



Aero Data Server (ADS)

ADS macOS User Manual Version 1.2402

NSN76440152335389

Publication Date: January 4, 2024

Table of Contents

1 Introduction.....	3
1.1 Overview.....	3
2 Hardware and Software Requirements	4
2.1 Routers.....	4
2.2 Compatible Browsers	4
3 Troubleshooting.....	5
4 Configuration.....	6
4.1 Advantages and Disadvantages	6
4.2 Configure Wi-Fi	6
5 Aero Data Server (ADS) Installation.....	7
6 Dashboard	10
6.1 Information.....	11
6.2 Connections	12
6.3 Bandwidth.....	12
6.4 Import	13
6.5 Convert to MBTiles	13
6.6 Regions to Download	14
6.6.1 Data Files per Region.....	14
6.7 Additional Files to Download	15
7 Download Data	16
7.1 Download Map Library Data	17
8 Import Data.....	19
8.1 Data Files.....	19
8.2 User Files	20
9 Convert to MBTiles	22
9.1 GeoPDF.....	22
9.2 GeoTIFF.....	24
9.3 Georeference Image	25
10 Data.....	28
10.1 Deleting Files.....	28

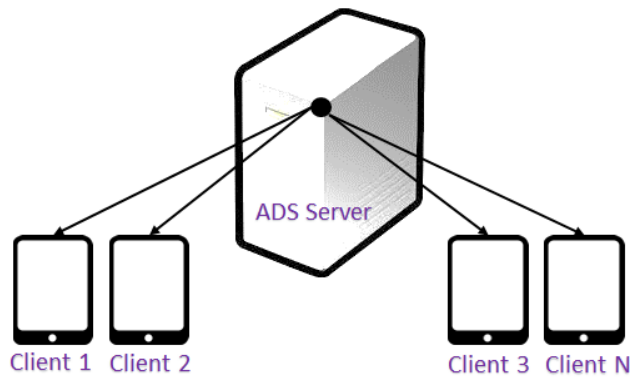
11 Settings.....	30
11.1 Server.....	31
11.1.1 Name	31
11.1.2 Next Update	31
11.1.3 Cycle Options	32
11.1.4 HTTPS Only.....	33
11.1.4.1 Certificate Upload.....	33
11.1.5 Share with Devices.....	35
11.1.6 Core Data Options	37
11.1.7 Aero App Upload	38
11.1.8 Set ADS to SECRET	38
11.2 Auto Update.....	39
11.2.1 Aero User Database	39
11.2.1.1 Partner	39
11.2.1.2 Save Credentials	40
11.2.1.3 Auto Purge	41
11.2.2 GEOAxis.....	42
11.3 Login Credentials	43
11.4 Internet Connectivity	43
12 Logs.....	44
13 Help.....	46
14 Logout.....	47
15 Map Tile Server.....	48
16 Appendix A Prevent the Computer from Sleeping	49
17 Appendix B Acronyms and Glossary	51

1 Introduction

The Aero Data Server (ADS) is a server that handles the deployment of Aero App data to clients. You will find instructions on how to install and configure the server in the following sections.

1.1 Overview

The Aero Data Server (ADS) software allows Aero App on iOS, Android, and Windows mobile devices to obtain Aero data cycles over a locally hosted Wi-Fi network. ADS enables pilots to retrieve aeronautical data in a fast and secure way.



2 Hardware and Software Requirements

To install and utilize Aero Data Server (ADS), it is important to ensure your computer meets the necessary software requirements. These include having a compatible operating system, sufficient memory and disk space, and the necessary software dependencies installed. It is essential to follow all steps carefully to avoid issues during or after installation.

The hardware and software requirements are listed below:

- Computer running macOS 13 (Ventura) up to macOS 14 (Sonoma)
- Computer with a minimum of 40 GB of available storage and 4 GB or higher of RAM. Now supporting Apple M1 mac processors.
- ADS installation file is available on the EFB DVD and aeroapp.info
- Disabled all third-party firewalls
- LAN connectivity (Wi-Fi, 100 Mbit/s, 1Gbit preferred)

It's important to note that these are just the minimum requirements, and it's recommended to have a more powerful system for optimal performance.

2.1 Routers

There are many router manufacturers. Users should research options and choose a router that is dependable, easy to set up, and performs well. It is advisable that both the computer (laptop or desktop) and the router have at least 1Gb/s ethernet port.

2.2 Compatible Browsers

The following browsers have been tested and verified for access:

- Safari
- Google Chrome
- Mozilla Firefox
- Microsoft Edge



NOTE: GEOAxis OAuth is not supported by Safari. The best browser option to download from GEOAxis on Mac is Firefox.

3 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

4 Configuration

1. Verify that your computer meets the minimum requirements needed to successfully install ADS.
2. Choose network connectivity:
 - Connect device to a wireless access point
 - Plug device to a secured network
3. Set up your Ethernet connection by plugging the Ethernet cable into any available port.

4.1 Advantages and Disadvantages

Option	Advantage	Disadvantage
Stand-alone	IP address stays the same	Some set up required and must coordinate with system administrator.
Network (SSID)	No set up required	IP address may change if machine is rebooted.

4.2 Configure Wi-Fi

Configure the Wi-Fi router with the following settings:

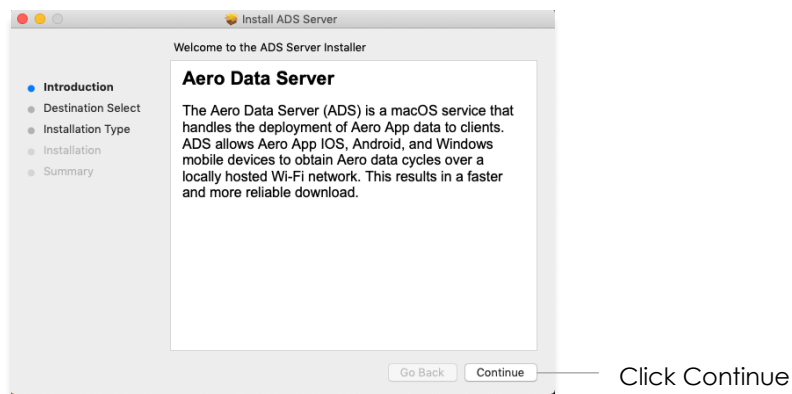
- SSID: Aero App Network (or other name as determined by the system administrator)
- Encryption: WPA2
- Wi-Fi password: Create a secure alpha-numeric password
- DHCP: Enabled

5 Aero Data Server (ADS) Installation

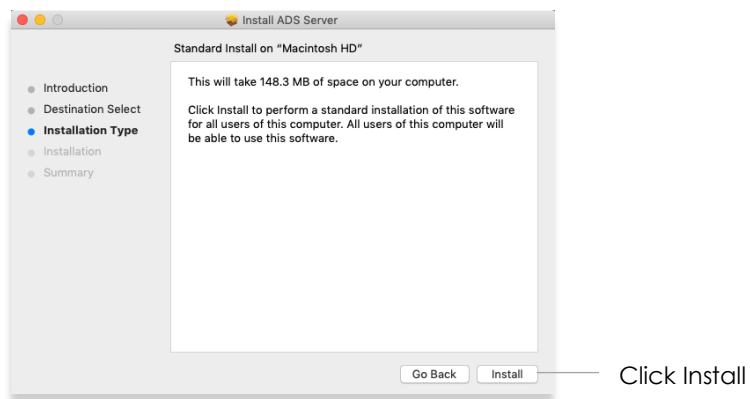
Install ADS on a mac computer by following the steps below. Mac computers with an Apple silicon processor (M series processor) require Rosetta to be installed and updated prior to installing ADS.

Install Rosetta by running the command **softwareupdate --install-rosetta** in the terminal. Enter "A" to accept the terms and agreements when prompted.

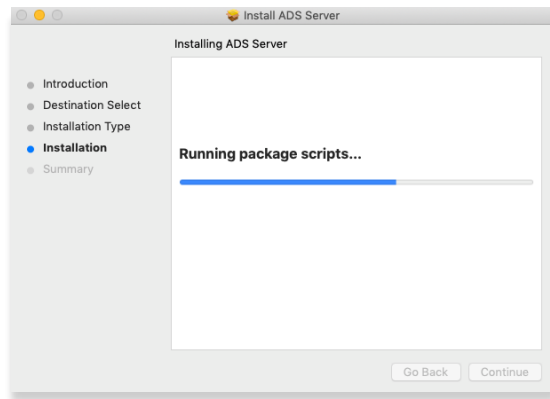
1. Verify that you have administrator privileges.
2. Follow the prompts for the **ADS installer**.



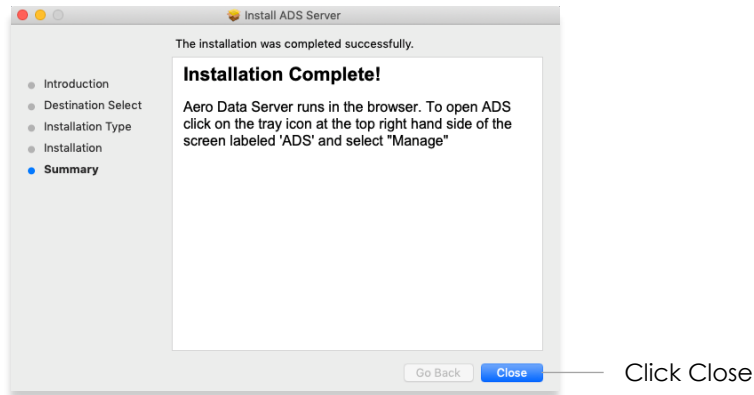
3. The Installation Type will display, click **Install**.



- Once Install has been selected, the loading process will begin.



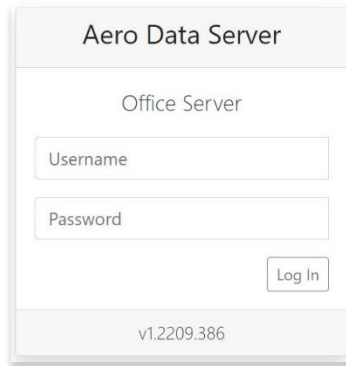
- Once the installation is complete, click **Close**.



- The **ADS** icon will show on the upper-right of the desktop screen or you might need to click on the arrow at the upper-right of the desktop screen to see the ADS icon.
- Click on the **ADS icon**. Users will be presented with several menu options such as Manage, Start, Stop, Change Port, and Uninstall.
- Click **Change Port** to verify the HTTP Port and HTTPS Port is the desired port of your choosing.



9. If needed, enter desired port number.
10. Close the popup.
11. To launch Aero Data Server (ADS), click the **ADS icon** and select **Manage**.
12. On the ADS login popup, enter the default admin credentials.



13. Click **Log In**.
14. To disconnect ADS, click on the **ADS icon** and select **Stop**.
15. To reconnect to ADS, click on the **ADS icon** and select **Start**.
16. To uninstall ADS, click on the **ADS icon** and select **Uninstall**.



NOTE: If there is a login from a separate computer, the user must type browser IP address and port displayed in the dashboard (user must have this address before hand). When this happens, the session started by another user will close.



NOTE: Default login credentials: Username: admin | Password: admin

6 Dashboard

The Aero Data Server's Dashboard is a comprehensive tool that provides users with an array of features. With this tool, users can gain insights into server details, including metrics that help track and optimize performance. Additionally, the Dashboard offers data retrieval options such as Import, Convert to MBTiles, Regions to Download, and Additional Files to Download.

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

Office Server
Update
Dashboard Data Settings Logs Help Logout

Information	Connections	Bandwidth
Version: 1.2306.481		
IP: [REDACTED]		
HTTP Port: 5555		
HTTPS Port: 5556		
Clients: 0		
Network Speed: 400 MB/s		
Internet: YES		
Disk Usage: 55%		
Next Update: Thu 3:30 PM		
ADS Time: 03:45 PM		

Import

Data Files

User Files

Drag and drop files or click to import.

