



Aeronautical Application (Aero App)

Android User Manual Version 1.2606

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1 Introduction

The aeronautical multi-platform application, Aero App, is a collaborative effort reaching across NGA and other government agencies, focused on supporting the Warfighters and NGA Vision.

The design of Aero App is to enhance the use of Aeronautical Flight Information Publication (FLIP) data and manage individual FLIP products. The key offerings of Aero App are as follows:

- Provides an interactive, high-performance, worldwide Map.
- Provides a library of current nationwide VFR Sectionals, worldwide IFR High and Low charts, Helicopter and TAC Maps, and a designated place to store and use personalized user maps.
- Various overlays such as Airports, Air Refueling Routes, Airspaces, Airways, Arresting Gear, ARTCCs, FIRs, International boundaries, MTRs, Pins, and many more including User Overlays.
- View detailed airport information and charts such as APD, IAP, Dep, Arr, Min, and more.
- View critical charts and documents such as Supplements, Planning, user documents, and Legends.
- View weather information such as METARs, TAFs, Winds, Temps, PIREPs, NOTAMs, and Air Force Weather.
- Create, save, edit, or delete points on the Route Panel.
- View navigational data such as Graphic Charts, CONUS Chart Graphics, Military Training Routes, and more.
- Use the integrated E6B calculator for flight planning on ground and air operations. Various calculations include Altitude, Cold Wx, Conversions, Coordinates, Descent, Distance, IFR Climb, Rwy Winds, and Winds Aloft.
- Manage and make modifications to files that have been downloaded and loaded into Aero App.
- Load and view PDF format.

2 About the Manual

The Aero App user manual is a comprehensive guide that describes the use and understanding of Aero App. It provides detailed information on worldwide map coverage, including aeronautical overlays and user maps, as well as displaying Air Force Weather, airport, and other navigation information. Pilots can view georeferenced FLIP and FAA charts that show their ownship location, Electronic-Instrument Procedure Library (E-IPL) and Host Nation charts, and much more. Whether you're an experienced pilot or new to the field, the Aero App user manual is an essential resource that will assist you in your mission.

3 Getting Started

The Aero App User Manual provides detailed instructions on using Aero App. It covers procedures such as app installation, data loading, and utilizing integrated features. Additionally, it includes conceptual explanations for the app's features, tools, overlays, and other offerings. Before getting started, it's important to ensure that your system meets the outlined system requirements, which are further detailed in the next section.

3.1 System Requirements

Before installing and using Aero App for Android, verify that your device meets the minimum system requirements.

Required

The following requirements must be met before installing Aero App:

- **Device:** Android tablet (Android phones are not supported.)
- **Operating System:** Android 13 or later
- **Available Storage:** Minimum of 16 GB of free storage space to install Aero App and store one complete data cycle

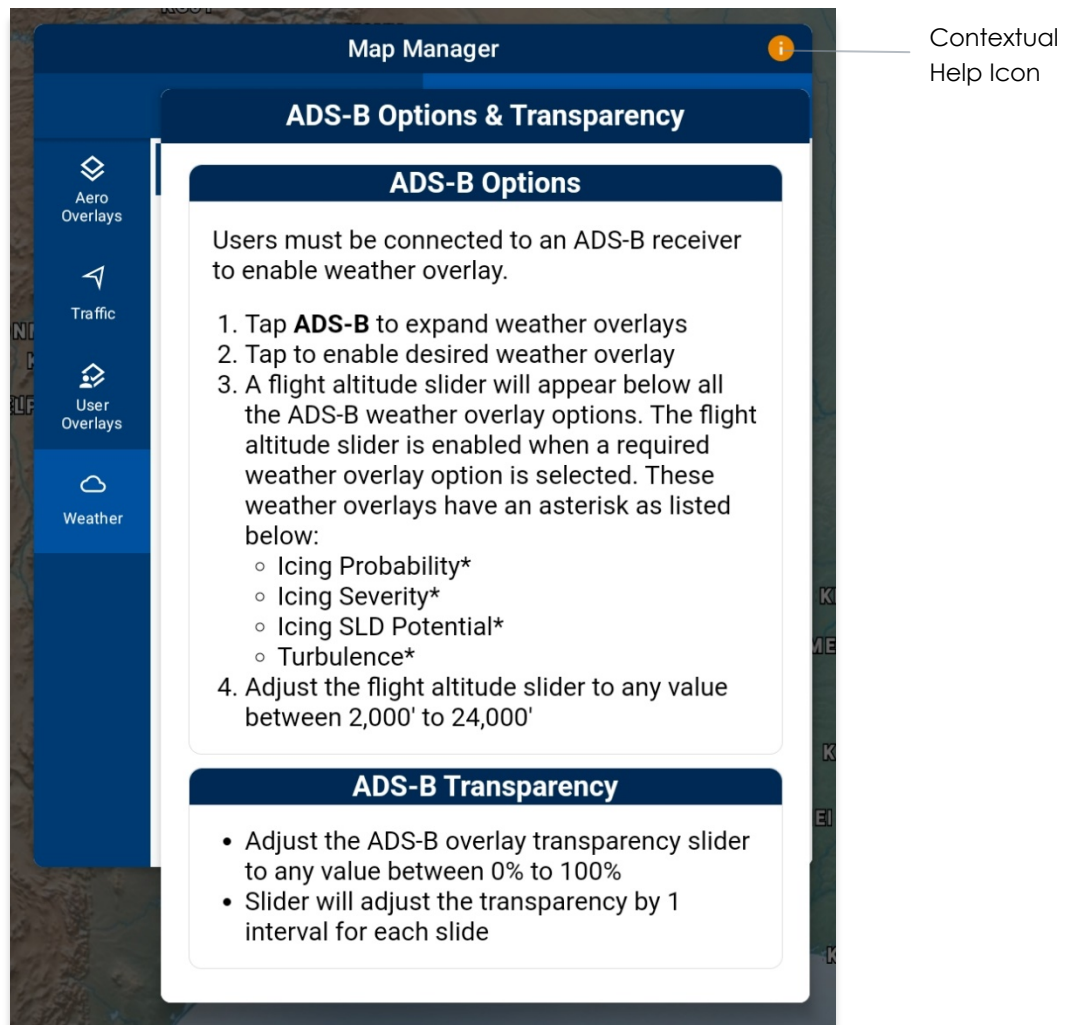
Optional

The following items may be required depending on your installation and file transfer method:

- **USB Cable:** To connect the Android tablet to a stand-alone computer
- **Internet Connection:** Required to download Aero App and data
- **File Sharing Application:** Required if your tablet does not include a built-in file sharing application. File sharing applications are available from the Google Play Store.

3.2 Contextual Help

Contextual help in Aero App offers great first-time experience for users to become familiar with specific tools and features. In Aero App, views that support contextual help are marked with an orange icon located at the top right of the view. Explore Aero App and tap on the icon to learn more.



4 Troubleshooting

If you have problems that cannot be resolved, contact the Aero App Support Team:

Phone: 954-323-2244 ext. 412

Email: aeroappsupport@hiltonsoftware.com

Contact Form: <https://aeroapp.info/contactus/>

Hours of Operation: Monday - Friday 1000-1800 EST

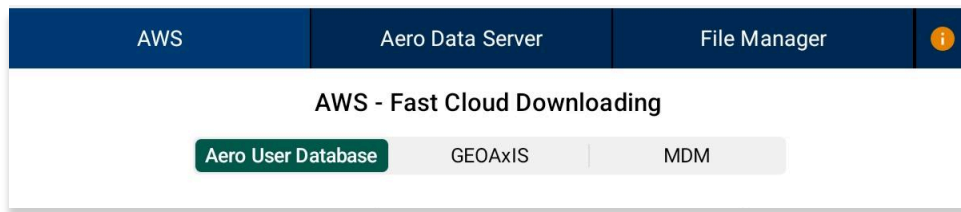
5 Accounts

To utilize Aero App's offerings, certain features require an active account respective to the action being made. Detailed information regarding the various account registration options will be provided in the sections that follow.

5.1 Aero User Database (AUD) Account

Aero User Database (AUD) provides authentication for DOW and foreign government partners seeking access to Aero App software and data. Users who do not have an Aero User Database account must register on the Aero User Database registration page (userdb.aeroapp.info/auth/register). A valid .mil or .gov email address is required.

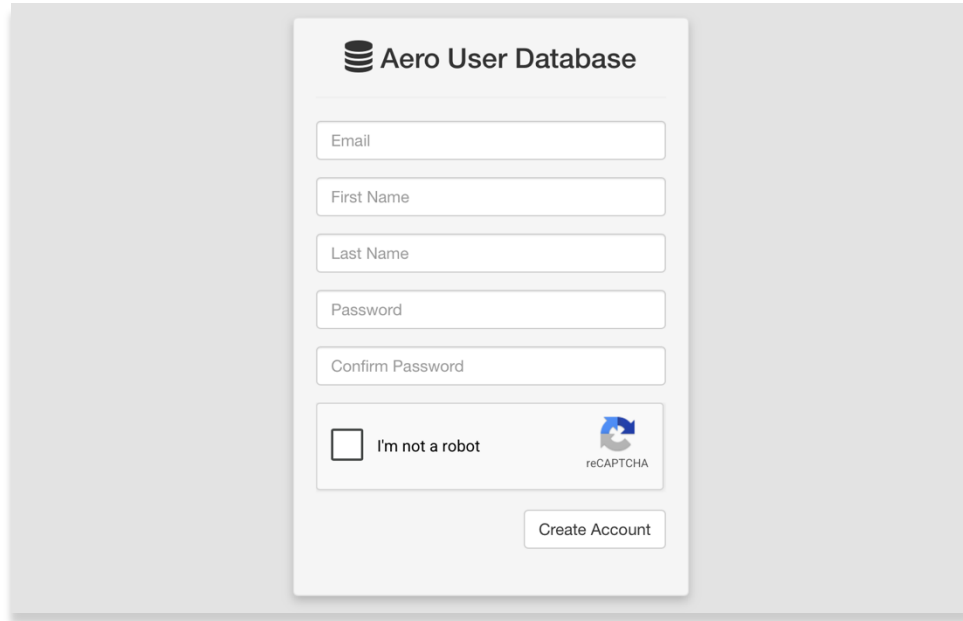
1. Tap **Data** on the **Main Menu**.
2. Tap **Download**.
3. Select the **AWS – Fast Cloud Downloading** tab, if necessary.
4. Select **Aero User Database**, if necessary.



5. On the Aero App authentication page, tap **Sign Up for an Account** to create an Aero User Database account. The Aero User Database registration form opens in your device's web browser. *Alternatively*, you can navigate directly to the **Aero User Database registration page** (userdb.aeroapp.info/auth/register) from any internet browser.



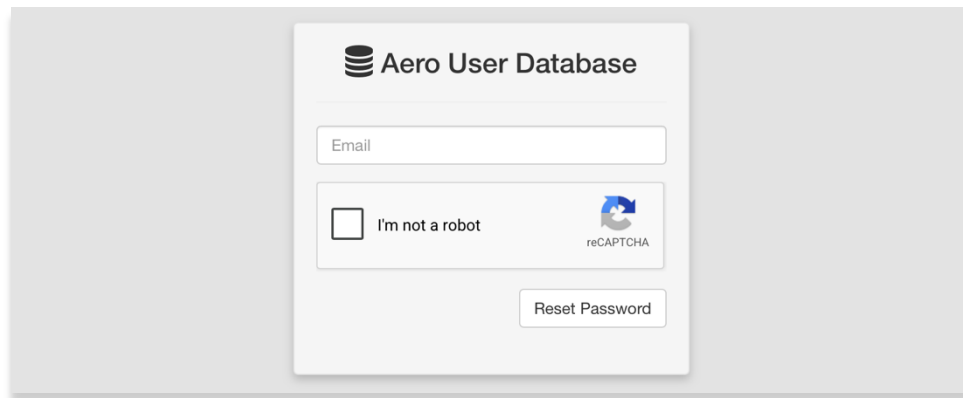
6. Complete all required fields in the registration form.
7. Check the box that says I am not a robot to complete the CAPTCHA, then click **Create Account**.



The screenshot shows a registration form titled "Aero User Database". It contains the following fields: Email, First Name, Last Name, Password, and Confirm Password. Below these fields is a checkbox labeled "I'm not a robot" next to a reCAPTCHA logo. At the bottom right of the form is a button labeled "Create Account".

8. A verification email is sent to the email address provided during registration. Follow the instructions in the verification email to verify and activate your AUD account.

To reset your password, tap **Reset Password** under the **Aero User Database** authentication page. You will be redirected to the Aero User Database Management website.



The screenshot shows a password reset form titled "Aero User Database". It contains an Email field and a checkbox labeled "I'm not a robot" next to a reCAPTCHA logo. At the bottom right of the form is a button labeled "Reset Password".



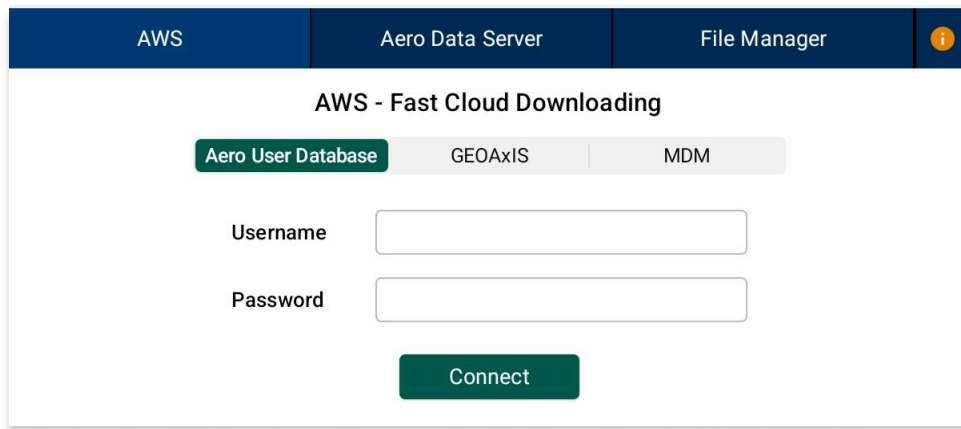
NOTE: If a verification email is not found within your email inbox, ensure to check the junk folder, or contact the Aero App Support Team at aeroappsupport@hiltonsoftware.com for assistance.

5.1.1 Aero User Database (AUD) Authentication

This section describes how to authenticate Aero User Database (AUD) credentials to access Aero App data and download the Aero App for Android application file.

Once you've selected AUD to authenticate, you will be taken to the Aero User Database authentication page.

1. Enter your AUD account username and password. If you are using Aero App, tap **Connect**. If you are authenticating through the Aero App website, select the I am not a robot checkbox to complete the CAPTCHA, then click **Login**.



The screenshot shows a web interface with a dark blue header bar containing three tabs: 'AWS', 'Aero Data Server', and 'File Manager'. An information icon is on the right. Below the header, the title 'AWS - Fast Cloud Downloading' is centered. Underneath, there are three tabs: 'Aero User Database' (highlighted in green), 'GEOAxis', and 'MDM'. Below these tabs are two input fields labeled 'Username' and 'Password'. At the bottom center is a green 'Connect' button.

2. If you have access to multiple foreign government partners, the **Select Partner** popup appears. Select the desired partner from the list.

If the login is successful, the Data Download page is displayed.

If the login is unsuccessful, re-enter your credentials. If necessary, select **Reset Password** to reset your password.

5.2 NGA GEOAxis Account

GEOAxis is NGA's Enterprise Identity and Access Management authentication system. GEOAxis unifies logins between AWS and the NGA App Store, which negates CAC access. First-time GEOAxis users must complete the initial account setup on a CAC-enabled desktop computer with a CAC card inserted. Initial registration cannot be completed on a mobile device.

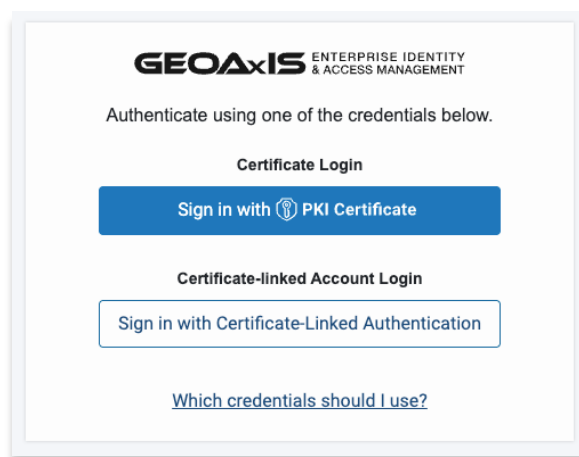
GEOAxis supports two authentication methods: a PKI certificate login and a certificate-linked account login.

5.2.1 Certificate Login

To authenticate using a PKI certificate, ensure that your PKI certificate is installed and available on the workstation. The PKI card reader must be connected, and the PKI card must be inserted before attempting to log in. The certificate login authentication method is only for users on a computer. This does not work on mobile devices.

Once you've selected GEOAxis to authenticate, you will be taken to the GEOAxis Enterprise Identity & Access Management page.

1. Select **Sign in with PKI Certificate**.



During GEOAxis authentication, your browser will prompt you to select a certificate. Select the **certificate** and enter the associated **pin** to continue.

If the authentication is successful, a confirmation message is displayed, and you will be redirected to Aero App.

If the login is unsuccessful, retry the steps above.

5.2.2 Certificate-Linked Account Login

Certificate-linked account (CLA) authentication enables users on mobile devices to access GEOAxIS using credentials associated with their PKI certificate. Before this authentication method can be used, a CLA account must be created and linked to the user's certificate. Initial setup requires a CAC or NSS token to register the account through the GEOAxIS user profile. Once the CLA account has been successfully configured, the associated credentials can be used to authenticate with GEOAxIS.

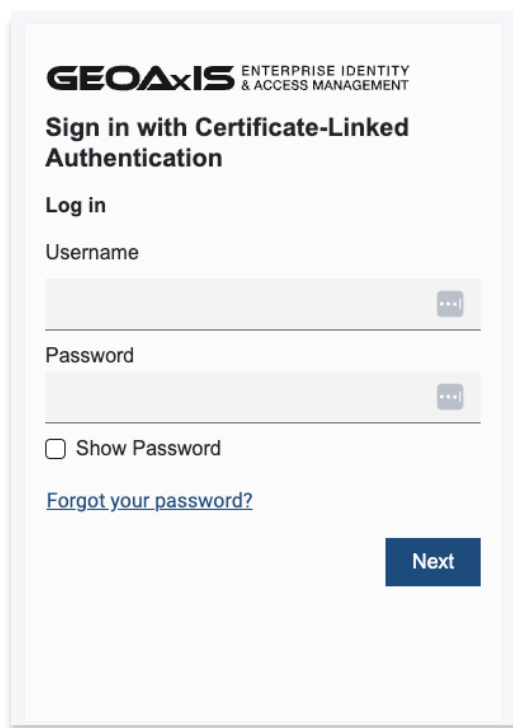
The screenshot shows the GEOAxIS login interface. On the left, under the heading 'Sign in with Certificate-Linked Authentication', there is a 'Log in' section with fields for 'Username' and 'Password'. Below the password field is a checkbox for 'Show Password' and a link for 'Forgot your password?'. A blue 'Next' button is at the bottom right of this section. On the right, a text box explains that the CLA account serves as a secondary authentication method. Below this, a section titled 'Create a CLA Account' lists four steps: 1. You must have a CAC/NSS Token to register; 2. Go back to the landing page; 3. Log into the GEOAxIS Portal using your PKI certificate; 4. Once authenticated, you may create a CLA account from your user profile. A 'NOTE' at the bottom states: 'You may still register for a CLA account if your CAC/NSS Token has been issued but is currently on hold. Use the Certificate-Linked Authentication method to register.'

Once you've selected GEOAxIS to authenticate, you will be taken to the GEOAxIS Enterprise Identity & Access Management page.

1. Select **Sign in with Credential-Linked Authentication**.

The screenshot shows the GEOAxIS authentication page. At the top, it says 'Authenticate using one of the credentials below.' There are two main sections: 'Certificate Login' with a blue button 'Sign in with PKI Certificate', and 'Certificate-linked Account Login' with a button 'Sign in with Certificate-Linked Authentication'. At the bottom, there is a link 'Which credentials should I use?'.

2. Enter the username and password then click **Next**.

A screenshot of the GEOAxis login interface. At the top, the logo 'GEOAxis' is displayed next to the text 'ENTERPRISE IDENTITY & ACCESS MANAGEMENT'. Below this is the heading 'Sign in with Certificate-Linked Authentication'. Underneath is a 'Log in' section. It contains two input fields: 'Username' and 'Password', each with a small eye icon to its right. Below the password field is a checkbox labeled 'Show Password'. A blue link 'Forgot your password?' is positioned below the checkbox. A blue 'Next' button is located at the bottom right of the login form.

If the login is successful, a pin will be sent to your email. Enter the **pin** to be redirected to Aero App.

If the login is unsuccessful, re-enter your credentials. If necessary, select **Forgot your password?** to reset your password.



NOTE: Valid .mil email is required to create an account.



NOTE: For technical assistance, contact the NGA Enterprise Service Center at 1 (800) 455-0899.

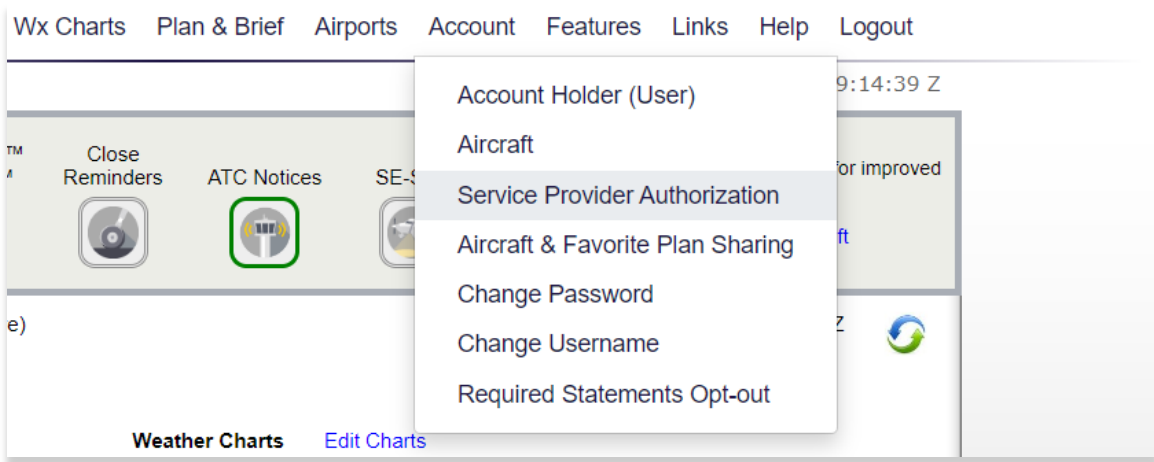
5.3 Flight Service Account Registration

A Flight Service account is required for those using the Flight Plan feature on Aero App.

1. Open an internet browser of choice.
2. Enter 1800wxbrief.com in the address bar.
3. Navigate to the *Login* section of the page.
4. Select **Create Account**. You will be redirected to an Account Creation page.
5. Follow the prompts then select **Create Account** once completed.

Once an account has been created, users must authorize NGA Aeronautical Application (Aero App) as the service provider. This will allow Aero App to connect to your account and perform actions on your behalf.

6. Log in using your Flight Service credentials.
7. Navigate to the *navigation bar* located at the top of the page.
8. Hover over **Account** to view additional account options.
9. Select **Service Provider Authorization**. The Service Provider Authorization page will be displayed.



10. A button to *Edit* and Save is available. Select **Edit**.
11. From the provided table, locate *NGA Aeronautical Application (Aero App)* and select **Yes** on the radio buttons.
12. Click **Save**.

5.4 ASPS Account

Pilots are required to possess an Aeronautical Source Packaging Service (ASPS) account to obtain Host Nation charts.

1. Open an internet browser of choice.
2. Enter asps.leidos.com in the address bar.
3. Select **Request Account**.
4. Follow the prompts.
5. Select **Request Account** once complete.

The screenshot shows a web browser window with the address bar displaying asps.leidos.com. The page header includes the NGA logo and the text "UNCLASSIFIED//LIMDIS". Below the header, the page title is "Aero Browser - Aeronautical Source Packaging Service". The main content area contains a form for requesting an account. The form fields are: E-mail, First Name, Last Name, Phone, Organization, Gov't POC (with a red asterisk and a note: "Enter person other than yourself, i.e. your supervisor"), and Justification. Below the fields is a checkbox for "I accept the ASPS User Agreement" and a "Request Account" button. At the bottom left of the form is a link for "Back to Login".

UNCLASSIFIED//LIMDIS

NGA
NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

All ASPS files are to be handled as Unclassified//LIMDIS.
The media used to store downloads should be marked as follows: LIMITED DISTRIBUTION:
Distribution authorized only within Department of Defense (DoD) and the Intelligence Community (IC) for official purposes IAW DoDI 5030.59.
Distribution to DoD and IC contractors requires contract clauses consistent with DoDI 5030.59.

Aero Browser - Aeronautical Source Packaging Service

E-mail:
First Name:
Last Name:
Phone:
Organization:
Gov't POC: *Enter person other than yourself, i.e. your supervisor
Justification:
☐ I accept the ASPS User Agreement
Request Account
[Back to Login](#)

6 Aero App Installation

There are several methods to install Aero App. The following sections ahead will expand on the different installation options.

6.1 Where to Obtain Aero App

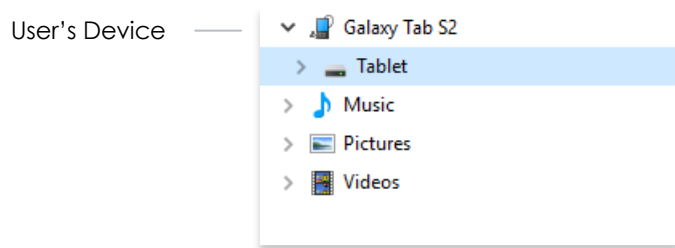
Aero App (National Stock Number [NSN] 7644016004225) can be installed from the following sources:

- **Aero App DVD** – National Geospatial Intelligence Agency (NGA) distributes the Aero App DVD to appropriate personnel.
 - **Defense Logistics Agency (DLA)** – If you have any questions or need additional information, contact the Defense Logistics Agency (acctmgr@dla.mil).
 - **National Geospatial-Intelligence Agency (NGA)** – Aero App data can be downloaded via NIPRnet at (<https://dbgia.geointel.nga.mil/efb/index.cfm>). This link requires a PKI-enabled CAC card for access. See your security team for a PKI certificate if you receive the following message: "Certificate-based authentication failed."
- **Aero App Website** – Aero App's website (aeroapp.info) that requires GEOAxis or Aero User Database credentials.

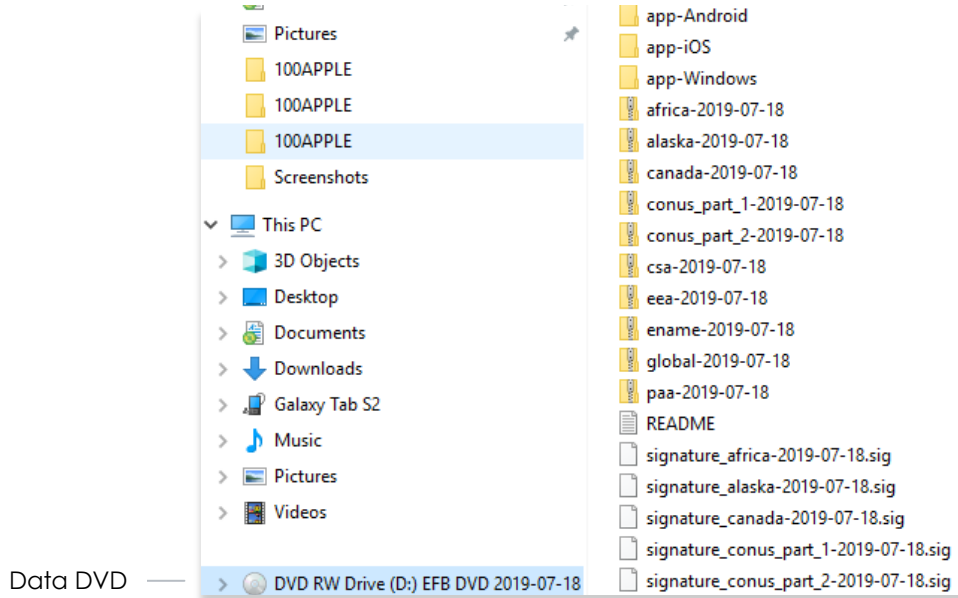
6.1.1 Install Aero App from Aero App DVD

NGA distributes the Aero App DVD to the appropriate persons. For additional information, contact the Defense Logistics Agency (acctmgr@dla.mil).

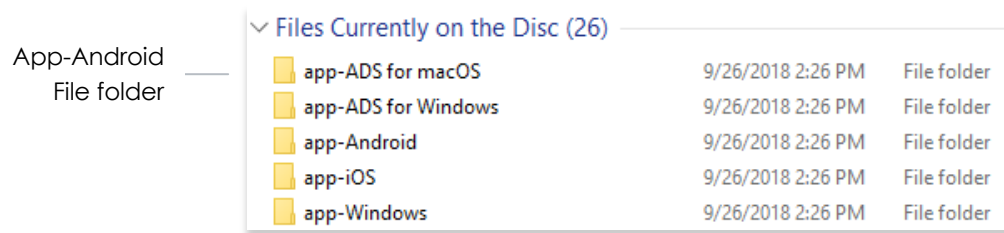
1. Connect an Android tablet to your PC.
2. Once your device is connected, open **File Explorer** and navigate to **Device and Drive** to locate your Android tablet.
3. Double-click on the Tablet icon to open Internal storage.



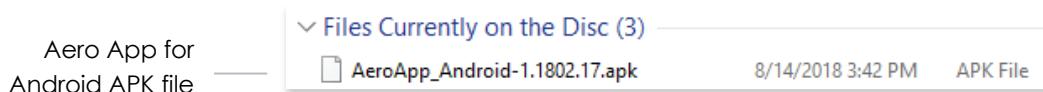
4. Insert the data DVD into the user's computer.
5. With a new File Explorer window open, locate and double-click on the **DVD drive**.



6. From the Aero App DVD drive, open the **app-Android** folder.



7. Both File Explorer windows should be open simultaneously. Drag and drop the Android APK file (**AeroApp_Android-<version number>.apk**) from the Aero App DVD drive into your device's **Internal storage**. The Aero App package should be stored in your Android device.



8. The Aero App for Android APK file must be installed. On your Android tablet, navigate **My Files** app.
9. Select **Internal Storage** from the app drawer to view files and folders.

10. Locate and tap the Aero App APK file (**AeroApp_Android-<version number>.apk**).
11. You will be prompted to install the app. Confirm the prompt and the app will begin to install onto your device. Aero App will be successfully installed and ready for use. Refer to [Section 6.2](#) to grant Aero App the necessary permissions to fully utilize all features of the app.

Aero App
Version Number

DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS

KMCO
Map
General
Wx
Calcs
Notepad
Help
Data
Settings

Aero App

Version 1.2606
[Send Feedback](#)




The Aeronautical Application, Aero App, is a collaborative effort reaching across NGA, and other government agencies, focused on supporting the WarFighter and NGA Vision.

Aero App for Android Version 1.2602 requires Android 13 or later

Electronic-Instrument Procedures

E-IPL Graphics are a collection of NGA produced instrument charts of current Foreign Procedures that are not included in DOW (Terminal) FLIP. It is a paperless program designed to reproduce Host Nation plates in the standard FLIP "Volpe" Format. Procedures coded in DAFIF® will be annotated in the release statement. E-IPL charts are available on the DOW Aeronautical Mobile Application ("Aero App"), Aeronautical Content Exploitation System (ACES), and Aeronautical Source Packaging Service (ASPS). Operational use of the E-IPL is governed by individual Service policy and guidance; review all applicable Service documents. Library graphics are solely standard presentations of existing international terminal procedures. Chart availability is not an endorsement or evaluation of the procedure. NGA publishes "W" Series DOW NOTAMs to maintain E-IPL chart accuracy.

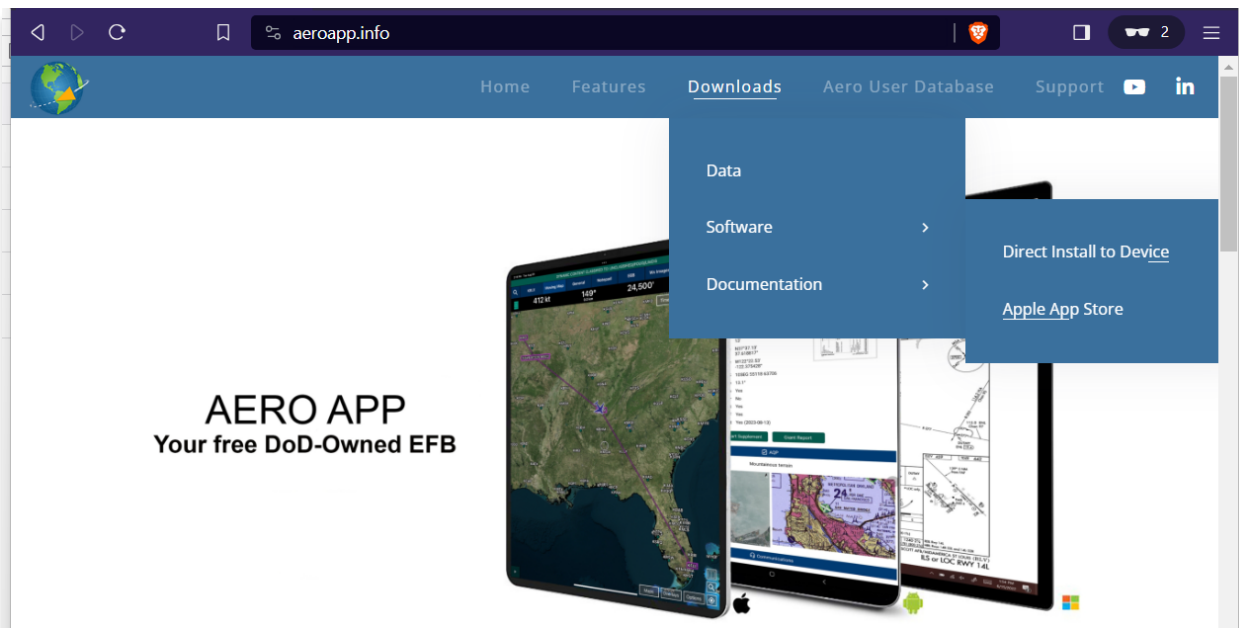
Third Party Libraries

WhirlyGlobe-Maply
<https://github.com/mousebird-consulting-inc/WhirlyGlobe>
 Copyright © 2011–2022 mousebird consulting, inc.
 (Code License: Apache 2.0 included later in Document)

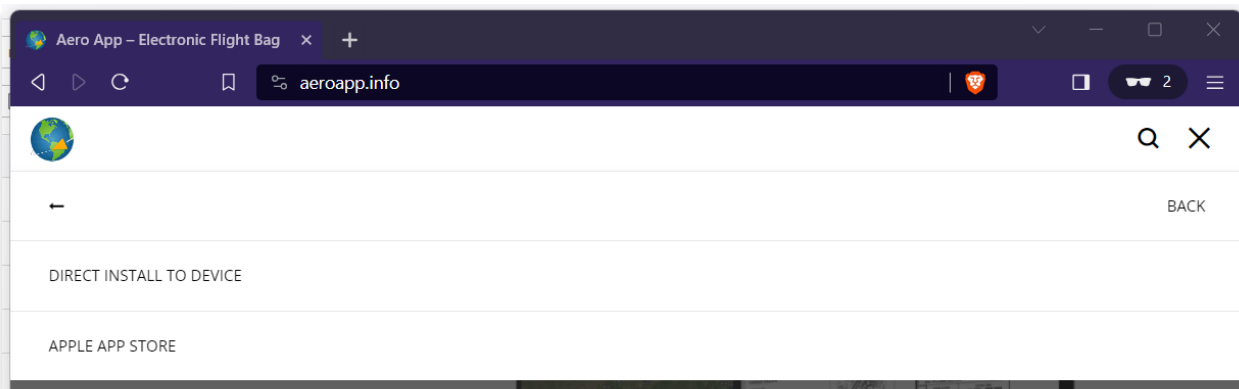
6.1.2 Install Aero App from Aero App Website

This section describes how to download Aero App for Android directly from the Aero App website. Access to the download page requires Aero User Database or GEOAxis authentication.

1. Open a web browser and navigate to the **Aero App website** (aeroapp.info).
2. Navigate to the *Downloads* menu. The option placement will vary depending on display size.
 - On larger screens, hover over **Downloads** from the navigation bar to reveal additional download options.



- On smaller screens, tap the hamburger button and select **DOWNLOADS** to display additional download options.



3. Select **Software**.

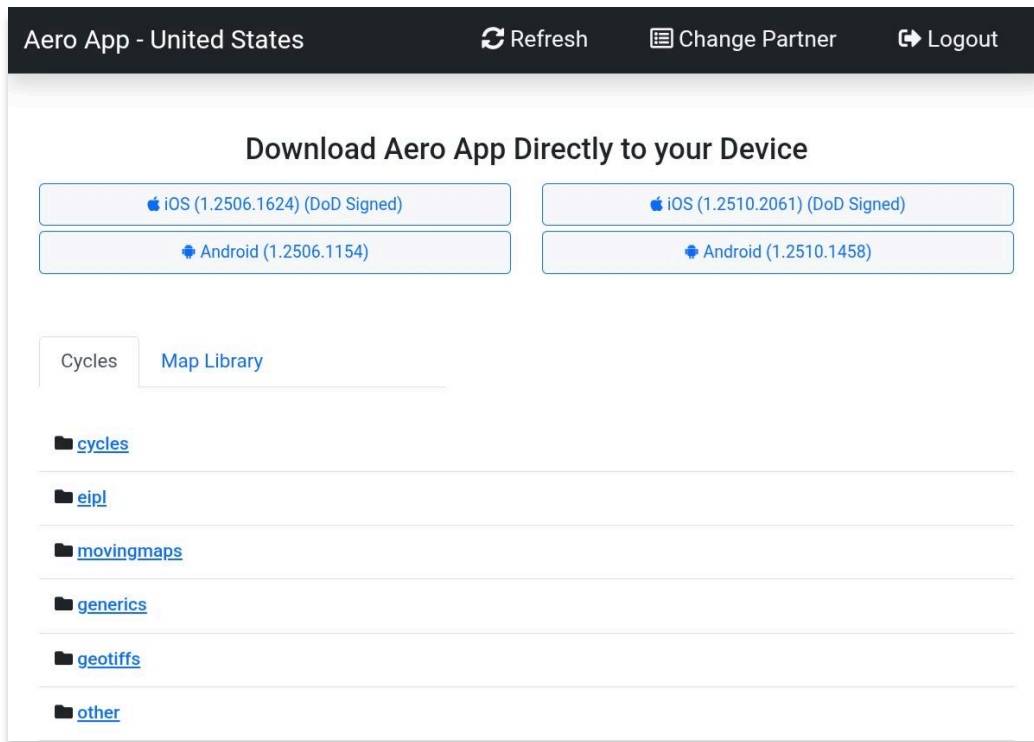
Users are presented with two methods to download Aero App:

- Direct Install to Device
- Apple App Store

4. Select **Direct Install to Device**.

5. When prompted, authenticate using **Aero User Database** credentials (refer to [Section 5.1](#)) or through **GEOAxis** (refer to [Section 5.2](#)).

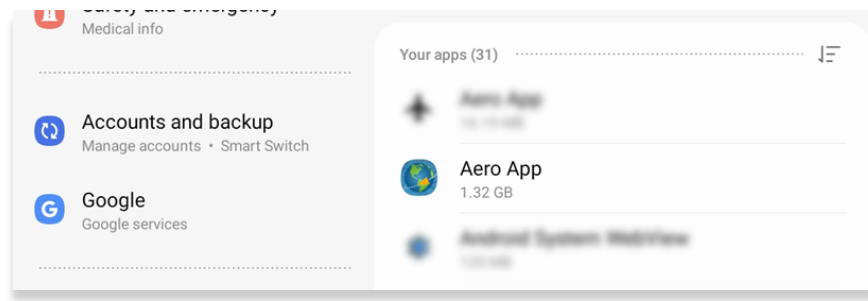
6. Navigate to the *Download Aero App Directly to your Device* section then select **Android (version number)**. Aero App will begin to install onto your device. Refer to [Section 6.2](#) to grant Aero App the necessary permissions to fully utilize all features of the app.



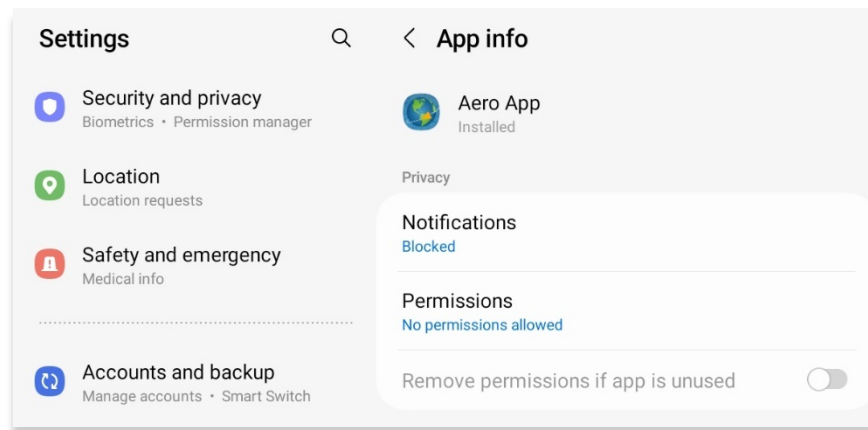
6.2 Aero App Permissions

Upon installing Aero App, users will be prompted to grant the necessary permissions for accessing the device's location, nearby devices, notifications, and shared storage. To fully utilize all the features of the app, it is recommended to allow access to the device's files upon opening Aero App for the first time. If the permissions are denied initially, users can navigate to the device's settings to grant the required permissions. The steps in achieving this are as follows:

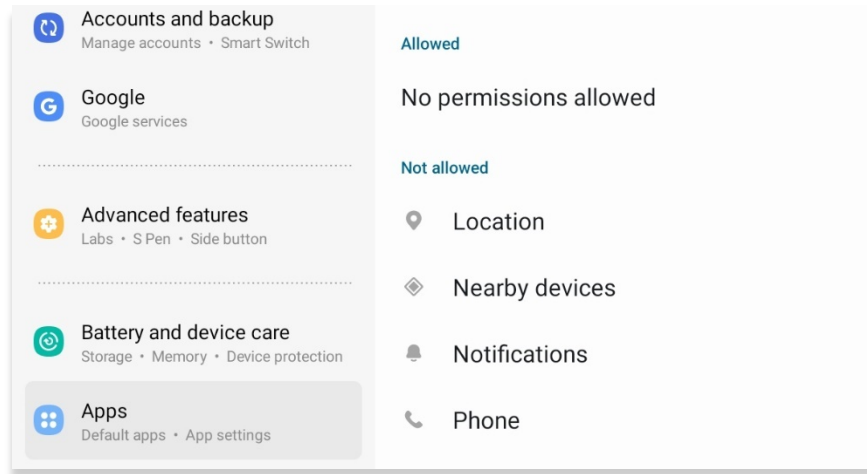
1. Open the **Settings** app on your tablet.
2. Tap **Apps**. The list of apps currently installed on your device will display.
3. Select **Aero App** from the list.



4. Tap **Permissions** from the *Privacy* section.

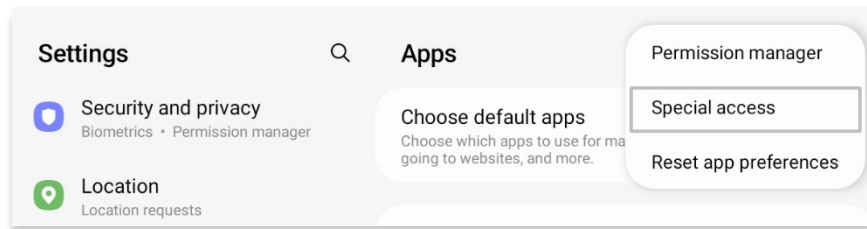


5. Navigate to the *Not allowed* section. Individually select from Location, Nearby devices, and Notifications then choose **Allow** to grant permission to each setting.

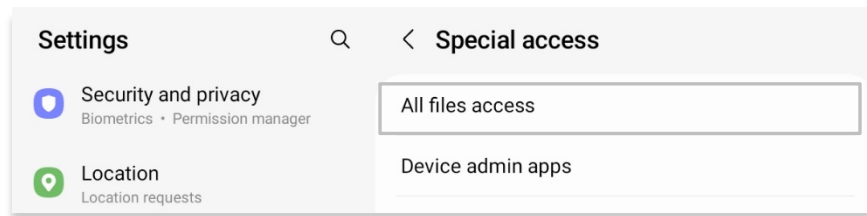


Shared Storage allows you to access any files stored on your device and fully utilize all features in Aero App. To grant access to Shared Storage, follow the steps below:

6. Navigate back to **Apps** from *Settings*.
7. Tap the **three vertical dots menu** on the top right of the Settings view.
8. Select **Special Access**.

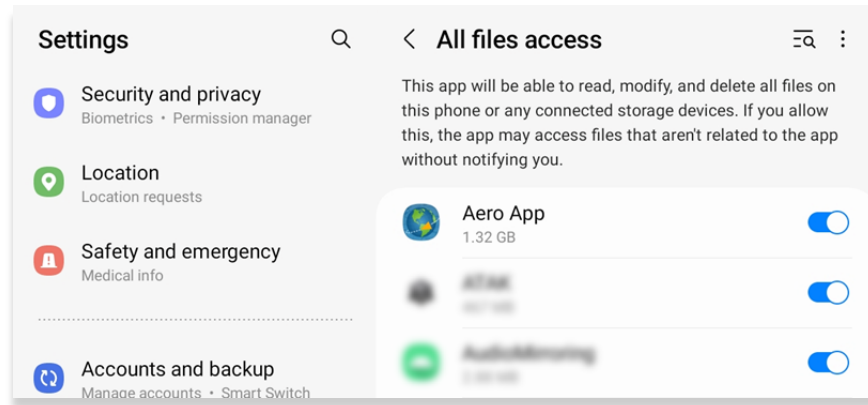


9. Select **All files access**.

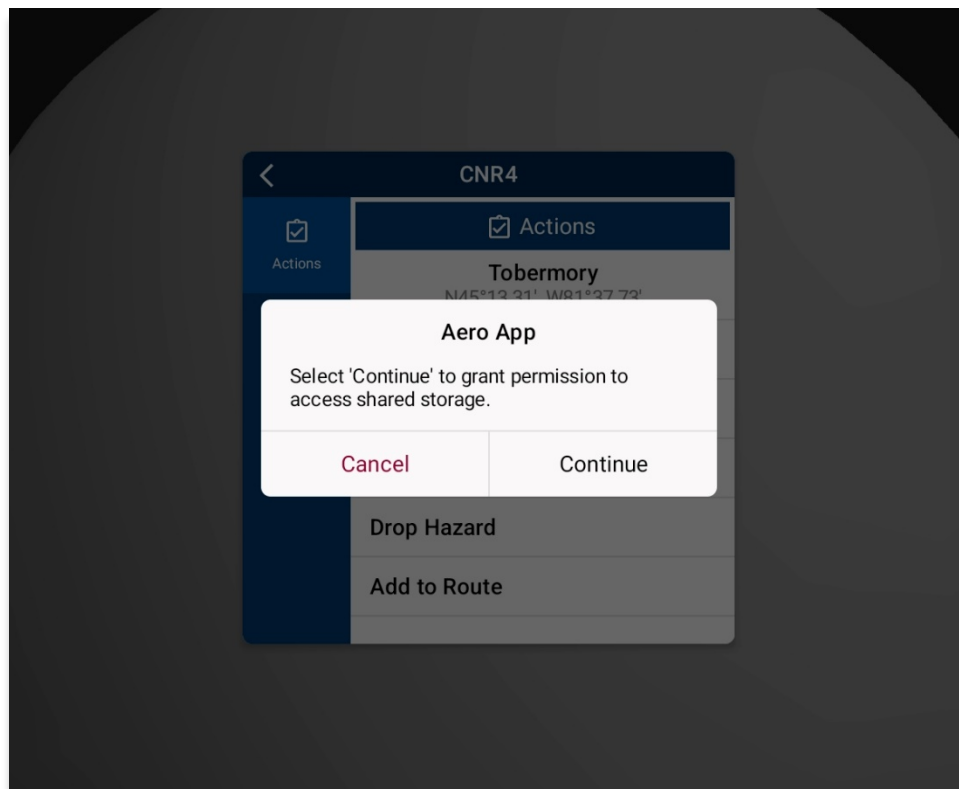


NOTE: Alternatively, you can search "All files access" from Settings to directly go to the *All files access* page.

10. Enable **Aero App** to grant permission.



Failure to grant the Share Storage permission may result in certain features such as dropping Pins and Hazards on the Map, or sideloading Pins, Hazards, Routes, User Maps, and User GeoPackages becoming non-functional. In such instances, users will be prompted to allow access to Shared Storage to enable these functionalities. In this case, refer to the Shared Storage steps of this section.



7 Aero App Data

There are several ways to obtain data in Aero App. The sections ahead will describe the supported data and how to retrieve Aero App data from different sources.

7.1 Where to Obtain Aero App Data

To obtain Aero App data, refer to the detailed instructions outlined in the following sections. Users can easily download Aero App data from the following sources:

- **Aero App DVD** – a physical DVD provided by the Defense Logistics Agency.
- **Aero Data Server (ADS)** – a server that handles the deployment of Aero App data to clients through mobile devices over a locally hosted Wi-Fi network (check with an administrator for computer configuration).
- **Aero App Website** – Aero App's website (aeroapp.info) that requires GEOAxIS or Aero User Database credentials.
- **Aero App** – data can be downloaded directly from AWS. GEOAxIS and Aero User Database credentials are required or set up your device with Mobile Device Management (MDM).

8 Aero App Data Overview

The following data is available for download:

- Aero App Maps
- Air Force Weather (AF Wx)
- Core Data
- Core Data Delta Files
- Electronic – Instrument Procedure Library (E-IPL)
- FAA Sectionals
- Georeference
- Giant Reports
- Helicopter and Terminal Area Chart (TAC) Maps
- Map Library
- Maxar
- Temporary Flight Restrictions (TFRs)
- Terrain
- User Files



NOTE: Some products and/or data may be limited in their distribution. This may include but is not limited to E-IPL, AMC Giant Reports, Air Force Weather, Maxar imagery, and Contract Fuel Information. Contact NGA Aeronautical Dissemination Program office at aerodistro@nga.mil if you have questions regarding access to these products and/or data.

8.1 Aero App Maps

Aero App includes an advanced Map that provides pilots with access to Visual Flight Rules (VFRs) and worldwide Instrument Flight Rules (IFRs) charts. After selecting a Cycle, pilots can navigate to the Aero App Maps section on the download page to select and download charts for their preferred regions. A list of available regional maps will be displayed for easy selection. For more information, refer to [Section 18.1](#) of this guide.

8.2 Air Force Weather

Air Force Weather (AF Wx) is timely and accurate weather information from the Air Force. Aero App enables users to view real-time weather information for METARs and TAFs. Refer to [Section 17.4](#) for additional information on Air Force Weather (AF Wx).

8.3 Core Data

Core Data includes Global zip file and the Africa, Alaska, Canada, CONUS 1, CONUS 2, CSA, EEA, ENAME and PAA region files. Usable data products in Core Data include, but not limited to, FLIP charts, Supplements, Planning Documents, Legends, Map Overlays including Airports, Air Refueling Routes, Airways, ARTCCs, and many more. Users can choose to download zero or multiple regions. However, the Global zip file is always required. Refer to [Section 9](#) for additional information in downloading data on Aero App.



NOTE: Users have the option to sideload data onto Aero App. Refer to [Section 10](#) for additional information.

8.4 Core Data Delta Files

Core Data Delta Files are smaller files that only include the data changes from the previous cycle, making them a more efficient way to update your data. Downloading these delta files significantly reduces download times.

It's important to always include the Global file during the download process. Before downloading Core Data Delta Files, users must enable the Use Deltas option (refer to [Section 12.3](#)). Once enabled, Aero App will automatically retrieve the relevant delta files based on the previous cycle. Since delta files only contain updates, they are typically much smaller in size. Ensure the Global file is present for the delta files to be applied correctly.

8.5 Electronic – Instrument Procedure Library (E-IPL)

Electronic – Instrument Procedure Library (E-IPL) charts are translations of Host Nation procedures presented in the familiar DOW approach format. Designed to supplement existing DOW FLIP charts, E-IPL charts help fill gaps in instrument procedure coverage.

After selecting a Cycle, users can navigate to the E-IPL Data section on the download page to access and download available E-IPL charts from ADS and AWS sources. Once downloaded, E-IPL charts can be accessed in multiple ways. One method is from the Active Point menu by selecting **IAP**, **Dep**, or **Arr** chart types, each identified by an E-IPL pill on the chart selector popup; from the Map view by selecting an **ICAO**, then tapping **Show**, followed by **Info and Wx**; or through the Route Panel using the same process to access the Info and Wx menu.



NOTE: E-IPL full cycle is available every 28 days.

8.6 FAA Sectionals

FAA Sectionals are specialized aeronautical charts designed for visual navigation under Visual Flight Rules (VFR). FAA Sectionals are available to DOW users and select partners.

These charts are available for download under the Cycle Data section on the download page after selecting a Cycle. Once downloaded, users can access FAA Sectionals by going to **General** on the Main Menu and selecting **Charts**. FAA Sectionals are available for specific regions, including Alaska, CONUS, and the Pacific, with each chart labeled as Sectional on chart type name.



NOTE: All FAA Sectionals, Helicopter and TAC Maps, and IFR Enroute charts are updated on a 56-day cycle.

8.7 Georeference

Georeferencing aligns accurate location data with the map coordinate system in Aero App, allowing users to display their ownship position precisely on Airport Diagrams (APDs), Instrument Approach Procedures (IAPs), and on the Map.

Georeference data is available under the Cycle Data section on the download page after selecting a Cycle. Once downloaded, users can access georeferenced charts in several ways. One option is through the Active Point menu by selecting between APDs and IAPs, where georeferenced charts are identified by a GEO label on the chart selector popup. Alternatively, from the Map view, users can select an ICAO, tap **Show**, and then choose **Info and Wx** to view the georeferenced charts. The same steps can be followed from the Route Panel by selecting **Info and Wx** to access the charts.

8.8 Giant Reports

Giant Reports are PDF documents produced by the U.S. Air Force that provide safety assessments for operational use. These reports can be downloaded and viewed directly within Aero App.

Giant Reports data is located under the Other Data section on the download page after selecting a Cycle. Once the data is downloaded, users can access the reports from the Active Point menu by selecting **Info**, then **Giant Report**. Alternatively, users can display the identifier menu of a desired point, choose **Info and Wx**, then **Giant Report** to view its report. For more information, refer to the [Giant Report](#) of this guide.

8.9 Helicopter and Terminal Area Chart (TAC) Maps

Aero App supports the display of Helicopter (Gulf Coast) charts, Helicopter (Routes) charts, and Terminal Area Charts (TACs) directly on the Map. When displayed, these charts align perfectly with the underlying sectional or other base maps for accurate positioning.

The Helicopter and TAC Maps data can be found under the Helicopter and TAC Maps section on the download page after selecting a Cycle. Once downloaded, these charts can be viewed from the Map View within the Map Manager menu. For more information, refer to [Section 18.1.4](#) of this guide.



NOTE: All FAA Sectionals, Helicopter and TAC Maps, and IFR Enroute charts are updated on a 56-day cycle.

8.10 Map Library

Aero App includes Map Library charts that can be displayed on the Map. Map Library includes maps such as NavPlan charts, range charts, maps for Search and Rescue missions, and many others. Map Library can be downloaded from AWS using Aero User Database credentials or directly from ADS. Map Library data is available to DOW and specific government foreign partners. For information on downloading Map Library charts, refer to [Section 9.4](#). For information on overlaying Map Library charts on the Map, refer to [Section 18.1.5](#).

8.11 Maxar

Maxar is a satellite imagery service that offers a visual depiction of ground conditions to enhance situational awareness. Maxar images can be zoomed, panned, and viewed online or downloaded for offline use. For Maxar online (Wi-Fi or cellular required) refer to [Section 18.1.1.4](#) and for Maxar offline (no internet connected required after initial download) refer to [Section 18.1.3](#).

"Maxar is the first company to deliver native 30cm resolution imagery, delivering clearer, richer images that empower better decision making through improved situational awareness." – Maxar

8.12 Temporary Flight Restrictions (TFRs)

Temporary Flight Restrictions (TFRs) are restricted areas for air travel. Aero App enables users to display graphical and textual TFRs on demand when connected to cellular data, Wi-Fi, or ADS-B receiver. Refer to [Section 18.2.1.24](#) for additional information on displaying TFRs on the Map.

8.13 Terrain

Aero App includes Terrain Coloring that provides situational awareness to flight crews. Users can overlay Terrain on the Map that includes an altitude-based color system that depicts the proximity of the pilot's ownship relative to terrain. Terrain can be downloaded from AWS using GEOAxis or Aero User Database credentials or directly from ADS. Terrain Coloring data will be listed under Other in the Data Download screen and is available to specific government foreign partners. Refer to [Section 18.2.1.23](#) for additional information.

8.14 User Files

The library of User Files, including User Map files and other PDFs, is displayed on the File Manager page, which provides file management capabilities.

9 Download Data

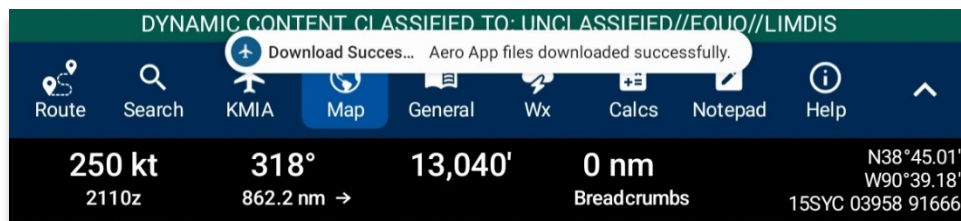
Aero App allows users to download data directly from the app. Sources such as Amazon Web Services (AWS) and Aero Data Server (ADS) are accessible within Aero App. Alternatively, users can visit the Aero App website (aeroapp.info) and download data directly to their devices.

An active internet connection (Wi-Fi or cellular) is required to experience an interruption-free downloading session.

9.1 Background Downloading

Aero App has background downloading capabilities that enable users to download data while switching screens within Aero App or while using another application. The sections ahead will elaborate on how to download data from Aero App.

1. Select desired method of authentication (AUD, GEOAxis, or MDM).
2. Follow the prompts then tap **Download** to start the downloading process.
3. Tap **Done** to return to the *Data Status* screen.
4. Navigate to desired screen within Aero App or an application in which you would like to proceed in normal operations.
5. Once the downloading is complete, a popup will notify users that the download was successful.



6. Navigate back to the **Data Status** screen. Notice the files you have selected to download display **Found**. This indicates that the files have been successfully downloaded without any interruptions.



NOTE: In addition to switching screens within Aero App or using another application, users can lock their devices, and the download will continue. A notification will be displayed on the device's lock screen.

9.2 Download Data from Amazon Web Services (AWS)

Aero App data is stored in the cloud through Amazon Web Services (AWS). To download data from the cloud, users must possess an active Aero User Database account, GEOAxis account, or Mobile Device Management (MDM) configuration. To obtain core data files, Global must be included when downloading data.



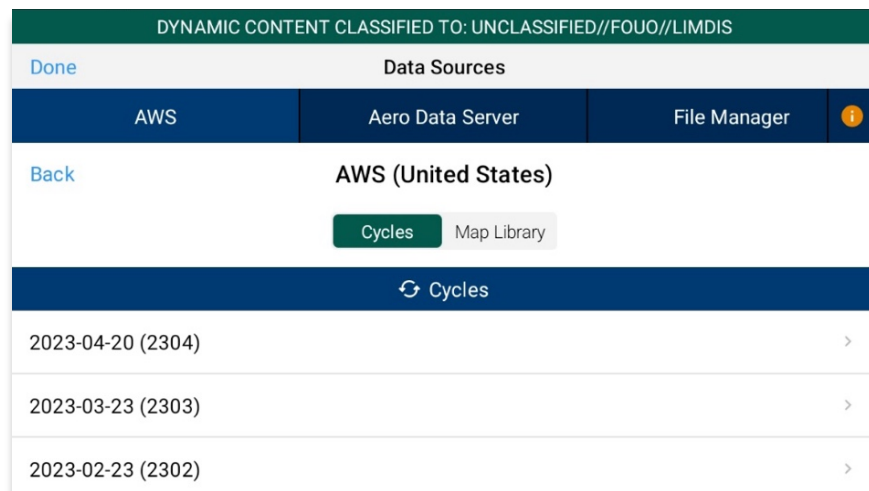
NOTE: The Background Downloading feature allows users to continue downloading data while switching screens within Aero App or while using another application. Refer to [Section 9.1](#) for additional information.

9.2.1 Download Data Using Aero User Database (AUD)

This section describes how to download data using an Aero User Database account. AUD is not associated with GEOAxis; therefore, the username and password may differ from the user's GEOAxis credentials. Before proceeding, ensure your valid AUD credentials are entered and saved. Refer to [Section 5.1](#) for more information.

1. Once authenticated, the Data Download page will open. Users are provided with options to download *Cycles* or *Map Library*. Select **Cycles**.

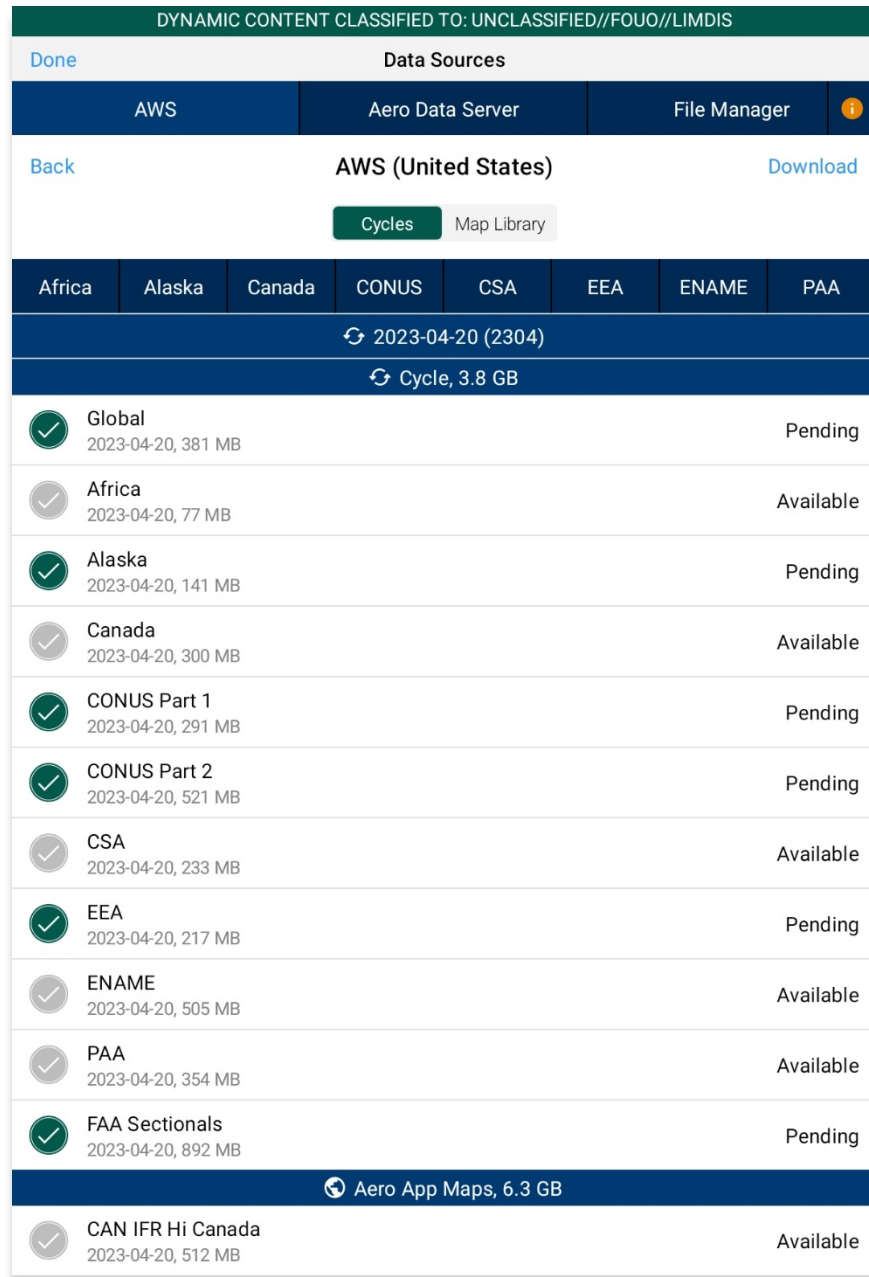
Aero App provides data for the latest three cycles, but we recommend always selecting the **most recent cycle** when downloading data.



Latest three cycles

Available data pertaining to the respective cycle will be displayed on the screen. You can manually select individual data files, or you can use an Easy Button (refer to [Section 9.5](#)), which automatically bundles and selects all data files associated with a specific region. You may choose one or multiple Easy Buttons during a download session.

2. Tap **Download** once desired data files are selected and the download will begin.

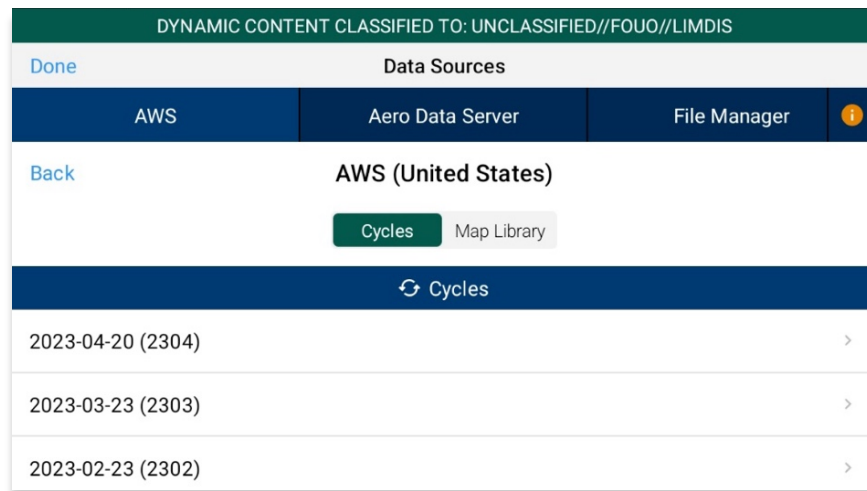


9.2.2 Download Data through GEOAxis

This section describes how to download data from the cloud through GEOAxis. Users can only download data through GEOAxis using a certificate-linked account (CLA). Refer to [Section 5.2.2](#) for more information.

1. Once authenticated, the Data Download page will open. Users are provided with options to download *Cycles* or *Map Library*. Select **Cycles**.

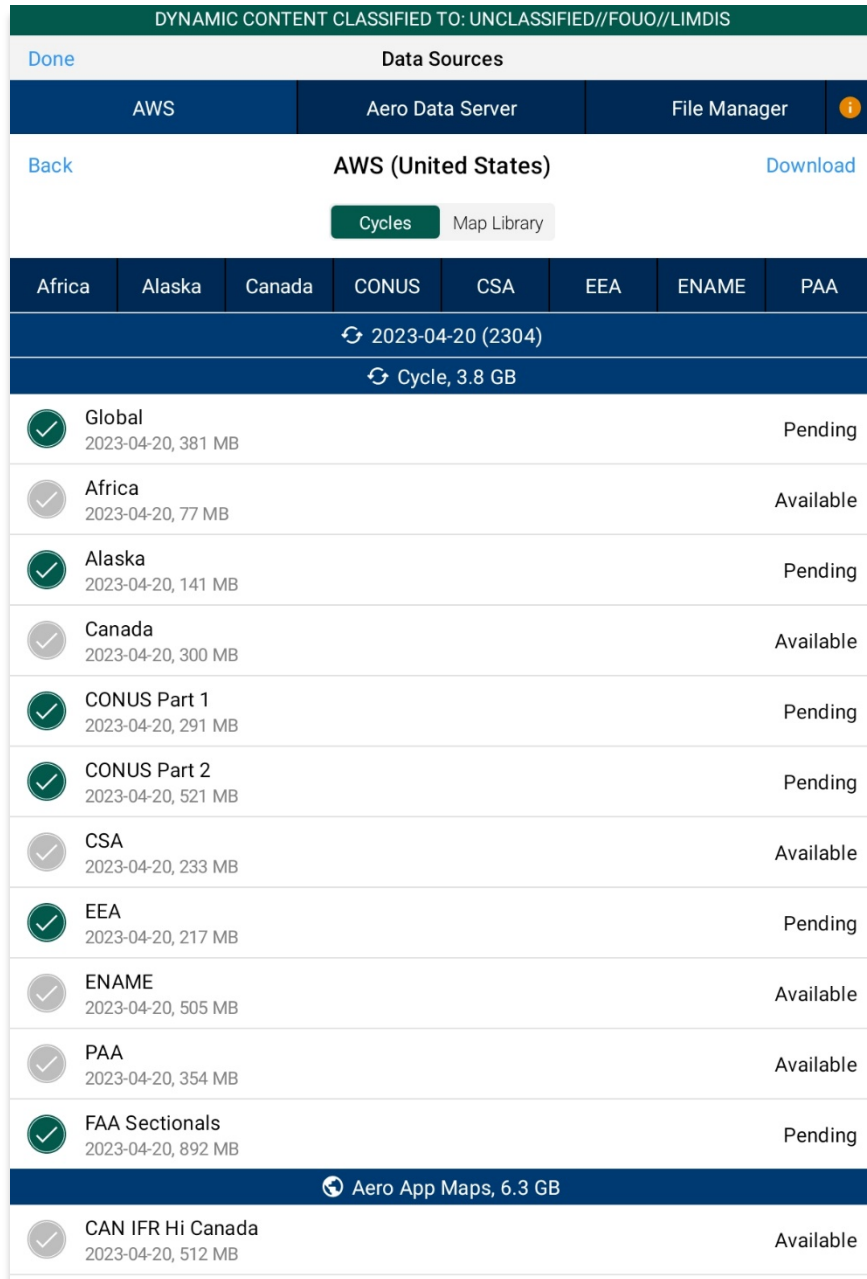
Aero App provides data for the latest three cycles, but we recommend always selecting the **most recent cycle** when downloading data.



Latest three cycles

Available data pertaining to the respective cycle will be displayed on the screen. You can manually select individual data files, or you can use an Easy Button (refer to [Section 9.5](#)), which automatically bundles and selects all data files associated with a specific region. You may choose one or multiple Easy Buttons during a download session.

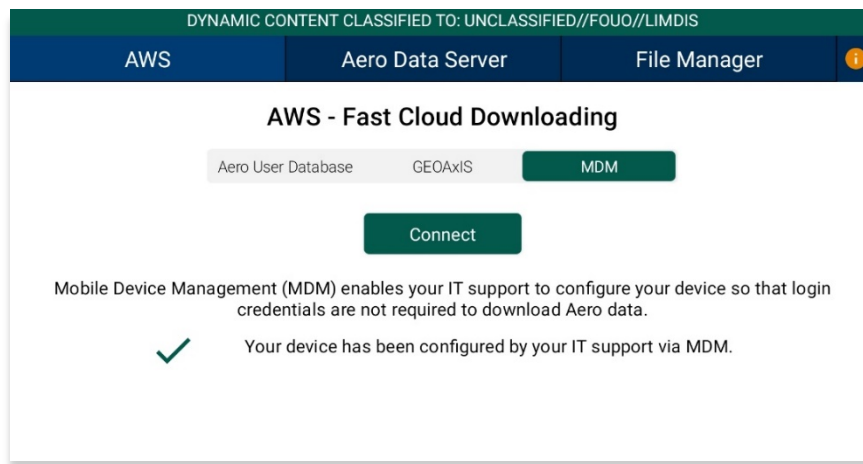
2. Tap **Download** once desired data files are selected and the download will begin.



9.2.3 Download Data Using Mobile Device Management (MDM)

Mobile Device Management (MDM) is software that enables the IT department to automate and monitor the user's device. The IT administrator would securely connect the user's device to the organization's network. This allows for devices to be automatically authenticated, thereby negating the need for login credentials.

1. Tap **Data** on the **Main Menu**.
2. Tap **Download**.
3. Select the **AWS** option, if necessary.
4. Tap on the **MDM** option.

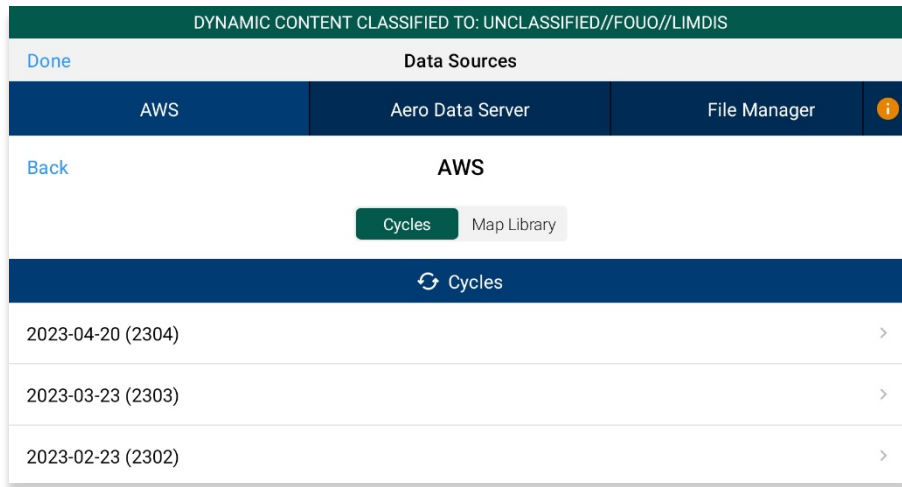


NOTE: IT administrator must be contacted to retrieve key value pairs for MDM configuration prior to downloading data; otherwise, the following message will appear as displayed below.

✗ Your device has not been configured by your IT support via MDM.

5. Tap **Connect**.
6. Once authorized, the Data Download page will open. Users are provided with options to download *Cycles* or *Map Library*. Select **Cycles**.

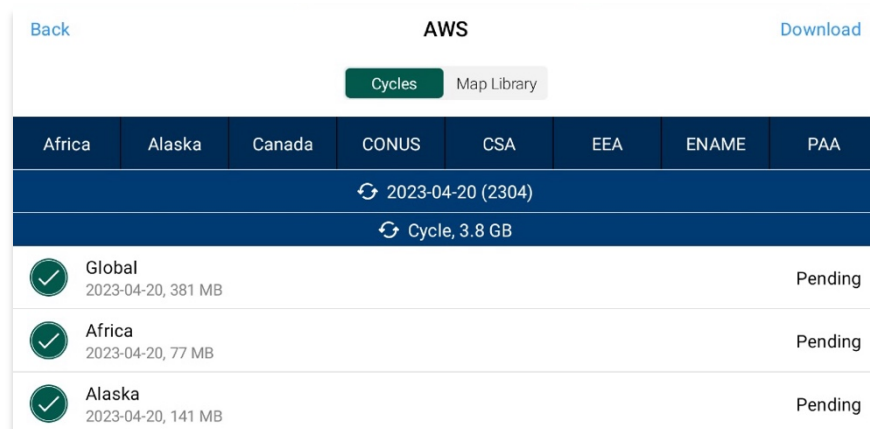
Aero App provides data for the latest three cycles, but we recommend always selecting the **most recent cycle** when downloading data.



NOTE: When selecting *Map Library* to download data, refer to [Section 9.4](#) for additional information.

Available data pertaining to the respective cycle will be displayed on the screen. You can manually select individual data files, or you can use an Easy Button (refer to [Section 9.5](#)), which automatically bundles and selects all data files associated with a specific region. You may choose one or multiple Easy Buttons during a download session.

7. Tap **Download** once desired data files are selected and the download will begin.



9.3 Download Data Using Aero Data Server (ADS)

Aero Data Server (ADS) is a server that enables users to download Aero App data and Map Library charts through a local server connected to the Wi-Fi network. Global is required to load in ADS for Aero App to access cycle, Aero App Maps, E-IPL, and other data, not including User Files or Map Library.

1. Tap **Data** on the **Main Menu**.
2. Tap **Download**.
3. Select the **Aero Data Server** option.
4. Users will be presented with options to Discover, enter Host and Port numbers, and Connect. Tap **Discover** and a list of ADS servers will display.



NOTE: The Background Downloading feature allows users to continue downloading data while switching screens within Aero App or while using another application. Refer to [Section 9.1](#) for additional information.

9.3.1 Aero Data Server (ADS) Discover

The Aero Data Server (ADS) Discover tool automatically locates servers that share the same Wi-Fi network as your device. In turn, the ADS Discover tool negates having to enter the IP address and port number of a server.

1. Tap **Data** on the **Main Menu**.
2. Tap **Download**.
3. Select the **Aero Data Server** option, then tap **Discover** and all available servers will display.

AWS	Aero Data Server	File Manager	
Discover	Host: 192.168.1.7	Port: 5556	Connect
Air Force Base IP Address: 192.168.98.119 Port: 5556 <div>Est. Bandwidth: N/A</div>			
macmini-Latest 2310 IP Address: 192.168.98.101 Port: 5555 <div>Est. Bandwidth: 1000 Mbps</div>			
MarineFord-89P13 IP Address: 192.168.99.97 Port: 5555 <div>Est. Bandwidth: 1000 Mbps</div>			
ads0mac-field IP Address: 192.168.98.43 Port: 5555 <div>Est. Bandwidth: N/A</div>			

- Alternatively, users can manually connect to a server by entering the host and port numbers, respectively, in the provided fields, then tapping **Connect**.

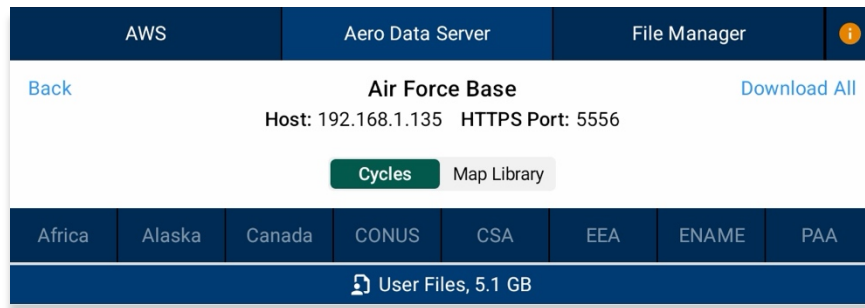


NOTE: To establish a connection with a secure server, certificates would need to be installed in the ADS device as needed.

- Select from the list of available servers.
- Once connected, the Data Download page will open. Users are provided with options to download *Cycles* or *Map Library*. Select **Cycles**.

Available data pertaining to the respective cycle will be displayed on the screen. You can manually select individual data files, or you can use an Easy Button (refer to [Section 9.5](#)), which automatically bundles and selects all data files associated with a specific region. You may choose one or multiple Easy Buttons during a download session.

- Tap **Download** once desired data files are selected and the download will begin.



NOTE: Easy Buttons are not accessible when downloading user files.



NOTE: Aero App will only have access to the cycles containing global.

9.4 Download Map Library Data

Access to Map Library data is available to select government partners. Users can download Map Library data using AUD (refer to [Section 5.1](#)) credentials or from an ADS (refer to [Section 9.3](#)) with data available. The Map Library page will display a message to the user for those partners and servers without Map Library data. After log in via AUD or selecting a server, users will be redirected to the Data Download screen. Follow the steps below to download Map Library data.

