GARMIN

Garmin Pilot for iOS

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This manual reflects the operation of Software version 6.1 or later. Some differences in operation may be observed when comparing the information in this manual to earlier or later software versions.

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WARNING: *Do not rely solely upon the indicators shown on the Panel Display Pane to maneuver the aircraft.*

WARNING: *The altitude displayed by Garmin Pilot™ on the Panel Page is geometric height above Mean Sea Level and could vary significantly from the altitude displayed by pressure altimeters. Always use pressure altitude displayed by the aircraft altimeter when determining or selecting aircraft altitude.*

WARNING: *Do not use outdated database information. Databases used in Garmin Pilot™ must be updated regularly in order to ensure that the information remains current. Pilots using any outdated database do so entirely at their own risk.*

WARNING: *To reduce the risk of unsafe operation, carefully review and understand all aspects of the Garmin Pilot™ User documentation and the Pilot's Operating Handbook of the aircraft. Thoroughly practice basic operation prior to actual use. During flight operations, carefully compare indications from Garmin Pilot™ 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: *Garmin Pilot™ has a very high degree of functional integrity. However, the pilot must recognize that providing monitoring and/or self-test capability for all conceivable failures is not practical. Although unlikely, it may be possible for erroneous operation to occur without a fault indication shown by Garmin Pilot™. 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: *For safety reasons, Garmin Pilot™ operational procedures must be learned on the ground.*

WARNING: *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 Garmin Pilot™ utilize GPS as a precision electronic NAVigation AID (NAVAID). Therefore, as with all NAVAIDs, information presented by Garmin Pilot™ can be misused or misinterpreted and, therefore, can become unsafe.*

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

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

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

NOTE: *All visual depictions contained within this document, including screen images of Garmin Pilot™ panel and displays, are subject to change and may not reflect the most current Garmin Pilot™ software and aviation databases.*

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

NOTE: *Temporary Flight Restriction (TFR) data is provided by the FAA and may not be updated outside of normal business hours. Confirm data currency through alternate sources and contact your local FSS for interpretation of TFR data.*

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Rev	Date	Change Summary
A	June, 2012	Initial Release
B	July, 2012	Added Data link Traffic and Weather.
C	August, 2012	Added TargetTrend
D	October, 2012	Updated for Application version 4.3: • Added Scratch Pad • Added Split-Screen Traffic
E	January, 2013	Updated for Application version 4.4: • Tools Menu • Stopwatch • Alerts
F	April, 2013	Updated for Application version 5.0: • Added New Maps and Map Settings • Added Track Up • Added Annotations for Procedures and A/FD • Updated Scratch Pad • Updated Trip Planning • Updated Radial Menu • Added Alternate Flight Conditions color scheme
G	July, 2013	Updated for Application version 5.1: • Added Dedicated Terrain page and Alerting • Added Terrain overlay on map • Added Topography • Added Obstacles overlay • Added Preferred ATC Routes • Added SafeTaxi to Split Screen • Renamed "Trip Planning" to "File and Brief"
H	July, 2013	• Added Green Terrain indications • Corrected Clerical errors
J	September, 2013	Updated for Application version 5.2: • Added Proposed Route push notifications • Added Destination Extended Runway Centerlines • Added Range Rings • Added Abeam Location Alerts • Added Distance Measuring Tool

Rev	Date	Change Summary
K	October, 2013	Updated for Application version 5.3: • Added D2™ Pilot Watch Sync • Added Audio Alerts • Added Ownship Track Vector • Added Decoded TAFs
L	May, 2014	Updated for Application version 6.0: • iOS 7 Redesign • GDL 39 3D support with Attitude Indicator • Flight/Trip Planning Enhancements • VIRB™ Action Camera support • Traffic Patterns • Special Use Airspace Frequencies • New Devices Page to manage Garmin hardware Updated for Application version 6.1: • Synthetic Vision

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OVERVIEW

PLAN FILE FLY

Garmin Pilot is the most comprehensive suite of tools for the iPad designed specifically for general aviation and corporate pilots. Flight planning, DUAT(S) filing, charts, interactive maps, weather briefing resources, and navigation capabilities; it's all included. The app's intuitive interface mirrors those on the newest Garmin touchscreen avionics so you can go seamlessly from preflight to in-flight. Plan, file, fly with Garmin Pilot.

FEATURES

- Dynamic Maps.
- Charts; VFR Sectionals, low and high IFR en-route, airport diagrams and approach procedures.
- Optional geo-referenced Garmin FliteCharts® and Garmin SafeTaxi® both show aircraft position on approach charts or taxiways.
- Optional Terrain and Obstacle alerting.
- Optional integration with the GDL 39 / GDL 39 3D, Garmin D2™ Pilot Watch, and the VIRB™ Action Camera.
- Weather Maps: Animated radar, AIRMETs, SIGMETs, Lightning, PIREPs, METARs, TAFs, Winds Aloft, TFRs, Infrared and Visible Satellite.
- Extensive text products: AIRMETs, SIGMETs, PIREPs, METARs, TAFs, Winds Aloft, Area Forecasts and NOTAMs.
- AOPA Airport Directory
- Flight plan filing via DUAT(S)
- Dynamic weather overlaid with your route on top of a sectional, enroute chart or map
- Comprehensive weather data direct from the National Weather Service and Environment Canada

- Garmin patented navigation panel with course guidance, GPS altitude, and ground speed indicators

ABOUT THIS HANDBOOK

This operating handbook is designed to provide a comprehensive guide to help with understanding how to use Garmin Pilot for reviewing aviation weather, airport information, creating and filing flight plans, and for viewing charts, maps, and navigation data in-flight.

IPAD® TRICKS FOR PILOTS

The iPad is offered in a variety of memory capacities and each comes with one of two connectivity options; Wi-Fi or Wi-Fi + 3G/4G. It is important to know which connectivity option you have before using Garmin Pilot for navigation. There are also a few things to know about the iPad's basic features and settings that will enhance your Garmin Pilot experience on the iPad. These features are not hidden, but they may not be immediately apparent to the novice iPad user. To get completely familiar with the iPad, it is recommended that you access the iPad User Guide.

GPS

Global Positioning System (GPS) receiving capability is optional on the iPad. Garmin Pilot can be used without GPS for flight planning, but the navigation features will be inoperative. Of the two connectivity options for the iPad, only the iPad with Wi-Fi + cellular has an internal GPS receiver. If you have the Wi-Fi-only version of the iPad, a Garmin GLO™ portable GPS and GLONASS receiver, or a Garmin GDL 39 portable GPS and ADS-B receiver will be required in order to take advantage of the navigation features in Garmin Pilot. Alternative or third-party GPS sources known to work with Garmin Pilot are: Bad Elf, Dual Electronics XGPS150 Universal Bluetooth GPS, and GNS 5870 MFI Bluetooth GPS receiver. Other iPad-compatible portable GPS sources may also work with Garmin Pilot.

DISPLAY ORIENTATION

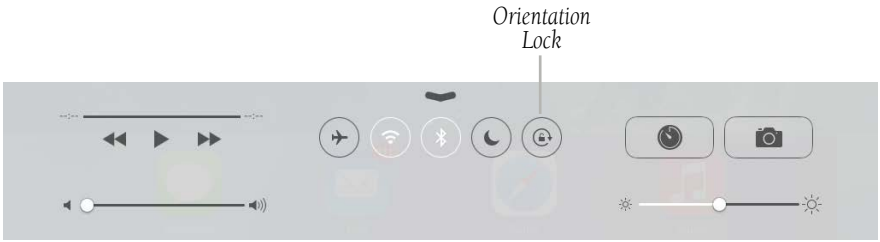
The iPad has a default setting that will enable the unit to automatically rotate the display to either portrait or landscape according to which edge of the unit is facing upward. This automatic setting can be quite troublesome in the cockpit as the solid-state accelerometers in the iPad are very sensitive to movement and can cause the display to rotate unexpectedly.

There are two ways to enable/disable the rotation lock; first via the iPad control center, and second from within Garmin Pilot by selecting 'Lock Screen' under the Tools button.

NOTE: *If the Silence Sounds icon is displayed instead of the Orientation Lock icon, go to the iPad Settings, touch* ***General****, under* ***USE SIDE SWITCH TO:*** *touch* ***Mute****.*

Locking Orientation in the iPad Control Center:

1) Swipe up from the bottom edge of any screen.
2) Touch the orientation lock icon to lock/unlock the automatic screen orientation feature.



iPad Control Center

Or: Within Garmin Pilot touch, **Tools** > **Lock Screen**.

GLARE REDUCTION

One limitation of the iPad hardware in the cockpit is glare. There are number of ways to mitigate the effects of glare using aftermarket screen protectors and similar products. However, one can do reasonably well by simply adjusting the display brightness and/or selecting White on Black or "Night Mode" for operations in low light conditions.

Adjusting Display Brightness:

1) Open the iPad Settings Menu.
2) Under the Settings column on the left, touch **Wallpapers & Brightness**.
3) Use the slider control to manually adjust the display brightness or turn on the Auto-Brightness feature by touching the **ON/OFF** sliding switch under the brightness slider control.

The iPad can also be configured to invert its display to improve contrast at night or in low light conditions. Even with Night Mode activated, it may be necessary to dim the display for low light conditions.

Using the iPad's Home Button to select Night Mode:

1) Open the iPad Settings Menu.
2) Under the Settings column on the left, touch **General**.
3) Touch the **Accessibility** shortcut submenu.
4) Touch the **Invert Colors** sliding switch. Now, clicking the iPad Home Button three times from within Garmin Pilot toggles Night Mode on/off.

Selecting iPad Night Mode:

1) Open the iPad Settings Menu.
2) Under the Settings column on the left, touch **General**.
3) Touch the **Accessibility** submenu.
4) Touch the **ON/OFF** sliding switch to **Invert Colors**, to select/deselect Night Mode.

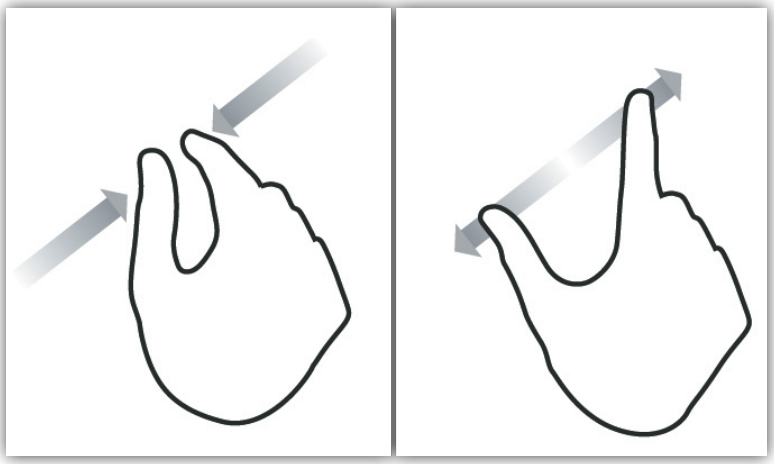
Setting triple-click for iPad Night Mode:

1) Open the iPad Settings Menu.
2) Under the Settings column on the left, touch **General**.
3) Touch the **Accessibility** submenu.
4) Touch **Accessibility Shortcut**, and choose **Invert Colors**.

GENERAL GARMIN PILOT OPERATING GUIDELINES

Garmin Pilot opens in the most recently viewed page. From any page, it is possible to access any desired feature by touching, flicking, and/or dragging your finger on the active areas of the display that appear as buttons, slide controls, flick lists, text fields, or icons. As with most iPad applications, text fields automatically open a QWERTY keyboard for easy text entry.

Also like other iPad applications that use maps, panning is done by "touch-dragging" the finger across the display and you can magnify or zoom by either double-tapping the display or by pinching. Reversing your pinch or tapping with two fingers will de-magnify or zoom out. Additionally, there is no Garmin Pilot input that requires any specific weight or pressure on the display. In other words, tapping or pressing forcefully on the glass will produce approximately the same result as a light touch.



Pinch Zoom

Garmin Pilot can be used in either portrait or landscape orientation and will respond to the iPad's automatic orientation feature. The map may be displayed in either full screen or half screen in either orientation. The lower half of the display in portrait orientation or second (non-map) display in landscape orientation has eight possible functions; Panel, Widgets, Charts, Flight Plan, SafeTaxi, Terrain, Traffic, or Virb.

- Panel Mode is customizable and can be configured to display an instrument panel with virtual instruments to indicate GPS altitude, attitude indicator (when connected to a GDL 39 3D), ground speed, vertical speed, course, and lateral deviation as well as a table with up to 15 configurable data fields for monitoring navigation data.

- Widget Mode enables a series of customizable data windows called 'Widgets' to be displayed. Widgets offer quick access to a variety of aviation weather products (METARs, TAFs, Winds Aloft, NOTAMs, etc…) for nearby or selected airports and can also display up to 14 navigation parameters which are also configurable.

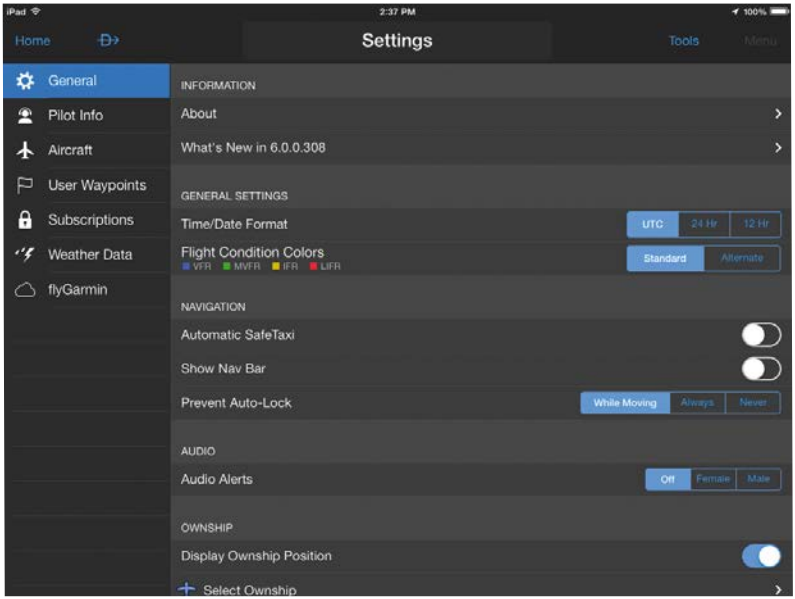
Charts, SafeTaxi, and Traffic when viewed in split-screen, have the same function, navigation, and capabilities as the full screen versions of these products just displayed in half screen. The Flight Plan provides the same navigation information as found on the Flight Plan Page in a split-screen view.

Garmin Pilot requires a data connection for downloading maps and other data prior to departure, but once you have downloaded everything needed for your flight, it is ready to navigate. Touch **Home** > **Downloads** to access the Downloads Page.

GETTING STARTED

Garmin Pilot is fully functional immediately upon installation, but there are a few things you may wish to set up to optimize performance right away. The best place to start is with the highly intuitive Settings Menu, which can be found by momentarily touching the Home Button and then the Settings Icon. The Settings Icon is always available from the Home Button.

From the Settings Menu, it is possible to set up or change the time format, show/hide features like the Navigation Bar (on the map display), or input pilot profile and aircraft information, manage user waypoints, set up your preferred flight plan filing service, manage your data subscriptions, and much more. All of these, and more selections are available by touching the tab associated with the desired function.



Garmin Pilot General Settings

NAVIGATION BAR

Garmin Pilot's user interface is comprised of icons and active areas that provide access to the various features and functions of the application. The Navigation Bar, located at the top of every page, provides access to many of the basic functions.

Navigation Bar

DIRECT TO

The Direct To button can be accessed from any page and provides a quick and easy way to navigate direct to any waypoint (i.e., Search Waypoints, Flight Plan Waypoint, Recent Waypoint, Nearest Waypoints, or User Waypoints).

Direct To Dialog

Navigating Direct To:

1) Touch .

2) Within the Direct To dialog window choose one of the nearby Navigation Database features from the list.

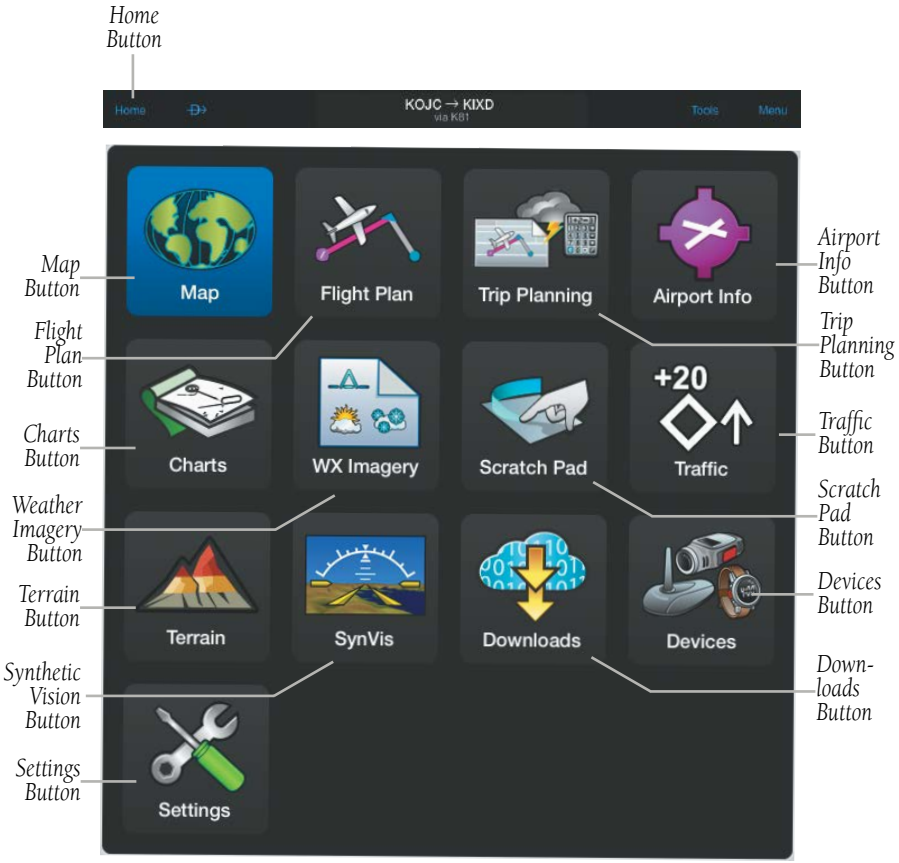
Or: Choose a waypoint from one of the other tabs (i.e., Search, FPL, Recent, Nearest, or User).

3) Touch **Activate** to begin navigation.

4) Touch > **Clear** to stop Direct To navigation.

HOME BUTTON

The Home Button is the primary means of accessing many of the features of Garmin Pilot. The Home Button provides quick access to the various pages within Garmin Pilot (i.e., Map, Flight Plan, Trip Planning, Airport Information, Charts, Weather Imagery, Scratch Pad, Traffic, Terrain, Synthetic Vision, Downloads, Devices, and Settings).



Home Menu

TOOLS

NOTE: *All visual depictions contained within this document, including screen images of Garmin Pilot™ panel and displays, are subject to change and may not reflect the most current Garmin Pilot™ software and aviation databases.*

The Tools Button provides access to Lock Screen, Alerts, Stopwatch, and Help. The **Lock Screen** feature, locks the screen to any touch except for the area associated with the Tools Button or the iPad Home Button. **Lock Screen** also locks the display orientation. When the screen is locked you can rest your arm on the screen without changing any of the set parameters. When the screen is locked, anytime the screen is touched the bezel information window is replaced with a '**Screen Locked**' annunciation.

Locking/Unlocking the Screen:

1) Touch **Tools** > **Lock Screen**.
2) Touch **Unlock** to unlock the screen.

ALERTS

Create Alerts based on time or location. Alerts that are based on time, can range from 10 seconds to several hours. Time alerts can also be set to repeat. Location based Alerts can be set; At, Before, After, or Abeam a Flight Plan Waypoint.

Creating a time based alert:

1) Touch **Tools** > **Alerts** > **Add Alert**.
2) Touch **Time**.
3) Enter the desired count down time (HH:MM:SS).
4) If desired, use the Repeating **On/Off** switch, to enable/disable repeating.
5) Touch **Save**, to save.

Creating a location based alert:

1) Touch **Tools** > **Alerts** > **Add Alert**.
2) Touch **Location**.

3) Touch the Relationship field and select **Before, At, After, or Abeam**.
4) Touch the Distance field, and use the keypad to set the desired distance in nautical miles.
5) Touch the Waypoint field, and select the desired waypoint from the list.
6) If desired, touch the Message field, and use the keypad to enter a custom message.
7) Touch **Save**, to save.

Editing Alerts:

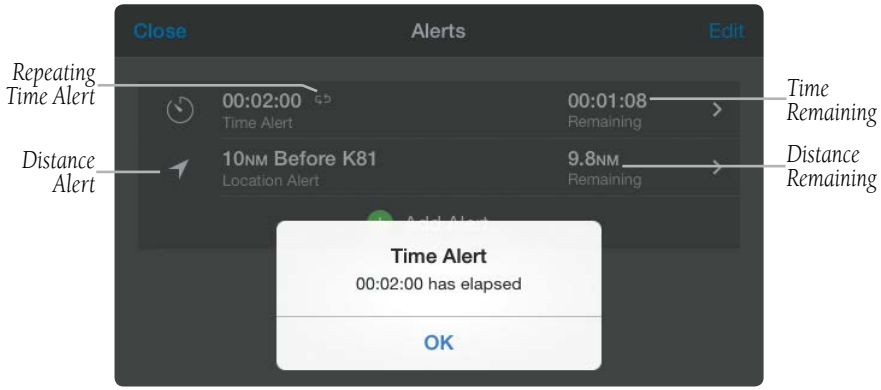
1) Touch **Tools** > **Alerts.**
2) Touch the desired alert for the list.
3) Touch the desired field(s) to edit.
4) Touch **Save**, to save changes.

Deleting Alerts:

1) Touch **Tools** > **Alerts**
2) Swipe right to left over the Alert title.
3) Touch **Delete** to delete the Alert.

Or

1) Touch **Tools** > **Alerts > Edit.**
2) Touch ⊖ > **Delete** to delete the Alert.



Alerts

Stopwatch

Use the stopwatch to check performance or to time your missed approach.

Stopwatch

Using the Stopwatch:

1) Touch **Tools** > **Stopwatch**.
2) Touch **Play** to start, **Stop** to stop, **Reset** to reset.
3) Touch **Tools** > Stopwatch, to hide the Stopwatch. If the Stopwatch is still counting when it is hidden it will continue to count up until reset.

Help File

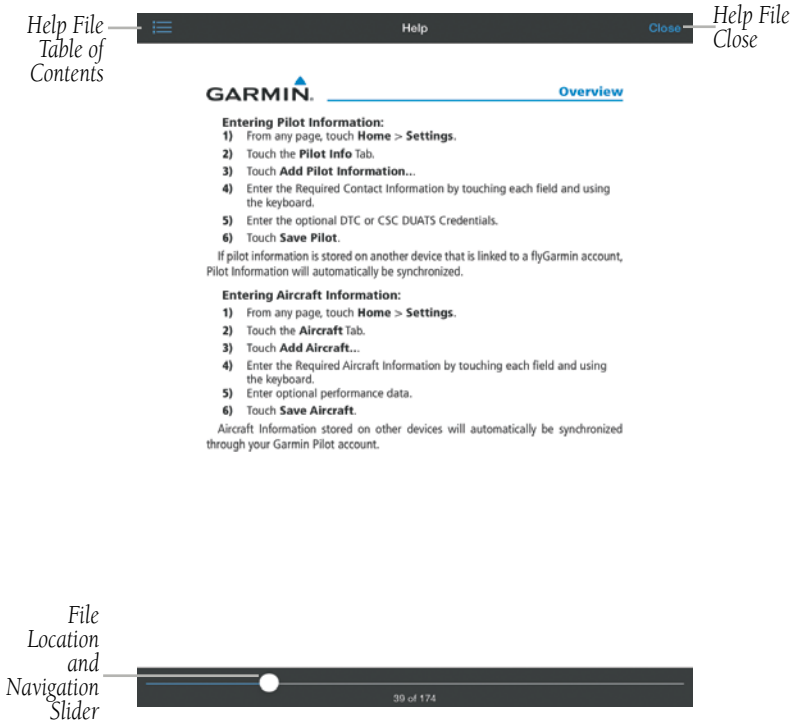
This help file is designed to provide a comprehensive guide to help with understanding how to use Garmin Pilot for reviewing aviation weather, airport information, creating and filing flight plans, and for viewing charts, maps, and navigation data in-flight.

The Garmin Pilot in app help file provides comprehensive information about buttons unique to each page, the menu structure in each page and information about each button. The help file can be accessed from any page by touching the Tools Button located in the Navigation Bar and then touching **Help** in the page sensitive menu.

Accessing the Help File:

Touch **Tools** > **Help**.

Navigating within the Help File is as easy as dragging your finger from right to left or left to right across the screen. You can also quickly access different sections by using the Navigation Slider at the bottom of the page or by touching the Table of Contents Button ( ) in the upper left corner. To exit the Help File simply touch the Close Button in the upper right corner of the page.

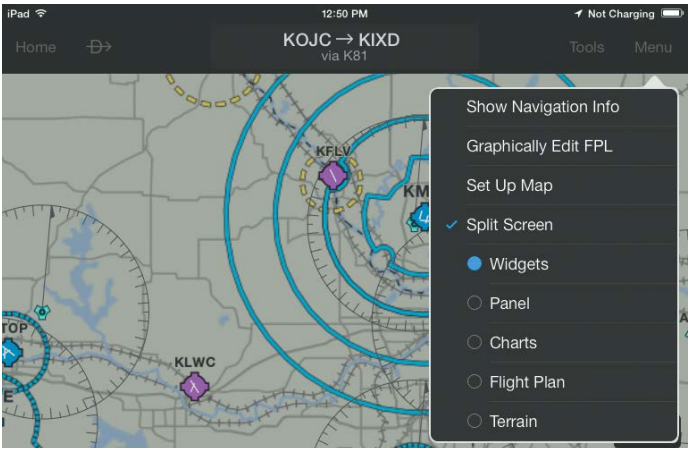


Help File

NOTE: The Help File is context sensitive and opens to the section of the Help File associated with the page from which it is accessed.

MENU

The Menu Button provides a page-sensitive menu structure. Each page has specific menu options that control, search, navigate, or display page-sensitive items.



Map Page Menu

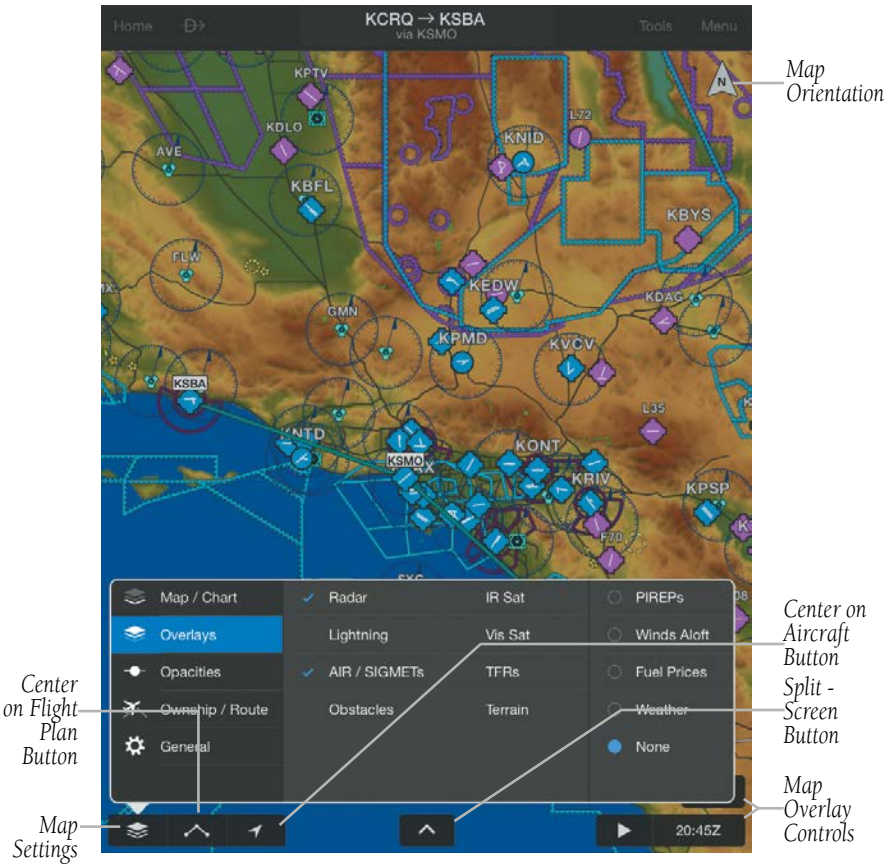
MAP PANE CONTROLS

The Map Pane has a number of buttons that control the Map Settings (including Map Overlays, Overlay Opacities, and General Map Settings), centering the map (on aircraft or flight plan), and split-screen mode.

Control	Icon	Description
Maps Settings		Map/Chart Selection/Settings, Map Overlay Selection, Overlay Opacity Settings, Ownship/Route, and General Map Settings
Center on Flight Plan		Centers the entire flight plan in the Map Pane. Highlighted in blue when selected
Center on Aircraft		Centers the Map Pane on the current location.
		Centered on GPS location
		Track Up

Control	Icon	Description
Split-Screen		Selects full screen map or partial map with Widgets, Panel, Charts, Active NavLog, SafeTaxi, or Traffic
Map Orientation		Toggles map orientation from north up to track up. The Icon is blue when track up is active. Track will only update when motion is sensed. The map can be panned when in track up but it will not update until re-centered on aircraft.

Map Pane Controls



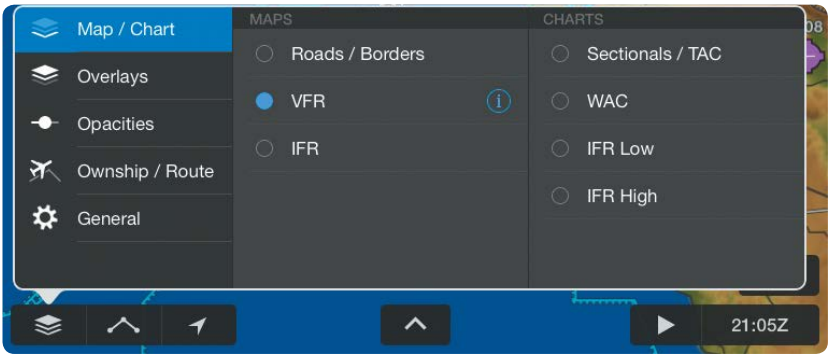
Map Pane

MAP/CHART SELECTION AND SETTINGS

The following charts are available for viewing in the map area: Sectionals/TAC, WAC, IFR Low, and IFR High. Charts are high-resolution color images that resemble the paper version of the National Aeronautical Navigation Products (AeroNav) published charts. Maps are available in three different themes, Roads/Borders, VFR, and IFR. The Roads/Borders Map is a very basic map showing major roads, bodies of water, boarders and Flight Plan information. The VFR themed map is similar to a VFR sectional chart, showing map information pertinent to VFR navigation. The IFR themed map is similar to an IFR area chart, showing map information that is pertinent to IFR flight. Each map theme can be customized and saved for future use by touching icon that appears when a map theme is selected.

Selecting a Map Theme or Chart:

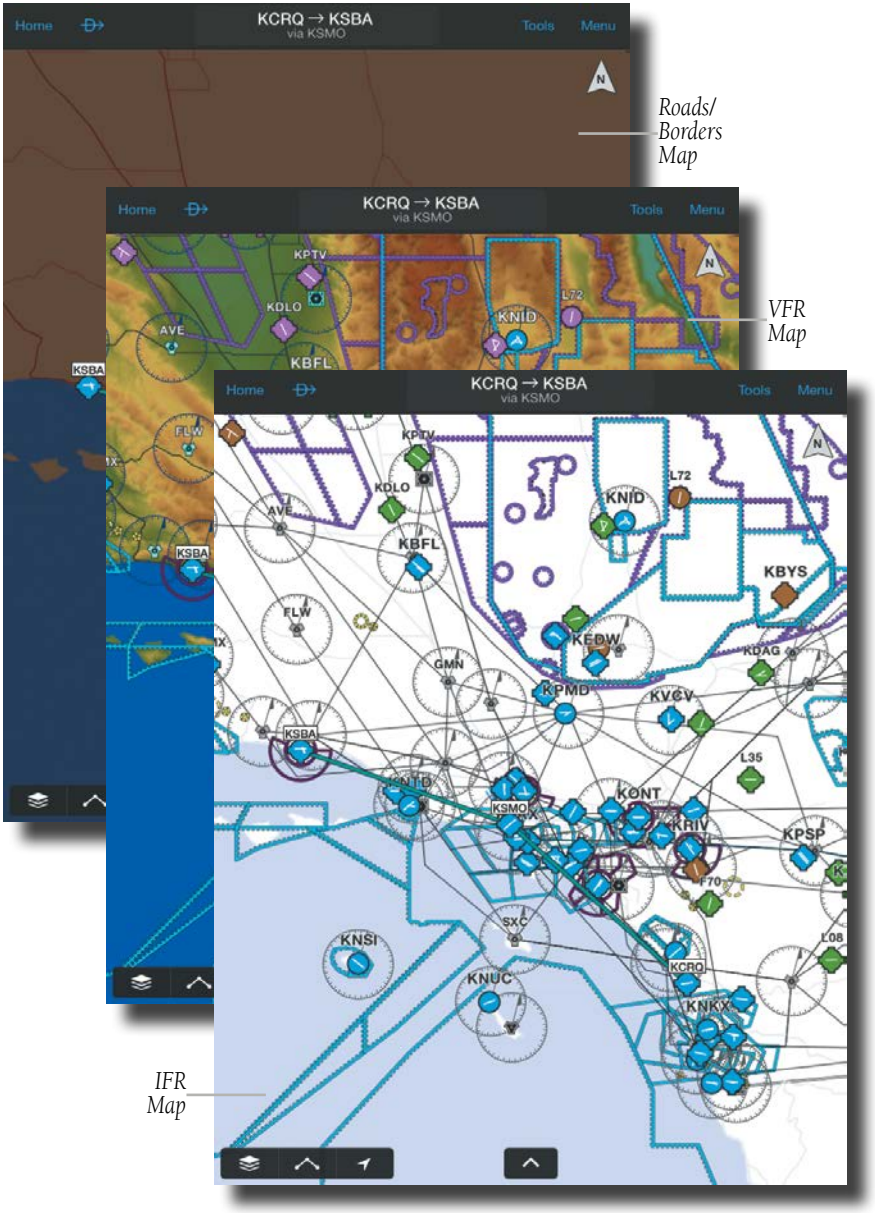
1) Touch > **Map/Chart.**
2) Touch the radio button or Map/Chart title to select a Map/Chart.



Map/Chart Menu

ADVANCED MAP SETTINGS

Map Themes can be customized, renamed, and saved for future use. The Advanced Map Settings menu provides general settings for Topography (Off, Shade, or On), Map Color (White, Green, or Brown), Map Type (IFR, or VFR), Map Name and display range settings for Airports (including SafeTaxi display range), Nav Aids, Airspaces and Cities. When Topography is On the map color is based on topography, but topography shading can be added to any map color.


