

Aeronautical Application



Windows User Manual Version 1.2406

NSN76440152335389

Publication Date: May 20, 2024

Acknowledgements

The Aeronautical Application (Aero App) User Manual was produced by Hilton Software. Hilton Software expresses great appreciation to everyone who helped contribute to the content quality. Hilton Software and NGA sincerely appreciate your feedback and commitment to continually improve Aero App.



Table of Contents

	8
2 About the Manual	9
3 Getting Started	9
3.1 System Requirements	9
4 Troubleshooting	10
5 Accounts	11
5.1 Aero User Database (AUD) Account Registration	11
5.2 NGA GEOAxIS Account Registration	12
5.3 ASPS Account Registration	13
6 Aero App Installation	14
6.1 Where to Obtain Aero App	14
6.1.1 Aero App Installation From DVD	14
6.1.2 Aero App Installation From Website	17
7 Where to Obtain Aero App Data	19
8 Aero App Data Overview	19
8.1 Aero App Maps	20
8.2 Air Force Weather	20
8.3 Core Data	20
8.4 Core Data Delta Files	20
8.5 Electronic – Instrument Procedure Library (E-IPL)	21
8.6 FAA Sectionals	21
8.7 Georeference	21
8.8 Giant Reports	21
8.9 Helicopter and Terminal Area Chart (TAC) Maps	22
8.10 User Files	22
9 Download Data	23
9.1 Download Data Through Amazon Web Services (AWS)	23
9.1.1 Download Data Using Aero User Database (AUD)	25
	07
9.1.2 Download Data Using GEOAxIS	

9.2.1 Aero Data Server (ADS) Discover	29
9.3 Download Data From the Aero App Website	31
10 Sideload Data	33
10.1 Sideload Data Cycle via Aero App DVD	33
10.2 Sideload User Maps	35
10.3 Sideload User Waypoints	36
10.4 Sideload Common Route Definition (CRD)	38
10.5 Sideload Pins	40
10.6 Sideload Documents	42
11 Updating Aero App Data	44
11.1 Data Notifications	44
12 Manage Data	45
12.1 Data Status	45
12.2 Manage Data Downloads	45
12.3 On Device	47
12.4 File Manager	48
13 Introduction to Aero App Menus	50
13.1 Main Menu Options	50
13.2 Route Menu Options	51
13.3 Identifier Options	52
13.4 General Menu Options	53
13.5 Application Management (App Mgmt) Menu Options	54
14 Using Aero App's Main Menu	55
14.1 Search Identifiers or Terms	55
14.1.1 Add an Identifier to Favorites	56
14.2 Information	57
14.2.1 Airport Charts	58
14.2.1.1 Draw on Airport Diagrams (APDs) and Instrument Approach Pr (IAPs) Charts	ocedures 59
14.2.2 Continuation of Charts	60
14.2.3 Weather and Potential Hazard Information	63
14.2.3.1 Internet	63

14.2.3.1.1 METARs and Terminal Aerodrome Forecasts (TAFs)	63
14.2.3.1.2 NOTAMs	65
14.2.3.2 METARs	66
14.2.3.3 Terminal Aerodrome Forecast (TAFs)	66
14.3 Moving Map	67
14.3.1 Flight Information Panel	67
14.3.1.1 Speed	67
14.3.1.2 Crosstrack (XTK)	68
14.3.1.3 Altitude	68
14.3.1.4 Distance and Bearing	68
14.3.1.5 Breadcrumbs	69
14.3.1.5.1 View Breadcrumbs in KML	70
14.3.1.5.2 View Breadcrumbs in SQLite File	71
14.3.2 Timer	72
14.3.3 Air Force Weather (AF Wx)	73
14.3.3.1 Air Force Weather (AF Wx) on the Route Panel	74
14.3.3.2 Air Force Weather (AF Wx) Information on the Wx Menu	76
14.3.4 Maps	77
14.3.4.1 Aero Maps	77
14.3.4.1.1 FAA Visual Flight Rule (VFR) Sectionals	77
14.3.4.1.2 Instrument Flight Rule (IFR) High Enroute	77
14.3.4.1.3 Instrument Flight Rule (IFR) Low Enroute	78
14.3.4.2 Base Map	79
14.3.4.2.1 Earth Base Map	79
14.3.4.2.2 Gray Base Map	79
14.3.4.3 Helicopter and Terminal Area Chart (TAC) Maps	80
14.3.4.3.1 Helicopter (Gulf Coast)	80
14.3.4.3.2 Helicopter (Routes)	80
14.3.4.3.3 Terminal Area Charts (TACs)	81
14.3.4.4 User Maps	81
14.3.4.1 User Maps	81
14.3.5 Overlays	82

14351 Aero Overlays 82
14.3511 Air Refueling Routes 82
143512 Airways – Low 82
14.3.5.1.3 Airways - High
14.3.5.1.4 Pins
14.3.5.2 User Overlays
14.3.5.2.1 User Overlays
, 14.3.6 Options
14.3.6.1 Ownship
14.3.6.1.2 Snap to Location
14.3.6.1.3 North Up
14.3.6.2 Location
14.3.6.2.1 Breadcrumbs
14.3.6.2.2 Distance Rings
14.3.7 Snap to Location
14.3.8 Move Map to Location88
14.3.9 Split Screen
14.3.9.1 APD for Destination Airport89
14.3.9.2 PDF Support90
14.3.10 Center Target
14.3.10.1 Measure Distance and Bearing Between Points
14.3.11 Drag and Drop92
14.3.12 Identifier Menu94
14.3.12.1 Actions
14.3.12.1.1 Create User Waypoint95
14.3.12.1.2 Direct-To97
14.3.12.1.3 Drop Pin98
14.3.12.1.4 Add to Route99
14.3.12.2 Add100
14.3.12.2.1 Add Departure Procedure (DP) or Standard Terminal Arrival Route (STAR) to Route

14.3.12.3 Show	103
14.3.12.3.1 Show on Map	103
14.3.12.3.2 Instrument Approach Procedures (IAPs) on Map	104
14.3.12.3.3 Information and Weather (Info and Wx)	105
14.3.12.3.4 Nearest	106
14.3.13 Collapsible Route Panel	107
14.3.13.1 Add to Route	107
14.3.13.1.1 Add Military Training Routes (MTRs) to Route	108
14.3.13.1.2 Add Airways to Route	110
14.3.13.2 Edit Route	112
14.3.13.3 Route Menu Options	113
14.3.13.3.1 Actions	113
14.3.13.3.1.1 Load	114
14.3.13.3.1.1.1 Load a Common Route Definition (CRD) File	115
14.3.13.3.1.1.2 Save a CRD File	116
14.3.13.3.1.1.3 View a CRD File	117
14.3.13.3.1.1.4 Delete a CRD File	118
14.3.13.3.1.2 Save Route	119
14.3.13.3.1.3 Delete Route	120
14.3.13.3.1.4 Reverse Route	121
14.3.13.3.1.5 Clear Route	121
14.3.13.3.2 Add	122
14.3.13.3.2.1 Add Search and Rescue (SAR) Pattern	122
14.3.13.3.3 Show	124
14.3.13.3.1 Doghouses	124
14.3.13.3.3.1.1 Edit Doghouses	126
14.3.13.3.2 Dropped Pins	127
14.3.13.3.3 Routes	128
14.3.13.3.4 User Waypoints	129
14.3.14 Estimated Time Enroute (ETE) and Estimated Time of Arrival (ETA)	130
14.4 General	131
14.4.1 Charts	131

14.5 Notepad	134
14.6 E6B Calculator	135
15 Application Management (App Mgmt)	139
15.1 Preferences	139
15.1.1 User Interface	139
15.1.2 Miscellaneous	139
15.1.3 Data	140
15.1.4 GPS	141
15.1.5 Reset	141
15.2 Data	142
15.3 Host Nation	143
15.4 Help	145
15.4.1 User Manual Access	146
16 Appendix A Uninstall Aero App	148
17 Appendix B User Waypoints and Coordinates	149
18 Appendix C Acronyms and Glossary	150

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.

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
- An active internet connection (Wi-Fi or Cellular) or ethernet connection when downloading data

4 Troubleshooting

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

Phone: 954-323-2244 ext. 412

Email: aeroappsupport@hiltonsoftware.com

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

Hours of Operation: Monday - Friday 1000-1800 EST

5 Accounts

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

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 <u>userdb.aeroapp.info/auth/register</u> 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.

Sero Use	er Database
Email	
First Name	
Last Name	
Password	•••
Confirm Password	
I'm not a robot	reCAPTCHA Privacy - Terms
	Create Account



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

- 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 <u>aeroappsupport@hiltonsoftware.com</u> for assistance.

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 CACenabled PC with their CAC card.

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

GEOAxIS Autho	entication Network Status: Connected
Please provide one of the following	You are attempting to access a resource protected by
credentials to Authenticate	GEOAxIS.
PKI CERTIFICATE	
PKI Certificate	U.S. Government Warning
LOGIN/PASSWORD	This is a United States Government Computer System. Use of this
Certificate-Linked	U.S. Government system, authorized or unauthorized, constitutes consent to monitoring of this system.
Authentication	For technical assistance, please contact the NGA Enterprise
7	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 1-(800)-455-0899.

5.3 ASPS Account Registration

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

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

A ▷ O □ □ □ asps.leidos.	com	8	🔲 🕶 2 Update 🚍
	UNCLASSIFIED//LIMDIS		
NGA NATIONAL GEOSPATIAL-INTELLIGI	All ASPS files are to be h. The media used to store Distribution authorized or ENCE AGENCY (IC) for official purposes Distribution to DoD and T	andled as Unclassified//LIMDIS. downloads should be marked as nly within Department of Defense IAW DoDI 5030.59. IC contractors requires contract o	follows: LIMITED DISTRIBUTION: e (DoD) and the Intelligence Community lauses consistent with DoDI 5030 59
Aero Browser - Aeronautical Source Packagin	g Service		
	E-mail: First Name: Last Name: Phone: Organization: Gov't POC: Justification: I accept the ASPS User Age Request Account	your supervisor.	
	Back to Login		

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] 7644016004225) 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).
 - National Geospatial-Intelligence Agency (NGA). Aero App data can be downloaded via NIPRnet at (<u>https://dbgia.geointel.nga.mil/efb/index.cfm</u>). 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 (<u>aeroapp.info</u>) 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.