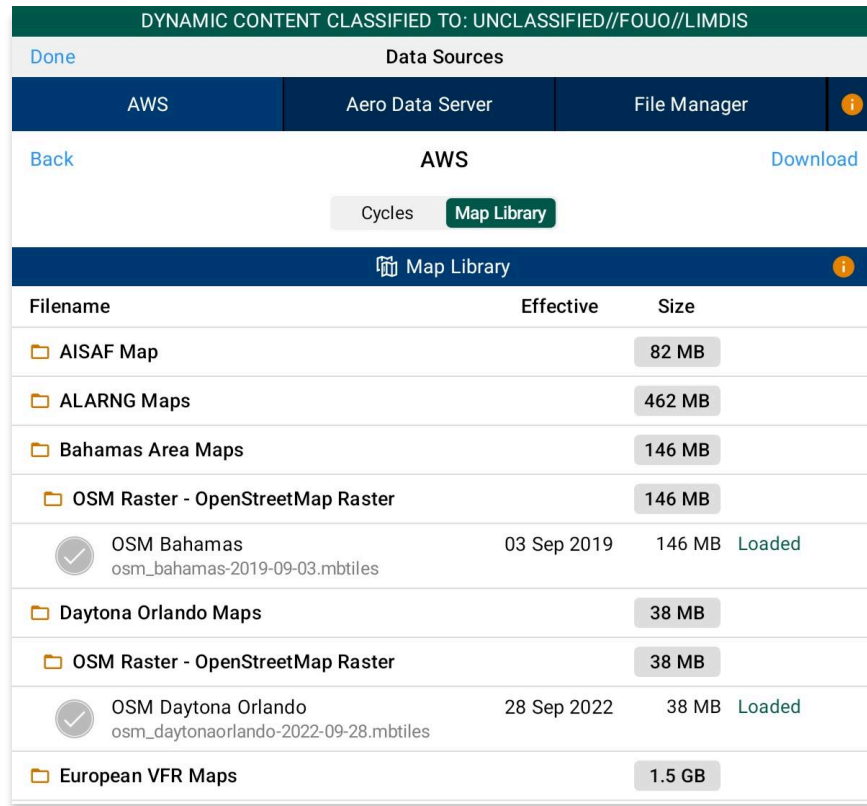
1. From the Data Download screen, select **Map Library** from segmented control.
2. Available charts are stored within a folder. Tap the folder to reveal subfolder(s). Tap on the subfolder to reveal its respective file(s).
3. Tap on the date column header to browse and view **Created**, **Effective**, or **Expiration** dates of a file.



NOTE: If the files have expired, the Created time is replaced by "**Expired**".

4. Select desired map file(s).

5. Tap **Download** once desired Map Library files have been selected.



6. Map library can be viewed on the Map, refer to [Section 18.1.5](#).

9.5 Easy Buttons

Easy Button is a feature that bundles regional data files for the selected region. One or more Easy Buttons can be selected for the region(s) of interest. Easy Buttons are available on the AWS – GEOAxis, Aero User Database and MDM, and Aero Data Server (if available for download).

1. Once you have selected the appropriate Data Source and the desired cycle, you will be redirected to the Data Cycle Download screen.
2. Tap desired **Easy Button(s)**:
 - Africa
 - Alaska
 - Canada
 - CONUS
 - CSA
 - EEA
 - ENAME
 - PAA
3. A dialog box displays all region files for the preferred region. Tap **No** to cancel or **Yes** to proceed. All related files will be selected once the selection of region is confirmed.

Easy
Buttons

Africa	Alaska	Canada	CONUS	CSA	EEA	ENAME	PAA
🔄 2024-01-25 (2401)							
🔄 Cycle, 4.6 GB							
✓ Global 2024-01-25, 400 MB							Pending
✓ Africa 2024-01-25, 77 MB							Available
✓ Alaska 2024-01-25, 138 MB							Available
✓ Canada 2024-01-25, 301 MB							Available
✓ CONUS Part 1 2024-01-25, 1016 MB							Loaded
✓ CONUS Part 2 2024-01-25, 559 MB							Available

Select Region Files for CONUS

Select Global, CONUS Part 2, Georeference, FAA IFR Atlantic, FAA IFR Hi CONUS, FAA IFR Lo CONUS, FAA VFR CONUS, FAA Helicopter CONUS Gulf Coast, FAA Helicopter CONUS Routes, FAA TAC CONUS, and Terrain Coloring?

No

Yes

Easy Button
popup
confirmation

4. You can individually select or deselect desired data cycle files. Tap **Download** to begin the download.

DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS

Done

Data Sources

AWS

Aero Data Server

File Manager

Back

AWS (United States)

Download

Cycles

Map Library

Africa

Alaska

Canada

CONUS

CSA

EEA

ENAME

PAA

2023-09-07 (2309)

Cycle, 4.6 GB

Global

2023-09-07, 392 MB

Pending

Africa

2023-09-07, 77 MB

Available

Alaska

2023-09-07, 138 MB

Available

Canada

2023-09-07, 301 MB

Available

CONUS Part 1

2023-09-07, 1017 MB

Pending

CONUS Part 2

2023-09-07, 524 MB

Pending

CSA

2023-09-07, 231 MB

Pending

EEA

2023-09-07, 217 MB

Available

ENAME

2023-09-07, 506 MB

Pending

PAA

2023-09-07, 357 MB

Available

Download



NOTE: While a download is in progress, the download speed and estimated time remaining are displayed at the bottom of the download page.

9.6 Download Data from the Aero App Website

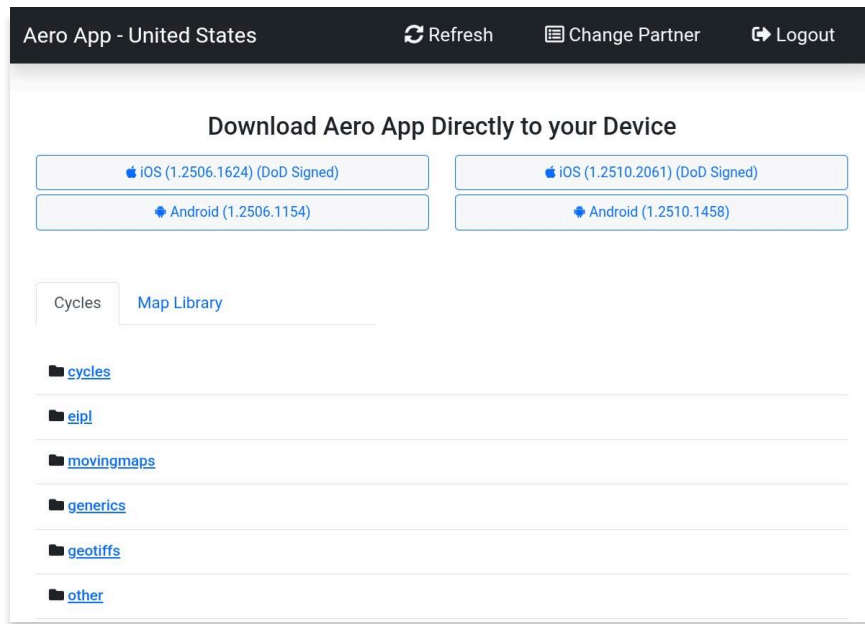
The Aero App website (aeroapp.info) is a source to download Aero App data directly to your device. Active GEOAxis and Aero User Database credentials are required.

1. From your device, open an internet browser of choice.
2. Enter download.aeroapp.info in the address bar.

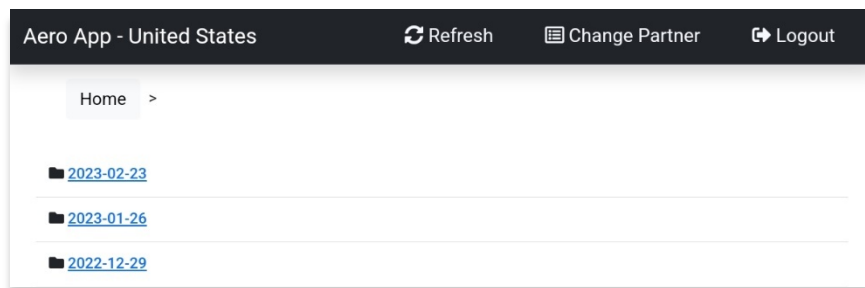


NOTE: Alternatively, users can go to aeroapp.info > Downloads > Data and users will be directed to the Data Menu Options page.

3. Authenticate using **Aero User Database** credentials (refer to [Section 5.1](#)) or through **GEOAxis** (refer to [Section 5.2](#)).
4. Navigate to the Cycles section of the page. Select **Cycles** from the list of folders.



5. Click the **latest cycle** or a **cycle** of choice.

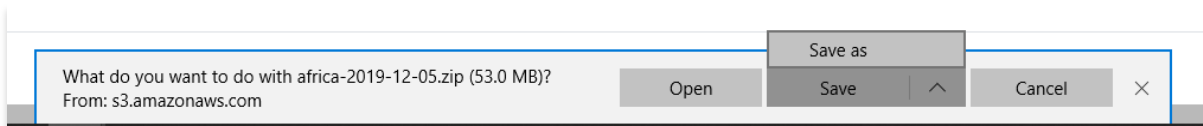


6. Users will be redirected to the download page. Located on the upper right of the screen are options to choose from **Full Data Files**, or **Delta Files** data types. Select desired data type.
7. Click the respective **ZIP** and **SIG** buttons for your region(s) of choice: **Africa**, **Alaska**, **Canada**, **CONUS**, **CSA**, **EEA**, **ENAME**, and/or **PAA**, among other files.

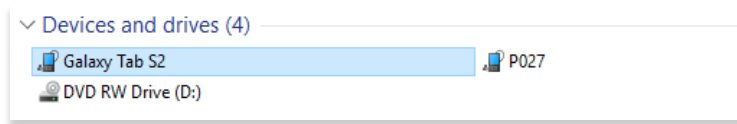


NOTE: The Global file must be included to download a complete data cycle.

8. A download confirmation window will appear above the taskbar with options to Open, Save, or Cancel download. Click **Save** or click the up-arrow (icon) and select **Save as**.



9. Once the data has completed download, select from options to **Open**, **Open folder**, or **View downloads**.
10. Connect an Android tablet to your PC.
11. Once your device is connected, open **File Explorer** then navigate to **Devices and drives** to locate your Android tablet.



12. Double-click on the **tablet icon** to open *Internal storage*.
13. Drag and drop the downloaded data files from your Downloads folder into your tablet's internal storage.



NOTE: Refer to [Section 12](#) on how to load and view data status.

10 Sideload Data

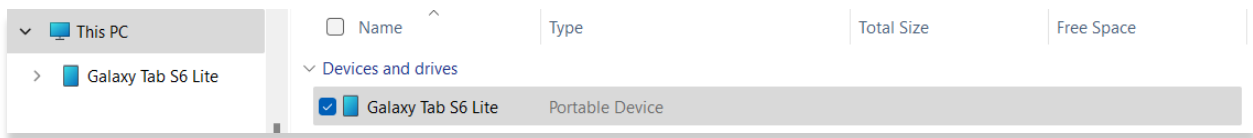
This section describes various ways to sideload a complete data cycle or user-generated data including User Maps, User Waypoints, User Routes, User Overlays, and User Documents onto Aero App.

To ensure a successful sideload of user-generated data, users are required to grant Aero App permission to access Shared Storage. Failure to do so will restrict user access to certain features and functionalities within Aero App. Refer to [Section 6.2](#) for additional information.

10.1 Sideload Data from Aero App DVD

The Aero App DVD is distributed to users by the NGA. For additional information, contact the Defense Logistics Agency at (acctmgr@dla.mil). This section describes the process for sideloading data to Aero App. Ensure that both the **Global zip** and **SIG files** are included, as they are required for proper functionality. Follow the steps below to transfer data files from your computer to your Android device.

1. Connect an Android tablet to your PC.
2. Once your device is connected, open **File Explorer** and navigate to **This PC**.



3. Navigate to *Devices and drives* and locate your Android device.
4. Double-click on your **device's name** then double-click on **Internal storage** to view contents.



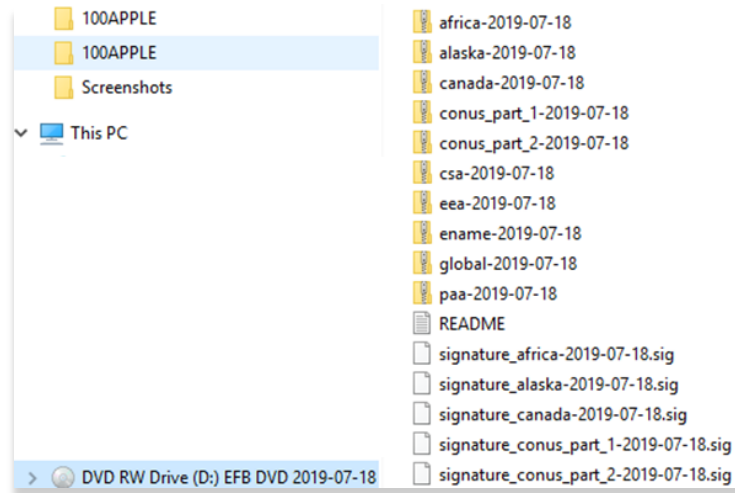
5. Insert the Aero App DVD into your PC's disk drive.



NOTE: Those who do not have a DVD disk drive on their computer may need to purchase an external DVD drive to read the Aero App DVD.

6. Open a new *File Explorer* window then locate and double-click on the **DVD drive**.
7. From the Aero App DVD drive, double-click on the **app-Android** folder to view contents.

8. Both File Explorer windows should be open simultaneously. From the Aero App DVD drive, drag the respective **ZIP** and **SIG** files of the preferred region, including the global file, and drop the files to your device's Internal Storage.



NOTE: The Global file must be included to download a complete data cycle.

9. To confirm if the files were properly transferred, open **Aero App** on your Android device.
10. Tap **Data** on the **Main Menu**.
11. A successful download will display **Found** next to the respective data file(s).

Global: Found
Africa:
Alaska:
Canada:
CONUS Part 1: Found
CONUS Part 2: Found
CSA:
EEA:
ENAME: Found
PAA: Found
FAA Sectionals:
Georeference: Found



NOTE: Refer to [Section 12](#) on how to load and view data status.

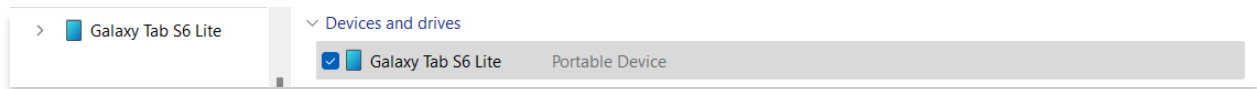
10.2 Sideload User Maps

Users can sideload user-generated maps in GeoPackage and MBTiles format into Aero App to display on the Map.

Store your user-generated map files in a secure location on your PC so they are easy to access when transferring them to your Android device.

To sideload User Maps into Aero App, you must grant Aero App permission to access Shared Storage. Refer to [Section 6.2](#) for additional information.

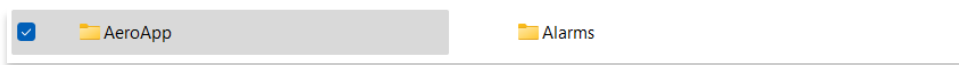
1. Connect an Android tablet to your PC.
2. Once your device is connected, open **File Explorer** and navigate to **This PC**.
3. Navigate to *Devices and drives* and locate your Android device.



4. Double-click on your **device's name** then double-click on **Internal storage** to view contents.



5. Select **Aero App**. Its respective subfolders are displayed.



6. Select **MovingMap** to view contents.



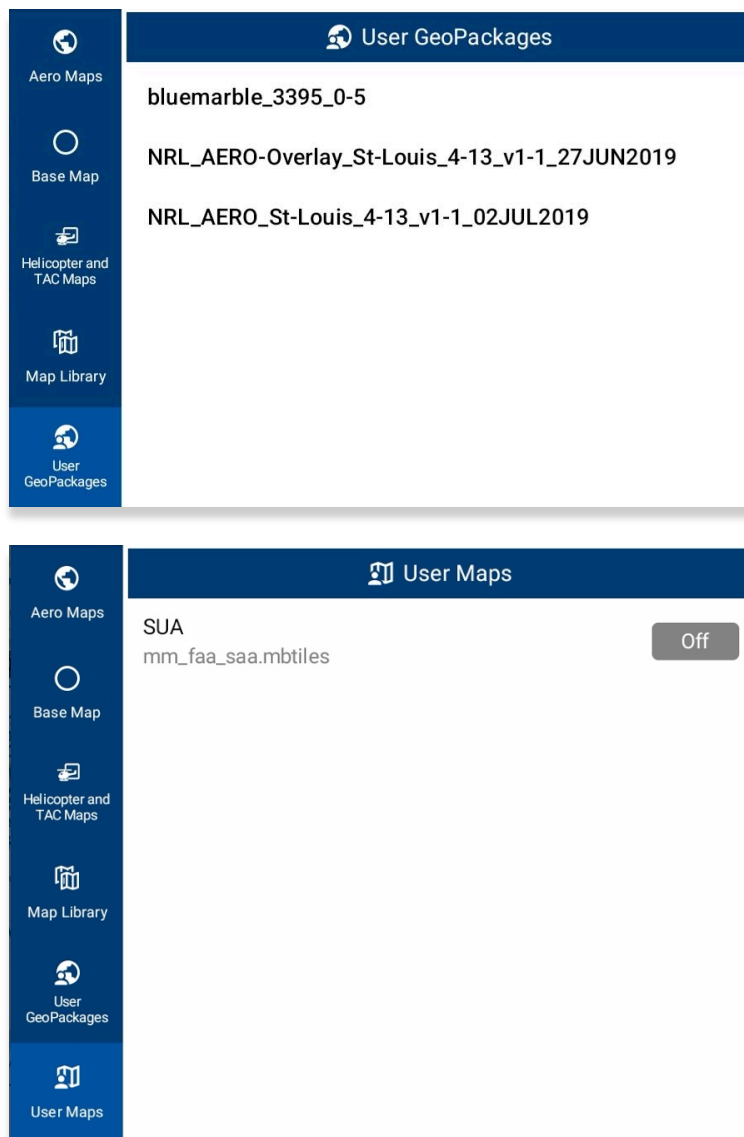
7. Navigate to the folder containing the user map files (**GeoPackages** or **MBTiles**) you wish to sideload onto Aero App.

	NRL_AERO_St-Louis_4-13_v1-1_02JUL2...	4/22/2021 12:46 PM	GPKG File	47,124 KB
	NRL_AERO_USA_0-0_v1-1_02JUL2019....	4/22/2021 12:46 PM	GPKG File	8,940 KB
	mm_faa_saa.mbtiles	11/25/2015 1:40 PM	MBTILES File	85,645 KB
	mm_gars_grid_30and15.mbtiles	1/6/2016 10:55 PM	MBTILES File	3,051,108 KB

8. Drag and drop desired user map files (**GeoPackages** or **MBTiles**) onto the MovingMap folder.

Verify that the sideload was successful. The steps in achieving this are as follows:

9. Open **Aero App**.
10. Tap **Map** on the **Main Menu**.
11. Navigate to **Map Manager** located at the lower-right of the Map screen. The Map Manager popup will appear.
12. Select **Maps** on the navigation bar, if necessary.
13. From the side menu, select **User GeoPackages** to verify sideloaded GeoPackage files or **User Maps** to verify sideloaded MBTiles. Confirm that the sideloaded items appear in the corresponding list.



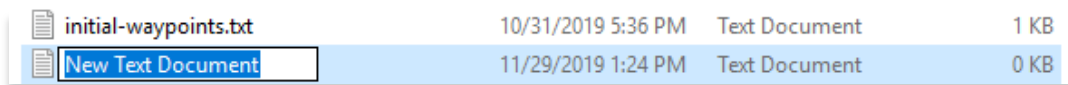
10.3 Sideload User Waypoints

Users can sideload custom waypoints to view on the map or add to a flight route. Users have the option to create individual user waypoints directly from Aero App or sideload multiple user waypoints at a time.

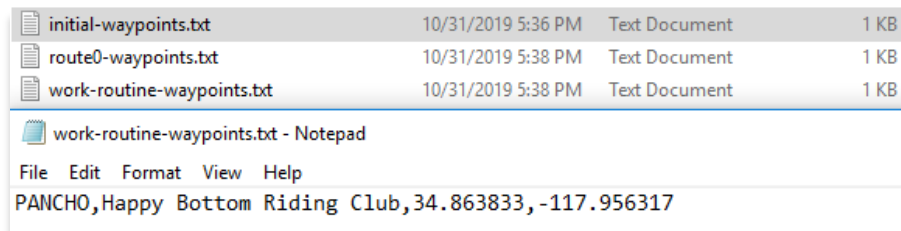
To sideload User Waypoints into Aero App, you must grant Aero App permission to access Shared Storage. Refer to [Section 6.2](#) for additional information.

Aero App supports text files for user waypoints. The user waypoints file should follow the format `{name}-waypoints.txt` and be stored in the AeroApp\WayPoints directory. To create a user waypoint, the following steps should be followed:

1. Create a folder on your desktop named User Waypoints.
2. Double-click on the folder to open it.
3. Click the **+ New** drop-down then select **Text Document**.
4. Create a name for the Text Document file ending in **<-waypoints>**.



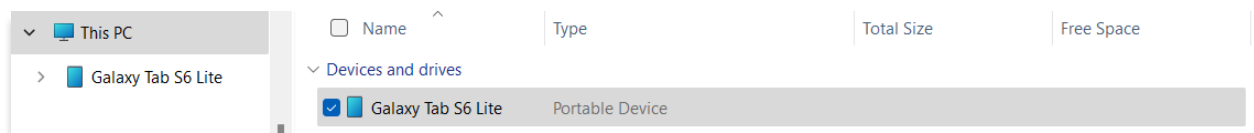
5. Right-click on the file and hover over **Open with** then select **Notepad**.
6. Create customer waypoints following the format:
<ID>,<Name>,<Latitude>,<Longitude>.



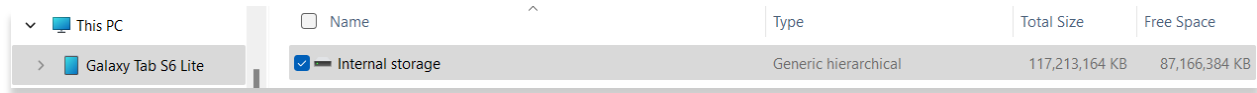
7. Save file once completed.

Be sure to store your User Waypoint(s) in a secure location on your PC for easy access when preparing to transfer to your Android device.

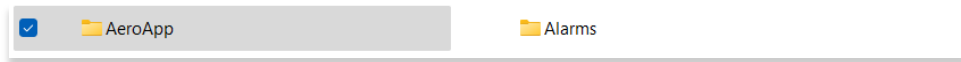
8. Connect an Android tablet to your PC.
9. Once your device is connected, open **File Explorer** and navigate to **This PC**.
10. Navigate to *Devices and drives* and locate your Android device.



11. Double-click on your **device's name** then double-click on **Internal storage** to view contents.



12. Select **AeroApp**. Its respective subfolders are displayed.



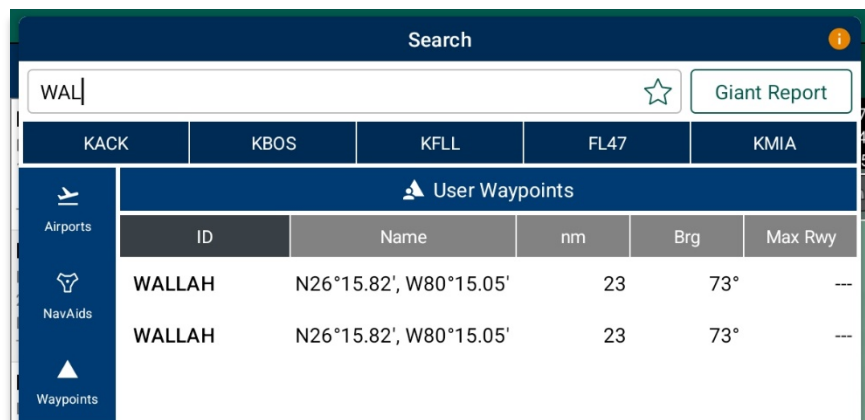
13. Select **WayPoints** to view contents.



14. Drag and drop the desired user waypoint file(s) from your PC into the WayPoints folder.

Verify that the sideload was successful. The steps in achieving this are as follows:

15. Open **Aero App**.
16. Tap **Search** on the **Main Menu**.
17. The Search popup will appear. Enter the name of the user waypoint in the text box. The user waypoint(s) will appear under the User Waypoints section.



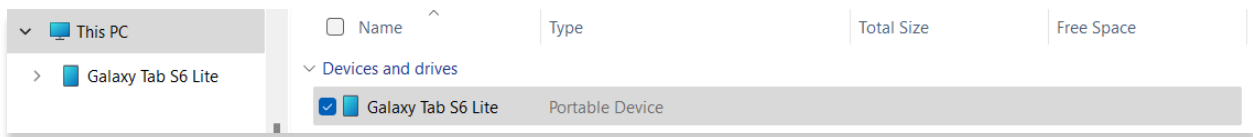
10.4 Sideload Routes

Aero App supports sideloading user-generated routes in CRD and JSON formats to display on the Map and integrate into flight routes.

Store your user-generated route files in a secure location on your PC so they are easy to access when transferring them to your Android device.

To sideload Routes into Aero App, you must grant Aero App permission to access Shared Storage. Refer to [Section 6.2](#) for additional information.

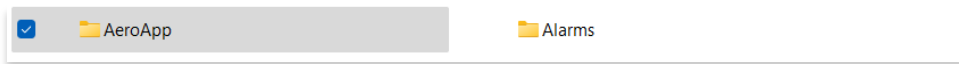
1. Connect an Android tablet to your PC.
2. Once your device is connected, open **File Explorer** and navigate to **This PC**.
3. Navigate to *Devices and drives* and locate your Android device.



4. Double-click on your **device's name** then double-click on **Internal storage** to view contents.



5. Select **AeroApp**. Its respective subfolders are displayed.



6. Select **Routes** to view contents.



7. Navigate to the folder containing the route files (**CRD** or **JSON**) that you wish to sideload onto Aero App.

 MPS_AWE_CustomData.crd	3/15/2016 12:31 PM	CRD File	41 KB
 MPS_CustomData_Two_Routes.crd	3/15/2016 12:31 PM	CRD File	38 KB
<hr/>			
 All points	10/28/2025 11:30 AM	JSON Source File	3 KB
 tacsRoute	12/16/2024 5:53 PM	JSON Source File	2 KB

8. Drag and drop the desired route files (**CRD** or **JSON**) onto the Routes folder.

Verify that the sideload was successful. The steps in achieving this are as follows:

9. Tap **Route** on the **Main Menu**. The Route Panel will expand.
10. Tap **Route Manager** located at the bottom right of the panel view.
11. Select **Actions** from the side menu, if necessary.
12. Tap **Load** and your route files will appear under Load Route.



10.5 Sideload User Overlays

Aero App supports sideloading user overlays in GeoJSON, KML/KMZ, Shapefile, and SQLite (for Pins and Hazards) formats to display on the Map. Refer to [Section 18.2.3](#) for additional information about viewing user overlays.

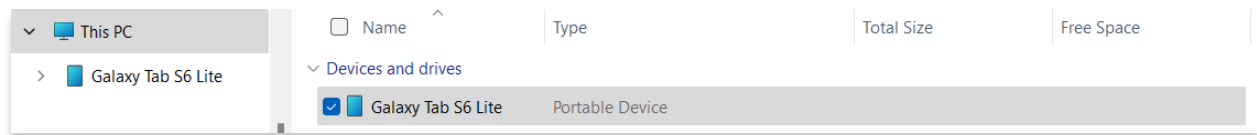
When sideloading Shapefiles, include all required component files (.shp, .shx, and .dbf). Although all component files are required for import, only the .shp file is displayed in Aero App.

Pins and Hazards must be imported using SQLite files that follow the required format, naming convention, and directory structure. Refer to [Appendix C | Hazards and Pins SQLite Files](#) for additional information. SQLite files used for sideloading Pins and Hazards must be stored in the AeroApp\Pins directory.

Files named pins.sqlite contain Pins or Hazards created within Aero App. These items are displayed in the Dropped Pins or Dropped Hazards tables, respectively. Refer to [Section 14.3.4.2](#) for additional information about Dropped Pins and [Section 14.3.4.3](#) for additional information about Dropped Hazards.

To sideload user overlays into Aero App, you must grant Aero App permission to access Shared Storage. Refer to [Section 6.2](#) for additional information.

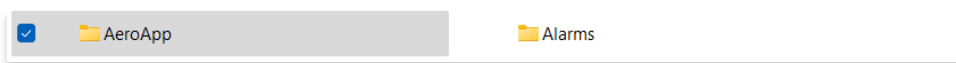
1. Connect an Android tablet to your PC.
2. Once your device is connected, open **File Explorer** and navigate to **This PC**.
3. Navigate to *Devices and drives* and locate your Android device.



4. Double-click on your **device's name** then double-click on **Internal storage** to view contents.



5. Select **AeroApp**. Its respective subfolders are displayed.



6. Select **MovingMap** to view contents. If there are SQLite files, select the **Pins** directory.



7. Navigate to the folder containing the user overlay files (**GeoJSON**, **KML/KMZ**, **Shapefiles**, or **SQLite**) you wish to sideload onto Aero App. **Shapefile** *must* include all supporting files (**.shp**, **.shx**, and **.dbf**). **SQLite** files such as pins or hazards *must* be renamed to the format, **pins-{name}.sqlite**.
8. Drag and drop the desired user overlay files (**GeoJSON**, **KML/KMZ**, or **Shapefile**) onto the MovingMap folder. **SQLite** files (pins and hazards) must be stored in the Pins folder.

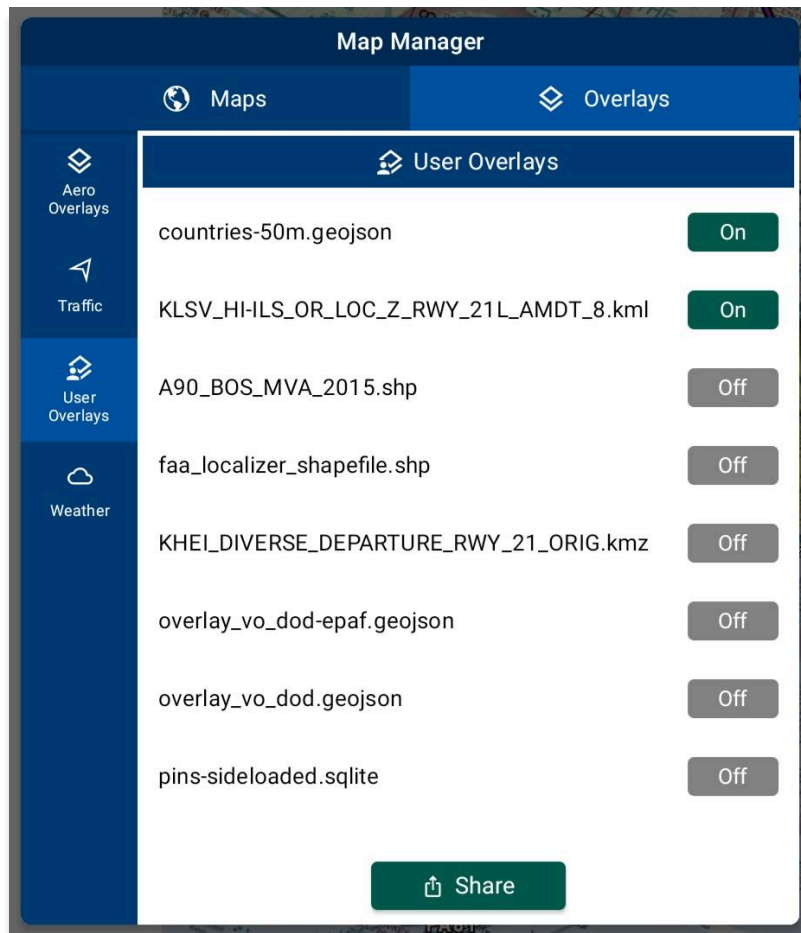


NOTE: If the imported file is not renamed, any pins stored in pins.sqlite will be overwritten.

Verify that the sideload was successful. The steps in achieving this are as follows:

9. Open **Aero App**.
10. Tap **Map** on the **Main Menu**.
11. Navigate to **Map Manager** located at the lower-right corner of the Map screen.
The Map Manager popup will appear.
12. Select **Overlays** from the navigational bar.
13. Select **User Overlays** from the side menu.

14. Locate the imported files and verify that they appear in the list.



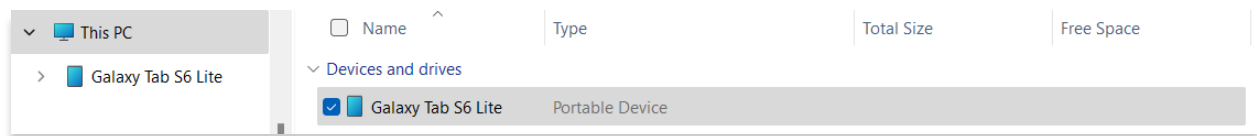
NOTE: Users can bulk delete all imported files by going to File Manager on their Android tablet and deleting the pins file.

10.6 Sideload Documents

Users can sideload documents into Aero App. Be sure to store your user documents in a secure location on your PC for easy access when preparing to transfer to your Android device.

To select a document to display on Aero App, users must grant Aero App permission to access Shared Storage. Refer to [Section 6.2](#) for additional information.

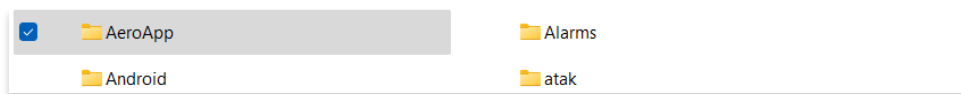
1. Connect an Android tablet to your PC.
2. Once your device is connected, open **File Explorer** and navigate to **This PC**.
3. Navigate to *Devices and drives* and locate your Android device.



4. Double-click on your **device's name** then double-click on **Internal storage** to view contents.



5. Select **AeroApp**. Its respective subfolders are displayed.



6. Select **Documents** to view contents.

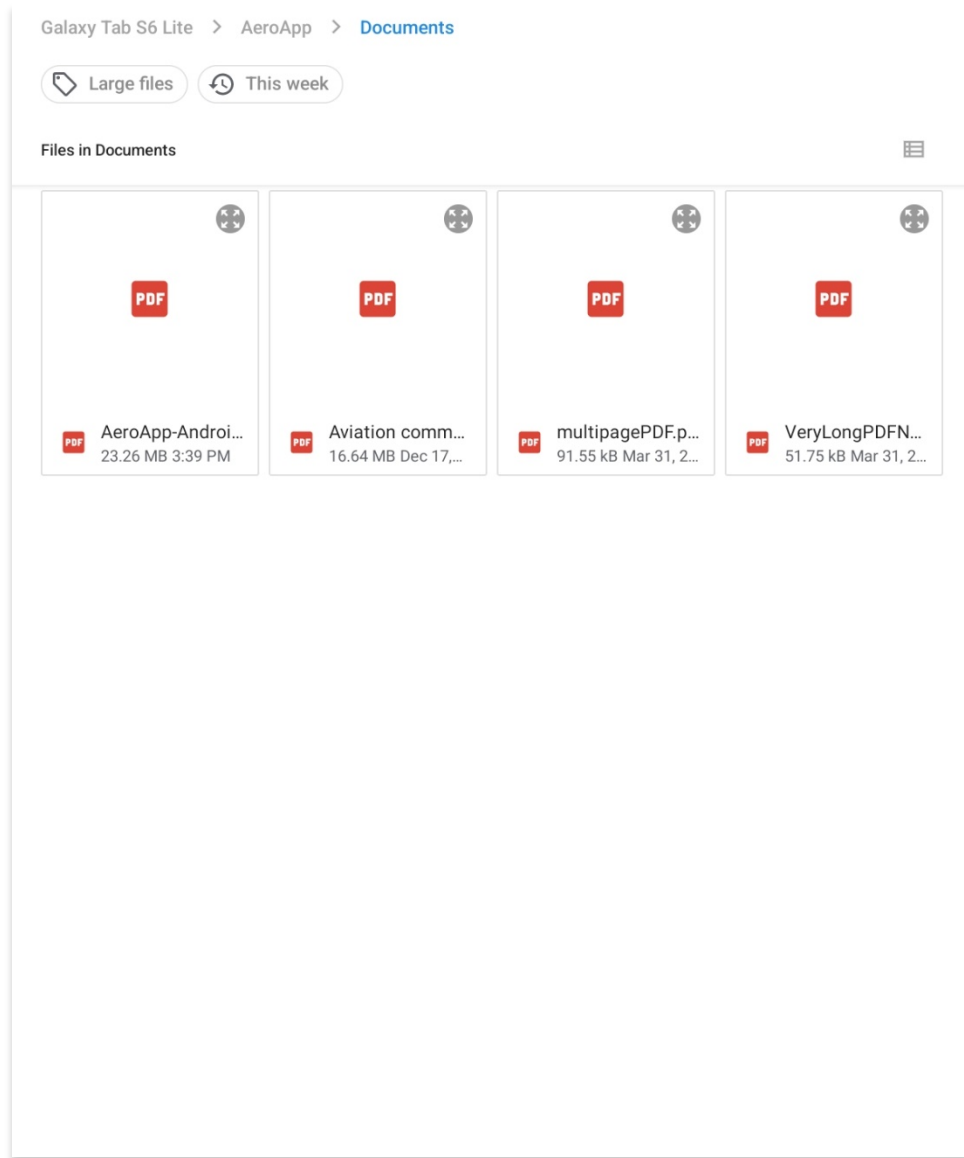


7. Navigate to the folder containing the documents (**PDF**) you wish to sideload onto Aero App.
8. Drag and drop desired documents (**PDF**) from your PC into the Documents folder.



Verify that the sideload was successful. The steps in achieving this are as follows:

9. Open **Aero App**.
10. Tap **General** on the **Main Menu**.
11. Tap **Docs** from the *General* options.
12. Tap on the **ribbon**. The system file picker will display. A successful sideload will display the PDF file(s) under the Documents section.



11 Updating Aero App Data

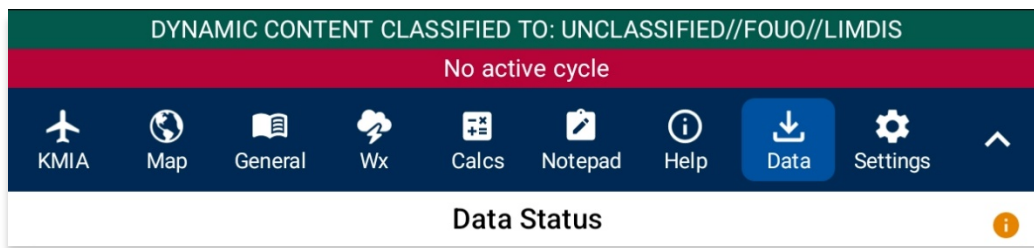
Aero App Data updates are released periodically. Users can load and manage up to two data cycles at a time. Aero App data cycle releases every 28 days, thereby users will need to download the latest data cycle, respectively.

11.1 Data Notifications

Aero App provides data notifications to identify the status of the data cycle loaded on your device. The notifications inform users that there is no active cycle loaded, or if the active data cycle is not current.

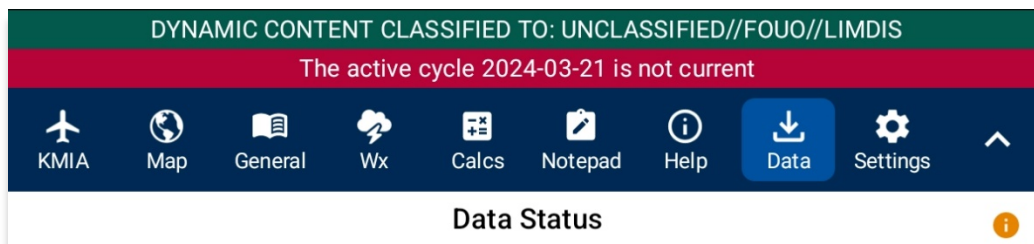
No active cycle

Aero App displays airport information, FLIP charts and other data for the Active Cycle. If no Active Cycle is selected, Aero App will display the following notification. If there is data in the Standby Cycle, then tap the **Swap** button on the Data Status screen to move the data to the Active Cycle. If there is no data in either cycle, then data must be downloaded or sideloaded.



Active cycle is not current

Aero App will show data notification if the Active Cycle is not current. In this configuration, a red banner will be displayed to alert users when the data in the Active Cycle is not up to date. It is recommended to always keep the Active Cycle current.



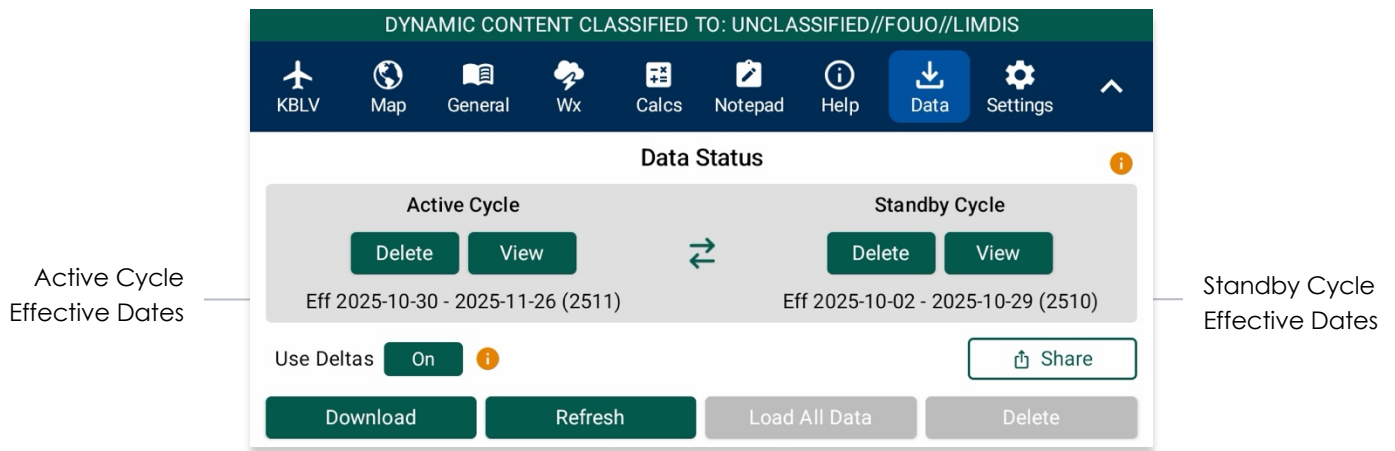
12 Manage Data

The Data Status page allows users to monitor the status of cycle data, download new data, or share data among their crew members. Users can easily add or remove any unwanted or outdated data.

12.1 Data Status

The Data Status page enables users to access information about the loaded data cycle stored in Aero App. Users can download or delete cycles, view effective dates, swap cycles, and activate or move downloaded data on standby. Additionally, users have the option to share data with their team members.

1. Tap **Data** on the **Main Menu**. The *Data Status* screen will display.
2. The effective cycle dates of the Active Cycle are displayed on the left, and the Standby Cycle are displayed on the right. From this screen, you can also download new data when they become available.

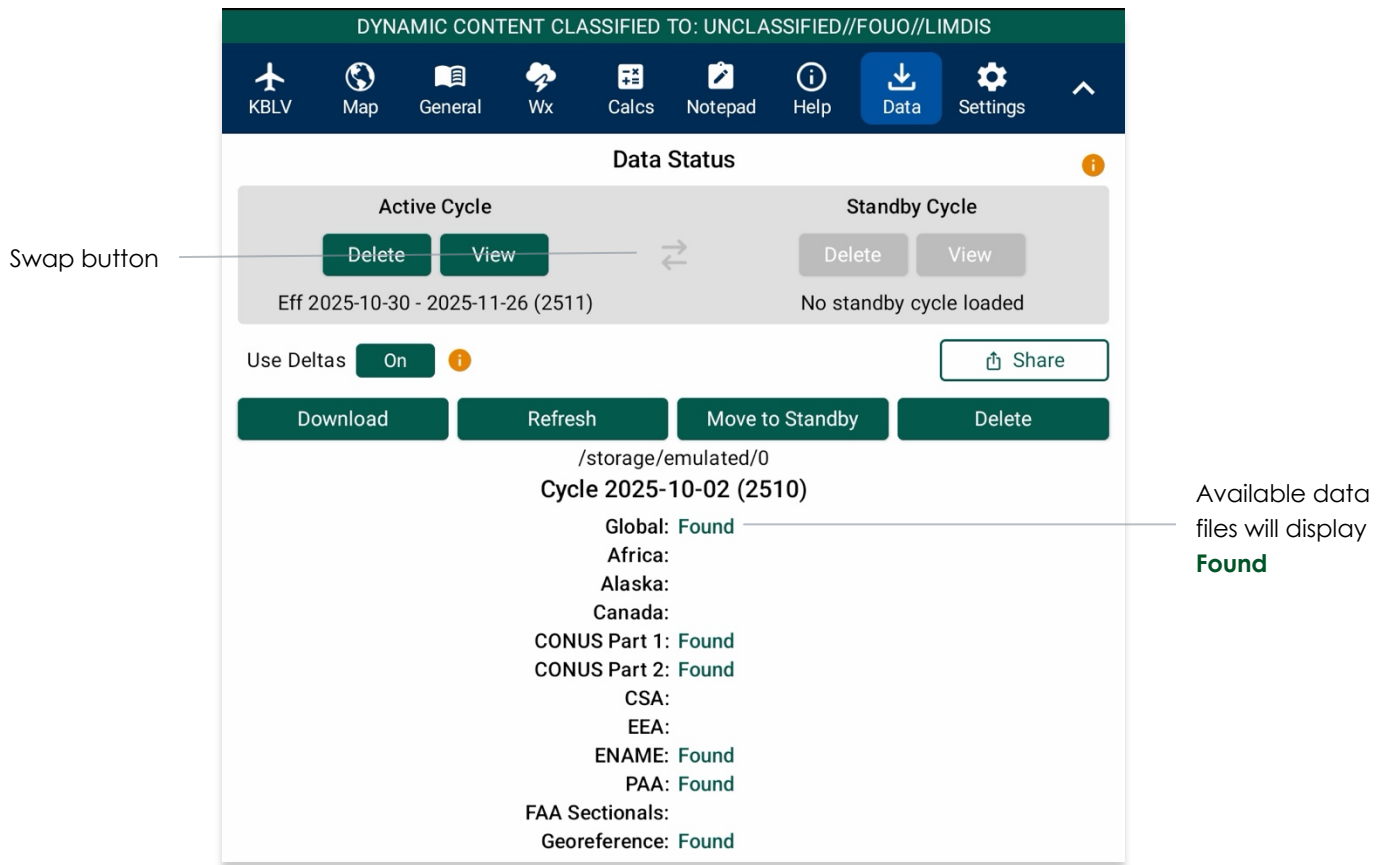


NOTE: Core data files are current for 28 days after the effective date.

12.2 Manage Data Downloads

Users can load and manage two data cycles, which are stored in Active Cycle and Standby Cycle. Any sideloaded or downloaded data will only become available once it's activated by moving the data onto Active Cycle.

1. Tap **Data** on the **Main Menu**. The Data Status screen will display.
2. Tap **Download** to select data that you wish to have in the device. Refer to [Section 9](#) for additional information. A successful download will display **Found** beside the respective region and chart types.

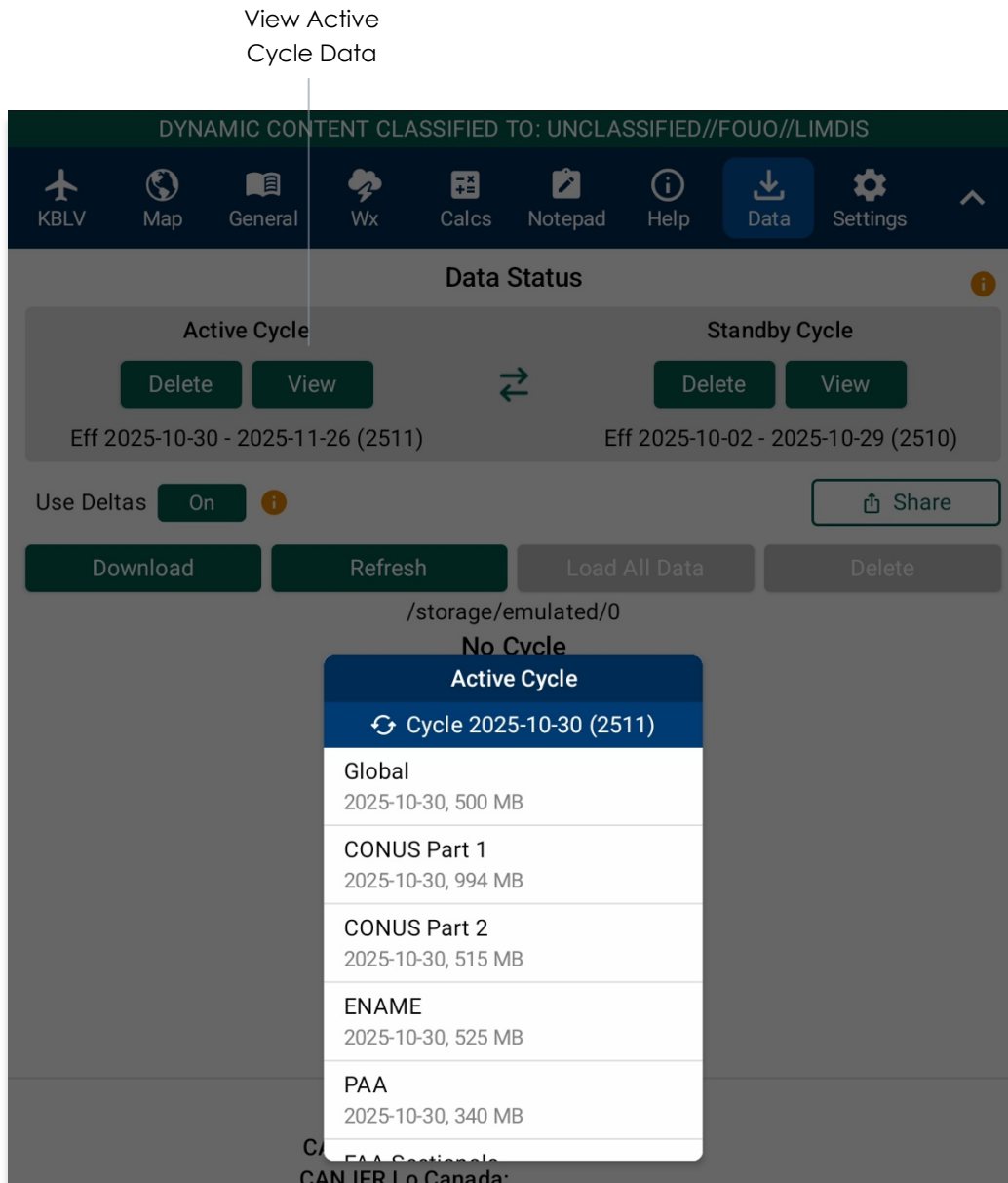


3. Tap **Move to Standby** to transfer the data to Standby Cycle.
4. Tap the **Swap button** to switch the data loaded on Standby Cycle to Active Cycle. Your data should be activated.



NOTE: When a new cycle is loaded in Active Cycle, the What's New page will pop up and display relevant information about new features, app enhancements, and important updates, respective to the loaded active cycle.

5. If maps are downloaded separately, tap **Load Maps** to move data to Active Cycle.
6. Tap **Refresh** to reload the page.
7. Tap **View** to display the list of available files stored in Active Cycle or Standby Cycle.
8. Tap **Delete** to permanently delete the files stored in Active Cycle or Standby Cycle.
9. The delete confirmation popup will be displayed. Tap **Delete** to confirm action.



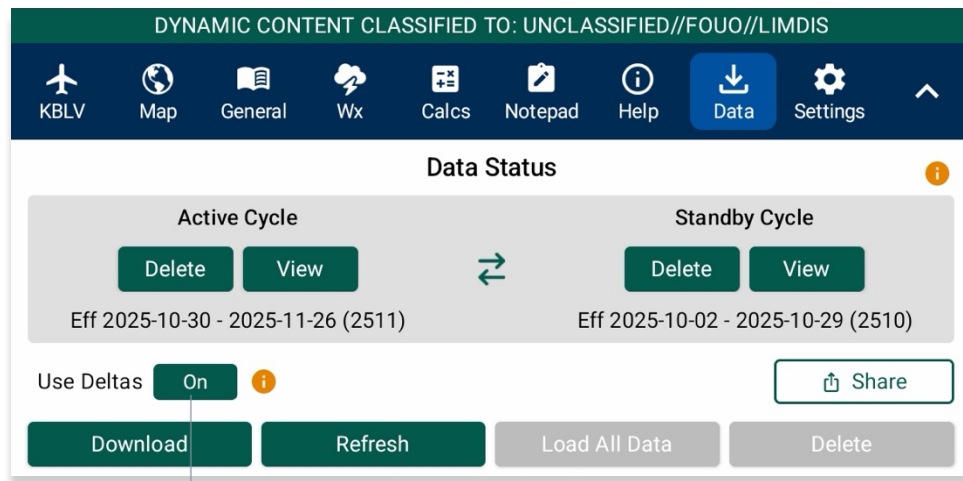
12.3 Delta Files

Delta files in Aero App are smaller, incremental updates that include only the changes made to core data between cycles. This allows for more efficient downloads, as only the updates are downloaded instead of the entire data set.

Use Deltas

To access data updates between cycles, ensure the Use Deltas option is *enabled* when downloading core data files. Once enabled, Aero App will automatically retrieve the relevant delta files based on the previous cycle. Note that the previous cycle must be loaded in Active or Standby Cycle before downloading delta files. Additionally, ensure the **Global** file is included in your download, as it is required for applying the delta files correctly.

1. Tap **Data** on the **Main Menu**.
2. Tap **Use Deltas** to enable the option.
3. Tap **Download**.



Use Deltas enabled

- Log in to AWS using Aero User Database (AUD) or GEOAxis credentials, set up your device with Mobile Device Management (MDM), or select Aero Data Server.

DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS

Done Data Sources

AWS Aero Data Server File Manager ⓘ

AWS - Fast Cloud Downloading

Aero User Database GEOAxis MDM

Username

Password

Connect

The Aero User Database is used for user authentication and is not related to GEOAxis. Therefore, the user name and password may be different to your GEOAxis credentials. CAC access is not required.

- Users will be redirected to the Data Cycle Download screen. Users are provided with options to download Cycles or Map Library. Select **Cycles**.

DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS

Done Data Sources

AWS Aero Data Server File Manager ⓘ

Back **AWS (United States)**

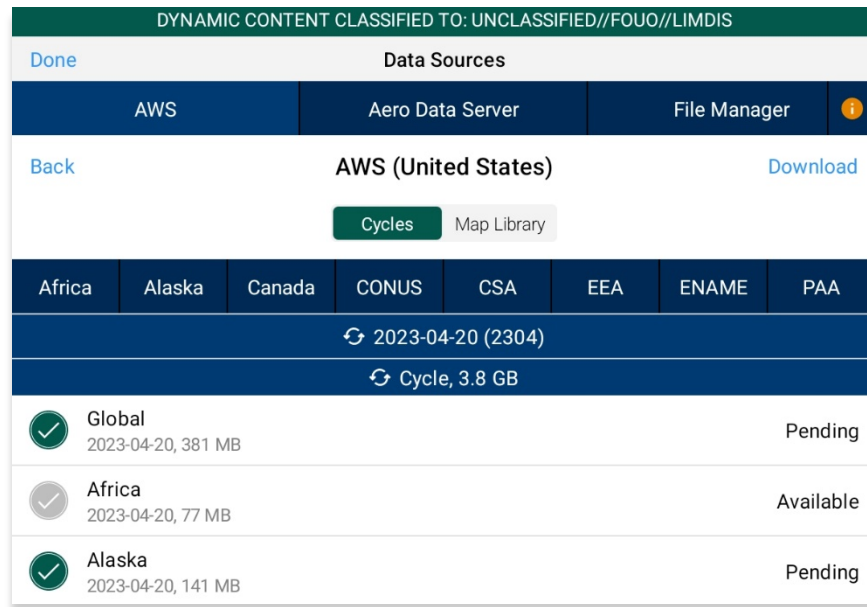
Cycles Map Library

↻ Cycles

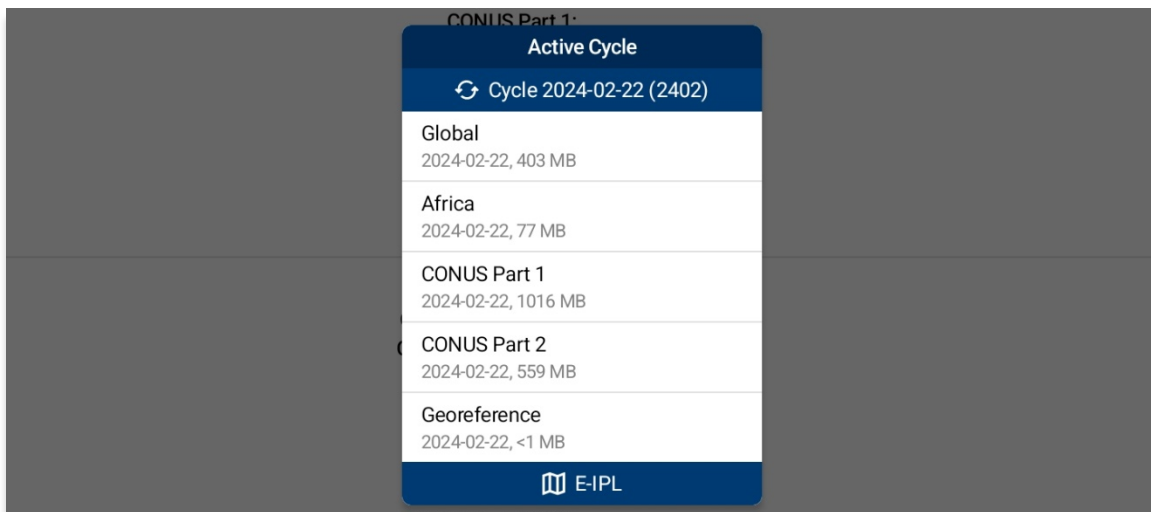
2023-04-20 (2304)	>
2023-03-23 (2303)	>
2023-02-23 (2302)	>

- Available data pertaining to that cycle will be displayed. Select individual data files or select regional Easy Buttons for faster data selection.
- After selecting the desired data files, tap **Download**. The download speed and time remaining is displayed in the bottom-left corner of the Data Download page.

8. Tap **Done** once download is complete.



9. On the Data Status screen, tap **Move to Standby** and an Applying Deltas popup will appear.
10. Tap the **Swap** button to load data onto Active Cycle, which activates the current data.
11. Tap **View** to verify the data in Active Cycle.



NOTE: A warning will appear if users try to tap Move to Standby while delta files are downloaded on the Data Status page and Use Deltas is disabled.

Download Compatible Files

To upload files to ADS, a complete data cycle (without Deltas) is required. If the Use Deltas option was enabled during data download, then the user will be prompted with a warning to download a complete cycle, as this data sharing method does not support core data deltas. Therefore, ensure the Use Deltas option is *disabled* before sharing files.

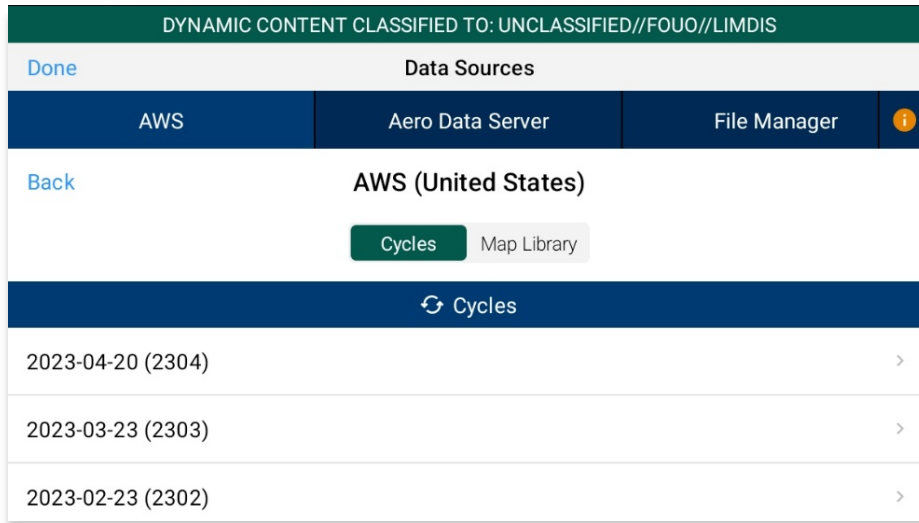
1. Tap **Data** on the **Main Menu**.
2. Ensure that the *Use Deltas* option is disabled. Disable Use Deltas, if necessary.
3. Tap **Download**.

The screenshot shows the 'Data Status' screen. At the top, a green bar indicates 'DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS'. Below this is a navigation bar with icons for KBLV, Map, General, Wx, Calcs, Notepad, Help, Data (highlighted in blue), Settings, and an upward arrow. The main content area is titled 'Data Status' and features two sections: 'Active Cycle' and 'Standby Cycle'. The 'Active Cycle' section shows 'Delete' and 'View' buttons, with a date range 'Eff 2025-10-30 - 2025-11-26 (2511)'. The 'Standby Cycle' section also shows 'Delete' and 'View' buttons, with a date range 'Eff 2025-10-02 - 2025-10-29 (2510)'. A double-headed arrow connects the two cycles. Below these sections, there is a 'Use Deltas' toggle set to 'Off' and a 'Share' button. At the bottom, there are four buttons: 'Download' (highlighted in green), 'Refresh', 'Load All Data', and 'Delete'.

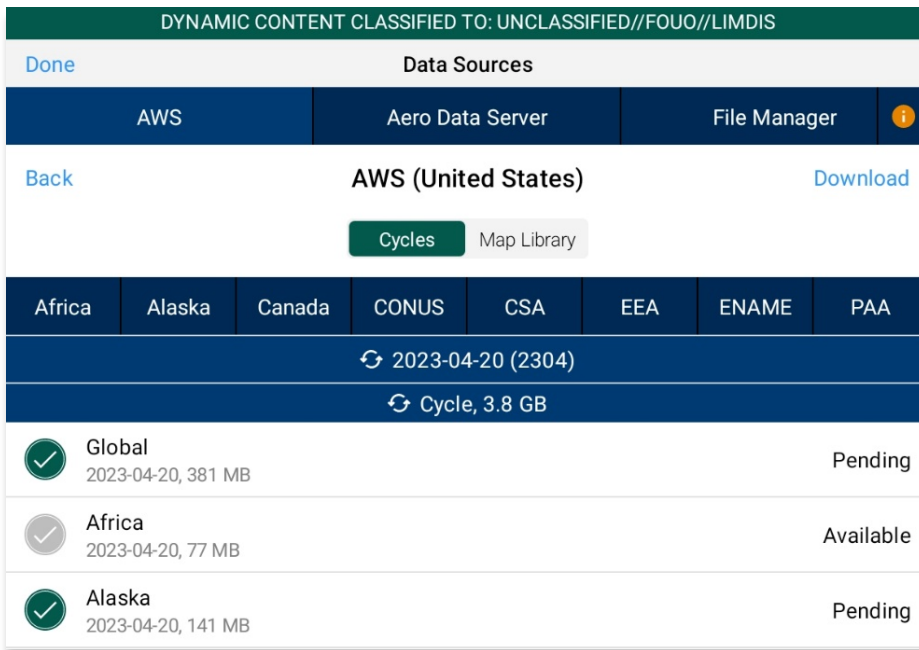
4. Log in to AWS using Aero User Database (AUD) or GEOAxis credentials, set up your device with Mobile Device Management (MDM), or select Aero Data Server.

The screenshot shows the 'AWS - Fast Cloud Downloading' screen. At the top, a green bar indicates 'DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS'. Below this is a 'Done' button and a 'Data Sources' section with three tabs: 'AWS' (highlighted in blue), 'Aero Data Server', and 'File Manager'. The main content area is titled 'AWS - Fast Cloud Downloading' and features three tabs: 'Aero User Database' (highlighted in green), 'GEOAxis', and 'MDM'. Below these tabs are two input fields: 'Username' and 'Password'. At the bottom, there is a 'Connect' button.

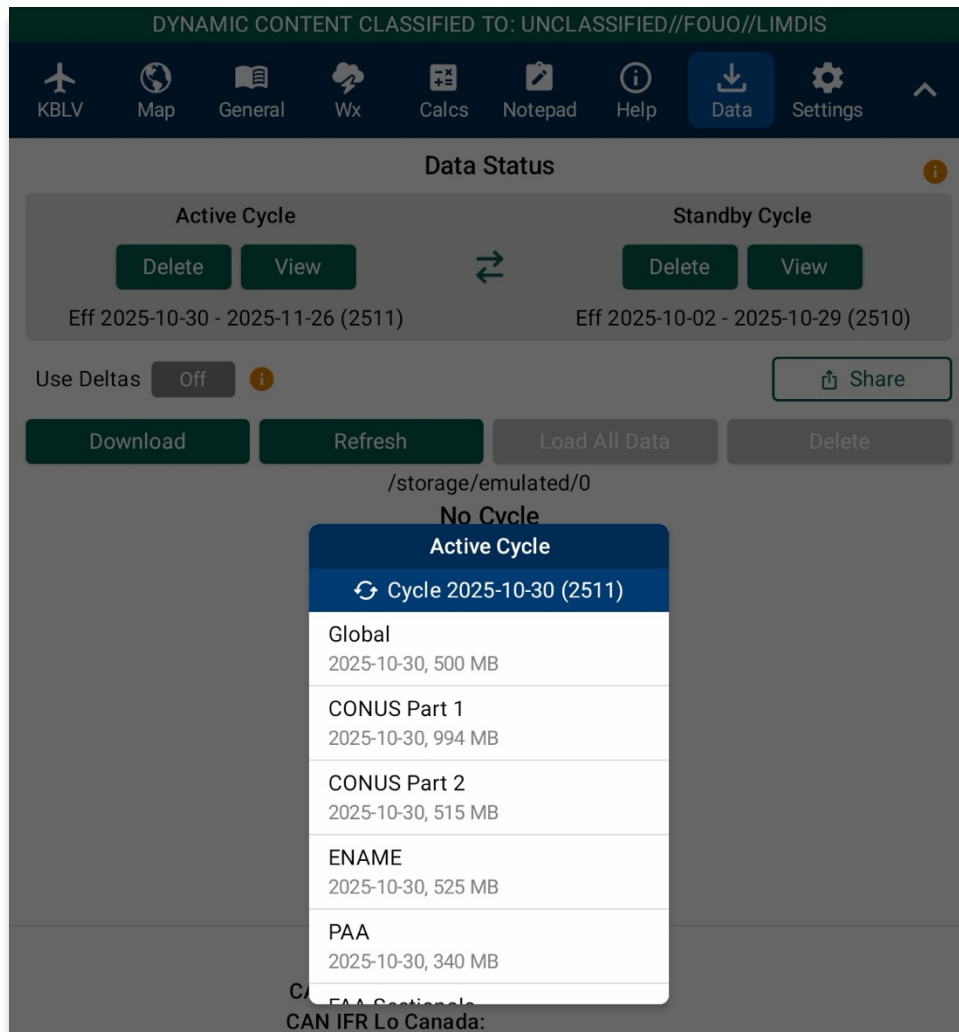
- Users will be redirected to the Data Cycle Download screen. Users are provided with options to download Cycles or Map Library. Select **Cycles**.



- Available data pertaining to that cycle will be displayed. Select individual data files or select regional Easy Buttons for faster data selection.
- After selecting the desired data files, tap **Download**. The download speed and time remaining is displayed in the bottom-left corner of the Data Download page.
- Tap **Done** once download is complete.



9. On the Data Status screen, tap **Move to Standby**.
10. Tap the **Swap** button to load data into Active Cycle, which activates the current data.
11. Tap **View** to verify the data in Active Cycle.

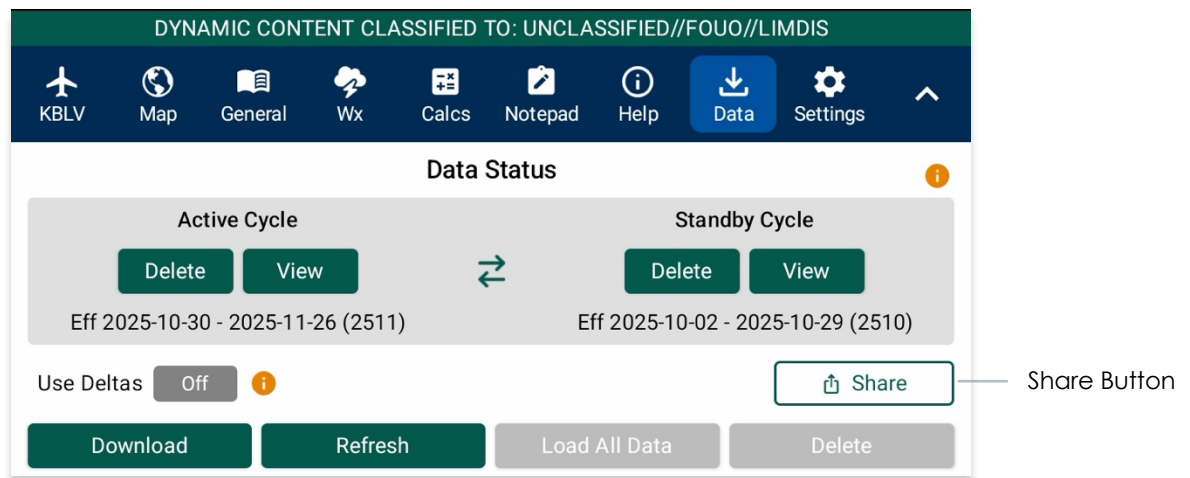


NOTE: A warning will appear if users attempt to tap on **Move to Standby** when there is delta files downloaded on the Data Status page and Use Deltas is disabled.

12.4 Upload Data to ADS

Aero App allows users to share Data Cycles, Maps, and other files such as Earth Base Map, Giant Reports, and Terrain data by uploading them to ADS. Once the data is uploaded, team members can download and apply data directly to their own devices. Ensure that the Use Deltas option is *disabled* before uploading, as delta files are not supported for sharing. Before uploading data, make sure ADS is properly set up. The following steps will guide you through the setup process.

1. Log in to ADS on your PC.
2. Select **Settings** on the navigation bar.
3. Navigate to the *Aero App Upload* section. Select a window of time (15 minutes, 30 minutes, or 1 hour) to allow data uploads to ADS.
4. Open **Aero App** on your Android tablet.
5. Tap **Data** on the **Main Menu**.
6. Tap the **Share** button. The Data Sharing screen will display.



NOTE: The data displayed on the Data Sharing page corresponds to the downloaded data on your device.

7. Select from **Active** or **Standby** cycle to share data.

DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS

DoneData Sharing

Active: 2023-10-05 (2310)Standby: 2023-09-07 (2309)

8. Select desired **Regions** to share.

Regions:Select AllClear

Africa
612 MB

Alaska
339 MB

CNA
549 MB

CONUS
3.4 GB

CSA
549 MB

EEA
339 MB

ENAME
549 MB

PAA
339 MB

9. Select desired **data types**.

Data Types:Select AllClear

Core Data*
402 MB

FAA Sectionals
792 MB

E-IPL

IFR Low Maps
210 MB

IFR High Maps
210 MB

VFR Maps

10. Select desired **additional files** to share.

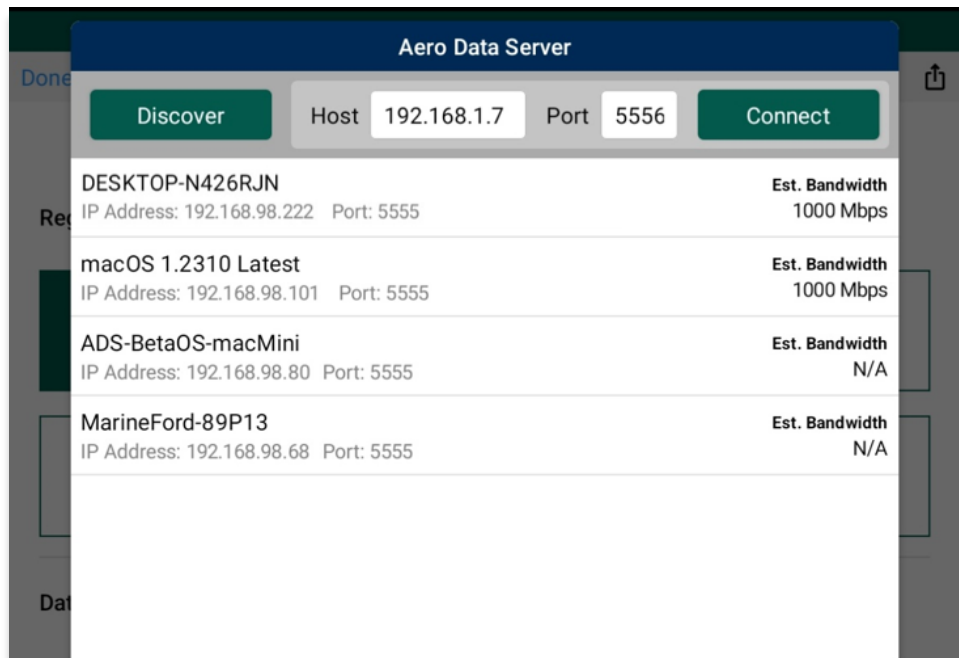
Other:Select AllClear

Earth Base Map
263 MB

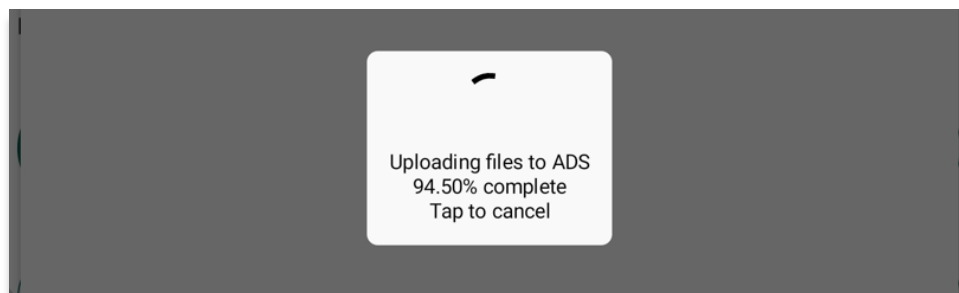
Giant Reports
455 MB

Terrain
234 MB

11. Once all the required files are selected, the Share icon will be selectable. Tap **Share**.
12. The Aero Data Server popup will be displayed. Select the desired server or manually enter the server IP address and Port number to connect.



13. The data selected will begin to be uploaded onto ADS.



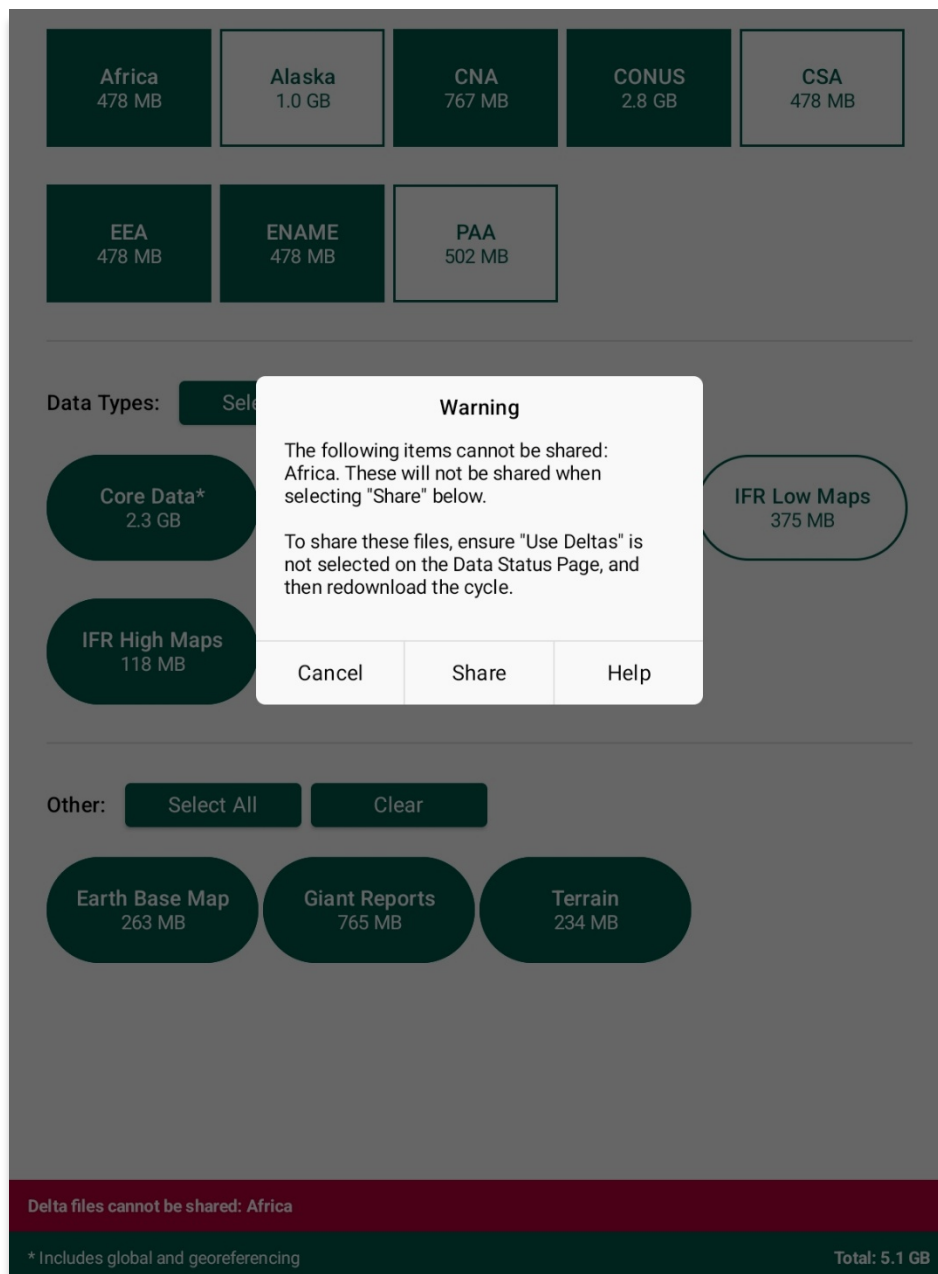
NOTE: Users can tap **Select All** to highlight all files or tap **Clear** to deselect all selected files.



NOTE: **Core Data*** includes the Global and Georeference files.

Sharing Incompatible Files

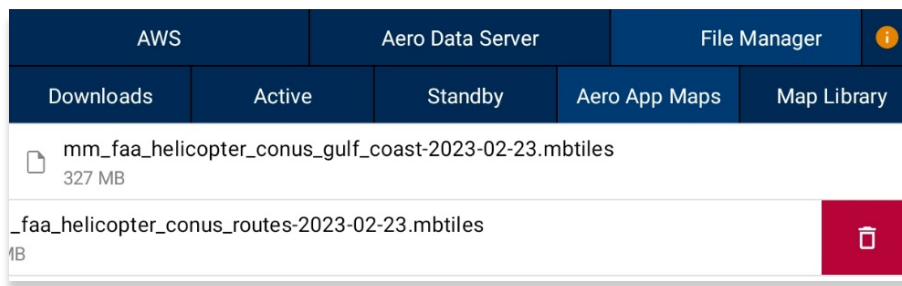
Attempting to share incompatible files such as Delta files will result in a warning being displayed. When users select files containing Delta files, a red banner will appear at the bottom of the Data Sharing screen listing the Delta files which cannot be shared. If users proceed to share files, a warning message will appear where they can select from Help, Share, or Cancel. Selecting Help displays Contextual Help. Selecting Share will only share the compatible files and exclude delta files.



