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AIR TRAFFIC CONTROL TRAINING SERIES

GENERAL

FLIGHT INFORMATION PROCESSING SYSTEM
(FLIPS) OPERATOR'S MANUAL

1 AUGUST 2000

FOREWORD

PURPOSE. This publication is for use in the training of USAF air traffic controllers on the operation of the FLIPS system and is not intended to replace, substitute for, or supersede official regulations, procedures, or directives.

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Chief, Airfield Operations and Training Division

-- Prepared by --

The United States Air Force
Headquarters Electronic Systems Center, Operating Location D/E
Air Traffic Systems Division

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CORRECTIONS TO "AT" TRAINING SERIES

When you encounter an item that is not correct or needs clarification, write to us about it. Use this page and reference the series number, the page, and paragraph number. State briefly what is wrong and then write your correction or suggestion to correct or improve it. Detach this page from the booklet and return it to:

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2. INTRODUCTION

The purpose of this publication is to provide air traffic controllers with the knowledge necessary to operate the Flight Information Processing System (FLIPS) in accordance with AFI 13-203, paragraph 2.27. This is the authoritative source for operation of this system and is directive in nature. The National Air Traffic Training Program manual "Flight Data Input and Output" (FDIO) published by the Federal Aviation Administration (FAA) Academy provides an excellent reference for message composition not covered by this document.

FLIPS uses a 486 personal computer, a color monitor, and a dot matrix printer to perform flight plan entry, editing, strip printing, and mass flight plan storage functions. FLIPS performs functions similar to FDIO for USAF air traffic control facilities, for example: adding full flight plans and strip printing capabilities.

FLIPS is not an Instrument Flight Rules (IFR) clearance issuing system like the National Airspace System (NAS) or Japanese Air Traffic Control Center (Japanese ACC) flight data systems are. FLIPS may only be used to record IFR clearances that have been obtained by other means from the appropriate IFR clearance issuing facility. The requirements for obtaining and coordinating flight data entered into FLIPS are the same as for non-automated flight plans. Use of FLIPS for initial entry of local IFR/VFR flight data (data not required to be obtained from or coordinated with any other facilities) must be described in a facility directive.

Although the system contains on-screen assistance and prompts, the operator must be familiar with the standard format of all types of flight progress strips as specified in FAAO 7110.65. FLIPS does not support the FDIO-style weather symbols.

FLIPS will be interfaced with the Programmable Indicator Data Processor (PIDP) computer for transmitting flight plans and airport data between the two systems.

2.1. Operational Program Description

FLIPS operational software is an application program and, as such, runs under control of the Microsoft Disk Operating System (MS-DOS). MS-DOS uses special keyboard entries that perform specific functions, such as returning control to MS-DOS. The next section, System Warnings, contains information on some special MS-DOS keyboard entries that should not be used.

2.2. System Warnings

The following key codes produce special MS-DOS commands and should NOT be pressed simultaneously. If these keys are depressed simultaneously, the operational program will terminate. If

this happens, the system must be reinitialized. Once again, **DO NOT** simultaneously press the following key combinations:

<Ctrl> <C>	**<Ctrl> <Break>**	**<Ctrl> <2>**	**<Ctrl> <Alt> <Del>**
<Ctrl> <Alt> <Ins>	**<Ctrl> <Alt> <F>**	**<Ctrl> <PrtSc>**	

Additionally, the following keys have special meanings:

<Shift><PrtSc> will cause whatever is displayed on the monitor to print on the printer. If this special MS-DOS command is entered from the keyboard, the printer form alignment will probably need to be readjusted.

<Alt> should never be depressed.

<Ctrl> should only be depressed in conjunction with another key when this option is available from a specific function.

<NumLock> alternates the function of the numeric keypad between numeric entry and cursor control. This can change the function of the **<Left>** and **<Right>** arrow keys, the **<Up>** and **<Down>** arrow keys, and the **<Home>** and **<End>** keys, and the **<Ins>** and **<Del>** keys.

2.3. System Capacity

FLIPS will store a maximum of 500 flight plans. If the flight plan database is full (500 flight plans), the flight plan count will be displayed in red (FP = 500). Function key **<F1> <A>, <B>, <C>,** and **<D>** are not available when the flight plan database is full.

FLIPS will store a maximum of 100 training strips. If the training database is full (100 training strips), the message **"<<== THE TRAINING DATABASE IS FULL - HIT ANY KEY TO CONTINUE ==>>"** will be displayed. No more training strips can be entered.

If the training database is empty, only the menu items **<A>** and **<E>** are available in the Training Menu. Selecting any other options from the menu will display the message **"<<== THIS OPTION IS NOT AVAILABLE - HIT ANY KEY TO CONTINUE ==>>"**.

The position time option will allow a maximum of 99 controllers to be entered. Each controller can have up to 25 positions to receive time in.

If the position time database is full (99 controllers), the message **"<<== THIS DATABASE IS FULL - HIT ANY KEY TO CONTINUE ==>>"** will be displayed in the middle of the monitor. No more controllers can be entered.

If the position time database is empty, only the menu items **<A>**, **<F>**, and **<H>** are available on the Position Time Menu. Selecting any other options from the menu will display the message **"<<== THIS OPTION IS NOT AVAILABLE - HIT ANY KEY TO CONTINUE ==>>"**.

The airport data option will allow a maximum of 45 airports to be entered. Each airport can receive information on up to 10 runways.

If the airport database is full (45 airports), a message **"<<== THIS DATABASE IS FULL - HIT ANY KEY TO CONTINUE ==>>"** will be displayed. No more airports can be entered.

If the airport database is empty, only the menu items **<A>**, **<E>**, and **<F>** are available on the Airport Data Menu. Selecting any other options from the menu will display the message **"<<== THIS OPTION IS NOT AVAILABLE - HIT ANY KEY TO CONTINUE ==>>"**.

2.4. Power Failure Recovery

FLIPS is designed to reinitialize upon recovery from a power failure. At worst, data entered or received during the last 30 seconds prior to power failure could be lost. The operational program will automatically reload any critical data. The configuration data will also be reloaded once the system power is restored. Any flight plan(s) in the database that are within the flight plan output time will be printed if they were not already printed prior to power loss. Any flight plans that are outside the delete time parameter will be deleted. Currently signed-in Automatic Position Time entries will remain signed-in upon power restoration.

3. TERMS AND ABBREVIATIONS

ACID	Aircraft identification or call sign
<Alt>	Alternate Key on keyboard
<Backspace>	Backspace key on keyboard
CID	Computer Identification - A three digit number (001-500) assigned by the computer used to identify specific flight plans
<Ctrl>	Control key on the keyboard
Database	Storage area for flight plans in the system
<Del>	Delete key on the keyboard
<Down Arrow>	Down arrow key on the numeric key pad
<End>	End key on the numeric keypad
<Enter>	Enter key on keyboard
<Esc>	Escape key on keyboard
ESC OL-D/E	Electronic Systems Center, Operating Location D/E
FDIO	Flight Data Input and Output
FAA	Federal Aviation Administration
FAAO 7110.65	Air Traffic Control Order
Flight Plan Search	The entry of an ACID, beacon code, or CID to locate a specific flight plan. Used in **<F5>** AMEND, **<F6>** PRINT, and **<F7>** DELETE modes
Flight Strip Working Area	Area at the top of the monitor that resembles a flight progress strip
FLIPS	Flight Information Processing System

<Home>	The Home key on the numeric keypad
IFR	Instrument Flight Rules
<Insert>	Insert key on the numeric keypad
Japanese ACC	Japanese Air Traffic Control Center
JCID	Japanese Computer Identification - A four digit number (0001-0199) used to identify specific Japanese flight plans. This number can not be used in a flight plan search.
<Left Arrow>	Left arrow key on the numeric key pad
Main Menu	Opening display with the operational program version number, the date, the traffic workload table, and the 10 FLIPS function keys
NAS	National Airspace System
Offset Time	The time difference between the first and second leg of a stereo flight plan, same as time en route.
PIDP	Programmable Indicator Data Processor
<Right Arrow>	Right arrow key on the numeric key pad
<Up Arrow>	Up arrow key on the numeric key pad
<Space> or **<SP>**	Space bar on the keyboard
VFR	Visual Flight Rules
Window	Area at the center of the monitor used to display information pertaining to a specific mode.
<key>	Key or keys named within < > symbols.
<Ctrl (x)>	Key sequence done by pressing the **<Ctrl>** key and another key simultaneously

4. FACILITY RESPONSIBILITIES

4.1. FLIPS Program Disks

Each FLIPS equipped facility will receive two identical 3.5" floppy diskettes containing the FLIPS operational program. The files from either of the diskettes must be copied onto the hard disk and then the program initialized (follow the instructions included with each release of the software). Remember the general rules for storing software:

Never touch the diskette's magnetic media.
Store between 50 and 125 degrees Fahrenheit
Never allow software near a magnetic source, including telephone ringers.

4.2. Implementation

The documentation sent with each release of the operational program will contain instructions on how and when to implement the new release.

4.2.1. Program Changes and Corrections

Any suggested changes or corrections should be forwarded to ESC OL-DE via letter, e-mail or telephone. The address and phone numbers are:

ESC OL-DE/GA
3580 D AVENUE
BUILDING 201WEST
TINKER AFB, OK 73145-9155

DSN : 884-7004
COMM : (405) 734-7004

E-Mail: atcals@tinker.af.mil

4.2.2. Replacements

If at any time one of the operational diskettes appears to be unusable, request a replacement from ESC OL-DE.

4.3. Documents

It is suggested that the Owner/User Manuals for the personal computer, the color monitor, and the printer be stored near FLIPS for operator use.

4.4. Facility Management

As a suggestion to ensure facility standardization some items should be considered for control by facility management. The items to be controlled should be locked from the **<F3>** MANAGE option.

The following items should be considered:

1. Stereo Templates

    A. Naming conventions
    B. Location in stereo list
    C. Required Information

2. Beacon Code Blocks

3. Delete Time

4. Print Time

5. Airport Data

Items 1-4 are located in the **<F10>** CONFIG option and item 5 is located in the **<F2>** SAT_DATA option. If they are locked, they can only be accessed through the **<F3>** MANAGE option.

5. EQUIPMENT DESCRIPTION

5.1. Computer

A 486 personal computer, one 3-½ inch 1.44MB Floppy Drive, one hard drive, and the Microsoft Disk Operating System (MS-DOS version 3.2 or greater) are required.

5.2. Monitor

A color monitor is required. The monitor will display a Flight Strip Working Area at the top of the screen that resembles a flight progress strip. The lower half of the screen contains prompts and assistance. The left side of the screen displays the system time and the right side displays the number of flight plans in the database. The bottom line of the screen displays abbreviated descriptions of what each available function key performs.

5.3. Printer

An ALPS P2000G, or an Epson-compatible printer that can effectively print on flight progress strips, is required. It is strongly recommended that the printer have "push" style tractor feeds.

5.4. Interface Connection

FLIPS will be connected to the PIDP processor with an RS-232 synchronous serial interface. FLIPS and PIDP will exchange Local and Japanese ACC formatted flight plan data messages as required to keep the PIDP flight plan database updated. FLIPS will not be interfaced with the NAS or the Japanese ACC. For Automated Position Time to function properly PIDP and FLIPS need to be interfaced.

6. NORMAL OPERATIONS

6.1. Initialization

The program is loaded from the hard disk after being copied from a floppy diskette. Specific system installation instructions are included in Chapter 9 - INSTALLATION. After the program is loaded, the monitor will display the FLIPS Main Menu. The menu contains the current time, the number of flight plans in storage, and the following function keys (see Figure 6-1, "FLIPS Main Menu"):

<F1>	Add_FP	1FLT_PLAN
<F2>	Airport Data	2SAT_DATA
<F3>	Management	3MANAGE
<F4>	Position Time	4TIME
<F5>	Amend_FP	5AMEND
<F6>	Print_FP	6PRINT
<F7>	Delete_FP	7DELETE
<F8>	Scroll	8SCROLL
<F9>	Form Feed	9FMFEED
<F10>	Configuration	10CONFIG

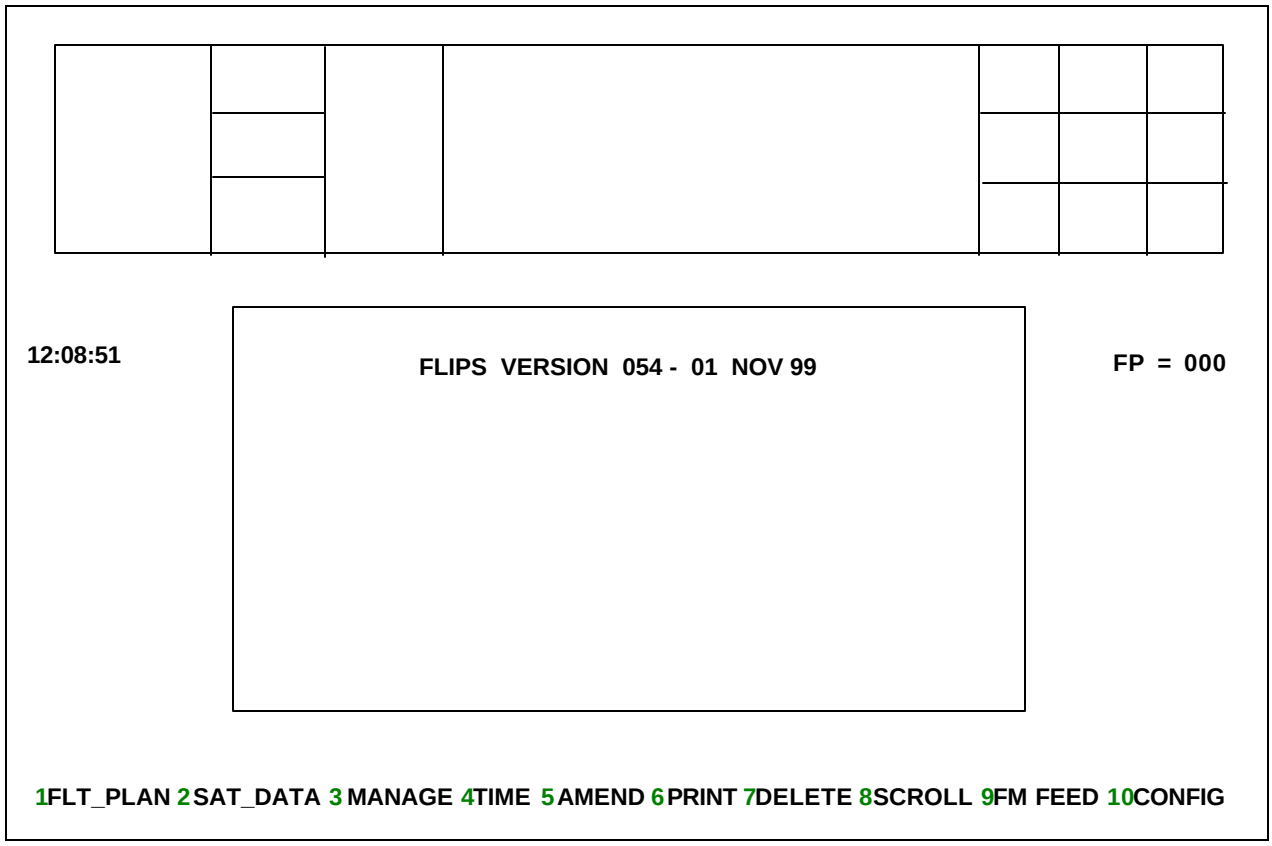

Figure 6-1: FLIPS Main Menu

6.2. FLIPS/PIDP Interface

FLIPS and PIDP are connected by an interface designed to pass flight plans and related messages between the systems. All messages concerning the movement of aircraft in the local area and not serviced by the PIDP/NAS or PIDP/Japanese ACC interface will be handled by FLIPS. Certain functions in the FLIPS program will be changed whenever the interface is up.

When the interface is down, a flag will be displayed. A red box will appear below the flight plan counter with the letters PF (see Figure 6-2, Systems Messages"). This indicates that the interface is down and will only be deleted when a message comes in from PIDP. FLIPS will operate normally if this flag is displayed, with no restrictions

When the interface is up, flight plans will be sent to PIDP when the current time is within 15 minutes of the flight plan activation time. PIDP will respond with an appropriate message to tell FLIPS of the flight plans status in the system. FLIPS ability to amend or cancel flight plans will be determined by the status assigned to the flight plan by PIDP. Also while the interface is up Position Time sign-ins and sign-outs can be sent from PIDP to FLIPS. Any restrictions to these functions will be discussed in the appropriate sections of this manual.

When a flight plan is sent to PIDP over the interface, a return message is sent. Flight plans will be assigned a status based on this message. A status of (FL) indicates that the flight plan has not been sent to PIDP. Data Accept (DA) means the flight plan was sent to PIDP and it is in the system. Data Reject (DR) indicates that the flight plan was rejected by PIDP and it should be checked for duplicates or errors. A DR message may also be sent if the PIDP database is full. If a DR is received, the flight plan will not be retransmitted. Data Retransmit (DX) also shows that the flight plan was rejected by PIDP. However, FLIPS will attempt to send it over the interface once more. If it is not accepted the second time, it will not be sent again. A Departure Message (DM) is sent by PIDP when a flight plan in the system is activated and a tracked target is assigned to it.

All messages from PIDP contain the current PIDP system time. FLIPS will automatically update its system time to match the time in the message. If a wrong time is entered, the first test message that FLIPS receives will reset the FLIPS time to the incorrect time. This could cause flight plans that are not ready for transmission to PIDP to be dumped into the system. It can also cause FLIPS to delete flight plans in the database and move some to yesterday or tomorrow. Care should be taken when updating the PIDP system time.

Japanese flight plans will be assigned a computer identification number called the JCID. The JCID is located on the strip next to the CID. The JCID is on the strip for coordination purposes only. It can not be used for a flight plan search.

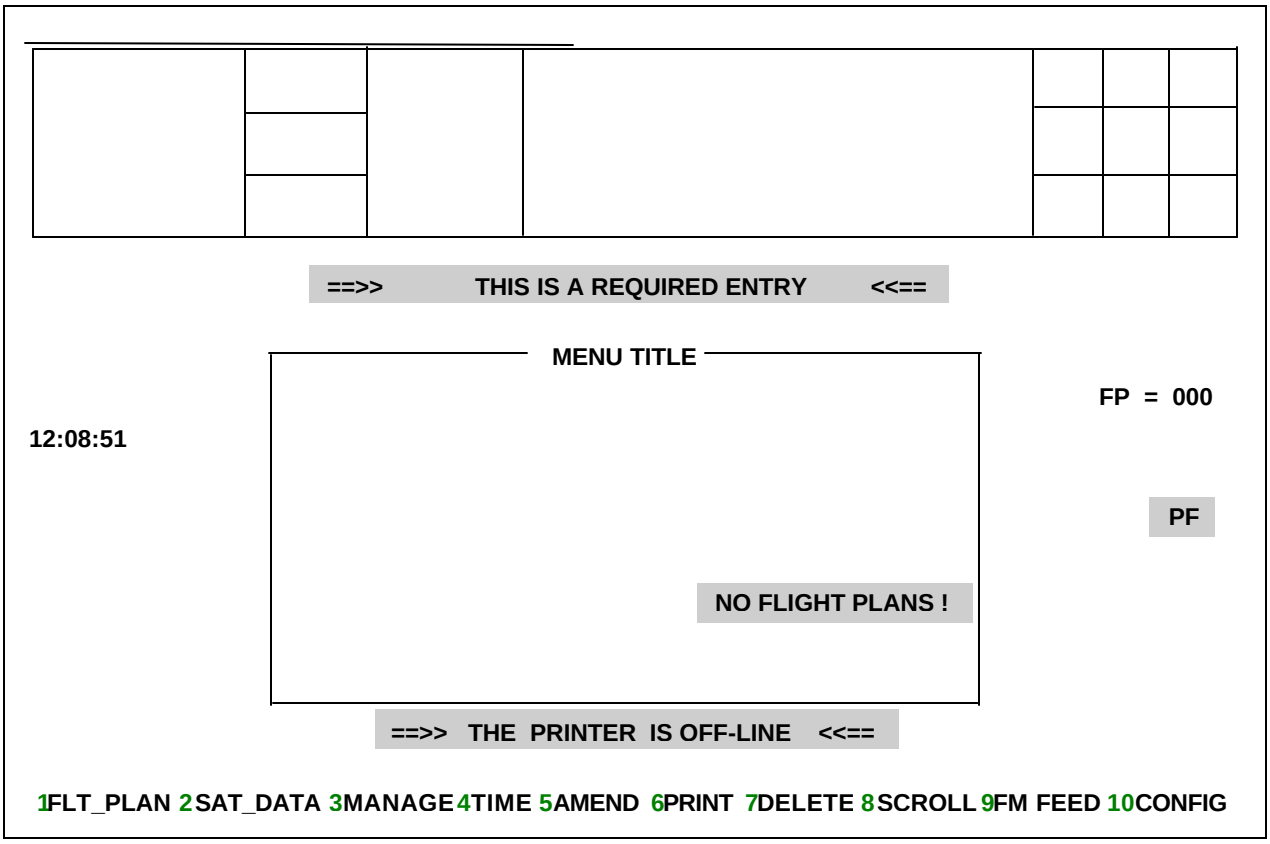

Figure 6-2: System Messages

6.3. Duplicate ACID and Discrete Beacon Codes

FLIPS permits the entry of a flight plan having a callsign or a discrete beacon code that duplicates this data in an existing flight plan, but only under certain specific conditions. Two aircraft may have the same beacon code only if one flight plan is an arrival and the other is a departure and one of the aircraft is being tracked by PIDP with a DM message having been sent from PIDP to FLIPS. Three aircraft may have the same callsign if one aircraft is an arrival, the other two are departures (the two departures must also have different departure airports) and any one of the three aircraft is being tracked by PIDP with a DM message having been sent from PIDP to FLIPS. Other than the above noted exceptions, a flight plan having duplicate data will only be accepted if its total active time period does not overlap the total active time period of an existing flight plan. The active time period for a single leg flight plan is from the flight plan's activation time minus the system Flight Plan Delete Time to the flight plan's activation time plus the system Flight Plan Delete Time. The active time period for a stereo flight plan composed of two legs (actually two separate flight plans) extends from the activation time of the first leg minus the system Flight Plan Delete Time to the activation time of the second leg plus the system Flight Plan Delete Time. For example, if an existing flight plan is not composed of two legs and has an activation time of 1330 and the system Flight Plan Delete Time parameter is set for 90 minutes, then this flight plan's active time period is from 1200 to 1500. A new flight plan having a duplicate callsign or discrete beacon code

will not be accepted if any part of its active time period falls between 1200 and 1500 (unless it falls under the exceptions noted at the beginning of this section.)

An attempted entry of a new flight plan containing an illegal duplicate callsign or discrete beacon code (that does not meet the specific conditions in the paragraph above) will result in a system error message identifying the existing flight plan by CID. The illegal duplicate condition must be resolved before the system will accept the new flight plan.

If a duplicate flight plan is received from the PIDP interface, and it falls within the same time period as a flight plan within FLIPS, then FLIPS will delete the duplicate in the database and insert the PIDP flight plan (unless it is one of the exceptions for beacon code and callsign noted in the first paragraph of this section).

