

ARNAV 5000 SERIES



For use with FMS 5000 software versions V5500L and above. R-5000 software versions V5600C and above, and STAR 5000 software versions V5700A and above.

Checklist

Your ARNAV 5000 Series Pocket Guide shows the most frequently used keypad sequences in condensed form for your convenience. For best results, we recommend you read your Operations Handbook before using the Pocket Guide. Keep your Operations Handbook in your aircraft for complete information.

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Standard Data Entry Method

The following data entry procedures apply to all functions where data entry is required.

1. A field must flash before data can be entered.
2. The ENT key is used to begin and terminate data entry.
3. The CLR key is used to backspace to the previous character during data entry and to toggle between + and -, N and S, and E and W.
4. Rotate select knob clockwise (CW) or counter clockwise (CCW) to scroll through the characters that can be entered in a field.
5. Press select knob to select the displayed character & advance to the next character.
6. After the last character is selected, press ENT, do not press select knob.
7. Do not exit a display with a flashing field or the data will be lost.
8. To escape out of a display, press MDE to return to the home page of mode in use.
9. You will be 'prompted' as you work through a particular function with cues to press ENT, turn select knob or push select knob. Please read both lines of the display.

Fly Present Position Direct To A NavData Waypoint

- Press MDE key to NAV CDI display.

NAV 167° 66ⁿ_m To UBGv
IIIIII□IIIIII →0← 250^k_t

Press ENT key to select destination display.

NAV DIRECT To UBGv >ENT
NEW DESTINATION >TURN

- Rotate select knob CW one or more positions to flash AIRPORT / VOR / NDB / INTX / USR WPT / NEAR TO: ROUTE Search.
- Press ENT with desired category in view.

NAV SEARCH BY IDENT >ENT
OTHER CHOICES >TURN

- Press ENT to accept search by identifier, or TURN select knob for other choices.

NAV ENTER IDENT: A

- Rotate select knob through alphabet to first character of identifier. Push in on select knob to move to next character. First airport in database beginning with 'A' appears.

NAV ENTER IDENT: AA8
 INVERMERE BC

- Select desired waypoint and press ENT twice to display:

NAV DIRECT T_o AA8 >ENT

- Press ENT to activate as a direct destination. The CDI centers and new destination is shown with BRG and DIST.

OR

- Continue rotating & pushing select knob until last character is displayed and press ENT.

NAV ABQ BRG:103° 940ⁿ_m
 ALBUQUERQUE, NM

- Press ENT.

NAV DIRECT to ABQ >ENT

- Press ENT to activate as a direct destination. The CDI centers and new destination is shown with BRG & DIST.

Fly Present Position Direct To A User Waypoint

Must first be defined/created in the WPT mode

- Press MDE to NAV CDI display

NAV 320°285ⁿ_m to SEA
IIIIII□IIIIII →0← 250^k_t

- Press CLR to enter USR WPT.

NAV ENTER USR WPT ABC

-
- Press ENT first USR WPT in alphanumeric order is displayed.
 - Rotate select knob to desired waypoint.
 - Press ENT.

NAV ABC BRG: 135°255ⁿ_m
USER POSITION

-
- Press ENT for Direct To.

Fly A Route

(must first be defined / created in Flight Plan Mode)

- Press MDE to NAV CDI display.

NAV 310°285ⁿ_m To SEA
|||||□||||| →0← 250^k_t

- Press ENT to select destination display.

NAV DIRECT To SEA >ENT
NEW DESTINATION >ENT

- Rotate select knob 1 position CCW to Route Search.

NAV ROUTE SEARCH >ENT
OTHER CHOICES >TURN

- Press ENT.
- Rotate select knob through stored routes.
- Press ENT with desired route in view.
- Press ENT.

NAV FLY HIO →RNO >ENT
REVERSE ROUTE >TURN

- Press ENT to fly the route.

Near-To Search

Use the Near To search to find an Airport, VOR, NDB or INTX when you DO NOT know the identifier or city in which it is located but DO know another Airport, VOR, NDB, INTX, or USA Waypoint that is near to it.