Convert to MBTiles

GeoPDF

GeoTIFF

Georeference Image

Drag and drop files or click to import.

Regions to Download

Africa
Alaska
Canada
CONUS
CSA
EEA
ENAME
PAA

Additional Files to Download

Aero App Maps
Helicopter and TAC Maps
E-IPL
Map Library
Other

6.1 Information

The Information section of the Dashboard page provides users with essential server details. If the Wi-Fi or Ethernet is connected, but the Host/IP address to ping is invalid, the internet field on the Dashboard will show up as *NO*. However, you can still perform an update as you're connected to the internet.

If Wi-Fi or Ethernet connection is disconnected, the internet field on the Dashboard will display *NO*. Therefore, it prevents you from performing any updates.

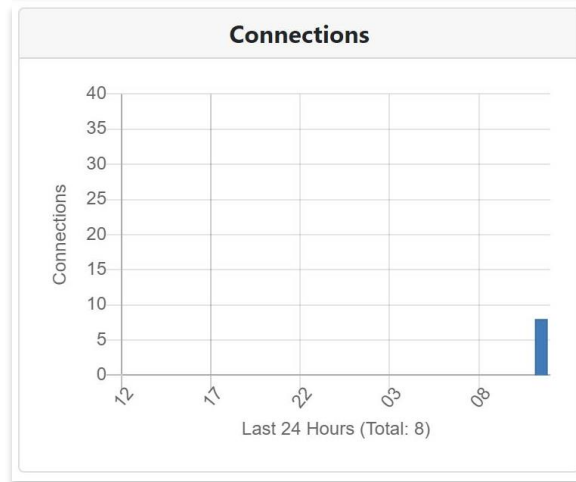
- **Version:** ADS version number
- **IP:** ADS IP address
- **HTTP Port:** ADS port number
- **HTTPS Port:** ADS secured port number
- **Clients:** Number of clients currently connected to the server
- **Network Speed:** Current network link speed
- **Internet:** Displays the internet connection status. YES, is displayed when ADS is successfully connected to internet and NO, when there is no internet connection.
- **Disk Usage:** Current disk usage of the computer where the ADS is installed
- **Next Update:** Server time for the next auto update
- **ADS Time:** Displays the current time based on the location of where ADS is being used.

Information	
Version	1.2301.430
IP	192.168.98.119
HTTP Port	8080
HTTPS Port	5556
Clients	0
Network Speed	400 MB/s
Internet	YES
Disk Usage	52%
Next Update	Tue 3:45 PM
ADS Time	10:30 AM

6.2 Connections

The Connections section provides users with server metrics for the number of requests being made within the 24-hour period.

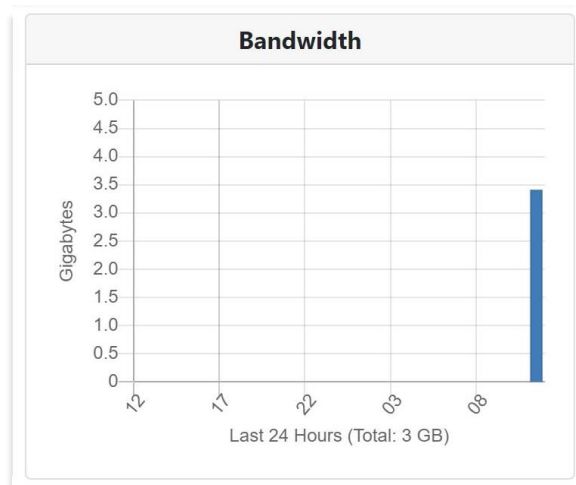
1. Navigate to the **Connections** section on the **Dashboard** screen.
2. The graph will display connection metrics within the 24-hour period.



6.3 Bandwidth

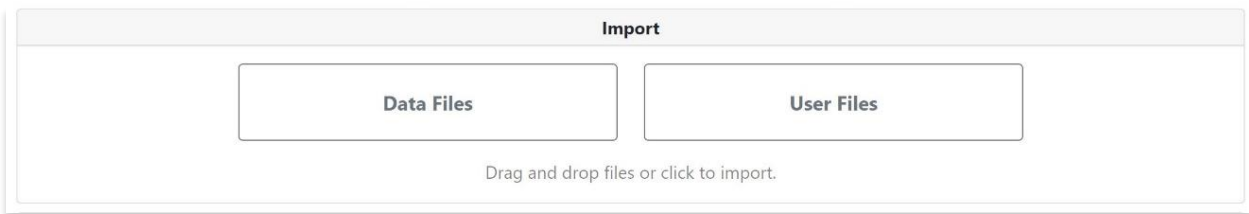
The Bandwidth section provides users with server metrics containing the amount of data being used within the 24-hour period.

1. Navigate to the **Bandwidth** section on the **Dashboard** screen.
2. The graph will display bandwidth metrics within the 24-hour period.



6.4 Import

The Import section allows users to manually import various data files, including Global, Regions, Sectionals, Georeference, Aero App Maps, Helicopter and TAC Maps, E-IPL, Giant Reports, Earth Base Map, and Terrain data. Users can also import their own files, such as MBTiles and PDF by selecting User Files. Multiple files can be selected for simultaneous import.



6.5 Convert to MBTiles

The Convert to MBTiles section provides users the option to easily convert files such as GeoPDF and GeoTIFF to MBTiles format. Additionally, the Georeference Image tool is available to georeference images like JPG, PDF, and PNG, and it also has an option to convert georeferenced images to MBTiles format. The file conversion process allows for the conversion of a single file at a time.



6.6 Regions to Download

The Regions to Download section allows users to select one or more regions to download for cycle data. The following regions are available for selection:

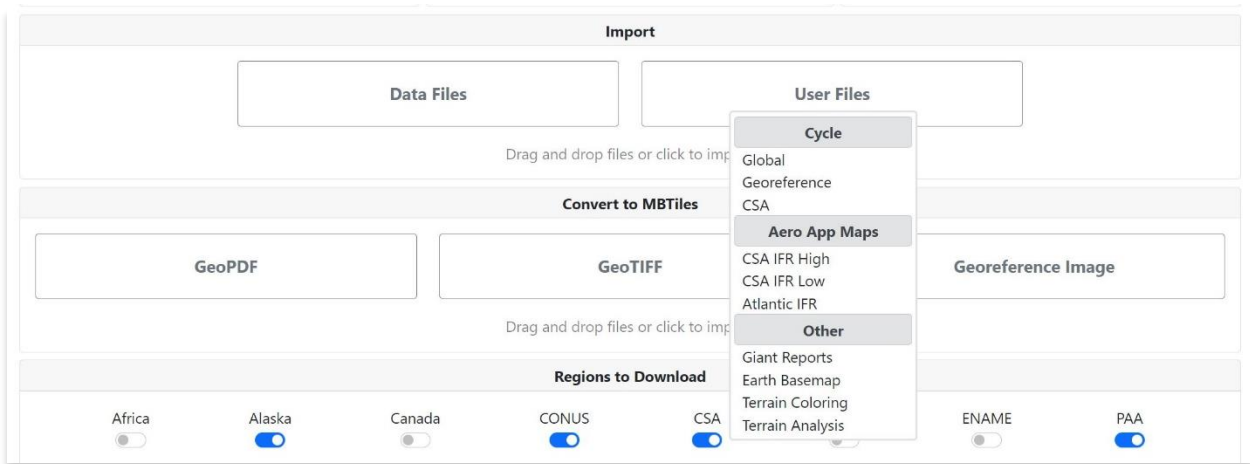
Africa, Alaska, Canada, CONUS, CSA, EEA, ENAME, and PAA.



NOTE: Selected region displays blue and unselected region displays gray.

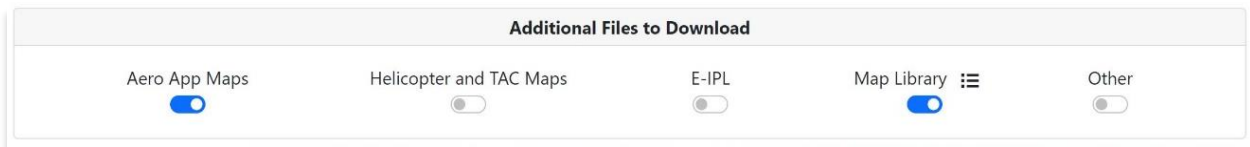
6.6.1 Data Files per Region

Hovering over a region displays data files included in that specified region.



6.7 Additional Files to Download

The Additional Files to Download section allows users to select additional files such as Aero App Maps, Helicopter and TAC Maps, E-IPL, Map Library, and Other data such as Giant Reports, Earth Base Map, Terrain Coloring, and Terrain Analysis.



NOTE: By clicking the Map Library's menu icon, you can individually select desired chart(s) from the listed Map Library files.



NOTE: From the *Select Map Library Files to Download* popup, click the date column to display Created, Effective, or Expiration dates.

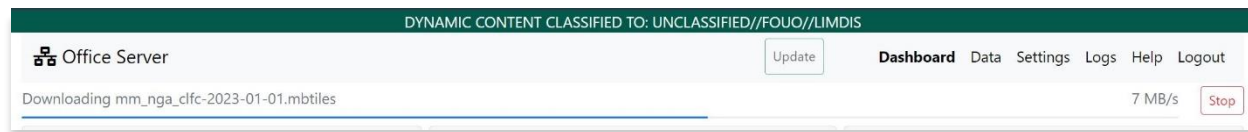
7 Download Data

To download data on ADS, users must possess an active account for Aero User Database (AUD) or GEOAxis authentications. ADS has divided Region selections and additional data types for download. The Regions to Download section enables users to select their region(s) of interest. The Additional Files to Download section includes data types available for download. Available data types may vary based on the region selected.

1. Ensure you are logged in using your Aero User Database or GEOAxis credentials. Refer to [Section 11.2](#) for more information.
2. Select **Dashboard**.
3. Select desired region(s): **Africa, Alaska, Canada, CONUS, CSA, EEA, ENAME, and/or PAA**.
4. Select additional files from the following data types: **Aero App Maps, Helicopter and TAC Maps, E-IPL, Map Library, and/or Other**.

The screenshot shows two sections of a web interface. The top section, titled 'Regions to Download', contains eight toggle switches for the following regions: Africa (on), Alaska (on), Canada (off), CONUS (on), CSA (off), EEA (off), ENAME (off), and PAA (off). The bottom section, titled 'Additional Files to Download', contains five toggle switches for the following data types: Aero App Maps (on), Helicopter and TAC Maps (off), E-IPL (off), Map Library (on), and Other (off).

5. Click **Update**.



Clicking *Update* displays a progress bar located directly below the Main Menu. The progress bar displays real-time data downloads that include the action it performs (e.g., downloading, importing, or converting), file name, and its extension.



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



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

7.1 Download Map Library Data

Map Library data is available for download. Users must possess an Aero User Database credentials and have the appropriate government foreign partner selected. Map Library is listed under *Additional Files*, click the Map Library menu icon to display the *Select Map Library Files to Download* popup.

1. Ensure you are logged in using your Aero User Database credentials with the appropriate government foreign partner selected. Refer to [Section 11.2](#) for more information.
2. From the popup, available charts will be displayed on the page. The files are grouped by categories, click on the desired folders to expand, or collapse to reveal or hide files.
3. Click on the header of the date column to display **Created**, **Effective**, or **Expiration** dates.

