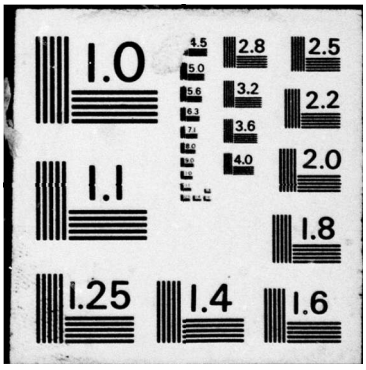
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# USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK

## VOLUME 64. B-52G AIRCRAFT, NEAR AND FAR-FIELD NOISE

AEROSPACE MEDICAL RESEARCH LABORATORY,
WRIGHT-PATTERSON AIR FORCE BASE, OHIO

NOVEMBER 1975

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AMRL-TR-75-60
Volume 64



# USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK

## Volume 64
## B-52G AIRCRAFT, NEAR AND FAR-FIELD NOISE



NOVEMBER 1975

Approved for public release; distribution unlimited

AEROSPACE MEDICAL RESEARCH LABORATORY
AEROSPACE MEDICAL DIVISION
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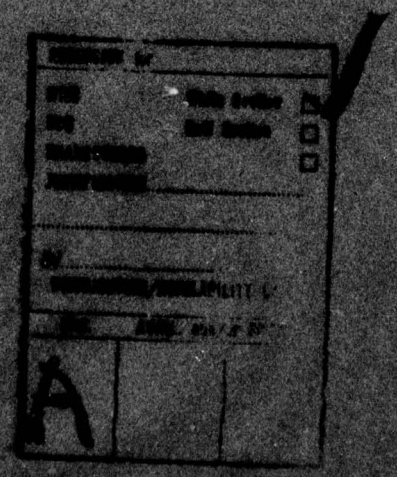
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FOR THE COMMANDER

HENNING E. VON GIERKE
Director
Biodynamics and Bionics Division
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20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

The USAF B-52G aircraft is a strategic bomber powered by eight J57-P-43WA turbojet engines. This report provides measured and extrapolated data defining the bioacoustic environments produced by this aircraft operating on a concrete runup pad for five engine/power configurations. Near-field data are reported for eight 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

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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 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, Mr. Robert England for his 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-52G Stratofortress is a strategic bomber-type aircraft powered by eight J57-P-43WA turbojet engines. The aircraft was manufactured by the Boeing Company and the engines by United Aircraft, Pratt and Whitney Division.

This volume provides measured and extrapolated data defining bioacoustic environments produced by this aircraft during ground runup operations. Such data are essential to evaluate ear protection requirements, limiting personnel exposure times, voice communication capabilities, and annoyance problems associated with ground runups of the B-52G 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-52G aircraft during ground runup operations of its turbojet engines and aerospace ground equipment. For these tests the aircraft was located on a concrete runup pad at Edwards AFB with no significant reflecting surfaces in the vicinity except the ground plane. Table 1 gives the surface meteorological conditions and the four engine, aerospace ground equipment, and power conditions. The ground-crew chief selected power conditions and near-field locations generally used during routine maintenance or engine runup for preflight checks.

At each near-field location a test engineer randomly moved a hand held microphone in and around each location, probing all areas where a crew member's head would normally be located. He recorded all of the noise samples on magnetic tape. During analysis of each sample, he determined the root-mean-square sound pressure using a 4- or 8-second integration time to derive a power-averaged level for each location. Figure 1 shows the eight 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-52G aircraft at the eight ground crew locations. This table includes the overall, 1/3 octave band, and octave band levels. From these data one can calculate the variety of measures given in Table 3, which are widely used to assess the effects of noise on personnel and their performance.

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

TABLE 1

MEASUREMENT LOCATIONS AND TEST CONDITIONS
FOR NEAR-FIELD NOISE MEASUREMENTS

B-52G Aircraft, Ground Runup, Edwards AFB, CA
14 September 1972
Tail #30399

*Ground Crew Location*

| | |
|---|---|
| 1 | Operation MA-1A |
| 2 | Flow Check |
| 3 | Forward Hatch Check |
| 4 | FLG Wheel Chock |
| 5 | MD-3 Connector Removal |
| 6 | MD-3 Cable Gathering |
| 7 | Air Exhaust Check Engine #6 |
| 8 | Rear LG Wheel Chock |

*Aircraft Engine (and AGE) Operation*

| | |
|---|---|
| A | Engine #4 Start, MA-1A and MD-3 Operating |
| B | Engine #4 at 90% RPM, Other Engines Idle Power, MD-3 Operating |
| C | All Engines Idle Power, MD-3 Operating |
| D | All Engines Idle Power |

*Meteorology*

| | |
|---|---|
| Temperature | 15.6 C |
| Bar Pressure | .701 M Hg |
| Rel Humidity | 39 % |
| Wind | Calm |

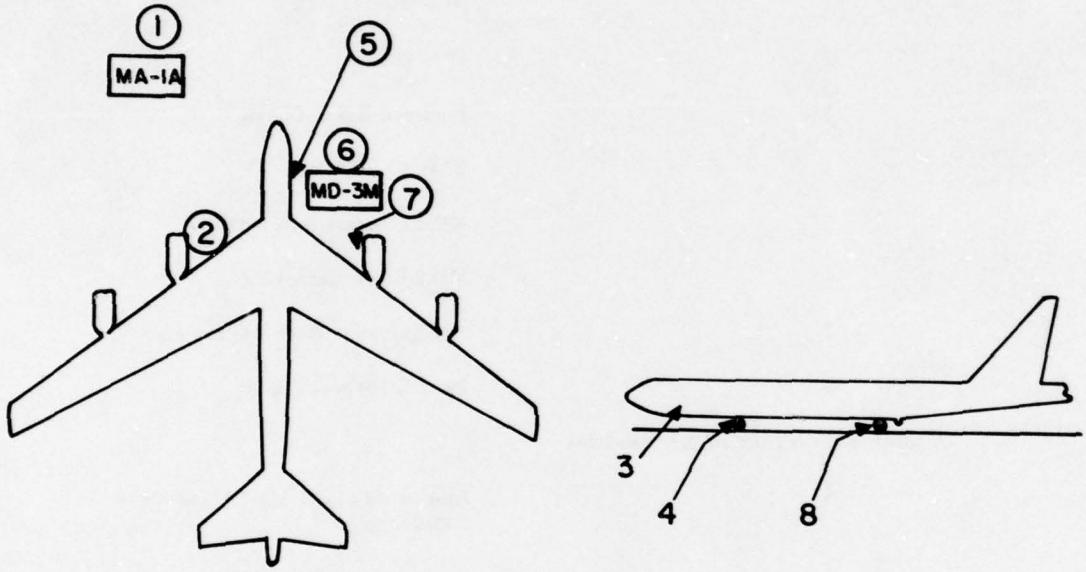



**Figure 1. Near-Field Measurement Locations at Pad 15, Edwards AFB, CA**

## FAR-FIELD NOISE

### MEASUREMENTS

AMRL acquired both near and far-field data during a 1- 2-hour test period, thus keeping similar meteorological conditions. Figure 2 shows the ground runup pad, ground cover, aircraft orientation and the 19 microphone measurement sites on a semicircle. The center of the 75 meter radius semicircle used in surveying the J57-P-43WA engines was on the ground directly below the intersection of the aircraft's centerline and the plane passing through both inboard engine pods' 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 microphone measurement sites are in the acoustic far-field of the source where the sound wavefronts spherically diverge and the noise source may be regarded as a point source.

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

### RESULTS

Table 5 lists the overall and 1/3 octave band SPL measured at the far-field locations under meteorological conditions at the time of the test. Data in all other figures and tables are based on these levels. These data were normalized to 100 meters distance and standard meteorological conditions (15°C temperature, 70% relative humidity, 0.760 meter Hg barometric pressure) and used to derive the graphic data in Figure 3 which provides a compact summary of the far-field noise characteristics of the B-52G 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.

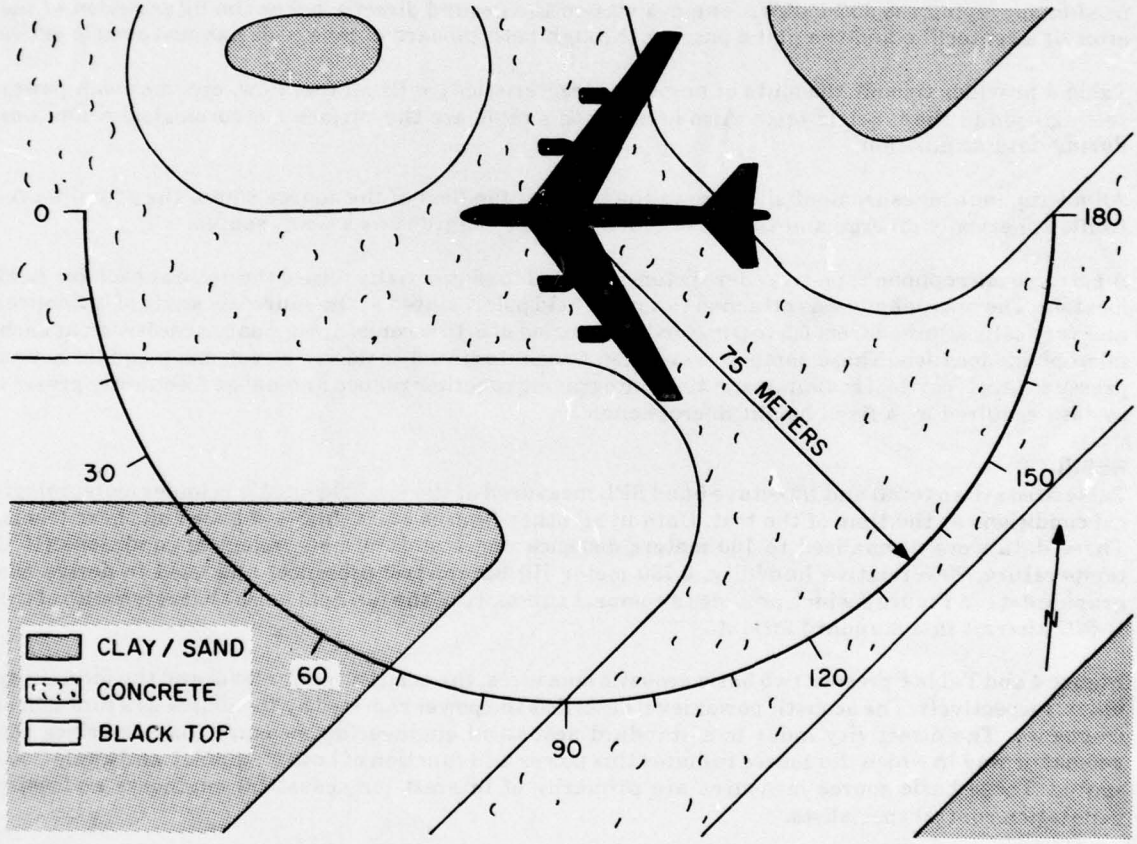



**Figure 2. Far-Field Measurement Locations at Pad 15, Edwards AFB, CA**

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

No data are presented at the 170 and 180 degree locations for idle power and at the 160, 170 and 180 degree locations for the remaining 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.

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 72-045-002
RUN 01
02 DEC 74
PAGE F1

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

| FREQ (HZ) | LOCATION/CONDITION 1/A | 2/B | 3/C | 4/C | 5/C | 6/C | 7/D | 8/D |
|---|---|---|---|---|---|---|---|---|
| 25 | 89 | 106 | 87 | 83 | 86 | 86 | 90 | 89 |
| 31.5 | 83 | 110 | 88 | 88 | 90 | 87 | 91 | 84 |
| 40 | 83 | 111 | 91 | 93 | 92 | 90 | 93 | 93 |
| 50 | 87 | 111 | 94 | 95 | 96 | 99 | 96 | 97 |
| 63 | 86 | 115 | 99 | 100 | 103 | 108 | 97 | 99 |
| 80 | 84 | 118 | 91 | 98 | 94 | 95 | 93 | 97 |
| 100 | 92 | 121 | 97 | 100 | 96 | 103 | 100 | 97 |
| 125 | 96 | 123 | 105 | 97 | 100 | 110 | 100 | 100 |
| 160 | 98 | 124 | 96 | 97 | 95 | 107 | 99 | 100 |
| 200 | 97 | 126 | 94 | 94 | 93 | 103 | 99 | 96 |
| 250 | 93 | 126 | 95 | 97 | 99 | 109 | 98 | 97 |
| 315 | 96 | 125 | 96 | 98 | 101 | 109 | 100 | 100 |
| 400 | 100 | 127 | 97 | 100 | 102 | 104 | 103 | 111 |
| 500 | 94 | 126 | 96 | 100 | 100 | 102 | 103 | 101 |
| 630 | 92 | 126 | 98 | 101 | 100 | 101 | 103 | 101 |
| 800 | 90 | 125 | 97 | 100 | 99 | 100 | 102 | 102 |
| 1000 | 87 | 125 | 105 | 104 | 108 | 107 | 111 | 103 |
| 1250 | 87 | 124 | 110 | 107 | 111 | 108 | 111 | 104 |
| 1600 | 87 | 123 | 104 | 101 | 104 | 104 | 105 | 101 |
| 2000 | 92 | 124 | 103 | 102 | 103 | 103 | 105 | 101 |
| 2500 | 91 | 122 | 104 | 103 | 103 | 103 | 102 | 103 |
| 3150 | 94 | 121 | 105 | 105 | 106 | 105 | 109 | 107 |
| 4000 | 96 | 119 | 104 | 106 | 107 | 106 | 111 | 111 |
| 5000 | 100 | 120 | 100 | 100 | 101 | 100 | 103 | 103 |
| 6300 | 103 | 119 | 97 | 103 | 100 | 98 | 102 | 106 |
| 8000 | 113 | 122 | 99 | 111 | 104 | 101 | 105 | 114 |
| 10000 | 112 | 120 | 94 | 100 | 98 | 96 | 104 | 103 |
| OVERALL | 116 | 137 | 115 | 116 | 117 | 119 | 119 | 119 |

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

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

IDENTIFICATION:
OMEGA 3.2
TEST 72-045-002
RUN 01
02 DEC 74
PAGE J1

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

| FREQ (HZ) | LOCATION/CONDITION 1/A | 2/B | 3/C | 4/C | 5/C | 6/C | 7/D | 8/D |
|---|---|---|---|---|---|---|---|---|
| 31.5 | 91 | 114 | 94 | 94 | 94 | 92 | 96 | 94 |
| 63 | 90 | 120 | 101 | 103 | 104 | 108 | 100 | 103 |
| 125 | 101 | 127 | 106 | 103 | 102 | 112 | 104 | 104 |
| 250 | 100 | 130 | 100 | 101 | 103 | 112 | 104 | 103 |
| 500 | 101 | 131 | 102 | 105 | 105 | 107 | 107 | 111 |
| 1000 | 93 | 129 | 111 | 109 | 113 | 111 | 114 | 108 |
| 2000 | 95 | 128 | 108 | 106 | 108 | 108 | 109 | 106 |
| 4000 | 102 | 125 | 108 | 109 | 110 | 109 | 113 | 113 |
| 8000 | 116 | 125 | 102 | 112 | 106 | 103 | 109 | 115 |
| OVERALL | 116 | 137 | 115 | 116 | 117 | 119 | 119 | 119 |

TABLE: 3 MEASURES OF HUMAN NOISE EXPOSURE

IDENTIFICATION:
OMEGA 3.2
TEST 72-045-002
RUN 01
02 DEC 74
PAGE H1

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
GROUND CREW
NEAR FIELD NOISE LEVELS

OPERATION:

| | LOCATION/CONDITION | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1/A | 2/B | 3/C | 4/C | 5/C | 6/C | 7/D | 8/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 | 113 | 137 | 115 | 115 | 117 | 118 | 118 | 118 |
| OASLA | 115 | 135 | 115 | 116 | 117 | 116 | 119 | 118 |
| T | 2.2 | P | 2.2 | P | P | P | P | P |
| MINIMUM QPL EAR MUFFS | | | | | | | | |
| OASLA* | 91 | 113 | 89 | 90 | 90 | 95 | 92 | 93 |
| T | 143 | 3.2 | 202 | 170 | 170 | 71 | 120 | 101 |
| AMERICAN OPTICAL 1700 EAR MUFFS | | | | | | | | |
| OASLA* | 89 | 108 | 84 | 86 | 85 | 90 | 86 | 89 |
| T | 202 | 8 | 480 | 339 | 404 | 170 | 339 | 202 |
| V-51R EAR PLUGS | | | | | | | | |
| OASLA* | 85 | 110 | 88 | 88 | 90 | 90 | 92 | 90 |
| T | 404 | 5 | 240 | 240 | 170 | 170 | 120 | 170 |
| AMERICAN OPTICAL 1700 EAR MUFFS PLUS V-51R EAR PLUGS | | | | | | | | |
| OASLA* | 76 | 96 | 75 | 75 | 77 | 77 | 79 | 77 |
| T | 960 | 60 | 960 | 960 | 960 | 960 | 960 | 960 |
| H-133 GROUND COMMUNICATION UNIT | | | | | | | | |
| OASLA* | 85 | 107 | 88 | 88 | 90 | 89 | 91 | 89 |
| T | 404 | 9 | 240 | 240 | 170 | 202 | 143 | 202 |
| **COMMUNICATION** | | | | | | | | |
| PREFERRED SPEECH INTERFERENCE LEVEL (PSIL IN DB) | | | | | | | | |
| PSIL | 96 | 129 | 107 | 107 | 109 | 109 | 110 | 108 |
| **ANNOYANCE** | | | | | | | | |
| PERCEIVED NOISE LEVEL, TONE CORRECTED (PNLT IN PNDB) | | | | | | | | |
| TONE CORRECTION (C IN DB) | | | | | | | | |
| PNLT | 128 | 148 | 130 | 131 | 132 | 132 | 135 | 135 |
| C | 1 | 0 | 2 | 1 | 2 | 1 | 2 | 2 |

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

## TABLE 4

## TEST CONDITIONS FOR FAR-FIELD NOISE MEASUREMENTS

B-52G Aircraft, Ground Runups, Edwards AFB, CA
14 September 1972
Tail #30399

*Aircraft Engine Operation*

| | |
|---|---|
| Idle | All Engines |
| | EPR — Did Not Register |
| | 61 % RPM NC (Core Speed) |
| | 300 C EGT (Exhaust Gas Temperature) |
| | 1150 LBS/HR FF (Fuel Flow) |
| Engine Start | #4 Engine |
| (All other engines idle) | 2.04 EPR (Engine Pressure Ratio) |
| | 90 % RPM NC |
| | 520 C EGT |
| | 6200 LBS/HR FF |
| 80% Runup | All Engines |
| | 1.35 EPR (Engine Pressure Ratio) |
| | 90 % RPM NC |
| | 520 C EGT |
| | 6200 LBS/HR FF |
| 80% Runup | All Engines |
| | 1.35 EPR |
| | 80 % RPM NC |
| | 340 C EGT |
| | 2400 LBS/HR FF |
| 90% Runup | All Engines |
| | 2.04 EPR |
| | 90 % RPM NC |
| | 500 C EGT |
| | 6000 LBS/HR FF |
| Takeoff Rated Thrust | All Engines |
| | 2.45 EPR |
| | 94 % RPM NC |
| | 580 C EGT |
| | 8000 LBS/HR FF |

*Meteorology*

| | |
|---|---|
| Temperature | 15.6 C |
| Bar Pressure | 0.701 M Hg |
| Rel Humidity | 39 % |
| Wind | Calm |

TABLE: 5

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-802-010
RUN 01
15 APR 75
PAGE 2

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 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 | 68 | 67< | 68 | 67< | 66< | 68< | 69 | 71 | 73 | 72 | 73 | 73 | 75 | 76 | 75 | 75 | 74 | | |
| 31.5 | 70 | 70 | 71 | 70 | 71 | 71 | 72 | 73 | 74 | 74 | 75 | 76 | 78 | 80 | 79 | 78 | 74 | | |
| 40 | 72 | 71< | 73 | 73 | 73 | 71< | 72 | 73 | 74 | 75 | 75 | 77 | 77 | 78 | 79 | 80 | 74 | | |
| 50 | 79 | 78 | 77 | 77 | 78 | 77 | 77 | 78 | 79 | 78 | 79 | 79 | 79 | 80 | 82 | 81 | 77 | | |
| 63 | 76< | 76< | 76< | 75< | 76< | 76< | 75< | 77< | 79 | 78 | 79 | 80 | 81 | 82 | 82 | 81 | 77< | | |
| 80 | 75< | 74< | 74< | 74< | 75< | 74< | 74< | 76< | 77< | 77< | 78< | 79< | 79< | 81 | 81 | 79< | 77< | | |
| 100 | 77< | 78< | 78< | 78< | 77< | 78< | 79< | 80 | 80< | 80 | 82 | 83 | 82 | 84 | 83 | 81 | 77< | | |
| 125 | 75< | 76< | 76< | 77< | 75< | 76< | 76< | 78< | 78< | 79< | 78< | 81< | 83 | 83 | 83 | 80< | 76< | | |
| 160 | 78< | 79< | 78< | 79< | 76< | 77< | 78< | 80< | 80< | 79< | 79< | 80< | 83 | 84 | 83 | 80< | 75< | | |
| 200 | 78 | 79 | 79 | 79 | 77 | 77 | 77 | 79 | 80 | 80 | 80 | 81 | 81 | 82 | 82 | 79 | 73< | | |
| 250 | 79 | 79 | 79 | 80 | 79 | 78< | 79 | 80 | 81 | 82 | 82 | 82 | 83 | 81 | 82 | 78< | 72< | | |
| 315 | 80 | 81 | 82 | 81 | 80 | 80 | 80 | 81 | 81 | 81 | 82 | 82 | 84 | 83 | 81 | 79 | 74 | | |
| 400 | 85 | 85 | 84 | 84 | 83 | 82 | 82 | 83 | 85 | 87 | 85 | 85 | 83 | 84 | 81 | 79 | 75 | | |
| 500 | 85 | 85 | 85 | 84 | 82 | 81 | 80 | 82 | 83 | 83 | 83 | 84 | 82 | 82 | 80 | 78 | 74 | | |
| 630 | 86 | 86 | 86 | 85 | 84 | 82 | 81 | 81 | 83 | 83 | 82 | 83 | 83 | 82 | 79 | 78 | 74 | | |
| 800 | 88 | 87 | 88 | 87 | 85 | 83 | 81 | 81 | 81 | 81 | 81 | 81 | 81 | 80 | 79 | 77 | 74 | | |
| 1000 | 92 | 91 | 91 | 91 | 90 | 87 | 87 | 90 | 88 | 86 | 85 | 84 | 83 | 82 | 82 | 80 | 77 | | |
| 1250 | 95 | 94 | 96 | 95 | 93 | 88 | 89 | 91 | 88 | 86 | 86 | 86 | 86 | 84 | 84 | 81 | 77 | | |
| 1600 | 90 | 90 | 91 | 91 | 92 | 89 | 89 | 87 | 83 | 80 | 81 | 81 | 82 | 81 | 79 | 78 | 74 | | |
| 2000 | 96 | 95 | 95 | 93 | 92 | 90 | 90 | 88 | 85 | 81 | 82 | 81 | 82 | 80 | 79 | 77 | 72 | | |
| 2500 | 93 | 92 | 91 | 89 | 88 | 87 | 86 | 85 | 82 | 78 | 79 | 79 | 80 | 78 | 77 | 75 | 71 | | |
| 3150 | 91 | 91 | 91 | 91 | 91 | 90 | 91 | 91 | 87 | 86 | 89 | 90 | 88 | 86 | 83 | 79 | 75 | | |
| 4000 | 88 | 88 | 88 | 87 | 87 | 85 | 86 | 85 | 87 | 87 | 91 | 94 | 93 | 90 | 86 | 83 | 79 | | |
| 5000 | 85 | 85 | 85 | 84 | 83 | 80 | 79 | 79 | 76 | 75 | 78 | 80 | 79 | 76 | 74 | 72 | 68 | | |
| 6300 | 80 | 80 | 80 | 79 | 79 | 77 | 77 | 77 | 75 | 75 | 79 | 79 | 79 | 76 | 74 | 71 | 67 | | |
| 8000 | 76 | 76 | 76 | 75 | 76 | 76 | 76 | 76 | 76 | 77 | 79 | 80 | 82 | 78 | 77 | 75 | 71 | | |
| 10000 | 68 | 68 | 67 | 66 | 66 | 65 | 66 | 65 | 64 | 67 | 71 | 73 | 72 | 68 | 64 | 62 | 56 | | |
| OVERALL | 102 | 101 | 102 | 101 | 100 | 98 | 98 | 98 | 97 | 96 | 97 | 98 | 98 | 97 | 95 | 93 | 89 | | |

< 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 75-002-010
RUN 02
15 APR 75
PAGE 2

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 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 | 79 | 80 | 82 | 81 | 78 | 82 | 85 | 84 | 86 | 85 | 84 | 85 | 89 | 92 | 95 | 93 | | | |
| 31.5 | 83 | 81 | 82 | 80 | 83 | 84 | 84 | 84 | 86 | 87 | 89 | 90 | 91 | 96 | 99 | 98 | | | |
| 40 | 83 | 83 | 81 | 85 | 85 | 84 | 88 | 88 | 90 | 89 | 92 | 91 | 95 | 99 | 103 | 100 | | | |
| 50 | 85 | 84 | 86 | 87 | 88 | 89 | 91 | 91 | 91 | 92 | 93 | 96 | 99 | 105 | 105 | 101 | | | |
| 63 | 87 | 88 | 89 | 90 | 92 | 94 | 94 | 95 | 96 | 95 | 95 | 98 | 102 | 109 | 110 | 104 | | | |
| 80 | 89 | 88 | 91 | 91 | 91 | 94 | 95 | 96 | 98 | 98 | 98 | 100 | 104 | 109 | 112 | 107 | | | |
| 100 | 91 | 92 | 94 | 94 | 94 | 96 | 97 | 98 | 99 | 99 | 102 | 103 | 106 | 111 | 114 | 108 | | | |
| 125 | 93 | 92 | 94 | 95 | 97 | 97 | 99 | 100 | 102 | 101 | 103 | 107 | 108 | 112 | 112 | 106 | | | |
| 160 | 95 | 96 | 97 | 99 | 99 | 99 | 100 | 108 | 102 | 102 | 103 | 108 | 108 | 111 | 109 | 105 | | | |
| 200 | 96 | 96 | 97 | 98 | 98 | 98 | 101 | 101 | 102 | 103 | 105 | 107 | 108 | 109 | 109 | 103 | | | |
| 250 | 96 | 96 | 96 | 98 | 99 | 99 | 101 | 101 | 103 | 102 | 104 | 108 | 108 | 108 | 107 | 105 | | | |
| 315 | 94 | 94 | 95 | 96 | 98 | 99 | 99 | 101 | 101 | 102 | 102 | 106 | 109 | 105 | 105 | 103 | | | |
| 400 | 95 | 96 | 97 | 98 | 99 | 99 | 100 | 101 | 103 | 103 | 105 | 107 | 109 | 108 | 107 | 105 | | | |
| 500 | 95 | 96 | 96 | 97 | 98 | 100 | 100 | 101 | 103 | 104 | 105 | 107 | 108 | 108 | 106 | 103 | | | |
| 630 | 94 | 96 | 96 | 97 | 98 | 98 | 99 | 101 | 102 | 103 | 105 | 107 | 108 | 107 | 106 | 101 | | | |
| 800 | 94 | 95 | 95 | 96 | 96 | 98 | 97 | 99 | 100 | 102 | 103 | 106 | 106 | 104 | 103 | 99 | | | |
| 1000 | 93 | 96 | 95 | 96 | 97 | 97 | 97 | 99 | 99 | 101 | 102 | 104 | 105 | 102 | 101 | 96 | | | |
| 1250 | 95 | 96 | 95 | 96 | 96 | 96 | 97 | 98 | 98 | 100 | 101 | 104 | 103 | 100 | 99 | 95 | | | |
| 1600 | 91 | 93 | 94 | 95 | 95 | 95 | 96 | 97 | 97 | 100 | 100 | 102 | 101 | 99 | 97 | 93 | | | |
| 2000 | 96 | 96 | 96 | 97 | 97 | 97 | 98 | 98 | 98 | 101 | 101 | 102 | 101 | 99 | 97 | 93 | | | |
| 2500 | 97 | 97 | 97 | 101 | 98 | 98 | 97 | 97 | 97 | 98 | 98 | 99 | 97 | 96 | 94 | 90 | | | |
| 3150 | 92 | 93 | 94 | 95 | 95 | 94 | 95 | 96 | 96 | 97 | 96 | 98 | 97 | 95 | 93 | 88 | | | |
| 4000 | 89 | 90 | 90 | 91 | 91 | 91 | 91 | 93 | 94 | 95 | 96 | 97 | 96 | 94 | 92 | 86 | | | |
| 5000 | 89 | 89 | 90 | 90 | 90 | 90 | 90 | 91 | 91 | 92 | 92 | 92 | 91 | 90 | 88 | 84 | | | |
| 6300 | 84 | 84 | 85 | 85 | 86 | 86 | 86 | 87 | 88 | 89 | 88 | 89 | 88 | 87 | 85 | 81 | | | |
| 8000 | 81 | 83 | 82 | 83 | 83 | 84 | 84 | 85 | 87 | 88 | 87 | 87 | 87 | 85 | 82 | 78 | | | |
| 10000 | 74 | 75 | 75 | 76 | 76 | 77 | 76 | 78 | 79 | 81 | 81 | 81 | 81 | 79 | 76 | 71 | | | |
| OVERALL | 107 | 107 | 108 | 109 | 110 | 110 | 111 | 112 | 113 | 114 | 115 | 118 | 119 | 120 | 120 | 116 | | | |

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 75-002-010
RUN 03
15 APR 75
PAGE 2

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 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 | 76 | 75 | 75 | 77 | 77 | 78 | 79 | 80 | 80 | 82 | 80 | 82 | 84 | 87 | 92 | 91 | | | |
| 31.5 | 80 | 79 | 77 | 78 | 79 | 79 | 80 | 80 | 81 | 82 | 84 | 87 | 86 | 91 | 94 | 94 | | | |
| 40 | 81 | 81 | 80 | 80 | 81 | 81 | 83 | 83 | 85 | 86 | 87 | 88 | 91 | 94 | 98 | 97 | | | |
| 50 | 83 | 83 | 83 | 84 | 83 | 84 | 85 | 86 | 87 | 88 | 90 | 92 | 94 | 98 | 101 | 98 | | | |
| 63 | 85 | 85 | 85 | 85 | 86 | 87 | 87 | 88 | 90 | 91 | 91 | 93 | 97 | 100 | 103 | 100 | | | |
| 80 | 87 | 86 | 87 | 87 | 87 | 88 | 89 | 91 | 92 | 92 | 94 | 95 | 99 | 102 | 105 | 99 | | | |
| 100 | 88 | 88 | 89 | 89 | 89 | 90 | 92 | 93 | 94 | 95 | 97 | 99 | 101 | 104 | 105 | 101 | | | |
| 125 | 90 | 90 | 90 | 89 | 89 | 91 | 92 | 94 | 95 | 96 | 97 | 99 | 100 | 106 | 104 | 99 | | | |
| 160 | 90 | 91 | 91 | 90 | 90 | 90 | 92 | 94 | 95 | 97 | 98 | 99 | 101 | 105 | 104 | 97 | | | |
| 200 | 90 | 90 | 90 | 90 | 89 | 90 | 91 | 93 | 94 | 95 | 98 | 99 | 101 | 102 | 102 | 94 | | | |
| 250 | 91 | 91 | 91 | 91 | 90 | 92 | 91 | 94 | 94 | 96 | 97 | 100 | 101 | 101 | 101 | 93 | | | |
| 315 | 90 | 90 | 90 | 91 | 90 | 90 | 92 | 94 | 94 | 95 | 95 | 98 | 100 | 100 | 98 | 91 | | | |
| 400 | 91 | 92 | 92 | 92 | 91 | 91 | 92 | 95 | 95 | 97 | 98 | 100 | 101 | 99 | 96 | 90 | | | |
| 500 | 92 | 92 | 92 | 92 | 91 | 90 | 91 | 95 | 95 | 96 | 96 | 100 | 99 | 98 | 95 | 89 | | | |
| 630 | 93 | 93 | 93 | 92 | 92 | 91 | 90 | 94 | 93 | 94 | 95 | 98 | 99 | 95 | 93 | 88 | | | |
| 800 | 93 | 92 | 92 | 92 | 92 | 90 | 89 | 93 | 92 | 92 | 93 | 96 | 97 | 93 | 91 | 85 | | | |
| 1000 | 93 | 92 | 92 | 91 | 91 | 90 | 89 | 92 | 91 | 91 | 92 | 95 | 96 | 92 | 89 | 84 | | | |
| 1250 | 97 | 97 | 99 | 97 | 97 | 93 | 91 | 92 | 91 | 91 | 92 | 94 | 95 | 92 | 89 | 81 | | | |
| 1600 | 98 | 97 | 98 | 98 | 97 | 96 | 95 | 93 | 92 | 91 | 91 | 93 | 94 | 90 | 87 | 80 | | | |
| 2000 | 104 | 104 | 106 | 107 | 108 | 107 | 104 | 102 | 101 | 98 | 96 | 95 | 96 | 93 | 89 | 80 | | | |
| 2500 | 97 | 97 | 96 | 96 | 97 | 94 | 94 | 93 | 92 | 90 | 90 | 90 | 91 | 89 | 84 | 76 | | | |
| 3150 | 97 | 95 | 96 | 96 | 95 | 94 | 94 | 93 | 92 | 90 | 89 | 90 | 90 | 89 | 84 | 75 | | | |
| 4000 | 101 | 101 | 100 | 101 | 101 | 100 | 100 | 101 | 98 | 95 | 92 | 92 | 91 | 88 | 84 | 74 | | | |
| 5000 | 95 | 95 | 94 | 95 | 94 | 93 | 93 | 93 | 92 | 92 | 90 | 89 | 88 | 86 | 82 | 73 | | | |
| 6300 | 93 | 93 | 93 | 93 | 93 | 92 | 92 | 93 | 94 | 98 | 97 | 97 | 96 | 91 | 86 | 75 | | | |
| 8000 | 89 | 89 | 89 | 89 | 89 | 87 | 88 | 87 | 86 | 88 | 88 | 90 | 91 | 86 | 83 | 73 | | | |
| 10000 | 82 | 82 | 81 | 82 | 82 | 81 | 80 | 80 | 79 | 81 | 80 | 80 | 80 | 77 | 73 | 63 | | | |
| OVERALL | 109 | 109 | 109 | 110 | 110 | 109 | 108 | 108 | 108 | 108 | 108 | 110 | 111 | 113 | 113 | 108 | | | |

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 5

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 2

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 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 | 86 | 84 | 86 | 86 | 83 | 86 | 90 | 89 | 90 | 93 | 93 | 94 | 96 | 102 | 103 | 102 | | | |
| 31.5 | 88 | 88 | 88 | 88 | 87 | 89 | 90 | 91 | 92 | 93 | 95 | 97 | 100 | 104 | 108 | 105 | | | |
| 40 | 89 | 89 | 90 | 89 | 90 | 91 | 93 | 94 | 95 | 96 | 96 | 99 | 102 | 107 | 110 | 105 | | | |
| 50 | 91 | 91 | 91 | 93 | 92 | 93 | 95 | 96 | 96 | 97 | 100 | 102 | 106 | 110 | 113 | 105 | | | |
| 63 | 95 | 94 | 95 | 95 | 95 | 97 | 98 | 99 | 100 | 101 | 102 | 106 | 111 | 114 | 116 | 105 | | | |
| 80 | 96 | 96 | 96 | 96 | 96 | 99 | 99 | 101 | 102 | 103 | 105 | 105 | 111 | 116 | 116 | 106 | | | |
| 100 | 98 | 99 | 99 | 99 | 99 | 101 | 102 | 104 | 106 | 106 | 109 | 108 | 114 | 118 | 117 | 106 | | | |
| 125 | 101 | 102 | 102 | 100 | 102 | 102 | 103 | 106 | 107 | 109 | 110 | 114 | 118 | 122 | 117 | 105 | | | |
| 160 | 104 | 103 | 103 | 104 | 103 | 104 | 105 | 107 | 109 | 112 | 113 | 114 | 119 | 125 | 119 | 106 | | | |
| 200 | 106 | 104 | 105 | 104 | 104 | 104 | 105 | 107 | 109 | 112 | 115 | 115 | 120 | 125 | 120 | 103 | | | |
| 250 | 105 | 105 | 105 | 105 | 105 | 105 | 107 | 108 | 108 | 111 | 115 | 116 | 119 | 122 | 122 | 103 | | | |
| 315 | 103 | 103 | 104 | 104 | 104 | 104 | 105 | 107 | 108 | 110 | 112 | 114 | 118 | 119 | 119 | 103 | | | |
| 400 | 104 | 105 | 104 | 105 | 105 | 105 | 106 | 108 | 108 | 110 | 113 | 116 | 120 | 121 | 119 | 104 | | | |
| 500 | 104 | 104 | 103 | 104 | 104 | 105 | 105 | 106 | 108 | 111 | 113 | 114 | 116 | 118 | 117 | 104 | | | |
| 630 | 104 | 104 | 103 | 104 | 104 | 104 | 104 | 106 | 107 | 109 | 112 | 114 | 116 | 117 | 117 | 103 | | | |
| 800 | 103 | 103 | 103 | 103 | 103 | 103 | 102 | 105 | 106 | 108 | 109 | 112 | 114 | 114 | 114 | 100 | | | |
| 1000 | 101 | 102 | 102 | 102 | 102 | 102 | 102 | 105 | 106 | 108 | 109 | 111 | 113 | 111 | 111 | 98 | | | |
| 1250 | 100 | 101 | 101 | 101 | 101 | 101 | 102 | 104 | 105 | 106 | 108 | 111 | 112 | 111 | 109 | 94 | | | |
| 1600 | 99 | 99 | 100 | 99 | 100 | 99 | 101 | 103 | 105 | 105 | 107 | 109 | 111 | 110 | 107 | 92 | | | |
| 2000 | 101 | 101 | 102 | 101 | 102 | 101 | 102 | 104 | 105 | 106 | 108 | 110 | 111 | 110 | 106 | 92 | | | |
| 2500 | 106 | 106 | 106 | 107 | 106 | 103 | 104 | 105 | 104 | 103 | 105 | 107 | 109 | 107 | 104 | 88 | | | |
| 3150 | 99 | 100 | 99 | 100 | 99 | 98 | 99 | 101 | 101 | 102 | 103 | 106 | 107 | 106 | 102 | 87 | | | |
| 4000 | 95 | 96 | 95 | 96 | 95 | 96 | 96 | 99 | 100 | 101 | 102 | 104 | 105 | 105 | 101 | 85 | | | |
| 5000 | 97 | 97 | 97 | 97 | 96 | 96 | 96 | 97 | 97 | 99 | 100 | 102 | 103 | 102 | 99 | 82 | | | |
| 6300 | 91 | 92 | 91 | 92 | 91 | 91 | 92 | 94 | 95 | 96 | 97 | 99 | 101 | 99 | 96 | 80 | | | |
| 8000 | 89 | 89 | 89 | 90 | 89 | 89 | 89 | 91 | 92 | 95 | 97 | 98 | 99 | 97 | 95 | 78 | | | |
| 10000 | 82 | 82 | 83 | 83 | 82 | 82 | 82 | 85 | 86 | 88 | 92 | 94 | 94 | 93 | 90 | 73 | | | |
| OVERALL | 115 | 115 | 115 | 115 | 115 | 115 | 116 | 118 | 119 | 121 | 123 | 125 | 128 | 132 | 129 | 116 | | | |

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 75-002-010
RUN 05
15 APR 75
PAGE 2

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 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 | 88 | 88 | 88 | 89 | 89 | 88 | 92 | 92 | 94 | 96 | 95 | 98 | 98 | 102 | 104 | 103 | | | |
| 31.5 | 91 | 89 | 90 | 90 | 90 | 92 | 93 | 93 | 96 | 96 | 98 | 100 | 102 | 105 | 107 | 106 | | | |
| 40 | 92 | 92 | 92 | 92 | 94 | 94 | 95 | 97 | 97 | 98 | 99 | 103 | 106 | 109 | 111 | 106 | | | |
| 50 | 95 | 95 | 94 | 95 | 96 | 95 | 98 | 99 | 99 | 101 | 103 | 105 | 110 | 113 | 114 | 107 | | | |
| 63 | 98 | 97 | 98 | 98 | 99 | 98 | 100 | 103 | 104 | 103 | 105 | 108 | 113 | 117 | 116 | 110 | | | |
| 80 | 98 | 98 | 100 | 99 | 99 | 101 | 101 | 104 | 105 | 105 | 107 | 108 | 116 | 119 | 118 | 109 | | | |
| 100 | 101 | 102 | 102 | 102 | 102 | 103 | 104 | 106 | 108 | 109 | 111 | 111 | 118 | 121 | 118 | 109 | | | |
| 125 | 104 | 105 | 104 | 103 | 104 | 104 | 105 | 107 | 111 | 113 | 114 | 116 | 121 | 124 | 118 | 109 | | | |
| 160 | 107 | 107 | 107 | 107 | 107 | 107 | 109 | 110 | 112 | 116 | 116 | 118 | 122 | 128 | 120 | 113 | | | |
| 200 | 109 | 107 | 108 | 108 | 108 | 108 | 110 | 110 | 113 | 116 | 117 | 118 | 122 | 127 | 122 | 112 | | | |
| 250 | 108 | 109 | 108 | 109 | 109 | 108 | 110 | 112 | 112 | 116 | 119 | 120 | 123 | 125 | 124 | 113 | | | |
| 315 | 107 | 108 | 108 | 108 | 108 | 108 | 109 | 112 | 113 | 114 | 116 | 119 | 122 | 122 | 120 | 111 | | | |
| 400 | 109 | 109 | 108 | 109 | 109 | 109 | 110 | 111 | 112 | 114 | 117 | 119 | 123 | 125 | 122 | 112 | | | |
| 500 | 114 | 114 | 113 | 113 | 112 | 111 | 111 | 112 | 112 | 114 | 118 | 119 | 121 | 123 | 120 | 111 | | | |
| 630 | 113 | 114 | 113 | 113 | 113 | 111 | 112 | 112 | 113 | 114 | 116 | 119 | 121 | 121 | 119 | 111 | | | |
| 800 | 111 | 111 | 111 | 112 | 112 | 111 | 111 | 113 | 112 | 113 | 115 | 117 | 118 | 119 | 116 | 108 | | | |
| 1000 | 108 | 109 | 109 | 109 | 110 | 109 | 110 | 112 | 112 | 113 | 113 | 116 | 117 | 117 | 114 | 105 | | | |
| 1250 | 106 | 107 | 107 | 107 | 108 | 108 | 108 | 111 | 111 | 112 | 113 | 116 | 116 | 115 | 112 | 101 | | | |
| 1600 | 104 | 105 | 106 | 105 | 106 | 105 | 107 | 109 | 110 | 111 | 112 | 115 | 115 | 114 | 111 | 99 | | | |
| 2000 | 105 | 105 | 106 | 106 | 106 | 106 | 107 | 110 | 111 | 112 | 113 | 115 | 115 | 114 | 111 | 98 | | | |
| 2500 | 104 | 105 | 105 | 105 | 105 | 105 | 106 | 107 | 108 | 109 | 110 | 112 | 113 | 111 | 108 | 95 | | | |
| 3150 | 102 | 103 | 103 | 103 | 103 | 103 | 104 | 106 | 107 | 108 | 109 | 112 | 112 | 110 | 106 | 94 | | | |
| 4000 | 98 | 99 | 99 | 99 | 100 | 100 | 101 | 104 | 105 | 106 | 108 | 110 | 110 | 109 | 105 | 92 | | | |
| 5000 | 96 | 96 | 97 | 97 | 97 | 98 | 98 | 100 | 102 | 103 | 105 | 107 | 107 | 106 | 102 | 90 | | | |
| 6300 | 92 | 93 | 93 | 93 | 94 | 94 | 95 | 98 | 99 | 100 | 102 | 105 | 105 | 104 | 100 | 87 | | | |
| 8000 | 88 | 89 | 89 | 89 | 90 | 91 | 92 | 95 | 96 | 98 | 100 | 103 | 103 | 102 | 98 | 85 | | | |
| 10000 | 82 | 83 | 83 | 83 | 84 | 85 | 86 | 89 | 91 | 93 | 96 | 99 | 100 | 98 | 93 | 80 | | | |
| OVERALL | 120 | 121 | 121 | 121 | 121 | 120 | 121 | 123 | 124 | 125 | 127 | 129 | 132 | 135 | 131 | 122 | | | |

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: DIRECTIVITY INDEX (DB)

6

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-010
RUN 01

15 APR 75

PAGE 4

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/3 OCTAVE | | | | | | | | | | | | | | | | | | | |
| 25 | -4 | -6 | -4 | -6 | -6 | -5 | -4 | -2 | -0 | -0 | 1 | 0 | 3 | 3 | 2 | 2 | 1 | | |
| 31.5 | -5 | -5 | -4 | -5 | -4 | -5 | -4 | -3 | -2 | -2 | -0 | 0 | 2 | 4 | 4 | 3 | -1 | | |
| 40 | -4 | -5 | -3 | -3 | -2 | -4 | -3 | -3 | -2 | -1 | -1 | 2 | 2 | 3 | 4 | 4 | -1 | | |
| 50 | -0 | -1 | -2 | -2 | -1 | -2 | -2 | -1 | 1 | -1 | 1 | 0 | 1 | 1 | 3 | 2 | -2 | | |
| 63 | -3 | -3 | -3 | -4 | -3 | -3 | -3 | -1 | -0 | -1 | -0 | 1 | 2 | 3 | 3 | 2 | -2 | | |
| 80 | -3 | -3 | -3 | -4 | -3 | -3 | -4 | -1 | -1 | -0 | 0 | 1 | 2 | 3 | 3 | 2 | -1 | | |
| 100 | -4 | -3 | -3 | -3 | -4 | -3 | -1 | -1 | -1 | -1 | 1 | 2 | 1 | 3 | 2 | 0 | -3 | | |
| 125 | -4 | -4 | -3 | -2 | -5 | -3 | -3 | -2 | -2 | -1 | -1 | 1 | 3 | 4 | 3 | 1 | -3 | | |
| 160 | -2 | -1 | -2 | -1 | -4 | -3 | -3 | -0 | -0 | -1 | -1 | -0 | 3 | 4 | 2 | -0 | -5 | | |
| 200 | -2 | -1 | -1 | -1 | -3 | -3 | -3 | -1 | -0 | 0 | 0 | 1 | 1 | 3 | 2 | -0 | -7 | | |
| 250 | -2 | -2 | -1 | -1 | -2 | -3 | -2 | -1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | -3 | -8 | | |
| 315 | -1 | -0 | 0 | -0 | -1 | -1 | -1 | -1 | -1 | -0 | 0 | 0 | 3 | 2 | -0 | -2 | -7 | | |
| 400 | 1 | 1 | 0 | 0 | -1 | -2 | -2 | -1 | 1 | 3 | 1 | 1 | -1 | -0 | -3 | -5 | -9 | | |
| 500 | 2 | 3 | 2 | 2 | 0 | -1 | -2 | -1 | 0 | 1 | 1 | 2 | 0 | -0 | -2 | -4 | -9 | | |
| 630 | 4 | 3 | 3 | 3 | 1 | -0 | -1 | -1 | 1 | 0 | -0 | 0 | 1 | -1 | -3 | -4 | -8 | | |
| 800 | 6 | 5 | 6 | 5 | 3 | 1 | -1 | -1 | -1 | -1 | -1 | -1 | -1 | -2 | -3 | -5 | -8 | | |
| 1000 | 5 | 4 | 4 | 4 | 3 | 0 | 0 | 3 | 1 | -1 | -2 | -3 | -4 | -5 | -5 | -7 | -10 | | |
| 1250 | 6 | 5 | 7 | 5 | 4 | -1 | -0 | 2 | -1 | -3 | -3 | -4 | -3 | -5 | -6 | -8 | -12 | | |
| 1600 | 4 | 4 | 5 | 5 | 6 | 3 | 3 | 1 | -3 | -6 | -5 | -6 | -4 | -6 | -7 | -8 | -13 | | |
| 2000 | 8 | 7 | 7 | 5 | 4 | 2 | 2 | 0 | -3 | -7 | -6 | -7 | -6 | -8 | -9 | -11 | -16 | | |
| 2500 | 8 | 8 | 7 | 4 | 4 | 3 | 2 | 1 | -3 | -7 | -5 | -5 | -4 | -6 | -8 | -9 | -14 | | |
| 3150 | 2 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | -1 | -3 | 0 | 1 | -1 | -3 | -6 | -9 | -13 | | |
| 4000 | -1 | -1 | -1 | -2 | -2 | -4 | -3 | -4 | -2 | -2 | 2 | 5 | 4 | 1 | -3 | -6 | -10 | | |
| 5000 | 6 | 5 | 5 | 5 | 4 | 0 | 0 | -0 | -3 | -4 | -1 | 0 | -0 | -3 | -6 | -7 | -12 | | |
| 6300 | 3 | 3 | 2 | 2 | 1 | -0 | -0 | -0 | -2 | -2 | 2 | 2 | 2 | -1 | -4 | -6 | -10 | | |
| 8000 | -2 | -1 | -2 | -3 | -2 | -2 | -2 | -2 | -2 | -1 | 2 | 3 | 4 | 1 | -1 | -2 | -7 | | |
| 10000 | -0 | -1 | -1 | -2 | -2 | -3 | -3 | -3 | -4 | -2 | 3 | 5 | 4 | -0 | -4 | -7 | -12 | | |
| OCTAVE | | | | | | | | | | | | | | | | | | | |
| 31.5 | -4 | -5 | -4 | -4 | -4 | -5 | -4 | -3 | -1 | -1 | -0 | 1 | 2 | 4 | 4 | 3 | -1 | | |
| 63 | -2 | -2 | -3 | -3 | -2 | -3 | -3 | -1 | -0 | -1 | 0 | 1 | 2 | 3 | 3 | 2 | -2 | | |
| 125 | -3 | -2 | -3 | -2 | -4 | -3 | -2 | -1 | -1 | -1 | -0 | 1 | 2 | 4 | 2 | 0 | -4 | | |
| 250 | -1 | -1 | -0 | -1 | -2 | -2 | -2 | -1 | 0 | 0 | 1 | 1 | 2 | 2 | 1 | -2 | -7 | | |
| 500 | 3 | 2 | 2 | 2 | 0 | -1 | -2 | -1 | 1 | 2 | 1 | 1 | -0 | -0 | -3 | -4 | -9 | | |
| 1000 | 6 | 4 | 6 | 5 | 4 | -0 | -0 | 2 | -0 | -2 | -3 | -3 | -3 | -5 | -5 | -7 | -11 | | |
| 2000 | 7 | 7 | 6 | 5 | 5 | 2 | 2 | 0 | -3 | -7 | -6 | -6 | -5 | -7 | -8 | -10 | -14 | | |
| 4000 | 1 | 1 | 1 | 1 | 1 | -1 | -0 | -0 | -2 | -2 | 1 | 3 | 2 | -1 | -4 | -8 | -11 | | |
| 8000 | 1 | 1 | 1 | -0 | -0 | -1 | -1 | -1 | -2 | -1 | 2 | 3 | 3 | -0 | -2 | -4 | -8 | | |
| OVERALL | 4 | 4 | 4 | 3 | 2 | -0 | 0 | 1 | -1 | -2 | -1 | 0 | 0 | -1 | -3 | -5 | -9 | | |

TABLE: DIRECTIVITY INDEX (DB)

6

NOISE SOURCE/SUBJECT:

B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 M HG
REL HUMID = 39 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 4

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

TABLE: DIRECTIVITY INDEX (DB)

6

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 4

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/3 OCTAVE | | | | | | | | | | | | | | | | | | | |
| 25 | -8 | -9 | -10 | -8 | -8 | -6 | -5 | -4 | -4 | -3 | -4 | -2 | -1 | 3 | 8 | 7 | | | |
| 31.5 | -7 | -8 | -10 | -9 | -8 | -8 | -7 | -7 | -6 | -5 | -3 | -0 | -1 | 4 | 7 | 7 | | | |
| 40 | -10 | -9 | -10 | -10 | -10 | -10 | -7 | -7 | -6 | -5 | -3 | -2 | 0 | 4 | 8 | 7 | | | |
| 50 | -10 | -10 | -10 | -9 | -10 | -9 | -8 | -7 | -6 | -5 | -3 | -1 | 1 | 5 | 8 | 5 | | | |
| 63 | -10 | -10 | -10 | -10 | -9 | -8 | -8 | -7 | -5 | -5 | -5 | -2 | 2 | 5 | 8 | 5 | | | |
| 80 | -10 | -11 | -10 | -10 | -9 | -9 | -8 | -6 | -5 | -5 | -3 | -1 | 2 | 5 | 8 | 3 | | | |
| 100 | -11 | -11 | -9 | -10 | -9 | -8 | -7 | -6 | -4 | -3 | -1 | 1 | 2 | 6 | 7 | 2 | | | |
| 125 | -9 | -8 | -8 | -9 | -9 | -8 | -7 | -5 | -3 | -3 | -1 | 0 | 2 | 7 | 6 | 1 | | | |
| 160 | -8 | -8 | -8 | -9 | -8 | -8 | -6 | -4 | -3 | -2 | -1 | 1 | 3 | 6 | 5 | -1 | | | |
| 200 | -7 | -7 | -7 | -7 | -8 | -7 | -6 | -4 | -3 | -2 | 1 | 2 | 4 | 5 | 5 | -3 | | | |
| 250 | -6 | -6 | -6 | -6 | -7 | -5 | -6 | -3 | -3 | -1 | 0 | 3 | 4 | 4 | 4 | -4 | | | |
| 315 | -5 | -6 | -5 | -5 | -6 | -6 | -4 | -2 | -1 | -1 | -1 | 3 | 5 | 4 | 2 | -5 | | | |
| 400 | -5 | -4 | -5 | -5 | -6 | -6 | -5 | -2 | -2 | 0 | 2 | 3 | 4 | 3 | -1 | -6 | | | |
| 500 | -4 | -4 | -3 | -4 | -4 | -5 | -5 | -1 | -0 | 0 | 0 | 4 | 4 | 2 | -0 | -6 | | | |
| 630 | -1 | -1 | -2 | -2 | -2 | -3 | -5 | -0 | -1 | -0 | 1 | 4 | 4 | 1 | -1 | -6 | | | |
| 800 | 0 | -1 | -0 | -1 | -1 | -3 | -4 | -0 | -1 | -1 | 1 | 4 | 4 | 0 | -1 | -8 | | | |
| 1000 | 1 | 0 | 0 | -1 | -1 | -2 | -3 | -0 | -1 | -1 | 0 | 3 | 4 | 0 | -3 | -8 | | | |
| 1250 | 4 | 3 | 5 | 4 | 3 | -1 | -2 | -1 | -3 | -2 | -2 | 1 | 2 | -1 | -4 | -12 | | | |
| 1600 | 4 | 4 | 4 | 4 | 4 | 2 | 1 | -0 | -2 | -3 | -2 | -1 | 1 | -3 | -7 | -14 | | | |
| 2000 | 2 | 2 | 4 | 5 | 6 | 5 | 2 | -0 | -1 | -4 | -6 | -7 | -6 | -9 | -13 | -22 | | | |
| 2500 | 4 | 4 | 4 | 4 | 4 | 2 | 1 | 1 | -0 | -2 | -2 | -2 | -2 | -3 | -8 | -16 | | | |
| 3150 | 5 | 3 | 4 | 4 | 3 | 2 | 2 | 1 | -0 | -2 | -3 | -2 | -2 | -3 | -8 | -17 | | | |
| 4000 | 4 | 4 | 3 | 4 | 4 | 2 | 3 | 4 | 1 | -3 | -5 | -6 | -6 | -9 | -13 | -23 | | | |
| 5000 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 1 | 1 | -1 | -2 | -3 | -6 | -9 | -19 | | | |
| 6300 | -1 | -2 | -1 | -1 | -1 | -2 | -3 | -2 | -0 | 4 | 3 | 2 | 2 | -4 | -8 | -19 | | | |
| 8000 | 1 | 1 | 1 | 2 | 1 | -0 | 0 | -0 | -2 | 0 | 0 | 3 | 3 | -1 | -5 | -14 | | | |
| 10000 | 2 | 2 | 1 | 2 | 2 | 1 | 0 | 0 | -1 | 1 | 0 | 0 | 0 | -3 | -7 | -17 | | | |
| OCTAVE | | | | | | | | | | | | | | | | | | | |
| 31.5 | -9 | -9 | -10 | -9 | -9 | -8 | -7 | -6 | -5 | -4 | -3 | -2 | 0 | 4 | 8 | 7 | | | |
| 63 | -10 | -11 | -10 | -10 | -9 | -9 | -8 | -6 | -5 | -5 | -4 | -2 | 2 | 5 | 8 | 4 | | | |
| 125 | -9 | -9 | -8 | -9 | -9 | -8 | -7 | -5 | -4 | -3 | -1 | 1 | 2 | 6 | 6 | 1 | | | |
| 250 | -6 | -6 | -6 | -6 | -7 | -6 | -5 | -3 | -3 | -1 | 0 | 3 | 4 | 4 | 4 | -4 | | | |
| 500 | -3 | -3 | -3 | -4 | -4 | -5 | -5 | -1 | -1 | 0 | 1 | 4 | 4 | 2 | -1 | -6 | | | |
| 1000 | 2 | 2 | 3 | 2 | 1 | -2 | -3 | -1 | -1 | -1 | -0 | 3 | 3 | -0 | -3 | -9 | | | |
| 2000 | 2 | 3 | 4 | 5 | 5 | 4 | 2 | -0 | -1 | -4 | -5 | -5 | -4 | -7 | -11 | -19 | | | |
| 4000 | 4 | 4 | 3 | 4 | 4 | 2 | 2 | 3 | 0 | -2 | -4 | -4 | -5 | -7 | -11 | -21 | | | |
| 8000 | -0 | -1 | -1 | -0 | -1 | -2 | -2 | -1 | -1 | 3 | 2 | 2 | 2 | -3 | -7 | -18 | | | |
| OVERALL | -1 | -1 | -0 | 0 | 1 | -0 | -2 | -1 | -2 | -2 | -1 | 1 | 2 | 3 | 3 | -1 | | | |

TABLE: DIRECTIVITY INDEX (DB)

