



# Aeronautical Application (Aero App)

Windows User Manual Version 1.2310

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## Acknowledgements

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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 Moving 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 Air Refueling Routes, Airways, Pins, and 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, NOTAMs, and Air Force Weather.
- Create, save, edit, or delete points within the Moving Map's 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 onto Aero App.
- Load and view PDF format.
- Many more.

## 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 moving 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 your ownship location, as well as 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 effortlessly.

## 3 Getting Started

The Aero App User Manual walks you through installing Aero App, loading pertinent data, managing significant data, and more. Conceptual explanations for features, tools, overlays, and various offerings of Aero App are found in this document. The following are required to get started:

1. Install Aero App following the criteria below.
2. Load an initial data cycle.
3. Update the data cycle every 28 days.

### 3.1 System Requirements

The following information is Aero App's system requirements and compatible devices.

- Required
  - Windows tablet with OS Windows 10
  - 16GB of available storage (needed to install Aero App and one complete data cycle)
  - .NET framework 6
- Optional
  - MicroSD card or USB with the minimum of 16 GB to sideload Aero App executable file and data
- Internet connection if downloading data or app via the internet

## 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](mailto:aeroappsupport@hiltonsoftware.com)

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

**Hours of Operation:** Monday - Friday 1000-1800 EST

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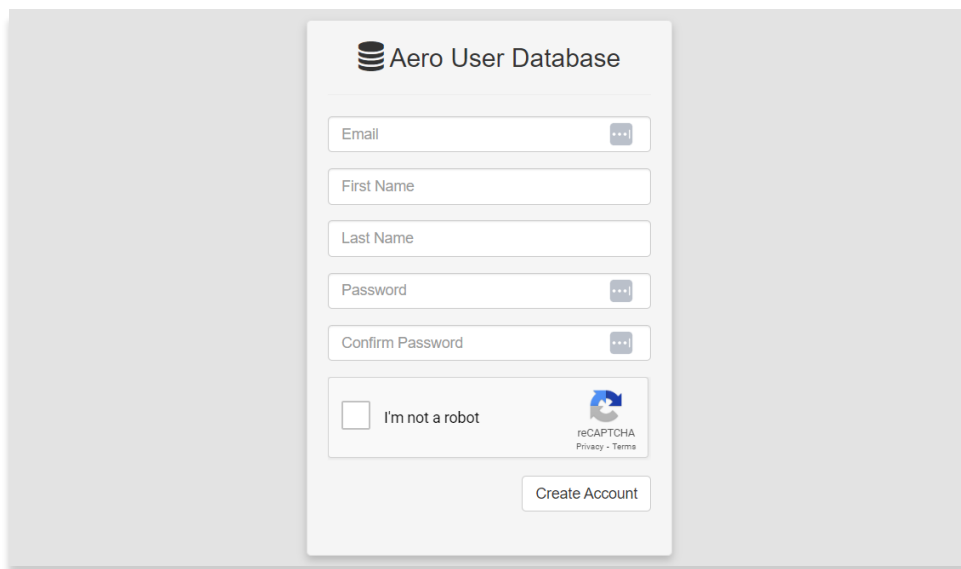
## 5 Accounts

In order to utilize Aero App, it is imperative to possess an active account for Aero User Database or GEOAxis authentications. Detailed information regarding the various account options will be provided in the following sections.

### 5.1 Aero User Database (AUD) Account Registration

Aero User Database (AUD) provides authentication for DOD and foreign partners seeking access to Aero App software and data. Users who chose Aero User Database as a form of authentication for Aero App must register for an account.

1. Open an internet browser of choice.
2. Enter [userdb.aeroapp.info/auth/register](https://userdb.aeroapp.info/auth/register) in the address bar.
3. The Aero User Database form displays. All fields are required to create an account; therefore, all fields must be filled.



**NOTE:** A valid .mil and .gov email is required to create an account.

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4. Click **Create Account** once all required fields have been filled. Once registered, a verification email has been sent to the user-registered email address.
5. Follow the instructions provided in the email to verify your AUD account.



**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](mailto:aeroappsupport@hiltonsoftware.com) for assistance.

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## 5.2 NGA GEOAxis Account Registration

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. Users who choose to use GEOAxis as a form of authentication for Aero App must register for an account. The initial registration requires users to have a CAC-enabled PC with their CAC card.

1. Open an internet browser of choice.
2. Enter <https://access.geoaxis.gs.mil/oam/west/servlet/login.jsp> in the address bar.
3. Select one of the listed credentials to authenticate.
4. Follow the prompts.

**GEOAxis** ENTERPRISE IDENTITY & ACCESS MANAGEMENT

**GEOAxis Authentication**

Please provide one of the following credentials to Authenticate

PKI CERTIFICATE

PKI Certificate

IDENTITY FEDERATION

ID.me

NASA

DHS

Which credential should I choose?

**You are attempting to access a resource protected by GEOAxis.**

**U.S. Government Warning**

This is a United States Government Computer System. Use of this U.S. Government system, authorized or unauthorized, constitutes consent to monitoring of this system.

For technical assistance, please contact the NGA Enterprise Service Center: 1-800-455-0899 (Commercial), 578-5555 (Secure)



**NOTE:** A valid .mil email is required to create an account.



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

## 6 Aero App Installation

There are several methods for obtaining the installation of Aero App. The following sections ahead will expand on the different options.

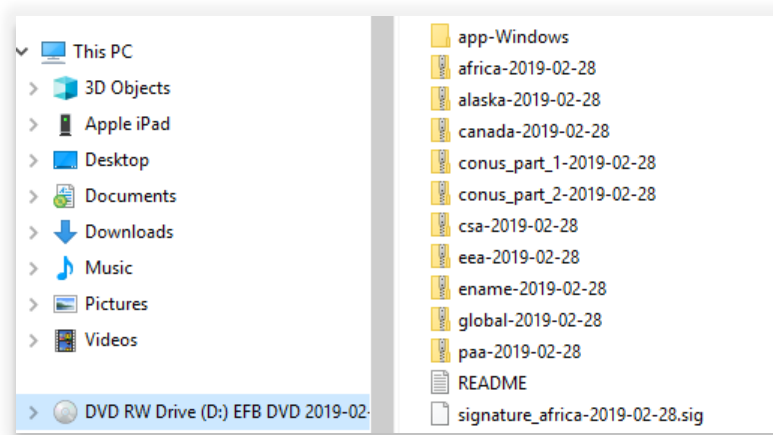
### 6.1 Where to Obtain Aero App

Aero App (National Stock Number [NSN] 764401 6004225) is available from the following sources:

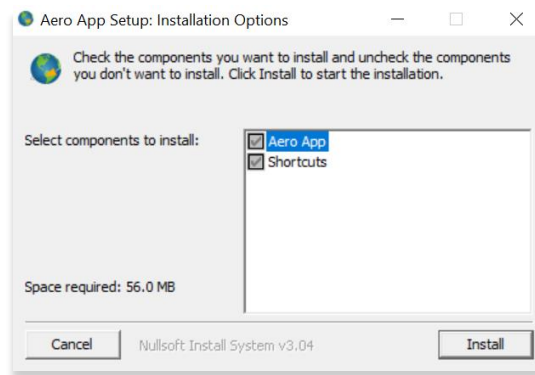
- **Aero App DVD** – National Geospatial Intelligence Agency (NGA) distributes the Aero App DVD to appropriate personnel.
  - **Defense Logistics Agency (DLA)**. If you have any questions or need more information, contact Jorge Diaz ([Jorge.Diaz@dla.mil](mailto:Jorge.Diaz@dla.mil)).
  - **National Geospatial-Intelligence 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](http://aeroapp.info)) that requires GEOAxis or Aero User Database credentials.

#### 6.1.1 Aero App Installation From DVD

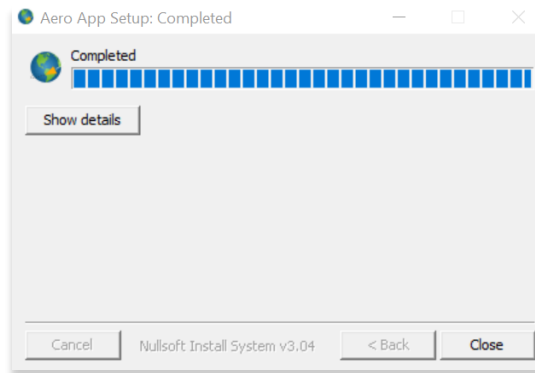
1. Insert the DVD onto your computer.
2. Locate and double-click on the DVD drive in your File Folders.



3. Once you have located the DVD on File Explorer, insert the microSD card into an adapter.
4. Insert the microSD card adapter into a Windows computer.
5. With both files simultaneously open, drag the Aero App executable files from the DVD onto the SD card.
6. Eject the microSD card adapter from the computer.
7. Insert your microSD card into a Windows tablet.
8. Open **File Manager** from the Windows tablet and navigate to your microSD card.
9. Double-click on the downloaded file.
10. A dialog box titled **Aero App Setup: Installation Options** will pop up.
11. Tap **Install**.



12. The dialog box should display Completed, tap **Close**.



13. To verify if the file has been properly installed, go to your Aero App and tap **App Mgmt** on the **Main Menu**.

14. Tap **Help** on the **Secondary Menu**.

15. Tap **About** and the version number will be displayed.

Aero App  
Version Number

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

[Moving Map](#)
[General](#)
[Notepad](#)
[E6B](#)
[App Mgmt](#)



[Preferences](#)
[Data](#)
[Host Nation](#)
[Help](#)

[What's New](#)
[Web Links](#)
[User Manual](#)
[About](#)

## Aero App

Version 1.2310.0

[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.

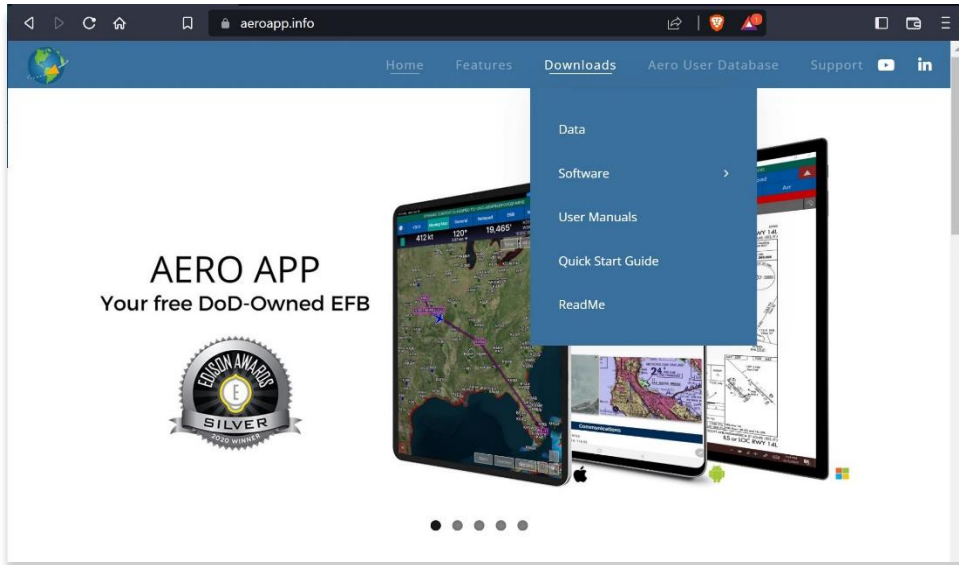
**Third Party Libraries Used:**

- AutoMapper** (<https://github.com/AutoMapper/AutoMapper>)  
Code License: MIT
- BouncyCastle.NetCore** (<https://github.com/chrishaly/bc-csharp>)  
Code License: MIT
- BruTile.MbTiles** (<https://github.com/BruTile/BruTile>)  
Code License: Apache 2.0
- Dapper** (<https://github.com/StackExchange/Dapper>)  
Code License: Apache 2.0
- DotNetZip** (<https://github.com/haf/DotNetZip.Semverd>)  
Code License: Microsoft Public License of October 2006
- Mapsui** (<https://github.com/pauldendulk/Mapsui>)  
Code License: LGPL
- WebView2** (<https://docs.microsoft.com/en-us/microsoft-edge/webview2/>)  
Code License: Microsoft
- SharpKml.Core** (<https://github.com/samcragg/sharpkml>)  
Code License: MIT

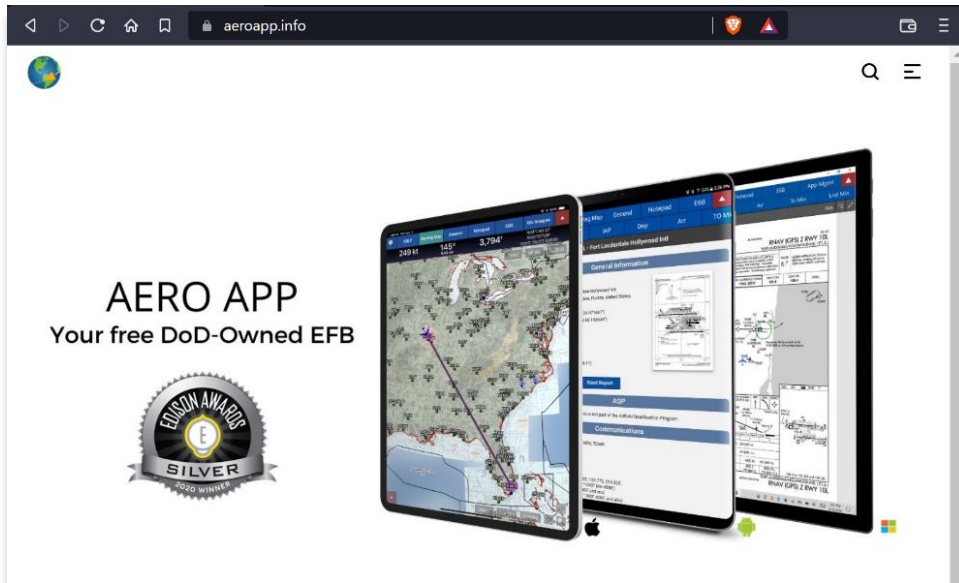


## 6.1.2 Aero App Installation From Website

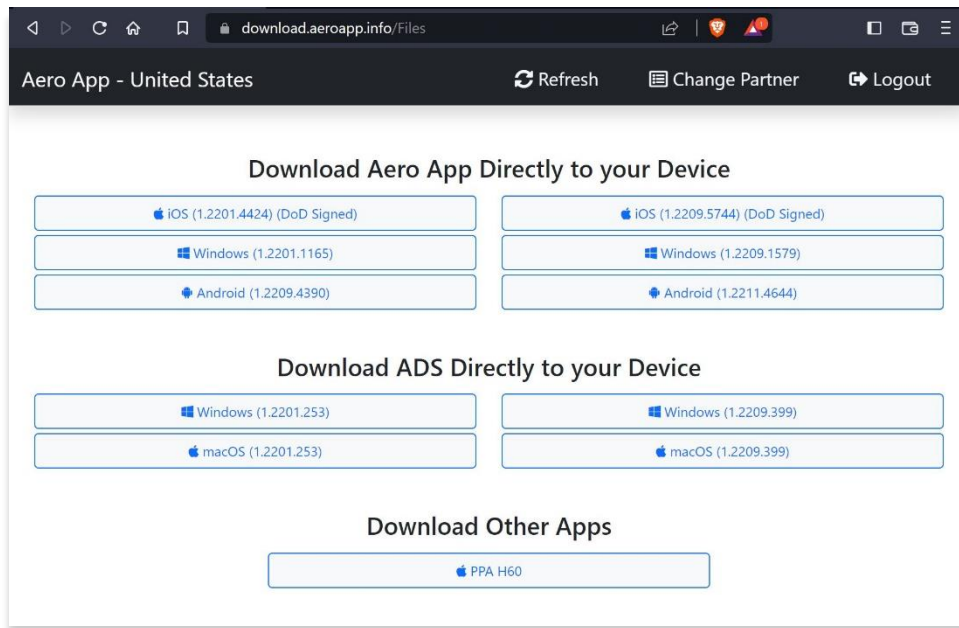
1. Open an internet browser of choice.
2. Enter <https://www.aeroapp.info> in the address bar.
3. Hover over Downloads. Option placement will vary depending on display size.
  - On larger screens, the **Downloads** option will be displayed on the ribbon located at the top of the page.



- On smaller screens, click the hamburger button and select **Downloads**.



4. Select **Software**.
5. Users are provided with two different ways to download Aero App:
  - Direct Install to Device
  - Apple App Store
6. Select **Direct Install to Device**.
7. Log in using *GEOAxis* or *Aero User Database* credentials.
8. Select the Windows version of Aero App and download will begin.



**NOTE:** Users must have GEOAxis or Aero User Database credentials prior to downloading the Aero App software.

---

## 7 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 available through 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](http://aeroapp.info)) that requires GEOAxis or Aero User Database credentials.
- **Aero App** – data can be downloaded directly from Aero App. GEOAxis, and Aero User Database credentials are required.



**NOTE:** AWS authentication requires an account with GEOAxis or Aero User Database. Refer to [Section 5](#) for more information.

---

### 7.1 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
- User Files



**NOTE:** Some products and/or data may be limited in their distribution. This may include but not limited to E-IPL, AMC Giant Reports, and Air Force weather. Contact NGA Aeronautical Dissemination Program office at [aerodistro@nga.mil](mailto:aerodistro@nga.mil) if you have questions regarding access to these products and/or data.

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### 7.1.1 Aero App Maps

Aero App includes an advanced Moving Map that displays VFR and worldwide IFR charts. Aero App enables pilots to easily download the maps for their region of interest. Refer to [Section 13.3.4](#) for more information on Maps.

### 7.1.2 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 13.3.3](#) for more information on Air Force Weather (AF Wx).

### 7.1.3 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 the Core Data include, but not limited to, FLIP charts, Supplements, Planning Documents, Legends, Moving Map Overlays including Airports, Air Refueling Routes, Airways, ARTCCs, and many more. Users can choose to download zero or more regions. However, the Global zip file is always required. Refer to [Section 8](#) for more information on how to load data from Aero App.



**NOTE:** Users have the option to sideload data, refer to [Section 9](#) to view different methods of sideloading data.

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### 7.1.4 Core Data Delta Files

Core Data Delta Files are significantly smaller files that contain only data that has changed from the previous cycle. Downloading Core Data Delta Files significantly reduces download time.

Aero App will automatically download the delta files if the previous cycle is already loaded in Aero App – this process is transparent to the user. After downloading the delta files, Aero App will apply Deltas to create the new cycle.

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### 7.1.5 FAA Sectionals

FAA Sectionals are Sectional Aeronautical Charts designed for visual navigation used for a flight under Visual Flight Rules and can be displayed as base maps on Aero App's Moving Map. Users with Aero User Database (AUD) and GEOAxis credentials will have access to FAA Sectionals. Refer to [Section 13.4.1](#) to reference how to load FAA Sectional Charts. Refer to [Section 13.3.4.1.1](#) to reference how to display FAA Sectionals onto the Moving Map.



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**NOTE:** All FAA Sectionals, Helicopters, Terminal Area Charts (TACs), and IFR Enroute charts are updated on a 56-day cycle.

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### 7.1.6 Electronic – Instrument Procedure Library (E-IPL)

Electronic – Instrument Procedure Library (E-IPL) charts are translations of Host Nation procedures drawn in the familiar DOD approach format. E-IPL charts are intended to fill gaps in instrument procedure coverage in existing DOD FLIP charts. E-IPL charts are available for download from ADS and AWS.



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

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### 7.1.7 Georeference

Georeference is an alignment of accurate location data to a map coordinate system for Aero App. Aero App enables users to show ownship on Airport Diagram, Instrument Approach Procedures, and their Moving Map, perfectly georeferenced. Refer to [Section 14.1.2](#) on how to enable Show Ownship on APD and IAP and Show Airport Ring on APD and IAP.

### 7.1.8 Giant Reports

Giant Reports are PDF documents that are an assessment from the Air Force for safe operations at an airfield. These can be downloaded and viewable within Aero App. Refer to [Section 13.2](#) for guidance in viewing Giant Reports.

### 7.1.9 Helicopter and Terminal Area Chart (TAC) Maps

Aero App can display Helicopter - Gulf Coast Charts, Helicopter – Route charts, and Terminal Area Charts (TACs) on the Moving Map.

Displaying Helicopter and Terminal Area Charts directly on the Moving Map results in perfect alignment on the underlining sectional (or other base map).

The georeferencing and spatial accuracy ensure that these charts can be used for an accurate, non-primary means of navigation. Refer to [Section 13.3.4.3](#) for more information on Helicopter and Terminal Area Chart (TAC) Maps.



**NOTE:** All FAA Sectionals, Helicopters, Terminal Area Charts (TACs), and IFR Enroute charts are updated on a 56-day cycle.

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### 7.1.10 User Files

User Files include User Map files and other PDF files and can be accessed from the data download screen in Aero App.

## 8 Download Data

Aero App provides access for 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 is required to experience an interruption-free downloading session.

### 8.1 Download Data Through Amazon Web Services (AWS)

Aero App enables users to download data from AWS using Aero User Database (AUD) and GEOAxis credentials. To obtain core data files, Global must be included when downloading data.

1. Tap **App Mgmt** on the **Main Menu**.
2. Tap **Data** on the **Secondary Menu**.
3. Tap **Download**.
4. Select the **AWS – Fast Cloud Downloading** option, if necessary.
5. Users are given the option to access data using Aero User Database (AUD) or GEOAxis credentials.

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

← AWS ADS On Device File Manager

### AWS - Fast Cloud Downloading

Aero User Database GEOAxis

User Name:

Password:

Connect

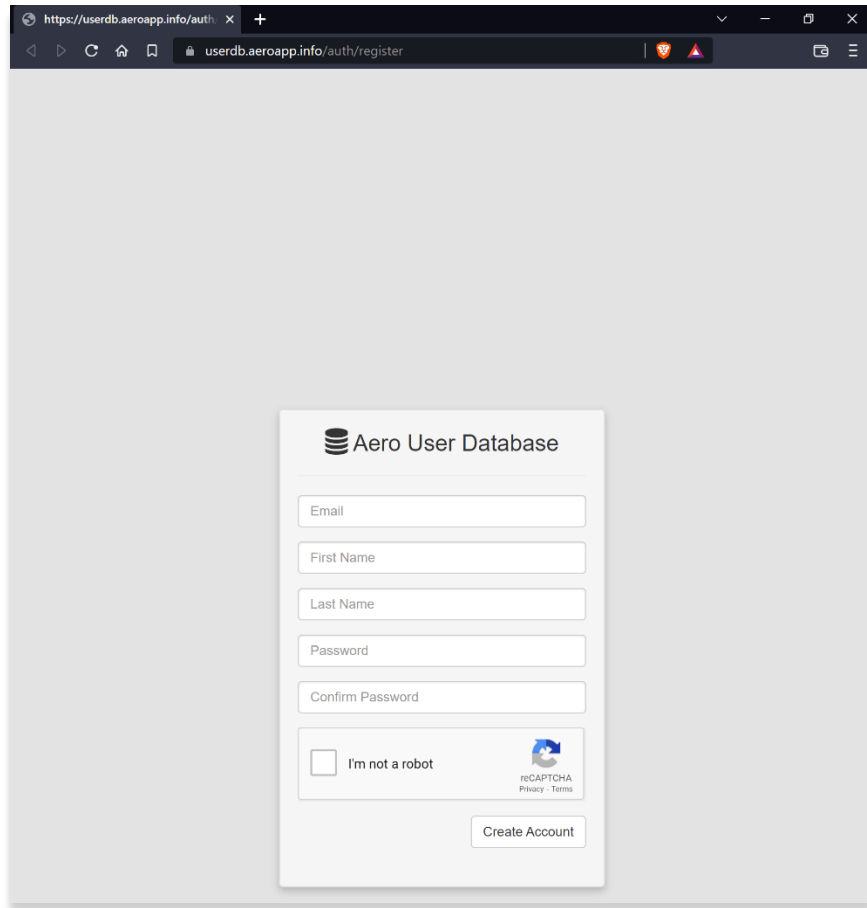
The Aero User Database is used for user authentication and is not related to GEOAxis. Therefore the user name and password may be different to your GEOAxis credentials. CAC access is not required. To sign up for an account or reset your password, tap on the buttons below.

6. Below each user authentication option, users are presented the options to *Sign Up For An Account* and *Reset Password*.

Sign Up For An Account

Reset Password

7. Tap **Sign Up for An Account** to create an Aero User Database (AUD) or GEOAxis account.
8. The following options are available for Reset Password:
  - Tapping **Reset Password** under **Aero User Database** will redirect users to Aero User Database management page on a separate browser.



- Tapping **Reset Password** under **GEOAxis** will provide instructions for how to reset password.

1. Your password has expired : Passwords expire after 60 days.  
If you are using a CAC-enabled computer without you

**Reset Password**

To reset your GEOAxis password contact the NGA Help Desk at 1-800-455-0899 or DNS 547-5555.

OK

https://geoaxis.nga.mil  
your tablet or other

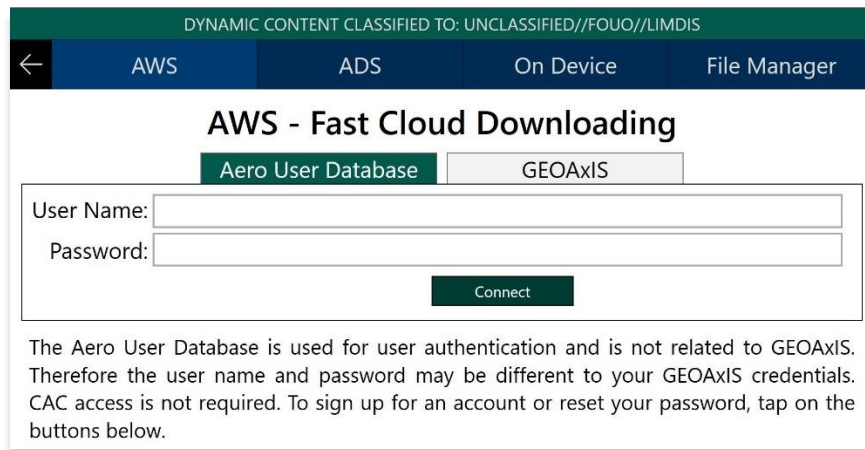
- a. Navigate to <https://geoaxis.nga.mil>
- b. Authenticate using the PKI Certificate or Disadvantaged User option.



### 8.1.1 Download Data Using Aero User Database (AUD)

Aero User Database (AUD) allows for authentication of both DOD users and Foreign Partners. Aero User Database credentials are not related to GEOAxis credentials and CAC card access is not required.

1. Tap **App Mgmt** on the **Main Menu**.
2. Tap **Data** on the **Secondary Menu**.
3. Tap **Download**.
4. Select the **AWS** option, if necessary.
5. Select the **Aero User Database** option.
6. Enter user's credentials then tap **Connect**.



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

← AWS ADS On Device File Manager

### AWS - Fast Cloud Downloading

Aero User Database GEOAxis

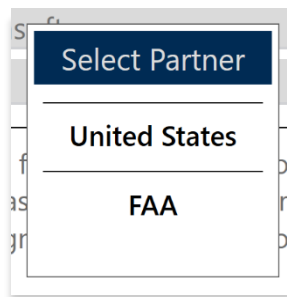
User Name:

Password:

Connect

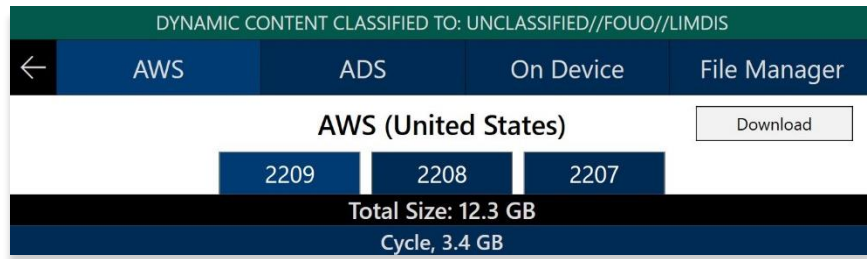
The Aero User Database is used for user authentication and is not related to GEOAxis. Therefore the user name and password may be different to your GEOAxis credentials. CAC access is not required. To sign up for an account or reset your password, tap on the buttons below.

7. The Select Partner popup will display. Select from partners list.



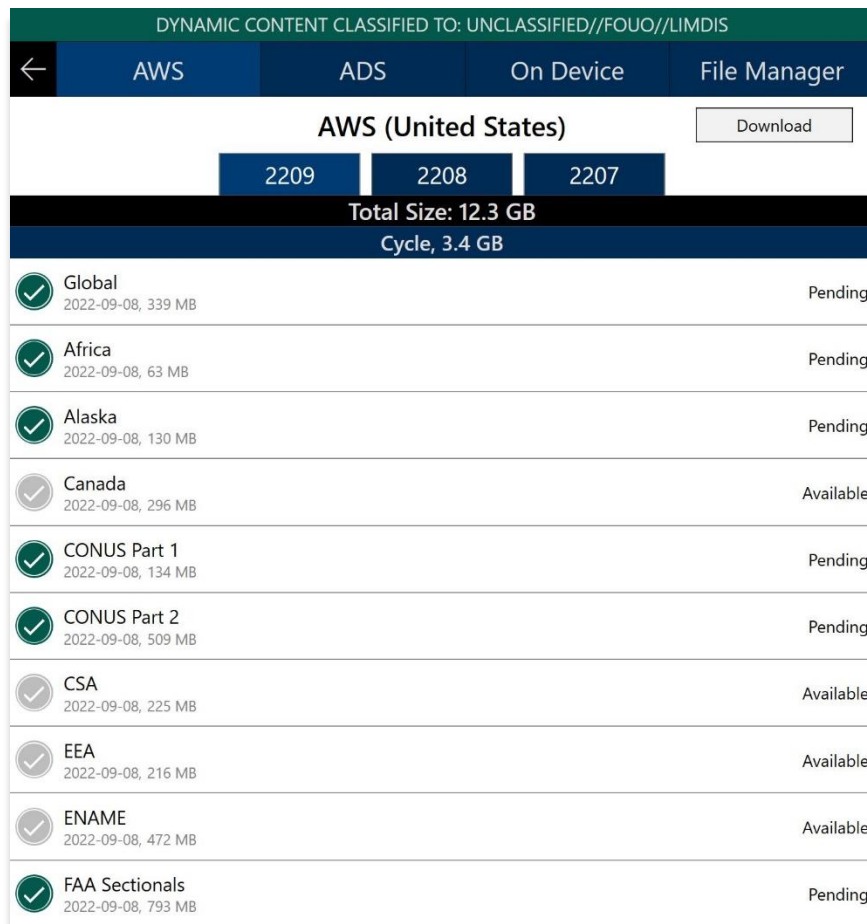
**NOTE:** The Select Partner popup will appear to those who have access to multiple government foreign partners.

8. Users will be prompted to the Data Cycle Download screen, select desired cycle.



9. Available data pertaining to that cycle will be displayed on the screen. Select individual data files.

10. Tap **Download** once desired data files have been selected.



## 8.1.2 Download Data Using GEOAxis

GEOAxis allows for authentication of Disadvantage Users – users without a CAC card. A GEOAxis account is required when GEOAxis authentication is selected.

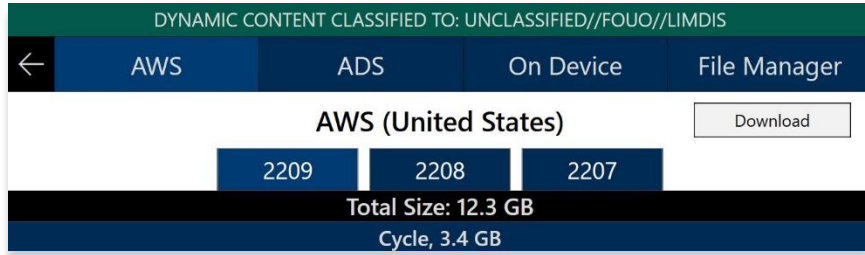
1. Tap **App Mgmt** on the **Main Menu**.
2. Tap **Data** on the **Secondary Menu**.
3. Tap **Download**.
4. Select the **AWS** option, if necessary.
5. Tap the **GEOAxis** option.



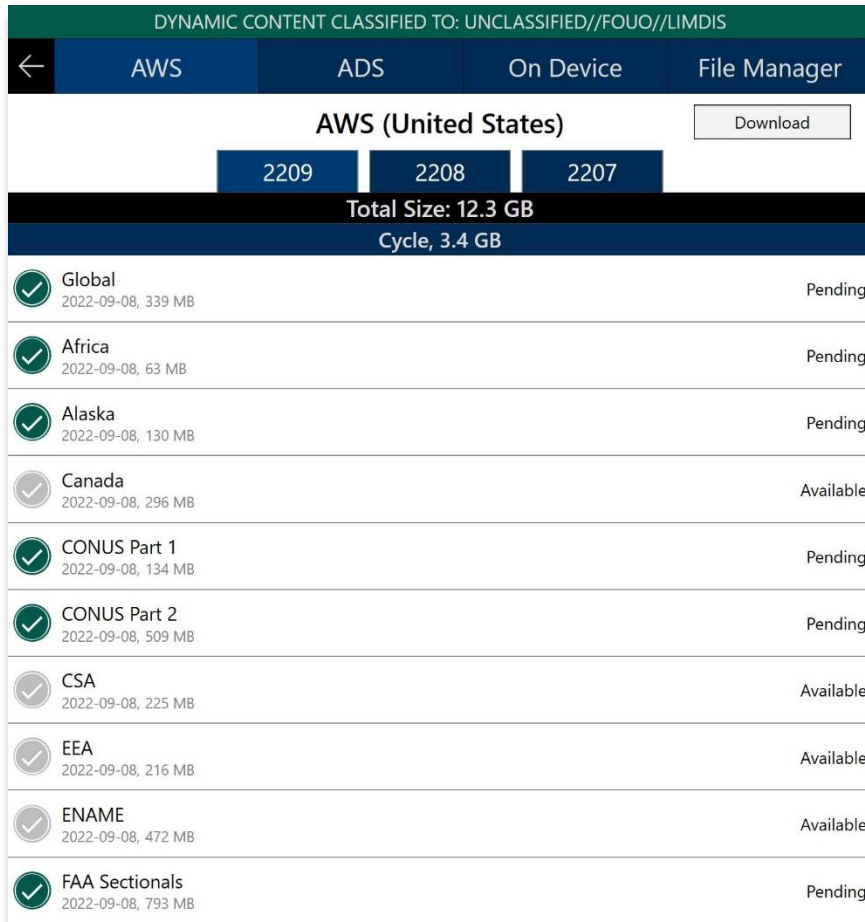
6. Tap **Connect** and users will be redirected to the GEOAxis webpage.
7. Select desired authentication method.



- Once authenticated, users will be prompted to the AWS download screen. Select a cycle located at the top of the screen.



- Available data pertaining to that cycle will be displayed on the screen. Select individual data files.
- Tap **Download** once desired data files have been selected.



**NOTE:** Refer to [Section 5](#) for more information regarding registering for a GEOAxis account.

## 8.2 Download Data Through Aero Data Server (ADS)

Aero Data Server (ADS) enables users to download Aero App data over a local Wi-Fi network to a Windows device. Global is required to be loaded 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 **App Mgmt** on the **Main Menu**.
2. Tap **Data** on the **Secondary Menu**.
3. Tap **Download**.
4. Select the **Aero Data Server** option.
5. 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.