Select Map Library Files to Download

Filename	Effective	Size
Partner Maps		7.1 GB
CADRG European Low Flying Chart		1.9 GB
<input checked="" type="checkbox"/> NGA VFR mm_nga_clfc-2022-07-01.mbtiles	01 Jul 2022	600 MB
<input checked="" type="checkbox"/> NGA VFR mm_nga_clfc-2022-08-01.mbtiles	01 Aug 2022	608 MB
<input checked="" type="checkbox"/> NGA VFR mm_nga_clfc-2022-09-01.mbtiles	01 Sep 2022	728 MB
CADRG European Low Flying Chart Night		429 MB
<input checked="" type="checkbox"/> NGA VFR mm_nga_clfcn-2022-07-01.mbtiles	01 Jul 2022	140 MB
<input checked="" type="checkbox"/> NGA VFR mm_nga_clfcn-2022-08-01.mbtiles	01 Aug 2022	140 MB
<input checked="" type="checkbox"/> NGA VFR mm_nga_clfcn-2022-09-01.mbtiles	01 Sep 2022	149 MB
CADRG Transit Flying Chart		1.4 GB
<input checked="" type="checkbox"/> NGA VFR	01 Jul 2022	426 MB

Cancel OK



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

4. Select desired map file(s).
5. Click **OK** once selection is completed.
6. Navigate to the Main Menu header. Click **Update** and the downloading process will begin.
7. To verify that the Map Library files were successfully downloaded, navigate to **Data** from the **Main Menu**.
8. Click the **Map Library** tab and the downloaded Map Library charts will display.

Filename	Effective	Size
Partner Maps		245 MB
Helicopter		245 MB
VFR Helicopter Charts mm_faa_helicopter_conus_routes-2021-04-22.mbtiles	22 Apr 2021 Expired	82 MB
VFR Helicopter Charts mm_faa_helicopter_conus_routes-2021-05-20.mbtiles		82 MB
FAA Helicopter mm_faa_helicopter_conus_routes-2021-06-17.mbtiles	17 Jun 2022	81 MB
Range Charts		65 MB
Air Force Range Charts		65 MB
FAA TAC range_chart_alaska.mbtiles	15 Jul 2021 Expired	33 MB
FAA TAC range_chart_hawaii.mbtiles		33 MB

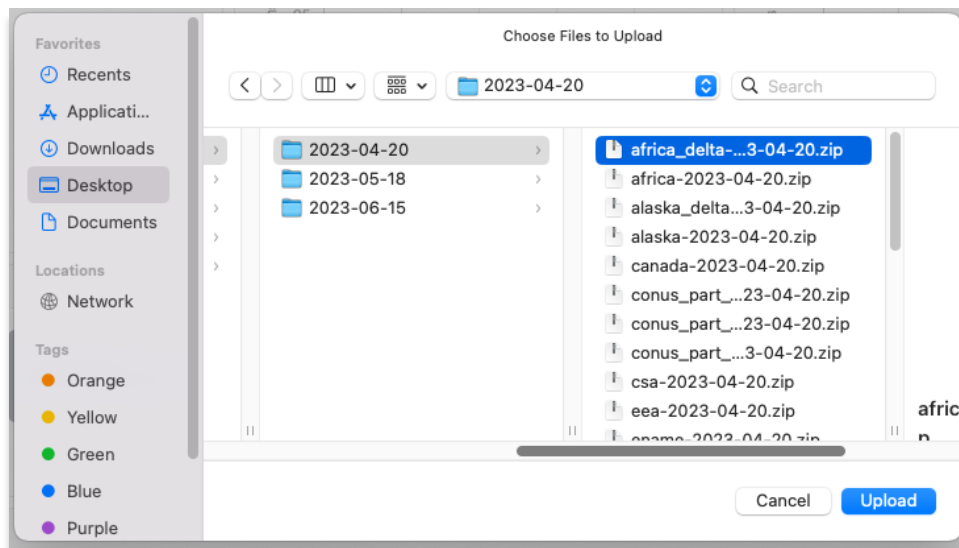
8 Import Data

The Import section allows users to manually import both data and user files. One of the most convenient features of this section is the drag and drop function that allows users to easily import large amounts of data. Users can select multiple files for simultaneous import, further simplifying the process. Importing data onto ADS does not require any login prerequisites.

8.1 Data Files

The Data Files option allows users to import data files into ADS.

1. Navigate to the **Dashboard** menu.
2. Click **Data Files**.
3. Select source (DVD, USB, or computer) containing the data files that you wish to import into ADS.
4. Select desired file(s).
5. Click **Upload**.



6. The progress bar displays the current data being imported.
7. To verify if the Data Files have been imported into ADS, navigate to **Data** on the Main Menu.

8. Click the **Cycle** tab. The imported cycle data files will be listed below.

Filename	Size
2301	2.8 GB
2213	3.0 GB
Africa africa-2022-12-29.zip	63 MB
Alaska alaska-2022-12-29.zip	136 MB
CONUS Part 1 conus_part_1-2022-12-29.zip	853 MB
CONUS Part 2 conus_part_2-2022-12-29.zip	519 MB
FAA Sectionals faa_sectionals-2022-12-29.zip	893 MB
Georeference georeference-2022-12-29.zip	1 MB
Global global-2022-12-29.zip	337 MB
Africa africa_delta-2022-12-29.zip	43 MB



NOTE: To load data files, user must import .zip and .sig files together.



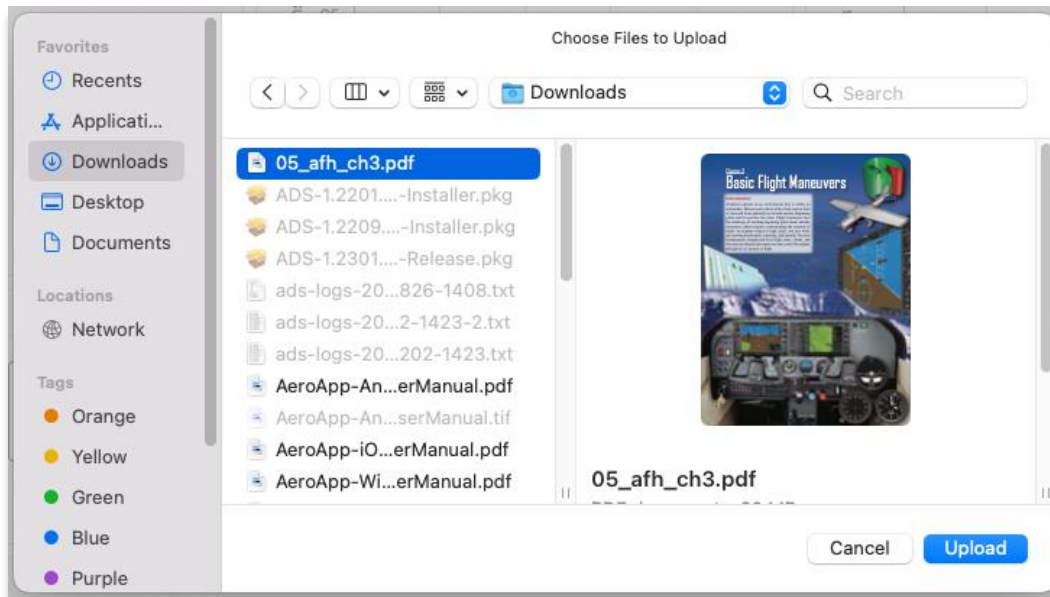
NOTE: Alternatively, users can drag and drop data files into ADS.

8.2 User Files

The User Files option allows users to import PDF and MBTiles files into ADS.

1. Navigate to the **Dashboard** menu.
2. Click **User Files**.
3. Select source (DVD, USB, or Computer) containing the user files that you wish to import into ADS.
4. Select desired file(s) (PDF and/or MBTiles).

- Click **Upload**.



- The progress bar displays the current data being imported.
- To verify if User Files have been imported into ADS, navigate to **Data** from the Main Menu.
- Click the **User Files** tab. The imported user files will be listed below.

DESKTOP-654SPG2		Update	Dashboard	Data	Settings	Logs	Help	Logout
Cycle	Aero App Maps	Helicopter and TAC Maps	Map Library	E-IPL	Other	User Files		
Filename							Size	
📁 MBTiles							26 MB	🗑️
📄 AFR A-2 16 JUN 2022.mbtiles							4 MB	🗑️
📄 africa.mbtiles							5 MB	🗑️
📄 canada.mbtiles							13 MB	🗑️
📄 digitalglobe_sandiego_mobile.mbtiles							3 MB	🗑️



NOTE: To view a user-generated PDF file, click the document icon next to the PDF.



NOTE: Alternatively, users can drag and drop user files into ADS.

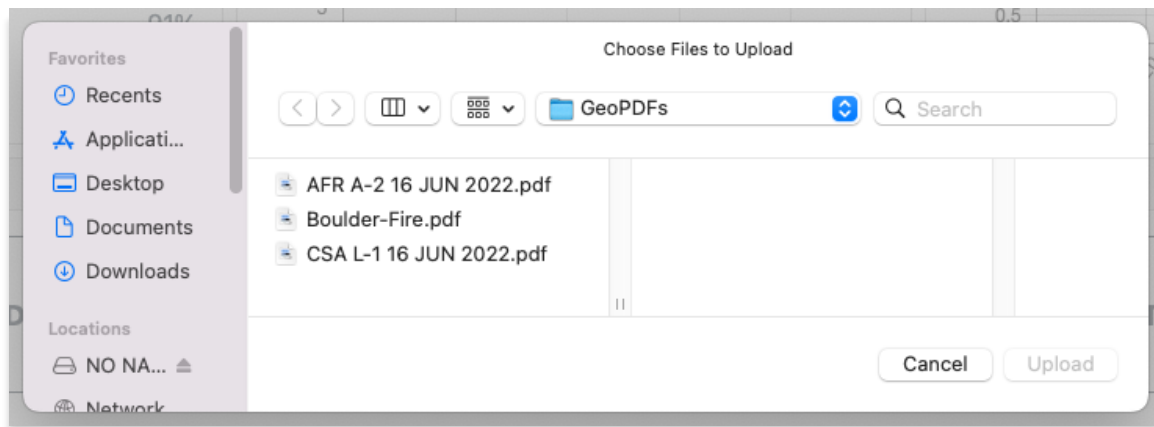
9 Convert to MBTiles

The Convert to MBTiles section enables users to convert files such as GeoPDF, GeoTIFF, or launch the Georeference tool on ADS. Users can use the drag and drop feature or click to import desired files. Only one file can be converted at a time.

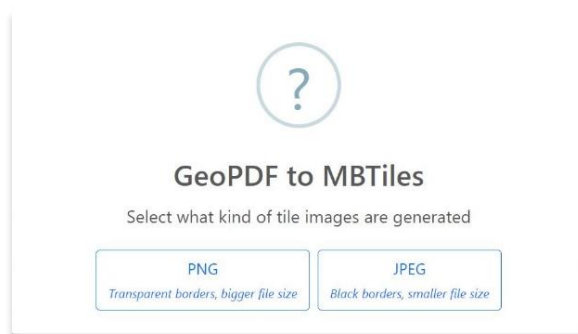
9.1 GeoPDF

The GeoPDF option allows users to easily convert their GeoPDF file to MBTiles format.