Aero App Setup: Installatio	n Options	-		\times
Check the components y you don't want to install	you want to install and . Click Install to start t	uncheck th he installati	e compone on.	ents
Select components to install:	Aero App			
Space required: 56.0 MB	Il Sustan u2.04		Inc	+all
Cancel Nullsoft Insta	ill System v3.04		Ins	tall

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 is displayed.



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 is displayed on the ribbon located at the top of the page.



• On smaller screens, click the hamburger button. Select **Downloads** then **Software.**



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

이 D C 슮 디 🗎 download.aeroapp.info/Files		B 🦁 🥂		
Aero App - United States	C Refresh	Change Partner	🕞 Logout	
Download Aero App D	Directly to yo	our Device		
i OS (1.2201.4424) (DoD Signed)		é iOS (1.2209.5744) (DoD Signed)		
Windows (1.2201.1165)		Windows (1.2209.1579)		
Android (1.2209.4390)	Android (1.2211.4644)			
Download ADS Dire	ectly to your	Device		
Windows (1.2201.253)		Windows (1.2209.399)		
é macOS (1.2201.253)	é macOS (1.2209.399)			
Download (Other Apps			



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

7 Where to Obtain Aero App Data

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

- Aero App DVD a physical DVD 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) 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 <u>Section 5</u> for more information.

8 Aero App Data Overview

The following data is available for download:

- Aero App Maps
- Air Force Weather (AF Wx)
- Core Data
- Core Data Delta Files
- Electronic Instrument Procedure Library (E-IPL)
- FAA Sectionals
- Georeference
- Giant Reports
- Helicopter and Terminal Area Chart (TAC) Maps
- 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 <u>aerodistro@nga.mil</u> if you have questions regarding access to these products and/or data.

8.1 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 <u>Section 14.3.4</u> for more information on Maps.

8.2 Air Force Weather

Air Force Weather (AF Wx) is timely and accurate weather information from the Air Force. Aero App enables users to view real-time weather information for METARs and TAFs. Refer to <u>Section 14.3.3</u> for more information on Air Force Weather (AF Wx).

8.3 Core Data

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

NOTE: Users have the option to sideload data, refer to <u>Section 10</u> to view different methods of sideloading data.

8.4 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.

8.5 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.

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

8.6 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 GEOAxlS credentials will have access to FAA Sectionals. Refer to <u>Section 14.4.1</u> to reference how to load FAA Sectional Charts. Refer to <u>Section 14.3.4.1.1</u> to reference how to display FAA Sectionals onto the Moving Map.



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

8.7 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 on the Moving Map, perfectly georeferenced. Refer to <u>Section 15.1.2</u> on how to enable Show Ownship on APD and IAP and Show Airport Ring on APD and IAP.

8.8 Giant Reports

Giant Reports are PDF documents that are an assessment from the Air Force for safe operations at an airfield. The PDF document can be downloaded and viewed within Aero App. Refer to <u>Section 14.2</u> for guidance in viewing Giant Reports.

8.9 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 <u>Section 14.3.4.3</u> 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.

8.10 User Files

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

9 Download Data

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

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

9.1 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						
\leftarrow	AWS	AWS ADS On Device		File Manager			
AWS - Fast Cloud Downloading							
		Aero User Database	GEOAxIS				
Us	er Name:						
F	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.



- 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.

۲	https:/	//usero	db.aer	oapp.int	fo/auth/ × 🕂				~	-	ð	×
		С	ଜ	۵	userdb.aeroap	p.info /auth/register		🦁	<u> </u>		٥	Ξ
						Aero User	Database					
						Email						
						First Name						
						Last Name						
						Password						
						Confirm Password						
						I'm not a robot	reCAPTCHA Privacy - Terms					
							Create Account					

• 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 C	ttps://geoaxis.nga.mil							
using a CAC-enabled								
If you have a CAC c	Help Desk at 1-800-455-0899 or DNS 547-5555.	your tablet or other						
computer without you	ОК							
a. Navigate to https.,	/geoaxis.nga.mii							
b. Authenticate using	g the PKI Certificate or Disadvantaged User o	ption.						

9.1.1 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 redirected to the Data Cycle Download screen, select desired cycle.

	DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS									
\leftarrow	AWS AD		DS On Device		vice	File Manager				
		AWS	S (United S	States)		Download				
		2209	2208	2	207					
	Total Size: 12.3 GB									
	Cycle, 3.4 GB									

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

	DYNAM	IC CONTENT CLA	SSIFIED TO:	UNCLASSIF	IED//FOUO//	'LIMDIS
\leftarrow	AWS	AD	ADS		Device	File Manager
		AWS	5 (United	d States))	Download
		2209	2208		2207	
		Ic	Cycle, 3.4	2.3 GB GB		
\bigcirc	Global 2022-09-08, 339 MB					Pending
	Africa 2022-09-08, 63 MB					Pending
\bigcirc	Alaska 2022-09-08, 130 MB					Pending
	Canada 2022-09-08, 296 MB					Available
\bigcirc	CONUS Part 1 2022-09-08, 134 MB					Pending
	CONUS Part 2 2022-09-08, 509 MB					Pending
	CSA 2022-09-08, 225 MB					Available
	EEA 2022-09-08, 216 MB					Available
	ENAME 2022-09-08, 472 MB					Available
	FAA Sectionals 2022-09-08, 793 MB					Pending

9.1.2 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.

	DYNAMIC	CONTENT CLASSIFIED TO:	UNCLASSIFIED//FOUO//LIN	ADIS					
\leftarrow	AWS	ADS	ADS On Device						
	AW	/S - Fast Cloud	d Downloading)					
	Aer	o User Database	GEOAxIS						
Тар	ping Connect will o	pen a browser to allov	v you to log in using GI	EOAxIS credentials.					
		Conne	ect						
GEOA App S allows	GEOAxIS is used for user authentication. This unifies logins between AWS and the NGA App Store (https://geoaxis.nga.mil) which allows us to avoid requiring CAC access but still allows access to .mil servers.								

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

GEOA×I	S ENTERPRISE IDENTITY
GEOAxIS Autho	entication Network Status: Connected
Please provide one of the following credentials to Authenticate PKI CERTIFICATE	You are attempting to access a resource protected by GEOAxIS.
PKI Certificate	U.S. Government Warning
LOGIN/PASSWORD	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)
Which credential should I choose?	

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

	DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS									
\leftarrow	AWS	S On Device		File Manager						
		Download								
		2209	2208	2207						
	Total Size: 12.3 GB									
	Cycle, 3.4 GB									

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

	DYNAM	IC CONTENT CLAS	SSIFIED TO: UNC	CLASSIFIED//FOUO/,	/LIMDIS
\leftarrow	AWS	ADS On Device		File Manager	
		AWS	(United S	tates)	Download
		2209	2208	2207	
		То	tal Size: 12.3 Cycle, 3.4 GB	GB	
\oslash	Global 2022-09-08, 339 MB				Pending
	Africa 2022-09-08, 63 MB				Pending
	Alaska 2022-09-08, 130 MB				Pending
	Canada 2022-09-08, 296 MB				Available
\bigcirc	CONUS Part 1 2022-09-08, 134 MB				Pending
\bigcirc	CONUS Part 2 2022-09-08, 509 MB				Pending
	CSA 2022-09-08, 225 MB				Available
	EEA 2022-09-08, 216 MB				Available
	ENAME 2022-09-08, 472 MB				Available
	FAA Sectionals 2022-09-08, 793 MB				Pending



NOTE: Refer to <u>Section 5.2</u> for more information regarding registering for a GEOAxIS account.

9.2 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.

9.2.1 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**.
- Select the Aero Data Server option, then tap Discover and all available servers will display.

← AWS		ADS	On	Device	Fi	le Manager
Discover	Host	192.168.98.119	Port	5556	C	onnect
Name MacBook-Pro IP 192.168.99.47 Port 5	531					Est. Bandwidth 1000 Mbps
Name ADS4-Mac-mini IP 192.168.99.54 Port 4	43				⋳	Est. Bandwidth 1000 Mbps
Name ADS5 IP 192.168.99.60 Port 4	43				⋳	Est. Bandwidth 1000 Mbps
Name jess laptop ads IP 192.168.99.89 Port 5	555					Est. Bandwidth 1000 Mbps
Name ADS6 IP 192.168.99.35 Port 4	43				₿	Est. Bandwidth 1000 Mbps

5. 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.

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

\leftarrow	AWS		ADS	Or	1 Device	File Manager
	Discover	Host	192.168.98.119	Port	5556	Connect
			ADS	5		Download
		Host	: 192.168.99.60	HTTPS	Port: 443	
		2	2309 2308	3	User Files	
			Total Size:	12.4 GB		
	Global 2023-09-07, 392 MB		Cycle, J.			Pending
	Africa 2023-09-07, 77 MB					Pending
	Alaska 2023-09-07, 138 MB					Available
\bigcirc	Canada 2023-09-07, 301 MB					Pending
	CONUS Part 1 2023-09-07, 156 MB					Pending
	CONUS Part 2 2023-09-07, 524 MB					Pending
	CSA 2023-09-07, 231 MB					Available
	EEA 2023-09-07, 217 MB					Available

=//

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

9.3 Download Data From the Aero App Website

The Aero App website (<u>aeroapp.info</u>) 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 <u>download.aeroapp.info</u> in the address bar.



NOTE: Alternatively, users can go to <u>aeroapp.info</u> > Downloads > Data and users will be redirected 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**.

Aero	Арр			C F	Refresh 🕞 Logout
		Download	d Aero App Directly to you	ur Device	
		# iOS (1.1811.14) (DoD Signed)	Windows (1.1811.16)	Android (1.1811.19)	
	Name				
	Cycles				
	wwi				
	movingmaps				
	generics				
	maps				

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

Aero App		CRefresh	🕞 Logout
	Home		
	Name		
	■ 2019-10-10		
	■ 2019-11-07		
	■ 2019-12-05		

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.

 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 PC.
- 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 12 on how to load and view data status.

10 Sideload Data

This section describes the various ways to sideload a complete data cycle or usergenerated data such as User Maps, User Waypoints, CRD files, Pins, and User Documents.

Users must first sideload the desired data (e.g., a complete data cycle or usergenerated data) into a trusted storage device such as the following:

- USB Drive transfer desired data into a USB drive
- **SD Card** transfer desired data into an SD card

The steps in achieving this are as follows:

- 1. Connect your storage device (USB or SD card) to a computer.
- 2. Open a File Explorer window.
- 3. Locate and double-click your storage device to view contents.
- 4. Drag and drop desired data into the storage device. Your data is now stored in your storage device.

Once the data is successfully transferred to a secured storage device, users can transfer the data to a Windows device where Aero App is installed. The following sections ahead will provide the necessary steps for each data type.