- Press MDE to NAV CDI display.
- Press ENT.
- Rotate select knob 6 positions CW.

NAV NEAR TO SEARCH >ENT
OTHER CHOICES >TURN

- Press ENT.
-

NAV FIND AIRPORT >ENT
OTHER CHOICES >TURN

- Turn select knob to view choices of AIRPORT / VOR / NDB / INTX / USR WPT
Press ENT.
-

NAV NEAR TO VOR >ENT
OTHER CHOICES >TURN

Turn select knob to view choices of AIRPORT / VOR / NDB / INTX / USR WPT.

- Press ENT.

NAV SEARCH BY CITY >ENT
OTHER CHOICES >TURN

- Turn select knob to search by identifier, city or Local area.
- Press ENT.
- Rotate select knob to enter identifier or city using standard data entry method.

NAV ENTER VOR :MIA
 MIAMI, FL

- Press ENT to accept identifier or city
- Press ENT to search.

NAV SEARCHING.

- Rotate select knob to view the 15 closest facilities Near-To the identifier or city you chose.
- Push select knob to view additional waypoint information.
- Press ENT to fly Direct To waypoint.

Local Airport Search

- Press APT key, first closest APT to your present position is displayed.

NAV 1 RBG BRG: 259° 39nm
 ROSEBURG, OR

- Rotate select knob to scroll through the 15 nearest airports.
- Push select knob to view NavData information
- Press ENT from any LOCAL AIRPORT display to activate displayed airport as a direct destination
- Press ENT. CDI centers and new destination is shown with BRG & DIST

Local VOR/INTX Search

- Press VOR key to display VORINTX search.

NAV	LOCAL INTX	>ENT
	LOCAL VOR	>TURN

Press ENT for INTX search

OR

- Turn select knob for VOR search.

NAV 1	OEDv	RAD: 0480	37nm
		MEDFORD,	OR

- Rotate select knob to scroll through the nearest 15 VORs or INTXs.
- Push select knob to view NavData information
- Press ENT from any LOCAL VOR/INTX display to activate displayed VOR/INTX as a direct destination.
- Press ENT CDI centers and new destination is shown with BRG & DIST.

View ETE/Track/Altitude

- Press MOE to NAV CDI display.

NAV 167° 66ⁿ_m to UBGv
|||||□||||| →0← 250^k_t

- Push select knob in to display ETE.

NAV 167° 66ⁿ_m 00:16
|||||□||||| →0← 250^k_t

- Push select knob a second time to view track.

NAV 167° 66ⁿ_m TK 167°
|||||□||||| →0← 250^k_t

- Push select knob a third time to view altitude

NAV 167° 66ⁿ_m TK 12^k₅_tC
|||||□||||| →0← 250^k_t

Note. The altitude figure displayed is based on one of the following:

- a) Altitude encoder input
- b) GPS altitude
- c) Manual input from the pilot of altitude and barometric correction

View NavData Information for A Database Waypoint

- Press MDE to NAV CDI display.
- Press ENT to select destination display.
- Rotate select knob one or more positions to flash AIRPORT, VCR. INTX category.
- Press ENT with desired category in view. Rotate select knob to select search by IDENT, CITY or LOCAL
- Press ENT with selected search in view.
- Rotate and push in on select knob to enter identifier or city using standard data entry method.
- Press ENT after the last character is in view

NAV ABQ BRG: 101° 903ⁿ_m
ALBUQUERQUE, NM

- Push select knob to view facility name.

NAV ABQ FACILITY:
ALBUQUERQUE INTL

Push select knob to view frequencies and airport classification.

NAV ABQ TWR 118₃₀
PUBLIC ATIS 118.00

- Push select knob to view runway length. lighting and elevation.

NAV ABQ LEN:13300^F_t
LIGHTS ELEV:5352^F_t

- Push select knob to view IFR/VFR and location

NAV ABQ IFR AIRPORT
N35°02₅₂ W106°36₃₈

- Press MDE to exit.