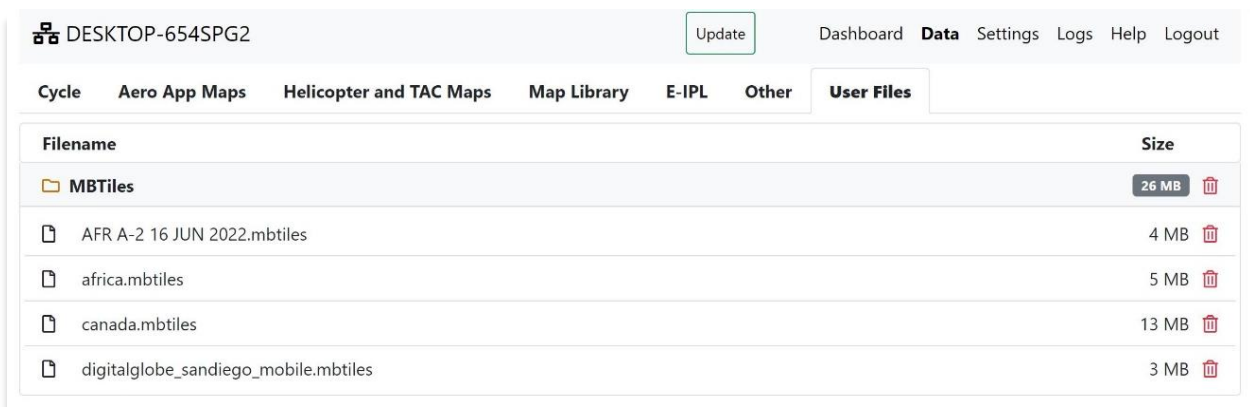
1. Navigate to the **Dashboard** menu.
2. Click **GeoPDF**.
3. Select source (DVD, USB, or Computer) containing the GeoPDF file that you wish to import into ADS.
4. Select desired file (GeoPDF).
5. Click **Upload**.



6. On the popup, select PNG or JPEG file images.



7. The progress bar displays the current data being converted into MBTiles.
8. To verify if the imported GeoPDF file has been converted to a MBTiles file format, navigate to **Data** from the Main Menu.
9. Click the **User Files** tab. The converted MBTiles file will be listed below.

A screenshot of a web application interface. At the top, there's a header with a user ID "DESKTOP-654SPG2", an "Update" button, and navigation links for "Dashboard", "Data", "Settings", "Logs", "Help", and "Logout". Below the header is a menu with tabs: "Cycle", "Aero App Maps", "Helicopter and TAC Maps", "Map Library", "E-IPL", "Other", and "User Files". The "User Files" tab is active, showing a table with columns "Filename" and "Size".

Filename	Size
MBTiles	26 MB
AFR A-2 16 JUN 2022.mbtiles	4 MB
africa.mbtiles	5 MB
canada.mbtiles	13 MB
digitalglobe_sandiego_mobile.mbtiles	3 MB

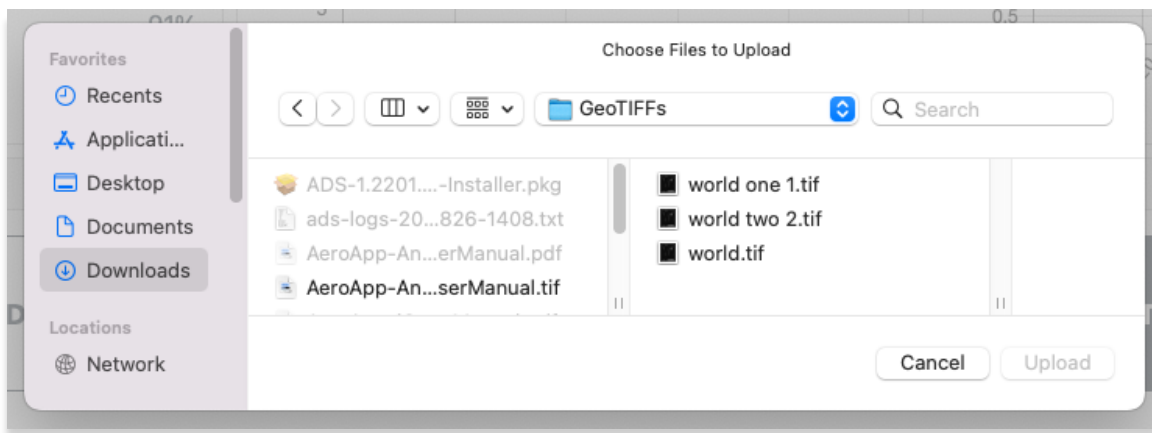


NOTE: Alternatively, users can drag and drop GeoPDF files into ADS.

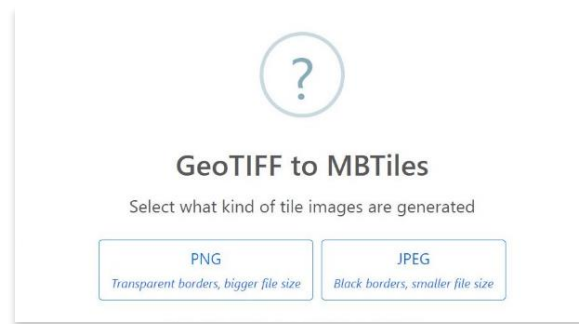
9.2 GeoTIFF

The GeoTIFF option allows users to easily convert their GeoTIFF files to MBTiles format.

1. Navigate to the **Dashboard** menu.
2. Click **GeoTIFF**.
3. Select source (DVD, USB, or Computer) that contains the GeoTIFF files in which you are importing into ADS.
4. Select desired file (GeoTIFF).
5. Click **Upload**.



6. On the popup, select PNG or JPEG tile images.



7. The progress bar displays the current data being converted into MBTiles.
8. To verify if the imported GeoTIFF file has been converted to a MBTiles file format, navigate to **Data** from the Main Menu.

- Click the **User Files** tab. The converted MBTiles file will be listed below.

Filename	Size
MBTiles	26 MB
AFR A-2 16 JUN 2022.mbtiles	4 MB
africa.mbtiles	5 MB
canada.mbtiles	13 MB
digitalglobe_sandiego_mobile.mbtiles	3 MB

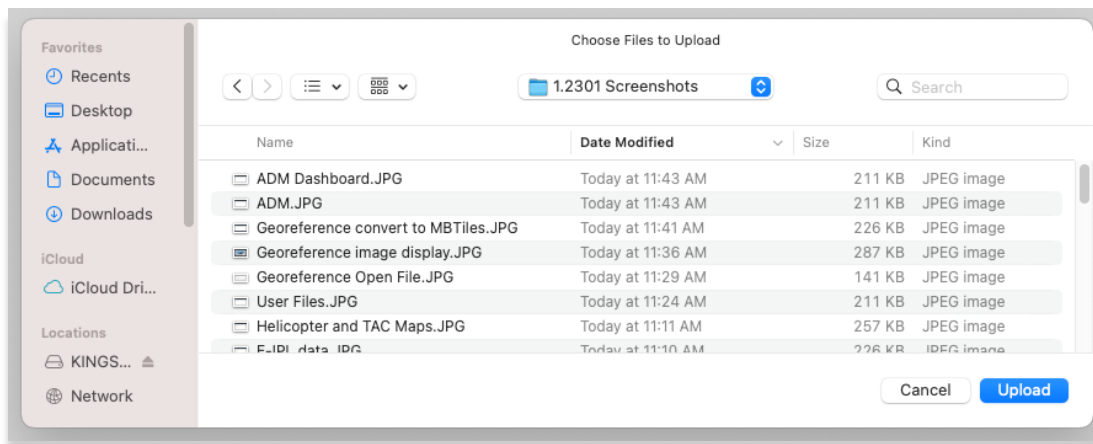


NOTE: Alternatively, users can drag and drop GeoTIFF files into ADS.

9.3 Georeference Image

The Georeference Image tool allows users to georeference a variety of image formats including JPG, PDF, and PNG. Moreover, the tool provides the option to convert your georeferenced images to MBTiles format to ensure your images are accurately positioned on a map.

- Navigate to the **Dashboard** menu.
- Click **Georeference Image**.
- The Georeference Image popup will display. To select an image, click **Open**.
- Locate source (DVD, USB, or Computer) and select desired file (JPG, PDF, or PNG).
- Click **Upload**.



- Click on a point on the image to designate placement for Point A.



NOTE: Clicks outside of the image are not recognized, therefore, the point is not added.



NOTE: In the event where neither of the point sections is highlighted, adding a point to the image will default to *Point A*.

- Enter respective coordinates in the latitude and longitude fields.
- Click on the second point on the image to designate placement for Point B.
- Enter respective coordinates in the latitude and longitude fields.

Georeference Image
Select Point A or Point B, click point on the image, and enter coordinates. Image must be North Up.

Point A		Point B	
Latitude	Longitude	Latitude	Longitude
40 28.87	-107 13.06	39 17.30	-103 14.82

Buttons: Open, Convert, Clear, Cancel



NOTE: Ensure to use the appropriate format in the latitude and longitude text boxes. Tooltips are available in Point A and Point B sections.

- To clear the designated placement for point A and point B, click **Clear**.
- To void the action and return to the Dashboard, click **Cancel**.

12. To convert images to MBTiles, click **Convert**.
13. The Georeference popup will dismiss.
14. The progress bar displays the current data converting to MBTiles.
15. To verify if the image has been converted to MBTiles file format, navigate to **Data** from the Main Menu.
16. Click the **User Files** tab. The converted MBTiles file will be listed below.

Filename	Size
MBTiles	28 MB
AFR A-2 16 JUN 2022.mbtiles	4 MB
africa.mbtiles	5 MB
C-17.mbtiles	2 MB
canada.mbtiles	13 MB
digitalglobe_sandiego_mobile.mbtiles	3 MB



NOTE: Alternatively, users can drag and drop JPG, PDF, or PNG images into ADS.

10 Data

The Data menu is the primary location to keep track of all the data that has been downloaded, imported, and converted to its designated data type. Users can effortlessly flip through tabs to view each page for each data type. Data is divided into distinct types:

- **Cycle** – contains the latest three cycles available on ADS. Users can only access cycles if Global is included.
- **Aero App Maps** – contains IFR and VFR maps for the region that you have selected.
- **Helicopter and TAC Maps** – contains Helicopter and Terminal Area Charts.
- **Map Library** – files are grouped by categories and placed in folders that can be expanded or collapsed to reveal or hide files, respectively. Users can click on the header of the date column to display Created, Effective, or Expiration dates.
- **E-IPL** – contains charts for the region that you have selected.
- **Other** – contains Giant Reports, Earth Base Map, Terrain Coloring, and Terrain Analysis files.
- **User Files** – contains PDF images and MBTiles files. Click the document icon next to the file to view the user-generated PFD files.

10.1 Deleting Files

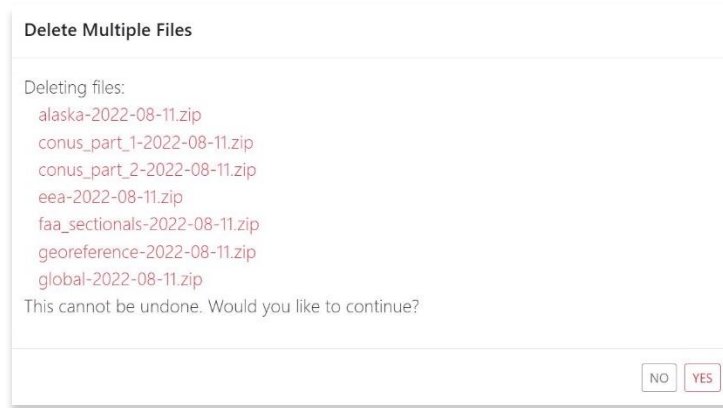
Users have the option to delete individual files or the entire set of available files under each tab.

1. To delete individual data files, click on the **red trash** icon to the right of the desired file.
2. A confirmation popup will display, click **YES**.



3. To delete the entire data set, click on the **red trash** icon to the right of the cycle or region on the data set header.

4. A confirmation popup will display the list of data set files that will be deleted, click **Yes**.



NOTE: Users cannot delete multiple Map files at once. Instead, files must be individually deleted unless the user wants to delete the entire region regardless of the cycles loaded.