10.1 Sideload Data Cycle via Aero App DVD

NGA distributes the Aero App DVD to appropriate personnel. For additional information, contact Jorge Diaz (Jorge.Diaz@dla.mil) from the Defense Logistics Agency. Users must transfer the desired data from the Aero App DVD into a storage device (USB or SD card) beforehand. Refer to <u>Section 10</u> for instructions in achieving this.



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

- 1. Connect your storage device (USB or SD card) to a Windows device (where Aero App is installed).
- 2. Open Aero App.
- 3. Tap App Mgmt on the Main Menu.
- 4. Tap Data on the Secondary Menu.
- 5. Select **Download**.
- 6. Select **On Device** on the navigation bar.
- 7. Tap the storage device that contains the data files you want to download.

8. The selection will be highlighted, tap **Select**.

	Browser for data files	Browser for data files	
Your storage device	C:\	~	

9. Select desired data files then tap **Download** to begin the downloading process.

	DYNAMIC CONTENT CLASSIFIED TO	: UNCLASSIFIED//FOUO//LIMDIS		
AWS	ADS	On Device	File Manager	
	Local	Files	Download All	
	2210	2209		
	Total Size: Cvcle. 2	: 6.9 GB .5 GB		
Global 2022-10-06, 336 MB			Downloaded	
Africa 2022-10-06, 63 MB	Africa 2022-10-06, 63 MB Downloaded			
CONUS Part 1 2022-10-06, 868 MB	CONUS Part 1 2022-10-06, 868 MB Downloader			
CONUS Part 2 2022-10-06, 548 MB	CONUS Part 2 2022-10-06, 548 MB			
FAA Sectionals 2022-09-08, 793 MB			Downloaded	
	Aero App Ma	aps, 3.2 GB		
Can IFR Hi Canada 2022-09-08, 504 MB			Downloaded	
Can IFR Lo Canada 2022-09-08, 455 MB			Downloaded	
FAA IFR Atlantic 2022-09-08, 210 MB	FAA IFR Atlantic Downloade 2022-09-08, 210 MB Downloade			
FAA IFR Hi Alaska 2022-09-08, 108 MB			Downloaded	

Ē

NOTE: Refer to <u>Section 12</u> on how to load and view data status.

10.2 Sideload User Maps

Users can sideload user-generated Maps into Aero App. User Maps are MBTiles files that can be viewed on the Map. Users must sideload the desired User Maps from their computer into a storage device (USB or SD card) beforehand. Refer to <u>Section 10</u> for instructions on achieving this.

- 1. Connect your storage device (USB or SD card) to a Windows device (where Aero App is installed).
- 2. Open a File Explorer window.
- 3. Locate and double-click your storage device to view contents.
- 4. Open a new File Explorer window.
- 5. Navigate to the **My Documents** folder in the File Explorer window.

V Folders (7)				
3D Objects	Desktop	Documents	Downloads	Music
				.

6. Select Aero App. Its respective subfolders are displayed.

7. Select UserFiles to view contents.

Breadcrumbs	UserFiles

8. Drag and drop desired user map files from the storage device into the UserFiles folder.

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

- 9. Open Aero App.
- 10. Tap Moving Map on the Main Menu.
- 11. Tap Maps located at the bottom-right of the Moving Map screen.
- 12. The Maps popup will display. Tap **User Maps** from the side menu. A successful sideload will display the User Map(s) in the list.
10.3 Sideload User Waypoints

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

Aero App supports text files for user waypoints. To create a user waypoint, the following steps should be followed:

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

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

- 5. Right-click on the file and hover over **Open with** then select **Notepad**.
- 6. Create customer waypoints following the format:

<dz,<ndmez< th=""><th>,<taiiiuae>,</taiiiuae></th><th><longilude>.</longilude></th><th></th></dz,<ndmez<>	, <taiiiuae>,</taiiiuae>	<longilude>.</longilude>	

initial-waypoints.txt	10/31/2019 5:36 PM	Text Document	1 KB			
route0-waypoints.txt	10/31/2019 5:38 PM	Text Document	1 KB			
work-routine-waypoints.txt	10/31/2019 5:38 PM	Text Document	1 KB			
work-routine-waypoints.txt - Notepad						
File Edit Format View Help						
PANCHO,Happy Bottom Riding Club,34.863833,-117.956317						

7. Save file once completed.

Users must sideload the desired User Waypoints from their computer into a storage device (USB or SD card) beforehand. Refer to <u>Section 10</u> for instructions on achieving this.

- 8. Connect your storage device (USB or SD card) to a Windows device (where Aero App is installed).
- 9. Open a File Explorer window.
- 10. Locate and double-click your storage device to view contents.
- 11. Open a new File Explorer window.
- 12. Navigate to the **My Documents** folder in the File Explorer window.

3D Objects	Desktop	- Documents	Downloads	Mus

13. Select Aero App. Its respective subfolders are displayed.



14. Select UserFiles to view contents.



15. Drag and drop desired user waypoint files from the storage device 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

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

- 16. Open Aero App.
- 17. Tap **Search** on the Main Menu.
- 18. Enter the exact name of the User Waypoint in the search text box. A successful sideload will display the user waypoint(s) under the User Waypoints section.



10.4 Sideload Common Route Definition (CRD)

Aero App enables users to sideload Common Route Definition (CRD) files to view on the map or be added to a flight route. Users must sideload the desired CRD files from their computer into a storage device (USB or SD card) beforehand. Refer to <u>Section 10</u> for instructions on achieving this.

- 1. Connect your storage device (USB or SD card) to a Windows device (where Aero App is installed).
- 2. Open a File Explorer window.
- 3. Locate and double-click your storage device to view contents.
- 4. Open a new File Explorer window.
- 5. Navigate to the **My Documents** folder in the File Explorer window.

V Folders (7)				
3D Objects	Desktop	Documents	Downloads	Music
- 10 million				

6. Select Aero App. Its respective subfolders are displayed.



7. Select UserFiles to view contents.



8. Drag and drop desired CRD files from the storage device into the UserFiles folder.

← → ∽ ↑ 📑 > This PC	Search UserFiles		
Screenshots ^	Name	Date modified	Туре
👗 UserFiles	PFPS_Sample.crd	3/15/2016 12:31 PM	CRD File
OneDrive	PFPS_CH46EEverything.crd	3/15/2016 12:31 PM	CRD File
- OneDire	MPS_two_route.crd	3/15/2016 12:31 PM	CRD File
🗸 🧢 This PC	TWDFW_VKTRY_TWO_ARRIVAL_(RNAV).KMZ.k	1/18/2019 1:27 PM	KMZ File

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

- 9. Open Aero App.
- 10. Tap Moving Map on the Main Menu.
- 11. Tap the Route Tab to expand the Route Panel.
- 12. Select Route.
- 13. Select Actions on the side menu, if necessary.
- 14. Tap **Load**. A successful sideload will display the CRD file(s) in the Load Route collection.



10.5 Sideload Pins

Aero App enables users to sideload 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 <u>Section 14.3.12.1.3</u> for guidance on how to Drop Pins.

- 1. Connect your storage device (USB or SD card) to a Windows device (where Aero App is installed).
- 2. Open a **File Explorer** window.
- 3. Locate and double-click your storage device to view contents.
- 4. Open a new File Explorer window.
- 5. Navigate to the **My Documents** folder in the File Explorer window.

	3D Objects	Desktop	Documents	Downloads	Music
--	------------	---------	-----------	-----------	-------

6. Select Aero App. Its respective subfolders are displayed.



7. Select **UserFiles** to view contents.



- 8. Drag and drop desired Pins from the storage device into the UserFiles folder.
- 9. 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
1	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.

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

- 10. Open Aero App.
- 11. Tap Moving Map on the Main Menu.
- 12. Tap **Overlays** located at the bottom-right corner of the Moving Map screen.
- 13. Select **User Overlays** on the side menu. A successful sideload will display the pin(s) under the User Overlays section.

NOTE: Refer to <u>Section 14.3.5.1.4</u> for additional information on Pins overlay.





=/

NOTE: To delete individual pins, go to File Manager, select Documents, then tap the delete button of the pin(s) that you want to permanently delete.

10.6 Sideload Documents

Users can sideload documents into Aero App. Users must transfer the desired user documents from their computer into a storage device (USB or SD card) beforehand. Refer to <u>Section 10</u> for instructions on achieving this.

- 1. Connect your storage device (USB or SD card) to a Windows device (where Aero App is installed).
- 2. Open a File Explorer window.
- 3. Locate and double-click your storage device to view contents.
- 4. Open a new File Explorer window.
- 5. Navigate to the **My Documents** folder in the File Explorer window.



6. Select Aero App. Its respective subfolders are displayed.



7. Select UserFiles to view contents.



8. Drag and drop desired document(s) from the storage device into the UserFiles folder.



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

- 9. Open Aero App.
- 10. Tap General on the Main Menu.
- 11. Tap **Docs** on the **Secondary Menu**.
- 12. Tap on the **ribbon** to view the available documents. A successful sideload will display the user document(s) in the User Documents' collection.



11 Updating Aero App Data

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

11.1 Data Notifications

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

No active cycle

Aero App displays airport information, FLIP charts and other data for the Active Cycle. If no Active Cycle is selected, Aero App will display the following notification. If there is data in the Standby Cycle, then tap **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.

DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS							
oving Map	General No		Notepad	E6B	App Mgmt		
Preferences Data		Data	Host Nation	Help			
No active cycle							
Data Status							

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.

DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS							
Q	KBLV	Moving Map General Not		epad			
Preferences Data			Host Nat	ion		Help	
The active cycle 2022-03-24 is not current							
Data Status							

12 Manage Data

The Data Status page provides a user-friendly interface for managing and monitoring the status and file sizes of the loaded data. It allows users to easily add or remove any unwanted or dated data.

12.1 Data Status

The Data Status page allows users to view information pertaining to the data cycle. There are options to download, view, and delete data cycles, view effective dates, swap cycles, and load downloaded data to make them active or to keep them on standby.

- 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 cycle dates of the Active Cycle are displayed on the left, and the Standby Cycle are displayed on the right. From this screen, you can also download new data when they become available.





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

12.2 Manage Data Downloads

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

- 1. Tap App Mgmt on the Main Menu.
- 2. Tap **Data** on the **Secondary Menu** to view data information.
- Tap Download to select data that you wish to have in the device. Refer to <u>Section 9</u> for additional information. A successful download will display Found besides its respective data type.



