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AIR FORCE PROCEDURE FOR PREDICTING AIRCRAFT NOISE AROUND AIRBASES: NOISE EXPOSURE MODEL (NOISEMAP) USER'S MANUAL

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FOR THE COMMANDER

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Director
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This report describes the NOISEMAP 6.0 Noise Exposure Model and is intended as a user's guide for these programs. The report provides operating details on the MCM, OMEGA 10 and 11, and NMAP60 computer programs (which are all encompassed by the term NOISEMAP 6.0). The BASEOPS and NMPLOT programs are also discussed but only in relation to their interaction with NOISEMAP 6.0. Information regarding the changes made between NOISEMAP 6.0 and older versions are listed and a methodology for converting older NOISEMAP decks to this new version is discussed. The limitations of NOISEMAP 6.0 are detailed. An example case is provided for a small joint-use airfield. Three general aviation categories are employed (single, twin, and jet) and one military designation. Appendix C provides a complete listing of all the military and civilian aircraft which are contained in NOISEFILE 6.0 including power settings and airspeeds.

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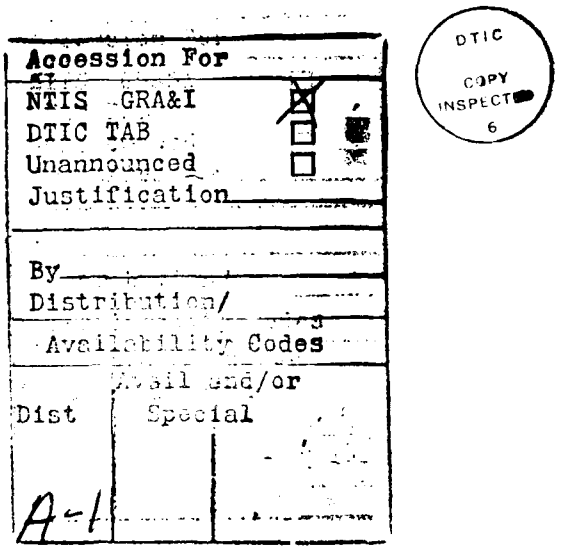
PREFACE

This work was performed for the Armstrong Aerospace Medical Research Laboratory at Wright-Patterson Air Force Base, Ohio, under Project/Task 723134, Exploratory Noise and Sonic Boom Research. This task was conducted in an effort to improve the noise exposure model used to predict noise environments around airbases.

The author wishes to thank Mr Robert A. Lee of the Biodynamic Environment Branch for his many good suggestions and many hours of testing NOISEMAP 6.0 and Mr Robert E. LeBlanc and Mr David L. Dennis of Spectrum Sciences and Software for their efforts during the development of the NMAP60 and MCM Computer Programs.



GLOSSARY OF TERMS

The following are a list of important terms and notations that will be used throughout this users guide to describe NOISEMAP and its related programs.

ARE files

This file contains the calculated contour areas for each specified noise exposure (e.g., Ldn) contour line.

BASEOPS

This is the program through which the Airbase Operations data are entered. This program creates the BASEOPS Source file which the NOISEMAP group of programs use for noise calculations. Reference 2 gives a detailed description of the BASEOPS program.

BPS (BASEOPS Source)

This file contains the Airbase Operations output from the BASEOPS program. The NOISEMAP group of programs uses this file as input. This is an ASCII file.

CAS (case file)

This file contains the setup data for particular NOISEMAP cases. This setup data includes the name of the BASEOPS Source file, the directory for the case, noise metric for noise calculations, etc.

Case Description

This refers to a sixty character description of an Airbase Operations data input through the BASEOPS program. The MCM uses the case description as selection choices (instead of filenames) whenever NOISEMAP cases are manipulated.

Case Name

This refers to the unique file name given to a BASEOPS Source file loaded and saved during a NOISEMAP run. The Case Name is a unique name generated by the Master Control Module (MCM) using the first four characters of the BASEOPS Source file name and appending a four digit random number to it.

Chronicle

This refers to a file containing a summary of the NOISEMAP run. The Chronicle has been split into three separate files (CRO, SPO and ARE files) in order to facilitate ease of access to the data in these files. They should still be considered as part of the Chronicle and are paginated as such. The OMEGA10 and OMEGA11 programs also have chronicles which are the only places where errors in the OMEGA runs will be shown. The OMEGA Chronicles will have the root name of the OMEGA program with an "out" extension. e.g., "OMEGA_10.out" or "OMEGA_11.out".

CRO files

This file contains the summary (or echo) of the NOISEMAP input data including all the warning and error messages.

GRD files

This file contains all the noise exposure levels (e.g., Ldn) for the 100 by 100 grid points of the NOISEMAP grid. The file is an ASCII file with one column of numbers, the first 100 of which represents the first row of data.

MCM (Master Control Module)

This program reads the BASEOPS Source file (BPS) and determines the correct input to the OMEGA10, OMEGA11 and NMAP60 programs. The MCM then writes an input file for each of these programs in turn and then executes them.

MCM Menu Sample

Bold underlined titles indicate menus in the MCM program.

NMAP

This refers to the noise computation part of NOISEMAP.

NMAP60

This refers to version 6.0 of the computation part of NOISEMAP.

NMPLOT

This is the program which plots the NOISEMAP GRD files with options. Reference 4 gives a detailed description of the operation of the NMPLOT program.

NOISEFILE

This is an ASCII file with reference values of one-third octave band sound pressure level data for a large number of military aircraft. Version 6.0 of this file also includes a large number of civilian aircraft. The complete list of aircraft is contained in Appendix C. On the 80386/80286 version of NOISEMAP the NOISEFILE has been split into two components, "Flyover" and "Runup" for the OMEGA10 and OMEGA11 programs respectively.

NOISEMAP

This refers to the group of programs directly involved in calculating the noise data. This includes OMEGA10, OMEGA11, Master Control Module, and NMAP60.

OMEGA10

The OMEGA10 program is used to extract aircraft flyover data from NOISEFILE and creates a file of appropriate single event noise levels (e.g., SEL) for each aircraft, power setting, and local atmospheric conditions. Reference 3 gives a detailed description if the operation of the OMEGA10 program.

OMEGA11

The OMEGA11 program is used to extract aircraft run-up data from NOISEFILE and creates a file of appropriate single event noise levels (e.g., AL) for each aircraft, power setting, and local atmospheric conditions.. Reference 3 gives a detailed description of the operation of the OMEGA11 program.

"[quotation marks]"

This refers to data of some noteworthiness.

SPO files

This file contains all the Specific point calculations.

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1.0 INTRODUCTION

1.1 NOISEMAP

NOISEMAP is a group of computer programs developed by the U.S. Air Force for prediction of noise exposures in the vicinity of an air base due to aircraft flight, maintenance, and ground run-up operations. These programs can also be used for noise exposure predictions at civilian or joint use (military-civilian) airfields if appropriate reference files on noise exposure/aircraft power setting/incremental distance are prepared for aircraft types not currently contained in the NOISEFILE data base used by NOISEMAP.

NOISEMAP requires the preparation of various data all of which are input through the BASEOPS programs (see Section 1.2). These data include airfield and runway definitions, aircraft power and altitude profiles and other data. In versions of NOISEMAP prior to Version 6.0, these data were compiled in card format for use on a mainframe computer. Version 6.0 has been developed to operate on a 80386/80286-based microcomputer. The original version of NOISEMAP is described in Reference 1. A brief description of BASEOPS, OMEGA10, OMEGA11 and NMPLOT will be given in this document but only in relation to the operation of NOISEMAP. For a more detailed description of how each program operates, please see References 2 (BASEOPS) and 3 (OMEGA10 and 11). Detailed operating instructions are defined herein for the Master Control Module (MCM) program which is used to integrate the OMEGA10, OMEGA11, and NMAP60 programs.

NOISEMAP Version 6.0 consists of the following:

OMEGA10

The OMEGA10 program is used to extract aircraft flyover reference noise data from NOISEFILE and create files of single event levels (e.g., SEL) for each aircraft speed and power setting.

OMEGA11

The OMEGA11 program is used to extract aircraft run-up reference noise data from NOISEFILE and create files of A-weighted sound level for each aircraft power setting (including noise suppression facilities where appropriate).

MCM

The MCM reads the BASEOPS Source file (BPS) and determines the correct input to the OMEGA10, OMEGA11 and NMAP60 programs. The MCM then writes an input file for reach of these programs in turn and then executes them.

NMAP60

That part of NOISEMAP which does the noise exposure computations.

Other programs associated with NOISEMAP:

BASEOPS

This program allows interactive entry of airbase operations and compiles these data into a file compatible with NOISEMAP.

NMPLOT

This program reads the grid (GRD) and BPS files in order to produce contour plots. NMPLOT allows scale changes as well numerous other plotting options. NOISEMAP need not be run more than once to obtain different plots unless data concerning noise exposure changes.

NOISEMAP is designed to operate on a 80386 or 80286 microcomputer with the following requirements:

1. MS DOS 2.0 and above.
2. 80386 or 80286 microprocessor.
3. 80387 or 80287 math co-processor.
4. At least 1 Megabyte of memory.

5. A hard drive with at least 2 Megabytes of free space for the program and its associated files. This estimate excludes that storage space necessary for data that is to be processed by NOISEMAP. In general, between 200 to 900 kilobytes for each case is required.

The OMEGA programs, OMEGA10 and OMEGA11, prepare flight and ground run-up data respectively for input to NOISEMAP. Both OMEGA10 and OMEGA11 access reference aircraft noise data from the NOISEFILE 6.0 data base. A brief description of the OMEGA programs is given below. For additional information on the two OMEGA programs and NOISEFILE refer to AFAMRL-TR-83-020 (Reference 3).

The OMEGA10 program accesses reference flyover data sets from the NOISEFILE data base for a specific aircraft, and extrapolates the reference sound pressure level (SPL) data from the reference slant range distance (1000 feet) to 22 profile distances (200 to 25,000 feet), computes the required single event measures at these distances, and then extrapolates or interpolates these single event versus distance data to produce distance profiles for up to seven single event noise measures at the requested power setting, airspeed, temperature and relative humidity. The seven single event measures are A-weighted overall sound level (AL), tone-corrected A-weighted overall sound level (ALT), perceived noise level (PNL), tone-corrected perceived noise level (PNLT), sound exposure level (SEL), tone-corrected sound exposure level (SELT) and effective perceived noise level (EPNL). In the print mode, the profile data for all seven measures are always computed and printed and, when requested by the IPU flag, the SEL, SELT, and EPNL data are written to the OMEGA10 print file. In the no-print mode, which is designed primarily to prepare data for input to NOISEMAP program, only the one SEL, SELT, or EPNL measure identified in the OMEGA10 input file is written to the OMEGA10 data file (OMEGA_10.DAT) for use in the NMAP60 input file.

The OMEGA10 input file is created by the MCM. The IPU flag is set to the no-print mode and depending on the noise measure requested, either SEL or EPNL data will be created by OMEGA10. SEL data is used for Day-Night Average Sound Level (DNL) and Community Noise Equivalent Level (CNEL) noise exposure calculations and EPNL data is used for Noise Exposure Forecast (NEF) and Weighted Equivalent Continuous Perceived Noise Level (WECPNL) for noise exposure calculations. The MCM merges the OMEGA10 data file and the OMEGA11 data file (OMEGA_11.DAT) and with other data formulated from the BPS file to create the NMAP 60 input file.

The OMEGA11 program inputs reference ground run-up data sets from the NOISEFILE data base for a specific aircraft, extrapolates these SPL spectra from the reference distance (250 feet) to each of the 22 profile distances, computes the AL, ALT, PNL and PNLT single event measures for each spectrum at each distance, and then interpolates these reference data to generate similar distance profiles for AL, ALT, PNL, and PNLT at the requested temperature, relative humidity, barometric pressure and aircraft engine power settings. As in the OMEGA10 input file above, print flags are defined to control the type and quantity of data printed and written to the OMEGA11 data file.

1.2 BASEOPS

The Base Operations (BASEOPS) Program creates the data files which describe an airfield's aircraft operations. These data files are used by the Master Control Module (MCM) to create the input file for running the NOISEMAP Program. Before any data is entered into the BASEOPS Program, the user should review the data collection check-list published in Chapter 11 of the AICUZ Handbook (Reference 5). This check-list contains a description of the data needed for the BASEOPS entries. BASEOPS also provides the user with the capability to view flight tracks and flight profiles. Flight track data can also be superimposed on other digitized data bases if they are available for the airbase. A zoom feature is also available when viewing flight tracks or flight profiles.

The BASEOPS program is written in BASIC and is available for the IBM PC XT/AT and IBM PC compatibles. The PC must have a color graphics adapter and monitor (or the ability to emulate color graphics). BASEOPS uses the file "BASEOPSg.dat" and a MCM file called "config.fil" in order to determine where to read and write its data files. The "BASEOPSg.dat" file is an ASCII file, left justified with the following requirements:

- The first line of the file is a title with the current version of the BASEOPS program. This line should never be changed. If this line is inadvertently changed then the file will have to be reloaded from a backup copy.

- The second line of the file reflects the input drive and path name of the BASEOPS input data. If the current BASEOPS case had been saved previously then this is where BASEOPS will find it. Otherwise, if this is a new case then this is where BASEOPS will save the data input to the program.

- The third line of the file reflects the location of the BASEOPS "Home" drive and directory, that is the path where all the BASEOPS executable modules can be found. This facilitates running BASEOPS from directories or drives other than its "Home" directory.

BASEOPS creates 10 files that encompass all the data that have been entered. The 10 files will have a base name corresponding to the name given at the "Filename" prompt on the initial BASEOPS screen. An extension is then appended to this base name (in the similar DOS format filename.ext) in order to organize the input data in a fashion corresponding to the following:

FILENAME.AIR

This file contains airfield data: appropriate user comments, magnetic declination, field elevation, number of operational periods (two or three) and the average yearly temperature and relative humidity.

FILENAME.RUN

This file contains runway identifiers, runway end points, glide slope, and takeoff and landing thresholds.

FILENAME.NAV

This file contains navigational aid identifiers and their location.

FILENAME.FLT

This file contains flight track names, the type of flight track (departure, arrival or closed) and the distance and heading information for the flight track segments.

FILENAME.FAC

This file contains the flight profile identification, aircraft type (based, civil or transient), aircraft name, flight track used, appropriate user comments and the number of daily operations for all aircraft.

FILENAME.POW

This file contains the power settings, cumulative distances from start-of-roll or threshold, altitudes and airspeed for the aircraft flight profiles contained in FILENAME.FAC.

FILENAME.PAD

This file contains run-up pad identifiers and the pad location and magnetic heading.

FILENAME.RAC

This file contains run-up profile names, aircraft name, power setting, number of daily run-ups, run-up duration, run-up pad used and appropriate comments for run-up profiles.

FILENAME.SPC

This file contains specific location identifiers and the location of specific points on the ground for which a detailed noise analysis is to be performed.

FILENAME.ID

This file contains data relating to personnel preparing AICUZ operations summaries. The data entered include the name, location, and autovon number of said personnel.

FILENAME.LOG

Listing of all NOISEMAP cases created using option 5 of the BASEOPS program.

From these input files the BASEOPS program can write a source file (i.e., BPS file) that NOISEMAP uses to calculate noise exposure. This file is written to the drive and subdirectory indicated in the first line of the "config.fil" file. The "config.fil" file is a file used by the MCM in order to determine most of its default settings. The BASEOPS program writes the BPS file to the MCM default subdirectory for BPS files. BASEOPS uses the first couple of lines of the "config.fil" file to determine where that path is and what

the BPS file name extension is. Once the BPS file has been written, BASEOPS' job is done.

1.3 NMPLOT

NMPLOT is a plotting package specifically designed to generate and plot noise exposure contour lines using the NOISEMAP 100 by 100 noise grid values. This program needs both the GRD and BPS files in order to operate properly . The noise data, grid spacing and BPS file name are obtained from the GRD file and the runways, flight tracks and other information are obtained from the BPS file. The NMPLOT program can be evoked from the MCM or from the DOS command prompt.

When the NMPLOT program is invoked, it will first display a title screen naming the author of the program (Mr. Fred Wasmer of the University of Illinois). The next screen will show the name of the grid file to be loaded into the program and usually shows its default "*.grd" name. If the user wants to change the drive or specify the name fully they can do so at this prompt. With a "*.grd" specification however, the program will show all the files with a "grd" extension in the current directory as well as all subdirectories. If there are no GRD files in the current subdirectory the user can use the subdirectories shown to navigate to the location of the desired GRD file on the currently logged drive. If the GRD file is on a drive other than the default the drive name should be specified at the initial prompt. i.e.. "A:*.grd".

When the MCM is finished running NMAP60 the program copies the GRD and BPS files to the "MAP" subdirectory where they can be easily accessed from the NMPLOT. This is done purely for data management purposes since the number of NOISEMAP cases (or case subdirectories) can grow to be quite large and finding the right subdirectory can be tricky at times. The NMPLOT program always lists the most recent GRD file first.

Once the GRD and BPS files have been loaded into the program the contours can then be plotted to the desired effect by manipulating the NMPLOT menus.

2.0 OVERVIEW OF NMAP VERSION 6.0 AND ASSOCIATED PROGRAMS

2.1 Development History of Version 6.0

NMAP was originally developed for the U.S. Air Force in 1974 and was designed to operate on a mainframe computer due to its extensive requirements on computational and memory resources. Versions of NMAP, up to Version 5.2, had continually been revised to incorporate improvements to noise modeling techniques. The resulting program thereby became inefficient and very reliant on its original host computer system. As such, it was not readily amenable to re-hosting on the more recent and relatively powerful and efficient minicomputer (workstation) or microcomputer (PC-type) systems.

Similarly, the preparation, revision, and application of input files for the operation of NMAP was based on a card-deck format compatible with mainframe batch processing. The ready availability and low cost of PC-compatible computers offered a more efficient method of data preparation which could be conducted at Air Force bases and transmitted to NMAP operators via floppy disks.

Two parallel efforts were therefore initiated by the Air Force to take advantage of the advent of smaller and more powerful computer systems. These were the preparation of a BASEOPS program which allows airfield characteristics and air base operations to be organized and entered into a PC-type environment by air base personnel and also a project to improve and enhance the existing NMAP program for use on a microcomputer. Both of these efforts were successfully completed during the Calendar Year 1987-88 time-frame.

This User Manual addresses the operational features developed for the 80386 microcomputer. This microcomputer version is identical in computational functions and accuracy to the NOISEMAP 5.2 mainframe version except as incurred by further improvements to the noise modeling techniques embodied in Version 6.0.

Specific Changes in NMAP Version 6.0

Two primary differences are embodied in Version 6.0 which are not in previous versions. These are:

1. The Takeoff Roll Model is invoked automatically by the MCM for all departures. The model is inactive for landings, touch-and-go closed patterns, and overflights. This model also calculates, within NMAP60, the noise level increments (DSEL) which previously were input to the program for start-of-roll and lift-off point noise level corrections.

2. Version 5.2 of NMAP contains two lateral attenuation algorithms, one of which (SAELAT) is applicable to civilian aircraft and the other is the military aircraft algorithm continued from earlier NMAP programs. Version 6.0 contains the SAELAT algorithm and a new (revised) (Reference 9) model for military aircraft. These are invoked automatically by NMAP60.

These changes are important since they affect the preparation of the operations input case and differ from procedures used in earlier NMAP versions and, in addition, may result in different noise values being computed for the same operations data run on earlier versions of the model.

CAUTION: It is imperative that the user be fully familiar with the BASEOPS program operation as described in Reference 2 prior to entering aircraft operations data for use by NOISEMAP. There is a distinct difference between the BASEOPS Power Profile entry format and the format used in the Takeoff Descriptor (TODSCR) and Landing Descriptor (LNDSCR) input files used by NMAP60. BASEOPS requires the selected power profile to be entered together with its point of application (distance from start of roll or landing threshold). The NMAP60 input deck shows the cumulative distance at which the power setting changes from the selected value to the next (subsequent) setting.

2.2 BASEOPS, NOISEMAP, and NMPLOT Integrated Structure

While a knowledge of the internal structure of NOISEMAP is desirable it is not a prerequisite to the successful operation of the program. It is necessary that the user be aware of the interaction of NOISEMAP with other associated programs such as BASEOPS

for preparing input operations data and the NMPLOT program which allows plotting of the resulting noise exposure contours.

This interaction is summarized in Figure 1 which shows all the interaction with NOISEMAP Version 6.0.

The starting point of the process is the preparation of air base operational characteristics by means of BASEOPS. These can be prepared on a remote computer system and imported to NOISEMAP or generated directly on the system described herein. (See Reference 2 for further information on BASEOPS). BASEOPS creates a BASEOPS Source file containing:

- Airfield information, including general description, title, altitude above mean sea level, and year-averaged temperature and relative humidity,
- Runway descriptors, including designations, end point locations in latitude, longitude coordinates, and threshold offsets (in feet).
- Flight track definitions, including all straight and constant radius turn segments as they occur on a departure from start-of-roll or (in reverse order) from the 50 ft height threshold clearance of a landing pattern. Closed patterns involving touch-and-go training flights or missed approaches can be similarly modeled.
- Flight profiles, which describe in sequential order for each aircraft type the flight track used, the engine power setting at each cumulative step in distance from start-of-roll (or 50 ft threshold for landings), the altitude at each step, the flight speed at each step, and the number of operations of this profile used during a year-averaged busy day daytime or nighttime period.
- Ground run-up operations, which include definitions of the run-up locations (by latitude and longitude coordinates and magnetic heading), the engine or aircraft power settings tested, the numbers of day and night tests, and the duration of such tests.
- Specific points for more detailed analysis of the noise exposure at specific ground locations.

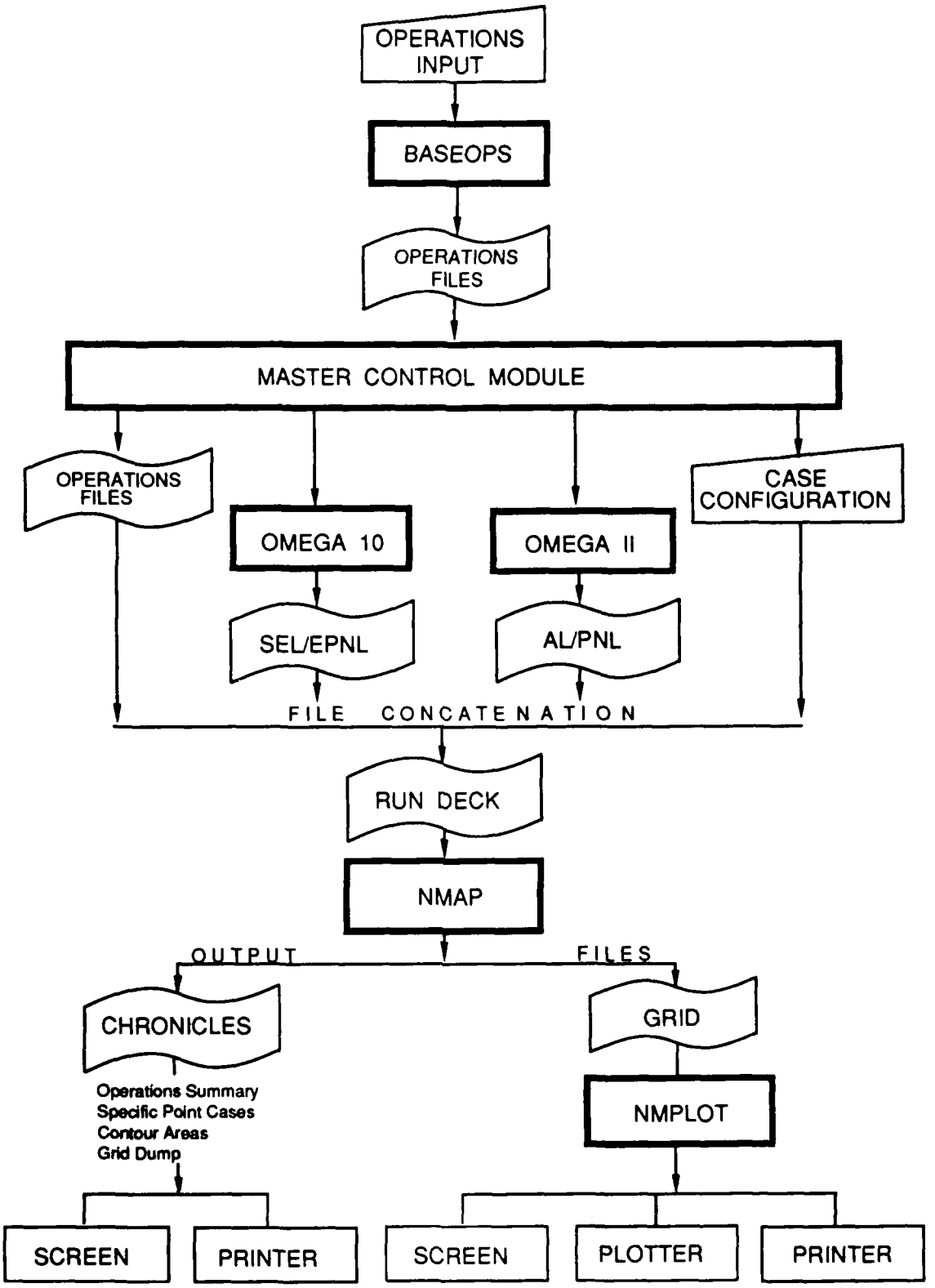

Figure 1. NOISEMAP Interaction Flow Chart.

These data provide a detailed description of the aircraft operational events at the air base which will contribute to the cumulative noise exposure experienced at various locations surrounding the base runways and ground test facilities. Any changes to the aircraft operations or airfield data should be entered via the BASEOPS program.

The BASEOPS program creates an input file for the MCM program called the BASEOPS Source File (BPS). The MCM uses these data to create input files for the OMEGA10 and OMEGA11 programs which are applied to the reference noise data base to create appropriate noise data for each specified power setting of each specified aircraft. OMEGA10 creates the noise files for in-flight conditions and OMEGA11 creates noise files for ground run-up conditions.

The MCM program then combines the operations data from the BASEOPS Source file with the OMEGA10/11 generated files to then create the NOISEMAP input deck.

The MCM also allows the user to configure the NOISEMAP runstream in a limited fashion. The specific items are contained under the RUN menu option within the MCM and include the noise metric to be used (this must be specified prior to the OMEGA10/11 operation), the grid-spacing distance for noise exposure calculations over the surrounding land area, the desired contour levels for area calculations, and for offsetting the noise computation grid. These options will be explained in further detail in section 3.3.3.

When the run options have been chosen the case can then be saved and run. A chronicle of the input data as well as "area calculations", "specific point calculations", and "grid noise exposure values" can be displayed either on the monitor (screen) or printer device as desired.

Generation of noise contours requires use of the NMPLOT program. The contours are generated by interpolation of the grid noise exposure values from the GRD file. Other data such as flight tracks, specific point locations, Navaid locations, run-up test pad locations, and safety zones at the projections of each runway are obtained from the BPS file. These can be displayed on the monitor (screen), a printer, or on a designated plotting device controlled by the NMPLOT program.

In summary, the operation of NOISEMAP comprises a sequence of logical steps which start with the air base operational definitions, creation of noise data files appropriate

to those operations, generation of noise exposure values over a network (grid) of ground locations (or at specific points for more detailed information) and, subsequently, the generation and plotting of noise exposure contours on a map of specified scale.

2.3 Notes to Previous Users of NMAP

Introduction

In addition to revising and streamlining the NMAP source code, NMAP60 reflects a basic change in philosophy of creating and running the NOISEMAP program. Previous versions of NMAP usually required several runs to eliminate errors in the input file. Most of these errors were the result of improper formats or typing errors on the input records. These errors are virtually eliminated through the use of BASEOPS and the MCM. The NMAP60 input file is now created by these two computer programs. BASEOPS and the MCM also contain additional error checking routines and BASEOPS allows the viewing of flight tracks and flight profiles which provides another method to check the validity of the input data. Of course these programs are not immune to such errors as incorrectly entered number of daily operations or incorrectly entered flight tracks. As a result of changes made to the NMAP program, run decks created for previous versions of NOISEMAP will require extensive modification for use with NMAP60.

NMAP Feature Changes

Many changes were made to NMAP during the development of NMAP 60. Some features were eliminated because they were no longer utilized and others were eliminated because they were no longer needed for error processing. A majority of error checking is now accomplished by BASEOPS and the MCM. The following changes are those which are not supported by NMAP 60 relative to earlier NMAP versions.

- Only one airfield is processed per NMAP program execution.
- The departure procedure ("DEPART") is not longer supported and therefore, the "EXPAND" card is not needed.
- Only one title page ("ALIGN") is printed at the beginning of the Chronicle and one at the end.
- Grid manipulations are not supported. Grid dumps ("DMPGRD"), clear grids ("CLRGRD"), add grids ("ADDGRD") and load grid ("LODGRD")

are no longer needed. Each grid file is automatically saved with a unique file name. ADDGRD now resides as a separate program, outside of NOISEMAP.

- The "WIDTH" card is not required. NOISEMAP does not support the CALCOMP plotter.

- The "LIMITS card is not supported. All grid areas will consist of 100 x 100 grid points.

- The "TOROLL" card is created by the MCM. The takeoff roll noise algorithm is invoked automatically for all take-off operations.

- Tone corrected noise measures, DNLT and DNLTW, are not supported. ALT and SELT noise data will not be processed.

- The "CHKPLT" card is not supported. The NMPLOT allows the user to select the flight tracks and run-up pads to be plotted or displayed on the monitor.

- The "DEVICE" card is *no longer* supported. The NMPLOT allows selection of the output device: monitor, printer/plotter, or disk file.

- The Delta-SEL card ("DSEL") is no longer supported. The acceleration correction for take-off roll noise is automatically computed within NMAP60.

- The "ERRORS" card is not supported.

- The "GRAPH" and "PICTUR" cards are not supported. BASEOPS has the capability to display altitude profiles on the screen.

- The "PLOT" card is not supported. The plotting options can be changed from within the NMPLOT program.

- The "ARPLOT" and "PRPLOT" cards are not supported.

- All delete, list, and clear cards for specific items such as altitude profiles, flyover and run-up noise profiles, and flight and run-up descriptors have been eliminated. A "CLEAR" card is issued by the MCM to clear all of the

above mentioned items. Delete functions are no longer needed because the MCM creates a new run file for each "what if" case.

- The "RESET" card is no longer required.

NOISEMAP Computation Changes

Conversion of NMAP to the new version 6.0 was accomplished in three phases, the first of which was a conversion of Version 5.2 to FORTRAN 77 and extensive validation to ensure computational accuracy. The second phase comprised the addition of the BASEOPS, MCM and NMPLOT capabilities, and the third phase consisted of technical changes to the program to update the acoustical algorithms.

The changes affecting noise computation are:

- Replacement of the earlier version of the lateral attenuation algorithm with a new algorithm developed jointly by AAMRL and Wyle Laboratories. This change is accompanied by changes to the OMEGA10 program and the directivity offset data contained in NMAP.

- Replacement of NOISEFILE 5.2 with NOISEFILE 6.0.

- A modified take-off roll noise model, which is similar to that previously incorporated in NMAP but is computed within NMAP 60 without additional acceleration correction values being input as data.

- Correction of the area calculation algorithm to accommodate grid-spacing values other than the 1000 foot default case.

Modification of Old Input Files

Input files for older versions of NMAP require extensive editing for use with NMAP60. All the cards listed in the previous section must be removed from the old file. Also, if the old file did not use "takeoff roll" (TOROLL) cards, they must be inserted by hand in order to be used correctly with NMAP60 (otherwise takeoff rolls will not be accurately modeled). Since many improvements have been made to each successive version of NMAP, trying to replicate previous cases with newer versions of NMAP should not be considered.

2.4 NOISEMAP Capabilities and Limitations

NOISEMAP is capable of calculating cumulative noise exposure using any one of four measures. The four measures along with the OMEGA10 and OMEGA11 single event noise measures are shown in Table 1.

Output Options

NOISEMAP has several output options available: (1) a Chronicle listing, (2) approximate area calculations, (3) "specific point" listing , (4) the noise grid, and (5) several NMPLOT output options. The CRO listing contains an echo of the NMAP60 input file in a readable format with diagnostic and informative messages created as the input file is processed. An error summary is also produced that lists the pages containing errors or warnings. If specific point locations are being processed, then the "Specific Point" (SPO) listing will contain two lists for each specific location showing the top 18 contributors for aircraft flyovers and ground run-ups respectively. The Chronicle listing (including ARE and SPO listings) is 80 columns wide and can be printed on 8 1/2 inch paper. The user may direct the Chronicle listing to the monitor or printer.

The user has the option to calculate the approximate areas of selected noise exposure contour levels. The user can select up to eight contour levels for area calculations. The "Area Calculation" (ARE) listing will contain a summary of the areas calculated for the selected contours.

Several output options are available within NMPLOT. In addition to plotting cumulative noise exposure contours and flight tracks, the user can have either the grid value or a "+" symbol plotted at every one through tenth grid point, selectable by the user.

Profile Storage Array Limitations

In an attempt to keep the memory requirements at a reasonable level, there are limitations on the number of profiles that can be stored in certain arrays. The MCM issues a "CLEAR" card automatically to clear the arrays when they become full. Table 2 lists the affected profile arrays with their limitations.

There are also several other program limitations that the user should be aware of and these are:

Table 1

NOISEMAP Cumulative Noise Exposure Measures

NOISEMAP Measure	*OMEGA* Measure		Comments
	Flight	**Run-up**	
DNL	SEL	AL	Day-Night Average Sound Level (two period day)
CNEL	SEL	AL	Community Noise Exposure Level - California (three period day)
NEF	EPNL	PNLT	Noise Exposure Forecast with run-up penalty (two period day)
WECPNL	EPNL	PNLT	Weighted Equivalent Continuous Perceived Noise Level (three period day)

Table 2

Profile Array Limitations

Profile	Array Name	Maximum No. of Profiles
SEL/EPNL datasets	INLMAP	20
Flight descriptors	FDMAP	20
Altitude profiles	ALTMAP	20
AL/PNLT datasets	MNLMAP	11
Run-up descriptors	RDMAP	14
Navigational aids	VORMAC	16

1. A maximum of 16 runways may be entered
2. A maximum of 20 specific points may be entered
3. Only 25 segments are allowed per flight track
4. Only 10 segments are allowed per altitude profile
5. Only 8 contour levels are allowed for area calculations only

These arrays cannot be reset. The program will issue an error message if these limits are exceeded.