6

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 4

NOISE SOURCE/SUBJECT:
8-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/3 OCTAVE | | | | | | | | | | | | | | | | | | | |
| 25 | -10 | -12 | -10 | -10 | -13 | -10 | -6 | -7 | -6 | -3 | -3 | -2 | -0 | 6 | 7 | 6 | | | |
| 31.5 | -11 | -11 | -12 | -11 | -12 | -10 | -10 | -8 | -7 | -6 | -5 | -2 | 1 | 5 | 9 | 6 | | | |
| 40 | -12 | -12 | -12 | -13 | -11 | -10 | -8 | -7 | -7 | -6 | -5 | -2 | 1 | 5 | 9 | 4 | | | |
| 50 | -13 | -13 | -13 | -11 | -12 | -11 | -9 | -8 | -8 | -7 | -4 | -2 | 2 | 6 | 9 | 1 | | | |
| 63 | -13 | -14 | -13 | -13 | -12 | -10 | -10 | -9 | -7 | -6 | -6 | -2 | 3 | 7 | 8 | -3 | | | |
| 80 | -12 | -12 | -12 | -12 | -12 | -10 | -9 | -7 | -6 | -5 | -4 | -3 | 2 | 7 | 8 | -2 | | | |
| 100 | -13 | -12 | -11 | -12 | -12 | -10 | -9 | -7 | -5 | -5 | -1 | -3 | 3 | 7 | 6 | -4 | | | |
| 125 | -13 | -12 | -12 | -14 | -12 | -12 | -10 | -8 | -7 | -5 | -4 | 0 | 4 | 9 | 3 | -9 | | | |
| 160 | -12 | -13 | -13 | -12 | -12 | -12 | -11 | -8 | -7 | -4 | -2 | -2 | 3 | 9 | 3 | -10 | | | |
| 200 | -11 | -12 | -12 | -12 | -12 | -12 | -11 | -9 | -8 | -4 | -1 | -1 | 3 | 9 | 3 | -13 | | | |
| 250 | -10 | -10 | -10 | -10 | -10 | -10 | -8 | -7 | -7 | -4 | 0 | 1 | 4 | 7 | 7 | -12 | | | |
| 315 | -10 | -9 | -9 | -9 | -9 | -8 | -8 | -6 | -5 | -3 | -1 | 1 | 5 | 6 | 6 | -10 | | | |
| 400 | -10 | -10 | -10 | -9 | -10 | -10 | -9 | -7 | -6 | -4 | -1 | 2 | 5 | 7 | 5 | -11 | | | |
| 500 | -9 | -8 | -9 | -9 | -8 | -8 | -7 | -6 | -4 | -2 | 0 | 2 | 4 | 6 | 5 | -8 | | | |
| 630 | -8 | -8 | -8 | -8 | -8 | -8 | -8 | -5 | -4 | -2 | -0 | 2 | 4 | 5 | 5 | -9 | | | |
| 800 | -6 | -6 | -6 | -6 | -6 | -7 | -7 | -5 | -4 | -1 | 0 | 3 | 4 | 4 | 5 | -9 | | | |
| 1000 | -7 | -6 | -6 | -6 | -6 | -6 | -6 | -3 | -2 | -0 | 1 | 3 | 5 | 3 | 3 | -10 | | | |
| 1250 | -7 | -6 | -6 | -6 | -7 | -7 | -6 | -3 | -2 | -1 | 1 | 3 | 5 | 3 | 1 | -13 | | | |
| 1600 | -7 | -7 | -6 | -7 | -6 | -7 | -5 | -3 | -1 | -1 | 1 | 3 | 5 | 4 | 1 | -14 | | | |
| 2000 | -5 | -5 | -5 | -5 | -5 | -6 | -4 | -2 | -2 | -0 | 1 | 4 | 5 | 4 | -0 | -14 | | | |
| 2500 | 1 | 1 | 0 | 1 | 1 | -2 | -1 | -1 | -1 | -2 | -0 | 2 | 4 | 2 | -2 | -17 | | | |
| 3150 | -3 | -3 | -4 | -3 | -4 | -5 | -3 | -2 | -1 | -0 | 1 | 3 | 5 | 4 | -0 | -16 | | | |
| 4000 | -6 | -5 | -6 | -5 | -6 | -5 | -5 | -2 | -1 | -0 | 1 | 3 | 4 | 4 | 0 | -16 | | | |
| 5000 | -2 | -2 | -2 | -2 | -3 | -3 | -3 | -2 | -2 | -0 | 1 | 3 | 4 | 3 | 0 | -17 | | | |
| 6300 | -5 | -4 | -5 | -4 | -5 | -5 | -4 | -2 | -1 | -0 | 1 | 3 | 5 | 3 | 0 | -16 | | | |
| 8000 | -5 | -5 | -5 | -5 | -5 | -6 | -5 | -3 | -2 | 1 | 3 | 4 | 4 | 3 | 0 | -16 | | | |
| 10000 | -7 | -7 | -7 | -6 | -8 | -7 | -7 | -5 | -4 | -1 | 2 | 5 | 5 | 3 | 0 | -17 | | | |
| OCTAVE | | | | | | | | | | | | | | | | | | | |
| 31.5 | -12 | -12 | -11 | -12 | -12 | -10 | -8 | -7 | -7 | -5 | -5 | -2 | 1 | 5 | 9 | 5 | | | |
| 63 | -13 | -13 | -12 | -12 | -12 | -10 | -10 | -8 | -7 | -6 | -4 | -2 | 2 | 7 | 8 | -2 | | | |
| 125 | -12 | -12 | -12 | -12 | -12 | -11 | -10 | -8 | -7 | -4 | -3 | -1 | 3 | 9 | 4 | -8 | | | |
| 250 | -11 | -11 | -11 | -11 | -10 | -10 | -9 | -8 | -7 | -4 | -1 | -0 | 4 | 8 | 5 | -12 | | | |
| 500 | -9 | -9 | -9 | -9 | -9 | -9 | -8 | -6 | -5 | -3 | -0 | 2 | 5 | 6 | 5 | -9 | | | |
| 1000 | -7 | -6 | -6 | -6 | -6 | -6 | -6 | -4 | -3 | -1 | 1 | 3 | 5 | 4 | 3 | -10 | | | |
| 2000 | -3 | -3 | -3 | -2 | -3 | -5 | -3 | -2 | -1 | -1 | 1 | 3 | 5 | 3 | -0 | -15 | | | |
| 4000 | -4 | -3 | -4 | -3 | -4 | -4 | -4 | -2 | -1 | -0 | 1 | 3 | 4 | 4 | 0 | -16 | | | |
| 8000 | -5 | -5 | -5 | -5 | -6 | -6 | -5 | -3 | -2 | -0 | 2 | 3 | 5 | 3 | 0 | -16 | | | |
| OVERALL | -9 | -9 | -9 | -9 | -9 | -9 | -8 | -6 | -5 | -3 | -1 | 1 | 4 | 7 | 5 | -8 | | | |

TABLE: DIRECTIVITY INDEX (DB)

6

IDENTIFICATION:

OMEGA 1.4
TEST 75-002-010
RUN 05

15 APR 75

PAGE 4

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/3 OCTAVE | | | | | | | | | | | | | | | | | | | |
| 25 | -10 | -9 | -9 | -9 | -8 | -10 | -6 | -5 | -4 | -2 | -2 | 1 | 1 | 4 | 7 | 5 | | | |
| 31.5 | -9 | -11 | -11 | -10 | -10 | -8 | -7 | -8 | -4 | -4 | -2 | 0 | 2 | 5 | 7 | 6 | | | |
| 40 | -11 | -11 | -11 | -11 | -9 | -9 | -9 | -6 | -6 | -5 | -4 | -0 | 3 | 6 | 8 | 2 | | | |
| 50 | -12 | -12 | -12 | -11 | -11 | -11 | -9 | -7 | -7 | -5 | -3 | -1 | 3 | 7 | 7 | 1 | | | |
| 63 | -12 | -13 | -11 | -11 | -11 | -11 | -10 | -7 | -6 | -7 | -4 | -2 | 3 | 8 | 6 | 0 | | | |
| 80 | -13 | -13 | -12 | -12 | -12 | -11 | -10 | -7 | -6 | -6 | -4 | -3 | 4 | 8 | 6 | -2 | | | |
| 100 | -12 | -11 | -11 | -11 | -11 | -10 | -9 | -7 | -5 | -4 | -2 | -2 | 5 | 8 | 5 | -4 | | | |
| 125 | -12 | -11 | -12 | -13 | -12 | -12 | -11 | -9 | -5 | -3 | -2 | 0 | 5 | 8 | 2 | -7 | | | |
| 160 | -12 | -11 | -12 | -11 | -11 | -11 | -10 | -9 | -6 | -3 | -3 | -0 | 3 | 9 | 1 | -6 | | | |
| 200 | -10 | -12 | -11 | -11 | -11 | -11 | -9 | -9 | -5 | -2 | -1 | -1 | 3 | 8 | 3 | -7 | | | |
| 250 | -11 | -10 | -11 | -10 | -10 | -11 | -9 | -7 | -7 | -3 | -0 | 1 | 5 | 6 | 5 | -6 | | | |
| 315 | -10 | -9 | -9 | -9 | -9 | -9 | -8 | -5 | -4 | -3 | -0 | 2 | 5 | 5 | 4 | -6 | | | |
| 400 | -9 | -9 | -10 | -9 | -9 | -9 | -8 | -7 | -6 | -4 | -1 | 1 | 5 | 7 | 4 | -6 | | | |
| 500 | -3 | -3 | -4 | -4 | -5 | -6 | -6 | -5 | -5 | -3 | 1 | 2 | 4 | 6 | 3 | -6 | | | |
| 630 | -3 | -3 | -3 | -4 | -3 | -5 | -4 | -4 | -4 | -3 | -0 | 3 | 4 | 5 | 3 | -5 | | | |
| 800 | -4 | -3 | -3 | -3 | -2 | -4 | -3 | -1 | -3 | -2 | 0 | 2 | 4 | 5 | 1 | -7 | | | |
| 1000 | -5 | -4 | -4 | -4 | -3 | -4 | -3 | -1 | -1 | -0 | 0 | 3 | 4 | 4 | 1 | -8 | | | |
| 1250 | -6 | -6 | -5 | -5 | -4 | -5 | -4 | -2 | -1 | -0 | 1 | 4 | 4 | 3 | 0 | -11 | | | |
| 1600 | -7 | -6 | -5 | -6 | -5 | -6 | -4 | -2 | -1 | 0 | 1 | 4 | 4 | 3 | 0 | -12 | | | |
| 2000 | -7 | -6 | -6 | -6 | -5 | -6 | -4 | -2 | -0 | 1 | 2 | 4 | 4 | 3 | -1 | -13 | | | |
| 2500 | -5 | -3 | -4 | -4 | -3 | -4 | -3 | -1 | -1 | 0 | 1 | 4 | 4 | 2 | -1 | -13 | | | |
| 3150 | -6 | -5 | -5 | -4 | -5 | -5 | -4 | -2 | -1 | 0 | 2 | 4 | 4 | 2 | -1 | -14 | | | |
| 4000 | -7 | -7 | -6 | -7 | -6 | -6 | -5 | -2 | -1 | 1 | 2 | 4 | 4 | 3 | -1 | -13 | | | |
| 5000 | -7 | -7 | -6 | -6 | -6 | -5 | -5 | -3 | -1 | 0 | 2 | 4 | 4 | 3 | -1 | -13 | | | |
| 6300 | -9 | -8 | -8 | -7 | -7 | -6 | -5 | -3 | -2 | -0 | 2 | 4 | 5 | 3 | -1 | -13 | | | |
| 8000 | -10 | -10 | -9 | -9 | -8 | -8 | -7 | -4 | -2 | -0 | 2 | 5 | 5 | 4 | -0 | -14 | | | |
| 10000 | -12 | -12 | -11 | -11 | -11 | -10 | -9 | -6 | -3 | -1 | 1 | 5 | 6 | 3 | -1 | -15 | | | |
| OCTAVE | | | | | | | | | | | | | | | | | | | |
| 31.5 | -10 | -11 | -11 | -11 | -9 | -9 | -8 | -6 | -5 | -4 | -3 | 0 | 2 | 5 | 7 | 4 | | | |
| 63 | -12 | -13 | -12 | -12 | -11 | -11 | -10 | -7 | -6 | -6 | -4 | -2 | 4 | 7 | 6 | -1 | | | |
| 125 | -12 | -11 | -12 | -12 | -11 | -11 | -10 | -8 | -6 | -3 | -3 | -0 | 4 | 9 | 2 | -6 | | | |
| 250 | -10 | -10 | -10 | -10 | -10 | -10 | -9 | -7 | -5 | -3 | -1 | 1 | 4 | 7 | 4 | -6 | | | |
| 500 | -5 | -4 | -5 | -5 | -6 | -7 | -6 | -5 | -5 | -3 | -0 | 2 | 5 | 6 | 3 | -6 | | | |
| 1000 | -5 | -4 | -4 | -4 | -3 | -4 | -3 | -1 | -2 | -1 | 0 | 3 | 4 | 4 | 1 | -8 | | | |
| 2000 | -6 | -5 | -5 | -5 | -5 | -5 | -4 | -2 | -1 | 0 | 1 | 4 | 4 | 3 | -0 | -13 | | | |
| 4000 | -7 | -6 | -5 | -5 | -5 | -5 | -4 | -2 | -1 | 0 | 2 | 4 | 4 | 3 | -1 | -13 | | | |
| 8000 | -9 | -9 | -8 | -8 | -7 | -7 | -6 | -4 | -2 | -0 | 2 | 4 | 5 | 3 | -1 | -14 | | | |
| OVERALL | -7 | -7 | -7 | -7 | -7 | -8 | -7 | -5 | -4 | -2 | -1 | 1 | 4 | 7 | 3 | -6 | | | |

FIGURE: NORMALIZED FARFIELD NOISE LEVELS

3

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01

15 APR 75

PAGE 6

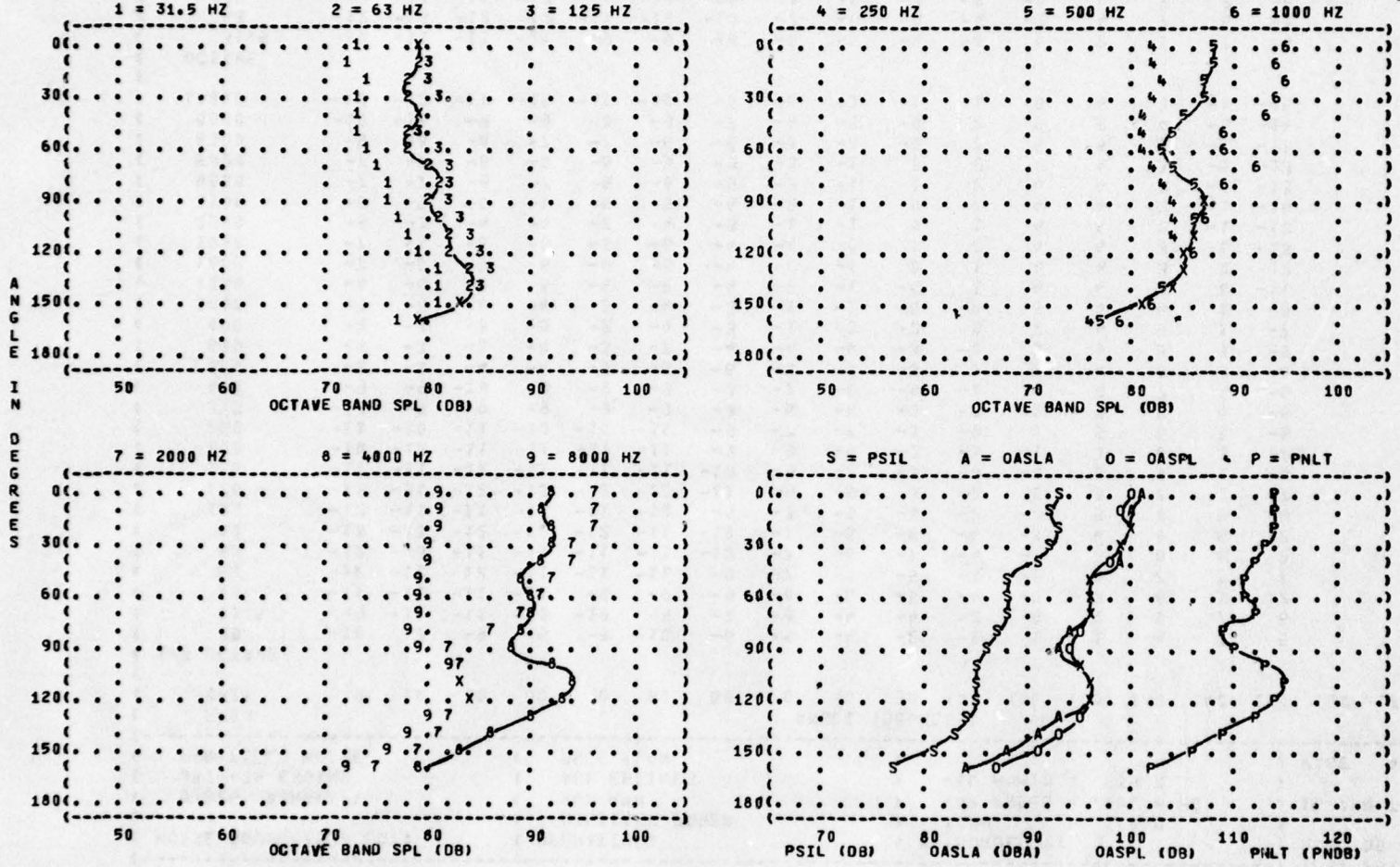


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

3

DISTANCE = 100 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02

15 APR 75

PAGE 6

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 4.15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

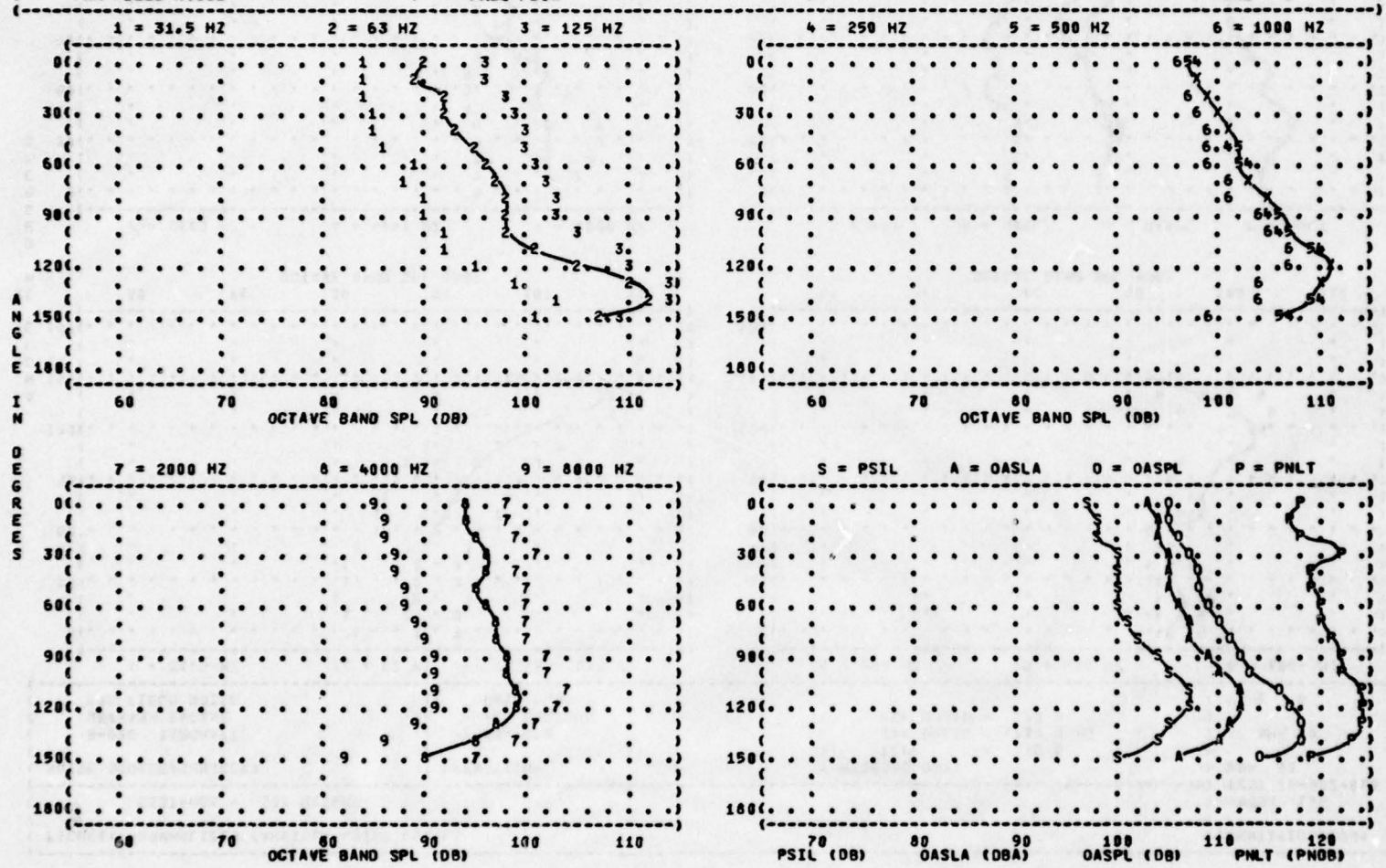


FIGURE 3 NORMALIZED FARFIELD NOISE LEVELS

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 6

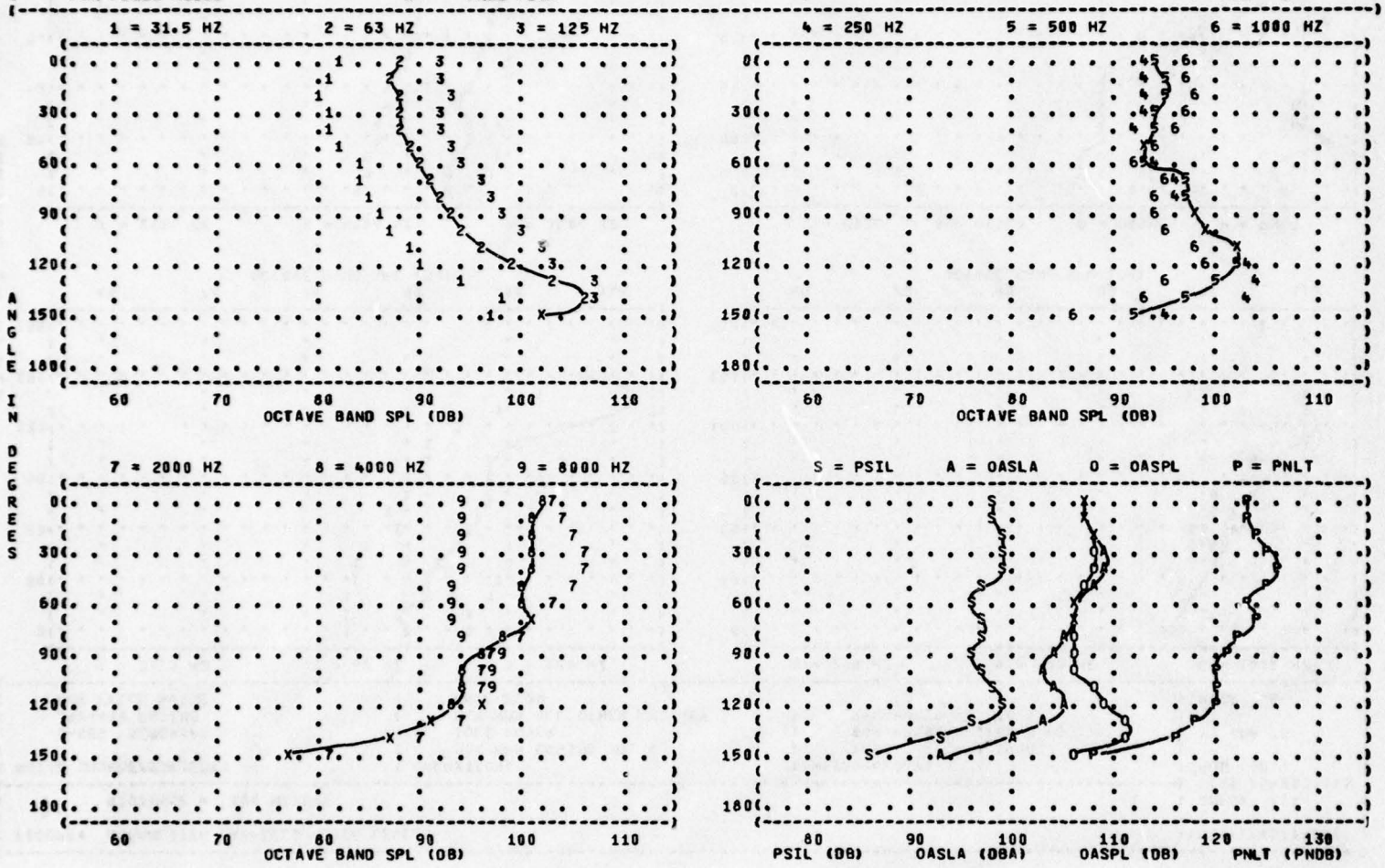


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

3

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 6

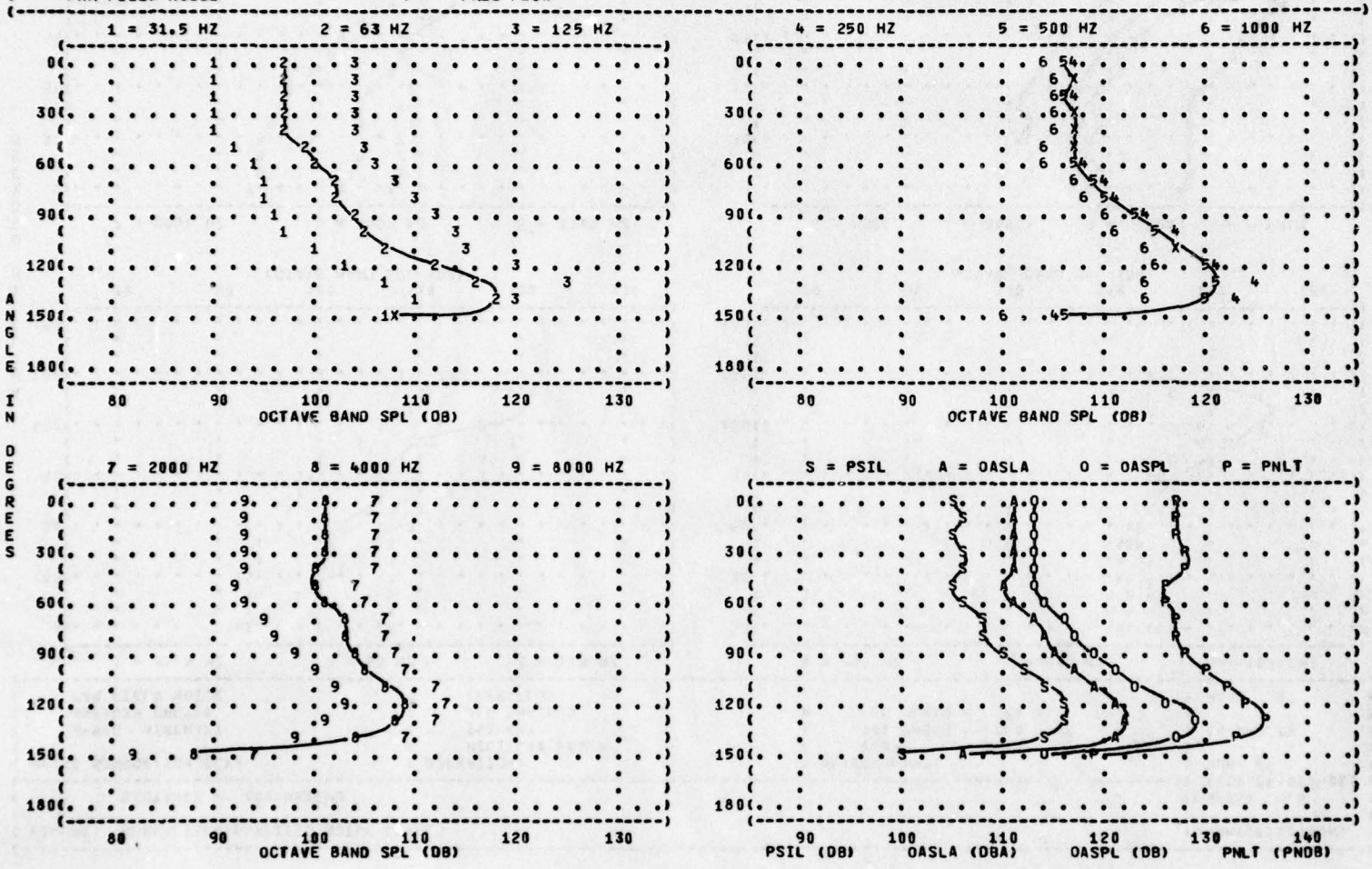


FIGURE 3 NORMALIZED FARFIELD NOISE LEVELS

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 6

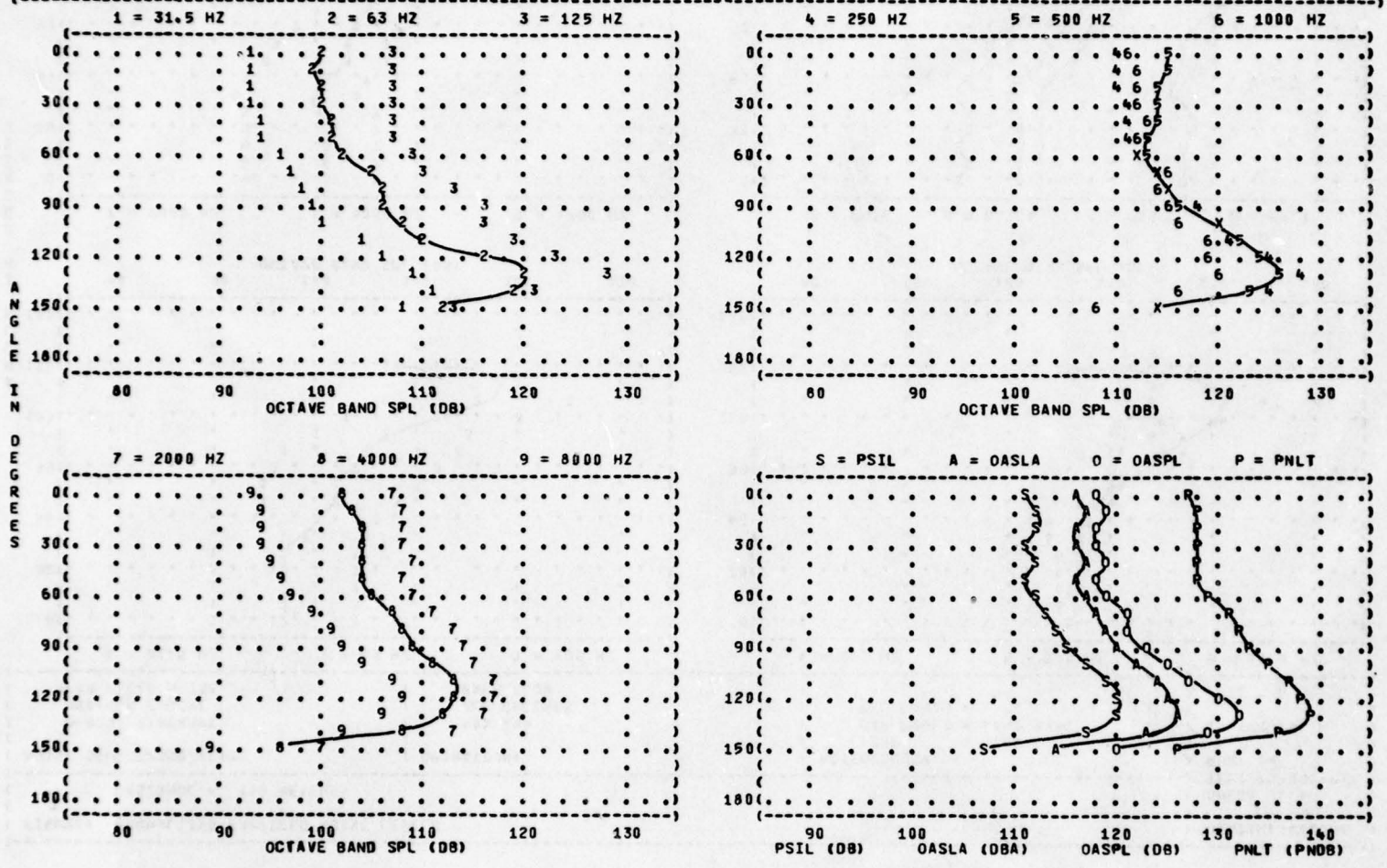


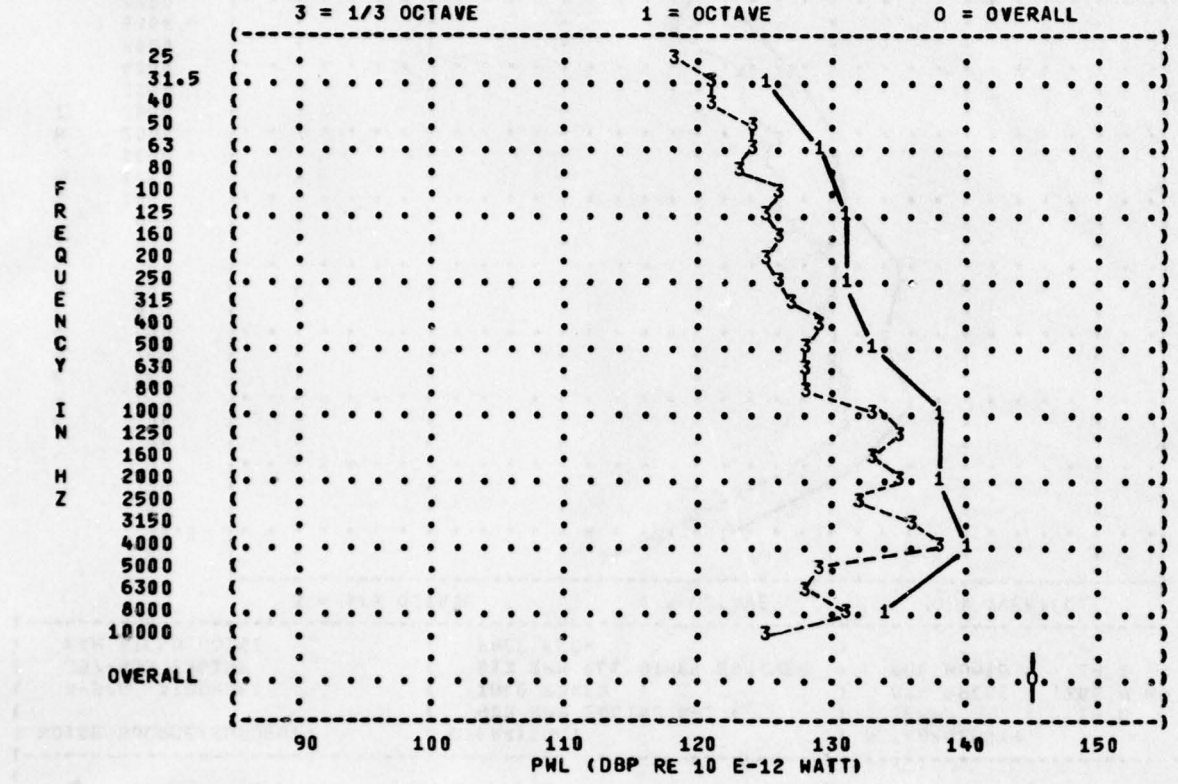
FIGURE: 4 ACOUSTIC POWER LEVEL (PWL)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 APR 75
PAGE 3

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 M HG
REL HUMID = 39 %




| | PWL 1/3 OCTAVE | PWL OCTAVE |
|---|---|---|
| 25 | 118.2 | |
| 31.5 | 120.8 | 125.0 |
| 40 | 121.1 | |
| 50 | 124.3 | |
| 63 | 124.5 | 128.8 |
| 80 | 123.2 | |
| 100 | 126.4 | |
| 125 | 125.0 | 130.5 |
| 160 | 125.7 | |
| 200 | 125.2 | |
| 250 | 126.4 | 131.0 |
| 315 | 126.8 | |
| 400 | 129.3 | |
| 500 | 128.0 | 133.3 |
| 630 | 128.2 | |
| 800 | 127.9 | |
| 1000 | 132.9 | 137.8 |
| 1250 | 135.3 | |
| 1600 | 132.7 | |
| 2000 | 134.5 | 137.9 |
| 2500 | 131.6 | |
| 3150 | 136.4 | |
| 4000 | 137.8 | 140.5 |
| 5000 | 128.7 | |
| 6300 | 128.3 | |
| 8000 | 131.2 | 133.6 |
| 10000 | 125.1 | |
| OVERALL | 144.9 | |

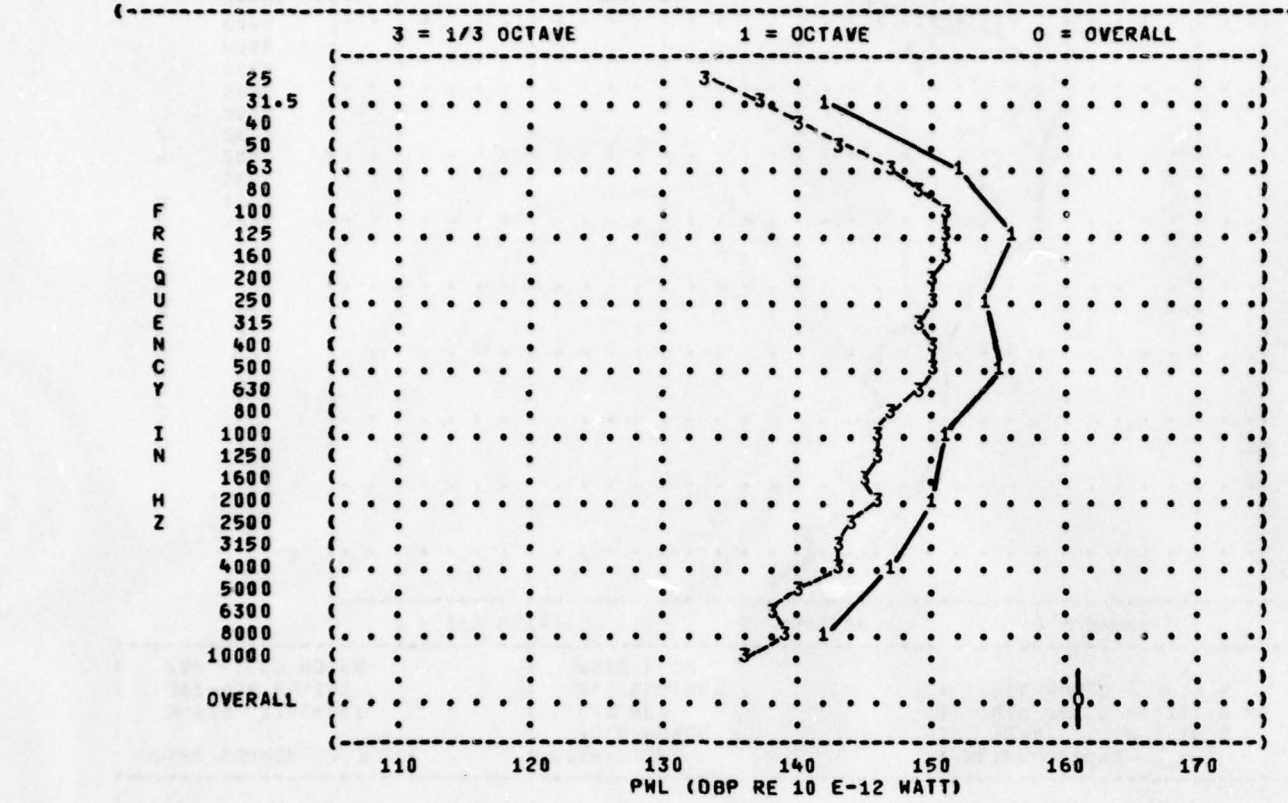
FIGURE: 4 ACOUSTIC POWER LEVEL (PWL)

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 M HG
REL HUMID = 39 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 3




| | PWL 1/3 OCTAVE | PWL OCTAVE |
|---|---|---|
| 25 | 133.4 | |
| 31.5 | 136.9 | 142.4 |
| 40 | 140.1 | |
| 50 | 143.2 | |
| 63 | 147.3 | 151.8 |
| 80 | 148.9 | |
| 100 | 150.7 | |
| 125 | 151.8 | 155.6 |
| 160 | 150.8 | |
| 200 | 150.1 | |
| 250 | 150.1 | 154.5 |
| 315 | 148.8 | |
| 400 | 150.0 | |
| 500 | 149.9 | 154.5 |
| 630 | 149.4 | |
| 800 | 147.5 | |
| 1000 | 146.5 | 151.4 |
| 1250 | 145.7 | |
| 1600 | 144.5 | |
| 2000 | 145.6 | 149.6 |
| 2500 | 144.2 | |
| 3150 | 143.2 | |
| 4000 | 142.5 | 146.9 |
| 5000 | 139.8 | |
| 6300 | 138.1 | |
| 8000 | 138.8 | 142.5 |
| 10000 | 135.6 | |
| OVERALL | | 161.4 |

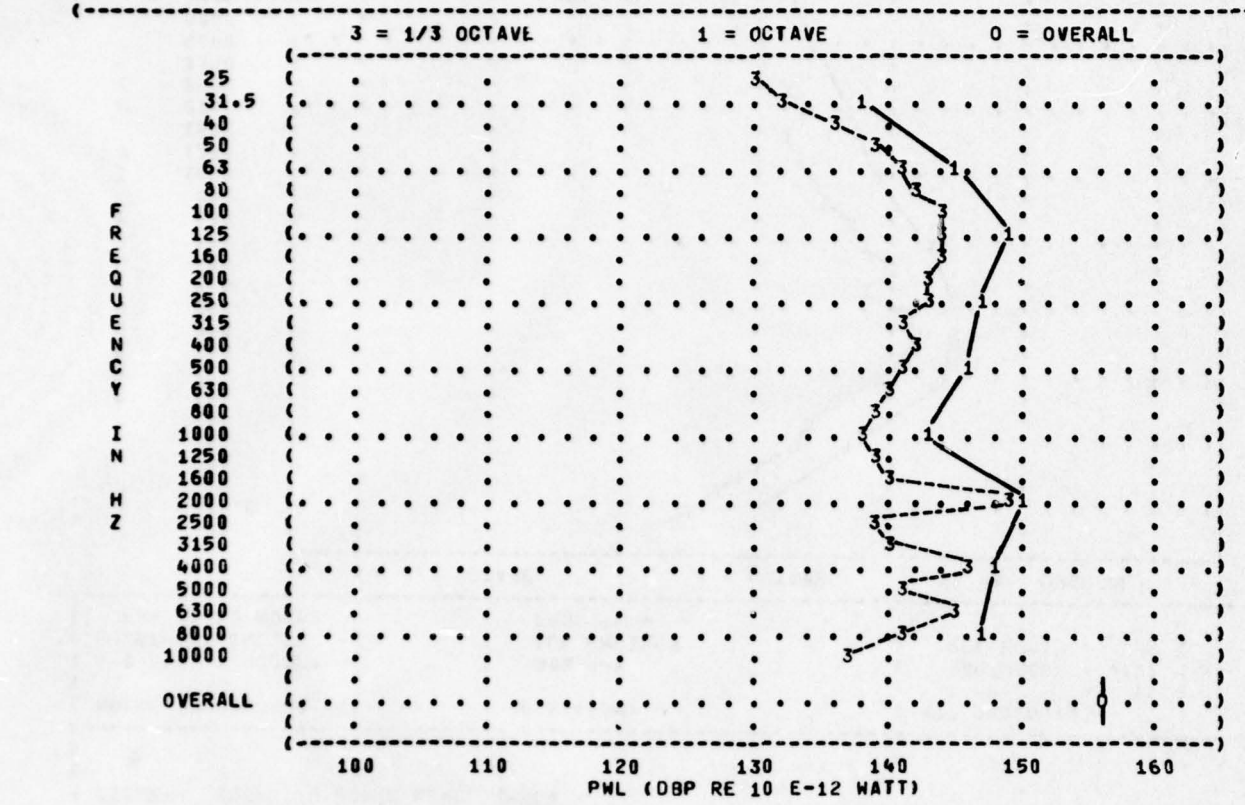
FIGURE: 4 ACOUSTIC POWER LEVEL (PWL)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 3

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 M HG
REL HUMID = 39 %




| | PWL 1/3 OCTAVE | PWL OCTAVE |
|---|---|---|
| 25 | 129.7 | |
| 31.5 | 132.4 | 138.1 |
| 40 | 135.8 | |
| 50 | 138.6 | |
| 63 | 140.8 | 145.5 |
| 80 | 142.1 | |
| 100 | 144.1 | |
| 125 | 144.2 | 148.8 |
| 160 | 144.0 | |
| 200 | 142.7 | |
| 250 | 142.6 | 147.0 |
| 315 | 141.3 | |
| 400 | 142.1 | |
| 500 | 141.2 | 146.0 |
| 630 | 140.1 | |
| 800 | 138.6 | |
| 1000 | 137.8 | 143.4 |
| 1250 | 139.3 | |
| 1600 | 139.8 | |
| 2000 | 148.7 | 149.6 |
| 2500 | 139.4 | |
| 3150 | 139.8 | |
| 4000 | 146.1 | 148.0 |
| 5000 | 140.8 | |
| 6300 | 145.3 | |
| 8000 | 141.1 | 147.1 |
| 10000 | 136.7 | |
| OVERALL | | 156.4 |

FIGURE: ACOUSTIC POWER LEVEL (PWL)

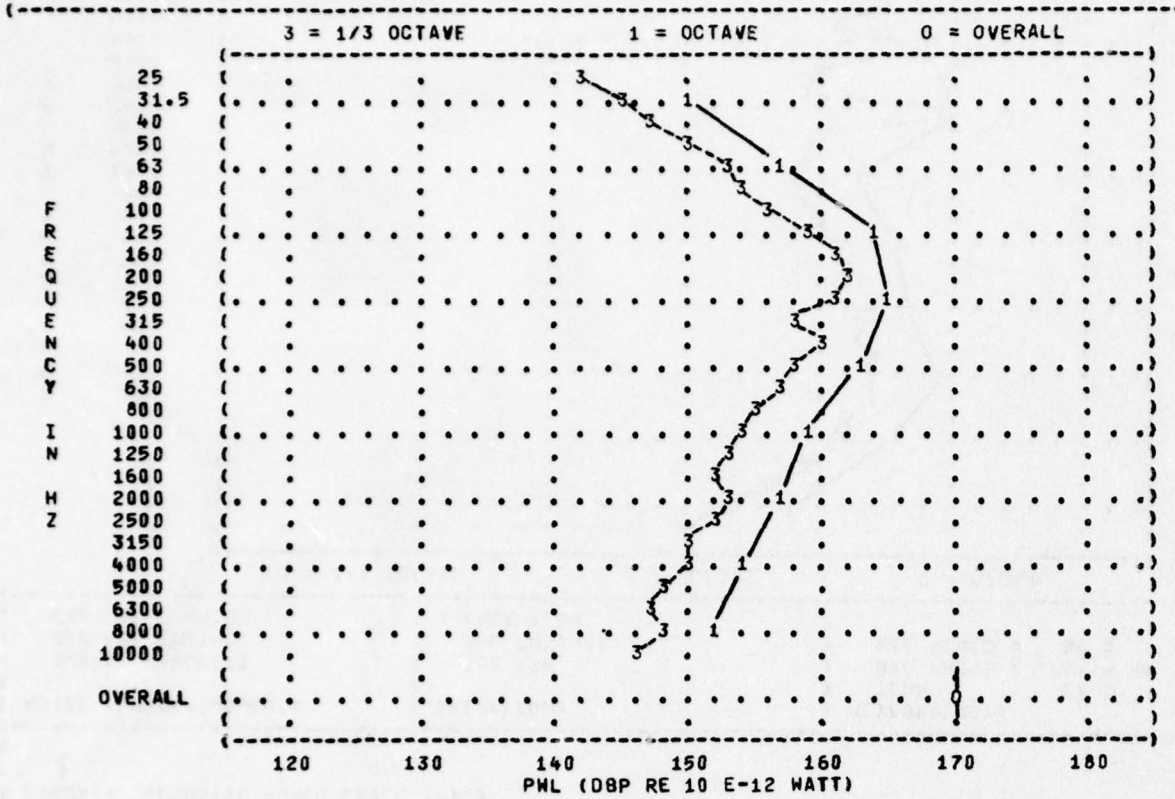
4

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 M HG
REL HUMID = 39 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 3




| | PWL | |
|---|---|---|
| | 1/3 OCTAVE | OCTAVE |
| 25 | 141.6 | |
| 31.5 | 144.9 | 149.7 |
| 40 | 146.9 | |
| 50 | 149.5 | |
| 63 | 153.1 | 157.3 |
| 80 | 153.9 | |
| 100 | 156.2 | |
| 125 | 159.3 | 164.2 |
| 160 | 161.4 | |
| 200 | 162.0 | |
| 250 | 160.7 | 165.4 |
| 315 | 158.4 | |
| 400 | 160.1 | |
| 500 | 157.9 | 163.4 |
| 630 | 157.4 | |
| 800 | 155.1 | |
| 1000 | 153.9 | 158.9 |
| 1250 | 153.3 | |
| 1600 | 152.3 | |
| 2000 | 153.2 | 157.4 |
| 2500 | 152.3 | |
| 3150 | 150.5 | |
| 4000 | 149.7 | 154.4 |
| 5000 | 148.3 | |
| 6300 | 147.0 | |
| 8000 | 147.9 | 151.9 |
| 10000 | 146.4 | |
| OVERALL | | 170.3 |

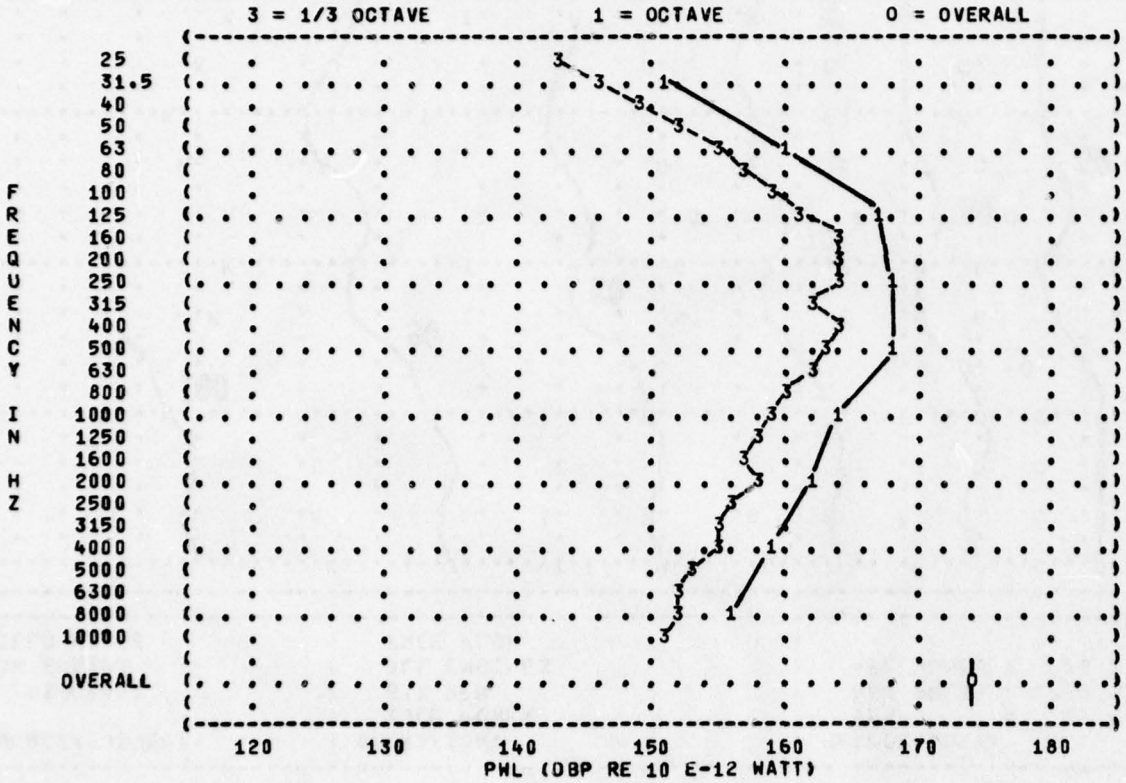
FIGURE: 4 ACOUSTIC POWER LEVEL (PWL)

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

METEOROLOGY:
TEMP = 16 C
BAR PRESS = .701 M HG
REL HUMID = 39 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 3




| | PWL 1/3 OCTAVE | PWL OCTAVE |
|---|---|---|
| 25 | 143.0 | |
| 31.5 | 145.7 | 151.3 |
| 40 | 148.9 | |
| 50 | 152.0 | |
| 63 | 155.3 | 159.9 |
| 80 | 156.9 | |
| 100 | 158.6 | |
| 125 | 161.5 | 166.7 |
| 160 | 164.1 | |
| 200 | 164.3 | |
| 250 | 164.3 | 168.5 |
| 315 | 162.3 | |
| 400 | 163.7 | |
| 500 | 162.7 | 167.7 |
| 630 | 162.0 | |
| 800 | 160.3 | |
| 1000 | 158.9 | 164.0 |
| 1250 | 158.2 | |
| 1600 | 157.3 | |
| 2000 | 158.1 | 161.9 |
| 2500 | 155.8 | |
| 3150 | 155.4 | |
| 4000 | 154.5 | 159.1 |
| 5000 | 152.5 | |
| 6300 | 151.7 | |
| 8000 | 151.9 | 156.4 |
| 10000 | 151.2 | |
| OVERALL | | 173.8 |

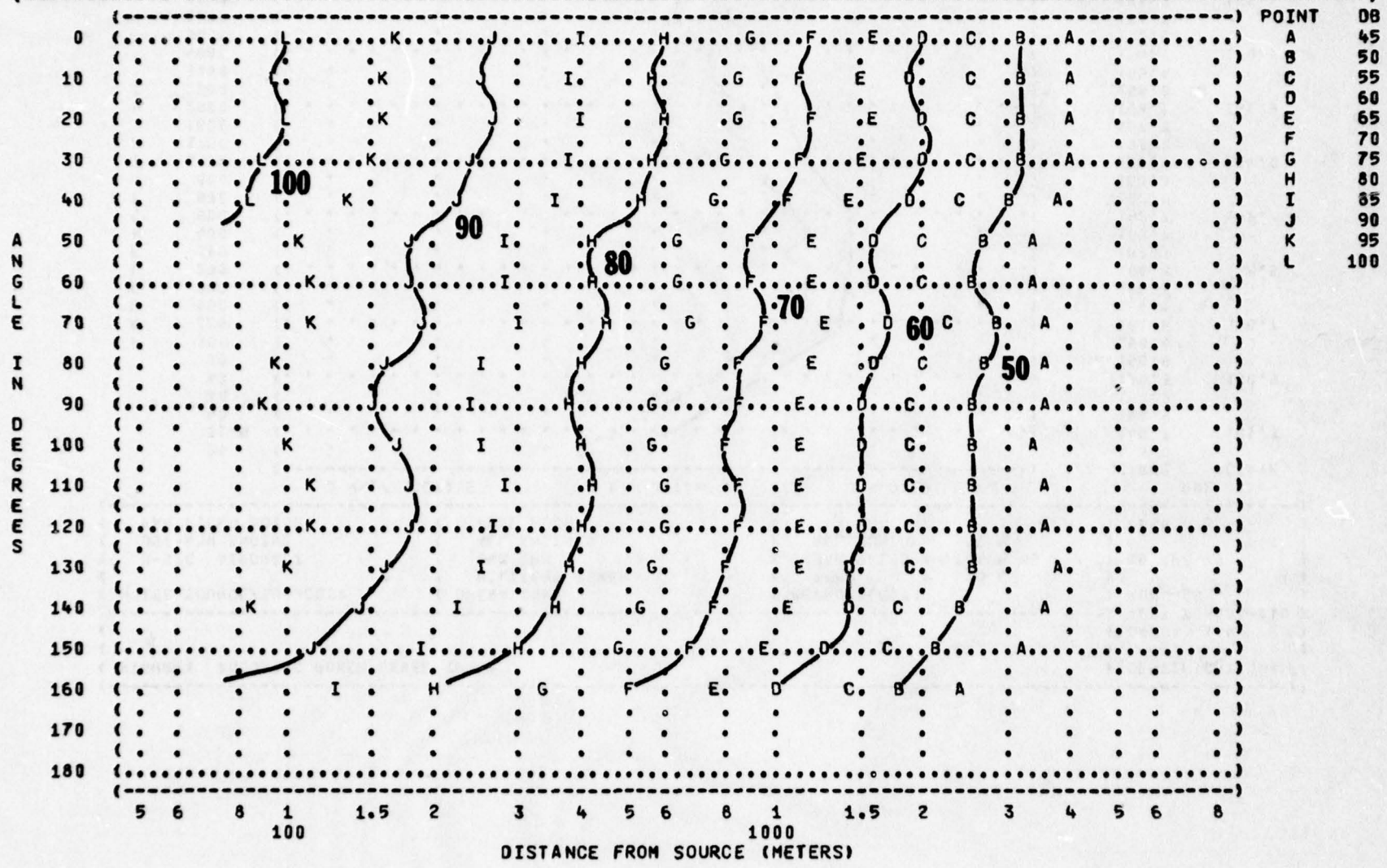
FIGURE 5 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 APR 75
PAGE 13

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL 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 |

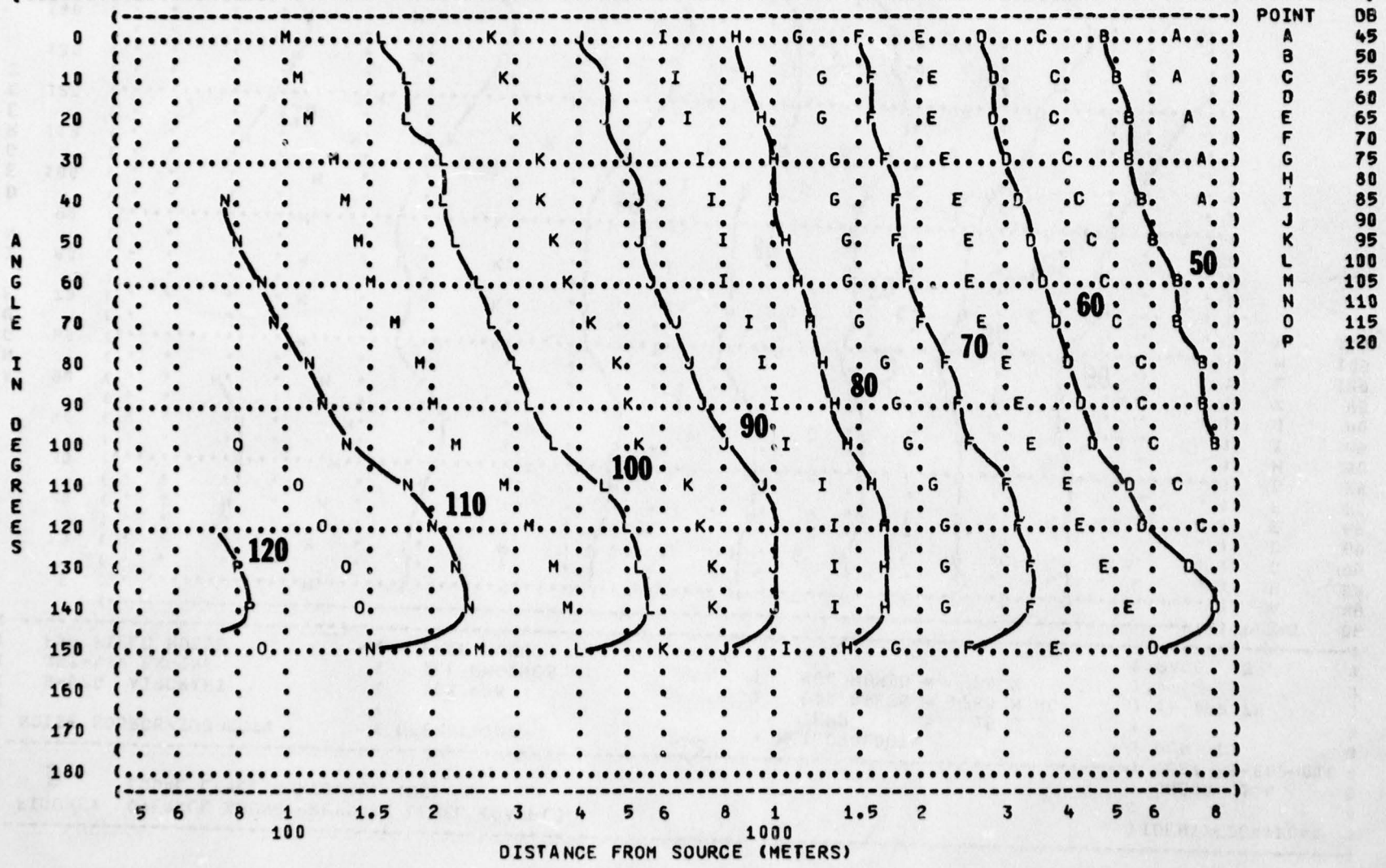
FIGURE 5 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
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 |
| M | 105 |
| N | 110 |
| O | 115 |
| P | 120 |