6.4. FDS Functionality

6.4.1. Description

The FDS functionality allows the use of FDS type keyboard inputs to be used in FLIPS. It is an alternative to using the function keys and menus method of FLIPS. This option is selected by entering the same keystrokes as the message format for FDS. When the first alphanumeric key is typed, FLIPS enters the FDS mode. A space is used as a field separator when entering an FDS type message. A window of four blank lines is opened up in the menu window of the display (see Figure 6-3, "FDS Functionality"). Japanese flight plans can not be entered or amended from FLIPS.

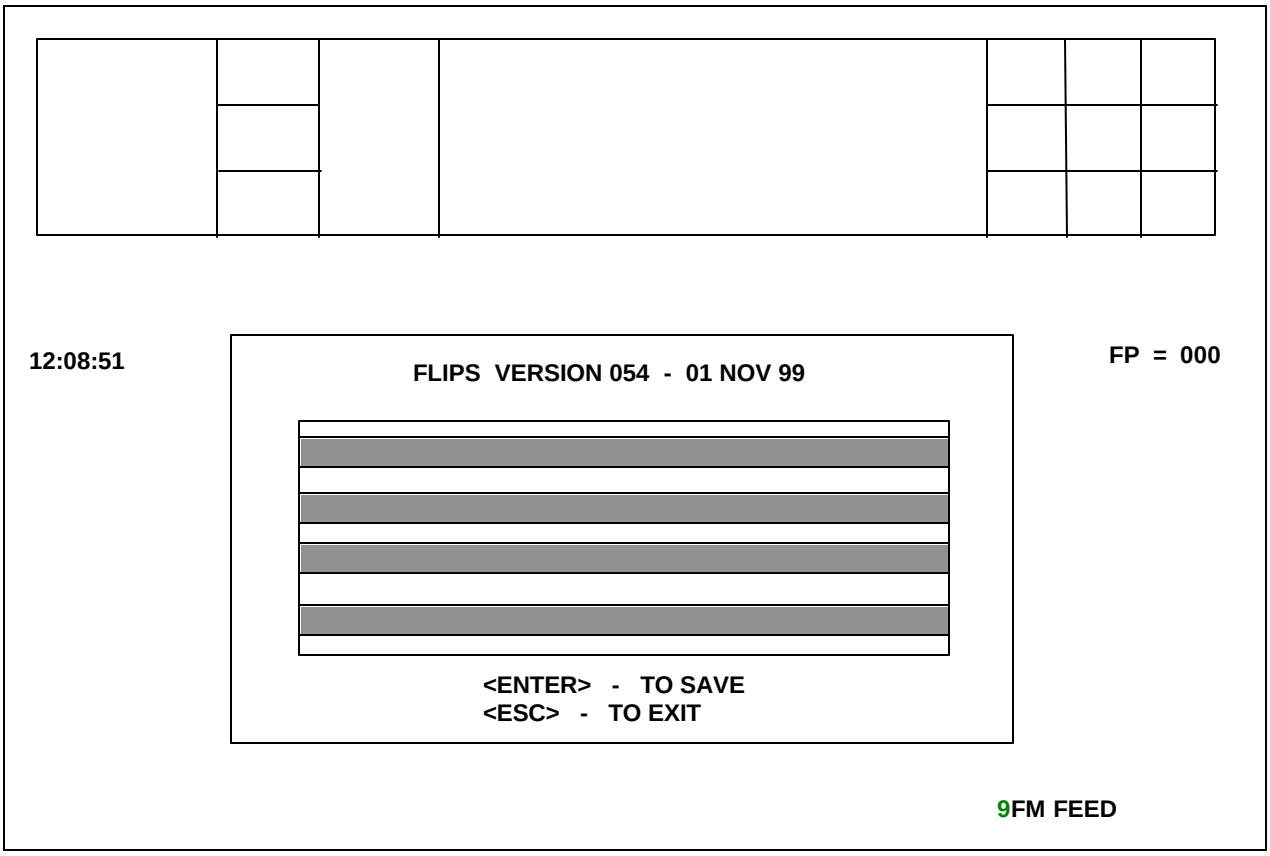

Figure 6-3: FDS Functionality

6.4.2. Message Formats

The available message formats for this function are as follows:

FP - Flight Plan
AM - Amendment
RS - Remove Strip
SR - Strip Request
RF - Forces a flight plan into the PIDP database
RB - Retransmit database to PIDP

6.4.2.1. Flight Plan (FP) Messages

A Flight Plan (FP) message is used to enter and store the initial flight plan data in the computer. The FP must include the following information: ACID, type, coordination fix, time, altitude, and the route data. Beacon code and remarks are optional.

The time field requires a “P” for proposed flight plans, an “A” for arrivals, or an “E” for en route. These characters tell FLIPS what type of flight plan is being entered and must proceed the time. If the time field consists of only a letter then the current time will be used. Since a space is required between fields, the flight plan is validated first and then entered into the database. The new flight plan will then be displayed in the strip window. A beacon code block may be used in place of a beacon code.

Example and format of FP message:

Field Number	02	03	04	06	07	08	10	11
Message	ACID	Type	Beacon Code	Fix	Time	Requested Altitude	Route of Flight	Remarks
FP	VARK01	H/C141	(None entered)	END	P1720	170	END..TIK	DV

*NOTE: Only one space allowed between each field. Above shows more spaces for readability.

6.4.2.2. Amendment (AM) Messages

An Amendment Message (AM) is used to modify previously entered flight plan data. It must contain a message type designator; ACID, CID, or beacon code; field reference (number or abbreviation), and the data to be entered. Flight plans that have been flagged as Departure Messages (DM) from PIDP cannot be amended. NOTE: Japanese flight plans cannot be amended.

Flight Plan amendments result in a one-for-one field substitution. The flight plan is then validated and entered in the database with the revision number being incremented. A space must be entered between the message type, field references and revised data.

Field reference numbers:

02 ACID
03 Type
04 Beacon Code
06 Fix
07 Time
08 Altitude
10 Route of Flight
11 Remarks

Examples and format of AM message:

Message	Flight Plan Reference	Field Reference	Amend Data	Field Reference	Amend Data

AM	002	07	1515	06	TIK
AM	2364	03	4/F111	07	1800
AM	VARK01	02	HIKER45	11	VFRLOCAL

When amending stereo flight plans with multiple first or second legs, the opportunity will be given to make amendments to these additional legs.

6.4.2.3. Remove Strip (RS) Messages

The Remove Strip (RS) message is used to delete flight plan data for the flight specified. The message consists of the message type designator and identification of the specified stored flight plan to be canceled. A flight plan that has been flagged as a Departure Message (DM) by PIDP cannot be deleted.

6.4.2.4. Strip Request (SR) Messages

The Strip Request (SR) message is used to request the printing (or reprinting) of a flight progress strip. The message consists of the message type designator and the ACID, CID number, or beacon code.

6.4.2.5. Request Transfer (RF) Messages

The Request Transfer (RF) message causes the transmission or retransmission of flight plan data to the PIDP computer system regardless of the scheduled time for transmission. This message is also used to force a flight plan back into the PIDP system if it has been dropped out. The message contains the message type designator and ACID, CID, or beacon code.

6.4.2.6. Retransmit Database (RB) Messages

The Retransmit Database (RB) message is used to retransmit the complete current flight plan database to PIDP, usually after a PIDP failure. The RB message contains a message type designator.

6.5. Add Flight Plan

<F1> FLT_PLAN

6.5.1. General Instructions for Departures, Arrivals, and Overflights

The Add Flight Plan Menu is displayed after selecting **<F1>** from the FLIPS Main Menu. This menu allows the controller to enter the desired flight plan type. The controller can enter <**A**> Departure, <**B**> Arrival, <**C**> Overflight, <**D**> Stereo, or <**E**> Training Flight Plans. The menu to add a flight plan is displayed after selecting the letter for the appropriate type flight plan from the Add Flight Plan Menu. The flight strip working area is unique to the type of flight plan selected. As data is entered,

it will be displayed in the appropriate field of the flight strip work area (see Figure 6-4, "Add Departure Training Main Menu"). Each field will be highlighted on the menu while data is being entered. A flashing cursor indicates the current character position. Corrections may be performed before the completed flight plan is entered. The special keys used for editing can be found in Section 7.1., Editing Commands. Spaces are permitted for data separation in the remarks and route of flight fields by using the right arrow key. Each data field will be checked, as appropriate, for validity. The ACID and beacon code will be checked against flight plans currently in the system to ensure illegal duplicate flight plan data is not entered. Error messages are provided for invalid entries and for duplicate ACID or beacon codes. The completed flight plan is saved with the **<Enter>** key or abandoned by pressing the **<Esc>** key at any time. Japanese flight plans can not be entered from FLIPS.

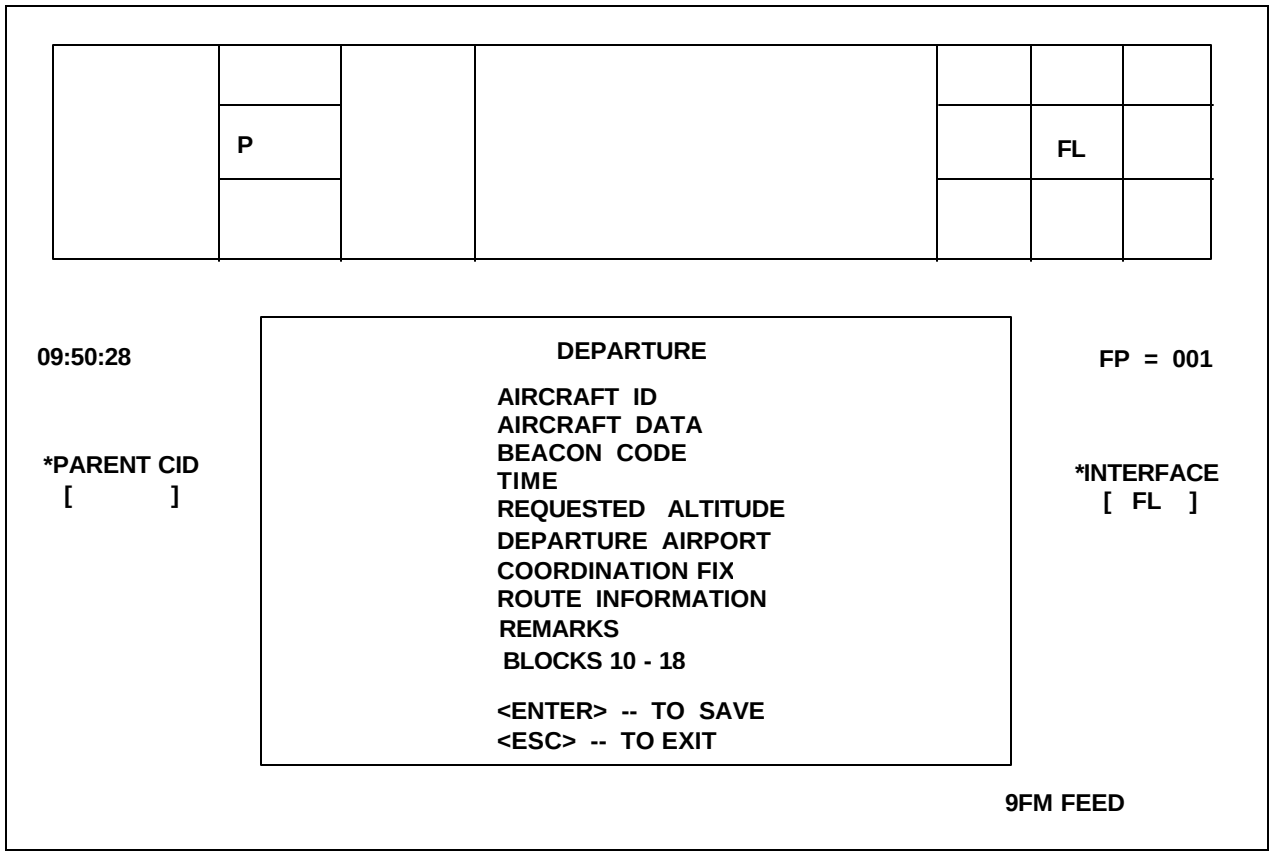

Figure 6-4: Add Departure Menu

The following strips show the correct format for each entry of data used to create a flight plan.

1. Departure Flight Plan

AIRCRAFT ID REV#	BEACON	DEPART AIRPORT	ROUTE INFORMATION	SITE SPECIFIC
AIRCRAFT DATA	PTIME		ROUTE INFORMATION	INFORMATION
CID NUMBER	ALT	CRD FIX	REMARKS	

PTIME is the proposed departure time.

2. Arrival Flight Plan

AIRCRAFT ID REV#	BEACON	A ETA AT COORD. FIX	ALTITUDE	REMARKS	SITE SPECIFIC
AIRCRAFT DATA	PREV FIX		REMARKS		INFORMATION
CID NUMBER	CRDFIX		DEST AIRPORT	REMARKS	

A ETA, is estimated arrival time at the coordination fix.

3. Overflight Flight Plan

AIRCRAFT ID REV#	BEACON	E ETA AT COORD. FIX	ALTITUDE	ROUTE INFO	SITE SPECIFIC
AIRCRAFT DATA	CRD FIX		ROUTE INFORMATION		INFORMATION
CID NUMBER	CRD IND		REMARKS		

E ETA, is the estimated arrival time at the coordination fix

6.5.1.1. Aircraft ID (ACID)

Entries must be 2 - 7 alphanumeric characters with the first character being alphabetic. Spaces are not permitted and all data entered beyond 7 characters will be ignored. Duplicate ACIDs are not allowed unless their active times do not overlap. If no ACID is entered or there is an invalid entry, an error message will be displayed. A valid ACID must be entered before the system will allow the controller to move to any other data field. Pressing the <Enter> key saves the flight plan.

6.5.1.2. Aircraft Type

Up to 11 characters may be entered to identify the number of aircraft in a flight, the class, the type, and the equipment suffix. This data will be in 'free-form' format and will not be checked for

validity. However, flight plans sent to PIDP are validated and will be rejected if errors are found. The equipment suffix and the number of aircraft will only be stored in FLIPS. Dashes are NOT allowed in the AIRCRAFT TYPE.

6.5.1.3. Beacon Code

The controller has the option to manually enter a beacon code, allow the system to auto assign a beacon code, or leave the beacon code field blank.

During flight plan entry, the controller may select A through H for auto beacon code assignment. The beacon code will be auto assigned immediately before the strip is printed (either manual or auto print). If all beacon codes have been allocated from the code block selected during flight plan entry, the system will set the beacon code field to blanks. Additionally, a system message will be output to the printer when all beacon codes from a predefined block are in use. If the controller selects a letter (A - H) that has not been predefined an error message will be displayed on the monitor.

Beacon codes are manually assigned by entering the four numbers (0000 - 7777). An error message is displayed on the monitor when an invalid or duplicate beacon code is entered. Beacon codes 1236, 7500, 7600, and 7700 are restricted from use.

The controller may space through the beacon code field during flight plan entry. This will result in the beacon code field being blank when the strip is printed.

6.5.1.4. Time

Time consists of four numeric characters, whether the time field is a Proposed Departure Time or an Estimated Time of Arrival (ETA) at the Coordination Fix. The system automatically generates a "P" for departure flight plans, an "A" for arrival flight plans, or an "E" for overflight flight plans in the first character position of the time field. Spacing past the field or entering the flight plan before reaching the time field (no time input) will result in the current system time being entered as the activation time when the flight plan is saved.

If the time entered is one minute less than the current time, the flight plan will be considered tomorrow's flight plan. If the flight plan is sent from PIDP, the activation time can be up to 59 minutes before current time and still be considered today's flight plan.

6.5.1.5. Airport/Fix

The Departure Airport field on a departure flight plan and the Destination Airport on an arrival flight plan may contain a maximum of 5 alphanumeric characters. Spaces are not permitted.

Arrivals and overflights may contain a maximum of 12 characters in the Previous Fix, the Coordination Fix, and the Coordination Indicator fields. This data will be in 'free-form' format and will not be checked for validity. Spaces are permitted. Only the first three characters of the Airport/Fix fields will be sent to PIDP.

6.5.1.6. Altitude

A maximum of 7 characters may be entered in the Altitude field. The first 3 characters must be alphanumeric and the last 4 may contain spaces and special characters.

6.5.1.7. Route of Flight

Departure

A maximum of 52 characters (2 lines of 26 characters each) may be entered for a departure flight plan. This data will be entered 'free-form' and will not be checked for format or correctness (fix identifier validation, logical routings, etc.). Spaces may be inserted between data items by using the **<Right Arrow>** key. As characters are entered, FLIPS automatically moves the cursor to the second line when the end of the first line is reached.

Overflight

A maximum of 40 characters (one line of 14 characters and a second line of 26 characters) may be entered for overflight flight plans. This data will be entered 'free-form' and will not be checked for format or correctness (fix identifier validation, logical routings, etc.). Spaces may be inserted between data items by using the **<Right Arrow>** key. As characters are entered, FLIPS automatically moves the cursor to the second line when the end of the first line is reached.

6.5.1.8. Remarks

Departure and Overflights

A maximum of 26 characters (1 line) may be entered in 'free-form'. Spaces may be inserted between data items by using the **<Right Arrow>** key.

Arrival

A maximum of 54 characters on 3 lines may be entered in 'free-form' (first line holds 14 characters, second line holds 26, and the third line holds 14). Spaces may be inserted between data items by using the **<Right Arrow>** key. As characters are entered, FLIPS automatically moves the cursor to a new line when the end of the current line is reached.

6.5.1.9. Blocks 10 - 18

A maximum of 36 characters (three lines of 12 characters) may be entered in 'free-form' in blocks 10 through 18 of the arrival, the departure and the overflight flight strips. Spaces may be inserted between data items by using the **<Right Arrow>** key. When the controller reaches the end of a line, the **<Down Arrow>** key will be used to move to the next available line.

6.5.2. Stereo Flight Plans

<F1> <D> STEREO

The controller selects the stereo flight plan mode by pressing **<F1>** from the FLIPS Main Menu and then **<D>** from the Flight Plan Menu. If no stereo routes were entered from the configuration mode, a blank Stereo Menu will be displayed. Press **<Esc>** to return to the FLIPS Main Menu. Stereo flight plan templates must be entered through **<F3>** MANAGE, if the stereo flight plan options is locked, or **<F10>** CONFIG.

6.5.2.1. Single Leg Routes

After selecting **<F1>** from the FLIPS Main Menu and <**D**> Stereo from the Flight Plan Menu, the controller is prompted to select the stereo alpha character **<A - T>**. **<Space>** will display another set of 20 stereo templates, if any are defined, and **<Esc>** will return the controller to the Flight Plan Menu. If the stereo route selected has one leg, it will be displayed in the flight strip work area. Enter additional information as needed, then press **<Enter>** to save the flight plan or **<Esc>** to exit. After the flight plan is saved, the selected stereo flight plan template will be redisplayed in the flight strip work area. The controller may now create additional strips as needed by following the prompts. The flight plans are checked for duplicate ACID and Beacon Code entries. If an activation time is not entered, the current time will be used as the activation time. Pressing **<Esc>** abandons an entry and returns to the Create Strip(s) Menu.

6.5.2.2. Two Legged Routes

If the stereo template selected has two legs, the Create Strip(S) Menu will be displayed (see Figure 6-5, "Create Strip(s) Menu"). The controller has the option of creating multiple strips for the first leg, the second leg, or both legs of the stereo flight plan.

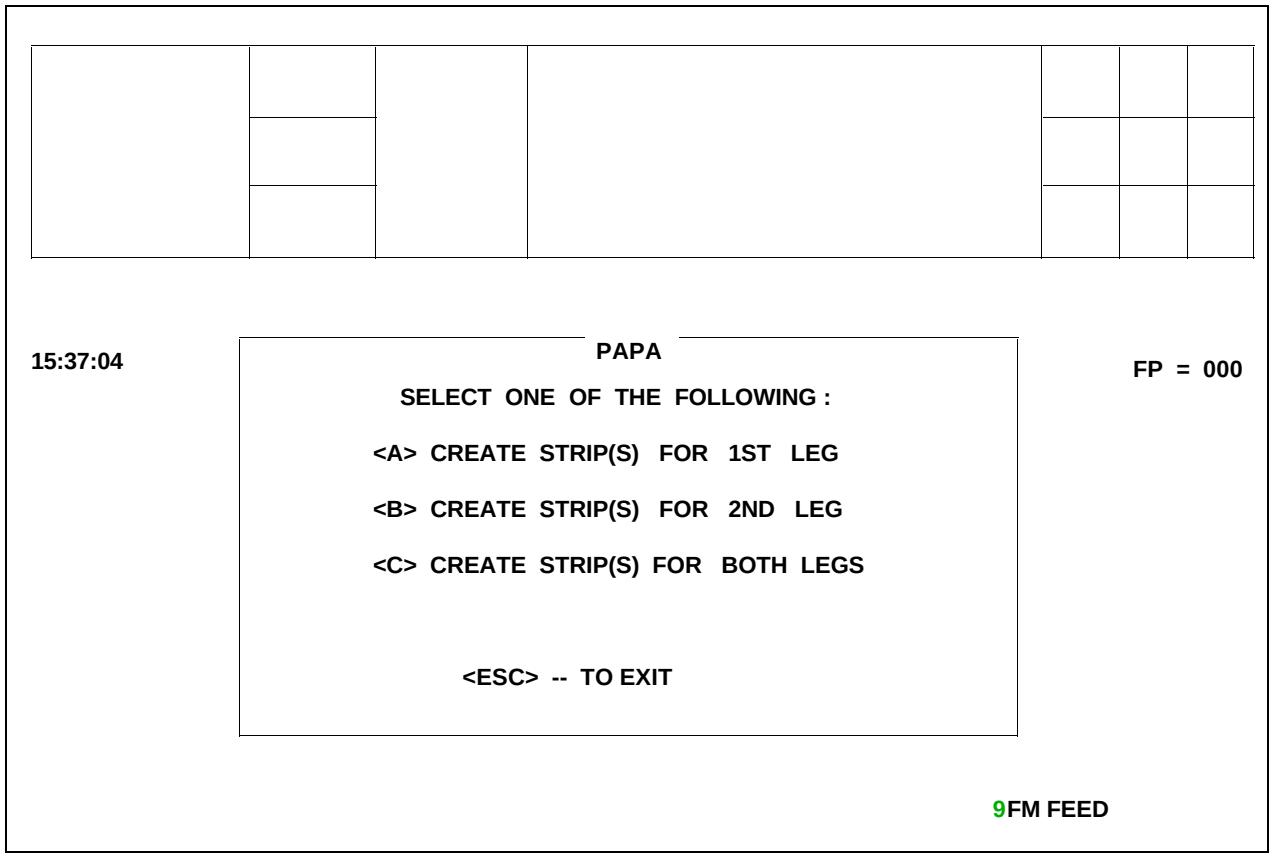

Figure 6-5: Create Strip(s) Menu

<A> First Leg

When choice **<A>** Create Strip(s) for 1st leg is selected, the controller can create one or more strips for the first leg of the stereo route.

The flight plan template for the first leg is displayed in the flight strip work area. The controller can then edit the template using the standard editing procedures explained in section 7.1., Editing Commands.

If an activation time is not entered, the current system time will be used as the activation time. None of the data will be transferred to the second leg. Only the first leg will be added to the database.

Pressing the <Enter> key saves the flight plan. After the flight plan is saved, the first leg of the selected stereo flight plan template will be redisplayed in the flight strip work area. The controller can create additional strips as needed by following the prompts. The flight plans are checked for duplicate ACID and Beacon Code entries. Pressing **<Esc>** abandons an entry and returns to the Create Strip(s) Menu.

<B> Second Leg

When choice **<B>** Create Strip(s) for 2nd leg is selected, the controller can create one or more strips for the second leg of the stereo route.

