



ForeFlight

MILITARY FLIGHT BAG

Guide



ForeFlight
A Boeing Company

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DEFINITIONS

Abbreviation	Definition
A/FD	Airport Facility Directory
AFTN	Aeronautical Fixed Telecommunications Network
AHRS	Attitude and Heading Reference System
ART	Aerial Refueling Track(s)
ASRR	Airfield Suitability and Runway Reports
ATC	Air Traffic Control
BAM	Bird Avoidance Model
CAC	Common Access Card
CFPS	Combat Flight Planning Software
CRD	Common Route Definition
D-FLIP	DOD Digital Flight Information Publications
DAFIF	Digital Aeronautical Flight Information File
DOD	Department of Defense
ECRG	Enhanced Compression Raster Graphics
FAA	Federal Aviation Administration
FPL	Flight Plan (in reference to the Flight Plan Editor)
FOUO	For Official Use Only
GeoPDF	A georeferenced Portable Document Format (PDF) file
GeoTIFF	A georeferenced Tag Image File Format (TIFF) file
IFR	Instrument Flight Rules
ITAR	International Traffic in Arms
JET	Joint Environment Toolkit
JMCS	Jeppesen Military Charting Service
JMPS	Joint Mission Planning System
JOG	Joint Operations Graphic
KML	Keyhole Markup Language file



DEFINITIONS

Abbreviation	Definition
MBTiles	MapBox tiles, a format for storing tilesets
METAR	Meteorological Actual Report
MFB	Military Flight Bag
MIPR	Military Interdepartmental Purchase Request
MTR	Military Training Route(s)
NGA	National Geospatial-Intelligence Agency
ONC	Operational Navigation Chart(s)
OWS	Operational Weather Squadron
PFPS	Portable Flight Planning Software or System
SBFM	Soaring Bird Forecast Model
SD	Secure Digital
SIDs	Standard Instrument Departure
SOP	Standard Operating Procedure
STAR	Standard Terminal Arrival Route
TAF	Terminal Area Forecast
TPC	Tactical Pilotage Charts
USML	U.S. Munitions List
VFR	Visual Flight Rules
WW	Weather Wing

INTRODUCTION

ForeFlight Military Flight Bag (MFB) is an enhanced version of the ForeFlight Mobile electronic flight bag app with features that support the global flight operations of military and government pilots.

Military Flight Bag is available in Pro and Performance plans for individuals. Multi-pilot accounts are also available. Managers of multi-pilot accounts can log in to ForeFlight's **web-based dashboard** to add or remove users and devices, monitor data and software currency compliance on each device, and distribute documents to every pilot's iPad. For details on using a Military Interdepartmental Purchase Request (MIPR), email sales@foreflight.com.

This manual provides an overview of features only available in ForeFlight's MFB. For general information about ForeFlight Mobile, please refer to the "Pilot's Guide to ForeFlight Mobile" available in the app in Documents > Catalog > ForeFlight or at www.foreflight.com/support/pilots-guide/.

1.1 Feature Breakdown

ForeFlight Military Flight Bag includes:

- Global Data & Chart Coverage includes JOG, TPC, ONC, and Range Charts, as well as Jeppesen JMCS Chart Integration
- DOD Documents and Publications
- Military Training Routes
- Aerial Refueling Tracks
- Importing CRD Flight Plan Files
- Official DOD Weather Data from 557 WW
- DD-1801 Flight Plan Filing
- Bullseye™ Tactical Navigation Tool
- Remote Sideload of Charts & Data

1. INTRODUCTION

1.2 Restrictions on International Users

ForeFlight MFB International is available for approved international militaries and governments. Portions of MFB data are sourced through the National Geospatial-Intelligence Agency (NGA), the United States Air Force, and other military and government entities. Permission for use must be granted by their respective agencies.

1.3 Restricted Profiles Access

In compliance with U.S. Federal export regulations, ForeFlight MFB requires a license for the distribution of International Traffic in Arms (ITAR)-controlled performance data and other information under the U.S. Munitions List (USML) to non-U.S. entities. Licenses to access Restricted Aircraft Profiles can be requested by contacting foreflight.com/support/enterprise-portal/.

1.3.1 Military Flight Bag Email Verification Process

Due to the sensitive nature of aircraft performance profiles, ForeFlight must individually provision them. Email foreflight.com/support/enterprise-portal/ from a military email address with the identifier of the aircraft flown. Once pilot eligibility is confirmed, the aircraft profiles will be made available in the app. This is to comply with U.S. export regulations and to safeguard military data.

1.4 Conditional Sync

Military users often have security requirements that prevent them from using ForeFlight's sync system. This feature divides synced data into specific categories in order to sync and share data that is not sensitive and leave out data that is sensitive.

For MFB subscribers that are part of an organization-level account, items that will sync are set by the administrator. Individual users that are part of such an account cannot change what will be synced.

NOTE: For MFB subscribers, where necessary, ensure that your Military ForeFlight Account allows Data Sync and that all devices have Synchronize User Data enabled on their devices.

1. INTRODUCTION

1.5 Plan Comparison

ForeFlight offers three plan types for military and government pilots. Each plan includes standard ForeFlight Mobile features and features that are unique to the Military Flight Bag (MFB) plans. This guide only discusses features that are unique to the MFB plans. Please refer to the “Pilot’s Guide to ForeFlight Mobile” available in-app at **Documents > Catalog > ForeFlight** or at www.foreflight.com/support/pilots-guide/.

Refer to the table below to determine if a feature is included in your plan.

Features	MFB Pro	MFB Performance	MFB One
Aeronautical Map	✓	✓	✓
High-Resolution Base Map	✓	✓	✓
Flight Planning	✓	✓	✓
Flight Plan Filing	✓	✓	✓
En Route Charts	✓	✓	✓
Airport and FBO Data	✓	✓	✓
Integrated Weather Data	✓	✓	✓
Global Navigation Data	✓	✓	✓
ForeFlight Airport Diagrams	✓	✓	✓
Jeppesen VFR Procedures	✓	✓	✓
Optional Data Packages	✓	✓	✓
Weight & Balance	✓	✓	✓
Logbook	✓	✓	✓
Avionics Connectivity	✓	✓	✓
Printable NavLog	✓	✓	✓
Documents Catalog	✓	✓	✓
Flight Notifications	✓	✓	✓
Track Logs	✓	✓	✓
Breadcrumbs	✓	✓	✓
Passenger App Mode	✓	✓	✓
Internet Traffic	✓	✓	✓

1. INTRODUCTION

Plates on Maps	✓	✓	✓
Synthetic Vision	✓	✓	✓
Hazard Advisor + Hazard Alerts	✓	✓	✓
Profile View	✓	✓	✓
Cloud Documents	✓	✓	✓
Icing, Turbulence Map Layers	✓	✓	✓
Surface Analysis Map Layer	✓	✓	✓
Content Pack		✓	✓
Performance Profiles		✓	✓
3D View		✓	✓
Recommended Routing		✓	✓
Takeoff & Landing Performance		✓	✓
Runway Analysis (Add-on license required)		✓	✓
Pre-Departure Clearance (PDC)		✓	✓
Digital ATIS (D-ATIS)		✓	✓
Fuel Load Planner		✓	✓
557th Weather Wing Icing & Turbulence Map Layers		✓	✓
FBO Fuel Orders		✓	✓
Trip Assistant		✓	✓
Files in Flights		✓	✓
Marked Positions		✓	✓
Enroute Fuel Changes (Aerial Fueling)			✓
Time on Target			✓
Avian Hazard Forecasts			✓
Air Force DD 175-1Weather Briefs			✓
Obstacles (DOD)			✓
557th forecasts in 3D & Profile View*			✓
ForeFlight on the Web	✓	✓	✓

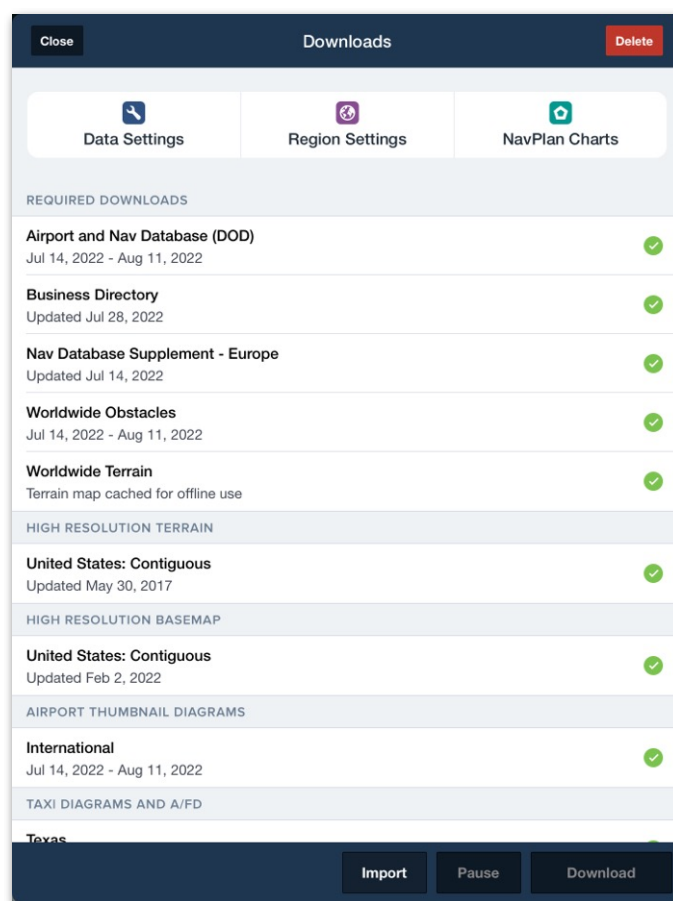
DOWNLOADS

The Downloads view manages chart, terminal procedure, terrain, and obstacle downloads. ForeFlight Military Flight Bag (MFB) includes access to FAA, Nav Canada, EUROCONTROL, and DOD data.

ForeFlight MFB One accounts include access to the data listed above and Australian data. To access the downloads view, tap **More > Downloads**.

Data must be downloaded for offline use. DOD charts can only be viewed if downloaded.

When launching ForeFlight for the first time, data required to use the app is automatically downloaded. This data is grouped at the top of the Downloads view in the *Required Downloads* section. Additional data can be downloaded by configuring the download settings with the buttons at the top of the view. Additional downloaded data is grouped by type below the required downloads.



Downloads View

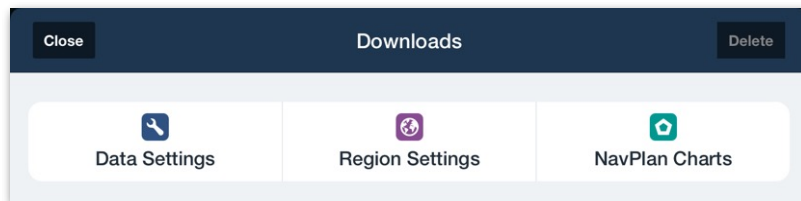
2. DOWNLOADS

2.1 Configuring Downloads

Downloads are configured by selecting items from the following menus:

- **Data Settings**
- **Region Settings**
- **NavPlan Charts**

To access the menus, tap the buttons at the top of the Downloads view.



Download Settings Buttons

All items (except for the required downloads) are optional. Download selections do not sync between devices. Download selections can be made in any order and changed at any time.

Selecting items for download prompts ForeFlight to download the data if it is not already installed.

IMPORTANT: Download selections are not synced between devices.

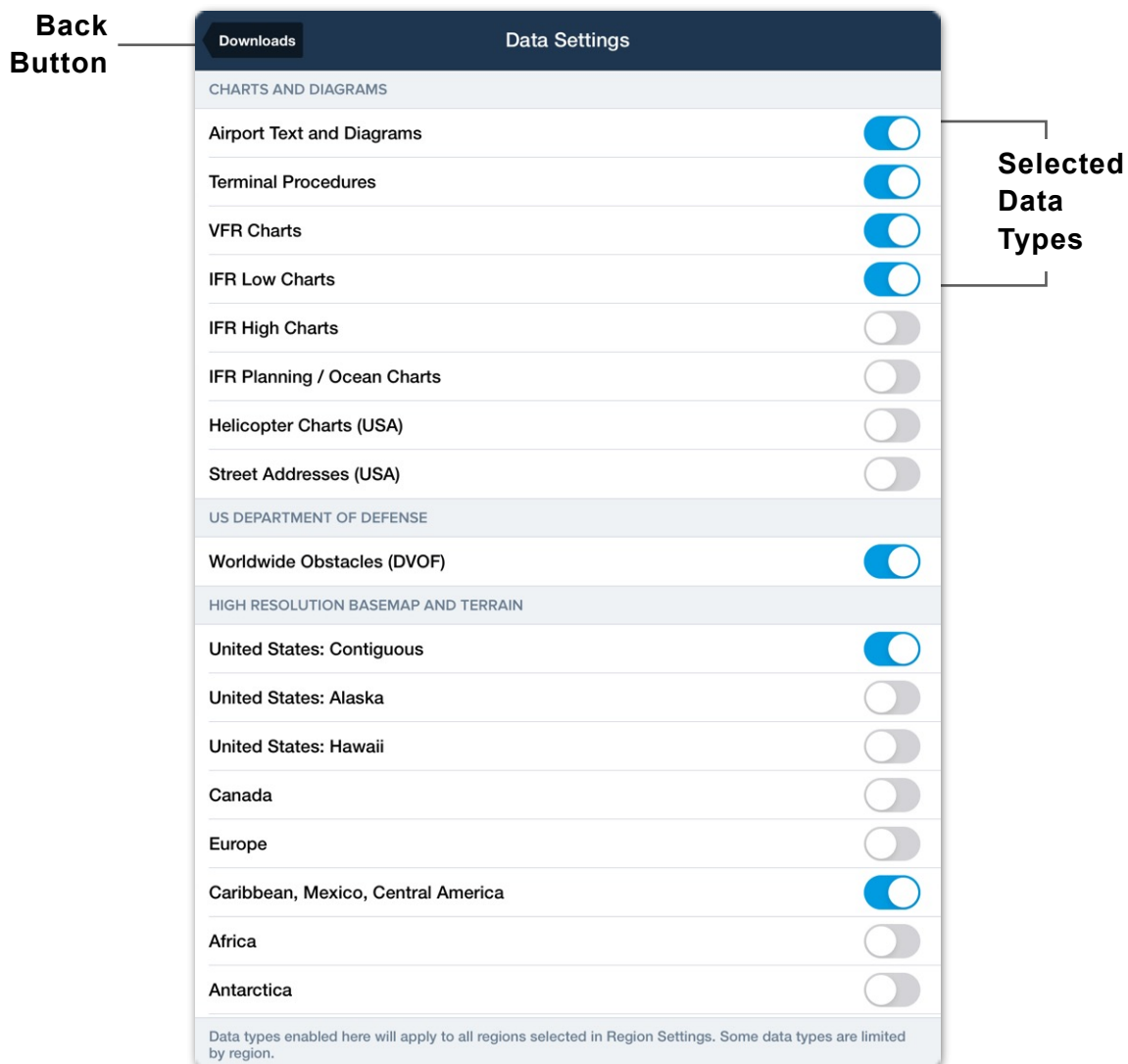
2. DOWNLOADS

2.1.1 Data Settings

The Data Settings menu specifies the types of charts, plates, and additional data to download. To select a data type, tap the toggle switch. Each selected data type (blue toggle switch) will be downloaded for the chosen regions (if available). It is not possible to select different data settings per region.

High Resolution Basemap and Terrain

High-resolution basemap and terrain downloads are not associated with region settings. Selecting a high-resolution basemap and terrain download installs the data regardless of region settings. After making data setting selections, tap the **Downloads** back button to return to the Downloads view.



Data Settings Menu

2. DOWNLOADS

Data Type Definitions

The following data types are available for download:

- **Airport Text and Diagrams** provide taxi diagrams, aerodrome charts, and A/FD, CFS, and AIP data for use in the Airports view (frequencies, runways, hours, FBOs, etc.) and the Maps view (locations, routes, NAVAIDS, airspaces).
- **Terminal Procedures** include FAA, Nav Canada, and EUROCONTROL arrival, departure, and approach plates for the selected regions.
- **VFR, IFR High, IFR Low Charts** contain seamless en route charts for the United States, Canada, and Europe.
- **IFR Planning / Ocean Charts** contains IFR planning and ocean charts for the United States and Atlantic and Pacific oceans.
- **Helicopter Charts (USA)** include nine major metro areas and U.S. Gulf of Mexico VFR and IFR Helicopter charts (downloaded when the Gulf of Mexico is selected).
- **Street Address** allows offline street address search. Street addresses can be searched from the Maps or Airports search bar.
- **Worldwide Obstacles (DVOF)** is high-resolution optional obstacle database. This data is displayed when the **Obstacles (DOD)** map layer is enabled.
- **High-Resolution Basemap and Terrain** add additional detail to the base map. High-resolution terrain is a required download for the use of Synthetic Vision.

2. DOWNLOADS

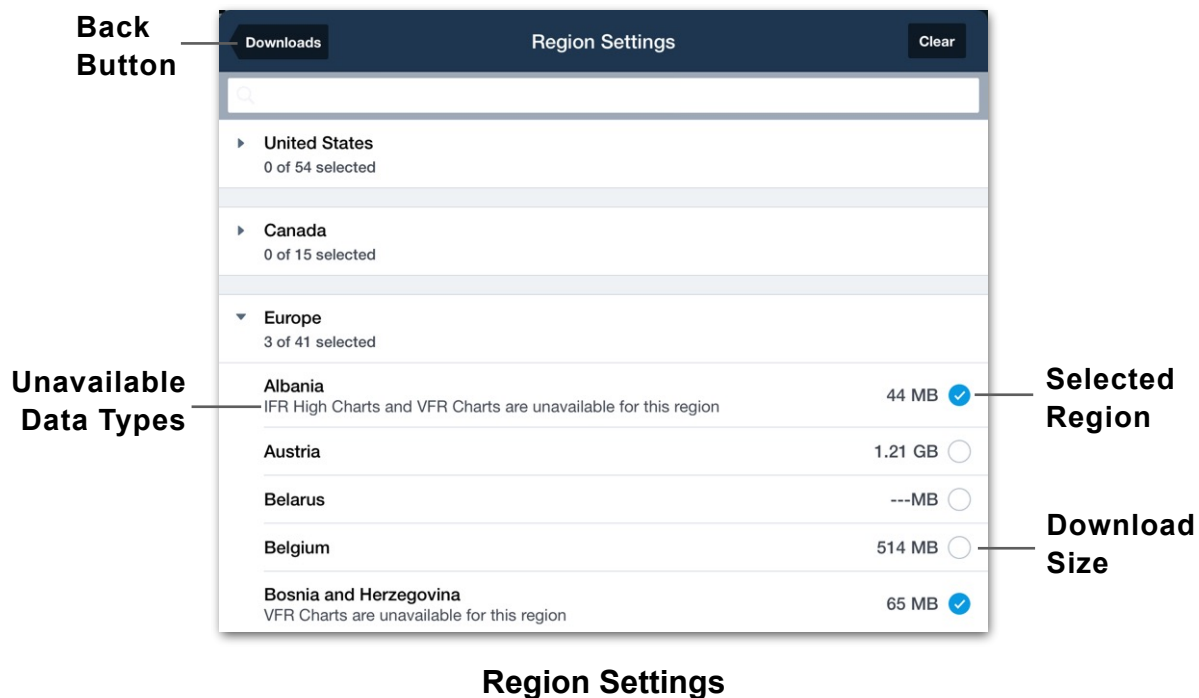
2.1.2 Region Settings

The Region Settings menu specifies the geographic locations for which to download data. Region settings are divided into five sections: United States, Canada, Europe, Caribbean/Mexico/Central America, and DOD. Tap a region to expand the menu.

The expanded menus display the available countries, states, or provinces. Tap the rows to select the desired regions. Tap a selected region to deselect it. Selected regions are indicated with a blue checkmark.

Download size is listed to the right of the region. Download size is dynamic and varies based on the selected data types and available data. A note is displayed after selecting the region if a data type is unavailable.

After region selections have been made, tap the **Downloads** back button to return to the Downloads view.



NOTE: It is not possible to select different data types per region.

2. DOWNLOADS

2.1.3 Mission Planning Charts (NavPlan Charts)

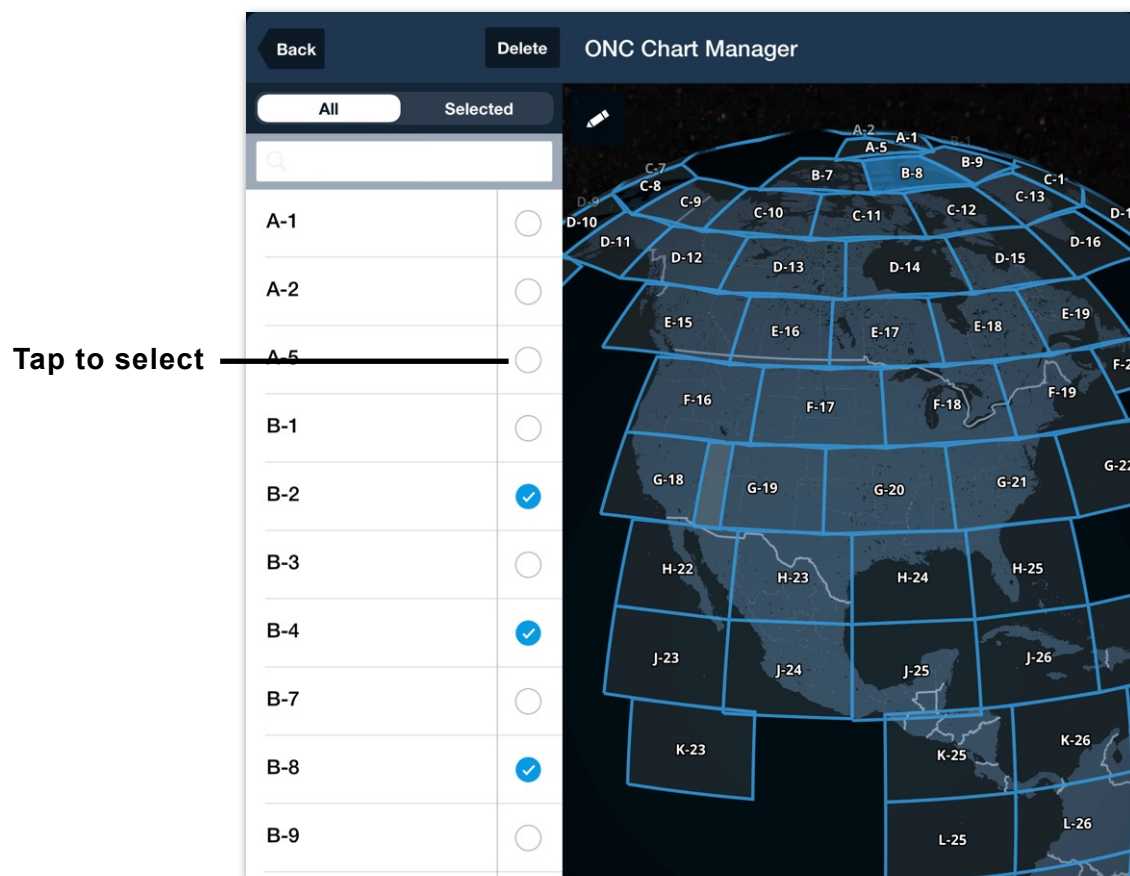
ForeFlight MFB provides the complete library of mission planning charts. These charts include Joint Operations Graphics (JOG), Tactical Pilot Charts (TPC), Operational Navigation Charts (ONC), and Range charts.

To select mission planning charts for download, tap the **NavPlan Charts** button at the top of the Downloads view and select a type of planning chart (e.g., Range Charts). NavPlan Charts are unaffected by region settings.

Selecting Mission Planning Charts

Mission planning charts can be selected for download using one of three methods: The list method, map method, or the draw method.

- **Using the List:** To select a chart for download using the list method, tap the checkbox to the right of the chart's name.

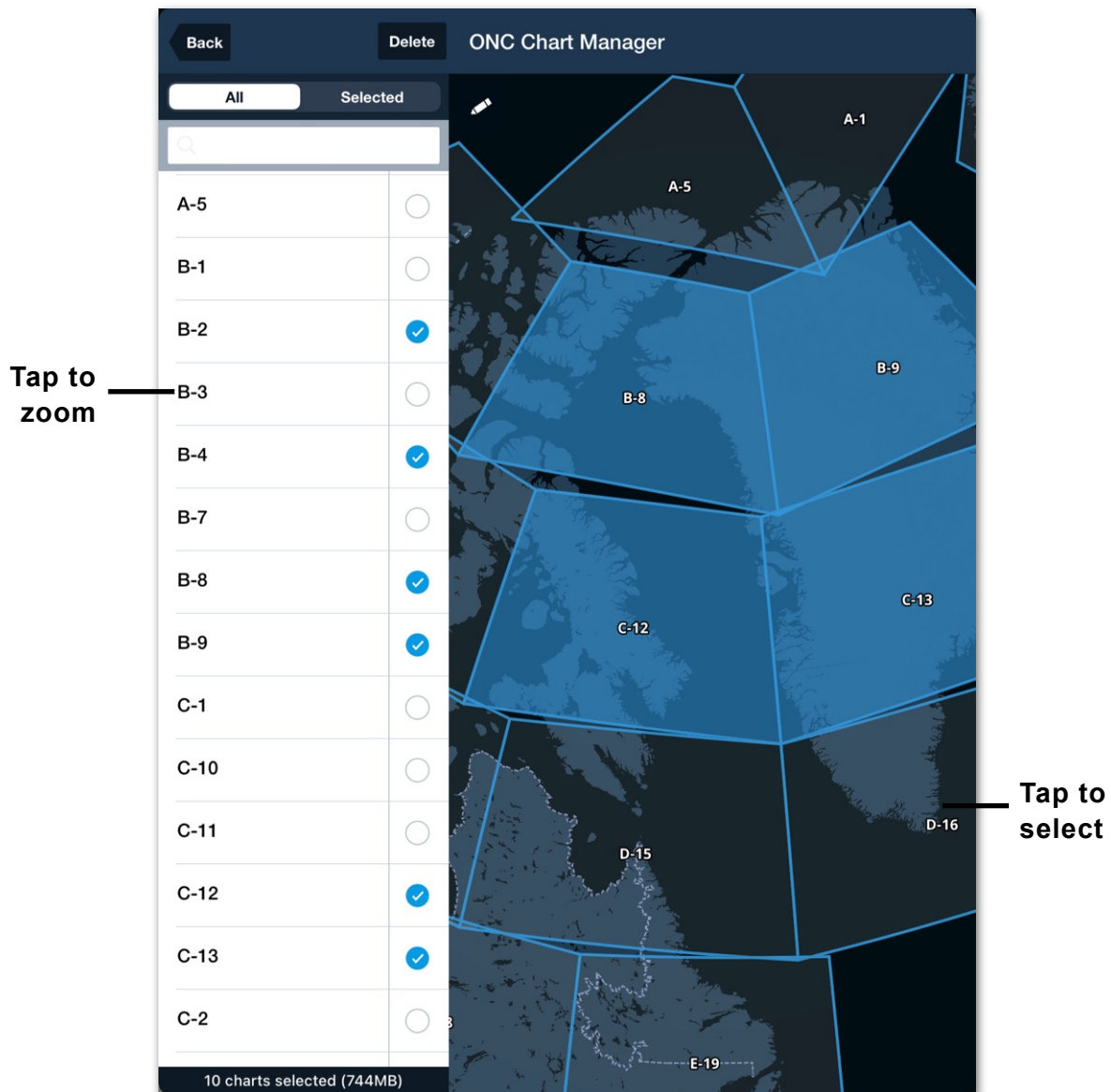


Tap the checkbox to select a chart for download.

2. DOWNLOADS

- **Using the Map:** To select charts for download using the map, pan and zoom the map to find the desired chart. Tap on the map within the chart boundaries to select it.

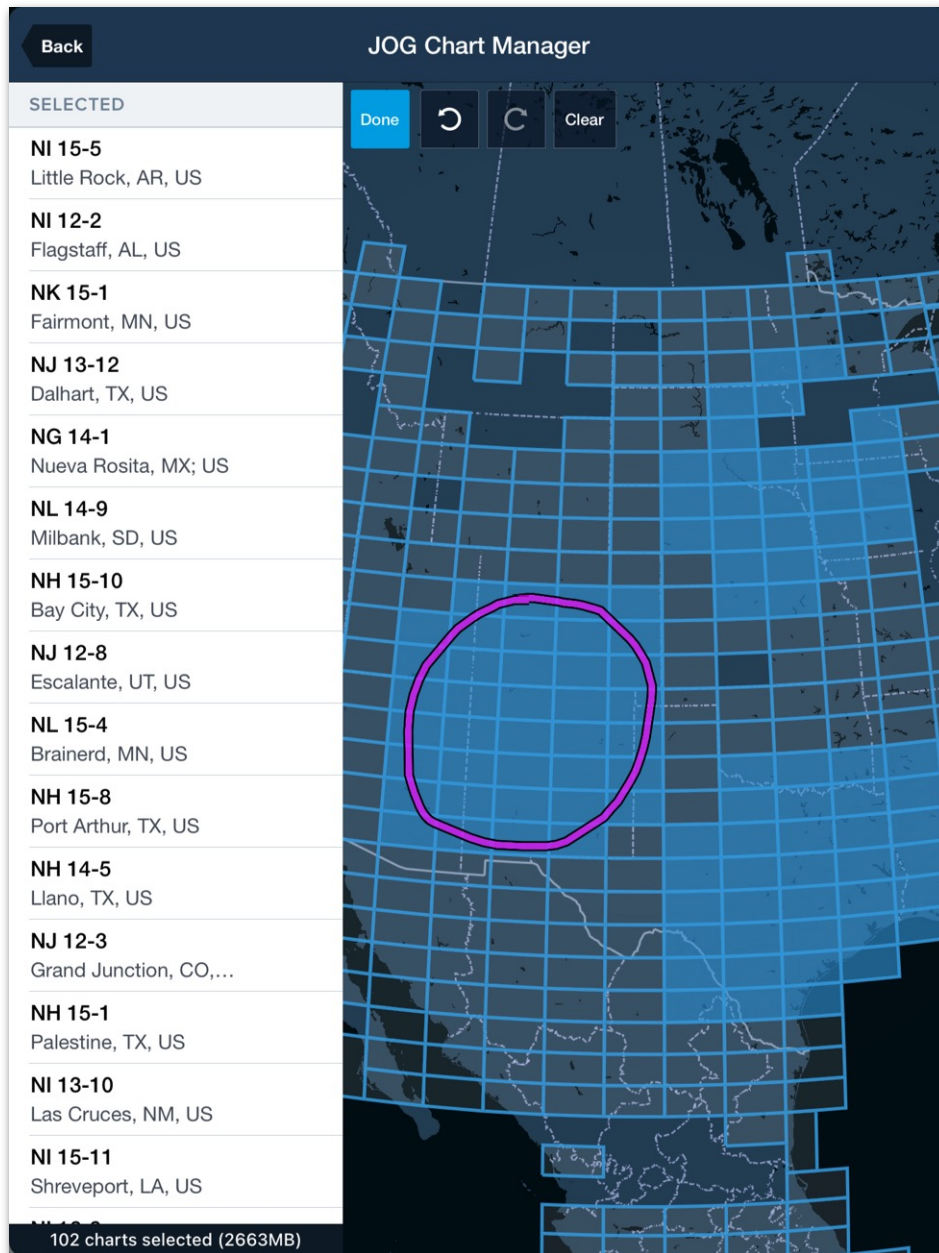
Alternatively, tap the chart name (in the list) to zoom to the chart and tap on the map within the chart boundaries to select it.



Selecting Charts from the Map

2. DOWNLOADS

- **Draw to select:** To use the draw method, tap the pencil icon in the upper left corner of the map. Draw a circular area on the map with one finger to select the enclosed charts. You can draw more than one area and refine your selections using the Undo, Redo, and Clear buttons. When selections are complete, tap **Done**.



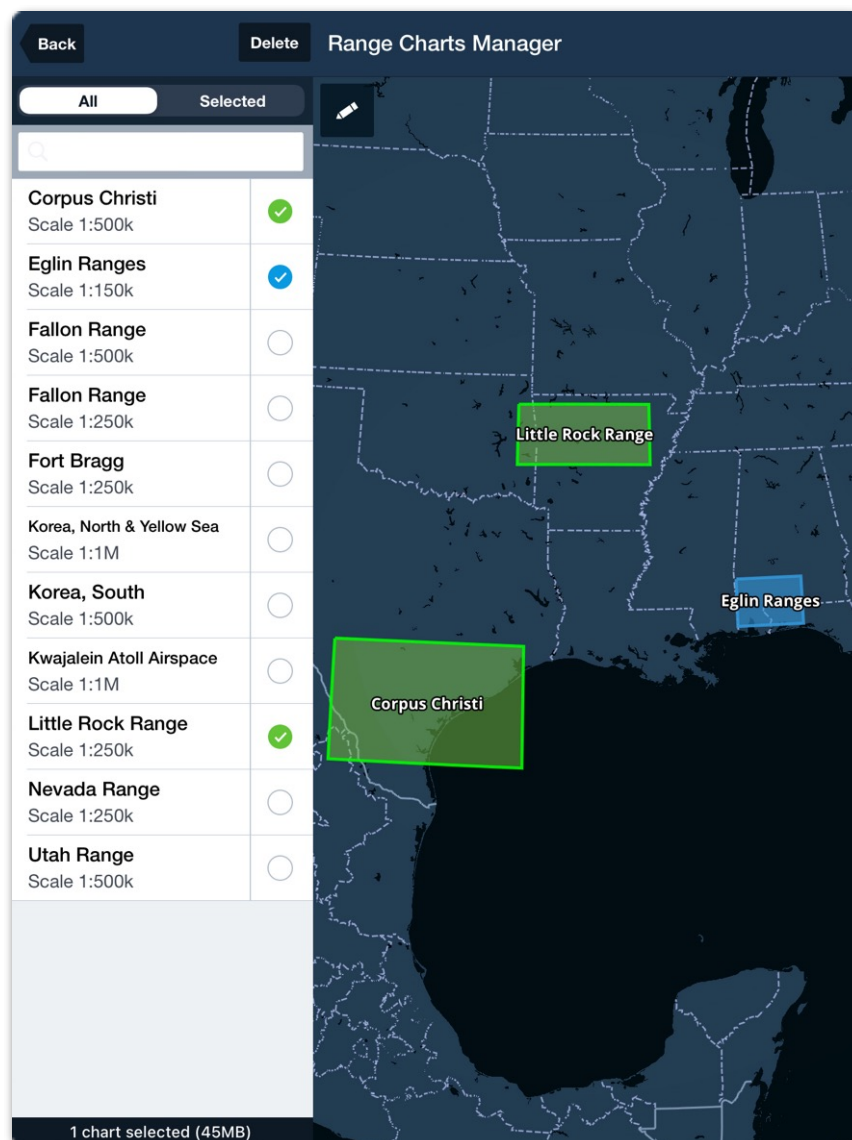
Using the Draw Method

2. DOWNLOADS

As you select charts using the above methods, the number of charts chosen and the amount of required disk space are displayed at the bottom of the list.

