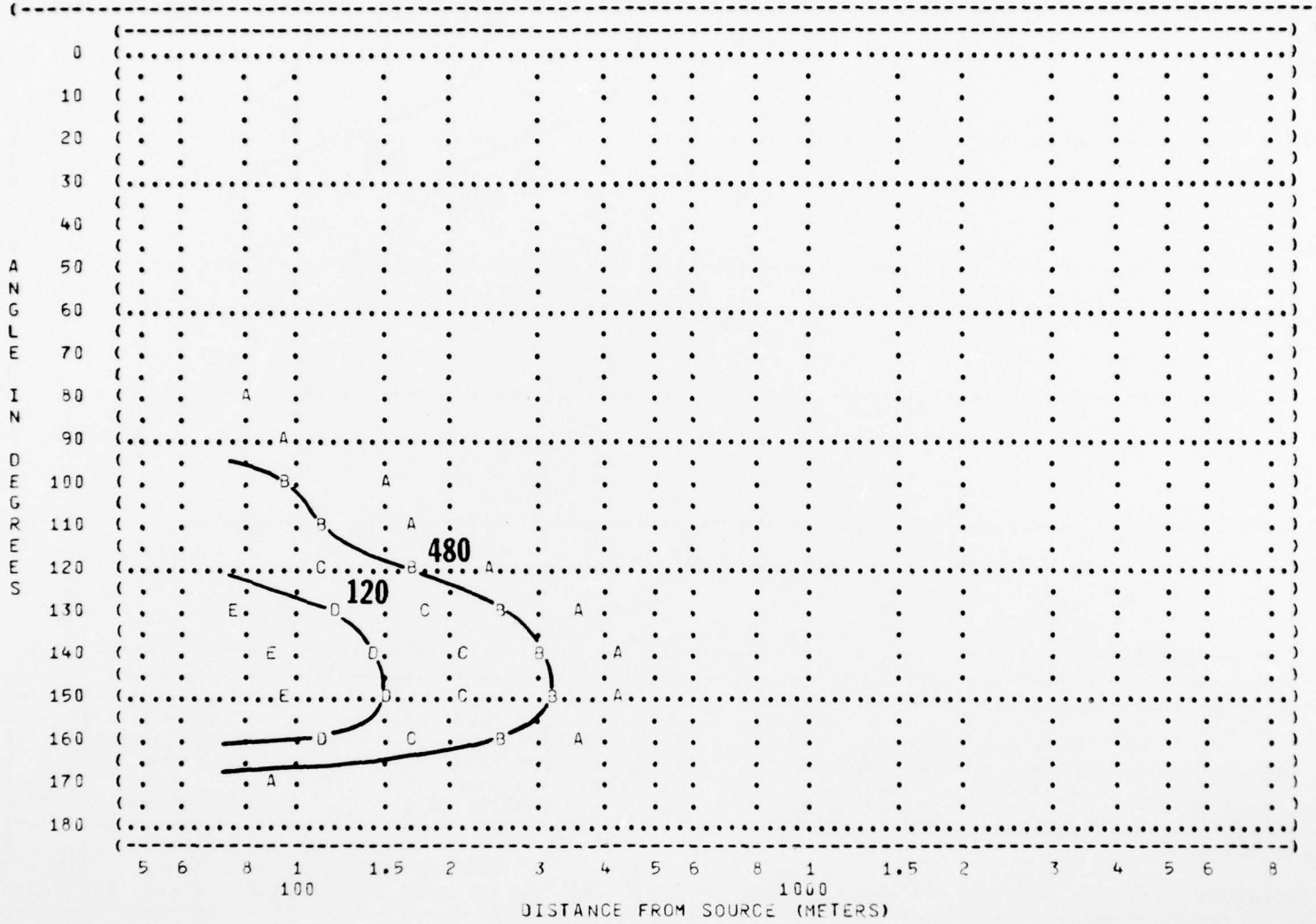

FIGURE: 10

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 10

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-58 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

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

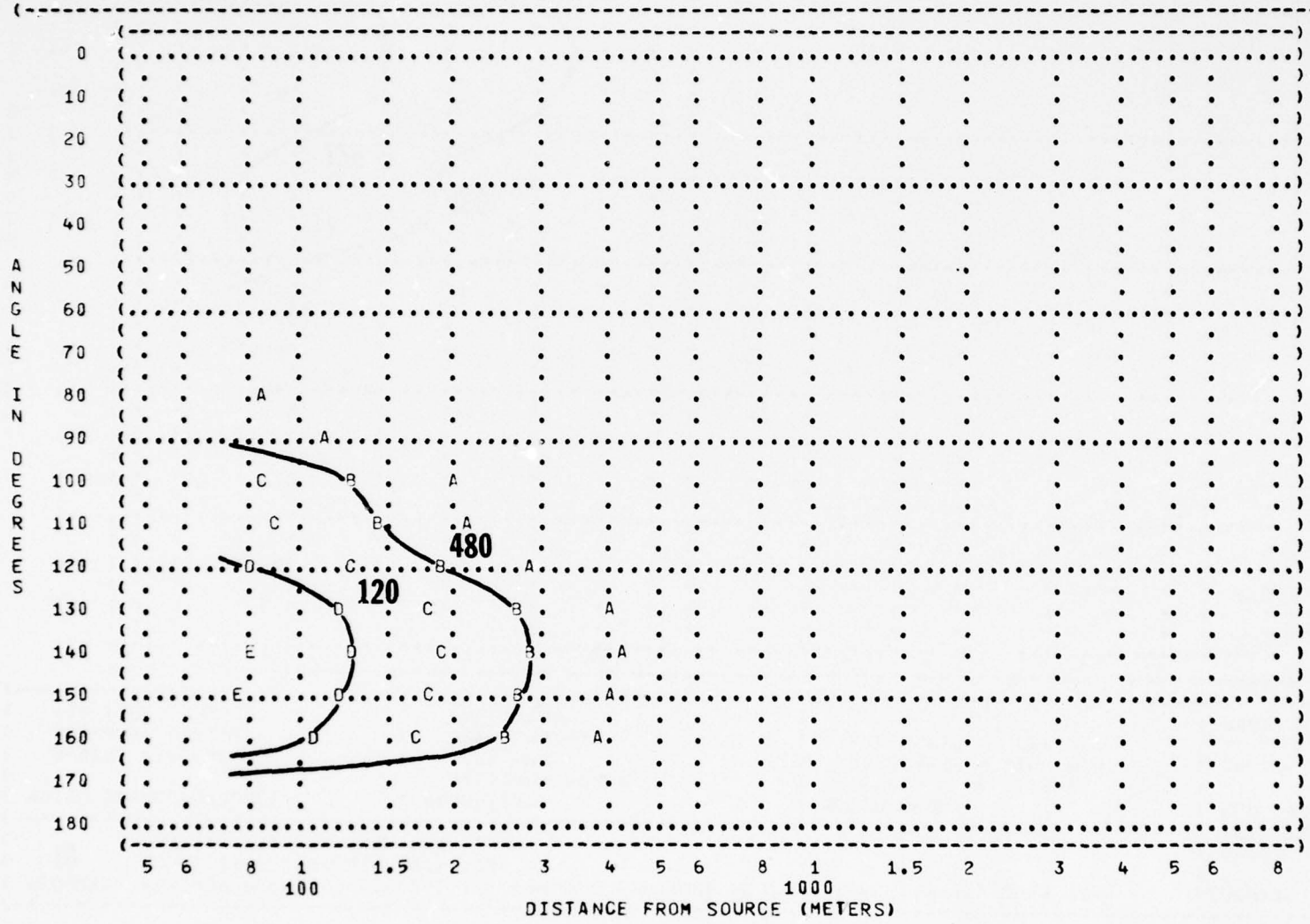

FIGURE: 10

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

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 11

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

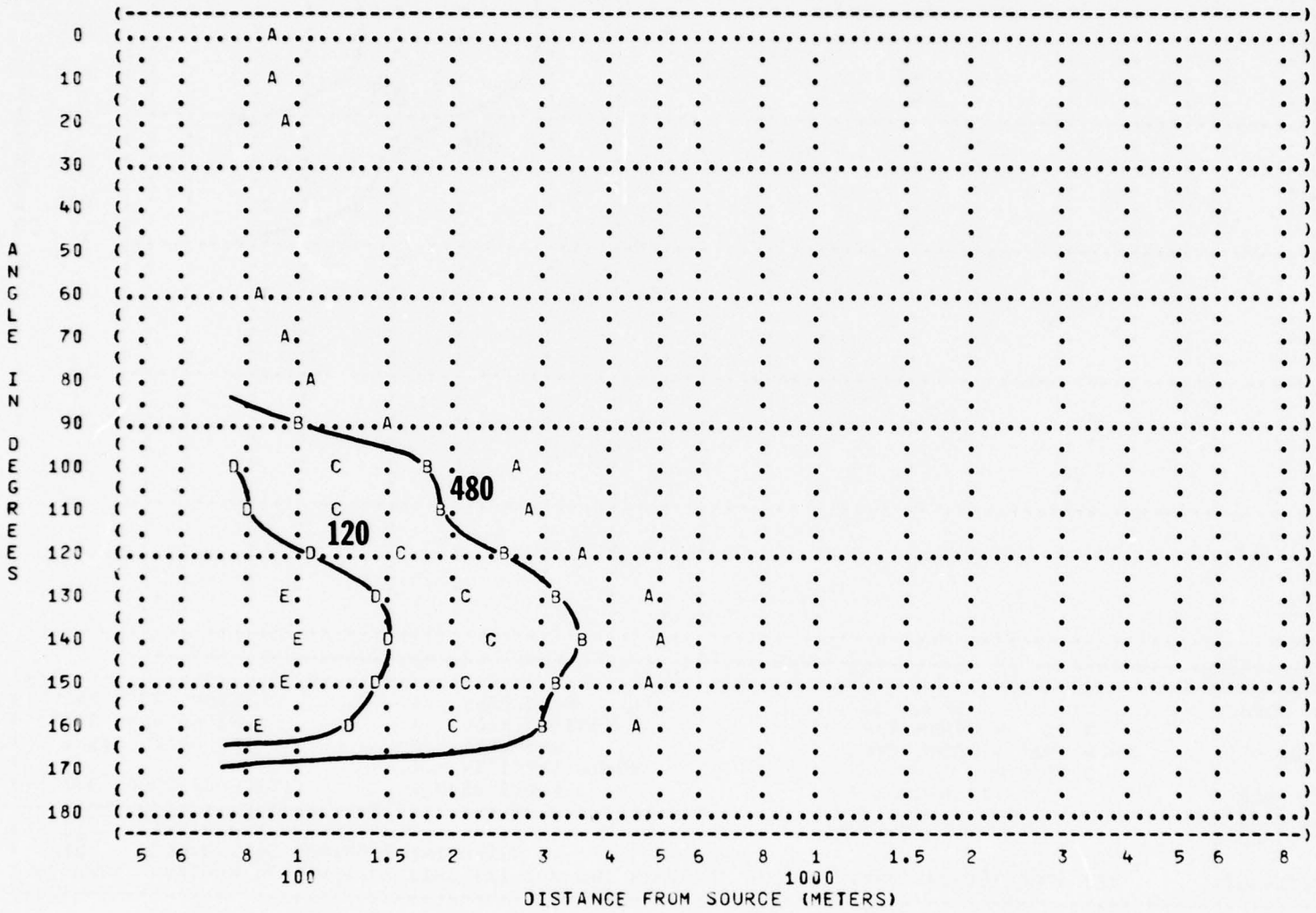

FIGURE: 10

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 12

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-58 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

POINT	MIN
A	960
B	480
C	240
D	120

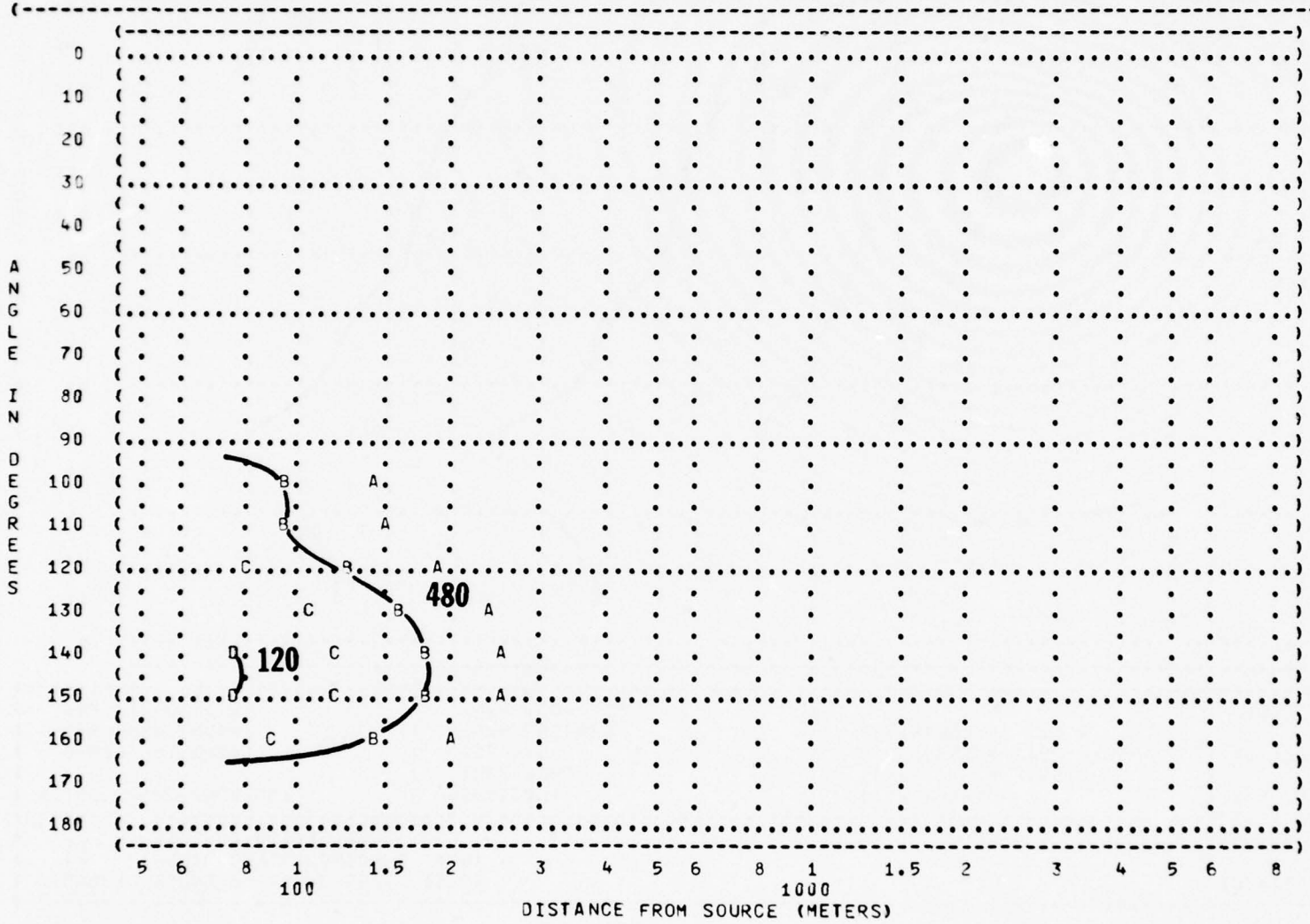

FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
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POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80

