flysimware
SIMULATION SOFTWARE

UNIVERSAL UNS-1 FMS (FLIGHT MANAGEMENT SYSTEM)

Table of Contents

I.TUTORIAL....4
Universal UNS-1 Tutorial on YouTube....4
II.OVERVIEW....5
UNS-1 FLIGHT MANAGEMENT SYSTEM....5
OVERVIEW LAYOUT....5
UNS-1 FUNCTION LIST....6
PWR DIM KEY....7
MENU KEY....7
MSG KEY....7
FUEL KEY....7
NAV KEY....8
DTO KEY....8
FPL KEY....8
LIST KEY....8
PREV KEY....8
VNAV KEY....8
NEXT KEY....8
ENTER KEY....8
LINE KEY....8
PERF KEY....8
UNS-1 PILOT AND COPILOT CONTROLLER....9
UNS-1 PILOT AND COPILOT HSI....10
III.CAPABILITIES....11
INITIALZATION PAGE....11
MSG PAGE....11
"NO ACTIVE GPS RTE" 11
"INVALID FROM SELECTION" 11
"INVALID TO SELECTION" 11
"INVALID NEXT SELECTION" 11
FUEL PAGES....12
FUEL DATA....12
FUEL DATA OPTIONS....12
LIST PAGES....13
LIST DATA....13
NAV PAGES....14
NAV DATA 14
DTO PAGES....15

DTO DATA 15
FPL PAGES....15
FPL MENU DATA 16
FPL SUMMARY DATA 17
VNAV PAGE....18
HOLDING PAGE 19
HOLDING DATA 19
PERF PAGE 20
IV.OPERATIONS....20
POWERING ON THE UNS-1....20
START-UP....20
POWER OPTIONS....21
INITIALIZATION OPERATIONS....21
INITIALZATION PROCEDURE....21
HOLDING PATTERNS OPERATIONS....22
CREATE A HOLDING PATTERN....22
PROCEED HOLDING PATTERN....24
DISARM HOLDING PATTERN....24
EXIT HOLDING PATTERN....24
FLIGHT PLAN OPERATIONS....25
LOADING A SAVED FLIGHT PLAN....25
LOADING A DEFAULT FLIGHT SIM FLIGHT PLAN....25
STORE AN ACTIVE FLIGHT PLAN 25
DELETING A FLIGHT PLAN 26
ADDING A WAYPOINT MANUALLY....27
ADDING A SECOND WAYPOINT MANUALLY....27
ADDING A WAYPOINT BY LIST....28
DELETING A WAYPOINT....28
DELETING A RANGE OF WAYPOINTS....28
DELETING WAYPOINT AND ALL WAYPOINTS THAT FOLLOW....29
DELETING ALL WAYPOINTS....29
ADD DESTINATION 30
ADD DEPARTURE 31
CHANGE DEPARTURE....31
ADD ARRIVAL 32
CHANGE ARRIVAL....33
VERIFICATION AND SUMMARY....33
VNAV OPERATIONS....34
MANUAL OPERATION....34

APPROACH OPERATION....34
OVERALL OPERATION....35
HEADING HOLD OPERATIONS....36
Heading Hold Procedure....36
Heading Hold + Intercept Mode....36
Heading Hold + No Intercept Mode....36
FUEL OPERATIONS....37
ADDING WEIGHT DATA....37
ADDING FUEL DATA....37

