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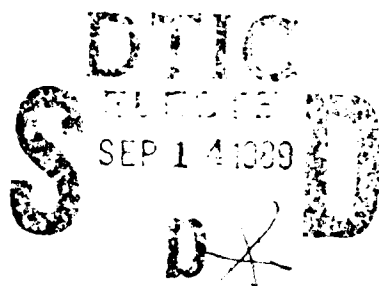
DOT/FAA/DS-89/1, II

Pavement Performance Monitoring System

Advanced System Design Service
Washington, D.C. 20591

Volume II - Users Manual

AD-A212 414



Engineering and Economics Research, Inc.
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Final Report

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16. Abstract This document provides the users and pavement management personnel with the necessary information to effectively use the Pavement Monitoring System (PPMS). The PPMS is developed in the micro computer environment using PC/FOCUS as the DBMS. The manual describes the procedures for system installation, data maintenance, report generation, and analytical capabilities of the system.					
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METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
sq in	square inches	6.5	square centimeters	cm ²
sq ft	square feet	9.09	square meters	m ²
sq yd	square yards	0.8	square meters	m ²
sq mi	square miles	2.6	square kilometers	km ²
acres	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	5	milliliters	ml
tblsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
p	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

* 1 in. = 2.54 exactly. For other exact conversions and more detailed tables, see NBS NIST, Pdu 28b, Units of Length and Measure, Price \$2.25, SD Catalog No. C-13-10-286.

Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
km	kilometers	1.1	miles	mi
		0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	ac
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	st
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
		1.06	quarts	qt
		0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
		1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F

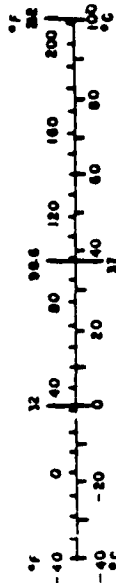


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1.0 Introduction

The objective of this Users Manual is to provide users and pavement management personnel with the information necessary to effectively use the Pavement Performance Monitoring System (PPMS). The PPMS consists of a database to store pavement information in the database, a set of programs to prepare ad-hoc reports and perform analysis, and a set of procedures for system administration and maintenance.

Chapter 1 of the Users Manual describes the procedures for system installation, the data maintenance is discussed in Chapter 2. Chapter 3 describes the report generation and analysis capabilities of the system. Chapter 4 includes the DataBase Administrators (DBA) functions required to maintain the system. Chapters 5 and 6 provide the mechanisms to exit the system. The user is occasionally referred to the PPMS Programmer's Guide and PC/FOCUS Users Manual for further details.

1.1 Installation/Operation

The Pavement Performance Monitoring System (PPMS), developed for the Federal Aviation Administration (FAA), uses the PC/FOCUS database management system. In order to operate PPMS, users need to configure the necessary hardware and software.

1.1.1 Hardware/Software Requirements

The following hardware and software are needed to run PC/FOCUS:

- IBM PC/AT or compatible personal computer;
- Disk Operating System (DOS) version 2.0 or higher;
- Hard disk drive with at least 20 millionbyte minimum storage capacity;
- 5 1/4" 320K floppy disk drive (double-sided/double-density);
- At least 1.2 Mbytes of Random Access Memory (RAM);
- PC/FOCUS, Version 3.1;
- 1200B Hayes compatible modem; and
- Carbon Copy Plus communication software.

PC/FOCUS is on double-sided/double-density floppy diskettes. The files on the floppy diskettes are condensed and require special installation procedures, compared to other software packages. To install the program, an "Activator Disk" is required. (See 1.2.1)

1.2 Installing the PC/FOCUS Database Management System (DBMS)

The Pavement Performance Monitoring System (PPMS) is written in PC/FOCUS format; thus, PC/FOCUS must be installed prior to the installation of PPMS. To install PC/FOCUS, the user must create a directory named FOCUS.

TYPE: md focus

This creates a directory on the hard disk drive for PC/FOCUS.

To enter into the FOCUS directory,

TYPE: cd focus

Accession For	
NTIS - GPO	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Date	
Dist	
A-1	



WARNING:

Most of the PC/FOCUS executable files begin with the letters FC and are no more than eight characters in length. To ensure system integrity, **do not use FC to name any of your files.** If a user creates a file with the same name as an executable file, the executable file will be replaced by the newly-created file.

1.2.1 Activator Disk

The user must run the INSTALL program provided on the Activator Disk which is a part of the FOCUS software package. The Activator Disk allows for only one installation.

Before beginning installation, be sure the prompt C:>\focus is seen on the screen. Insert the Activator Disk into the A drive and

TYPE: a:install

Follow the step by step procedure for installation. The INSTALL program will ask you several questions. These questions will provide the software with system configuration information. If the user enters this information incorrectly, the software will not recognize the commands. If the user attempts to enter PC/FOCUS before it is properly installed, the user will receive the message PC/FOCUS NOT INSTALLED. The user should then try to reinstall the software. When the installation is complete, the user will receive the message, "PC/FOCUS has been successfully installed." Refer to the PC/FOCUS Guide to Operations for answers to the specific questions and the peripherals supported by the PC/FOCUS. PC/FOCUS is a copyright protected program developed by Information Builders, Inc.

1.2.2 Creating the Path

The path is a statement that the computer uses to point to a directory for a specific program. The path is stored in a file called *autoexec.bat* file. The FOCUS directory should be set on the path along with any other directory that is currently there. The autoexec.bat file can be modified from the EDLIN editor. Consult the DOS Users Manual for further information on creating or editing the autoexec.bat's path statement. Alternatively, the user can use the DOS command PATH C:\FOCUS.

1.3 Installing the Pavement Performance Monitoring System Software

To proceed to the root directory,

TYPE: cd

While in the root directory, the user will need to create a new sub-directory into which PPMS files will be copied.

TYPE: md PPMS

To enter into the PPMS sub-directory,

TYPE: cd PPMS

The user is now in the PPMS sub-directory. The next step should be to copy the data from the PPMS software diskettes to the PPMS sub-directory.

Insert a PPMS diskette #1 into the A or B disk drive.

TYPE: Restore a: c:\PPMS

These commands tell the computer the source drive and the final destination of the transferred files. Follow the Restore instructions to copy the remaining diskettes to the harddisk, e.g., insert the PPMS program diskettes #1 and #2 when prompted for it.

Once all the files are copied,

TYPE: `cd\`

The user will now be returned to the root directory.

1.4 Welcome to PPMS

The Pavement Performance Monitoring System is a user-friendly, menu-driven, database management system. Incorporated into the system is extensive help screen support. Help screens are displayed to assist the user in data input or data retrieval.

To obtain help information,

PRESS the F1 function key

To exit from the help screen,

PRESS the F1 function key

To return to the previous screen,

PRESS the ESC (escape) key

The Help screen support feature is available at the menu level. While in the data maintenance sections of the program, escaping to the previous page will place the user at the first input screen.

A field indicated by a number can be selected by pressing the number corresponding to the desired field. The cursor will go directly to the number.

Press ENTER (or RETURN) to select a specific field.

All cursor controls work throughout the program, and the ability to scroll up or down through data is also available.

To exit a particular application at any time,

PRESS the F3 function key

1.4.1 Entering PPMS

Entering into the PPMS is accomplished through the FOCUS software package.

At the `c:>` prompt on the screen,

TYPE: `cd\PPMS` and PRESS ENTER

TYPE: focus and PRESS ENTER

This will bring the user to the "Menu Presentation of FOCUS Facilities."

Move the cursor to the line labelled "Commands" and

PRESS ENTER

At the >> (FOCUS) prompt,

TYPE: ex main and PRESS ENTER

This will bring the user to the first screen, the EER introduction screen (See Figure 1-1).

If FOCUS has already been installed,

PRESS ENTER to continue

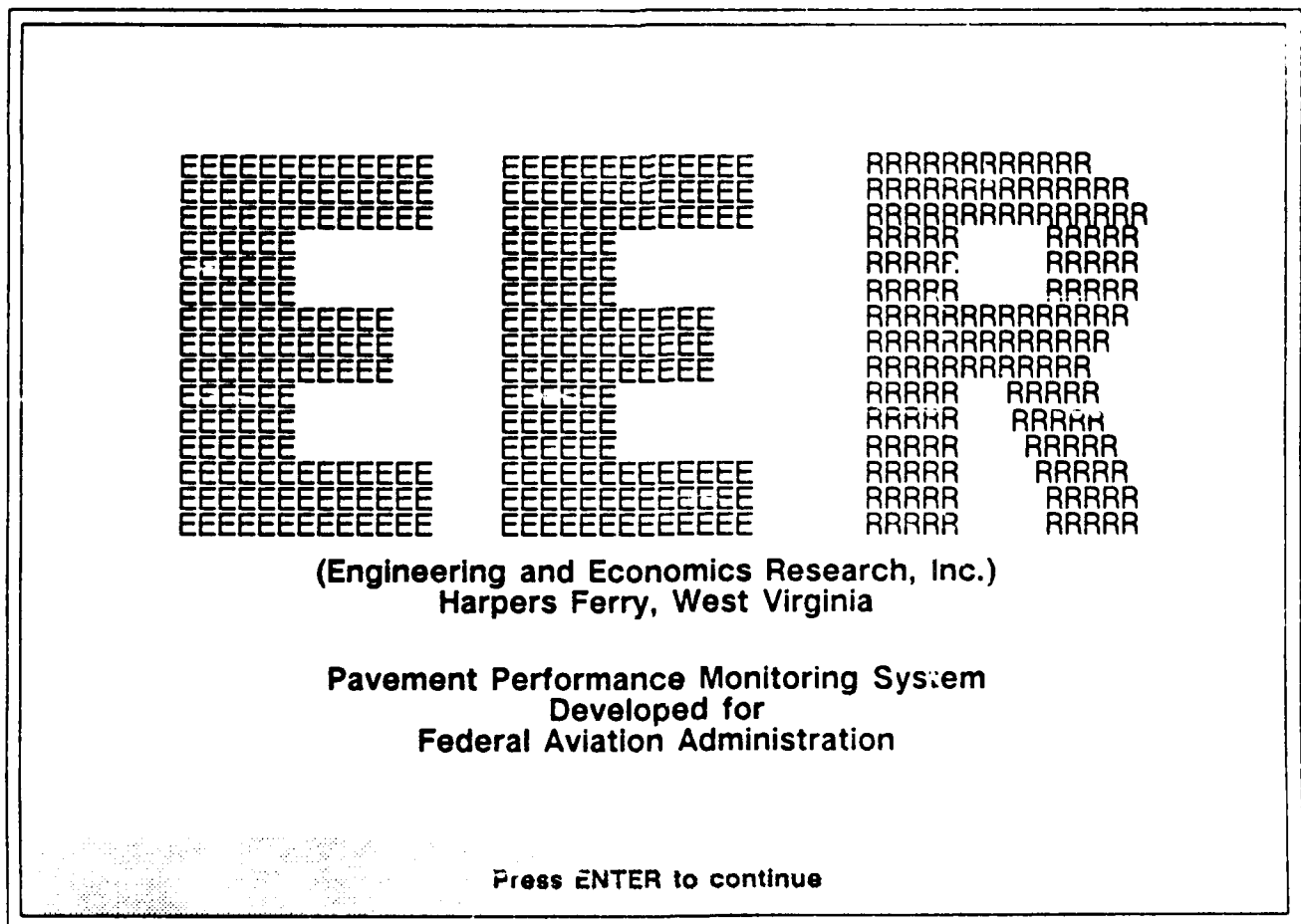
If FOCUS is not installed, the user can use the FOCUS program if you have an activator disk.

To start FOCUS,

INSERT the activator disk in drive A or B
and

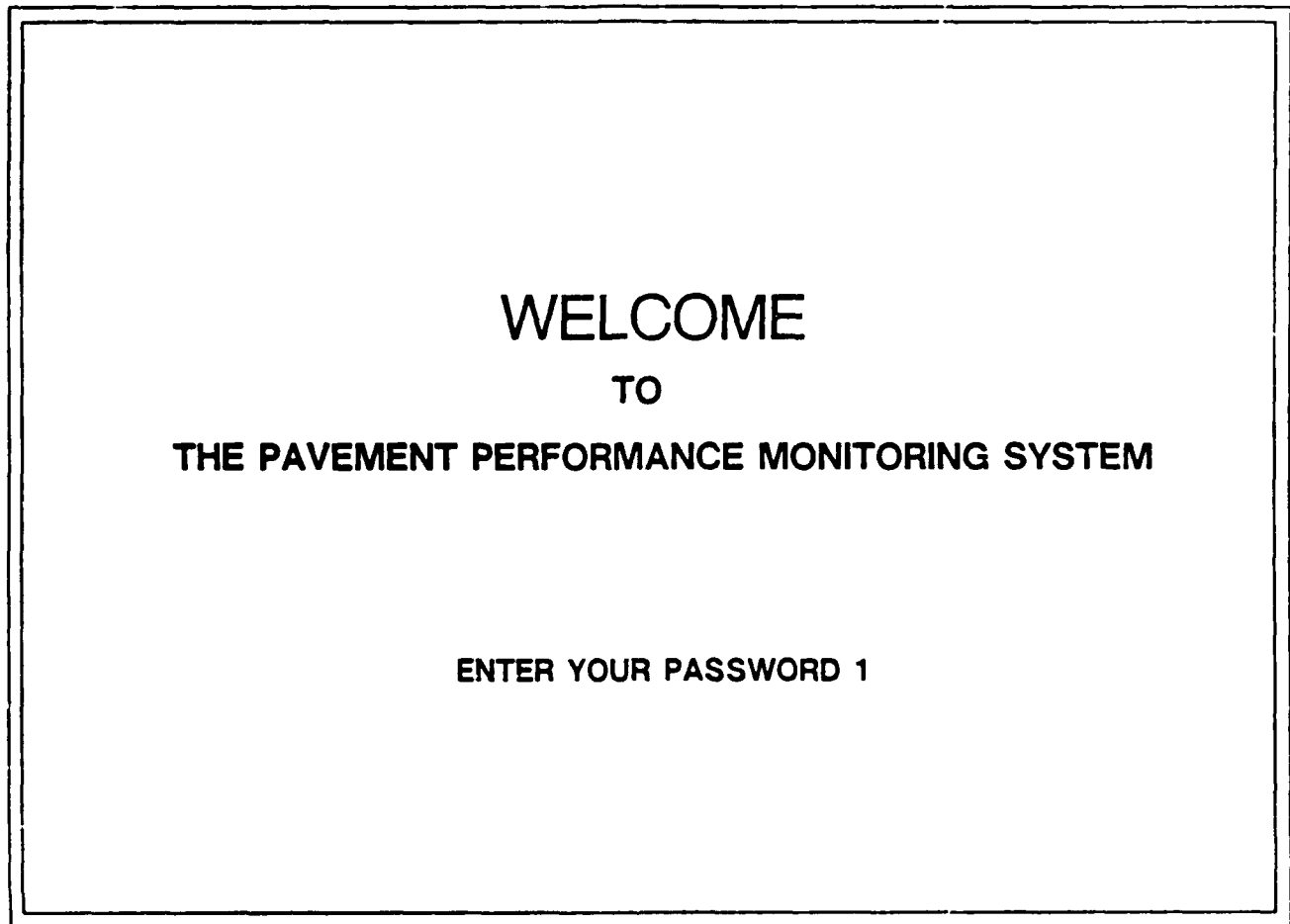
TYPE: a:focus

Figure 1-1



Press ENTER to continue.