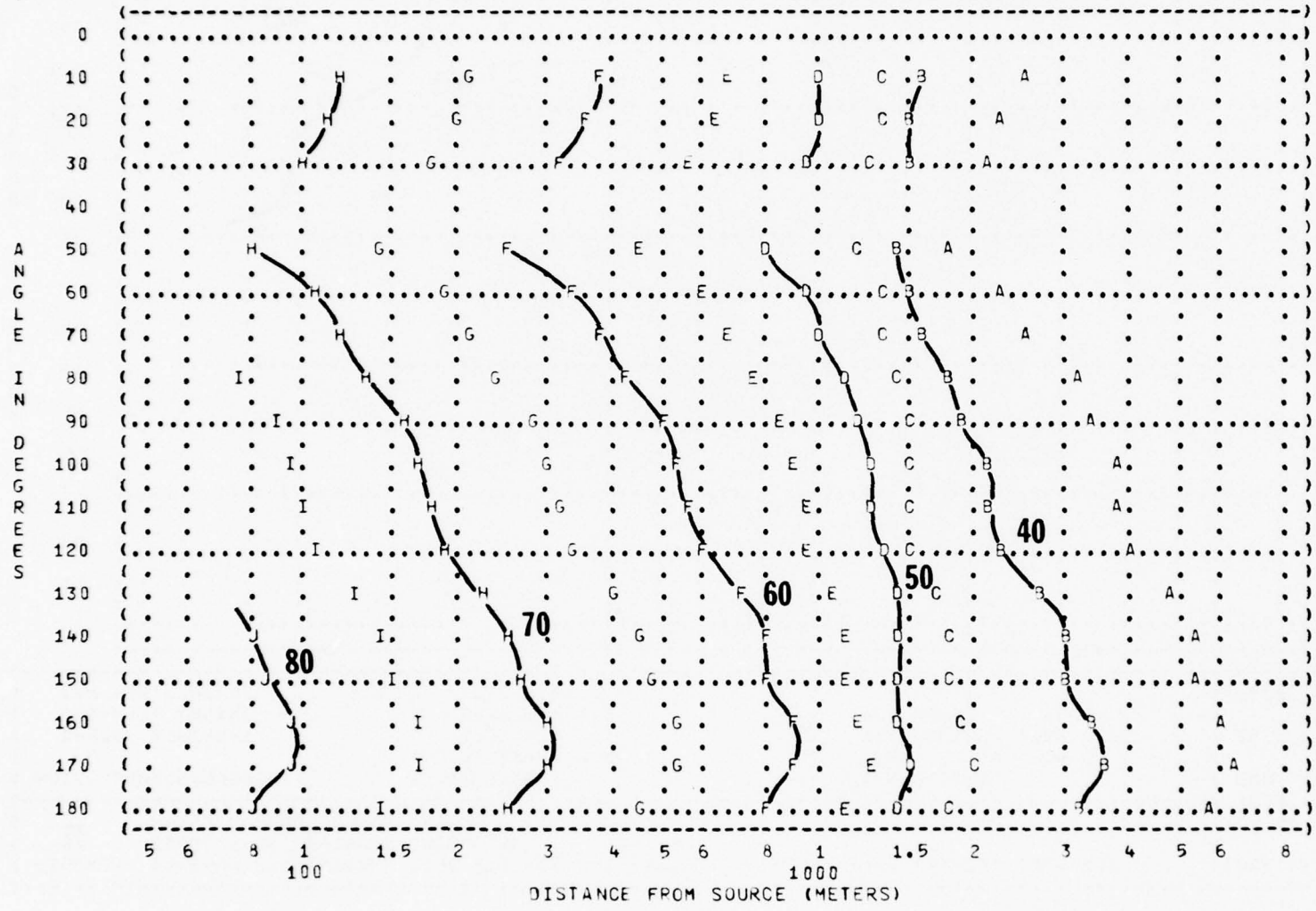


FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 19

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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

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

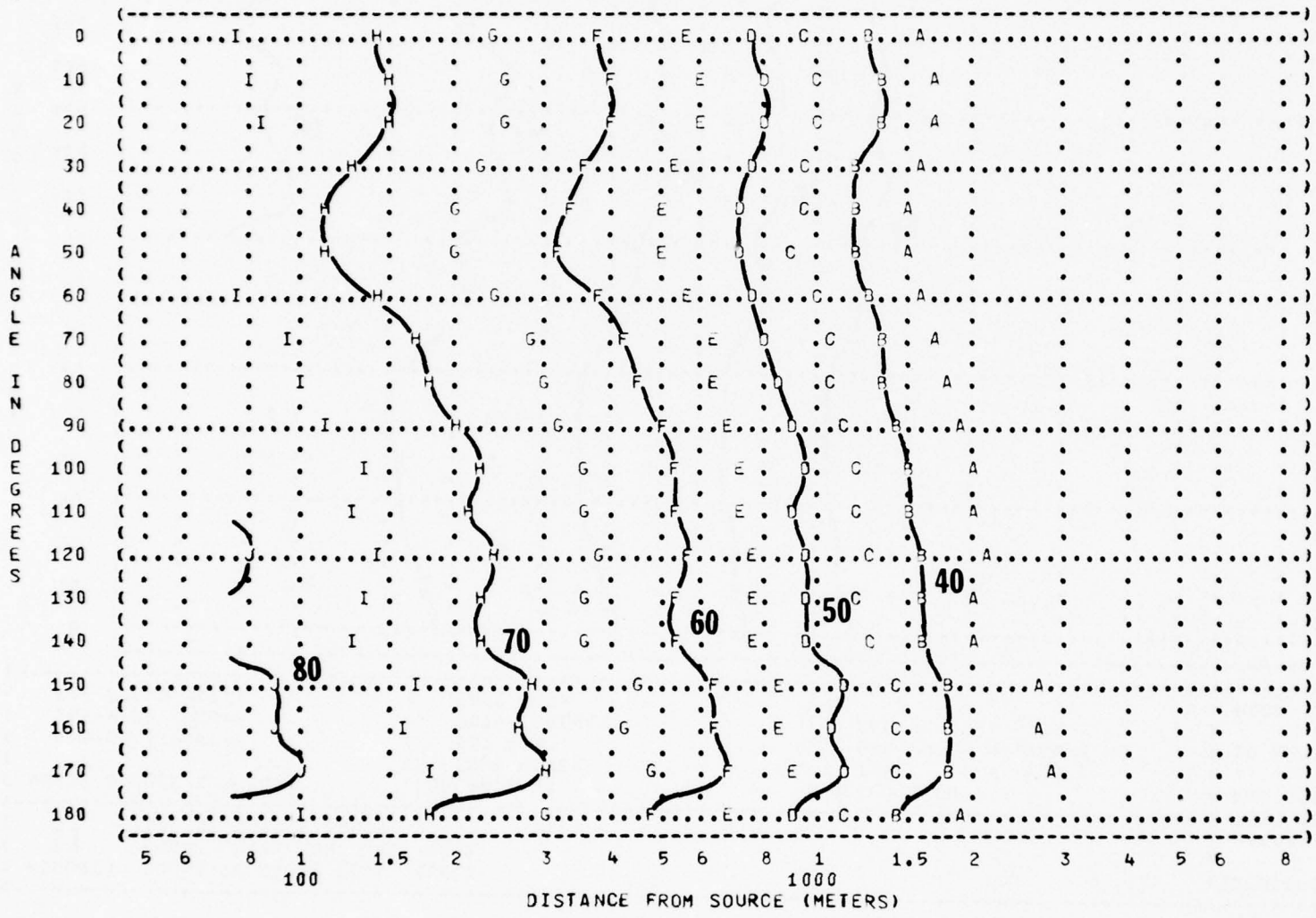


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 125 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 20

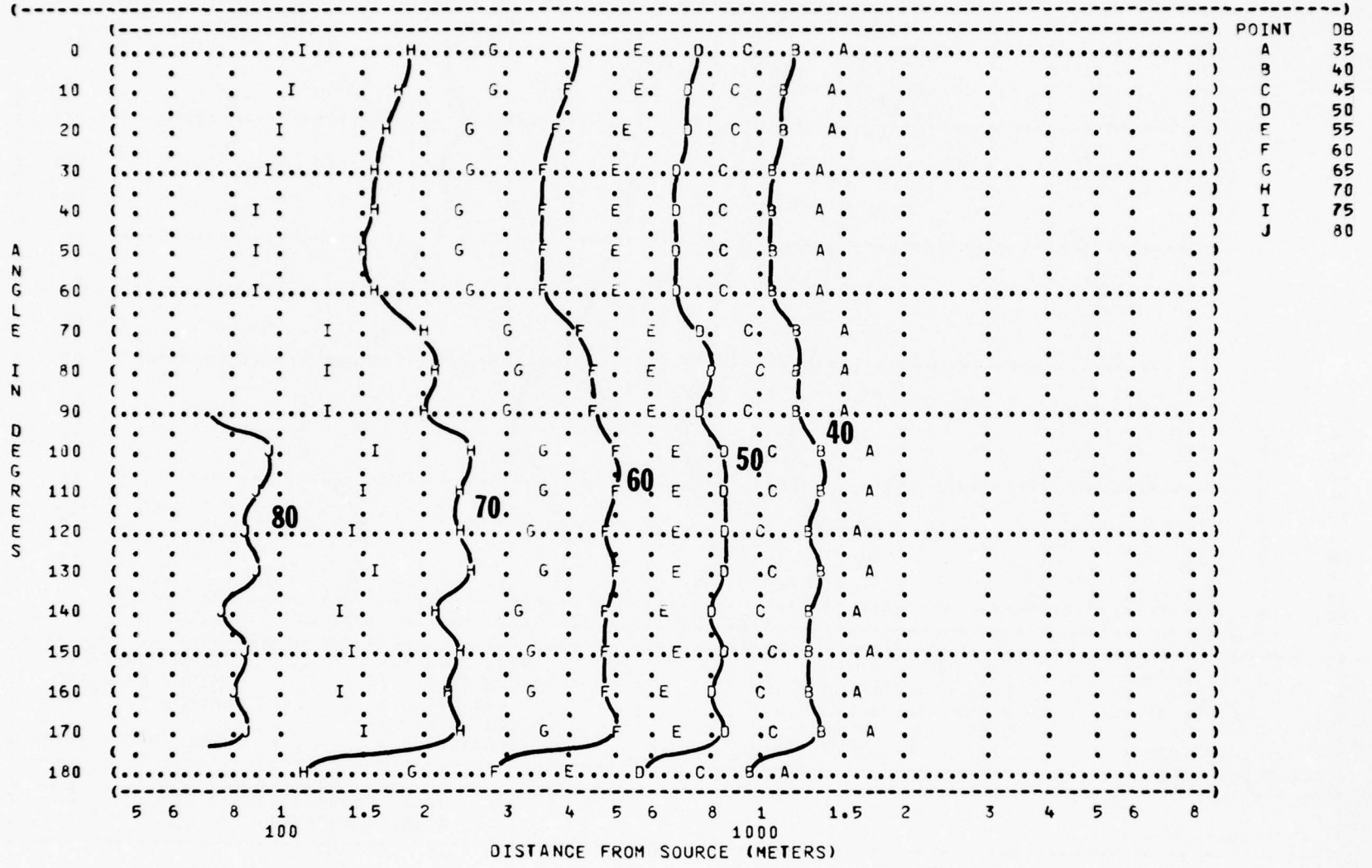


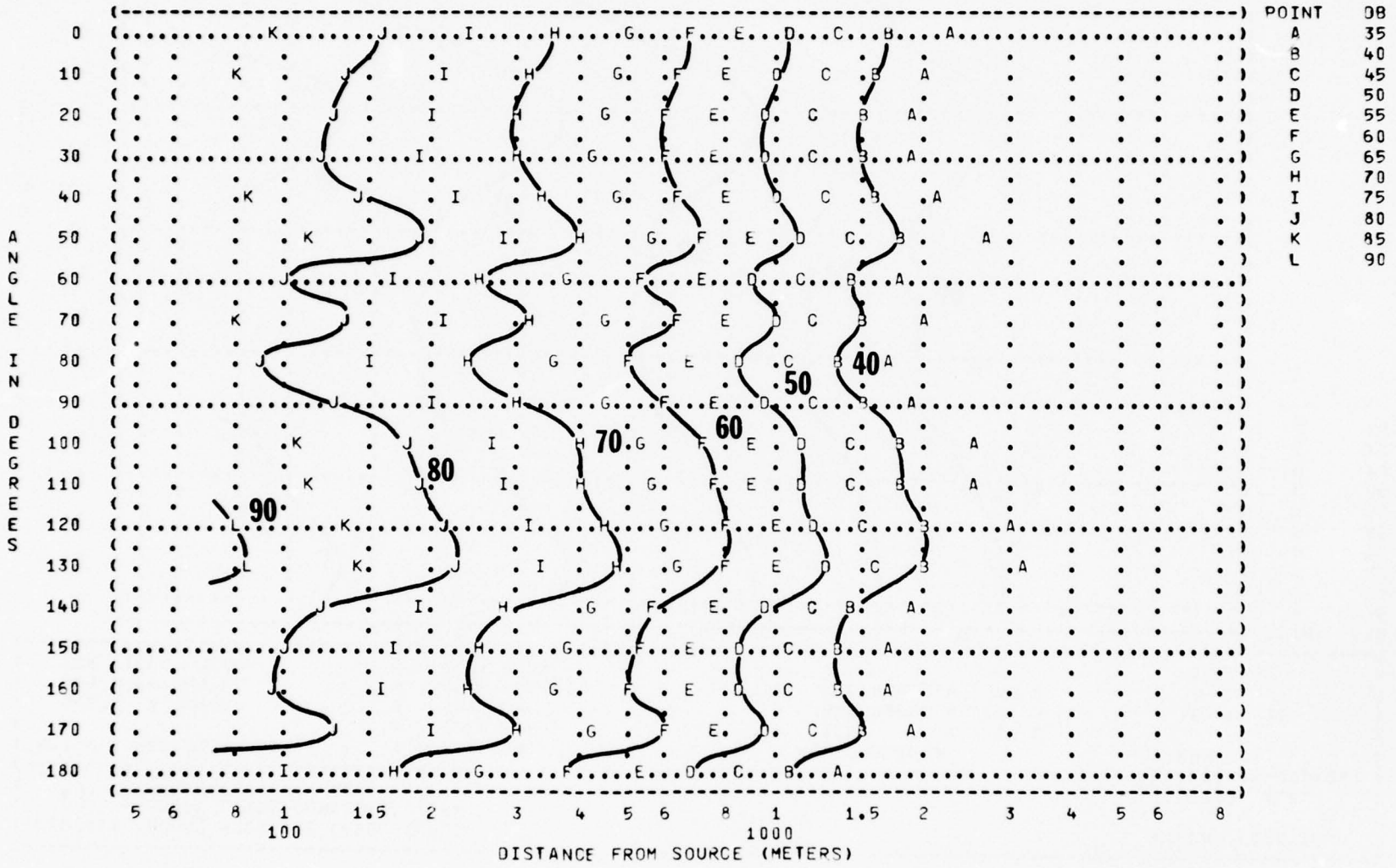
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 21