MCM Limitations

The microcomputer version of the MCM has limitations that are a consequence of the DOS' inability to address memory beyond the proverbial 640k barrier. The BASEOPS program allows up to 400 flight profiles and flight power profiles, the MCM however has capacity for only 300. If a case were constructed that exceeded the microcomputer MCM capacity then only the first 300 profiles will be used and the others ignored.

NOTE: NOISEMAP CASES THAT HAVE MORE THAN 300 FLIGHT PFOFILES AND FLIGHT POWER PROFILES EXCEED THE LIMITATIONS OF THE PC-BASED MCM. THE MCM WILL ACCEPT THE FIRST 300 AND IGNORE THE REMAINDER.

3.0 NOISEMAP OPERATION

The following is a discussion of how NOISEMAP 6.0 is operated. As was mentioned earlier the term NOISEMAP now encompasses the NMAP60, OMEGA10 and 11, and MCM programs. The MCM can be thought of as a shell for the operation of NMAP60 and the omega programs. The task of the MCM is to take the Airbase operations (as input through BASEOPS and as tabulated in the BPS file) and formulate the input to the OMEGA programs, run them if necessary, and then take the output from those programs to formulate an input deck to the NMAP60 program, and execute that program as well. The following sections detail the the operation of NOISEMAP through the operation of the MCM.

3.1 System Requirements

NOISEMAP requires the following items as a minimum, in order to execute

1. MS DOS 2.0 and above.
2. 80386 or 80286 microprocessor.
3. 80387 or 80287 math co-processor.
4. At least 1 Megabyte of memory.
5. A hard drive with at least 2 Megabytes of free space for the program and its associated files.

This estimate excludes that storage space necessary for data that is to be processed by NOISEMAP. In general, between 200 to 900 kilobytes for each "case" is required.

3.2 Evoking and exiting the MCM

The MCM is the primary tool for accessing the OMEGA10, 11 and NMAP60 programs. Once the BASEOPS Source file (BPS) has been created then all the information necessary for noise computation is defined and by simply loading the BPS file into the MCM and then saving the case one is now ready for a complete noise run. By choosing the **FULL CASE** option under the **RUN** menu the MCM will run the OMEGA10 and 11 programs in order to obtain the reference noise data. Once this has been accomplished successfully then the NMAP60 input file is written and then NMAP60 is executed. Once the NMAP60 program is finished the contours can be plotted with the NMPLOT program.

Because of the complex interaction between the MCM and the various subdirectories that hold data it is highly recommended that you change to the MCM's home directory before evoking the program. Although some of the program's references are defined in the "config.fil" file not all of them are. The MCM was not designed to run from any subdirectory since neither the scope nor the function of the program deemed this level of flexibility necessary. It is also necessary for the OMEGA10, 11 and NMAP60 programs to be in the path. The program can be evoked as any other program by typing the name of the program at the command prompt. i.e.. "C:\MCM_DIR>MCM".

Exiting from the MCM is simply a matter of moving to the **QUIT** menu and then choose the **EXIT** option. If a case has been previously loaded and not saved the MCM will prompt for a yes/no response as to whether to exit or not. The MCM will only make this prompt if an unsaved case is the current case. Another method is to press the "ESC" key and the program will successively back its way out of any menu all the way back to the command prompt again checking for unsaved cases.

3.3 Primary Menu Options

The primary menu, illustrated in Figure 2, allows five primary commands to be selected. These are:

- **CONFIGURE MCM,**
- **LOAD,**
- **RUN** cases,

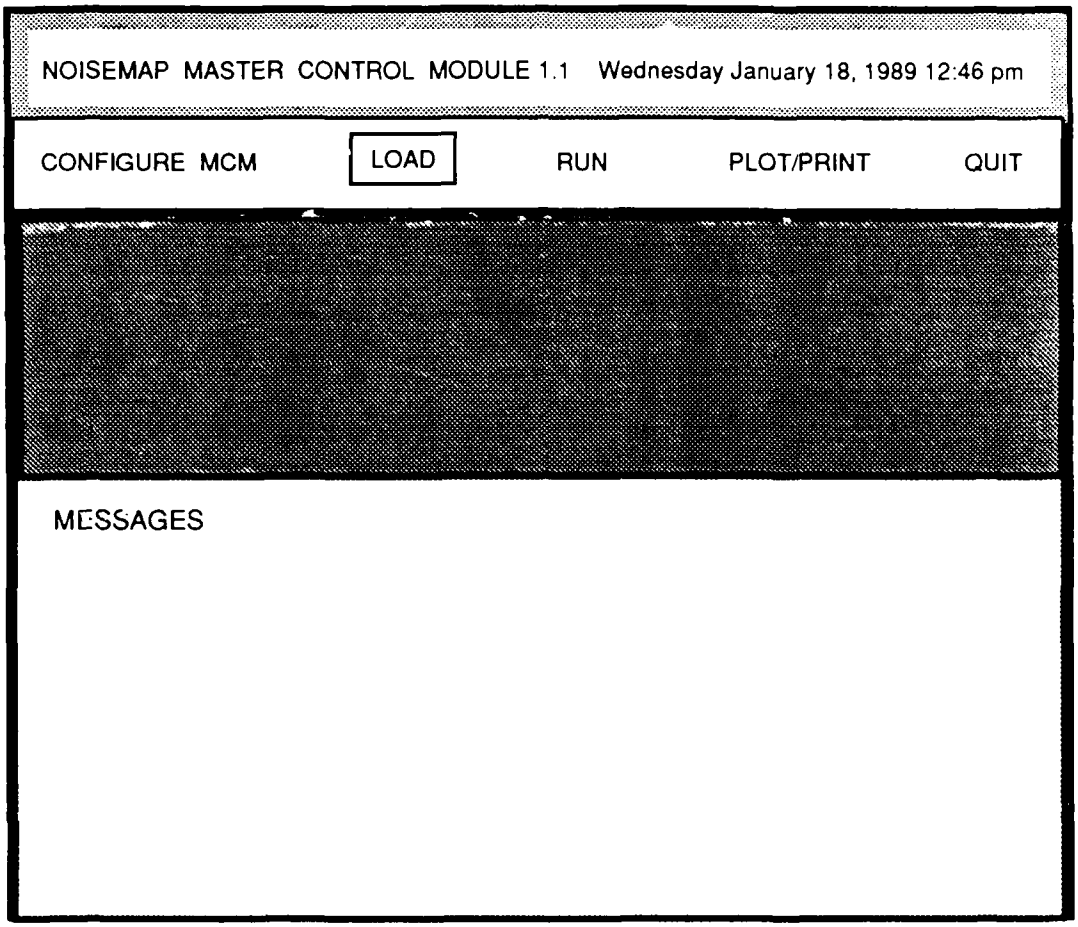

Figure 2. Primary Menu Options

- **PRINT/PLOT,**
- **QUIT** (and return to the operating system).

Each of the primary options has a secondary menu which may contain a list of commands, programs, or files from which a selection is to be made. These primary and secondary menu options are discussed individually in the following selections. Pressing the ESC key while in a submenu will successively back the user to the next higher menu level.

3.3.1 Configuring the MCM

The basic subdirectory tree shown in Figure 3 is basically what is represented in the first group of data under this menu. Figure 4 shows these selections and the following describes the purpose of these data:

BASEOPS SOURCE DIRECTORY

This is where the BASEOPS source file (BPS) files will be found, and where the BASEOPS program will attempt to write the source files. The MCM uses the BPS file as the source of all its data.

CONFIGURED CASE DIRECTORY

This is where the MCM will find the default case ("default.cas") file which is always loaded with BPS files. This file carries default setup data relating to grid spacing, and runway offsets. This subdirectory also holds configured case (CAS) files for configured cases. Configured case files are copies of the default case file with the addition of the name of the BPS file for this case and the name of the unique subdirectory for this case. The CAS files also contain those changes to the NOISEMAP run such as grid spacing and runway offsets.

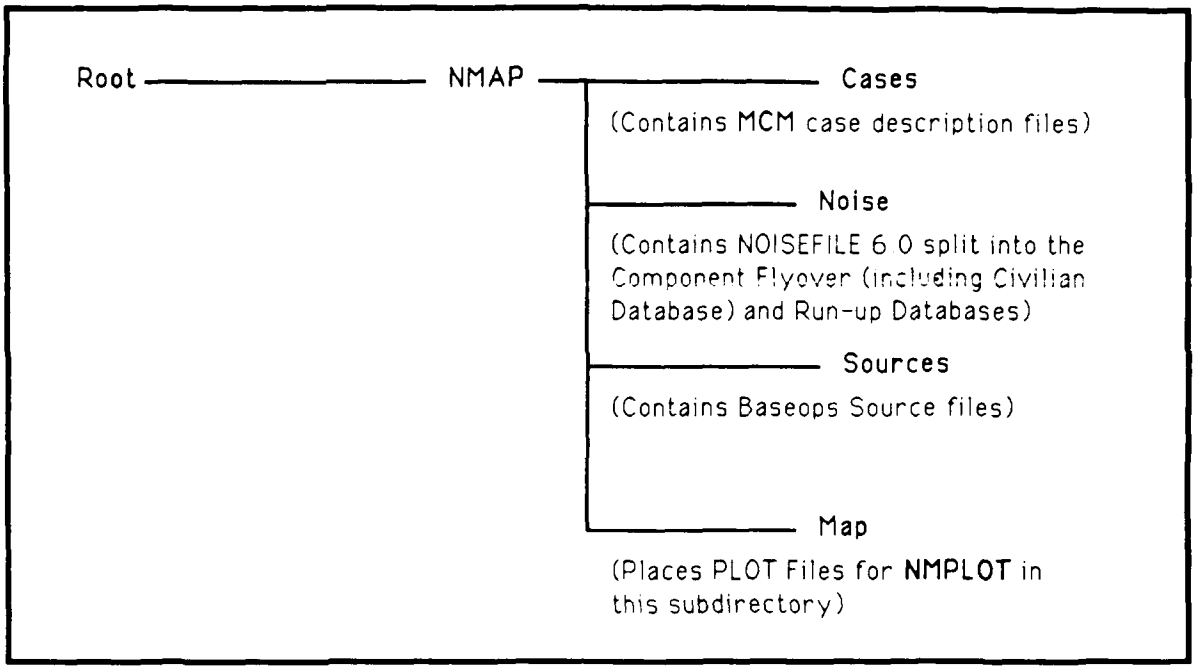

Figure 3. Basic Subdirectory Tree.

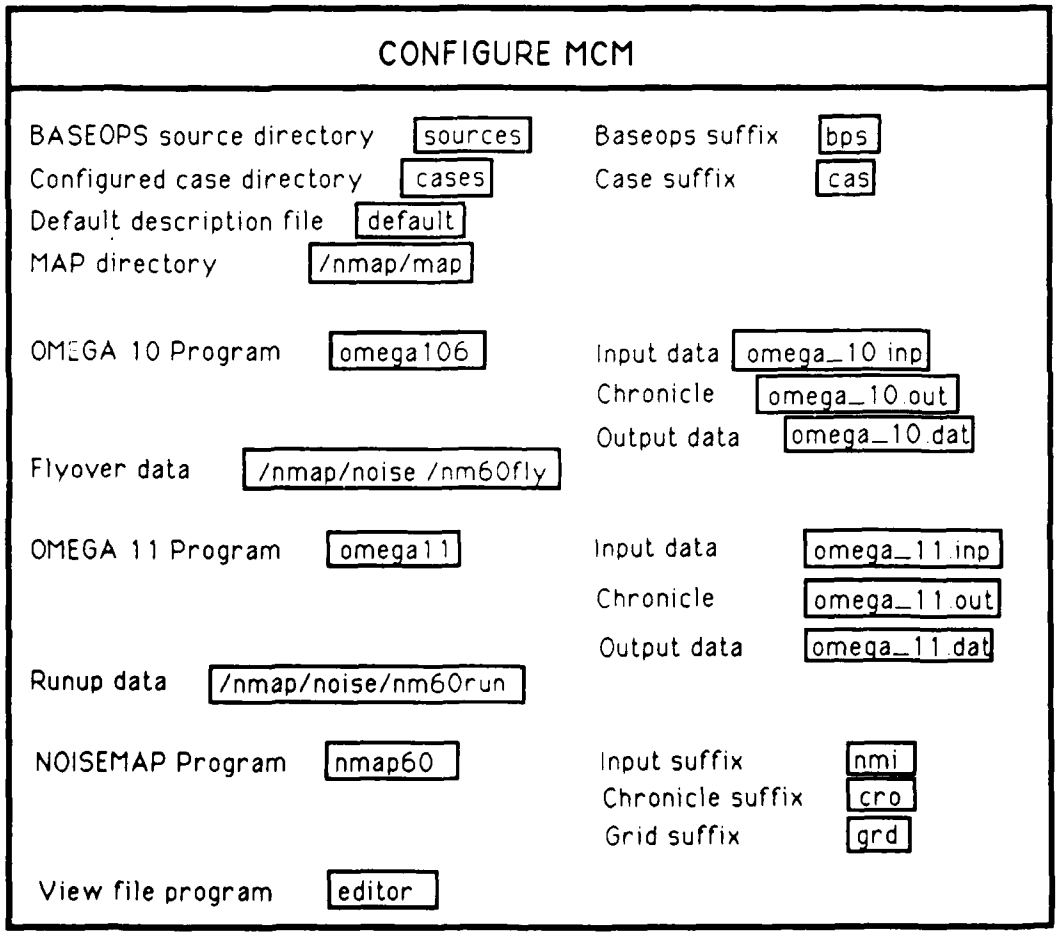

Figure 4. Configure MCM Menu

DEFAULT DESCRIPTION FILE

This is the name of the "default.cas" file. The default is "default.cas".

MAP DIRECTORY

This is the subdirectory where the MCM will copy the noise grid (GRD) and BPS files after NMAP60 is successfully completed. The NMPLOT program uses both these files in order to plot the noise grid and any airfield data (e.g.. flight tracks and runways) that is desired.

BASEOPS SUFFIX

The extension used on BPS files. Default is "bps".

CASE SUFFIX

The extension used on Case files. Default is "cas".

The second group of fields are associated with the OMEGA10 program and its associated files. The following describes the purpose of these data:

OMEGA 10 PROGRAM

This is the name of the OMEGA10 executable program. The default name is "omega10". When the MCM tries to execute the OMEGA10 program it expects to find the program in the current path. Consult your DOS reference for information on the "path" and how it can be edited.

INPUT DATA

This is the name of the OMEGA10 input file name. This file is written by the MCM and is formulated from data in the BPS file. This is an ASCII file with the run date, temperature and humidity of the Airbase, a list of the aircraft and their power settings. These data are input in the format expected by OMEGA10, as detailed in Reference 3. The default name is "omega_10.inp".

CHRONICLE

This is the filename to which the OMEGA10 program will write the echo report and error messages if any. The default name is "omega.out". If an error occurs in the OMEGA10 run this is the only source of information (in conjunction with reference 3) on what that error may be. Appendix C contains a listing of the NOISEFILE 6.0 file that may be useful in debugging any errors. It is expected that the BASEOPS and MCM programs will catch all such errors prior to execution of the OMEGA and NMAP programs.

OUTPUT DATA

This is the file to which the OMEGA10 program will write the requested reference aircraft flyover noise data. This is also the file where the MCM will look to find these data. The default name is "OMEGA_10.DAT". The MCM uses this reference noise data to complete the NMAP input deck.

FLYOVER DATA

This is the path to that part of NOISEFILE that contains the reference flyover noise data. The default name is "\nmap\noise\nm60fly".

The third group of data relates to the OMEGA11 program. The data fields are very similar to that for the OMEGA10 program. The only deferences are (1) that the OMEGA 11 Program field will contain the name of the OMEGA11 program (the default being "OMEGA11"), (2) the default name for the OMEGA11 chronicle is "omega_11.out", (3)

the Output data field contains the name of the file to which OMEGA11 will write the aircraft runup noise data. The default name for the reference runup noise data file is "omega_11.dat", and the default name for the runup reference noise data file is "\nmap\noise\nm60run".

The fourth and last group of fields relate to the NMAP program. The following is a description of each field:

NOISEMAP PROGRAM

This is the name of the NMAP executable. The default name is "nmap60". The NMAP60 program must be located in the current path.

INPUT SUFFIX

This is the extension that identifies the NMAP input deck and is appended to the unique file name that is generated for each NOISEMAP case. The unique file name is generated by taking the first four characters of the BPS file name and appending a four digit random number to it. The input suffix is then appended to this new name. The default suffix is "nmi".

CHRONICLE SUFFIX

This is the extension that identifies the NMAP chronicle and is appended to the unique file name generated for each NOISEMAP case. The default is "cro". The chronicle is used to check the NMAP input deck as well as to locate possible errors and warnings. The chronicle has three parts, the main body with the extension CRO, the area calculations withe the extension ARE and the specific point printouts with the extension SPO. Although the extension for the main body is changeable those for the area calculations and specific points are not. There are no checks to ensure that these reserved extensions are not re-used.

GRID SUFFIX

This is the extension that is used to identify the noise data calculated by the NMAP program. The extension is applied to the unique file name generated for each NOISEMAP case. the default is "grd".

VIEW FILE PROGRAM

This is the name of the program that the MCM will evoke whenever the view file option is called from the "PRINT/PLOT" menu option. A valid file name is required and the program must also be in the path. If a file name is not given then the view file option will not work since it does not prompt for a file if one is not given.

Moving Around The Configure MCM Menu

In general, any highlighted field can be accessed by hitting the RETURN or ENTER key. This will allow editing of the field. Pressing the RETURN or ENTER key after editing is finished will move the highlighted bar to the next associated field. The highlighted bar can also be moved using the cursor key. The cursor keys will only move from field to field and will not initiate editing a field.

Exiting The Configure MCM Menu

The "CONFIGURE MCM" menu can be exited while not editing a field by pressing the ESC key. This will generate a submenu with four options detailed below:

CONFIGURE DONE

This option will write the current configuration to a set-up file called "CONFIG.FIL". This set-up always will be in effect until this file is again changed.

CONFIGURE RESET

This option will reset the fields to whatever they were when this menu was called, thus destroying all current changes.

LOAD DEFAULTS

This option will reset all the fields to the MCM default values. The defaults are those that are shown in Figure 4. These defaults are always loaded in the absence of a "CONFIG.FIL" file.

QUIT CONFIGURE

This option will exit the **CONFIGURE MCM** Menu without changing the config.fil file but the changes made are kept for the current MCM session.

3.3.2 Loading and Managing Cases

The LOAD menu has five submenus as shown in Figure 5 and discussed as follows:

BASEOPS SOURCE

Choosing this menu will display a window with a description of all the files available in the Sources subdirectory. The highlight bar will be on the first item and can be moved with the cursor keys. An item can be chosen by moving the highlight bar to the file of interest and pressing the RETURN or ENTER key. The MCM will then read the BASEOPS Source File into memory and also load the default case description file to configure the run. A similar window will pop up for the Configured Case option and the Case Description Only option.

CONFIGURED CASE

Choosing this menu will display a window with a short description of all the Configured Cases found in the Cases subdirectory. Configured Cases are a combination of BASEOPS Source Files and Case Description Files which have been created by configuring the MCM run using the "RUN OPTIONS" menu option and saving it as another case. A Configured Case can be chosen by moving to the case of interest and pressing RETURN or ENTER keys. This will cause the MCM to read the related BASEOPS Source File as well as the Case Description File chosen.

CASE DESCRIPTION ONLY

This menu option can only be chosen if a BASEOPS Source or Configured Case has been loaded. This option allows the user to change the Configured Run from the currently loaded description to another which is available. Choosing this menu option will show a list of available Case Descriptions and one can be chosen by moving to it and pressing the ENTER or RETURN key.

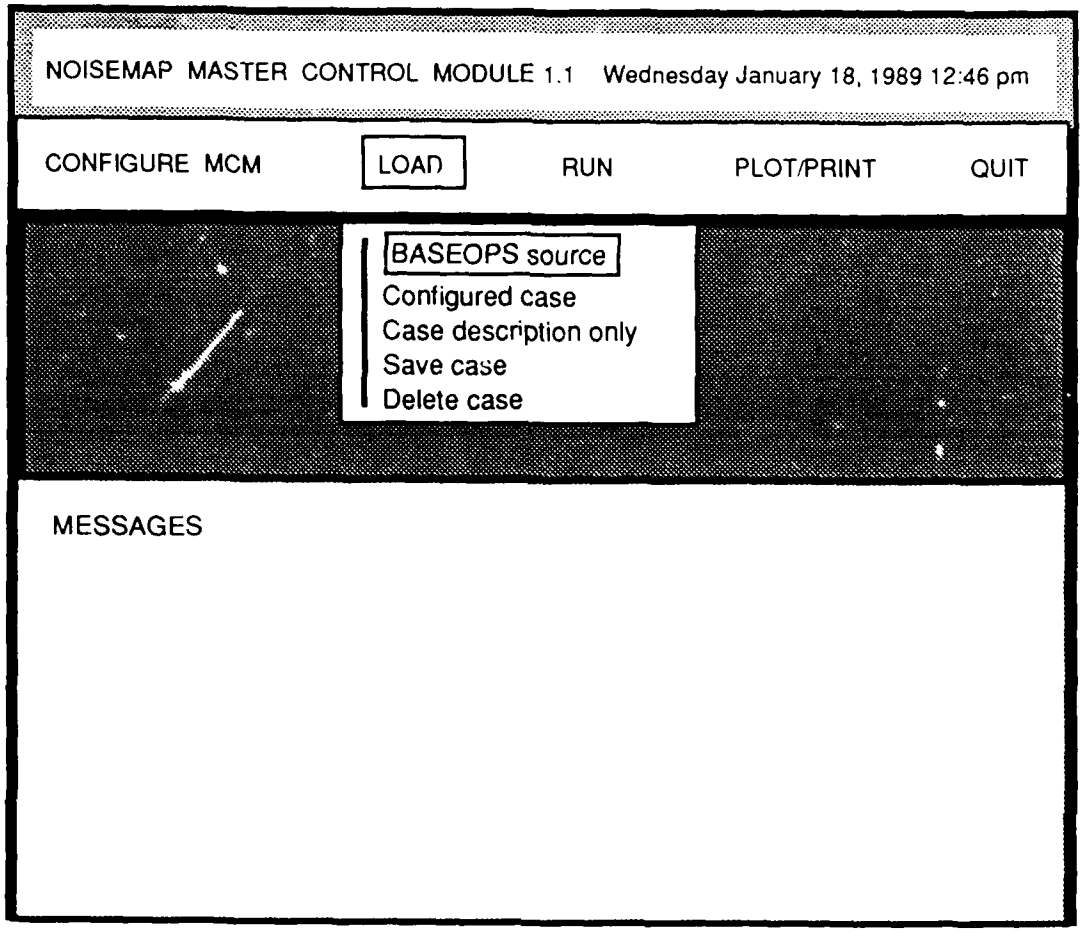

Figure 5. LOAD Submenus

SAVE CASE

Selecting this option allows the user to save a Configured Case. A window will pop up with the name of the current case description, if the case being saved had been loaded with a Case Description file; otherwise the window will show the BASEOPS Case Name. The user can then enter a description of this case and hit RETURN or ENTER to save the case. If this case already exists, then another window will pop up explaining that the case already exists and asking the user if he wants to overwrite the existing files. The user can then indicate "Yes" or "No" by moving to the appropriate response and hitting the RETURN or ENTER key. A "Yes" will overwrite the existing Description file and a "No" will return to the Base Menu.

DELETE CASE

Selecting this option will display a window of all the current Case Description files. Toggling to the Description file that should be deleted and hitting the RETURN or ENTER key will display another window asking the user if the selected case in fact should be deleted. A "Yes" response will delete the Case Description file and the Case Description Subdirectory with the file. A "No" response will return the user to the Base Menu. This option has no effect on the "SOURCES" (where the BASEOPS Source files are located) or the "MAP" (where the plot, BPS and GRD, files are located) subdirectories.

3.3.3 RUNning cases

The RUN Option menu as shown in Figure 6 allows the user to run the NOISEMAP suite of programs from basically two standpoints. They can choose to run the suite of programs as a whole or separately, by stepping through from OMEGA10 to NMAP and finally, to creating the plots via the NMPLOT program. Each option under this menu heading is discussed in further detail below.

RUN OPTIONS

The options listed under this menu help to configure the NMAP run to reduce run-time and to shift the NMAP noise calculation grid in any direction on the airfield. These choices are shown in Figure 7 and are explained in detail in the following:

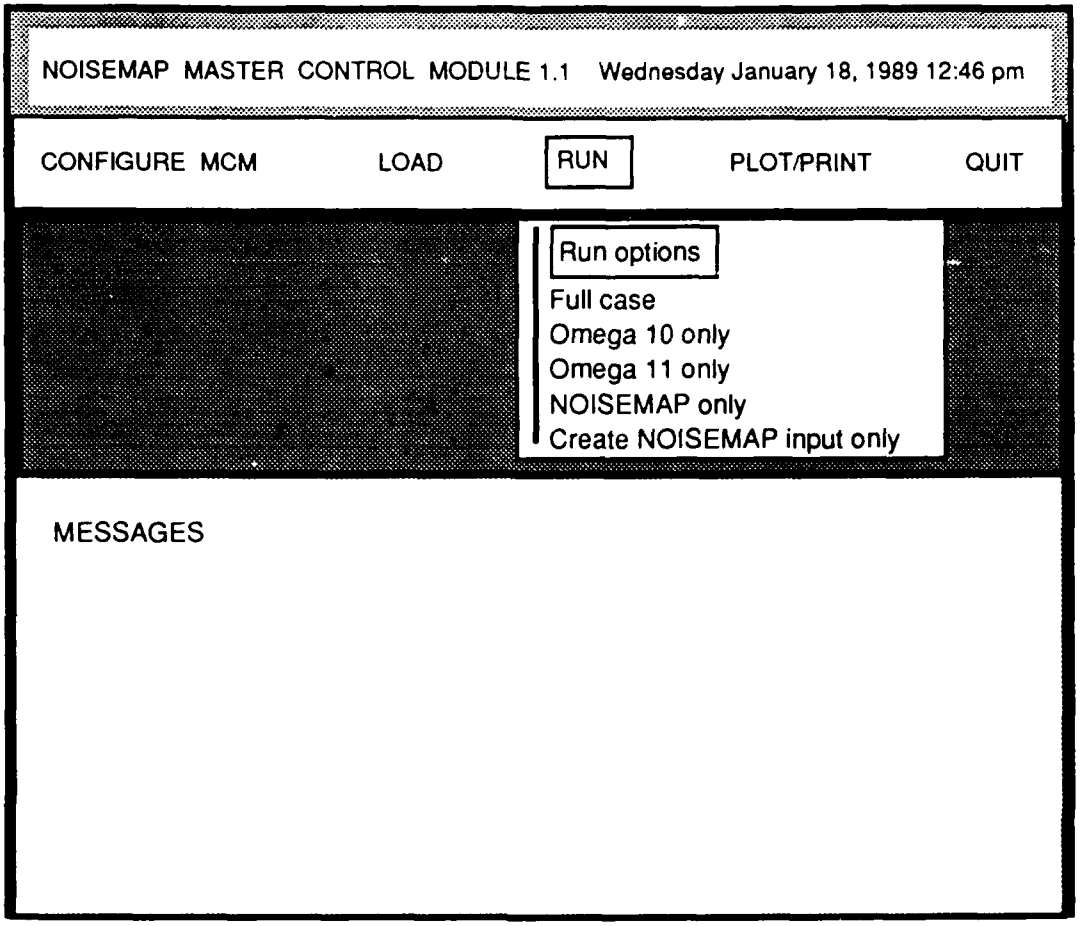

Figure 6. RUN Submenus

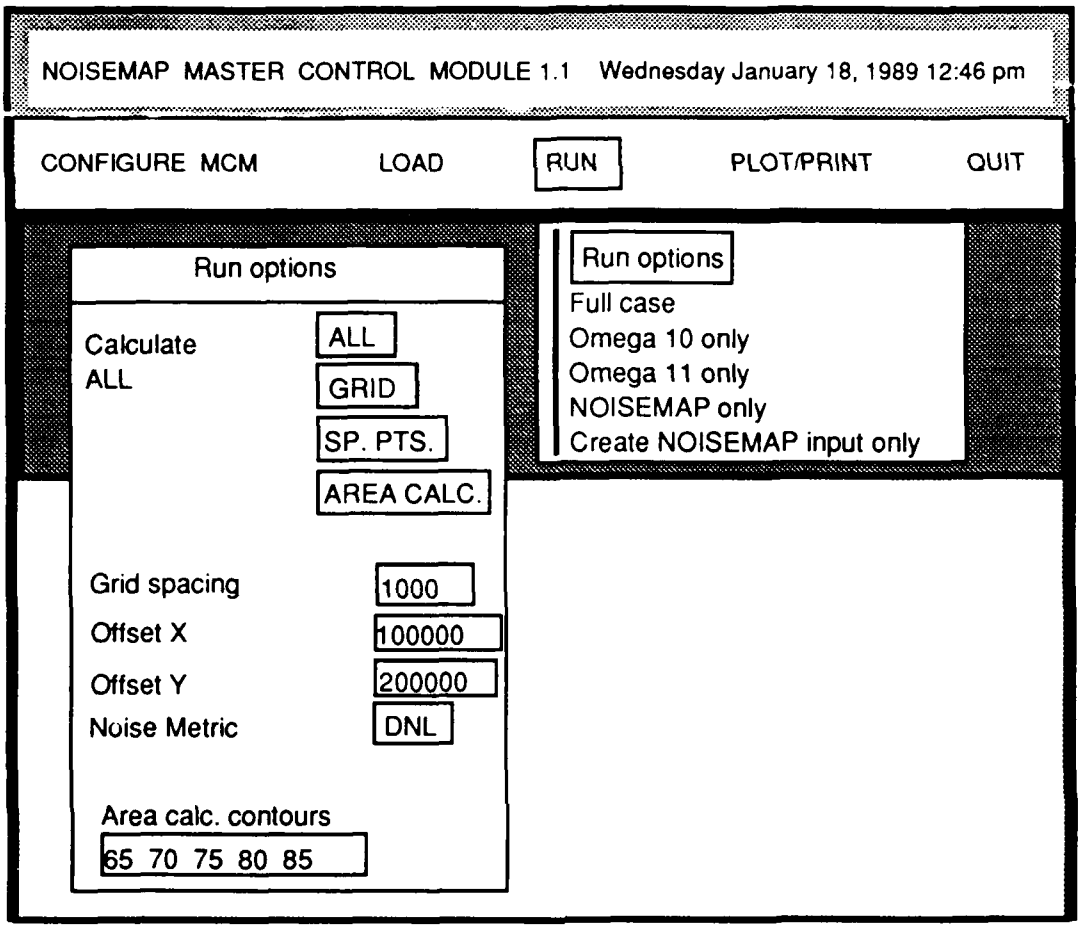

Figure 7. RUN Options

CALCULATE

This option controls the calculations that NMAP will undertake. The choices are as follows:

(1) ALL

With this option in effect NMAP will calculate the noise grid, specific points and area inside the specified contours levels.

(2) GRID

With this option in effect NMAP will only calculate the noise grid.

(3) SP. PTS. (Specific Points)

With this option in effect NMAP will only make specific point calculations.

(4) AREA CALC.

With this option in effect NMAP will make area calculation for specified contours levels. In order to do this however the noise grid must also be calculated.

Combinations of the options is also possible though the only other one of significance would be the combination of specific point calculations with the noise grid.

GRID SPACING

The default Grid Spacing is 1,000 ft and is that which is used most commonly. The selection of a Grid Spacing should be based on the local detail and the land area covered by the 100 x 100 grid points which NOISEMAP uses to interpolate noise levels. This value can be changed by moving to that field and pressing the ENTER key. The value can then be edited and ESC or ENTER will exit the field.

Note: NOISEMAP calculates an optimum Grid Spacing value for each contour level and issues a warning if the selected Grid Spacing is greater than this value. The warning is contained in the Chronicle Listing (both CRO and ARE) and will not cause

premature termination of the NOISEMAP run. Users should check the Chronicle Listing of this and other warnings before plotting the final contours.

OFFSET X and OFFSET Y

These options allow the user to move the noise calculation grid around on the airfield. NMAP will calculate a noise grid that is always 100 by 100 points square. The grid points are default spaced at 1000 ft. but this can be changed as detailed earlier. It is possible that because of a particular airfield's traffic density that the contours tend to lie in or more quarters of the grid and may even extend beyond the grid. This option allows the user to shift the grid to encompass the complete contour. The origin of the grid is in the lower left hand corner of the square. This point corresponds to grid location (0 , 0) and external reference 50,000 (ft.), 150,000 (ft.). This external reference is what NMAP uses to locate the grid origin on the airfield. The first runway entered into BASEOPS is assigned the external grid coordinates 100,000, 200,000 and is assumed to be in the center of the airfield. The grid origin is then located at 50,000, 150,000 which is 50 grid points (at the default 1000 ft. grid spacing) away from the center of the grid.

NOISE METRIC SELECTED

This option is used to select which noise metric NOISEMAP will use in order to calculate the noise levels. There are four metrics available:

DNL

NEF

CNEL

WECPNL

DNL is the default noise metric and can be changed by moving to the field labeled "Noise metric" and pressing the SPACE bar until the appropriate noise metric is displayed.

SELECTED AREA CALCULATION CONTOURS

These contour levels are used in the area calculations to determine the total area encompassed within them. The values can be changed by moving to that field and pressing the ENTER key. The contours must start with the lowest value and proceed to the highest value separating each level by a space.