11 Settings

The Settings menu provides users the ability to display options to modify and set various settings. Selecting the Settings menu will display the following sections:

- Server
- Auto Update
- Login Credentials
- Internet Connectivity

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

Office Server
Update
Dashboard Data **Settings** Logs Help Logout

Server

Name: Share with Devices:

Next Update: Core Data Options:

Cycle Options: Aero App Upload:

HTTPS Only: Certificate:

Designate this server as containing SECRET material

Auto Update

Aero User Database
GEOAxIS

Username:

Password:

Partner:

Save Credentials: Auto Purge:

Login Credentials

Username:

Password: Confirm Password:

Internet Connectivity

Host or IP address to Ping:

Frequency Check (seconds):



NOTE: To apply changes for any options under Settings, users must select **Save**.

11.1 Server

Server provides users the ability to customize the Server's settings by modifying the Name, Next Update, Cycle Options, HTTPS Only and Certificate Upload, Working Mode, Core Data Options, Aero App Upload, and set ADS to SECRET.

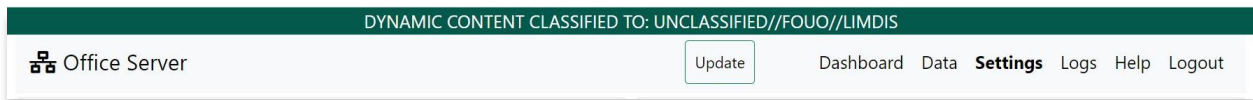
11.1.1 Name

The Name option enables users to set a desired name for the server.

1. In the Name field enter desired server name.
2. Click **Save** to apply changes.



3. To verify if the name has changed, locate the main menu and the new server's name will display on the upper-left side of the screen.

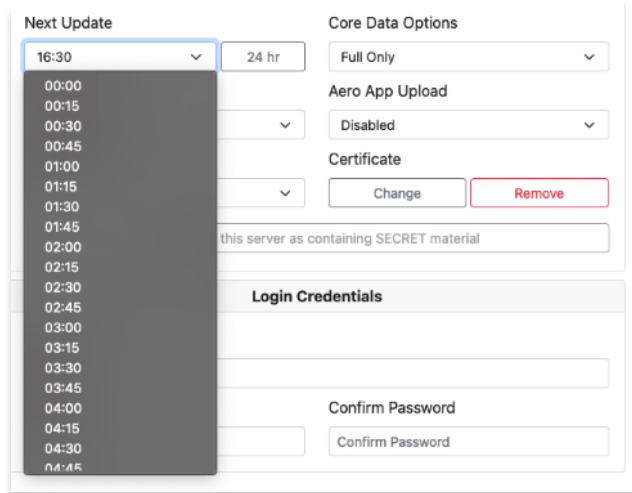


11.1.2 Next Update

The Next Update option enables users to set-up a time when Aero Data Server will automatically download available data.

1. Navigate to the **Next Update** option on the **Server** section.
2. By default, the time switch is set to 12-hour. Click the **time switch** again to switch to 24-hour.

3. Click on the **Timer Selector** drop-down to choose from desired time. The different times are in increments of every 15 minutes.



4. Click **Save** to apply changes.

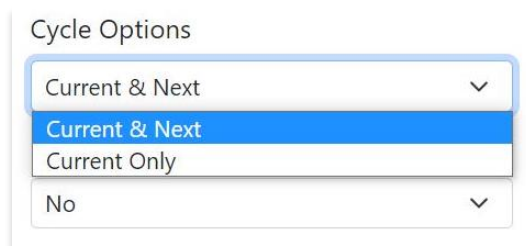


NOTE: The time selected for the next update reflects the local time of the server.

11.1.3 Cycle Options

Cycle Options enables users to select between downloading Current & Next or Current Only cycles.

1. Navigate to the **Cycle Options** on the **Server** section.
2. Click the drop-down and select from **Current & Next** or **Current Only**.
3. Click **Save** to apply changes.



NOTE: Current & Next is the default cycle options.

11.1.4 HTTPS Only

The HTTPS Only feature allows users to store ADS on a secure network. To make ADS secure, users will need to upload a Secure Sockets Layer (SSL) certificate, which a Systems Admin or IT Department can provide. Otherwise, a user would have to obtain a certificate from a Certificate Authority (CA). Below are general guidelines on creating certificate:

1. Gather information about the website – IP address and domain.
2. Decide which type of SSL certificate to create – there are many types and are categorized based on validation and domains.
3. Choose a CA to issue your certificate – make sure it is reputable.
4. Generate a Certificate Signing Request (CSR) – the process depends on the web server, contact your web host.
5. Submit CSR to selected CA.
6. Obtain SSL certificate from CA.

11.1.4.1 Certificate Upload

Users will need to upload the SSL certificate into ADS. Instructions on installing the certificate depends on the device's operating system. When uploading to ADS, users will be prompted to upload a PEM encoded certificate file and a private key file on ADS. Intermediate certificates are optional and based on whether the certificate issuer recommends one.

1. In Settings tab, select **Yes** from the HTTPS Only drop-down to force https only access. If HTTPS Only is set to No, users will be allowed to use both http and https.



2. Click **Change** under **Certificate**.
3. Choose the **certificate** file.
4. Choose the **private key** file.
5. Choose the **intermediate certificate** file, if necessary.
6. Click **Upload**.

Change Certificate

All certificates must be PEM encoded

Certificate **required*

Choose File No file chosen

Private Key **required*

Choose File No file chosen

Intermediate Certificate(s)

Choose File No file chosen

Upload Cancel

7. Click **Save** to apply changes.
8. Refresh the page, log in if necessary.



NOTE: Each browser handles certificates differently. The browser will let users know when accessing an unsecure ADS either on the address bar or via a privacy page. Similarly, a lock icon will appear on the address bar implying the network is secure after certificates have uploaded.



NOTE: Depending on the certificate type, certificates would need to be installed in devices as needed.

11.1.5 Share with Devices

The Share with Devices feature downloads data directly to the user's mobile device on the same network. By switching the mode to disabled, the data files are downloaded to the device and stored in the `C:\ProgramData\ads\data` directory. Pilots can transfer the data files to any device running Aero App.

1. Navigate to the **Share with Devices** option in the **Server** section.
2. The drop-down includes options to enable or disable the feature. Enabled is selected by default.
3. Click **Save**. Users on the same network can download data on Aero App.

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

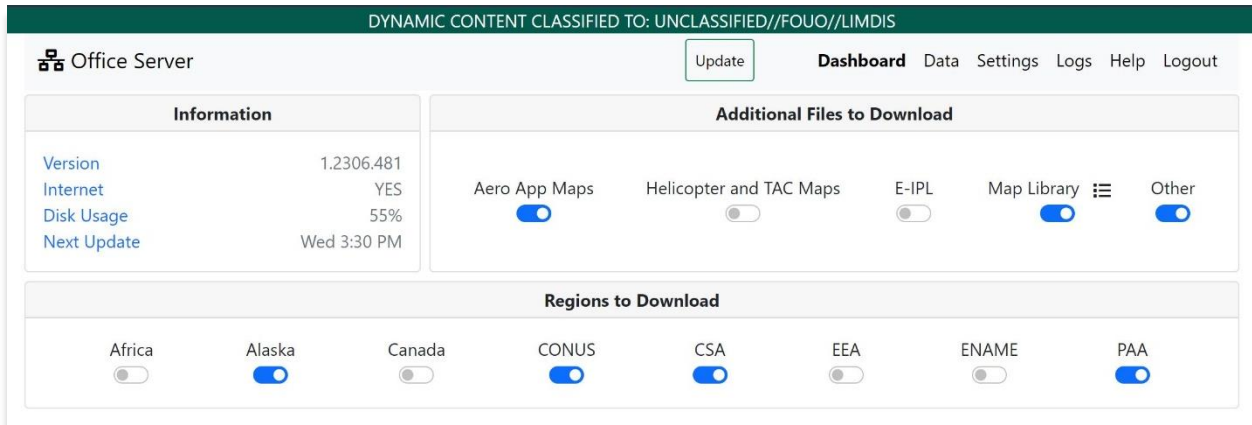
Office Server
Update
Dashboard Data **Settings** Logs Help Logout

Server	Auto Update
<p>Name: Office Server</p> <p>Share with Devices: Enabled</p> <p>Next Update: 03:30 PM (12 hr)</p> <p>Core Data Options: Full & Deltas</p> <p>Cycle Options: Current & Next</p> <p>Aero App Upload: Disabled</p> <p>HTTPS Only: No</p> <p>Certificate: Change Remove</p> <p style="color: red; font-size: small;">Designate this server as containing SECRET material</p>	<p>Aero User Database GEOAxIS</p> <p>Username: _____</p> <p>Password: _____</p> <p>Partner: No partner selected Select Partner</p> <p>Save Credentials: Yes Clear</p> <p>Auto Purge: Yes</p>
<p>Login Credentials</p> <p>Username: admin</p> <p>Password: _____ Confirm Password: _____</p>	<p>Internet Connectivity</p> <p>Host or IP address to Ping: www.google.com</p> <p>Frequency Check (seconds): 10</p>

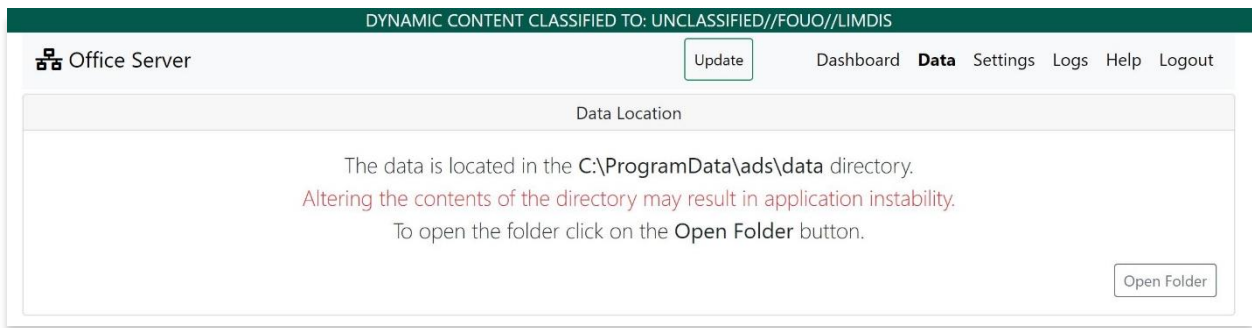
Save

4. Navigate to the **Share with Devices** option in the **Server** section.
5. Click the drop-down to select **Disabled**.
6. Click **Save**.
7. Return to the Dashboard.
8. Select desired region(s): **Africa, Alaska, Canada, CONUS, CSA, EEA, ENAME,** and/or **PAA**.

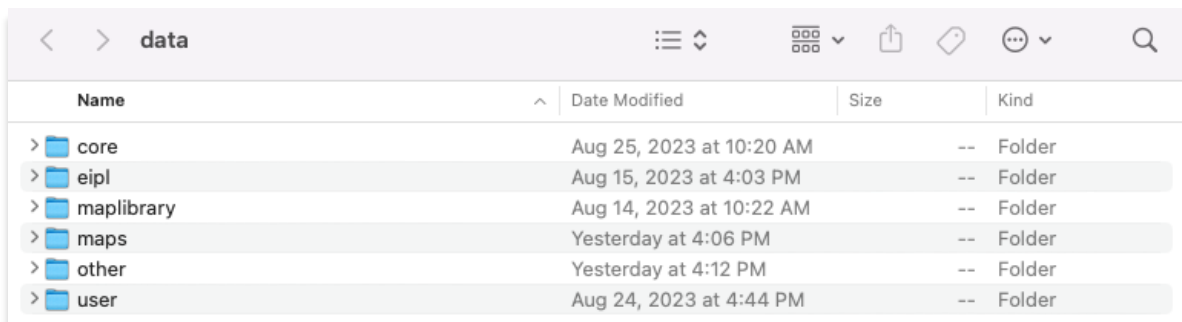
- To include additional files such as **Aero App Maps, Helicopter and TAC Maps, E-IPL, Map Library,** and **Other** data such as **Giant Reports, Earth Base Map, Terrain Coloring, and Terrain Analysis** select the desired options under **Additional Files to Download**.