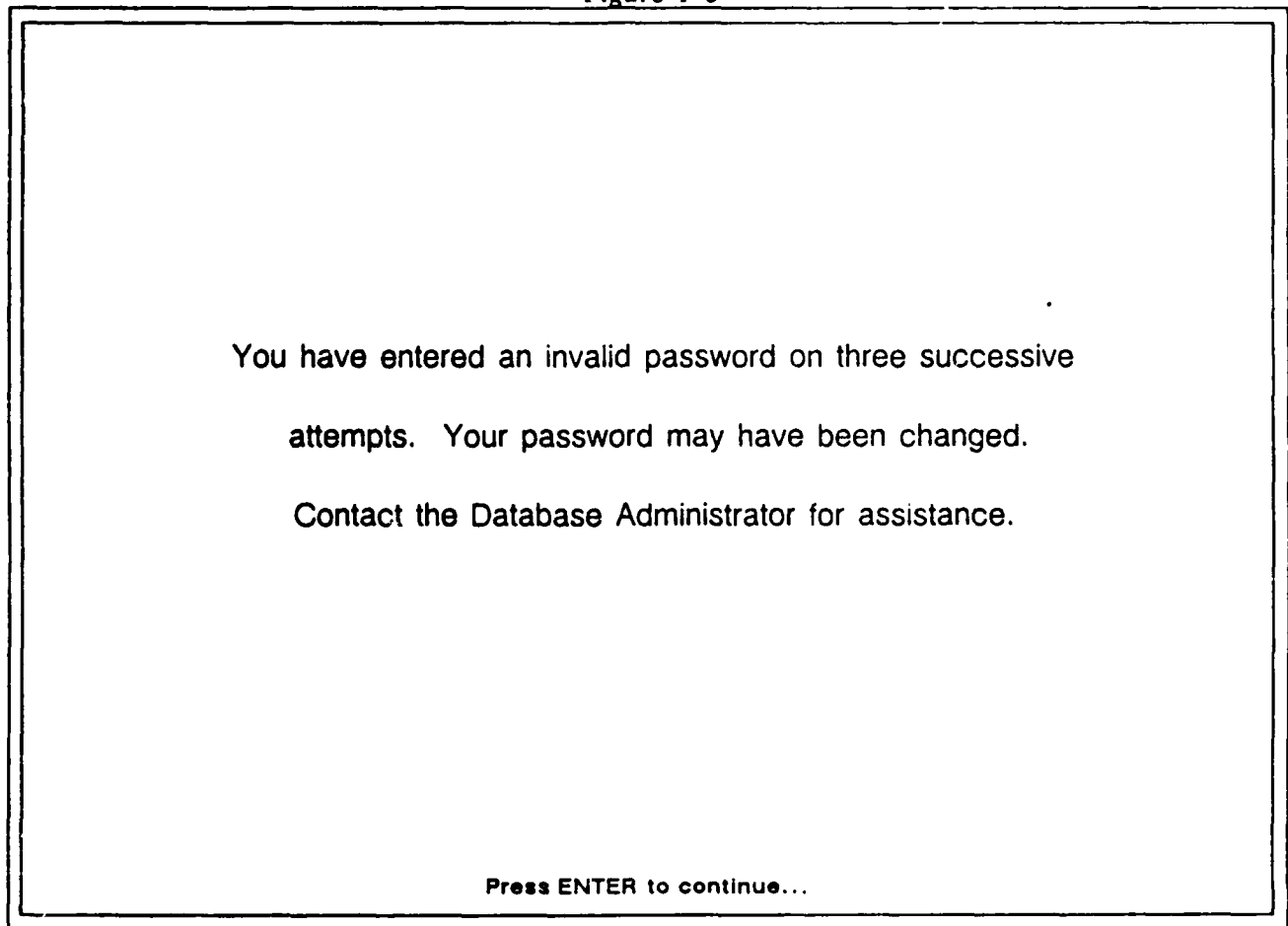
Figure 1-2



The user will see the welcome screen (See Figure 1-2). At this point, enter the password given to the user by the PPMS Database Administrator (DBA).

The program will allow the user three attempts to enter the correct password. Should all three attempts fail, an assistance screen (See Figure 1-3) will place the user back to the DOS command level and advise his/her to see the PPMS DBA.

Figure 1-3



If the correct or authorized password is entered, the system will display "LOGIN SUCCESSFUL. PLEASE WAIT...." The next screen, "Main Menu" (See Figure 1-4) will be displayed, allowing the user to proceed through the program.

Figure 1-4

MAIN MENU	
1.	Data Maintenance
2.	Report Generation
3.	DBA Functions
4.	Quit PPMS and Return to FOCUS
5.	Exit to DOS

Select option with ↑↓ and press ENTER

1.4.2 Main Menu

The Main Menu offers the following five options:

1. Data Maintenance

This option will allow the user to add, update, or delete information from the PPMS database. The database consists of pavement and distress type information. Since the database size is very large, the user is provided with two logical databases. The Pavement-specific information is in one database and the second database consists of distress-type information. Data Maintenance information is presented in Section 2 of this manual.

2. Report Generation

This option will allow the authorized users to develop reports from parameters specified by the data retrieval operator and cross reference these specific parameters against existing data located in the database. Report generation information is presented in Section 3 of this manual.

3. DBA Functions

This option gives the database administrator the capability to a) create/change password information, b) change the database structure, c) rebuild the database, or d) backup procedures. These functions of the DBA are presented in Section 4 of this manual.

4. Quit PPMS and Return to FOCUS

This option allows the user to get out of PPMS and to return to the FOCUS command level.

5. Exit to DOS

This option allows the user to exit to the DOS command level.

1.4.3 Exiting the Main Menu

Exiting the Main Menu is accomplished in two different ways:

- To return directly to FOCUS,

Select Option 4 of the Main Menu.

- To return to DOS command level,

Select Option 5 of the Main Menu.

2.0 Data Maintenance

All the additions, updates, or deletions of data can be accomplished by selecting Option 1, "Data Maintenance," of the Main Menu.

To select Option 1, move the highlighted cursor to Option 1 and

PRESS the ENTER key.

The next screen will display the two methods in which the user can input data (See Figure 2-1).

1. The interactive method of data input allows data to be entered directly from the keyboard.
2. The batch mode method of data input allows data to be entered from a diskette. This method is extremely useful when the data are coming from remote users.

Figure 2-1

The figure shows a computer screen with a large rectangular border. Inside this border, centered, is a smaller rectangular box. At the top of this inner box is the title "SELECT ONE OF THE FOLLOWING" in bold, uppercase letters. Below the title, there are two numbered options listed vertically:

- 1. Interactive (from keyboard)
- 2. Batch mode (from diskette)

2.1 Interactive Mode

In the interactive mode, the user can add, update, or delete information interactively. After the interactive data entry mode is selected, the Data Maintenance screen (See Figure 2-2) will appear.

2.1.1 Data Maintenance (Interactive)

In the Data Maintenance (Interactive) Menu there are four options. The common features and functions of data entry are discussed here. The detailed discussion of four options will follow in the remaining subsection.

The interactive data entry is done using the input screen similar to Figure 2-3. The screen is divided into three areas. The top area gives the administrative information such as date, time, and the title. The middle area consists of field names and spaces for accepting the data. In this area, the user will input the information. The bottom area consists of three lines. The first line consists of the keyboard function keys and their use:

To invoke help

Press F1 function key

To cancel the current record

Press F2 function key

To terminate the data entry session

Press F3 function key

To validate the entered information

Press F4 function key

To scroll the screens up and down

**Press F7 to page up
Press F8 to page down.**

The second line displays the Airport Identification (AID) and Pavement Identification (PID) and informs the user if the record is present in the database. If the record does not exist it will inform the user to enter new data.

The third line is reserved for system messages. The system displays relevant information on this line. One common message is NUM, which tells the user if a particular data item is numeric or expects a numeric value.

These functions are common to all interactive data entry including the add/update of distress type information.

Figure 2-2

The image shows a computer screen with a menu titled "DATA MAINTENANCE (INTERACTIVE)". The menu is enclosed in a rectangular box with a double border. Inside the box, there is a list of four options, each preceded by a number. Below the menu box, there is a line of text that reads "Select option with ↑↓ and ENTER ...or ESC to Back Up".

DATA MAINTENANCE (INTERACTIVE)	
1.	Add/Update Pavement-Specific Data
2.	Add/Update Distress-Type Data
3.	Delete Data
4.	Exit to Main Menu

Select option with ↑↓ and ENTER ...or ESC to Back Up

2.1.1.1. Add/Update Pavement-specific Data

Option 1 will allow the user to add or update a specific record. After the user selects this option, the system will load the database.

Adding and/or updating data in PPMS can be accomplished using pavement-specific and distress data contained on the PPMS Data Form (PPMSDF). The information from this form is then input into the computer via the keyboard. The data from the form are matched line-by-line with that of the formatted input screens. The first input screen (see Figure 2-3) will prompt the user to enter AID and PID.

Figure 2-3

PAVEMENT PERFORMANCE MONITORING SYSTEM		DATE 07/20/88
INPUT SESSION FOR		
PAVEMENT-SPECIFIC TYPE DATA		TIME 08.10.07
ENTER KEY FIELDS FOR THE RECORD YOU WISH TO ADD/UPDATE		
AIRPORT ID		
PAVEMENT ID		
F2 CANCEL RECORD	F3 EXIT	

The AID code is a three-character alphabetical code e.g., IAD for Dulles International Airport. The PID code is a combination of the runway identification number and station number e.g., 10L/111+00-145+00. These two codes provide the basis for the logical storage of specific pavement data in the database. Data are input via the keyboard and displayed on screens as shown in Figures 2-4 through 2-9. These screens provide pavement-specific type data for the database. Keyboard function keys are found at the bottom of each screen. To continue to the next screen,

PRESS the ENTER key

Figure 2-4

SCREEN 1	INPUT SESSION PAVEMENT-SPECIFIC DATA	DATE 07/20/88 TIME 08.10.28
AIRPORT ID A	PAVEMENT ID	
AIRPORT NAME		STATE
FAA REGION		
SERVICE LEVEL		
HUB SIZE		
MAX TEMPERATURE (in Fahrenheit)	0	
MIN TEMPERATURE (in Fahrenheit)	0	
TOTAL PRECIPITATION (in inches)	0	
FROST PENETRATION (in inches)	0	
FROST PROTECTION		
DRAINAGE CONDITION		
NUMBER OF DAYS WITH 32 OR LESS	0	
PAVEMENT COMPOSITION		
PAVEMENT TYPE		
PAVEMENT CONDITION		
F1 HELP	F2 CANCEL RECORD RECORD DOES NOT EXIST;	F3 EXIT F4 VALIDATE F8 PG DN ENTER NEW DATA

To proceed to the next screen,

PRESS F8

Figure 2-5

SCREEN 2	INPUT SESSION PAVEMENT-SPECIFIC DATA	DATE 07/20/88 TIME 08.10.28
AIRPORT ID A PCI DATE OF CONSTRUCTION (YY/MM/DD) DATE OF MAJOR REHABILITATION DATE OF RECENT MAINTENANCE PAVEMENT DESIGN METHOD Enter the OTHER DESIGN METHOD: DESIGN AIRCRAFT Enter the OTHER DESIGN AIRCRAFT: PAVEMENT MAINTENANCE METHODS: Enter OTHER MAINTENANCE METHOD: PAVEMENT ID .00 10100 10100 10100		
F1 HELP F2 CANCEL RECORD RECORD DOES NOT EXIST; F3 EXIT F4 VALIDATE F7/F8 PG UP/DN ENTER NEW DATA		
NUM		

To proceed to the next screen,

PRESS F8

Figure 2-6

SCREEN 3	INPUT SESSION PAVEMENT-SPECIFIC DATA	DATE 07/20/88 TIME 08.10.28
AIRPORT ID	A	PAVEMENT ID
EQUIVALENT DEPARTURES		0
AIRCRAFT OPERATIONS:		
AIR CARRIER		0
AIR TAXI/COMMUTER		0
GENERAL AVIATION		0
MILITARY		0
SUBGRADE SOIL CLASSIFICATION		
FAA SUBGRADE CLASS		
BASE SPECIFICATION		
SUBBASE SPECIFICATION		
SURFACE SPECIFICATION		
BASE THICKNESS (in inches)		.00
SUBBASE THICKNESS (in inches)		.00
SURFACE THICKNESS (in inches)		.00
F1 HELP	F2 CANCEL RECORD RECORD DOES NOT EXIST;	F3 EXIT NUM
		F4 VALIDATE ENTER NEW DATA
		F7/F8 PG UP/DN

To proceed to the next screen,

PRESS F8

Figure 2-7

SCREEN 4	INPUT SESSION PAVEMENT-SPECIFIC DATA	DATE 07/20/88 TIME 08.10.28
AIRPORT ID A PAVEMENT ID CALIFORNIA BEARING RATIO (CBR) K VALUE (in pci) LIQUID LIMIT PLASTICITY INDEX MOISTURE CONTENT WATER TABLE (HIGH OR LOW) DEPTH OF COMPACTION (in inches) MAXIMUM DENSITY TYPES OF CEMENT: REINFORCEMENT TYPES OF JOINT DESIGN (A THROUGH H) JOINT SEALANT ADDITIVES 0 .00 .00 .00 .00 .00 .00 .00 1. 2. 1 2 3		
F1 HELP F2 CANCEL RECORD RECORD DOES NOT EXIST; F3 EXIT F4 VALIDATE F7/F8 PG UP/DN ENTER NEW DATA		

NUM

To proceed to the next screen,

PRESS F8

Figure 2-8

SCREEN 5	INPUT SESSION COMMENT SCREEN	DATE 07/20/88 TIME 08.10.28
Any important information that could not be included elsewhere may be entered here. Comments have been grouped under the five headings: DESIGN, MAINTENANCE, CLIMATIC CONDITION, OPERATIONS, and GENERAL. DESIGN COMMENTS: MAINTENANCE COMMENTS: CLIMATIC CONDITION COMMENTS:		
F1 HELP	F2 CANCEL RECORD RECORD DOES NOT EXIST;	F3 EXIT
F4 VALIDATE	F7/ F8 PG UP/DN ENTER NEW DATA	

To proceed to the next screen,

PRESS F8

Figure 2-9

[illegible]

Help is provided by pressing the F1 control key. Help screens will be displayed that provide data and format information on each of the pavement-specific fields (See Figures 2-10 through 2-23). If the incorrect data or format are input into the record, the software will reject the record, inform you where the error exists, and not allow the user to enter the information into the database.

To validate the information once all the discrepancies are corrected,

PRESS the F4 function key

The user will then return to the AID and PID screen (See Figure 2-3). To cancel the transaction,

PRESS the F2 function key

This will return the user to a screen and will allow him/her to access a new record (See Figure 2-3).