Selected charts have a blue checkmark and a blue outline on the map, while previously downloaded charts have a green checkmark and a green outline on the map.

Tap **Selected** (above the list) to view only previously downloaded charts and selected charts. After selecting charts, tap the **Back** button to download your selections.



Downloaded (Green) and Selected (Blue) Charts

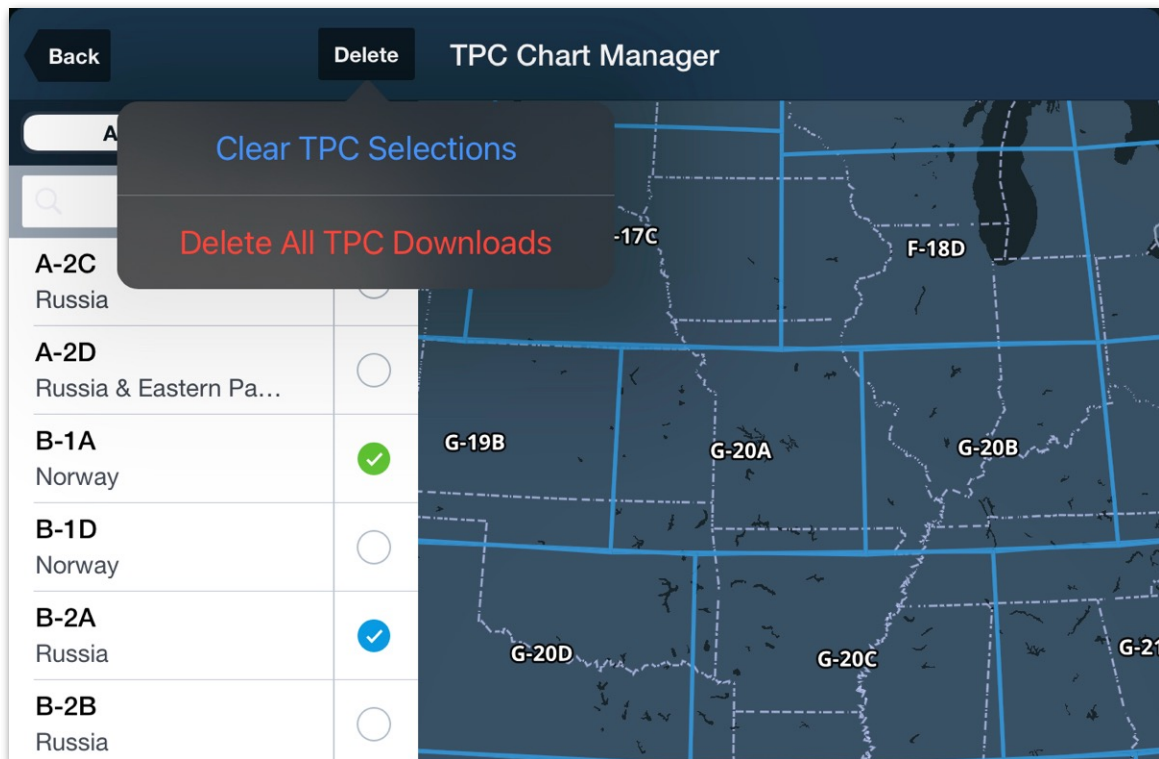
2. DOWNLOADS

2.1.4 Deleting Mission Planning Charts

When planning charts are selected for download or if they have been previously downloaded, a **Delete** button appears in the upper toolbar of the JOG, TPC, ONC, and Range Chart view. The delete button is used to clear selections or to delete previously downloaded charts.

Tap **Delete** and select whether to clear selections or delete the previously downloaded charts. The delete button will only clear the selections if no charts have been downloaded.

Once selections are complete, tap the **Back** button in the menu's upper left corner to return to NavPlan Charts.



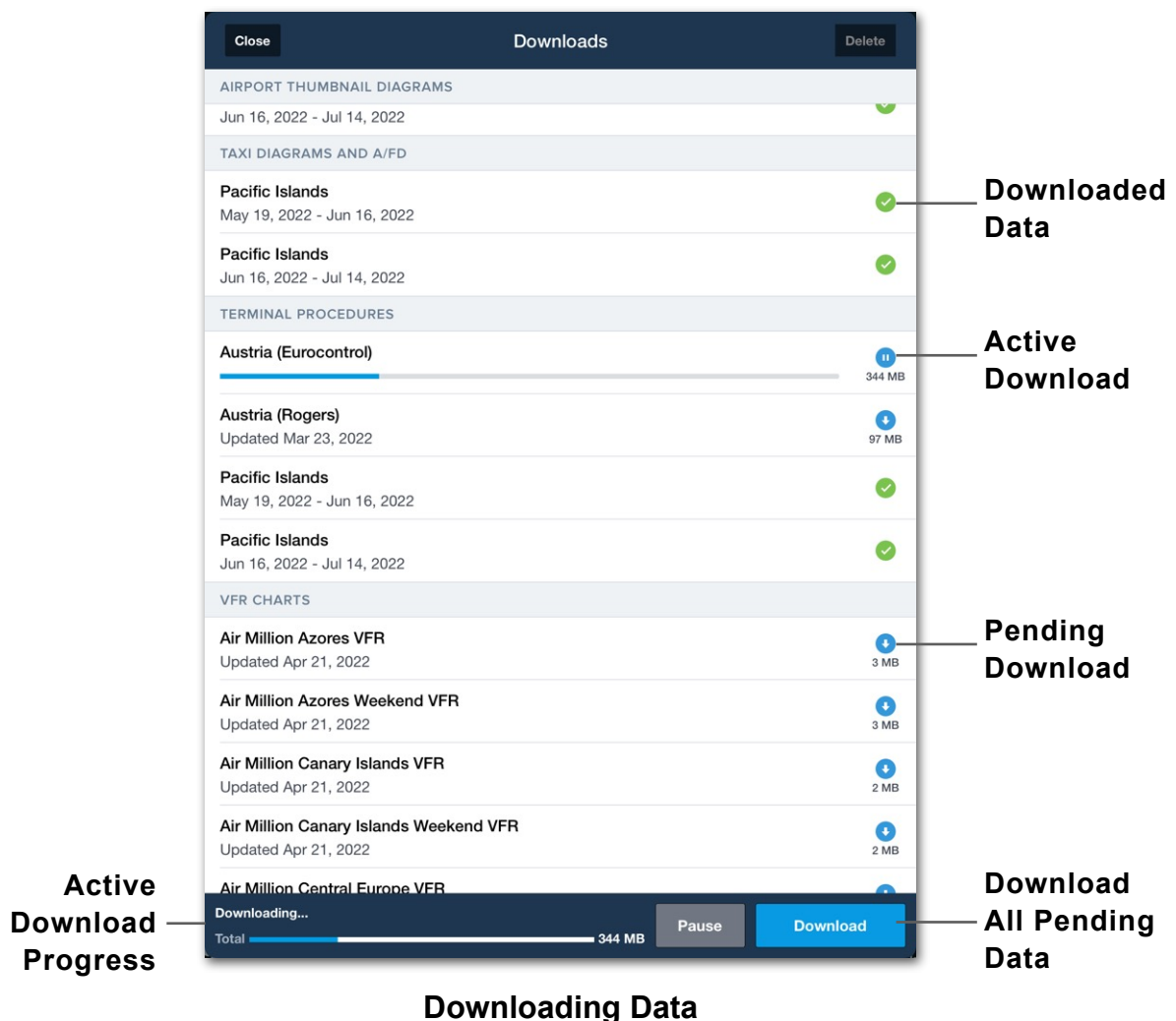
Deleting and Clearing Chart Selections

2. DOWNLOADS

2.2 Downloading Data

After selecting data types, regions, and planning charts, tap the **Downloads** back button in the upper toolbar. Downloads not already installed on your device become available for immediate download.

To install an individual download, tap the blue pending download arrow. To install all pending downloads, tap **Download** at the bottom of the screen. The number of pending downloads and the size of pending downloads are displayed at the bottom of the Downloads view.



2. DOWNLOADS

A progress bar is displayed at the bottom of the view when actively downloading data. The progress bar depicts the size of the active downloads. Stop all downloads anytime by tapping the **Pause** button. Stop individual downloads by tapping the pause button associated with the download.

Downloads will continue where they left off when resumed. Completed downloads display a green checkmark. When all pending downloads are complete, the **Download** button is disabled.

2.2.1 Updating Downloads

Aeronautical data is updated every 28 days. En route charts are updated every 56 days. Updated aeronautical information becomes available approximately five days before the current data expires.

When updated data is available for download, a red badge with a number appears on the **More** button. The number on the badge corresponds to the number of downloads available for the next data cycle.

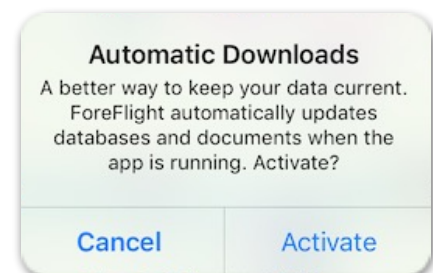
Select **More > Downloads** and tap the **Download** button to download the future data cycle. ForeFlight will continue to display the current data until the expiration date, also known as the change-over date. ForeFlight automatically displays the new data at the change-over date and removes the expired data from your device.

2.2.2 Automatic Downloads

ForeFlight can automatically download new data when ForeFlight is open and connected to the internet. To automatically download data, the following criteria must be met:

- Automatic downloads enabled.
- Active internet connection (Wi-Fi or Cellular).
- One hour or more since manually downloading.
- The device has sufficient storage available.

When downloading data for the first time, a pop-up appears with an option to enable automatic downloads. Automatic downloads can also be enabled or disabled in **More > Settings > Automatic Downloads**.



**Automatic Download
Pop-up**

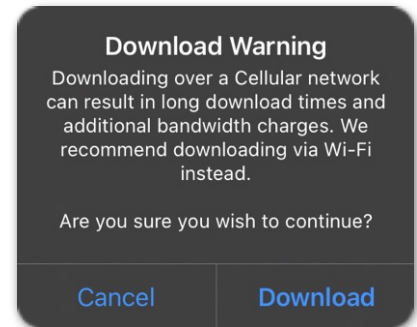
2. DOWNLOADS

2.2.3 Downloads over Cellular

ForeFlight can download data using your device's cellular network. Select **More > Settings > Allow Downloads over Cellular** to enable or disable this feature.

If **Allow Downloads over Cellular** is disabled and an attempt to download data over cellular is made, a pop-up warning message is displayed.

If **Download** is selected in the pop-up message, the **Allow Downloads over Cellular** setting is automatically enabled, and future downloads over cellular will be possible.



Cellular Data Warning

2.2.4 Background Downloads

Background downloads allow you to download pending downloads while ForeFlight is closed, you're working in another app, or while the device is asleep. Background downloads are enabled in **More > Settings > Background Downloads**.

All pending downloads are downloaded in a single file when background downloads are enabled. Background downloads may take longer than those done in the foreground. Disabling background downloads is recommended if downloading over a slow internet connection or with a device with limited storage space.

If downloading is started while the device is connected to Wi-Fi, it will automatically stop if it disconnects from Wi-Fi. Downloads that are begun with cellular data will continue in the background. Background downloads may pause if the device is low on battery. Charging the device while downloading in the background is recommended.

Data downloaded in the background is installed the next time ForeFlight Mobile is opened.

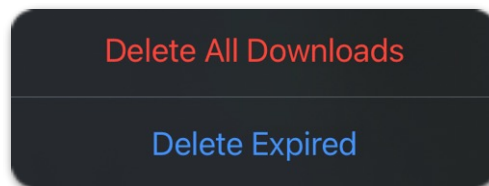
2. DOWNLOADS

2.3 Deleting Downloads

Expired data is deleted automatically, with some exceptions. If new data do not replace expired data, the expired data will remain on the device.

To delete an individual download (expired or active), swipe your finger from right to left across the entry. If the deleted data is selected in your download settings, you'll be prompted to download the data again.

Downloads can also be deleted by tapping **Delete** > **Delete All Downloads** or **Delete Expired** at the top of the Downloads view. Deleting all downloads removes all installed downloads from your device. Deleting expired downloads only removes data that has expired and is still on your device.



Delete Confirmation Message

2.3.1 Packed and Unselected Downloads

Charts downloaded to your device that are not part of a selected region in region settings, such as charts downloaded with Pack, are stored in the *Packed and Unselected Regions*. Deleting these charts when they are no longer needed, or device memory is limited is recommended.

NOTE: Only previously selected JOG, ONC, TPC, and Range charts will be downloaded when Packing. Charts along a route that have not been selected will not be downloaded to prevent downloads of data that won't be used.

2. DOWNLOADS

2.4 Preflight Download Check

Ensure data is downloaded before every flight. To preflight your data, follow these steps.

1. Disconnect your device from Wi-Fi (if applicable) and enable *Airplane Mode*. This will keep ForeFlight from retrieving data over the Internet, as would happen in flight.
2. Open ForeFlight Mobile, go to the **Airports** page and view airports along your route. Verify airport procedures indicate they are **Saved** on the Airports or Maps views.
3. Open Maps and select any en route charts you may need in flight. Zoom in to the airports you will be flying to and ensure the charts are not blurry.

2.5 Troubleshooting Downloads

ForeFlight data is hosted on a network of servers around the world. When you start a download, the data comes from the server closest to you to provide fast and reliable downloads.

Download time can vary depending on the amount of data you are downloading. For example, if downloading all items for the United States, approximately 10GB of data is downloaded. Even on a fast Wi-Fi connection, this will take significant time.

ForeFlight *recommends* only downloading data for regions you will fly within or near. Doing so will save significant time and disk space. If a download fails, ForeFlight automatically reattempts the download. If you see a red error message on the download, the additional attempts were unsuccessful, and the download will need to be manually attempted.

Troubleshooting tips:

- Reboot your iPad.
- Use another network or cellular data.
- Reboot your router.
- Temporarily disable or delete Virtual Private Networks (VPN).
- Temporarily disable or delete anti-virus applications.

2. DOWNLOADS

2.6 Sideloaded NGA Data

The Sideloaded feature allows data to be installed onto multiple iOS devices without an internet connection. This is accomplished by connecting iPads or iPhones to a computer, external drive, or SD card that is preloaded with data and then sideloaded the data using one of the **four supported methods**. This capability is helpful when operating in remote environments with limited internet connectivity.

To begin sideloaded NGA data, visit plan.foreflight.com and select **Data Downloads** from the left sidebar when a reliable internet connection is available. The Data Downloads page displays regions that are available for download. Click the **View Bundle** button to see all available data that is available for that region.

To begin sideloaded data, click **Download** for each file that you will later install. If necessary, move the file within the computer's file system or to an external drive or SD card in preparation for sideloaded.

The screenshot displays the 'Data Downloads' page in the ForeFlight web interface. The left sidebar contains a navigation menu with options like Dispatch, My Flights, Maps, Imagery, Documents, Custom Content, Aircraft, Logbook, Track Logs, Trip Assistant, Data Downloads (highlighted with a red box), JetFuelX, and Account. The main content area is titled 'Data Downloads' and features a table of available data bundles. The table has columns for Bundles, Data Cycles, Valid Date, and a 'RECEIVE NOTIFICATIONS' toggle. The bundles listed include Worldwide, East Globe, Canada, United States, Canada, Africa, Antarctica, Australasia, Pacific, Europe, Middle East, North Africa, and Asia, Eastern Europe. Each bundle is associated with a data cycle of '2304 (Current)' and a valid date of 'Apr 20 - May 18'. A 'View Bundle' button is provided for each entry. The 'RECEIVE NOTIFICATIONS' toggle is currently turned on for the 'Worldwide' bundle and turned off for the others.

BUNDLES	DATA CYCLES	VALID DATE	RECEIVE NOTIFICATIONS
PREVIOUSLY DOWNLOADED			
Worldwide Airport/Navigation • Documents • DoD FLIP • IFR Enroute Charts • Sectionals • Terminal Procedures • Terrain	2304 (Current)	Apr 20 - May 18	<input checked="" type="checkbox"/>
OTHER BUNDLES			
East Globe Airport/Navigation • Documents • DoD FLIP • IFR Enroute Charts • Sectionals • Terminal Procedures • Terrain	2304 (Current)	Apr 20 - May 18	<input type="checkbox"/>
Canada, United States Airport/Navigation • Documents • DoD FLIP • IFR Enroute Charts • Sectionals • Terminal Procedures • Terrain	2304 (Current)	Apr 20 - May 18	<input type="checkbox"/>
Canada Airport/Navigation • Documents • DoD FLIP • IFR Enroute Charts • Sectionals • Terminal Procedures • Terrain	2304 (Current)	Apr 20 - May 18	<input type="checkbox"/>
Africa Airport/Navigation • Documents • DoD FLIP • IFR Enroute Charts • Sectionals • Terminal Procedures • Terrain	2304 (Current)	Apr 20 - May 18	<input type="checkbox"/>
Antarctica, Australasia, Pacific Airport/Navigation • Documents • DoD FLIP • IFR Enroute Charts • Sectionals • Terminal Procedures • Terrain	2304 (Current)	Apr 20 - May 18	<input type="checkbox"/>
Europe, Middle East, North Africa Airport/Navigation • Documents • DoD FLIP • IFR Enroute Charts • Sectionals • Terminal Procedures • Terrain	2304 (Current)	Apr 20 - May 18	<input type="checkbox"/>
Asia, Eastern Europe Airport/Navigation • Documents • DoD FLIP • IFR Enroute Charts • Sectionals • Terminal Procedures • Terrain	2304 (Current)	Apr 20 - May 18	<input type="checkbox"/>

ForeFlight Web Data Downloads

2. DOWNLOADS

2.6.1 Sideloaded Methods

To install the downloads onto an iOS device, follow the instructions that are provided on the View Bundle page. There are four sideloading methods and the installation instructions of each can be found by clicking the appropriate method.

- **Apple Configurator** is the optimal solution for sideloading data onto multiple devices simultaneously.
- **SD Card** is the optimal solution for portability.
- **Finder** is the process for transferring data directly from a Mac computer to a single device with MacOS 10.15 or newer installed.
- **iTunes** is the process for transferring data directly from a Mac computer to a single device with MacOS 10.14 or earlier installed.

The screenshot shows the ForeFlight web interface. On the left is a sidebar with navigation options: Dispatch, My Flights, Maps, Imagery, Documents, Custom Content, Aircraft, Logbook, Track Logs, Trip Assistant, Data Downloads (highlighted), JetFuelX, and Account. The main content area is titled 'Canada, United States Bundle (Current)' and lists 20 zip files for download, each with a size and a 'Download' link. On the right, an 'Install Instructions' panel is highlighted with a red border. It contains four tabs: Apple Configurator, SD Card (selected), Finder, and iTunes. The SD Card tab shows a 5-step process for installing data from an SD card or external drive. Below the steps are 'Functionality Notes' stating that data sideloaded this way supersedes existing data and that the feature only supports zip files from ForeFlight Web and content packs.

File Name	Size	Action
foreflight2303_1_of_20.zip	501.85 MB	Download
foreflight2303_2_of_20.zip	1.63 GB	Download
foreflight2303_3_of_20.zip	1.01 GB	Download
foreflight2303_4_of_20.zip	1.90 GB	Download
foreflight2303_5_of_20.zip	1.91 GB	Download
foreflight2303_6_of_20.zip	1.90 GB	Download
foreflight2303_7_of_20.zip	1.79 GB	Download
foreflight2303_8_of_20.zip	1.85 GB	Download
foreflight2303_9_of_20.zip	1.88 GB	Download
foreflight2303_10_of_20.zip	1.77 GB	Download
foreflight2303_11_of_20.zip	1.86 GB	Download
foreflight2303_12_of_20.zip	1.82 GB	Download
foreflight2303_13_of_20.zip	1.82 GB	Download
foreflight2303_14_of_20.zip	1.81 GB	Download
foreflight2303_15_of_20.zip	1.84 GB	Download
foreflight2303_16_of_20.zip	1.89 GB	Download
foreflight2303_17_of_20.zip	1.84 GB	Download
foreflight2303_18_of_20.zip	1.88 GB	Download
foreflight2303_19_of_20.zip	1.88 GB	Download
foreflight2303_20_of_20.zip	856.33 MB	Download

Data Download Installation Instructions

IMPORTANT: If sideloading via a computer, extract (unzip) the content of each downloaded ZIP file to its own folder. Do **not** merge the folders or rename the extracted folders. If sideloading via an SD card or directly to the device, do **not** extract (unzip) the files after downloading.

After sideloading data to the device, open ForeFlight Mobile. ForeFlight will automatically install the data for use. A notification will indicate that the sideloaded bundles have finished installing and the amount of storage space remaining on your device. The new data will show up automatically in the **Downloads** view.

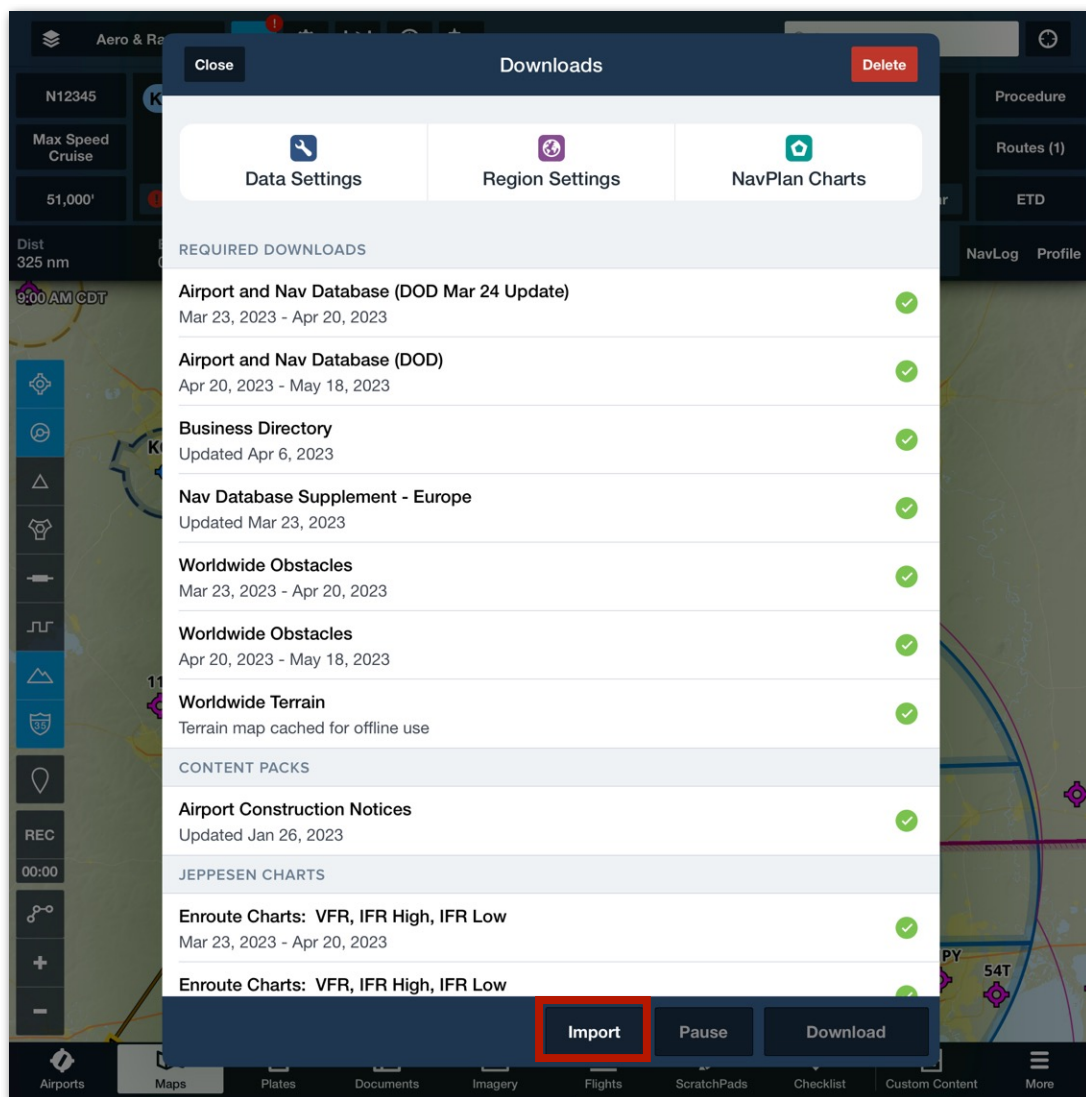
2. DOWNLOADS

2.6.2 Importing Data

The **Import** button on the ForeFlight Mobile Downloads view allows users to install certain data types without an active internet connection. While similar to **Sideloaded NGA Data**, it differs in that the process is initiated from ForeFlight Mobile.

With this method, data can be installed from an SD card, external drive, or the device's file system.

The Downloads view can only import zip files. This includes NGA data bundles downloaded from www.plan.foreflight.com/downloads and **Content Packs**.



Downloads View - Import Button

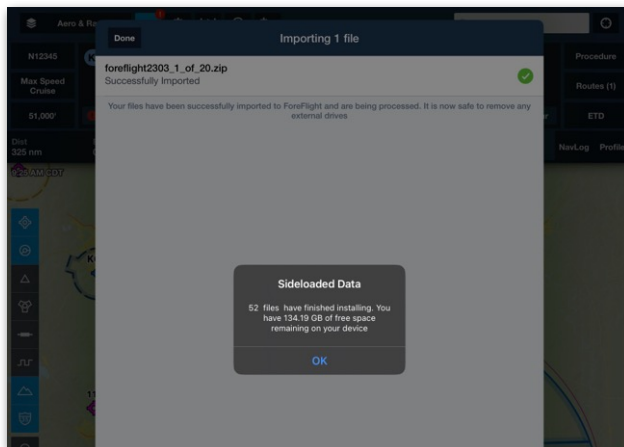
2. DOWNLOADS

To install a data bundle or Content Pack without an internet connection, follow the steps below.

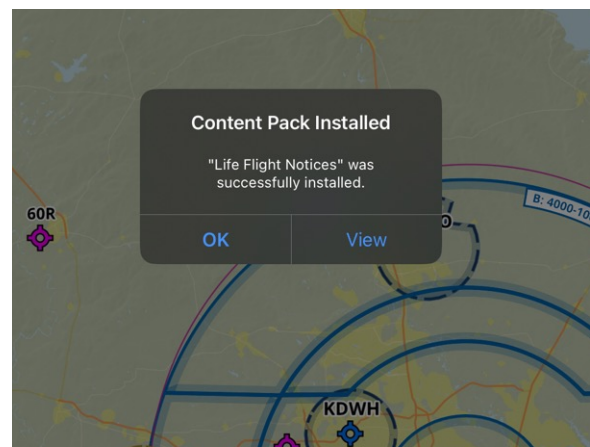
1. Connect an SD card reader or external drive to the iOS device (optional).
2. If applicable, insert the SD card preloaded with the *zipped* data files.
3. Open ForeFlight Mobile and tap **More > Downloads**.
4. Tap the **Import** button near the bottom of the view.
5. Using the iOS files interface, locate the zipped data bundle or Content Pack on the SD card, external drive, iCloud, or device drive.
6. Tap the desired file or files to select them. When complete, tap **Open** to proceed.

After tapping **Open**, Foreflight Mobile will begin importing the data.

- If importing a data bundle, it will be automatically installed. A pop-up is displayed when the process is complete indicating how many files were installed and how much free space your device has left.
- If importing a Content Pack, a pop-up is displayed when the process is complete. The pop-up has two buttons for dismissing the pop-up or viewing the Content Pack in the Custom Content view.



Data Bundle Successfully Installed



Content Pack Successfully Installed

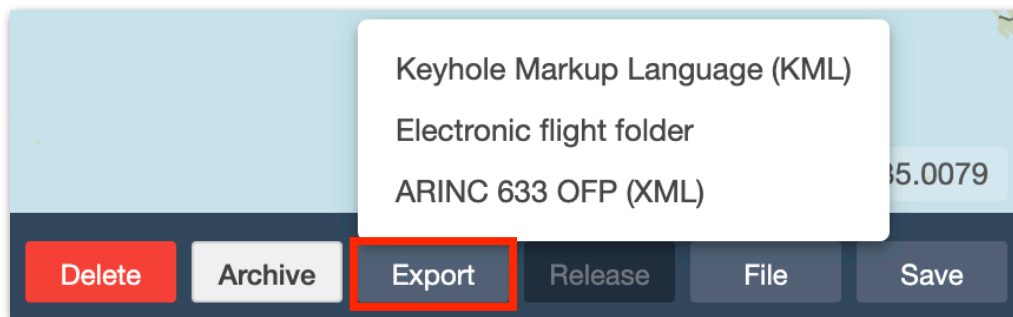
IMPORTANT: When importing larger files, it may take several minutes to import the data, and ForeFlight may appear unresponsive. Do not remove the SD card or external drive during this period.

2. DOWNLOADS

2.6.3 Exporting Flight Data

MFB Dispatch accounts with EFB Bridge privileges have the option to export saved flights in three file types.

- **Keyhole Markup Language (KML)** file will contain the route waypoints and ETA in ZULU time. The file will be saved to the users' download folder.
- **Electronic flight folder** file contains all flight documents and ARINC 633 flight data.
- **ARINC 633 OFP (XML)** file only contains ARINC 633 flight data in XML file format.



MFB Dispatch Export Options

EFB Bridge allows users to view flights that were planned with MFB Dispatch in other EFB programs.

To request EFB Bridge privileges, contact team@foreflight.com.

DOD DATA

ForeFlight Military Flight Bag (MFB) includes additional DOD assets over civilian subscriptions. DOD items include **global mission planning charts**, DOD data-driven **Aeronautical Maps**, and an optional **Jeppesen chart library integration**. Pilots can also import documents and custom content.

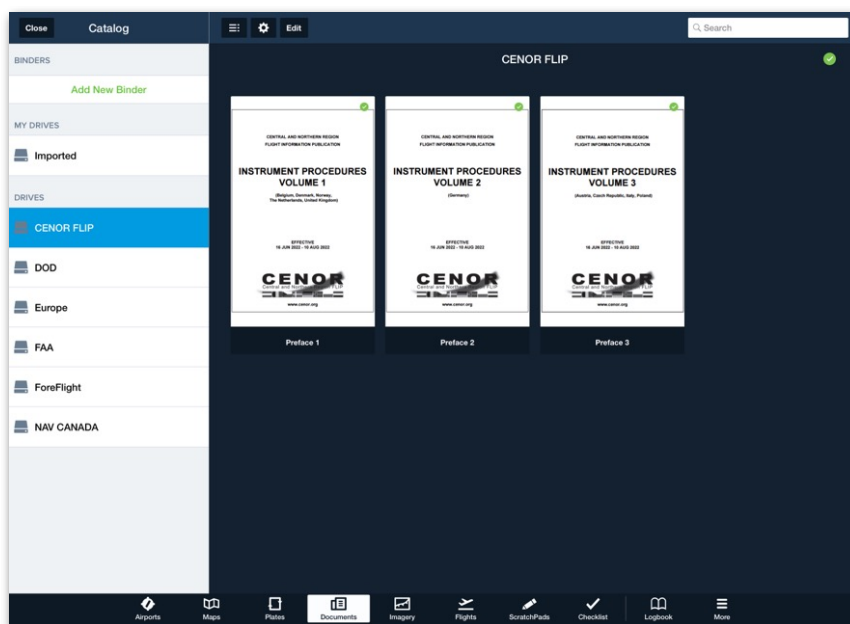
3.1 DOD Documents

Two document drives are included with an MFB subscription: **DOD** and **CENOR FLIP** (Central and Northern Region Flight Information Publication). DOD documents cannot be exported from ForeFlight Mobile, except the military flight plan form and legend.

DOD documents are not downloaded by default. To download DOD documents, select **Documents** from the navigation toolbar at the bottom of the screen and select the **DOD** or **CENOR FLIP** drive. Tap the download button on an individual document, folder, or drive to download it. Once a document or folder is downloaded, a green check mark is displayed.

3.1.1 CENOR FLIP Drive

The CENOR FLIP drive has three files available for download. These files cover instrument procedures for several European countries.



CENOR FLIP Document Drive

3. DOD DATA

3.1.2 DOD Drive

The DOD drive contains six folders and one document. The document is a blank copy of DD Form 175, Military Flight Plan. The folders are Enroute Change Notice, Legends, Planning Change Notice, Planning Docs, (DOD FLIP) Supplements, and Terminal Change Notice.

