GARMIN

G500H

Cockpit Reference Guide

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To obtain warranty service, contact your local Garmin Authorized Service Center. For assistance in locating a Service Center near you, visit the Garmin web site at http://www.garmin.com or contact Garmin Customer Service at 866.739.5687.

Warnings, Cautions, & Notes

WARNING: *Navigation and terrain separation must NOT be predicated upon the use of the terrain function. The G500H Terrain Proximity feature is NOT intended to be used as a primary reference for terrain avoidance and does not relieve the pilot from the responsibility of being aware of surroundings during flight. The Terrain Proximity feature is only to be used as an aid for terrain avoidance and is not certified for use in applications requiring a certified terrain awareness system. Terrain data is obtained from third party sources. Garmin is not able to independently verify the accuracy of the terrain data.*

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

WARNING: *The Garmin G500H has a very high degree of functional integrity. However, the pilot must recognize that providing monitoring and/or self-test capability for all conceivable system failures is not practical. Although unlikely, it may be possible for erroneous operation to occur without a fault indication shown by the G500H. It is thus the responsibility of the pilot to detect such an occurrence by means of cross-checking with all redundant or correlated information available in the cockpit.*

WARNING: *The altitude calculated by GPS receivers is geometric height above Mean Sea Level and could vary significantly from the altitude displayed by pressure altimeters, such as the output from the GDC 74H Air Data Computer, or other altimeters in aircraft. GPS altitude should never be used for vertical navigation. Always use pressure altitude displayed by the G500H PFD or other pressure altimeters in aircraft.*

WARNING: *Do not use outdated database information. Databases used in the G500H system 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 Pilots using an outdated database do so entirely at their own risk.*

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

WARNING: *Traffic information shown on the G500H Multi-Function Display is provided as an aid in visually acquiring traffic. Pilots must maneuver the aircraft based only upon ATC guidance or positive visual acquisition of conflicting traffic.*

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: *For safety reasons, G500H operational procedures must be learned on the ground.*

WARNING: *To reduce the risk of unsafe operation, carefully review and understand all aspects of the G500H Pilot's Guide. Thoroughly practice basic operation prior to actual use. During flight operations, carefully compare indications from the G500H to all available navigation sources, including the information from other NAVAIDs, visual sightings, charts, etc. For safety purposes, always resolve any discrepancies before continuing navigation.*

WARNING: *Never use the G500H to attempt to penetrate a thunderstorm. Both the FAA Advisory Circular, Subject: Thunderstorms, and the Airman's Information Manual (AIM) recommend avoiding "by at least 20 miles any thunderstorm identified as severe or giving an intense radar echo."*

WARNING: *With a GRS 77/GDC 74 installation, exceeding 200 degrees/second in pitch or roll may invalidate AHRS attitude provided to the G500H. Exceeding 450 KIAS may invalidate ADC information provided to the GDU 620. With a GSU 75/GRS 79/GDC 72 installation, exceeding 225 degrees/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 use Terrain-HSVT information for primary terrain avoidance. Terrain-HSVT is intended only to enhance situational awareness.*

WARNING: *Because of anomalies in the earth's magnetic field, operating the G500H within the following areas could result in loss of reliable attitude and heading indications. North of 72° North latitude and south of 70° South latitude. An area north of 65° North latitude and between longitude 75° West and 120° West. An area north of 70° North latitude and between longitude 70° West and 128° West. An area north of 70° North latitude and between longitude 85° East and 114° East. An area south of 55° South latitude between longitude 120° East and 165° East.*

***CAUTION**: FIS-B information is to be used for pilot planning decisions and pilot near-term decisions focused on avoiding areas of inclement weather that are beyond visual range or where poor visibility precludes visual acquisition of inclement weather. FIS-B weather and NAS status information may be used as follows:*
- To promote pilot awareness of own ship location with respect to reported weather, including hazardous meteorological conditions, NAS status indicators, and enhance pilot planning decisions and pilot near-term decision-making.
-To cue the pilot to communicate with the Air Traffic Control controller, Flight Service Station specialist, operator dispatch, or airline operations control center for general and mission critical meteorological information, NAS status conditions, or both.

FIS-B information, including, weather information, NOTAMs, and TFR areas, are intended for the sole purpose of assisting in long- and near-term planning decision making. The system lacks sufficient resolution and updating capability necessary for aerial maneuvering associated with immediate decisions.

***CAUTION:** The United States government operates the Global Positioning System 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 Garmin G500H utilize GPS as a precision electronic NAVigation AID (NAVAID). Therefore, as with all NAVAIDs, information presented by the G500H can be misused or misinterpreted and, therefore, become unsafe.*

***CAUTION:** The Garmin G500H does not contain any user-serviceable parts. Repairs should only be made by an authorized Garmin service center. Unauthorized repairs or modifications could void both the warranty and pilot's authority to operate this device under FAA/FCC regulations.*

***CAUTION:** The GDU 620 displays use a lens coated with a special anti-reflective coating that is very sensitive to skin oils, waxes, and abrasive cleaners. CLEANERS CONTAINING AMMONIA WILL HARM THE ANTI-REFLECTIVE COATING. It is very important to clean the lens using a clean, lint-free cloth and an eyeglass lens cleaner that is specified as safe for anti-reflective coatings.*

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: *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.*

NOTE: *All visual depictions contained within this document, including screen images of the GDU 620 bezel and displays, are subject to change and may not reflect the most current G500H system. Depictions of equipment may differ slightly from the actual equipment.*

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 web site at www.garmin.com/prop65.*

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: *Terrain-HSVT is standard when the Garmin Synthetic Vision Technology™ (SVT) option is installed. The HTAWS option will take precedence over Terrain-HSVT.*

NOTE: *Do not use SafeTaxi or Chartview functions as the 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.*

Record of Revisions		
Revision	**Date**	**Description**
G	10/2016	Update reflects software v7.12 upgrade.
F	04/2015	Update reflects software v7.00 upgrade.
E	01/2012	Minor clerical edits.
D	08/2011	Update reflects software v6.00 upgrade.
C	11/2010	Update reflects software v4.00 and v5.00 upgrades.
B	03/2010	Added speed tape marking information.
A	01/2010	Product release.

Change Description	
Page	**Description**
iii	Added warning against the use of data link weather when maneuvering around hazardous material.
v	Added caution against the use of FIS-B for pilot decisions.
5	Added V-speeds information and image.
7	Update reflects the addition of minimum descent altitude/decision height alerting information.
10	Updated Vertical Speed (V/S Tape and Window) image.
17	Added Marker Beacon Annunciation section.
21	Updated Multi-Function Display (MFD) image.
25	Updated Distance, Bearing, and Coordinates Display image.
27	Added SXM Weather, GFDS Weather, FIS-B Weather, and Stormscope groups to Map Setup Options table.
28	Added Airspace Labels and VRP Viewing range to aviation group selections in the Map Setup Options table. Added SafeTaxi and ChartView note to SafeTaxi section.
29	Updated Traffic Map - TAS/TCAS image and callouts.
50	Updated the synchronization note and option image.
73	Added External H-TAWS Alerts table.
75	Added User Waypoint and VRP (Visual Reporting Point) symbols to the Map Page table.
78	Updated Terrain/Obstacle Altitude section.

Contents

Introduction

This reference guide covers the operation of the GDU 620 as integrated in the G500H Avionics Display System. The G500H Avionics Display System is an avionics suite that combines primary flight instrumentation, navigational information, and a moving map displayed on dual 6.5 inch color screens. The G500H system is composed of sub-units or Line Replaceable Units (LRUs). LRUs have a modular design. This design greatly eases troubleshooting and maintenance of the G500H 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 G500H system, refer to the latest revision of the G500H Pilot's Guide, P/N 190-01150-02.