The stereo flight plan template for the second leg is displayed in the flight strip work area. The controller can then edit the template using the standard editing procedures explained in section 7.1., Editing Commands.

Only the second leg will be inserted in the database when **<Enter>** is pressed. After the flight plan is saved the selected stereo flight plan template will be redisplayed in the flight strip work area. The controller can create additional strips as needed by following the prompts. The flight plans are checked for duplicate ACID and Beacon Code entries. Pressing **<Esc>** abandons an entry and returns to the Create Strip(s) Menu.

<C> Both Legs

When choice **<C>** Create strip(s) for both legs is selected, the controller can create one or more strips for both legs of the stereo route. Option **<C>** is not available if the second leg of the template has an undefined Beacon Code Block in the beacon field.

The stereo flight plan template for the first leg is displayed in the flight strip work area. The controller can then edit the template using the standard editing procedures explained in section 7.1, Editing Commands.

The ACID will automatically be transferred to the second segment of the stereo flight plan. The second leg activation time is automatically assigned based on the offset time selected when the template was created. Each leg of the flight will be assigned a separate CID number. Additionally, the flight plan counter will be incremented by two when a stereo flight plan with two legs is entered. The beacon code will be carried over to the second leg if a "#" sign was entered into the beacon code field of the second leg flight plan when the stereo flight plan was created in **<F10>**.

When **<Enter>** is pressed, the 2nd Leg Aircraft Type Menu is displayed. If the first leg Aircraft Type was amended, the second leg will contain the new Aircraft Type. Enter any change to the second leg Aircraft Type and then press **<Enter>.** The first leg template will be redisplayed. The first leg template will also be redisplayed if **<Esc>** was pressed.

Press **<Esc>** when done creating strips for both legs. After the **<Esc>** key is pressed, the Additional Strips Menu is displayed prompting the controller to create additional strips for the first or second leg (see Figure 6-6, "Additional Strip(s) Menu"). If the first leg is chosen, the controller can enter as many first leg strips as needed. If the second leg is chosen, the controller can enter as many

second leg strips as needed. Additional strips are all linked to the second leg stereo flight plan. Pressing **<Esc>** abandons an entry and returns to the Create Strip(S) Menu.

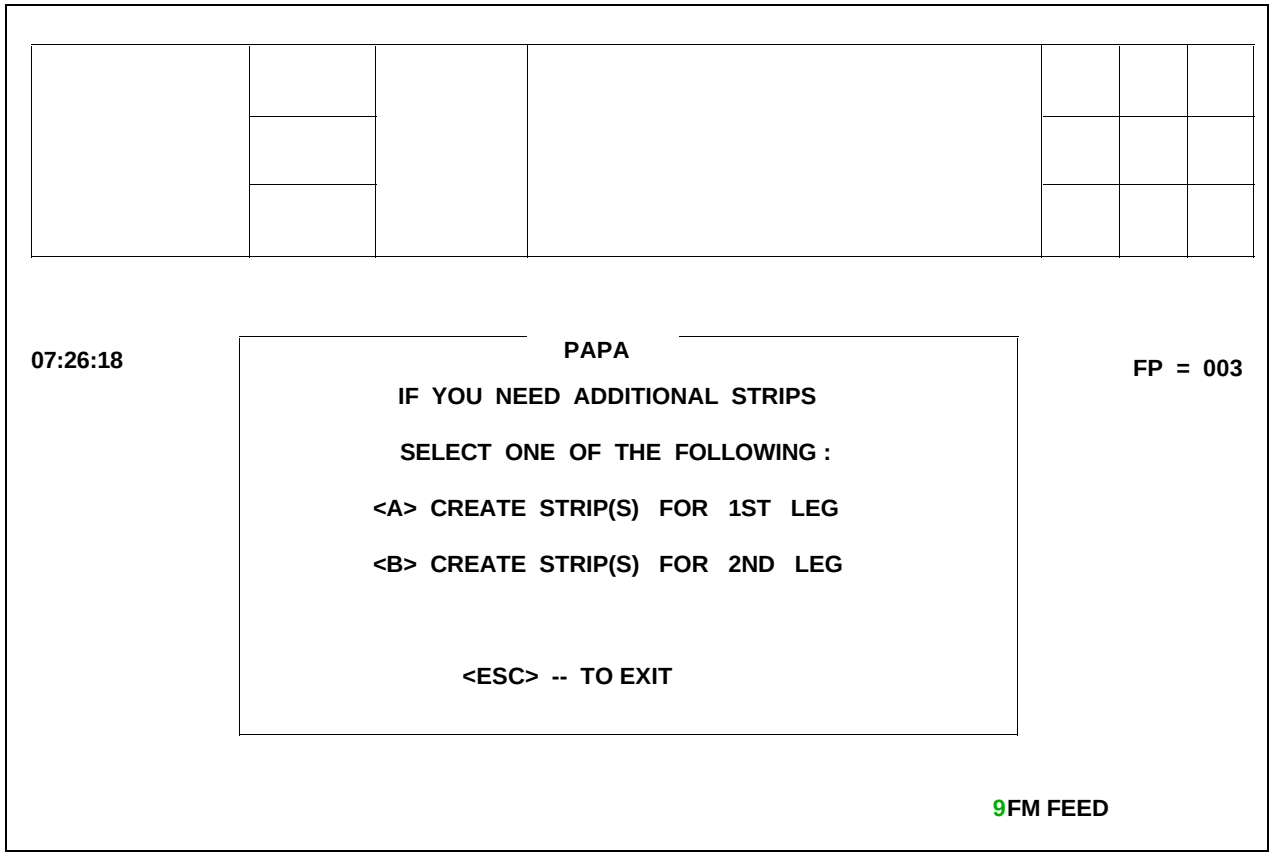

Figure 6-6: Additional Strip(s) Menu

PIDP Interface

When the first leg is within 15 minutes of activation time it will be sent to PIDP. If the second leg is transmitted while the first leg is in the system, PIDP will send a Data Reject (DR) message on the second leg because of duplication.

6.5.3. Training Flight Plans

<F1> <E> TRAINING

The Training Menu is displayed after selecting **<F1>** from the FLIPS Main Menu and <**E**> from the Flight Plan Menu. The current FLIPS flight plan count and the number of strips in the training database are both displayed. Some options are not available with an empty database (**<F9>** Form

Feed is available). Press **<Esc> <Esc>** to exit to the FLIPS Main Menu. The strip displayed will be smaller than the normal FLIPS strip to more closely match the printed strip. The controller may enter 'free form' strips for use in training scenarios. The entire length of all three lines for each strip may be edited using the 'free-form' format (within the limits of the FLIPS character set). The entire scenario may be printed or each strip may be printed individually. The controller may delete a scenario. Training scenarios can be saved to or loaded from the current drive. (see Figure 6-7, "Training Main Menu")

*******NOTE: Strips entered as part of a training scenario will have no effect on active flight plans in the FLIPS system.

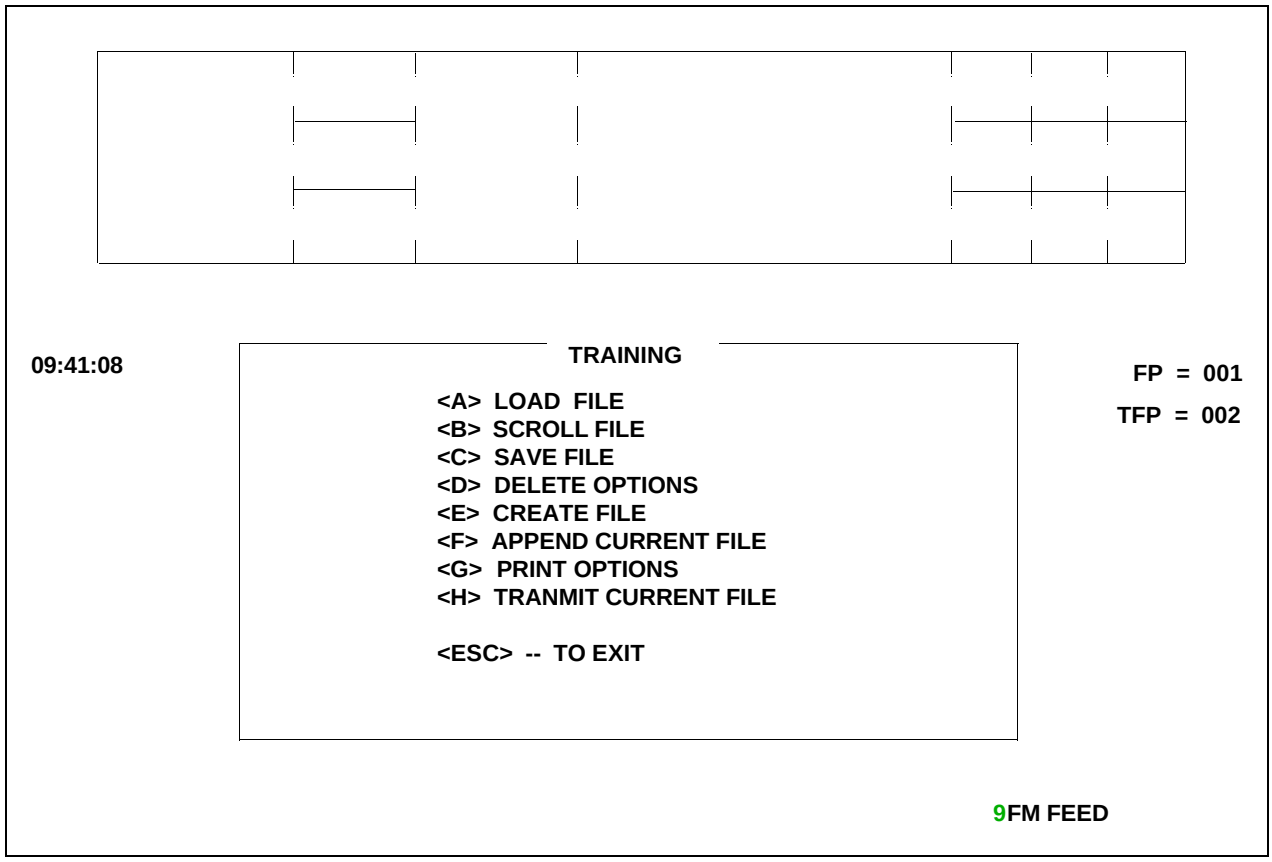

Figure 6-7: Training Main Menu

6.5.3.1. <A> Load File

The controller can load a previously saved training scenario from the current drive to the training strip database. Upon selecting choice **<A>**, a menu will be displayed to allow the controller to select the drive to load from (A, B, or C). When the controller is ready to continue, the **<Esc>** key should be pressed. The selected drive will remain current until a different drive is selected. A directory of the current drive will be displayed with only the files that contain training strips (filenames with a .TNG

extension). The first file will be highlighted and the **<Up Arrow>** and **<Down Arrow>** keys will move the highlighted box from one filename to another. If more than one page of filenames exist, the space and backspace keys will move the directory forward and backward. Positioning the highlighted box over a filename and pressing the **<Enter>** key will select that filename. A filename can be entered manually by typing the filename from the keyboard. The first key entered will cause the directory to disappear. The filename must be 1-8 alphanumeric characters (extensions will automatically be added to the filename). If a good file is loaded, any training strips previously in the system will be deleted and strips from the selected file will be put into the training database. If a file is not compatible with the FLIPS version then an attempt will be made to convert the file. If the file can be converted, it will be loaded. After a successful load, the Training Menu is displayed.

6.5.3.2. <B> Scroll File

Upon selecting this option, the flight strip work area is displayed along with the first training strip in the scenario. The first and last strips are identified by a message in the scroll menu. **<Space>** advances to the next strip and **<Backspace>** moves back to the previous strip. The displayed strip can be amended, printed or deleted while in the scroll mode. **<F9>** can be pressed to advance strips on the printer. Pressing **<A>** allows the controller to create a new strip and insert it in the training database after the strip that is being displayed. Pressing **<B>** inserts the new strip before the strip that is being displayed. Press **<Esc>** to exit to the Training Main Menu.

6.5.3.3. <C> Save File

The controller has the option to save the current training scenario to the current drive for later use. Ensure the diskette is formatted (MS DOS version 3.2 or later) and not write protected before an attempt is made to write to the diskette. Upon selecting choice **<C> Save File** from the Training Main Menu, a menu will be displayed allowing the controller to change the drive to save to. When the controller has selected a drive, **<Esc>** should be pressed to continue (if C drive was selected, a menu will be displayed to enter or change the password or continue with the save. The password feature is included here to prevent accidentally deleting the training strips on C drive). After selecting a drive and entering the password, if required, a directory will be displayed with only the files that contain training strips (filenames with a .TNG extension). The first file will be highlighted and the **<Up Arrow>** and **<Down Arrow>** keys will move the highlighted box from one filename to another. If more than one page of filenames exist, the **<Space>** and **<Backspace>** keys will move the directory forward and backward. Positioning the highlighted box over a filename and pressing the **<Enter>** key will select that filename. A filename can be entered manually by typing the filename from the keyboard. The first key entered will cause the directory to disappear. The filename must be 1-8 alphanumeric characters (extensions will automatically be added to the filename). After a successful save, the Training Main Menu is displayed.

6.5.3.4. <D> Delete Options

Upon selecting this option, the controller is given the opportunity to delete the current training scenario from memory. If **<Y>** is pressed, the scenario is deleted. After a successful deletion, the Training Main Menu displayed.

6.5.3.5. <E> Create File

Upon selecting this option, the controller will be allowed to enter training strips. If a **t**raining database is currently loaded, it will be deleted before the controller can input new training strips. Each strip can be entered in 'free form' format on 3 lines by 68 characters within the limits of the acceptable FLIPS character set. A **<Space>** advances to the next line and<Backspace> backs up to the previous line. Pressing **<Enter>** will save the strip and allow you to enter another strip, if needed. Press **<Esc>** to exit to the Training Main Menu without saving the current strip.

6.5.3.6. <F> Append Current File

Upon selecting this option, the controller will be allowed to enter additional strips into the current training database. The training strips will be appended to the end of the training database. Each strip can be entered in 'free form' format on 3 lines by 68 characters within the limits of the acceptable FLIPS character set. A **<Space>** advances to the next line and<Backspace> backs up to the previous line. Pressing **<Enter>** will save the strip and allow you to enter another strip, if needed. Press **<Esc>** to exit to the Training Main Menu without saving the current strip.

6.5.3.7. <G> Print Options

Upon selecting this option, a menu will appear prompting the controller to enter **<A>** to print the entire training scenario, **<B>** to print a randomly generated scenario, or **<C>** to print and transmit a random scenario. When either of the random scenario options are selected, the controller is asked how many strips are wanted for the scenario. Any number from one to the number of training strips in the current training database may be entered. The controller will be prompted for the number of copies of the scenario to be printed. The number of strips chosen will be printed for each copy. The print feature of the training scroll function may be used to print individual strips. Press **<Esc>** to exit to the Training Main Menu.

6.5.3.8. <H> Transmit

Upon selecting this option, the entire current scenario will be transmitted to PIDP. For the system to access the appropriate data the following rules apply:

Departure

ACID	- Line 1 columns 1 through 7
Code	- Line 1 columns 15 through 19
Dept Apt	- Line 1 columns 21 through 28
Type	- Line 2 columns 1 through 11
Time	- Line 2 columns 15 through 19

Arrival

ACID	- Line 1 columns 1 through 7
Code	- Line 1 columns 15 through 19
Time	- Line 1 columns 21 through 28
Type	- Line 2 columns 1 through 11
Coord Fix	- Line 3 columns 15 through 19
Dest Apt	- Line 3 columns 30 through 34

Overflights

ACID	- Line 1 columns 1 through 7
Code	- Line 1 columns 15 through 19
Time	- Line 1 columns 21 through 28
Type	- Line 2 columns 1 through 11
Coord Fix	- Line 2 columns 15 through 19
Coord Ind	- Line 3 columns 15 through 19

The fields need to be in the appropriate columns of the training strip. If the strips are correct, PIDP will accept the strips as training strips.

The required fields are the ACID and type of Training Strip. The type of strip is indicated by the first character of the time field and formatted as the following:

P - departure
A - arrival
E - overflight

The default type is an overflight.

6.6. Airport Data

<F2> SAT_DATA

6.6.1. General Information

Pressing **<F2>** from the FLIPS Main Menu will put the controller in the airport and fix data option. The controller will then be able to choose airport or fix editing. This option can also be locked through **<F3>** MANAGE. If it is locked, you still have the option to view the data. Until this option is unlocked, changes can only be made through **<F3>** MANAGE - **<C>** Change Configuration Options.

The controller may enter information on primary and surrounding airports and fixes. Each airport will contain information about the airport and on all of its runways. Each airport, runway, and fix may be edited to change the information previously stored. The airport and fix data information may be saved by choosing the save or build option. You can use A, B, or C drive and read it back in at a later date. All the airport and fix data information may be printed in a report form. The controller may delete all fixes, a single fix, all the airports, a single airport, or a single runway from an airport. There will be an airport counter (APT) located below the FLIPS flight plan counter (FP).

Airport and fix data information can be sent to the PIDP computer when requested. This information will be contained in PIDP_LINE1 and PIDP_LINE2. Each line can hold up to 20 characters. FLIPS can respond to satellite airport data messages and satellite fix data messages from PIDP. The airport identifier can be used for a specific airport or the bearing and distance can be used to find the closest airport. Indicating the minimum acceptable runway length can also modify this request, if required. The fix identifier can be used for a specific fix.

6.6.2. <A> Load File

The controller has the option to load a previously saved airport database from the selected drive into the active airport database. Upon selecting choice **<A>,** a menu will be displayed to allow the controller to change the drive to load from. When the controller is ready to continue, the **<Esc>** key should be pressed. A directory of the current drive will be displayed with only the files that airport data can use (filenames with a .APD extension). The first file will be highlighted and the **<Up Arrow>** and **<Down Arrow>** keys will move the highlighted box from one filename to another. If more than one page of filenames exist, the **<Space>** and **<Backspace>** keys will move the directory forward and backward. Positioning the highlighted box over a filename and pressing the **<Enter>** key will select that filename. A filename can be entered manually by typing the filename from the keyboard. The first key entered will cause the directory to disappear. The filename must be 1 - 8 alphanumeric characters (extensions will automatically be added to the filename). If a good file is loaded, any airport data previously in the system will be deleted and the airport data from the file will be put into the airport database. If a file is not compatible with the current FLIPS version then an attempt will be made to

convert the file. If the file can be converted it will be loaded. After a successful load is completed, the Airport Data Menu will be displayed again.

6.6.3. <B> Edit File

Upon entering **<B>** Edit File option, the controller will be asked to enter **<A>** edit airport or **<B>** edit fix.

6.6.3.1. <A> Edit Airport

The controller will be asked for the airport ID to edit. The controller will then be prompted to enter **<A>** for airport or **<R>** for runway. The appropriate information will be displayed to edit. If airport information is chosen, the selected airport information will be displayed. The controller can then edit the airport (see Figure 6-8, "Airport Data - Edit Airport"). If runway information is chosen, the runway names will be displayed. The controller will need to enter a runway name so they can edit it. **<Space>** advances to the next field and **<Backspace>** backs up to the previous field. Press **<Enter>** to save the information or press **<Esc>** to exit this option without saving.

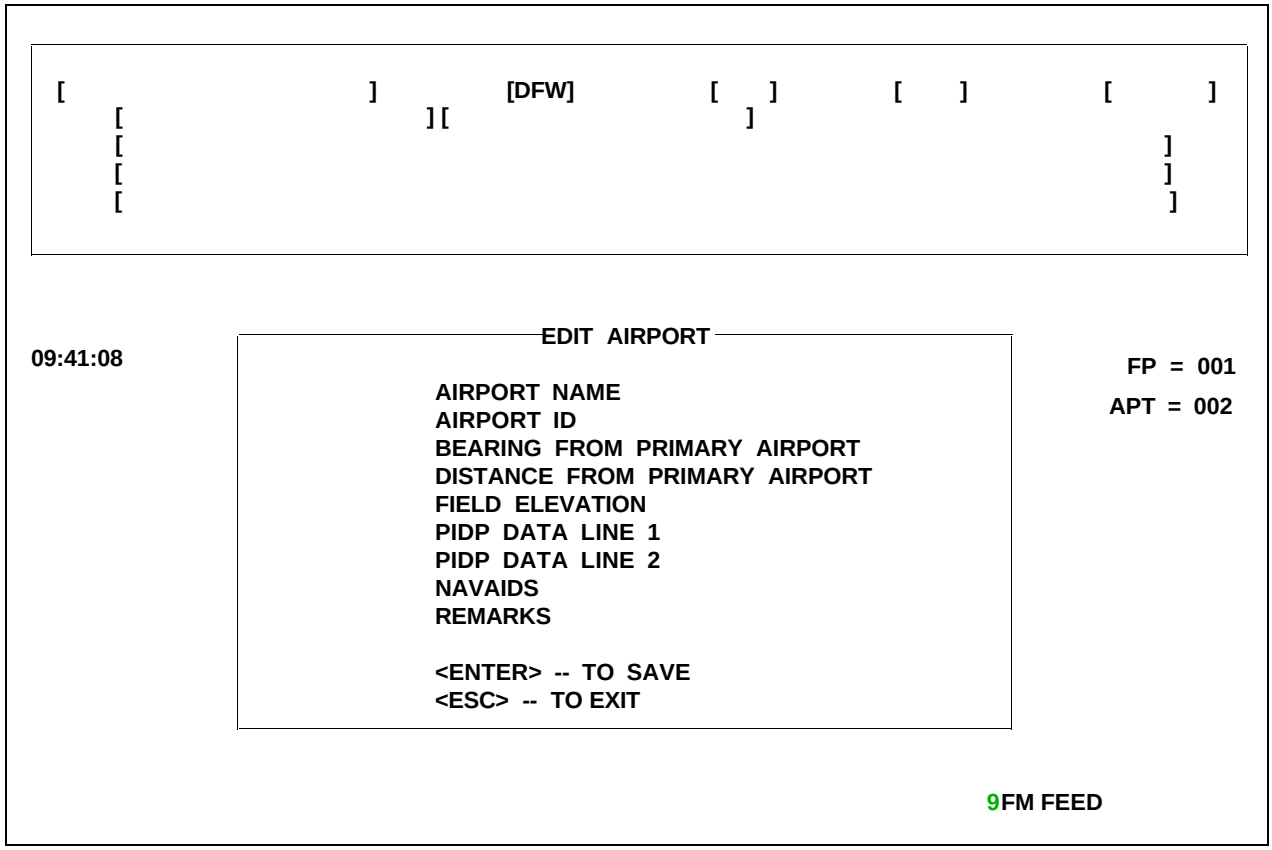

Figure 6-8: Airport Data - Edit Airport

Information contained in PIDP_LINE1 and PIDP_LINE2 will be transmitted to PIDP when requested. These lines are 'free-form'.

6.6.3.2. <B> Edit Fix

The controller will be asked for the fix ID to edit. The appropriate information will be displayed to edit the fix (see Figure 6-9, "Airport Data - Edit Fix"). **<Space>** advances to the next field, **<Backspace>** backs up to the previous field. Press **<Enter>** to save the information. Press **<Esc>** to exit this option without saving.