FULL CASE

Selecting this option allows the user to run the currently selected case beginning from the OMEGA10 program, followed by the OMEGA11 program (if runup data were used) and ending with the NMAP60 program. After NOISEMAP has created the grid file then the BPS and GRD and are copied to the "MAP" Subdirectory which is where the NMPLOT program will find them.

OMEGA 10 ONLY

Selecting this option will cause the MCM to generate a run OMEGA10 program creating an input deck from data obtained from the BPS file. The output of the OMEGA10 program will be contained in a file called "OMEGA_10.DAT". This file will be located in the unique subdirectory created for the case being run. The MCM then returns to the RUN menu and the message window will show the status of the run. If errors occur then a beep will be sounded and a highlighted message printed indicating that an error occurred. In this case then the OMEGA_10.OUT file can be viewed to determine the cause of the error.

OMEGA 11 ONLY

Selecting this option will cause the MCM to generate a run OMEGA10 program creating an input deck from data obtained from the BPS file. The output of the OMEGA11 program will be contained in a file called "OMEGA_11.DAT". This file will be located in the unique subdirectory created for the case being run. The MCM then returns to the RUN menu and the message window will show the status of the run. If errors occur then a beep will be sounded and a highlighted message printed indicating that an error occurred. In this case then the "OMEGA_11.OUT" file can be viewed to determine the cause of the error.

NMAP ONLY

Selecting this option will cause the MCM to make a check for flyover and run-up data. If flyover and run-up data exist, then the MCM will create a run deck for the NMAP program based on the BASEOPS Source File loaded and the OMEGA10 and OMEGA11 outputs. When this run deck has been compiled, then the NMAP program is run. If the program runs successfully, a grid file will be created with the name of the current Case Directory and with the extension GRD. If an error occurred then no grid file will be created, a beep will be sounded and a highlighted message will be printed indicating that an error occurred. The chronicle file can be viewed to determine the cause of the error.

Create NMAP input only

This option creates the NMAP input file without running the NMAP program. This is useful if the user wants to examine the input file before the case is run.

3.3.4 Printing, Plotting and Viewing files

This menu allows the user to print, plot and view data without exiting the MCM. Each option is illustrated in Figure 8 and discussed as follows:

NMPLOT

- This option allows the user to plot GRD files that have been copied to the MAP subdirectory. By choosing this option the NMPLOT program is invoked and the user can use it to find the desired GRD files to plot.

PRINT FILE

When the print file option is chosen the user is presented with an alphabetized list of subdirectories and files from which they can choose. By hitting the ENTER key on a subdirectory name the program automatically changes to that subdirectory and the subdirectories and files there are shown. By hitting the ENTER key on a file name a menu will pop-up asking the user to verify their choice. An affirmative response will case the selected file to be printed. Please note that the file in not spooled in any way and if the file is a long one this could result in tying up the computer unnecessarily. This is still true even if the resident portion of the DOS Print command has been installed.

VIEW FILE

Selecting this option will present the user with an alphabetized list exactly the same as outlined above. The program used to view the file is entered in the configuration section of the MCM and must also appear in the path. If an invalid file name for the view program is given the MCM will not prompt for a new name. The name will have to be changed in the **CONFIGURE MCM** section. A file is chosen for viewing by hitting the ENTER key when the highlight bar has highlighted that name.

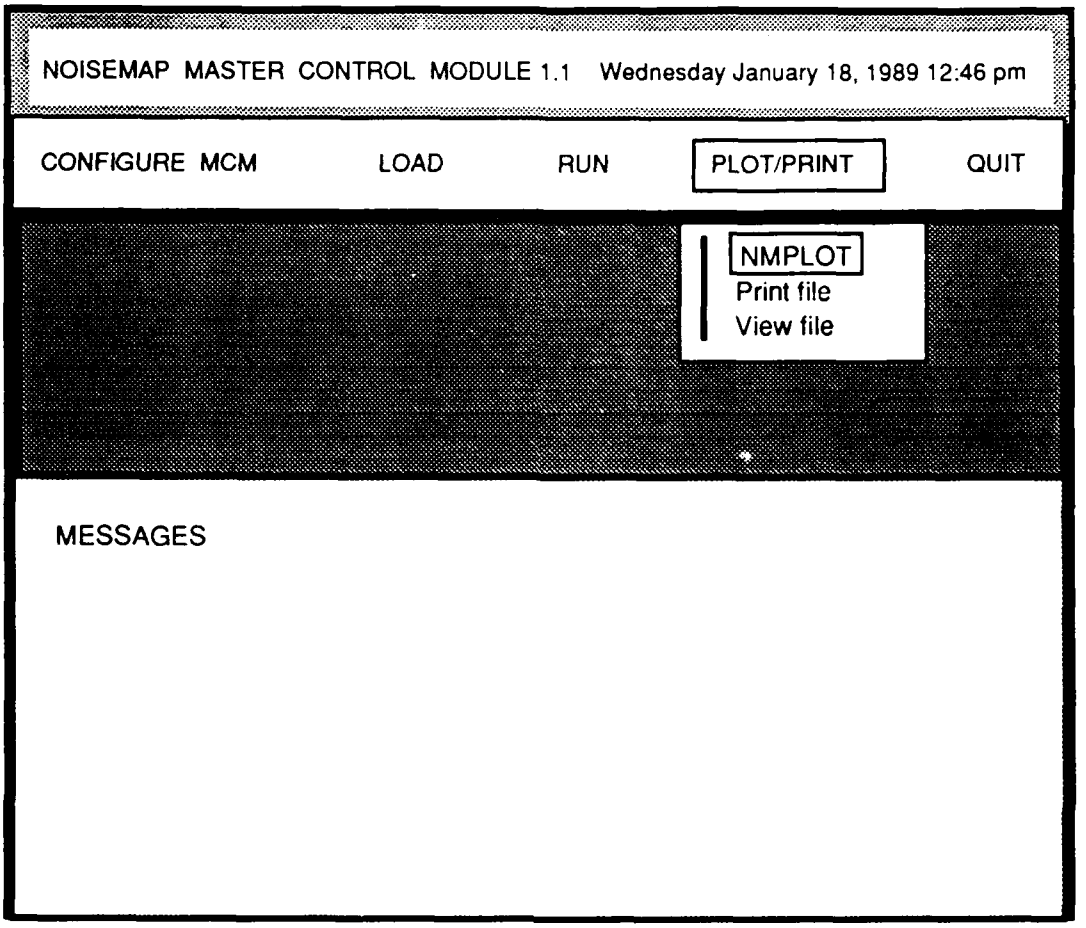

Figure 8. Plot/Print Submenu

3.3.5 Returning to the Operating System

The option of returning to the operating system is contained in the QUIT menu as illustrated in Figure 9. The QUIT options are as follows:

EXIT PROGRAM

Selecting this option will terminate the program. If RUN had been configured and not saved, the MCM will display a window indicating that the case had not been saved and asking the user if it is "OK to EXIT". A "Yes" response will exit the program without saving the case and a "No" response will return the user to the Base Menu.

DOS SHELL

Choosing this option will allow the user to temporarily access the operating system. CAUTION: The user should be careful NOT to load any "Terminate and Stay Resident" (TSR) programs while in the DOS Shell. These TSRs include DOS PRINT and GRAPHICS. If these utilities are required, they should be loaded before the MCM program is called. This option is useful for copying or deleting files or for running another program without having to exit the MCM.

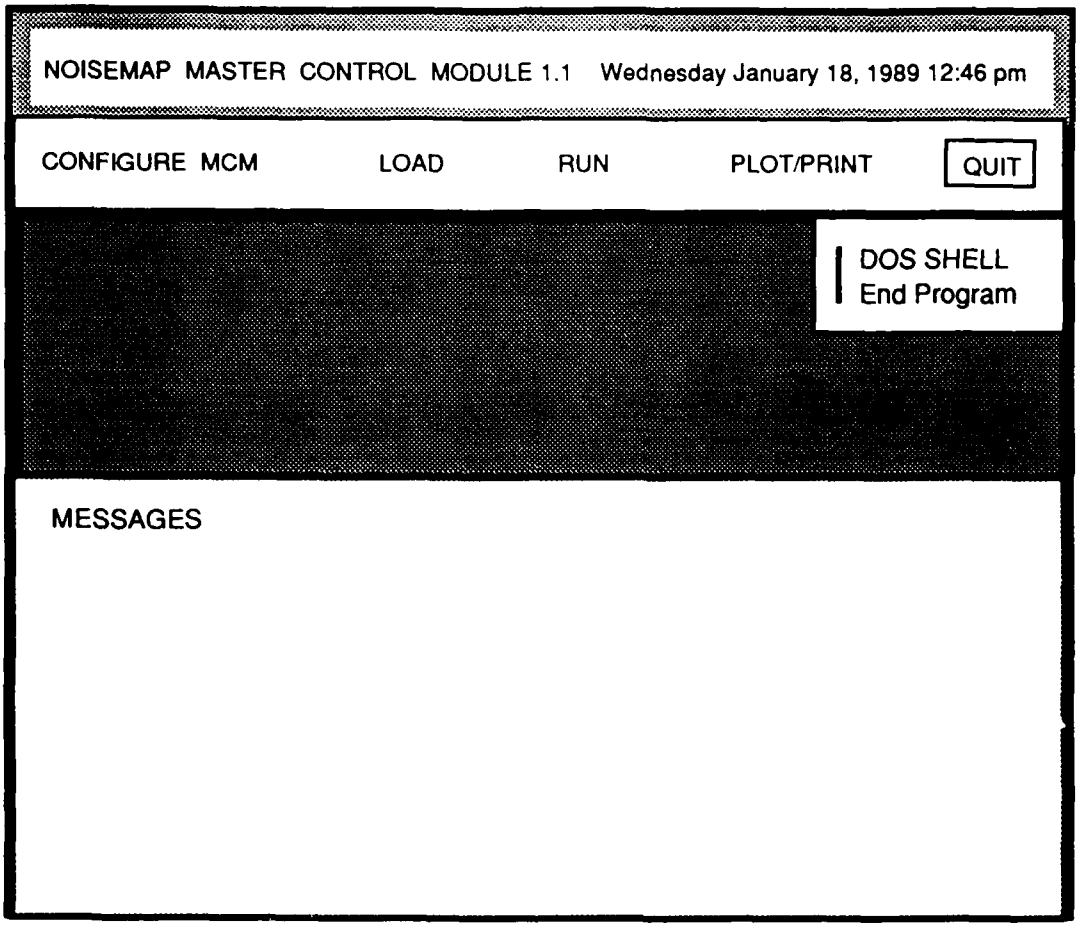

Figure 9. QUIT Menu

4.0 EXAMPLE CASE

The following sections are listings of an example case coded to illustrate the capabilities of NOISEMAP. The case is coded as a joint-use airfield with civilian and military operations. Three types of civilian aircraft were used: (1) fixed pitched propeller aircraft to model general aviation single engined aircraft; (2) Beech Baron to model general aviation twin engined aircraft; and (3) a Composite Jet to model general aviation jet aircraft. The military aircraft used is a F-15. Straight-in approach and straight-out departure tracks were assumed for the civilian aircraft whereas the military aircraft flight tracks had turns in them. One ground location specific point was entered; no navigational aids were entered. Section 4.1 is a listing of the BASEOPS operations summary which echoes the BASEOPS input in a format that should aid the user to debug their input.

Section 4.2 is a listing of the BASEOPS Source File (BPS) that is written for the MCM program.

Section 4.3 is the NMAP input deck that the MCM creates from the BPS file. The input deck includes information generated by the OMEGA programs in particular the reference noise data. This example the DNL metric (which is the default) was chosen therefore OMEGA10 was requested to extract sound exposure level (SEL) noise data. OMEGA11 in turn extracted A-Weighted noise levels.

Section 4.4 is a listing of the chronicle (or CRO file) of the NMAP run. As was mentioned earlier the chronicle has been split into three components, (1) the main body which is an echo of most of the input, (2) the specific point calculations (or SPO file) which contains the rank ordered noise contributors to specific locations on the ground, and (3) the area calculations (or ARE file) which contains calculations of the area encompassed by each contour level.

Section 4.5 is the resulting contour plot generated using the NMPLOT program.

4.1 BASEOPS Operations Summary

```
USAF USAF USAF USAF USAF USAF USAF USAF USAF USAF USAF USAF USAF USAF USAF
USAF    BASEOPS 3.00     BASEOPS 3.00     BASEOPS 3.00     BASEOPS 3.00    USAF
USAF    BASEOPS 3.00     BASEOPS 3.00     BASEOPS 3.00     BASEOPS 3.00    USAF
USAF    BASEOPS 3.00     BASEOPS 3.00     BASEOPS 3.00     BASEOPS 3.00    USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                          OPERATIONS SUMMARY                           USAF
USAF                                                                       USAF
USAF                                FOR                                    USAF
USAF                                                                       USAF
USAF                                N/A                                    USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF  DESCRIPTION:                                                         USAF
USAF        Test case for Noisemap report                                  USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF     FILE NAME   :  NMAPRPT                                            USAF
USAF                                                                       USAF
USAF     DATE        :  NO DATE                                            USAF
USAF                                                                       USAF
USAF     PREPARED BY:   C. MOULTON                                         USAF
USAF                                                                       USAF
USAF                    TITLE                                              USAF
USAF                                                                       USAF
USAF                    PREPARER'S LOCATION                                USAF
USAF                                                                       USAF
USAF                    AV N/A                                             USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF    BASEOPS 3.00     BASEOPS 3.00     BASEOPS 3.00     BASEOPS 3.00    USAF
USAF    BASEOPS 3.00     BASEOPS 3.00     BASEOPS 3.00     BASEOPS 3.00    USAF
USAF    BASEOPS 3.00     BASEOPS 3.00     BASEOPS 3.00     BASEOPS 3.00    USAF
USAF USAF USAF USAF USAF USAF USAF USAF USAF USAF USAF USAF USAF USAF USAF
```

BASED AIRCRAFT

AIRCRAFT	PROFILE ID	TRACK ID	TRACK TYPE	NUMBER OF DAILY OPERATIONS DAY	EVE	NIGHT	TOTAL
F-15	MILA	MA22	ARRIVAL	10.00		0.00	10.00
F-15	MILD	MD22	DEPARTURE	10.00		0.00	10.00
			TOTAL F-15 ARRIVAL				10.00
			TOTAL F-15 DEPARTURE				10.00
			TOTAL F-15 CLOSED PATTERN				0.00

CIVIL AIRCRAFT

AIRCRAFT	PROFILE ID	TRACK ID	TRACK TYPE	NUMBER OF DAILY OPERATIONS DAY	EVE	NIGHT	TOTAL
INM53 COMPOS	CMJA	A12	ARRIVAL	100.00		5.00	105.00
INM53 COMPOS	CMJD	D12	DEPARTURE	100.00		5.00	105.00
			TOTAL INM53 COMPOS ARRIVAL				105.00
			TOTAL INM53 COMPOS DEPARTURE				105.00
			TOTAL INM53 COMPOS CLOSED PATTERN				0.00
INM75 1-ENG	FPA	A12	ARRIVAL	200.00		20.00	220.00
INM75 1-ENG	FPD	D12	DEPARTURE	200.00		20.00	220.00
			TOTAL INM75 1-ENG ARRIVAL				220.00
			TOTAL INM75 1-ENG DEPARTURE				220.00
			TOTAL INM75 1-ENG CLOSED PATTERN				0.00
INM76 BEECH	MEA	A12	ARRIVAL	200.00		20.00	220.00
INM76 BEECH	MED	D12	DEPARTURE	200.00		20.00	220.00
			TOTAL INM76 BEECH ARRIVAL				220.00
			TOTAL INM76 BEECH DEPARTURE				220.00
			TOTAL INM76 BEECH CLOSED PATTERN				0.00

FLIGHT TRACK A12

Description: A12 on Runway 12 (ARRIVAL)
GA. LANDINGS

Proceed 260000 ft.
Proceed 21841 ft.
Proceed 28515 ft.

A/C TYPE	AIRCRAFT	POWER PROFILE ID	OPERATION TYPE	NUMBER OF DAILY OPERATIONS DAY	EVE	NIGHT	TOTAL
CIVIL	INM75 1-ENG	FPA	ARRIVAL	200.00		20.00	220.00
CIVIL	INM76 BEECH	MEA	ARRIVAL	200.00		20.00	220.00
CIVIL	INM53 COMPOS	CMJA	ARRIVAL	100.00		5.00	105.00

FLIGHT TRACK MA22

Description: MA22 on Runway 22 (ARRIVAL)
MILITARY LANDINGS

Proceed 14461 ft.
Turn RIGHT 136 degrees with a 2500 ft. Radius
Proceed 8000 ft.
Turn LEFT 75 degrees with a 7000 ft. Radius
Proceed 300000 ft.

A/C TYPE	AIRCRAFT	POWER PROFILE ID	OPERATION TYPE	NUMBER OF DAILY OPERATIONS DAY	EVE	NIGHT	TOTAL
BASED	F-15	MILA	ARRIVAL	10.00		0.00	10.00

FLIGHT TRACK D12

Description: D12 on Runway 12 (DEPARTURE)
GA DEPARTURE.

Proceed 866 ft.
Proceed 19175 ft.
Proceed 23349 ft.
Proceed 46659 ft.
Proceed 83353 ft.
Proceed 118746 ft.
Proceed 173429 ft.

A/C TYPE	AIRCRAFT	POWER PROFILE ID	OPERATION TYPE	NUMBER OF DAILY OPERATIONS DAY	EVE	NIGHT	TOTAL
CIVIL	INM75 1-ENG	FPD	DEPARTURE	200.00		20.00	220.00
CIVIL	INM76 BEECH	MED	DEPARTURE	200.00		20.00	220.00
CIVIL	INM53 COMPOS	CMJD	DEPARTURE	100.00		5.00	105.00

FLIGHT TRACK MD22

Description: MD22 on Runway 22 (DEPARTURE)
MILITARY DEPARTURES

Proceed 21278 ft.
Turn LEFT 96 degrees with a 7000 ft. Radius
Proceed 9000 ft.
Turn RIGHT 58 degrees with a 7000 ft. Radius
Proceed 300000 ft.

A/C TYPE	AIRCRAFT	POWER PROFILE ID	OPERATION TYPE	NUMBER OF DAILY OPERATIONS DAY	EVE	NIGHT	TOTAL
BASED	F-15	MILD	DEPARTURE	10.00		0.00	10.00

```
**********************************************************************************
* BASEOPS 3.00              AIRCRAFT RUNUP SUMMARY              DATE: NO DATE  *
* FILE NAME: NMAPRPT                   N/A                          PAGE 11  *
* CASE NAME: Test case for Noisemap report.                                  *
**********************************************************************************

                    PAD     RUNUP                                MINUTES AT POWER
AIRCRAFT             ID      ID    POWER SETTING      DAY     EVE     NIGHT    TOTAL

----------------------------------------------------------------------------------
Example runup operation.
A-6A                 RP1     RUNP      99 % RPM       15.0              0.0      15.0

----------------------------------------------------------------------------------
```

RUNUP PAD RP1

LOCATION : 40 Degrees 42 Minutes 32.0 Seconds North Latitude
114 Degrees 4 Minutes 0.0 Seconds West Longitude
(X = 93628 , Y = 199999)

ORIENTATION : 12 Degrees from Magnetic North

AIRCRAFT	PROFILE ID	TOTAL TIME IN MINUTES
A-6A	RUNP	15.0

4.2 BASEOPS Source File

```
/* BASEOPS SOURCE file version 1.0 */
Test case for Noisemap report.
Created by BASEOPS Version 2.35 on 11-19-1989 at 20:48:41
 1  0  6  1  4  8  8  1  1
/* AIRFIELD SECTION */
 100000   200000  4225 14.267  0 50 40 1  0
Test case for Noisemap report
/* SPECIFIC POINT SECTION */
SP1 100048 204242
/* NAVIGATIONAL AID SECTION */
/* RUNWAY SECTION */
03  99999   199999   106217   206075  200 200 3
03  114.0436111   40.7088889   114.0211111   40.7255556
04  97159   198784   103531   203341  200 200 3
04  114.0538889   40.7055556   114.0308333   40.7180556
12  100460   206075   105910   200810  200 200 3
12  114.0419444   40.7255556   114.0222222   40.7111111
21  106217   206075   99999   199999  200 200 3
21  114.0211111   40.7255556   114.0436111   40.7088889
22  103531   203341   97159   198784  200 200 3
22  114.0308333   40.7180556   114.0538889   40.7055556
30  105910   200810   100460   206075  200 200 3
30  114.0222222   40.7111111   114.0419444   40.7255556
/* RUNUP PAD SECTION */
RP1  93628   199999  12
/* FLIGHT TRACK SECTION */
A12 12  0   3  1
 260000 0 21841 0 28515 0
GA. LANDINGS
D12 12  2   7  1
 866 0 19175 0 23349 0 46659 0 83353 0 118746 0 173429 0
GA DEPARTURE.
MA22 22  0   5  1
 14461 0 2500 136 8000 0 7000 -75 300000 0
MILITARY LANDINGS
MD22 22  2   5  1
 21278 0 7000 -96 9000 0 7000 58 300000 0
MILITARY DEPARTURES
/* FLIGHT PROFILE SECTION */
MILD  0  61
MD22 10 0 0 POWER1D 1
F-15 departure
MILA  0  61
MA22 10 0 0 POWER2A 1
F-15 approach
CMJD  2  891
D12 100 0 5 POWER3D 1
STRAIGHT OUT DEPARTURE FOR BUS. JET. ON 12
CMJA  2  891
A12 100 0 5 POWER4A 1
STRAIGHT IN ARRIVAL ON 12 (BJET)
MED  2  942
D12 200 0 20 POWER5D 1
STRAIGHT OUT DEPARTURE ON 12 (MULTI.)
MEA  2  942
A12 200 0 20 POWER6A 1
STRAIGHT IN ARRIVAL ON 12 (MULTI.)
FPD  2  955
D12 200 0 20 POWER7D 1
SINGLE ENGINE T/O PROFILE ON RNWY 12
FPA  2  955
A12 200 0 20 POWER8A 1
STRAIGHT IN ARRIVAL ON 12
```

```
/* FLIGHT POWER PROFILE SECTION */
POWER1D 61 8 % RPM
 3 0 0 90 150
 3 2900 0 90 150
 3 3000 17 88 350
 4 30000 500 88 350
 4 96608 3029 88 350
 4 101612 5929 88 350
 4 132000 10000 88 350
 4 200000 10000 88 350
POWER2A 61 6 % RPM
 5 0 50 75 150
 5 6000 457 75 150
 5 18240 2050 80 250
 4 79040 4900 80 350
 4 132000 10000 80 350
 4 200000 10000 80 350
POWER3D 891 13 % RPM
 3 0 0 100 16
 3 3808 0 100 140
 3 10955 1000 100 140
 3 13763 1250 100 150
 3 14763 1302 90 154
 3 23118 1740 90 190
 3 27006 1913 90 210
 3 35575 3000 90 210
 3 44969 3363 90 250
 3 64265 5500 90 250
 3 84680 7500 90 250
 3 114078 10000 90 250
 3 200000 20000 90 250
POWER4A 891 3 % RPM
 5 0 50 62 115
 5 27668 1450 62 115
 5 300000 15722 65 175
POWER5D 942 9 % RPM
 3 0 0 100 16
 3 1948 0 100 110
 3 11087 1000 100 110
 3 13942 1197 100 120
 3 27638 3000 100 120
 3 47267 5500 100 120
 3 69275 7500 100 120
 3 98518 10000 100 120
 3 200000 20000 100 120
POWER6A 942 3 % RPM
 5 0 50 60 100
 5 27668 1450 60 100
 5 300000 15722 60 100
POWER7D 955 9 % RPM
 3 0 0 100 0
 3 866 0 100 90
 3 19175 1000 100 90
 3 23349 1130 100 100
 3 46659 3000 100 100
 3 83353 5500 100 100
 3 118746 7500 100 100
 3 173429 10000 100 100
 3 200000 11000 100 100
```

```
POWER8A 955 3 % RPM
 5 0 50 61 60
 5 27668 1450 61 60
 5 300000 15722 61 60
/* FLIGHT AIRCRAFT SECTION */
 4
61 F-15
891 INM53 COMPOS BUS JET
955 INM75 1-ENG FIX PTCH
942 INM76 B-BARON
/* RUNUP PROFILE SECTION */
RUNP  132  RP1 RUNUP1 1
Example runup operation.
/* RUNUP POWER PROFILE SECTION */
RUNUP1 132 1 % RPM
99  0  3 0 0 300
/* RUNUP AIRCRAFT SECTION */
 1
132 A-6A
/* TAIL SECTION */
/* BASEOPS SOURCE file version 1.0 */
Test case for Noisemap report.
Created by BASEOPS Version 2.35 on 11-19-1989 at 20:48:44
```