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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



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

FIGURE: 11

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 22

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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

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

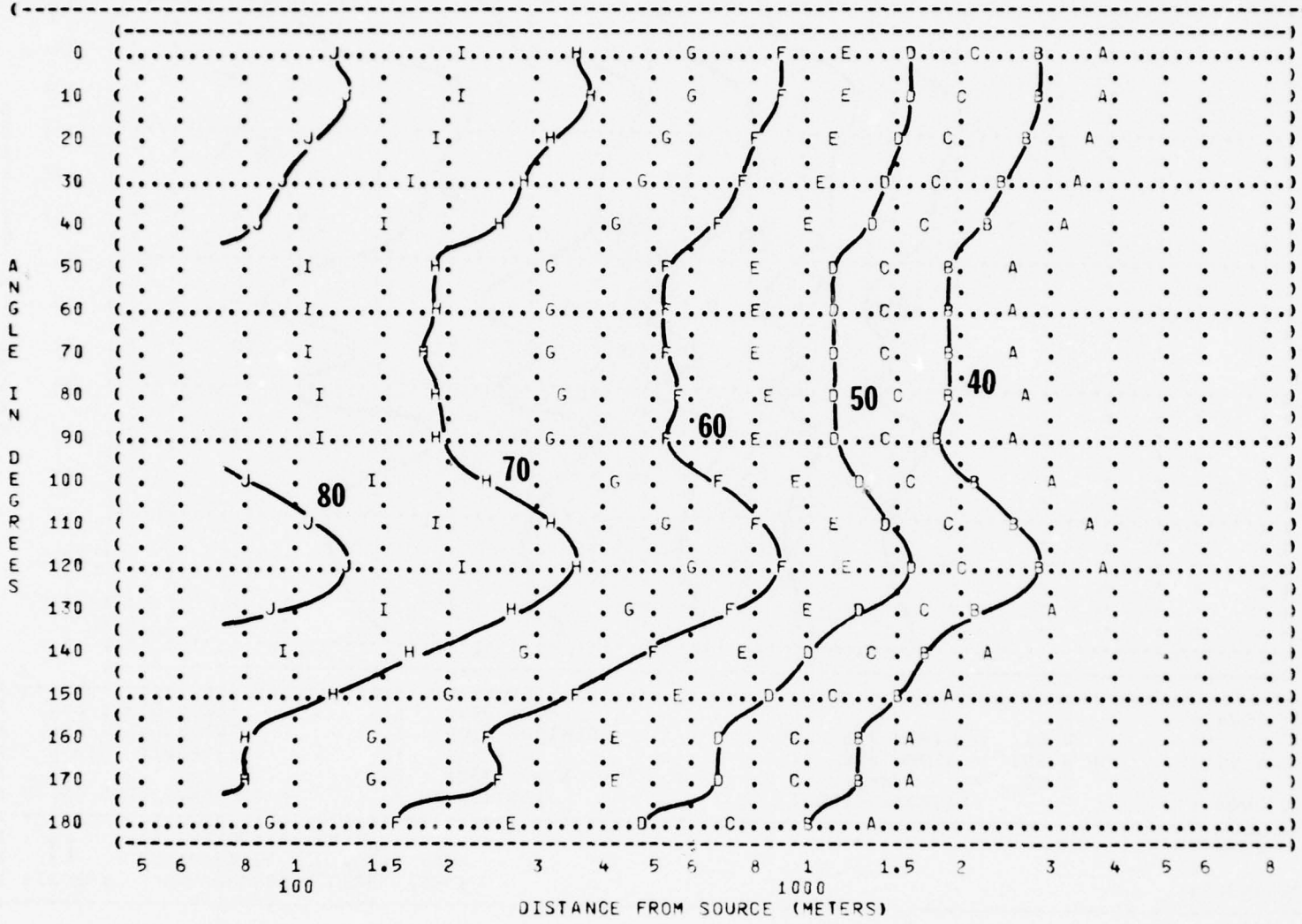


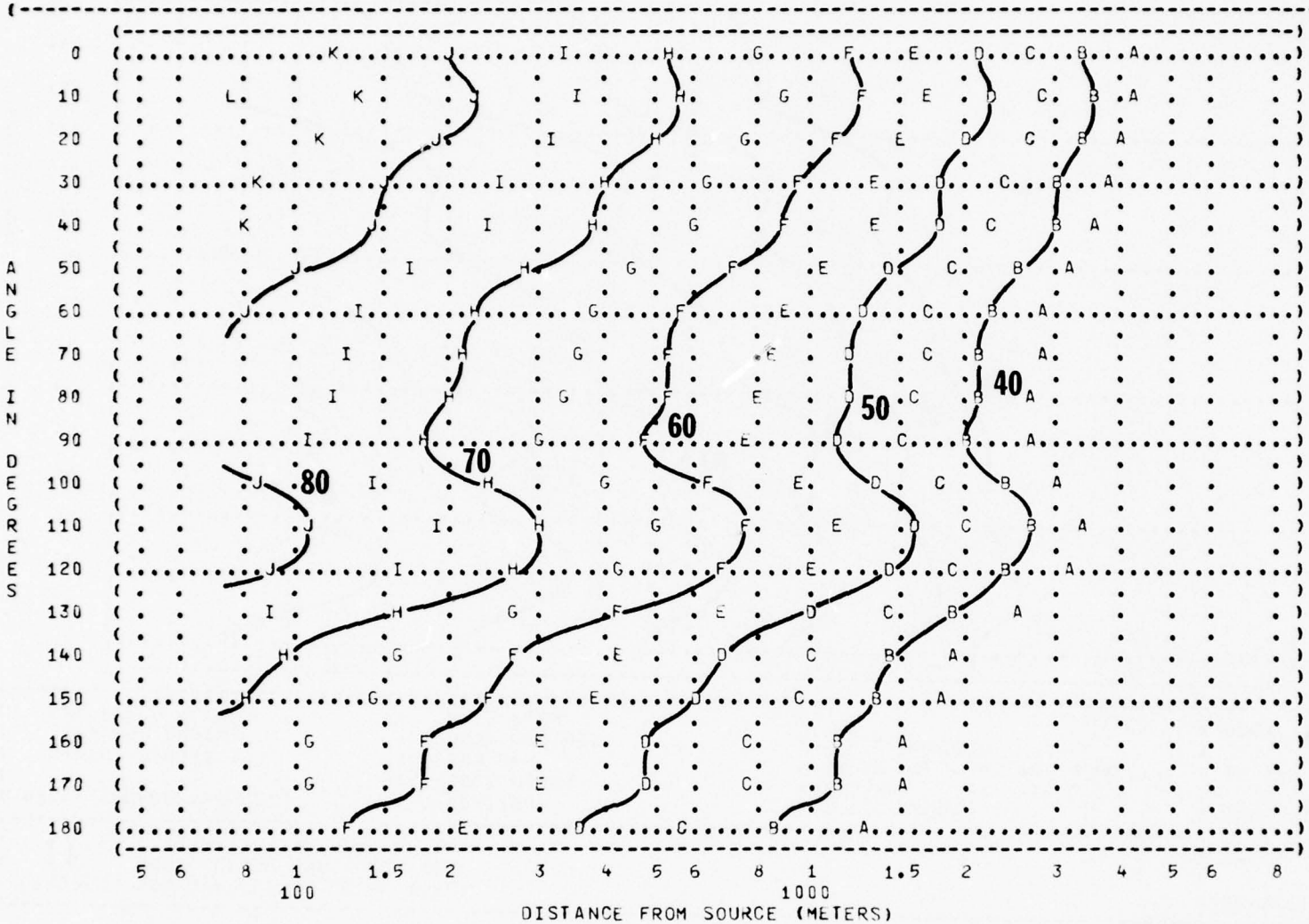
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 23



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

FIGURE: 11

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

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 24

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

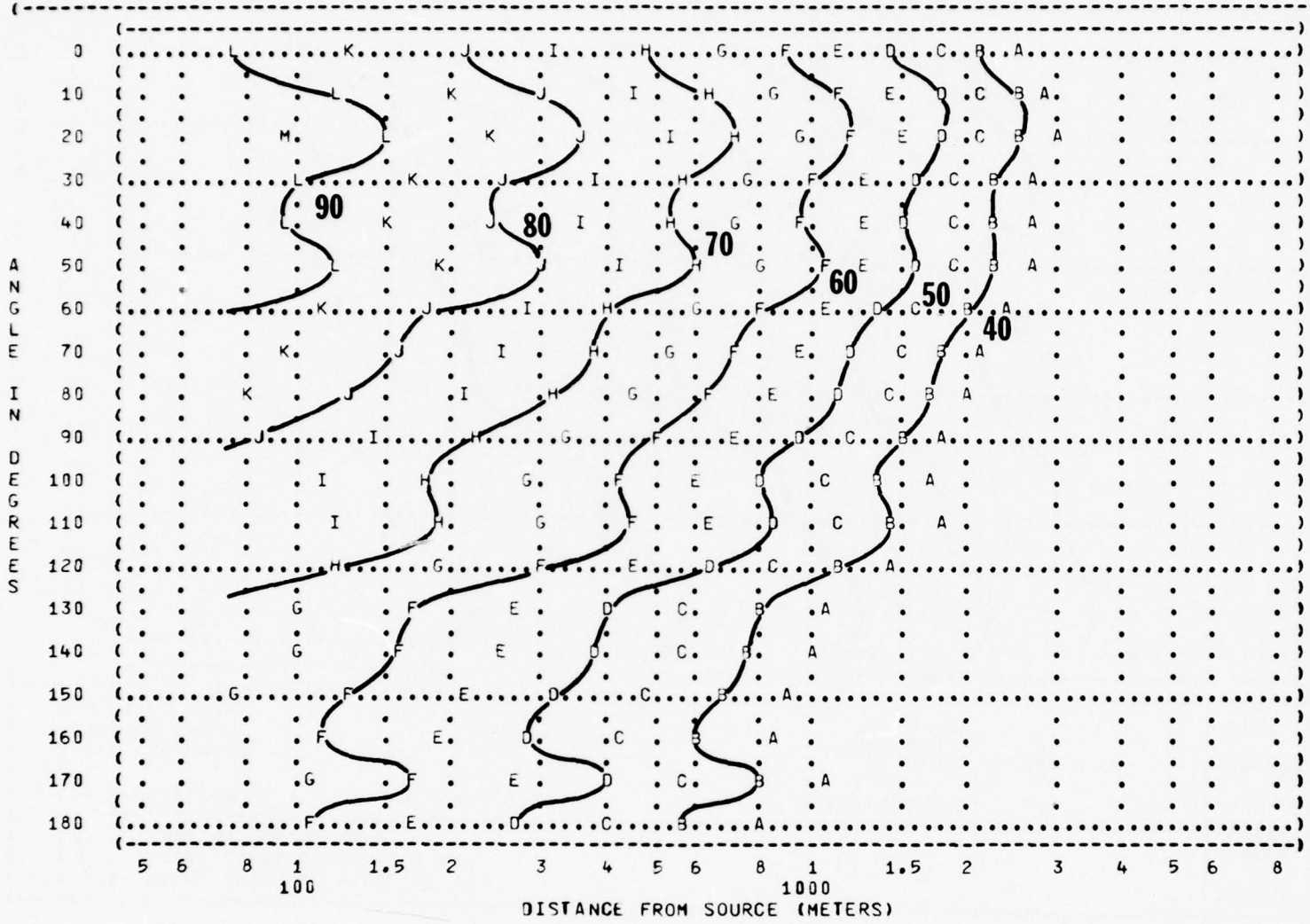


FIGURE: 11

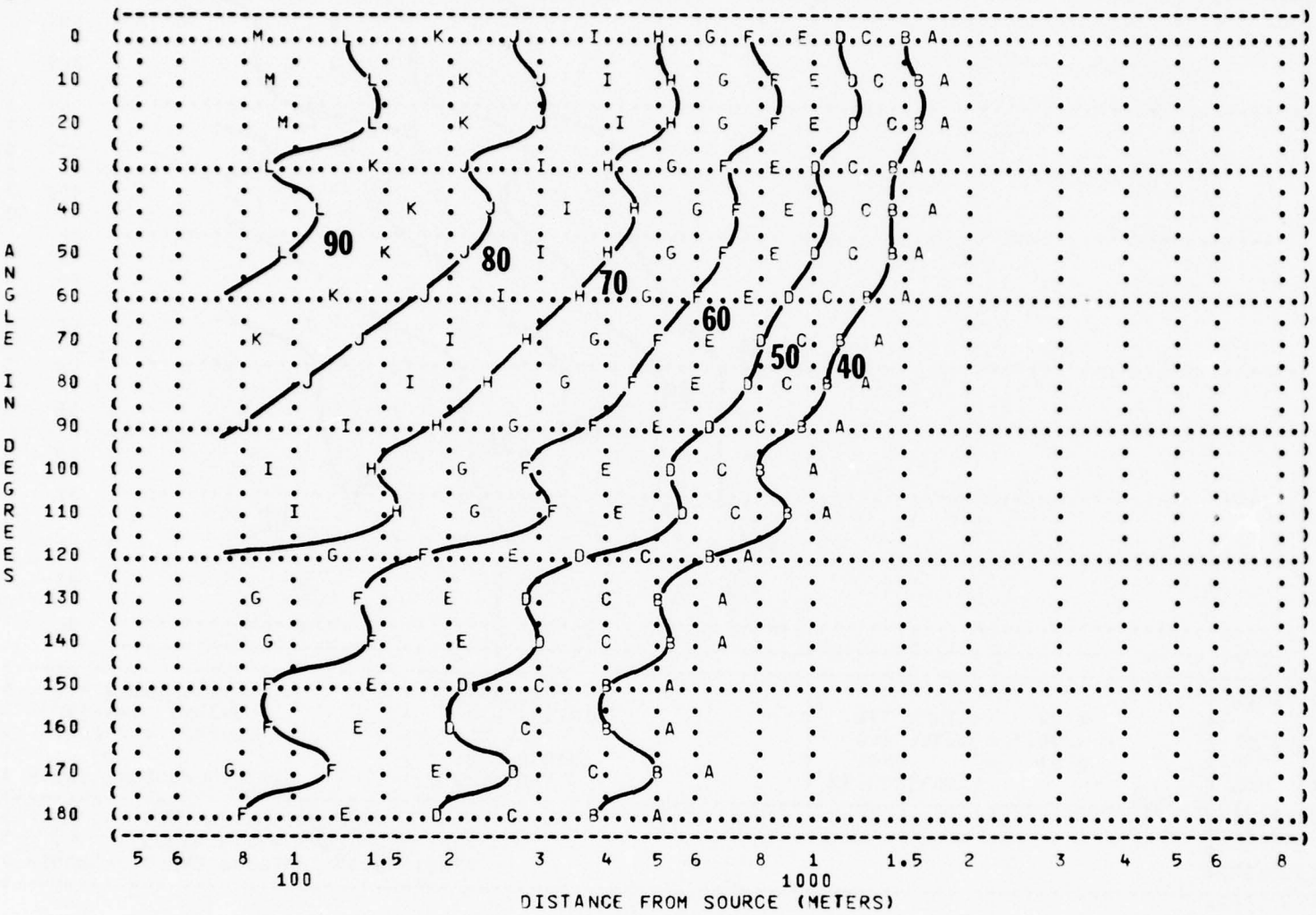
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
4000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-58 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 25



