



Aero Data Server (ADS)

ADS macOS User Manual Version 1.2602

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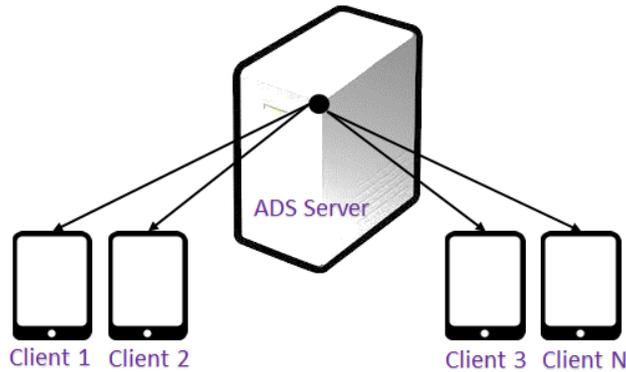
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1 Introduction

This guide is designed to help you navigate and utilize the features of Aero Data Server effectively. Aero Data Server (ADS) is a server that is used for database management, sharing, and downloading Aero App data, providing users with advanced capabilities for visualization, georeferencing, and metrics used to monitor server performance. In this manual, you will find comprehensive instructions on installation, configuration, and operation of the Aero Data Server.

1.1 Overview

Aero Data Server (ADS) allows Aero App on iOS and Android mobile devices to download Aero App 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 15 (Sequoia) or later
- Computer with a minimum of 40 GB of available storage and 4 GB or higher of RAM. ADS supports Apple M1 mac processors.
- The 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 is important to note that these are just the minimum requirements, and it is 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 1Gbps ethernet port.

2.2 Compatible Browsers

ADS supports the following browsers:

- Safari
- Google Chrome
- Mozilla Firefox
- Microsoft Edge



NOTE: GEOAxis OAuth is not supported by Safari. It is recommended to use Firefox instead, which supports GEOAxis OAuth for users running ADS on a Mac computer.

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: 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:
 - a. Connect device to a wireless access point
 - b. Plug device into a secure 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 Aero Data Server (ADS) from the following sources:

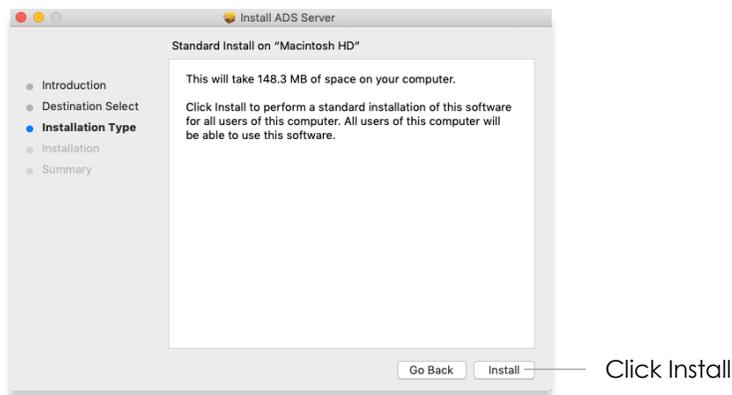
- **Aero App DVD:** NGA distributes the Aero App DVD to appropriate personnel. For additional information, contact Jorge Diaz (acctmgr@dla.mil) from the Defense Logistics Agency.
- **Aero App Website:** To access the Aero App website, visit aeroapp.info > Downloads > Software > Direct Install to Device. Downloading from the Aero App website requires an **Aero User Database** (userdb.aeroapp.info/auth/register) or a **GEOAxis** (geoaxis.nga.mil) account.

Each source listed above includes the ADS app executable file required to install the ADS software on your device. After downloading the ADS app executable, you will need to transfer the file to the device's local file where you intend to install ADS. Once stored, follow the steps below to complete the ADS installation process.