Home
KCRQ → KSBA
via KSMO
Tools
Menu
Roads/
Borders
Map
VFR
Map
IFR
Map
KPTV
KDLO
AVE
KBFL
KNID
L72
KSBA
FLW
KEDW
KBYS
KDAG
GMN
KPMD
KVCV
L35
KONT
KSMO
KRIV
KPSP
F70
SXC
KNSI
KCRQ
L08
KNUC
KNKX

Map Themes

Accessing Advanced Map Settings:

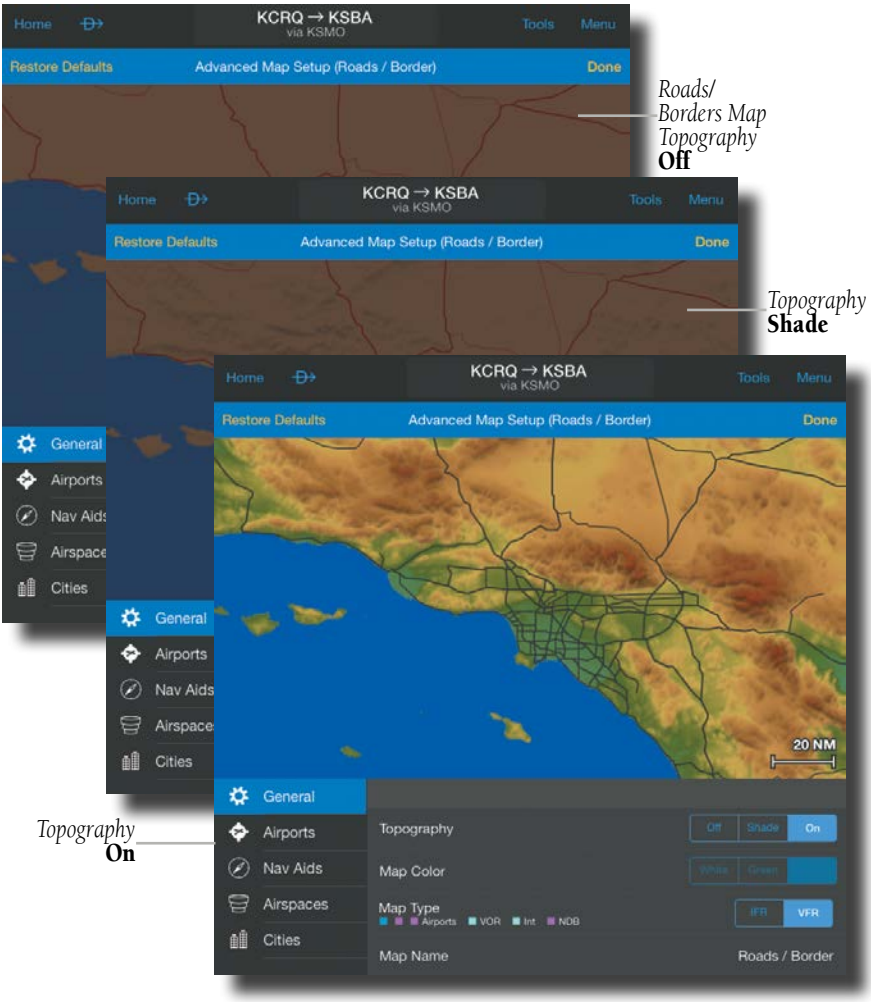
1) Touch  > **Map/Chart** > **Map Theme** >  .
2) Touch **General, Airports, Nav Aids, Airspaces, or Cities**.
3) Use the sliders and selection buttons to set Visibility Ranges and Label Sizes for map features.
4) To give the new settings a name, Touch **General > Map Name**, and use the keyboard to enter a name.
5) Touch **Done** to save and exit, or touch **Restore Defaults** to restore the default Map Theme setting.

Map Setting Categories	Options	Description/Display Ranges:
General	Topography Map Color Map Type Map Name	Off, Shade, or On White, Green, or Brown IFR, or VFR User defined name.
Airports	Off, Small, Medium or Large (Labels)	Large Airports (Off-200NM), Medium Airports (Off-50NM), Small Airports (Off-10NM), Private Airports (Off-5NM), Heliports (Off-20NM), Seaplane Bases (Off-50NM), and SafeTaxi (Off-2NM)
Nav Aids	Off, Small, Medium or Large (Labels)	VOR (Off-100NM), NDB (Off-50NM), Intersection (Off-10NM), Low Airways (Off-100NM), and High Airways (Off-100NM)
Airspaces		Class B (Off-200NM), Class C (Off-200NM), Class D (Off-100NM), Restricted, Alert/Warning, Parachute Area (Off-200NM), MOA (Off-200NM), ADIZ (Off-100NM), and Other (Off-100NM)
Cities	Off, Small, Medium or Large (Labels)	Large City (Off-2000NM), Medium City (Off-200NM), Small City (Off-100NM), and Small Town (Off-50NM)

Advanced Map Settings

TOPOGRAPHY

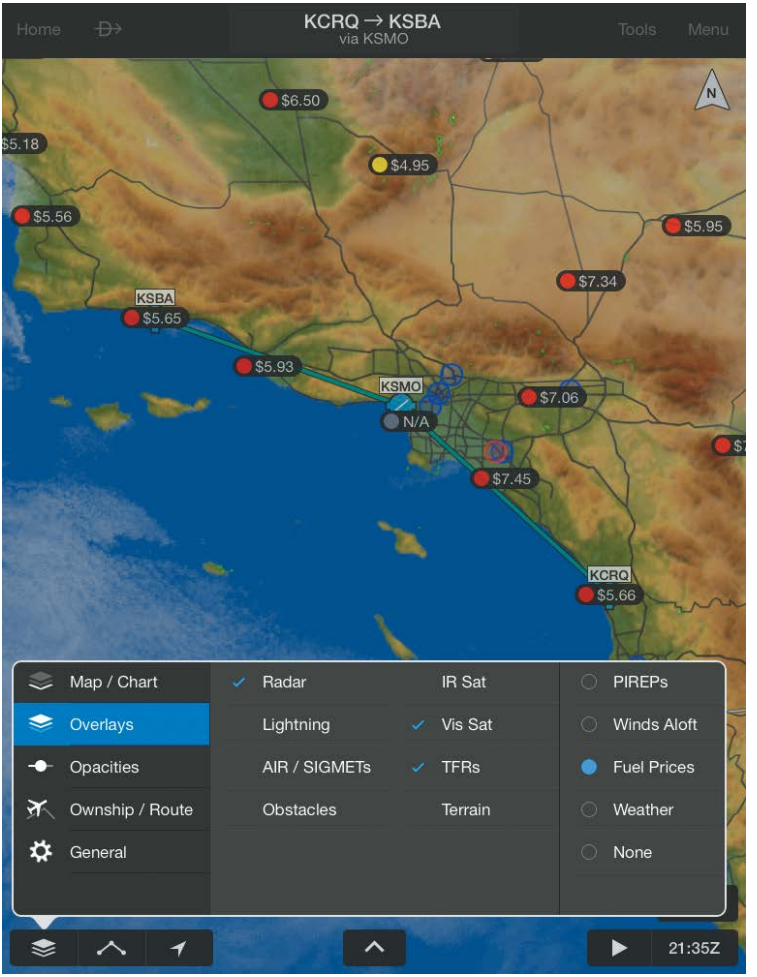
Maps can display topography shading on the base map color or various colors and shades representing land elevation, similar to aviation sectional charts.



Topography

OVERLAYS

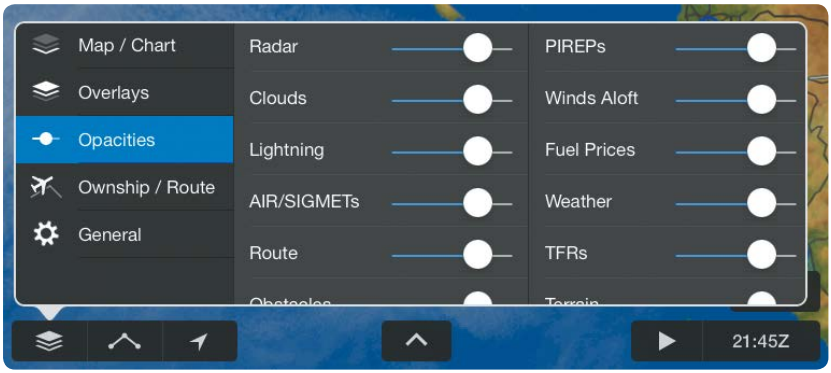
Map Overlays provide graphical weather products, graphical TFRs, and Fuel Prices. Multiple layers in the first two columns can be selected for display, Radar and Radar (ADS-B), and IR Sat, and Vis Sat are mutually exclusive. Only one overlay in the far right column can be selected for display at a time.



Map Overlays

OPACITIES

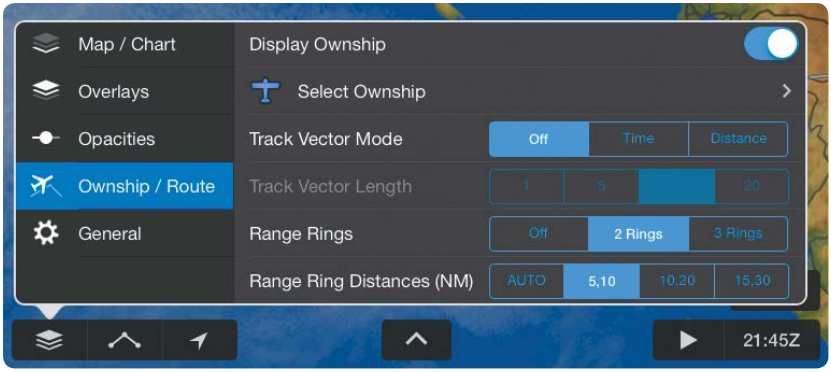
The Opacities menu provides sliders to set the opacity for: Radar, Clouds, Lightning, AIR/SIGMETs, Route, PIREPs, Winds Aloft, Fuel Prices, Weather, TFRs, Obstacles, Terrain, and Traffic (optional).



Opacities Menu

OWNSHIP/ROUTE SETTINGS

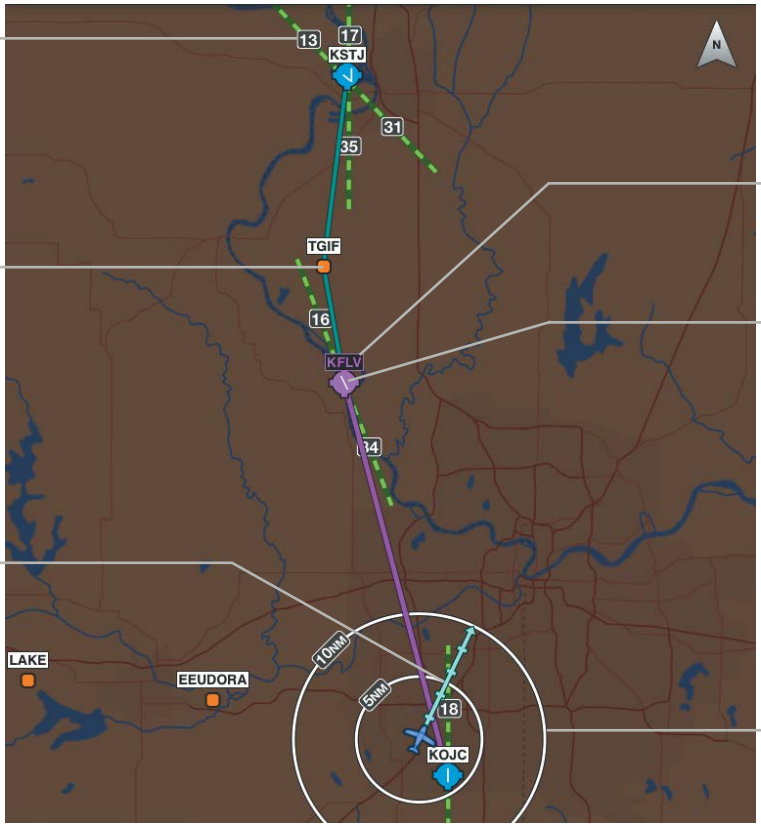
The Ownship/Route Settings Menu provides Ownship Display settings, Track Vector options, Range Ring options, Runway Extended Centerlines Visibility range and style settings, and display settings for Route Labels, Route Icons, and Wx Station Pins.



Ownship/Route Settings Menu

The Range Rings are centered on your present position and can be configured Off, or as 2/3 Rings. When configured for 2 Rings the range can be set to **AUTO**, **5/10**, **10/20**, or **15/30**. When configured for 3 Rings the range can be set to **AUTO**, **5/10/20**, **10/20/40**, or **15/30/60**. When **AUTO** is selected the Range Rings will dynamically change from as little as 200FT to as much as 1200NM based on the current map range

Extended Centerlines provide a graphical extension of the centerline for each runway for all airports that are part of the Active FPL. Extended Centerlines can be very helpful when approaching an unfamiliar airport. The Extended Centerlines Visibility slider sets the Map Scale (OFF(default)-5NM) at which the extended centerlines will become visible on the map. Extended Centerlines can be configured as magenta feathers (**Feathered**), or as dashed light and dark green lines (**Dashed Line**)



Ownship/Route Settings

TRACK VECTOR

The Track Vector is a solid blue line segment that extends from the Ownship symbol to a predicted location. The track vector can be configured for a look ahead time (1, 5, 10, or 20 minutes) or a look ahead distance (1, 5, 10, or 20 nautical miles). When a look ahead time is selected the length of the vector varies based on ground speed. The track vector is useful in minimizing track angle error and for avoiding traffic, obstacles and terrain.

Enabling/Disabling and Configuring the Track Vector:

1) Touch  > **Ownship/Route.**
2) Select the Track Vector Mode **Off**, **Time** (min), or **Distance** (NM)**.**
3) Select the Track Vector Length **1, 5, 10 or 20**

GENERAL MAP SETTINGS

The General Map Settings Menu provides on/off sliders for: Night Mode, Auto Zoom, Include Stadium TFRs, Center With NavTrack, Always Show Map Scale, User Waypoint Visibility, Obstacle Visibility, Always Show Nearby Obstacles, and an option to Restore Default settings.

Choosing General Map Settings:

1) Touch  > **General.**
2) Use the **On/Off or Range** sliders to select the desired options**.**

Or:

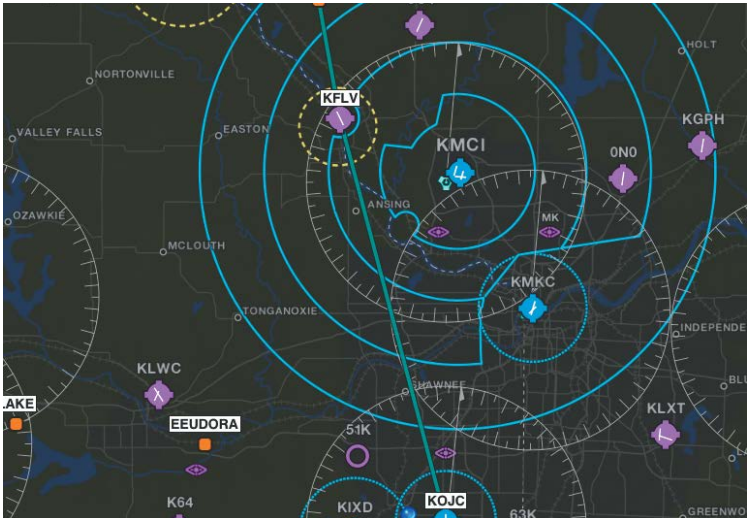
Touch **Restore Default Map Settings** to restore the default settings.

AUTO ZOOM

Auto Zoom begins at the departure airport by showing SafeTaxi (subscription and download required) or the smallest range that clearly shows the departure point, and gradually zooms out to the smallest range clearly showing the active waypoint. When arriving at the destination Auto Zoom gradually zooms in to show SafeTaxi (subscription and download required) or the smallest range that clearly shows the destination. Auto Zoom only works when the map is centered on aircraft and can be enabled/disabled in the General Map Settings Menu.

NIGHT MODE

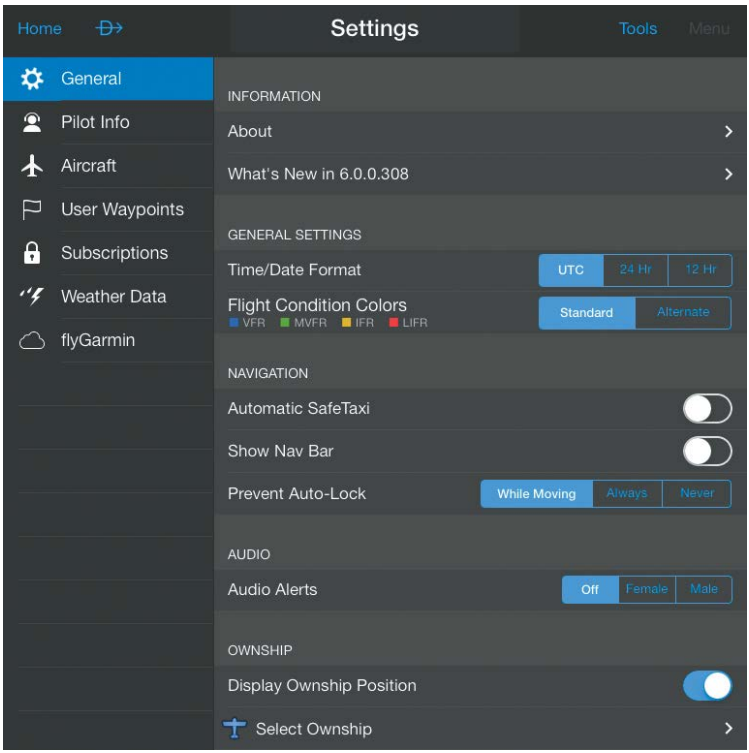
Night Mode provides a high contrast Map for easy viewing in low light. Night Mode is not available for Charts. Enable/disable in the General Map Settings Menu.



VFR Map (Night Mode)

SETTINGS

Located under the Home Button, touch the Settings Icon to open the Settings Menu. The Settings Menu includes eight tabs for customizing and managing Garmin Pilot features, subscriptions, Pilot Info, Aircraft Info, and much more.



Settings Page

GENERAL SETTINGS

The General Settings tab provides access to settings for Time/Date Format, displaying the Nav Bar, and selecting and displaying the Own Ship Symbol. The On/Off switches for: **Show Nav Bar**, and **Own Ship Position** are just two-positions switches and simply turn those features on or off. When **Prevent Auto-Lock** is set to **Never**, the device will sleep based on the device settings. When **While Moving** is selected, the device will not sleep anytime the device senses movement of 40 kts or more. When **Always** is selected, the Screen will remain on at all times. Select the desired time format by touching **UTC**, **24 Hr** or **12 Hr**. The Flight Condition Colors setting, allows the flight condition colored icons to be displayed in **Standard** VFR MVFR IFR LIFR or **Alternate** VFR MVFR IFR LIFR color schemes.

NOTE: *Changing the time format only affects the time shown in the Navigation Info bar at the top of the map display, the time shown in the Navigation widget, and times associated with flight plans. Times associated with weather information remain in UTC.*

More information is available under the **About** Button as indicated by the arrow. Touch the **About** Button to display the current version of the Garmin Pilot Application installed on your device, copyright information, and contact information (both Email and Phone) for Garmin Aviation Support. Touch **aviation.support@garmin.com** to compose an Email and send it directly to Garmin Aviation Support.

NOTE: *A data connection (i.e., Wi-Fi or cellular) is required to send and receive Email.*

Touch **What's new in**... to review information about new functions or features that have been added to the latest update.

AUDIO

The Audio section allows for configuration of voice alerts for traffic, and terrain.

Setting and Testing Alert volume:

1) Open the iPad Settings Menu.

2) Under the Settings column on the left, touch **Sounds**.

3) Use the Ringer and Alerts sliders or if configured use the volume rocker on the side of the device to set the desired volume.

4) To test alert volume, launch Garmin Pilot and Touch **Home > Settings > General.**

5) Toggle **Female/Male** to hear "Caution" in a male or female voice. Adjust volume as desired.

OWNSHIP AIRCRAFT SYMBOL

The Ownship Aircraft Symbol is displayed on maps, Geo-referenced FliteCharts, and SafeTaxi diagrams when the application senses movement, otherwise the blue system location symbol is used.

System Location Symbol

Displaying Ownship Position:

1) From any page touch **Home** > **Settings**.
2) Touch the **General** Tab.
3) Use the **Display Ownship Position** slider to turn the own ship symbol On/Off.

Or:

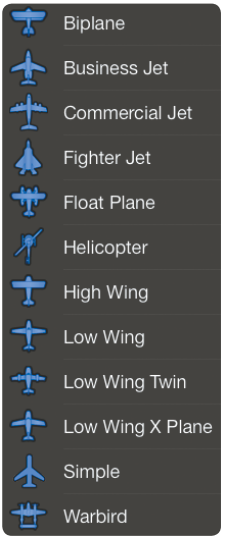
Touch  > **Ownship/Route >** Display Ownship **On.**

Changing Ownship Symbol:

1) From any page touch **Home** > **Settings**.
2) Touch the **General** Tab.
3) Touch **Select Ownship**.
4) Touch the desired Ownship aircraft symbol from the list.
5) Touch **General** to return to the General settings page.

Or:

Touch  > **Ownship/Route > Select Ownship.**



Ownship Aircraft Symbols

PILOT AND AIRCRAFT INFO

NOTE: *A data connection (i.e., Wi-Fi or cellular) is required to receive preflight weather briefings and to file flight plans.*

Enter pilot and aircraft information by touching the (⊕) button next to **Add Pilot Information...** or **Add Aircraft...** respectively. To link Garmin Pilot with a DUATS account, under the Pilot Info Tab, enter username and password information for the preferred DUATS provider. By linking to a DUATS account, Garmin Pilot can access preflight weather briefings and file flight plans. Garmin Pilot is compatible with both Data Transformation Corp. (DTC) or Computer Sciences Corporation (CSC) Direct User Access Terminal Service (DUATS) services.

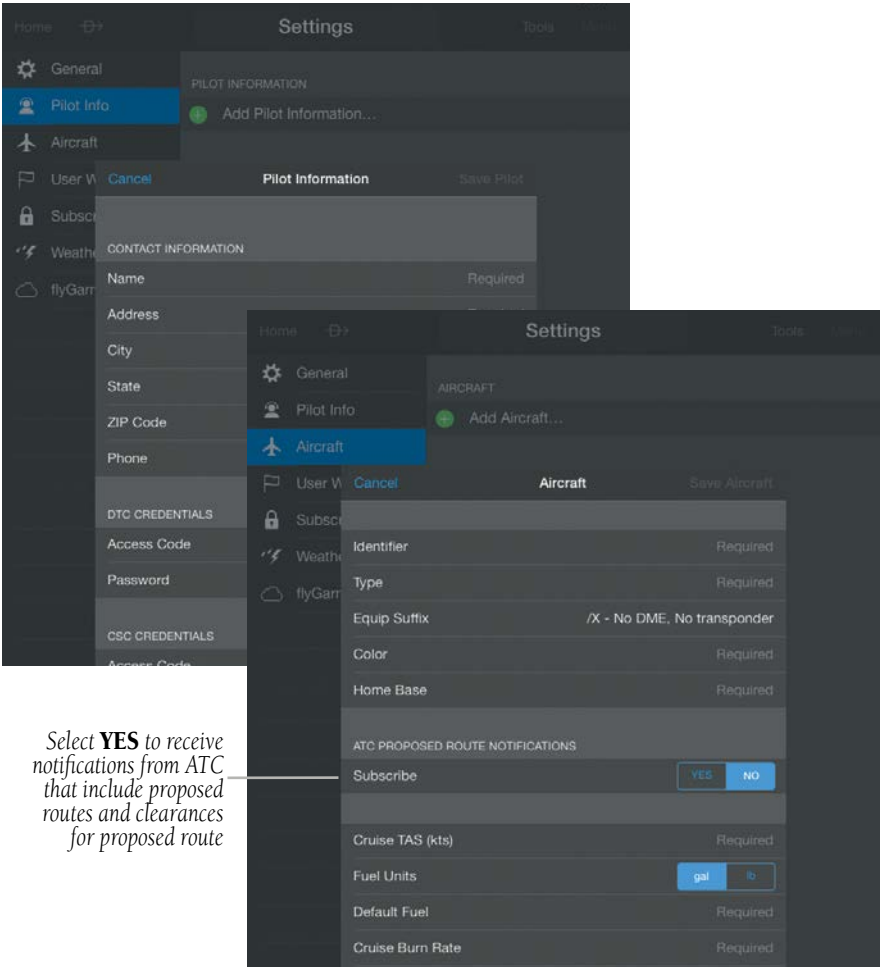
Entering Pilot Information:

1) From any page touch **Home** > **Settings**.
2) Touch the **Pilot Info** Tab.
3) Touch **Add Pilot Information...**.
4) Enter the Required Contact Information by touching each field and using the keyboard.
5) Enter the optional DTC or CSC DUATS Credentials.
6) Touch **Save Pilot**.

Entering Aircraft Information:

1) From any page touch **Home** > **Settings**.
2) Touch the **Aircraft** Tab.
3) Touch **Add Aircraft...**.
4) Enter the Required Aircraft Information by touching each field and using the keyboard.
5) Enter optional performance data.
6) Touch **Save Aircraft**.

Aircraft Information stored on other devices will automatically be synchronized through your Garmin Pilot account.



Select **YES** *to receive notifications from ATC that include proposed routes and clearances for proposed route*

Pilot and Aircraft Information Entry

ATC PROPOSED ROUTE NOTIFICATIONS

ATC Proposed Route Notifications are Apple Push notifications that include a proposed route for departures and destinations that you have filed flight plans for. Notifications come in the Notification Center if you are not currently using Garmin Pilot or as Pop-ups within Garmin Pilot. To accept the proposed route and make it the Active Flight Plan, touch **Activate Only**. Touch **Brief Only**, to open the File & Brief Page. Touch **Activate & Brief** to make it the Active Flight Plan and go to the File & Brief Tab on the Trip Planning Page. To dismiss the notification, touch **Ignore**.

Subscribing to ATC Proposed Route Notifications:

1) From any page touch **Home** > **Settings**.

2) Touch the **Aircraft** Tab.

3) Touch **Add Aircraft...**

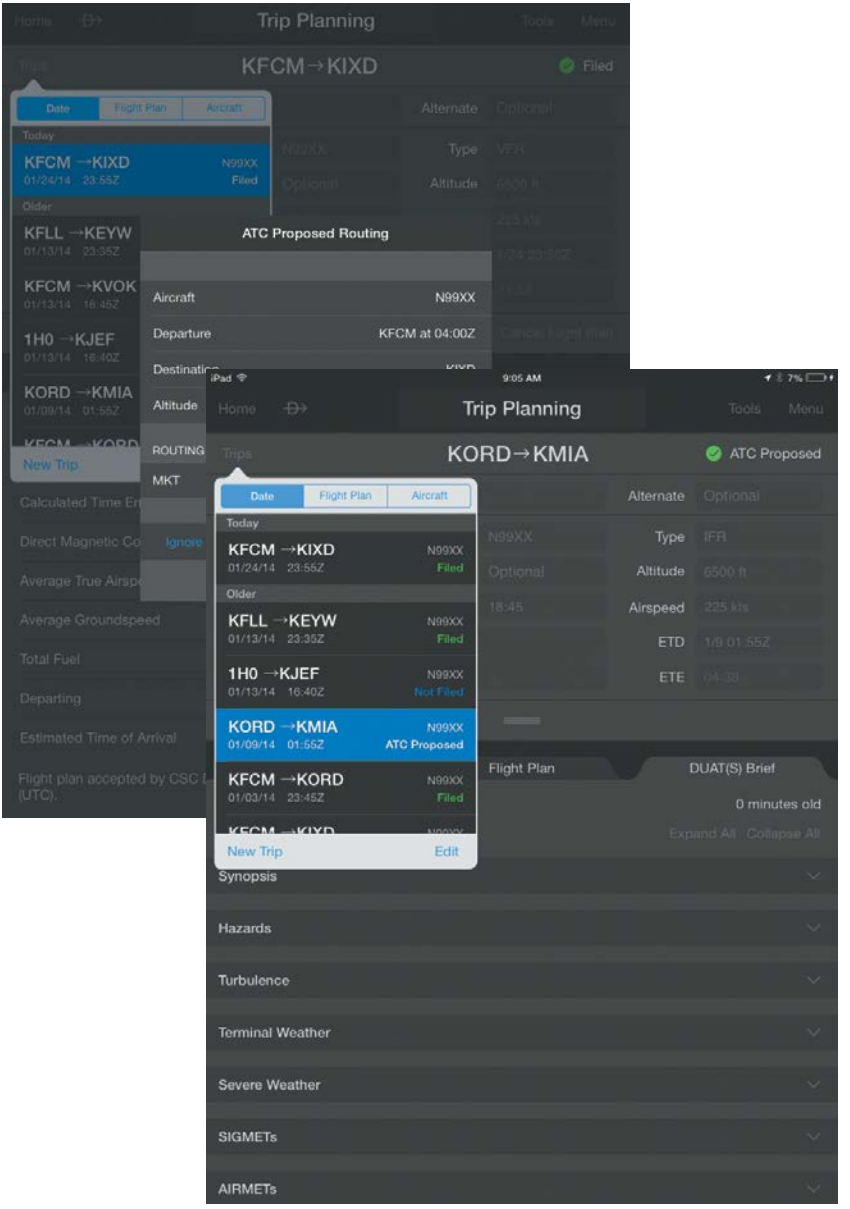
Or Touch a current Aircraft in the list, to edit.

4) Touch **YES**, under the ATC Proposed Route Notifications header, to subscribe to Proposed Route Notification.

5) Touch **Save Aircraft**.

Route Notification (iPad)

Route Notification (Notification Center)



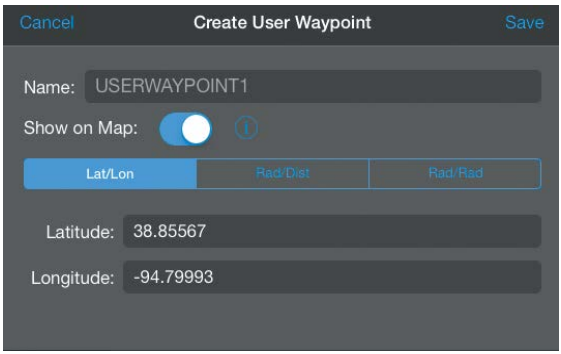
ATC Proposed Routes

USER WAYPOINTS

The User Waypoints Tab provides a quick and easy way to create and view user waypoints. The User Waypoint Layer can also be turned on or off using the On/Off slider. User Waypoints can also be shared with the Garmin D2™ Pilot Watch.

Creating a User Waypoint from User Waypoint Tab:

1) Touch the **User Waypoint** Tab to display the list of user waypoints.
2) Touch ⊕ to display the **Create User Waypoint** dialog box.
3) Touch within in the Name field to change the name or accept the default naming convention of 'UserWaypointXX'.
4) Touch the **Show on Map On/Off** slider to select display option.
5) Define the waypoint location by Lat/Lon, Rad/Dist, or Rad/Rad.
6) Touch **Save** to save the waypoint or **Cancel** to exit.



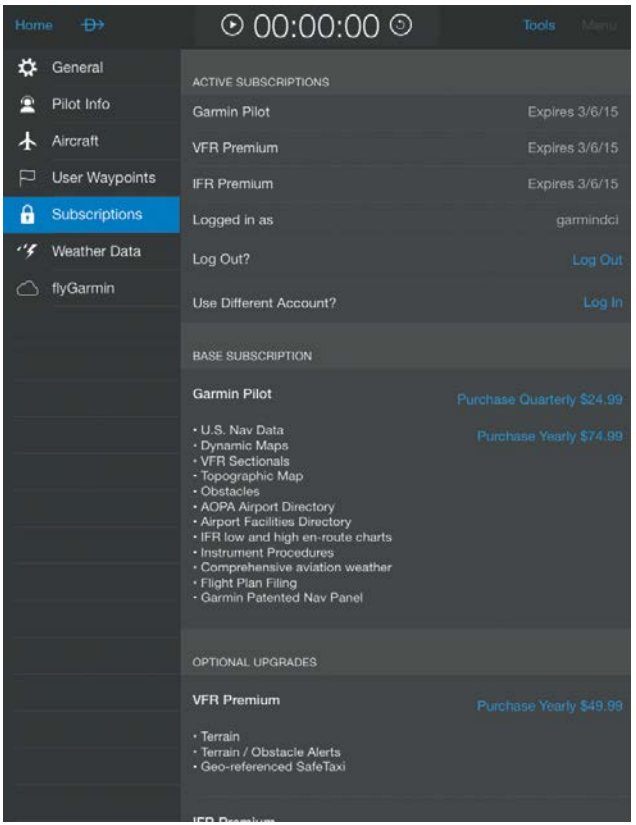
User Waypoint Dialog

Sharing User Waypoints with D2™ Pilot Watch:

1) From any page touch **Home** > **Settings** > **User Waypoints** Tab to display the list of user waypoints.
2) Ensure the D2™ Pilot Watch is in 'Share Mode' touch, **Menu** > **Send to D2,** for each waypoint. Waypoints that have been shared with D2™ will display a light blue check mark.
3) Touch **Done** to finish and exit sharing mode.

SUBSCRIPTIONS

The Subscriptions Tab provides information about the status of any subscription associated with your Garmin Pilot Account and the ability to purchase or renew expired subscriptions. To purchase or renew a subscription, touch the green icon and enter your Apple ID credentials. The subscription fee will be charged to your iTunes® account. If you already have Garmin Pilot subscriptions, log in to view subscriptions, expiration dates, as well as share routes, aircraft, and pilot information. With an active subscription, Garmin Pilot can be installed on up to two devices at the same time, typically a mobile phone and a tablet device.

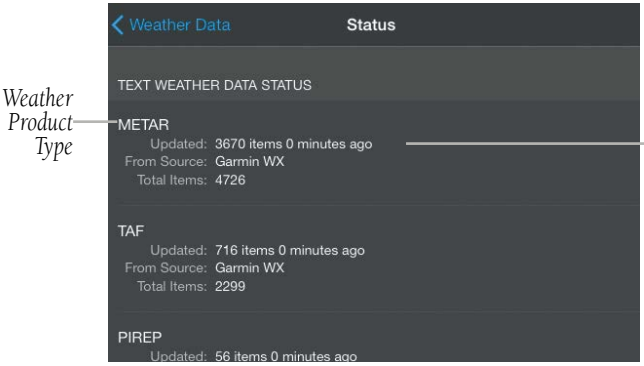


Subscriptions

WEATHER DATA

The Weather Data Tab provides information about the current source of weather data and the age of Garmin Weather Data items cached on the device. The age and status of weather data for FIS-B-sourced weather is viewable under the GDL 39 Tab. Weather data is available from three sources, Garmin Weather Data Services, FIS-B weather via a GDL 39, or SiriusXM Weather via a Baron Mobile Link™. Garmin Weather Data Services requires a data connection through Wi-Fi or cellular network. Baron Mobile Link™ weather, and FIS-B weather, require additional hardware. Baron Mobile Link also requires a subscription to SiriusXM Weather.

Weather Data Services



Weather Data Status

DEVICES

Touch **Home** > **Devices** to access the Devices Page. The Devices Page allows management of the Garmin hardware that integrates with Garmin Pilot.

GDL 39

The GDL 39 is a Bluetooth® enabled receive-only data link radio with on-board GPS, 978 MHz (Universal Access Transceiver frequency band), and 1090 MHz Extended Squitter (1090 ES) receivers. It is designed to receive, process, and output traffic (ADS-B air-to-air, and Traffic Information Service-Broadcast (TIS-B) traffic information), and weather (Flight Information Service-Broadcast (FIS-B)) information to Garmin Pilot wirelessly through Bluetooth®. The GDL 39 Tab displays the GDL 39 Bluetooth connection status, GDL 39 firmware version, Ground Station Status, Pressure and Geometric Altitude as well as Traffic and Weather information. The Traffic information includes the number and source (i.e., ADS-B air-to-air, or TIS-B) of traffic the GDL 39 is currently tracking. The Weather information provides the age of weather products received through (FIS-B). The GDL 39 also has a pressure altitude sensor to aide in displaying the relative altitude of received traffic information. If the GDL 39 is used onboard a pressurized aircraft the pressure altitude sensor should be turned off.

Viewing GDL 39 Status (including Ground Stations, Traffic, and Weather):

1) From any page touch **Home** > **Devices**.
2) Touch the **GDL 39** Tab.

Updating GDL 39 Firmware:

1) Ensure that the iPad and GDL 39 are connected to a reliable external power source.
2) From any page touch **Home** > **Devices**.
3) Touch the **GDL 39** Tab.
4) Touch **Update Firmware**. The 'Update Firmware' button is only displayed when an update is available.