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

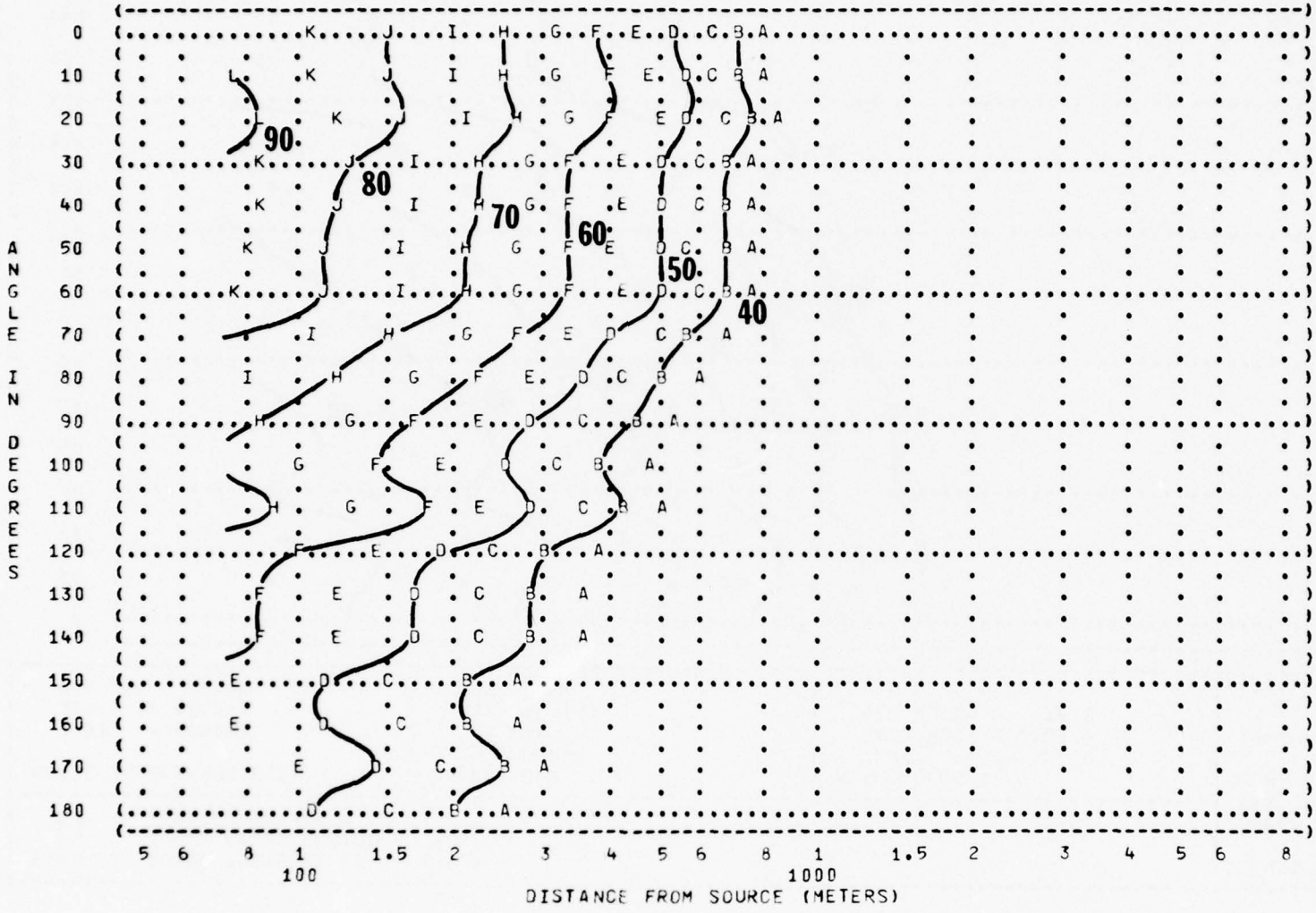
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
50% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 01
16 APR 75
PAGE 26



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

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

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 18

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

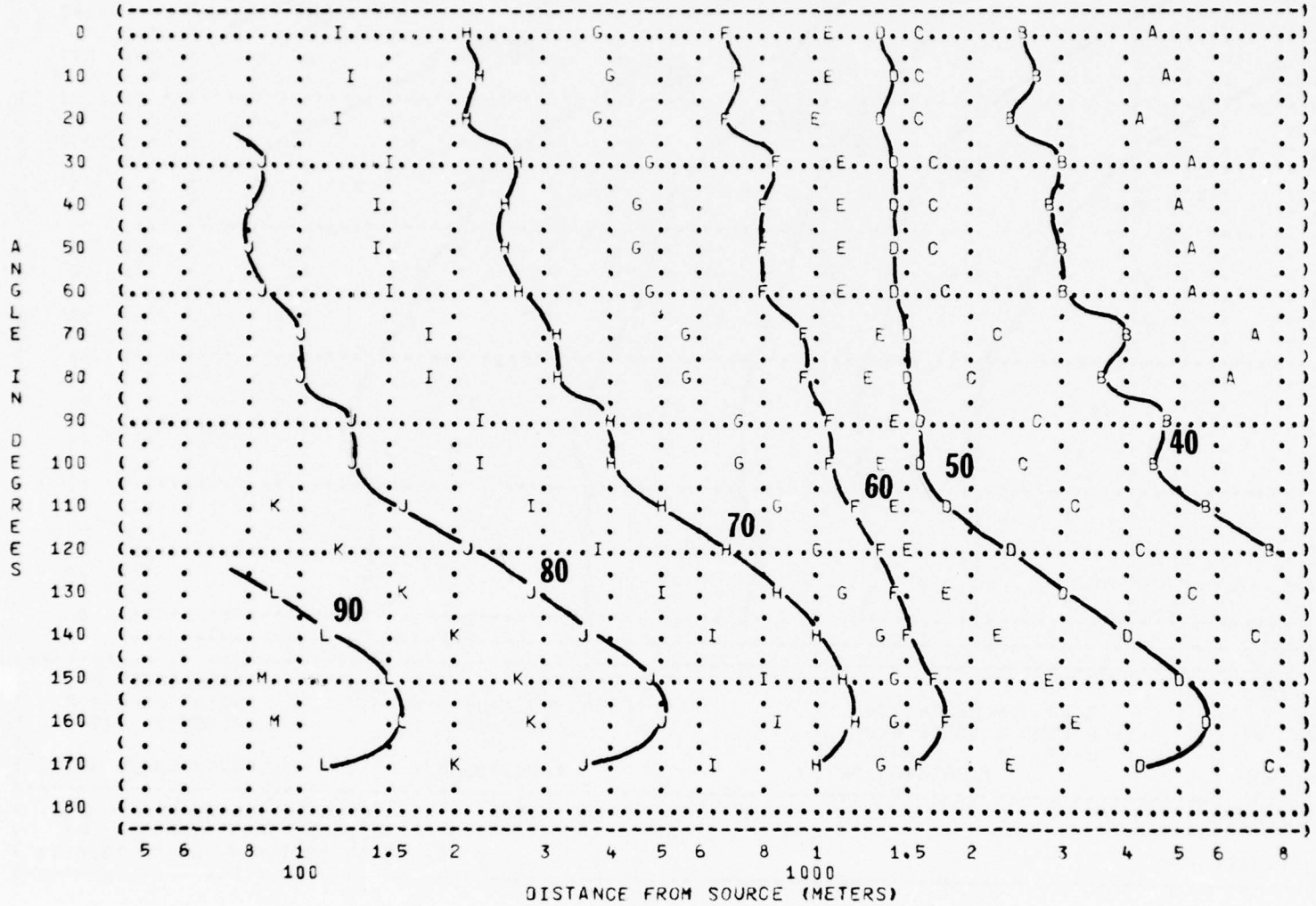


FIGURE: 11

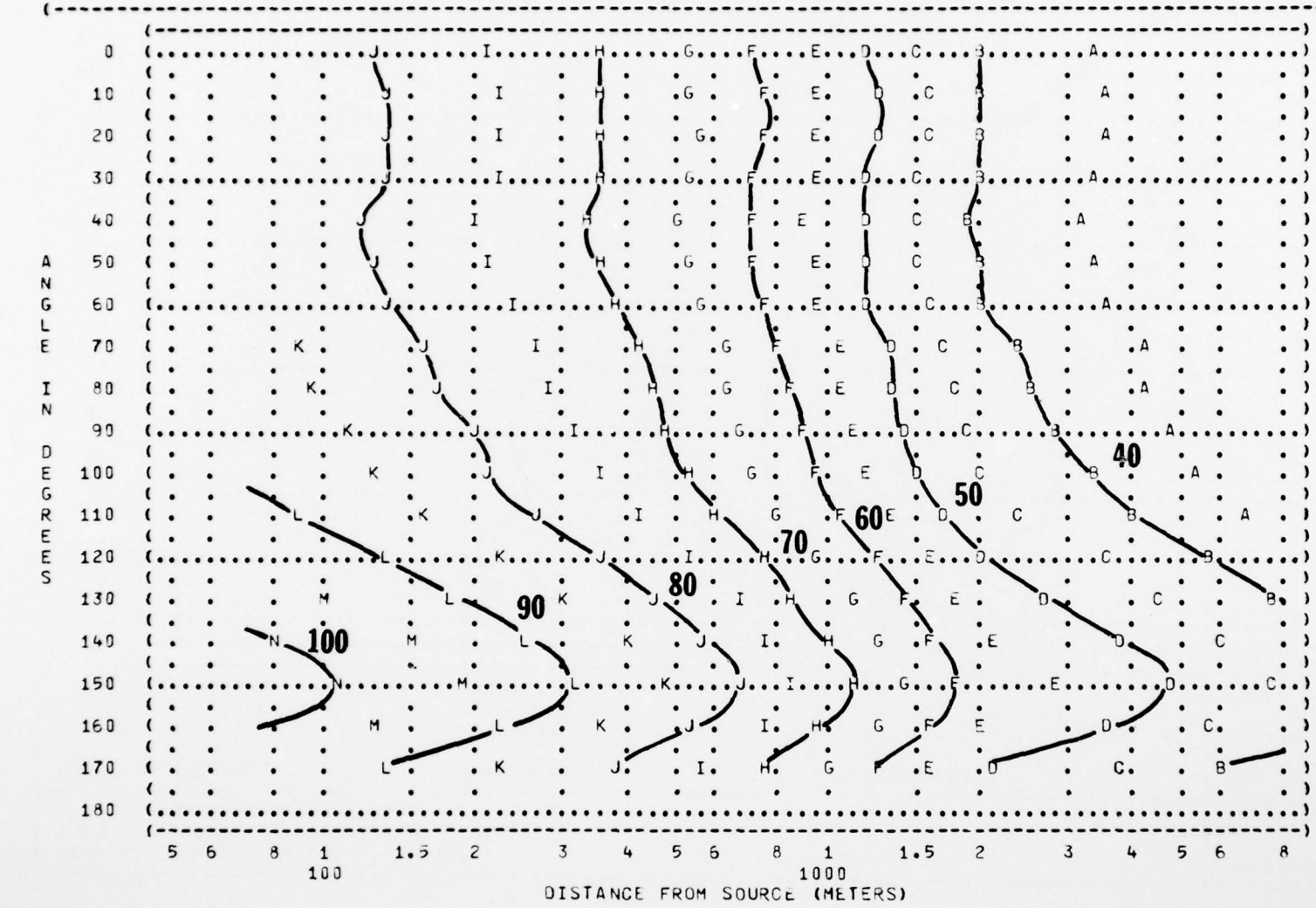
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
63 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 19

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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



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

FIGURE: 11

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-017
RUN 02
16 APR 75
PAGE 20

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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