Users with Mac computers containing 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. Double-click on the **ADS executable** to run the application.
2. A series of prompts will be displayed. Follow the prompts then click **Install**. The app installation process will begin.



3. Once the installation is complete, the ADS icon will be placed in your computer's menu bar located at the upper-right corner of the desktop screen.



4. Right-click on the **ADS icon**. The following menu options are available:
 - **Manage** – initiates the ADS program
 - **Start** – if the ADS program has been disconnected, users can reconnect by clicking Start.
 - **Stop** – disconnects from the server
 - **Change Port** – displays the HTTP and HTTPS ports being used while having the option to modify the ports of your server.
 - **Uninstall** – permanently deletes ADS from your computer
5. Enter desired port numbers in the Change Port option, if necessary.
6. From the ADS popup, select **Manage** to launch ADS.
7. You will be directed to the ADS login page. Enter the default admin credentials.
 - a. **Default username:** admin
 - b. **Default password:** admin



NOTE: When accessing ADS, the system will automatically launch on the web browser that you have set as the default on your computer.

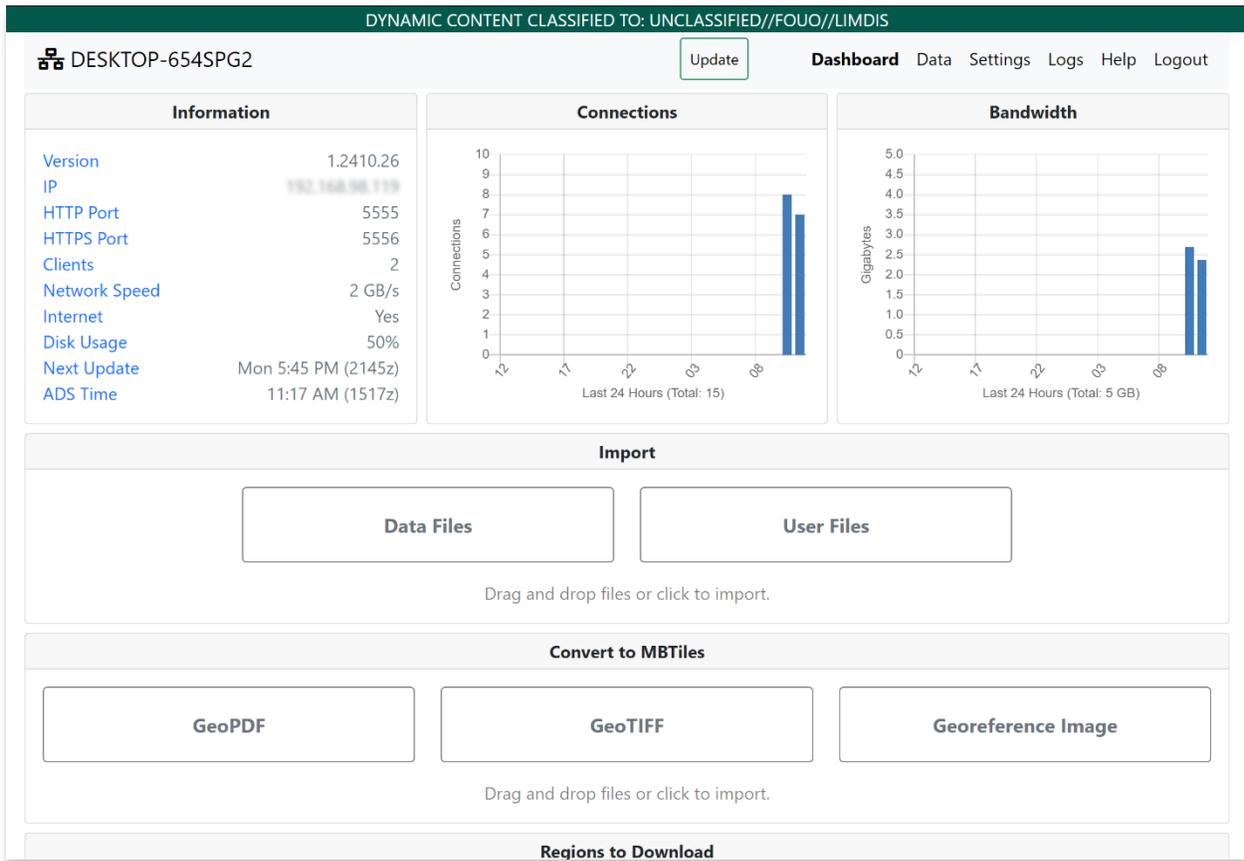
8. Click **Log In**.