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)

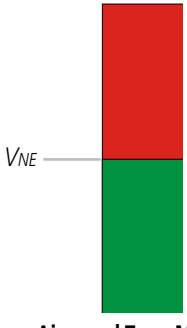
1. *NAV Status Bar: Displays which GPS is selected as the Active Source, Active Waypoint (WPT), Distance to Waypoint (DIS), Desired Track (DTK) and Current Track (TRK).*
2. *Airspeed Tape: Displays Groundspeed (GS), Overspeed Range, Maximum (Vne) Speed with Engine On, Airspeed Trend, Current Airspeed, Max (Vne) Speed with Engine Off* **OR** *Max Autorotation Speed, and True Airspeed (TAS). Markings dependent upon configuration at time of installation. Reference RFM or POH.*
3. *Wind Vector: Displays direction and speed of wind.*

4. *Outside Air Temperature (SAT, TAT, or ISA): Displays the current outside air temperature.*
5. *Attitude Sync Soft Key: Allows the synchronization of the aircraft to the horizon in level flight.*
6. *Heading Select Key: Press **HDG** and turn **PFD** knob to set heading bug.*
7. *Course Select Key: Press **CRS** and turn **PFD** knob to set the course of the selected source (VOR1, VOR2, GPS1, or GPS2).*
8. *Altitude Select Key: Press **ALT** and turn **PFD** knob to set altimeter bug.*
9. *VIS (Vertical Speed) Select Key: Press **V/S** and turn **PFD** knob to set VIS bug.*
10. *Barometer Select Key: Press **BARO** and turn **PFD** knob to change barometric setting.*
11. *PFD Knob: Turn **PFD** knob to change bug settings, Heading Bug, Course, Altitude Bug, VIS Bug, and Barometer setting.*
12. *Soft Keys: Used to select available options on PFD or MFD.*
13. *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.*
14. *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.*
15. *Horizontal Situation Indicator (HSI): Displays the Selected Heading Box, Current Heading, Turn Rate Markings, and Heading Trend.*
16. *Vertical Speed Tape: Displays Vertical Speed and the Vertical Speed Bug.*
17. *Barometric (BARO) Setting: Displays the current setting of barometric pressure.*
18. *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).*
19. *Altitude Tape: Displays Current Altitude, Altitude Trend, Altitude Bug, Altitude Minimums Bug and BARO setting.*
20. *Radar Altimeter Display: Displays current height above ground from the radar altimeter. Brown band in altitude tape represents the ground.*
21. *Clock or Timer window.*

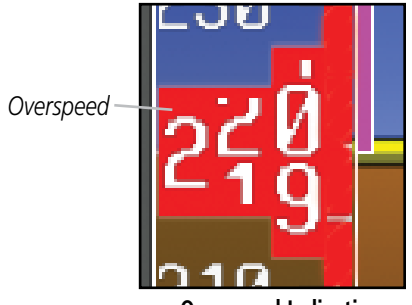
Airspeed Tape

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 VNE in six seconds, the airspeed is displayed in yellow. If the current airspeed exceeds VNE, the pointer changes to red with white text.

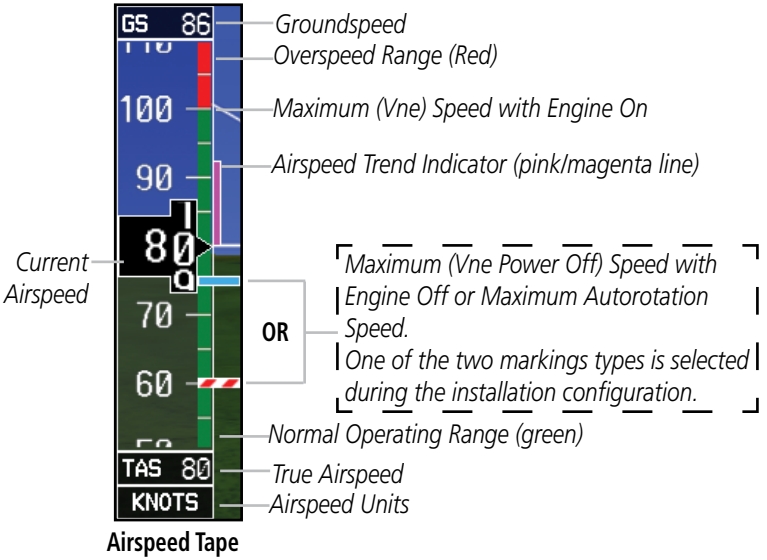
NOTE: Airspeed tape markings are specific to each aircraft and may not include all the markings shown below. Refer to POH for required markings.



Airspeed Tape Markings

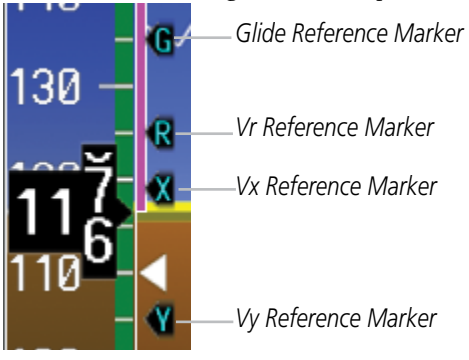


Overspeed Indication



Airspeed Tape

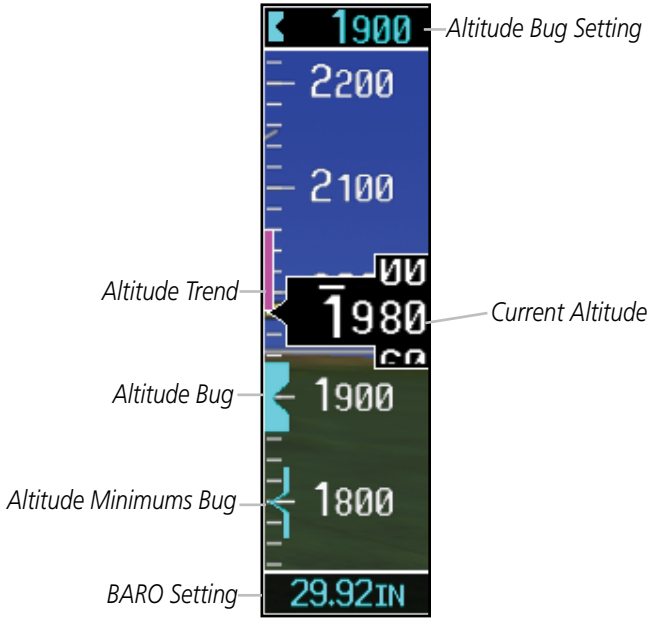
V-speeds (Glide, V_r, V_X, and V_Y) default values are set during the installation process, but can be changed and turned on/off from the System Setup page on the first page of the Aux page group. When active (on), the V-speeds are displayed at their respective locations to the right of the airspeed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



Reference Speeds

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

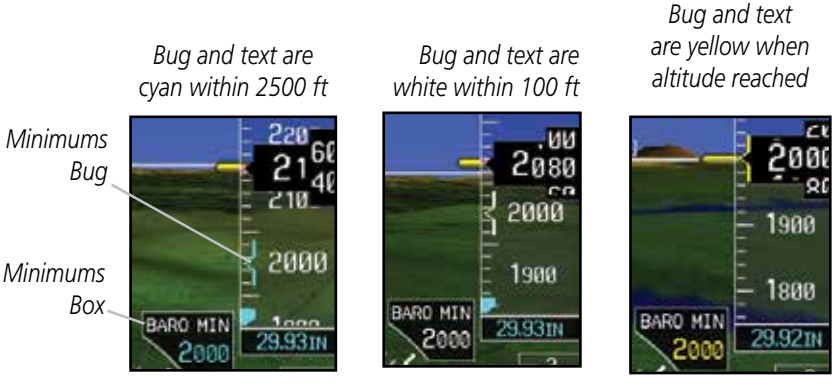
Barometric Pressure

The Barometric Pressure Setting (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, 1013MB), press the **PFD** knob. To return to the previous settings, 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 when you are within 2,500 feet of the selected minimum altitude.

- When the aircraft altitude descends to within 2500 feet of the selected altitude minimums setting, 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.



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.