3.2 Jeppesen Military Charting Service (JMCS)

Jeppesen Military Charting Service (JMCS) log in credentials can be used to integrate JMCS's chart library into MFB. Log on to www.jeppesen.com to link an account automatically, then enter the same Jeppesen credentials in the **More > Jeppesen** page in ForeFlight MFB to start downloading charts.

If you already have Jeppesen Military Charting Service (JMCS) credentials, then use those credentials to access Jeppesen data by linking to a Jeppesen account under **More > Jeppesen** in ForeFlight Mobile EFB or MFB. If no credentials exist, register for those credentials at [Charts Online Registration](#).

3.3 Custom Content

Custom data may be imported into ForeFlight via remote sideloading, email attachment, AirDrop, or hyperlink. These include user waypoints, custom vector overlays with geographic shapefiles, or self-made geo-referenced charts. ForeFlight MFB supports KML, KMZ (with restrictions), CSV, geoJSON, GeoTIFF files, geo-referenced PDFs, and MBTiles open source files.

Custom Content is stored under **More > Custom Content**. It is usually viewed on the Maps page.

An imported map layer can be turned on and off like any other. Military overlays might include drop zones, parachute landing zones, avoid zones and other areas of interest.

Users can also create and import custom icons if bundling content as a KMZ file. Images and documents can be associated with a waypoint. Multiple aerial shots of a waypoint can be included for pilots that are new to the area. An existing airport or other waypoints may also be associated with a custom departure, approach, landing, or taxiing procedure. This can include images and icons.

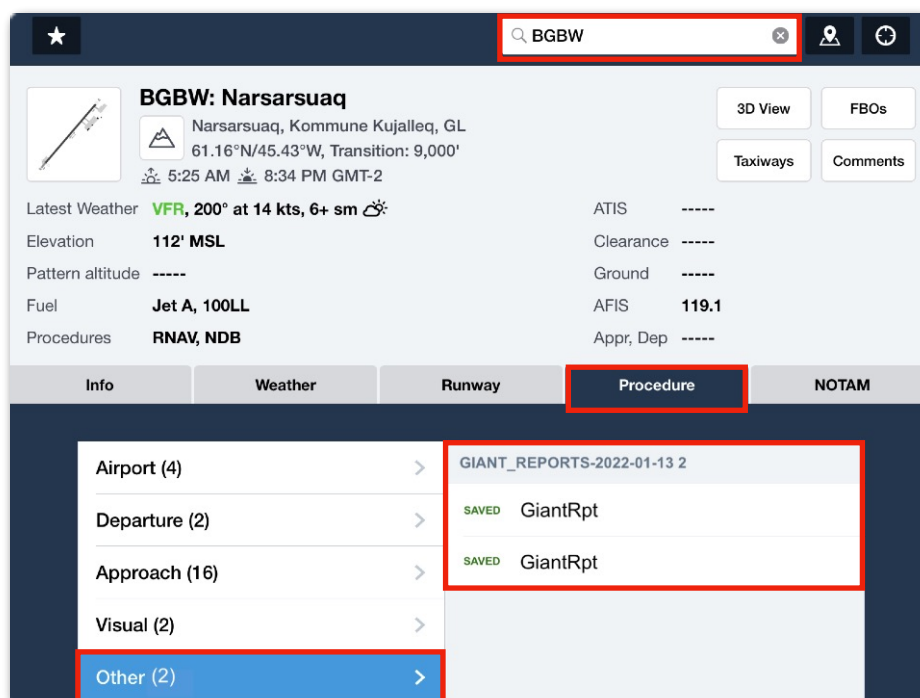
3. DOD DATA

Custom map layers using FalconView can be created if the files are exported in the following formats: KML, KMZ, GeoPDF, or GeoJSON. ForeFlight cannot currently display native FalconView files. MFB can also import CRD route files from FalconView.

Refer to the Custom Content chapter of the ForeFlight Mobile Pilot's Guide available in-app by selecting **Documents** > **ForeFlight** or online at www.foreflight.com/support/pilots-guide. Additional Content Pack information can be found in the ForeFlight [Support Videos](#).

3.3.1 Giant Reports

Airfield Suitability Runway Reports (ASRRs) and Giant Reports are prohibited from being directly hosted by third-party apps like ForeFlight. However, Giant reports can be imported into ForeFlight using Custom Content. To import Giant reports into ForeFlight, go to aerodata.nga.mil and log in using an issued Common Access Card (CAC).



Giant Reports in ForeFlight Mobile

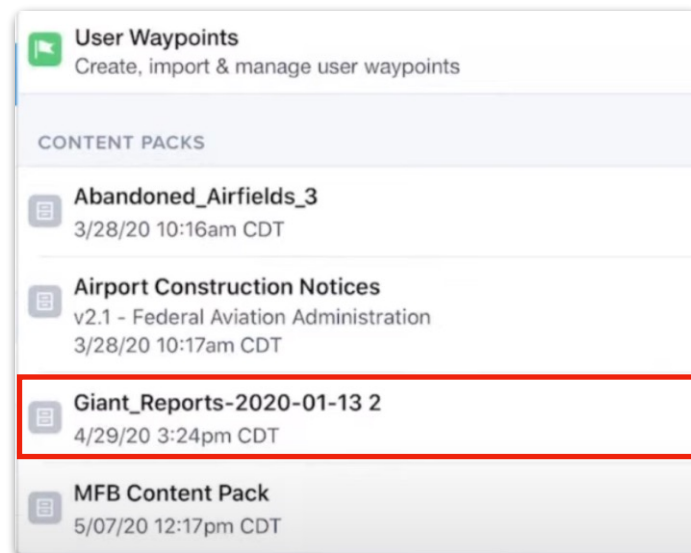
3. DOD DATA

Download the reports to ForeFlight. Do not rename or unzip the files downloaded from the NGA website. Tap on the download and select the option to open with ForeFlight. The Giant Report Content Pack will appear in the app under **More > Custom Content > Content Packs**.

Giant Report Expiration Dates

An expiration date is imposed eight days after the publication date noted in the file name. When expired, users will see a red "Expired" banner but will still be able to access and use the Giant Reports.

Giant Reports are coded by airport code. To view Giant Reports, go to the **Airports** page and type an airport code into the search bar. Go to **Procedures > Other**. The Giant reports for that airport will appear.



Giant Report Content Pack

3. DOD DATA

3.3.2 Importing GeoTIFF Custom Charts

Importing GeoTIFF custom charts requires an MFB subscription and ForeFlight Mobile version 14 or later. GeoTIFF files can be imported via a Content Pack (recommended) or as an individual file.

The custom chart must be added to the "layers" subfolder to import via Content Pack. For information related to Content Packs, see [ForeFlight Content Packs](#).

To import a stand-alone GeoTIFF file, use one of the following methods:

- [Import via the Mail app](#) using the built-in file sharing functionality
- [Import via Finder](#) using drag and drop
- [Import via the Files app](#)
- Import via a direct online link

NOTE: Individual GeoTIFF files cannot be imported via [AirDrop](#). To import via AirDrop, the file must be included in a Content Pack.

3. DOD DATA

Import via the Mail App

Import a GeoTIFF file via the Mail app by performing the following steps:

1. Open the device with ForeFlight on it.
2. Tap the attachment within the Mail app to open or view it.
3. Tap the “Send-To” button.
4. Scroll right through the apps and tap “ForeFlight.”

Import via Finder

Import a GeoTIFF file via Finder by performing the following steps:

1. Open the device with ForeFlight on it.
2. Drag the files to the app on your device. The Finder copies the files to your device.

Import via the Files App

Import a GeoTIFF file via the Files app by performing the following steps:

1. Open the device with ForeFlight on it.
2. Open the Files app and navigate to the file to copy.
3. Tap on the file to open it.
4. Tap the “Send-To” button.
5. Scroll right through the apps and tap “ForeFlight.”

File requirements

ForeFlight Mobile only supports GeoTIFF files that meet specific criteria. If a file does *not* meet the requirements or lacks geospatial information, the file can only be imported as a document. Before attempting to import a GeoTIFF file, ensure the following requirements are met:

- Filename extension: .tif, .tiff, .TIF, .TIFF
- Coordinate Reference System (CRS): EPSG:4326 - WGS84

3. DOD DATA

3.3.3 Importing a CRD Flight Plan File

ForeFlight MFB users can import Common Route Definition (CRD) flight plan files from mission planning systems like Joint Mission Planning System (JMPS), Combat Flight Planning Software (CFPS), and Portable Flight Planning Software (PFPS) and view them directly on ForeFlight's map. Import CRD files via email, AirDrop, or iTunes.

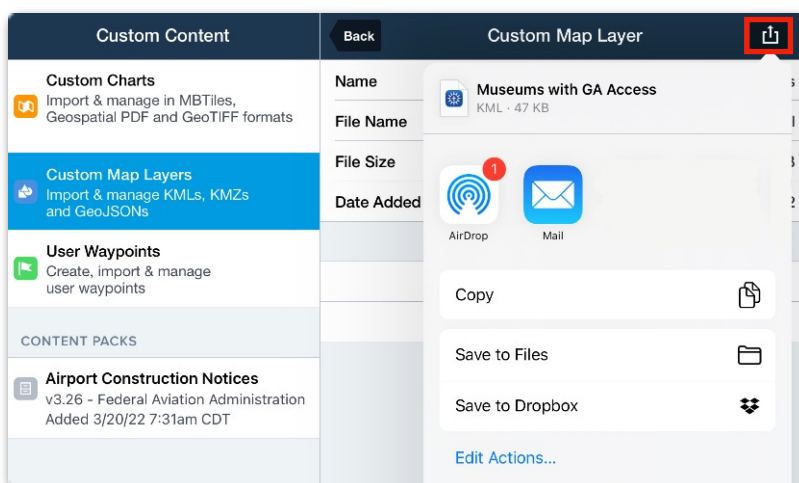
1. Open an email app on the device with ForeFlight installed.
 2. Tap on the sent file to open the Share window.
 3. Tap on ForeFlight to import directly into ForeFlight and add to the FPL.
- The Share window also allows sending to another device using AirDrop.

Only one CRD route may be added at a time. Once imported, the CRD route can be saved as a favorite route, then accessed in the Favorites or Recent Routes list.

Imported routes contain a series of waypoints. These can be lat/long coordinates, named waypoints, VORs, airports, or local waypoints. Local waypoints not in ForeFlight will be saved automatically as User Waypoints (Custom Content). ForeFlight will show altitude and speed values by attaching them to individual waypoint names.

3.3.4 Sharing Custom Content

To share Custom Content, select **More > Custom Content** and tap on the item to share. Tap on the **Send-To** icon in the upper right corner of the screen. Note that the whole file must be sent; if a part of a bundle, the entire bundle must be sent.



MFB EXCLUSIVE FEATURES

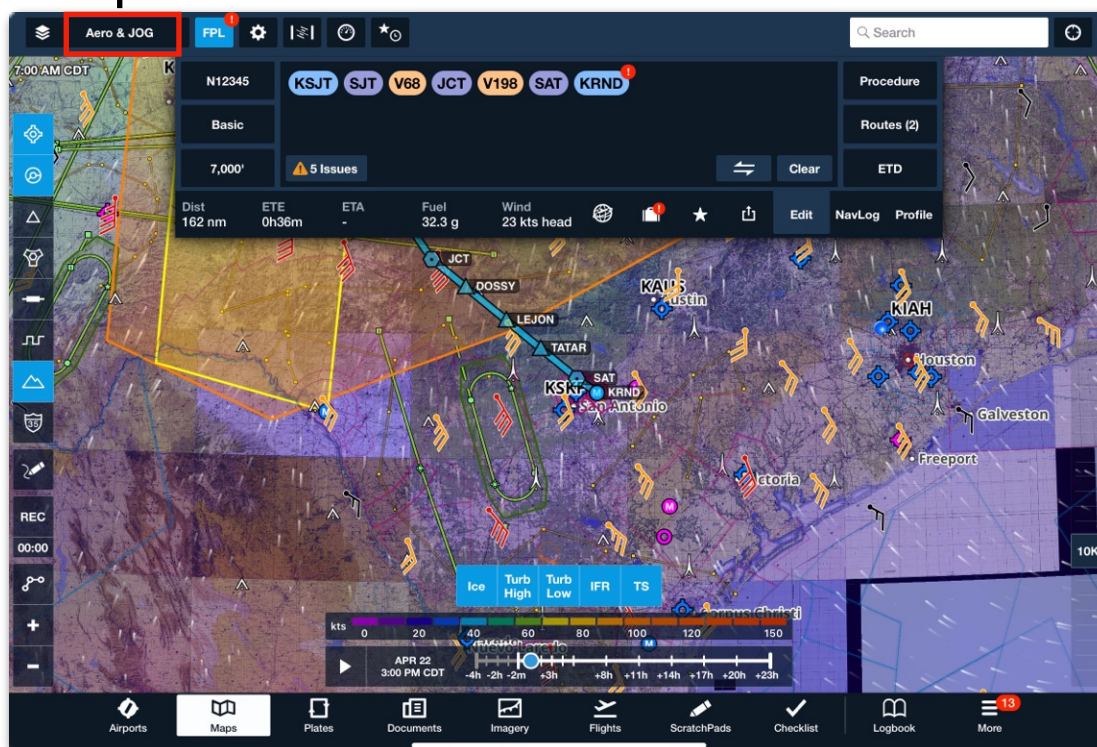
D-FLIP, FAA, and NAV CANADA terminal procedures and airport diagrams are geo-referenced to allow aircraft ownership positioning right on the map. Plates allow viewing geo-referenced approach plates and airport diagrams overlaid onto the maps view, along with hazards and weather, in one seamless view.

The Pack feature packs all information along the selected route, out to 25 nm surrounding the route. This includes weather, AIR/SIGMETs, TFRs, fuel prices, NOTAMs, 3D imagery, charts, and approach plates. ForeFlight only downloads those charts specified in the Downloads tab.

4.1 Mission Planning Charts

With Mission Planning Charts downloaded (refer to [Mission Planning Charts](#)), JOG, TPC, ONC, and Range Charts can be turned on and off by using the Layer Selector at the top left of the Maps page. Only one of the chart types (JOG, TPC, ONC, Range) can be displayed at a time. However, other overlays, such as radar or surface winds, may be added on top of the chosen chart type.

Layer Selector



JOG Chart with Multiple Overlays

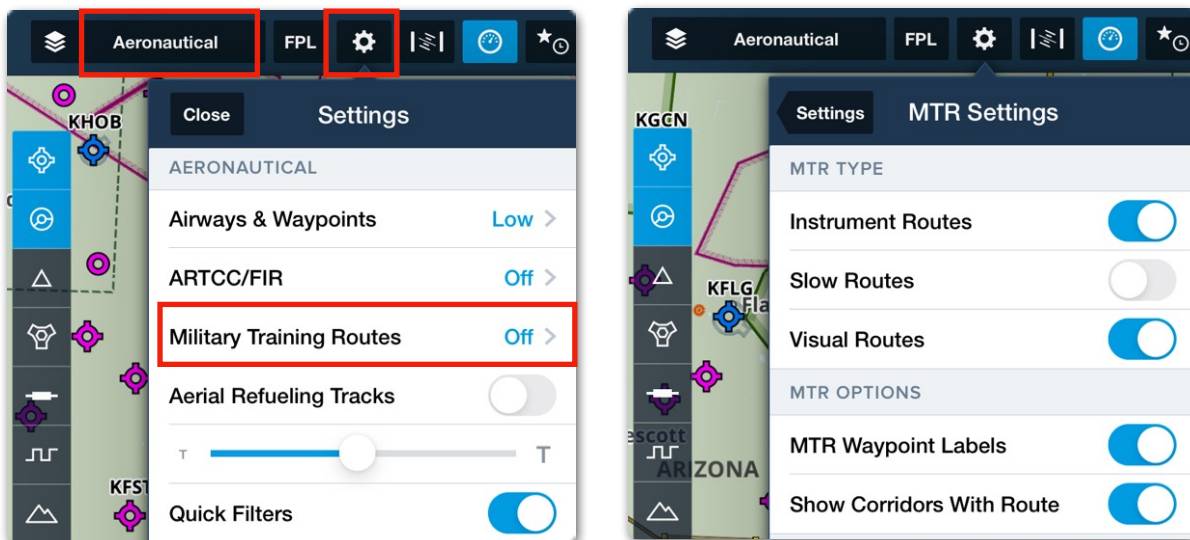
4. MFB EXCLUSIVE FEATURES

4.2 Military Training Routes (MTR)

Military Training Routes (MTRs) are available with all MFB subscriptions. MTRs are part of the DOD Airport and NAV Database in the Downloads section (DOD drive). Ensure the most recent version is downloaded by going to **More > Downloads** and enabling **Automatic Downloads**.

MTRs are part of the Aeronautical layer (activated using the **Layer Selector** on the **Maps** page). This layer must be enabled to see MTRs by following these steps:

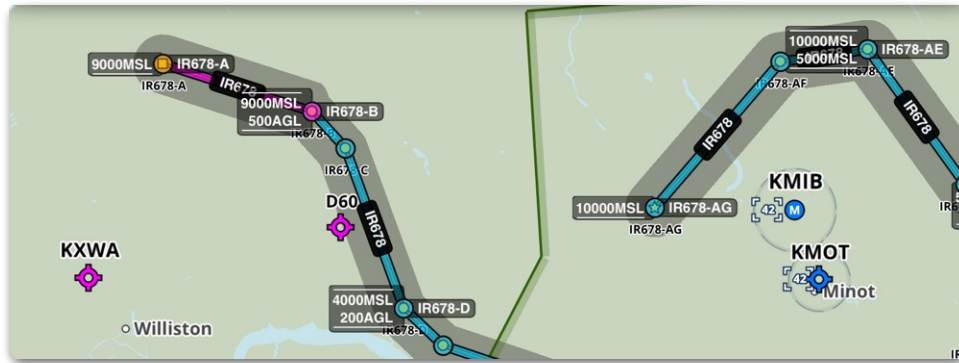
1. Ensure the **Aeronautical** layer is selected on the Maps page.
2. Tap the **Map Settings** button (gear icon).
3. Tap **Military Training Routes** to access the MTR settings.
4. Select one or more MTR Route types to display.
5. Select the MTR Options to see the labels or corridors along the route.



When enabled, MTRs appear on the map as yellow or brown airways (depending on your App theme selected under **More > Settings**) with corresponding yellow labels. Waypoints along an MTR will be displayed but labeled only if the option is chosen in the MTR Settings.

4. MFB EXCLUSIVE FEATURES

When added to a route in the Flight Plan (FPL), the MTR corridor will be highlighted. The route will include the direction, alternate segments, maneuvering areas, and waypoint crossing altitudes.

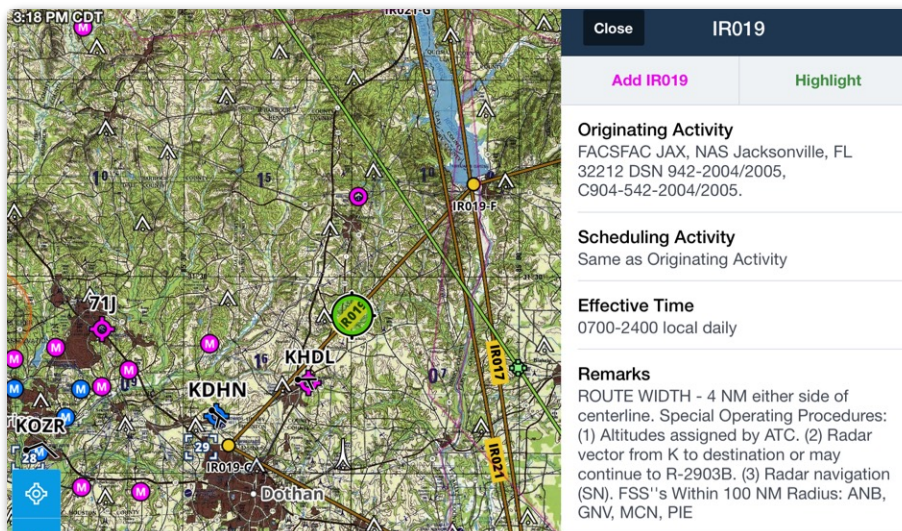


Highlighted M

Add an entire MTR to a route by entering the name of the route into the FPL editor on the Maps page or tapping a segment of the route and then tapping **Add** (Route Name).



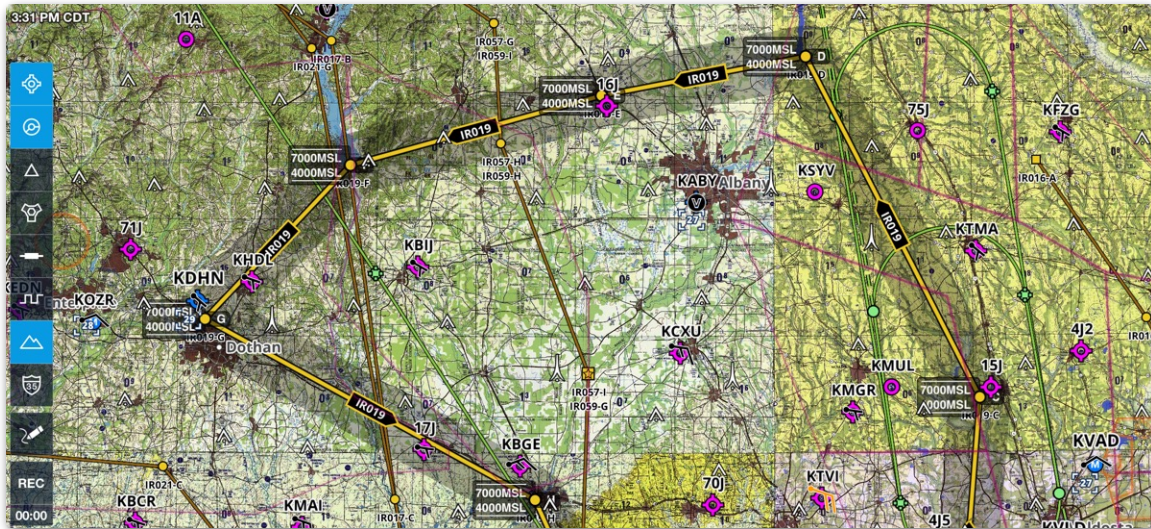
Tap on each waypoint in the MTR route to see the waypoint details and the option to add them to the route. Waypoint information includes crossing altitude, corridor width, and location relative to the nearest NAVAID. Tap anywhere along the route to see route information, including originating and scheduling activity, effective times, and remarks.



Selected MTR Route Information




4. MFB EXCLUSIVE FEATURES

Tap **Highlight** along the route (*not* a waypoint) to reveal more about any MTR. This includes the width of the corridor on either side of the route, its directionality, any alternate segments and maneuvering areas, and crossing altitudes for all of its waypoints. Tap anywhere else on the map to remove the highlighting.



Selected Route Highlighted

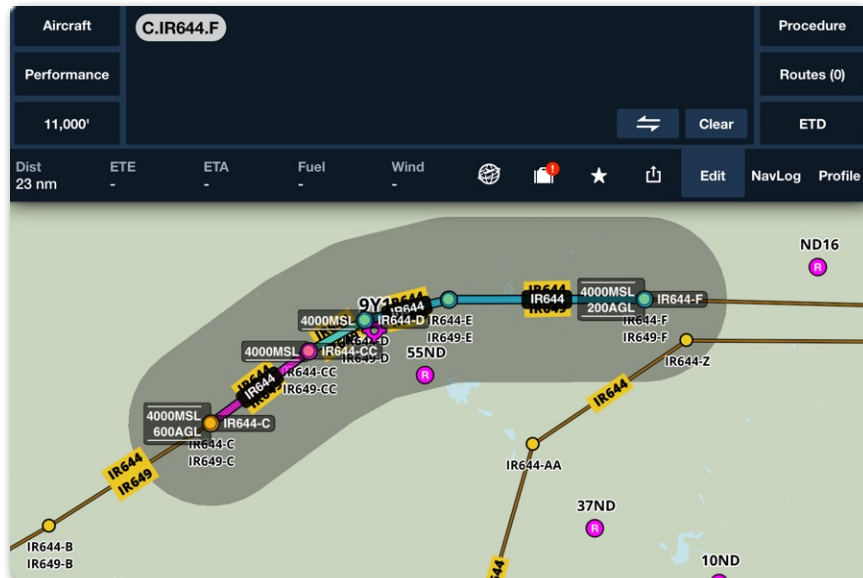
The table below illustrates the symbols used in MTR routes and their meaning.

Symbol	Meaning
	Entry points
	Enroute points
	Exit points

Points with multiple uses show overlapping symbols.

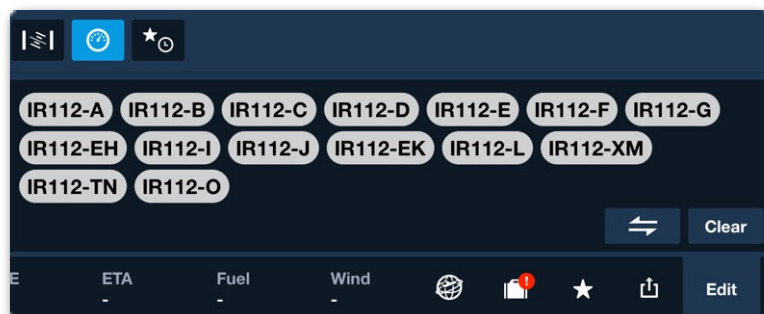
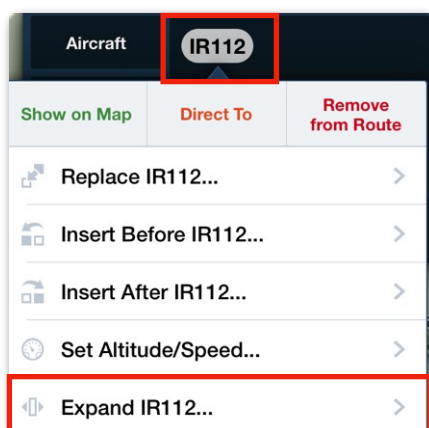
4. MFB EXCLUSIVE FEATURES

Add any portion of a route by typing in the chosen alphabet entry and exit identifiers before and after the route's name, separated by periods (e.g., C.IR644.F). Adding an entry point (a waypoint prior to the period and route name, in this case, C) will include all of the route after and including that point (C.IR644). Adding an exit point (a waypoint after the route name and period, in this case, F) (IR608.F) will include all the points up to that point.



Adding Part of a Route

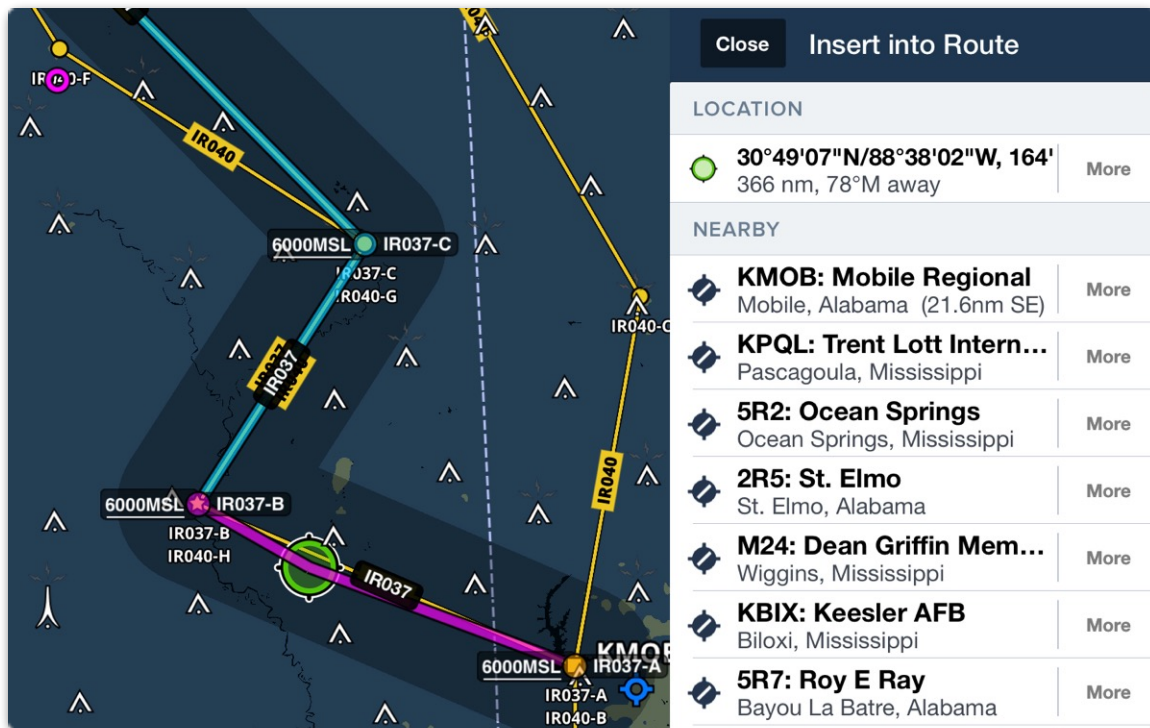
View all the waypoints within a route by tapping on the route bubble in the FPL. Tap **Expand** (Route Name).



Route Expanded

4. MFB EXCLUSIVE FEATURES

Routes can be rubber-banded as long as the entry or exit point is not modified.



The screenshot displays the ForeFlight Military Flight Bag interface. On the left, a map shows several flight routes in yellow and blue, with waypoints labeled with alphanumeric codes like IR037-A, IR037-B, IR037-C, IR040-A, IR040-B, IR040-C, IR040-D, IR040-E, IR040-F, IR040-G, IR040-H, and IR040-I. A green circle highlights a specific location on the map. On the right, a sidebar contains a 'Close' button and an 'Insert into Route' button. Below these, the 'LOCATION' section shows the coordinates 30°49'07"N/88°38'02"W, 164', and a distance of 366 nm, 78°M away. The 'NEARBY' section lists several airports with their names, locations, and distances, each with a 'More' link.

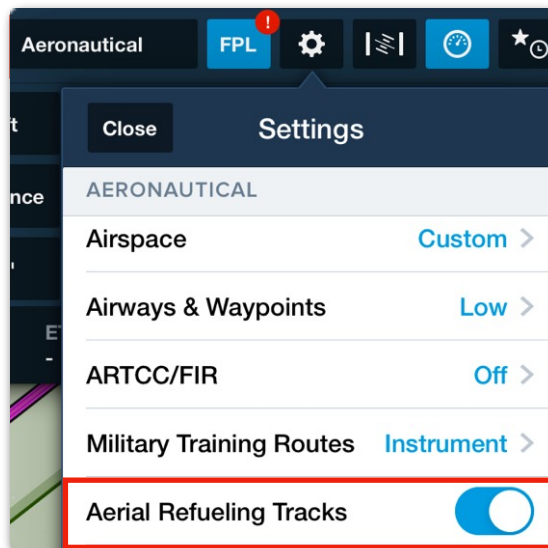
LOCATION	
30°49'07"N/88°38'02"W, 164'	More
366 nm, 78°M away	

NEARBY	
KMOB: Mobile Regional Mobile, Alabama (21.6nm SE)	More
KPQL: Trent Lott Intern... Pascagoula, Mississippi	More
5R2: Ocean Springs Ocean Springs, Mississippi	More
2R5: St. Elmo St. Elmo, Alabama	More
M24: Dean Griffin Mem... Wiggins, Mississippi	More
KBIX: Keesler AFB Biloxi, Mississippi	More
5R7: Roy E Ray Bayou La Batre, Alabama	More

4. MFB EXCLUSIVE FEATURES

4.3 Aerial Refueling Tracks

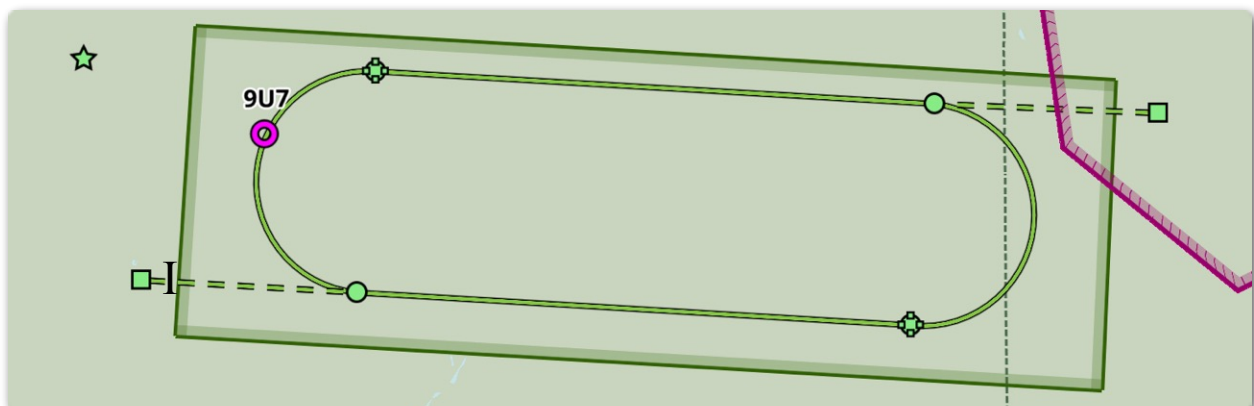
Aerial Refueling Tracks (ARTs) are available with all MFB subscriptions. They are part of the DOD Airport and NAV Database in the **Downloads** section under **More > Downloads**. Ensure the most recent version is downloaded by selecting the **Download** button if it is blue.







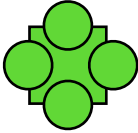

ARTs are built into the **Aeronautical Map** layer (activated using the Layer Selector on the **Maps** page). This layer must be on to see ARTs. To enable ARTs,

1. Tap on the **Map Settings** (gear icon) button.
2. In the Aeronautical section, turn the switch ON next to **Aerial Refueling Tracks**.