- Once you've made your selections, click **Update**, and the data files will download onto the `C:\ProgramData\ads\data` directory.
- Once the download is complete, click the **Data** menu.
- Click **Open Folder**.



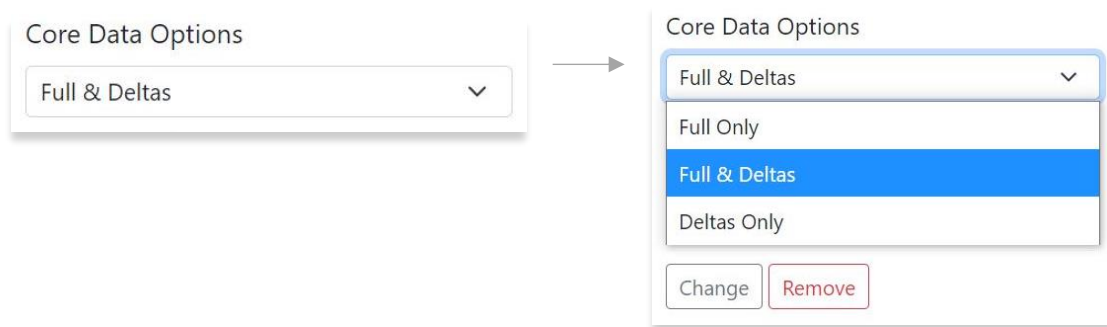
- To begin the sideload, navigate to the folder where your files are located. Once located, select the files you want to transfer to your device.



11.1.6 Core Data Options

The Core Data Options enable users to select between downloading Full Only, Full & Deltas, or Deltas Only.

1. Navigate to the **Core Data Options** on the **Server** section.
2. Full & Deltas option is the default for Core Options. Click the drop-down and select from **Full Only**, **Full & Deltas**, or **Deltas Only**.



3. Click **Save** to apply changes.

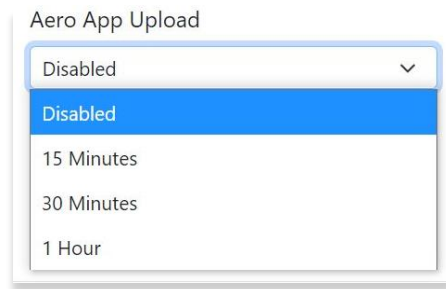


NOTE: Deltas only consists of Global, Georeference, FAA Sectionals, and all Core Data Delta files.

11.1.7 Aero App Upload

Aero App Upload enables users to upload files such as maps and cycles over to ADS from Aero App.

1. Navigate to the **Aero App Upload** on the **Server** section.
2. Click the drop-down and select desired window time. Options include Disabled, 15 minutes, 30 minutes, or 1 hour.



3. Click **Save** to apply changes.



NOTE: Preloading data on ADS is not required. However, to access ADS from Aero App, users must have global loaded in Aero App.

11.1.8 Set ADS to SECRET

Aero Data Server enables users to set the app to SECRET. Once the setting is set to SECRET, the action cannot be undone. ADS must be uninstalled and reinstalled to revert to UNCLASSIFIED.

1. Navigate to **Aero App Upload** on the **Server** section.
2. Click the **Designate this server as containing SECRET material** button.
3. Two warning popups will be displayed confirming the action. The following options are available:
 - **Cancel** – dismisses the action.
 - **Update** – confirms the action to switch to SECRET mode.



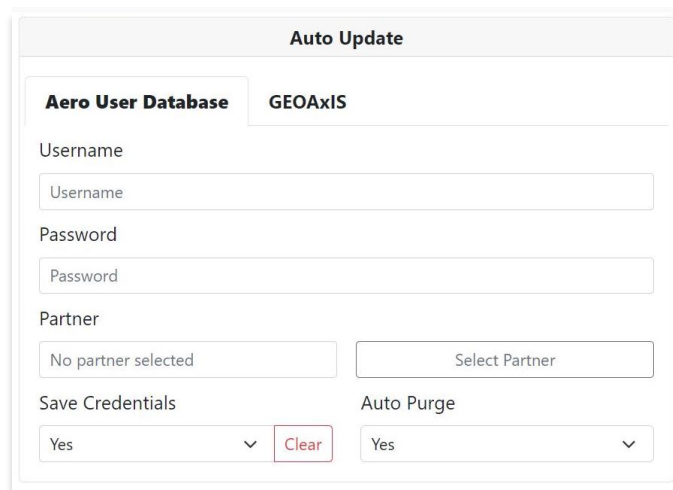
NOTE: UNCLASSIFIED is the default setting.

11.2 Auto Update

Auto Update enables users to log in using Aero User Database (AUD) or GEOAxis credentials to access data.

11.2.1 Aero User Database

1. Navigate to the **Auto Update** section on the **Settings** menu.
2. Click **Aero User Database**.
3. Log in with Aero User Database credentials.



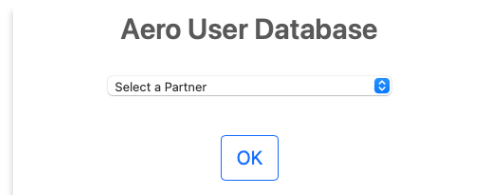
The screenshot shows the 'Auto Update' settings window. It has two tabs: 'Aero User Database' (selected) and 'GEOAxis'. Below the tabs are input fields for 'Username' and 'Password'. There is a 'Partner' dropdown menu showing 'No partner selected' and a 'Select Partner' button. At the bottom, there are two dropdown menus: 'Save Credentials' (set to 'Yes') and 'Auto Purge' (set to 'Yes'). A 'Clear' button is located between the two dropdown menus.



NOTE: Previously entered username will be retained for ease of access when relogging into Aero User Database.

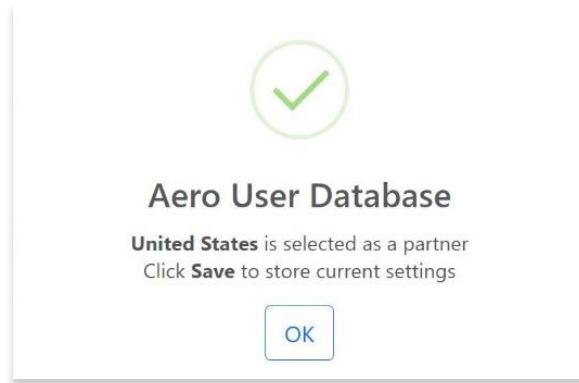
11.2.1.1 Partner

1. Navigate to the **Partner** option on the **Auto Update** section.
2. Click the **Select Partner** button and the Aero User Database partner selection will pop up.
3. Select a partner.



The screenshot shows a dialog box titled 'Aero User Database'. It contains a dropdown menu labeled 'Select a Partner' with a blue plus icon on the right. Below the dropdown is an 'OK' button.

- Once a partner has been selected click **OK**, and an Aero User Database confirmation will display.

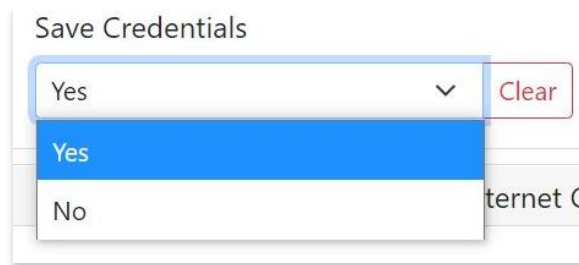


- Click **OK** to close the popup.
- Click **Save** to apply changes.

11.2.1.2 Save Credentials

Save Credentials provide users the option to save Aero User Database (AUD) credentials for future use.

- Navigate to the **Save Credentials** option on the **Auto Update** section.
- Click the drop-down and select from **Yes** or **No**.
- Click **Save** to apply changes.

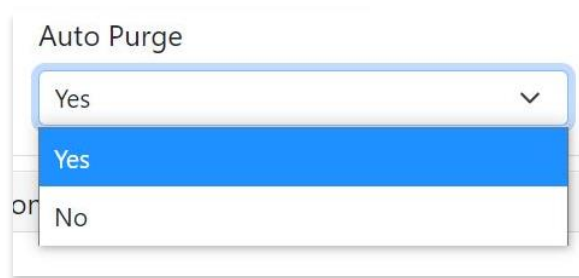


NOTE: Yes, is the default for Save Credentials.

11.2.1.3 Auto Purge

Auto Purge will delete anything older than the previous cycle when users are logged in with their Aero User Database (AUD) credentials. Previous, current, and future cycles will not be purged.

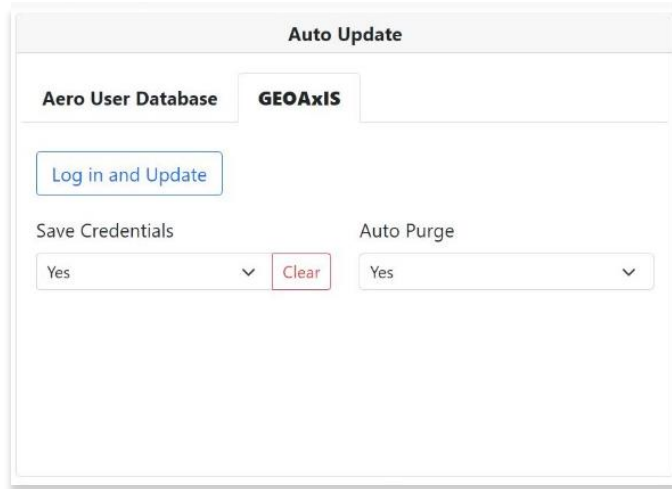
1. Navigate to the **Auto Purge** option on the **Auto Update** section.
2. Click the drop-down and select from **Yes** or **No**.
3. Click **Save** to apply changes.



NOTE: Yes, is the default for Auto Purge.

11.2.2 GEOAxis

1. Navigate to the **Auto Update** section on the **Settings** menu.
2. Click **Log in and Update** and you will be redirected to the GEOAxis webpage.
3. Select desired authentication method.
4. Once authenticated, you will be redirected to the Settings page and data will begin to download.



The screenshot shows a web interface titled "Auto Update". It has two tabs: "Aero User Database" and "GEOAxis", with "GEOAxis" selected. Below the tabs is a "Log in and Update" button. Underneath, there are two sections: "Save Credentials" with a dropdown menu set to "Yes" and a "Clear" button, and "Auto Purge" with a dropdown menu set to "Yes".



NOTE: GEOAxis data download is allowed only by the ADS admin. Users who access an ADS remotely (via IP address) will not be able to download data from GEOAxis.



NOTE: Depending on the browser, users will need to allow ADS access to navigate to GEOAxis login page through a set of browser popups prompting the user for permission.

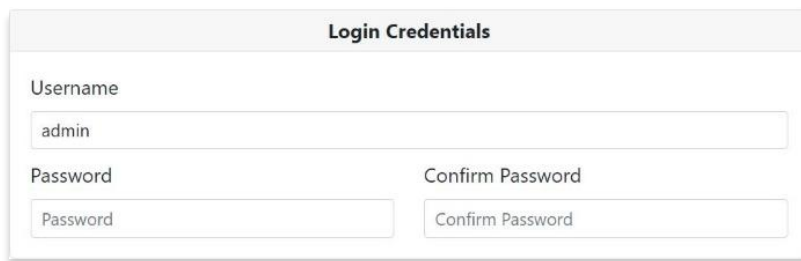


NOTE: GEOAxis OAuth is not supported by Safari. The best browser option to download from GEOAxis on Mac is Firefox.

11.3 Login Credentials

Login Credentials enable users to change the default “admin” credentials.