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

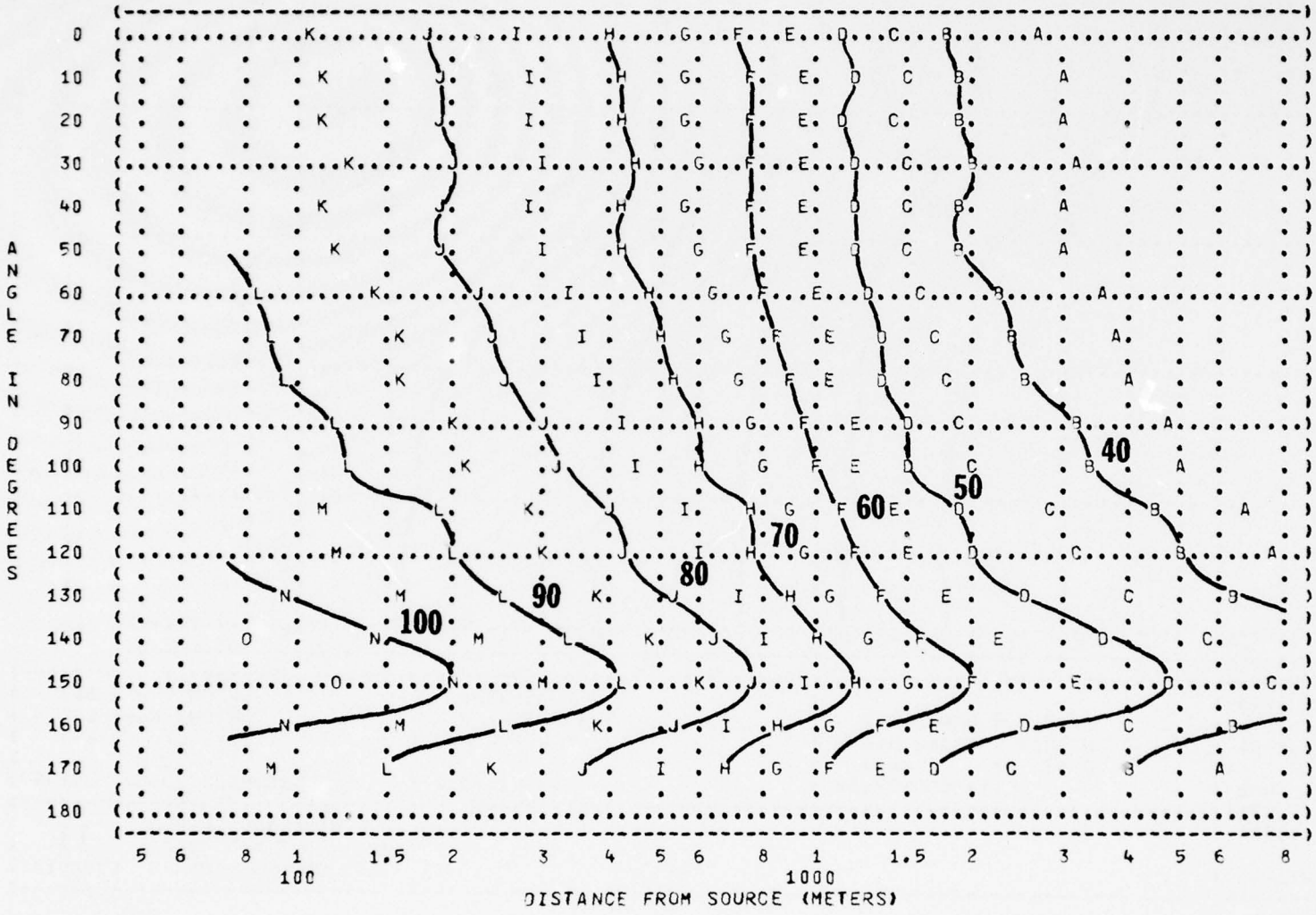


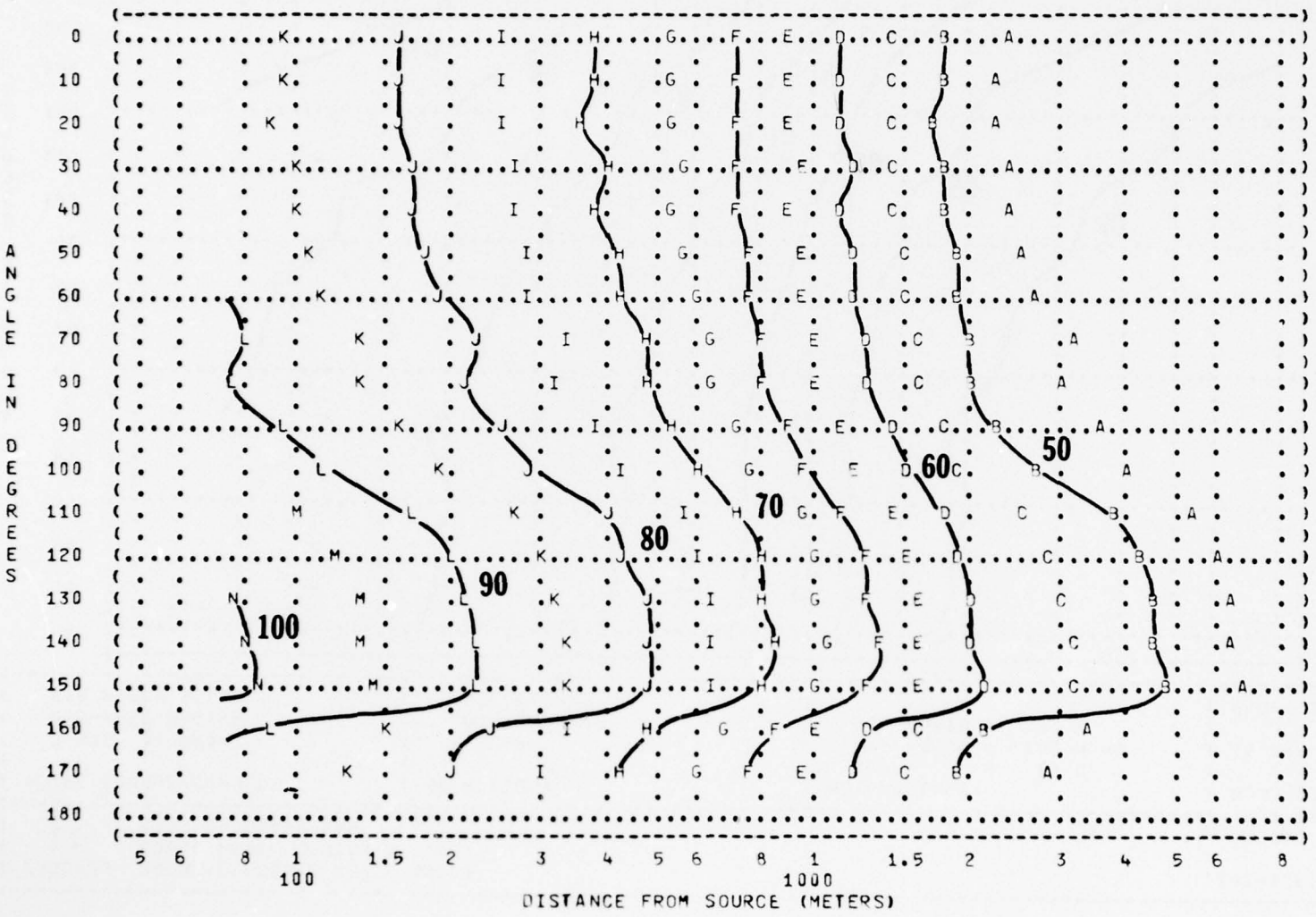
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 21

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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



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

FIGURE: 11

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 22

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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

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

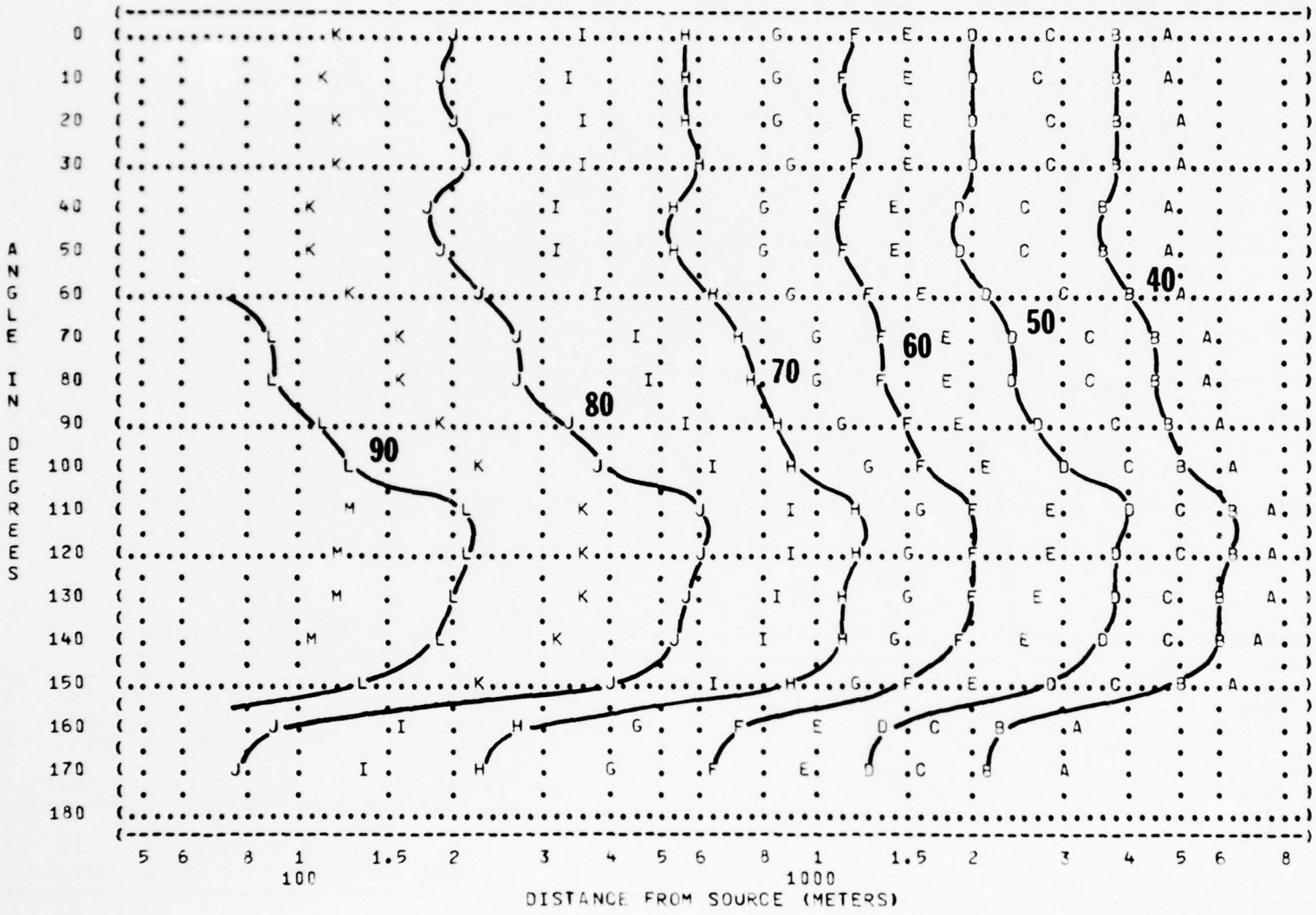


FIGURE: 11

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

NOISE SOURCE/SUBJECT:

B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:

85% RPM
BOTH ENGINES
FREE FLOW

METEOROLOGY:

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

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-012
RUN 02

16 APR 75

PAGE 23

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

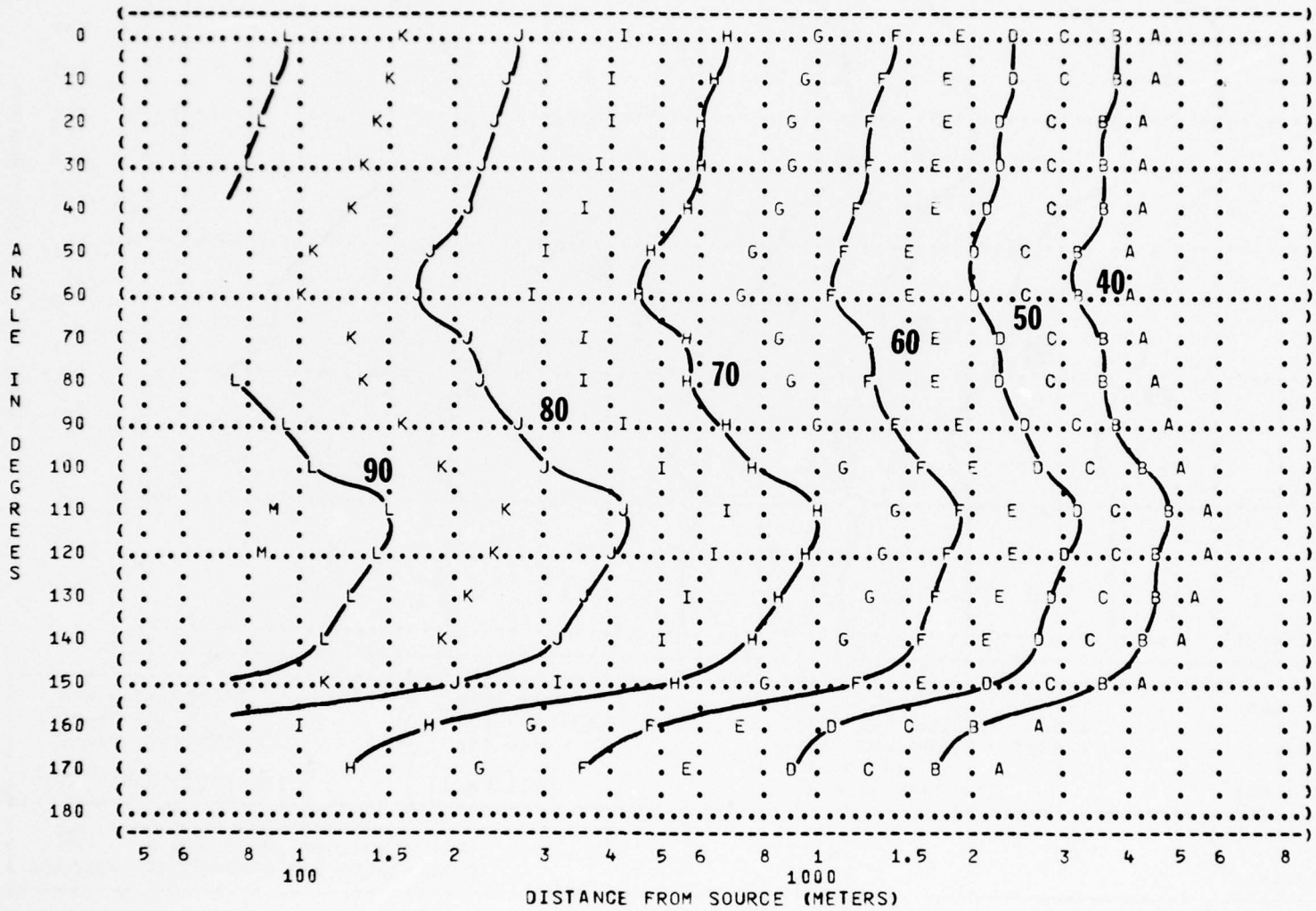


FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 24

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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