I. TUTORIAL

Universal UNS-1 Tutorial on YouTube

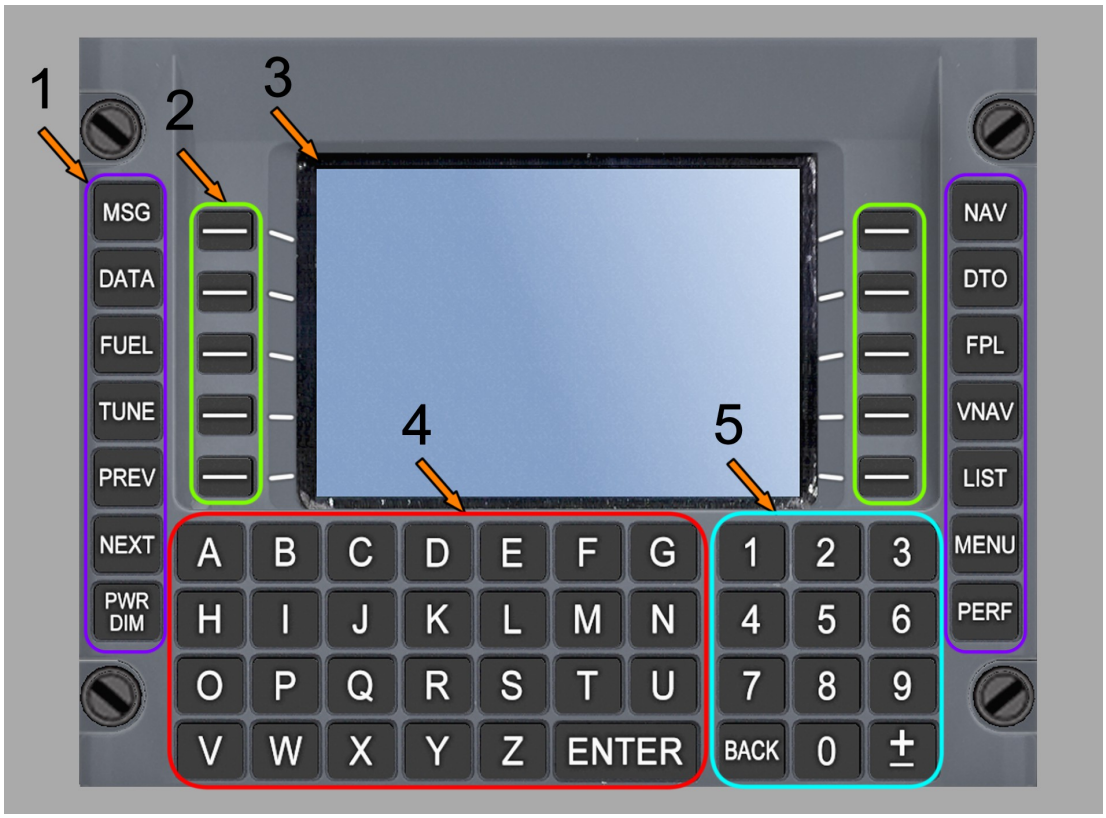
Some features are not simulated!

https://www.youtube.com/watch?v=g4KGa-WiQrk

II. OVERVIEW

UNS-1 FLIGHT MANAGEMENT SYSTEM

OVERVIEW LAYOUT



1. Function keys. (See Function List)
2. Line Select keys.
3. Main LCD.
4. Alpha keypad keys and ENTER key.
5. Numeric keypad Keys and BACK keys and PLUS or MINUS keys.

UNS-1 FUNCTION LIST

All functions not listed are NOT SIMULATED!

PWR DIM KEY

BRIGHT: Increases the LCD brightness.

DIM: Decreases the LCD brightness.

CANCEL: Leave the option pop-up panel.

DISPLAY: NOT SIMULATED.

OFF/STBY: Powers off the FMS. STBY is NOT SIMULATED.

MENU KEY

The MENU key is used to present a list of alternate formats or options for the FUEL or FPL mode being displayed.

The FPL (flight plan) MENU page is accessed from any FPL page by pressing the MENU key. The options on this page allows the pilot to edit the flight plan waypoints or to view the approach plan, It also allows the insertion of a SID (DEPART) or STAR and Approach (ARRIVE) into the flight plan, deletion of FPL, for approach altitudes. You can also load a default flight sim flight plan or store an active flight plan.

FUEL MENU - If a conversion between pounds, kilograms, U.S. Gal., Imperial Gal., or Liters is required, pressing the MENU key while on any FUEL page will access the FUEL OPTIONS page. Entering a value will cause the other values to be calculated and displayed. The weight/volume conversion is based upon a fuel density of 6.7 lb./gal. Another option on this page allows you to change the passenger average weight and change the units displayed from pounds to kilograms.

MSG KEY

When a system message becomes active, "MSG" will appear on the far right side of the top line on the display.

FUEL KEY

The FUEL function provides access to all fuel management functions. Refer to the capabilities section for detailed information.

NAV KEY

The NAV key is used to access the navigation function display pages. Refer to the capabilities section for detailed information.

DTO KEY

The DTO (direct to) key is used to modify the flight plan. Refer to the capabilities section for detailed information.

FPL KEY

The FPL (flight plan) function key is used to access the Flight Plan page(s), or to access stored arrivals and routes. The Flight Plan pages may be accessed in order to construct a new flight plan, alter the current flight plan, or to insert a SID, STAR and approach into the flight plan. In addition there is a flight plan summary page that displays summary information. Refer to the capabilities section for detailed information.

LIST KEY

The LIST key is used to provide a list of data entry options. Refer to the capabilities section for detailed info.

PREV KEY

The PREV (previous) key is used to cycle backward, one page at a time, through more pages of the same mode.

VNAV KEY

The VNAV key is used to help create an approach descent profile to each waypoint.

NEXT KEY

The NEXT key is used to cycle forward, one page at a time, through more pages of the same mode.