1. Navigate to the **Login Credentials** section on the **Settings** menu.
2. Locate *Username* and enter your username.
3. Locate *Password* and enter desired password.
4. Confirm password.
5. Click **Save** to apply changes.

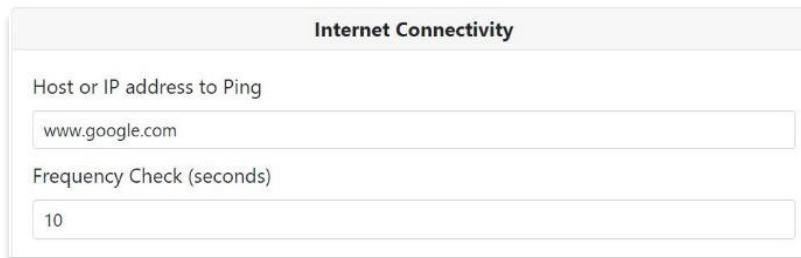


The screenshot shows a form titled "Login Credentials". It contains three input fields: "Username" with the value "admin", "Password" with the placeholder "Password", and "Confirm Password" with the placeholder "Confirm Password".

11.4 Internet Connectivity

Internet Connectivity displays Frequency Check (in seconds) and Host or IP Address to Ping.

- Default for frequency is set to 10 seconds, this can be changed by typing in the desired frequency.
- Default host is www.google.com.
- Frequency check must be between 10 and 600.



The screenshot shows a form titled "Internet Connectivity". It contains two input fields: "Host or IP address to Ping" with the value "www.google.com" and "Frequency Check (seconds)" with the value "10".



NOTE: Save Settings by clicking the **Save** button located at the bottom-right of the screen.

12 Logs

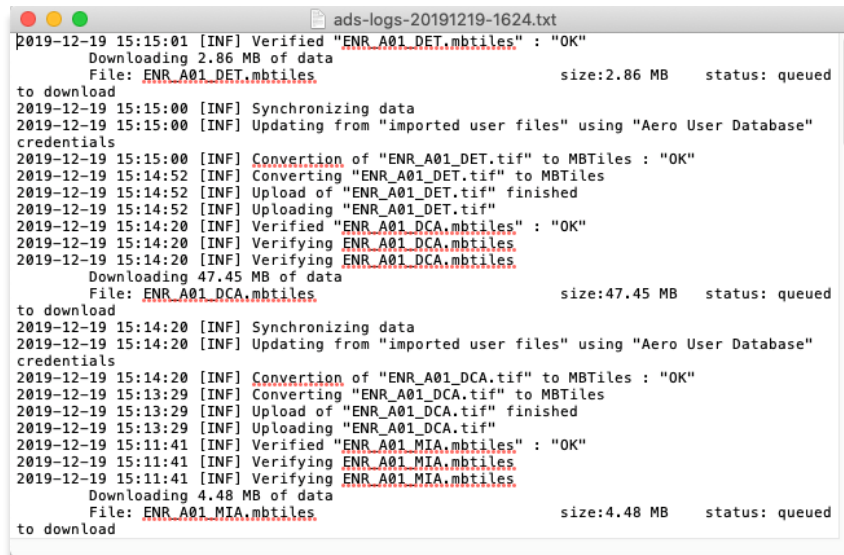
The Logs menu provides users with detailed information from the server. Users have the option to download and save logs.

1. Navigate to the **Logs** menu.
2. Click **Download**.

The screenshot shows the 'Office Server' interface with a navigation bar containing 'Update', 'Dashboard', 'Data', 'Settings', 'Logs', 'Help', and 'Logout'. The 'Logs' menu is active, displaying a scrollable list of log entries. Each entry includes a timestamp, log level, and a detailed message. A 'Download' button is located at the bottom right of the log list.

Timestamp	Level	Message
2023-05-31 17:23:55	[INF]	HTTP "GET" "/settings" responded 200 in 17.7287 ms
2023-05-31 17:23:51	[INF]	HTTP "GET" "/logs" responded 200 in 33.5612 ms
2023-05-31 17:23:02	[INF]	HTTP "GET" "/settings" responded 200 in 6.1455 ms
2023-05-31 17:23:02	[INF]	HTTP "POST" "/auth/login" responded 302 in 94.8038 ms
2023-05-31 17:22:56	[INF]	HTTP "GET" "/auth/login" responded 200 in 1.4160 ms
2023-05-31 17:22:52	[INF]	HTTP "GET" "/auth/login" responded 200 in 6.2756 ms
2023-05-31 17:22:42	[INF]	HTTP "GET" "/health" responded 200 in 0.0714 ms
2023-05-31 17:22:42	[INF]	HTTP "GET" "/health" responded 200 in 0.1966 ms
2023-05-31 16:24:08	[INF]	HTTP "GET" "/settings" responded 200 in 4.6483 ms
2023-05-31 16:21:06	[INF]	HTTP "GET" "/help" responded 200 in 1.1632 ms
2023-05-31 16:21:04	[INF]	HTTP "GET" "/logs" responded 200 in 66.0369 ms
2023-05-31 16:21:03	[INF]	HTTP "GET" "/settings" responded 200 in 3.8496 ms
2023-05-31 16:21:02	[INF]	HTTP "GET" "/data" responded 200 in 3.6841 ms
2023-05-31 16:21:01	[INF]	HTTP "GET" "/" responded 200 in 14.7134 ms
2023-05-31 16:21:01	[ERR]	Fetching MapLibrary stopped : "String was not encrypted using the EncryptString methods (Parameter 'encryptedText')
2023-05-31 16:20:20	[INF]	HTTP "GET" "/help" responded 200 in 26.9393 ms
2023-05-31 16:17:03	[INF]	HTTP "POST" "/settings/clear" responded 200 in 79.5531 ms
2023-05-31 16:17:03	[INF]	Auto update credentials for AUD cleared
2023-05-31 16:16:56	[INF]	HTTP "POST" "/settings/partners" responded 200 in 540.4575 ms
2023-05-31 16:16:35	[INF]	HTTP "GET" "/settings" responded 200 in 9.5604 ms
2023-05-31 16:09:46	[INF]	HTTP "GET" "/data" responded 200 in 32.8186 ms
Giant_Reports-2023-03-26.zip		
2023-05-31 16:09:42	[INF]	Files deleted by auto purge
2023-05-31 16:09:40	[INF]	Verified "mm_nga_jog_honduras-2023-03-22.mbtiles" : "OK"
2023-05-31 16:09:38	[INF]	Verifying mm_nga_jog_honduras-2023-03-22.mbtiles
2023-05-31 16:09:38	[INF]	Verifying mm_nga_jog_honduras-2023-03-22.mbtiles
2023-05-31 16:09:09	[INF]	Verified "mm_nga_gnc_australia-2023-03-03.mbtiles" : "OK"
2023-05-31 16:09:07	[INF]	Verifying mm_nga_gnc_australia-2023-03-03.mbtiles
2023-05-31 16:09:07	[INF]	Verifying mm_nga_gnc_australia-2023-03-03.mbtiles

3. The log text file will display.

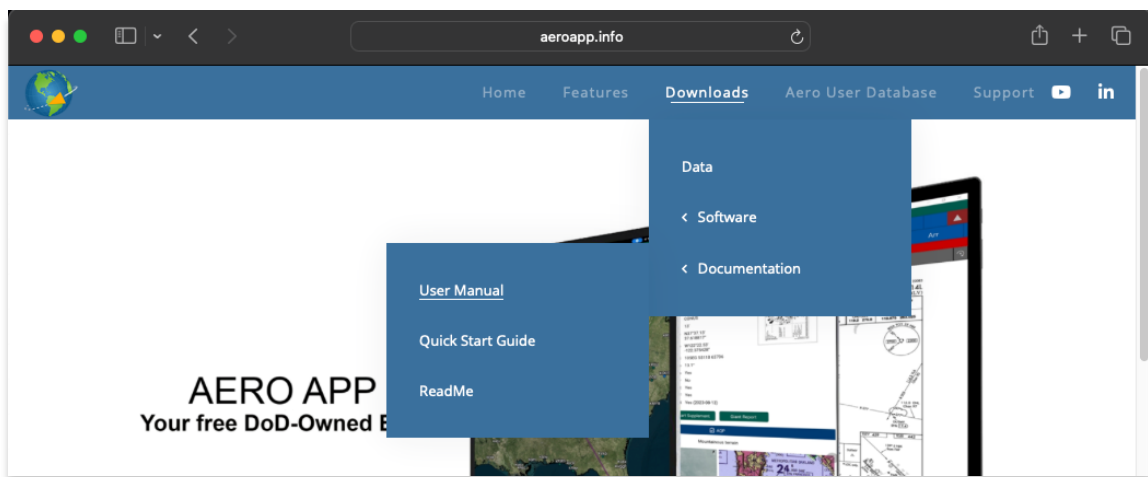


```
ads-logs-20191219-1624.txt
2019-12-19 15:15:01 [INF] Verified "ENR_A01_DET.mbtiles" : "OK"
      Downloading 2.86 MB of data
      File: ENR_A01_DET.mbtiles size:2.86 MB status: queued
to download
2019-12-19 15:15:00 [INF] Synchronizing data
2019-12-19 15:15:00 [INF] Updating from "imported user files" using "Aero User Database"
credentials
2019-12-19 15:15:00 [INF] Conversion of "ENR_A01_DET.tif" to MBTiles : "OK"
2019-12-19 15:14:52 [INF] Converting "ENR_A01_DET.tif" to MBTiles
2019-12-19 15:14:52 [INF] Upload of "ENR_A01_DET.tif" finished
2019-12-19 15:14:52 [INF] Uploading "ENR_A01_DET.tif"
2019-12-19 15:14:20 [INF] Verified "ENR_A01_DCA.mbtiles" : "OK"
2019-12-19 15:14:20 [INF] Verifying ENR_A01_DCA.mbtiles
2019-12-19 15:14:20 [INF] Verifying ENR_A01_DCA.mbtiles
      Downloading 47.45 MB of data
      File: ENR_A01_DCA.mbtiles size:47.45 MB status: queued
to download
2019-12-19 15:14:20 [INF] Synchronizing data
2019-12-19 15:14:20 [INF] Updating from "imported user files" using "Aero User Database"
credentials
2019-12-19 15:14:20 [INF] Conversion of "ENR_A01_DCA.tif" to MBTiles : "OK"
2019-12-19 15:13:29 [INF] Converting "ENR_A01_DCA.tif" to MBTiles
2019-12-19 15:13:29 [INF] Upload of "ENR_A01_DCA.tif" finished
2019-12-19 15:13:29 [INF] Uploading "ENR_A01_DCA.tif"
2019-12-19 15:11:41 [INF] Verified "ENR_A01_MIA.mbtiles" : "OK"
2019-12-19 15:11:41 [INF] Verifying ENR_A01_MIA.mbtiles
2019-12-19 15:11:41 [INF] Verifying ENR_A01_MIA.mbtiles
      Downloading 4.48 MB of data
      File: ENR_A01_MIA.mbtiles size:4.48 MB status: queued
to download
```

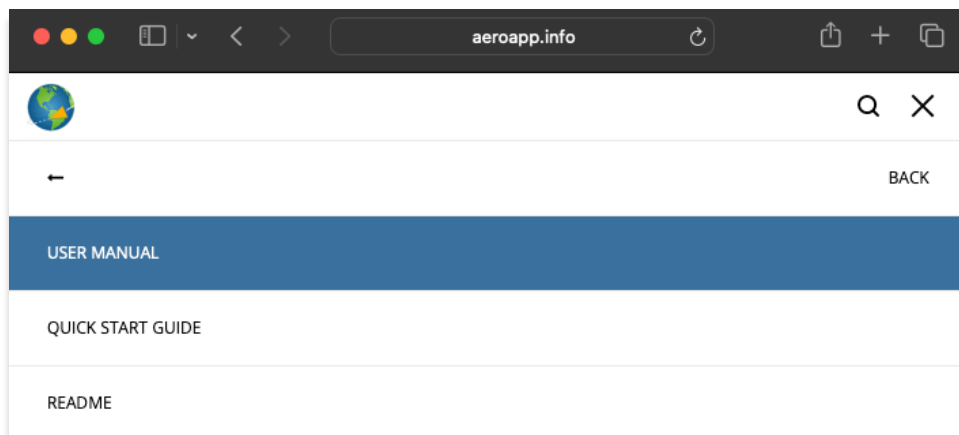
13 Help

The Help menu enables users to access ADS for macOS user manual through the Aero App website.