### 8.2.1 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 an IP address and the Port number of a server.

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

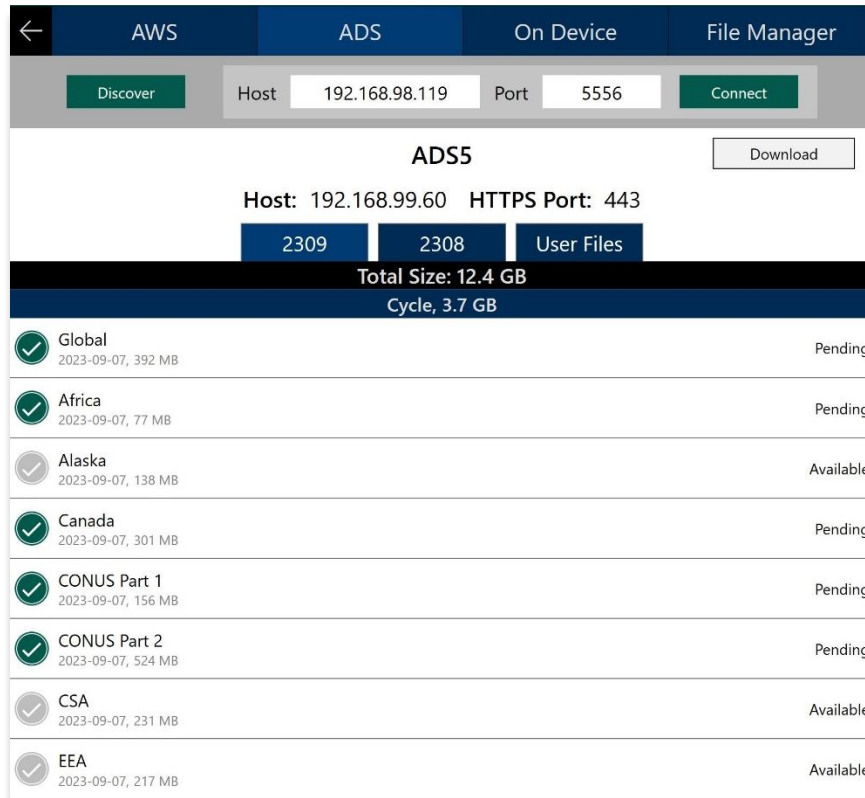
AWS		ADS		On Device		File Manager	
Discover		Host	192.168.98.119	Port	5556	Connect	
<b>Name</b>	MacBook-Pro	<b>IP</b>	192.168.99.47	<b>Port</b>	5531	<b>Est. Bandwidth</b>	1000 Mbps
<b>Name</b>	ADS4-Mac-mini	<b>IP</b>	192.168.99.54	<b>Port</b>	443	<b>Est. Bandwidth</b>	1000 Mbps
<b>Name</b>	ADS5	<b>IP</b>	192.168.99.60	<b>Port</b>	443	<b>Est. Bandwidth</b>	1000 Mbps
<b>Name</b>	jess laptop ads	<b>IP</b>	192.168.99.89	<b>Port</b>	5555	<b>Est. Bandwidth</b>	1000 Mbps
<b>Name</b>	ADS6	<b>IP</b>	192.168.99.35	<b>Port</b>	443	<b>Est. Bandwidth</b>	1000 Mbps

- Alternatively, users can manually connect to a server by entering Host and Port numbers, respectively, in provided fields.



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

- Once entered, tap **Connect** to connect to the new server.
- Users will be promoted to the Data Cycle Download screen, select desired cycle.
- Available data pertaining to that cycle will be displayed on the screen. Select individual data files.
- Tap **Download** once desired data files have been selected.



**NOTE:** Aero App will receive data for the latest three cycles loaded on ADS but will only have access to the cycles containing global.

## 8.3 Download Data From the Aero App Website

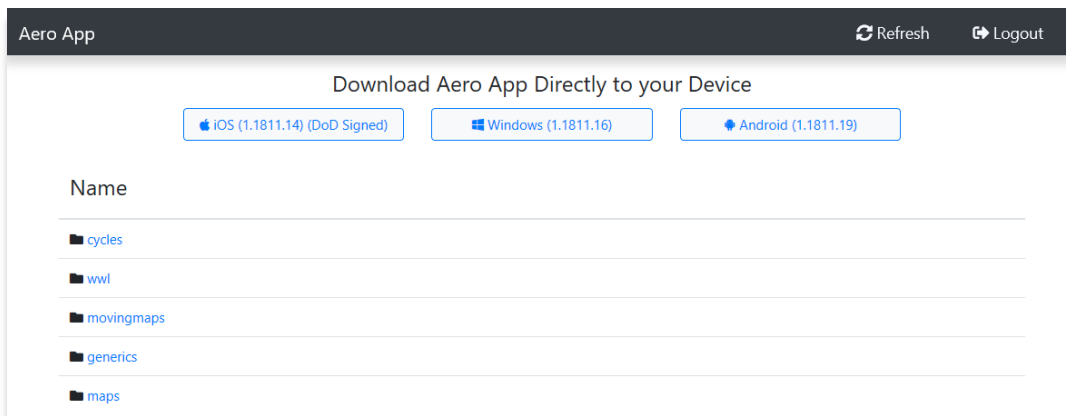
The Aero App website (aeroapp.info) is a source to download Aero App data directly to your device. An active GEOAxis and Aero User Database credentials are required.

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

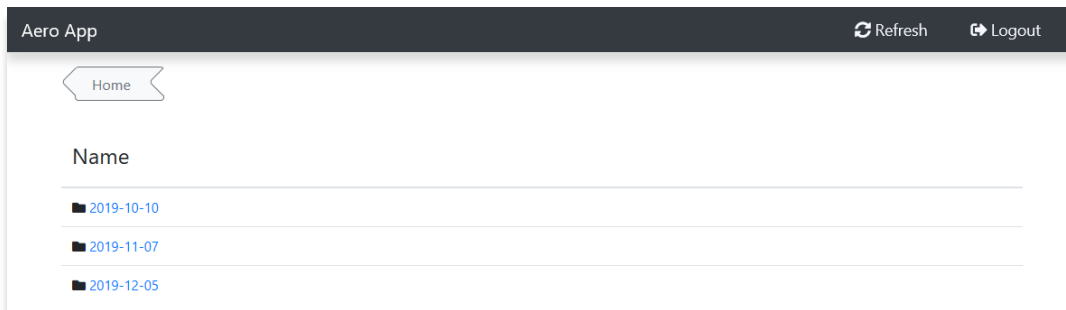


**NOTE:** Alternatively, users can go to [aeroapp.info](#) > Downloads > Data and users will be directed to the Data Menu Option page.

3. Log in using your GEOAxis or Aero User Database credentials.
4. Aero User Database users will be prompted to select a partner upon login.
5. The data menu options page will display. Users are presented with various folders to choose from. Click **Cycles**.



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



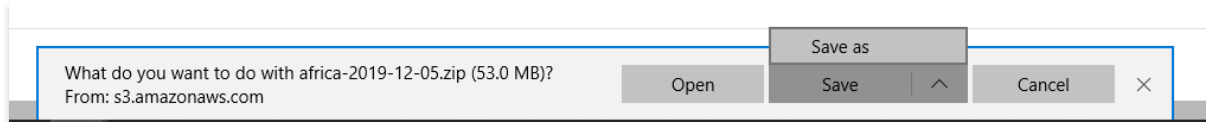
7. Users will be redirected to the download page. Located at the upper-right corner of the screen are options to choose from, **Full Data Files** or **Delta Files**, to download data.

8. Once the data type has been selected, click on the **ZIP** and **SIG** buttons to desired region of choice: **Africa, Alaska, Canada, CONUS, CSA, EEA, ENAME,** and/or **PAA**.

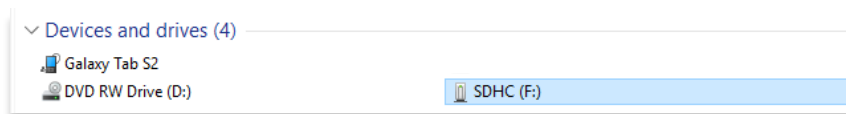


**NOTE:** Global files must be included when downloading a full data cycle.

9. 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**.



10. Once the data has completed the download, select from options to **Open, Open folder,** or **View downloads**.
11. Connect your SD card to a Mac or Windows computer.
12. Open **File Explorer** and navigate to **Devices and drives** to locate your SD card.



13. Double-click on the SD card to open **Internal storage**.
14. Drag the downloaded data files from your Downloads folder onto your SD card.



**NOTE:** Refer to [Section 1.1](#) on how to load and view data status.



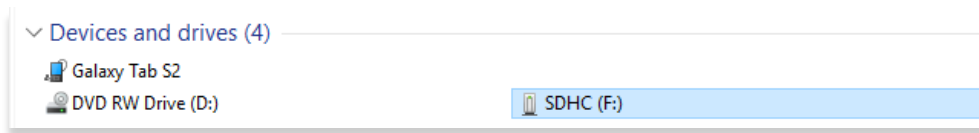
## 9 Sideload Data

This section describes how to sideload data cycles from the data DVD via USB and sideload data from their computer onto Device/SD Card.

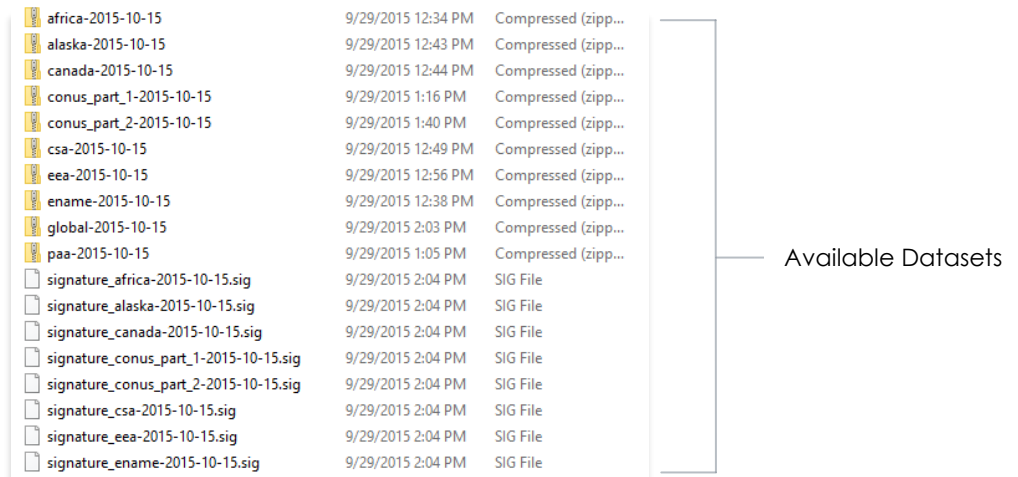
### 9.1 Sideload Data from Computer to USB or SD Card

Users can sideload data from their computer to USB or SD card.

1. Insert your USB or SD card to a Mac or Windows computer.
2. Once your USB or SD card is connected, open **File Explorer** and navigate to **Devices and drives** to locate your device.

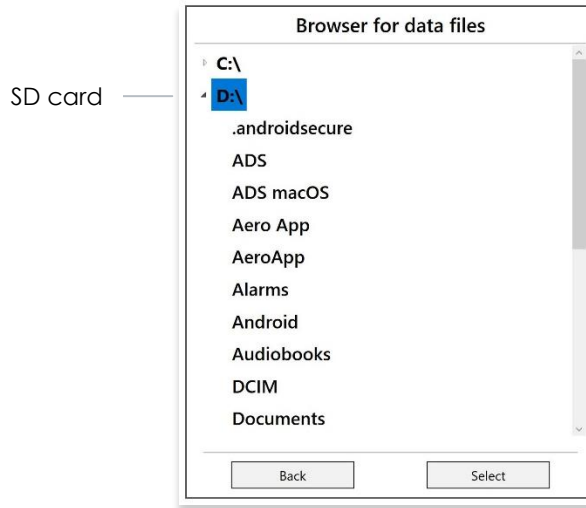


3. Double-click on the **USB** or **SD Card** to open **Internal storage**.
4. Drag the dataset files from desired source (DVD, AWS, or ADS) into a USB or SD card.

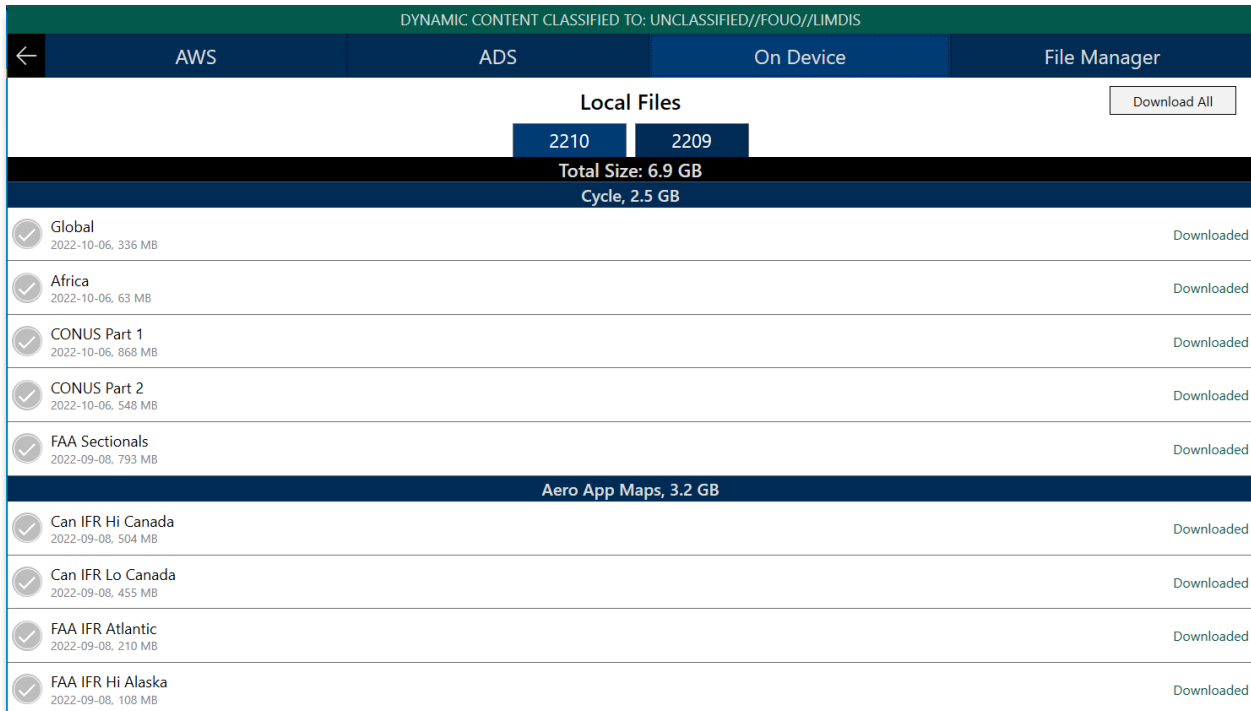


5. Eject USB or SD card from computer.
6. Insert USB or microSD card into the Windows device.
7. To confirm if the files were properly transferred, open **Aero App** on your Windows device.
8. Tap **App Mgmt** on the **Main Menu**.
9. Tap **Data** on the **Secondary Menu**.
10. Tap **Download** from the Data Status screen.

11. Tap **On Device** and the Browser for data files popup will appear.
12. Locate USB or SD card.



13. Select the downloaded data then tap **Select**.
14. Select desired datasets by tapping the **green checkmark** then tapping **Download**.

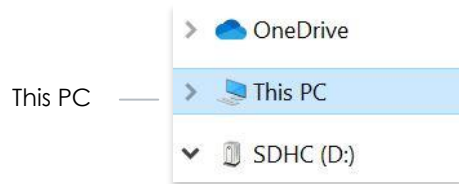


**NOTE:** Refer to [Section 11](#) on how to load and view data status.

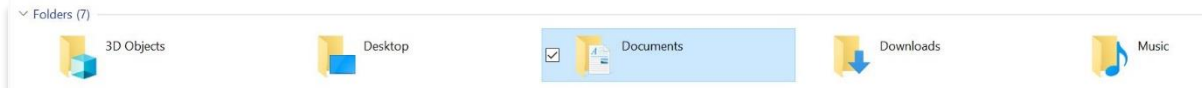
## 9.2 Sideload User Maps

Aero App enables users to load User Maps as their base Map. User Maps must be sideloaded. Refer to [Section 13.3.4.3.1](#) for more information on how to overlay User Maps on the Moving Map.

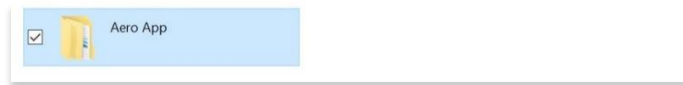
1. Connect your USB or SD card to a Windows device.
2. Once the USB or SD card is inserted, open **File Explorer** and navigate to **This PC**.



3. Double-click on **Documents**.



4. Double-click on **Aero App**.



5. Double-click on **UserFiles**.



6. Drag the desired User Map files into the UserFiles folder.

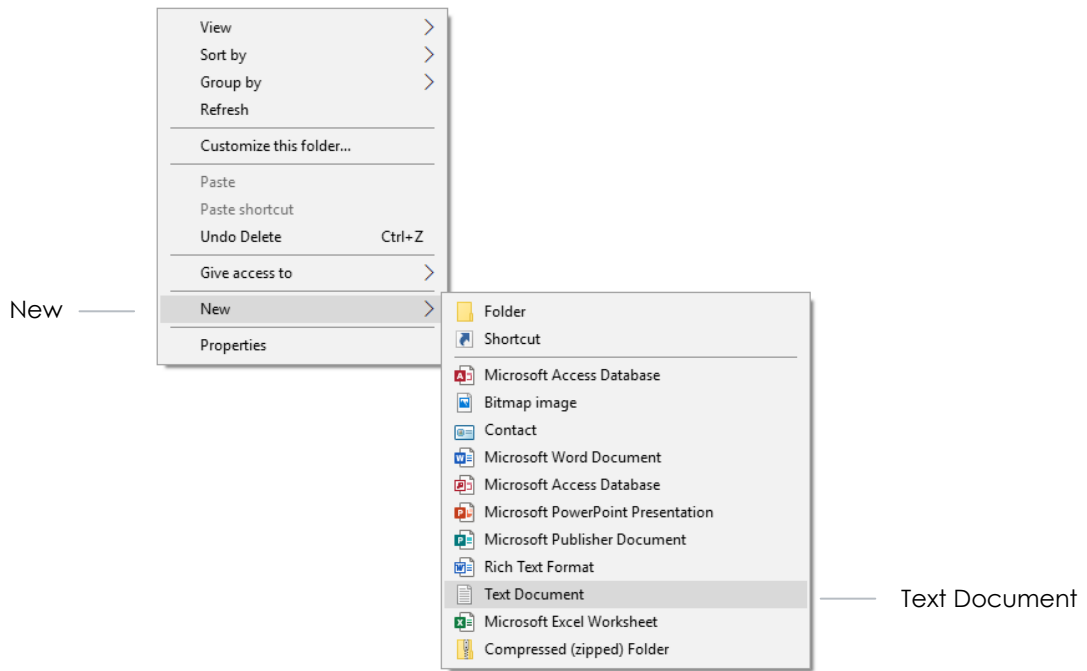
Name	Date modified	Type	Size
mm_faa_saa.mbtiles	11/25/2015 1:40 PM	MBTILES File	85,645 KB
mm_gars_grid_30and15.mbtiles	1/6/2016 10:55 PM	MBTILES File	3,051,108 KB

7. To confirm the files were properly transferred, insert your USB or SD card into your Windows device.
8. Open **Aero App**.
9. Tap **Moving Map** on the **Main Menu**.
10. Tap **Maps**.
11. The Maps popup will display. Tap **User Maps** from the side menu and the loaded User Maps will be shown below.

### 9.3 Sideload User Waypoints

Aero App enables users to load User Waypoints and overlay them on their Moving Map. Users can sideload or create User Waypoints. Refer to [Section 13.3.12.1.1](#) for guidance on how to create User Waypoints.

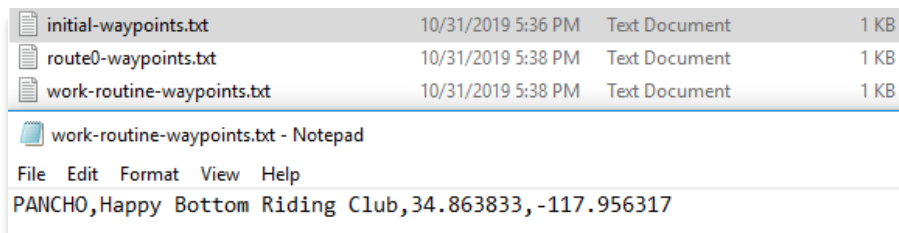
1. Create a folder in your desktop named User Waypoints.
2. Right-click inside the folder and a popup menu will appear.
3. Hover over the **New** menu option and a popup menu will appear.
4. Click **Text Document** from the popup menu.



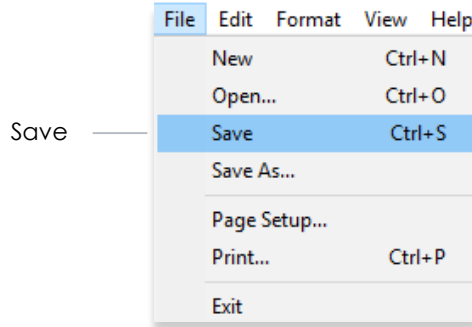
5. A new Text Document file will be created.
6. Create a name for the Text Document file ending in **\*waypoints**.

initial-waypoints.txt	10/31/2019 5:36 PM	Text Document	1 KB
New Text Document	11/29/2019 1:24 PM	Text Document	0 KB

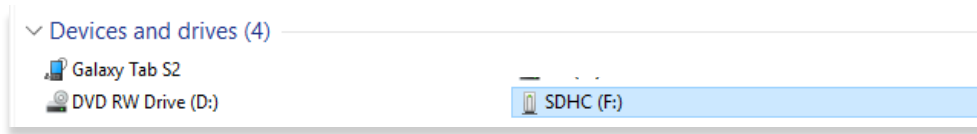
7. Double-click on the textfile to open Notepad. Create Waypoints following the format: **<ID>,<Name>,<Latitude>,<Longitude>**.



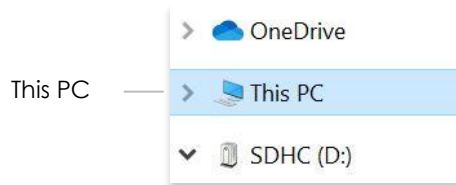
8. Once the User Waypoint has been created, click **File**, and select **Save**.



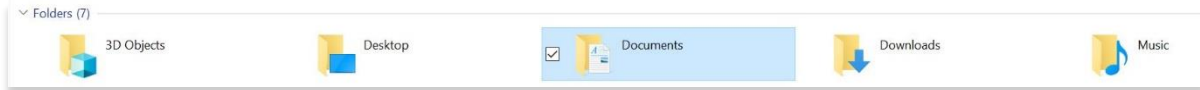
- 9. Connect USB or SD card to a Mac or Windows computer.
- 10. Drag desired User Waypoint files that were created into USB or SD card.
- 11. Disconnect USB or SD card from computer.
- 12. Connect USB or SD card to a Windows device.
- 13. Once USB or SD card is connected, open **File Explorer**, click **This PC** and navigate to **Devices and drives** to locate your device.



- 14. Double-click on your USB or SD card to open **Internal storage**.
- 15. Open a new **File Explorer** window and navigate to **This PC**.



16. Double-click on **Documents**.



17. Double-click on **Aero App**.



18. Double-click on **UserFiles**.



19. Drag the desired User Waypoints files into the UserFiles folder.

initial-waypoints	10/31/2019 5:36 PM	Text Document	1 KB
route0-waypoints	10/31/2019 5:38 PM	Text Document	1 KB
work-routine-waypoints	10/31/2019 5:38 PM	Text Document	1 KB

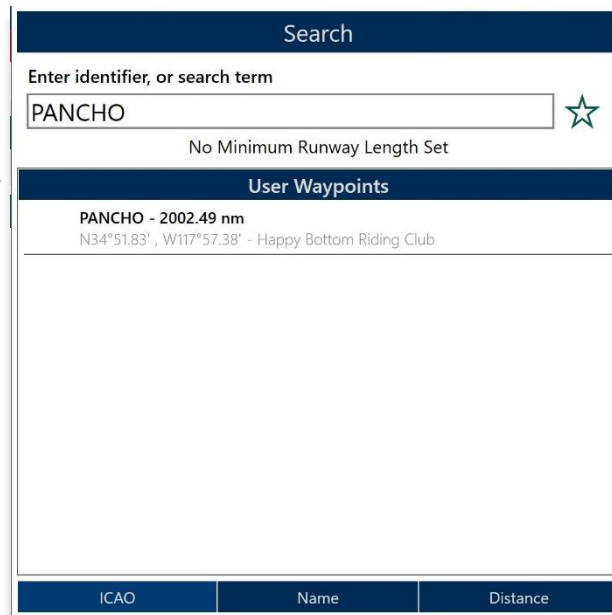
20. To confirm the files were properly transferred, insert your USB or SD card to your Windows device.

21. Open **Aero App**.

22. Tap **Moving Map** on the **Main Menu**.

23. Navigate to the **Magnifying glass** icon and search for the loaded Waypoints textfile. The Waypoint should appear under User Waypoints.

User Waypoints



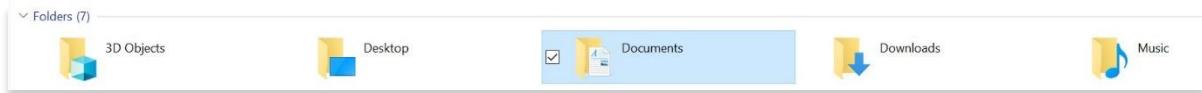
## 9.4 Sideload Common Route Definition (CRD) Files

Aero App enables users to sideload and import routes using Common Route Definition (CRD) files. Refer to [Section 13.3.13.3.1.1](#) for guidance on how to load CRD files to Aero App.

1. Connect your USB or SD card to a Mac or Windows computer.
2. Once your USB or SD card is connected, open **File Explorer**, click **This PC** and navigate to **Devices and drives** to locate your device.



3. Double-click on your USB or SD card to open **Internal storage**.
4. Double-click on **Documents**.



5. Double-click on **Aero App**.



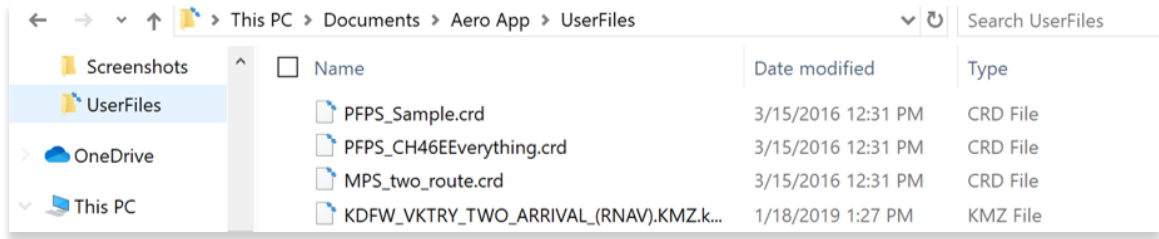
6. Double-click on **UserFiles**.



7. Open a new **File Explorer** window and navigate to the folder containing the CRD files.

Name	Date modified	Type
MPS_AWE_CustomData.crd	3/15/2016 12:31 PM	CRD File
MPS_CustomData_Two_Routes.crd	3/15/2016 12:31 PM	CRD File
MPS_ONE.crd	3/15/2016 12:31 PM	CRD File
MPS_two_route.crd	3/15/2016 12:31 PM	CRD File

8. Drag the desired CRD files into the UserFiles folder.



9. To confirm the files were properly transferred, insert your USB or SD card into your Windows device.

10. Open **Aero App**.

11. Tap **Moving Map** on the **Main Menu**.

12. Navigate to the **Route Panel**.

13. Tap **Route**.

14. The Route popup will appear. Tap **Actions** from the side menu, if necessary.

15. Tap **Load** and your CRD files will be shown below.

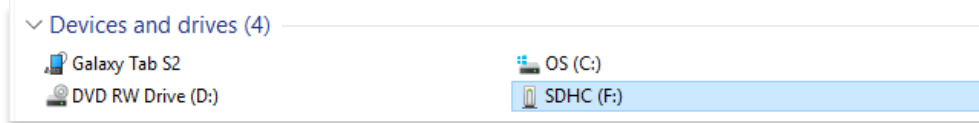




## 9.5 Sideload Pins

Aero App enables users to sideload and import Pins to Aero App. A file with the format pins.sqlite, stores pins which are dropped by users and can be individually deleted and added. Aero App will generate personal pins, created by users, which will be visible to users on the Aero App/UserFiles folder. Refer to [Section 13.3.12.1.3](#) for guidance on how to Drop Pins.

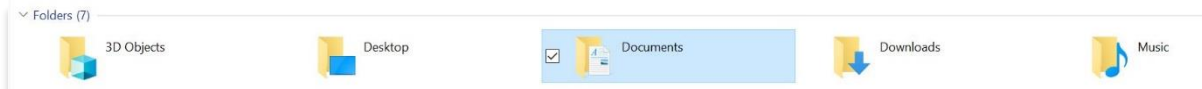
1. Connect your USB or SD card to a Windows device.
2. Once your USB or SD card is connected, open **File Explorer** and navigate to **Devices and drives** to locate your device.



3. Double-click on the USB or SD card icon to open **Internal storage**.
4. Open a new **File Explorer** window and navigate to **This PC**.



5. Double-click on **Documents**.



6. Double-click on **Aero App**.






7. Double-click on **UserFiles**.



8. Locate your pins.sqlite file.



9. Drag the pins.sqlite file to your USB or SD card.
10. With your second Windows device, copy the pins.sqlite file that was sideloaded from your USB or SD card.
11. Rename the copied pins.sqlite file to the format, **pins-{Name}.sqlite**.

 pins-Getaway trip with kids and grandparents.sqlite	9/20/2020 11:48 AM	SQLITE File	1,604 KB
 pins-Home.sqlite	9/4/2020 12:19 PM	SQLITE File	4,112 KB
 pins-Work.sqlite	9/4/2020 12:19 PM	SQLITE File	4,112 KB



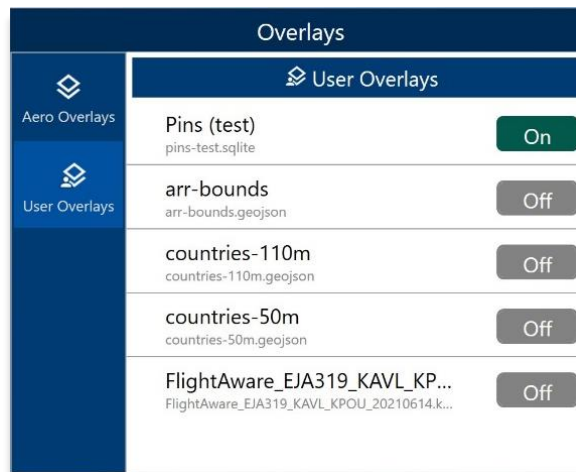
**NOTE:** If the imported file is not renamed, any pins in pins.sqlite saved on your second device will be overwritten.

12. To confirm if the files were properly imported, insert your USB or SD card into your second Windows device.
13. Open **Aero App**.
14. Tap **Moving Map** on the **Main Menu**.
15. Tap on **Overlays** located at the bottom-right corner of the Moving Map.
16. Tap **User Overlays** from the side menu. Your sideloaded pins will be shown below.
17. Ensure that the Pins overlay is enabled.



**NOTE:** For guidance on how to enable Pins, refer to [Section 13.3.5.1.4](#).

18. Tap to enable your desired imported pins file and your pins will overlay on the Moving Map.





**NOTE:** Users are not able to delete the imported pins file. Attempting to delete the imported pins will display an error message stating, “**Only My Pins can be Deleted.**”

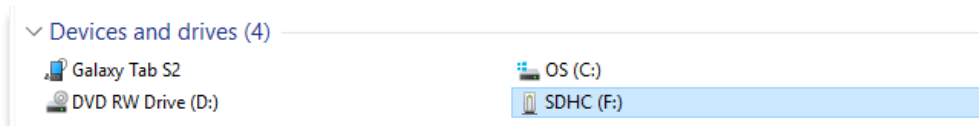


**NOTE:** Users can bulk delete all imported files by going to File Manager on the Windows device and deleting the pins file.

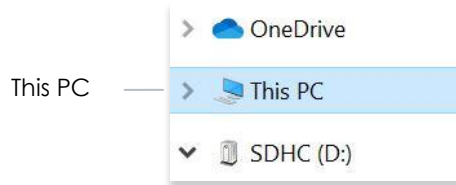
## 9.6 Sideload Documents

Aero App enables users to sideload user documents.

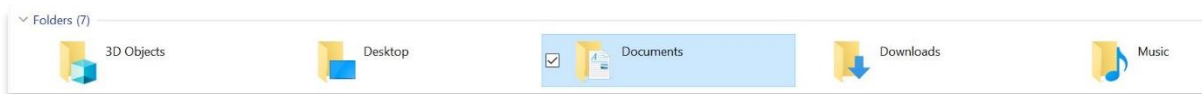
1. Connect your USB or SD card to a Mac or Windows computer.
2. Once your USB or SD card is connected, open **File Explorer** and navigate to **Devices and drives** to locate your device.



3. Double-click on the USB or SD card icon to open **Internal storage**.
4. Open **File Explorer** and navigate to **This PC**.



5. Double-click on **Documents**.



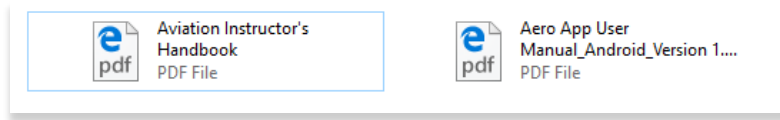
6. Double-click on **Aero App**.



7. Double-click on **UserFiles**.



8. Drag the desired PDF file into the folder.



9. To confirm if the files were properly transferred, insert your USB or SD card into your Windows device.

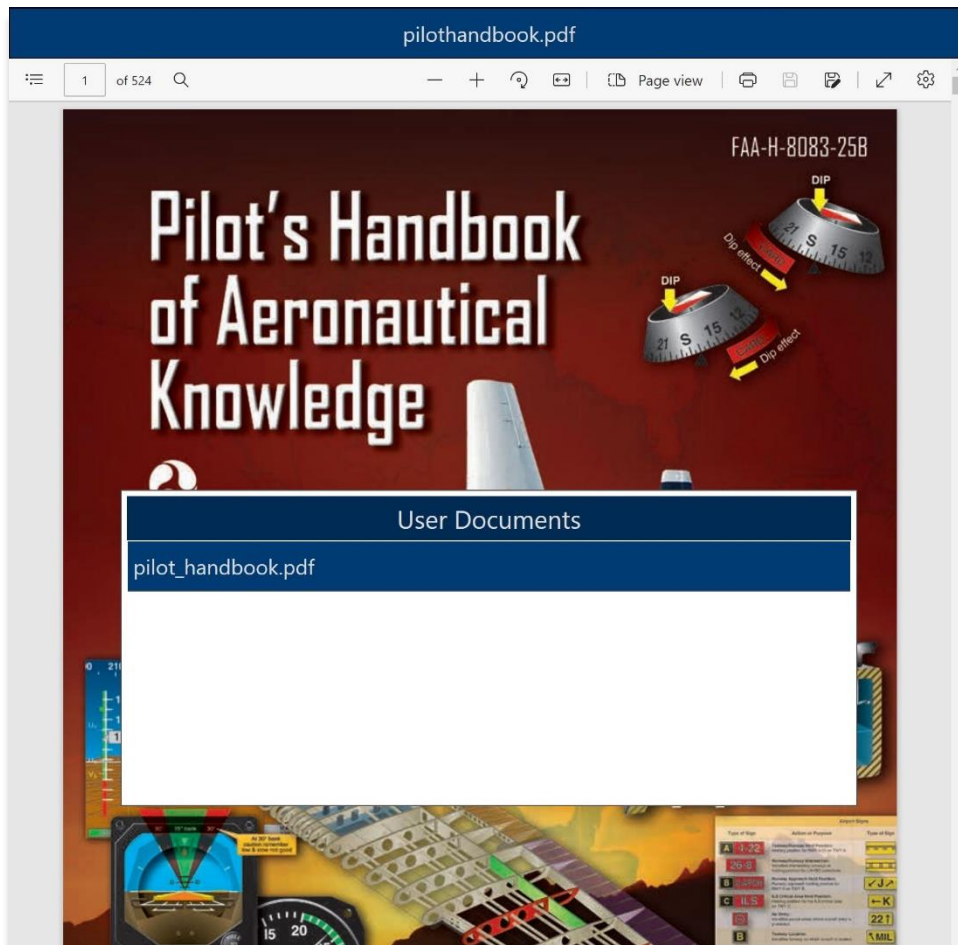
10. Open **Aero App**.