12.5 File Manager

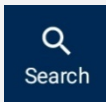
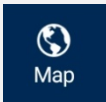
The File Manager is responsible for storing, managing, and modifying files that have been downloaded and loaded onto Aero App.

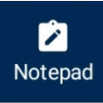
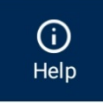
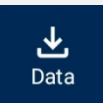
1. Tap **Data** on the **Main Menu**.
2. Tap **Download**.
3. Tap **File Manager**.
4. File Manager contains tabs for different data types. To view data and files stored within Aero App, select a data type. The following data types are available:
 - **Downloads** – stores data files that are in queue to be loaded onto Active or Standby Cycle.
 - **Active** – stores cycle data and regional files loaded on Active Cycle.
 - **Standby** – stores cycle data and regional files loaded on Standby Cycle.
 - **Aero App Maps** – contains a collection of downloaded regional charts such as Canada, FAA and NGA IFR high and low charts, as well as FAA VFR charts of the respective region.
 - **Map Library** – includes a library of downloaded charts such as maps for emergencies, NavPlan charts, range charts, and others.
 - **Documents** – stores a collection of user-generated files such pins, waypoints, KML/KMZ, GeoPackages, GeoJSON, Shapefile, and PDF documents.
 - **Other** – contains Earth Base Map, Giant Reports, and Terrain Coloring data downloads.
 - **Host Nation** – contains Host Nation chart downloads, sorted by download date with the most recent chart displayed at the top.
5. Swipe left to reveal the delete button for the files that you wish to permanently remove from Aero App. Tap **Delete**.
6. The delete confirmation popup for File Manager will be displayed. Tap **Delete** to confirm action. The file will be removed from the list.



13 Aero App Menus

The Main Menu is utilized to display the main functions of Aero App and is located either on the top or bottom of the screen (user-configurable).

	<p>Collapsible Route Panel – The Route Panel can expand or collapse, based on the user's view preference. Users have options to add to route, edit route, and access additional route enhancement features in the Route Manager. The Route Panel contains essential route information, such as the ETA and ETE, distance and bearing, tower frequencies, and the total distance of your route.</p>
	<p>Search – Users can perform a search of different identifiers such as Airports, NavAids, Waypoints, Airways, User Waypoints, and Pins. A search can be refined by setting a minimum runway length, which can be done through the Settings page. Additionally, features such as adding identifier to favorites and viewing Giant Reports of the searched identifier are available.</p>
	<p>Active Point – Once the search is completed, the identifier will become an active point. The active point will show its General Information such as Giant Reports and Chart Supplements, AQP images (if applicable), Communications, Runways, and Remarks. Additional information such as APD, procedure charts, Host Nation charts, weather, and others can be viewed. To load a new active point, simply tap on the search icon and enter a desired point, then tap Search on your device's on-screen keyboard. The new identifier will load as the new active point.</p>
	<p>Map – Aero App's Map makes use of Whirly Globe technology, which provides various settings and overlays to customize its display. Charts such as VFR sectionals, High and Low Enroutes, and many more are available.</p>
	<p>General – Contains a library of FAA data, FLIP Charts, Supplements, Area Planning, User Documents, and Terminal Procedure Legend.</p>
	<p>Wx provides menus for DD 175-1 Briefings and Wx Images. DD 175-1 Briefings allow users to download and view weather briefings directly to Aero App. Wx images allow users to access real-time weather images, including RADAR, Satellite, Icing, Weather Forecast, AIRMETs and SIGMETs, Prog Charts, Convective SIGMETs and Outlooks, Current Convective Watches, and Alaska.</p>
	<p>Calcs – Contains E6B and Fuel Check features. The E6B calculator is used to perform a variety of navigation calculations for Altitude, Cold Wx, Conversions, Coordinates, Descent, Distance, IFR Climb, Rwy Winds, and Winds Aloft. Fuel Check measures the fuel burn usage of the ownship.</p>

 Notepad	Notepad – Users can create up to three pages of notes using their fingertips or a stylus.
 Help	Help – A hub for Aero App information containing options to view the What's New, Web Links, link to User Manual, and the About page.
 Data	Data – Users can download, share, manage, and monitor the status and file sizes of the loaded data.
 Settings	Settings – Allows users to customize the appearance and behavior of Aero App. Various setting options include Bluetooth, Data, Miscellaneous, Reset, Route, and User Interface.

14 Route Panel

The collapsible Route Panel can be expanded to display the full view of the Route Panel or be hidden to display the full view of a specific Aero App page. The bottom of the Route Panel view displays the following options:

- **Add** – enables users to add identifiers such as Airports, NavAids, Waypoints, User Waypoints, Airways, MTRs, Pins, enter a full route, or add coordinates in latitude and longitude, MGRS, GARS, or Radial format.
- **Edit** – enables users to delete and/or reorder entries within the route.
- **Route Manager** – enables users to perform actions pertaining to the route or display additional features on the map.

When points are added to the route, each point in the Route Panel will contain essential route information such as the identifier name, ETA/ETE, and distance and bearing. Aero App calculates the total distance of your route, which is displayed above the Route Panel options.

14.1 Add

The Add to Route feature allows users to create a route by adding Airports, NavAids, Waypoints, Airways, User Waypoints, Pins, MTRs, a full route, or enter coordinates in latitude and longitude, MGRS, GARS, or Radial format. Users can filter airports by setting a minimum runway length in their Settings.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap the **Add** button located at the bottom left of the Route Panel. The Add popup will display.
3. Search by entering an identifier, search term, or a full route. You can also enter coordinates in Lat/Lon, MGRS, GARS, or Radial format in the text box.

4. Tap **Search** from the device's on-screen keyboard and the entries will be added to the route. All entries are displayed on the Route Panel in the order that they are entered.

Add

KMIA WINCO CHRRI LAL OCF HILIS KJAX

KMIA KSEA KJAX EFKY SCLB

Airports
Minimum Runway Length ≥ 8,000'

ICAO	Name	nm	Brg	Max Rwy
------	------	----	-----	---------

5. If individual entries are entered, the search results are divided into identifier types. Select from Airports, NavAids, Waypoints, Airways, User Waypoints, or Pins.

Add

LAX

KBLV KDEN KJAX KMIA KSEA

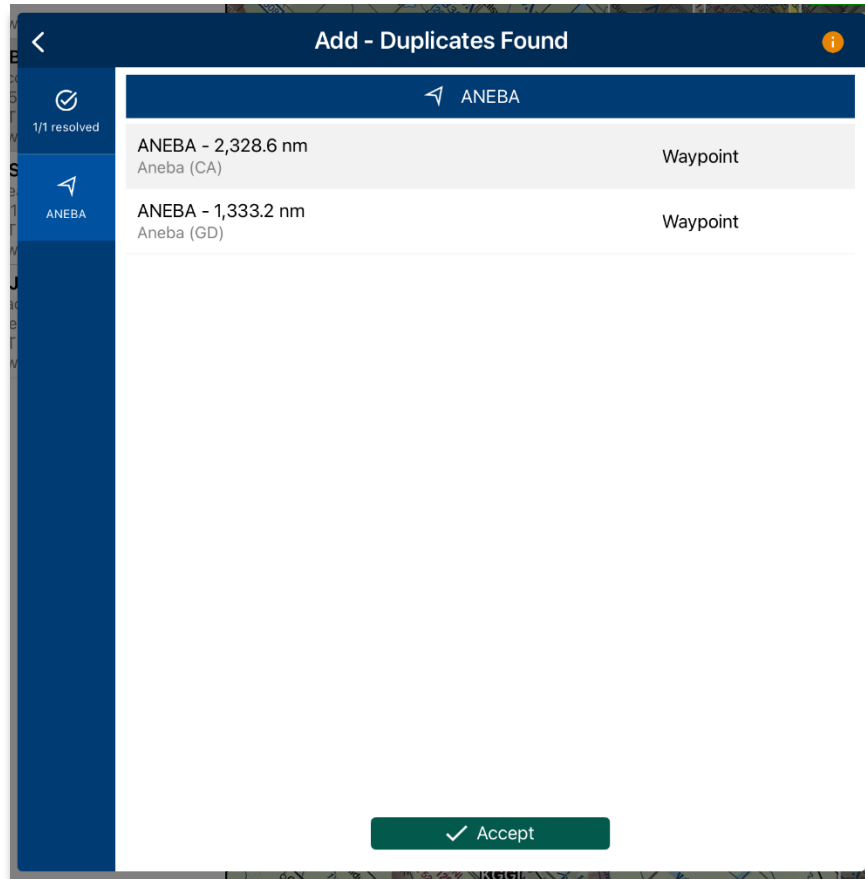
NavAids

ID	Name	NM	Brg	Max Rwy
★ LAX	Los Angeles (US)	2,022.5	93°	---

Identifier Types

- Airports
- NavAids
- Waypoints
- Airways
- User Waypoints
- Pins

6. If duplicate points are found during a search, a popup will appear displaying the list of duplicates. Choose one of the duplicate points to resolve the issue.
7. Select **Accept**.



NOTE: Aero App displays the individual route legs of Departure Procedures (DPs), Standard Terminal Arrival Routes (STARs), MTRs, Airways, and Jetways. Each point includes the identifier name, frequency information (if available), distance, bearing, Estimated Time of Arrival (ETA), and Estimated Time En Route (ETE) to the next point in the route.



NOTE: To enter a route with multiple points, add space between each identifier to separate each point. The points will be displayed in the order given. When adding multiple points to an existing route, they will be added at the end. This only applies when adding multiple points at once.



NOTE: When adding a new point (e.g., Airport, Waypoint, etc.) to an existing route, the new point is automatically added to the route in its geographically optimal position and not simply at the end of the route.

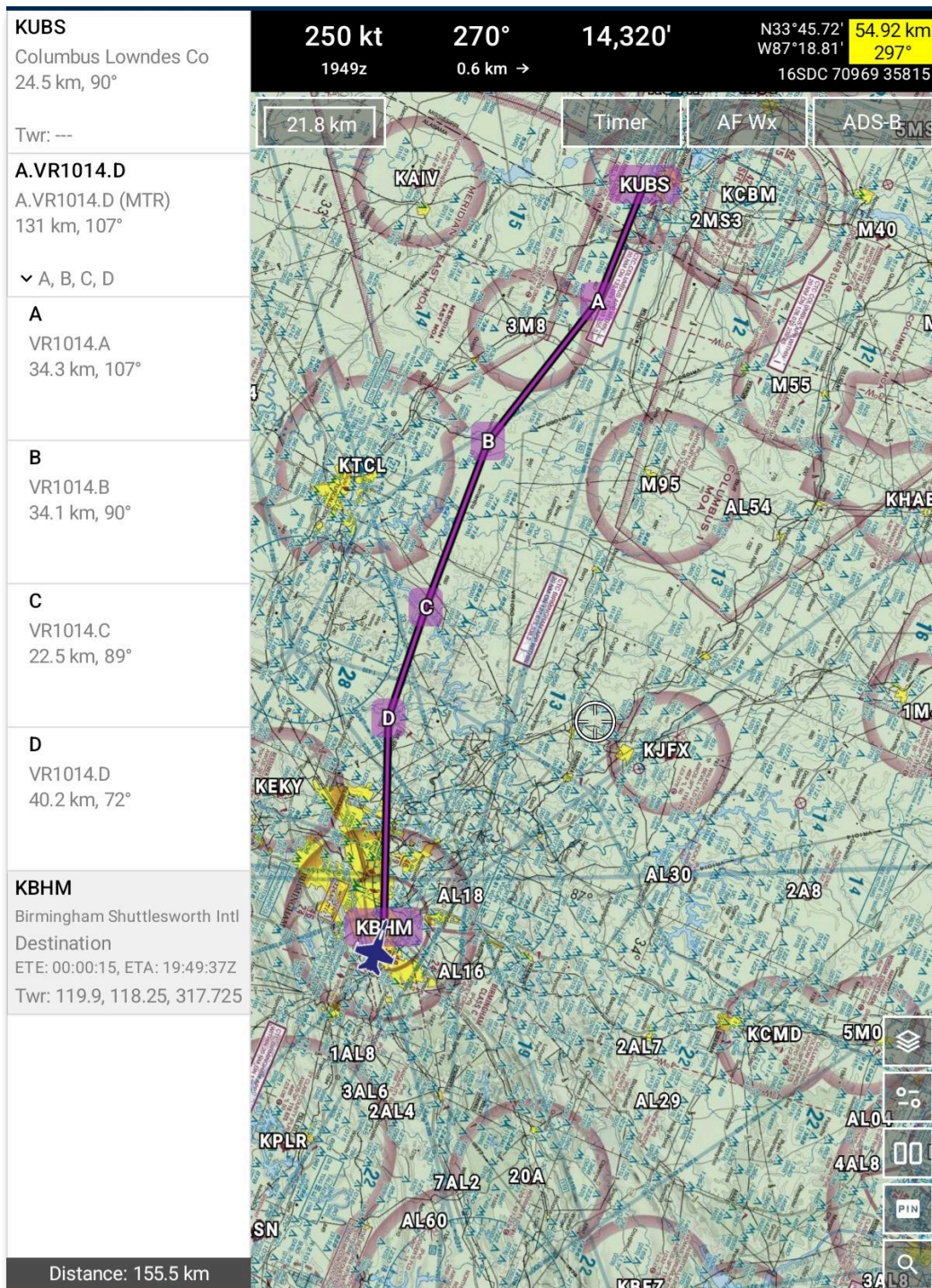
Add Military Training Routes (MTRs) to Route

Users can add Military Training Routes (MTRs) as their current route. Ensure that the entry follows the format of <starting point>.<MTR>.<endpoint>.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap the **Add** button.
3. Use your device's on-screen keyboard to enter desired MTRs following the format: <starting point>.<MTR>.<endpoint> to add to route.

The screenshot displays the 'Add' route interface. At the top, a dark blue header contains the word 'Add' and an information icon. Below the header is a text input field containing 'A.VR1014.D' and a star icon. Underneath the input field is a row of airport codes: KMIA, KSEA, KJAX, EFKY, and SCLB. Below this row is a section titled 'Airports' with a subtitle 'Minimum Runway Length ≥ 8,000''. This section contains a table with the following columns: ICAO, Name, nm, Brg, and Max Rwy. The table is currently empty. On the left side of the screen is a vertical sidebar with icons and labels for 'Airports', 'NavAids', 'Waypoints', 'Airways', 'User Waypoints', and 'Pins'.

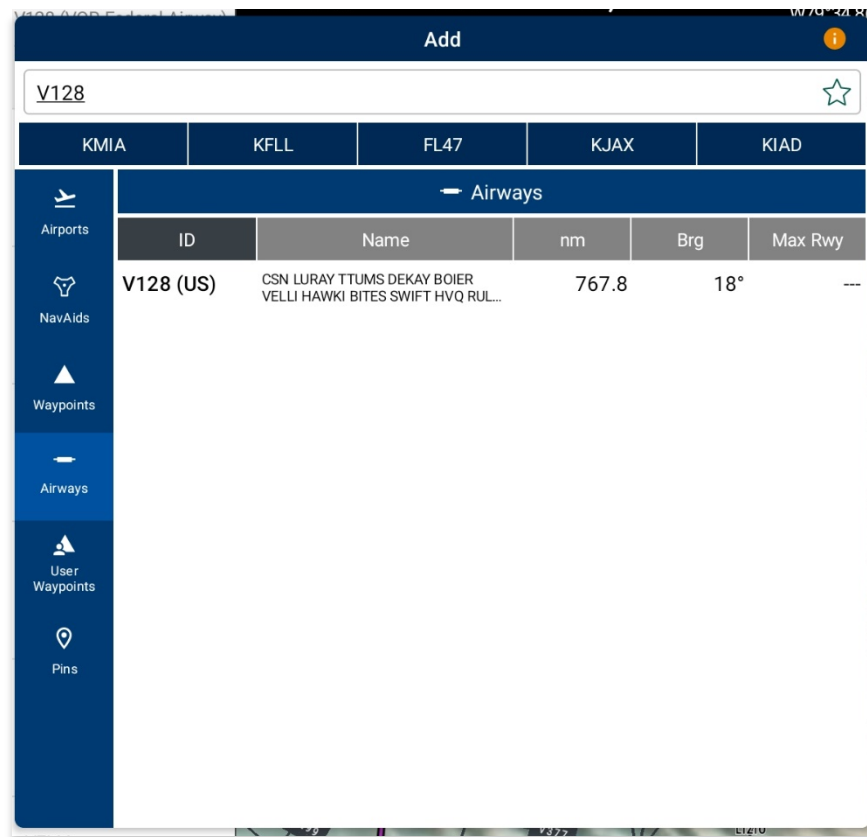
4. The MTR is added to the Route Panel and on the Map.



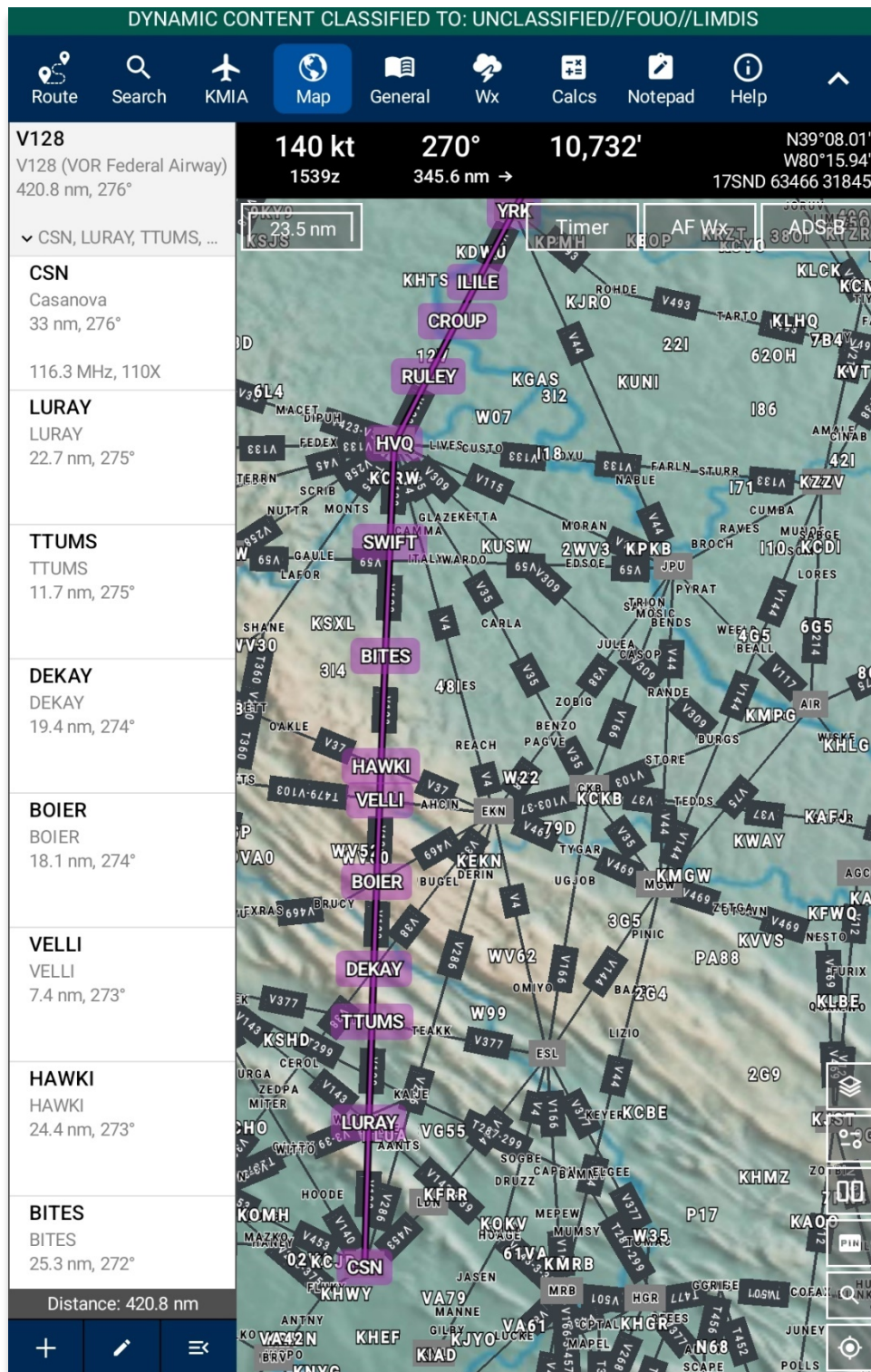
Add Airways to Route

Users can add Airways to the route. There are several types of airways, each prefixed with a letter followed by one to three digits. Enter the desired airway in the search text box and the airway will be added to the route.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap the **Add** button.
3. Choose **Airways** from the identifier types to see results related to airways.
4. Use your device's on-screen keyboard to search and select desired Airways to add to the route.



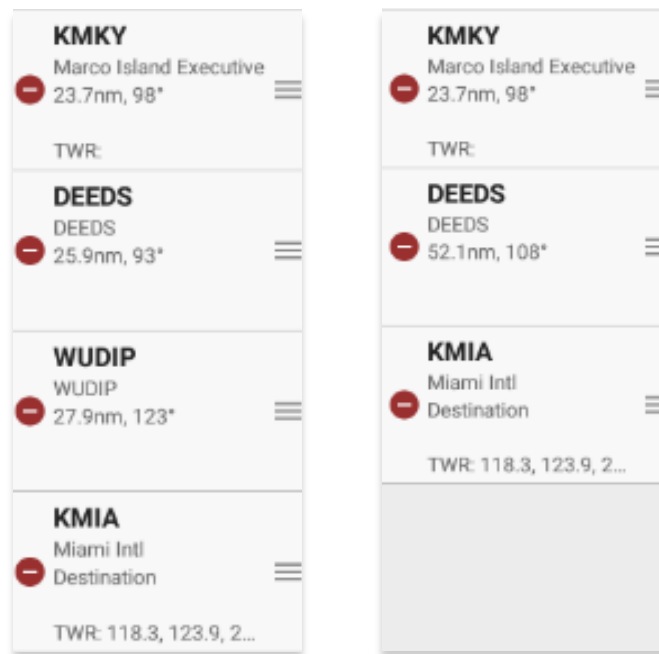
5. The Airway is added to the Route Panel and on the Map.



14.2 Edit

Aero App allows users to edit their flight route directly from the Route Panel. Users can reorder the points to their desired course or permanently delete a point from the route.

1. Tap **Route** on the **Main Menu**.
2. Tap **Edit** located at the bottom center of the Route Panel, to the right of the Add button.
3. Hold the **Hamburger** button next to the identifier that you wish to move.
4. Drag the identifier to the desired position. Repeat steps until satisfied with the new flight route.
5. To delete a point from your flight route, tap the **red delete button** next to the entry you wish to permanently delete. Alternatively, users can swipe left to reveal the delete button of the entry that you wish to permanently remove. Tap **Delete**.



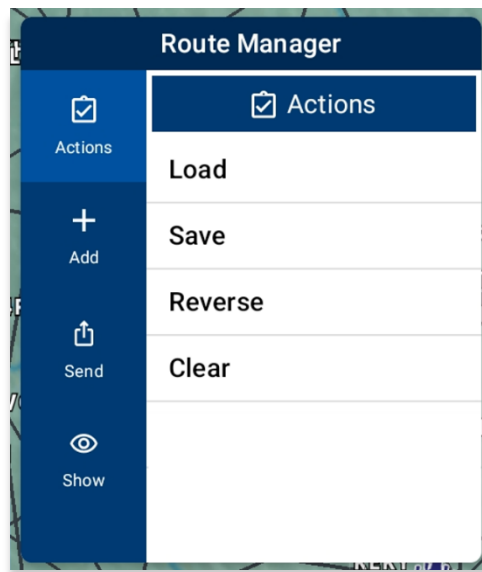
6. The delete confirmation popup for the selected entry will be displayed. Tap **Delete** to confirm action.



NOTE: The confirmation popup when deleting an entry in the Route Panel is enabled by default. Users can disable the Confirm on Delete feature in their Settings, if preferred. Refer to [Section 32.6](#) for additional information.

14.3 Route Manager

The Route Manager provides route enhancement capabilities and is located at the bottom right of the Route Panel view. Route Manager is divided into categories of Actions, Add, Send, and Show.



14.3.1 Actions

The Actions menu offers the following options and will be further discussed in the sections below:

- Load
- Save
- Reverse
- Clear

14.3.1.1 Load Route

The Load feature displays a collection of imported routes including CRD, JSON, and KML/KMZ files, and routes saved directly on Aero App. Selecting a route from the list replaces the initial route with the selected route.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Actions** from the side menu, if necessary.
4. Tap **Load**.
5. Select the route that you wish to load. The selected route will populate the Route Panel and display on the Map.



NOTE: Loading an invalid route in Aero App will trigger an error message.



NOTE: Loading an empty route will result in Aero App clearing your current flight route.



NOTE: Loading a route file that exceeds the 200 KB limit will trigger an error message.

Load a Common Route Definition (CRD) File

Aero App supports CRD files. CRD files must be sideloaded onto Aero App. Refer to [Section 10.4](#) for additional information.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Actions** from the side menu, if necessary.
4. Tap **Load**.
5. Locate and tap the CRD files that were loaded onto Aero App. The selected route will populate the Route Panel and display on the Map.

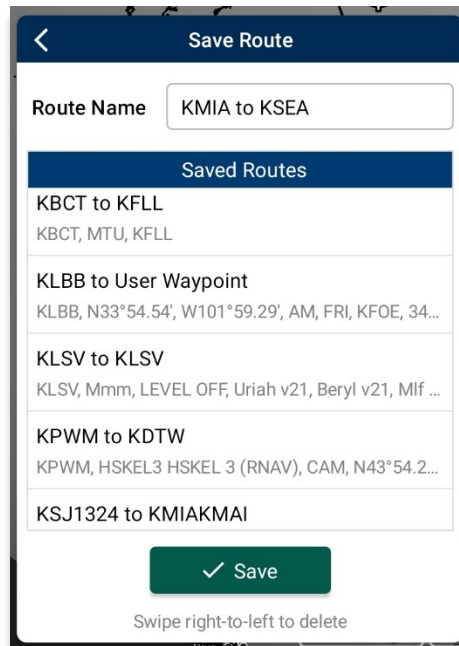


NOTE: Removing a CRD file will result in the deletion of the associated routes.

14.3.1.2 Save Route

Aero App allows users to save routes loaded in the Route Panel for ease of access.

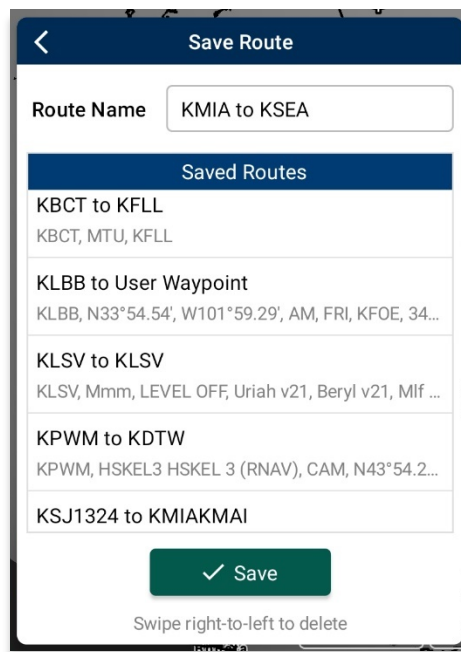
1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Ensure that the route includes a complete route.
3. Tap **Route Manager** located at the bottom right of the Route Panel.
4. Select **Actions** from the side menu, if necessary.
5. Tap **Save**.
6. The Route Name will display a preselected name, with the format of <Departure> to <Arrival>. If necessary, rename the route name to the desired name.
7. Tap **Save**. The route will be saved and be added to the *Load Route* table.



NOTE: When entering a new route name, the name should only contain alphanumeric (lower and upper case) characters, spaces and hyphens.

Save a CRD File

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Actions** from the side menu, if necessary.
4. Tap **Save**.
5. Tap in the *Route Name* text box and change the route's name to desired name.
6. Once the CRD file has been renamed, tap **Save**. The changes will be added to the Saved Routes list.



14.3.1.3 Reverse Route

The Reverse option changes the order of the points in a route to the opposite sequence.

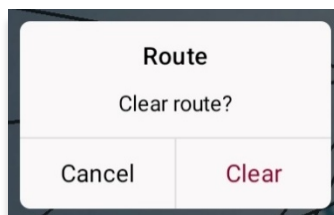
1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Actions** from the side menu, if necessary.
4. Tap **Reverse**. The entire route is reversed.

KMIA Miami Intl 52.1nm, 289° TWR: 118.3, 123.9, 256.9	KMKY Marco Island Executive 23.7nm, 98° TWR:
DEEDS DEEDS 23.7nm, 279°	DEEDS DEEDS 52.1nm, 108°
KMKY Marco Island Executive Destination TWR:	KMIA Miami Intl Destination TWR: 118.3, 123.9, 256.9

14.3.1.4 Clear Route

The Clear option deletes the entire flight route from the Route Panel.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Actions** from the side menu, if necessary.
4. Tap **Clear**.
5. A confirmation popup will appear. Tap **Clear** to confirm action.

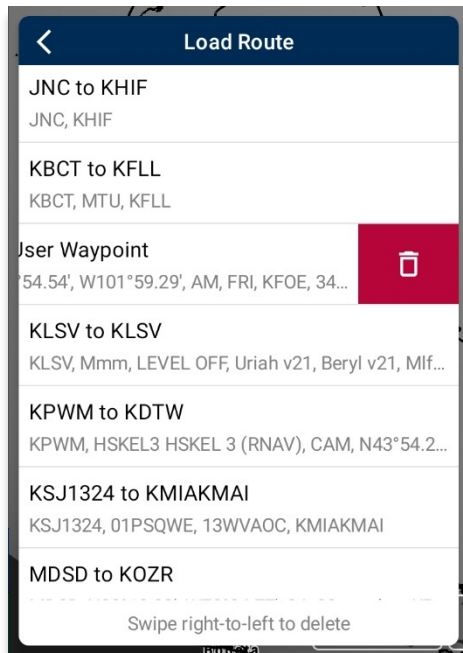
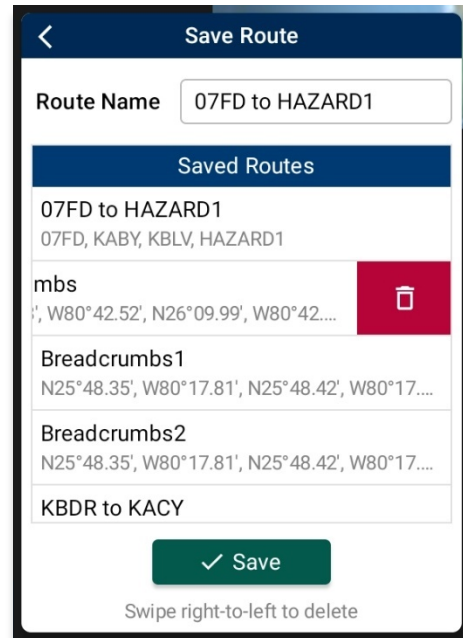


NOTE: Clearing a route clears the current route. It does not delete any saved routes.

14.3.1.5 Delete Imported and Saved Routes

Users can delete routes listed in the Load and Save Route views.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Actions** from the side menu, if necessary.
4. Tap the options **Load** or **Save**.
5. To delete a file, from the *Load Route* or *Save Route* view, swipe left to reveal the delete button of the file that you choose to permanently remove. Tap **Delete**.
6. The delete confirmation popup will be displayed. Tap **Delete** to confirm action.



14.3.2 Add

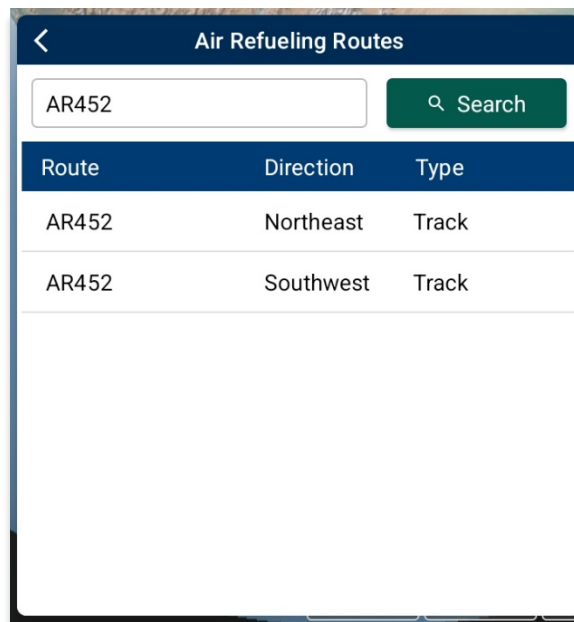
The Add menu offers the following features and will be further elaborated in the sections below:

- Air Refueling Route
- Preferred Route
- Search and Rescue (SAR)

14.3.2.1 Add Air Refueling Route

Air Refueling Route can be added to your flight route. If an existing route is loaded in the Route Panel, Aero App will add the air refueling route to its optimal position on the route.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Add** from the side menu.
4. Tap **Air Refueling Route**.
5. An Air Refueling Route popup will be displayed. In the text field, enter an air refueling route. After three characters are entered, possible matches will be listed.
6. Tap **Search** once desired route is entered. Alternatively, users can select a route from the routes that appear under the search box.



7. The points listed displays columns for Usage, Waypoint, NavAid/Radial and Lat/Lon.

AR452 - Northeast			
Usage	Waypoint	NavAid/Radial	Lat/Lon
IP	---	FMG 47 nm, 275.7°	N39°49.00' W120°36.00'
CP	---	REO 49.4 nm, 159...	N41°46.00' W117°50.00'
NC	---	REO 47.4 nm, 80.9°	N42°27.00' W116°49.00'
NC	---	BOI 38.3 nm, 158°	N42°55.00' W116°07.00'
EX	---	BOI 63.2 nm, 61.7°	N43°45.00' W114°46.00'

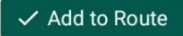
8. Tap on a **row** to select an *entry point*. The row will be shaded gray to indicate a point is selected.
9. Tap on a **row** to select an *exit point*. The points between the selected entry point and exit point will be shaded gray. The shaded points are the points to your air refueling route.



NOTE: To reselect new entries and exit points, tap on a new point. The selected point is entered as a new entry point. Select desired exit point and repeat the steps until satisfied.

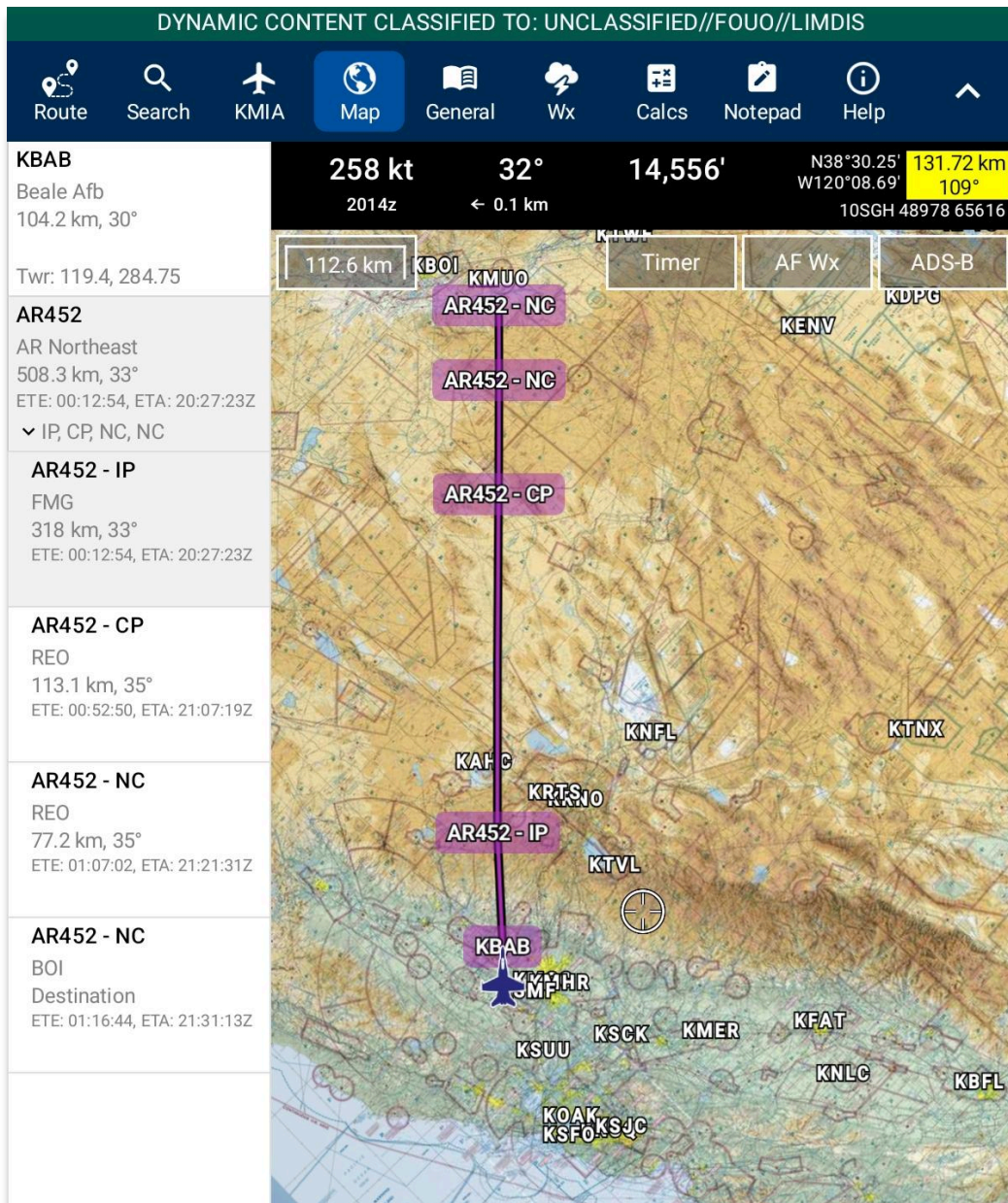
10. Once selections are completed, the Add to Route button will be selectable. Tap **Add to Route**.

AR452 - Northeast			
Usage	Waypoint	NavAid/Radial	Lat/Lon
IP	---	FMG 47 nm, 275.7°	N39°49.00' W120°36.00'
CP	---	REO 49.4 nm, 159...	N41°46.00' W117°50.00'
NC	---	REO 47.4 nm, 80.9°	N42°27.00' W116°49.00'
NC	---	BOI 38.3 nm, 158°	N42°55.00' W116°07.00'
EX	---	BOI 63.2 nm, 61.7°	N43°45.00' W114°46.00'



Tap to select entry and exit points.
All points between will also be added to the route.

11. The points will populate the Route Panel and display on the Map.



View Air Refueling Route

Pilots can tap an Air Refueling Route on the Map to view additional information such as its Frequency, A/A Tacan, Alternatives, Scheduling Unit, ARTCC, and its Remarks.

1. Navigate to the **Map** screen and tap on an air refueling route point.
2. The Map's popup menu will display. Select **Show** from the side menu.
3. Tap **Info and Wx**.
4. The Information view will display additional information such the refueling route's Frequency, A/A Tacan, Alternatives, Scheduling Unit, ARTCC, and its Remarks.

AR452

AR452 (NE)

Frequency Pri. 361.7 MHz Sec. 384.6 MHz
A/A TACAN 29/92
Altitude FL240 / FL260
Scheduling Unit 366 OSS/OSOS
Mt Home AFB, ID
ARTCC Oakland Salt Lake City ARCP-269.0 EXIT-290.5
Remarks REMARKS: None

AR452 (SW)

Frequency Pri. 361.7 MHz Sec. 384.6 MHz
A/A TACAN 29/92
Altitude FL240 / FL260
Scheduling Unit 366 OSS/OSOS
Mt Home AFB, ID
ARTCC Oakland Salt Lake City ARCP-290.5 EXIT-269.0
Remarks REMARKS: None

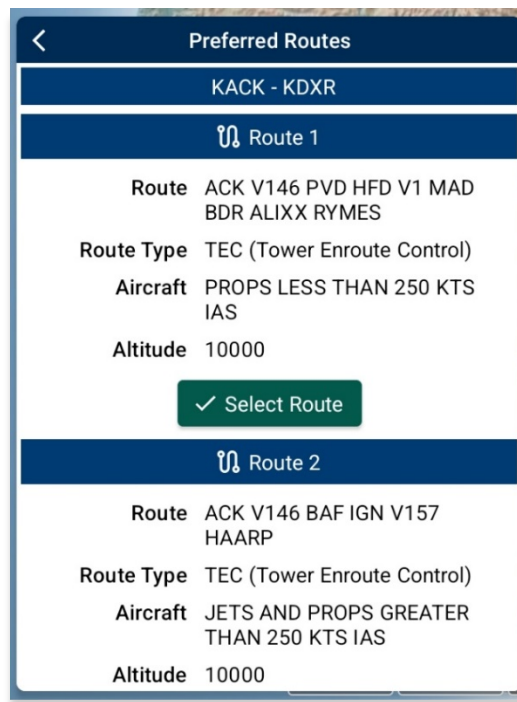
AR452

Entry

14.3.2.2 Preferred Route

Aero App provides alternative preferred routes in place of the current flight route. Once an origin and destination are entered in the route panel, the Preferred Route feature will activate and display a list of preferred routes to select from. This feature is only available for select routes.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Ensure that a route is loaded in the Route Panel.
3. Tap **Route Manager** located at the bottom right of the Route Panel.
4. Select **Add** from the side menu.
5. Tap **Preferred Route**.
6. A list of preferred routes will be displayed. Tap **Select Route** once desired route is found, and the new route will display on the route panel.



7. When selecting an alternative preferred route, a dialog box will appear. Tap **Use Preferred Route**. The alternative preferred route will replace the previously selected preferred route.
8. Tap **Cancel** to discard all changes.

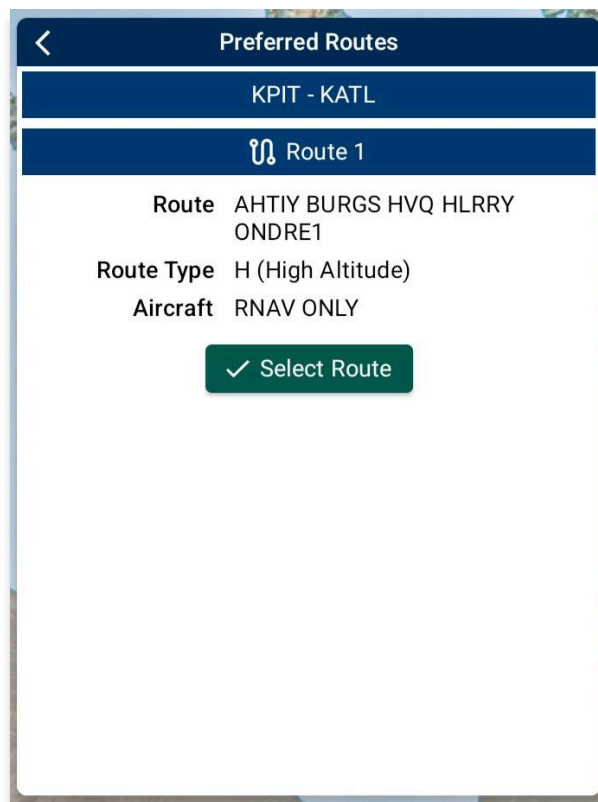


NOTE: The Preferred Route option will be disabled if there are no available preferred routes.

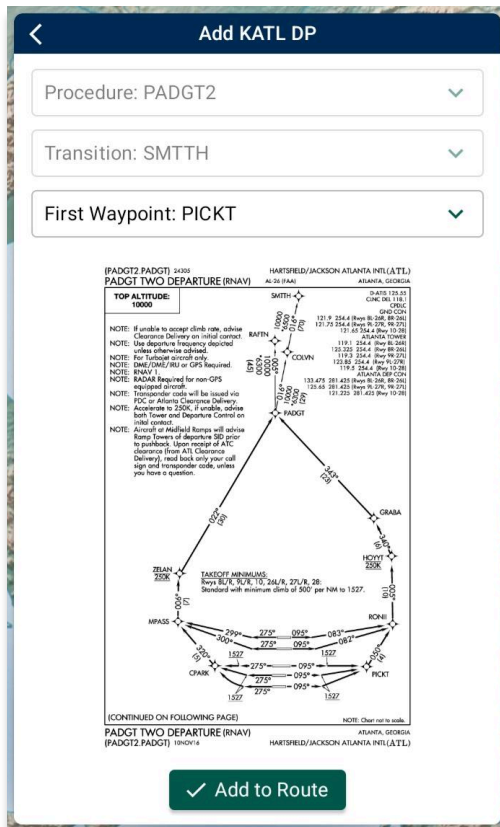
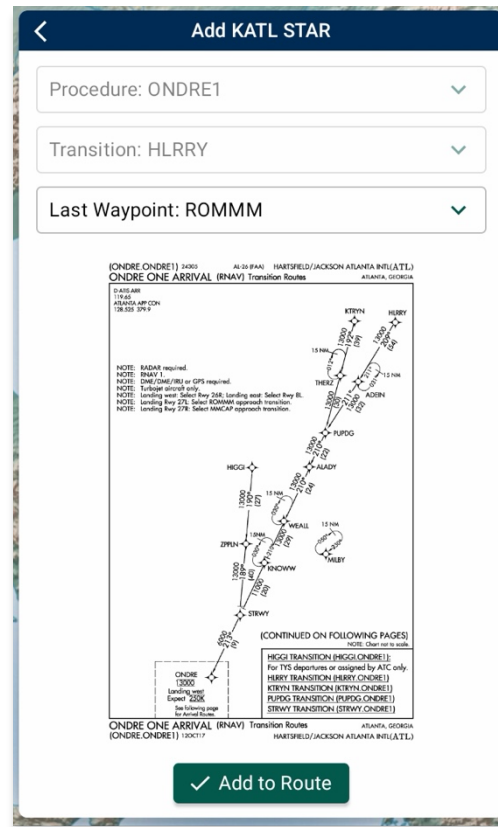
Preferred Route with DP and STAR

Aero App allows users to select a preferred route containing DPs or STARs, if applicable.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Ensure that a route is loaded in the Route Panel.
3. Tap **Route Manager** located at the bottom right of the Route Panel.
4. Select **Add** from the side menu.
5. Tap **Preferred Route**.
6. A list of preferred routes will be displayed. Select the desired route.



7. The Add DP popup will display. The Procedure and Transition points are preselected, select a **First Waypoint**. Then, tap **Add to Route**.
8. The Add STAR popup will display. The Procedure and Transition points are preselected, select a **Last Waypoint**. Then, tap **Add to Route**.



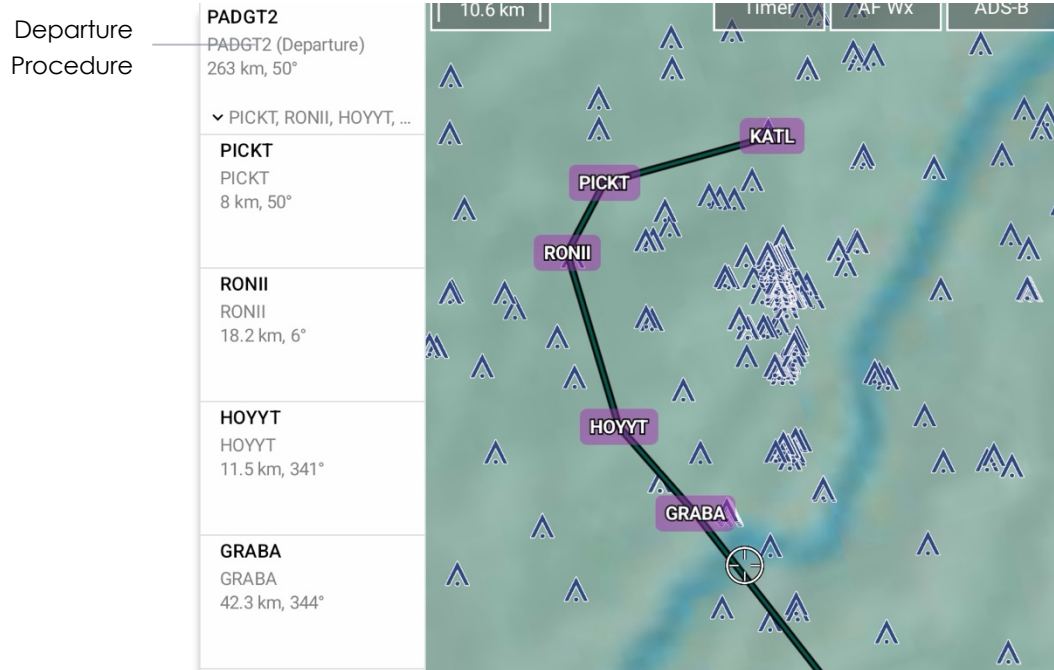
NOTE: The Preferred Route option will be disabled if there are no available preferred routes.



NOTE: Some Preferred Routes contain intersecting radials. If an intersection point is reordered in the Route Panel, the radial may be resolved using a nearby waypoint.

The procedures will be added to your flight route. On the Map, route segments are identified by color: the **DP** is displayed as a *green* route line, the **STAR** as a *dark blue* route line, and the **original route** as a *magenta* route line.

On the route, the departure procedure will be labeled as (Departure), and the arrival procedure will be labeled as (Arrival).



14.3.2.3 Add Search and Rescue (SAR) Pattern

The Add Search and Rescue (SAR) Patterns feature allows pilots to create SAR patterns in a specific area to assist and support pilots during rescue missions. These search patterns, such as creeping, parallel, sector, and square are displayed on the Map and can be added to the current route.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Add** from the side menu.
4. Tap **SAR**.
5. Tap to select or slide the segmented control to **Creeping**, **Parallel**, **Sector**, or **Square**. Respective of the selection, different fields will be available to specific *Pattern* options.

SAR Patterns

6. Tap to select or slide the segmented control to **Lat/Lon**, **MGRS**, or **Waypoint**.
7. Users can tap **Current Location** (GPS required) to set their current position as the coordinates or manually enter them in the Latitude and Longitude fields.
8. All fields are required; therefore, all fields must be filled.

9. Add to Route will become selectable once all required fields are filled. Tap **Add to Route**.

Creeping	Parallel	Sector	Square
Creeping			
Start	Lat/Lon	MGRS	Waypoint
Latitude	26.263517		
Longitude	-80.250772		
Search Track	120		
Initial Turn	Left	Right	
Spacing	15		
Leg Length	10		
Number of Legs	10		
Current Location Add to Route			

Creeping	Parallel	Sector	Square
Parallel			
Start	Lat/Lon	MGRS	Waypoint
Latitude	25.803139		
Longitude	-80.298912		
Search Track	120		
Initial Turn	Left	Right	
Spacing	15		
Leg Length	10		
Number of Legs	10		
Current Location Add to Route			

Creeping	Parallel	Sector	Square
Sector			
Start	Lat/Lon	MGRS	Waypoint
Latitude	25.803139		
Longitude	-80.298912		
Initial DTK	200		
Initial Turn	Left	Right	
Sector	45°	60°	
Leg Length	10		
Current Location Add to Route			

Creeping	Parallel	Sector	Square
Square			
Start	Lat/Lon	MGRS	Waypoint
Latitude	25.803139		
Longitude	-80.298912		
Initial DTK	200		
Initial Turn	Left	Right	
Spacing	15		
Number of Legs	10		
Current Location Add to Route			

14.3.3 Send

The Send menu includes the Flight Plan feature, allowing pilots to file a flight plan directly from Aero App.

14.3.3.1 Flight Plans

The Flight Plans feature on Aero App allows pilots to easily file and view their flight plans. Accessible through the Route Panel, flight plans are organized by IFR and VFR flight rules for quick reference. A navigation menu at the top lets users switch between Flight Plans, Aircraft, and Credentials views. To file or access plans, pilots need to connect to their Flight Service account. This feature is available exclusively for FAA and DOW users.

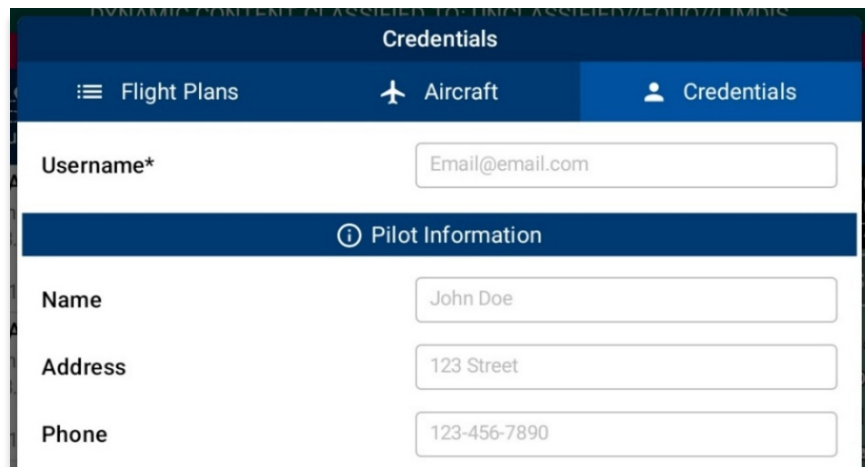
To access the Flight Plans feature:

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** at the bottom right of the Route Panel view.
3. Tap **Send** from the side menu, then select **File Flight Plan**.

Credentials

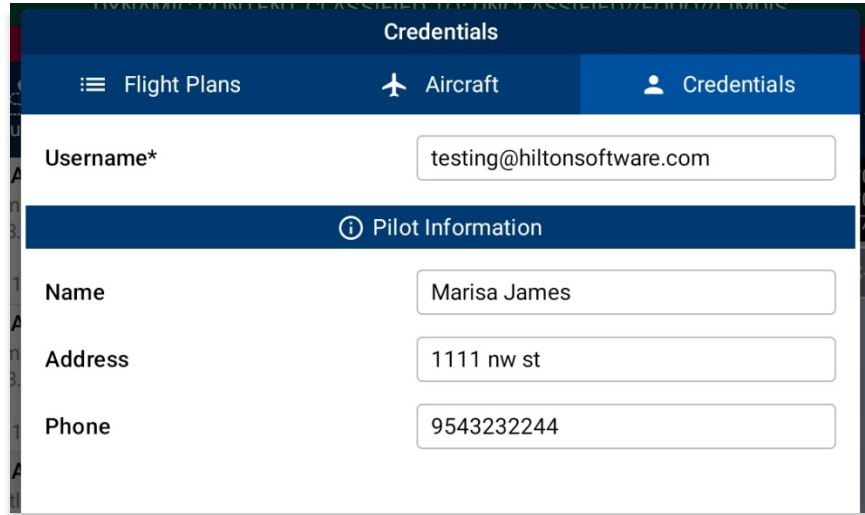
To file flight plans or access flight plans that have been filed, user must have a Flight Service account. Refer to [Section 5.3](#) for additional information. Ensure you are logged in to your account by entering the username and pilot information in the provided fields.

1. The top of the Flight Plans view contains a navigation menu. Select **Credentials**.
2. The fields are disabled. Tap **Edit** on the bottom of the Credentials view to enter edit mode.

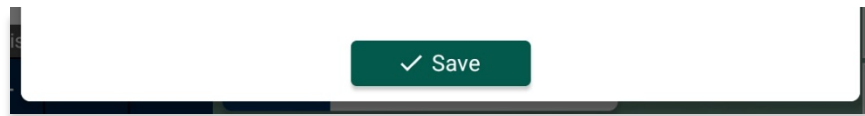


Navigation
Menu

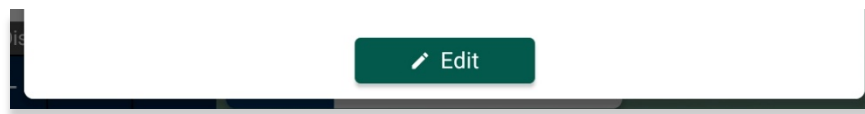
3. Enter the **username** of your Flight Service account.
4. Enter the **name**, **address**, and **phone number** associated with your account.



5. Tap **Save** once all fields are filled.



6. Tap **Edit** to make modifications.



NOTE: Pilot information is required to file a flight plan and will automatically fill in the new flight plan form.



NOTE: Pilot information cannot be edited when filing a flight plan. To make changes, users must make updates on the Credentials page.

New Flight Plan

File flight plans directly through Aero App by filing the New Flight Plan form. Users can file new plans by tapping the “New” button at the bottom of the Flight Plans view. To file a flight plan through Aero App, tap **+ New** to display the New Flight Plan form.

The form is divided into sections for *Aircraft*, *Route*, *Supplementary Information*, *Dinghies*, and *Additional Information*. Each field includes hint text, and some have an ellipsis button to display additional options. Fields with asterisks are required.

New Flight Plan ✓ Save Form

Aircraft

Tail* ...

Flight Rules* IFR VFR

Type of Flight ...

Number of Aircraft

Type of Aircraft*

Wake Turbulence* Light Medium Heavy Auto

Equipment* ...

Surveillance Equipment* ...

Route

Departure*

Departure Time (Zulu)* 17 Oct 2024 2014z

Cruising Speed* Knots Mach

Level/Altitude* Feet

Route ...

Destination*

Ellipsis button for more options

- **Aircraft** – The Aircraft portion of the form includes fields specific to your aircraft's details. To simplify the flight planning process, it is advised to create an aircraft in advance. To create a new aircraft, see the instructions in the [Aircraft](#) section. Once created, return to the New Flight Plan form. In the Tail field, tap the ellipsis, then choose your desired aircraft from the list. The aircraft details will automatically fill in the corresponding fields on the form. You can edit its details directly within the form if needed.

Next, choose the **Flight Rule** to indicate the flight's operational requirements by selecting from IFR or VFR flight rules. **Type of Flight** specifies the nature of the flight. Tap the ellipsis to select the correct flight type code. Specify the **Number of Aircraft** and **Type of Aircraft**, then select the **Wake Turbulence** intensity with options for Light, Medium, Heavy, or Auto.

If an aircraft has been selected, the **Equipment** and **Surveillance Equipment** fields should already be filled. If not, tap the ellipsis in each field to select the appropriate equipment codes manually.

✈ Aircraft	
Tail*	Enter N-Number/Call Sign ...
Flight Rules*	IFR VFR
Type of Flight	e.g. G (for General) ...
Number of Aircraft	Number of Aircraft
Type of Aircraft*	ICAO Aircraft Type Designator
Wake Turbulence*	Light Medium Heavy Auto
Equipment*	Equipment ...
Surveillance Equipment*	Surveillance Equipment ...

- **Route** – In the Route portion of the form, enter the **Departure** Identifier, which is the code for the departure airport, and the **Departure Time** in Zulu (UTC) time. If an aircraft has been selected, the **Cruising Speed** field should already be filled. If not, specify the true airspeed, with options to select either Knots or Mach. You'll also indicate the **Level/Altitude**, which refers to the cruise altitude for most of the flight. If needed, tap the Level/Altitude button to display additional cruise altitude units.

The **Route** field allows for manual entry of identifiers, separated by spaces, or you can tap the ellipsis to display the Saved Route list (See [Section 14.3.1.2](#)). If a route is selected, the departure and destination points will automatically populate in their respective fields. Otherwise, manually enter the **destination** airport of your choice.

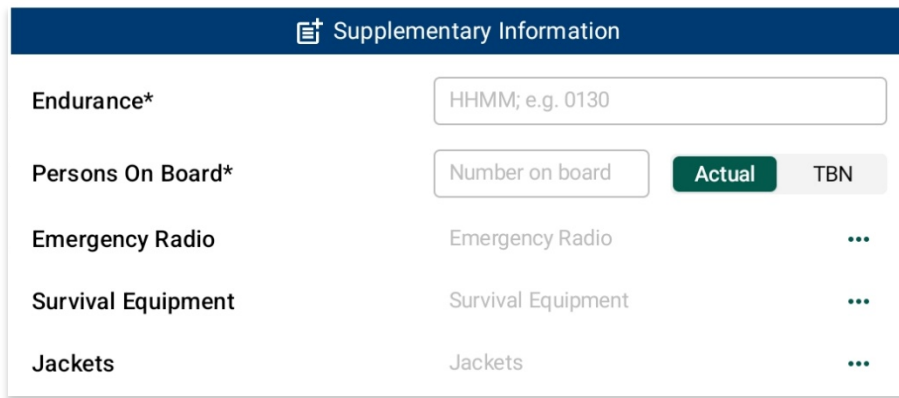
In the **Total EET** (Estimated Elapsed Time) field, you'll enter the flight duration in HHMM format. The **Alternates** field provides space for two backup airports in case the planned destination airport becomes unsuitable for landing. The **Other Info** field should be filled if an aircraft has been selected. If needed, you can manually enter this information or tap the ellipsis to access additional details that may relate to your flight plan.

Route	
Departure*	Identifier; e.g. KSJC
Departure Time (Zulu)*	25 Aug 2025 0320z
Cruising Speed*	True Airspeed Knots Mach
Level/Altitude*	Cruise Altitude Feet
Route	List identifiers separated by spaces ...
Destination*	Identifier; e.g. KSJC
Total EET*	HHMM; e.g. 0130
Alternates	Identifier; e.g. KSJC Identifier; e.g. KSJC
Other Info	e.g. TYP/COM/DAT/ ...
View	

- **Supplementary Information** – The Supplementary Information portion of the form specifies details about the aircraft in case of emergency. In the **Endurance** field, enter the maximum time the aircraft can fly based on its current fuel load.

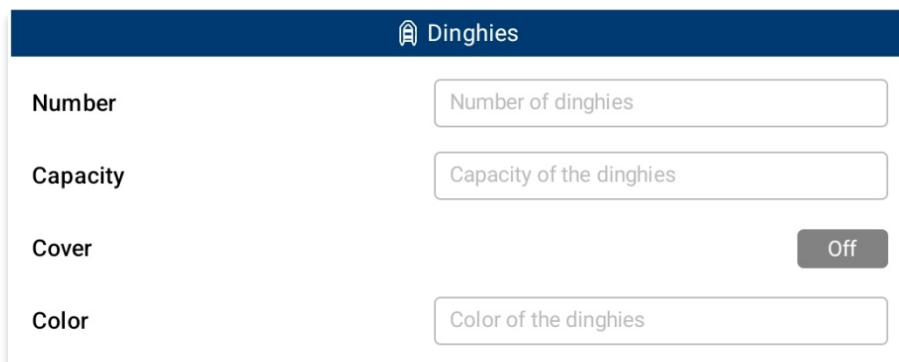
Enter the **Number of Persons** onboard, including both passengers and crew members on the aircraft. The default selection is Actual, but if the exact number is not known at the time of filing, you can select TBN (To Be Notified).

The fields for **Emergency Radio**, **Survival Equipment**, and **Jackets** should be filled if an aircraft has been selected. If needed, tap the ellipsis to manually select the appropriate emergency equipment for each field.



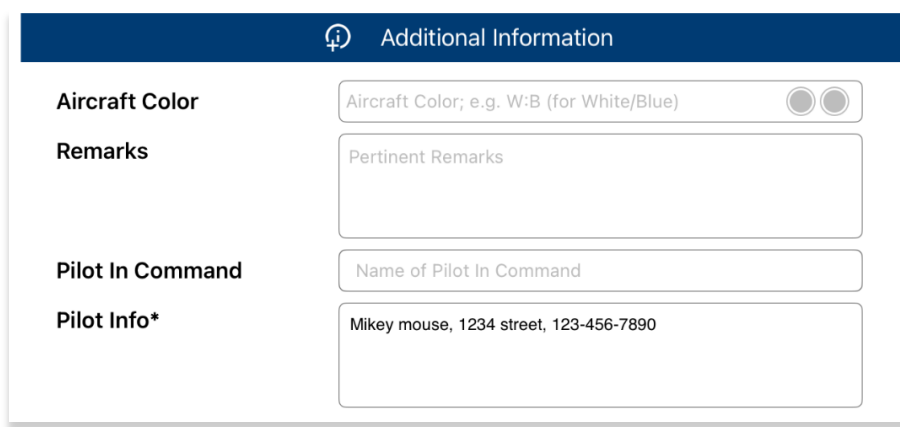
The screenshot shows a form titled "Supplementary Information" with a dark blue header. Below the header, there are five rows of input fields. The first row is "Endurance*" with a text input field containing "HHMM; e.g. 0130". The second row is "Persons On Board*" with a text input field containing "Number on board" and two buttons: "Actual" (highlighted in green) and "TBN". The third row is "Emergency Radio" with a text input field containing "Emergency Radio" and an ellipsis button. The fourth row is "Survival Equipment" with a text input field containing "Survival Equipment" and an ellipsis button. The fifth row is "Jackets" with a text input field containing "Jackets" and an ellipsis button.

- **Dinghies** – The Dinghies portion of the form will be filled automatically if an aircraft has been selected. If not, enter the appropriate values manually to specify the dinghies onboard.



The screenshot shows a form titled "Dinghies" with a dark blue header. Below the header, there are four rows of input fields. The first row is "Number" with a text input field containing "Number of dinghies". The second row is "Capacity" with a text input field containing "Capacity of the dinghies". The third row is "Cover" with a button labeled "Off". The fourth row is "Color" with a text input field containing "Color of the dinghies".

- **Additional Information** – The Additional Information portion of the form specifies the **Aircraft Color** and any pertinent **Remarks** that apply to the aircraft or the flight itself. Enter the name of the **Pilot In Command** of the flight. If pilot details were previously entered on the Credentials page, the Pilot Information field will be automatically populated with that data.



Additional Information

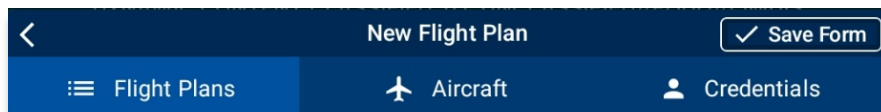
Aircraft Color Aircraft Color; e.g. W:B (for White/Blue)

Remarks Pertinent Remarks

Pilot In Command Name of Pilot In Command

Pilot Info* Mikey mouse, 1234 street, 123-456-7890

Once all the required fields are filled, the **Send** button will become selectable. Tap **Send**, located at the bottom of the New Flight Plan form to file your flight plan. The **Save Form** button placed on the header of the Flight Plan form saves any entered data for ease of access upon returning to the new flight plan form before sending. Aero App will automatically save entered data whenever the view has accidentally been closed.



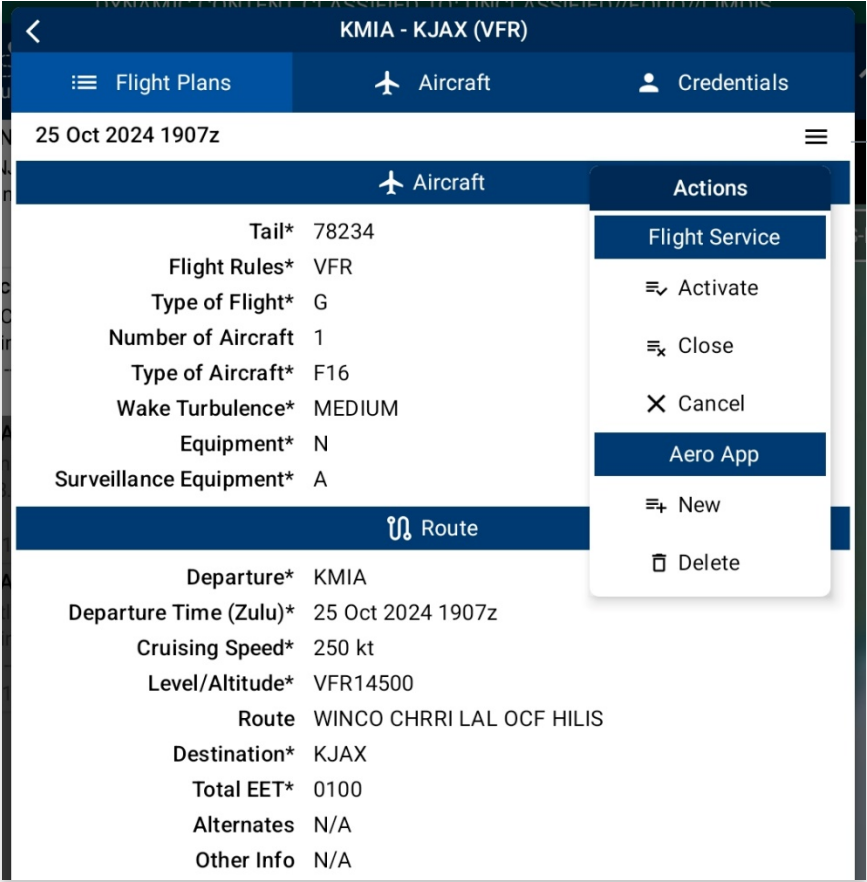
< New Flight Plan ✓ Save Form

☰ Flight Plans ✈ Aircraft 👤 Credentials

To view a filed flight plan, select desired plan. The Filed Flight Plan view will display with your flight plan information.

Tap the **hamburger menu** to open the Actions menu, which displays the options listed below. For more details, refer to the section [Actions for Filed Flight Plans](#):

- **Activate** – initiates the filed flight plan
- **Close** – closes previously activated flight plan
- **Cancel** – dismisses the flight plan
- **New** – redirects view to the New Flight Plan view
- **Delete** – permanently removes the filed flight plan from the table



The screenshot shows the 'Filed Flight Plan' view for a flight from KMIA to KJAX (VFR) on 25 Oct 2024 at 1907z. The interface includes a top navigation bar with 'Flight Plans', 'Aircraft', and 'Credentials' tabs. A 'Hamburger button' (three horizontal lines) is located in the top right corner. The main content area is divided into two sections: 'Aircraft' and 'Route'. The 'Aircraft' section lists details such as Tail* (78234), Flight Rules* (VFR), Type of Flight* (G), Number of Aircraft (1), Type of Aircraft* (F16), Wake Turbulence* (MEDIUM), Equipment* (N), and Surveillance Equipment* (A). The 'Route' section lists details such as Departure* (KMIA), Departure Time (Zulu)* (25 Oct 2024 1907z), Cruising Speed* (250 kt), Level/Altitude* (VFR14500), Route (WINCO CHHRI LAL OCF HILIS), Destination* (KJAX), Total EET* (0100), Alternates (N/A), and Other Info (N/A). An 'Actions' menu is open on the right side, showing options: 'Flight Service', 'Activate', 'Close', 'Cancel', 'Aero App', 'New', and 'Delete'.



NOTE: IFR flight plans cannot be activated, but they can be canceled.

Aircraft

To simplify the flight planning process, users can create an aircraft directly within Aero App. When an aircraft is created, users can select the aircraft in the flight plans form. The aircraft information will automatically populate the corresponding fields, reducing the need for manual entry. All created aircraft are stored in the Aircraft table, where users can view and manage aircraft details as needed.

New Aircraft

The beginning section of the flight plan form requires aircraft information. Once the aircraft has been created, users can edit its details either directly on the New Flight Plan form or in the Aircraft view by selecting the Edit button.

To create a new aircraft through Aero App, follow the steps below:

1. The top of the Flight Plans view contains a navigation menu. Select **Aircraft**.
2. Tap **+ New** at the bottom of the Aircraft view.

The New Aircraft form is divided into sections for *Aircraft*, *Supplementary Information*, and *Dinghies*. Each field includes hint text, and some have an ellipsis button to display additional options. Fields with asterisks are required.

The screenshot shows the 'New Aircraft' form in the Aero App. The form is divided into sections: 'Aircraft', 'Supplementary Information', and 'Dinghies'. The 'Aircraft' section includes fields for Tail*, Type of Aircraft*, Equipment*, Surveillance Equipment*, Cruising Speed*, Color, and Wake Turbulence*. The 'Supplementary Information' section includes Emergency Radio. The 'Dinghies' section includes Emergency Radio. The form has a navigation menu at the top with 'Flight Plans', 'Aircraft', and 'Credentials'. The 'Equipment*' field has an ellipsis button for more options. The 'Cruising Speed*' field has buttons for 'True Airspeed', 'Knots', and 'Mach'. The 'Color' field has a color picker. The 'Wake Turbulence*' field has buttons for 'Light', 'Medium', 'Heavy', and 'Auto'. The 'Supplementary Information' section has a button for 'Emergency Radio'. The 'Dinghies' section has a button for 'Emergency Radio'.

Navigation Menu

Ellipsis button for more options

- **Aircraft** – In the Aircraft portion of the form, enter the aircraft's **Tail** number (N-number/call sign). The tail length must be between two to seven characters. If the input is outside this range, an error message will be displayed.

Next, specify the **Type of Aircraft** by providing the model of the aircraft. In the **Equipment** and **Surveillance Equipment** fields, list any specialized equipment the aircraft carries. Tap the ellipsis to choose the relevant codes. Enter the **Cruising Speed** in true airspeed, with the option to select either Knots or Mach.

To define the aircraft **Color**, tap the color selector to open the Aircraft Colors menu and choose primary and secondary colors. Select the **Wake Turbulence** intensity, with options for Light, Medium, Heavy, or Auto.

The screenshot shows a mobile application form titled "Aircraft" with a dark blue header bar containing a white airplane icon. The form has a white background with rounded corners and a subtle drop shadow. It contains the following fields and controls:

- Tail***: A text input field with the placeholder text "Enter N-Number/Call Sign".
- Type of Aircraft***: A text input field with the placeholder text "ICAO Aircraft Type Designator".
- Equipment***: A text input field with the placeholder text "Equipment" and a three-dot menu icon to its right.
- Surveillance Equipment***: A text input field with the placeholder text "Surveillance Equipment" and a three-dot menu icon to its right.
- Cruising Speed***: A text input field with the placeholder text "True Airspeed", followed by three buttons: "Knots" (highlighted in green), "Mach", and "True Airspeed".
- Color**: A text input field with the placeholder text "Aircraft Color; e.g. W:B (White/Blue)" and a color selector icon (two overlapping circles) to its right.
- Wake Turbulence***: A row of four buttons: "Light", "Medium", "Heavy", and "Auto" (highlighted in green).

- **Supplementary Information** – The Supplementary Information portion of the form specifies details about the aircraft in case of emergency. To add aircraft equipment, tap the ellipsis icon and select the appropriate options from the menu. You can indicate whether the aircraft is equipped with an **Emergency Radio**, **Survival Equipment**, and/or **Life Jackets**, based on the suitable climate conditions.

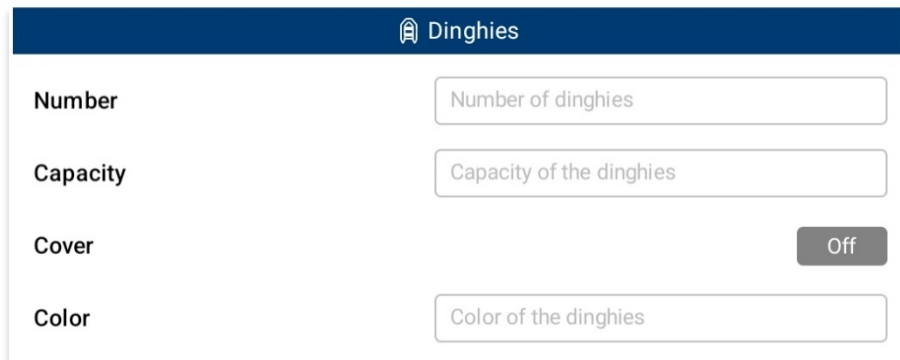
The **Other Info** field is used for any relevant details not covered in the other fields. You can manually enter this information or tap on the ellipsis to access additional options. Some entries may also include an arrow to view further specifications.

The screenshot shows a mobile application interface for 'Supplementary Information'. It features a dark blue header with a plus icon and the title. Below the header is a list of four items: 'Emergency Radio', 'Survival Equipment', 'Jackets', and 'Other Info'. Each item has a corresponding text field and a three-dot menu icon to its right. The 'Other Info' text field contains the placeholder text 'e.g. TYP/COM/DAT/'. A green 'View' button is located at the bottom right of the 'Other Info' section.

Supplementary Information		
Emergency Radio	Emergency Radio	...
Survival Equipment	Survival Equipment	...
Jackets	Jackets	...
Other Info	e.g. TYP/COM/DAT/	...

View

- **Dinghies** – The Dinghies portion of the form specifies the **Number** of dinghies carried onboard. Enter the total number of dinghies and their combined **Capacity**, which is the total number of people the dinghies can accommodate. If there is more than one dingy onboard, add the capacity of all dinghies combined. Additionally, there is a switch button to indicate whether the dinghies are **Covered** or not. You will also need to specify the **Color** of the dinghies.

A screenshot of a mobile application form titled "Dinghies" with a blue header bar. The form contains four input fields: "Number" with placeholder text "Number of dinghies", "Capacity" with placeholder text "Capacity of the dinghies", "Cover" with a toggle switch currently set to "Off", and "Color" with placeholder text "Color of the dinghies".

Dinghies	
Number	<input type="text" value="Number of dinghies"/>
Capacity	<input type="text" value="Capacity of the dinghies"/>
Cover	☐ Off
Color	<input type="text" value="Color of the dinghies"/>

Once all the required fields are filled, the Save button will become selectable. Tap **Save**, located at the bottom of the New Aircraft form to save your aircraft information.

View/Modify Aircraft

Users can view and edit aircraft details directly in Aero App. The table displays a list of previously saved aircraft, showing key information such as tail number, aircraft type, aircraft equipment, TAS, and aircraft color. Expand each aircraft to reveal Wake Turbulence information and options to Edit or Delete the aircraft.

1. The top of the Flight Plans view contains a navigation menu. Select **Aircraft**.

Tail	Type	Equipment	TAS	Color	
FLC11	BE9L	SALOV	250 KT	White and Gray	▼
78234	F16	N	200 KT	White and Tan	▼

2. Tap on the **aircraft row** to view aircraft information.
3. Tap **Edit** to modify an aircraft.
4. Tap **Delete** of the aircraft that you wish to permanently remove.
5. The delete confirmation popup for the aircraft will be displayed. Tap **Delete** to confirm action.

Tail	Type	Equipment	TAS	Color	
FLC11	BE9L	SALOV	250 KT	White and Gray	^
<div>Tail FLC11</div> <div>Type of Aircraft BE9L</div> <div>Equipment SALOV</div> <div>Cruising Speed 250 KT</div> <div>Color White and Gray (W:GY)</div> <div>Wake Turbulence Medium</div> <div><div>Delete</div><div>Edit</div></div>					

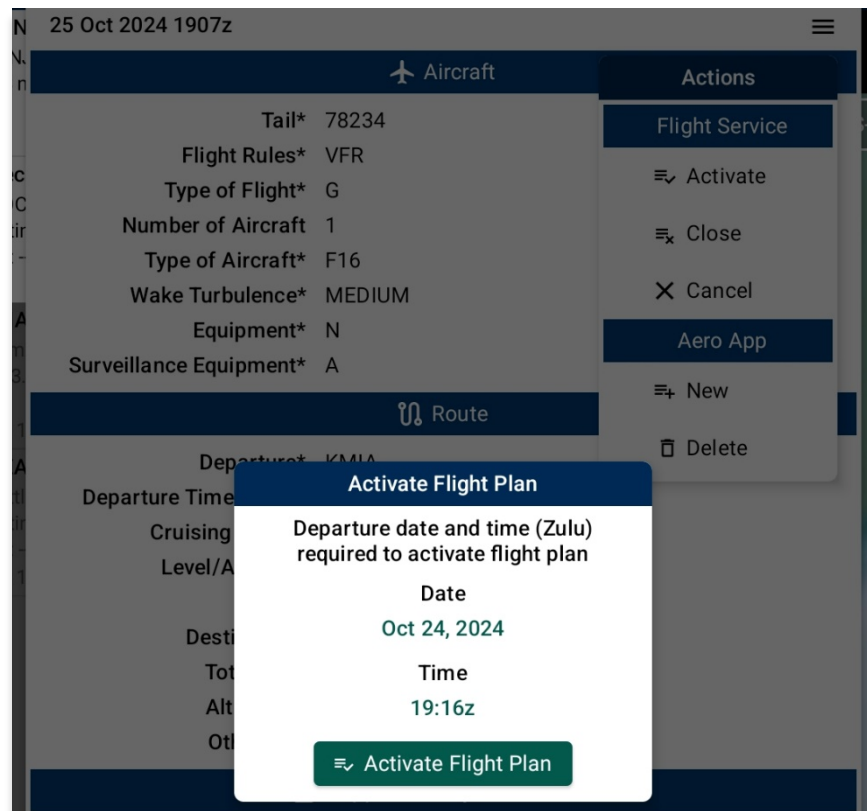
Actions for Filed Flight Plan

Actions for Filed Flight Plans in Aero App allow pilots to Activate, Close, or Cancel a filed flight plan directly within the app.