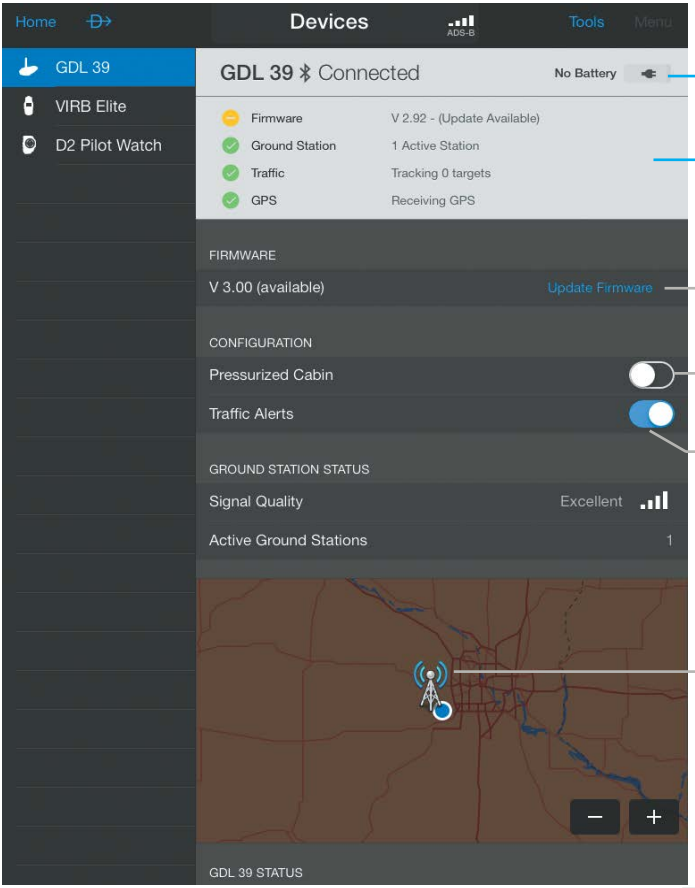
Caution: *Never remove power from the GDL 39 or power off the iPad during a GDL 39 firmware update. If power is removed from the GDL 39 during a firmware update it will be rendered inoperable and service will be required.*

Configuring the GDL 39 for a Pressurized or Non-Pressurized Aircraft:

1) From any page touch **Home** > **Devices**.
2) Touch the **GDL 39** Tab.
3) Use the slider to select Pressurized Cabin (Yes or No).

Configuring Traffic Alerts:

1) From any page touch **Home** > **Devices**.
2) Touch the **GDL 39** Tab.
3) Use the slider to select Traffic Alerts On/Off.



GDL 39 Battery Status

GDL 39 Status

Touch to Update GDL Firmware

Pressurized Cabin Yes/No

Traffic Alerts On/Off

Touch Ground Station Icon to view, signal strength, Direction and Distance, and Ground Station Type (Low, Med, High)

Scroll down to view Traffic Overview, and FIS-B Weather Status and Age

GDL 39 Tab

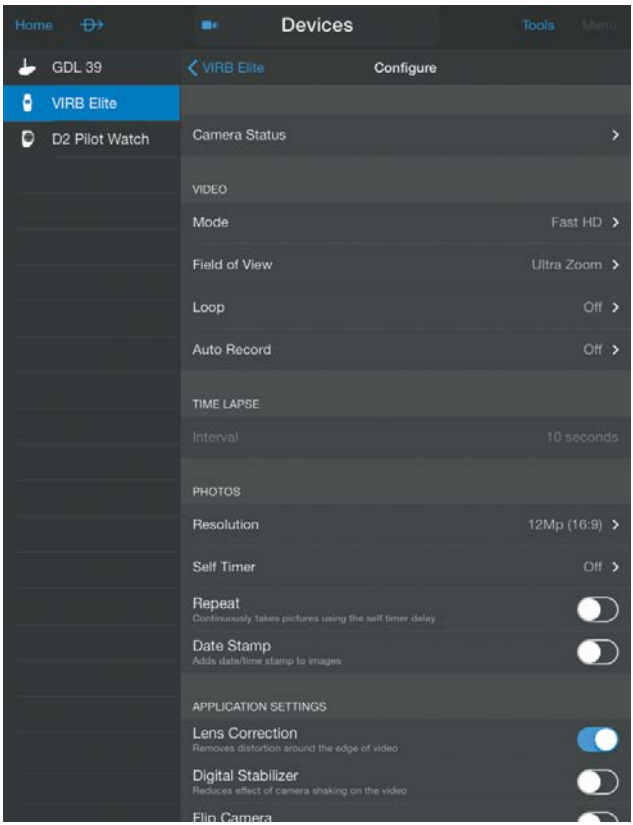
NOTE: *When connected to a GDL 39, the device GPS information is replaced with GDL 39 GPS information. The GDL 39 GPS receiver is capable of updating position information at a much higher frequency, thus providing more accurate GPS position information.*

VIRB ELITE ACTION CAMERA

Garmin Pilot allows the user to remotely control the VIRB to start and stop video recording as well as take still photos.

Configuring Camera Settings:

1) From any page touch **Home** > **Devices > VIRB Elite** Tab.
2) Touch **Configure Camera Settings**.



VIRB Configuration

Recording using the VIRB Elite:

1) From any page touch **Home** > **Devices > VIRB Elite** Tab.
2) Touch **Start Recording/Stop Recording**.

Or:

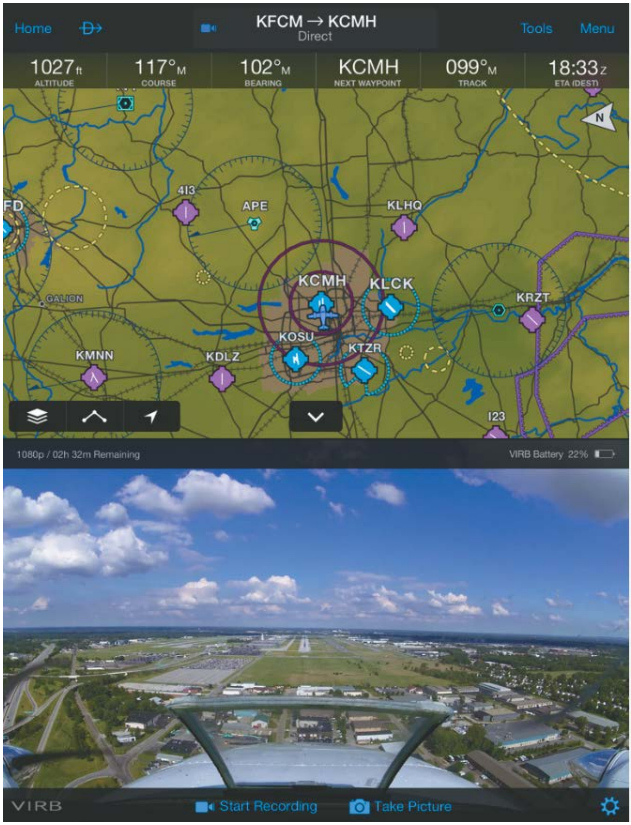
1) From any Map Page touch **Menu** > **Split Screen > VIRB Elite**.
2) Touch **Start Recording/Stop Recording**.

Taking a photo using the VIRB Elite:

1) From any page touch **Home** > **Devices > VIRB Elite** Tab.
2) Touch **Take Photo**.

Or:

1) From any Map Page touch **Menu** > **Split Screen > VIRB Elite**.
2) Touch **Take Photo**.



VIRB Elite (Split-Screen)

D2™ PILOT WATCH

Garmin Pilot can share Flight Plans with the Garmin D2™ Pilot Watch via a Bluetooth connection. When the Garmin D2™ Pilot Watch is in 'Share Mode' it will automatically pair with your iOS device.

NOTE: *D2™ route sharing is only available with iOS devices that support Bluetooth 4.0 +* ***(i.e., iPhone 4S, iPod Touch 5 and iPad 3 and newer).***

Sending User Waypoints to the D2™ Pilot Watch:

1) From any page touch **Home** > **Devices > D2 Pilot Watch** Tab.

2) Touch next to the desired waypoint to send.

Or:

1) From any page touch **Home** > **Settings > User Waypoints** Tab to display the list of user waypoints.

2) Ensure the D2™ Pilot Watch is in 'Share Mode' touch, **Menu** > **Send to D2,** for each waypoint. Waypoints that have been shared with D2™ will display a light blue check mark.

3) Touch **Done** to finish and exit sharing mode.

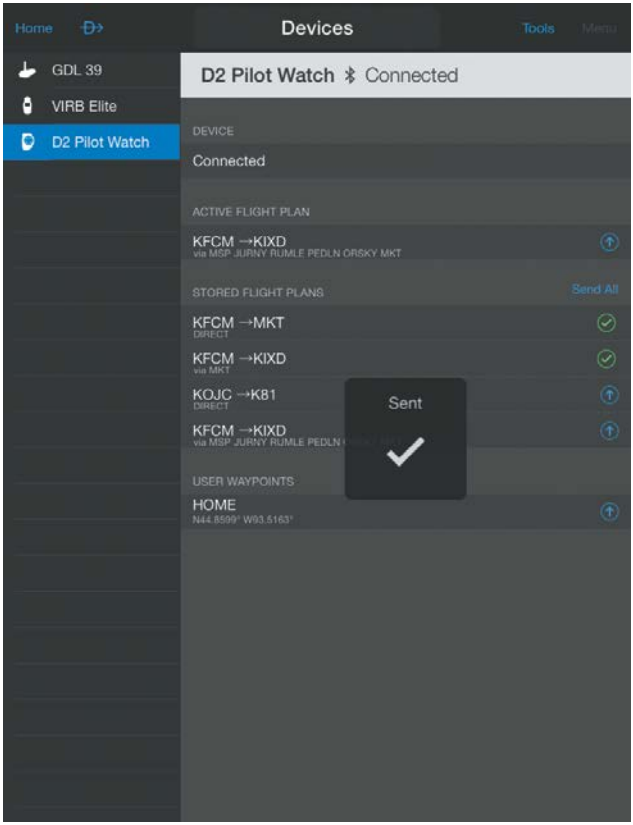
Sending Flight Plans to the D2™ Pilot Watch:

From any page touch **Home** > **Flight Plan > Menu > Send to D2 Watch.** Ensure the D2™ Pilot Watch is in 'Share Mode' to receive flight plan data.

Or:

1) From any page touch **Home** > **Devices > D2 Pilot Watch** Tab.

2) Touch next to the desired flight plan to send.



Devices (D2 Pilot Watch Tab)

SYNTHETIC VISION - 3D VISION

NOTE: *Synthetic Vision requires either a GDL 39 3D or a Premium subscription.*

Synthetic Vision depicts a forward-looking attitude display of the topography immediately in front of the aircraft. The depicted imagery is derived from the aircraft attitude, heading, GPS three-dimensional position, and databases of terrain, obstacles, and other relevant features.

The Synthetic Vision terrain display shows land contours (colors are consistent with those of the topographical map display), large water features, towers, and other obstacles over 200' AGL that are included in the obstacle database. Cultural features on the ground such as roads, highways, railroad tracks, cities, and state boundaries are not displayed.

Terrain is integrated within Synthetic Vision to provide visual alerts to indicate the presence of terrain and obstacle threats relevant to the projected flight path. Terrain alerts are displayed in red and yellow shading.

The terrain display is intended for situational awareness only. It may not provide the accuracy or fidelity on which to base decisions and plan maneuvers to avoid terrain or obstacles. Navigation must not be predicated solely upon the use of the terrain or obstacle data displayed by Synthetic Vision.

Synthetic Vision (with GDL 39 3D)

NOTE: *'No Attitude Information' is displayed is place of the Attitude Indicator when GDL 39 3D is not configured.*

SYNTHETIC VISION OPERATION

Synthetic Vision is activated by touching **Home** > **SynVis**.

Activating night mode:

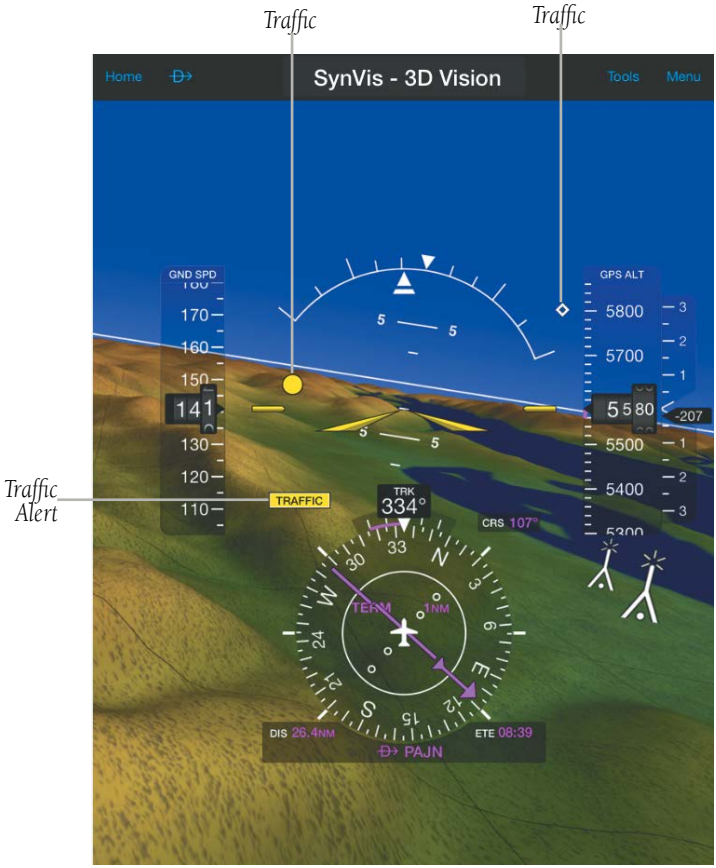
1) From any page touch **Home** > **SynVis**.
2) Touch **Menu** > **Night Mode**.

ZERO PITCH LINE

The Zero Pitch Line is drawn completely across the display and represents the aircraft attitude with respect to the horizon. It may not align with the terrain horizon, particularly when the terrain is mountainous or when the aircraft is flown at high altitudes.

TRAFFIC (OPTIONAL)

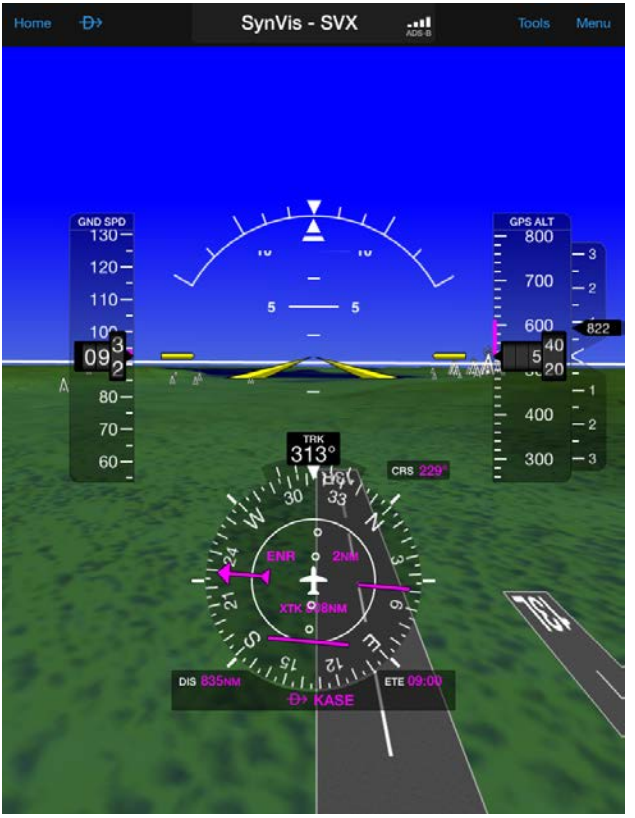
When paired with a GDL 39/GDL 39 3D, Synthetic Vision displays ADS-B traffic information. Traffic symbols are displayed in their approximate locations. Traffic symbols are displayed in three dimensions, appearing larger as they are getting closer, and smaller when they are further away. Traffic within 250 feet laterally of the aircraft will not be displayed. Traffic symbols and coloring are consistent with that used for traffic displayed on the Map Page. If the traffic altitude is unknown, the traffic will not be displayed.



Synthetic Vision - Traffic

RUNWAYS

Runway data provides improved awareness of runway location with respect to the surrounding terrain. All runway thresholds are depicted at their respective elevations as defined in the database. In some situations, where threshold elevations differ significantly, crossing runways may appear to be layered. As the aircraft gets closer to the runway, more detail such as runway numbers and centerlines are displayed.



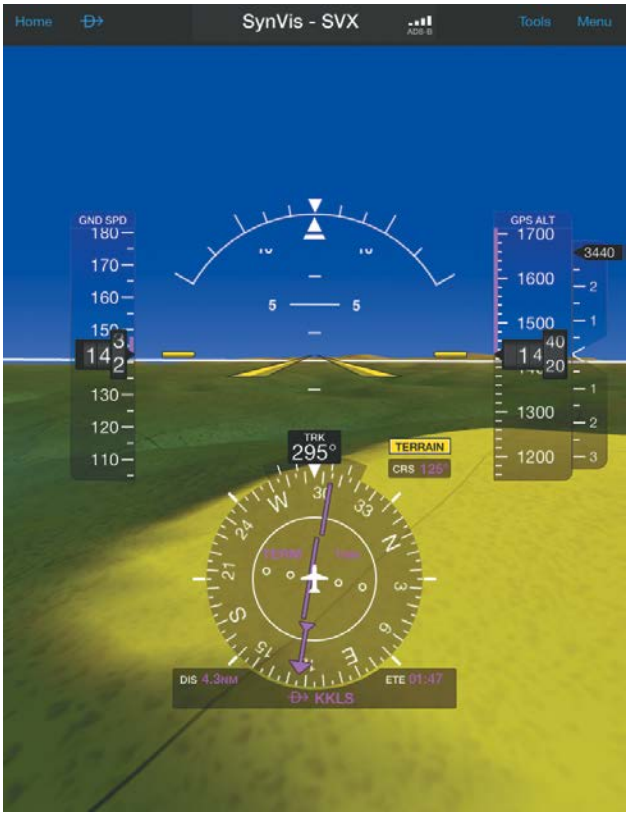
Synthetic Vision - Runway

SYNTHETIC VISION TERRAIN AND OBSTACLE DATA

Terrain alerting on the synthetic vision display corresponds to the red and yellow X symbols on the Map Page.

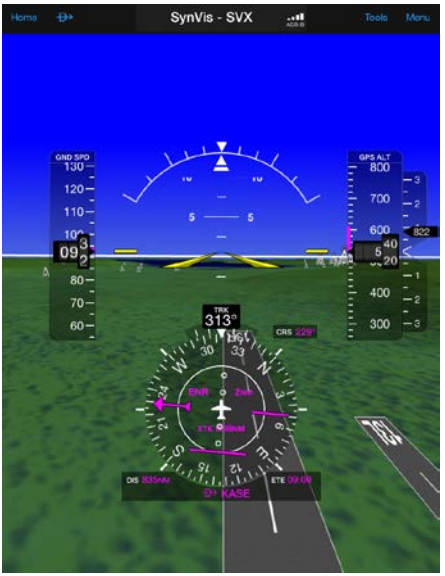
In some instances, a terrain or obstacle alert may be issued with no conflict shading displayed on the synthetic vision. In these cases, the conflict is outside the Synthetic Vision field of view.

Obstacles are represented on the synthetic vision display by standard two-dimensional tower symbols found on the Inset Map and Navigation Map. Unlike the Map Page, obstacles on the synthetic vision display do not change colors to warn of potential conflict with the aircraft's flight path until the obstacle is associated with an actual terrain alert. Obstacles greater than 1000 feet below the aircraft altitude are not shown.

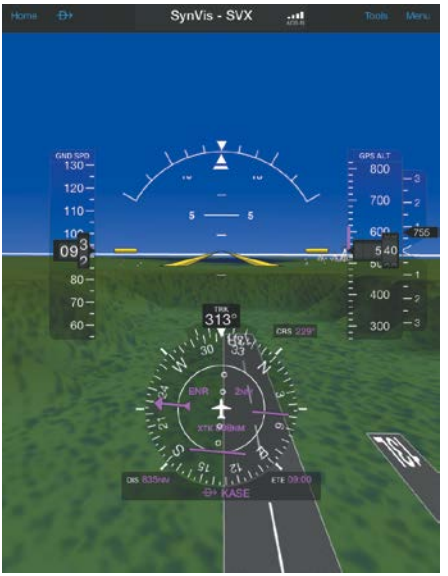


Synthetic Vision - Terrain

It is preferred to download the medium or high resolution terrain data when using Synthetic Vision. The 3D view may not draw correctly with low resolution terrain data.



Synthetic Vision - High Resolution Terrain Data



Synthetic Vision - Low Resolution Terrain Data

DOWNLOADS

NOTE: *If charts are not downloaded to the device they will not be available for viewing without a data connection. Download all applicable charts for your planned flight including alternates.*

NOTE: *Chart files can be very large and may take some time to download. It is recommended that downloads be done over Wi-Fi. Additional charges may apply for downloads done over a cellular network. All available charts require approximately 8 GB of free space.*

NOTE: *With the availability of electronic charts in Garmin Pilot, it is still advisable to carry another source of charts on board the aircraft.*

The Downloads Menu is divided into three sections. The Navigation & Basemaps section allows for downloading US Navigation Data, and Detailed Map Data. The Airports sections allows for downloading Airport Info, SafeTaxi information and regional Airport/Facility Directory (A/FD) information. The Procedures & Charts section allows for downloading VFR Sectional Charts, WAC Charts, IFR Low and High Altitude Charts, and Instrument Procedures for the Continental US as well as Alaska and Hawaii.

The Downloads Menu is divided into two columns. The Left column shows items available for download as indicated by the blue down arrows (⬇) or blue text. The right column is the Download Queue which shows the download status and a list of queued downloads. The available space on your device is shown at the bottom of the Downloads Page. If the device does not have enough free space to support the queued downloads a pop up notification will advise you to make more space available.

The submenus for VFR Sectional Charts, WAC Charts and IFR Low and High Altitude Charts display the Chart Selection Screen, which is a map showing the charts areas as green outlines. To select all available charts touch **Select All** in the lower left corner or touch the area outlined in green for the desired chart(s). After selecting the chart(s) to be downloaded touch Download in the upper right corner. The submenu for Instrument Procedures allows for downloading by region or by state. Terminal Procedure charts can be viewed and downloaded from the Airport Info Page, under the Procedures tab as well.

GARMIN

Downloading US Navigation Data, Detailed Map Data, Airport Info, Obstacle, Terrain or SafeTaxi:

1) From any page touch **Home** > **Downloads**.
2) For the Terrain Database, select the submenu for 'Terrain Database' and select the desired region.
3) Touch to begin downloading the desired information.

Downloads Page

Downloading Current Airport/Facility Directory:

1) From any page touch **Home** > **Downloads**.

2) From the 'Airports' list select the submenu for 'Airport Facility Directory'.

3) Touch for the Region to download. The download will begin immediately as shown in the Download Queue.

Downloading Next Cycle Airport/Facility Directory:

1) From any page touch **Home** > **Downloads**.

2) From the 'Airports' list select the submenu for 'Airport Facility Directory'

3) Touch for the Region and touch **Next Cycle** from the popup menu.

Downloading Current Sectional, WAC, IFR Low Altitude, or IFR High Altitude Charts:

1) From any page touch **Home** > **Downloads**.

2) From the 'Procedures & Charts' list select the submenu for the desired chart.

3) Touch the area outlined in green on the Chart Selection Screen for the desired chart(s).

4) Touch **Download** to download the selected chart(s). The download will begin immediately as shown in the Download Queue.

Or: Touch **Select All** > **Download**, to download all available charts.

Downloading Next Cycle Sectional, WAC, IFR Low Altitude, or IFR High Altitude Charts:

1) From any page touch **Home** > **Downloads**.

2) From the 'Procedures & Charts' list select the submenu for the desired chart.

3) Touch **Next (Starts ##/##/####)** to view the charts available for the next update cycle.

4) Touch the area outlined in green on the Chart Selection Screen for the desired chart(s). Next Cycle charts are outlined in dark green.

5) Touch **Download** to download the selected chart(s). The download will begin immediately as shown in the Download Queue.

Or: Touch **Select All** > **Download**, to download all available charts.

Downloading Current Instrument Procedures:

1) From any page touch **Home** > **Downloads**.
2) From the 'Procedures & Charts' list select the submenu for 'US Instrument Procedures'.
3) Touch ⬇ for the Region or State to download. The download will begin immediately as shown in the Download Queue.

Downloading Next Cycle Instrument Procedures:

1) From any page touch **Home** > **Downloads**.
2) From the 'Procedures & Charts' list select the submenu for 'US Instrument Procedures'.
3) Touch ⬇ for the State to download and touch **Next Cycle** from the popup menu.

CHART UPDATES

NOTE: *Electronic Charts are updated frequently. Always ensure that the charts saved to the device are up-to-date prior to each flight. With the availability of electronic charts, it is still advisable to carry another source of charts onboard the aircraft.*

Garmin Pilot makes it easy to ensure that charts are always up-to-date by displaying the number of available updates in a banner on the Garmin Pilot App Icon as well as on the Downloads Button. Also when updates are available the ⬇ **Update All** button becomes active. If no updates are available, ⬇ **Update All** is subdued, indicating that no updates are available. The ⬇ **Update All** Button will update all available charts no matter the chart type.

US Navigation Data, Airport Info and SafeTaxi are updated on 28-day cycle and are available for download typically 5 days prior to their valid date.

Regional Airport/Facility Directories are updated individually on an 8-week cycle and are available for download typically 5 days prior to their valid date.

WAC and Sectional Charts are updated individually on the chart schedule and are available for download typically 5 days prior to their valid date.

US Instrument Procedures are updated on a 28-day cycle and are available for download typically 5 days prior to their valid date.

IFR Low and High Altitude Charts are updated on a 28-day cycle and are available for download typically 5 days prior to their valid date.

Charts that have been downloaded to the device are always available for viewing even after their expiration date, but are replaced with current charts when an update is downloaded.

Updates Available

Updates Available

Updating Sectional, WAC, IFR Low, or IFR High Altitude Charts:

1) From any page touch **Home** > **Downloads**.

2) Touch **Update All** to update all available charts.

Or:

1) Select the desired chart type submenu.

2) From the Chart Selection Screen touch the expired chart(s), shown in red.

3) Touch **Download** to download the selected chart(s). The download will begin immediately as shown in the Download Queue.

Or:

1) Select the desired chart type submenu.

2) From the Chart Selection Screen touch **Update Expired** to updated expired charts only or **Update All** to update all available charts including those that are not valid yet. The download will begin immediately as shown in the Download Queue.

Updating Instrument Procedures:

1) From any page touch **Home** > **Downloads**.

2) From the 'Procedures & Charts' list select the submenu for 'US Instrument Procedures'.

3) Touch ⬇ for the Region or State to update. The download will begin immediately as shown in the Download Queue.

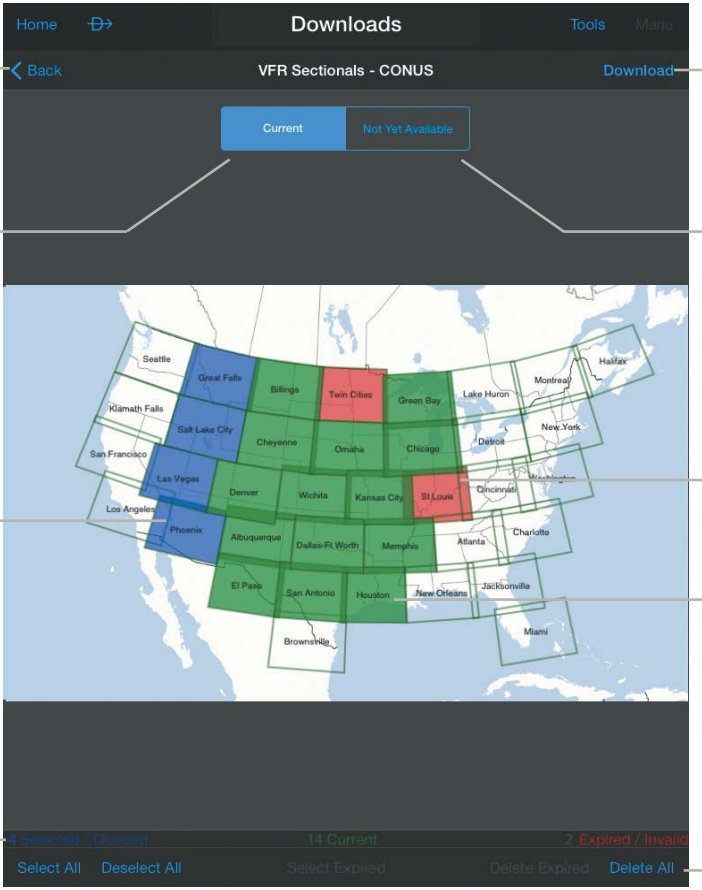
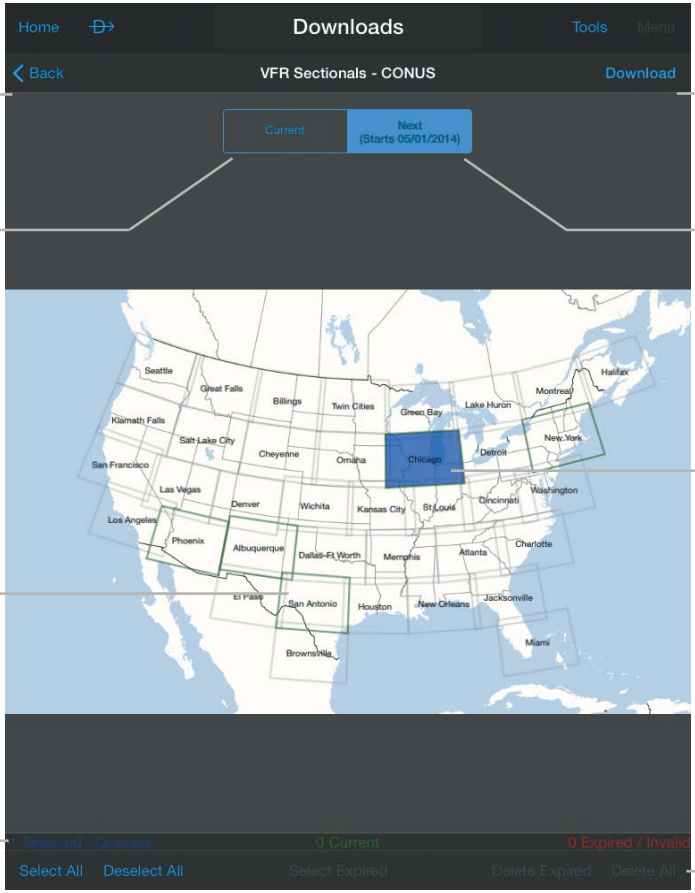


Chart Selection Screen



Back Button Returns to Downloads Page

View and Download Charts for Current Cycle

Next Cycle Available

Chart Selection Status Bar

Download Button

View and Download Charts for the Next Cycle (When Available)

Next Cycle Chart Selected for Download

Quick Selection Buttons

Next Cycle Chart Selection Screen

Blank Page

PLAN

Garmin Pilot's powerful capabilities start with pre-flight planning, providing pilots with the most comprehensive aviation weather information to make better-informed flight decisions. Pilots can check weather radar, visible and infrared cloud imagery, METARs, TAFs, AIRMETs, SIGMETs, PIREPs, NOTAMs, winds and temperatures aloft, TFRs, and lightning data. With Garmin Pilot, weather data can be overlaid on VFR Sectionals, IFR low altitude en route charts, IFR high altitude en route charts, WAC, or on IFR, VFR, or Roads/Borders basemaps, to visualize the weather for your route. Add text-based weather widgets and use the exclusive NavTrack feature to view weather information along the planned route.

FLIGHT PLAN

Flight plans can be created, bookmarked (stored), and reversed from the Flight Plan page. From the Flight Plan page, flight plans can be created by one of three means. First, touch within the **Enter Waypoint** field and use the keyboard to add waypoint identifiers separated by spaces. Second, touch the **Add Waypoint** Button in the flight plan list and use the keyboard to enter the waypoint identifier. Or, use the map to graphically create a flight plan.

The Flight Plan page allows for flight plans to be bookmarked or stored for later use.

Creating a Flight Plan:

1) From any page touch **Home** > **Flight Plan.**

2) Touch within the **Enter Waypoint** field to activate the cursor.

3) Use the keyboard to insert waypoints. Separate each waypoint with a space.

Or: Enter Lat/Lon information in one of the following formats:

Lat/Lon	Lat/Lon
####N/#####W	N##.#/W##.#
N####/W#####	##.#/-##.#
####/-#####	##.#N/0##.#W
##.#N/##.#W	##.#/-0##.#
N##.#/W0##.#	
Spaces are not allowed, slash (/) is required. Any Latitude format can be combined with any longitude format in the same string.	

Lat/Lon Formats

Or: Enter Radial/Distance waypoint in one of the following formats:

Radial/Distance	Descriptions
MSP/190/035 or MSP/190/35	Identifier/Radial/Distance
MSP190035	IdentifierRadialDistance
Spaces are not allowed, when slashes (/) are used the leading zero can be left off the radial and/or distance.	

Radial/Distance Formats

Or: Enter a waypoint at the intersection of two VOR radials in the following format :

VOR/Radial	Descriptions
OKB100MZB020	VORRadialVORRadial

Radial Intercept Waypoint

Or:

1) Touch **Add Waypoint** Button.

2) Use the keyboard to input the waypoint identifier.

3) Touch the **Add Waypoint** Button to add additional waypoints.

Or:

1) Use one of the above methods to enter a departure point.

2) In the Map View area long-press any location or flight plan leg, to display the rubber-band, drag the rubber-band to the desired map location.
3) Once the rubber-band is on or near the desired location release the rubber-band. A list of nearby waypoints is displayed.
4) Select the desired waypoint from the list. Or create a User Waypoint.
5) Repeat steps 2-4 to add additional waypoints.

ACTIONS MENU

The Flight Plan Page contains a waypoint-sensitive Actions Menu. The waypoint sensitive Actions Menu provides waypoint-sensitive actions, for example if the selected waypoint is the departure point, the Actions Menu will include an **Add/Remove Departure** action item. If the selected point is the final destination, the Actions Menu will include an **Add/Remove Arrival** action item. Or, if the selected waypoint is a valid Airway entry point, the Actions Menu will include a **Load Airway** action item. The Actions Menu also has Action Items for adding, removing, or changing flight plan waypoints.

Action	Description
Insert Before	Adds a new line item above the selected waypoint. Places the cursor in the empty line and opens the keyboard for waypoint identifier entry.
Insert After	Adds a new line item below the selected waypoint. Places the cursor in the empty line and opens the keyboard for waypoint identifier entry.
Remove Waypoint	Removes selected waypoint from the Active Flight Plan.
Edit Waypoint	Places the cursor in the selected Flight Plan waypoint. Using the keyboard change the waypoint identifier as desired.
Direct To	Opens the Direct To... dialog box.
Add Departure	Opens the Departure submenu, listing available Departures. Select the desired Departure to open the submenu of available transitions.
Clear Flight Plan	Removes all Flight Plan waypoints.

Action	Description
Expand	Expands Departure, Arrival, or Airways.
Change Departure	Only available when the selected item is a Departure or the Departure point. Allows the Departure and/or Departure transition to be changed.
Remove Departure	Only available when the selected item is a Departure or the Departure point. Removes Departure from Active Flight Plan.
Collapse	Collapses Departure, Arrival, or Airways.
Load Airway	Only available if the selected item is valid airway entry point. Opens submenu of available Airways. Once an Airway is selected the Select Exit submenu displays a list of available exit waypoints that can be ordered by distance or alphabetically.
Remove Airway	Removes Airway and all associated waypoints.
Select Airway Entry	Opens the Select Entry submenu with a list of entry points. The submenu can be ordered by distance or alphabetically.
Select Airway Exit	Opens the Select Exit submenu with a list of Airway exit points. The submenu can be ordered by distance or alphabetically.
Change Arrival	Opens the Edit STAR submenu with a list of available STARs. Select the desired STAR to open the submenu of available transitions.
Remove Arrival	Removes STAR and all associated waypoints.
Add Arrival	Opens the STAR submenu, listing available STARs. Select the desired STAR to open the submenu of available transitions.
Select Runway	Opens the Runway submenu. Select the desired Runway.
Activate Leg	Activates the selected leg for navigation.