11. Tap **General** on the **Main Menu**.

12. Tap **Docs** on the **Secondary Menu**.

13. Tap the **actions ribbon** to select a document.

14. Your loaded PDF files will be shown below.



## 10 Updating Aero App Data

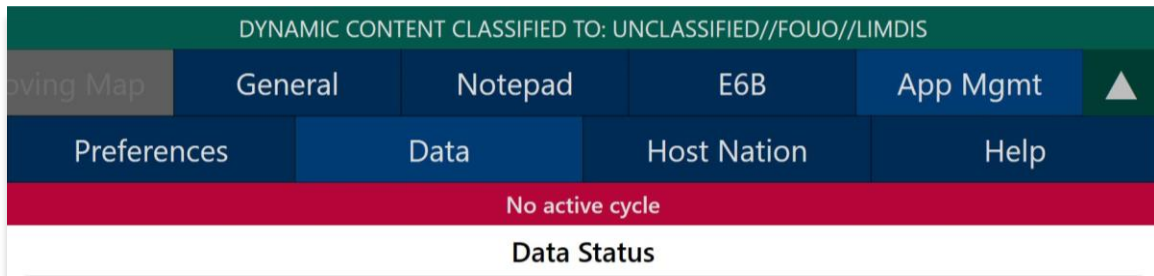
Aero App Data updates are released periodically. Users can load and manage up to two Data Cycles at a time. Data notifications are displayed when Aero App Data is not valid for the period of use.

### 10.1 Data Notifications

Aero App will display data notification warnings if there is no active cycle, or the active data cycle is not current.

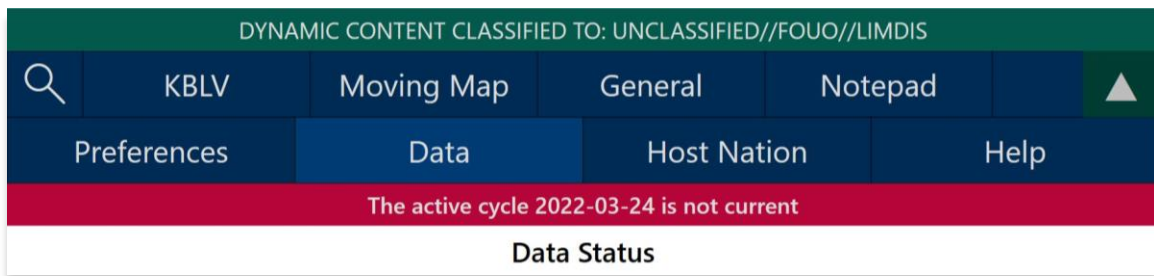
#### No active cycle

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 **Swap Cycles** 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 display a data notification if the Active Cycle is not current. In this configuration, Aero App will not display current information and it is recommended to ensure that the Active Cycle is always current.



## 11 Manage Data

Aero App offers several data loading methods. This section will explain the different ways to load data and view data status.

### 11.1 Data Status

1. Tap **App Mgmt** on the **Main Menu**.
2. Tap **Data** on the **Secondary Menu** to view data information.
3. The Data Status screen will display.
4. The effective dates of the Active Cycle will be displayed on the left, and the Standby Cycle will be displayed on the right.
5. From this screen, you can also download new cycles when they become available.

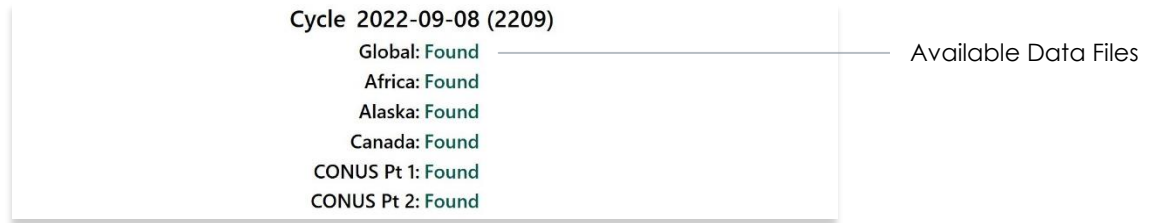
The screenshot displays the 'Data Status' screen within the Aero App. At the top, there is a navigation bar with options: 'Moving Map', 'General', 'Notepad', 'E6B', and 'App Mgmt'. Below this is a secondary menu with 'Preferences', 'Data', 'Host Nation', and 'Help'. The main content area is titled 'Data Status' and features two cycle management sections. The 'Active Cycle' section shows 'Effective 2022-09-08 through 2022-10-05 (2209)' with 'Delete' and 'View' buttons. The 'Standby Cycle' section shows 'Effective 2022-08-11 through 2022-09-07 (2208)' with 'Delete' and 'View' buttons. Below these are buttons for 'Download', 'Move to Standby', 'Swap Cycles', and 'Delete'. A 'Cycle' list includes: Global, Africa, Alaska, Canada, CONUS Pt 1, and CONUS Pt 2. Annotations on the left and right sides of the screenshot point to the effective dates of the Active and Standby Cycles, respectively.



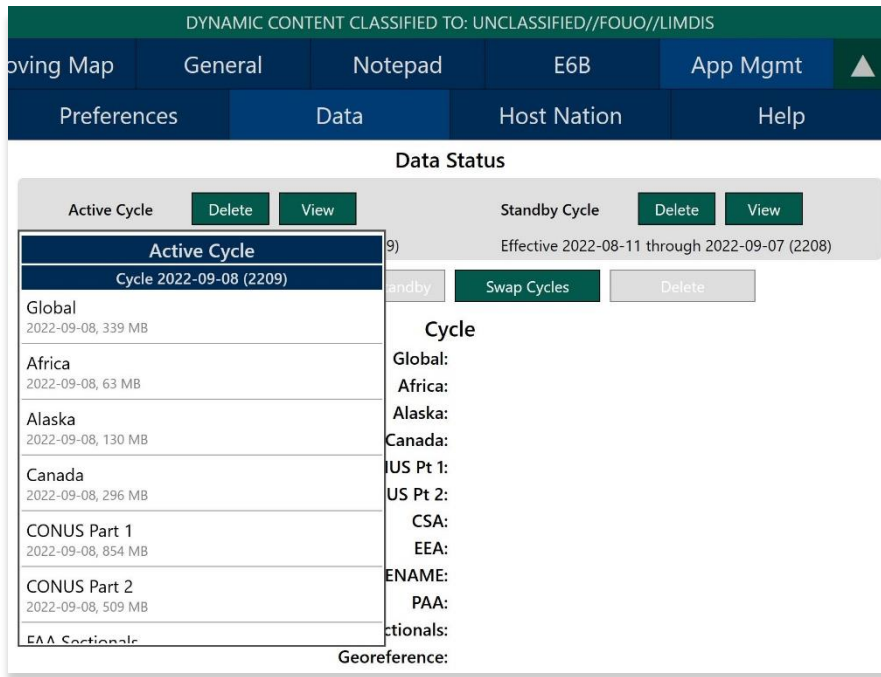
**NOTE:** Core data files are current for 28 days after the effective date.

## 11.2 Manage Data on Device

1. Tap **App Mgmt** on the **Main Menu**.
2. Tap **Data** on the **Secondary Menu** to view data information.
3. Tap **Refresh**. All the available data files will display **Found**.

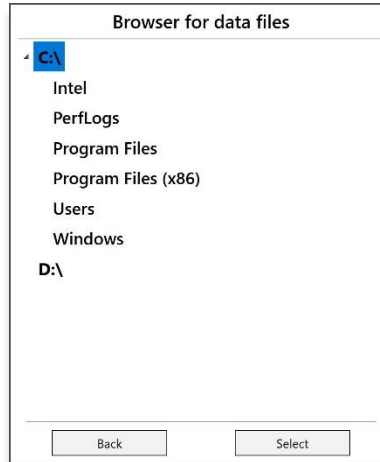


4. Tap **Move to Standby** to load data onto Standby Cycle.
5. Tap **Swap Cycles** to load data onto Active Cycle which activates current data.
6. After data has been swapped, notice the effective dates of the data located below Active Cycle.
7. The downloaded maps will enable the **Load Maps** button to become selectable. Tap **Load Maps**.
8. Tap **View** to display loaded Active Cycle or Standby Cycle.



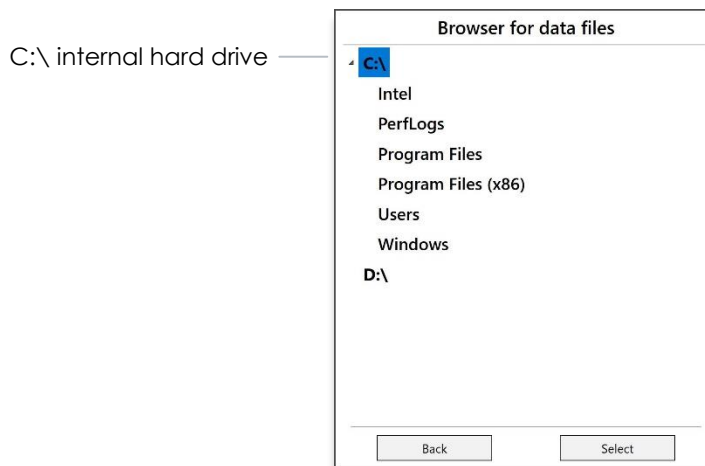
## 11.3 On Device

1. Tap **App Mgmt** on the **Main Menu**.
2. Tap **Data** on the **Secondary Menu**.
3. Tap **Download**.
4. Tap **On Device**.
5. Browser for data files will appear with two drives labeled **C:\** and **D:\**.



**NOTE:** C:\ is your internal hard drive. The D:\ is your SD card. When another drive is inserted onto the Windows tablet, the additional drive will be listed as another source of data files.

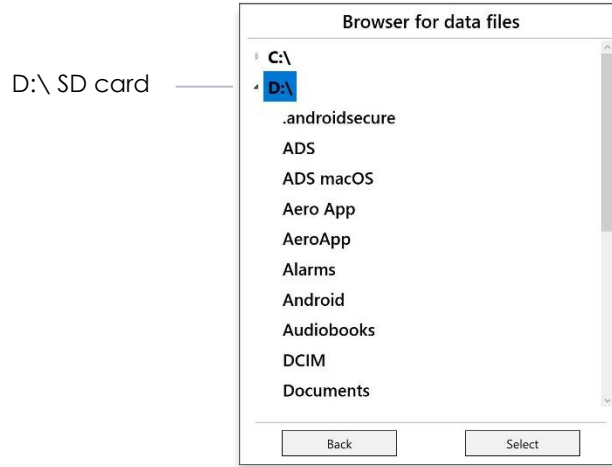
6. Tap **C:\** to list all internal hard drive data.



7. Tap **D:\** to list all SD card data.



8. Select from desired drive to download data.
9. Once data has been selected, tap **OK**.
10. Tap **Download** when data has been selected.



## 11.4 File Manager

File Manager is responsible for storing, managing, and making modifications to files there were downloaded and loaded onto Aero App.

1. Tap **App Mgmt** on the **Main Menu**.
2. Tap **Data** on the **Secondary Menu**.
3. Tap **Download**.
4. Tap **File Manager**.
5. To view all loaded files, select from the following:
  - Downloads
  - Active
  - Standby
  - Aero App Maps
  - Other
  - Documents



6. Tap the **Delete** button for the files that you want deleted and the file will be removed from the list.











## 12 Introduction to Aero App Menus

The initial launch of Aero App will land on the About screen, which includes the app's version number and licensing information. The Main Menu is located above the Help screen and includes options to access features throughout Aero App. Data is required to access the Moving Map. The Secondary Menu is placed directly below the Main Menu. The following sections will elaborate on the different menus and their functionalities.

### 12.1 Main Menu Options





Aero App enables users to select an option from the Main Menu. The selected menu option will be highlighted to indicate selection. If necessary, scroll left-to-right to view hidden menu buttons.

	<p>Search – The Search option is used to perform a search of different identifiers such as Airports, NavAids, Waypoints, User Waypoints, and Pins. A search can be refined by setting a minimum runway length, which can be done through preferences. Other actions such as adding identifier to Favorites as well as viewing the Giant Report of the searched identifier.</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 through the Secondary Menu for searched Airports. To load a new active point, simply tap on the search icon and enter a desired point, then tap <b>Search</b> on your device's on-screen keyboard. The new identifier will load as the new active point.</p>
	<p>Moving Map – The Moving Map displays a high-performance whirly globe, 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 – General provides users access to a large library of material such as Charts, Supplements, Area Planning documents, User PDF documents and Terminal Legend Procedures.</p>
	<p>Notepad – The notepad allows users to create up to three pages of notes using their fingertips or a stylus.</p>

	<p>E6B – 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.</p>
	<p>App Mgmt – App Management enables users to download and manage data, configure Aero App preferences, and view additional information such as Help files and application details.</p>
	<p>Collapsible Menu Button – Tapping on the arrow will hide or show the Main and Secondary Menus.</p>

## 12.2 Route Menu Options

Aero App enables users to select an option from the Route Panel. The options include Add Airport, NavAid, or Waypoint, Edit Route, display Route Options menu, and a collapsible route button.

	<p>Collapsible Route Panel – The collapsible route panel is used to hide or show the Route Panel, enabling users to free up space on the screen when not in use.</p>
	<p>Add – Add allows users to search and add Airports, NavAids, Waypoints, Airways, User Waypoints, and Pins to the route. Other actions such as adding identifier to Favorites can be performed on the Add popup.</p>
	<p>Edit – Edit allows users to reorder and delete entries from the route.</p>
	<p>Route – Route provides various options that can be added as enhancements to the route. Options include Air Refueling Routes, Search and Rescue Patterns, and more.</p>

## 12.3 Identifier Options

The selected identifier will appear to the left of the **Moving Map** button. When users tap on **Active Point**, the **Secondary Menu** will be displayed as illustrated below.

<b>Info</b>	Info – Displays detailed information about the selected Airport, including General Information, AQP, Giant Report, Communications, Runways, Chart Supplements, and Remarks.
<b>APD</b>	APD – Displays the Airport Diagram for the selected identifier.
<b>IAP</b>	IAP – Displays the Instrument Approach Procedures for the selected identifier.
<b>Dep</b>	Dep – Displays the Departure Procedure for the selected identifier.
<b>Arr</b>	Arr – Displays the Arrival Procedures for the selected identifier.
<b>Min</b>	Min – Displays charts for Alternate, RADAR, and Takeoff Minimums for the selected identifier.
<b>Other</b>	Other – Displays charts otherwise not displayed under the remaining tabs. They may include special procedures and RNAVs, among others.
<b>Host Nation</b>	Host Nation – Displays the APD, IAP, SID, STAR, Visual Approach, and other charts such as Docking/ Parking and VFR AIPs for airports outside the USA. Host Nation Charts are downloaded through App Mgmt.
<b>Wx</b>	Wx – Displays options for viewing METARs/TAFs and a button redirecting to the NOTAMs web browser.

## 12.4 General Menu Options

By tapping **General** on the **Main Menu**, users can access a large library of material such as FAA data, FLIP Charts, Supplements, Area Planning Books, PDFs loaded into Aero App and Terminal Legend Procedures.

<b>Charts</b>	Charts – Displays a dialog box list from which you can select High and Low Enroute Charts, Area Charts, Graphic Charts, CONUS Chart Graphics, Military Training Routes (MTRs), and others. Charts can be selected through the drop-down menu or by swiping left and right.
<b>Supplements</b>	Supplements – Displays a dialog box list from which users can select the appropriate Supplements Book in the FLIP Chart Library. Supplement Books are in PDF format.
<b>Planning</b>	Area Planning Documents – Displays a dialog box list from which users can select the Area Planning Documents in PDF format. The General Planning Book is listed in this menu from the FLIP Area Planning Library.
<b>Docs</b>	User Documents – Displays access to user-defined content loaded into the Documents library.
<b>Legend</b>	Terminal Procedure Legend – Displays the Terminal Procedure Legend.

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## 12.5 Application Management (App Mgmt) Menu Options

The **Application Management (App Mgmt)** Menu Option allows you to select preferences, load and refresh data, load Host Nation charts, and access detailed information about Aero App.

<b>Preferences</b>	Preferences allow users to modify various system settings such as User Interface, Miscellaneous, Data, GPS, and Reset. User Interface includes Night Mode. Miscellaneous includes Show Ownship on APD and IAP, Show Airport Ring on APD and IAP, Switch to APD on landing, Minimum Runway Length (ft), and the option to enable Secret. Data includes Store data on an external location. GPS includes GPS COM port search and GPS Connection Settings. Lastly, Reset includes Clear All Chart Markups.
<b>Data</b>	Data Status screen allows users to manage cycles.
<b>Host Nation</b>	Displays the Host Nation Charts Manager screen with an option to download the charts for the selected ICAO.
<b>Help</b>	Displays information for Aero App such as – What's New, Web Links, User Manual, and About.

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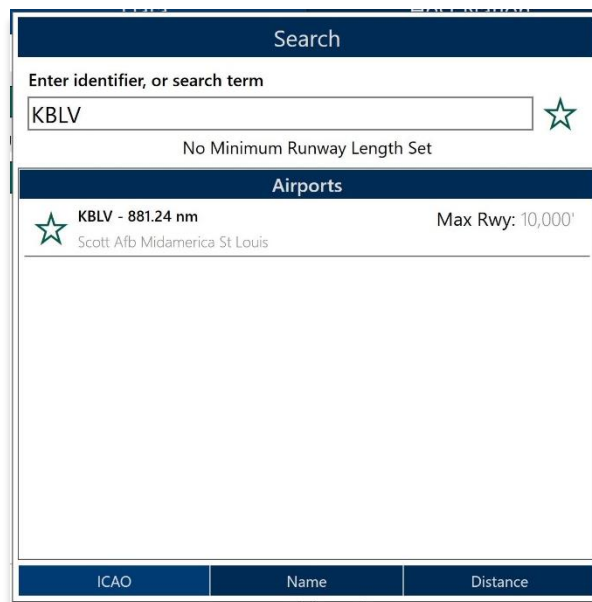
## 13 Using Aero App's Main Menu

The Main Menu is used to display the main functions of Aero App and is located at the top of the screen.

### 13.1 Search Identifiers or Terms

Aero App enables users to enter identifiers or search terms by tapping the Magnifying Glass on the Main Menu. The Search menu returns the results for a searched identifier such as Airports, NavAids, Waypoints, User Waypoints. Users can then navigate to other tabs to display its information, Airport Diagram, Instrument Approach Procedures, and more.

1. Tap the **Magnifying glass** icon on the **Main Menu**.
2. The Search popup will appear. Tap the **text box** to open your device's keyboard.
3. Enter identifier or search term.
4. If necessary, scroll down to display Airports, NavAids, Waypoints, and User Waypoints results.



**NOTE:** An error message will appear indicating that data has not been downloaded.



**NOTE:** Users can add an identifier to their *Favorites* list as explained in [Section 13.1.1](#).

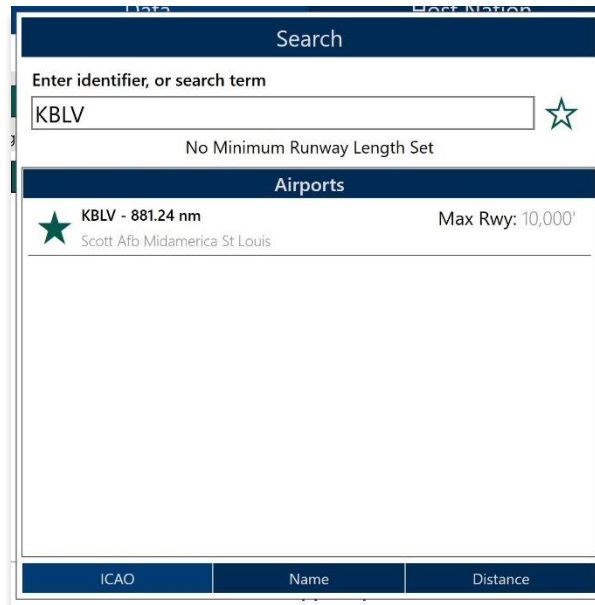
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### 13.1.1 Add an Identifier to Favorites

Aero App enables 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** 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. The Favorites list will display respective to the type of identifier that was selected (e.g., Airports, NavAids, and Waypoints).



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

## 13.2 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, and Giant Report 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 an Active Point on the Main Menu or in the Moving Map Route Panel, or by simply long pressing on a point on the Moving Map.

**General Information** contains identifier details such as the ICAO, name, location, region, elevation, latitude, longitude, magnetic variance, and more. The General Information section includes Airport Diagram, Chart Supplement, and Giant Report. To view charts, users must download the respective region files and Global.

**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** -2.1°  
**Rot Beacon** Yes  
**Arresting Gear** No  
**Chart Supplement** Yes  
**In DAFIF** Yes  
**Giant Report** Yes (2023-04-02)

Chart Supplement    Giant Report

**Advanced Qualification Program (AQP)** is available for select airports.

**AQP**

Mountainous terrain

**Communications** includes 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	
<b>Runway 14L/32R</b>	
<b>Dimensions</b>	10,000' x 150'
<b>Surface</b>	Concrete
<b>Condition</b>	Good
<b>PCN</b>	82
<b>LCN</b>	108
<b>Runway 14L</b>	
<b>Heading</b>	138.0° magnetic 136.6° true
<b>Runway 32R</b>	
<b>Heading</b>	318.0° magnetic 316.6° true

**Remarks** provides airport conditions, fuel type, and other cautionary advice.

Remarks
<p><b>CAUTION</b> 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.</p>
<p><b>CSTM/AG/IMG NAV</b> 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.</p>
<p><b>FLUID</b> SP(Mil) PRESAIR(Mil) LHOX(Mil) LOX(Mil)</p>

### 13.2.1 Airport Charts

Aero App enables users to view charts such as Airport Diagram, Instrument Approach Procedure, Departure Procedure, Arrival Procedure, Alternate Minimums, RADAR Minimums, Takeoff Minimums, Other – displays special procedures and RNAVs among others, and Host Nation charts.



**NOTE:** Users can tap the **actions ribbon**, displayed below the Secondary Menu, to select and display specific chart types.

### 13.2.1.1 Draw on Airport Diagrams (APDs) and Instrument Approach Procedures (IAPs) Charts

1. Tap the **Active Point** on the **Main Menu**.
2. Tap **APD** or **IAP** on the **Secondary Menu** and the selected chart will display.
3. The pencil symbol allows the user to draw on the Chart. There are options to Clear, Undo, Exit, and Rotate chart by 90 degrees.



Rotate charts by 90 degrees



**NOTE:** Drawings on Charts persist across cycles for 6 months.

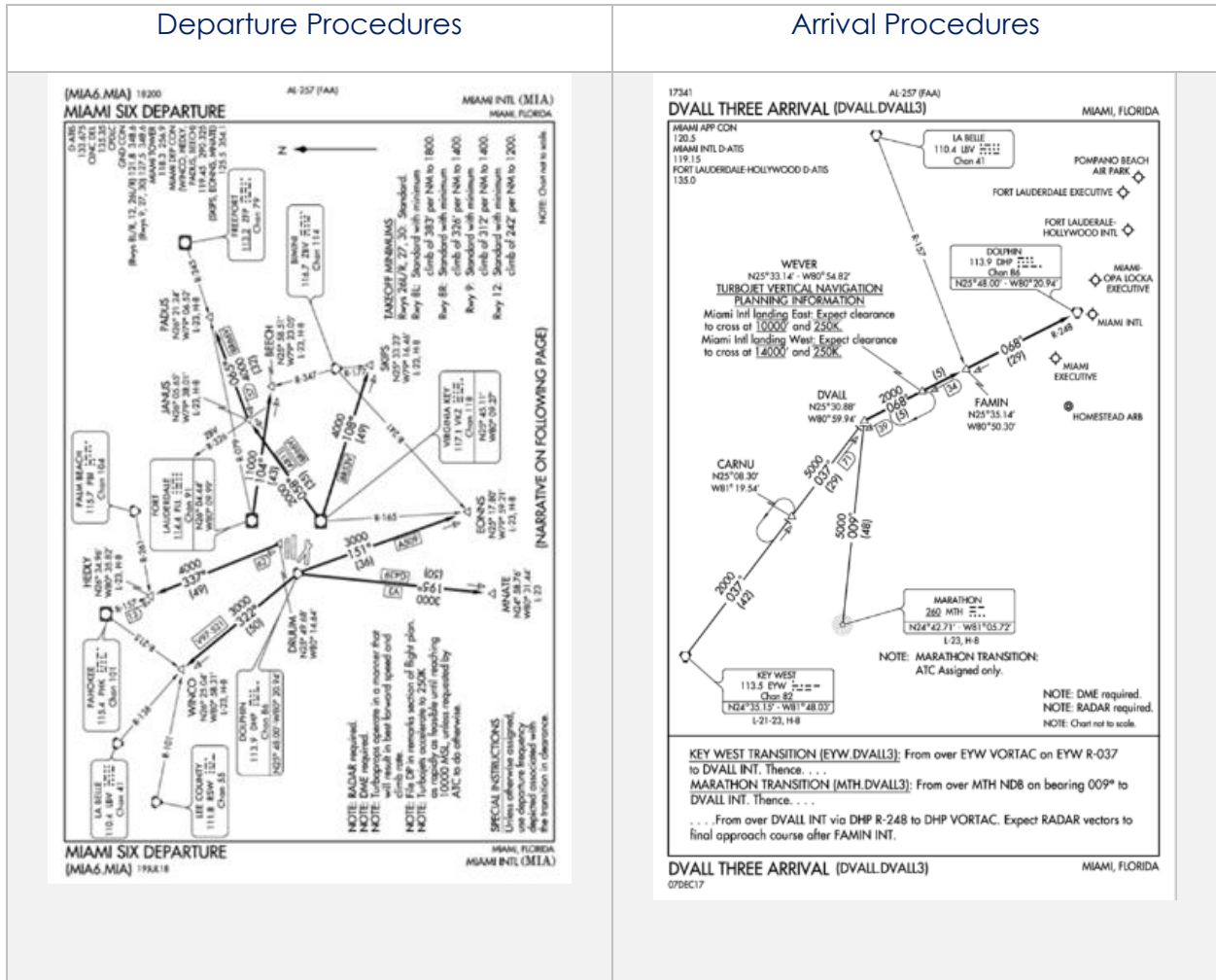


**NOTE:** Draw on Charts is available on Airport Diagrams and Instrument Approach Procedures.

Airport Diagram (APDs)	Instrument Approach Procedures (IAPs)

### 13.2.2 Continuation of Charts

1. Tap the **Active Point** on the **Main Menu**.
2. Select desired chart type on the **Secondary Menu**.
3. Charts will display once selected.
4. Tap on the **action ribbon** to display additional chart selection.