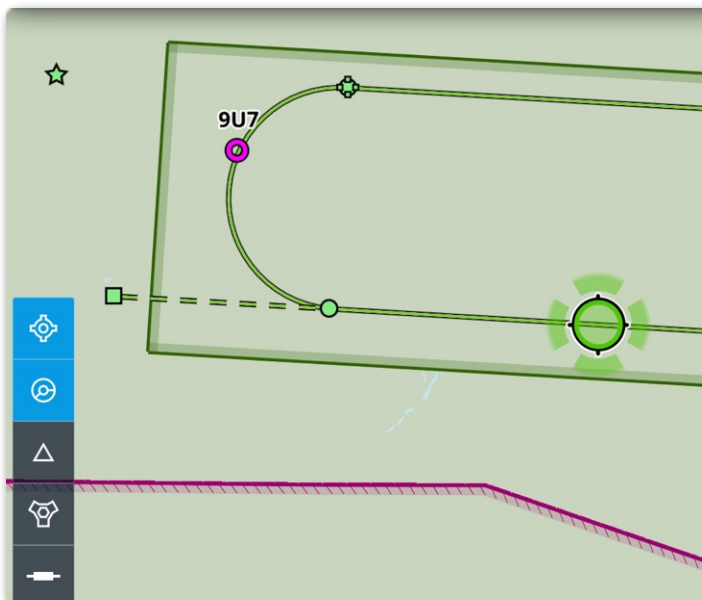
ARTs appear as green lines on the map with associated labels and markers representing different points along each track. The table on the following page illustrates the symbols used in MTR routes and their meaning.



4. MFB EXCLUSIVE FEATURES

Symbol	Meaning
	Entry points
	Initial entry points
	Entry legs
	Navigation checkpoints or pattern anchors
	Anchor and control points
	Exit points
Points with multiple uses show overlapping symbols.	

Tap anywhere along the track to add the route to the FPL. Tapping on the track brings up the track name, refueling altitude, TACAN information, communication frequencies, and remarks. Tapping on track points yields similar information.



Close

AR635

Direct To

Add To Route

Name

AR635

Refueling Altitude

FL190' - FL260'

A/A TACAN

52/115

COMMUNICATIONS

Tanker/Receiver

352.6

Tanker/Receiver Backup

319.5

Salt Lake City ARCP

360.8

4. MFB EXCLUSIVE FEATURES

Tap and hold on the map to see nearby refueling tracks points. Type the track's name in the FPL to include the entire track, including entry and exit points. Tap the bubble name, then tap **Expand** (Pattern Name) to see all points in the track.



Expanded ART Route

Tapping the reverse icon (next to the **Clear** button) in the FPL editor will preserve the internal structure and direction of a refueling track if it has not been expanded. If it has been expanded, the track's points will also reverse along with the rest of the route.

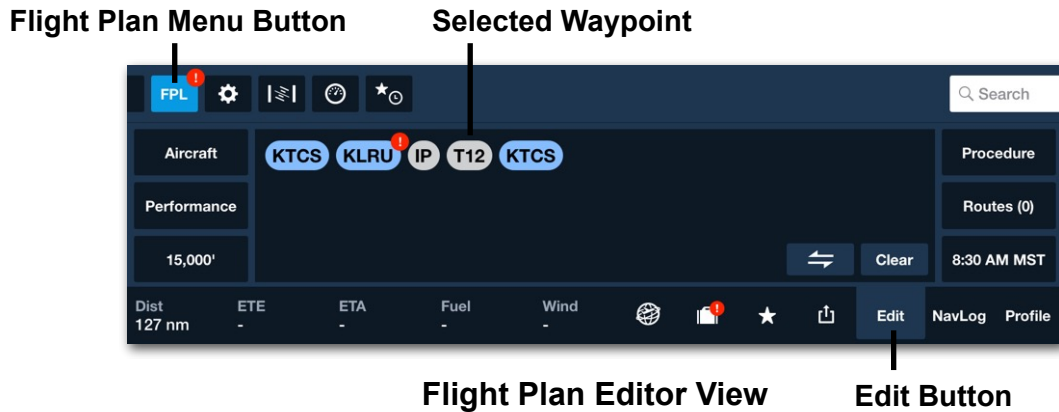


Reverse Button with Expanded ART Route

4. MFB EXCLUSIVE FEATURES

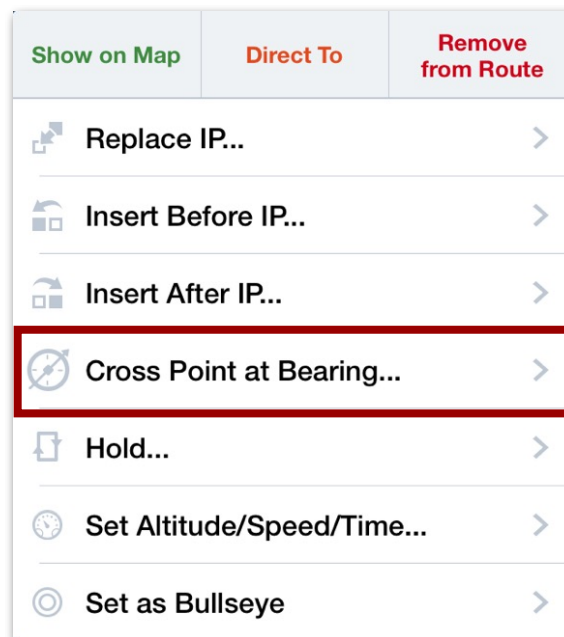
4.4 Cross Point at Bearing

Cross Point at Bearing allows users to build a lead-in course line to a waypoint using bearing to and distance. A lead-in course can be built using any waypoint in the FPL Editor.



To build a Cross Point at Bearing waypoint, follow these steps:

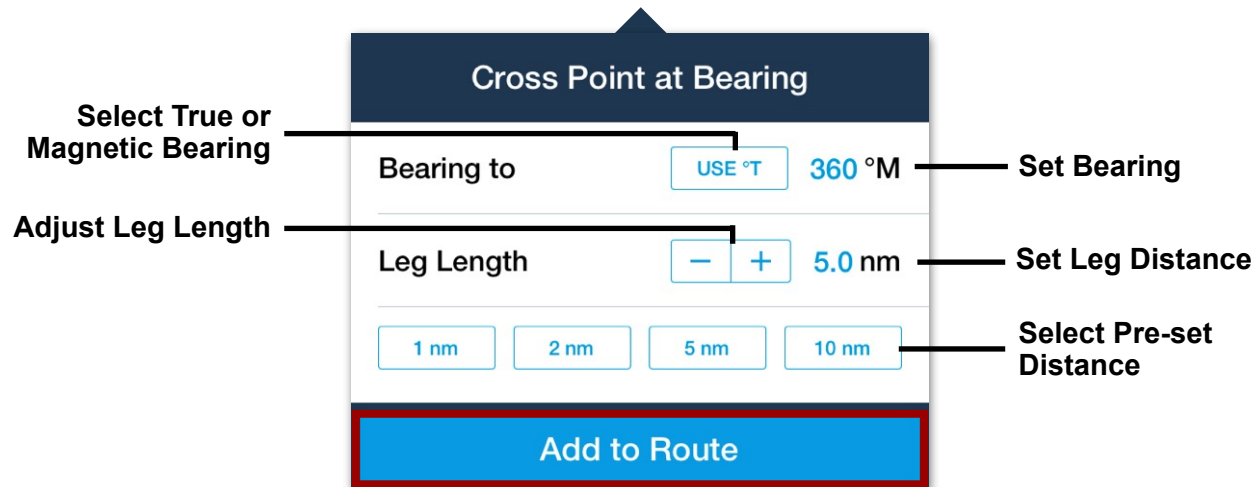
1. From the Maps page, tap the **FPL** button to open the Flight Plan Menu.
2. Tap the **Edit** button to open the FPL Editor.
3. Tap the waypoint where the Cross Point at Bearing will be created.
4. Tap Cross Point at Bearing.



Waypoint Editor Pop-Over

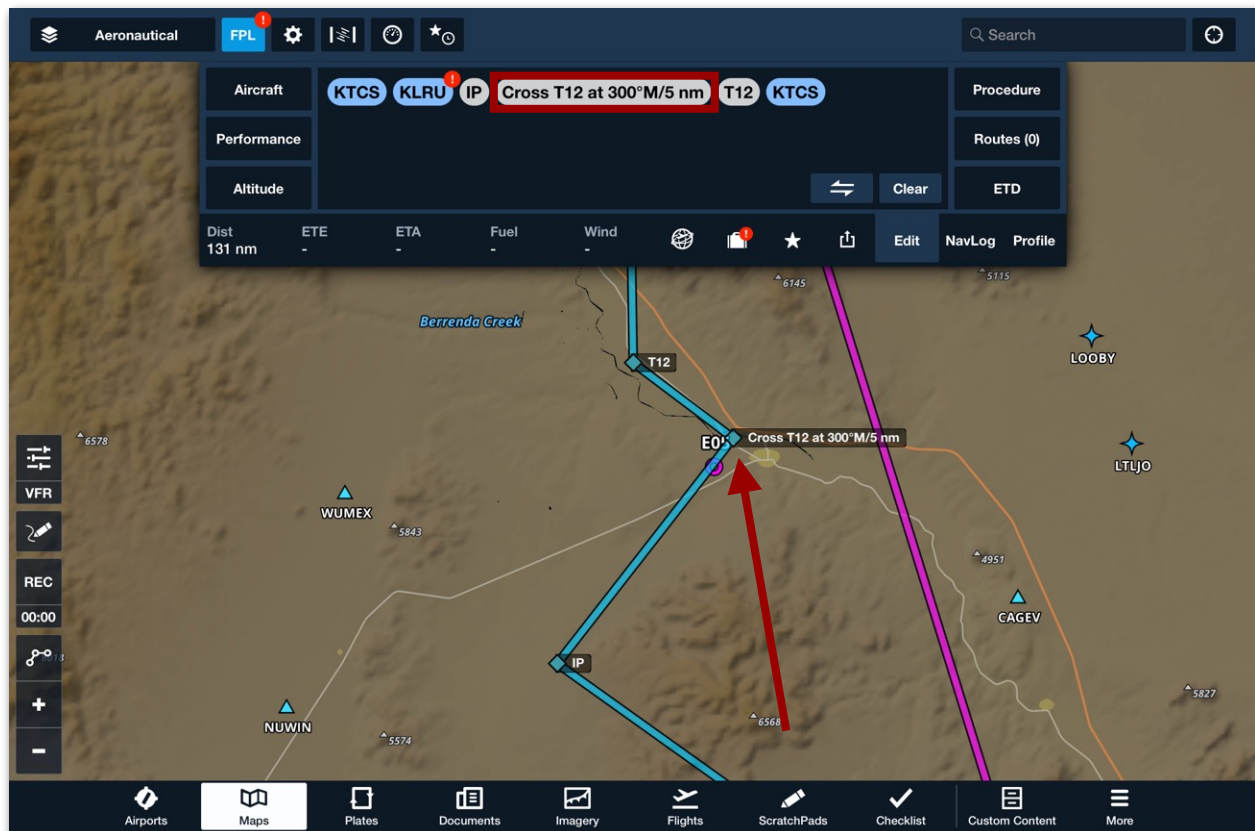
4. MFB EXCLUSIVE FEATURES

5. Enter the bearing to and distance, then tap the **Add to Route** button to create a new waypoint.



Cross Point at Bearing Pop-over

A new waypoint will be inserted prior to the selected waypoint in the FPL Editor and on the Main Map view, displaying the bearing and distance to the waypoint.



Cross Point at Bearing Waypoint Inserted Prior to T12

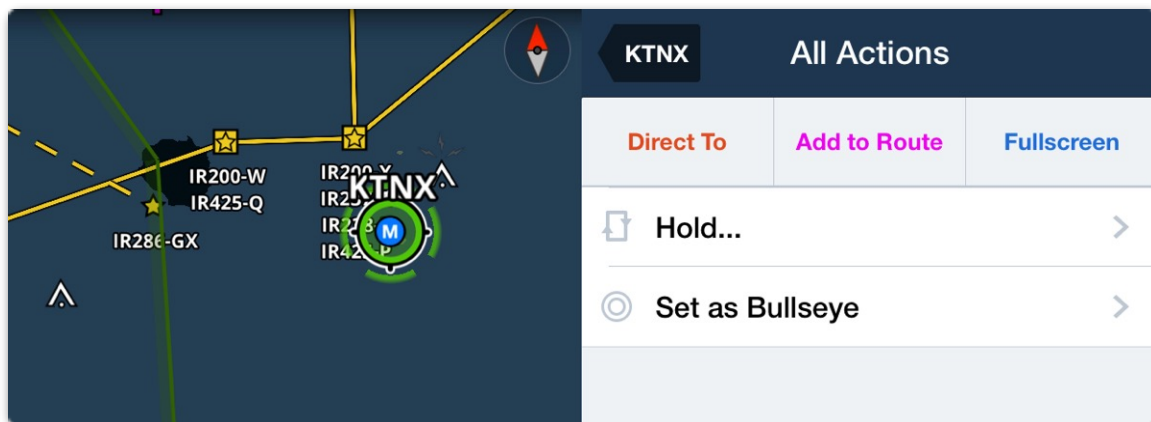
4. MFB EXCLUSIVE FEATURES

4.5 Bullseye

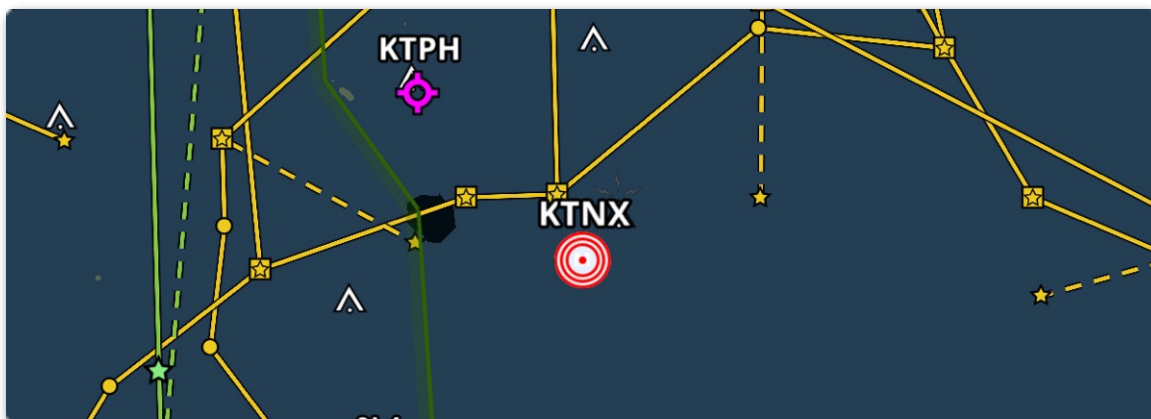
Bullseye is designed to enhance mission planning and tactical decision-making by providing a secure frame of reference in ForeFlight that can be shared among many pilots. Set the Bullseye using coordinates, addresses, waypoints, or any other location type. Then, measure your own and others' positions relative to the Bullseye.

To Enable or Disable Bullseye features, go to **More > Settings > MFB** and tap on **Bullseye Features**.

To set a Bullseye, tap and hold on a waypoint or airport, and then tap **More**. Tap the **Set as Bullseye** option. Only one Bullseye can be set at any one time. Tap the selected Bullseye, tap **More**, then tap **Clear Bullseye** to remove the Bullseye.



Menu with Option to Set as Bullseye



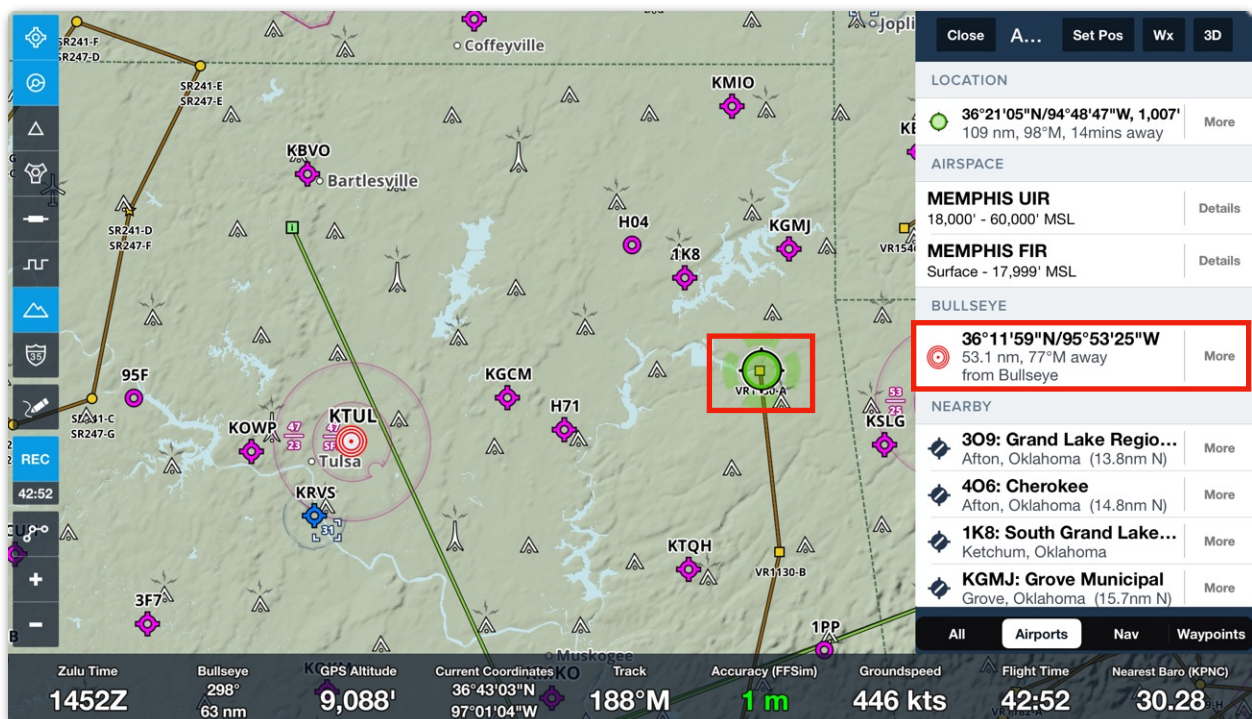
Airport KTNX Selected as Bullseye

4. MFB EXCLUSIVE FEATURES

Once a Bullseye has been placed, tap anywhere on the map to find that point's position in reference to the Bullseye. Enable onscreen instruments by tapping the instruments button (looks like a speedometer) at the top of the app. Tap an unused or existing instrument to replace it with the Bullseye. This will allow you to continually display the relative position of your aircraft from the Bullseye.



Bullseye Instrument showing bearing and distance to your position

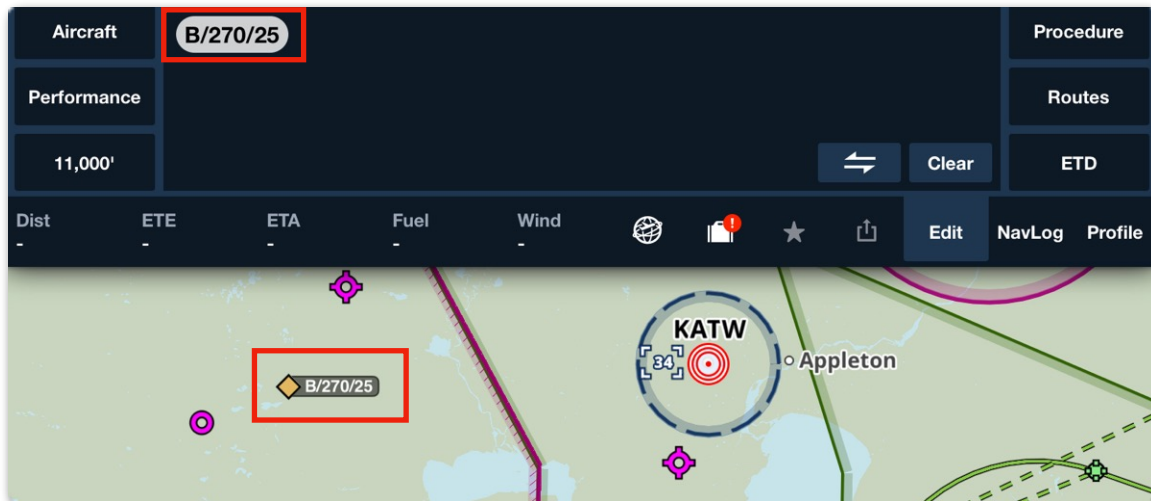


Bullseye showing distance and bearing from selected point

Tap on the map to find the distance and bearing from the Bullseye to that point.

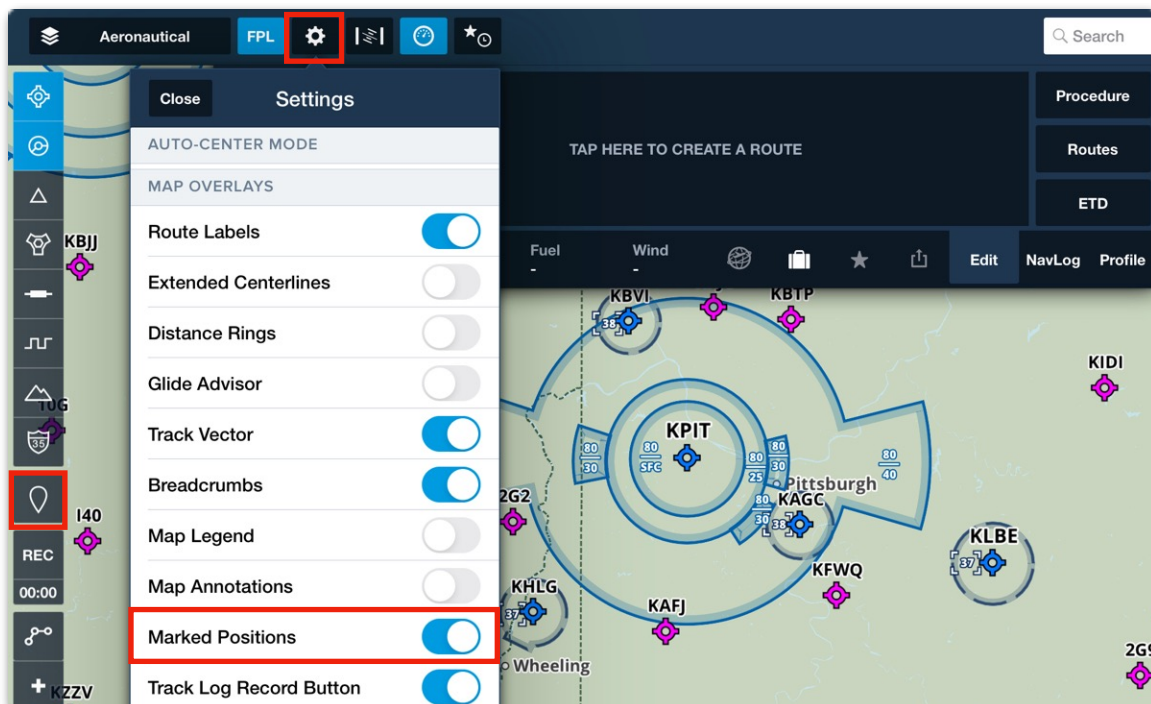
4. MFB EXCLUSIVE FEATURES

Navigate based on Bullseye by entering “BULLSEYE”, a radial from the Bullseye, and a distance in nautical miles. For example, BULLSEYE/270/25 or shorten BULLSEYE to “B” and enter B/270/25.



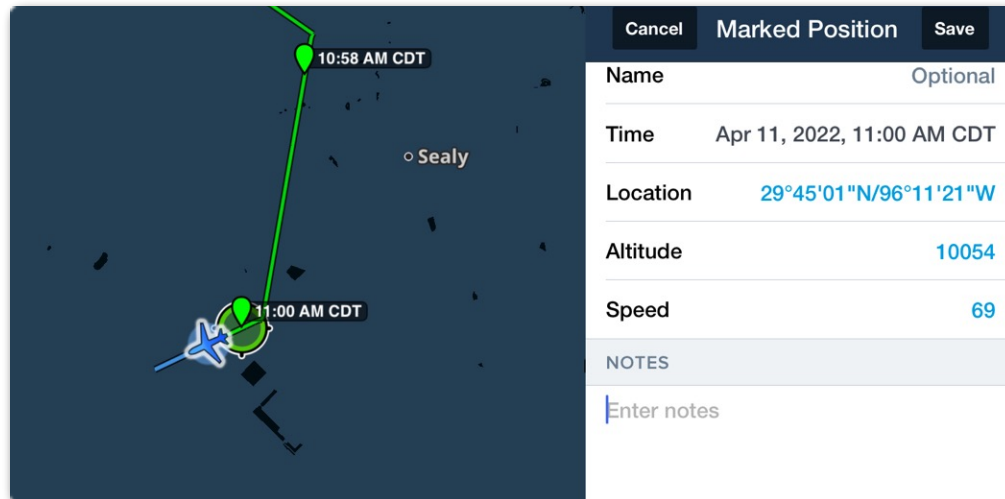
4.6 Marked Positions Feature

The Marked Positions feature, available only in MFB Performance subscriptions, is enabled on the **Maps** page under **Map Settings** (gear icon). With Marked Positions turned on, an additional marked position icon (an inverted teardrop shape) will appear on the left side of the app.



4. MFB EXCLUSIVE FEATURES

Tap on the inverted teardrop icon to add a marker during flight. A popover will appear with location information. Add an optional name to the position or a description in the NOTES section. Tap **Save** when done editing.



Marked Positions persist and live with the Track Log if the Track Log is recording at the time the position is marked. They can be used as maneuver markers, reference markers, or for record-keeping.

Marked Positions can be exported from the Flights page as a CSV file or exported to any debriefing system along with the KML file. Added to the Track Log view are Altitude and Speed. Coupled with an AHRS device, Pitch, Bank, and g-Load may also be displayed. Track Logs are available in 3D to MFB Performance subscribers.

4. MFB EXCLUSIVE FEATURES

4.7 Hazard Advisor

Hazard Advisor is a preflight and inflight map overlay used to evaluate routes for hazardous terrain or obstacles and visualize potential conflicts at different altitudes. It is used in conjunction with the Altitude slider on the lower right of the Maps page.

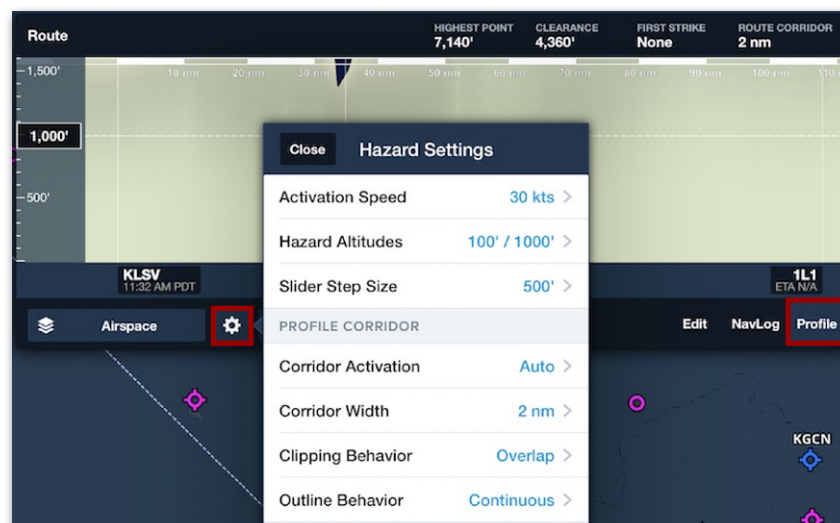
MFB customers have access to additional settings, such as defining custom hazard detection altitudes beyond the four default options. Hazard Advisor is available with MFB Performance subscriptions.

To turn on Hazard Advisor, perform the following steps.

1. Select **Hazard Advisor** in the Layer Selector on the **Maps** page.

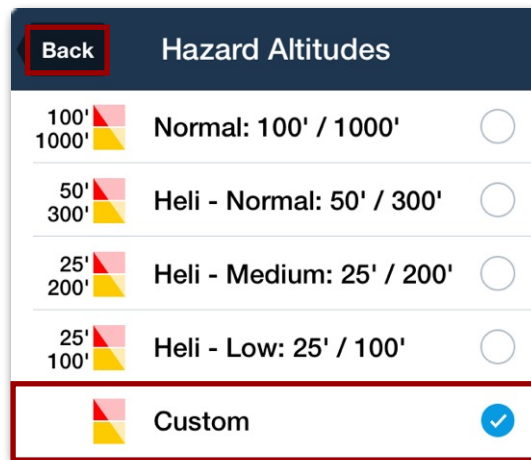


2. Select **Profile** in the FPL viewer.
3. Tap the gear icon to set Corridor Width, Activation Speed, Hazard Altitudes, and Slider Step Size.



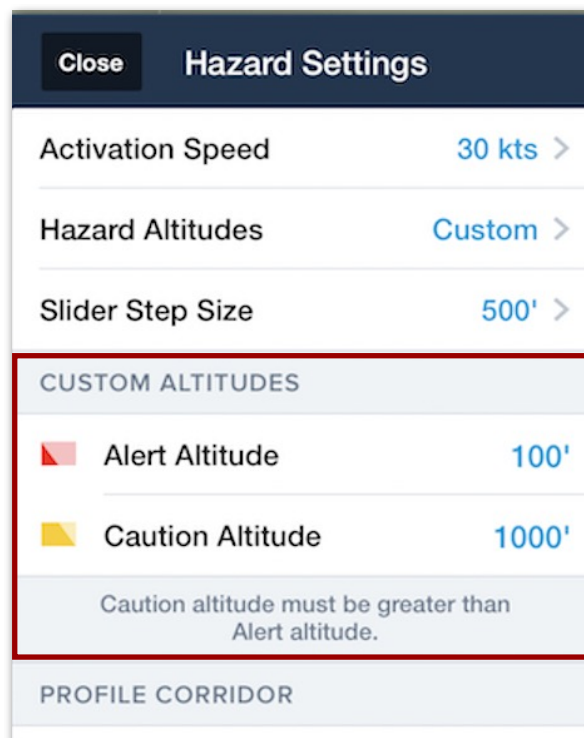
4. MFB EXCLUSIVE FEATURES

Tap the **Hazard Altitudes** elevation. With MFB, Hazard Altitudes can be customized. Tap **Custom** and then tap **Back**.



In the **Hazard Settings** popover, there appears **Custom Altitudes**. Tap to customize altitudes.

Altitudes may be set as low as 0' or as high as 99,999'. While the Caution Altitude and Alert Altitude may be the same, the Caution Altitude cannot be lower than the Alert Altitude. Caution Altitude must be greater than the Alert altitude.



4. MFB EXCLUSIVE FEATURES

4.8 En Route Fuel Adjustment Planning

ForeFlight MFB supports en route fuel adjustments with an MFB One subscription. This feature allows pilots to plan aerial refueling (and defueling) operations for fuel planning and performance planning purposes. For a video demonstration, visit our [Video Library](#).

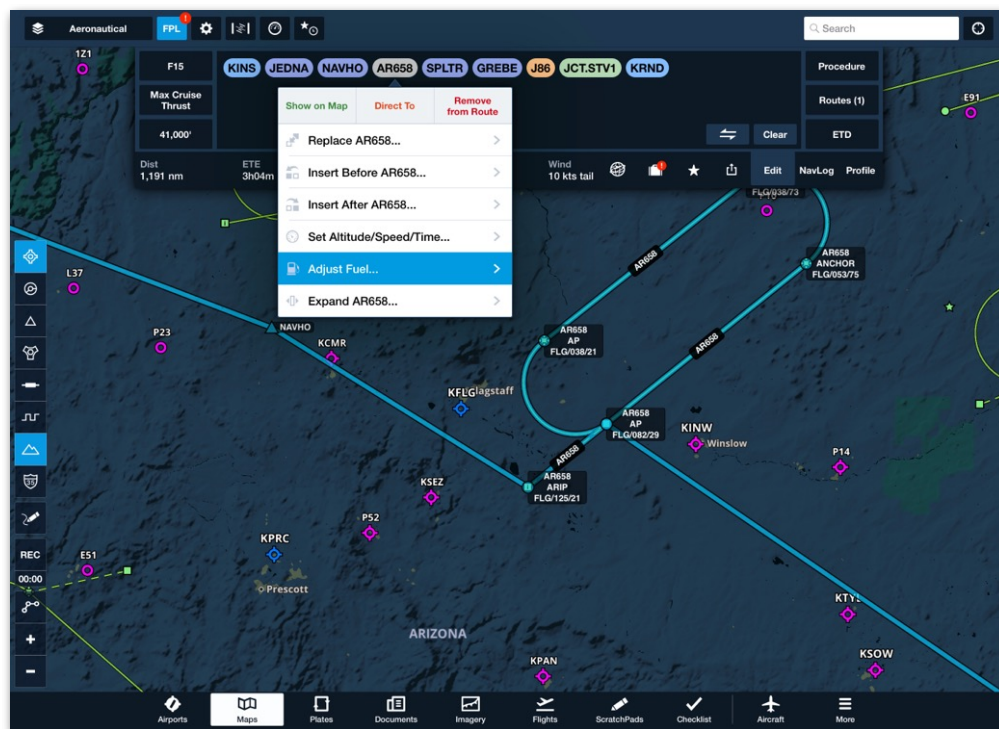
Multiple fuel adjustments can be made per flight using the FPL editor or the sidebar. If a fuel adjustment is entered on the Maps view and then the route is sent to Flights, the fuel adjustment can also be edited using the Flights view.

En route fuel adjustments are calculated using an instantaneous on or offload. If a fuel adjustment is made using an [Aerial Refueling Track](#), the adjustment occurs at the Track's anchor point.