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

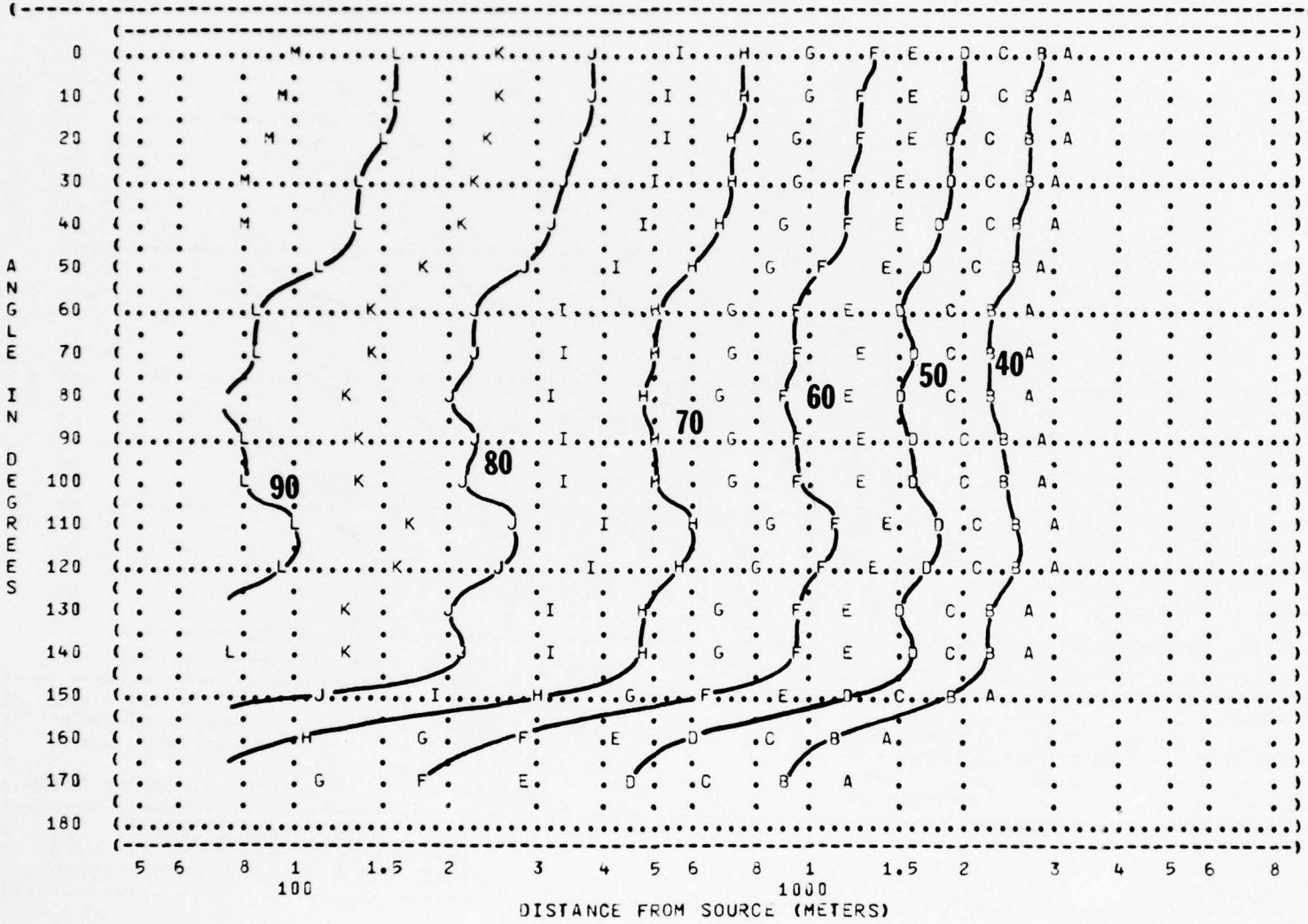


FIGURE: 11

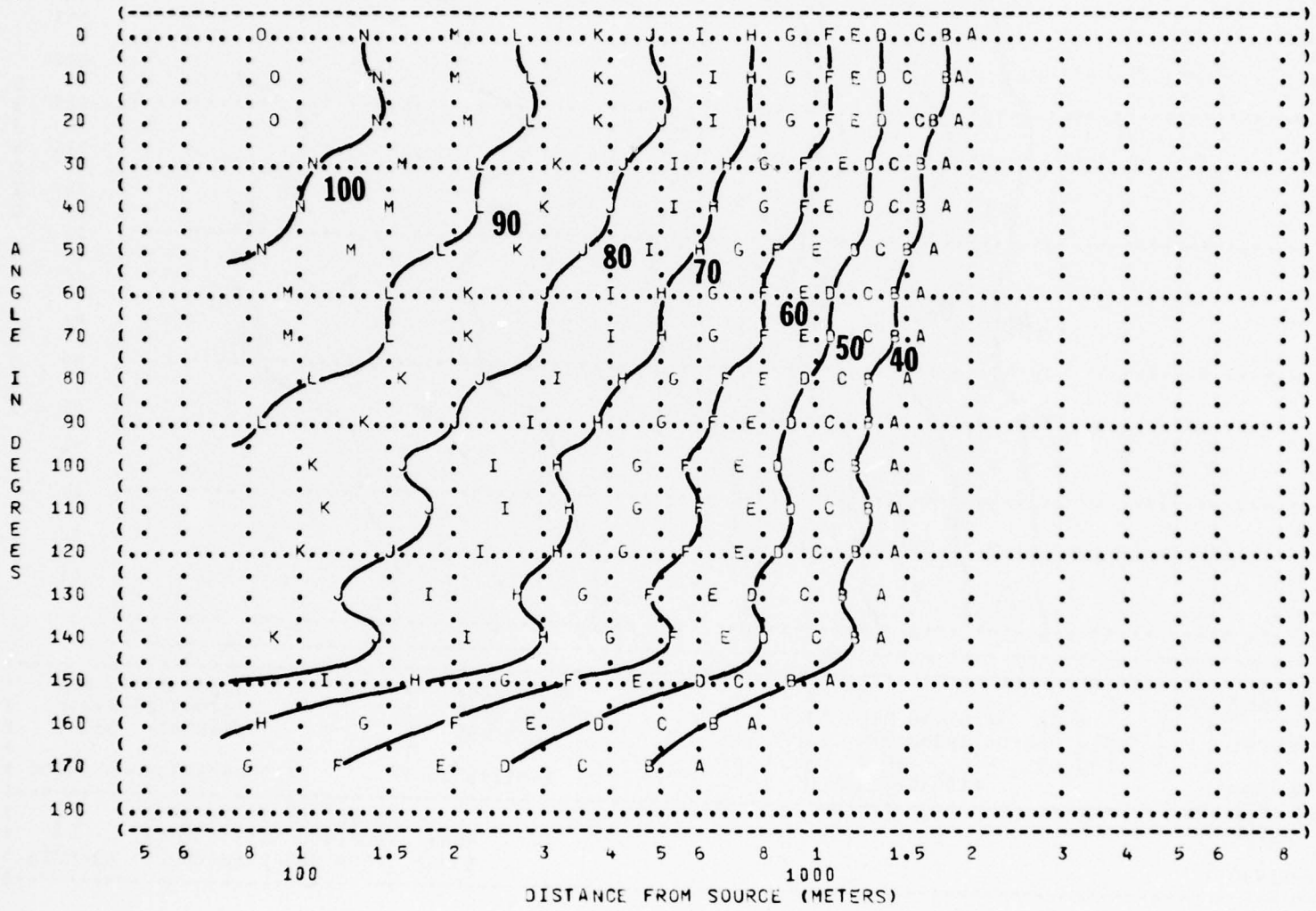
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
4000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 25



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

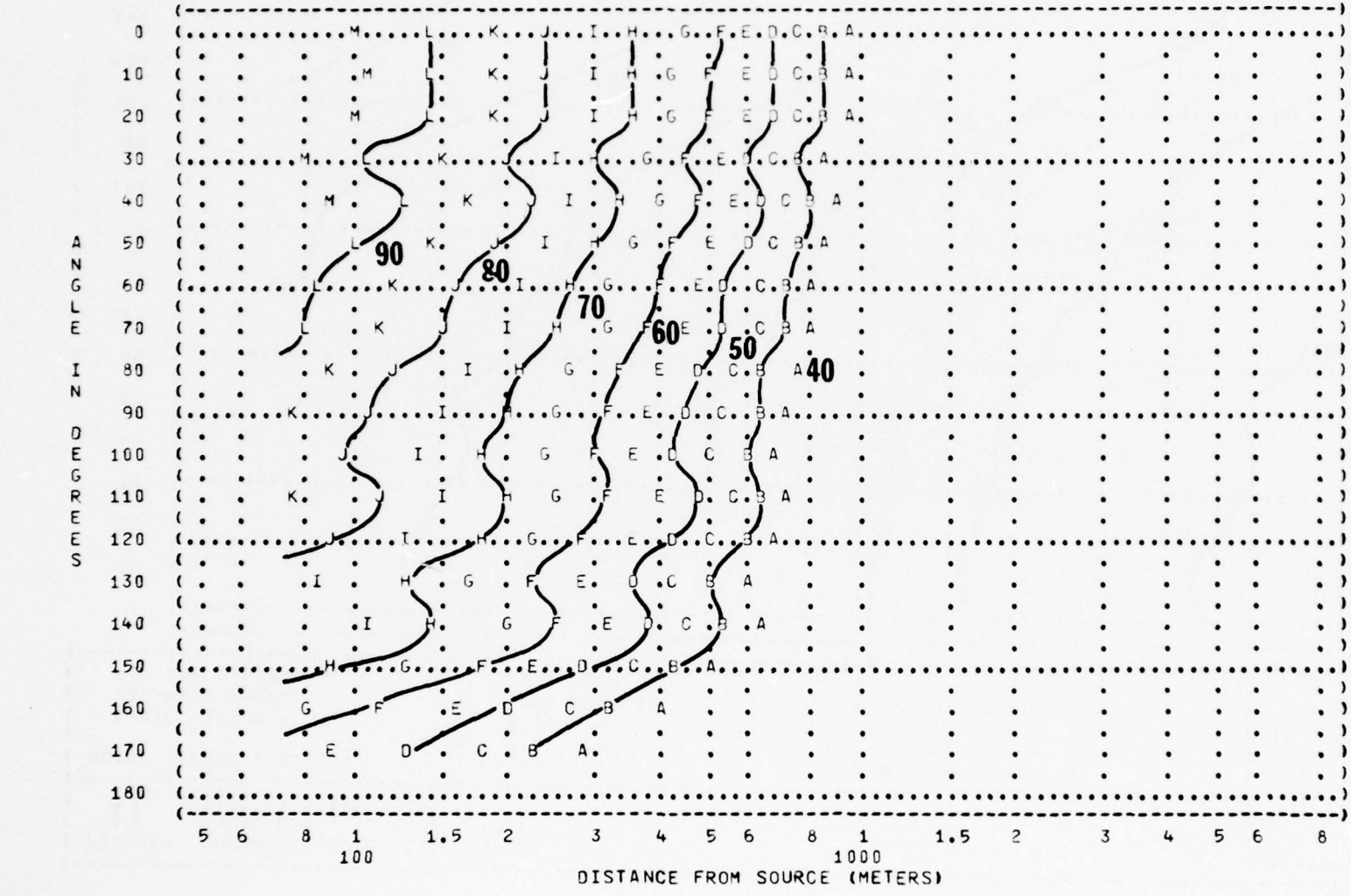
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
85% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 02
16 APR 75
PAGE 26



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

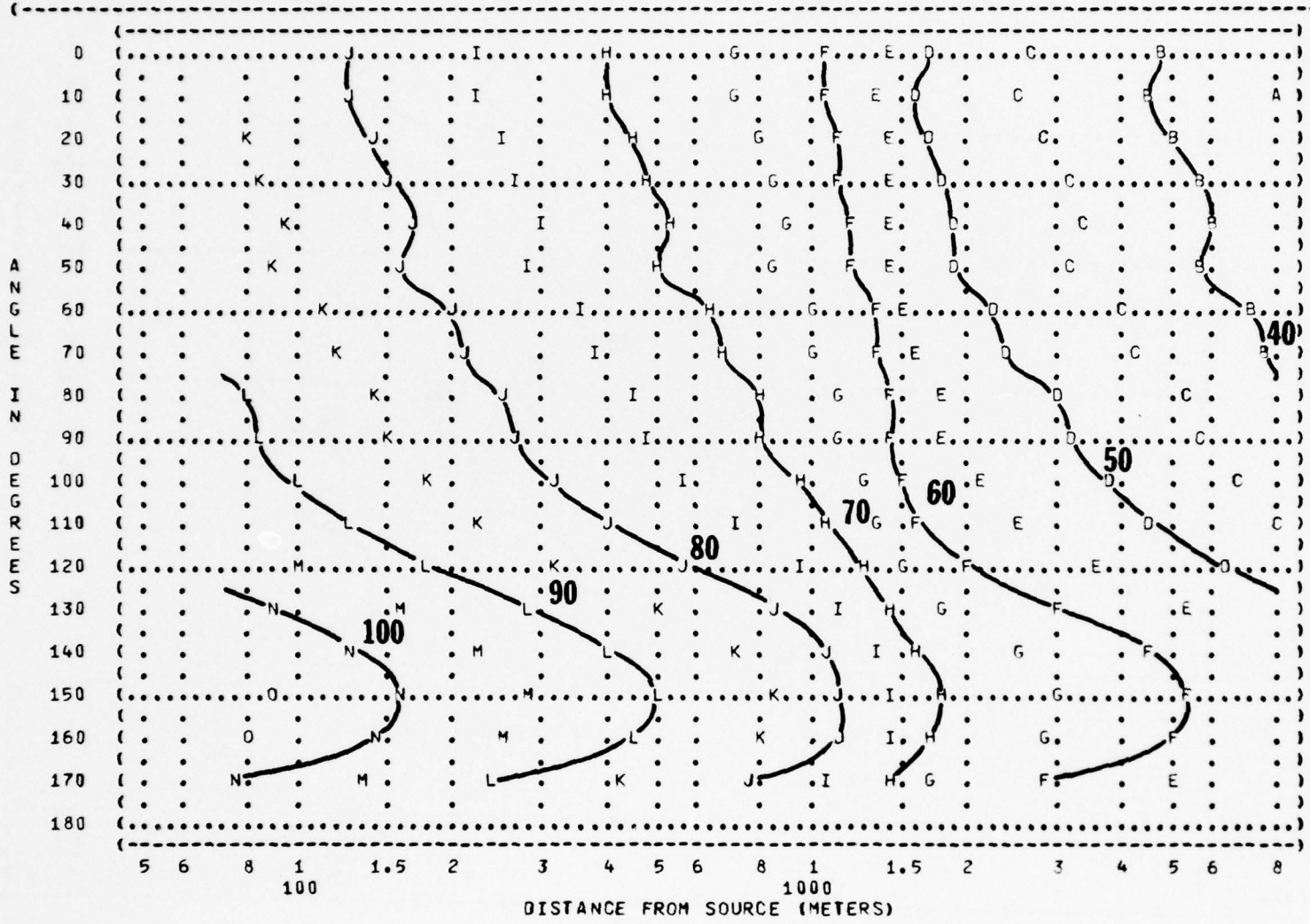
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 18