4.3 NMAP Input Deck

```
COMMENT ARCHIVED
COMMENT 0
COMMENT INPUT FILE
COMMENT MCMR4835.BPS
COMMENT CASE NAME
COMMENT Test case for Noisemap report.
AIRFLD50000.  150000. 14.267  4225.   1000.                                  EAST
      Test case for Noisemap report.
COMMENT Test case for Noisemap report
COMMENT
COMMENT NOISEMAP input created by MCM v. 1.0 on Nov 21 1989 at 15:28:04 from:
COMMENT Test case for Noisemap report.
COMMENT Created by BASEOPS Version 2.35 on 11-19-1989 at 20:48:41
PROCES
DNL
SAELAT                                                                  ON
SPROCE
SPECIF100048. 204242.                                                   SP1
COMMENT ********************************
COMMENT **       FLYOVER   DATA       **
COMMENT ********************************
SEL     061011       2   126.9   125.0   123.1   121.3   119.6   117.8F-15     1
COMMENT 061011W0 OMEGA10.6 19 Nov 89 F-15            150 KTS   50 F   40 PCT
COMMENT 061011W0 HIGH BYPASS FAN  N061031A1
COMMENT 061011W0 TAKEOFF POWER         90.00 % RPM
         116.0   114.1   112.2   110.3   108.3   106.2   104.0   101.7F-15     2
          99.3    96.8    94.1    91.2    88.1    84.8    81.2    77.3F-15     3
        061011       1   126.9   125.0   121.7   118.6   115.9   113.2F-15     4
         110.6   108.0   105.6   103.4   101.1    98.9    96.7    94.4F-15     5
          92.0    89.4    86.6    83.6    79.8    75.4    70.5    65.2F-15
SEL     061021       2   119.7   117.8   116.0   114.2   112.5   110.7F-15     1
COMMENT 061021W0 OMEGA10.6 19 Nov 89 F-15            350 KTS   50 F   40 PCT
COMMENT 061021W0 HIGH BYPASS FAN  N061031A1 N061051A1 N061031A1
COMMENT 061021W0 TAKEOFF POWER         88.00 % RPM
         108.9   107.1   105.2   103.2   101.2    99.2    97.0    94.7F-15     2
          92.4    89.8    87.2    84.3    81.2    78.0    74.4    70.6F-15     3
        061021       1   119.7   117.8   114.5   111.4   108.7   106.0F-15     4
         103.4   100.9    98.5    96.3    94.0    91.8    89.6    87.3F-15     5
          84.9    82.3    79.6    76.5    72.8    68.4    63.6    58.5F-15
SEL     061031       2   121.6   119.8   118.0   116.2   114.4   112.6F-15     1
COMMENT 061031W0 OMEGA10.6 19 Nov 89 F-15            350 KTS   50 F   40 PCT
COMMENT 061031W0 HIGH BYPASS FAN  N061041A1 N061041A1 N061051A1 N061031A1
COMMENT 061031W0 CRUISE POWER          88.00 % RPM
         110.8   108.9   107.0   105.0   103.0   100.9    98.7    96.5F-15     2
          94.1    91.6    89.1    86.3    83.4    80.3    76.9    73.2F-15     3
        061031       1   121.6   119.8   116.8   114.0   111.3   108.6F-15     4
         105.9   103.2   100.7    98.4    96.1    93.8    91.6    89.3F-15     5
          86.8    84.2    81.3    78.1    74.1    69.5    64.4    58.8F-15
SEL     061041       2   100.5    98.9    97.3    95.7    94.0    92.4F-15     1
COMMENT 061041W0 OMEGA10.6 19 Nov 89 F-15            150 KTS   50 F   40 PCT
COMMENT 061041W0 HIGH BYPASS FAN  N061051A1
COMMENT 061041W0 APPROACH POWER        75.00 % RPM
          90.6    88.9    87.1    85.2    83.3    81.3    79.2    77.1F-15     2
          74.8    72.4    69.9    67.2    64.4    61.3    58.1    54.7F-15     3
        061041       1   100.5    98.9    95.4    92.2    89.6    87.0F-15     4
          84.5    82.1    79.9    77.7    75.5    73.3    71.1    68.8F-15     5
          66.3    63.8    61.1    58.2    54.6    50.7    46.6    42.6F-15
```

```
SEL     061051       2   107.1   105.4   103.7   102.0   100.3    98.6F-15     1
COMMENT 061051W0 OMEGA10.6 19 Nov 89 F-15             250 KTS   50 F   40 PCT
COMMENT 061051W0 HIGH BYPASS FAN  N061051A1 N061051A1 N061031A1
COMMENT 061051W0 APPROACH POWER        80.00 % RPM
          96.9    95.1    93.2    91.4    89.4    87.4    85.3    83.1F-15     2
          80.7    78.3    75.7    73.0    70.1    66.9    63.6    60.0F-15     3
        061051       1   107.1   105.4   102.0    98.8    96.1    93.5F-15     4
          91.0    88.6    86.2    84.0    81.8    79.6    77.4    75.1F-15     5
          72.7    70.1    67.4    64.5    60.8    56.7    52.3    47.9F-15
SEL     061061       2   107.5   105.8   104.2   102.5   100.8    99.1F-15     1
COMMENT 061061W0 OMEGA10.6 19 Nov 89 F-15             350 KTS   50 F   40 PCT
COMMENT 061061W0 HIGH BYPASS FAN  N061041A1 N061041A1 N061051A1 N061031A1
COMMENT 061061W0 CRUISE POWER          80.00 % RPM
          97.3    95.5    93.6    91.7    89.7    87.6    85.5    83.3F-15     2
          81.0    78.7    76.2    73.5    70.8    67.8    64.6    61.1F-15     3
        061061       1   107.5   105.8   102.8    99.9    97.3    94.6F-15     4
          92.0    89.4    87.0    84.7    82.4    80.2    77.9    75.7F-15     5
          73.1    70.5    67.6    64.5    60.7    56.3    51.6    46.7F-15
SEL     891011       2   128.5   126.6   124.7   122.8   120.7   118.7COMBJ85  1
COMMENT 891011W0 OMEGA10.6 19 Nov 89 COMBJ85           16 KTS   50 F   40 PCT
COMMENT 891011W0 TURBOJET & FAN   N891031A0
COMMENT 891011W0 TAKEOFF               100.0 % RPM
          116.6   114.6   112.5   110.3   108.2   105.9   103.5   101.0COMBJ85  2
          98.4    95.6    92.6    89.5    86.1    82.5    78.6    74.4COMBJ85  3
        891011       1   128.5   126.6   123.8   120.7   117.9   115.0COMBJ85  4
          112.2   109.4   106.7   104.3   101.9    99.5    97.1    94.6COMBJ85  5
          91.9    89.0    85.9    82.5    78.2    73.5    68.3    62.6COMBJ85
SEL     891021       2   119.1   117.2   115.3   113.3   111.3   109.3COMBJ85  1
COMMENT 891021W0 OMEGA10.6 19 Nov 89 COMBJ85           140 KTS   50 F   40 PCT
COMMENT 891021W0 TURBOJET & FAN   N891031A0
COMMENT 891021W0 TAKEOFF               100.0 % RPM
          107.2   105.1   103.0   100.9    98.7    96.5    94.1    91.6COMBJ85  2
          88.9    86.2    83.2    80.0    76.7    73.0    69.1    64.9COMBJ85  3
        891021       1   119.1   117.2   114.3   111.3   108.5   105.6COMBJ85  4
          102.7   100.0    97.3    94.9    92.5    90.1    87.7    85.2COMBJ85  5
          82.5    79.6    76.4    73.0    68.8    64.1    58.8    53.2COMBJ85
SEL     891031       2   118.8   116.9   115.0   113.0   111.0   109.0COMBJ85  1
COMMENT 891031W0 OMEGA10.6 19 Nov 89 COMBJ85           150 KTS   50 F   40 PCT
COMMENT 891031W0 TURBOJET & FAN   N891031A0
COMMENT 891031W0 TAKEOFF               100.0 % RPM
          106.9   104.8   102.7   100.6    98.4    96.2    93.8    91.3COMBJ85  2
          88.6    85.9    82.9    79.7    76.4    72.7    68.8    64.6COMBJ85  3
        891031       1   118.8   116.9   114.0   111.0   108.2   105.3COMBJ85  4
          102.4    99.7    97.0    94.6    92.2    89.8    87.4    84.9COMBJ85  5
          82.2    79.3    76.1    72.7    68.5    63.8    58.5    52.9COMBJ85
SEL     891041       2   115.5   113.7   111.8   109.9   107.9   105.9COMBJ85  1
COMMENT 891041W0 OMEGA10.6 19 Nov 89 COMBJ85           154 KTS   50 F   40 PCT
COMMENT 891041W0 TURBOJET & FAN   N891031A0 N891051A0 N891031A0
COMMENT 891041W0 TAKEOFF               90.00 % RPM
          103.9   101.8    99.7    97.6    95.4    93.2    90.8    88.3COMBJ85  2
          85.6    82.9    79.9    76.7    73.4    69.8    65.9    61.7COMBJ85  3
        891041       1   115.5   113.7   110.8   107.8   105.0   102.2COMBJ85  4
          99.3    96.6    94.0    91.6    89.2    86.8    84.4    81.9COMBJ85  5
          79.2    76.3    73.1    69.7    65.5    60.8    55.6    49.9COMBJ85
```

```
SEL     891051       2   114.6   112.8   110.9   109.0   107.0   105.0COMBJ85  1
COMMENT 891051W0 OMEGA10.6 19 Nov 89 COMBJ85          190 KTS   50 F   40 PCT
COMMENT 891051W0 TURBOJET & FAN   N891031A0 N891051A0 N891031A0
COMMENT 891051W0 TAKEOFF              90.00 % RPM
         102.9   100.9    98.8    96.7    94.5    92.2    89.9    87.4COMBJ85  2
          84.7    81.9    79.0    75.8    72.5    68.9    65.0    60.8COMBJ85  3
        891051       1   114.6   112.8   109.9   106.9   104.1   101.3COMBJ85  4
          98.4    95.7    93.1    90.7    88.3    85.9    83.5    81.0COMBJ85  5
          78.2    75.4    72.2    68.8    64.6    59.9    54.6    49.0COMBJ85
SEL     891061       2   114.2   112.3   110.5   108.5   106.6   104.5COMBJ85  1
COMMENT 891061W0 OMEGA10.6 19 Nov 89 COMBJ85          210 KTS   50 F   40 PCT
COMMENT 891061W0 TURBOJET & FAN   N891031A0 N891051A0 N891031A0
COMMENT 891061W0 TAKEOFF              90.00 % RPM
         102.5   100.5    98.4    96.3    94.1    91.8    89.4    86.9COMBJ85  2
          84.3    81.5    78.5    75.4    72.0    68.4    64.6    60.4COMBJ85  3
        891061       1   114.2   112.3   109.5   106.5   103.7   100.8COMBJ85  4
          98.0    95.3    92.7    90.2    87.8    85.5    83.1    80.6COMBJ85  5
          77.8    74.9    71.8    68.4    64.2    59.4    54.2    48.6COMBJ85
SEL     891071       2   113.4   111.6   109.7   107.8   105.8   103.8COMBJ85  1
COMMENT 891071W0 OMEGA10.6 19 Nov 89 COMBJ85          250 KTS   50 F   40 PCT
COMMENT 891071W0 TURBOJET & FAN   N891031A0 N891051A0 N891031A0
COMMENT 891071W0 TAKEOFF              90.00 % RPM
         101.7   99.7     97.6    95.5    93.3    91.0    88.7    86.2COMBJ85  2
          83.5   80.7     77.8    74.6    71.3    67.7    63.8    59.6COMBJ85  3
        891071       1   113.4   111.6   108.7   105.7   102.9   100.1COMBJ85  4
          97.2    94.5    91.9    89.5    87.1    84.7    82.3    79.8COMBJ85  5
          77.1    74.2    71.0    67.6    63.4    58.7    53.4    47.8COMBJ85
SEL     891081       2   107.9   106.2   104.5   102.6   100.8    98.9COMBJ85  1
COMMENT 891081W0 OMEGA10.6 19 Nov 89 COMBJ85          115 KTS   50 F   40 PCT
COMMENT 891081W0 TURBOJET & FAN   N891051A0 N891051A0 N891031A0
COMMENT 891081W0 LANDING              62.00 % RPM
          96.9    94.9    92.9    90.8    88.6    86.3    84.0    81.5COMBJ85  2
          78.8    76.0    73.1    70.0    66.6    63.1    59.3    55.2COMBJ85  3
        891081       1   107.9   106.2   103.4   100.5    97.8    95.0COMBJ85  4
          92.3    89.7    87.1    84.8    82.4    80.0    77.6    75.1COMBJ85  5
          72.4    69.5    66.3    62.9    58.7    54.0    48.8    43.3COMBJ85
SEL     891091       2   107.1   105.3   103.6   101.7    99.8    97.9COMBJ85  1
COMMENT 891091W0 OMEGA10.6 19 Nov 89 COMBJ85          175 KTS   50 F   40 PCT
COMMENT 891091W0 TURBOJET & FAN   N891051A0 N891051A0 N891031A0
COMMENT 891091W0 LANDING              65.00 % RPM
          96.0    94.0    91.9    89.8    87.6    85.4    83.0    80.5COMBJ85  2
          77.9    75.1    72.1    69.0    65.7    62.1    58.3    54.2COMBJ85  3
        891091       1   107.1   105.3   102.5    99.6    96.9    94.1COMBJ85  4
          91.4    88.7    86.2    83.8    81.4    79.0    76.6    74.2COMBJ85  5
          71.4    68.5    65.4    62.0    57.8    53.0    47.8    42.3COMBJ85
SEL     942011       2   108.5   107.0   105.6   104.1   102.5   101.0B BARON  1
COMMENT 942011W0 OMEGA10.6 19 Nov 89 B BARON           16 KTS   50 F   40 PCT
COMMENT 942011W0 2-E PIST<12500   N942031A0
COMMENT 942011W0 TAKEOFF              100.0 % RPM
          99.4    97.8    96.2    94.5    92.8    91.1    89.3    87.4B BARON  2
          85.4    83.3    81.2    78.9    76.5    74.0    71.3    68.5B BARON  3
        942011       1   108.5   107.0   103.0    99.1    96.8    94.6B BARON  4
          92.6    90.5    88.4    86.0    83.8    81.3    78.7    76.2B BARON  5
          73.8    71.7    69.5    67.1    64.3    61.2    58.0    54.9B BARON
SEL     942021       2   100.1    98.7    97.2    95.7    94.2    92.6B BARON  1
COMMENT 942021W0 OMEGA10.6 19 Nov 89 B BARON          110 KTS   50 F   40 PCT
COMMENT 942021W0 2-E PIST<12500   N942031A0
COMMENT 942021W0 TAKEOFF              100.0 % RPM
          91.1    89.5    87.8    86.2    84.5    82.7    80.9    79.0B BARON  2
          77.0    75.0    72.8    70.5    68.1    65.6    62.9    60.1B BARON  3
        942021       1   100.1    98.7    94.7    90.7    88.4    86.3B BARON  4
          84.2    82.2    80.0    77.6    75.4    72.9    70.3    67.8B BARON  5
          65.4    63.3    61.1    58.8    55.9    52.8    49.6    46.5B BARON
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SEL     942031       2    99.8    98.3    96.8    95.3    93.8    92.2B BARON  1
COMMENT 942031W0 OMEGA10.6 19 Nov 89 B BARON          120 KTS   50 F   40 PCT
COMMENT 942031W0 2-E PIST<12500   N942031A0
COMMENT 942031W0 TAKEOFF                100.0 % RPM
          90.7    89.1    87.5    85.8    84.1    82.3    80.5    78.6B BARON  2
          76.6    74.6    72.4    70.2    67.8    65.2    62.5    59.7B BARON  3
        942031       1    99.8    98.3    94.3    90.4    88.1    85.9B BARON  4
          83.8    81.8    79.7    77.2    75.0    72.5    69.9    67.4B BARON  5
          65.0    62.9    60.7    58.4    55.5    52.4    49.3    46.1B BARON
SEL     942041       2    93.2    91.7    90.2    88.7    87.2    85.7B BARON  1
COMMENT 942041W0 OMEGA10.6 19 Nov 89 B BARON          100 KTS   50 F   40 PCT
COMMENT 942041W0 2-E PIST<12500   N942051A0 N942051A0 N942031A0
COMMENT 942041W0 LANDING                60.00 % RPM
          84.1    82.5    80.9    79.2    77.5    75.8    73.9    72.0B BARON  2
          70.1    68.0    65.8    63.5    61.1    58.5    55.8    52.9B BARON  3
        942041       1    93.2    91.7    87.6    83.5    81.2    79.0B BARON  4
          77.0    75.0    72.9    70.5    68.4    66.0    63.5    61.1B BARON  5
          58.7    56.6    54.4    52.0    49.1    45.9    42.6    39.4B BARON
RUNWAY103531. 203341. 97159.  198784. 200.    200.    3.                22
COMMENT MILITARY DEPARTURES
FLTTRK21278.  0.      7000.   -96.    9000.   0.      7000.   58.     TKOFMD22 *
      300000. 0.                                                      TKOFMD22
COMMENT F-15 departure
TODSCR61.     1.        061001                        061011. 3000.   061MILD *
      061021. 30000.  061031. 350092.                                 061MILD
ALTUDE  061001        0.      0.      2900.   0.      3000.   17.     061MILD *
      30000.  500.    96608.  3029.   101612. 5929.   132000. 10000.  061MILD *
      200000. 10000.                                                  061MILD
FLIGHT061.    001.    10.     0.      0.                              061MILD
COMMENT MILITARY LANDINGS
FLTTRK14461.  0.      2500.   136.    8000.   0.      7000.   -75.    LANDMA22 *
      300000. 0.                                                      LANDMA22
COMMENT F-15 approach
LNDSCR61.     2.        061002                        061041. 6000.   061MILA *
      061051. 18240.  061061. 338558.                                 061MILA
ALTUDE  061002        0.      50.     6000.   457.    18240.  2050.   061MILA *
      79040.  4900.   132000. 10000.  200000. 10000.                  061MILA
FLIGHT061.    002.    10      0.      0.                              061MILA
RUNWAY100460. 206075. 105910. 200810. 200.    200.    3.                12
COMMENT GA DEPARTURE.
FLTTRK866.    0.      19175.  0.      23349.  0.      46659.  0.      TKOFD12  *
      83353.  0.      118746. 0.      173429. 0.                      TKOFD12
COMMENT STRAIGHT OUT DEPARTURE FOR BUS. JET. ON 12
TODSCR891.    3.        891003                        891021. 13763.  891CMJD *
      891031. 14763.  891041. 23118.  891051. 27006.  891061. 44969.  891CMJD *
      891071. 466577.                                                 891CMJD
ALTUDE  891003        0.      0.      3808.   0.      10955.  1000.   891CMJD *
      13763.  1250.   14763.  1302.   23118.  1740.   27006.  1913.   891CMJD *
      35575.  3000.   44969.  3363.   64265.  5500.   84680.  7500.   891CMJD *
      114078. 10000.  200000. 20000.                                  891CMJD
FLIGHT891.    003.    100.    0.      5.                              891CMJD
COMMENT GA. LANDINGS
FLTTRK260000. 0.      21841.  0.      28515.  0.                      LANDA12
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COMMENT STRAIGHT IN ARRIVAL ON 12 (BJET)
LNDSCR891.    4.        891004                          891081. 27668.   891CMJA *
     891081. 311356.                                                      891CMJA
ALTUDE 891004        0.      50.     27668.  1450.    300000. 15722.   891CMJA
FLIGHT891.    004.    100.    0.      5.                                 891CMJA
COMMENT GA DEPARTURE.
FLTTRK866.    0.      19175.  0.      23349.  0.      46659.  0.       TKOFD12  *
     83353.   0.      118746. 0.      173429. 0.                       TKOFD12
COMMENT STRAIGHT OUT DEPARTURE ON 12 (MULTI.)
TODSCR942.    5.        942005                          942021. 13942.   942 MED *
     942031. 466577.                                                      942 MED
ALTUDE 942005        0.      0.      1948.   0.      11087.  1000.    942 MED *
     13942.  1197.   27638.  3000.   47267.  5500.   69275.  7500.    942 MED *
     98518.  10000.  200000. 20000.                                    942 MED
FLIGHT942.    005.    200.    0.      20.                                942 MED
COMMENT GA. LANDINGS
FLTTRK260000. 0.      21841.  0.      28515.  0.                       LANDA12
COMMENT STRAIGHT IN ARRIVAL ON 12 (MULTI.)
LNDSCR942.    6.        942006                          942041. 311356.  942 MEA
ALTUDE 942006        0.      50.     27668.  1450.    300000. 15722.   942 MEA
FLIGHT942.    006.    200.    0.      20.                                942 MEA
CLEAR                                                                   ALL
SEL     955011       2    90.5    89.0    87.6    86.1    84.5    83.0COMPIST  1
COMMENT 955011WO OMEGA10.6 19 Nov 89 COMPIST          90 KTS   50 F   40 PCT
COMMENT 955011WO 1-E FIXED PITCH  N955031A0
COMMENT 955011WO TAKEOFF                100.0 % RPM
          81.4    79.8    78.2    76.5    74.8    73.1    71.3    69.4COMPIST  2
          67.4    65.3    63.2    60.9    58.5    56.0    53.3    50.4COMPIST  3
        955011       1    90.5    89.0    85.0    81.1    78.8    76.6COMPIST  4
          74.6    72.5    70.4    68.0    65.8    63.2    60.7    58.2COMPIST  5
          55.8    53.7    51.5    49.1    46.3    43.2    40.0    36.9COMPIST
SEL     955021       2    90.1    88.6    87.1    85.6    84.1    82.5COMPIST  1
COMMENT 955021WO OMEGA10.6 19 Nov 89 COMPIST         100 KTS   50 F   40 PCT
COMMENT 955021WO 1-E FIXED PITCH  N955031A0
COMMENT 955021WO TAKEOFF                100.0 % RPM
          81.0    79.4    77.7    76.1    74.4    72.6    70.8    68.9COMPIST  2
          66.9    64.9    62.7    60.5    58.1    55.5    52.8    50.0COMPIST  3
        955021       1    90.1    88.6    84.6    80.7    78.4    76.2COMPIST  4
          74.1    72.1    70.0    67.5    65.3    62.8    60.2    57.7COMPIST  5
          55.3    53.2    51.0    48.7    45.8    42.7    39.6    36.4COMPIST
SEL     955031       2    85.0    83.5    82.0    80.5    79.0    77.4COMPIST  1
COMMENT 955031WO OMEGA10.6 19 Nov 89 COMPIST          60 KTS   50 F   40 PCT
COMMENT 955031WO 1-E FIXED PITCH  N955051A0 N955051A0 N955031A0
COMMENT 955031WO LANDING                61.00 % RPM
          75.8    74.2    72.6    70.9    69.2    67.5    65.7    63.9COMPIST  2
          62.0    60.0    58.0    55.9    53.7    51.4    48.9    46.3COMPIST  3
        955031       1    85.0    83.5    80.1    76.6    .4.3    72.2COMPIST  4
          70.1    68.2    66.3    64.2    62.3    60.3    58.1    55.8COMPIST  5
          53.3    50.9    49.0    46.9    44.6    42.2    39.8    37.3COMPIST
COMMENT GA DEPARTURE.
FLTTRK866.    0.      19175.  0.      23349.  0.      46659.  0.       TKOFD12  *
     83353.   0.      118746. 0.      173429. 0.                       TKOFD12
COMMENT SINGLE ENGINE T/O PROFILE ON RNWY 12
TOROLL                                                                  ON
TODSCR955.    7.        955007                          955011.  866.    955 FPD *
     955011. 23349.  955021. 466577.                                      955 FPD
ALTUDE 955007        0.      0.      866.    0.      19175.  1000.    955 FPD *
     23349.  1130.   46659.  3000.   83353.  5500.   118746. 7500.    955 FPD *
     173429. 10000.  200000. 11000.                                    955 FPD
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FLIGHT955.    007.    200.    0.      20.                                  955 FPD
COMMENT GA. LANDINGS
FLTTRK260000. 0.      21841.  0.      28515.  0.                           LANDA12
COMMENT STRAIGHT IN ARRIVAL ON 12
TOROLL                                                                     OFF
LNDSCR955.    8.        955008                          955031. 311356.    955 FPA
ALTUDE  955008          0.      50.     27668.  1450.   300000. 15722.     955 FPA
FLIGHT955.    008.    200.    0.      20.                                  955 FPA
CLEAR                                                                      ALL
COMMENT **********************************
COMMENT **         RUNUP   DATA         **
COMMENT **********************************
AL       13201        0   109.3   107.2   103.2    99.4    96.1    92.9          1
COMMENT 13201WO OMEGA11.2 19 Nov 89  50 F  40 PCT  29.92 IN HG   74-004-003 01
COMMENT 13201WO A-6A      AIRCRAFT        ENG. J52-P-8A            N13204A0
COMMENT 13201WO  MIL PWR                99.00 % RPM     650 C EGT    8000 LBS/HR
          89.9    87.0    84.1    81.4    78.8    76.1    73.5    70.8          2
          67.9    65.0    61.9    58.4    54.2    49.2    43.7    37.6          3
         13201      10   113.6   111.5   107.7   103.9   100.6    97.5          4
          94.6    91.7    88.9    86.2    83.6    81.0    78.3    75.6          5
          72.7    69.7    66.4    62.8    58.4    53.2    47.5    41.1          6
         13201      50   116.2   114.0   110.9   107.7   104.5   101.3          7
          98.1    95.0    92.0    89.2    86.3    83.4    80.6    77.6          8
          74.3    70.9    67.2    63.0    58.0    52.3    46.1    39.4          9
         13201      60   115.4   113.1   110.2   107.1   103.9   100.6         10
          97.3    94.1    90.9    87.9    84.9    81.9    78.9    75.8         11
          72.4    68.8    64.7    60.3    55.0    49.3    43.2    36.9         12
         13201      70   116.1   113.8   110.9   107.9   104.6   101.3         13
          98.0    94.8    91.6    88.6    85.6    82.6    79.6    76.5         14
          73.1    69.5    65.5    61.2    56.0    50.3    44.2    38.0         15
         13201      80   116.0   113.7   110.8   107.9   104.6   101.3         16
          97.9    94.6    91.3    88.3    85.2    82.1    79.0    75.9         17
          72.4    68.7    64.7    60.4    55.3    49.8    44.1    38.2         18
         13201     110   125.4   123.2   119.3   115.5   112.3   109.1         19
         106.0   103.0   100.1    97.3    94.6    91.8    89.1    86.3         20
          83.3    80.2    76.9    73.4    69.1    64.3    59.2    53.7         21
         13201     120   129.4   127.2   123.1   119.3   116.1   112.8         22
         109.7   106.7   103.8   101.0    98.3    95.6    92.9    90.2         23
          87.2    84.3    81.1    77.7    73.5    68.8    63.7    58.2         24
         13201     130   109.4   107.3   104.0   100.8    97.6    94.4         25
          91.2    88.1    85.0    82.1    79.3    76.3    73.4    70.3         26
          67.1    63.8    60.5    57.1    53.3    49.4    45.7    42.2         27
         13201     180    83.7    81.5    77.7    74.1    70.9    67.8         28
          64.8    61.9    59.0    56.3    53.7    51.0    48.2    45.4         29
          42.3    39.1    35.9    32.5    28.7    24.7    20.9    17.5
RNPPAD93628.  199999. 12.                                                    RP1
COMMENT Example runup operation.
RUDSCR132.    99.     13201                                                RUNPRP1
RUNUP 132.    99.     3.      0.      0.      300.                         RUNPRP1
CLEAR
CLEAR                                                                      ALL
AREA  85.     80.     75.     70.     65.
END
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4.4 NMAP Chronicle Listing

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DNL
COMMENT ARCHIVED
COMMENT 0
COMMENT INPUT FILE
COMMENT MCMR4835.BPS
COMMENT CASE NAME
COMMENT Test case for Noisemap report.
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USAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSA
USAF   UNITED STATES AIR FORCE   NOISEMAP 6.00  AIRBASE NOISE PREDICTION   USAF
USAF   UNITED STATES AIR FORCE   NOISEMAP 6.00  AIRBASE NOISE PREDICTION   USAF
USAF   UNITED STATES AIR FORCE   NOISEMAP 6.00  AIRBASE NOISE PREDICTION   USAF
USAF   UNITED STATES AIR FORCE   NOISEMAP 6.00  AIRBASE NOISE PREDICTION   USAF
USAF   UNITED STATES AIR FORCE   NOISEMAP 6.00  AIRBASE NOISE PREDICTION   USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF              U N I T E D   S T A T E S   A I R   F O R C E            USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                        NOISEMAP 6.0 386/286 VERSION                   USAF
USAF                    DEVELOPED BY WYLE LABORATORIES FOR                 USAF
USAF                      AAMRL BBE WRIGHT PATTERSON AFB                   USAF
USAF                             OHIO 45433-6573                           USAF
USAF                             IN SUPPORT OF                             USAF
USAF                        CONTRACT F33165-85-C-0534                      USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                      DAY-NIGHT AVERAGE LEVEL                          USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                 11/21/89                              USAF
USAF                                                                       USAF
USAF                      Test case for Noisemap report.                   USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF                                                                       USAF
USAF   UNITED STATES AIR FORCE   NOISEMAP 6.00  AIRBASE NOISE PREDICTION   USAF
USAF   UNITED STATES AIR FORCE   NOISEMAP 6.00  AIRBASE NOISE PREDICTION   USAF
USAF   UNITED STATES AIR FORCE   NOISEMAP 6.00  AIRBASE NOISE PREDICTION   USAF
USAF   UNITED STATES AIR FORCE   NOISEMAP 6.00  AIRBASE NOISE PREDICTION   USAF
USAF   UNITED STATES AIR FORCE   NOISEMAP 6.00  AIRBASE NOISE PREDICTION   USAF
USAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSAFUSA
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DNL                 Test case for Noisemap report.

                                  ----------
                                   AIRFIELD
                                  ----------

                      Test case for Noisemap report.

               EXTERNAL LOCATION OF GRID ORIGIN  X =   50000. Y =   150000.
               MAGNETIC DECLINATION  14.3 DEG TO EAST
               FIELD ALTITUDE    4225.0 FT CORRECTION  0.6 DB
               GRID SPACING IS   1000.0 FT CONTOUR PGM SPACING   1000.0 FT
               OPTIONS  PROGRAM WILL ANALYZE  INPUT DATA  ( ENGLISH  UNITS)
                    BUT NO PROCESSING WILL BE DONE
COMMENT Test case for Noisemap report
COMMENT
COMMENT NOISEMAP input created by MCM v. 1.0 on Nov 21 1989 at 15:28:04 from:
COMMENT Test case for Noisemap report.
COMMENT Created by BASEOPS Version 2.35 on 11-19-1989 at 20:48:41

                              ----------------------
                               ENTER PROCESSING MODE
                              ----------------------

                        CONTOUR COMPUTATIONS WILL BE PERFORMED


                     ------------------------------------------
                      THE DNL    NOISE METRIC WILL BE USED FOR
                       CUMULATIVE NOISE EXPOSURE CALCULATIONS
                     ------------------------------------------

                       THE FOLLOWING FORMULAS ARE USED
            FLIGHTS: DNL    = SEL  + 10 LOG (NDAY +  10.0 NNIGHT) -  49.37
            RUNUPS:  DNL    = AL   + 10 LOG (NDAY +  10.0 NNIGHT) -  49.37

                ------------------------------------------------------
                SAE AIR 1751 LATERAL ATTENUATION ALGORITHM ENABLED
                ONLY FOR AIRCRAFT NUMBERS IDENTIFIED BELOW.
               ------------------------------------------------------

                           AIRCRAFT NUMBERS INCLUDED
                           -------------------------
                                800  THROUGH     999

                          ---------------------------------------
                           ENTER SPECIFIC POINT PROCESSING MODE
                          ---------------------------------------



                              -------------------------
                               ENTER SPECIFIC LOCATION
                              -------------------------
                         SP1 AT X =   100048. Y =    204242. FT
                               (REF RUNWAY = NONE)
COMMENT **********************************
COMMENT **       FLYOVER   DATA        **
COMMENT **********************************
```

DNL Test case for Noisemap report.

FLIGHT NOISE LEVEL PROFILE (SEL)

```
                          NAME =    61011  F-15
COMMENT 061011WO OMEGA10.6 19 Nov 89 F-15            150 KTS   50 F   40 PCT
COMMENT 061011WO HIGH BYPASS FAN  N061031A1
COMMENT 061011WO TAKEOFF POWER       90.00 % RPM

                          NAME =    61021  F-15
COMMENT 061021WO OMEGA10.6 19 Nov 89 F-15            350 KTS   50 F   40 PCT
COMMENT 061021WO HIGH BYPASS FAN  N061031A1 N061051A1 N061031A1
COMMENT 061021WO TAKEOFF POWER       88.00 % RPM

                          NAME =    61031  F-15
COMMENT 061031WO OMEGA10.6 19 Nov 89 F-15            350 KTS   50 F   40 PCT
COMMENT 061031WO HIGH BYPASS FAN  N061041A1 N061041A1 N061051A1 N061031A1
COMMENT 061031WO CRUISE POWER        88.00 % RPM

                          NAME =    61041  F-15
COMMENT 061041WO OMEGA10.6 19 Nov 89 F-15            150 KTS   50 F   40 PCT
COMMENT 061041WO HIGH BYPASS FAN  N061051A1
COMMENT 061041WO APPROACH POWER      75.00 % RPM

                          NAME =    61051  F-15
COMMENT 061051WO OMEGA10.6 19 Nov 89 F-15            250 KTS   50 F   40 PCT
COMMENT 061051WO HIGH BYPASS FAN  N061051A1 N061051A1 N061031A1
COMMENT 061051WO APPROACH POWER      80.00 % RPM

                          NAME =    61061  F-15
COMMENT 061061WO OMEGA10.6 19 Nov 89 F-15            350 KTS   50 F   40 PCT
COMMENT 061061WO HIGH BYPASS FAN  N061041A1 N061041A1 N061051A1 N061031A1
COMMENT 061061WO CRUISE POWER        80.00 % RPM

                          NAME =   891011  COMBJ85
COMMENT 891011WO OMEGA10.6 19 Nov 89 COMBJ85          16 KTS   50 F   40 PCT
COMMENT 891011WO TURBOJET & FAN   N891031A0
COMMENT 891011WO TAKEOFF             100.0 % RPM

                          NAME =   891021  COMBJ85
COMMENT 891021WO OMEGA10.6 19 Nov 89 COMBJ85          140 KTS   50 F   40 PCT
COMMENT 891021WO TURBOJET & FAN   N891031A0
COMMENT 891021WO TAKEOFF             100.0 % RPM

                          NAME =   891031  COMBJ85
COMMENT 891031WO OMEGA10.6 19 Nov 89 COMBJ85          150 KTS   50 F   40 PCT
COMMENT 891031WO TURBOJET & FAN   N891031A0
COMMENT 891031WO TAKEOFF             100.0 % RPM

                          NAME =   891041  COMBJ85
COMMENT 891041WO OMEGA10.6 19 Nov 89 COMBJ85          154 KTS   50 F   40 PCT
COMMENT 891041WO TURBOJET & FAN   N891031A0 N891051A0 N891031A0
COMMENT 891041WO TAKEOFF             90.00 % RPM

                          NAME =   891051  COMBJ85
COMMENT 891051WO OMEGA10.6 19 Nov 89 COMBJ85          190 KTS   50 F   40 PCT
COMMENT 891051WO TURBOJET & FAN   N891031A0 N891051A0 N891031A0
COMMENT 891051WO TAKEOFF             90.00 % RPM
```

```
DNL                 Test case for Noisemap report.

                              NAME =   891061  COMBJ85
COMMENT 891061W0 OMEGA10.6 19 Nov 89 COMBJ85          210 KTS   50 F   40 PCT
COMMENT 891061W0 TURBOJET & FAN   N891031A0 N891051A0 N891031A0
COMMENT 891061W0 TAKEOFF             90.00 % RPM

                              NAME =   891071  COMBJ85
COMMENT 891071W0 OMEGA10.6 19 Nov 89 COMBJ85          250 KTS   50 F   40 PCT
COMMENT 891071W0 TURBOJET & FAN   N891031A0 N891051A0 N891031A0
COMMENT 891071W0 TAKEOFF             90.00 % RPM

                              NAME =   891081  COMBJ85
COMMENT 891081W0 OMEGA10.6 19 Nov 89 COMBJ85          115 KTS   50 F   40 PCT
COMMENT 891081W0 TURBOJET & FAN   N891051A0 N891051A0 N891031A0
COMMENT 891081W0 LANDING             62.00 % RPM

                              NAME =   891091  COMBJ85
COMMENT 891091W0 OMEGA10.6 19 Nov 89 COMBJ85          175 KTS   50 F   40 PCT
COMMENT 891091W0 TURBOJET & FAN   N891051A0 N891051A0 N891031A0
COMMENT 891091W0 LANDING             65.00 % RPM

                              NAME =   942011  B BARON
COMMENT 942011W0 OMEGA10.6 19 Nov 89 B BARON           16 KTS   50 F   40 PCT
COMMENT 942011W0 2-E PIST<12500   N942031A0
COMMENT 942011W0 TAKEOFF             100.0 % RPM

                              NAME =   942021  B BARON
COMMENT 942021W0 OMEGA10.6 19 Nov 89 B BARON          110 KTS   50 F   40 PCT
COMMENT 942021W0 2-E PIST<12500   N942031A0
COMMENT 942021W0 TAKEOFF             100.0 % RPM

                              NAME =   942031  B BARON
COMMENT 942031W0 OMEGA10.6 19 Nov 89 B BARON          120 KTS   50 F   40 PCT
COMMENT 942031W0 2-E PIST<12500   N942031A0
COMMENT 942031W0 TAKEOFF             100.0 % RPM

                              NAME =   942041  B BARON
COMMENT 942041W0 OMEGA10.6 19 Nov 89 B BARON          100 KTS   50 F   40 PCT
COMMENT 942041W0 2-E PIST<12500   N942051A0 N942051A0 N942031A0
COMMENT 942041W0 LANDING             60.00 % RPM

                             -------------
                             RUNWAY   22
                            -------------

          LENGTH   7833.8 FT, GL. SLOPE  3.00 DEG, HEADING 220.2 DEG
          START ( 103531.0,  203341.0),  END (   97159.0,  198784.0)
          DISPLACEMENTS - TAKEOFF    200.0, LANDING    200.0
COMMENT MILITARY DEPARTURES
```

DNL Test case for Noisemap report.

FLIGHT TRACK

TAKE-OFF FLIGHT TRACK MD22
PROCEED 21278. FT
TURN LEFT 96.0 DEG WITH 7000. FT RADIUS
PROCEED 9000. FT
TURN RIGHT 58.0 DEG WITH 7000. FT RADIUS
PROCEED 300000. FT

COMMENT F-15 departure

TAKEOFF DESCRIPTOR

DESCRIPTOR CLASS NO - 61 A/C - 061MILD
MISSION NO - 1
ALT PROF - 61001

SUBFLIGHT	NOISE PROF	TRACK LIMITS (FT)
1	61011	0.0 TO 3000.0
2	61021	3000.0 TO 30000.0
3	61031	30000.0 TO 350092.0

ALTITUDE PROFILE

THE ALTITUDE PROFILE NAME IS 61001 061MILD

TRACK DIST	ALTITUDE
0. FT	0. FT
2900. FT	0. FT
3000. FT	17. FT
30000. FT	500. FT
96608. FT	3029. FT
101612. FT	5929. FT
132000. FT	10000. FT
200000. FT	10000. FT

FLIGHT OPERATIONS - TRACK MD22

A/C NO	MISSION	-	0701-2200	2201-0700
061MILD	61	1	10.00	0.00

COMMENT MILITARY LANDINGS

DNL Test case for Noisemap report.

FLIGHT TRACK

LANDING FLIGHT TRACK MA22
PROCEED 14461. FT
TURN RIGHT 136.0 DEG WITH 2500. FT RADIUS
PROCEED 8000. FT
TURN LEFT 75.0 DEG WITH 7000. FT RADIUS
PROCEED 300000. FT

COMMENT F-15 approach

LANDING DESCRIPTOR

DESCRIPTOR CLASS NO - 61 A/C - 061MILA
MISSION NO - 2
ALT PROF - 61002

SUBFLIGHT	NOISE PROF	TRACK LIMITS (FT)	
1	61041	0.0 TO	6000.0
2	61051	6000.0 TO	18240.0
3	61061	18240.0 TO	338558.0

ALTITUDE PROFILE

THE ALTITUDE PROFILE NAME IS 61002 061MILA

TRACK DIST	ALTITUDE
0. FT	50. FT
6000. FT	457. FT
18240. FT	2050. FT
79040. FT	4900. FT
132000. FT	10000. FT
200000. FT	10000. FT

FLIGHT OPERATIONS - TRACK MA22

	A/C NO	MISSION	-	0701-2200	2201-0700
061MILA	61	2		10.00	0.00

RUNWAY 12

LENGTH 7577.8 FT, GL. SLOPE 3.00 DEG, HEADING 119.7 DEG
START (100460.0, 206075.0), END (105910.0, 200810.0)
DISPLACEMENTS - TAKEOFF 200.0, LANDING 200.0

DNL Test case for Noisemap report.
COMMENT GA DEPARTURE.

FLIGHT TRACK

TAKE-OFF FLIGHT TRACK D12

PROCEED	866. FT
PROCEED	19175. FT
PROCEED	23349. FT
PROCEED	46659. FT
PROCEED	83353. FT
PROCEED	118746. FT
PROCEED	173429. FT

COMMENT STRAIGHT OUT DEPARTURE FOR BUS. JET. ON 12

TAKEOFF DESCRIPTOR

DESCRIPTOR CLASS NO - 891 A/C - 891CMJD
MISSION NO - 3
ALT PROF - 891003

SUBFLIGHT	NOISE PROF	TRACK LIMITS (FT)	
1	891021	0.0 TO	13763.0
2	891031	13763.0 TO	14763.0
3	891041	14763.0 TO	23118.0
4	891051	23118.0 TO	27006.0
5	891061	27006.0 TO	44969.0
6	891071	44969.0 TO	466577.0

ALTITUDE PROFILE

THE ALTITUDE PROFILE NAME IS 891003 891CMJD

TRACK DIST	ALTITUDE
0. FT	0. FT
3808. FT	0. FT
10955. FT	1000. FT
13763. FT	1250. FT
14763. FT	1302. FT
23118. FT	1740. FT
27006. FT	1913. FT
35575. FT	3000. FT
44969. FT	3363. FT
64265. FT	5500. FT
84680. FT	7500. FT
114078. FT	10000. FT
200000. FT	20000. FT

********** W A R N I N G **********
NUMBER OF COORDINATES RESTRICTED 2 TO 10
****

DNL Test case for Noisemap report.