ENTER KEY

The ENTER key is used to store input data from the highlighted field (Black text on white background) that was entered. Refer to the capabilities section for detailed information.

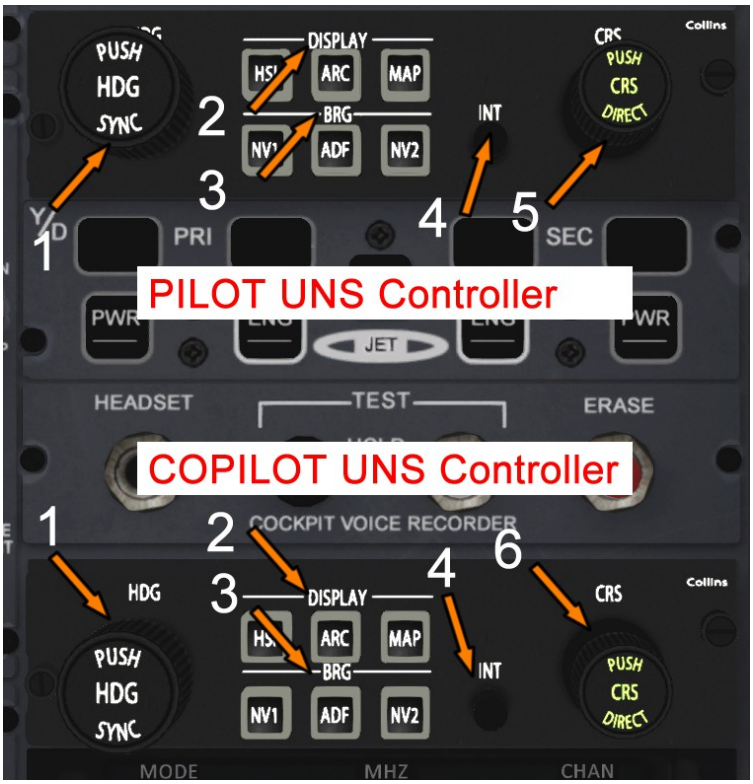
LINE KEY

The LINE key highlights the data field directly in line with the LINE key. Once selected you can enter required data from the alphanumeric keypad. Pressing BACK will remove entered data. Pressing Enter will store the data that was entered in the field.

PERF KEY

The PERF key is used to display a list of performance information.

UNS-1 PILOT AND COPILOT CONTROLLER



1. Heading knob (Left and Right Click or Mouse Wheel). Push (Middle Mouse Wheel) to synchronize the heading bug to the aircraft's current heading.

2. Select the display from standard HSI to ARC or MAP. Continue to press the map key to cycle the view distance up to 150 nautical miles.

3. When in VHF mode select the navigation source from Navigation 1, Navigation 2 or ADF 1, ADF 2 (Automatic Directional Finder). The pilot and copilot controllers both will display the sources listed above.

NOTE: BRG stands for bearing.

4. Increase or decrease (Left or Right click) the HSI display brightness (intensity).

5. Pilot course knob (Left and Right Click or Mouse Wheel). Pushing (Middle Mouse Wheel) the course direct knob aligns the course needle to point directly to the tuned VOR station. The pilot course knob only controls NAV 1 source.

6. Copilot course knob (Left and Right Click or Mouse Wheel). Pushing (Middle Mouse Wheel) the course direct knob aligns the course needle to point directly to the tuned VOR station. The copilot course knob only controls NAV 2 source.

UNS-1 PILOT AND COPILOT HSI

1. Horizontal Situation Indicator

2. VHF/FMS Toggle Switch. Press the display to toggle mode. VHF is for NAV modes and FMS is only for the UNS-1 Flight management System.

III. CAPABILITIES

INITIALZATION PAGE

The Initialization page automatically appears at the end of the self test if the self test was passed without a fault, which would preclude use of the system.

Typically, the data shown on the Initialization page will be correct, as the position, date and time shown will be from the GPS (as indicated by <GPS> in the ID (Ident) field after the GPS transitions to NAV mode).

MSG PAGE

The message annunciator alerts you of system status advisories Pop-up messages in response to invalid entries further simplify system operation.