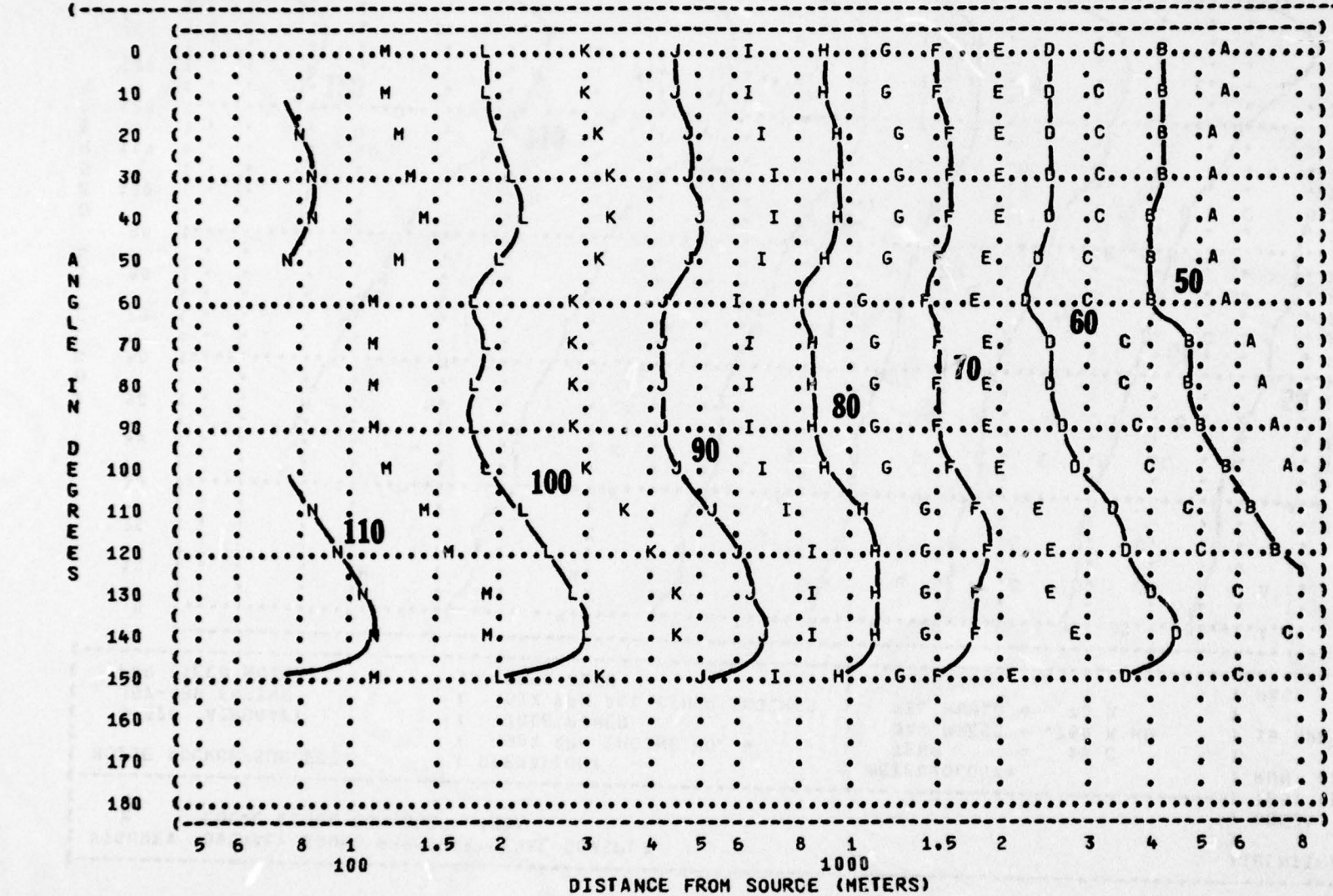
FIGURE 5 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 13

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL 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 |

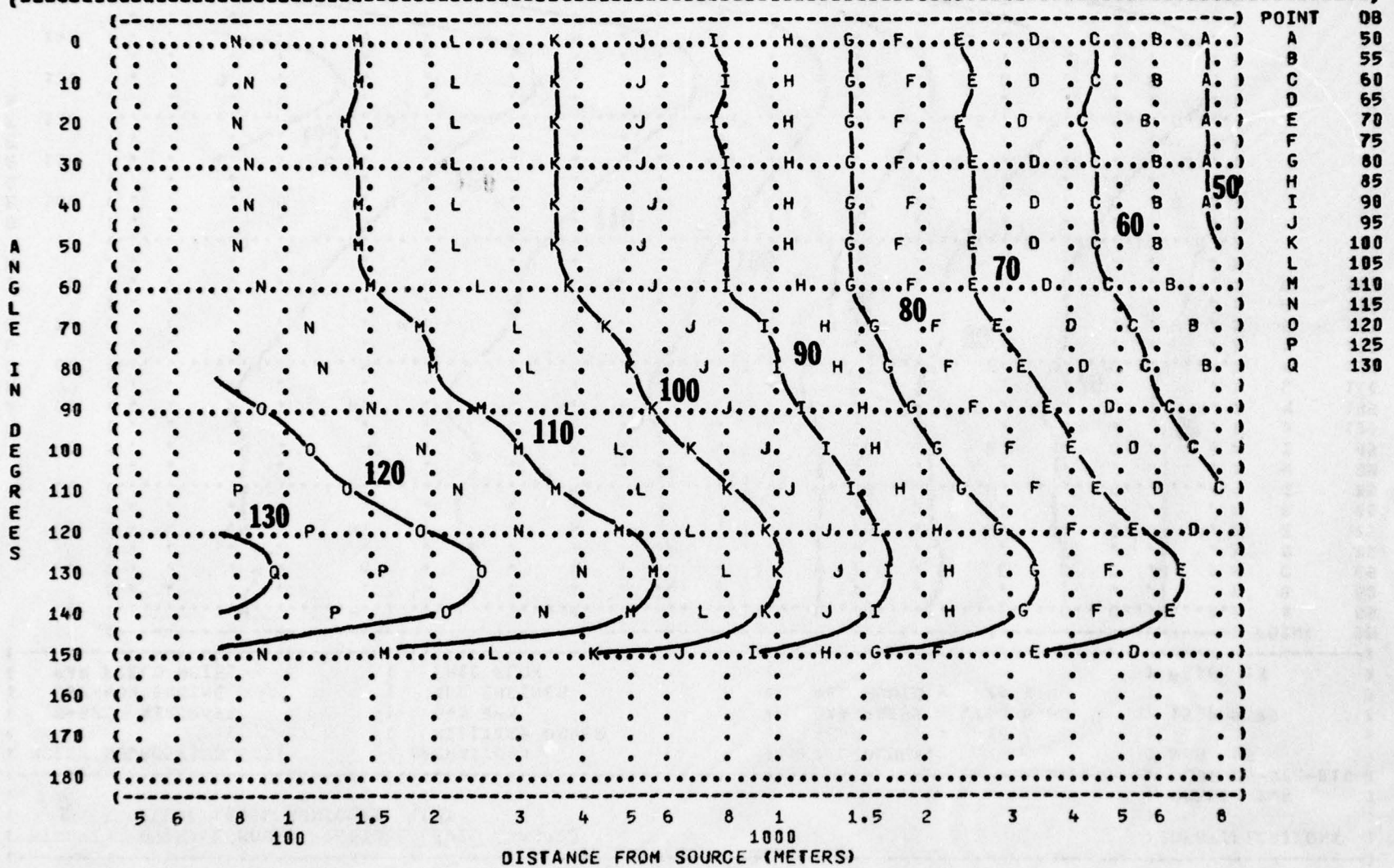
FIGURE: 5 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 13

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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




POINT DB

| | |
|---|---|
| A | 50 |
| B | 55 |
| C | 60 |
| D | 65 |
| E | 70 |
| F | 75 |
| G | 80 |
| H | 85 |
| I | 90 |
| J | 95 |
| K | 100 |
| L | 105 |
| M | 110 |
| N | 115 |
| O | 120 |
| P | 125 |
| Q | 130 |

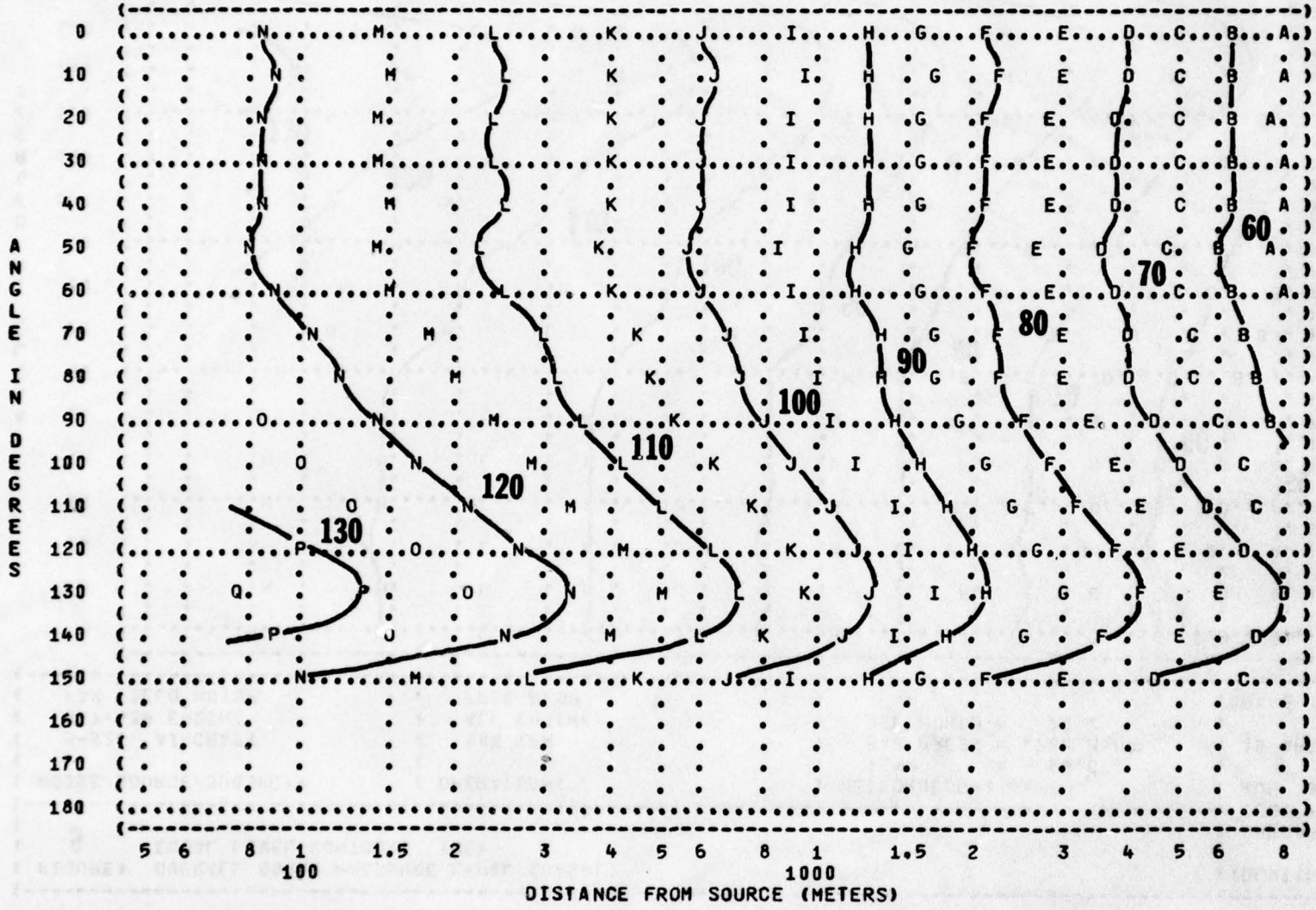
FIGURE 5 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 13

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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




| POINT | DB |
|---|---|
| A | 55 |
| B | 60 |
| C | 65 |
| D | 70 |
| E | 75 |
| F | 80 |
| G | 85 |
| H | 90 |
| I | 95 |
| J | 100 |
| K | 105 |
| L | 110 |
| M | 115 |
| N | 120 |
| O | 125 |
| P | 130 |
| Q | 135 |

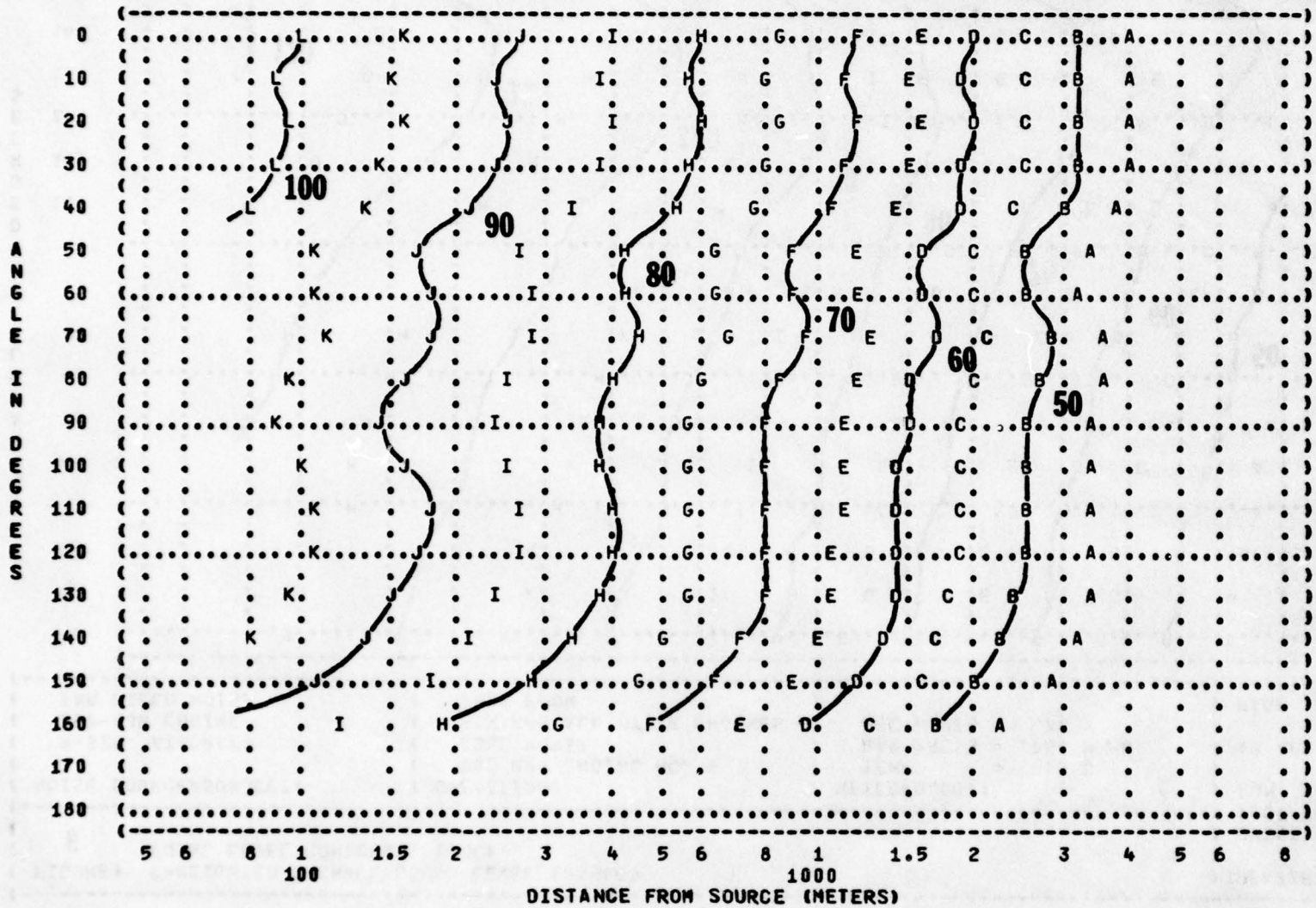
FIGURE: 6 C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 APR 75
PAGE 14

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL 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 |

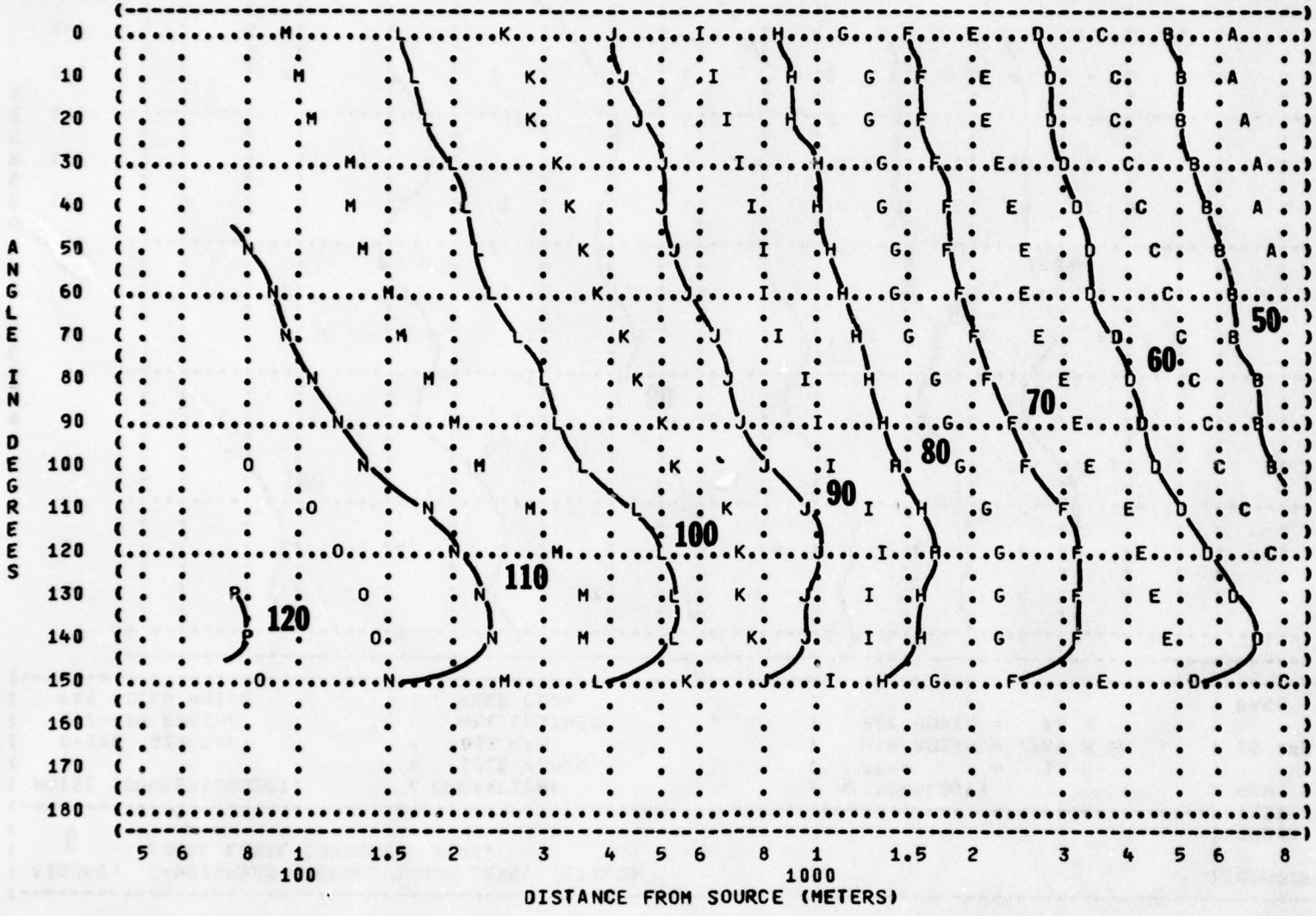
FIGURE: 6 C-WEIGHTED OVERALL SOUND LEVEL (OASLC)
EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 14

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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




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

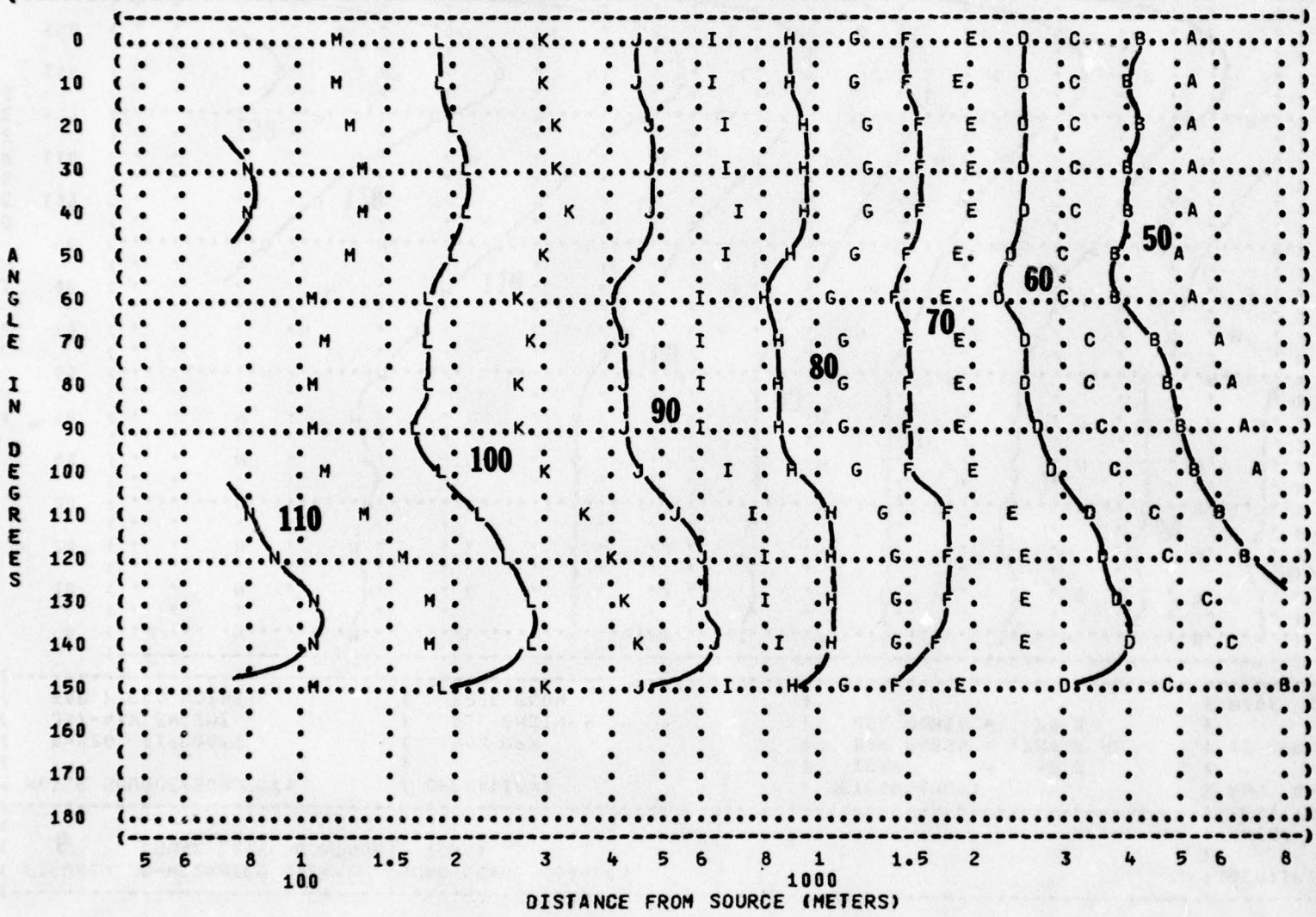
FIGURE 6: C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 14

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL 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 |

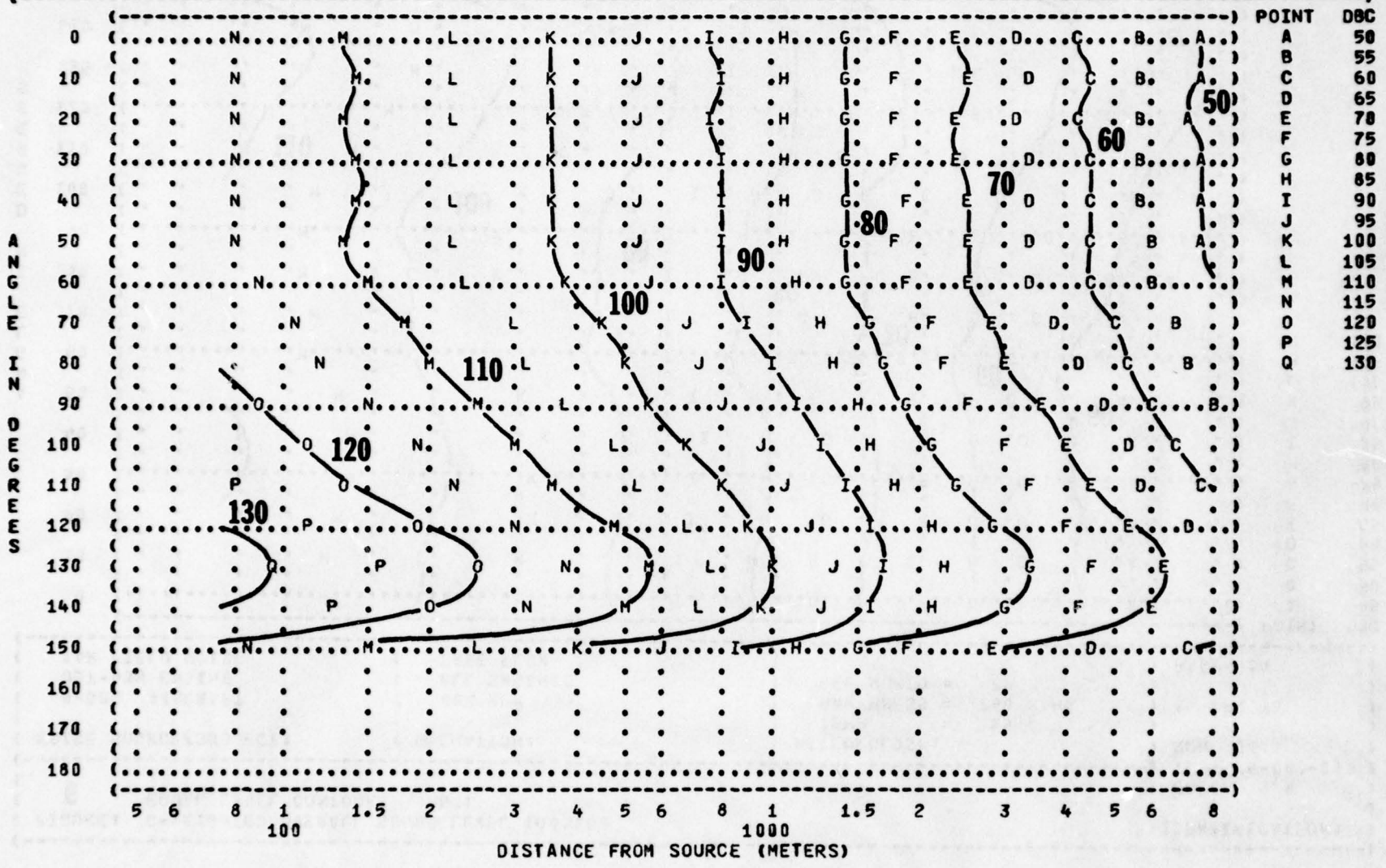
FIGURE: 6 C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 14

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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




| POINT | DBC |
|---|---|
| A | 50 |
| B | 55 |
| C | 60 |
| D | 65 |
| E | 70 |
| F | 75 |
| G | 80 |
| H | 85 |
| I | 90 |
| J | 95 |
| K | 100 |
| L | 105 |
| M | 110 |
| N | 115 |
| O | 120 |
| P | 125 |
| Q | 130 |

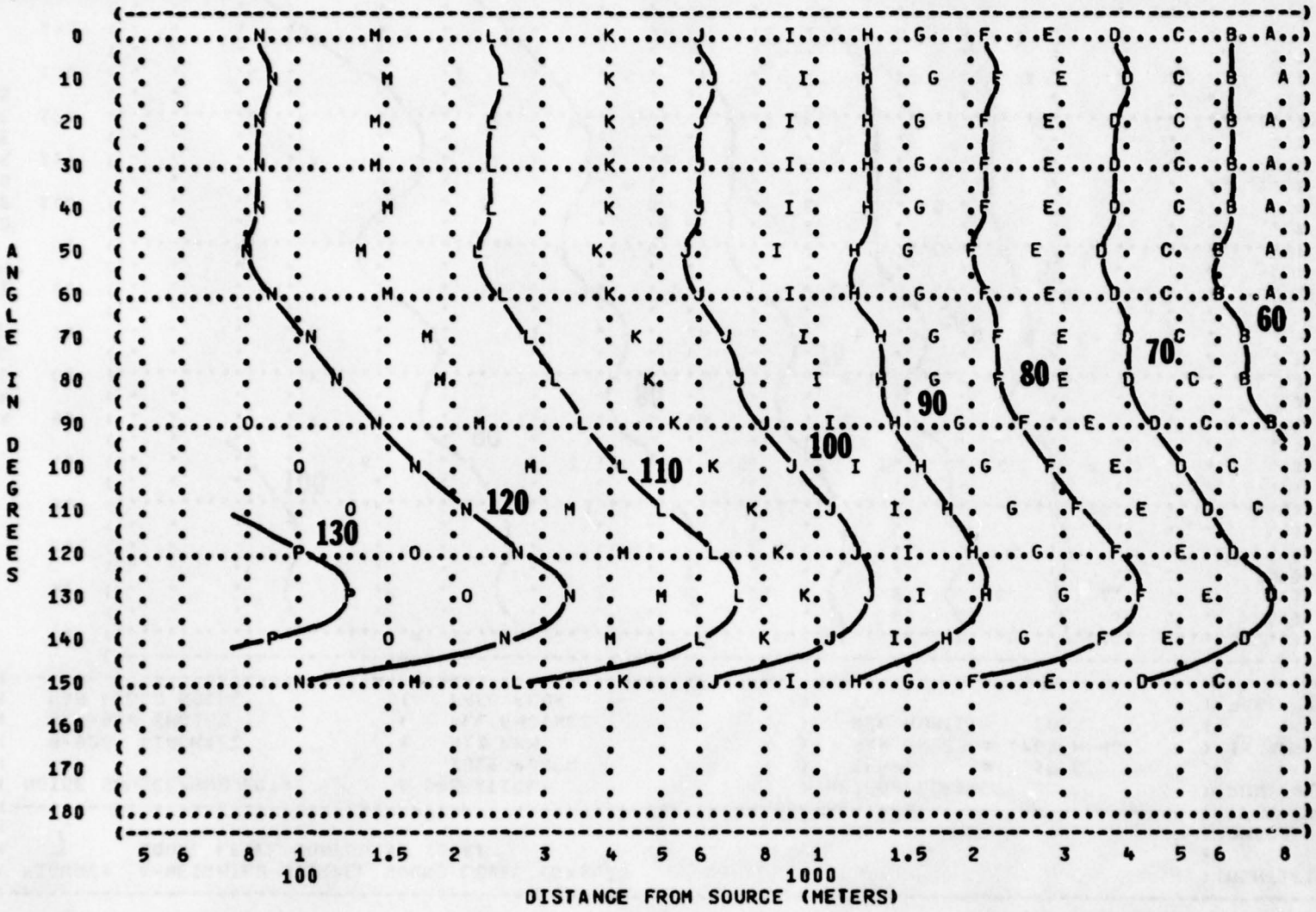
FIGURE 6: C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 14

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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




| POINT | DBC |
|---|---|
| A | 55 |
| B | 60 |
| C | 65 |
| D | 70 |
| E | 75 |
| F | 80 |
| G | 85 |
| H | 90 |
| I | 95 |
| J | 100 |
| K | 105 |
| L | 110 |
| M | 115 |
| N | 120 |
| O | 125 |
| P | 130 |

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 APR 75
PAGE 15

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

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

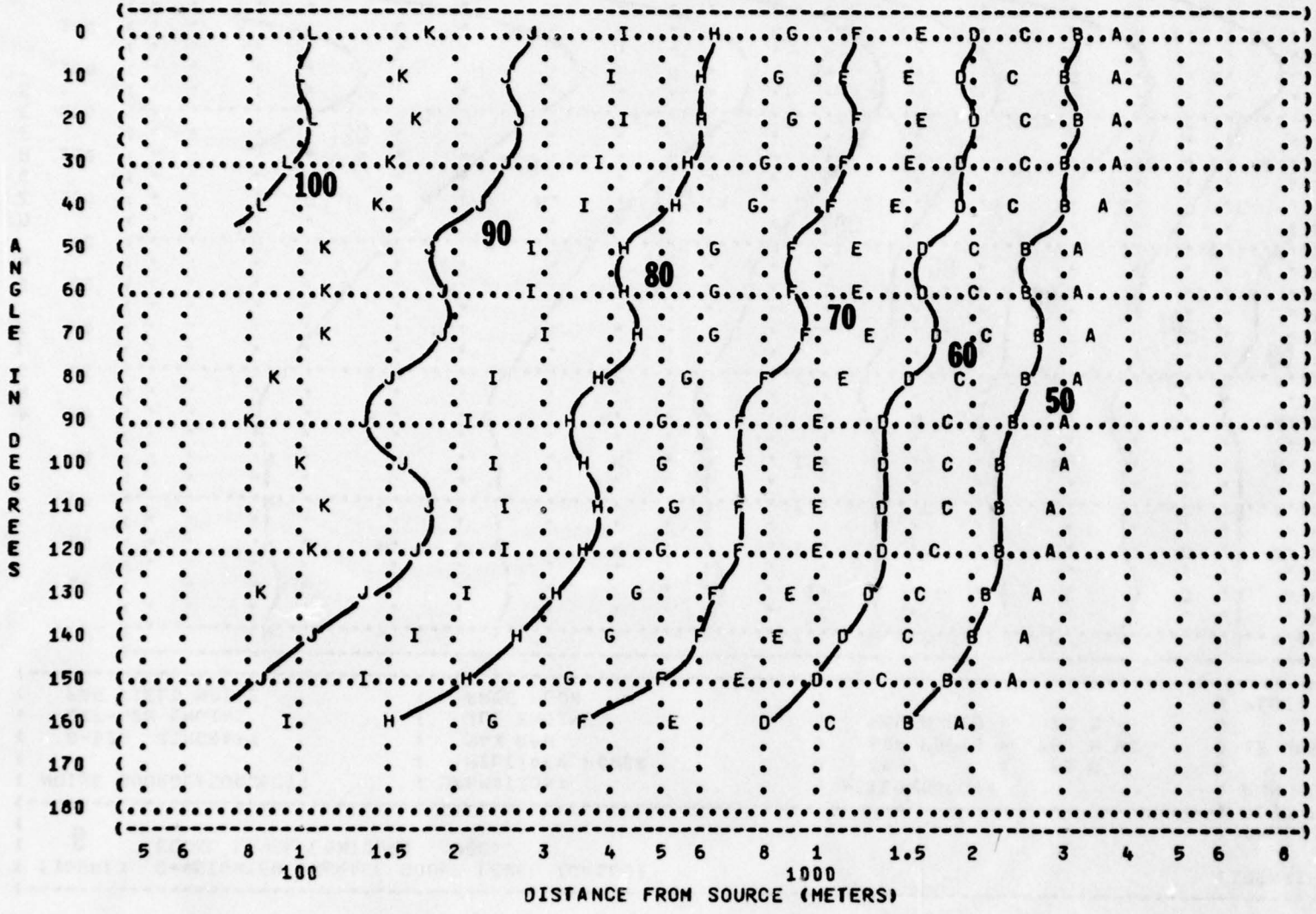


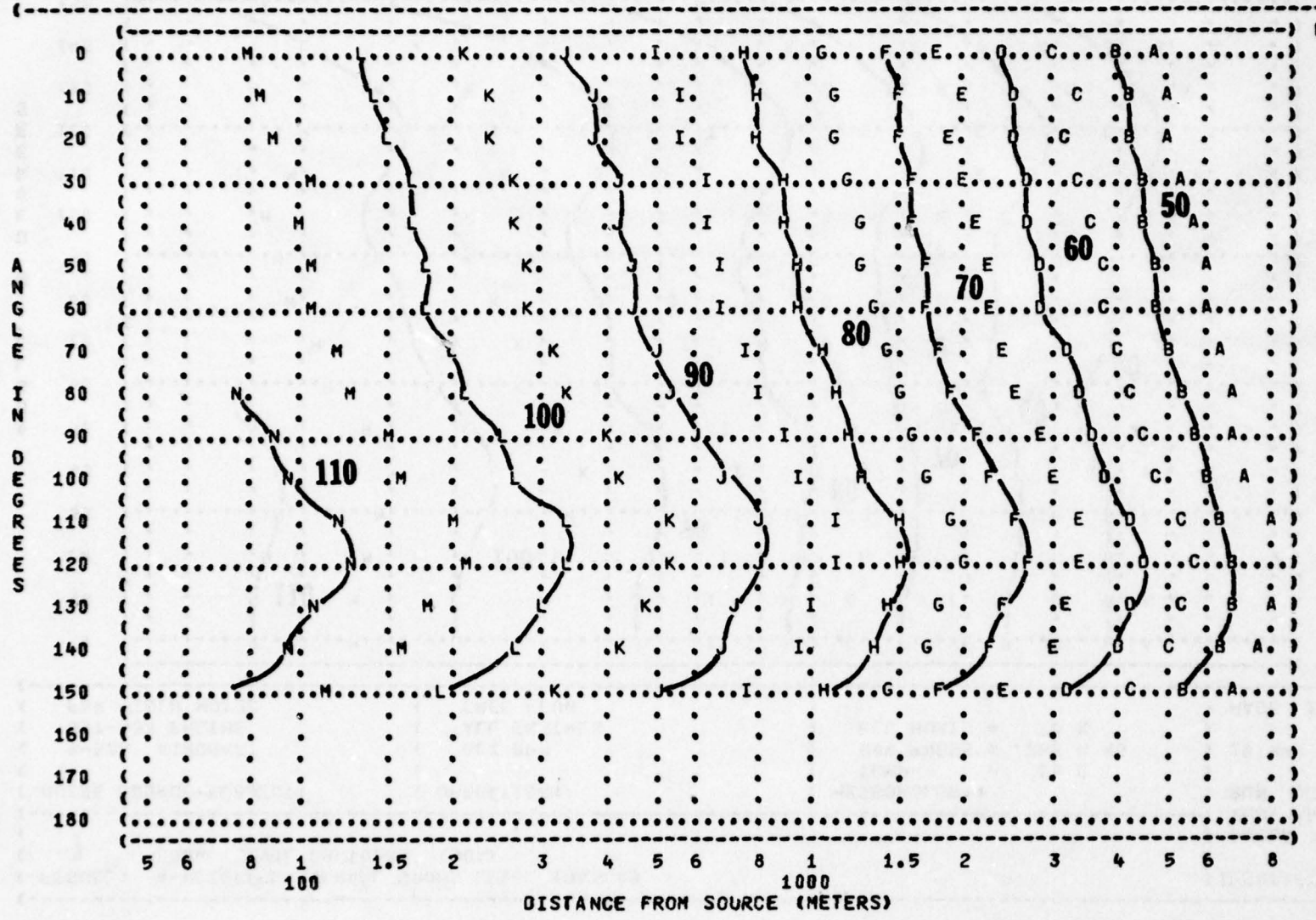
FIGURE: 7 A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 15

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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




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

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 15

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

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

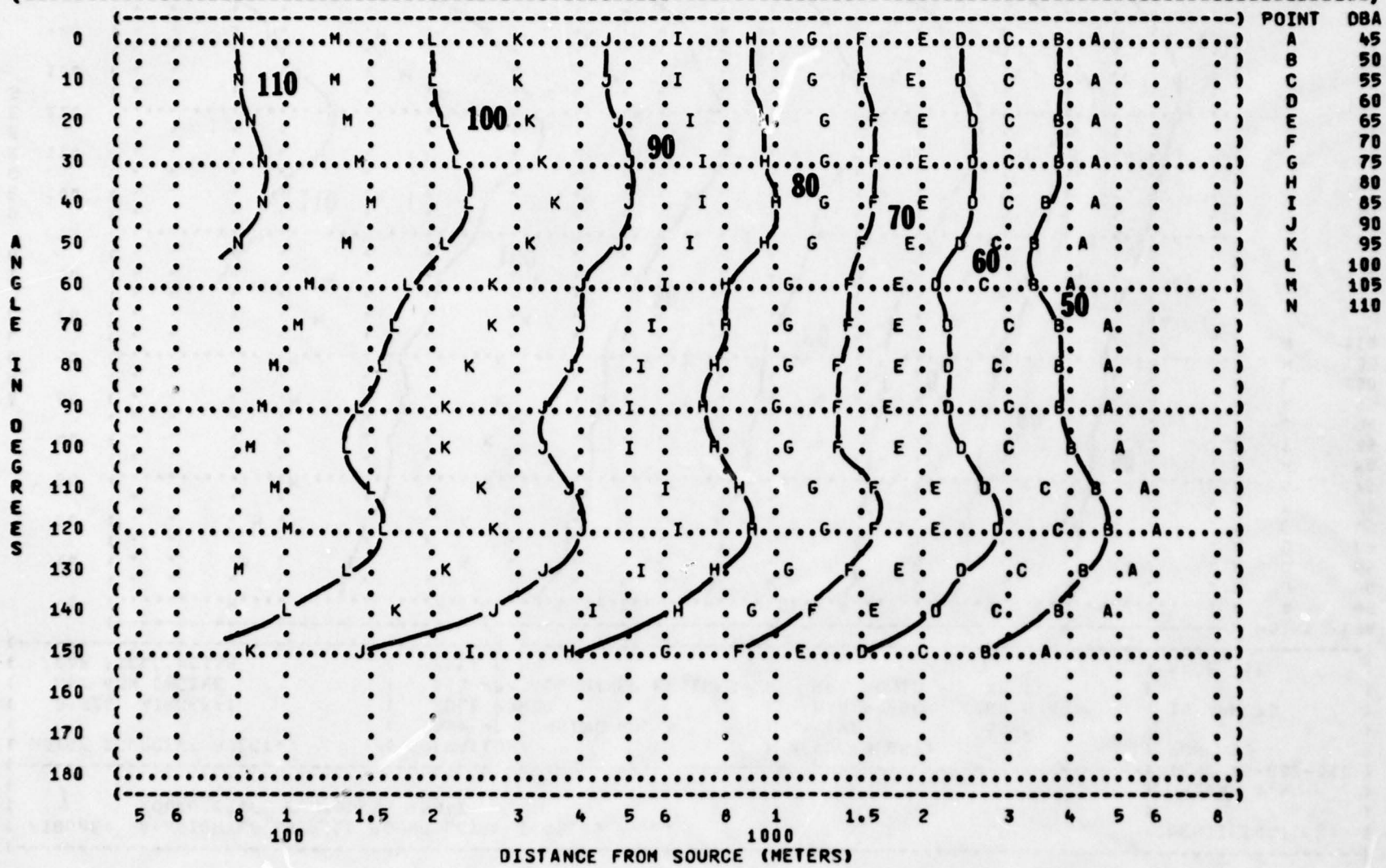


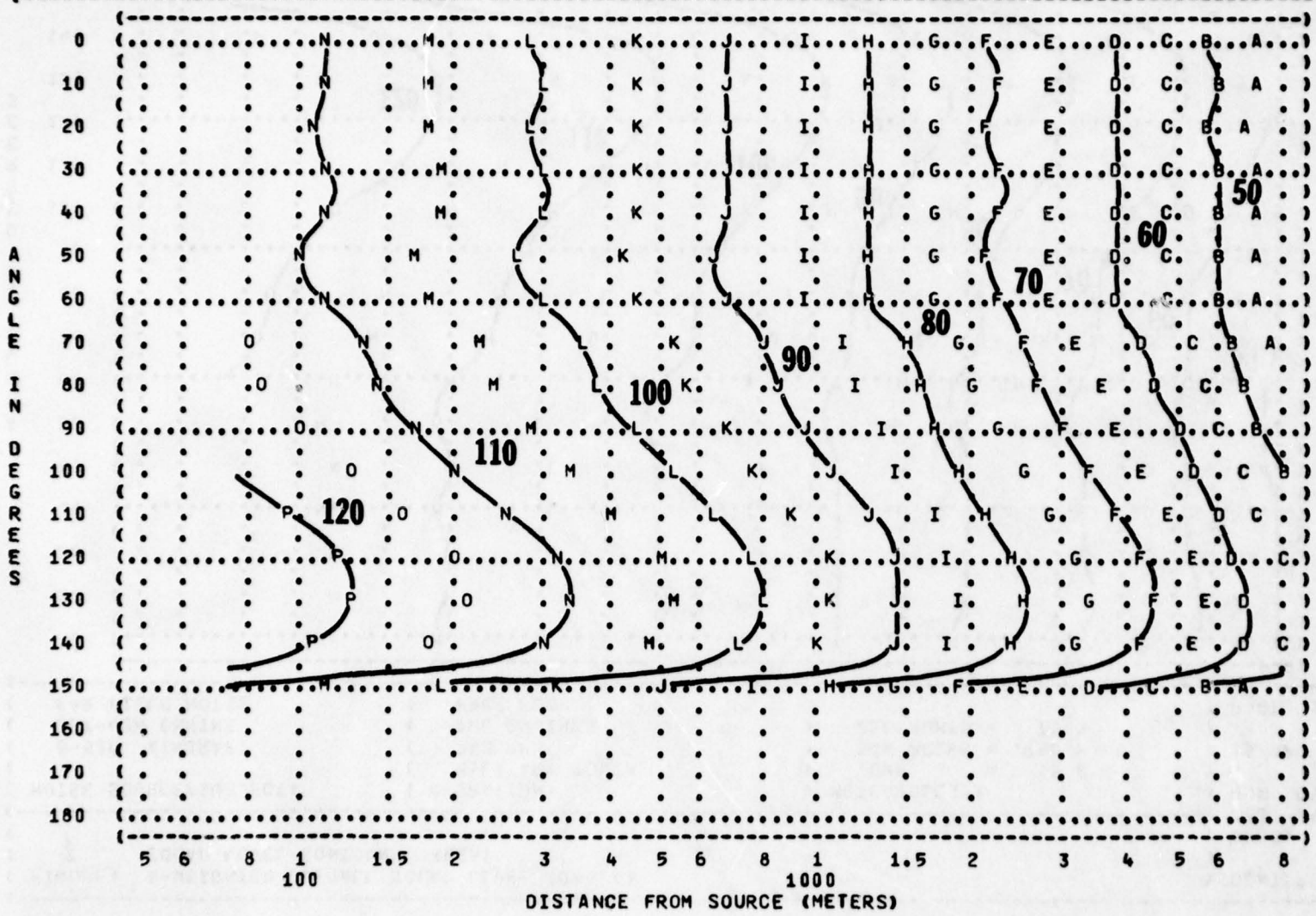
FIGURE 7: A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 15

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL 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 |
| P | 120 |

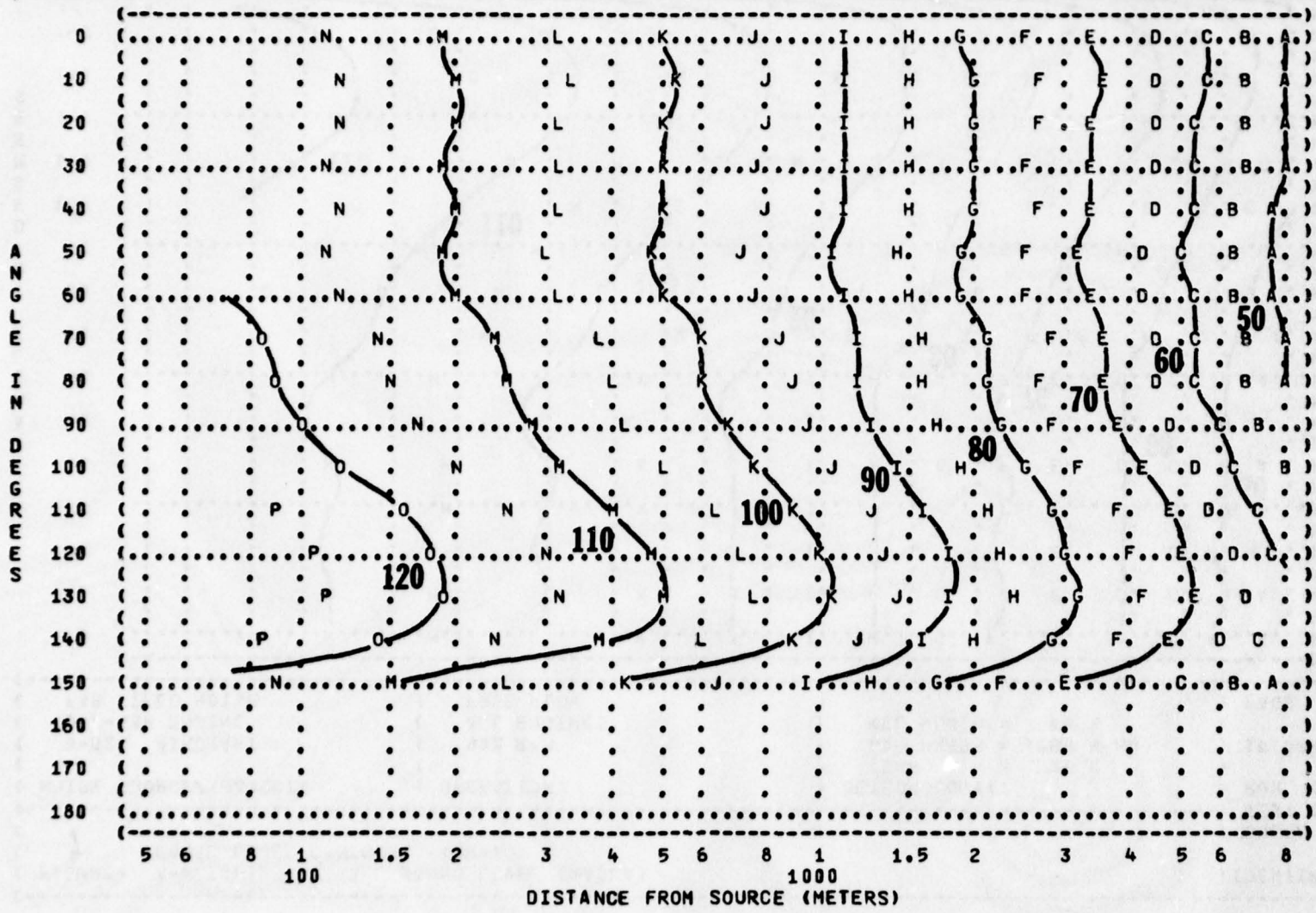
FIGURE 7 A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 15

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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




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

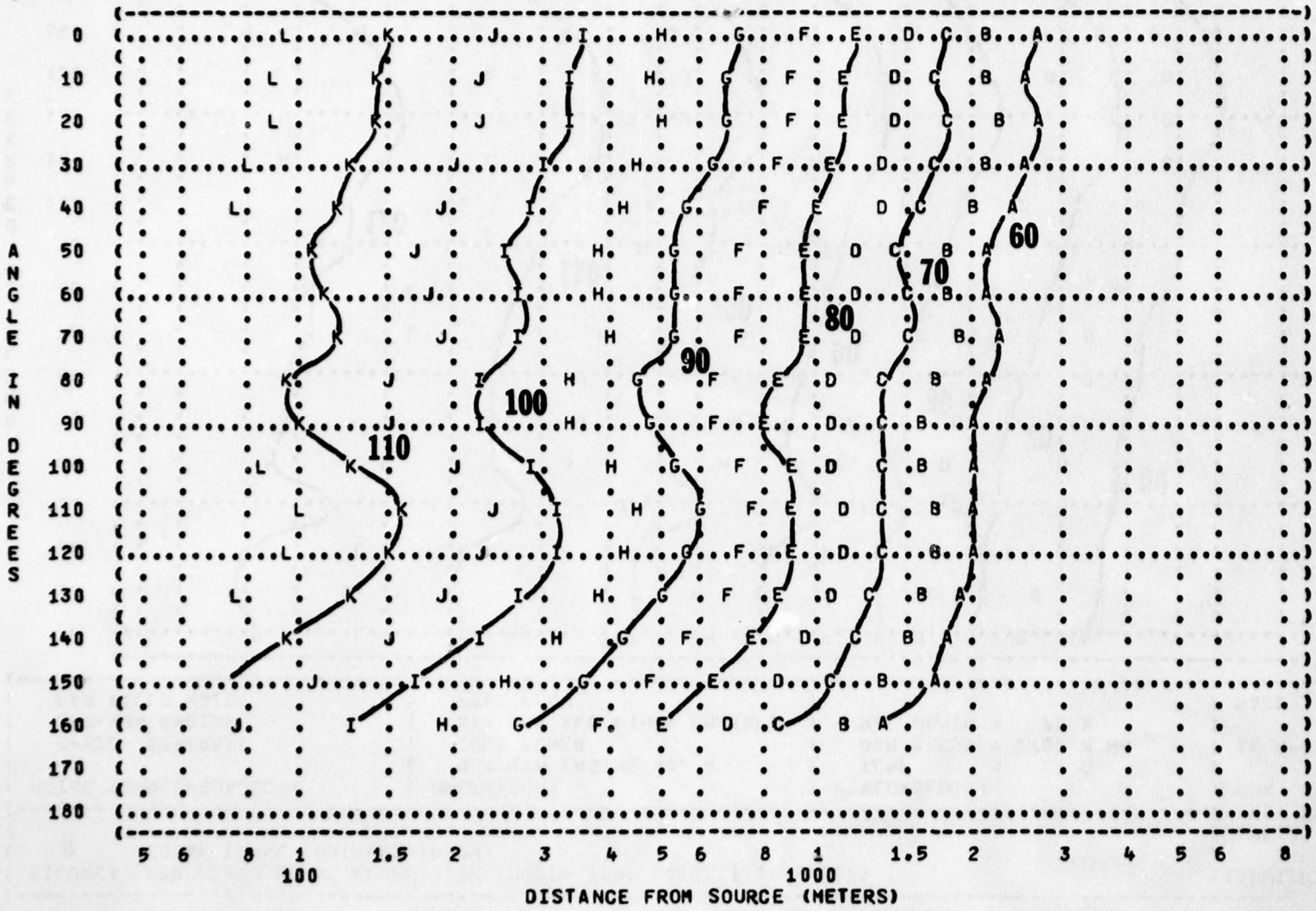
FIGURE 8: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT)
EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 APR 75
PAGE 16

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL 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 |

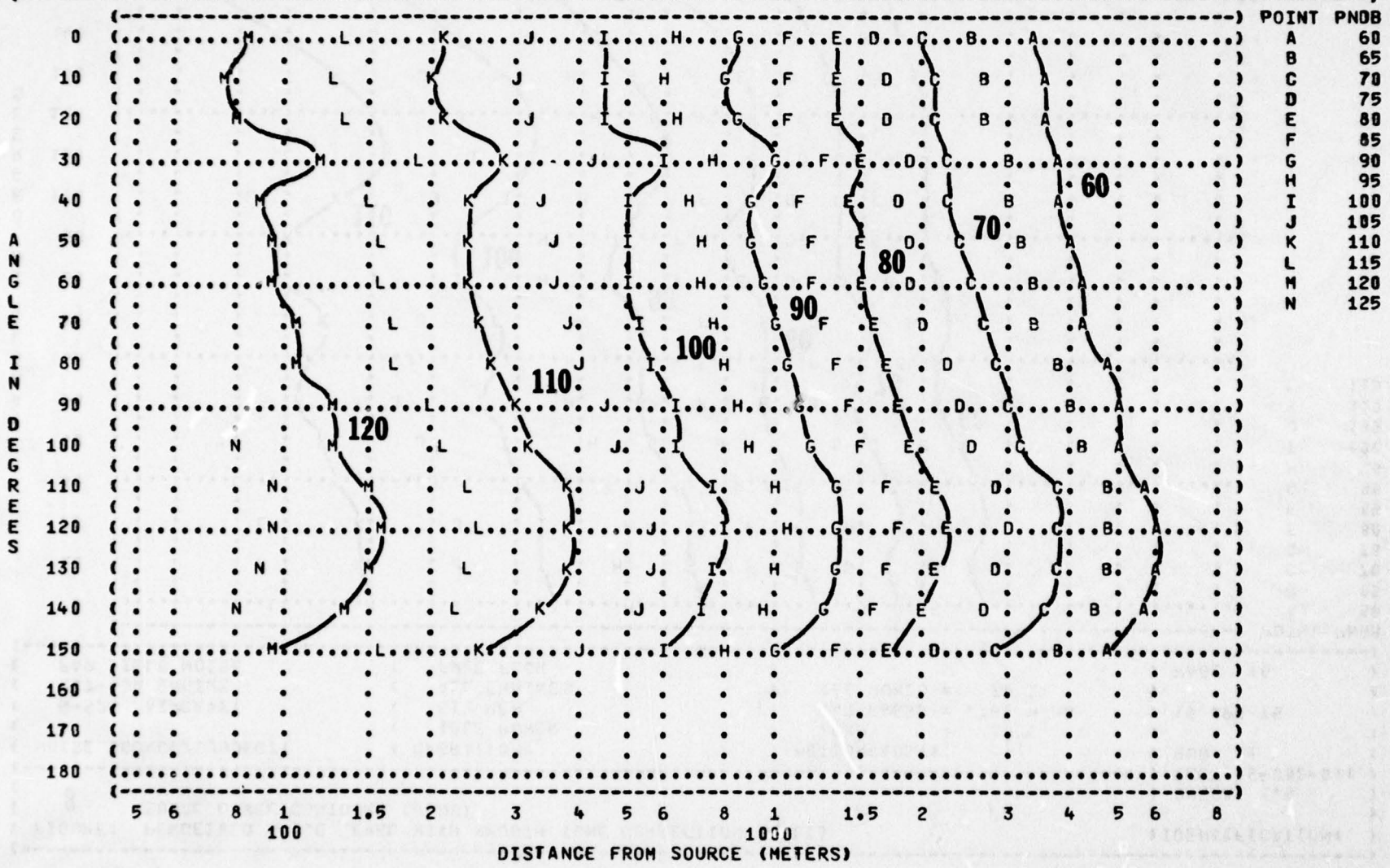
FIGURE: 8 PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT)
EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 16

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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




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

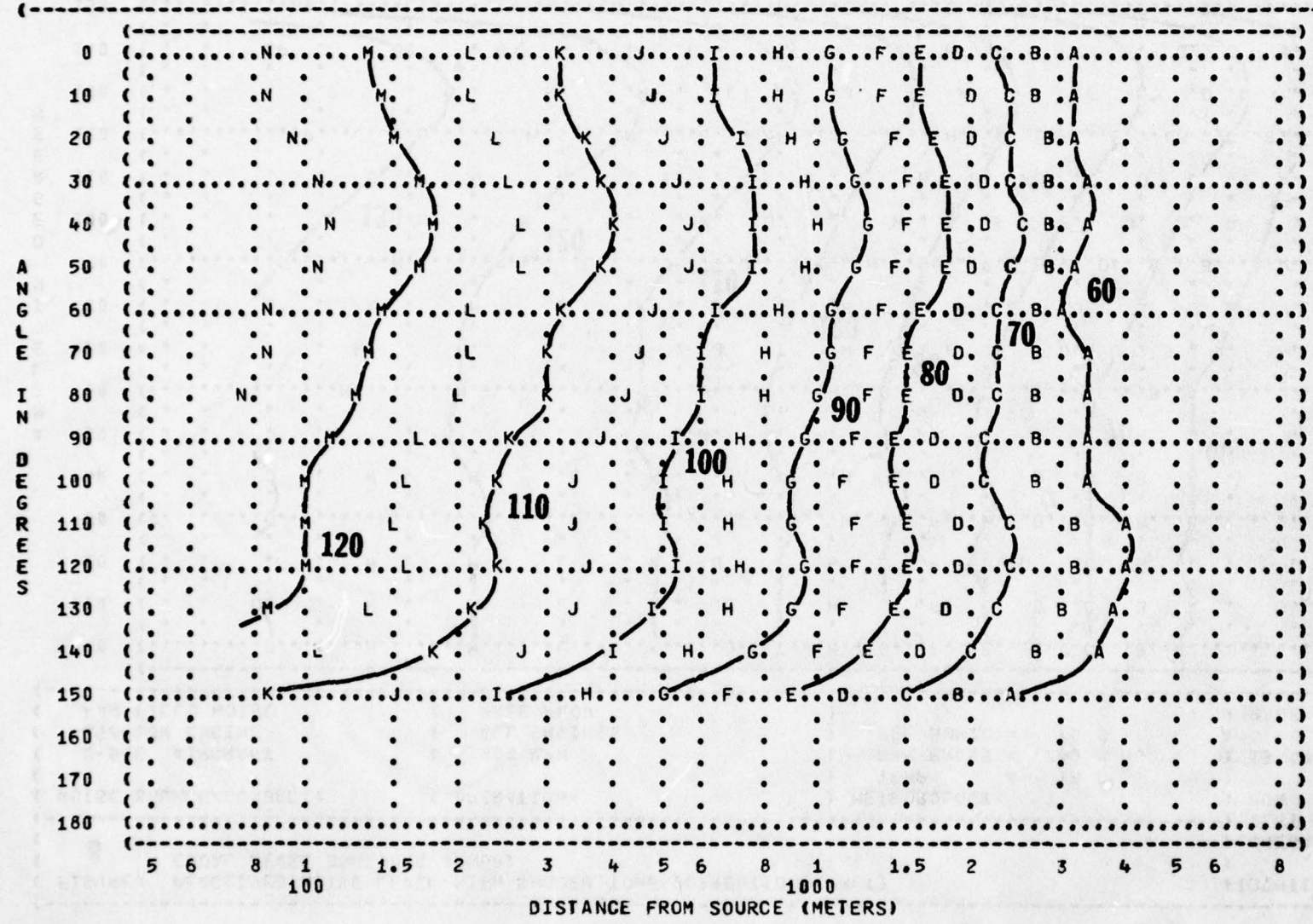
FIGURE 8 PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT)
EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 16