FLIGHT OPERATIONS - TRACK D12

	A/C NO	MISSION	-	0701-2200	2201-0700	
891CMJD	891	3		100.00	5.00	(SAE 1751)

COMMENT GA. LANDINGS

FLIGHT TRACK

LANDING FLIGHT TRACK A12
PROCEED 260000. FT
PROCEED 21841. FT
PROCEED 28515. FT

COMMENT STRAIGHT IN ARRIVAL ON 12 (BJET)

LANDING DESCRIPTOR

DESCRIPTOR CLASS NO - 891 A/C - 891CMJA
MISSION NO - 4
ALT PROF - 891004

SUBFLIGHT	NOISE PROF	TRACK LIMITS (FT)	
1	891081	0.0 TO	27668.0
2	891081	27668.0 TO	311356.0

ALTITUDE PROFILE

THE ALTITUDE PROFILE NAME IS 891004 891CMJA

TRACK DIST	ALTITUDE
0. FT	50. FT
27668. FT	1450. FT
300000. FT	15722. FT

FLIGHT OPERATIONS - TRACK A12

	A/C NO	MISSION	-	0701-2200	2201-0700	
891CMJA	891	4		100.00	5.00	(SAE 1751)

COMMENT GA DEPARTURE.

DNL Test case for Noisemap report.

FLIGHT TRACK

TAKE-OFF FLIGHT TRACK D12

PROCEED	866. FT
PROCEED	19175. FT
PROCEED	23349. FT
PROCEED	46659. FT
PROCEED	83353. FT
PROCEED	118746. FT
PROCEED	173429. FT

COMMENT STRAIGHT OUT DEPARTURE ON 12 (MULTI.)

TAKEOFF DESCRIPTOR

DESCRIPTOR CLASS NO - 942 A/C - 942 MED
MISSION NO - 5
ALT PROF - 942005

SUBFLIGHT	NOISE PROF	TRACK LIMITS (FT)
1	942021	0.0 TO 13942.0
2	942031	13942.0 TO 466577.0

ALTITUDE PROFILE

THE ALTITUDE PROFILE NAME IS 942005 942 MED

TRACK DIST	ALTITUDE
0. FT	0. FT
1948. FT	0. FT
11087. FT	1000. FT
13942. FT	1197. FT
27638. FT	3000. FT
47267. FT	5500. FT
69275. FT	7500. FT
98518. FT	10000. FT
200000. FT	20000. FT

FLIGHT OPERATIONS - TRACK D12

	A/C NO	MISSION	-	0701-2200	2201-0700	
942 MED	942	5		200.00	20.00	(SAE 1751)

COMMENT GA. LANDINGS

DNL Test case for Noisemap report.

FLIGHT TRACK

LANDING FLIGHT TRACK A12
PROCEED 260000. FT
PROCEED 21841. FT
PROCEED 28515. FT
COMMENT STRAIGHT IN ARRIVAL ON 12 (MULTI.)

LANDING DESCRIPTOR

DESCRIPTOR CLASS NO - 942 A/C - 942 MEA
MISSION NO - 6
ALT PROF - 942006

SUBFLIGHT	NOISE PROF	TRACK LIMITS (FT)
1	942041	0.0 TO 311356.0

ALTITUDE PROFILE

THE ALTITUDE PROFILE NAME IS 942006 942 MEA

TRACK DIST	ALTITUDE
0. FT	50. FT
27668. FT	1450. FT
300000. FT	15722. FT

FLIGHT OPERATIONS - TRACK A12

	A/C NO	MISSION	-	0701-2200	2201-0700	
942 MEA	942	6		200.00	20.00	(SAE 1751)

CLEAR LIBRARIES

FLIGHT NOISE LEVEL PROFILE (SEL)

NAME = 955011 COMPIST
COMMENT 955011WO OMEGA10.6 19 Nov 89 COMPIST 90 KTS 50 F 40 PCT
COMMENT 955011WO 1-E FIXED PITCH N955031A0
COMMENT 955011WO TAKEOFF 100.0 % RPM

NAME = 955021 COMPIST
COMMENT 955021WO OMEGA10.6 19 Nov 89 COMPIST 100 KTS 50 F 40 PCT
COMMENT 955021WO 1-E FIXED PITCH N955031A0
COMMENT 955021WO TAKEOFF 100.0 % RPM

DNL Test case for Noisemap report.

NAME = 955031 COMPIST
COMMENT 955031W0 OMEGA10.6 19 Nov 89 COMPIST 60 KTS 50 F 40 PCT
COMMENT 955031W0 1-E FIXED PITCH N955051A0 N955051A0 N955031A0
COMMENT 955031W0 LANDING 61.00 % RPM
COMMENT GA DEPARTURE.

FLIGHT TRACK

TAKE-OFF FLIGHT TRACK D12

PROCEED	866. FT
PROCEED	19175. FT
PROCEED	23349. FT
PROCEED	46659. FT
PROCEED	83353. FT
PROCEED	118746. FT
PROCEED	173429. FT

COMMENT SINGLE ENGINE T/O PROFILE ON RNWY 12

TAKEOFF ROLL SIDELINE ALGORITHM ENABLED

TAKEOFF DESCRIPTOR

DESCRIPTOR CLASS NO - 955 A/C - 955 FPD
MISSION NO - 7
ALT PROF - 955007

SUBFLIGHT	NOISE PROF	TRACK LIMITS (FT)
1	955011	0.0 TO 866.0
2	955011	866.0 TO 23349.0
3	955021	23349.0 TO 466577.0

ALTITUDE PROFILE

THE ALTITUDE PROFILE NAME IS 955007 955 FPD

TRACK DIST	ALTITUDE
0. FT	0. FT
866. FT	0. FT
19175. FT	1000. FT
23349. FT	1130. FT
46659. FT	3000. FT
83353. FT	5500. FT
118746. FT	7500. FT
173429. FT	10000. FT
200000. FT	11000. FT

FLIGHT OPERATIONS - TRACK D12

	A/C NO	MISSION	-	0701-2200	2201-0700	
955 FPD	955	7		200.00	20.00	(SAE 1751)

COMMENT GA. LANDINGS

DNL Test case for Noisemap report.

FLIGHT TRACK

LANDING FLIGHT TRACK A12
PROCEED 260000. FT
PROCEED 21841. FT
PROCEED 28515. FT

COMMENT STRAIGHT IN ARRIVAL ON 12

TAKEOFF ROLL SIDELINE ALGORITHM DISABLED

LANDING DESCRIPTOR

DESCRIPTOR CLASS NO - 955 A/C - 955 FPA
MISSION NO - 8
ALT PROF - 955008

SUBFLIGHT	NOISE PROF	TRACK LIMITS (FT)
1	955031	0.0 TO 311356.0

ALTITUDE PROFILE

THE ALTITUDE PROFILE NAME IS 955008 955 FPA

TRACK DIST	ALTITUDE
0. FT	50. FT
27668. FT	1450. FT
300000. FT	15722. FT

FLIGHT OPERATIONS - TRACK A12

	A/C NO	MISSION	-	0701-2200	2201-0700	
955 FPA	955	8	200.00	20.00		(SAE 1751)

CLEAR LIBRARIES

COMMENT **********
COMMENT ** RUNUP DATA **
COMMENT **********

RUNUP NOISE LEVEL PROFILE (AL)

PROFILE NAME = 13201

COMMENT 13201W0 OMEGA11.2 19 Nov 89 50 F 40 PCT 29.92 IN HG 74-004-003 01
COMMENT 13201W0 A-6A AIRCRAFT ENG. J52-P-8A N13204A0
COMMENT 13201W0 MIL PWR 99.00 % RPM 650 C EGT 8000 LBS/HR

DNL Test case for Noisemap report.

RUNUP PAD RP1

X = 93628. FT Y = 199999. FT HEADING = 12.0 DEG.
COMMENT Example runup operation.

RUNUP DESCRIPTOR

AC CLASS	THRUST	DESCRIPTOR	AL	PROF
132	99	RUNPRP1	13201	

GROUND OPERATIONS - RUNUP PAD RP1

	A/C NO	THRUST	-	0701-2200	2201-0700	DURATION EACH RUN
RUNPRP1	132	99		3.00	0.00	300.00

CLEAR LIBRARIES

CLEAR LIBRARIES

********** W A R N I N G **********
THE CALCULATED GRID SPACING FOR THE 85.0 dB CONTOUR IS 296 FT WHICH IS LESS THAN THE 1000 FT SPACING USED
****

DNL Test case for Noisemap report.

ERROR STATISTICS

FATAL ERRORS - NONE

WARNING MESSAGES - OCCUR ON PAGE(S)

7 13

DNL Test case for Noisemap report.

SUMMARY OF AIRCRAFT FLIGHT OPERATIONS AT SPECIFIC GROUND LOCATION SP1

X = 100048.0 FT Y = 204242.0 FT

RANK	1	2	3	4	5	6
AIRCRAFT	891*	61	942*	891*	955*	942*
MISSION	3	1	5	4	7	6
FLIGHT TRK	D12	MD22	D12	A12	D12	A12
POWER	100.0 % RP	90.00 % RP	100.0 % RP	62.00 % RP	100.0 % RP	60.00 % RP
AIRSPEED	140 KTS	150 KTS	110 KTS	115 KTS	90 KTS	100 KTS
ALTITUDE	0 FT	11 FT	0 FT	10 FT	0 FT	10 FT
SLANT DIST	1604 FT	2758 FT	1604 FT	1783 FT	1604 FT	1783 FT
ELEV ANGLE	0.00 DEG	0.25 DEG	0.00 DEG	0.34 DEG	0.00 DEG	0.34 DEG
EVENTS DAY	100.000	10.000	200.000	100.000	200.000	200.000
NIGHT	5.000	0.000	20.000	5.000	20.000	20.000
EFCTV SEL	87.89 DB	95.27 DB	72.86 DB	72.98 DB	64.81 DB	61.58 DB
DNL	59.66 DB	55.28 DB	48.90 DB	44.75 DB	40.85 DB	37.61 DB
CUM DNL	59.66 DB	61.01 DB	61.27 DB	61.37 DB	61.40 DB	61.42 DB

RANK	7	8
AIRCRAFT	955*	61
MISSION	8	2
FLIGHT TRK	A12	MA22
POWER	61.00 % RP	75.00 % RP
AIRSPEED	60 KTS	150 KTS
ALTITUDE	10 FT	-92 FT
SLANT DIST	1783 FT	3473 FT
ELEV ANGLE	0.34 DEG	0.00 DEG
EVENTS DAY	200.000	10.000
NIGHT	20.000	0.000
EFCTV SEL	53.28 DB	65.44 DB
DNL	29.31 DB	25.45 DB
CUM DNL	61.43 DB	61.43 DB

FLIGHT DNL 61.43 DB
TOTAL DNL 61.58 DB

*SAE AIR 1751 LATERAL ATTENUATION ALGORITHM INVOKED

DNL Test case for Noisemap report.

SUMMARY OF AIRCRAFT RUNUP OPERATIONS AT SPECIFIC GROUND LOCATION SP1

X = 100048.0 FT Y = 204242.0 FT

RANK	1
AIRCRAFT	132
THRUST	99
RUNUP PAD	RP1
POWER	99.00 % RP
SLANT DIST	7695 FT
ANGLE	-30.3 DEG
TIME DAY	900.0 SEC
NIGHT	0.0 SEC
AL	67.51 DB
DNL	47.07 DB
CUM DNL	47.07 DB

RUNUP DNL	47.07 DB
TOTAL DNL	61.58 DB

```
/* ARCHIVED */
0
/* INPUT FILE */
MCMR4835.BPS
/* CASE NAME */
Test case for Noisemap report.
```

AREA CALCULATION

THE FOLLOWING DNL CONTOUR VALUES WERE REQUESTED

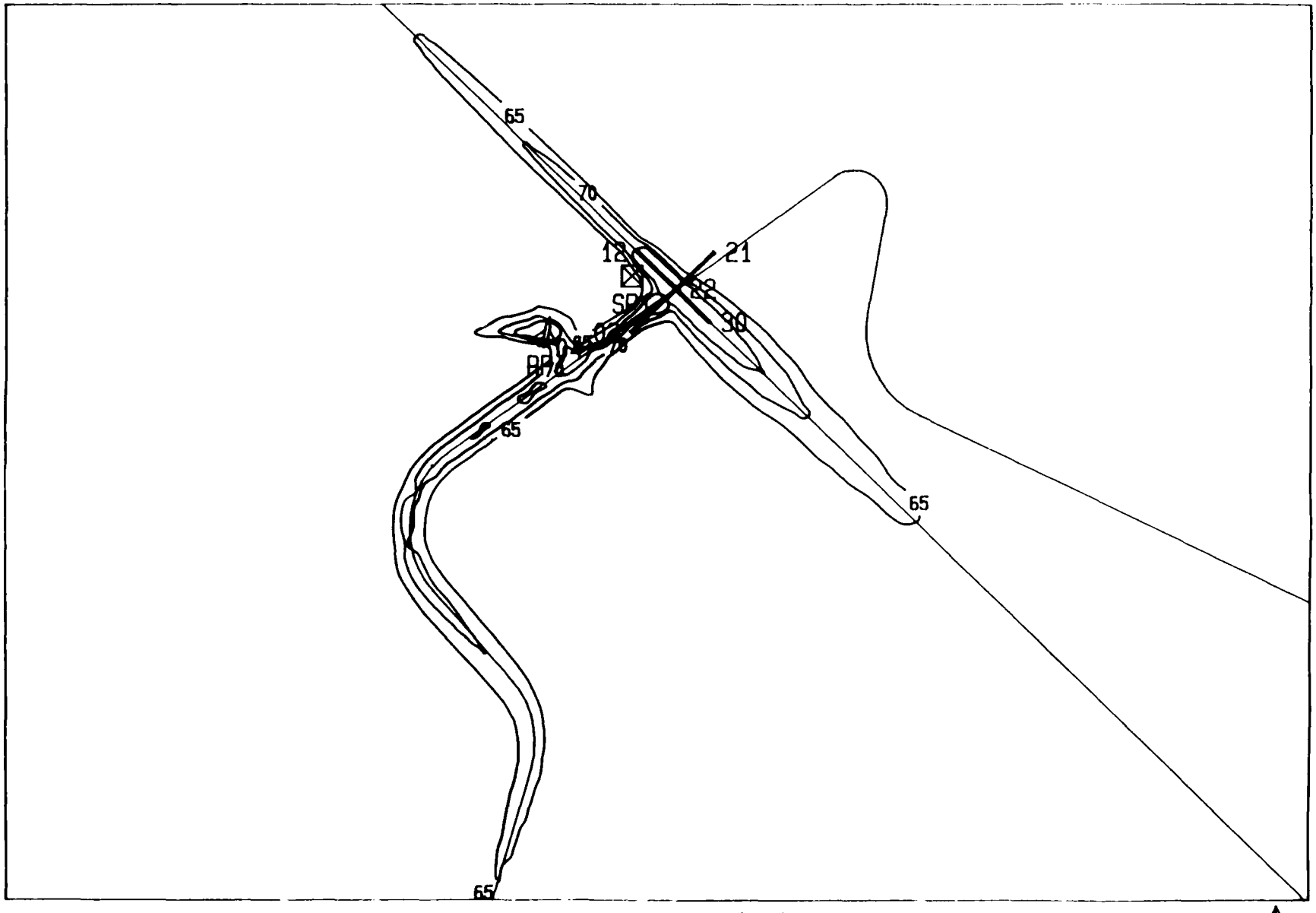
85.0 80.0 75.0 70.0 65.0

THERE ARE 5042 DNL DATA POINTS

DNL VALUE	MILLSQ FT	ACRES	SQ MILES	GRID SPACING ESTIMATE (FT)
65.0	308.3	7076.8	11.1	2214.6
70.0	127.4	2924.7	4.6	1423.7
75.0	47.1	1082.0	1.7	866.0
80.0	18.9	433.1	0.7	547.9
85.0	5.5	127.0	0.2	296.7

********** W A R N I N G **********
THE CALCULATED GRID SPACING FOR THE 85.0 dB CONTOUR IS 296 FT WHICH IS LESS THAN THE 1000 FT SPACING USED
****

4.5 Contour Plot



Case MCMR1517 - Test case for Noisemap report. - 11/21/89 5:05:39 PM Scale 1:120000

REFERENCES

1. Beckman, J.M. and Seidman, H., "NOISEMAP 3.4 Computer Program Operator's Manual," AMRL-TR-78-109, Aerospace Medical Research Laboratory, Wright-Patterson AFB, OH, December 1978.

2. Lee, R.A. and Mohlman, H.T., "Air Force Procedure for Predicting Aircraft Noise Around Airbases: Airbase Operations Program (BASEOPS 3.0) Description," Aerospace Medical Research Laboratory, Wright-Patterson AFB, OH, 1990.

3. Mohlman, H.T., "Computer Programs for Producing Single-Event Aircraft Noise Data for Specific Engine Power and Meteorological Conditions for Use with USAF Community Noise Model (NOISEMAP)," AFAMRL-TR-83-020, Air Force Aerospace Medical Research Laboratory, Wright-Patterson AFB, Ohio, April 1983.

4. Aerospace Medical Research Laboratory, "Air Force Procedure for Predicting Aircraft Noise Around Airbases: Airbase Contours Plotting Program (NMPLOT) for Noisemap 6.0."

5. Department of the Air Force, AICUZ Handbook, HQ USAF/LEEV, Bolling AFB, Washington, DC and AFESC/DEV, Tyndall AFB, Florida, July 1984.

6. Horonjeff, R.D., Kandukuri, R.R.., Reddingius, N.H., "Community Noise Exposure Resulting From Aircraft Operations: Computer Program Description," AFAMRL TR-73-109, (AD A004821), Air Force Aerospace Medical Research Laboratory, Wright-Patterson AFB, OH, November 1974.

7. Society of Automotive Engineers, Air 1751, "Prediction Method for Lateral Attenuation of Airplane Noise During Takeoff and Landing," March 30, 1981.

8. Horonjeff, R.D., "NOISEMAP 5.1 Computer Program Update, Operator's Manual," AAMRL-TR-78-109 (Addendum 2); Air Force Armstrong Aerospace Medical Research Laboratory, Wright-Patterson AFB, Ohio, December 1986.

9. Speakman, J.D., "Lateral Attenuation of Military Aircraft Flight Noise," Aerospace Medical Research Laboratory Report TR 89-034, July 1989.

APPENDIX A

MCM Messages in Alphabetical Order

This appendix contains an alphabetical listing of all messages generated by the MCM. In addition to listing the messages, this appendix also contains a listing of each of the operations which might cause the message, an explanation of the message, and what corrective action should/may be taken. The messages are listed in the following format:

Message as generated by the MCM

An explanation of the message and what corrective action may be taken (in the case of an Error message).

Error Messages

A description name must contain a non-blank character

Each NOISEMAP must have a descriptive name that contains at least one non-blank character. Enter a new Case Name that is not all blanks.

BASEOPS Source file not read

The BASEOPS Source file for this Configured Case has been corrupted and cannot be read. The default case has not been properly loaded. The solution is to re-create the BPS file from the BASEOPS program or to reload the default case file from the back-up.

Cannot copy BASEOPS Source

The selected BASEOPS Source file cannot be copied to the Case Directory for the desired Configured Case. Several possible reasons for this are: (a) a BASEOPS Source already exists for this Configured Case and is marked "READ ONLY," (b) the BASEOPS Source file has been deleted from the "sources" directory between the time it was loaded and the time of the "SAVE" request, or (c) the "COPY" command cannot be executed.

Cannot copy Case Description

The Case Description file for the requested case cannot be copied from the "Cases" directory to the desired Case Directory. Several possible reasons for this are: (a) a Case

Description file already exists for this Configured Case and is marked "READ ONLY," (b) the Case Description file has been deleted from the "Cases" directory between the time it was created and the time of the "SAVE" request, or (c) the "COPY" command cannot be executed.

Cannot copy NOISEMAP Grid file

The NOISEMAP Grid file for the requested case cannot be copied from the desired Case Directory to the MAP directory. Several possible reasons for this are: (a) a NOISEMAP Grid file already exists for this Configured Case in the MAP directory and is marked "READ ONLY," (c) the "COPY" command cannot be executed, or (d) NOISEMAP terminated prematurely without creating the requested NOISEMAP Grid file.

Cannot create directory "dir name"

The Case Directory for the selected case cannot be created. This could result if there already was a directory with the same name as the requested "dir name".

Cannot delete "case dir"

The requested "case dir" cannot be deleted due to previous error.

Cannot delete "file name"

The requested "file name" cannot be deleted. Several possible reasons for this are: (a) the file is marked "READ ONLY," (b) the file has already been deleted or is marked "hidden," or (c) the "del" command cannot be executed.

Case Description file corrupted -- load aborted

The requested Case Description cannot be read due to a previous error.

Case must be saved first

The current case (which has been edited) must be saved before any options may be run.

Configuration file not found, loading defaults

The MCM's Configuration file ("config.fil") cannot be found in the current directory and the MCM's configuration has been set to its internal defaults. Several possible reasons for this are: (a) the MCM was started from the wrong directory, (b) the "config.fil" has been deleted, or (c) the "config.fil" is marked "hidden."

Configuration RESET to defaults

The "Reset to Defaults" option has been selected; all of the MCM's configurable items have been set to their internal defaults.

Corrupted BASEOPS Source file, or incorrect version

The "BASEOPS version number check" in the TAIL SECTION of the requested BASEOPS Source file has determined that the requested BASEOPS Source file has been damaged, incorrectly edited, or created by an incompatible version of BASEOPS.

Corrupted BASEOPS Source file, airfield name changed

The "BASEOPS comment check" in the TAIL SECTION of the requested BASEOPS Source file has determined that the requested BASEOPS Source file has been damaged, incorrectly edited, or created by an incorrect version of BASEOPS.

Creating NOISEMAP input file

The input file for the NOISEMAP program (for the current case) is being created.

Creating OMEGA 10 input file

The input file for the OMEGA10 program (for the current case) is being created.

Creating OMEGA 11 input file

The input file for the OMEGA 11 program (for the current case) is being created.

Error creating NOISEMAP input files

The input file(s) for the NOISEMAP program could not be created due to a previous error.

Error creating OMEGA 10 input files

The input file(s) for the OMEGA 10 program could not be created due to a previous error.

Error creating OMEGA 11 input files

The input file(s) for the OMEGA 11 program could not be created due to a previous error.

Error during deletion

The requested case cannot be deleted due to an error. Two possible reasons for this are: (a) the Case Description file (in the "cases" directory) is marked "hidden," or (b) the Case Description file (in the "cases" directory) has already been deleted.

Error opening "file name"

The displayed "file name" (either the FLYOVER noise data base or the RUNUP noise data base) cannot be opened (for reading). Several possible reasons for this are: (a) the displayed "file name" is marked "hidden," (b) the displayed "file name" has been deleted, (c) the displayed "file name" has been incorrectly specified, or (d) the displayed "file name" has been renamed.

Error opening Configured Case file

The Case Description file for the selected case (in the "cases" directory) cannot be opened (for reading). Two possible reasons for this are: (a) the corresponding file is marked "hidden," or (b) the corresponding file has been deleted.

Error opening file -- "file name"

The displayed "file name" could not be opened (for reading). Two possible reasons for this are: (a) the corresponding file is marked "hidden," or (b) the corresponding file has been deleted.

Error opening file -- "file name"

The displayed "file name" could not be opened (for writing). Two possible reasons for this are: (a) a file already exists with the same file name and is marked "read only," or (b) the destination "Case Directory" is marked "read only."

Error reading BASEOPS Source files

A previously displayed operating error has occurred while attempting to read the directory of BASEOPS Source files.

Error reading Case Description files

A previously displayed operating error has occurred while attempting to read the directory of Case Description files.

Error reading Configured Case files

A previously displayed operating system error has occurred while attempting to read the directory of Case Description files.

Error running NOISEMAP

The NMAP60 program found errors or omissions in the input file created by the MCM. This could occur if previous error messages from the OMEGA runs were ignored or if some of the NOISEMAP limitations were exceeded. This problem can be corrected by examining the chronicle file for specifics on the error.

Error running OMEGA 10

The OMEGA10 program found errors in the input file that it was requested to run. This problem will arise if the data entered through the BASEOPS program is inconsistent with the NOISEFILE database. This error is usually quite unlikely however the OMEGA10

chronicle can be examined for the cause of the error. The description of the error is usually enough to determine the solution.

Error running OMEGA 11

The OMEGA10 program found errors in the input file that it was requested to run. This problem will arise if the data entered through the BASEOPS program is inconsistent with the NOISEFILE database. This error is usually quite unlikely however the OMEGA10 chronicle can be examined for the cause of the error. The description of the error is usually enough to determine the solution.

No BASEOPS Source files found

No files with the proper BASEOPS Source header were found to load. At least one file was found in the current "sources" directory with the current "BASEOPS Source suffix" but none of the files found had a correct header, possibly because they were created by an incompatible version of the MCM.

No Case Descriptions found

No files with the proper Case Description header were found to load. At least one file was found in the current "cases" directory with the current "Case Description suffix" but none of the files found had a correct header, possibly because they were created by an incompatible version of the MCM.

No case to save

The SAVE Option was selected before any BASEOPS Source files or Configured Cases were loaded.

No Configured Cases found

No files with the proper Case Description header and a matching BASEOPS Source file were found to load. At least one file was found in the current "cases" directory with the current "Case Description suffix" but none of the files found had both a correct header and a matching BASEOPS Source file.

No files found (BASEOPS Source)

No files with the appropriate "BASEOPS Source suffix" were found in the "sources" directory. Several possible reasons for this are: (a) the "BASEOPS Source suffix" is incorrectly specified, (b) the "sources" directory is incorrectly specified, (c) the "sources" directory does not exist or is marked "hidden," or (d) no BASEOPS Source files exist in the "sources" directory with the specified "BASEOPS Source suffix."

No file found (Case Descriptions)

No files with the appropriate "Case Description suffix" were found in the "cases directory. Several possible reasons for this are: (a) the "Case Description suffix" is incorrectly specified, (b) the "cases" directory is incorrectly specified, (c) the "cases" directory does not exist or is marked "hidden," or (d) no Case Description files exist in the "cases" directory with the specified "Case Description suffix."

No flyover data selected -- skipping OMEGA 10

No flyover data has been selected and the OMEGA 10 program is being run.

No runup data selected -- skipping OMEGA 11

No runup data has been selected and the OMEGA 11 program is not being run.

No runup or flyover data selected -- skipping NOISEMAP

No noise data (both runup and flyover) has been selected; therefore, the NOISEMAP program cannot be run.

No valid contours selected

No valid contour levels are selected in the "Selected Area Calc Contours" or "Selected Plot Contours" options. Two possible reasons for this are: (a) there are no valid numbers in the select string, or (b) all selected contour levels are either below 0 or above 99.

NOISEMAP completed

The NOISEMAP program has completed execution.

Not a BASEOPS Source file, or incorrect version

The BASEOPS Source file requested for loading is either (a) not a BASEOPS Source file, (b) a BASEOPS Source file created by an incompatible version of BASEOPS, or (c) has been damaged so that it cannot be recognized as a BASEOPS Source file.

Not a CASE DESCRIPTION file, or incorrect version

The Case Description file requested for loading is either (a) not a Case Description file, (b) a Case Description file created by an incompatible version of the MCM, or (c) has been damaged so that it cannot be recognized as a Case Description file.

OMEGA 10 completed

The OMEGA 10 program has completed execution.

OMEGA 10 data file missing, cannot run NOISEMAP

At least one of the data files created by the MCM and the OMEGA 10 program cannot be found. These files are necessary for creating the input file for the NOISEMAP program. Two possible reasons for these files not being found are: (a) the files have been deleted after running the OMEGA 10 program and prior to running the NOISEMAP program, or (b) the files are marked "read only."

OMEGA 11 completed

The OMEGA 11 program has completed execution.

OMEGA 11 data file missing, cannot run NOISEMAP

At least one of the data files created by the MCM and the OMEGA 11 program cannot be found. These files are necessary for creating the input file for the NOISEMAP program. Two possible reasons for these files not being found are: (a) the files have been deleted after running the OMEGA 11 program and prior to running the NOISEMAP program, or (b) the files are marked "read only."

Running NOISEMAP

The NOISEMAP program is executing.

Running OMEGA 10

The OMEGA 10 program is executing.

Running OMEGA 11

The OMEGA 11 program is executing.

Running: "case name"

The displayed case name is currently being run.

Sequencing Error in BASEOPS Source: "error section"

An error has occurred while reading the requested BASEOPS Source file which has corrupted the order in which data are being read. The error was detected somewhere between the start of the displayed "error section" and the start of the next "section." Several possible reasons for this are: (a) the BASEOPS Source was created by an incompatible version of BASEOPS but with a compatible "HEADER," (b) the BASEOPS Source file has been damaged during an operating system function (such as a copy or a restore), or (c) data has been written to the file in an unexpected format.

Sequencing error in CASE DESCRIPTION: "error section"

An error has occurred while reading the requested Case Description file which has corrupted the order in which data are being read. The error was detected somewhere between the start of the displayed "error section" and the start of the next "section." Several possible reasons for this are: (a) the Case Description was created by an incompatible version of the MCM but with a compatible "HEADER," (b) the Case Description file has been damaged during an operating system function (such as a copy or a restore), or (c) data has been written to the file in an unexpected format.

Write error! -- Configuration not saved

An error has occurred while attempting to write the MCM's configuration file "config.fil." One possible reason for this is that "config.fil" already exists and s marked "read only."

APPENDIX B

NOISEMAP Warning and Error Messages

The error checking routines in the BASEOPS and Master Control Module (MCM) programs should preclude most of the warning or error messages being issued by the NMAP program. The warning and error messages generated by NMAP and an explanation of why they occur will be explained in this appendix. The warning and error messages will be listed in alphabetical order with the error messages listed first. If an error message is generated by NMAP the program will continue to process the remainder of the input file but will not perform any noise calculations. However, if more than fifteen (15) errors have been detected, the program will terminate. The NMAP program will still perform noise calculations even if warning messages have been issued. However, there is a strong possibility that the calculations are incorrect. If a warning has been issued, correct the data and rerun NMAP.

ERROR MESSAGES

A XXXXXX CARD PRECEDES THE "AIRFLD" CARD

The specified card "XXXXXX" preceded an AIRFLD card. The AIRFLD must be the first card in the input file. This error message is issued by the MAIN program.

AIRCRAFT IS AT ALTITUDE 999.9 FT/M AT THE END OF RUNWAY

The aircraft is not airborne at the end of the runway. This error message is issued by subroutine XFLIGH.

AIRCRAFT IS NOT AIRBORNE AT THE START OF TURN

The aircraft attempted a turn while on the ground. This error message is issued by subroutine XFLIGH.

AIRCRAFT NUMBER SPECIFIED ON THE "FLIGHT" CARD IS NOT PRESENT IN THE FDMAP ARRAY

The aircraft number on the FLIGHT card was not found in array FDMAP. This error message is issued by subroutine XFLIGH.

AIRCRAFT NUMBER SPECIFIED ON THE "FLIGHT" CARD IS NOT PRESENT IN THE FDMAP ARRAY PRESENT DIRECTORY WILL OVERFLOW

The aircraft number was found in the scratch area of array FDMAP which means that too many descriptors have been entered. This error message is issued by subroutine XFLIGH.

ALTITUDE PROFILE NUMBER 99999999 SPECIFIED IN FLIGHT DESCRIPTOR HAS NOT BEEN ENTERED

The altitude profile specified on the descriptor card has not been entered. This error message is issued by subroutine XFLIGH.

ANGLE SPECIFIED ON FLTTRK CARD IS GREATER THAN 360 DEGREES

The angle on the flight track card must be less than or equal to 360 degrees. This error message is issued by subroutine XFLTTR.

ANGLES NOT IN ASCENDING ORDER OR DUPLICATE ANGLE

The angles on the ground runup noise profiles (AL or PNLT) must be in ascending order. This error message is issued by subroutine XPNLT.

COLUMNS 71-74 ON THE SAELAT CARD MUST CONTAIN "ON" OR "OFF"

The SAELAT card must contain ON or OFF in columns 71-74. This error message is issued by subroutine XSAELA.

CONTINUATION CARD MISSING FOR THIS CARD IN SELECT

Continuation card was expected (previous card had a character in column 80) for the previous card. This error message is issued in subroutine SELECT.

DISTANCE COVERED BY SUBFLIGHTS IS LESS THAN TNE TOTAL FLIGHT TRACK

The total distance of all subflights is less than the flight track distance. The error is issued by subroutine XFLIGH.

EFFECTIVE RUNUP TIME - 0.0

The computed runup time is zero seconds. This error is issued by subroutine XRUNUP.

END CARD ENCOUNTERED DURING INITIALIZATION

An END card preceded the AIRFLD card. This error message is issued by XEND.

EXECUTION TERMINATED DUE TO EXCESSIVE DATA COMPATIBILITY ERRORS

More than fifteen (15) errors processed. This error message is issued in subroutine SELECT.

EXECUTION TERMINATED DUE TO EXCESSIVE ERRORS

The program processed more than fifteen (15) errors. This error message is issued by the MAIN program.

FIRST AND LAST ANGLES MUST BE O AND 180 RESPECTIVELY

The first and last angles in the ground runup noise profile were not zero or 180 respectively. This error message is issued by subroutine XPNLT.

FLIGHT TRACK STARTS WITH A LINE SEGMENT EQUAL TO ZERO

The first flight track distance must be greater than zero. This error message is issued by subroutine XFLTTR.

FLIGHT TRACK STARTS WITH AN ANGLE OF 999.9 DEGREES; RESET TO ZERO

The first segment on the flight tract must be straight. The indicated turn for the first segment is changed to a straight segment. This error message is issued by subroutine XFLTTR.

"FLTTRK" CARD IS MISSING

A FLIGHT card has been processed before a FLTRK card. This error message is issued by the MAIN program.

GROUND RUNUP NOISE PROFILE NAME DOES NOT MATCH FOR ANGLE - 999.9

The noise profile name for this angle does not match the profile name on the first card. This error message is issued by subroutine XPNLT.

ILLEGAL ALTITUDE PROFILE NAME

The altitude profile name was not found in the library. This error message is issued by subroutine XALTUD.

ILLEGAL CONTINUATION CARD AFTER "FLTTRK" CARD

The flight track card did not contain a continuation character in column 80 but a continuation card followed the flight track card. This error message is issued by subroutine XFLTTR.

