GARMIN

G500/G600

Cockpit Reference Guide

For information regarding the Aviation Limited Warranty, refer to Garmin's website. For aviation product support, visit flyGarmin.com.

Warnings, Cautions, & Notes

⚠️ **WARNING:** Do not use terrain avoidance displays as the sole source of information for maintaining separation from terrain and obstacles. Garmin obtains terrain and obstacle information from third party sources and cannot independently verify the accuracy of information.

⚠️ **WARNING:** Always refer to current aeronautical charts and NOTAMs for verification of displayed aeronautical information. Displayed aeronautical data may not incorporate the latest NOTAM information.

⚠️ **WARNING:** Always refer to current aeronautical charts for appropriate minimum clearance altitudes. The displayed MSAs are only advisory in nature and should not be relied upon as the sole source of obstacle and terrain avoidance information.

⚠️ **WARNING:** Do not use geometric altitude for compliance with Air Traffic Control altitude requirements. The primary barometric altimeter must be used for compliance with all Air Traffic Control altitude regulations, requirements, instructions, and clearances.

⚠️ **WARNING:** Do not use TAWS information for primary terrain or obstacle avoidance. TAWS is intended only to enhance situational awareness.

⚠️ **WARNING:** Do not rely solely on the GDU 620 for cross-checking all redundant or correlated information available in the cockpit. Although unlikely, it may be possible for erroneous operation to occur without a fault indication shown by the GDU 620.

⚠️ **WARNING:** Always use pressure altitude displayed by the GDU 620 PFD or other pressure altimeters in aircraft for vertical navigation. GPS altitude is geometric height above Mean Sea Level and could vary significantly from the altitude displayed by pressure altimeters or other altimeters in aircraft.

⚠️ **WARNING:** Do not use outdated database information. Databases used in the G500/G600 systems must be updated regularly in order to ensure that the information remains current. Pilots using an outdated database do so entirely at their own risk.

WARNINGS, CAUTIONS, AND NOTES

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WARNING: Do not use basemap information (land and water data) as the sole means of navigation. Basemap data is intended only to supplement other approved navigation data sources and should be considered only an aid to enhance situational awareness.

WARNING: Do not rely solely upon the display of traffic information for collision avoidance maneuvering. The traffic system does not provide collision avoidance resolution advisories and does not under any circumstances or conditions relieve the pilot's responsibility to see and avoid other aircraft.

WARNING: Do not use data link weather information for maneuvering in, near, or around areas of hazardous weather. Information contained within data link weather products may not accurately depict current weather conditions.

WARNING: Do not use the indicated data link weather product age to determine the age of the weather information shown by the data link weather product. Due to time delays inherent in gathering and processing weather data for data link transmission, the weather information shown by the data link weather product may be significantly older than the indicated weather product age.

WARNING: Do not rely solely upon the display of traffic information to accurately depict all of the traffic within range of the aircraft. Due to lack of equipment, poor signal reception, and/or inaccurate information from aircraft or ground stations, traffic may be present that is not represented on the display.

WARNING: Do not rely solely upon data link services to provide Temporary Flight Restriction (TFR) information. Always confirm TFR information through official sources such as Flight Service Stations or Air Traffic Control.

WARNING: Do not rely on information from a lightning detection system display as the sole basis for hazardous weather avoidance. Range limitations and interference may cause the system to display inaccurate or incomplete information. Refer to documentation from the lightning detection system manufacturer for detailed information about the system.

WARNING: *Always obtain qualified instruction prior to operational use of this equipment. During flight operations, carefully compare indications from the GDU 620 to all available navigation sources, including the information from other NAVAIDs, visual sightings, charts, etc. For safety purposes, always resolve other discrepancies before continuing navigation.*

WARNING: *Do not exceed 200 degrees per second in pitch or roll with a GRS 77/GDC 74 installation. This may invalidate AHRS attitude provided to the GDU 620. Exceeding 450 KIAS may invalidate ADC information provided to the GDU 620. With a GSU 75/GRS 79/GDC 72 installation, exceeding 225 degrees per second in pitch or roll may invalidate AHRS attitude provided to the GDU 620. Exceeding 435 KIAS may invalidate ADC information provided to the GDU 620.*

WARNING: *Do not rely on the accuracy of attitude and heading indications in geographic areas where variation in the earth's magnetic field exists. This includes: North of 72° North latitude at all longitudes; south of 70° South latitude at all longitudes; north of 65° North latitude between longitude 75° West and 120° West (Northern Canada); north of 70° North latitude and between longitude 85° East and 114° East (Northern Russia);south of 55° South latitude between longitude 120° East and 165° East (region South of Australia and New Zealand).*

CAUTION: *Ensure that any unit repairs are made by an authorized Garmin service center. Unauthorized repairs or modifications could void both the warranty and affect the airworthiness of the aircraft.*

CAUTION: *Do not clean display surfaces with abrasive cloths or cleaners containing ammonia. They will harm the anti-reflective coating.*

NOTE: *The United States government operates the Global Positioning System (GPS) and is solely responsible for its accuracy and maintenance. The GPS system is subject to changes which could affect the accuracy and performance of all GPS equipment. Portions of the system utilize GPS as a precision electronic NAVAID. Therefore, as with all NAVAIDs, information presented by the system can be misused or misinterpreted and become unsafe.*

WARNINGS, CAUTIONS, AND NOTES

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NOTE: Interference from GPS repeaters operating inside nearby hangars can cause an intermittent loss of attitude and heading displays while the aircraft is on the ground. Moving the aircraft more than 100 feet away from the source of the interference should alleviate the condition.

NOTE: All visual depictions contained within this document, including screen images of the system panel and displays, are subject to change and may not reflect the most current system and aviation databases. Depictions of equipment may differ slightly from the actual equipment.

NOTE: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: Terrain data is not displayed when the aircraft latitude is greater than 75° North or 60° South.

NOTE: This product, its packaging, and its components contain chemicals known to the State of California to cause cancer, birth defects, or reproductive harm. This notice is being provided in accordance with California's Proposition 65. If you have any questions or would like additional information, please refer to our website at www.garmin.com/prop65.

NOTE: Do not use SafeTaxi, FliteCharts, or Chartview functions as the basis for ground maneuvering. SafeTaxi, FliteCharts, and Chartview functions have not been qualified to be used as an airport moving map display (AMMD). Safetaxi, FliteCharts, and Chartview are intended to improve pilot situational awareness during ground operations and should only be used by the flight crew to orient themselves on the airport surface.

Record of Revisions		
Revision	**Date**	**Description**
K	06/2019	Update reflects software v7.37 upgrade.
J	08/2018	Update reflects software v7.30 upgrade.
H	10/2016	Update reflects software v7.12 upgrade.
G	04/2015	Update reflects software v7.00 upgrade. Combined G500 and G600 CRGs.
F	10/2012	Update reflects software v6.11 upgrade.
E	08/2011	Update reflects software v6.00 upgrade.
D	11/2010	Upgrade reflects software v4.00 and v5.00 upgrade.
C	10/2009	Added subscription information for FliteCharts and ChartView.
B	06/2009	Upgrade reflects software v3.00 upgrade. Added SVT, TAWS-B, Terrain Proximity, Wind Vectors, Minimums Bug, GAD 43, and Weather Radar Information.
A	6/2008	Product release.

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Contents

Introduction

This reference guide covers the operation of the GDU 620 as integrated in the G500 and G600 Avionics Display Systems. The G500 and G600 Avionics Display Systems are avionics suites that combine primary flight instrumentation, navigational information, and a moving map all displayed on dual 6.5 inch color screens. The G500 and G600 systems are composed of sub-units or Line Replaceable Units (LRUs). LRUs have a modular design and can be installed directly behind the instrument panel or in a separate avionics bay if desired. This design greatly eases troubleshooting and maintenance of the G500 or G600 system. A failure or problem can be isolated to a particular LRU, which can be replaced quickly and easily. Each LRU has a particular function, or set of functions, that contributes to the system's operation. For more details on the G500 and G600 systems, refer to the latest revision of the G500/G600 Pilot's Guide, P/N 190-00601-02.

PFD/MFD

NOTE: In some models or installations, the PFD, MFD, and their controls are switched to the other side.

Primary Flight Display (PFD)

Primary Flight Display (PFD)

PRIMARY FLIGHT DISPLAY

① *Airspeed Tape: Displays Groundspeed (GS), Airspeed Trend, Current Airspeed, and True Airspeed (TAS). Markings dependent upon installation configuration.*

② *Wind Vector: Displays direction and speed of wind.*

③ *Heading Select Key: Press **HDG** and turn **PFD** knob to set heading bug.*

④ *Course Select Key: Press **CRS** and turn **PFD** knob to set the course of the selected source (VOR1, VOR2, GPS1, or GPS2).*

⑤ *Altitude Select Key: Press **ALT** and turn **PFD** knob to set altimeter bug.*

⑥ *V/S (Vertical Speed) Select Key: Press **V/S** and turn **PFD** knob to set V/S bug.*

⑦ *Barometer Select Key: Press **BARO** and turn **PFD** knob to change barometric setting.*

(8) *Outside Air Temperature (SAT, TAT, or ISA): Displays the current outside air temperature.*

(9) *NAV Status Window: (NAV Style 2 Shown) Displays which GPS is selected as the Active Source, Active Waypoint (WPT), and Distance to Waypoint (DIS). NAV Style 1 (Not Shown) displays Active Source, WPT, DIS, Desired Track (DTK), and Current Track (TRK) at top of screen.*

(10) *PFD Knob: Turn **PFD** knob to change bug settings, Heading Bug, Course, Altitude Bug, V/S Bug, and Barometer setting.*

(11) *Soft Keys: Used to select available options on PFD or MFD.*

(12) *SD Card Slots, Upper and Lower: The lower slot is used for the supplemental database card, including aviation database updates. The upper slot may be used to update the internal aviation database.*

(13) *Soft Key Labels: Located on the bottom screen of the PFD and MFD. Selection is done by pressing the corresponding soft key. Soft keys that are available have the labels shown as white text on a black background. Soft keys that are selected have the labels shown as black text on a gray background. Soft keys that are unavailable have the labels shown as gray text on a black background.*

(14) *Horizontal Situation Indicator (HSI): Displays the Selected Heading Box, Current Heading, Turn Rate Markings, and Heading Trend.*

(15) *Vertical Speed Tape: Displays Vertical Speed and the Vertical Speed Bug.*

(16) *Barometric (BARO) Setting: Displays the current setting of barometric pressure.*

(17) *Radar Altimeter Display: Displays current height above ground from the radar altimeter. Brown band in altitude tape represents the ground.*

(18) *Fast/Slow Indicator: Refer to your AFM for details on operation.*

(19) *Roll Pointer and Slip/Skid Indicator: The slip/skid indicator is the bar beneath the roll pointer. The indicator moves with the roll pointer and laterally away from the pointer to indicate lateral acceleration (slip/skid).*

(20) *Altitude Tape: Displays Current Altitude, Altitude Trend, Altitude Bug, Altitude or Radar Altimeter Minimums Bug, and BARO setting.*

(21) *Marker Beacon: Marker Beacon Indicator.*

(22) *Clock or Timer window.*

PRIMARY FLIGHT DISPLAY

Airspeed Tape

The upper left portion of the PFD display provides Groundspeed, Airspeed Trend, Current Airspeed, and True Airspeed information. Current Airspeed is normally shown in white on the black pointer. The Trend Indicator (magenta line) indicates what the airspeed will be in six seconds, if the current acceleration is maintained. If the current acceleration will cause the airspeed to exceed V_{NE} in six seconds, the airspeed is displayed in yellow. If the current airspeed exceeds V_{NE}, the pointer changes to red with white text.

> *NOTE: Airspeed tape markings are specific to each aircraft and may not include all the markings shown below. Refer to the POH for required markings.*

$M_{MO}/$
$V_{MO}/$
V_{NE}

V_{NO}

V_{FE}

V_{S1}

V_{S0}
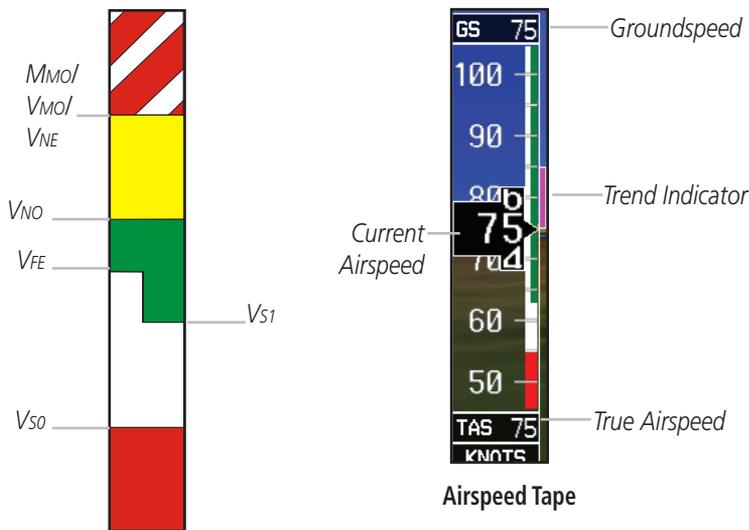
Typical Airspeed Tape Markings

Groundspeed

Trend Indicator

Current Airspeed

True Airspeed

Airspeed Tape

White triangle
(Refer to AFM/POH)

Overspeed

V_{YSE}

V_{MCA}

Maximum speed with landing gear extended.
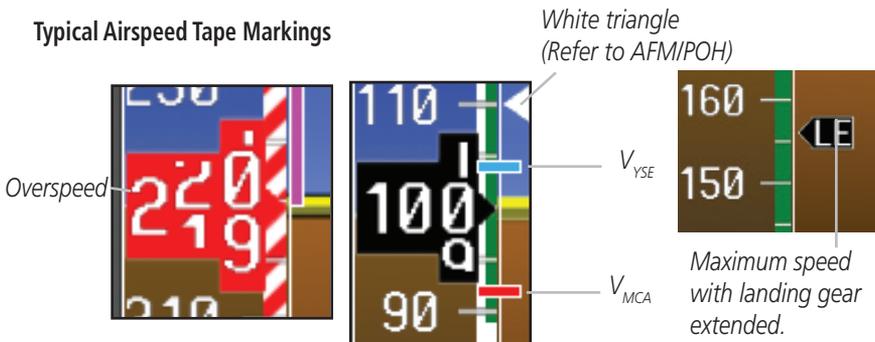
Overspeed Indication

Additional Reference Markings

Reference Speeds

V-speeds (Glide, V_r, V_X, and V_Y) default values are set during the installation process, but can be changed and turned on/off from the System Setup page on the first page of the Aux page group. When active (on), the V-speeds are displayed at their respective locations to the right of the airspeed scale.

Glide Reference Marker

Vr Reference Marker

Vx Reference Marker

Vy Reference Marker
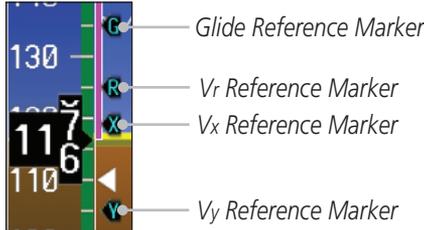
Reference Speeds

The labels for the reference markers may vary as configured during installation.

Reference Marker

V2 Reference Marker

V1 Reference Marker

Vr Reference Marker
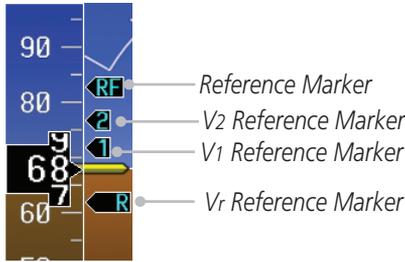
Alternate Reference Speeds

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Altitude Tape

The upper right portion of the PFD displays the Altitude Bug setting, Current Altitude, Altitude Trend, Altitude Minimums Bug, and the current BARO Setting. The Altitude Trend indicates what the altitude will be in six seconds if the current vertical speed is maintained.
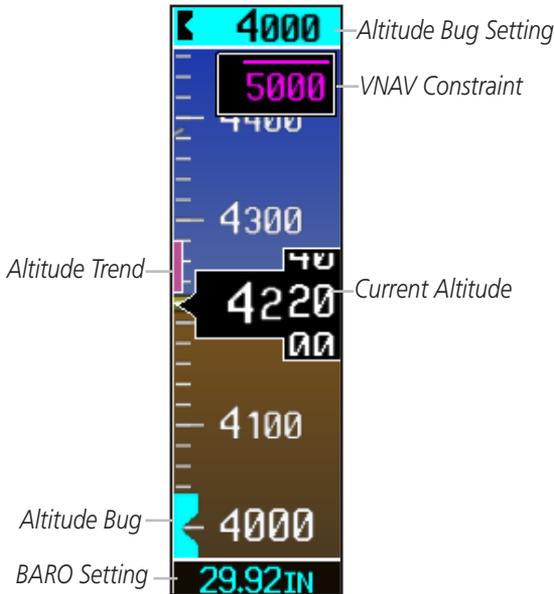
Altitude Tape

Barometric Pressure

The Barometric Pressure (BARO setting) is displayed at the bottom of the altitude tape. To change the BARO setting, press the **BARO** key and turn the **PFD** knob to the desired pressure. To select standard pressure (29.92in, 1013 mb), press the **PFD** knob. To return to the previous setting, press the **PFD** knob again.

Minimum Descent Altitude/Decision Height Alerting

For altitude awareness, a barometric Minimum Descent Altitude (MDA) or Decision Height (DH) alert can be displayed on the PFD. The values are set in the Active Flight Plan page or from the Charts page menu. When active, the minimum descent altitude setting is displayed in the minimums window at the bottom left of the Altitude Tape.

- The minimums box appears with the altitude value in cyan text. Once in range, the Minimums Bug appears in cyan on the altitude tape. A portion of the Minimums Bug will be displayed at the bottom of the altitude tape if the selected altitude minimums bug is off of the tape.
- When the aircraft is within 100 feet of the selected altitude minimums setting, the bug and the altitude text turn white.
- Once the aircraft reaches the selected altitude minimums setting, the bug and the altitude text turn yellow and the aural alert, "Minimums, minimums" is heard one time. The text remains yellow until the aircraft altitude is more than 50 feet above the set altitude minimum value.