"NO ACTIVE GPS RTE"

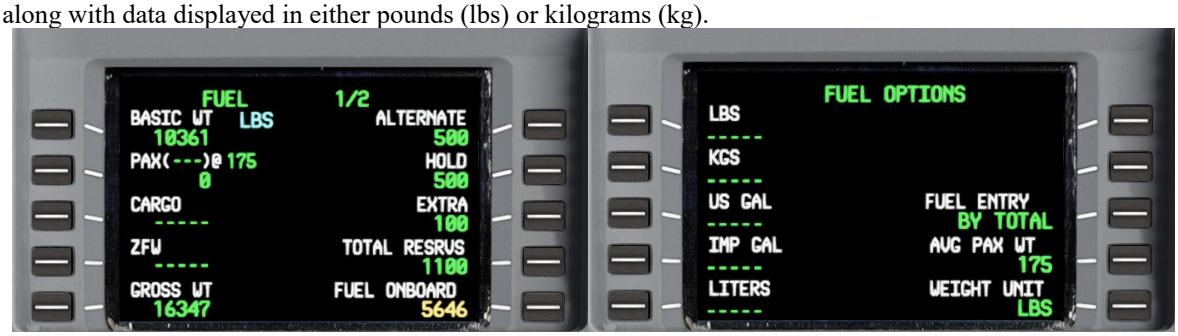
"INVALID FROM SELECTION"

"INVALID TO SELECTION"

"INVALID NEXT SELECTION"

FUEL PAGES

Total reserves and total fuel on board is displayed. Fuel requirements are easily accessed and evaluated for alternate destinations. From the options page conversion can be displayed and passenger average weight adjusted along with data displayed in either pounds (lbs) or kilograms (kg).



FUEL DATA

BASIC WT: Basic weight is the aircraft, equipment, pilots and crew. No fuel, cargo or passengers.

PAX: Here you enter how many passengers as this displays the total passenger weight.

CARGO: Here you enter the cargo weight as this displays the total cargo weight.

ZFW: Displays the zero fuel weight. The total of the basic weight, passenger weight and cargo weight.

GROSS WT: Displays the total weight of the aircraft. This includes all weight including fuel.

ALTERNATE: Here you can set the alternate fuel amount required to fly to an alternate airport.

HOLD: Here you can set the fuel amount required to fly a holding pattern.

EXTRA: Here you can set the extra fuel reserves on board.

TOTAL RESRVS: Displays the total reserve fuel on board.

FUEL ONBOARD: Displays the total fuel weight.

FUEL DATA OPTIONS

LBS: Here you can enter fuel data in “Pounds” so you can display the conversion rates on the other listed units.

KGS: Here you can enter fuel data in “Kilograms” so you can display the conversion rates on the other listed units.

US GAL: Here you can enter fuel data in “Gallons” so you can display the conversion rates on the other listed units.

IMP GAL: Here you can enter fuel data in “Imperial Gallons” so you can display the conversion rates on the other listed units.

LITERS: Here you can enter fuel data in “Liters” so you can display the conversion rates on the other listed units.

FUEL ENTRY: To Be Revised

AVG PAX WT: Here you can set the passenger average weight in pounds or kilograms.

WEIGHT UNIT: Here you can change the weight units to pounds or kilograms.

LIST PAGES

Lists are based on aircraft position and course and are alphabetically listed. You can enter airports, navaids, intersections and airways all by entering the number corresponding to the data in that field. Very High Frequency (VHF) and Non-Directional Beacon (NDB) navaids eliminate confusion over airport/navaid identifiers. In addition to providing an advanced shortcut for flight planning, making entries through the LIST function increases both the accuracy and the safety of off-flight plan maneuvers. Note you must select a line key from the FPL page then click the LIST key to enter the LIST page.

LIST DATA

APT: List of airports.

NDB: List of NDB stations (Non-Directional Beacon).

INT: List of intersections.

FPLAN: List of flight plans.

VOR/PLT: List of VORs and pilot defined waypoints.

AIR/WAY: List of Airways.

GAP: Not Simulated!

RTN: Returns to previous page.

NAV PAGES

The NAV function and pages display all the navigation data normally required by the pilots, as well as provide a means of altering the current navigation leg. The navigational data displayed includes the current FR (from), TO (to), and NX (next) waypoints from the flight plan; the distance, course, and bearing to the TO waypoint; the parallel crosstrack left or right of the course; the wind direction and speed, the wind drift angle; and the current groundtrack and groundspeed.

NAV DATA

FR: Displays the previous waypoint, and time at which it was crossed.

TO: Displays the active waypoint, and the estimated time of crossing.

NX: Displays the next waypoint after the active waypoint, and the estimated time of crossing.

XTK: Displays the cross-track error value. This shows how far the aircraft is from the flight path up to 5 NM.

TAILWIND: Displays the current tailwind component.

HEADWIND: Displays the current headwind component.

HDG: Procedure Heading Mode.

MNVR: Maneuver page. Used for holding patterns.

GS: Displays the current ground speed.

FUEL OPTIONS Displays the bearing to the active waypoint.