ILLEGAL GLIDE SLOPE

The glide slope is less than 0.5 or more than 10.0 degrees. This error message is issued by subroutine XRUNWA.

ILLEGAL GROUND RUNUP NOISE PROFILE NAME IN ARRAY MNLMAP

The ground runup noise profile name in array MNLMAP was found in the scratch area which means it is not accessible to the program. This error message is issued by subroutine XPNLT.

ILLEGAL MAGNETIC DECLINATION 999.9 DEG TO EAST/WEST

The magnetic declinations must be greater than or equal to zero or less than or equal to 180. This error message is issued in subroutine XAIRFL.

INITIAL TRACK DISTANCE NOT ZERO

The first entry in the altitude card must be zero. This error message is issued by subroutine XALTUD.

INTEGRATED NOISE PROFILE NUMBER 999999999 SPECIFIED IN FLIGHT DESCRIPTOR HAS NOT BEEN ENTERED

The noise profile number has not been entered in array MNLMAP. The error message is issued by subroutine XFLIGH.

INVALID AIRCRAFT NUMBER, THRUST, OR AL/PNLT PROFILE

The aircraft number, thrust or AL/PNLT profile listed on the runup descriptor card have not been entered. This error is issued by subroutine XRNPDS.

INVALID KEYWORD XXXXXX

Keyword XXXXXX is invalid. This error message is issued by subroutine SELECT.

INVALID KEYWORD (KEYWORD LEFT BLANK)

Keyword left blank. This error message is issued by subroutine SELECT.

INVALID (TKOF OR LAND) FLIGHT TRACK SPECIFICATION

The flight track specification (either takeoff or landing) is incorrect. This error message is issued by subroutine XFLTTR.

INVALID UNITS SPECIFICATION - EXECUTION TERMINATED

The units specification on the units card must be "FT" or "M." This error message is issued by subroutine XUNITS.

LANDING DISPLACEMENT IS GREATER THAN RUNWAY LENGTH

The landing displacement threshold must be less than the runway length. This error message is issued by subroutine XRUNWA.

MAXIMUM NOISE LEVEL PROFILE 99999999 IS MISSING

The noise profile data set for this runup descriptor is missing. This error message is issued by subroutine RUDATA.

MAXIMUM NOISE LEVEL PROFILE 99999999 IS MISSING BUT STORAGE OVERFLOWS IF PRESENT

The noise profile data set for this runup descriptor is missing and there is no room in the library to add any more entries. This error message is issued by subroutine RUDATA.

MISSING CONTINUATION CARD IN MAIN

A continuation card was expected but was not encountered. This error message is issued in the MAIN program.

MISSING CONTINUATION CARD IN XALTUD

Previous card had a character in column 80 indicating that the next card was a continuation card. This error message is issued by subroutine XALTUD.

MISSING CONTINUATION CODE OR MISSING DATA ON GROUND RUNUP NOISE PROFILE.

LAST ANGLE - 999.9

Either the continuation card is missing or data is missing. The last angle processed is indicated. This error message is issued by subroutine XPNLT.

MISSING DATA ON GROUND RUNUP NOISE PROFILE CARD. LAST ANGLE = 999.9

A continuation card was expected but there was a non-blank character in the first field. This error message is issued by subroutine XPNLT.

MISSING "END" CARD

An END card is missing. This error message is issued in subprogram RDCARD.

NEGATIVE VALUE IN ABOVE "RUNUP" CARD

A negative time entered on preceding RUNUP card. This error is issued by subroutine XRUNUP.

NO ALTITUDE PROFILE IS SPECIFIED FOR A TAKE-OFF

There is no altitude profile specified for this aircraft. This error message is issued by subroutine XFLIGH.

NOISE LEVELS DO NOT DECREASE WITH DISTANCE FOR ANGLE = 999.9 DEGREES

Noise levels must decrease as distance form the source increases. This error message is issued by subroutine XPNLT.

NOISE LEVEL(S) ON GROUND RUNUP NOISE PROFILE *OUT* OF RANGE

A noise level in the ground runup noise profile is greater than 200 dB. This error message is issued by subroutine XPNLT.

NUMBER OF COORDINATES RESTRICTED 2 TO 10

The number of coordinates on the altitude card must be at least two (2) and no more than ten (10). This error message is issued by subroutine XALTUD.

NUMBER OF POINTS IN FLIGHT PATH > 50. NUMBER = 999

The number of points in the flight path is limited to 50. This error message is issued by subroutine XFLIGH.

PAD IN USE MORE THAN 15 HRS/DAY

The product of the number of daytime runups and runup durations exceed 15 hours per day. This error message is issued by subroutine TIMER.

PAD IN USE MORE THAN 9 HRS/NIGHT

The product of the number of runups and runup durations exceed 9 hours for night time operations. This error message is issued in subroutine TIMER.

PAD IN USE MORE THAN 999/XXXX

The product of the number of operations and the runup duration for this runup pad is either more than 12 hours/day, 3 hours/evening or 9 hours/night when a three period day metric (NEF or WECPNL) is being processed. This error message is issued by subroutine TIMER.

PROCESSING MODE DEFERRED DUE TO PREVIOUS ERROR

Processing will not take place because an error was detected. This message is issued by subroutine XPROCE when in the non-processing mode.

PROCESSING MODE DEFERRED DUE TO PREVIOUS ERROR. INPUT DATA WILL BE CHECKED BUT NO CONTOUR COMPUTATIONS WILL BE PERFORMED

Processing will not take place because an error was detected. This message is issued by subroutine XPROCE when in the processing mode.

"RNPPAD" CARD IS MISSING

A RUNUP card has been processed before a RNPPAD card. This error message is issued by the MAIN program.

RUNUP DESCRIPTOR FOR THIS COMBINATION IS MISSING

The aircraft and thrust combination specified on the RUDSCR card were not found in the libraries. This error message is issued by subroutine RUDATA.

RUNUP DESCRIPTOR FOR THIS COMBINATION IS MISSING BUT STORAGE OVER~LOWS IF PRESENT

The aircraft and thrust combination specified on the RUDSCR card were not found in the libraries and there is no room to add any more entries. This error message is issued by subroutine RUDATA.

"RUNWAY" CARD IS MISSING

A FLTRK or FLIGHT card has been processed before a RUNWAY card. This error message is issued by the MAIN program.

RUNWAY LENGTH IS GREATER THAN 99999. (FT or METERS)

The runway length is greater than 16,000 feet or 4,876.8 meters. This error message is issued by subroutine XRUNWA.

RUNWAY LENGTH LESS THAN 500 FEET

The runway length is less than 500 feet. This warning message is issued by subroutine XRUNWA.

RUNWAY NOT DEFINED

This error message means that the runway length was less than or equal to one foot. This error message is issued by subroutine XRUNWA.

TAKEOFF DISPLACEMENT IS GREATER THAN RUNWAY LENGTH

The takeoff displacement must not exceed the runway length. This error message is issued by subroutine XRUNWA.

THE AIRCRAFT HEADING ON THE RUNUP PAD IS GREATER THAN 360 DEGREES

The aircraft heading must be between zero and 360 degrees. This error message is issued by subroutine XRNPPA.

THE GROUND RUNUP NOISE PROFILE ARRAY "MNLMAP" IS FULL

The ground runup noise profile array (MNLMAP) is full and this noise profile was not entered. A list of the noise profiles in array MNLMAP is printed. This error message is issued by subroutine XPNLT.

THE XXXXXX METRIC IS NOT COMPATIBLE WITH THE YYYYYY CALCULATION OPTION

The XXXXXX metric is not compatible with the YYYYYY calculation option. "SEL" and "AL" noise data sets can only be used when calculating the DNL or CNEL noise metric. "EPNL" and "PNLT" noise data sets can be only be used for calculating "NEF" and "WECPNL" noise metric. This error message is issued by subroutine SELECT.

THIS CARD CONTAINS A NEGATIVE NUMBER OF OPERATIONS

The FLIGHT card contains a negative number of aircraft operations. The error message is issued by subroutine XFLIGH.

TOO MANY ANGLES ON GROUND RUNUP NOISE PROFILE. LIMIT IS 10

Only 10 angles are allowed on the ground runup noise profile. This error message is issued by subroutine XPNLT.

TOO MANY SEGMENTS IN FLIGHT TRACK

More than 24 segments were entered on the flight track card. This error message is issued by subroutine XFLTTR.

TRACK DISTANCE(S) NOT POSITIVE OR NOT ASCENDING

The track distances on the altitude profile card must be positive and ascending. This error message is issued by subroutine XALTUD.

UPPER RANGE BOUND MUST BE GREATER THAN OR EQUAL TO LOWER BOUND

The upper aircraft range bound on the SAELAT card must be greater than the lower aircraft bound. This error message is issued by subroutine XSAELA.

WARNINGS

A PREVIOUS NAVAID ENTRY FOR XXXX HAS BEEN DELETED

This navigation aid has already been entered. This entry has been deleted. This warning message is issued by subroutine XNAVAI.

AIRCRAFT NEVER ASCENDS ABOVE 301.0 FEET

The aircraft never ascends above 301 feet. All aircraft must ascend above 301 feet. This warning message is issued by subroutine XFLIGH.

ALTITUDE PROFILE (ALTMAP) ARRAY FULL

The altitude profile array ALTMAP is full. This warning message is issued by subroutine XALTUD.

ALTITUDE PROFILE ON THE DESCRIPTOR CARD IS UNDEFINED

The altitude profile number on the descriptor card is not found in array ALTMAP. This warning message is issued by subroutine XFLTDS.

THE CALCULATED GRID SPACING FOR THE 99.9 dB CONTOUR IS 9999 (FT or M) WHICH IS LESS THAN THE 9999 (FT or M) SPACING USED

The grid spacing selected on the airfield card is greater than the optimum grid spacing. This warning message is issued by subroutine XAREA.

CONTOURS BELOW 60 dB ARE NOT CONSIDERED RELIABLE

Contour levels below 60 dB are not considered reliable. This warning message is issued by subroutine XAREA.

FLYOVER NOISE LEVEL (INLMAP) ARRAY FULL

The flyover noise level data set array INLMAP is full. This warning message issued in subroutine EXPNDB.

FURTHERMORE CONTOURS BELOW 60 dB ARE SUPPRESSED

Contour levels below 60 dB will not be calculated. This warning message is issued by subroutine XAREA.

ILLEGAL AIRCRAFT OR MISSION NUMBERS ON THE DESCRIPTOR CARD

Either the aircraft number or mission number on the descriptor card is incorrect. This warning message is issued by subroutine XFLTDS.

ILLEGAL FLIGHT NOISE PROFILE NAME

The flight noise profile name was found in the scratch area of array INLMAP which means it is not a legal name. This warning message is issued by subroutine XEPNDB.

INVALID NAME AND/OR PROPAGATION CODE NAME = 99999999 P.C. - 99999999

The name or propagation code on the flight noise profile data set is incorrect. This warning message is issued by subroutine XEPNDB.

MISSING CONTINUATION CARD FOR DESCRIPTOR CARD

The continuation card for the descriptor card is missing. This warning message is issued by subroutine XFLTDS.

MISSING CONTINUATION CARD IN XEPNDB

A continuation card is missing in subroutine XEPNDB. This warning message is issued by subroutine XEPNDB.

MISSING CONTINUATION CODE OR MISSING DATA IN XEPNDB

The continuation code in column 80 is missing or data is missing. This warning message is issued by subroutine XEPNDB.

NAVAID ARRAY (VORMAC) IS FULL

Only fifteen (15) navigational aids may be entered. This warning message is issued by subroutine XNAVAI.

NAVAID NAME MISSING

The navigational aid name was blank on the NAVAID card. This warning message is issued by subroutine XNAVAI.

NO CALCULATIONS FOR THIS FLIGHT CARD

There are no operations on this FLIGHT card. This warning message is issued by subroutine XFLIGH.

NOISE LEVEL DATA OUT OF RANGE

The noise level data is greater than 200 dB. This warning message is issued by subroutine XEPNDB.

NOISE LEVELS NON-DECREASING FOR PROPAGATION CODE - 99

The noise data set values do not decrease with increasing range. This warning message is issued by subroutine XEPNDB.

NOT ALL CHECKS WERE MADE FOR THIS FLIGHT

Too many errors were encountered to allow the flight track, altitude profile and descriptor to be merged. This warning message is issued by subroutine XFLIGH.

NUMBER OF SUBFLIGHTS IN "XFLTDS" IS RESTRICTED FROM 1 TO 10

The number of subflights must be at least one (l) and no more than ten (10). This warning message is issued by subroutine XFLTDS.

*** OUT OF RANGE ***

The dB level for the flyover air-to-ground or ground-to-ground noise data set exceeds 200 dB. This warning message is issued by subroutine XEPNDB.

SHORT FLIGHT TRACK -- EFFECTIVE NUMBER OF SUBFLIGHTS 99 OUT OF 99

The distance of the specified subflight is greater than the total flight track distance. Therefore, not all subflights are effective. This warning message is issued by subroutine XFLIGH.

SUBFLIGHT END DISTANCE MUST BE GREATER THAN BEGINNING DISTANCE

The subflight end distance must be greater than the beginning distance. This warning message is issued by subroutine XFLTDS.

THE FLIGHT DESCRIPTOR ARRAY FDMAP IS FULL

The flight descriptor array FDMAP is full. A clear card must be issued to clear the array. This warning message is issued by subroutine XFLTDS.

THE RUNUP DESCRIPTOR ARRAY "RDMAP" IS FULL

No room in array RDMAP for this runup descriptor card. A CLEAR card must be issued to clear array. A list of the current runup descriptors will be printed. This warning message is issued by subroutine XRNPDS.

THE SPECIFIC POINT ARRAY IS FULL

Only 20 specific points can be entered. This warning message is issued by subroutine XSPECI.

TOUCH-AND-CRASH: AIRCRAFT DESCENDS TO 999.9 FT/N AT LOCATION X = 999999.9 AND Y - 99999.9 WHICH IS 999999.9 FT/M FROM BRAKE RELEASE POINT

The aircraft descends below 301.0 feet within 100 feet of the break release point. This warning message is issued by subroutine XFLIGH.

APPENDIX C

List of Military and Civilian Aircraft in the
NOISEFILE 6.0 Data Base

Terms Used in this Appendix:

ACC Number

This is used to distinguish the different aircraft in NOISEFILE. Each flyover, run-up, and civilian aircraft has a unique number.

OPCR Number

This number is used to access the different reference power settings available for each aircraft in NOISEFILE.

Table C-1

Alphabetical Listing of Military and Civilian Aircraft in Noisefile 6.0

Military A/C Designation Flyover	ACC	Military A/C Designation Runup	ACC	Civilian A/C Designation	ACC
A-10A	37	(AF32A-13) F-111A SUPP	779	INM01 B-747 (Q)	843
A-3	513	(AF32A-14) F-4 SUPP	731	INM02 B-747 (N)	831
A-37	504	(AF32A-16) F-100 SUPP	730	INM03 B-747 (N)	831
A-4	130	(AF32A-17) F-106 SUPP	778	INM04 B-747 (N)	831
A-5	131	(AF32A-18) F-5 SUPP	746	INM05 NOT AVAILABLE	999
A-6	132	(AF32A-18) T-38 SUPP	733	INM06 DC-8-20 (Q)	802
A-7	133	(AF32A-19) A-7 SUPP	833	INM07 B-707 (Q)	802
AV-8A	134	(AF32A-23) F-15 SUPP	761	INM08 B-720 (Q)	802
AV-8B	140	(AF32A-24) A-7 SUPP	834	INM09 B-707 (N)	803
B-1	39	(AF32A-25) F-16 SUPP	738	INM10 B-707 (N)	803
B-52B&C	519	(AF32A-52) KC-135A SUPP	726	INM11 B-720B (N)	803
B-52G	43	(GRADE I) SUPPRESSORS	991	INM12 DC-8-50 (N)	803
B-52H	44	(GRADE II) SUPPRESSORS	992	INM13 DC-8-60 (N)	803
B-57E	70	(GRADE III) SUPPRESSORS	993	INM14 DC-8-70 (N)	805
C-118	507	A-10A	37	INM15 BAE-146	832
C-119	74	A-3	513	INM16 B-707 (QN)	804
C-12	535	A-37B	4	INM17 DC-8-60 (QN)	804
C-121	75	A-4	130	INM18 CONCORDE	860
C-123K	523	A-6A	132	INM19 DC-10-10	851
C-130	6	A-7E	133	INM20 DC-10-30	851
C-130A	520	AC-123K	23	INM21 DC-10-40	851
C-130H	521	AV-8A	134	INM22 L-1011	852
C-131	28	AV-8B	140	INM23 L-1011	852
C-135A	26	B-1	39	INM24 B-727 (N)	812
C-135B	25	B-52B&C&D&E	519	INM25 B-727 (N)	812
C-137	540	B-52G	43	INM26 B-727 (N)	812
C-140	508	B-52H	44	INM27 B-727 (Q)	814
C-141	27	B-57G	70	INM28 B-727 (Q)	814
C-17	536	C-118	507	INM29 B-727 (Q)	814
C-18	84	C-119L	74	INM30 B-727 (Q)	814
C-20	541	C-121	75	INM31 A-300	829
C-21	85	C-130A&D	520	INM32 B-767	821
C-22	542	C-130E	6	INM33 B-767	821
C-23	547	C-130H&N&P	521	INM34 A-310	829
C-5A	22	C-131B	28	INM35 B-737	897
C-7	72	C-135A	26	INM36 B-737	897
C-9	73	C-135B	25	INM37 BAC-111	826
CH-3C	605	C-140	508	INM38 F-28 MK2	825
CH-47C	607	C-141A	27	INM39 F-28 MK4	825
CH-54B	606	C-18A	84	INM40 DC-9-30 (N)	826
E-3A	3	C-21A	85	INM41 DC-9-10 (N)	826
E-4	548	C-5A	22	INM42 B-737 (N)	826
F-100	30	C-7A	72	INM43 DC-9-30 (Q)	824
F-101	71	C-9A	73	INM44 DC-9-10 (Q)	824
F-102	512	E-3A	3	INM45 B-737 (Q)	824
F-104G	45	F-100D	30	INM46 DC-9-50 (Q)	824
F-105	77	F-101B	71	INM47 B-737 (Q)	824
F-106	78	F-102A	12	INM48 MD-81	827
F-111A	510	F-104D	45	INM49 MD-82	827
F-111D	511	F-105D	77	INM50 MD-83	827
F-111F	79	F-106	78	INM51 B-757	828

Table C-1 (Continued)

Military A/C Designation Flyover	ACC	Military A/C Designation Runup	ACC	Civilian A/C Designation	ACC
F-14	136	F-111D	511	INM52 NOT AVAILABLE	999
F-15	61	F-111F	79	INM53 COMPOS BUS JET	891
F-16	38	F-14A	136	INM54 LEARJET-35	895
F-18	7	F-15A	61	INM55 LEARJET-25	893
F-4	31	F-16	38	INM56 SABER 80	896
F-5A&B	509	F-18	7	INM57 CESSNA BUS JET	881
F-5E	46	F-4C	31	INM58 CL-600	883
F-8	527	F-5A&B	509	INM59 GIIB	894
FB-111	80	F-5E	46	INM60 MU-3001	882
HH-53	603	F-8	527	INM61 CL-601	884
KC-10	5	FB-111A	80	INM62 ASTRA	885
KC-135R	86	HUSH HOUSE(F-105 A/C)	706	INM63 ELECTRA	902
KC-97	81	HUSH HOUSE(F-106 A/C)	707	INM64 NOT AVAILABLE	999
OH-6A	610	HUSH HOUSE(F-111F A/C)	708	INM65 DH-7	904
OTHER HELICOPTER	999	HUSH HOUSE(F-15 A/C)	704	INM66 CV-580	905
OTHER MILITARY	999	HUSH HOUSE(F-16 A/C)	705	INM67 HS-748	912
OV-10	82	HUSH HOUSE(F-4 A/C)	702	INM68 SHORTS SD3-30	913
P-3	137	HUSH HOUSE(F100-PW-100 E)	714	INM69 DH-6	915
S-3A	138	HUSH HOUSE(J75-P-17 ENG.)	717	INM70 DC-6	931
SR-71	517	HUSH HOUSE(J75-P-19 ENG.)	716	INM71 CV-340	941
T-29	516	HUSH HOUSE(J79-GE-15 ENG)	712	INM72 SAAB-340	914
T-2C	139	HUSH HOUSE(T-38 A/C)	709	INM73 2-ENG SM TPROP	911
T-33	29	HUSH HOUSE(TF30-P-100 E)	718	INM74 1-ENG VAR PTCH	954
T-34	549	HUSH HOUSE(TF41-A-1 ENG.)	711	INM75 1-ENG FIX PTCH	955
T-37	24	KC-10A	5	INM76 BEECH BARON	942
T-38	33	KC-135R	86	INM77 1-ENG PISTON	953
T-39	32	KC-97L	81	INM81 HERCULES-380	903
T-41	550	L-1011-1	851	INM99 OTHER CIVILIAN	999
T-42	551	OTHER MILITARY	999		
T-43	83	OV-10A	82		
T-44	552	P-3A	137		
T-45	553	RA-5C	131		
TH-55A	609	S-3A	138		
TR-1	554	SR-71	517		
U-2	518	T-29	516		
U-21	556	T-2C	139		
U-4B	76	T-33A	29		
U-6	555	T-37B	24		
UH-13	608	T-38A	33		
UH-1N	604	T-39A	32		
YC-14	14	T-43A	83		
YC-15	15	U-2	518		
		U-4B	76		
		YC-14	14		
		YC-14 FLAPS 30	57		
		YC-14 THRUSTER	58		
		YC-15	15		
		YC-15 FLAPS 24	59		

Table C-2

Military and Civilian Aircraft in Noisefile 6.0 Sorted by Noisefile's Aircraft Reference (ACC) Number

Military A/C Designation Flyover	ACC	Military A/C Designation Runup	ACC	Civilian A/C Designation	ACC
E-3A	3	E-3A	3	INM06 DC-8-20 (Q)	802
KC-10	5	A-37B	4	INM07 B-707 (Q)	802
C-130	6	KC-10A	5	INM08 B-720 (Q)	802
F-18	7	C-130E	6	INM09 B-707 (N)	803
YC-14	14	F-18	7	INM10 B-707 (N)	803
YC-15	15	F-102A	12	INM11 B-720B (N)	803
C-5A	22	YC-14	14	INM12 DC-8-50 (N)	803
T-37	24	YC-15	15	INM13 DC-8-60 (N)	803
C-135B	25	C-5A	22	INM16 B-707 (QN)	804
C-135A	26	AC-123K	23	INM17 DC-8-60 (QN)	804
C-141	27	T-37B	24	INM14 DC-8-70 (N)	805
C-131	28	C-135B	25	INM24 B-727 (N)	812
T-33	29	C-135A	26	INM25 B-727 (N)	812
F-100	30	C-141A	27	INM26 B-727 (N)	812
F-4	31	C-131B	28	INM27 B-727 (Q)	814
T-39	32	T-33A	29	INM28 B-727 (Q)	814
T-38	33	F-100D	30	INM29 B-727 (Q)	814
A-10A	37	F-4C	31	INM30 B-727 (Q)	814
F-16	38	T-39A	32	INM32 B-767	821
B-1	39	T-38A	33	INM33 B-767	821
B-52G	43	A-10A	37	INM43 DC-9-30 (Q)	824
B-52H	44	F-16	38	INM44 DC-9-10 (Q)	824
F-104G	45	B-1	39	INM45 B-737 (Q)	824
F-5E	46	B-52G	43	INM46 DC-9-50 (Q)	824
F-15	61	B-52H	44	INM47 B-737 (Q)	824
B-57E	70	F-104D	45	INM38 F-28 MK2	825
F-101	71	F-5E	46	INM39 F-28 MK4	825
C-7	72	YC-14 FLAPS 30	57	INM37 BAC-111	826
C-9	73	YC-14 THRUSTER	58	INM40 DC-9-30 (N)	826
C-119	74	YC-15 FLAPS 24	59	INM41 DC-9-10 (N)	826
C-121	75	F-15A	61	INM42 B-737 (N)	826
U-4B	76	B-57G	70	INM48 MD-81	827
F-105	77	F-101B	71	INM49 MD-82	827
F-106	78	C-7A	72	INM50 MD-83	827
F-111F	79	C-9A	73	INM51 B-757	828
FB-111	80	C-119L	74	INM31 A-300	829
KC-97	81	C-121	75	INM34 A-310	829
OV-10	82	U-4B	76	INM02 B-747 (N)	831
T-43	83	F-105D	77	INM03 B-747 (N)	831
C-18	84	F-106	78	INM04 B-747 (N)	831
C-21	85	F-111F	79	INM15 BAE-146	832
KC-135R	86	FB-111A	80	INM01 B-747 (Q)	843
A-4	130	KC-97L	81	INM19 DC-10-10	851
A-5	131	OV-10A	82	INM20 DC-10-30	851
A-6	132	T-43A	83	INM21 DC-10-40	851
A-7	133	C-18A	84	INM22 L-1011	852
AV-8A	134	C-21A	85	INM23 L-1011	852
F-14	136	KC-135R	86	INM18 CONCORDE	860
P-3	137	A-4	130	INM57 CESSNA BUS JET	881
S-3A	138	RA-5C	131	INM60 MU-3001	882
T-2C	139	A-6A	132	INM58 CL-600	883

Table C-2 (Continued)

Military A/C Designation Flyover	ACC	Military A/C Designation Runup	ACC	Civilian A/C Designation	ACC
AV-8B	140	A-7E	133	INM61 CL-601	884
A-37	504	AV-8A	134	INM62 ASTRA	885
C-118	507	F-14A	136	INM53 COMPOS BUS JET	891
C-140	508	P-3A	137	INM55 LEARJET-25	893
F-5A&B	509	S-3A	138	INM59 GIIB	894
F-111A	510	T-2C	139	INM54 LEARJET-35	895
F-111D	511	AV-8B	140	INM56 SABER 80	896
F-102	512	C-118	507	INM35 B-737	897
A-3	513	C-140	508	INM36 B-737	897
T-29	516	F-5A&B	509	INM63 ELECTRA	902
SR-71	517	F-111D	511	INM81 HERCULES-380	903
U-2	518	A-3	513	INM65 DH-7	904
B-52B&C	519	T-29	516	INM66 CV-580	905
C-130A	520	SR-71	517	INM73 2-ENG SM TPROP	911
C-130H	521	U-2	518	INM67 HS-748	912
C-123K	523	B-52B&C&D&E	519	INM68 SHORTS SD3-30	913
F-8	527	C-130A&D	520	INM72 SAAB-340	914
C-12	535	C-130H&N&P	521	INM69 DH-6	915
C-17	536	F-8	527	INM70 DC-6	931
C-137	540	HUSH HOUSE(F-4 A/C)	702	INM71 CV-340	941
C-20	541	HUSH HOUSE(F-15 A/C)	704	INM76 BEECH BARON	942
C-22	542	HUSH HOUSE(F-16 A/C)	705	INM77 1-ENG PISTON	953
C-23	547	HUSH HOUSE(F-105 A/C)	706	INM74 1-ENG VAR PTCH	954
E-4	548	HUSH HOUSE(F-106 A/C)	707	INM75 1-ENG FIX PTCH	955
T-34	549	HUSH HOUSE(F-111F A/C)	708	INM05 NOT AVAILABLE	999
T-41	550	HUSH HOUSE(T-38 A/C)	709	INM52 NOT AVAILABLE	999
T-42	551	HUSH HOUSE(TF41-A-1 ENG.)	711	INM64 NOT AVAILABLE	999
T-44	552	HUSH HOUSE(J79-GE-15 ENG)	712	INM99 OTHER CIVILIAN	999
T-45	553	HUSH HOUSE(F100-PW-100 E)	714		
TR-1	554	HUSH HOUSE(J75-P-19 ENG.)	716		
U-6	555	HUSH HOUSE(J75-P-17 ENG.)	717		
U-21	556	HUSH HOUSE(TF30-P-100 E)	718		
HH-53	603	(AF32A-52) KC-135A SUPP	726		
UH-1N	604	(AF32A-16) F-100 SUPP	730		
CH-3C	605	(AF32A-14) F-4 SUPP	731		
CH-54B	606	(AF32A-18) T-38 SUPP	733		
CH-47C	607	(AF32A-25) F-16 SUPP	738		
UH-13	608	(AF32A-18) F-5 SUPP	746		
TH-55A	609	(AF32A-23) F-15 SUPP	761		
OH-6A	610	(AF32A-17) F-106 SUPP	778		
OTHER HELICOPTER	999	(AF32A-13) F-111A SUPP	779		
OTHER MILITARY	999	(AF32A-19) A-7 SUPP	833		
		(AF32A-24) A-7 SUPP	834		
		L-1011-1	851		
		(GRADE I) SUPPRESSORS	991		
		(GRADE II) SUPPRESSORS	992		
		(GRADE III) SUPPRESSORS	993		
		OTHER MILITARY	999		

Table C-3

Alphabetical Listing of Flyover Aircraft in Noisefile 6.0

A/C DESIGNATION	ACC	OPCR	PRIMARY POWER SETTING	ALTERNATE POWER SETTING	SPEED (KTS)	POWER DESCRIPTION
E-3A	3	3	1.83 EPR		250	TAKEOFF
E-3A	3	5	1.45 EPR		250	APPROACH
E-3A	3	6	1.5 EPR		250	INTERMEDIATE
E-3A	3	13	1.12 EPR		250	TRAFFIC PATTERN
KC-10	5	3	110 % N1	866 CEGT	230	TAKEOFF
KC-10	5	5	79 % N1	604 CEGT	165	APPROACH
KC-10	5	6	90.2 % N1	695 CEGT	210	INTERMEDIATE
KC-10	5	13	60 % N1	478 CEGT	200	TRAFFIC PATTERN
KC-10	5	14	100 % N1	780 CEGT	230	INTERMED (MIL)
C-130	6	3	970 C TIT	16800 IN-LBS	170	TAKEOFF
C-130	6	5	580 C TIT	4000 IN-LBS	140	APPROACH
F-18	7	1	101.5 % NC	10030 LBS/HR	250	AFTERBURNER
F-18	7	3	101 % NC	9000 LBS/HR	250	TAKEOFF
F-18	7	5	86 % NC	4250 LBS/HR	250	APPROACH
F-18	7	13	68 % NC	2097 LBS/HR	250	TRAFFIC PATTERN
YC-14	14	3	3772 NF		120	TAKEOFF
YC-14	14	4	2468 NF		250	CRUISE
YC-14	14	5	2068 NF		85	APPROACH
YC-14	14	13	2605 NF		150	TRAFFIC PATTERN
YC-14	14	15	3640 NF		110	STOL TAKEOFF
YC-14	14	16	2118 NF		80	STOL APPROACH
YC-15	15	3	2.25 EPR	99 % NF	120	TAKEOFF
YC-15	15	5	1.56 EPR	89 % NF	85	APPROACH
YC-15	15	6	1.4 EPR	86 % NF	150	INTERMEDIATE
YC-15	15	13	1.45 EPR	77 % NF	150	TRAFFIC PATTERN
YC-15	15	15	2.23 EPR	99 % NF	110	STOL TAKEOFF
YC-15	15	16	1.55 EPR	89 % NF	80	STOL APPROACH
C-5A	22	3	4 EPR	80 % NC	185	TAKEOFF
C-5A	22	4	2.48 EPR	68 % NC	250	CRUISE
C-5A	22	5	2.99 EPR	68 % NC	150	APPROACH
C-5A	22	6	3.38 EPR	75 % NC	130	INTERMEDIATE
C-5A	22	13	3.07 EPR	71 % NC	165	TRAFFIC PATTERN
T-37	24	3	99 % RPM		170	TAKEOFF
T-37	24	4	90 % RPM		225	CRUISE
T-37	24	5	80 % RPM		105	APPROACH
C-135B	25	3	100 % RPM	2 EPR	250	TAKEOFF
C-135B	25	4	76 % RPM	1 EPR	300	CRUISE
C-135B	25	5	90 % RPM	1 EPR	160	APPROACH
C-135A	26	2	2.85 EPR	96 % RPM	200	TAKEOFF WET
C-135A	26	3	2.45 EPR	96 % RPM	199	TAKEOFF
C-135A	26	4	1.5 EPR	86 % RPM	300	CRUISE
C-135A	26	5	1.75 EPR	90 % RPM	160	APPROACH
C-141	27	3	96 % RPM	2 EPR	250	TAKEOFF
C-141	27	4	85 % RPM	2 EPR	300	CRUISE
C-141	27	5	68 % RPM	1 EPR	140	APPROACH
C-141	27	6	68 % RPM	1 EPR	140	INTERMEDIATE
C-141	27	12	91 % RPM	2 EPR	250	NORMAL RATED THRUST
C-131	28	3	60 IN HG	2800 RPM	140	TAKEOFF
C-131	28	4	32 IN HG	2000 RPM	180	CRUISE
C-131	28	5	27 IN HG	2400 RPM	120	APPROACH
T-33	29	3	100 % RPM		200	TAKEOFF
T-33	29	4	90 % RPM		300	CRUISE
T-33	29	5	80 % RPM		125	APPROACH
F-100	30	1	95 % RPM	2 EPR	300	AFTERBURNER
F-100	30	3	94.5 % RPM	2 EPR	299	TAKEOFF

Table C-3 (Continued)