Bug and text are yellow when altitude reached

Bug and text are white within 100 ft

Minimums Bug
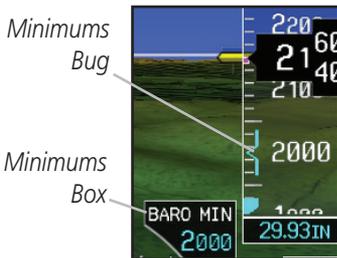
Minimums Box

Minimums Annunciations using BARO for Source

Alerting is inhibited while the aircraft is on the ground and also, if a value has been set for altitude alerting, until the aircraft reaches 150 feet above the setting for the alert.

> **NOTE:** If you highlight the minimums Altitude field and press the CLR key, it will turn the minimums alerting functionality off.

PRIMARY FLIGHT DISPLAY

To set the altitude for the Minimums Bug:

```
MINIMUMS
SOURCE  ◄  BARO  ►    ALTITUDE  1000FT
```

1) While viewing the Active Flight Plan page of the FPL Group, press the small **MFD** knob to activate the cursor and turn the large **MFD** knob to the Source selection.

2) Turn the small **MFD** knob to select Off, BARO, or RAD ALT.

3) Turn the large **MFD** knob to the ALTITUDE portion of the MINIMUMS section.

4) Turn the small **MFD** knob to enter the desired altitude. Press the **ENT** key to confirm selection.

5) When finished, press the small **MFD** knob to exit the MINIMUMS box.

The Minimums Bug can also be set from the Charts page of the FPL.

1) While viewing the Charts page of the FPL Group, press the **MENU** key and select "Set Minimums" from the Options menu.

2) Turn the small **MFD** knob to select Off, BARO, or RAD ALT.

3) Press the **ENT** key to move to enter altitude. Turn the small **MFD** knob to enter the desired altitude. Press the **ENT** key to confirm selection.

PRIMARY FLIGHT DISPLAY

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Altitude Bug

The Altitude Bug is displayed on the Altitude Tape at the selected altitude bug setting. A portion of the Altitude Bug will be displayed at the top or bottom of the altitude tape if the selected altitude bug is off of the tape.

Altitude Bug Setting

Altitude Bug
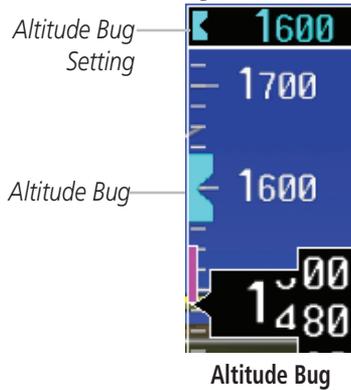
Altitude Bug

The Altitude Bug provides visual and aural altitude alerting. Aural alerting occurs within 200 feet (or 1,000 feet, as configured) of the Altitude Bug setting or when deviating beyond 200 feet of the bug.

Within 1000 ft *Within 200 ft* *Deviation of +/- 200ft*

Altitude Bug Indications

Vertical Navigation (VNAV) Altitude Constraint

VNAV is available on GDU 620s with software v7.30 or later. VNAV altitude constraints display on the Altitude Tape when vertical navigation guidance is received from a GTN 650/750 with software v6.50 or later.
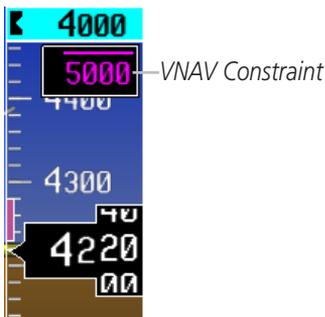
VNAV Constraint

VNAV Alt Constraint

VNAV altitude constraints display the altitude that the aircraft must be above, below, or at, depending on the vertical navigation guidance.

At or Above   *At or Below*   *At*

VNAV Constraints

Fast/Slow Indication

The Fast/Slow indication from an external system may be optionally displayed on the left side of the PFD. Refer to the Airplane Flight Manual for instructions on using the Fast/Slow indications.

Pointer
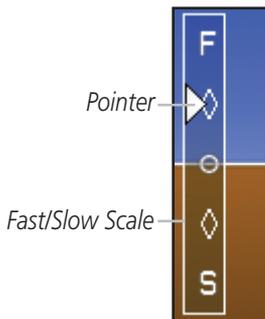
Fast/Slow Scale

Fast/Slow Scale and Pointer

Wind Vectors

The PFD will display a Wind Vector Field to the left of the HSI when configured by the user. There are four different styles of wind vector displays available. Refer to the System Setup page in the AUX Group section of this guide for instructions on selecting wind vector style. Wind Vectors can only be calculated when the aircraft is in the air.

Wind Vector Field

Wind Vector Display

Vertical Speed (V/S)

The Vertical Speed Tape and Vertical Speed Bug are displayed below the Altitude Tape. For aircraft with vertical speed operating limitations, red bands showing Vertical Speed Maximum and Minimum ranges will be shown on the left side of the Vertical Speed tape.

Max Vertical Speed
Required Vertical Speed
Vertical Speed Bug
Current Vertical Speed

Min Vertical Speed
Vertical Speed Bug Setting
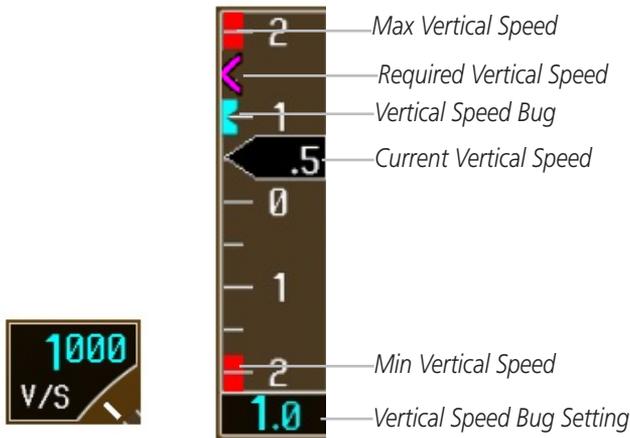
Vertical Speed (V/S) Tape and Window

Vertical Deviation Indicator (VDI)

The Vertical Deviation Indicator is displayed for ILS, GPS, and VNAV approaches with vertical guidance. The GPS approach glidepath is shown in magenta (G and indicator). The ILS approach glideslope is shown in green (G and indicator). VNAV guidance is shown in magenta (V and indicator).

Vertical Deviation Indicator *VDI Preview*

Vertical Deviation Source

GPS Approach **ILS Approach** **VNAV Guidance** **VDI Preview**
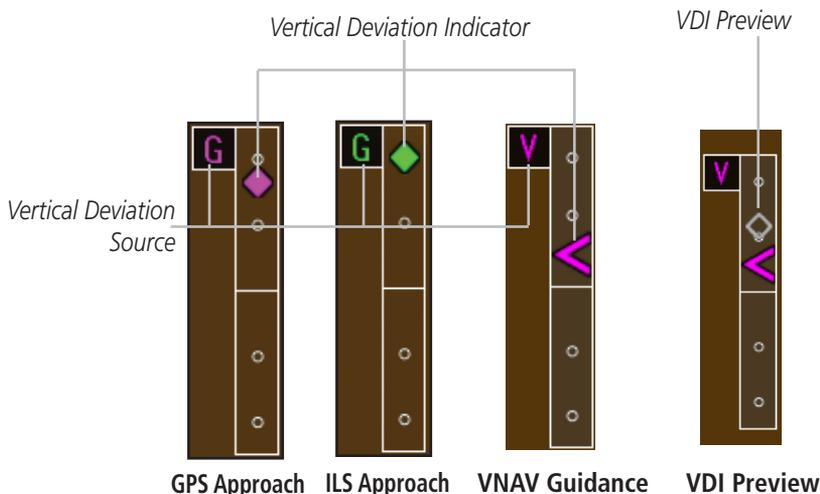
DME Indication

DME information is displayed in a window in the lower left corner of the PFD. The distance to the station and the NAV source used are shown.

DME Information *DME Hold Annunciation*

DME 1.0NM NAV1 H | 0
DME NAV1 | DME NAV2 | DME HOLD | | BACK

Selected DME *Set Hold for Selected DME*

DME Indication
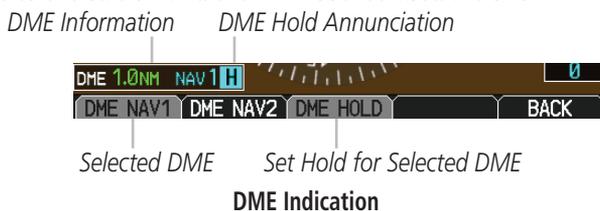
Clock/Timer

The Clock/Timer function displays a clock or timer window in the lower left corner of the PFD.

Show/Hide Clock *Select Timer*

HIDE | TIMER | START | RESET | BACK
HIDE | CLOCK | START | RESET | BACK

Show/Hide Timer *Select Clock* *Start/StopTimer* *Reset Timer*

Clock and Timer Functions

PRIMARY FLIGHT DISPLAY
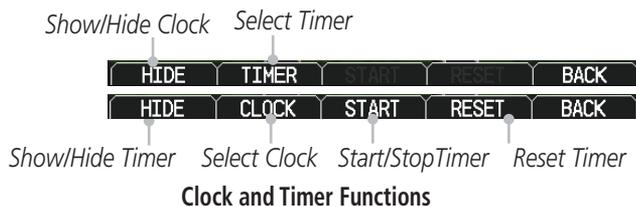
Temperature Display

The outside air temperature is displayed to the left of the HSI. The air data computer calculates the temperature based on temperature probe and Pitot/static inputs. The units (°C or °F) and temperature reference are selected on the AUX – SYSTEM SETUP page. The temperature reference can be selected to one of the following choices:

- Static Air Temperature (SAT) – This is the calculated temperature of the stationary (static) outside air. Conceptually, this is the temperature that would be read on a thermometer floating stationary at the current location.

- Total Air Temperature (TAT) – This is the calculated temperature of the outside air as it moves past the aircraft, including the rise in temperature due to air compression and friction at the current airspeed.

- Difference from International Standard Atmosphere (ISA) – This is the difference between SAT and standard (ISA) temperature at the current altitude. This provides an indication of how much warmer/colder the temperature is from a "standard" atmosphere.

Attitude Indicator

The standby mechanical Attitude Indicator in your aircraft is either a Ground Pointer or a Roll Pointer configuration. The GDU 620 Attitude Indicator has been configured in either a Ground Pointer or a Roll Pointer configuration to match the configuration of your aircraft's standby Attitude Indicator.

In an aircraft with an Attitude Indicator that has a Ground Pointer, the pointer above the roll scale shifts with the roll or bank angle of the aircraft to keep the Roll Scale Zero Pointer pointing towards the ground.

Attitude Indicator with a Ground Pointer Configuration in a Left Turn

In an aircraft with an Attitude Indicator that has a Sky Pointer, the pointer below the roll scale shifts with the roll or bank angle of the aircraft to keep the Roll Pointer pointing towards the sky.
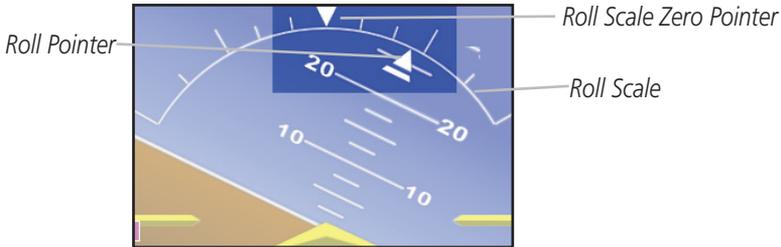
Attitude Indicator with a Sky Pointer Configuration in a Left Turn

The Slip/Skid Indicator is the bar beneath the roll pointer. The indicator moves with the roll pointer and moves laterally away from the pointer to indicate lateral acceleration. Slip/skid is indicated by the location of the bar relative to the pointer. One bar displacement from the roll pointer is equivalent to one ball displacement on a traditional Slip/Skid Indicator.

Slip/Skid Indicator
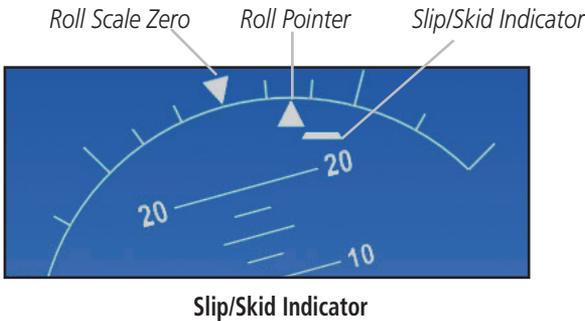
Horizontal Situation Indicator (HSI): Aircraft Heading

The top of the HSI displays current heading, current GPS track (magenta diamond), heading trend, and turn rate markings. The heading trend indicates the rate of turn. Marking for rate of turn are provided at half-standard (1.5°/sec) and standard (3°/sec) rate.

Current Heading　　*Turn Rate Markings*

Current GPS Track　　　　*Heading Trend*

HSI Heading Markings
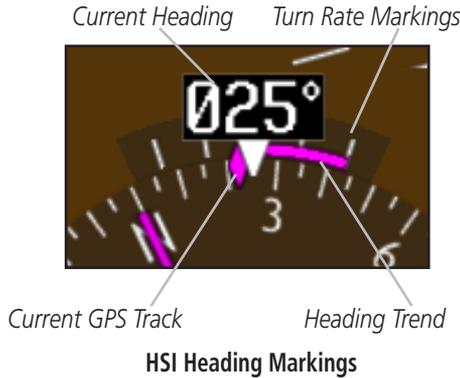
> *NOTE: If magnetic heading is lost, GPS ground track will be displayed in place of heading.*

Adjusting the Course Pointer

Press the **CRS** key and turn the **PFD** knob to select a course for a VOR/ILS or OBS mode course.

HSI Bearing Pointers

> *NOTE: The Bearing Pointer for navigation source 1 (BRG1) will be an arrow with a single line. The Bearing Pointer for navigation source 2 (BRG2) will be an arrow with a double line.*

To toggle between the available bearing pointers, press the **PFD** soft key, then the **BRG** soft key, and then the **BRG1** or **BRG2** soft keys.

The **BRG1** soft key cycles through modes NAV1 and GPS1. Additionally, ADF is available if an ADF source is installed.

The **BRG2** soft key cycles through modes, NAV2 and GPS2 if a second NAV or GPS source is available. Additionally, ADF is available if an ADF source is installed.

PRIMARY FLIGHT DISPLAY

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BRG2 Pointer   *BRG1 Pointer*

40
TAS 68
KNOTS

348°

2000
29.92IN

OAT 22°C

GPS2 TERM

N
0
G
P

2
1
0
1
2

→ NAV1
⇒ NAV2

0

CDI   1-2   PFD

Selected source for BRG 1 bearing pointer

Selected source for BRG 2 bearing pointer
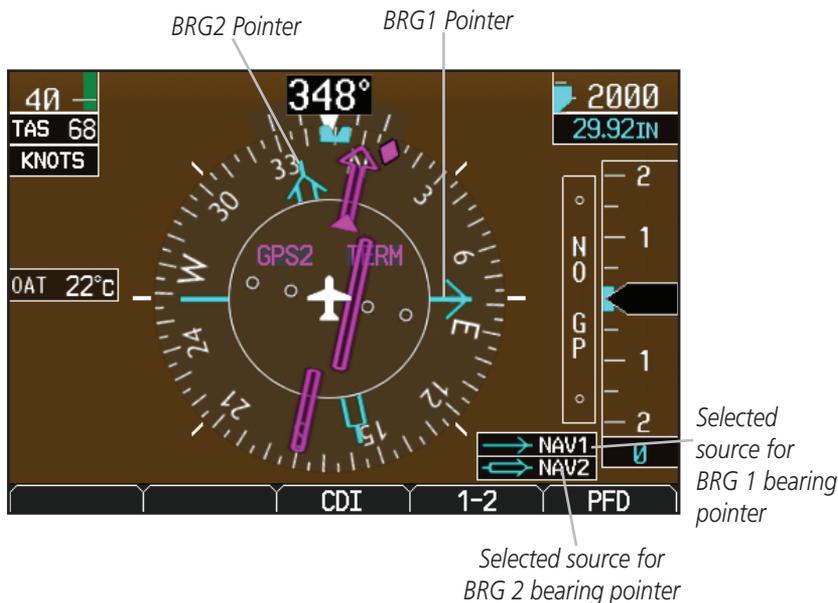
Bearing Pointers on the HSI

360°

GPS1
GPS2
VOR1
VOR2
LOC1
LOC2

OCN
ENR
TERM
APR
LNAV
LNAV+V
L/VNAV
LPV
LP
LP +V
VISUAL
1.00nm
0.30nm

CDI Source	GPS Mode

GPS Advisory LOI	Suspend

MSG
LOI

OBS
SUSP
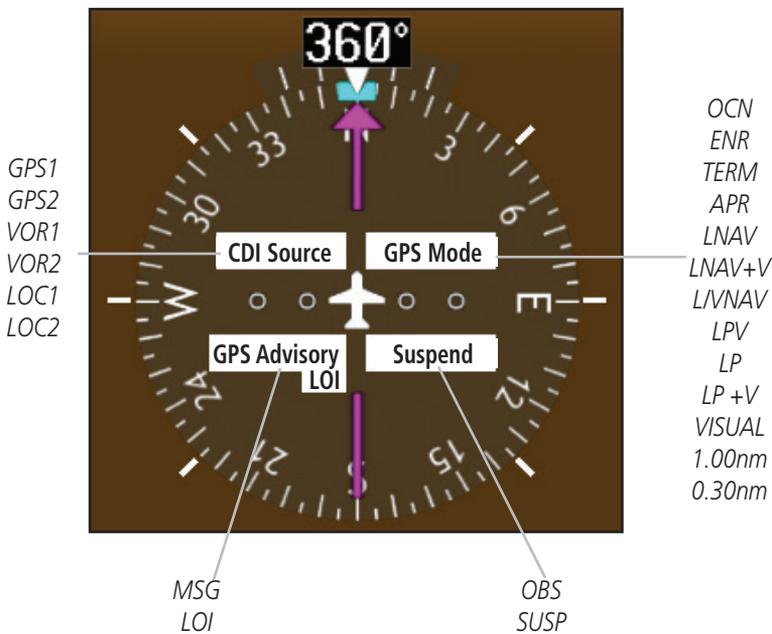
PFD HSI Annunciations

PRIMARY FLIGHT DISPLAY

CDI Source

The CDI Source on the HSI will display which navigation source is selected. Navigation sources available: GPS1, VOR1, or LOC1.