NOTE: If there is a login from a separate computer, the user must enter the browser IP address and port displayed on the dashboard (user must have this address beforehand). In the event this occurs, the session started by another user will be disconnected.

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 on server details, including metrics that monitor server performance. Additionally, the Dashboard offers data retrieval options such as Import, Convert to MBTiles, Regions to Download, and Additional Files to Download.



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 is invalid, the internet field on the Dashboard will indicate “No.” However, users can still perform an update as they are connected to the internet.

If the Wi-Fi or Ethernet connection is disconnected, the internet field on the Dashboard will display “No”. Without internet connection, users will be unable to perform any updates.

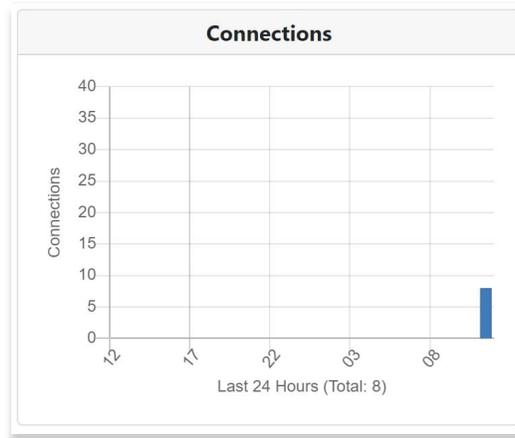
- **Version** – ADS version number
- **IP** – ADS IP address
- **HTTP Port** – ADS port number
- **HTTPS Port** – ADS secured port number
- **Clients** – Number of clients currently connected to the server
- **Network Speed** – Current network link speed
- **Internet** – Displays the internet connection status. “Yes”, is displayed when ADS is successfully connected to the 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 (Zulu time is included)
- **ADS Time** – Displays the current time based on the location of where ADS is being used (Zulu time is included).

Information	
Version	1.2410.26
IP	192.168.96.119
HTTP Port	5555
HTTPS Port	5556
Clients	2
Network Speed	2 GB/s
Internet	Yes
Disk Usage	50%
Next Update	Mon 5:45 PM (2145z)
ADS Time	11:17 AM (1517z)

6.2 Connections

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

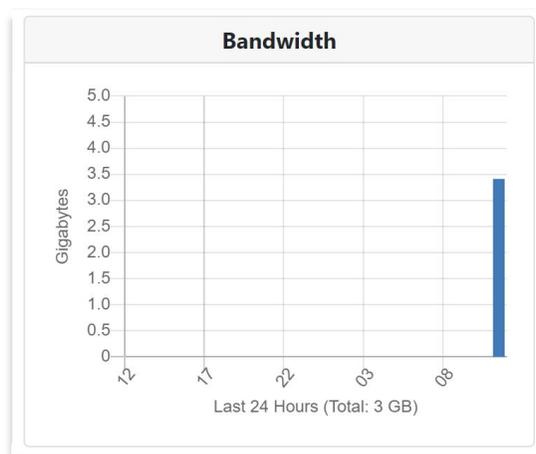
1. Click **Dashboard** on the Main Menu.
2. Navigate to the *Connections* section. The graph will display connection metrics within the 24-hour period.