To exit to the **Data Maintenance** screen (Figure 2-2),

PRESS the F3 function key

PRESS F7 to page up
PRESS F8 to page down

After all the data have been entered and quality controlled, to update the database,

PRESS ENTER

The user will then return to a screen which will allow him/her to add or update another record. To exit,

PRESS the F3 function key

Figure 2-10

SCREEN 1 OF HELP				
FUNCTION KEYS				
F1	Return to the data screen.			
F2	Rejects the current data transaction and returns to the top data screen.			
F3	Quits the current data session and returns to the Main Menu.			
F4	Validates the data items before entering them into the database.			
F7 or PG UP	Scrolls upwards through the help screens.			
F8 or PG DN	Scrolls downwards through the help screens.			
 The TAB key can be used to move from one data item to another within a screen. Press the TAB to move the cursor to the next data item. Press the SHIFT TAB to move the cursor to the previous data item.				
GENERAL INFORMATION				
1. All dates are entered as YY/MM/DD.				
2. All dimensions are in inches unless specified otherwise.				
3. All temperatures are in degrees Fahrenheit unless specified otherwise.				
F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F7 PG UP	F8 PG DN

Figure 2-11

SCREEN 2 OF HELP				
4. If no information is available on a data item, then this field may be left blank. The default values for numeric and non-numeric data items are 0 and blank, respectively. 5. For some data items, more than one input space is provided on the screen. If there are fewer entries, the remaining spaces should be left blank. 6. For some data items, OTHER is a valid option. If the input data does not match with the options listed for this item, then enter OTHER here and enter the data and/or a brief description in the following space. 7. All non-numeric information should be entered starting in the first column of the input space. Text should be entered exactly as mentioned (including any hyphens and blanks) in the following help screens. NOTE that the leading blanks in alpha-numeric data items are not suppressed. 8. Within help, the data items are displayed as yellow text on a red background. These are followed by a brief description of the item and the available options. The options are in UPPERCASE.				
F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F7 PG UP	F8 PG DN

Figure 2-12

SCREEN 3 OF HELP		FOR DATA SCREEN 1					
Select one of the following FAA Regions: <table style="width: 100%; border: none;"><tr><td style="width: 33%; vertical-align: top;">NEW ENGLAND GREAT LAKES WESTERN PACIFIC</td><td style="width: 33%; vertical-align: top;">EASTERN SOUTHWEST ALASKAN</td><td style="width: 33%; vertical-align: top;">SOUTHERN NORTHWEST MOUNTAIN</td></tr></table>			NEW ENGLAND GREAT LAKES WESTERN PACIFIC	EASTERN SOUTHWEST ALASKAN	SOUTHERN NORTHWEST MOUNTAIN		
NEW ENGLAND GREAT LAKES WESTERN PACIFIC	EASTERN SOUTHWEST ALASKAN	SOUTHERN NORTHWEST MOUNTAIN					
<table style="width: 100%; border: none;"><tr><td style="width: 50%; vertical-align: top;"> SERVICE LEVEL (Select one of the following) AIR CARRIER COMMUTER SERVICE RELIEVER GENERAL AVIATION </td><td style="width: 50%; vertical-align: top;"> HUB SIZE (Select one of the following) LARGE MEDIUM SMALL NON-HUB </td></tr></table>			SERVICE LEVEL (Select one of the following) AIR CARRIER COMMUTER SERVICE RELIEVER GENERAL AVIATION	HUB SIZE (Select one of the following) LARGE MEDIUM SMALL NON-HUB			
SERVICE LEVEL (Select one of the following) AIR CARRIER COMMUTER SERVICE RELIEVER GENERAL AVIATION	HUB SIZE (Select one of the following) LARGE MEDIUM SMALL NON-HUB						
MAX TEMPERATURE - The annual mean maximum temperature in degrees Fahrenheit. MIN TEMPERATURE - The annual mean minimum temperature in degrees Fahrenheit. TOTAL PRECIPITATION - The annual total precipitation in inches.							
<table style="width: 100%; border: none;"><tr><td style="width: 20%;">F1 INPUT</td><td style="width: 20%;">F2 CANCEL RECORD</td><td style="width: 20%;">F3 EXIT</td><td style="width: 20%;">F7 PG UP</td><td style="width: 20%;">F8 PG DN</td></tr></table>			F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F7 PG UP	F8 PG DN
F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F7 PG UP	F8 PG DN			

Figure 2-13

SCREEN 4 OF HELP	FOR DATA SCREEN 1					
FROST PENETRATION - The frost penetration in inches. FROST PROTECTION - Specify the method used for frost protection. Select one of the following: Complete Protection (CP) Limited Subgrade Protection (LSP) Reduced Subgrade Protection (RSP) Reduced Subgrade Strength (RSS) DRAINAGE CONDITION Select the appropriate airport drainage conditions: ADEQUATE INADEQUATE NUMBER OF DAYS WITH 32 OR LESS Mean annual days with a temperature of 32 degrees Fahrenheit or less.						
<table style="width: 100%; border: none;"><tr><td style="width: 20%;">F1 INPUT</td><td style="width: 20%;">F2 CANCEL RECORD</td><td style="width: 20%;">F3 EXIT</td><td style="width: 20%;">F7 PG UP</td><td style="width: 20%;">F8 PG DN</td></tr></table>		F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F7 PG UP	F8 PG DN
F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F7 PG UP	F8 PG DN		

Figure 2-14

SCREEN 5 OF HELP		FOR DATA SCREENS 1 & 2	
PAVEMENT COMPOSITION (Select one of the following)		PAVEMENT TYPE (Select one of the following)	
ACC		ORIGINAL	
PCC		OVERLAYED	
COMPOSITE		RECONSTRUCTED	
PAVEMENT CONDITION	Physical condition of the pavement:		
EXCELLENT	VERY GOOD	GOOD	
FAIR	POOR	VERY POOR	
FAILED			
PCI PCI should be entered, if available.			
DATE OF CONSTRUCTION, DATE OF MAJOR REHABILITATION and DATE OF RECENT MAINTENANCE. The date of construction, major rehabilitation and the most recent maintenance, respectively, should be entered in YY/MM/DD format. For example, June 1, 1955 should be entered as 550601.			
F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F7 PG UP
			F8 PG DN

Figure 2-15

SCREEN 6 OF HELP		FOR DATA SCREEN 2																										
PAVEMENT DESIGN METHOD. Select one of the following: <table style="width: 100%; border: none;"><tr><td style="width: 33%;">AC 150/5320-6C</td><td style="width: 33%;">AC 150/5320-6B</td><td style="width: 33%;">AC 150/5320-6A</td></tr><tr><td>AIM</td><td>PCAM</td><td>OTHER</td></tr></table> (AIM => Asphalt Institute Manual Series #11 PCAM => Portland Cement Association Manual) If you selected OTHER, enter the method in the following space captioned 'Enter the OTHER DESIGN METHOD:', or leave it blank. DESIGN AIRCRAFT. Select one of the following: <table style="width: 100%; border: none;"><tr><td style="width: 25%;">B-707</td><td style="width: 25%;">B-727-100</td><td style="width: 25%;">B-727-200</td><td style="width: 25%;">B-737</td></tr><tr><td>B-747</td><td>B-757</td><td>B-767</td><td>DC-8</td></tr><tr><td>DC-9</td><td>DC-10</td><td>L-1011</td><td>A-300</td></tr><tr><td>DASH-7</td><td>CONV-580</td><td>YS-11</td><td>CONC</td></tr><tr><td></td><td></td><td></td><td>OTHER</td></tr></table> If you selected OTHER, enter the aircraft in the following space captioned 'Enter the OTHER DESIGN AIRCRAFT:', else leave it blank.			AC 150/5320-6C	AC 150/5320-6B	AC 150/5320-6A	AIM	PCAM	OTHER	B-707	B-727-100	B-727-200	B-737	B-747	B-757	B-767	DC-8	DC-9	DC-10	L-1011	A-300	DASH-7	CONV-580	YS-11	CONC				OTHER
AC 150/5320-6C	AC 150/5320-6B	AC 150/5320-6A																										
AIM	PCAM	OTHER																										
B-707	B-727-100	B-727-200	B-737																									
B-747	B-757	B-767	DC-8																									
DC-9	DC-10	L-1011	A-300																									
DASH-7	CONV-580	YS-11	CONC																									
			OTHER																									
<table style="width: 100%; border: none;"><tr><td style="width: 20%;">F1 INPUT</td><td style="width: 20%;">F2 CANCEL RECORD</td><td style="width: 20%;">F3 EXIT</td><td style="width: 20%;">F7 PG UP</td><td style="width: 20%;">F8 PG DN</td></tr></table>			F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F7 PG UP	F8 PG DN																					
F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F7 PG UP	F8 PG DN																								

Figure 2-16

SCREEN 7 OF HELP	FOR DATA SCREENS 2 & 3												
PAVEMENT MAINTENANCE METHODS. Select a maximum of three from the following methods. Each should be entered on a separate line. If fewer than three are used, then the remaining spaces should be left blank: <table style="width: 100%; border: none;"><tr><td style="width: 33%;">CRACK FILLING</td><td style="width: 33%;">PATCHING</td><td style="width: 33%;">SEAL COAT</td></tr><tr><td>SLURRY SEAL</td><td>JOINT SEAL</td><td>JOINT REPAIR</td></tr><tr><td>PARTIAL SLAB REPLACEMENT</td><td>FULL SLAB REPLACEMENT</td><td>CORNER BREAK REPAIR</td></tr><tr><td>SLAB JACKING</td><td>OTHER</td><td></td></tr></table> If you selected OTHER, enter the aircraft in the following space captioned 'Enter the OTHER MAINTENANCE METHOD:', else leave it blank. EQUIVALENT DEPARTURES. The annual number of departures of the design aircraft for the pavement. AIRCRAFT OPERATIONS. The following four fields are for the annual number of aircraft operations for various categories of aircrafts. The categories are: 1. AIR CARRIER 2. AIR TAXI/COMMUTER 3. GENERAL AVIATION 4. MILITARY		CRACK FILLING	PATCHING	SEAL COAT	SLURRY SEAL	JOINT SEAL	JOINT REPAIR	PARTIAL SLAB REPLACEMENT	FULL SLAB REPLACEMENT	CORNER BREAK REPAIR	SLAB JACKING	OTHER	
CRACK FILLING	PATCHING	SEAL COAT											
SLURRY SEAL	JOINT SEAL	JOINT REPAIR											
PARTIAL SLAB REPLACEMENT	FULL SLAB REPLACEMENT	CORNER BREAK REPAIR											
SLAB JACKING	OTHER												
F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F7 PG UP	F8 PG DN									

Figure 2-17

SCREEN 8 OF HELP		FOR DATA SCREEN 3																												
SUBGRADE SOIL CLASSIFICATION (Select one entry only. Corresponding entries from the two groups are equivalent) <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">FAA SOIL GROUP</th> <th style="text-align: left; width: 60%;">UNIFIED GROUP</th> </tr> </thead> <tbody> <tr><td>E-1</td><td>GW</td></tr> <tr><td>E-2</td><td>GP</td></tr> <tr><td>E-3</td><td>GU</td></tr> <tr><td>E-4</td><td>GM</td></tr> <tr><td>E-5</td><td>GC</td></tr> <tr><td>E-6</td><td>SW</td></tr> <tr><td>E-7</td><td>SP</td></tr> <tr><td>E-8</td><td>SU</td></tr> <tr><td>E-9</td><td>ML</td></tr> <tr><td>E-10</td><td>CC</td></tr> <tr><td>E-11</td><td>OL</td></tr> <tr><td>E-12</td><td>MH</td></tr> <tr><td>E-13</td><td>CH</td></tr> </tbody> </table>		FAA SOIL GROUP	UNIFIED GROUP	E-1	GW	E-2	GP	E-3	GU	E-4	GM	E-5	GC	E-6	SW	E-7	SP	E-8	SU	E-9	ML	E-10	CC	E-11	OL	E-12	MH	E-13	CH	FAA SUBGRADE CLASS (Select one entry only) FA F1 F2 F3 F4 F5 F6 F7 F8 F9 F10
FAA SOIL GROUP	UNIFIED GROUP																													
E-1	GW																													
E-2	GP																													
E-3	GU																													
E-4	GM																													
E-5	GC																													
E-6	SW																													
E-7	SP																													
E-8	SU																													
E-9	ML																													
E-10	CC																													
E-11	OL																													
E-12	MH																													
E-13	CH																													
F1 INPUT F2 CANCEL RECORD F3 EXIT F7 PG UP F8 PG DN																														

Figure 2-18

SCREEN 9 OF HELP		FOR DATA SCREEN 3
BASE SPECIFICATION		
1.	P-201	Bituminous Base Course
2.	P-206	Dry or Water-Bound Macadam Base Course
3.	P-208	Aggregate Base Course
4.	P-209	Crushed Aggregate Base Course
5.	P-210	Caliche Base Course
6.	P-211	Lime Rock Base Course
7.	P-212	Shell Base Course
8.	P-213	Sand-Clay Base Course
9.	P-214	Penetration Macadam Base Course
10.	P-215	Cold-Laid Bituminous Base Course
11.	P-216	Mixed In-Place Base Course
12.	P-301	Soil Cement Base Course
13.	P-304	Cement-Treated Base Course
Option numbers 2, 3, 5, 7, 8, 11 and 12 become SUBBASE SPECIFICATION options for heavier aircrafts (weighing more than 30,000 pounds).		
F1 INPUTF2 CANCEL RECORDF3 EXITF7 PG UPF8 PG DN		

Figure 2-19

SCREEN 10 OF HELP		FOR DATA SCREEN 3	
SUBBASE SPECIFICATION (Select one of the following)			
1.	P-154	Subbase Course	
2.	P-155	Lime Treated Subbase Course	
3.	P-206	Dry or Water-Bound Macadam Subbase Course	
4.	P-208	Aggregate Subbase Course	
5.	P-210	Caliche Subbase Course	
6.	P-212	Shell Subbase Course	
7.	P-213	Sand-Clay Subbase Course	
8.	P-216	Mixed In-Place Subbase Course	
9.	P-301	Soil Cement Subbase Course	
SURFACE SPECIFICATION (Select one of the following)			
1.	P-401	Bituminous Surface Course	
2.	P-402	Porous Friction Surface Course	
3.	P-408	Blended Natural Limestone, Rock, Asphalt and Sand Bituminous Surface Course	
4.	P-501	PCC Pavement Surface Course	
F1 INPUT		F2 CANCEL RECORD	F3 EXIT
		F7 PG UP	F8 PG DN

Figure 2-20

SCREEN 11 OF HELP		FOR DATA SCREENS 3 & 4		
BASE THICKNESS, SUBBASE THICKNESS and SURFACE THICKNESS. The thickness of the base, subbase, and surface, respectively, in inches.				
CALIFORNIA BEARING RATIO (CBR). The ratio of the force required to produce a given penetration in the material under test to the force required to produce the same penetration in a standard crushed limestone. Range is 0..100.				
K VALUE (pci). Enter the K value (Foundation modulus) in pci. Range is 0.:400.				
LIQUID LIMIT. The lowest moisture content at which the soil passes from a plastic to a liquid state. Range is 0..100.				
PLASTICITY INDEX. The numerical difference between the PLASTIC LIMIT and the LIQUID LIMIT. Range is 0..100.				
F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F7 PG UP	F8 PG DN

Figure 2-21

SCREEN 12 OF HELP		FOR DATA SCREEN 4	
MOISTURE CONTENT. Enter the moisture content. Range is 0..100.			
WATER TABLE. Specify the water table as HIGH or LOW.			
DEPTH OF COMPACTION. Enter the depth of compaction (in inches) for the soil.			
MAXIMUM DENSITY. Enter the maximum density. Range is 0..100.			
F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F7 PG UP
			F8 PG DN

Figure 2-22

SCREEN 13 OF HELP		FOR DATA SCREEN 4							
CEMENT. Types of cement used. A maximum of two can be selected from the following types. Each should be entered on a separate line. If only one is entered, then the second space should be left blank: C150 TYPE I, IA, II, IIA, III, IIIA C595 TYPE IP, IPA, IS, ISA									
REINFORCEMENT. Type of steel reinforcement. Valid types are: <table><tbody><tr><td>WELDED STEEL WIRE FABRIC</td><td>ASTM A185</td></tr><tr><td>WELDED DEFORMED STEEL FABRIC</td><td>ASTM A497</td></tr><tr><td>BAR MATS</td><td>ASTM A184, A704</td></tr></tbody></table> Example entries: A704, A185.				WELDED STEEL WIRE FABRIC	ASTM A185	WELDED DEFORMED STEEL FABRIC	ASTM A497	BAR MATS	ASTM A184, A704
WELDED STEEL WIRE FABRIC	ASTM A185								
WELDED DEFORMED STEEL FABRIC	ASTM A497								
BAR MATS	ASTM A184, A704								
F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F7 PG UP						
		F8 PG DN							

Figure 2-23

SCREEN 14 OF HELP		FOR DATA SCREENS 4, 5 & 6	
JOINT DESIGN. Types of joint design. Valid types are A through H. At most, three types can be entered. If fewer than three are used, then the remaining fields should be left blank:			
TYPE A DOWELED	TYPE B THICKENED EDGE	TYPE C KEYED	
TYPE D DOWELED	TYPE E HINGED	TYPE F DOWELED	
TYPE G HINGED	TYPE H DUMMY		
COMMENT SCREENS. The last two screens are the comment screens. Any important information that could not be entered elsewhere m. be entered here. Comments are grouped under the headings DESIGN, MAINTENANCE, CLIMATIC CONDITION, AIRCRAFT OPERATIONS, and GENERAL.			
F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F7 PG UP

2.1.1.2 Add/Update Distress Types Data

Option 2 of the Data Maintenance (Interactive) Menu allows the user to add and/or update information on pavement distress types for a specific record. After selecting this option, the system will load the database. Once the data are loaded the user will be brought to the "Distress-Type Data" input screen. This screen is similar to the "Pavement-Specific Data" screen shown in Figure 2-3. The functions and features are similar to pavement-specific interactive data entry and are discussed in Section 2.1.1. To uniquely identify the record, the user must enter the AID and PID codes. These two codes provide the basis for the logical storage of specific pavement data in the database. If the record is already present, the program will retrieve the distress type information associated with that record and display it as shown in Figures 2-24 through 2-26.