Navigation sources available: GPS2, VOR2, or LOC2, if a second source is available.

GPS Mode

The GPS Mode annunciation on the HSI indicates the current CDI scaling of the GPS navigator. Refer to the GPS navigator pilot's guide for a description of each mode.

GPS Advisory

MSG: Displays when a new advisory **message** is displayed on the GPS navigator.

LOI (Loss of Integrity): Displays when GPS **integrity** is **lost**.

Suspend

OBS: Displays when **OBS** mode is activated.

SUSP: Displays when automatic waypoint sequencing on the interfaced GPS unit is suspended.

CDI/VDI Preview

The CDI/VDI preview displays the upcoming VOR/LOC approach in gray. CDI preview displays as gray hollow lines. Course angle and source display in gray text. VDI preview displays as a gray hollow diamond.

Preview On   *Preview Off*

CDI/VDI Preview

Marker Beacon Annunciations
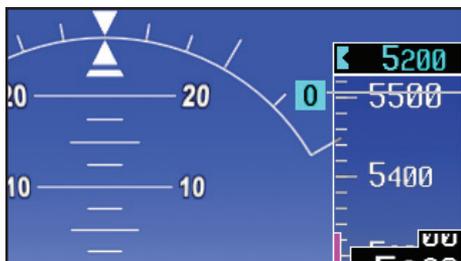
Marker Beacon Location

Marker Beacon Location

Marker Beacons

Current Beacon	Icon (Standard)	Icon (Blink)
Inner Marker	I	I
Middle Marker	M	M
Outer Marker	O	O

Miscompare Annunciations

For complete description and conditions of miscompare annunciations, refer to the G500/G600 Pilot's Guide, P/N 190-00601-02.

Pitch and Roll Miscompare

Pitch Miscompare

Roll Miscompare

Miscompare Annunciations

PRIMARY FLIGHT DISPLAY

Switching Between Navigation Sources
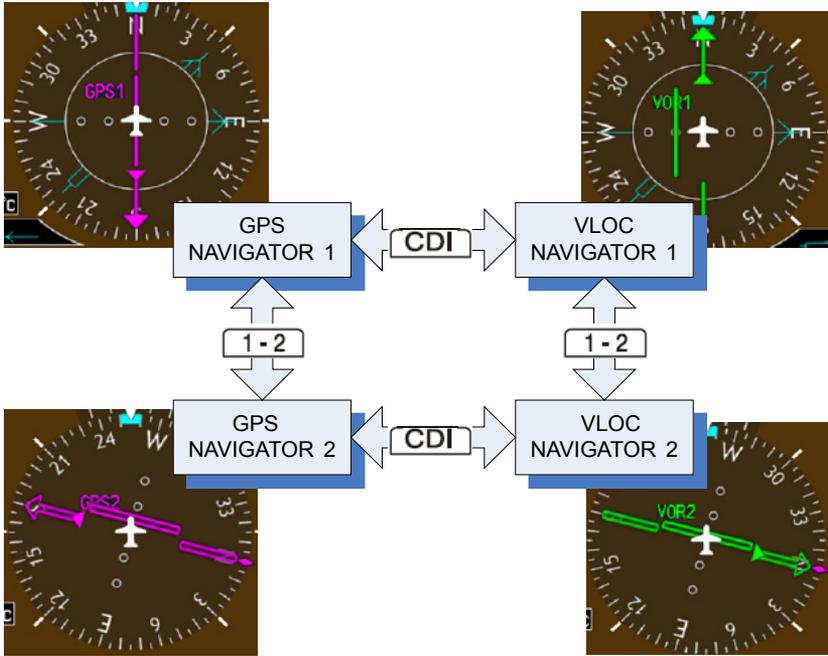
CDI Sources

The Course Deviation Indicator (CDI) can display two sources of navigation: GPS or NAV (VOR or LOC). Press the **CDI** soft key to toggle between the available CDI modes, (GPS or VOR).

If a second GPS source or NAV source is available, pressing the **1 - 2** soft key will toggle the navigation sources (VOR1 and VOR2, or GPS1 and GPS2).

> ✔ *NOTE: Verify the navigation source by the indication on the HSI.*

> ✔ *NOTE: The selected navigator is the source for all PFD and MFD functions, except for bearing pointers and external TAWS PFD annunciations.*

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Autopilot (AP)

The G500/G600 is able to interface to certain autopilot systems to provide the functions described in this section. Please refer to your particular Airplane Flight Manual and autopilot documentation for specific information and operating instructions.

GAD 43 Attitude

If the GAD 43 Adapter is providing attitude to the autopilot, test the disconnect mechanism prior to each flight in the following manner:

1) Allow all avionics to complete power up and begin normal operation.

2) Engage the autopilot while on the ground.

3) Press and release the **AP TEST** soft key and verify that the autopilot disconnects normally.

> ⚠️ **CAUTION: Do not use the autopilot if the AP TEST key fails to disconnect the autopilot.**

> ✓ **NOTE: If the AP TEST soft key is held for longer than one second, the test will not run.**

Autopilot Disconnect

When the GDU 620 attitude monitors have detected an AHRS malfunction, or the inability to actively monitor the AHRS, a "Check Attitude" annunciation will be displayed on the PFD and the autopilot will automatically disconnect.

> ✓ **NOTE: Only appears with the installation of an optional GAD 43 Adapter.**

Check Attitude Annunciation

<div style="writing-mode: vertical-rl">PRIMARY FLIGHT DISPLAY</div>

Heading

The GDU 620 heading bug may be used in conjunction with the "Heading" mode of supported autopilots. When the autopilot is in "heading" mode and the heading bug is adjusted in the normal manner, the autopilot will turn to and maintain the selected heading. Refer to the Airplane Flight Manual and autopilot system documentation for instructions on how to use the autopilot heading mode.

Selected Heading Box on HSI

Altitude Capture (Optional Upgrade)

Adjust the altitude bug in the normal manner when using the altitude capture interface. Some autopilot installations support arming and disarming of the selected altitude using the **ALT** key on the PFD. The PFD knob window will indicate when this function is available. The selected altitude may be alternately armed or disarmed by pressing and holding the ALT key on the PFD bezel.

Arm/Disarm Altitude Bug

Autopilot Navigation

The GDU 620 acts as a switching source between the installed navigation sources (e.g., GPS/VLOC 1-2). The navigation source that is displayed on the HSI is sent to the autopilot. Refer to the Airplane Flight Manual and autopilot system documentation for instructions on how to use the autopilot navigation functions.

1) Set your navigation source and HSI to the desired course.

2) Engage your autopilot in navigation mode.

3) Control your autopilot navigation through the navigation source and the HSI.

PRIMARY FLIGHT DISPLAY

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GPSS

The GDU 620 will send the GPSS commands from the displayed GPS source to the autopilot. For example, if GPS 1 is displayed on the HSI, the GPSS commands from GPS 1 will be sent to the autopilot. Refer to the Airplane Flight Manual and autopilot system documentation for instructions on how to use the autopilot's GPSS function.

> **NOTE: GPSS commands are not sent to the autopilot when a VLOC source is displayed on the HSI.**

In installations that use GPSS emulation in combination with the "heading" mode of the autopilot, GPSS mode may be toggled on/off with an external switch or by pressing and holding the **HDG** key on the PFD. If the installation uses the **HDG** key on the PFD, the PFD knob window will display the GPSS/HDG mode options.

> **NOTE: The GDU 620 has the ability to emulate GPSS roll steering for autopilots that do not support GPSS. The GDU 620 emulates GPSS by sending headings to the autopilot that guide turn anticipation.**

GPSS OFF   GPSS ON
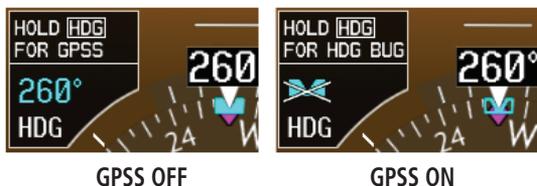
GPSS Mode Control

When GPSS mode is on, the heading bug on the HSI changes to a hollow outline and a crossed-out heading bug appears in the PFD Knob Mode Indicator, indicating that the autopilot is not coupled to the heading bug. The bug is still controllable and may still be used for reference. GPSS is annunciated in the lower left portion of the PFD. The GPSS mode annunciation depends on the location of the NAV STATUS information, as shown in the following figure.

NAV Status Style 1   NAV Status Style 2

GPSS Mode Annunciations

PRIMARY FLIGHT DISPLAY

Flight Director Display

Flight director commands are presented as a single cue flight director on the PFD.

SVT Off   **SVT On**
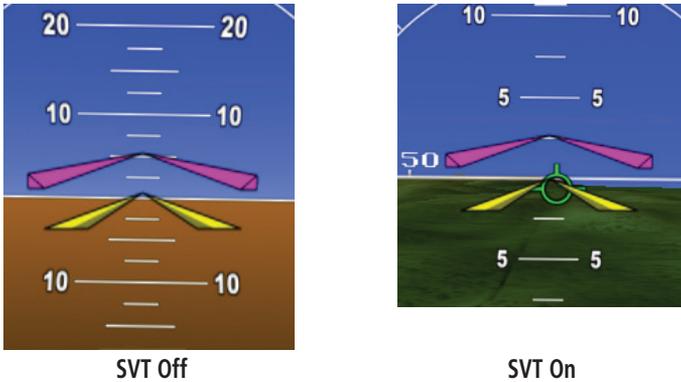
Flight Director Bars Showing Aircraft Pitch

Vertical Speed Control

The GDU 620 vertical speed bug may be used to control vertical speed with certain autopilots. Refer to the Airplane Flight Manual and autopilot system documentation for instructions on how to use the vertical speed mode, if available.

Adjust the vertical speed bug in the normal manner when using the vertical speed mode interface. Some autopilot installations support engaging/disengaging the vertical speed mode using the VS key on the PFD. The vertical speed mode may be alternately engaged or disengaged by pressing and holding the VS key on the PFD bezel.
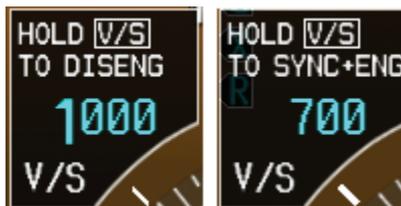
Engage/Disengage VS Bug

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Autopilot Mode Annunciations

Some autopilots support mode annunciations located at the top of the PFD. Refer to the Airplane Flight Manual and autopilot system documentation for details on the autopilot mode annunciations.

When autopilot annunciations are displayed at the top of the PFD, the Nav Status information will be located to the left of the HSI (NAV STATUS Style 2).

Autopilot Annunciations
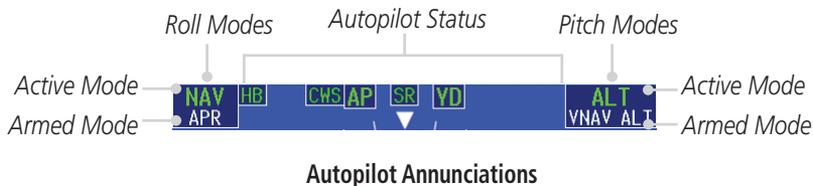
Electronic Stability & Protection (ESP™)

The GFC 500/600 supports ESP. The ESP feature is intended to monitor the aircraft and provide control input feedback when necessary to discourage operating the aircraft at potentially unsafe attitudes and/or airspeeds. This feature will only function when the aircraft is above 200 feet AGL and the autopilot is not engaged. ESP includes roll and pitch engagement and airspeed protection.

PRIMARY FLIGHT DISPLAY

Additional Features

Synthetic Vision Technology™

Synthetic Vision Technology (SVT) is offered as a feature to the G500/G600.

SVT is primarily comprised of a computer-generated forward-looking, attitude aligned view of the topography immediately in front of the aircraft from the pilot's perspective. SVT information is shown on the PFD.

SVT offers a three-dimensional view of terrain and obstacles. Terrain and obstacles that pose a threat to the aircraft in flight are shaded yellow or red.

SVT Soft Keys
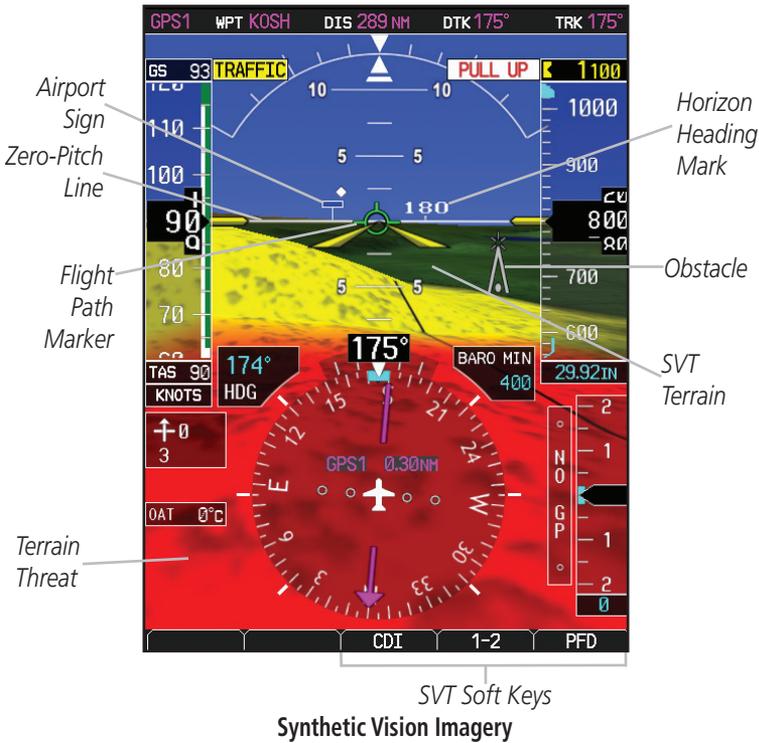
Synthetic Vision Imagery

> **NOTE:** SVT will become disabled if the databases necessary to display SVT are unavailable (generating a GDU DB ERR or SVT DISABLED alert) or AHRS or GPS data is unavailable. SVT may be restored once the fail conditions are removed by following the steps in "Displaying SVT Terrain."

PRIMARY FLIGHT DISPLAY

GARMIN.

The following features are part of the Synthetic Vision Technology. For more details refer to the G500/G600 Pilot's Guide, Rev. G or later.

- Flight Path Marker
- Horizon Heading Marks
- Terrain/Obstacle Display and Alerting
- Three-dimensional Traffic
- Wind Vectors

- Airport Signs
- Runway Display
- Water
- Zero-Pitch Line
- Altitude Minimums Bug

> **NOTE:** SVT may be deactivated under certain conditions, such as loss of heading. Once the condition is resolved SVT may restart automatically, otherwise, to reactivate SVT, press the **PFD** soft key followed by the **SYN VIS** soft key, then the **SYN TERR** soft key.

> **NOTE:** SVT features are not a substitute for standard course and altitude deviation information using the CDI, VSI, and VDI.

Displaying SVT™ Terrain

1) Press the **PFD** soft key.

2) Press the **SYN VIS** soft key.

3) Press the **SYN TERR** soft key.

4) Press the **BACK** soft key to return to the previous page.

Displaying Heading on the Horizon

1) Press the **PFD** soft key.

2) Press the **SYN VIS** soft key.

3) If not already enabled, press the **SYN TERR** soft key.

4) Press the **HRZN HDG** soft key.

5) Press the **BACK** soft key to return to the previous page.

Displaying Airport Signs

1) Press the **PFD** soft key.

2) Press the **SYN VIS** soft key.

3) If not already enabled, press the **SYN TERR** soft key.

4) Press the **APTSIGNS** soft key.

5) Press the **BACK** soft key to return to the previous page.
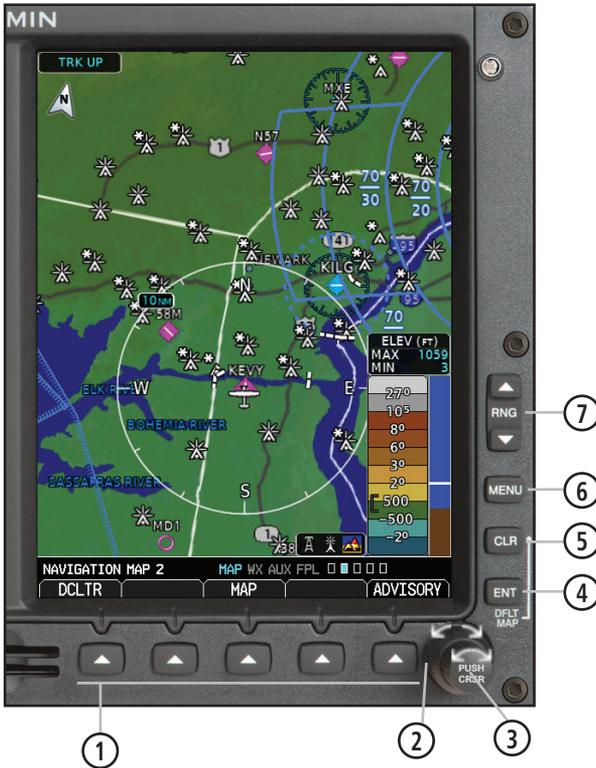
Multi-Function Display (MFD)

Multi-Function Display (MFD)

> ✓ *NOTE: In some models or installations, the PFD and MFD and their controls are switched to the other side.*

① *Soft Keys*

② *Large MFD knob: Use to move between page groups.*

③ *Small MFD knob: Use to move within page groups.*

④ *Enter: Validates or confirms a menu selection or data entry.*

⑤ *Clear: Erases information, cancels entries, or removes page menus. Pressing and holding the CLR key displays the first page of the Map Group.*

⑥ *Menu: Displays configuration items for each page of the page groups.*

⑦ *Range Select: Changes the range on the map pages. Up arrow zooms out, down arrow zooms in. Also aids in scrolling up and down text pages.*

Page Navigation - Moving Between Pages

MAP WX AUX FPL ■ □ □ □ □ □

Page Group
Turn Large MFD knob

Page
Turn Small MFD knob

1) Turn the large **MFD** knob to move between page groups.