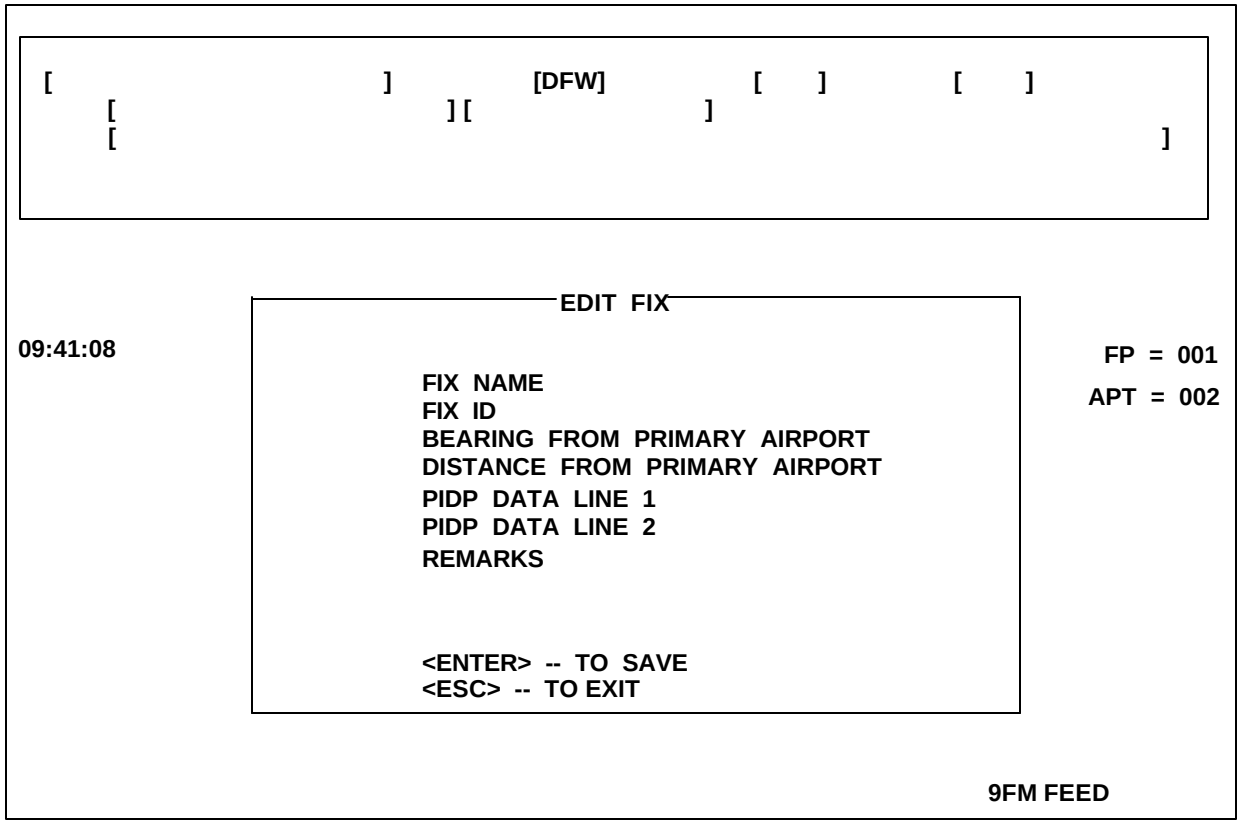

Figure 6-9: Airport Data - Edit Fix

Information contained in PIDP_LINE1 and PIDP_LINE2 will be transmitted to PIDP when requested. These lines are 'free-form'.

6.6.4. <C> Save File

The controller may save the airport database to a selected drive for later use. Ensure the diskette is formatted (MS-DOS version 3.2 or later) and not write protected before an attempt is made to write to the diskette. Upon selecting choice **<C>,** a menu will be displayed to allow the controller to change the drive to save to. When the controller is ready to continue, the **<Esc>** key should be pressed. A

directory of the current drive will be displayed with only the files that airport data can use (filenames with a .APD extension). The first file will be highlighted and the **<Up Arrow>** and **<Down Arrow>** keys will move the highlighted box from one filename to another. If more than one page of filenames exist, the **<Space>** and **<Backspace>** keys will move the directory forward and backward. Positioning the highlighted box over a filename and pressing the **<Enter>** key will select that filename. A filename can be entered manually by typing the filename from the keyboard. The first key entered will cause the directory to disappear. The filename must be 1 - 8 alphanumeric characters (extensions will automatically be added to the filename). Upon completion of the save, the Airport Data Menu will be displayed.

6.6.5. <D> Delete Options

Upon selecting option **<D>**, the controller has the option to delete the airport database, an airport, an individual runway, all fixes or individual fixes. If the controller chooses to delete the database, they are asked if they are sure they want to delete the entire database. If **<Y>** is pressed, the entire current database is deleted. If the controller chooses to delete all airports or fixes, the controller is asked if they are sure they want to delete all airports or fixes. If **<Y>** is pressed, all airports or fixes are deleted (depending on which option was chosen). If an airport needs to be deleted, the menu is displayed prompting for the airport ID to delete. If a runway needs to be deleted, the menu is displayed to select the airport. After the airport has been selected, a menu is displayed with the runway names. The controller then enters the runway name to delete. If a fix needs to be deleted, the user will be prompted to enter the fix ID to be deleted.

6.6.6. <E> Add Airports

Upon entering option **<E>**, the controller will be allowed to enter airports into the database. Information for runways and airports can be entered and edited through the edit option.

6.6.7. <F> Add Fix

Upon entering option **<F>**, the controller will be allowed to enter fixes into the database. Information for fixes can be entered and edited through the edit option.

6.6.8. <G> Build Report

Upon selecting option **<G>**, the current airport database will be made into a report. Ensure the diskette is formatted (MS-DOS version 3.2 or later) and not write protected before an attempt is made to write to the diskette. Upon selecting choice **<G>,** a menu will be displayed to allow the controller to change the drive to save to. When the controller is ready to continue, the **<Esc>** key should be pressed. A directory of the current drive will be displayed with only the files that airport data can use (filenames with a .APR extension). The first file will be highlighted and the **<Up Arrow>** and **<Down Arrow>** keys will move the highlighted box from one filename to another. If more than one page of

filenames exist, the **<Space>** and **<Backspace>** keys will move the directory forward and backward. Positioning the highlighted box over a filename and pressing the **<Enter>** key will select that filename. A filename can be entered manually by typing the filename from the keyboard. The first key entered will cause the directory to disappear. The filename must be 1 - 8 alphanumeric characters (extensions will automatically be added to the filename). Upon completion of building the report, the Airport Data Menu will be displayed.

6.6.9. <H> Print Options

The controller has the option to print airport data reports. Upon selecting choice **<H>,** a menu will be displayed to allow the controller to change the drive to read from. When the controller is ready to continue, the **<Esc>** key should be pressed. A directory of the current drive will be displayed with only the files that airport data can use (filenames will be displayed with a .APR extension). The first file will be highlighted and the **<Up Arrow>** and **<Down Arrow>** keys will move the highlighted box from one filename to another. If more than one page of filenames exist, the **<Space>** and **<Backspace>** keys will move the directory forward and backward. Positioning the highlighted box over a filename and pressing the **<Enter>** key will select that filename. A filename can be entered manually by typing the filename from the keyboard. The first key entered will cause the directory to disappear. The filename must be 1 - 8 alphanumeric characters (extensions will automatically be added to the filename). The printer will need 8.5 x 11 white paper and it automatically sets to print the report. After the report is printed, the printer will reset to the FLIPS format. Upon completion of the print function, the Airport Data Menu will be displayed.

6.7. Management

<F3> MANAGE

The management section allows controlled access to the locked Configuration and Airport Data options, only if the controller knows the password. Upon entering **<F3>** MANAGE, the user will be asked to type in the password. If a valid password is given, the Management Menu will be displayed. The controller then has the option of Entering or Changing the Password, Changing Locked Options (see paragraph 4.4. for the suggested items to be locked), or Changing Configuration Options. If an invalid password is entered, an error message is displayed and the controller is asked to try again. If the password has not been set, the Management Menu will be displayed so the user can select ENTER OR CHANGE PASSWORD (see Figure 6-10, “Management Main Menu”).

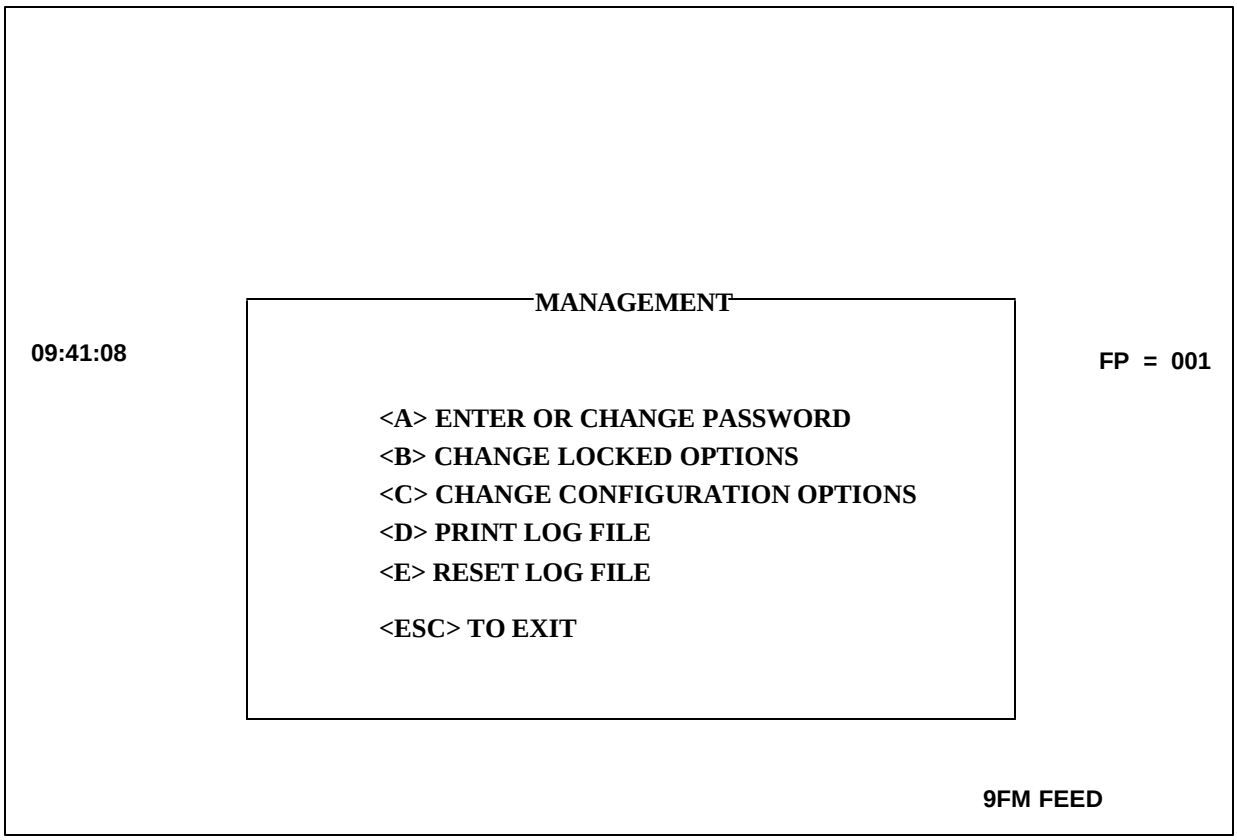

Figure 6-10: Management Main Menu

6.7.1. <A> Enter or Change Password

After selecting Enter or Change Password, the controller is asked to enter a password. For each key typed on the keyboard an asterisk will appear. After the password is entered, the user will be asked to enter the password again. Entering the password twice allows the controller to be sure the password was entered correctly. A password consists of 1 to 8 alphanumeric characters, no spaces allowed.

6.7.2. <B> Change Locked Options

This option allows the controller to lock and unlock the Configuration and Airport Data options. All the Configuration and Airport Data options are displayed on the screen. The symbol "L=>" is displayed before the locked options. Press the corresponding letter to lock or unlock the option. Initially all the options are unlocked. (see Figure 6-10, "Management Main Menu")

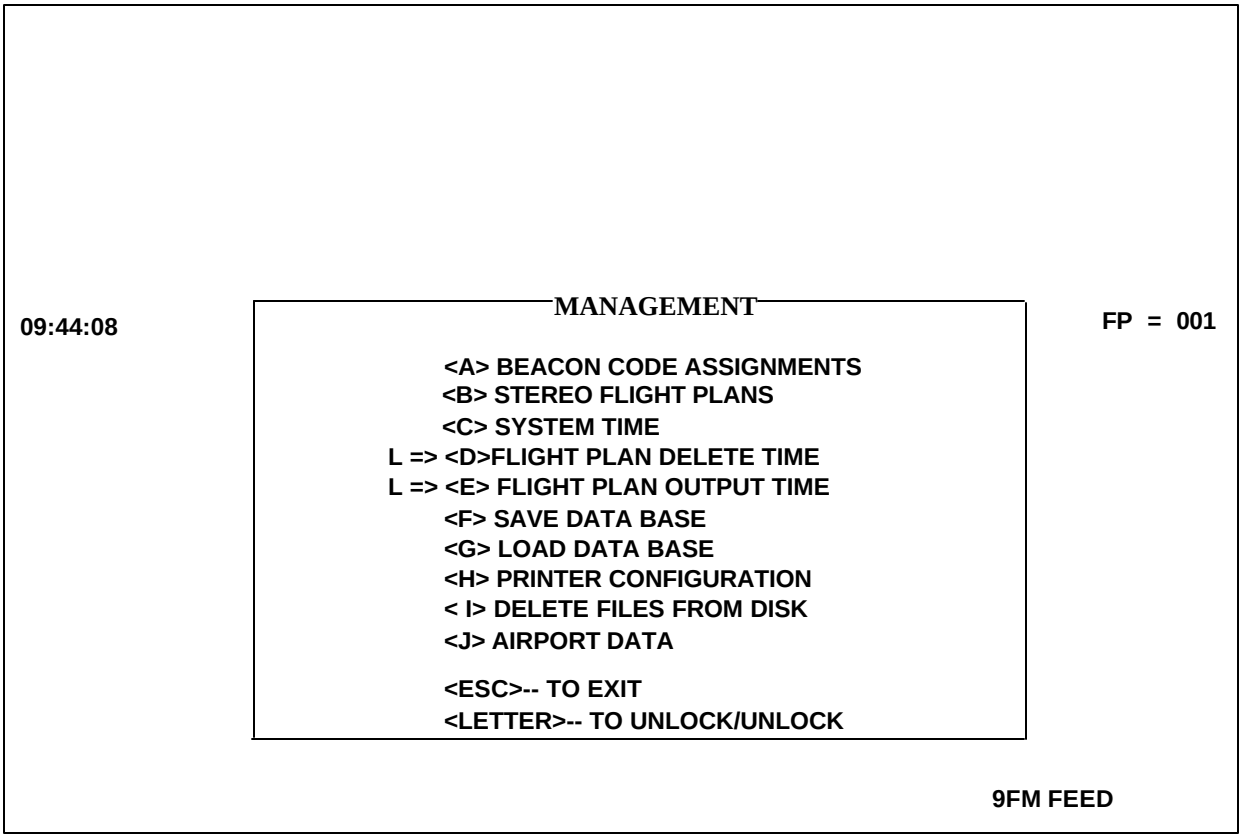

Figure 6-11: Management - Change Locked Options

6.7.3. <C> Change Configuration Options

This option allows the controller to access the Configuration and Airport Data options. All options can be accessed whether they are locked or unlocked from this menu. A detailed description of the Configuration options can be found in Section 6.14., "Configuration" and Airport Data can be found in Section 6.6., "Airport Data".

6.7.4. <D> Print Log File

This option will print the Position Time Log File. This option is available so that a list of the position time entries can be produced before resetting the Log File. Log File contains several types of messages. When any position time message from PIDP is received, an entry is made in the Log File. When Position Time entries are made manually, and entry is made in the Log File. When FLIPS starts up or shuts down, an entry is made in the Log File. The Log File accumulates these messages until it is reset.

6.7.5. <E> Reset Log File

This option clears the Log File of all data and RESETS IT to start updating automatically.

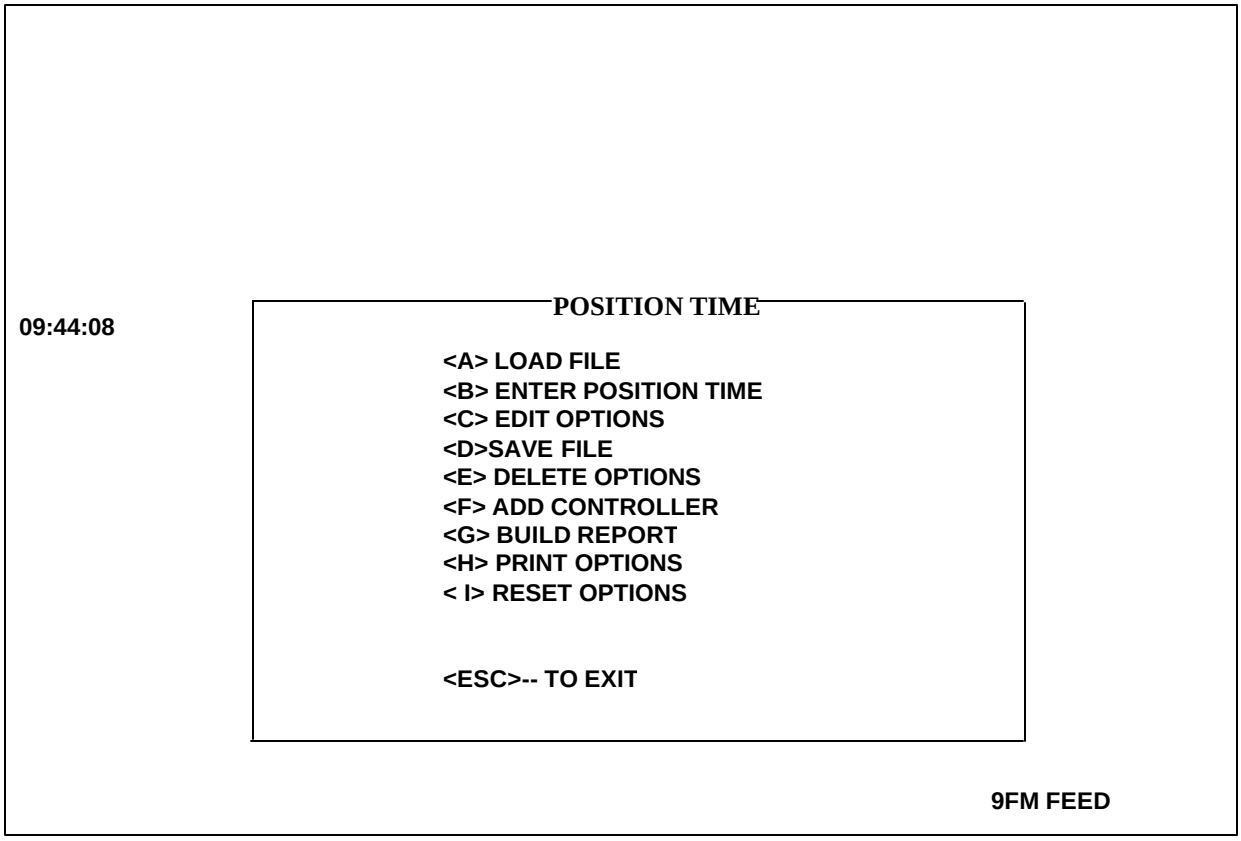

Figure 6-12: Position Time Menus

6.8. Position Time

<F4> TIME

The controller may maintain proficiency/training times on all the controllers in the facility. Each controller will have the positions that they are proficient in and/or training in typed in FLIPS so they can be edited. Position times can be loaded from the current drive or saved to the current drive and read back in again at a later date. The controller can sign in and sign out at the PIDP Indicator Position (See PIDP operators manual) that will allow FLIPS to keep an automated position time. Controllers and positions must already be entered into FLIPS for the automated position time to function. A number of reports can be generated on position times. The controller may delete all the controllers in a facility, all the controllers on a specific crew, a certain controller, or a position from a certain controller. Pressing **<F4>** from the FLIPS Main Menu will enter the position time option. There will be a person counter (PER), located below the FLIPS flight plan counter (FP), that displays the number of controllers loaded into FLIPS.

6.8.1. <A> Load File

The controller has the option to load a previously saved position time database from the selected drive into the active position time database. Upon selecting choice **<A>,** a menu will be displayed to allow the controller to change the drive to load from. When the controller is ready to continue, the **<Esc>** key should be pressed. A directory of the current drive will be displayed with only the files that position time can use (filenames with a .PTD extension). The first file will be highlighted and the **<Up Arrow>** and **<Down Arrow>** keys will move the highlighted box from one filename to another. If more than one page of filenames exist, the **<Space>** and **<Backspace>** keys will move the directory forward and backward. Positioning the highlighted box over a filename and pressing the **<Enter>** key will select that filename. A filename can be entered manually by typing the filename from the keyboard. The first key entered will cause the directory to disappear. The filename must be 1 - 8 alphanumeric characters (extensions will automatically be added to the filename). If a good file is loaded, any position times previously in the system will be deleted and the position times from the file will be put in the position time database. If a file is not compatible with the FLIPS version, an attempt will be made to convert the file. If the file can be converted, it will be loaded. After a successful load is completed, the Position Time Menu will be displayed.

6.8.2. <B> Enter Position Time

The controller has the option of entering proficiency/training times from the position logs. To have proficiency/training times updated, the controller is asked to enter the position and then the start time, the initials, and the stop time. The program will calculate the amount of time accumulated and add it to the position time for that controller. If a controller is receiving training time, the first set of initials is the trainees and the second set is the trainers. If the total amount of time a controller has in position is known, the total can be entered in the start/min time. The range is 1 to 999 and only one set of initials are entered. The time entered will then be added to the position time for that controller. This process can be done for all positions (see Figure 6-13, "Edit Position Time Log"). Also the log file is updated every time position time is edited or when a controller signs in at a position using the Automated Position Time Function.