Requests to Activate, Close, or Cancel a flight plan are sent to the Flight Service provider. However, any changes made by the provider will *not* be reflected in Aero App. Additional actions such as *New* and *Delete* are also available. Selecting New will create a new flight plan using the details from the currently selected plan. Choosing Delete will remove the selected flight plan.

Note that Aero App no longer supports YFR and ZFR flight rules. If a user attempts to file a new flight plan based on one that previously used YFR or ZFR, a notification will appear. This message informs the user that YFR and ZFR are no longer supported, and IFR flight rules will be automatically selected instead.

1. Tap the **hamburger** button to display the Actions menu.
2. Tap **Activate** to initiate the flight plan.
3. The Activate Flight Plan popup will appear. Select the desired **departure date** and **time** (Zulu) to activate the flight plan.
4. Tap **Activate Flight Plan** to activate the flight plan.



5. To close the flight plan, return to the Actions menu and select **Close**.



NOTE: The flight plan must be activated to close the plan.

6. The Close Flight Plan popup will display. Enter the **arrival airport** of your flight plan. The nearest airport will be suggested as the arrival airport. To remove the suggested airport, enter the desired arrival airport in the text field.
7. Tap **Close Flight Plan** to confirm the action.

A screenshot of a mobile application popup titled "Close Flight Plan". The popup has a dark blue header with the title in white. Below the header, the text "Arrival Airport" is centered. Underneath, there is a white text input field containing the text "KOZR". At the bottom of the popup is a green button with a white "X" icon and the text "Close Flight Plan".

8. To cancel the flight plan, return to the Actions menu and select **Cancel**.



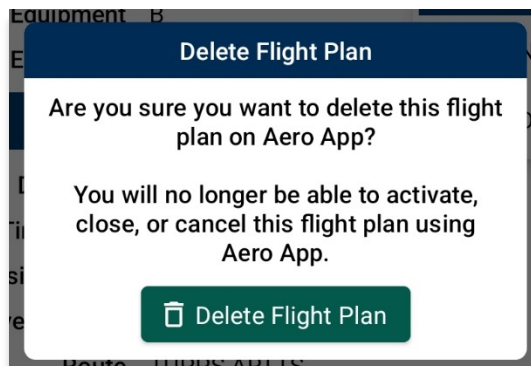
NOTE: A flight plan can only be cancelled if it has not yet been activated.

9. The Cancel Flight Plan popup confirmation will be displayed. Tap **Cancel Flight Plan** to confirm action.

A screenshot of a mobile application popup titled "Cancel Flight Plan". The popup has a dark blue header with the title in white. Below the header, the text "Are you sure you want to cancel this flight plan?" is centered. At the bottom of the popup is a green button with a white "X" icon and the text "Cancel Flight Plan".

10. To create a new flight plan, return to the Actions menu and select **New**.
11. Users will be redirected to the New Flight Plan form. The selected Flight Plan's information will populate onto the form.

12. To permanently remove the flight plan from Aero App, return to the Actions menu and select **Delete**.
13. The Delete Flight Plan popup confirmation will be displayed. Tap **Delete Flight Plan** to confirm action.
14. Tap outside of the popup to cancel the action.



14.3.4 Show

The Show menu offers the following options and will be further elaborated in the sections below:

- Doghouses
- Dropped Pins
- Dropped Hazards
- Point Shapes
- Routes
- User Waypoints
- Route Line Transparency

14.3.4.1 Doghouses

Doghouses display route information such as the next point, heading, distance, time (MM+SS), and time ahead/behind/on schedule in order from top to bottom. Doghouses will be displayed for every point loaded in the route.

Once the Doghouses feature is enabled, doghouses will appear on the Map for each segment between points. The doghouses disappear when their ownship reaches the most advanced point of each segment.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Tap **Show** from the side menu.
4. Tap **Doghouses**.
5. From the *Doghouses* popup, enable **Show Doghouses**.
6. Tap on the **Time on Target** time selection and scroll through the time format until desired time is met using the format of hh:mm:ss.

7. Tap on the **Groundspeed** text box and enter your groundspeed in knots.

Doghouses

Show Doghouses On — Enable Doghouses

Time on Target 17:30:00z

Groundspeed 80

Estimated Time of Departure 16:47:31z — ETD in Zulu time

Waypoint	ETE	ETA
KFL	00:13:40	17:01:11z
FL47	00:20:41	17:21:52z
PBI	00:08:08	17:30:00z



NOTE: For points outside the U.S., Doghouses include a country code extension. For example, the waypoint DRAKE in Chile is displayed as DRAKE.CL.

8. The Estimated Time of Departure (ETD) will adjust based on the entered values in Time on Target and Groundspeed fields. Your ETD will be calculated in Zulu time.

 **NOTE:** If users are behind, ahead, or on schedule, the field below your fixed time will display the calculated difference of the time that was entered for your set time following the format **+/- {Minutes}m{Seconds}s**. If the calculated differences are an hour behind or ahead, the format will be **> + {Hours}h** or **> - {Hours}h**. If the user is on schedule, it will display **"0"**.

Edit Doghouses

Users can adjust their time on target and groundspeed. The fields for fixed time, ETA/ETE, and the calculated differences will automatically update to the new values.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Show** from the side menu.
4. Tap **Doghouses**.
5. From the Doghouses popup, tap the **Time on Target** time selection and scroll through the time format until the new desired time is met using the format of hh:mm:ss.
6. Tap on the **Groundspeed** text box and enter your new groundspeed in knots.

The screenshot shows the 'Doghouses' popup menu. At the top, there's a back arrow and the title 'Doghouses'. Below it, 'Show Doghouses' is set to 'On'. The 'Time on Target' is set to '18:30:00z'. The 'Groundspeed' is set to '60'. The 'Estimated Time of Departure' is '17:33:22z'. Below this is a table with three columns: 'Waypoint', 'ETE', and 'ETA'.

Waypoint	ETE	ETA
KFLL	00:18:13	17:51:35z
FL47	00:27:34	18:19:09z
PBI	00:10:51	18:30:00z

Annotations on the right side of the screenshot point to the 'Time on Target' field with the text 'New Time on Target' and the 'Groundspeed' field with the text 'New Groundspeed in knots'.



NOTE: Entering a decimal number in the Groundspeed field will trigger an error message. Ensure that only whole numbers are entered.

7. The Estimated Time of Departure will adjust based on the entered values in the Time on Target and Groundspeed fields.
8. Tap outside of the Doghouses popup and the Doghouses will recalculate based on the adjusted time and groundspeed.



NOTE: Alternatively, users can tap on the Doghouses displayed on the Map to view the Doghouses popup.

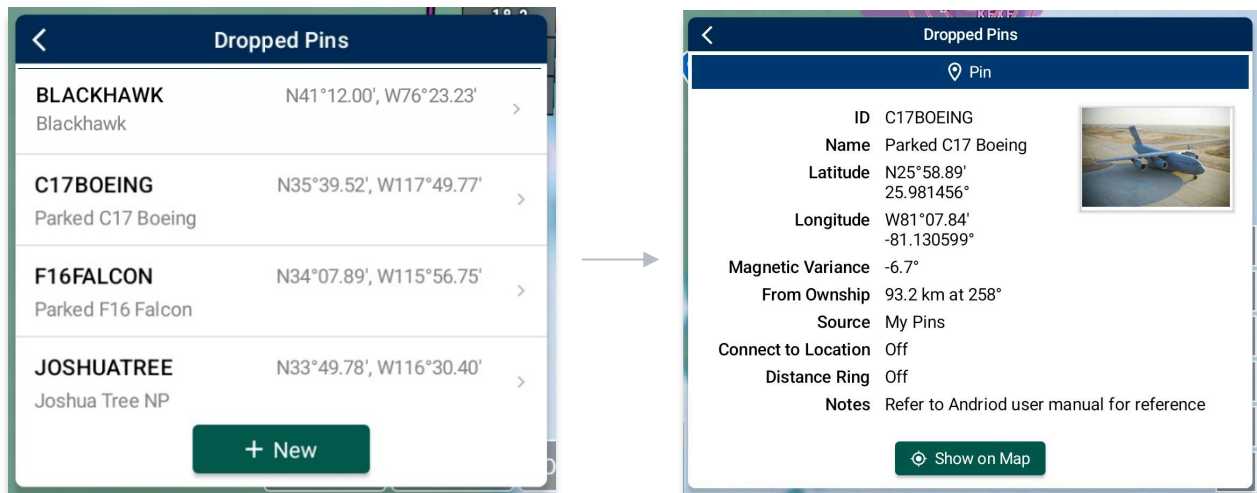
14.3.4.2 Dropped Pins

Dropped Pins is a collection of pins that were dropped by users. Each pin contains information regarding the pin such as its ID, Name, Latitude, Longitude, Magnetic Variance, From Ownship, Source, Notes, and any associated attachments.

Certain pins such as Avoidance Point and Pin may contain additional information such as Connect to Location, Distance Rings, Radius, and Alert on Intersection.

Aero App enables users to drop new pins directly from the Dropped Pins screen. Tap **+** **New** and follow the prompts. Refer to [Section 25.1.3](#) for additional information.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Show** from the side menu.
4. Tap **Dropped Pins**.
5. A collection of dropped pins will appear. Tap on desired pin.
6. Dropped Pins popup will display information pertaining to the selected pin.



7. Tap **Show on Map** and the map view will pan to the location of the dropped pin.
8. To delete a dropped pin, return to the list of pins. Swipe left to reveal the delete button of the pin that you choose to permanently remove. Tap **Delete**.
9. The delete confirmation popup for the selected pin will be displayed. Tap **Delete** to confirm action. The pin will be removed from the list.



NOTE: To view the dropped pins on the Map, users must enable Pins from the Overlays menu. Refer to [Section 18.2.1.17](#) for additional information. This is required for Avoidance Point, Emergency Marker, Landmark, and Pin. Refer to [Section 18.2.1.26](#) for Photo Pins.



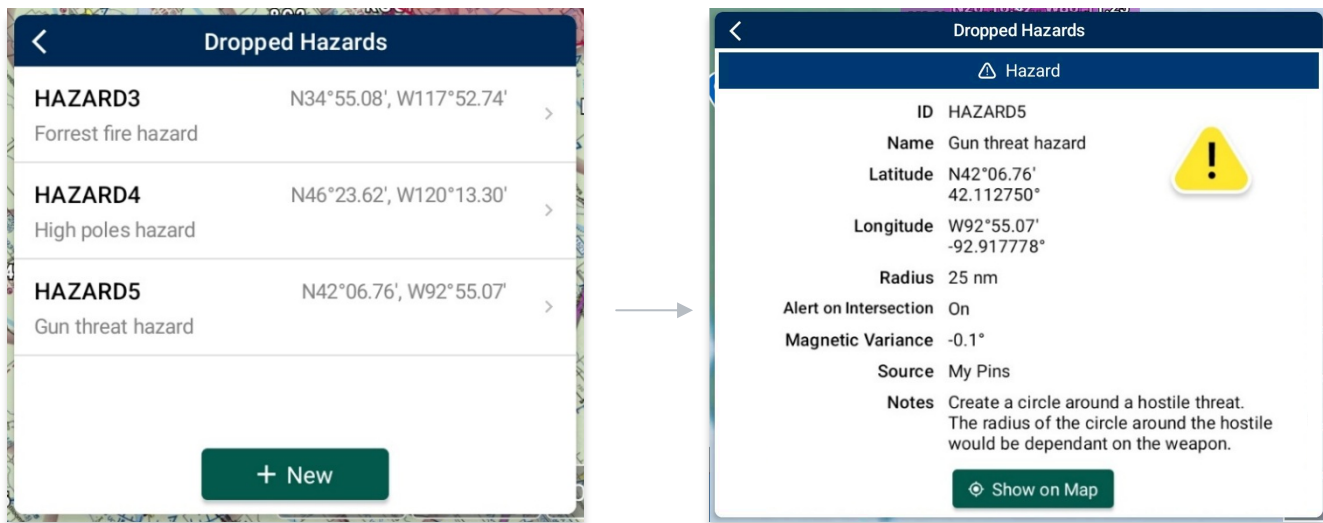
NOTE: Users can add pins to their route. Refer to the [Add Pin to Route Section](#) for additional information.

14.3.4.3 Dropped Hazards

Dropped Hazards is a collection of hazards that were dropped by users. Tapping a hazard on the Dropped Hazards list will display information such as its ID (auto generated by Aero App), Name, Latitude, Longitude, Radius, Alert on Intersection, Magnetic Variance, Source, and Notes.

Aero App enables users to drop a new hazard directly from the Dropped Hazards screen. Tap **+ New** and follow the prompts. Refer to [Section 25.1.4](#) for additional information.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Show** from the side menu.
4. Tap **Dropped Hazards**.
5. A collection of dropped hazards will appear. Tap on desired hazard.



6. Tap **Show on Map** and the map view will pan to the location of the dropped hazard.
7. To delete a dropped hazard, return to the list of hazards. Swipe left to reveal the delete button of the hazard that you choose to permanently remove. Tap **Delete**.
8. The delete confirmation popup for the selected hazard will be displayed. Tap **Delete** to confirm action. The hazard will be removed from the list.



NOTE: To view dropped hazards on the Map, users must enable Hazards from the Overlays menu. Refer to [Section 18.2.1.12](#) for additional information.

14.3.4.4 Point Shapes

Aero App offers Point Shapes which are used to track individual points of the pilot's flight path. Point shapes include triangles, squares, and circles, respective to the position of each point in the route.

The following scenarios are displayed below:

- **6 or more points:** The first and last points display triangles, second and second to last points display squares, and points between the second and second to last points display circles.
- **3-4 points:** The first and last points display triangles, second and second to last points display squares, and no circles will display.
- **1-2 points:** The first and last points display triangles, and no squares or circles will display.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Show** from the side menu.
4. Tap **Point Shapes** to enable the option.
5. The respective point shapes will appear on the Map.

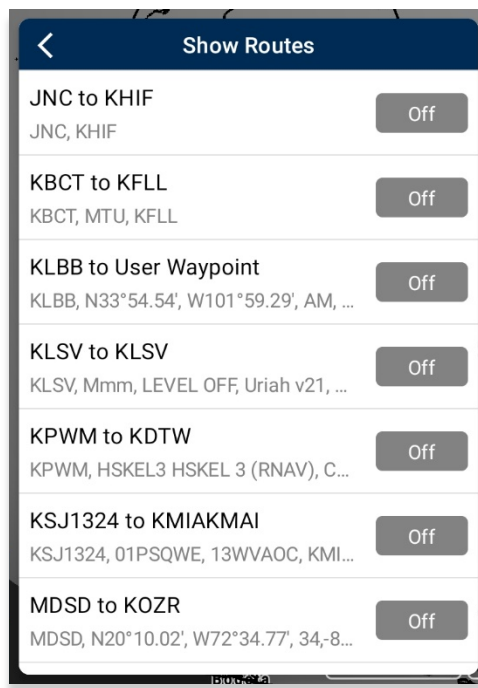


NOTE: In the event the user chooses a Direct-To point, the triangle point will display in orange.

14.3.4.5 Routes

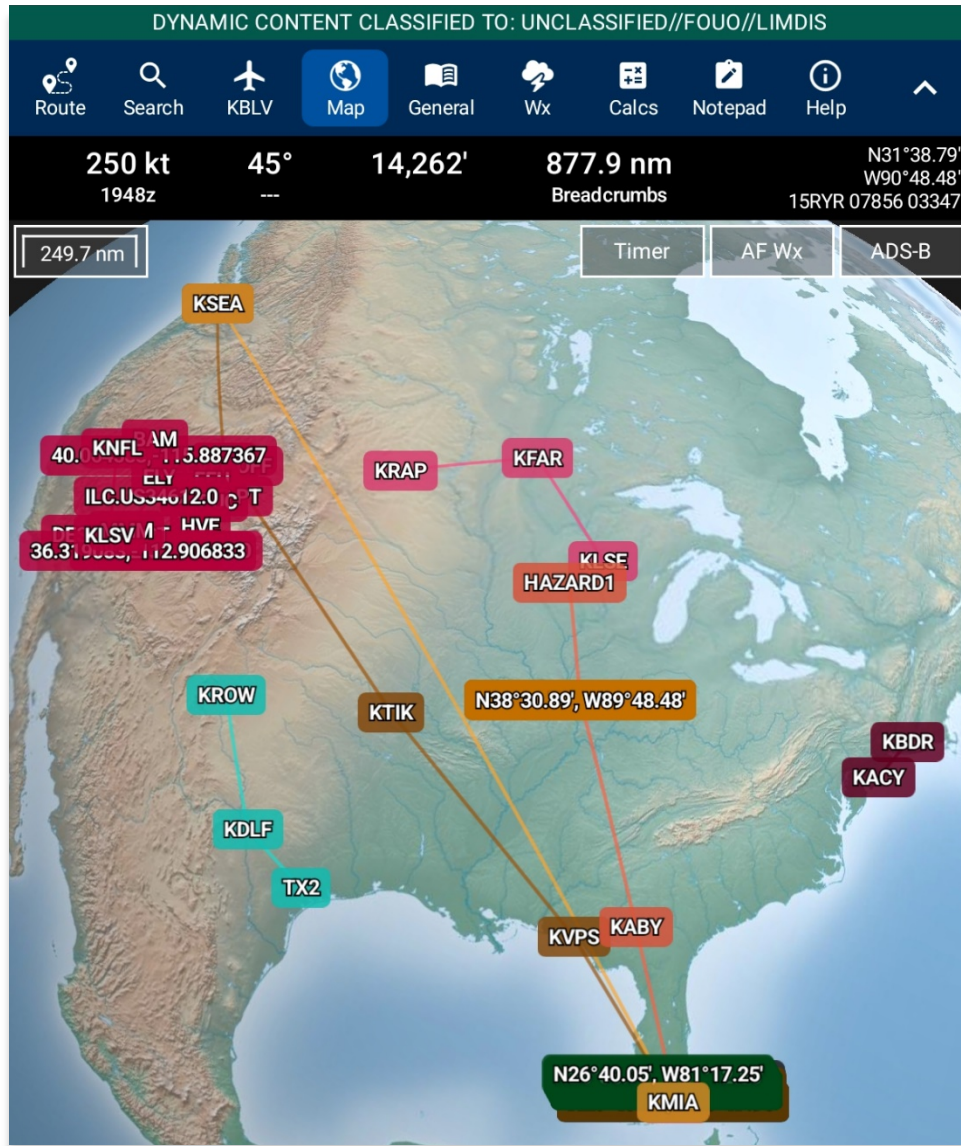
The Routes feature displays a collection of imported routes including CRD, JSON, and KML/KMZ files, and routes saved directly on Aero App to display on the Map. Multiple routes can simultaneously be displayed on the Map.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Show** from the side menu.
4. Tap **Routes**.
5. A list of saved routes is displayed below. Tap a route to enable it and display it on the Map. Enabled routes move to the top of the Show Routes list.



NOTE: Selecting a route file that exceeds the 200 KB limit will trigger an error message.

Multiple routes can be displayed on the Map simultaneously. Each enabled route is identified by a recycled color, with colors reused as routes are enabled and disabled. If a **current route** exists in the route panel, it is displayed on the Map as a *magenta* route line.

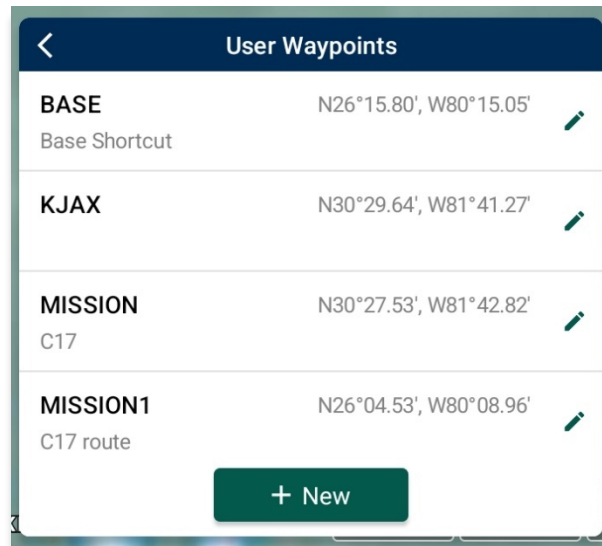


14.3.4.6 User Waypoints

User Waypoints are a collection of waypoints that were created by users through Aero App. Each waypoint contains information such as its ID, Name, Latitude, and Longitude.

Aero App enables users to create User Waypoints directly from the User Waypoints screen. Tap **+ New** and follow the prompts. Refer to [Section 25.1.1](#) for additional information. Alternatively, users can sideload User Waypoints. Refer to [Section 10.5](#) for additional information.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Show** from the side menu.
4. Tap **User Waypoints**. A list of User Waypoints will be shown.
5. To delete a user waypoint, swipe left to reveal the delete button of the waypoint that you choose to permanently remove. Tap **Delete**.
6. The delete confirmation popup for the User Waypoint will be displayed. Tap **Delete** to confirm action.



Aero App allows users to modify their user waypoints directly on the User Waypoints view.

7. Tap on the **pencil icon** of the user waypoint that you wish to modify.
8. Tap on the field that you wish to change and enter new values.
9. Tap **Save** and your changes will be saved.

14.3.4.7 Route Line Transparency

Route Line Transparency allows users to adjust the translucency of their flight path displayed on the Map view.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Tap **Route Manager** located at the bottom right of the Route Panel.
3. Select **Show** from the side menu.
4. Navigate to the Route Line Transparency slider bar.
5. By default, the Route Line Transparency value is set to 50%. Drag the slider to adjust the route transparency to any value between 20% to 100%.

Transparency value of 20%



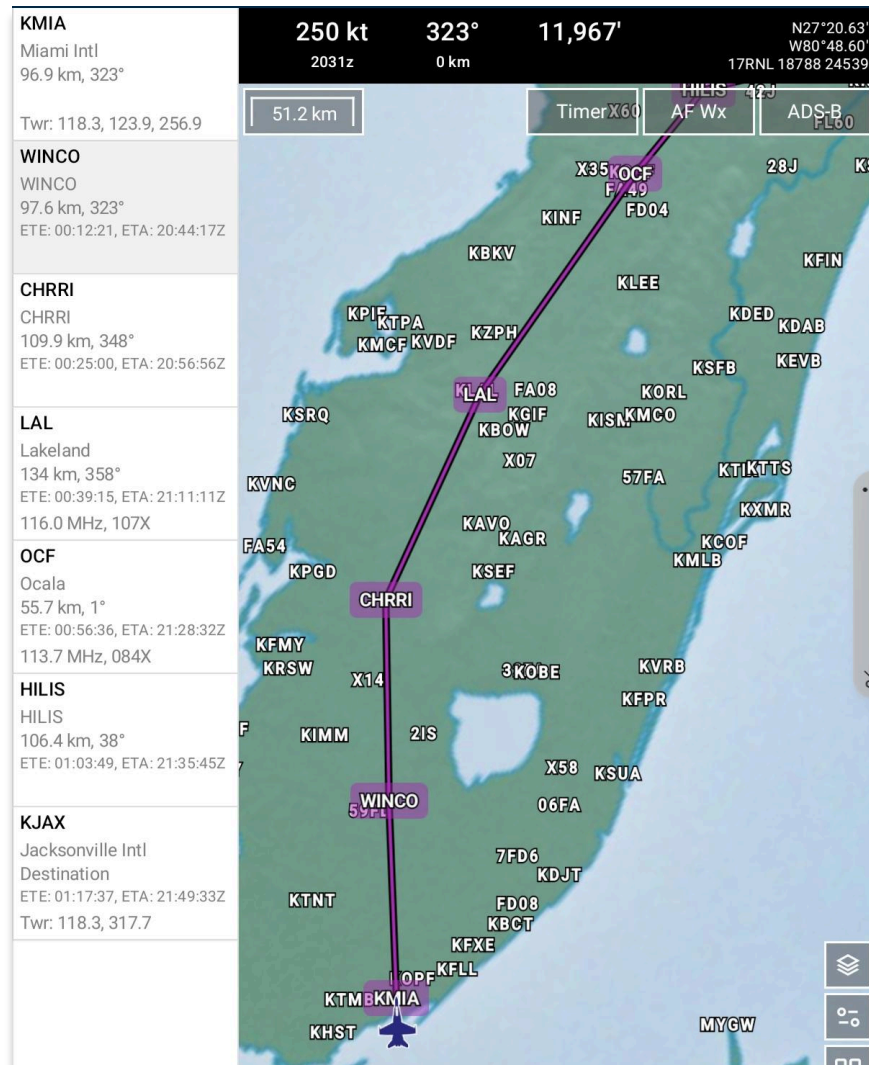
Transparency value of 100%



14.3.5 Estimated Time En Route (ETE) and Estimated Time of Arrival (ETA)

Estimated Time En Route (ETE) and Estimated Time of Arrival (ETA) are calculated for each segment of a flight route. ETE is the estimated time it takes to reach a point from your current location. The time gets updated as the ownship moves closer to the point. ETA is the estimated time at which you will arrive at the designated location.

1. Tap **Route** on the **Main Menu**. The Route Panel will expand.
2. Enter desired route.
3. Each segment of the flight's route will display its respective ETE and ETA.

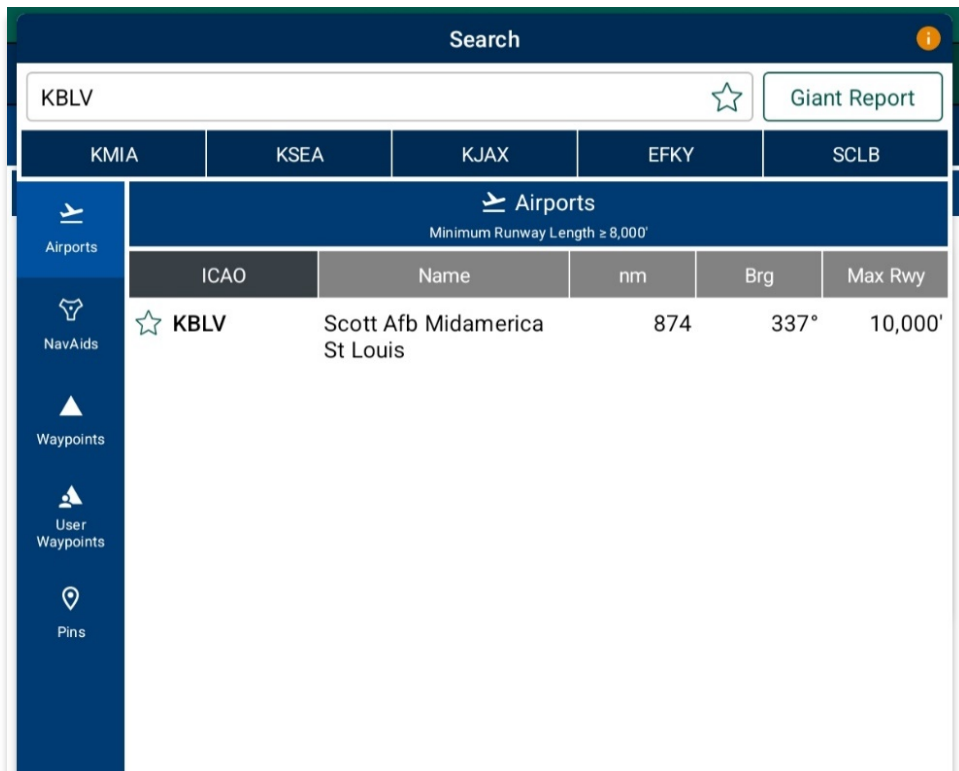


NOTE: Estimated Time of Arrival (ETA) will display in Zulu time.

15 Search

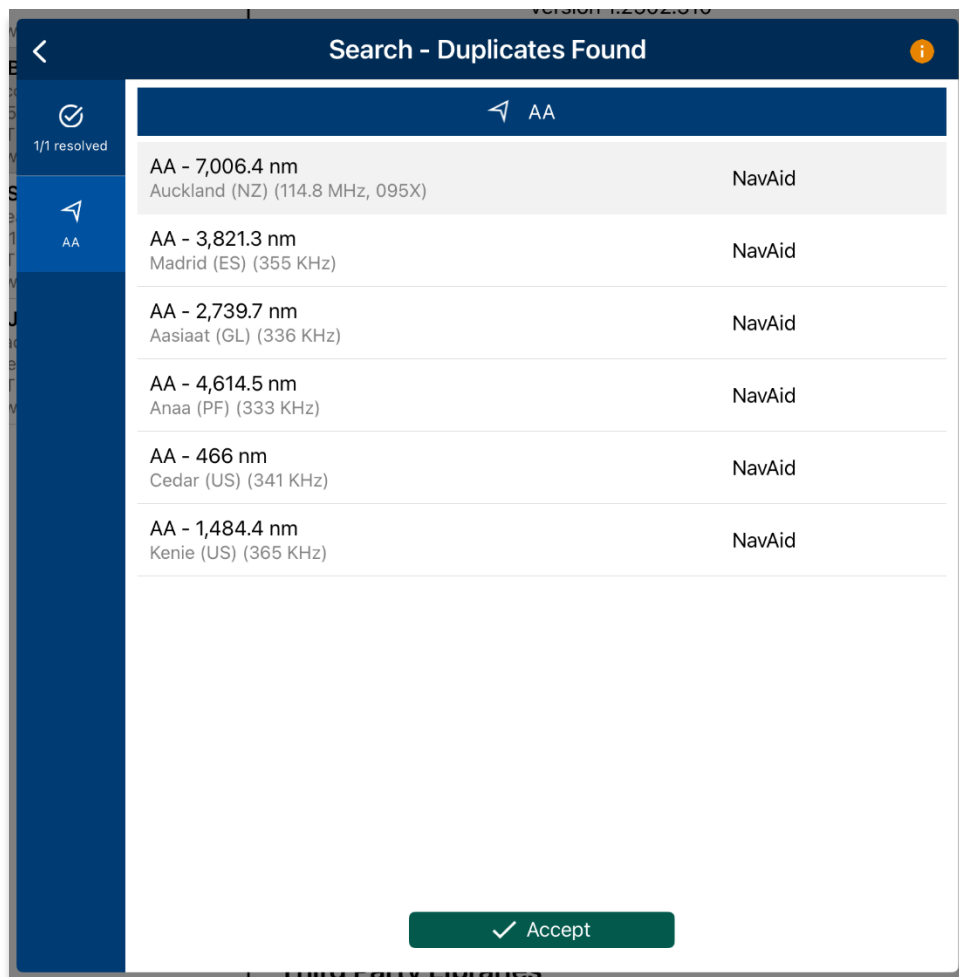
Search (search icon) is located on the Main Menu. Users can search by a point's ID (identifier) or by entering a search term. Users can filter airports by setting a minimum runway length in their Settings. Once an identifier or search term has been selected, it will become the Active Point. Options such as the identifier overview, diagrams, charts, weather, and other supporting sources are available to view.

1. Tap **Search** on the **Main Menu**.
2. The Search popup will appear. Tap the **text box** to open your device's keyboard.
3. Enter an identifier or search for a desired point.
4. The search results are divided into different identifier types. Select from Airports, NavAids, Waypoints, User Waypoints, or Pins. Alternatively, users can tap **Search** on the device's keyboard and the searched identifier will become an active point.



NOTE: The Search view will display the five most recently searched airports.

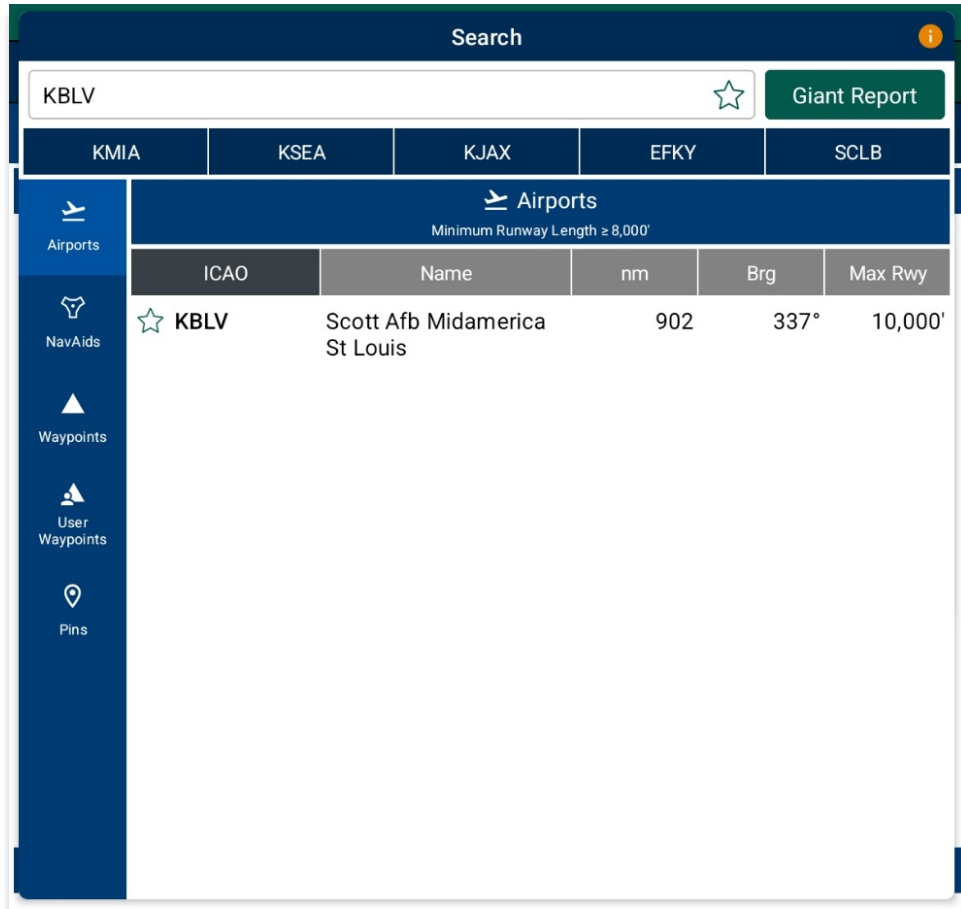
5. If duplicate points are found during a search, a popup will appear displaying the list of duplicates. Choose one of the duplicate points to resolve the issue.
6. Select **Accept**.



Giant Report

Aero App allows users to search for an airport's Giant Report. Giant Report data must be downloaded and active to view the PDF.

1. Tap the **Giant Report** button to enable the option.
2. Enter a desired identifier or search term in the search text box.
3. Select desired airport. The Giant Report document will open.



Add an Identifier to Favorites

Aero App allows users to add identifiers such as Airports, NavAids, and Waypoints to their *Favorites* list.

1. Enter a desired identifier in the search text box.
2. After three characters are entered, an auto search will begin. Locate desired identifier that you wish to add to *Favorites*.
3. Tap the **Star** located next to the identifier; the Star will convert to green.
4. To remove an identifier from *Favorites*, tap the **Star** for the second time and the identifier will be removed from *Favorites*.
5. To view all identifiers marked as favorite, remove all characters from the search box then tap the **Star**. The Favorites list will display respective to the identifier type that was selected (e.g., Airports, NavAids, and Waypoints).

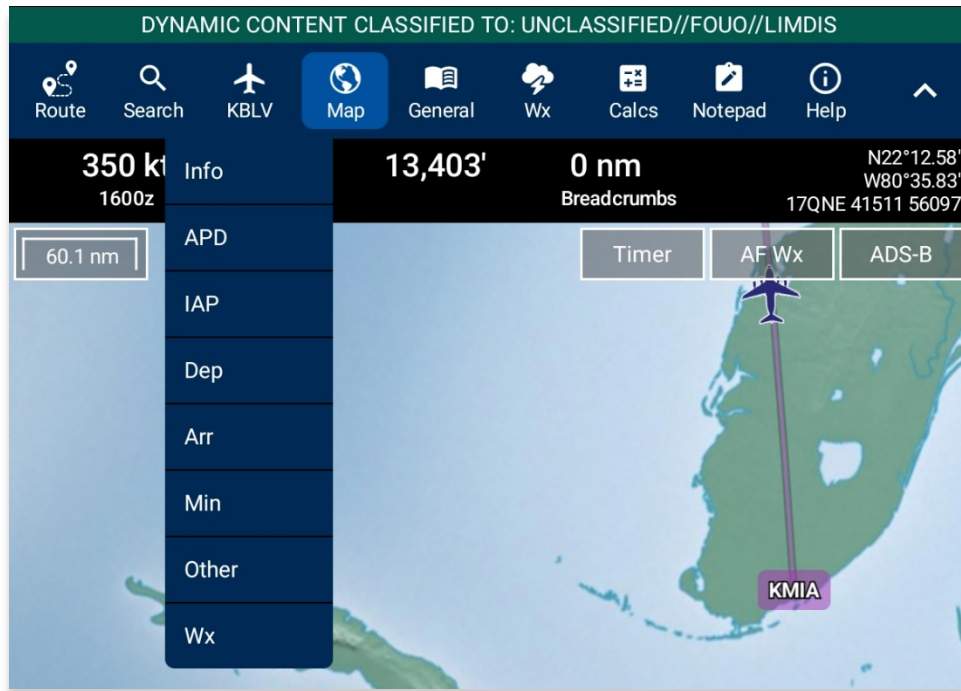
Search					
Enter identifier or search term				★	Giant Report
KMIA	KSEA	KJAX	EFKY	SCLB	
<div>Airports</div> <div>Minimum Runway Length ≥ 8,000'</div>					
ICAO	Name	nm	Brg	Max Rwy	
★ EFKY	Kymi	4,529	35°	2,788'	
★ HUEN	Entebbe Intl	6,636	86°	12,001'	
★ KMIA	Miami Intl	27	141°	13,016'	
★ KSEA	Seattle Tacoma Intl	2,335	321°	11,901'	
★ SCLB	Los Pehuenches	3,847	180°	2,625'	



NOTE: Users can add their desired identifiers to *Favorites* directly from Add to Route, Active Point search, Maxar, or Move Map to Location features.

16 Active Point

The Active Point is located on the Main Menu and is activated once an identifier or search term is searched. When conducting an ICAO search, a drop-down menu will display, offering options to view airport Info, APD, IAP, Dep, Arr, Min, Wx, and other relevant charts and documents corresponding to the ICAO being searched.



16.1 Identifier Information

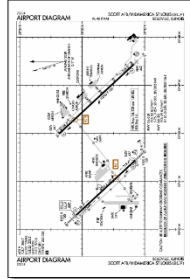
The Info submenu displays detailed airport information of the searched airport. Airport information includes General Information, AQPs, Communications, Runways, and Remarks. The Airport Diagram, Chart Supplement, Giant Report, and Host Nation options are in the General Information section.

General and other relevant information for identifiers such as NavAids, Waypoints, and User Waypoints are available to users. Global is required to access identifier information.

The Info page can be viewed in various locations within Aero App. Users can tap the Active Point on the Main Menu or the Route Panel, or by simply pressing a point on the Map view.

General Information contains the identifier summary such as the ICAO, name, location, region, elevation, latitude, longitude, magnetic variance, and more. The General Information section may include accessibility to Airport Diagram, Chart Supplement, Giant Report, and Host Nation, respective to the selected identifier. To view charts and Giant Report data, users must download the respective region files, Global, and Giant Report data.

General Information

ICAO KBLV	
Name Scott AFB Midamerica St Louis	
Location Belleville, Illinois United States	
Region CONUS	
Elevation 459'	
Latitude N38°32.71' 38.545178°	
Longitude W89°50.11' -89.835211°	
Magnetic Variance -2.2°	
Rot Beacon Yes	
Arresting Gear No	
Chart Supplement Yes	<div style="background-color: #006633; color: white; padding: 2px 10px; display: inline-block; margin: 2px;">Chart Supplement</div> <div style="background-color: #006633; color: white; padding: 2px 10px; display: inline-block; margin: 2px 5px;">Giant Report</div> <div style="background-color: #006633; color: white; padding: 2px 10px; display: inline-block; margin: 2px;">Host Nation</div>
In DAFIF Yes	
Giant Report Yes (2024-03-10)	

Airport Qualification Program (AQP) is available for select airports.

AQP

Mountainous terrain




Communications include tower frequencies, remarks, and call signs for the selected airport.

Communications

126 ARW COMD POST	138.55, 277.7
375 AMW COMD POST	139.9, 349.4
ATIS	128.7, 256.7
	Opr 1200-0600Z++.
CLNC DEL	119.875, 263.025
GND	119.2, 275.8

Runways contain airport runway information such as the runway dimensions, surface, condition, PNC, LCN, and more.

/\ Runways			
Runway 14L/32R			
Dimensions	10,000' x 150'		
Surface	Concrete		
Condition	Good		
PCN	82		
LCN	108		
Runway 14L		Runway 32R	
Heading	138.0° magnetic 136.6° true	Heading	318.0° magnetic 316.6° true
TDZE	442'	TDZE	442'
Latitude	N38°33.37' 38.556197°	Latitude	N38°32.18' 38.536261°
Longitude	W89°50.01' -89.833494°	Longitude	W89°48.57' -89.809456°

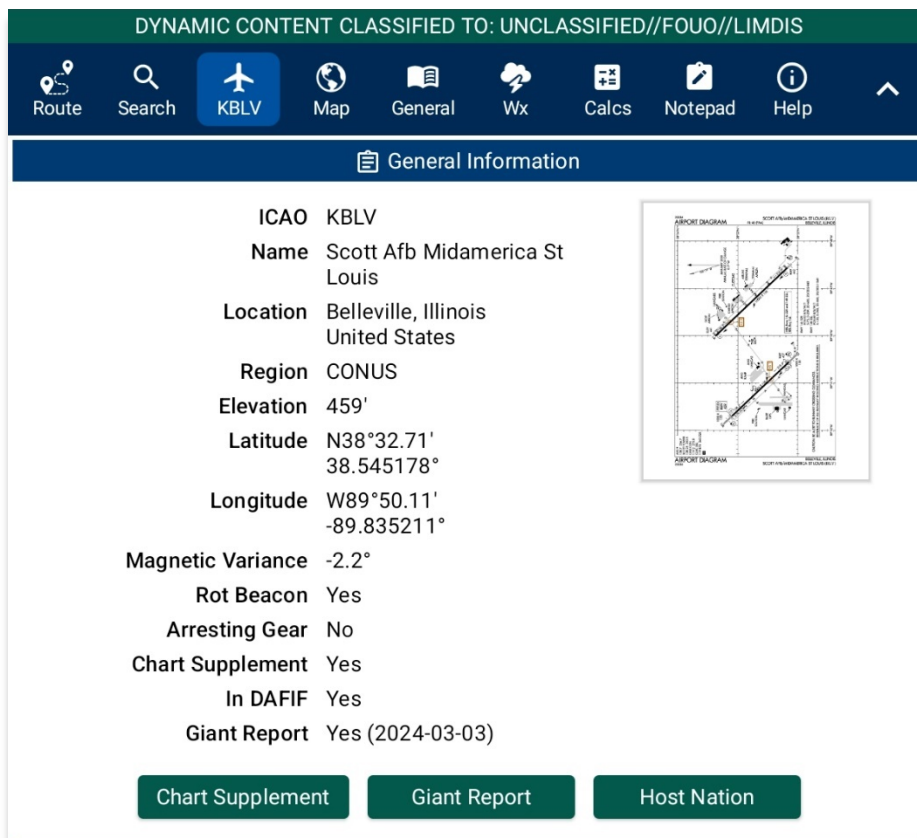
Remarks provide airport conditions, fuel type, and other cautionary advice.

Remarks
CAUTION Dense civ air tfc all quad, all alt. Unexpected bumps occur on Twy G btn rwys when crossing bridges and tunnels. Use min speed when opr in area. Use caution when utilizing Twy G, 0.25 NM E of Rwy 14R-32L int, grad chg of 3° and a 70° turnpresent. On coming tfc may not be vis due to terrain. Bird and wildlife haz.
CSTM/AG/IMG NAV CSTMS avbl. Ctc base OPS 72 hrs prior to exp arr to coord. Civ acft must be cleared by US CSTMS if given a min 72 hr ntc prior to acft arr.
FLUID SP(Mil) PRESAIR(Mil) LHOX(Mil) LOX(Mil)
FUEL A++(Mil) 100LL A+; Scott AFB fuel svc avbl 1100-0500Z++, OT rqr 1 hr PN.
JASU 6(A/M32A-86) 3(AM32-95)
LGT Train track lctd approx 1650' fr displ thld of Rwy 32L; Rwy 32L APP lgt interrupted by passing train.

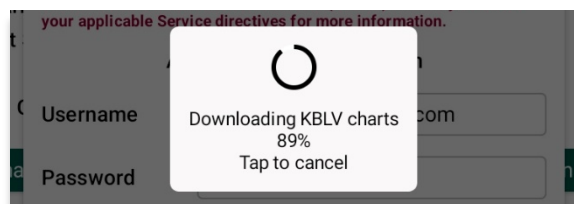
16.1.1 Download Host Nation Charts

Users are required to possess an ASPS account to utilize the Host Nation feature. Users must log in to their ASPS account to download charts. Refer to [Section 5.4](#) for additional information.

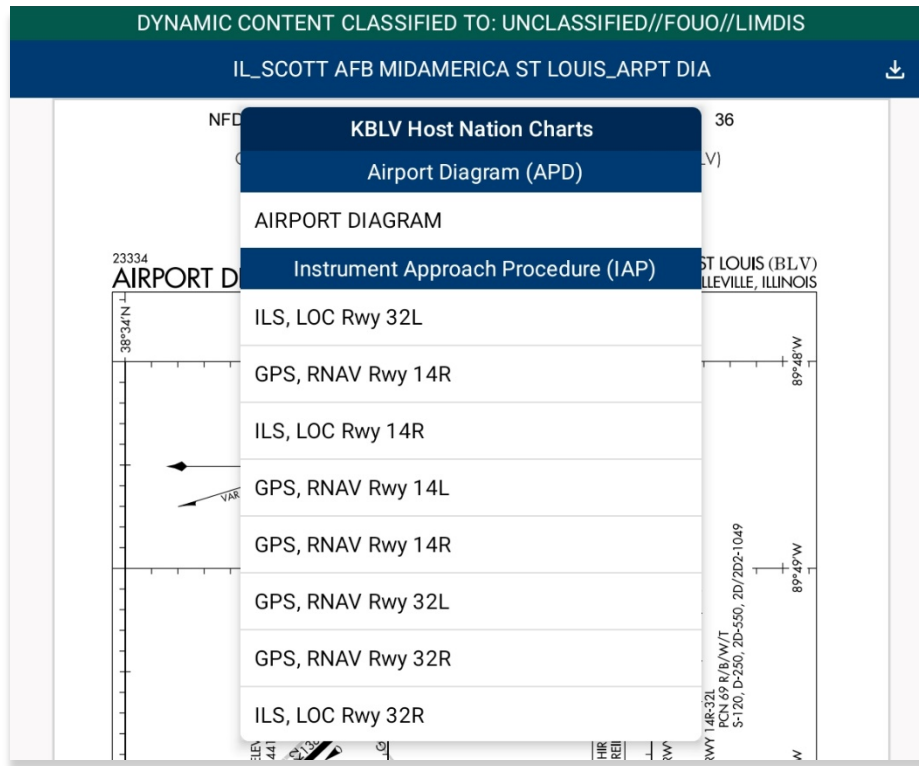
1. Ensure you search for an airport of choice.
2. Tap **Active Point** on the **Main Menu**. The Active Point options will be displayed.
3. Select **Info**.
4. Tap **Host Nation** in the *General Information* section.



5. Log in with your ASPS credentials.
6. Once credentials are entered, the Host Nation chart for your airport of choice will begin to download.



7. Once the download is complete, the screen will switch to the chart view. Tap on the ribbon located at the top of the screen.
8. The chart selection popup will appear. Select desired chart to display.



9. Users have the option to redownload the charts to view the latest version by tapping the download button.



NOTE: Host Nation chart downloads can be managed through Aero App's File Manager.

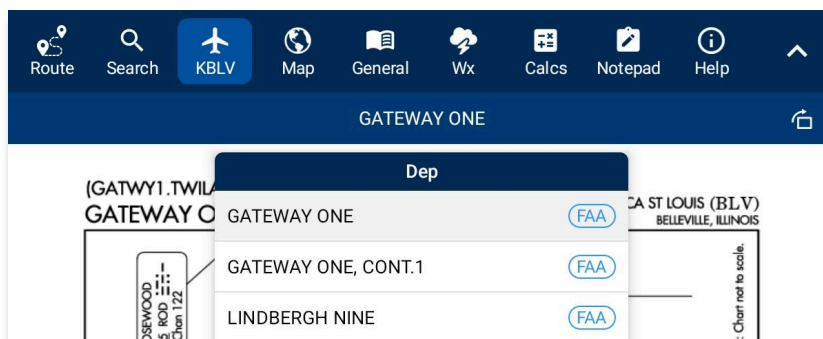


NOTE: The downloaded Host Nation charts can be viewed on the Host Nation page.

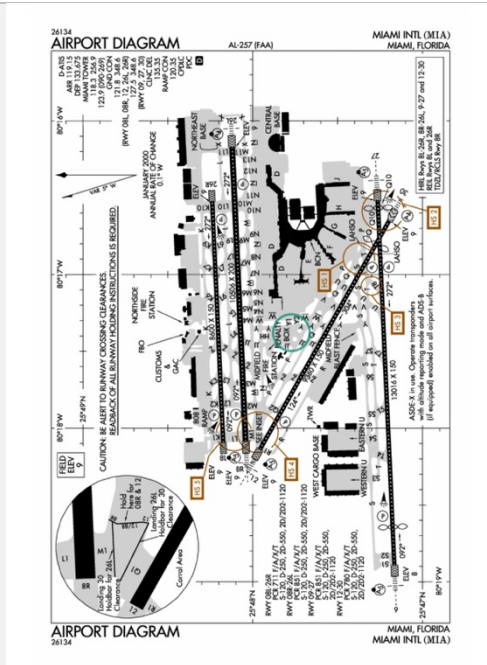
16.2 Airport Chart Options

Users can view Airport charts including Airport Diagram (APD), Instrument Approach Procedure (IAP), Departure Procedure (Dep), Arrival Procedure (Arr), Alternate Minimums/ RADAR Minimums/ Takeoff Minimums (Min), Other – displays special procedures and RNAVs among others, and Host Nation charts. Tap the Active Point Menu to display additional airport options. This is exclusive to airports only.

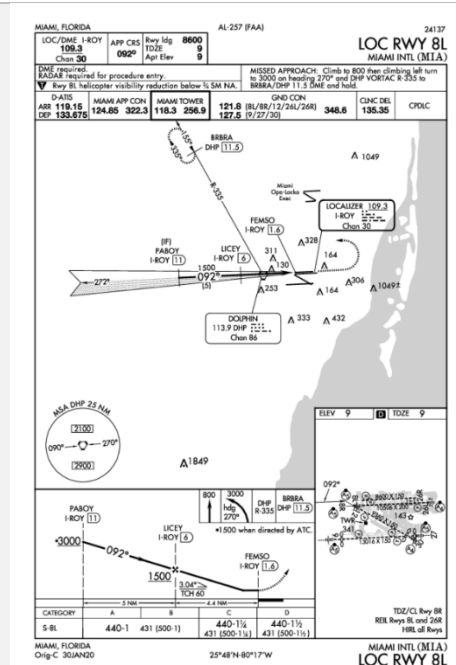
1. Tap **Active Point** on the **Main Menu**. The Active Point options will be displayed.
2. Select desired chart type. The selected chart will display.
3. Tap on the **ribbon** to display the full list of available chart options.



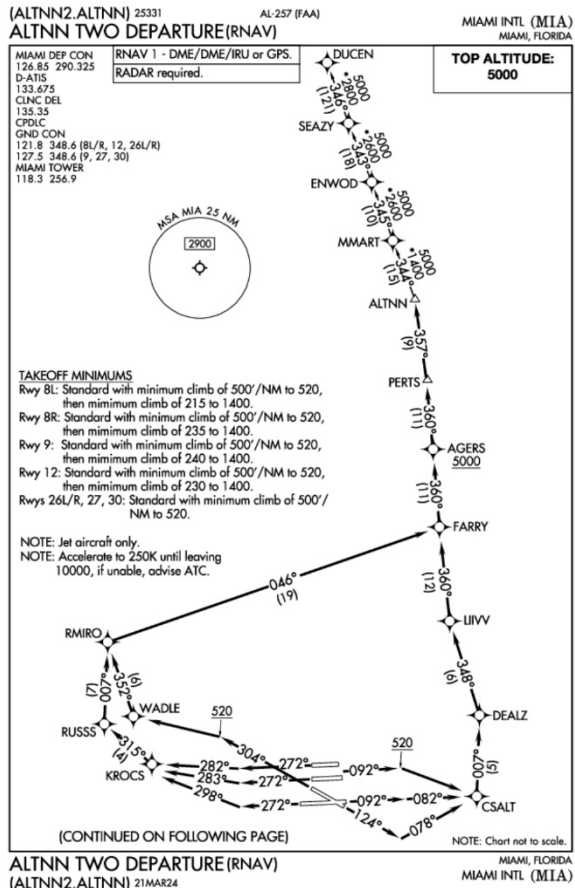
Airport Diagram (APD)



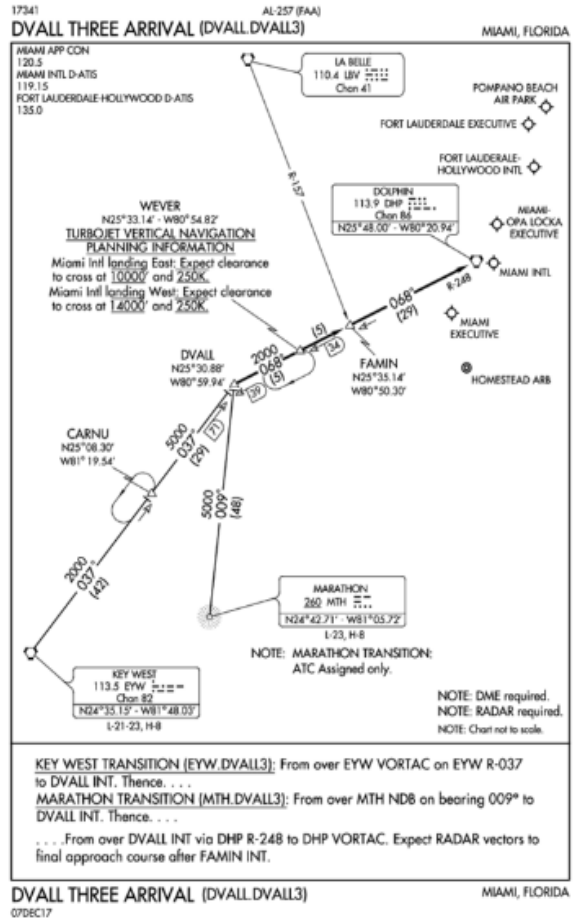
Instrument Approach Procedure (IAP)



Departure Procedures



Arrival Procedures



NOTE: The Min tab includes Alternate, RADAR, and Takeoff Minimums options.

Alternate/ RADAR/ Takeoff Minimums

Other

Alternate/ RADAR/ Takeoff Minimums	Other
<div> <div> <div>22307</div> <div> <div>ALTERNATE MINS</div> <div>MS</div> </div> </div> <div> <div>NAME</div> <div>ALTERNATE MINIMUMS</div> <div> <div>SAN JUAN, PR</div> <div>LUIS MUNOZ MARIN INTL (SJU).....ILS or LOC Rwy 8¹² ILS or LOC Rwy 10¹² NDB Rwy 8¹⁴ RNAV (GPS) Rwy 8¹ RNAV (GPS) Rwy 10¹ RNAV (GPS) Rwy 26¹ RNAV (GPS) Rwy 28¹ VOR or TACAN Rwy 8¹² VOR or TACAN Rwy 10¹² VOR or TACAN Rwy 26¹²</div> <div>¹ILS, LOC, Category D, 1000-3. ²NA when local weather not available. ³ILS, LOC, Category D, E, 1000-3. ⁴Category D, 1000-3. ⁵Category D, E, 1000-3.</div> <div> <div>SARASOTA/BRADENTON, FL</div> <div>SARASOTA/BRADENTON INTL (SRQ).....ILS or LOC Rwy 14 ILS or LOC Rwy 32</div> <div>NA when control tower closed.</div> </div> <div> <div>SEBRING, FL</div> <div>SEBRING RGNL (SEF).....RNAV (GPS) Rwy 14¹ RNAV (GPS) Rwy 32</div> <div>Category D, 800-2¼. ¹NA when local weather not available.</div> </div> <div> <div>STUART, FL</div> <div>WITHAM FLD (SUA).....RNAV (GPS) Rwy 30</div> <div>NA when local weather not available.</div> </div> <div> <div>TALLAHASSEE, FL</div> <div>TALLAHASSEE INTL (TLH).....ILS or LOC Rwy 27¹² ILS or LOC Rwy 36¹² RADAR-1¹ RNAV (GPS) Rwy 9¹ RNAV (GPS) Rwy 18¹ RNAV (GPS) Rwy 27¹ RNAV (GPS) Rwy 36¹ VOR/DME or TACAN Rwy 36¹ VOR Rwy 18¹²</div> <div>¹NA when control tower closed. ²ILS, Categories A, B, C 800-2; Category D, 800-2¼; Category E, 1000-3; LOC, Category D, 800-2¼; Category E, 1000-3. ³ILS, Category D, 700-2¼; LOC, Category D, 800-2¼. ⁴Category D, 800-2¼. ⁵Category D, 800-2¼; Category E, 1000-3. ⁶NA when local weather not available.</div> </div> </div> </div> <div> <div>NAME</div> <div>ALTERNATE MINIMUMS</div> <div> <div>TAMPA, FL</div> <div>PETER O KNIGHT (TPF).....RNAV (GPS) Rwy 22 RNAV (GPS) Rwy 36</div> <div>NA when local weather not available.</div> </div> <div> <div>TAMPA EXEC (VDF).....ILS or LOC Rwy 23¹ RNAV (GPS) Rwy 3¹ RNAV (GPS) Rwy 18 RNAV (GPS) Rwy 23²</div> <div>NA when local weather not available. LOC, Category C, 800-2¼. ²Category C, 800-2¼.</div> </div> <div> <div>TAMPA INTL (TPA).....ILS or LOC Rwy 1L¹ ILS or LOC Rwy 19L² LOC Rwy 1R¹ RNAV (GPS) Rwy 1L¹ RNAV (GPS) Rwy 1R¹ RNAV (GPS) Rwy 10¹ RNAV (GPS) Rwy 19R¹ RNAV (GPS) Rwy 28¹ RNAV (GPS) Z Rwy 19L²</div> <div>¹ILS, Category C, 700-2; Categories D, E, 1000-3; LOC Categories D, E, 1000-3. ²ILS, Category C, 700-2; Category D, 1000-3; LOC Category D, 1000-3. ³Categories A, B, 1300-2; Categories C, D, 1300-3. ⁴Categories D, E, 1000-3. ⁵Category D, 1000-3.</div> </div> <div> <div>TITUSVILLE, FL</div> <div>SPACE FLORIDA LAUNCH AND LANDING FACILITY (TTS).....RNAV (GPS) Rwy 15¹² RNAV (GPS) Rwy 33¹²</div> <div>¹NA when local weather not available. ²Categories D, E, 1000-3. ³Category C, 1000-2¼; Category D, E, 1000-3.</div> </div> <div> <div>SPACE COAST</div> <div>RGNL (TX).....ILS or LOC Rwy 36¹ RNAV (GPS) Rwy 9¹ RNAV (GPS) Y Rwy 18¹ RNAV (GPS) Z Rwy 18¹ RNAV (GPS) Rwy 36¹</div> <div>¹NA when local weather not available. ²NA when control tower closed.</div> </div> <div> <div>VENICE, FL</div> <div>VENICE MUNI (VNC).....RNAV (GPS) Rwy 5 RNAV (GPS) Rwy 13 RNAV (GPS) Rwy 23 RNAV (GPS) Rwy 31</div> <div>NA when local weather not available. Category D, 1000-3.</div> </div> </div> </div>	<div> <div>21224</div> <div> <div>RNAV DEPARTURE AAUP</div> <div>AL-257 (FAA)</div> </div> <div> <div>MIAMI INTL (MIA)</div> <div>MIAMI, FLORIDA</div> </div> </div> <div> <div>ATTENTION ALL USERS PAGE (AAUP)</div> <div> <div>1. PREFLIGHT: All aircraft capable of conducting Terminal RNAV procedures should expect an RNAV SID clearance. If unable to accept the RNAV SID clearance, advise Clearance Delivery. Upon assignment of an RNAV SID, crosscheck the charted RNAV SID with the aircraft navigation system against the ATC clearance. Consider the following cross items:</div> <ul style="list-style-type: none"> * Preplan Runway, ensure expected departure runway is selected/displayed * Ensure all transitions are selected/displayed correctly * Ensure sequence of waypoints match the appropriate charts * Use the LEGS page to verify routing (for navigation systems with ROUTE and LEGS pages) * Ensure altitude set in the altitude window matches the TOP ALTITUDE of the SID or altitude assigned by ATC * Advise ATC prior to takeoff if unable to verify correct loading or if unable to comply with the SID * Do not modify or manually construct RNAV procedures <div>2. BEFORE TAKEOFF: Ensure that the Departure Runway assigned is displayed on the navigation system.</div> <ul style="list-style-type: none"> * Verify all modification, including runway changes, in the navigation system with the RNAV SID * Verify aircraft symbol relative to the runway symbol, lateral track, and displayed route agree with the ATC clearance (electronic navigation map displays) * Confirm proper navigation/FMS selection are displayed when runway or route changes are issued by ATC <div>3. LINE UP/TAKEOFF: Pilots can expect a takeoff clearance from ATC that will include "RNAV to" the first waypoint on the SID, or a heading. If tower issues an initial departure heading in take-off clearance, DO NOT DELETE the ATC issued RNAV SID from active FMS, and expect ATC DIRECT/JOIN clearance to resume RNAV SID during departure.</div> <ul style="list-style-type: none"> * SAMPLE PHRASEOLOGY <ol style="list-style-type: none"> Clearance: "RNAV to CSALT, Runway 8R, Cleared for Takeoff" Response: "RNAV to CSALT, Runway 8R, Cleared for Takeoff" * Verify the correct runway and SID are selected/displayed and the correct lateral navigation mode is available and ready for use after takeoff * If the takeoff clearance does not match the selected/displayed procedure, request an initial heading from tower or refuse the takeoff clearance until the discrepancy is resolved <div>4. AFTER TAKEOFF: Unless instructed to fly a heading by ATC, engage lateral navigation flight guidance as soon as practical but no later than 400 feet AGL, and fly the departure. Strict compliance with the lateral and vertical tracks and charted speed restrictions is imperative.</div> <ul style="list-style-type: none"> * Once established on the procedure, maintain route centerline, as depicted by onboard lateral navigation indicators * Manually intervene if necessary, to stay on track to avoid transgressing in the direction of a parallel runway, track, or aircraft * If unable to comply with the SID profile, either laterally or vertically, immediately notify ATC <div>5. SPECIFIC INFORMATION: 0700 - 2300 local runway 8L/R, 9, 26L/R, 27 simultaneous departures, all RNAV equipped aircraft departing MIA should expect to fly a MIA RNAV DEPARTURE SID. In the event of weather or other non-standard events, headings may be issued in lieu of an RNAV off the ground take off clearance.</div> <ul style="list-style-type: none"> * Final runway assignments will be issued on initial contact with Ground Control </div> </div> <div> <div>RNAV DEPARTURE AAUP</div> <div>25°48'N 80°17'W</div> <div>MIAMI, FLORIDA</div> <div>Orig 12AUG21</div> <div>MIAMI INTL (MIA)</div> </div>



NOTE: Use two fingers to zoom in on desired document display and use the opposite gesture to zoom out.



NOTE: A blank state message will appear indicating that there is no data downloaded.

16.2.1 Draw on Airport Diagram (APD) and Instrument Approach Procedure (IAP) Charts

The Draw on APD and IAP feature allows you to freely make markings on your desired chart(s) to highlight a specific location or element.

1. Tap **Active Point** on the **Main Menu**. The Active Point options will be displayed.
2. Select **APD** or **IAP** and selected airport chart will display.
3. Tap the **pencil icon** on the top left of the view to activate the drawing tool. The pencil icon will be replaced with the following options to make edits to your annotations:
 - **CLEAR** – erases all markings on the selected chart
 - **UNDO** – reverses the previous markings on the selected chart
 - **EXIT** – exits out of the drawing tool
4. To rotate the chart clockwise, tap the **Rotate** button on the top right of the view.



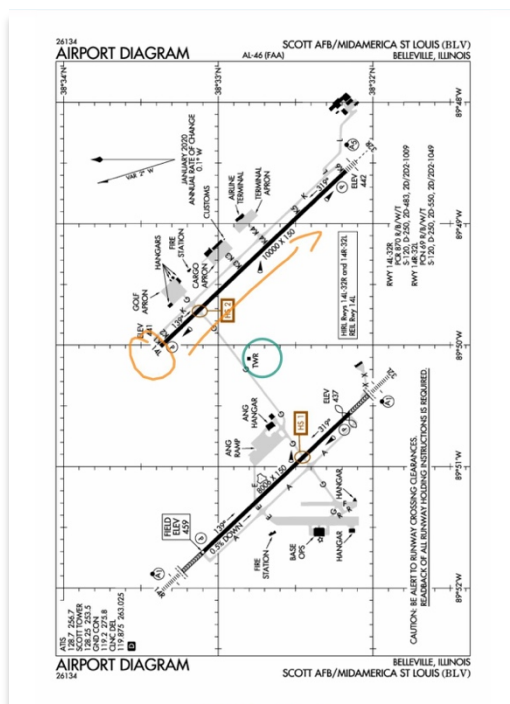
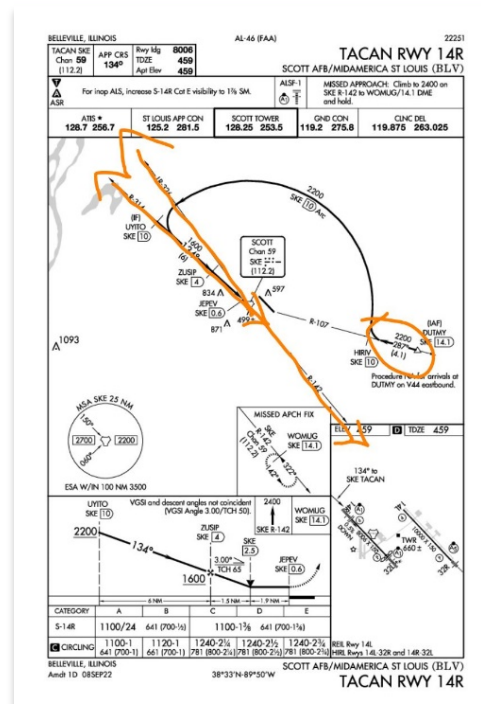
Rotate chart clockwise



NOTE: Drawings on Charts persist across cycles for six months.



NOTE: The Draw on Chart feature is only available for Airport Diagrams and Instrument Approach Procedures.



16.3 Weather and Information About Potential Hazards

An internet connection is required to view weather and potential flight hazard information for the selected airport. The Wx menu offers the following options and will be further elaborated in the sections below:

- Internet
- METARs
- TAFs
- Winds
- Temps
- PIREPs
- NOTAMs

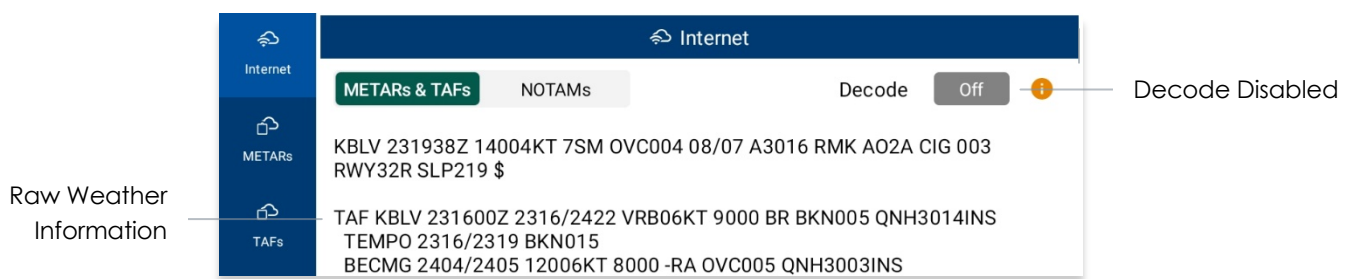
16.3.1 Internet

The Internet section describes how to retrieve METARs and Terminal Aerodrome Forecasts (TAFs) information. A NOTAMs button is available, which redirects users to the NOTAMs website.

METARs and Terminal Aerodrome Forecasts (TAFs)

Aero App displays METARs and Terminal Aerodrome Forecasts (TAFs) information from Aviation Digital Data Service.

1. Ensure you search for an airport of choice.
2. Tap **Active Point** on the **Main Menu**. The Active Point options will be displayed.
3. Select **Wx**.
4. Select **Internet** from the side menu, if necessary.
5. Select **METARs & TAFs** to view information for the selected airport.



6. Tap the **Decode** button to enable the option. Users can view raw or decoded weather information for the selected airport.

Decoded Weather Information

Internet

METARs & TAFs NOTAMs Decode On

Decode Enabled

METARs

TAFs

Winds

Temps

PIREPs

NOTAMs

SPECI for KBLV (Belleville/Scott AFB, IL, US) observed at 2035 UTC 23 Jan 2024
Text: KBLV 232035Z 0000KT 4SM BR BKN004 OVC009 08/07 A3015 RMK
AO2A CIG 002 RWY32R SLP216 \$
Temperature: 8C (46.4 F)
Dewpoint: 7C (44.6 F)
Altimeter: 30.15 inches Hg (1021.1 mb)
Sea level pressure: 1021.6 mb
Winds: calm
Visibility: 4 sm
Ceiling: 400 feet AGL
Clouds: broken clouds at 400 feet AGL, overcast cloud deck at 900 feet AGL
Weather: BR (mist)

TAF for: KBLV (Belleville/Scott AFB, IL, US) issued at 1600 UTC 23 Jan 2024
Text: TAF KBLV 231600Z 2316/2422 VRB06KT 9000 BR BKN005 QNH3014INS
Forecast period: 1600 UTC 23 Jan 2024 to 0400 UTC 24 Jan 2024
Forecast type: FM
Winds: from VRB degrees at 6 knots
Visibility: 6 sm (9 km)
Ceiling: 500 feet AGL
Clouds: broken clouds at 500 feet AGL
Weather: BR (mist)

Text: TEMPO 2316/2319 BKN015
Forecast period: 1600 UTC 23 Jan 2024 to 1900 UTC 23 Jan 2024
Forecast type: TEMPO
Ceiling: 1500 feet AGL
Clouds: broken clouds at 1500 feet AGL

Text: BECMG 2404/2405 12006KT 8000 -RA OVC005 QNH3003INS
Forecast period: 0400 UTC 24 Jan 2024 to 1800 UTC 24 Jan 2024
Forecast type: BECMG
Winds: from 120 degrees at 6 knots
Visibility: 5 sm (8 km)
Ceiling: 500 feet AGL
Clouds: overcast cloud deck at 500 feet AGL
Weather: -RA (light rain)

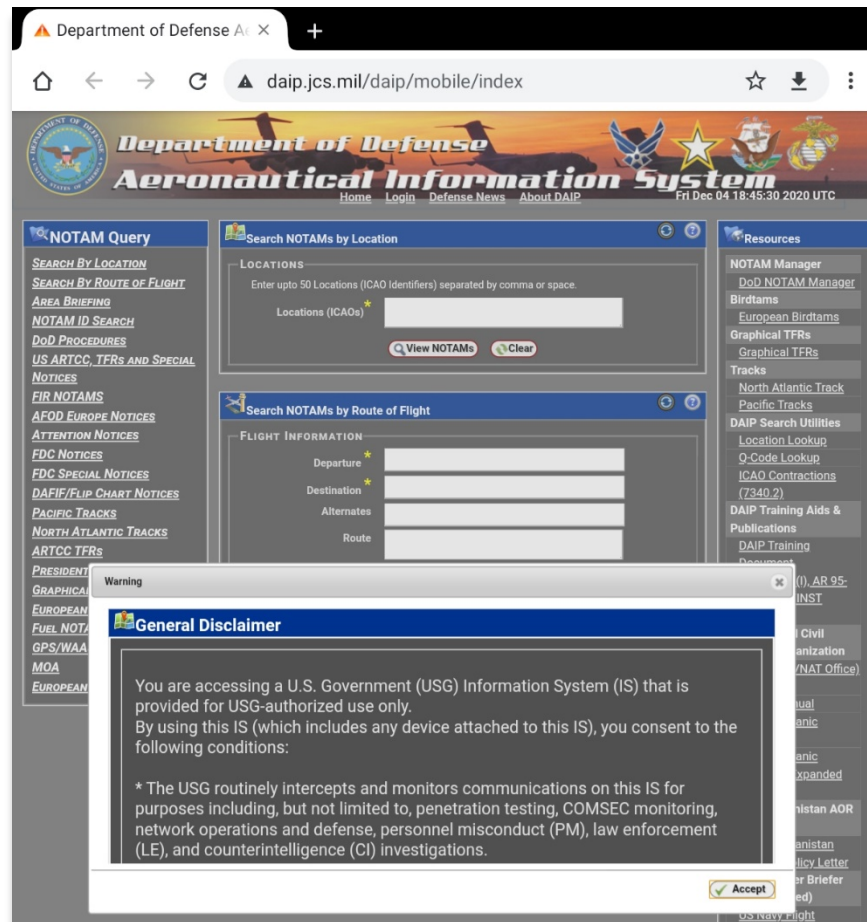
Text: BECMG 2418/2419 19006KT 6000 BR OVC005 QNH3002INS
Forecast period: 1800 UTC 24 Jan 2024 to 1900 UTC 24 Jan 2024
Forecast type: BECMG
Winds: from 190 degrees at 6 knots
Visibility: 4 sm (6 km)
Ceiling: 500 feet AGL
Clouds: overcast cloud deck at 500 feet AGL
Weather: BR (mist)

Text: BECMG 2419/2420 24006KT 6000 BR OVC006 QNH3000INS

Notice to Airmen (NOTAMs) Website

Notice to Airmen (NOTAMs) are notices to alert pilots of potential hazards along a flight route or at a location that can affect the safety of the flight.

1. Ensure you search for an airport of choice.
2. Tap **Active Point** on the **Main Menu**. The Active Point options will be displayed.
3. Select **Wx**.
4. Select **Internet** from the side menu, if necessary.
5. Tap **NOTAMs** and users will be redirected to the Department of Defense Aeronautical Information System browser.



16.3.2 METARs

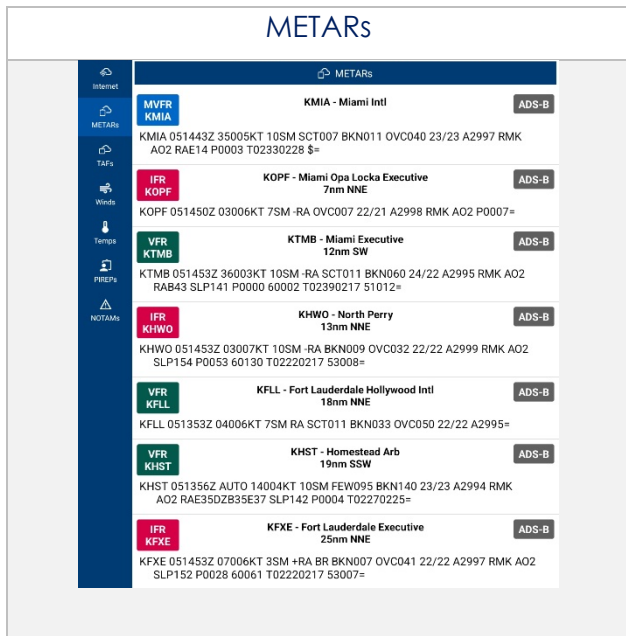
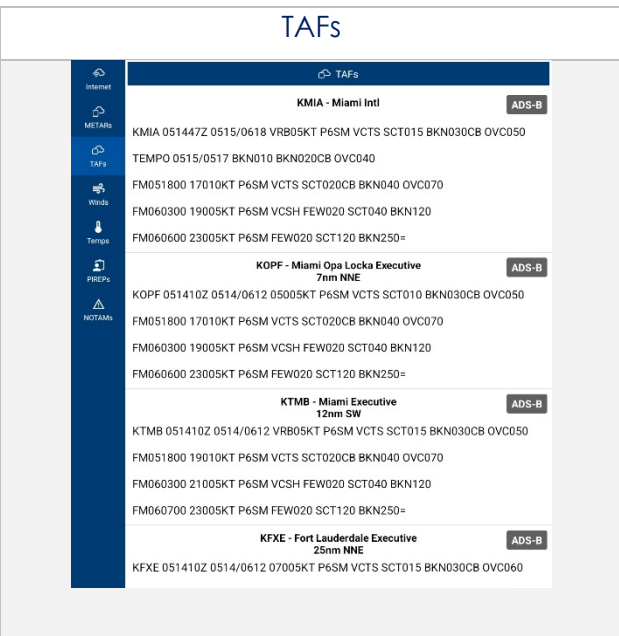
The METARs tab displays raw weather information for ADS-B and Air Force Weather (AF Wx) data that may include temperature, precipitation, visibility, barometric pressure, and other information of interest to pilots.

1. Ensure you search for an airport of choice.
2. Tap **Active Point** on the **Main Menu**. The Active Point options will be displayed.
3. Select **Wx**.
4. Select **METARs** from the side menu. Aero App will display ADS-B data information.

16.3.3 Terminal Aerodrome Forecasts (TAFs)

Terminal Aerodrome Forecasts (TAFs) highlight the expected meteorological conditions at an airport during a specific period, typically 24 hours.

1. Ensure you search for an airport of choice.
2. Tap **Active Point** on the **Main Menu**. The Active Point options will be displayed.
3. Select **Wx**.
4. Select **TAFs** from the side menu. Aero App will display the TAFs data.

METARs	TAFs
	



NOTE: Refer to [Section 17.3](#) for additional information for Air Force Weather (AF Wx).

16.3.4 Winds and Temps

Winds and Temps are forecasts of specific atmospheric conditions in terms of wind and temperature at certain altitudes; typically measured in feet above mean sea level. Wind direction is always in reference to true north. The wind speed is measured in knots, and the temperature is measured in Celsius.

1. Ensure you search for an airport of choice.
2. Tap **Active Point** on the **Main Menu**. The Active Point options will be displayed.
3. Select **Wx**.
4. Select **Winds** from the side menu. Aero App will display winds data.
5. Select **Temps** from the side menu. Aero App will display temperature data.

Internet

METARs

TAFs

Winds

Temps

PREFs

NOTAMS

Winds

Valid: 051800Z

ID	3K	6K	9K	12K	18K	24K	30K
KEYW	200@14	210@21	210@31	210@38	250@34	230@38	230@58
KMLB	140@24	170@23	220@22	250@28	250@38	230@57	220@91

Valid: 061200Z

ID	3K	6K	9K	12K	18K	24K	30K
KPIE	310@47	280@51	270@49	260@39	220@55	230@60	220@77

Internet

METARs

TAFs

Winds

Temps

PREFs

NOTAMS

Temps

Valid: 051800Z

ID	FZL	6K	9K	12K	18K	24K	30K	34
KEYW	13800	14	9	3	-7	-17	-33	
KMLB	13000	12	7	2	-10	-19	-35	

Valid: 061200Z

ID	FZL	6K	9K	12K	18K	24K	30K	3
KPIE	12800	7	6	2	-12	-23	-32	

16.3.5 Pilot Reports (PIREPs)

Pilot Reports (PIREPs) are reports of actual weather conditions encountered by an ownship in flight.