TKE: Displays cross-track error information known as a drift angle. 1 degree error after 60 miles traveled will cause a cross-track error of 1 mile.

DTO PAGES

The Direct-To (DTO) function key is specifically dedicated for flight plan changes in response to “Direct-To” clearances. If the desired waypoint is on the flight plan, it may be selected by entering its list reference number. If the desired waypoint is not on the flight plan, the LIST function can be used to access other waypoints/airports within the surrounding area from the database, or the identifier can be manually entered into the field.

DTO DATA

AUTO: Not Simulated!

RETURN: Returns to previous page.

FPL PAGES

The Flight Planning (FPL) function provides you with the quickest, most efficient means of creating a flight plan, and the most pilot-friendly method of altering the flight plan elements as desired or required by ATC. It has been engineered to incorporate the greatest level of safety, with numerous built-in safeguards such as the entry of list-referenced selections which reduce both keystrokes and errors. Menu format provides selections for flight plan displays, SIDs, STARs, approaches, flight plan storing and reversing. Blue text is not simulated! Note while on the FPL page press the MENU key to load the FPL MENU page.

FPL MENU DATA

STORE FPL: Store active flight plans for future use. Next press enter key to save.

LOAD ATC RTE: Load any flight plan from the sims default flight planner. If no default plan is active you will get a MGS alert.

The list function eliminates confusion over navaid and airport identifiers. Note you must select a line key from the FPL page then click the LIST key to enter the LIST page.

Normal view of flight plan pages shows a wealth of information including altitude restrictions.

Review time, distance and fuel requirements for the flight plan created. Use the PREV and NEXT keys to access the FPL SUMMARY page (located following the last flight plan page).

FPL SUMMARY DATA

DEPART: Displays the departure identifier.

ETD UTC: Enter the estimated time of departure in UTC (Coordinated Universal Time) format. Not Simulated!

ETD LCL: Enter the estimated fuel flow, which will be used to compute minimum fuel (MIN FUEL). Not Simulated!

ARRIVE: Displays the arrival identifier.

ETA UTC: A manual entry of ETA will change the displayed ETD according to the ETE. Not Simulated!

ETA LCL: Entry of the estimated time of arrival may be made according to the local time zone. Not Simulated!

TAS: Entering the estimated true airspeed (in knots) will cause the ETE and ETA values to be displayed. Not Simulated!

FF (MAN): Enter the estimated fuel flow, which will be used to compute minimum fuel (MIN FUEL). Not Simulated!

RESERVES: The estimated reserve fuel, which is used to compute the MIN FUEL value. Not Simulated!

MIN FUEL: Displays the minimum fuel data based on the estimated reserves fuel data. Not Simulated!

VNAV PAGE

The VNAV page auto inputs approach altitudes when you create a flight plan with an approach procedure from the menu page. Or you can manually select the TO and NEXT waypoints with the altitude and vertical speed info.

HOLDING PAGE

Holding patterns are accurately flown through the FMS automatically. The navigation database includes holding patterns that are part of departure, arrival, approach and missed approach procedures. The aircraft will fly the normal flight plan legs and then automatically enter the holding pattern upon reaching the holding fix when armed.

The field settings are using a default right hand 1.0 minute holding pattern.

HOLDING DATA

FIX: Displays the selected holding fix.

INBD: Enter the inbound course. Press the line select key then enter the value from the keypad followed by the enter key or the line select key. Note DIR field will auto update.

DIR: Enter the fix direction. Press the line select key then enter the value from the keypad followed by the enter key or the line select key. Note INBD field will auto update.

TURN: Set the holding pattern direction from LEFT hand or a RIGHT hand pattern. Press the line select key then press the letter L or R key followed by pressing the enter key to confirm.

ARM HOLD: Arms the holding pattern. Press the line select key to arm the hold. After the holding pattern is armed DTO HOLD will appear in place of the ARM HOLD. By pressing the DTO HOLD will fly direct to the holding fix. To disarm the holding pattern press the return line key to the Maneuver page followed by pressing the disarm hold line select key.

TIME: Time is 1.0 minute by default. A standard holding pattern takes 4 minutes to complete (one minute for each straight section and one minute for each 180 degree turn). Press the line key then input the value from the keypad followed by the enter key. Pressing the +- will input a decimal. Note the DIST field will auto update.

DIST: Displays the distance of the holding pattern based on the time field. Press the line key then input the value from the keypad followed by the enter key. Pressing the +- will input a decimal. Note the TIME field will auto update.

ETA: Displays the estimated time of arrival.

ENTRY: Displays the entry that will be flown when the pattern is activated. Entries will be direct parallel or teardrop. (Note: DIRECT entries are only simulated at this time.)