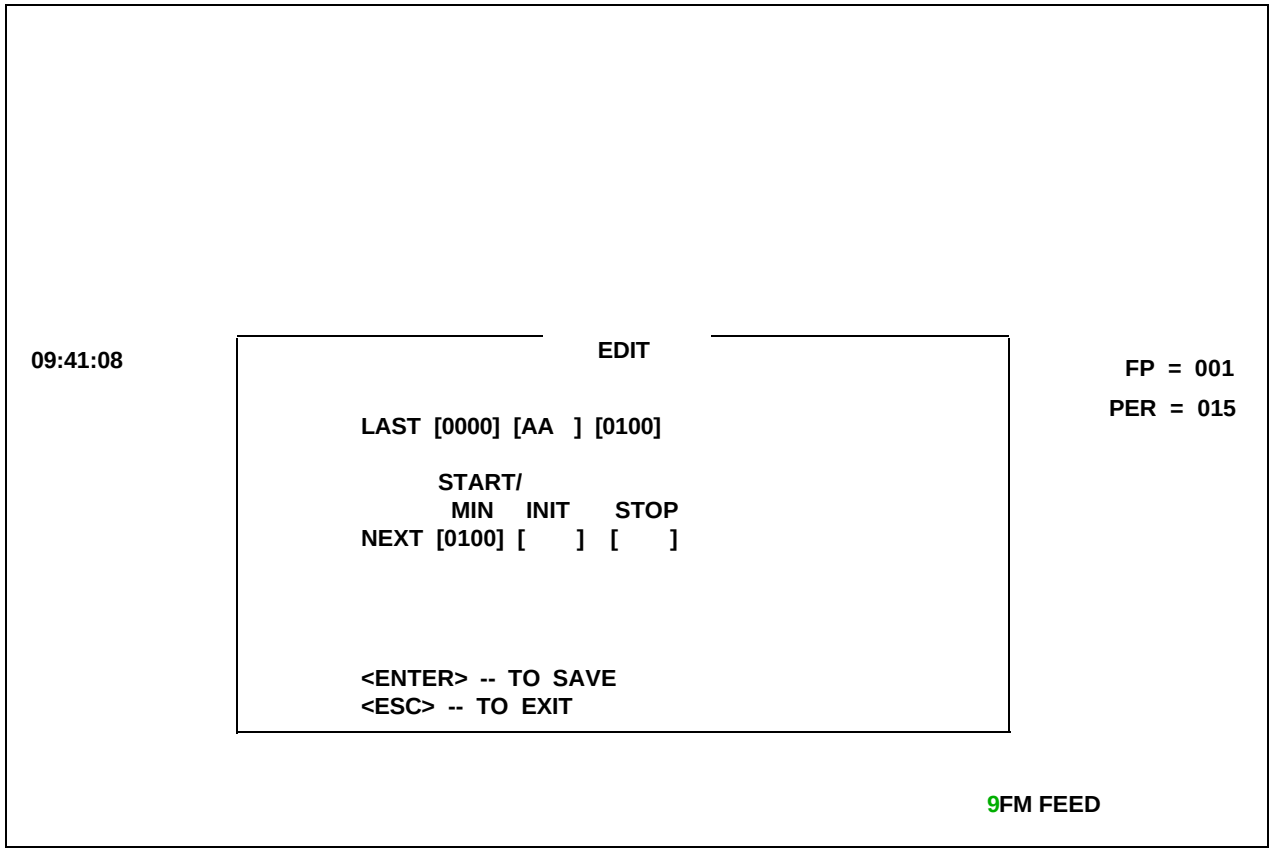

Figure 6-13: Edit Position Time Log

6.8.3. <C> Edit Options

Upon entering **<C>** Edit Options, the controller will be prompted for a crew ID. Once entered, the controller will be allowed to enter information on a position. A list of the initials will be displayed and the controller prompted for the initials to edit. After the controller enters the initials, a list of positions will be displayed. Once the position has been entered, the information for that position will be displayed on the screen. The controller can then edit the position information.

6.8.3.1. Edit RFC Position

When the controller chooses to edit the RFC position, the edit RFC position screen will be displayed. The controller can edit PAR and ASR runs data. The maximum number of runs allowed in each category (PAR and ASR) is 5000. The number of runs entered are added to the displayed total for that category. If the number is entered with a "-" sign in front of it, that number will be subtracted from the displayed total. A **<Space>** advances the cursor to the next field and the **<Backspace>** moves the cursor back to the previous field. Press **<ENTER>** to save the information or press **<Esc>** to exit this option without saving (see Figure 6-14, "Edit RFC Position").

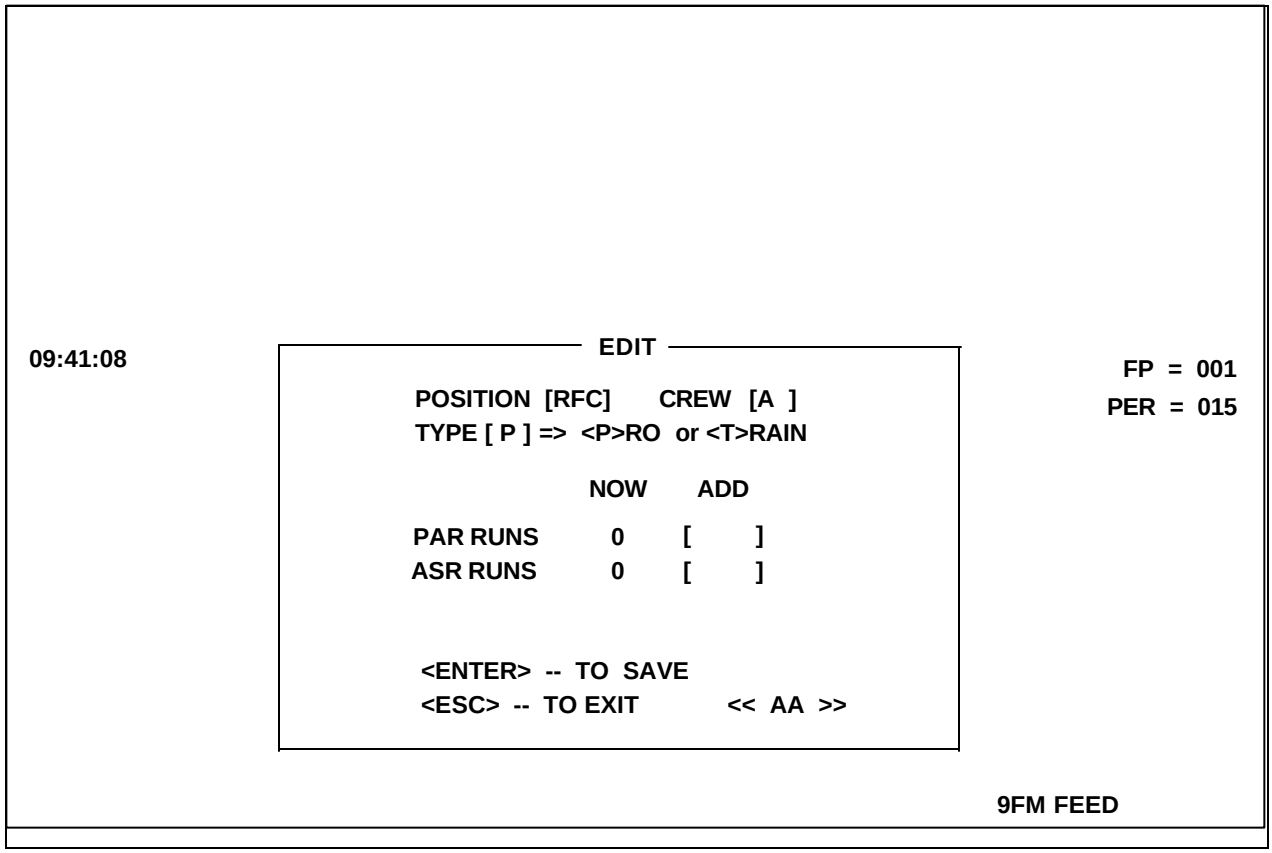

Figure 6-14: Edit RFC Position

6.8.3.2. Edit Position (Other Than RFC)

The OTHERS label can be changed to any position name the controller wishes. The time range that is allowed in a single category is 0 to 248 hours. Time can be entered in minutes or hours and minutes, with a "+" sign after the hours. Example: two hours = 120 or 2+00. Minutes entered with a "-" sign in front means that number is negative and will be subtracted from the total. A **<Space>** advances to the next field and<Backspace> backs up to the previous field. Press **<Enter>** to save the information or press **<Esc>** to exit this option without saving (see Figure 6-15, "Edit Position").

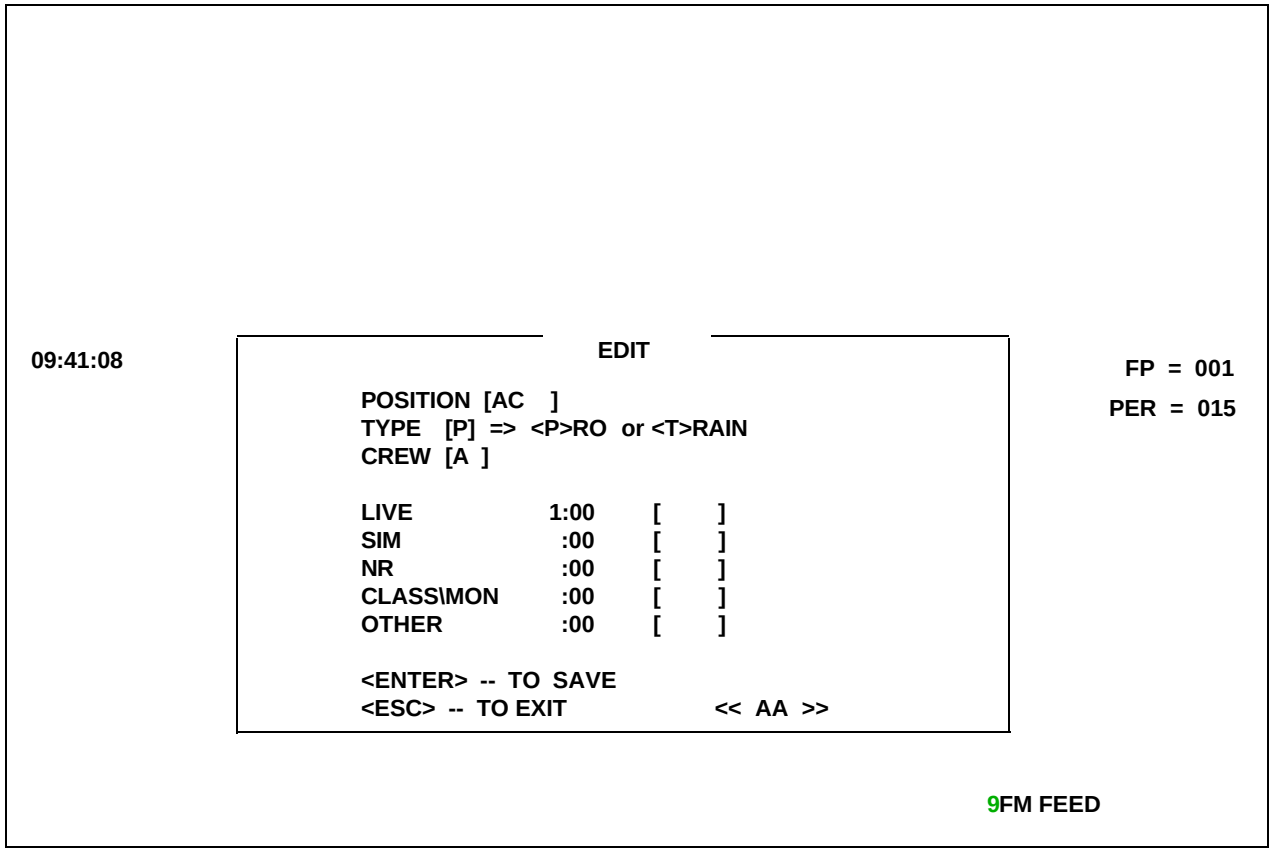

Figure 6-15: Edit Position

6.8.4. <D> Save File

The controller has the option of saving the position time database to the selected drive for later use. Ensure the diskette is formatted (MS-DOS version 3.2 or later) and not write protected before an attempt is made to write to the diskette. Upon selecting choice **<D>,** a menu will be displayed to allow the controller to change the drive to save to. When the controller is ready to continue, the **<Esc>** key should be pressed. A directory of the current drive will be displayed with only the files that position time can use (filenames will be displayed with a .PTD extension). The first file will be highlighted and the **<Up Arrow>** and **<Down Arrow>** keys will move the highlighted box from one filename to another. If more than one page of filenames exist, the **<Space>** and **<Backspace>** keys will move the directory forward and backward. Positioning the highlighted box over a filename and pressing the **<Enter>** key will select that filename. A filename can be entered manually by typing the filename from the keyboard. The first key entered will cause the directory to disappear. The filename must be 1-8 alphanumeric characters (extensions will automatically be added to the filename). Upon completion of the save, the Position Time Menu will be displayed.

6.8.5. <E> Delete Options

Upon selecting option **<E>,** the controller has the option of <A> Delete Facility, <B> Delete Crew, <C> Delete Person or <D> Delete Position. With any deletion the controller is prompted for confirmation. If **<Y>** is pressed, information that the controller chose will be deleted. Delete Facility will delete the Facility with all its Crews, Controllers and their Positions. Delete Crew will delete all of the controllers on that crew and their positions by prompting for Crew. If a controller needs to be deleted, the menu is displayed prompting for the crew then the controller initials to be deleted. If a position needs to be deleted, the menu is displayed to select the crew then the controller initials. Once selected, a menu is displayed to select the position name to delete.

6.8.6. <F> Add Controller

Upon entering option **<F>**, the controller will be allowed to enter controllers into the position time database. Initials will be displayed in alphabetic order. The controller will be asked to assign the controller to a specific crew. Positions can be entered and edited through **<C>** Edit Options. FLIPS will accept controller initials until the **<Esc>** key is pressed.

6.8.7. <G> Build Report

Upon selecting option **<G>,** the current position time information will be built into a report. Ensure the diskette is formatted (MS-DOS version 3.2 or later) and not write protected before an attempt is made to write to the diskette. The controller will be asked to select the report based on a crew or facility. The controller will be asked which type of report is needed. A menu will be displayed to allow the controller to change the drive to save to. When the controller is ready to continue, the **<Esc>** key should be pressed. A directory of the selected drive will be displayed with only the files that position time can use (filenames with a .PTR extension). The first file will be highlighted and the **<Up Arrow>** and **<Down Arrow>** keys will move the highlighted box from one filename to another. If more than one page of filenames exist, the **<Space>** and **<Backspace>** keys will move the directory forward and backward. Positioning the highlighted box over a filename and pressing the **<Enter>** key will select that filename. A filename can be entered manually by typing the filename from the keyboard. The first key entered will cause the directory to disappear. The filename must be 1 - 8 alphanumeric characters (extensions will automatically be added to the filename). Upon completion of the save, the Position Time Menu will be displayed.

6.8.8. <H> Print Options

The controller has the option to print proficiency time reports. Upon selecting choice **<H>,** a menu will be displayed to allow the controller to change the drive to read from. When the controller is ready to continue, the **<Esc>** key should be pressed. A directory of the selected drive will be displayed with only the files that position time can use (filenames with a .PTR extension). The first file will be highlighted and the **<Up Arrow>** and **<Down Arrow>** keys will move the highlighted box from

one filename to another. If more than one page of filenames exist, the **<Space>** and **<Backspace>** keys will move the directory forward and backward. Positioning the highlighted box over a filename and pressing the **<Enter>** key will select that filename. A filename can be entered manually by typing the filename from the keyboard. The first key entered will cause the directory to disappear. The filename must be 1 - 8 alphanumeric characters (extensions will automatically be added to the filename). The printer will need 8.5 x 11 white paper and it automatically sets to print the report. After the report is printed, the printer will reset to the FLIPS format. Upon completion of the print function, the Position Time Menu will be displayed.

6.8.9. <I> Reset Options

The controller has the option to reset the proficiency times on a certain crew from the **<I>** option. The controller is asked to enter a crew name. Once done, the controller is asked if they are sure they want to reset all of the crew information. If **<Y>** is pressed, positions containing proficiency times will reset to zero. Training times will not be reset. Upon completion of the reset, the Position Time Menu will be displayed.

6.9. Amend Flight Plan

<F5> AMEND

The Amend Flight Plan Mode is selected by pressing **<F5>**. The controller is prompted for the ACID, discrete beacon code, or Computer ID (CID) of the flight plan to be amended. The selected flight plan is then displayed in the flight strip work area. The controller can not amend a flight plan if it is flagged as a Departure Message (DM), if the second leg is selected and the first leg is a (DM), or if it is a Japanese flight plan. The edit procedures used to amend flight plans are the same as those listed in the Section 7.1., Editing Commands. Error messages are provided for no match or invalid entries. If more than one flight plan exists with the same identifier, the duplicate flight plan information will be displayed below the flight strip work area, sorted by the activation time. The controller may select the specific flight plan desired by the CID number. If a CID is entered that is not in the list of duplicate flight plans, an error message will be displayed. When a valid CID is entered, the appropriate flight plan will be displayed in the flight strip work area for modification.

If the first leg aircraft type is amended and **<Enter>** is pressed, a menu is displayed prompting the controller to change the second leg aircraft type. If the second leg aircraft type was amended, the menu will prompt for a change to the first leg aircraft type.

If the Interface is up, flight plans can be amended in both systems if the flight plan does not have a status message of DM or is a Japanese flight plan. When the flight plan to be amended is a Data Accept (DA) or the second leg is amended and the first leg is a (DA), an amendment message is generated and sent to PIDP. Even though all the amended fields will be displayed in FLIPS, only certain fields can be sent across the interface. All flight plans will send amendments for the ACID, the

aircraft type, the beacon code, and the time. Additionally, Departure flight plans can send an amended departure airport, Arrival flight plans can send amendments for coordination fixes and arrival airports, and En Route flight plans can send amendments for coordination fixes and coordination indicators.

NOTE: The beacon code must be changed in both legs of a stereo flight plan, if it needs to be changed. The beacon code is only carried over to the second leg by the program the first time the flight plan is entered. If the beacon code must be changed after the flight plan has been entered, it must be manually changed in both legs.

The **<Enter>** key is used to save amended flight plans. The revision number is automatically updated. The **<Esc>** key is used to abort the change. Amended flight strips will be printed immediately if they were printed previously.

If a flight plan with additional legs is amended, a menu will be displayed showing the additional strips. Amendments can then be done to the additional strips (see Figure 6-16 "Amend Additional Strips").

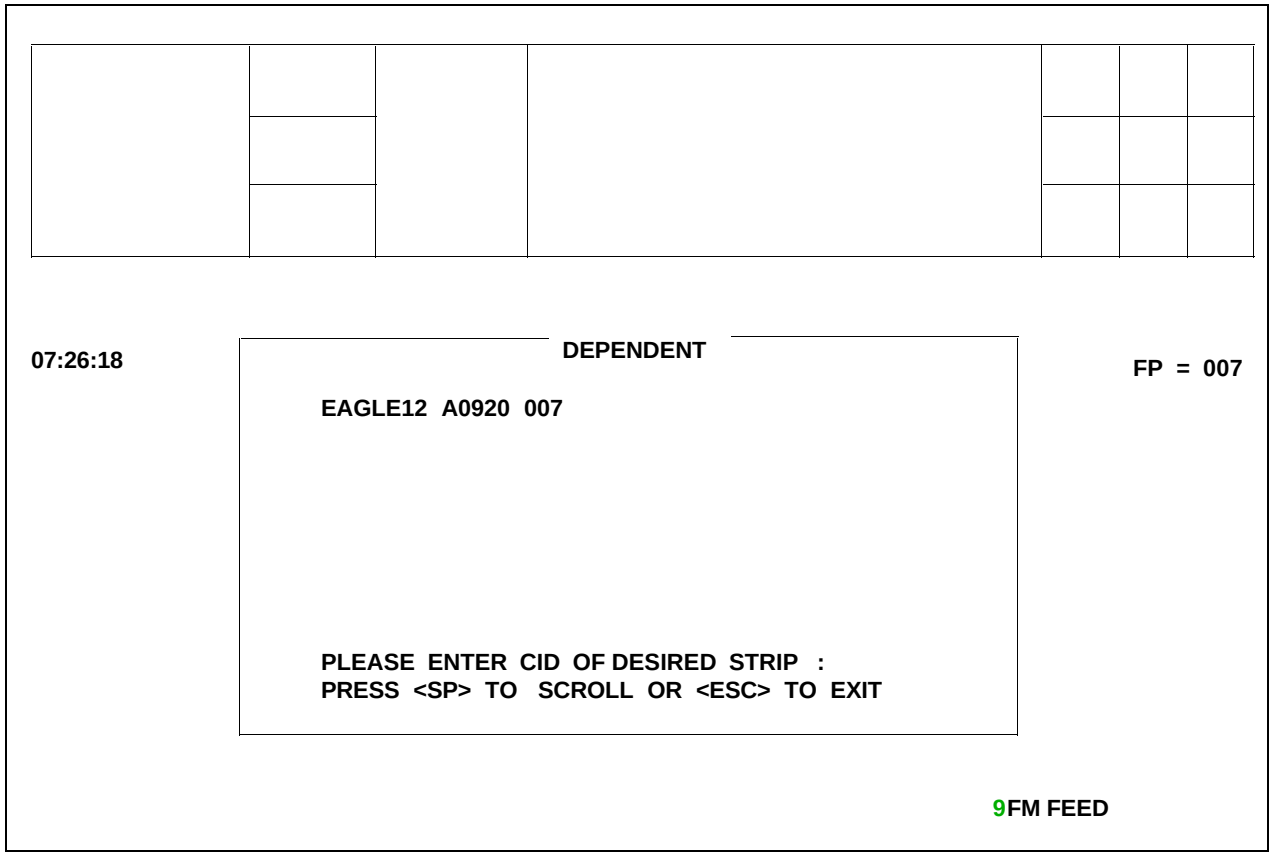

Figure 6-16: Amend Additional Strips

Note: The system will compute revision numbers and print them on flight progress strips, up to the ninth revision. After revision number nine, the flight plan can be amended but the strip revision number will not be incremented.

6.10. Print Flight Plan

<F6> PRINT

The Print Flight Plan mode is selected by pressing **<F6>** from the FLIPS Main Menu. Individual strips can be selected for printing from this menu by entering the CID, the ACID, or the beacon code. Additional options available are: print the entire active flight plan database, quit a print, form feed, or print a canned strip to align the printer.

6.10.1. Manual Print Request

Individual flight plans can be printed at the controller's request by selecting the **<F6>** function key. Bulk printing of all flight plans in the database is also available. The controller may request a specific flight plan by using the ACID, the beacon code, or the CID of the flight plan. If the flight plan is not found, an error message will be displayed and the controller given the opportunity to select and print another flight plan or exit the print mode. If more than one flight plan exists with the same identifier, the duplicate flight plan information will be displayed below the strip template, sorted by activation time. After the controller selects the specific flight plan desired, it will be printed and displayed in the flight strip work area. Additional flight plans may be identified and printed until the **<Esc>** key is pressed exiting the print mode.

Other options included are:

<Ctrl A> - Prints all the flight plans in the system

<**Ctrl B>** - Prints a block of flight plans within a range of time defined by the controller

<Ctrl Q> - Stops the printing of flight plans not yet in the print buffer

<F9> - Form Feed advances two flight progress strips and reinitializes the printer to large print and short forms

<F10> - Prints a TEST flight plan to check the alignment of the printer. If the printer is not aligned, the TEST strip will be used as a guide to manually align the printer

<Esc> - Exits to FLIPS Main Menu

Note: Flight plans may also be printed in the FDS mode by using the Strip Request (SR) message (see Section 6.4.2.4., “Strip Request (SR) messages”).

6.10.2. Automatic Strip Printing

Flight plans will automatically print at a selected time parameter prior to the flight plan activation time. The Flight Plan Printing Time parameter is the length of time prior to the flight plan activation time. The default value is 20 minutes but can be reset from **<F10>** CONFIG. When the interface is up, the output time parameter will be 15 minutes prior to activation time.

Note: If the printer is not working, an error message will be displayed. For example, if the printer is placed OFF-LINE for any reason and an attempt is made to print a strip (either automatically or manually), an error message **"THE PRINTER IS OFF-LINE"** will be displayed. The error message will remain displayed until the printer is placed back ON-LINE and the printer is used again (see Figure 6-2, System Messages).

6.11. Delete Flight Plan

<F7> DELETE

Individual flight plans are deleted automatically or by controller request. Additionally, all or some of the flight plans in the system can be deleted by controller request.