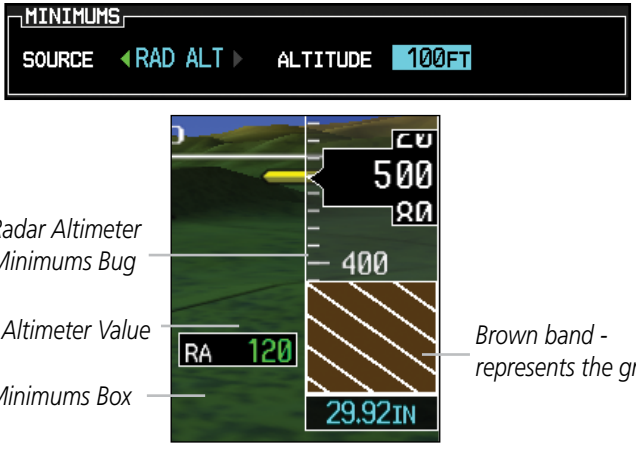
To set the altitude for the Minimums Bug:

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.

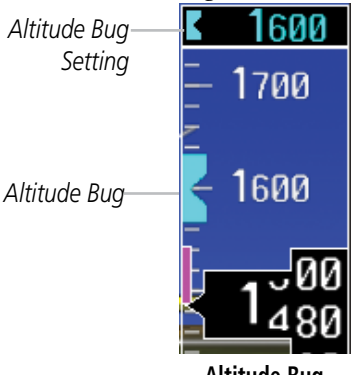
NOTE: *Depending on the installation, BARO may not be available for selection on G500H models.*



Minimums Annunciations using RAD ALT for Source

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

The Altitude Bug provides visual and aural altitude alerting. Aural alerting occurs within 200 feet (or 1000 feet, as configured) of the Altitude Bug setting or when deviating beyond 200 feet of the bug.

Altitude Bug Indications

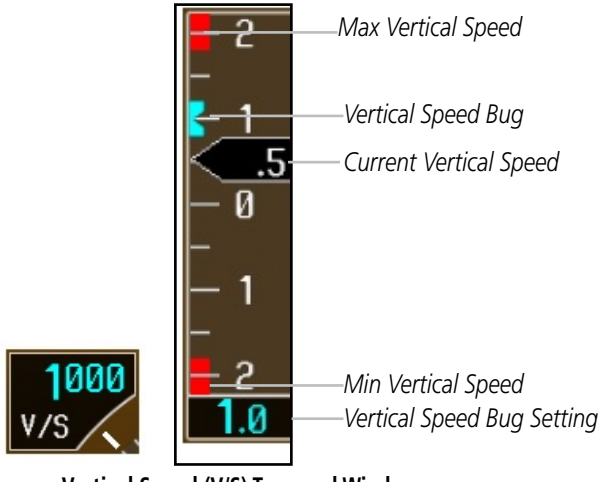
Wind Vectors

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. When airspeed is less than 20 knots, the Wind Vector windows will indicate, "No Wind Data".

Wind Vector Display

Vertical Speed (V/S)

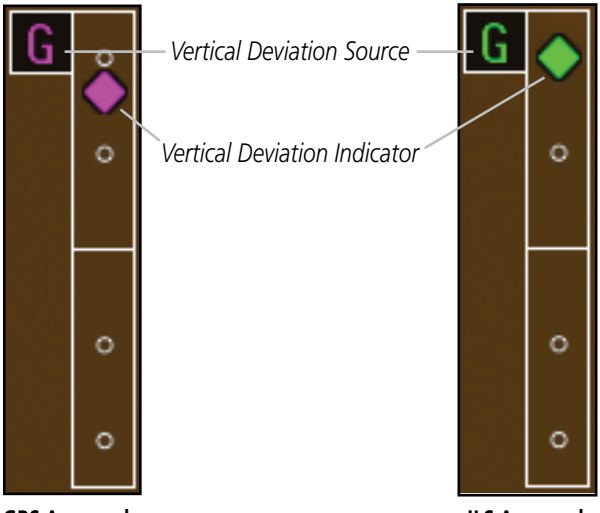
The Vertical Speed Tape and Vertical Speed Bug are displayed below the Altitude Tape. For rotorcraft with vertical speed operating limitations, red bands showing Vertical Speed Maximum and Minimum ranges will be shown on the left side of the Vertical Speed tape.



Vertical Speed (V/S) Tape and Window

Vertical Deviation Indicator (VDI)

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



GPS Approach ILS Approach

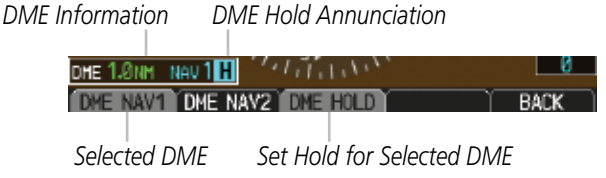
Temperature Display

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.

DME Indication

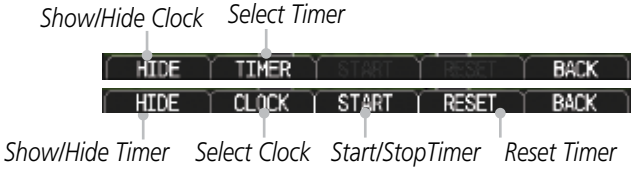
DME information is displayed in a window in the lower left corner of the PFD. The distance to the station and the NAV source used are shown.



DME Indication

Clock/Timer

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



Clock and Timer Functions

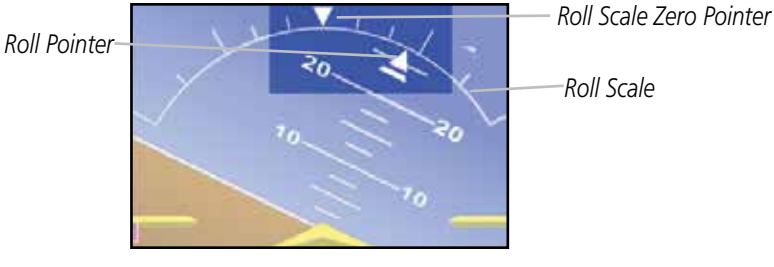
Attitude Indicator

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.

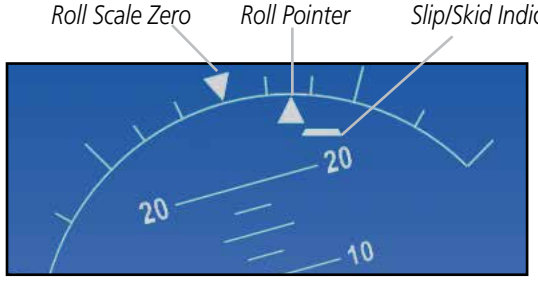
Attitude Indicator with a Ground Pointer Configuration in a Left Turn

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

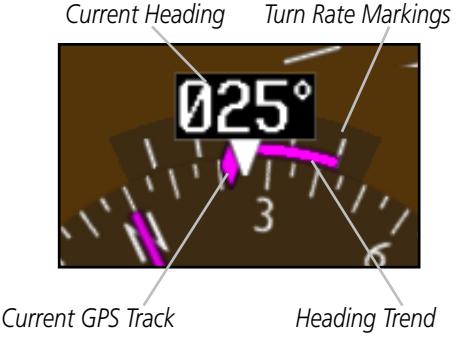
The Slip/Skid Indicator is the bar beneath the roll pointer. The indicator moves with the roll pointer and moves laterally away from the pointer to indicate lateral acceleration. Slip/skid is indicated by the location of the bar relative to the pointer. One bar displacement from the roll pointer is equivalent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



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

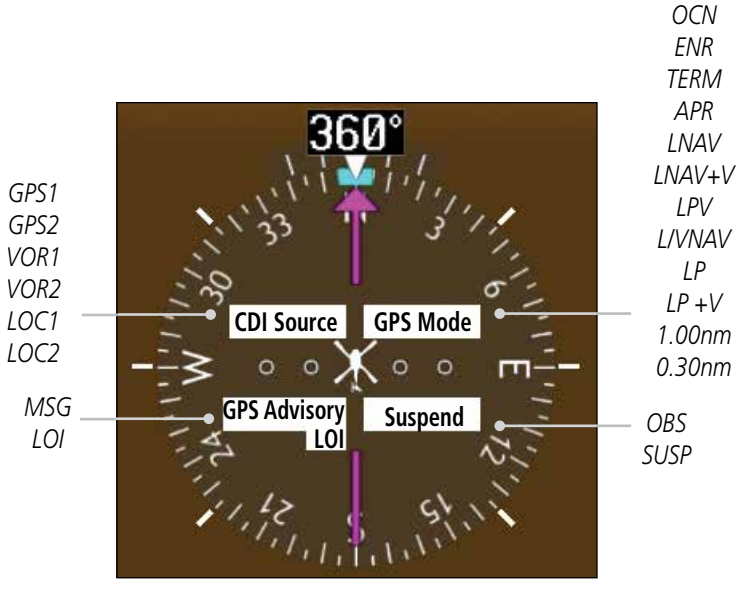
NOTE: *The Bearing Pointer for navigation source 1 (BRG1) will be an arrow with a single line. The Bearing Pointer for navigation source 2 (BRG2) will be an arrow with a double line.*

To toggle between the available bearing pointers, press the **PFD** soft key followed by 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.