Action Menu Options

Adding a Departure to a Flight Plan:

1) From any page touch **Home** > **Flight Plan.**

2) Touch the departure point in the Flight Plan to open the Actions Menu.

Or: Use the keyboard to enter runway, departure and transition in the following format: RW##.XXXXX(departure name).XXXXX(transition waypoint).

3) From the Actions Menu, touch **Add Departure**.

4) Touch the desired Departure.

5) Touch the desired transition. The Departure, transition and associated waypoints are added to the flight plan.

Adding an Arrival to a Flight Plan:

1) From any page touch **Home** > **Flight Plan.**

2) Touch the destination in the Flight Plan to open the Actions Menu.

Or: Use the keyboard to enter transition, arrival name and runway in the following format: XXXXX(transition waypoint).XXXXX(arrival name).RW##.

3) From the Actions Menu, touch **Add Arrival**.

4) Touch the desired Arrival.

5) Touch the desired transition. The Arrival, transition, and associated waypoints are added to the flight plan as a single entry that can be expanded to view all waypoints. Once an Arrival has been added to a flight plan, no more waypoints can be added.

Adding an Airway to a Flight Plan:

1) From any page touch **Home** > **Flight Plan.**

2) Touch a waypoint in the Flight Plan to open the Actions Menu.

3) If the waypoint is a valid Airway entry point, touch **Load Airway** in the Actions Menu. Only valid Airway entry points will have the **Load Airway** action in the Actions Menu.

4) Touch the desired Airway.

5) Touch the desired Airway exit point from the list. All Airway waypoints from selected entry point to selected exit point will be added to the flight plan list as one entry that can be expanded to show all waypoints.

Expanding/Collapsing Depatures, Arrivals, or Airways in the Flight Plan:

1) From any page touch **Home** > **Flight Plan.**
2) Touch  to expand.
3) Touch  to collapse any of the expanded fields.

Storing a Flight Plan:

1) From any page touch **Home** > **Flight Plan**.
2) Touch  to store the Flight Plan. The Flight Plan and all associated waypoints including waypoints associated with Departures, Arrivals and Airways are saved.

Deleting Stored Flight Plans:

1) From any page touch **Home** > **Flight Plan** >  .
2) From the Stored Flight Plan list, touch **Edit**.
3) Touch  > **Delete** to delete the selected Flight Plan.

Or

1) Swipe left or right over the flight plan title.
2) Touch **Delete** to delete the flight plan.

NOTE: *Flight Plans deleted from the Stored Flight Plans list will also be deleted from fly.Garmin.com when the next sync is performed. If flight plans are deleted on fly.Garmin.com they will NOT automatically be deleted from Garmin Pilot on the next sync.*

Reversing the Flight Plan:

1) From any page touch **Home** > **Flight Plan.**
2) Touch  to reverse the Flight Plan.

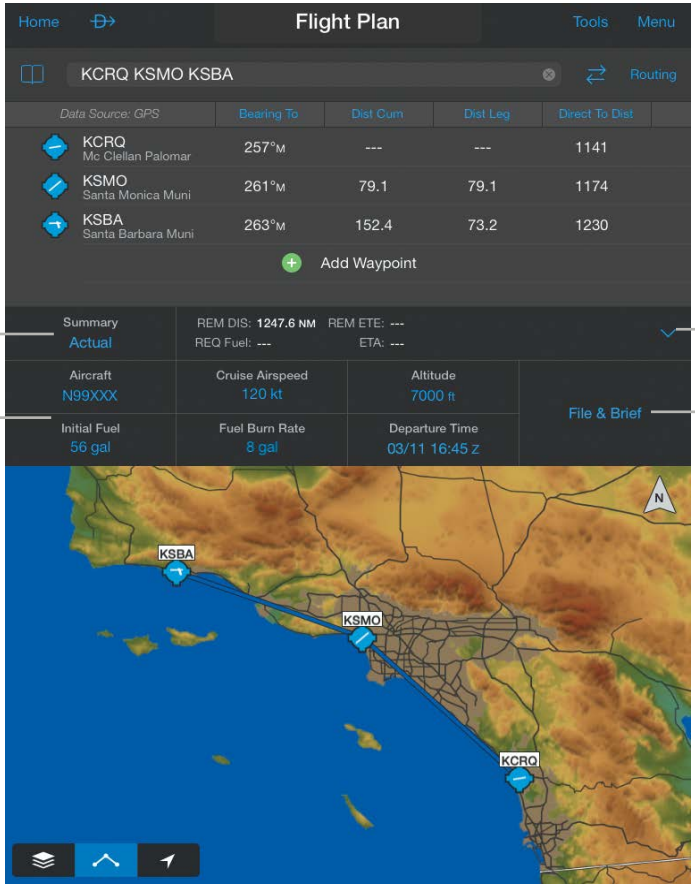
NOTE: *When a Flight Plan is reversed, Departures or Arrival procedures associated with the original Flight Plan are removed. If a Departure/Arrival is desired in the reversed Flight Plan, they will need to be added as described above. Airways are copied and reversed.*

PLANNED/ACTUAL FLIGHT PLAN SUMMARY

The Flight Plan Summary is located below the flight plan on the Flight Plan Page. Touch the **Summary** Field to switch between **Actual** and **Planned**. Touch the **Aircraft**, **Cruise Airspeed**, **Altitude**, **Initial Fuel**, **Fuel Burn Rate**, or **Departure Time Fields** to edit them. Touch **File & Brief** to access the Trip Planning Page.

Expanding/Collapsing the Flight Plan Summary:

1) From any page touch **Home** > **Flight Plan.**
2) Touch ⓘ to expand the Flight Plan Summary information.
3) Touch ⌄ to collapse any of the expanded fields.



Flight Plan Summary

D2™ PILOT FLIGHT PLAN SHARING

Garmin Pilot can share Flight Plans with the Garmin D2™ Pilot Watch via a Bluetooth connection. When the Garmin D2™ Pilot Watch is in 'Share Mode' it will automatically pair with your iOS device.

NOTE: *D2 route sharing is only available with iOS devices that support Bluetooth 4.0 +* ***(i.e., iPhone 4S, iPod Touch 5 and iPad 3 and newer).***

Sharing the Flight Plans:

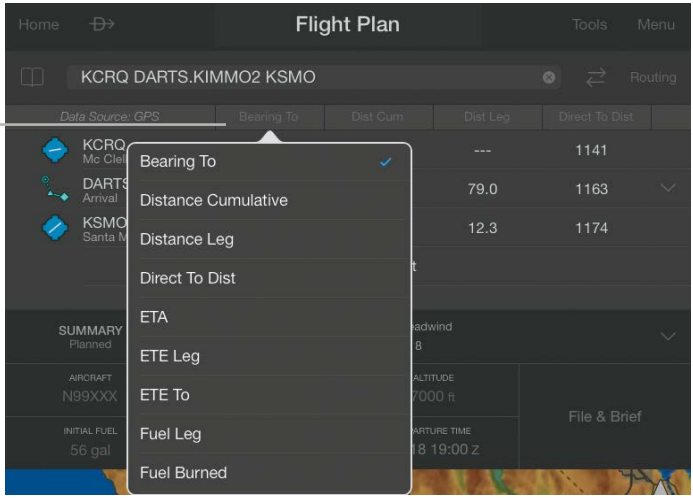
From any page touch **Home** > **Flight Plan** > **Menu** > **Send to D2 Watch.** Ensure the D2™ Pilot Watch is in 'Share Mode' to receive flight plan data.

WAYPOINT LIST

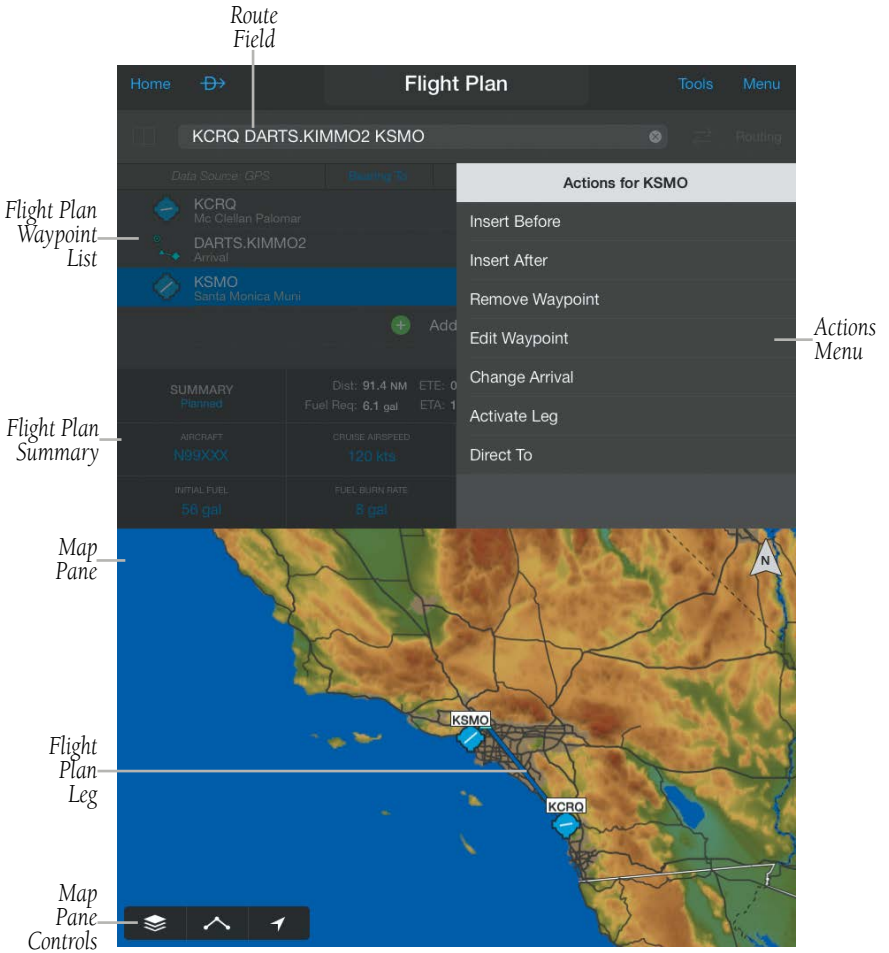
The Flight Plan list includes two or four configurable columns. Touch the column header to view the column options.

Waypoint List Column Options:

- Bearing To
- Distance Cumulative (Dist Cum)
- Distance Leg (Dist Leg)
- Direct To Distance (Direct To Dist)
- ETA
- ETE Leg
- ETE To
- Fuel Leg
- Fuel Burned
- Fuel Remaining (Fuel Rem)
- Magnectic Course (Mag Crs)
- True Course (True Crs)



Waypoint List



Flight Plan Page

AIRPORT INFORMATION

Airport information is a downloadable product available free with your Garmin Pilot subscription. Because Garmin Pilot will not automatically remove outdated charts, it is important to always ensure the latest Data Cycle has been downloaded prior to

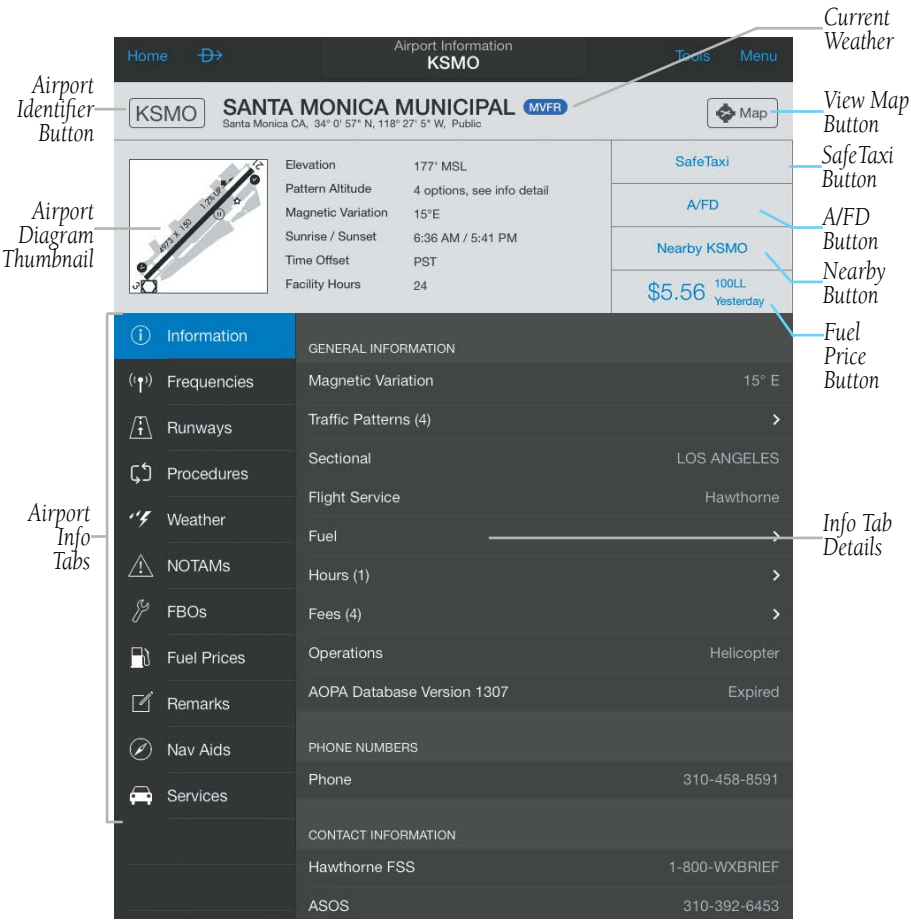
planning a flight. The cycle number and date range for every downloadable product is displayed on the Downloads Page.

Finding airport information is easy with Garmin Pilot. The Home Button located at the top of the map page contains the Airport Info icon. Touching the icon will present the Airport Information page with the last-found airport shown.

The Airport Information Page is divided into three sections. The top of the page under the control bar is called the summary window. The left margin below the summary window contains eleven selectable tabs for changing the data displayed in the third section, located in the lower right two-thirds of the display. The summary window contains the basic information for the selected airport such as; elevation, pattern altitude, magnetic variation, sunrise/sunset times, time offset, fuel prices and a button to view nearby airports.

Tab	Description
Information	Traffic pattern altitudes, magnetic variation, Sectional information, Flight Service, Fuel information, hours of operation, types of operations, and pertinent phone numbers.
Frequencies	Communication and navigation radio frequencies.
Runways	Runway numbers, dimensions, composition, and conditions.
Procedures	List of applicable procedures available for the current airport.
Weather	Current weather conditions including: METAR, TAF, Winds Aloft, and Area Forecast.
NOTAMs	Current NOTAMs.
FBOs	Fixed base operations, contact information and services available.
Fuel Prices	Fuel prices on field, fuel prices organized by nearest airports, lowest 100LL and lowest Jet fuel, detailed FBO contact information, services, and credit cards accepted. Fuel Prices are provided by AirNav.
Remarks	Obstructions, Noise abatement information, notes, FAA remarks.
Nav Aids	Nearest navigation aids, frequencies, distances, and radials.
Services	Nearby lodging, car rental, transportation, and dining information.

Airport Information Tabs



Airport Information Page

Within the Airport Summary window is an expandable thumbnail image of the airport diagram. Momentarily touching the airport diagram thumbnail will expand the image to a more legible size. Touch anywhere outside of the expanded airport diagram image to remove the airport diagram from the display. More detailed information, including a full-size airport diagram as well as other charts, are available under the tabs located on the left side of the display.

From the Airport Information Page, there are multiple ways to search for airport information. The two primary methods of accessing airport search functionality are by touching either the airport identifier or the Menu Button. Touching the airport identifier, on the left side of the airport title bar opens the airport search tool. Touching the Menu Button, in the upper right corner of the display reveals several more search options, including a basic search (same as touching the airport identifier), search for airports near your current location, or airports near the currently selected airport. While on the Airport Info page, the Menu Button also offers quick access to the information pages for the departure and destination airports in the active flight plan.

Searching for an Airport:

1) From any page touch **Home > Airport Info**.

2) Touch the Airport Identifier Button in the Summary Window.

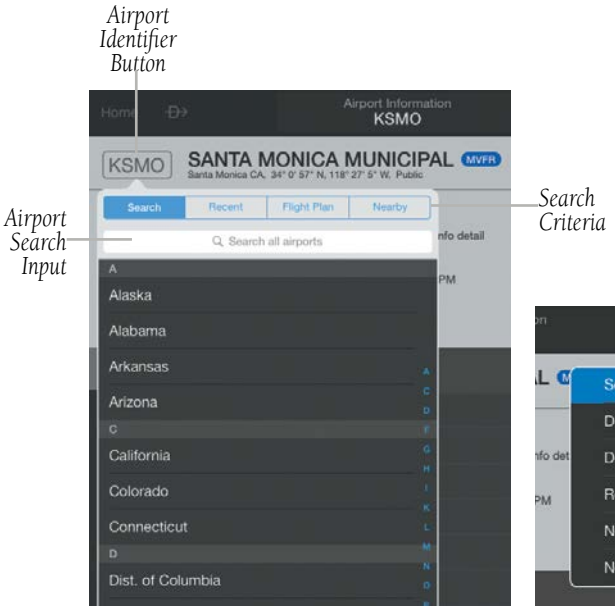
Or: Touch **Menu** > **Search**.

3) At the top of the Airport search dialog box, select a search criteria.

Search Criteria	Description
Search	Search Airport Information by State or use the keyboard to input the identifier, or city in the search window. This creates a list of matching airports from which to select.
Recent	Opens a list of recently viewed airports. Select desired airport from the list.
Flight Plan	Opens a list airports used to define the Active Flight Plan. Departure, Destination and any other airports used as waypoints along the route of flight.
Nearby	Opens a list of Nearby airports. Select desired airport from the list.

Airport Search Options

4) Select the Airport from the list.



Airport Identifier Search **Airport Info Page Menu**

Accessing Airport Information:

1) From any page touch **Home > Airport Info**.

2) Touch **Menu**.

3) Select one of the quick access options. (Departure: XXXX, Destination: XXXX, Recent Airports, Nearby XXXX, or Nearby Me).

Or: Touch **Nearby** to view airports near current location or near selected airport. Filter airport list by **Public** or **All**.

Viewing the Airport on the Map:

1) From any page touch **Home > Airport Info**.

2) Touch Map to go to the airport on the Map/Chart.

Viewing Fuel Prices by type:

1) From any page touch **Home > Airport Info**.

2) Touch $5.56 100LL 2 days ago to cycle through each type of fuel (100LL, Jet, or Mogas). If the selected fuel type is not available at this location, or if no data is available for this location, price is displayed as dashes. The age of the data is shown just below the fuel type.

Or Touch the Fuel Prices tab to view fuel price. Sort fuel prices by **Nearest Airports** or **Lowest Price**.

AIRPORT/FACILITY DIRECTORY (A/FD)

Garmin Pilot includes an electronic version of the Airport/Facility Directory (A/FD) a publication of the National Aeronautical Navigation Products (AeroNav). There are nine regional directories containing public-use airports, seaplane bases, heliports, military facilities and selected private use facilities. From the Airport Information Page, touch the **A/FD** Button to view the selected airport details. Touch the **General** Button to view; publication details, Abbreviation and Directory Legend. Touch the **Supplemental** Button to view; City/Military Airport Cross Reference, Seaplane Landing Areas, Special Notices, Regulatory Notices, FAA and NWS, Air Route Traffic Control Centers, Flight Service Station Communication Frequencies, FSDO, Routes, VFR Waypoints, VOR Receiver Check, Parachute Jumping Areas, Aeronautical Chart Bulletin, Supplemental Communication Reference, and Airports Diagrams.

Prior to flight, ensure the desired region(s) has been downloaded from the Downloads Page. Airport/Facility Directory Pages can be annotated similar to Charts

Viewing A/FD:

1) From any page touch **Home > Airport Info**.

2) Touch **A/FD** to view the A/FD.

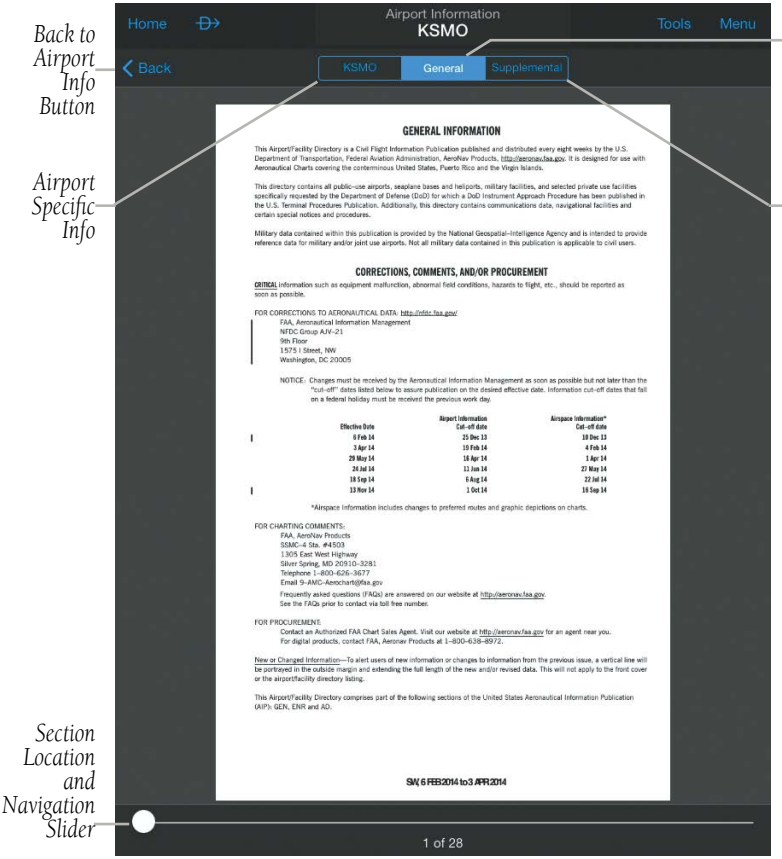
3) Touch **KXXX** button to view airport specific information

Or:

Touch **General,** to view the A/FD General section**.**

Or:

Touch **Supplemental**, to view the A/FD Regional Supplement.



Airport Information Page

Annotating A/FD:

1) From any page touch **Home** > **Airport Info**.
2) Touch **A/FD** to view the A/FD.
3) Touch **KXXX**, **General**, or **Supplemental**, to navigate to the desired section.
4) Touch **Menu** > **Annotate A/FD**.

Or: Long Press on the page

5) Touch  to display the Tool Palette.
6) Touch the desired tool (Draw, Highlight, or Erase)
7) Touch the desired color and stroke.
8) Annotate as desired
9) Touch **Clear** > **Clear Annotations** to clear annotations.
10) Touch **Close** to close and save annotations.

Viewing and Organizing Procedures:

NOTE: *Terminal procedures (i.e. SIDs, STARs, instrument approach procedures, airport diagrams, Hot Spots, and Take-off Minimums) are available for selection from the Airport Information page. A data connection (i.e., Wi-Fi or cellular) is required in order to download charts and to keep them up-to-date.*

1) From any page touch **Home > Airport Info**.
2) Touch the Procedures Tab. All available charts and procedures are shown including; (Airport Info, Approach Procedures, Arrival Procedures, and Departures). Chart titles proceeded by  will need to be downloaded. Charts proceeded by  have already been downloaded to the device.
3) Touch the desired chart to view.
4) Touch **< Airport Info** to return to the Airport Info Page.
5) Touch  to create a Chart Binder or add to an existing binder.
6) Enter a Binder name.
7) Touch  for each additional chart to add to a binder.

Viewing Services:

1) From any page touch **Home > Airport Info**.
2) Touch the **Services** Tab. Select from the available options including; Car Rental Companies, Hotels/Motels, Restaurants Nearby, and Taxi Service Companies.
3) Touch < **Services** to return to the Services Tab to view other options.

WEATHER DATA AND IMAGERY

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

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

Weather is presented in Widgets (as text), map overlays, preflight weather briefings, or with National Weather Service static aviation weather maps. To receive up to date weather information, the device must have access to a wireless network (Wi-Fi or cellular) or a GDL 39.

RADAR

Weather radar data is collected from radar sites across the United States, Canada, and select overseas locations. It is combined into a mosaic for easier display and analysis.

The radar data displayed is not real-time. The lapsed time between collection, processing, and dissemination of radar images can be significant and may not reflect the current radar synopsis. Due to the inherent delays and the relative age of the data, it should be used for long-range planning purposes only. Never use radar data to penetrate hazardous weather. Rather, use it in an early-warning capacity for pre-departure evaluation.

Composite data from radar sites in the United States is shown. This data is composed of the maximum reflectivity from the individual radar sweeps at different tilt angles of the radar beam with respect to the ground. The display of the information is color-coded to indicate the weather severity level. Colors are used to identify the different echo intensities (reflectivity) measured in dBZ (decibels or Z). "Reflectivity" (designated by the letter Z) is the amount of transmitted power returned to the radar receiver. The dBZ values increase as returned signal strength increases. Precipitation intensity is displayed using colors corresponding to the dBZ values.

RADAR ABNORMALITIES

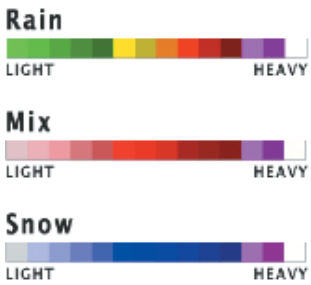
There are possible abnormalities regarding displayed radar images. Some, but not all, of those include:

- Ground clutter
- Strobes and spurious radar data
- Sun strobes (when the radar antenna points directly at the sun)
- Military aircraft deploy metallic dust (chaff) which can cause alterations in radar scans
- Interference from buildings or mountains, which may cause shadows

RADAR LIMITATIONS

Certain limitations exist regarding radar displays. Some, but not all, are listed for the user's awareness:

- Surface precipitation type is estimated with shades of blue for snow and shades of pink for indeterminate types. The actual precipitation type aloft could vary.
- Radar base reflectivity is sampled at the minimum antenna elevation angle. An individual radar site cannot depict high altitude storms at close ranges, and has no information about storms directly over the site.
- Radar coverage in Canada is only available in the southern 1/4 of the country.



Radar Intensity

Viewing Radar Information:

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > **Radar**.
3) Touch  to animate the radar loop. Each frame of the radar loop is time stamped. The time stamp is just right of the play button.

Or:

NOTE: *Weather Imagery (WX Imagery) maps can be pinch zoomed for a closer look.*

1) From any page touch **Home** > **WX Imagery**.
2) Select **Radar** from the list.
3) Select the icon for the desired coverage area to display the National Weather Service static aviation weather map. Radar imagery is available for the Continental US, Alaska, Hawaii and Mexico

Or:

1) From any page touch **Home** > **Trip Planning**.
2) Touch the **Brief** Tab.
3) Touch **Refresh** if necessary to update the weather information.
4) Touch  to expand Radar Summaries, to view the applicable textual radar information for the route of flight.

INFRARED SATELLITE (IR SAT)

IR Sat displays infrared composite satellite images of cloud cover taken by geostationary weather satellites.

Viewing Infrared Satellite Information:

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > **IR Sat**.
3) Touch  to animate the satellite loop. Each frame of the satellite loop is time stamped. The time stamp is just right of the play button.

Or:

NOTE: *Weather Imagery (WX Imagery) maps can be pinch zoomed for a closer look.*

1) From any page touch **Home** > **WX Imagery**.
2) Select **IR Satellite** from the list.
3) Select the icon for the desired coverage area to display the National Weather Service static aviation weather map. Worldwide IR Satellite weather imagery is available.

Viewing Visible Satellite Information (Vis Sat):

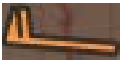
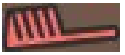
1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > **Vis Sat**.
3) Touch  to animate the satellite loop. Each frame of the satellite loop is time stamped. The time stamp is just right of the play button.

WINDS ALOFT

Winds Aloft data shows the forecasted wind speed and direction at the surface and at selected altitudes. Altitudes can be displayed in 3,000-foot increments up to 42,000 feet MSL.

Winds Aloft are displayed using wind barbs. The wind barbs indicate wind speed and direction. The wind speed is depicted using flags at the end of the wind barb. A short wind flag is 5 knots, a long wind flag is 10 knots, and a filled triangle is 50 knots. Wind barbs are also color coded to indicate wind speed. The flagged end indicates the direction from which the wind is coming.

Icons	Description
	White indicates wind speeds of 20 kts or less.
	Light blue indicates wind speeds of 21-30 kts.
	Light yellow indicates wind speeds of 31-40 kts.
	Yellow indicates wind speeds of 41-50 kts.

Icons	Description
	Orange indicates wind speeds of 51-80 kts.
	Red indicates wind speeds of 81 kts or greater.

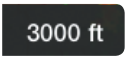
Winds Aloft Barbs

Viewing Winds Aloft Information:

1) From any page touch **Home** > **Map**.

2) Touch  > **Overlays** > **Winds Aloft**.

3) Touch the Winds Aloft Time and use the slider to view current and forecast winds aloft.

4) Touch  and use the slider to select the desired altitude. Altitudes are displayed in 3,000-foot increments up to 42,000 feet MSL.

Or:

NOTE: *Weather Imagery (WX Imagery) maps can be pinch zoomed for a closer look.*

1) From any page touch **Home** > **WX Imagery**.

2) Select **Winds Aloft** from the list.

3) Select the icon for the desired coverage area to display the National Weather Service static aviation weather map. Winds Aloft maps are available for the Continental US from 00hr, up to 84hr forecast. Altitudes are available from the surface to 48,000 feet in 3,000-foot increments.

Or:

1) From any page touch **Home** > **Airport Info**.

2) Select the **Weather** Tab to view METAR, TAF, and Winds Aloft for the selected airport.

Or:

1) From any page touch **Home** > **Trip Planning**.

2) Touch the **Brief** Tab.

3) Touch **Refresh** if necessary to update the weather information.

4) Touch to expand Winds Aloft, to view the winds for the route of flight.

LIGHTNING

Lightning data shows the approximate location of cloud-to-ground lightning strikes. A strike icon represents a strike that has occurred within a two-kilometer region. The exact location of the lightning strike is not displayed.

Viewing Lightning Information:

1) From any page touch **Home** > **Map**.

2) Touch > **Overlays** > **Lightning**.

3) Touch to animate the Lightning loop. Each frame of the Lightning loop is time stamped. The time stamp is just right of the play button. Lightning information is available in one minute increments for the previous 45 minutes.

METARS AND TAFS

METAR (METeorological Aerodrome Report) is an international code used for reporting weather observations. METARs are updated hourly or as needed. METARs typically contain information about the temperature, dew point, wind, precipitation, cloud cover, cloud heights, visibility, and barometric pressure. They can also contain information on precipitation amounts, lightning, and other critical data.

TAF (Terminal Area Forecast) is the standard format for 24-hour or 30-hour forecasts. TAFs may contain some of the same code as METAR data. It typically forecasts significant weather changes, temporary changes, probable changes, and expected changes in weather conditions.

METAR and TAF data are displayed as raw and/or decoded text.

Viewing METAR and TAF Information:

1) From any page touch **Home** > **Airport Info**.
2) Select the **Weather** Tab to view METAR, TAF, and Winds Aloft for the selected airport.

Or:

1) Create a Widget for METAR or TAF information on the Map Page. From any page touch **Home** > **Map**.

2) Touch **Menu** > **Split Screen** > **Widgets**.

3) Touch **Add Widget** Select METAR or TAF from the list of available Widgets. METAR or TAF information for the Departure Airports is displayed. To view METAR or TAF information along the route of flight drag the NavTrack. Colored push-pins show the location for the corresponding METAR or TAF report.

Or:

1) From any page touch **Home** > **Trip Planning**.

2) Touch the **Brief** Tab.

3) Touch **Refresh** if necessary to update the weather information.

4) Touch  to expand METARs or Terminal Forecasts, to view the applicable METAR and TAF information for the route of flight

AIRMETS

An AIRMET (AIRmen's METeorological Information) can be especially helpful for pilots of light aircraft that have limited flight capability or instrumentation. An AIRMET must affect or be forecast to affect an area of at least 3,000 square miles at any one time. AIRMETs are routinely issued for six-hour periods and are amended as necessary due to changing weather conditions. AIRMETs are displayed as green (IFR/mountain obscuration), orange (turbulence), or blue (icing) shaded areas on the map display.

SIGMETS

A SIGMET (SIGnificant METeorological Information) advises of weather that is potentially hazardous to all aircraft. In the contiguous United States, the following items are covered: severe icing, severe or extreme turbulence, volcanic ash (red), dust storms, and sandstorms that lower visibility to less than three statute miles.

A Convective SIGMET is issued for thunderstorms, isolated severe thunderstorms, embedded thunderstorms, hail at the surface, and tornadoes.

A SIGMET is widespread and must affect or be forecast to affect an area of at least 3,000 square miles.

Viewing AIRMETS and SIGMETS:

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > **AIR/SIGMETs**.
3) Touch Map Overlay Control Button and select the desired type of AIRMET/SIGMET (i.e., Convective, Icing, IFR/MTN, or Turbulence) to display.
4) Touch within the shaded area of an AIRMET/SIGMET to view the radial menu.
5) Touch **AIR SIG** in the Radial Menu, and select the desired AIRMET/SIGMET for details.
6) Touch Results > Back to return to the Radial Menu.

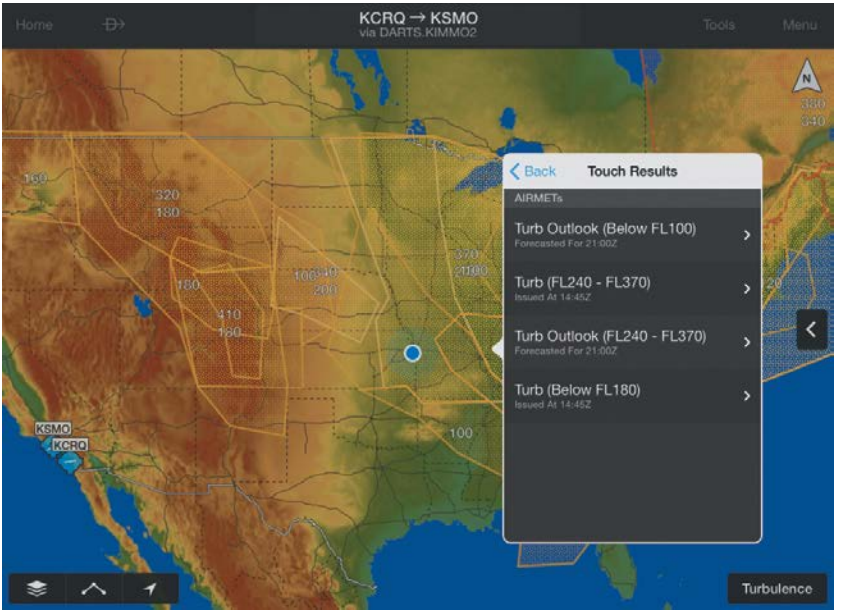
Or:

NOTE: *Weather Imagery (WX Imagery) maps can be pinch zoomed for a closer look.*

1) From any page touch **Home** > **WX Imagery**.
2) Select **AIRMET/SIGMET** from the list.
3) Select the icon for the desired weather map.

Or:

1) From any page touch **Home** > **Trip Planning**.
2) Touch the **Brief** Tab.
3) Touch **Refresh** if necessary to update the weather information.
4) Touch  to expand 'SIGMETs' or 'AIRMETs', to view the applicable AIRMETs and SIGMETs along the route of flight.



AIRMET/SIGMET Overlay

TEMPORARY FLIGHT RESTRICTIONS (TFRS)

Temporary Flight Restrictions or TFRs temporarily restrict all aircraft from entering the selected airspace unless a waiver has been issued. TFRs are routinely issued for occurrences such as sporting events, dignitary visits, military depots and forest fires. TFRs are represented as an area outlined in dark blue (stadiums), Yellow (future TFR, that are not yet in effect), or Red (dignitary visits, Hazards including forest fires, and National Security areas).

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 of Air Traffic Control.

Viewing Temporary Flight Restrictions (TFR):

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > **TFRs**.
3) Touch within the shaded area of a TFR to view the radial menu.
4) Touch **TFR** in the Radial Menu, and select the desired TFR for details.
5) Touch Results > Back to return to the Radial Menu.