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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




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

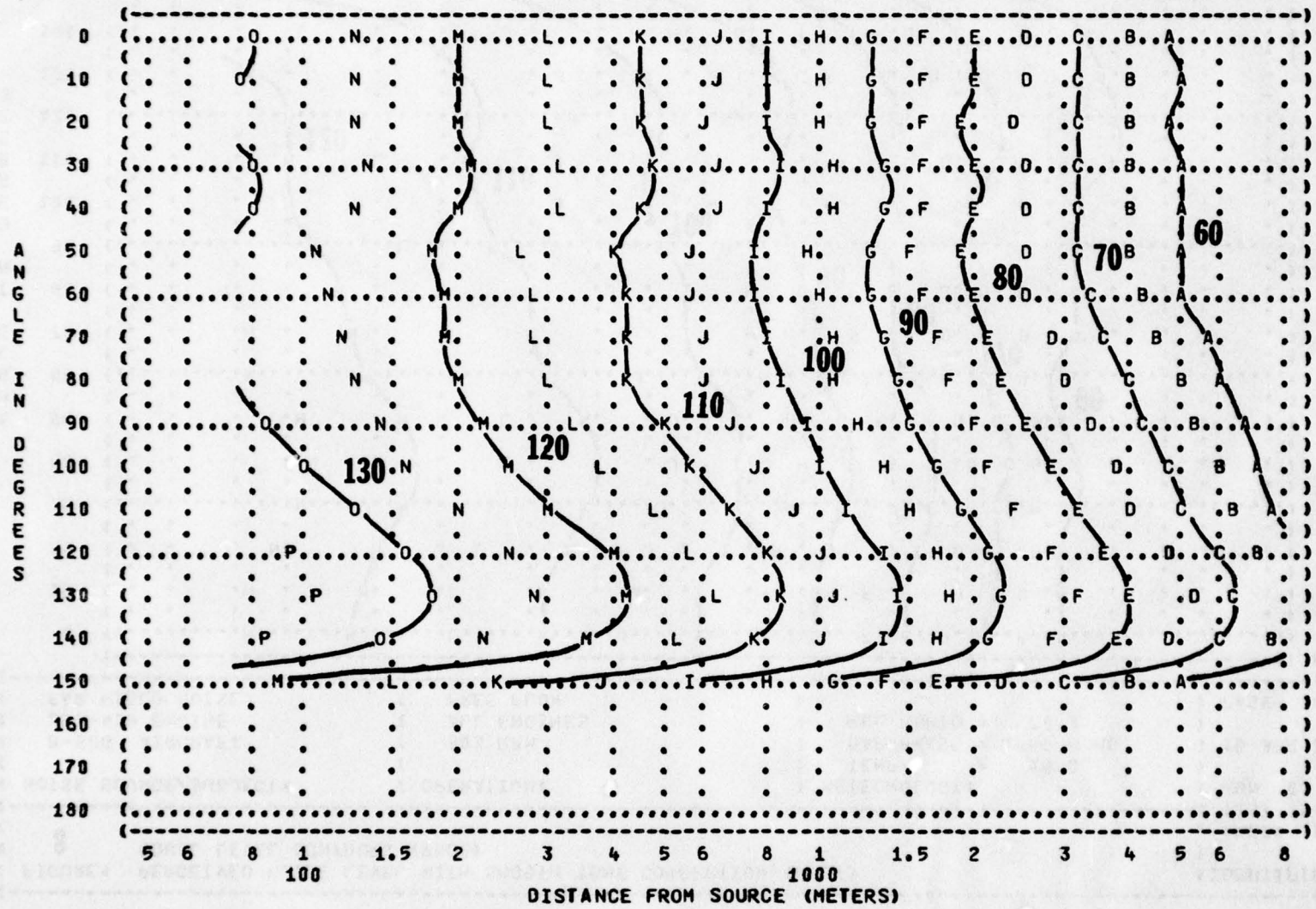
FIGURE: 8 PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT)
EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 16

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL 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 |
| P | 135 |

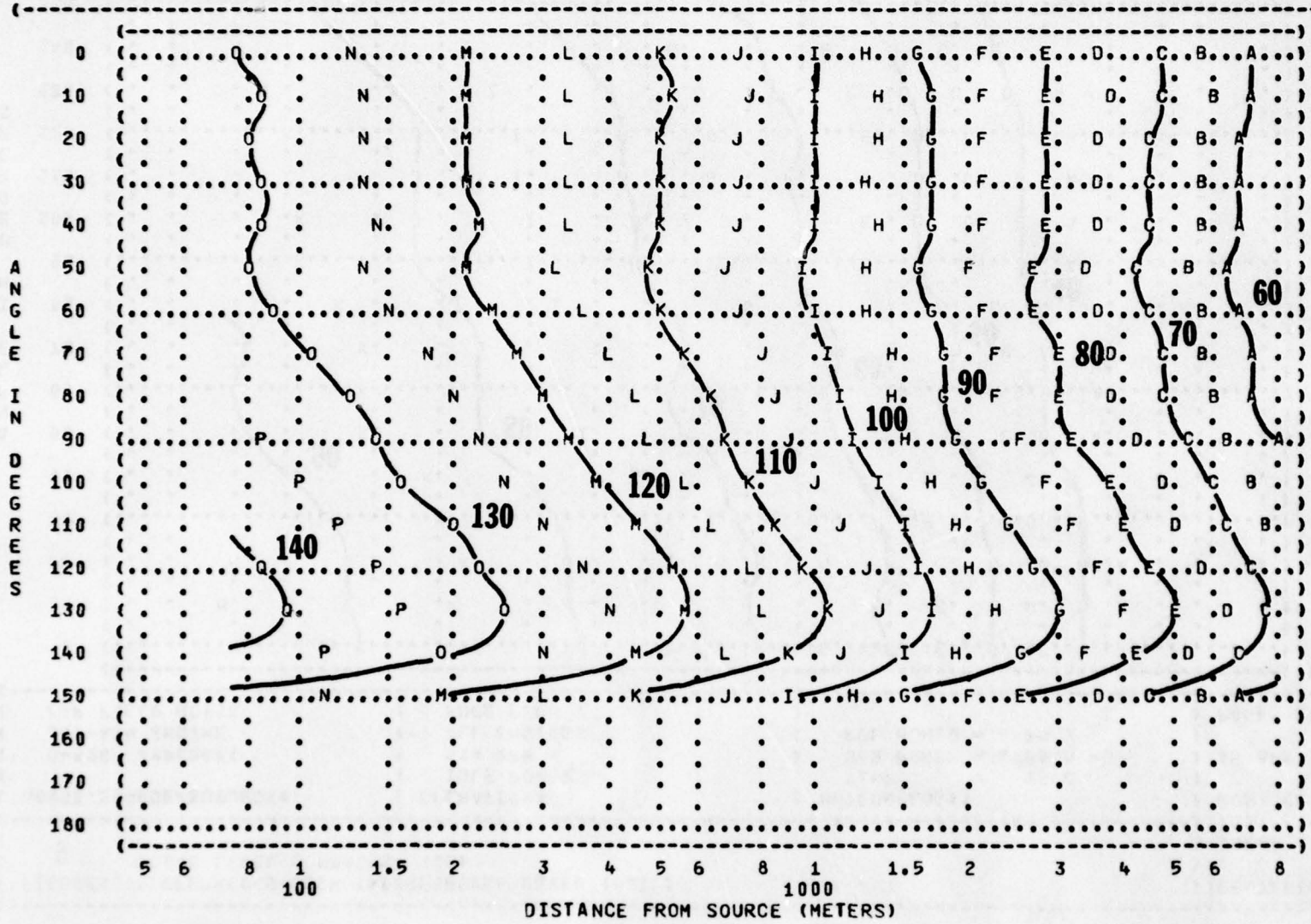
FIGURE 8: PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT)
EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 16

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL 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 |
| P | 135 |
| Q | 140 |

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 APR 75
PAGE 17

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

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

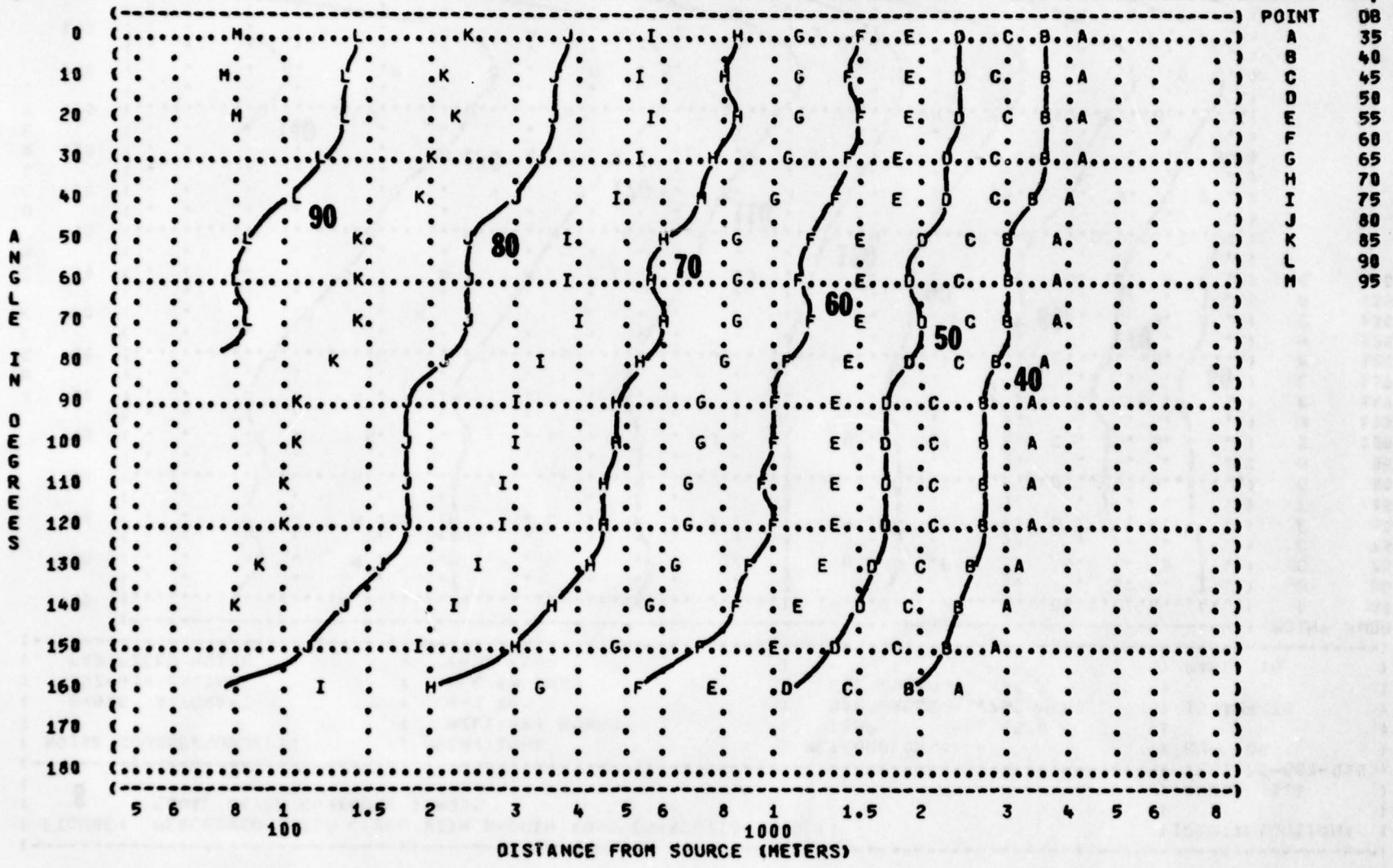


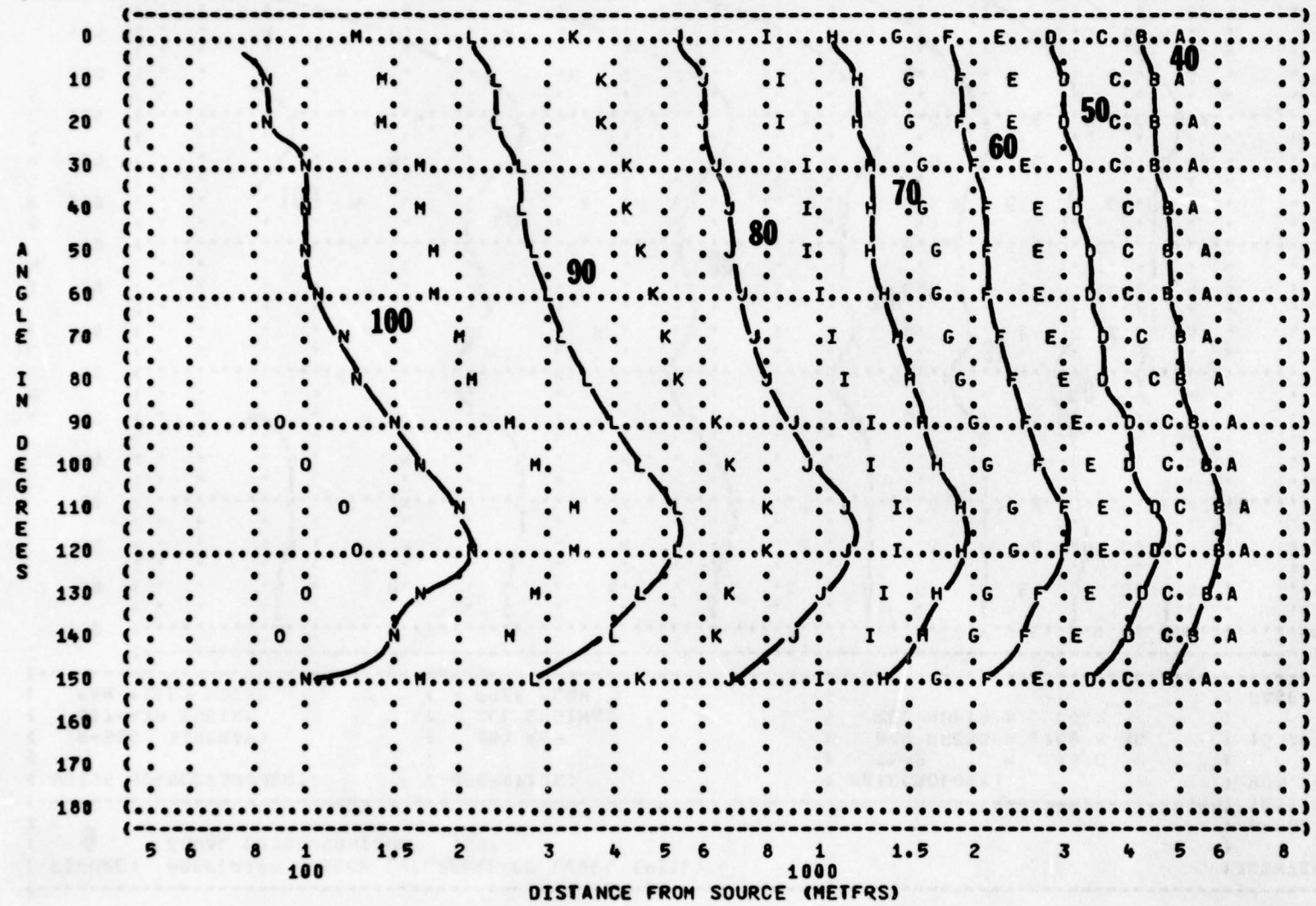
FIGURE 9: PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 17

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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




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

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 17

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

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

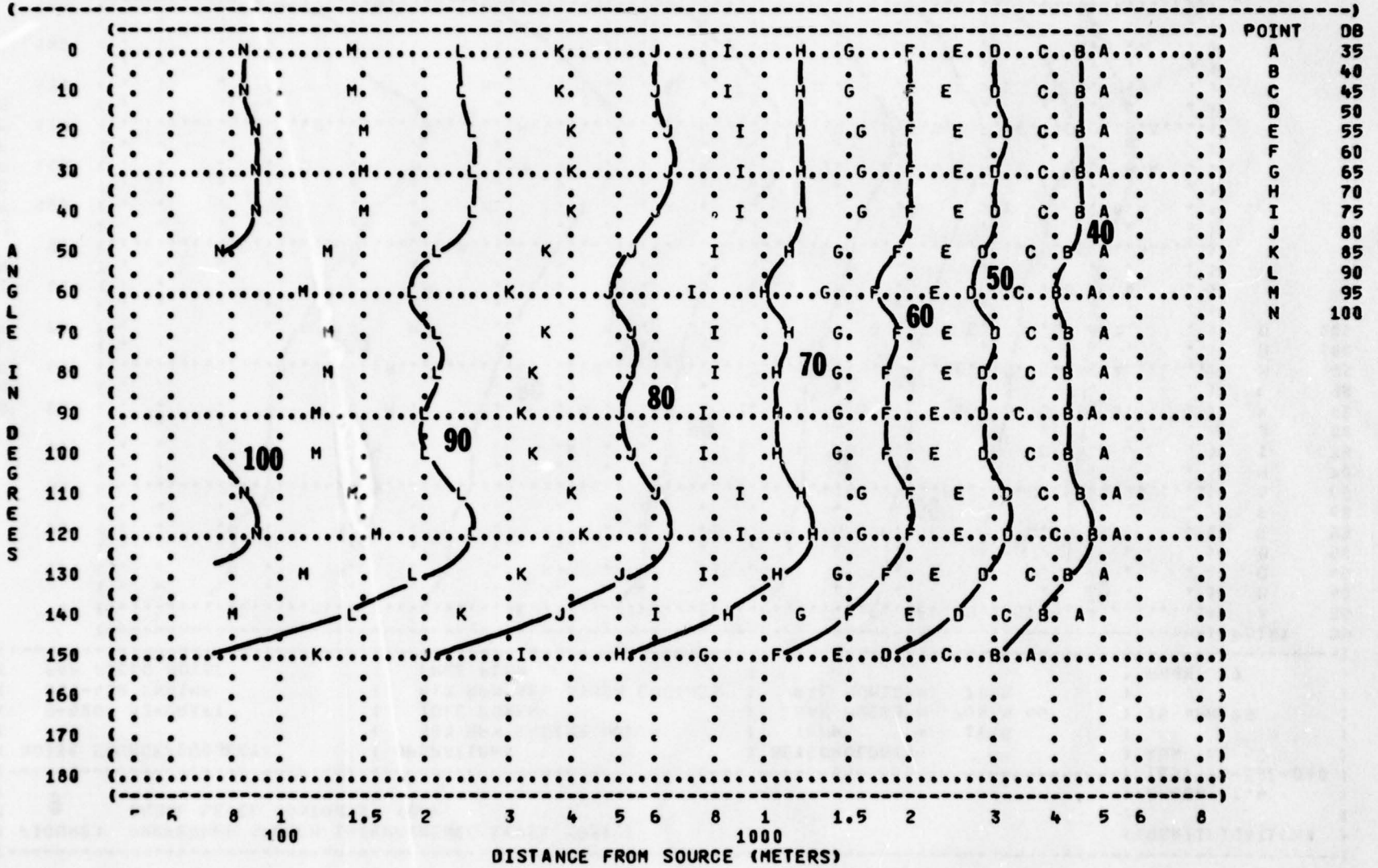


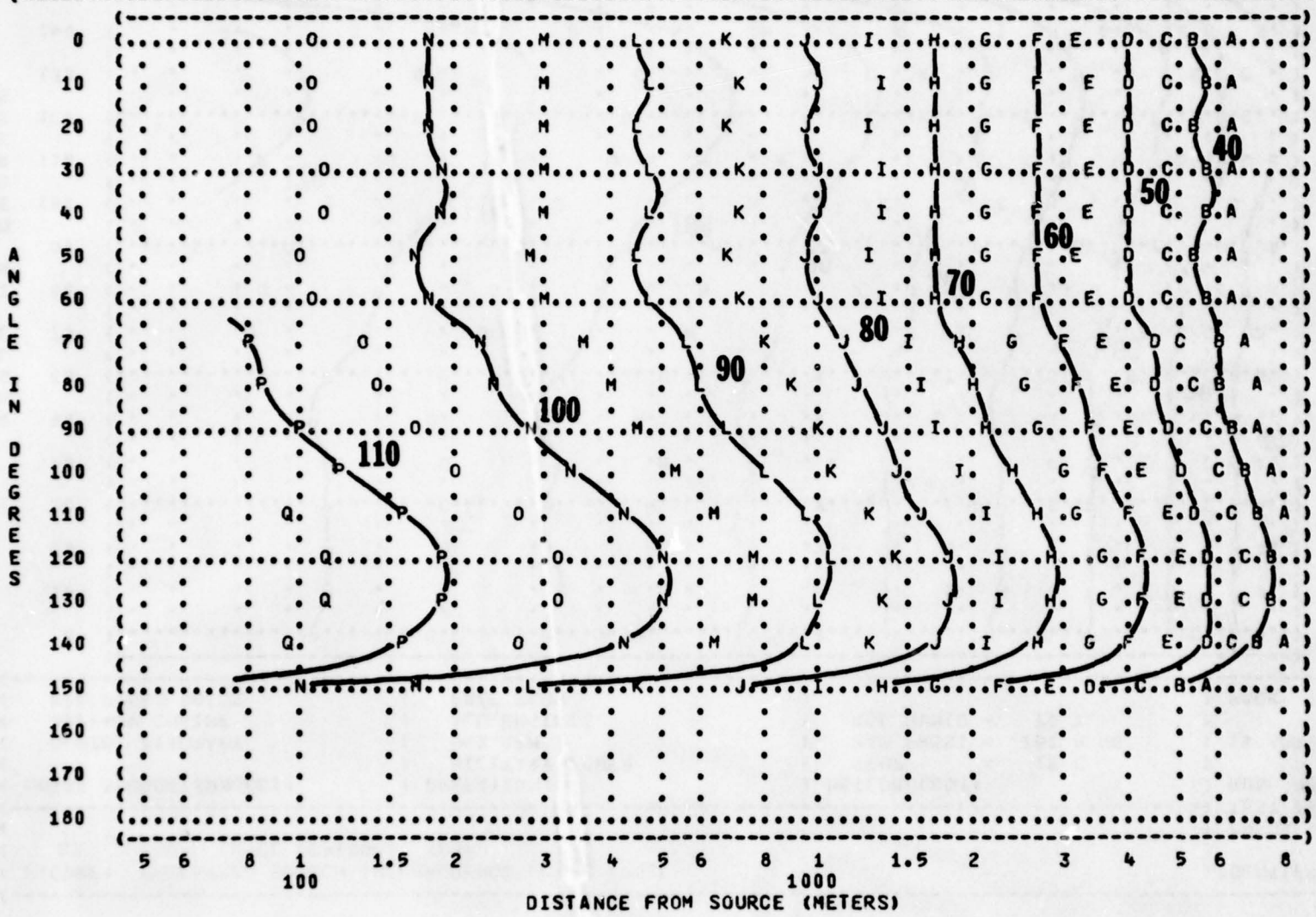
FIGURE: 9 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 17

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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




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

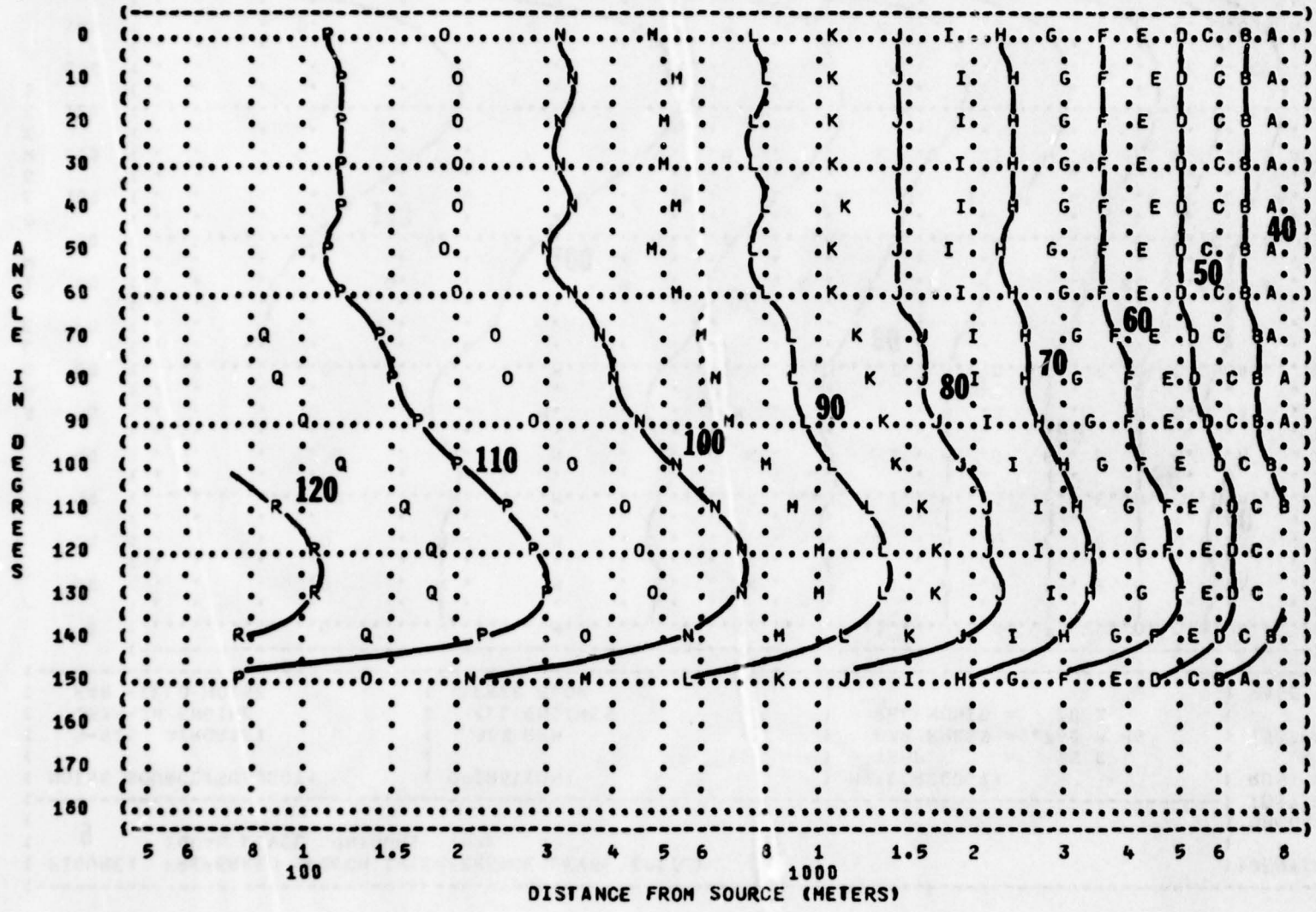
FIGURE 9 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 17

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL 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 |

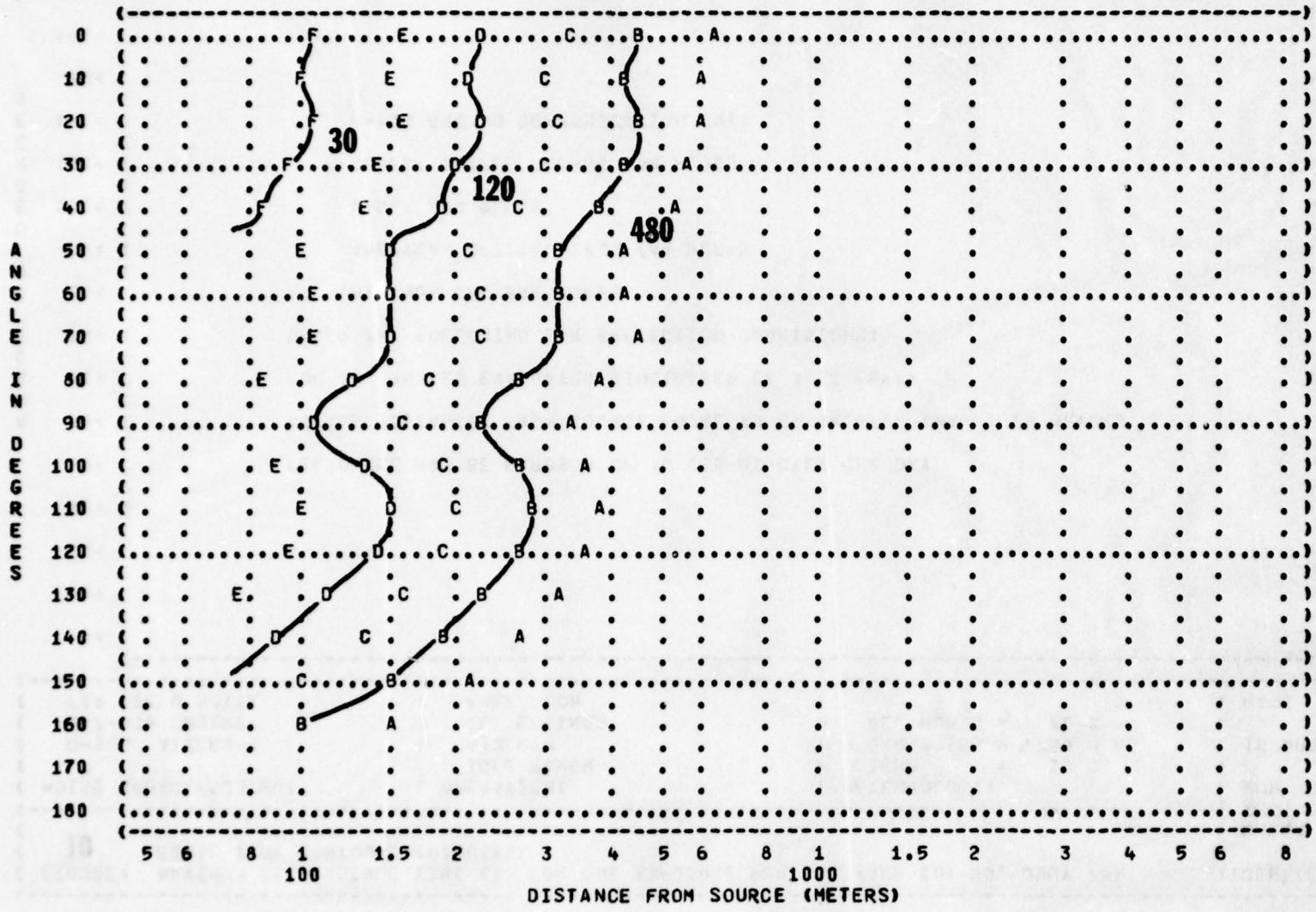
FIGURE: 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 APR 75
PAGE 7

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL 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 75-002-010
RUN 01
15 APR 75
PAGE 8

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

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

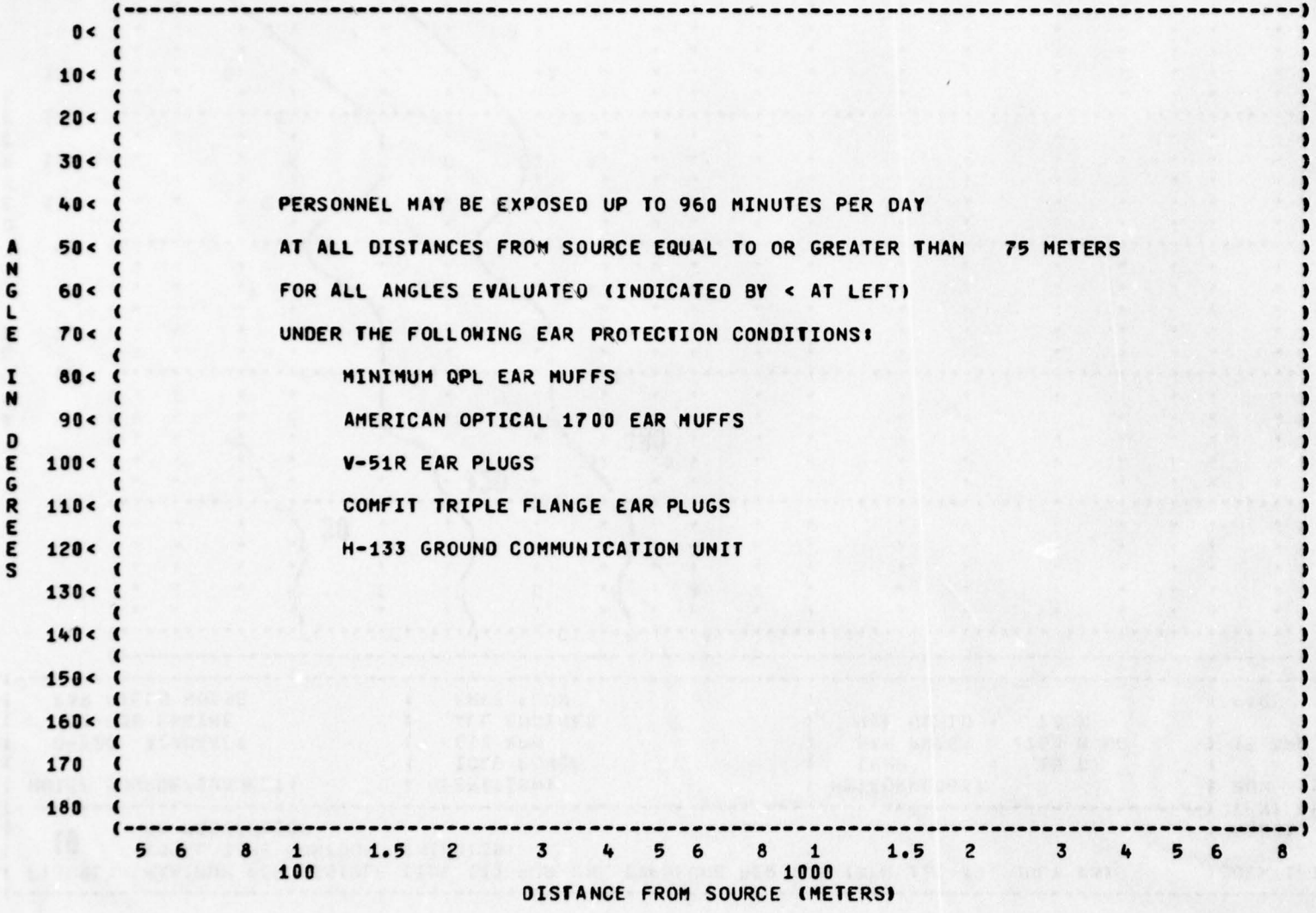


FIGURE: 10

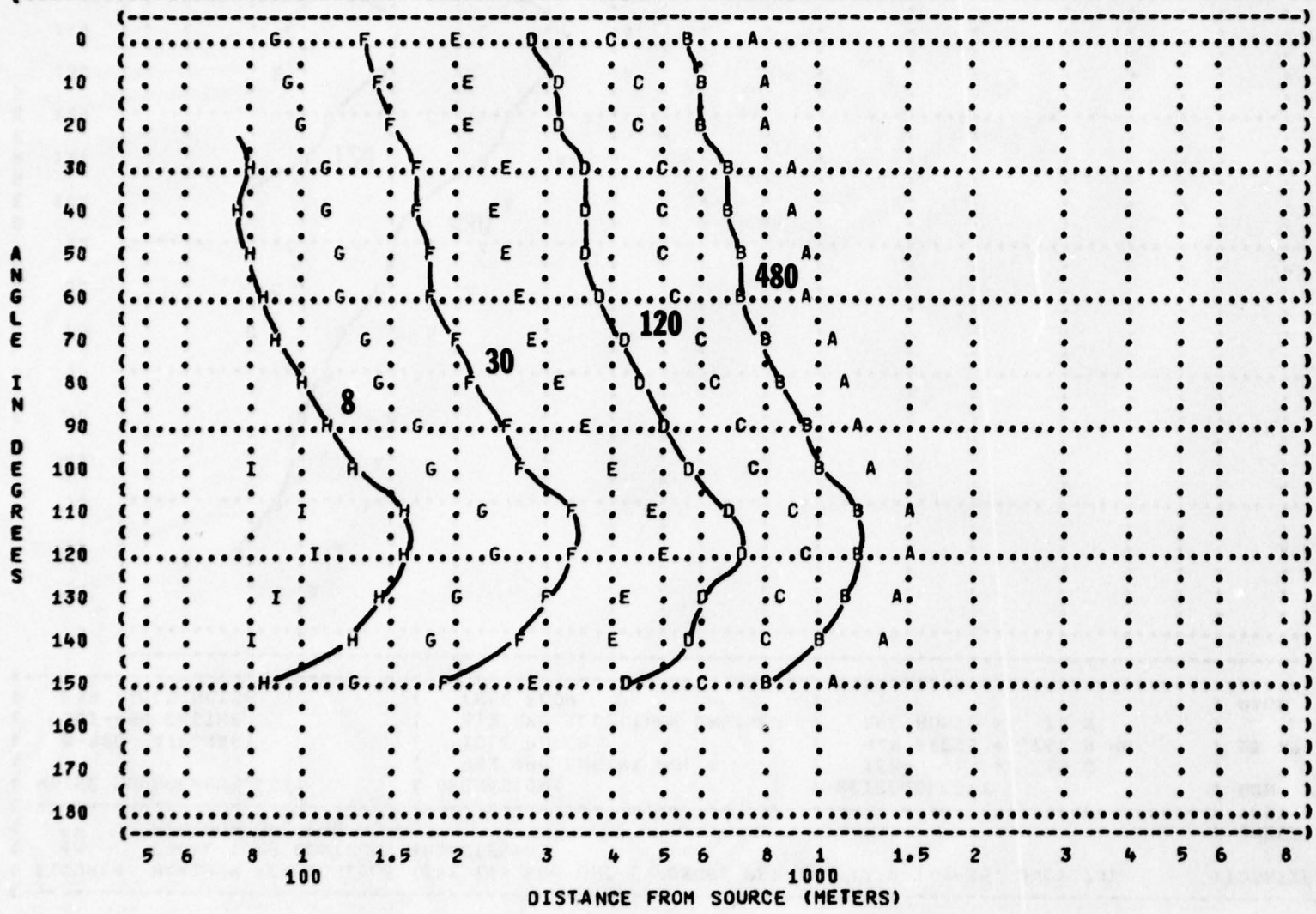
MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 7

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER 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 |
| I | 4 |

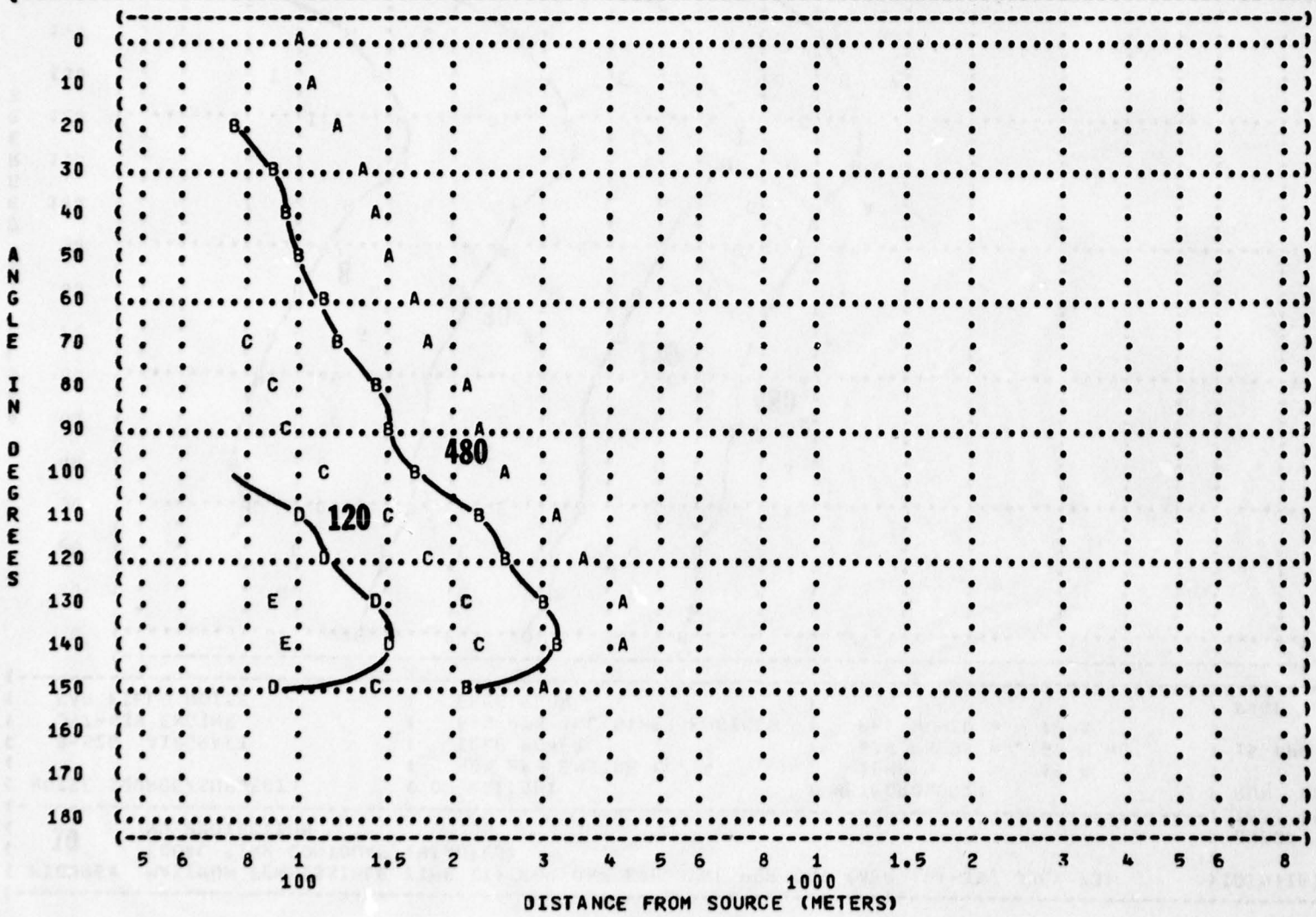
FIGURE 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
MINIMUM QPL EAR MUFFS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 8

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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




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

FIGURE: 10

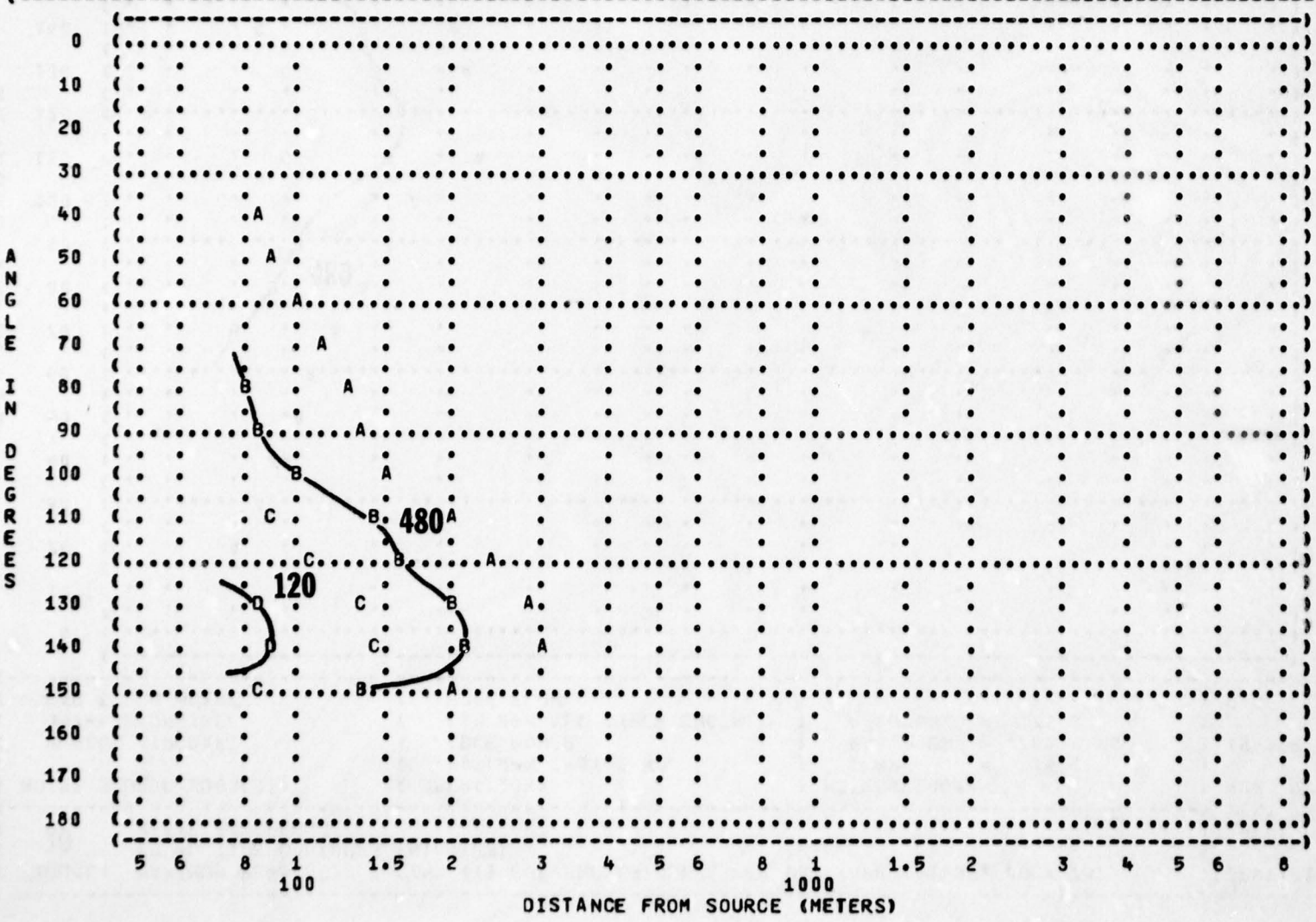
MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
AMERICAN OPTICAL 1700 EAR MUFFS

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 9




| 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)
V-51R EAR PLUGS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 10

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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

| POINT | MIN |
|---|---|
| A | 960 |
| B | 480 |
| C | 240 |

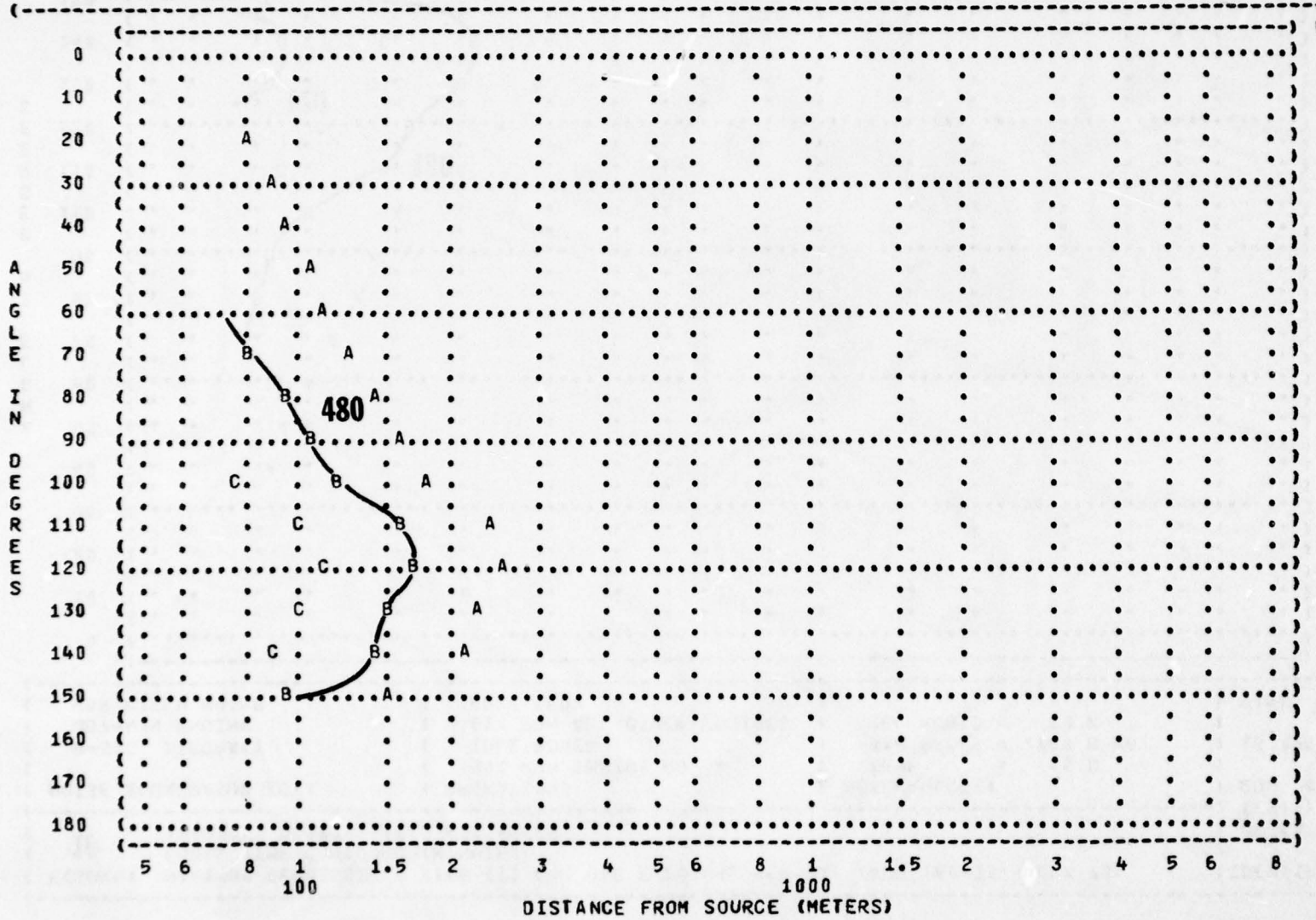


FIGURE: 10

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 11

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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

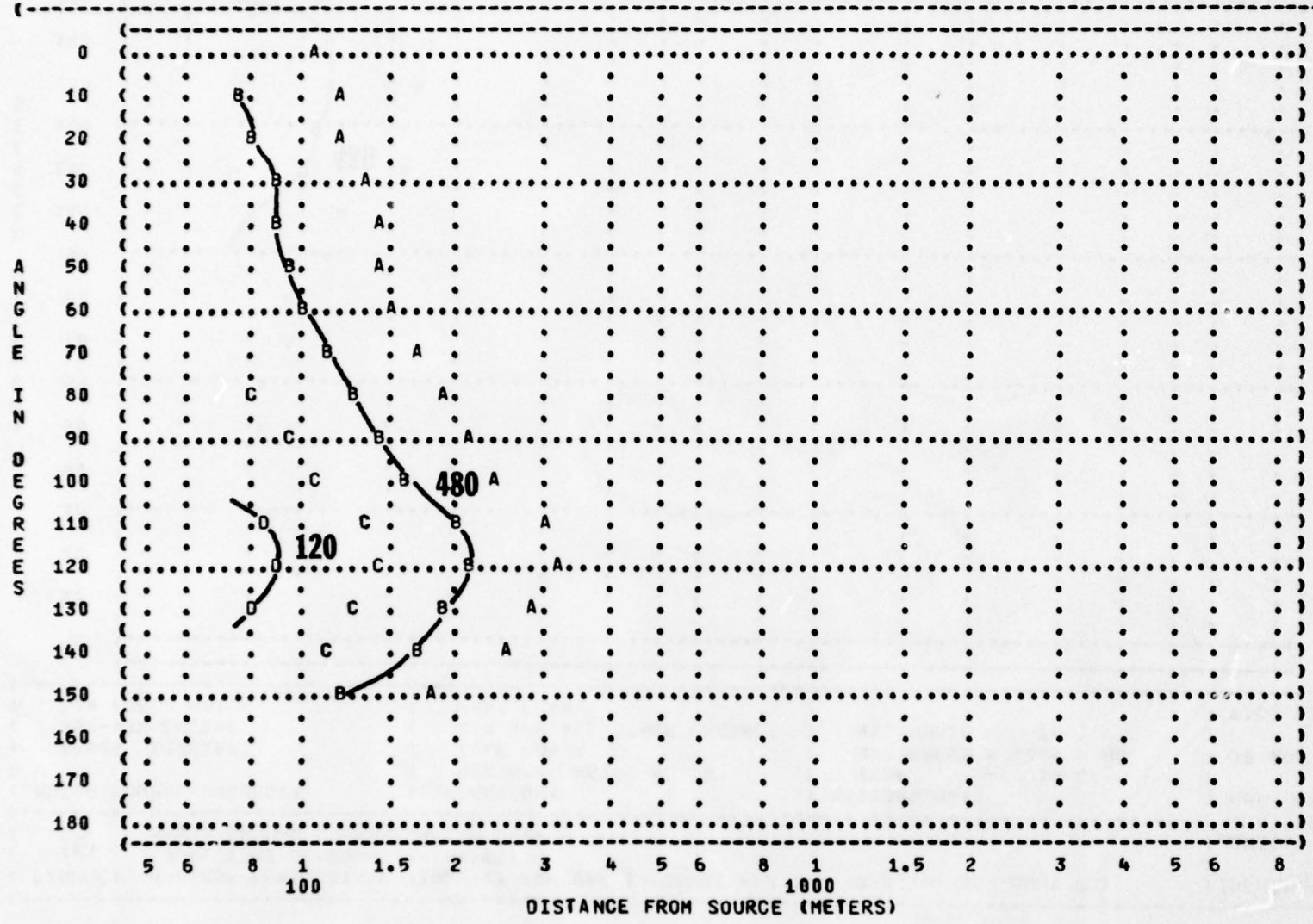


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
M-133 GROUND COMMUNICATION UNIT

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 12

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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

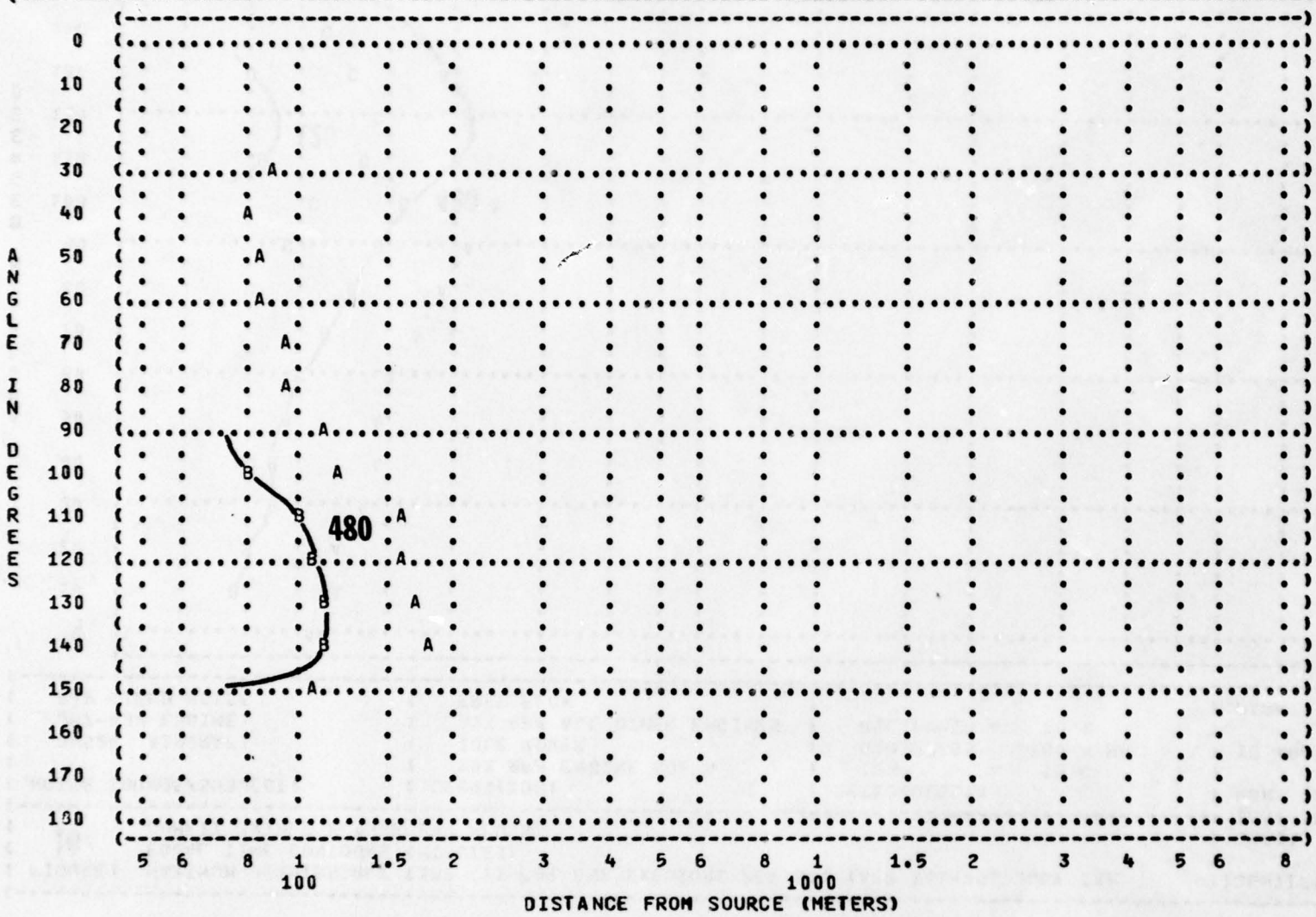


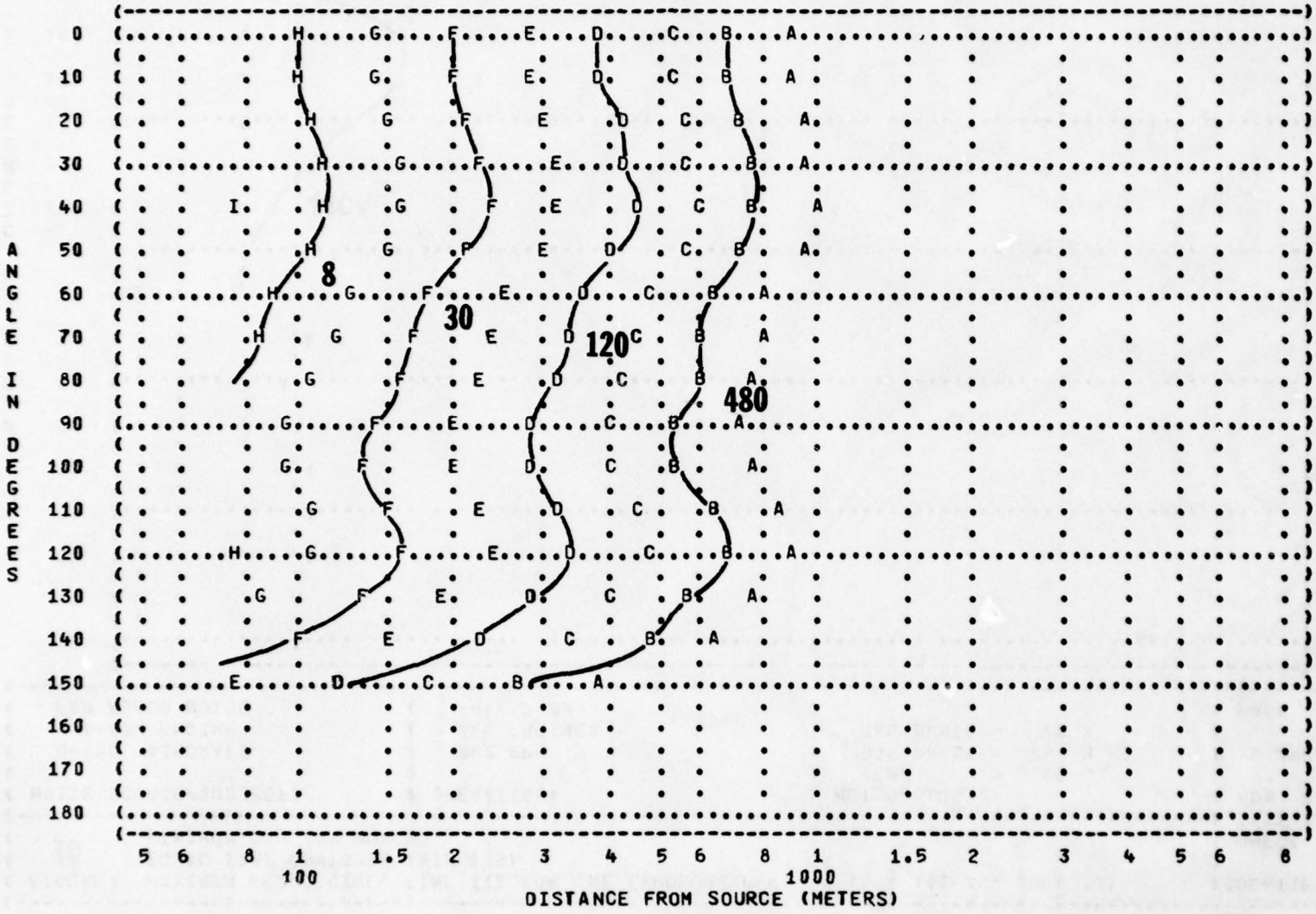
FIGURE: 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 7