Figure 2-24

SCREEN 1		INPUT SESSION DISTRESS TYPE DATA		DATE 07/20/88 TIME 08.17.45	
AIRPORT ID A		PAVEMENT ID			
		SEVERITY [0..7]	DENSITY		
1. BLOW UP		0	.00		
2. CORNER BREAK		0	.00		
3. LONGITUDINAL/TRANSVERSE		0	.00		
4. 'D' CRACK		0	.00		
5. JOINT SEAL DAMAGE		0	.00		
6. PATCHING		0	.00		
7. POPOUTS		0	.00		
8. PUMPING		0	.00		
9. SCALING/MAP CRACKING		0	.00		
10. SETTLEMENT FAULT		0	.00		
11. SHATTERED SLAB		0	.00		
12. SHRINKAGE CRACKS		0	.00		
F1 HELP F2 CANCEL RECORD F3 EXIT F4 VALIDATE F7/F8 PG UP/DN RECORD FOR AID A DOES NOT EXIST; NUM ENTER NEW DATA					

Figure 2-25

SCREEN 2		INPUT SESSION PAVEMENT-SPECIFIC DATA		DATE 07/20/88 TIME 08.17.45	
AIRPORT ID A		PAVEMENT ID			
		SEVERITY [0..7]		DENSITY	
13.	SPALLING-JOINTS	0		.00	
14.	SPALLING-CORNER	0		.00	
15.	ALLIGATOR CRACKING	0		.00	
16.	BLEEDING	0		.00	
17.	BLOCK CRACKING	0		.00	
18.	CORRUGATION	0		.00	
19.	DEPRESSION	0		.00	
20.	JET BLAST	0		.00	
21.	JOINT REFLECTION	0		.00	
22.	OIL SPILLAGE	0		.00	
23.	POLISHED AGGREGATE	0		.00	
24.	RAVELLING/WEATHERING	0		.00	
F1 HELP F2 CANCEL RECORD F3 EXIT F4 VALIDATE F7/F8 PG UP/DN RECORD FOR AID A DOES NOT EXIST; NUM ENTER NEW DATA					

Figure 2-26

SCREEN 3	INPUT SESSION PAVEMENT-SPECIFIC DATA	DATE 07/20/88 TIME 08.17.45																					
AIRPORT ID A	PAVEMENT ID <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 30%; text-align: center;">SEVERITY [0..7]</th> <th style="width: 30%; text-align: center;">DENSITY</th> </tr> </thead> <tbody> <tr> <td>25. RUTTING</td> <td style="text-align: center;">0</td> <td style="text-align: center;">.00</td> </tr> <tr> <td>26. SHOVING FROM PCC</td> <td style="text-align: center;">0</td> <td style="text-align: center;">.00</td> </tr> <tr> <td>27. SLIPPAGE CRACKING</td> <td style="text-align: center;">0</td> <td style="text-align: center;">.00</td> </tr> <tr> <td>28. SWELL</td> <td style="text-align: center;">0</td> <td style="text-align: center;">.00</td> </tr> <tr> <td>29. PAVING LANE JOINTS</td> <td style="text-align: center;">0</td> <td style="text-align: center;">.00</td> </tr> <tr> <td>30. OTHER</td> <td style="text-align: center;">0</td> <td style="text-align: center;">.00</td> </tr> </tbody> </table> DISTRESS TYPE COMMENTS			SEVERITY [0..7]	DENSITY	25. RUTTING	0	.00	26. SHOVING FROM PCC	0	.00	27. SLIPPAGE CRACKING	0	.00	28. SWELL	0	.00	29. PAVING LANE JOINTS	0	.00	30. OTHER	0	.00
	SEVERITY [0..7]	DENSITY																					
25. RUTTING	0	.00																					
26. SHOVING FROM PCC	0	.00																					
27. SLIPPAGE CRACKING	0	.00																					
28. SWELL	0	.00																					
29. PAVING LANE JOINTS	0	.00																					
30. OTHER	0	.00																					
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">F1 HELP</td> <td style="width: 25%;">F2 CANCEL RECORD RECORD DOES NOT EXIST;</td> <td style="width: 25%;">F3 EXIT NUM</td> <td style="width: 25%;">F4 VALIDATE ENTER NEW DATA</td> <td style="width: 20%;">F7 PG UP</td> </tr> </table>			F1 HELP	F2 CANCEL RECORD RECORD DOES NOT EXIST;	F3 EXIT NUM	F4 VALIDATE ENTER NEW DATA	F7 PG UP																
F1 HELP	F2 CANCEL RECORD RECORD DOES NOT EXIST;	F3 EXIT NUM	F4 VALIDATE ENTER NEW DATA	F7 PG UP																			

Accompanying these three data screens are two help screens that can be activated by pressing F1. This will provide an explanation of the function keys and how to input distress-type information into the database. Distress type is determined by the combination of the severity of a particular distress type on an integer scale from 1 to 7, one being the lowest, seven being the highest. A zero value, the default value, represents that the distress is not present. The Help screens, shown in Figures 2-27 and 2-28, determine the severity of a distress type for a pavement and should be used to ensure consistency in determining severity.

Figure 2-27

SCREEN 1 OF HELP			
FUNCTION KEYS			
F1 Return to the data screen.			
F2 Rejects the current data transaction and returns to the top data screen.			
F3 Quits the current data session and returns to the previous Menu.			
F4 Validates the data items before entering it into the database.			
F7 or PG UP Scrolls upwards through help screens.			
F8 or PG DN Scrolls downwards through help screens.			
The TAB key can be used to move from one data item to another within a screen. Press TAB to move the cursor to the next data item. Press SHIFT TAB to move the cursor to the previous data item.			
DISTRESS-TYPE INFORMATION. The input screens provide a list of thirty distress types. If a particular distress type exists, then the level of SEVERITY should be entered as an integer from 1 to 7. The default (if the distress type does not exist) is 0. The DENSITY should also be entered, if available (Range is 0..100). A table is provided on the next screen for SEVERITY.			
F1 INPUT	F2 CANCEL RECORD	F3 EXIT	F8 PG DN

Figure 2-28

SCREEN 2 OF HELP																																																	
If the distress type is not among those listed in the input data screens then SELECT the OTHER option and ENTER the SEVERITY and DENSITY. Enter all comments related to distress-type information against DISTRESS TYPE COMMENTS. The distress types mentioned in the input screens can have any combination of the three levels of severity: High (H), Medium (M), Low (L). The number to be entered depends upon the particular combination of these levels. The choices for the number to be entered under SEVERITY are listed below against the respective combinations of the levels of severity: <table style="margin-left: auto; margin-right: auto; border: none;"> <thead> <tr> <th style="text-align: center;">LOW</th> <th style="text-align: center;">MEDIUM</th> <th style="text-align: center;">HIGH</th> <th style="text-align: center;">SEVERITY</th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">0</td> <td>(This is the default)</td> </tr> <tr> <td style="text-align: center;">L</td> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> <td style="text-align: center;">1</td> <td></td> </tr> <tr> <td style="text-align: center;">-</td> <td style="text-align: center;">M</td> <td style="text-align: center;">-</td> <td style="text-align: center;">2</td> <td></td> </tr> <tr> <td style="text-align: center;">-</td> <td style="text-align: center;">-</td> <td style="text-align: center;">H</td> <td style="text-align: center;">3</td> <td></td> </tr> <tr> <td style="text-align: center;">L</td> <td style="text-align: center;">M</td> <td style="text-align: center;">-</td> <td style="text-align: center;">4</td> <td></td> </tr> <tr> <td style="text-align: center;">L</td> <td style="text-align: center;">-</td> <td style="text-align: center;">H</td> <td style="text-align: center;">5</td> <td></td> </tr> <tr> <td style="text-align: center;">-</td> <td style="text-align: center;">M</td> <td style="text-align: center;">H</td> <td style="text-align: center;">6</td> <td></td> </tr> <tr> <td style="text-align: center;">L</td> <td style="text-align: center;">M</td> <td style="text-align: center;">H</td> <td style="text-align: center;">7</td> <td></td> </tr> </tbody> </table>					LOW	MEDIUM	HIGH	SEVERITY					0	(This is the default)	L	-	-	1		-	M	-	2		-	-	H	3		L	M	-	4		L	-	H	5		-	M	H	6		L	M	H	7	
LOW	MEDIUM	HIGH	SEVERITY																																														
			0	(This is the default)																																													
L	-	-	1																																														
-	M	-	2																																														
-	-	H	3																																														
L	M	-	4																																														
L	-	H	5																																														
-	M	H	6																																														
L	M	H	7																																														
F1 INPUT F2 CANCEL RECORD F3 EXIT F7 PG UP																																																	

PRESS F1 to return to the input screen.

To validate the information and update the database after all the data have been entered,

PRESS F4

To return to the AID/PID input screen which will allow the user to update another record,

PRESS ENTER

To exit after completing the session,

PRESS the F3 function key

This will return the user to the Data Maintenance screen (See Figure 2-2).

2.1.1.3 Delete Data

Option 3 of the Data Maintenance (Interactive) Menu allows the user to delete a specific record from the database. Enter the AID and PID to identify a record. This will bring the user to the "Delete Session" shown below.

Figure 2-29

DELETED SESSION		DATE 07/20/88
SCREEN 1	PRESS ENTER TO DELETE THIS RECORD	TIME 08.37.33
AIRPORT ID A	PAVEMENT ID	
AIRPORT NAME NATIONAL		STATE VA
FAA REGION	EASTERN	
SERVICE LEVEL	AIR CARRIER	
HUB SIZE	MEDIUM	
MAX TEMPERATURE (in Fahrenheit)	100	
MIN TEMPERATURE (in Fahrenheit)	20	
TOTAL PRECIPITATION (in inches)	0	
FROST PENETRATION (in inches)	0	
FROST PROTECTION		
DRAINAGE CONDITION		
NUMBER OF DAYS WITH 32 OR LESS	0	
PAVEMENT COMPOSITION	ACC	
PAVEMENT TYPE	ORIGINAL	
PAVEMENT CONDITION		
F1 HELP F2 CANCEL RECORD F3 EXIT F4 VALIDATE F8 PG DN		
RECORD EXISTS;		PRESS ENTER TO DELETE THE RECORD

To uniquely identify the record,

ENTER the AID and PID codes

If the record exists, the software will retrieve the data associated with that specific record and display it.

The Delete Session uses the help screens from the Data Input Session. The first help screen (see Figure 2-30) shown is not presented in the input session. It explains general information associated with the Delete Session.

Figure 2-30

SCREEN 1 OF HELP			
FUNCTION KEYS			
F1 Toggle between the data screen and the help screen.			
F2 Rejects the current data transaction and returns to the top data screen.			
F3 Quits the current data session and returns to the previous Menu.			
F7 or PG UP Scrolls upwards through help screens.			
F8 or PG DN Scrolls downwards through help screens.			
GENERAL INFORMATION			
This program is for deleting records from the database. Whenever the user presses the ENTER key while browsing through a record, the system verifies the delete request by asking the user to confirm by pressing "y" on the keyboard. At this stage, the user can abort the delete process simply by pressing the ENTER key or the F2 key and the database will remain unchanged. NOTE: In order to delete a record, the user must press ENTER and then press "y" followed by ENTER. The following screens provide help on data items.			
F1 DELETE SCREEN	F2 CANCEL RECORD	F3 EXIT	F8 PG DN

Throughout the Delete Session, "PRESS ENTER TO DELETE THIS RECORD" will flash at the top of the screen. This is to alert the user of the dangers in pressing and deleting the data.

As a further security measure, the warning message "ENTER Y TO DELETE THIS RECORD: N" will be displayed when the ENTER key is pressed. The letter "N" in the message will flash.

To delete,

TYPE: Y and press ENTER

To proceed without deleting the record,

TYPE: N (default) and press ENTER

2.1.1.4. Exit to Main Menu

Option 4 of the Data Maintenance (Interactive) Menu allows the user to exit to the Main Menu (Figure 1-4). The user may now select other options from the screen.

2.2 Batch Mode

This option allows the DBA to transmit data from the diskette to the database. This option is protected by a password and can only be selected by the DBA or an authorized user. (Refer to the Programmer's Guide for further details.)

Once the batch mode is selected and the user has entered the correct password, the data maintenance (BATCH MODE) screen will be displayed, as shown in Figure 2-31. This screen will allow the user to input data files and examine data and message files.

Figure 2-31

DATA MAINTENANCE (BATCH MODE)

1. Input data from a data file
2. Examine a message file
3. Examine a data file
4. Set output destination
5. Exit to Main Menu

Select option with ↑↓ and ENTER ...or ESC to Back Up

- **Input data from a data file:**
This option is used to enter data from a data file. The user will be prompted for the disk drive and the file name.
- **Examine a message file:**
There are two message files that are generated during the batch data entry. The first file lists the AID and PID if a new record is created. The record file lists the record and the error message if the record is not entered in the database.
- **Examine a data file:**
If the user finds an error while reviewing the message file, he/she can examine the data file by selecting this option. The user will be prompted for the drive letter and the file name.
- **Set output destination:**
The user can set the destination as monitor or printer for reviewing the message files.
- **Exit to Main Menu:**
The user can exit the batch data entry menu by selecting this option.

3.0 Report Generation

Report generation provides the means to generate ad-hoc reports, auxiliary reports, or to perform commonality analysis. Before preparing any report, the user may specify the record selection criterion. If no criterion is specified, all the records will be considered for reports and analysis. The reports can be sorted on any of the several specified fields. The commonality analysis can be performed on any of the specified fields. A comprehensive diagram of this process is shown in Figure 3-1.

As an example, the following steps will be required to prepare the "Design report for the pavements having longitudinal/transverse cracking, sorted by state."

- The user will be asked for the screening criterion. Select distress type as Longitudinal/Transverse.
- Select the ad-hoc reports option from the type of reports.
- Select Design report from the ad-hoc reports.
- Select the sort field as STATE.
- Select the destination as terminal or printer.

The following sections will explain the capabilities of the PPMS report generation and how the user may use it. The user is referred to Appendix B for sample report.

3.1. Record Selection

The functional flow chart of the report generation is shown in Figure 3-2. Before preparing any reports, the user may specify the record selection criteria or screening criteria. If the user decides not to screen the records, the entire database will be used for subsequent analysis and reports. The screening criteria are very useful for isolating certain portions of the database.