Or:

1) From any page touch **Home** > **Trip Planning**.
2) Touch the **Brief** Tab.
3) Touch **Refresh** if necessary to update the weather information.
4) Touch to expand 'NOTAMs', to view the applicable NOTAMs for the route of flight including any applicable TFRs.

Displaying Stadium Temporary Flight Restrictions (TFR):

1) From any page touch **Home** > **Map**.
2) Touch  > **General**.
3) Use the slider to select Display Stadium TFRs On/Off.

PIREPS

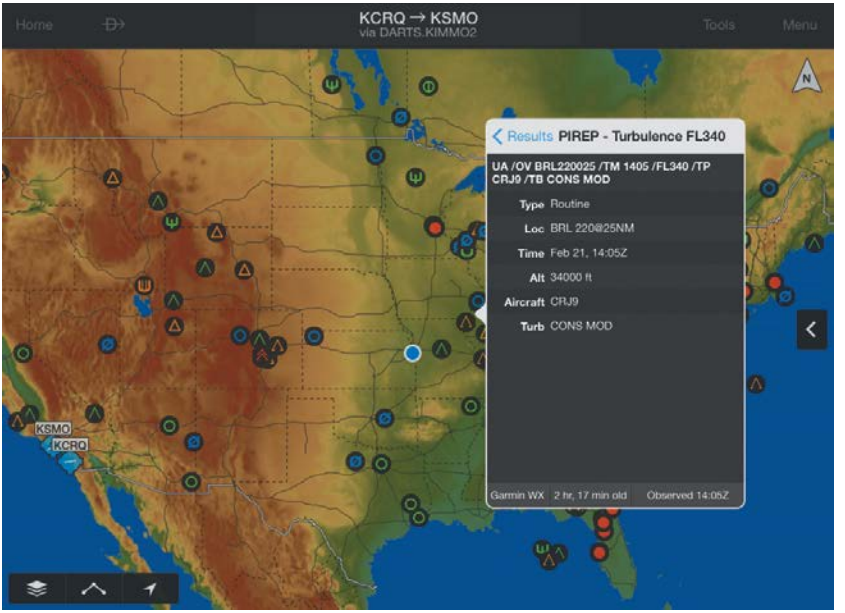
Pilot Weather Reports (PIREPs) provide timely weather information for a particular route of flight. When significant weather conditions are reported or forecast, Air Traffic Control (ATC) facilities are required to solicit PIREPs. A PIREP may contain unforecast adverse weather conditions, such as low in-flight visibility, icing conditions, wind shear, and turbulence. PIREPs are issued as either Routine (UA) or Urgent (UUA).

Viewing PIREPs:

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > **PIREPs**.
3) Touch the **PIREP** icon to display the Radial Menu.
4) Touch the **PIREP** icon in the Radial Menu, and select the desired PIREP for details.
5) Touch Results > Back to return to the Radial Menu.

Or:

1) From any page touch **Home** > **Trip Planning**.
2) Touch the **Brief** Tab.
3) Touch **Refresh** if necessary to update the weather information.
4) Touch to expand 'PIREPs', to view the applicable PIREPs for the route of flight.



PIREP Overlay Symbols

PIREP TYPE	Icons	Description
Icing		Negligible Icing
		Trace Icing
		Trace to Light Icing
		Light Icing
		Light to Moderate Icing
		Moderate Icing
		Moderate to Severe Icing
		Severe Icing
Sky Conditions		Unknown Sky Condition
		Sky Clear
		Few Clouds
		Scattered Clouds
		Broken Clouds
		Overcast
		IMC
Turbulence		Turbulence Negligible or Smooth
		Light Turbulence
		Light to Moderate Turbulence
		Moderate Turbulence
		Moderate to Severe Turbulence
		Severe Turbulence
		Extreme Turbulence

PIREP Icons

WEATHER OVERLAY

The Weather Overlay provides weather icons that graphically display one of 14 parameters typically reported in a METAR. Each icon can be touched to display the current METAR data in both raw and translated formats. Color coded icons provide a quick visual representation of the current weather conditions. Flight Condition Colors come in two options; **Standard** 

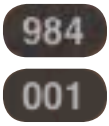
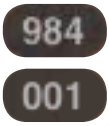
or **Alternate** 

. The color coding applies to Station ID, Flight Conditions, Cloud Ceiling, Visibility, and Cloud Cover.

Wind barbs and wind speed icons are slightly different where green is used to indicate winds of less than 10 kts, yellow is for winds greater than 10 kts and red is used for winds greater than 20 kts. Colored icons are also used to show dew point spread where the spreads for five degrees or greater are green, spreads of three or four degrees are yellow and spreads of two degrees or less are red.

Viewing and Configuring the Weather Overlay:

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > **Weather**.
3) Touch the Overlay Control button.
4) Select the desired option from the flick-list.
5) Touch any of the displayed Weather Icons to view the Raw and translated METAR information.

Layer	Standard Icons	Alternate Icons	Description
Altimeter			Altimeter ("Hg) setting with the leading 2 or 3 omitted as well as the decimal. (e.g., 984 = 29.84 or 001 = 30.01)
Cloud Ceiling			Reported ceiling in hundreds of feet or 'Unl' if there is not a could layer that constitutes a ceiling.
Cloud Cover			Overcast
			Broken
			Scattered
			Few
			Clear
			Fog/Obscured
Dewpoint			Dew point °C
Dewpoint Spread			Dew point Spread °C

Layer	Standard Icons	Alternate Icons	Description
Flight Conditions			VFR
			VFR ceiling with MVFR visibility.
			MVFR ceiling with VFR visibility.
			IFR ceiling with VFR visibility.
			VFR ceiling with IFR visibility.
			LIFR ceiling with VFR visibility.
			VFR ceiling with LIFR visibility.
			MVFR
			MVFR ceiling with IFR visibility.
			IFR ceiling with MVFR visibility
			MVFR ceiling with LIFR visibility
			LIFR ceiling with MVFR visibility
			IFR
			LIFR ceiling with IFR visibility
			IFR ceiling with LIFR visibility
			LIFR
			Missing weather information. A split dot with brown indicates partial missing data.
Observation Age			Observation Age in minutes

Layer	Standard Icons	Alternate Icons	Description
Station ID			VFR conditions
			MVFR conditions
			IFR conditions
			LIFR conditions
Temperature			Temperature °C
Visibility			Reported Visibility in statute miles.
Wind Barbs			Wind barbs indicate wind speed and direction and always point in the direction that the wind is coming from. The wind speed is depicted using flags at the end of the wind barb. A short wind flag is 5 knots, a long wind flag is 10 knots, and a filled triangle is 50 knots. Wind Barbs are also color coded where green barbs indicate wind is 5-9 kts, yellow barbs are 10-19 kts and red is for winds of 20 kts or greater. When winds are calm an open green circle is used. Light and variable winds are indicated by an open green circle with a green 'V'.
Wind Gust			Reported wind gusts (kts).

Layer	Standard Icons	Alternate Icons	Description
Wind Speed			Reported steady wind speed (kts).
Wx Conditions			Dynamic black shaded box that displays two letter weather condition codes and qualifiers.

Weather Icons

NATIONAL WEATHER SERVICE (NWS) PRODUCTS

Garmin Pilot provides access to National Weather Service static aviation weather maps. National Weather Service Images are static maps displaying PIREPs, AIRMETs, SIGMETs, winds aloft, radar, IR satellite, METARs, TAFs, surface analysis, icing, turbulence forecasts, and thunderstorm forecasts.

Garmin Pilot also includes some international weather imagery. Radar imagery is available for some parts of Mexico. Icing, Turbulence Forecast and Thunderstorm Forecast imagery is available for some parts of Europe. METAR, TAF, and Surface Analysis information is available for Canada.

All available weather images are displayed on the main WX Imagery page but can be sorted for quick access by selecting from the 'View by Hazard', 'View by Region', or 'View by Product Type' options.

Viewing NWS Weather Products by Hazard:

1) From any page touch **Home** > **WX Imagery**.
2) Select the desired hazard type from the list.
3) Select the icon for the desired weather map.

Viewing NWS Weather Products by Region:

1) From any page touch **Home** > **WX Imagery**.
2) Select the desired region **USA** or **International**.
3) Select the desired subregion.
4) If necessary select the desired product type.
5) Select the icon for the desired weather map.

Viewing NWS Weather Products by Type:

1) From any page touch **Home** > **WX Imagery**.
2) Select the desired product from the product type list.
3) If necessary select the desired subregion.
4) Select the icon for the desired weather map.

WX Imagery Page

WEATHER WIDGETS

Weather Widgets are viewable in the lower portion of the Map Page by using the menu option to split the screen. Information to populate Widgets requires a data connection. Controls located at the upper left and right corners of each Widget open flick-lists that allow you to select the Widget Type and to choose an airport to which the Widget is applicable.

The NavTrack located at the bottom of the display enables you to dynamically change the Widget location to view information related to points on or near the active flight plan. Touch-dragging the slider at the bottom of the widgets pane moves a light blue diamond (or a magenta airplane symbol when in-flight) along the route of flight. As the symbol approaches points along the active flight plan that provide weather, those points are associated with the Widget or selectable from the Widget location flick-list indicated by an inverted white triangle adjacent to the airport identifier in the upper right corner of the Widget. Colored push-pins correspond to matching colored dots to the left of the airport identifier in the upper right corner of the Widget indicating the location of the information.

There are six weather, and four navigation information products available for selection from the Widget Type flick-list. The weather products available to be displayed as widgets are METAR, TAF, PIREPs, winds and temperatures aloft, area forecast, and AIRMET/SIGMETs. The four navigation information products are airports, NOTAMs, airspace, and navigation data fields.

Only two (portrait) or one (landscape) widget(s) may be viewed at a time, but multiple widgets may be configured. Sliding a finger left or right over the widgets will bring more widgets or the 'Add Widget' tool into view. The source, product age and relative location will be displayed at the bottom of each widget.

Adding a Weather Widget:

1) From any page touch **Home** > **Map**.
2) Touch **Menu** > **Split Screen** > **Widgets**.
3) Drag the Widgets from right to left to bring the **Add Widget** icon into view.
4) Touch **Add Widget**.
5) Select a widget from the list.

Changing a Widget Type:

1) Touch the widget type as displayed in the upper left corner of the widget.

2) Select the desired widget type from the list.

Removing a Weather Widget:

1) Touch the widget type as displayed in the upper left corner of the widget.

2) Scroll to the bottom of the flick list.

3) Select **Delete Widget** from the bottom of the list.

Weather Widgets

WIDGET NAVTRACK

At the bottom of the widget pane is the NavTrack. Touch-dragging the slider moves a light blue diamond (or a magenta airplane symbol when in-flight) along the route of flight. Colored push-pins appear on the map to indicate locations near the airplane symbol that provide information corresponding to selected widgets. In some cases, there may be more than one location near the airplane symbol that provides information corresponding to a widget. To view weather information for nearby locations, it may be necessary to touch the inverted white triangle next to the widget location. This will open a flick-list of nearby widget information sources.

Changing the Location Associated with a Weather Widget:

1) Drag the NavTrack at the bottom of the widget pane until the diamond symbol corresponds with a colored push-pin on the map display that is near a desired location.

2) If the push-pin does not correspond to the desired location, touch the location indicator at the top right corner of the widget to search for nearby locations.

3) Select the desired location from the 'Nearby' flick-list.

FILE

With Garmin Pilot, users can easily enter a flight plan and interactively edit it on the map. Pre-loaded forms makes it quick to save and reuse data for frequently flown flight plans. And when the flight plan is ready, Garmin Pilot make it simple to file, amend or close the flight plan via DTC DUAT or CSC DUATS. Electronic confirmations from DUATS meet FAA legal briefing requirements.

TRIP PLANNING

NOTE: *A data connection (i.e., Wi-Fi or cellular) is required to receive preflight weather briefings, file, amend, cancel or close flight plans from Garmin Pilot.*

The Trip Planning Page manages all of the trip planning details for each trip. New trips created and activated on the Trip Planning Page, become the active flight plan. Flight plans created on the Flight Plan Page do not become the active trip. The Flight Plan must be imported to become the active trip. Trips created on the Trip Planning Page will default to a Direct To route from departure to destination. Add additional waypoints in the route field by entering fixes, Nav Aids, airway, departures, arrivals, airports or touch **Routing** to view a list of ATC preferred routing. ATC preferred routing is sorted by Altitude, Aircraft, Date, or Popular.

Complete the trip plan by entering pilot information, aircraft information, departure/arrival times, altitude, airspeed, etc.. Some of the data will be auto-filled based on data from your Garmin Pilot account. Once all mandatory fields have been completed, Garmin Pilot creates a trip summary. If Garmin Pilot has been linked to a DUATS service provider, Garmin Pilot will retrieve a DUATS Standard Weather Briefing for the route of flight for the Estimate Time of Departure (ETD). Since Garmin Pilot is connected to a DUATS account, flight plans can also be filed, amended, canceled or closed within Garmin Pilot.

Trips can be cloned and/or deleted on the Trip Planning Page. Cloning a trip copies the current trip. Any changes made after the clone is created are not copied. Trips can also be deleted by swiping left or right on the trip title in the Trips List. The selected trip (highlighted in blue) can not be deleted. Cloned trips are saved to the Trips List.

All trip data is cloned including pilot information, aircraft information, route of flight and all other associated data. Trips that have been cloned are available for use at a future date. Activate a cloned trip, change the date and all applicable data, refresh the briefing, and the trip is ready to be filed.

PREPARING TO FILE

NOTE: *Prior to filing the flight plan, ensure that all of the information entered on the Trip Planning Page is correct including the route of flight.*

Garmin Pilot provides a quick and easy method to file, close, amend or cancel flight plans. When Garmin Pilot is connected to a DUATS account, route of flight, pilot information, aircraft information, type of flight plan (IFR/VFR), number of persons onboard, fuel onboard, date, estimated time of departure (ETD), altitude, airspeed, and any optional data including alternate, call sign, second in command (SIC), and remarks are transmitted to DUATS. The flight plan details are then delivered to the responsible Flight Service Station (FSS) 1 hour prior to the ETD. The ETD must be at least 30 minutes in the future or the flight plan will not be transmitted. To file a flight plan with a departure time less than 30 minutes in the future you must call the FSS.

Creating an Active Flight Plan:

1) From any page touch **Home** > **Flight Plan**.
2) Touch within the route field to activate the cursor.
3) Use the keyboard to insert waypoints. Separate each waypoint with a space.

Or:

1) Touch the **Add Waypoint** button.
2) Use the keyboard to input the waypoint identifier and touch the Return key.
3) Touch the **Add Waypoint** button to add each additional waypoint.

Or:

1) Use one of the above methods to enter a departure point.
2) In the Map View area, touch and hold any location to display the rubber-band and drag the rubber-band to the desired map location.

3) Once the rubber-band is on or near the desired location, release the rubber-band. A list of nearby waypoints is displayed.
4) Select the desired waypoint from the list. Or, create a User Waypoint.
5) Repeat steps 1-4 to add additional waypoints.

PLANNING A TRIP

CREATING A NEW TRIP:

1) From any page touch **Home** > **Trip Planning.**
2) Touch **Menu** > **New Trip**.
3) Enter Departure, Routing, and Destination.

Or: Enter Departure, Destination and Choose a Planned ATC Route after the trip is created.

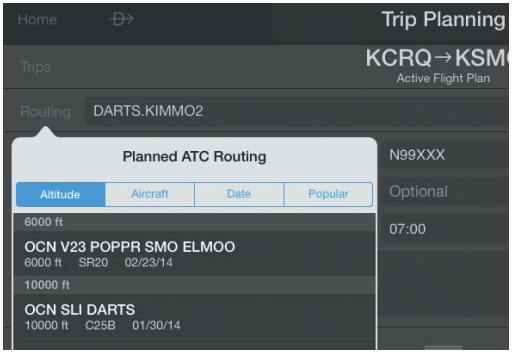
Or:

Touch **Import Active FPL** to import the Active FPL. Importing the Active FPL will fill the Departure, Routing, and Destination fields. Complete the remaining fields are necessary.

4) Touch **Create**.

Choosing a Planned ATC Route:

1) Touch **Routing** to view Planned ATC Routes.
2) Touch **Altitude**, **Aircraft**, **Date**, or **Popular** to sort the list.
3) Touch the desired route from the list, to add the route to the trip.



Planned ATC Routes

Entering Pilot Information:

1) Touch the PIC field.

2) If the desired PIC information has already been entered, select the desired PIC from the Pilot Information list.

Or:

a) Touch **Add Pilot Information...**

b) Enter the Required Contact Information by touching each field. A keyboard will appear to enable typing in each selected field.

c) Enter the optional DTC or CSC DUATS Credentials.

NOTE: *Garmin Pilot must be connected to a DUAT account in order to receive briefings, or file flight plans.*

d) Touch **Save Pilot**.

e) Touch the desired Pilot from the list.

Entering Aircraft Information:

1) Touch the Aircraft field.

2) If the desired Aircraft information has already been entered, select the desired Aircraft from the Aircraft list.

Or:

1) Touch **Add Aircraft...**

2) Enter the Required Aircraft Information by touching each field and using the keyboard.

3) Enter optional performance data.

NOTE: *Performance data is used to create Navlog and to calculate trip parameters.*

4) Touch **Save Aircraft**.

5) Touch the desired Aircraft from the list.

Entering type of Flight Plan:

Touch the **Type** Button and select IFR or VFR from the drop down menu.

Entering Date, ETD, Altitude, and Airspeed:

Touch the applicable field and enter the desired value(s). The Airspeed will be populated with the Cruise TAS (kts) entered for the aircraft.

Entering Souls Onboard (SOB):

Touch the Souls on Board (SOB) field to enter the number of occupants.

Entering Fuel:

Touch the Fuel field to enter the number of hours:minutes of fuel onboard. The Fuel field is automatically populated with the Default Fuel/Cruise Burn Rate, but should be adjusted to reflect the actual fuel onboard the aircraft.

Entering Optional Data (SIC, Call Sign, Alternate and Remarks):

Touch the applicable field and enter the desired information.

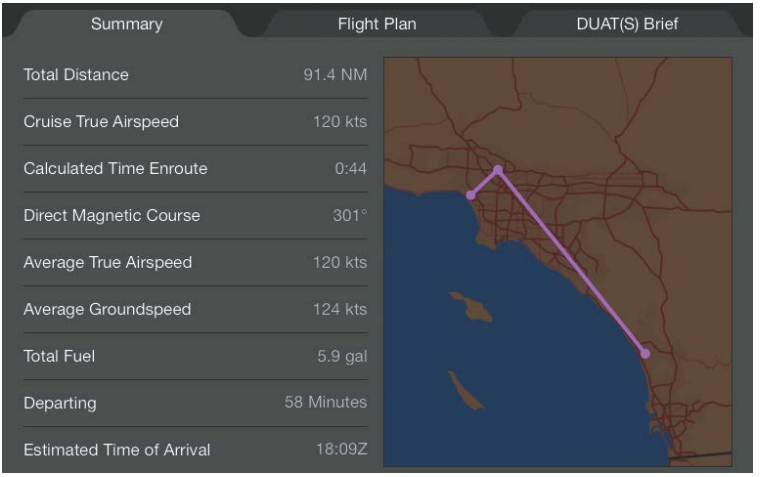
TRIP SUMMARY

The Summary tab displays the following information: Total Distance, Cruise True Airspeed, Total Time En Route, Direct Magnetic Course, Average True Airspeed, Average Groundspeed, Total Fuel Burned, Departing time, and Estimated Time of Arrival. Values are based on currently reported weather conditions and the user provided aircraft performance data.

Viewing the Trip Summary:

1) From any page touch **Home** > **Trip Planning**.

2) Touch **Summary**, to view the Trip Summary.



Trip Summary

FLIGHT PLAN

Garmin Pilot generates the flight plan on the Flight Plan Tab of Trip Planning Page using the Active Flight Plan waypoints, user-provided Trip Plan information, user-provided aircraft performance data, and DUAT -sourced weather data. The Flight Plan Tab provides navigation information for each leg of the Active Flight Plan. The column values are user selectable and display things such as Magnetic Course (Mag Crs), Ground Speed (GS) and Fuel Burned.

Viewing the Flight Plan Tab:

1) From any page touch **Home** > **Trip Planning**.

2) Touch **Flight Plan Tab**, to view the Garmin Pilot generated Flight Plan.

Changing the Flight Plan Column Values:

1) From any page touch **Home** > **Trip Planning**.

2) Touch the **Flight Plan Tab**.

3) Touch the column header to cycle through the available options.

Flight Plan Column Options:

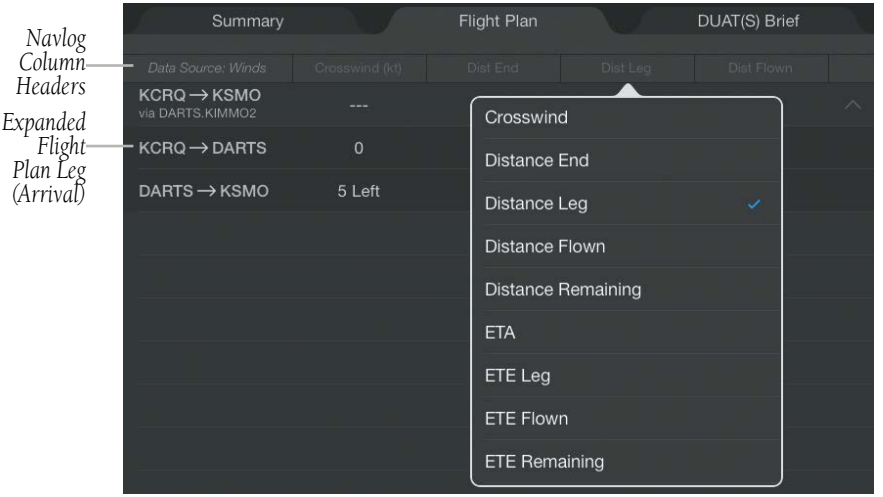
- Crosswind
- Distance End (Dist End)
- Distance Leg (Dist Leg)
- Distance Flown (Dist Flown)
- Distance Remaining (Dist Rem)
- ETA
- ETE Leg
- ETE Flown
- ETE Remaining (ETE Rem)
- Fuel Burned
- Fuel Leg
- Fuel Remaining (Fuel Rem)
- Ground Speed (GS (kts))
- Headwind (kt)
- Magnetic Course (Mag Crs)
- Magnetic Heading (Mag Hdg)
- Temperature (Temp (C°))
- True Air Speed (TAS (kts))
- True Course (True Crs)
- True Heading (True Hdg)
- Wind (kt)
- Wind Correction

Showing Airway Legs:

1) From any page touch **Home** > **Trip Planning**.
2) Touch **Menu** > **Show All Airway Legs**. Airway trip legs will now show all waypoints between Airway entry to Airway exit.

Expanding Flight Plan Legs:

1) From any page touch **Home** > **Trip Planning**.
2) Touch the **Flight Plan Tab**.
3) Touch  for flight plan legs containing a Departure, Arrival, or Airway to expand the leg and view all waypoints for that leg. Touch **-** to collapse the leg.



Flight Plan Tab

Cloning a Trip:

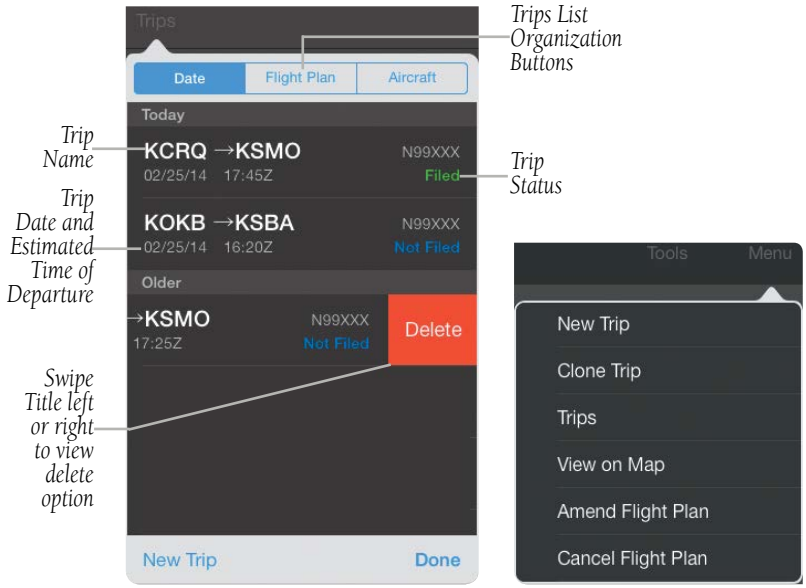
1) From any page touch **Home** > **Trip Planning**.
2) Touch **Menu** > **Clone Trip**.

Viewing a Cloned Trip:

1) From any page touch **Home** > **Trip Planning**.
2) Touch **Trips** to view the list of trips
3) Touch **Date**, **Flight Plan,** or **Aircraft** to organize the Trips List by date created, route of flight, or aircraft used.
4) Touch the desired trip from the Trips List.

Activating a Cloned Trip:

1) From any page touch **Home** > **Trip Planning**.
2) Touch **Trips** to view the list of trips
3) Touch **Date**, **Flight Plan,** or **Aircraft** to organize the Trips List by date created, route of flight, or aircraft.
4) Touch the desired trip from the Trips List.
5) Touch the Date Field to change the date to the current date. Edit other desired Trip Plan Fields.
6) Touch **Menu** > **Activate Flight Plan** to activate the Trip.



Trip List **Trip Planning Page Menu**

Deleting Trips:

1) From any page touch **Home** > **Trip Planning**.

2) Touch **Trips**.

3) Swipe left or right over the trip title.

4) Touch **Delete** to delete the trip.

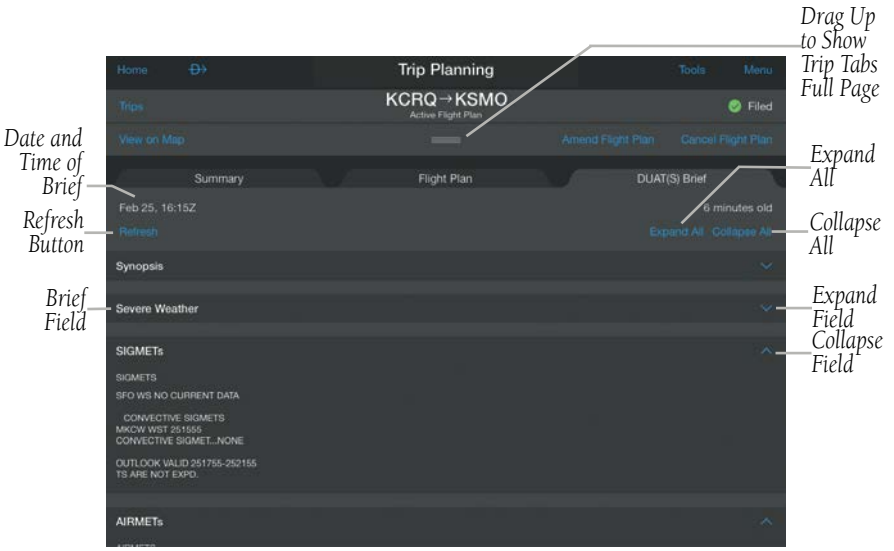
Or: Touch **Edit** > > **Delete** to delete the trip.

BRIEF

When connected to a DUATs account, Garmin Pilot will retrieve a preflight weather briefing based on the parameters of the Active Flight Plan and Trip Plan. The Brief Tab contains a standard weather briefing for the route of flight including; Weather Synopsis, Severe Weather, SIGMETs, AIRMETs, Center WX Advisories, METARs, PIREPs, Radar Summaries, Terminal Forecasts, Winds Aloft, TFRs, and NOTAMs.

Accessing Preflight Weather Briefing:

1) From any page touch **Home** > **Trip Planning**.
2) Touch the **Brief Tab**, to view the Standard Weather Briefing for the route of flight.
3) Touch **Refresh** if necessary to update the weather information.
4) Touch to expand individual fields or **Expand All**.
5) Touch to collapse any of the expanded fields or **Collapse All.**



Brief Tab

FILE FLIGHT PLAN

NOTE: *A data connection (i.e., Wi-Fi or cellular) is required to receive preflight weather briefings and to file flight plans.*

Once all required information is entered, and after reviewing the weather briefing and supplemental weather information, file the flight plan. A notification window will appear stating the status of the flight plan. If successful, the notification window will give the time the flight plan will be transmitted to the appropriate FSS. If the flight plan was not successfully transmitted to DUATS, the notification window will provide the reason it was not transmitted.

Filing:

1) From any page touch **Home** > **Trip Planning**.
2) With the desired trip selected, touch **File Flight Plan**.
3) Filed will appear in the top right corner of the Trip Planning Page.

Amending a Filed Flight Plan:

1) From any page touch **Home** > **Trip Planning**.
2) With the desired flight plan selected, touch **Amend Flight Plan**.
3) Make the desired changes and touch **File Amendment** or **Discard Changes** to cancel changes and use original flight plan.

Canceling a Filed Flight Plan:

1) From any page touch **Home** > **Trip Planning**.
2) With the desired flight plan selected, touch **Cancel Flight Plan**.

Closing a Filed Flight Plan:

1) From any page touch **Home** > **Trip Planning**.
2) With the desired flight plan selected, touch **Close Flight Plan**.

Filed Flight Plan

Blank Page

FLY

Garmin Pilot provides full en-route navigation capabilities on its moving map. The ability to view navigation data such as ETE, ETA, crosstrack error, and distance information. Pilots can also navigate with Garmin's patented panel view, a GPS-driven instrument panel with graphical HSI directional display and indicators for groundspeed, geometric altitude and vertical speed. Touch and hold any location on the map and the Radial Menu provides quick and easy access to navigation information, including airports, navaids, current METARs, and airspace. The Radial Menu also provides a ready means of navigating Direct To, create user waypoints or graphically edit the route of flight. After takeoff, pilots can continue to view updated weather information by wirelessly connecting to SiriusXM Weather through the Baron Mobile Link™ paired with a satellite weather receiver (sold separately, subscription required) or view FIS-B weather data via a GDL 39 (additional hardware required).

MAP

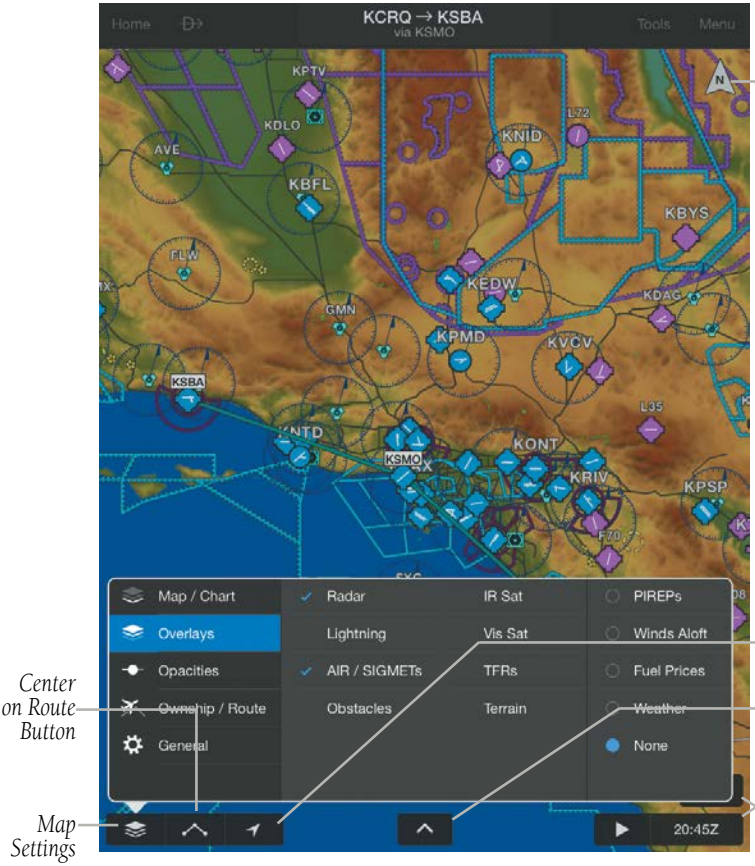
The Map Page is comprised of the Map Pane and an option for split-screen. The Split-screen option allows the Map Page to be divided between the Map Pane and one of eight options which may include Widgets, Panel, Charts, Flight Plan, SafeTaxi, Traffic, Terrain, or Virb. The Split-screen feature is available in either portrait or landscape screen orientation.

MAP PANE CONTROLS

The Map Pane has a number of buttons that control the Map Settings (including Map Overlays, Overlay Opacities, and General Map Settings), centering the map (on aircraft or flight plan), and split-screen mode.

Control	Icon	Description
Maps Settings		Map/Chart Selection/Settings, Map Overlay Selection, Overlay Opacity Settings, and General Map Settings
Center on Flight Plan		Centers the entire flight plan in the Map Pane. Highlighted in blue when selected
Center on Aircraft		Centers the Map Pane on the current location. Highlighted in blue when selected
Split-Screen		Selects full screen map or partial map with Widgets, Panel, Charts, Active NavLog, SafeTaxi, or Traffic
Map Orientation		Toggles map orientation from north up to track up. The Icon is blue when track up is active. Track will only update when motion is sensed. The map can be panned when in track up but it will not update until re-centered on aircraft.

Map Pane Controls


KCRQ → KSBA
via KSMO
Home
Tools
Menu
Map Orientation
Center on Aircraft Button
Split - Screen Button
Map Overlay Controls
Center on Route Button
Map Settings
Map / Chart
Overlays
Opacities
Ownship / Route
General
Radar
Lightning
AIR / SIGMETs
Obstacles
IR Sat
Vis Sat
TFRs
Terrain
PIREPs
Winds Aloft
Fuel Prices
Weather
None
20:45Z
KPTV
KDLO
AVE
KBFL
FLW
GMN
KSBA
KNID
L72
KBYS
KEDW
KDAG
KPMD
KVCV
L45
KNTD
KSMO
KONT
KRIV
KPSP
F70

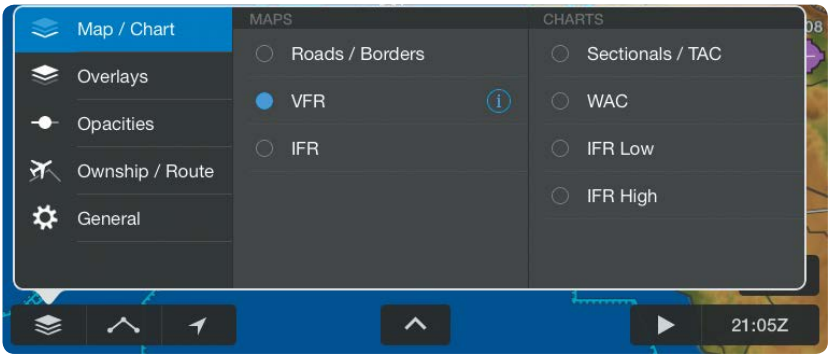
Map Pane

MAP/CHART SELECTION AND SETTINGS

The following charts are available for viewing in the map area: Sectional TAC, WAC, IFR Low, and IFR High. Charts are high-resolution color images that resemble the paper version of the National Aeronautical Navigation Products (AeroNav) published charts. Maps are available in three different themes, Roads/Borders, VFR, and IFR. The Roads/Borders Map is a very basic map showing major roads, bodies of water, boarders and Flight Plan information. The VFR themed map is similar to a VFR sectional chart, showing map information pertinent to VFR navigation. The IFR themed map is similar to an IFR area chart, showing map information that is pertinent to IFR flight. Each map theme can be customized and saved for future use by touching icon that appears when a map theme is selected.