2) Turn the small **MFD** knob to change pages within the page group.

> *NOTE: Page Group and Page are shown at the bottom of the MFD.*

Changing Settings within a Page

1) Press the **MENU** key and make the necessary adjustments with the large **MFD** knob and small **MFD** knobs.

2) Press the small **MFD** knob to activate editing.

3) Turn the large **MFD** knob to select the desired item.

4) Turn the small **MFD** knob to change the highlighted value.

5) Press **ENT** to accept displayed value or press the small **MFD** knob to cancel selection or exit the editing mode.

Default Map Page

Press and hold the **CLR** key to return to the first page of the MAP group.

MULTI-FUNCTION DISPLAY

MFD Soft Key Map

The soft keys available depend on the page displayed and the features available. The **Alerts** soft key is present on the far right position on all MFD pages.

MAP

Navigation Map 1
- Declutter
- Map
  - Traffic
  - Topo
  - Terrain

Navigation Map 2
- Declutter
- Map
  - Traffic
  - Topo
  - Terrain

Split Screen
- Declutter
- Map
  - Traffic
  - Topo
  - Terrain

Traffic*

Terrain
- View
  - 360
  - Arc
- Inhibit

* Softkeys depend on configuration

WX

Weather Map 1
- Legend
- FCST Time (XM)
- WX Alt Dn
- WX Alt Up

Weather Map 2
- Legend
- FCST Time (XM)
- WX Alt Dn
- WX Alt Up

Weather Map 3
- Legend
- FCST Time (XM)
- WX Alt Dn
- WX Alt Up

Weather Radar
- Mode
- Control
- Horizon
- Vertical
- Back

AUX

External Video
- Video 1
- Video 2
- Setup

System Setup
- Default Unit
- RA Test
- Dflt Spd

XM Info
- Lock

XM Radio
- Channel
  - CH -
  - CH +
  - DIR CH
- Category
  - CAT -
  - CAT +
  - ALL
- Volume
  - Mute
  - Vol -
  - Vol +
- Presets
  - PS1
  - PS2
  - ...
  - PS15

AUX (continued)

System Status
- DB ACTV
- DB SYNC
- LRU

Position Reporting
- Send

Iridium Phone
- Dial
- Answer
- Hang Up
- Vol
- Keys
  - 1234 5678 90*#

FPL

Active Fpl
- Info

Wpt Info
- INFO/MAP
- Rwy/Freq
- APT DIR
- WX/NOTAM

Charts
- NOTAM
- Detail
- Select
  - Header
  - Plan
  - Profile
  - Minimums

ALERTS
- TRND/ACK
- CAPTURE
- BACK

MULTI-FUNCTION DISPLAY

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![GARMIN]

Map Group

Navigation Map 1 and Navigation Map 2 Pages

NAVIGATION MAP 1	MAP WX AUX FPL ■□□□□

NAVIGATION MAP 2	MAP WX AUX FPL □■□□□

Soft Keys Found on Navigation Map Pages

| MAP | DCLTR | DCLTR-1 | DCLTR-2 |

| DCLTR-3 | TRAFFIC | TOPO | TERRAIN |
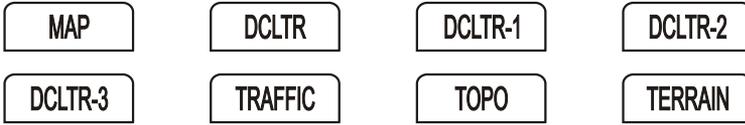
Moving the Map Pointer Around the Map (Panning)

NOTE: Panning can be used in Terrain pages to view elevation levels.

1) While viewing Navigation Map 1 or Navigation Map 2 of the Map Page Group, press the small **MFD** knob. A flashing arrow (map pointer) will appear in the center of the map page.

2) Turn the large **MFD** knob to move the map pointer left and right (horizontally).

Map Pointer

3) Turn the small **MFD** knob to move the map pointer up and down (vertically).

4) Press the small **MFD** knob again to exit panning mode.

Selecting Items on the Map

1) While viewing Navigation Map 1 or Navigation Map 2 of the Map Page Group, while the map pointer is active, move the map pointer to highlight a waypoint.

2) Press **ENT** to display information about the highlighted waypoint.

3) Press the **INFO** soft key (if available) to view more information about the highlighted waypoint.

4) Press the **WX** soft key (if available) to view TAF and METAR information. Press the small **MFD** knob again to return to the map.

MAP GROUP: SETUP OPTIONS

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Decluttering (DCLTR) the Map Pages

There are four levels of decluttering, DCLTR, DCLTR-1, DCLTR-2, and DCLTR-3. DCLTR shows the most detail while DCLTR-3 removes most detail.

While viewing Navigation Map 1 or Navigation Map 2 page of the Map Page Group, press the **DCLTR** soft key. Each successive press of the **DCLTR** soft key will toggle through the declutter levels.

Turning on Map Overlays

While viewing Navigation Map 1 or Navigation Map 2 of the Map Page Group, press the **MAP** soft key. Select the Traffic, TOPO, or Terrain overlays by pressing the appropriate soft key.

Measuring Distances

1) While viewing Navigation Map 1 or Navigation Map 2 of the Map Page Group, press **MENU**.

2) Turn the large **MFD** knob or the small **MFD** knob to highlight "Measure Bearing/Distance" and then press **ENT**.

3) Turn the large or small **MFD** knobs to move the map pointer. The distance, bearing, and coordinates are displayed at the top of the screen.

DIS 37.2 NM BRG 348° N 45°32.53'
ELEV 208 FT ETE 00:23 W122°56.92'

Distance, Bearing and Coordinates Display   **Measuring Map Pointer**

4) Press **ENT** to reset the distance and bearing values.

5) Press the small **MFD** knob to stop measuring.

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Customizing Maps

1) While viewing Navigation Map 1 or Navigation Map 2 of the Map Page Group, press the **MENU** key.

```
                     PAGE MENU
   ┌OPTIONS┐
   Map Setup
   Measure Bearing/Distance

       Press the MFD knob to return to base page
```
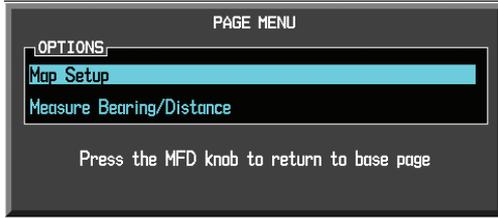
Map Setup Option Menu

2) Press the **ENT** key to enter the setup page. The selected group will be flashing.

3) Turn the small **MFD** knob to activate the drop down menu and to move within available groups (Map, Weather, Traffic, or Aviation).

```
Map         Map         Map         Map
Weather     Weather     Weather     Weather
Traffic     Traffic     Traffic     Traffic
Aviation    Aviation    Aviation    Aviation
```

Available Groups

4) Press the **ENT** key to select the group and set your preferences.

5) Turn the large **MFD** knob to move between fields.

6) Turn the small **MFD** knob to display available options. Press the **ENT** key to select your preference and move to the next option.

7) When completed with setting preferences, press the small **MFD** knob to return to the Navigation Map 1 page.

8) Repeat the above steps to set preferences for the remaining groups.

> *NOTE: In the Map Options Setup section, the selected range is defined as the map range below which the display feature will be visible.*

MAP GROUP: SETUP OPTIONS

Map Setup Options

Group	Selections
MAP	• Orientation (North Up, Track Up, DTK up, HDG up) • North Up At (Off to 500 NM) • Auto Zoom (On or Off) • Land Data (On or Off) • Track Vector Length (Off to 20 mins) • Wind Vector (On or Off) • Enhanced Range Ring (On or Off) • Topo Data (On or Off) • Topo Scale (On or Off) • TERRAIN Data (On or Off) • Obstacle Viewing Range (Off to 15 NM) • Power Line Viewing Range (Off to 15 NM) • Lat/Lon Viewing Range (Off to 500 NM) • Selected Alt Range Arc (On or Off)
SXM WEATHER	• NEXRAD Data Viewing Range (Off to 500 NM) • NEXRAD Cell Movement (On or Off) • NEXRAD Legend (On or Off) • NEXRAD Source (US or Canada) • XM Lightning Viewing Range (Off to 500 NM)
GFDS (Connext) WEATHER	• PRECIP Data Viewing Range (Off to 500 NM) • PRECIP Legend (On or Off) • DL LTNG Data Viewing Range (Off to 500 NM)
FIS-B WEATHER	• NEXRAD Data Viewing Range (Off to 500 NM) • NEXRAD Legend (On or Off) • NEXRAD Source (CONUS, REGIONAL, or Combined)
STORMSCOPE	• Stormscope Viewing Range (Off to 500 NM) • Strke/Cell Mode (Cell or Strike)
TRAFFIC	• Traffic Mode (Off, All Traffic, TA/PA, TA Only)

MAP GROUP: SETUP OPTIONS

Group	Selections
AVIATION	• SafeTaxi Viewing Range (Off to 2.5 NM) • RWY Extension Range (Off to 2.5 NM) • INT/NDB Viewing Range (Off to 15 NM) • VOR Viewing Range (Off to 150 NM) • Class B/TMA (Off to 500 NM) • Class C/TCA (Off to 150 NM) • Class D (Off to 150 NM) • Restricted (Off to 150 NM) • MOA (Military) (Off to 150 NM) • Other/Adiz (Off to 150 NM) • TFR (Off to 500 NM) • Airways (Off, All, LO Only, HI Only) • Smart Airspace (On or Off) • Show Airspaces (All, Below 18000ft - Below 3000ft) • Airspace Labels (On or Off) • VRP Viewing Range (Off to 500 NM)

SafeTaxi® (Optional)

SafeTaxi is an enhanced feature that gives greater map detail when zooming in on airports at close range. The airport display on the map reveals taxiways with identifying letters/numbers and airport landmarks including ramps, buildings, control towers, and other prominent features. Resolution is greater at lower map ranges. When the aircraft location is within the screen boundary, including within SafeTaxi ranges, an airplane symbol is shown on the navigation map views for enhanced positional awareness. This database is updated on a ***56-day cycle***.

> **NOTE:** Do not use SafeTaxi or ChartView functions as a basis for ground maneuvering. SafeTaxi and ChartView functions have not been qualified to be used as an Airport Moving Map Display (AMMD). SafeTaxi and ChartView are intended to improve pilot situational awareness during ground operations and should only be used by the flight crew to orient themselves on the airport surface.

MAP GROUP: SETUP OPTIONS

Split Screen Page (Optional)

`SPLIT SCREEN        MAP WX AUX FPL ☐☐■☐☐`

Soft Keys Found on Split Screen Page

| MAP | DCLTR | DCLTR-1 | DCLTR-2 |

| DCLTR-3 | TRAFFIC | TOPO | TERRAIN |
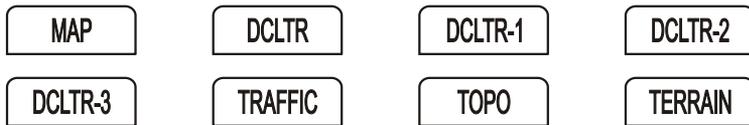
External Video is an optional function that displays video provided by an externally mounted video source on the aircraft.

1) While viewing the Map function, turn the small **MFD** knob to the third page of the map group.

Current Video Source

Display of External Video Source

Map Display
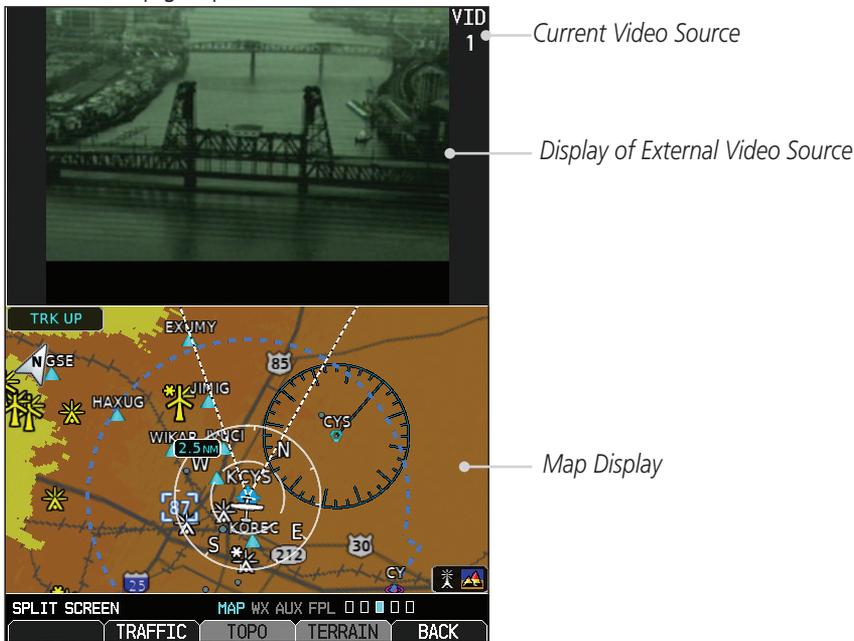
External Video

2) The External Video page will show the external video on the top half of the MFD and a Navigation Map will be shown on the lower half.

Traffic Map Page (Optional)

`TRAFFIC MAP` MAP WX AUX FPL ☐☐☐☐☐☐

Soft Keys Found on Traffic Map Page

| OPERATE | STANDBY | MOTION | ALT MODE | DESELECT |

| STANDBY | ABSOLUTE | RELATIVE | OFF | DURATION |

| BACK | BELOW | NORMAL | ABOVE | UNRSTD |

| OPR/STBY |
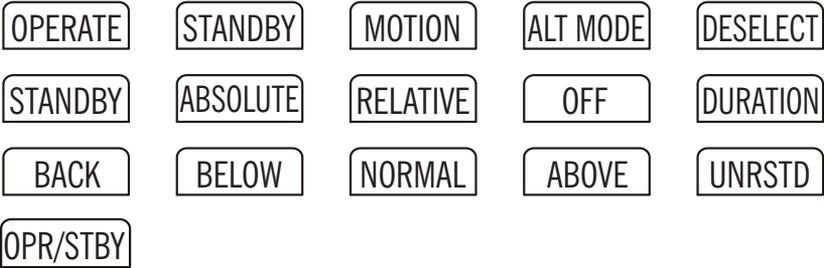
Traffic Display

When a traffic alert is generated by an interfaced traffic system, the PFD will display a traffic annunciator and the MFD will have a pop-up screen displaying the detected traffic, if not viewing the Traffic page. To remove the pop-up, press the **CLR** key. Press the **ENT** key to go to the traffic page. The traffic pop-up window will be removed when the traffic alert is no longer active.

Traffic Annunciation **Traffic**

Traffic Pop-Up

PFD Traffic Display **MFD Traffic Pop-Up Window**

MAP GROUP: TRAFFIC PAGE

Displaying and Operating Traffic Advisory Systems (TAS)

Operating Mode

Range Ring

Proximity Advisory, Aircraft is 500 ft Above and Descending

Non-Threat Traffic, 2000 ft Above and Climbing

TAS/TCAS: OPER
ALT: UNRSTD
HDG UP

12 NM

6 NM

+20

+2

+5

+20   −20

TA 2.0 +11↓

TRAFFIC MAP   MAP WX AUX FPL
STANDBY   OPERATE   ALT MODE   ADVISORY

Traffic Advisory, 200 ft Above and Descending

Ownship Symbol

Non-Threat Traffic, 2000 ft Below and Climbing
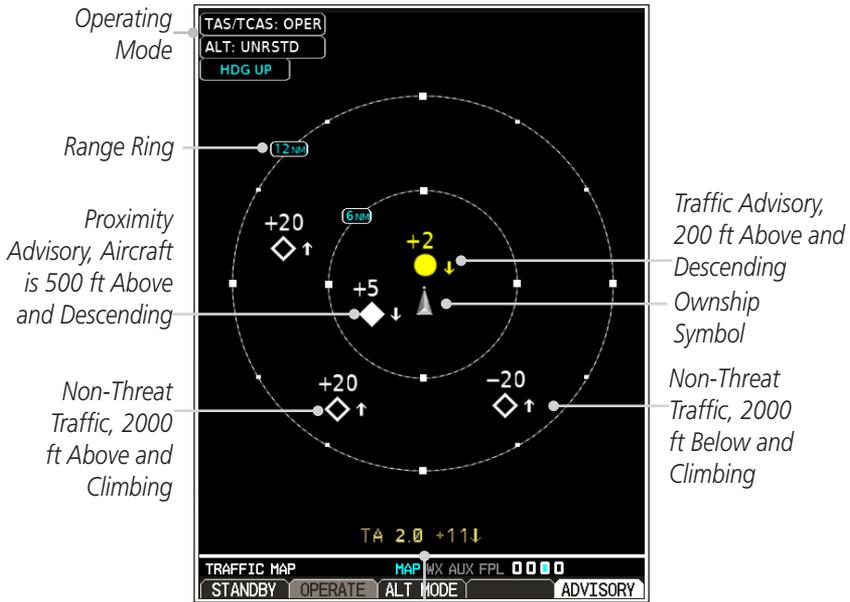
Non-Bearing Traffic (System is Unable to Determine Bearing), Aircraft Distance is 2.0 NM, 1100 ft Above and Descending

Traffic Map - TAS/TCAS

> **NOTE:** Depending on your traffic configuration, the OPERATE and STANDBY soft keys may not be available.

Traffic Mode Field

TAS/TCAS: OPER
ALT: UNRSTD

Altitude Mode Field

> **NOTE:** Some traffic systems will not enter standby mode while airborne.

Press the **ALT MODE** soft key to change what traffic is displayed. Pressing the **BELOW, NORMAL, ABOVE** or **UNRSTD** soft keys will determine what traffic is displayed. The selection is shown in the altitude mode field. The values below define what each altitude mode displays, relative to the altitude of the aircraft.

Soft Key	Description
BELOW	Displays traffic from -9900 to +2700 ft
NORMAL	Displays traffic from -2700 to +2700 ft
ABOVE	Displays traffic from -2700 to +9900 ft
UNRSTD	All traffic is displayed (unrestricted) from +/-9900 ft

TAS Test Mode (On Ground)

1) While viewing the Traffic Map Page of the Map Page Group, press the **MENU** key and select Test Mode from the menu.

2) Verify that a traffic message is shown next to the altitude tape on the PFD and that the traffic pop-up is displayed on the MFD.