6.11.1. Manual Flight Plan Delete

To manually delete an individual flight plan, the controller enters the ACID, the beacon code, or the CID of the flight plan to be deleted (see Figure 6-17, "Delete Menu"). If more than one flight plan exists with the same identifier, the duplicate flight plan information will be displayed below the flight strip work area, sorted by activation time. The controller may then select the specific flight plan to delete based on the CID number. The selected flight plan is displayed in the flight strip work area and automatically deleted with no other prompts. A Cancel message (CX) will be sent to PIDP and the flight plan will be deleted from both systems. When the PIDP interface is up, flight plans flagged with a Departure Message (DM) can not be deleted. An error message will be displayed if the requested flight plan cannot be found.

Whenever a flight plan is deleted manually or by the system, a message will be sent to the printer displaying the ACID, the strip revision number, and the CID of the flight plan that was deleted from the database. This message will not be printed if the print messages option has been turned off.

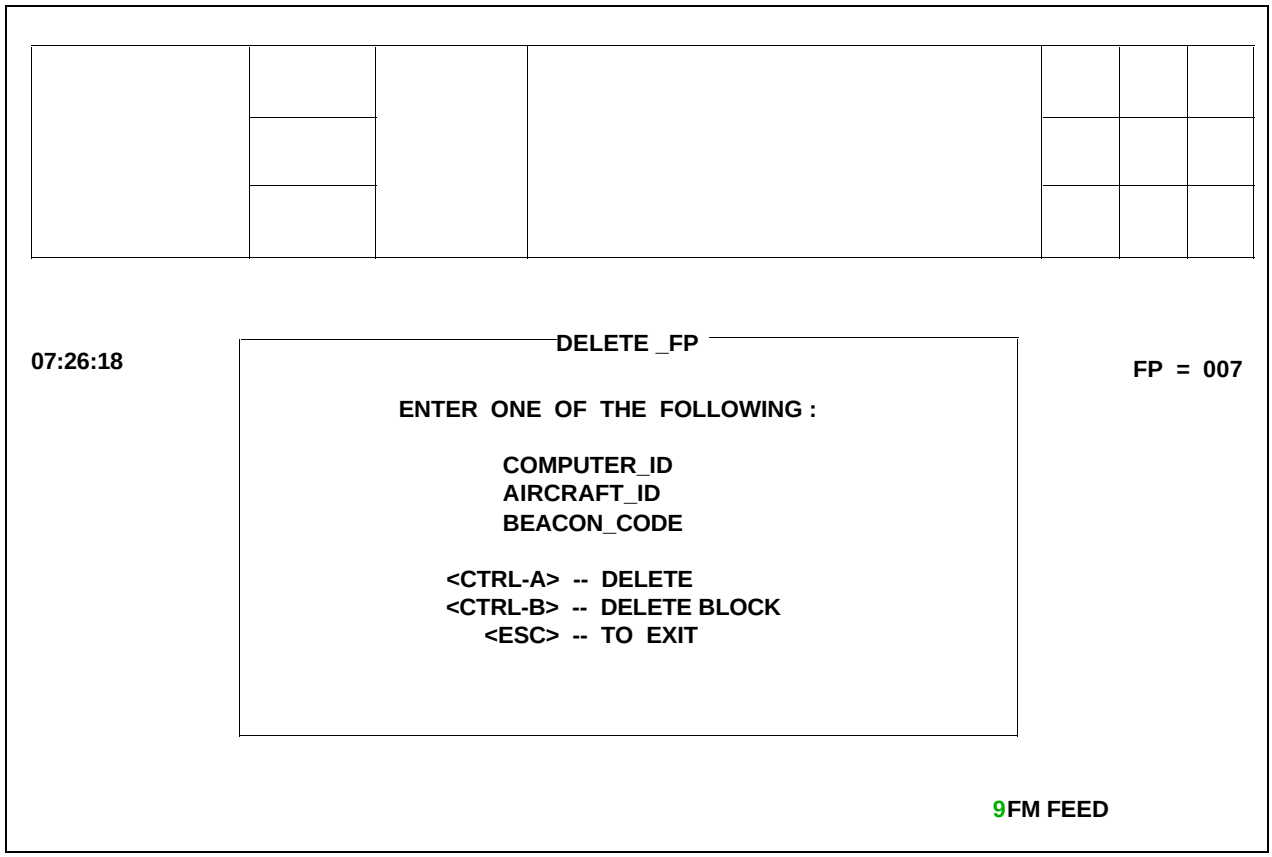

Figure 6-17: Delete Menu

If a Stereo flight plan having two legs is manually deleted, the other leg of the stereo route will also be deleted by this entry. If the second leg of a two-leg flight plan is selected for deletion and the first leg has a departure message (DM), neither leg will be deleted.

To delete all flight plans in the database, including departure messages (DM), enter **<Ctrl A>** while in the **<F7>** Flight Plan Delete Mode. A system warning will be given requiring verification prior to all flight plans being purged. No CX messages will be sent to PIDP. A message will be sent to the printer that reads:

ALL FLIGHT PLANS WERE
DELETED FROM DATABASE
AT => HH:MM:SS

This message will not be printed if the print messages option has been turned off.

The controller may delete a block of flight plans by entering **<Ctrl B>**. FLIPS will prompt the controller for the starting and ending beacon codes. When entered, FLIPS will delete all flight plans

with beacon codes that are within the start and stop values, including all flight plans containing letters for beacon code blocks if part of the beacon code block is within the delete block.

If a two-leg stereo flight plan is deleted, all additional strips are also deleted. If an additional strip is deleted, the controller will be asked to delete the single additional strip or the entire flight. If the first leg of a two-leg stereo has been auto-deleted, the second leg becomes a single parent with additional strips attached. If the parent is deleted, the controller will be asked to delete the single strip or the entire flight.

6.11.2. Automatic Flight Plan Delete

Flight plans will automatically be deleted after the Flight Plan Delete Time. The Flight Plan Delete Time is the designated length of time after the flight plan activation time that the flight plan will be deleted. The default time is 120 minutes but can be reset from **<F10>** CONFIG. If the PIDP interface is up, the Flight Plan Delete Time is defaulted to 125 minutes. This default time can not be altered from configuration. Only flight plans flagged as (DR) or (DX) will automatically be deleted when the interface is up. Flight plans with the status of DM or DA will only be deleted when a delete message is sent from PIDP. NOTE: Japanese flight plans are not automatically deleted.

Note: Whenever a flight plan is deleted manually or by the system, a message will be sent to the printer displaying the ACID, the strip revision number, and the CID of the flight plan that was deleted from the database.

EXAMPLE: **REMOVE STRIPS**
ABLE21 01 027
*** FLIGHT PLAN DELETED ***

This message will not be printed if the printer messages have been turned off. If the printer has been OFF-LINE during the time flight plans were removed by the system, only the most recent 50 flight plans deleted from the flight plan database will receive the **"REMOVE STRIPS"** message.

When a flight strip that has additional strips linked to it is deleted, a new parent is formed and all the additional strips are re-linked. This allows the strips to be linked until they are all deleted.

6.12. Scroll

<F8> SCROLL

Upon entering the Scroll mode, the flight strip work area is displayed along with the first flight plan in the database. The first and last flight plans in the database are identified by a message in the Scroll Menu. If there are no flight plans in the database, a message will be displayed in the scroll menu. The

controller must press **<Esc>** to exit. The **<Space>** and **<Backspace>** keys are used to scroll forward and backward through the flight plan database. The flight plan database is sequenced by time. The controller may edit, delete, or print the flight plan being viewed by pressing the appropriate function key(s) (see Figure 6-18, "Scroll Menu"). If an additional strip is being displayed, the CID of the parent is displayed in the right bottom corner of the strip.

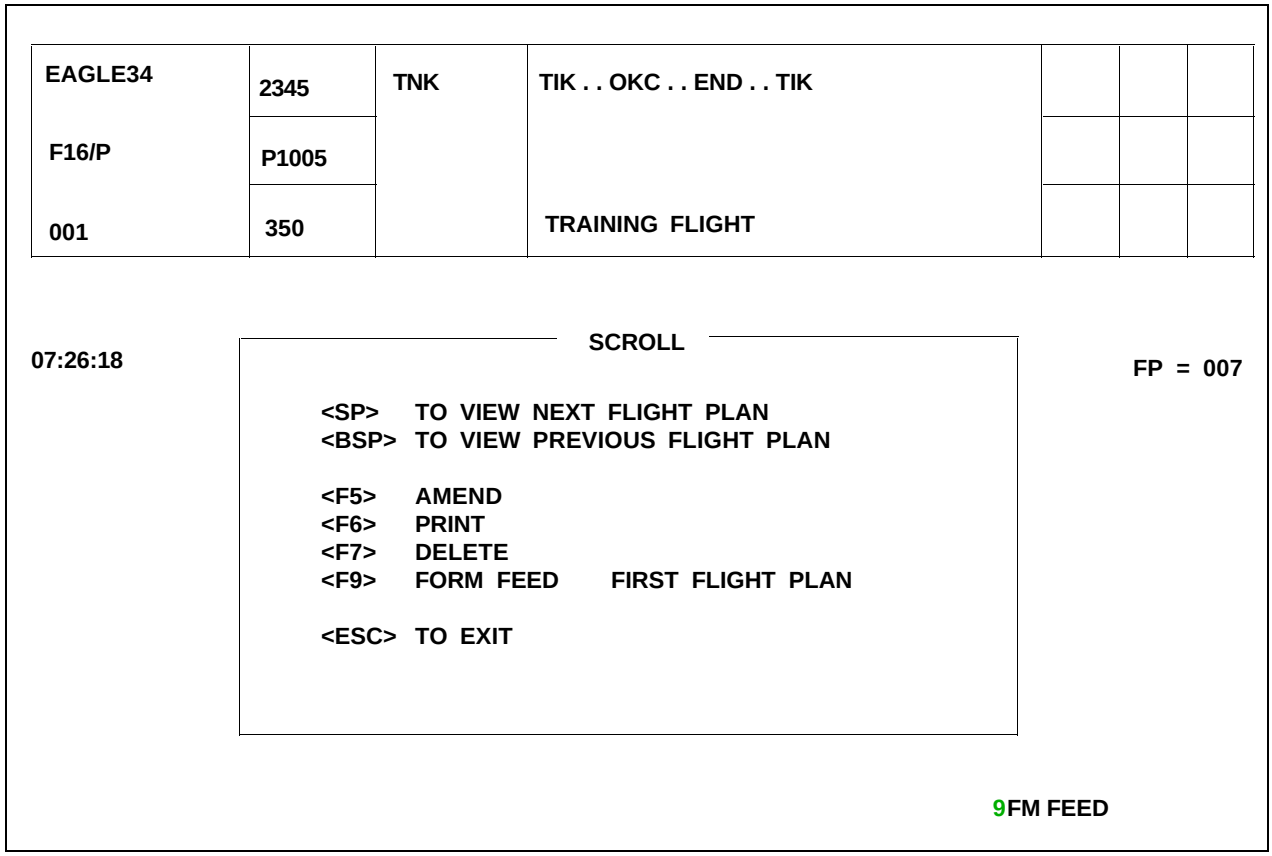

Figure 6-18: Scroll Menu

Options available are:

<F5> - allows amendments to done on the displayed flight plan. If the first leg aircraft type is edited and **<Enter>** is pressed, a menu is displayed prompting the controller to change the second leg aircraft type. If the second leg aircraft type was edited, the menu will prompt for a change to the first leg aircraft type. Pressing **<Esc>** returns to the Scroll Menu.

If the PIDP interface is up and the flight plan to be amended has a status of DM or it is the second leg and the first leg has a DM status, amendments will not be allowed. NOTE: Japanese flight plans cannot be amended.

<F6> - Prints the displayed strip.

<F7> - Prints **"ARE YOU SURE Y/N"**. Pressing **<Y>** deletes the displayed flight plan and automatically moves to the previous flight plan. Pressing **<N>** aborts the delete.

If the PIDP interface is up and the flight plan to be deleted has a status of DM or it is the second leg and the first leg has a DM status, deletions will not be allowed.

<F9> - Feeds out two flight progress strips.

<Esc> - Exits out of Scroll to the FLIPS Main Menu.

6.13. Form Feed

<F9> FMFEED

The controller may execute a printer "form feed" command by pressing **<F9>** FMFEED. Form Feed will advance two (2) flight progress strips. The **<F9>** FMFEED command is constantly operative and may be selected at any time from within the FLIPS program.

The form feed will reinitialize the printer to large print and small forms. This is useful should the printer be turned off and back on while FLIPS has been idle.

6.14. Configuration

<F10> CONFIG

Selecting **<F10>** CONFIG allows the controller to do the following: add, view or delete beacon code blocks; enter, delete, or edit stereo flight plan templates; rearrange the stereo template list, change the system time and date, configure flight plan output and delete limits, load/save files from or to the current drive, delete files from the current drive, and configure the printer. Options in Configuration can be locked through **<F3>** MANAGE. If an option is locked, the '**L=>**" symbol will appear before the option. If an option is locked, it may only be accessed through **<F3>** MANAGE - **<C>** Change Configuration Options.

Note: To save any changes or additions made in configuration, you must return to the FLIPS Main Menu.

6.14.1. <A> Beacon Code Assignments

The controller may add, view or delete the beacon code blocks from **<F10>** CONFIG or **<F3>** MANAGE. The beacon code blocks are saved to the hard drive any time one of them has been modified. If this option is locked, selecting **<A>** will display the current status of the beacon code blocks A - H. No changes are allowed in the view mode.

6.14.1.1. <A> Add Beacon Code Block

The controller may define up to 8 separate beacon code blocks in **<F10>** CONFIG. The beacon code blocks will be identified as A - H. Each of the eight predefined beacon codes is initialized to a start and stop value of 0000. The **<Space>** and **<Backspace>** keys are used to scroll through the code blocks. Beacon code blocks cannot overlap. The beacon code stop value must be greater than the beacon code start value. A beacon code block stop value cannot exceed 7777. Beacon codes 1236, 7500, 7600, and 7700 are restricted and cannot be used as a start or a stop value. Error messages are displayed for invalid entries.

6.14.1.2. <B> View Beacon Code Block

View Beacon Code Block displays the current status of the beacon code blocks. No changes are allowed in the view mode.

6.14.1.3. <C> Delete Beacon Code Block

Select a letter A - H to delete a previously defined beacon code block. By pressing a valid letter, the corresponding block start and stop values are reset to 0000. If a current flight plan in the system has a beacon code block assigned and that beacon code block is later deleted, the system will assign blanks at print time and an error message will be sent to the printer.

6.14.2. <B> Stereo Flight Plan Routes

The controller may add, delete, edit and rearrange stereo templates from **<F3>** MANAGE if the option is locked or **<F10>** CONFIG if the option is unlocked.

The controller may enter up to forty unique stereo flight plans, each of which may be composed of one or two segments of different flight plan types (i.e., departure/arrival legs). Each stereo flight plan is identified by a unique stereo flight plan name consisting of 1 - 7 characters. If the stereo route has two segments, the delay or offset time between the first and second legs of the flight plan may also be entered. The ACID and aircraft type are automatically transferred to the second segment of a two-leg stereo flight plan when the flight plan is entered from the **<F4>** Stereo mode. The beacon code will be carried over to the second segment when the first segment beacon code field is left blank and a "#" is entered in the second segment beacon code field. There are NO required entries for a stereo template. The controller may also delete templates, edit templates, and rearrange the stereo template list.

6.14.2.1. Add Stereo <A>, <B>, <C>

Options Add Arrival, Add Departure and Add Overflight allow the controller to create new stereo templates. Once selected, the controller is prompted to enter a letter <A - T> with which to identify the stereo route, the letter must not already contain a stereo route. **<Space>** will display another list of 20 stereo templates and **<Esc>** will return the controller to the Stereo FP Menu. After the letter is selected, the controller is prompted to enter a unique stereo route name (see Figure 6-19, "Stereo Route Name Menu"). After entering the stereo route name, the first leg of the stereo template is displayed. The controller may now configure the stereo route as needed. After completing the first leg, the controller is prompted to enter the second leg time in route. If there is a time, enter it in the format shown. If no time is entered, the first and second leg will become active at the same time. If the controller wants the beacon code to carry over from the first leg to the second leg of a stereo flight plan, leave the first leg beacon code field blank and put a "#" sign in the second beacon code field. This will cause the beacon code entered in the first leg to be transferred ("carry over") to the second leg when a flight plan is created using this stereo flight template. Press **<Esc>** for no second leg. After entering an offset time the Add 2nd Leg Stereo Menu will be displayed. The controller is asked to choose the type flight plan for the second leg and configure the route as needed.

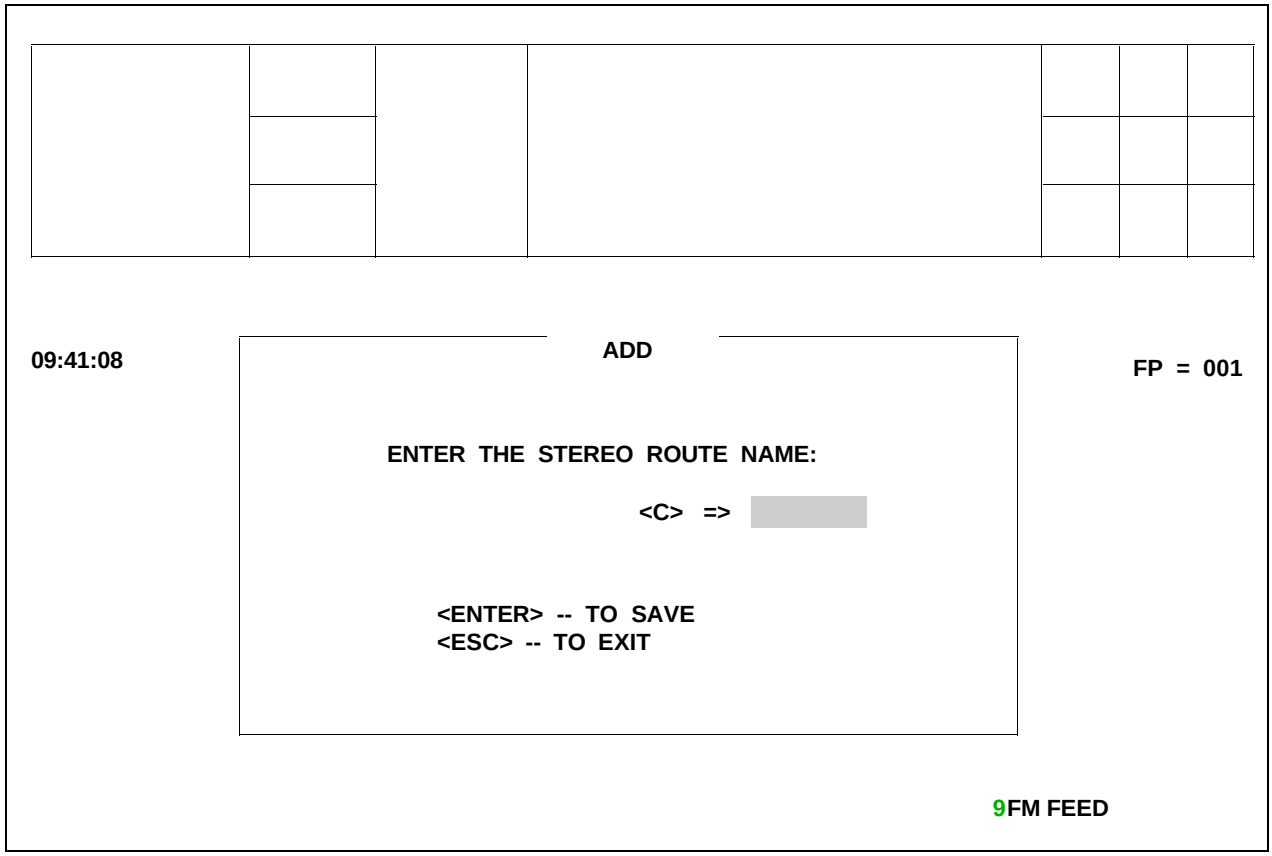

Figure 6-19: Stereo Route Name Menu

6.14.2.2. <D> Delete Stereo

This option allows the controller to delete existing stereo templates. When option **<D>** is selected, the Stereo Delete Menu is displayed. Enter the letter of the stereo route or routes to be deleted (invalid keys are ignored) and the stereo template will be deleted as the letter of the stereo route is pressed. Press **<Esc>** to exit to the Stereo FP Menu.

6.14.2.3. <E> Edit Stereo

This option allows the controller to edit a previously configured stereo template.

When option **<E>** is selected, the controller is prompted to enter the letter **<A - T>** of the stereo route to be edited (see Figure 6-20, "Edit Stereo FP Menu"). **<Space>** will display another set of 20 stereo templates. The selected stereo route name is shown with an option to change it. If **<Y>** is selected, enter the new stereo route name and press **<Enter>** to save the change and move on to edit the first leg. If **<N>** is selected, the first leg of the stereo template will be displayed for editing without changing the stereo route name.

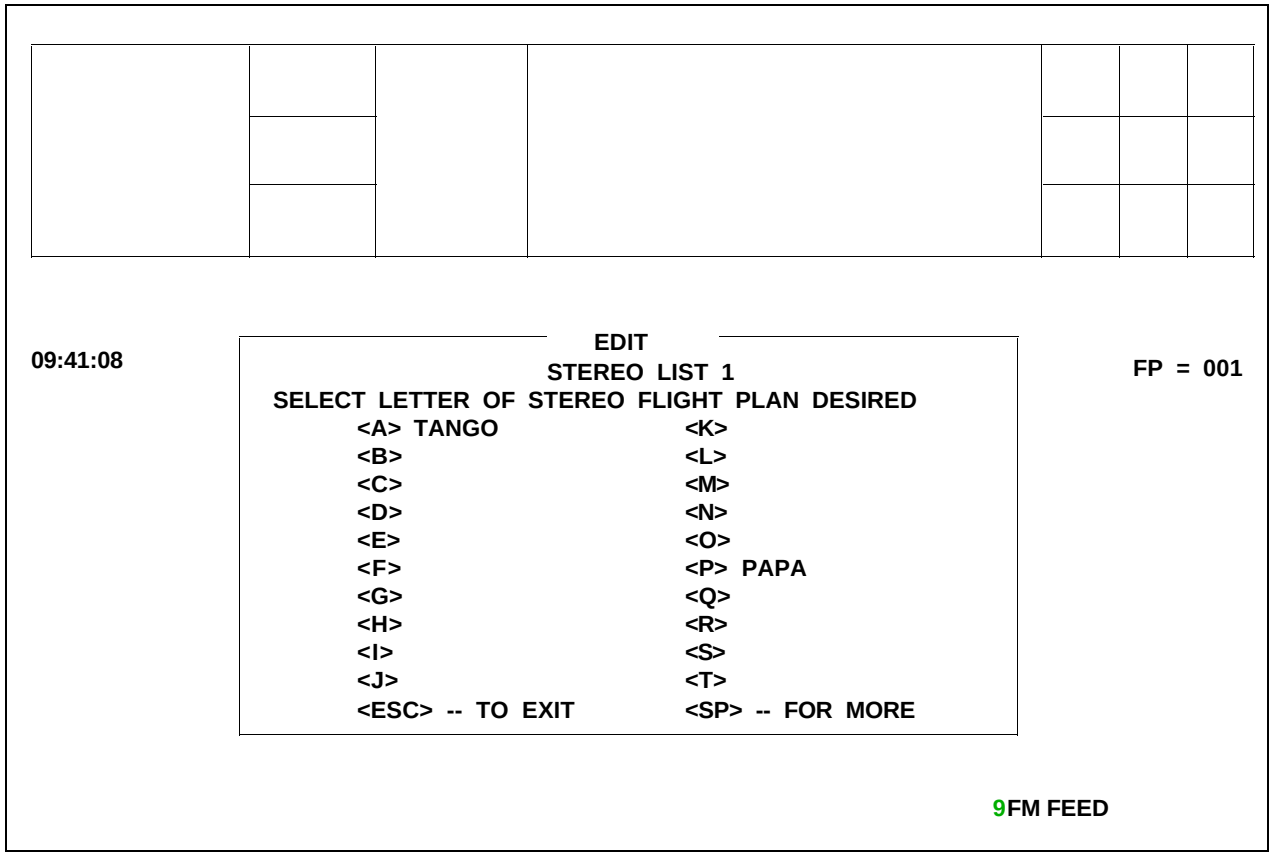

Figure 6-20: Edit Stereo FP Menu

After editing of the first leg is complete on a single leg stereo template, the controller will be asked if the one leg needs to be changed into a two leg. If a second leg is desired, the controller will edit the new second leg template. If a second leg is not desired, the controller can hit **<N>** or **<Esc>** to return to the Stereo FP Menu.