Bearing Pointers on the HSI



PFD HSI Annunciations

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. See 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.

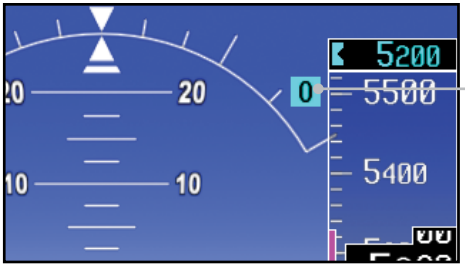
LOI: (Loss of Integrity): Displays when GPS integrity is lost.

Suspend

OBS: Displays when OBS mode is activated.

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

Marker Beacon Annunciations

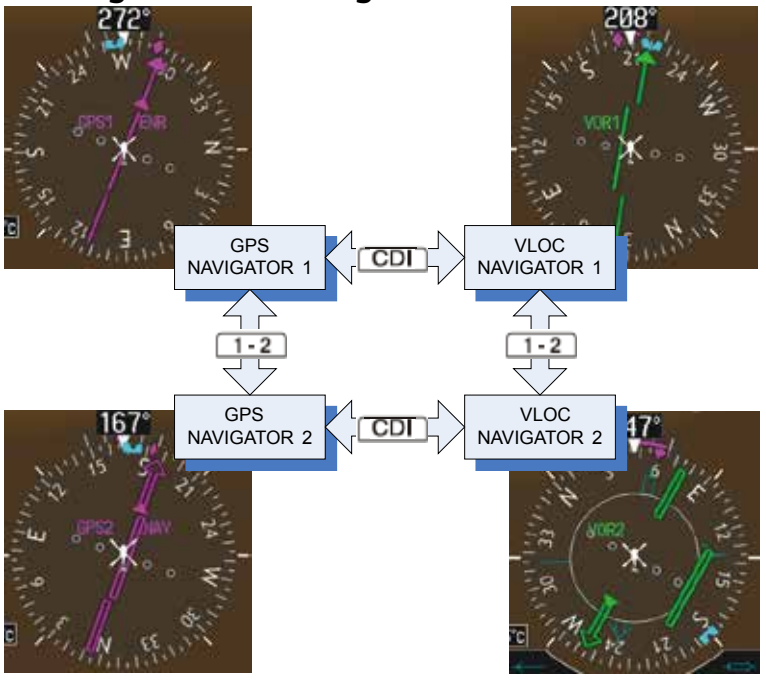


Marker Beacon Location

Marker Beacons

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

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.*

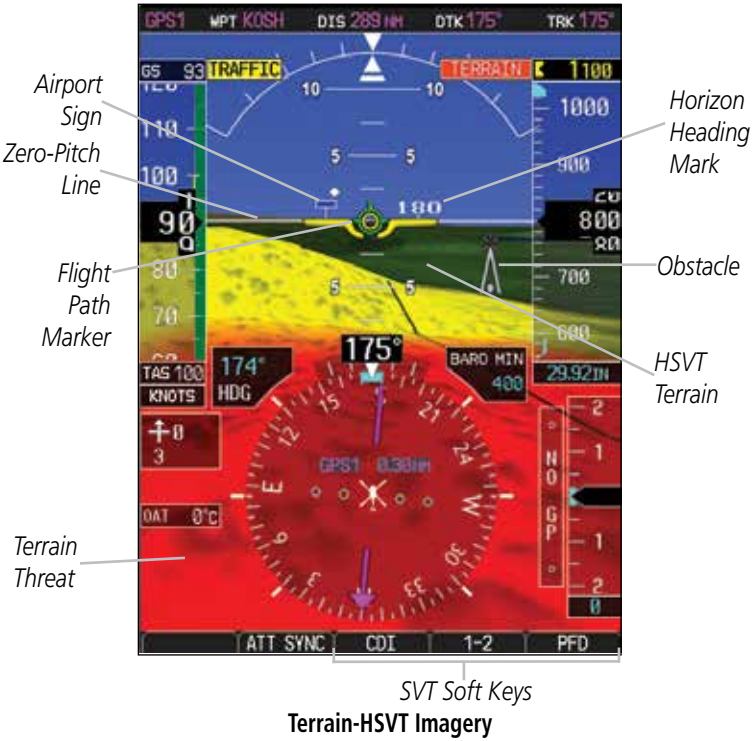
NOTE: *The selected navigator is the source for all PFD and MFD functions, except for bearing pointers and external TAWS PFD annunciations.*

Additional Features

Helicopter Synthetic Vision Technology™ (Optional)

Helicopter Synthetic Vision Technology (HSVT) is offered as an optional feature to the G500H. HSVT 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. HSVT information is shown on the PFD.

HSVT 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.



Terrain-HSVT Imagery

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

NOTE: Airport Signs will only display airports, not heliports.

The following features are part of the HSVT system. For more details refer to the latest revision of the G500H Pilot's Guide, 190-01150-02.

- Flight Path Marker
- Horizon Heading Marks
- Terrain/Obstacle Display and Alerting
- Traffic Display
- Airport Signs
- Runway Display
- Water
- Zero-Pitch Line

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

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

Displaying HSVT™ 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

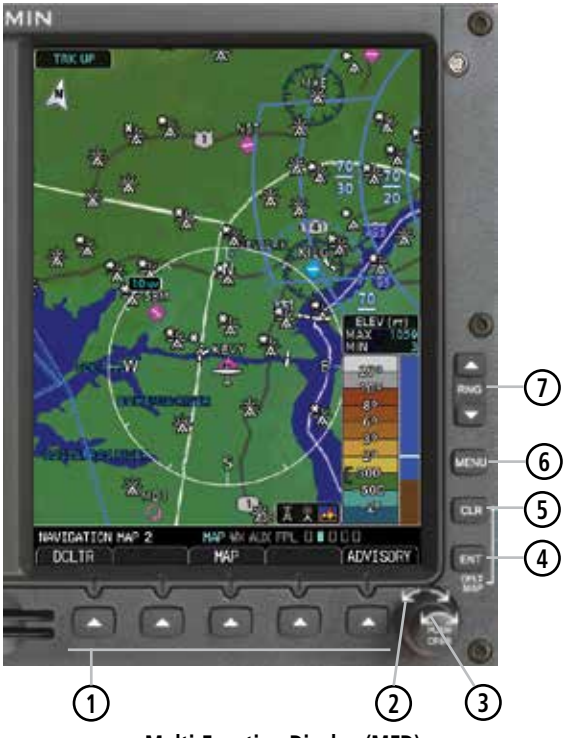
1) Press the **PFD** soft key.
2) Press the **SYN VIS** soft key.
3) If not already enabled, press the **SYN TERR** soft key.
4) Press the **HRZN HDG** soft key.
5) Press the **BACK** soft key to return to the previous page.

Displaying Airport Signs

NOTE: The "Airport Signs" feature will only display airports, not heliports.