RETURN: Returns to the Maneuver page where you can choose to proceed or disarm hold.

PERF PAGE

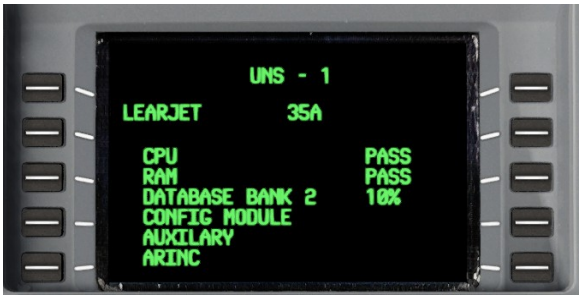
1. The PERF key is used to display a list of performance information.

IV. OPERATIONS

POWERING ON THE UNS-1

START-UP

Press the ON/OFF key to activate the system. The system will come on and will self test. The self-test page will be displayed showing the results of each test performed. If the self test is successful, the Initialization page will appear. The line at the top of the page will indicate the name of the aircraft as programmed in the Configuration Module.



1. Press the ON/OFF key to activate the system.

POWER OPTIONS

1. Click and repeat the BRIGHT or DIM line select keys as necessary to change screen intensity.
2. Select the CANCEL line select key to return to the Initialization page.
3. Select the OFF/STBY to turn off the system. Standby is not simulated!

INITIALIZATION OPERATIONS

The Initialization page automatically appears at the end of the self test if the self test was passed without a fault, which would preclude use of the system. Typically, the data shown on the Initialization page will be correct, as the position, date and time shown will be from the GPS (as indicated by <GPS> in the Ident field after the GPS transitions to NAV mode).

INITIALZATION PROCEDURE

1. Press the left line select key 5L to accept the initialization position.

HOLDING PATTERNS OPERATIONS

From the NAV page press the MNVR to enter the holding pattern page. Next press the HOLDING DEFN to enter the FIX page. Now select the number corresponding to the fix that you want to hold. Last press the DTO HOLD to engage/arm the hold.

When cleared to proceed by ATC, by pressing the PROCEED command key on the Maneuver page the aircraft will continue the current holding circuit until overflying the holding fix and then proceed to the next waypoint. CONTINUE HOLD will display whenever PROCEED command has been selected.

You can also exit the pattern at any time by initiating a Direct-To command from the DTO page or pressing the DISARM HOLD command from the holding page or the maneuver page.

CREATE A HOLDING PATTERN

See the Holding Page topic under Capabilities for detailed functionality!

1. Press the MNVR key to enter the Maneuver page.

2. Press the HOLDING DEFN command to enter the FIX page.

3. Now select the number corresponding to the holding fix and press enter.

4. Update the INBD/DIR for the holding pattern direction you will hold.
5. Update the holding pattern to a left or right pattern.
6. Update or use the default TIME/DIST.
7. The ENTRY is limited to only DIRECT entries.
8. Press the ARM HOLD line select key to arm the holding pattern.
9. Press return to access the Maneuver page.

PROCEED HOLDING PATTERN

1. Press the PROCEED command from the Maneuver page. The aircraft will continue to hold the pattern until overflying the holding fix, then proceed to the NX waypoint. CONTINUE HOLD will appear in the line key 4L. Press to continue to hold the holding pattern.
2. Press return to access the NAV page.

DISARM HOLDING PATTERN

1. Press the DISARM HOLD command from the Maneuver page or the holding page.
2. Press return to access the NAV page.

EXIT HOLDING PATTERN

1. Select and enter a DTO waypoint from the DTO page.

FLIGHT PLAN OPERATIONS

LOADING A SAVED FLIGHT PLAN

1. Press the COPY PLT RTE from the FPL page. (Note this only appears when there are no waypoint(s) or destination active. The current position or departure is not required as this may appear from the start-up initialization.)

1. Press PREV or NEXT key to cycle pages to locate the flight plan identifiers.
2. Enter the number corresponding to the saved flight plan.
3. Press the ENTER key to confirm.

LOADING A DEFAULT FLIGHT SIM FLIGHT PLAN

1. Press the LOAD ATC RTE from the FPL MENU page. (Note a warning MSG will appear if there is no default flight sim flight plan created.)

STORE AN ACTIVE FLIGHT PLAN

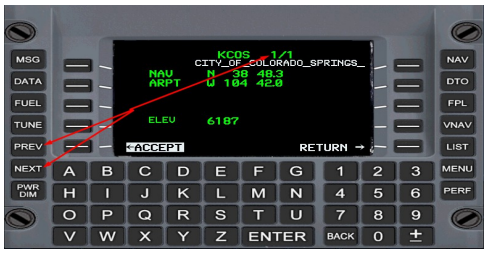
1. Press the STORE FPL key from the FPL MENU page.
2. From the PLT RTE page the active flight plane is auto entered. Press the ENTER key to confirm.