1. Ensure you search for an airport of choice.
2. Tap **Active Point** on the **Main Menu**. The Active Point options will be displayed.
3. Select **Wx**.
4. Select **PIREPs** from the side menu. Aero App will display PIREPs data.

16.3.6 Notice to Airmen (NOTAMs)

Notice to Airmen (NOTAMs) alerts pilots of potential hazards along a flight route that could affect safety.

1. Ensure you search for an airport of choice.
2. Tap **Active Point** on the **Main Menu**. The Active Point options will be displayed.
3. Select **Wx**.
4. Select **NOTAMs** from the side menu. Aero App will display NOTAMs data.

PIREPs		NOTAMs	
<div> </div>	<div> DHP - DOLPHIN 3nm WNW DHP 051407Z MIA UA /OV DHP270050/TM 1407/FL180/TP E170/TB MOD CONS/RM ZMAFD </div>	<div> </div>	<div> KFLL - FORT LAUDERDALE HOLLYWOOD INTL KFLL 10/086 281121Z IFL 10/086 FLL RWY 10L PAPI U/S 2110281121-2204010400EST KFLL 11/026 050300Z IFL 11/026 FLL OBST CRANE (ASN 2021-ASO-8343-OE) 260404N0800953W (.9NM WSW FLL) 168FT (165FT AGL) FLAGGED AND LGTD DLY 0300-0945 2111050300-2111070945EST KFLL 11/029 050300Z IFL 11/029 FLL OBST CRANE (ASN 2019-ASO-14384-OE) 260407N0800958W (.9NM WSW FLL) 222FT (211FT AGL) FLAGGED AND LGTD DLY 0300-0945 2111050300-2111070945EST KFLL 11/033 042341Z IFL 11/033 FLL TWY A HLDG PSN SIGN FOR ILS FOR EMBRAER RAMP LGT U/S 2111042341-2111251200EST KFLL 11/034 051112Z IFL 11/034 FLL RWY 10L FICON 5/5/5 100 PCT WET OBS AT 2111051112. 2111051112-2111061112EST </div>
	<div> FLL - FORT LAUDERDALE 18nm NNE FLL 051242Z MIA UA /OV 8 NE FLL/TM 1242/FL060/TP E190/TB CONTINUOUS MODERATE </div>		<div> 2IS - AIRGLADES K2IS 10/344 011000Z IMIA 10/344 2IS AIRSPACE PJE WI AN AREA DEFINED AS 4NM RADIUS OF LBV106019.1 SFC-15000FT DLY 1000-2200 2111011000-2210312200 </div>
	<div> PBI - PALM BEACH 54nm NNE PBI 051330Z PBI UA /OV 3 W PBI/TM 1330/FL015/TP F900/SK BKN018 </div>		<div> F45 - NORTH PALM BEACH CO GEN AVN KF45 11/040 031026Z IMIA 11/040 F45 COM REMOTE TRANS/REC 120.825 U/S 2111031026-2111192000EST </div>
	<div> KPBI - Palm Beach Intl 54nm NNE KPBI 051304Z PBI UA /OV KPBI/TM 1304/FL005/TP C208/SK BKN 005/WX LGT MOD RA/RM DURD RY10L </div>		<div> KAPF - NAPLES MUNI KAPF 10/095 302150Z IAPF 10/095 APF TWY A5 BTN RWY 05/23 AND TWY A CLSD 2110302150-2111302100 KAPF 11/006 051006Z IAPF 11/006 APF RWY 14 FICON 5/5/5 100 PCT WET OBS AT 2111051006. 2111051006-2111060200 </div>
	<div> LBV - LA BELLE 86nm NW LBV 051436Z RSW UA /OV LBV/TM 1436/FL085/TP A321/TB SMOOTH </div>		<div> KBCT - BOCA RATON KBCT 10/117 181100Z IMIA 10/117 BCT OBST CRANE (ASN UNKNOWN) 262309N0800708W (1NM W APCH END RWY 23) 183FT (170FT AGL) FLAGGED DLY 1100-2200 2110181100-2111122200 </div>
	<div> RSW - LEE CO 91nm NW RSW 051201Z RSW UA /OV RSW090017/TM 1201/FL200/TP C25A/TA M20/IC MOD RIME/RM ZMAFD </div>		
	<div> ZFP - FREEPORT 97nm ENE ZFP 051341Z MYGF UA /OV ZFP181043/TM 1341/FL280/TP B737/TB MOD/RM ZMAFD </div>		

17 Map

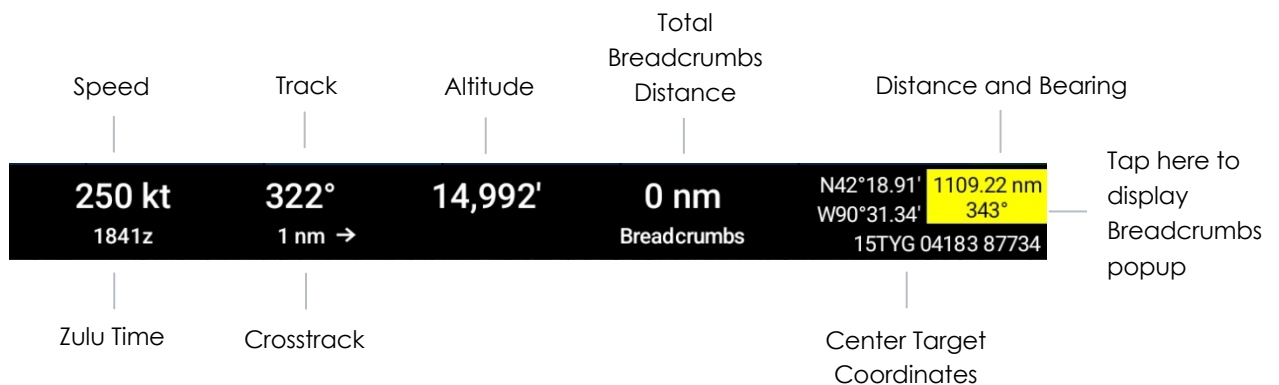
The Map menu is an essential and powerful tool that provides a highly customizable and comprehensive worldwide map.

The following are map-related overlays, features, tools, and other offerings available to users on the Map view:

- Flight Information Panel
- Timer
- Air Force Weather (AF Wx)
- Automatic Dependent Surveillance – Broadcast (ADS-B)
- Map Manager
- Map Options
- Split Screen
- PIN
- Move Map to Location
- Crosshair Icon (Snap to Location)

17.1 Flight Information Panel

The Flight Information Panel, located directly above the Map view, displays details of the user's current flight. The Flight Information Panel contains details such as the current flight's Speed, Zulu Time, Track, Crosstrack, Altitude, Breadcrumbs, Total Breadcrumbs Distance, Center Target Coordinates, and the Distance and Bearing.



17.1.1 Speed

The Flight Information Panel displays the speed of the ownship located at the left side of the panel. The indicated air speed is measured in knots (kt) and will adjust accordingly to the rate of the ownship.

17.1.2 Zulu Time

Aero App uses Zulu time, which is based on the 24-hour clock and is represented by a four-digit number, with the first two digits indicating the hour and the last two digits indicating the minutes. Zulu time is located directly below the ownship's speed of the panel view.

17.1.3 Track

Aero App measures the Track, which is the *actual* direction of the ownship's course above the ground. The Track value is based on the GPS. Crosstrack is the value below track. It is the deviation from your ownship to the course, which is measured in nm or km, respective to which distance unit format users have set in their Settings. The orientation of the arrow is in the direction to get back to course.



NOTE: The arrow points toward the route and not in the direction of the deviation.

17.1.4 Altitude

The pilot's ownship GPS altitude does not synchronize with the altitude it displays on your altimeter. To correct this, users can manually adjust the altitude to allow uniformity of the two.

1. Tap **Altitude** on the Flight Information Panel.
2. Tap the **+/-** buttons to adjust your calibrated altitude by increments or decrements of 100' or 500', respectively.
3. Tap **Set** to complete the calibration.
4. The ownship altitude is displayed below the *GPS* section. Tap **Use GPS** to use your current GPS altitude.

17.1.5 Center Target Coordinates

The Flight Information Panel displays the latitude, longitude, and MGRS of the Center Target. The Center Target is activated once the Map view is moved. As the globe of the Map view is moved, the Latitude, Longitude, and MGRS values update respectively to the placement of the center target. Refer to [Section 23](#) for additional information.

17.1.6 Distance and Bearing

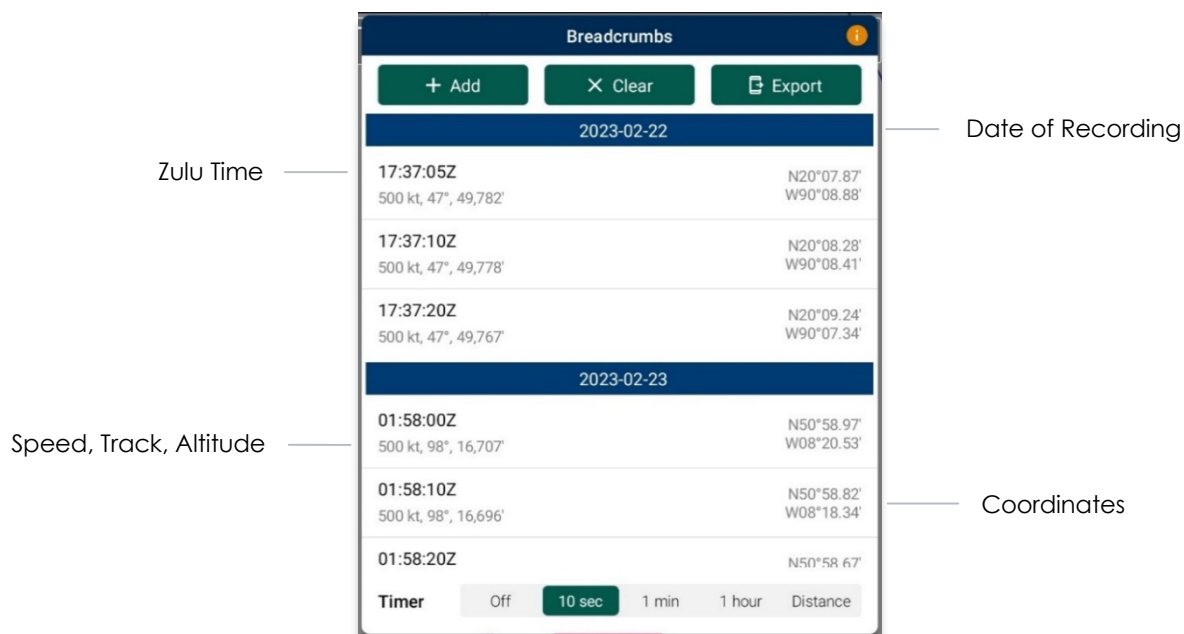
Distance is the range between your ownship's location and where the center target is placed. Bearing is the angle between your ownship and the center target. As the globe on the Map view is moved, the distance and bearing updates respective to the placement of the Center Target, provided the GPS is on.

When the center target is activated, a yellow tag is shown on the Information Panel and displays the *distance* in nm or km, respective to which distance unit format users have set in their Settings and *bearing* (in degrees) relative to current location. Refer to [Section 23.1](#) for additional information.

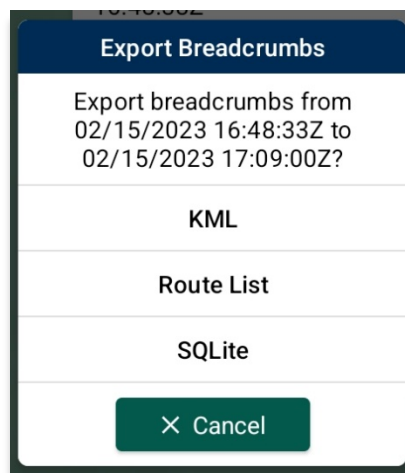
17.1.7 Breadcrumbs

Breadcrumbs allow users to record the coordinates of a flight path. A GPS connection (Wi-Fi or cellular) is required. The total distance of breadcrumbs is measured in nm or km, respective the user's choice of distance unit configured in Settings. Individual breadcrumbs are added based on a timer that can be set to every 10 seconds, per minute, per hour, or according to the user defined distance measurement. The distance calculation continues even after the user reaches their destination and only stops when the user sets the timer to *Off*. To view the saved Breadcrumbs on the Map, users must enable Breadcrumbs as described in [Section 19.1.1](#).

1. Tap the **coordinates** located at the upper right of the Flight Information Panel. The Breadcrumbs popup will appear displaying recordings of breadcrumbs.



2. Tap **Add** to manually store coordinates. Users have the option to select a timer to automatically add coordinates for every 10 seconds, 1 minute, 1 hour, or Distance.
3. To enable breadcrumbs to be recorded by distance, select **Distance** from the timer options and enter desired distance increments in nautical miles (nm), statute miles (sm), feet (ft), kilometers (km), or meters (m).
4. To delete an individual breadcrumb, swipe left to reveal the delete button of the breadcrumb that you choose to permanently delete. Tap **Delete**.
5. The delete confirmation popup for Breadcrumbs will be displayed. Tap **Delete** to confirm action.
6. Tap **Clear** to delete all breadcrumbs.
7. To export and save breadcrumbs, tap **Export**. Users can export breadcrumbs in KML, Route List, or SQLite file.



NOTE: Breadcrumbs are logged by individual days.

Export Breadcrumbs in KML

1. Select **KML** from the Export Breadcrumbs popup.
2. Open **My Files** app on your Android tablet.
3. Navigate to your tablet's **Internal storage** to view contents.
4. Select the **AeroApp** folder.
5. Select **Breadcrumbs**. Your exported breadcrumbs will be listed.

Export Breadcrumbs to Route List

1. Select **Route List** from the Export Breadcrumbs popup.
2. The **Export to Route List** popup will display.
3. Users will be prompted to name their route name. Enter the desired name then tap **Save**. Your exported breadcrumbs will be saved in the *Load Route* (refer to [Section 14.3.1.1](#)) and *Show Route* (refer to [Section 14.3.4.5](#)) views.

Export Breadcrumbs in SQLite File

Aero App allows users to export Breadcrumbs in SQLite File. A database viewer is required to view Breadcrumbs in SQLite file.

1. Select **SQLite** from the Export Breadcrumbs popup.
2. Connect an Android tablet to your PC.
3. Once your device is connected, open **File Explorer** and navigate to **This PC**.
4. Navigate to Devices and drives and locate your Android device.
5. Double-click on your **device's name** then double-click on **Internal storage** to view contents.
6. Select **AeroApp**. Its respective subfolders are displayed.
7. Select **Breadcrumbs** to display contents. Your exported breadcrumbs will be listed.

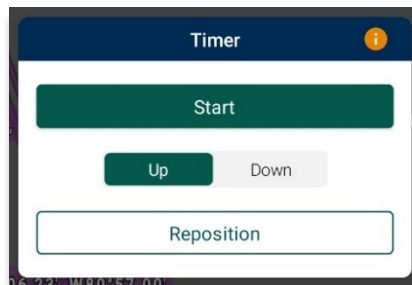
17.2 Scale Bar

The scale bar is located in the top left corner of the Map, directly below the Flight Information Panel. The value on the scale bar displays the distance corresponding to the current zoom level. The distance is measured in nautical miles (nm) and kilometers (km), respective to the distance unit format selected in your Settings. You can adjust the zoom level of your screen and tap on the scale bar to switch between nautical miles, kilometers, statute miles (sm), feet (ft), or meters (m) based on your preferred unit format.

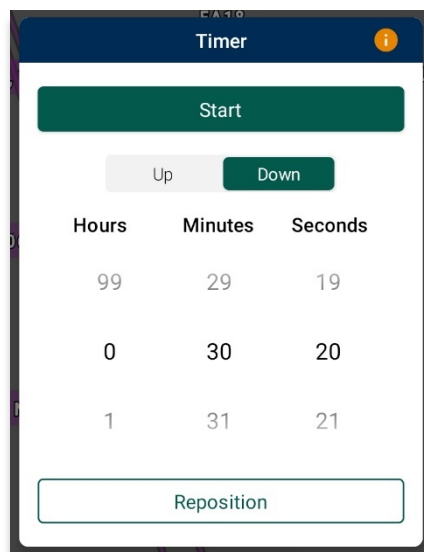
17.3 Timer

The Timer tool is a general use chronometer that can be used to track time during flights, and other operation uses.

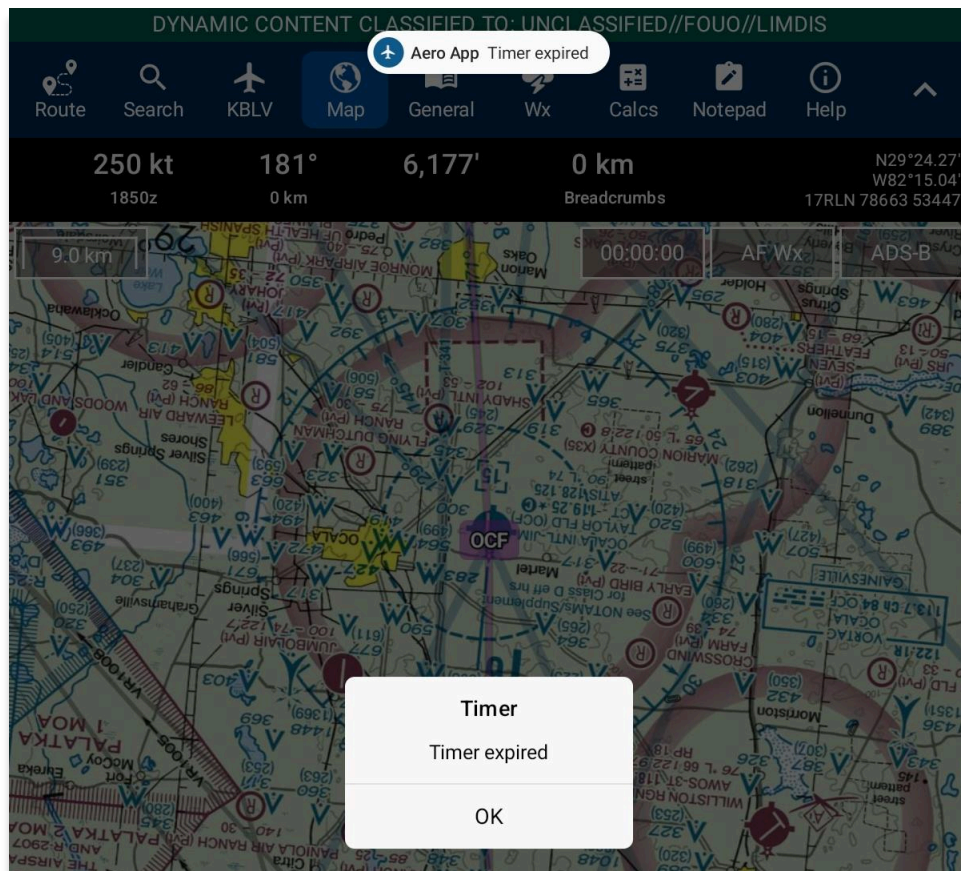
1. Tap **Map** on the **Main Menu**.
2. Tap **Timer** located at the upper right of the screen. The timer menu will display.
3. The Timer has two modes:
 - **Count Up** – starts the timer at zero then begins counting.
 - **Count Down** – timer counts down based on the selected hours, minutes, and seconds the timer was set to.
4. By default, *Count Down* is selected. Tap to select or slide the segmented control to the left to select **Count Up** mode.
5. Tap **Start** to begin the timer.



6. To count down, tap to select or slide the segmented control to **Count Down** mode.
7. Adjust the timer's **Hours**, **Minutes**, and **Seconds** to desired duration.
8. Tap **Start** to begin the timer.



9. The timer box switches between the following colors to indicate the time remaining on the timer:
- **Green** – if input is greater than 1 minute
 - **Yellow** – timer box will start flashing yellow with 1 minute remaining on the timer.
 - **Orange** – timer box will start flashing orange with 30 seconds remaining on the timer.
 - **Red** – timer box will start flashing red with 10 seconds remaining on the timer.
10. An alert will appear on the screen once the timer is completed. If the device is locked, a notification will be displayed in the device notification bar.



11. To force the timer to end, tap **Stop**.
12. Tap **Reset** to restart timer.

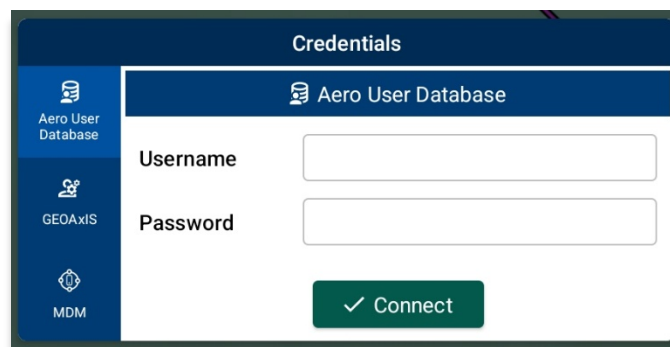


NOTE: Tap **Reposition** to move the Timer button from the current position to below the ADS-B button.

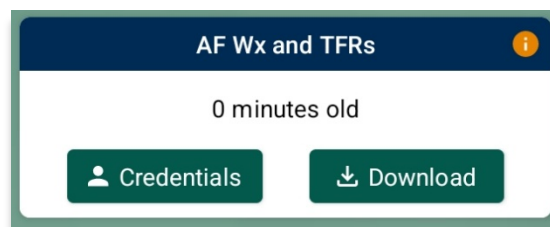
17.4 Air Force Weather (AF Wx)

Air Force Weather (AF Wx) displays METARs and TAFs in Aero App. This information can be viewed from an ICAO on the Map view, Route panel, and Wx tab. Air Force Weather data is only available to DOW crews and select partners.

1. Tap **Map** on the **Main Menu**.
2. Tap **AF Wx** located at the upper right of the Map view.
3. The AF Wx and TFRs popup will display. Tap **Credentials**.
4. The Credentials popup will appear. Choose the desired method of authentication: Aero User Database (refer to [Section 5.1](#)), GEOAxis (refer to [Section 5.2](#)), or MDM.



5. Tap **Connect** when done.
6. The AF Wx and TFRs popup will display the currency of the weather.
7. Tap **Download** to retrieve the latest Air Force Weather data.



NOTE: The password field is cleared when Aero App is closed and then reopened.



NOTE: Air Force Weather (AF Wx) is only available via internet. However, if ADS-B weather information becomes available, whichever source has the latest data will show the current weather.

Air Force Weather (AF Wx) on Map View

Air Force Weather can be viewed on the Map view. Once the METARs option is enabled, different color dots that indicate airport flight rules will populate on the Map. Additional Air Force weather information can be viewed from the Wx menu. Refer to [AF Wx Information on Wx Menu Section](#) for additional information.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Weather** from the side menu.
5. Tap **METARs** to enable the option. Different colored dots will populate on the Map. The different color dots below the airport labels depict the airport's flight rule.
6. The flight rules displayed below airport labels are color-coded to depict the latest reported weather conditions:
 - **Green:** VFR
 - **Blue:** MVFR
 - **Red:** IFR
 - **Magenta:** LIFR



NOTE: METAR information on the Map expires 75 minutes after becoming available.

Air Force Weather (AF Wx) on Route Panel

Air Force weather can be viewed on the Route Panel. Additional Air Force weather information can be viewed on the Wx menu. Refer to [AF Wx Information on Wx Menu Section](#) for additional information.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Weather** from the side menu.
5. Tap **METARs** to enable the option. Different colored dots will populate on the Route Panel for each point on the route. The different color dots within the route panel depict the airport's flight rule.
6. Tap **Route** on the Main Menu. The Route Panel will expand.
7. METAR information will be displayed for each ICAO on your route.
8. The flight rules displayed below airport labels are color-coded to depict the latest reported weather conditions:
 - **Green:** VFR
 - **Blue:** MVFR
 - **Red:** IFR
 - **Magenta:** LIFR

VFR		MVFR	
	KCLS Chehalis Centralia 34.6 nm, 22° ETE: 13:24:07, ETA: 07:49:14Z Twr:		KSEA Seattle Tacoma Intl Destination ETE: 13:40:27, ETA: 08:05:34Z Twr: 119.9 MHz, 120.95 ...
IFR		LIFR	
	KSUU Travis Afb 506.9 nm, 342° ETE: 10:52:02, ETA: 05:17:09Z Twr: 120.75 MHz, 254.4 ...		KTCM Mcchord Fld 19.9 nm, 4° ETE: 13:34:29, ETA: 07:59:36Z Twr: 124.8 MHz, 259.3 M...



NOTE: METAR information on the Route Panel expires 75 minutes after becoming available.

Air Force Weather (AF Wx) Information on Wx Menu

Air Force weather information can be viewed by accessing the Wx menu for the Active Point, or by selecting Info and Wx for an ICAO on the Map view or the Route Panel.

1. Tap **Active Point** on the **Main Menu**. The Active Point options will be displayed.
2. Select **Wx**.
3. The following options to view AF Wx information will be available to users:
 - METARs
 - TAFs

METARs		TAFs	
Internet METARs TAFs Winds Temps PIREPs NOTAMs	VFR EDDN EDDN - Nuernberg AF Wx EDDN 081620Z AUTO 26011KT CAVOK 21/10 Q1012 BECMG 24005KT=	Internet METARs TAFs Winds Temps PIREPs NOTAMs	EDDN - Nuernberg AF Wx EDDN 081100Z 0812/0912 24010KT 9999 SCT030 PROB30 TEMPO 0813/0816 25015G25KT SHRA BKN025TCU BECMG 0816/0818 24005KT BECMG 0820/0822 14004KT BECMG 0908/0910 24009KT PROB30 TEMPO 0911/0912 24015G25KT SHRA BKN040CB=
	VFR ETEB ETEB - Ansbach Ahp AF Wx 21nm SW ETEB 081555Z AUTO 28007KT 9999 BKN046 19/12 A2989 RMK AO2 SLP124 T01940122 \$=		ETEB - Ansbach Ahp AF Wx 21nm SW ETEB 081500Z 0815/0921 25010G15KT 9999 SCT040 BKN050 QNH2989INS BECMG 0818/0819 21009KT 9999 SCT050 QNH2992INS BECMG 0903/0904 21009KT 9999 SCT030 BKN070 QNH2991INS TEMPO 0910/0914 23012G18KT 8000 -SHRA BKN030 TX20/0815Z
	VFR ETIK ETIK - Illesheim Ahp AF Wx 27nm W ETIK 081555Z 26011KT 9999 SCT050 21/10 A2988 RMK AO2A SLP110 T02080100 \$=		
	VFR ETIH ETIH - Hohenfels Aaf AF Wx 34nm ESE		



NOTE: Air Force Weather is only available via the internet. However, if ADS-B weather information becomes available, whichever source has the latest data will show the current weather.



NOTE: METAR information on the Wx tab expires 3 hours after becoming available. TAF information on the Wx tab expires 12 hours after becoming available.

17.5 Automatic Dependent Surveillance – Broadcast (ADS-B)

The user's ownship has an Automatic Dependent Surveillance—Broadcast receiver. The ADS-B tool receives NEXRAD, METARs, TAFs, and other textual data as well as ownship location. For non-proprietary ADS-B and GPS receiver compatibility with Aero App, refer to this link: [ADS-B/GPS Compatibility List](#).

17.5.1 Connecting to ADS-B Receiver via Wi-Fi

To establish a connection with an ADS-B receiver via Wi-Fi, you must ensure to connect your Wi-Fi network to the receiver.

1. Open the Android *device settings app* and select **Connections**.
2. Tap on **Wi-Fi**.
3. Search and tap the ADS-B receiver in the *Available networks* section.
4. Ensure the ADS-B receiver's connection is established. For additional information, refer to [Section 17.5.3](#).

17.5.2 Connecting to ADS-B Receiver via Bluetooth

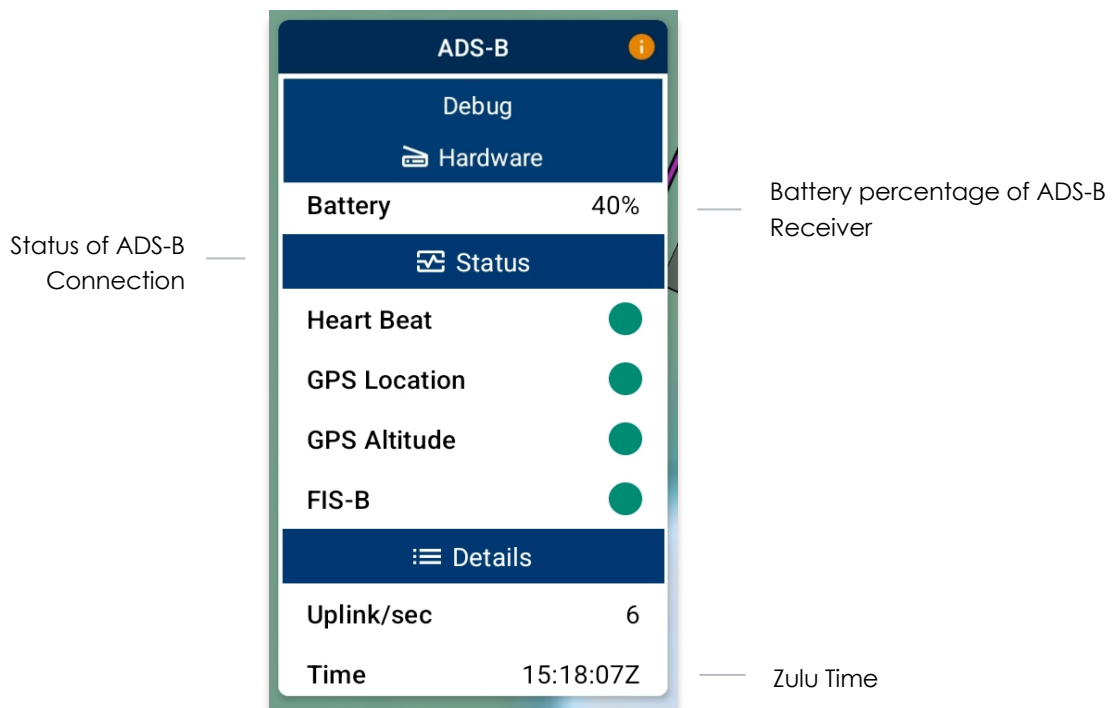
To establish a connection with an ADS-B receiver via Bluetooth, you must ensure to connect your Bluetooth to the receiver.

1. Open the Android device settings app and select **Connections**.
2. Tap on **Bluetooth**.
3. Search and tap the ADS-B receiver in the *Available devices* section.
4. Ensure the ADS-B receiver's connection is established. For additional information, refer to [Section 32.1](#).
5. Pair device.

17.5.3 ADS-B Information

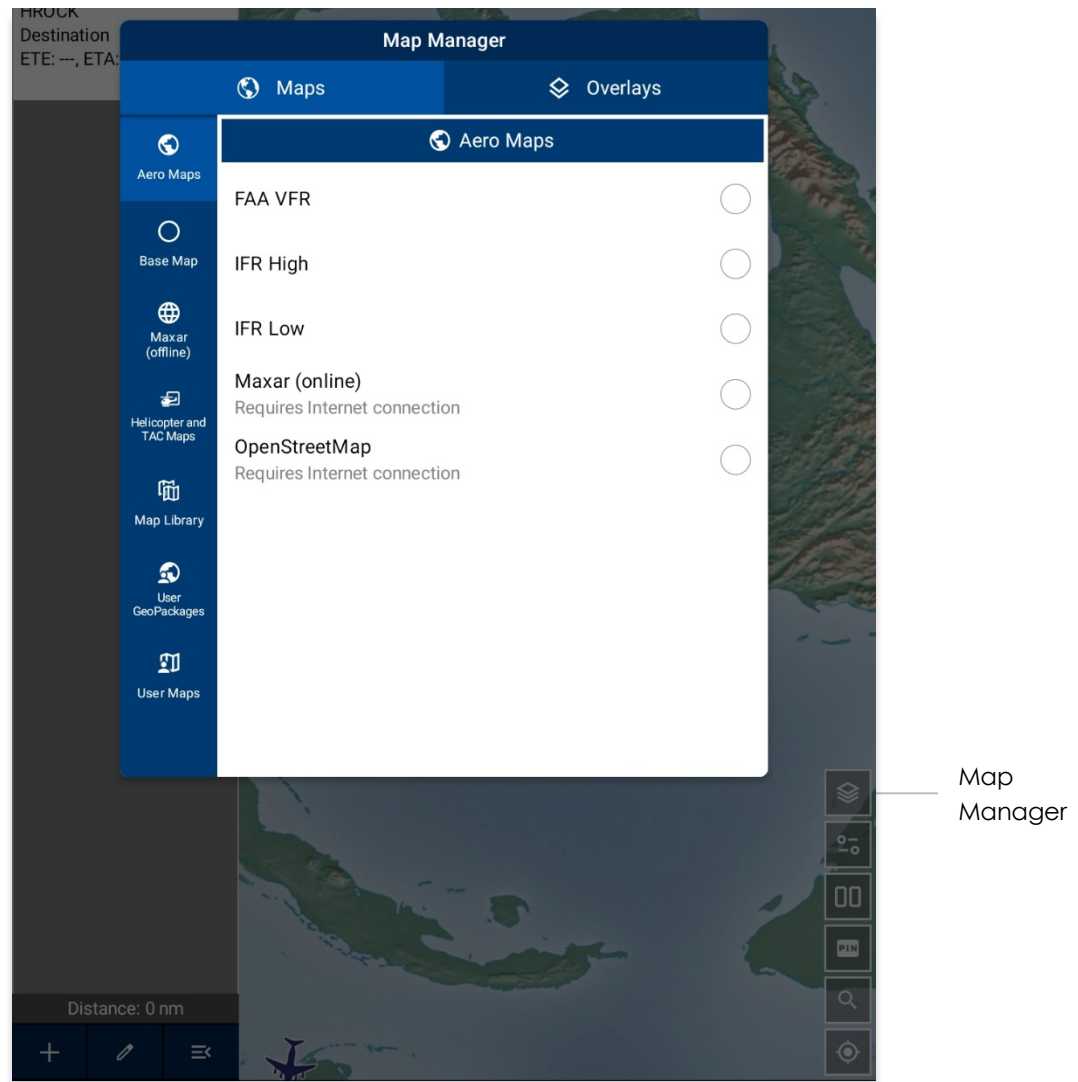
Aero App provides an ADS-B tool that outputs ADS-B details such as its battery percentage, connection statuses, and additional ADS-B information.

1. Tap **Map** on the **Main Menu**.
2. Tap the **ADS-B** button located at the upper right corner of your screen.
3. The green status indicates that the ADS-B connection is established to receive the data for Heart Beat, GPS Location, GPS Altitude, and FIS-B Data. If the status displays red, then there is no connection.
 - **Battery** – displays ADS-B battery percentage.
 - **Heart Beat** – indicates the connection status of the ADS-B device.
 - **GPS Location** – indicates the connection status of the ownship's GPS location.
 - **GPS Altitude** – indicates the connection status of the ownship's GPS altitude.
 - **FIS-B** – indicates the connection status in receiving weather from FIS-B towers.
 - **Uplink/sec** – indicates the occurrence of the ADS-B data messages Aero App receives from ADS-B towers during the previous second.
 - **Time** – displays the Zulu time.



18 Map Manager

The Map Manager includes map configuration options and is located on the lower-right of the Map view.



18.1 Maps

Maps contain a library of mutable charts stored within Aero Maps, Base Map, Maxar (offline), Helicopter and TAC Maps, Map Library, User GeoPackages, and User Maps menus.

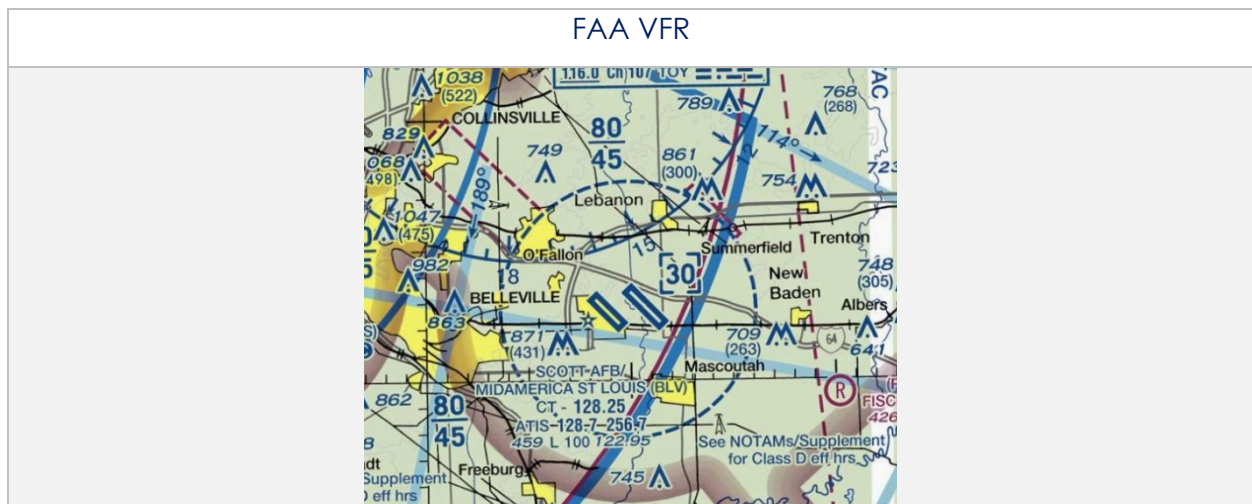
18.1.1 Aero Maps

The Aero Maps section provides access to current VFR sectionals, worldwide IFR High and Low Enroutes, Maxar (online), and Open Street Maps.

18.1.1.1 FAA Visual Flight Rule (VFR)

The FAA VFR for the desired region must be downloaded. Until the data has been successfully downloaded, the FAA VFR option will remain disabled.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Maps** from the navigation bar, if necessary.
4. Select **Aero Maps** from the side menu, if necessary.
5. Tap **FAA VFR** to enable the option. The VFR sectional is displayed on the Map.



18.1.1.4 Maxar (Online)

Maxar (online) requires an internet connection to view real-time satellite imagery. GEOAxis and AUD (select partners) can access Maxar (online).

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Maps** from the navigation bar, if necessary.
4. Select **Aero Maps** from the side menu, if necessary.
5. Tap **Maxar (online)** to enable the option. A satellite imagery is displayed on the Map.

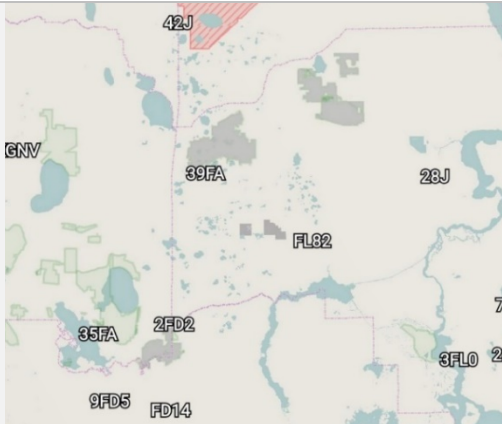


NOTE: Credentials will be cleared when users close Aero App. Thereby, users must log in again to view Maxar (online).

18.1.1.5 OpenStreetMaps

OpenStreetMaps requires an internet connection to view on the Map.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Maps** from the navigation bar, if necessary.
4. Select **Aero Maps** from the side menu, if necessary.
5. Tap **OpenStreetMap** to enable the option. OpenStreetMap is displayed on the Map.

Maxar (online)	OpenStreetMap
	

18.1.2 Base Map

The Base Map menu offers worldwide Earth and Gray base maps and will be further elaborated in the sections to follow.

18.1.2.1 Earth Base Map

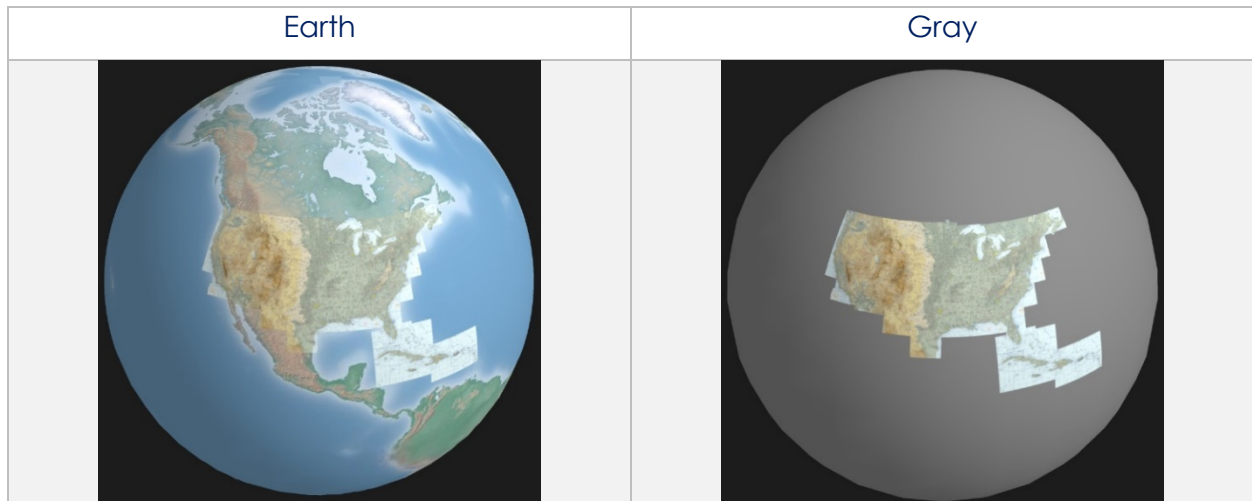
Earth Base Map data must be downloaded. Until the data has been successfully downloaded, the Earth option will remain disabled.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Maps** from the navigation bar, if necessary.
4. Select **Base Map** from the side menu.
5. Tap **Earth** to enable the option. The earth base map is displayed.

18.1.2.2 Gray Base Map

The Gray Base Map is the default map when no map has been chosen or downloaded.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Maps** from the navigation bar, if necessary.
4. Select **Base Map** from the side menu.
5. Tap **Gray** to enable the option. The gray base map is displayed.



18.1.3 Maxar (Offline)

Maxar (offline) allows users to download cache images to be displayed on the Map. The initial download of Maxar (offline) cache images requires internet connection. Once the images are downloaded, an internet connection is no longer required and can be displayed on the Map at any time. This feature is available to users logged in using their GEOAxis credentials or AUD with select government foreign partners.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Maps** from the navigation bar, if necessary.
4. Select **Maxar (offline)** from the side menu.
5. Tap **Download**.
6. The Maxar Download popup will display the following fields:
 - **Location** – tap the ellipsis button to display the Search popup. Enter Airport, NavAid, Waypoint, User Waypoint, or Pin inside the text box. Radial Off NavAid and all other identifiers will be converted to coordinates.

ICAO	Name	nm	Brg	Max Rwy
★ KMIA	Miami Intl	877	127°	13,016'
☆ KMIB	Minot Afb	858	336°	13,198'

- **Radius** – select from options of 5, 10, 15, 25.
- **Resolution** – select from options of Low, Medium, or High.

Maxar Download

Location: KMIA ...

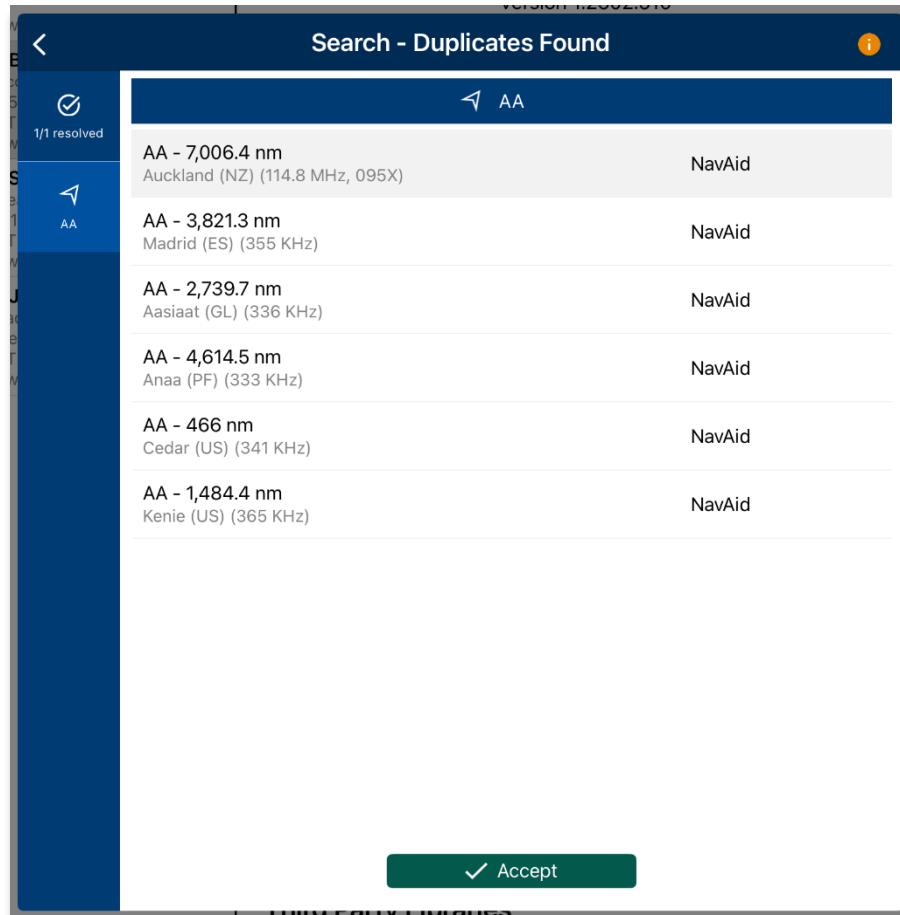
Radius: 5 10 15 25

Resolution: Low Medium High

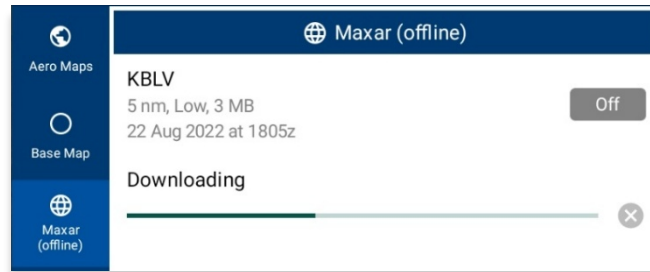
Approximate size: 3 MB

Download

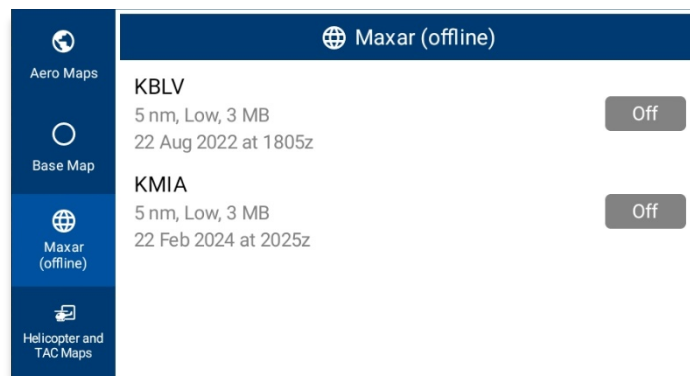
7. If duplicate points are found during a Location search, a popup will appear displaying the list of duplicates. Choose one of the duplicate points to resolve the issue.
8. Select **Accept**.



9. Once all fields have been filled, tap **Download** and the cached image will begin to download.



10. Downloaded files will be listed below the Maxar (offline) section.



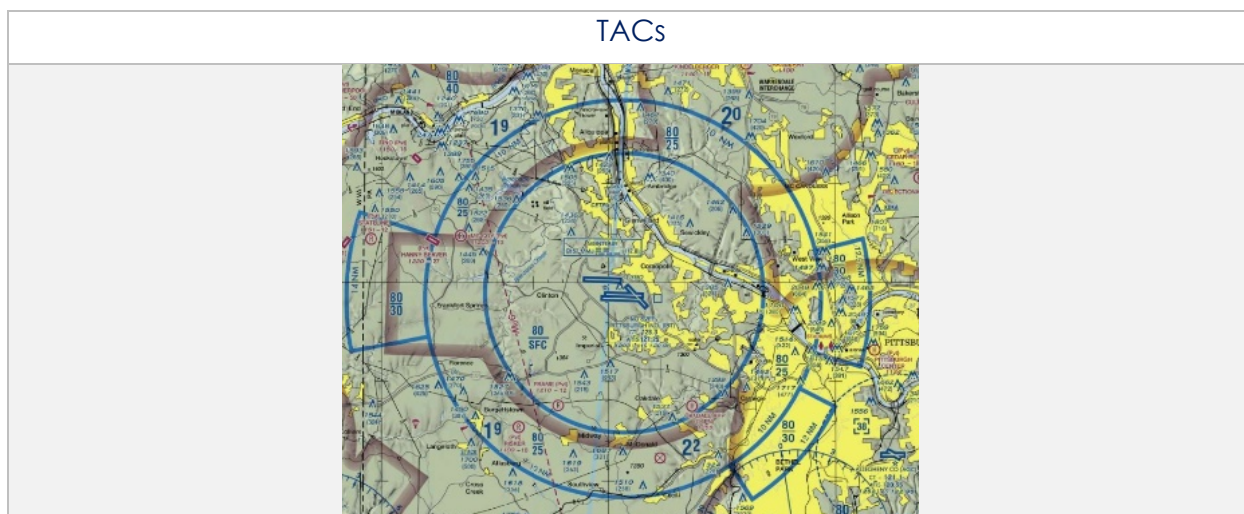
11. Select desired file to display on the Map.
12. To delete a cache image, swipe left to reveal the delete button of the file that you wish to permanently remove. Tap **Delete**.
13. The delete confirmation popup for Maxar will be displayed. Tap **Delete** to confirm action.



18.1.4.3 Terminal Area Charts (TACs)

The FAA TAC data for the desired region (e.g., Alaska and/or CONUS) must be downloaded. Until the data has been successfully downloaded, the TACs option will remain disabled.

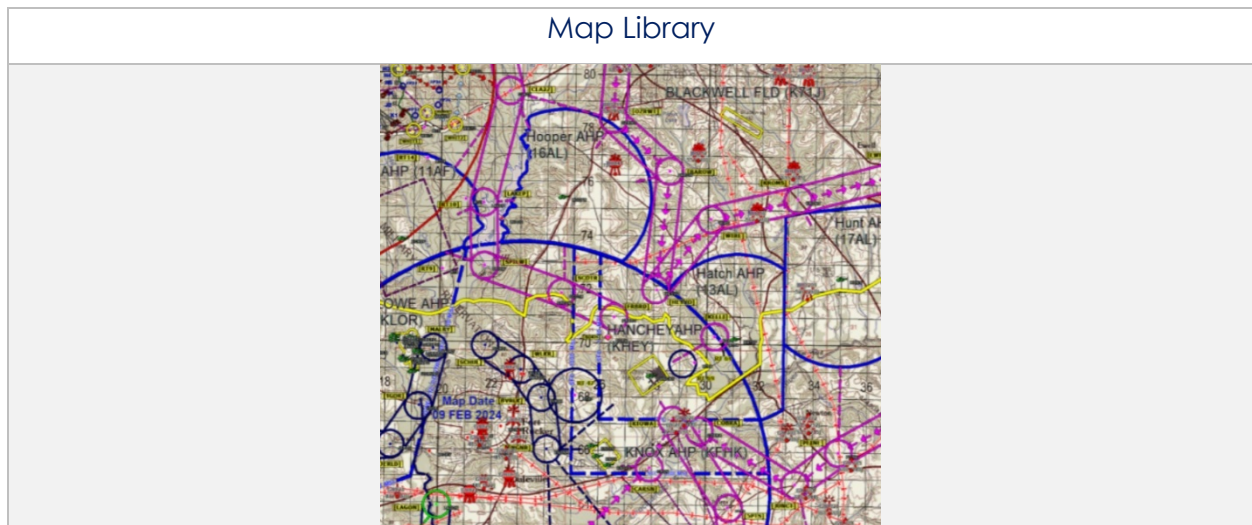
1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Maps** from the navigation bar, if necessary.
4. Select **Helicopter and TAC Maps** from the side menu.
5. Tap **TACs** to enable the option. The terminal area chart is overlaid on the Map.



18.1.5 Map Library

The Map Library section provides users with the option to download Map Library charts to display on the Map view. Map Library includes maps for emergencies, NavPlan charts, range charts, and others. The Aero App team are the distributors of these charts. Users must download Map Library charts to view them on the Map. Refer to [Section 9.4](#) for additional information.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Maps** from the navigation bar, if necessary.
4. Select **Map Library** from the side menu.
5. The files are grouped by categories of map types. Tap on the desired folder to reveal the subfolder. Then tap on the subfolder to reveal the downloaded Map Library chart file.
6. Enable desired Map Library chart. The chart will be displayed on the map. Depending on the size of the chart, Aero App will zoom in to optimize the chart display. If the chart is small, the users may need to zoom in to view the chart.
7. To delete Map Library, swipe left to reveal the delete button of the folder or file that you choose to permanently remove. Tap **Delete**.
8. The delete confirmation popup for Map Library will be displayed. Tap **Delete** to confirm action.

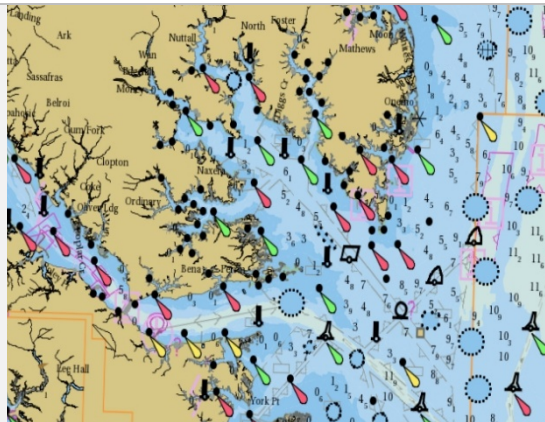


18.1.6 User GeoPackages

Aero App supports GeoPackages to be viewed and accessed on the Map view. GeoPackages must be sideloaded onto Aero App. Refer to [Section 10.2](#) for additional information.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Maps** from the navigation bar, if necessary.
4. Select **User GeoPackages** from the side menu.
5. The files are grouped by categories, tap on the folder header to show, or hide its respective files.
6. Select desired file(s) and the overlay will display on the Map.
7. To delete a user GeoPackage, swipe left to reveal the delete button of the file that you choose to permanently remove. Tap **Delete**.
8. The delete confirmation popup for User GeoPackages will be displayed. Tap **Delete** to confirm action.

User GeoPackages



18.2 Overlays

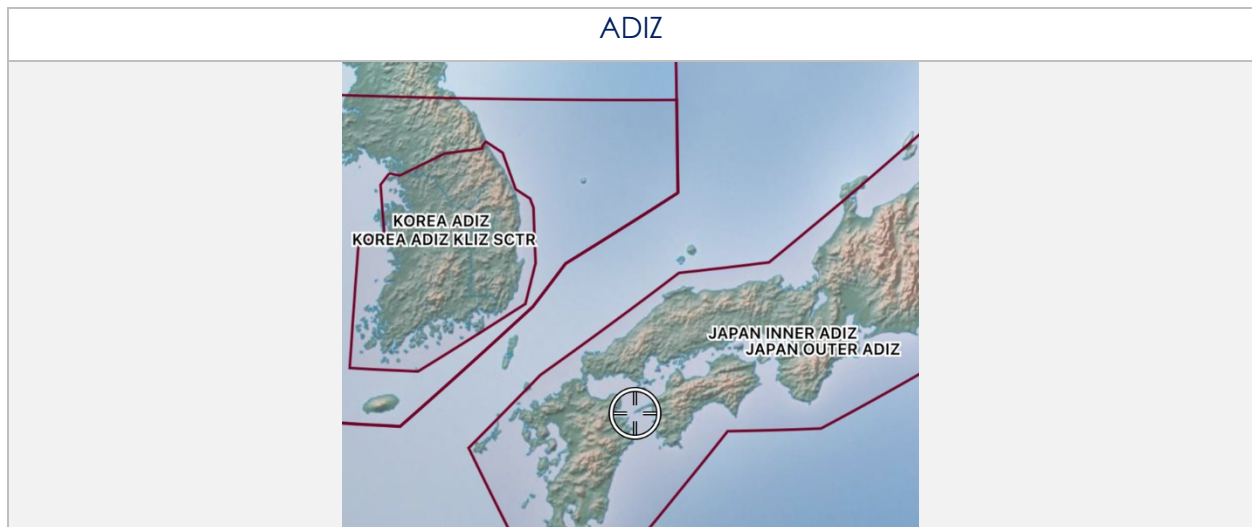
The Overlays section contains map overlay options to display on the Map. The sections ahead will expand on the different Map overlay options to choose from.

18.2.1 Aero Overlays

Aero Overlays contain various map overlay options.

18.2.1.1 Air Defense Identification Zone (ADIZ)

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **ADIZ** to enable the option. ADIZ sectors will populate the Map.
6. Tap an ADIZ sector of choice on the Map. A popup containing an overview of the specified area will be displayed.

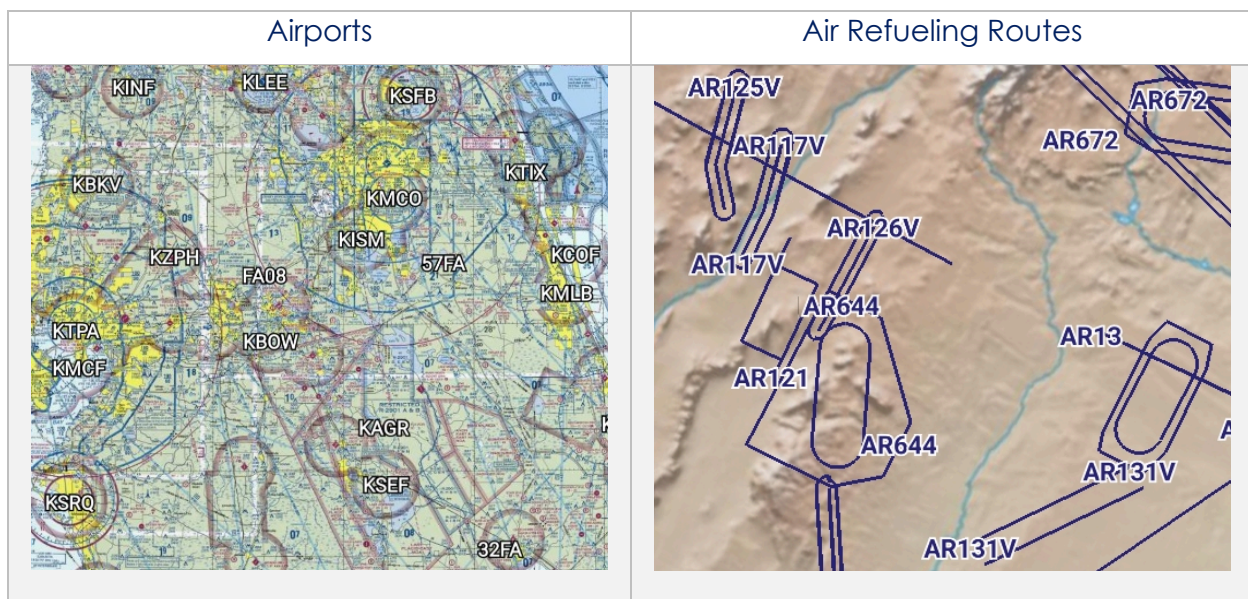


18.2.1.2 Airports

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **Airports** to enable the option. Airport identifiers will populate the Map, respective to the minimum runway length users have set in their Settings.

18.2.1.3 Air Refueling Routes

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **Air Refueling Routes** to enable the option. Air refueling routes will populate on the Map.
6. Tap on an AR label on the Map. A popup with air refueling route information will be displayed.

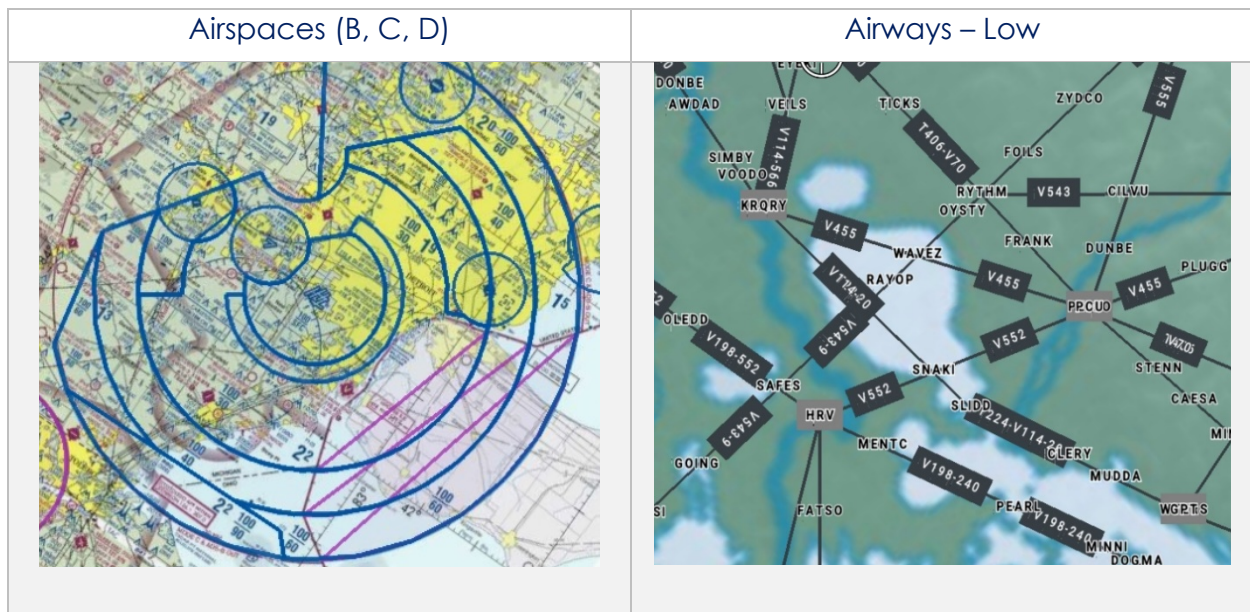


18.2.1.4 Airspaces (B, C, D)

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **Airspaces (B, C, D)** to enable the option. The airspace classes will populate on the Map.
6. Tap an Airspace of choice on the Map view. A popup with airspace class information will be displayed.

18.2.1.5 Airways – Low

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap to select or slide the segmented control for **Airways** to **Low**. The low-altitude airways that are below 18,000 ft will populate the Map.



18.2.1.6 Airways – High

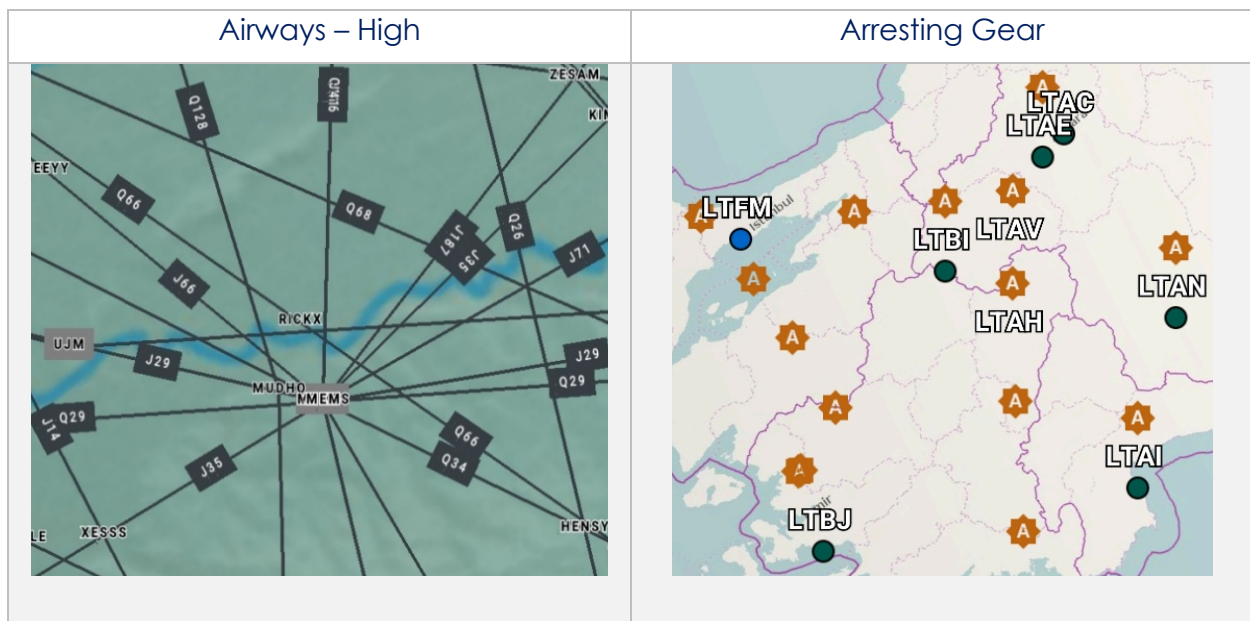
1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap to select or slide the segmented control for **Airways** to **High**. The high-altitude airways that are between 18,000 ft and 45,000 ft will populate on the Map.



NOTE: Users can add Airways to their route. Refer to [Add Airways to Route Section](#) for additional information.

18.2.1.7 Arresting Gear

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **Arresting Gear** to enable the option. Arresting gear will populate on the Map.
6. Tap an arresting gear of choice on the Map. A popup with arresting gear information such as its identifier name, absorbing system, engagement type, and command will be displayed.



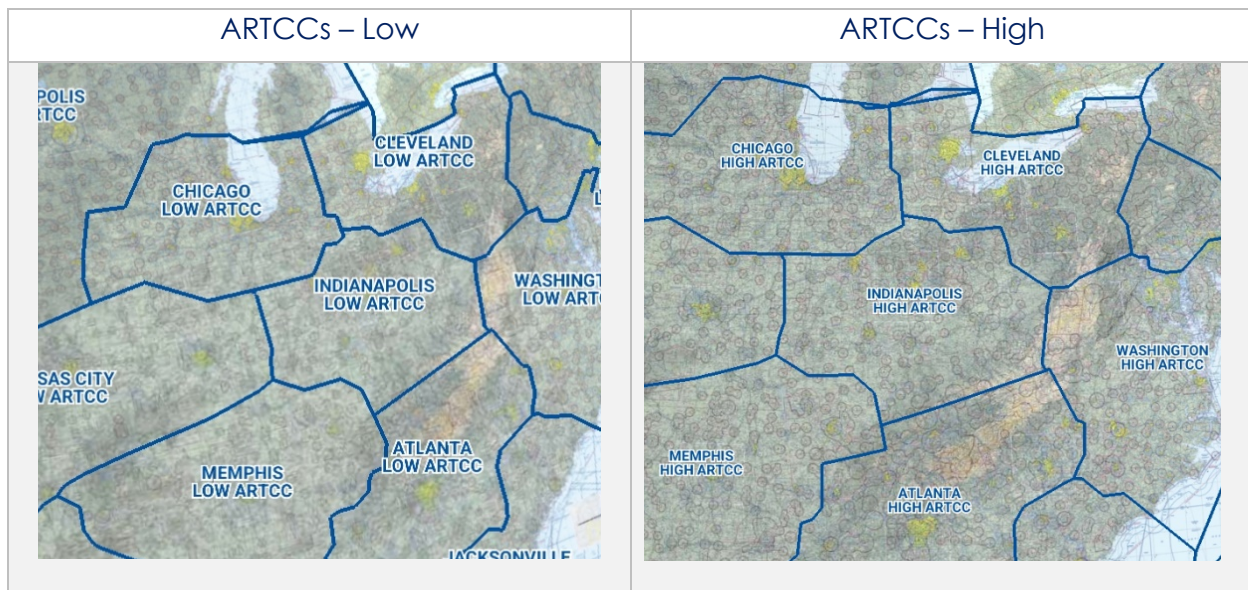
18.2.1.8 Air Route Traffic Control Centers (ARTCCs) – Low

Air Route Traffic Control Centers (ARTCCs) low and high, is primarily to provide air traffic service for pilots that are operating on an IFR flight plan.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap to select or slide the segmented control for **ARTCCs** to **Low**. The map will overlay regions of low ARTCCs.

18.2.1.9 Air Route Traffic Control Centers (ARTCCs) – High

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap to select or slide the segmented control for **ARTCCs** to **High**. The map will overlay regions of high ARTCCs.

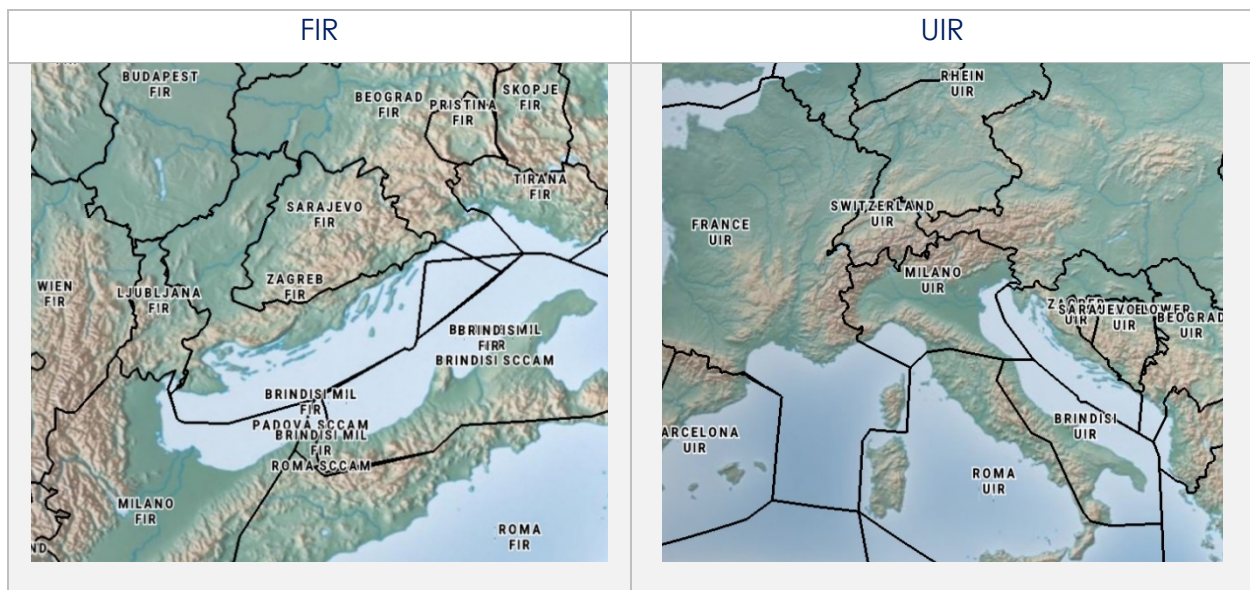


18.2.1.10 Flight Information Region (FIR)

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap to select or slide the segmented control to **FIR**. The map will be divided into specified regions of airspace.
6. Tap a region of choice on the Map. A popup containing an overview of the flight information region will be displayed.

18.2.1.11 Upper Flight Information Region (UIR)

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap to select or slide the segmented control to **UIR**. The map will be divided into specified regions of airspace.
6. Tap a region of choice on the Map. A popup containing an overview of the upper flight information region will be displayed.



18.2.1.12 Hazards

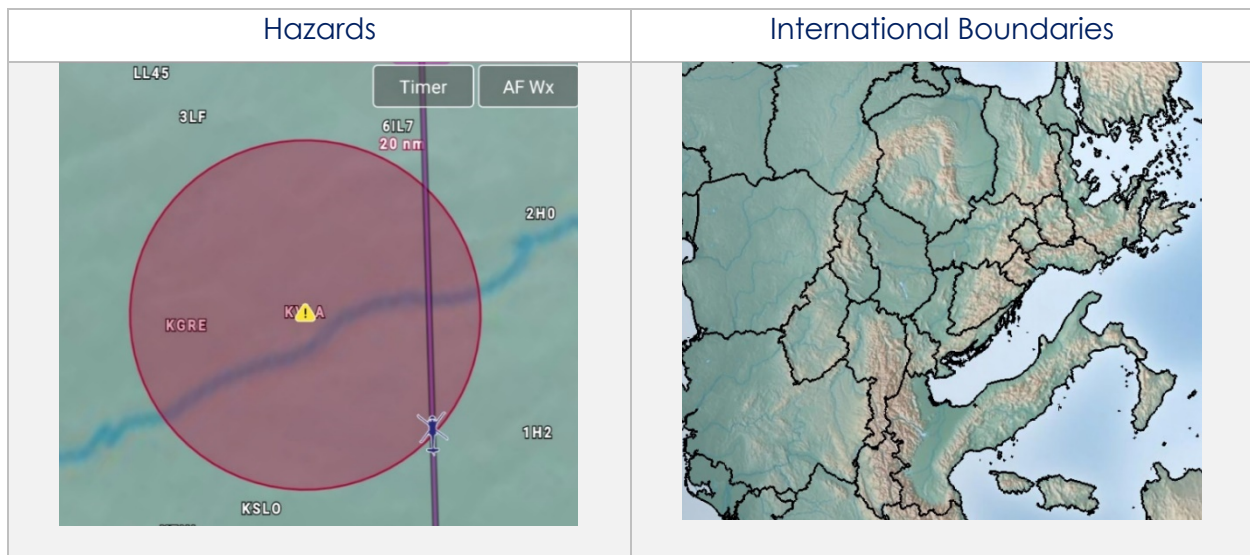
Hazards are marked locations on the Map that were dropped by users. This option must be enabled to view dropped hazards. If no hazards were dropped, refer to [Section 25.1.4](#) for additional information.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **Hazards** to enable the option. Dropped Hazards will populate on the Map.
6. Tap a hazard of choice on the Map. The Identifier Menu will appear.
7. To view hazard information, tap **Show** from the side menu.
8. Tap **Info and Wx** and hazard information will be displayed.

18.2.1.13 International Boundaries

International Boundaries delineate the space between sovereign states.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **International Boundaries** to enable the option. Divisions of the sovereign states will overlay on the Map.



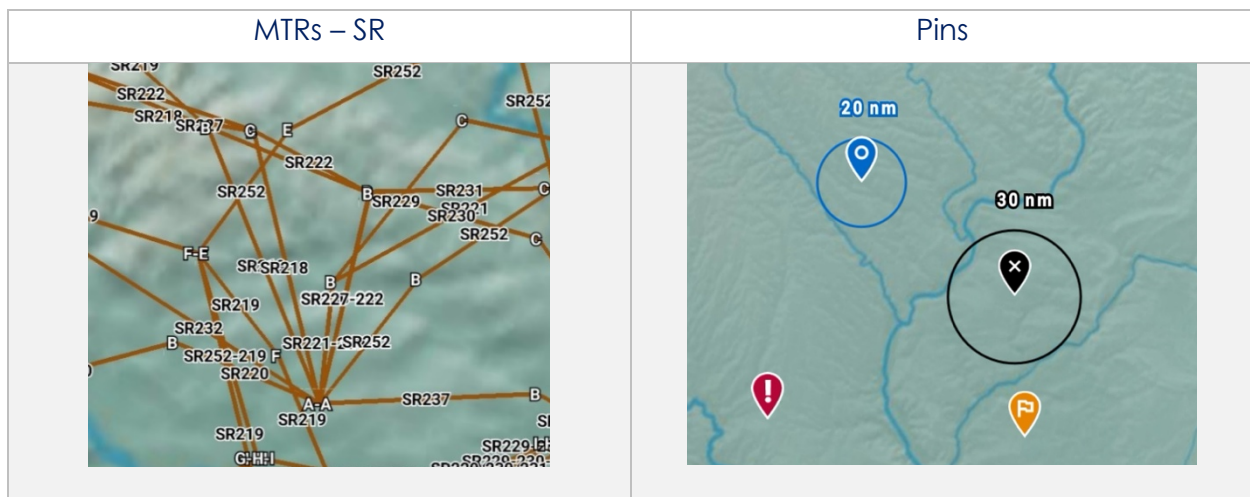
18.2.1.16 Military Training Routes (MTRs) Slow Speed Route (SR)

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap to select or slide the segmented control for **MTRs** to **SR**. Slow speed military training routes will populate on the Map.
6. Tap an MTR of choice on the Map view. A popup containing information on the MTR will be displayed.

18.2.1.17 Pins

Pins are marked locations on the Map that were dropped by users. The Pins overlay is exclusive to Avoidance Point, Emergency Marker, Landmark, and Pin. This option must be enabled to view dropped pins. If no pins were dropped, refer to [Section 25.1.3](#) for additional information.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **Pins** to enable the option. Dropped pins will populate on the Map.
6. Tap a pin of choice on the Map view. The Identifier Menu will appear.
7. To view pin information, tap **Show** from the side menu.
8. Tap **Info and Wx** and pin information will be displayed.

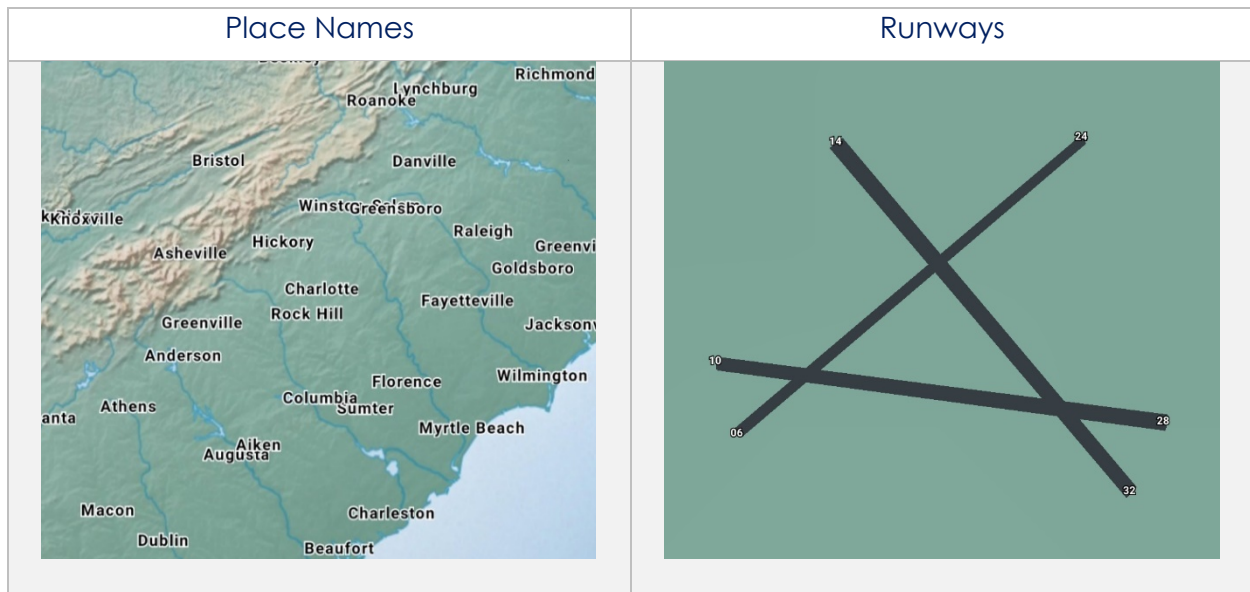


18.2.1.18 Place Names

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **Place Names** to enable the option. Town and country names will populate on the Map.

18.2.1.19 Runways

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **Runways** to enable the option. Runways will populate on the Map.