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL 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 |
| I | 4 |

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-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 8

| POINT | MIN |
|---|---|
| A | 960 |
| B | 480 |
| C | 240 |

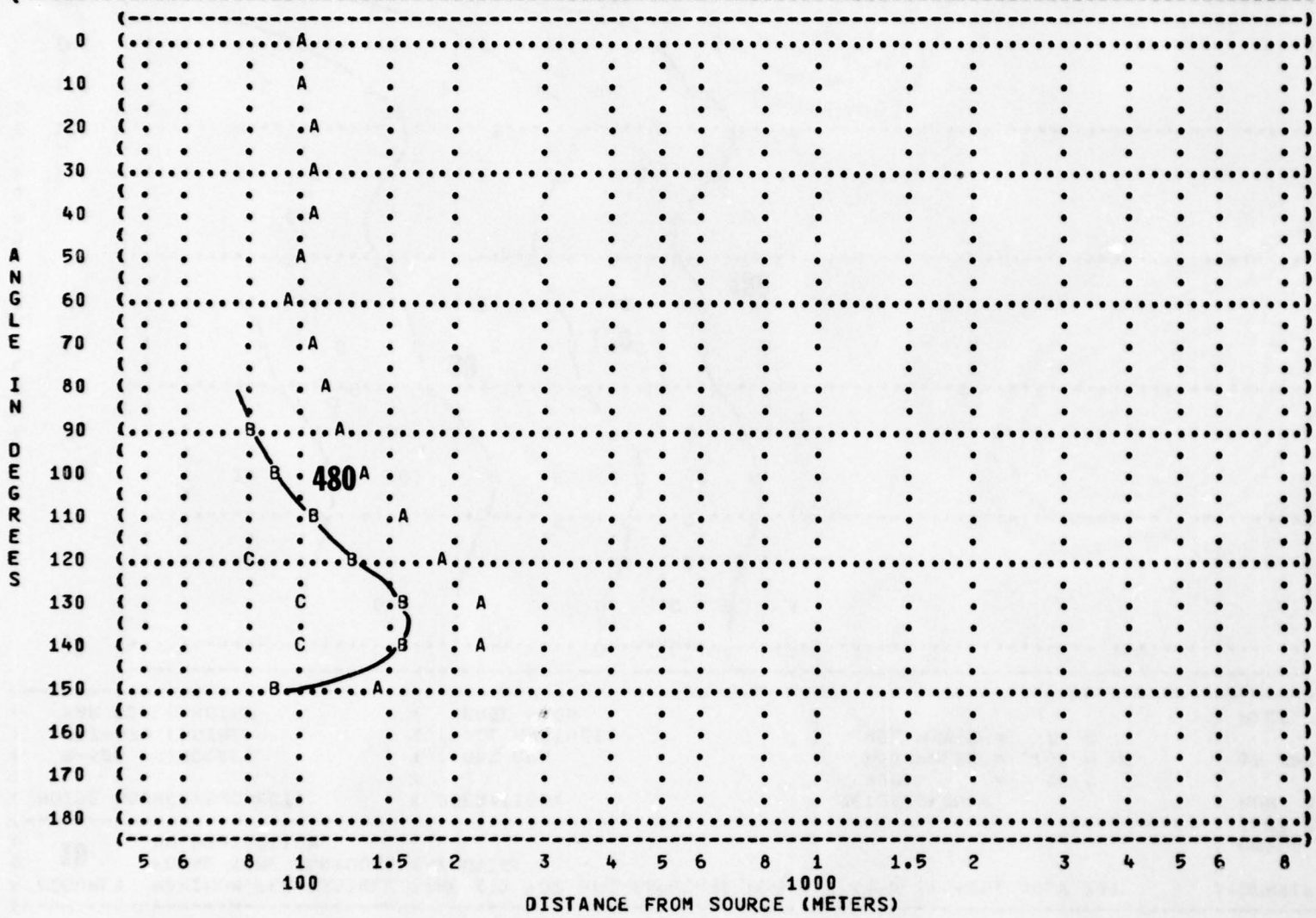


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
AMERICAN OPTICAL 1700 EAR MUFFS

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 9

| POINT | MIN |
|---|---|
| A | 960 |
| B | 480 |

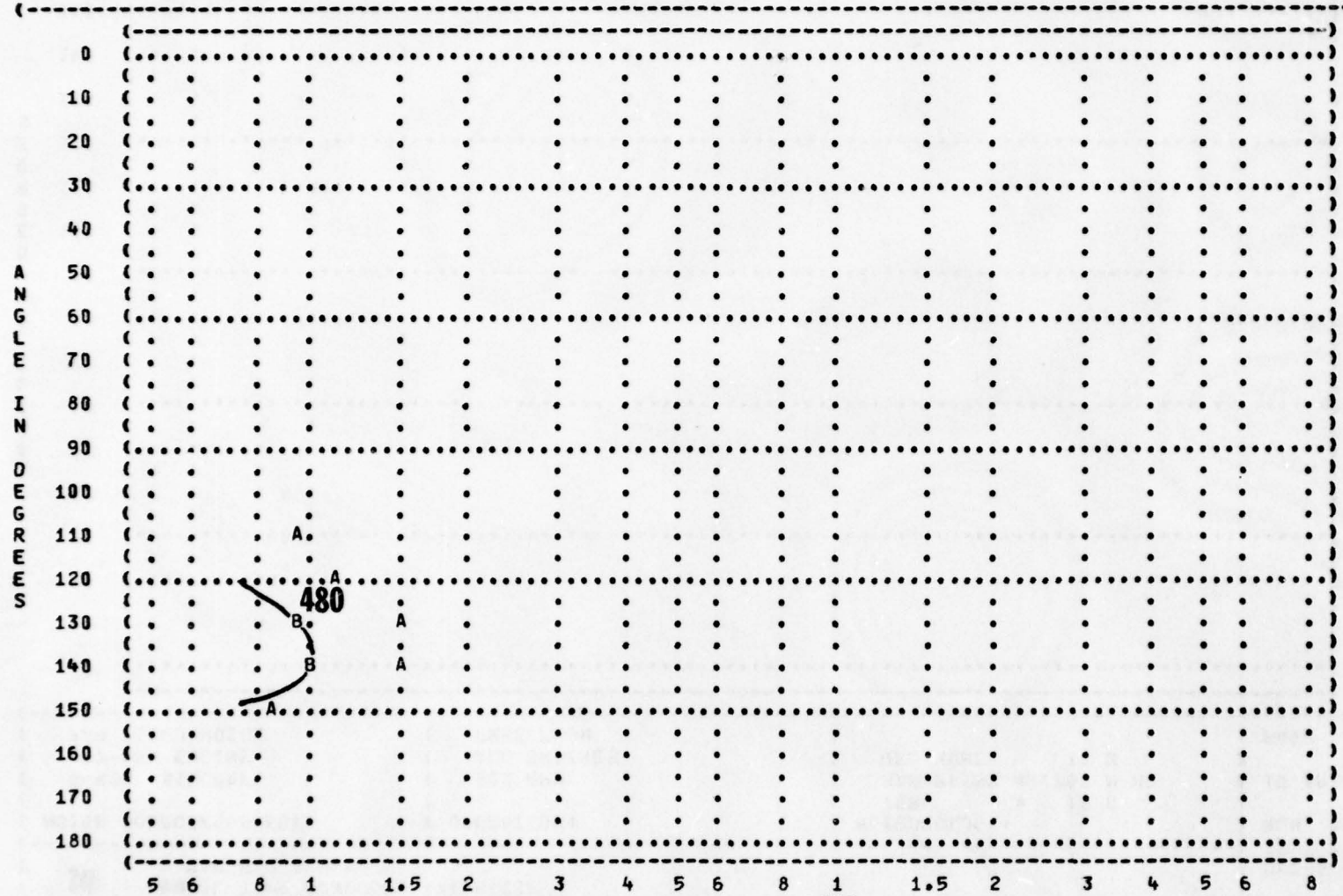


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
V-51R EAR PLUGS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 10

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

| POINT | MIN |
|---|---|
| A | 960 |

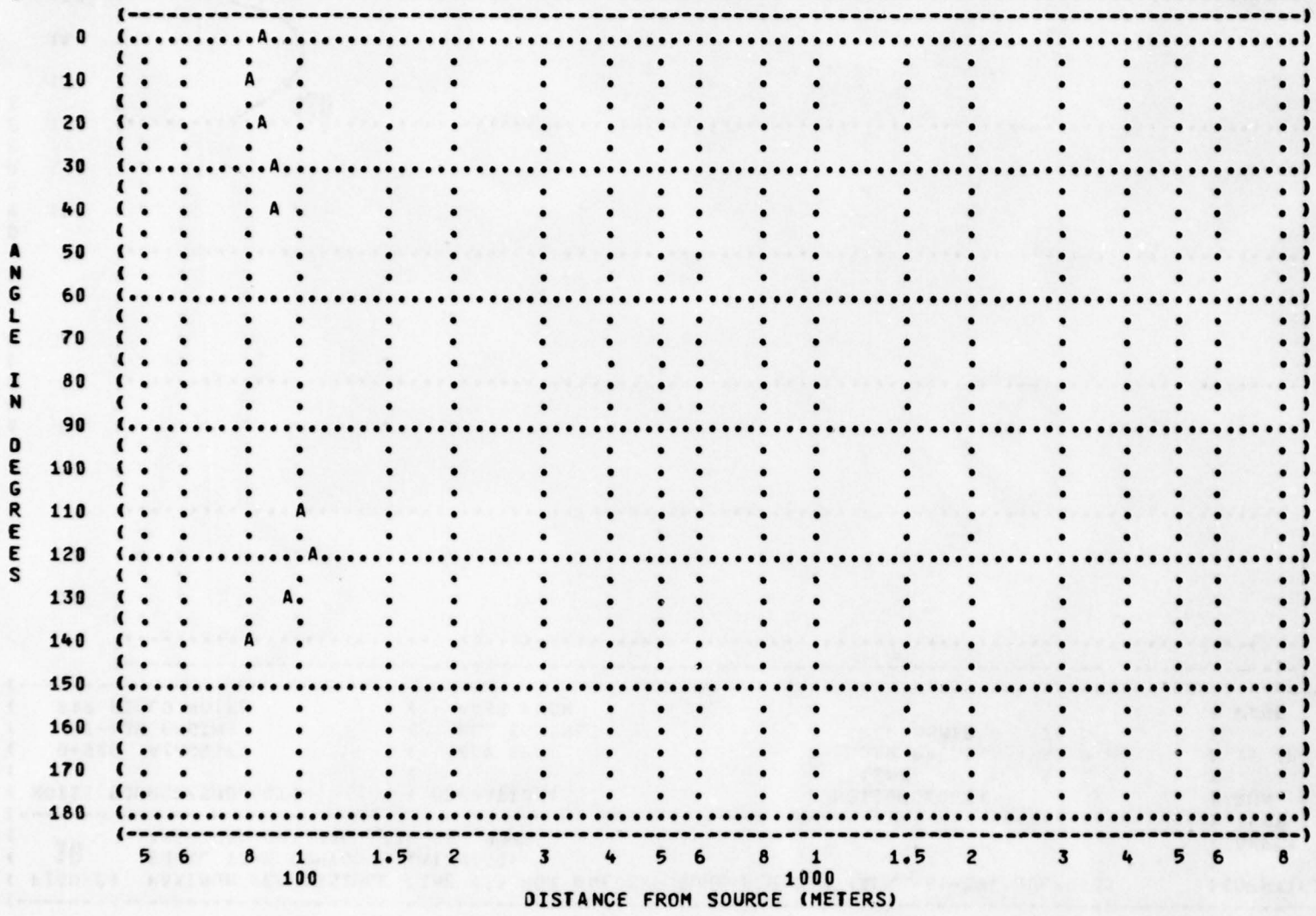


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
COMFIT TRIPLE FLANGE EAR PLUGS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 11

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

| POINT | MIN |
|---|---|
| A | 960 |
| B | 480 |
| C | 240 |

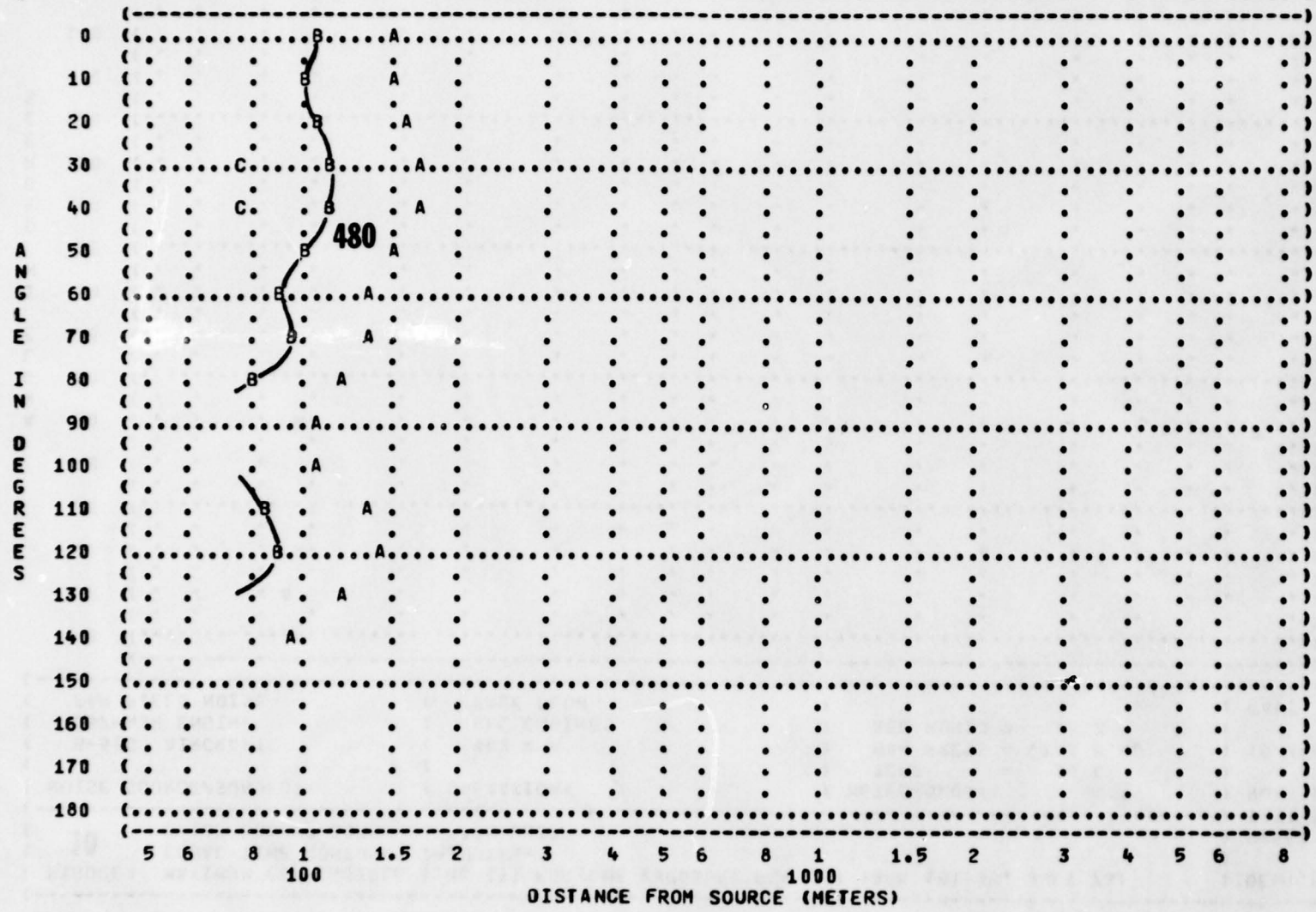


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
H-133 GROUND COMMUNICATION UNIT

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 12

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

| POINT | MIN |
|---|---|
| A | 960 |

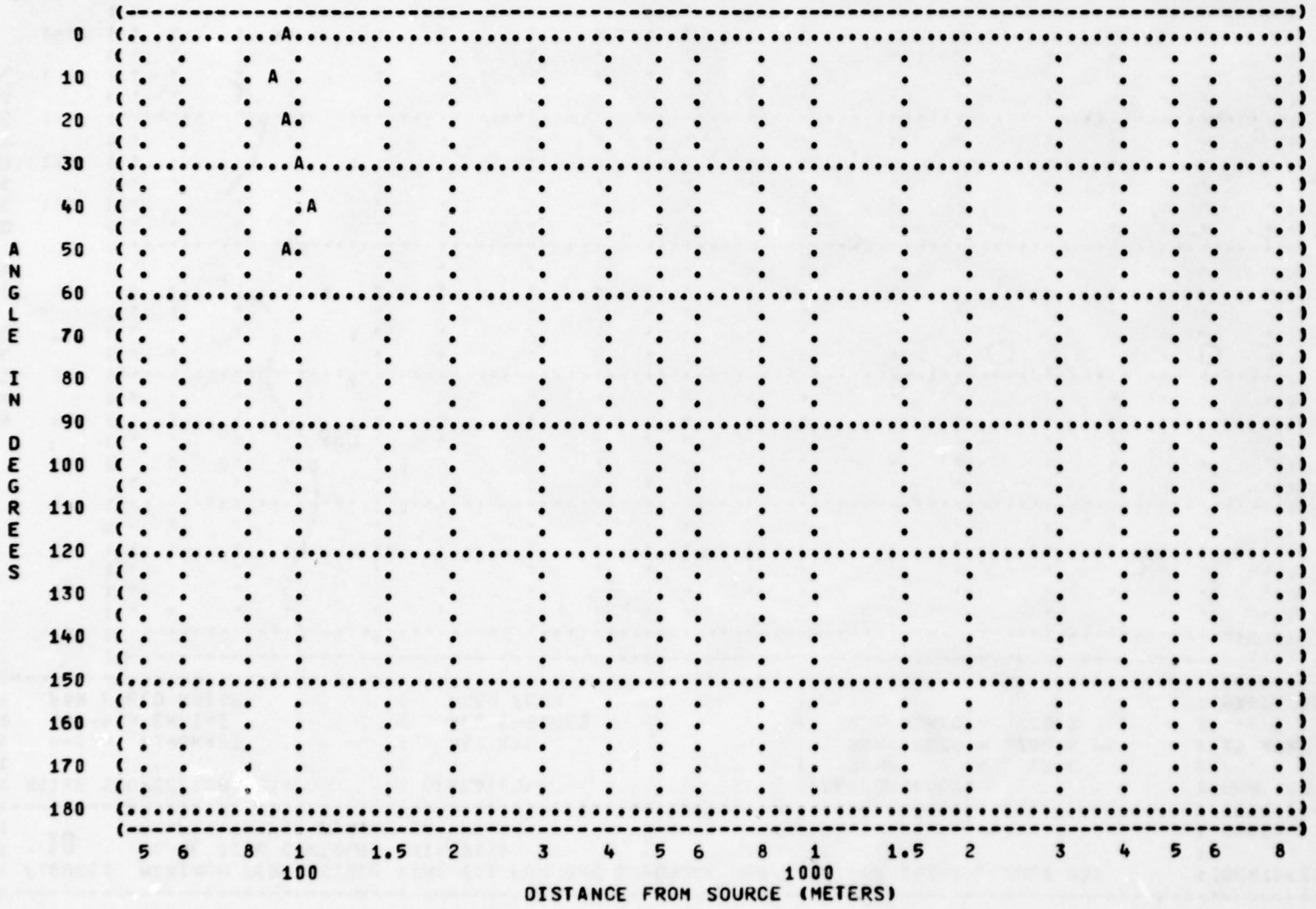


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

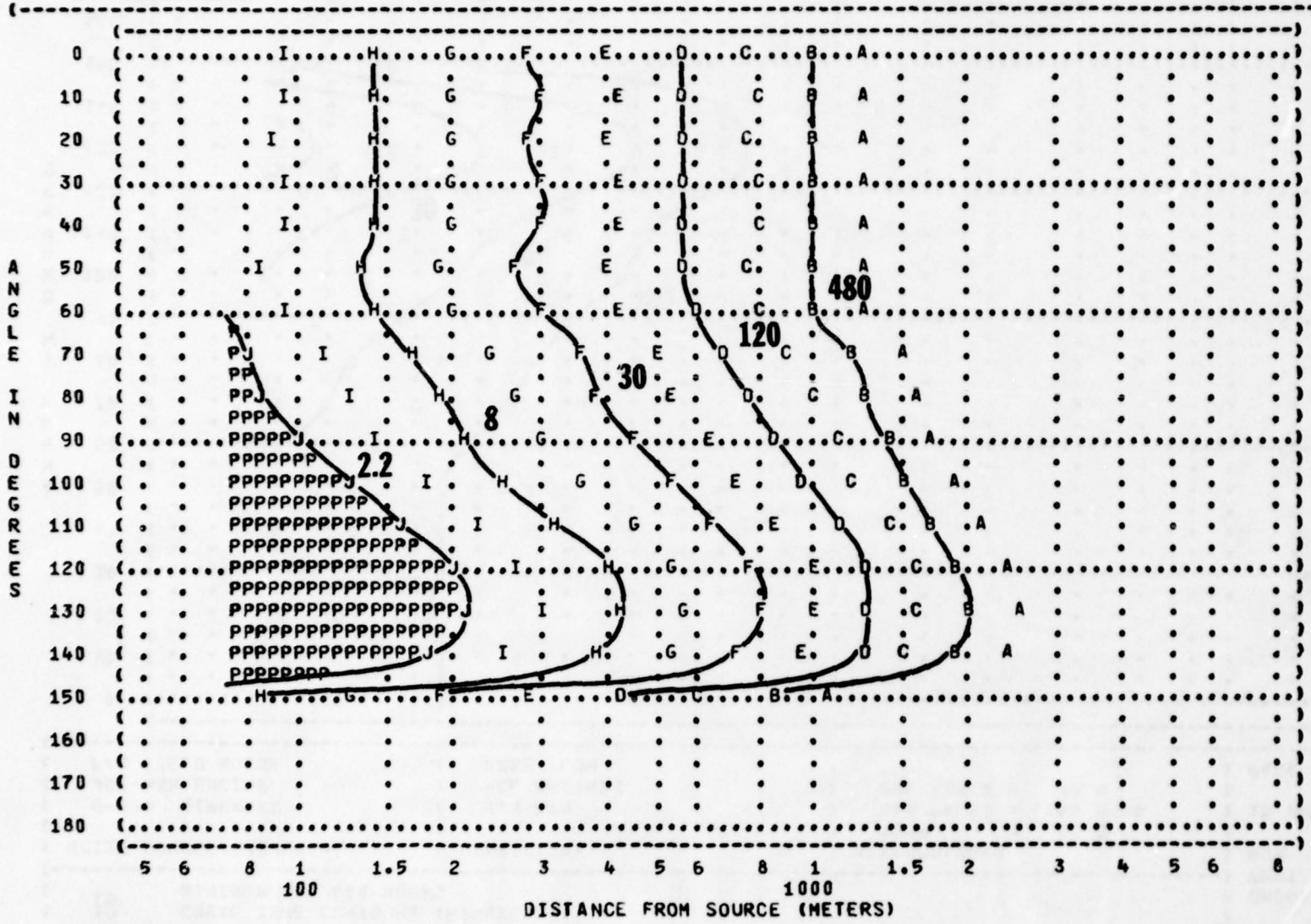
IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 7

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL 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 |
| 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-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 8

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

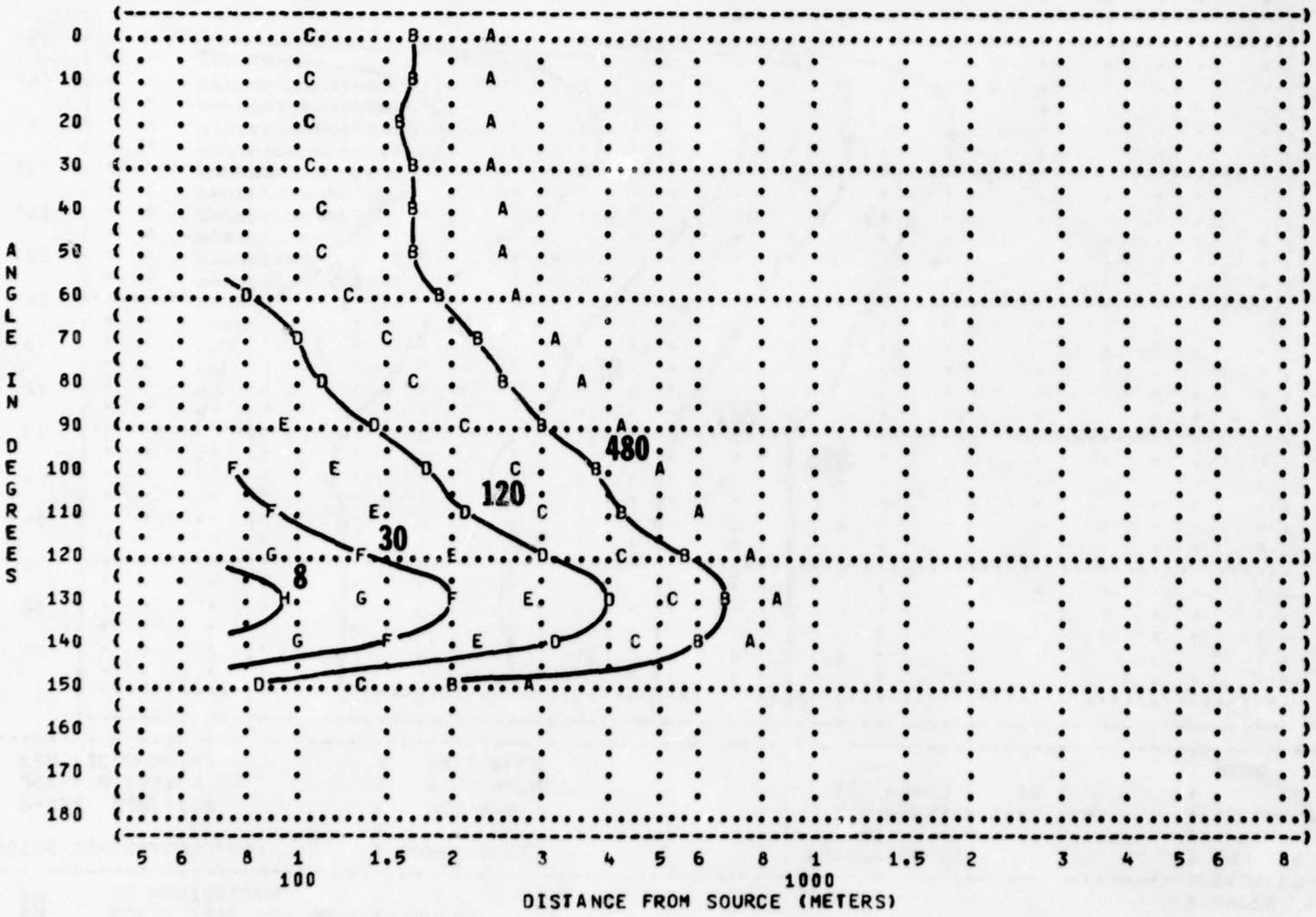


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
AMERICAN OPTICAL 1700 EAR MUFFS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04

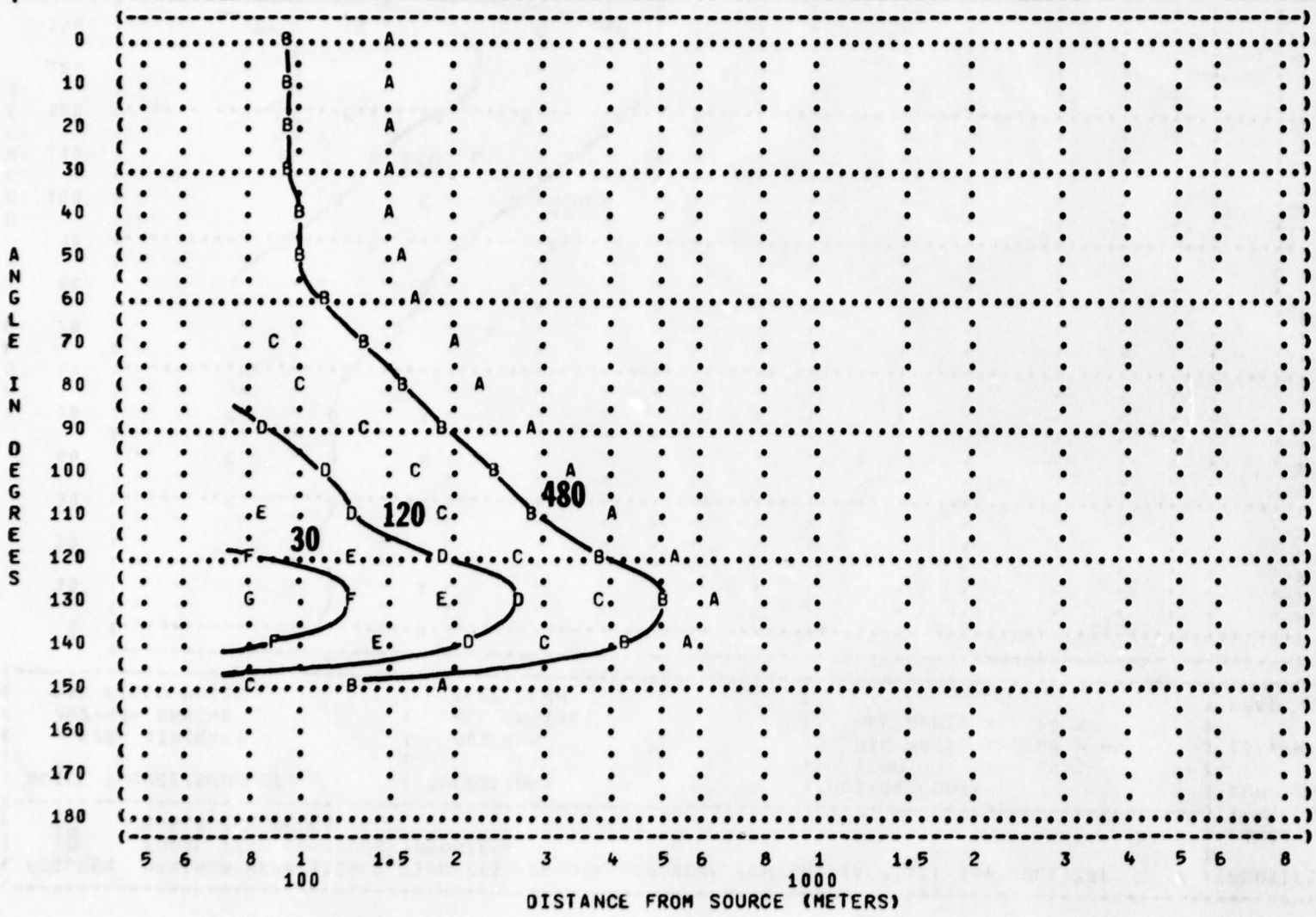
15 APR 75

PAGE 9

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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




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

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 10

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL 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 |

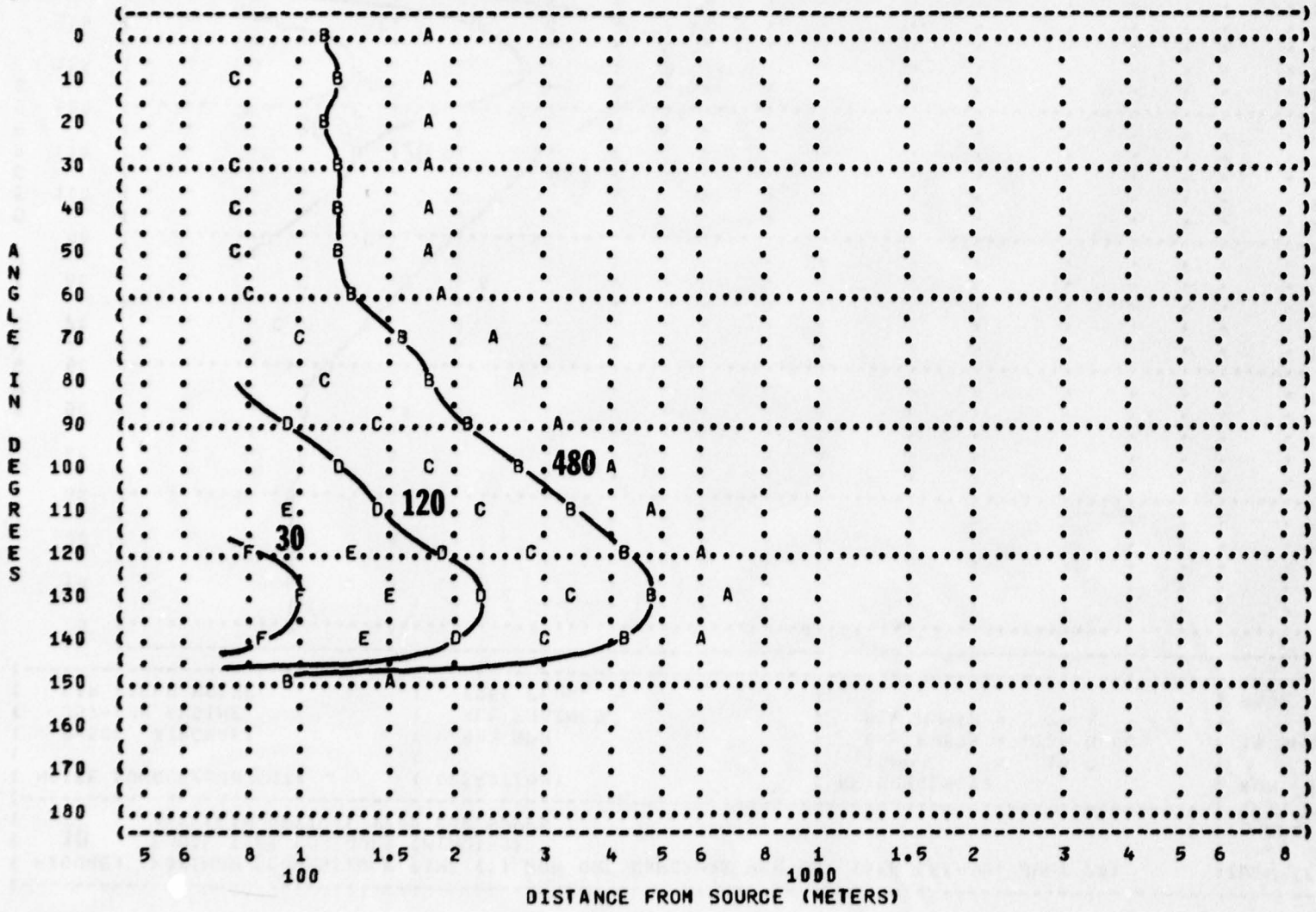


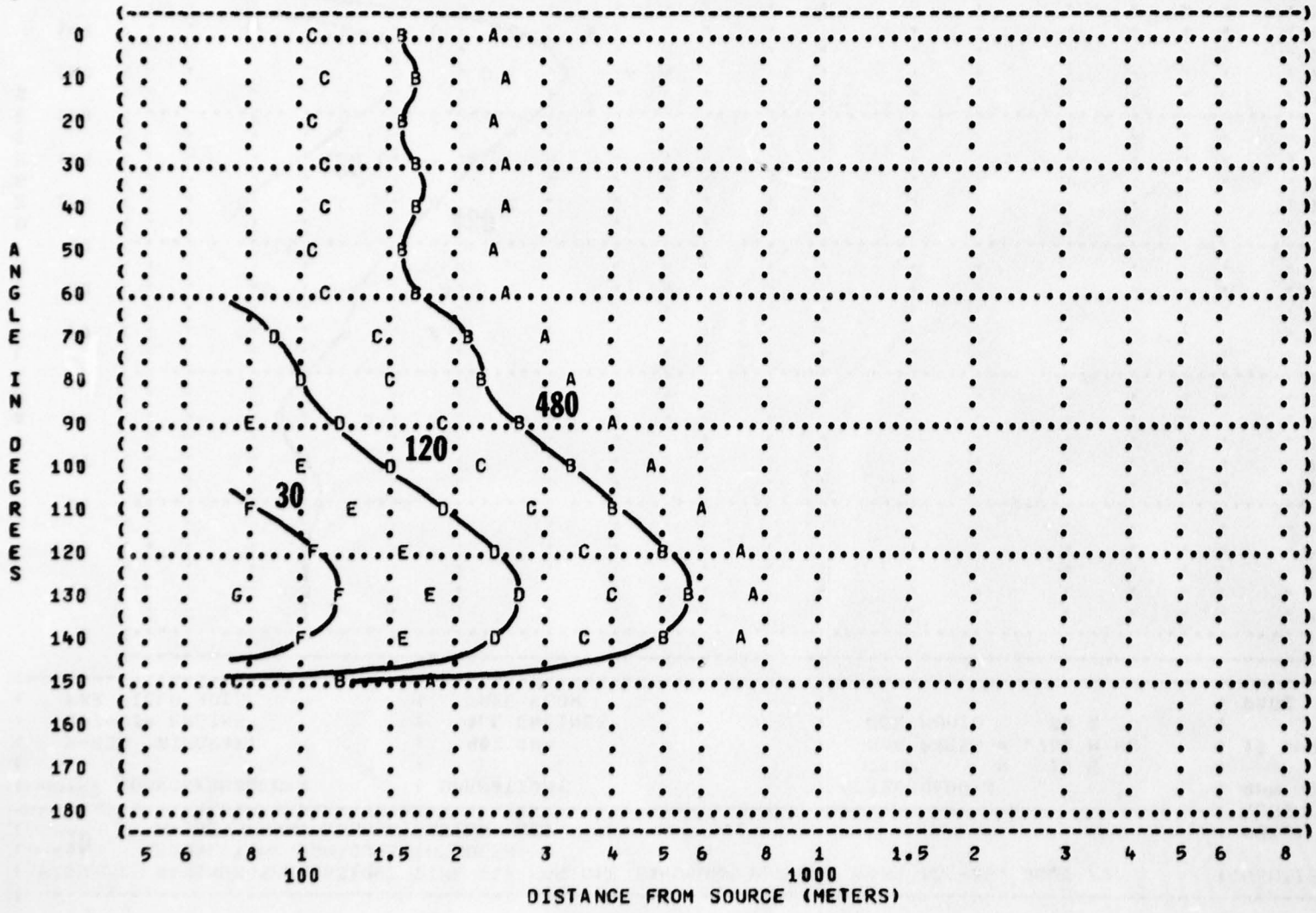
FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
COMFIT TRIPLE FLANGE EAR PLUGS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 11

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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




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

FIGURE: 10

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 12

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL 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 |

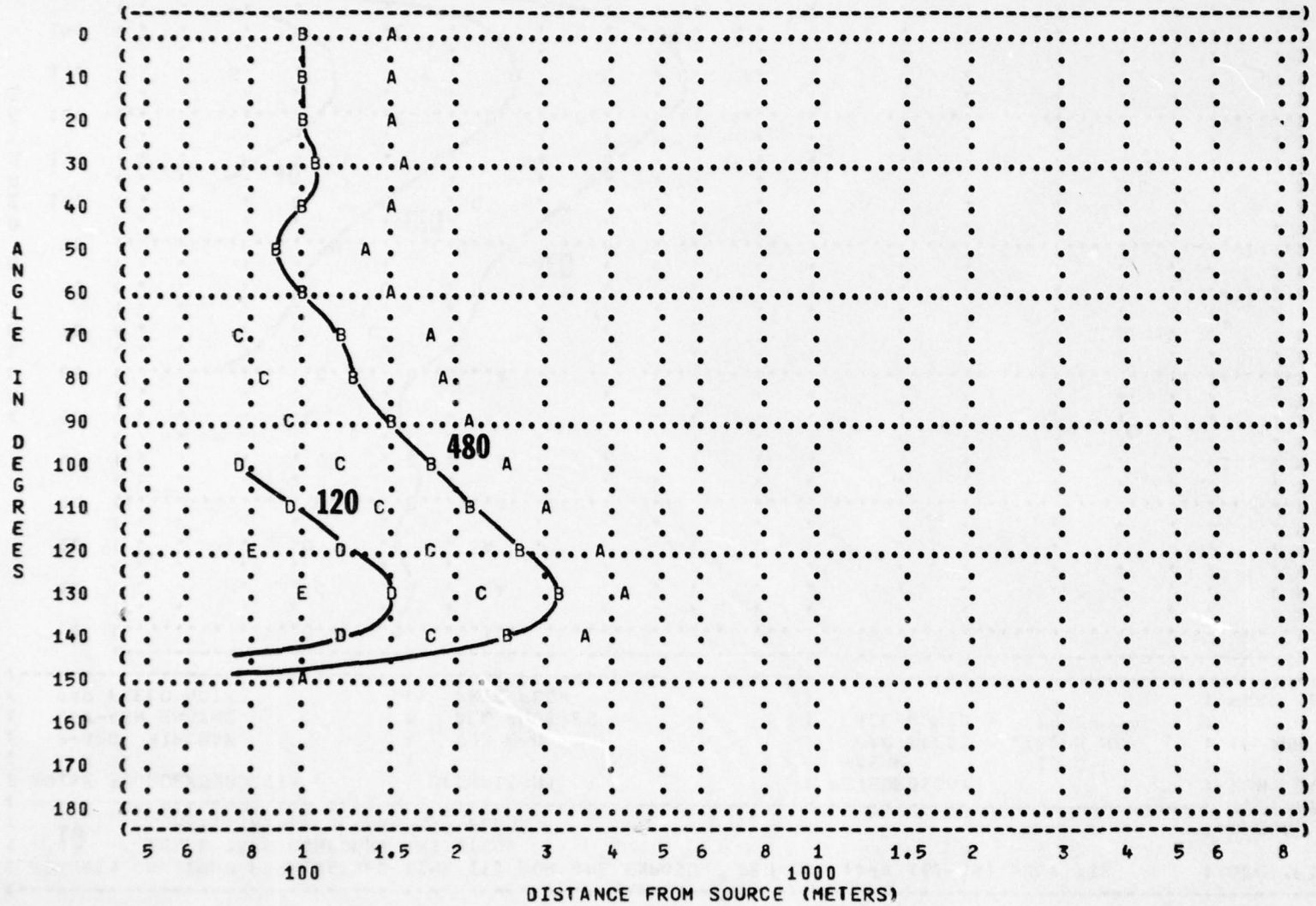


FIGURE 10 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

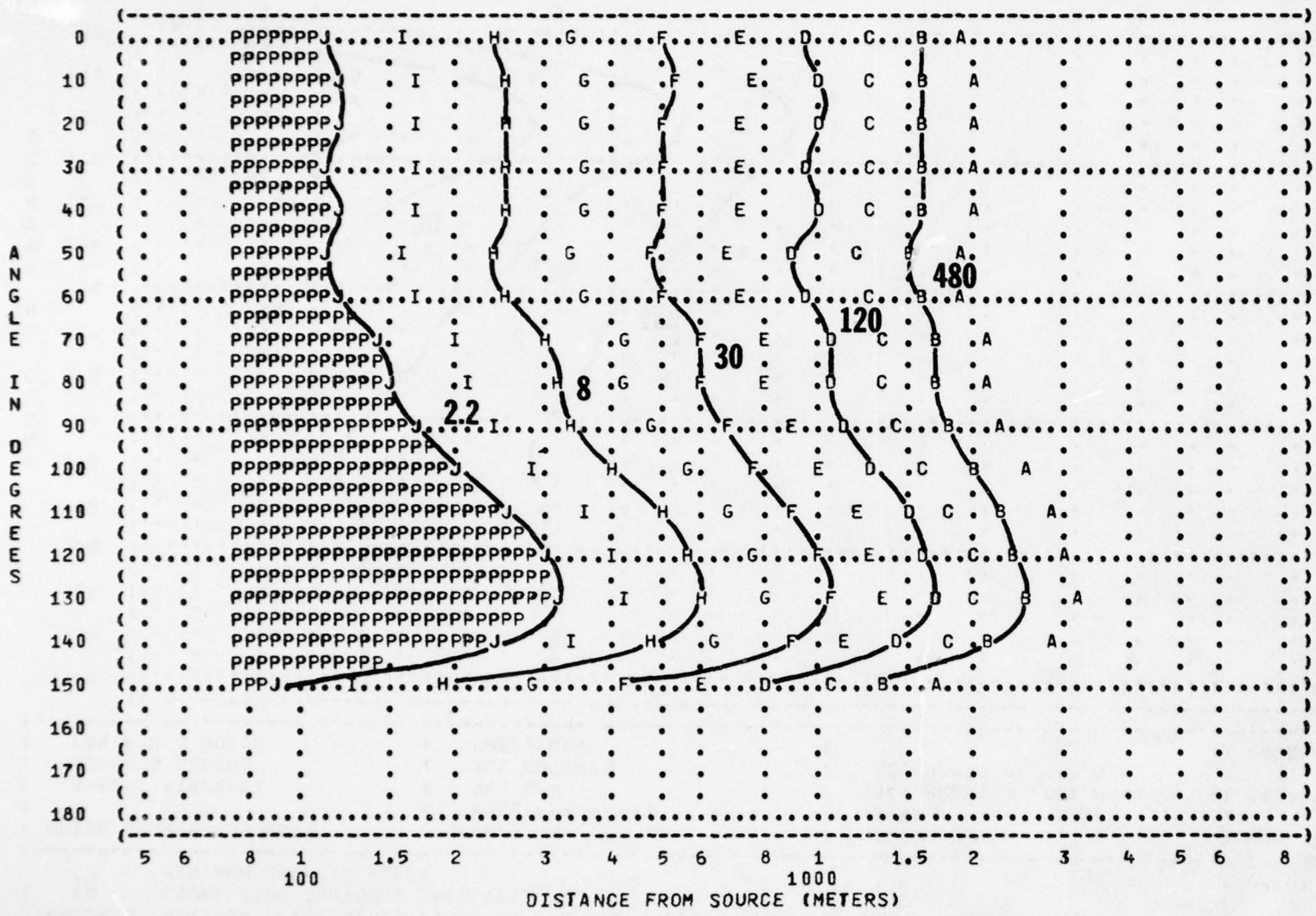
IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 7

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
-43H ENGINE
FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL 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 |
| 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-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 8

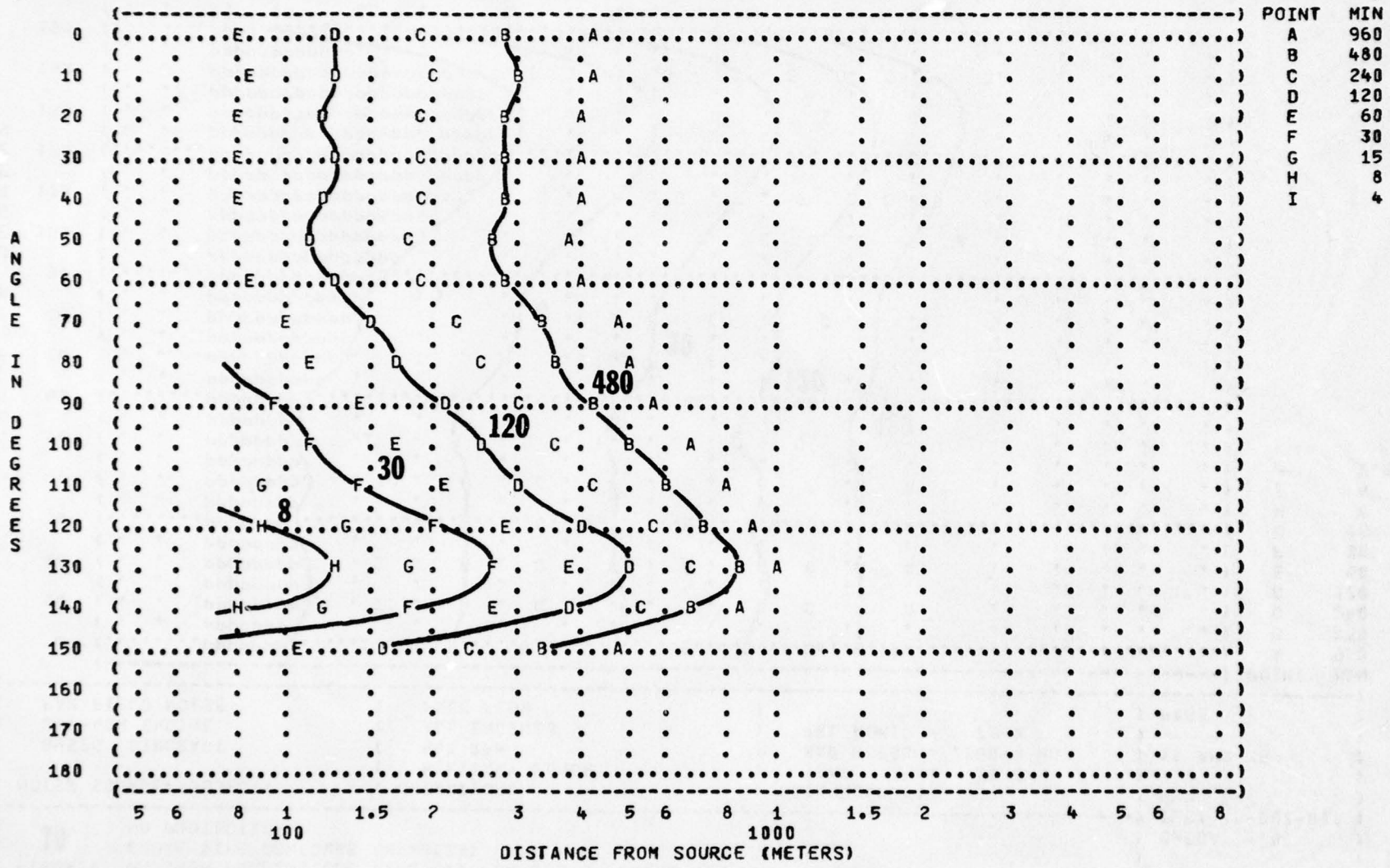


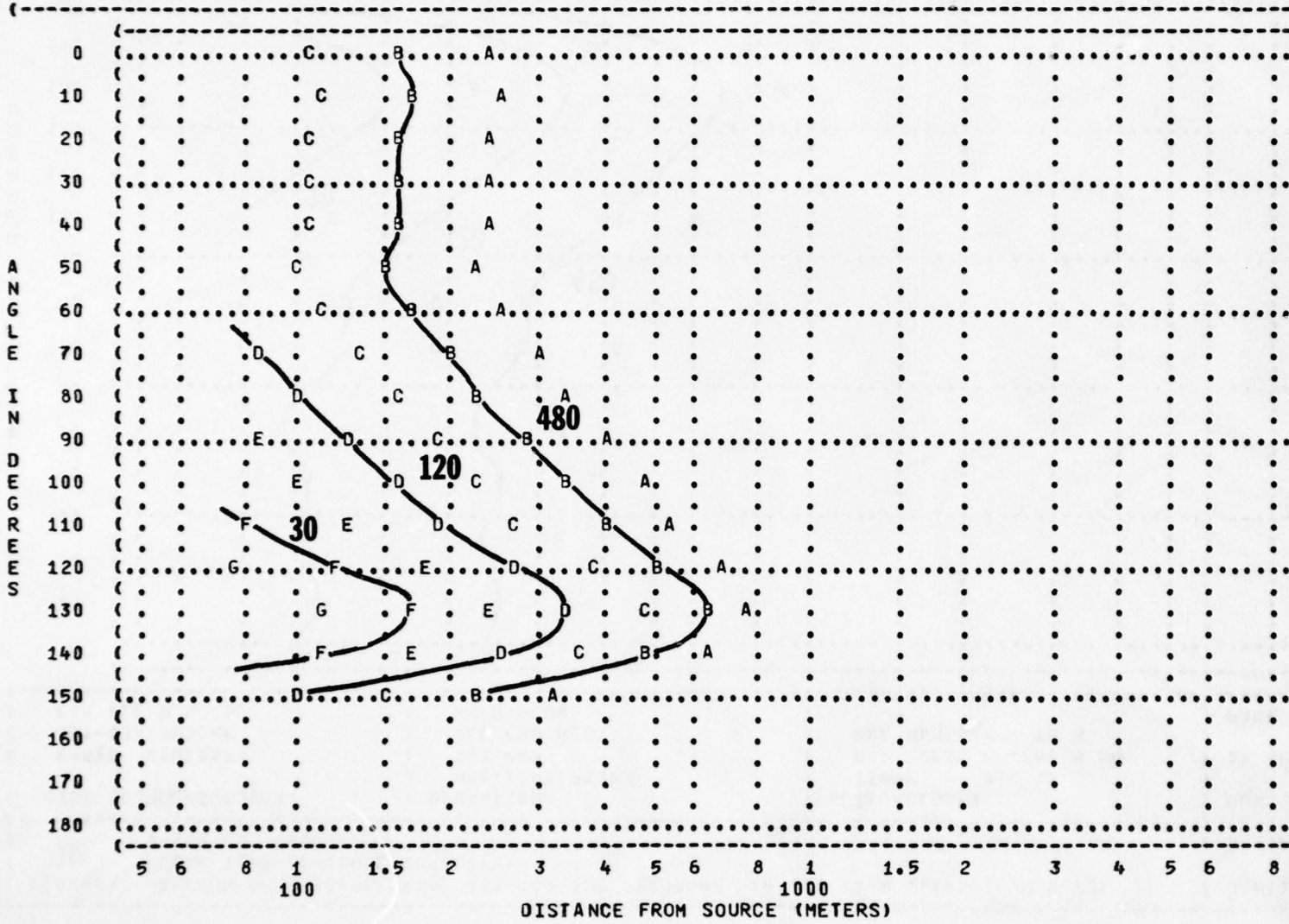
FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
AMERICAN OPTICAL 1700 EAR MUFFS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 9

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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




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

FIGURE: 10

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 10

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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

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

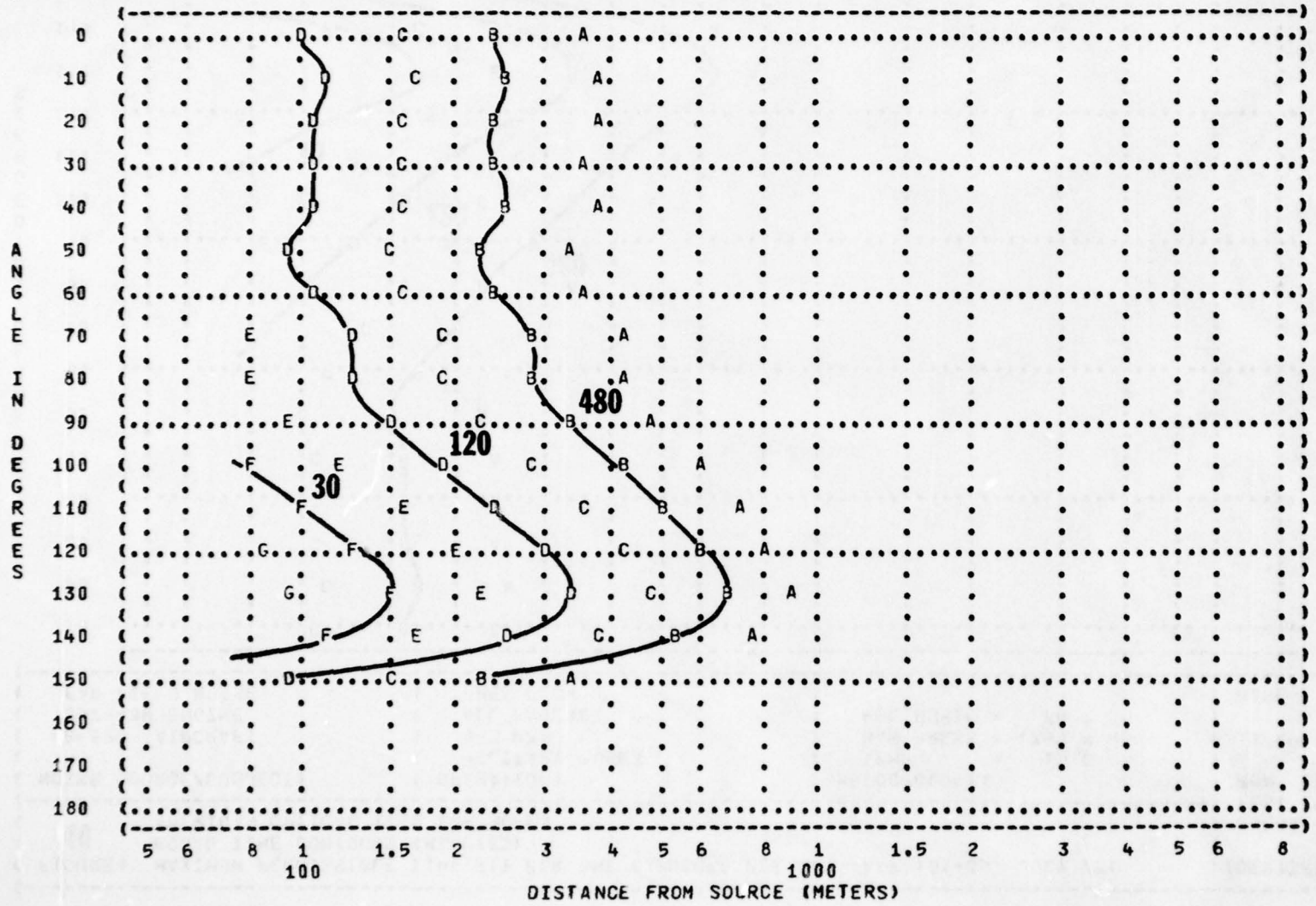


FIGURE: 10

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 11

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL 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 |