6.3 Bandwidth

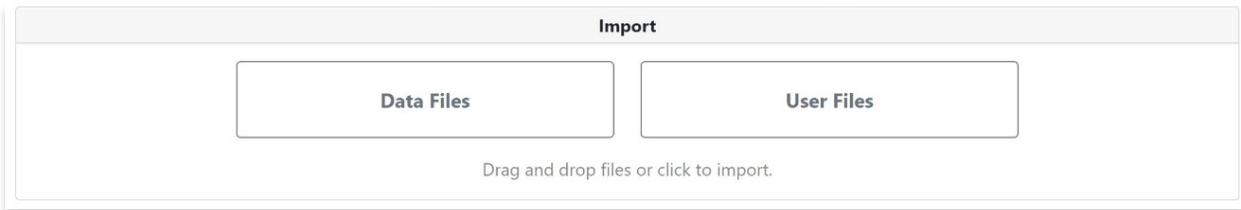
The Bandwidth section provides users with server metrics containing the amount of data being used within the 24-hour period.

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



6.4 Import

In the Import section, users can manually import several types of data files, including Global, Regions, Sectionals, Georeference, Aero App Maps, Helicopter and TAC Maps, E-IPL, Giant Reports, Earth Base Maps, and Terrain data. Users can also import user-generated files, like MBTiles and PDFs, by selecting User Files. Multiple files can be selected for import at the same time.



6.5 Convert to MBTiles

The Convert to MBTiles section enables users to convert GeoPDF and GeoTIFF files to MBTiles format. The Georeference Image tool is available to georeference images in JPG, PDF, and PNG formats, then converts the georeferenced images to MBTile format. The file conversion tool can only process one file at a time.

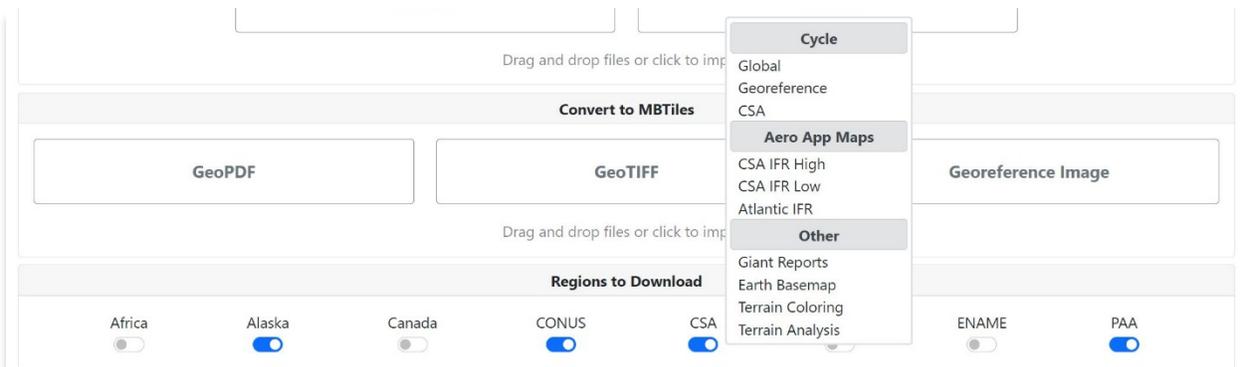


6.6 Regions to Download

The Regions to Download section allows users to choose one or more regions to download data. Available regions include Africa, Alaska, Canada, CONUS, CSA, EEA, ENAME, and PAA.

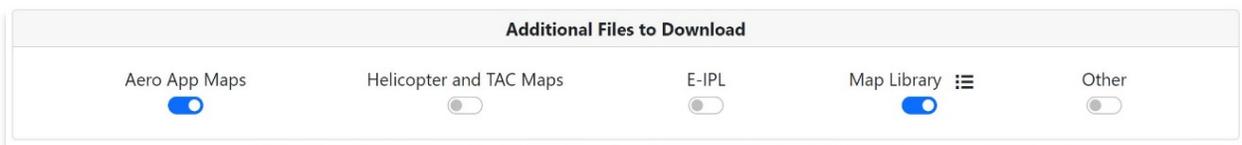


The Regions to Download section is divided into specific regions, each containing the associated data available for download. Hover over a region to preview its available data.