Alternate/ RADAR/Takeoff Minimums

Other

<p><b>ALTERNATE MINS</b> <span style="float: right;">ME</span></p> <p>22307 <span style="float: right;">A</span></p> <table border="0"> <thead> <tr> <th>NAME</th> <th>ALTERNATE MINIMUMS</th> <th>NAME</th> <th>ALTERNATE MINIMUMS</th> </tr> </thead> <tbody> <tr> <td colspan="4"><b>SAN JUAN, PR</b></td> </tr> <tr> <td>LUIS MUNIZ</td> <td></td> <td><b>TAMPA, FL</b></td> <td></td> </tr> <tr> <td>MARIN INTL (SJU).....</td> <td>ILS or LOC Rwy 8<sup>12</sup> ILS or LOC Rwy 10<sup>2</sup> NDIS Rwy 9<sup>14</sup> RNAV (GPS) Rwy 8<sup>8</sup> RNAV (GPS) Rwy 10<sup>4</sup> RNAV (GPS) Rwy 24<sup>8</sup> RNAV (GPS) Rwy 28<sup>8</sup> VOR or TACAN Rwy 8<sup>12</sup> VOR or TACAN Rwy 10<sup>12</sup> VOR or TACAN Rwy 20<sup>2</sup></td> <td>PETER O KNIGHT (TPF).....</td> <td>RNAV (GPS) Rwy 22 RNAV (GPS) Rwy 36 NA when local weather not available.</td> </tr> <tr> <td></td> <td><sup>1</sup>ILS, LOC, Category D, 1000-3. <sup>2</sup>NA when local weather not available. <sup>3</sup>ILS, LOC, Category D, E, 1000-3. <sup>4</sup>Category D, E, 1000-3.</td> <td>TAMPA EXEC (VDF).....</td> <td>ILS or LOC Rwy 23<sup>1</sup> RNAV (GPS) Rwy 5<sup>3</sup> RNAV (GPS) Rwy 18 RNAV (GPS) Rwy 23<sup>2</sup> NA when local weather not available. LOC, Category C, 800-2¼. <sup>2</sup>Category C, 800-2¼.</td> </tr> <tr> <td colspan="4"><b>SARASOTA/BRADENTON, FL</b></td> </tr> <tr> <td>SARASOTA/BRADENTON INTL (SRQ).....</td> <td>ILS or LOC Rwy 14 ILS or LOC Rwy 32 NA when control tower closed.</td> <td>TAMPA INTL (TPA).....</td> <td>ILS or LOC Rwy 1L<sup>1</sup> ILS or LOC Rwy 19L<sup>2</sup> LOC Rwy 1R<sup>1</sup> RNAV (GPS) Rwy 1L<sup>4</sup> RNAV (GPS) Rwy 1R<sup>4</sup> RNAV (GPS) Rwy 19R<sup>4</sup> RNAV (GPS) Rwy 28<sup>4</sup> RNAV (GPS) Z Rwy 19R<sup>4</sup></td> </tr> <tr> <td></td> <td><sup>1</sup>ILS, Category C, 700-2; Categories D, E, 1000-3. <sup>2</sup>LOC Categories D, E, 1000-3. <sup>3</sup>ILS, Category C, 700-2; Category D, 1000-3; LOC Category D, 1000-3. <sup>4</sup>Categories A, B, 1300-2; Categories C, D, 1300-3. <sup>5</sup>Categories D, E, 1000-3. <sup>6</sup>Category D, 1000-3.</td> <td>TITUSVILLE, FL</td> <td>SPACE FLORIDA LAUNCH AND LANDING FACILITY (TTS).....</td> </tr> <tr> <td colspan="4"><b>SEBRING, FL</b></td> </tr> <tr> <td>SEBRING RGNL (SEF).....</td> <td>RNAV (GPS) RWY 14<sup>1</sup> RNAV (GPS) RWY 32 Category D, 800-2¼. NA when local weather not available.</td> <td></td> <td>RNAV (GPS) Rwy 33<sup>3</sup> NA when local weather not available. <sup>1</sup>Categories D, E, 1000-3. <sup>2</sup>Category C, 1000-2¼; Category D, E, 1000-3.</td> </tr> <tr> <td colspan="4"><b>STUART, FL</b></td> </tr> <tr> <td>WITHAMFLD (SUA).....</td> <td>RNAV (GPS) Rwy 30 NA when local weather not available.</td> <td>SPACE COAST</td> <td>RGNL (TX).....</td> </tr> <tr> <td colspan="4"><b>TALLAHASSEE, FL</b></td> </tr> <tr> <td>TALLAHASSEE INTL (TLH).....</td> <td>ILS or LOC Rwy 27<sup>12</sup> ILS or LOC Rwy 36<sup>1</sup> RADAR-1 RNAV (GPS) Rwy 9<sup>8</sup> RNAV (GPS) Rwy 18<sup>8</sup> RNAV (GPS) Rwy 27<sup>4</sup> RNAV (GPS) Rwy 36<sup>8</sup> VOR/DME or TACAN Rwy 36<sup>8</sup> VOR Rwy 18<sup>8</sup> NA when control tower closed. <sup>1</sup>ILS, Categories A, B, C 800-2; Category D, 800-2¼; Category E, 1000-3-1; LOC, Category D, 800-2¼; Category E, 1000-3. <sup>2</sup>ILS, Category D, 700-2¼; LOC, Category D, 800-2¼. <sup>3</sup>Category D, 800-2¼. <sup>4</sup>Category D, 800-2¼; Category E, 1000-3. <sup>5</sup>NA when local weather not available.</td> <td>VENICE, FL</td> </tr> <tr> <td></td> <td><sup>1</sup>NA when control tower closed. <sup>2</sup>ILS, Categories A, B, C 800-2; Category D, 800-2¼; Category E, 1000-3-1; LOC, Category D, 800-2¼; Category E, 1000-3. <sup>3</sup>ILS, Category D, 700-2¼; LOC, Category D, 800-2¼. <sup>4</sup>Category D, 800-2¼. <sup>5</sup>Category D, 800-2¼; Category E, 1000-3. <sup>6</sup>NA when local weather not available.</td> <td></td> <td>VENICE MUNI (VNC).....</td> </tr> <tr> <td></td> <td><sup>1</sup>NA when control tower closed. <sup>2</sup>ILS, Categories A, B, C 800-2; Category D, 800-2¼; Category E, 1000-3. <sup>3</sup>ILS, Category D, 700-2¼; LOC, Category D, 800-2¼. <sup>4</sup>Category D, 800-2¼. <sup>5</sup>Category D, 800-2¼; Category E, 1000-3. <sup>6</sup>NA when local weather not available.</td> <td></td> <td>RNAV (GPS) Rwy 5 RNAV (GPS) Rwy 13 RNAV (GPS) Rwy 23 RNAV (GPS) Rwy 31 NA when local weather not available. Category D, 1000-3.</td> </tr> </tbody> </table> <p><b>ALTERNATE MINS</b> <span style="float: right;">SE-3</span></p> <p>22307 <span style="float: right;">ME</span></p>	NAME	ALTERNATE MINIMUMS	NAME	ALTERNATE MINIMUMS	<b>SAN JUAN, PR</b>				LUIS MUNIZ		<b>TAMPA, FL</b>		MARIN INTL (SJU).....	ILS or LOC Rwy 8 <sup>12</sup> ILS or LOC Rwy 10 <sup>2</sup> NDIS Rwy 9 <sup>14</sup> RNAV (GPS) Rwy 8 <sup>8</sup> RNAV (GPS) Rwy 10 <sup>4</sup> RNAV (GPS) Rwy 24 <sup>8</sup> RNAV (GPS) Rwy 28 <sup>8</sup> VOR or TACAN Rwy 8 <sup>12</sup> VOR or TACAN Rwy 10 <sup>12</sup> VOR or TACAN Rwy 20 <sup>2</sup>	PETER O KNIGHT (TPF).....	RNAV (GPS) Rwy 22 RNAV (GPS) Rwy 36 NA when local weather not available.		<sup>1</sup> ILS, LOC, Category D, 1000-3. <sup>2</sup> NA when local weather not available. <sup>3</sup> ILS, LOC, Category D, E, 1000-3. <sup>4</sup> Category D, E, 1000-3.	TAMPA EXEC (VDF).....	ILS or LOC Rwy 23 <sup>1</sup> RNAV (GPS) Rwy 5 <sup>3</sup> RNAV (GPS) Rwy 18 RNAV (GPS) Rwy 23 <sup>2</sup> NA when local weather not available. LOC, Category C, 800-2¼. <sup>2</sup> Category C, 800-2¼.	<b>SARASOTA/BRADENTON, FL</b>				SARASOTA/BRADENTON INTL (SRQ).....	ILS or LOC Rwy 14 ILS or LOC Rwy 32 NA when control tower closed.	TAMPA INTL (TPA).....	ILS or LOC Rwy 1L <sup>1</sup> ILS or LOC Rwy 19L <sup>2</sup> LOC Rwy 1R <sup>1</sup> RNAV (GPS) Rwy 1L <sup>4</sup> RNAV (GPS) Rwy 1R <sup>4</sup> RNAV (GPS) Rwy 19R <sup>4</sup> RNAV (GPS) Rwy 28 <sup>4</sup> RNAV (GPS) Z Rwy 19R <sup>4</sup>		<sup>1</sup> ILS, Category C, 700-2; Categories D, E, 1000-3. <sup>2</sup> LOC Categories D, E, 1000-3. <sup>3</sup> ILS, Category C, 700-2; Category D, 1000-3; LOC Category D, 1000-3. <sup>4</sup> Categories A, B, 1300-2; Categories C, D, 1300-3. <sup>5</sup> Categories D, E, 1000-3. <sup>6</sup> Category D, 1000-3.	TITUSVILLE, FL	SPACE FLORIDA LAUNCH AND LANDING FACILITY (TTS).....	<b>SEBRING, FL</b>				SEBRING RGNL (SEF).....	RNAV (GPS) RWY 14 <sup>1</sup> RNAV (GPS) RWY 32 Category D, 800-2¼. NA when local weather not available.		RNAV (GPS) Rwy 33 <sup>3</sup> NA when local weather not available. <sup>1</sup> Categories D, E, 1000-3. <sup>2</sup> Category C, 1000-2¼; Category D, E, 1000-3.	<b>STUART, FL</b>				WITHAMFLD (SUA).....	RNAV (GPS) Rwy 30 NA when local weather not available.	SPACE COAST	RGNL (TX).....	<b>TALLAHASSEE, FL</b>				TALLAHASSEE INTL (TLH).....	ILS or LOC Rwy 27 <sup>12</sup> ILS or LOC Rwy 36 <sup>1</sup> RADAR-1 RNAV (GPS) Rwy 9 <sup>8</sup> RNAV (GPS) Rwy 18 <sup>8</sup> RNAV (GPS) Rwy 27 <sup>4</sup> RNAV (GPS) Rwy 36 <sup>8</sup> VOR/DME or TACAN Rwy 36 <sup>8</sup> VOR Rwy 18 <sup>8</sup> NA when control tower closed. <sup>1</sup> ILS, Categories A, B, C 800-2; Category D, 800-2¼; Category E, 1000-3-1; LOC, Category D, 800-2¼; Category E, 1000-3. <sup>2</sup> ILS, Category D, 700-2¼; LOC, Category D, 800-2¼. <sup>3</sup> Category D, 800-2¼. <sup>4</sup> Category D, 800-2¼; Category E, 1000-3. <sup>5</sup> NA when local weather not available.	VENICE, FL		<sup>1</sup> NA when control tower closed. <sup>2</sup> ILS, Categories A, B, C 800-2; Category D, 800-2¼; Category E, 1000-3-1; LOC, Category D, 800-2¼; Category E, 1000-3. <sup>3</sup> ILS, Category D, 700-2¼; LOC, Category D, 800-2¼. <sup>4</sup> Category D, 800-2¼. <sup>5</sup> Category D, 800-2¼; Category E, 1000-3. <sup>6</sup> NA when local weather not available.		VENICE MUNI (VNC).....		<sup>1</sup> NA when control tower closed. <sup>2</sup> ILS, Categories A, B, C 800-2; Category D, 800-2¼; Category E, 1000-3. <sup>3</sup> ILS, Category D, 700-2¼; LOC, Category D, 800-2¼. <sup>4</sup> Category D, 800-2¼. <sup>5</sup> Category D, 800-2¼; Category E, 1000-3. <sup>6</sup> NA when local weather not available.		RNAV (GPS) Rwy 5 RNAV (GPS) Rwy 13 RNAV (GPS) Rwy 23 RNAV (GPS) Rwy 31 NA when local weather not available. Category D, 1000-3.	<p>21224 <span style="float: right;">MIAMI INTL (MIA)</span></p> <p>RNAV DEPARTURE AAUP <span style="float: right;">AL-257 (FAA)</span> MIAMI, FLORIDA</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;"><b>ATTENTION ALL USERS PAGE (AAUP)</b></p> <ol style="list-style-type: none"> <li><b>PREFLIGHT:</b> 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: <ul style="list-style-type: none"> <li>Preplan Runway, ensure expected departure runway is selected/displayed</li> <li>Ensure all transitions are selected/displayed correctly</li> <li>Ensure sequence of waypoints match the appropriate charts</li> <li>Use the LEGS page to verify routing (for navigation systems with ROUTE and LEGS pages)</li> <li>Ensure altitude set in the altitude window matches the TOP ALTITUDE of the SID or altitude assigned by ATC</li> <li>Advise ATC prior to takeoff if unable to verify correct loading or if unable to comply with the SID</li> <li>Do not modify or manually construct RNAV procedures</li> </ul> </li> <li><b>BEFORE TAKEOFF:</b> Ensure that the Departure Runway assigned is displayed on the navigation system. <ul style="list-style-type: none"> <li>Verify all modification, including runway changes, in the navigation system with the RNAV SID</li> <li>Verify aircraft symbol relative to the runway symbol, lateral track, and displayed route agree with the ATC clearance (electronic navigation map displays)</li> <li>Confirm proper navigation/FMS selection are displayed when runway or route changes are issued by ATC</li> </ul> </li> <li><b>LINE UP/TAKEOFF:</b> 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. <ul style="list-style-type: none"> <li><b>SAMPLE PHRASEOLOGY</b> <ol style="list-style-type: none"> <li>Clearance: "RNAV to CSALT, Runway 8R, Cleared for Takeoff"</li> <li>Response: "RNAV to CSALT, Runway 8R, Cleared for Takeoff"</li> </ol> </li> <li>Verify the correct runway and SID are selected/displayed and the correct lateral navigation mode is available and ready for use after takeoff</li> <li>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</li> </ul> </li> <li><b>AFTER TAKEOFF:</b> Unless instructed to fly a heading by ATC, engage lateral navigation right 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. <ul style="list-style-type: none"> <li>Once established on the procedure, maintain route centerline, as depicted by onboard lateral navigation indicators</li> <li>Manually intervene if necessary, to stay on track to avoid transgressing in the direction of a parallel runway, track, or aircraft</li> <li>If unable to comply with the SID profile, either laterally or vertically, immediately notify ATC</li> </ul> </li> <li><b>SPECIFIC INFORMATION:</b> 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. <ul style="list-style-type: none"> <li>Final runway assignments will be issued on initial contact with Ground Control</li> </ul> </li> </ol> </div> <p>RNAV DEPARTURE AAUP <span style="float: right;">25°48'N 80°17'W</span> Orig 12AUG21 <span style="float: right;">MIAMI, FLORIDA</span> <span style="float: right;">MIAMI INTL (MIA)</span></p>
NAME	ALTERNATE MINIMUMS	NAME	ALTERNATE MINIMUMS																																																													
<b>SAN JUAN, PR</b>																																																																
LUIS MUNIZ		<b>TAMPA, FL</b>																																																														
MARIN INTL (SJU).....	ILS or LOC Rwy 8 <sup>12</sup> ILS or LOC Rwy 10 <sup>2</sup> NDIS Rwy 9 <sup>14</sup> RNAV (GPS) Rwy 8 <sup>8</sup> RNAV (GPS) Rwy 10 <sup>4</sup> RNAV (GPS) Rwy 24 <sup>8</sup> RNAV (GPS) Rwy 28 <sup>8</sup> VOR or TACAN Rwy 8 <sup>12</sup> VOR or TACAN Rwy 10 <sup>12</sup> VOR or TACAN Rwy 20 <sup>2</sup>	PETER O KNIGHT (TPF).....	RNAV (GPS) Rwy 22 RNAV (GPS) Rwy 36 NA when local weather not available.																																																													
	<sup>1</sup> ILS, LOC, Category D, 1000-3. <sup>2</sup> NA when local weather not available. <sup>3</sup> ILS, LOC, Category D, E, 1000-3. <sup>4</sup> Category D, E, 1000-3.	TAMPA EXEC (VDF).....	ILS or LOC Rwy 23 <sup>1</sup> RNAV (GPS) Rwy 5 <sup>3</sup> RNAV (GPS) Rwy 18 RNAV (GPS) Rwy 23 <sup>2</sup> NA when local weather not available. LOC, Category C, 800-2¼. <sup>2</sup> Category C, 800-2¼.																																																													
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SARASOTA/BRADENTON INTL (SRQ).....	ILS or LOC Rwy 14 ILS or LOC Rwy 32 NA when control tower closed.	TAMPA INTL (TPA).....	ILS or LOC Rwy 1L <sup>1</sup> ILS or LOC Rwy 19L <sup>2</sup> LOC Rwy 1R <sup>1</sup> RNAV (GPS) Rwy 1L <sup>4</sup> RNAV (GPS) Rwy 1R <sup>4</sup> RNAV (GPS) Rwy 19R <sup>4</sup> RNAV (GPS) Rwy 28 <sup>4</sup> RNAV (GPS) Z Rwy 19R <sup>4</sup>																																																													
	<sup>1</sup> ILS, Category C, 700-2; Categories D, E, 1000-3. <sup>2</sup> LOC Categories D, E, 1000-3. <sup>3</sup> ILS, Category C, 700-2; Category D, 1000-3; LOC Category D, 1000-3. <sup>4</sup> Categories A, B, 1300-2; Categories C, D, 1300-3. <sup>5</sup> Categories D, E, 1000-3. <sup>6</sup> Category D, 1000-3.	TITUSVILLE, FL	SPACE FLORIDA LAUNCH AND LANDING FACILITY (TTS).....																																																													
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	<sup>1</sup> NA when control tower closed. <sup>2</sup> ILS, Categories A, B, C 800-2; Category D, 800-2¼; Category E, 1000-3. <sup>3</sup> ILS, Category D, 700-2¼; LOC, Category D, 800-2¼. <sup>4</sup> Category D, 800-2¼. <sup>5</sup> Category D, 800-2¼; Category E, 1000-3. <sup>6</sup> NA when local weather not available.		RNAV (GPS) Rwy 5 RNAV (GPS) Rwy 13 RNAV (GPS) Rwy 23 RNAV (GPS) Rwy 31 NA when local weather not available. Category D, 1000-3.																																																													



**NOTE:** The Min tab includes Alternate, RADAR, and Takeoff Minimums to select from.

### Host Nation

#### AIRPORT

EFFECTIVE UPON PUBLICATION UNLESS OTHERWISE NOTED BY AN EFFECTIVE DATE

---

NFDD #: 210 - 12  
NFDD Date: 30 OCT 2018  
City, State: BELLEVILLE, ILLINOIS  
AirField Info: SCOTT AFB/MIDAMERICA - (04413.A)  
Ident: BLV

---

**Data**

LATITUDE -	38-32-42.6 N	LONGITUDE -	89-50-06.7 W
USER FEE APPT	YES	ACRCD	

Page 1 out of 1



**NOTE:** To zoom in and out of the airport diagram, users can use the pinch in and out method to perform this action.



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

### 13.2.3 Weather and Potential Hazard Information

An internet connection is required for users to view weather and potential flight hazard information of the provided ICAO.

1. Tap the **Active Point** on the **Main Menu**.
2. Tap **Weather (Wx)** on the **Secondary Menu**.
3. The following options are available to users:
  - Internet
  - METARs
  - TAFs

#### 13.2.3.1 Internet

This section describes how to retrieve information from METARs, Terminal Aerodrome Forecasts (TAFs) view, and a button that redirects to the NOTAMs web browser.

##### 13.2.3.1.1 METARs and Terminal Aerodrome Forecasts (TAFs) View

Aero App displays METARs and Terminal Aerodrome Forecasts (TAFs) view from the Aviation Digital Data Service and a button redirecting to the NOTAMs web browser. The steps below enable users to view METARs, TAFs, and NOTAMs.

1. Tap the **Active Point** on the **Main Menu**.
2. Tap **Wx** on the **Secondary Menu**.
3. Select **Internet** from the side menu, if necessary.
4. Select **METARs & TAFs** to view information for the selected airport.

The screenshot shows the Aero App interface. At the top, there is a dark blue header with the word "Internet" and a Wi-Fi icon. Below the header, there are two buttons: "METARs & TAFs" (highlighted in green) and "NOTAMs". To the right of these buttons is a "Decode" button with a toggle switch set to "Off", with a callout line pointing to it that says "Decode Disabled".

Below the buttons, the main content area is titled "Aviation Digital Data Service (ADDS)". It contains the following text:

Output produced by METARs form (1553 UTC 21 September 2022)  
found at <http://aviationweather.gov/metar/data/>

KBLV 211455Z 25004KT 10SM SCT090 29/21 A2994 RMK A02A SLP137 T02940205 50003 TSNO  
CHINO RWY14R \$

TAF KBLV 210800Z 2108/2214 23006KT 9999 FEW080 QNH2991INS  
BECMG 2115/2116 27012KT 9999 FEW060 SCT250 QNH2988INS  
BECMG 2200/2201 34012G20KT 9999 VCSH SCT040 BKN100 OVC250 QNH2990INS  
TX34/2120Z TN18/2208Z

On the left side, there is a dark blue sidebar menu with three options: "Internet" (selected), "METARs", and "TAFs". On the right side, there are two callout lines: one pointing to the "Decode Disabled" button and another pointing to the raw weather information text, labeled "Raw Weather Information".



5. Tap the **Decode** button to enable the option located at the upper-right corner to view raw or decoded weather information.

The screenshot shows the Aviation Digital Data Service (ADDS) app interface. At the top, there is a navigation bar with 'Internet' and a 'Decode' button set to 'On'. Below this, there are tabs for 'METARs & TAFs' and 'NOTAMs'. The main content area displays weather information for KBLV (SCOTT AFB/BELLEV, IL, US) observed on 21 September 2022. The weather is presented in a decoded format, with various parameters like temperature, dewpoint, pressure, winds, visibility, ceiling, and clouds listed. A 'Decode Enabled' label points to the 'On' button, and a 'Decoded Weather Information' label points to the main content area.

**Decode Enabled**

**Decoded Weather Information**

**Aviation Digital Data Service (ADDS)**

Output produced by METARs form (1554 UTC 21 September 2022)  
found at <http://aviationweather.gov/metar/data/>

**METAR text:** KBLV 211455Z 25004KT 10SM SCT090 29/21 A2994 RMK AO2A SLP137 T02940205 50003 TSNO CHINO RWY14R \$

**Conditions at:** KBLV (SCOTT AFB/BELLEV, IL, US) observed 1455 UTC 21 September 2022

**Temperature:** 29.4°C (85°F)

**Dewpoint:** 20.5°C (69°F) [RH = 59%]

**Pressure:** 29.94 inches Hg (1014.0 mb)  
**(altimeter):** [Sea-level pressure: 1013.7 mb]

**Winds:** from the WSW (250 degrees) at 5 MPH (4 knots; 2.1 m/s)

**Visibility:** 10 or more miles (16+ km)

**Ceiling:** at least 12,000 feet AGL

**Clouds:** scattered clouds at 9000 feet AGL

**Weather:**  
SOME DATA ABOVE MAY BE INACCURATE!!!  
"\$" is an indication the sensor requires maintenance

**Forecast for:** KBLV (SCOTT AFB/BELLEV, IL, US)

**Text:** TAF KBLV 210800Z 2108/2214 23006KT 9999 FEW080 QNH2991INS

**Forecast period:** 0800 to 1500 UTC 21 September 2022

**Forecast type:** FROM: standard forecast or significant change

**Winds:** from the SW (230 degrees) at 7 MPH (6 knots; 3.1 m/s)

**Visibility:** 6 or more miles (10+ km)

**Ceiling:** at least 12,000 feet AGL

**Clouds:** few clouds at 8000 feet AGL

**Weather:** no significant weather forecast for this period

**Text:** BECMG 2115/2116 27012KT 9999 FEW060 SCT250 QNH2988INS

**Forecast period:** 1500 UTC 21 September 2022 to 0000 UTC 22 September 2022

**Forecast type:** BECOMING: Conditions expected to become as follows by 1600 UTC 21 September 2022

**Winds:** from the W (270 degrees) at 14 MPH (12 knots; 6.2 m/s)

**Visibility:** 6 or more miles (10+ km)

**Ceiling:** at least 12,000 feet AGL

**Clouds:** few clouds at 6000 feet AGL  
scattered clouds at 25000 feet AGL

**Weather:** no significant weather forecast for this period

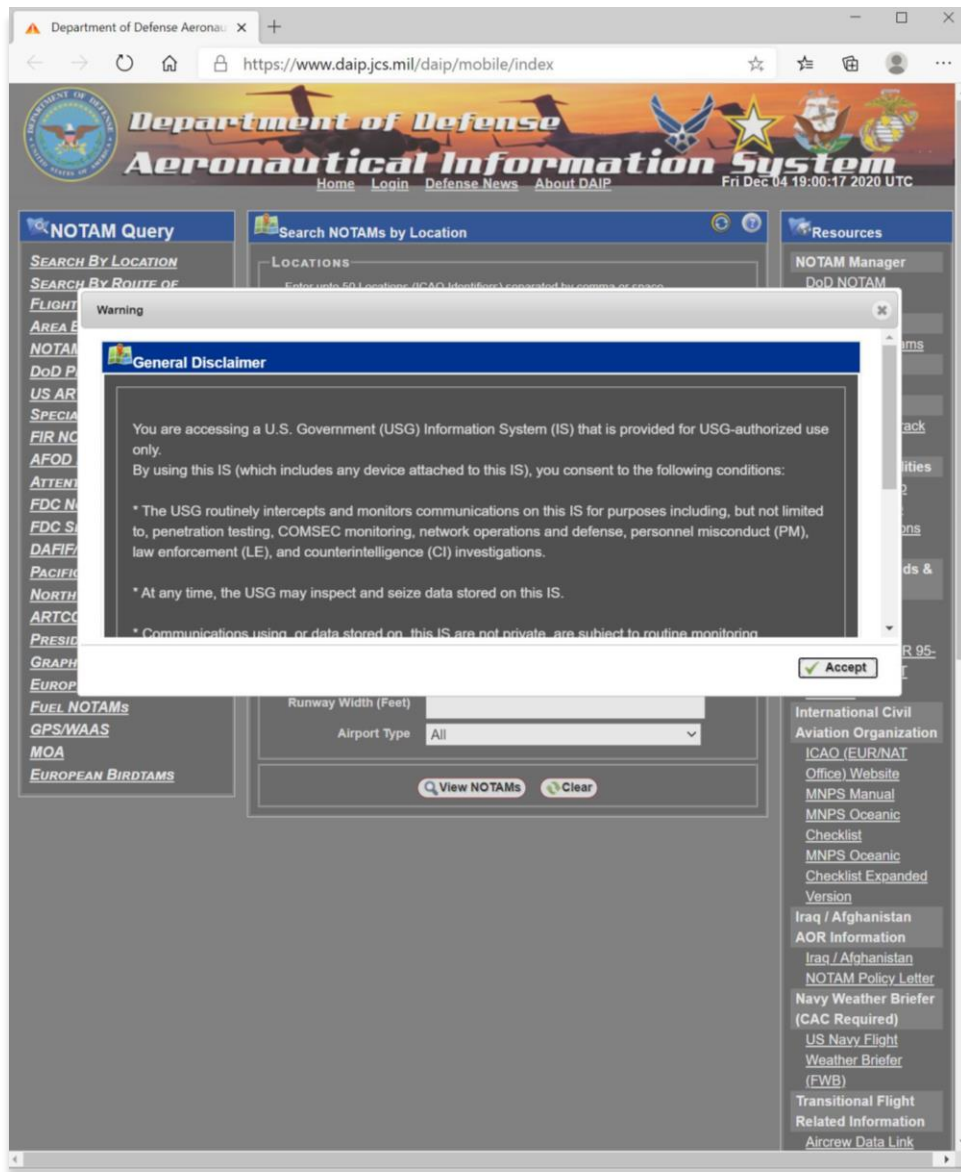
**Text:** BECMG 2200/2201 34012G20KT 9999 VCSH SCT040 BKN100 OVC250 QNH2990INS  
TX34/2120Z TN18/2208Z

**Forecast period:** 0000 to 1400 UTC 22 September 2022

### 13.2.3.1.2 NOTAMs

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. Tap the **Active Point** on the **Main Menu**.
2. Tap **Wx** on the **Secondary Menu**.
3. Select **Internet** from the side menu, if necessary.
4. Tap **NOTAMs** and users will be redirected to the DOD Aeronautical Information System browser.



### 13.2.3.2 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. Tap the **Active Point** on the **Main Menu**.
2. Tap **Wx** on the **Secondary Menu**.
3. Select **METARs** from the side menu. Aero App will display ADS-B data information.

### 13.2.3.3 Terminal Aerodrome Forecast (TAFs)

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

1. Tap the **Active Point** on the **Main Menu**.
2. Tap **Wx** on the **Secondary Menu**.
3. Select **TAFs** from the side menu. Aero App will display the TAFs data.

METARs	Terminal Aerodrome Forecast (TAFs)
<p> METARs</p> <p><b>KBLV</b> VFR</p> <p>KBLV - Scott Afb Midamerica <span style="float: right;">AfWx</span></p> <p>KBLV 221455Z 36009KT 10SM SCT190 BKN220 18/10 A3019 RMK AO2A SLP225 T01770101 52029 TSN0 CHINO RWY14R \$=</p>	<p> TAFs</p> <p>KBLV - Scott Afb Midamerica St Louis <span style="float: right;">AfWx</span></p> <p>KBLV 220800Z 2208/2314 01012KT 9999 SCT050 BKN080 QNH3004INS BECMG 2213/2214 01012G18KT 9999 SCT080 BKN200 QNH3013INS BECMG 2222/2223 03006KT 9999 SCT150 BKN200 QNH3013INS TX22/2219Z TN12/2308Z=</p>
<p><b>KCPS</b> VFR</p> <p>KCPS - St Louis Downtown 15nm W <span style="float: right;">AfWx</span></p> <p>KCPS 221453Z 02012KT 10SM CLR 17/10 A3019 RMK AO2 SLP222 T01720100 51024 \$=</p>	<p>KCPS - St Louis Downtown 15nm W <span style="float: right;">AfWx</span></p> <p>KCPS 221120Z 2212/2312 36009G17KT P6SM BKN250 FM230000 03004KT P6SM SCT250=</p>
<p><b>KALN</b> VFR</p> <p>KALN - St Louis Rgnl 23nm NNW <span style="float: right;">AfWx</span></p> <p>KALN 221450Z 36007G18KT 10SM CLR 16/10 A3021=</p>	<p>KSTL - St Louis Lambert Intl 28nm WNW <span style="float: right;">AfWx</span></p> <p>AMD KSTL 221456Z 2215/2318 01012KT P6SM BKN250 FM230100 04005KT P6SM SCT250=0000443401 XNXX84 KAWN 221500 RRX</p>
<p><b>KSAR</b> VFR</p> <p>KSAR - Sparta Community Hu 25nm SSE <span style="float: right;">AfWx</span></p> <p>KSAR 221455Z AUTO 36006KT 10SM CLR 16/11 A3020 RMK AO2 T01630108=</p>	<p>KSUS - Spirit Of St Louis 26nm WNW <span style="float: right;">AfWx</span></p>



**NOTE:** Refer to [Section 13.3.3](#) for information on Air Force Weather (AF Wx).

## 13.3 Moving Map

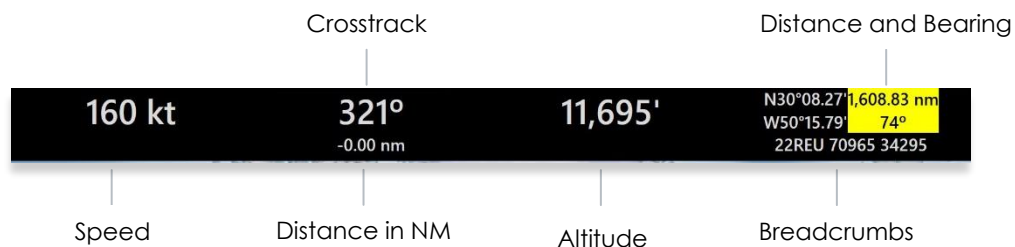
The Moving Map is an essential and powerful tool that provides a highly customizable and comprehensive worldwide map. With a variety of overlays available, it is effortless to navigate and stay informed while in-flight.

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

- Flight Information Panel
- Timer
- Air Force Weather (AF Wx)
- Maps
- Overlays
- Options
- Crosshair Icon (Snap to Location)
- Move Map to Location
- Split Screen
- Collapsible Route Panel

### 13.3.1 Flight Information Panel

The Flight Information Panel, located directly above the Moving Map, displays details of the user's current flight. The Flight Information Panel contains details such as the current flight's Speed, Crosstrack, Altitude, Breadcrumbs, and Distance and Bearing.



#### 13.3.1.1 Speed

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

### 13.3.1.2 Crosstrack (XTK)

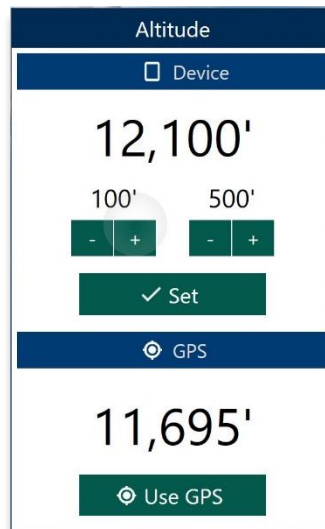
Crosstrack (XTK) represents the distance in nautical miles (nm). The digits and arrow below the Crosstrack symbolize the direction to get back to the route. The orientation of the arrow is the indicated difference.

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

### 13.3.1.3 Altitude

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

1. Tap **Altitude** on the black ribbon from the Moving Map screen.
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.

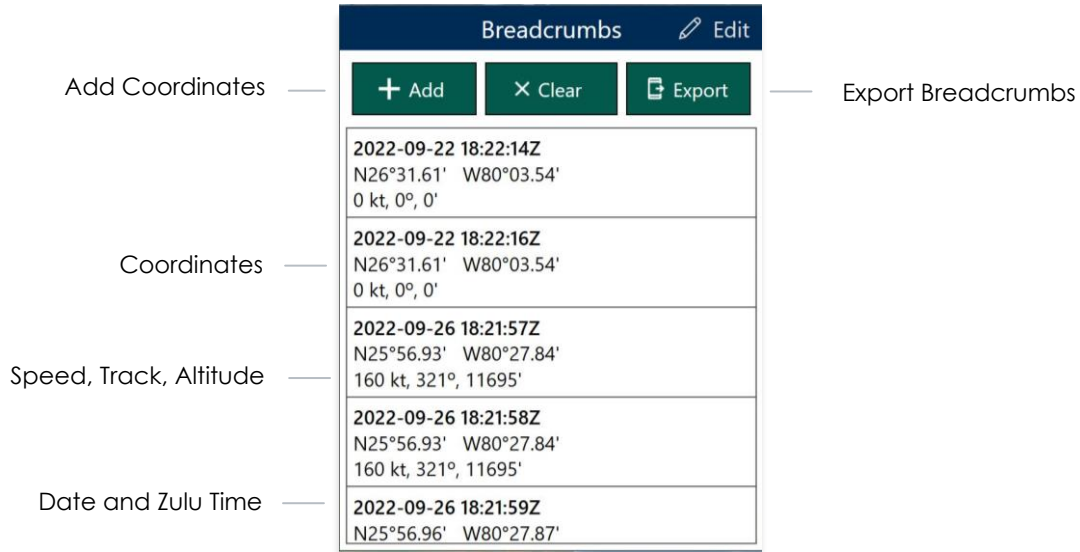


### 13.3.1.4 Distance and Bearing

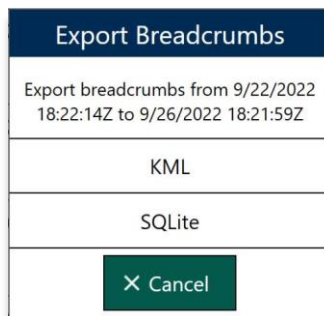
Aero App enables users to measure distance and bearing. As the Moving Map is moved, the coordinates at the top of the screen change based on the location to which the center target is moved, provided the GPS is on. When in use, a yellow tag displays distance (in nautical miles) and bearing (in degrees) relative to current location. For guidance on how to measure distance and bearing, refer to [Section 13.3.10.1](#).

### 13.3.1.5 Breadcrumbs

Breadcrumbs enables users to record coordinates throughout their course. A GPS connection is required. To view the recorded Breadcrumbs on the Moving Map, users must enable the option as described in [Section 13.3.6.2.1](#).



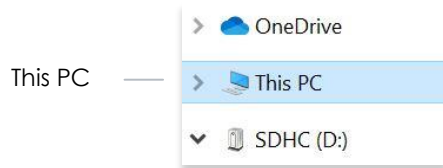
1. Tap the **coordinates** located at the upper-right corner of the Moving Map's Flight Information Panel.
2. A dialog window will appear displaying the recorded breadcrumbs.
3. Tap **Add** to manually store coordinates.
4. To delete individual breadcrumbs, tap **Edit** then tap the **Delete** button and the breadcrumbs will be deleted.
5. Tap **Clear** to delete all breadcrumbs.
6. To export and save breadcrumbs, tap **Export**. Users can export KML or SQLite.



**NOTE:** Breadcrumbs are logged by individual days.

### 13.3.1.5.1 View Breadcrumbs in KML

1. Export Breadcrumbs in KML.
2. Connect your microSD card into the Windows tablet.
3. Once the microSD card is inserted, open **File Explorer** and navigate to **This PC**.



4. Double-click on **Documents**.



5. Double-click on **Aero App**.



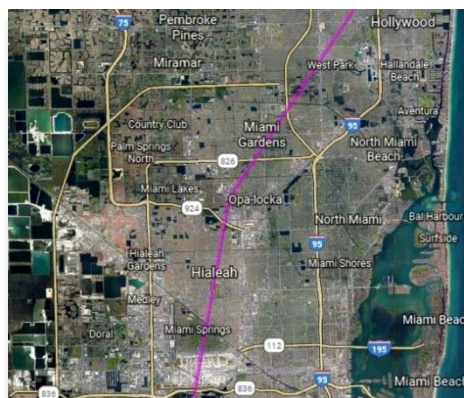
6. Double-click on **Breadcrumbs**.



7. Your exported breadcrumbs will be listed. Copy KML files and create a folder on your desktop, specifically for KML files.

AeroBreadcrumbs-20180924165930-20180924172340.kml	9/24/2018 1:28 PM	KML File
AeroBreadcrumbs-20180924174500-20180924174650.kml	9/24/2018 1:47 PM	KML File
AeroBreadcrumbs-20180924175204-20180924175450.kml	9/24/2018 2:01 PM	KML File

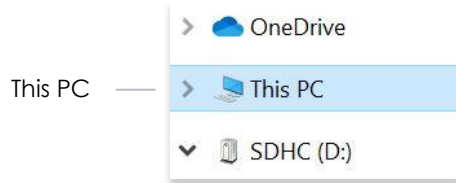
8. Open **Google Earth** to export KML files, and your points will appear.



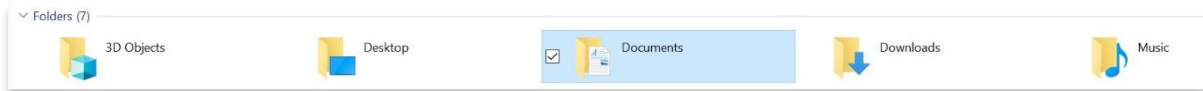
### 13.3.1.5.2 View Breadcrumbs in SQLite File

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

1. Export Breadcrumbs to SQLite Database.
2. Connect your microSD card into the Windows tablet.
3. Once the microSD card is inserted, open **File Explorer** and navigate to **This PC**.



4. Double-click on **Documents**.



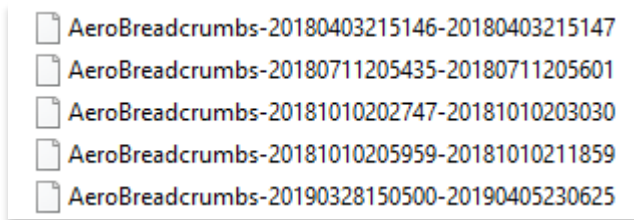
5. Double-click on **Aero App**.



6. Double-click on **Breadcrumbs**.



7. Your exported breadcrumbs will be listed.

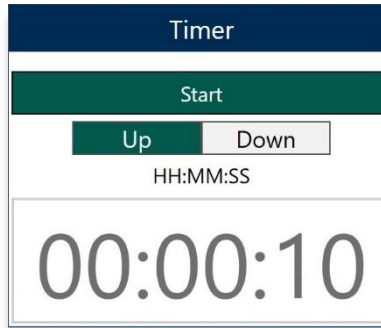




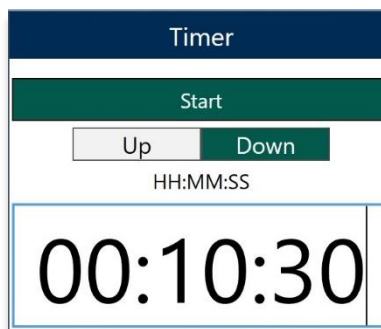
### 13.3.2 Timer

The Timer feature is a general use chronometer that is used to time flights or any other activity.

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Timer** located on the upper-right corner of the screen. A timer menu will display.
3. The Timer has two modes:
  - **Count Up** – Starts the timer at zero then begins counting.
  - **Counts 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 Count **Up** mode. Then tap **Start** to begin the timer.



5. To count down, tap to select the Count **Down** mode.
6. Enter desired timer duration following the format HH:MM:SS.



7. Tap **Start** to begin timer.
8. Tap **Stop** to end timer.
9. Tap **Reset** to restart timer.


### 13.3.3 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 Route panel and Wx tab. Air Force Weather data is only available to DOD crews and select partners.

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **AF Wx** tab on the upper-right corner of the **Moving Map**.
3. The AF Wx popup will display. Tap **Credentials**.
4. Select desired credentials to authenticate using any of the following options:
  - a. Aero User Database (AUD)
  - b. GEOAxis



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



**NOTE:** Credentials will be cleared when the user closes Aero App.



**NOTE:** Air Force Weather (AF Wx) is only available with internet connection and is updated every 5 minutes.

### 13.3.3.1 Air Force Weather (AF Wx) on the Route Panel

Air Force weather can be viewed on the Route Panel. Additional Air Force weather information can be viewed from the Wx menu as explained below.

1. Tap the **Route Tab** to expand the **Route Panel**.
2. METAR information will be displayed for each ICAO on your route.
3. The different color dot indicates the airports flight rules:
  - o **Green:** VFR
  - o **Blue:** MVFR
  - o **Red:** IFR
  - o **Magenta:** LIFR



4. Additional Air Force weather information can be viewed by tapping an ICAO from the Route Panel. Tap an **ICAO** from the Route Panel.
5. The Moving Map popup will appear. Tap **Show** from the side menu.
6. Select **Info and Wx**.
7. The airport information will be displayed. Tap **Wx**.
8. Select **METARs** from the side menu to display METAR data that includes AF Wx.
9. Select **TAFs** from the side menu to display TAF data that includes AF Wx.