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

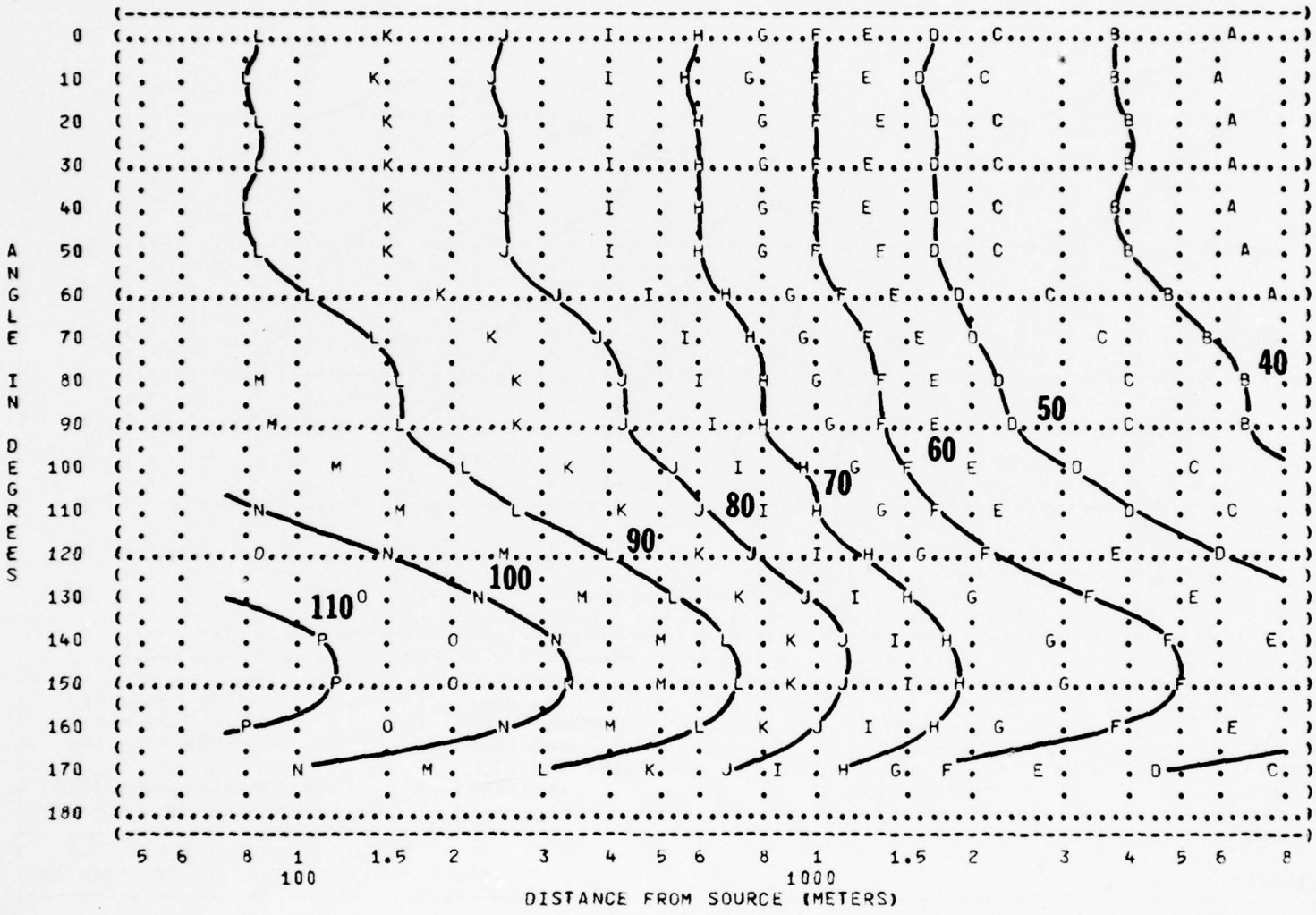
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 19



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

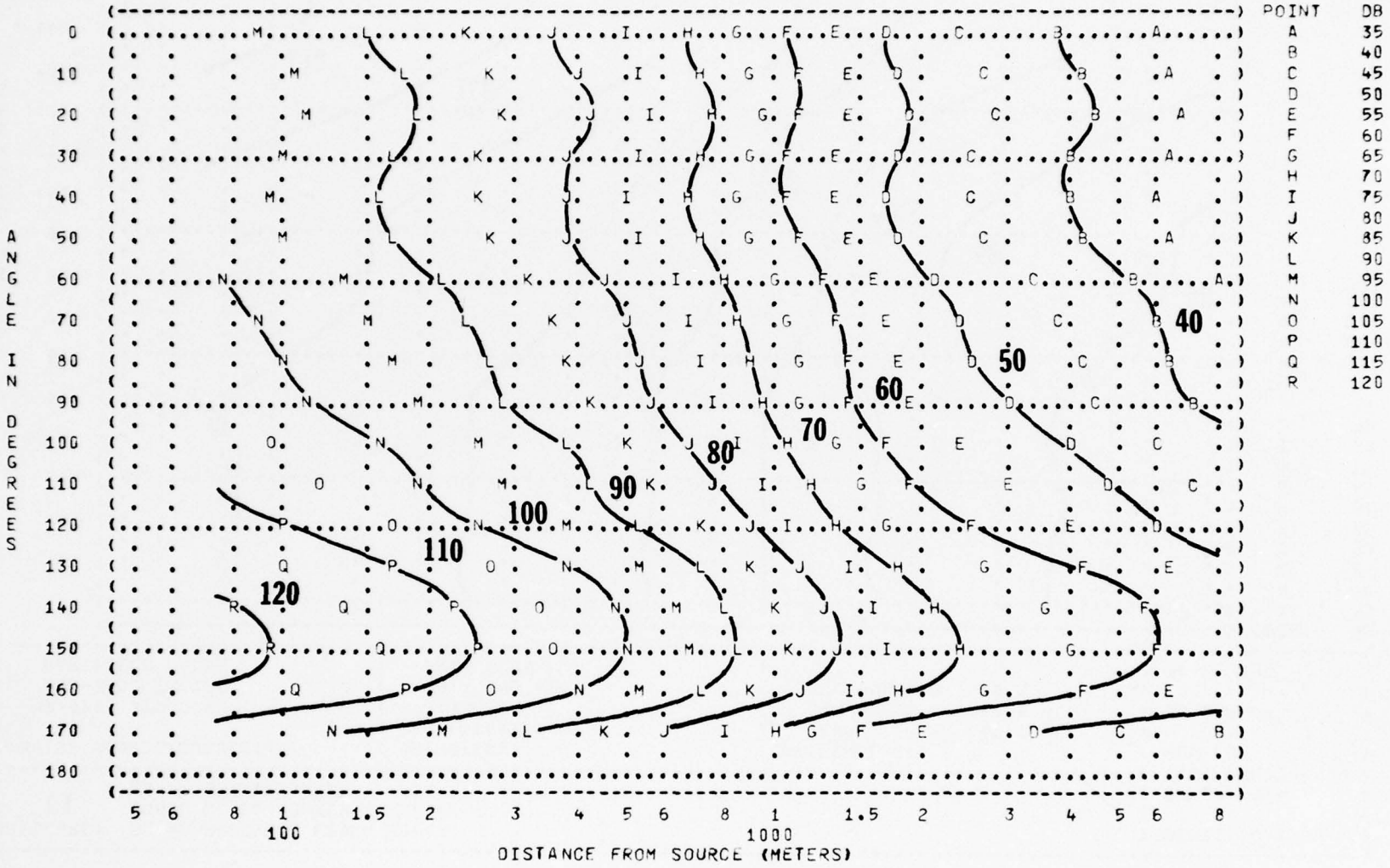
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 125 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 20

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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



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

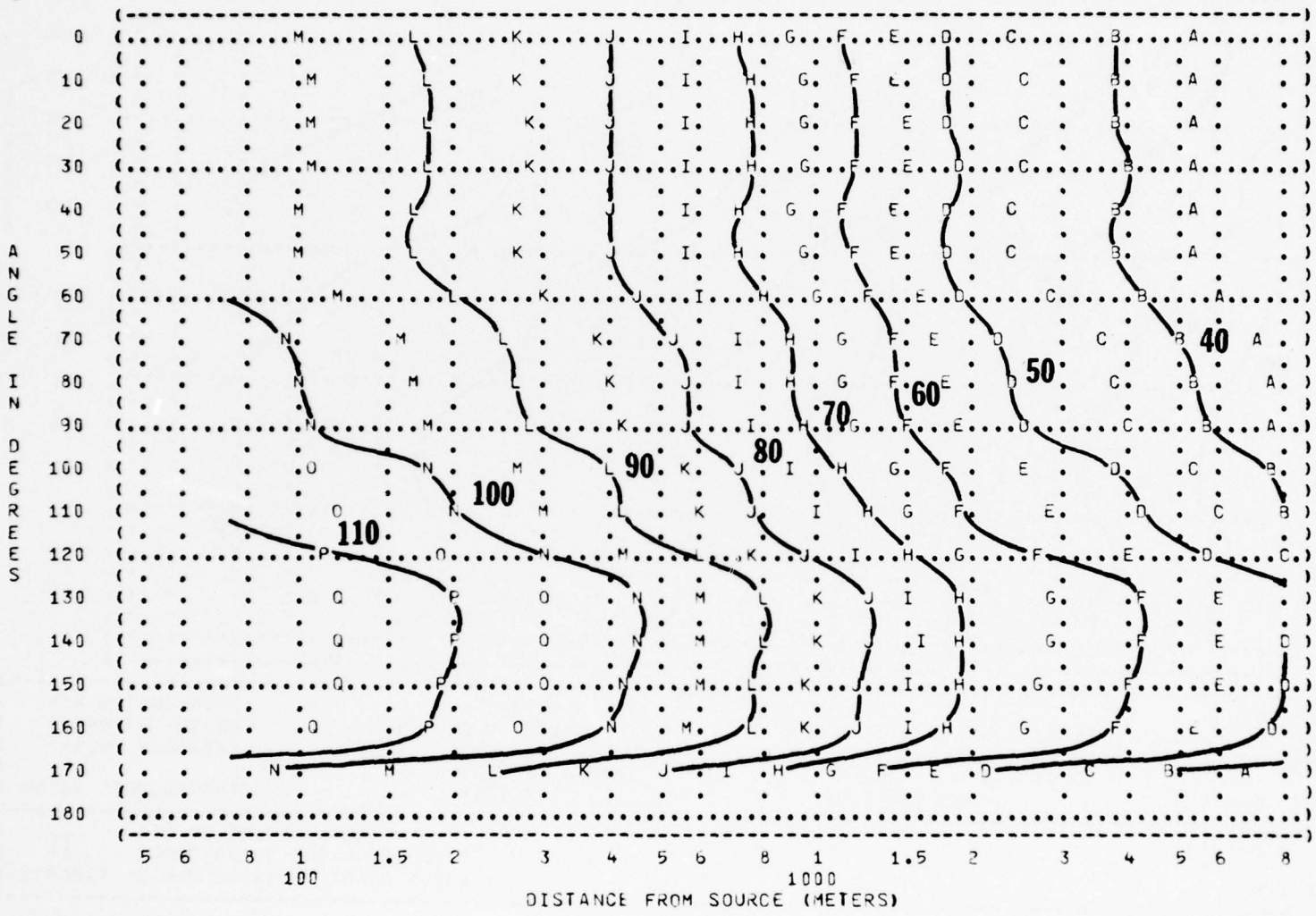
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 21



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

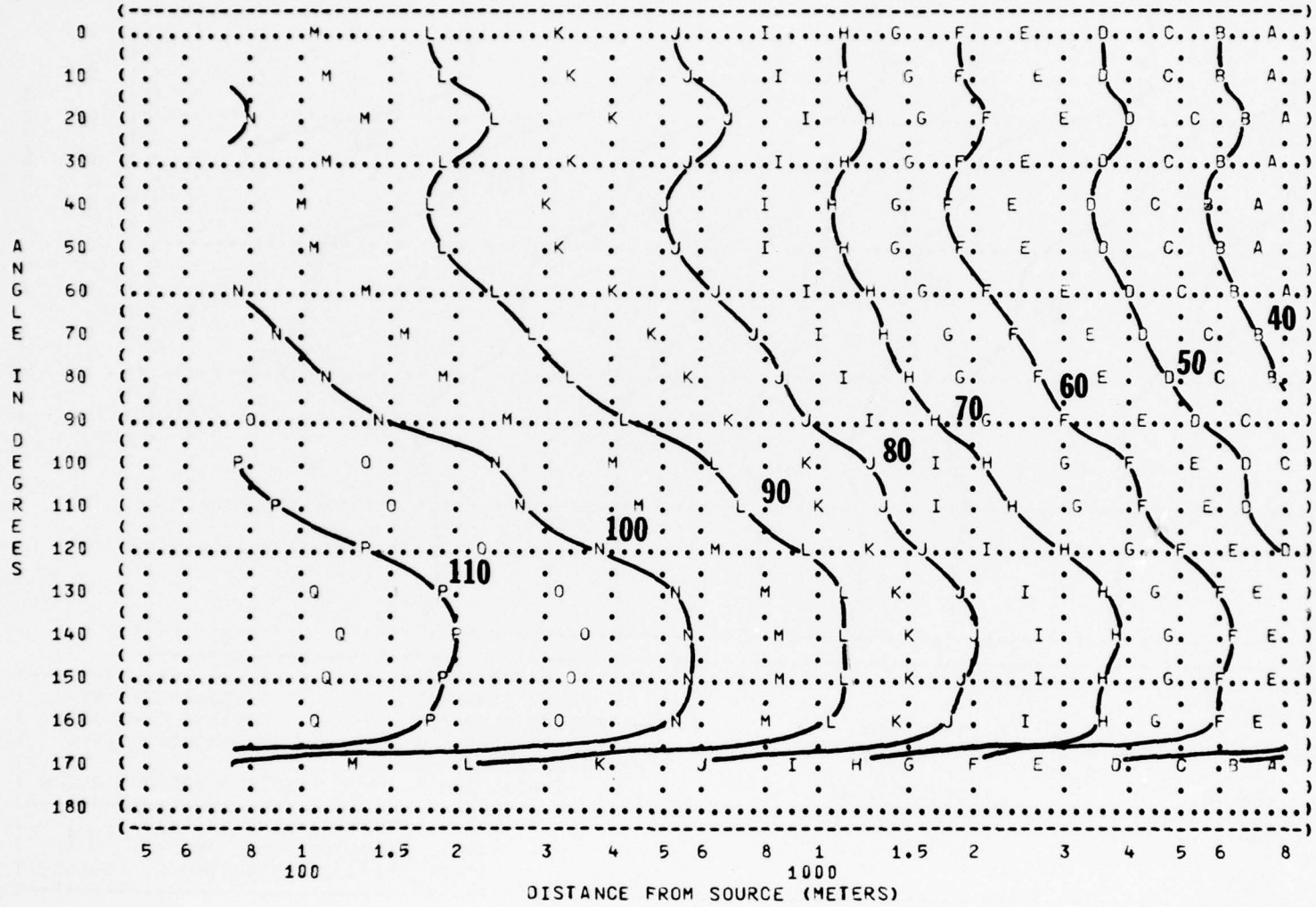
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
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
N	100
O	105
P	110
Q	115