4.8.1 Limitations

The following limitations apply to the en route fuel adjustment feature:

- An aircraft profile that uses Jet-A fuel is required.
- Fuel adjustments are not supported at airports, airways, or terminal arrival or departure procedures.



FPL Editor Fuel Adjustments

4. MFB EXCLUSIVE FEATURES

4.8.2 Fuel Adjustments with the FPL Editor

To change en route fuel amounts using the FPL Editor:

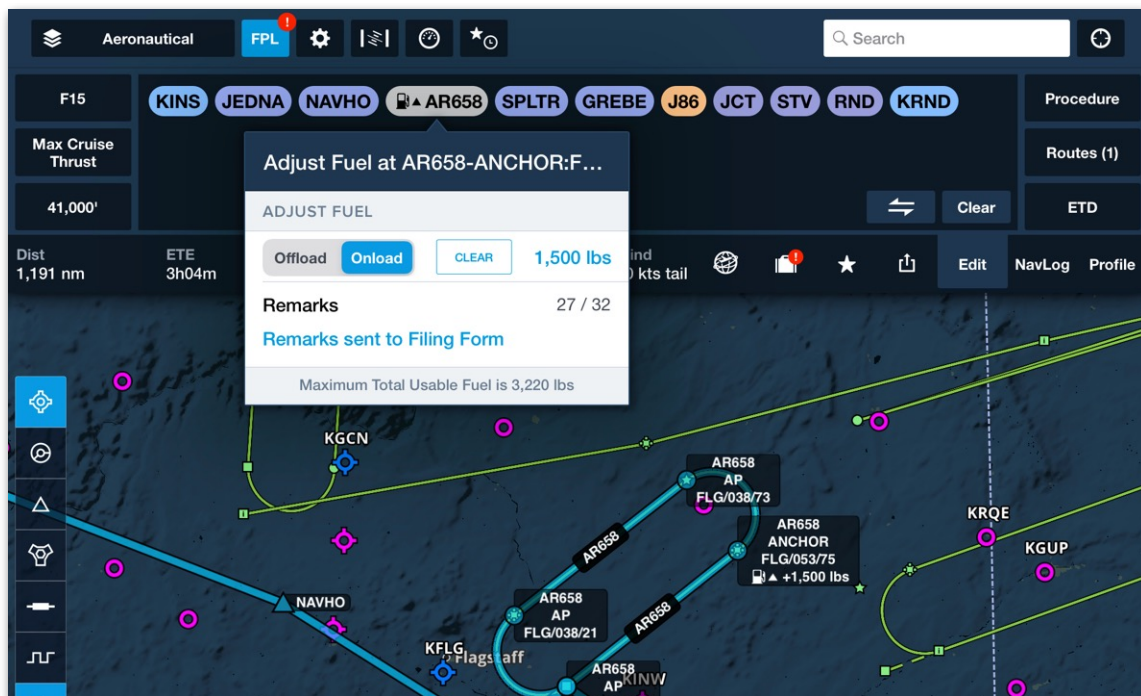
1. Select the Maps view and plan a route.
2. Tap a route element in the FPL editor.
3. Select **Adjust Fuel...**
4. Tap **Offload** or **Onload** as required.
5. Enter a fuel amount and Remarks (optional).

Fuel Amounts and Remarks

When the Fuel Adjustment menu is initially opened, **No Change** is displayed to the right of the Offload and Onload buttons. If Onload is selected, the **Fill** button adds the amount of fuel required to bring the aircraft's fuel back to its maximum capacity (assuming the aircraft departed with maximum fuel).

The fuel unit (pounds, gallons, etc.) is the same as the aircraft profile. The aircraft's fuel capacity is displayed at the bottom of the menu.

Remarks entered when adjusting fuel amounts are added to the Other Information field of the flight plan filing form.



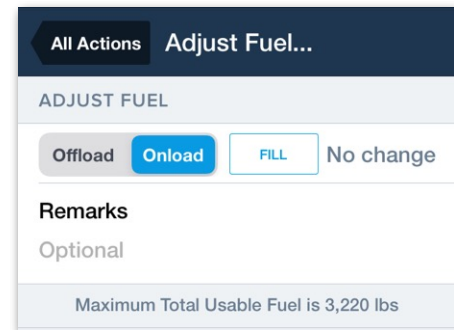
FPL Editor Fuel Adjustment Menu

4. MFB EXCLUSIVE FEATURES

4.8.3 Fuel Adjustments with the Sidebar

To change en route fuel amounts using the Sidebar:

1. Select the Maps view and plan a route.
2. Tap a route element on the map.
3. In the Sidebar, tap **More > Adjust Fuel...**
4. Tap **Offload** or **Onload** as required.
5. Enter a fuel amount and Remarks (optional).



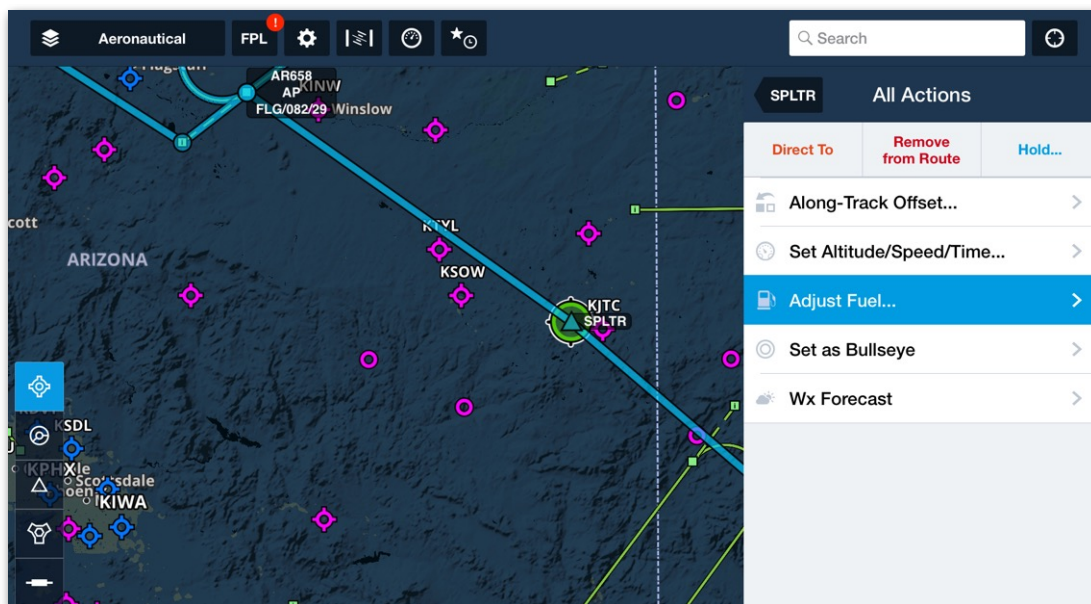
The screenshot shows the 'Adjust Fuel...' menu in the sidebar. At the top, there are tabs for 'All Actions' and 'Adjust Fuel...'. Below this, the title 'ADJUST FUEL' is displayed. There are four buttons: 'Offload', 'Onload' (which is highlighted in blue), 'FILL', and 'No change'. Below the buttons is a 'Remarks' field with the placeholder text 'Optional'. At the bottom, it states 'Maximum Total Usable Fuel is 3,220 lbs'.

Fuel Amounts and Remarks

When the Fuel Adjustment menu is initially opened, **No Change** is displayed to the right of the Offload and Onload buttons. If Onload is selected, the **Fill** button adds the amount of fuel required to bring the aircraft's fuel back to its maximum capacity (assuming the aircraft departed with maximum fuel).

The fuel unit (pounds, gallons, etc.) is the same as the aircraft profile. The aircraft's fuel capacity is displayed at the bottom of the menu.

Remarks entered when adjusting fuel amounts are added to the Other Information field of the flight plan filing form.



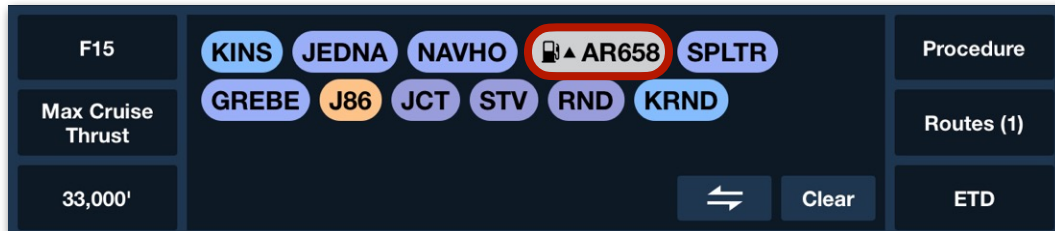
Sidebar Fuel Adjustment Menu

4. MFB EXCLUSIVE FEATURES

4.8.4 Fuel Adjustment Labels

When a fuel adjustment is added to a route, it is displayed in the following locations:

- The FPL Editor route element (bubble) displays a fuel pump icon and Up arrow to indicate onloading or a down arrow to indicate offloading.



Fuel Pump Icon with Up Arrow

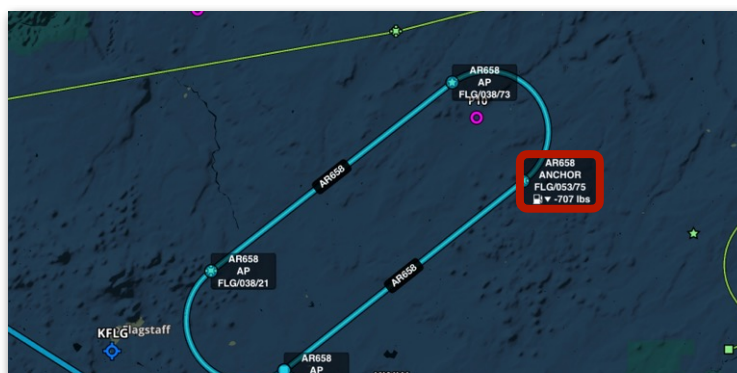
- The **FPL NavLog** adds a row when a fuel adjustment is added. The FPL Navlog displays a fuel pump icon, up or down arrow, and positive or negative fuel amount.

FROM	TO	HDG	TOTALS	LEG	REMAINING	ETA
AR658-AP:FLG/082/29	→ AR658-ANCHOR:FLG/053/75	43°M	313 nm 950 p 0h51m	51 nm 123 p 7m41s	-----	-----
AR658-ANCHOR:FLG/053/75	⬇️ +707 lbs	-----	-----	-----	-----	-----
AR658-ANCHOR:FLG/053/75	→ AR658-AP:FLG/038/73	314°M	345 nm 1,025 p 0h55m	32 nm 75.4 p 4m41s	-----	-----

Dist 1,191 nm ETE 3h03m ETA(CDT) 3:02 pm Fuel 3,021 lbs Wind 4 kts tail

FPL NavLog Fuel Adjustment

- The **Map View** adds a label next to the route element where fuel is adjusted. The label includes the name of the element, a fuel pump icon, up or down arrow, and a positive or negative fuel amount.



Waypoint with Offload Fuel

4. MFB EXCLUSIVE FEATURES

4.8.5 Removing Fuel Adjustments

Fuel adjustments can be removed from the FPL Editor, the FPL NavLog or the Sidebar.

To remove a fuel adjustment from the FPL Editor:

1. Open the FPL Editor (**FPL** menu **Edit** mode).
2. Tap the route element (bubble) where the adjustment was made.
3. Tap **Adjust Fuel...**
4. Tap **Clear**.
5. Tap outside of the Adjust Fuel menu.

To remove a fuel adjustment from the FPL NavLog:

1. Open the FPL NavLog (**FPL** menu **NavLog** mode).
2. Tap the Fuel Pump icon.
3. Select **Adjust Fuel at [waypoint]**.
4. Tap **Clear**.
5. Tap outside of the Adjust Fuel menu.

To remove a fuel adjustment from the Sidebar:

1. Open the Maps view.
2. Tap the route element on the map where the fuel adjustment occurs.
3. Select **More > Adjust Fuel...**
4. Tap **Clear**.
5. Tap outside of the Adjust Fuel menu.

NOTE: Removing a fuel adjustment does not automatically remove the optional Remarks. You must manually delete the Remarks if you don't want them to be included in the filing form.

4. MFB EXCLUSIVE FEATURES

4.9 Time on Target

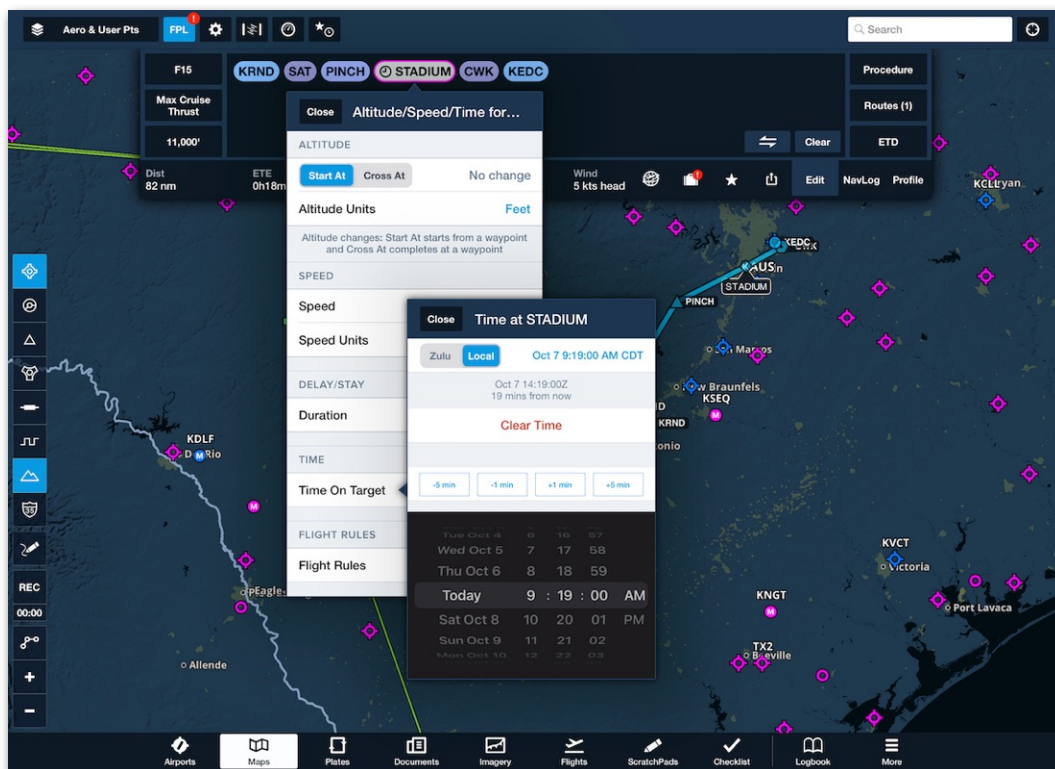
Time on Target is an inflight tool for calculating the required speed to fly over a specific target at a specific time. Multiple times can be defined for a single flight from either the FPL Editor or the Sidebar.

Time on Target is only available with an MFB One subscription. For a video demonstration, visit our [Video Library](#).

4.9.1 Setting Time on Target with the FPL Editor

To set Time on Target using the FPL Editor:

1. Select the Maps view and plan a route.
2. Tap a route element in the FPL editor.
3. Select **Set Altitude/Speed/Time** from the route element menu.
4. Tap **Time on Target**.
5. Use the **Time on Target menu** to specify the time (Zulu or Local) when you plan to cross the target.



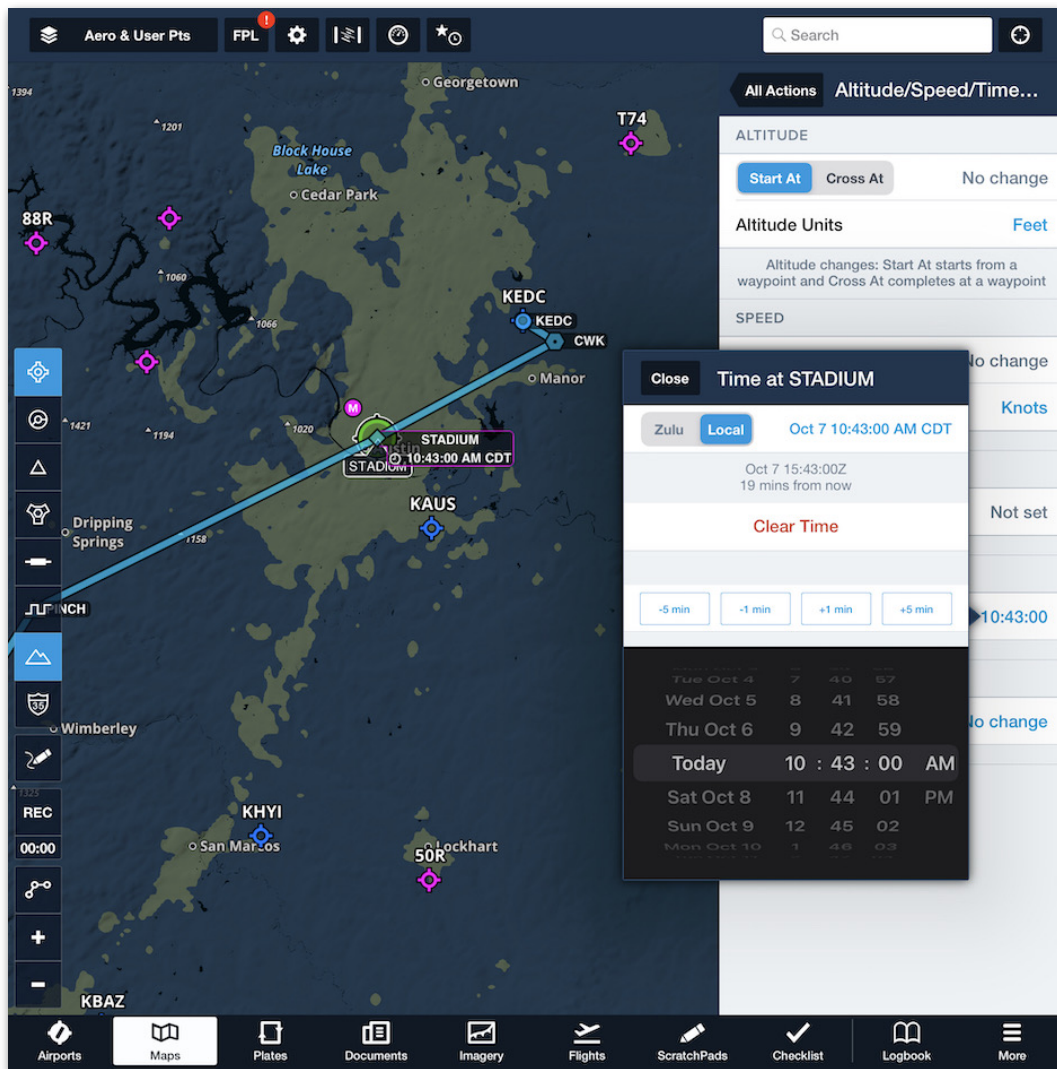
Setting Time on Target with the FPL Editor

4. MFB EXCLUSIVE FEATURES

4.9.2 Setting Time on Target with the Sidebar

To set Time on Target using the Sidebar:

1. Select the Maps view and plan a route.
2. Tap a route element on the Map.
3. Select **More > Set Altitude/Speed/Time** using the Sidebar.
4. Tap **Time on Target**.
5. Use the **Time on Target menu** to specify the time (Zulu or Local) when you plan to cross the target.



Setting Time on Target with the Sidebar

4. MFB EXCLUSIVE FEATURES

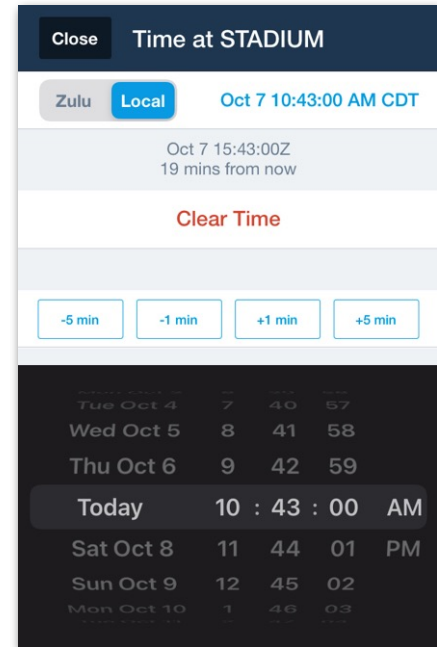
4.9.3 Time on Target Menu

The Time on Target menu specifies the time at which the aircraft needs to arrive at the target. By default, the time is set to approximately 20 minutes from the current time.

Time can be specified in Zulu or Local time by tapping the buttons near the top of the menu. When a time format is selected, subsequent flights use the same format.

To specify a time, use the date and time selector or the buttons above the selector to increase or decrease the current time by one- or five-minute intervals.

To save your Time on Target and hide the menu, tap **Close** (near the top of the menu) or anywhere outside the menu.

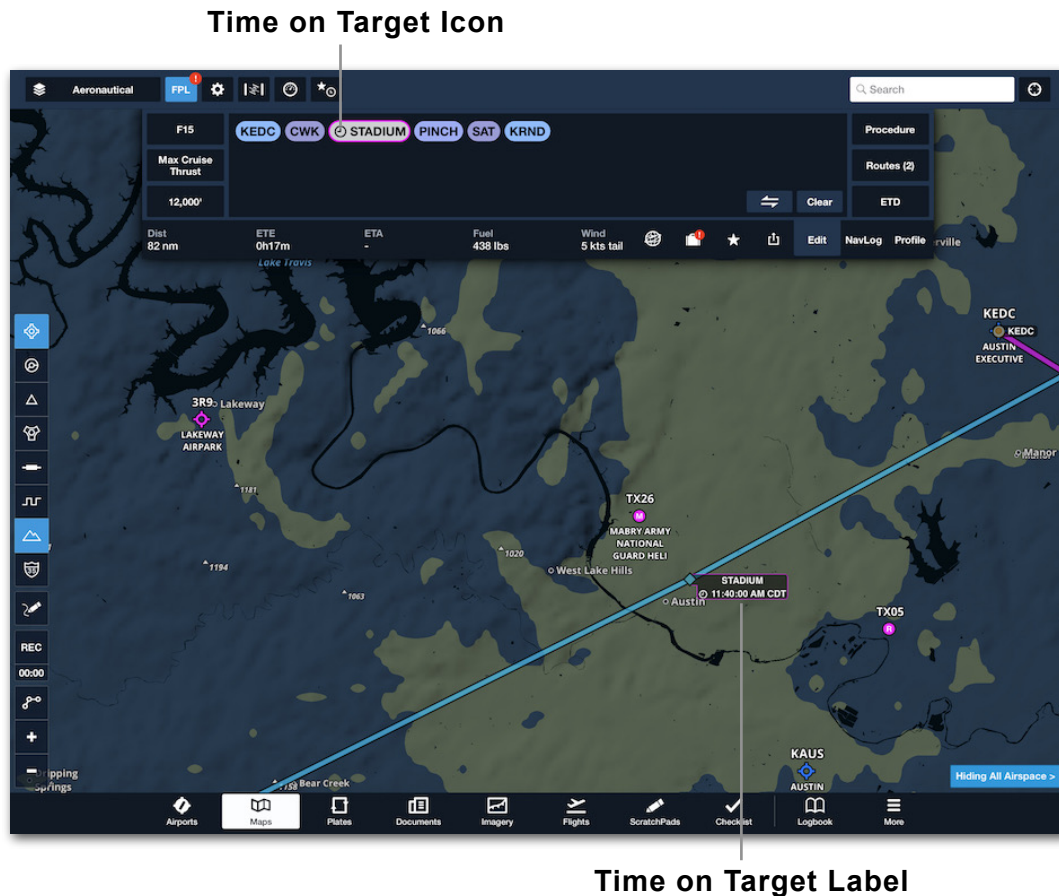


Time on Target Menu

4. MFB EXCLUSIVE FEATURES

4.9.4 Time on Target Labels

When a Time on Target has been added, a clock icon is displayed in the FPL Editor. The waypoint is also displayed on the map with a label that includes the name of the waypoint and the target time.

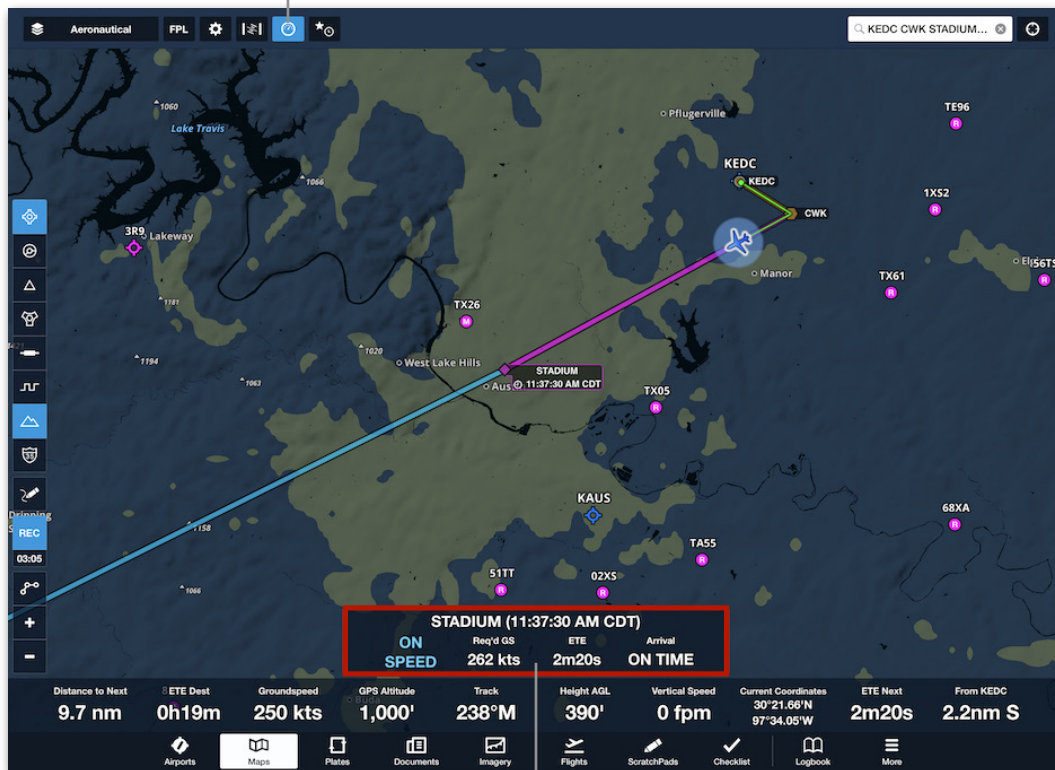


4. MFB EXCLUSIVE FEATURES

4.9.5 Time on Target Instrument

When a Time on Target has been added to a waypoint in your route, speed and time details are displayed in the Time on Target Instrument. To display the instrument, activate the Instrument Panel with the button in the upper toolbar.

Instrument Panel Button



Time on Target Instrument

4. MFB EXCLUSIVE FEATURES

Speed and Time Guidance

The Time on Target instrument displays speed and time guidance. Speed guidance is given on the left side of the instrument and time guidance on the right. Four modes based on current groundspeed can be displayed.

- **SPEED UP** is displayed when the current groundspeed will result in the aircraft reaching the target more than ten seconds after the user-defined time. Increase the current groundspeed by the Speed Up amount to arrive at the target on time. When in Speed Up mode, the time guidance indicates how late you will arrive on target based on the current groundspeed.
- **SLOW DOWN** is displayed when the current groundspeed will result in the aircraft reaching the target ten seconds or more before the user-defined time. Decrease the current groundspeed by the Slow Down amount to arrive at the target on time. When in Slow Down mode, the time guidance indicates how early you will arrive on target based on the current groundspeed.
- **ON SPEED** is displayed when the aircraft is projected to arrive on target within ten seconds of the desired time. When in On Speed mode, the time guidance indicates that you will arrive on time.
- **FIX CROSSED** is displayed five seconds after the aircraft has crossed the fix. Fix Crossed displays the actual time of arrival (ATA) and whether you arrived early, late, or on time, and will remain displayed until the route is cleared or the Time on Target is **removed**.

STADIUM (12:36:00 PM CDT)			
SPEED UP	Req'd GS	ETE	Arrival
+5 kts	135 kts	0h33m	1m11s Late

Speed Up Mode

STADIUM (11:38:00 AM CDT)			
SLOW DOWN	Req'd GS	ETE	Arrival
-46 kts	204 kts	1m44s	0m24s Early

Slow Down Mode

STADIUM (12:35:00 PM CDT)			
ON SPEED	Req'd GS	ETE	Arrival
	140 kts	0h29m	ON TIME

On Speed Mode

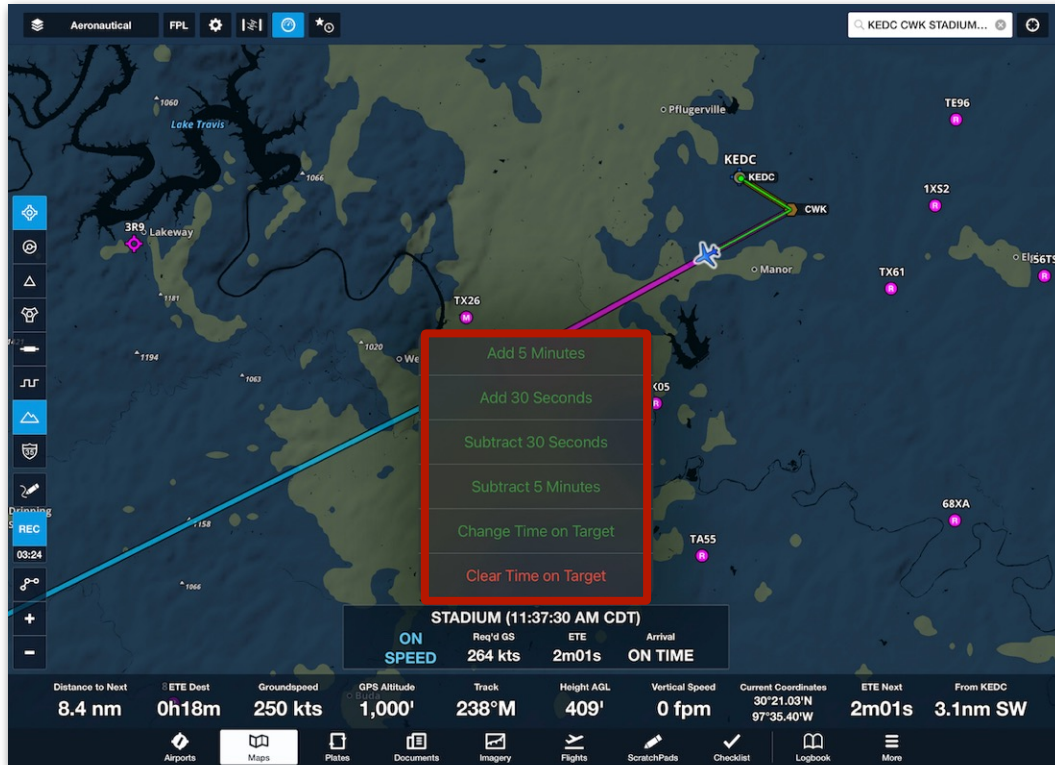
STADIUM (12:10:00 PM CDT)		
FIX CROSSED	ATA	Arrived
	12:10:05 PM CDT	ON TIME

Fix Crossed Mode

4. MFB EXCLUSIVE FEATURES

Time on Target Instrument Adjustments

The Instrument can be used to adjust the Time on Target. To reveal the adjustment menu, tap the Time on Target Instrument.



Time on Target Instrument Adjustment Menu

The adjustment menu includes buttons for quickly adding and subtracting time from the current Time on Target as well as options for **Clearing the Time on Target** and opening the **Time on Target** menu.

The Time on Target menu can be used to change or clear the Time on Target. Tap the **Change Time on Target** button to open the Time on Target menu.

4. MFB EXCLUSIVE FEATURES

4.9.6 Multiple Time on Targets

Time on Target can be applied to multiple waypoints in a route using the **FPL Editor** or the **Sidebar**. When more than one Time on Target has been added to a route, the Time on Target Instrument displays arrows for navigating between them.

When a waypoint with a Time on Target has been crossed, the instrument will automatically sequence to the next waypoint with a Time on Target.

CRUMP (10:45:00 AM CDT)				
<	SPEED UP	Req'd GS	ETE	Arrival
	+18 kts	118 kts	1h02m	9m33s Late
>				

Time on Target Instrument with Navigation Arrows

4.9.7 Removing Time on Target

Time on Targets can be removed before or after crossing a waypoint.

To remove Time on Target with the Time on Target Instrument:

1. Enable the Instrument Panel by tapping the airspeed indicator button in the upper toolbar.
2. Tap the Time on Target Instrument.
3. Tap **Clear Time on Target**.

To remove Time on Target with the FPL Editor:

1. Display the FPL Editor with the **FPL** button in the upper toolbar.
2. Tap the FPL editor waypoint (bubble) with the Time on Target.
3. Tap **Set Altitude/Speed/Time...**
4. Tap **Time on Target** > Tap **Clear Time**.