After editing on the first leg of a two leg stereo template is complete, the current offset time will be displayed with an option to change it. If **<Esc>** is pressed, the controller will be asked if the second leg should be deleted. If **<Y>,** the stereo template second leg will be deleted. If **<N>** is pressed, the Stereo FP Menu will be displayed. If the offset is changed or **<N>** is hit for no change, the second leg of the stereo template will be displayed for editing. If **<Enter>** is pressed, the stereo template is saved. If **<Esc>** is pressed, the controller will be asked if the second leg should be deleted. If **<Y>,** the second leg stereo template leg is deleted. If **<N>** or **<Esc>** is pressed, the Stereo FP Menu is displayed. When **<Enter>** is pressed, changes are saved. When **<Esc>** is pressed, previously saved information is retained and all changes are ignored. The Stereo FP Menu is then redisplayed.

RESTRICTIONS: The ACID, AIRCRAFT TYPE, and TIME fields of the second leg cannot be accessed. The controller may edit other fields of the template as required.

6.14.2.4. <F> Rearrange List

This option allows the controller to rearrange the stereo template list. When option **<F>** is selected, the Stereo Rearrange Menu is displayed prompting the controller to enter the letter of the stereo route to be moved (see Figure 6-21, "Stereo Rearrange Menu"). The first position of a move must contain a defined stereo route. Error messages are provided as needed and invalid keys are ignored.

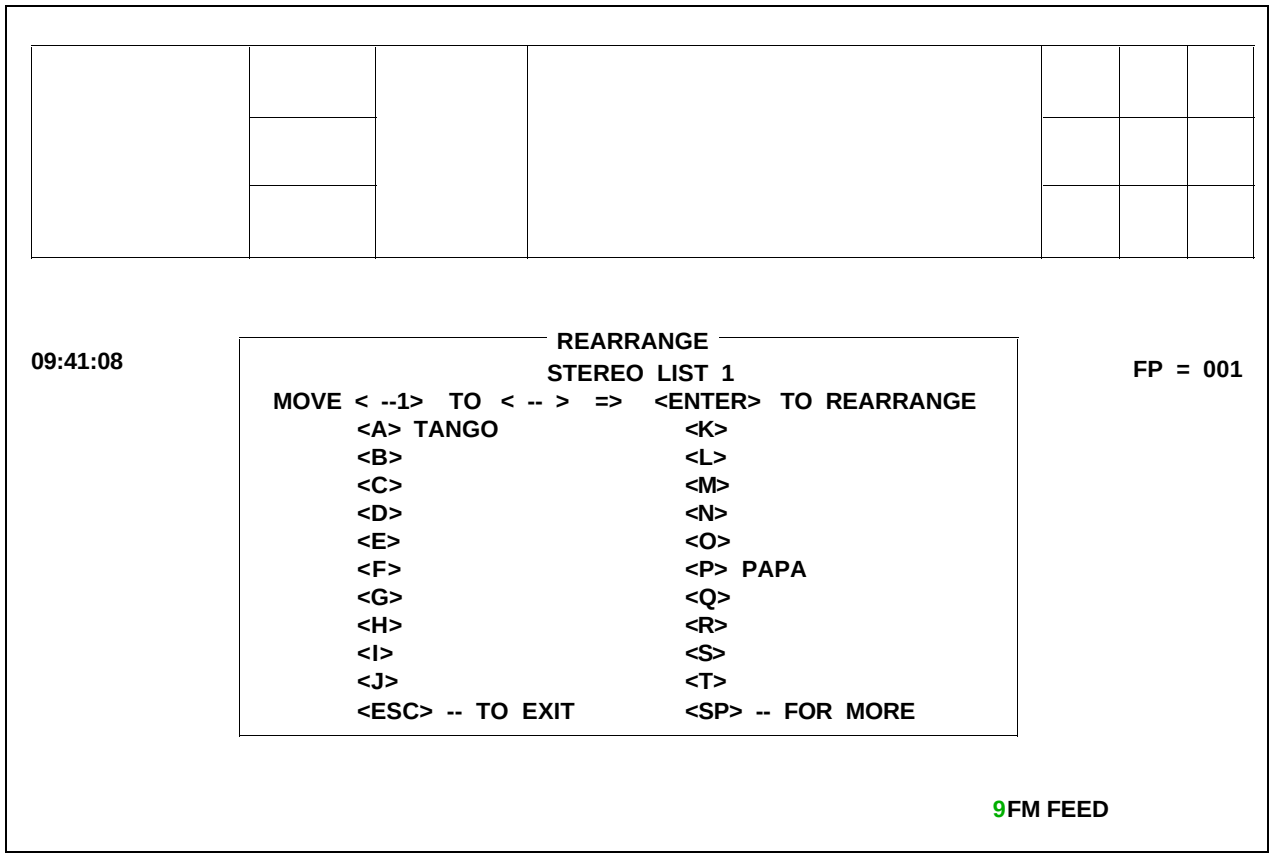

Figure 6-21: Stereo Rearrange Menu

Stereo routes may be moved to any location and can also be moved between lists. **<Space>** will display another list of stereo templates. If a route is moved to a location that contains another route, the two routes swap places and the Stereo Rearrange Menu is reset for another move. Otherwise, the route is moved to the new location and the menu is reset to accept the first letter.

If the controller selects the first letter and presses **<Esc>** before pressing **<Enter>**, the Stereo Rearrange Menu will be reset to accept the first letter. If the controller selects the first two letters of the move and presses **<Esc>** before pressing **<Enter>**, the Stereo Rearrange Menu will be reset to accept the first letter and no stereos are moved. The Stereo Rearrange Menu is also reset after the **<Enter>** key is pressed. Press **<Esc>** before selecting the first letter to exit to the Stereo Menu.

6.14.3. <C> System Time/Date

The system time and date are displayed with the option to change the time, the date, or both the time and date. The time is displayed in the HHMMSS format. If the time is changed, the hours and minutes are required entries. The "seconds" entry is optional and will default to "00" if no value is entered. Pressing **<Enter>** with no changes does not change the clock. The date is displayed in the MMDDYY format. If the date is changed, the month and day are required entries. The year entry is

optional and will not change if it isn't entered. The **<Space>** and **<Backspace>** keys toggle between the time and date. The time and date are changed by overwriting the old time and date. Before a time change is accepted that might delete some or all flight plans, this message is displayed:

This time change may result in some FLIGHT PLAN DELETIONS. Enter <Y> to PROCEED or any other key to ABORT changes.

If **<Y>** is selected or there is no chance of more deletions, the new time and date will be displayed and the clock set. The Configuration Menu will then be displayed. If **<Y>** was not chosen, the change is aborted and the display returns to the Configuration Menu.

NOTE: If the PIDP Interface is up, the system time will be sent from PIDP to FLIPS every 32 seconds. The FLIPS time will use the PIDP time to refresh the clock. The clock cannot be changed from FLIPS when the interface is up.

6.14.4. <D> Flight Plan Delete Time

The system will automatically delete flight plans at a specified period of time after the Flight Plan Activation Time. This time period will be entered in increments of 30 minutes with the valid range being 30 - 150 minutes. A system default value of 120 minutes will be used if no changes are made. If the PIDP Interface is up, the delete time will default to 125 minutes. If this option is locked, selecting **<D>** will display the current delete time. No changes are allowed in the view mode.

6.14.5. <E> Flight Plan Output Time

The Flight Plan Printing Time period is the time in advance of the flight plan activation time that a flight progress strip will be printed. This time period will be entered in increments of 10 minutes with the valid range being 10 - 60 minutes. A system default value of 20 minutes will be used if no changes are made. If this option is locked, selecting **<E>** will display the current status of the output time. No changes are allowed in the view mode. When the interface is up, the output time is 15 minutes.

6.14.6. <F> Save Database

The controller can save the current FLIPS database to the selected drive for later use. Ensure the diskette is formatted (MS-DOS version 3.2 or later) and not write protected before an attempt is made to write to the diskette. Upon selecting choice <F>, a menu will be displayed to allow the controller to change the drive to save to. When the controller is ready to continue, the **<Esc>** key should be pressed (see Figure 6-22, "Save Disk Menu"). A directory of the current drive will be displayed with only the files that contain flight plans (filenames will be displayed with a .FLP extension). The first file will be highlighted and the **<Up Arrow>** and **<Down Arrow>** keys will move the highlighted box from one filename to another. If more than one page of filenames exist, the **<Space>** and **<Backspace>** keys will move the directory forward and backward. Positioning the highlighted box over a filename and

pressing the **<Enter>** key will select that filename. A filename can be entered manually by typing the filename from the keyboard. The first key entered will cause the directory to disappear. The file name must be 1 - 8 alphanumeric characters (extensions will automatically be added to the filename). Error and Status messages are displayed on the monitor during the save process. Upon completion of the save, the Configuration Menu will be displayed.

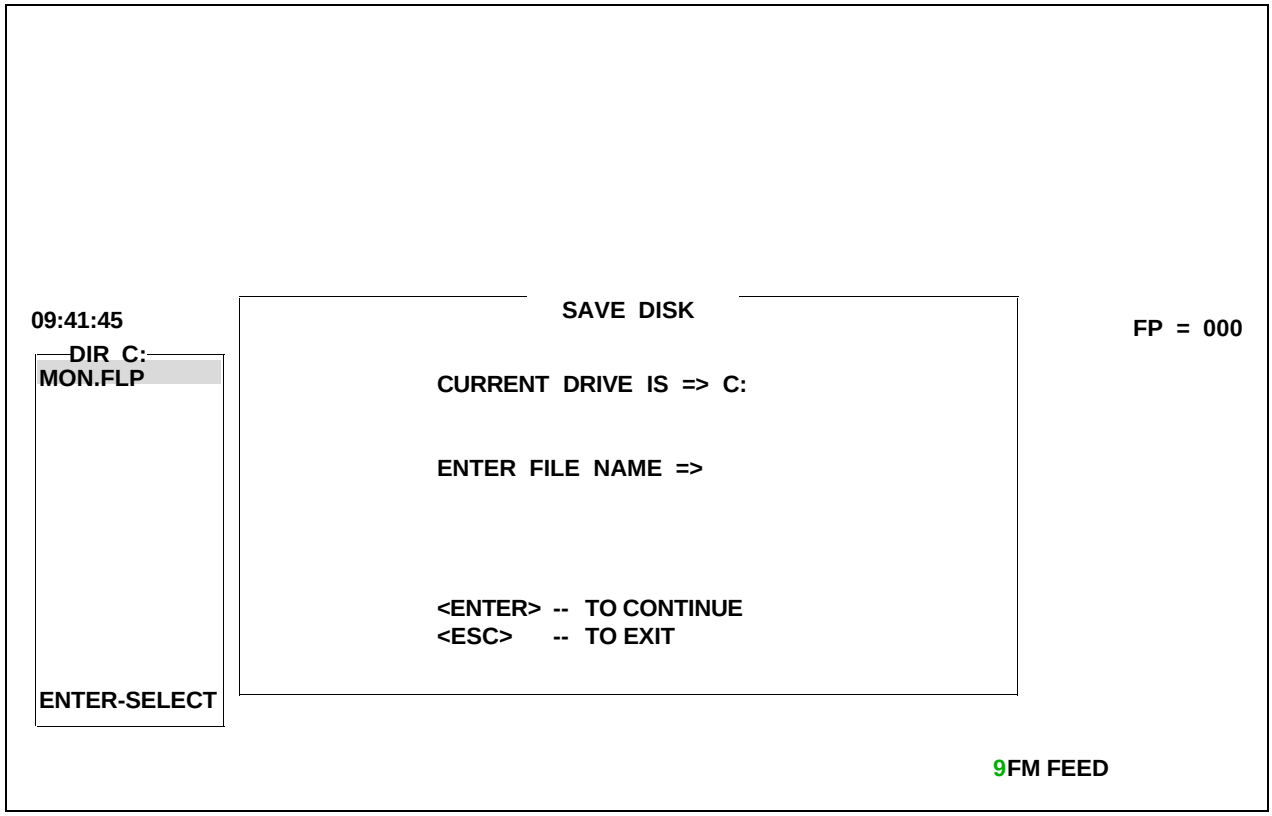

Figure 6-22: Save Disk Menu

6.14.7. <G> Load Database

The controller has the option to load a previously saved database from the selected drive to the FLIPS database. Upon selecting choice **<G>**, a menu will be displayed to allow the controller to change the drive to load from. When the controller is ready to continue, the **<Esc>** key should be pressed. A directory of the current drive will be displayed with only the files that contain flight plans (filenames with a .FLP extension). The first file will be highlighted and the **<Up Arrow>** and **<Down Arrow>** keys will move the highlighted box from one filename to another. If more than one page of filenames exist, the **<Space>** and **<Backspace>** keys will move the directory forward and backward. Positioning the highlighted box over a filename and pressing the **<Enter>** key will select that filename. A filename can be entered manually by typing the filename from the keyboard; the first key entered will cause the directory to disappear. The file name must be 1 - 8 alphanumeric characters (extensions will

automatically be added to the filename). Any flight plans loaded from the selected drive which duplicate any flight plans currently in FLIPS will be rejected. If this occurs, a message will be sent to the printer that reads **"REJECT FLIGHT PLAN (ACID, BEACON, TIME)"**. When additional legs for a stereo are loaded, they are relinked to the parent. If any strips time falls over 24 hours in the future, the entire stereo flight plan with all additional strips will not be loaded. If a file is not compatible with the FLIPS version, an attempt will be made to convert the file. If the file can be converted, it will be loaded. Upon completion of the save, the Configuration Menu will be displayed.

6.14.8. <H> Printer Configuration

This option allows the user to configure the printer to output only the strips or messages desired.

<A> AMENDED STRIPS: Toggles on and off the printing of all amended strips.

<B> FLIGHT STRIPS: Toggles on and off the printing of flight strips that are stored in the FLIPS database.

<C> MANUAL TRACKS: Toggles on and off the printing of active and inactive flight plans entered from the PIDP keyboard.

<D> MESSAGES: Toggles on and off the printing of messages.

When **<Esc>** is pressed, all of the printer configuration options will be saved at their current settings (see Figure 6-23, "Printer Configuration Menu).

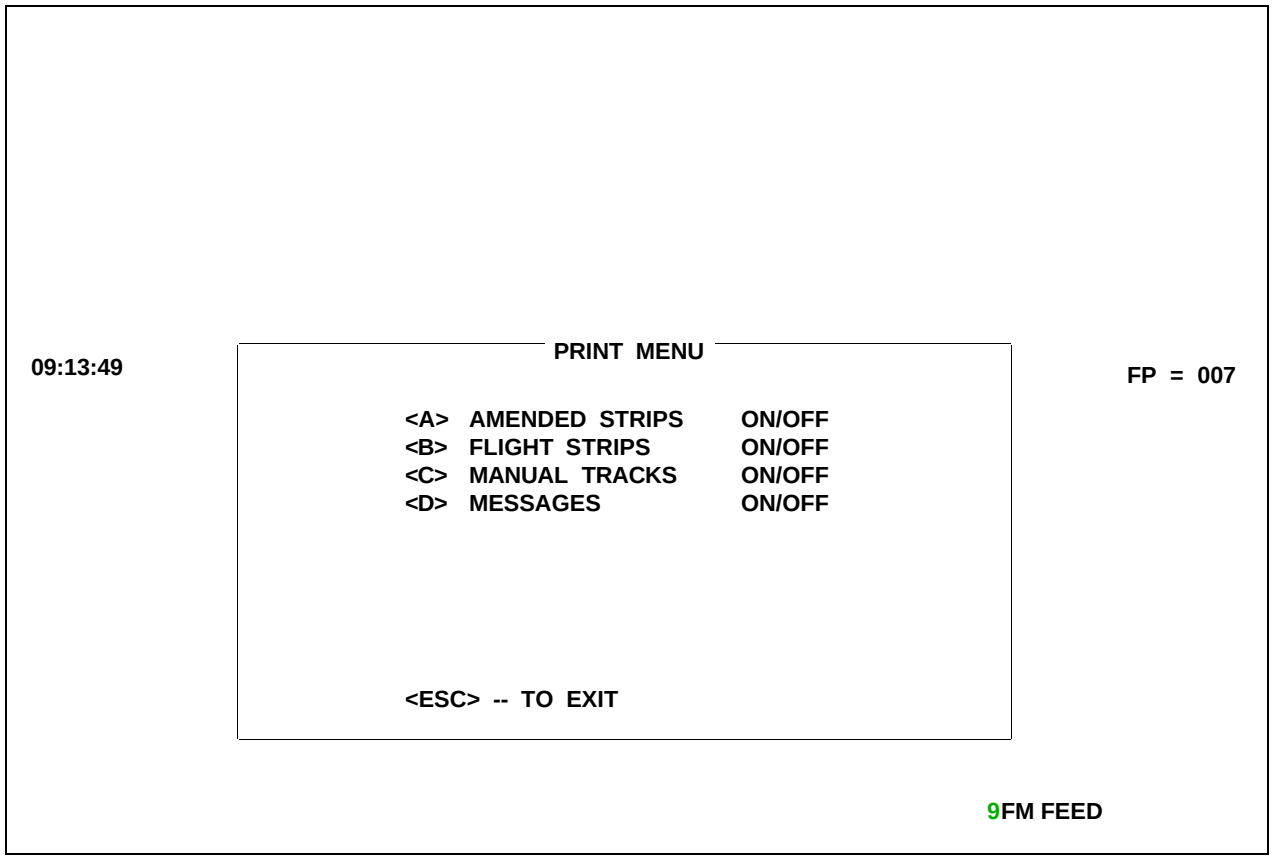

Figure 6-23: Printer Configuration Menu

6.14.9. <I> Delete Files From Disk

The controller has the option to delete the following types of files from the current drive: flight plans, training strips, airport data, and proficiency/training times. Upon selecting choice **<I>,** a menu will be displayed showing the types of files that can be deleted. The user should choose the letter that corresponds to the type of file they want to delete. After the type of file has been selected, the user will be prompted for the drive (A, B or C) to delete the selected type of file from. After the drive has been selected, a directory of the selected drive will be displayed showing only the type of files that the user wants to delete. The first file will be highlighted and the **<Up Arrow>** and **<Down Arrow>** keys will move the highlighted box from one filename to another. If more than one page of filenames exist, the **<Space>** and **<Backspace>** keys will move the directory forward and backward. Positioning the highlighted box over a filename and pressing the **<Enter>** key will select that filename. A filename can be entered manually by typing the filename from the keyboard. The filename must be 1 - 8 alphanumeric characters (extensions will automatically be added to the filename). When the file has been selected, it will be deleted from the selected drive.

7. Special Operations

7.1. Editing Commands

All editing is done using the same special keys. The following is a list of the keys and their functions used when editing:

Key Command	Description of Function
<Space> or **<SP>**	moves forward from field to field during flight plan entry and from flight plan to flight plan in **<F8>** SCROLL. It also will toggle between Stereo template lists when prompted to select a location
<Backspace>	moves backward from field to field during flight plan entry and from flight plan to flight plan in **<F8>** SCROLL
<End>	moves the cursor to the right limit of the field
<Home>	moves the cursor to the left limit of the field
<Enter>	saves changes or additions
<Esc>	aborts changes not "Entered" and then resets for other options or continues a function
<Up Arrow>	moves the cursor from the lower field to the right limit of the next upper field in the ROUTE and REMARKS fields
<Down Arrow>	moves the cursor from the upper field to the left limit of the next lower field in the ROUTE and REMARKS fields
<Left Arrow>	moves the cursor one character position left within the field. Inserts a space if the insert is on
<Right Arrow>	moves the cursor one character position right within the field. Inserts a space if the insert is on
<Delete>	deletes characters at the current cursor position
<Insert>	Toggles insert mode on and off. The character will be inserted at the current cursor position

Note: Insert toggles OFF when the **<Space>** or **<Backspace>** key is pressed. A space may be inserted with the **<Left Arrow>** and **<Right Arrow>** keys.

Note: After any field is edited, all characters in the edited field are displayed in a different color after the **<Space>** or **<Backspace>** key is pressed. If the controller spaces into the next field and does not edit the line, the characters will be displayed in white because no editing was done.

The following keys will not be used in the editing of "free-form" fields:

{ } | ~ `

7.2. Critical Data Recording

The FLIPS utilizes a hard drive to store critical data such as the flight plan database, stereo flight plan routes, beacon code table, flight plan input/output parameters, and position time information. If FLIPS loses power, all critical data that has been saved to the hard drive will be returned to the system once power is restored. The flight plan database is saved to the hard drive twice a minute on the 15-second and 45-second update, if it has changed. Any changes to stereo flight plan routes or to flight plan input/output parameters are saved to the hard drive upon exit from the particular menu. Changes to critical data that hasn't been saved to the hard drive will not be returned to the system upon recovery from a power failure.

7.3. Printer Set-Up

Install the printer following the instructions in the ALPS Printer Users Manual.

7.3.1. DIP Switch Settings

Set the DIP Switches located under the Font Cartridge Cover following the "Checking or Changing DIP Switch Settings" on page 2-18 in the ALPS Printer Users Manual. DIP Switches 1 through 3 are to be set as follows:

87654321	87654321	87654321	
	1	1	ON
00000000	0 000000	000000 0	OFF
DIP SWITCH 3	DIP SWITCH 2	DIP SWITCH 1	

Dip Switch 3 - All DIP Switches set to OFF

Dip Switch 2 - ONLY DIP Switch number 7 is set to ON, all others are OFF.

Dip Switch 1 - ONLY DIP Switch number 2 is set to ON, all others are OFF.

7.3.2. Operating Panel

Set the Type Style, Mode, Pitch and Spacing to the Printers HOST MODE.

Note: "When the printer is first turned on it is in the ON-LINE Status and in the Host Mode". Reference: ALPS Printer Users Manual, page 1-6, Power Switch.

7.3.3. Ribbons

The printer ribbon may jump off the print head when printing reports. This problem is caused by an old printer ribbon. Obtain a new ribbon to correct the problem. Follow the instructions in the ALPS Printer Users Manual pages 2-7 through 2-9 to change the ribbon.

Note: When the print characters become faint in color, it is best to change the ribbon.

7.3.4. Loading Fan Fold Paper

Install the Flight Strip Forms following the Install Fan Fold Paper instructions on page 2-10 in the ALPS Printer Users Manual. Use the Push Method for paper installation as described on page 2-13. Always refer to the ALPS Printer Users Manual for additional instructions on the operation of the printer.