View NavData Information For Current Destination

- Press MDE to NAV CDI display.

NAV 133° 83₃ⁿ_m To LMTv
|||||□||||| →0← 250^k_t

- Rotate select knob 1 position CCW.

NAV LMTv RAD: 313°81₈ⁿ_m
KLAMATH FALLS, OR

- Push select knob to view frequency, class and elevation.

NAV LMTv FREQ: 115₉₀
CL: HIGH ELEV: 4087^f_t

- Push select knob to View BRG and location.

NAV LMTv BRG: 133°
N42°09₁₉ W121°43₅₈

- Push select knob to view PAD and DIST.

NAV LMTv RAD: 314°756ⁿ_m
KLAMATH FALLS, OR

Defining/Creating a Flight Plan

The flight Plan (FLP) mode is used for creating, editing and deleting flight plans (routes).

You can only create and delete flight plans from the FLP mode, however you can edit any flight plan from FLP mode and edit the flight plan you are flying from NAV Mode.

- Press MDE to FLP mode home display.

```
VIEW/EDIT ROUTE    >ENT
FLP OTHER CHOICES  >TURN
```

- Rotate select knob 1 position CW to Create Route.
-

```
CREATE ROUTE        >ENT
FLP OTHER CHOICES  >TURN
```

- Press ENT to display route creating page.
-

```
START :    END        0 WPTS
FLP        ENTER START >ENT
```

- Press ENT for standard waypoint selection display.

```
AIRPORT SEARCH    >ENT
FLP OTHER CHOICES >TURN
```

- Press ENT for AIRPORT or turn select knob for VOR, NDB, INTX, or Near to search
- Press ENT to search by IDENT or turn select knob for CITY or LOCAL search.

ENTER AIRPORT :A

FLP

-
- Enter identifier/city using standard data entry method, press ENT after last character.
 - Press ENT to confirm selection.

1SO BRG: 354° 14nm
FLP PUYALLUP, WA

-
- Enter up to 24 additional waypoints. The last waypoint entered becomes the end point of the route until another waypoint is entered.

A - B - C - D - E - F - G - etc

- Press ENT after entering the end waypoint to store the flight plan in Route Memory.
- Press MDE twice to exit flight plan creation mode.

Edit A Route From NAV Mode

Many times you will be asked to deviate from a filed flight plan. Use the following technique for editing flight plans in flight.

- Press MDE to NAV CDI display.

NAV 177° 22.1nm T_O EUGv
|||||□||||| →0← 250^k_t

- Rotate select knob 2 positions CCW to route information display.

NAV HIO →RNO 7 WPTS
REMAINS: 03:25 342nm

- Press ENT to display EDIT, VIEW, NAV TO, HOLD AT Waypoint, SAVE, REPLACE.

NAV EDIT ROUTE >ENT
OTHER CHOICES >TURN

- Press ENT to EDIT.

NAV INSERT WAYPTS >ENT
OTHER CHOICES >TURN

- Press ENT to INSERT a waypoint or turn select knob to DELETE a waypoint.

- Rotate select knob to leg that waypoint will be inserted or deleted.

When inserting, the flashes indicating the insertion point. When deleting, the waypoint name flashes.

 NAV HIO →RNO 7 WPTS
 UBGv →TURNO

- Press ENT for standard waypoint selection display. Select AIRPORT, VOR, NDB, INTX, USRWPT, NEAR TO, or ROUTE Search.
- Press ENT with desired category in view.
- Press ENT to select IDENT, CITY or LOCAL search.

NAV ENTER AIRPORT :A

- Enter waypoint to be inserted or deleted.
- Press ENT to confirm selection.
- Press MDE to complete the edit.

Note: Editing a route in the NAV mode does NOT automatically save the changes to permanent memory. Unless you select Save Route or Replace Route, edits will only pertain to this flight plan usage.

Permanent changes or edits to a flight plan can also be done in the FLP mode.