METARs	Terminal Aerodrome Forecast (TAFs)
<div style="background-color: #003366; color: white; padding: 5px; text-align: center; font-weight: bold;">METARs</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #990033; color: white; padding: 2px 5px; font-weight: bold;">KBLV IFR</div> <div style="text-align: center;">KBLV - Scott Afb Midamerica</div> <div style="background-color: #336699; color: white; padding: 2px 5px; font-weight: bold;">AF Wx</div> </div> <p style="font-size: 0.8em; margin-top: 5px;">KBLV 251755Z 29014KT 10SM OVC008 02/00 A2975 RMK AO2A SLP081 60004 T00160001 10016 20002 52020 \$=</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #006699; color: white; padding: 2px 5px; font-weight: bold;">KCPS MVFR</div> <div style="text-align: center;">KCPS - St Louis Downtown 15nm W</div> <div style="background-color: #336699; color: white; padding: 2px 5px; font-weight: bold;">AF Wx</div> </div> <p style="font-size: 0.8em; margin-top: 5px;">KCPS 251753Z 30011KT 10SM OVC010 02/01 A2977 RMK AO2 SLP085 60004 T00220006 10022 20006 51009=</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #990033; color: white; padding: 2px 5px; font-weight: bold;">KALN IFR</div> <div style="text-align: center;">KALN - St Louis Rgnl 23nm NNW</div> <div style="background-color: #336699; color: white; padding: 2px 5px; font-weight: bold;">AF Wx</div> </div> <p style="font-size: 0.8em; margin-top: 5px;">KALN 251750Z 30013KT 10SM OVC007 02/01 A2976=</p> </div> <div style="border: 1px solid #ccc; padding: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #990033; color: white; padding: 2px 5px; font-weight: bold;">KSAR IFR</div> <div style="text-align: center;">KSAR - Sparta Community Hq 25nm SSE</div> <div style="background-color: #336699; color: white; padding: 2px 5px; font-weight: bold;">AF Wx</div> </div> <p style="font-size: 0.8em; margin-top: 5px;">KSAR 251815Z AUTO 30007G15KT 10SM OVC008 01/01 A2976 RMK AO2 P0002 T00120006=</p> </div>	<div style="background-color: #003366; color: white; padding: 5px; text-align: center; font-weight: bold;">TAFs</div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">KBLV - Scott Afb Midamerica St Louis</div> <div style="background-color: #336699; color: white; padding: 2px 5px; font-weight: bold;">AF Wx</div> </div> <p style="font-size: 0.8em; margin-top: 5px;">AMD KBLV 251610Z 2516/2622 33009KT 9000 -DZ OVC008 620089 QNH2968INS BECMG 2517/2518 29009KT 9999 NSW SCT004 OVC011 620119 QNH2976INS BECMG 2612/2613 29015KT 9999 BKN020 OVC027 620209 QNH3000INS BECMG 2616/2617 29015G20KT 9999 FEW020 OVC035 620359 QNH3011INS TX03/2523Z TNM02/2612Z=</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">KCPS - St Louis Downtown 15nm W</div> <div style="background-color: #336699; color: white; padding: 2px 5px; font-weight: bold;">AF Wx</div> </div> <p style="font-size: 0.8em; margin-top: 5px;">KCPS 251725Z 2518/2618 31012G20KT P6SM OVC009 FM260000 29012G18KT P6SM OVC011=</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">KSTL - St Louis Lambert Intl 28nm WNW</div> <div style="background-color: #336699; color: white; padding: 2px 5px; font-weight: bold;">AF Wx</div> </div> <p style="font-size: 0.8em; margin-top: 5px;">KSTL 251725Z 2518/2624 31012G20KT P6SM -SN OVC006 FM252000 30013G20KT P6SM OVC007 FM260100 29014G22KT P6SM OVC013 FM262000 28012G18KT P6SM OVC022=</p> </div> <div style="border: 1px solid #ccc; padding: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">KSUS - Spirit Of St Louis</div> <div style="background-color: #336699; color: white; padding: 2px 5px; font-weight: bold;">AF Wx</div> </div> </div>



**NOTE:** METAR information on the Moving Map expires 3 hours after becoming available.



**NOTE:** Air Force Weather information can be viewed directly from the Active Point menu. Refer to Section for more information.

### 13.3.3.2 Air Force Weather (AF Wx) Information on the Wx Menu

Air Force weather information can be viewed by accessing the Wx menu for the Active Point, or by selecting Info and Wx from the Route Panel.

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

METARs	Terminal Aerodrome Forecast (TAFs)
<div style="text-align: center; background-color: #003366; color: white; padding: 5px;">  METARs                 </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #c00000; color: white; padding: 2px 5px; font-weight: bold;">KBLV IFR</div> <div style="text-align: center;">KBLV - Scott Afb Midamerica</div> <div style="background-color: #003366; color: white; padding: 2px 5px; font-weight: bold;">AF Wx</div> </div> <p style="font-size: 0.8em; margin-top: 5px;">KBLV 251755Z 29014KT 10SM OVC008 02/00 A2975 RMK AO2A SLP081 60004 T00160001 10016 20002 52020 \$=</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #003366; color: white; padding: 2px 5px; font-weight: bold;">KCPS MVFR</div> <div style="text-align: center;">KCPS - St Louis Downtown 15nm W</div> <div style="background-color: #003366; color: white; padding: 2px 5px; font-weight: bold;">AF Wx</div> </div> <p style="font-size: 0.8em; margin-top: 5px;">KCPS 251753Z 30011KT 10SM OVC010 02/01 A2977 RMK AO2 SLP085 60004 T00220006 10022 20006 51009=</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #c00000; color: white; padding: 2px 5px; font-weight: bold;">KALN IFR</div> <div style="text-align: center;">KALN - St Louis Rgnl 23nm NNW</div> <div style="background-color: #003366; color: white; padding: 2px 5px; font-weight: bold;">AF Wx</div> </div> <p style="font-size: 0.8em; margin-top: 5px;">KALN 251750Z 30013KT 10SM OVC007 02/01 A2976=</p> </div> <div style="border: 1px solid #ccc; padding: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="background-color: #c00000; color: white; padding: 2px 5px; font-weight: bold;">KSAR IFR</div> <div style="text-align: center;">KSAR - Sparta Community Hl 25nm SSE</div> <div style="background-color: #003366; color: white; padding: 2px 5px; font-weight: bold;">AF Wx</div> </div> <p style="font-size: 0.8em; margin-top: 5px;">KSAR 251815Z AUTO 30007G15KT 10SM OVC008 01/01 A2976 RMK AO2 P0002 T00120006=</p> </div>	<div style="text-align: center; background-color: #003366; color: white; padding: 5px;">  TAFs                 </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <div style="text-align: center; background-color: #003366; color: white; padding: 2px 5px; font-weight: bold;">KBLV - Scott Afb Midamerica St Louis</div> <div style="background-color: #003366; color: white; padding: 2px 5px; float: right; font-weight: bold;">AF Wx</div> <p style="font-size: 0.7em; margin-top: 5px;">AMD KBLV 251610Z 2516/2622 33009KT 9000 -DZ OVC008 620089 QNH2968INS BECMG 2517/2518 29009KT 9999 NSW SCT004 OVC011 620119 QNH2976INS BECMG 2612/2613 29015KT 9999 BKN020 OVC027 620209 QNH3000INS BECMG 2616/2617 29015G20KT 9999 FEW020 OVC035 620359 QNH3011INS TX03/2523Z TNM02/2612Z=</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <div style="text-align: center; background-color: #003366; color: white; padding: 2px 5px; font-weight: bold;">KCPS - St Louis Downtown 15nm W</div> <div style="background-color: #003366; color: white; padding: 2px 5px; float: right; font-weight: bold;">AF Wx</div> <p style="font-size: 0.7em; margin-top: 5px;">KCPS 251725Z 2518/2618 31012G20KT P6SM OVC009 FM260000 29012G18KT P6SM OVC011=</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <div style="text-align: center; background-color: #003366; color: white; padding: 2px 5px; font-weight: bold;">KSTL - St Louis Lambert Intl 28nm WNW</div> <div style="background-color: #003366; color: white; padding: 2px 5px; float: right; font-weight: bold;">AF Wx</div> <p style="font-size: 0.7em; margin-top: 5px;">KSTL 251725Z 2518/2624 31012G20KT P6SM -SN OVC006 FM252000 30013G20KT P6SM OVC007 FM260100 29014G22KT P6SM OVC013 FM262000 28012G18KT P6SM OVC022=</p> </div> <div style="border: 1px solid #ccc; padding: 5px;"> <div style="text-align: center; background-color: #003366; color: white; padding: 2px 5px; font-weight: bold;">KSUS - Spirit Of St Louis</div> <div style="background-color: #003366; color: white; padding: 2px 5px; float: right; font-weight: bold;">AF Wx</div> </div>



**NOTE:** Air Force Weather is only available via the internet.



**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.

## 13.3.4 Maps

Maps contain a library of mutable charts stored within Aero Maps, Base Maps, Helicopter and TAC Maps, and User Maps menus.

### 13.3.4.1 Aero Maps

The Aero Maps section provides access to current VFR Sectionals, and worldwide IFR High and Low Enroutes.

#### 13.3.4.1.1 FAA Visual Flight Rule (VFR) Sectionals

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Maps** located at the bottom of the Moving Map.
3. Select **Aero Maps** from the side menu, if necessary.
4. Tap **FAA VFR** to enable the option. The VFR sectional will be displayed on the map.

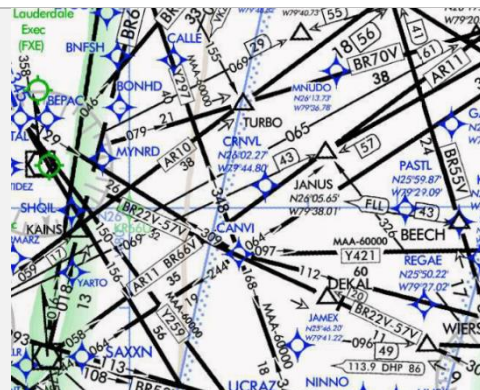
#### 13.3.4.1.2 Instrument Flight Rule (IFR) High Enroute

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Maps** located at the bottom of the Moving Map.
3. Select **Aero Maps** from the side menu, if necessary.
4. Tap **IFR High** to enable the option. The high-altitude IFR Enroute charts will be displayed on the map.

FAA Visual Flight Rule (VFR) Sectionals

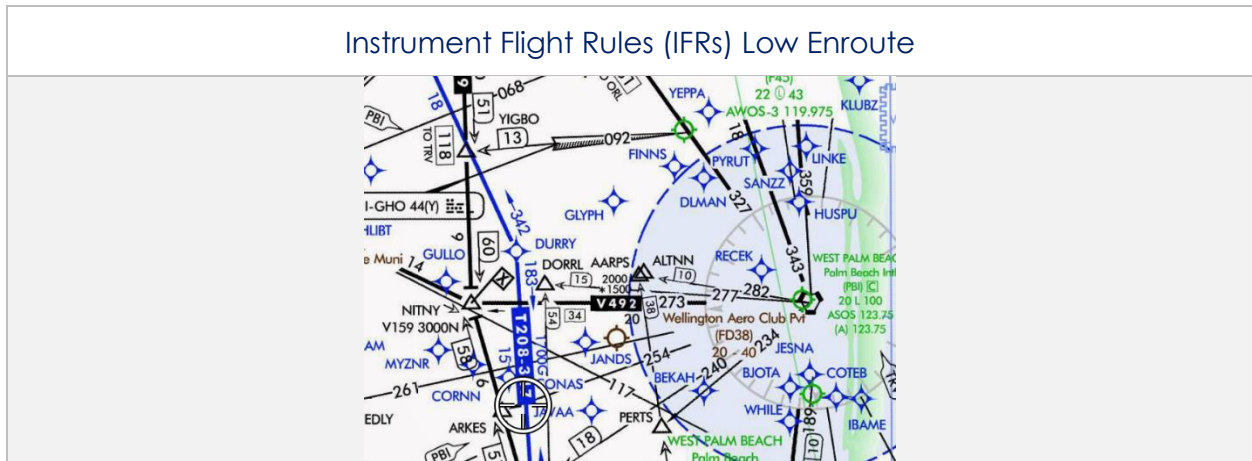


Instrument Flight Rule (IFR) High Enroute



### 13.3.4.1.3 Instrument Flight Rule (IFR) Low Enroute

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Maps** located at the bottom of the Moving Map.
3. Select **Aero Maps** from the side menu, if necessary.
4. Tap **IFR Low** to enable the option. The low-altitude IFR Enroute charts will be displayed on the map.



### 13.3.4.2 Base Map

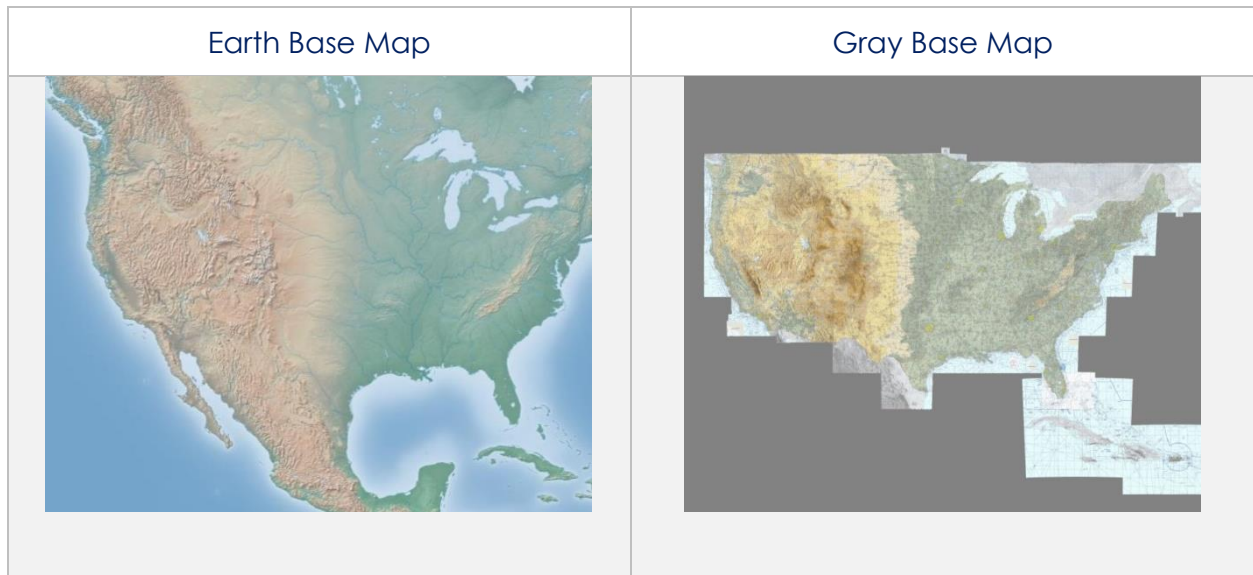
Base Map provides worldwide Earth and Gray Base maps to choose from.

#### 13.3.4.2.1 Earth Base Map

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Maps** located at the bottom of the Moving Map.
3. Select **Base Map** from the side menu.
4. Tap **Earth** to enable the option. The earth base map will display.

#### 13.3.4.2.2 Gray Base Map

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Maps** located at the bottom of the Moving Map.
3. Select **Base Map** from the side menu.
4. Tap **Gray** to enable the option. The gray base map will display.





### 13.3.4.3 Helicopter and Terminal Area Chart (TAC) Maps

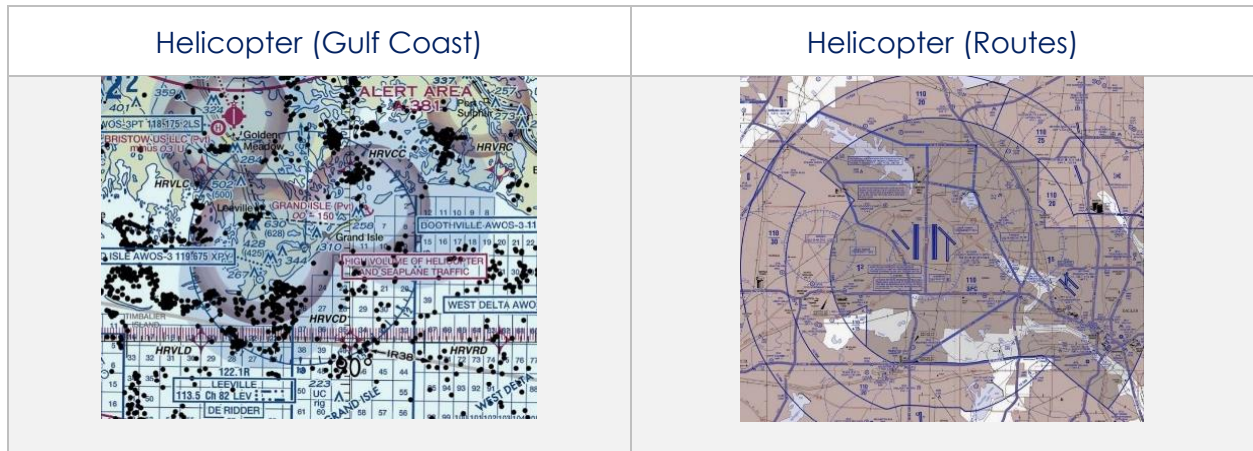
Helicopter and Terminal Area Chart (TAC) Maps provide access to Helicopter (Gulf Coast), Helicopter (Routes), and Terminal Area Charts (TACs) to overlay on the Moving Map.

#### 13.3.4.3.1 Helicopter (Gulf Coast)

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Maps** located at the bottom of the Moving Map.
3. Select **Helicopter and TAC Maps** from the side menu.
4. Tap **Helicopter (Gulf Coast)** to enable the option. The gulf coast chart will overlay on the map.

#### 13.3.4.3.2 Helicopter (Routes)

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Maps** located at the bottom of the Moving Map.
3. Select **Helicopter and TAC Maps** from the side menu.
4. Tap **Helicopter (Routes)** to enable the option. The helicopter chart will overlay on the map.



### 13.3.4.3 Terminal Area Charts (TACs)

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Maps** located at the bottom of the Moving Map.
3. Select **Helicopter and TAC Maps** from the side menu.
4. Tap **TACs** to enable the option. The terminal area chart will overlay on the map.

### 13.3.4.4 User Maps

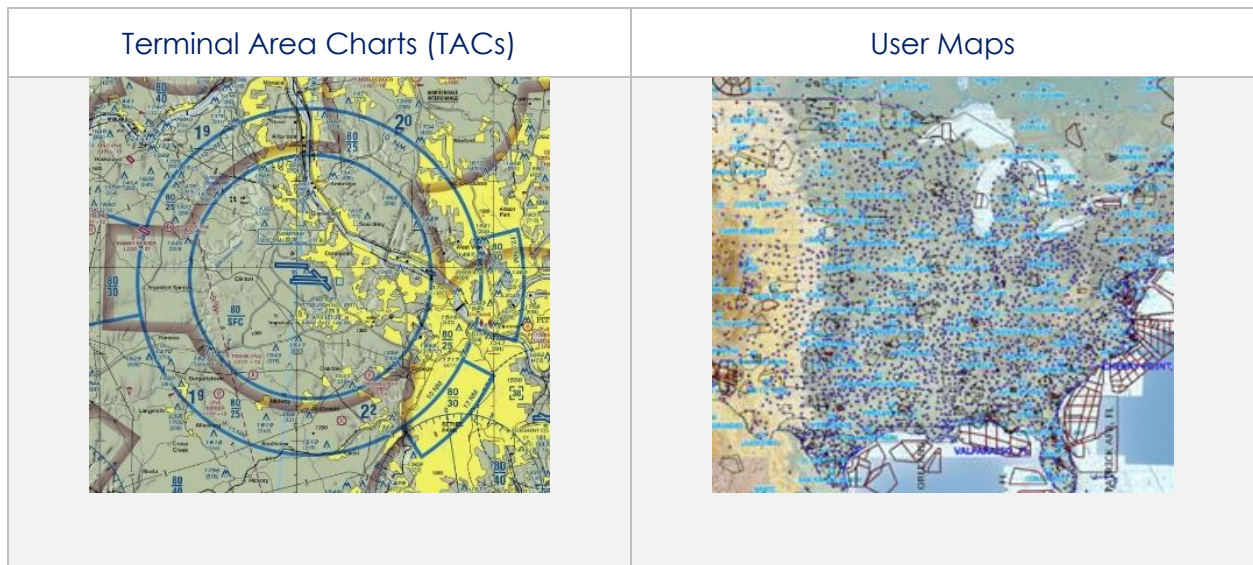
User Maps are map overlays provided by users through the form of sideloading. Users can use their desired user maps to display on the Moving Map.

#### 13.3.4.4.1 User Maps

1. Tap the **Moving Map** on the **Main Menu**.
2. Tap **Maps** located at the bottom of the Moving Map.
3. Select **User Maps** from the side menu.
4. The loaded files will display under User Maps.
5. Enable desired file(s).
6. Overlays will display on the Moving Map.



**NOTE:** Refer to [Section 9.2](#) for information on sideloading User Maps.





### 13.3.5.1.3 Airways – High

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Overlays** located at the bottom of the Moving Map.
3. Select **Aero Overlays** from the side menu, if necessary.
4. Tap the **Airways High** option. The high-altitude airways that are between 18,000 ft and 45,000 ft will populate on the map.

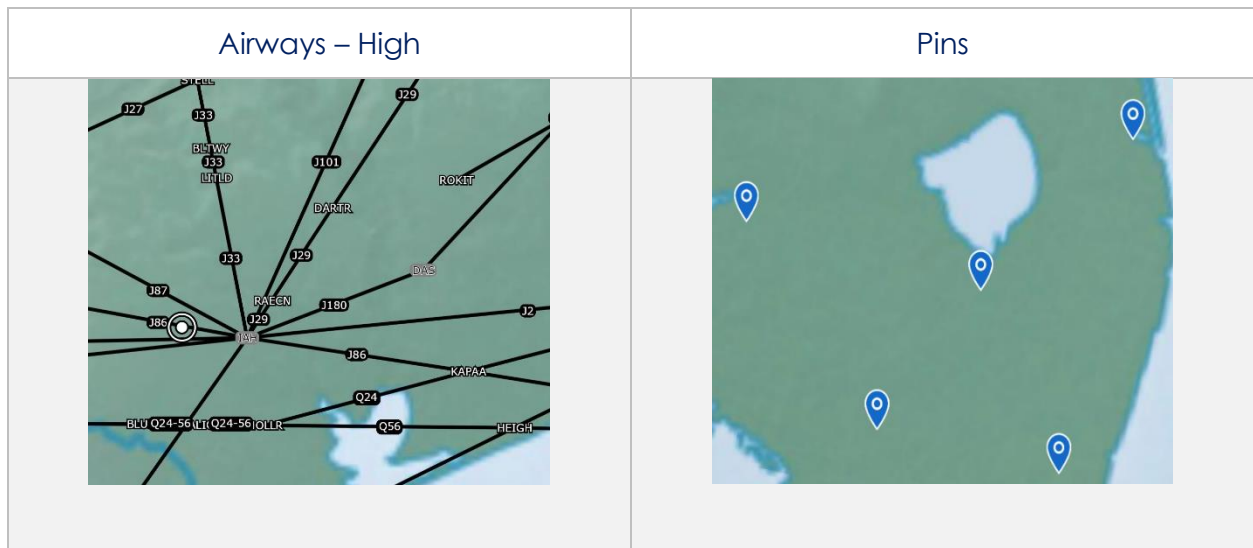


**NOTE:** Refer to [Section 13.3.13.1.2](#) on how to add Airways to the route.

### 13.3.5.1.4 Pins

Pins are marked locations on the Moving Map that were dropped by users. This option must be enabled to view dropped pins. If no pins were dropped, refer to [Section 13.3.12.1.3](#) for additional information.

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Overlays** located at the bottom of the Moving Map.
3. Select **Aero Overlays** from the side menu, if necessary.
4. Tap **Pins** to enable the option. Dropped pins will populate on the map.



### 13.3.5.2 User Overlays

Aero App enables users to sideload User Overlays such as Shapefiles and GeoJSON files to their Aero App directory. For more information on sideloading, refer to [Section 9](#).

#### 13.3.5.2.1 User Overlays

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Overlays** located at the bottom of the Moving Map screen.
3. Select **User Overlays** from the side menu.
4. Tap one or multiple **User Overlays** from the sideloaded shapefiles or GeoJSON files to load onto the map.



**NOTE:** Users can sideload User Overlays by storing shapefiles and/or GeoJSON files in PC/Documents/Aero App/UserFiles directory.

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## 13.3.6 Options

The Options menu provides Ownship and Location features to assist users in preflight or inflight operations.

### 13.3.6.1 Ownship

The Ownship menu provides customizable ownship options. Users can show or hide their Ownship from the map view, Snap to Location, and choose North Up as the orientation on the Moving Map.

#### 13.3.6.1.1 Ownship

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Options** located at the bottom of the Moving Map.
3. Select **Ownship** from the side menu, if necessary.
4. Tap **Ownship** to enable the option. An ownship will display on the map indicating your current location.

#### 13.3.6.1.2 Snap to Location

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Options** located at the bottom of the Moving Map.
3. Select **Ownship** from the side menu, if necessary.
4. Tap **Snap to Location** to enable the option. The map will automatically snap to your current location after 15 seconds.

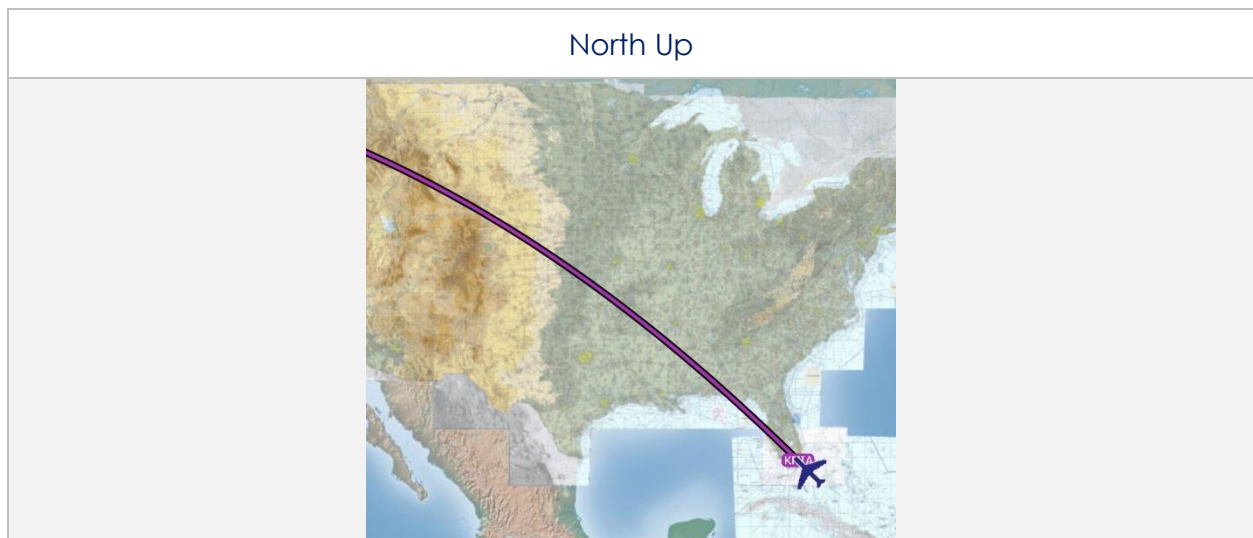


**NOTE:** Alternatively, users can access their Snap to Location feature by tapping the Crosshair Icon on the Moving Map as explained in [Section 13.3.7](#).



### 13.3.6.1.3 North Up

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Options** located at the bottom of the Moving Map.
3. Select **Ownship** from the side menu, if necessary.
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.



### 13.3.6.2 Location

The Location menu provides options to show the recorded ownership's path and to include configurable distance rings around your ownership.

#### 13.3.6.2.1 Breadcrumbs

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Options** located at the bottom of the Moving Map.
3. Select **Location** from the side menu.
4. Tap **Breadcrumbs** to enable the option. The breadcrumb trail tracks will be displayed in orange on the map.



**NOTE:** Refer to [Section 13.3.1.5](#) for more information about Breadcrumbs.

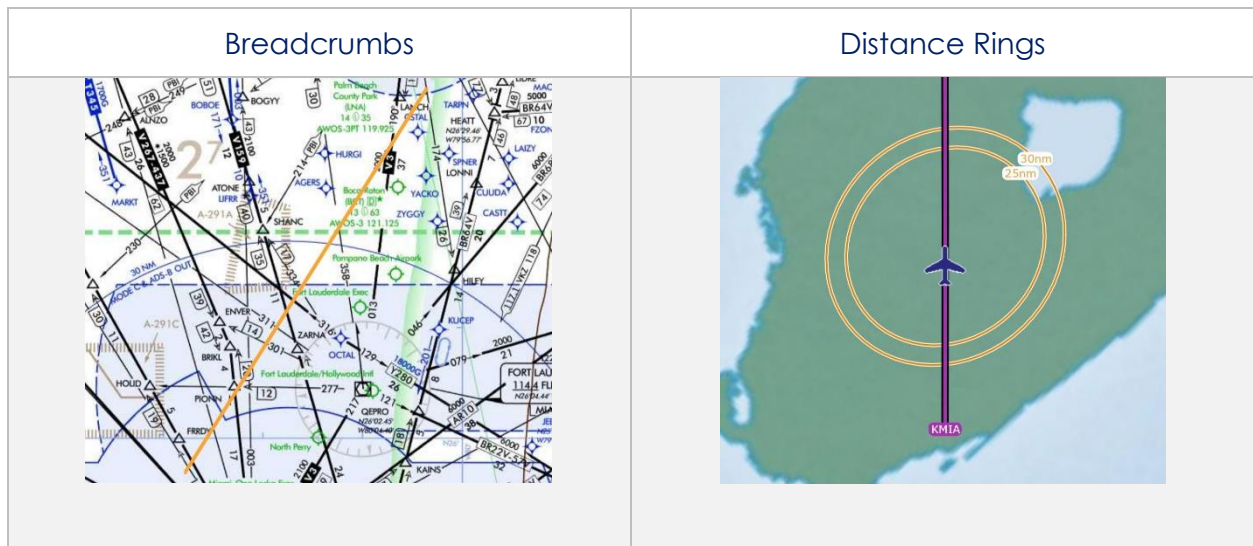
#### 13.3.6.2.2 Distance Rings

1. Tap **Moving Map** on the **Main Menu**.
2. Tap **Options** located at the bottom of the Moving Map.
3. Select **Location** from the side menu.
4. Tap **Distance Rings** to show additional options for distance rings.
5. Tap on the **Outer Ring Distance** text box and enter desired outer ring distance.



**NOTE:** Max outer ring distance is 999.

6. Tap to select desired distance from options 0, 2.5, 5, 10, and 25.





### 13.3.7 Snap to Location

By tapping on the **Crosshairs Icon**, located at the bottom-right corner of the Moving Map screen, your location will 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 13.3.6.1.2](#).

### 13.3.8 Move Map to Location

The Move Map to Location feature enables users to search Airports, NavAids, Waypoints, or User Waypoints by its identifier name, search term, MGRS, or latitude, longitude.

1. Tap the **magnifying glass** located at bottom-right corner of the screen.
2. Enter an identifier, search term, MGRS, or latitude, longitude.
3. Tap **Enter** on the device's keyboard and the screen will pan to its location.

ICAO	Name	Distance
------	------	----------

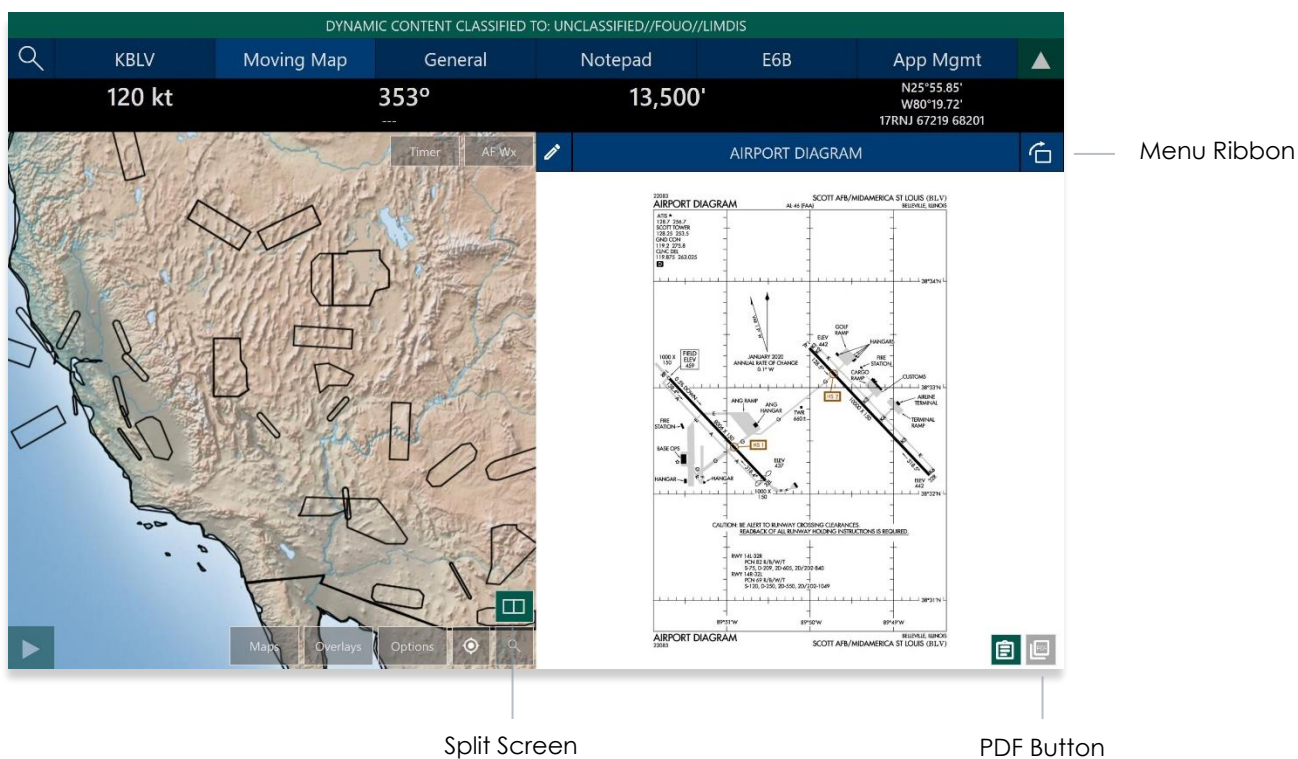
### 13.3.9 Split Screen

Split Screen allows users to view IAP and APD charts, and user PDF documents simultaneously with the Moving Map on the same screen.

#### 13.3.9.1 APD for Destination Airport

The APD charts for the route's destination airport may be displayed simultaneously with the Moving Map on the split screen.

1. Tap **Moving Map** on the **Main Menu**.
2. Tap on the **Split Screen** icon located at the bottom-right corner of the screen.
3. The destination APD will display.
4. Tap the **actions ribbon**.
5. Select a chart from the popup menu.