- 4. Tap Move to Standby to transfer the data to Standby Cycle.
- 5. Tap **Swap Cycles** to transfer the data from Standby Cycle to Active Cycle.

NOTE: Your data is activated once files are transferred to Active Cycle.

- 6. If maps are downloaded separately, tap **Load Maps** to move data to Active Cycle.
- 7. Tap **View** to display the list of available files stored in Active Cycle or Standby Cycle.
- 8. Tap **Delete** to permanently delete the files stored in Active Cycle or Standby Cycle.

12.3 On Device

On Device allows users to browse data files stored in their device's local disk or the connected storage device (USB or SD card).

- 1. Tap App Mgmt on the Main Menu.
- 2. Tap **Data** on the **Secondary Menu**.
- 3. Tap **Download**.
- 4. Tap **On Device**.
- 5. A browser to search for data files will appear. Depending on what is connected to your device, Aero App will assign the connected device(s) to a single alphabetic name (i.e. Your device's local disk is assigned to C, and so forth).



NOTE: The primary source of data storage on your device is the local disk, which is labeled as source C:\. Any other external storage devices, such as USB or SD card, that you connect to your device will be listed below the local disk. When you insert a new drive, it will appear as a new source under the list of available sources.



NOTE: It is recommended to store your data in the same folder for ease of access.

6. Tap C:\ to reveal the subfolders stored in the source.



- 7. If applicable, tap on the other sources (i.e. D:\) to reveal its respective subfolders.
- 8. Tap to highlight desired folder, then tap **Select**.
- 9. Select desired files to download.
- 10. Tap **Download** to begin the downloading process.

12.4 File Manager

File Manager is responsible for storing, managing, and making modifications to files that have been downloaded and loaded into 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

	DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS					
\leftarrow	AWS	ŀ	ADS	On Device	File Manager	
	File Manager					
[Downloads	Active	Standby	Aero App Map	s Other	

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

AWS ADS On Device File Manager
File Manager
Downloads Active Standby Aero App Maps Other
mm_can_ifr_hi_canada-2023-02-23.mbtiles
mm_can_ifr_lo_canada-2023-02-23.mbtiles
mm_faa_helicopter_conus_gulf_coast-2023-02-23.mbtiles
mm_faa_helicopter_conus_routes-2023-02-23.mbtiles
mm_faa_ifr_atlantic-2023-02-23.mbtiles
mm_faa_ifr_hi_alaska-2023-02-23.mbtiles
mm_faa_ifr_hi_conus-2023-02-23.mbtiles
mm_faa_ifr_lo_alaska-2023-02-23.mbtiles
mm_faa_ifr_lo_conus-2023-02-23.mbtiles
mm_faa_tac_alaska-2023-02-23.mbtiles
mm_faa_tac_conus-2023-02-23.mbtiles
mm_faa_vfr_alaska-2023-02-23.mbtiles
mm_faa_vfr_conus-2023-02-23.mbtiles
mm_faa_vfr_paa-2023-02-23.mbtiles
mm_nga_ifr_africa-2023-03-23.mbtiles

13 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.

13.1 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.

Q	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. Additionally, users can add identifiers to the Favorites list.
KJAX	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 Search on your device's on-screen keyboard. The new identifier will load as the new active point.
Moving Map	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.
General	General – General provides users access to a large library of material such as Charts, Supplements, Area Planning documents, User PDF documents and Terminal Procedure Legend.
Notepad	Notepad – The notepad allows users to create up to three pages of notes using their fingertips or a stylus.

E6B	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.
App Mgmt	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.
	Collapsible Menu Button – Tapping on the arrow will hide or show the Main and Secondary Menus.

13.2 Route Menu Options

Aero App provides route menu features on the Route Panel. The features include Add, Edit, and Route menu options.

•	Collapsible Route Panel – The Collapsible Route Panel can expand or collapse the Route Panel view. Users have options to add to route, edit route, and access additional route enhancement features in the Route menu.
+	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.
Edit	Edit – Edit allows users to reorder and delete entries from the route.
Route	Route – Route provides various features that enhance your route activities. The features are divided into Actions, Add, and Show menus.

13.3 Identifier Options

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

Info	Info – Displays detailed information about the selected Airport, including General Information, AQP, Giant Report, Communications, Runways, Chart Supplements, and Remarks.
APD	APD – Displays the Airport Diagram for the selected identifier.
IAP	IAP – Displays the Instrument Approach Procedures for the selected identifier.
Dep	Dep – Displays the Departure Procedure for the selected identifier.
Arr	Arr – Displays the Arrival Procedures for the selected identifier.
Min	Min – Displays charts for Alternate, RADAR, and Takeoff Minimums for the selected identifier.
Other	Other – Displays charts otherwise not displayed under the remaining tabs. They may include special procedures and RNAVs, among others.
Host Nation	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.
Wx	Wx – Displays options for viewing METARs/TAFs and a button redirecting to the NOTAMs web browser.

13.4 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 Procedure Legend.

Charts	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.
Supplements	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.
Planning	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.
Docs	User Documents – Displays access to user-defined content loaded into the Documents library.
Legend	Terminal Procedure Legend – Displays the Terminal Procedure Legend.

13.5 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.

Preferences	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 in an external location. GPS includes GPS COM port search and GP Connection Settings. Lastly, Reset includes Clear All Chart Markups.	
Data	Data Status screen allows users to manage cycles.	
Host Nation	Displays the Host Nation Charts Manager screen with an option to download the charts for the selected ICAO.	
Help	Displays information for Aero App such as – What's New, Web Links, User Manual, and About.	

14 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.

14.1 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 <u>Section</u> 14.1.1.

14.1.1 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** for the second time and the identifier will be removed from *Favorites*.
- 5. To view all identifiers marked as favorite, remove all characters from the search box then tap the **Star**. The Favorites list will display respective to the identifier type that was selected (e.g., Airports, NavAids, and Waypoints).

Hoto	1000 - 10000 - 10000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 -	Host Nation
	Search	
nter identifier, or search terr	n	
KBLV		\$
No Minim	num Runway Leng	th Set
	Airports	
👃 KBLV - 881.24 nm		Max Rwy: 10,000
Scott Afb Midamerica St Loi	sic	
	Namo	Distance



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

14.2 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 a point on the Moving Map.



UNCLASSIFIED

Runways contain airport runway	/i\ Runways			
information such as the runway dimensions, surface, condition, PNC, LCN, and more.	Runway 14L/32R			
	Dimensions 10,000' x 150' Surface Concrete Condition Good			
	PCN 82 LCN 108			
	Runway 14L	Runway 32R		
	Heading 138.0° magnetic 136.6° true	Heading 318.0° magnetic 316.6° true		
Remarks provides airport conditions, fuel	 Remarks 			
type, and other cautionary advice.	CAUTION Dense civ air tfc all quad, all alt. Unexpected bumps occur on Twy G btn rwys when crossing bridges and tunnels. Use min speed when opr in area. Use caution when utilizing Twy G, 0.25 NM E of Rwy 14R-32L int, grad chg of 3° and a 70° turnpresent. On coming tfc may not be vis due to terrain. Bird and wildlife haz.			
	CSTM/AG/IMG NAV CSTMS avbl. Ctc base OPS 72 hrs prior to exp arr to cor CSTMS if given a min 72 hr ntc prior to acft arr.	ord. Civ acft must be cleared by US		
	FLUID SP(Mil) PRESAIR(Mil) LHOX(Mil) LOX(Mil)			

14.2.1 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 on the **ribbon** displayed below the Secondary Menu, to select and display specific chart types.

14.2.1.1 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.



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

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



14.2.2 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 **ribbon** to display additional chart selection.







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



PNOTE: 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.

=%

NOTE: Host Nation charts must be downloaded to preview them; otherwise, the Host Nation option will remain disabled. Refer to <u>Section 15.3</u> for additional information.

14.2.3 Weather and Potential Hazard Information

An active 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

14.2.3.1 Internet

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

14.2.3.1.1 METARs and Terminal Aerodrome Forecasts (TAFs)

Aero App displays METARs and Terminal Aerodrome Forecasts (TAFs) 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.



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

ę	ව Int	ernet	
Internet	METARs & TAFs NOTAMs	Decode On	— Decode Enabled
ெ METARs	<pre>SPECI for KBLV (Belleville/Scott AFB, IL, US) ob Text: KBLV 141825Z AUTO 07005KT 10SM BKN018 OV Temperature: 22C (71.6 F) Dewpoint: 17C (62.6 F) Altimeter: 29.62 inches Hg (1003.1 mb)</pre>	served at 1825 UTC 14 May 2024 2060 22/17 A2962 RMK AO2 CIG 018V060 SLP031	
_⊃ TAFs	Sea level pressure: 1003.1 mb Winds: from 70 degrees at 5 knots Visibility: 10+ sm Ceiling: 1800 feet AGL Clouds: broken clouds at 1800 feet AGL, overca	st cloud deck at 6000 feet AGL	Decoded Weather
	<pre>Text: TGF AND KBU 1418/SOCI 148/522 VR806KT 9 Forecast period: 1800 UTC 14 May 2024 to 000 Forecast type: FM Winds: from VRB degrees at 6 knots Visibility: 6 or more sm (10+ km) Ceiling: 2000 feet AGL Clouds: overcast cloud deck at 2000 feet AGL Text: TEMPO 1418/1424 9000 -TSRA OVC010CB Forecast type: TEMPO Visibility: 6 sm (9 km) Ceiling: 1000 feet AGL Clouds: overcast cloud deck at 1000 feet AGL Ulards: overcast cloud deck at 1000 feet AGL Clouds: overcast cloud deck at 1000 feet AGL Weather: -TSRA (light rain associated with t Text: BECMG 1500/1501 VR806KT 9999 BKN010 0VC0 Forecast type: BECMG Winds: from VRB degrees at 6 knots Visibility: 6 or more sm (10+ km) Ceiling: 1000 feet AGL Clouds: broken clouds at 1000 feet AGL, over Text: BECMG 1502/1503 VR806KT 9000 -SHRA BKN000 Forecast type: BECMG Winds: from VRB degrees at 6 knots Visibility: 6 sm (9 km) Ceiling: 800 feet AGL Clouds: broken clouds at 1000 feet AGL, over Text: BECMG 1514/1515 33012KT 9909 NSM FEW008 Forecast type: BECMG Winds: from 300 degrees at 12 knots Visibility: 6 or more sm (10+ km) Ceiling: 1100 feet AGL Clouds: broken clouds at 800 feet AGL, overcat Weather: -SHRA (light rain showers) Text: BECMG 1514/1515 33012KT 9999 NSM FEW008 Forecast period: 1400 UTC 15 May 2024 to 150 Forecast type: BECMG Winds: from 330 degrees at 12 knots Visibility: 6 or more sm (10+ km) Ceiling: 1100 feet AGL Clouds: few Clouds at 800 feet AGL, overcast Weather: NSM (no significant weather) Text: BECMG 1515/1516 34010G1SKT 9999 OVC012 Q Forecast type: BECMG Winds: from 340 degrees at 10 knots gusting Visibility: 6 or more sm (10+ km)</pre>	All at love on 14 May 2024 ab UTC 15 May 2024 a UTC 15 May 2024 a UTC 15 May 2024 a UTC 15 May 2024 cast cloud deck at 1800 feet AGL b UTC 15 May 2024 cast cloud deck at 1000 feet AGL b UTC 15 May 2024 ast cloud deck at 1000 feet AGL cloud deck at 1100 feet AGL cloud deck at 1100 feet AGL wH2977INS b UTC 15 May 2024 co 15 knots	

14.2.3.1.2 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.