After a few seconds, test mode is exited automatically by the traffic system.

— Traffic Annunciation
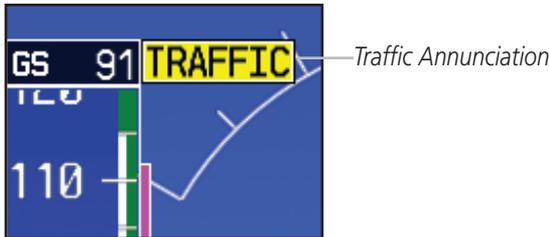
Traffic Annunciation on PFD

GARMIN.

TIS Traffic

The Traffic Map Page is configured to show surrounding TIS traffic data in relation to the aircraft's current position and altitude, without clutter from the basemap. Aircraft orientation on this map is always heading up unless there is no valid heading.

TIS receives traffic information from ground stations, and is updated every five seconds. The GDU 620 displays up to eight traffic targets within a 7.5-NM radius, from 3,000 feet below to 3,500 feet above the requesting aircraft.

Displaying TIS Traffic

While viewing the Traffic Page of the Map Page Group press the **OPERATE** soft key to begin displaying traffic. "TIS OPER" is displayed in the upper left hand corner of the MFD.

> **NOTE:** Traffic is also displayed in the SVT feature of the PFD.

> **NOTE:** TIS is disabled when a Traffic Advisory System (TAS) is installed.

Operating Mode
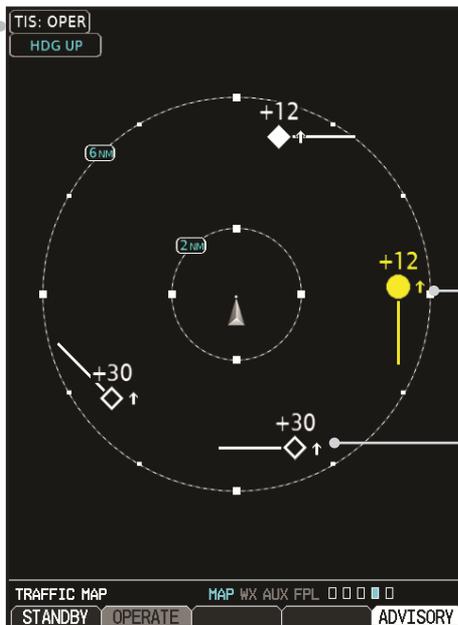
Traffic Advisory, Aircraft is 1,200 feet above, climbing, and moving in the direction of the line

Other Traffic, Aircraft is 3,000 feet above, climbing, and moving in the direction of the line

MAP GROUP: TRAFFIC PAGE

ADS-B Traffic (Optional)

The ADS-B traffic page provides an enhanced display of traffic from a compatible ADS-B In system. Available ADS-B traffic features may include individual target selection and other details, such as type, direction, groundspeed, and motion.

ADS-B and TCAS Status and Altitude Filter

Map Orientation

Range Ring Radius

Basic Directional Traffic, 4000 ft Below and Climbing

Selected Vector Motion and Duration

Selected Traffic Info

Traffic Motion Vector

Ownship Icon

Range Rings

Turn Cursor Knob for Next Target

MAP GROUP: TRAFFIC PAGE

> **NOTE:** ADS-B targets will be shown as the filled-in icon when they are within 6NM laterally and 1,200 ft vertically of the ownship; otherwise, they are shown as the hollow icons.

ADS-B Target Selection

Traffic targets displayed on the dedicated traffic page may be selected in order to obtain additional information about a traffic target.

1) Press the small **MFD** knob to start target selection.

2) Turn the small or large **MFD** knobs to step through selection of the available targets.

3) Press the small **MFD** knob to stop target selection. Press the **DESELECT** key to stop selection and/or clear target selection.

ADS-B Status

ADS-B Status displays the current status of traffic application: Off, Surface, Airborne, Fail, Test, or N/A.

TAS/TCAS/TCAD Status

This shows the current operating mode/status of an interfaced TAS/TCAS/TCAD system: STBY, GND, APR, OPER, or FAIL.

ADS-B Motion Vector

When Absolute Motion Vectors are selected, the vectors extending from the traffic targets depict the target reported track and speed over the ground. When Relative Motion Vectors are selected, the vectors extending from the traffic targets display how the traffic target is moving relative to your aircraft. These vectors are calculated using the traffic target's track and ground speed and your aircraft's track and ground speed. These two values are combined to depict where the traffic target is moving purely with respect to your aircraft and give a forecast of where the traffic target will be, relative to your aircraft, in the near future.

> **NOTE:** Absolute motion vectors are the same color as the traffic target. Relative motion vectors are yellow for TAs and otherwise are green. The annunciation on the bottom of the dedicated traffic page indicates which vector type is selected and their length.

> **NOTE:** Relative motion vectors are not available on the ground.

Terrain/TAWS-B Page

TERRAIN PROXIMITY   MAP WX AUX FPL ☐ ☐ ☐ ☐ ▮

TERRAIN-SVT   MAP WX AUX FPL ☐ ☐ ☐ ☐ ▮

TAWS-B   MAP WX AUX FPL ☐ ☐ ☐ ☐ ▮

(Optional)
Soft Keys Found on Terrain/TAWS-B Page

| VIEW | 360 | ARC | INHIBIT |

Garmin provides the following Terrain/TAWS selections, based upon your system configuration.

⚠️ **WARNING:** *Do not use Terrain-SVT information for primary terrain avoidance. Terrain-SVT is intended only to enhance situational awareness.*

✅ **NOTE:** *Terrain data is not displayed when the aircraft latitude is greater than 75° North or 60° South.*

✅ **NOTE:** *Terrain-SVT is standard when the Synthetic Vision Technology (SVT) option is installed. The TAWS option will take precedence over Terrain-SVT.*

✅ **NOTE:** *TAWS alerts will be generated by the GPS TAWS unit on the PFD if an external TAWS unit is installed and interfaced to the G500/G600.*

MAP GROUP: TERRAIN/TAWS-B PAGE

- TERRAIN-PROXIMITY - is a non-TSO-C151b certified terrain awareness system. Do not confuse Terrain Proximity with TAWS. TAWS **is** TSO-C151b certified and Terrain Proximity **is not**. Terrain Proximity does not provide warning annunciations or voice alerts, it only provides color indications on map displays when terrain and obstacles are within a certain altitude threshold from the aircraft.
- TERRAIN-SVT - refers to a subset of Class B TAWS that meets the terrain alerting requirements outlined in Section 7.b of AC 23-26. Terrain-SVT is a non-TSO-C151b certified terrain awareness system. Do not confuse Terrain-SVT with TAWS. TAWS **is** TSO-C151b certified while Terrain-SVT **is not**. Terrain-SVT is a subset of Class B TAWS that provides a Class B TAWS FLTA functionality, including visual alerting and aural alerting. Terrain-SVT is provided with the Synthetic Vision functionality and not marketed separately. Garmin Terrain-SVT is available in GDU 620 v3.00 or later, with SVT enabled.
- TAWS-B - is an optional feature developed that meets the terrain alerting and ground proximity requirements for Class B TAWS system as defined in TSO-C151b.

Viewing Terrain

> *NOTE: Obstacles/Wires will be removed from the Terrain/TAWS page when range **(RNG)** exceeds 10 NM.*

While viewing the Terrain/TAWS-B page of the Map Page Group, press the **VIEW** soft key and then press the **360** or **ARC** soft keys to select the desired view.
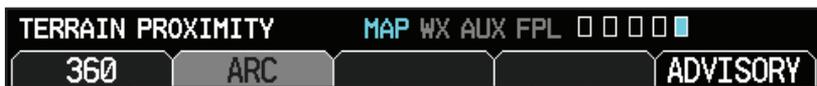
360 or ARC Soft Keys

Pressing the **INHIBIT** soft key, deactivates the PDA/FLTA aural and visual alerts. Refer to the AFMS for guidance on inhibiting TAWS.

Inhibit Soft Key

Press **MENU** for selections to hide or show Aviation Data Overlay on the Terrain page.

> **NOTE:** Installations with a valid external TAWS-B source will not display the INHIBIT key.

Aviation Data Overlay

Terrain Pop-Up Alerts

TERRAIN-SVT Pop-Up Alert on MFD

TAWS-B Pop-Up Alert on MFD

TERRAIN-SVT™ Pop-Up Alert

TERRAIN-SVT alerts typically employ a CAUTION or a WARNING alert severity level, or both. When an alert is issued, visual annunciations are displayed and aural alerts are simultaneously issued. Refer to the Alerts section of this guide for more information on alerts, both visual and aural. When an alert is issued, annunciations appear on the PFD and MFD (TAWS page only). If the TERRAIN-SVT Page is not displayed at the time, a pop-up alert appears on the MFD. To acknowledge the pop-up alert and return to the currently viewed page, press the **CLR** key. To acknowledge the pop-up alert and go to the TERRAIN-SVT page, press the **ENT** key.

TAWS-B Pop-Up Alert

TAWS-B alerts typically employ a CAUTION or a WARNING alert severity level, or both. When an alert is issued, visual annunciations are displayed and aural alerts are simultaneously issued. Refer to the Alerts section of this guide for more information on alerts, both visual and aural. When an alert is issued, annunciations appear on the PFD and MFD (TAWS page only). If the TAWS-B Page is not displayed at the time, a pop-up alert appears on the MFD. To acknowledge the pop-up alert and return to the currently viewed page, press the **CLR** key. To acknowledge the pop-up alert and go to the TAWS-B page, press the **ENT** key.

WX Group

XM Weather Map Pages

XM WEATHER MAP 1	MAP **WX** AUX FPL ■ □ □ □

XM WEATHER MAP 2	MAP **WX** AUX FPL □ ■ □ □

XM WEATHER MAP 3	MAP **WX** AUX FPL □ □ ■ □

Soft Keys Found on XM Weather Map Pages

| LEGEND | | FCST TIME | | WX Alt Dn | | WX Alt Up |

> *NOTE: The preferences set on XM Weather Map pages are unique to each page.*

Customizing the Weather Map

1) While viewing any of the XM Weather Map pages in the WX Page Group, press the **MENU** key to display the page menu. Press **ENT**.

2) Turn the small **MFD** knob to select Weather Setup 1 or Weather Setup 2 and press **ENT**.

3) Turn the large **MFD** knob to select desired item to change. Turn the small **MFD** knob to set the preference of the weather feature option.

4) Press **ENT** to confirm your selection.

5) To return to the XM Weather Map page, press the small **MFD** knob.

XM Weather Items

WX Page Menu - Weather Setup	
Menu Item	**Adjustment**
Map Orientation	North Up, Track Up
NEXRAD Data Viewing Range	Off, 10 NM to 500 NM
NEXRAD Legend	On/Off
Source	US, Canada
Echo Top Data Viewing Range	Off, 10 NM to 500 NM
Cloud Top Data Viewing Range	Off, 10 NM to 500 NM
Lightning Data Viewing Range	Off, 10 NM to 500 NM
Cell Mov Data Viewing Range	Off, 10 NM to 500 NM
SIG/AIR Viewing Range	Off, 10 NM to 500 NM
PIREPS Data Viewing Range	Off, 10 NM to 500 NM
METAR Data Viewing Range	Off, 10 NM to 500 NM
Surface Data Viewing Range	Off, 10 NM to 500 NM
Frz Lvl Data Viewing Range	Off, 10 NM to 500 NM
Wnds Aloft Data Viewing Range	Off, 10 NM to 500 NM
County Data Viewing Range	Off, 10 NM to 500 NM
TFR Data Viewing Range	Off, 10 NM to 500 NM
AIREPS Data Viewing rnage	Off, 10 NM to 500 NM
Icing Data Viewing Range	Off, 10 NM to 500 NM
Turbulence Data Viewing Range	Off, 10 NM to 500 NM
Cyclone Data Viewing Range	Off, 50 NM to 500 NM

NOTE: Due to similarities in color schemes, it is not possible to display NEXRAD Data and Echo Top Data at the same time.

NOTE: Due to similarities in color schemes, it is not possible to display Echo Top Data and Cloud Top Data at the same time.

Weather Legend

A mini-legend can be displayed on the XM Weather Map page upper right hand corner for the weather products you selected in the setup menu.

To view a full page legend:

1) While viewing any of XM Weather Map pages in the WX Page Group, press the **LEGEND** soft key.

2) Turn the small **MFD** knob or large **MFD** knob to view the entire legend.

3) Exit and return to the map page by pressing either the **LEGEND** soft key, **ENT** key, or the small **MFD** knob.

Mini-Legend

Changing Forecast Time

1) When the Surface Data products (Surface Analysis and City Forecasts) are displayed, the time period for these forecasts can be changed with the **FCST TIME** soft key.

2) Press the **FCST TIME** soft key to cycle through the age of the information in 12 hour increments from CURRENT to 48 HR.

Changing Weather Altitude

1) When Winds Aloft, Turbulence, or Icing products are displayed, the altitude for these forecasts can be selected with the **WX Alt Up/Dn** soft keys.

2) Press the **WX Alt Dn** or **WX Alt Up** soft keys to cycle through the available forecast periods as shown on the right side of the weather page.

WX GROUP: XM WEATHER PAGES

GARMIN.

Garmin Connext Satellite Services (GCSS) Map Pages

✓ *NOTE: GCSS was formerly called Garmin Flight Data Services (GFDS) and may still display as GFDS on some GDUs.*

GFDS WEATHER MAP 1	MAP **WX** AUX FPL ▪ ▫ ▫ ▫

GFDS WEATHER MAP 2	MAP **WX** AUX FPL ▫ ▪ ▫ ▫

GFDS WEATHER MAP 3	MAP **WX** AUX FPL ▫ ▫ ▪ ▫

Soft Key Found on Weather Map Pages

LEGEND

Requesting Connext Weather

Prior to requesting information, an access code and system ID will need to be assigned. For more information on GCSS and how to register, refer to the latest revision of the G500/G600 Pilot's Guide, P/N 190-00601-02.

After registering you are able to display Connext Weather data:

1) While viewing any one of the three pages of the WX Group, press the **MENU** button.

PAGE MENU

OPTIONS

Weather Setup

Weather Legend

GFDS Data Request

Register With GFDS

Press the MFD knob to return to base page

2) Highlight GFDS Data Request and press the **ENT** button to display the GFDS DATA REQUEST page.

GFDS DATA REQUEST

COVERAGE
☑ PRESENT POSITION
☑ DESTINATION   ──────
☑ FLIGHT PLAN   NEXT 100ɴᴍ
☑ WAYPOINT   ──────

DIAMETER / RTE WIDTH   500ɴᴍ

AUTO REQUEST
UPDATE RATE   Off

MANUAL REQUEST
    SEND REQ   CANCEL REQ

REQUEST STATUS
OK
Next auto update: 4 Minutes

Press the MFD knob to return to base page

Coverage Area (annotation)

Coverage Area Distances: Remaining FPL, Next 50 NM - Next 500 NM (annotation)

Width of Coverage: 50 NM - 500 NM (annotation)

Update Rate: Off - 60 Minutes (annotation)

Cancel Manual Request (annotation)

Manual Request (annotation)

Status of Request (annotation)

Data Request Page

Configuring Data Request Page

1)   Turn the large **MFD** knob to the Coverage box. Press **ENT** to select or deselect the coverage areas. Selected coverage areas are denoted by a green check mark.

2)   Turn the large **MFD** knob to the Auto Request box and press ENT to change the update rate to either OFF or ON.

3)   Turn the large **MFD** knob to the Manual Request box and press ENT to either send request or cancel current request.

4)   Press the small **MFD** knob to return to the data page.

WX GROUP: GCSS PAGES

GARMIN.

FIS-B Weather Map Pages

FIS-B WEATHER MAP 1	MAP **WX** AUX FPL	■ ☐ ☐ ☐ ☐
FIS-B WEATHER MAP 2	MAP **WX** AUX FPL	☐ ■ ☐ ☐ ☐
FIS-B WEATHER MAP 3	MAP **WX** AUX FPL	☐ ☐ ■ ☐ ☐

Soft Keys Found on FIS-B Weather Map Pages

| LEGEND | | FCST TIME | | WX Alt Dn | | WX Alt Up |

✓ *NOTE: The preferences set on FIS-B Weather Map pages are unique to each page.*

Customizing the Weather Map

1) While viewing any of the FIS-B Weather Map pages in the FIS-B Page Group, press the **MENU** key to display the page menu.

2) Turn the small **MFD** knob to select Weather Setup and press **ENT**.

3) Turn the large **MFD** knob to select the desired item to change. Turn the small **MFD** knob to set the preference of the weather feature option.

4) Press **ENT** to confirm your selection.

5) To return to the FIS-B Weather Map page, press the small **MFD** knob.

WX GROUP: FIS-B WEATHER PAGES

GARMIN.

FIS-B Weather Items

WX Page Menu - Weather Setup	
Menu Item	**Adjustment**
Map Orientation	North Up, Track Up
NEXRAD Data Viewing Range	Off, 10 NM to 500 NM
NEXRAD Legend	On/Off
Source	CONUS, Regional, Combined
SIG/AIR Viewing Range	Off, 10 NM to 500 NM
PIREPS Data Viewing Range	Off, 10 NM to 500 NM
METAR Data Viewing Range	Off, 10 NM to 500 NM
Wnds Aloft Data Viewing Range	Off, 10 NM to 500 NM
TFR Data Viewing Range	Off, 10 NM to 500 NM

WX GROUP: FIS-B WEATHER PAGES

GARMIN.

Weather Radar (Optional)
Weather Radar Map Page

WEATHER RADAR   MAP **WX** AUX FPL ☐ ☐ ☐ ▮

Soft Keys Found on Weather Radar Map Page

OFF	MODE	CONTROL	VERTICAL
HORIZON	WEATHER	GROUND	STANDBY
STAB ON	BRG	WATCH	GAIN CAL

Operating Mode

Operating Mode

Weather Alert (GWX only)

Precipitation Scale

Control Window

Weather Radar Display

Airborne Color Weather Radar

⚠️ **WARNING:** *Begin transmitting only when it is safe to do so. If transmitting on the ground is necessary, ensure that no personnel or objects are within the minimum safe distance from the radar antenna. For Garmin GWX radars, the minimum safe distance may be up to 14 feet. For 3rd-party radars, refer to the radar pilot's guide or other manufacturer documentation to determine the minimum safe dis-tance.*

⚠️ **CAUTION:** *In Standby Mode, the antenna is parked at the center line. It is always recommended to put the radar in Standby Mode before taxiing the aircraft to prevent the antenna from bouncing on the bottom stop and possibly causing damage to the radar assembly.*

Displaying Weather on the Weather Radar Page

1) Turn the large **MFD** knob to select the last page of the WX Page Group.