**NOTE:** If no route is loaded, no chart will display.

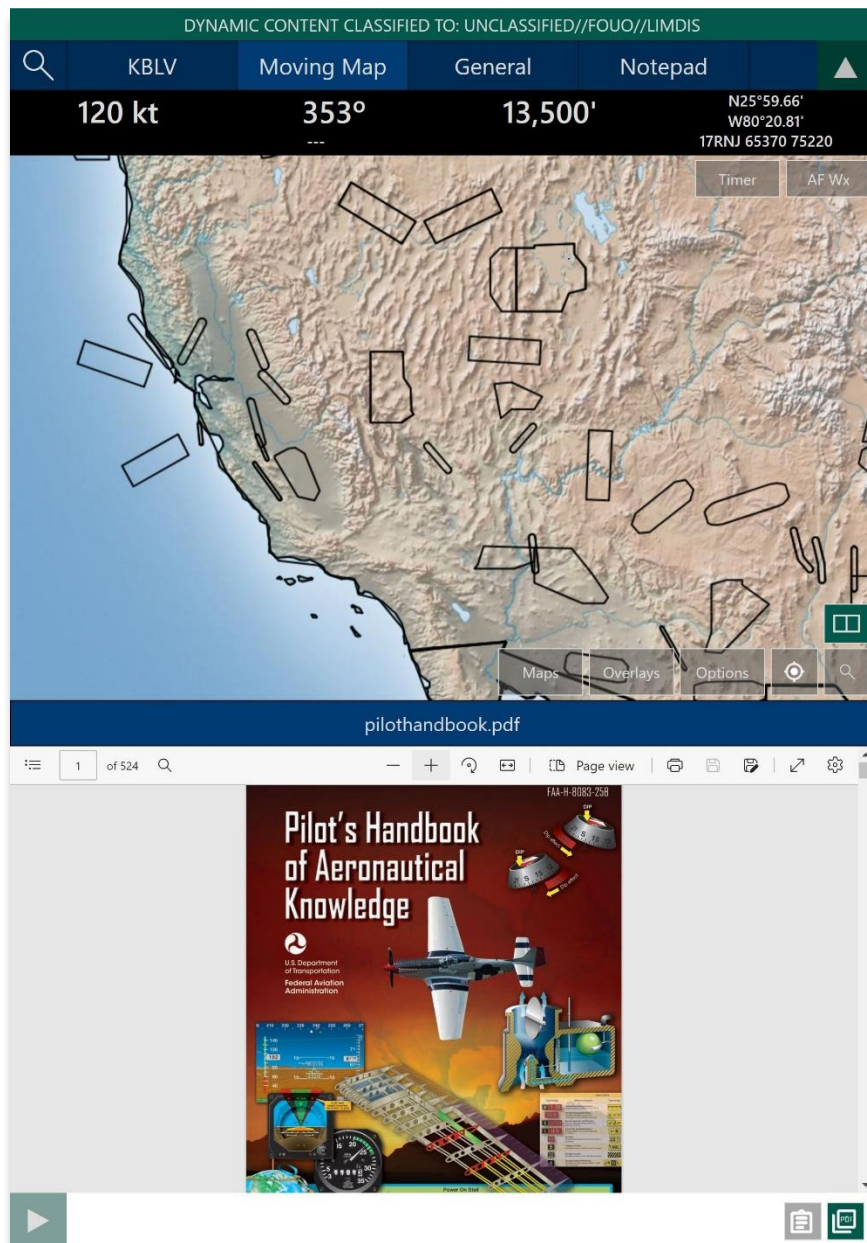


**NOTE:** Refer to [Section 13.2.1.1](#) on how to draw on APD charts.

### 13.3.9.2 PDF Support

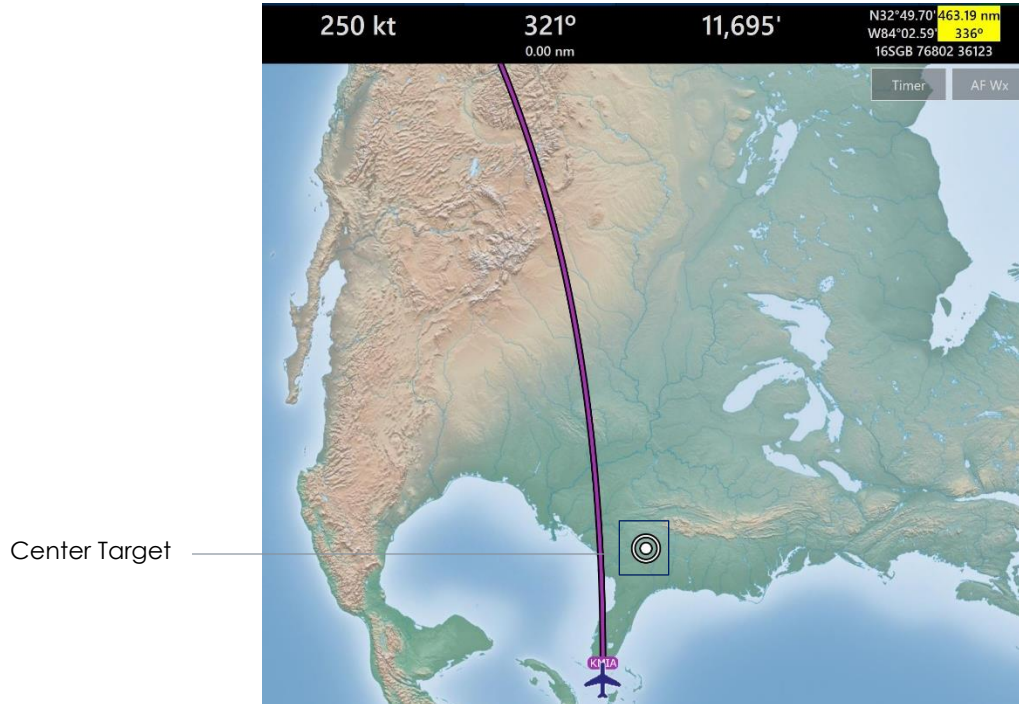
PDF Support enables users to view PDF documents in Aero App. User's documents must be sideloaded prior to viewing the document.

1. Tap the **PDF** icon on the split screen.
2. Tap the **actions ribbon** and the User Documents popup will appear.
3. Select desired document.
4. To return to the APD chart view, tap the **clipboard** icon.



### 13.3.10 Center Target

As the user moves the map, a target in the center of the screen will appear and its coordinates will show at the upper-right corner of the screen.



#### 13.3.10.1 Measure Distance and Bearing Between Points

Aero App enables users to easily calculate the distance and bearing between two points on the Moving Map.

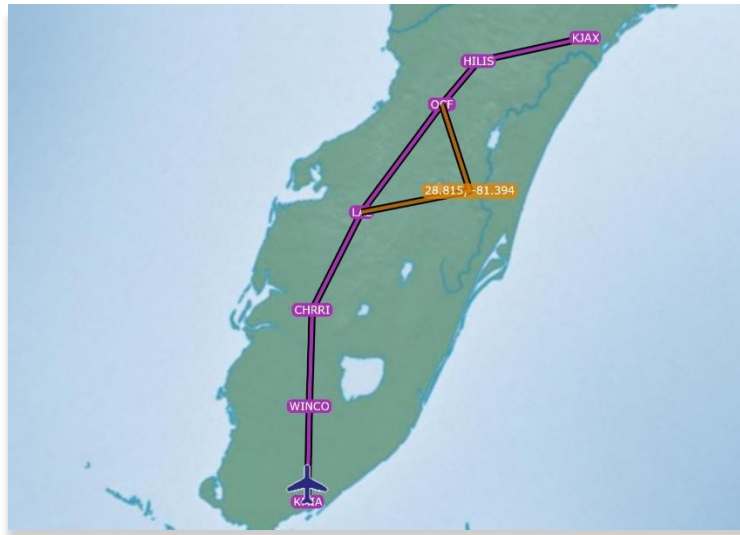
1. Tap on the **Target icon** on the **Moving Map** to set a starting point.
2. As you move the map, the distance and bearing between the starting point and new location displays.



### 13.3.11 Drag and Drop

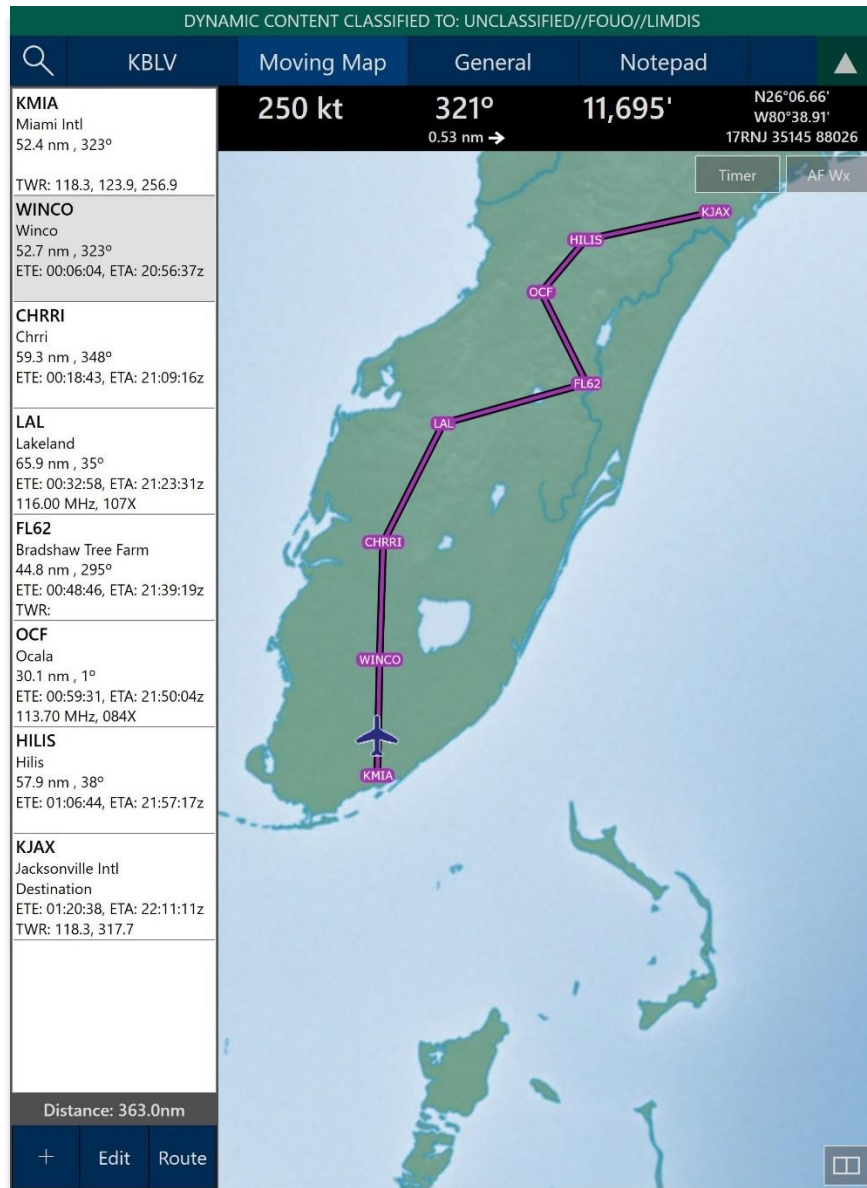
Aero App enables users to drag any point or segment of the current route and drag it to their desired point.

1. Navigate to the **Route Panel**.
2. Tap the **Plus** button on the **Route Panel**.
3. The Add popup will display.
4. Enter a desired route using identifiers, search term, or route, including MGRS or latitude and longitude.
5. Route will be displayed on the Moving Map.
6. With your mouse, right-click and hold a point or segment in the route and drag it to a desired point that you wish to add to the route.



7. The Nearest popup will appear displaying the latitude and longitude of the selected point with ten nearest Airports, NavAids, Waypoints, and User Waypoints.
8. Select which you desire to add.

9. 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 route with a DP, STAR, SAR pattern, Airway, or MTR.

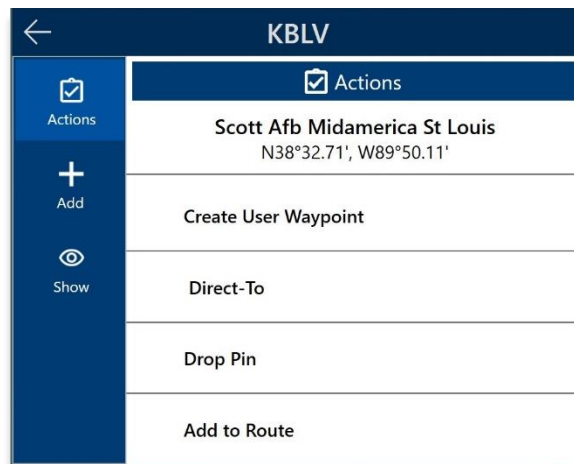


**NOTE:** Users can also tap and hold to drag and drop points or segments. Using touch is difficult; therefore, the primary method should be using the mouse.

### 13.3.12 Moving Map Popup Menu

Aero App enables users to perform actions to their Moving Map. Users can display the popup in two simple ways:

- Long pressing any point on the Moving Map.
  - Tapping any point on the Route Panel.
1. Tap **Moving Map** on the **Main Menu**.
  2. Long-press a desired point on the Moving Map. Alternatively, users can tap on an ICAO from the Route Panel.
  3. The Nearest popup will display. Tap an identifier or ICAO. The Moving Map's popup menu will display with each option grouped by Actions, Add, and Show.



### 13.3.12.1 Actions

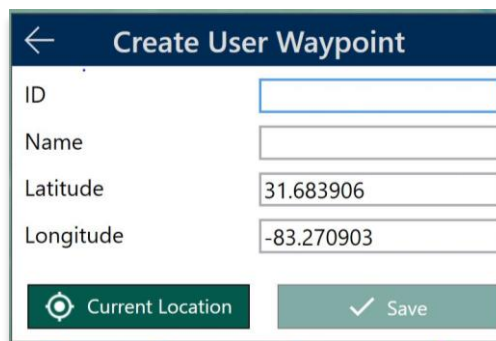
The Actions submenu section provides users the following options:

- Create User Waypoint
- Direct-To
- Drop Pin
- Add or Remove from the route

#### 13.3.12.1.1 Create User Waypoint

Aero App enables users to create user waypoints using a unique ID, Name, Latitude, and Longitude. The Current Location option is available to users when using their current location's coordinates.

1. Tap **Moving Map** on the **Main Menu**.
2. Long-press a desired point on the Moving Map. Alternatively, users can tap on an ICAO from the Route Panel.
3. The Nearest popup will appear, select your desired point.
4. The Moving Map popup 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 Lat/Lon fields are auto filled with the point's current coordinates. Fill in the necessary information.
7. Tap **Current Location** to use your present location's coordinates.



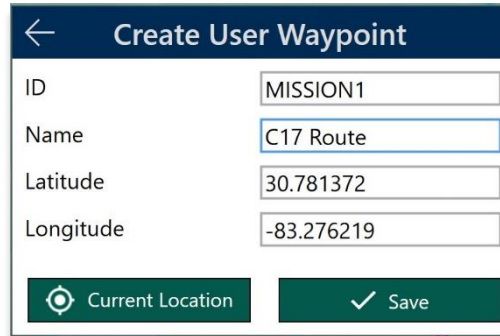
Create User Waypoint	
ID	<input type="text"/>
Name	<input type="text"/>
Latitude	31.683906
Longitude	-83.270903
<input type="button" value="Current Location"/> <input type="button" value="Save"/>	





**NOTE:** The Name field is optional.



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



Create User Waypoint	
ID	MISSION1
Name	C17 Route
Latitude	30.781372
Longitude	-83.276219
 Current Location	 Save



**NOTE:** User Waypoints can be added as a text file sideloaded into Aero App. Refer to [Section 9.3](#) for information on how to sideload User Waypoints.



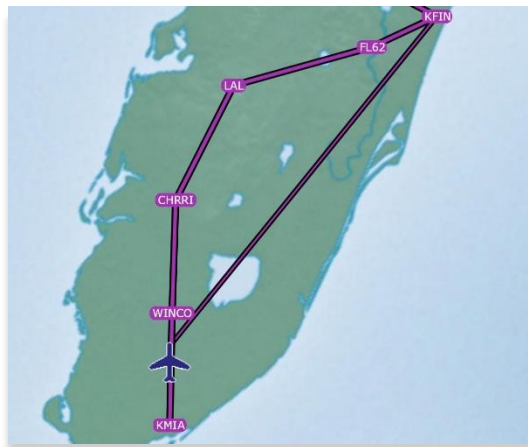
**NOTE:** Refer to [Section 13.3.13.3.3.4](#) to view all saved User Waypoints.

---

### 13.3.12.1.2 Direct-To

Aero App enables users to create a route from their current location, direct to any point on the map. Users can choose to modify the current route by adding a point for which to fly direct to or, create a new route flying direct to the chosen point.

1. Tap **Moving Map** on the **Main Menu**.
2. Ensure the route is empty.
3. Long-press a desired point on the Moving Map.
4. The Nearest popup will appear, select your desired point.
5. A popup for the selected point will appear. Select **Actions** from the side menu, if necessary.
6. Tap **Direct-To**.
7. A thin magenta line will be drawn from your current position to the direct-to position selected.



8. To add a direct-to option to the current route, follow the steps above and select **Add to Route and proceed Direct-To** or **Clear Route and proceed Direct-To**.



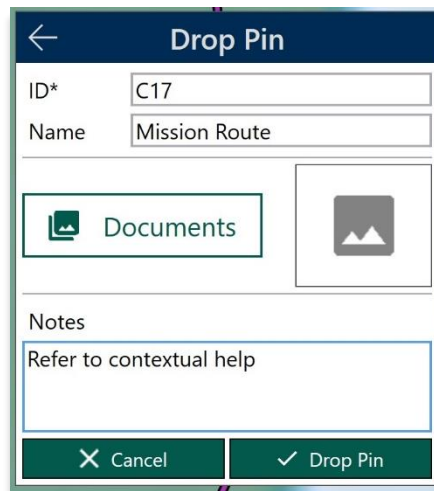
**NOTE:** Users can Direct-To an ICAO that is currently not on the route.

### 13.3.12.1.3 Drop Pin

The Drop Pin feature enables pilots to drop geographic pins in any specified area on the Moving Map and view additional descriptive information about the pins. Fields containing an asterisk are required.

Alternatively, In addition, Aero App enables users to sideload pins into Aero App. Refer to [Section 9.5](#) for additional information.

1. Tap **Moving Map** on the **Main Menu**.
2. Long-press a desired point on the Moving Map. Alternatively, users can tap on an ICAO from the Route Panel.
3. The Nearest popup will appear, select your desired point.
4. A popup for the selected point will appear. Select **Actions** from the side menu, if necessary.
5. Tap **Drop Pin**.
6. The Drop Pin popup will appear with fields such as ID, Name, Documents, and Notes. Fill out the necessary information.



The screenshot shows a mobile application interface for creating a pin. The form is titled "Drop Pin" and includes the following elements:

- ID\***: A text field containing "C17".
- Name**: A text field containing "Mission Route".
- Documents**: A button with a document icon.
- Image Placeholder**: A square box with a mountain icon.
- Notes**: A text area containing "Refer to contextual help".
- Buttons**: "Cancel" (with an X icon) and "Drop Pin" (with a checkmark icon).

7. Once the required fields have been filled, the Drop Pin button will be selectable. Tap **Drop Pin** and your pin will display on the Moving Map.
8. Tap **Cancel** to dismiss the action.

## 13.3.12.1.4 Add to Route

1. Tap **Moving Map** on the **Main Menu**.
2. Long-press on a desired point on the Moving Map.
3. The Nearest popup will appear. Select a desired point.
4. The Moving Map popup menu will display. 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.



### 13.3.12.2 Add

The Add submenu section provides users the option to add the following procedures to their route:

- Departure Procedure (DP)
- Standard Terminal Arrival Procedure (STAR)

#### 13.3.12.2.1 Add Departure Procedure (DP) or Standard Terminal Arrival Route (STAR) to Route

Aero App enables users to add a Departure Procedure (DP) and a Standard Terminal Arrival Route (STAR) to their current route.

1. Select an airport from the Route Panel or the map.
2. The Moving Map's popup 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 procedure selection popup will display. Tap the Procedure drop-down and select desired **Procedure**.

Procedure

Transition

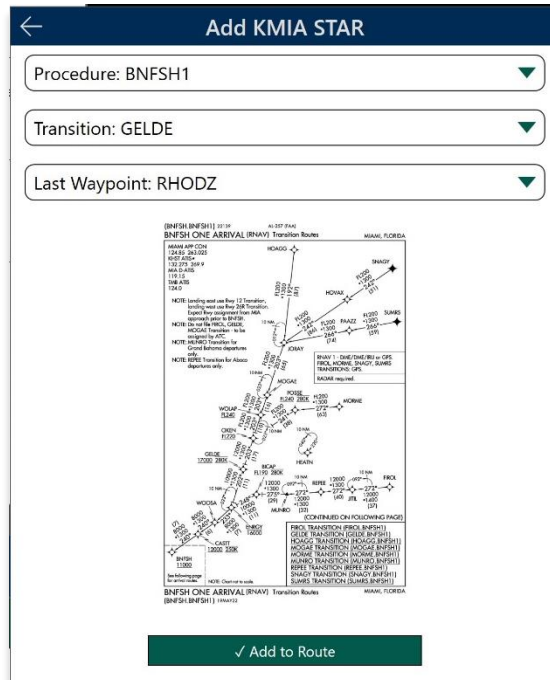
Last Waypoint

Procedure

- ANNEY4
- BLUF14
- BNFSH1
- CSTAL2
- DVALL3
- FOWEE2
- FROGZ3

✓ Add to Route

5. Transition will become selectable. Tap the Transition drop-down and select 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**.



8. The procedure will be added to the current route and on the Moving Map.

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

KBLV Moving Map General Notepad

50 kt 353° 13,877'

N26°28.08' W80°28.96' 17RNK 51566 27610

← 1.71 nm

Timer AF Wx

<b>BNFSH1 BNFSH 1 (RNAV)</b> BNFSH1 (Arrival) 69.2 nm , °
▼ GELDE, ENRGY, WOOSA,...
<b>GELDE</b> GELDE 10.6 nm , 205° ETE: 00:53:49, ETA: 22:27:31z
<b>ENRGY</b> ENRGY 6.5 nm , 235° ETE: 01:06:29, ETA: 22:40:11z
<b>WOOSA</b> WOOSA 6.2 nm , 242° ETE: 01:14:18, ETA: 22:48:00z
<b>CASTT</b> CASTT 7.5 nm , 242° ETE: 01:21:41, ETA: 22:55:23z
<b>BNFSH</b> BNFSH 2.5 nm , 187° ETE: 01:30:40, ETA: 23:04:22z
<b>OTION</b> OTION 2.7 nm , 183° ETE: 01:33:39, ETA: 23:07:21z

<p>Add DP to Route</p>	<p>Add STAR to Route</p>

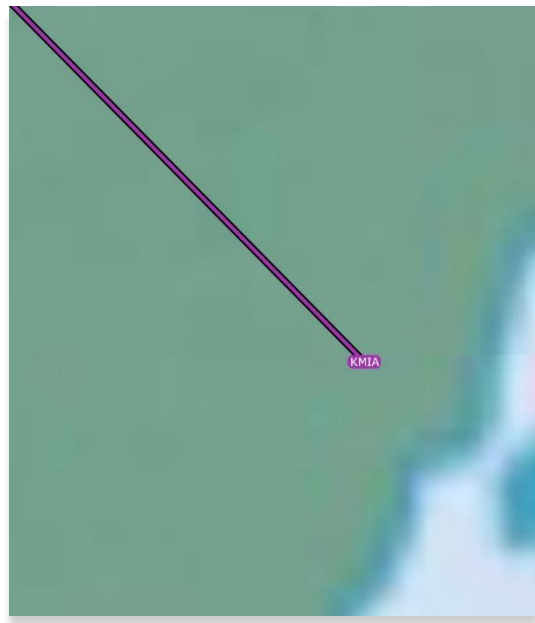
### 13.3.12.3 Show

The Show option enables users to select any procedure to display on the Moving Map.

#### 13.3.12.3.1 Show on Map

Show on Map enables users to be anywhere on the Moving Map and once the option is selected, the screen pans to the exact location of which the point or identifier is placed.

1. Tap **Moving Map** on the **Main Menu**.
2. Long-press on a desired point or identifier on the Moving Map. Alternatively, users can tap on an ICAO from the Route Panel.
3. The Nearest popup will appear, select your desired point.
4. The Moving Map popup will appear. Select **Show** from the side menu.
5. Tap **Show on Map**.
6. The screen will pan to the selected location.

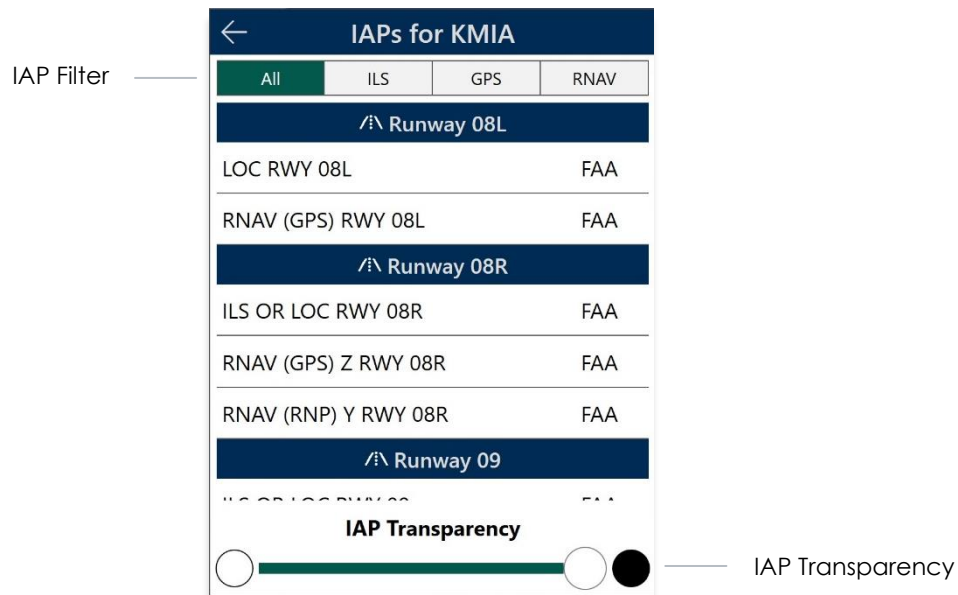




### 13.3.12.3.2 Instrument Approach Procedures (IAPs) on Map

Aero App enables users to display Instrument Approach Procedures (IAPs) on the Moving Map, perfectly georeferenced. Overlaying the IAPs provides an additional level of situational awareness.

1. Tap **Moving Map** on the **Main Menu**.
2. Long-press on a desired point on the Moving Map. Alternatively, users can tap on an ICAO from the Route Panel.
3. The Nearest popup will appear, select your desired point.
4. The Moving Map popup will appear. Select **Show** from the side menu.
5. Tap **IAP on Map**.
6. A list of IAPs for the identifier will appear. Select an **IAP Filter** from the options button group.
7. IAPs are grouped by runways. Select desired **IAP** then the IAP will overlay on the Moving 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%.



- To remove the IAP from the Moving Map, tap the red popup **X**.



**NOTE:** A small number of Instrument Approach Procedures (IAPs) are not georeferenced and therefore cannot be shown on the Moving Map.

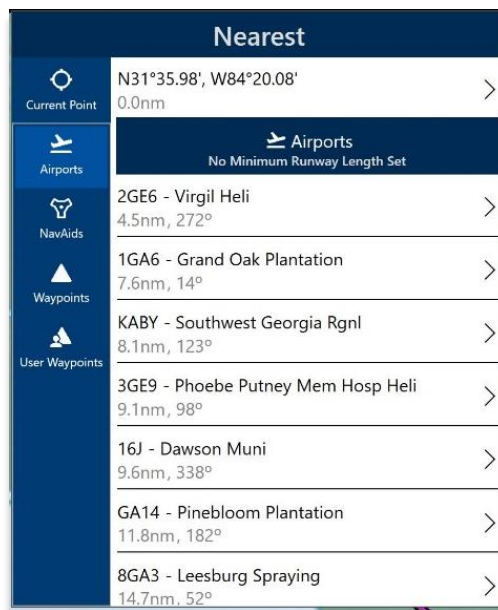
### 13.3.12.3.3 Information and Weather (Info and Wx)

The Information and Weather (Info and Wx) option can be accessed when tapping an identifier from the Moving Map or the Route Panel. When tapping an ICAO from the Moving Map or the Route Panel, additional airport information such as Info and Wx can be viewed. Refer to [Section 13.2](#) for more information. Identifiers that are not an airport such as NavAids, Waypoints, User Waypoints, Pins, and others, will display only that identifier's information.

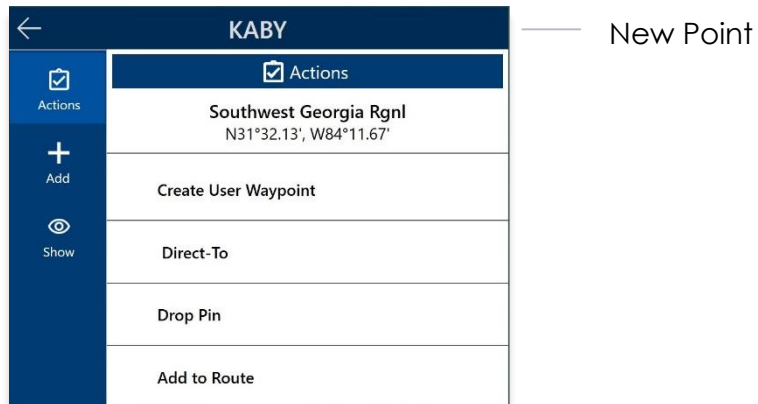
### 13.3.12.3.4 Nearest

The Nearest feature enables users to view nearby Airports, NavAids, Waypoints, and User Waypoints. Once the desired new point is selected, the Moving Map's popup menu will display.

1. Tap **Moving Map** on the **Main Menu**.
2. Long-press on a desired point on the Moving Map. Alternatively, users can tap on an ICAO from the Route Panel.
3. Your current point and a list of the nearest Airports, NavAids, Waypoints, and User Waypoints will display, select desired point.



4. Select a desired point and a new Moving Map menu will display for your new point.



### 13.3.13 Collapsible Route Panel

The collapsible Route Panel enables users to hide or show the Route Panel to free up space on the screen when not in use. To expand the Route Panel, tap the red route tab located at the bottom-left of the screen. Once expanded, the following options are available in addition to route information:

- **Add** – enables users to add Airports, NavAids, Waypoints, User Waypoints, Airways, MTRs, enter a full route, or add individual coordinates (in Lat/Lon format) to route.
- **Edit** – enables users to delete and/or reorder entries within the route.
- **Route** – enables users to perform actions pertaining to the route or display additional features on the map.

#### 13.3.13.1 Add to Route

1. Tap **Moving Map** on the **Main Menu**.
2. Navigate to the **Route Panel**.
3. Tap the **Plus** button and a dialog box will display.
4. Search by entering an identifier, search term, or route including MGRS or Lat, Lon in the search box.
5. Tap **Enter** from the device's keyboard and the entries will be added to the route. All entries will be displayed in the route panel in the order that they were entered.

**Add**

Enter identifier, search terms, or route (e.g. KSJC SJC V334 SAC KSMF) including MGRS or lat,lon (tap here for lat,lon formats)

KMIA WINCO CHRRI LAL OCF HILIS KJAX ☆

No Minimum Runway Length Set

ICAO	Name	Distance
------	------	----------



**NOTE:** Aero App displays the individual route legs of Departure Procedures (DPs), Standard Terminal Arrival Routes (STARs), Instrument Approach Procedures (IAPs), Airways, and Jetways. The point information includes an ICAO, frequency information (when appropriate), as well as distance, bearing, Estimated Time Enroute (ETE) and Estimated Time of Arrival (ETA) to the next point in the route.



**NOTE:** To enter a route with multiple points, enter each identifier separated by a space. The entries will display in the given order.



**NOTE:** When adding a new point (ICAO, 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.

### 13.3.13.1.1 Add Military Training Routes (MTRs) to Route

Users can add Military Training Routes (MTRs) to the route.

1. Navigate to the **Route Panel**.
2. Tap the **Plus** button on the **Route Panel**.
3. The Add popup will display.
4. Use your keypad to enter desired MTRs to add to route following the format: **{starting point}. {MTR}. {endpoint}**.

Add

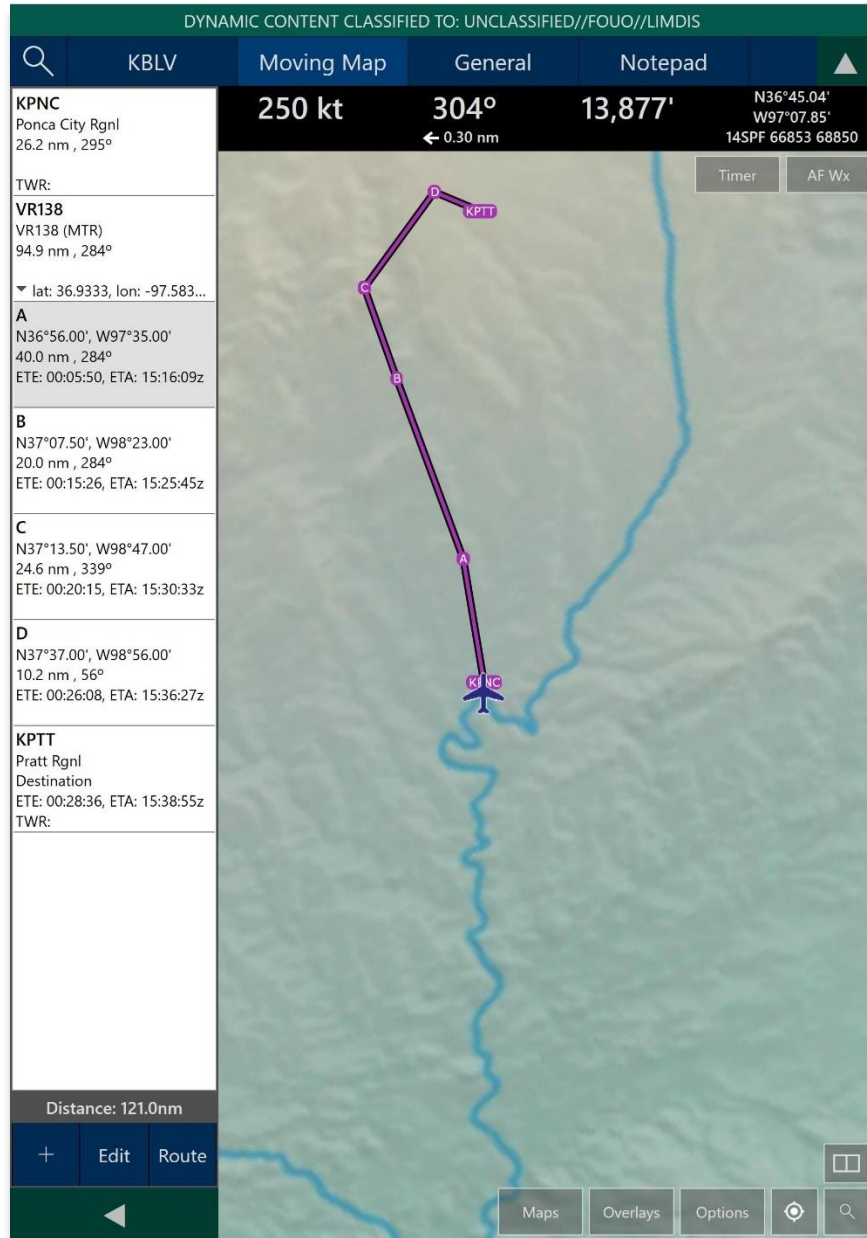
Enter identifier, search terms, or route (e.g. KSJC SJC V334 SAC KSMF) including MGRS or lat,lon (tap here for lat,lon formats)

A.VR138.D

No Minimum Runway Length Set

ICAO	Name	Distance

5. Your MTR will be displayed on the Route Panel.



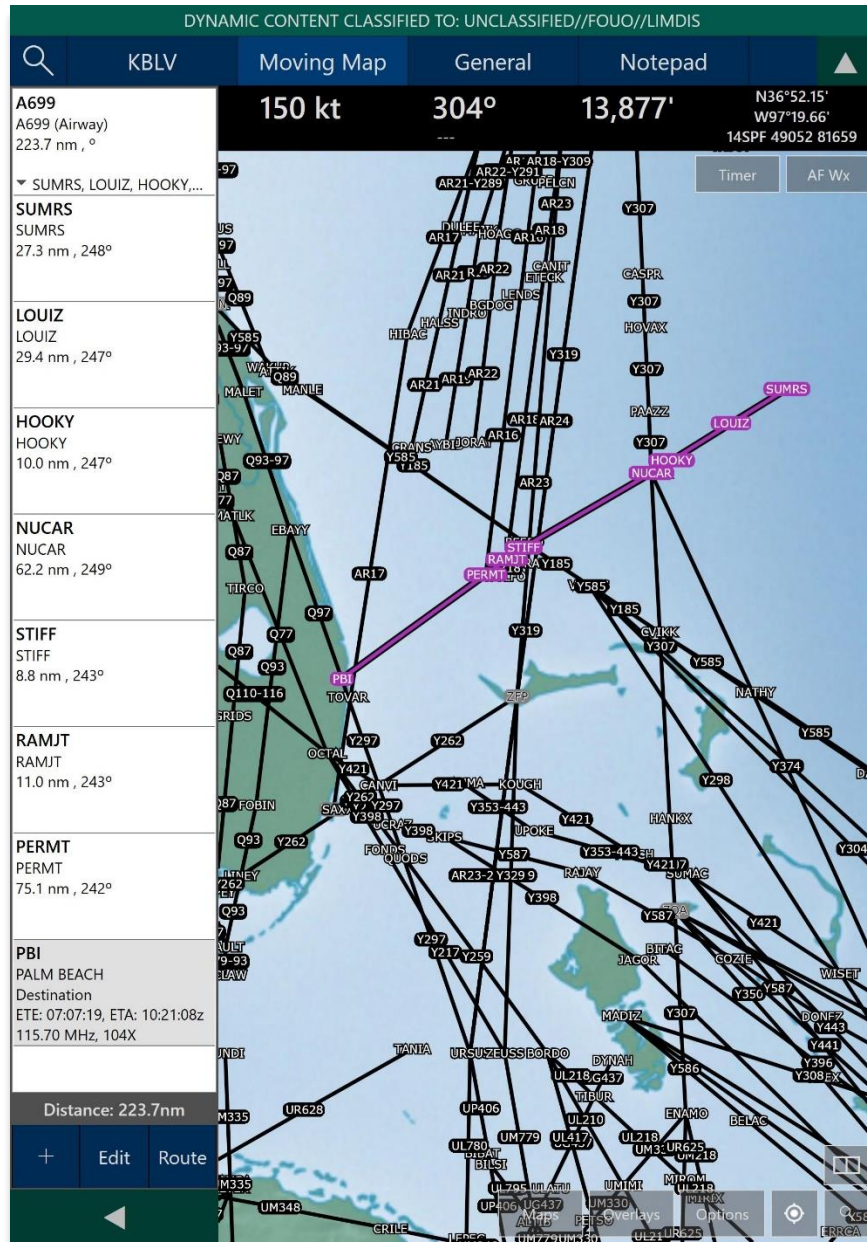
### 13.3.13.1.2 Add Airways to Route

Users can add Airways to the route.