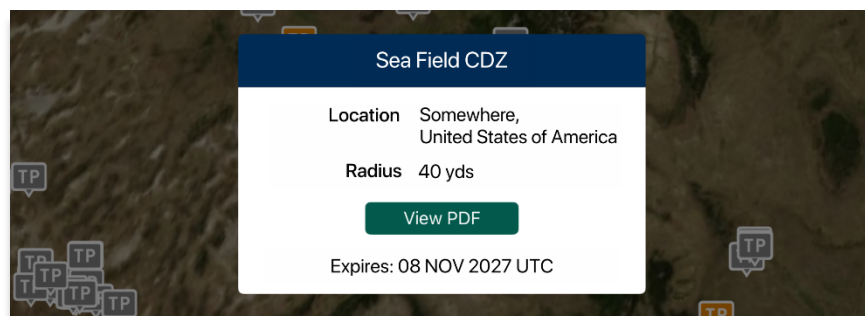
18.2.1.22 Talon Point

Talon Point provides worldwide information on Drop Zone and Load Zone surveys. Surveys can be downloaded directly to Aero App and viewed as PDF. Talon Point is limited to DOW Partners and GEOAxis users.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigation bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap the Talon Point **download button**. The Credentials popup will appear. Enter your AUD credentials (refer to [Section 5.1](#)) or choose GEOAxis (refer to [Section 5.2](#)) to authenticate.
6. Once authenticated, enable **Talon Point**. Talon Point locations will populate the map.
7. Tap a Talon Point of choice on the Map. Information on the talon point location will be displayed.

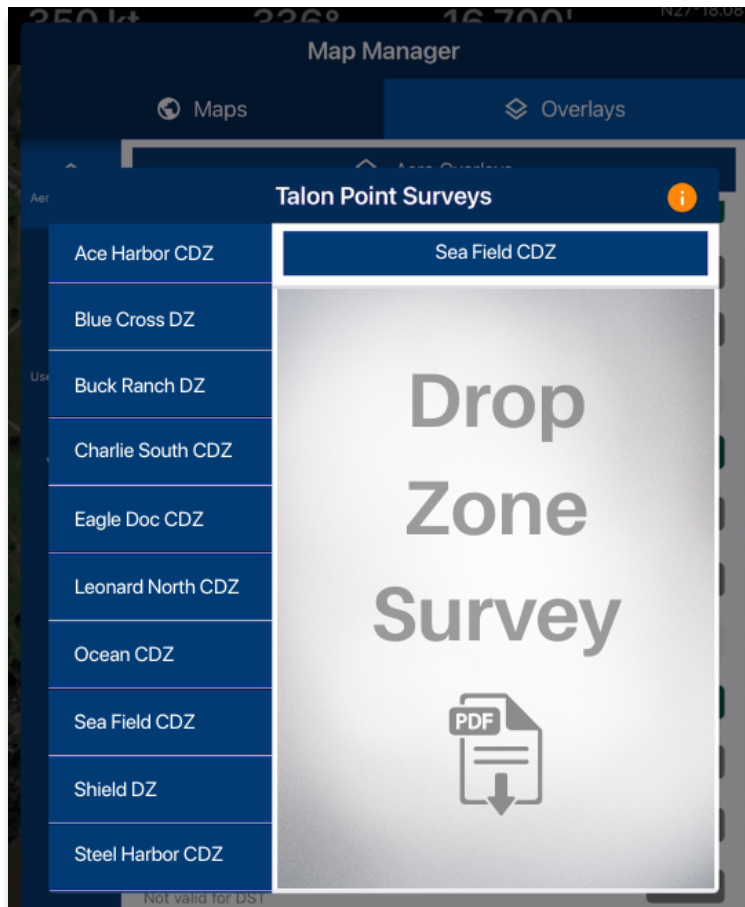


8. Tap **download PDF**. The download will begin. Once the download is complete, the TP icon will change to orange indicating the PDF is available to be viewed.
9. To view a survey, tap the **orange TP** icon on the Map. Tap **View PDF**.



Downloaded Talon Point Surveys are compiled into a single list in Map Manager. The list includes every downloaded survey including those that have expired. It is advised to download or redownload Talon Point surveys prior to every mission to ensure accurate and up-to-date documents as they are subject to change.

10. Open **Map Manager**, tap **Overlays**.
11. Tap the Talon Point **document button** to view the list of Talon Point Surveys.
12. Choose a survey of choice to display the PDF.



NOTE: An expired label will be displayed beneath the survey name when the PDF has expired.

13. To remove a survey from the Talon Point Surveys list, swipe left to reveal the delete button. Tap **Delete**.
14. The delete confirmation popup for Talon Point will be displayed. Tap **Delete** to confirm action.

18.2.1.23 Terrain

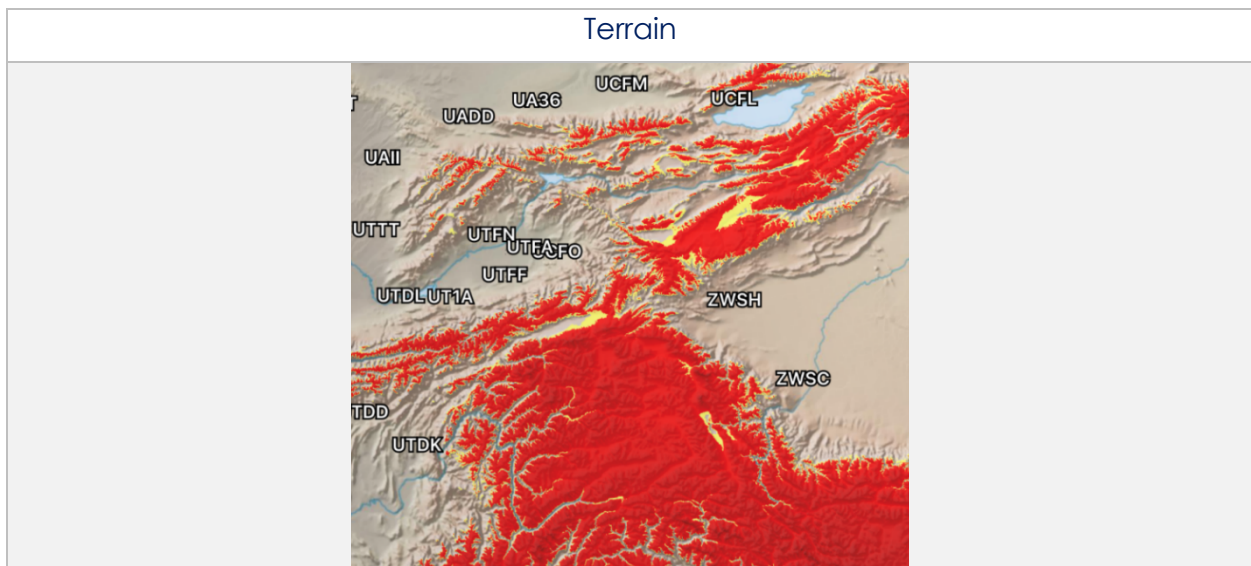
1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **Terrain** to enable the option. Terrain coloring will overlay on the Map.
6. The overlay will display red and yellow coloring which depicts the proximity of the pilot's ownship relative to terrain. The different colors indicate the following:
 - a. **Red** – ownship is less than or equal to 100 feet above terrain
 - b. **Yellow** – ownship is 100 to 1,000 feet above terrain
7. By default, the transparency is set to 100%. Drag the slider to adjust the route line transparency to any value between 20% to 100%.



NOTE: Terrain Coloring data must be loaded to view the Terrain overlay. Refer to [Section 8.13](#) for additional information.



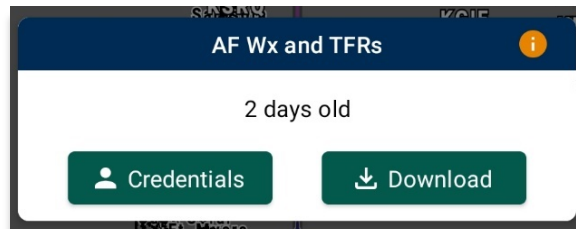
NOTE: The elevation of the water is the water's true elevation, therefore, the terrain coloring for water will range from red to yellow depending on the ownship's altitude.



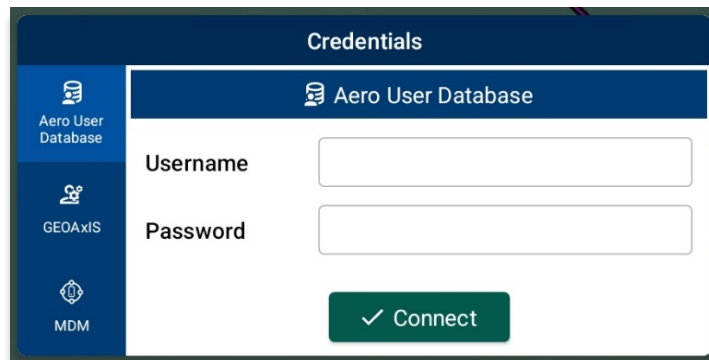
18.2.1.24 Temporary Flight Restrictions (TFRs)

Temporary Flight Restrictions (TFRs) can be overlayed on the Map view. By tapping on a TFR overlay, the TFR textual data will display for that specific TFR selection.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **TFRs** to enable the option.
6. Exit from the Overlays popup and navigate to the AF Wx button on the Map.
7. The AF Wx and TFRs popup will display. Select **Credentials**.



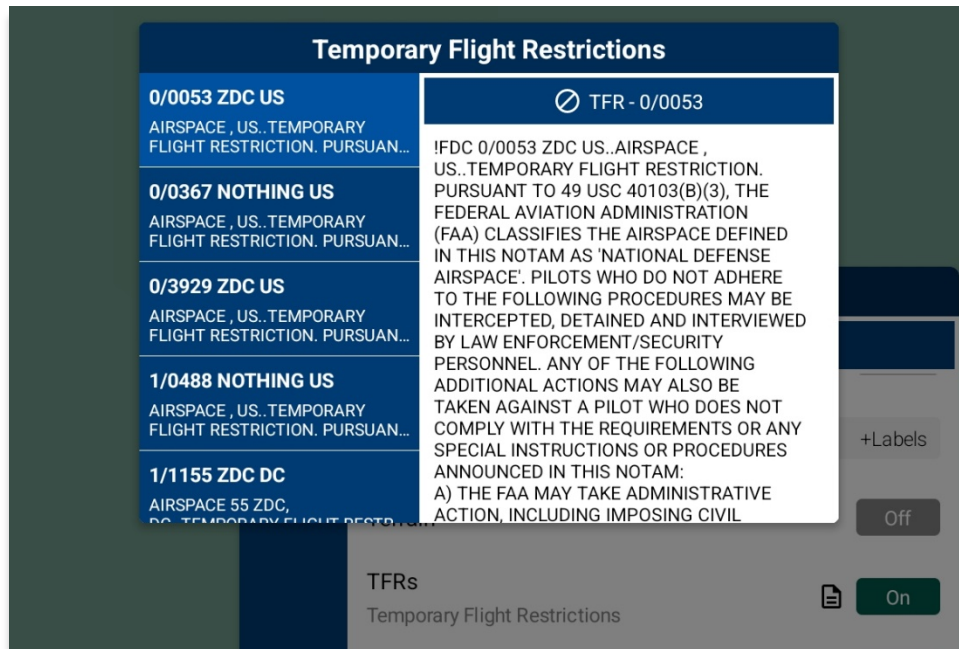
8. The Credentials popup will appear. Choose the desired method of authentication: Aero User Database (refer to [Section 5.1](#)), GEOAxis (refer to [Section 5.2](#)), or MDM.



View Textual Temporary Flight Restrictions (TFRs)

Textual Temporary Flight Restrictions (TFRs) can be viewed from the Overlays menu. TFRs, including presidential TFRs, will be listed on the popup.

1. Prior to viewing textual TFRs, users must ensure that they are logged in using their Aero User Database or GEOAxis credentials.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Scroll to the bottom of the Overlays menu to view additional overlays. Locate TFRs and tap the **document** icon beside the option.
6. The Temporary Flight Restrictions popup will display with all TFR data including presidential TFRs. Scroll down to view additional TFRs.



18.2.1.25 Time Zones

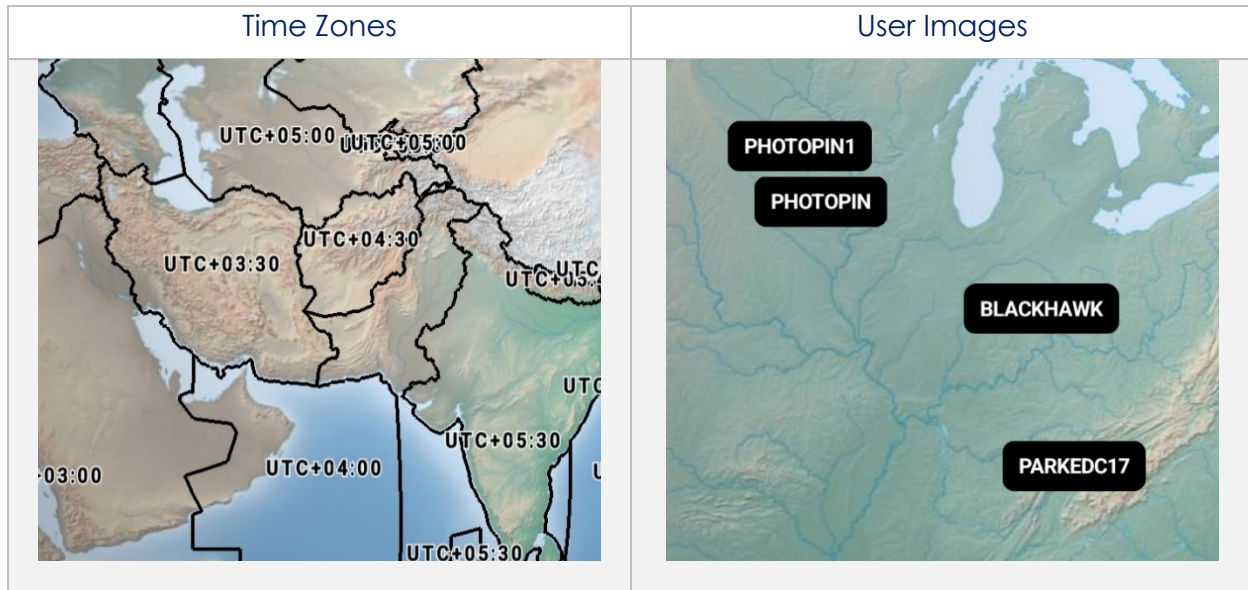
Time Zones are shown on the Map view with lines separating the longitudinal divisions. Labels display the time offset for each time zone.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **Time Zones** to enable the option. The Map will display lines separating longitudinal divisions.

18.2.1.26 User Images

User Images are Photo Pins that were dropped by users. The User Images overlay is exclusive to Photo Pins. This option must be enabled to view dropped photo pins. If no pins were dropped, refer to [Photo Pin Section](#) for additional information.

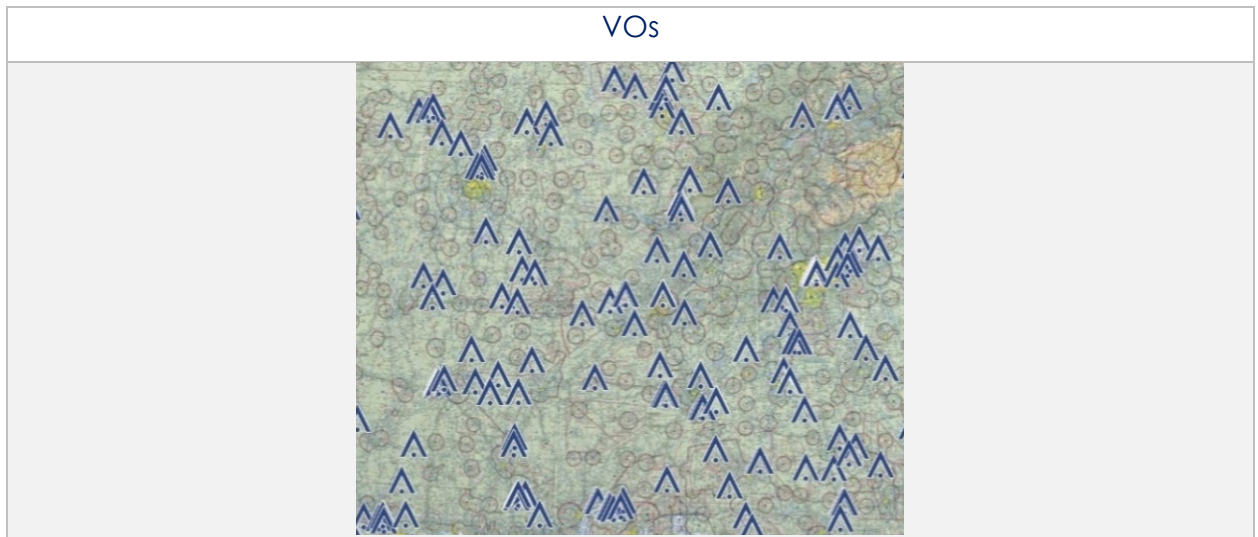
1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **User Images** to enable the option. Dropped photo pins will populate on the Map.



18.2.1.27 Vertical Obstructions (VOs)

Vertical Obstructions (VOs) will provide information including towers, buildings, and bridges at or over 150' with additional information including coordinates, AGL, and MSL.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Aero Overlays** from the side menu, if necessary.
5. Tap **VOs** to enable the option. Vertical obstructions will populate the Map.

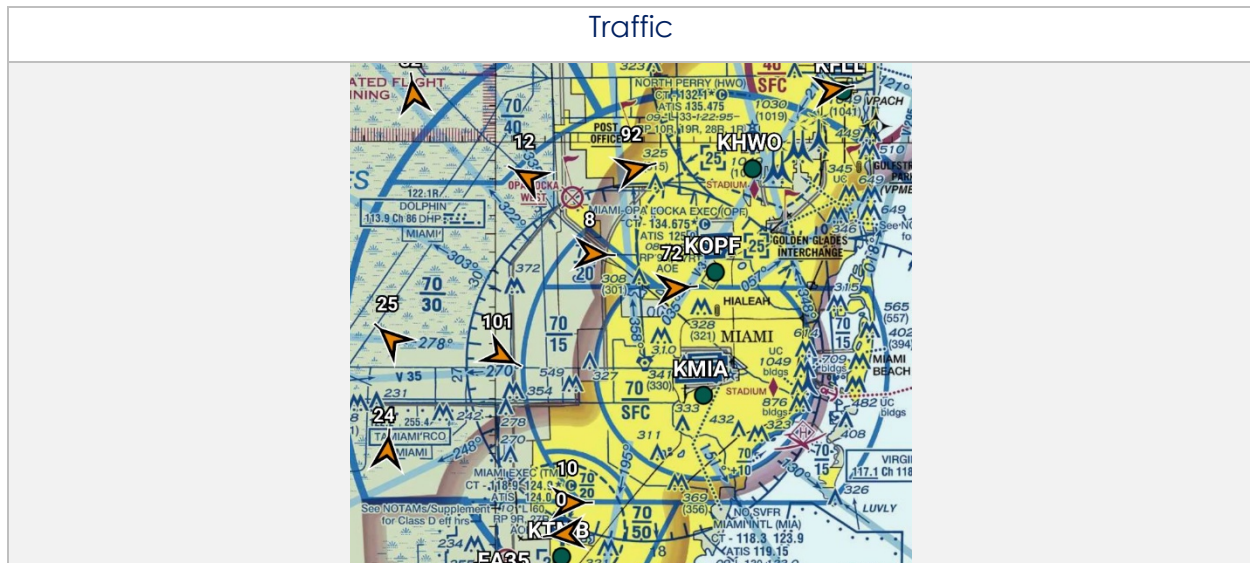


18.2.2 Traffic

Air traffic can be displayed on Aero App based on the given information provided by your ADS-B receiver. A successful connection to an ADS-B receiver is required to view traffic on the Map. Refer to [Section 17.5](#) for additional information.

18.2.2.1 Traffic

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Traffic** from the side menu.
5. Tap **Traffic** to enable the option. ADS-B traffic will populate on the Map.



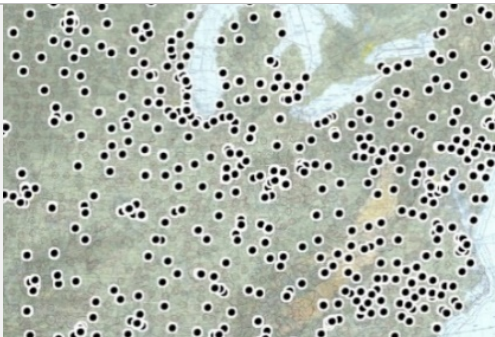
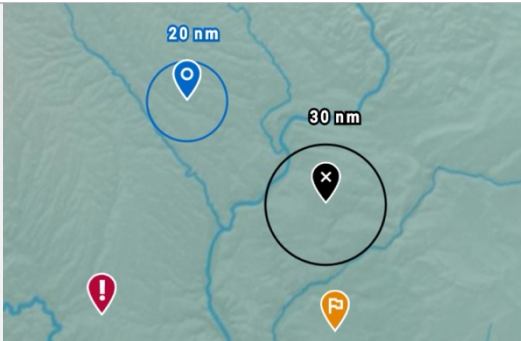
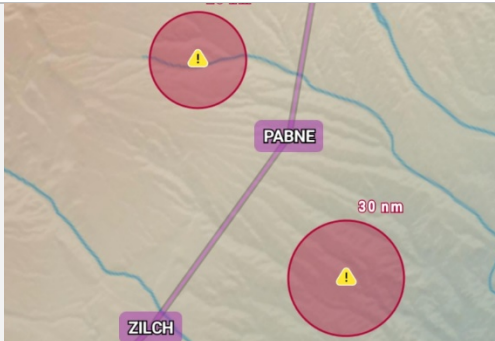
18.2.3 User Overlays

Aero App enables users to display user-generated overlays in GeoJSON, KML/KMZ, Shapefile, and SQLite (for pins and hazards) format, in the Aero App directory. User overlays must be sideloaded onto Aero App, refer to [Section 10.5](#) for additional information.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **User Overlays** from the side menu.
5. Select desired user overlay(s) and the overlay will display on the Map.
6. To delete a user overlay, from the User Overlays menu, swipe left to reveal the delete button of the file that you wish to permanently remove. Tap **Delete**.
7. The delete confirmation popup for User Overlays will be displayed. Tap **Delete** to confirm action.



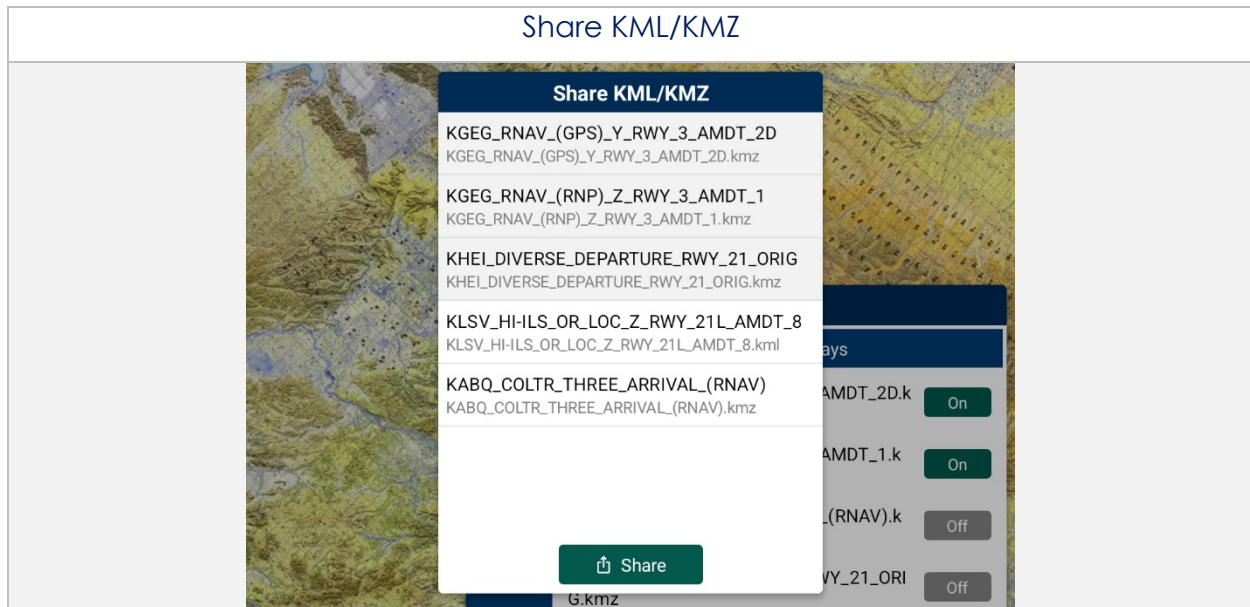
NOTE: Loading a GeoJSON file that exceeds the 35 MB limit will trigger an error message.

Shapefiles	GeoJSON
	
Pins	Hazards
	

18.2.3.1 Share KML/KMZ

KML/KMZ files can be shared between Aero App users via Quick Share or Email.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **User Overlays** from the side menu.
5. Tap **Share** and the Share KML/KMZ popup will display.
6. Select desired **file(s)** to share then tap **Share** to display the different sharing methods.
7. Select desired **method of sharing**.
8. By selecting **Quick Share**, the Quick Share view will display. Refer to [Sharing KML/KMZ Files through Quick Share](#) for additional information.
9. By selecting **Email**, the email provider in which you have set your device to share files to, will appear with the KML/KMZ files loaded as an attachment. Refer to [Sharing KML/KMZ File through Email](#) for additional information.

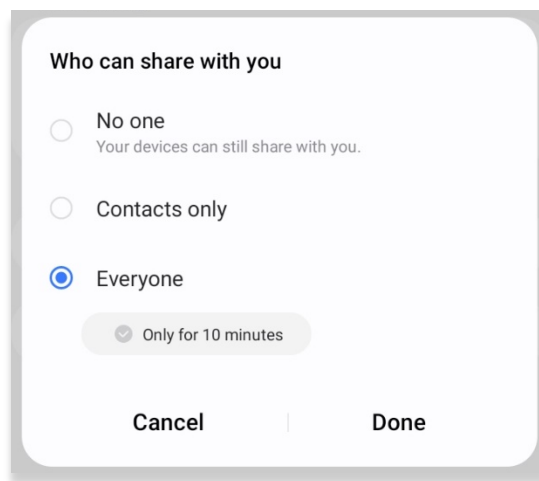


NOTE: The Share button will be disabled if no files have been selected.

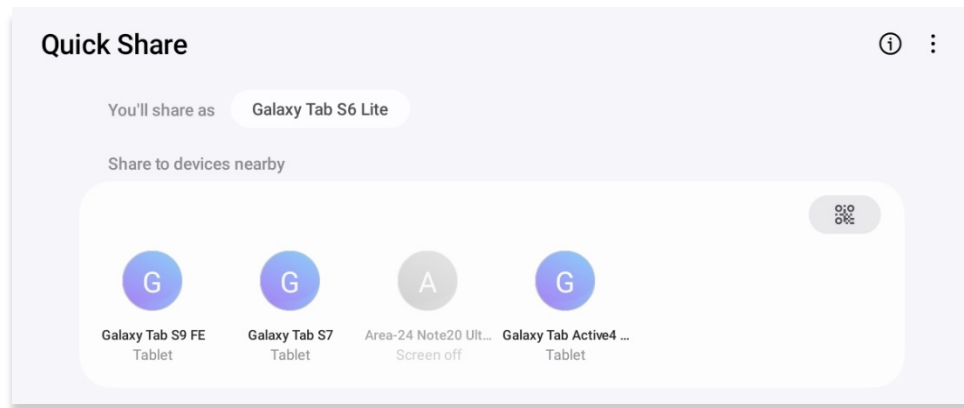
Sharing KML/KMZ Files through Quick Share

Pilots can share KML/KMZ files with another Android device via Quick Share. Users must adjust their *Who can share with you* setting to the appropriate device visibility setting to avoid sharing interruption. Refer to support.google.com/android for additional information on Quick Share.

1. On the sharing device, the Quick Share view will display. Ensure the receiving device has their screens turned on, and the *Who can share with you* setting to is set to 'Contacts only' or 'Everyone'.



2. Your device will begin to scan for nearby devices. Select a device listed below the *Share to devices nearby* section.

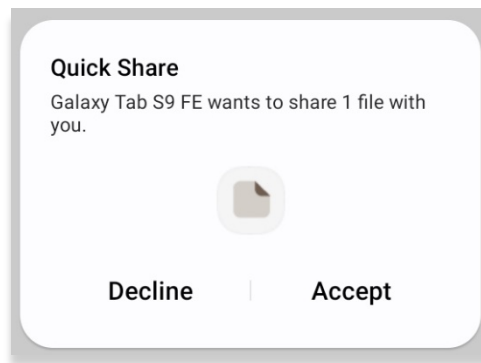


3. The sharing process will begin, and the receiving device will follow prompts to accept the files that are being shared.

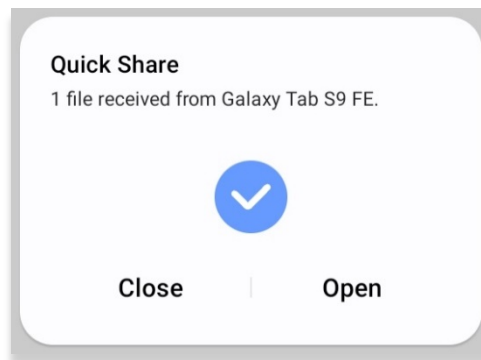
Receiving KML/KMZ Files through Quick Share

Users receiving the files via Quick Share must follow the prompts to accept the files being sent. Users must adjust their *Who can share with you* setting to the appropriate device visibility setting to avoid receiving interruption. Refer to support.google.com/android for additional information on Quick Share.

1. Ensure your device is turned on, and the *Who can share with you* setting set to 'Contacts only' or 'Everyone'.
2. A Quick Share popup will appear with options to *Decline* or *Accept*. Tap **Accept**.



3. The transfer process will begin. The received file will be stored in your device's Internal Storage.
4. Once the transfer is complete, options to *Close* or *Open* will appear. Tap **Open** and you will be redirected to the folder where the KML/KMZ file is stored. Alternatively, you can navigate to Internal Storage > Download > Quick Share.

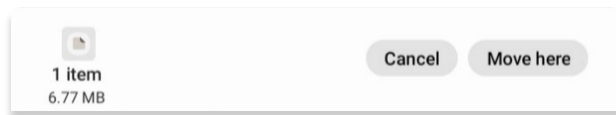


The received KML/KMZ file will be stored in the device's Internal Storage. To view the files on Aero App, users must move the received files to the appropriate Aero App folder. Refer to support.google.com for additional information.

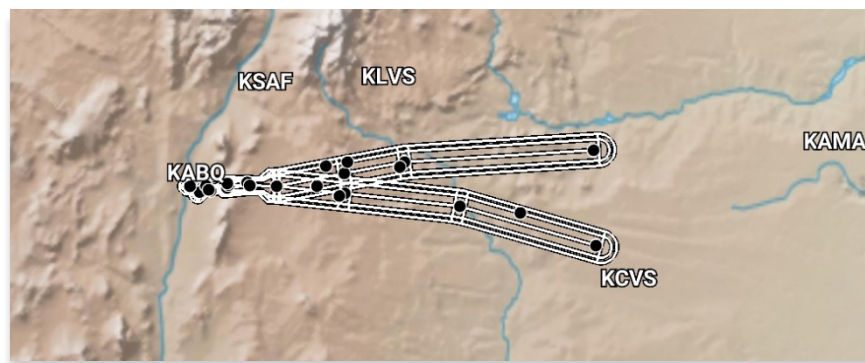
5. Locate the received KML/KMZ file. Press and hold the file to view additional actions. Select **Move**.



6. Navigate to the Aero App folder and select **MovingMap** subfolder. Alternatively, users can copy the files to the Aero App's MovingMap subfolder.
7. Tap **Move here**. The KML/KMZ file will now be stored in Aero App's Internal Storage.



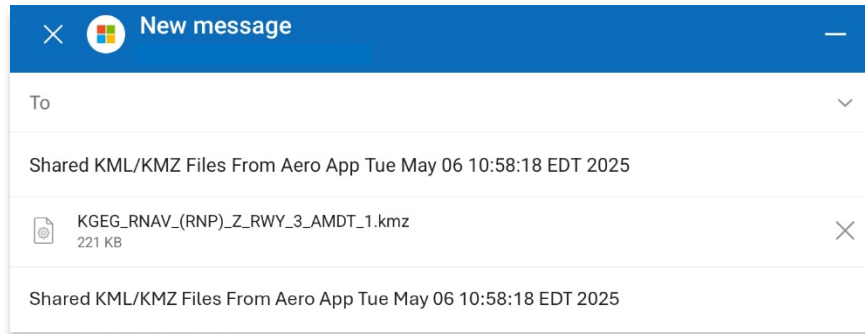
8. The KML/KMZ file can be viewed on Aero App. Open **Aero App**.
9. Tap **Map** on the **Main Menu**.
10. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
11. Tap **Overlays** on the navigational bar.
12. Tap **User Overlays** from the side menu.
13. Locate and tap to enable the KML/KMZ file from the *User Overlays* collection. The KML/LMZ file will overlay on the Map.



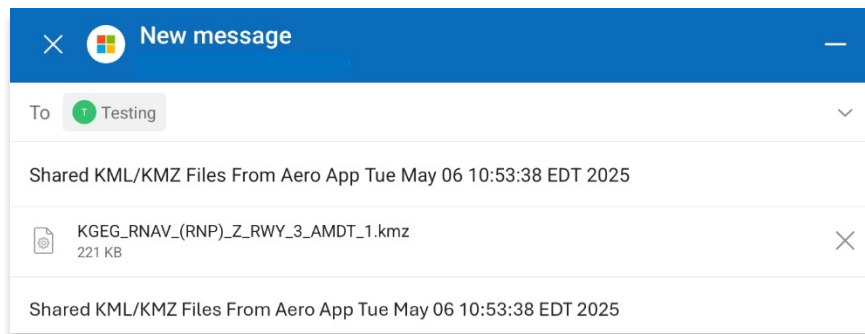
Sharing KML/KMZ Files through Email

Pilots can share KML/KMZ files via email. Users must set their *device setting* to their desired email provider for *both* devices prior to sharing and receiving files.

1. On the sharing device, the email provider in which you have set your device to share files to, will display with the KML/KMZ files attached.

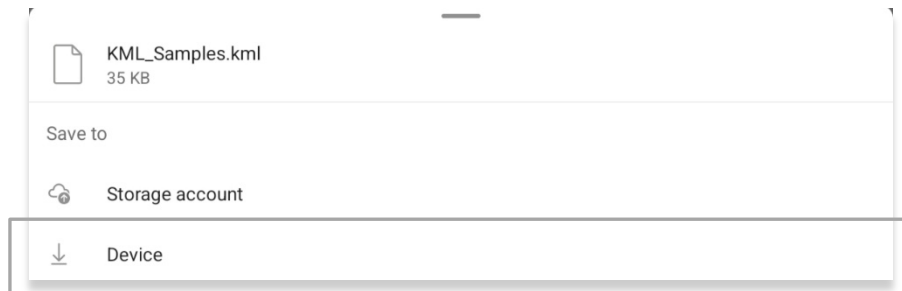


2. Enter the recipient's email address to which you would like to share the KML/KMZ files.
3. Once a valid email address has been entered, the *send button* will become selectable. Tap the **Send** button and the receiving device will follow prompts in downloading the files into their device.

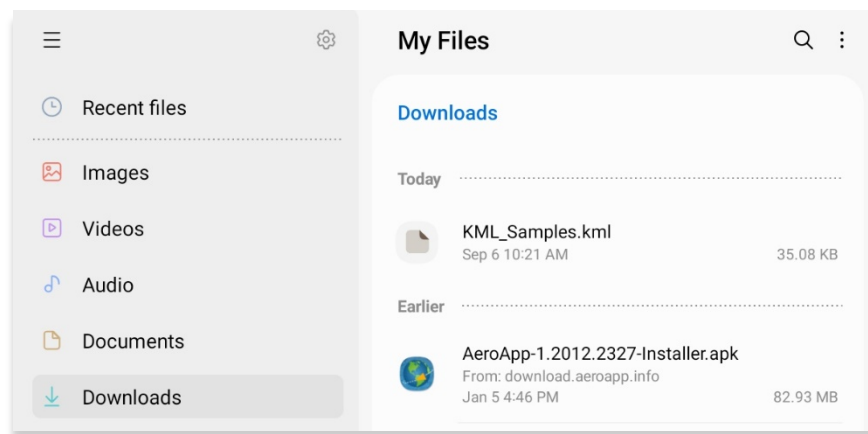


Receiving KML/KMZ Files through Email

1. On the receiving device, navigate to the email provider to which the KML/KMZ files were sent to.
2. From the email provider, tap to save the files into your device's storage.

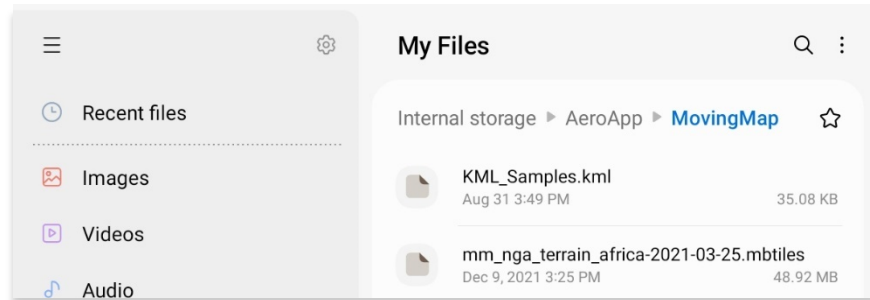


3. Once saved, navigate to the device's File Folder.
4. Navigate to the *Downloads* folder and locate KML/KMZ file.

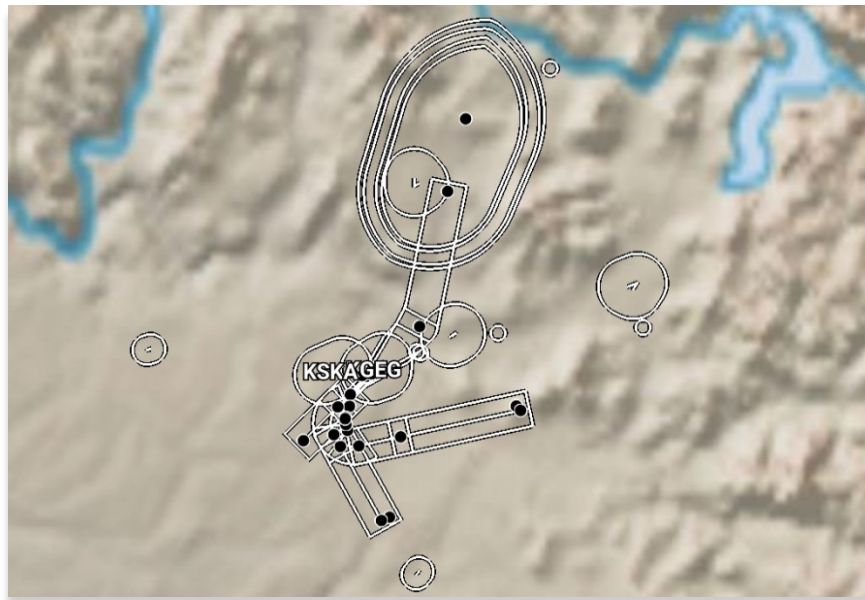


5. Copy desired KML/KMZ file.

6. Navigate to the device's **Internal Storage** and locate the **Aero App** folder.
7. Navigate to the **MovingMap** folder and paste the KML/KMZ file.



8. Open **Aero App**.
9. Tap **Map** on the **Main Menu**.
10. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
11. Tap **Overlays** on the navigational bar.
12. Tap **User Overlays** from the side menu.
13. Locate and tap to enable the KML/KMZ file from the *User Overlays* collection.
The KML/KMZ file will overlay on the Map.



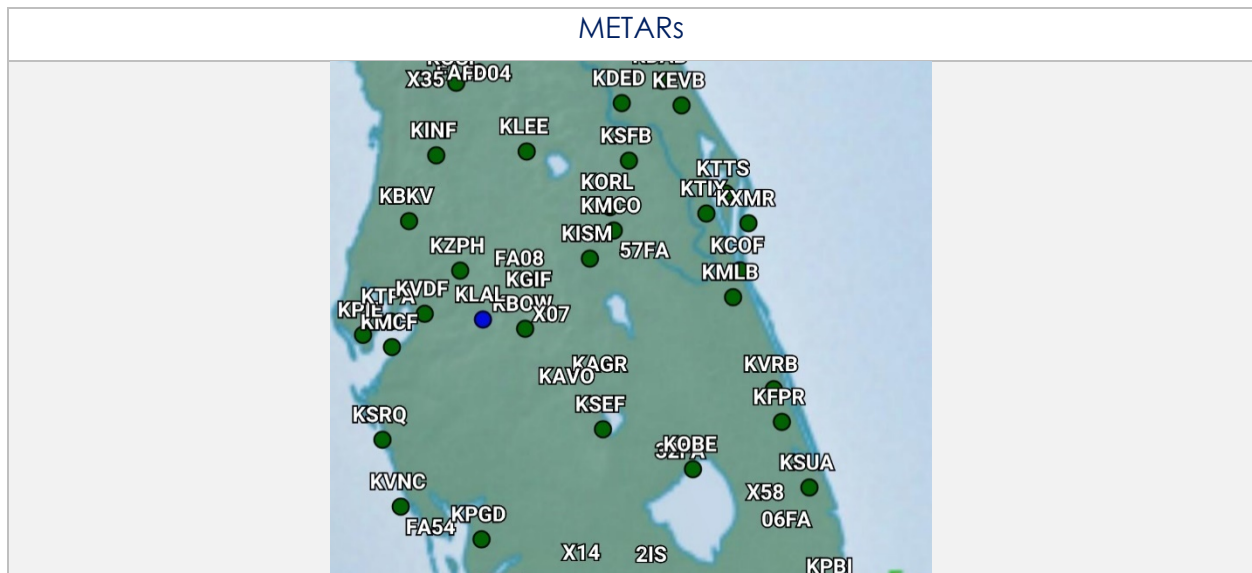
18.2.4 Weather

Aero App Weather has various options that enable pilots to display METARs and ADS-B weather on the Map. Users can modify their ADS-B flight altitude and ADS-B overlay transparency.

18.2.4.1 METARs

The METARs option must be enabled to view the latest ADS-B and/or AF Weather on the Map.

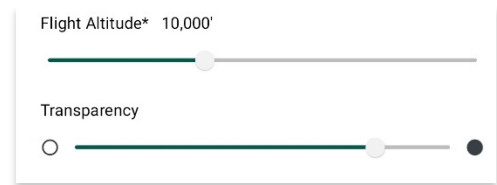
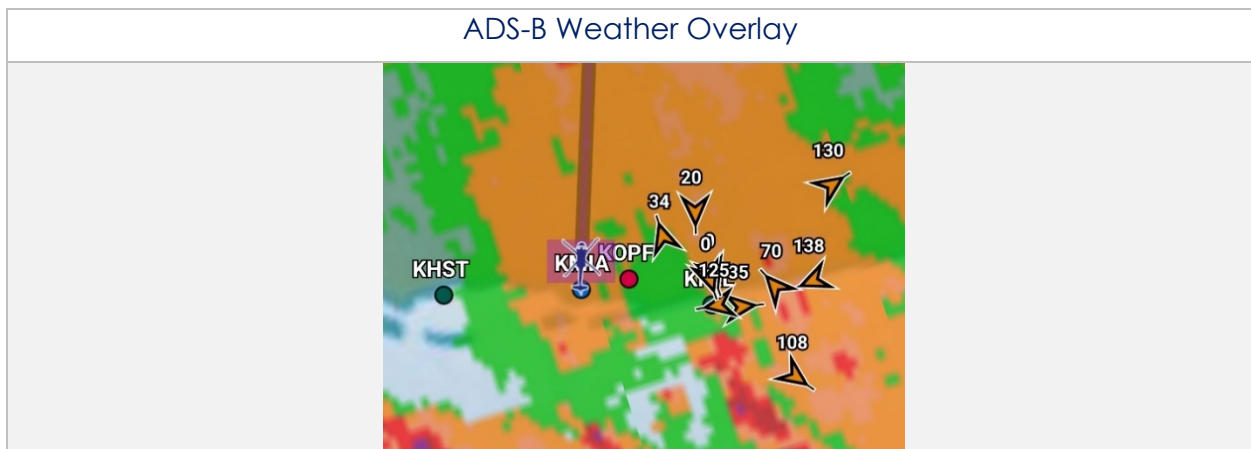
1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Select **Overlays** from the navigational bar.
4. Select **Weather** from the side menu.
5. Tap **METARs** to enable the option. The flight rules will overlay on the Map.



18.2.4.2 ADS-B Weather

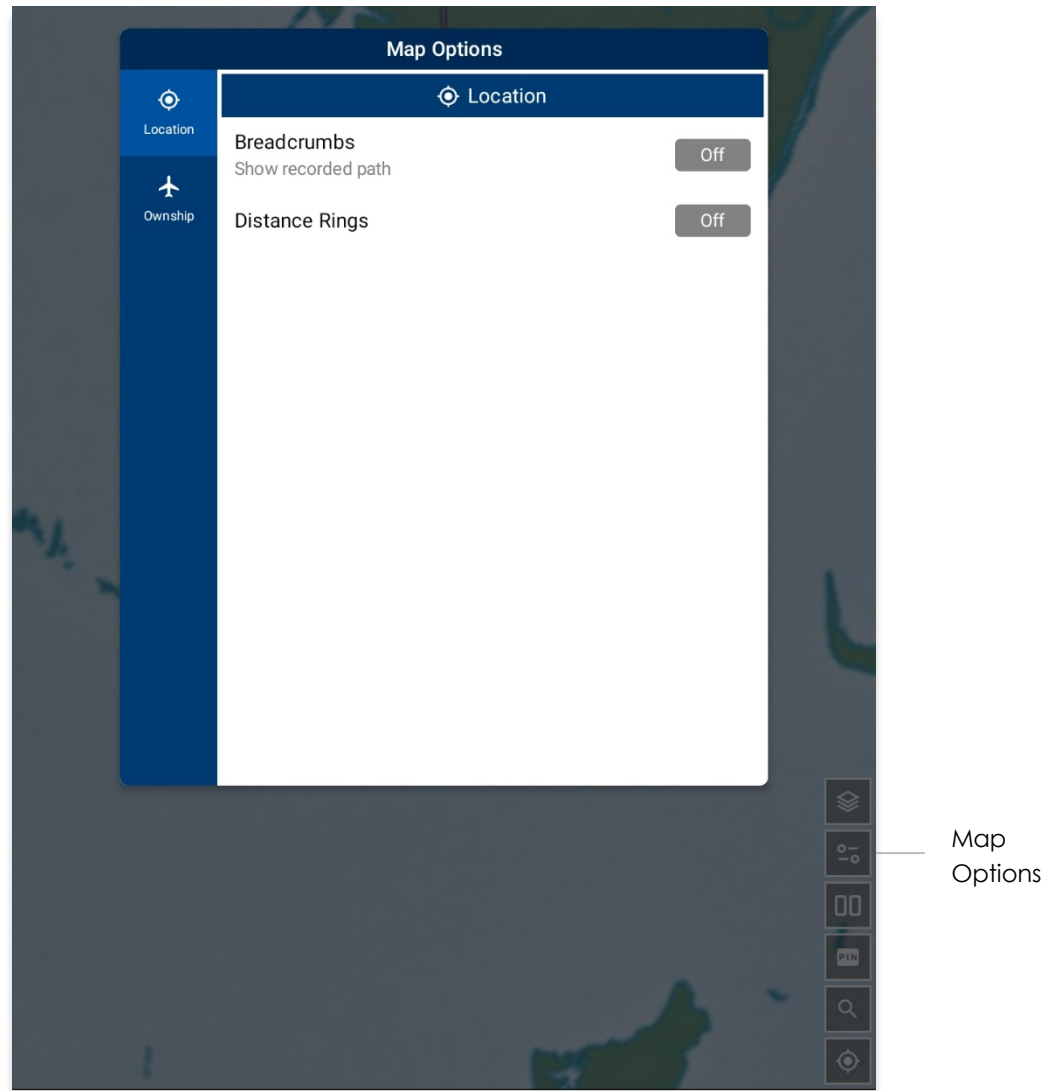
Aero App provides animated ADS-B weather such as Lightning, Cloud Tops, Icing Probability, Icing Severity, Icing SLD Potential, NEXRAD, and Turbulence. Users must establish an ADS-B connection. For additional information, refer to [Section 17.5](#).

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Manager** located at the lower-right of the Map view. The Map Manager popup will appear.
3. Tap **Overlays** on the navigational bar.
4. Tap **Weather** from the side menu.
5. Tap **ADS-B** to enable the option. Additional ADS-B weather overlay options will be displayed.
6. Tap **Lightning** to enable the option.
7. Tap the radio buttons of the desired ADS-B weather overlay.
8. A Flight Altitude slider displays below all the ADS-B weather overlay options. The Flight Altitude slider bar is enabled when a required weather overlay option is selected. These weather overlays have an asterisk as listed below:
 - Icing Probability*
 - Icing Severity*
 - Icing SLD Potential*
 - Turbulence*
9. By default, the flight altitude value is set to 10,000'. Adjust the flight altitude slider bar to any value between 2,000' and 24,000'.
10. By default, the ADS-B overlay transparency value is set to 50%. Adjust the ADS-B overlay transparency slider bar to any value between 0% and 100%.



19 Map Options

The Map Options menu offers Location and Ownship settings and is located at the lower-right of the Map view, directly below Map Manager.



19.1 Location

The Location menu offers options to show recorded paths and the ability to add distance rings around your ownship.

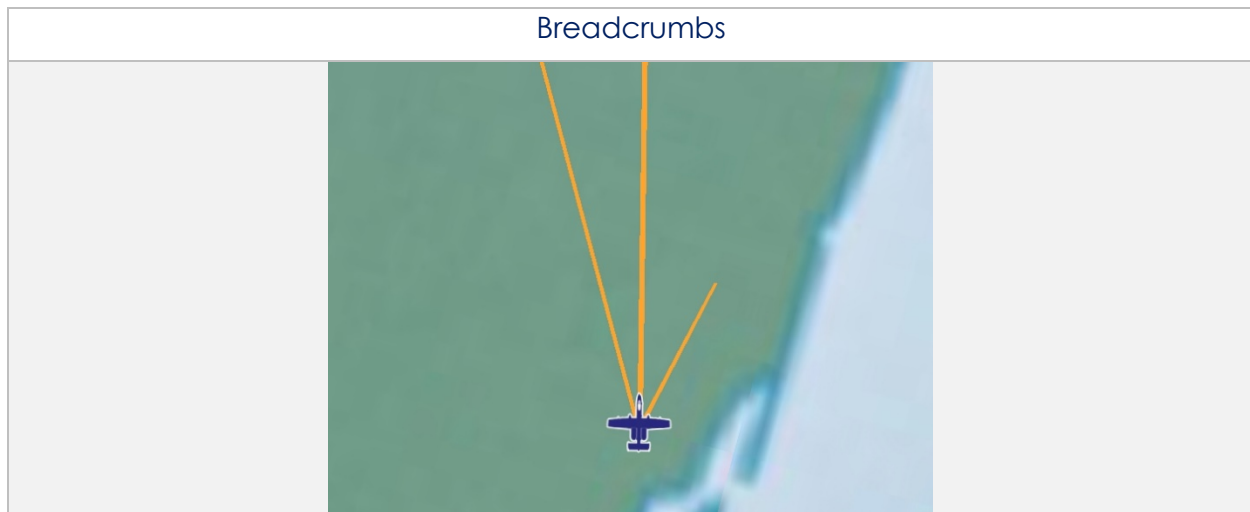
19.1.1 Breadcrumbs

The saved breadcrumb will show a continuous orange line on the map representing the breadcrumb trail.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Options** located directly below Map Manager.
3. Select **Location** from the side menu.
4. Tap **Breadcrumbs** to enable the option. The orange breadcrumb trail will be displayed on the Map.



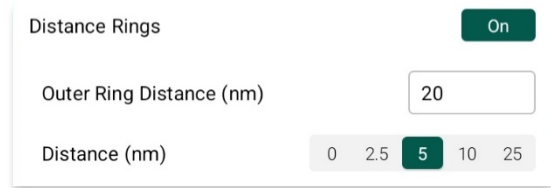
NOTE: Refer to [Section 17.1.7](#) for additional information regarding Breadcrumbs.



19.1.2 Distance Rings

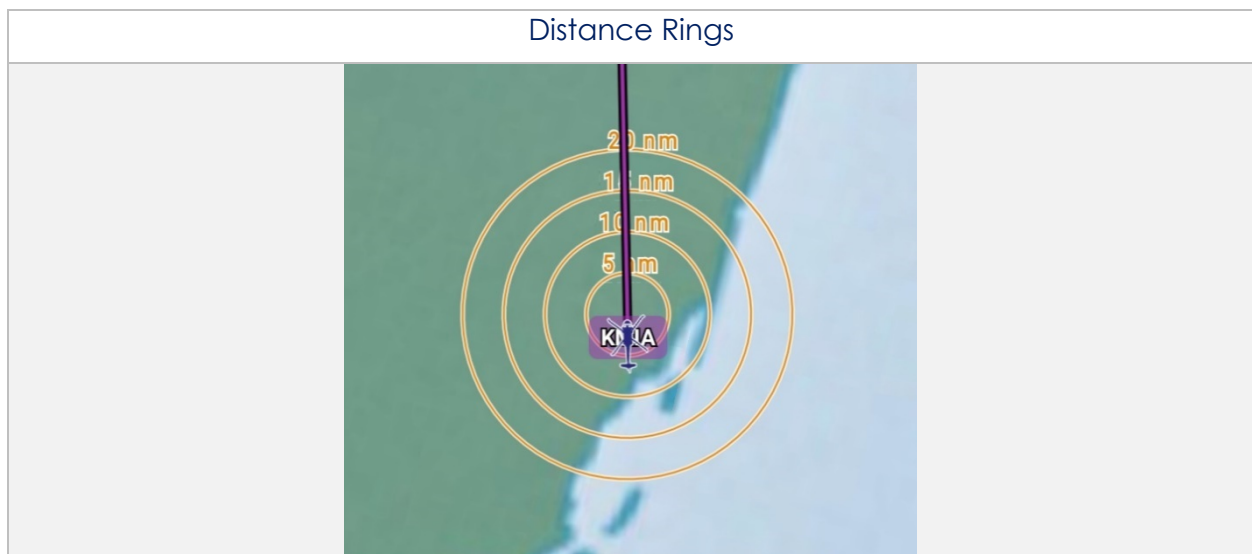
Distance Rings are a series of rings surrounding the pilot's ownship. It is a tool that determines how far away something is from the location of your ownship. The distance rings' default values can be modified in Settings. The Outer Ring Distance setting represents the farthest distance from the ownship, and Distance setting is the length between each ring.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Options** located directly below Map Manager.
3. Select **Location** from the side menu.
4. Tap **Distance Rings** to reveal additional options for distance rings.
5. Tap the **Outer Ring Distance** text box and enter desired outer ring distance in km or nm, respective to the distance unit format you have set in Settings.



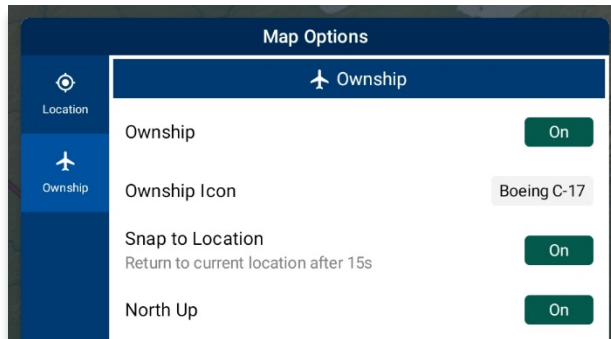

NOTE: The maximum outer ring distance is 999. Any values entered that are greater than 999 will display an error.

6. Use the segmented control to select desired distance between rings from the options of 0, 2.5, 5, 10, and 25 km or nm; respective to the distance unit format you have set in Settings.



19.2 Ownship

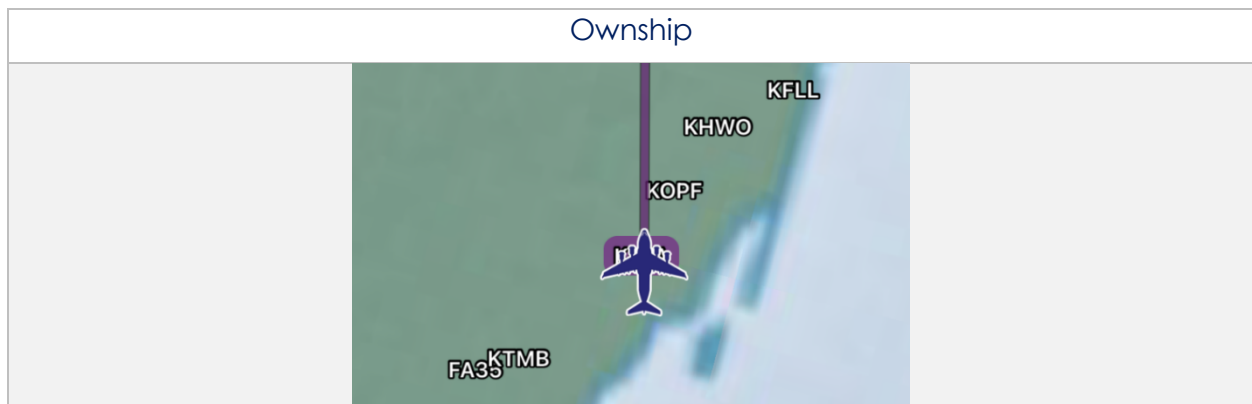
The Ownship menu allows users to customize their ownship. Users can show or hide their Ownship from the map view, Snap to Location in 15 second intervals, and choose North Up as the orientation on the Map.



19.2.1 Show Ownship and Ownship Icon

The location of your device is relative to the position of the ownship being displayed on the Map view. If your device is connected to an ADS-B or GPS receiver, Aero App will display the GPS location of your receiver. Refer to [Section 17.5](#) for additional information.

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Options** located directly below Map Manager.
3. Select **Ownship** from the side menu.
4. Tap **Ownship** to enable the option. An ownship will display on the Map respective to the location of your device, ADS-B, or GPS receiver.
5. Tap the **Ownship Icon** options to display the selection of ownship icons.
6. Select the desired ownship to display the user's current location on the Map.



19.2.2 Snap to Location

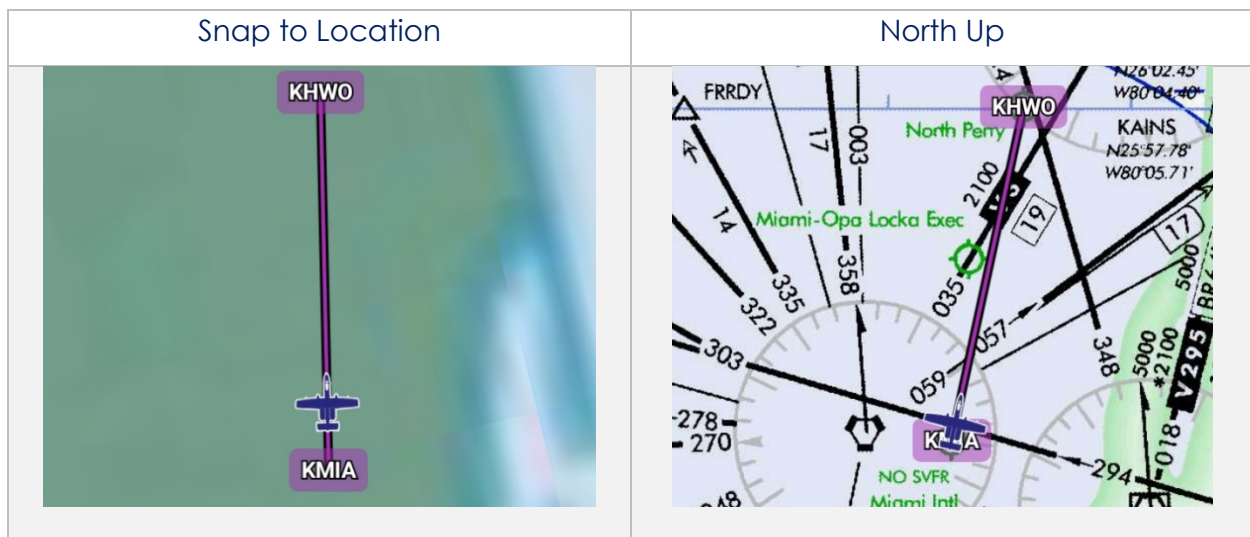
1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Options** located directly below Map Manager.
3. Select **Ownship** from the side menu.
4. Tap **Snap to Location** to enable the option. The map will automatically snap to your current location after 15 seconds.



NOTE: Alternatively, users can access their Snap to Location feature by tapping the *crosshair* icon on their Map view as explained in [Section 22](#).

19.2.3 North Up

1. Tap **Map** on the **Main Menu**.
2. Navigate to **Map Options** located directly below Map Manager.
3. Select **Ownship** from the side menu.
4. Tap **North Up** to enable the option. The Map will be repositioned to a north-up orientation which keeps a fixed point of reference.



20 Split Screen

The Split Screen feature allows users to view airport charts or PDF documents alongside the Map, all within the same screen. To activate this feature, tap the **Split Screen icon** located at the lower-right corner of the map view, just below Map Options.



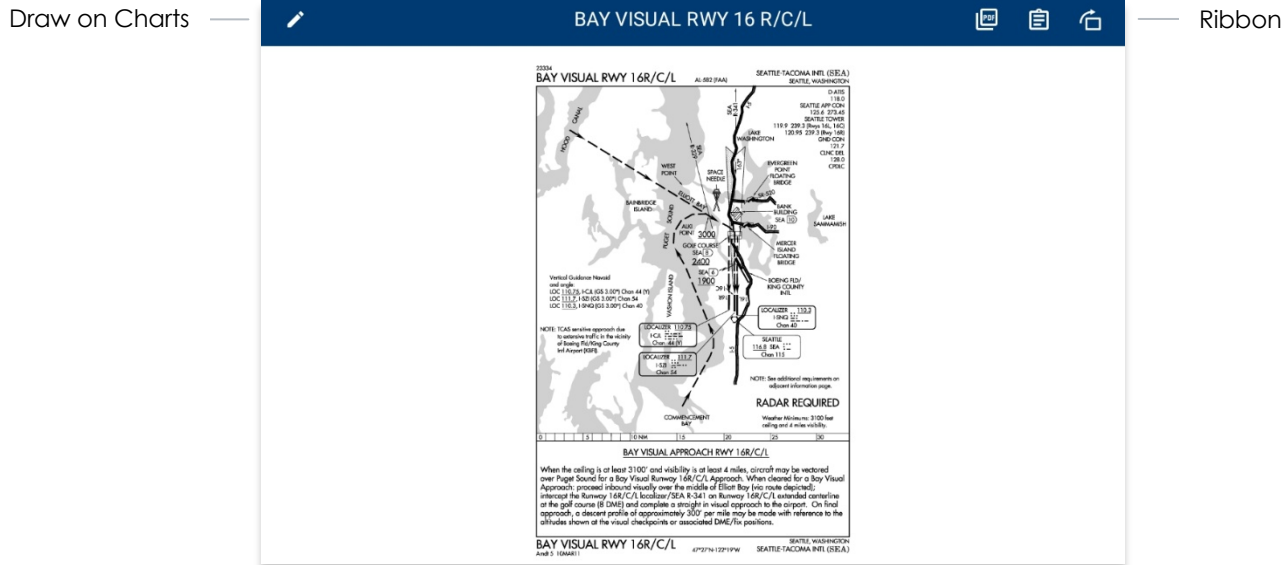
— Map Options

— Split Screen

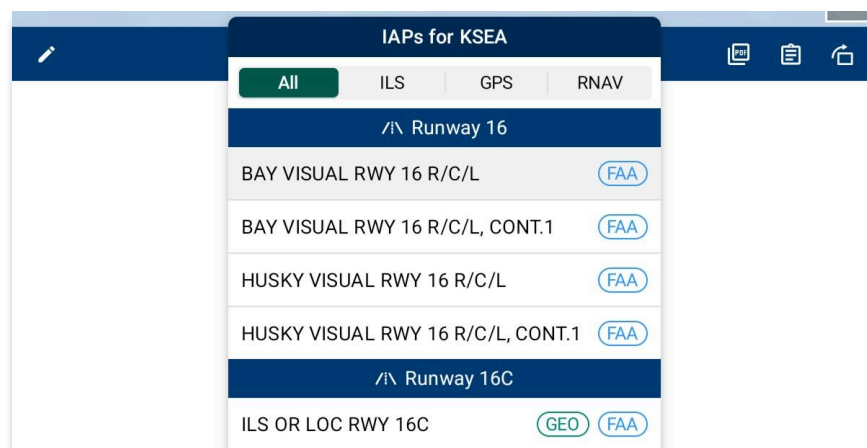
20.1 View APD and IAP on Split Screen

Pilots can view IAP or APD charts alongside the Map view using a split-screen display.

1. Tap **Map** on the **Main Menu**.
2. Tap on the **split screen** icon located at the bottom right of the Map view. The route destination's approach procedure is displayed by default.



3. To switch to a different chart, tap on the **ribbon** to display the list of IAPs.
4. Select a chart from the popup menu.

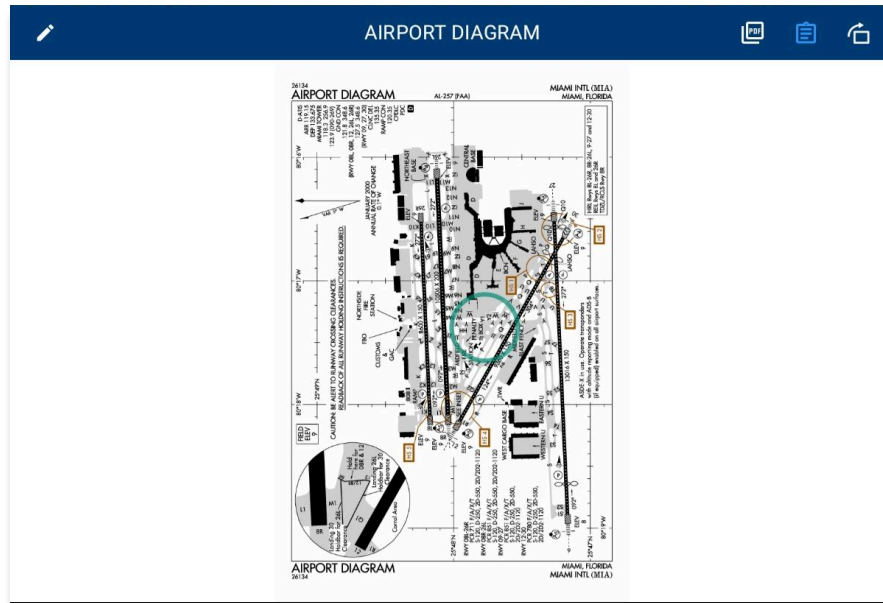


NOTE: An airport must be included in the route; otherwise, a chart will not be displayed.

- To switch the bottom split screen view to display an APD, tap the **document icon** located to the right of the PDF icon. The chart will switch to display an APD.

Document Icon

Draw on Charts



NOTE: The switch screen button will turn blue if the user is viewing the IAP, when switching to view the APD charts, the button will revert to white.

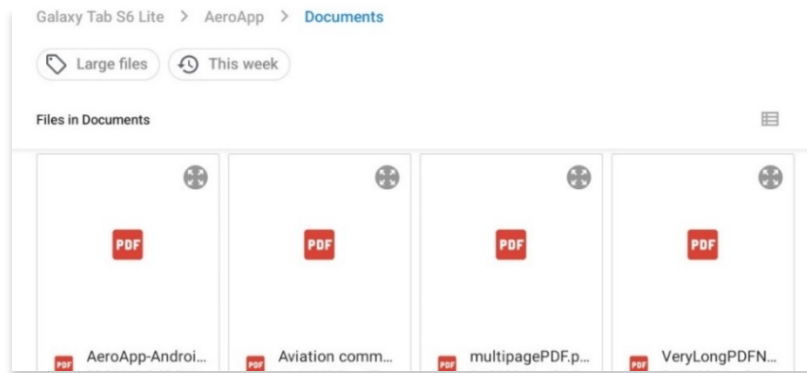


NOTE: Users can make marks on APD and IAP charts. Refer to [Section 16.2.1](#) for additional information.

20.2 View PDF on Split Screen

Users can display PDF documents on the Map's split screen view. To view a user document, ensure the document is saved to your device and the necessary permissions are granted to appear in the system file picker. Refer to [Section 6.2](#) for additional information.

1. Tap **Map** on the **Main Menu**.
2. Tap on the **split screen** icon located at the bottom right of the Map view.
3. To switch to PDF view, tap the **PDF icon** on the ribbon.
4. Tap on the **ribbon** and the system file picker will appear.



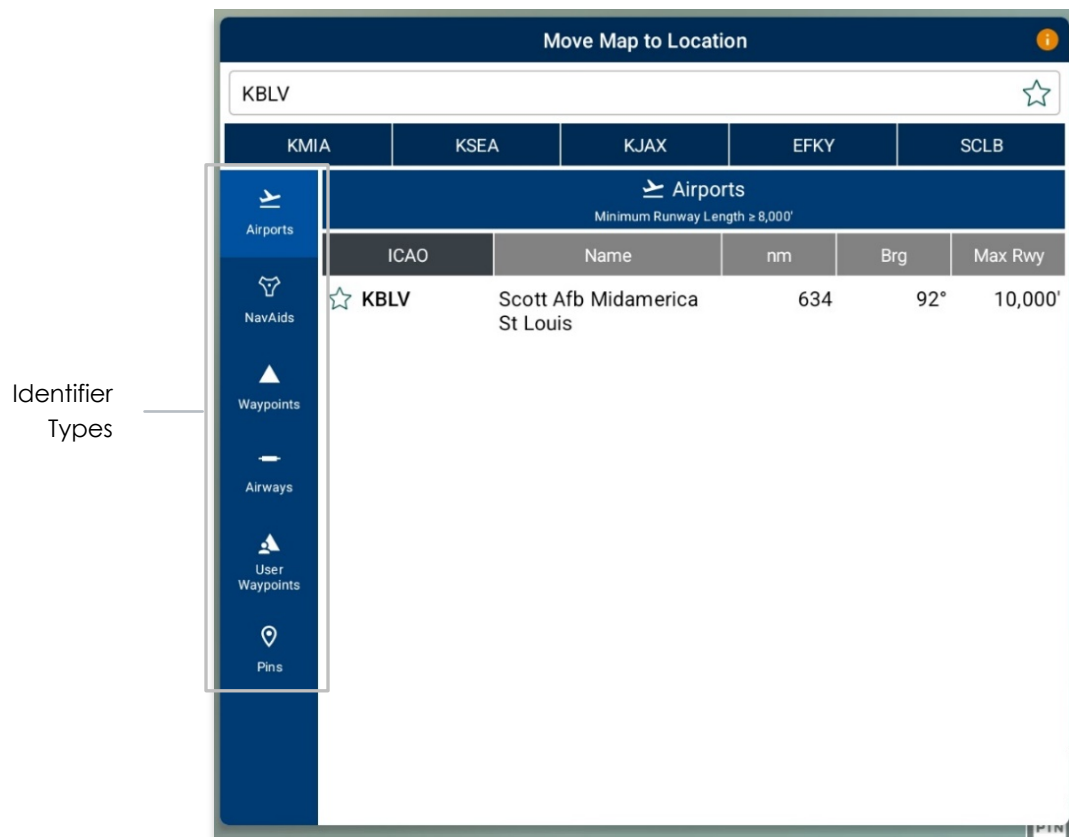
5. Select the desired **document**. Your document will be displayed on the split screen view.
6. Swipe the document to the right to move forward or swipe to the left to move backward from a page. Alternatively, you can move the slider to skip multiple pages.
7. To return to the IAP chart view, tap the **clipboard** icon.



21 Move Map to Location

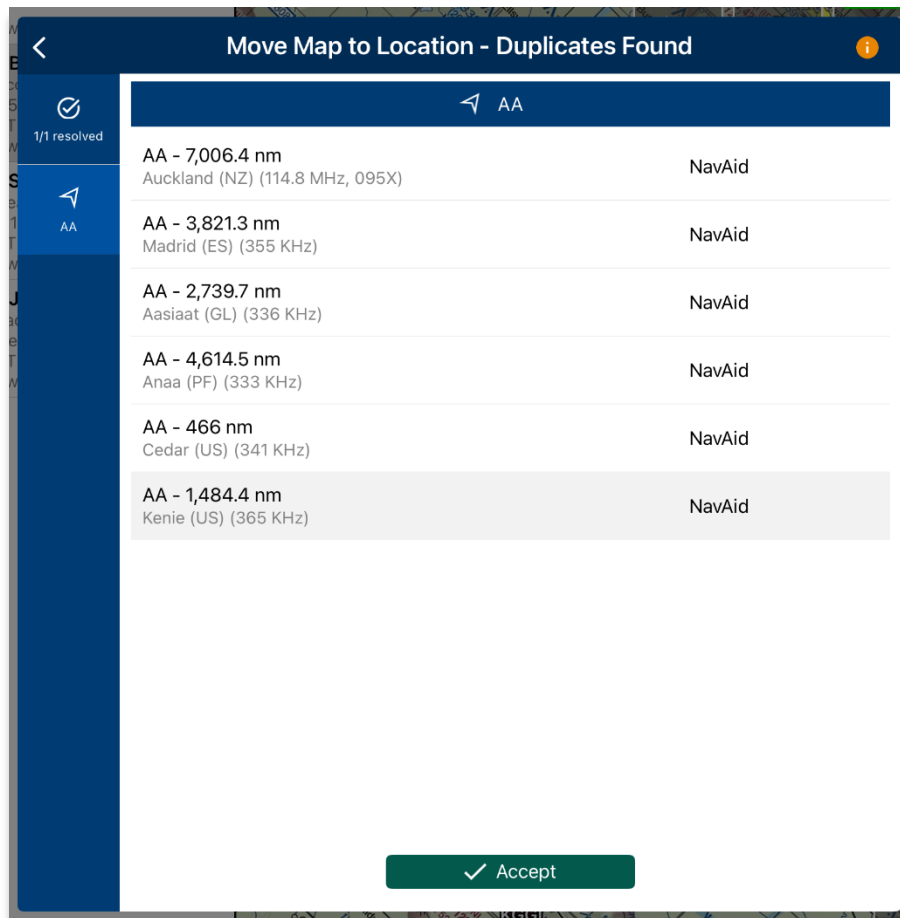
The Move Map to Location (magnifying glass) feature can be found at the lower-right of the Map view, directly below the *Dropped Pins* button. Users can search by a point's ID (identifier) or by entering a search term, and the screen will move to the location of the identifier. Users can filter airports by setting a minimum runway length in their Settings.

1. Tap the **Move Map to Location** (magnifying glass) button located at bottom right of the screen.
2. The Move Map to Location popup will appear. Tap the **text box** to open your device's keyboard.
3. Enter an identifier, search term, or the coordinate of the desired point.
4. The search results are divided into different identifier types. Select from Airports, NavAids, Waypoints, Airways, User Waypoints, or Pins. Alternatively, users can tap Search on the device's keyboard and the screen will pan to its location.



NOTE: When users initiate a search for an Airway, the map will display the first waypoint associated with the selected Airway.

5. If duplicate points are found during a search, a popup will appear displaying the list of duplicates. Choose one of the duplicate points to resolve the issue.
6. Select **Accept**.



22 Snap to Location

The Snap to Location (crosshair icon) is located at the lower-right of the Map view, directly below the Move Map to Location feature. This feature is a shorthand way to manually snap to your current GPS location.



NOTE: Users can enable the Snap to Location feature, which returns to the user's current location after 15 seconds as explained in [Section 19.2.2](#).

23 Center Target

The Center Target retrieves the latitude, longitude, and MGRS values of the area in which the target is placed. As the Map moves, a yellow tag would briefly display information on Distance and Bearing, respective to the placement of the target.



23.1 Measure Distance and Bearing Between Points

Aero App provides a tool that calculates the distance and bearing between two points on the Map.

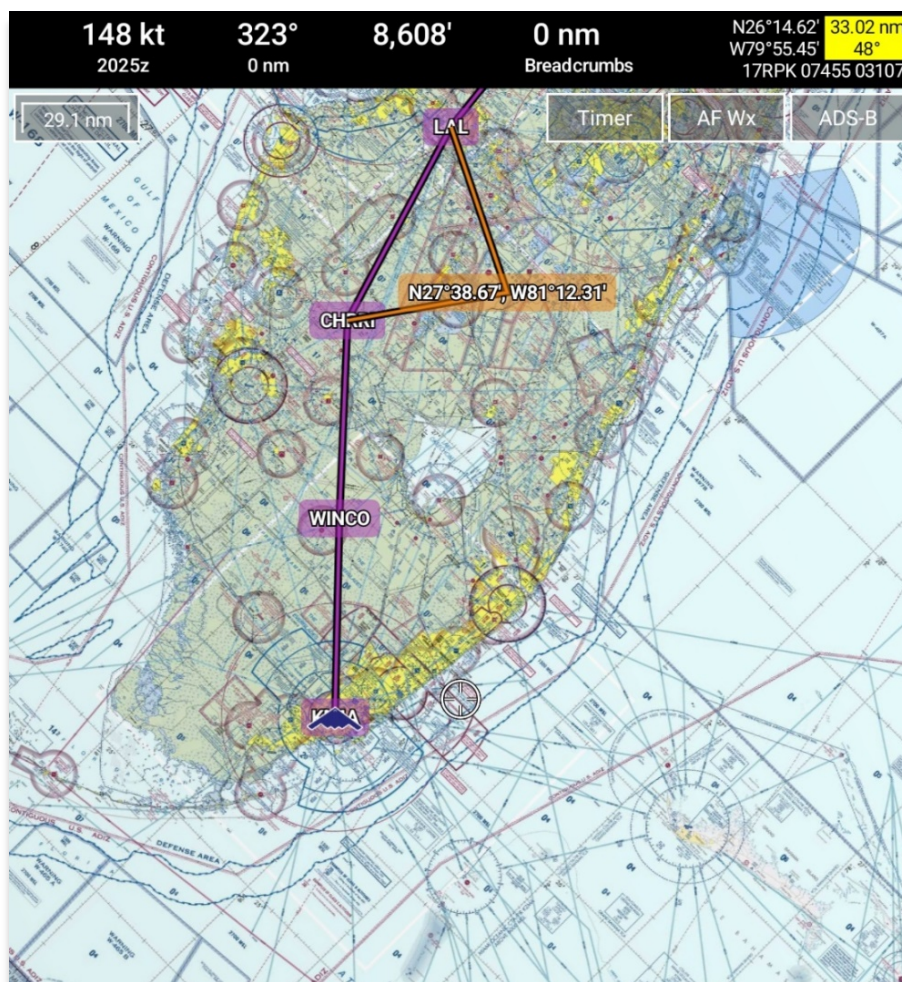
1. Move the Map to activate the center target.
2. Choose a *starting point* and tap the **target icon** to set the starting point.
3. Move the Map to a desired end point. The measurement is displayed above the end point, accompanied by its respective cardinal direction. The displayed values are the distance and bearing of the starting point and end point.