2) Press the **MODE** soft key.

3) If the aircraft is on the ground, press the **STANDBY** soft key to initiate the warm-up period. After the warm-up is complete, the radar enters Standby Mode. After the aircraft is airborne, press the **WEATHER** soft key.

   OR

   If the aircraft is already airborne, press the **WEATHER** or **GROUND** soft key. The warm-up period is initiated, after which the radar begins transmitting. The horizontal scan is initially displayed. Press the **BACK** soft key, then the **VERTICAL** soft key to scan vertically.

4) Press the **RNG** keys to select the desired range.

Adjusting Antenna Tilt

1) Press and turn the small **MFD** knob to adjust the tilt of the antenna up or down. Monitor the displayed tilt value in the TILT field. The range of tilting the antenna is DN 15° to UP 15°.

2) Press the small **MFD** knob to confirm selection.

GARMIN.

Adjusting the Antenna Bearing

1) Press the small **MFD** knob and turn the large **MFD** knob to move to the BEARING field.

2) Adjust the azimuth position of the antenna right or left. Monitor the displayed bearing value in the BEARING field. The range of the bearing is R45° to L45°.

3) Press the **ENT** key to remove the cursor.

When scanning horizontally, a bearing line may be displayed to aid in positioning the antenna for the vertical scan. If the Bearing Line is not displayed, perform the following steps:

1) Press the **CONTROL** soft key.

2) Press the **BRG** soft key.

Sector Scan (GWX Radars Only)

1) Press the small **MFD** knob and turn the large **MFD** knob to move to the SECTOR SCAN field.

2) Turn the small **MFD** knob to select FULL, 60°, 40°, or 20° scan.

3) If desired, readjust the Bearing Line to change the center of the Sector Scan. Turn the large **MFD** knob to move cursor to the BEARING field and turn the small **MFD** knob to adjust the line.

Adjusting Gain

⚠️ *WARNING: Changing the gain in Weather Mode (Garmin GWX units only) causes precipitation intensity to be displayed as a color not representative of the true intensity. Remember to return the gain setting to "Calibrated" for viewing the actual intensity of precipitation.*

1) Press the small **MFD** knob and turn the large **MFD** knob to move to the GAIN field.

2) Turn the small **MFD** knob to adjust the gain for the desirable level. The gain setting is visible in the gain field as a movable horizontal bar in a flashing box. The line pointer is a reference depicting the calibrated position.

3) Press the **ENT** key to remove the cursor.

4) To restore the gain to the calibrated position, press the **GAIN CAL** soft key.

Antenna Stabilization

1) To activate or deactivate the antenna stabilization, press the **CONTROL** soft key.

2) Press the **STAB ON** soft key to activate antenna stabilization or press the **STAB OFF** soft key to deactivate. The current stabilization condition is shown in the upper right of the weather radar display.

Weather Attenuated Color Highlight (WATCH™) (GWX Weather Radar only)

WATCH (Weather Attenuated Color Highlight) which helps identify possible "shadowing" effects of short-range cell activity – identifying areas where radar return signals are weakened, or attenuated, by intense precipitation (or large areas of lesser precipitation) and may not fully reflect the "storm behind the storm".

To activate the WATCH feature, press the **CONTROL** soft key. Press the **WATCH** soft key. Press the **WATCH** soft key again to deactivate.

Automatic Standby

When the weather radar system is in the Weather or Ground Map Mode, upon landing the system automatically switches to Standby Mode.

Altitude Compensated Tilt (ACT) - GWX 70 only

Altitude Compensated Tilt (ACT) automatically adjusts the tilt to compensate for altitude changes as you climb or descend.

Turbulence Detection - GWX 70 only (optional)

Turbulence Detection activates a feature that detects and displays severe turbulence. Turbulence Detection is inactive at ranges greater that 160 NM. This optional feature requires a separate enablement. Contact your dealer for details. If Turbulence Detection is enabled and available, Turbulence Detection will be reported as Inactive in any of the following conditions:

- Scan orientation is not Horizontal
- Scan range is greater than 160 NM
- Radar mode is not Weather

Ground Clutter Suppression (GCS) - GWX 70 only (optional)

Ground Clutter Suppression reduces the amount of returns as a result of highly reflective objects on the ground, such as buildings or cities, while maintaining the intensity and size of weather returns. his optional feature requires a separate enablement. Contact your dealer for details.

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Aux Group

External Video Page (Optional)

`EXTERNAL VIDEO          MAP WX AUX FPL ■ □ □ □ □ □ □ □`

Soft Key Found on External Video Page

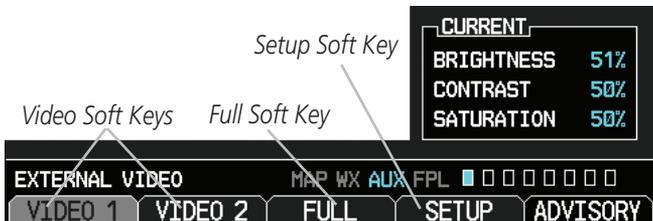| VIDEO 1	VIDEO 2	FULL	SETUP

Setting Brightness, Contrast, and Saturation Levels

The following steps can be applied to either Video 1 or Video 2.

1) While viewing the External Video Page of the Aux Page Group, press the desired video soft key **(VIDEO 1, VIDEO 2,** or **FULL)**.

2) Press the **SETUP** soft key. The BRIGHTNESS in the CURRENT box will flash. Turn the small **MFD** knob to change the brightness of the video output.

3) Turn the large **MFD** knob to CONTRAST and turn the small **MFD** knob to change the contrast level of the video output.

4) Turn the large **MFD** knob to SATURATION and turn the small **MFD** knob to change the saturation level of the video output.

5) Press the small **MFD** knob to exit out of the setup mode.

Setting the Zoom Level of the Video Output

1) While viewing the External Video Page of the Aux Page Group, press the small **MFD** knob.

2) Press the **RNG** (Range) keys to zoom in and out. The range of the zoom feature is 1x up to 10x.

3) Press the small **MFD** knob to exit.

Setup Soft Key

`CURRENT`
`BRIGHTNESS    51%`
`CONTRAST      50%`
`SATURATION    50%`

Video Soft Keys   *Full Soft Key*

`EXTERNAL VIDEO        MAP WX AUX FPL ■ □ □ □ □ □ □ □`
`VIDEO 1 │ VIDEO 2 │ FULL │ SETUP │ ADVISORY`

AUX GROUP: EXTERNAL VIDEO

AUX

System Setup Page

SYSTEM SETUP   MAP WX **AUX** FPL ☐■☐☐☐☐☐☐

Soft Keys Found on System Setup Page

DFLT UNIT	RA TEST	DFLT SPD

Setting Brightness and Mode

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob. The LEVEL in the DISPLAY BRIGHTNESS box will flash.

2) Turn the small **MFD** knob to brighten or dim the display.

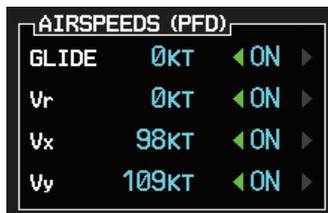3) Press **ENT** when you reach the desired level.

> ✓ *NOTE: When LEVEL is changed, the MODE defaults to MANUAL. If MODE is set the AUTO, the LEVEL will adjust in response to ambient light or a lighting bus, as configured during installation.*

Setting Airspeed References

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob. Turn the large **MFD** knob to move to the desired field in the AIRSPEEDS box.

2) Turn the small **MFD** knob to change the speeds and to also turn the speeds ON or OFF. When the speeds are turned ON they are shown near the bottom of the Airspeed Tape if airspeed is zero.

AIRSPEEDS (PFD)		
GLIDE	0KT	◄ ON ►
Vr	0KT	◄ ON ►
Vx	98KT	◄ ON ►
Vy	109KT	◄ ON ►

**V Speed References on Airspeed Tape**   **Airspeed References**

> ✓ *NOTE: At any time during the setting of your airspeed references, pressing the **DFLT SPD** soft key will restore the unit to its initial configuration.*
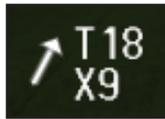
Selecting Wind Vector Styles

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob and turn the large **MFD** knob to move to the field in the PFD OPTIONS box.

2) Turn the small **MFD** knob to select the styles available for displaying wind vectors. Each style shows direction and velocity of the wind.
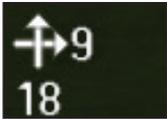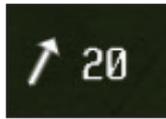
Style 1	Style 2	Style 3	Style 4

Style 1 Displays headwind and crosswind components

Style 2 Displays total wind direction and speed.

Style 3 Displays total wind direction with headwind and crosswind speed components.

Style 4 Displays total wind direction in degrees with wind speed.

Selecting NAV Status Styles

When selected, Nav Status information is displayed on the PFD either on the top of the display (Style 1) or to the left of the HSI (Style 2).

1) While viewing the System Setup page of the AUX page group, press the small **MFD** knob to activate the cursor.

2) Turn the large **MFD** knob to highlight the desired NAV Status value.

3) Turn the small **MFD** knob to select the style and press **ENT.**

AUX GROUP: SYSTEM SETUP PAGE

Selecting Temperature Reference

1) While viewing the System Setup page of the AUX page group, press the small **MFD** knob to activate the cursor. Turn the large **MFD** knob to highlight the desired Temp Reference value.

2) Turn the small **MFD** knob to select the Temp Reference type and press **ENT**.

Outside Air Temperature Selection

Selecting CDI/VDI Preview

1) While viewing the System Setup page of the AUX page group, press the small **MFD** knob to activate the cursor. Turn the large **MFD** knob to highlight the CDI/VDI Preview value.

2) Turn the small **MFD** knob to select "ON" or "OFF" and press **ENT**.

CDI/VDI Preview

AUX GROUP: SYSTEM SETUP PAGE

Synchronization

> ✓ *NOTE: SYNCHRONIZATION of the CDI and BARO will only be available if a second GDU 620 is installed. DATABASES depend on the installation configuration. CHART STREAMING only appears if DATABASES is turned on.*

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob and turn the large **MFD** knob to move to the desired field in the SYNCHRONIZATION box.

2) Turn the small **MFD** knob to turn ON or OFF synchronization of the CDI Source. Turn the large **MFD** knob to move to the BARO setting. Turn the small **MFD** knob to turn the synchronization of the barometer ON or OFF. Turn the small **MFD** knob to turn the synchronization of databases ON or OFF.

3) Press **ENT** to move to the DATE/TIME box or press the small **MFD** knob to exit the editing mode.
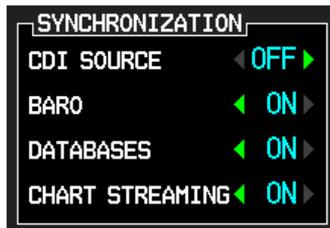
Synchronization Option

Setting Time Format

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob. Turn the large **MFD** knob to the desired field in the DATE/TIME box. The only items that are able to be modified is the TIME FORMAT and TIME OFFSET. The date and time are coordinated with the GPS.

2) Turn the small **MFD** knob to display your choices of LOCAL 12hr, LOCAL 24hr, and UTC (Universal Time, Coordinated). Turn the small **MFD** knob to the desired format and press **ENT** to confirm your selection.

Setting Time Offset

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob. Turn the large **MFD** knob to the time offset portion of the DATE/TIME box.

2) Use the small **MFD** knob and large **MFD** knob to edit the time offset.

3) Press **ENT** to confirm your selection. Press the small **MFD** knob to exit the editing mode.

To convert UTC to local time, a time offset must be chosen. Refer to the table below to determine the time offset.

Time Zone	Standard Local Time Offset	Daylight Saving Time Offset
Atlantic	-4 hours	-3 hours
Eastern	-5 hours	-4 hours
Central	-6 hours	-5 hours
Mountain	-7 hours	-6 hours
Pacific	-8 hours	-7 hours
Alaskan	-9 hours	-8 hours
Hawaiian	-10 hours	-9 hours

AUX GROUP: SYSTEM SETUP PAGE

GARMIN.

MFD Display Units

✓ *NOTE: At any time during the setting of your preferences, pressing the **DFLT UNIT** soft key will restore the settings for brightness, synchronization, time format, time offset and display units to the initial settings.*

✓ *NOTE: The corresponding GPS navigator must also be set to match the selection chosen (distance, speed, NAV angle, pressure, and temperature units) on the GDU 620.*

Setting Distance and Speed Units

1) Press the small **MFD** knob and turn the large **MFD** knob to move to the MFD DISPLAY UNITS box.

2) Turn the small **MFD** knob to display your choices of IMPERIAL, METRIC, and NAUTICAL units for distance and speed displayed on MFD. Press **ENT** to confirm your selection. Press the small **MFD** knob to exit editing mode.

Setting Altitude and Vertical Speed Units

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob and turn the large **MFD** knob to move to the desired field of the MFD DISPLAY UNITS box.

2) Turn the small **MFD** knob to display your choices of FEET or METRIC units for altitude and vertical speed. Press **ENT** to confirm your selection. Press the small **MFD** knob to exit editing mode.

Setting Nav Angle

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob and turn the large **MFD** knob to move to the desired field of the SYSTEM DISPLAY UNITS box.

2) Turn the small **MFD** knob to display your choices of MAGNETIC(°) or TRUE (°) measurement for navigating. Press **ENT** to confirm your selection and move to the next preference or press the small **MFD** knob to exit editing mode.

Setting Pressure Units

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob and turn the large **MFD** knob to move to the desired field of the SYSTEM DISPLAY UNITS box.

AUX GROUP: SYSTEM SETUP PAGE

2) Turn the small **MFD** knob to display your choices of INCHES(ɪɴ) or HECTOPASCALS (ʜᴘᴀ) for your barometric pressure units. Press **ENT** to confirm your selection and move to the next preference or press the small **MFD** knob to exit editing mode.

Setting Temperature Units

1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob and turn the large **MFD** knob to move to the desired field of the SYSTEM DISPLAY UNITS box.

2) Turn the small **MFD** knob to display your choices of CELSIUS(°C) or FAHRENHEIT(°F) for the temperature. Press **ENT** to confirm your selection and press the small **MFD** knob to exit editing mode.

Data Link

1) Press the small **MFD** knob and turn the large **MFD** knob to move to the Data Link box.

2) Turn the small **MFD** knob to display your choices of the available WX/TFR Source. Press **ENT** to confirm your selection. Press the small **MFD** knob to exit editing mode.

Radar Altimeter Test

> **NOTE:** Not all radar altimeters have the test function.

Press the **RA TEST** soft key (if available) to activate the radar altimeter test. An **RA TEST** annunciation will be displayed on the PFD. For more information on the Radar Altimeter and its settings, refer to the latest revision of the G500/G600 Pilot's Guide, P/N 190-00601-02.
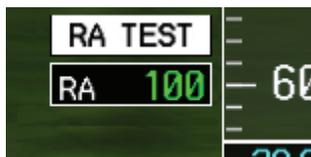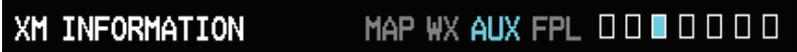

RA TEST Annunciation on PFD

If the unit fails the self-test, the RA FAIL annunciation will appear on the PFD.

RA FAIL Annunciation on PFD

GARMIN.

XM® Information Page (Optional)

XM INFORMATION   MAP WX **AUX** FPL □□■□□□□

Soft Key Found on XM Information Page

LOCK

While viewing the Aux Group, turn the small **MFD** knob to display the XM Information screen. This page contains the Data Radio and Audio Radio IDs. The only option on this page is to **LOCK** in your information once your subscription has been activated.
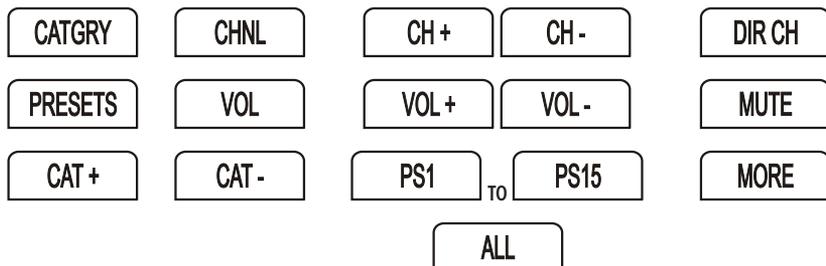
DATA RADIO	AUDIO RADIO
ID	ID
SIGNAL CHECK ANTENNA	SIGNAL CHECK ANTENNA

SERVICE CLASS
Aviator Pro

WEATHER PRODUCTS

AIREPS	COUNTY	SIGMET
AIRMET	CYCLONE	SFC
CNDA METAR	ECHO TOP	TAF
CNDA METAR GFX	FRZ LVL	TFR
CNDA NEXRAD	ICING	TURBULENCE
CNDA CVRG	LTNG	WIND
CNDA TAF	METAR	
CNDA WIND	METAR GFX	LEGEND
CELL MOV	NEXRAD	Unavailable
CITY	PIREPS	Subscribed
CLD TOP	RADAR CVRG	Data Available

XM INFORMATION   MAP WX **AUX** FPL □□■□□□□
LOCK   ADVISORY

XM Information Page

AUX GROUP: XM RADIO PAGE

AUX □□□□□□□□

GARMIN

XM® Radio Page (Optional)

`XM RADIO`   `MAP WX AUX FPL` ☐ ☐ ☐ ☐ ■ ☐ ☐ ☐

Soft Keys Found on XM Radio Page

CATGRY	CHNL	CH +	CH -	DIR CH
PRESETS	VOL	VOL +	VOL -	MUTE
CAT +	CAT -	PS1 TO PS15		MORE
	ALL			

Selecting a Channel

1) While viewing the XM Radio page of the Aux Page Group, press the small **MFD** knob and then turn the small **MFD** knob to highlight the desired channel.