1. Navigate to the **Route Panel**.
2. Tap the **Plus** button on the **Route Panel**.
3. The Add popup will display.
4. Use your keypad to search and select desired Airways to add to route.

The screenshot shows a mobile application popup titled "Add". At the top, there is a dark blue header with the word "Add" in white. Below the header, there is a text input field containing "A699". Above the input field, there is a small star icon. Below the input field, there is a line of text that reads "No Minimum Runway Length Set". The main body of the popup is a large, empty white rectangular area. At the bottom of the popup, there is a dark blue footer with three columns: "ICAO", "Name", and "Distance".

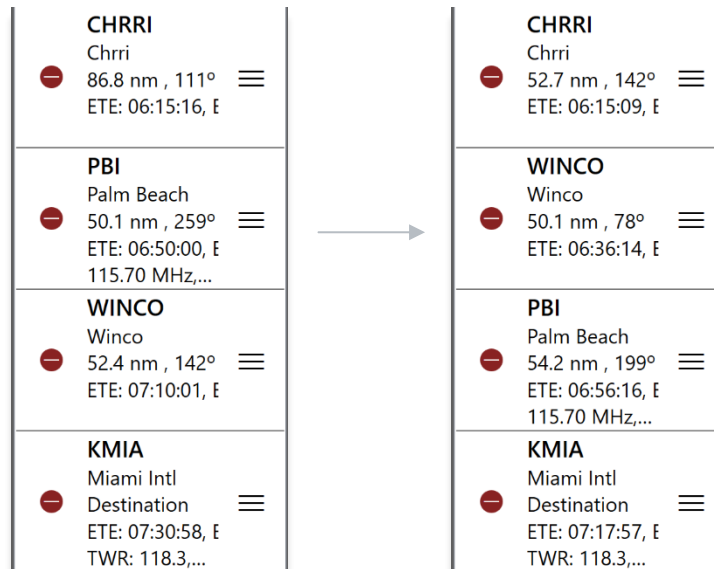
5. Your Airway route will display on the Route Panel.





### 13.3.13.2 Edit Route

1. Navigate to the **Route Panel**.
2. Tap **Edit**.
3. Hold the **Hamburger** button next to the identifier that you wish to move.
4. Swipe up or down to place the identifier in the desired route position.
5. Tap on the red circle next to the entry you wish to delete.
6. Tapping **Delete** will remove that entry from the route panel.



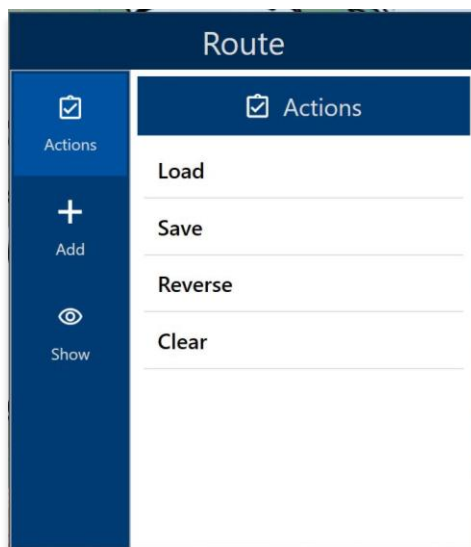
### 13.3.13.3 Route Menu Options

The Route Menu Options are a useful tool used to enhance the user's route capabilities. This menu allows users to expand on their route planning and additional options to configure their current route.

#### 13.3.13.3.1 Actions

Actions provide users the capability to configure their route by providing the following options:

- Load
- Save
- Reverse
- Clear



### 13.3.13.3.1.1 Load

The Load feature enables users to load sideloaded files such as CRD or JSON files or saved routes onto the Route Panel. Refer to the sections ahead for reference in loading specific routes onto the Route Panel.

1. Navigate to the **Route Panel**.
2. Tap **Route**.
3. The Route menu will appear. Select **Actions** from the side menu, if necessary.
4. Tap **Load**.
5. Select the route that you wish to load.
6. Route will display in **Route Panel** as the current route and on the Moving Map.



**NOTE:** Loading an invalid route such as a single or an empty route onto Aero App will result in an error message appearing to inform users that the points cannot be loaded. Users will be given options to **Save** or **Remove and Continue**.

### 13.3.13.3.1.1.1 Load a Common Route Definition (CRD) File

Aero App enables users to load CRD files onto Aero App. Refer to [Section 9.4](#) for guidance on how to sideload CRD files.

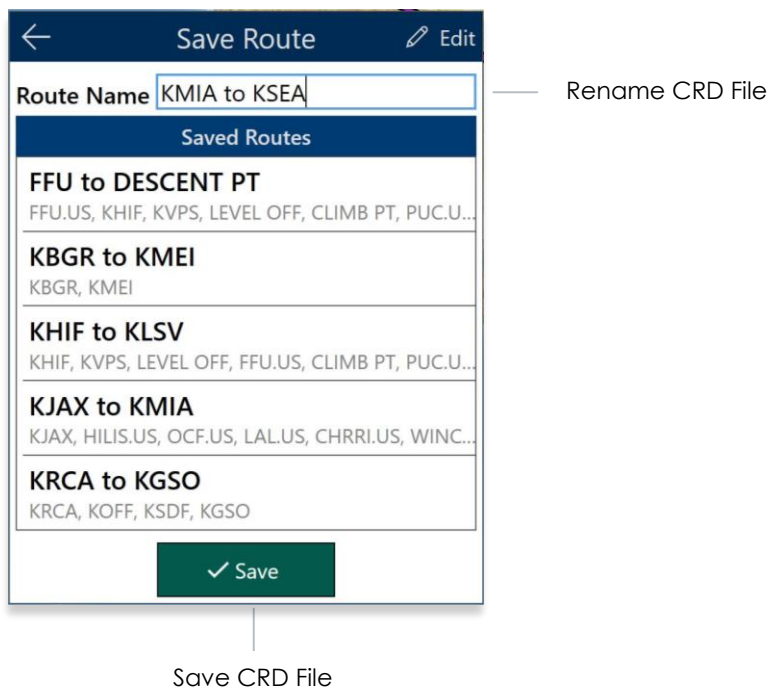
1. Navigate to the **Route Panel**.
2. Tap **Route**.
3. The Route menu will appear. Select **Actions** from the side menu, if necessary.
4. Tap **Load**.
5. Locate and tap the CRD files that were loaded onto Aero App. The CRD files will show on the **Route Panel** as the current route.



**NOTE:** When loading an invalid CRD file onto Aero App, an error message will appear to inform the users that the points cannot be loaded. Users will be given options to **Save** or **Remove and Continue**.

### 13.3.13.3.1.1.2 Save a CRD File

1. Navigate to the **Route Panel**.
2. Tap **Route**.
3. The Route menu will appear. Select **Actions** from the side menu, if necessary.
4. Tap **Save**.
5. Tap the *Route Name* text box and change the route's name to a desired name.
6. Once the CRD files have been renamed, tap **Save** and the changes will be added to the Saved Routes list.



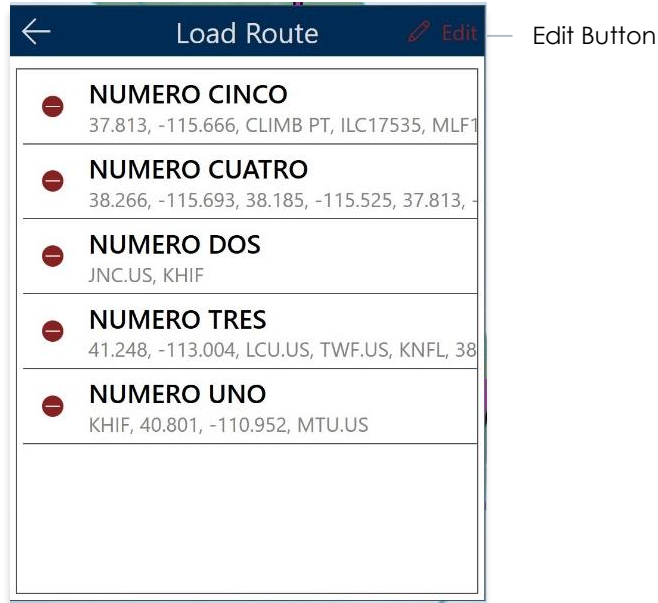
### 13.3.13.3.1.1.3 View a CRD File

1. Navigate to the **Route Panel**.
2. Tap **Route**.
3. The Route menu will appear. Select **Show** from the side menu.
4. Tap **Routes**.
5. A list of saved CRD files will be listed. Tap to select a desired CRD file and the route will display on the map.



### 13.3.13.3.1.1.4 Delete a CRD File

1. Navigate to the **Route Panel**.
2. Tap **Route**.
3. The Route menu will appear. Select **Actions** from the side menu, if necessary.
4. Tap **Load**.
5. Tap the **Edit** button.



6. Tap the **Delete** button to delete the file. A warning message will pop up.
7. Tap **Delete** to agree with the warning message and continue the action.
8. Tap **Cancel** to void action.



**NOTE:** Users can delete single CRD files when a single CRD route is sideloaded onto Aero App. Multiple routes will be deleted if the CRD route has associated routes.

### 13.3.13.3.1.2 Save Route

1. Create a route by loading desired points to the Route Panel.
2. Tap **Route**.
3. The Route menu will appear. Select **Actions** from the side menu, if necessary.
4. Tap **Save**.
5. The Route Name will display a preselected name, containing the <Departure> to <Arrival> points. If necessary, rename the route name to the desired name.
6. Tap **Save**. The route is saved for future use.



— Saved Routes



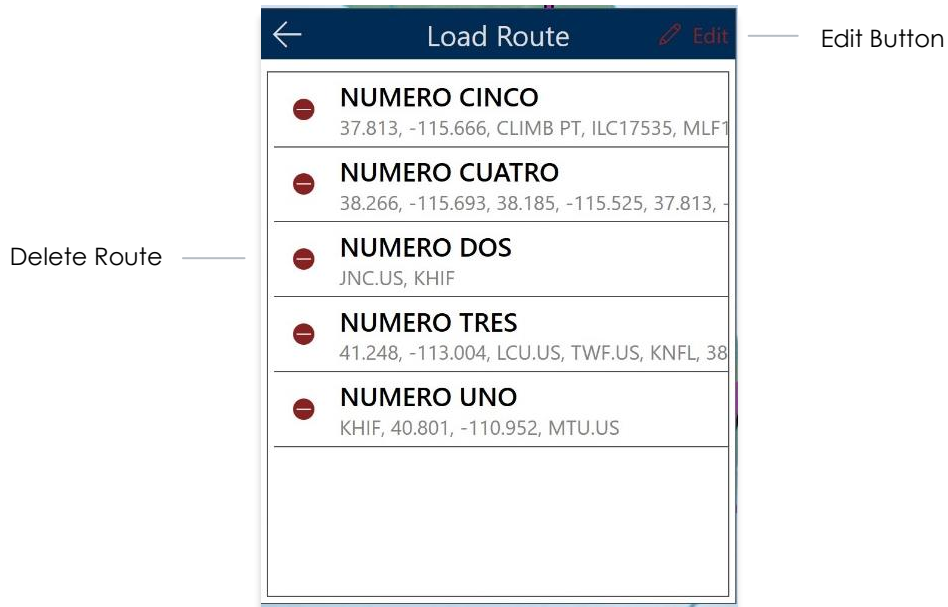
**NOTE:** When entering a new route name, the name can only contain alphanumeric (lower and upper case) characters, spaces, and hyphens. An error message will display if the name is not valid.





### 13.3.13.3.1.3 Delete Route

1. Navigate to the **Route Panel**.
2. Tap **Route**.
3. The Route menu will appear. Select **Actions** from the side menu, if necessary
4. Tap the options **Load** or **Save**.
5. Tap the **Edit** button.
6. Tap the **Delete** button.
7. The route will be deleted permanently.



**NOTE:** Notice the pencil icon changes to red when editing.

### 13.3.13.3.1.4 Reverse Route

1. Navigate to the **Route Panel**.
2. Tap **Route**.
3. The Route menu will appear. Select **Actions** from the side menu, if necessary.
4. Tap **Reverse**.
5. Departure reverts to arrival and arrival reverts to departure.

<b>KMIA</b> Miami Intl 52.1nm, 289*  TWR: 118.3, 123.9, 256.9	<b>KMKY</b> Marco Island Executive 23.7nm, 98*  TWR:
<b>DEEDS</b> DEEDS 23.7nm, 279*	<b>DEEDS</b> DEEDS 52.1nm, 108*
<b>KMKY</b> Marco Island Executive Destination  TWR:	<b>KMIA</b> Miami Intl Destination  TWR: 118.3, 123.9, 256.9

### 13.3.13.3.1.5 Clear Route

1. Navigate to the **Route Panel**.
2. Tap **Route**.
3. The Route menu will appear. Select **Actions** from the side menu, if necessary.
4. Tap **Clear**.
5. A confirmation popup will appear. Tap **Clear** to confirm action.
6. Tap **Cancel** to void the action.



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

### 13.3.13.3.2 Add

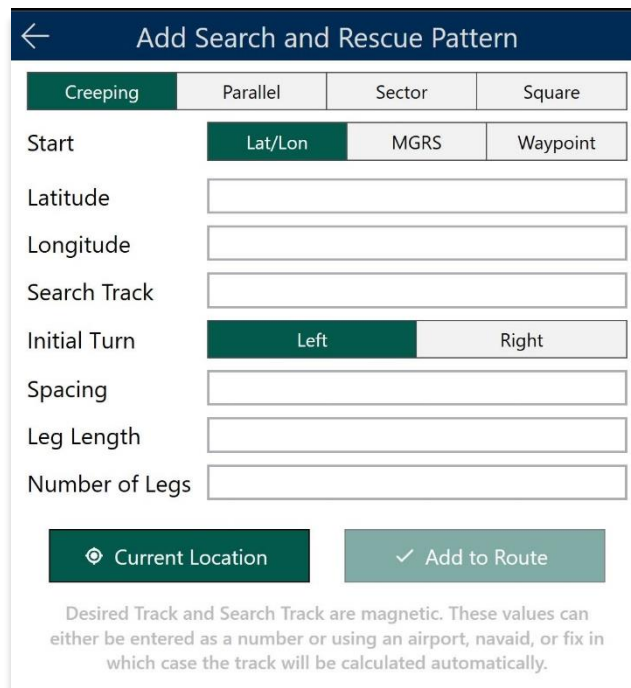
Add allows users to optimize flight planning and provides users the ability to predefine routes to ensure their missions run smoothly. The following option is available and will be further elaborated in the section to follow:

- Search and Rescue (SAR)

#### 13.3.13.3.2.1 Add Search and Rescue (SAR) Pattern

Search and Rescue (SAR) Patterns provide pilots and rescue missions with search patterns within the searched area. These search patterns, such as creeping, parallel, sector, and square are displayed on the Moving Map and can be added to the current route.

1. Navigate to the **Route Panel**.
2. Tap **Route**.
3. The Route menu will appear. Select **Add** from the side menu.
4. Tap **SAR**.
5. Tap to select **Creeping, Parallel, Sector, or Square**. Respective to the selection, different fields will be available to specific *Pattern* options.



← Add Search and Rescue Pattern

Creeping Parallel Sector Square

Start Lat/Lon MGRS Waypoint

Latitude

Longitude

Search Track

Initial Turn Left Right

Spacing

Leg Length

Number of Legs

📍 Current Location ✓ Add to Route

Desired Track and Search Track are magnetic. These values can either be entered as a number or using an airport, navaid, or fix in which case the track will be calculated automatically.

6. Tap to select **Lat/Lon**, **MGRS**, or **Waypoint**.
7. Users can tap **Current Location** 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.



**NOTE:** When a decimal number is entered in the Search Track and Number of Legs fields, the field will revert to one. To prevent this action from occurring, enter only whole numbers in the Search Track and Number of Legs fields.

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

Creeping	Parallel																																																																
<div style="border: 1px solid #ccc; padding: 5px;"> <div style="background-color: #003366; color: white; padding: 2px;">← Add Search and Rescue Pattern</div> <div style="display: flex; justify-content: space-between; border-bottom: 1px solid #ccc; margin-top: 5px;"> <span>Creeping</span> <span>Parallel</span> <span>Sector</span> <span>Square</span> </div> <div style="margin-top: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Start</td> <td style="width: 20%; border: 1px solid #ccc;">Lat/Lon</td> <td style="width: 20%; border: 1px solid #ccc;">MGRS</td> <td style="width: 20%; border: 1px solid #ccc;">Waypoint</td> </tr> <tr> <td>Latitude</td> <td colspan="3" style="border: 1px solid #ccc; text-align: center;">26.263478</td> </tr> <tr> <td>Longitude</td> <td colspan="3" style="border: 1px solid #ccc; text-align: center;">-80.250772</td> </tr> <tr> <td>Search Track</td> <td colspan="3" style="border: 1px solid #ccc; text-align: center;">120</td> </tr> <tr> <td>Initial Turn</td> <td style="border: 1px solid #ccc; text-align: center;">Left</td> <td colspan="2" style="border: 1px solid #ccc; text-align: center;">Right</td> </tr> <tr> <td>Spacing</td> <td colspan="3" style="border: 1px solid #ccc; text-align: center;">15</td> </tr> <tr> <td>Leg Length</td> <td colspan="3" style="border: 1px solid #ccc; text-align: center;">10</td> </tr> <tr> <td>Number of Legs</td> <td colspan="3" style="border: 1px solid #ccc; text-align: center;">10</td> </tr> </table> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="background-color: #003366; color: white; padding: 5px; border-radius: 5px;">📍 Current Location</div> <div style="background-color: #003366; color: white; padding: 5px; border-radius: 5px;">✓ Add to Route</div> </div> </div> </div>	Start	Lat/Lon	MGRS	Waypoint	Latitude	26.263478			Longitude	-80.250772			Search Track	120			Initial Turn	Left	Right		Spacing	15			Leg Length	10			Number of Legs	10			<div style="border: 1px solid #ccc; padding: 5px;"> <div style="background-color: #003366; color: white; padding: 2px;">← Add Search and Rescue Pattern</div> <div style="display: flex; justify-content: space-between; border-bottom: 1px solid #ccc; margin-top: 5px;"> <span>Creeping</span> <span>Parallel</span> <span>Sector</span> <span>Square</span> </div> <div style="margin-top: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Start</td> <td style="width: 20%; border: 1px solid #ccc;">Lat/Lon</td> <td style="width: 20%; border: 1px solid #ccc;">MGRS</td> <td style="width: 20%; border: 1px solid #ccc;">Waypoint</td> </tr> <tr> <td>Latitude</td> <td colspan="3" style="border: 1px solid #ccc; text-align: center;">26.263478</td> </tr> <tr> <td>Longitude</td> <td colspan="3" style="border: 1px solid #ccc; text-align: center;">-80.250772</td> </tr> <tr> <td>Search Track</td> <td colspan="3" style="border: 1px solid #ccc; text-align: center;">120</td> </tr> <tr> <td>Initial Turn</td> <td style="border: 1px solid #ccc; text-align: center;">Left</td> <td colspan="2" style="border: 1px solid #ccc; text-align: center;">Right</td> </tr> <tr> <td>Spacing</td> <td colspan="3" style="border: 1px solid #ccc; text-align: center;">15</td> </tr> <tr> <td>Leg Length</td> <td colspan="3" style="border: 1px solid #ccc; text-align: center;">10</td> </tr> <tr> <td>Number of Legs</td> <td colspan="3" style="border: 1px solid #ccc; text-align: center;">10</td> </tr> </table> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="background-color: #003366; color: white; padding: 5px; border-radius: 5px;">📍 Current Location</div> <div style="background-color: #003366; color: white; padding: 5px; border-radius: 5px;">✓ Add to Route</div> </div> </div> </div>	Start	Lat/Lon	MGRS	Waypoint	Latitude	26.263478			Longitude	-80.250772			Search Track	120			Initial Turn	Left	Right		Spacing	15			Leg Length	10			Number of Legs	10		
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### 13.3.13.3.3 Show

Show provides features to enhance the user's situational awareness when flying any mission. Features are as follows and will be further elaborated in the sections to follow:

- Doghouses
- Dropped Pins
- Routes
- User Waypoints

#### 13.3.13.3.3.1 Doghouses

Doghouses enables users to display their route information such as their next point, heading, distance, time (MM+SS), and time ahead/behind/on schedule in order from top to bottom. Doghouses can display when entering Airports, Coordinates, MGRS, GARS, and Radial Off NavAids.

Once a route is entered, doghouses will populate on your Moving Map. The first doghouse on the current route will be displayed on the right side of the route. Each doghouse will be in the center between the last and next point on the route. Previous Doghouses will disappear as you pass the points on the active route.

1. Navigate to the **Route Panel**.
2. Tap **Route**.
3. The Route menu will appear. Tap **Show** from the side menu.
4. Tap **Doghouses**.
5. From the Doghouses popup, enable **Show Doghouses**.
6. Tap on the **Time on Target** text box and enter your desired time in the format of HH:MM:SS.
7. Tap on the **Groundspeed** text box and enter your groundspeed in knots. When a decimal number is entered, the number will be rounded to the nearest whole number.

Doghouses		
Show Doghouses	<input checked="" type="checkbox"/> On	
Time on Target	<input type="text" value="16:55:33"/>	
Groundspeed	<input type="text" value="80"/>	
Estimated Time of Departure:	16:13:04z	
Waypoint	ETE	ETA
KFLL	00:13:40	16:26:44z
FL47	00:20:41	16:47:25z
PBI	00:08:08	16:55:33z

Enable Doghouses

ETD in Zulu time

8. The Estimated Time of Departure (ETD) will adjust based on what is entered in Time on Target and Groundspeed. Your ETD will be calculated in Zulu time.
9. Tap outside of the Doghouses popup and Doghouses will populate on the Moving Map.



**NOTE:** Users may need to zoom in at least forty miles to view Doghouses.



**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"**.

### 13.3.13.3.3.1.1 Edit Doghouses

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

1. Navigate to the **Route Panel**.
2. Tap **Route**.
3. The Route menu will appear. Tap **Show** from the side menu.
4. Tap **Doghouses**.
5. The Doghouses popup will display.
6. Tap on the **Time on Target** text box and enter your new time in the format of HH:MM:SS.
7. Tap on the **Groundspeed** text box and enter your new groundspeed in knots. When a decimal number is entered, the number will be rounded to the nearest whole number.

The screenshot shows a 'Doghouses' popup menu. At the top, there is a back arrow and the title 'Doghouses'. Below the title, there are four settings: 'Show Doghouses' with a green 'On' toggle, 'Time on Target' with a text box containing '16:55:33', 'Groundspeed' with a text box containing '60', and 'Estimated Time of Departure' with a text box containing '15:58:55z'. Below these settings is a table with three columns: 'Waypoint', 'ETE', and 'ETA'. The table contains three rows of data: KFL, FL47, and PBI.

Waypoint	ETE	ETA
KFL	00:18:13	16:17:08z
FL47	00:27:34	16:44:42z
PBI	00:10:51	16:55:33z

— New Groundspeed in knots

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

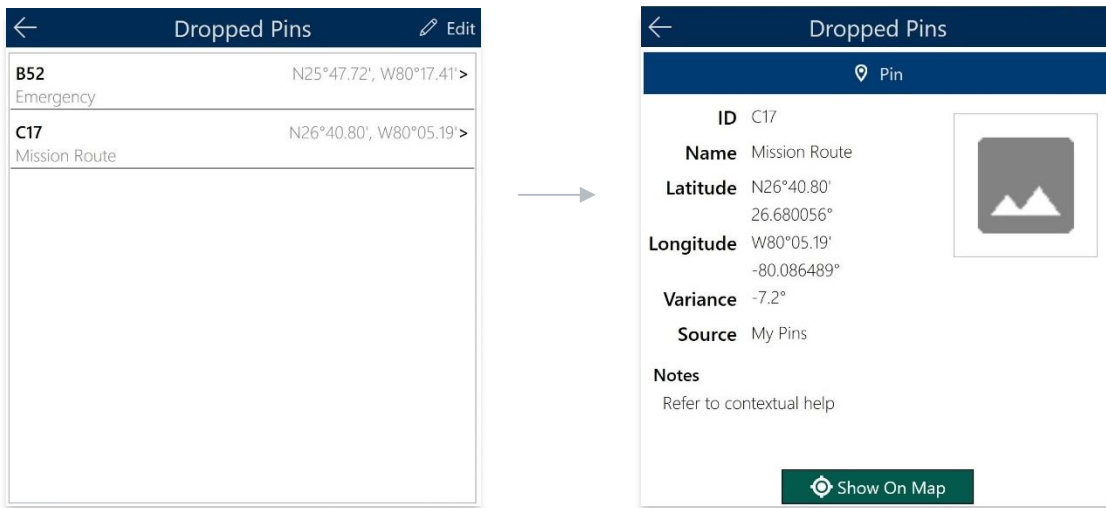


**NOTE:** Alternatively, users can tap on the Doghouses displayed on the Moving Map to view the Doghouses popup.

### 13.3.13.3.2 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, Notes, and any associated attachments.

1. Navigate to the **Route Panel**.
2. Tap **Route**.
3. The Route menu will appear. Tap **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** the map view will pan to the location of the dropped pin.



**NOTE:** To view the dropped pins on the Moving Map, users must enable Pins from the Overlays menu. Refer to [Section 13.3.5.1.4](#) for additional information.



**NOTE:** To drop new pins, refer to [Section 13.3.12.1.3](#) for additional information.



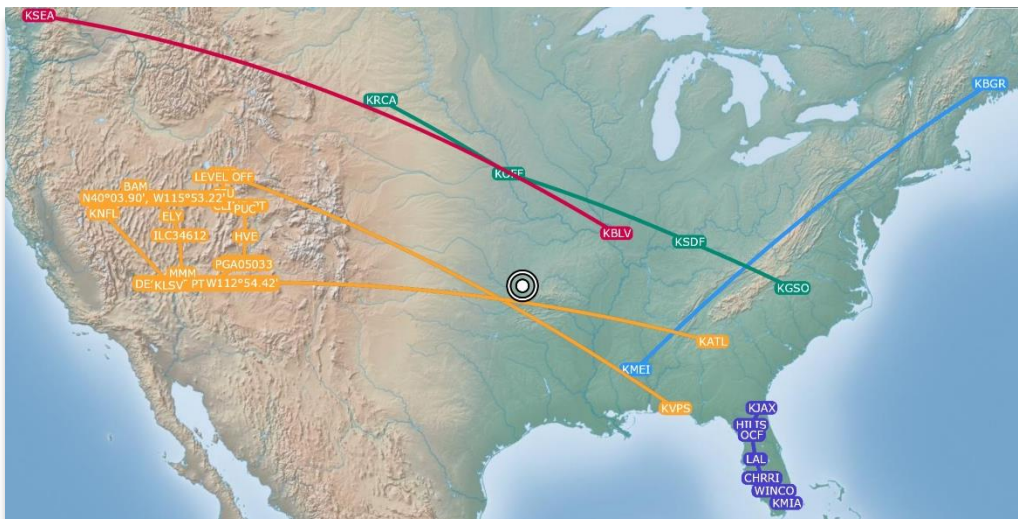
### 13.3.13.3.3 Routes

1. Navigate to the **Route Panel**.
2. Tap **Route**.
3. The Route menu will appear. Tap **Show** from the side menu.
4. Tap **Routes**.
5. A list of saved routes will be shown below. Locate desired route then tap to enable selection and display them on the Moving Map.



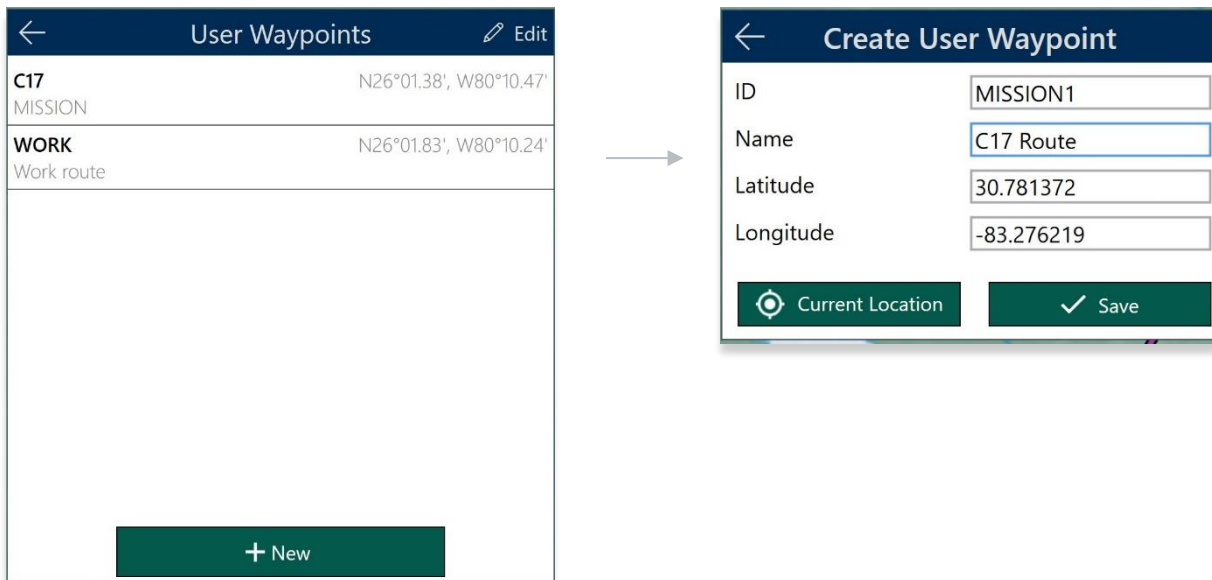
Enable button to show route

6. Up to five saved routes can be displayed simultaneously. If you have a current route in the route panel, the route will show in a magenta line.



### 13.3.13.3.3.4 User Waypoints

1. Navigate to the **Route Panel**.
2. Tap **Route**.
3. The Route menu will appear. Tap **Show** from the side menu.
4. Tap **User Waypoints**.
5. A list of User Waypoints will be shown below. Tap **+ New** to create a new Waypoint.
6. Fill in the necessary information such as the ID, Name (optional), Latitude and Longitude of the waypoint.
7. Tap **Current Location** to use your present location's coordinates.
8. Tap **Save** when done and your Waypoint will list under User Waypoints.



**NOTE:** Refer to [Section 9.3](#) for information on sideloading User Waypoints.



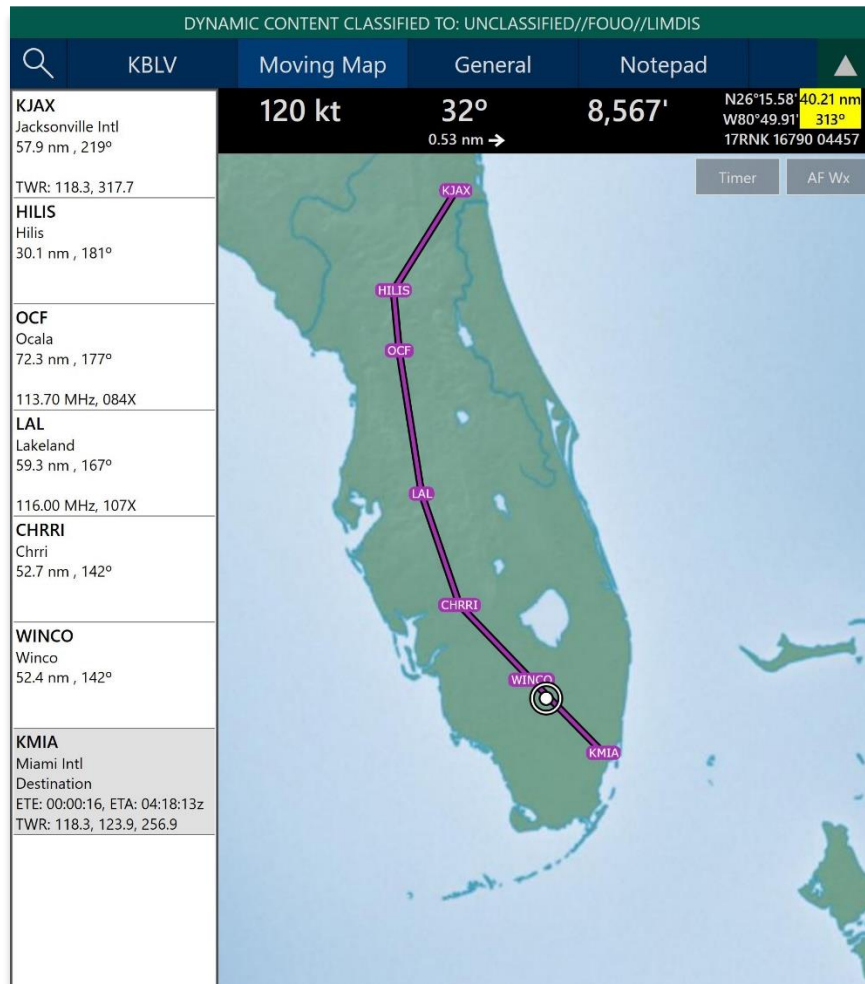
**NOTE:** The Name field is optional. When creating a name for User Waypoints, the name can only contain Alphanumeric characters (upper and lower cases), space, and hyphens. An error message will display if the name is not valid.

### 13.3.14 Estimated Time Enroute (ETE), Estimated Time of Arrival (ETA)

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

In addition, users can add Departure and/or Arrival waypoints that will include ETE and ETA.

1. Tap **Moving Map** on the **Main Menu**.
2. Navigate to the **Route Panel**.
3. Each segment of the flight's route will display its ETE and ETA.



**NOTE:** Estimated Time of Arrival (ETA) will display in Zulu time. Under Preferences, users have the option to automatically snap route to current leg.

## 13.4 General

The General section includes significant Charts and documents such as Supplements, Planning, User Documents, and Legend.