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.



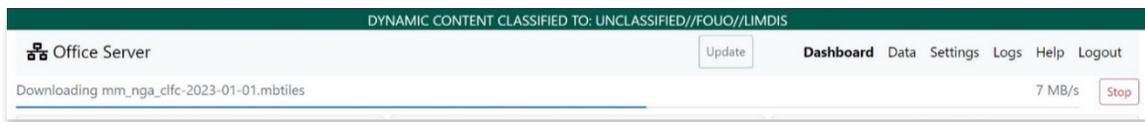
NOTE: From the *Select Map Library Files to Download* popup, click the date column to browse and view Created, Effective, or Expiration dates of a file.

7 Download Aero App Data

To download Aero App data on ADS, users must possess an active Aero User Database (AUD) or GEOAxis account. 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 credentials with the appropriate government foreign partner selected. Refer to [Section 11.2](#) for more information.
2. Click **Save**.
3. Navigate back to the **Dashboard** page.
4. Select desired region(s): **Africa**, **Alaska**, **Canada**, **CONUS**, **CSA**, **EEA**, **ENAME**, and/or **PAA** in the *Regions to Download* section.
5. Select additional files from the following data types: **Aero App Maps**, **Helicopter and TAC Maps**, **E-IPL**, **Map Library**, and/or **Other** in the *Additional Files to Download* section.

6. Click **Update** once desired data is selected.



A progress bar is displayed at the top of the Dashboard view when downloading data. The progress bar depicts the action it is performing (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 account 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. Available charts are stored within a folder. Click the folder to reveal the subfolder(s). Click on the subfolder to reveal its respective file(s).
3. Click on the date column header to browse and view **Created**, **Effective**, or **Expiration** dates of a file.

Select Map Library Files to Download

Filename	Effective	Size
Partner Maps		7.1 GB
CADRG European Low Flying Chart		1.9 GB
✓ NGA VFR mm_nga_clfc-2022-07-01.mbtiles	01 Jul 2022	600 MB
✓ NGA VFR mm_nga_clfc-2022-08-01.mbtiles	01 Aug 2022	608 MB
✓ NGA VFR mm_nga_clfc-2022-09-01.mbtiles	01 Sep 2022	728 MB
CADRG European Low Flying Chart Night		429 MB
✓ NGA VFR mm_nga_clfcn-2022-07-01.mbtiles	01 Jul 2022	140 MB
✓ NGA VFR mm_nga_clfcn-2022-08-01.mbtiles	01 Aug 2022	140 MB
✓ NGA VFR mm_nga_clfcn-2022-09-01.mbtiles	01 Sep 2022	149 MB
CADRG Transit Flying Chart		1.4 GB
✓ NGA VFR	01 Jul 2022	426 MB



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, click **Data** on 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

