TMF

Vertical Nav

430/530

Pilot

Easy

Manuals

2013

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TMF

Using Vertical Navigation (NVAV)

VNAV can be used to whether you are using a flight plan or you are in a Direct-To-Operation.

From anywhere in the NAV section of your GNS 430/530, turn the small knob clockwise to the end – that's the VNAV page (page 6).

Alternately, you can press and hold the CLR button, and from any section or page, it will take you to the DEFAULT NAV page. Then, using the small knob, turn it clockwise to the end (page 6)

Press the small knob to activate the cursor. This highlights the ALTITUDE value. You can change it using the small and LARGE knobs. In this case, we have entered 1000 feet.

Press **ENT** to advance.

The cursor moves to the next box to the right – the Target Altitude REFERENCE box. Turn the small knob one click to the right and using the LARGE knob, you can choose "Above Wpt" and "MSL". In this case, we'll choose "Above Wpt". Press **ENT** to advance.

Four or five miles is a good choice to be 1000 feet above the landing Wpt. Your choice.

Press **ENT** to advance the next box, "Before" or "After".

The GNS defaults to "Before" in the center position of the TARGET POSITION box. You can change it to "After". In this case, we have chosen to keep "Before".

Press **ENT** to advance to the next box, "WAYPOINT".

If you are using a flight plan (not Direct navigation), your landing airport's waypoint should be there. If not, turn the small knob one click to the right to bring up the waypoint selection box. Using the LARGE knob, choose your landing airport. In this case, it is Blythe, CA (KBLH).

Press **ENT** to advance to the "VS PROFILE" box.

This all depends on your comfort level. Some people use 400 ft per minute, some 700, some 1,000. If you want to change the value, turn the small knob one click to the right, and using the LARGE and small knobs, enter the desired value.

Press **ENT** to advance.

Press the small knob to un-activate the cursor.

VNAV PROFILE MESSAGE PROMPT

You can have a Message flash prompt you as you approach the VNAV descent profile.

To do this:

While on the VNAV page (NAV, page 6), press the **MENU** key. This will bring up the menu for this page. If VNAV Messages are "OFF", it will ask you if you'd like "VNAV Messages On?". If NVAV Messages are "OFF", it will ask you if you'd like "VNAV Message Off?"

Press **ENT** to select.

The MSG prompt will flash at the bottom of the page as you approach your VNAV profile (in this case 400 feet per minute), indicating that you are approaching your VNAV profile.

As you approach within 500 feet of your desired altitude (in this case 1000 feet above KBLH), the message prompt will flash.

PUTTING THE VERTICAL DESCENT RATE WHERE YOU CAN SEE IT

Once the descent begins, it's a bit annoying to keep switching to the VNAV page to see if you're still on the descent profile.

I like the Vertical Speed Required (VSR) on the NAV page.

To do this:

From the NAV page of your choice, press the **MENU** key.

Using the LARGE knob, select Change Fields?

Instead of displaying Ground Speed (GS) on the NAV page that I like to display, I change that field to "VSR". On the other NAV page, I ensure that I still have GS displayed.

MEETING ALTITUDE RESTRICTIONS:

If you are using VNAV to help you meet a crossing restriction, you would enter the desired altitude (in this case "5000"), Press **ENT** to advance.

Turn the small knob one click to the right, and using the LARGE knob, choose "MSL".

Press **ENT** to advance.

Choose the desired waypoint, distance you want to use prior to the waypoint to give yourself some "cushion", and the desired Feet Per Minute descent.

After you have met your crossing restriction, if desired, modify the VNAV page back to the 1000 foot target altitude above the landing airfield Wpt.