A/C DESIGNATION	ACC	OPCR	PRIMARY POWER SETTING	ALTERNATE POWER SETTING	SPEED (KTS)	POWER DESCRIPTION
F-100	30	4	92.3 % RPM	2 EPR	370	CRUISE
F-100	30	5	89 % RPM	1 EPR	200	APPROACH
F-4	31	1	100 % RPM		300	AFTERBURNER
F-4	31	3	100 % RPM		299	TAKEOFF
F-4	31	5	87 % RPM		190	APPROACH
F-4	31	13	86.5 % RPM		200	TRAFFIC PATTERN
T-39	32	3	100 % RPM	2 EPR	180	TAKEOFF
T-39	32	4	89 % RPM	2 EPR	250	CRUISE
T-39	32	5	79.5 % RPM	1 EPR	115	APPROACH
T-38	33	1	100 % RPM		300	AFTERBURNER
T-38	33	3	100 % RPM		299	TAKEOFF
T-38	33	4	90 % RPM		301	CRUISE
T-38	33	5	91 % RPM		170	APPROACH
A-10A	37	5	5225 NF	638 C TIT	150	APPROACH
A-10A	37	11	6700 NF	826 C TIT	350	MAX RATED THRUST
A-10A	37	12	6200 NF	756 C TIT	300	NORMAL RATED THRUST
A-10A	37	13	5325 NF	646 C TIT	160	TRAFFIC PATTERN
F-16	38	1	90 % RPM	900 C TIT	350	AFTERBURNER
F-16	38	3	90 % RPM	900 C TIT	350	TAKEOFF
F-16	38	5	82 % RPM	650 C TIT	130	APPROACH
F-16	38	6	85 % RPM	750 C TIT	300	INTERMEDIATE
F-16	38	13	75 % RPM	530 C TIT	200	TRAFFIC PATTERN
F-16	38	14	92 % RPM	960 C TIT	350	INTERMED (MIL)
B-1	39	1	97.5 % RPM	874 CEGT	275	AFTERBURNER
B-1	39	4	89.9 % RPM	611 CEGT	360	CRUISE
B-1	39	5	90 % RPM	600 CEGT	165	APPROACH
B-1	39	14	98.5 % RPM	877 CEGT	270	INTERMED (MIL)
B-52G	43	2	94 % RPM	3 EPR	170	TAKEOFF-WET
B-52G	43	3	94 % RPM	2 EPR	170	TAKEOFF
B-52G	43	4	83.5 % RPM	1 EPR	250	CRUISE
B-52G	43	5	86 % RPM	2 EPR	140	APPROACH
B-52H	44	3	8200 LBS/HR	2 EPR	170	TAKEOFF
B-52H	44	4	2110 LBS/HR	1 EPR	250	CRUISE
B-52H	44	5	3965 LBS/HR	1 EPR	150	APPROACH
F-104G	45	1	100 % RPM		240	AFTERBURNER
F-104G	45	3	100 % RPM		239	TAKEOFF
F-104G	45	4	92 % RPM		300	CRUISE
F-104G	45	5	95 % RPM		190	APPROACH
F-104G	45	6	92 % RPM		300	INTERMEDIATE
F-5E	46	1	101 % RPM		350	AFTERBURNER
F-5E	46	3	101 % RPM		300	TAKEOFF
F-5E	46	4	86 % RPM		325	CRUISE
F-5E	46	5	82 % RPM		170	APPROACH
F-15	61	1	91 % RPM		350	AFTERBURNER
F-15	61	3	90 % RPM		300	TAKEOFF
F-15	61	4	73.5 % RPM		280	CRUISE
F-15	61	5	75 % RPM		170	APPROACH
B-57E	70	3	100 % RPM		200	TAKEOFF
B-57E	70	5	82 % RPM		150	APPROACH
B-57E	70	6	92 % RPM		280	INTERMEDIATE
F-101	71	1	96.5 % RPM		350	AFTERBURNER
F-101	71	3	96 % RPM		350	TAKEOFF
F-101	71	5	89 % RPM		200	APPROACH
F-101	71	6	88 % RPM		300	INTERMEDIATE
C-7	72	3	50 IN HG	2700 RPM	160	TAKEOFF

Table C-3 (Continued)

A/C DESIGNATION	ACC	OPCR	PRIMARY POWER SETTING	ALTERNATE POWER SETTING	SPEED (KTS)	POWER DESCRIPTION
C-7	72	5	27 IN HG	2250 RPM	90	APPROACH
C-7	72	6	35 IN HG	2550 RPM	140	INTERMEDIATE
C-9	73	3	1.97 EPR		250	TAKEOFF
C-9	73	5	1.35 EPR		160	APPROACH
C-9	73	6	1.7 EPR		300	INTERMEDIATE
C-119	74	3	39 IN HG	2900 RPM	135	TAKEOFF
C-119	74	5	33.6 IN HG	2600 RPM	120	APPROACH
C-119	74	6	33.5 IN HG	2000 RPM	150	INTERMEDIATE
C-121	75	3	58 IN HG	2900 RPM	165	TAKEOFF
C-121	75	4	33 IN HG	2350 RPM	150	CRUISE
C-121	75	5	35 IN HG	2600 RPM	140	APPROACH
C-121	75	6	40 IN HG	2350 RPM	150	INTERMEDIATE
U-4B	76	3	45 IN HG		170	TAKEOFF
U-4B	76	5	24 IN HG		100	APPROACH
U-4B	76	6	30 IN HG		180	INTERMEDIATE
F-105	77	1	102.5 % RPM		350	AFTERBURNER
F-105	77	3	102 % RPM		300	TAKEOFF
F-105	77	5	96.5 % RPM		210	APPROACH
F-105	77	6	93 % RPM		290	INTERMEDIATE
F-106	78	1	108 % RPM	2 EPR	350	AFTERBURNER
F-106	78	3	106 % RPM	2 EPR	350	TAKEOFF
F-106	78	5	93 % RPM	2 EPR	200	APPROACH
F-106	78	6	86.5 % RPM	1 EPR	300	INTERMEDIATE
F-111F	79	1	97 % RPM		350	AFTERBURNER
F-111F	79	3	97 % RPM		300	TAKEOFF
F-111F	79	5	81 % RPM		150	APPROACH
F-111F	79	6	86 % RPM		350	INTERMEDIATE
FB-111	80	1	100 % RPM		250	AFTERBURNER
FB-111	80	3	100 % RPM		240	TAKEOFF
FB-111	80	5	92 % RPM		160	APPROACH
KC-97	81	3	59 IN HG	2700 RPM	190	TAKEOFF
KC-97	81	5	35 IN HG	2350 RPM	125	APPROACH
KC-97	81	8	59 IN HG	2700 RPM	230	TAKEOFF WITH JETS
KC-97	81	9	35 IN HG	2350 RPM	130	APPROACH WITH JETS
OV-10	82	3	100 % RPM		150	TAKEOFF
OV-10	82	5	97 % RPM		100	APPROACH
OV-10	82	6	97 % RPM		140	INTERMEDIATE
T-43	83	3	1.97 EPR		200	TAKEOFF
T-43	83	5	1.46 EPR		140	APPROACH
T-43	83	6	1.21 EPR		250	INTERMEDIATE
C-18	84	3	1.84 EPR	108 % RPM	300	TAKEOFF
C-18	84	4	1.12 EPR	75 % RPM	250	CRUISE
C-18	84	5	1.26 EPR	82 % RPM	140	APPROACH
C-21	85	3	96 % RPM	817 CEGT	300	TAKEOFF
C-21	85	5	70.4 % RPM	617 CEGT	140	APPROACH
C-21	85	6	80 % RPM	679 CEGT	225	INTERMEDIATE
C-21	85	18	60 % RPM	546 CEGT	250	FLT IDLE-250 KNOTS
KC-135R	86	5	66.5 % N1	567 CEGT	150	APPROACH
KC-135R	86	6	80.3 % N1	670 CEGT	240	INTERMEDIATE
KC-135R	86	11	89.6 % N1	767 CEGT	300	MAX RATED THRUST
KC-135R	86	13	70.5 % N1	580 CEGT	225	TRAFFIC PATTERN
A-4	130	3	100 % RPM	2 EPR	250	TAKEOFF
A-4	130	4	83 % RPM	2 EPR	300	CRUISE
A-4	130	5	93 % RPM	2 EPR	150	APPROACH
A-5	131	1	100 % RPM		250	AFTERBURNER

Table C-3 (Continued)

A/C DESIGNATION	ACC	OPCR	PRIMARY POWER SETTING	ALTERNATE POWER SETTING	SPEED (KTS)	POWER DESCRIPTION
A-5	131	3	100 % RPM		249	TAKEOFF
A-5	131	5	83 % RPM		160	APPROACH
A-6	132	3	100 % RPM	2 EPR	250	TAKEOFF
A-6	132	5	95 % RPM	2 EPR	160	APPROACH
A-7	133	3	96 % RPM		300	TAKEOFF
A-7	133	4	85 % RPM		301	CRUISE
A-7	133	5	82 % RPM		160	APPROACH
AV-8A	134	3	103.5 % RPM		300	TAKEOFF
AV-8A	134	4	75 % RPM		350	CRUISE
AV-8A	134	5	70 % RPM		150	APPROACH
F-14	136	1	100 % RPM		300	AFTERBURNER
F-14	136	3	100 % RPM		299	TAKEOFF
F-14	136	4	82.5 % RPM		350	CRUISE
F-14	136	5	85 % RPM		150	APPROACH
P-3	137	3	3875 ESHP		140	TAKEOFF
P-3	137	4	2000 ESHP		180	CRUISE
P-3	137	5	900 ESHP		120	APPROACH
S-3A	138	3	3.03 EPR	97 % RPM	250	TAKEOFF
S-3A	138	4	1.77 EPR	60 % RPM	251	CRUISE
S-3A	138	5	2 EPR	69 % RPM	140	APPROACH
T-2C	139	3	101.7 % RPM		180	TAKEOFF
T-2C	139	4	75 % RPM		250	CRUISE
T-2C	139	5	72.5 % RPM		140	APPROACH
AV-8B	140	3	95 % RPM		300	TAKEOFF
AV-8B	140	5	84 % RPM		150	APPROACH
AV-8B	140	13	70 % RPM		230	TRAFFIC PATTERN
AV-8B	140	17	40 % RPM		350	FLIGHT IDLE
A-37	504	3	100 % RPM		300	TAKEOFF
A-37	504	4	90 % RPM		300	CRUISE
A-37	504	5	91 % RPM		170	APPROACH
C-118	507	3	60 IN HG	2800 RPM	140	TAKEOFF
C-118	507	4	32 IN HG	2000 RPM	180	CRUISE
C-118	507	5	27 IN HG	2400 RPM	120	APPROACH
C-140	508	3	100 % RPM	2 EPR	180	TAKEOFF
C-140	508	4	89 % RPM	2 EPR	250	CRUISE
C-140	508	5	79.5 % RPM	1 EPR	115	APPROACH
F-5A&B	509	1	101 % RPM		350	AFTERBURNER
F-5A&B	509	3	101 % RPM		300	TAKEOFF
F-5A&B	509	4	86 % RPM		325	CRUISE
F-5A&B	509	5	82 % RPM		170	APPROACH
F-111A	510	1	97 % RPM		350	AFTERBURNER
F-111A	510	3	97 % RPM		300	TAKEOFF
F-111A	510	5	81 % RPM		150	APPROACH
F-111A	510	6	86 % RPM		350	INTERMEDIATE
F-111D	511	1	97 % RPM		350	AFTERBURNER
F-111D	511	3	97 % RPM		300	TAKEOFF
F-111D	511	5	81 % RPM		150	APPROACH
F-111D	511	6	86 % RPM		350	INTERMEDIATE
F-102	512	1	95 % RPM	2 EPR	300	AFTERBURNER
F-102	512	3	94.5 % RPM	2 EPR	300	TAKEOFF
F-102	512	4	92.3 % RPM	2 EPR	370	CRUISE
F-102	512	5	89 % RPM	1 EPR	200	APPROACH
A-3	513	3	96 % RPM		350	TAKEOFF
A-3	513	5	89 % RPM		200	APPROACH
A-3	513	6	88 % RPM		300	INTERMEDIATE

Table C-3 (Continued)

A/C DESIGNATION	ACC	OPCR	PRIMARY POWER SETTING	ALTERNATE POWER SETTING	SPEED (KTS)	POWER DESCRIPTION
T-29	516	3	60 IN HG	2800 RPM	140	TAKEOFF
T-29	516	4	32 IN HG	2000 RPM	180	CRUISE
T-29	516	5	27 IN HG	2400 RPM	120	APPROACH
SR-71	517	1	100 % RPM		200	AFTERBURNER
SR-71	517	3	70 % RPM		200	TAKEOFF
SR-71	517	5	30 % RPM		200	APPROACH
U-2	518	3	102 % RPM		300	TAKEOFF
U-2	518	5	96.5 % RPM		210	APPROACH
U-2	518	6	93 % RPM		290	INTERMEDIATE
B-52B&C	519	2	94 % RPM	3 EPR	170	TAKEOFF-WET
B-52B&C	519	3	94 % RPM	2 EPR	170	TAKEOFF
B-52B&C	519	4	83.5 % RPM	1 EPR	250	CRUISE
B-52B&C	519	5	86 % RPM	2 EPR	140	APPROACH
C-130A	520	3	970 C TIT	16800 IN-LBS	170	TAKEOFF
C-130A	520	5	580 C TIT	4000 IN-LBS	140	APPROACH
C-130H	521	3	970 C TIT	16800 IN-LBS	170	TAKEOFF
C-130H	521	5	580 C TIT	4000 IN-LBS	140	APPROACH
C-123K	523	3	2800 RPM		140	TAKEOFF
C-123K	523	5	2400 RPM		120	APPROACH
C-123K	523	8	2800 RPM		200	TAKEOFF WITH JETS
C-123K	523	9	2400 RPM		150	APPROACH WITH JETS
F-8	527	1	95 % RPM		300	AFTERBURNER
F-8	527	3	94.5 % RPM		300	TAKEOFF
F-8	527	4	92.3 % RPM		370	CRUISE
F-8	527	5	89 % RPM		200	APPROACH
C-12	535	3	100 % RPM		160	TAKEOFF
C-12	535	5	30 % RPM		160	LANDING
C-17	536	3	30000 LBS		160	TAKEOFF
C-17	536	4	10000 LBS		160	CRUISE
C-17	536	5	5000 LBS		160	APPROACH
C-137	540	3	15000 LBS		160	TAKEOFF
C-137	540	5	4000 LBS		160	LANDING
C-20	541	3	14000 LBS		160	TAKEOFF
C-20	541	4	6000 LBS		160	CRUISE
C-20	541	5	3000 LBS		160	LANDING
C-22	542	3	14000 LBS		160	TAKEOFF
C-22	542	4	6000 LBS		160	CRUISE
C-22	542	5	3000 LBS		160	LANDING
C-23	547	3	100 % RPM		160	TAKEOFF
C-23	547	5	30 % RPM		160	LANDING
E-4	548	3	40000 LBS		160	TAKEOFF
E-4	548	4	16000 LBS		160	CRUISE
E-4	548	5	8000 LBS		160	LANDING
E-4	548	6	32000 LBS		160	INTERMEDIATE
T-34	549	3	100 % RPM		160	TAKEOFF
T-34	549	5	30 % RPM		160	LANDING
T-41	550	3	100 % RPM		160	TAKEOFF
T-41	550	5	30 % RPM		160	LANDING
T-42	551	3	100 % RPM		160	TAKEOFF
T-42	551	5	30 % RPM		160	LANDING
T-44	552	3	100 % RPM		160	TAKEOFF
T-44	552	5	30 % RPM		160	LANDING
T-45	553	3	1550 LBS		160	TAKEOFF
T-45	553	4	600 LBS		160	CRUISE
T-45	553	5	300 LBS		160	LANDING

Table C-3 (Continued)

A/C DESIGNATION	ACC	OPCR	PRIMARY POWER SETTING	ALTERNATE POWER SETTING	SPEED (KTS)	POWER DESCRIPTION
T-45	553	6	1200 LBS		160	INTERMEDIATE
TR-1	554	1	102.5 % RPM		350	AFTERBURNER
TR-1	554	3	102 % RPM		300	TAKEOFF
TR-1	554	5	96.5 % RPM		210	APPROACH
TR-1	554	6	93 % RPM		290	INTERMEDIATE
U-6	555	3	100 % RPM		160	TAKEOFF
U-6	555	5	30 % RPM		160	LANDING
U-21	556	3	100 % RPM		160	TAKEOFF
U-21	556	5	30 % RPM		160	LANDING
HH-53	603	1	100 % RPM		100	FLT AT 100 KTS
UH-1N	604	1	100 % RPM		80	FLT AT 80 KTS
CH-3C	605	1	100 % RPM		60	FLT AT 60 KTS
CH-3C	605	2	100 % RPM		100	FLT AT 100 KTS
CH-54B	606	1	100 % RPM		60	FLT AT 60 KTS
CH-54B	606	2	100 % RPM		80	FLT AT 80 KTS
CH-47C	607	1	100 % RPM		100	FLT AT 100 KTS
UH-13	608	1	100 % RPM		50	FLT AT 50 KTS
TH-55A	609	1	100 % RPM		80	FLT AT 80 KTS
OH-6A	610	1	100 % RPM		90	FLT AT 90 KTS
OTHER MIL.	999	3	4 EPR	108 % RPM	250	TAKEOFF
OTHER MIL.	999	5	1 EPR	40 % RPM	150	APPROACH
OTHER HELI.	999	3	100 % RPM		100	TAKEOFF
OTHER HELI.	999	5	50 % RPM		50	APPROACH

Table C-4

Alphabetical Listing of Run-Up Aircraft in Noisefile 6.0

A/C DESIGNATION	ACC	OPCR	PRIMARY POWER SETTING		ALTERNATE POWER SETTING		POWER DESCRIPTION
E-3A	3	13	1.05	EPR	28	% NF	IDLE
E-3A	3	18	1.47	EPR	85	% NF	85% RPM ENG RUNUP
E-3A	3	21	1.23	EPR	70	% NF	70% RPM ENG RUNUP
E-3A	3	30	1.84	EPR	95	% NF	TAKEOFF PWR
A-37B	4	4	100	% RPM	574	CEGT	MIL PWR
A-37B	4	13	46	% RPM	355	CEGT	IDLE
A-37B	4	18	85	% RPM	490	CEGT	85% RPM ENG RUNUP
KC-10A	5	5	103	% N1	820	CEGT	MAX CONT PWR
KC-10A	5	13	24	% N1	406	CEGT	IDLE
KC-10A	5	16	95	% N1	750	CEGT	95% RPM ENG RUNUP
KC-10A	5	21	70	% N1	530	CEGT	70% RPM ENG RUNUP
KC-10A	5	30	111	% N1	908	CEGT	TAKEOFF PWR
KC-10A	5	57	45	% N1	445	CEGT	45% ENG RUNUP
C-130E	6	9	9600	IN-LBS	775	C TIT	POWER RUNUP
C-130E	6	11	800	IN-LBS	625	C TIT	LOW IDLE
C-130E	6	13	1400	IN-LBS	560	C TIT	IDLE
C-130E	6	30	16800	IN-LBS	970	C TIT	TAKEOFF PWR
F-18	7	3	95	% RPM	813	CEGT	MAX PWR A/B
F-18	7	4	94	% RPM	815	CEGT	MIL PWR
F-18	7	13	63	% RPM	449	CEGT	IDLE
F-18	7	18	85	% RPM	655	CEGT	85% RPM ENG RUNUP
F-18	7	42	95	% RPM	807	CEGT	MIN PWR A/B
F-102A	12	3	96	% NC	2	EPR	MAX PWR A/B
F-102A	12	4	96	% NC	2	EPR	MIL PWR
F-102A	12	13	57	% NC	1	EPR	IDLE
F-102A	12	18	85	% NC	1	EPR	85% RPM ENG RUNUP
F-102A	12	20	75	% NC	1	EPR	75% RPM ENG RUNUP
YC-14	14	4	100	% NF	99	% NC	MIL PWR
YC-14	14	13	22	% NF	64	% NC	IDLE
YC-14	14	18	85	% NF	93	% NC	85% RPM ENG RUNUP
YC-14	14	30	111	% NF	102	% NC	TAKEOFF PWR
YC-15	15	13	1.04	EPR	375	EGT	IDLE
YC-15	15	33	1.8	EPR	465	EGT	1.8 EPR
YC-15	15	44	1.08	EPR	400	EGT	REVERSE IDLE
YC-15	15	46	1.95	EPR	500	EGT	1.95 EPR
C-5A	22	13	1.18	EPR	23	% NF	IDLE
C-5A	22	19	3.5	EPR	79	% NF	80% RPM ENG RUNUP
C-5A	22	22	2.5	EPR	63	% NF	65% RPM ENG RUNUP
C-5A	22	31	4.4	EPR	90	% NF	MAX PWR
C-5A	22	12	1.6	EPR	42	% NF	HIGH IDLE
AC-123K	23	8	2200	RPM	22	IN MAP	MAGNETO CHECK
AC-123K	23	10	2700	RPM	55	IN MAP	METO WITH JETS
AC-123K	23	13	650	RPM	18	IN MAP	IDLE
AC-123K	23	15	1000	RPM	17	IN MAP	TAXI
AC-123K	23	29	2700	RPM	55	IN MAP	METO NO JETS
T-37B	24	7	92	% RPM			TRIM CHECK
T-37B	24	13	37	% RPM			IDLE
T-37B	24	31	99.5	% RPM			MAX PWR
C-135B	25	7	97.4	% RPM	2	EPR	TRIM CHECK
C-135B	25	13	55	% RPM	1	EPR	IDLE
C-135B	25	17	90	% RPM	1	EPR	90% RPM ENG RUNUP
C-135B	25	19	80	% RPM	1	EPR	80% RPM ENG RUNUP
C-135B	25	21	70	% RPM	1	EPR	70% RPM ENG RUNUP
C-135B	25	31	101	% RPM	2	EPR	MAX PWR
C-135A	26	13	62	% RPM	1100	LBS/HR	IDLE
C-135A	26	17	90	% RPM	5000	LBS/HR	90% RPM ENG RUNUP
C-135A	26	19	80	% RPM	2200	LBS/HR	80% RPM ENG RUNUP
C-135A	26	31	96	% RPM	8200	LBS/HR	MAX
C-141A	27	13	28	% NF	1	EPR	IDLE
C-141A	27	21	70	% NF	1	EPR	70% RPM ENG RUNUP
C-141A	27	30	95	% NF	2	EPR	TAKEOFF PWR
C-131B	28	8	2050	RPM	28	IN MAP	MAGNETO CHECK
C-131B	28	13	800	RPM	13	IN MAP	IDLE
C-131B	28	15	1000	RPM	24	IN MAP	TAXI

Table C-4 (Continued)

A/C DESIGNATION	ACC	OPCR	PRIMARY POWER SETTING		ALTERNATE POWER SETTING		POWER DESCRIPTION
C-131B	28	30	2800	RPM	62	IN MAP	TAKEOFF PWR
T-33A	29	13	35	% RPM			IDLE
T-33A	29	25	50	% RPM			50% RPM ENG RUNUP
T-33A	29	31	100	% RPM			MAX PWR
F-100D	30	3	100	% RPM			MAX PWR A/B
F-100D	30	4	97	% RPM			MIL PWR
F-100D	30	13	53	% RPM			IDLE
F-100D	30	21	70	% RPM			70% RPM ENG RUNUP
F-4C	31	3	100	% RPM			MAX PWR A/B
F-4C	31	4	100	% RPM			MIL PWR
F-4C	31	13	65	% RPM			IDLE
F-4C	31	18	85	% RPM			85% RPM ENG RUNUP
T-39A	32	4	100	% RPM	2	EPR	MIL PWR
T-39A	32	13	41	% RPM	1	EPR	IDLE
T-39A	32	18	85	% RPM	1	EPR	85% RPM ENG RUNUP
T-39A	32	20	75	% RPM	1	EPR	75% RPM ENG RUNUP
T-38A	33	3	100	% RPM			MAX PWR A/B
T-38A	33	4	100	% RPM			MIL PWR
T-38A	33	7	94	% RPM			TRIM CHECK
T-38A	33	13	48	% RPM			IDLE
T-38A	33	20	75	% RPM			75% RPM ENG RUNUP
T-38A	33	21	70	% RPM			70% RPM ENG RUNUP
A-10A	37	5	77	% NF	91	% NC	MAX CONT PWR
A-10A	37	13	25	% NF	64	% NC	IDLE
A-10A	37	30	84	% NF	95	% NC	TAKEOFF PWR
F-16	38	1	89	% NC	950	C TIT	MAX PWR ZONE 5 A/B
F-16	38	6	90	% NC	934	C TIT	INTERMED PWR HIL
F-16	38	13	62	% NC	483	C TIT	IDLE
F-16	38	19	80	% NC	620	C TIT	80% RPM ENG RUNUP
B-1	39	3	97.6	% RPM	1310	C TIT	MAX PWR A/B
B-1	39	6	97.2	% RPM	1317	C TIT	INTERMED PWR MIL
B-1	39	13	70.5	% RPM	848	C TIT	IDLE
B-52G	43	13	61	% RPM	300	CEGT	IDLE
B-52G	43	17	90	% RPM	520	CEGT	90% RPM ENG RUNUP
B-52G	43	19	80	% RPM	340	CEGT	80% RPM ENG RUNUP
B-52G	43	31	94	% RPM	580	CEGT	MAX PWR
B-52H	44	13	1000	LBS/HR	1	EPR	IDLE
B-52H	44	16	5000	LBS/HR	1	EPR	95% RPM ENG RUNUP
B-52H	44	19	1900	LBS/HR	1	EPR	80% RPM ENG RUNUP
B-52H	44	31	8700	LBS/HR	2	EPR	MAX PWR
B-52H	44	34	7600	LBS/HR	2	EPR	NORMAL RATED THRUST
F-104D	45	3	100	% RPM			MAX PWR A/B
F-104D	45	4	100	% RPM			MIL PWR
F-104D	45	13	67	% RPM			IDLE
F-104D	45	18	85	% RPM			85% RPM ENG RUNUP
F-5E	46	3	100	% RPM	670	CEGT	MAX PWR A/B
F-5E	46	4	100	% RPM	670	CEGT	MIL PWR
F-5E	46	13	50	% RPM	395	CEGT	IDLE
F-5E	46	19	80	% RPM	340	CEGT	80% RPM ENG RUNUP
YC-14 FLAPS 30	57	51	85	% NF	93	% NC	85% RPM/FLPS 30
YC-14 FLAPS 30	57	52	110	% NF	104	% NC	TAKEOFF/FLPS 30
YC-14 FLAPS 30	57	53	22	% NF	64	% NC	IDLE/FLPS 30
YC-14 THRUSTER	58	55	22	% NF	64	% NC	IDLE/THRUSTER
YC-14 THRUSTER	58	56	85	% NF	96	% NC	85% RPM/THRUSTER
YC-15 FLAPS 24	59	45	1.95	EPR	500	EGT	REVERSE STOP
YC-15 FLAPS 24	59	47	1.04	EPR	370	EGT	IDLE/FLAPS 24 DEG
YC-15 FLAPS 24	59	48	2.24	EPR	580	EGT	TAKEOFF/FLAPS 24 DEG
F-15A	61	1	90	% NC	930	C FTIT	MAX PWR ZONE 5 A/B
F-15A	61	6	90	% NC	930	C FTIT	INTERMED PWR MIL
F-15A	61	13	63	% NC	395	C FTIT	IDLE
F-15A	61	19	80	% NC	690	C FTIT	80% RPM ENG RUNUP
B-57G	70	4	101	% RPM			MIL PWR
B-57G	70	13	50	% RPM			IDLE
B-57G	70	18	85	% RPM			85% RPM ENG RUNUP

Table C-4 (Continued)

A/C DESIGNATION	ACC	OPCR	PRIMARY POWER SETTING		ALTERNATE POWER SETTING		POWER DESCRIPTION
F-101B	71	3	96	%NC	2	EPR	MAX PWR A/B
F-101B	71	4	95.5	%NC	2	EPR	MIL PWR
F-101B	71	13	62	%NC	1	EPR	IDLE
F-101B	71	17	90	%NC	2	EPR	90% RPM ENG RUNUP
F-101B	71	19	80	%NC	1	EPR	80% RPM ENG RUNUP
C-7A	72	9	2450	RPM	35	IN MAP	POWER RUNUP
C-7A	72	13	600	RPM	19	IN MAP	IDLE
C-7A	72	15	1000	RPM	20	IN MAP	TAXI
C-7A	72	31	2675	RPM	50	IN MAP	MAX PWR
C-9A	73	13	1.05	EPR	375	CEGT	IDLE
C-9A	73	30	2	EPR	510	CEGT	TAKEOFF PWR
C-9A	73	32	1.7	EPR	460	CEGT	1.7 EPR
C-9A	73	33	1.8	EPR	480	CEGT	1.8 EPR
C-119L	74	8	2100	RPM	29	IN MAP	MAGNETO CHECK
C-119L	74	13	750	RPM	25	IN MAP	IDLE
C-119L	74	15	1000	RPM	25	IN MAP	TAXI
C-119L	74	31	2900	RPM	59	IN MAP	MAX PWR
C-119L	74	36	1800	RPM	26	IN MAP	PROP SPEED CHECK
C-121	75	8	2050	RPM	29	IN MAP	MAGNETO CHECK
C-121	75	13	700	RPM	26	IN MAP	IDLE
C-121	75	15	1200	RPM	24	IN MAP	TAXI
C 121	75	31	2900	RPM	58	IN MAP	MAX PWR
C-121	75	36	1700	RPM	25	IN MAP	PROP SPEED CHECK
U-4B	76	4	3400	RPM			MIL PWR
U-4B	76	13	1000	RPM			IDLE
F-105D	77	3	102	%NC	2	EPR	MAX PWR A/B
F-105D	77	4	102	%NC	2	EPR	MIL PWR
F-105D	77	13	69	%NC	1	EPR	IDLE
F-105D	77	17	90	%NC	2	EPR	90% NO ENG RUNUP
F-105D	77	19	80	%NC	1	EPR	80% RPM ENG RUNUP
F-106	78	3	102	% RPM			MAX PWR A/B
F-106	78	4	102	% RPM			MIL PWR
F-106	78	13	59	% RPM			IDLE
F-106	78	16	95	% RPM			95% RPM ENG RUNUP
F-106	78	18	85	% RPM			85% RPM ENG RUNUP
F-111F	79	2	95	%NC	2	EPR	MAX PWR ZONE 3 A/B
F-111F	79	4	95	%NC	2	EPR	MIL PWR
F-111F	79	13	65	%NC	1	EPR	IDLE
F-111F	79	18	85	%NC	2	EPR	85% RPM ENG RUNUP
F-111F	79	19	80	%NC	1	EPR	80% RPM ENG RUNUP
FB-111A	80	3	95	%NC	2	EPR	MAX PWR A/B
FB-111A	80	4	96	%NC	2	EPR	MIL PWR
FB-111A	80	13	66	%NC	1	EPR	IDLE
FB-111A	80	19	80	%NC	1	EPR	80% RPM ENG RUNUP
KC-97L	81	8	29	IN MAP	2050	RPM	MAGNETO CHECK
KC-97L	81	13	17	IN MAP	900	RPM	IDLE
KC-97L	81	35	18	IN MAP	900	RPM	RECIPS AND JETS IDLE
KC-97L	81	37	58	IN MAP	2650	RPM	MAX NO JETS
KC-97L	81	38	58	IN MAP	2650	RPM	MAX WITH JETS
OV-10A	82	4	101	% RPM	1900	FT-LBS	MIL PWR
OV-10A	82	15	70	% RPM	600	FT-LBS	TAXI
OV-10A	82	28	89	% RPM	600	FT-LBS	LOCKED PROPS
T-43A	83	13	34	% NF	1	EPR	IDLE
T-43A	83	17	90	% NF	2	EPR	90% RPM ENG RUNUP
T-43A	83	18	85	% NF	2	EPR	85% RPM ENG RUNUP
T-43A	83	19	80	% NF	2	EPR	80% RPM ENG RUNUP
T-43A	83	30	97	% NF	2	EPR	TAKEOFF PWR
C-18A	84	7	1.63	EPR	7800	LBS/HR	TRIM CHECK
C-18A	84	13	1.06	EPR	1200	LBS/HR	IDLE
C-18A	84	17	1.33	EPR	4900	LBS/HR	90 % RPM ENG RUNUP
C-18A	84	19	1.1	EPR	2400	LBS/HR	80 % RPM ENG RUNUP
C-18A	84	21	1.07	EPR	1600	LBS/HR	70 % RPM ENG RUNUP
C-18A	84	31	1.84	EPR	10000	LBS/HR	MAX PWR
C-21A	85	4	96	% N1	818	CEGT	MIL

Table C-4 (Continued)