To remove Time on Target with the Sidebar:

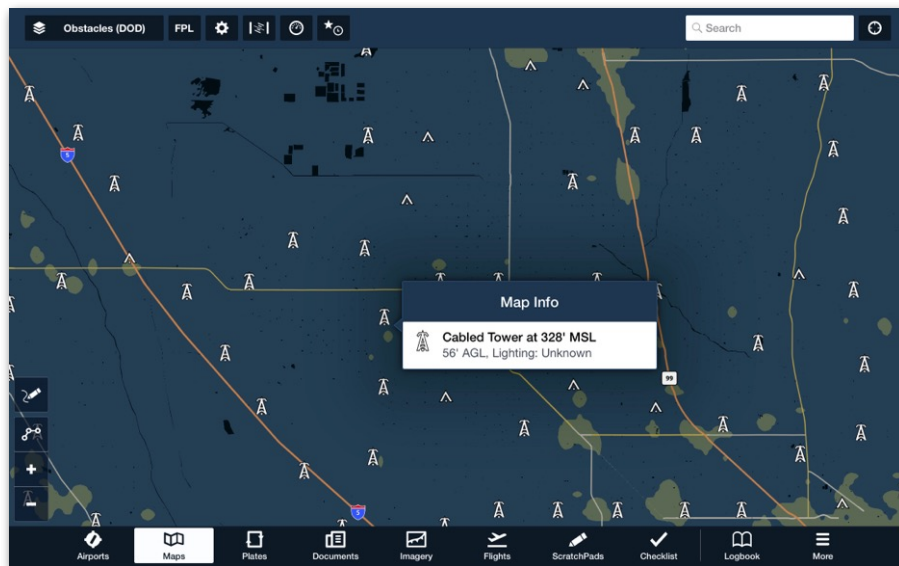
1. Tap the map waypoint with Time on Target set.
2. Tap **More >**
3. Tap **Set/Altitude/Speed/Time...**
4. Tap **Time on Target** > Tap **Clear Time**.

4. MFB EXCLUSIVE FEATURES

4.10 Obstacles (DOD)

The Obstacle (DOD) database contains over 23 million obstacles, filtered to show only those that are more than 20 feet tall. This database contains approximately four times the amount of obstacles included in the Worldwide (Jeppesen) Obstacle database.

To access DOD obstacle data, a United States, Canada, Germany, Australia, Norway, or NATO MFB One subscription is required.



Obstacles (DOD)

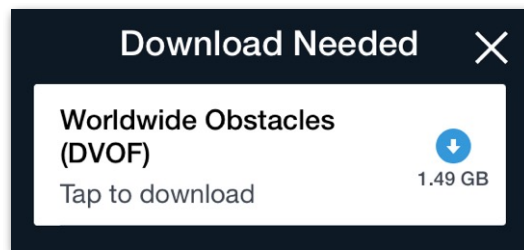
4. MFB EXCLUSIVE FEATURES

4.10.1 Downloading Obstacles (DOD)

To view DOD obstacle data, you must first install the Worldwide Obstacles Digital Vertical Obstruction File (DVOF). If this download is not already installed on your device, you will be prompted to download it when the **Obstacles (DOD)** map layer is selected.

Once installed, the Worldwide Obstacles (DVOF) download is displayed on the **More > Downloads** view in the US Department of Defense section and can be selected on the map. DOD obstacles can be selected for future downloads in **More > Downloads > Data Settings**.

The DVOF download is updated every 28 days and is approximately 1.5 GB in size.

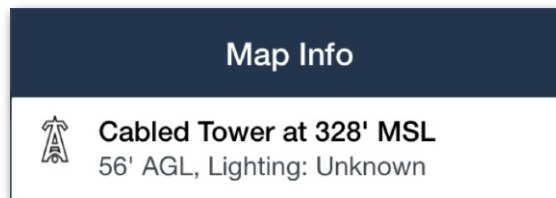


Download Prompt

4. MFB EXCLUSIVE FEATURES

4.10.2 Displaying Obstacles (DOD)

Obstacles in the DOD database are displayed on the map by selecting the **Obstacles (DOD)** map layer from the layer selector. The map layer is dynamic and will filter obstacles as you zoom out and show more obstacles as you zoom in. Obstacles respond to a single tap, displaying height and lighting information (when available) in a pop-over window.



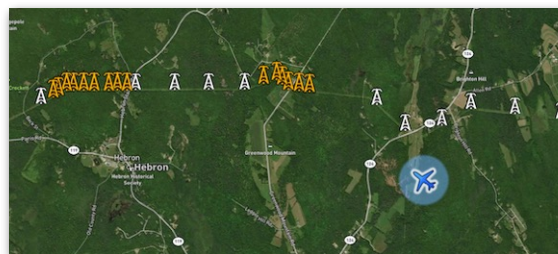
Obstacle Pop-Over

Hazard Coloring

The Obstacles (DOD) map layer can highlight hazards that are in close proximity to a moving aircraft. To highlight obstacles, groundspeed must be greater than a user-selected speed. To adjust the settings:

1. Tap **More > Settings > Hazards**.
2. Select an **Activation Speed** (groundspeed above which obstacles will be highlighted).
3. Select **Hazard Altitudes** (proximity for which hazards will be colored yellow or red).

NOTE: Hazard settings also control the behavior of **Hazard Advisor**.



Obstacles (DOD) Hazard Coloring

4. MFB EXCLUSIVE FEATURES

DOD Obstacles in 3D

The 3D Preview view includes obstacles from the DOD obstacle database. To display DOD obstacles in 3D, the Worldwide Obstacle DVOF download must be installed.

To show or hide obstacles in the 3D view, use the 3D Layer Selector. Obstacles in 3D cannot be filtered by height.

3D Layer
Selector

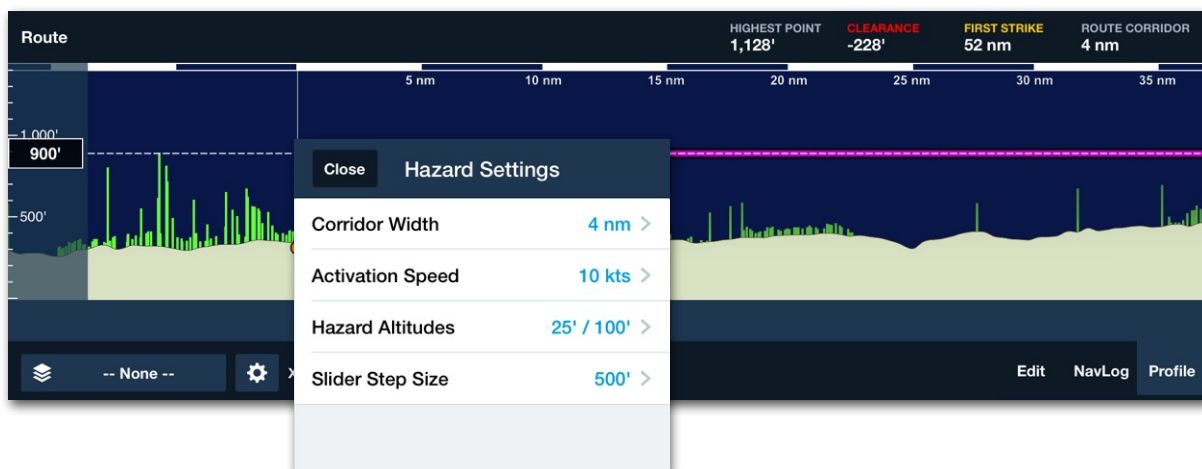


Obstacles (DOD) in 3D

DOD Obstacles in Profile View

The Profile View includes obstacles from the DOD obstacle database. To display DOD obstacles in Profile View, the Worldwide Obstacle DVOF download must be installed.

Obstacles in the Profile View can only be filtered by proximity to the route using the **Corridor Width** setting.



Obstacles (DOD) in Profile View

4. MFB EXCLUSIVE FEATURES

4.10.3 Filtering Obstacles

The Obstacle (DOD) map layer can be filtered by height. Obstacles below 150' AGL are filtered by default.

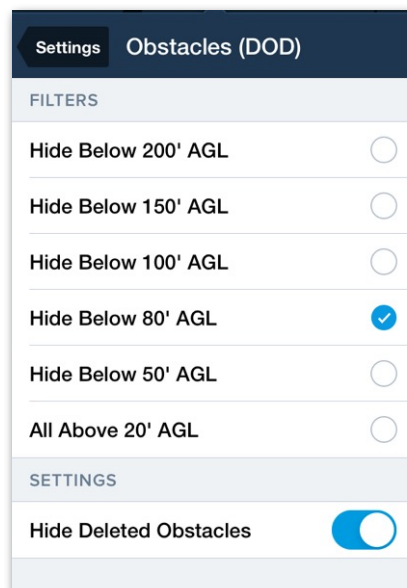
When a filter (excluding the **All Above 20' AGL** filter) is selected, a **Hiding Obstacles Below** banner is displayed in the lower right corner of the Map. Tap the **banner** to select a different filtering height.

Hiding Obstacles Below 150' >

Hiding Obstacles Banner

When the **All Above 20' AGL** filter is applied the **Hiding Obstacles Below** label is removed (since no obstacles are being hidden) and the map filter can only be adjusted by performing the following steps:

1. Ensure the **Obstacle DOD** map layer is selected in the layer menu.
2. Open the Map Settings menu by tapping the **gear** button in the upper toolbar.
3. Scroll down and select **Obstacles (DOD)**.
4. Select a filtering option.



Obstacle Filter Menu

4. MFB EXCLUSIVE FEATURES

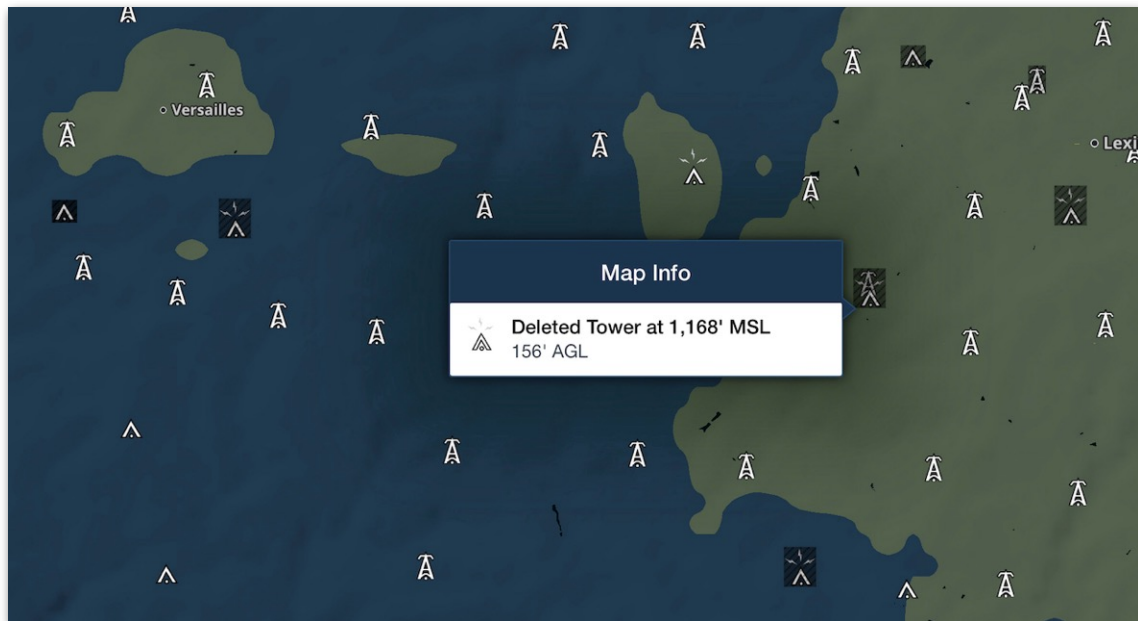
Hide Deleted Obstacles

Deleted obstacles are obstacles that are still depicted on military JOG, TPC, ONC, and RANGE charts even after they have been physically removed.

Deleted obstacles are not displayed on the Obstacles DOD map layer by default.

To display Deleted Obstacles, disable the **Hide Deleted Obstacles** setting in the Obstacle Filter menu.

When Hide Deleted Obstacles is disabled, deleted obstacles are displayed on the Map with a square, dark-hashed background and include a Deleted label when tapped.

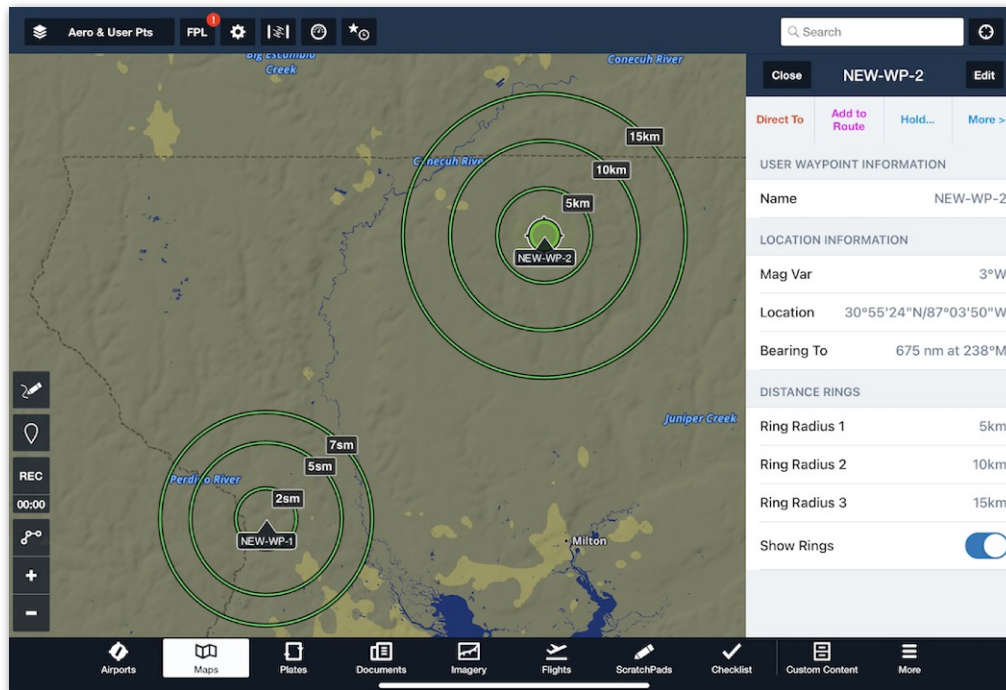


Obstacles (DOD) - Deleted Obstacles

4. MFB EXCLUSIVE FEATURES

4.11 User Waypoint Distance Rings

MFB One and MFB One International subscribers can create up to three distance rings around each user waypoint to convey radial distances in NM, SM, or KM. Existing user waypoint distance rings can be displayed or hidden from the map, and shared with other users in CSV files.



User Waypoint Distance Rings

4.11.1 Adding New User Waypoint with Distance Rings

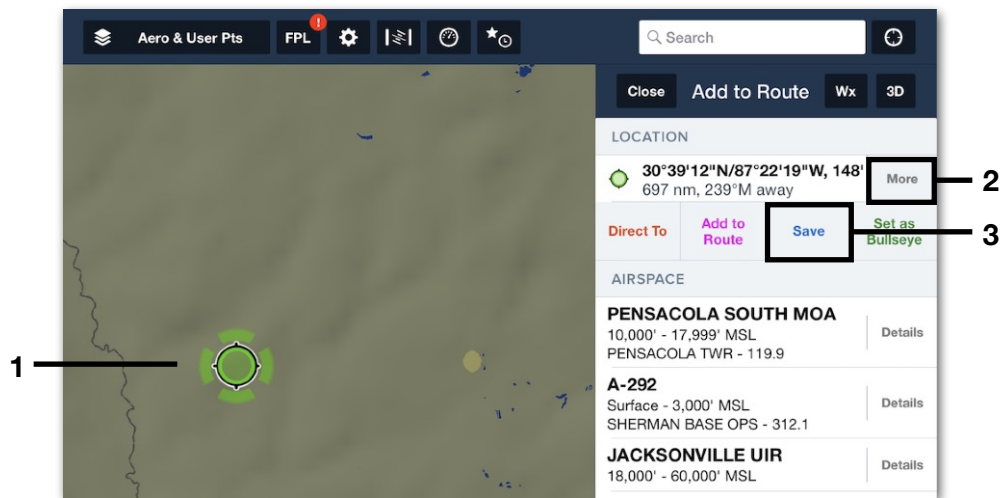
A new user waypoint with distance rings can be created directly on the Maps view (in order to pick the location visually) or Custom Content view (to manually enter its coordinates). Both methods are described later in this chapter.

4. MFB EXCLUSIVE FEATURES

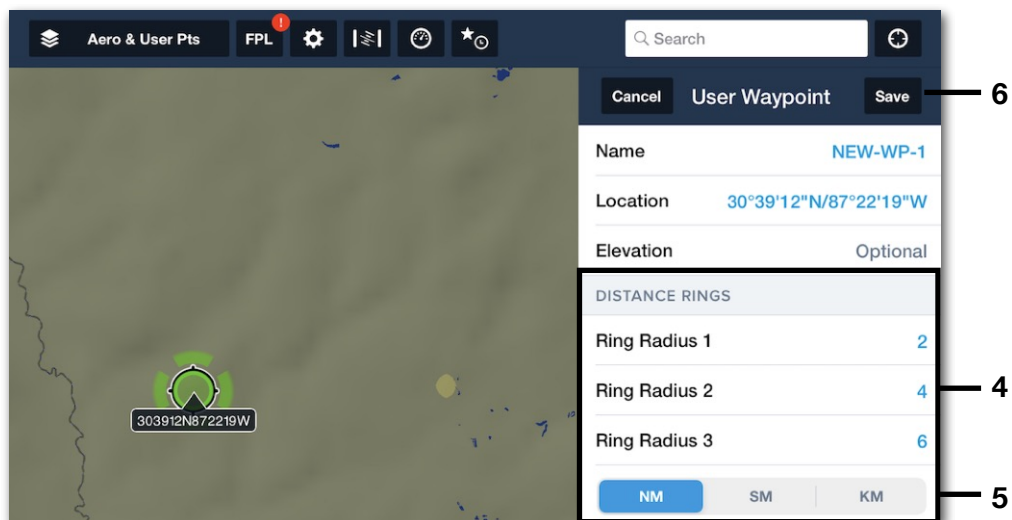
Adding New User Waypoint with Distance Rings to the Map

To add a new user waypoint with distance rings on the map, follow these steps:

1. On the Maps view, long-tap where the user waypoint will be located.
2. In the Add to Route sidebar, tap **More** next to the location.
3. Tap **Save**.



4. In the User Waypoint menu, create up to three distance rings by entering a number in the **Ring Radius 1**, **Ring Radius 2**, or **Ring Radius 3** fields. These numbers can be in any sequence.
5. Tap **NM**, **SM**, or **KM** to select the measurement units for the numbers you entered in the Ring Radius fields.
6. Tap **Save**.

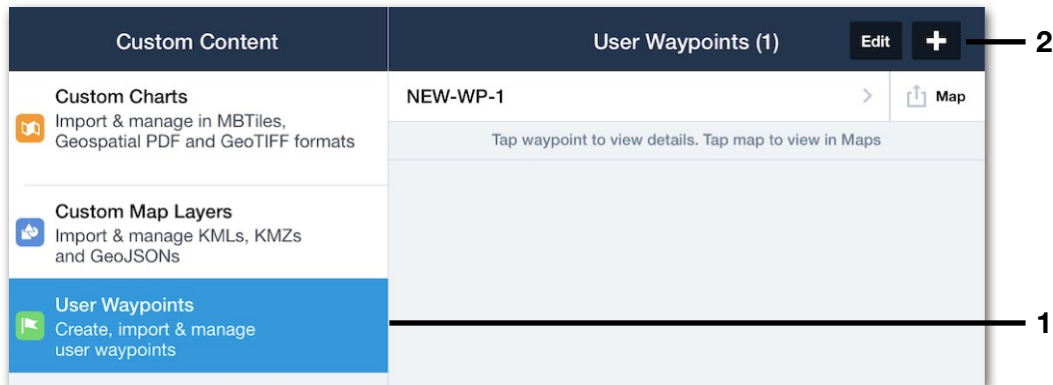


4. MFB EXCLUSIVE FEATURES

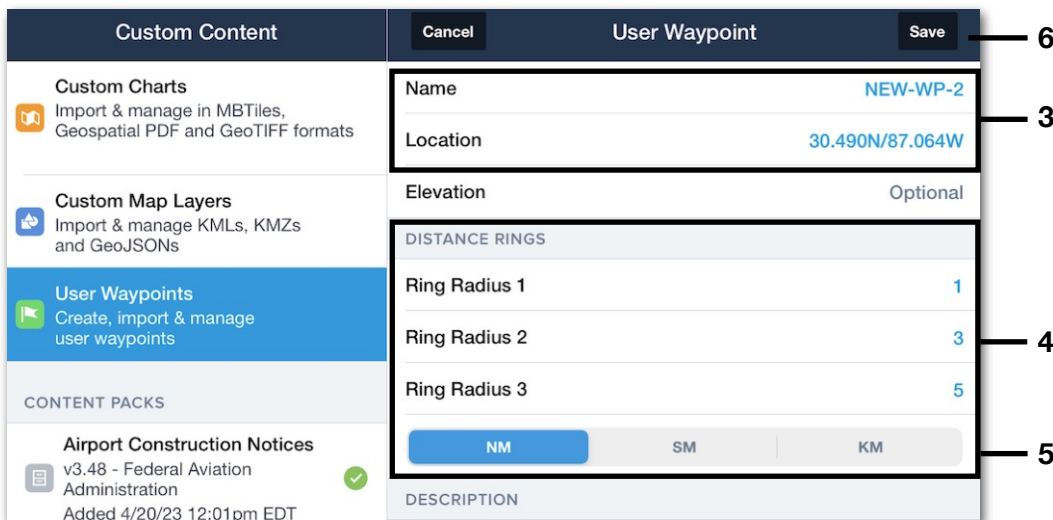
Adding New User Waypoint with Distance Rings in Custom Content

To add a new user waypoint with distance rings by manually entering its geospatial coordinates, follow these steps:

1. Tap **More > Custom Content > User Waypoints**.
2. On the top right corner of the screen, tap the Plus (+) icon.



3. In the User Waypoint menu, enter a **Name** and **Location** (using lat/long coordinates) for the new waypoint.
4. In the Distance Rings section, create up to three distance rings by entering a number in the **Ring Radius 1**, **Ring Radius 2**, or **Ring Radius 3** fields. These numbers can be in any sequence.
5. Tap **NM**, **SM**, or **KM** to select the measurement units for the numbers you entered in the Ring Radius fields.
6. Tap **Save**.



4. MFB EXCLUSIVE FEATURES

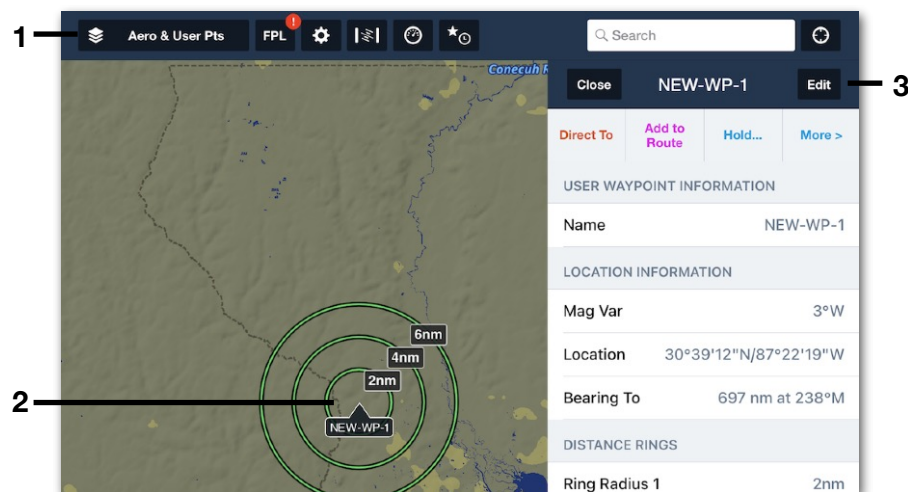
4.11.2 Editing User Waypoint Distance Rings

Distance rings can be added to, edited for, or removed from a user waypoint on the Maps view or Custom Content view. Both methods are described below.

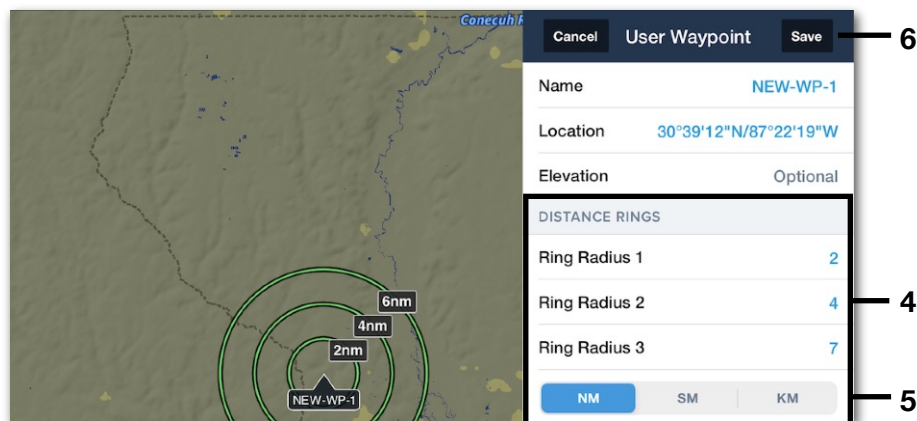
Editing User Waypoint on the Map

To add or edit distance rings for an existing user waypoint, follow these steps:

1. On the Maps view, turn on the **User Waypoints** map layer.
2. Tap the desired user waypoint on the map.
3. In the sidebar, tap **Edit** next to the user waypoint header.



4. In the User Waypoint menu, add, edit, or remove numbers from the **Ring Radius 1**, **Ring Radius 2**, or **Ring Radius 3** fields.
5. Tap **NM**, **SM**, or **KM** to select or change the measurement units.
6. Tap **Save**.

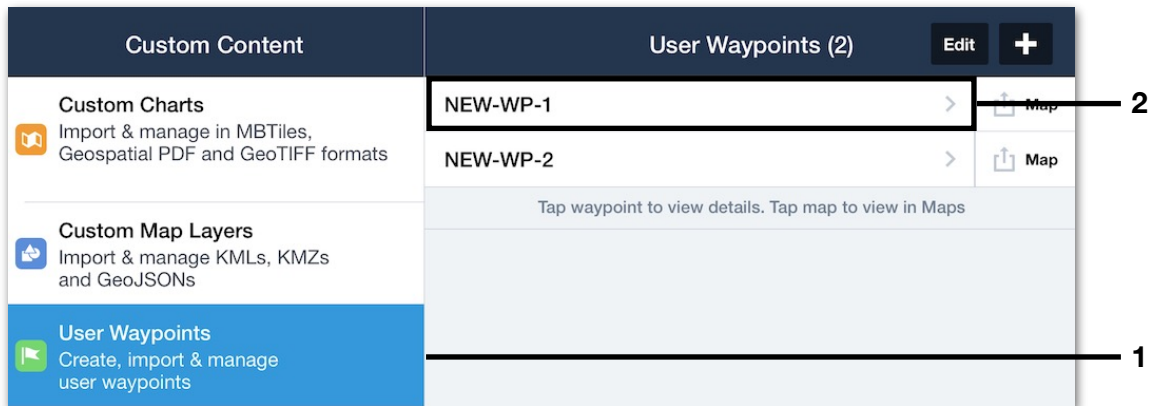


4. MFB EXCLUSIVE FEATURES

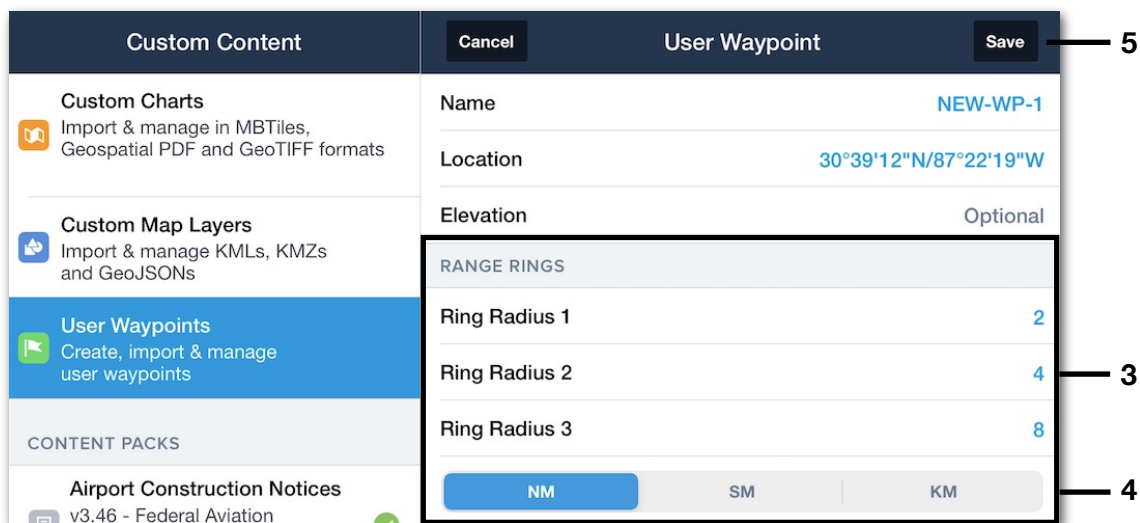
Editing User Waypoint on the Custom Content View

To add or edit distance rings for an existing user waypoint on the Custom Content view, follow these steps:

1. Tap **More > Custom Content > User Waypoints**.
2. A list of all user waypoints is displayed on the right. Tap the desired user waypoint.



3. In the User Waypoint menu, add, edit, or remove numbers from the **Ring Radius 1**, **Ring Radius 2**, or **Ring Radius 3** fields.
4. Tap **NM**, **SM**, or **KM** to select or change the measurement units for the above numbers.
5. Tap **Save** to save your changes.

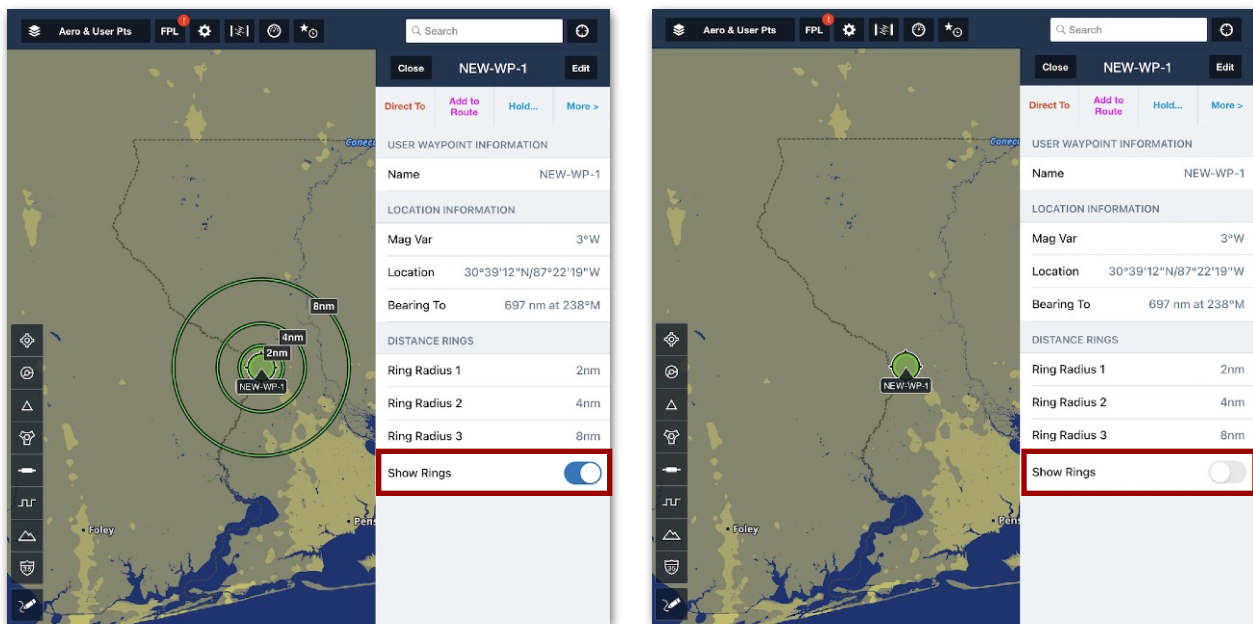


4. MFB EXCLUSIVE FEATURES

4.11.3 Showing/Hiding Distance Rings

The User Waypoints map layer cannot be configured to display or hide all distance rings for all user waypoints at once. However, an individual user waypoint's distance rings can be displayed or hidden with these steps:

1. On the Maps view, turn on the **User Waypoints** map layer and tap the desired user waypoint. (Alternatively, you can tap **More > Custom Content > User Waypoints**, find the desired user waypoint in the list, and tap **Show on Map**.)
2. In the Map details sidebar, toggle the **Show Distance Rings** switch on or off to display or hide the range rings for that waypoint.



Show/Hide Distance Rings

4. MFB EXCLUSIVE FEATURES


4.11.4 Sharing Distance Rings

User waypoints can be shared via CSV file, described in the Custom Content chapter of the ForeFlight Mobile Pilot's Guide. To incorporate distance rings in a CSV file, add the following column headers to the User Waypoint CSV file:

- **RangeRing1**, **RangeRing2**, and **RangeRing3**: The value of the first, second, and third distance rings, respectively. Values can be up to four digits long.
- **RangeRingUnit**: The measurement unit (nm, sm, or km).