A Department of Defense Aeronau	× +			-		×
$\leftrightarrow \rightarrow$ O G A	https://www.daip.jcs.mil/daip/mobile/index	\$	r∕≡	面		
Depar Aero	tment of Defense nautical Informat Home Legin Defense News About DAIP		5 19:00:	17 202	битс	
NOTAM Query	Search NOTAMs by Location	0 0	Res	ource	s	
Search By Location Search By Route of	Enter unto 50 Locations (ICAO Identificars) separated by comma or o		NO TA DoD	M Man NOTA	nager M	٦
FLIGHT Warning					×	-
Do D P Ceneral Disclar US AR SPECIA SPECIA You are accessir FIR NC You are accessir only. By using this IS (AFOD By using this IS (ATTEM By using this IS (FDC N * The USG routin FDC SI to, penetration te DAFIF/ Pacific NORTH * At any time, the ARTCC * Communication GRAPH Europe	ing a U.S. Government (USG) Information System (IS) that is pro- which includes any device attached to this IS), you consent to t rely intercepts and monitors communications on this IS for purp- sting, COMSEC monitoring, network operations and defense, p (LE), and counterintelligence (CI) investigations. • USG may inspect and seize data stored on this IS.	wided for USG-author he following condition: oses including, but not ersonnel misconduct (o coutine monitoring	ized use s: t limited (PM),	ccept	ack litie 2 ds ds R 9	s &
Fuel NOTAM <u>s</u> GPSWAAS MOA European Birdtams	Runway Width (Feet) Airport Type All		Intern Aviation ICAC Offic MNF MNF Chee	ationa on Org) (EUR e) Wet PS Man S Oce Sklist	I Civil ganizatio (/NAT <u>osite</u> tual tanic	on



NOTE: In the case the "Your connection isn't private" error appears, tap **Advance** then tap **Continue** to access the website.

14.2.3.2 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.

14.2.3.3 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.



NOTE: Refer to <u>Section 14.3.3</u> for information on Air Force Weather (AF Wx).

14.3 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

14.3.1 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.



14.3.1.1 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.

14.3.1.2 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.

14.3.1.3 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 flight information panel.
- 2. Tap the +/- buttons to adjust your calibrated altitude by increments or decrements of 100' or 500', respectively.
- 3. Tap **Set** to complete the calibration.
- 4. The ownship altitude is displayed below the GPS section. Tap **Use GPS** to use your current GPS altitude.



14.3.1.4 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 <u>Section 14.3.10.1</u>.

14.3.1.5 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 <u>Section 14.3.6.2.1</u>.

	Breadcrumbs 🖉	Edit
Add Coordinates	🕂 Add 🛛 🗶 Clear 🔂 Exp	ort — Export Breadcrumbs
	2022-09-22 18:22:14Z N26°31.61' W80°03.54' 0 kt, 0°, 0'	
Coordinates —	2022-09-22 18:22:16Z N26°31.61' W80°03.54' 0 kt, 0°, 0'	
Speed, Track, Altitude —	2022-09-26 18:21:57Z N25°56.93' W80°27.84' 160 kt, 321°, 11695'	
	2022-09-26 18:21:58Z N25°56.93' W80°27.84' 160 kt, 321°, 11695'	
Date and Zulu Time —	2022-09-26 18:21:59Z N25°56.96' W80°27.87'	

- 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.

Export Breadcrumbs
Export breadcrumbs from 9/22/2022 18:22:14Z to 9/26/2022 18:21:59Z
KML
SQLite
× Cancel



NOTE: Breadcrumbs are logged by individual days.

14.3.1.5.1 View Breadcrumbs in KML

- 1. Export Breadcrumbs in KML.
- 2. Open File Explorer then navigate to This PC.



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

✓ Folders (7)			
3D Objects	Desktop	Documents	Downloads

4. Double-click on Aero App.



5. Double-click on Breadcrumbs.



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



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



14.3.1.5.2 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. Open File Explorer and navigate to This PC.



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

✓ Folders (7)				
3D Objects	Desktop	Documents	Downloads	Music

4. Double-click on Aero App.



5. Double-click on Breadcrumbs.



6. Your exported breadcrumbs will be listed.

AeroBreadcrumbs-20180403215146-20180403215147
AeroBreadcrumbs-20180711205435-20180711205601
AeroBreadcrumbs-20181010202747-20181010203030
AeroBreadcrumbs-20181010205959-20181010211859
AeroBreadcrumbs-20190328150500-20190405230625
14.3.2 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.

14.3.3 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

Credentials				
0Th	a Aero User Database			
Aero User Database	Username			
GEOAxIS	Password			
	✓ Connect			

- 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 an active internet connection and is updated every 5 minutes.

14.3.3.1 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 is displayed for each ICAO on your route.
- 3. The different color dot indicates the airports flight rules:
 - Green: VFR
 - Blue: MVFR
 - Red: IFR
 - 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 Identifier Menu will appear. Tap **Show** from the side menu.
- 6. Select Info and Wx.
- 7. The airport information is 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.





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

14.3.3.2 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



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.

14.3.4 Maps

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

14.3.4.1 Aero Maps

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

14.3.4.1.1 FAA Visual Flight Rule (VFR) Sectionals

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

- 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 is displayed on the map.

14.3.4.1.2 Instrument Flight Rule (IFR) High Enroute

The IFR High charts for the desired region must be downloaded. Until the data has been successfully downloaded, the IFR High option will remain disabled.

- 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 chart is displayed on the map.



14.3.4.1.3 Instrument Flight Rule (IFR) Low Enroute

The IFR Low charts for the desired region must be downloaded. Until the data has been successfully downloaded, the IFR Low option will remain disabled.

- 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 chart is displayed on the map.



14.3.4.2 Base Map

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

14.3.4.2.1 Earth Base Map

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

- 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 is displayed.

14.3.4.2.2 Gray Base Map

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

- 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 is displayed.



14.3.4.3 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.

14.3.4.3.1 Helicopter (Gulf Coast)

The FAA Helicopter CONUS Gulf Coast data must be downloaded. Until the data has been successfully downloaded, the Helicopter (Gulf Coast) option will remain disabled.

- 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 is overlayed on the map.

14.3.4.3.2 Helicopter (Routes)

The FAA Helicopter CONUS Routes data must be downloaded. Until the data has been successfully downloaded, the Helicopter (Routes) option will remain disabled.

- 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 is overlayed on the map.



14.3.4.3.3 Terminal Area Charts (TACs)

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

- 1. Tap 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 is overlayed on the map.

14.3.4.4 User Maps

Aero App supports User Maps to be viewed and accessed on the map. User Maps must be sideloaded onto Aero App. Refer to <u>Section 10.2</u> for additional information.

14.3.4.4.1 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. Select desired file(s). The selected user map is displayed on the map.



14.3.5 Overlays

Aero App provides various configurable map view overlays. The sections ahead will expand on the different Moving Map overlay options to choose from.

14.3.5.1 Aero Overlays

Aero Overlays include various options that enable pilots to customize their map view.

14.3.5.1.1 Air Refueling Routes

- 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 **Air Refueling Routes** to enable the option. Air refueling routes are populated on the map.
- 5. By tapping on the AR labels on the map, a popup will appear with additional information.

14.3.5.1.2 Airways - Low

- 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 Low** option. The low-altitude airways below 18,000 ft are populated on the map.



14.3.5.1.3 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 between 18,000 ft and 45,000 ft are populated on the map.

NOTE: Refer to <u>Section 14.3.13.1.2</u> on how to add Airways to the route.

14.3.5.1.4 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 <u>Section</u> <u>14.3.12.1.3</u> 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 are populated on the map.



14.3.5.2 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 <u>Section 10</u>.

14.3.5.2.1 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**. The user overlay will display on the map.

NOTE: Users can sideload User Overlays by storing shapefiles, GeoJSON, KML, and other files in the PC/Documents/Aero App/UserFiles directory.



NOTE: GeoJSON files must not exceed 15 MB; otherwise, an error message will be returned.



14.3.6 Options

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

14.3.6.1 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.

14.3.6.1.1 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.

14.3.6.1.2 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 <u>Section 14.3.7</u>.



14.3.6.1.3 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.



14.3.6.2 Location

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

14.3.6.2.1 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 displayed in orange are populated on the map.



NOTE: Refer to <u>Section 14.3.1.5</u> for more information about Breadcrumbs.

14.3.6.2.2 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.



14.3.7 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 <u>Section 14.3.6.1.2</u>.

14.3.8 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.

KBLV		☆
No Minim	um Runway Length Set	
	Airports	
KBLV - 873.13 nm Scott Afb Midamerica St Lou	is M	ax Rwy: 10,000'

14.3.9 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.

14.3.9.1 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 on the **ribbon**.
- 5. Select a chart from the popup menu.





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

NOTE: Refer to <u>Section 14.2.1.1</u> on how to draw on APD charts.

14.3.9.2 PDF Support

PDF Support enables users to view PDF documents in Aero App. User's documents must be sideloaded prior to viewing the document. Refer to <u>Section 10.6</u> for additional information.

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



14.3.10 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.



14.3.10.1 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.



14.3.11 Drag and Drop

The Drag and Drop feature is a tool for users to make quick modifications to their current route. Users can drag any point or segment of the current route and drop it to their desired location.

- 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 is 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.



- 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 desired point.

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.

14.3.12 Identifier 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 an identifier on the Route Panel.
- 3. The Nearest popup will display. Select desired identifier. The Identifier Menu will display with each option grouped by Actions, Add, and Show.