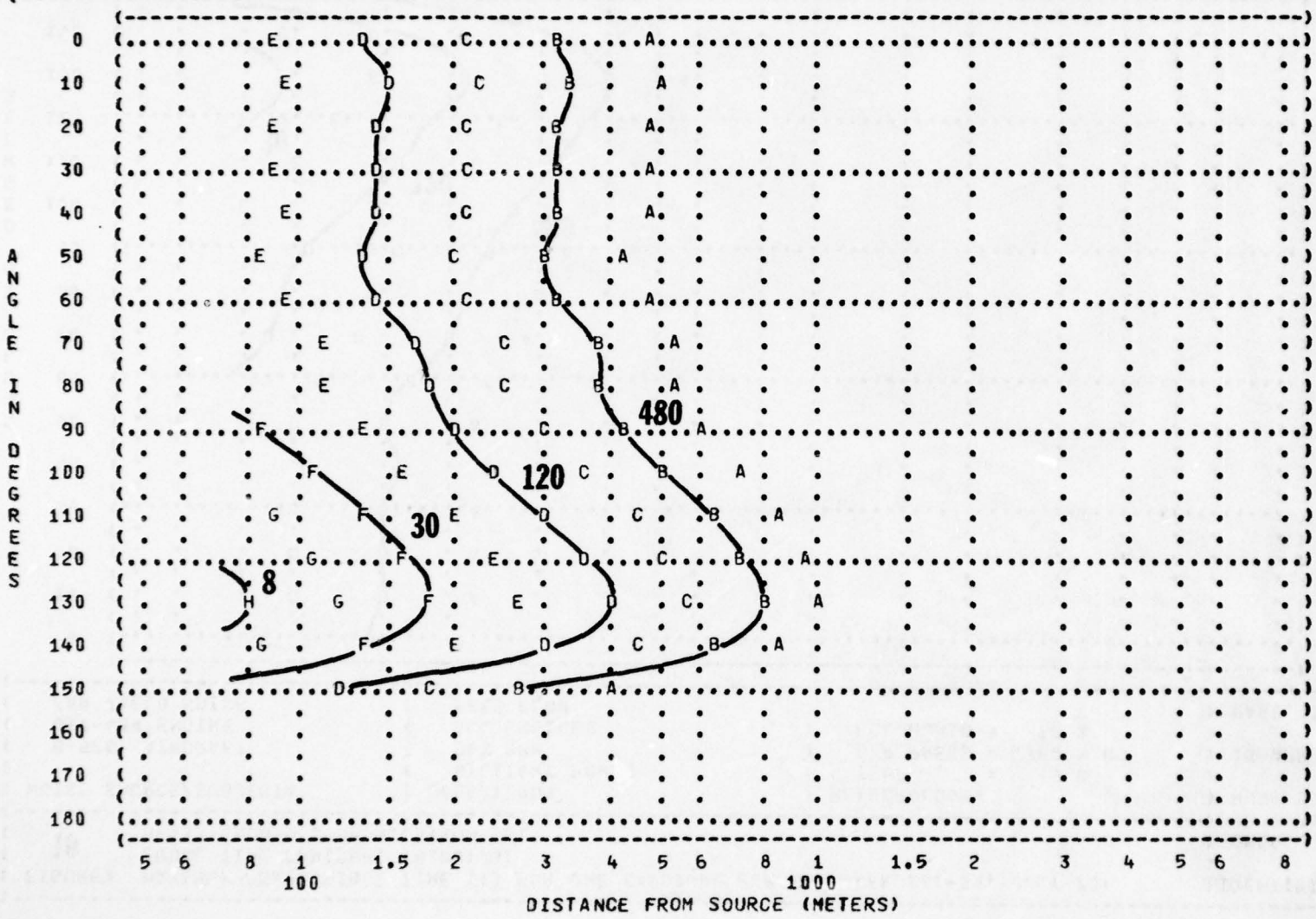


FIGURE 10: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
H-133 GROUND COMMUNICATION UNIT

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 12

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

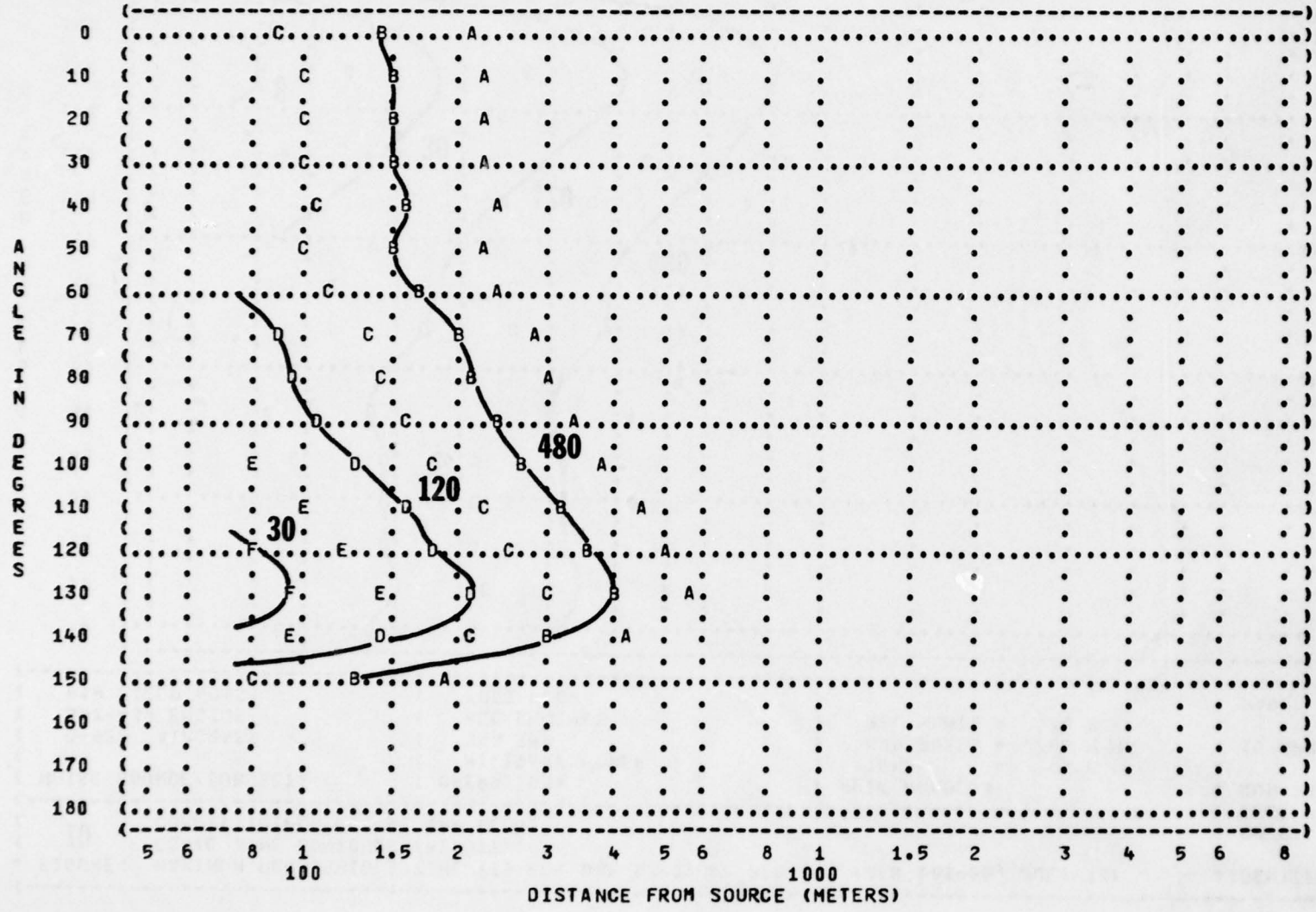


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 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 |

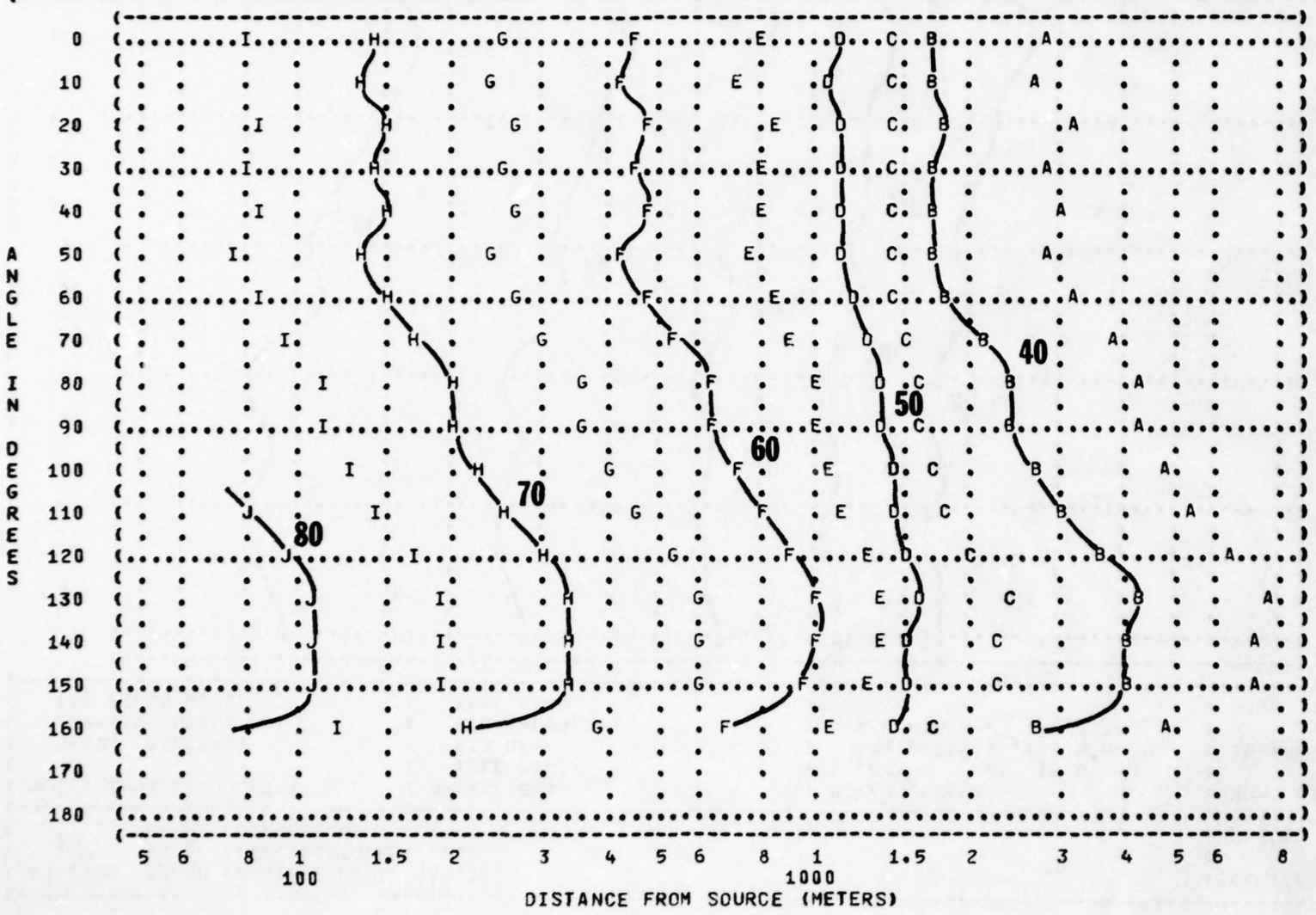


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 APR 75
PAGE 19

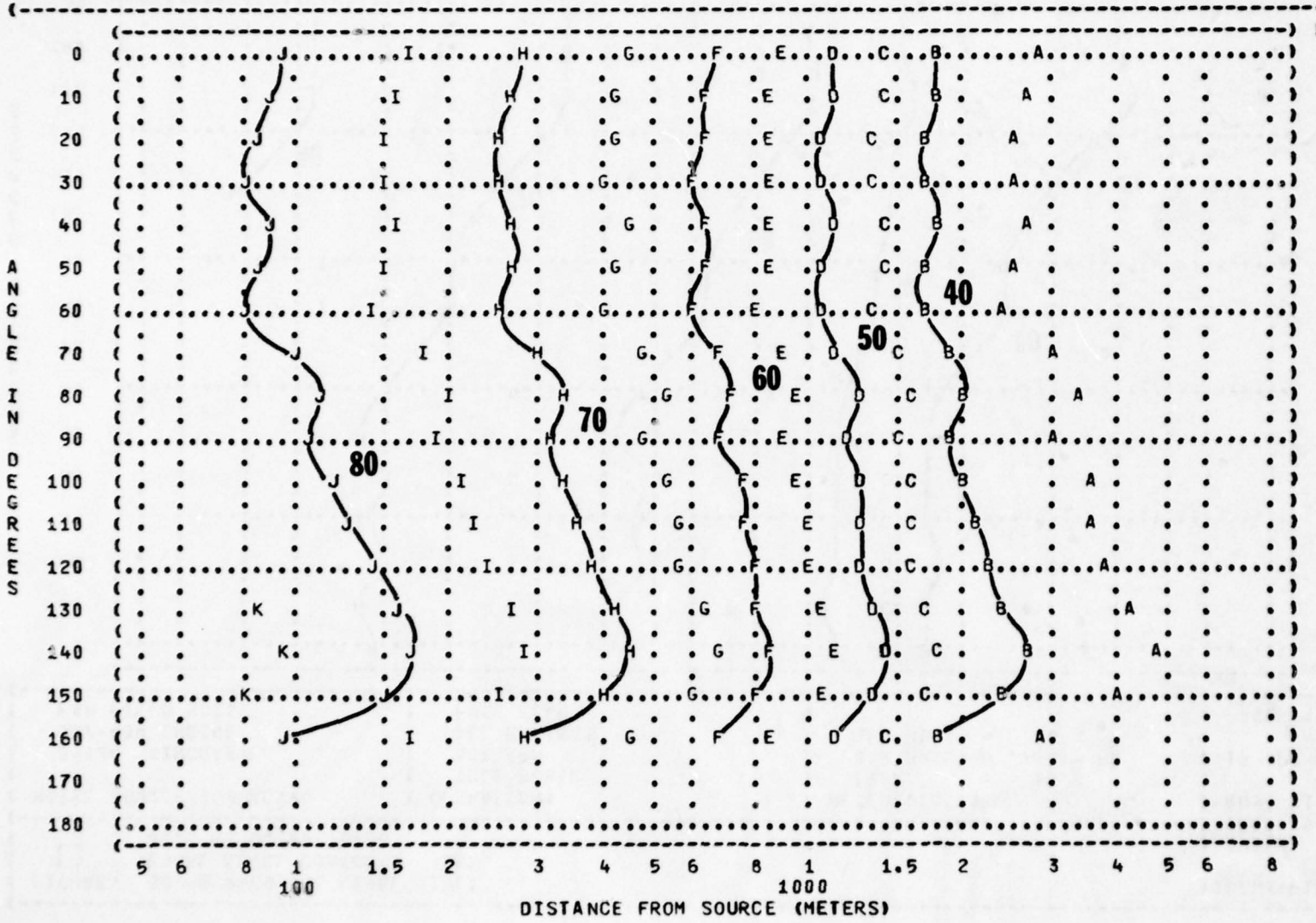


FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 125 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 APR 75
PAGE 20

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

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

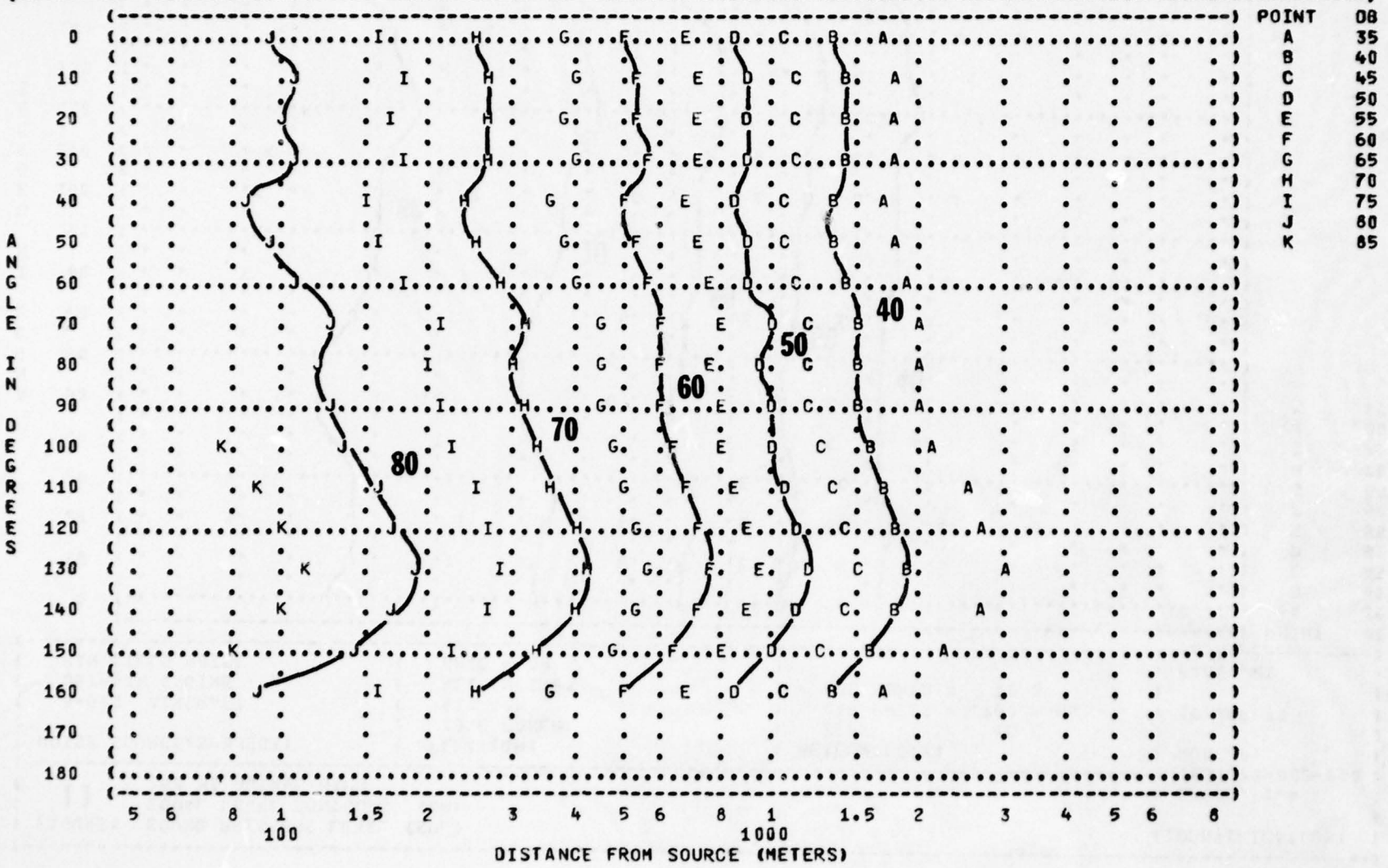


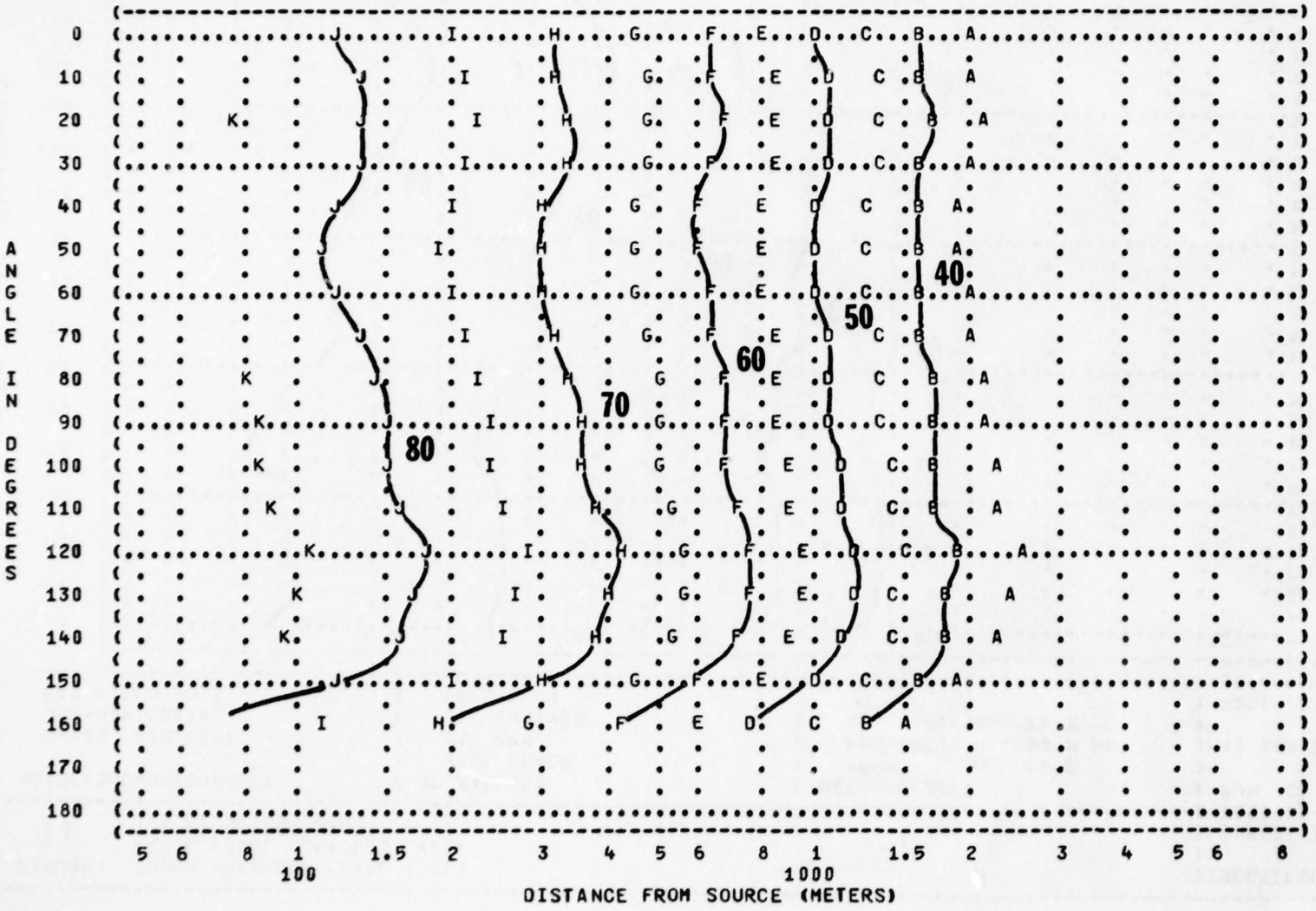
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 APR 75
PAGE 21




| POINT | DE |
|---|---|
| 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:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 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 |

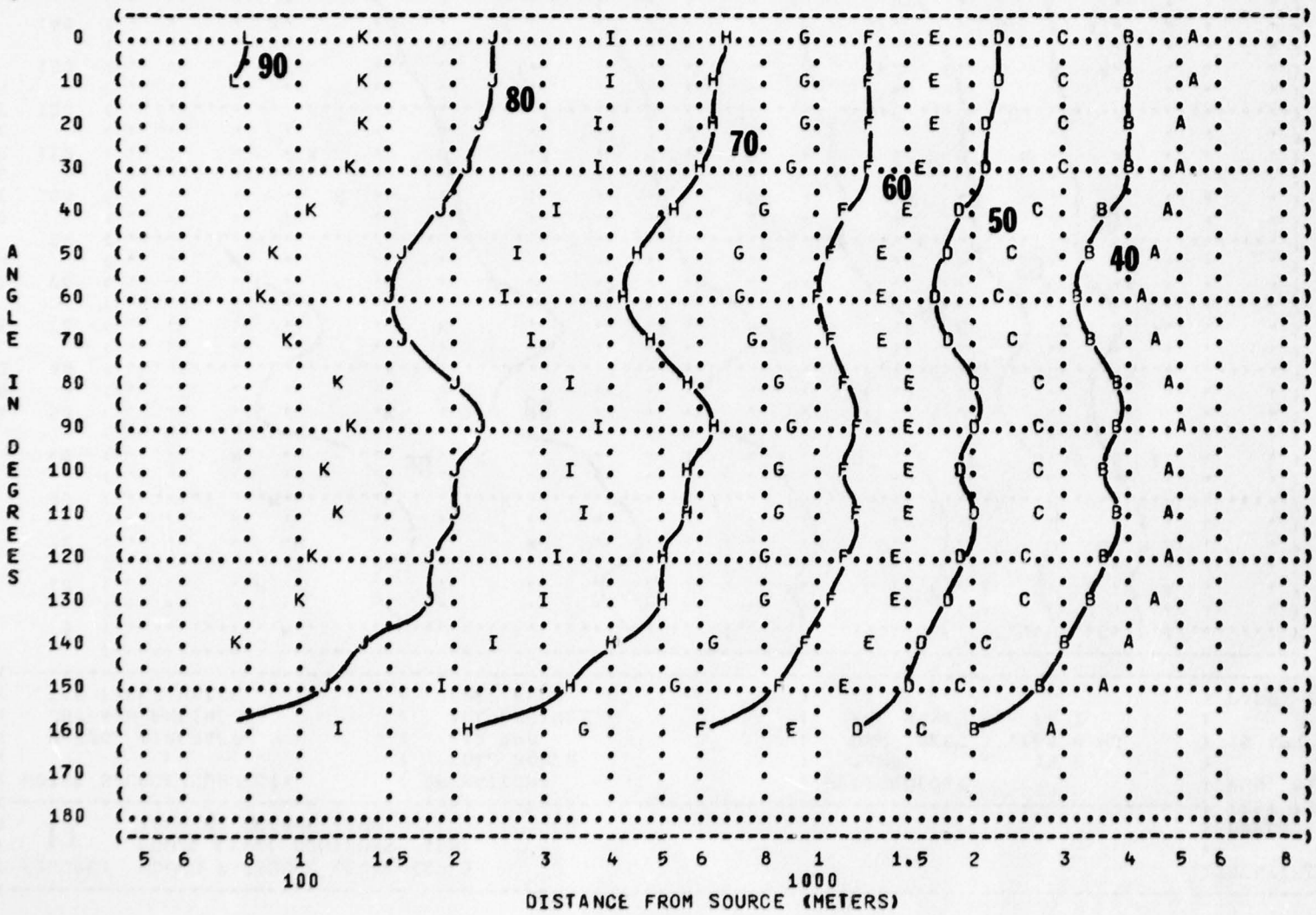


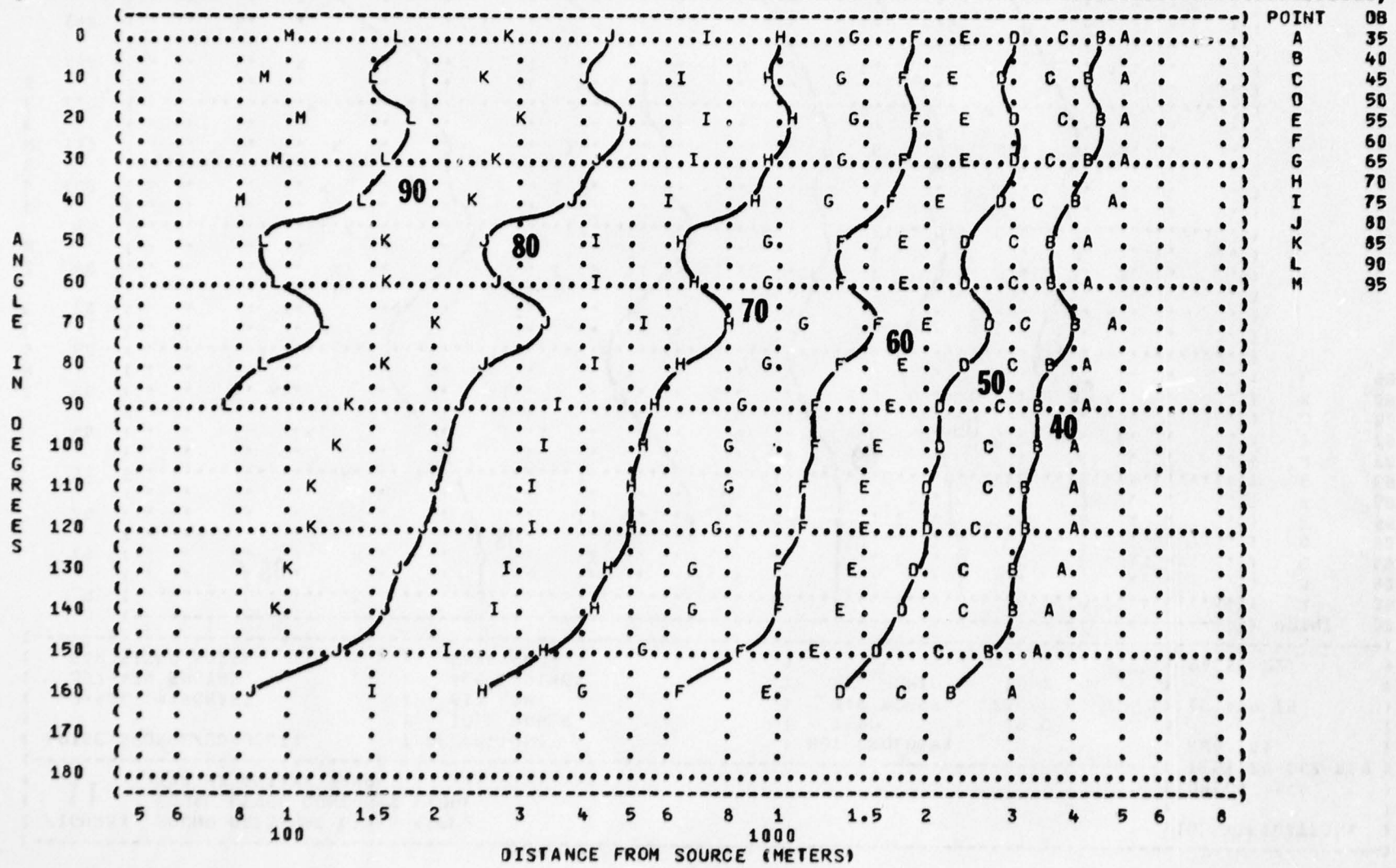
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 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 |

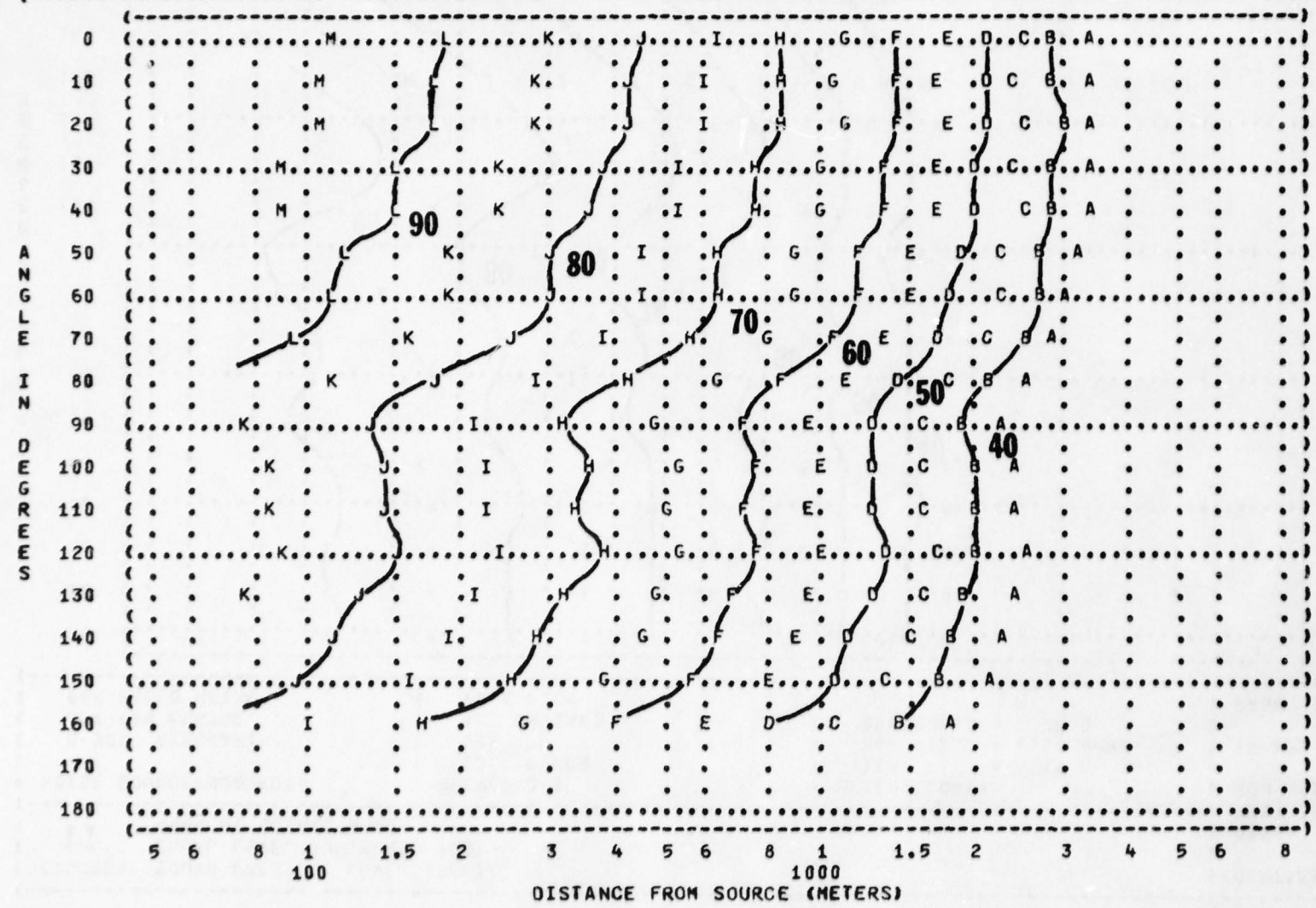
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

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

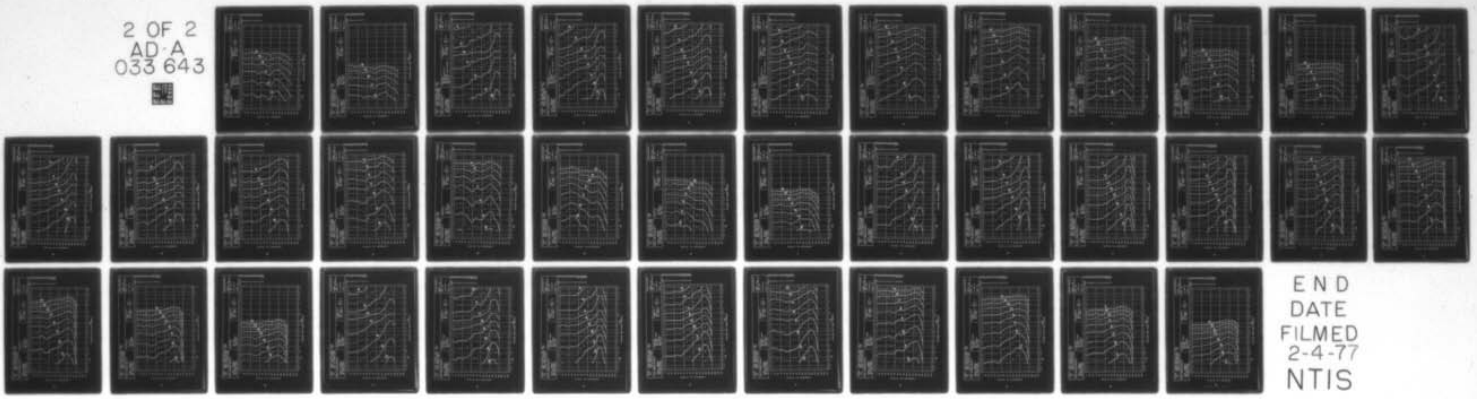
IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 APR 75
PAGE 24



AD-A033 643 AEROSPACE MEDICAL RESEARCH LAB WRIGHT-PATTERSON AFB OHIO F/G 1/3
USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK. VOLUME 64. B-52G AIR--ETC(U)
NOV 75 R G POWELL

UNCLASSIFIED AMRL-TR-75-50-VOL-64 NL

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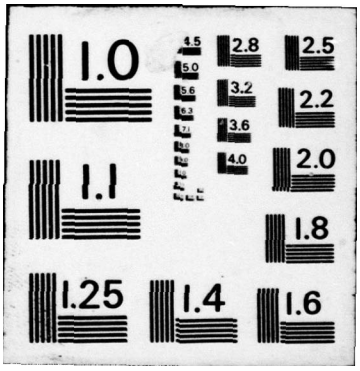

1.0
1.1
1.25
1.4
1.6
1.8
2.0
2.2
2.5
2.8
3.2
3.6
4.0
4.5
5.0
5.6

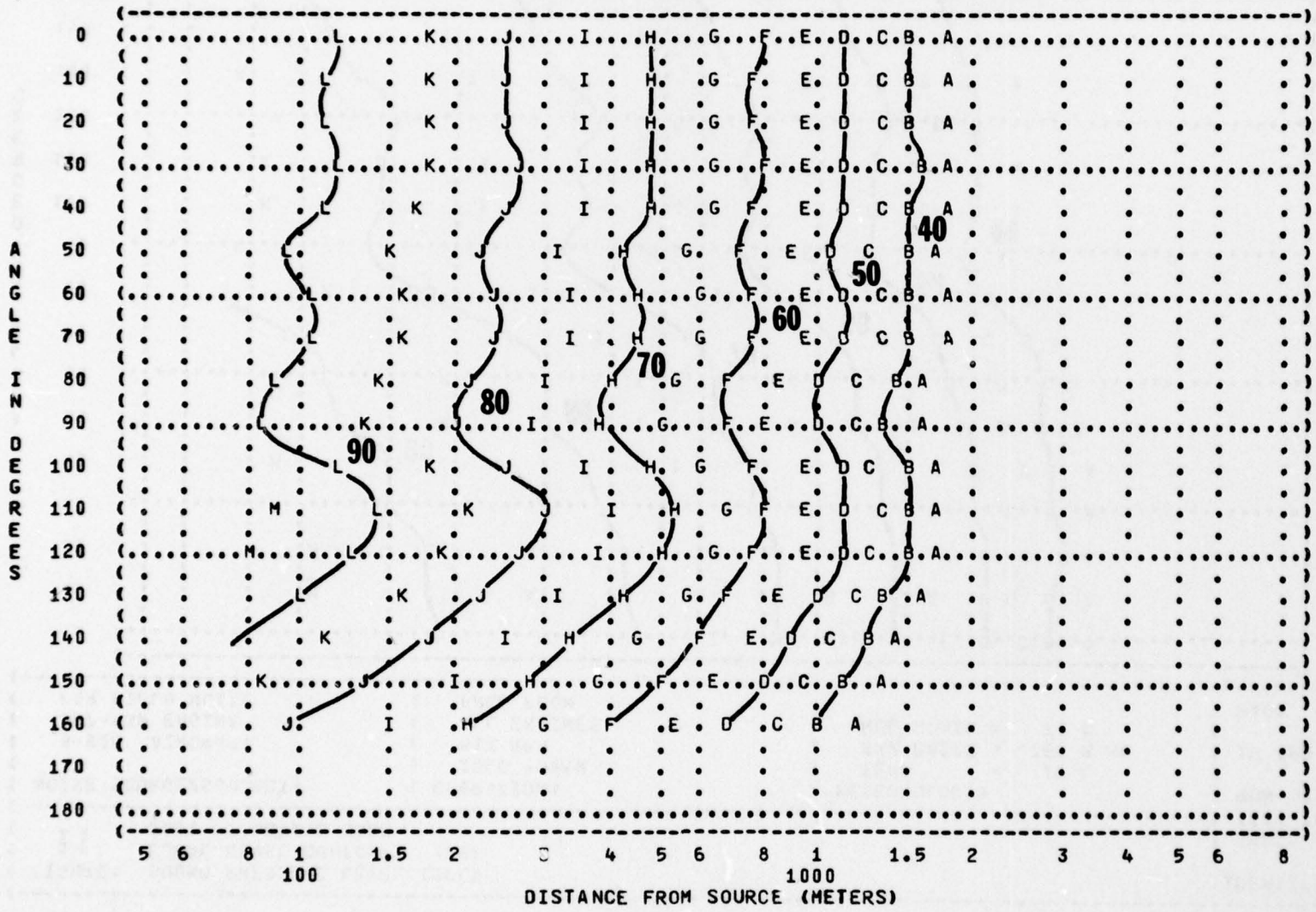
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 APR 75
PAGE 25

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL 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 |

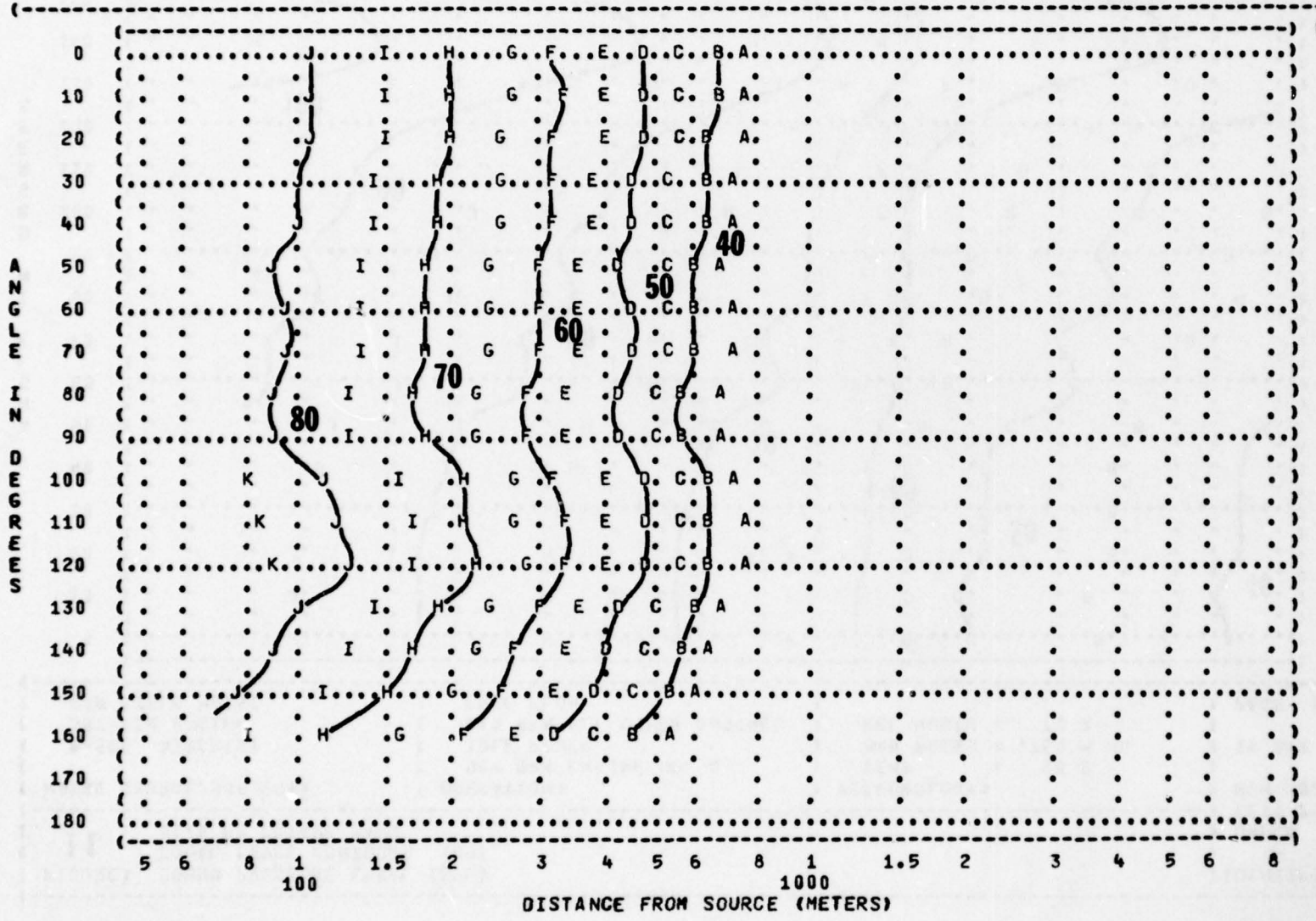
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
8-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
61% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 01
15 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 |

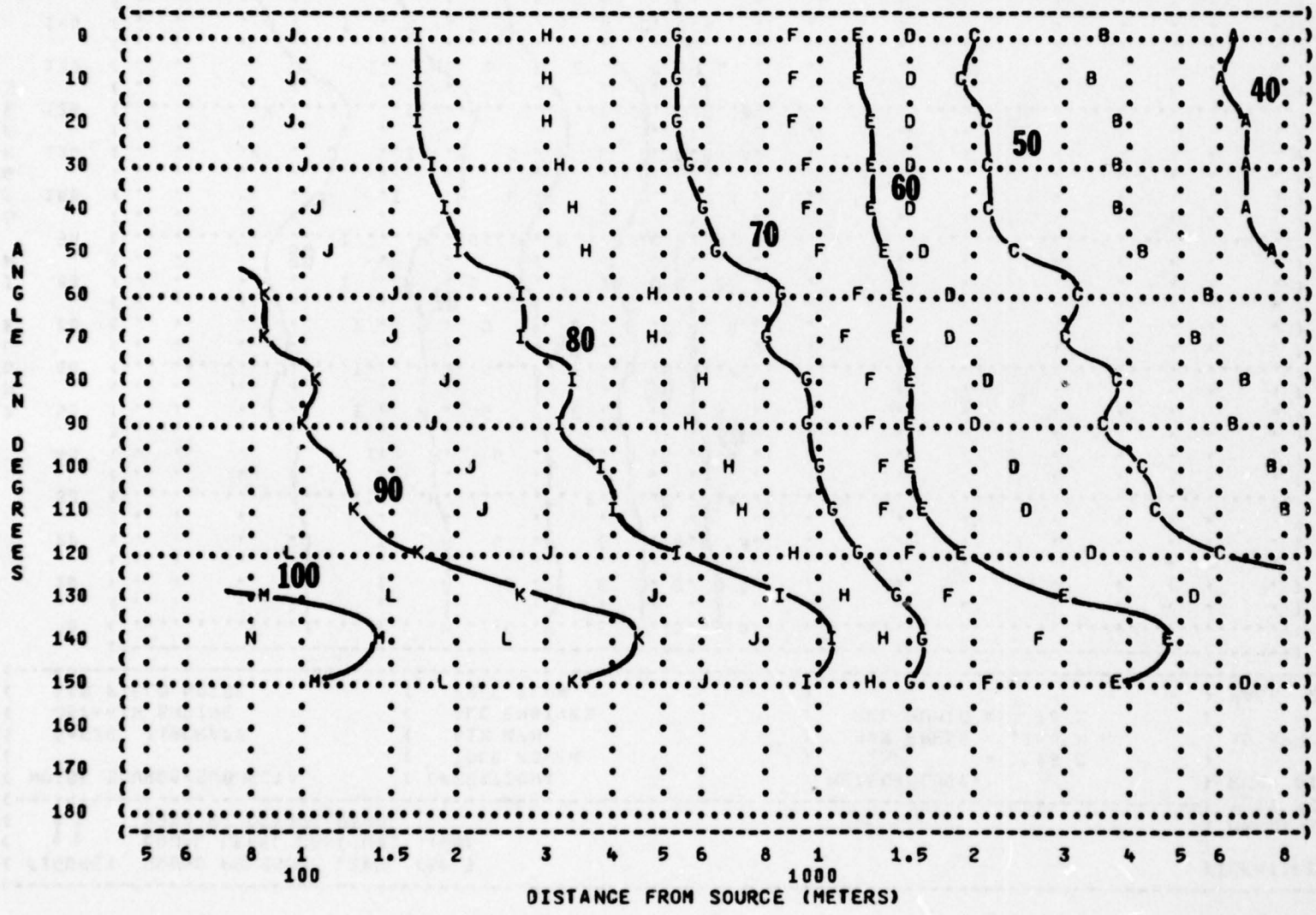
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 18

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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




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

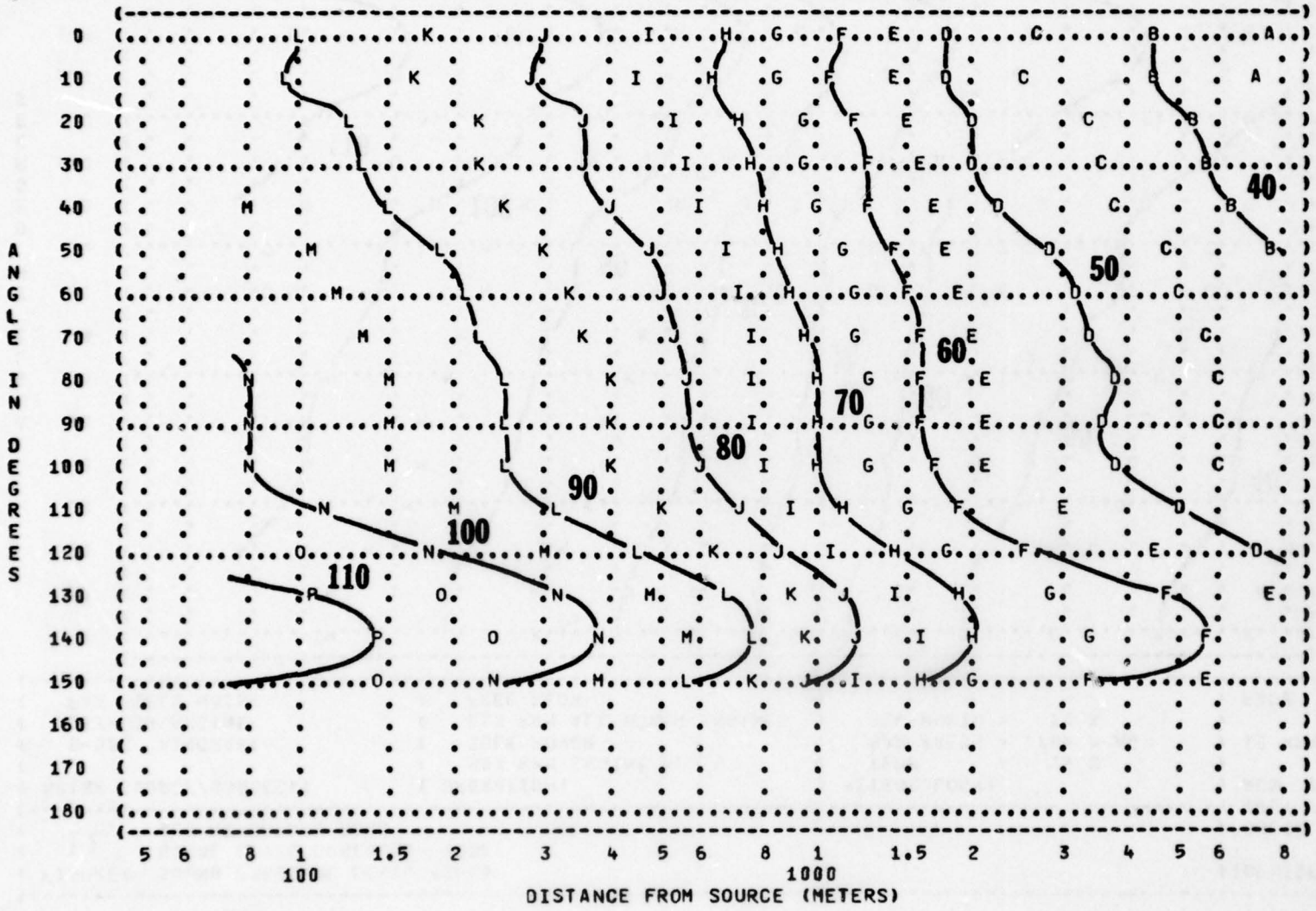
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 19

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER 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

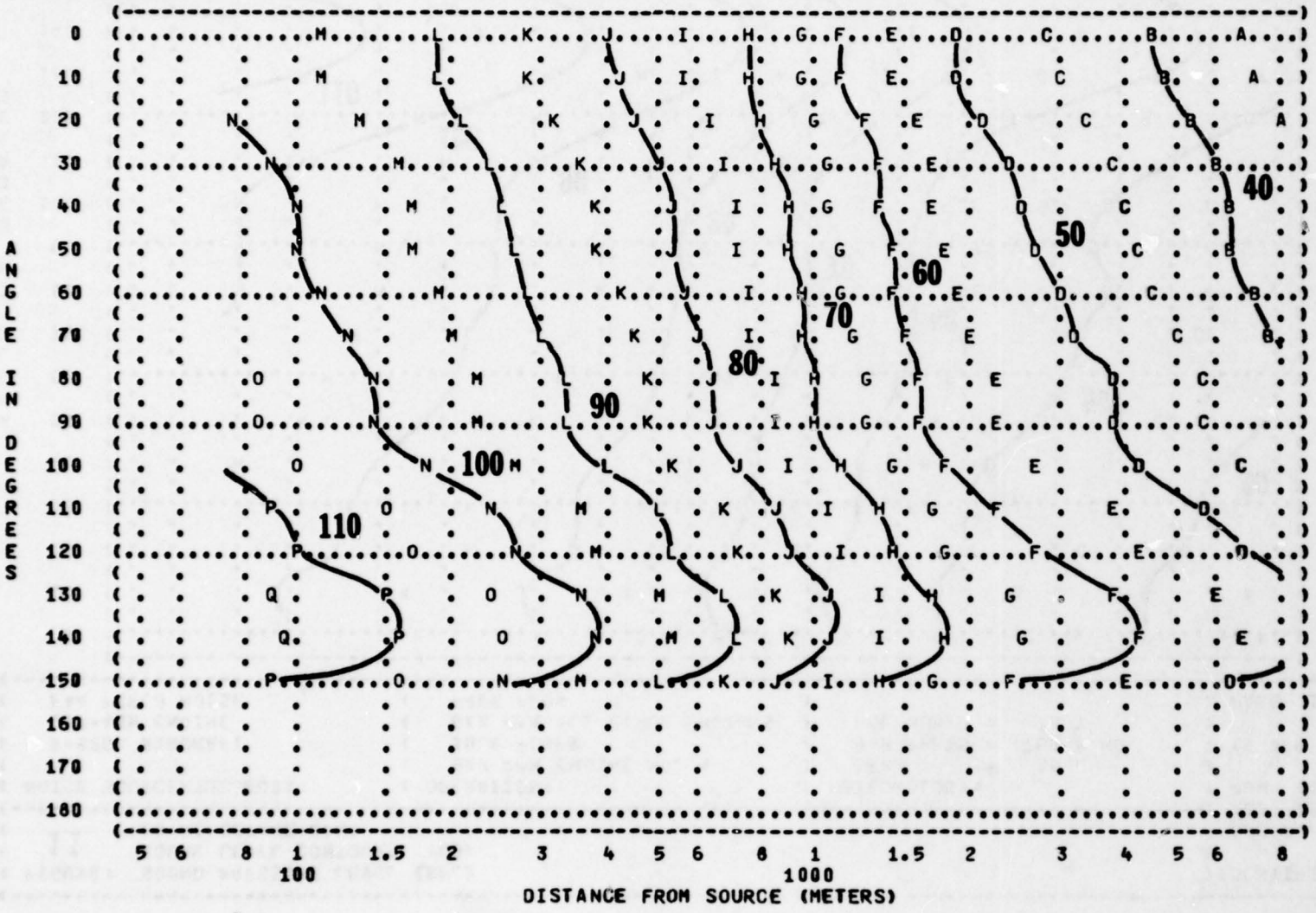
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
125 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 20

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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




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

FIGURE: 11

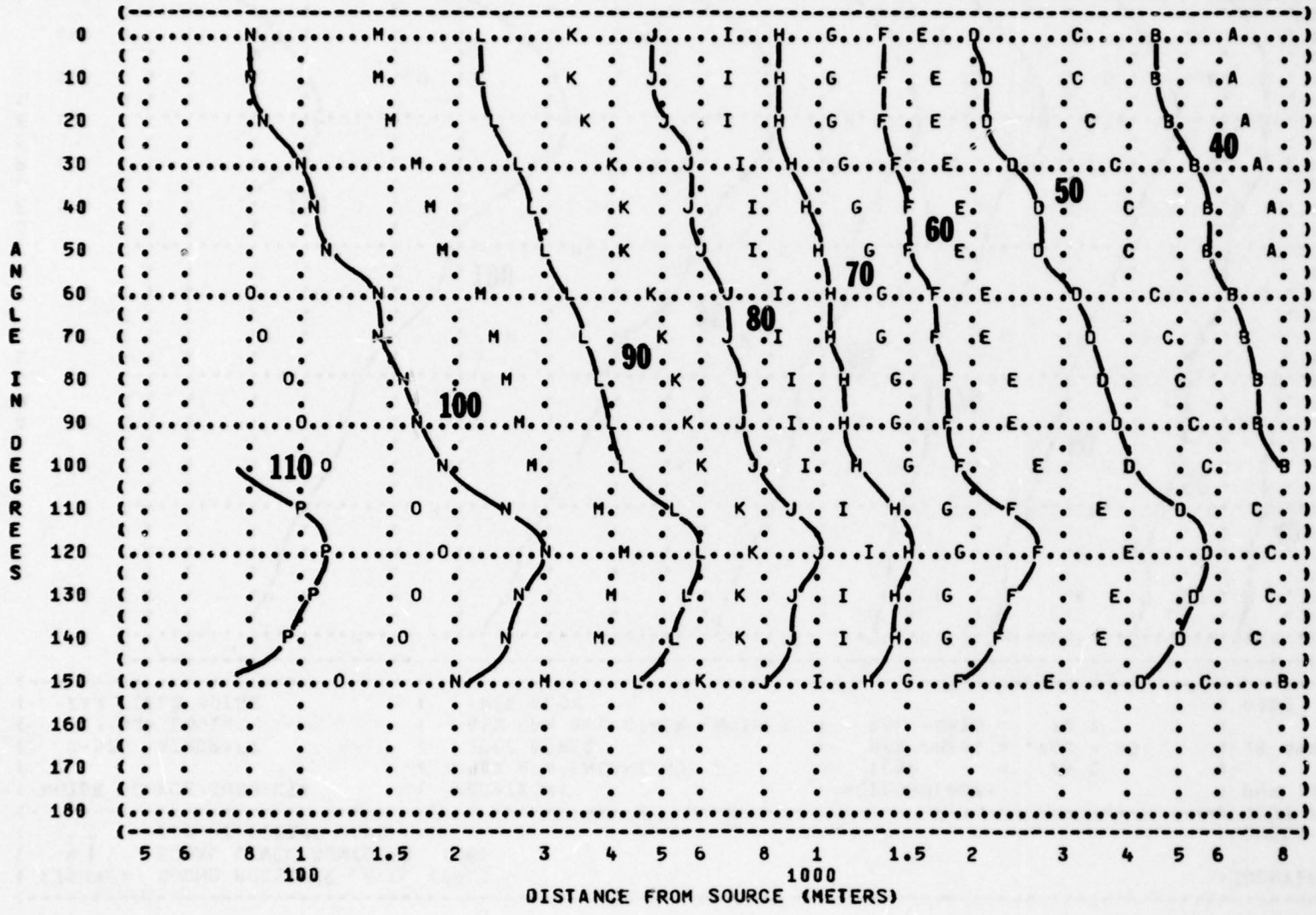
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 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 |