Selecting a Map Theme or Chart:

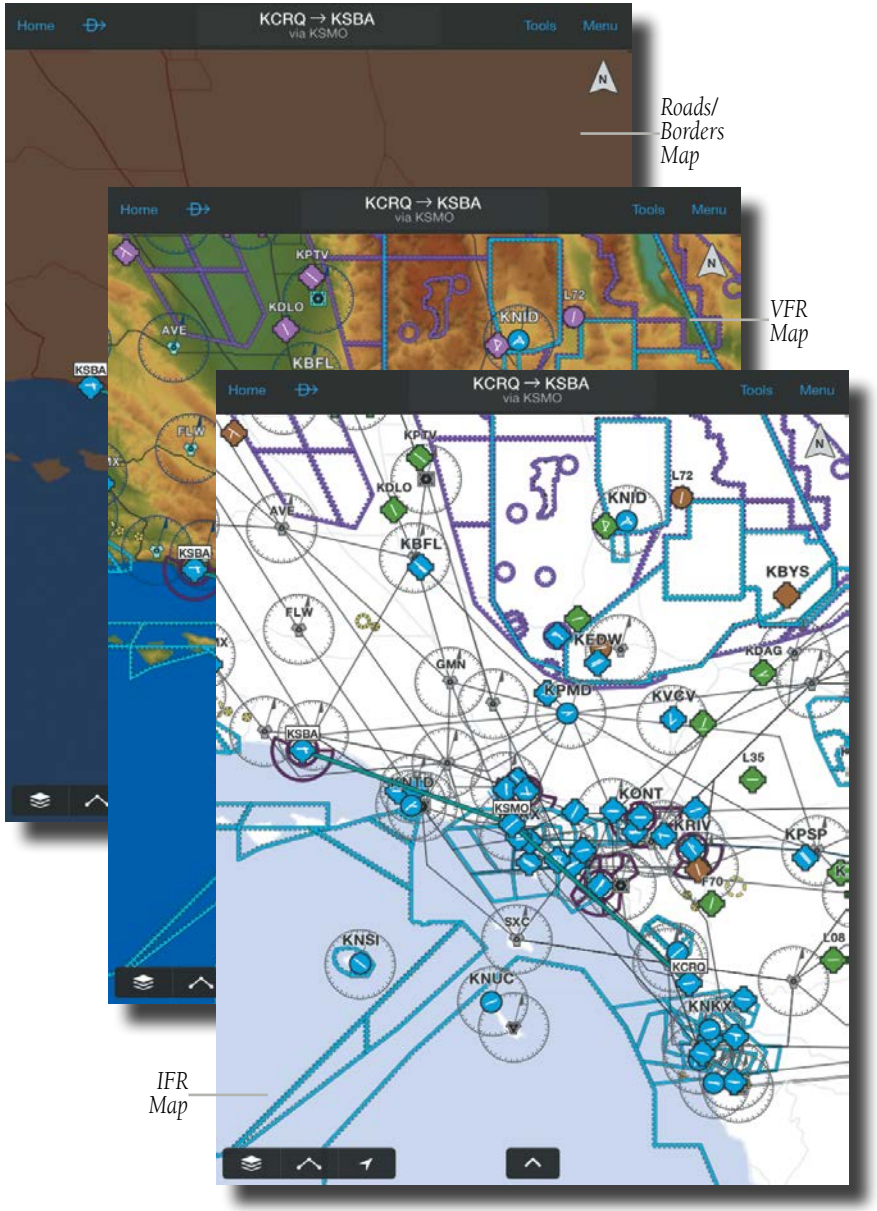
1) Touch > **Map/Chart.**
2) Touch the radio button or Map/Chart title to select a Map/Chart.



Map/Chart Menu

ADVANCED MAP SETTINGS

Map Themes can be customized renamed, and saved for future use. The Advanced Map Settings menu provides general settings for Topography (Off, Shade, or On), Map Color (White, Green, or Brown), Map Type (IFR, or VFR), Map Name and display range settings for Airports (including SafeTaxi display range), Nav Aids, Airspaces and Cities. When Topography is On the map color is based on topography, but topography shading can be added to any map color.


Home
KCRQ → KSBA
via KSMO
Tools
Menu
Roads/
Borders
Map
VFR
Map
IFR
Map
KPTV
KDLO
AVE
KBFL
KNID
L72
KSBA
FLW
KEDW
KBYS
KDAG
GMN
KPMD
KVCV
L35
KONT
KSMO
KRIV
KPSP
F70
SXC
KNSI
KCRQ
L08
KNUC
KNKX

Map Themes

Accessing Advanced Map Settings:

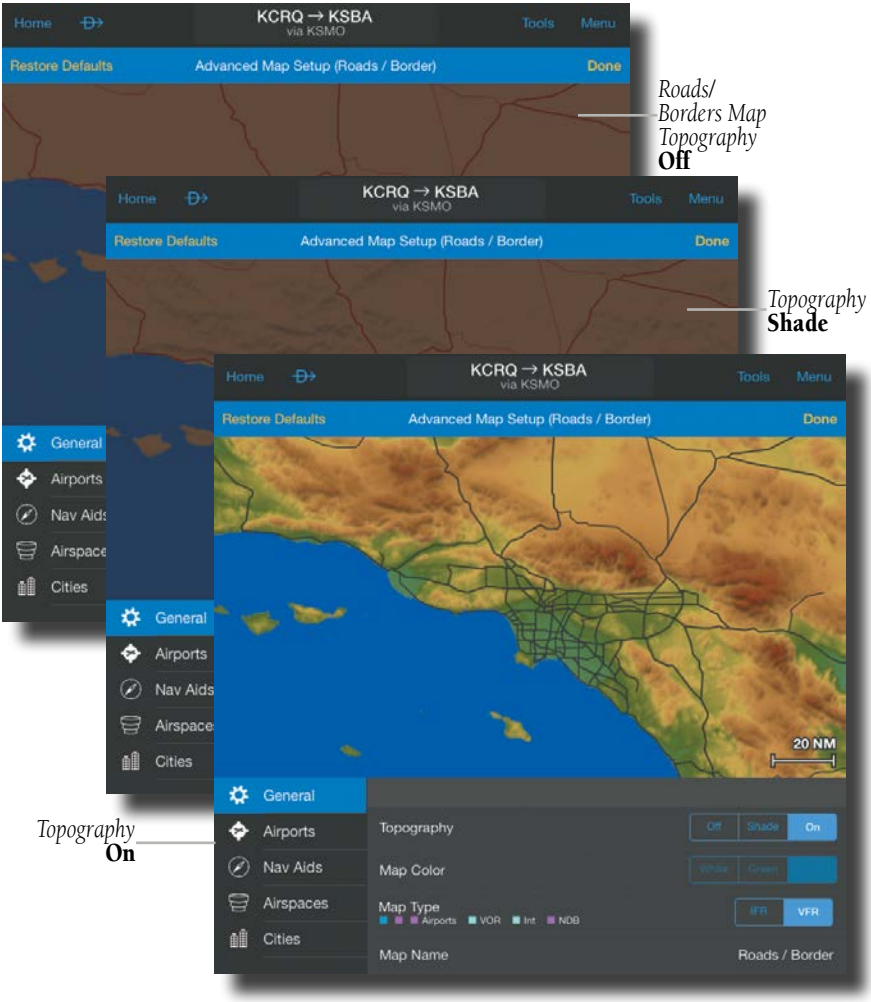
1) Touch  > **Map/Chart** > **Map Theme** >  .
2) Touch **General, Airports, Nav Aids, Airspaces, or Cities**.
3) Use the sliders and selection buttons to set Visibility Ranges and Label Sizes for map features.
4) To give the new settings a name, Touch **General > Map Name**, and use the keyboard to enter a name.
5) Touch **Done** to save and exit, or touch **Restore Defaults** to restore the default Map Theme setting.

Map Setting Categories	Options	Description/Display Ranges:
General	Topography Map Color Map Type Map Name	Off, Shade, or On White, Green, or Brown IFR, or VFR User defined name.
Airports	Off, Small, Medium or Large (Labels)	Large Airports (Off-200NM), Medium Airports (Off-50NM), Small Airports (Off-10NM), Private Airports (Off-5NM), Heliports (Off-20NM), Seaplane Bases (Off-50NM), and SafeTaxi (Off-2NM)
Nav Aids	Off, Small, Medium or Large (Labels)	VOR (Off-100NM), NDB (Off-50NM), Intersection (Off-10NM), Low Airways (Off-100NM), and High Airways (Off-100NM)
Airspaces		Class B (Off-200NM), Class C (Off-200NM), Class D (Off-100NM), Restricted (Off-200NM), MOA (Off-200NM), ADIZ (Off-100NM), and Other (Off-100NM)
Cities	Off, Small, Medium or Large (Labels)	Large City (Off-2000NM), Medium City (Off-200NM), Small City (Off-100NM), and Small Town (Off-50NM)

Advanced Map Settings

TOPOGRAPHY

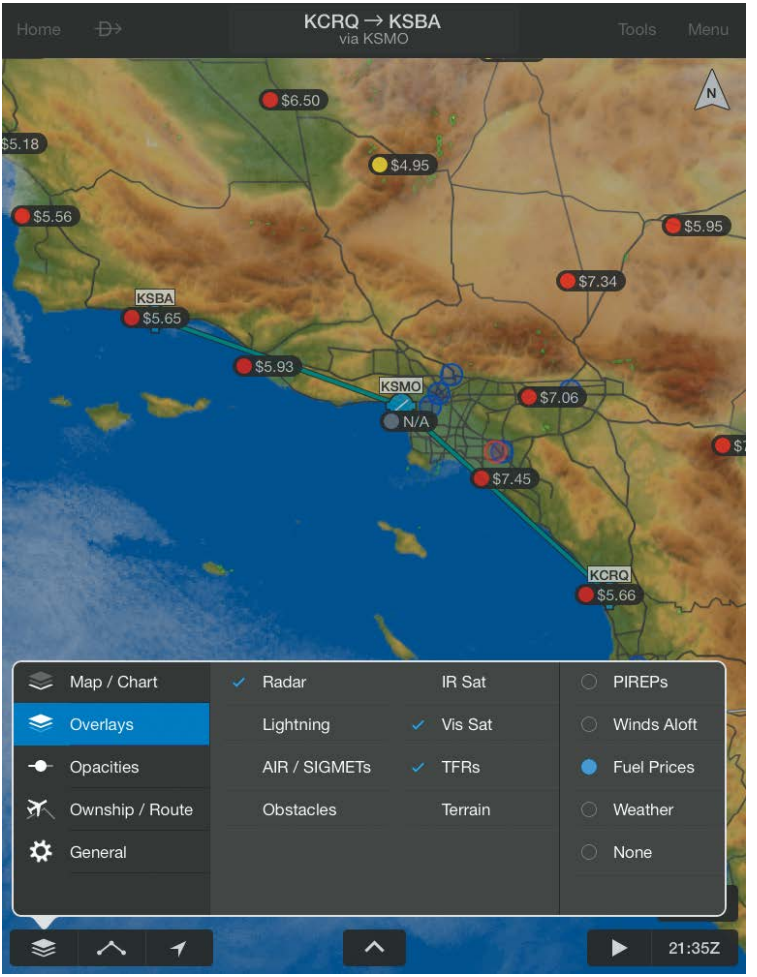
Maps can display topography shading on the base map color or various colors and shades representing land elevation, similar to aviation sectional charts.



Topography

OVERLAYS

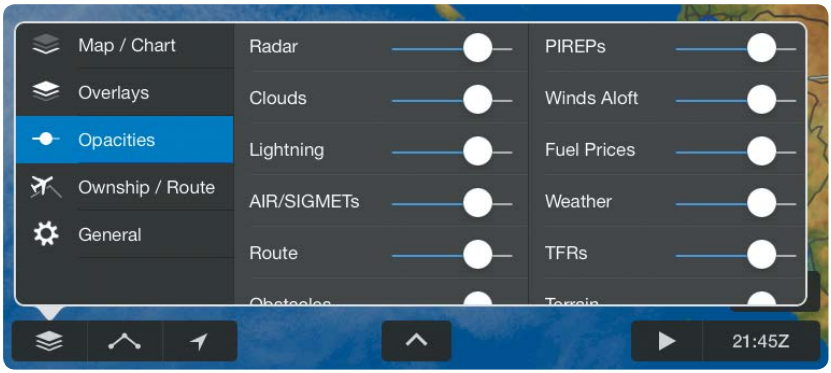
Map Overlays provide graphical weather products, graphical TFRs, and Fuel Prices. Multiple layers in the first two columns can be selected for display, Radar and Radar (ADS-B), and IR Sat, and Vis Sat are mutually exclusive. Only one overlay in the far right column can be selected for display at a time.



Map Overlays

OPACITIES

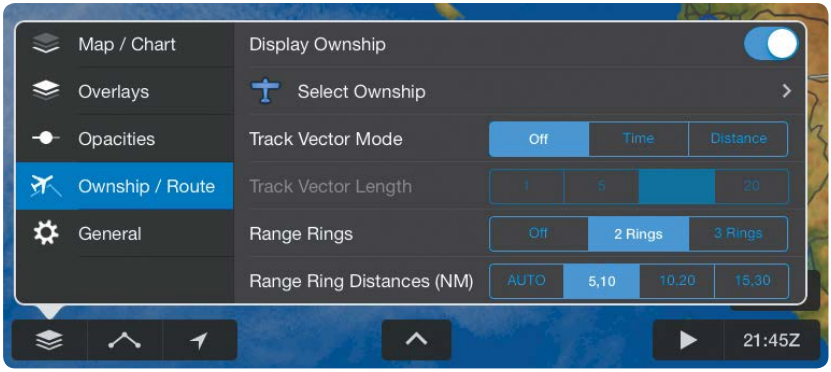
The Opacities menu provides sliders to set the opacity for: Radar, Clouds, Lightning, AIR/SIGMETs, Route, PIREPs, Winds Aloft, Fuel Prices, Weather, TFRs, Obstacles, and Terrain.



Opacities Menu

OWNSHIP/ROUTE SETTINGS

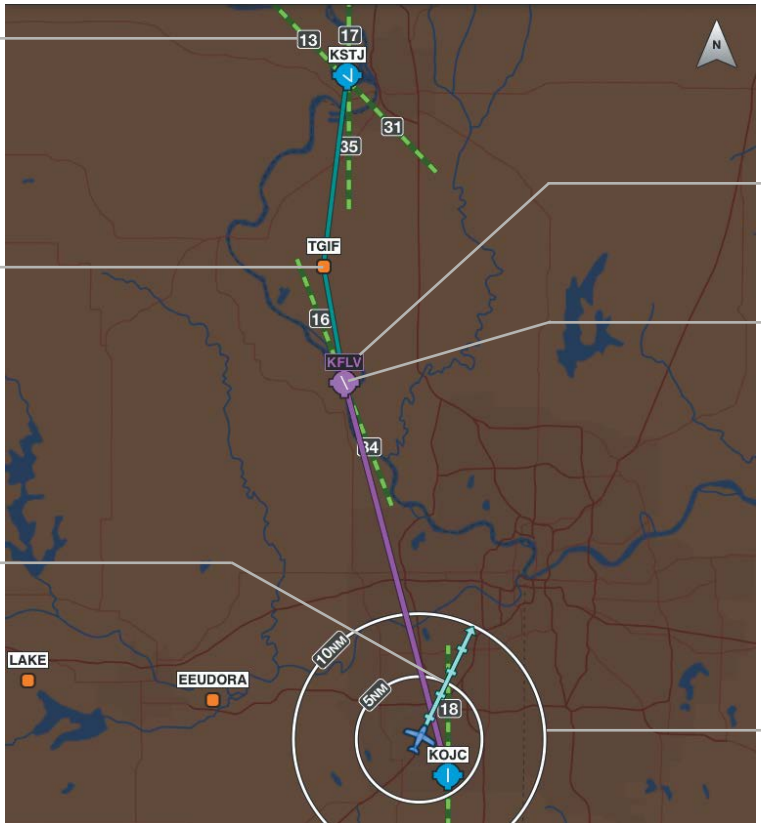
The Ownship/Route Settings Menu provides Ownship Display settings, Track Vector options, Range Ring options, Runway Extended Centerlines Visibility range and style settings, and display settings for Route Labels, Route Icons, and Wx Station Pins.



Ownship/Route Settings Menu

The Range Rings are centered on your present position and can be configured Off, or as 2/3 Rings. When configured for 2 Rings the range can be set to **AUTO**, **5/10**, **10/20**, or **15/30**. When configured for 3 Rings the range can be set to **AUTO**, **5/10/20**, **10/20/40**, or **15/30/60**. When **AUTO** is selected the Range Rings will dynamically change from as little as 200FT to as much as 1200NM based on the current map range

Extended Centerlines provide a graphical extension of the centerline for each runway for all airports that are part of the Active FPL. Extended Centerlines can be very helpful when approaching an unfamiliar airport. The Extended Centerlines Visibility slider sets the Map Scale (OFF(default)-5NM) at which the extended centerlines will become visible on the map. Extended Centerlines can be configured as magenta feathers (**Feathered**), or as dashed light and dark green lines (**Dashed Line**)



Ownship/Route Settings

MAP PANE

Viewing and Configuring Navigation Info on the Map:

1) From any page touch **Home** > **Map**.
2) Touch **Menu** > **Show Navigation Info**.
3) Touch any one of the six fields to view the options menu.

Panning the Map:

1) From any page touch **Home** > **Map**.
2) Touch and drag within the Map Pane to pan the map to the desired area.
3) Touch  to center the Map Pane over the route of flight
4) Touch  to center the Map Pane over the current location.

ZOOMING

Map Zooming

The Roads/Borders, VFR, and IFR maps can be zoomed from a 200 ft scale to a 300 NM.

Chart Zooming

Garmin Pilot Features smart VFR Chart zooming. When a more detailed map is available, Garmin Pilot automatically switches to the more detailed map as you continue to zoom in. For example, if VFR WAC is the current Chart, as you zoom in, the base map detail will automatically change to VFR Sectional scale and detail. Continuing to zoom in over an area that has a TAC chart, Garmin Pilot will continue to zoom in to TAC scale, or the highest level of detail available for that area. When zooming out, the map scale will return to the selected level. For example, if you zoom out on a VFR Sectional Chart, Garmin Pilot will not change to a VFR WAC scale.

Zooming the Map/Chart:

1) From any page touch **Home** > **Map**.
2) Pinch fingers together or tap with two fingers to zoom out, or pull fingers apart or double tap with one finger to zoom in.

RADIAL MENU

The Radial Menu is accessed by tapping anywhere on the map area. When the Radial Menu spins in, it displays context-sensitive buttons for information found within the inner radius of the menu. The context sensitive buttons provide details for airports, navaids, airspace, airways, obstacles, and weather products. No matter where the Radial Menu appears, it will always provide the option to navigate direct to the location, create a user waypoint or graphically create/edit a flight plan. To reposition the Radial Menu, simply touch-drag it to a new location. Touch outside the Radial Menu to close. Navigation data must be downloaded in order to make use of the Radial Menu.

Information displayed in the Radial Menu is determined by what is set in the Map/Chart Settings. For example if airspace is turned off in the Map Settings, airspace information will not be presented in Radial Menu searches.

Accessing the Radial Menu:

1) From any page touch **Home** > **Map**.

2) Touch on the desired area in the Map Pane until the Radial Menu appears.

3) Touch anywhere outside of the Radial Menu to exit.

Repositioning the Radial Menu:

1) From any page touch **Home** > **Map**.

2) Touch in the Map Pane until the Radial Menu appears.

3) Once the Radial Menu appears, touch and drag the Radial Menu to reposition over a new area.

Radial Menu

Radial Menu Symbol	Description
	Navigate Direct To
	Create User Waypoint
	Airspace
	Airways
	Weather Observation Condition
	Obstacle Information
	Graphically Edit Route
	Towered, Serviced Airport
	Towered, Private Airport
	Public Soft Surface, Serviced Airport

Radial Menu Symbol	Description
	Private Soft Surface, Serviced Airport
	Heliport
	Solid Surface Airport, No Services
	VOR/DME
	VORTAC
	VOR
	NDB/DME
	NDB
	Marker/NDB

Radial Menu Symbols

Viewing Navaid, Airspace, Obstacle, or Weather Information:

1) From any page touch **Home** > **Map**.

2) Touch on the desired area in the Map Pane until the Radial Menu appears.

3) Touch the desired menu icon.

4) Touch outside of the dialog box to close.

5) Touch outside of the Radial Menu to exit.

Viewing Airport Information from the Radial Menu:

1) From any page touch **Home** > **Map**.

2) Touch near the desired Airport in the Map Pane until the Radial Menu appears.

3) Touch the Airport icon.

4) The Airport information window will always show the 'General' information, select **Freq**, **Runways**, or **Fuel** to view more information.

Or: Touch  to access the Airport Info Page.

Navigating Direct To Using the Radial Menu:

1) From any page touch **Home** > **Map**.

2) Touch the desired area in the Map Pane until the Radial Menu appears.

3) Touch  .

4) Within the Direct To... dialog window choose one of the nearby Navigation Database features from the list.

Or: Choose a waypoint from one of the other tabs (i.e., Search, FPL, Recent, or Nearest).

5) Touch **Activate** to begin navigation.

6) Touch  > **Clear** to stop Direct To navigation.

Editing the Route Graphically:

1) From any page, touch **Home** > **Map**.

2) In the Map Pane, touch any flight plan waypoint or flight plan leg until the Radial Menu appears.

3) Touch  to graphically edit the flight plan. The Radial Menu disappears and the 'Graphical Flight Plan Edit Mode' blue banner appears just below the Control Bar.

4) Touch a flight plan leg and drag the flight plan leg to the desired location. Select a waypoint from the list of nearby navigation database waypoints, or create a User Waypoint.

Or Long press an existing flight plan waypoint until the Delete Waypoint dialog is displayed. Touch **Delete Waypoint** to remove the waypoint from the flight plan.

5) Repeat step four for each flight plan leg to edit.

6) Touch  to revert back to the state you were in when entering Graphical Flight Plan Edit Mode.

7) Touch **Cancel** to cancel or **Save** to save changes and exit Graphical Flight Plan Editing mode.

Editing Departures or Arrivals Graphically:

1) From any page touch **Home** > **Map**.

2) In the Map Pane, touch any flight plan waypoint or flight plan leg until the Radial Menu appears.

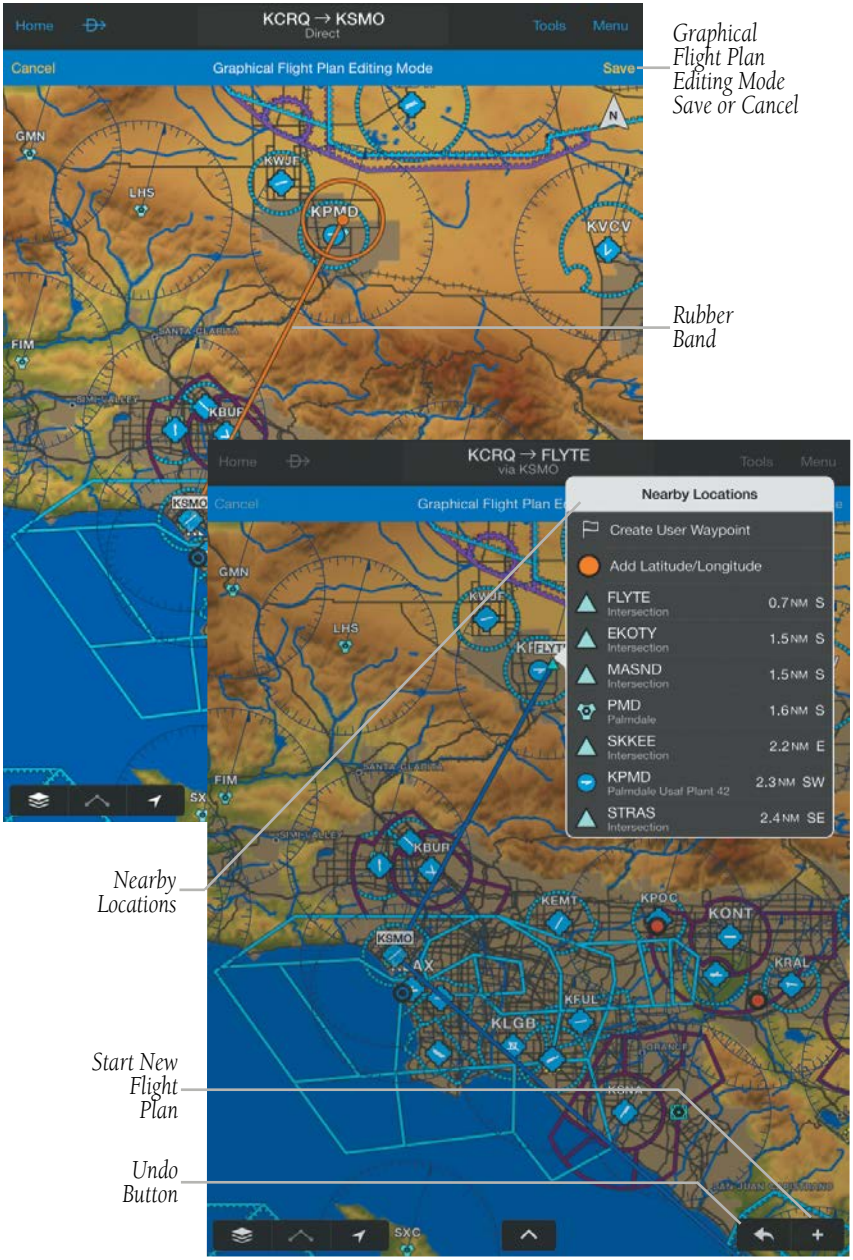
3) Touch  to graphically edit the flight plan. The Radial Menu disappears and the 'Graphical Flight Plan Edit Mode' blue banner appears just below the Control Bar.

4) Touch a Depature/Arrival flight plan leg or waypoint. The Edit SID/STAR dialog box appears.

5) Touch Delete SID/STAR to delete or select an alternate SID/STAR from the list and then select the desired transition from the submenu. If the selected flight plan leg is the first leg of a SID, the dialog box will allow you to delete the departure point. If the departure point is deleted, the departure point and all waypoints associated with the SID are removed from the flight plan. The first waypoint after the SID becomes the departure point.

6) Touch  to undo the most recent action.

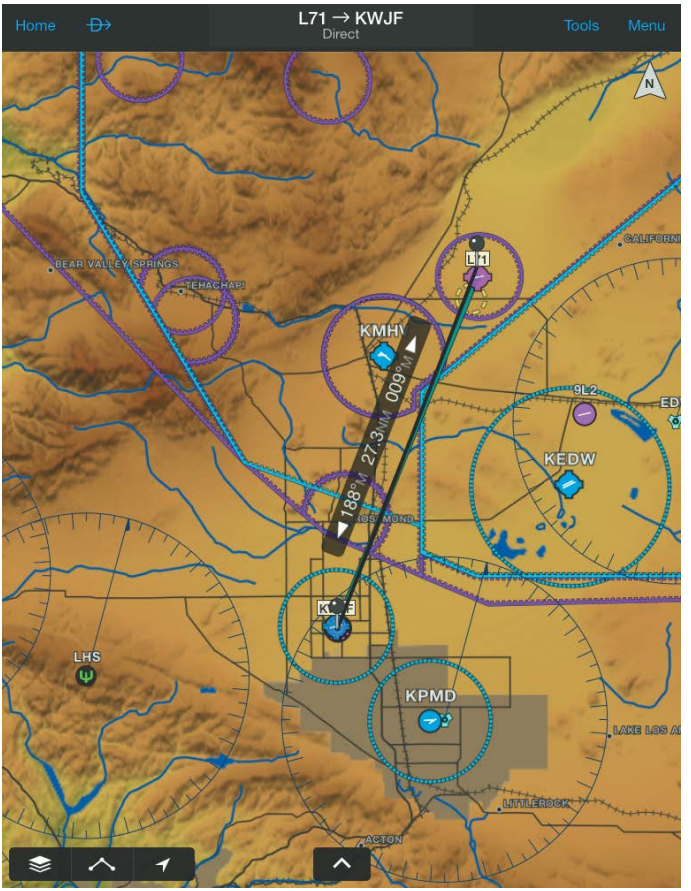
7) Touch **Cancel** to cancel or **Save** to save changes and exit Graphical Flight Plan Editing mode.



Graphical Flight Plan Editing

DISTANCE MEASURING TOOL

The Distance Measuring Tool provides a quick and easy way to measure the distance between two points on the map. Simply drop two fingers onto the map display at the same time and hold both fingers on the display, a black line will appear. While holding both fingers on the map place one arrow point on a point and the other arrow point on another point and then remove both fingers from the map. Two black push pins are placed on the map, showing distance and to/from bearing information. Touch anywhere else on the display to remove the Distance Tool.



Distance Tool

SPLIT-SCREEN

The split-screen option allows the Map Page to be divided between the Map Pane and one of eight options which may include Widgets, Panel, Charts, Active Navlog, SafeTaxi, Traffic, Terrain, or Virb. The split-screen feature is available in either portrait or landscape screen orientation. When in split-screen the Map Pane and the split pane function independently essentially providing two independent viewing areas. The Map Pane is always visible and will either be displayed on the top or left side of the display depending on the device orientation.

SPLIT-SCREEN (CHARTS, SAFETAXI, TRAFFIC, TERRAIN)

Charts, SafeTaxi, Traffic, and Terrain when viewed in split-screen have the same function, navigation, and capabilities as the full screen versions of these products.

SPLIT-SCREEN (PANEL)

The Panel is only available in split-screen and may be configured to show navigation parameters and virtual gauges in one of four selectable views. Panel configuration selection button/indicators are located at the bottom right of the panel.

Viewing the Panel:

1) From any page touch **Home** > **Map**.
2) Touch **Menu** > **Split Screen** > **Panel**.
3) Select one of the four panel views options.
4) Touch  to hide the Panel.

Configuring the Panel:

1) From any page touch **Home** > **Map**.
2) Touch **Menu** > **Split Screen** > **Panel**.
3) Select one of the three panel options with Navigation Data Fields.
4) Touch any one of the fields and select one of the options from the flick-list.

Navigation Data	Description
Altitude	The current GPS altitude or geometric height above Mean Sea Level (MSL) in feet.
Bearing	The compass direction from the present position to a destination waypoint.
Course	The magnetic direction from the last waypoint to the active waypoint.
Cross Track Error	The distance and direction, left or right, the aircraft is from the desired course in nautical miles.
Distance (Dest)	The distance to the destination waypoint in the Active Flight Plan
Distance (Next)	The distance to the next waypoint in the Active Flight Plan.
ETA (Dest)	The estimated time at which the aircraft should reach the destination waypoint, based upon current speed and track.
ETA (Next)	The estimated time at which the aircraft should reach the next waypoint, based upon current speed and track.
ETE (Dest)	The estimated time it takes to reach the destination waypoint from the present position, based upon current ground speed.
ETE (Next)	The estimated time it takes to reach the next waypoint form the present position, based upon current ground speed.

Navigation Data	Description
Ground Speed	The velocity that the aircraft is traveling relative to the ground.
Horizontal Accuracy	The current accuracy of the GPS determined location. (Horizontal)
Latitude	Current latitude.
Longitude	Current longitude.
Next Waypoint	Next waypoint on the route of flight
Time	Current time
Track	The direction of aircraft movement relative to the ground.
Vertical Accuracy	The current accuracy of the GPS altitude.
Vertical Speed	The rate of climb or descent (GPS-derived).
WX-Altimeter	The altimeter setting at the nearest METAR reporting station.
WX-Ceiling	The ceiling at the nearest METAR reporting station
WX-Visibility	The visibility at the nearest METAR reporting station
WX-Wind	The wind speed and direction at the nearest weather reporting station.
Pitch	Current pitch. (GDL 39 3D only)
Roll	Current roll. (GDL 39 3D only)

Navigation Data Field Options

Panel - Split-Screen (without GDL 39 3D)

Panel (without GDL 39 3D)

Panel - Split-Screen (with GDL 39 3D) (optional)

NOTE: *The GDL 39 3D is only to be used as an aid and should not be used as a primary attitude indicator.*

NOTE: *Extreme attitudes may degrade the GDL 39 3D accuracy.*

The optional GDL 39 3D is a portable ADS-B receiver with added attitude (pitch and roll) functionality.

When connected to the GDL 39 3D, Garmin Pilot will display a back-up Attitude Indicator on the Panel, as well as weather and traffic. 'Pitch' and 'Roll' become available options for the Nav Bar on the Map Pane, and Navigation Data on the Panel.

Panel (with GDL 39 3D)

Swapping the Attitude Indicator and HSI position:

1) From any page, tap **Home** > **Map**.
2) Tap **Menu** > **Split Screen** > **Panel**.
3) Tap  to swap the position of the Attitude Indicator and the HSI.

Tap to swap the Attitude Indicator and the HSI

BEFORE SWAP

AFTER SWAP

Attitude Indicator/HSI Swap

The leveling adjustments for pitch and tilt angles are performed automatically when the unit is powered on. However, if the unit moves or falls off the dash, it may be necessary to command the GDL 39 3D to perform the leveling process.

Leveling the GDL 39 3D:

With the Panel displayed, touch **Menu** > **Cage GDL 39 3D**.

Panel (with GDL 39 3D)

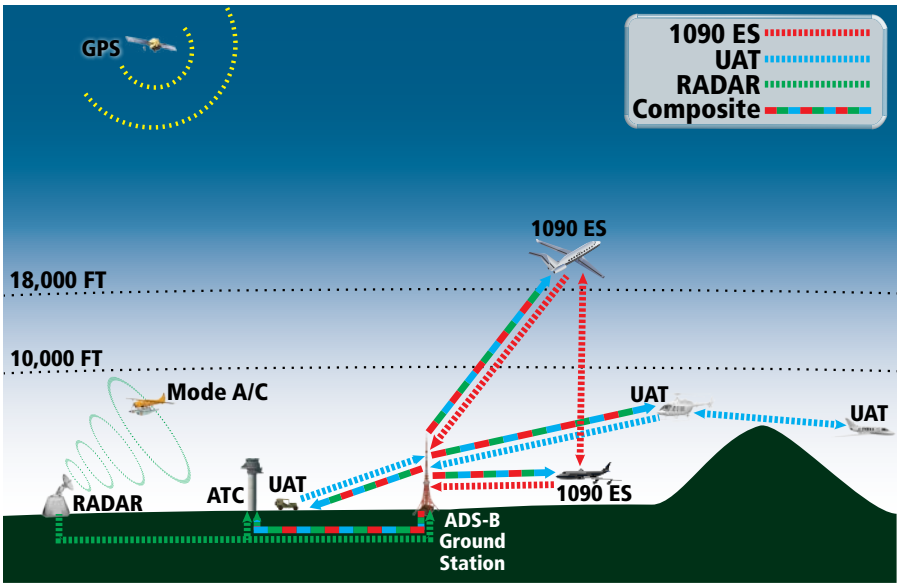
SPLIT-SCREEN (FLIGHT PLAN)

When the Flight Plan is displayed in split-screen it provides the same information as displayed on the Flight Plan Page. When viewing the Flight Plan in Portrait all four of the configurable data fields are visible, but when viewed in Landscape only two data fields are available.

DATA LINK TRAFFIC (OPTIONAL)

The GDL 39 is a Bluetooth® enabled receive-only data link radio with on-board GPS, 978 MHz (Universal Access Transceiver frequency band), and 1090 MHz Extended Squitter (1090 ES) receivers. It is designed to receive, process, and output traffic (ADS-B air-to-air, and TIS-B traffic information), and weather (Flight Information Service-Broadcast (FIS-B)) information to Garmin Pilot through Bluetooth.

ADS-B (Automatic Dependent Surveillance-Broadcast) is a surveillance technology deployed across the United States as the cornerstone of the FAA's Next Generation Air Transportation System (NextGen). ADS-B enables improved surveillance services, both air-to-air and air-to-ground, especially in areas where radar is ineffective due to terrain or where it is impractical or cost prohibitive. Initial applications of air-to-air ADS-B are for "advisory" use only, enhancing a pilot's visual acquisition of other nearby ADS-B equipped aircraft either when airborne or on the airport surface.



ADS-B System

For the purpose of distinguishing between levels of ADS-B service, there are three classifications of aircraft or system capability; ADS-B In, ADS-B Out, and ADS-B participating. ADS-B In refers to the capability to receive ADS-B information. ADS-B Out refers to the capability to transmit ADS-B information. ADS-B participating refers to the capability to both send and receive ADS-B information. Aircraft lacking either ADS-In, ADS-B Out, or both ADS-B capabilities may also be referred to as ADS-B non-participating aircraft.

Currently, rule-compliant ADS-B Out capability in the United States requires a TSO'ed SBAS-enabled GPS, such as a Garmin GPS 400W or similar, and one of two possible data links: 1090 ES transponder or a 978 MHz UAT. Either data link system is capable of transmitting the aircraft's position, velocity, identification, and other information every second to compatible aircraft and ground stations called Ground Based Transceivers (GBTs).