\leftarrow	KBLV
Ô	Actions
Actions	Scott Afb Midamerica St Louis N38°32.71', W89°50.11'
Add	Create User Waypoint
© Show	Direct-To
	Drop Pin
	Add to Route

14.3.12.1 Actions

The Actions submenu section offers the following options for users:

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

14.3.12.1.1 Create User Waypoint

Aero App enables users to create user waypoints using a unique ID, Name, Latitude, and Longitude. Users can view their list of User Waypoints. Refer to <u>Section 14.3.13.3.3.4</u> 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 an identifier on the Route Panel.
- 3. The Nearest popup will appear, select your desired point.
- 4. The Identifier Menu will appear. Select Actions from the side menu, if necessary.
- 5. Tap Create User Waypoint.
- 6. The Create User Waypoint popup will appear with fields to enter an Identifier, Name, Latitude, and Longitude. The 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.

\leftarrow Create Use	er Waypoint
ID .	
Name	
Latitude	31.683906
Longitude	-83.270903
Ourrent Location	✓ Save



NOTE: The Name field is optional. When creating a name for User Waypoints, the name can only contain Alphanumeric characters (upper and lower cases), spaces, and hyphens.

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

\leftarrow Create Use	er Waypoint
ID	MISSION1
Name	C17 Route
Latitude	30.781372
Longitude	-83.276219
Ourrent Location	✓ Save



NOTE: User Waypoints can be added as a text file sideloaded into Aero App. Refer to <u>Section 10.3</u> for information on how to sideload User Waypoints.



NOTE: Refer to <u>Section 13.3.13.3.4</u> to view all saved User Waypoints.

14.3.12.1.2 Direct-To

The Direct-To feature creates a new route from your ownship's current location direct to your desired destination. Users have the option to Add to Route and proceed Direct-To or Clear Route and proceed Direct-To.

1. Tap Moving Map on the Main Menu.

2. Ensure that the route includes one or more points.

=://

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

- 3. Long press a point on the Moving Map. Alternatively, you can add a new point by using the Add feature located at the bottom-left corner of the Route Panel.
- 4. The Nearest popup will appear, select desired point.
- 5. The Identifier Menu will appear. Select **Actions** from the side menu, if necessary.
- 6. Tap **Direct-To**.
- 7. Users are presented with the following options:
 - Add to Route and proceed Direct-To creates a new route from your current location directly to your desired destination. Your original route will remain unchanged.
 - Clear Route and proceed Direct-To the route loaded on the Route Panel will be removed and your new route is created from your present location direct to your desired destination.
- 8. A thin magenta route line from the ownship's current location to the selected Direct-To point will appear.



9. To cancel the Direct-To, tap on the Direct-To point from the Route Panel. The Identifier Menu will appear, select **Cancel Direct-To**.

14.3.12.1.3 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.

Aero App enables users to sideload pins into Aero App. Refer to <u>Section 10.5</u> for additional information.

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

\leftarrow	Drop) Pin
ID*	C17	
Name	Mission R	oute
Natas	Document	
Refer to	contextual h	elp
×	Cancel	✓ Drop Pin

- 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.

14.3.12.1.4 Add to Route

F

- 1. Tap Moving Map on the Main Menu.
- 2. Long press a point on the Moving Map.

NOTE: Alternatively, you can add a new point by using the Add feature located at the bottom-left corner of the Route Panel. Refer to <u>Section 14.3.13.1</u> for additional information.

- 3. The Nearest popup will appear. Select a desired point.
- 4. The Identifier Menu will appear. Select **Actions** from the side menu, if necessary.
- 5. Tap Add to Route.
- 6. A new point will be added to the current route.
- 7. Once the point has been added, the Add to Route option changes to Remove from Route. Tap **Remove from Route** of the point that you wish to permanently delete.



14.3.12.2 Add

The Add submenu section offers the following options for users:

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

14.3.12.2.1 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 Identifier Menu will appear. Select **Add** from the side menu.
- 3. Select **DP** or **STAR**.

F

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**.

Add KMIA STAR	
Procedure	
	Procedure
Transition	ANNEY4
	BLUFI4
Last Waypoint	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**.

-	Add KMIA STAR
Procedure:	BNFSH1
Transition: (GELDE
Last Waypo	int: RHODZ
	<page-header></page-header>
	✓ Add to Route

8. The procedure is added to the current route and populated on the Moving Map.





14.3.12.3 Show

The Show submenu section offers the following options for users:

- Show on Map
- IAPs on Map
- Information and Weather (Info and Wx)
- Nearest

14.3.12.3.1 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 a desired point on the Moving Map. Alternatively, you can tap an identifier from the Route Panel.
- 3. The Nearest popup will appear, select your desired point.
- 4. The Identifier Menu will appear. Select **Show** from the side menu.
- 5. Tap Show on Map.
- 6. The screen will pan to the selected location.





14.3.12.3.2 Instrument Approach Procedures (IAPs) on Map

Aero App allows users to display an Instrument Approach Procedures (IAP) on the Moving Map, perfectly georeferenced. To show an IAP on the Moving Map, users need to download Georeference data beforehand; otherwise, an error message will be returned.

- 1. Tap Moving Map on the Main Menu.
- 2. Long press a desired point on the Moving Map. Alternatively, you can tap an identifier from the Route Panel.
- 3. The Nearest popup will appear, select your desired point.
- 4. The Identifier Menu will appear. Select **Show** from the side menu.
- 5. Tap IAP on Map.

I

- 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 is overlayed 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%.

	\leftarrow	IAPs for	KMIA	
AP Filter	All	ILS	GPS	RNAV
	/ɨ∖ Runway 08L			
	LOC RWY (08L		FAA
	RNAV (GPS	5) RWY 08L		FAA
		∕!\ Runw	ay 08R	
	ILS OR LOO	CRWY 08R		FAA
	RNAV (GPS	5) Z RWY 08R	ł	FAA
	RNAV (RNP) Y RWY 08R			FAA
		∕!\ Runw	vay 09	
		IAP Trans	parency	
	\bigcirc			



9. 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.

14.3.12.3.3 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 Route Panel, additional airport information such as Info and Wx can be viewed. Refer to <u>Section 14.2</u> 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.

=/

14.3.12.3.4 Nearest

The Nearest feature enables users to view nearby Airports, NavAids, Waypoints, and User Waypoints based on the selected identifier.

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

	Nearest	
O Current Point	N31°35.98', W84°20.08' 0.0nm	>
<u>ک</u> Airports	▲ Airports No Minimum Runway Length Set	
₩ NavAids	2GE6 - Virgil Heli 4.5nm, 272°	>
Waypoints	1GA6 - Grand Oak Plantation 7.6nm, 14°	>
	KABY - Southwest Georgia Rgnl 8.1nm, 123°	>
oser waypoints	3GE9 - Phoebe Putney Mem Hosp Heli 9.1nm, 98°	>
	16J - Dawson Muni 9.6nm, 338°	>
	GA14 - Pinebloom Plantation 11.8nm, 182°	>
	8GA3 - Leesburg Spraying 14.7nm, 52°	>

4. Select a desired point. The Identifier menu will display your new point.



14.3.13 Collapsible Route Panel

The collapsible Route Panel allows users to hide or show the Route Panel to free up screen space when it's not in use. To expand the Route Panel, simply tap the green route tab located at the bottom-left of the screen. Once expanded, you'll have access to the following options:

- Add enables users to add Airports, NavAids, Waypoints, User Waypoints, Airways, MTRs, enter a full route, MGRS, 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.

14.3.13.1 Add to Route

- 1. Tap Moving Map on the Main Menu.
- 2. Navigate to the **Route Panel**.
- 3. Tap the **Add** button located at the bottom-left corner of the Route Panel. 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 are displayed in the Route Panel in the order that they were entered.


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 (i.e., 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.

14.3.13.1.1 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 **Add** button located at the bottom-left corner of the Route Panel. The Add popup will display.
- 3. Use your keypad to enter MTRs to add to route following the format: **{starting point}. {MTR}.{endpoint}**.



4. The MTR will populate the Route Panel and display on the Moving Map.

DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS					
Q KBLV	Moving Map	General	Notepad		
KPNC Ponca City Rgnl 26.2 nm , 295°	250 kt	304° ← 0.30 nm	13,877'	N36°45.04' W97°07.85' 14SPF 66853 68850	
TWR: VR138 VR138 (MTR) 94.9 nm , 284° ▼ lat: 36.9333, lon: -97.583 A N36°56.00', W97°35.00' 40.0 nm , 284° ETE: 00:05:50, ETA: 15:16:09z B N37°07.50', W98°23.00' 20.0 nm , 284° ETE: 00:15:26, ETA: 15:25:45z C N37°13.50', W98°47.00'		KAI		Timer AF Wx	
24.6 nm , 339° ETE: 00:20:15, ETA: 15:30:33z D N37°37.00', W98°56.00' 10.2 nm , 56° ETE: 00:26:08, ETA: 15:36:27z KPTT Pratt Rgnl Destination ETE: 00:28:36, ETA: 15:38:55z TWR:		C C			
Distance: 121.0nm		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
+ Edit Route	and the second				
	1	Maps	Overlays Opt	ions 📀 Q	

14.3.13.1.2 Add Airways to Route

Users can add Airways to the route.

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

icluding MGRS	search terms, or route (e. or lat,lon (tap here for la	g. KSJC SJC V334 SAC KSIMF) at,lon formats)
699		
	No Minimum Runway	' Length Set

4. The Airway will populate the Route Panel and display on the Moving Map.



14.3.13.2 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. Drag the identifier to the desired route position.
- 5. Repeat steps until satisfied with the new flight route.
- 6. To delete a point from your flight route, tap the **red delete button** next to the entry you wish to permanently delete.



14.3.13.3 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.

14.3.13.3.1 Actions

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

- Load
- Save
- Reverse
- Clear



14.3.13.3.1.1 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** located at the bottom-right of the Route Panel.
- 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. The selected route will populate on the Route Panel and display on the Moving Map.





NOTE: Loading an invalid route in Aero App will trigger an error message. Options to Cancel or Remove and Load are available.

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

14.3.13.3.1.1.1 Load a Common Route Definition (CRD) File

Aero App supports CRD files. CRD files must be sideloaded onto Aero App. Refer to <u>Section 10.4</u> for additional information.

- 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 selected route will populate on the Route Panel and display on the Moving Map.