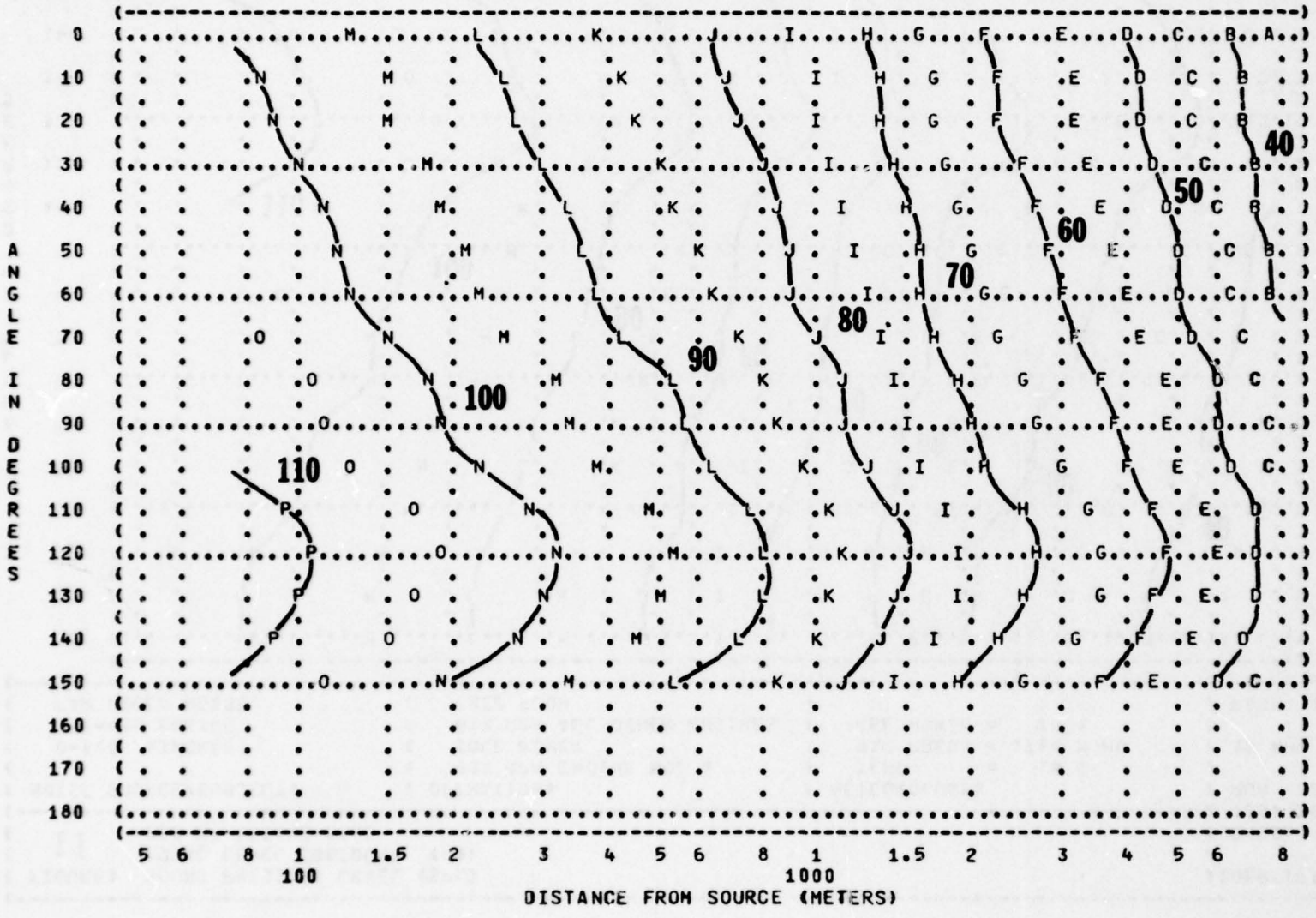
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 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 |

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 23

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER 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 |

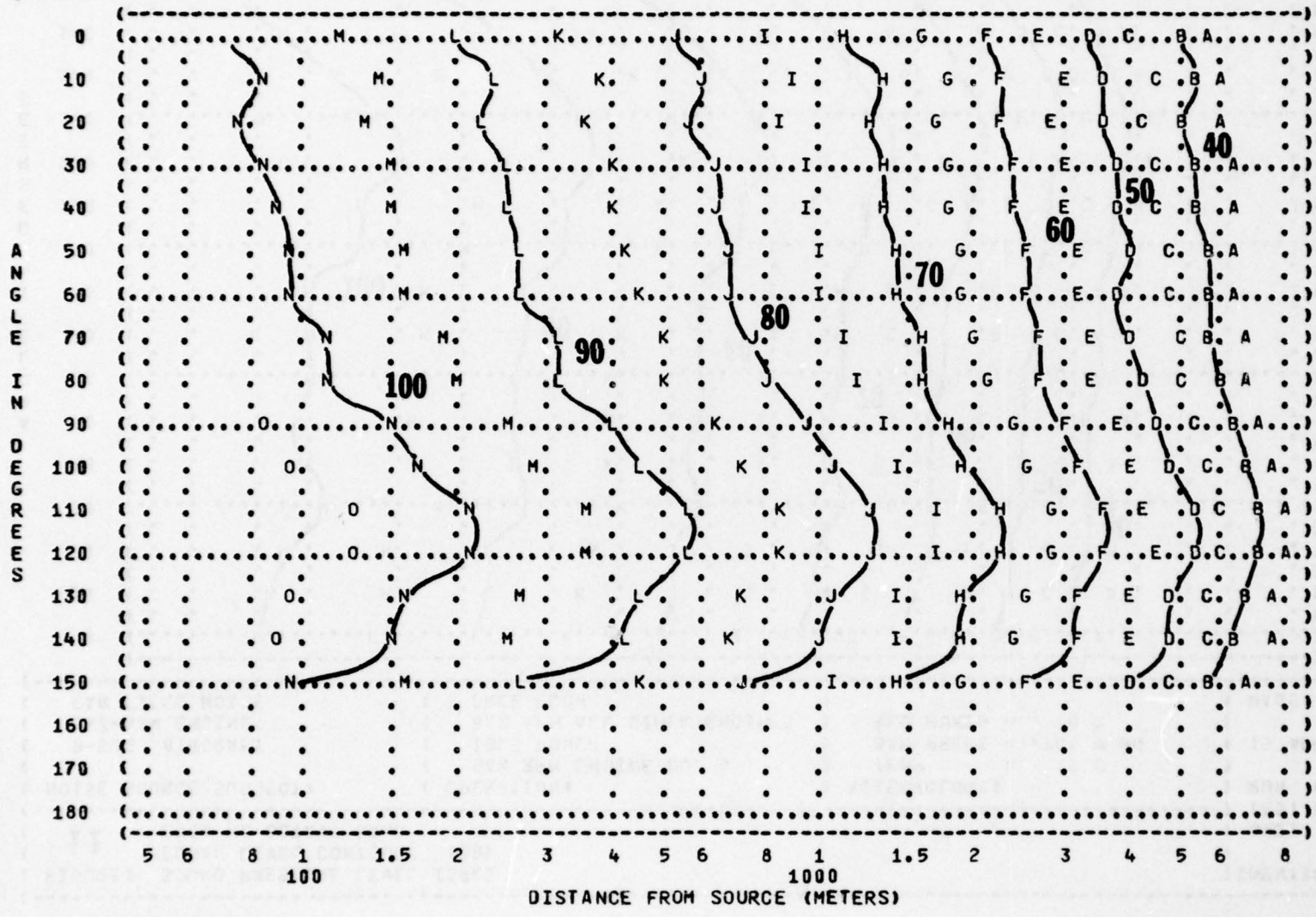


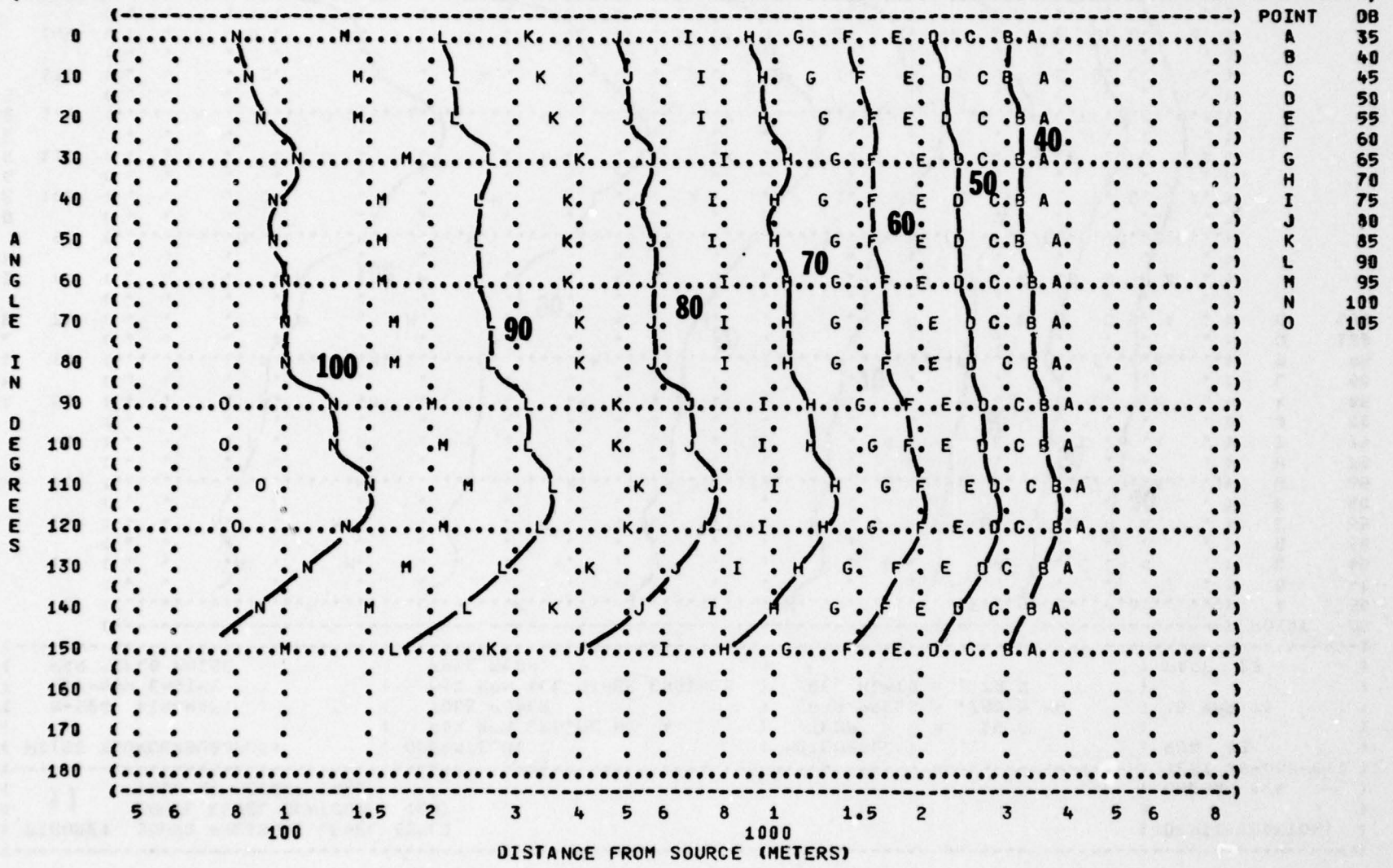
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

IDENTIFICATION: OMEGA 1.4 TEST 75-002-010 RUN 02 15 APR 75 PAGE 24

NOISE SOURCE/SUBJECT: B-52G AIRCRAFT J57-43W ENGINE FAR FIELD NOISE

OPERATION: 90% RPM ENGINE NO. 4 IDLE POWER 61% RPM ALL OTHER 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) 4000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 APR 75
PAGE 25

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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

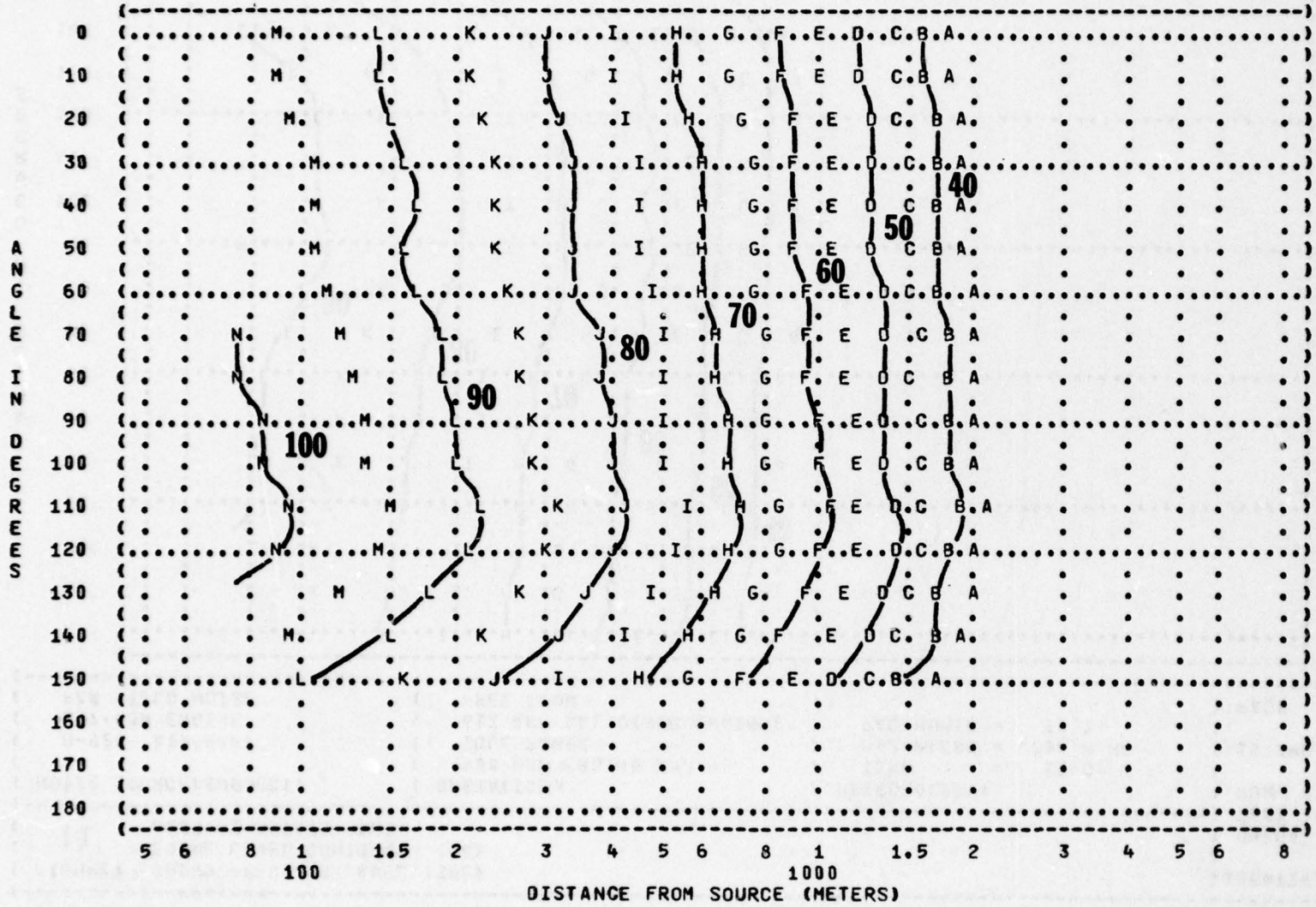


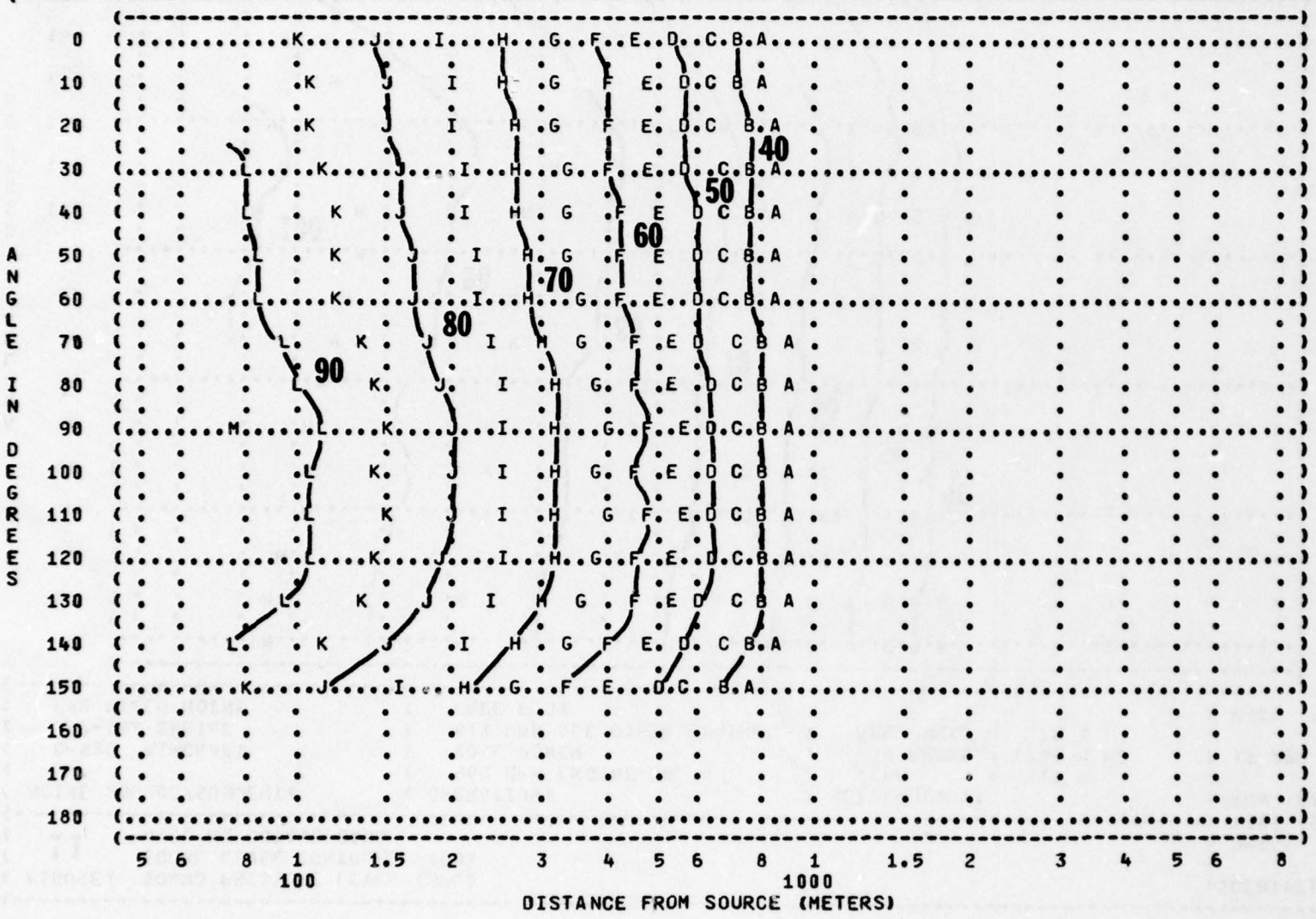
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM ENGINE NO. 4
IDLE POWER
61% RPM ALL OTHER ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 02
15 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 |

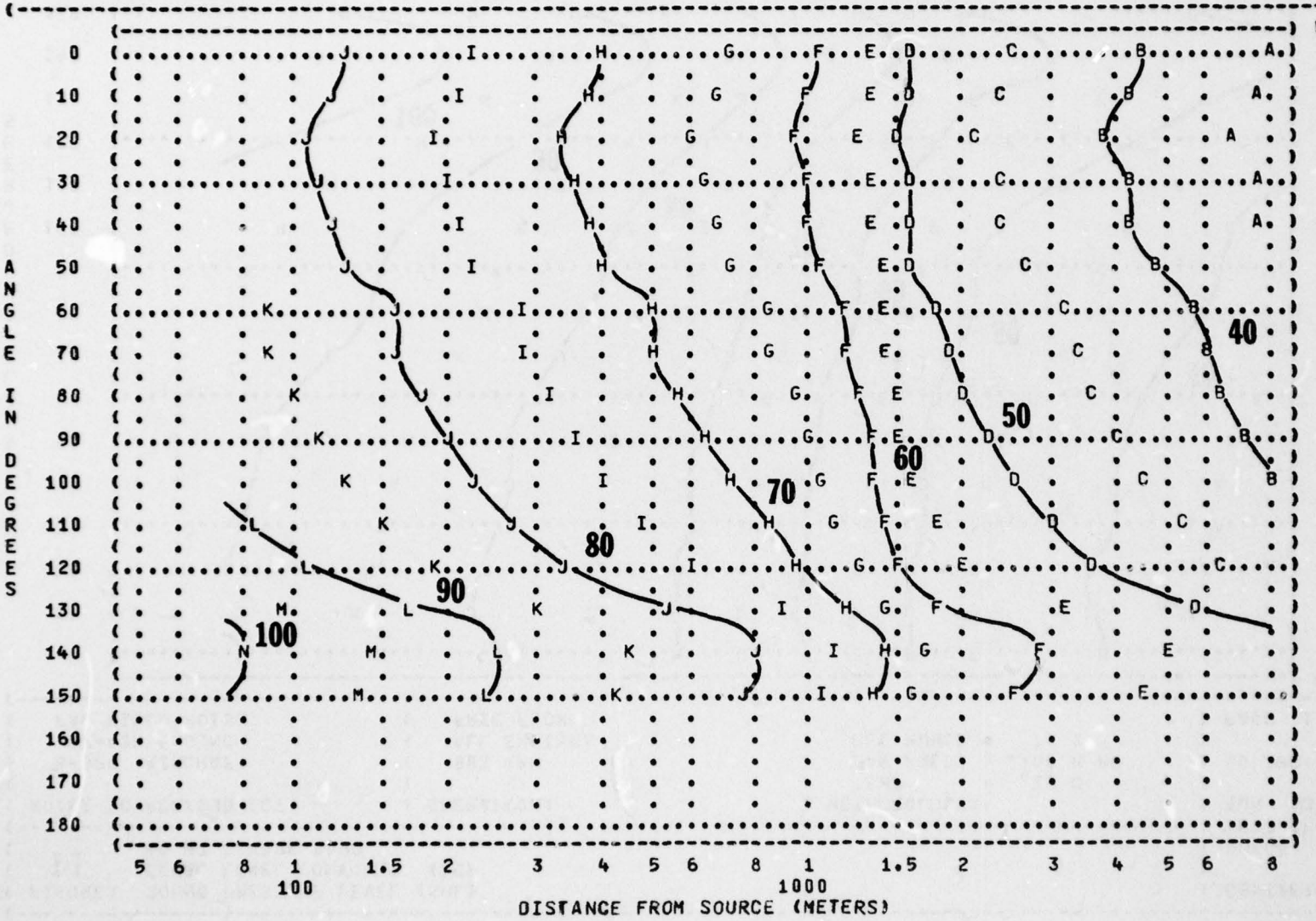
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 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 |

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 19

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL 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 |

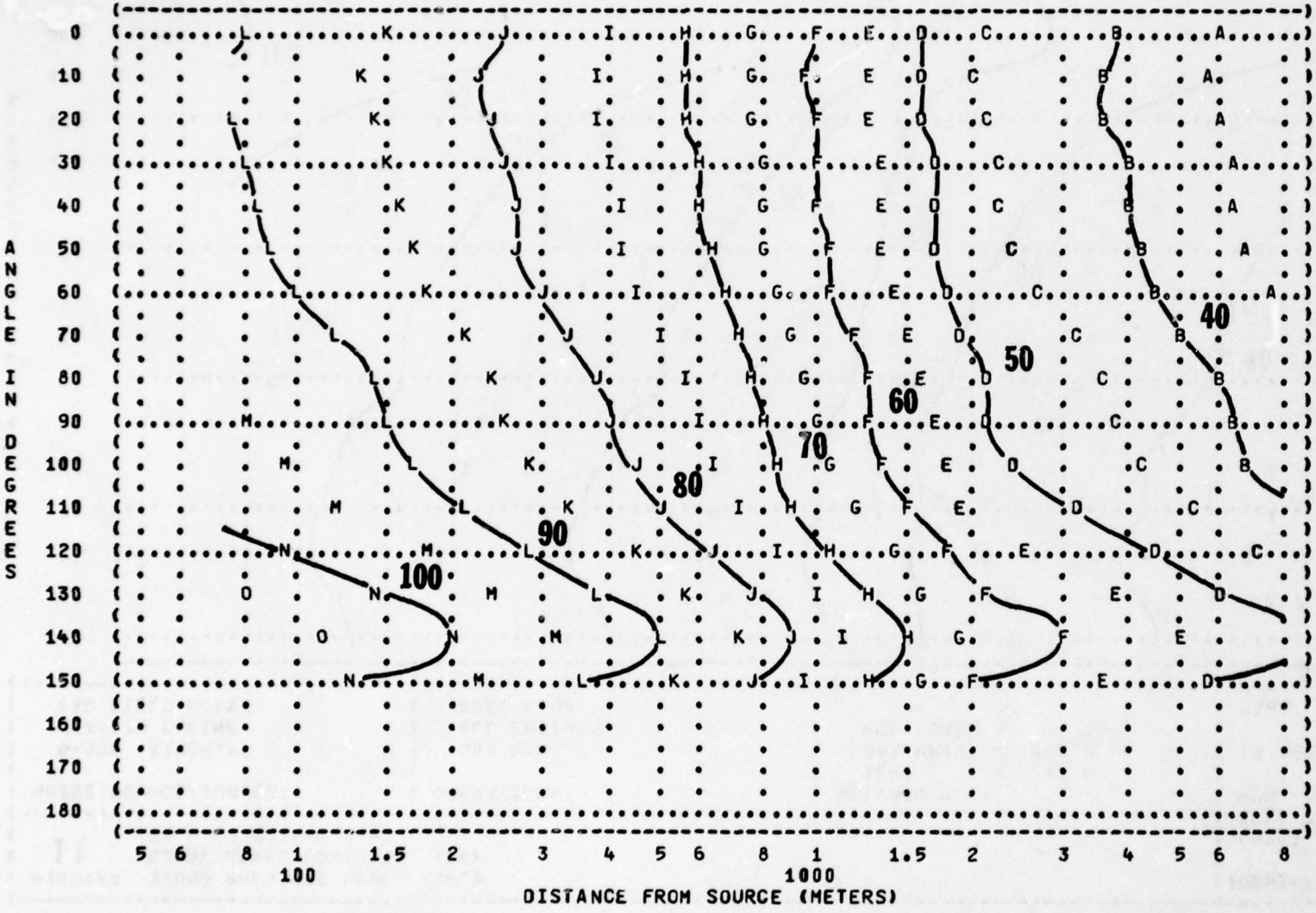


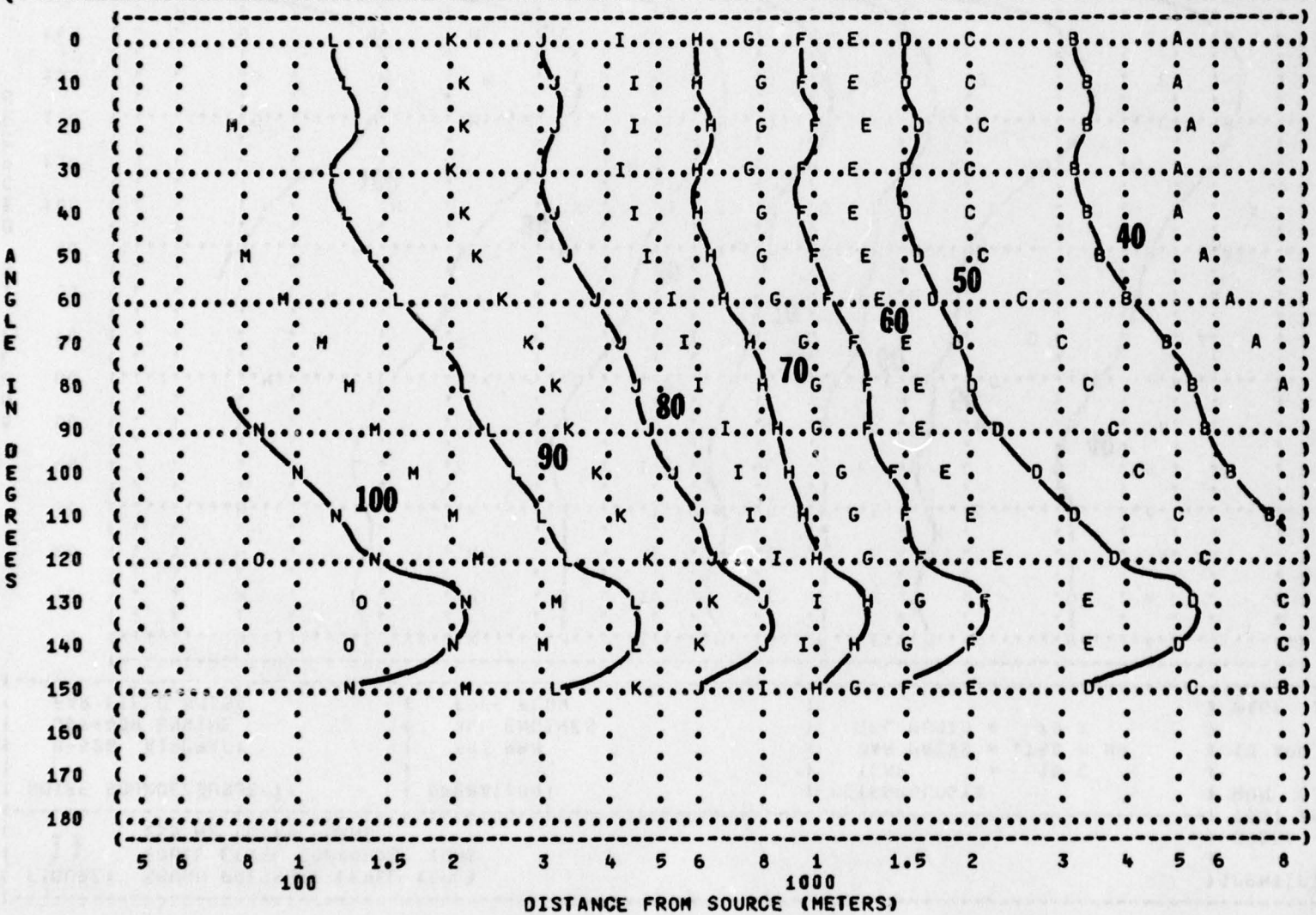
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 125 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 20




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

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

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 21

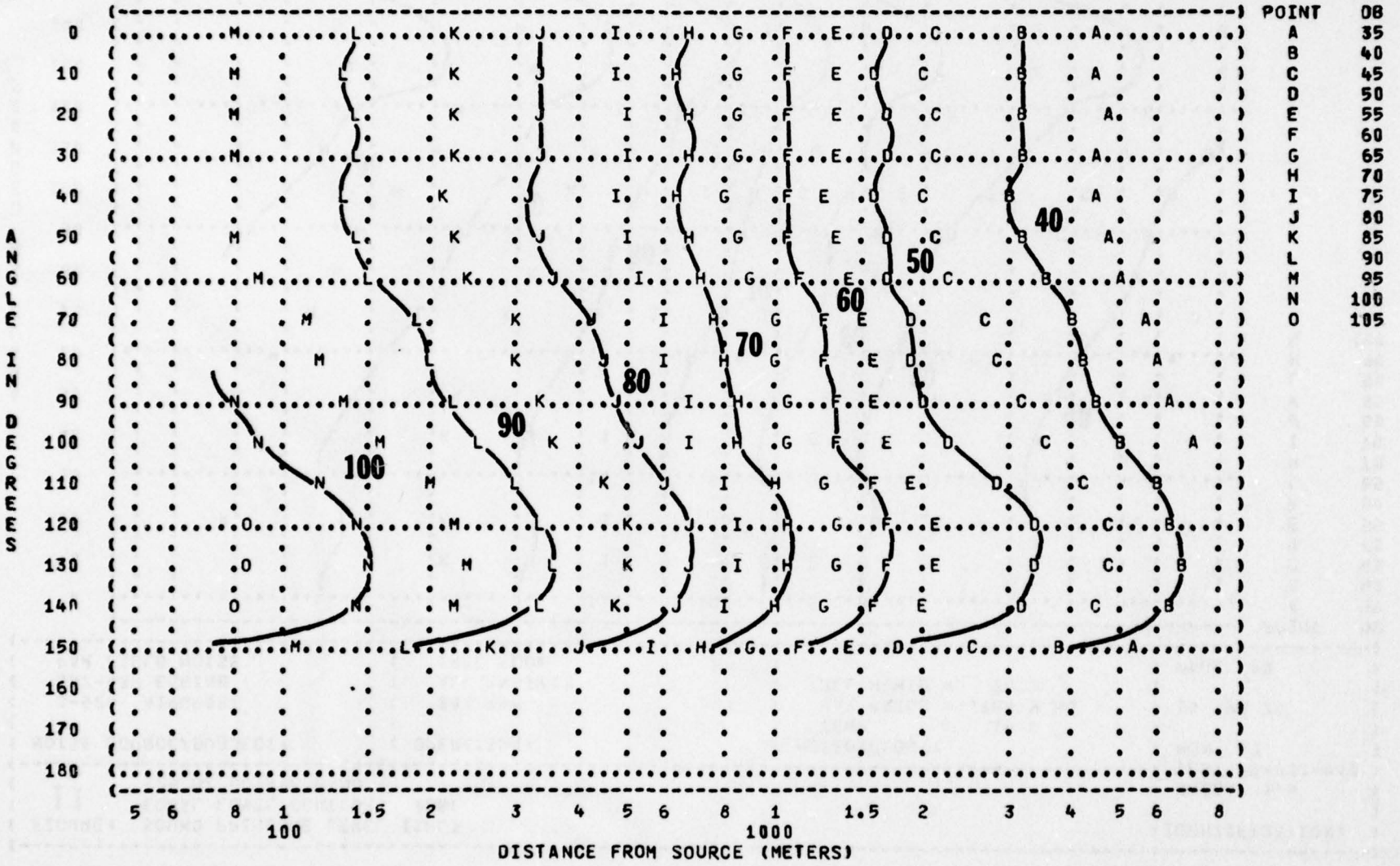


FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G. AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 22

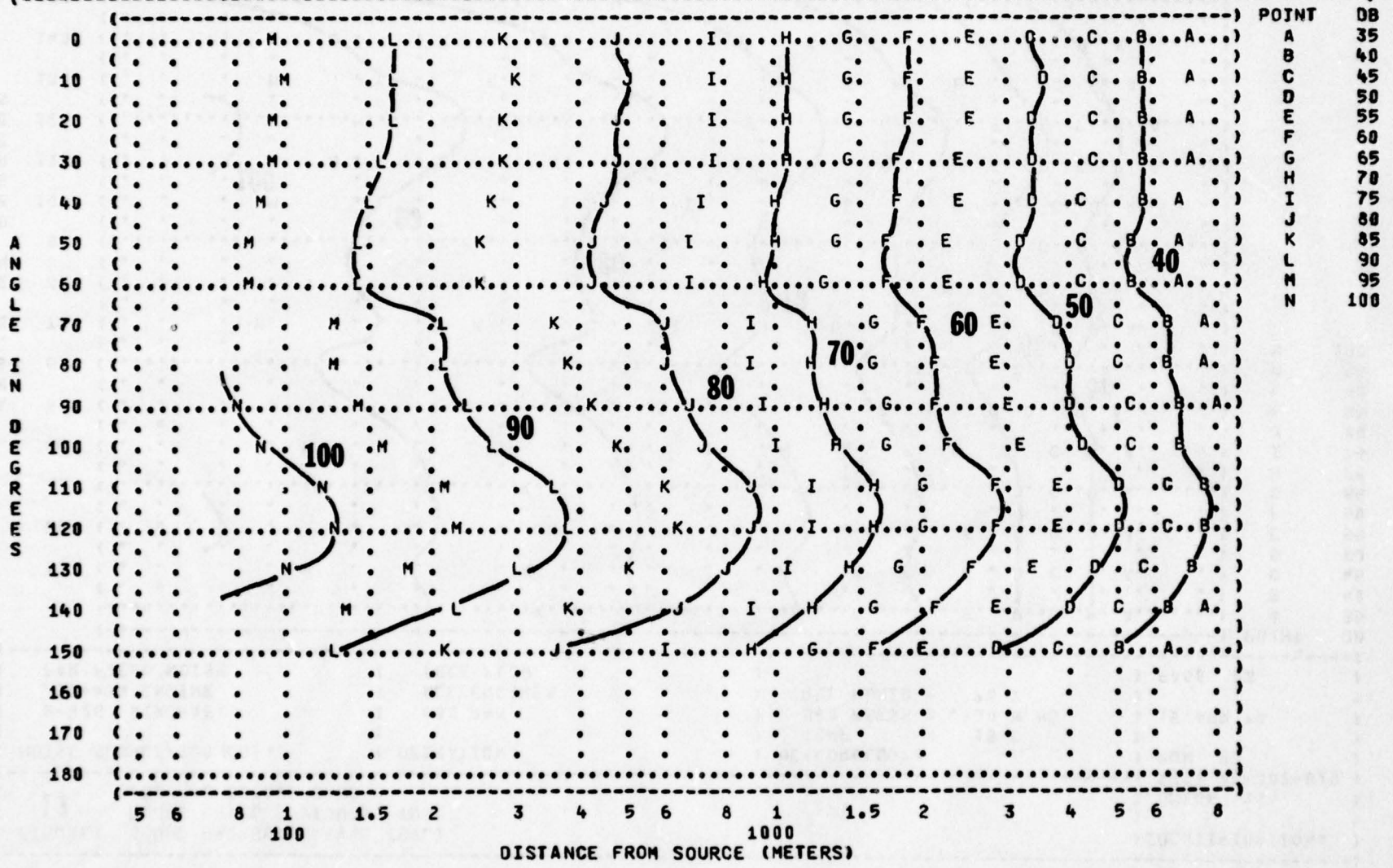


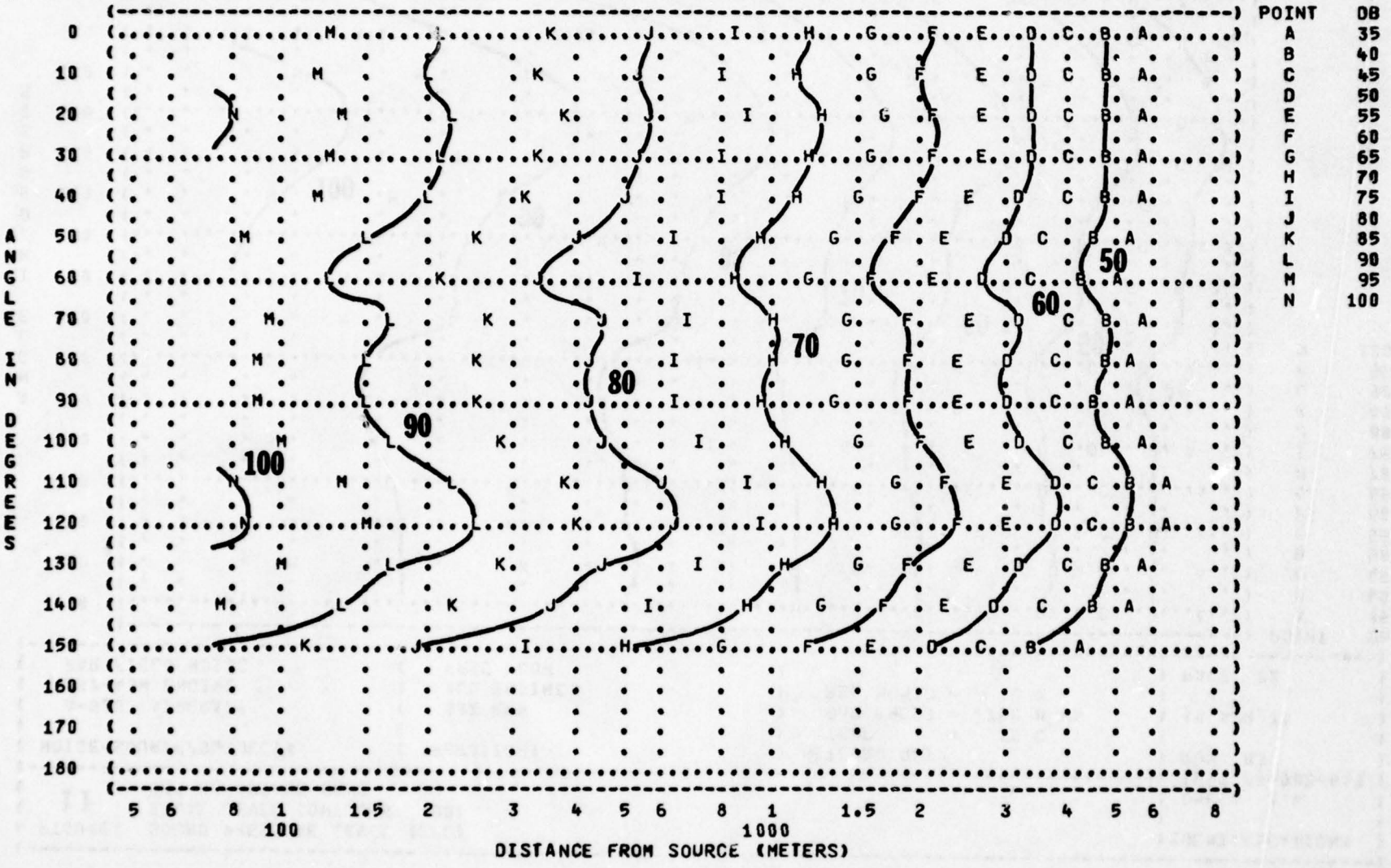
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 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 |
| N | 100 |

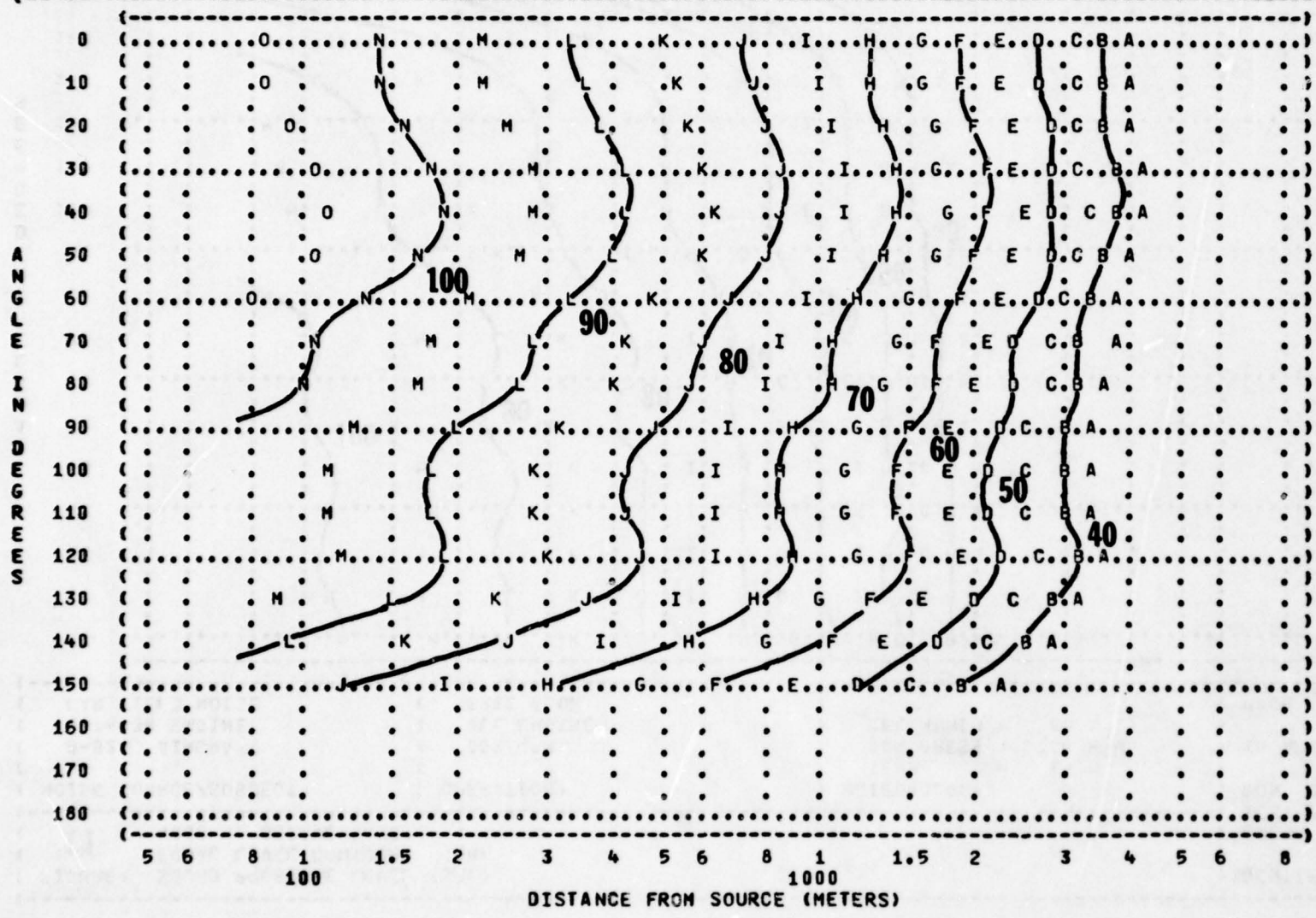
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 APR 75
PAGE 24




POINT 08
A 35
B 40
C 45
D 50
E 55
F 60
G 65
H 70
I 75
J 80
K 85
L 90
M 95
N 100
O 105

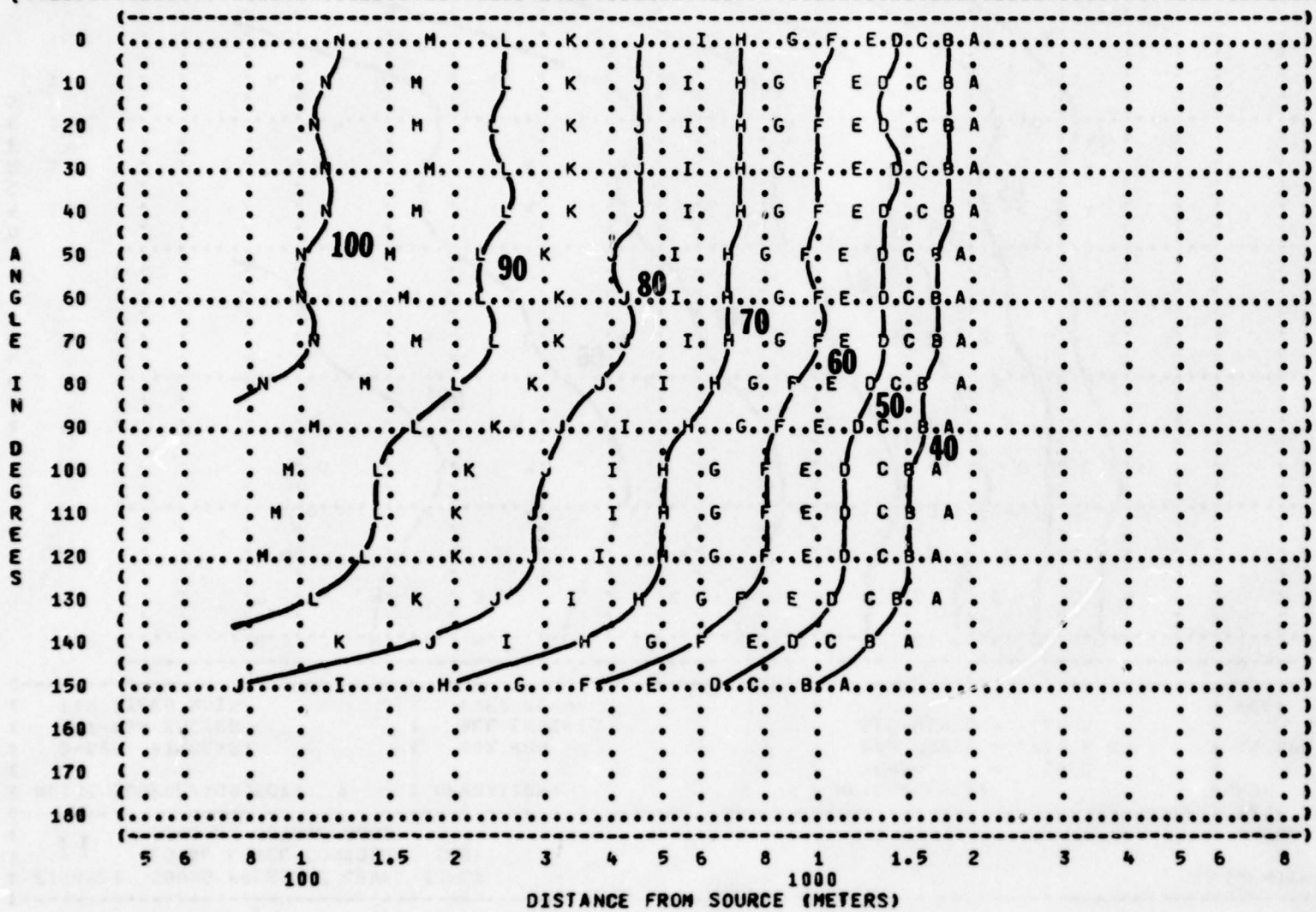
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 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 |

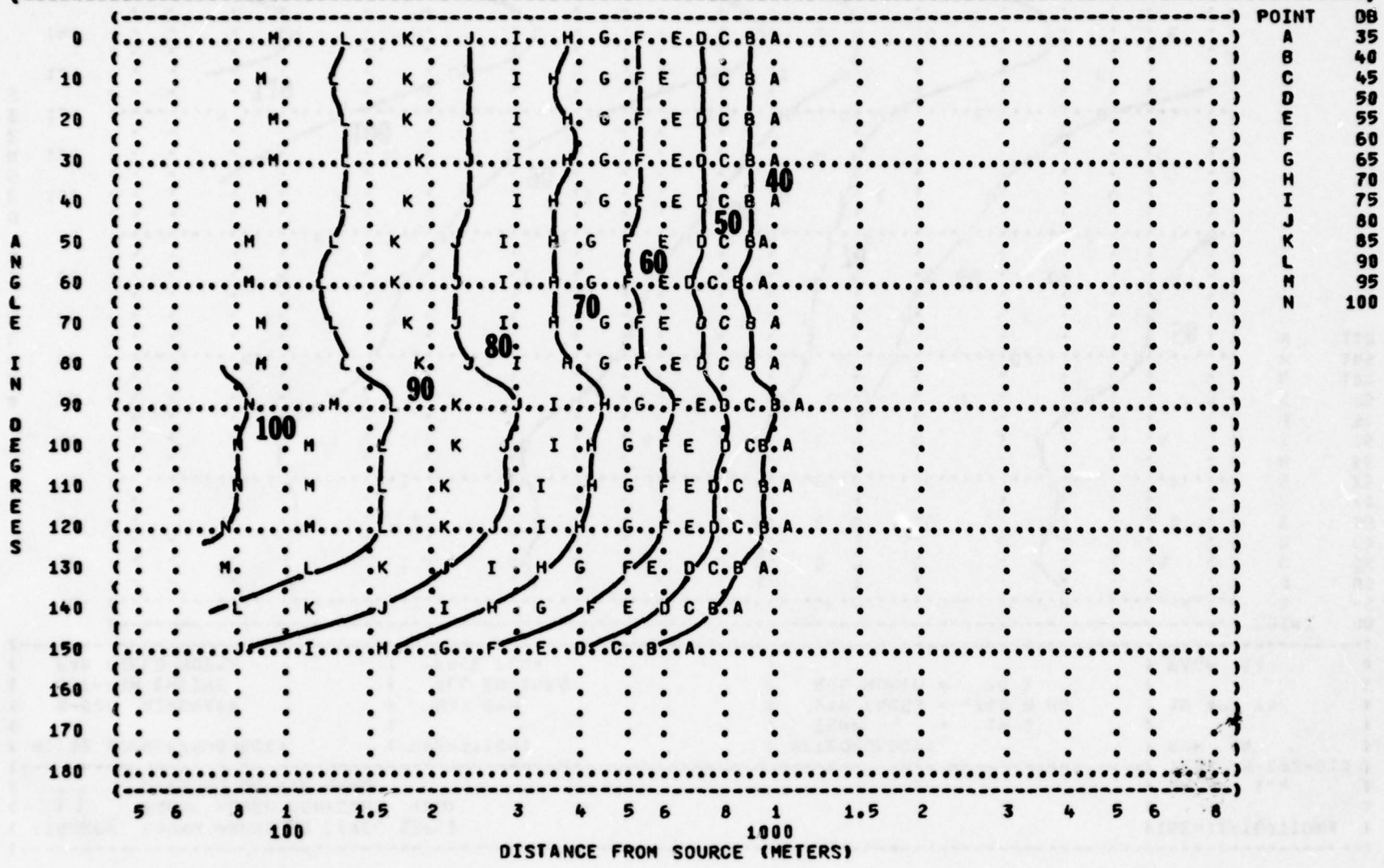
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
80% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 03
15 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 |

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

NOISE SOURCE/SUBJECT:
8-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 18

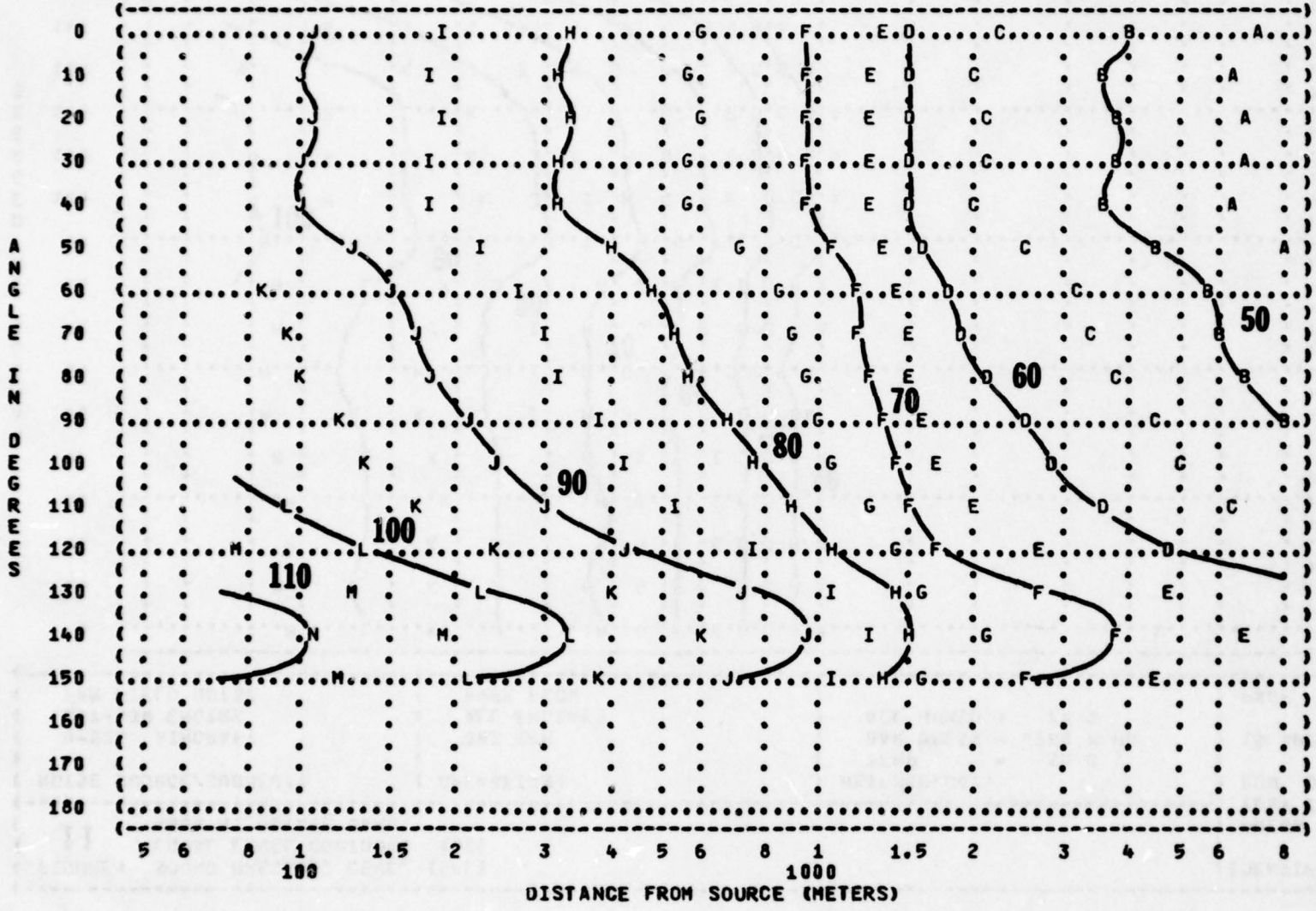


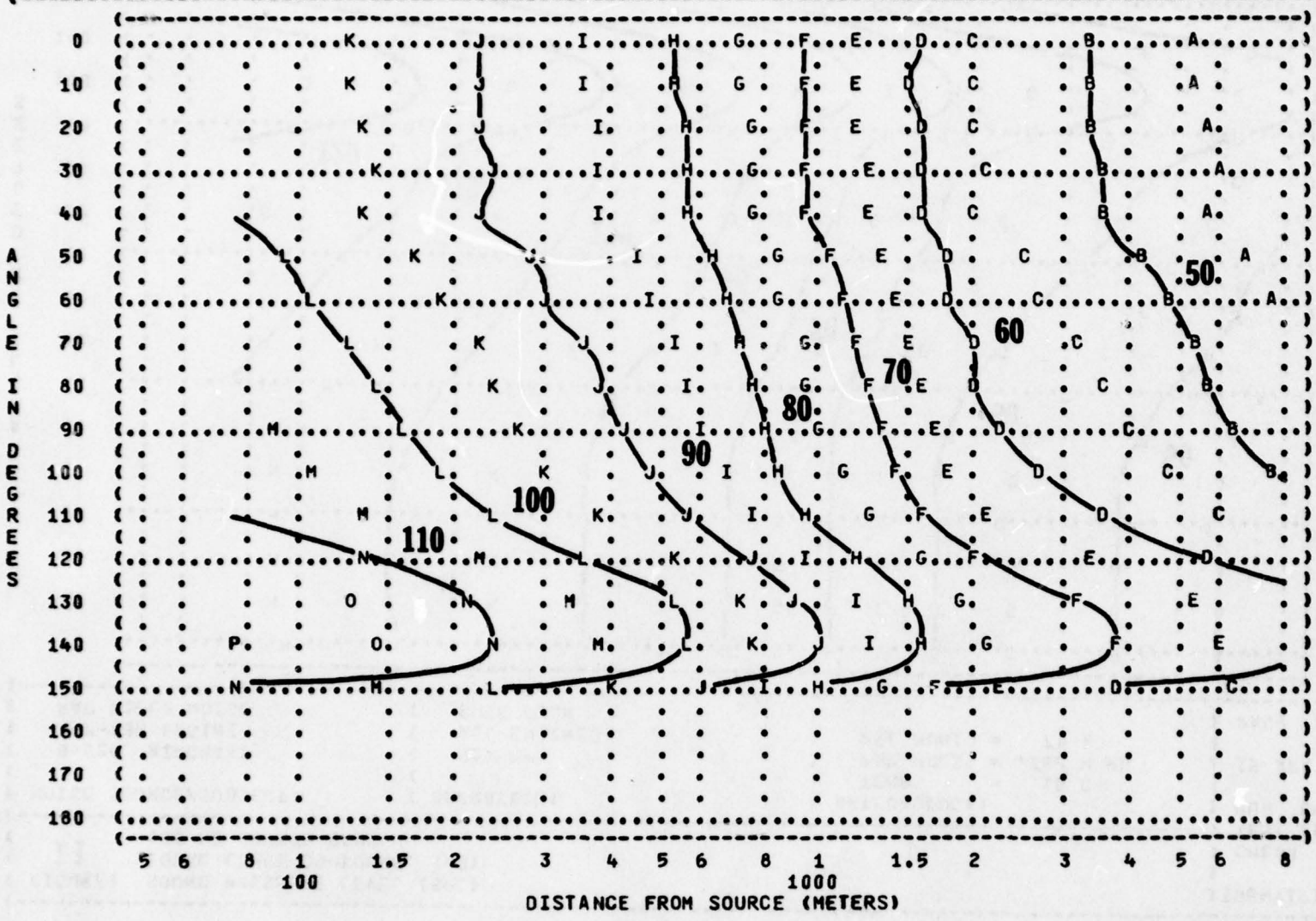
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 19




| 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 |

FIGURE: 11

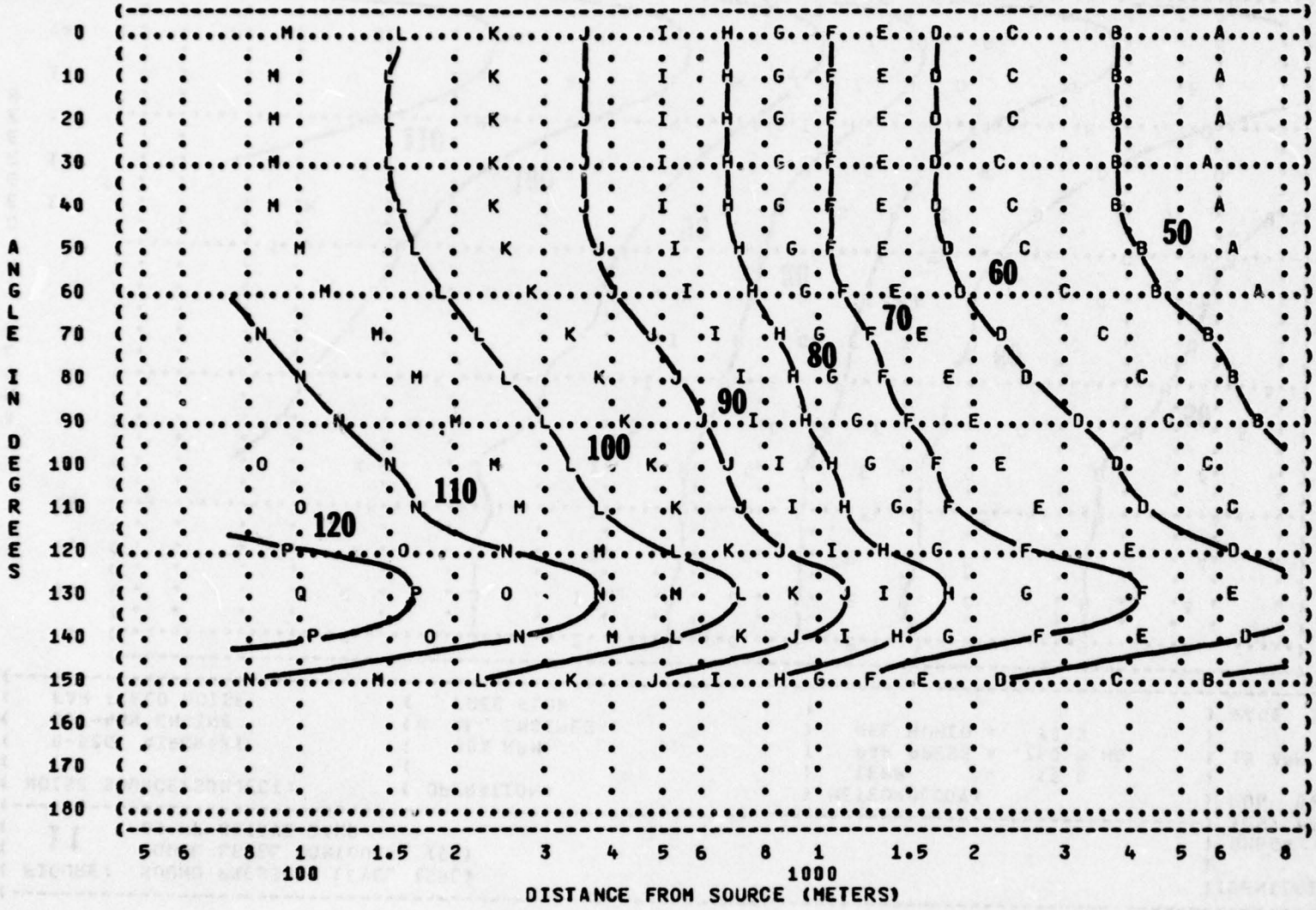
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
125 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 20




| 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 |

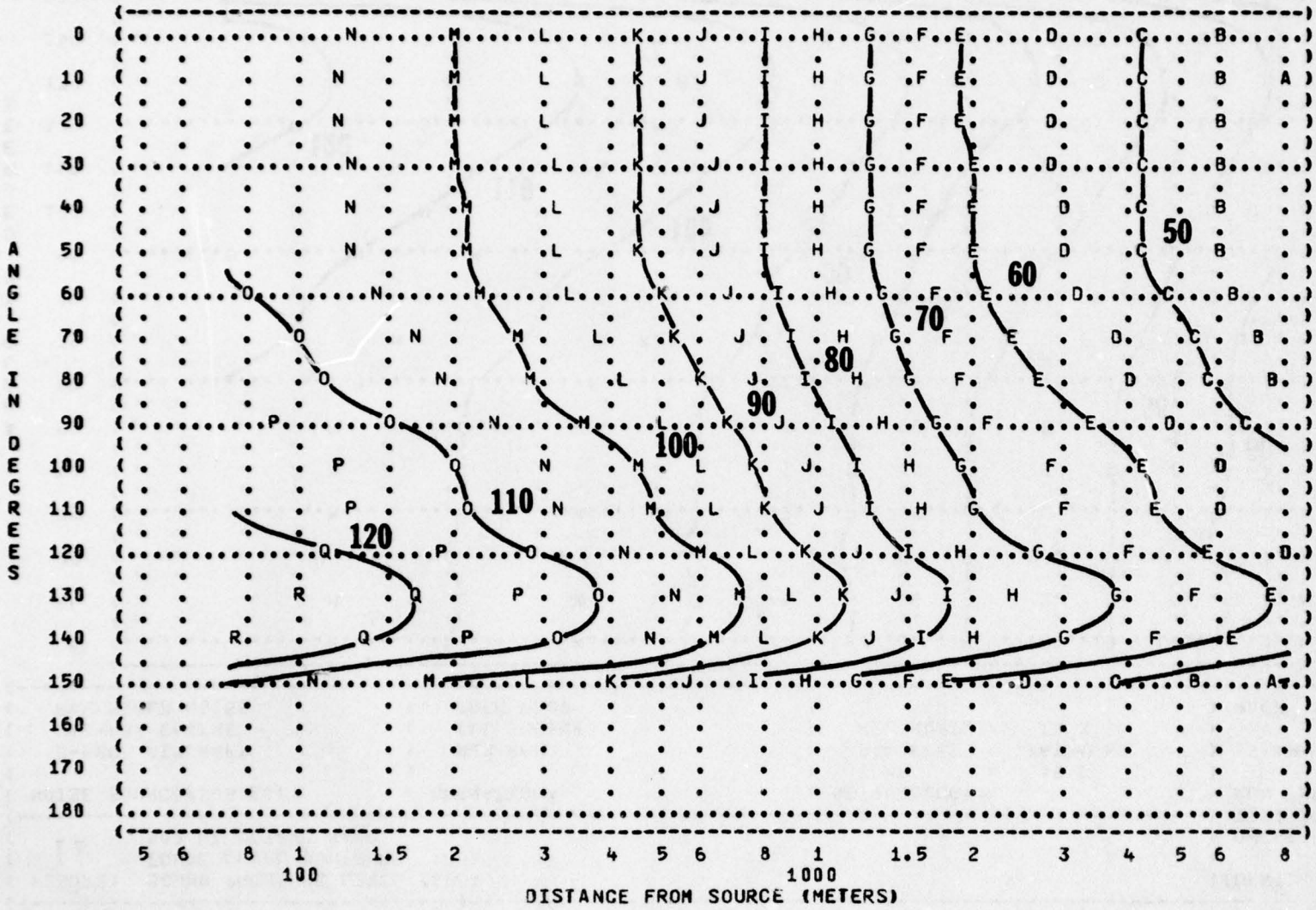
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 21