Figure 3-1

PAVEMENT PERFORMANCE MONITORING SYSTEM REPORT GENERATION

RECORD SELECTION CRITERIA *

DISTRESS TYPES
REGION
PAVEMENT COMPOSITION
MAXIMUM TEMPERATURE
MINIMUM TEMPERATURE
DESIGN METHOD
DESIGN AIRCRAFT
EQUIVALENT DEPARTURES
DATE OF CONSTRUCTION
PCI
PAVEMENT TYPE
TOTAL PRECIPITATION
FROST PENETRATION
NUMBER OF DAYS <°32 F

**
AND/OR

TYPE OF REPORT

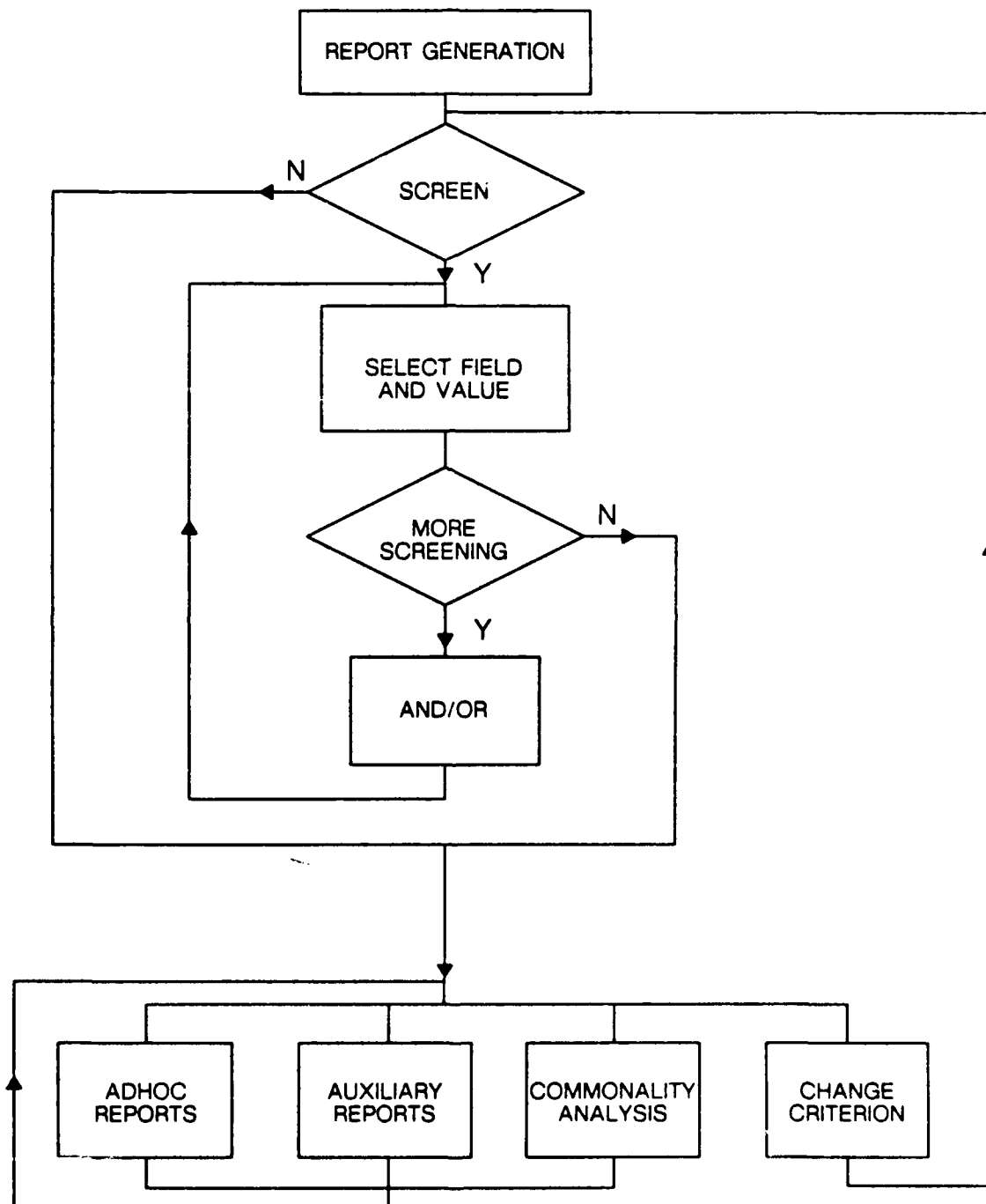
- ADHOC REPORTS
 - COMPREHENSIVE
 - DESIGN
 - MAINTENANCE
 - CLIMATE CONDITIONS
 - AIRCRAFT OPERATIONS
 - USER-SELECTABLE FIELDS
- AUXILIARY REPORTS
- COMMONALITY ANALYSIS

COMMONALITY ON A FIELD/ SORT BY A FIELD

STATE
DATE OF CONSTRUCTION
EQUIVALENT DEPARTURES
PCI
DESIGN AIRCRAFT
DESIGN METHOD
TOTAL PRECIPITATION
FROST PENETRATION
NUMBER OF DAYS <°32 F
PAVEMENT COMPOSITION
PAVEMENT TYPE
AIR CARRIER OPERATIONS
TAXI/COMMUTER
GENERAL AVIATIONS
MILITARY OPERATIONS

* This is not a complete list
** Repetitive process

Figure 3-2
**FUNCTIONAL FLOW CHART
REPORT GENERATION**



3.1.1 Specifying the Selection Criteria

If the user selects the report generation option from the main menu, the screen shown in Figure 3-3 will be displayed. If the user selects NO, all the records in the database will be considered for the reports and analyses, and the user will proceed directly to the reports menu (See Figure 3-7). If the user selects YES, he/she may specify the field and the value for that field (See Figure 3-4).

Figure 3-3

REPORT GENERATION SESSION			
<table border="1" style="margin: auto;"><tr><td style="padding: 5px;">Any record selection criterion?</td></tr><tr><td style="padding: 10px; text-align: center;">YES</td></tr><tr><td style="padding: 10px; text-align: center;">NO</td></tr></table>	Any record selection criterion?	YES	NO
Any record selection criterion?			
YES			
NO			
SELECT YES if you want the report ONLY IF A FIELD HAS A SPECIFIC VALUE Both the field and the value for SCREENING are user-selectable.			
Select option with ↑↓ and ENTER ...or ESC to Back Up			

Figure 3-4

FOR FIELD
DISTRESS TYPE REGION STATE SERVICE HUB PAVEMENT COMPOSITION PAVEMENT TYPE PAVEMENT CONDITION MAXIMUM TEMPERATURE MINIMUM TEMPERATURE DESIGN METHOD DESIGN AIRCRAFT EQUIVALENT DEPARTURES DATE OF CONSTRUCTION DATE OF REHABILITATION DATE OF RECENT MAINTENANCE PCI TOTAL PRECIPITATION FROST PENETRATION MEAN DAYS WITH < 32 ° F AIR CARRIER OPERATIONS TAXI OPERATIONS GENERAL AVIATION OPERATIONS MILITARY OPERATIONS BASE THICKNESS SUBBASE THICKNESS SURFACE THICKNESS SUBGRADE SOIL TYPE SUBGRADE CLASSIFICATION BASE SPECIFICATION SUBBASE SPECIFICATION SURFACE SPECIFICATION

Records will be included in the report only if the selected field has a certain value (which you will be prompted for next). PRESS F1 for more help.

Select option with ↑↓ and ENTER, or ESC to Backup.

Once the user has identified a field, he/she will either be given the possible values for that field or he/she will be prompted to enter the value. For example, if the user selects distress type, the following screen (See Figure 3-5) will be displayed which will allow him/her to choose a particular distress type.

Figure 3-5

SELECT THE DISTRESS TYPE:	
1.	BLOW UP
2.	CORNER BREAK
3.	LONGTITUDINAL/TRANSVERSE
4.	'D' CRACK
5.	JOINT SEAL DAMAGE
6.	PATCHING
7.	POPOUTS
8.	PUMPING
9.	SCALING/MAP CRACKING
10.	SETTLEMENT/FAULT
11.	SHATTERED SLAB
12.	SHRINKAGE CRACKS
13.	SPALLING JOINTS
14.	SPALLING CORNER
15.	ALLIGATOR CRACKING
16.	BLEEDING
17.	BLOCK CRACKING
18.	CORRUGATION
19.	DEPRESSION
20.	JET BLAST
21.	JOINT REFLECTION
22.	OIL SPILLAGE
23.	POLISHED AGGREGATE
24.	RAVELLING/WEATHERING
25.	RUTTING
26.	SHOVING FROM PCC
27.	SLIPPAGE CRACKING
28.	SWELL
29.	PAVING LANE JOINTS
30.	OTHER

Select option with ↑↓ and ENTER, or ESC to Backup.

Let us assume that the user selects Number 3, Longitudinal/Transverse cracking. The program will then short-list all the records which have Longitudinal/Transverse cracking. After the selection process is completed, the user will be given three options (See Figure 3-6).

Figure 3-6

REPORT GENERATION SESSION	
Would you like Union (OR) Intersection (AND) No further selection	
Select option with ↑↓ and ENTER ...or ESC to Back Up	

3.1.1.1 Specifying the Criterion with Union

If the user selects the first option (Union), it is possible to identify another selection criterion which will be combined with the previously selected criterion. For example, if the user select the distress type as the field and the corresponding value as Patching, the complete selection criterion would be:

(DISTRESS TYPE = "LONGITUDINAL/TRANSVERSE")
OR
(DISTRESS TYPE = "PATCHING")

The program will short-list all of the records which have either the longitudinal/transverse cracking or patching. The selection criterion can consist of ten variables with AND/OR conditions specified as desired by the user

NOTE: The AND will be evaluated before OR, and therefore, the order of precedence will be determined by this rule.

3.1.1.2 Selecting the Criterion with Intersection

The Intersection option is the same as the Union option except that the OR will be replaced by an AND; therefore, a criterion could be:

(DISTRESS TYPE = "LONGITUDINAL/TRANSVERSE")
AND
(REGION = "EASTERN")

The program will identify all the records which have the longitudinal/transverse cracks in the Eastern region.

3.1.1.3 Terminating the Selection Criteria

When the user has completed the criterion selection process, the user can select the option "No further selection". The following screen (See Figure 3-7) will be displayed for further processing.

Figure 3-7

Would you like to?

- Generate Ad-hoc Reports
- Generate Auxiliary Reports
- Perform Analysis
- Change Selection Criterion
- Go To Main Menu

Select option with ↑↓ and ENTER ...or ESC to Back Up

3.2 Generate Ad-hoc Reports

If the user selects this option he/she can either display or print several reports. As shown in Figure 3-8, the selection of the Ad-hoc Reports option identifies six groups of fields from which the user may choose. The process for preparing the report for each of the first five groups is similar and menu-driven. Therefore, only the Comprehensive and the User-selectable fields will be discussed in detail.

Figure 3-8

For reporting purposes, the FIELDS have been grouped into six categories.

Select the group of fields:
Comprehensive
Design only
Maintenance only
Climate Conditions only
Aircraft Operations only
User-Selectable fields
Exit to previous menu

If you wish to generate a report only on the FIELDS of your choice, SELECT the last option, **User-Selectable Fields**. Press **F1** against the option to view the list of FIELDS that will be included in the report.

Select option with ↑↓ and ENTER ...or ESC to Back Up

- **Comprehensive**
Provides a report of comprehensive data items selected from the database.
- **Design only**
Provides a report of selectively-identified pavement design and infrastructure data from the database (i.e., type of design method used for the pavement).
- **Maintenance only**
Provides a report of the database pavement maintenance data (i.e., latest work completed on the pavement).
- **Climate Conditions only**
Provides a report of the database airport climatic conditions data (i.e., maximum temperature).
- **Aircraft Operations only**
Provides a report of the database airport/aircraft data (i.e., number of departures).
- **User-Selectable Fields**
Provides a report on the database fields which are identified by the user.

3.2.1 Comprehensive Report

The selection of the Comprehensive Fields option will display the selected fields in the database. The records will be displayed which were selected by the selection criteria specified earlier. If the user would like to sort these records, select YES from the next screen (See Figure 3-9).

Figure 3-9

Do you want to sort the report?
YES
NO

Select option with ↑↓ and ENTER ...or ESC to Back L'p

- If NO is selected, the report will be sorted by AID and PID.
- If the user selects YES, the SORT THE ENTRIES BY screen will be displayed (See Figure 3-10).

Figure 3-10

SORT THE ENTRIES BY:	
STATE	
DATE OF CONSTRUCTION	
EQUIVALENT DEPARTURES	
PCI	
DESIGN AIRCRAFT	
DESIGN METHOD	
TOTAL PRECIPITATION	
FROST PENETRATION	
MEAN DAYS < 32°F	
PAVEMENT COMPOSITION	
PAVEMENT T/PE	
AIR CARRIER OPERATIONS	
TAXI/COMMUTER SERVICES	
GENERAL AVIATIONS	
MILITARY OPERATIONS	

The eligible records will be sorted from the lowest to the highest for numeric fields and in alphanumeric order otherwise.

Select option with ↑↓ and ENTER ...or ESC to Back Up

Select the entry by which the sort will be arranged. Once the user has selected the sort parameter, the database will count the records and display the report. To exit, press the ESC key.

3.2.2 User-Selectable Fields

If the user wants to generate a report consisting of the fields of his/her choice, select the User-selectable Fields option from the ad-hoc reports. He may select a maximum of five distress types and a maximum of twenty pavement data items. These limits are imposed so that the print width does not exceed the maximum limit.

The screens displayed in Figure 3-11 A, B, and C consist of pavement specific fields and distress types. The user can select the fields by pressing the "+" key which is located on the numeric keypad. To cancel a field selection, press the "+" key again. After the user has completed the pavement-specific field selections, press Enter. The user can now select distress types that he/she would like to view in the report.

To cancel at any time, press the ESC key and choose the Cancel option. This will permit the user to return to the previous menu. After identifying the desired fields, press Enter.

Figure 3-11A

Select the desired fields:

State	STATE
Region	REGION
Service	SERVICE
Hub	HUB
Maximum Temperature	TMAX
Minimum Temperature	TMIN
Annual precipitation	TOT_PRECIP
Frost protection	FROST_PENE
Annual days with < 32 °F	MEAN_ANN_32
Pavement composition	PAVE_COMP
Pavement type	PAVE_TYPE
Pavement condition	PAVE_COND
PCI	PCI
Date of construction	DT_CONS
Date of major rehabilitation	DT_REHAB
Date of recent maintenance	DT_MAINT
Pavement maintenance method	PAVE_MAINT1
Taxi/Commuter operations	TAXI
General Aviation operations	GEN_AVI
Military operations	MILITARY
Subgrade soil type	SB_GRD_SOIL
Subgrade soil classification	SB_GRD_CLASS
Base specification	BASE_SPEC
Subbase specification	SB_BASE_SPEC
Surface thickness	SURFAC_TH

Make multiple selections by pressing the + key on the numeric keypad against the options and pressing **ENTER**. PRESS F1 for more help.

Figure 3-11B

Select the desired fields:

Frost protection	FROST_PROTEC
California Bearing Ratio	CBR
K Value	K_VALUE
Liquid limit	LQD_LIMIT
Plasticity Index	PLASTI_NDX
Moisture content	MOIST_CONT
Water Table	WATER_TABL
Depth of compaction	DEPTH_COMP
Maximum density	MAX_DENSITY
Cement type	CEMENT1
Reinforcement	REINFORCE
Joint Design	JT_DESIGN1
Joint Sealant	JT-SEALANT
Additives	ADDITIVES

Make multiple selections by pressing the + key on the numeric keypad against the options and pressing **ENTER**. PRESS F1 for more help.

Figure 3-11C

Select the distress type(s):	
1.	Blow Up
2.	Corner Break
3.	Longitudinal/Transverse
4.	"D" Crack
5.	Joint Seal Damage
6.	Ratchling
7.	Popouts
8.	Pumping
9.	Scaling/Map Crack
10.	Settlement Fault
11.	Shattered Slab
12.	Shrinkage Cracks
13.	Spalling - Joints
14.	Spalling - Corner
15.	Alligator Cracking
16.	Bleeding
17.	Block Cracking
18.	Corrugation
19.	Depression
20.	Jet Blast
21.	Joint Reflection
22.	Oil Spillage
23.	Polished Aggregate
24.	Ravelling/Weathering
25.	Rutting
26.	Shoving from PCC
27.	Slippage Cracking
28.	Swell
29.	Paving Lane Joints
30.	Other

Make multiple selections by pressing the + key on the numeric keypad against the options and pressing ENTER. PRESS F1 for more help.