DELETING A FLIGHT PLAN

1. Press the DELETE FPL key from the FPL MENU page. (Note selecting any line key from the FPL page and entering 99 followed by pressing the ENTER key will also delete the entire flight plan.)ADDING A DEPARTURE OR CURRENT POSITION

ADDING A WAYPOINT MANUALLY

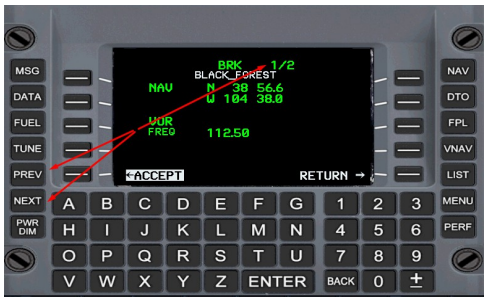
1. Press the first line select key to highlight the field and enter the departure Identifier if not already active.
2. Press the ENTER key to confirm.



3. If more pages are available Press PREV or NEXT key to cycle pages to locate the correct identifier.
4. Press the ENTER key to confirm.

ADDING A SECOND WAYPOINT MANUALLY

1. Press the second line select key to highlight the field then enter the waypoint identifier followed by enter key.
2. Press the ENTER key to confirm.
2. If more pages are available Press PREV or NEXT key to cycle pages to locate the correct identifier.



3. Press the ENTER key to confirm.

ADDING A WAYPOINT BY LIST

1. Press the second line select key followed by the LIST key. (Pressing the LIST key opens the LIST page.)
2. Press the line entry key based on the type of waypoint to be listed. (See the LIST KEY section under Capabilities for detailed information.)
1. Press PREV or NEXT key to cycle pages to locate the waypoint identifier.
2. Enter the number corresponding to the identifier.
3. Press the ENTER key to confirm.

DELETING A WAYPOINT

1. Press the line select key for the waypoint you plan to delete.
2. Press the DEL key. (Note the DEL key will blink to warn that this waypoint is about to be deleted.)
3. Press the DEL key once more to confirm.

DELETING A RANGE OF WAYPOINTS

1. Press the line select key for the first waypoint you plan to delete.
2. Enter the number in the highlighted field that corresponds to the first waypoint that you plan to delete and enter the number for the waypoint you plan to keep. This deletes all waypoints up to the number entry. (Note by entering 5 in the field this will delete 2,3 and 4 and keep 5.)
3. Press the ENTER key to confirm.

DELETING WAYPOINT AND ALL WAYPOINTS THAT FOLLOW

1. Press the line select key for the waypoint you plan to delete and all the waypoints after.
2. Enter 98 in the highlighted field.
3. Press the ENTER key to confirm.

DELETING ALL WAYPOINTS

1. Press any line select key.
2. Enter 99 in the highlighted field.
2. Press the ENTER key to confirm.

ADD DESTINATION

1. Press the last line select key followed by the LIST key. (Pressing the LIST key opens the LIST page.)

2. Press the line entry key APT to display the list of Airports available.
3. Press PREV or NEXT key to cycle pages to locate the Airport identifier.
4. Enter the number corresponding to the identifier.
5. Press the ENTER key to confirm.

ADD DEPARTURE

1. From the FPL page press the MENU key to enter the MENU page.
2. Select the DEPART key to enter the DEPARTURE page.

3. Press PREV or NEXT key to cycle pages to locate the Runway identifier.
4. Enter the number in the Runway field corresponding to the Runway identifier.
5. Press the ENTER key to confirm and proceed.

6. Press PREV or NEXT key to cycle pages to locate the SID identifier.
7. Enter the number in the SID field corresponding to the Standard Departure Route identifier.
8. Press the ENTER key to confirm and proceed.
9. Press the FPL key to confirm.

CHANGE DEPARTURE

1. Adding a new Departure procedure will automatically change the Departure data in the active flight plan.

ADD ARRIVAL

1. From the FPL page press the MENU key to enter the MENU page.
2. Select the ARRIVAL key to enter the ARRIVAL page.

3. Press PREV or NEXT key to cycle pages to locate the Runway identifier.
4. Enter the number in the Runway field corresponding to the Runway identifier.
5. Press the ENTER key to confirm and proceed.

6. Press PREV or NEXT key to cycle pages to locate the STAR identifier.
7. Enter the number in the STAR field corresponding to the Standard Terminal Arrival identifier.