Because 1090 ES transponders and UATs operate on different frequencies, aircraft not similarly equipped cannot transmit/receive data link information directly to/from each other. Instead, operation within range of a GBT is required to receive data link information on both frequencies. The GDL 39 is unique in its ADS-B In capability since it can receive data link information from both 1090 ES transponders and UATs.

Thus, the GDL 39 receives traffic information directly from any ADS-B Out aircraft within range as well as the rebroadcast of ADS-B information from any nearby GBT. This rebroadcast is called Automatic Dependent Surveillance-Rebroadcast (ADS-R) and is automatically triggered by the detection of an ADS-B participating aircraft within the service volume of the GBT. As a 978 MHz (UAT frequency) receiver, the GDL 39 can receive both the Traffic Information Service-Broadcast (TIS-B) and Flight Information Service-Broadcast (FIS-B) provided in conjunction with ADS-R services when in range of a GBT.

FIS-B service is provided continuously, but ADS-R including TIS-B will only be broadcast by a GBT when an ADS-B participating aircraft is within the GBT's defined service volume. In this case, a GBT will only rebroadcast TIS-B information relative to the ADS-B participating aircraft. **Only traffic that is within 15 nm lateral and 3,500' vertical of the ADS-B participating aircraft is provided in the broadcast.** Non-participating traffic aircraft located farther than 15 nm laterally and 3,500' vertically from the participating aircraft is are excluded from the information transmitted by the GBT.

TIS-B traffic information includes non-participating aircraft detected by ATC surveillance radar. As TIS-B data is derived from ATC surveillance radar data, TIS-B traffic position updates typically occur every three to thirteen seconds. **Therefore, TIS-B traffic may be displayed with degraded positional accuracy. Aircraft without operating transponders are invisible to TIS-B. Aircraft operating outside of the ATC radar coverage area are also not displayed.**

Since the GDL 39 is a receive-only device, even when used onboard an aircraft equipped with a qualifying GPS and 1090 ES transponder, a GBT may not identify it as an ADS-B participating aircraft. The squitter of some 1090 ES transponders, including the Garmin GTX 23ES, must be configured to communicate that the aircraft has 978 MHz receive capability in order to be identified as an ADS-B participating aircraft.

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

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

SYSTEM STATUS

The traffic system status is annunciated in the upper left corner of the Map Page, as well as the lower left corner of the dedicated Traffic Page.

System Status	Traffic Icon
Receiving Air-To-Air targets from aircraft transmitting ADS-B out on either UAT or 1090 data link. You are receiving TIS-B traffic information for traffic within 15 nm and 3,500' of a rule compliant participating aircraft.	
Receiving Air-To-Air targets from aircraft transmitting ADS-B out on either UAT or 1090 data link. You will typically receive TIS-B coverage within a minimum of 3 NM (+/- 1,000 ft) of your current position. Other ADS-B participants not compliant with the latest ADS-B software specifications often trigger full TIS-B uplink services. Performance may very between ground stations.	
Receiving Air-To-Air targets from aircraft transmitting ADS-B out on either UAT or 1090 data link. With degraded TIS-B. You may see traffic targets, but the coverage is incomplete and cannot be relied upon.	
Receiving Air-To-Air targets from aircraft transmitting ADS-B out on either UAT or 1090 data link. You are not receiving TIS-B traffic information.	
Not receiving Air-To-Air targets from aircraft transmitting ADS-B out on either UAT or 1090 data link. You are not receiving TIS-B traffic information.	

Traffic Modes

TRAFFIC DESCRIPTION

ADS-B traffic operation is similar to other traffic systems, but ADS-B adds additional symbology. The symbols used to display ADS-B traffic are shown in the table below. The traffic identifier and altitude are displayed below the traffic symbol. A small up or down arrow next to the traffic symbol indicates that the traffic is climbing or descending at a rate of at least 500 feet per minute. The vector line that extends beyond the point of the traffic arrow is just further indication of the aircraft's track.

Symbol	Description
	Non-threat, non-directional airborne traffic
	Directional airborne Traffic with track vector. Points in the direction of the aircraft track.
	Non-directional airborne Proximity Advisory (PA). Proximity Advisories are issued for any traffic within 6 nautical miles and +/- 1,200'.
	Directional airborne Proximity Advisory (PA) with track vector. Points in the direction of the aircraft track. Proximity Advisories are issued for any traffic within 6 nautical miles and +/- 1,200'.
	Non-directional airborne Traffic Advisory (TA)
	Non-directional off-scale airborne Traffic Advisory (TA). Displayed at outer range ring at proper bearing.
	Directional airborne Traffic Advisory (TA) with track vector. Points in the direction of the aircraft track.
	Directional off-scale airborne Traffic Advisory (TA). Points in the direction of the aircraft track.
	Ground traffic without directional information.
	Directional surface traffic.
	Non-directional non-aircraft ground traffic.
	Directional non-aircraft ground traffic.

ADS-B Traffic Symbology

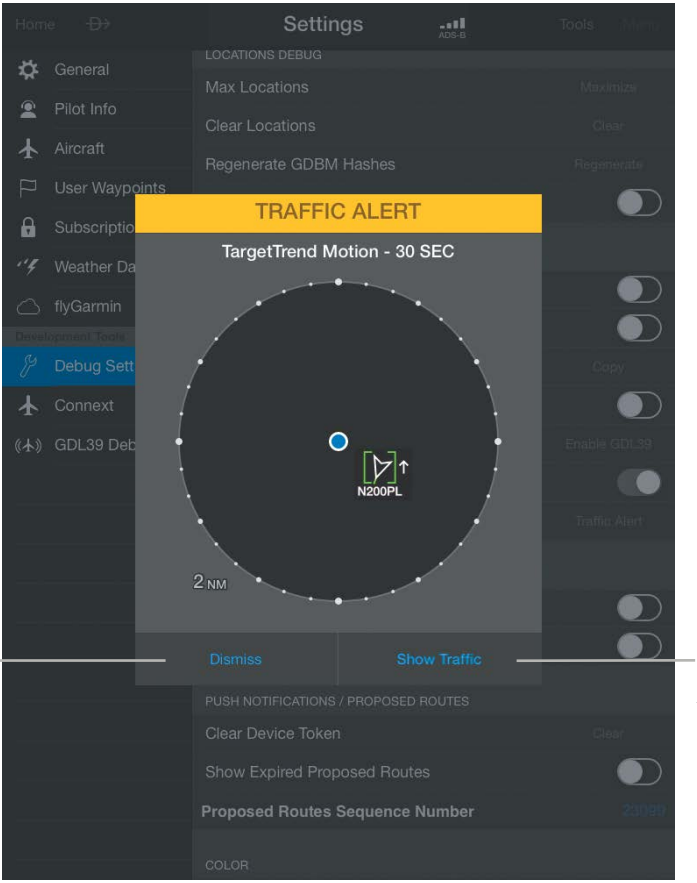
Traffic Alerts (TA)

The GDL 39 automatically adjusts its Traffic Alert (TA) sensitivity level to reduce the likelihood of nuisance TAs during various phases of flight. TAs are issued for traffic when they are predicted to be within a specified volume of airspace around your aircraft in a specified amount of time. The protected volume and time interval varies based on the current geodetic altitude and groundspeed. Thus, the protected volume of airspace increases with altitude and ground speed. Refer to the following table for details.

A Traffic Alert pop-up is displayed when alerts are enabled, the aircraft is flying above 40 kts, and Garmin Pilot is not on the Traffic Page. When Audio alerts are enabled a 'Traffic' voice alert is also issued.

Altitude (Geodetic)	Look Ahead Time (sec.)	Vertical Separation (ft.)	Horizontal Separation (nm.)
Below 5,000	30	+/-850	.35
5,000-10,000	40	+/-850	.55
10,000-20,000	45	+/-850	.80
20,000-42,000	48	+/-850	1.10
Above 42,000	48	+/-1,200	1.10

Traffic Alerts



Traffic Alert Pop-up

Enabling/disabling Traffic Alerts:

1) From any page touch **Home** > **Settings**.
2) Touch the **GDL 39** Tab.
3) Use the slider to select Traffic Alerts On/Off.

Enabling/disabling traffic data on the Map Page:

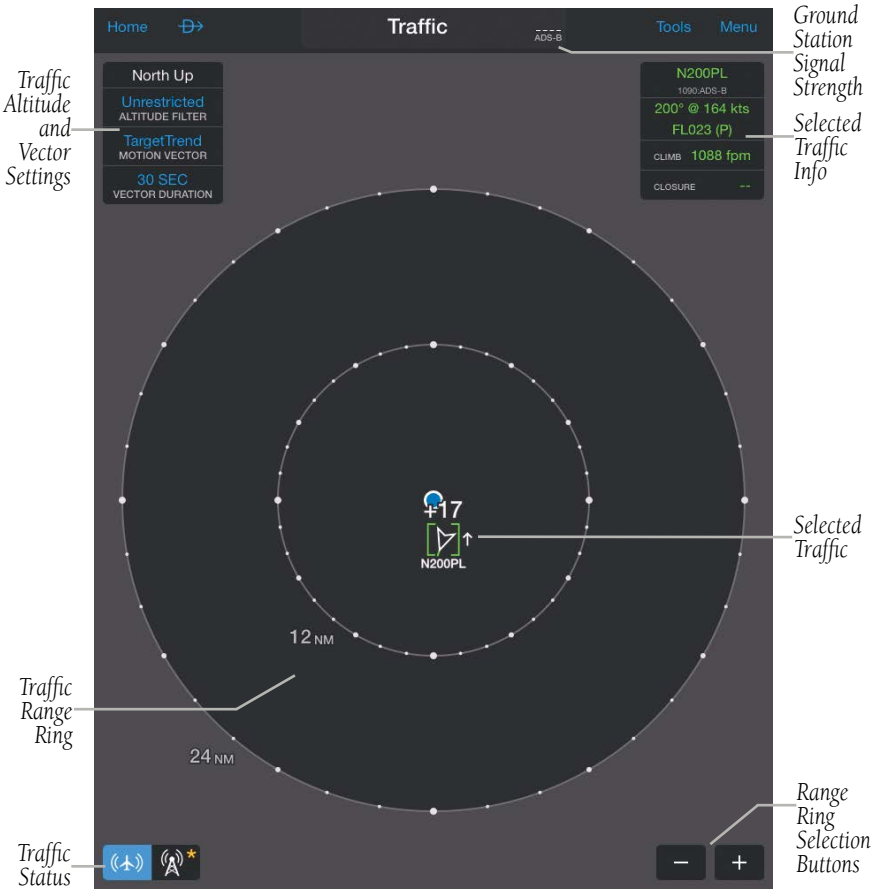
1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > **Traffic**.

Viewing the Traffic Page:

1) From any page touch **Home** > **Traffic**.
2) Touch  to change the range for the traffic rings.

Changing the altitude range:

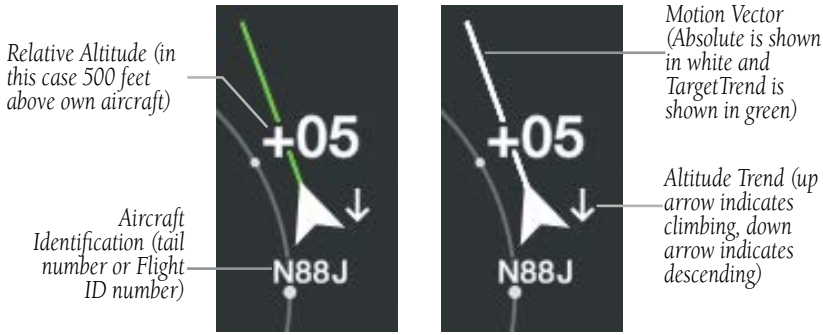
1) On the Traffic Page, Touch **Altitude Filter**.
2) Touch one of the following options:
   - **Unrestricted:** All available traffic is displayed.
   - **Above:** Displays non-threat and proximity traffic from 9000 feet above the aircraft to 2700 feet below the aircraft. Typically used during climb phase of flight.
   - **Normal:** Displays non-threat and proximity traffic from 2700 feet above the aircraft to 2700 feet below the aircraft. Typically used during enroute phase of flight.
   - **Below:** Displays non-threat and proximity traffic from 2700 feet above the aircraft to 9000 feet below the aircraft. Typically used during descent phase of flight.



Traffic Page

FLIGHT ID DISPLAY AND MOTION VECTOR

The Flight IDs of other aircraft (when available) can be displayed on the Traffic Page. When a flight ID or call sign is received, it will appear below the corresponding traffic symbol when enabled. Traffic ground track is indicated on Garmin Pilot by the Motion Vector, a short line, extending in the direction of target movement or relative movement. The track vector has two settings, TargetTrend™ shown as a green vector, or Absolute shown as a white vector. Absolute vectors extend from the traffic symbol showing the traffic's ground track. TargetTrend traffic vectors are displayed relative to your position and ground speed. For example if traffic is ahead of you and traveling in the same direction but at a slower ground speed, the motion vector would point opposite of its direction of flight, indicating that you are overtaking the traffic. Thus, the TargetTrend motion vector is relative to you, where absolute motion vectors are based on the traffic's speed and direction. The end of the Motion Vector represents the predicted absolute or relative location of the traffic, based the traffic's reported track, ground speed and the Vector Duration setting (15, 30, 60, or 120 seconds).



Example ADS-B Traffic

NOTE: *Traffic Altitude Filters and Motion Vector settings can only be changed on the dedicated Traffic Page. The Altitude Filter and Motion Vector settings from the Traffic Page will be used on the Map Page as well.*

Enabling/Disabling Flight ID Display:

1) From any page touch **Home** > **Traffic**.
2) Touch **Menu** > **Show Tail Numbers**.

Changing the Motion Vector:

1) From any page touch **Home** > **Traffic**.
2) Touch the Motion Vector field in the upper left corner of the Traffic Page and select either **TargetTrend** or **Absolute**.

Changing the Vector Duration:

1) From any page touch **Home** > **Traffic**.
2) Touch the Vector Duration field in the upper left corner of the Traffic Page and select **15**, **30**, **60,** or **120** seconds.

TargetTrend Vector showing you are overtaking the traffic

TargetTrend Vector showing traffic will pass behind you

TargetTrend™ Vectors

DATA LINK WEATHER (FIS-B)

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

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

The GDL 39 can also receive and, when connected Garmin Pilot, display Flight Information Service-Broadcast (FIS-B). FIS-B is a subscription-free weather service that is broadcast by Ground Based Transceivers (GBTs) over the 978 MHz UAT frequency band as part of the FAA's Next Generation Air Transportation System (NextGen). To receive FIS-B weather information, the GDL 39 must be within range and line-of-sight of an operating GBT. Reception may be affected by factors including altitude or terrain. GDL 39-supported FIS-B weather products include METARs, TAFs, NEXRAD (Regional and CONUS), AIRMETs, SIGMETs, PIREPs, Winds and Temperatures Aloft, and NOTAMs (including TFRs).

Viewing FIS-B Weather product and Ground Station Status:

1) From any page touch **Home** > **Settings**.
2) Touch the **GDL 39** Tab.

FIS-B WEATHER PRODUCTS

FIS-B weather broadcasts are updated regularly and may take approximately ten minutes to transmit all available weather data. Therefore, not all available weather data is immediately available. No pilot action is required to receive FIS-B weather information. Weather product status can be viewed on the Settings Page under the GDL 39 tab.

When a FIS-B weather product is active on a map or in a Weather Widget, the age of the data is displayed. The age of the product is based on the time difference between when the data was assembled on the ground and the current GPS time. Garmin Pilot combines the CONUS and Regional Radar into one map overlay, the time shown is for the Regional Radar product only.

Weather Product Source, Age and Relative Location

Weather Product Age and Source

NEXRAD

Weather radar data is collected from radar sites across the United States. It is combined into a mosaic for easier display and analysis. Garmin Pilot combines the CONUS and Regional Radar FIS-B products into one map overlay (Radar (FIS-B)).

The radar data displayed is not real-time. The lapsed time between collection, processing, and dissemination of radar images can be significant and may not reflect the current radar synopsis. Due to the inherent delays and the relative age of the data, it should be used for long-range planning purposes only. Never use radar data to maneuver in or near areas of hazardous weather. Rather, use it in an early-warning capacity for pre-departure evaluation.

Composite data from radar sites in the United States is shown. This data is composed of the maximum reflectivity from the individual radar sweeps at different title angels of the radar beam with respect to the ground. The display of the information is color-coded to indicate the weather severity level. Colors are used to identify the different echo intensities (reflectivity) measured in dBZ (decibels or Z). "Reflectivity" (designated by the letter Z) is the amount of transmitted power returned to the radar receiver. The dBZ values increase as returned signal strength increases. Precipitation intensity is displayed using colors corresponding to the dBZ values.

NEXRAD Abnormalities

There are possible abnormalities regarding displayed NEXRAD images. Some, but not all, of those include:

- Ground clutter

- Strobes and spurious radar data
- Sun strobes, when the radar antenna points directly at the sun
- Military aircraft deploy metallic dust (chaff) which can cause alterations in radar scans
- Interference from buildings or mountains, which may cause shadows
- Poor reception from Ground Based Transceivers (GBTs) can cause portions of the received radar imagery to not be displayed

NEXRAD Limitations

Certain limitations exist regarding the NEXRAD radar displays. Some, but not all, are listed for the user's awareness:

- NEXRAD base reflectivity does not provide sufficient information to determine cloud layers or precipitation characteristics (hail vs. rain). For example, it is not possible to distinguish between wet snow, wet hail, and rain.
- Radar base reflectivity is sampled at the minimum antenna elevation angle. An individual radar site cannot depict high altitude storms at close ranges, and has no information about storms directly over the site.
- Radar coverage in Canada is only available in the southern 1/4 of the country.

NEXRAD Intensity

Colors are used to identify the different NEXRAD echo intensities (reflectivity) measured in dBZ (decibels of Z). "Reflectivity" (designated by the letter Z) is the amount of transmitted power returned to the radar receiver. The dBZ values increase as returned signal strength increases. Precipitation intensity is displayed using colors corresponding to the dBZ values.

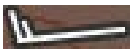
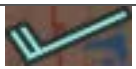
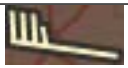
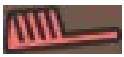
Radar Intensity

WINDS ALOFT

Winds Aloft data shows the forecasted wind speed and direction at the surface and at selected altitudes. Altitudes can be displayed in 3,000-foot increments up to 42,000 feet MSL.

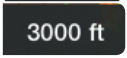
Winds Aloft are displayed using wind barbs. The wind barbs indicate wind speed and direction and always point in the direction that the wind is coming from. The wind speed is depicted using flags at the end of the wind barb. A short wind flag is 5 knots, a long wind flag is 10 knots, and a filled triangle is 50 knots. Wind barbs are also color coded to indicate wind speed.

The wind barbs always point in the direction that the wind is coming from. The wind speed is depicted using flags at the end of the wind barb. A short wind flag is 5 knots, a long wind flag is 10 knots, and a triangle flag is 50 knots.

Icons	Description
	White indicates wind speeds of 20 kts or less.
	Light blue indicates wind speeds of 21-30 kts.
	Light yellow indicates wind speeds of 31-40 kts.
	Yellow indicates wind speeds of 41-50 kts.
	Orange indicates wind speeds of 51-80 kts.
	Red indicates wind speeds of 81 kts or greater.

Winds Aloft Barbs

Viewing Winds Aloft Information:

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > **Winds Aloft**.
3) Touch  and use the slider to view forecast winds aloft.
4) Touch  and use the slider to select the desired altitude. Altitudes are displayed in 3,000-foot increments up to 42,000 feet MSL.

Viewing Winds/Temperatures Aloft:

1) From any page touch **Home** > **Map**.
2) Touch **Menu** > **Split Screen** > **Widgets**.
3) Drag the Widgets from right to left to bring the **Add Widget** into view.

4) Touch **Add Widget**.

5) Select **Winds Aloft** from the list.

Or:

1) From any page touch **Home** > **Airport Info**.

2) Select the Weather Tab to view METAR, TAF, and Winds Aloft for the selected airport.

METARS AND TAFS

METAR (METeorological Aerodrome Report) is an international code used for reporting weather observations. METARs are updated hourly or as needed. METARs typically contain information about the temperature, dew point, wind, precipitation, cloud cover, cloud heights, visibility, and barometric pressure. They can also contain information on precipitation amounts, lightning, and other critical data.

TAF (Terminal Area Forecast) is the standard format for 24-hour or 30-hour forecasts. TAFs may contain some of the same code as METAR data. It typically forecasts significant weather changes, temporary changes, probable changes, and expected changes in weather conditions. METAR and TAF data are displayed as raw and/or decoded text.

Viewing METAR and TAF Information:

1) Create a Widget for METAR or TAF information on the Map Page. From any page touch **Home** > **Map**.

2) Touch **Menu** > **Split Screen** > **Widgets.**

3) Touch 'Add Widget' Select METAR or TAF from the list of available Widgets. METAR or TAF information for the Departure Airports is displayed. To view METAR or TAF information along the route of flight drag the NavTrack. Colored push-pins show the location for the corresponding METAR or TAF report.

Or: On the Map page chose the 'Weather' overlay to view METAR derived information.

TEMPORARY FLIGHT RESTRICTIONS (TFR)

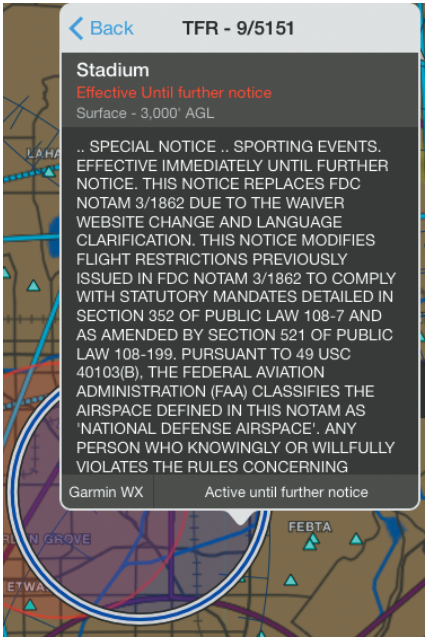
NOTE: *Do not rely solely upon data link services to provide Temporary Flight Restriction TFR information. Always confirm TFR information through official sources such as Flight Service Stations or Air Traffic Control.*

Temporary Flight Restrictions, or TFRs, temporarily restrict all aircraft from entering the selected airspace unless a waiver has been issued. TFRs are routinely issued for activities such as sporting events, dignitary visits, military depots and forest fires.

TFRs are represented as an area outlined in dark blue (special events), green (forest fires), Yellow (security), or Red (dignitary visits).

Viewing Temporary Flight Restrictions (TFR):

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > **TFRs**.
3) Touch within the shaded area of a TFR to view the radial menu.
4) Touch TFR in the Radial Menu, and select the desired TFR for details.
5) Touch Back to return to the Radial Menu.



TFR Overlay

AIRMETS

An AIRMET (AIRmen's METeorological Information) can be especially helpful for pilots of light aircraft that have limited flight capability or instrumentation. An AIRMET must affect or be forecast to affect an area of at least 3,000 square miles at any one time. AIRMETs are routinely issued for six-hour periods and are amended as necessary due to changing weather conditions. AIRMETs are displayed as colored, dashed lines.

SIGMETS

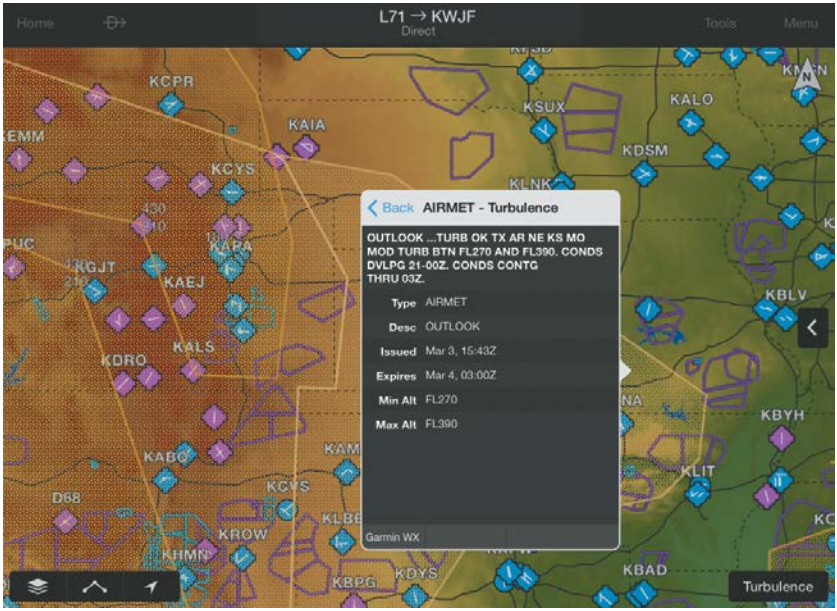
A SIGMET (SIGnificant METeorological Information) advises of weather that is potentially hazardous to all aircraft. In the contiguous United States, the following items are covered: severe icing, severe or extreme turbulence, volcanic ash, dust storms, and sandstorms that lower visibility to less than three statute miles.

A Convective SIGMET is issued for the following conditions: thunderstorms, isolated severe thunderstorms, embedded thunderstorms, hail at the surface, and tornadoes.

A SIGMET is widespread and must affect or be forecast to affect an area of at least 3,000 square miles. SIGMETs are displayed as a yellow-dashed line.

Viewing AIRMETS and SIGMETS:

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > AIR/SIGMETs.
3) Touch Map Overlay Control Button and select the desired type of AIRMET/SIGMET (i.e., Convective, Icing, IFR/MTN, or Turbulence) to display.
4) Touch within the shaded area for AIRMET/SIGMET details.



AIRMET/SIGMET Overlay

Viewing NOTAMs:

1) From any page touch **Home** > **Airport Info**.

2) Touch the Airport Identifier Button in the Summary Window.

Or: Touch **Menu** > Search.

3) At the bottom of the Airport search dialog select search criteria.

Search Criteria	Description
Search	Search Airport Information by State or use the keyboard to input the identifier, or city in the search window. This creates a list of matching airports from which to select.
Recent	Opens a list of recently viewed airports. Select desired airport from the list.
Route	Opens a list airports used to define the Active Flight Plan. Departure, Destination and any other airports used as waypoints along the route of flight.
Nearby	Opens a list of Nearby airports. Select desired airport from the list.

Airport Search Options

4) Select the Airport from the list.
5) Touch the NOTAMs Tab to view available NOTAMs for the airport.

Or:

1) From any page touch **Home** > **Map**.
2) Touch **Menu** > **Split Screen** > **Widgets.**
3) Drag the Widgets from right to left to bring the 'Add Widget' icon into view.
4) Touch **Add Widget**.
5) Touch **NOTAMs** from the list.

PIREPS

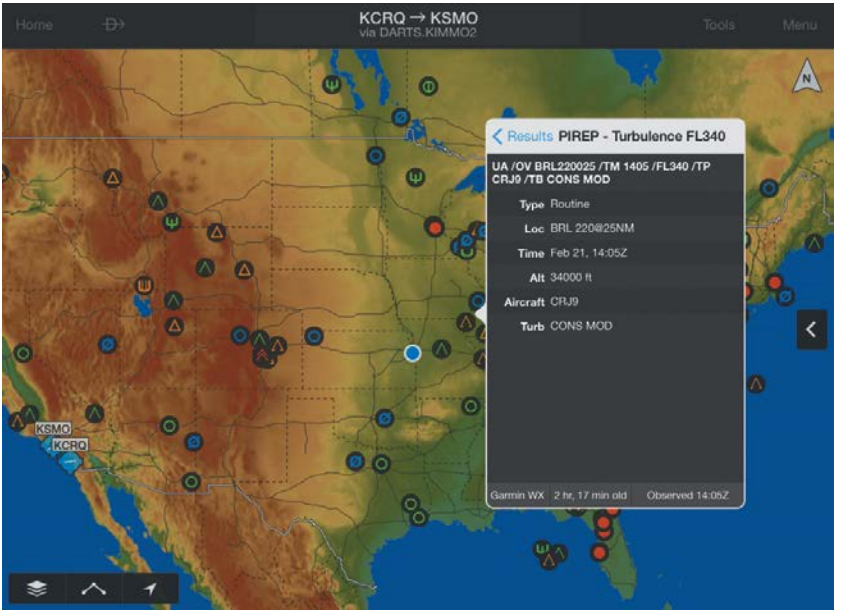
Pilot Weather Reports (PIREPs) provide timely weather information for a particular route of flight. When significant weather conditions are reported or forecast, Air Traffic Control (ATC) facilities are required to solicit PIREPs. A PIREP may contain unforecast adverse weather conditions, such as low in-flight visibility, icing conditions, wind shear, and turbulence. PIREPs are issued as either Routine (UA) or Urgent (UUA).

Viewing PIREPs:

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > **PIREPs**.
3) Touch the **PIREP** icon to display the Radial Menu.
4) Touch the **PIREP** icon in the Radial Menu, and select the desired PIREP for details.
5) Touch  to return to the Radial Menu.

PIREP TYPE	Icons	Description
Icing		Negligible Icing
		Trace Icing
		Trace to Light Icing
		Light Icing
		Light to Moderate Icing
		Moderate Icing
		Moderate to Severe Icing
		Severe Icing
Sky Conditions		Unknown Sky Condition
		Sky Clear
		Few Clouds
		Scattered Clouds
		Broken Clouds
		Overcast
		IMC
Turbulence		Turbulence Negligible or Smooth
		Light Turbulence
		Light to Moderate Turbulence
		Moderate Turbulence
		Moderate to Severe Turbulence
		Severe Turbulence
		Extreme Turbulence

PIREP Icons



PIREP Overlay Symbols

WIDGETS

There are six weather, and four navigation information products available for selection from the Widget Type flick-list. The FIS-B products available to be displayed as widgets are METAR, TAF, PIREPs, winds and temperatures aloft, AIRMET/SIGMETs and NOTAMs. The source, product age and relative location will be displayed at the bottom of each widget.

Viewing Weather Widgets:

1) From any page touch **Home** > **Map**.
2) Touch **Menu** > **Split Screen** > **Widgets**.
3) Drag the Widgets from right to left to bring the **Add Widget** icon into view.
4) Touch **Add Widget**.
5) Select a widget from the list.

TERRAIN

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

The Terrain function displays altitudes of terrain and obstructions relative to the aircraft position and altitude with reference to a database that may contain inaccuracies. Terrain and obstructions are shown only if they are in the database. Terrain and obstacle information should be used as an aid to situational awareness. They should never be used to navigate or maneuver around terrain.

Note that all obstructions may not be available in the terrain and obstacle database. No terrain and obstacle information is shown without a valid 3-D GPS position.

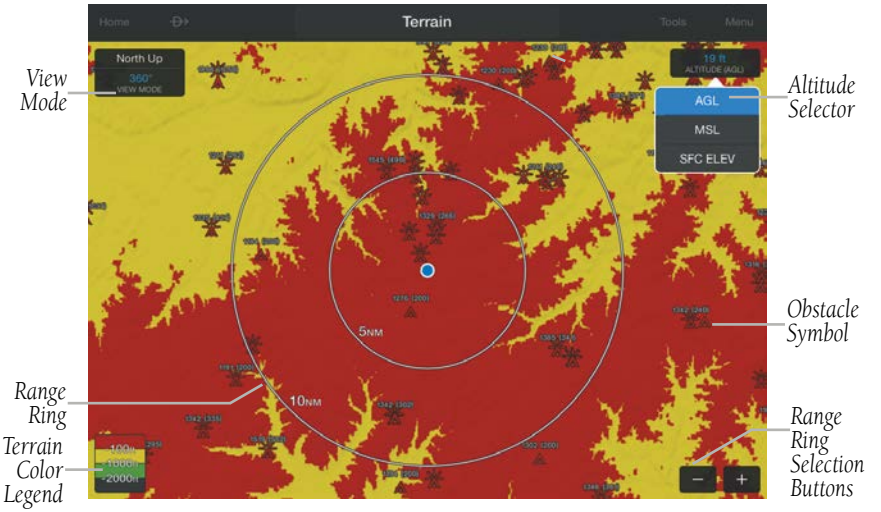
The device or external GPS receiver provides the horizontal position and altitude of the aircraft. Aircraft GPS altitude is derived from satellite position. GPS altitude is then converted to a mean sea level (MSL)-based altitude (GPS-MSL altitude) and is used to determine terrain and obstacle proximity. GPS-MSL altitude accuracy is affected by satellite geometry, but is not subject to variations in pressure and temperature that normally affect pressure altitude sensors. GPS-MSL altitude does not require local altimeter settings to determine MSL altitude. It is a widely-used MSL altitude source.

Terrain and obstacle databases are referenced to MSL. Using the GPS position and altitude, the Terrain feature portrays a 2-D picture of the surrounding terrain and obstacles relative to the position and altitude of the aircraft. GPS position and GPS-MSL altitude are used to calculate and predict the aircraft's flight path in relation to the surrounding terrain and obstacles. In this way, the pilot can view predicted dangerous terrain and obstacle conditions.

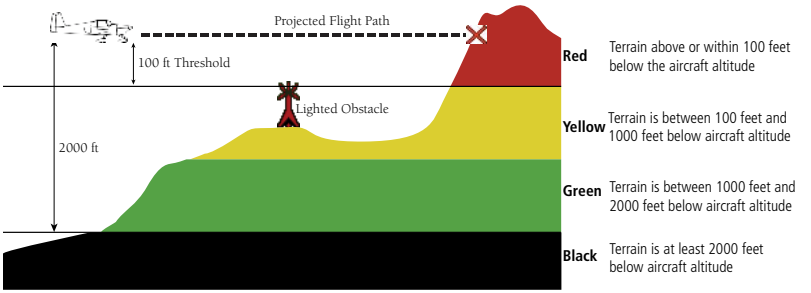
Alert windows appear to inform the pilot of proximity to the terrain and obstacles.

TERRAIN INFORMATION

Two views modes are available on the Terrain Page: the 360˚ view and the Arc view, which provides a 120˚ arc outline. The areas of the terrain shaded red are predicted to be within 100 feet below or above the aircraft. The areas in yellow are between 1,000 feet and 100 feet below the aircraft and the areas in green are between 1,000 and 2,000 feet below the aircraft. The black areas are more than 2,000 feet below the aircraft. A projected point of impact is marked with an "X" symbol. The Altitude Selector in the upper right corner can be configured to show, GPS derived AGL or GSL, or SFC ELEV (Surface Elevation) from the Terrain Database.



Terrain Page



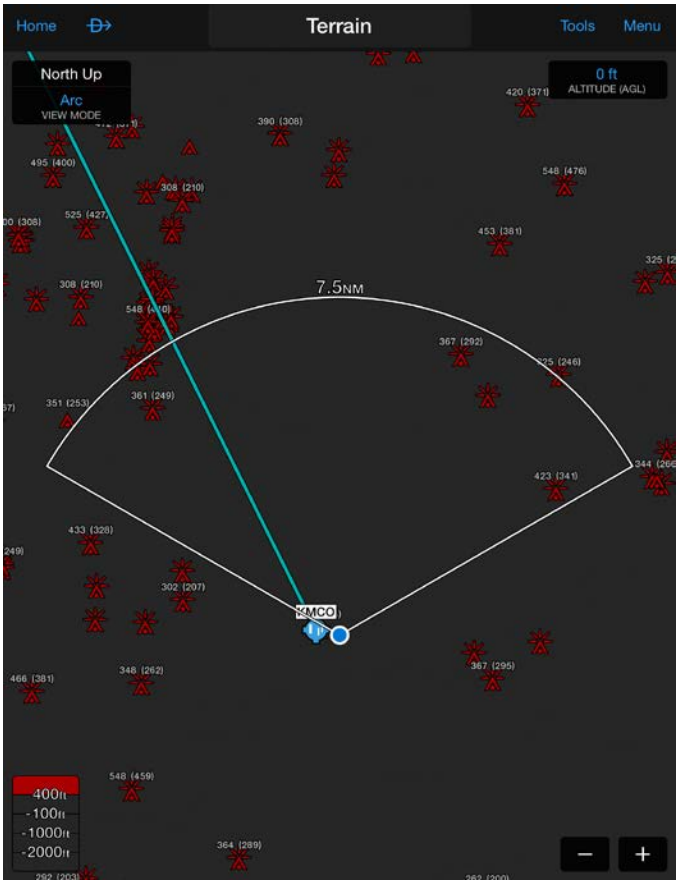
Terrain Page Altitude/Color Correlation

TERRAIN COLOR TRANSITION

During the takeoff or landing transition only terrain that is 400ft above the current location is shown in red. This is to prevent from displaying a "sea of red" during takeoffs and landings.