\leftarrow	Load Route	🖉 Edit
NUMER 37.813, -1	O CINCO 15.666, CLIMB PT, ILC17535,	MLF10021,.
NUMER 38.266, -1	O CUATRO 15.693, 38.185, -115.525, 37.	813, -115.6.
NUMER	O DOS HIF	
NUMER 41.248, -1	O TRES 13.004, LCU.US, TWF.US, KNI	FL, 38.902, -
NUMER KHIF, 40.8	O UNO 01, -110.952, MTU.US	

14.3.13.3.1.1.2 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 name to the desired name.
- 6. Once the route has been renamed, tap **Save**. The changes will be added to the Saved Routes list.



14.3.13.3.1.1.3 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 desired route. The route will populate to the Route Panel and on the Moving Map.



14.3.13.3.1.1.4 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.

Warning: Deletir rou	ng multiple CRD tes		
If you delete 1, then the associated route 2 will also be deleted.			
Cancel Delete			



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.

14.3.13.3.1.2 Save Route

- 1. Ensure that the route includes a complete route.
- 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.





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.

	Aero App	
Route name chara	can only contain alp acters, space, and hyp	phanumeric phen
	OK	

14.3.13.3.1.3 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. Select either Load or Save from the Actions options.
- 5. Tap the **Edit** button.
- 6. Tap the **Delete** button of the route you wish to permanently delete.





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

14.3.13.3.1.4 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**. The entire route is reversed.



14.3.13.3.1.5 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.





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

14.3.13.3.2 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)

14.3.13.3.2.1 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. Select **SAR**.
- 5. Tap to select **Creeping**, **Parallel**, **Sector**, or **Square**. Respective to the selection, different fields will be available to specific *Pattern* options.

\leftarrow Add Search and Rescue Pattern					
Creeping	Parallel	Secto	r	Square	
Start	Lat/Lon	MG	RS	Waypoint	
Latitude					
Longitude					
Search Track					
Initial Turn	Left			Right	
Spacing					
Leg Length					
Number of Legs	5				
♥ Current Location✓ Add to Route					
Desired Track a either be entere which cas	and Search Track d as a number or e the track will be	are magne using an ai e calculated	tic. The irport, r d autom	se values can navaid, or fix in natically.	

- 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 Number of Legs field, the field will revert to one. To prevent this action from occurring, enter only whole numbers.

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



14.3.13.3.3 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

14.3.13.3.3.1 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 the Doghouses feature is enabled, doghouses will populate on the Moving Map for each point of the active route. The doghouses will disappear once the user passes a point 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. Tap **Show Doghouses** to enable the feature.
- 6. Tap on the **Time on Target** text box and enter your desired time in the format of hh:mm:ss.
- 7. Tap 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.

<р>← []	Doghouses	
Show Doghouse	es	On
Time on Target		16:55:33
Groundspeed		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

- 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 is populated 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".

14.3.13.3.3.1.1 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. Tap on the **Time on Target** text box and enter your new time in the format of hh:mm:ss.
- 6. 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.

\leftarrow	Doghouses	
Show Doghou	Ises	On
Time on Targe	t	16:55:33
Groundspeed		60
Estimated Tim	e of Departure:	15:58:55z
Waypoint	ETE	ETA
KFLL	00:18:13	16:17:08z
FL47	00:27:34	16:44:42z
PBI	00:10:51	16:55:33z

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



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

14.3.13.3.3.2 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. Select desired **pin**.
- 6. The 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 <u>Section 14.3.5.1.4</u> for additional information.



NOTE: To drop new pins, refer to <u>Section 14.3.12.1.3</u> for additional information.

14.3.13.3.3.3 Routes

Routes stores exported Breadcrumbs, saved routes, saved CRD files, and sideloaded routes. Multiple routes can be enabled and displayed on the Map.

- 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.

\leftarrow	Show Routes		
FFU to	DESCENT PT HIF, KVPS, LEVEL OFF, CLIMB PT	Off	
KBGR t KBGR, KM	o KMEI ^{1EI}	On	Enable button to show route
KHIF to KHIF, KVF	S, LEVEL OFF, FFU.US, CLIMB P	Off	
KJAX to KJAX, HIL	5 KMIA IS.US, OCF.US, LAL.US, CHRRI.U	On	
KRCA t KRCA, KO	o KGSO IFF, KSDF, KGSO	On	
KSEA to KSEA, KBI	v KBLV	On	

6. Various routes can be displayed simultaneously. If you have an active route loaded in the Route Panel, your route will display in a magenta line.



14.3.13.3.3.4 User Waypoints

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

Aero App enables users to create User Waypoints directly from the User Waypoints screen. Tap **+ New** and follow the prompts. Refer to <u>Section 14.3.12.1.1</u> for additional information. Alternatively, users can sideload User Waypoints. Refer to <u>Section 10.3</u> for additional information.

- 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. A list of User Waypoints will be shown.
- 5. To remove a User Waypoint from the list, tap **Edit** then tap the **Delete** button.

\leftarrow	User Waypoints	🖉 Edit
C17 MISSION	N26°01.3	88', W80°10.47'
WORK Work route	N26°01.8	33', W80°10.24'
	1	
	+ New	

14.3.14 Estimated Time Enroute (ETE) and 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) is displayed in Zulu time.

14.4 General

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

14.4.1 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 **ribbon** and select desired chart, document, or legend, based on the respective selection.
- 4. The selection menu will display. The options include High and Low Enroute Charts, Area Charts, Graphic Charts, CONUS Chart Graphics, Military Training Routes (MTRs), and other charts.







14.5 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.

14.6 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	Conversio			
Pressure Altitude	Pressure Altitude Density Altitude				
5,877'	8,541'				
Feet	Fe	eet			
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	Conversio			
Correction = 38'					
Height Above Altime	eter 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 Coordinates			
	NM → SM			
40		46.0		
Distan	ce	Temperature		
NM → S	M	°F → °C		
NM → k	M	°C → °F		
$SM \rightarrow N$	IM	Weight		
$SM \rightarrow K$	Μ	AvGas → Lbs		
$KM \rightarrow N$	IM	Jet A \rightarrow Lbs		
KM → S	М	$Lbs \to KG$		
$M \to F$	Т	$KG \to Lbs$		

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.

- 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 is populated 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	Coorc	linates	Descent	
Lat, Lon	MGRS	GARS	Radial	
	M	GRS		
16SBH 52907 70117				
+ Insert into Route + Insert at end of Route				
DD.DDD:	N3	N38.545171°, W89.835215°		
DD MM.MM:	1	N38°32.71', W89°50.11'		
DD MM SS.SSS	N38°.	N38°32'42.616", W89°50'06.774"		
MGRS:		16SBH 52907 70117		
GARS:		181LT38		
Radial Off Nav	Aid:	SKE 093 0.77		

E6B				
onversions	Coord	Coordinates Descent		
Lat, Lon	MGRS	GARS		Radial
	NavAid Ra	adial Dista	nce	
	SJC0912.2			
+ Insert into Route + Insert at end of Route				
DD.DDD:	N	N37.363990°, W121.900582°		
DD MM.MM:		N37°21.84',	W12	1°54.03'
DD MM SS.SSS: N37°21'50.363", W121°54'02.094			1°54'02.094"	
MGRS:		10SEG 97355 35819		
GARS:	T.	117LQ15		
Radial Off Nav	Aid:	SJC 091 2.20		

Descent

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



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 hh:mm:ss, 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 is displayed on the results bar above.

Speed is calculated by the Distance in nautical miles, the Time in the format hh:mm:ss, 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 is displayed on the results bar above.

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 hh:mm:ss calculation will display on the results bar above.

	E6B	
Descent	Distance	IFR Climb
Distance	Speed	Time
	Distance	
	189	
Speed	120	
Time (hh:mm:ss) 01:34:40		
Fuel Burn Per Hour	15	
		Total Fuel: 23.7

E6B				
Descent	Distance	IFR Climb		
Distance	Speed	Time		
Speed				
	120			
Distance	189			
ïme (hh:mm:ss) 01:34:40				
Fuel Burn Per Hour	Burn Per Hour 15			
		Total Fuel: 23.7		

E6B			
Descent	Distance	IFR Climb	
Distance	Speed	Time	
Time			
1	h 34m 30s	5	
Distance	189		
Speed 120			
Fuel Burn Per Hour	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	Rwy Wind		
Climb Angle Climb Rate				
1.9°	1.9° 1,333			
Degrees	Feet Per Minute			
Feet/NM Climb	200			
Groundspeed (Knots)	<i>i</i>) 400			

Runway (Rwy) Winds

Runway Winds calculates Headwind and		E6B			
Crosswind by typing in Runway Direction in	IFR Climb Rwy Winds		Winds Aloft		
degrees, and Wind Direction/Speed.	Headwind		Crosswind		
	↓ 9		← 12		
	Knots		Knots		
	Runway direction ((Degrees) 29			
	Wind Dir & Spd	80	@ 15		
Winds Aloft					
Winds Aloft calculates Heading (Hdg),		E6B			
Ground Speed (GS), and Wind Correction	R Climb	Rwy Winds	Winds Aloft		
Angle (WCA) by typing in Nearby Airport	HDG	GS	WCA		
(ICAO), Course (degrees), True Airspeed	40°	441	41°		

(knots), and Wind Direction/Speed.

Knots Degrees Degrees Nearby Airport (ICAO) KBLV Course (Degrees) 5 True Airspeed (Knots) 250 Wind Dir/Spd 150 @ 300



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

15 Application Management (App Mgmt)

Aero App's application management is a 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 (<u>aeroapp.info</u>), 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

15.1 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.

15.1.1 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.

15.1.2 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.

15.1.3 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.

15.1.4 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.

15.1.5 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.

15.2 Data

The Data Status screen allows users to manage cycles. Refer to <u>Section 12</u> for more information.

DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS				
Q KBLV	ک KBLV Moving Map General Notepad			
Preferences	Data	Host Nat	ion	Help
	Data	a Status		
Active Cycle De	ete View	Standby Cyc	le Delete	View
Effective 2022-12-29 th	rough 2023-01-25 (2213)	Effective 202	3-01-26 through 2023	-02-22 (2301)
Downle	Dad Move to Standby	Swap Cycles	Delete	
	c	Cycle		
	Globa	al:		
	Afric	a:		
	Alask	a:		
	CONUS Pt	1:		
	CONUS Pt	2:		
	CS	A:		
	EE	A:		
	ENAM	E:		
	PA EAA Sectiona	A: Is:		
	Georeferenc	e:		
	Aero A	App Maps		
	CAN IFR Low Canad	a:		
	FAA IFR Atlant	ic:		
	FAA IFR High Alask	a:		
	FAA IFR Low Alask	a:		
	FAA VFR Alask	a:		
	FAA IFR High CONU	S:		
	FAA IFR LOW CONU	s:		
	FAA VFR PA	A:		
NGA IFR Africa:				
NGA IFR High CSA:				
NGA IFR Low CSA:				
	NGA IER LIGH FRIAM	A:		
	NGA IFK HIGH ENAM	E.		
	NGA IFR PAA:			
	Helicopter	and TAC Maps		
FAA He	licopter CONUS Gulf Coas	st:		

15.3 Host Nation

Users are required to possess an ASPS account to utilize the Host Nation feature. Users must log in to their ASPS account to download charts. Refer to <u>Section 5.3</u> for additional information.