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. *Menu: Displays configuration items for each page of the page groups.*
2. *Clear: Erases information, cancels entries, or removes page menus. Pressing and holding the CLR key displays the first page of the Map Group.*
3. *Enter: Validates or confirms a menu selection or data entry.*
4. *Soft Keys.*
5. *Large MFD Knob: Use to move between page groups.*
6. *Small MFD Knob: Use to move within 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

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

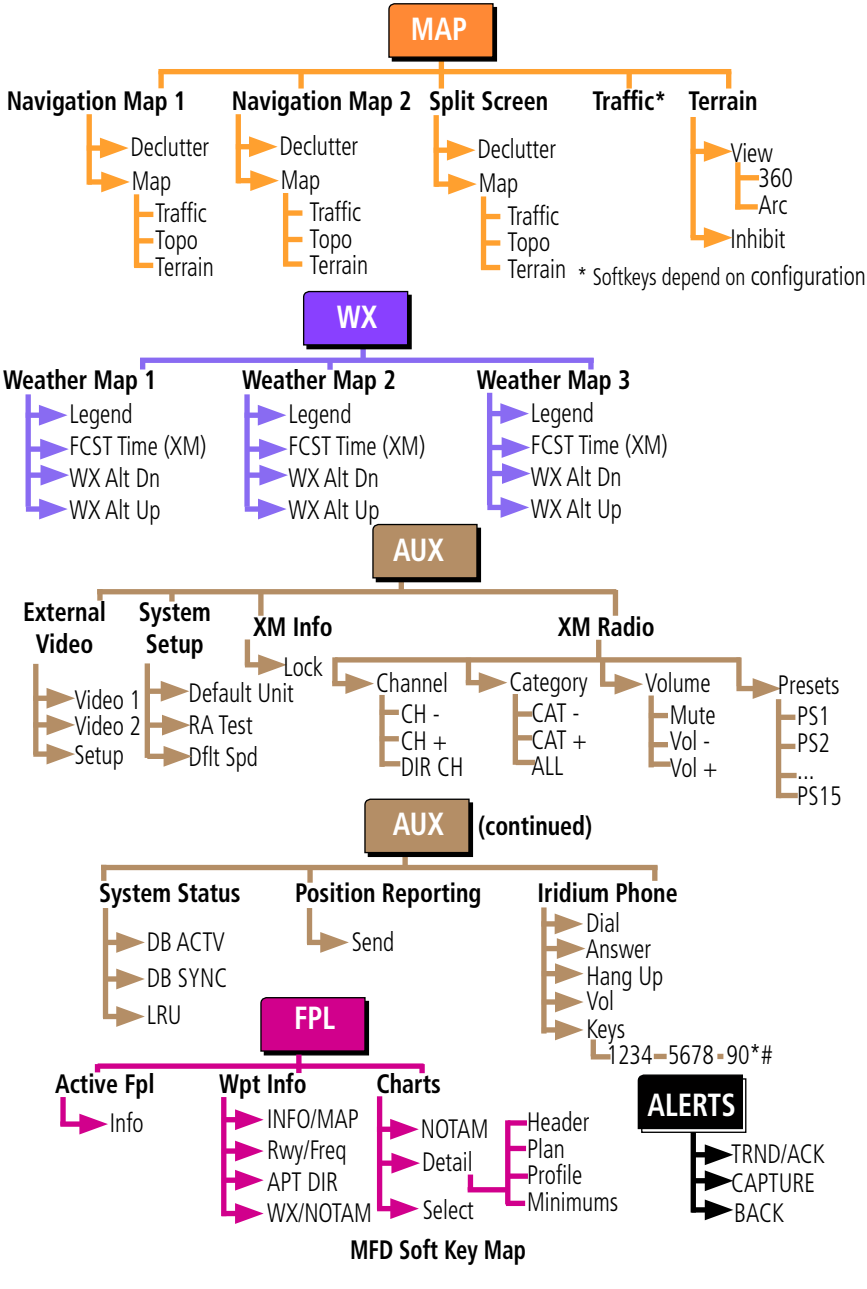
1) Press the **MENU** key and make the necessary adjustments with the large **MFD** knob and small **MFD** knobs.
2) Press the small **MFD** knob to activate editing.
3) Turn the large **MFD** knob to select the desired item.
4) Turn the small **MFD** knob to change the highlighted value.
5) Press **ENT** 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.

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.



MFD Soft Key Map

Map Group

Navigation Map 1 and Navigation Map 2 Pages

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).
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.


Map Pointer

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.

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 **MFD** knob or small **MFD** knob to move the map pointer. The distance, bearing, and coordinates are displayed at the top of the screen.

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.

Customizing Maps

1) While viewing Navigation Map 1 or Navigation Map 2 of the Map Page Group, press the **MENU** key. The option, "Map Setup" option will flash.

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).

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 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 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 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)

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, a rotorcraft symbol is shown on the navigation map views for enhanced situational 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.*

Split Screen Page (Optional)

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.

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)

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.

Displaying and Operating Traffic Advisory Systems (TAS)

Traffic Map - TAS/TCAS

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

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

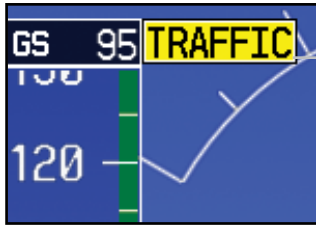
Press the **ALT MODE** soft key to change what traffic is displayed. Pressing the **BELOW, NORMAL, ABOVE** or **UNRSTD** soft keys will determine what traffic is displayed. The selection is shown in the altitude mode field. The values below define what each altitude mode displays, relative to the altitude 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
UNREST	All traffic is displayed (unrestricted) from +/-9900 feet

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 on PFD

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.

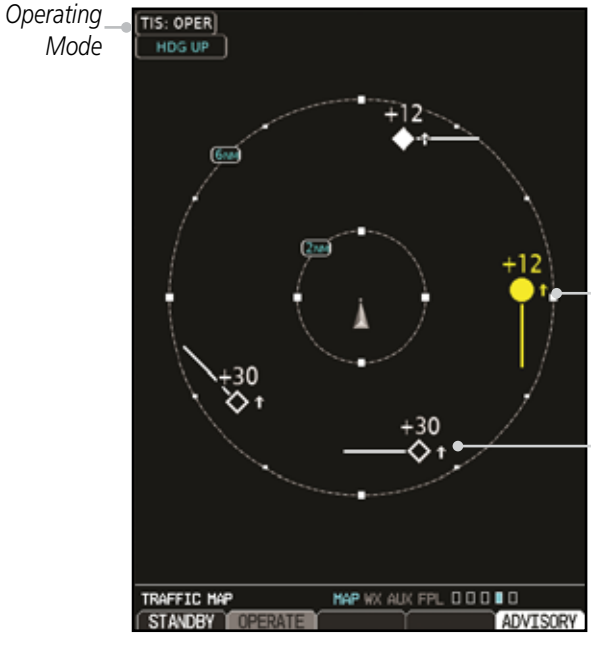
TIS receives traffic information from ground stations, and is updated every five seconds. The G500H displays up to eight traffic targets within a 7.5-NM radius, from 3000 feet below to 3500 feet above the requesting aircraft.

Displaying TIS Traffic

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

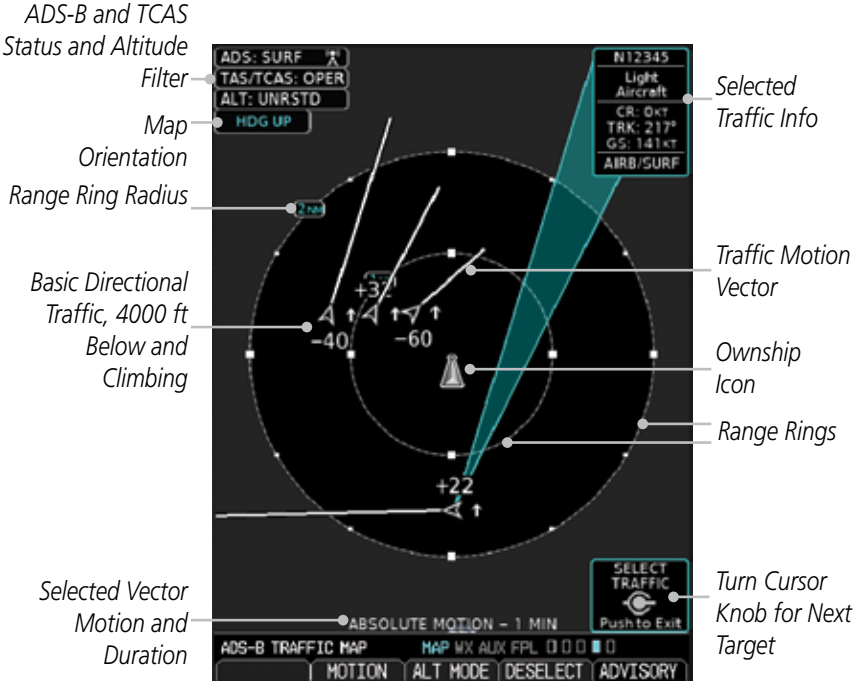
NOTE: *Traffic is also displayed in the SVT feature of the PFD.*

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



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.