3.2.3 Report Destination

The reports generated in sections 3.2.1 and 3.2.2 can either be displayed on the screen or printed on the printer. Select Option 1 and 2 for displaying and printing, respectively, (See Figure 3-12).

To prepare another report from the Ad-hoc Reports, select Option 3, "Go to the next menu."

To exit Ad-hoc Reports or to generate another type of report, select Option 4, "Exit Adhoc Reports."

Figure 3-12

REPORT GENERATION SESSION

Do you want to?

1. Send the report to the terminal
2. Send the report to the printer
3. Go to the next menu
4. Exit Adhoc reports

Select option with ↑↓ and ENTER ...or ESC to Back Up

3.3 Generate Auxiliary Reports

This option generates reports not produced by the other Report Generation selections. The Generate Auxiliary Reports option (see Figure 3-13) provides the user with the capability to produce reports for the **OTHER** field, the **COMMENTS** field, and fields with multiple entries (i.e., pavement maintenance). If the user presses **ESC** at any time, he/she will be returned to the previous menu. The reports can be printed by the printer or displayed on the monitor. The reports will be prepared for all the records which satisfy the selection criteria specified.

Figure 3-13

The screenshot shows a menu titled "Report on:" with six numbered options. The menu is enclosed in a rectangular box. Below the menu box, there is a line of text indicating how to navigate the menu.

Report on:	
1.	Fields with OTHER as an option
2.	Comment fields
3.	Fields with multiple entries
4.	List of all database records
5.	All fields for all records
6.	Distress type fields

Select option with ↑↓ and ENTER ...or ESC to Back Up

3.3.1 Fields with OTHER as an Option

Option 1 allows the user to produce reports against the field **OTHER** listed in the input section of data maintenance. This option can be selected from the **Report on screen** (See Figure 3-13). If this option is selected, the database is searched for records with data listed in the field entitled **OTHER**. The number of matching records will be displayed after the database search has been completed.

The report can be viewed on the screen or it can be printed. the user may select the desired option and

PRESS ENTER

To exit the report screen and return to the **Report on screen** (see Figure 3-13),

PRESS ESCAPE

3.3.2 Comments Field

Selection of Option 2 (See Figure 3-13) allows the user to produce reports for the **COMMENTS** field listed in the input section of data maintenance. If the user selects Option 2, follow the same procedures that were presented in Section 3.3.1 to completion.

3.3.3 Fields with Multiple Entries

Option 3 allows the user to produce reports for fields capable of receiving more than one entry (i.e., pavement maintenance, types of cement used, and types of joint design). If Option 3 is selected, follow the same procedures that were presented in Section 3.3.1.

3.3.4 List of All Database Records

Option 4 allows the user to produce reports for all the records which satisfy the selection criteria. The **AID** and **PID** for all of these records will be listed. If Option 4 is selected, follow the same procedures that were presented in Section 3.3.1.

3.3.5 All Fields for All Records

This option allows the user to print or display all the information for the selected records. The report is internally divided into six sub-reports because of its size. **NOTE:** The report is very large and may take several minutes to view/print. This report is useful to check the validity and integrity of the database.

3.3.6 Distress Type Fields

This option is similar to the previous option discussed in Section 3.3.5. The only difference is that it lists only distress type information for all the records satisfying the selection criteria.

3.3.7 Auxiliary Report Destination

The auxiliary reports can be displayed on the screen or can be printed on the printer. Select Options 1 and 2 for displaying and printing, respectively (See Figure 3-14).

If the user would like to prepare another auxiliary report, select Option 3, "Go to the next menu."

To exit the auxiliary report menu, select Option 4, "Exit auxiliary reports."

Figure 3-14

Do you want to?

1. Send the report to the screen
2. Send the report to the printer
3. Go to the next menu
4. Exit Auxiliary reports

Select option with ↑↓ and ENTER ...or ESC to Back Up

3.4 Perform Analysis

This option permits the user to perform commonality analysis for a selected specific field including distress types (See Figure 3-15). Commonality analysis identifies the frequency of occurrence of a particular item. Detailed analysis can be performed after identifying the items having a high frequency of occurrence. The analysis results can be displayed or printed in either a tabular or a graphic format.

The analysis will be performed for all the records which satisfy the record selection criteria. If no criteria have been specified, the entire database will be used for the analysis.

The commonality analysis can be performed on any of the fields displayed in Figures 3-15 and 3-16.

Figure 3-15

COMMONALITY ANALYSIS

Select the FIELD for COMMONALITY ANALYSIS

1. REGION
2. STATE
3. SERVICE
4. HUB
5. MAXIMUM TEMPERATURE
6. MINIMUM TEMPERATURE
7. FROST PROTECTION
8. FROST PENETRATION
9. TOTAL PRECIPITATION
10. ANNUAL DAYS < 32° F
11. PAVEMENT COMPOSITION
12. PAVEMENT TYPE
13. PAVEMENT CONDITION
14. PCI
15. DATE OF CONSTRUCTION
16. DATE OF MAJOR REHABILITATION
17. DATE OF RECENT MAINTENANCE
18. PAVEMENT DESIGN METHOD
19. PAVEMENT MAINTENANCE METHOD
20. DESIGN AIRCRAFT

COMMONALITY ANALYSIS will be performed on the FIELD you select.
The results of the analysis can be displayed on the terminal or printer.
PRESS **ESC** if you wish to change the SCREENING criterion.

Figure 3-16

COMMONALITY ANALYSIS

Select the FIELD for COMMONALITY ANALYSIS

21.	EQUIVALENT DEPARTURES
22.	AIR CARRIER OPERATIONS
23.	TAXI/COMMUTER OPERATIONS
24.	GENERAL AVIATION OPERATIONS
25.	MILITARY OPERATIONS
26.	SUBGRADE SOIL TYPE
27.	SUBGRADE SOIL CLASSIFICATION
28.	BASE SPECIFICATION
29.	SUBBASE SPECIFICATION
30.	SURFACE SPECIFICATION
31.	CALIFORNIA BEARING RATIO
32.	SURFACE THICKNESS
33.	BASE THICKNESS
34.	SUBBASE THICKNESS
35.	MOISTURE CONTENT
36.	MAXIMUM DENSITY
37.	CEMENT TYPE
38.	REINFORCEMENT
39.	JOINT DESIGN
40.	DISTRESS TYPES

COMMONALITY ANALYSIS will be performed on the FIELD you select.
The results of the analysis can be displayed on the terminal or printer.

PRESS ESC if you wish to change the SCREENING criterion.

3.4.1 Analysis Result Format

The results of the commonality analysis can be generated in tabular or graphic format. This can be accomplished by selecting Options 1 and 2, respectively (See Figure 3-17).

The table lists all the items and their frequency. The graph displays the same information in a bar chart format.

NOTE: The graphic output for the distress type commonality analysis is divided into six graphs due to the software (FOCUS) limitations.

Figure 3-17

COMMONALITY ANALYSIS

Do you want to

1. Prepare a TABLE?
2. Prepare a GRAPH?
3. Go to next menu?

Select option with ↑↓ and ENTER ...or ESC to Back Up

3.4.2 Analysis Result Destination

The results of the analysis can be displayed on the screen or can be printed on the printer by selecting the appropriate option (See Figure 3-18).

Figure 3-18

COMMONALITY ANALYSIS							
<table border="1"><thead><tr><th colspan="2">Send the report to the</th></tr></thead><tbody><tr><td>1.</td><td>Screen</td></tr><tr><td>2.</td><td>Printer</td></tr></tbody></table>		Send the report to the		1.	Screen	2.	Printer
Send the report to the							
1.	Screen						
2.	Printer						
Select option with ↑↓ and ENTER ...or ESC to Back Up							

3.4.3 Analysis on another Field

After reviewing the table/graph, the screen in Figure 3-19 will be displayed. If the user wish to perform the analysis on another field, select Option 1. If the user select Option 2, the record selection criteria for further analysis can be changed. To end the commonality session, select Option 3.

Figure 3-19

COMMONALITY ANALYSIS		
<table border="1" style="margin: auto; border-collapse: collapse;"><tr><td style="text-align: center; padding: 5px;">Would you like to</td></tr><tr><td style="padding: 10px;"> 1. Perform analysis on another FIELD? 2. SCREEN again before performing further analysis? 3. End the COMMONALITY ANALYSIS session? </td></tr></table>	Would you like to	1. Perform analysis on another FIELD? 2. SCREEN again before performing further analysis? 3. End the COMMONALITY ANALYSIS session?
Would you like to		
1. Perform analysis on another FIELD? 2. SCREEN again before performing further analysis? 3. End the COMMONALITY ANALYSIS session?		
Select option with ↑↓ and ENTER ...or ESC to Back Up		

3.5 Change the Record Selection Criterion

If the user selects Option 4 from the Report Generation menu (See Figure 3-3). he/she may specify a new criterion for the record selection. The user may follow the steps outlined in Section 3.1 for more details.

4.0 DBA Functions

DBA Functions allow the DBA or his/her designated representative to complete the administrative maintenance of the system. This option is selected from the Main Menu, Figure 1-4. If this option is selected, the user will be forwarded to the password screen which is similar to Figure 1-2.

The user will then proceed as in the initial access of PPMS. There are five options to be selected in the DBA Functions section. For a detailed discussion of the DBA functions, refer to the Programmer's Guide.

1. Change passwords: Option 1 allows the DBA to update access passwords.
2. Change database structure: Option 2 allows the DBA to change the Master File definition for the database.
3. Rebuild database: Option 3 must be selected after the database structure has been changed.
4. Backup procedures: Option 4 allows the DBA to save all the structure data and database information. This option should be selected before you complete any DBA function or periodically as new records are added to the database.
5. Exit to Main Menu: Option 5 exits the DBA from DBA Functions and returns him/her to the Main Menu.

Once the correct password has been entered, the user will be forwarded to the DBA Functions screen (See Figure 4-1). More details concerning the DBA functions are discussed in the PPMS Programming Guide.

Figure 4-1

DBA Functions	
1.	Change passwords
2.	Change database structure
3.	Rebuild database
4.	Backup procedures
5.	Exit to main menu

Select option with ↑↓ and ENTER ...or ESC to Back Up

4.1 Change Passwords

If Option 1 is selected, the DBA is forwarded to the password window to make the necessary modifications to entry control passwords or key structure words.

Consult the Programmer's Guide and follow instructions very carefully.

4.2 Change Database Structure

If Option 2 is selected, a message screen will be displayed informing the user that, after changing the database structure, he/she must rebuild the database.

To exit, the user should

PRESS Y followed by ENTER

This procedure will return the DBA to the DBA Functions menu.

4.3 Rebuild Database

Option 3 is selected after the DBA has changed the database structure. The DBA must then input the name of the file to be rebuilt. **Read all the warnings carefully before exercising this option.**

4.4 Backup Procedures

Option 4 allows the DBA to backup the system structure and the database file.

This option should be selected each time the database structure has been changed and rebuilt, or when new records are added.

If Option 4 is selected, the DBA will be asked to enter the backup drive letter (See Figure 4-2). Once the backup is complete, he/she will be returned to the DBA Functions menu (See Figure 4-1).

4.5 Exit to the Main Menu

To exit from the DBA Functions screen and return to the Main Menu (Figure 1-4), the DBA should

SELECT: Option 5

Figure 4-2

<table border="1"><tr><td>Enter the backup drive letter (A, B, or C):</td></tr><tr><td> </td></tr></table>	Enter the backup drive letter (A, B, or C):	
Enter the backup drive letter (A, B, or C):		
Select option with ↑↓ and ENTER ...or ESC to Back Up		

5.0 Quit PPMS and return to FOCUS

This option allows the user to exit the PPMS and to return to the FOCUS double prompt >>.

From the FOCUS double prompt the user may either

- continue to perform FOCUS functions or
- quit and return to DOS by entering

FIN

and Press RETURN.

6.0 Exit to DOS

This option allows the user to exit the PPMS and to return to the DOS prompt `c:\PPMS>`.

From the DOS prompt the user may either continue to perform DOS functions or return to the PPMS system via FOCUS.

Appendix A
List of Pavement Distress Manifestations

DISTRESS NUMBER**DESCRIPTION**

01	Blow Up
02	Corner break
03	Longitudinal/Transverse/Diagonal Cracks
04	"D" Crack
05	Joint Seal Damage
06	Patching
07	Popouts
08	Pumping
09	Scaling/Map Cracking/Crazing
10	Settlement/Fault
11	Shattered Slab
12	Shrinkage Cracks
13	Spalling-Joints
14	Spalling-Corner
15	Alligator Cracking
16	Bleeding
17	Block Cracking
18	Corrugation
19	Depression
20	Jet Blast
21	Joint Reflection
22	Oil Spillage
23	Polished Aggregate
24	Ravelling/Weathering
25	Rutting
26	Shoving from PCC
27	Slippage Cracking
28	Swell
29	Paving Lane Joints
30	Other