8. Press PREV or NEXT key to cycle pages to locate the Transition identifier.
9. Enter the number in the Transition field corresponding to the Transition identifier.

10. Press PREV or NEXT key to cycle pages to locate the APPR identifier.
11. Enter the number in the APPR field corresponding to the Approach identifier.
12. Press the FPL key to confirm.

CHANGE ARRIVAL

1. Adding a new Arrival procedure will automatically change the Arrival data in the active flight plan.

VERIFICATION AND SUMMARY

1. After all waypoints have been added, step through the legs on the flight plan page with the PREV and NEXT keys. Check that there are no gaps in the flight plan and that the route is the flight plan that was filed.
2. Press PREV or NEXT key to cycle pages until the the Flight Plan Summary page is loaded. Review speed, time, distance and fuel requirements for the flight plan created.

VNAV OPERATIONS

MANUAL OPERATION

1. To manually enter the TO waypoint click the second left line key and select a number for the corresponding waypoint on the list. Click next and the prev keys to see more choices on the list.
2. Next enter the altitude that you desire for that waypoint. For 19k feet enter 19000.
3. Click the first right side line select key to enter a vertical speed profile.

APPROACH OPERATION

1. For an approach type procedure all waypoints that have required altitudes will be already imputed.
2. Click the first right side line select key to enter a vertical speed profile.

OVERALL OPERATION

FR PPOS

This is displays the distance from the waypoint or your your present position (PPOS) in nautical miles.

TO

Displays the current waypoint.

NX

Displays the next waypoint after the current TO waypoint.

TO TOP

Displays the nautical miles to start descending to match the V/S profile.

-1200

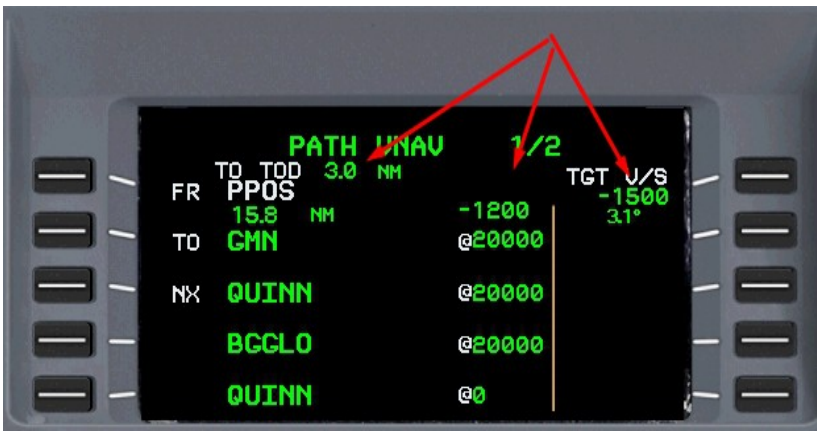
This is the current V/S profile to acquire the 200FL in 15.8 NM.

@20000

This is the required or imputed desired altitude for this waypoint.

TGT V/S

This is the vertical speed profile for the next leg that you desire to decent at. Also displays the pitch angle.



HEADING HOLD OPERATIONS

The HDG HOLD function allows the pilot to select and fly a desired heading using keyboard input from the FMS. The Heading Mode may be armed to automatically intercept the current leg as well.

Heading Hold Procedure

1. Press the HDG line select key to access the FMS HEADING mode (NAV HEADING page).

1. Press the enter key to accept the current heading flashing in the CMD HDG field. To change course enter a new value from the numerical keypad. Press enter to accept the new course flashing in the CMD HDG field.

Heading Hold + Intercept Mode

1. Press the INTERCEPT line key to activate the intercept the active leg.

Heading Hold + No Intercept Mode

1. Press the HDG SEL line key to deactivate the intercept mode.

FUEL OPERATIONS

ADDING WEIGHT DATA

1. Select the PAX line key and enter the number of passengers. (Note do not include the pilots or crew.)
2. Press the ENTER key to confirm and proceed.
3. Enter the cargo weight then press the ENTER key to confirm.

ADDING FUEL DATA

1. Select the ALTERNATE line key and enter the amount of fuel required to fly to an alternate airport.
2. Press the ENTER key to confirm and proceed to highlight the HOLD field.
3. Enter the amount of fuel required for a holding pattern.
4. Press the ENTER key to confirm and proceed to highlight the EXTRA field.
5. Enter the amount of extra fuel required for the flight plan.
6. Press the ENTER key to confirm and proceed to highlight the FUEL ONBOARD field.
7. Enter the amount of fuel on board or press the ENTER key to confirm. (Note the fuel onboard should be already calculated.)