Name	Description	Latitude	Longitude	Elevation
NORTH_BASE	North Base	29.243	-97.565	450
WD355	West Delta 355	27.443	-98.123	355
WEST_LAKE_FD	West Lake Fire	28.202	-90.788	1276
VFD23	Volunteer Fire Station	26.955	-93.544	355
HOME	Home Sweet Home	29.512	-94.233	2934

Example CSV File 1 of 2 (Standard Columns)



Elevation	RangeRing1	RangeRing2	RangeRing3	RangeRingUnit
450	5	10	15	nm
355	2	5	7	nm
1276	10	20	30	sm
355	4	6	8	km
2934	20	40	60	km

Example CSV File 2 of 2 (Additional Range Ring Columns)

4. MFB EXCLUSIVE FEATURES

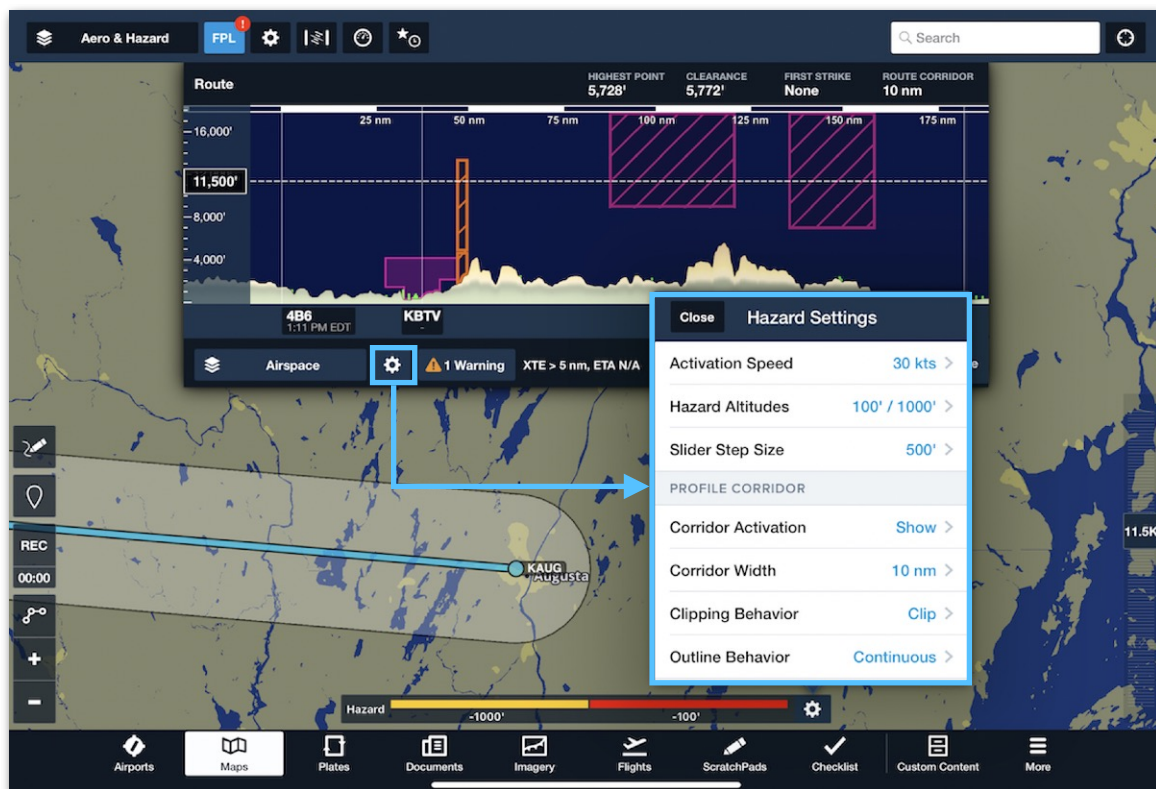
4.12 Hazard Settings

The Hazard Settings menu controls the behavior of the Hazard Advisor, Profile View, and Profile Corridor. In addition to the standard settings available to all Pro Plus or higher users (and described in the ForeFlight Mobile Pilot's Guide), MFB users have access to three additional settings described below.

4.12.1 Accessing the Hazard Settings

The Hazard Settings menu can be displayed in one of the following ways:

- In the Navigation Toolbar, tap **More > Settings** and then scroll down to the Map View list and tap **Hazards**.
- On the Maps view, tap the **Map Layer Selector**, turn on the **Hazard Advisor** layer, and tap the settings (gear) icon to the right of the Map Legend at the bottom of the screen.
- On the Maps view, tap **FPL** to open the Route Editor, tap **Profile** to open the Profile view, and tap the settings (gear) icon on the bottom edge of the Profile view drawer.



MFB Hazard Settings - Maps View

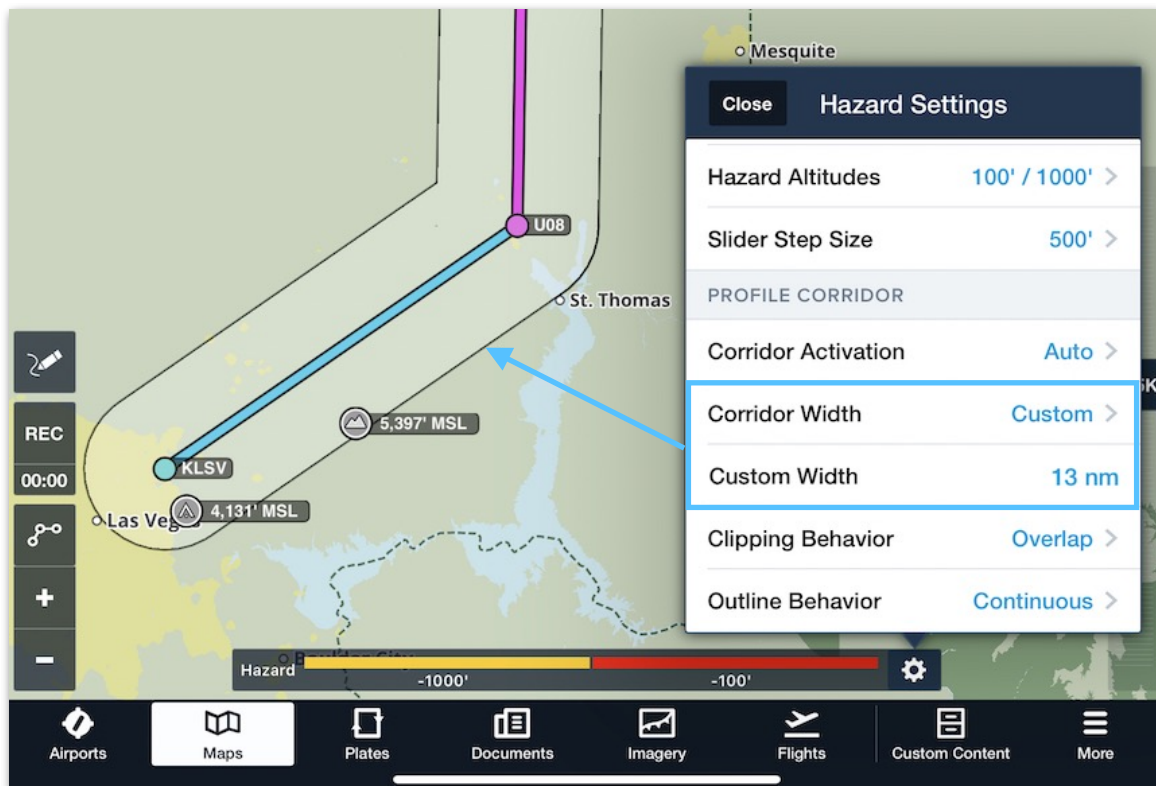
4. MFB EXCLUSIVE FEATURES

4.12.2 Corridor Width

The Corridor Width setting controls the distance along the route's centerline that hazards are evaluated and displayed. MFB users can set Corridor Width to a "Custom" value instead of selecting from the predefined values.

To set a custom Corridor Width, follow these steps:

1. In the Hazard Settings menu, tap **Corridor Width** and set it to **Custom**, then tap **Back**.
2. In the Hazard Settings menu, tap the (now-visible) **Custom Width** field and enter a value from 1 to 99.



Profile Corridor Custom Width

4. MFB EXCLUSIVE FEATURES

4.12.3 Clipping Behavior

The Clipping Behavior setting determines which portion of the route corridor to evaluate for the purpose of determining the highest terrain, and may affect which highest-point markers are reported for each leg.

NOTE: Setting the Outline Behavior to Continuous hides the current clipping behavior, but does not deactivate it.

- When set to **Overlap**, the Profile Corridor extends in a complete circle around the starting waypoint. The highest terrain or obstacle may be located within the radius even if it is behind the starting waypoint.



Clipping Behavior Set to Overlap

- When set to **Clip**, the Profile Corridor does not extend behind the starting waypoint, resulting in a straight line. This ensures highest-point markers for a given leg are never located behind its starting waypoint.



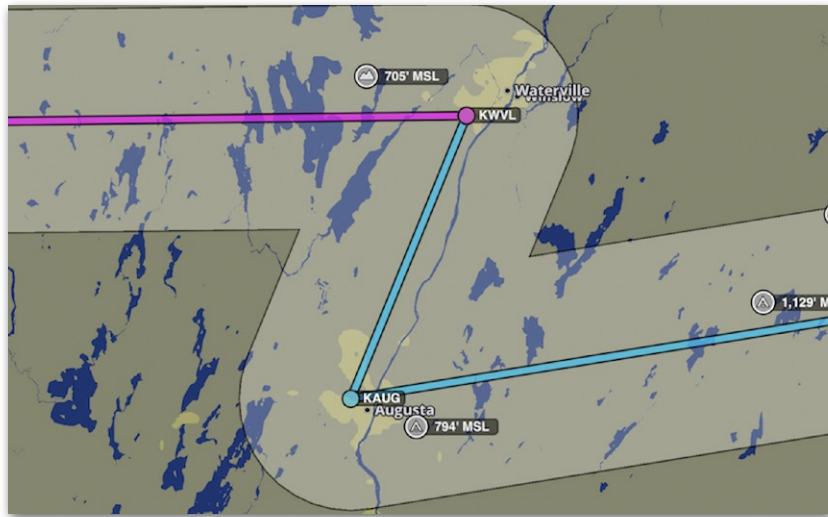
Clipping Behavior Set to Clip

4. MFB EXCLUSIVE FEATURES

4.12.4 Outline Behavior

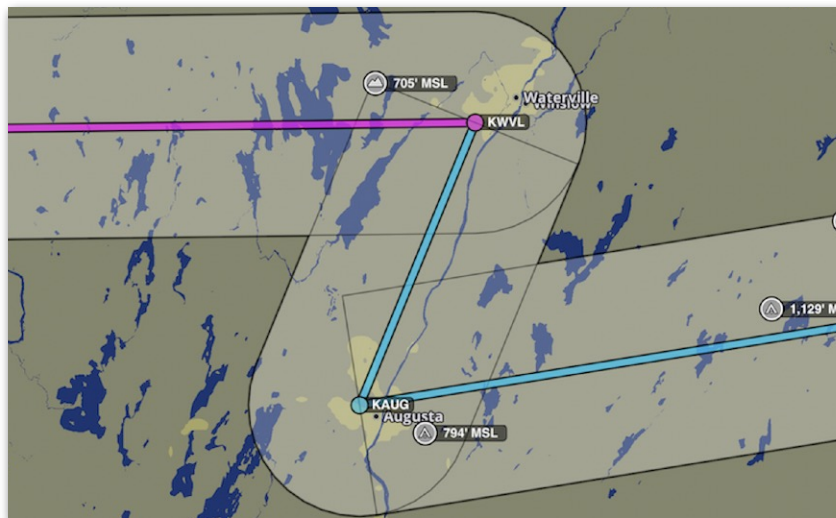
The Outline Behavior setting determines how the black outline around the Profile Corridor is drawn around each individual leg in the route.

- When set to **Continuous**, a single, unbroken Profile Corridor is drawn over the entire route.



Outline Behavior Set to Continuous

- When set to **Each Leg**, a chain of individual corridors is drawn around each leg, with each leg overlapping the next at its starting waypoint. The shape of each leg (rounded or flat at its starting waypoint) mirrors the current Clipping Behavior.



Outline Behavior Set to Each Leg

4. MFB EXCLUSIVE FEATURES

4.13 Avian Hazard Forecasts

Forecast bird activity, also referred to as an avian hazard forecast, can be viewed in ForeFlight Mobile as part of a comprehensive preflight analysis. This feature requires an MFB One subscription.

The data used to generate avian hazard forecasts is provided by the United States Air Force - Avian Hazard Advisory Service (AHAS) and can be viewed with an active internet connection or packed for offline viewing.

WARNING: The use of this tool can reduce the likelihood of a inflight bird strike but will not eliminate the risk.

4.13.1 Avian Hazard Advisory Service (AHAS)

AHAS was developed by the United States Air Force to predict bird movement within the contiguous United States and Alaska. Additional information is available online at www.usahas.com.

There are three different avian forecasting models:

- NEXRAD-based observational model
- Soaring bird forecast model (SOAR)
- Bird avoidance model

4.13.2 NEXRAD Model

The NEXRAD hazard analysis uses a suppression model to remove all non-biological targets from radar returns. To determine the risk of birds at a NEXRAD site, the intensity of birds detected by NEXRAD (measured in dBZ from 0 - 300) is multiplied by the probability of birds existing in that area (from 0 - 100). This model results in three unique risk scores:

Low risk: 0 - 200, **Moderate risk:** 201 - 4000, **Severe risk:** Above 4001.

For example, a NEXRAD site with a reading of 132 dBZ and a 50 percent probability of birds produces a **Severe** NEXRAD risk score ($132 \times 50 = 6,600$). NEXRAD avian hazard data is updated approximately every ten minutes and only provides an analysis of the current forecast period.

4. MFB EXCLUSIVE FEATURES

4.13.3 SOAR Model

The Soaring Bird Forecast Model (referred to commonly as SOAR) uses a combination of factors to determine the hourly risk of encountering five different soaring birds. Some of the factors that are taken into consideration by SOAR include:

- **Weather conditions:** Soaring birds typically rely on thermal currents and updrafts to stay aloft. SOAR takes into account weather conditions such as wind direction, temperature, and cloud cover to predict where thermal currents are likely to form, and therefore where soaring birds are likely to be found.
- **Time of day:** Soaring birds are more active during certain times of day, particularly in the morning and late afternoon. SOAR takes this into account when calculating the level of risk in a given area.
- **Historical data:** SOAR also considers historical data on bird activity in a given area, including the frequency and severity of bird strikes that have occurred in the past.
- **Other factors:** Other factors that may be taken into account by SOAR include geographic features, such as terrain and bodies of water, that are known to attract or support large numbers of birds.

SOAR Risk Levels

The soaring model categorizes the risk of encountering soaring birds into three different risk levels, which are:

- **Low risk:** This indicates that there is a low probability of encountering large soaring birds in the area.
- **Moderate risk:** This indicates that there is a moderate probability of encountering large soaring birds in the area.
- **Severe risk:** This indicates that there is a high probability of encountering large soaring birds in the area. Pilots and air traffic controllers should take extra precautions, such as adjusting their flight paths or altitudes, to avoid potential collisions with birds.

SOAR Max Height

When the soaring model is the highest risk for the forecast period, the Max Height field indicates the highest altitude where soaring birds might be present.

4. MFB EXCLUSIVE FEATURES

4.13.4 Bird Avoidance Model

The Bird Avoidance Model (BAM) is an analysis tool that correlates bird habitat, migration, and breeding characteristics, combined with key environmental, and man-made geographic data to assess hazards.

Several key datasets, including the Audubon Society's Christmas Bird Count (CBC), the US Biological Survey's Breeding Bird Survey (BBS), bird refuge arrival and departure data for the conterminous US, and data specific to a particular bird species are analyzed.

BAM Risk Levels

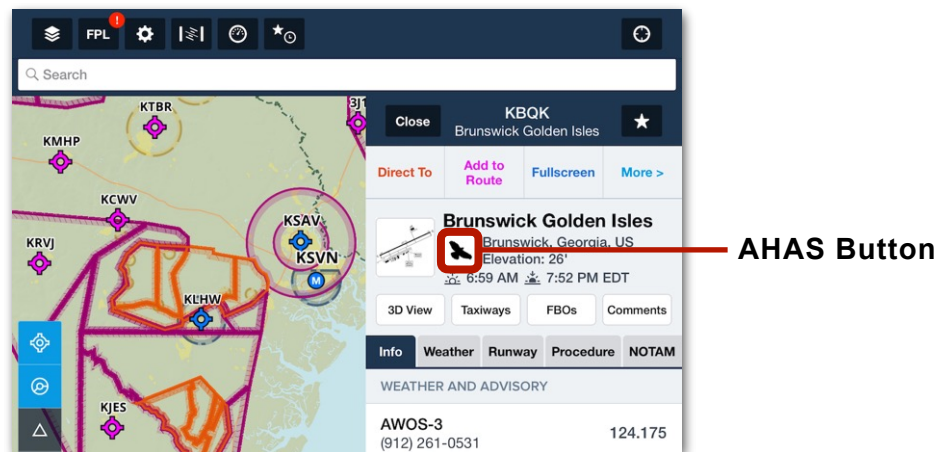
The Bird Avoidance Model classifies risk into three levels - Low, Moderate, and Severe. These risk levels are based on the bird mass in ounces per square kilometer. In other words, the risk levels represent the amount of birds (bird mass) in a kilometer-squared spatial area.

4. MFB EXCLUSIVE FEATURES

4.13.5 Accessing AHAS in ForeFlight Mobile

ForeFlight Mobile avian forecasts are only associated with airports. To view a forecast using the Maps view:

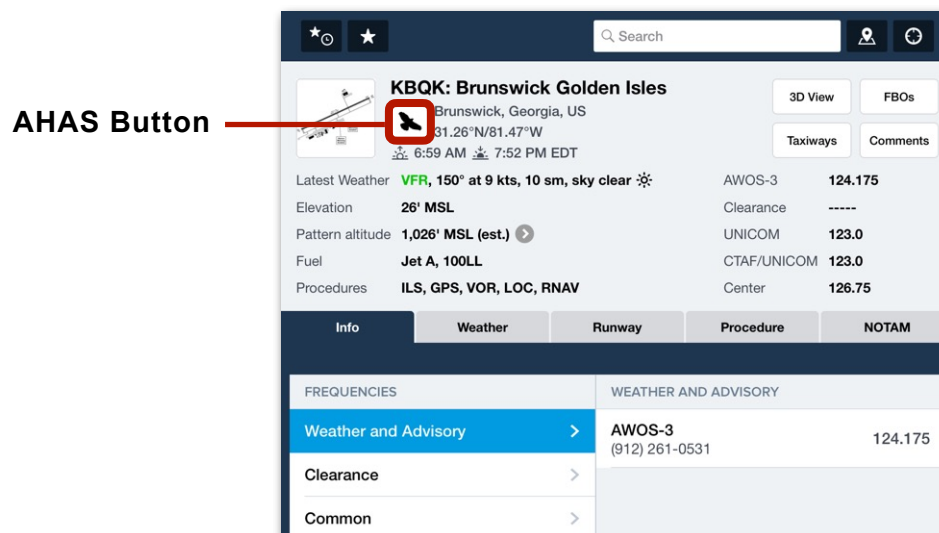
1. Tap an airport to display its details in the sidebar.
2. Tap the **AHAS** (bird silhouette) button.



Maps View

To display avian forecast using the Airports view:

1. Tap **Airports** and select an airport of interest.
2. Tap the **AHAS** (bird silhouette) button in the airport summary.



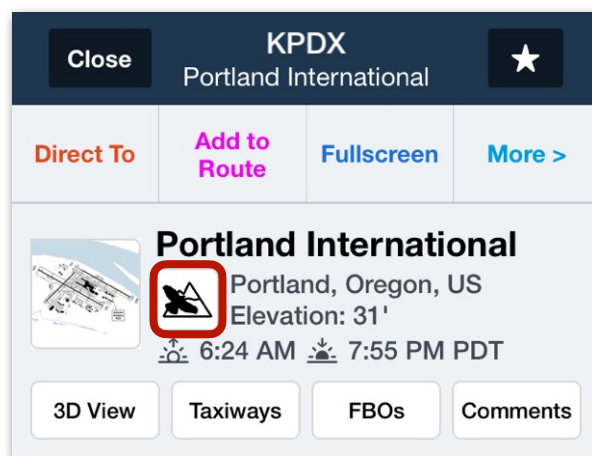
Airports View

4. MFB EXCLUSIVE FEATURES

AHAS and Terrain Button

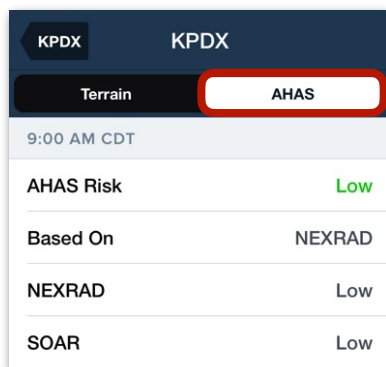
Airports that provide an avian hazard forecast display the AHAS (bird silhouette) button in the airport summary. If the AHAS button is missing, no AHAS data is available for that airport or an active internet connection is not available and AHAS data was not packed.

When terrain within 10 nm of the airport changes more than +/- 1,500 ft, a terrain icon is displayed in the airport summary. As depicted in the image below, if an avian forecast and terrain exists at an airport, a combination AHAS and terrain icon is displayed.

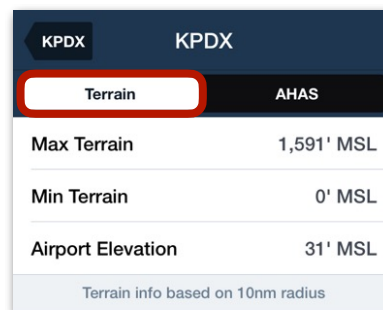


AHAS + Terrain Button

When an airport provides an avian forecast and is in a mountainous area, tapping the AHAS + Terrain button reveals terrain and AHAS data. Use the buttons at the top of the sidebar to toggle between the two types of data.



AHAS Data



Terrain Data

4. MFB EXCLUSIVE FEATURES

Reading the avian forecast

When the AHAS button is tapped, up to 12 hourly avian forecasts are displayed. Scroll to display all forecasts. The start of the hourly forecast period is listed above its data. Avian forecasts include the following information.

The screenshot shows the KNRB AHAS interface. It displays two forecast periods. The first period is for 9:06 AM CDT, showing an AHAS Risk of Moderate (1), Based On NEXRAD (2), NEXRAD Moderate (3), and SOAR Low. The second period is for 10:00 AM CDT, showing an AHAS Risk of Low, Based On SOAR, NEXRAD N/A, SOAR Low (4), and Max Height 2222' AGL (5).

KNRB AHAS	
Forecast Period	9:06 AM CDT
AHAS Risk	Moderate (1)
Based On	NEXRAD (2)
NEXRAD	Moderate (3)
SOAR	Low
Forecast Period	10:00 AM CDT
AHAS Risk	Low
Based On	SOAR
NEXRAD	N/A
SOAR	Low (4)
Max Height	2222' AGL (5)

1. **AHAS Risk:** This field shows the *highest* risk level generated by any of the three forecast models. For example, during the 9:06 CDT forecast period in the above image, the SOAR risk is Low but the NEXRAD risk is Moderate. Therefore, the AHAS Risk is **Moderate**.
2. **Based On:** The **forecast model** that generated the highest risk for the forecast period. Forecast models are either NEXRAD, SOAR, or BAM.
3. **NEXRAD:** The risk level from the NEXRAD model for the forecast period. NEXRAD forecasts are not provided beyond an hour from the current time.
4. **SOAR:** The risk level from the soaring model for the forecast period.
5. **Max Height:** When the soaring model generates the highest risk, the maximum height where soaring birds may be present is displayed.

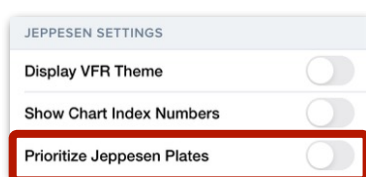
NOTE: If the bird avoidance model generates the highest risk level for the forecast period, its risk level is displayed in the AHAS Risk field (e.g., Moderate) and BAM is displayed in the Based On field.

4. MFB EXCLUSIVE FEATURES

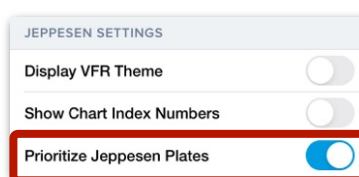
4.14 Prioritize Jeppesen Plates

ForeFlight MFB customers with Jeppesen coverage can prioritize Jeppesen plates over those that are government-sourced. As depicted below, when Jeppesen plates are prioritized, they appear at the top of the Maps, Plates, and Airports Procedure list. Additionally Jeppesen plates are automatically displayed when selecting a procedure using the Procedure Advisor.

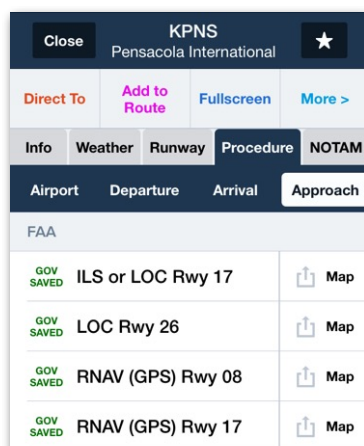
By default, ForeFlight MFB accounts prioritize government-sourced plates over Jeppesen. To change this behavior, tap **More > Jeppesen** and toggle the **Prioritize Jeppesen Plates** setting on.



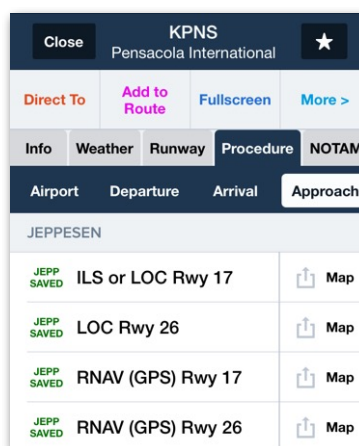
Default Setting



Jeppesen Prioritized



FAA Plates Prioritized



Jeppesen Plates Prioritized

4.15 Disabling TFR and D.C. SFRA/FRZ Alerts

MFB users have the option of turning off TFR and Washington D.C. SFRA/FRZ alerts. To disable TFR alerts, tap **More > Settings > Alerts** and deselect **TFR Alerts**.

To disable D.C. SFRA/FRZ alerts, tap **More > Settings > Alerts > Airspace Alert Types** and deselect the **Include DC SFRA/FRZ** toggle.

WEATHER ELEMENTS UNIQUE TO MFB

Military Flight Bag (MFB) users have access to the official weather source for the U.S. Air Force and U.S. Army - the USAF 557th Weather Wing. This integrated weather source provides both METAR and TAF information for hundreds of airports and bases around the world.

Digital ATIS, though not sourced by the 557 WW, is also available to Performance MFB subscribers on the **Airports** tab for those airports that support Digital ATIS.

5.1 METAR and TAF (557 WW)

METARs and TAFs are visible on the **Airports** page under the **Weather** tab. The **(557WW)** notation next to the age of the report indicates that the information is being provided by the 557th Weather Wing.

Weather	Runway	Procedure	NOT
METAR	VFR	11m ago (557WW)	
TAF	METAR KEDW 141358Z 23010KT 70SM FEW150 FEW250 07/M05 A2998 RMK AO2A SLP149 T00651052		
MOS	Time 8:58 AM CDT		
Daily	Wind 230° at 10 kts		
Winds	Visibility 70 sm		

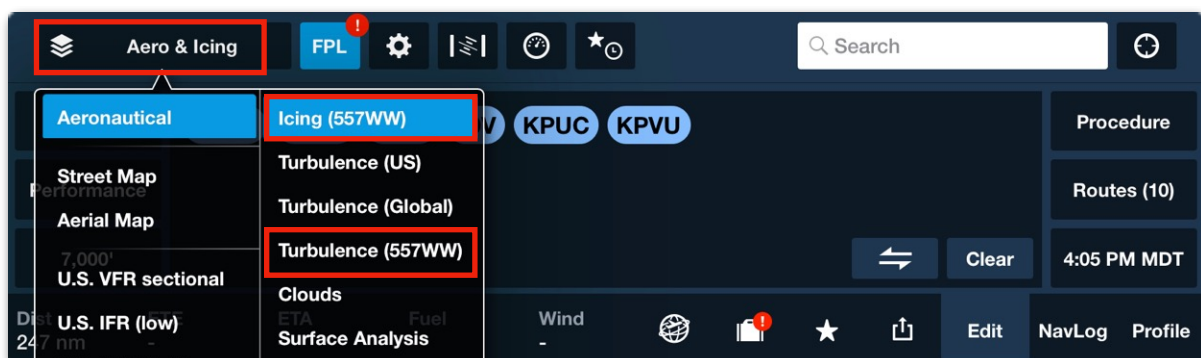
557 WW METAR

Weather	Runway	Procedure	NOT
METAR	KEDW TAF	1h 24m ago (557WW)	
TAF	141245Z 1413/1519 24012G18KT 9999 FEW250 QNH2994INS BECMG 1419/1420 25020G30KT 9999 FEW250 530009 QNH2987INS BECMG 1504/1505 28012G18KT 9999 SKC QNH2993INS BECMG 0515/0516 28015G25KT 9999 SKC 520009 QNH2996INS TX22/1422Z TN05/1413Z		
MOS			
Daily			
Winds			

557 WW TAF

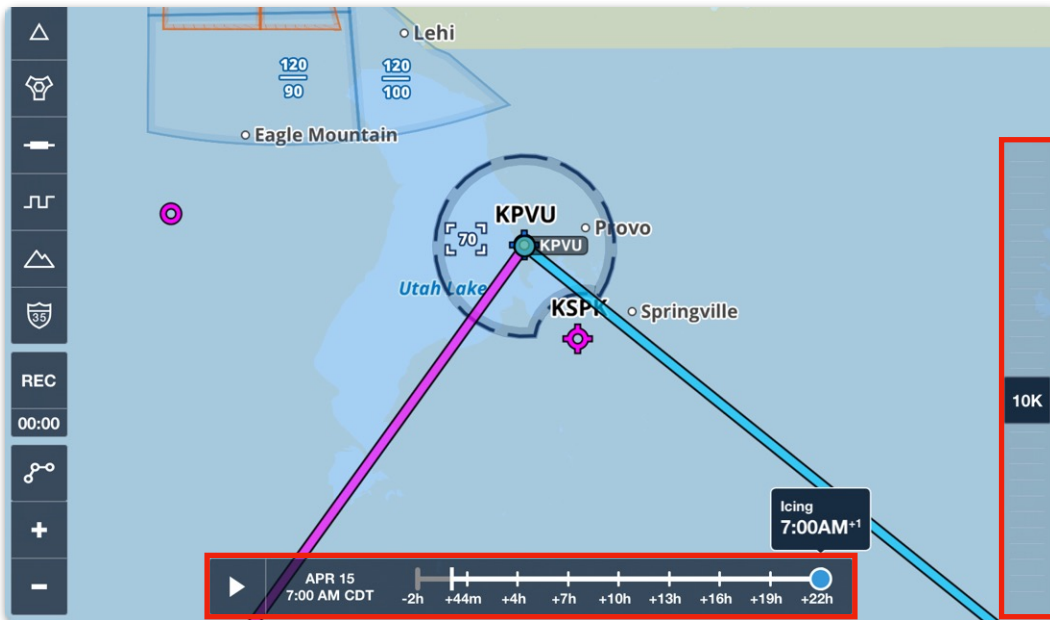
5.2 Icing and Turbulence on Map (557 WW)

In addition to airport weather and forecasts from the 557th Weather Wing, MFB users with a Performance level subscription can access global Icing and Turbulence map layers. These layers are activated in the **Maps** page Layer Selector menu in the Weather Overlay Section.

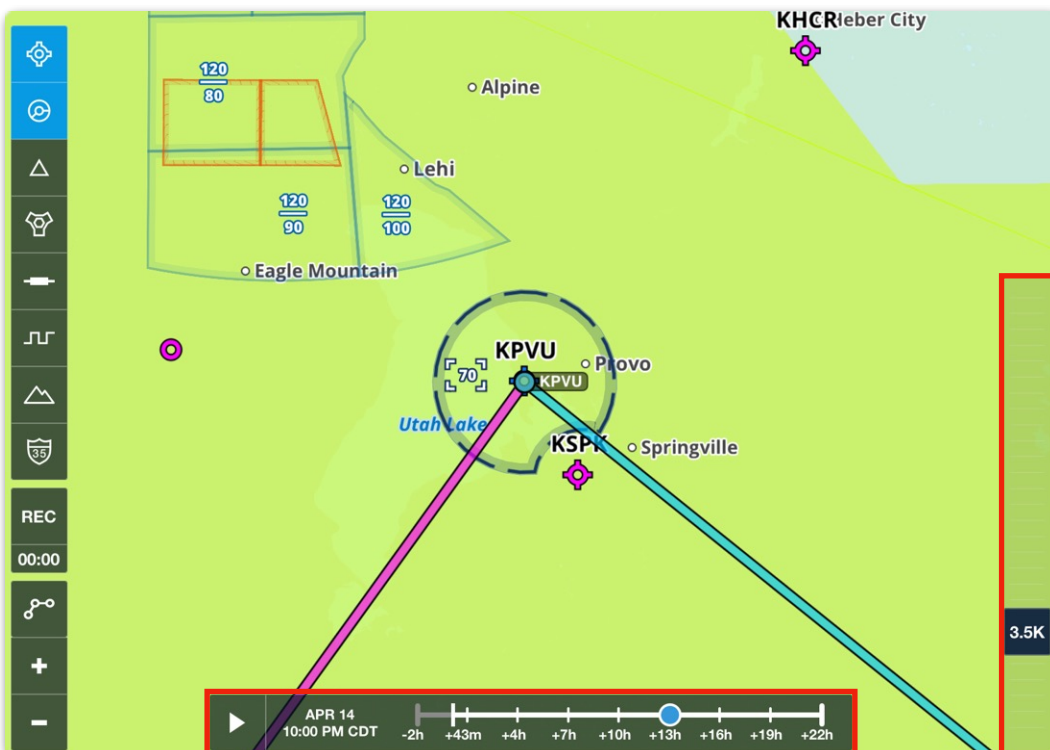


5. WEATHER ELEMENTS UNIQUE TO MFB

Like their non-MFB variants, the 557 WW Icing and Turbulence layers provide altitude and time sliders to view forecasts at different times and altitudes. ForeFlight downloads both layers when Packing for a flight.