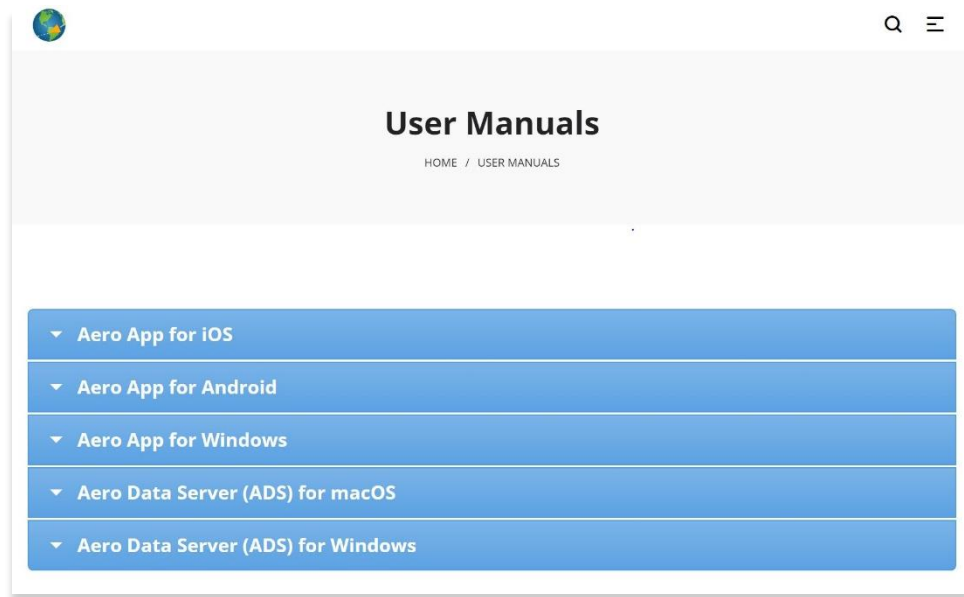
1. Navigate to the **Help** menu.
2. Click the **aeroapp.info** link and you will be redirected to the Aero App homepage.
3. Hover over Downloads. Option placement will vary depending on display size.
 - On large screens, hover over **Downloads** from the menu ribbon to reveal additional download options.



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



4. Select **Documentation** then **User Manuals**.
5. From the list of platforms, click **Aero Data Server (ADS) for macOS** to reveal related user manuals.
6. Select desired user manual version and you will be redirected to the PDF.



14 Logout

The Logout menu enables users to log out from Aero Data Server.

1. Navigate to the **Logout** menu.
2. Click **Logout** and you will be logged out of Aero Data Server.

15 Map Tile Server

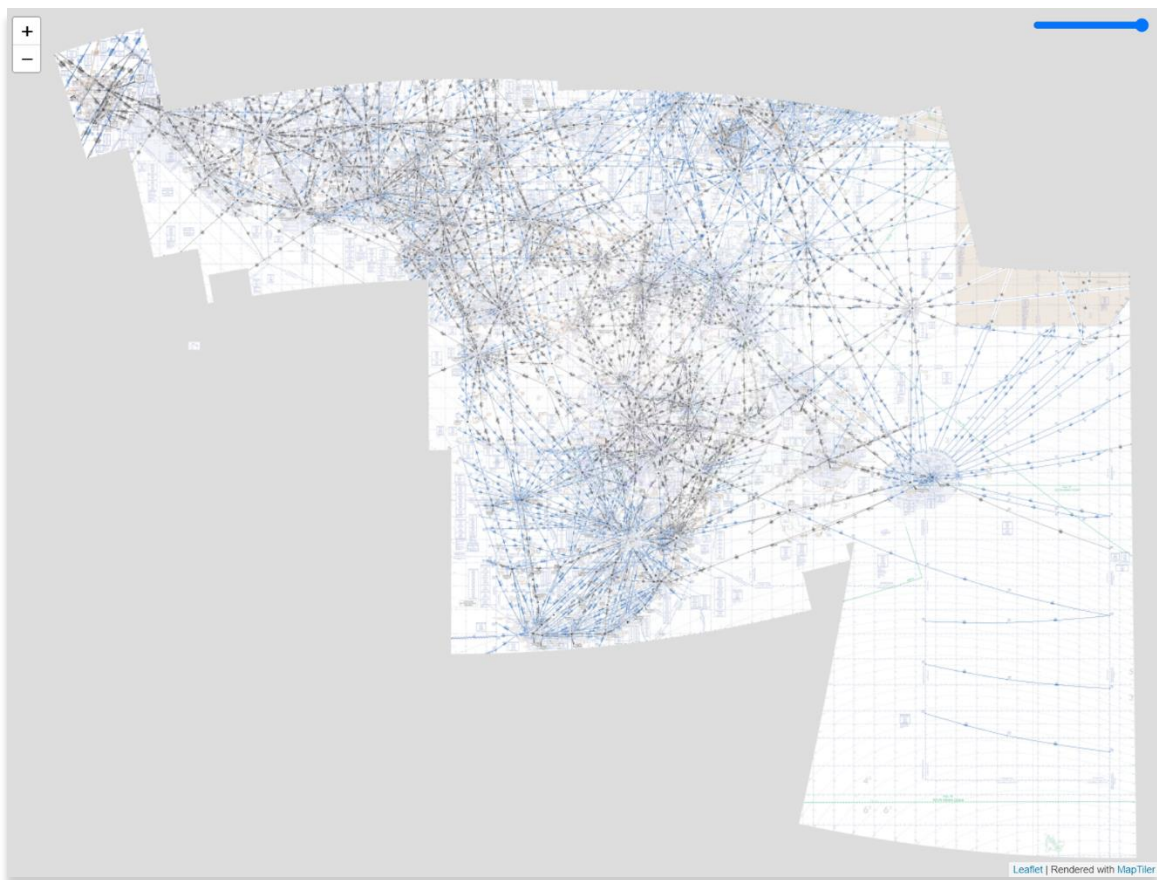
Aero Data Server has a built-in map tile server. Users can request tiles from maps by passing in an IP address, port number, and an *ID*. To obtain a list of map *IDs*’, use the following URL format:

`http://{ipaddress}:{portnumber}/tiles/v1/tilesets`

Ensure to use the appropriate *ID* contained in the JSON text. To access the map tile server, use the following URL format:

`http://{ipaddress}:{portnumber}/tiles/v4/{id}/{z}/{x}/{y}.png`

Where the IP address and port number are those of the Aero Data Server, and the *ID* is the map type requested.



NOTE: Some map tiles are very small and often cannot be spotted at first glance; Therefore, users must zoom into the screen to view the image.

16 Appendix A | Prevent the Computer from Sleeping

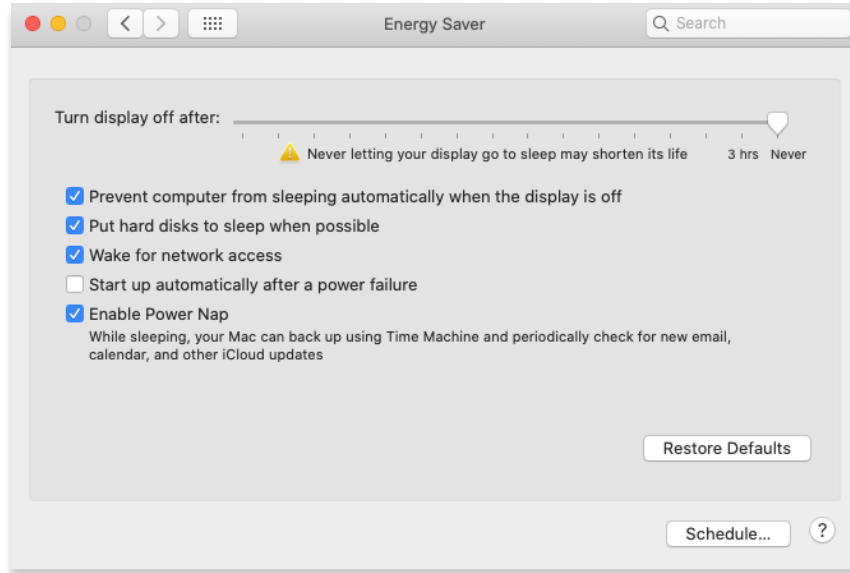
For the loading process to run smoothly, we recommend you prevent your computer from sleeping. The following instructions apply to macOS. They may vary for Windows computers.

1. Go to **System Preferences** on your computer.
2. System Preferences will display options to customize your screen, click **Energy Saver**.



NOTE: Alternatively, users can search System Preferences on their built-in search bar on the upper-right corner of their screen. Click the search field and type System Preferences.

3. The Energy Saver screen will appear. Place your cursor on the **Turn display off after scale** and move your cursor right to **Never**.
4. Your screen will never turn off.



17 Appendix B | Acronyms and Glossary

ADM	Aero Download Manager
ADS	Aero Data Server
Aero App	Application designed to enhance the use of aeronautical Flight Information Publication (FLIP) data and manage individual FLIP products
AUD	Aero User Database
AWS	Amazon Web Services
CNA	Canada / North Atlantic
CONUS	Contiguous United States
CSA	Caribbean and South America
Data Cycle	The data used by Aero App is refreshed every 28 days. These data refreshes are known as data cycles. Each cycle has FLIP effective and expiration dates
Default	Preexisting value of a user-configurable setting assigned to a software application
DHCP	Dynamic Host Configuration Protocol
DVD	Digital Versatile Disk for digital data storage
EEA	Eastern Europe and Asia
EFB	Electronic Flight Bag
E-IPL	Electronic – Instrument Procedure Library
ENAME	Europe, North Africa, and Middle East
Encryption	Process of encoding a message in such a way that only authorized parties can access it
Ethernet	A system for connecting several computer systems to form a local area network
FLIP	Flight Information Program
FOUO	For Official Use Only
GB	Gigabyte
Gb/s	Gigabyte per second
GEOAxIS	Credentials authentication provider for the government
GeoTIFF	GeoTIFF is a public domain metadata standard which allows georeferencing information to be embedded within a Tagged Information File (TIFF).
Giant Report	A vehicle to advise aviators of location issues
Host	A computer or other device connected to a network offering information, services, and other applications to users
IP	Internet Protocol
LAN	Local Area Network
Mbit/s	Megabit per second
MBTiles	File format for storing map tiles in a single file

OS	Operating System
PAA	Pacific, Australasia, and Antarctica
Ping	Query from a computer or network to determine whether there is a connection to it
Port	Serves as an interface between the computer and other computers or peripheral devices
RAM	Random-Access Memory
SSD	Solid State Drive
SSID	Service Set Identifier
Subnet or Net Mask	A subnet or net mask is a 32-bit mask used to divide an IP address into subnets and specify the network's available hosts. In a net mask, two bits are automatically assigned
TACs	Terminal Area Charts
USB	Universal Serial Bus
Wi-Fi	Technology that allows electronic devices to connect to a wireless LAN
WPA	Wi-Fi Protected Access
WPA2	Security certification developed by Wi-Fi Alliance