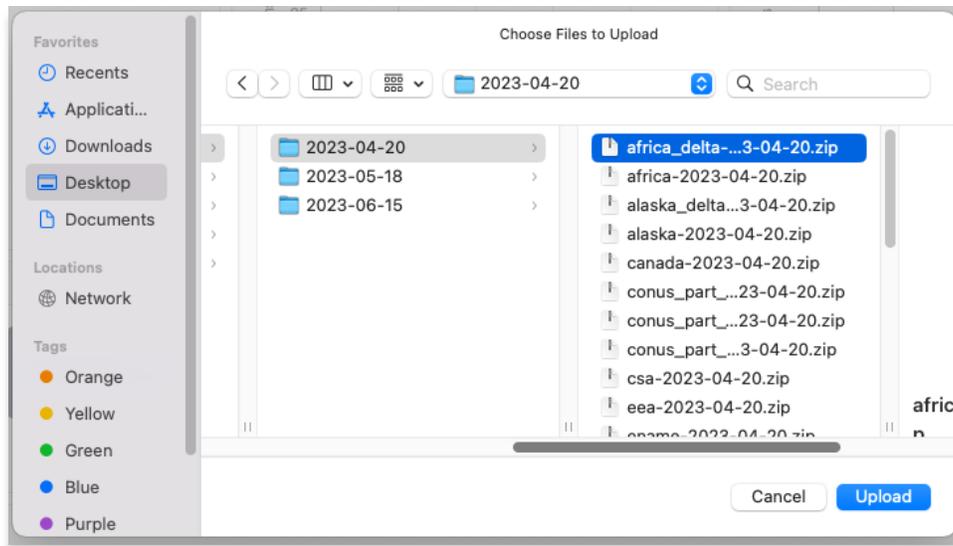
8 Import Data

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 into ADS does not require any login prerequisites.

8.1 Data Files

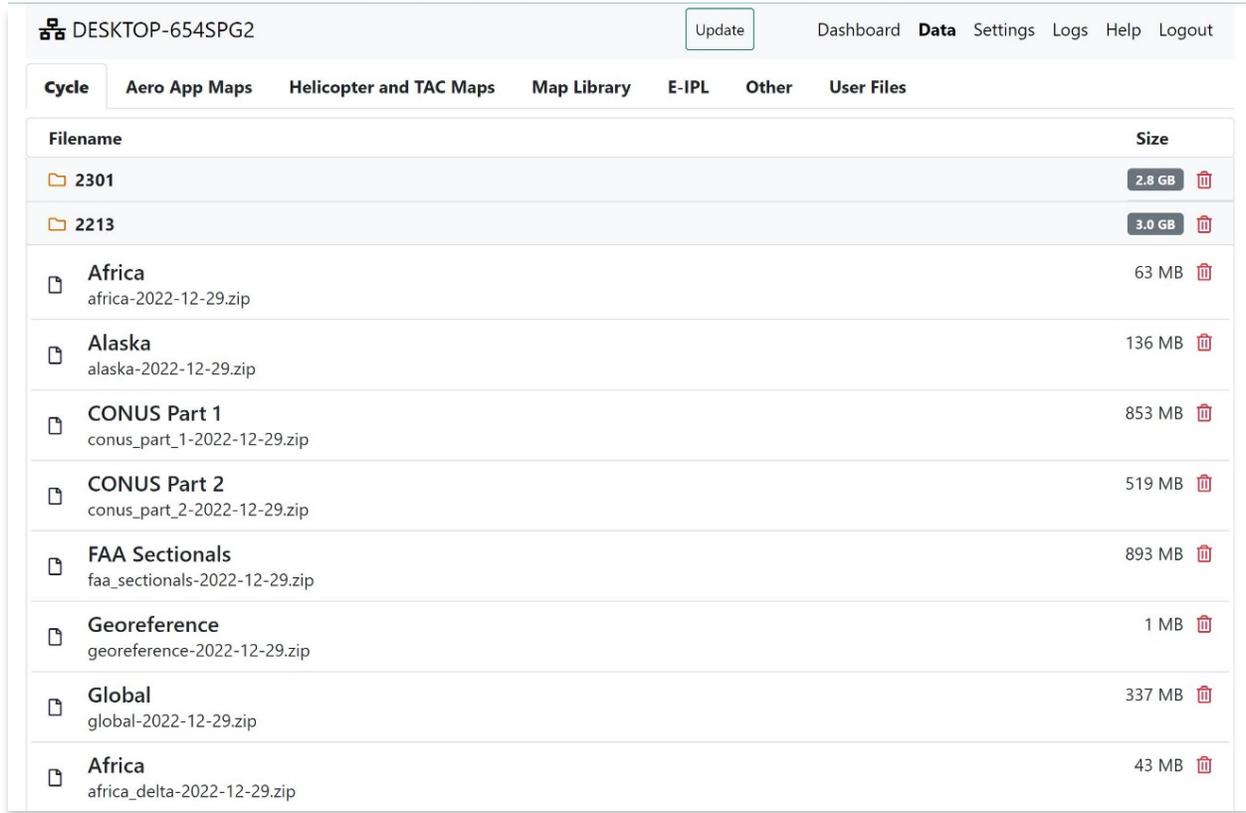
The Data Files option allows users to import data files into ADS.