Delete An Entire Route

- Press MDE to FLP mode home display

VIEW / EDIT ROUTE > ENT
FLP OTHER CHOICES > ENT

Press ENT to VIEW / EDIT

- Rotate select knob to the desired route for the direction
- Press ENT with route to be deleted in view
- Rotate select knob to flash DELETE

DELETE PDX →DEN
FLP OTHER CHOICES > TURN

- Press ENT to delete selected route

Create A User Waypoint By Position

- Press MDE to WPT mode home display

WPT VIEW / EDIT WAYPT > ENT
OTHER CHOICES > TURN

- Rotate select knob to ADD USR WPT

WPT ADD USER WAYPT > ENT
OTHER CHOICES > TURN

- Press ENT to select POSITION WPYPT

WPT POSITION WAYPT > ENT
OTHER CHOICES > TURN

- Press ENT to enter waypoint name / identifier
- Enter a name or identifier with up to 5 characters by using the standard data entry method
- Press ENT after the last character, latitude field flashes

WPT ENTER POSITION
N00°00₀₀ W00°00₀₀

- Enter latitude by standard data entry method.
- Press ENT after the last number longitude flashes
- Enter longitude by the standard data entry method
- Press ENT after the last character waypoint is stored in user waypoint memory in alpha numeric order

OR

Create User Waypoint at Present Position

- Press HLD key

WPT HLD04 BRG 314° 0₁ⁿ_m
USER POSITION

- Press ENT to Rename
- Enter a name or an identifier with up to 5 characters using by the standard data entry method

Create a User Waypoint by RAD / DIST

- Press MDE to WPT mode home display

WPT VIEW / EDIT WAYPT > ENT
OTHER CHOICES > TURN

- Rotate select knob to ADD USR WPT
- Press ENT
- Rotate select knob to RAD/DIST waypoint

WPT RAD / DIS WAYPT > ENT
OTHER CHOICES > TURN

- Press ENT to select RAD/DIST waypoint
- Enter a name or an identifier with up to 5 characters using by the standard data entry method
- Press ENT after the last character.

WPT ENTER RADIAL
000°

- Enter radial by using the standard data entry method using a leading 0 if necessary
- Press ENT after the last character
- Enter distance by the standard data entry method
- Press ENT after the last character

WPT SELECT REFERENCE
WAYPOINT >ENT

- Press ENT for standard waypoint selection display.
- Enter reference waypoint using the standard data entry method.
- Press ENT after the last character, waypoint is stored in User Waypoint Memory. in alpha-numeric order.

Setting the Timers

- Press MOE to NAV CDI display.
- Rotate the select knob 1 position CW.

NAV TIME ON: 03:34:53
 TIMER: 00:00:00

The Time On elapsed timer begins when the unit is turned on.

- Press ENT to select the countdown or count up timer.

NAV COUNT DOWN >ENT
 OTHER CHOICES >TURN

- Press ENT to select countdown time.

NAV ENTER COUNTDOWN TIME
 00:02:00

The countdown timer defaults to a 2 minute (standard rate turn) duration.

- Press ENT to accept 2 minutes

OR

- Push in and turn select knob to enter hours. minutes. seconds.
- Press ENT to begin timer.

Computing Fuel Range

Press MDE to NAV CDI display.
Rotate select knob CCW to fuel display.
Press ENT to flash ENTER AMOUNT

NAV ENTER AMOUNT >ENT
 OTHER CHOICES >TURN .

- Press ENT.
- Enter onboard amount using standard data entry method.
- Press ENT after the last number.
- Press ENT to flash ENTER AMOUNT
- Rotate select knob to flash ENTER RATE.

NAV ENTER RATE >ENT
 OTHER CHOICES >TURN

- Press ENT.
- Enter GPH fuel burn rate using standard data entry method. Press ENT after the last number

NAV FUEL 8₀ GPH 70₀ GAL
 RNGE 875ⁿ_m SFC 12₅ MPG

Range and Specific Fuel Consumption (MPG) are displayed.