Appendix B
Ad-hoc Reports

COMPREHENSIVE REPORT													
AIR_ID	PAVE_ID	STATE	PAVE_COMP	PAVE_TYPE	TMX	TMIN	TOT_PRECIP	DT_CONS	DSM_MTN	DSM_ACT	SB_GRD_SOIL	CLASS	BASE_SPEC
ACT	B/M-22/29-19.61+44	NJ	PCC	ORIGINAL	106	-11	0	85/01/01	AC 150/5320-AC	B-727-200	E-1		P-209
ATL	B-268/70-00_90+00	GA	PCC	ORIGINAL	105	-5	49	84/01/09	AC 150/5320-AC	B-727-200	E-8		P-201
ATL	E/FF 26L	GA	PCC	ORIGINAL	105	-5	49	49/01/01	AC 150/5320-68	DC-8	F5		P-201
ATL	RW/08-26L	GA	PCC	ORIGINAL	105	-5	49	73/01/01	AC 150/5320-6A	CONV-580	F10		P-204
ATL	TW/E(13)	GA	PCC	ORIGINAL	105	-5	49	73/01/01	AC 150/5320-6C	OTHER	F6		P-212
ATL	TW/L(2)	GA	PCC	ORIGINAL	105	-5	49	73/01/01	OTHER	B-767	F9		P-216
ATL	TW/L(3)	GA	PCC	ORIGINAL	105	-5	49	73/01/01	OTHER	B-767	F3		P-210
ATL	TW/M(4)	GA	PCC	ORIGINAL	105	-5	49	73/01/01	OTHER	B-767	F4		P-206
ATL	TW/V(11)	GA	PCC	ORIGINAL	105	-5	49	73/01/01	OTHER	B-767	F4		P-206
ATL	10-28/35-00_100+00	MD	ACC	OVERLAYED	105	-7	42	48/01/08	AC 150/5320-AC	B-727-200	E-8		P-155
BUT	2-20/ALL	CO	ACC	RECONSTRUCTED	93	-30	12	01/01/62	AC 150/5320-68	B-727-200	E-7		P-201
DNA	3-21/5+00_71+00	SC	ACC	ORIGINAL	103	-6	51	62/01/01	OTHER	DC-8	E-9		P-154
GSP	104/111+00_145+00	SC	PCC	ORIGINAL	104	-18	40	01/01/62	OTHER	DC-8	E-9		P-154
IAD	12-30/29+50_70+00	DC	PCC	ORIGINAL	104	-18	40	01/01/62	OTHER	DC-8	E-7		P-209
IAD	194/111+00_145+00	DC	PCC	RECONSTRUCTED	104	-18	40	01/01/62	OTHER	DC-8	E-7		P-209
IAD	194/111+00_145+00	DC	PCC	RECONSTRUCTED	104	-18	40	01/01/62	OTHER	DC-8	E-7		P-209
IAD	11-198/30-00_56+00	DC	PCC	ORIGINAL	104	-18	40	62/01/01	AC 150/5320-68	B-727-200	E-6		P-154
IAD	18-194/30-00_44+00	DC	PCC	ORIGINAL	104	-18	40	62/01/01	AC 150/5320-68	B-727-200	E-6		P-154
IAD	12-30/ALL	CA	ACC	ORIGINAL	104	-37	31	80/01/01	AC 150/5320-68	B-727-100	E-10		P-154
MSM	101	WI	ACC	ORIGINAL	104	-37	31	80/01/01	AC 150/5320-68	B-727-100	E-10		P-154
MSM	1702	WI	ACC	ORIGINAL	104	-37	31	80/01/01	AC 150/5320-68	B-727-100	E-10		P-154
MSM	1705	WI	ACC	ORIGINAL	104	-37	31	80/01/01	AC 150/5320-68	B-727-100	E-10		P-154
MSM	2302	WI	ACC	OVERLAYED	104	-37	31	52/01/01	AC 150/5320-68	B-727-100	E-10		P-154
MSM	2502	WI	ACC	OVERLAYED	104	-37	31	52/01/01	AC 150/5320-68	B-727-100	E-10		P-154
MSM	2601	WI	ACC	OVERLAYED	104	-37	31	52/01/01	AC 150/5320-68	B-727-100	E-10		P-154
MSM	2603	WI	ACC	OVERLAYED	104	-37	31	52/01/01	AC 150/5320-68	B-727-100	E-10		P-154
MSM	301	WI	ACC	OVERLAYED	104	-37	31	52/01/01	AC 150/5320-68	B-727-100	E-10		P-154
MSM	402	WI	ACC	OVERLAYED	104	-37	31	52/01/01	AC 150/5320-68	B-727-100	E-10		P-154
MSM	701	WI	ACC	OVERLAYED	104	-37	31	52/01/01	AC 150/5320-68	B-727-100	E-10		P-154
PHX	B/B-1 B-2	AZ	ACC	ORIGINAL	118	-17	7	80/01/01	AC 150/5320-68	B-727-100	E-6		P-154
CYS	12-30/ALL	MT	COMPOSITE	RECONSTRUCTED	100	-34	13	62/01/01	AC 150/5320-68	B-727-100	E-9		P-154
CLT	188-364/32+00_132+00	NC	PCC	ORIGINAL	104	-15	43	79/01/01	AC 150/5320-6A	DC-8	F2		P-155
AAA	A	NC	PCC	ORIGINAL	115	-15	4	01/01/89	AC 150/5320-6C	B-707	E-1		P-155
CTL	188-364/32+00_132+00	NC	PCC	ORIGINAL	0	0	0	01/01/89	AC 150/5320-6C	B-707	E-1		P-155
DFW	TW-8	TX	PCC	ORIGINAL	113	-6	29	74/01/01	AC 150/5320-6A	DC-8	CH		P-155
DFW	TW-11	TX	PCC	ORIGINAL	113	-6	29	74/01/01	AC 150/5320-6A	DC-8	CH		P-155
DFW	TW-11-14	TX	PCC	ORIGINAL	113	-6	29	74/01/01	AC 150/5320-6A	DC-8	CH		P-155
FL	26/278_81	FL	PCC	OVERLAYED	98	-31	58	63/01/01	AC 150/5320-6A	DC-8	E-1		P-154
FL	TW/A	FL	PCC	OVERLAYED	98	-31	58	63/01/01	AC 150/5320-6A	DC-8	E-1		P-154
MKE	104	WI	PCC	OVERLAYED	101	-26	31	67/01/01	AC 150/5320-6A	DC-8	E-7		P-154
MKE	109	WI	PCC	OVERLAYED	101	-26	31	67/01/01	AC 150/5320-6A	DC-8	E-7		P-154
MKE	2307	WI	PCC	OVERLAYED	101	-26	31	67/01/01	AC 150/5320-6A	DC-8	E-7		P-154
MKE	2308	WI	PCC	OVERLAYED	101	-26	31	67/01/01	AC 150/5320-6A	DC-8	E-7		P-154
MKE	2407	WI	PCC	OVERLAYED	101	-26	31	67/01/01	AC 150/5320-6A	DC-8	E-7		P-154
MKE	2408	WI	PCC	OVERLAYED	101	-26	31	67/01/01	AC 150/5320-6A	DC-8	E-7		P-154
MKE	2409	WI	PCC	OVERLAYED	101	-26	31	67/01/01	AC 150/5320-6A	DC-8	E-7		P-154
MKE	2501	WI	PCC	OVERLAYED	101	-26	31	67/01/01	AC 150/5320-6A	DC-8	E-7		P-154
MKE	2502	WI	PCC	OVERLAYED	101	-26	31	67/01/01	AC 150/5320-6A	DC-8	E-7		P-154

REPORT ON CLIMATIC CONDITIONS

ATR_ID	PAVE_ID	TMAX	TMIN	TOT_PRECIP	FROST_PENE	MEAN_ANM_32
ACY	R/44-22/29+19_61+44	106	-11	0	10	110
ATL	6L-26R/0+00_90+00	105	-5	49	4	57
ATL	E/FF_26L	105	-5	49	4	57
ATL	RW/BR-26L	105	-5	49	4	57
ATL	TW/E(13)	105	-5	49	4	57
ATL	TW/L(2)	105	-5	49	4	57
ATL	TW/L(3)	105	-5	49	4	57
ATL	TW/M(6)	105	-5	49	4	57
ATL	TW/V-V(1)	105	-5	49	4	57
BWT	10-28/5+00_100+00	105	-7	42	12	98
DRA	2-20/ALL	93	-30	12	30	170
GSP	3-21/5+00_71+00	103	-6	51	5	67
GSP	3-21/71+00_76+00	103	-6	51	5	67
IAD	10L/111+00_145+00	104	-18	40	15	116
IAD	12-30/29+50_70+00	104	-18	40	15	116
IAD	19L/111+00+145+00	104	-18	40	15	116
IAD	19L/111+00_145+00	104	-18	40	15	116
IAD	1L-19R/30+00_56+00	104	-18	40	15	116
IAD	1R-19L/30+00_64+00	104	-18	40	15	116
IAD	1R/19L/30+00_64+00	104	-18	40	15	116
LGB	12-30/ALL	111	25	12	0	1
MSN	101	104	-37	31	38	163
MSN	13-31/0+00_58+46	104	-37	31	38	163
MSN	1702	104	-37	31	38	163
MSN	1705	104	-37	31	38	163
MSN	2302	104	-37	31	38	163
MSN	2502	104	-37	31	38	163
MSN	2601	104	-37	31	38	163
MSN	2603	104	-37	31	38	163
MSN	301	104	-37	31	38	163
MSN	402	104	-37	31	38	163
MSN	701	104	-37	31	38	163
PHX	8/8-1_8-2	118	17	7	0	9
CYS	12-30/ALL	100	-34	13	24	172
CTL	18R-36L/32+00_132+00	104	-3	43	4	70
CTL	18R-36L/32+00_132+00	0	0	0	0	0
DFW	TW-6	113	4	29	6	41
DFW	TW-11	113	4	29	6	41
DFW	14M31-14	113	4	29	6	41
FLL	9L/27R_R1	98	31	58	1	0
FLL	TW/A	98	31	58	1	0
MKE	104	101	-26	31	40	143
MKE	109	101	-26	31	40	143
MKE	2307	101	-26	31	40	143
MKE	2308	101	-26	31	40	143
MKE	2407	101	-26	31	40	143
MKE	2408	101	-26	31	40	143
MKE	2409	101	-26	31	40	143
MKE	2501	101	-26	31	40	143
MKE	2502	101	-26	31	40	143
MKE	2507	101	-26	31	40	143

REPORT ON CLIMATIC CONDITIONS

AIR_ID	PAVE_ID	TMAX	TMIN	TOT PRECIP	FROST PENE	MEAN_ANM_32
MKE	2508	101	-26	31	40	143
MKE	2604	101	-26	31	40	143
JFK	TW-J	104	-2	42	25	80
JFK	TW-K	104	-2	42	25	80
JFK	TW-O	104	-2	42	25	80
JFK	TW-P	104	-2	42	25	80
LSE	101	104	-37	30	45	151
LSE	201	104	-37	30	45	151
LSE	2403	104	-37	30	45	151
LSE	2404	104	-37	30	45	151
LSE	2503	104	-37	30	45	151
LSE	2504	104	-37	30	45	151
LSE	2603	104	-37	30	45	151
LSE	2604	104	-37	30	45	151
LSE	301	104	-37	30	45	151
LSE	304	104	-37	30	45	151
GRB	1504	99	-31	28	0	162
GRB	1602	99	-31	28	0	162
GRB	1604	99	-31	28	0	162
GRB	1801	99	-31	28	0	162
GRB	1802	99	-31	28	0	162
GRB	201	99	-31	28	0	162
GRB	2601	99	-31	28	0	162
GRB	301	99	-31	28	0	162
GRB	403	99	-31	28	0	162
GRB	501	99	-31	28	0	162
SAN	9-27/0=00_87+00	115	29	9	0	0
SPI	12-30	112	-22	34	20	118
PIA	12/50	103	-25	35	15	130
FUA	RW 4-22	103	-21	34	0	131
RFD	6-24/28+30_46+63	103	-27	37	0	144
RFD	6-24/6+00_28+30	103	-27	37	0	144
MDW	13R-31L/0+00_50+00	102	-26	33	42	133
MDW	13R-31L/50+00_62+63	102	-26	33	42	133
ORD	RW 23	102	-26	33	45	133
ORD	TW/A	102	-26	33	45	133
IND	4L-22R	104	-21	39	36	119
ZDV	2/20	105	-23	8	0	134
CAE	5/23	107	-4	49	4	63
DEM	RW 17L-35R	104	-30	15	45	159

REPORT ON AIRCRAFT OPERATIONS

FAIR_ID	PAVE_ID	SERVICE	MUB	DSS_ACT	EGU_DEP	AIR_CAR	TAXI	GEN_AVI	MILITARY
ACT	R/WA_22/29+19_61+44	COMPUTER SERVICE	MEDIUM	8-727-200	40 00	500	24000	48000	26000
ATL	BL_268/0+00_90+00	AIR CARRIER	LARGE	8-727-200	678 11	521500	87170	38720	1540
ATL	E/FF 264	AIR CARRIER	LARGE	DC-8	3580 00	521500	87170	38720	1540
ATL	RU/AR_264	AIR CARRIER	LARGE	COMC	50 00	521500	87170	38720	1540
ATL	TU/E(13)	AIR CARRIER	LARGE	COMV-580	100 00	521500	87170	38720	1540
ATL	TU/L(2)	AIR CARRIER	LARGE	OTHER	100 00	521500	87170	38720	1540
ATL	TU/L(3)	AIR CARRIER	LARGE	8-767	2 00	521500	87170	38720	1540
ATL	TU/M(6)	AIR CARRIER	LARGE	8-767	45 00	521500	87170	38720	1540
ATL	TU/V-V(1)	AIR CARRIER	LARGE	8-757	50 00	521500	87170	38720	1540
ATL	TU/V-V(1)	AIR CARRIER	MEDIUM	8-727-200	235 32	157829	84668	117954	3947
ORA	10-28/5+00_100+00	AIR CARRIER	NON-MUB	8-757	10 27	63332	10800	60000	500
ORA	2-20/ALL	AIR CARRIER	SMALL	8-727-200	0	16409	8238	37690	3478
GSP	3-21/5+00_71+00	AIR CARRIER	SMALL	8-727-200	0	16409	8238	37690	3478
GSP	3-21/71+00_76+00	AIR CARRIER	SMALL	8-727-200	0	16409	8238	37690	3478
IAD	104/111+00_145+00	AIR CARRIER	LARGE	DC-8	60 00	52000	26000	98000	16000
IAD	12-30/29+50_70+00	AIR CARRIER	LARGE	DC-8	0 00	0	0	0	0
IAD	194/111+00+145+00	AIR CARRIER	LARGE	DC-8	0 00	0	0	0	0
IAD	194/111+00_145+00	AIR CARRIER	LARGE	DC-8	0 00	0	0	0	0
IAD	11-198/30+00_54+00	AIR CARRIER	LARGE	DC-8	0 00	521500	87170	38720	1540
IAD	18-198/30+00_64+00	AIR CARRIER	LARGE	DC-8	0 00	52000	26000	98000	16000
IAD	18-198/30+00_64+00	AIR CARRIER	LARGE	DC-8	0 00	12000	0	0	0
LEB	12-30/ALL	AIR CARRIER	LARGE	8-727-200	0	23256	3520	58685	6509
LEB	101	AIR CARRIER	SMALL	8-727-100	0	23256	3520	58685	6509
MSH	13-31/0+00_58+46	AIR CARRIER	SMALL	8-727-100	0	23256	3520	58685	6509
MSH	1702	AIR CARRIER	SMALL	8-727-100	0	23256	3520	58685	6509
MSH	1705	AIR CARRIER	SMALL	8-727-100	0	23256	3520	58685	6509
MSH	2302	AIR CARRIER	SMALL	8-727-100	0	23256	3520	58685	6509
MSH	2501	AIR CARRIER	SMALL	8-727-100	0	23256	3520	58685	6509
MSH	2602	AIR CARRIER	SMALL	8-727-100	0	23256	3520	58685	6509
MSH	2603	AIR CARRIER	SMALL	8-727-100	0	23256	3520	58685	6509
MSH	301	AIR CARRIER	SMALL	8-727-100	0	23256	3520	58685	6509
MSH	402	AIR CARRIER	SMALL	8-727-100	0	23256	3520	58685	6509
MSH	701	AIR CARRIER	SMALL	DC-8	0	23256	3520	58685	6509
MSH	701	AIR CARRIER	SMALL	DC-8	0	201492	35937	134382	8059
PHX	B/8-1-B-2	AIR CARRIER	MEDIUM	DC-8	0	13269	12369	43500	12692
CYS	12-30/ALL	AIR CARRIER	MEDIUM	DC-8	0	13269	12369	43500	12692
CLT	108-304/32+00_132+00	AIR CARRIER	NON-MUB	DC-8	268 22	0	63735	87324	3739
CLT	108-304/32+00_132+00	AIR CARRIER	NON-MUB	DC-8	268 22	0	63735	87324	3739
DFW	101-8	AIR CARRIER	LARGE	DC-8	0	153647	0	0	0
DFW	101-11	AIR CARRIER	LARGE	DC-8	0	390869	89196	22918	217
DFW	104331-14	AIR CARRIER	LARGE	DC-8	0	390869	89196	22918	217
FLL	11/2/PR_81	AIR CARRIER	LARGE	DC-8	0	75393	49998	112329	738
FLL	TU/A	AIR CARRIER	LARGE	DC-8	0	75393	49998	112329	738
MKE	104	AIR CARRIER	MEDIUM	DC-8	0	8299	865	3810	418
MKE	109	AIR CARRIER	MEDIUM	DC-8	0	8299	865	3810	418
MKE	2307	AIR CARRIER	MEDIUM	DC-8	0	8299	865	3810	418
MKE	2308	AIR CARRIER	MEDIUM	DC-8	0	8299	865	3810	418
MKE	2407	AIR CARRIER	MEDIUM	DC-8	0	8299	865	3810	418
MKE	2408	AIR CARRIER	MEDIUM	DC-8	0	8299	865	3810	418
MKE	2409	AIR CARRIER	MEDIUM	DC-8	0	8299	865	3810	418
MKE	2501	AIR CARRIER	MEDIUM	DC-8	0	8299	865	3810	418
MKE	2502	AIR CARRIER	MEDIUM	DC-8	0	8299	865	3810	418
MKE	2507	AIR CARRIER	MEDIUM	DC-8	0	8299	865	3810	418