- 1. Tap App Mgmt on the Main Menu.
- 2. Tap Host Nation on the Secondary Menu.
- 3. Log in using your ASPS credentials.
- 4. Enter the ICAO of the airport of choice in the ICAO text box.
- 5. Tap Enter on your device's keyboard. The host nation charts for the airport of choice will begin to download.

DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS							
Q	KBLV	Moving Map		General Notepad			
Pr	eferences	Data Host Nation Help		Help			
	Download On Device						
ASPS Account Information							
Username: Username Here							
Password:							
Enter ICAO of Host Nation Charts							
ICAO: KBLV							

6. Tap on **Download ICAO charts** to download the charts to your device.

ICAO: KBLV	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 14.2.2.

	DYNAMIC CONTENT CLASSIFIED TO: UNCLASSIFIED//FOUO//LIMDIS						
Q	KBLV	Moving Map	General	Not	Notepad		
F	Preferences	Data	Host Nat	ation Help		Help	
	Download On Device						
KBL	/				2022-09	-27 😑	
KML	A			2022-09-27			
RPLI	-				2022-09	-27 🔴	



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

15.4 Help

The Help menu provides users with the following 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



15.4.1 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 you will be redirected to the Aero App homepage.

	DYNAM	AIC CONTENT CLASSIFI	IED TO	O: UNCLASSIFIED/	//FOUO//L	IMDIS		
Q	KBLV	Moving Map		General	Notepad			
Pr	eferences	Data		Host Nat	tion Help		Help	
What's New		Web Links		User Manu	al	About		
Tap the link below to Guides, and ReadMe		access and dowr files.	nloa <u>aero</u>	d the latest U app.info	ser Mar	nuals, Qui	ck Start	
								_

- 5. Navigate to the *Downloads* menu. Option placement will vary depending on display size.
 - On large screens, hover over **Downloads** from the menu ribbon to reveal additional download options.

D	۵ Þ	G	□ 🛱 aeroapp.info			8		•• 2	≡
A					Downloads			🗈 ir	n
A									
A					Data				
U					< Software	Art			
Q					< Document	ation	0		
Re				User Manual					
A				Quick Start Guide	177 177 179 173 173 173 173 173 173 173 173				
N			AERO APP	ReadMe	1 18.1" 1 2017 2 2000 2 300 2 300 2 300 3 3000 3 3000 3 3000 3 3000 3 3000 3 3000 3 300	1			
A			Your free DoD-Owned I		art fragsterner. Court Report				
				- alar		24 mar 8 1			

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

Ic	🕼 Aero App – Electronic Flight Bag 🗙 🕂	~ - o x
	𝔅 𝔅 𝔅 aeroapp.info	🦁 🗖 🕶 2 ≡
4		Q X
e: F	-	ВАСК
a	USER MANUAL	
¢	QUICK START GUIDE	
:1¢	README	

- 6. Select Documentation then User Manual.
- 7. Users are provided with several platforms to choose from. Tap **Aero App for Windows** to reveal related user manuals.
- 8. Select desired user manual version and you will be redirected to the PDF.

A ▷ C A □ aeroapp.info/user-manuals/	e 🦁 🧢	
O		QΞ
User Manuals		
HOME / USER MANUALS		
	<i></i>	
▼ Aero App for iOS		
▼ Aero App for Android		
▼ Aero App for Windows		
▼ Aero Data Server (ADS) for macOS		
▼ Aero Data Server (ADS) for Windows		



NOTE: The Aero App User Manual can be uploaded into Aero App. Refer to <u>Section 10.6</u> for instructions on how to sideload PDFs into Aero App.



NOTE: PDFs such as the User Manual can be viewed preflight or inflight with no internet connection needed. Refer to <u>Section 14.4.1</u> for additional information.

16 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**.

🛐 Aero App Uninstall: Completed	-		\times
Completed			
Show details			
Cancel Nullsoft Install System v3.04	< Back	Clos	e



NOTE: Uninstalling Aero App will delete Aero App data.

17 Appendix B | User Waypoints and Coordinates

Enter Waypoints using Latitude and Longitude coordinates.

Coordinate formats include:

DD.DDD,	DDD.DDD	DDMM.MM,DDMM.MM		
Input Example	nput Example Means		Means	
37.12345, -121.12345	.12345, -121.12345 37.12345°N, 121.12345°W 3723.45, -11834.45		37°23.45N, 118°34.45W	
NDD.DDD,	WDDD.DDD	NDDMM.MM,WDDDMM.MM		
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	
DD.DDDN,I	DDD.DDDW	DDMM.MMN,I	DDDMM.MMW	
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.

18 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

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
GARS GB	Global Area Reference System Gigabyte
GARS GB GEOAxIS	Global Area Reference System Gigabyte Credentials authentication provider for the government
GARS GB GEOAxIS GEOINT	Global Area Reference System Gigabyte Credentials authentication provider for the government Geospatial Intelligence
GARS GB GEOAxIS GEOINT GPS	Global Area Reference SystemGigabyteCredentials authentication provider for the governmentGeospatial IntelligenceGlobal Positioning System
GARS GB GEOAxIS GEOINT GPS GS	Global Area Reference SystemGigabyteCredentials authentication provider for the governmentGeospatial IntelligenceGlobal Positioning SystemGroundspeed
GARS GB GEOAxIS GEOINT GPS GS Hdg	Global Area Reference SystemGigabyteCredentials authentication provider for the governmentGeospatial IntelligenceGlobal Positioning SystemGroundspeedHeading
GARS GB GEOAXIS GEOINT GPS GS Hdg IAP	Global Area Reference SystemGigabyteCredentials authentication provider for the governmentGeospatial IntelligenceGlobal Positioning SystemGroundspeedHeadingInstrument Approach Procedures
GARS GB GEOAXIS GEOINT GPS GS Hdg IAP ICAO	Global Area Reference SystemGigabyteCredentials authentication provider for the governmentGeospatial IntelligenceGlobal Positioning SystemGroundspeedHeadingInstrument Approach ProceduresInternational Civil Aviation Organization that assigns airport code or location indicator as an alphanumeric code designating aerodromes around the world
GARS GB GEOAXIS GEOINT GPS GS Hdg IAP ICAO	Global Area Reference SystemGigabyteCredentials authentication provider for the governmentGeospatial IntelligenceGlobal Positioning SystemGroundspeedHeadingInstrument Approach ProceduresInternational Civil Aviation Organization that assigns airport code or location indicator as an alphanumeric code designating aerodromes around the worldInstrument Flight Rules
GARS GB GEOAXIS GEOINT GPS GS Hdg IAP ICAO	Global Area Reference SystemGigabyteCredentials authentication provider for the governmentGeospatial IntelligenceGlobal Positioning SystemGroundspeedHeadingInstrument Approach ProceduresInternational Civil Aviation Organization that assigns airport code or location indicator as an alphanumeric code designating aerodromes around the worldInstrument Flight RulesInternet Protocol
GARS GB GEOAXIS GEOINT GPS GS Hdg IAP ICAO IFR IP IPA	Global Area Reference SystemGigabyteCredentials authentication provider for the governmentGeospatial IntelligenceGlobal Positioning SystemGroundspeedHeadingInstrument Approach ProceduresInternational Civil Aviation Organization that assigns airport code or location indicator as an alphanumeric code designating aerodromes around the worldInstrument Flight RulesInternet ProtocoliOS application archive file which stores an iOS app
GARS GB GEOAxIS GEOINT GPS GS Hdg IAP ICAO IFR IP IP IPA IR	Global Area Reference SystemGigabyteCredentials authentication provider for the governmentGeospatial IntelligenceGlobal Positioning SystemGroundspeedHeadingInstrument Approach ProceduresInternational Civil Aviation Organization that assigns airport code or location indicator as an alphanumeric code designating aerodromes around the worldInstrument Flight RulesInternet ProtocoliOS application archive file which stores an iOS appInstrument Routes
GARS GB GEOAxIS GEOINT GPS GS Hdg IAP ICAO IFR IP IPA IP IR KG	Global Area Reference SystemGigabyteCredentials authentication provider for the governmentGeospatial IntelligenceGlobal Positioning SystemGroundspeedHeadingInstrument Approach ProceduresInternational Civil Aviation Organization that assigns airport code or location indicator as an alphanumeric code designating aerodromes around the worldInstrument Flight RulesInternet ProtocoliOS application archive file which stores an iOS appInstrument RoutesKilogram
GARS GB GEOAXIS GEOINT GPS GS Hdg IAP ICAO IFR IP IPA IR KG KM	Global Area Reference SystemGigabyteCredentials authentication provider for the governmentGeospatial IntelligenceGlobal Positioning SystemGroundspeedHeadingInstrument Approach ProceduresInternational Civil Aviation Organization that assigns airport code or location indicator as an alphanumeric code designating aerodromes around the worldInstrument Flight RulesInternet ProtocoliOS application archive file which stores an iOS appInstrument RoutesKilogramKilogram

Kt	Knot
LAHSO	Land and Hold Short Operations
Lat, Lon	Latitude and Longitude
Lbs	Pounds
LIFR	Low Instrument Flight Rules
м	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
РКІ	Public Key Infrastructure
POC	Point of Contact
Prog Chart	A map displaying the likely weather forecast for a future time
RNAV	Area navigation, a method of IFR navigation
SAR	Search and Rescue

SD Card	Secure Digital High-Capacity card
Shapefiles	Geospatial vector data format for geographic information system (GIS) software
SID	Standard Instrument Departure
SIGMET	Significant Meteorological Information
SM	Statute Mile
SQLite	Relational database management system
SR	Slow Speed Low Altitude Routes
STAR	Standard Terminal Arrival Route
SUA	Special Use Airspace
TACs	Terminal Area Charts
TAFs	Terminal Aerodrome Forecasts
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
ХТК	Crosstrack