8. System Messages

8.1. Content

There are two types of system messages: error and status. Error messages are displayed in response to an invalid keyboard entry or a warning condition and are shown in red below the strip template. Error messages require controller action to resolve the error or warning. Status messages are displayed to provide the controller with pertinent system information and are shown on the bottom of the screen above the menu line or output to the printer.

8.2. Error Messages and Explanations

ACID MUST BE 2 - 7 ALPHANUMERICS & BEGIN WITH A LETTER

EXPLANATION: An invalid ACID was entered during a flight plan entry.

AIRPORT DOES NOT EXIST - TRY AGAIN

EXPLANATION: A search was made for an airport identifier and was not found in the database.

BEACON BLOCK LIMITS MUST BE OCTAL

EXPLANATION: An invalid beacon code block value was entered in the Add Beacon Code block mode.

BEACON BLOCK START CANNOT BE 7777 - TRY AGAIN

EXPLANATION: A beacon code block cannot start with the maximum available value.

BEACON BLOCK STOP MUST BE GREATER THAN THE BLOCK START

EXPLANATION: A beacon code STOP block value was entered that was not greater than the START block value.

THIS BEACON CODE IS RESTRICTED - TRY AGAIN

EXPLANATION: Beacon code 1236, 7500, 7600, or 7700 was entered during a flight plan entry, a flight plan search, or a beacon code block start/stop entry.

BEACON CODE MUST BE OCTAL OR A THROUGH H

EXPLANATION: An invalid beacon code was entered during a flight plan entry or flight plan search.

CANNOT LOAD TO FULL DATABASE

EXPLANATION: The FLIPS database is full. The LOAD DATABASE option is not available.

CANNOT MONITOR YOURSELF IN POSITION

EXPLANATION: The same set of initials was entered twice for the same time period while editing the position log.

CANNOT WORK POSITION ALONE - NOT PROFICIENT

EXPLANATION: The initials entered for this time period are for a controller who is in training for this position. The trainee must have a set of monitor initials entered to record the time.

CID MUST BE A NUMBER BETWEEN (001 - 500) - TRY AGAIN

EXPLANATION: An invalid CID was entered during a flight plan search.

CLOSE CURRENT DRIVE DOOR - HIT ANY KEY

EXPLANATION: The disk drive door was opened during a load or a save operation.

CURRENT DRIVE IN USE

EXPLANATION: The current drive is being used. If it is a floppy drive then DO NOT remove the diskette.

DATABASE PROCESSING COMPLETE

EXPLANATION: Message displayed on the monitor when all the flight plans loaded from the disk have been stored in FLIPS.

DELETE ENTIRE FLIGHT <Y/N>

EXPLANATION: When a Flight plan is to be deleted that has additional strips attached, the controller can delete the single flight plan or the entire flight plan.

DISK ERROR

EXPLANATION: This disk directory error message suggests a possible disk drive mechanical problem.

DISK ERROR - CHECK OP MANUAL - HIT ANY KEY

EXPLANATION: This error message suggests a possible disk drive mechanical problem.

DUPLICATE AIRPORT ID ALREADY EXISTS - TRY AGAIN

EXPLANATION: An ID was entered to create a new airport and a search of the database indicates that this ID already exists.

DUPLICATE INITIALS ALREADY EXISTS - TRY AGAIN

EXPLANATION: A set of initials were entered to create a new controller record and a search of the database indicates that these initials already exist.

DUPLICATE POSITION ALREADY EXISTS - TRY AGAIN

EXPLANATION: An ID was entered to create a new operating position for a controller and a search of the database indicates that this position already exists.

DUPLICATE RUNWAY ALREADY EXISTS - TRY AGAIN

EXPLANATION: An ID was entered to create a new runway and a search of the database indicates that this runway already exists.

FILE COMPLETELY LOADED

EXPLANATION: The file has been completely loaded.

FILE CONTAINS FLIGHT PLANS AND BAD DATA

EXPLANATION: The file that was loaded has good flight plan data that will be processed by FLIPS but there is also bad data that will not be processed.

FILE DOES NOT EXIST ON CURRENT DRIVE

EXPLANATION: This message is displayed when the controller selected choice "Y" to overwrite an existing file on a floppy disk but put in a new disk before overwriting the file. The new disk does not contain the selected filename.

FILE NOT SAVED - CURRENT DRIVE FULL

EXPLANATION: The current drive is full. The save file to current drive option is not available. None of the data has been saved.

FILE PARTIALLY LOADED

EXPLANATION: While loading a file from the current drive, the drive door was opened and some of the training strips were lost.

FILE PARTIALLY LOADED - BUILDING DATABASE

EXPLANATION: While loading a file from the current drive, the drive door was opened and some of the flight plans were lost.

FLOPPY DISK NOT FORMATTED - HIT ANY KEY

EXPLANATION: This floppy disk is unformatted. A load operation cannot be performed. Ensure the floppy diskette is formatted with (MS-DOS) version 3.2 or later.

FLOPPY WRITE PROTECTED - REMOVE TAPE

EXPLANATION: The floppy disk is write protected.

INITIALS DO NOT EXIST - TRY AGAIN

EXPLANATION: A search of the database did not find the initials that were entered.

INSERT FLOPPY DISK AND THEN HIT ANY KEY

EXPLANATION: An attempt was made to load/save a file to the floppy disk. The diskette was not in the drive or the drive door was open.

INVALID MESSAGE TYPE - HIT ANY KEY TO CONTINUE

EXPLANATION: The message type entered for FDS is not a valid function.

INVALID PASSWORD WAS ENTERED - TRY AGAIN

EXPLANATION: An attempt was made to input a bad password in the system.

LOAD COMPLETE -- BUILDING DATABASE

EXPLANATION: The system has completed loading the file and is now building the FLIPS database. The diskette may be removed.

NO FILES

EXPLANATION: This is a disk directory error message. The current drive contains no files that FLIPS can access.

NO FLOPPY PRESENT

EXPLANATION: This is a disk directory error message. The current drive is a floppy drive without a floppy disk inserted or the floppy door was not shut.

OFFSET TIME MUST BE BETWEEN (0000-0959) - TRY AGAIN

EXPLANATION: An invalid offset time was entered during the input of the offset time in a stereo template.

POSITION DOES NOT EXIST - TRY AGAIN

EXPLANATION: The position entered could not be found in the database.

RADIAL MUST BE A NUMBER BETWEEN (000 - 359) - TRY AGAIN

EXPLANATION: This error is displayed if the controller tries to input a radial outside the bounds of the compass rose.

RUNWAY DOES NOT EXIST - TRY AGAIN

EXPLANATION: The runway entered could not be found in the database.

SAVE COMPLETE ON CURRENT DRIVE

EXPLANATION: The system has completed writing to the current drive.

SECOND SET OF INITIALS IS NOT PROFICIENT

EXPLANATION: This error is displayed if a set of initials are entered as the monitor and the monitor is not proficient in that position.

THE 2ND LEG OF THIS STEREO EXCEEDS NEXT DAY LIMITS - TRY LATER

EXPLANATION: During **<F1> <D>** Stereo Flight Plan entry, a stereo route with two segments had a computed second leg activation time greater than 23:59 of the following day.

THE STEREO DATABASE IS FULL

EXPLANATION: The controller has tried to exceed the maximum of forty stereo templates.

THE BEACON BLOCK OF THE SECOND LEG IS UNDEFINED

EXPLANATION: The second leg of this stereo template has an A, B, C, D, E, F, G, or H in the beacon code field that is no longer defined. The beacon block must be redefined or the template's second leg must be edited before this template can be selected.

THE FIRST 3 CHARACTERS OF AN ALTITUDE MUST BE ALPHANUMERIC

EXPLANATION: An invalid altitude was entered.

THE FIRST POSITION FOR A REARRANGE MUST BE A DEFINED STEREO

EXPLANATION: This error message is displayed when the first position for a rearrange does not contain a defined stereo route. Enter a defined stereo route to continue.

THE SECOND LEG OF A STEREO ROUTE CAN'T COME BEFORE THE FIRST LEG

EXPLANATION: An attempt was made to change the time of a second leg to a time prior to the activation time of the first leg.

THIS ACID WAS NOT FOUND IN THE DATABASE - TRY AGAIN

EXPLANATION: A search was made for an aircraft using an ACID that is not in the database.

THIS BEACON CODE BLOCK IS NOT DEFINED - TRY AGAIN

EXPLANATION: The letter for an undefined beacon code block was entered in the beacon code field during a flight plan or stereo route entry.

THIS BEACON CODE NOT FOUND IN THE DATABASE - TRY AGAIN

EXPLANATION: The beacon code entered for flight plan search was not found in the database.

THIS CID HAS A DUPLICATE ACID ENTRY - TRY AGAIN

EXPLANATION: The CID displayed to the left of the arrow has the same callsign as the one just entered.

THIS CID HAS A DUPLICATE BEACON CODE ENTRY - TRY AGAIN

EXPLANATION: The CID displayed to the left of the arrow has the same beacon code as the one just entered.

THIS CID HAS BEEN AUTO DELETED - TRY AGAIN

EXPLANATION: The CID displayed in the duplicate list was auto deleted.

THIS CID WAS NOT FOUND IN THE DATABASE - TRY AGAIN

EXPLANATION: During a flight plan search using the CID displayed to the left of the arrow, no matching flight plan was found.

THIS CID IS NOT ONE OF THE DUPLICATES FOUND - TRY AGAIN

EXPLANATION: A search was attempted using a CID that was not listed in the duplicate list.

THIS DATABASE IS FULL - HIT ANY KEY TO CONTINUE

EXPLANATION: This error message is displayed when the controller tries to exceed the number of controllers allowed for proficiency/training times or the number of allowable airports.

THIS ENTRY CAN ONLY BE ALPHANUMERIC - TRY AGAIN

EXPLANATION: An invalid character was entered in the ACID or the five character Route field during flight plan entry or in a filename during a load from current drive.

THIS ENTRY CAN ONLY BE NUMERIC - TRY AGAIN

EXPLANATION: Something other than a number was entered into a numeric field.

THIS ENTRY MUST BE A 'P' OR 'T'

EXPLANATION: A character other than P or T was entered into the position type during editing.

THIS ENTRY MUST CONTAIN ONLY ALPHA CHARACTERS

EXPLANATION: A character other than a letter was entered.

THIS FIELD IS TOO LONG - HIT ANY KEY TO CONTINUE

EXPLANATION: During a FDS entry, too many characters were typed in for the field being entered.

THIS FILE ALREADY EXISTS - OVERWRITE <Y/N>

EXPLANATION: The file above already exists on the current drive. If the file is to be overwritten, a "Y" is required. If the file is not to be overwritten, a "N" is required.

THIS FILE CONTAINS BAD DATA

EXPLANATION: An attempt was made to read a file that does not conform to the FLIPS format. The file can't be read.

THIS FILE DOES NOT EXIST - HIT ANY KEY

EXPLANATION: An attempt was made to read a file on the current drive that does not exist.

THIS FILE IS READ ONLY - HIT ANY KEY

EXPLANATION: An attempt was made to write over a file that has an attribute of read only.

THERE ARE NO FLIGHT PLANS IN THE DATABASE

EXPLANATION: If no flight plans are available, the only FDS function available is entering flight plans. Message will be displayed if any other functions are attempted.

THIS FLIGHT PLAN CANNOT BE ALTERED BY FLIPS

EXPLANATION: An attempt was made to amend or delete a flight plan that PIDP is tracking. The flight plan in FLIPS will have the status of DM.

THIS IS A REQUIRED ENTRY

EXPLANATION: The ACID was not entered during flight plan entry.

THIS FP HAS BEEN AUTO DELETED

EXPLANATION: While in the **<F8>** SCROLL mode, an attempt was made to amend a flight plan that was auto deleted.

THIS OPTION IS LOCKED - HIT ANY KEY TO CONTINUE

EXPLANATION: Option is locked and can not be accessed until it is unlocked.

THIS OPTION IS NOT AVAILABLE - HIT ANY KEY TO CONTINUE

EXPLANATION: The database does not exist so this selection is not available.

THIS OPTION IS NOT AVAILABLE WITH A FULL DATABASE

EXPLANATION: Trying to enter a flight plan using FDS with a full database.

THIS STEREO ROUTE NAME ALREADY EXISTS - TRY AGAIN

EXPLANATION: A duplicate stereo route name was entered during a stereo route entry in the **<F10>** CONFIG mode.

THIS TIME CHANGE MAY RESULT IN SOME FLIGHT PLAN DELETIONS. ENTER <Y> TO PROCEED OR ANY OTHER KEY TO ABORT CHANGES

EXPLANATION: A time change to the future was made when there were flight plans in the system.

TIME MUST BE BETWEEN (0000 - 2359) - TRY AGAIN

EXPLANATION: An invalid time was entered during a flight plan entry or during a time change.

TIME MUST BEGIN WITH A, E, OR P - HIT ANY KEY TO CONTINUE

EXPLANATION: When entering a flight plan from the FDS Function, the type flight plan has been omitted from the time field.

TOTAL POSITION TIME MUST BE BETWEEN 0 AND 248 HOURS

EXPLANATION: A time has been entered that will cause the total time in that category to be out of range.

YOU CANNOT OVERLAP AN ALREADY DEFINED BEACON BLOCK

EXPLANATION: During Add Beacon Code Block, the code entered overlapped an existing START or STOP block.

YOU CAN'T ENTER A 2 LEG STEREO AT THIS TIME - TRY LATER

EXPLANATION: During a **<F1> <D>** Stereo flight plan entry, an attempt was made to enter a stereo route with 2 segments while the flight plan database contained 499 flight plans.

YOU MUST USE A DISCRETE BEACON CODE - TRY AGAIN

EXPLANATION: A non-discrete beacon code was used for a flight plan search.

YOU CANNOT WORK IN POSITION FOR MORE THAN 12 HOURS

EXPLANATION: A time was entered that would cause the total daily position time to exceed 12 hours.

YOUR DATE WAS INVALID - TRY AGAIN

EXPLANATION: An invalid date was entered during a date change in the **<F10>** CONFIG mode.

8.3. Status Messages and Explanations

FIRST FLIGHT PLAN

EXPLANATION: The first flight plan in the database is displayed in the strip template while in the **<F8>** SCROLL mode.

LAST FLIGHT PLAN

EXPLANATION: The last flight plan in the database is displayed in the strip template while in the **<F8>** SCROLL mode.

NO FLIGHT PLANS!

EXPLANATION: The **<F8>** SCROLL mode was selected and there were no flight plans in the database.

PRINTER ERROR OCCURRED - CHECK THE PRINTER

EXPLANATION: The printer was turned off-line during a print or off-line and then back on-line while an attempt was made to print.

THE PRINTER HAS NO PAPER

EXPLANATION: The printer has no paper or cannot detect the presence of paper. Load the paper into the printer according to the printer manufacturer's instructions.

THE PRINTER HAS NOT BEEN INITIALIZED

EXPLANATION: The printer was turned off and an attempt was made to print before the printer was initialized. Correct the printer by pressing **<F9>** FMFEED.

THE PRINTER IS DISCONNECTED

EXPLANATION: The printer cable is disconnected. Check the connections and try again. If there is still a problem, call maintenance.

THE PRINTER IS OFF-LINE

EXPLANATION: The printer is off line. Press the on-line button on the front of the printer.

THE PRINTER IS TURNED OFF

EXPLANATION: The printer has been turned off. Turn the power switch on the side of the printer to the on position or check to see if the printer is plugged in.

UNKNOWN PRINTER ERROR - CHECK OPERATOR'S MANUAL

EXPLANATION: If this error occurs, the printer has a hardware problem. Have maintenance check out the printer. If the problem cannot be determined, call HQ SSG OL-B.

THE STEREO DATABASE IS FULL - YOU CAN ONLY DELETE

EXPLANATION: In the **<F10> <B>** STEREO FLIGHT PLAN ROUTE mode, choice A, B or C was selected to enter a stereo flight plan route and all stereo unique names are full.

THE TRAINING DATABASE IS FULL - HIT ANY KEY TO CONTINUE

EXPLANATION: There are 100 training strips in the system. This message is displayed across the middle of the screen below the strip window. The next key depressed will return to the Training Menu. If either option, load a new scenario or make a scenario, is selected then the 100 training strips already in the system will be deleted.

ARE YOU SURE Y/N:

EXPLANATION: This appears in several different places. It requires a “Y” or “N” answer.

8.4. Printed status messages and explanations

ALL FLIGHT PLANS WERE DELETED FROM THE DATABASE AT => HH:MM:SS

EXPLANATION: The Delete All menu option was selected while in the **<F7>** DELETE mode.

ALL BEACON CODES IN BEACON CODE BLOCK x ARE CURRENTLY BEING USED

EXPLANATION: All of the beacon codes in a predefined beacon code block have been assigned to flight plans in the system.

REJECT FLIGHT PLAN (ACID, BEACON, TIME)
DUP ACID ON CID # : xxx

EXPLANATION: A flight plan was read in from the current drive that has a duplicate ACID with a flight plan currently in the system database.

REJECT FLIGHT PLAN (ACID, BEACON, TIME)
DUP BEACON ON CID # : xxx

EXPLANATION: A flight plan was read in from the current drive that has a duplicate beacon code with a flight plan currently in the system database.

REJECT FLIGHT PLAN (ACID, BEACON, TIME)
UNKNOWN ERROR

EXPLANATION: A message was rejected by PIDP because of an unknown error. A reject message was sent back to FLIPS.

REJECT FLIGHT PLAN (ACID, BEACON, TIME)
DUPLICATE ACID

EXPLANATION: A message was rejected by PIDP because of a duplicate ACID. A reject message was sent back to FLIPS.

REJECT FLIGHT PLAN (ACID, BEACON, TIME)
DUPLICATE BEACON

EXPLANATION: A message was rejected by PIDP because of a duplicate beacon code. A reject message was sent back to FLIPS.

REJECT FLIGHT PLAN (ACID, BEACON, TIME)
NOT FOUND

EXPLANATION: A message was rejected by PIDP because the flight plan was not found in the PIDP database. A reject message was sent back to FLIPS.

REJECT FLIGHT PLAN (ACID, BEACON, TIME)
ALREADY ACTIVE

EXPLANATION: A message was rejected by PIDP because the flight plan was already active in the PIDP database. A reject message was sent back to FLIPS.

REJECT FLIGHT PLAN (ACID, BEACON, TIME)
DATABASE FULL

EXPLANATION: A message was rejected by PIDP because the PIDP database was full. A reject message was sent back to FLIPS.

REMOVE STRIPS (ACID, Rev #, CID) *FLIGHT PLAN DELETED*

EXPLANATION: Message sent to the printer when a flight plan is deleted from the database.

REJECT FLIGHT PLAN (ACID,BEACON,TIME)
NO ROOM IN DATABASE

EXPLANATION: The flight plan database is currently full but a file was trying to be loaded with more flight plans.

REJECT FLIGHT PLAN (ACID,BEACON,TIME)
SECOND LEG EXCEED LIMITS

EXPLANATION: A two leg flight plan was read in with the first leg time of tomorrow and the second leg time of two days in the future.

8.5. Screen Windows

The FLIPS utilizes ten primary menus and other sub-menus to display data on the monitor to assist the controller. The FLIPS Main Menu is displayed when the system is initialized and after a specific mode **<F1> - <F10>** or the FDS mode is exited.

9. INSTALLATION

This chapter contains instructions for initial equipment configuration, installing the FLIPS operational program, re-installing original distribution disks and testing FLIPS without installing.

The FLIPS program will be installed in a sub-directory on C drive called FLIPS. All the data and report files created in FLIPS that are to be saved on C drive will be sent to the FLIPS sub-directory. **<Ctrl O>** will exit the FLIPS program and allow you to use another program. To re-enter the FLIPS program type: **FLIPSXXX <Enter>** (XXX is the current version number). The FLIPS program will automatically start running when the power is turned on to the computer.

9.1. Initial Equipment Configuration for FLIPS

Equipment should be installed following the manufacturer's instructions and configured as follows:

The hard drive should **NOT** be partitioned. All MS-DOS software should be copied from the floppy disks to the hard drive into a sub directory called DOS.

During initial equipment SETUP, the system should be configured to boot from the hard disk drive only. The system date and time should be set to the current Zulu time, and the Daylight Savings Time feature should be disabled. All other options in the SETUP program should be defined as required by the hardware in use.

The Alps P2000G printer tractor feed mechanism should be setup to push the flight plan strips through the printer. This will reduce the number of wasted strips when only one or two are printed. It may prove useful to place the "tractor/friction" lever of the printer into the "friction" position **after** the strips are positioned in the printer. This will help prevent the strips from bunching up and clogging the printer.

9.2. Initial Installation

This section contains instructions for implementing new versions of the FLIPS operational program and for re-installing from the original distribution disks.

The FLIPS operational program is distributed on a single 3½-inch floppy disk. All program information is contained on the disk. A second duplicate disk is provided as a backup.

Upon receiving a new operational FLIPS program, install the program to ensure your disks will install the program correctly. If the implementation date shown in the Version Description Document is other than "Upon Receipt" or today's date is before the implementation date, re-load the current

operational version by performing the operations in 1, 2, 3 and 4 for the current operational program disk.

Notify HQ ESC OL-D/E/TG/3S by message when the current version is implemented.

INITIAL INSTALLATION

1. Insert one of the new operational disks into A Drive of the 486 personal computer.

2. If the FLIPS program is currently running, interrupt its operation by simultaneously pressing the **<Ctrl>** and **<O>** keys.

3. Type the following command from the keyboard:

   A:INSTALL<Enter>

During the operation of the INSTALL function, all previous versions of the FLIPS operational program are erased from the hard disk and the new version is placed on the hard disk. Existing data files will not be erased unless specifically stated in the Version Description Document. When install is completed, FLIPS should automatically begin running. All the previous databases that FLIPS was using will automatically be converted to the new format if the convert is possible.

4. Remove the floppy disk from the computer and store it in a safe place.

5. Repeat the operations in 1, 2, 3 and 4 above for the second operational disk to ensure that it will load the program correctly.

9.3. Re-Installation

If the program becomes suspect and it is necessary to re-install from the original program disks, follow the instructions for the initial installation (See section 9.2. Initial Installation). This will re-install the current flips program without damaging the database files.

9.4. Testing FLIPS

When the FLIPS system is installed, it takes control of the computer. The autoexec.bat file is changed to start running FLIPS when the system is turned on. The FLIPS software can run on a machine without having total control of it. To test FLIPS software without installing the software, use the following instructions. FLIPS requires the use of a virtual disk to execute the program.

1. Insert a FLIPS disk into A Drive.

2. From C Drive, enter the following commands:

MD FLIPS **<Enter>**

CD FLIPS **<Enter>**

NOTE: These two commands will make a directory called FLIPS and then change to the FLIPS sub-directory.

3. From C:\FLIPS, enter the following command:

COPY A:INSTXXX.EXE **<Enter>** (XXX is the current version number)

4. To unload FLIPS files, enter the following command:

INSTXXX **<Enter>** (XXX is the current version number)

5. Load FLIPS .EXT to the virtual disk:

COPY C:\FLIPS\FLIPSXXX.EXT "VDISK" **<Enter>**

NOTE: XXX is the current version number and VDISK is your VDISK Drive letter (ex: 'D').

6. To run FLIPS, enter the following command:

FLIPSXXX **<Enter>** (XXX is the current version number)

7. To remove FLIPS from your machine, enter the following command from the FLIPS sub-directory:

DELETE *.* **<Enter>**
Y **<Enter>**

8. To remove the FLIPS sub directory, enter the following commands:

CD.. **<Enter>**
RD FLIPS **<Enter>**

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