2) Press **ENT** to make the highlighted channel the Active Channel.

3) Press the small **MFD** knob to end editing.

4) Press **CHNL** and then the **CH+** or **CH-** soft keys to increment up or down one channel at a time in the active category.

5) Press **CHNL** and then the **DIR CH** soft key to directly select a channel in the active channel field. Turn the small **MFD** knob and large **MFD** knob to select desired channel.

6) Press **ENT** to save the selection or press the small **MFD** knob to cancel selection.

Selecting a Channel within a Category

1) Press **CATGRY** to highlight the category window.

2) Press **CAT+** or **CAT-** to cycle through the different categories or turn the small **MFD** knob to the category and press **ENT**.

3) Turn the small **MFD** knob to move to the desired channel.

4) Press **ENT** to make that channel the active channel.

5) Press the small **MFD** to end editing.

Volume

While viewing the XM Radio page of the Aux Group, press the **VOL** soft key. Press the **VOL+** or **VOL-** soft keys or turn the small **MFD** knob to increase or decrease radio volume. Press the small **MFD** knob when done adjusting. To mute the radio, press the **MUTE** soft key. To restore the radio volume, press **MUTE** again or the **VOL+** or **VOL-** soft keys.

Storing a Preset Channel

While viewing the XM Radio page, you may set a preset for the Active Channel. Press the **PRESETS** soft key. Press and hold a preset soft key, such as **PS1** until it blinks. You are able to preset up to 15 channels.

Recalling a Preset Channel

While viewing the XM Radio page, press the **PRESETS** soft key and press the preset soft key for the desired stored channel, such as **PS1**. To move to the next group of presets, press the **MORE** soft key.

Position Reporting Page

POSITION REPORTING   MAP WX **AUX** FPL □ □ □ □ □ ▮ □

Soft Key Found on Position Reporting Page

SEND

POSITION REPORTING

STATUS
TIME UNTIL TRANSMIT   01:27
REPORTING STATUS   Unavailable
REPORTS IN QUEUE   32

SETTINGS
REPORT TYPE   AFF
PERIOD   Every 2 Min

POSITION REPORTING   MAP WX **AUX** FPL □ □ □ □ □ ▮ □
SEND   ALERTS

Position Reporting Page

Position Reporting Status

The Status window shows the time until the next data transmission and the status of the reporting system.

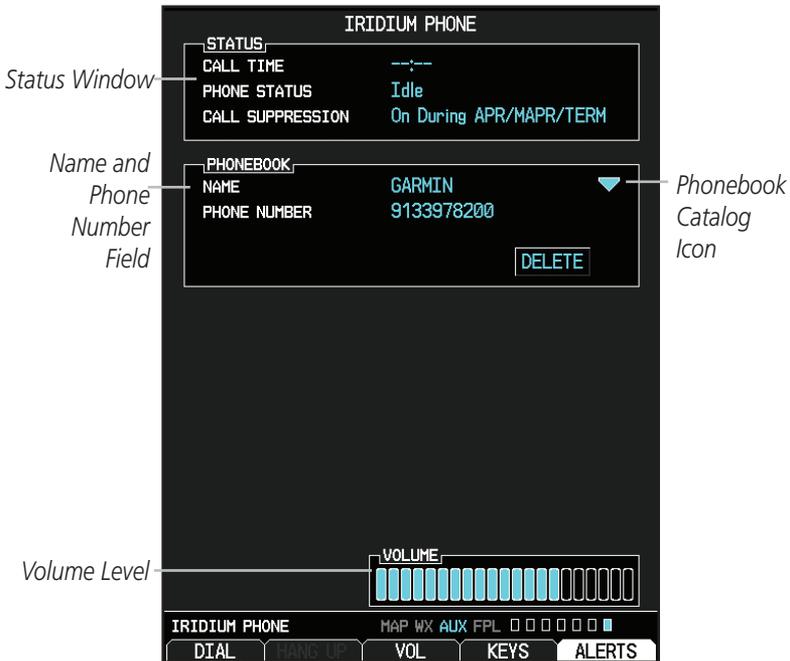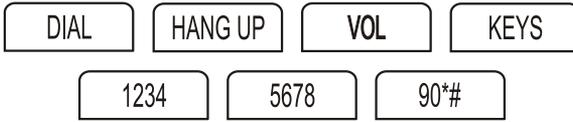## Settings Window

1) While viewing the Position Reporting page, press the small **MFD** knob.

2) Turn the large **MFD** knob to change the report type to either AFF (Automatic Flight Following) or Standard.

GARMIN.

Iridium® Phone Page (Optional)

IRIDIUM PHONE MAP WX AUX FPL ☐☐☐☐☐☐☐■

Soft Keys Found on Iridium Phone Page

| DIAL | HANG UP | VOL | KEYS |

| 1234 | 5678 | 90*# |

IRIDIUM PHONE

Status Window

┌STATUS┐
CALL TIME   --:--
PHONE STATUS   Idle
CALL SUPPRESSION   On During APR/MAPR/TERM

Name and Phone Number Field

┌PHONEBOOK┐
NAME   GARMIN   ▼
PHONE NUMBER 9133978200

DELETE

Phonebook Catalog Icon

Volume Level

┌VOLUME┐
[||||||||||||||||]

IRIDIUM PHONE   MAP WX AUX FPL ☐☐☐☐☐☐☐■
DIAL | HANG UP | VOL | KEYS | ALERTS

Iridium Phone Page

For detailed use of the Iridium Phone system, refer to the latest revision of the G500/G600 Pilot's Guide, P/N 190-00601-02.

Call Suppression

1) While viewing the Iridium Phone page, press the small **MFD** knob.

2) Turn the large **MFD** knob to select the Call Suppression type of Off, On, or On During APR/MAPR/TERM. The last setting will suppress call during approaches, missed approaches, or during terminal procedures.

AUX GROUP: IRIDIUM PHONE

AUX ☐☐☐☐☐☐☐■

Creating Entries into Phonebook

1) While viewing the Iridium Phone page of the Aux Group, press the small **MFD** knob to activate the cursor.

2) Turn the large **MFD** knob to highlight the phonebook catalog icon. Turn the small **MFD** knob to display phonebook.

3) If the name already exists, it will be displayed in the drop down menu. If you are adding a new entry, highlight, (New Entry). Press **ENT.**

4) Turn the small **MFD** knob to enter each letter of the name. Press **ENT.**

5) Turn the large **MFD** knob to move to enter the phone number. Turn the small **MFD** to enter each number. Press **ENT.**

Deleting Entries into Phonebook

1) Press the small **MFD** knob to activate the cursor and then turn the large **MFD** knob to select the Phone Book Catalog icon.

2) Turn the small **MFD** knob to display the contents of the Phone Book Catalog and highlight the desired entry. Press **ENT** to select the catalog entry.

3) Turn the large **MFD** knob to highlight the **DELETE** key. Press **ENT** to delete the catalog entry. Press the small **MFD** knob again to cancel the selection cursor.

Editing a Phone Book Catalog Entry

1) Press the small **MFD** knob to activate the cursor and then turn the large **MFD** knob to select the Phone Book Catalog icon.

2) Turn the small **MFD** knob to display the contents of the Phone Book Catalog and highlight the desired entry. Press **ENT** to select the catalog entry.

3) Use the large **MFD** knob and small **MFD** knobs to make changes to the name or number. Press **ENT** to save the changes. Press the small **MFD** knob again to cancel the selection cursor.

Making a Phone Call

1) While viewing the Iridium Phone page, enter a phone number using the **KEYS** soft key, rotary knobs, or select one from the Phone Book catalog.

2) Press the **DIAL** key.

3) After completing the call, press the **HANG UP** key.

GARMIN.

System Status Page

SYSTEM STATUS   MAP WX **AUX** FPL ☐☐☐☐■☐☐

Soft Keys Found on System Status Page

DB ACTV   DB SYNC   LRU

The System Status page of the AUX Page group shows the status, serial number, and version of LRUs as well as the effectivity information. There are no menu options. In the LRU Status column, a green check means the unit is present and operating properly, while a red X indicates an absence or failure.
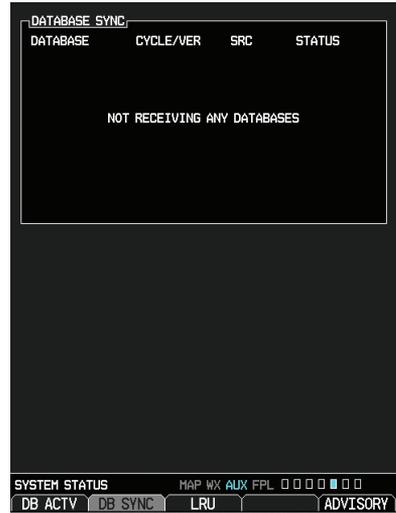
System Status

1) While viewing the System Status page of the Aux Page Group, press the **DB ACTV** soft key and turn the small **MFD** knob to view the list of databases loaded into the GDU 620. Press the small **MFD** knob to exit.

2) Press the **DB SYNC** soft key to synchronize databases with a second LRU. Press the small **MFD** knob to exit.

3) Press the **LRU** soft key and turn the small **MFD** knob to scroll through the status, serial number, and version of each LRU.
Press the small **MFD** knob to exit.

AUX GROUP: SYSTEM STATUS PAGE

GARMIN.

Flight Plan Group
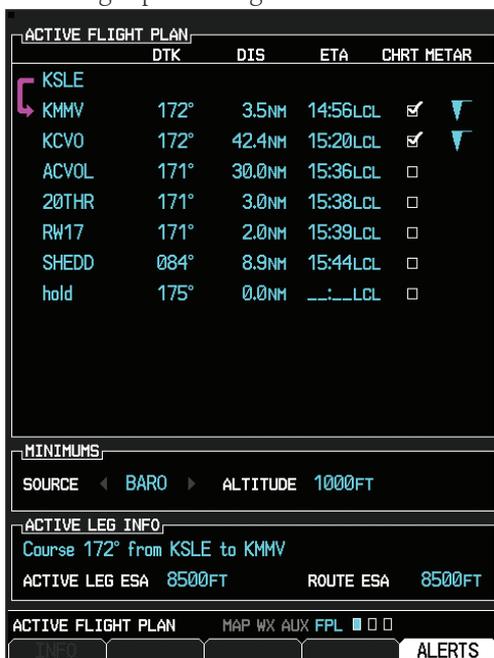
Active Flight Plan Page

ACTIVE FLIGHT PLAN   MAP WX AUX FPL ▮ ☐ ☐

Soft Keys Found on Active Flight Plan Page

INFO

Viewing Your Active Flight Plan

The active flight plan (as received from the active GPS unit) is shown on the first page of the Flight Plan page group. No changes to the flight plan can be made from the GDU 620. All flight plan changes must be made from the GPS unit.

Active Flight Plan Page

1) While viewing the Active Flight Plan page of the FPL Page Group, press the small **MFD** knob and then turn the large **MFD** knob to highlight waypoints in the flight plan.

2) Press the **INFO** soft key to view information about the highlighted waypoint.

3) Press the small **MFD** knob to return to the Active Flight Plan page.

FPL ▮ ☐ ☐

Waypoint Information Page

Soft Keys Found on Waypoint Information Page

WAYPOINT INFORMATION   MAP WX AUX **FPL** ☐ ■ ☐

RWY FREQ   APT DIR   WX/NOTAM

Facility Identifier — IDENT, FACILITY, CITY
KSEF   ◆ PUBLIC — *Facility Type*
Facility Name — SEBRING REGL
Facility Location — SEBRING FL

Bearing & Distance to Wpt from Present Position — INFO
BRG   129°   SE USA — *Map Region*
DIS   1575NM   N 27°27.38' — *Lat/Lon*
ELEV 62FT   W081°20.54'

Map Orientation — NORTH UP   XM — *Map Window*
                                                TFR

14   19
1500FT   N
W   KSEF
        E
CARTER AIRCRAFT   S
01   32

WAYPOINT INFORMATION   MAP WX AUX FPL ☐ ■ ☐
Info/Map Soft Key — INFO/MAP RWY/FREQ   WX/NOTAM ADVISORY — *Wpt Weather Info Soft Key*

Rwy/Freq Soft Key   *Airport Directory Soft Key*

Waypoint Information Page

1) While viewing the Waypoint Information page of the FPL Page Group, press the small **MFD** knob and then turn the small **MFD** knobs to enter or select the waypoint. You can also turn the small **MFD** knob counterclockwise to obtain drop down menus for FPL, Nearest, and Recent.

2) Press the **RWY/FREQ** soft key to view runway and frequency information about the waypoint.

3) Press the **APT DIR** soft key (if available) to view the airport directory information such as facility hours, noise abatement, pattern, etc. Press the small **MFD** knob and turn to scroll down the page (if available).

4) Press the **WX or WX/NOTAM** soft key (if available) to view METARs, TAFs, or NOTAMs for the waypoint.

GARMIN.

Charts Page (Optional)

Soft Keys Found on Charts Page

`CHARTS` · `MAP WX AUX FPL ☐ ☐ ◼`

[NOTAM] [DETAIL] [**SELECT**]
[HEADER] [PLAN] [PROFILE] [MINIMUMS]

Chart Information

FliteCharts®

FliteCharts resemble the paper version of FAA published terminal procedures charts. The charts are displayed with high-resolution and in color for applicable charts. The database contains procedure charts for the United States only. This database is updated on a *28-day cycle*. FliteCharts is disabled 180 days after the expiration date and is no longer available for viewing upon reaching the disable date.

ChartView™ (Optional with Enablement Card)

ChartView resembles the paper version of Jeppesen terminal procedures charts. The charts are displayed in full color with high resolution. The MFD depiction shows the aircraft position on the moving map in the plan view of approach charts and on airport diagrams. ChartView requires an enablement card.

The ChartView database is updated on a *14-day cycle*. ChartView is disabled 70 days after the expiration date and is no longer available for viewing upon reaching the disable date.

Selecting a Chart

1) While viewing the Charts page of the FPL Page Group, press the **SELECT** soft key to change the airport or chart.
2) Turn the small and large **MFD** knobs to select the airport identifier and press **ENT** to accept the selected airport.
3) Turn the large **MFD** knob to select the desired chart.
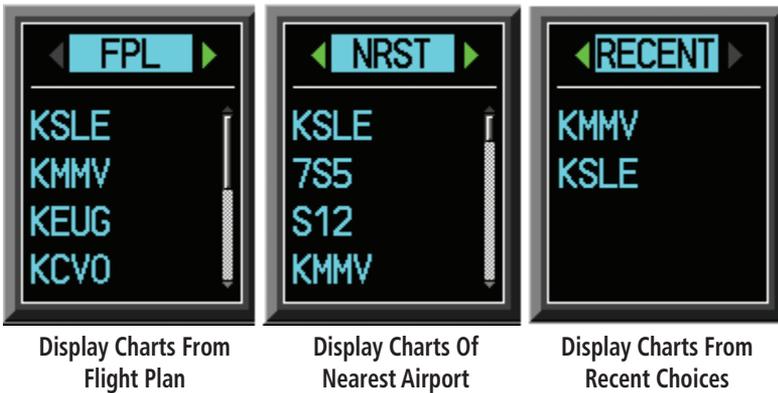4) Press **ENT** to display the desired chart.

> ✓ *NOTE: The chart for the selected destination airport or approach is automatically loaded. If no flight plan is entered, the chart page will default to the nearest airport.*

FPL GROUP: CHARTS PAGE

Selecting Other Charts

You are able to choose other charts to display based on your flight plan (FPL), charts of the nearest airport (NRST) or recently selected airports (RECENT).

1) While viewing the Charts page of the FPL Page Group, press the **SELECT** soft key.

2) Turn the small **MFD** knob counterclockwise.

3) Turn the small **MFD** knob to show FPL, NRST, or RECENT.

4) Turn the large **MFD** knob to highlight the desired airport, then press **ENT.**

Display Charts From Flight Plan	Display Charts Of Nearest Airport	Display Charts From Recent Choices

Viewing Charts and Panning

1) While viewing the Charts page of the FPL Page Group, press the **RNG** (Range) keys to zoom in and out.

2) Press the small **MFD** knob to enter the panning mode and activate scroll bars on the edges of the chart.

3) Turn the large **MFD** knob to move around the chart horizontally and turn the small **MFD** knob to move vertically.

4) Press the small **MFD** knob to cancel the scroll bars and exit panning.

Viewing Details of ChartView™ Charts

1) While viewing the Charts page of the FPL Page Group, press the **DETAIL** soft key.

2) Press the **HEADER**, **PLAN**, **PROFILE**, or **MINIMUMS** soft keys to view detailed sections for the chart for those topics.

Setting Minimums

1) While viewing the Charts page of the FPL Page Group, press the **MENU** key to display the Options menu and press **ENT.**

2) Turn the small **MFD** knob to select the source, BARO or RAD ALT. Press the **ENT** key.

3) Turn the small **MFD** knob to select the altitude. Press **ENT** to set the altitude.

Changing Day/Night View

1) While viewing the Charts page of the FPL Page Group, press the **MENU** key to display the Options menu.

2) Turn the small **MFD** knob to Chart Setup. Press **ENT**. The Color Scheme option will be highlighted.

3) Turn the small **MFD** knob to select Day - Auto - Night. Press the small **MFD** knob to save the selected value and return to the Charts page.

4) If "Auto" is selected, turn the large **MFD** knob to highlight the Display Level Brightness value. Turn the small **MFD** knob to change the display level value for which the display will automatically switch from Day/Night brightness.

5) Press the **MFD** knob to save the selected value.

Viewing NOTAMs (ChartView Only)

In the event there is an active NOTAM (Notice to Airmen) for a particular chart, the **NOTAM** soft key will be available. To view the information press the **NOTAM** soft key.

Charts Page

Alerts

Refer to the Airplane Flight Manual and ADAS+ ETM documentation in the event that Engine Trend Monitor (ETM) alerts are displayed.