During the takeoff transition, the terrain colors will 'fade in' once the aircraft is airborne and flies through 400' AGL, the aircraft descends more than 25' after takeoff, or more than 60 seconds have passed since the aircraft was on the ground.

During the landing transition, the terrain colors will 'fade out' when the aircraft is within 0.5nm of an airport, the distance is decreasing, and the height above the runway is less than 200'.



Terrain Color Transition

OBSTACLE INFORMATION

Obstacles are shown on the Terrain Map View, at or below the map range of 12 nm. Obstacles are also shown on the Navigation Map from a range of 200 feet to 5 nm.

Standard aeronautical chart symbols are used for lighted or unlighted obstacles taller than 200 feet Above Ground Level (AGL). Refer to the Obstacle Icons legend below.

When selecting an obstacle with the Map Pointer, each obstacle displays the altitude at the top of the obstacle, or Mean Sea Level (MSL). Each obstacle also lists the actual height of the obstacle, or Above Ground Level (AGL).

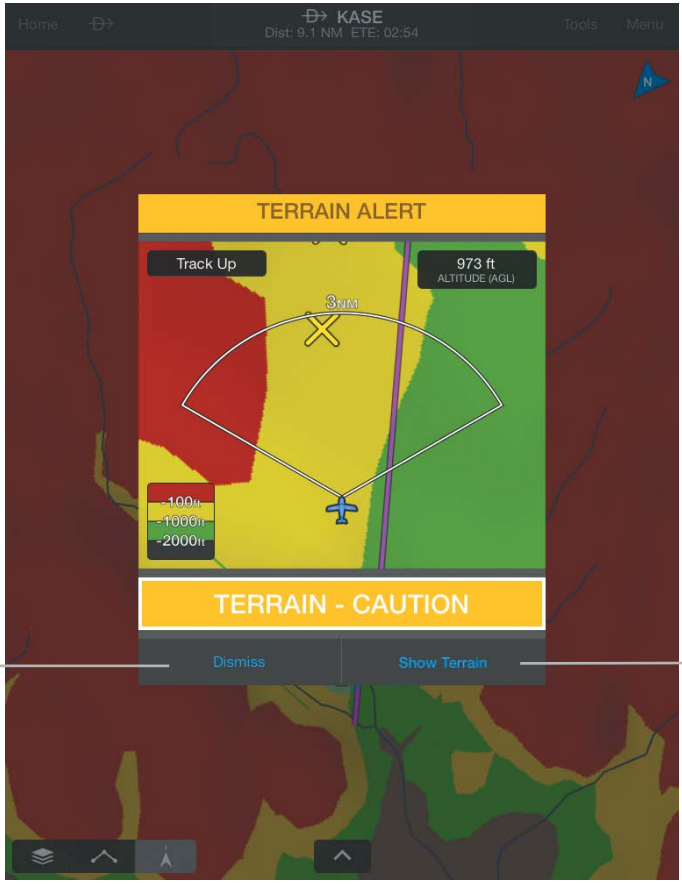
Unlighted Obstacle		Lighted Obstacle		Potential Impact Points	Obstacle Location
< 1000' AGL	> 1000' AGL	< 1000' AGL	> 1000' AGL		
					WARNING: Red obstacle is above or within 100' below current aircraft altitude
					CAUTION: Yellow obstacle is between 100' and 1000' below current aircraft altitude

Terrain Obstacle Colors and Symbology

TERRAIN AND OBSTACLE ALERTS

Terrain, Obstacle, and Descent Rate pop-up and voice alerts are issued when flight conditions meet parameters that are set within the software algorithms. Terrain alerts typically employ a CAUTION or a WARNING alert severity level, or both. When an alert is issued, visual annunciations are displayed and when enabled voice alerts are heard.

If the Terrain Page is not displayed, a pop-up alert appears. Touch **Dismiss** to acknowledge and clear the alert, or touch **Show Terrain** to view the Terrain Page.



Terrain Alert Pop-up

Alert Type	Voice Message
Terrain Caution	"Caution Terrain"
Obstacle Caution	"Caution Obstacle"
Terrain Ahead Caution	"Caution; Terrain Ahead"
Obstacle Ahead Caution	"Caution; Obstacle Ahead"
Terrain Warning	"Terrain, Terrain, Pull Up, Pull Up"; *"Pull Up"
Obstacle Warning	"Obstacle, Obstacle, Pull Up, Pull Up"; *"Pull Up"
Sink Rate Caution	"Caution; Sink Rate"
Sink Rate Warning	"Sink Rate, Pull up"; *"Pull Up"

**"Pull Up" is repeated every 5 seconds after the initial alert until alert conditions no longer exists*

Terrain and Obstacle Voice Alerts

Viewing the Terrain Page:

1) From any page touch **Home** > **Terrain**.
2) Touch  or pinch-zoom to change the range of the terrain rings.

Configuring the Terrain Page:

1) From any page touch **Home** > **Terrain**.
2) Touch **VIEW MODE**.
3) Touch **360°** to view a 360° representation of terrain.

Or: Touch **Arc** to view a forward looking 120° arc of terrain.

4) Touch **Altitude > AGL, GSL, or SFC ELEV** to format the Altitude display.

Enabling/Disabling Terrain Shading on the Navigation Map:

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > **Terrain**.

Enabling/Disabling Obstacles on the Navigation Map:

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > **Obstacles**.

CHARTS

FliteCharts resemble the paper version of AeroNav Services terminal procedures charts. The charts are displayed with high resolution and in color for applicable charts. Basic FliteCharts are included in the Garmin Pilot subscription, Geo-referenced FliteCharts are also available for an additional paid subscription. Once downloaded charts can be viewed offline. Refer to the Downloads section for more information on downloading charts. Available data includes:

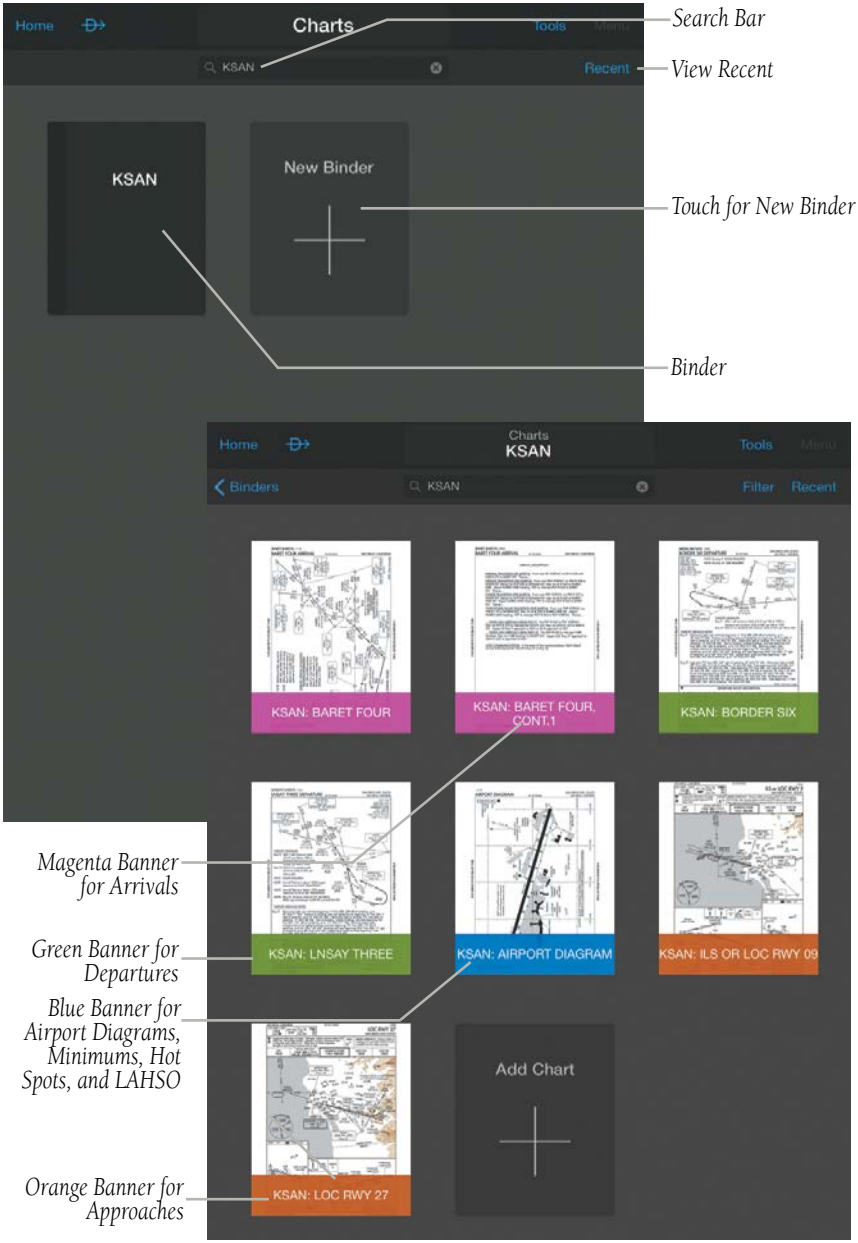
- Arrivals (STAR) BRAYMER FOUR.
- Departure Procedures (DP) ROYAL THREE.
- Approaches ILS OR LOC RWY 36.
- Airport Information Charts including: Airport Diagrams, Alternate Minimums, Take-off Minimums, LAHSO, and Hot Spots AIRPORT DIAGRAM.

Garmin Pilot makes it easy to organize all of the terminal procedures for the route of flight by creating a Binder for the departure and destination airports. Additional binders can also be created and customized by adding individual charts for any airport. Custom binders are logged in iTunes and will be restored if a device restore is required. Refer to the Downloads Page to ensure the desired charts are onboard the device. Terminal Procedure charts can be viewed and downloaded from the Airport Info Page, under the Procedures tab as well.

NOTE: *A data connection (i.e., Wi-Fi or cellular) is required to download and update charts.*

Viewing Charts in a Binder:

1) From any page, touch **Home** > **Charts**.
2) Touch the desired **Binder**.
3) Select the desired chart.
4) Touch the back button to return to binder contents.
5) Touch **<Binders** to return to the Binders Page.


Home
Charts
Tools
KSAN
Recent
KSAN
New Binder
Search Bar
View Recent
Touch for New Binder
Binder
Home
Charts
KSAN
Tools
Binders
KSAN
Filter
Recent
KSAN: BARET FOUR
KSAN: BARET FOUR, CONT.1
KSAN: BORDER SIX
KSAN: LNSAY THREE
KSAN: AIRPORT DIAGRAM
KSAN: ILS OR LOC RWY 09
Add Chart
KSAN: LOC RWY 27
Magenta Banner for Arrivals
Green Banner for Departures
Blue Banner for Airport Diagrams, Minimums, Hot Spots, and LAHSO
Orange Banner for Approaches

Binders

Organizing Binders:

1) Touch and hold on any Binder to enter Edit/Arrange Mode.
2) Drag the Binder and release the Binder at the desired location.
3) Touch 'Save' to save and exit Edit/Arrange Mode.

Viewing Recent Charts:

1) From any page, touch **Home** > **Charts**.
2) Touch **Recent**.

Searching for Charts:

1) From any page, touch **Home** > **Charts**.
2) Touch inside the search field to access the keyboard.
3) Enter the search criteria.
4) Touch the desired chart from the list.

Creating a Custom Binder:

1) From any page touch **Home** > **Charts**.
2) Touch **New Binder**.
3) Using the keyboard enter a name.
4) Touch the **Binder**.
5) Touch **Add Chart** to open a search dialog.
Or: Touch the search field to open a search dialog.
6) Enter the airport identifier using the keyboard.
7) Touch  to add the chart to the binder.

Viewing and Organizing Procedures from the Airport Info Page:

1) From any page touch **Home** > **Airport Info**.

2) Touch the Procedures Tab. All available charts and procedures are shown including Airport Info, Approach Procedures, Arrival Procedures, and Departures. Chart titles proceeded by ⬇ will need to be downloaded. Charts proceeded by ✔ have already been downloaded to the device.

3) Touch the desired chart to view

4) Touch  to create a Chart Binder or add to an existing binder.

5) Enter a Binder name.

6) Touch  for each additional chart to add to a binder.

Filtering Charts:

1) From any page, touch **Home** > **Charts**.

2) Touch any **Binder**.

3) Touch **Filter**.

Sharing Charts:

1) From any page, touch **Home** > **Charts**.

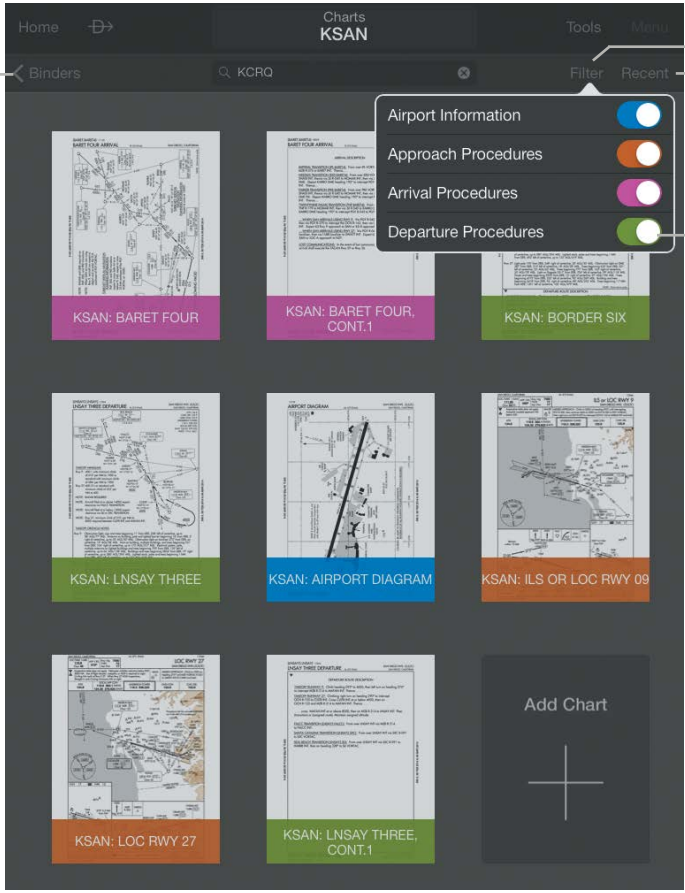
2) Touch any Binder.

3) Touch a Chart to view.

4) Touch **Menu** > **Share Page**.

Or Touch **Menu** > **Share Document** for a multi-page item such as Takeoff Minimums.

5) From the menu, select one the of the available options: **Mail**, **Save Image**, **Print**, or **Copy**.



Charts Binder

Annotating Charts:

1) From any page, touch **Home** > **Charts**.

2) Touch any Binder > Chart.

3) Touch Menu > Annotate Chart.

Or: Long Press on the Chart

4) Touch  to display the Tools Palette.

5) Touch the desired tool (Draw, Highlight, or Erase)

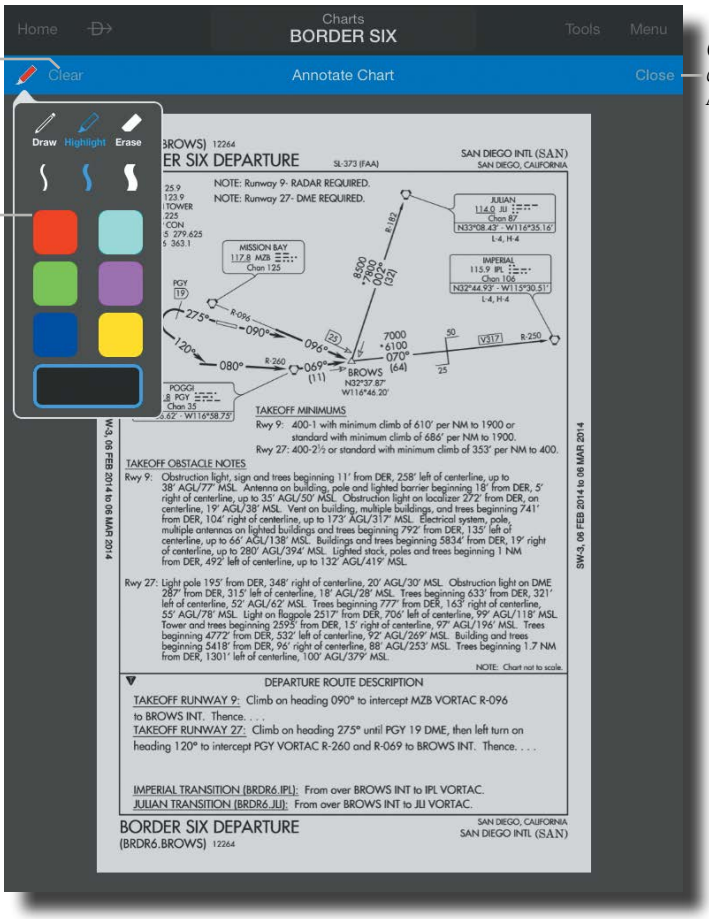
6) Touch the desired color and stroke.

7) Annotate Chart as desired

8) Touch **Clear** > **Clear Annotations** to clear annotations.

9) Touch **Close** to close and save annotations.

NOTE: *While Annotating a chart A/FD, the chart can be zoomed or panned by pinching two fingers together or by pulling fingers apart. Any other touch will result in annotation.*



Annotate Chart

SCRATCH PAD

The Scratch Pad, allows the pilot to quickly draw or write down information on the device screen. From copying clearances, to noting weather conditions, the scratch pad helps keep all flight information at your finger tips.

Using the Scratch Pad:

1) From any page touch **Home** > **Scratch Pad**.

2) Touch  to display the Tools Palette.

3) Touch the desired tool (Draw, Highlight, or Erase)

4) Touch the desired color and stroke.

Clearing the Scratch Pad:

1) From any page touch **Home** > **Scratch Pad**.

2) Touch  to display the Tools Palette

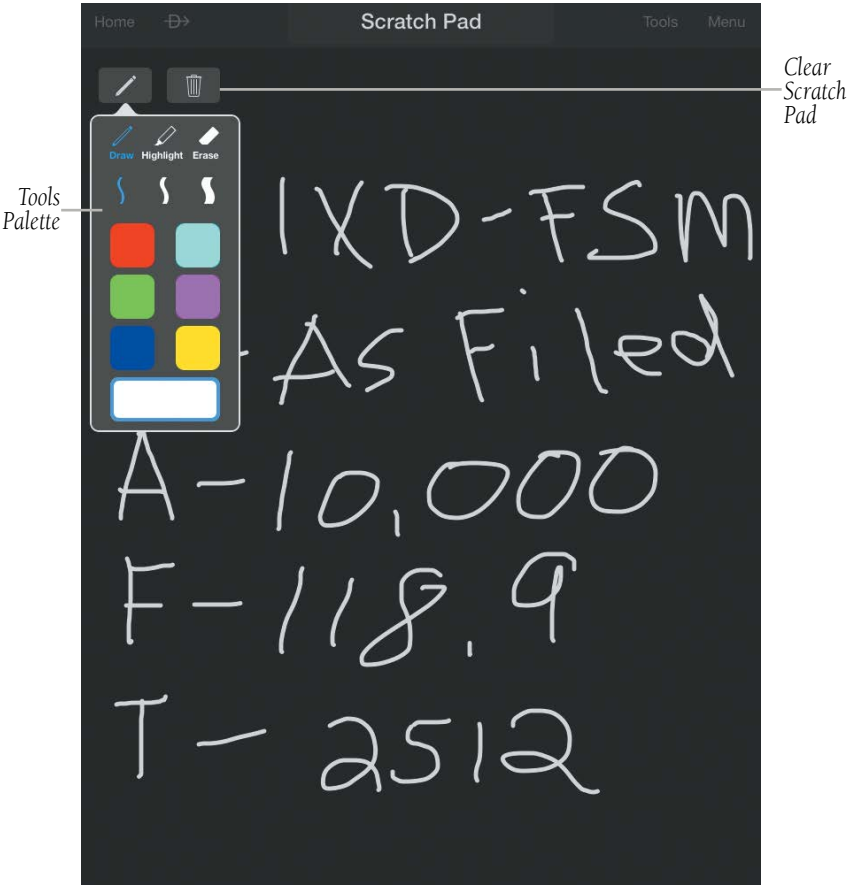
3) Touch the Erase Tool, to erase small areas.

Or: Touch  > **Clear Scratch Pad** to clear the entire scratch pad.

Inverting colors on the Scratch Pad:

1) From any page touch **Home** > **Scratch Pad**.

2) Touch **Menu** > **Invert Colors**.


Home
Scratch Pad
Tools
Menu
Clear Scratch Pad
Tools Palette
Draw
Highlight
Erase
IXD-FSM
As Filed
A-10,000
F-118.9
T-2512

Scratch Pad

SUBSCRIPTIONS

Garmin Pilot offers the ability to purchase additional subscriptions. The VFR Premium Subscription includes terrain/obstacle data and alerting, and Garmin's SafeTaxi showing runways, taxiways, FBOs and hangars, geo-referenced with your current location. The IFR Premium Subscription includes everything in the VFR Premium Subscription plus, Geo-referenced FliteCharts, showing aircraft position on over 11,000 approach plates.

VFR PREMIUM

See the Fly section for more information on Terrain and Obstacles.

SAFETAXI

SafeTaxi is an enhanced feature that gives an airport diagram with greater map detail. The maximum map ranges for enhanced detail are pilot-configurable. SafeTaxi diagrams showing taxiways with identifying letters, runway numbers, airport Hot Spots, and airport landmarks including ramps, buildings, control towers, and other prominent features. Resolution is greater at lower map ranges. When SafeTaxi is available for an airport the **SafeTaxi®** button becomes active on the Airport Info Page. SafeTaxi information is also available in split mode or on the Map Pane. Map Pane display of SafeTaxi is based on the Map zoom level and the SafeTaxi Visibility Range set under > **Map/Chart** > **Map Theme** > > **Airports**.

Designated Hot Spots are recognized at airports with many intersecting taxiways and runways, and/or complex ramp areas. Airport Hot Spots are outlined to caution pilots of areas on an airport surface where positional awareness confusion or runway incursions happen most often. Hot Spots are shown as red outlined and shaded areas on the SafeTaxi diagram.

Configuring the display of SafeTaxi (Subscription Required):

1) Touch > **Map/Chart** > **Map Theme** > > **Airports.**
2) Under the **Visibility Range** heading, use the slider to configure the map range at which SafeTaxi detail is displayed on the map**.**
3) Under the **Label Size** heading, touch **Off, Small, Medium, or Large** labels**.**

Viewing SafeTaxi (Subscription Required):

From any page touch **Home** > **Map**, pull fingers apart or double tap with one finger to zoom in on the desired airport.

Or:

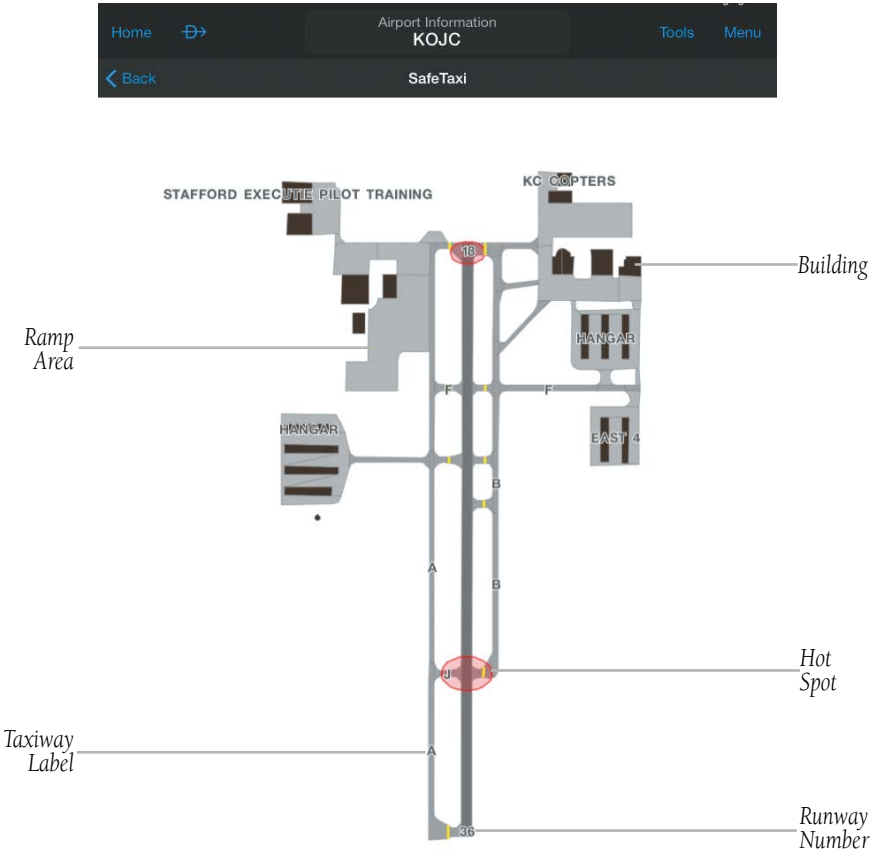
1) From any page touch **Home** > **Airport Info**.

2) Touch **SafeTaxi®** to view the SafeTaxi airport diagram.

3) Touch **Back** to return to the Airport Info Page.

Or: From any page touch **Home** > **Map** > **Menu** > **Split Screen** > **SafeTaxi.**

NOTE: *SafeTaxi is only available on Maps (i.e., Road/Borders, VFR, or IFR). SafeTaxi is not available on Charts; Sectionals/TAC, WAC, IFR Low, or IFR High.*

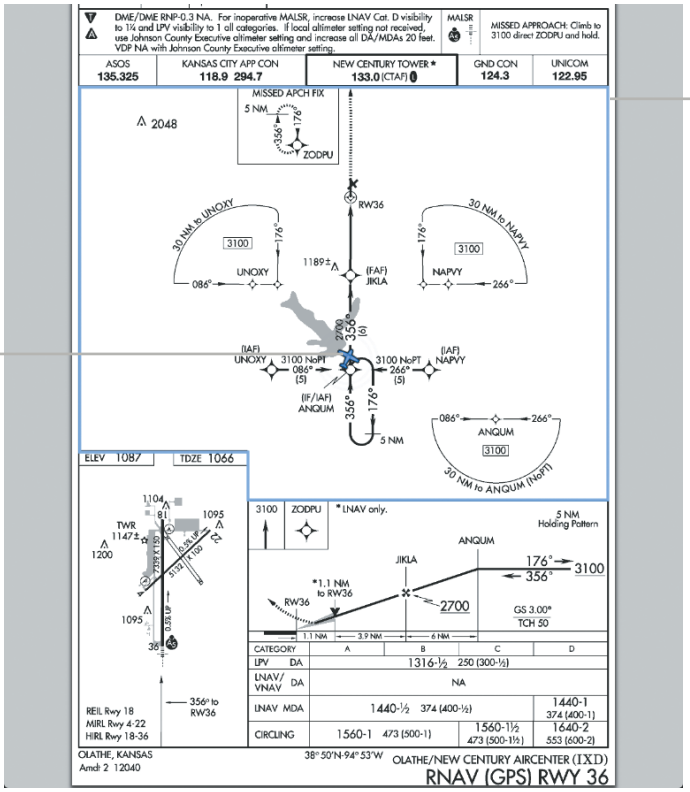


SafeTaxi (VFR Map)

IFR PREMIUM

GEO-REFERENCED FLITECHARTS

If a FliteCharts subscription has been purchased, ensure that Garmin Pilot, log-in information has been entered in the subscriptions tab of the Settings Page. Geo-referenced FliteCharts will be active on all available charts.



Geo-Referenced FliteCharts

BARON MOBILE LINK™

The Baron Mobile Link™ in combination with a SiriusXM subscription provides in-flight weather information including: US Radar, Canada Radar, P. Rico Radar, Satellite, Echo Tops, Weather, and PIREPs. The Baron Mobile Link is an external accessory that allows Garmin Pilot to receive SiriusXM Weather wirelessly.

Activating Baron Mobile Link™:

1) From any page touch **Home** > **Settings**.

2) Touch the Weather Data Tab.

3) Use the On/Off slider to turn on the Baron Mobile Link™.

Connecting to a Baron Mobile Link Network:

1) Open the iPad Settings Menu.

2) Under the Settings column on the left, touch 'Wi-Fi'.

3) If necessary, use the On/Off slider to turn on Wi-Fi.

4) Select the Baron Mobile Link from the list of available networks.

5) If necessary, enter the network password.

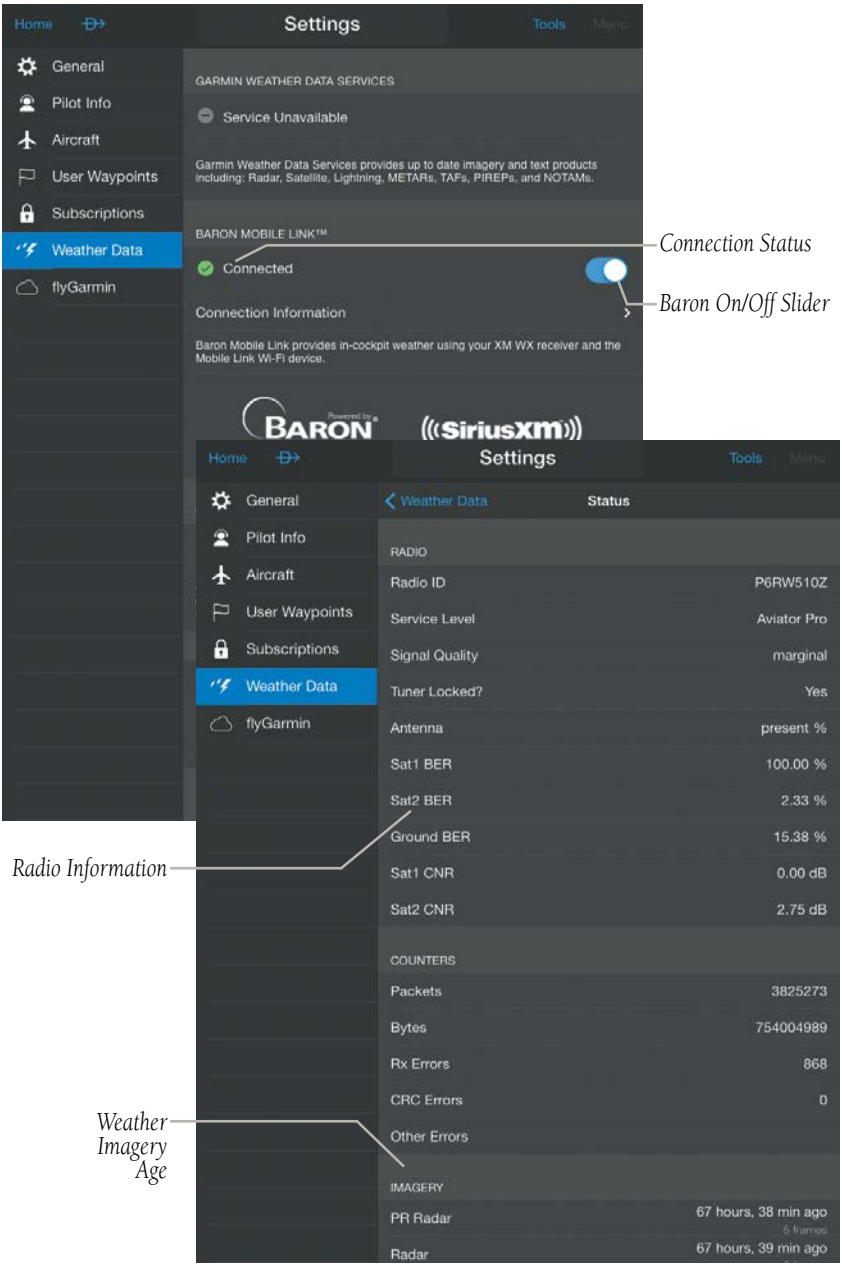
Viewing Radio Information:

1) From any page touch **Home** > **Settings**.

2) Touch the Weather Data Tab.

3) Use the On/Off slider to turn on the Baron Mobile Link™.

4) Touch 'Connection Information' to view radio information (including Radio ID, Service Level , Signal Quality, and Weather Imagery update information).



Baron Mobile Link

Viewing Radar Information:

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays** > **Radar, Radar (CAN),** or **Radar (P. Rico)**.
3) Touch  to animate the radar loop. Each frame of the radar loop is time stamped. The time stamp is just right of the play button.

Viewing Satellite Information:

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays > Satellite**.
3) Touch  to animate the satellite loop. Each frame of the satellite loop is time stamped. The time stamp is just right of the play button.

Viewing Echo Tops:

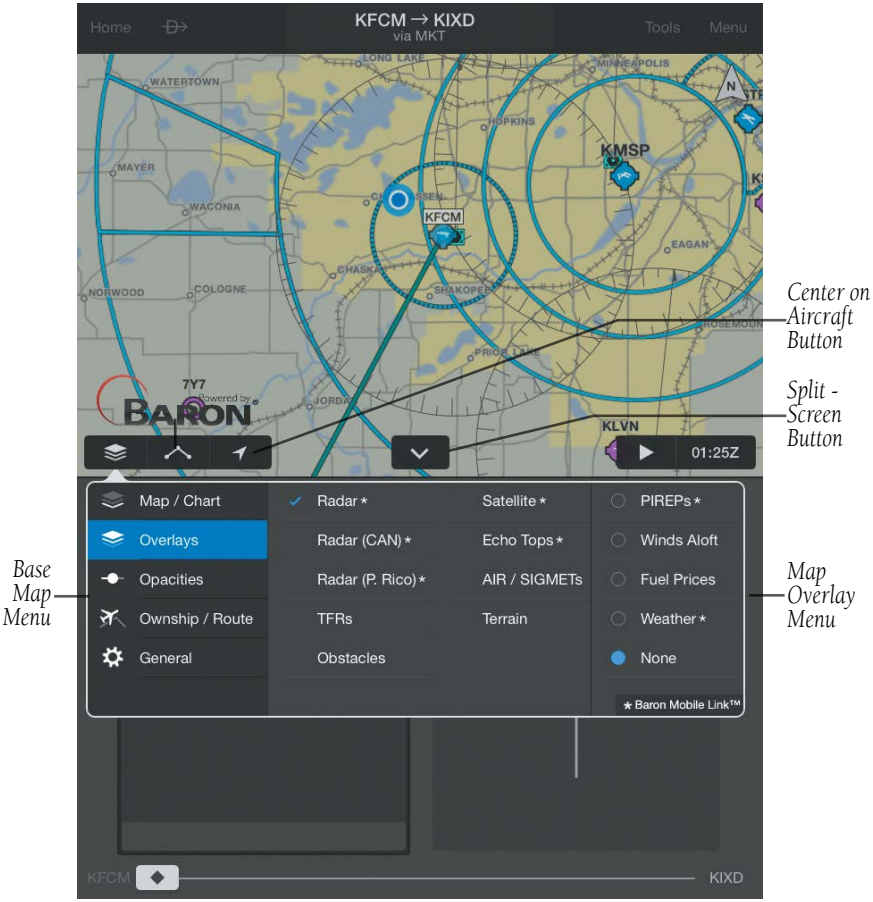
1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays > Echo Tops**.
3) Touch  to animate the radar loop. Each frame of the loop is time stamped. The time stamp is just right of the play button.

Viewing PIREPs:

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays > PIREPs**.

Viewing and Configuring the Weather Overlay:

1) From any page touch **Home** > **Map**.
2) Touch  > **Overlays > Weather**.
3) Touch the Overlay button next to the Split-Screen button.
4) Select the desired option from the flick-list.
5) Touch any of the displayed Weather Icons to view the Raw and translated METAR information.



SiriusXM Weather Overlays

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