NOTE: *ADS-B targets will be shown as the filled-in icon when they are within 6NM laterally and 1200 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 Page

Garmin provides the following G500H terrain selections, based upon your system configuration.

Soft Keys Found on Terrain Proximity Page

360 | ARC

Soft Keys Found on Terrain-HSVT Page

VIEW | INHIBIT | RP MODE | MUTE CTN | 360 | ARC

WARNING: *Do not use TERRAIN-HSVT information for primary terrain avoidance. TERRAIN-HSVT 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-HSVT is standard when the Synthetic Vision Technology (SVT) option is installed.*

- TERRAIN-PROXIMITY - is a non-TSO-C194 certified terrain awareness system. Do not confuse Terrain Proximity with HTAWS. HTAWS **is** TSO-C194 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-HSVT - is a non-TSO-C194 certified terrain awareness system. Do not confuse TERRAIN-HSVT with HTAWS. HTAWS is TSO-C194 certified and TERRAIN-HSVT **is not**. TERRAIN-HSVT provides terrain alerting functionality, including visual and aural alerting. Garmin TERRAIN-HSVT is provided with the Synthetic Vision functionality and not marketed separately. Garmin TERRAIN-HSVT is available in the GDU 620 v4.00 or later, when configured for Rotary Wing and SVT is enabled.

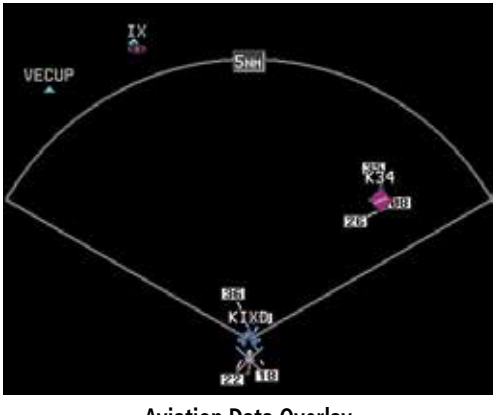
Viewing Terrain

NOTE: *Obstacles will be removed from the Terrain pages when range* ***(RNG)*** *exceeds 10 NM.*

While viewing the Terrain page of the Map Page Group, press the **360** or **ARC** soft key to select the desired view.

360 or ARC Soft Keys

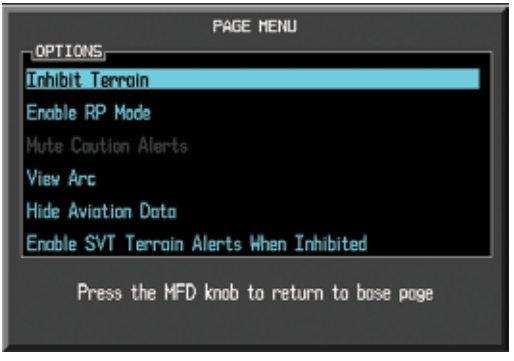
Press **MENU** to select whether to hide or show Aviation Data Overlay on the Terrain page. You are also able to select the desired view.



Aviation Data Overlay

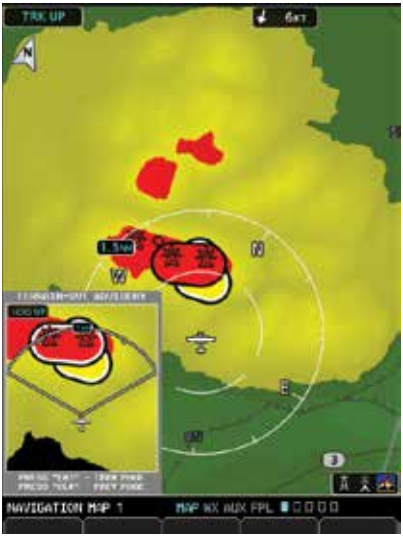
Viewing Terrain (with TERRAIN-HSVT)

Press **MENU** for selections to configure the Terrain-HSVT page. Turn the small **MFD** knob to move through the selections. Press **ENT** to confirm and exit.



Menu Option	Description
Inhibit Terrain	Does not display terrain warnings.
Enable RP Mode	Reduces the warning alerting thresholds and eliminates the caution alerts.
Mute Caution Alerts	Available when a caution alert is generated. When pressed during a caution alert, the aural alert will be muted.
View Arc (or 360°)	View terrain in arc or 360°.
Hide (Show) Aviation Data	Hide or show aviation data overlay.
Enable SVT Terrain Alerts When Inhibited	Will display SVT Terrain shading if "Inhibit Terrain" is selected.

Terrain Pop-Up Alerts



TERRAIN-HSVT Pop-Up Alert on MFD

TERRAIN-HSVT™ Pop-Up Alert

TERRAIN-HSVT 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. If the TERRAIN-HSVT 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-HSVT page, press the **ENT** key.

WX Group

XM Weather Map Pages

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.

Garmin Flight Data Services (GFDS) Map Pages

Soft Key Found on GFDS Weather Map Pages

LEGEND

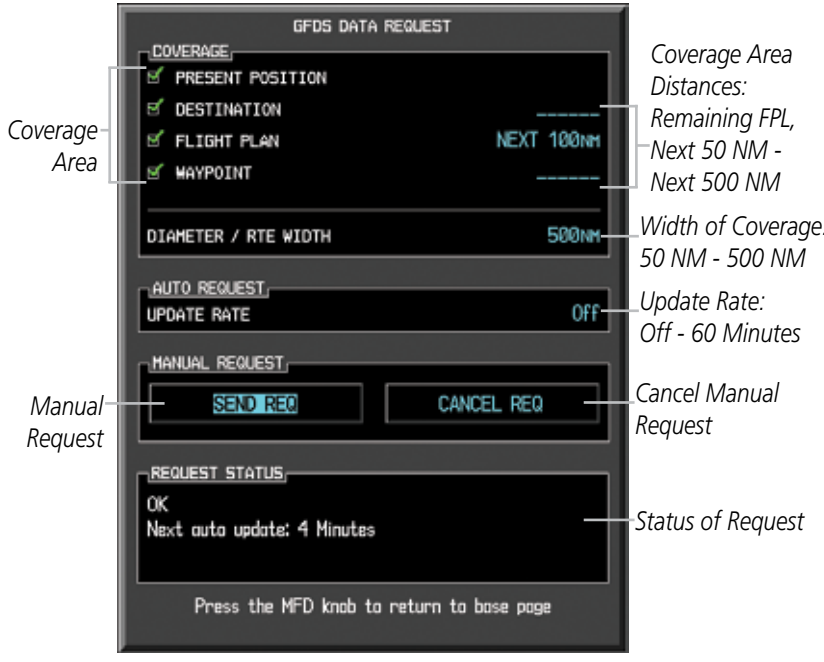
Requesting Garmin Flight Data Services (GFDS)

Prior to requesting GFDS information, an access code and system ID will need to be assigned. For more information on GFDS and how to register, see the latest revision of the G500H Pilot's Guide, P/N 190-01150-02.

After registering you are able to display GFDS data:

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

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



GFDS Data Request Page

Configuring GFDS 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 GFDS page.

FIS-B Weather Map Pages

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.