A/C DESIGNATION	ACC	OPCR	PRIMARY POWER SETTING		ALTERNATE POWER SETTING		POWER DESCRIPTION
C-21A	85	13	60	% N1	560	CEGT	IDLE
C-21A	85	17	90	% N1	750	CEGT	90% RPM ENG RUNUP
C-21A	85	19	80	% N1	683	CEGT	80% RPM ENG RUNUP
C-21A	85	21	70	% N1	623	CEGT	70% RPM ENG RUNUP
KC-135R	86	4	90	% N1	780	CEGT	MIL PWR
KC-135R	86	13	18.9	% N1	490	CEGT	IDLE
KC-135R	86	19	80	% N1	678	CEGT	80% RPM ENG RUNUP
KC-135R	86	21	70	% N1	591	CEGT	70% RPM ENG RUNUP
KC-135R	86	23	60	% N1	540	CEGT	60% RPM ENG RUNUP
A-4	130	4	99	% NC	650	CEGT	MIL PWR
A-4	130	13	57	% NC	250	CEGT	IDLE
A-4	130	20	75	% NC	300	CEGT	75% RPM ENG RUNUP
RA-5C	131	3	100	% RPM	630	CEGT	MAX PWR A/B
RA-5C	131	4	100	% RPM	630	CEGT	MIL PWR
RA-5C	131	13	65	% RPM	400	CEGT	IDLE
RA-5C	131	19	80	% RPM	375	CEGT	80% RPM ENG RUNUP
A-6A	132	4	99	% RPM	650	CEGT	MIL PWR
A-6A	132	13	60	% RPM	250	CEGT	IDLE
A-6A	132	20	75	% RPM	300	CEGT	75% RPM ENG RUNUP
A-7E	133	6	94	% NC	9000	LBS/HR	INTERMED PWR MIL
A-7E	133	13	55	% NC	1200	LBS/HR	IDLE
A-7E	133	18	85	% NC	3700	LBS/HR	85% RPM ENG RUNUP
A-7E	133	21	70	% NC	1550	LBS/HR	70% RPM ENG RUNUP
A-7E	133	31	99.5	% NC	8200	LBS/HR	MAX PWR
AV-8A	134	13	27	% RPM	325	CEGT	IDLE
AV-8A	134	24	55	% RPM	350	CEGT	55% RPM ENG RUNUP
AV-8A	134	26	98	% RPM	680	CEGT	50 FT HOVER
F-14A	136	2	102	% NC	1180	C TIT	MAX PWR ZONE 3 A/B
F-14A	136	4	102	% NC	1180	C TIT	MIL PWR
F-14A	136	13	70	% NC	590	C TIT	IDLE
F-14A	136	19	80	% NC	630	C TIT	80% RPM ENG RUNUP
P-3A	137	9	1850	SHP	775	C TIT	POWER RUNUP
P-3A	137	13	170	SHP	611	C TIT	IDLE
P-3A	137	30	3800	SHP	965	C TIT	TAKEOFF PWR
S-3A	138	11	64.7	% NC	1800	RPM NF	LOW IDLE
S-3A	138	12	73	% NC	2600	RPM NF	HIGH IDLE
S-3A	138	27	93	% NC	6300	RPM NF	T5 DISABLE
S-3A	138	31	96	% NC	6600	RPM NF	MAX PWR
T-2C	139	13	50	% RPM	550	CEGT	IDLE
T-2C	139	21	70	% RPM	596	CEGT	70% RPM ENG RUNUP
T-2C	139	31	100	% RPM	665	CEGT	MAX PWR
AV-8B	140	5	95	% RPM	11400	LBS/HR	MAX CONT PWR
AV-8B	140	13	27	% RPM	1200	LBS/HR	IDLE
AV-8B	140	18	85	% RPM	7920	LBS/HR	85% RPM ENG RUNUP
AV-8B	140	21	70	% RPM	4800	LBS/HR	70% RPM ENG RUNUP
AV-8B	140	24	55	% RPM	2880	LBS/HR	55% RPM ENG RUNUP
C-118	507	8	2050	RPM	28	IN MAP	MAGNETO CHECK
C-118	507	13	800	RPM	13	IN MAP	IDLE
C-118	507	15	1000	RPM	24	IN MAP	TAXI
C-118	507	30	2000	RPM	62	IN MAP	TAKEOFF PWR
C-140	508	4	100	% RPM	2	EPR	MIL PWR
C-140	508	13	41	% RPM	1	EPR	IDLE
C-140	508	18	85	% RPM	1	EPR	85% RPM ENG RUNUP
C-140	508	20	75	% RPM	1	EPR	75% RPM ENG RUNUP
F-4A&B	509	3	100	% RPM			MAX PWR A/B
F-5A&B	509	4	100	% RPM			MIL PWR
F-5A&B	509	13	50	% RPM			IDLE
F-5A&B	509	19	80	% RPM			80% RPM ENG RUNUP
F-111D	511	2	95	% NC			MAX PWR ZONE 3 A/B
F-111D	511	4	95	% NC			MIL PWR
F-111D	511	13	65	% NC			IDLE
F-111D	511	18	85	% NC			85 % RPM ENG RUNUP
F-111D	511	19	80	% NC			80 % RPM ENG RUNUP
A-3	513	4	97	% RPM			MIL PWR

Table C-4 (Continued)

A/C DESIGNATION	ACC	OPCR	PRIMARY POWER SETTING		ALTERNATE POWER SETTING		POWER DESCRIPTION
A-3	513	13	53	% RPM			IDLE
A-3	513	21	70	% RPM			70% RPM ENG RUNUP
T-29	516	8	2050	RPM	28	IN MAP	MAGNETO CHECK
T-29	516	13	800	RPM	13	IN MAP	IDLE
T-29	516	15	1000	RPM	24	IN MAP	TAXI
T-29	516	30	2800	RPM	62	IN MAP	TAKEOFF PWR
SR-71	517	3	80	% NC			MAX PWR A/B
SR-71	517	4	70	% NC			MIL PWR
SR-71	517	13	20	% NC			IDLE
SR-71	517	25	50	% NC			50% RPM ENG RUNUP
SR-71	517	42	75	% NC			MIN PWR A/B
SR-71	517	43	30	% NC			30% RPM ENG RUNUP
U-2	518	4	100	% RPM			MIL PWR
U-2	518	13	68	% RPM			IDLE
U-2	518	18	85	% RPM			85% RPM ENG RUNUP
B-52B&C&D&E	519	13	61	% RPM	300	CEGT	IDLE
B-52B&C&D&E	519	17	90	% RPM	520	CEGT	90% RPM ENG RUNUP
B-52B&C&D&E	519	19	80	% RPM	340	CEGT	80% RPM ENG RUNUP
B-52B&C&D&E	519	31	94	% RPM	580	CEGT	MAX PWR
C-130A&D	520	9	9600	IN-LBS	775	C TIT	POWER RUNUP
C-130A&D	520	11	800	IN-LBS	625	C TIT	LOW IDLE
C-130A&D	520	13	1400	IN-LBS	560	C TIT	IDLE
C-130A&D	520	30	16800	IN-LBS	970	C TIT	TAKEOFF PWR
C-130H&N&P	521	9	9600	IN-LBS	775	C TIT	POWER RUNUP
C-130H&N&P	521	11	800	IN-LBS	625	C TIT	LOW IDLE
C-130H&N&P	521	13	1400	IN-LBS	560	C TIT	IDLE
C-130H&N&P	521	30	16800	IN-LBS	980	C TIT	TAKEOFF PWR
F-8	527	3	100	% RPM			MAX PWR A/B
F-8	527	4	97	% RPM			MIL PWR
F-8	527	13	53	% RPM			IDLE
F-8	527	21	70	% RPM			70% RPM ENG RUNUP
HUSH HOUSE(F-4 A/C)	702	3	99	% RPM	650	CEGT	MAX PWR A/B
HUSH HOUSE(F-4 A/C)	702	4	99	% RPM	650	CEGT	MIL PWR
HUSH HOUSE(F-4 A/C)	702	13	65	% RPM	380	CEGT	IDLE
HUSH HOUSE(F-4 A/C)	702	18	85	% RPM	440	CEGT	85 % RPM ENG RUNUP
HUSH HOUSE(F-15 A/C)	704	3	92	% RPM	37000	LBS/HR	MAX PWR A/B
HUSH HOUSE(F-15 A/C)	704	4	92	% RPM	8700	LBS/HR	MIL PWR
HUSH HOUSE(F-15 A/C)	704	13	68	% RPM	1100	LBS/HR	IDLE
HUSH HOUSE(F-15 A/C)	704	19	80	% RPM	4600	LBS/HR	80 % RPM ENG RUNUP
HUSH HOUSE(F-16 A/C)	705	3	92	% RPM	37300	LBS/HR	MAX PWR A/B
HUSH HOUSE(F-16 A/C)	705	4	92	% RPM	7200	LBS/HR	MIL PWR
HUSH HOUSE(F-16 A/C)	705	13	68	% RPM	1000	LBS/HR	IDLE
HUSH HOUSE(F-16 A/C)	705	19	80	% RPM	4500	LBS/HR	80 % RPM ENG RUNUP
HUSH HOUSE(F-105 A/C)	706	3	103	% RPM	2	EPR	MAX PWR A/B
HUSH HOUSE(F-105 A/C)	706	4	103	% RPM	2	EPR	MIL PWR
HUSH HOUSE(F-105 A/C)	706	17	90	% RPM	2	EPR	90 % RPM ENG RUNUP
HUSH HOUSE(F-106 A/C)	707	3	100	% RPM	2	EPR	MAX PWR A/B
HUSH HOUSE(F-106 A/C)	707	4	100	% RPM	2	EPR	MIL PWR
HUSH HOUSE(F-106 A/C)	707	16	95	% RPM	2	EPR	95 % RPM ENG RUNUP
HUSH HOUSE(F-106 A/C)	707	18	85	% RPM	1	EPR	85 % RPM ENG RUNUP
HUSH HOUSE(F-111F A/C)	708	3	96	% RPM	2	EPR	MAX PWR A/B
HUSH HOUSE(F-111F A/C)	708	4	96	% RPM	2	EPR	MIL PWR
HUSH HOUSE(F-111F A/C)	708	16	95	% RPM	2	EPR	95 % RPM ENG RUNUP
HUSH HOUSE(F-111F A/C)	708	18	85	% RPM	2	EPR	85 % RPM ENG RUNUP
HUSH HOUSE(F-111F A/C)	708	19	80	% RPM	1	EPR	80 % RPM ENG RUNUP
HUSH HOUSE(T-38 A/C)	709	3	100	% RPM	645	C TIT	MAX PWR A/B
HUSH HOUSE(T-38 A/C)	709	4	100	% RPM	645	C TIT	MIL PWR
HUSH HOUSE(T-38 A/C)	709	19	80	% RPM	425	C TIT	80 % RPM ENG RUNUP
HUSH HOUSE(TF41-A-1 ENG.)	711	4	99	% RPM	8903	LBS/HR	MIL PWR
HUSH HOUSE(TF41-A-1 ENG.)	711	5	95	% RPM	7409	LBS/HR	MAX CONT PWR
HUSH HOUSE(TF41-A-1 ENG.)	711	18	85	% RPM	3401	LBS/HR	85 % RPM ENG RUNUP
HUSH HOUSE(J79-GE-15 ENG)	712	4	100	% RPM	9720	LBS	MIL PWR
HUSH HOUSE(J79-GE-15 ENG)	712	18	85	% RPM	3514	LBS	85 % RPM ENG RUNUP
HUSH HOUSE(F100-PW-100 E)	714	3	92	% RPM	2	EPR	MAX PWR A/B

Table C-4 (Continued)

A/C DESIGNATION	ACC	OPCR	PRIMARY POWER SETTING		ALTERNATE POWER SETTING		POWER DESCRIPTION
HUSH HOUSE(F100-PW-100 E)	714	4	92	% RPM	2	EPR	MIL PWR
HUSH HOUSE(F100-PW-100 E)	714	19	80	% RPM	1	EPR	80 % RPM ENG RUNUP
HUSH HOUSE(J75-P-19 ENG.)	716	3	103	% RPM	21753	LBS	MAX PWR A/B
HUSH HOUSE(J75-P-19 ENG.)	716	4	103	% RPM	14550	LBS	MIL PWR
HUSH HOUSE(J75-P-19 ENG.)	716	17	91	% RPM	6446	LBS	90 % RPM ENG RUNUP
HUSH HOUSE(J75-P-17 ENG.)	717	3	103	% RPM	19825	LBS	MAX PWR A/B
HUSH HOUSE(J75-P-17 ENG.)	717	4	103	% RPM	13260	LBS	MIL PWR
HUSH HOUSE(J75-P-17 ENG.)	717	17	90	% RPM	4630	LBS	90 % RPM ENG RUNUP
HUSH HOUSE(TF30-P-100 E)	718	3	96	% RPM			MAX PWR A/B
HUSH HOUSE(TF30-P-100 E)	718	4	96	% RPM			MIL PWR
HUSH HOUSE(TF30-P-100 E)	718	18	85	% RPM			85 % RPM ENG RUNUP
(AF32A-52) KC-135A SUPP	726	19	80	% RPM	2200	LBS/HR	80 % RPM ENG RUNUP
(AF32A-52) KC-135A SUPP	726	31	96	% RPM	8550	LBS/HR	MAX PWR
(AF32A-52) KC-135A SUPP	726	49	96	% RPM	13000	LBS/HR	MAX PWR WET
(AF32A-16) F-100 SUPP	730	3	97	% RPM			MAX PWR A/B
(AF32A-16) F-100 SUPP	730	4	97	% RPM			MIL PWR
(AF32A-16) F-100 SUPP	730	13	53	% RPM			IDLE
(AF32A-16) F-100 SUPP	730	21	70	% RPM			70 % RPM ENG RUNUP
(AF32A-14) F-4 SUPP	731	3	98.5	% RPM	660	CEGT	MAX PWR A/B
(AF32A-14) F-4 SUPP	731	4	98.5	% RPM	660	CEGT	MIL PWR
(AF32A-14) F-4 SUPP	731	18	85	% RPM	400	CEGT	85 % RPM ENG RUNUP
(AF32A-18) T-38 SUPP	733	3	100	% RPM	635	CEGT	MAX PWR A/B
(AF32A-18) T-38 SUPP	733	4	99.5	% RPM	635	CEGT	MIL PWR
(AF32A-18) T-38 SUPP	733	9	94	% RPM	500	CEGT	POWER RUNUP
(AF32A-18) T-38 SUPP	733	13	48	% RPM	517	CEGT	IDLE
(AF32A-18) T-38 SUPP	733	20	75	% RPM	405	CEGT	75 % RPM ENG RUNUP
(AF32A-25) F-16 SUPP	738	3	91	% N2	38000	LBS/HR	MAX PWR A/B
(AF32A-25) F-16 SUPP	738	4	91	% N2	8150	LBS/HR	MIL PWR
(AF32A-25) F-16 SUPP	738	13	65	% N2	850	LBS/HR	IDLE
(AF32A-25) F-16 SUPP	738	19	80	% N2	3600	LBS/HR	80 % RPM ENG RUNUP
(AF32A-18) F-5 SUPP	746	3	101	% RPM	670	CEGT	MAX PWR A/B
(AF32A-18) F-5 SUPP	746	4	101	% RPM	670	CEGT	MIL PWR
(AF32A-18) F-5 SUPP	746	19	80	% RPM	400	CEGT	80 % RPM ENG RUNUP
(AF32A-23) F-15 SUPP	761	3	91	% RPM	940	C TIT	MAX PWR A/B
(AF32A-23) F-15 SUPP	761	4	91	% RPM	940	C TIT	MIL PWR
(AF32A-23) F-15 SUPP	761	19	80	% RPM	690	C TIT	80 % RPM ENG RUNUP
(AF32A-17) F-106 SUPP	778	3	100	% RPM	2	EPR	MAX PWR A/B
(AF32A-17) F-106 SUPP	778	4	100	% RPM	2	EPR	MIL PWR
(AF32A-17) F-106 SUPP	778	13	59	% RPM	1	EPR	IDLE
(AF32A-17) F-106 SUPP	778	16	95	% RPM	2	EPR	95 % RPM ENG RUNUP
(AF32A-17) F-106 SUPP	778	18	85	% RPM	2	EPR	85 % RPM ENG RUNUP
(AF32A-13) F-111A SUPP	779	1	96.1	% N2	1104	C TIT	MAX PWR ZONE 5 A/B
(AF32A-13) F-111A SUPP	779	2	96.4	% N2	1094	C TIT	MAX PWR ZONE 3 A/B
(AF32A-13) F-111A SUPP	779	4	96.5	% N2	1086	C TIT	MIL PWR
(AF32A-13) F-111A SUPP	779	13	66.9	% N2	558	C TIT	IDLE
(AF32A-13) F-111A SUPP	779	20	75	% N2	726	C TIT	75 % RPM ENG RUNUP
(AF32A-19) A-7 SUPP	833	4	96	% RPM	8000	LBS/HR	MIL PWR
(AF32A-19) A-7 SUPP	833	13	55	% RPM	1000	LBS/HR	IDLE
(AF32A-19) A-7 SUPP	833	18	85	% RPM	3200	LBS/HR	85 % RPM ENG RUNUP
(AF32A-19) A-7 SUPP	833	21	70	% RPM	1500	LBS/HR	70 % RPM ENG RUNUP
(AF32A-24) A-7 SUPP	834	4	97.7	% RPM	9000	LBS/HR	MIL PWR
(AF32A-24) A-7 SUPP	834	9	70	% RPM	1600	LBS/HR	POWER RUNUP
(AF32A-24) A-7 SUPP	834	13	54.4	% RPM	1000	LBS/HR	IDLE
(AF32A-24) A-7 SUPP	834	18	85.6	% RPM	3700	LBS/HR	85 % RPM ENG RUNUP
L-1011-1	851	13	10	% SLTT	23	% NF	IDLE
L-1011-1	851	18	80	% SLTT	85	% NF	85 % RPM ENG RUNUP
L-1011-1	851	19	65	% SLTT	81	% NF	80 % RPM ENG RUNUP
L-1011-1	851	22	40	% SLTT	67	% NF	65 % RPM ENG RUNUP
(GRADE I) SUPPRESSORS	991	3	100	% RPM			MAX PWR A/B
(GRADE II) SUPPRESSORS	992	3	100	% RPM			MAX PWR A/B
(GRADE III) SUPPRESSORS	993	3	100	% RPM			MAX PWR A/B
OTHER MILITARY	999	13	25	% RPM	1	EPR	IDLE
OTHER MILITARY	999	30	110	% RPM	4	EPR	TAKEOFF

Table C-5

Alphabetical Listing of Civilian Aircraft in Noisefile 6.0

A/C DESIGNATION	ACC	OPCR	POWER SETTING		SPEED (KTS)	POWER DESCRIPTION
INM06 DC-8-20 (Q)	802	3	15000	LBS	160	TAKEOFF
INM06 DC-8-20 (Q)	802	5	4000	LBS	160	LANDING
INM07 B-707 (Q)	802	3	15000	LBS	160	TAKEOFF
INM07 B-707 (Q)	802	5	4000	LBS	160	LANDING
INM08 B-720 (Q)	802	3	15000	LBS	160	TAKEOFF
INM08 B-720 (Q)	802	5	4000	LBS	160	LANDING
INM12 DC-8-50 (N)	803	3	15000	LBS	160	TAKEOFF
INM12 DC-8-50 (N)	803	5	4000	LBS	160	LANDING
INM13 DC-8-60 (N)	803	3	15000	LBS	160	TAKEOFF
INM13 DC-8-60 (N)	803	5	4000	LBS	160	LANDING
INM09 B-707 (N)	803	3	15000	LBS	160	TAKEOFF
INM09 B-707 (N)	803	5	4000	LBS	160	LANDING
INM10 B-707 (N)	803	3	15000	LBS	160	TAKEOFF
INM10 B-707 (N)	803	5	4000	LBS	160	LANDING
INM11 B-720B (N)	803	3	15000	LBS	160	TAKEOFF
INM11 B-720B (N)	803	5	4000	LBS	160	LANDING
INM16 B-707 (QN)	804	3	15500	LBS	160	TAKEOFF
INM16 B-707 (QN)	804	4	5000	LBS	160	CRUISE
INM16 B-707 (QN)	804	5	3000	LBS	160	LANDING
INM16 B-707 (QN)	804	6	11000	LBS	160	INTERMEDIATE
INM17 DC-8-60 (QN)	804	3	15500	LBS	160	TAKEOFF
INM17 DC-8-60 (QN)	804	4	5000	LBS	160	CRUISE
INM17 DC-8-60 (QN)	804	5	3000	LBS	160	LANDING
INM17 DC-8-60 (QN)	804	6	11000	LBS	160	INTERMEDIATE
INM14 DC-8-70 (N)	805	3	15500	LBS	160	TAKEOFF
INM14 DC-8-70 (N)	805	5	5000	LBS	160	LANDING
INM24 B-727 (N)	812	3	14000	LBS	160	TAKEOFF
INM24 B-727 (N)	812	4	6000	LBS	160	CRUISE
INM24 B-727 (N)	812	5	3000	LBS	160	LANDING
INM25 B-727 (N)	812	3	14000	LBS	160	TAKEOFF
INM25 B-727 (N)	812	4	6000	LBS	160	CRUISE
INM25 B-727 (N)	812	5	3000	LBS	160	LANDING
INM26 B-727 (N)	812	3	14000	LBS	160	TAKEOFF
INM26 B-727 (N)	812	4	6000	LBS	160	CRUISE
INM26 B-727 (N)	812	5	3000	LBS	160	LANDING
INM27 B-727 (Q)	814	3	14000	LBS	160	TAKEOFF
INM27 B-727 (Q)	814	4	6000	LBS	160	CRUISE
INM27 B-727 (Q)	814	5	3000	LBS	160	LANDING
INM28 B-727 (Q)	814	3	14000	LBS	160	TAKEOFF
INM28 B-727 (Q)	814	4	6000	LBS	160	CRUISE
INM28 B-727 (Q)	814	5	3000	LBS	160	LANDING
INM29 B-727 (Q)	814	3	14000	LBS	160	TAKEOFF
INM29 B-727 (Q)	814	4	6000	LBS	160	CRUISE
INM29 B-727 (Q)	814	5	3000	LBS	160	LANDING

Table C-5 (Continued)

A/C DESIGNATION	ACC	OPCR	POWER SETTING		SPEED (KTS)	POWER DESCRIPTION
INM30 B-727 (Q)	814	3	14000	LBS	160	TAKEOFF
INM30 B-727 (Q)	814	4	6000	LBS	160	CRUISE
INM30 B-727 (Q)	814	5	3000	LBS	160	LANDING
INM32 B-767	821	3	38000	LBS	160	TAKEOFF
INM32 B-767	821	5	10000	LBS	160	LANDING
INM33 B-767	821	3	38000	LBS	160	TAKEOFF
INM33 B-767	821	5	10000	LBS	160	LANDING
INM43 DC-9-30 (Q)	824	3	14000	LBS	160	TAKEOFF
INM43 DC-9-30 (Q)	824	4	6000	LBS	160	CRUISE
INM43 DC-9-30 (Q)	824	5	3000	LBS	160	LANDING
INM44 DC-9-10 (Q)	824	3	14000	LBS	160	TAKEOFF
INM44 DC-9-10 (Q)	824	4	6000	LBS	160	CRUISE
INM44 DC-9-10 (Q)	824	5	3000	LBS	160	LANDING
INM45 B-737 (Q)	824	3	14000	LBS	160	TAKEOFF
INM45 B-737 (Q)	824	4	6000	LBS	160	CRUISE
INM45 B-737 (Q)	824	5	3000	LBS	160	LANDING
INM46 DC-9-50 (Q)	824	3	14000	LBS	160	TAKEOFF
INM46 DC-9-50 (Q)	824	4	6000	LBS	160	CRUISE
INM46 DC-9-50 (Q)	824	5	3000	LBS	160	LANDING
INM47 B-737 (Q)	824	3	14000	LBS	160	TAKEOFF
INM47 B-737 (Q)	824	4	6000	LBS	160	CRUISE
INM47 B-737 (Q)	824	5	3000	LBS	160	LANDING
INM38 F-28 MK2	825	3	10000	LBS	160	TAKEOFF
INM38 F-28 MK2	825	4	4000	LBS	160	CRUISE
INM38 F-28 MK2	825	5	2000	LBS	160	LANDING
INM38 F-28 MK2	825	6	8000	LBS	160	INTERMEDIATE
INM38 F-28 MK2	825	13	6000	LBS	160	TRAFFIC PATTERN
INM39 F-28 MK4	825	3	10000	LBS	160	TAKEOFF
INM39 F-28 MK4	825	4	4000	LBS	160	CRUISE
INM39 F-28 MK4	825	5	2000	LBS	160	LANDING
INM39 F-28 MK4	825	6	8000	LBS	160	INTERMEDIATE
INM39 F-28 MK4	825	13	6000	LBS	160	TRAFFIC PATTERN
INM40 DC-9-30 (N)	826	3	14000	LBS	160	TAKEOFF
INM40 DC-9-30 (N)	826	4	6000	LBS	160	CRUISE
INM40 DC-9-30 (N)	826	5	3000	LBS	160	LANDING
INM41 DC-9-10 (N)	826	3	14000	LBS	160	TAKEOFF
INM41 DC-9-10 (N)	826	4	6000	LBS	160	CRUISE
INM41 DC-9-10 (N)	826	5	3000	LBS	160	LANDING
INM42 B-737 (N)	826	3	14000	LBS	160	TAKEOFF
INM42 B-737 (N)	826	4	6000	LBS	160	CRUISE
INM42 B-737 (N)	826	5	3000	LBS	160	LANDING
INM37 BAC-111	826	3	14000	LBS	160	TAKEOFF
INM37 BAC-111	826	4	6000	LBS	160	CRUISE
INM37 BAC-111	826	5	3000	LBS	160	LANDING

Table C-5 (Continued)

A/C DESIGNATION	ACC	OPCR	POWER SETTING		SPEED (KTS)	POWER DESCRIPTION
INM48 MD-81	827	3	16000	LBS	160	TAKEOFF
INM48 MD-81	827	4	8000	LBS	160	CRUISE
INM48 MD-81	827	5	4000	LBS	160	LANDING
INM48 MD-81	827	6	12000	LBS	160	INTERMEDIATE
INM49 MD-82	827	3	16000	LBS	160	TAKEOFF
INM49 MD-82	827	4	8000	LBS	160	CRUISE
INM49 MD-82	827	5	4000	LBS	160	LANDING
INM49 MD-82	827	6	12000	LBS	160	INTERMEDIATE
INM50 MD-83	827	3	16000	LBS	160	TAKEOFF
INM50 MD-83	827	4	8000	LBS	160	CRUISE
INM50 MD-83	827	5	4000	LBS	160	LANDING
INM50 MD-83	827	6	12000	LBS	160	INTERMEDIATE
INM51 B-757	828	3	30000	LBS	160	TAKEOFF
INM51 B-757	828	4	10000	LBS	160	CRUISE
INM51 B-757	828	5	5000	LBS	160	LANDING
INM31 A-300	829	3	40000	LBS	160	TAKEOFF
INM31 A-300	829	5	10000	LBS	160	LANDING
INM34 A-310	829	3	40000	LBS	160	TAKEOFF
INM34 A-310	829	5	10000	LBS	160	LANDING
INM02 B-747 (N)	831	3	40000	LBS	160	TAKEOFF
INM02 B-747 (N)	831	4	16000	LBS	160	CRUISE
INM02 B-747 (N)	831	5	8000	LBS	160	LANDING
INM02 B-747 (N)	831	6	32000	LBS	160	INTERMEDIATE
INM03 B-747 (N)	831	3	40000	LBS	160	TAKEOFF
INM03 B-747 (N)	831	4	16000	LBS	160	CRUISE
INM03 B-747 (N)	831	5	8000	LBS	160	LANDING
INM03 B-747 (N)	831	6	32000	LBS	160	INTERMEDIATE
INM04 B-747 (N)	831	3	40000	LBS	160	TAKEOFF
INM04 B-747 (N)	831	4	16000	LBS	160	CRUISE
INM04 B-747 (N)	831	5	8000	LBS	160	LANDING
INM04 B-747 (N)	831	6	32000	LBS	160	INTERMEDIATE
INM15 BAE-146	832	3	100	% RPM	160	TAKEOFF
INM15 BAE-146	832	5	30	% RPM	160	LANDING
INM01 B-747 (Q)	843	3	36000	LBS	160	TAKEOFF
INM01 B-747 (Q)	843	4	14000	LBS	160	CRUISE
INM01 B-747 (Q)	843	5	8000	LBS	160	LANDING
INM01 B-747 (Q)	843	6	28000	LBS	160	INTERMEDIATE
INM19 DC-10-10	851	3	36000	LBS	160	TAKEOFF
INM19 DC-10-10	851	5	8000	LBS	160	LANDING
INM20 DC-10-30	851	3	36000	LBS	160	TAKEOFF
INM20 DC-10-30	851	5	8000	LBS	160	LANDING
INM21 DC-10-40	851	3	36000	LBS	160	TAKEOFF
INM21 DC-10-40	851	5	8000	LBS	160	LANDING
INM22 L-1011	852	3	36000	LBS	160	TAKEOFF

Table C-5 (Continued)

A/C DESIGNATION	ACC	OPCR	POWER SETTING		SPEED (KTS)	POWER DESCRIPTION
INM22 L-1011	852	5	8000	LBS	160	LANDING
INM23 L-1011	852	3	36000	LBS	160	TAKEOFF
INM23 L-1011	852	5	8000	LBS	160	LANDING
INM18 CONCORDE	860	3	32000	LBS	160	TAKEOFF
INM18 CONCORDE	860	5	10000	LBS	160	LANDING
INM57 CESSNA BUS JET	881	3	1550	LBS	160	TAKEOFF
INM57 CESSNA BUS JET	881	4	600	LBS	160	CRUISE
INM57 CESSNA BUS JET	881	5	300	LBS	160	LANDING
INM57 CESSNA BUS JET	881	6	1200	LBS	160	INTERMEDIATE
INM60 MU-3001	882	3	2100	LBS	160	TAKEOFF
INM60 MU-3001	882	4	1500	LBS	160	CRUISE
INM60 MU-3001	882	5	670	LBS	160	LANDING
INM58 CL-600	883	3	5000	LBS	160	TAKEOFF
INM58 CL-600	883	5	1900	LBS	160	LANDING
INM61 CL-601	884	3	6000	LBS	160	TAKEOFF
INM61 CL-601	884	4	3000	LBS	160	CRUISE
INM61 CL-601	884	5	2000	LBS	160	LANDING
INM61 CL-601	884	6	5000	LBS	160	INTERMEDIATE
INM61 CL-601	884	13	4000	LBS	160	TRAFFIC PATTERN
INM62 ASTRA	885	3	95.5	% RPM	160	TAKEOFF
INM62 ASTRA	885	4	86.6	% RPM	160	CRUISE
INM62 ASTRA	885	5	69.2	% RPM	160	LANDING
INM53 COMPOS BUS JET	891	3	100	% RPM	160	TAKEOFF
INM53 COMPOS BUS JET	891	4	60	% RPM	160	CRUISE
INM53 COMPOS BUS JET	891	5	30	% RPM	160	LANDING
INM55 LEARJET-25	893	3	2600	LBS	160	TAKEOFF
INM55 LEARJET-25	893	4	1800	LBS	160	CRUISE
INM55 LEARJET-25	893	5	700	LBS	160	LANDING
INM59 GIIB	894	3	10000	LBS	160	TAKEOFF
INM59 GIIB	894	4	4000	LBS	160	CRUISE
INM59 GIIB	894	5	2000	LBS	160	LANDING
INM59 GIIB	894	6	8000	LBS	160	INTERMEDIATE
INM59 GIIB	894	13	6000	LBS	160	TRAFFIC PATTERN
INM54 LEARJET-35	895	3	2650	LBS	160	TAKEOFF
INM54 LEARJET-35	895	4	1500	LBS	160	CRUISE
INM54 LEARJET-35	895	5	1000	LBS	160	LANDING
INM56 SABER 80	896	3	3750	LBS	160	TAKEOFF
INM56 SABER 80	896	4	2500	LBS	160	CRUISE
INM56 SABER 80	896	5	850	LBS	160	LANDING
INM35 B-737	897	3	16000	LBS	160	TAKEOFF
INM35 B-737	897	5	4000	LBS	160	LANDING
INM36 B-737	897	3	16000	LBS	160	TAKEOFF
INM36 B-737	897	5	4000	LBS	160	LANDING
INM63 ELECTRA	902	3	100	% RPM	160	TAKEOFF

Table C-5 (Continued)

A/C DESIGNATION	ACC	OPCR	POWER SETTING		SPEED (KTS)	POWER DESCRIPTION
INM63 ELECTRA	902	5	30	% RPM	160	LANDING
INM81 HERCULES-380	903	3	100	% RPM	160	TAKEOFF
INM81 HERCULES-380	903	5	28	% RPM	160	LANDING
INM65 DH-7	904	3	100	% RPM	160	TAKEOFF
INM65 DH-7	904	5	28	% RPM	160	LANDING
INM66 CV-580	905	3	100	% RPM	160	TAKEOFF
INM66 CV-580	905	5	30	% RPM	160	LANDING
INM73 2-ENG SM TPROP	911	3	100	% RPM	160	TAKEOFF
INM73 2-ENG SM TPROP	911	5	30	% RPM	160	LANDING
INM67 HS-748	912	3	100	% RPM	160	TAKEOFF
INM67 HS-748	912	4	73	% RPM	160	CRUISE
INM67 HS-748	912	5	32	% RPM	160	LANDING
INM68 SHORTS SD3-30	913	3	100	% RPM	160	TAKEOFF
INM68 SHORTS SD3-30	913	4	65	% RPM	160	CRUISE
INM68 SHORTS SD3-30	913	5	35	% RPM	160	LANDING
INM72 SAAB-340	914	3	100	% RPM	160	TAKEOFF
INM72 SAAB-340	914	4	85	% RPM	160	CRUISE
INM72 SAAB-340	914	5	35	% RPM	160	LANDING
INM69 DH-6	915	3	100	% RPM	160	TAKEOFF
INM69 DH-6	915	5	30	% RPM	160	LANDING
INM70 DC-6	931	3	100	% RPM	160	TAKEOFF
INM70 DC-6	931	5	30	% RPM	160	LANDING
INM71 CV-340	941	3	100	% RPM	160	TAKEOFF
INM71 CV-340	941	5	30	% RPM	160	LANDING
INM76 BEECH BARON	942	3	100	% RPM	160	TAKEOFF
INM76 BEECH BARON	942	5	30	% RPM	160	LANDING
INM77 1-ENG PISTON	953	3	100	% RPM	160	TAKEOFF
INM77 1-ENG PISTON	953	5	30	% RPM	160	LANDING
INM74 1-ENG VAR PTCH	954	3	100	% RPM	160	TAKEOFF
INM74 1-ENG VAR PTCH	954	5	30	% RPM	160	LANDING
INM75 1-ENG FIX PTCH	955	3	100	% RPM	160	TAKEOFF
INM75 1-ENG FIX PTCH	955	5	30	% RPM	160	LANDING
INM05 NOT AVAILABLE	999	3	100	% RPM	160	TAKEOFF
INM05 NOT AVAILABLE	999	5	28	% RPM	160	LANDING
INM52 NOT AVAILABLE	999	3	100	% RPM	160	TAKEOFF
INM52 NOT AVAILABLE	999	5	28	% RPM	160	LANDING
INM64 NOT AVAILABLE	999	3	100	% RPM	160	TAKEOFF
INM64 NOT AVAILABLE	999	5	28	% RPM	160	LANDING
INM99 OTHER CIVILIAN	999	3	100	% RPM	160	TAKEOFF
INM99 OTHER CIVILIAN	999	5	28	% RPM	160	LANDING

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