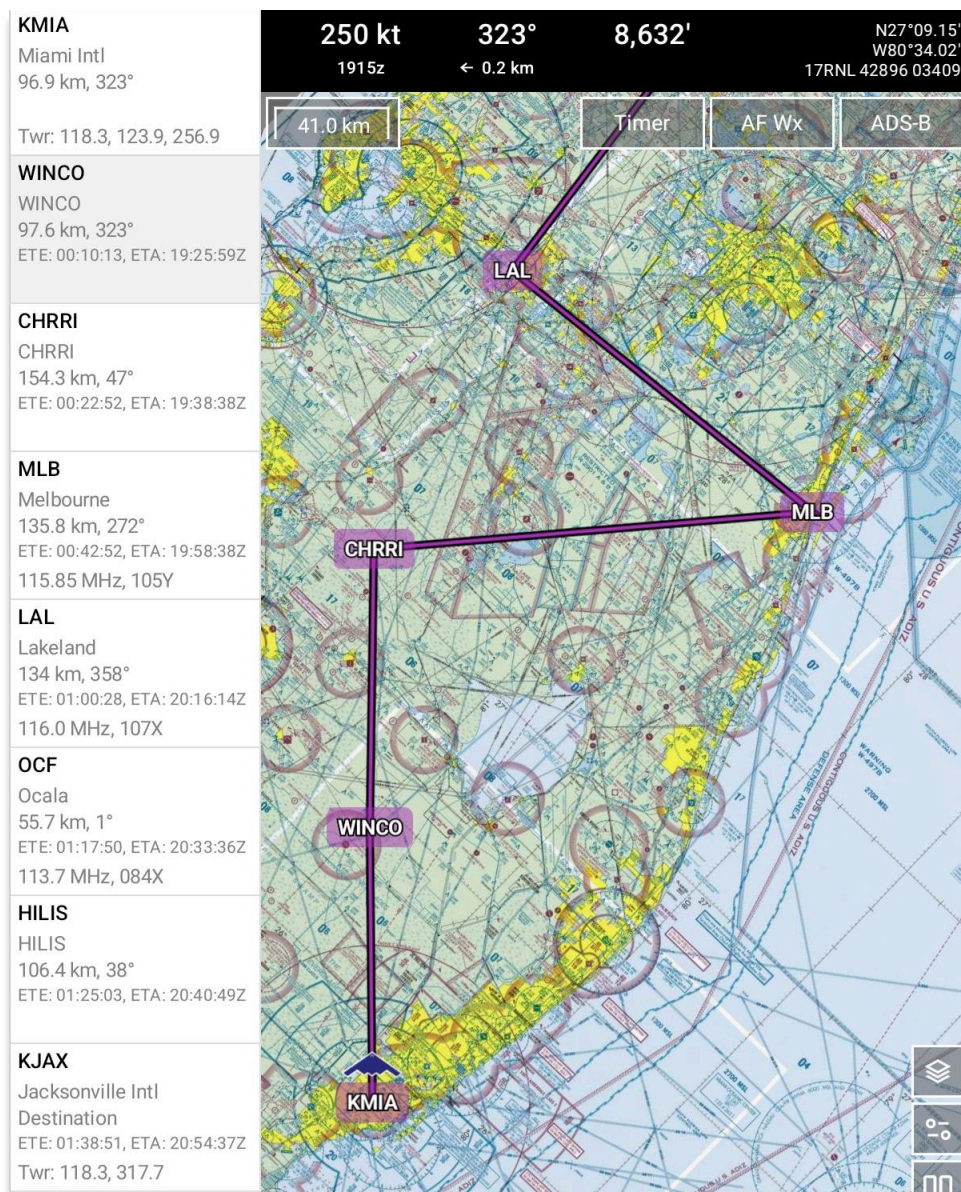
24 Drag and Drop

The Drag and Drop feature allow users to make quick modifications to their current route. Users can drag and drop any point or segment of the current route to their desired location. The coordinates will be displayed in latitude/longitude or MGRS, based on the distance unit format users have set in Settings.

1. Load the desired route in your Route Panel.
2. On the Map, hold a point or segment in your route and drag it to a point that you wish to add to the route.



3. The Nearest popup will appear displaying the coordinates (in Lat/Lon or MGRS format) of the selected point with 10 nearest Airports, NavAids, Waypoints, and User Waypoints.
4. Select desired point.
5. A new point will be added to the current route.



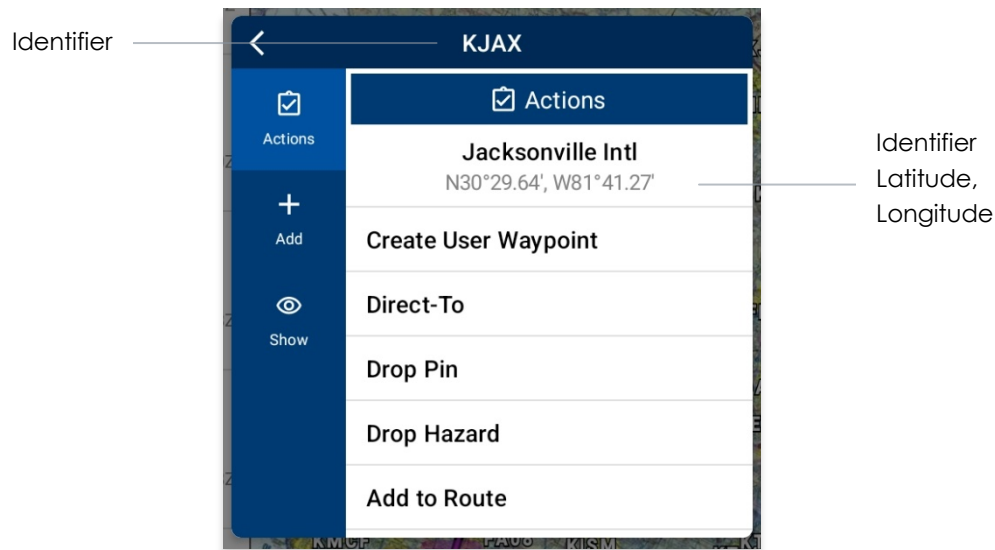
NOTE: Warning popups will appear when users try to drag and drop points that belong to a DP, ARR, STAR, SAR pattern, Airway, or MTR.

25 Identifier Menu

The Identifier Menu includes identifier information such as the identifier name, and its latitude and longitude. In the case where NavAid is selected, additional information will be available to users such as its identifier name, bearing, distance, and frequency. Users can display the Identifier Menu in three simple ways:

- Long pressing any point on the Map
- Tapping an existing point on the Map
- Tapping any point on the Route Panel

1. Tap **Map** on the **Main Menu**.
2. Long-press a desired point on the Map. Alternatively, users can tap an identifier on the Map or the Route Panel to directly display the Identifier Menu.
3. The Nearest popup will be displayed. Select desired identifier. The Identifier Menu will display with each option grouped by Actions, Add, and Show.



25.1 Actions

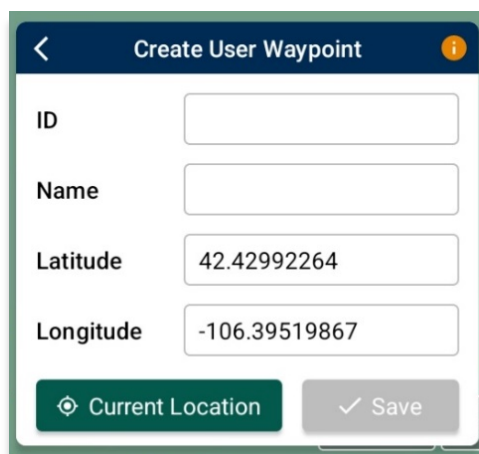
The Actions menu offers the following options and will be further discussed in the sections below:

- Create User Waypoint
- Direct-To
- Drop Pin
- Drop Hazard
- Add to Route or Remove from Route

25.1.1 Create User Waypoint

Users can create user waypoints directly from Aero App. Alternatively, users can sideload their user-generated waypoints onto Aero App. Refer to [Section 10.3](#) for additional information. To view the full list of User Waypoints, refer to [Section 14.3.4.6](#) for additional information.

1. Tap **Map** on the **Main Menu**.
2. Long-press a desired point on the Map. Alternatively, users can tap an identifier on the Map or the Route Panel to directly display the Identifier Menu.
3. The Nearest popup will appear. Select your desired point.
4. The Identifier Menu will appear. Select **Actions** from the side menu, if necessary.
5. Tap **Create User Waypoint**.
6. The Create User Waypoint popup will appear with fields to enter an Identifier, Name, Latitude, and Longitude. The latitude and longitude fields are auto filled with the point's current coordinates. Fill in the necessary information.



The screenshot shows a mobile application interface for creating a user waypoint. The dialog box is titled "Create User Waypoint" and features a dark blue header with a back arrow on the left and an information icon on the right. Below the header, there are four input fields arranged vertically: "ID" (empty), "Name" (empty), "Latitude" (pre-filled with the value 42.42992264), and "Longitude" (pre-filled with the value -106.39519867). At the bottom of the dialog, there are two buttons: a green button labeled "Current Location" with a location pin icon, and a grey button labeled "Save" with a checkmark icon.

7. Tap **Current Location** to use your present location's coordinates.



The Name field is optional. When creating a name for User Waypoints, the name should only contain alphanumeric characters (upper and lower cases) and spaces.

8. Once fields are filled, the Save button will be selectable. Tap **Save** and the waypoint is added to the User Waypoint list.

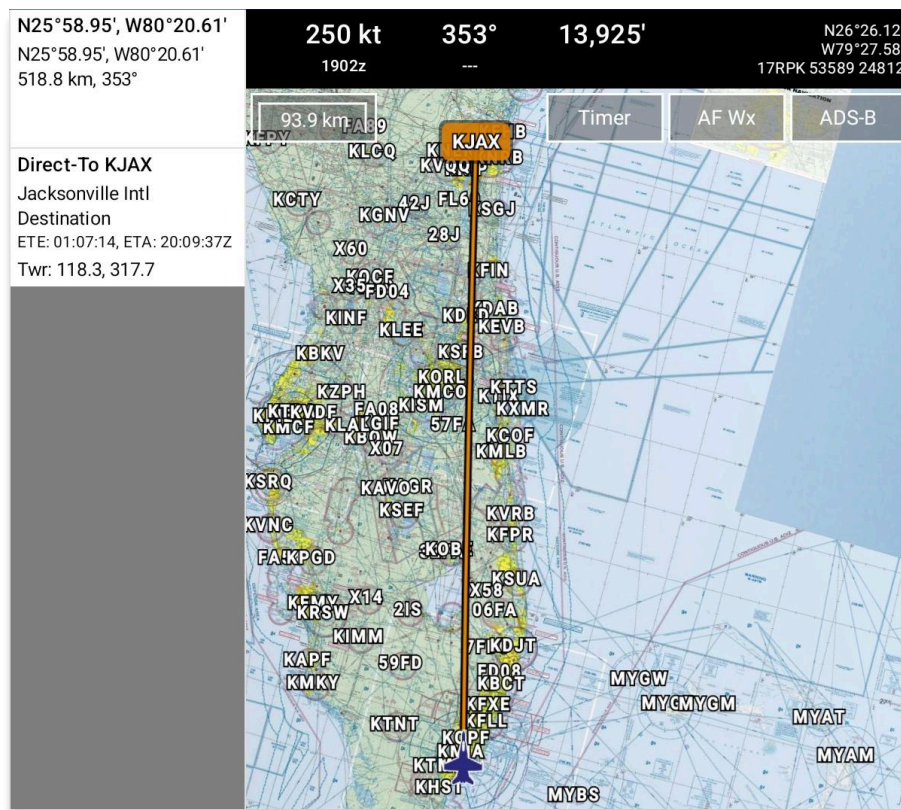
The screenshot shows a mobile application interface for creating a user waypoint. The form has a dark blue header with a back arrow, the title 'Create User Waypoint', and an information icon. Below the header, there are four input fields: 'ID' with the value 'MISSION1', 'Name' with the value 'C17 route', 'Latitude' with the value '24.20656437', and 'Longitude' with the value '-86.3810336'. At the bottom of the form, there are two buttons: 'Current Location' with a location pin icon and 'Save' with a checkmark icon.

Field	Value
ID	MISSION1
Name	C17 route
Latitude	24.20656437
Longitude	-86.3810336

25.1.2 Direct-To on Empty Route

The Direct-To feature creates a new route from your ownship's current location directly to your desired destination.

1. Ensure that the route is empty.
2. Tap **Map** on the **Main Menu**.
3. Long-press a desired point on the Map. Alternatively, users can tap an identifier on the Map to directly display the Identifier Menu.
4. The Nearest popup will appear, select your desired point.
5. The Identifier Menu will appear. Select **Actions** from the side menu, if necessary.
6. Tap **Direct-To**.
7. A new route will be created with your present location as the first point and the selected Direct-To point as the destination. On the Map, the **Direct-To route** is identified by an *orange* route line and label.



8. To cancel the Direct-To, tap the Direct-To point on the Map or the Route Panel. The Actions popup will appear, select **Cancel Direct-To**.

25.1.2.1 Direct-To on Existing Route

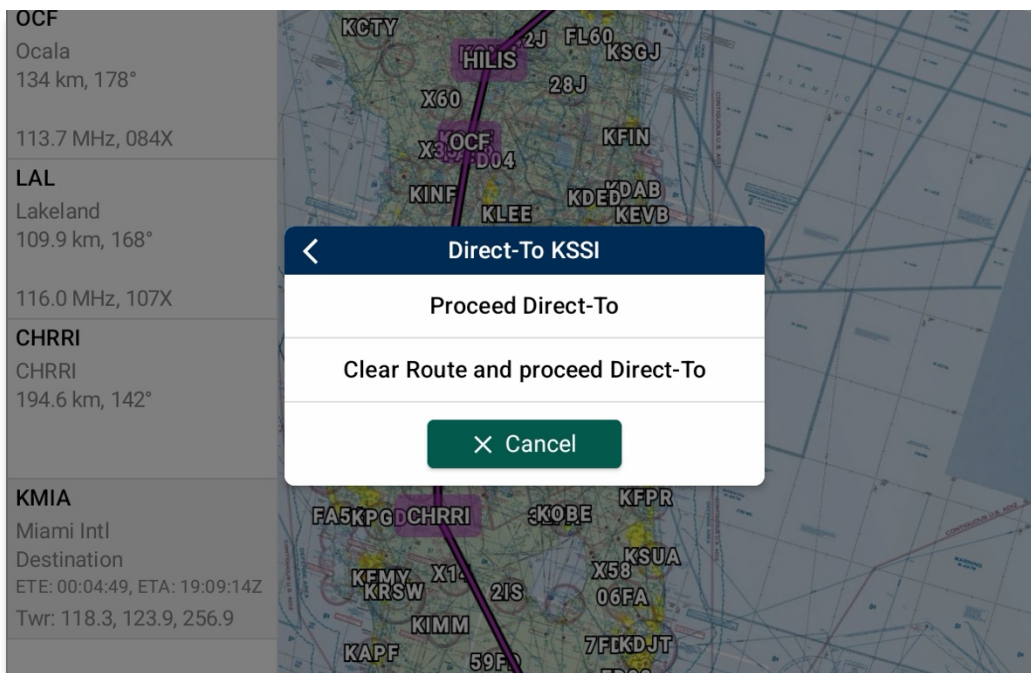
Users can create a Direct-To route on an existing route.

1. Ensure that the route includes one or more points.
2. Tap **Map** on the **Main Menu**.

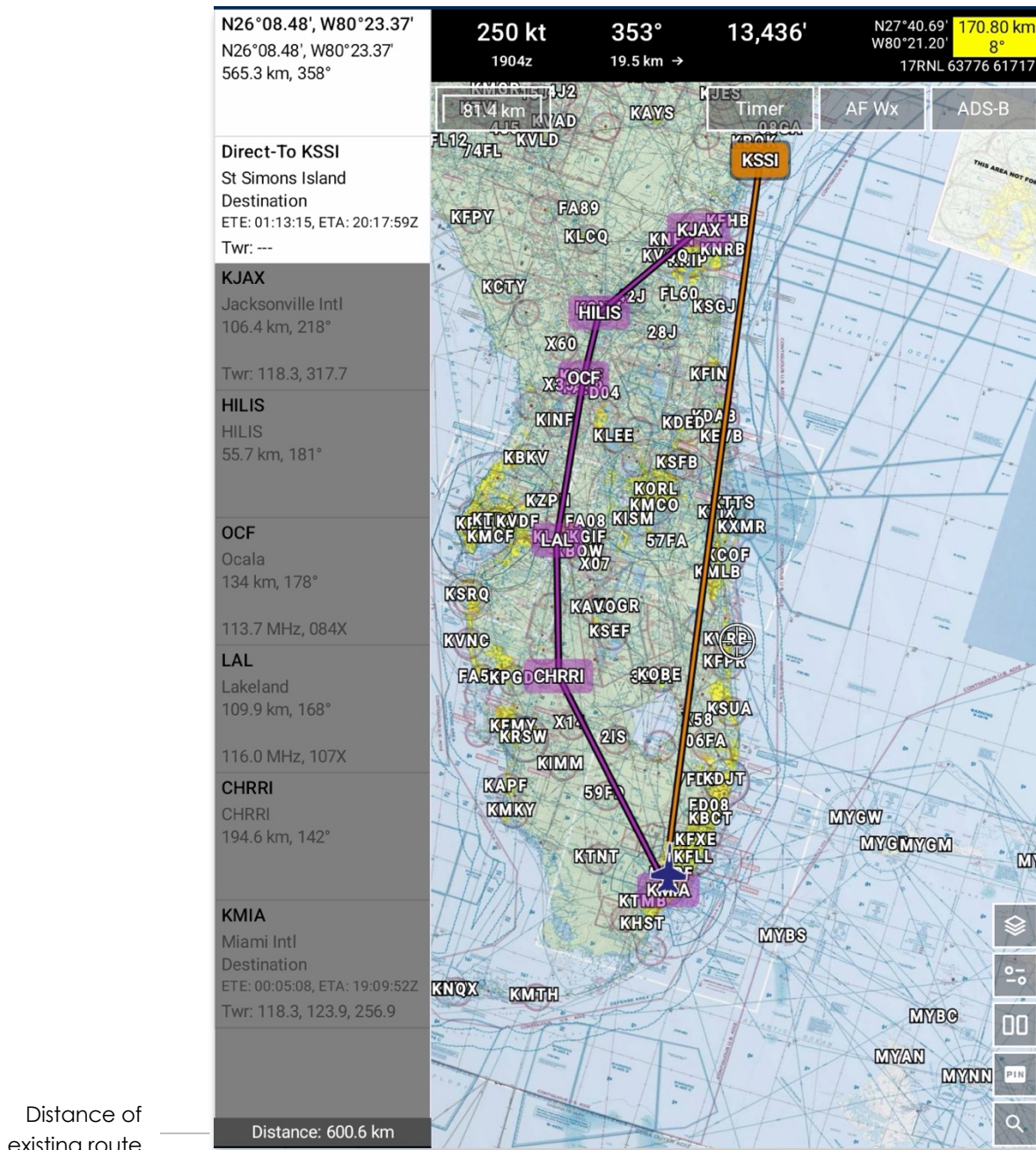


NOTE: During the Direct-To course, users will be able to continue adding additional points to the route. The Direct-To en route will not be interrupted.

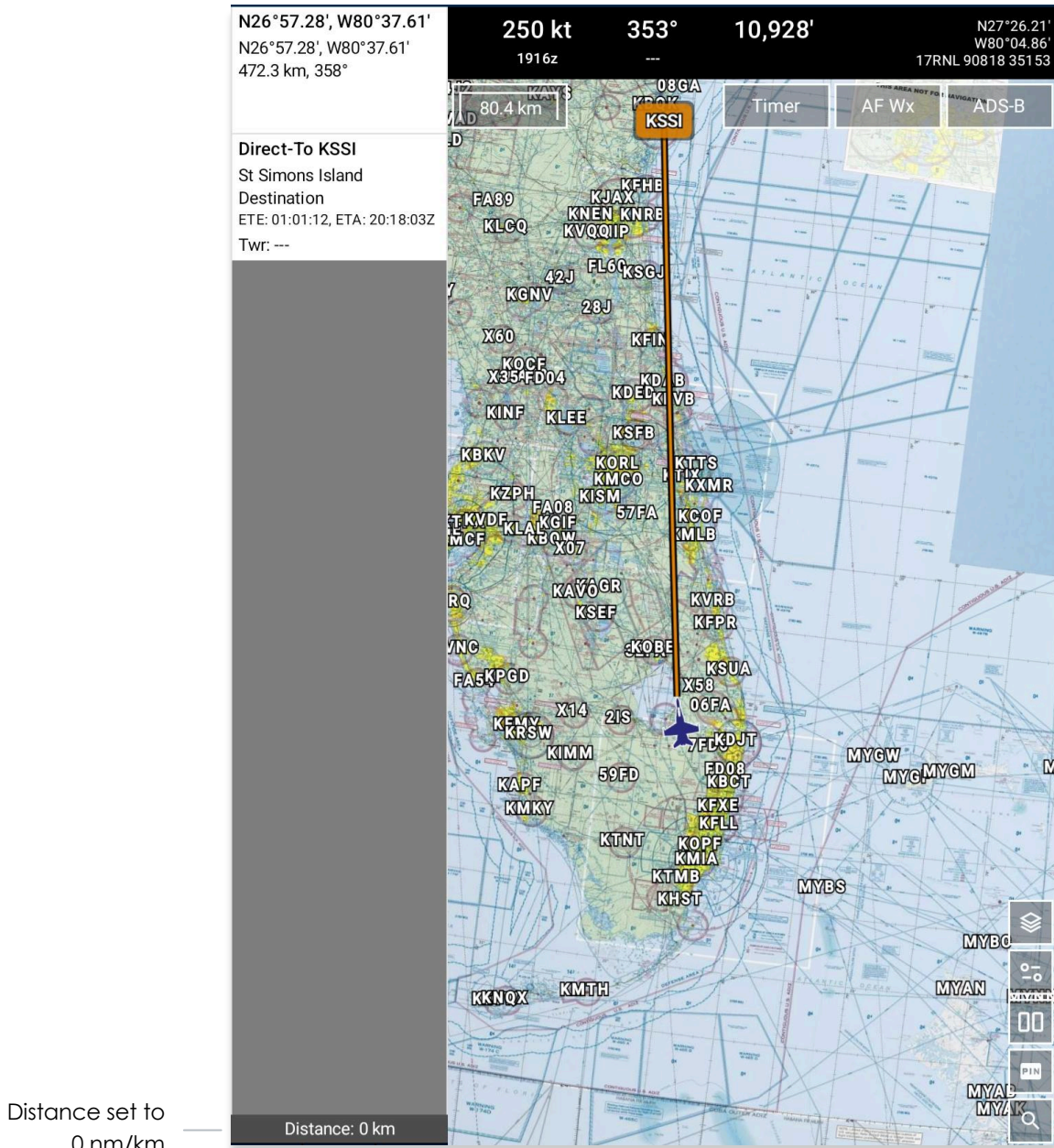
3. Long press a desired point on the Map. Alternatively, users can tap an identifier on the Map or the Route Panel to directly display the Identifier Menu.
4. The Nearest popup will appear, select your desired point.
5. The Identifier Menu will appear. Select **Actions** from the side menu, if necessary.
6. Select **Direct-To**. The Direct-To options popup will display the following options:



- Proceed Direct-To** – A new route will be created from your present location to the selected Direct-To destination. On the Map, the **Direct-To route** is identified by an orange route line and label. The **existing route** remains unchanged and grayed out in the route panel and is displayed as a *magenta* route line on the Map. The ETA, ETE, distance, and bearing values are calculated for the Direct-To route. The total distance continues to reflect the existing route.



- Clear Route and proceed Direct-To** – Aero App clears the existing route and creates a new route with your present location as the first point and the selected Direct-To point as the destination. On the Map, the **Direct-To route** is identified by an orange route line and label. The values for ETA/ETE, and distance and bearing are calculated for the Direct-To route. The total distance for the Direct-To route is not calculated; therefore, the values are set to 0 nm/km.



- Cancel** – dismisses the action.

7. To cancel the Direct-To, tap the Direct-To point on the Map or the Route Panel. The Actions popup will appear, select **Cancel Direct-To**. Your route will revert to the original route.



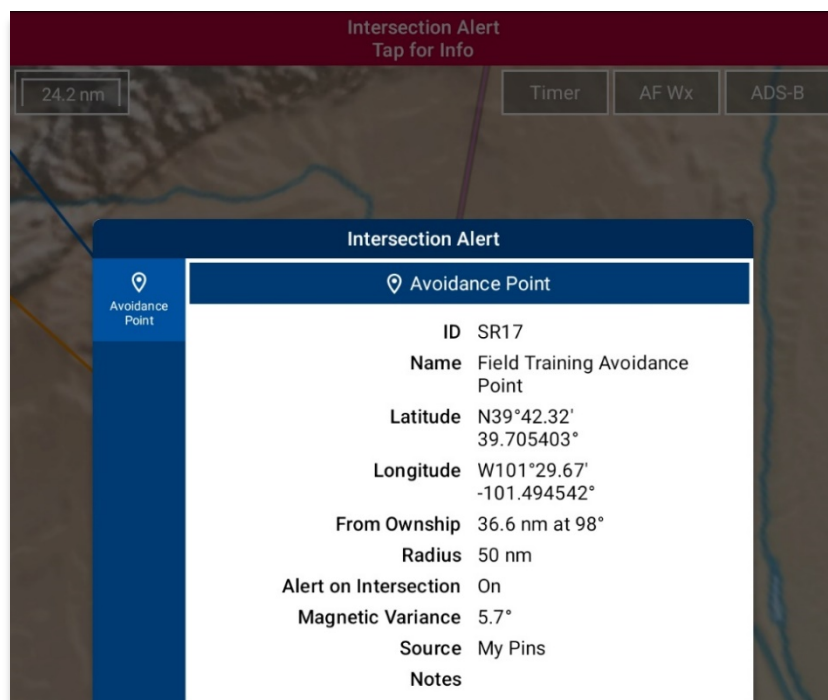
NOTE: Once the existing route has been cleared, users cannot revert to the original route when canceling Direct-To.

25.1.3 Drop Pin

The Drop Pin feature enables pilots to drop geographic pins in any specified area on the Map, view relevant information about pins, and add dropped pins to their route. Aero App offers various pin types including Avoidance Point, Emergency Marker, Landmark, Photo Pin, and Pin. In addition, Aero App supports user-generated pins which can be sideloaded onto Aero App. Refer to [Section 10.5](#) for additional information.

Aero App offers an Alert on Intersection feature for specific pin types that notifies users when their ownship intersects with a designated radius. When the intersection occurs, a red banner is displayed at the top of the Map view, and it will disappear when the ownship is no longer within the specified radius.

Users can tap the banner to view Pin information. This functionality is exclusively available for Avoidance Point and Pins.

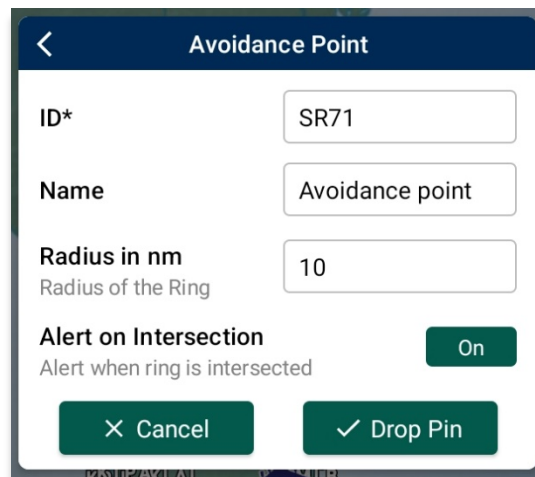


Alert on Intersection banner

Avoidance Point

An Avoidance Point pin is a location on the Map that should be avoided during a flight. Avoidance Point pin includes an Alert on Intersection feature, which notifies users when their ownship intersects with the marked location. Refer to [Section 25.1.3](#) for additional information. Fields containing an asterisk are required.

1. Tap **Map** on the **Main Menu**.
2. Long-press a desired point on the Map. Alternatively, users can tap an identifier on the Map or the Route Panel to directly display the Identifier Menu.
3. The Nearest popup will appear, select your desired point.
4. The Identifier Menu will appear. Select **Actions** from the side menu, if necessary.
5. Tap **Drop Pin**.
6. Tap **Avoidance Point**.
7. The Avoidance Point popup will appear with fields for ID*, Name, Radius in nm, and Alert on Intersection. Fill in the required fields.



8. Once the required fields have been filled, the Drop Pin button will be selectable. Tap **Drop Pin** and your pin will display on the Map.
9. Tap **Cancel** to dismiss the action.

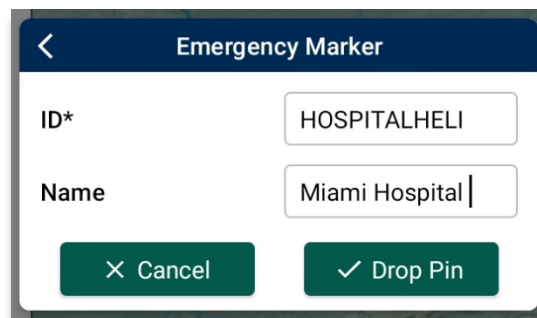


NOTE: When the distance unit in Settings is set to kilometers (km), distances under 1 km are displayed in meters. When the unit is set to nautical miles (nm), distances under 1 nm are displayed in feet.

Emergency Marker

An Emergency Marker pin is used to identify emergency locations on the Map, aiding in the safety and efficiency of emergency response teams. Fields containing an asterisk are required.

1. Tap **Map** on the **Main Menu**.
2. Long-press a desired point on the Map. Alternatively, users can tap an identifier on the Map or the Route Panel to directly display the Identifier Menu.
3. The Nearest popup will appear, select your desired point.
4. The Identifier Menu will appear. Select **Actions** from the side menu, if necessary.
5. Tap **Drop Pin**.
6. Tap **Emergency Marker**.
7. The Emergency Marker popup will appear with fields for ID* and Name. Fill in the required fields.

A screenshot of a mobile application's 'Emergency Marker' popup. The popup has a dark blue header with a back arrow on the left and the title 'Emergency Marker' in the center. Below the header, there are two text input fields. The first field is labeled 'ID*' and contains the text 'HOSPITALHELI'. The second field is labeled 'Name' and contains the text 'Miami Hospital'. At the bottom of the popup, there are two green buttons: 'X Cancel' on the left and '✓ Drop Pin' on the right.

8. Once the required fields have been filled, the Drop Pin button will be selectable. Tap **Drop Pin** and your pin will display on the Map.
9. Tap **Cancel** to dismiss the action.

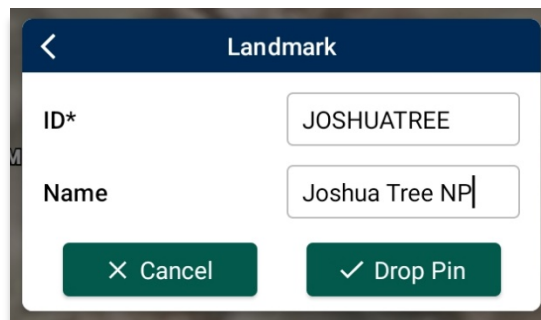


NOTE: When the distance unit in Settings is set to kilometers (km), distances under 1 km are displayed in meters. When the unit is set to nautical miles (nm), distances under 1 nm are displayed in feet.

Landmark

A Landmark pin is used to mark noteworthy locations on the Map. Fields containing an asterisk are required.

1. Tap **Map** on the **Main Menu**.
2. Long-press a desired point on the Map. Alternatively, users can tap an identifier on the Map or the Route Panel to directly display the Identifier Menu.
3. The Nearest popup will appear, select your desired point.
4. The Identifier Menu will appear. Select **Actions** from the side menu, if necessary.
5. Tap **Drop Pin**.
6. Tap **Landmark** from the following drop pin options.
7. The Landmark popup will appear with fields such as ID* and Name. Fill in the required fields.

A screenshot of a mobile application's 'Landmark' popup form. The form has a dark blue header with a back arrow and the title 'Landmark'. Below the header, there are two text input fields. The first field is labeled 'ID*' and contains the text 'JOSHUATREE'. The second field is labeled 'Name' and contains the text 'Joshua Tree NP'. At the bottom of the form, there are two green buttons: 'X Cancel' and '✓ Drop Pin'.

8. Once the required fields have been filled, the Drop Pin button will be selectable. Tap **Drop Pin** and your pin will display on the Map.
9. Tap **Cancel** to dismiss the action.

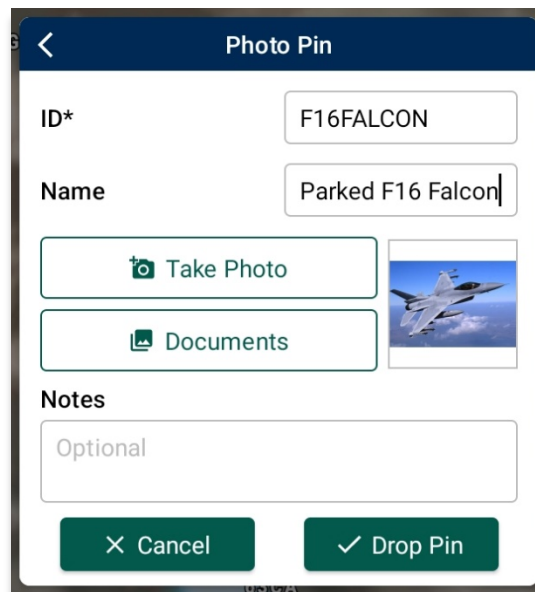


NOTE: When the distance unit in Settings is set to kilometers (km), distances under 1 km are displayed in meters. When the unit is set to nautical miles (nm), distances under 1 nm are displayed in feet.

Photo Pin

A Photo Pin is a designated location on the Map that incorporates user-generated images. Fields containing an asterisk are required.

1. Tap **Map** on the **Main Menu**.
2. Long-press a desired point on the Map. Alternatively, users can tap an identifier on the Map or the Route Panel to directly display the Identifier Menu.
3. The Nearest popup will appear, select your desired point.
4. The Identifier Menu will appear. Select **Actions** from the side menu, if necessary.
5. Tap **Drop Pin**.
6. Tap **Photo Pin**.
7. The Photo Pin popup will appear with fields for ID*, Name, Image upload, and Notes. Fill in the required fields.



NOTE: Uploading an image is required for Photo Pins.

8. Once the required fields have been filled, the Drop Pin button will be selectable. Tap **Drop Pin** and your pin will display on the Map.
9. Tap **Cancel** to dismiss the action.

Pin

A Pin is used to mark a location on the Map. Pin includes additional options such as Connect to Location, Distance Rings, Radius in nm, and Alert on Intersection. Fields containing an asterisk are required. The Alert on Intersection feature notifies users when their ownship intersects with the specified radius of the pin. Refer to [Section 25.1.3](#) for additional information.

1. Tap **Map** on the **Main Menu**.
2. Long-press a desired point on the Map. Alternatively, users can tap an identifier on the Map or the Route Panel to directly display the Identifier Menu.
3. The Nearest popup will appear, select your desired point.
4. The Identifier Menu will appear. Select **Actions** from the side menu, if necessary.
5. Tap **Drop Pin**.
6. Tap **Pin** from the following drop pin options.
7. The Pin popup will appear with fields such as ID*, Name, Image upload, and Notes. Fill in the necessary information.

The screenshot shows a mobile application interface for creating a pin. The title bar is dark blue with a back arrow and the word "Pin". The form has the following sections:

- ID***: A text input field containing "C17BOEING".
- Name**: A text input field containing "Parked C17 Boeing".
- Image Upload**: Two buttons, "Take Photo" (with a camera icon) and "Documents" (with a document icon), next to a small image placeholder showing a C-17 aircraft.
- Notes**: A text input field with the placeholder text "Optional".
- Advanced**: A blue button with an upward arrow.
- Connect to Location**: A toggle switch labeled "On" with the description "Draw a line connecting this pin to current location".
- Distance Ring**: A toggle switch labeled "On" with the description "Draw a ring around this pin".
- Radius in nm**: A text input field containing "5" with the description "Radius of the Ring".
- Alert on Intersection**: A toggle switch labeled "Off" with the description "Alert when ring is intersected".
- Bottom Buttons**: Two green buttons, "Cancel" (with a close icon) and "Drop Pin" (with a checkmark icon).

8. Tap **Advanced** for additional options: Connect to Location, Distance Ring, Radius in nm or km (respective to which distance unit format users have set in their Settings), and Alert on Intersection.
9. Once the required fields have been filled, the Drop Pin button will be selectable. Tap **Drop Pin** and your pin will display on the Map.
10. Tap **Cancel** to dismiss the action.

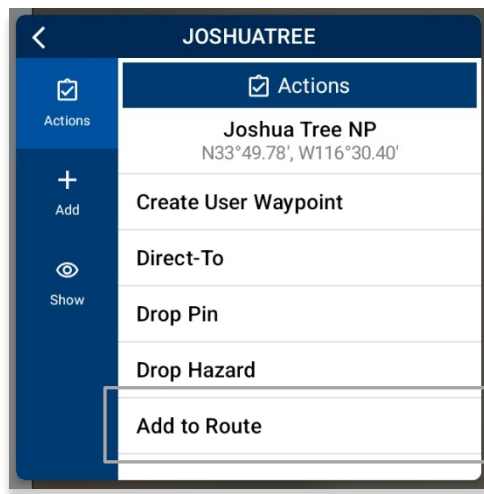


NOTE: Creating Pins will require a unique identifier.

Add Pin to Route

The Add to Route option allows users to add dropped pins to their flight route.

1. Ensure that the Pins overlay is enabled.
2. Navigate to the Map and tap on your desired **Pin**.
3. The Identifier Menu will appear. Select **Actions** from the side menu, if necessary.
4. Tap **Add to Route**.



5. The selected dropped pin will be added to your flight route.
6. To delete from your current route, tap **Edit** then tap the minus icon or swipe left then tap the delete button.
7. To delete from the Map view, tap the dropped pin and select **Remove from Route**.

View Pin Information

Aero App provides users with a display to view Pin information. The pin information is relevant to the pins that were dropped or pins that were sideloaded by users.

Pin Information is available under Information and Wx. Each pin contains relevant information such as its ID, Name, Latitude, Longitude, Magnetic Variance, From Ownship, Source, Notes, and any associated attachments.

Certain pins such as Avoidance Point and Pin may contain additional information such as Connect to Location, Distance Rings, Radius, and Alert on Intersection.

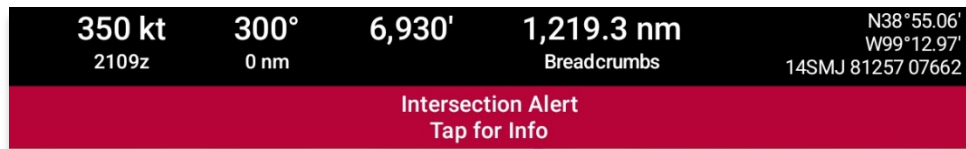
1. Navigate to Map and tap on your desired **Pin**.
2. The Identifier Menu will appear. Select **Show** from the side menu.
3. Tap **Info and Wx** to view any information associated with the pin.



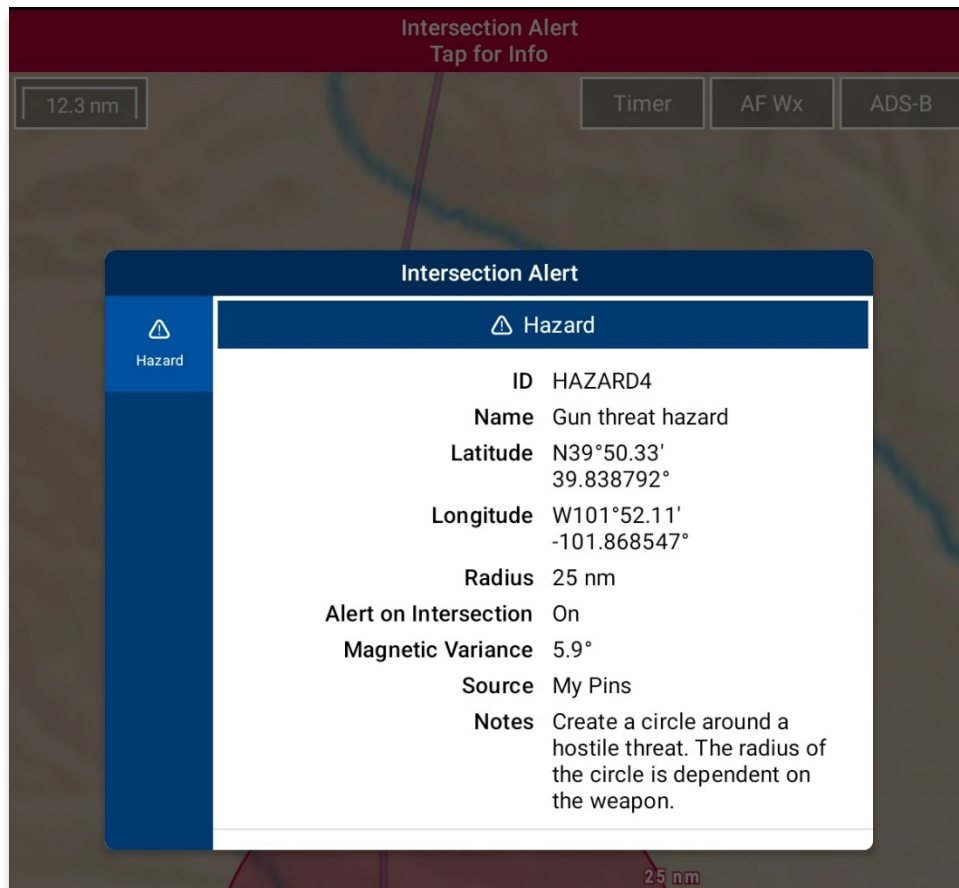
25.1.4 Drop Hazard

The Drop Hazards feature enables pilots to drop hazards at a specified location on the Map to identify potential hazards to avoid during flight. Fields containing an asterisk are required. Alternatively, users can sideload user-generated Hazards into Aero App. Refer to [Section 10.5](#) for additional information.

Enabling the Alert on Intersection feature will cause a red banner to appear at the top of the view when your ownship intersects with the hazard's radius.

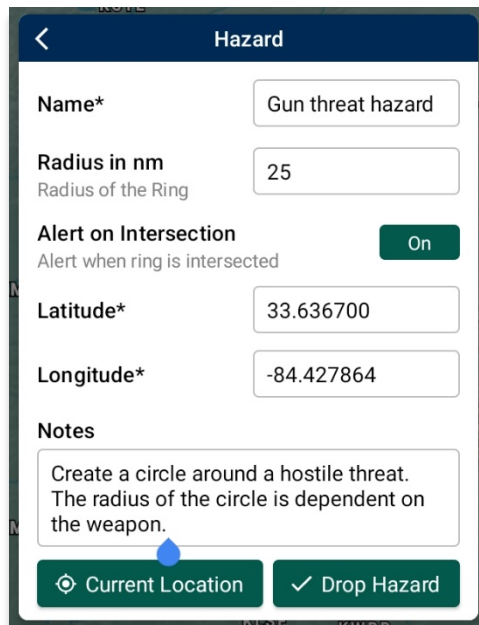


The duration of the banner display is determined by the value of the given radius and will disappear once your ownship is no longer intersecting the specified radius. The banner can be tapped to display Hazard information.



To drop a hazard at your current location or any location of your choice, follow these steps below:

1. Tap **Map** on the **Main Menu**.
2. Long-press a desired point on the Map. Alternatively, users can tap an identifier on the Map or the Route Panel to directly display the Identifier Menu.
3. The Nearest popup will appear, select your desired point.
4. The Identifier Menu will appear. Select **Actions** from the side menu, if necessary.
5. Tap **Drop Hazard**.
6. The Hazard popup will appear with fields for Name*, Radius in nm or km (based on which distance unit is set in Settings), Alert on Intersection, Latitude*, Longitude*, and Notes. Fill in the required fields.



NOTE: If users set their Coordinates Unit to MGRS, the Latitude and Longitude fields will remain disabled, and a MGRS field will appear.

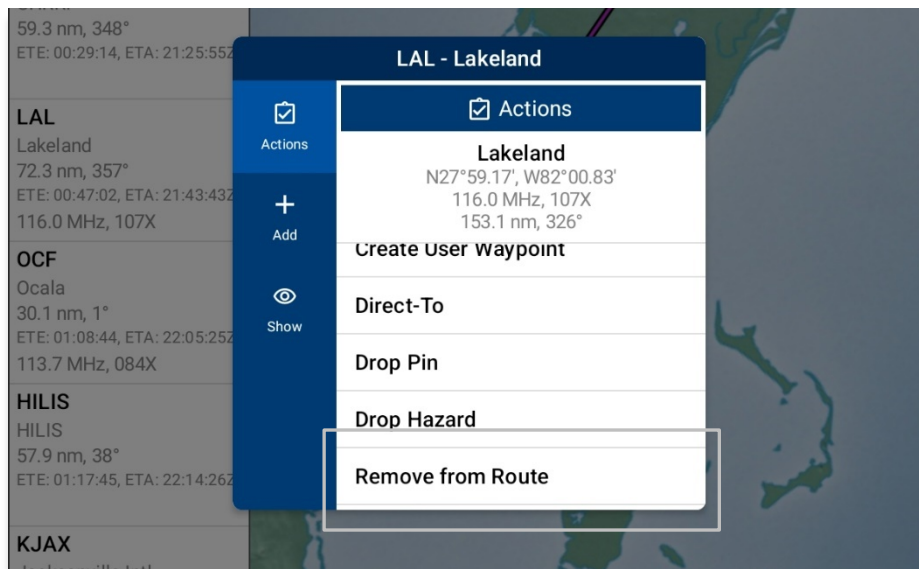


NOTE: If an invalid MGRS is entered, the Latitude and Longitude fields will be left blank.

7. Tap **Current Location** to set your current position as the coordinates.
8. Once the required fields have been filled, the Drop Hazard button will be selectable. Tap **Drop Hazard** and your hazard will be displayed on the Map.

25.1.5 Add to Route

1. Tap **Map** on the **Main Menu**.
2. Long-press a desired point on the Map. Alternatively, users can tap an identifier on the Map or the Route Panel to directly display the Identifier Menu.
3. The Nearest popup will appear, select your desired point.
4. The Identifier Menu will appear. Select **Actions** from the side menu, if necessary.
5. Tap **Add to Route**.
6. A new point will be added to the current route.
7. Once the point has been added, the popup changes to *Remove from Route*. By tapping **Remove from Route**, the point will be deleted from the route.



25.2 Add

The Add submenu provides users with the option to add the following procedures to their route:

- Departure Procedure (DP)
- Standard Terminal Arrival Procedure (STAR)

25.2.1 Add Departure Procedure (DP) and Standard Terminal Arrival Route (STAR) to Route

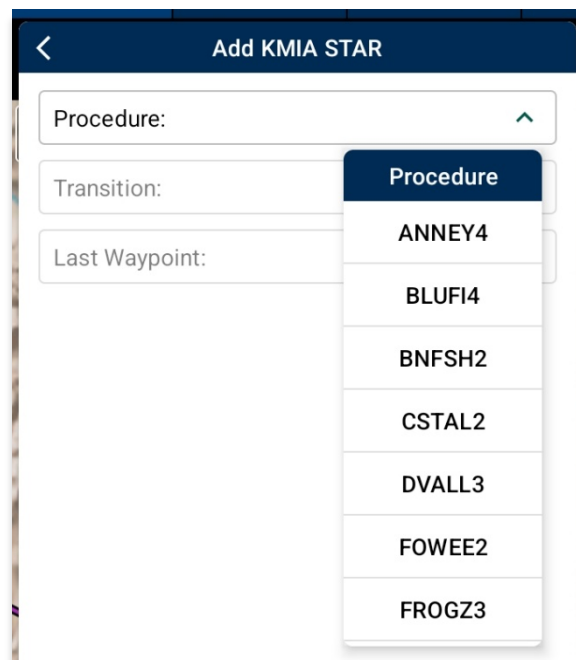
Aero App enables users to add Departure Procedure (DP) and Standard Terminal Arrival Route (STAR) to their flight route.

1. Select an airport from the Route Panel or on the Map view.
2. The Identifier Menu will appear. Select **Add** from the side menu.
3. Select **DP** or **STAR**.

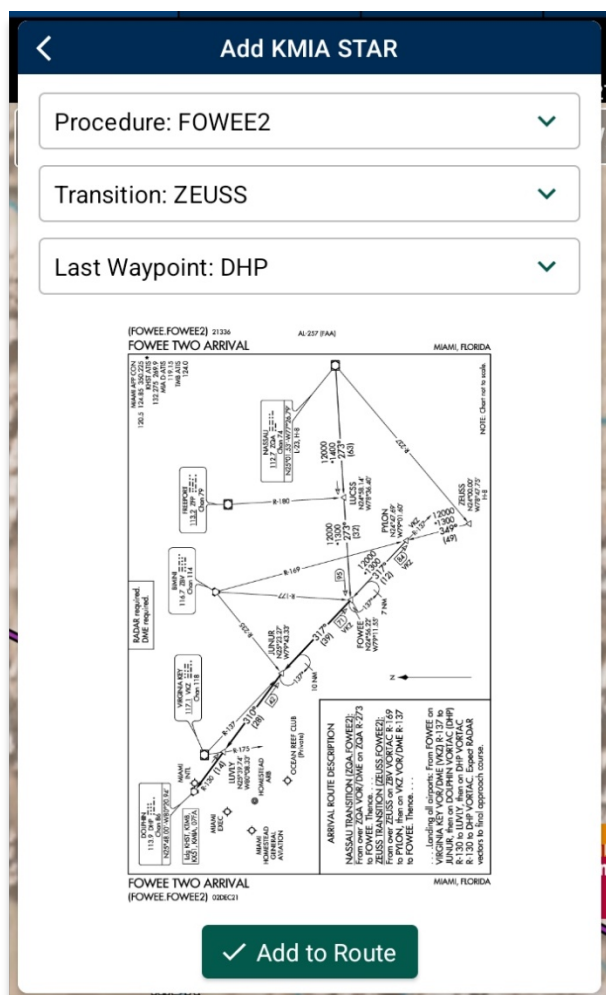


NOTE: If both options, DP and STAR are disabled, it is due to the position of the selected airport. Select the appropriate departure and/or arrival airports to display procedure options.

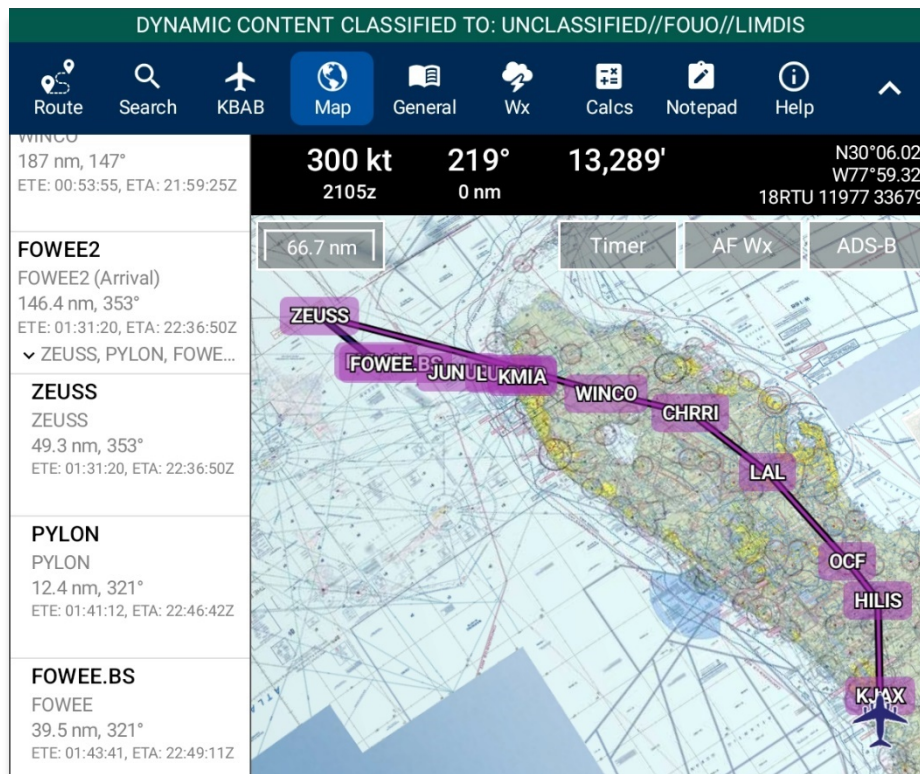
4. The chart selection popup will display. Tap the Procedure drop-down and select desired **Procedure**.



5. Transition will become selectable. Tap the Transition drop-down and select the desired **Transition** point.
6. First Waypoint will become selectable. Tap the First Waypoint drop-down and select desired **First Waypoint**.
7. The Procedure preview will appear and Add to Route will become selectable. Tap **Add to Route**.



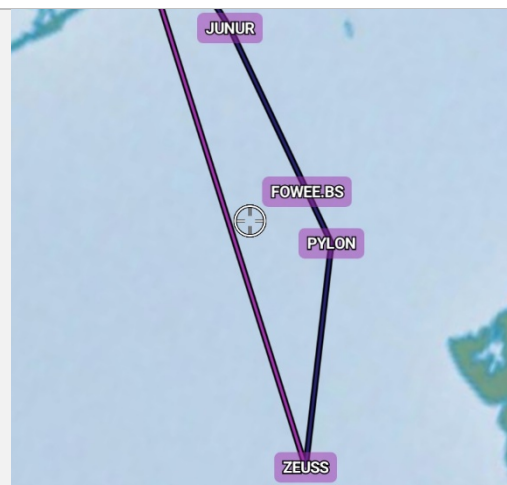
The procedure will be added to your flight route. On the Map, route segments are identified by color: the **DP** is displayed as a *green* route line, the **STAR** as a *dark blue* route line, and the **original route** as a *magenta* route line.



Add DP to Route



Add STAR to Route



25.2.2 Add Instrument Approach Procedure (IAP) to Route

Aero App enables users to add an Instrument Approach Procedure (IAP) to their current flight route.

1. Select the destination airport from the route panel or map view. The airport must be the last point in the current route before an instrument approach procedure can be added.
2. The Identifier Menu will appear. Select **Add** from the side menu.
3. Select **IAP**.
4. The available instrument approach procedures for the selected airport are displayed. Use the IAP filter (segmented control) to display an **approach type** (All, ILS, GPS, RNAV).
5. The procedures are grouped by runway. Select the desired **approach procedure**.

Add KMIA IAP

All | ILS | GPS | RNAV

/\ Runway 08L

LOC RW08L

RNAV (GPS) Z RW08L

RNAV (RNP) Y RW08L

/\ Runway 08R

ILS RW08R

LOC RW08R

RNAV (GPS) Z RW08R

RNAV (RNP) Y RW08R

/\ Runway 09

ILS RW09

LOC RW09

Initial Fix: ▼

✓ Add to Route

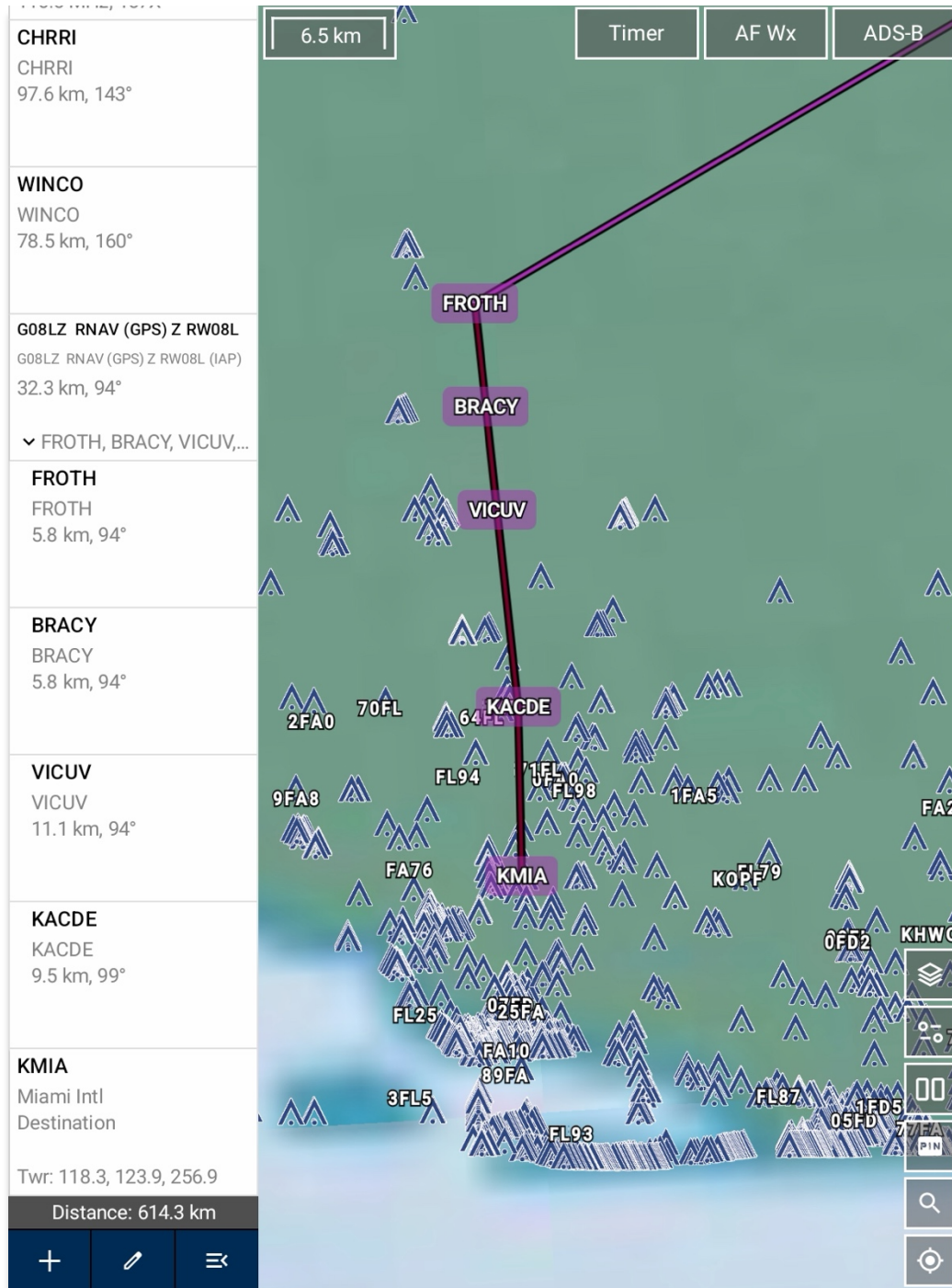
- After selecting an approach procedure, tap the **Initial Fix** dropdown and select the desired initial fix.

A screenshot of a mobile application interface showing a list of approach procedures on the left and an 'Initial Fix' dropdown menu on the right. The list includes ILS RW08R, LOC RW08R, RNAV (GPS) Z RW08R, RNAV (RNP) Y RW08R, a highlighted blue bar for 'Runway 09', ILS RW09, and LOC RW09. The dropdown menu is open, showing options: FROTH, KACDE, and VICUV. At the bottom, there is a text field labeled 'Initial Fix:' with a green upward arrow icon.

- Tap **Add to Route**.

A screenshot of the 'Add KMIA IAP' screen in a mobile application. The screen has a dark blue header with a back arrow and the title 'Add KMIA IAP'. Below the header are four tabs: 'All' (highlighted in green), 'ILS', 'GPS', and 'RNAV'. The main content area lists approach procedures for Runway 08L, Runway 08R, and Runway 09. Runway 08L includes LOC RW08L, RNAV (GPS) Z RW08L, and RNAV (RNP) Y RW08L. Runway 08R includes ILS RW08R, LOC RW08R, RNAV (GPS) Z RW08R, and RNAV (RNP) Y RW08R. Runway 09 includes ILS RW09 and LOC RW09. At the bottom, there is a text field labeled 'Initial Fix: FROTH' with a green checkmark icon. Below this is a green button labeled 'Add to Route' with a white checkmark icon.

The procedure will be added to your flight route. On the Map, route segments are identified by color: the **IAP** as a red route line and the **original route** as a *magenta* route line.



25.3 Show

The Show menu offers the following options and will be further elaborated in the sections below:

- Show on Map
- IAP on Map
- Info and Wx
- Nearest

25.3.1 Show on Map

Show on Map pans the Map view to the selected point or identifier.

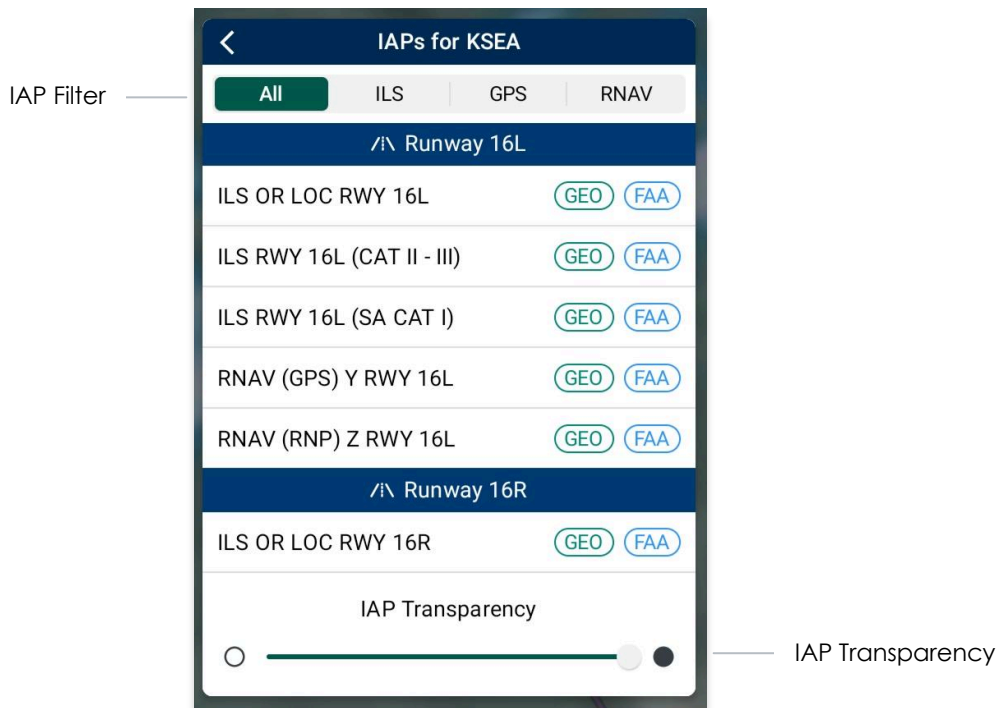
1. Tap **Map** on the **Main Menu**.
2. Long-press a desired point on the Map. Alternatively, users can tap an identifier on the Map or the Route Panel to directly display the Identifier Menu.
3. The Nearest popup will appear. Select your desired point.
4. The Identifier Menu will appear. Select **Show** from the side menu.
5. Tap **Show on Map**.
6. The screen will pan to the selected location.



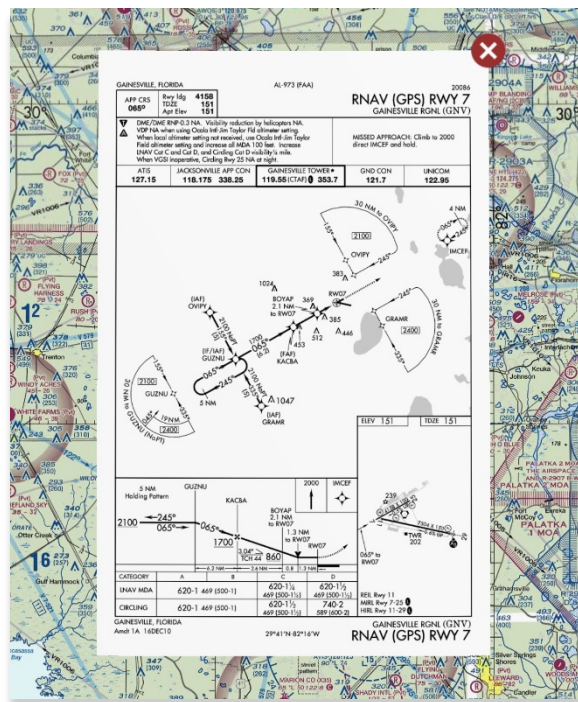
25.3.2 Instrument Approach Procedure (IAP) on Map

Aero App enables users to display Instrument Approach Procedures (IAPs) on the Map, perfectly georeferenced. IAP on the Map provides an additional level of situational awareness.

1. Tap **Map** on the **Main Menu**.
2. Long-press a desired point on the Map. Alternatively, users can tap an ICAO on the Map or the Route Panel to directly display the Identifier Menu.
3. The Nearest popup will appear. Select your desired point.
4. The Identifier Menu will appear. Select **Show** from the side menu.
5. Tap **IAP on Map**.
6. A list of IAPs for the identifier will be displayed. Select an **IAP filter** from the segmented button group.
7. IAPs are grouped by runways. Select desired **IAP** then the IAP will overlay on the Map.
8. To adjust the transparency of the IAP, tap on the chart and drag the slider from left to right. By default, IAP transparency is set to 100%.



9. To remove the IAP from the Map, tap the red popup **X**.



Remove IAP



NOTE: A small number of Instrument Approach Procedures (IAPs) are not georeferenced and therefore cannot be shown on the Map view.

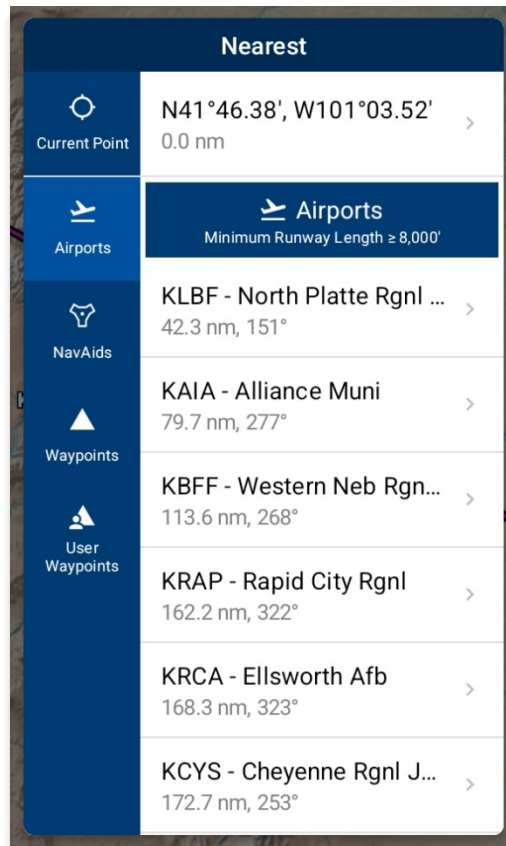
25.3.3 Info and Wx (Information and Weather)

The Info and Wx (Information and Weather) option can be accessed when tapping an identifier on the Map or the Route Panel. When tapping an ICAO on the Map or the Route Panel, additional airport information such as Info, APD, IAP, Dep, Arr, Min, Other, Host Nation, and Wx can be viewed. Refer to [Section 16](#) for additional information. Identifiers that are not an airport such as NavAids, Waypoints, User Waypoints, Pins, and others, will display only that identifier's information.

25.3.4 Nearest

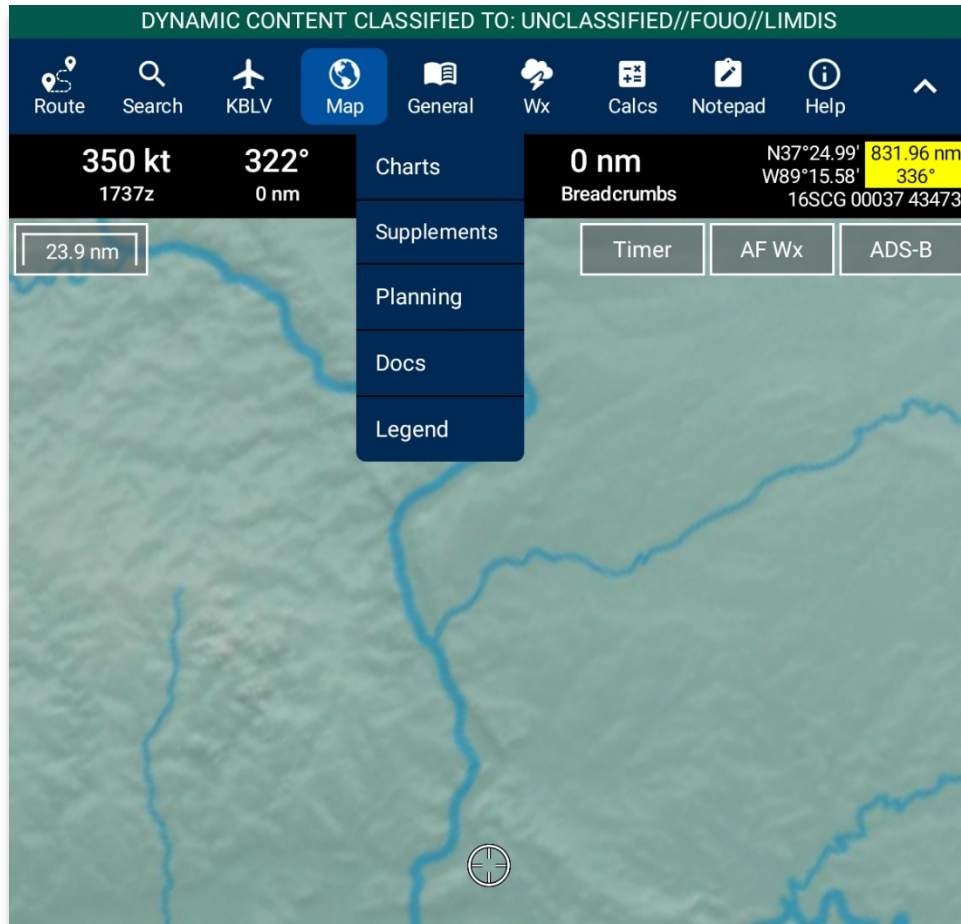
The Nearest feature enables users to view nearby Airports, NavAids, Waypoints, and User Waypoints. Once a desired point is selected, the Identifier Menu will display.

1. Tap **Map** on the **Main Menu**.
2. Long-press a desired point on the Map. Alternatively, users can tap an identifier on the Map or the Route Panel to directly display the Identifier Menu.
3. The Nearest popup will appear. Select your desired point.
4. The Identifier Menu will appear. Select **Show** from the side menu.
5. Tap **Nearest**.
6. Your current point and a list of the nearest Airports, NavAids, Waypoints, and User Waypoints will display. Select a desired point and the Identifier Menu will display.



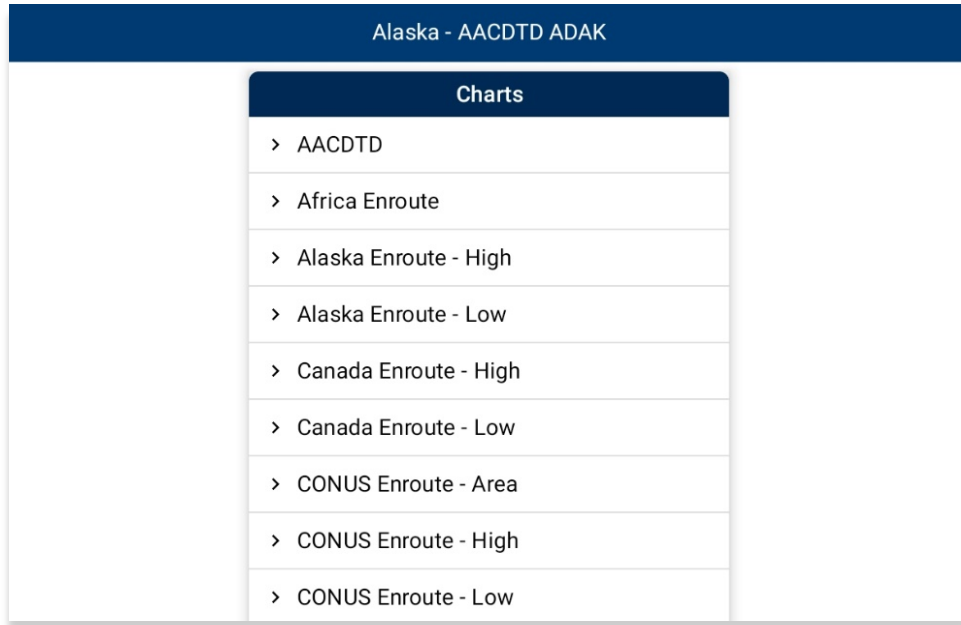
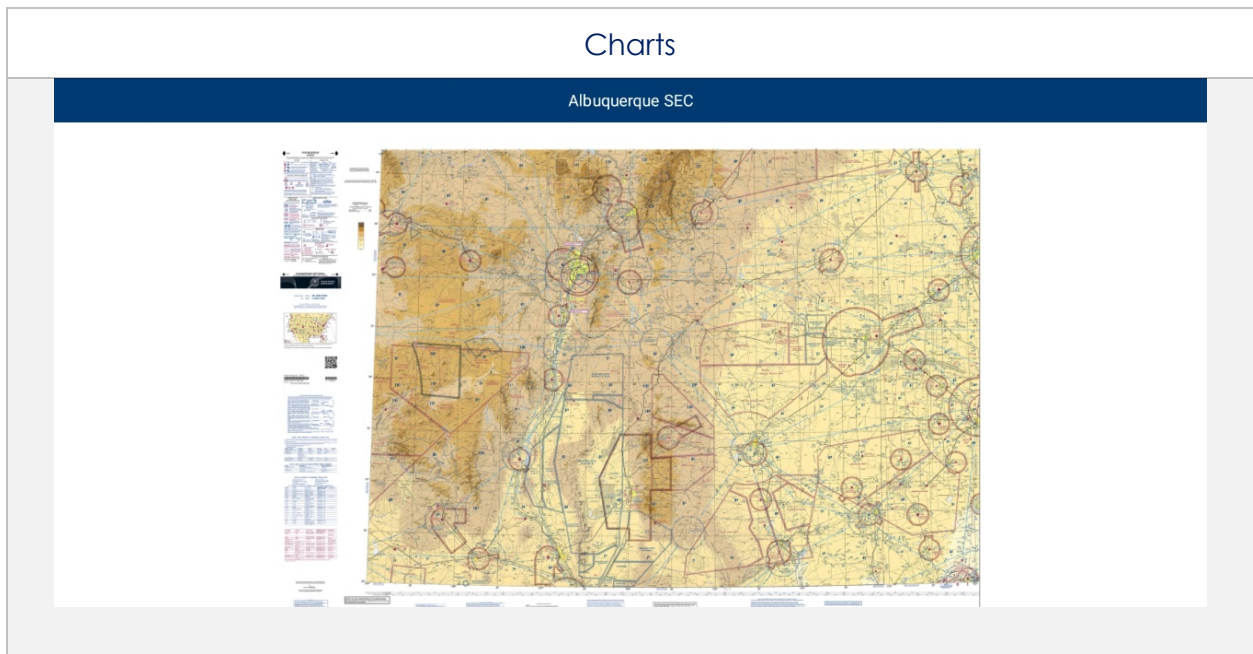
26 General

The General section includes significant charts and documents such as regional Charts, Supplements, Planning, User Documents, and Legend that users can view directly on Aero App. User must download the respective region(s) to view charts.



1. Tap **General** on the **Main Menu**. The General options will be displayed.
2. Select from Charts, Supplements, Planning, Documents, and Legend.

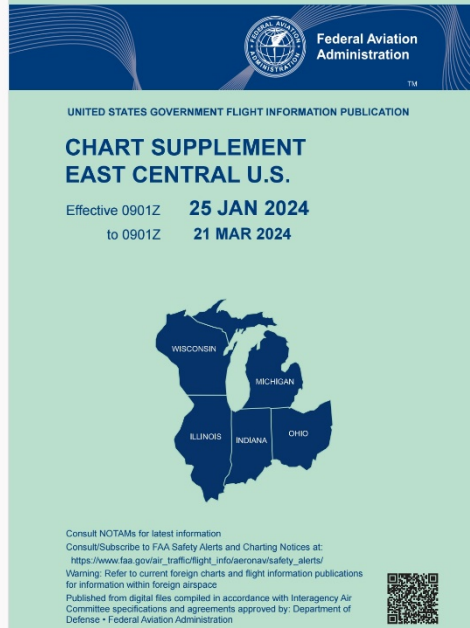
3. Tap on the **ribbon** to display available charts or documents for the selected chart or document type.



NOTE: A sliding tool is available for PDF documents, allowing users to swipe through individual pages of the selected document.

Supplements

Chart Supplement - East Central US



Area Planning Documents

AP1

AP/1

DoD
FLIGHT INFORMATION PUBLICATION

AREA PLANNING

NORTH AND SOUTH
AMERICAEFFECTIVE 0001L 5 OCT 2023
TO 0001L 21 MAR 2024PCN NR 1 EFFECTIVE 0001L 30 NOV 2023 INCLUDED
PCN NR 2 EFFECTIVE 0001L 25 JAN 2024 INCLUDED

Consult NOTAMS for latest information.