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 23

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

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

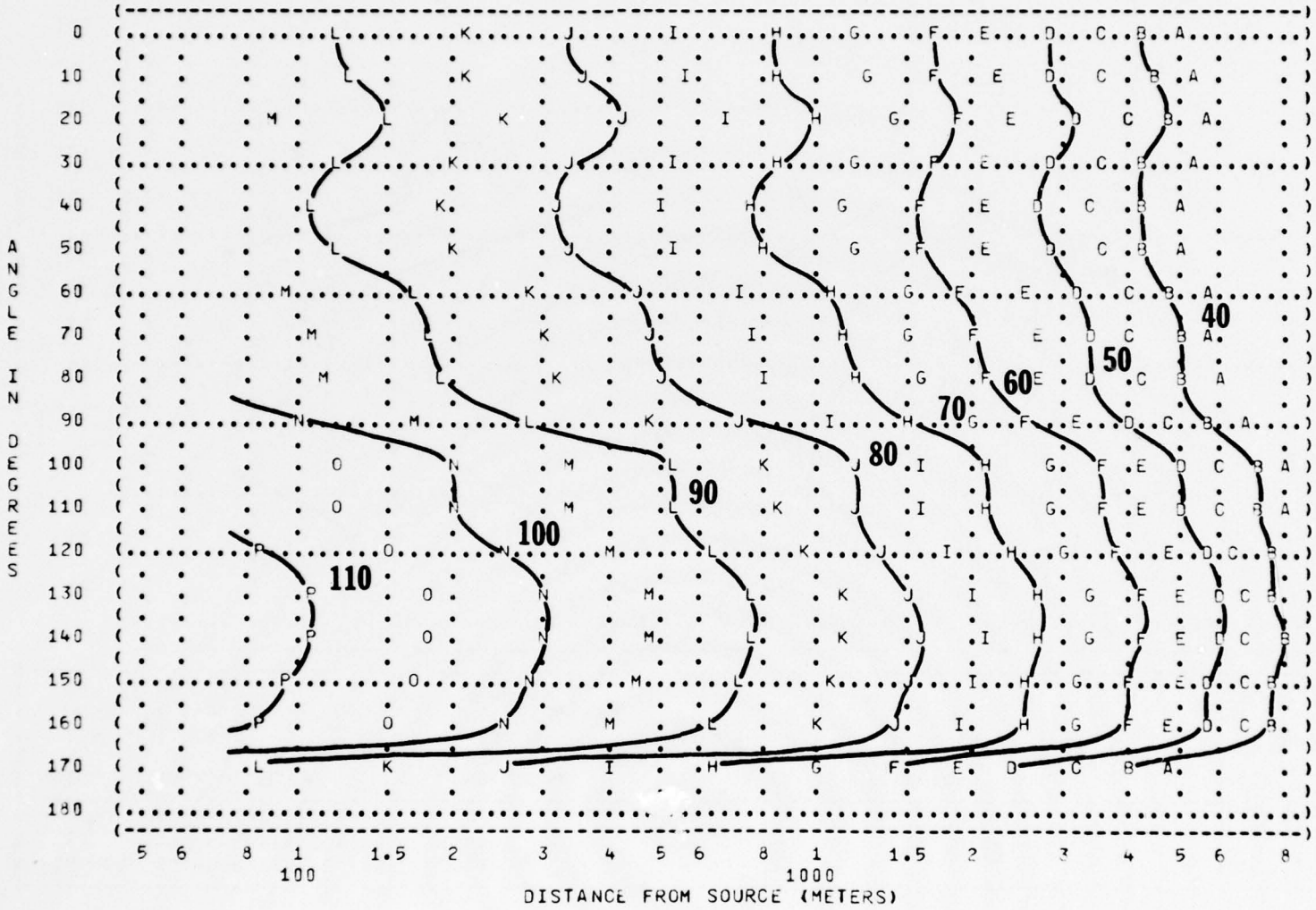


FIGURE: 11

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

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 24

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

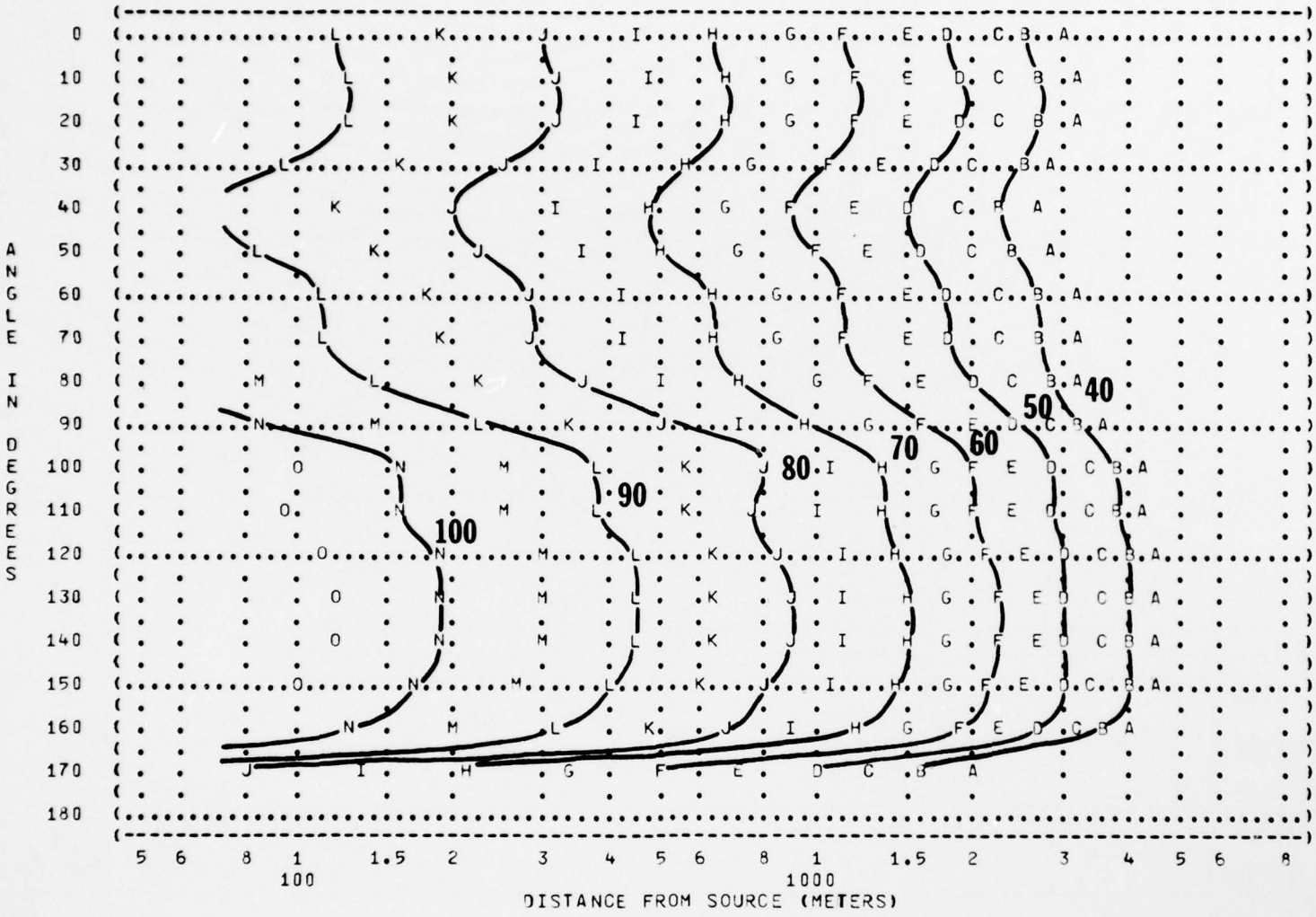


FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 25

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

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

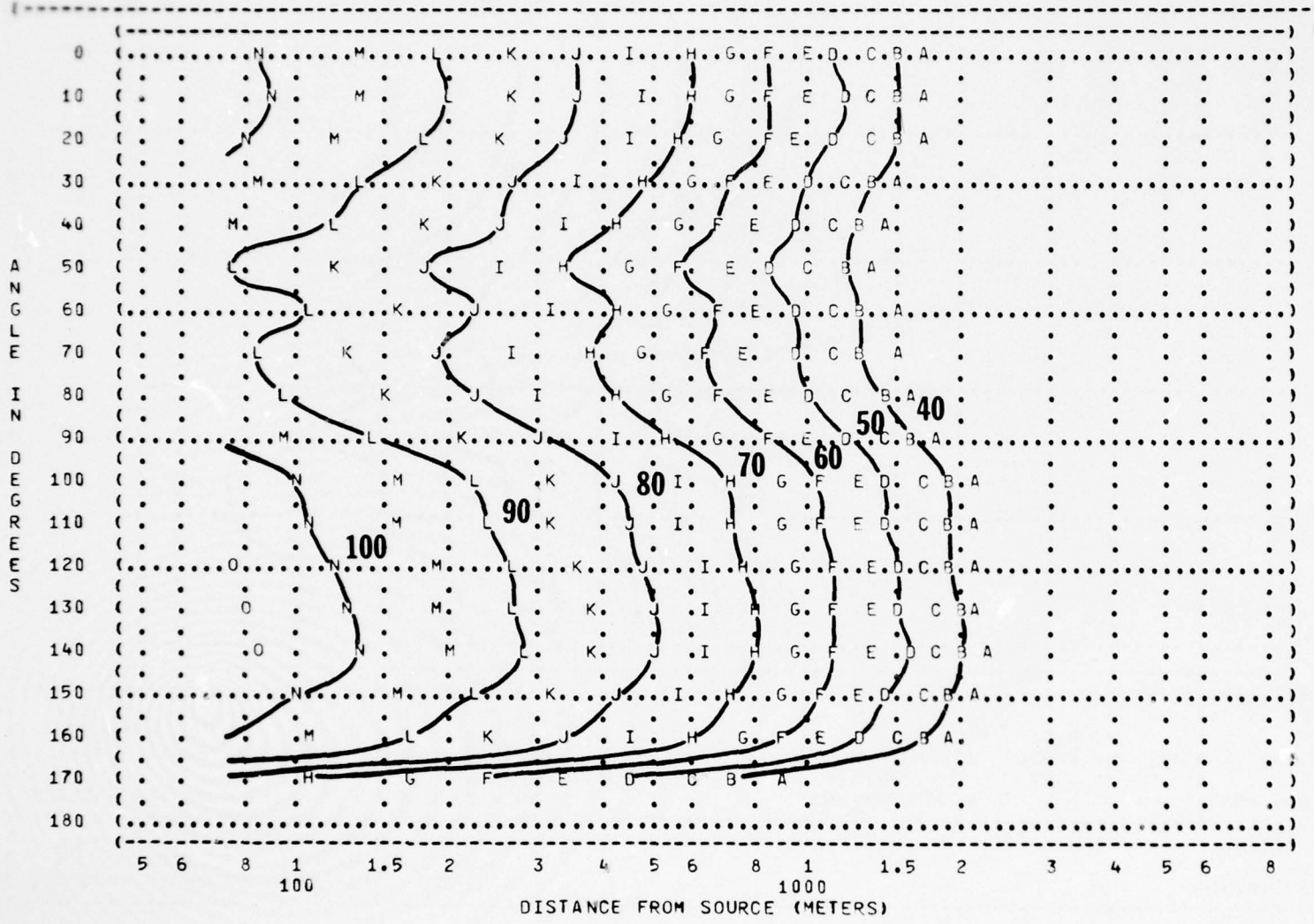


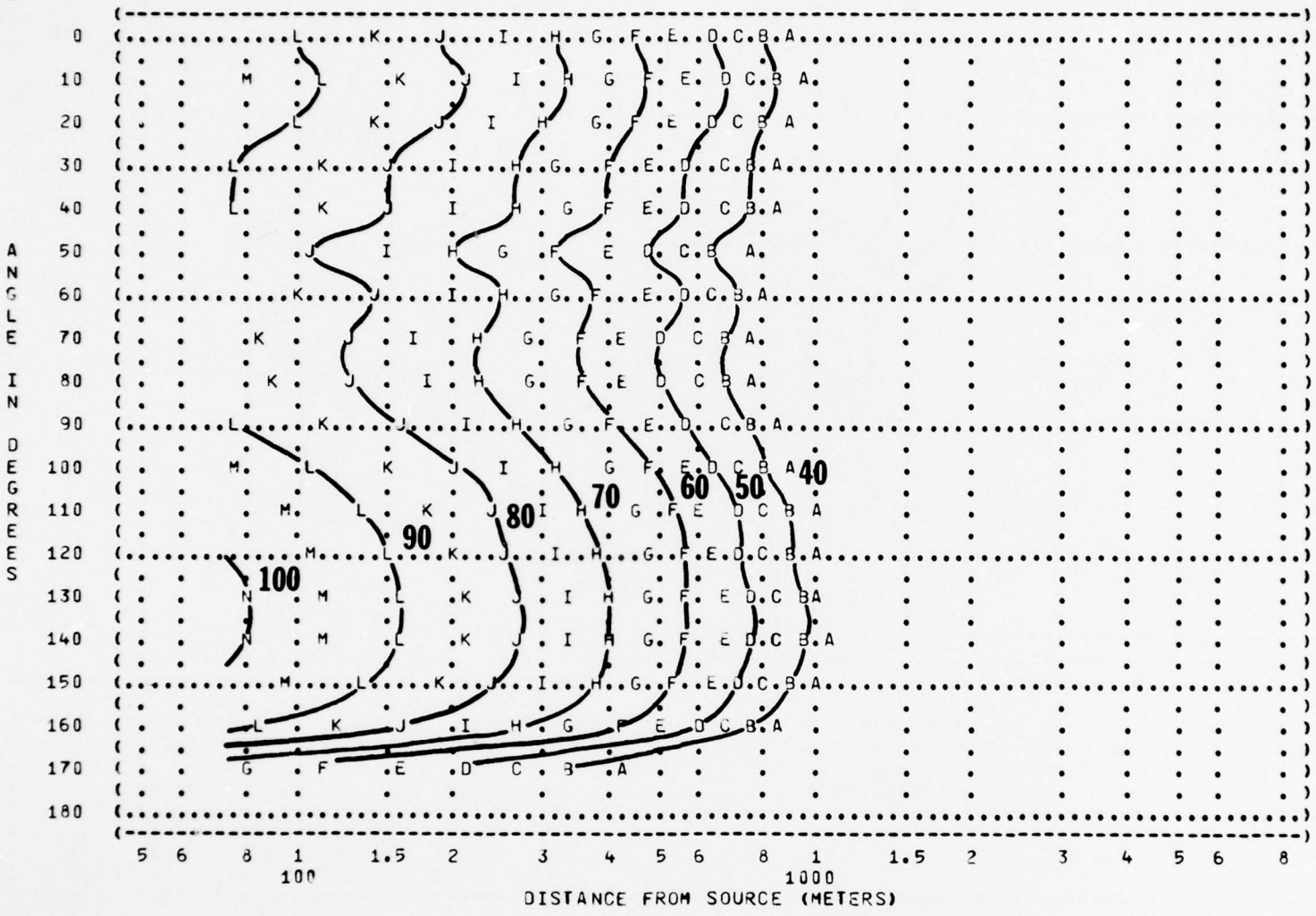
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-57G AIRCRAFT
J65-W-5B ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
101% RPM
BOTH ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-012
RUN 03
16 APR 75
PAGE 26



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

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