Compute True Airspeed and Winds Aloft

- Press MDE to NAV COI display.
- Rotate select knob CCW to TAS display.

NAV TAS: 174^k_t HDG: 280°
WIND ^F_r 297 AT 025^k_t

- Press ENT to flash TAS.
- Enter TAS if known and press ENT. If TAS is not known, press select knob from TAS display to view TAS display.

NAV IAS: 142^k_t OAT: 0°C
ALTITUDE: 125^k_tC

- Press ENT to flash IAS.
- Enter IAS. press ENT after the last number.
- Enter outside air temperature. press CLR to select + or - degrees. Press ENT after the last character.
-

True Airspeed and Winds Aloft will be displayed. Wind Calculation will only be accurate when track and ground speed are stable, as in cruise. Winds Aloft are displayed in degrees true.

Change CDI Scale

- Press MDE key to AUX mode home display.

N42°00₂₀ W121°36₀₀
AUX MAGVAR: E17₄ EPE: 0₀

- Rotate select knob 2 position CW to CDI scale.

CDI SCALE
AUX 1₀₀₀ⁿ_m PER DOT

- Press ENT. OR
- Rotate select knob to flash 1.00 nm DOT 0.25nm. DOT or ENTER CDI SCALE.
- Press ENT with desired scale in view
OR
- Press ENT with ENTER CDI SCALE in view. Using standard data entry method.
enter desired scale from 0.001 nm to 9.999nm DOT.
- Press ENT

NAV 131° 157ⁿ_m TO FMGv
IIIIII□IIIIII →0← 250kt

- – 1.000nm DOT
- ◆ - 0.25 nm DOT
- ▼ – User defined scale
- ▲

Setting Altitude & Baro Correction

- Press MDE key to NAV COI page. Rotate select knob 2 positions CW to display Altitude & Baro
- Press ENT. (Enter altitude page displays only if no encoder interface installed)

NAV ENTER ALTITUDE:
 +00₀^k_t

- Push select knob. Turn and push select knob to set altitude. Altitude is shown to the nearest 100 feet. Therefore, assume 2 zeros at the end of altitude. E.g. 10₀ = 10,000ft; 3₀ = 3,000 ft; 0₉ = 900 ft
- OR
- Press ENT to accept altitude displayed
-

NAV ENTER BARO ADJUST:
 29₉₀ IO₀^k_t

- Turn select knob to adjust barometric pressure. One turn = 1/10 inch = 100 feet altitude approx..
- OR
- Turn select knob to enter field elevation displayed to the right of baro pressure

Note: Baro pressure and corresponding elevations are approximate calculations

- Press ENT to accept barometric correction

Note: This page appears only if encoder interface or GPS receiver is installed

Altitude Hold Advisory

- Press MDE key to Nav CDI page

Rotate select knob 3 positions CW

- Press ENT

NAV BEGIN ALT HOLD > ENT

Press ENT

NAV ENTER HOLD ALTITUDE
00₀^k_tC

-
- Push select knob. Turn and push select knob to select Altitude to hold
 - Press ENT

NAV ENTER TOLERANCE
0₃^k_t

-
- Push select knob. Turn and push select knob to select a 100 foot to 9900 foot tolerance

OR

- Press ENT to accept displayed tolerance

Note: This page appears only if encoder interface or GPS receiver is installed

Additional Operations

Refer to the Pilot Operations Handbook for detailed discussions on

- Track. Desired Track Cross Track,
- Vertical Navigation
- Holding at a waypoint
- Tracking an alternate waypoint
- Reversing a route
- MSA / MESA
- Loran tracking and chain control (FMS 5000 and R-5000 only)
- Extended range operation (FMS 5000 and R-5000 only)
- Position initialization
- Special use airspace warnings: TCA, ATA Alert
- System warnings
- Training mode operation
- Vertical Rate display
- Mode C Altitude Encoder, GPS Operations, Grid Navaid and Parallel Offset Approach