REPORT ON AIRCRAFT OPERATIONS

AIR ID	PAVE ID	SERVICE	HUB	DSM ACT	EQU DEP	AIR CAR	TAXI	GEN AVI	MILITARY
MKE	2508	AIR CARRIER	MEDIUM		0	8299	865	3810	418
MKE	2604	AIR CARRIER	LARGE		0	213192	118519	74208	640
JFK	1W-J	AIR CARRIER	LARGE		0	213192	118519	28208	640
JFK	1W-K	AIR CARRIER	LARGE		0	213192	118519	28208	640
JFK	1W-O	AIR CARRIER	LARGE		0	213192	118519	28208	640
JFK	1W-P	AIR CARRIER	LARGE		0	213192	118519	28208	640
LSE	101	GENERAL AVIATION	NON-HUB		0	5354	5938	45893	831
LSE	201	GENERAL AVIATION	NON-HUB		0	5354	5938	45893	831
LSE	2403	GENERAL AVIATION	NON-HUB		0	5354	5938	45893	831
LSE	2404	GENERAL AVIATION	NON-HUB		0	5354	5938	45893	831
LSE	2503	GENERAL AVIATION	NON-HUB		0	5354	5938	45893	831
LSE	2504	GENERAL AVIATION	NON-HUB		0	5354	5938	45893	831
LSE	2603	GENERAL AVIATION	NON-HUB		0	5354	5938	45893	831
LSE	2604	GENERAL AVIATION	NON-HUB		0	5354	5938	45893	831
LSE	301	GENERAL AVIATION	NON-HUB		0	5354	5938	45893	831
LSE	307	GENERAL AVIATION	NON-HUB		0	5354	5938	45893	831
LSE	1504	GENERAL AVIATION	SMALL		0	0	0	0	0
GAB	1602	GENERAL AVIATION	SMALL		0	0	0	0	0
GAB	1604	GENERAL AVIATION	SMALL		0	0	0	0	0
GAB	1801	GENERAL AVIATION	SMALL		0	0	0	0	0
GAB	1802	GENERAL AVIATION	SMALL		0	0	0	0	0
GAB	201	GENERAL AVIATION	SMALL		0	0	0	0	0
GAB	2601	GENERAL AVIATION	SMALL		0	0	0	0	0
GAB	301	GENERAL AVIATION	SMALL		0	0	0	0	0
GAB	403	GENERAL AVIATION	SMALL		0	0	0	0	0
GAB	501	GENERAL AVIATION	SMALL		0	0	0	0	0
SAN	9-27/0-00_87-00	AIR CARRIER	MEDIUM	DC-10	0	89815	25385	35613	2883
SPI	12-30	GENERAL AVIATION	SMALL	8-727-200	0	12178	11011	72846	9068
PJA	12-30	GENERAL AVIATION	SMALL	8-727-200	0	19123	4553	33904	4252
FUA	1W-4-22	GENERAL AVIATION	SMALL	8-727-200	78 36	20422	2080	65864	8600
RFD	6-24/28-30_46-63	GENERAL AVIATION	NON-HUB	8-727-200	30 00	4466	2599	61839	1370
RFD	6-24/6-00_28-30	GENERAL AVIATION	NON-HUB	8-727-200	30 00	4466	2599	61839	1370
MDW	13R-11/0-00_50-00	GENERAL AVIATION	LARGE	8-727-200	72 00	40908	33712	129307	5082
MDW	13R-11/50-00_62-63	GENERAL AVIATION	LARGE	8-727-200	30 00	40908	33712	129307	5082
ORD	1W-23	GENERAL AVIATION	LARGE	DC-9	12 00	0	0	350	0
ORD	1W/A	GENERAL AVIATION	LARGE	DC-9	12 00	0	0	350	0
IND	4L-22R	A-1 CARRIER	MEDIUM	DC-10	0	63125	44761	78513	2778
ZDV	2/20	GENERAL AVIATION	NON-HUB	8-737	0	62	62	79	0
CAE	5/23	AIR CARRIER	SMALL	OTHER	30 00	18662	1332	75807	10703
DEN	1W-1/L-35R	AIR CARRIER	LARGE	8-727-200	0	326964	89338	70342	1653

[illegible]

AIR_ID	PAVE_ID	PAVE_COND	PCI	DT_CONS	MAINTENANCE REQ CRT		PAVE_MAINT1	DRAINAGE	FROST_PROTEC	WATER_TAIL
					DT_MAINT	DT_DE_MAB				
ACT	R/M4-22/29+19.61+44	EXCELLENT	99.99	85/01/01	86/11/01	87/09/03	CRACK FILLING	ADEQUATE	CP	LOW
ATL	BL-268/0+00_90+00	EXCELLENT	95.00	84/01/09	86/07/03	88/07/03	CORNER BREAK	ADEQUATE	LSP	HIGH
ATL	E/FF 26L	VERY GOOD	79.30	69/01/01	88/01/01	74/10/28	JOINT REPAIR	ADEQUATE	LSP	HIGH
ATL	BW/BE-26L	GOOD	75.00	75/01/01	85/09/01	80/05/09	JOINT REPAIR	ADEQUATE	LSP	LOW
ATL	TW/E-13	EXCELLENT	93.00	75/01/01	86/09/09	82/01/01	JOINT REPAIR	ADEQUATE	LSP	HIGH
ATL	TW/L(2)	GOOD	80.00	75/01/01	86/07/11	81/11/30	JOINT REPAIR	ADEQUATE	LSP	LOW
ATL	TW/L(3)	GOOD	64.00	75/01/01	82/01/01	77/08/09	JOINT REPAIR	ADEQUATE	LSP	HIGH
ATL	TW/M(6)	GOOD	54.00	75/01/01	83/05/30	76/01/09	JOINT REPAIR	ADEQUATE	LSP	HIGH
ATL	TW/Y-V(1)	EXCELLENT	80.00	75/01/01	86/01/01	77/12/25	JOINT REPAIR	ADEQUATE	LSP	LOW
ATL	10-28/5+00_100+00	FAIR	55.00	48/01/08	87/11/28	73/01/13	CRACK FILLING	INADEQUATE	RSP	LOW
DR4	2-20/ALL	VERY GOOD	78.00	01/01/62	01/01/00	01/01/77	JOINT SEAL	INADEQUATE		LOW
GSP	3-21/5+00_71+00	EXCELLENT	.00	62/01/01			JOINT SEAL	INADEQUATE		
GSP	3-21/71+00_76+00	VERY GOOD	.00	62/01/01			JOINT SEAL	ADEQUATE		
IAO	104/111+00_145+00	VERY GOOD	82.00	01/01/62	01/01/00	01/01/00	JOINT SEAL	ADEQUATE		
IAO	12-30/29+50_70+00	POOR	34.00	01/01/62			JOINT SEAL	ADEQUATE		
IAO	194/111+00_145+00	VERY GOOD	82.00	.00			JOINT SEAL	ADEQUATE		
IAO	194/111+00_145+00	.00	.00				JOINT SEAL	ADEQUATE		
IAO	11-194/30+00_56+00	EXCELLENT	86.00	62/01/01			JOINT SEAL	ADEQUATE		
IAO	18-194/30+00_64+00	EXCELLENT	.00	62/01/01			JOINT SEAL	ADEQUATE		
IAO	18-194/30+00_64+00	EXCELLENT	94.00	53/01/01			JOINT SEAL	ADEQUATE		
LGB	12-30/ALL	EXCELLENT	80.00	80/01/01	77/01/01	69/01/01		INADEQUATE		
MSM	101	EXCELLENT	.00	00/01/01	00/01/01	72/01/01				
MSM	13-31/0+00_58+46	EXCELLENT	87.00	79/01/01	00/01/01					
MSM	1705	FAIR	48.00	52/01/01	00/01/01	78/01/01				
MSM	2302	VERY GOOD	78.00	42/01/01	00/01/01	80/01/01				
MSM	2502	POOR	30.00	42/01/01	00/01/01	72/01/01				
MSM	2601	FAIR	46.00	58/01/01	00/01/01	73/01/01				
MSM	2603	VERY GOOD	77.00	42/01/01	00/01/01	73/01/01				
MSM	301	VERY GOOD	79.00	64/01/01	00/01/01	79/01/01				
MSM	402	GOOD	65.00	53/01/01	00/01/01	80/01/01				
MSM	701	POOR	29.00	56/01/01	00/01/01	73/01/01				
MSM	PHX	FAIR	43.00	80/01/01	00/01/01	85/01/01				LOW
CYS	8/8-1.6-2	EXCELLENT	.00	42/01/01	85/01/01	85/01/01	JOINT SEAL	ADEQUATE		LOW
CTL	12-30/ALL	EXCELLENT	.00	79/01/01	00/01/01	00/01/01		INADEQUATE		
CTL	184-364/32_	.00	.00							
CTL	184-364/32+6_	.00	.00							
OFM	TW-8	GOOD	72.00	74/01/01	00/01/01	00/01/01	PATCHING	ADEQUATE		
OFM	TW-11	GOOD	78.00	74/01/01	00/01/01	00/01/01	PATCHING	ADEQUATE		
OFM	10431-14	VERY GOOD	82.00	74/01/01	00/01/01	00/01/01	PATCHING	ADEQUATE		
FLI	94/278_81	VERY GOOD	71.00	63/01/01	00/01/01	74/01/01				
FLI	TW/A	VERY GOOD	80.00	63/01/01	00/01/01	74/01/01				
MKE	104	EXCELLENT	79.00	47/01/01	00/01/01	78/01/01				
MKE	109	VERY GOOD	72.00	74/01/01	00/01/01					
MKE	2307	VERY GOOD	72.00	70/01/01	00/01/01					
MKE	2308	GOOD	67.00	70/01/01	00/01/01					
MKE	2407	VERY GOOD	83.00	41/01/01	00/01/01	77/01/01				
MKE	2408	VERY GOOD	79.00	41/01/01	00/01/01	77/01/01				
MKE	2409	EXCELLENT	88.00	45/01/01	00/01/01	77/01/01				
MKE	2501	VERY GOOD	80.00	64/01/01	00/01/01	74/01/01				
MKE	2502	EXCELLENT	89.00	64/01/01	00/01/01	74/01/01				
MKE	2507	FAIR	47.00	70/01/01	00/01/01					

REPORT ON USER SELECTED FIELDS

AIR_ID	PAVE_ID	REGION	INM	PAVE_COMP	PAVE_TYPE	PCI	DT_CONS	PAVE_MAINT	DSM_MTN	S.03	S.05	S.06	S.20	S.21
WKE	2508	GREAT LAKES	101	PCC	OVERLAYED	64.00	70/01/01			1	6	4	0	0
WKE	2604	GREAT LAKES	101	PCC	OVERLAYED	81.00	47/01/01			0	0	1	0	0
JFK	1U-J	EASTERN	104	-2 ACC	ORIGINAL	92.00	79/01/01			1	0	0	0	0
JFK	1U-K	EASTERN	104	-2 ACC	ORIGINAL	50.00	71/01/01			4	0	0	0	0
JFK	1U-O	EASTERN	104	-2 ACC	ORIGINAL	76.00	65/01/01			4	0	0	0	0
JFK	1U-P	EASTERN	104	-2 ACC	ORIGINAL	36.00	62/01/01			0	0	0	0	0
LSE	101	GREAT LAKES	104	-37 ACC	OVERLAYED	79.00	44/01/01			4	0	0	0	0
LSE	2401	GREAT LAKES	104	-37 ACC	OVERLAYED	75.00	44/01/01			4	0	0	0	0
LSE	2403	GREAT LAKES	104	-37 ACC	OVERLAYED	83.00	44/01/01			4	0	0	0	0
LSE	2503	GREAT LAKES	104	-37 ACC	OVERLAYED	83.00	44/01/01			4	0	0	0	0
LSE	2504	GREAT LAKES	104	-37 ACC	OVERLAYED	80.00	44/01/01			4	0	0	0	0
LSE	2603	GREAT LAKES	104	-37 ACC	OVERLAYED	87.00	69/01/01			4	0	0	0	0
LSE	2604	GREAT LAKES	104	-37 ACC	OVERLAYED	84.00	69/01/01			4	0	0	0	0
LSE	301	GREAT LAKES	104	-37 ACC	OVERLAYED	80.00	44/01/01			4	0	0	0	0
LSE	304	GREAT LAKES	104	-37 ACC	OVERLAYED	85.00	44/01/01			4	0	0	0	0
GRB	1504	GREAT LAKES	99	-31 PCC	ORIGINAL	19.00	49/01/01			4	2	0	0	0
GRB	1602	GREAT LAKES	99	-31 PCC	ORIGINAL	27.00	84/01/01			4	0	0	0	0
GRB	1604	GREAT LAKES	99	-31 PCC	ORIGINAL	25.00	77/01/01			4	0	0	0	0
GRB	1801	GREAT LAKES	99	-31 PCC	ORIGINAL	86.00	80/01/01			7	0	0	0	0
GRB	1802	GREAT LAKES	99	-31 PCC	ORIGINAL	90.00	82/01/01			4	0	0	0	0
GRB	201	GREAT LAKES	99	-31 PCC	OVERLAYED	83.00	48/01/01			1	1	0	0	0
GRB	2601	GREAT LAKES	99	-31 PCC	OVERLAYED	69.00	48/01/01			4	0	0	0	0
GRB	301	GREAT LAKES	99	-31 PCC	ORIGINAL	95.00	82/01/01			4	1	0	0	0
GRB	403	GREAT LAKES	99	-31 PCC	OVERLAYED	59.00	66/01/01			4	0	0	0	0
GRB	501	GREAT LAKES	99	-31 PCC	OVERLAYED	39.00	48/01/01			4	0	0	0	0
SAM	9-27/0-00_87-00	WESTERN PACIFIC	115	-29 PCC	OVERLAYED	94.00	44/01/01	JOINT SEAL	AC 150/5320-6B	1	2	0	0	0
SPT	12-30	GREAT LAKES	112	-22 PCC	OVERLAYED	00.00	47/01/01		AC 150/5320-6C	0	0	0	0	0
PIA	12/30	GREAT LAKES	103	-25 PCC	OVERLAYED	90.00	81/01/01			0	0	0	0	0
PWA	RU 4-22	GREAT LAKES	103	-21 PCC	OVERLAYED	70.00	68/08/01			0	0	0	0	0
RFD	6-24/28-30_44-63	GREAT LAKES	103	-27 PCC	OVERLAYED	70.00				0	0	0	0	0
RFD	6-24/40-00_28-30	GREAT LAKES	102	-26 PCC	OVERLAYED	00.00	00/01/01			0	0	0	0	0
MDW	138-31L/05-00_50-00	GREAT LAKES	102	-26 PCC	OVERLAYED	90.00	82/01/01			0	0	0	0	0
MDW	138-31L/50-00_62-63	GREAT LAKES	102	-26 PCC	ORIGINAL	70.00	67/01/01			0	0	0	0	0
ORD	1U/A	GREAT LAKES	102	-26 PCC	ORIGINAL	39.00	36/01/01			0	0	0	0	0
ORD	1U/A	GREAT LAKES	102	-26 PCC	OVERLAYED	00.00	51/01/01			0	0	0	0	0
IND	41-22R	GREAT LAKES	104	-21 PCC	OVERLAYED	15.00	41/01/01	CRACK FILLING	AC 150/5320-4C	0	0	0	0	0
ZDV	2/20	NORTHWEST MOUNTAIN	105	-23 PCC	OVERLAYED	67.00	75/01/01	JOINT SEAL	OTHER	0	0	0	0	0
CAE	5/23	SOUTHERN	107	-4 PCC	ORIGINAL				AC 150/5320-6C	0	0	0	0	0
DEN	RU 17L-35R	NORTHWEST MOUNTAIN	104	-30 PCC	ORIGINAL					0	0	0	0	0