557 WW Icing Layer with Time and Altitude Sliders



557 WW Turbulence Layer with Time and Altitude Sliders

5. WEATHER ELEMENTS UNIQUE TO MFB

5.3 DD 175-1 Air Force Weather Briefings

Military pilots who require a DD 175-1 Flight Weather Briefing for their mission or sortie can request and access the briefing within ForeFlight Mobile. The Flight Weather Briefing in ForeFlight Mobile is provided by the Joint Environment Toolkit (JET) and does not contain any weather information from ForeFlight. Unlike the standard ForeFlight Graphical HTML and PDF briefings, DD 175-1 briefings are not generated automatically. They must be requested ahead of time so that a human briefer can compile them. This feature requires an MFB One subscription.

Access to the DD 175-1 weather briefing is available to all branches of the military and can be requested for any flight. When a DD 175-1 briefing is requested with ForeFlight Mobile, an electronic request is sent to JET, where a weather briefer accesses the request, completes the briefing, and publishes it. Once published, the briefing is available in the ForeFlight Mobile Flights view. For a video demonstration, visit our [Video Library](#).

KRND to KRND DD-175-1: KRND to KRND
Today, 11:08 AM CDT

FLIGHT WEATHER BRIEFING

PART I - TAKEOFF DATA

1. DATE	2. ACFT TYPE	3. DEPT TIME	4. RWY TEMP	5. DEWPNT	6. TEMP DEV	7. PRES ALT	8. DENSITY ALT	9. SFC WIND	10. CLIMB WIND	11. LOCAL WEATHER WATCH/ADVISORY	12. RESCUE
2025-05-18	CRJ900	18:00Z	102.0	102.0	102.0	29.97	29.97	10200	10200	10200	10200

PART II - ENROUTE & MISSION DATA

14. FLT LEVEL/ISSUE	15. SPACE WEATHER	16. SOLAR	17. CLOUDS AT FLT LEVEL	18. OBSCURATIONS AT FLT LEVEL RESTRICTING VISIBILITY	19. MINIMUM CLOUD TOPS - LOCATION	20. MINIMUM FREEZING LVL - LOCATION	21. THUNDERSTORMS	22. TURBULENCE	23. Icing	24. PRECIPITATION
220 KRND - KRND 220 KRND - KSAT	NO IMPACT MARGINAL SEVERE	2	10200	10200	10200	10200	10200	10200	10200	10200

PART III - AERODROME FORECASTS

25. DEST/ALT	26. VALID TIME	27. SFC WIND	28. VISIBILITY	29. CLOUD LAYERS	30. ALTO	31. RWY TYP	32. PA
KRND	18:00Z	10200	10200	10200	10200	10200	10200

PART IV - COMMENTS/REMARKS

13. BRIEFED
14. REMARKS
15. COMMENTS

PART V - BRIEFING RECORD

16. WX BRIEFED TIME	17. FLIGHT BRIEFING NO.	18. FORECASTER'S INITIALS	19. NAME OF PERSON RECEIVING BRIEFING	20. MISSION ID / CONTROL #
18:00Z	10200	10200	John Smith / Captain	10200

Status: Watch v1
Today, 2:37 PM CDT

New Request

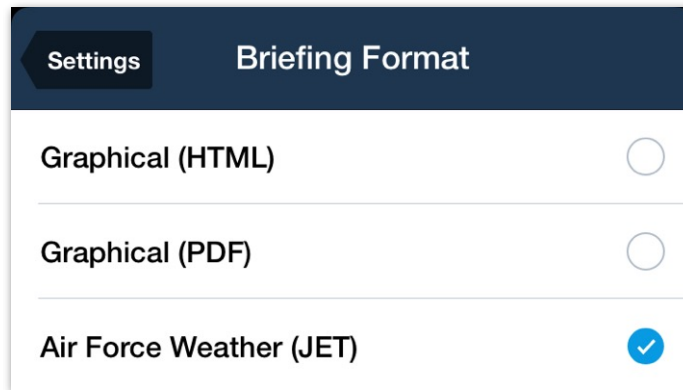
Imagery Flights ScratchPads Checklist Logbook More

DD 175-1 Flight Weather Brief

5. WEATHER ELEMENTS UNIQUE TO MFB

5.3.1 Briefing Format

ForeFlight Mobile can generate weather briefings in three different formats. To generate the DD 175-1 Flight Weather Briefings, select the **Air Force Weather (JET)** format by tapping **More > Settings > Briefing Format**.



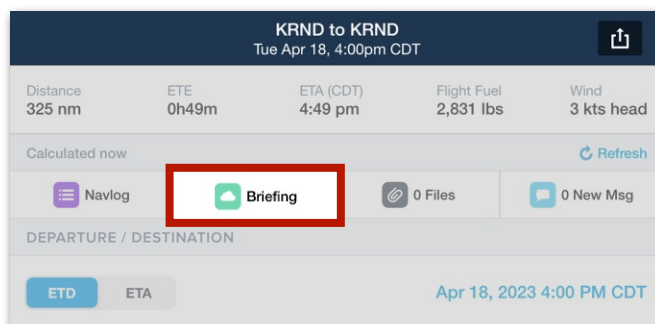
ForeFlight Mobile Briefing Formats

5. WEATHER ELEMENTS UNIQUE TO MFB

5.3.2 Requesting a DD 175-1 Briefing

To request a DD 175-1 Flight Weather Briefing, follow the steps below:

1. Plan a route in advance (a minimum of two hours is recommended) using the Maps view and send the route to Flights. Alternatively, plan a route using the Flights view.
2. On the Flights view, tap the **Briefing** button to reveal the *Request DD 175-1* menu.



Briefing Button

3. Complete all fields within the briefing request menu. **Definitions** for each field can be found later in this chapter.
4. Tap **Request** in the lower toolbar. If the request was successfully transmitted to JET, a confirming pop-up is displayed.

A screenshot of the 'Request DD-175-1' form. The form has a dark blue header with a 'Close' button and the title 'Request DD-175-1'. The form is divided into sections: 'MISSION' with a toggle for 'Weather Flight Supported'; 'PILOT' with fields for 'Name/Rank' (value: 'Your Name Here'), 'Service Branch' (value: 'US Air Force' with a chevron), and 'Mobile Phone' (value: 'Optional'). At the bottom right, there is a blue 'Request' button highlighted with a red box.

Request Button

5. WEATHER ELEMENTS UNIQUE TO MFB

5.3.3 Request DD 175-1 Menu

Most fields within the briefing request menu are automatically populated with information from the flight. Fields in blue can be edited using the request menu. Fields that are greyed out (e.g. Aircraft) cannot be edited from within the menu. To edit a field that is greyed out, tap the **Close** button in the upper toolbar and edit the field within the Flights view.

The briefing request menu is grouped into five sections: Mission, Flight Details, Pilot, Remarks, and Special Handling. Each section is described in detail on the following pages.

The screenshot displays the 'Request DD-175-1' menu. At the top, there is a dark blue header with a 'Close' button on the left and the title 'Request DD-175-1' in the center. Below the header, the menu is divided into sections. The first section is 'MISSION', which includes fields for 'Aircraft' (N12345 (GLEX)), 'Call Sign' (TALON2), 'ETD' (Apr 18, 2023 4:00 PM CDT), 'Briefing Due' (Apr 18, 2023 2:00 PM CDT), 'Servicing OWS' (15th OWS >), and 'Weather Flight Supported' (a toggle switch). Below these fields is a note: 'Weather briefers will be notified of your briefing request at this address'. The second section is 'FLIGHT DETAILS', which includes 'Departure' (KRND) and 'Route' (VR156). At the bottom of the menu, there is a dark blue footer with the text 'Required Fields Missing' on the left and a 'Request' button on the right.

Request DD-175-1	
MISSION	
Aircraft	N12345 (GLEX)
Call Sign	TALON2
ETD	Apr 18, 2023 4:00 PM CDT
Briefing Due	Apr 18, 2023 2:00 PM CDT
Servicing OWS	15th OWS >
Weather Flight Supported	<input checked="" type="checkbox"/>
Weather Flight Email	Required
Weather briefers will be notified of your briefing request at this address	
FLIGHT DETAILS	
Departure	KRND
Route	VR156
Required Fields Missing	
Request	

Briefing Request Menu

5. WEATHER ELEMENTS UNIQUE TO MFB

Briefing Request Menu - Mission Section

Fields within the Mission section are described below.

- **Aircraft:** The aircraft tail number and ICAO type code (in parentheses).
- **Call Sign:** The optional user-specified call sign. Supports up to seven alpha-numeric characters.
- **ETD:** The flight's estimated departure time.
- **Briefing Due:** The time that the briefing is required by the pilot. The briefing due time must be on or before the ETD. A minimum of 15 minutes is required to complete a briefing. However, it is recommended to give the weather briefer at least two hours to prepare the briefing.
- **Servicing OWS:** The operational weather squadron that will complete the briefing request. Select the OWS that is most appropriate for the flight.
- **Weather Flight Supported** is used when you want to send your request to a specific weather briefer. When this toggle is enabled, the *Weather Flight Email* field is revealed.
- **Weather Flight Email:** If the Weather Flight Supported field is enabled, use this field to enter the email address of the person you want to complete the briefing. When the briefer receives your email, they can access and complete the briefing in JET.

IMPORTANT: Do not enter your email address in the Weather Flight Email field.

MISSION	
Aircraft	N12345 (GLEX)
Call Sign	TALON2
ETD	Apr 18, 2023 4:00 PM CDT
Briefing Due	Apr 18, 2023 2:00 PM CDT
Servicing OWS	15th OWS >
Weather Flight Supported	<input checked="" type="checkbox"/>
Weather Flight Email	Required
Weather briefers will be notified of your briefing request at this address	

Briefing Request Menu - Mission Section

5. WEATHER ELEMENTS UNIQUE TO MFB

Briefing Request Menu - Flight Details Section

Fields within the Flight Details section are described below:

- **Departure:** The departure airport specified in the flight. Must be an ICAO identifier. If the flight is departing from a location without an ICAO identifier, use the nearest airport with an ICAO code and specify the actual departure location in the Remarks section.
- **Route:** The route specified in the flight.
- **Destination:** The destination airport specified in the flight. Must be an ICAO identifier. If the destination does not have an ICAO identifier, use the nearest airport with an ICAO code and specify the actual destination in the Remarks section.
- **Alternate:** The alternate airport specified in the flight.
- **Cruise Altitude:** The cruise altitude specified in the flight.
- **Airspace:** The Airspace field reveals a menu for selecting special use airspace (SUA). When SUA is selected, the area within the boundaries of the SUA are included in the briefing. For best results, only select SUA that is required for the briefing.

FLIGHT DETAILS	
Departure	KRND
Route	
VR156	
Destination	KRND
Alternate	KSAT
Altitude	
Cruise	22,000
Airspace	Optional >

Briefing Request Menu - Flight Details Section

5. WEATHER ELEMENTS UNIQUE TO MFB

Briefing Request Menu - Pilot Section

Fields within the Pilot section are described below:

- **Name/Rank:** Your name and rank, separated by a slash.
- **Service Branch:** Your service branch.
- **Mobile Phone:** Complete this field if you want the weather briefer to have your mobile phone number.
- **Email(s):** Addresses entered in this field receive an email with a link to the mission summary. The link can be used to access the briefing in JET.

PILOT	
Name/Rank	John Smith / Captain
Service Branch	US Air Force >
Mobile Phone	123-456-7890
Email(s)	j.smith@usaf.mil
Separate multiple emails with a comma	

Briefing Request Menu - Pilot Section

Briefing Request Menu - Remarks Section

The Remarks section can be used to pass remarks to the weather briefer. For example, if departing or arriving at a location that does not have an ICAO identifier, that information can be entered in this field.

Briefing Request Menu - Special Handling Section

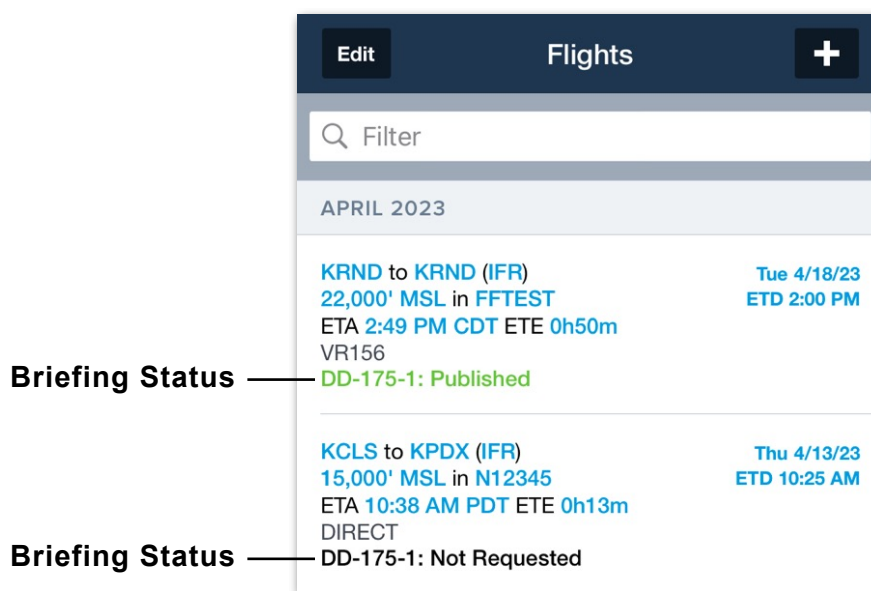
The Special Handling section is used to pass information to the weather briefer related to the handling of the briefing.

5. WEATHER ELEMENTS UNIQUE TO MFB

5.3.4 Briefing Status

There are five DD 175-1 briefing statuses. Each of these is described below. Briefing status is displayed at the bottom of the Briefing Request Menu and in the list of flights.

- **Not Requested** is displayed after the **Briefing** button is tapped, but a briefing has not been requested.
- **Requested** is displayed after a briefing request has been made but the request has not been accessed in JET by a weather briefer.
- **In Work** is displayed after the request has been accessed by a weather briefer, but the briefing hasn't been published.
- **Published** is displayed after the request has been published and is available in ForeFlight Mobile.
- **Watch** is displayed after the flight's ETD to indicate it is being watched by the appropriate branch.



Flight List

5. WEATHER ELEMENTS UNIQUE TO MFB

Briefing Status Updates

When a briefing status updates, an in-app notification is displayed. The notification contains two buttons.

- **OK** dismisses the pop-up.
- **View** opens the briefing request menu or the briefing if it has been published. To access a briefing after dismissing the pop-up, tap the **Briefing** button near the top of the Flights view.

The screenshot shows a mission briefing status update pop-up. The pop-up is titled "Mission Briefing" and contains the text "Weather brief for KRND to KRND is now 'in work.'". Below the text are two buttons: "OK" and "View". The background of the pop-up is dark blue. The pop-up is overlaid on a mission details screen. The mission details screen has a dark blue header with a "Close" button and the mission title "DD-175-1: KRND to KRND" and "Today, 11:04 AM CDT". The mission details are organized into sections: "MISSION" and "FLIGHT DETAILS". The "MISSION" section includes fields for Mission ID (108KRND160427767), Aircraft (N12345 (GLEX)), Call Sign (FFTEST), ETD (Apr 18, 2023 2:00 PM CDT), Briefing Due (2023 12:00 PM CDT), Servicing OWS (15th OWS), and Weather Flight Sup (a toggle switch). The "FLIGHT DETAILS" section includes fields for Departure (KRND), Route (VR156), and Destination (KRND). At the bottom of the mission details screen, there is a status bar that says "Status: In Work" and "Today, 11:07 AM CDT", with a "Cancel" button on the right.

MISSION	
Mission ID	108KRND160427767
Aircraft	N12345 (GLEX)
Call Sign	FFTEST
ETD	Apr 18, 2023 2:00 PM CDT
Briefing Due	2023 12:00 PM CDT
Servicing OWS	15th OWS
Weather Flight Sup	<input type="checkbox"/>

FLIGHT DETAILS	
Departure	KRND
Route	VR156
Destination	KRND

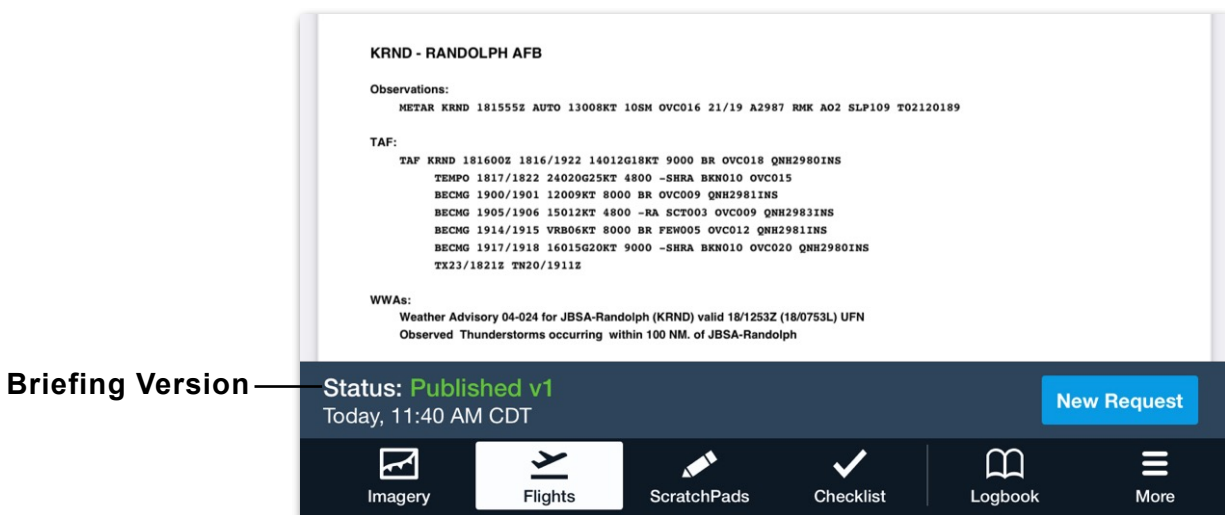
Status: In Work
Today, 11:07 AM CDT

Briefing Status Update

5. WEATHER ELEMENTS UNIQUE TO MFB

Briefing Versions

After a briefing has been published, the briefing version (e.g. v1) is displayed in the lower toolbar above the time the briefing status was updated. Each subsequent flight briefing increments the briefing version by one.



5.3.5 New Briefing Requests

Briefings do not automatically refresh. In other words, if a briefing is obtained 24 hours prior to the estimated departure time, reviewing the briefing prior to flight will display information that is up to 24 hours old.

To obtain an updated briefing, tap the **New Request** button in the lower toolbar. Requesting a new briefing deletes the current briefing and submits a new request via JET. Once the new request is published, the briefing version number increments by one and the briefing is available in ForeFlight Mobile.

5.3.6 Sharing Briefings

DD 175-1 briefings can be shared using standard iOS share functionality. To share a PDF version of the briefing, tap the **Send To** button in the upper toolbar when viewing a briefing. Select a sharing option from the menu.

5.3.7 Deleting Briefings

Weather briefings are associated with flights and cannot be deleted without deleting the flight. To delete a flight, and thus the associated briefing, scroll to the bottom of the Flights view and tap **Delete Flight**. Alternatively, swipe right to left across the flight in the Flights List.

MFB FLIGHT PLAN FILING

ForeFlight Military Flight Bag (MFB) users can generate a DD-1801 PDF inside the app and digitally sign the form. Filing the flight plan with ATC while providing a copy via email to the Base Ops email is also available. If filing is not needed, simply creating the DD-1801 and then Notifying Base-Ops is provided.

DD-1801 filing is also available on ForeFlight Web.

6.1 Filing Form DD 1801

To generate a DD1801, perform the following:

1. Tap on the **Proceed To File** button at the bottom of a Flight Plan on the **Flights** page.

The screenshot shows the ForeFlight app interface for a flight plan from KNFG to KTNP. The top bar displays the route and date/time: "KNFG to KTNP" and "Fri Apr 15, 8:00am PDT". Below this, a summary row shows: Distance 109 nm, ETE 0h58m, ETA (PDT) 8:58 am, Flight Fuel 2,562 lbs, and Wind 2 kts tail. A section titled "Calculated now with historical winds" includes a "Refresh" button. Below this are four icons: Navlog, Briefing, 0 Files, and 0 New Msg. The "DEPARTURE / DESTINATION" section shows "ETD" and "ETA" tabs, with the date and time "Apr 15, 2022 8:00 AM PDT". The "Departure" field is set to "KNFG" and the "Destination" field is set to "KTNP". The "AIRCRAFT" section shows "Aircraft" as "N12345 (C130)" and "Performance Profile" as "High-Speed Cruise". The "ROUTE" section shows "Flight Rules" as "IFR". At the bottom, there is a map view showing the route from KNFG to KTNP. A red box highlights the "Proceed to File" button at the bottom right.

Distance	ETE	ETA (PDT)	Flight Fuel	Wind
109 nm	0h58m	8:58 am	2,562 lbs	2 kts tail

Calculated now with historical winds [Refresh](#)

[Navlog](#) [Briefing](#) [0 Files](#) [0 New Msg](#)

DEPARTURE / DESTINATION

[ETD](#) [ETA](#) Apr 15, 2022 8:00 AM PDT

Departure [Info](#) [KNFG](#)

Destination [Info](#) [KTNP](#)

Alternate

AIRCRAFT

Aircraft [N12345 \(C130\) >](#)

Performance Profile [High-Speed Cruise >](#)

ROUTE

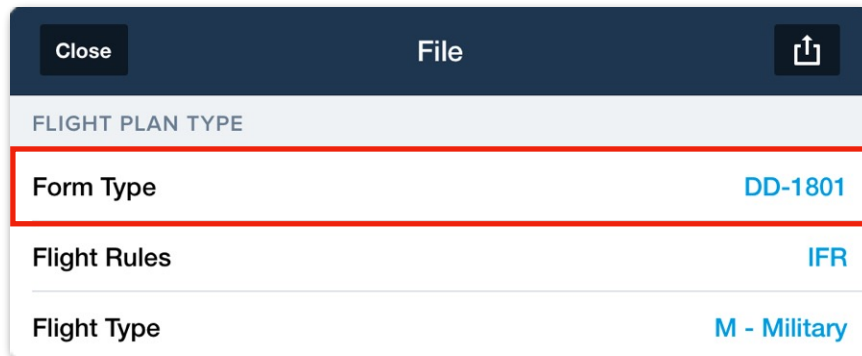
Flight Rules [IFR](#)

3:55 PM CDT [KONT](#) [KSBD](#) [KTNP Rwy 08](#)

Not Filed [Proceed to File >](#)

6. MFB FLIGHT PLAN FILING

2. Select DD1801 as the Form Type.

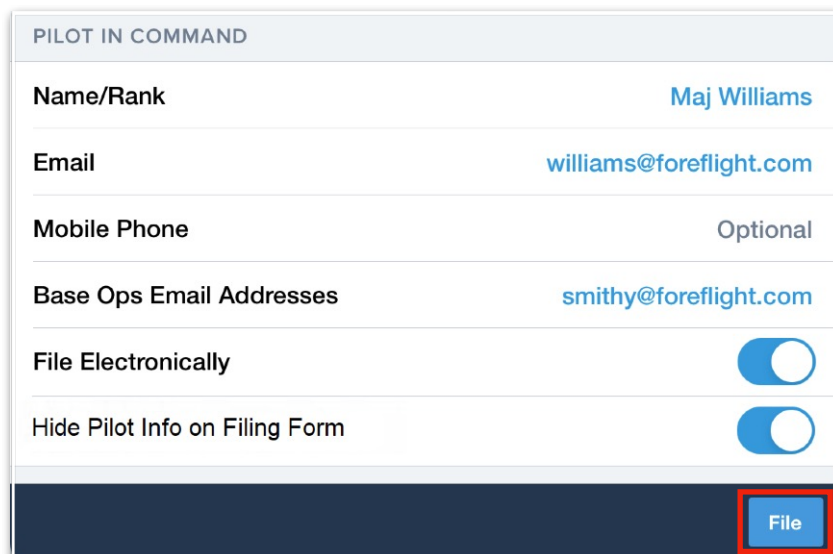


FLIGHT PLAN TYPE	
Form Type	DD-1801
Flight Rules	IFR
Flight Type	M - Military

3. Enter the pilot's rank and name, and email address (required fields).
4. Enter an optional phone number to receive text alerts from ForeFlight.

NOTE: Phone numbers are not sent to ATC when filing electronically but are sent to Base Ops. Filing messages are anonymized and cannot be attributed to an individual pilot to comply with DOD privacy and liability regulations.

5. Enter an email address for Base Ops.
6. Toggle the **Hide Pilot Info on Filing Form** button to hide pilot information on the filing form. When ON, the **Pilot In Command** box on the form will display "On File". It is defaulted to ON.
7. Review the rest of the form and enter any required information.
8. Once complete, tap **File** to file the DD1801 with ATC and Base Ops. If ATC does not need to be notified, refer to **File vs. Notify**.



PILOT IN COMMAND	
Name/Rank	Maj Williams
Email	williams@foreflight.com
Mobile Phone	Optional
Base Ops Email Addresses	smithy@foreflight.com
File Electronically	<input checked="" type="checkbox"/>
Hide Pilot Info on Filing Form	<input checked="" type="checkbox"/>
File	

6. MFB FLIGHT PLAN FILING

9. A message briefly appears to confirm the flight plan. Tap the green **File** button under the message to confirm the flight plan. A PDF of the DD1801 appears for review.
10. Review the DD1801, then tap the blue **Sign & File** button in the upper right corner. A signature pop-over appears.

Cancel Flight Plan Form: KNFG - KTNP (generated on Apr 29 3:11:35 PM CDT) Sign & File

PRIORITY: FF
ADDRESSEE(S): KZLAZQZX KNFGYXYX

FILING TIME: [] [] [] [] [] [] [] [] [] []
ORIGINATOR: [] [] [] [] [] [] [] [] [] []

SPECIFIC IDENTIFICATION OF ADDRESSEE(S) AND/OR ORIGINATOR: [] [] [] [] [] [] [] [] [] []

3. MESSAGE TYPE: (FPL)
7. AIRCRAFT IDENTIFICATION: SHARK 12
8. FLIGHT RULES: I
TYPE OF FLIGHT: M

9. NUMBER: [] []
TYPE OF AIRCRAFT: C 1 3 0
WAKE TURBULENCE CAT.: M
10. EQUIPMENT: S / C

13. DEPARTURE AERODROME: KNFG
TIME: 2 0 2 0
15. CRUISING SPEED: N 0 3 0 0
LEVEL: A 0 9 0
ROUTE: DCT DEGLE DCT CORLA V64 TRM V208 TNP DCT

11. Sign along the bottom line of the pop-over and tap **Done** when complete. A dark blue window will appear briefly, stating that the flight plan has been filed.

×

Please Sign

Clear Done

12. Once filed, the flight plan may be amended or canceled.

NOTE: ForeFlight does not provide a DD1801 or ICAO flight plan form to any filing entity. Only a computer sync of the flight details is shared to the filing computer system. No personal information about the pilot is ever shared with ATC via ForeFlight.

6. MFB FLIGHT PLAN FILING

6.2 File vs. Notify

Using File will send a flight plan via the Aeronautical Fixed Telecommunications Network (AFTN) network to departure and destination airports as well as Base Ops. If ATC and the AFTN network do not need to know about the flight plan (e.g., a military training flight taking place only in military airspace), the pilot has the option to notify only base ops. To only notify Base Ops, perform the following:

1. Tap on the **Proceed To File** button at the bottom of a Flight Plan on the **Flights** page.
2. Select DD1801 as the Form Type.
3. Enter the pilot's rank and name, and email address (required fields).
4. Enter an optional phone number to receive text alerts from ForeFlight.

NOTE: Phone numbers will not be transmitted to ATC when filing electronically but will be sent to Base Ops. Filing messages are anonymized and cannot be attributed to any individual pilot in compliance with DOD privacy and liability regulations.

5. Enter an email address for Base Ops.
6. Toggle the **Hide Pilot Info on Filing Form** button to hide pilot information. When ON, the **Pilot In Command** box on the form will display "On File".

19. SUPPLEMENTARY INFORMATION					
ENDURANCE		PERSONS ON BOARD		EMERGENCY AND SURVIVAL EQUIPMENT	
FUEL/ 0 1 4 1		POB/ 0 0 1 → RDO/		12X5 → 2X3 → 5X0 → 8X4	
TYPE OF EQUIPMENT		LIFE JACKETS		RADIO FREQUENCY	
POLAR → DESERT → MARITIME → JUNGLE → GLOBAL → JACKETS → LIGHT → FLUORESCENT →					
DINCHIES → COVER / → RMK/					
REMARKS		AIRCRAFT SERIAL NUMBERS AND TYPE OF AIRCRAFT IN FLIGHT		12345	
CREW LIST <input checked="" type="checkbox"/> ATTACHED <input type="checkbox"/> LOCATED AT:		PASSENGER MANIFEST <input checked="" type="checkbox"/> ATTACHED <input type="checkbox"/> LOCATED AT:		EC30	
NAME OF PILOT IN COMMAND ON FILE		SIGNATURE OF APPROVING AUTHORITY		AIRCRAFT HOME STATION OR ORGANIZATION	

DD Form 1801, MAY 87 DOD INTERNATIONAL FLIGHT PLAN

IMPORTANT: If the pilot's information is "On File" the pilot's base ops must be specified in the aircraft profile to file a flight plan with ATC.

6. MFB FLIGHT PLAN FILING

7. Review the rest of the form and enter any required information.
8. Once complete, tap the **File Electronically** button to OFF. The blue **File** button changes to **Notify**.

Mobile Phone Optional

Base Ops Email Addresses smithy@foreflight.com

File Electronically ☐

Hide Pilot Info on Filing Form ☒

File

9. A message briefly appears to confirm the flight plan. Tap the green **Notify** button under the message to confirm the flight plan. A PDF of the DD1801 appears for review.
10. Review the DD1801 and then tap the blue **Sign & Notify** button in the upper right corner. A signature pop-over appears.

Cancel Flight Plan Form: KNFG - KTNP (generated on Apr 8 4:23:23 PM CDT) **Sign & Notify**

PRIORITY <= FF >=

ADDRESSEE(S)

FILING TIME ORIGINATOR

SPECIFIC IDENTIFICATION OF ADDRESSEE(S) AND/OR ORIGINATOR

3. MESSAGE TYPE 7. AIRCRAFT IDENTIFICATION 8. FLIGHT RULES TYPE OF FLIGHT

<= (FPL) - S H A R K 1 2 - I M <=

9. NUMBER TYPE OF AIRCRAFT WAKE TURBULENCE CAT. 10. EQUIPMENT

- C 1 3 0 M S / C <=

13. DEPARTURE AERODROME TIME

- K N F G 1 5 0 0 <=

15. CRUISING SPEED LEVEL ROUTE

- N 0 3 4 8 A 0 9 0 -> BLDG2 DEGLE CORLA V64 TRM V208 TNP/D0+30

11. Sign along the bottom line of the pop-over and tap **Done** when complete. A dark blue window will appear briefly stating the flight plan has been filed.
12. Once filed, the flight plan may be amended or canceled.

The filer will be cc'ed on an email sent to base ops. The email will include the DD 1801 PDF and basic information on the flight.

6. MFB FLIGHT PLAN FILING

6.3 Operational Air Traffic Rules

Operational Air Traffic rules (OAT) allow military pilots to conduct operations not covered by EUROCONTROL General Air Traffic (GAT) rules. For example, aerial refueling, formation flying, air combat maneuvering, etc.

OAT flight plans can be filed with ForeFlight. To file an OAT flight plan, manually modify the route to specify which portion of the flight will be conducted under OAT rules.

6.3.1 Applying a Rule Change

Flights are assumed to operate under GAT rules. To file a flight plan under OAT rules, specify in the route when the flight rule will change. If a flight rule change to OAT is specified, the flight must specify when GAT rules will be resumed.

To specify rule changes, append the following notation to the waypoint where the change is to occur.

- **/OAT** - Specifies when flight under Operational Air Traffic rules will commence.
- **/GAT** - Specifies when flight under General Air Traffic rules will resume.

Flight rule changes can be specified in Flights or on the filing form. Applying rule changes to the filing form (after selecting Proceed to File) is recommended. Adding rule changes to the Flights page results in errors. The errors do not prevent the flight plan from being filed.



NOTE: Prior to applying a rule change, pilots should verify the route is EUROCONTROL valid to reduce the chances of a filing rejection.

CHANGE HISTORY

Version	Date	Change Summary
16.2	February 2024	Added new links for support messaging.
16.1	January 2024	Cross Point at Bearing added.
15.10	October 2023	Added the ability to export KML files from FFD.
15.5	May 2023	<ul style="list-style-type: none"> • Updated user waypoint distance rings. • Filing a flight plan requires base ops to be specified in the aircraft profile if pilot information is hidden. • Only MFB customers can disable TFR and Washington D.C. SFRA/FRZ alerts.
15.4	April 2023	<ul style="list-style-type: none"> • Avian forecasts added. • Profile corridors added. • User waypoint range rings added. • Prioritize Jeppesen Plates setting added. • DD 175-1 Briefing added to the MFB Guide.
14.8	October 2022	<ul style="list-style-type: none"> • En route fuel adjustments added. • Time on Target Added. • Obstacles (DOD) added.
14.6	August 2022	<ul style="list-style-type: none"> • Downloads user interface updated • OAT Rules added
14.2	May 2022	First publication of guide



ForeFlight

A Boeing Company

ForeFlight, LLC
2323 S Shepherd Dr, Houston, TX 77019
www.foreflight.com