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

Aux Group
External Video Page (Optional)

Soft Key Found on External Video Page

VIDEO 1	VIDEO 2	FULL	SETUP

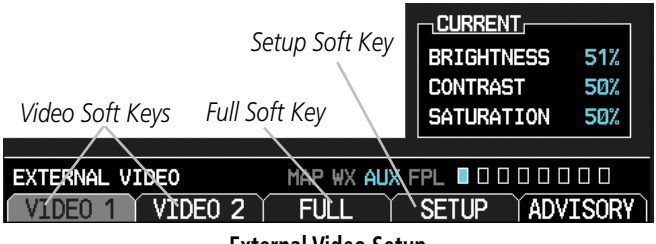
Setting Brightness, Contrast, and Saturation Levels

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.



External Video Setup

System Setup Page

Soft Keys Found on System Setup Page

DFLT UNIT | RA TEST | DFLT SPD

Setting Brightness and Mode

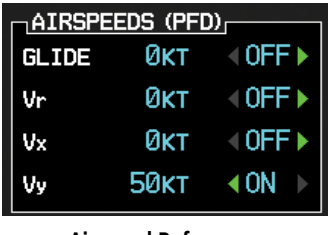
1) While viewing the System Setup Page of the Aux Page Group, press the small **MFD** knob. The LEVEL in the DISPLAY BRIGHTNESS box will flash.
2) Turn the small **MFD** knob to brighten or dim the display.
3) Press **ENT** when you reach the desired level.

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.

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.

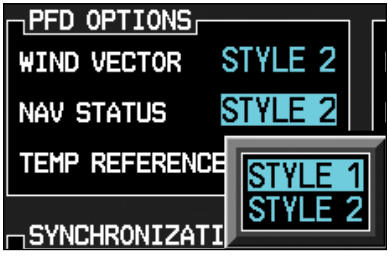
Style 3 Displays total wind direction with headwind and crosswind speed components.

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.**



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**.

Figure 3-44 Outside Air Temperature Selection

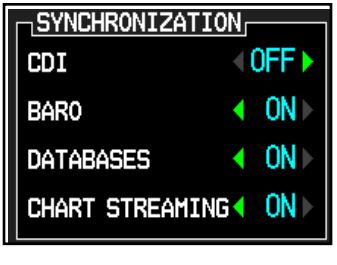
Synchronization

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. 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. See 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

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.

2) Turn the small **MFD** knob to display your choices of INCHES(IN) or HECTOPASCALS (HPA) 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.

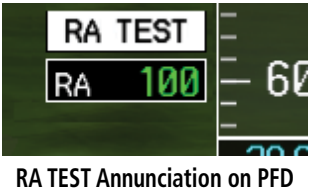
Data Link

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, see the latest revision of the G500 Pilot's Guide, P/N 190-01102-02.



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

XM® Information Page (Optional)

Soft Key Found on XM Information Page

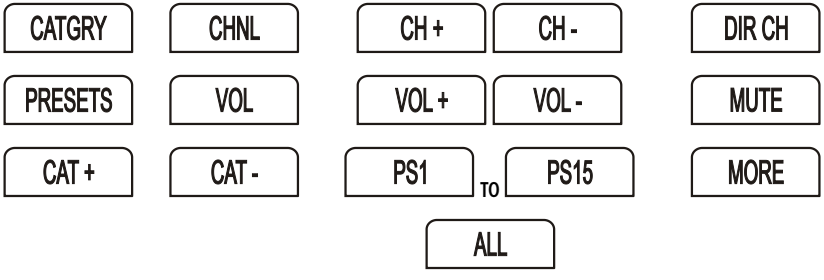
LOCK

While viewing the XM Information page of 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.

XM Information Page

XM® Radio Page (Optional)

Soft Keys Found on XM Radio Page



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** knob 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

Soft Key Found on Position Reporting Page

Position Reporting Page

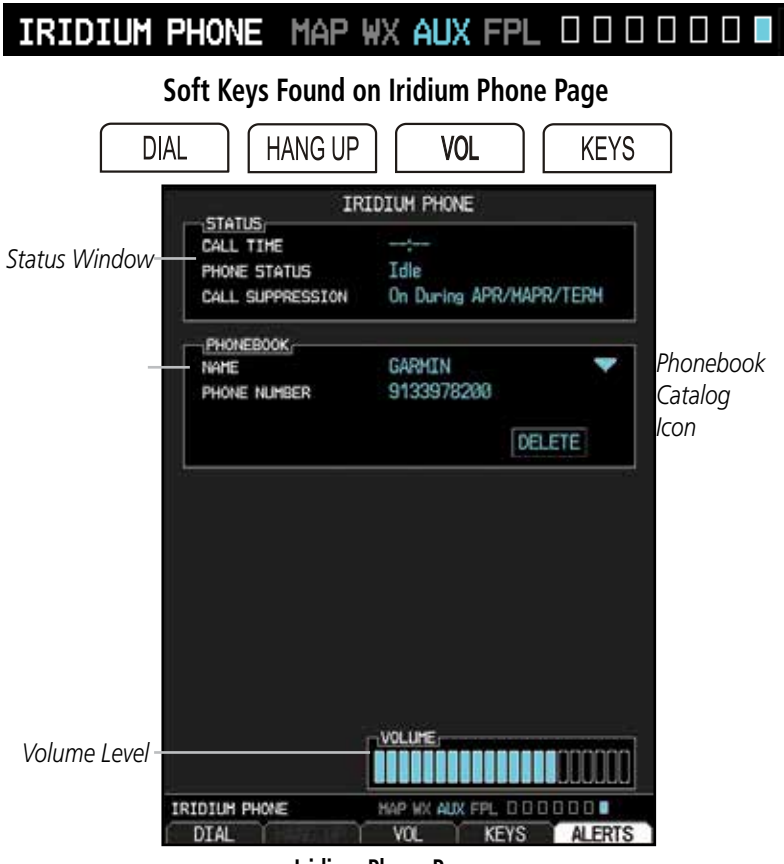
Position Reporting Status

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.

Iridium® Phone Page (Optional)



Iridium Phone Page

For detailed use of the Iridium Phone system, see the latest revision of the 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.

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

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.

1) Press the small **MFD** knob and turn the large **MFD** knob to highlight the phone number area. Press the **KEYS** soft key and enter the number. It will be necessary to enter a 1 before the phone number. When finished entering the number you want to call, press the **DIAL** key.
2) After completing the call, press the **HANG UP** key.

System Status Page

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 Page

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 onto 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.

Flight Plan Group

Active Flight Plan Page

Soft Keys Found on Active Flight Plan Page

INFO

Viewing Your Active Flight Plan

The active flight plan (as received from the selected 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.

Waypoint Information Page

Soft Keys Found on Waypoint Information Page

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.

Charts Page (Optional)

Soft Keys Found on Charts Page

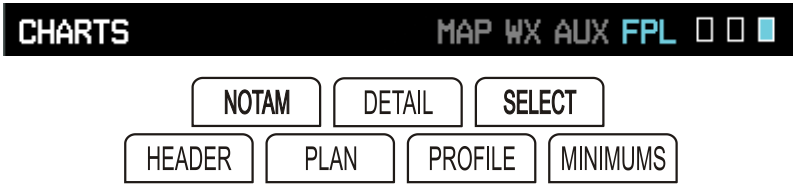


Chart Information

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.*

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

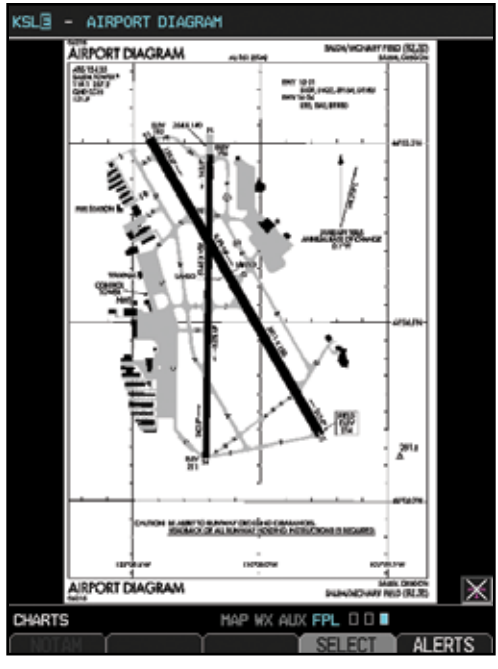
1) While viewing the Charts page of the FPL Page Group, press the **MENU** key to display the Options menu and press **ENT.**
2) Turn the small **MFD** knob to select the source, BARO or RAD ALT. Press the **ENT** key.
3) Turn the small **MFD** knob to select the altitude. Press **ENT** to set the altitude.