On Screen Alerts

Alert	Description
ADC(1/2) ALT EC	• ADC 1 or ADC 2 Altitude Error Correction is unavailable. • Alert is enabled and the ADC is reporting that altitude correction is unavailable.
ADC(1/2) SERVICE	• ADC 1 or ADC 2 requires service.
ADC CONFIG	• ADC configuration error.
AFCS	• Autopilot failure.
AHRS(1/2) CAL	• AHRS 1 or AHRS 2 calibration version error. Contact repair facility.
AHRS(1/2) GPS	• AHRS 1 or AHRS 2 is not receiving any GPS information. • AHRS 1 or AHRS 2 is operating exclusively in no-GPS reversionary mode. • AHRS 1 or AHRS 2 is using the backup GPS information. • AHRS 1 or AHRS 2 is not receiving backup GPS information. • Two GPS devices are configured as present and AHRS 1 is not receiving GPS data from the backup (2nd) device.
AHRS(1/2) SRVC	• AHRS1 or AHRS 2 magnetic field model needs update. This appears on the ground only.
AHRS(1/2) TAS	• AHRS1 or AHRS 2 is not receiving true airspeed from ADC. • Displayed heading and attitude data are still valid. • Additional loss of GPS data will cause loss of heading and attitude data.
AHRS CONFIG	• AHRS configuration error.
AHRS MAG DB	• AHRS/GDU magnetic field model database version mismatch.
AIL	• Mistrim condition requiring roll trim.
ALT KEY INOP	• The ALT key is disabled. ALT key not available.
ALT NO COMP	• No data from one or more altitude sensors.
ARINC 429 CONFIG	• ARINC 429 configuration error.

Alert	Description
ARINC 708 CONFIG	• ARINC 708 configuration error.
AUD NOT AVAIL	• Audio system is not available.
AUD SYS FAIL	• Audio system failure.
AVTN DB	• Reduced functionality due to missing aviation database. • Datacard may have been ejected.
CAL LOST	• Calibration data is lost.
CHT DB ERR	• Datacard's charts database is incomplete. Some charts may be unavailable.
CHT STREAM	• Chart streaming not available. GDU reverts to the datacard's charts.
CNFG MISMATCH	• GDU 1-2 airframe configuration settings disagree.
CNFG MODULE	• GDU configuration module is inoperative.
DATALINK	• ADS-B fault: UAT receiver. • ADS-B fault: 1090 receiver. • FIS-B weather has failed. • GDL 88 ADS-B Failure. Unable to transmit ADS-B messages. • GDL 88 ADS-B fault. • GDL 88 needs service. • GDL 88 ADS-B is not transmitting position. Check GPS devices. • GDL 88 control panel input fault. Check transponder mode. • GDL 88 ADS-B fault. Pressure altitude source inoperative. • GDL 88 external traffic system inoperative or connection lost. • GDL 88 configuration module needs service. • GDL 88 is inoperative or connection to GDU is lost. • GDL 88 CSA failure. • GDL 88 external traffic system has a low battery. • GDL 88 external traffic system in standby for more than 60 seconds.

Alert	Description
DATA LOST	• Pilot stored data is lost. All pilot configurable items return to their default settings.
DB ERR	• Database found on top card.
DB SYNC COMPLETE	• Database sync complete. • Restart required to use new databases.
DB SYNC DISABLED	• No database card found to receive databases.
DB SYNC ERROR	• Not enough space to receive one or more databases.
DIAG MODE	• System is in Diagnostic Mode.
DSCRT CONFIG	• Discrete input/output configuration error.
ELE	• Mistrim condition requiring elevator trim.
ENG SENSOR UNIT (1/2)	• Configuration error. • Communication with sensors is halted or lost.
ETM CAPTURE	• Engine Trend Monitor data capture. • ADAS+ engine monitoring system is recording trend data.
ETM EXCEED	• Engine Trend Monitor exceedance/advisory. • ADAS+ engine monitoring system is reporting an exceedence or advisory condition.
ETM FAULT	• Engine Trend Monitor needs service. • ADAS+ engine monitoring system is reporting a system fault.
FAN 1/2 FAIL	• Cooling fan 1/2 has failed. • Unit may operate at extreme temperatures. • Extended operation at high temperatures is not recommended as damage to the GDU may occur. • PFD/MFD coloration may be incorrect. • Backlight may dim to reduce power and heat.

ALERTS

Alert	Description
GAD 43	• Gad 43 communication is lost. • Gyro Emulation Type Mismatch fault. • Yaw Rate Scale Factor Mismatch fault. • GDU AHRS Monitor fault. • Pitch Deviation fault. • Roll Deviation fault. • Yaw Rate Deviation fault. • AHRS A429 Attitude Timeout fault. • AHRS A429 Attitude Invalid fault. • AHRS Pitch Out of Range fault. • AHRS Attitude Invalid fault. • AHRS A429 Heading Timeout fault. • AHRS A429 Heading Invalid fault. • Power Supply fault. • AC reference is lost. • Application SCI integrity fault. • Configuration integrity fault. • Calibration integrity fault. • Unit fault.
GAD 43E CONFIG	• GAD 43e configuration error. • Communication is halted.
GATE MODE	• Automated testing is on.
GDL 69	• GDL 69/69A has failed.
GEO LIMITS	• AHRS 1 is too far north or south. No magnetic heading provided. • Operation in extreme north latitudes has rendered the heading unreliable.
GPS(1/2) FAIL	• Communication with GPS1 or GPS2 data is lost.
GPS(1/2) PPS FAIL	• Timing data from GPS 1 or GPS 2 is lost.
GSR FAIL	• The GSR 56 has failed.

ALERTS

ALERTS

Alert	Description
GWX CONFIG	• GWX configuration error. • Configuration is required.
GWX SERVICE	• GWX requires service.
HDG FAULT	• AHRS 1 or AHRS 2 in no magnetometer reversionary mode. • Heading fault occurs on the AHRS. • Heading data is unreliable.
HDG LOST	• HDG features are disabled or defaulted to GPS1 TRK. • GDU is in the reversionary track-based mode.
HTAWS	• External HTAWS not available. Internal TERRAIN-HSVT alerting is enabled. • External HTAWS configuration mismatch.
IAS NO COMP	• No data from one or more airspeed sensors.
<LRU> CAL	• Error in the calibration of the indicated LRU.
<LRU> CONFIG	• Error in configuration of the indicated LRU.
<LRU> COOLING	• The indicated LRU has insufficient cooling. Display is automatically dimmed to reduce power usage.
<LRU> DB ERR	• Error exists with the indicated LRU database.
<LRU> KEYSTK	• The indicated LRU key is stuck.
<LRU> SERVICE	• The indicated LRU requires service.
<LRU> VOLTAGE	• The indicated LRU has low voltage. Display is automatically dimmed to reduce power usage.
MANIFEST	• LRU software mismatch. Communication is halted..
MAXSPD	• Overspeed protection is active.
MINSPD	• Underspeed protection is active.
NAV(1/2) FAIL	• Communication with NAV 1 or NAV 2 is lost. • No data from the indicated navigation receiver.
NO RADAR DATA	• No data is being sent to the GDU.
PFT	• Preflight test failure.
PIT NO COMP	• No data from one or more pitch attitude sensors.

Alert	Description
PREV EXCEED	• Previous Engine Trend Monitor exceedance. • ADAS+ engine trend monitor is reporting a previous exceedence.
PTRM	• Pitch trim failure.
RADAR CONTROLS DISAGREE	• Data does not match for a duration of 15 seconds or longer.
REGISTER GFDS	• Data services are inoperative. Unit is not registered.
ROL NO COMP	• No data from one or more roll attitude sensors.
RS-232 CONFIG	• RS-232 configuration error.
RS-485 CONFIG	• RS-485 configuration error.
RUD	• Mistrim condition requiring rudder trim.
SD CARD 1	• Top SD Card disabled due to errors. Replace card.
SD CARD 2	• Bottom SD Card disabled due to errors. Replace card.
SIMULATOR	• Simulator Mode is active. Do not use for navigation.
STORMSCOPE	• Stormscope® has failed or connection is lost.
SVT DISABLED	• Outside of terrain database coverage area. • Terrain database resolution is too low.
SW MISMATCH	• GDU software version mismatch. No GDU crossfill.
TAWS	• External TAWS is not available. Internal TERRAIN-SVT alerting enabled. • External TAWS configuration mismatch.
TDB	• Airframe does not support Terrain database.
TERRAIN DSP	• Terrain or obstacle database error in TAWS-B or TERRAIN-SVT only.
TRAFFIC	• ADS-B In traffic alerting has failed. • ADS-B In traffic has failed. • TAS/TCAS has been in standby for more than 60 seconds. • TAS/TCAS is inoperative or connection is lost.
TRAFFIC CONFIG	• ADS-B traffic data does not match configuration.
TRAFFIC FAIL	• Traffic device has failed. • Traffic data is no longer displayed.
TRAFFIC STDBY	• Traffic is in Standby mode while airborne.

ALERTS

GARMIN.

Alert	Description
TRK LOST	• Heading and track from active GPS is lost. HSI is using secondary GPS track.
TRK TRAFFIC	• Heading is lost. Traffic is now based on track.
WX ALERT	• Possible severe weather ahead.
WX RADAR	• Communication with weather radar is lost.
WX RDR SERVICE	• Weather radar requires service.
WXR INPUT FAULT	• Weather radar is not receiving one or more inputs.
XPDR1/2	• GTX1 or GTX 2 requires service. • GTX1 or GTX 2 is inoperative or connection to GDU is lost. • Transponder 1 or Transponder 2 is inoperative or connection to GDU is lost.
YAW	• Yaw damper failure.

ALERTS

TAWS-B Alerts

Alert Type	PFD/MFD Alert Annunciation	Aural Message
Excessive Descent Rate Warning (EDR-W)	PULL UP	"Pull Up"
FLTA Terrain Warning (RTC-W, ITI-W)	PULL UP	"Terrain Ahead, Pull Up; Terrain Ahead, Pull Up"* or "Terrain, Terrain; Pull Up, Pull Up"
FLTA Obstacle Warning (ROC-W, IOI-W)	PULL UP	"Obstacle Ahead, Pull Up; Obstacle Ahead, Pull Up"* or "Obstacle, Obstacle; Pull Up, Pull Up"
FLTA Wire Warning (ILI-W, RLC-W)	PULL UP	"Wire Ahead, Pull Up; Wire Ahead, Pull Up"* or "Wire, Wire, Pull Up, Pull Up"
FLTA Terrain Caution (RTC-C, ITI-C)	TERRAIN	"Terrain Ahead; Terrain Ahead"* or "Caution, Terrain; Caution, Terrain"
FLTA Obstacle Caution (ROC-C, IOI-C)	OBSTACLE	"Obstacle Ahead; Obstacle Ahead"* or "Caution, Obstacle; Caution, Obstacle"
FLTA Wire Caution (ILI-C, RLC-C)	WIRE	"Wire Ahead; Wire Ahead" or "Caution, Wire; Caution Wire"
Premature Descent Alert Caution (PDA)	TERRAIN	"Too Low, Terrain"
Voice Callout (VCO-500)	None	"Five-Hundred"
Excessive Descent Rate Caution (EDR-C)	TERRAIN	"Sink Rate"
Negative Climb Rate Caution (NCR-C)	TERRAIN	"Don't Sink"* or "Too Low, Terrain"

Alerts with multiple messages are configurable at installation and are installation-dependent. Alerts for the default configuration are indicated with asterisks.

ALERTS

GARMIN

Terrain-SVT™ Alerts

Alert Type	PFD/MFD Alert Annunciation	Aural Message
GPS signal re-established	None	"Terrain System Available"
Terrain System Test Successful	None	"Terrain System test OK"
Terrain System Test in Progress	MAP ▢▢▢▢■	None
Terrain Alerting is disabled	TER INH	None
No GPS position Excessively degraded GPS signal	TER N/A	"Terrain System Not Available"
Terrain SVT System Test Fail	TER FAIL	"Terrain System Failure"

Alert Type	PFD/MFD Alert Annunciation	Aural Message
FLTA Terrain Caution (RTC-C, ITI-C)	TERRAIN	"Caution, Terrain, Terrain"
FLTA Terrain Caution (RLC-C, ILI-C)	WIRE	"Caution, Wire, Wire"
FLTA Terrain Warning (RTC-W, ITI-W)	TERRAIN	"Warning, Terrain, Terrain"
FLTA Terrain Warning (RLC-W, ILI-W)	WIRE	"Warning, Wire, Wire"
FLTA Obstacle Caution (ROC-C, IOI-C)	OBSTACLE	"Caution, Obstacle, Obstacle"
FLTA Obstacle Warning (ROC-W, IOI-W)	OBSTACLE	"Warning, Obstacle, Obstacle"

ALERTS

GARMIN.

Symbols

Map Page Symbols

Symbol	Description
?	Unknown Airport
/	Non-towered, Non-serviced Airport
/	Towered, Non-serviced Airport
/	Non-towered, Serviced Airport
/	Towered, Serviced Airport
○	Soft Surface, Serviced Airport
○	Soft Surface, Non-serviced Airport
R	Private Airport
H	Heliport
△	Intersection
◉	LOM (compass locator at outer marker)
◎	NDB (Non-directional Radio Beacon)
◉	VOR
◉	VOR/DME
▣	ILS/DME or DME-only
◉	VORTAC
◉	TACAN
■	User Waypoint
U	New User Airport
VRP	VRP (Visual Reporting Point)

SYMBOLS

SafeTaxi® Symbols

Symbol	Description
Ⓗ	Helipad
☆	Airport Beacon
	Under Construction Zones
	Designated Water Areas
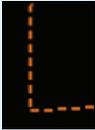
Traffic Symbols

TAS Symbol	Description
◇	Other Traffic
◆	Proximity Advisory (PA)
●	Traffic Advisory (TA)
	Traffic Advisory Off-scale

TAS/TCAS Traffic Symbols

TIS Symbol	Description
◆	Non-threat Traffic
●	Traffic Advisory (TA)
	Traffic Advisory Off-scale

TIS Traffic Symbols

Symbol	Description
◇ ◇	Basic Non-directional Traffic (White: In Air; Brown: On Ground)
▲ ▲	Basic Directional Traffic (White: In Air; Brown: On Ground)
▽	Basic Off-scale Selected Traffic
◆	Proximate Non-directional Traffic
▲	Proximate Directional Traffic
▼	Proximate Off-scale Selected Traffic
●	Non-directional Alerted Traffic
⬤	Off-scale Non-directional Alerted Traffic
▲	Directional Alerted Traffic
▲	Off-scale Directional Alerted Traffic
▦	Non-directional Surface Vehicle
⬠	Directional Surface Vehicle

ADS-B Traffic Symbols

SYMBOLS

Terrain/Obstacle Altitude Legend

Terrain/Obstacle Altitude Legend

Symbol	Description
Red	Terrain is at or within 100 ft below the current aircraft altitude
Yellow	Terrain is between 100 ft and 1,000 ft below the aircraft altitude
Black	Terrain is more than 1,000 ft below the current aircraft altitude

Terrain Altitude Color Descriptions
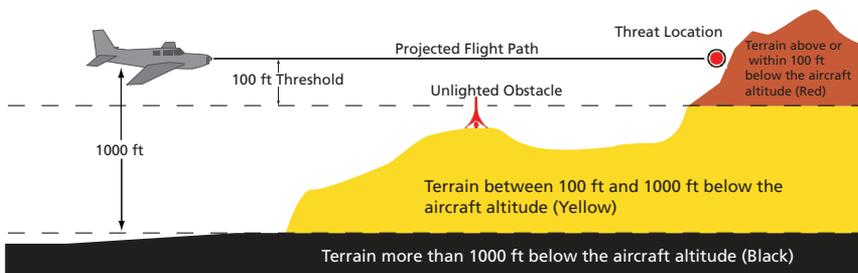
Terrain Altitude Colors

NOTE: Obstacles will be removed from the Terrain/TAWS page when range (RNG) exceeds 10 NM.

Obstacle Icons

Symbol	Description
	Unlighted Obstacle (height is less than 1,000 ft AGL)
	Lighted Obstacle (height is less than 1,000 ft AGL)
	Unlighted Obstacle (height is greater than 1,000 ft AGL)
	Lighted Obstacle (height is greater than 1,000 ft AGL)
	Tower
	Windmill
	Windmill in Group
	Power Line

Obstacle Icon Types

Symbol	Description
Red	Obstacle is at or within 100 ft below current aircraft altitude
Yellow	Obstacle is between 100 ft and 1,000 ft below current aircraft altitude
White	Obstacle is between 1,000 ft and 2,000 ft below current aircraft altitude

Obstacle Altitude Color Descriptions

Map Toolbar Symbols

Symbol	Description
	Terrain Proximity Enabled and Available Indicator
	Terrain Proximity Enabled and Not Available Indicator
	Point Obstacle Enabled and Available Indicator
	Point Obstacle Enabled and Not Available Indicator
	Wire Obstacles Enabled and Available Indicator
	Wire Obstacles Enabled and Not Available Indicator
	StormScope
	StormScope Enabled and Not Available Indicator
	Traffic Enabled and Available Indicator
	Traffic Enabled and Not Available Indicator

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XM® WX Weather Symbols and Product Age

The broadcast rate represents the interval at which XM WX Satellite Radio broadcasts new signals that may or may not contain new weather data. It does not represent the rate at which weather data is updated or new content is received by the Data Link Receiver. Weather data is updated at intervals that are defined and controlled by XM WX Satellite Radio and its data vendors. The product label in the legend will turn yellow at half the expiration time and gray when expired. Expired products will not be shown on the display.

> *NOTE: Product age is not displayed for individual reports of AIRMETs, SIGMETs, City Forecasts, County Warnings, Cell Movement and TFRs. Product generation time is displayed for Freezing Level and Winds Aloft instead of valid time.*

SYMBOLS

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Miscellaneous Symbols

Symbol	Description
	Generic Airplane
	Low-Wing Prop
	High-Wing Prop
	Kit Plane
	Turboprop
	Twin-Engine Prop
	Single-Engine Jet
	Business Jet
	Simple Airplane
	2-Blade Rotorcraft
	3-Blade Rotorcraft
	4-Blade Rotorcraft
	Arrow
	Default Map Cursor
	Measuring Cursor
	MFD Wind Vector (w/ valid GPS solution)
	Parallel Track Waypoint
	Restricted/Prohibited/Warning/Alert
	TFR (Temporary Flight Restrictions)
	MOA
( )	Class B Airspace (De-Emphasized Smart Airspace)
( )	Class C Airspace (De-Emphasized Smart Airspace)
( )	Class D Airspace (De-Emphasized Smart Airspace)
70/50	Airspace Altitude Label (Upper/Lower Limits)

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