### 13.4.1 Charts

1. Tap **General** on the **Main Menu**.
2. Select from Charts, Supplements, Planning, Documents, and Legend on the **Secondary Menu**.
3. Tap on the **actions ribbon** and select desired chart, document, or legend, based on the respective selection.
4. A menu will display from which you can select High and Low Enroute Charts, Area Charts, Graphic Charts, CONUS Chart Graphics, Military Training Routes (MTRs), and other charts.



## Supplements

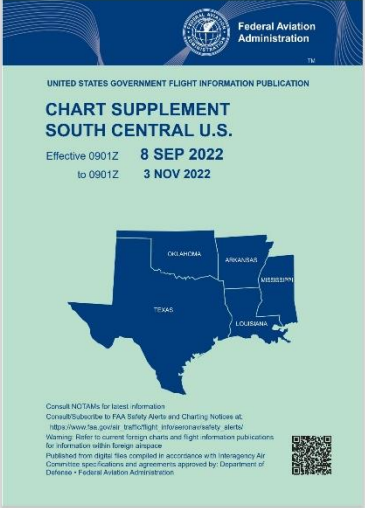
DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS

KBLV Moving Map General Notepad

Charts Supplements Planning Docs Legend

Chart Supplement - South Central US

1 of 625



Federal Aviation Administration

UNITED STATES GOVERNMENT FLIGHT INFORMATION PUBLICATION

**CHART SUPPLEMENT  
SOUTH CENTRAL U.S.**

Effective 0901Z **8 SEP 2022**  
to 0901Z **3 NOV 2022**

Consult NOTAMs for latest information.  
Consult/Subscribe to FAA Safety Alerts and Charting Notices at:  
<https://www.faa.gov/notice/ntn/ntn.html>  
Warning: Refer to current foreign charts and flight information publications for information within foreign airspace.  
Published from digital files compiled in accordance with Interagency Air Committee specifications and agreements approved by Department of Defense - Federal Aviation Administration.

NSN 7641014109523  
NSA REF. NO. PLANXAP1

## Area Planning Documents

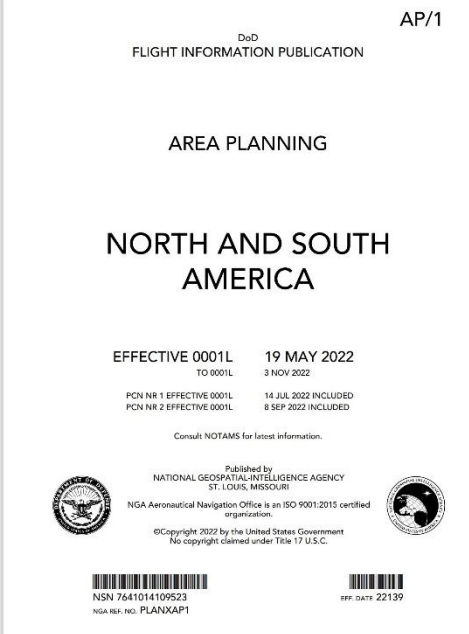
DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS

KBLV Moving Map General Notepad

Charts Supplements Planning Docs Legend

AP1

1 of 271



AP/1

DoD  
FLIGHT INFORMATION PUBLICATION

**AREA PLANNING**

**NORTH AND SOUTH  
AMERICA**

EFFECTIVE 0001L **19 MAY 2022**  
TO 0001L **3 NOV 2022**

PCN NR 1 EFFECTIVE 0001L **14 JUL 2022 INCLUDED**  
PCN NR 2 EFFECTIVE 0001L **8 SEP 2022 INCLUDED**

Consult NOTAMS for latest information.

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NSN 7641014109523  
NSA REF. NO. PLANXAP1

FFF DATE 22139

## User Documents

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

KBLV Moving Map General Notepad

Charts Supplements Planning Docs Legend

pilotheadbook.pdf

1 of 324

**Pilot's Handbook of Aeronautical Knowledge**

FAA-H-8083-25B

U.S. Department of Transportation  
Federal Aviation Administration

## Terminal Procedure Legend

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

KBLV Moving Map General Notepad

Charts Supplements Planning Docs Legend

Terminal Procedure Legend

1 of 15

**GENERAL INFORMATION**

**CHART CURRENCY INFORMATION**

Date of latest revision: 01-20

The Date of Latest Revision indicates the latter date the chart was added or last revised for any reason. The first two digits indicate the year, the last three digits indicate the day of the year (001 to 365/366) in which the latest revision of any kind has been made to the chart.

Procedure Identification Number: 01g 108P50

The Procedure Amendment Number represents the most current amendment of a given procedure. The Procedure Amendment Number appears in the chart next to the date on which the procedure was amended and is incorporated into the chart. Updates to the amendment number and effective date represent procedural/notice revisions to the standard procedure, e.g., terrain, fix, obstacle, etc.

**PROCEDURE DESIGN CRITERIA**

Procedure Design Criteria for Foreign Airfields. Country of origin instrument procedures are based upon a variety of procedure design criteria. Authorized criteria in TERPS (FAA TERPS), ICAO (ICAO Instrument Procedure) and other criteria represented by AICR (ICAO), ICAO (ICAO) Procedure for Air Navigation (Instrument Procedure), NATI (NAT Instrument Design Regulation), ICAO (ICAO country code), or UNICOM (unpublished) criteria. Where applicable, the appropriate design criteria will be applied. The Background criteria will be placed in the bottom left margin below the procedure number and procedure revision date. Contact the chart for questions.

**PROCEDURE PERFORMANCE REQUIREMENT BOX**

Users will begin to see Performance Based Navigation (PBN) Requirements and Equipment Requirements as Instrument Approach Procedures (IAP) currently in progress in progress, non-certified route bases. For procedures with PBN elements, the PBN Box will contain the procedure's navigation specifications and, if required, specific criteria or performance based for the applicable criteria, and will be used to advanced criteria requirements. The minimum Performance Based Navigation (PBN) values and any associated criteria will be listed in the PBN Box as REQUIRED for the procedure's PBN element. The equipment requirements will be listed in the PBN Box as REQUIRED. The PBN elements and equipment requirements, the PBN requirements box will be listed below. The addition of these items will continue automatically until all items have been provided to comply with the new criteria.

PBN Requirement Box	EWING (P)
Equipment Requirements Box	EWING (P) only
Standard Procedure PBN Box	EWING (P) only, Increase via to 25 miles

**PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS**

Available pilot controlled lighting (PCL) systems are indicated as follows:

1. Approach lighting systems that have been classified as symbol and category lighting systems, e.g., 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.
2. Approach lighting systems that have been classified as symbol and category lighting systems, e.g., 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.
3. PCL systems that have been classified as symbol and category lighting systems, e.g., 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

To activate lights, see frequency indicated in the communication section of the procedure.

<b>KEY MESSAGE</b>	<b>FUNCTION</b>
7: 700m, 3 seconds	High intensity available
5: 500m, 2 seconds	Medium or lower intensity (lower ILS or ILS-GL)
3: 300m, 2 seconds	Low intensity available (lower ILS or ILS-GL)

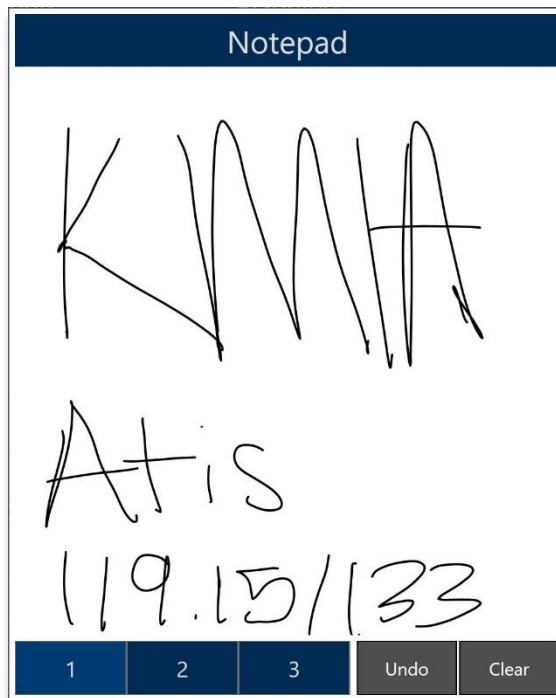
**MISCELLANEOUS**

- Includes a non-continuously operating fix. See enroute supplement.
- Indicates frequency is restricted and available by request through the controlling agency.
- Distance on an isolated miles (distance) by other station miles or miles and Kilometers (distance) in other handouts of latest edition. Same distance and (1) feet. (Distance in feet from Sea Level MSL). Calling use in feet above airport elevation. Radio, bearing/heading/turns in magnetic. Coordinates are compatible with World Geodetic System (WGS84).
- Terrain is coded within the procedure boundaries or concrete steps and does not accurately indicate non-radar distance deviations or symbols.

## 13.5 Notepad

The Notepad feature is a handy tool that creates up to three pages of notes. Notes can be drawn with your fingertips or by using a stylus. The notepad view includes Undo and Clear options.

- **Undo** – Undoes the most recent markings on the notepad.
- **Clear** – Erases all markings from the selected notepad page.



**NOTE:** The latest markups will automatically be saved when exiting the notepad view.

## 13.6 E6B Calculator

The electronic calculator enables pilots to perform a variety of calculations for preflight or inflight planning.

### Altitude

**Altitude** calculates the Pressure Altitude and Density Altitude by entering the Elevation or the Airport ICAO, Altimeter, and Temperature.

E6B	
Altitude	Cold Wx
Pressure Altitude	Density Altitude
5,877'	8,541'
Feet	Feet
Elevation or Airport	5250
Altimeter	29.25
Temperature (*F)	80.6
Celsius	Off

### Cold Weather (Wx)

**Cold Wx** corrects Altitude for cold temperature operations. Users can switch between Celsius and Fahrenheit.

E6B	
Altitude	Cold Wx
Correction = 38'	
Height Above Altimeter	500
Temperature	25
Celsius	Off

### Conversions

**Conversions** converts Distance, Temperature, and Weight into different systems.

1. Tap on the desired conversions in Distance, Temperature, or Weight.
2. Enter the measurement value that you wish to convert (for instance, KG into Lbs).

E6B	
Cold Wx	Conversions
NM → SM	
40	46.0
<b>Distance</b>	<b>Temperature</b>
NM → SM	°F → °C
NM → KM	°C → °F
SM → NM	<b>Weight</b>
SM → KM	AvGas → Lbs
KM → NM	Jet A → Lbs
KM → SM	Lbs → KG
M → FT	KG → Lbs



## Coordinates

**Coordinates** allows 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. 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.

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 tab, 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 a NavAid, Radial and Distance.

E6B			
Conversions	Coordinates	Descent	
Lat, Lon	MGRS	GARS	Radial
Lat, Lon			
N3832.71,W8950.11			
+ Insert into Route		+ Insert at end of Route	
DD.DDD:	N38.545167°, W89.835167°		
DD MM.MM:	N38°32.71', W89°50.11'		
DD MM SS.SSS:	N38°32'42.600", W89°50'06.600"		
MGRS:	16SBH 52911 70116		
GARS:	181LT38		
Radial Off NavAid:	SKE 093 0.77		

E6B			
Conversions	Coordinates	Descent	
Lat, Lon	MGRS	GARS	Radial
MGRS			
16SBH 52907 70117			
+ Insert into Route		+ Insert at end of Route	
DD.DDD:	N38.545171°, W89.835215°		
DD MM.MM:	N38°32.71', W89°50.11'		
DD MM SS.SSS:	N38°32'42.616", W89°50'06.774"		
MGRS:	16SBH 52907 70117		
GARS:	181LT38		
Radial Off NavAid:	SKE 093 0.77		

E6B			
Conversions	Coordinates	Descent	
Lat, Lon	MGRS	GARS	Radial
NavAid Radial Distance			
SJC0912.2			
+ Insert into Route		+ Insert at end of Route	
DD.DDD:	N37.363990°, W121.900582°		
DD MM.MM:	N37°21.84', W121°54.03'		
DD MM SS.SSS:	N37°21'50.363", W121°54'02.094"		
MGRS:	10SEG 97355 35819		
GARS:	117LQ15		
Radial Off NavAid:	SJC 091 2.20		

### Descent

**Descent Rate** is calculated in feet per minute, enter the Descent Angle in degrees and Groundspeed in knots.

E6B		
Coordinates	Descent	Distance
Descent Rate		
<b>1,329</b>		
Feet Per Minute		
Descent Angle (Degrees)	<input type="text" value="5"/>	
Groundspeed (Knots)	<input type="text" value="150"/>	

### Distance

**Distance** calculates the Total Fuel by the Distance, Speed, and Time.

**Distance** is calculated by the speed in knots, the Time in the format 00:00:00 (hours, minutes, and seconds), and the Fuel Burn Per Hour in gallons per hour (gal/hr). The Total Fuel will display under the Fuel Burn Per Hour box and is calculated in gallons(gal). The Distance calculation will be displayed on the results bar above.

E6B		
Descent	Distance	IFR Climb
Distance	Speed	Time
Distance		
<b>189</b>		
Speed	<input type="text" value="120"/>	
Time (hh:mm:ss)	<input type="text" value="01:34:40"/>	
Fuel Burn Per Hour	<input type="text" value="15"/>	
Total Fuel: 23.7		

**Speed** is calculated by the Distance in nautical miles, the Time in the format 00:00:00 (hours, minutes, and seconds), and the Fuel Burn Per Hour in gallons per hour (gal/hr). The Total Fuel will display under the Fuel Burn Per Hour box and is calculated in gallons(gal). The Speed in knots calculation will be **displayed** on the results bar above.

E6B		
Descent	Distance	IFR Climb
Distance	Speed	Time
Speed		
<b>120</b>		
Distance	<input type="text" value="189"/>	
Time (hh:mm:ss)	<input type="text" value="01:34:40"/>	
Fuel Burn Per Hour	<input type="text" value="15"/>	
Total Fuel: 23.7		

**Time** is calculated by the Distance in nautical miles, the speed in knots, and the Fuel Burn Per Hour in gallons per hour (gal/hr). The Total Fuel will display under the Fuel Burn Per Hour box and is calculated in gallons(gal). The Time in the format 00:00:00 (hours, minutes, and seconds) calculation will display on the results bar above.

E6B		
Descent	Distance	IFR Climb
Distance	Speed	Time
Time		
<b>1h 34m 30s</b>		
Distance	<input type="text" value="189"/>	
Speed	<input type="text" value="120"/>	
Fuel Burn Per Hour	<input type="text" value="15"/>	
Total Fuel: 23.6		

### Instrument Flight Rule (IFR) Climb

**IFR Climb** calculates Climb Angle in degrees and Climb Rate in feet per minute by typing in Climb (Feet / NM) and Groundspeed (Knots).

E6B	
Distance	IFR Climb
Climb Angle	Climb Rate
<b>1.9°</b>	<b>1,333</b>
Degrees	Feet Per Minute
Feet/NM Climb	<input type="text" value="200"/>
Groundspeed (Knots)	<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	
IFR Climb	Rwy Winds
Headwind	Crosswind
<b>↓ 9</b>	<b>← 12</b>
Knots	Knots
Runway direction (Degrees)	<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		
R Climb	Rwy Winds	Winds Aloft
HDG	GS	WCA
<b>40°</b>	<b>441</b>	<b>41°</b>
Degrees	Knots	Degrees
Nearby Airport (ICAO)	<input type="text" value="KBLV"/>	
Course (Degrees)	<input type="text" value="5"/>	
True Airspeed (Knots)	<input type="text" value="250"/>	
Wind Dir/Spd	<input type="text" value="150"/> @ <input type="text" value="300"/>	



**NOTE:** See reference notes located on the bottom of the E6B popup.

## 14 Application Management (App Mgmt)

Aero App's application management is a very useful tool for pilots as it is used to configure their application's settings, manage data, retrieve charts, as well as accessing the User Manual from the Aero App website (aeroapp.info), informational weblinks, and beneficial information available to users. Sections are as follows and will be further elaborated in the sections to come:

- Preferences
- Data
- Host Nation
- Help

### 14.1 Preferences

Preferences is a tool that provides users the capability to modify the behavior of Aero App using various options to customize the User Interface, Miscellaneous, Data, GPS, and Reset.

#### 14.1.1 User Interface

1. Tap **App Mgmt** on the **Main Menu**.
2. Tap **Preferences** on the **Secondary Menu**.
3. The following option is available:
  - **Night Mode** – provides the option to view Aero App on a white-on-black or a black-on-white screen.

#### 14.1.2 Miscellaneous

1. Tap **App Mgmt** on the **Main Menu**.
2. Tap **Preferences** on the **Secondary Menu**.
3. The following options are available:
  - **Show Ownship on APD and IAP** – provides the option to show ownship on FAA Airport Diagrams and Instrument Approach Procedures.
  - **Show Airport Ring on APD and IAP** – provides the option to verify the georeferencing by showing a small ring around the Airport center.

- **Switch to APD on Landing** – provides the option to switch view to APD upon landing.



**NOTE:** Users must enter desired speed (kt) to switch to APD. When a decimal number is entered in the Speed field, the number will be rounded to the nearest whole number.



**NOTE:** On the Moving Map screen, the APD will appear on a split screen, perfectly georeferenced.

---

- **Minimum Runway Length (ft)** – provides the option to filter Airports based on runway length.



**NOTE:** Users must enter desired length (ft). When a decimal number is entered in the Minimum Runway Length field, the number will be rounded to the nearest whole number.

---

- **Secret** – provides the option to designate 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.

---

### 14.1.3 Data

1. Tap **App Mgmt** on the **Main Menu**.
2. Tap **Preferences** on the **Secondary Menu**.
3. The following option is available:
  - **Store data in an external location** – provides users the option to store data on an SD card or a USB drive.

#### 14.1.4 GPS

1. Tap **App Mgmt** on the **Main Menu**.
2. Tap **Preferences** on the **Secondary Menu**.
3. The following options are available:
  - **GPS COM port search** – provides users the option to connect to a GPS on all available COM ports.
  - **GPS Connection Settings** – provides users the option to connect to a GPS using specific settings.
4. A **GPS Settings** window will popup, select the configuration settings.
5. Tap **Reset** to reconfigure your settings.

#### 14.1.5 Reset

1. Tap **App Mgmt** on the **Main Menu**.
2. Tap **Preferences** on the **Secondary Menu**.
3. The following option is available:
  - **Clear All Charts Markups** – provides the option to clear all APD and IAP markups.

## 14.2 Data

The Data Status screen allows users to manage cycles. Refer to [Section 11](#) for more information.

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

KBLV Moving Map General Notepad

Preferences Data Host Nation Help

### Data Status

Active Cycle **Delete** **View** Standby Cycle **Delete** **View**

Effective 2022-12-29 through 2023-01-25 (2213) Effective 2023-01-26 through 2023-02-22 (2301)

**Download** **Move to Standby** **Swap Cycles** **Delete**

#### Cycle

- Global:
- Africa:
- Alaska:
- Canada:
- CONUS Pt 1:
- CONUS Pt 2:
- CSA:
- EEA:
- ENAME:
- PAA:
- FAA Sectionals:
- Georeference:

#### Aero App Maps

- CAN IFR High Canada:
- CAN IFR Low Canada:
- FAA IFR Atlantic:
- FAA IFR High Alaska:
- FAA IFR Low Alaska:
- FAA VFR Alaska:
- FAA IFR High CONUS:
- FAA IFR Low CONUS:
- FAA VFR CONUS:
- FAA VFR PAA:
- NGA IFR Africa:
- NGA IFR High CSA:
- NGA IFR Low CSA:
- NGA IFR EEA:
- NGA IFR High ENAME:
- NGA IFR Low ENAME:
- NGA IFR PAA:

#### Helicopter and TAC Maps

- FAA Helicopter CONUS Gulf Coast:

## 14.3 Host Nation

Host Nation charts can be downloaded and viewed for airfields outside the United States.



**NOTE:** Users must have ASPS credentials to access Host Nation Charts.

### 14.3.1 Download Host Nation Charts

1. Tap **App Mgmt** on the **Main Menu**.
2. Tap **Host Nation** on the **Secondary Menu**.
3. Log in with your ASPS credentials.
4. Enter the ICAO for the desired Host Nation charts then tap **Enter** from device keyboard.

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

Search: KBLV | Moving Map | General | Notepad | ▲

Preferences | Data | **Host Nation** | Help

Download | On Device

**ASPS Account Information**

Username:

Password:

**Enter ICAO of Host Nation Charts**

ICAO:

5. The chart list available for the ICAO will be displayed.
6. Tap on **Download ICAO charts** to download the charts to your device.

ICAO:  Download KBLV charts

**Airport Diagram (APD)s**

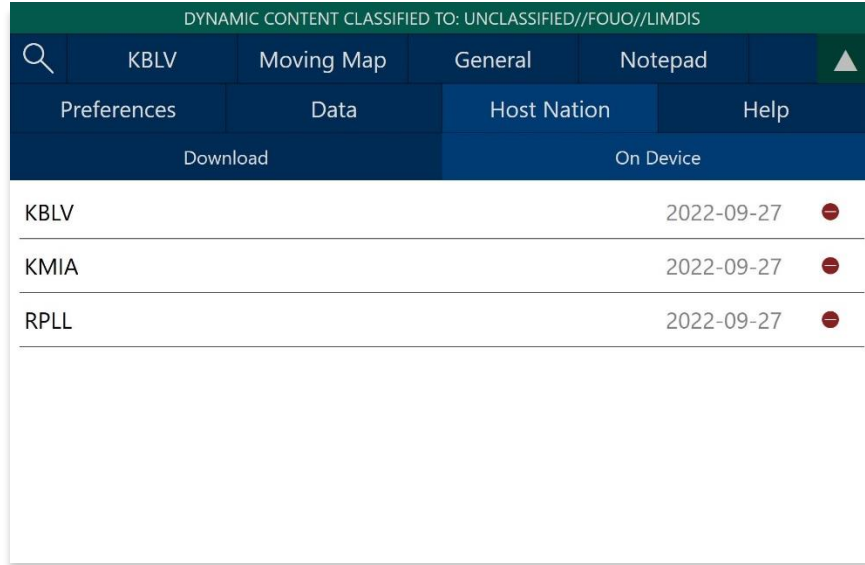
AIRPORT DIAGRAM

**Instrument Approach Procedure (IAP)s**

ILS, LOC Rwy 32L
ILS, LOC Rwy 14R
GPS, RNAV Rwy 14R
ILS, LOC Rwy 14L
ILS, LOC Rwy 14R
ILS, LOC Rwy 32L
ILS, LOC Rwy 32R
GPS, RNAV Rwy 14L



7. To verify that the Host Nation charts have been downloaded, tap **On Device**.
8. To view downloaded charts, refer to [Section 13.4.1](#).



DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS					
Search	KBLV	Moving Map	General	Notepad	▲
Preferences	Data	Host Nation	Help		
	Download	On Device			
KBLV		2022-09-27	⊖		
KMIA		2022-09-27	⊖		
RPLL		2022-09-27	⊖		



**NOTE:** In order to load Host Nation charts, an Active Cycle must be selected.

### 14.3.1.1 Create an ASPS Account

Pilots are required to possess an ASPS account to obtain host nation charts.

1. To access Aeronautical Source Packaging Service (ASPS), go to [asps.leidos.com](https://asps.leidos.com).
2. Tap on the **Request Account** button.
3. Fill in your information, including Government POC.

## 14.4 Help

The Help tab provides users with four options to select from:


- What's New (Must have the global file loaded in Active Cycle)
- Web Links (Must have the global file loaded in Active Cycle)
- User Manual
- About

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

🔍
KBLV
Moving Map
General
Notepad
▲

Preferences
Data
Host Nation
Help

What's New
Web Links
User Manual
About



### What's New Aero App for Windows

This page contains information about new features, improvements to Aero App, other useful and important updates and is updated with each data cycle.

Click the link below for all the latest information about Aero App and for fast and secure database downloads.

[aeroapp.info](http://aeroapp.info)

#### Webinars

Join the Aero Dissemination Team and Hilton Software, Developers of Aero App, to explore features, updates, and open discussions in our monthly webinar series. For more information, please visit [aeroapp.info/webinars](http://aeroapp.info/webinars).

### Currently in Aero App for Windows Version 1.2209

Aero App for Windows Version 1.2209 requires Windows 10.0

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

🔍
KBLV
Moving Map

Info
APD

KBLV - Scott Aft
🏠

ICAO: KBLV

Name: Scott Aft, Midamerica St Louis

Location: Belleville, Illinois  
United States (CONUS)

Elevation: 459'

Latitude: 38.543108°

Longitude: -90.852101°

Variance: -2.0°

Rot Beacon: Yes

Arresting Gear: No

Chart Supplement: Yes

### Aero App's User Interface Enhancements

1.2209 version of Aero App for Windows introduces a more modern user interface that includes improved color schemes, the integration of graphics components, and a more streamlined overall user experience.

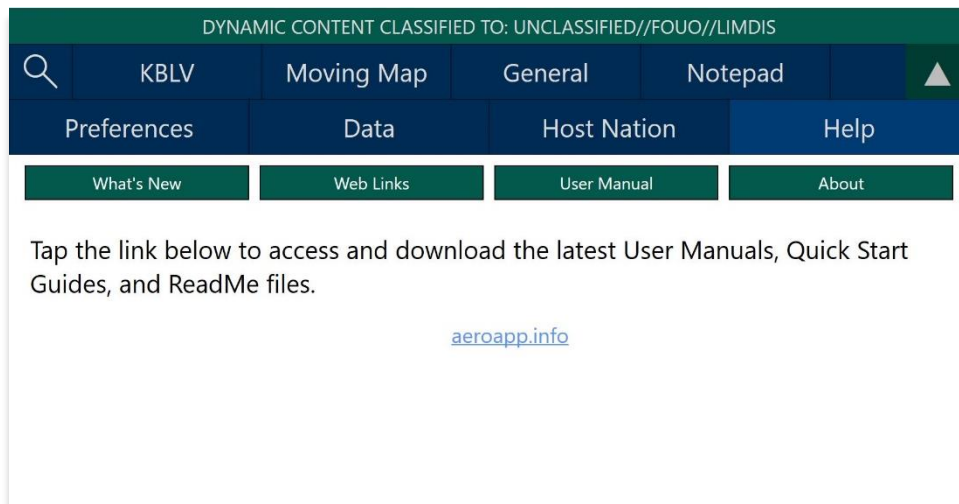
### Previously in Aero App for Windows Version 1.2201

Aero App for Windows Version 1.2201 requires Windows 10.0

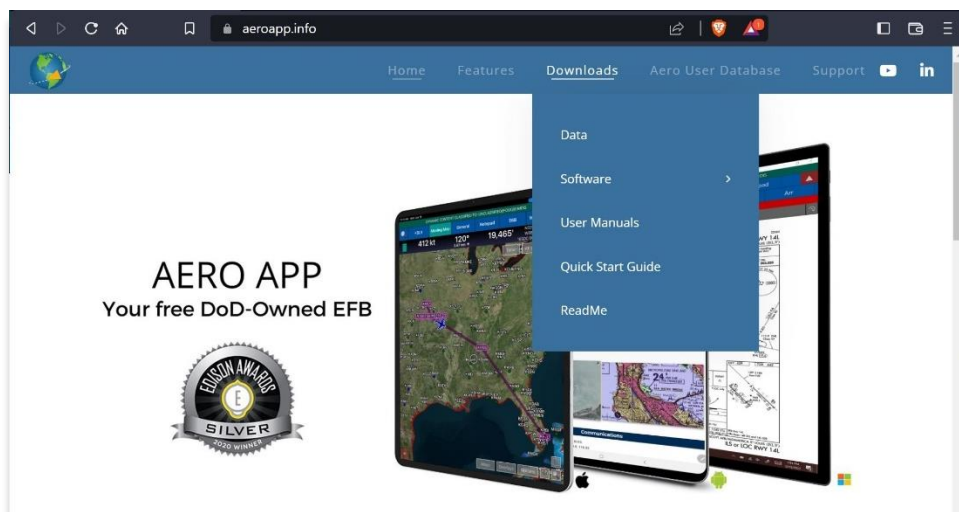
### 14.4.1 User Manual Access

The User Manual tab includes a link that redirects users to the Aero App website (aeroapp.info).

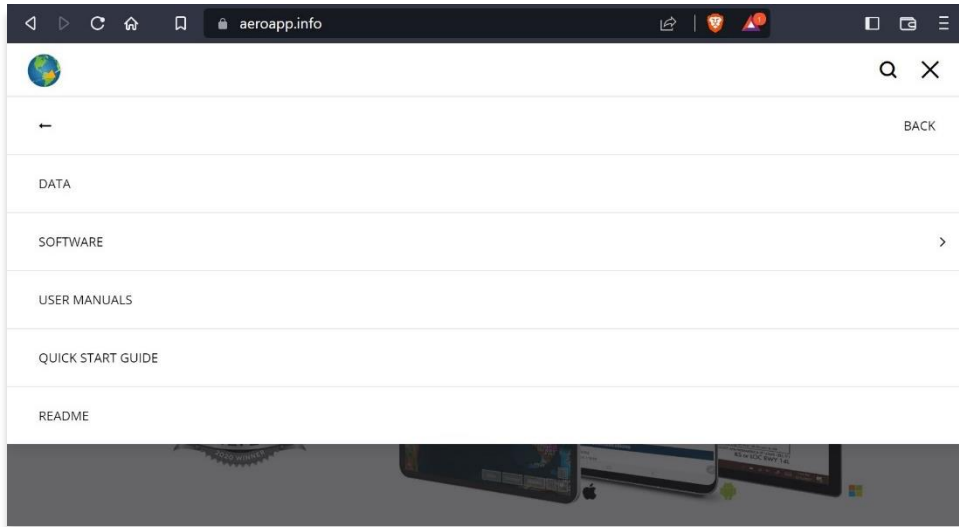
1. Tap **App Mgmt** on the **Main Menu**.
2. Tap **Help** on the **Secondary Menu**.
3. Tap the **User Manual** tab.
4. Tap the **aeroapp.info** link and users will be redirected to the Aero App homepage.



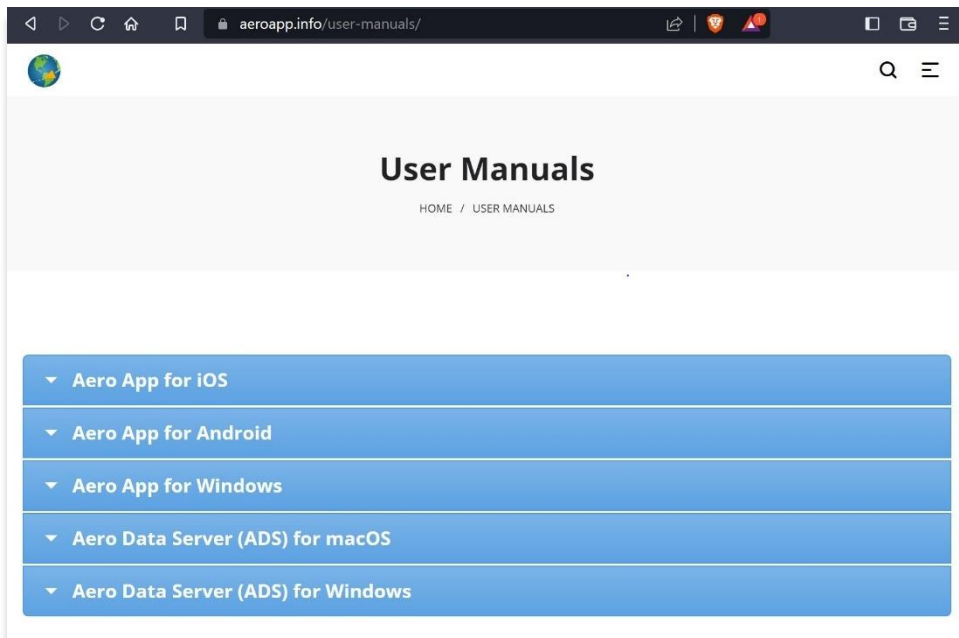
5. Hover over **Downloads**. Option placement will vary depending on display size.
  - On large screens, the **Downloads** option will display the ribbon located at the top of the page.



- On smaller screens, tap the hamburger button and select **Downloads**.



6. Select **User Manuals**.
7. Users are provided with several platforms to choose from. Tap **Aero App for Windows** to reveal all User Manuals available.
8. Select desired user manual version. Users will be redirected to the web PDF.



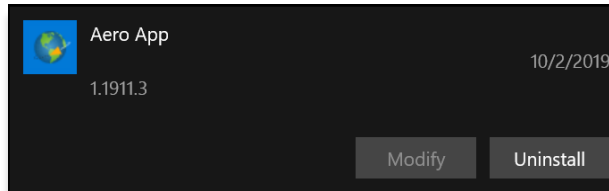
**NOTE:** The User Manual can be downloaded and uploaded onto Aero App. The PDF can be viewed at any time during their preflight or in-flight experience with no internet connection needed. For more information, refer to [Section 13.4.1](#).

---

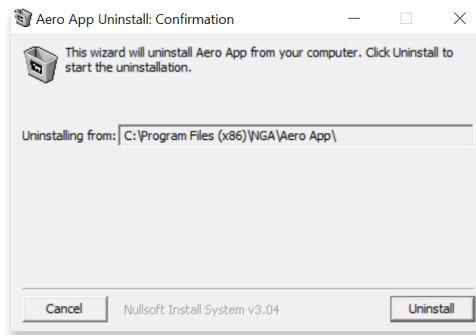
## 15 Appendix A | Uninstall Aero App

This section describes how to uninstall Aero App.

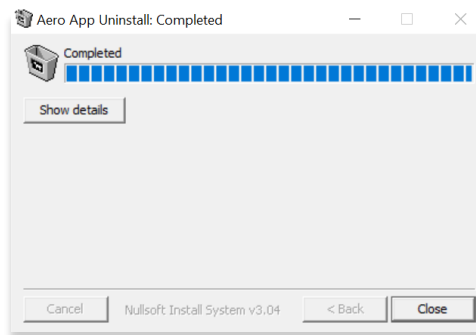
1. Go to **Settings** on your tablet.
2. Tap **Apps**.
3. Navigate to Aero App on the list provided.
4. Tap **Aero App**.
5. Tap **Uninstall** from the options provided.



6. A confirmation will pop up, tap **Uninstall**.



7. Once Aero App has been successfully uninstalled, a completed dialog box will appear, tap **Close**.



**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.

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## 16 Appendix B | User Waypoints and Coordinates

Enter Waypoints using Latitude and Longitude coordinates.

Coordinate formats include:

<b>DD.DDD,DDD.DDD</b>		<b>DDMM.MM,DDMM.MM</b>	
Input Example	Means	Input Example	Means
37.12345, -121.12345	37.12345°N, 121.12345°W	3723.45, -11834.45	37°23.45N, 118°34.45W
<b>NDD.DDD,WDDD.DDD</b>		<b>NDDMM.MM,WDDDMM.MM</b>	
Input Example	Means	Input Example	Means
N37.12345, W121.12345	37.12345°N, 121.12345°W	N3713.4536, W12145.901	37°13.4536°N, 121°45.901W
<b>DD.DDDN,DDD.DDDW</b>		<b>DDMM.MMN,DDDMM.MMW</b>	
Input Example	Means	Input 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 input the values in degrees and decimal minutes, you need to ensure that there are at least four digits before the decimal point, e.g., 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 using search boxes for the creation of routes.

## 17 Appendix C | 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
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
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

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DOD	Department of Defense
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, and Middle East
ETA	Estimated Time of Arrival
ETE	Estimated Time Enroute
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	Groundspeed
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



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
MDM	Mobile Device Management
METAR	Meteorological Aerodrome Report. Aviation Routine Weather Report, a format for reporting weather information
Mgmt	Management
MGRS	Military Grid Reference System
Moving Map	Navigation system displaying the receiver's current location at the center of a map
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

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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
TFR	Temporary Flight Restriction
TO Min	Takeoff Minimums
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