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 Rotorcraft 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.
AHRS(1/2) CAL	• AHRS 1 or AHRS 2 calibration version error.
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 source. • 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	• AHRS 1 or AHRS 2 magnetic-field model needs update. This alert appears on the ground only.
AHRS(1/2) TAS	• AHRS 1 or AHRS 2 is not receiving true airspeed from the ADC. • Displayed heading and attitude data is 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.
ALT KEY INOP	• The ALT key function is disabled. ALT key not available.
ALT NO COMP	• No data from one or more altitude sensors.
ARINC 429 CONFIG	• ARINC 429 configuration error.
ARINC 708 CONFIG	• ARINC 708 configuration error.

Alert	Description
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 is not available. GDU reverts to 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 88H ADS-B Failure. Unable to transmit ADS-B messages. • GDL 88H ADS-B fault. • GDL 88H needs service. • GDL 88H ADS-B is not transmitting position. Check GPS devices. • GDL 88H control panel input fault. Check transponder mode. • GDL 88H ADS-B fault. Pressure altitude source inoperative. • GDL 88H external traffic system inoperative or connection lost. • GDL 88H configuration module needs service. • GDL 88H is inoperative or connection to GDU is lost. • GDL 88H CSA failure. • GDL 88H external traffic system has a low battery. • GDL 88H external traffic system in standby for more than 60 seconds.

Alert	Description
DATA LOST	• Pilot stored data was 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.
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 exceedance 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 no. 1 or no. 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.

Alert	Description
GAD 43	• GAD 43 communication 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 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 data unreliable.
GPS(1/2) FAIL	• Communication with GPS1 or GPS2 is lost.
GPS(1/2) PPS FAIL	• Timing data from GPS 1 or GPS 2 is lost.
GSR FAIL	• The GSR 56 has failed.

Alert	Description
GWX CONFIG	• GWX configuration error. • Configuration is required.
GWX SERVICE	• GWX need 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 reversionary track-based mode.
HTAWS	• External HTAWS is 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 the 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.
NAV(1/2)	• 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.
PIT NO COMP	• No data from one or more pitch attitude sensors.
PREV EXCEED	• Previous Engine Trend Monitor exceedance. • ADAS+ engine trend monitor is reporting a previous exceedance.

Alert	Description
RADAR CONTROLS DISAGREE	• Data does not match for a duration of 15 seconds or longer.
REGISTER GFDS	• Data services are inoperative. GFDS 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.
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 inoperative or connection is lost.
TRAFFIC CONFIG	• ADS-B traffic data does not match configuration.
TRAFFIC FAIL	• Traffic device has failed. • Traffic data will no longer be displayed.
TRAFFIC STDBY	• Traffic device is in standby mode while airborne.
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.

Alert	Description
WX RDR SERVICE	• Weather radar requires service.
WXR INPUT FAULT	• Weather radar is not receiving one or more inputs.
XPDR1/2	• GTX 1 or GTX 2 requires service. • GTX 1 or GTX 2 is inoperative or connection to GDU is lost.

External H-TAWS Alerts

The G500H displays external H-TAWs alerts that are generated by the navigator. Refer to the appropriate navigator pilot for a complete list of alerts.

Alert Type	PFD/MFD Alert Annunciation
FLTA Terrain Caution	TERRAIN
FLTA Terrain Warning	TERRAIN
TAWS is inhibited	TAWS INHB
FLTA Obstacle Caution	OBSTACLE
FLTA Obstacle Warning	OBSTACLE
Reduced Protection Mode is enabled	RP MODE
No GPS position or excessively degraded GPS signal	TER N/A
Terrain SVT System Test Fail	TAWS FAIL

Terrain-HSVT™ 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	TER TEST	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"

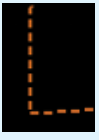
Alert Type	PFD/MFD Alert Annunciation	Aural Message
FLTA Terrain Caution (RTC-C, ITI-C)	TERRAIN	"Caution, Terrain, Terrain"
FLTA Terrain Caution (RLC-C, ILI-C)	WIRE	"Caution, Wire, Wire"
FLTA Terrain Warning (RTC-W, ITI-W)	TERRAIN	"Warning, Terrain, Terrain"
FLTA Terrain Warning (RLC-W, ILI-W)	WIRE	"Warning,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

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
	Private Airport
	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
	VRP (Visual Reporting Point)

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
	Proximate Traffic (other than TA 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

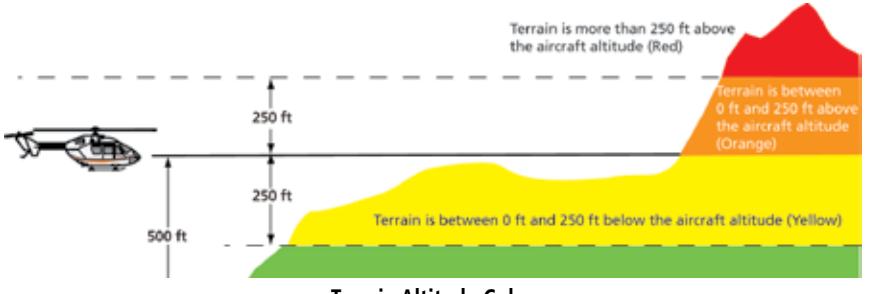
ADS-B Traffic Symbols

Terrain/Obstacle Altitude Legend

Terrain/Obstacle Altitude Legend

Color	Description
Black	Terrain is more than 500 ft below the rotorcraft.
Green	Terrain is between 250 ft below and 500 ft below the rotorcraft.
Yellow	Terrain is between 250 ft below and 0 ft above the rotorcraft.
Orange	Terrain is between 0 ft above and 250 ft above the rotorcraft.
Red	Terrain is more than 250 ft above the rotorcraft.

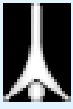
Terrain Altitude Color Descriptions



Terrain Altitude Colors

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

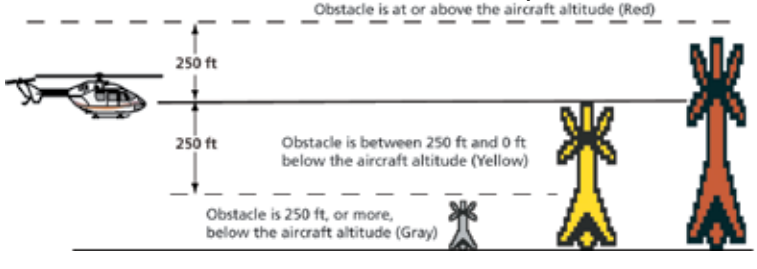
Obstacle Icons

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 rotorcraft altitude.
Yellow	Obstacle is between 100 ft and 1,000 ft below current rotorcraft altitude.
White	Obstacle is between 1,000 ft and 2,000 ft below current rotorcraft 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

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.

Weather Product	Expiration Time (Minutes)
NEXRAD (NEXRAD and Echo Top are Mutually Exclusive)	30
Echo Top (Cloud Top and Echo Top Mutually Exclusive) (NEXRAD and Echo Top Mutually Exclusive)	30
Cloud Top (Cloud Top and Echo Top Mutually Exclusive)	60
XM Lightning	30
Cell Movement	30
SIGMETs / AIRMETs	60
METARs	90
City Forecast	90
Surface Analysis	60
Freezing Levels	120
Winds Aloft	90
County Warnings	60
PIREPS	90
TFRs	60
AIREPS	90
Icing	90
Turbulence	180
Cyclone Warnings	60

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.

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)
	Airspace Altitude Label (Upper/Lower Limits)

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