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NGA REF. NO. PLANXAP1

EFF. DATE 23278

An Overview of Commercial Aircraft



Terminal Procedure Legend

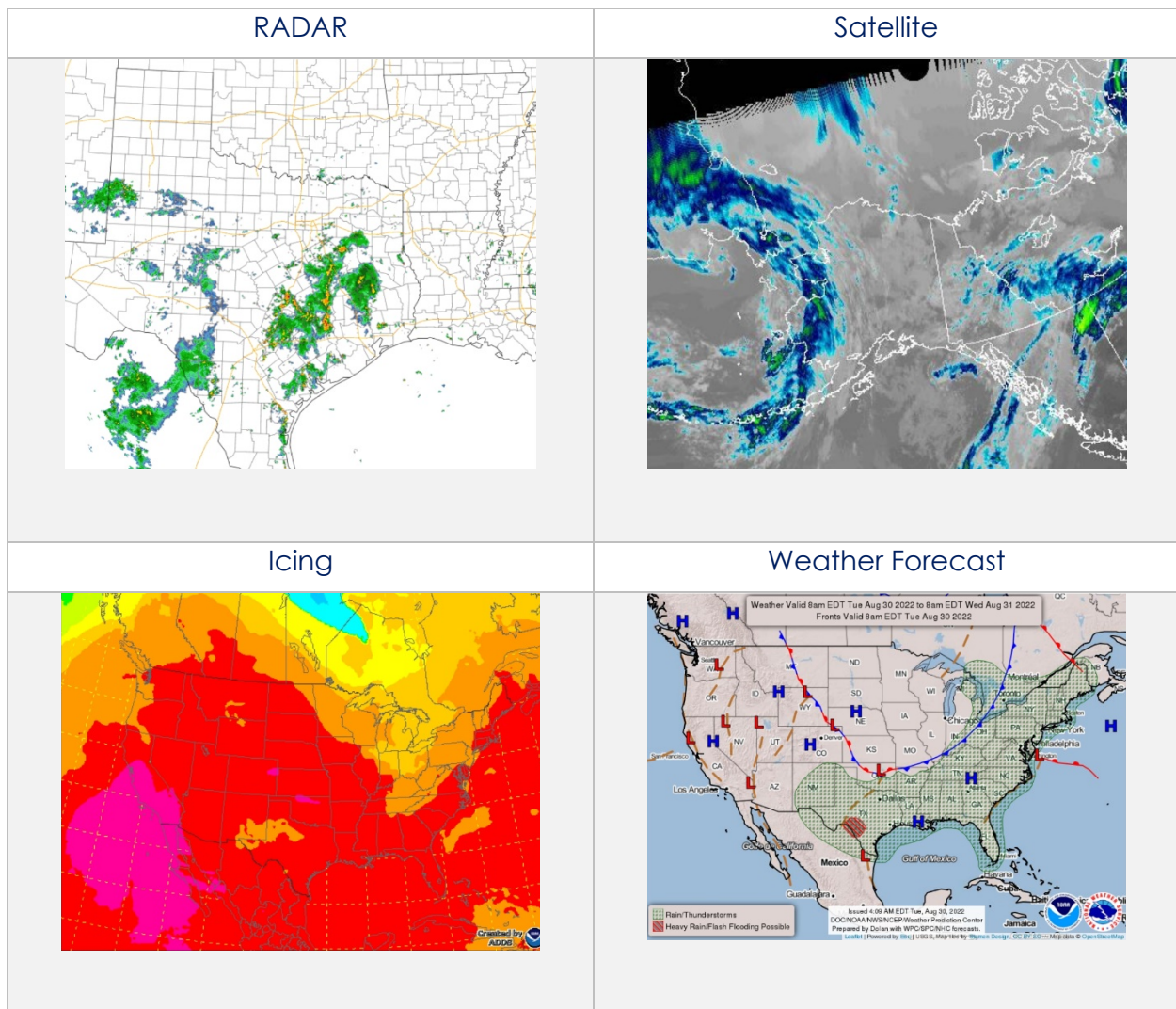


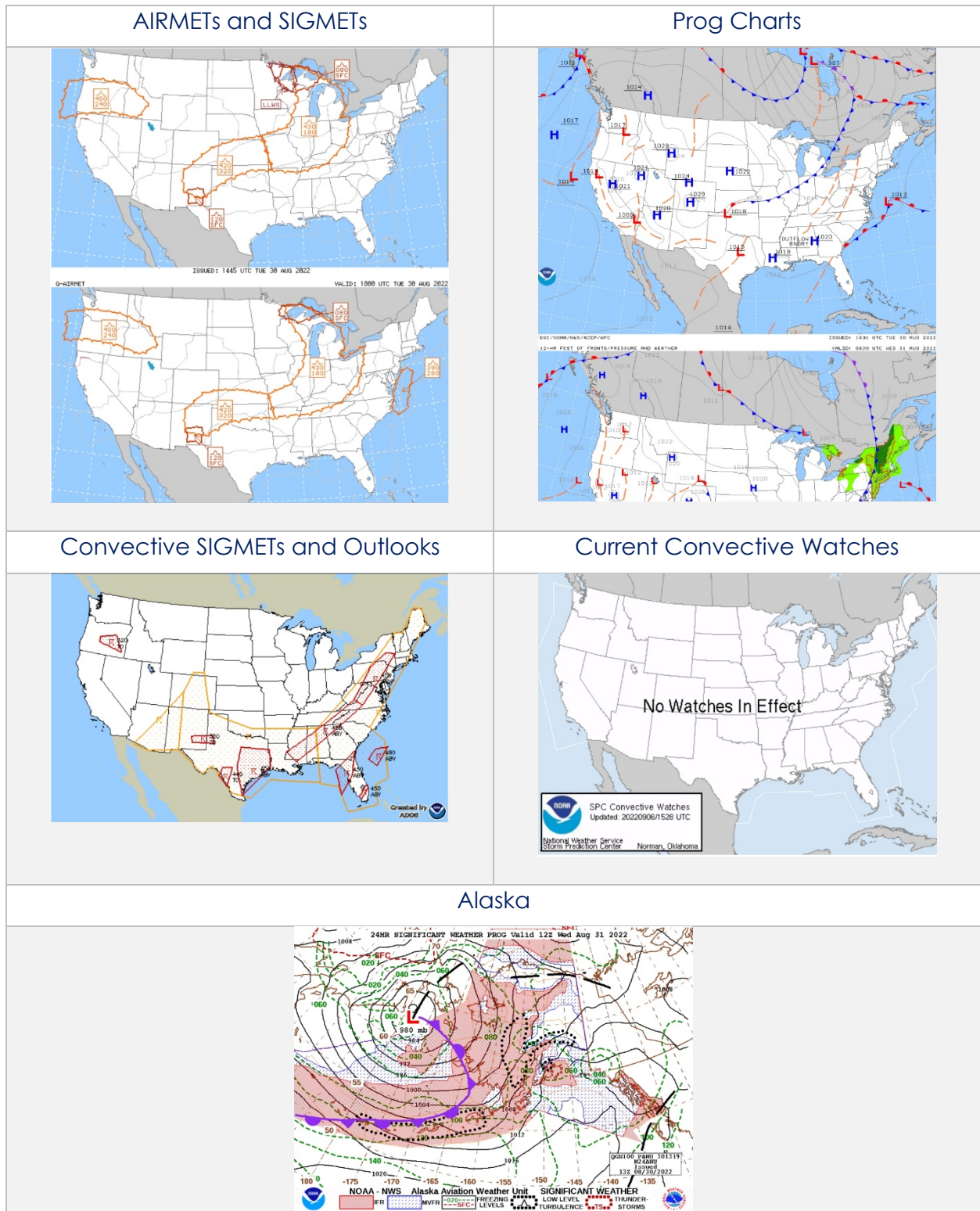
27 Weather (Wx)

The Weather (Wx) menu contains Weather Images and DD 175-1 Briefings menus. To access weather-related menus, tap Wx on the Main Menu.

27.1 Weather (Wx) Images

The Weather (Wx) Images are from the National Oceanic and Atmospheric Administration (NOAA) providing access to weather, hydrologic, and climatic forecasts and warnings for the U.S. and adjoining areas. The images can be panned and zoomed. An internet connection is required to view real-time weather images. Wx images are provided below:





27.2 DD 175-1 Briefings

Users can download and view DD 175-1 weather briefings for their mission directly within Aero App. This feature is available exclusively to DOW partners and GEOAxis users.

1. Tap **Wx** on the **Main Menu**.
2. From the drop-down, select **DD 175-1 Briefings**.
3. The DD 175-1 Briefings popup will display. To download a weather briefing, enter the **mission ID** in the *Mission ID* text box.



NOTE: The Mission ID must match exactly as provided, including all uppercase letters and any special characters.



NOTE: Register through BIFROST (bifrost.afweather.mil) and submit a mission briefing request to receive a Mission ID. The Mission ID is automatically generated and can be found in the Mission Management Card or briefing notification.

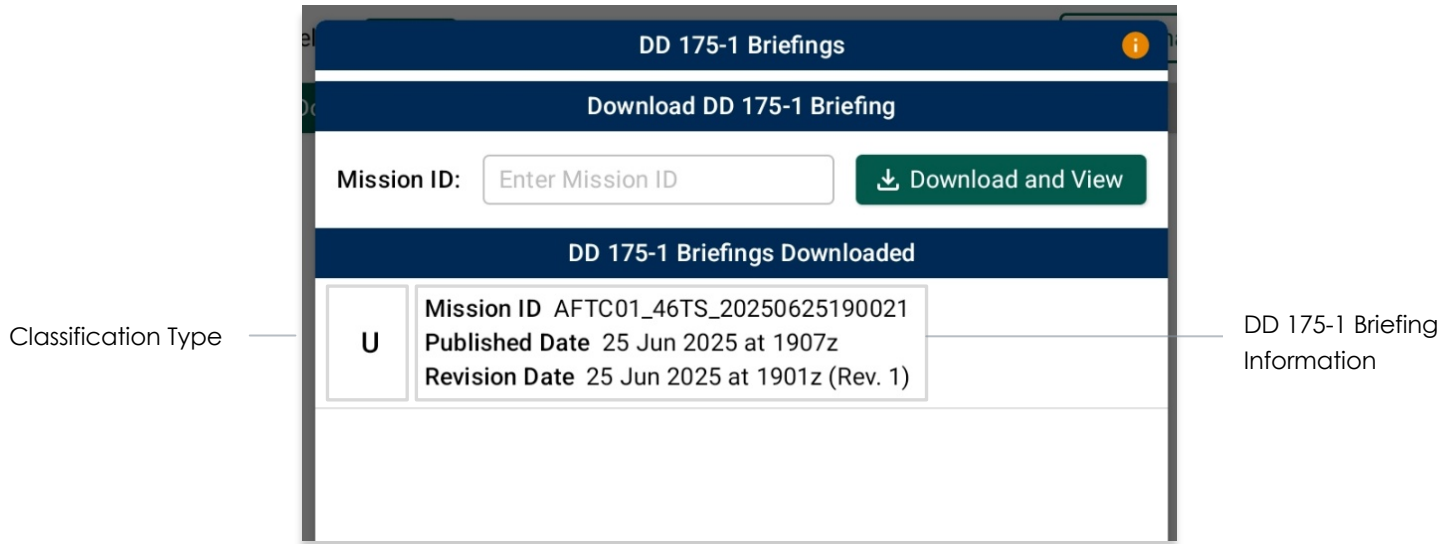
4. Tap **Download and View**.

5. The credentials popup will appear. Choose the desired method of authentication: Aero User Database (refer to [Section 5.1](#)) or GEOAxis (refer to [Section 5.2](#)).

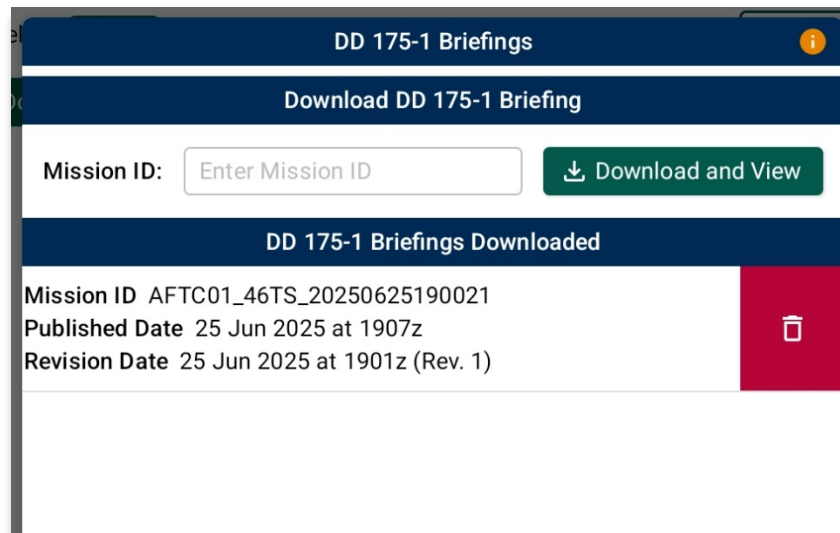
- Mission ID

Slider Bar

The DD 175-1 Briefings Downloaded section will display a list of all downloaded weather briefings. Each briefing includes details such as the mission ID, published date, and revision date. The classification type of the briefing is shown to the left of this information.

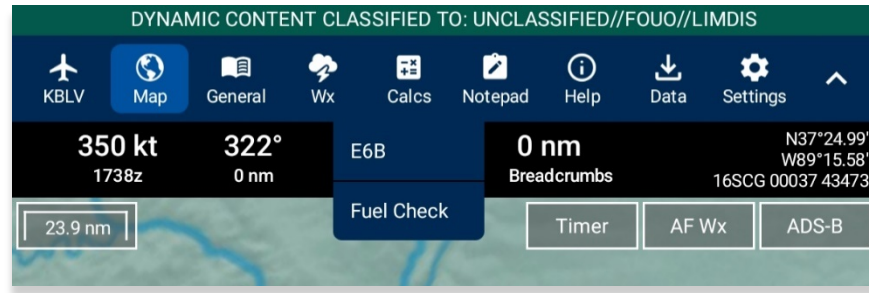


10. To delete a DD 175-1 briefing, swipe left to reveal the delete button of the PDF that you choose to permanently remove. Tap **Delete**.
11. The delete confirmation popup for DD 175-1 Briefing will be displayed. Tap **Delete** to confirm action. The DD 175-1 briefing will be removed from the list.



28 Calcs (Calculators)

The Calcs menu, also referred to as Calculators, contains E6B and Fuel Check menus. To access these menus, tap Calcs on the Main Menu.



28.1 E6B Calculator

The electronic calculator enables pilots to perform a variety of calculations for preflight or in-flight planning.

Altitude

Altitude calculates the Pressure Altitude and Density Altitude by entering the Elevation or the Airport ICAO, Altimeter, and Temperature.

Cold Weather (Wx)

Cold Wx corrects Altitude for cold temperature operations. Users can switch between Celsius and Fahrenheit.

Conversions

Conversions are divided into Distance, Pressure, Temperature, and Weight. Tap to select or slide the segmented control to desired conversion category.

1. Tap to select the current unit in the left column and select the desired unit in the right column.
2. Enter a value in the text box.

The screenshot shows the E6B Conversions screen with the 'Distance' tab selected. A text box contains the value '40'. Below it, the conversion is displayed as '40 nm = 46.031 sm'. At the bottom, there are two columns of unit options: 'From' and 'To'. The 'From' column has 'ft' and 'in' options, and the 'To' column also has 'ft' and 'in' options.

Coordinates

Coordinates allow users to get a reading on Lat, Lon, MGRS (Military Grid Reference System), GARS (Global Area Reference System), and Radial Off NavAid when you enter coordinates.

1. Select an option from **Lat, Lon, MGRS, GARS**, or **Radial** by tapping your desired option on the segmented button group.
2. Enter coordinates in the text box.
3. The results will populate below.
4. **+ Insert into Route** and **+ Insert at end of Route** will be selectable. Select **+ Insert into Route** and the entered coordinates will be added to your current route.
5. Select **+ Insert at end of Route** and the entered coordinates will be added at the end of your current route.

The screenshot shows the E6B Coordinates screen with the 'Lat, Lon' tab selected. A text box contains the coordinates 'N3832.71,W8950.11'. Below the text box are two buttons: '+ Insert into Route' and '+ Insert at end of Route'. Below these buttons are several output fields with corresponding values: DD.DDD: N38.545167°, W89.835167°; DD MM.MM: N38°32.71', W89°50.11'; DD MM SS.SSS: N38°32'42.600", W89°50'6.600"; MGRS: 16SBH 52911 70116; GARS: 181LT38; Radial Off NavAid: SKE 093 0.77.

Once the coordinates have been entered in for one of the tabs, you can tap an output field to automatically switch to the mode with those field values automatically populated.

For example, from the Lat, Lon view, you can tap on the MGRS output field and the MGRS tab is displayed with the field values from Lat, Lon.

NavAid Radial Distance calculates the coordinates using three inputs; namely NavAid, Radial and Distance.

The screenshot shows the E6B Coordinates screen with the 'Radial' tab selected. A text box contains the value 'SJC09012.3'. Below the text box are two buttons: '+ Insert into Route' and '+ Insert at end of Route'. Below these buttons are several output fields with corresponding values: DD.DDD: N37.317985°, W121.697052°; DD MM.MM: N37°19.08', W121°41.82'; DD MM SS.SSS: N37°19'4.747", W121°41'49.387"; MGRS: 10SFG 15449 30944; GARS: 117LQ27; Radial Off NavAid: SJC09012.3.

Descent

Descent Rate is calculated in feet per minute, enter the Descent Angle in degrees and Groundspeed in knots.

E6B

Coordinates | Coordinates | **Descent** | Distance | IFR Climb

Descent Rate

1,329

Feet Per Minute

Descent Angle:

Groundspeed:

Distance

Distance calculates the Total Fuel by Distance measured in kilometers or nautical miles, respective to which Distance Unit users have set in their Settings. Speed which is measured in knots and Time following the format (hh:mm:ss). Tap or slide the segmented control to the desired distance calculation type.

Distance is calculated by Speed, Time, and Fuel Burn Per Hour. The expected output is Distance measured in kilometers or nautical miles; respective to which distance unit format users have set in their Settings and the Total Fuel in gallons.

E6B

Coordinates | Descent | **Distance** | IFR Climb | Rwy Wi

Distance | Speed | Time

Distance

181 nm

Speed:

Time (hh:mm:ss):

Fuel Burn Per Hour:

Total Fuel: 22.6

Speed is calculated by Distance, Time, and Fuel Burn Per Hour. The expected output is Speed measured in knots and the Total Fuel in gallons.

E6B

Coordinates | Descent | Distance | **Speed** | IFR Climb | Rwy Wi

Distance | **Speed** | Time

Speed

120

Distance (nm):

Time (hh:mm:ss):

Fuel Burn Per Hour:

Total Fuel: 22.6

Time is calculated by Distance, Speed, and Fuel Burn Per Hour. The expected output is Time following the format (hh:mm:ss) and the Total Fuel in gallons.

E6B

Coordinates | Descent | Distance | IFR Climb | **Time**

Distance | Speed | **Time**

Time

1h 30m 30s

Distance (nm):

Speed:

Fuel Burn Per Hour:

Total Fuel: 22.6

Instrument Flight Rule (IFR) Climb

IFR Climb calculates the Climb Angle measured in Degrees and Climb Rate measured in Feet per Minute by providing the Climb in ft/km and ft/nm; respective to which Distance Unit users have set in their Settings. As well as providing the Groundspeed measured in knots.

E6B				
cent	Distance	IFR Climb	Rwy Winds	Winds Aloft
		Climb Angle	Climb Rate	
		1.9°	1,333	
		Degrees	Feet Per Minute	
ft/nm Climb:		<input type="text" value="200"/>		
Groundspeed:		<input type="text" value="400"/>		

Runway (Rwy) Winds

Runway Winds calculates Headwind and Crosswind by typing in Runway Direction in degrees, and Wind Direction/Speed.

E6B				
cent	Distance	IFR Climb	Rwy Winds	Winds Aloft
		Headwind	Crosswind	
		↓ 9	← 12	
		Knots	Knots	
Runway Direction:		<input type="text" value="29"/>		
Wind Dir/Spd:		<input type="text" value="80"/> @ <input type="text" value="15"/>		

Winds Aloft

Winds Aloft calculates Heading (Hdg), Ground Speed (GS), and Wind Correction Angle (WCA) by typing in Nearby Airport (ICAO), Course (degrees), True Airspeed (knots), and Wind Direction/Speed.

E6B				
Distance	IFR Climb	Rwy Winds	Winds Aloft	
		HDG	GS	WCA
		40°	441	41°
		Degrees	Knots	Degrees
Nearby Airport:		<input type="text" value="KBLV"/>		
Course:		<input type="text" value="5"/>		
True Airspeed:		<input type="text" value="250"/>		
Wind Dir/Spd:		<input type="text" value="150"/> @ <input type="text" value="300"/>		

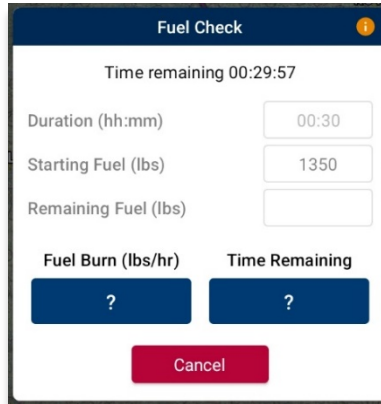


NOTE: Reference notes are located at the bottom of the E6B popup.

28.2 Fuel Check

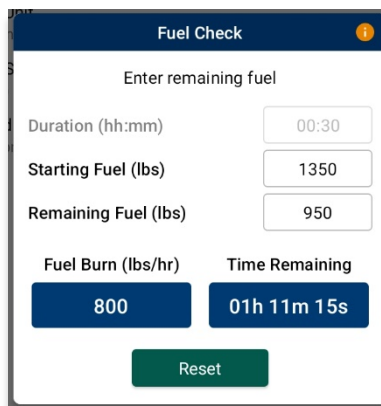
The Fuel Check feature calculates fuel burn and estimates the time remaining until the fuel is consumed fully. Fuel Check includes fields for Duration (hh:mm), Starting Fuel (lbs), and Remaining Fuel (lbs).

1. Tap **Calcs** on the **Main Menu**. The Calcs options will be displayed.
2. Select **Fuel Check**. The Fuel Check popup will appear.
3. Tap on the **Duration** field. Enter desired duration for the fuel check in hours and minutes.
4. Enter the exact fuel amount in the **Starting Fuel** field.
5. Tap **Start** to begin the timer.
6. Tap **Cancel** to stop the timer.



The screenshot shows the 'Fuel Check' popup with a title bar and an information icon. The main content area displays 'Time remaining 00:29:57'. Below this are three input fields: 'Duration (hh:mm)' with the value '00:30', 'Starting Fuel (lbs)' with the value '1350', and 'Remaining Fuel (lbs)' which is empty. At the bottom, there are two blue buttons labeled 'Fuel Burn (lbs/hr)' and 'Time Remaining', both showing a question mark. A red 'Cancel' button is positioned below these.

7. Once the timer has ended, users will be prompted to enter the remaining fuel. In the *Remaining Fuel* field, enter the **remaining fuel** in pounds.
8. The calculations will populate the Fuel Burn and Time Remaining results field based on the entered values. Tap **Reset** to clear the calculations.

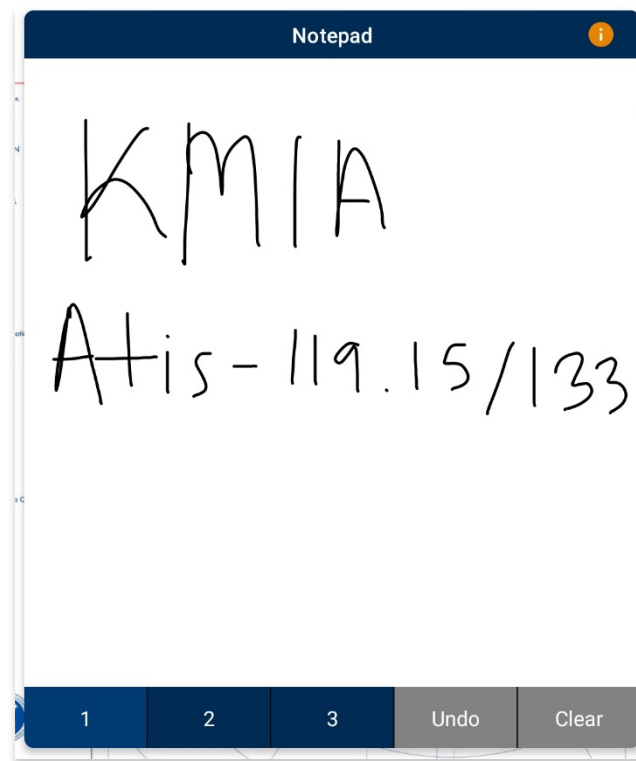


The screenshot shows the 'Fuel Check' popup after calculations. The title bar and information icon are present. The main content area displays 'Enter remaining fuel'. Below this are three input fields: 'Duration (hh:mm)' with the value '00:30', 'Starting Fuel (lbs)' with the value '1350', and 'Remaining Fuel (lbs)' with the value '950'. At the bottom, there are two blue buttons labeled 'Fuel Burn (lbs/hr)' and 'Time Remaining', showing the calculated values '800' and '01h 11m 15s' respectively. A green 'Reset' button is positioned below these.

29 Notepad

The Notepad feature enables users to freely enter notes using their fingertips or with a stylus. The notepad contains three reusable pages. The notepad view includes Undo and Clear options.

- **Undo** – undoes the most recent markings on the notepad
- **Clear** – erases all markings on the selected notepad page

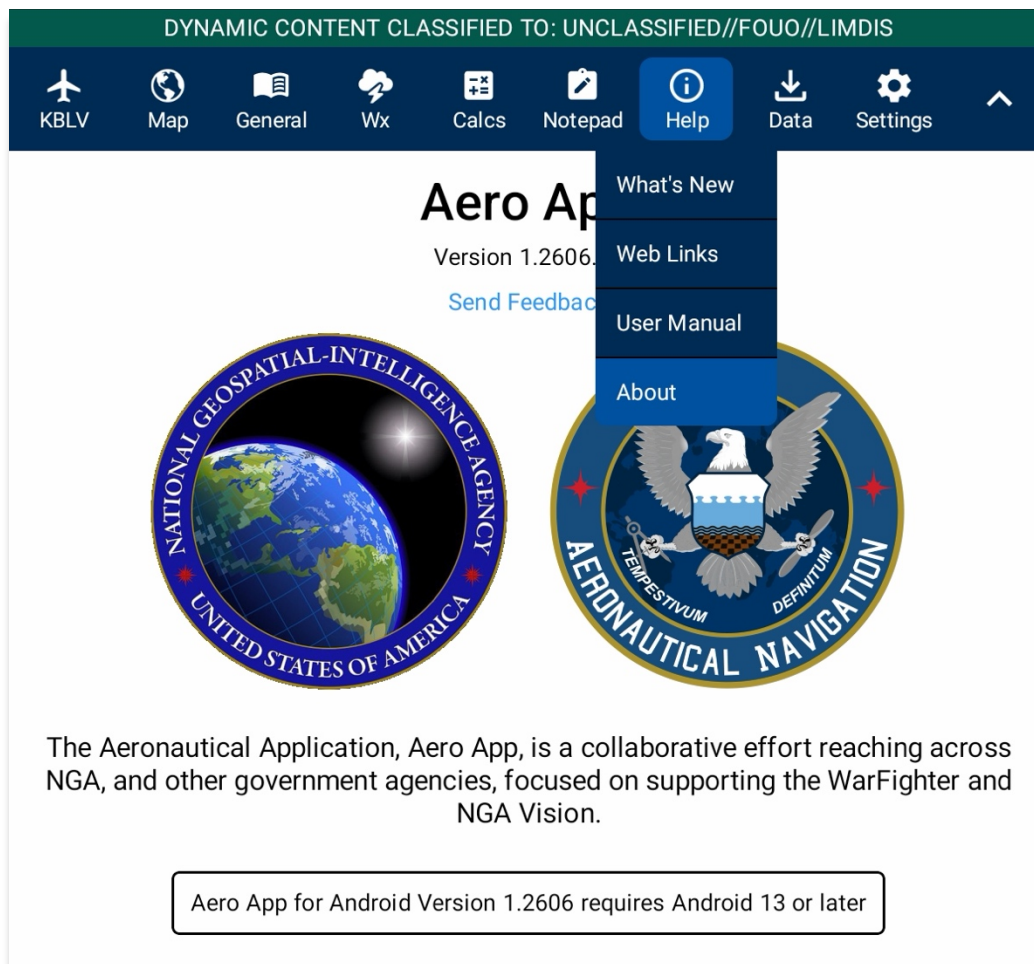


NOTE: Any notepad markings are automatically saved upon exiting the view.

30 Help

Help (information icon) is located on the Main Menu, positioned between the Notepad and Data menus. The Help menu contains the following options:

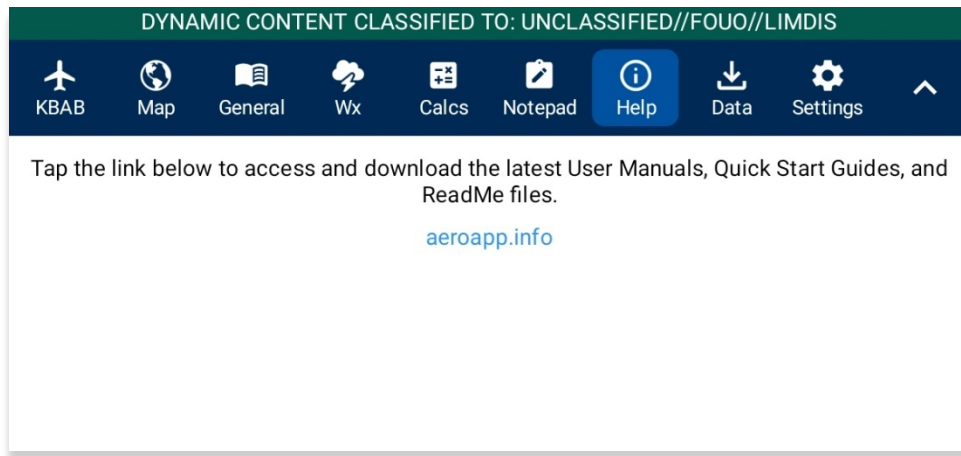
- **What's New** – contains app updates such as information on new features, app enhancements, and important updates. Global must be loaded in Active Cycle to view the What's New page. When a new cycle is loaded in Active Cycle, the What's new popup will display. Refer to [Section 12.2](#) for additional information.
- **Web Links** – contains a collection of links to reference relevant resources. Global must be loaded in Active Cycle to view the Web Links page.
- **User Manual** – includes a link to the aeroapp.info webpage to view different sources of Aero App user guides. Refer to [Section 30.1](#) for additional information.
- **About** – contains information on third party libraries, app version number, and the required OS to successfully use Aero App. Below the app version number is a link to send feedback to the Aero App Support Team



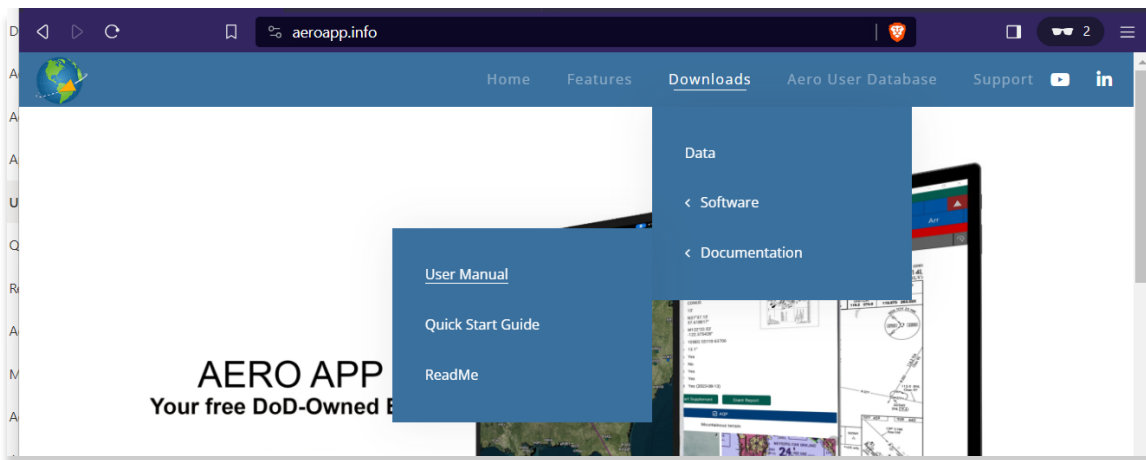
30.1 User Manual Access

The User Manual tab includes a link that redirects users to the Aero App website (aeroapp.info).

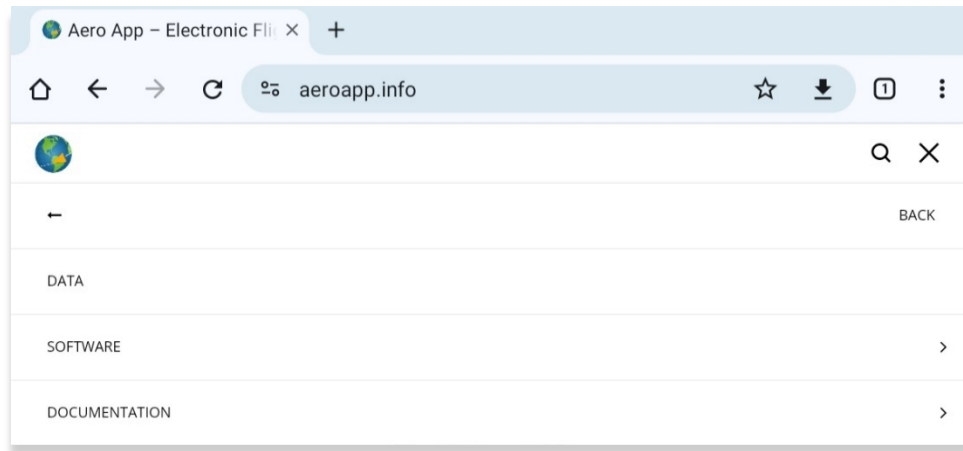
1. Tap **Help** on the **Main Menu**. The Help options will display.
2. Select **User Manual**.
3. Tap the **aeroapp.info** link and users will be redirected to the Aero App homepage.



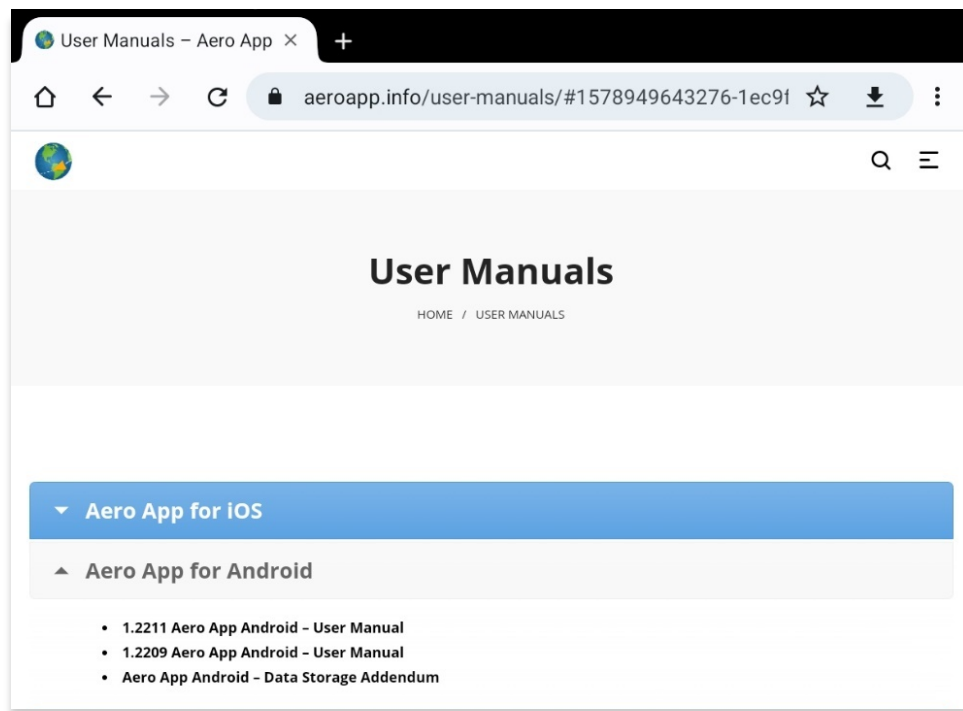
4. Navigate to the *Downloads* menu. The option placement will vary depending on display size.
 - On large screens, hover over **Downloads** on the menu ribbon to reveal additional download options.



- On smaller screens, tap the hamburger button and select **DOWNLOADS** to display additional download options.



5. Select **Documentation** then **User Manual**.
6. Users are provided with several platforms to choose from. Tap **Aero App for Android** to reveal related user manuals.
7. Select desired user manual version and you will be redirected to the PDF.



NOTE: The Aero App User Manual can be uploaded into Aero App. Refer to [Section 10.8](#) for additional information.

31 Data

The Data Status screen enables users to manage cycles. Refer to [Section 12](#) for additional information.

DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS

KBLV

Map

General

Wx

Calcs

Notepad

Help

Data

Settings

Data Status

Active Cycle

Standby Cycle

Delete

View

⇒

Delete

View

Eff 2025-10-30 - 2025-11-26 (2511)

No standby cycle loaded

Use Deltas

On

Share

Download

Refresh

Move to Standby

Delete

/storage/emulated/0

Cycle 2025-10-02 (2510)

Global: Found

Africa:

Alaska:

Canada:

CONUS Part 1: Found

CONUS Part 2: Found

CSA:

EEA:

ENAME: Found

PAA: Found

FAA Sectionals:

Georeference: Found

Aero App Maps

CAN IFR Hi Canada:

CAN IFR Lo Canada:

FAA IFR Atlantic:

FAA IFR Hi Alaska:

FAA IFR Lo Alaska:

FAA VFR Alaska:

FAA IFR Hi CONUS:

FAA IFR Lo CONUS:

FAA VFR CONUS:

FAA VFR PAA:

NGA IFR Africa:

NGA IFR Hi CSA:

NGA IFR Lo CSA:

32 Settings

Settings is a tool that enables users to customize the behavior of Aero App. Various setting options are divided into Bluetooth, Data, Miscellaneous, Reset, Route, and User Interface.

32.1 Bluetooth

Bluetooth contains various options on connecting devices such as ADS-B and GPS receivers to Aero App. [Section 17.5](#) elaborates on the connection of ADS-B receivers via Wi-Fi and Bluetooth.

The Bluetooth connection status is displayed at the top of the screen.

1. Tap **Settings** on the **Main Menu**.
2. Select **Bluetooth** from the side menu.
3. The following options are available:
 - **Allow Background Location Collection** – allows Aero App to collect location information even when Aero App is in the background.
 - **Android Bluetooth Settings** – opens the system settings to manage Bluetooth status and pair device.
 - **Currently Connected Device** – breaks the connection of the currently connected device.
 - **Device Type** – selects from GPS or ADS-B device type.
 - **Select Paired Device** – selects the paired Bluetooth device to connect.

32.2 Data

Data contains the setting options for external storage devices to store Aero App data. Refer to [Appendix D | Android Data Storage](#) for additional information.

1. Tap **Settings** on the **Main Menu**.
2. Select **Data** from the side menu.
3. The following options are available:
 - **Path for Data on SD Card and Computer** – selects the directory that you wish to copy files to before data loading.
 - **Search for Data on SD Card and Computer** – automatically searches device for Aero App files.
 - **Use SD Card to store Data** – uses the connected SD card to store Core, Map, and Other Data.

32.3 Miscellaneous

Miscellaneous contains the setting options to customize select Aero App features and views.

1. Tap **Settings** on the **Main Menu**.
2. Select **Miscellaneous** from the side menu.
3. The following options are available:
 - **Airport Ring on APD and IAP** – verifies the georeferencing by showing a small ring around the Airport center.
 - **Home Field** – sets an ICAO as the default location on the Map upon opening the Map page. This feature will take effect when the app is either rebooted or reopened, and Map is selected for use.
 - **Minimum Runway Length (ft)** – filters Airports based on the specified runway length. The value must be in ft.
 - **Next Waypoint Buffer (nm)** – automatically changes to the next waypoint when the ownship is within a buffer radius around waypoint. The value must be in nm or km; respective to which distance unit format users have set in their Settings.
 - **Ownship on APD and IAP** – displays ownship on FAA Airport Diagrams and Instrument Approach Procedures.

- **Secret** – classifies your device as containing SECRET material.



NOTE: Once Aero App has been updated to SECRET, the action cannot be undone.



NOTE: Aero App must be uninstalled and reinstalled to revert to UNCLASSIFIED.

- **Switch to APD on Landing** – switches the screen to display an APD upon landing. When this feature is enabled, Speed (ft) will display. Enter desired value in kt. Once your ownship has reached the specified speed, the screen will switch to APD.

32.4 Reset

Reset clears all chart markups.

1. Tap **Settings** on the **Main Menu**.
2. Select **Reset** from the side menu.
3. The following option is available:
 - **Clear All Chart Markups** – clears all markups on APDs and IAPs.

32.5 Route

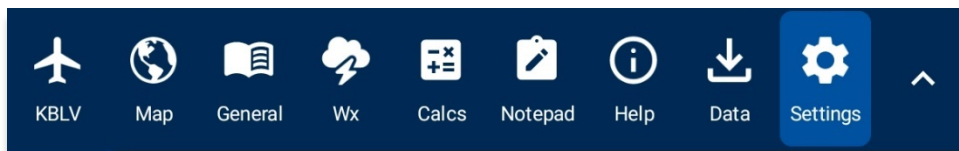
The Route setting contains route configuration options.

1. Tap **Settings** on the **Main Menu**.
2. Select **Route** from the side menu.
3. The following option is available:
 - **Snap Route to Current Leg** – automatically scrolls to the current leg in route and highlights the current flight leg on the Route Panel.

32.6 User Interface

The User Interface setting allows users to customize the general appearance of the app and the format in which information is presented to the user.

1. Tap **Settings** on the **Main Menu**.
2. Select **User Interface** from the side menu.
3. The following options are available:
 - **Big Buttons on Main Menu** – enlarges the Menu button size; useful when wearing gloves.



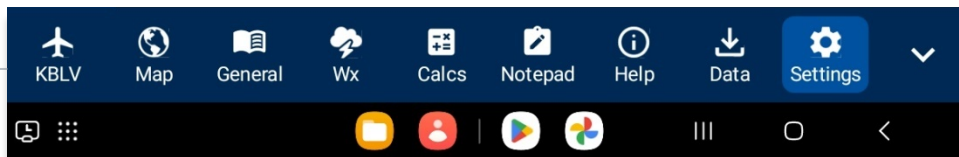
- **Confirm on Delete** – confirms deletion of an item in the route.
- **Coordinates Unit** – displays coordinates in Military Grid Reference System or Lat/Lon format.
- **Display Text for Main Menu** – displays text below each Main Menu option.

No text on Main Menu option



- **Distance Unit** – displays distance in km or nm.
- **Info Text Size** – sets Airport Information screen text size from small, medium, or large.
- **Main Menu at Top** – relocates the Main Menu to the top or bottom of your screen.

Main Menu on bottom of page

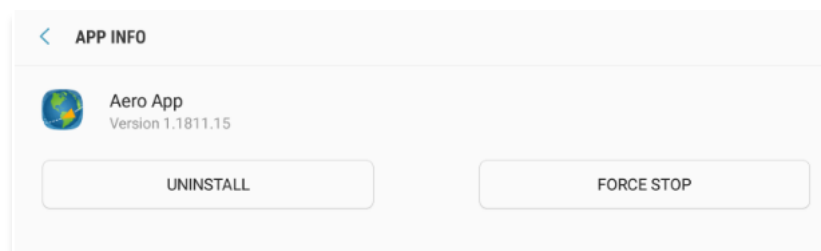


- **Night Mode** – uses white-on-black or a black-on-white screen while using Aero App.

33 Appendix A | Uninstall Aero App

This section will describe how to uninstall Aero App from your tablet.

1. Go to **Settings** on your tablet.
2. Tap **Apps**.
3. Navigate Aero App on the list provided.
4. Tap **Aero App**.
5. Tap **Uninstall** from the options provided.
6. A confirmation will pop up, tap **OK**.



NOTE: Alternatively, users can uninstall Aero App by going to their home page and long-pressing on the Aero App icon, then tapping **Uninstall**.



NOTE: Uninstalling Aero App will delete Aero App data.

34 Appendix B | User Waypoints and Coordinates

Enter Waypoints using Latitude and Longitude coordinates.

Coordinate formats include:

DD.DDD,DDD.DDD		DDMM.MM,DDMM.MM	
Enter Example	Means	Enter Example	Means
37.12345, -121.12345	37.12345°N, 121.12345°W	3723.45, -11834.45	37°23.45N, 118°34.45W
NDD.DDD,WDDD.DDD		NDDMM.MM,WDDMM.MM	
Enter Example	Means	Enter Example	Means
N37.12345, W121.12345	37.12345°N, 121.12345°W	N3713.4536, W12145.901	37°13.4536°N, 121°45.901W
DD.DDDN,DDD.DDDW		DDMM.MMN,DDMM.MMW	
Enter Example	Means	Enter Example	Means
37.12345N, 121.12345W	37.12345°N, 121.12345°W	3713.4536N, 12145.90W	37°13.4536°N, 121°45.901W



NOTE: If you enter the values in degrees and decimal minutes, you need to ensure that there are at least four digits before the decimal point, i.e., for 1 degree and 12.5 minutes use 0112.5 because 112.5 will be interpreted as 112.5 degrees.



NOTE: When using E6B, you can leave spaces between degrees and decimal minutes. This is not possible when utilizing search boxes for the creation of routes.



NOTE: When adding MGRS to route, a minimum of six characters is required for a valid MGRS entry.

35 Appendix C | Hazards and Pins SQLite Files

This appendix includes key specifications, schemas, and examples of SQLite databases for Hazards and Pins. Aero App uses a structured database, or SQLite file, comprised of two tables: *mapPins* and *hazards*, to read and display pins and hazards on the Map view.

In addition to dropping their own pins and hazards on the Map, users can create or modify SQLite files to share their pins and/or hazards with others to display on Aero App. This SQLite file must be saved as *pins-{name}.sqlite*, where *{name}* is replaced by the user. If the file does not follow that naming convention, Aero may not read the file, or it may cause existing Pins and Hazards to overwrite on Aero App. The sections ahead provide further details on creating a SQLite file.

35.1 Specifications for Hazards

The following specifications apply to Hazards.

- **NOT NULL** – denotes the field is required
- **UNIQUE** – denotes the value must be distinct
- **INTEGER** – whole numbers only
- **REAL** – allows decimal numbers
- **TEXT** – allows alphanumeric character data

Key	Key Type	Definition
id	INTEGER PRIMARY KEY AUTOINCREMENT	The id column serves as the primary key, and the "AUTOINCREMENT" attribute ensures that a unique value is automatically assigned to this column for each new row inserted into the table.
identifier	TEXT NOT NULL UNIQUE	The identifier field is required and must differ from other identifiers in this column. It is recommended to follow a naming convention such as <i>HAZARD#</i> (starting from 1), where "#" represents a unique number. Users should avoid using white spaces or leaving the field blank.
name	TEXT NOT NULL	The name column can contain any character from the ASCII table. However, it is recommended to limit it to alphanumeric characters and spaces.

radius	REAL	The radius column represents the distance from the center of the ring to its outer edge that pilots should avoid when flying. If the radius column is left empty or a negative value is entered, the radius of the ring will be automatically adjusted to 0.
alert	INTEGER NOT NULL	The alert column indicates whether Intersection Alert is active or not. 1 is used to represent true while 0 is used to represent false.
notes	TEXT	The notes column is intended for additional information or context regarding hazards.
lat	REAL NOT NULL	The lat column represents the latitude of the hazard. Latitude cannot be greater than 90 or less than -90 but can be equal to either value.
lon	REAL NOT NULL	The lon column represents the longitude of the hazard. Longitude cannot be greater than 180 or less than -180 but can be equal to either value.
mgrs	TEXT	The mgrs column can contain any alphanumeric characters, symbols, or spaces. It is used solely for display purposes and is not used to derive a location, since the location is determined solely by the Lat/Lon values.

Here's the schema for the Hazards table. This schema includes the keys for each column mentioned earlier, with the necessary data types and constraints.

```
CREATE TABLE IF NOT EXISTS hazards (
    id INTEGER PRIMARY KEY AUTOINCREMENT,
    identifier TEXT NOT NULL UNIQUE,
    name TEXT NOT NULL,
    radius REAL,
    alert INTEGER NOT NULL,
    notes TEXT,
    lat REAL NOT NULL,
    lon REAL NOT NULL,
    mgrs TEXT);
```

35.1.1 Hazards SQLite Table

Here's an example of a SQLite table for Hazards:

Browse Data Database Structure Edit Pragmas Execute SQL									
Table: hazards									
id	identifier	name	radius	alert	notes	lat	lon	mgrs	
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	
1	0 HAZARD1	Gun threat hazard	10.0	1	Create a circle around a hostile threat...	33.434278	-112.011583	null	

35.2 Specifications for Pins

Users must refer to the provided schema to create a table and input the desired values for each column. For Pins, the following specifications apply.

- **NOT NULL** – denotes the field is required
- **UNIQUE** – denotes the value must be unique
- **INTEGER** – whole numbers only
- **REAL** – allows decimal numbers
- **TEXT** – allows alphanumeric character data
- **BLOB** – stores large objects such as images

Key	Key Type	Definition
id	INTEGER PRIMARY KEY AUTOINCREMENT	The id column serves as the primary key, and the "AUTOINCREMENT" attribute ensures that a unique value is automatically assigned to this column for each new row inserted into the table.
pinType	INTEGER NOT NULL	The pinType field serves to indicate the type of geographic pin. Specifically, 0 is used to represent pin, 1 represents landmark, 2 represents emergency marker, and 3 represents photo pin. Landmark and avoidance point share the same pinType value, which is 1. If connectToOwnship is enabled, then it's landmark, otherwise it is avoidance point.
identifier	TEXT NOT NULL	The identifier field is required and must differ from other identifiers in this column. Users

	UNIQUE	should avoid using white spaces or leaving the field blank.
name	TEXT NOT NULL	The name column can contain any character from the ASCII table. However, it is recommended to limit it to alphanumeric characters and spaces.
notes	TEXT	The notes column is intended for additional information or context regarding pins.
lat	REAL NOT NULL	The lat column represents the latitude of the pin. Latitude cannot be greater than 90 or less than -90 but can be equal to either value.
lon	REAL NOT NULL	The lon column represents the longitude of the pin. Longitude cannot be greater than 180 or less than -180 but can be equal to either value.
timestamp	INTEGER NOT NULL	The timestamp column indicates the number of seconds since epoch time of when the pin was created.
radius	REAL	The radius column represents the distance from the center of the ring to its outer edge that pilots should avoid when flying. If the radius column is left empty or a negative value is entered, the radius of the ring will be automatically adjusted to 0.
radiusCircle	INTEGER NOT NULL	The radiusCircle column indicates whether Radius Ring is active or not. 1 is used to represent true while 0 is used to represent false.
radiusWarning	INTEGER NOT NULL	The alert column indicates whether an intersection alert is active or not. 1 is used to represent true while 0 is used to represent false.
connectToOwnship	INTEGER NOT NULL	The connectToOwnship column indicates whether Connect to Location is active or not. 1 is used to represent true while 0 is used to represent false.

imageBlob	BLOB	The imageBlob column is intended to associate pins with relevant photos and can be viewed through Aero App. This field is required for Photo Pins.
-----------	------	--

Here's the schema for the Pins table. This schema includes the keys for each column mentioned earlier, with the necessary data types and constraints.

```
CREATE TABLE IF NOT EXISTS mapPins (
    id INTEGER PRIMARY KEY AUTOINCREMENT,
    pinType INTEGER NOT NULL,
    identifier TEXT NOT NULL UNIQUE,
    name TEXT,
    notes TEXT,
    lat REAL NOT NULL,
    lon REAL NOT NULL,
    timestamp INTEGER NOT NULL,
    radius REAL,
    radiusCircle INTEGER NOT NULL,
    radiusWarning INTEGER NOT NULL,
    connectToOwnship INTEGER NOT NULL,
    imageBlob BLOB);
```

35.2.1 Pins SQLite Table

Here's an example of a SQLite table for Pins.

The screenshot shows a SQLite database browser interface. The 'Table:' dropdown is set to 'mapPins'. The table structure is displayed with columns: id, pinType, identifier, name, notes, lat, lon, timestamp, radius, radiusCircle, radiusWarning, connectToOwnship, and imageBlob. Each column has a 'Filter' button. The data row shows: id=1, pinType=1, identifier=0 PIN1, name=C17, notes=Parked C17, lat=38.545178, lon=-89.835211, timestamp=1694455715, radius=10.0, radiusCircle=1, radiusWarning=1, connectToOwnship=1, and imageBlob=null.

id	pinType	identifier	name	notes	lat	lon	timestamp	radius	radiusCircle	radiusWarning	connectToOwnship	imageBlob
1	1	0 PIN1	C17	Parked C17	38.545178	-89.835211	1694455715	10.0	1	1	1	null

36 Appendix D | Android Data Storage

Android data storage refers to the different methods used to save and manage Aero data. The sections ahead will provide detailed information on data storage.

36.1 Use SD Card to Store Data

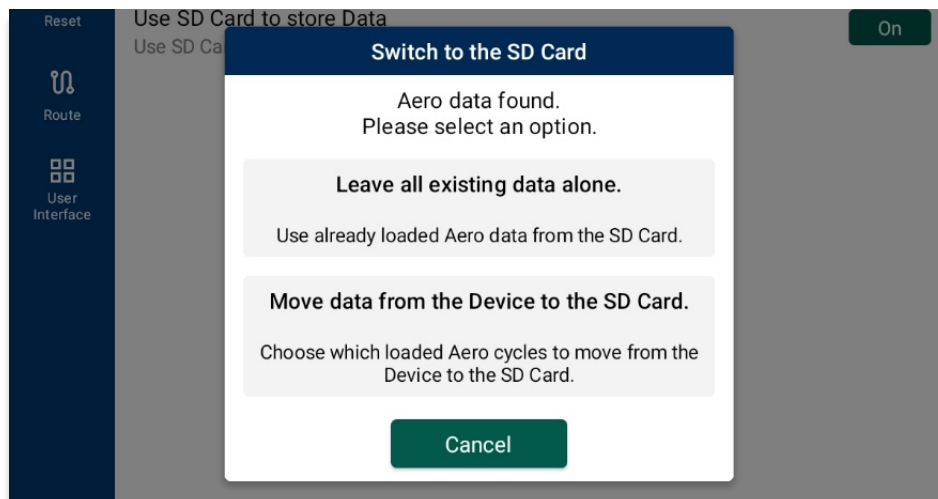
The Use SD Card to store data function allows users to store data in their preferred SD card. This feature provides the advantage of saving internal storage space and setting up a primary location to store Aero data.

1. Insert an SD card into your Android device.
2. Open **Aero App** on your device.
3. Tap **Settings** on the **Main Menu**.
4. Select **Data** from the side menu.
5. Tap to enable the **Use SD Card to store Data** option. The primary storage is now set to read and write from the SD card.

36.1.1 Switch to the SD Card

By enabling the *Use SD Card to store data* option, users are presented with the following options:

- **Leave all existing data alone** – Uses preloaded data from the SD card.
- **Move data from the Device to the SD Card** – Transfers desired Aero data from the Android tablet's internal storage to SD card.



36.1.1.1 Leave all Existing Data Alone

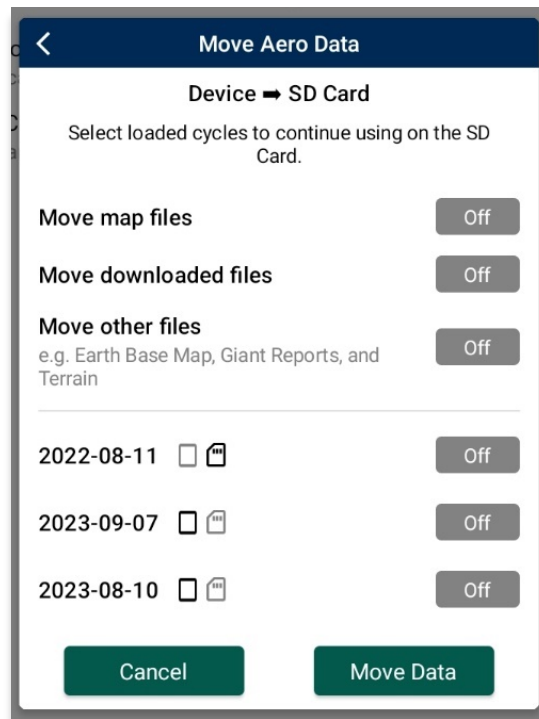
When selecting the *Leave all existing data alone* option, you are allowing Aero App to access preloaded data from your SD card. This allows Aero App to read data directly from the SD card.

1. Select the **Leave all existing data alone** option. A confirmation popup will appear.
2. Tap **Continue**. Aero App will read and store new data from the SD card. This does not move any existing data from the Android tablet.

36.1.1.2 Move Data from the Device to the SD Card

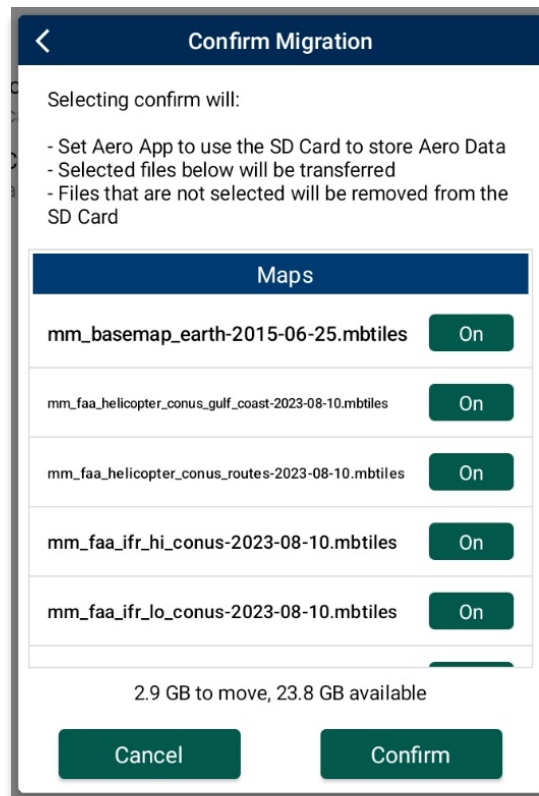
When selecting the *Move data from the Device to SD card* option, you are allowing Aero App transfer Aero data from their Android tablet's internal storage to the SD card.

1. Select the **Move data from the Device to the SD Card** option. A *Move Aero Data* popup will appear.
2. Select data that you wish to transfer into the SD card.
3. Tap **Move Data** once desired data is selected.

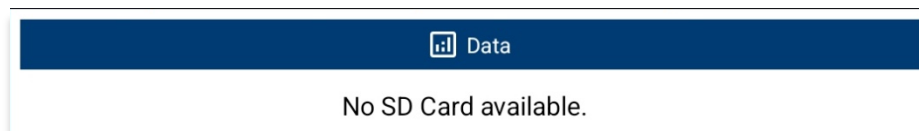


4. A **Confirm Migration** popup will appear containing the selected data.

5. Tap **Confirm**. The transfer will begin. This process may take a while.



NOTE: If a user does not have an SD card inserted into their device, the following message will display under the Data subheading.

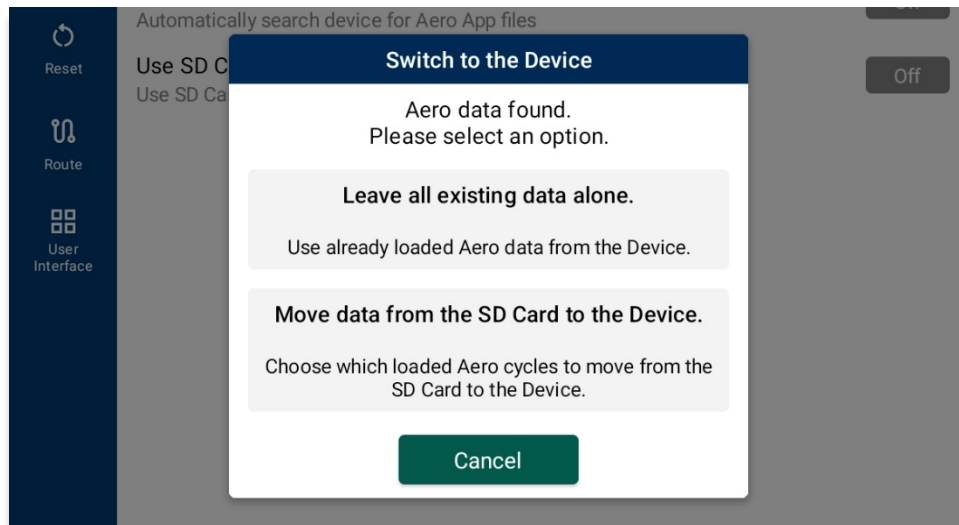


NOTE: If a user does have an SD card inserted into their device, the following message will display under the Data subheading.



36.2 Switch to the Device

If you disable the *Use SD Card to store Data* option, you can use your Android tablet as the main resource for Aero App data. This means that you can use the pre-loaded Aero App data or transfer data from the SD card to the tablet.



36.3 Search for Data on SD Card and Computer

The Search for Data on SD Card and Computer option has an auto-discover function that scans your SD card and the Android tablet's internal storage for Aero App data. If your Android tablet has an SD card inserted, Aero App will check it for data; otherwise, an SD card is not required. Aero App will use any data found as the primary resource for Aero data.

1. Open **Aero App**.
2. Tap **Settings** on the **Main Menu**.
3. Select **Data** from the side menu.
4. Tap to enable the **Search for Data on SD Card and Computer** option.

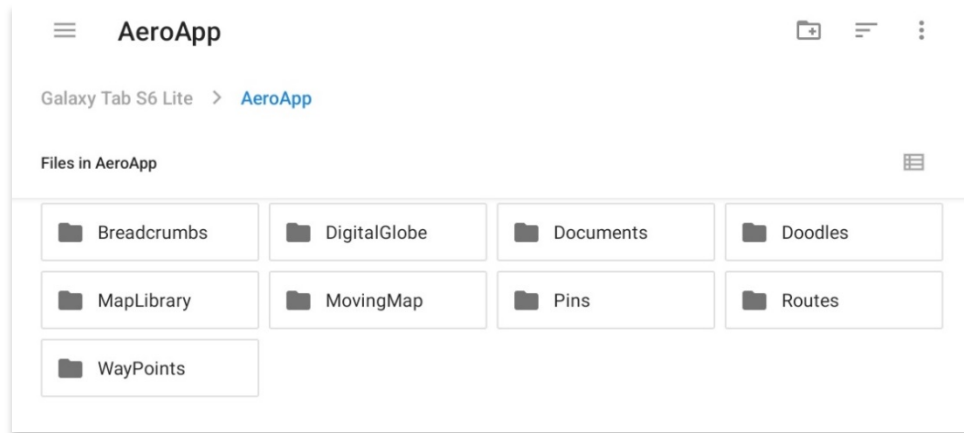


NOTE: When the *Search for Data on SD Card and Computer* option is enabled, Aero App disregards what is set as the directory to store data.

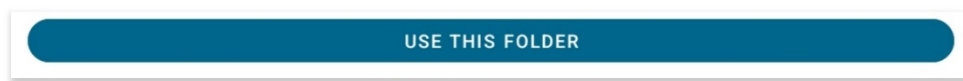
36.4 Path for Data on SD Card and Computer

The Path for Data on SD Card and Computer feature gives users the ability to specify a preferred directory for loading Aero App data. Users with Android tablets that operate on Android 12 or newer versions can opt to sideload data from the primary folder by enabling the *Search for Data on SD Card and Computer* option. If your Android tablet has an SD card inserted, Aero App will check it for data; otherwise, an SD card is not required.

1. Open **Aero App**.
2. Tap **Settings** on the **Main Menu**.
3. Select **Data** from the side menu.
4. Tap **Choose** for the **Path for Data on SD Card and Computer** option.
5. Select desired folder or subfolder to set the directory in which will store Aero App data.



6. Once the directory is selected, tap **USE THIS FOLDER** to set the path.

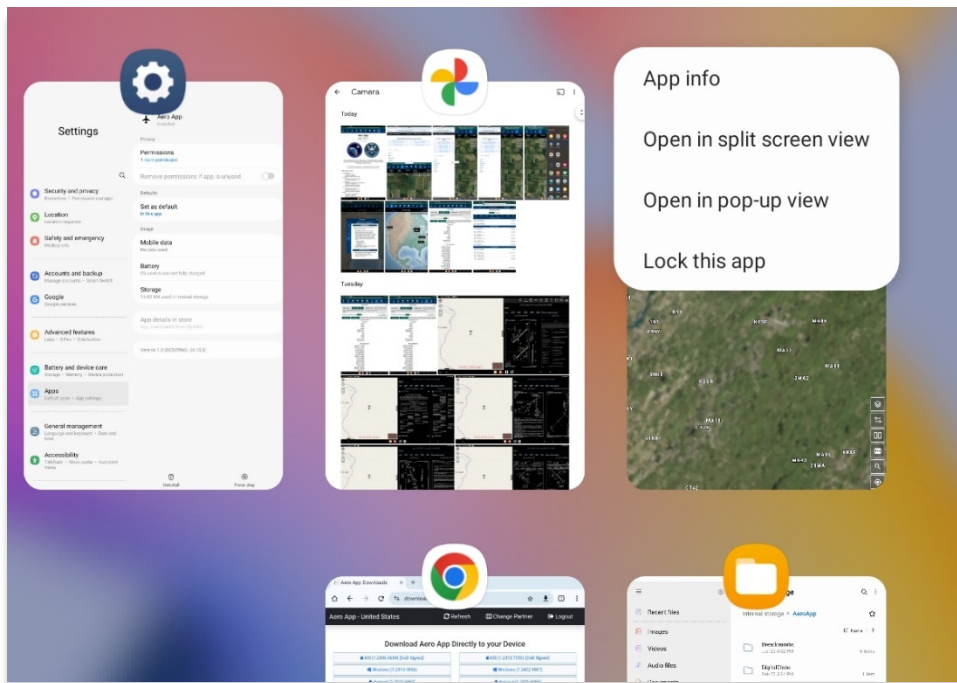


7. A confirmation popup will appear. Tapping **Allow** will let Aero App access current and future content in the selected folder.
8. Tap **Cancel** to void action.

37 Appendix E | Multitasking on Android

Aero App for Android offers multitasking capabilities, enabling users to seamlessly switch between different apps in split-screen view. The Route Panel view may not be available for pages on Aero App other than the Map when the screen is too narrow. Increasing the screen's width in split-screen mode may resolve this issue.

1. With Aero App open, tap the **Recents** icon located at the bottom-right of the screen.
2. All recently viewed apps will be displayed. Tap on the **app icon** of desired app.
3. A popup will display with the following options:
 - App info
 - Open in split screen view
 - Open in pop-up view (not supported)
 - Lock this app

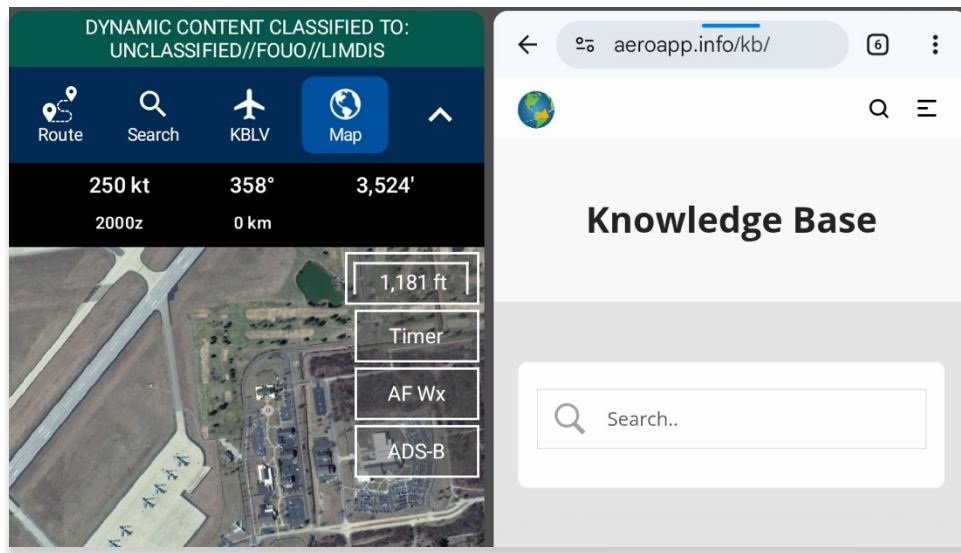


4. Select **Open in split screen view**.



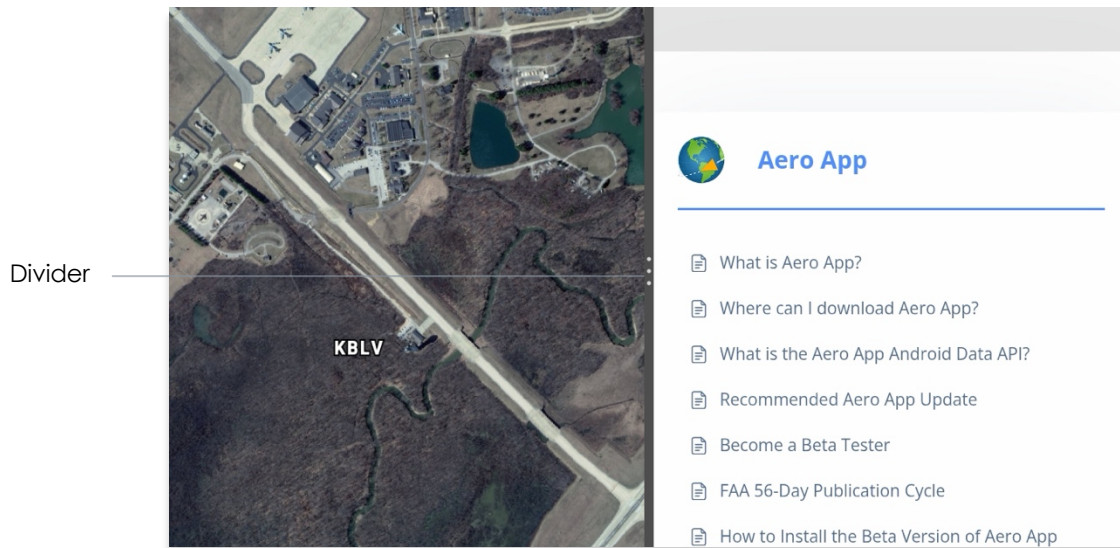
NOTE: Pop-up View is not supported by Aero App.

5. Aero App will be pushed to the left side of the screen. Users will be prompted to select a split-screen app. Select desired app for side-by-side app experience.



NOTE: Not all apps support Multitasking.

6. A divider is located between both apps to allow resizing of views when adjusted. Adjust your views to desired size preference.

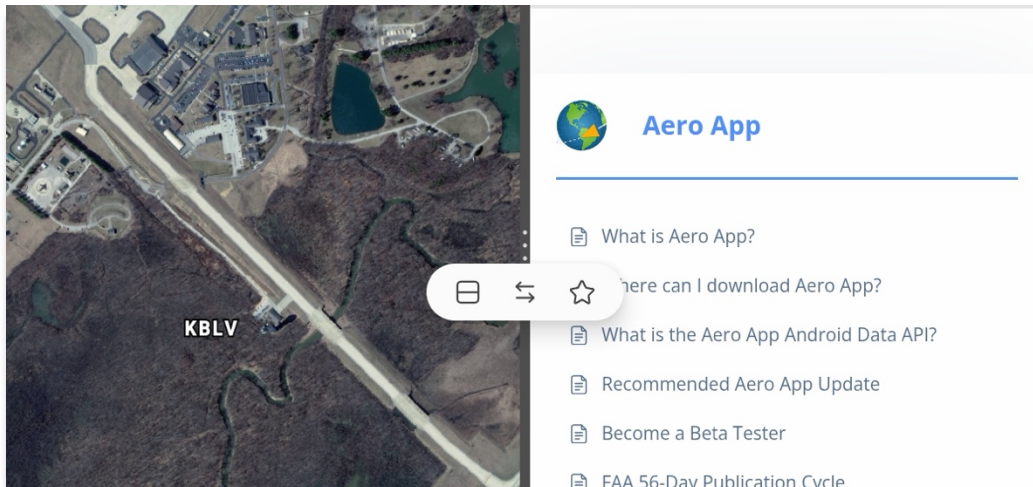


NOTE: For best practice, Aero App should be 50/50 size to allow seamless user experience.

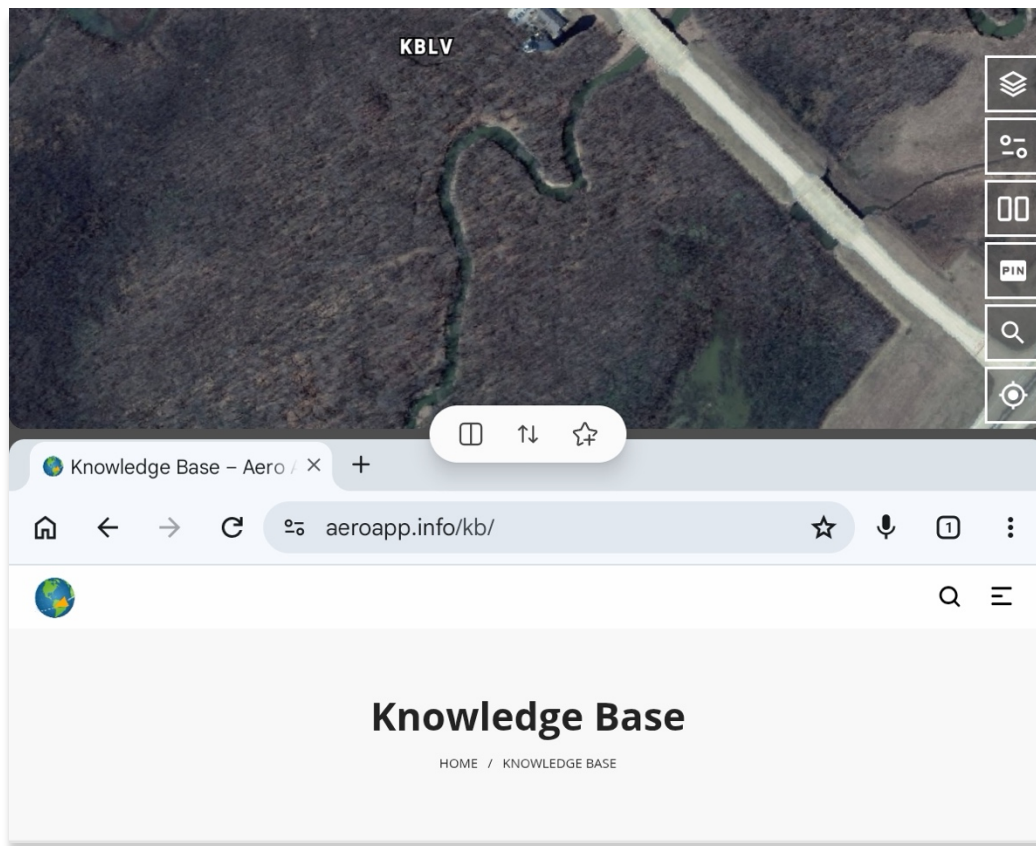


NOTE: Multitasking is available in both portrait and landscape mode.

7. To move the split screen view app to the opposite side of the screen, tap the **three dots** on the divider and select the **reverse** button.



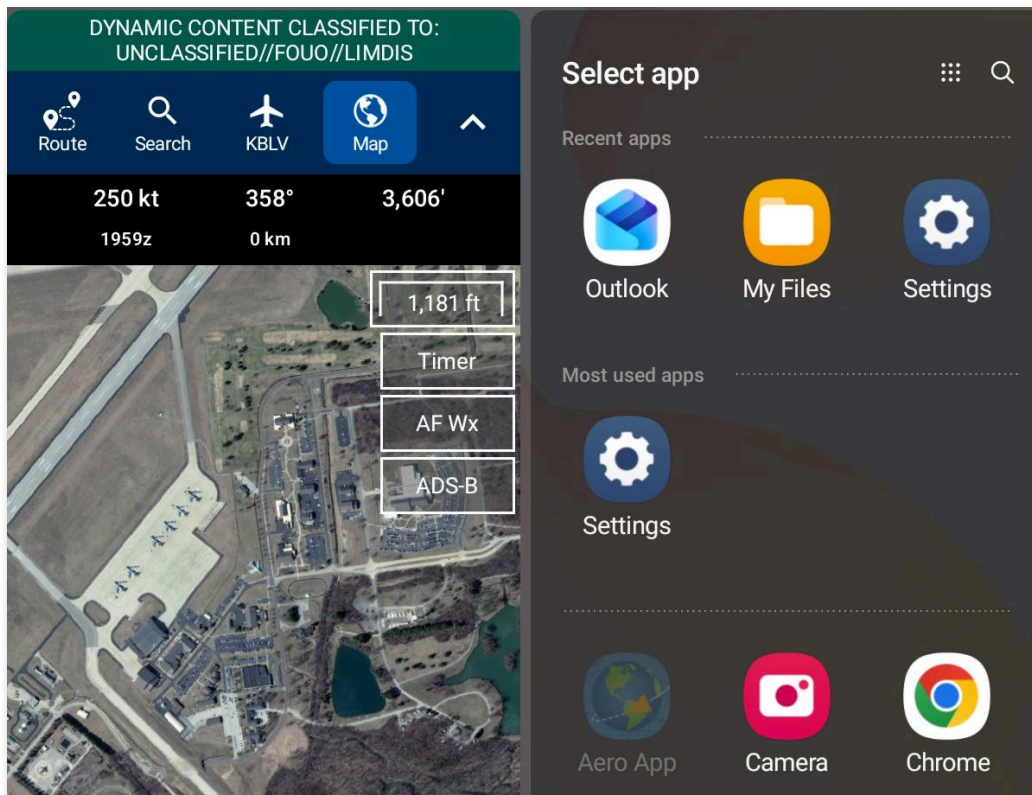
8. To switch your side-by-side view to a stack view, tap the **three dots** on the divider and select the **switcher** button.



37.1 Switch Between Apps in Split Screen View

Users can switch between different apps of their choice.

1. To switch to another app in split screen view, navigate to the **Recents** icon and choose another app from the recently viewed apps selection.
2. Users will be prompted to choose another app. Select the desired app for side-by-side experience. Alternatively, users can switch their side-by-side view to a stack view.



37.2 Close Apps in Split Screen View

There are several methods to close apps in split screen view. The following options are available to users:

- **Recents** – Navigate to the **Recents** icon to display recently viewed apps. Swipe up on the split screen view that you wish to close.
- **Drag divider to edge** – Drag the **divider** in the direction of the app that you want to close. The second app will disappear, and the first app will be viewed in Full Screen mode.

38 Appendix F | Acronyms and Glossary

.apk	Android package file format for distribution and installation of mobile apps and middleware
A/FD	Airport Facility Directory
ADDs	Aviation Digital Data Service
ADIZ	Air Defense Identification Zones
Adobe	Software suite of graphic design, video editing, and web development applications
ADS	Aero Data Server
ADS-B	Automatic Dependent Surveillance-Broadcast
AF Wx	Air Force Weather
AFR	Africa (Central and Southern regions)
AIRMET	Airmen's Meteorological Information
Alt Min	Alternate Minimums
AP	Area Planning
APD	Airport Diagram
App Mgmt	Application Management
AQP	Advanced Qualification Program
Arr	Airport Arrival Procedures
ARTCC	Air Route Traffic Control Center
ASPS	Aeronautical Source Packaging Service
AUD	Aero User Database
AvGas	Aviation Gasoline
AWS	Amazon Web Services
Breadcrumbs	GPS points along a flight path
CAC Card	Common Access Card
CAN	Canada
CNA	Canada North America
CONUS	Contiguous United States
CRD	Common Route Definition
CSA	Caribbean and South America
Delta	Upgrades from previous data cycles that only include changes
Dep	Airport Departure Procedures
DINS	Defense Internet NOTAM Service
DLA	Defense Logistics Agency
Docs	User-defined content loaded into document library
DOW	Department of War
DP	Departure Procedures

DSN	Defense Switched Network
DVD	Digital Versatile Disc
E6B	Aviator's calculator
EEA	Eastern Europe and Asia
EFB	Electronic Flight Bag
E-IPL	Electronic - Instrument Procedure Library
ENAME	Europe, North Africa, Middle East
ETA	Estimated Time of Arrival
ETE	Estimated Time En Route
FAA	Federal Aviation Administration
FIR	Flight Information Region
FIS-B	Flight Information Services-Broadcast
FLIP	Flight Information Publications and Flight Information Products
Ft	Foot
GARS	Global Area Reference System
GB	Gigabyte
GEOAxis	Credentials authentication provider for the government
GEOINT	Geospatial Intelligence
GPS	Global Positioning System
GS	Ground Speed
Hdg	Heading
IAP	Instrument Approach Procedures
ICAO	International Civil Aviation Organization that assigns airport code or location indicator as an alphanumeric code designating aerodromes around the world
IFR	Instrument Flight Rules
IP	Internet Protocol
IPA	iOS application archive file which stores an iOS app
IR	Instrument Routes
KG	Kilogram
KM	Kilometer
KML	Keyhole Markup Language
KMZ	Keyhole Markup Language Zipped
Kt	Knot
LAHSO	Land and Hold Short Operations
Lat, Lon	Latitude and Longitude
Lbs	Pounds
LIFR	Low Instrument Flight Rules
M	Meter

macOS	Current series of Unix-based graphical operating systems by Apple
Map	Navigation system displaying the receiver's current location at the center of a map
MDM	Mobile Device Management
METAR	Aviation Routine Weather Report, a format for reporting weather information
Mgmt	Management
MGRS	Military Grid Reference System
MTRs	Military Training Routes
NavAid	A device or system that provides a navigator with navigational data
NEXRAD	Next-Generation Radar
NGA	National Geospatial-Intelligence Agency
NGA GEOINT	NGA web-based capabilities for online, on-demand discovery, and access to geospatial intelligence
NIPRnet	Non-Secure Internet Protocol Router Network
NM	Nautical Mile
NOAA	National Oceanic and Atmospheric Administration
NOTAM	Notice to Airmen
NSN	National Stock Number
OCONUS	Outside Contiguous US
PAA	Pacific, Australasia, and Antarctica
PDF	Adobe Portable Document
PIREP	Pilot Report
PKI	Public Key Infrastructure
POC	Point of Contact
Prog Chart	A map displaying the likely weather forecast for a future time
RNAV	Area navigation, a method of IFR navigation
SAR	Search and Rescue
SD Card	Secure Digital High-Capacity card
Shapefiles	Geospatial vector data format for geographic information system (GIS) software
SID	Standard Instrument Departure
SIGMET	Significant Meteorological Information
SM	Statute Mile
SQLite	Relational database management system
SR	Slow Speed Low Altitude Routes
STAR	Standard Terminal Arrival Route
SUA	Special Use Airspace
TACs	Terminal Area Charts

TAFs	Terminal Aerodrome Forecasts
TFRs	Temporary Flight Restrictions
TO Min	Takeoff Minimums
TP	Talon Point
UIR	Upper Information Region
USB	Universal Serial Bus
VFR	Visual Flight Rules
VO	Vertical Obstruction
VR	Visual Routes
Waypoint	A set of coordinates that identify a point in physical space
WCA	Wind Correction Angle
Wx	Weather
XTK	Crosstrack