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

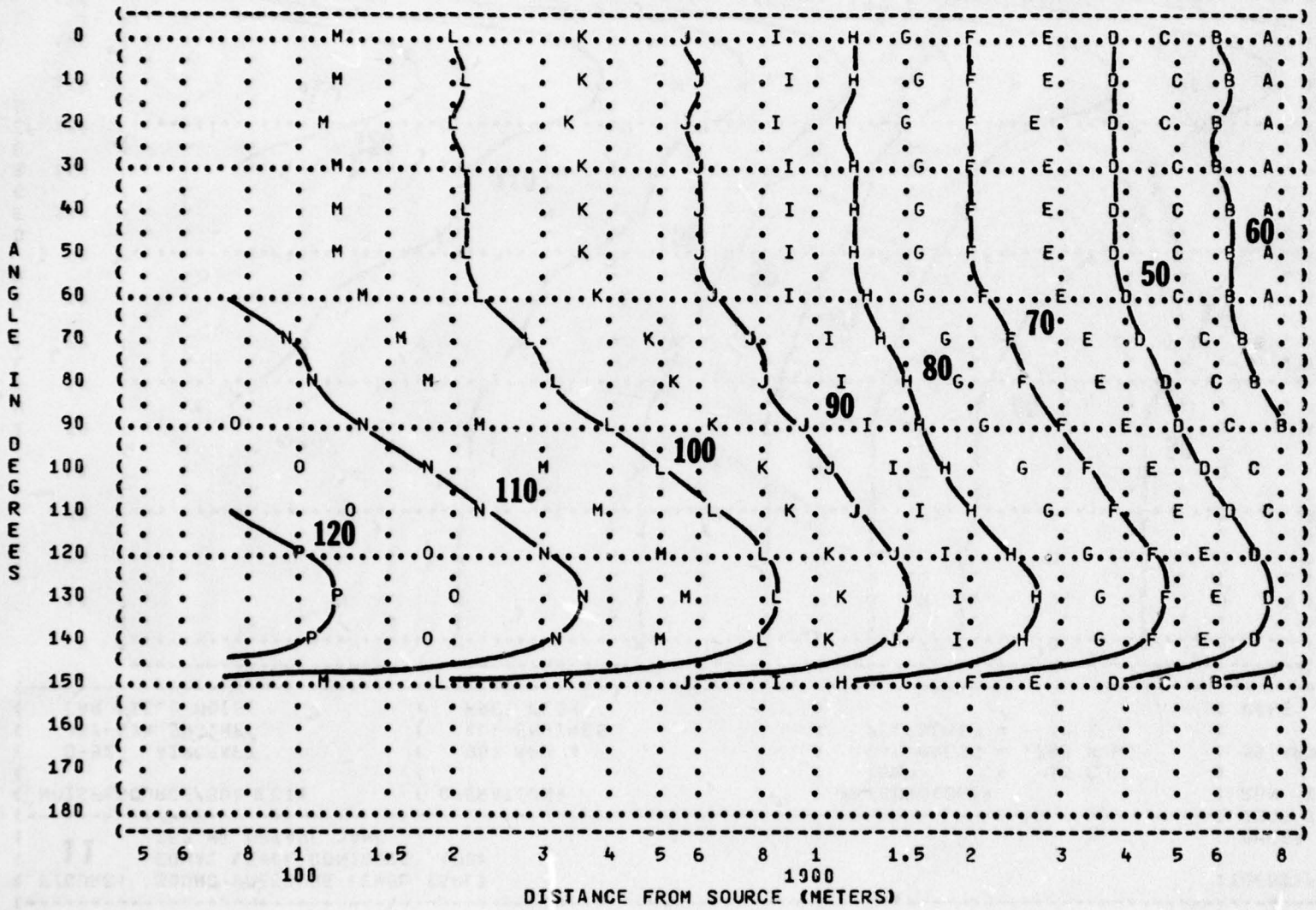
FIGURE: 11 — SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 500 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 22

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL 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 |

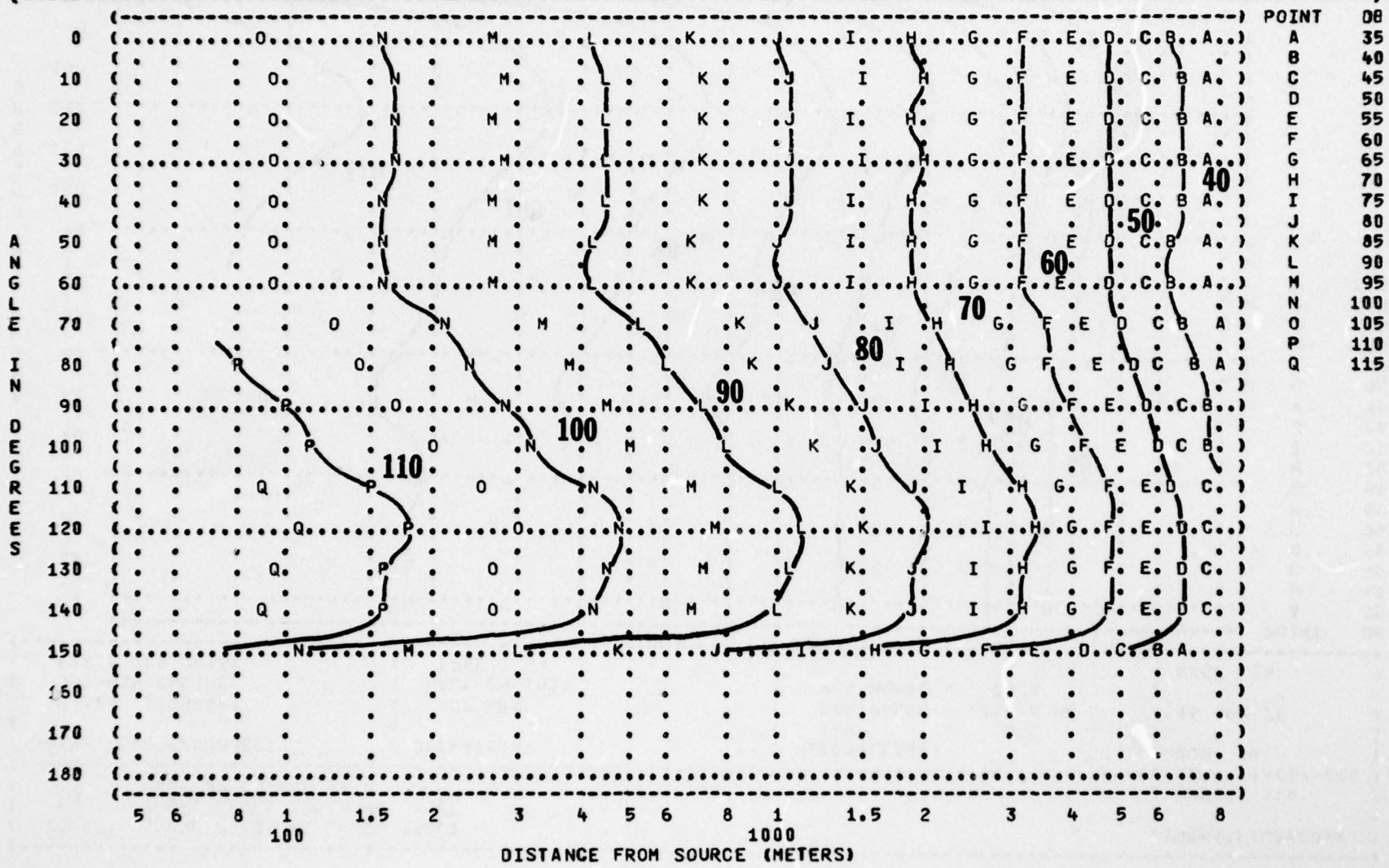
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 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 |
| N | 100 |
| O | 105 |
| P | 110 |
| Q | 115 |

FIGURE: 11

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 APR 75
PAGE 24

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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

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

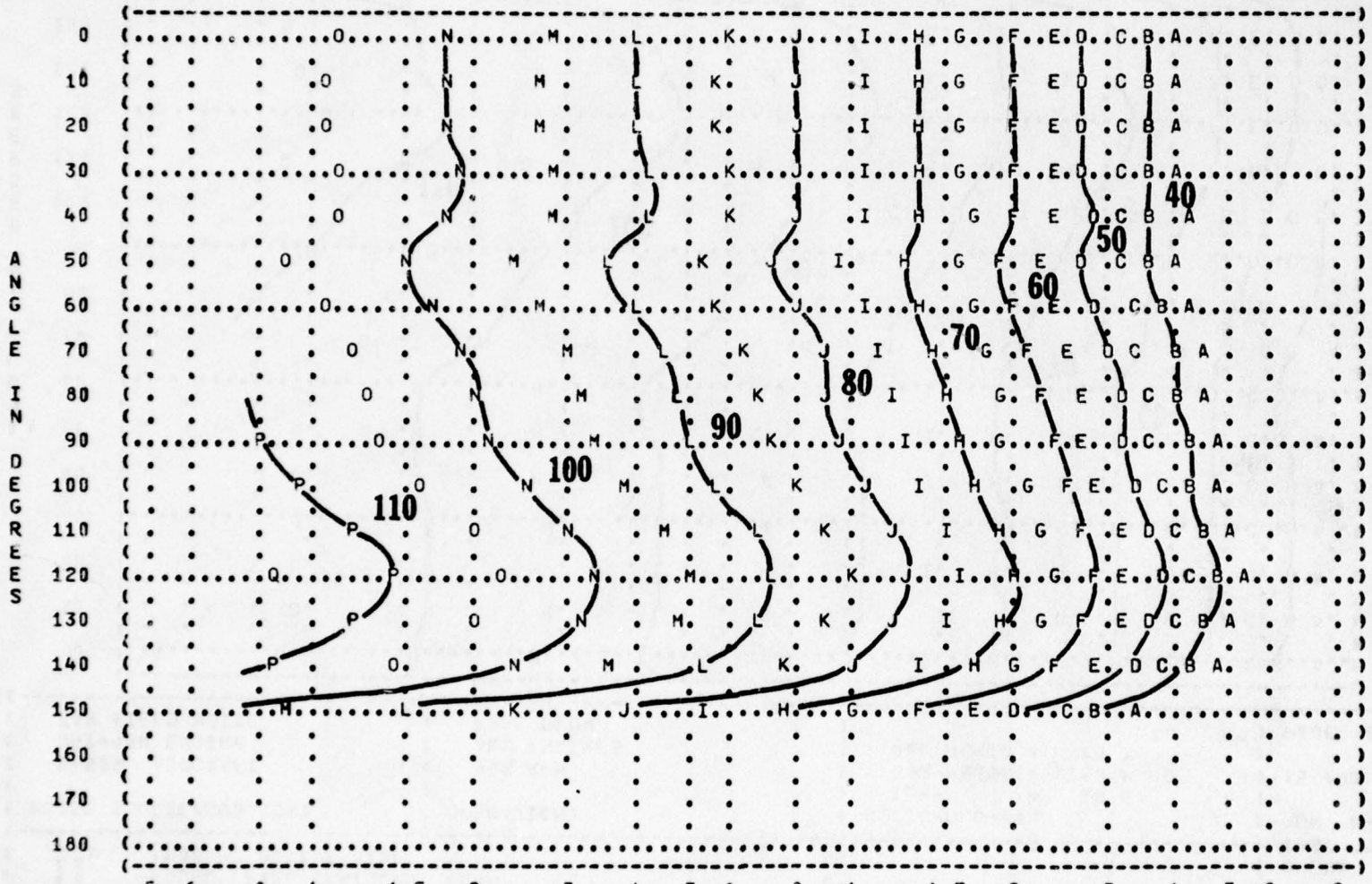


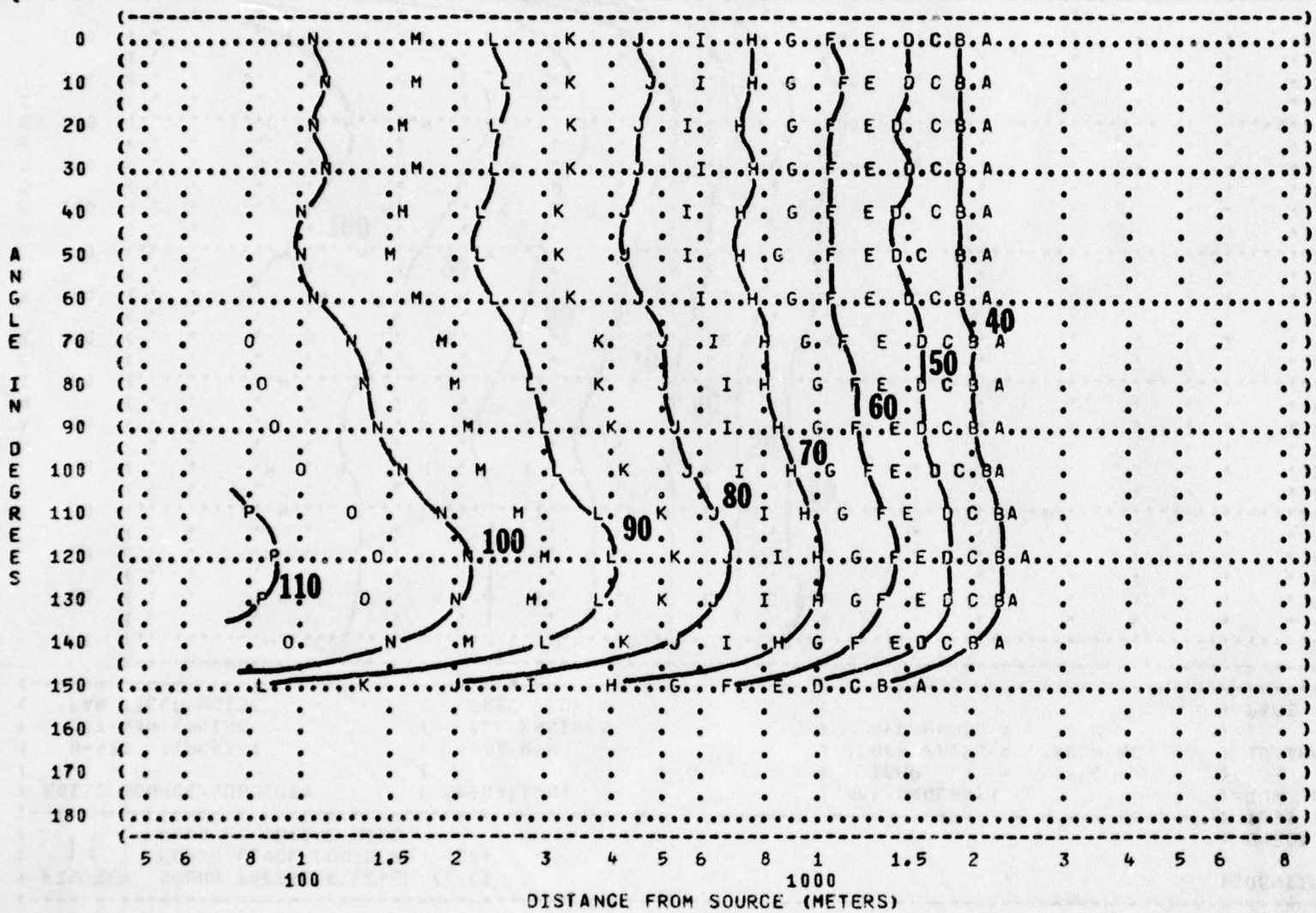
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 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 |
| P | 110 |

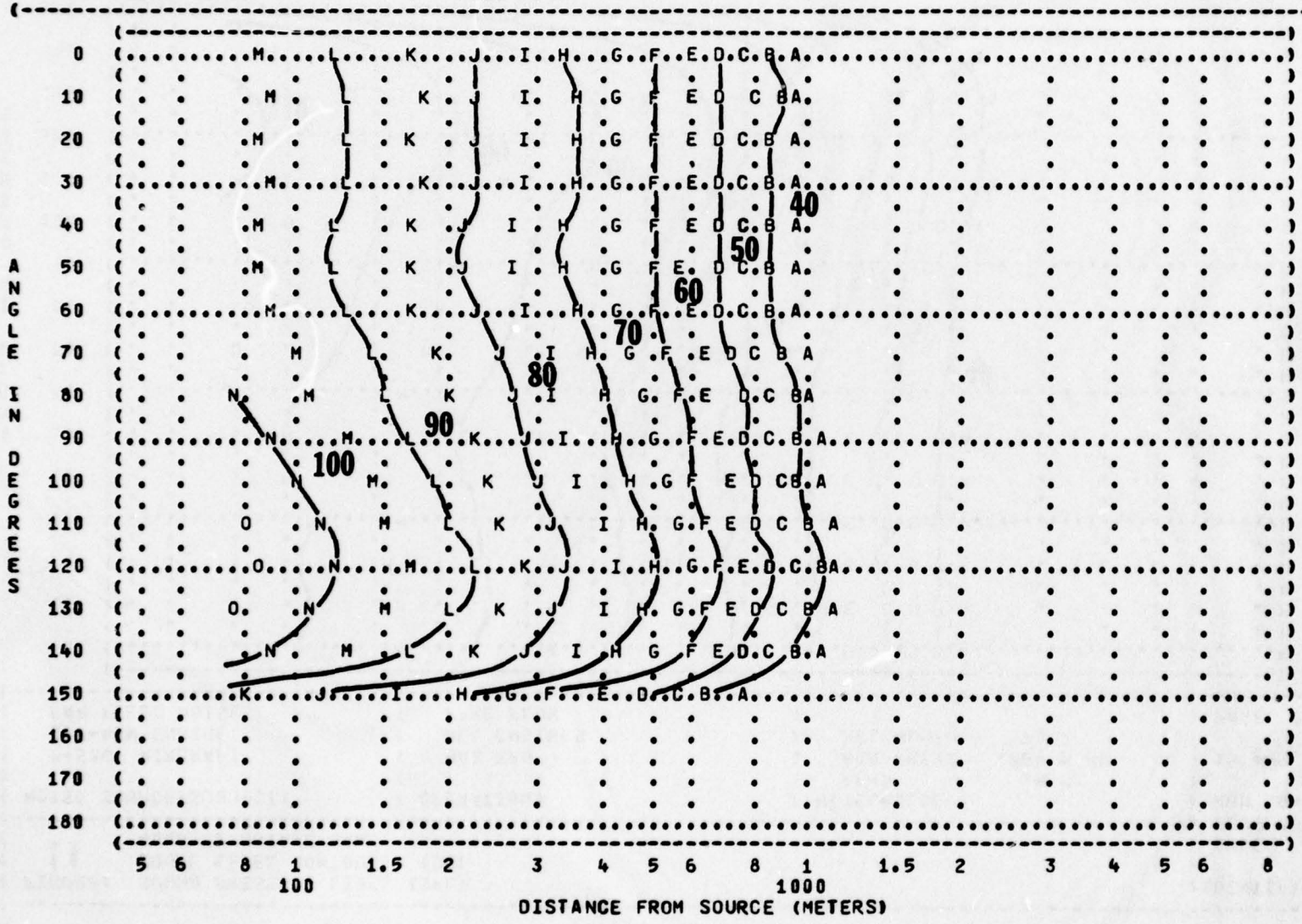
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
90% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 04
15 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 |
| O | 105 |

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

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 18

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

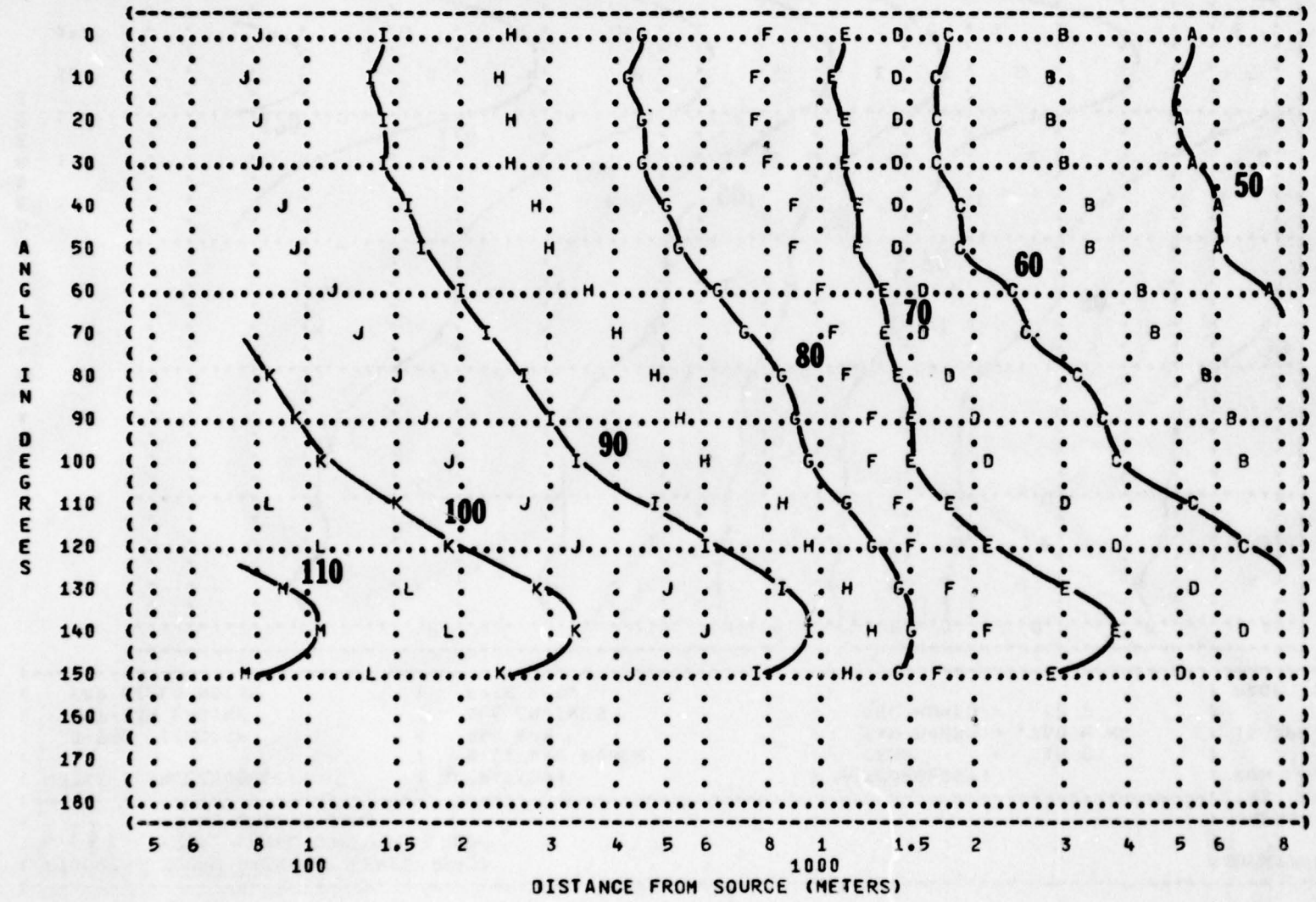


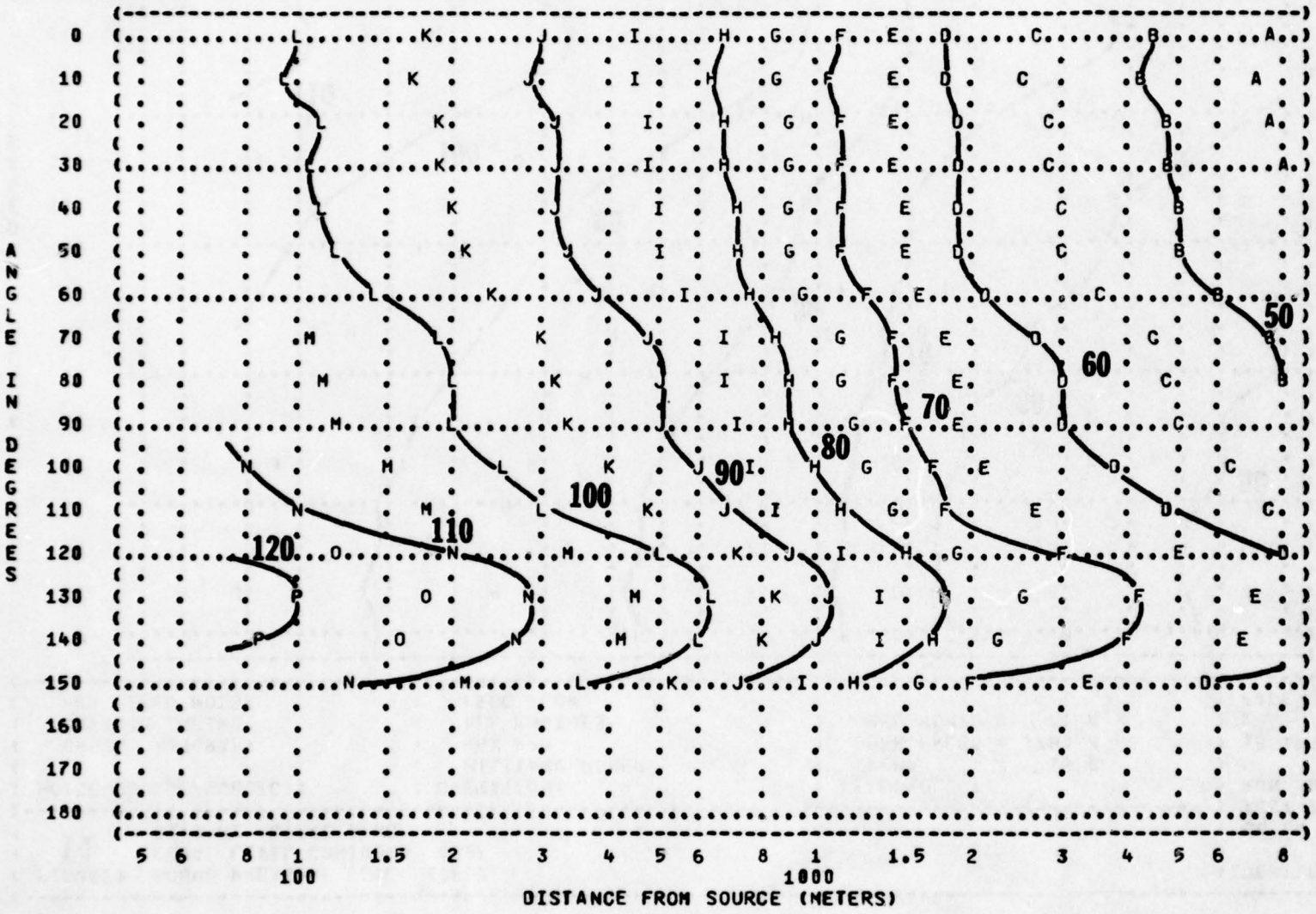
FIGURE: 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 19




| 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 |

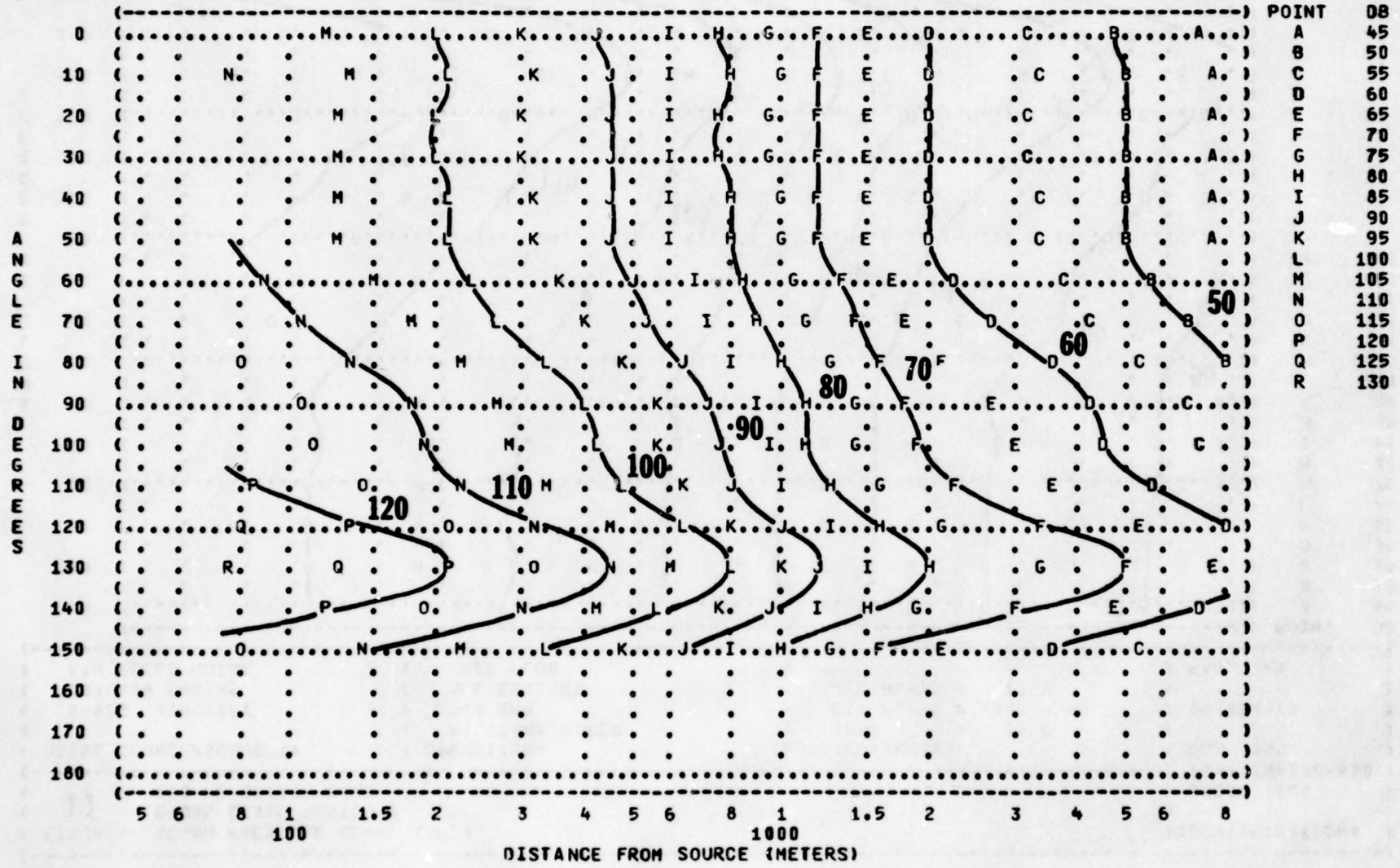
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 125 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 20




| 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 |
| R | 130 |

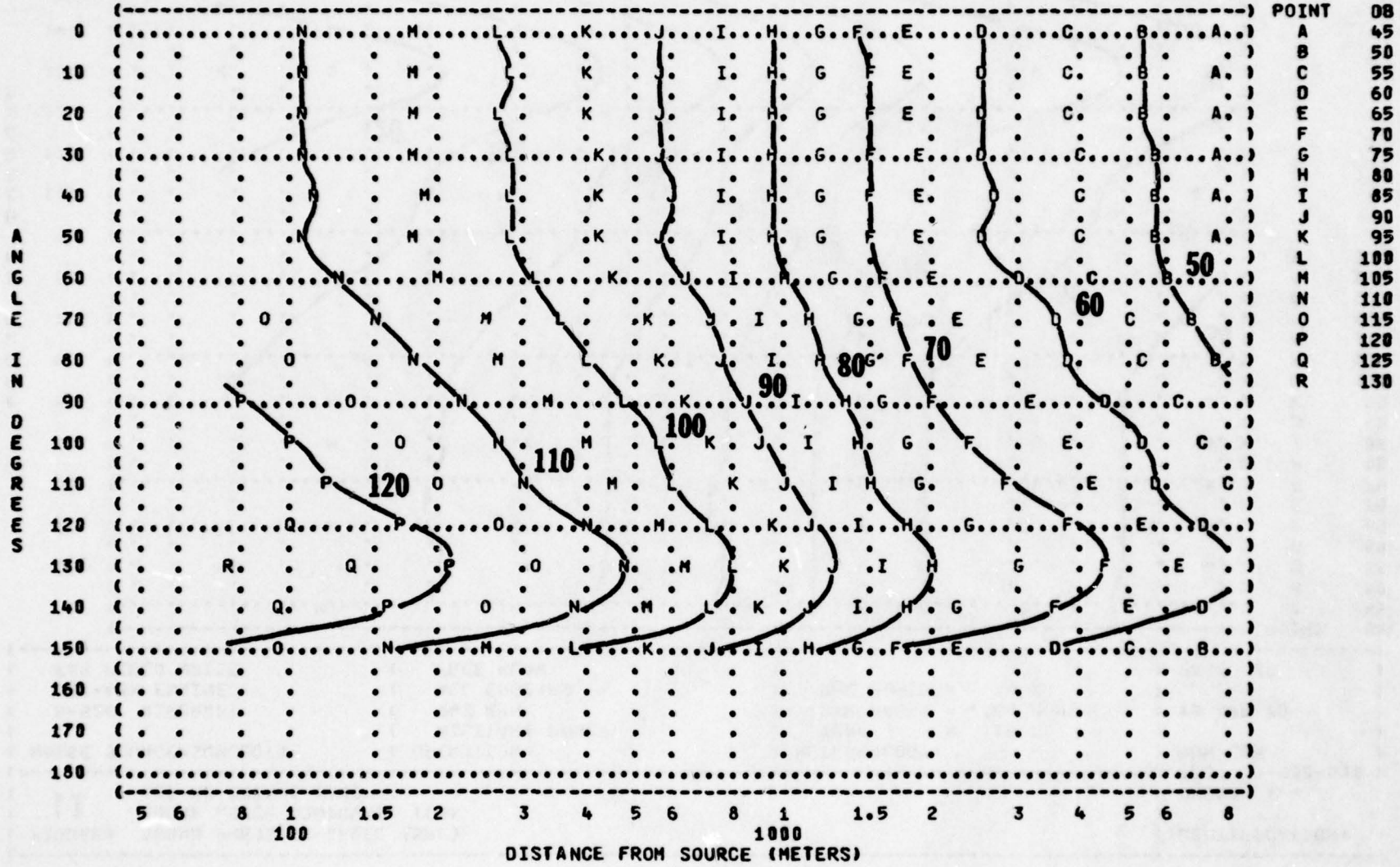
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 21




| 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 |
| R | 130 |

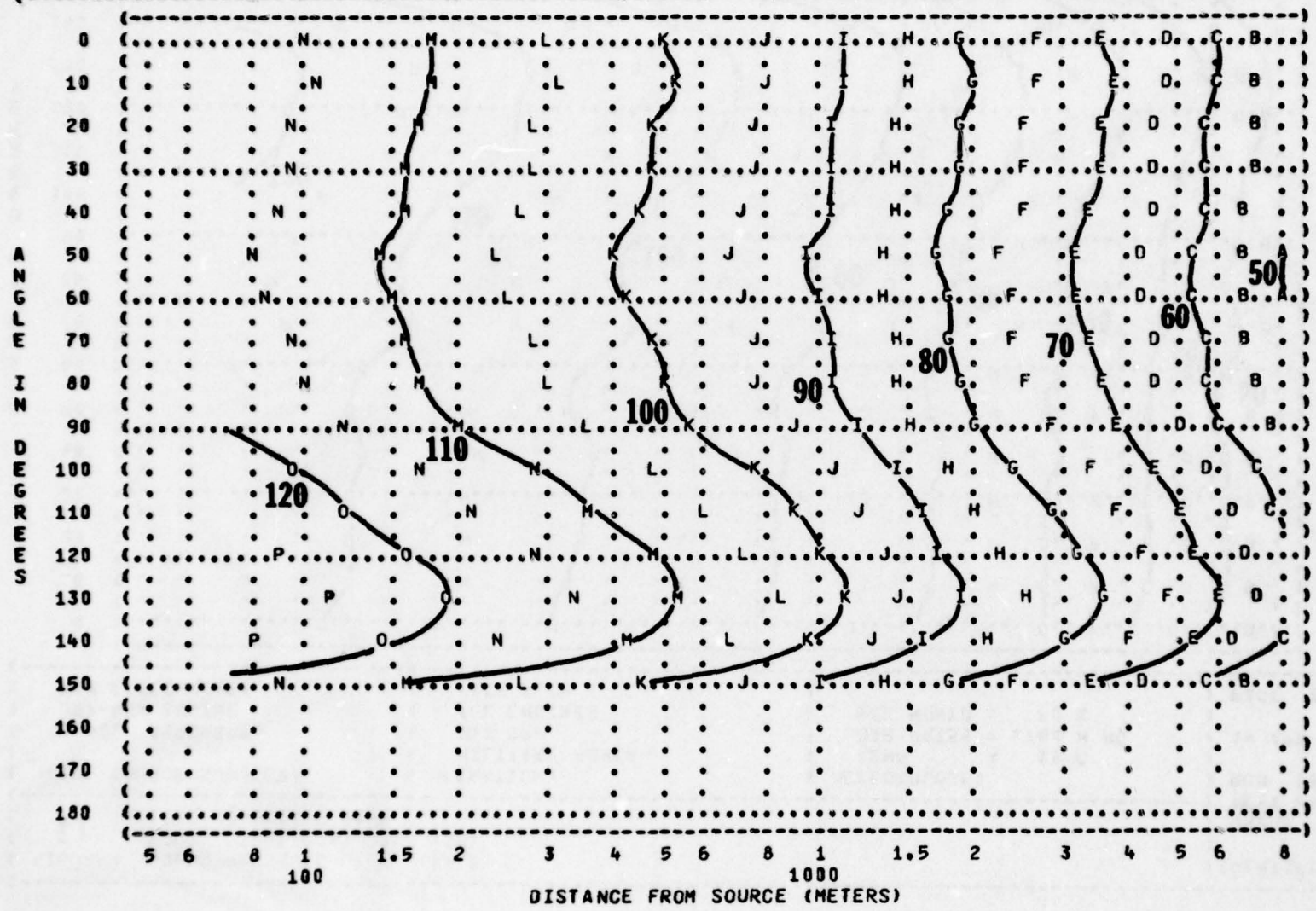
FIGURE 11 SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 APR 75
PAGE 22




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

125

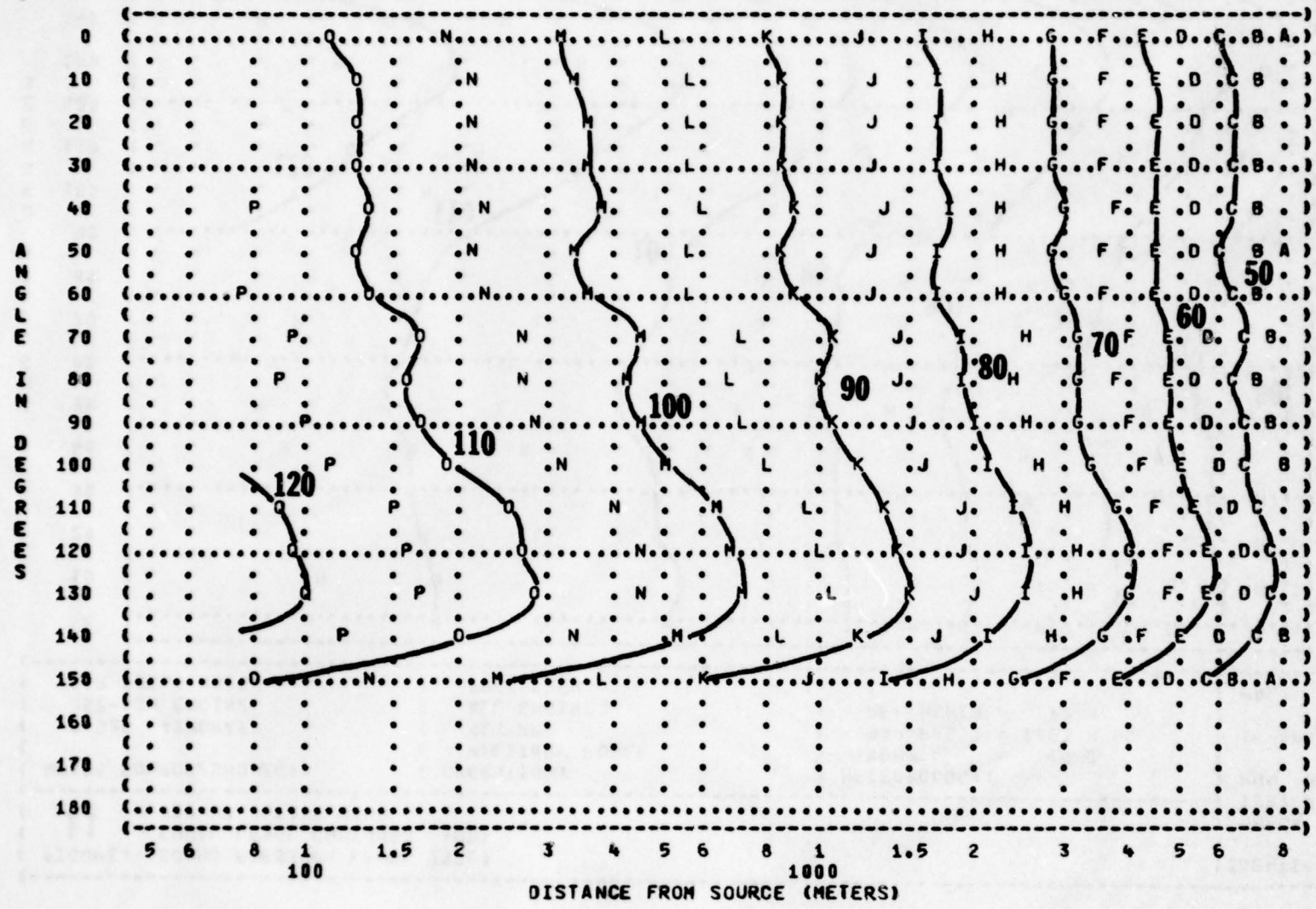
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 1000 HZ OCTAVE BAND

IDENTIFICATION: OMEGA 1.4 TEST 75-002-010 RUN 05 15 APR 75 PAGE 23

NOISE SOURCE/SUBJECT: B-52G AIRCRAFT; J57-43W ENGINE; FAR FIELD NOISE

OPERATION: MILITARY POWER; 94% RPM; ALL ENGINES; FREE FLOW

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




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

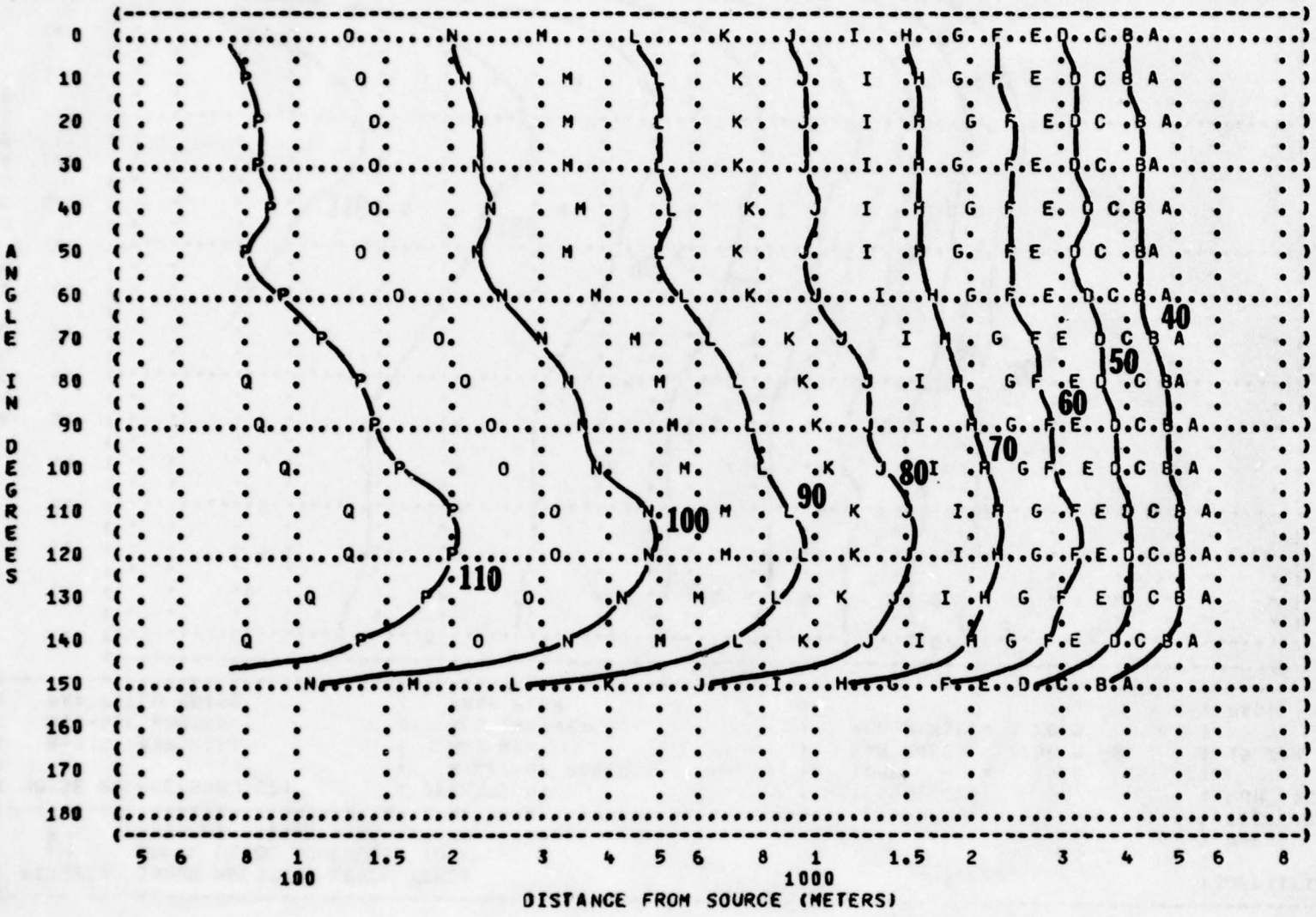
FIGURE 11 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 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 |
| P | 110 |
| Q | 115 |

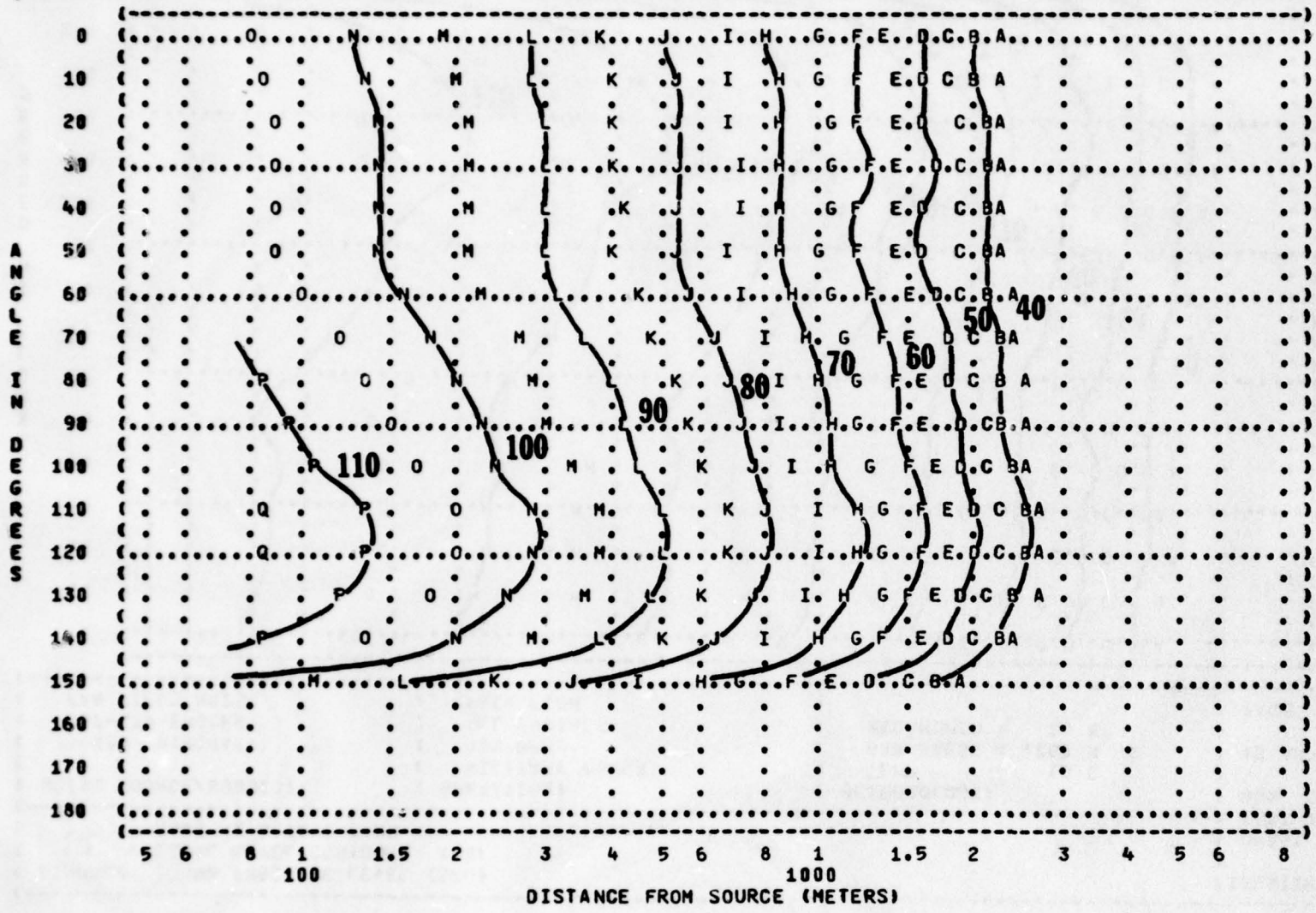
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
B-52G AIRCRAFT
J57-43W ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
94% RPM
ALL ENGINES
FREE FLOW

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

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-010
RUN 05
15 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 |
| P | 110 |
| Q | 115 |

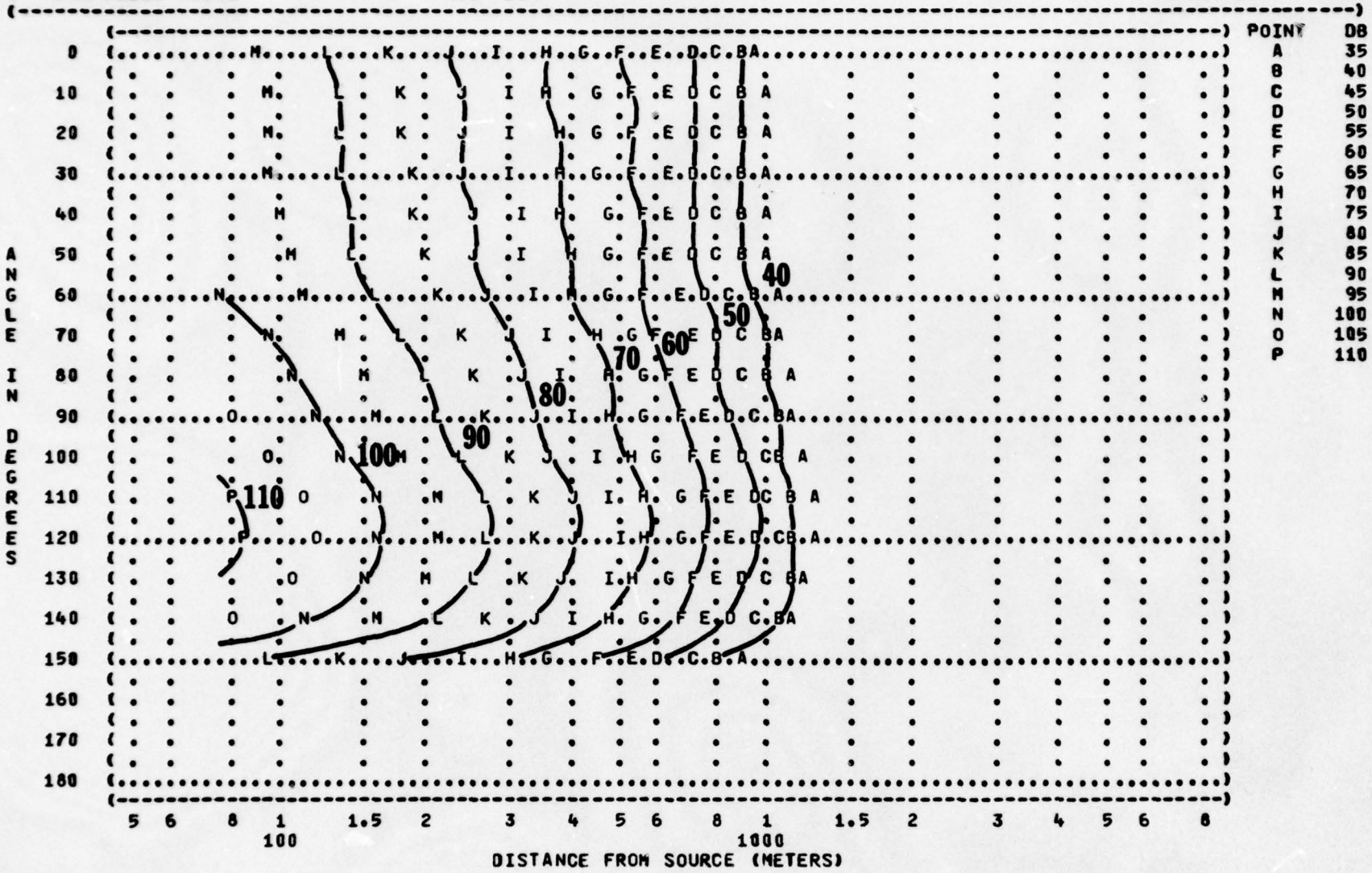
FIGURE 11: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

IDENTIFICATION: OMEGA 1.4 TEST 75-002-010 RUN 05 15 APR 75 PAGE 26

NOISE SOURCE/SUBJECT: B-52G AIRCRAFT; J57-43W ENGINE; FAR FIELD NOISE

OPERATION: MILITARY POWER; 94% RPM; ALL 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 |

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