1. Click **Dashboard** on the Main Menu.
2. Navigate to the *Import* section then select **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**.



NOTE: A progress bar is displayed at the top of the Dashboard view when downloading data. The progress bar depicts the action it is performing (e.g., downloading, importing, or converting), file name, and its extension.

- To verify if the Data Files have been imported into ADS, click **Data** on the Main Menu.
- Select the **Cycle** tab. The imported cycle data files will be listed below.



The screenshot shows the ADS interface for user 'DESKTOP-654SPG2'. The 'Cycle' tab is selected, displaying a table of imported data files. The table has columns for 'Filename' and 'Size'. The files listed include folders for '2301' (2.8 GB) and '2213' (3.0 GB), and individual zip files for 'Africa', 'Alaska', 'CONUS Part 1', 'CONUS Part 2', 'FAA Sectionals', 'Georeference', 'Global', and another 'Africa' file.

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.

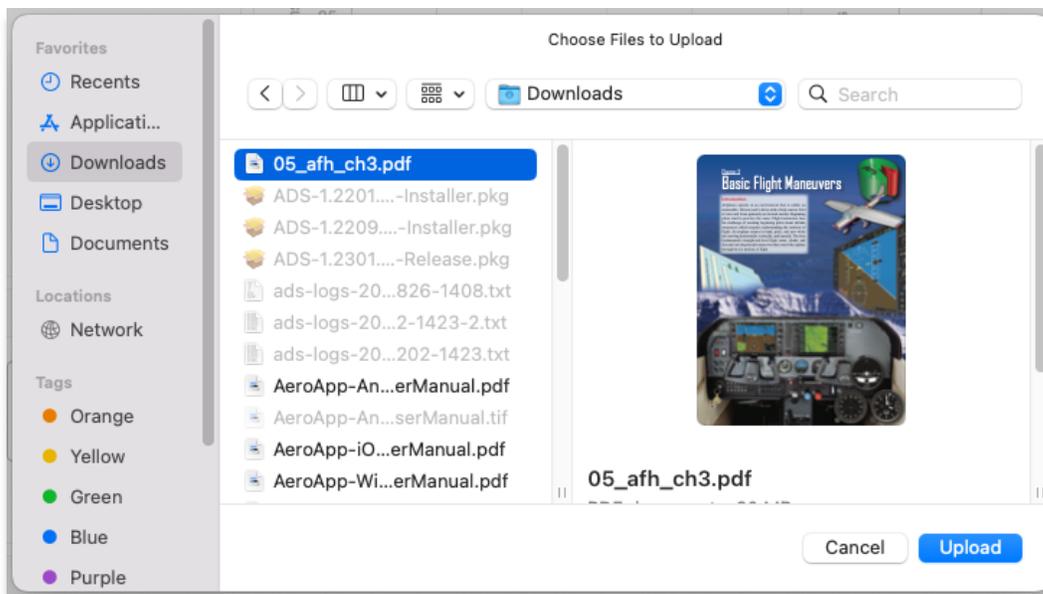


NOTE: Alternatively, users can drag and drop data files into ADS.

8.2 User Files

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

1. Click **Dashboard** on the Main Menu.
2. Navigate to the *Import* section then select **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).
5. Click **Upload**.



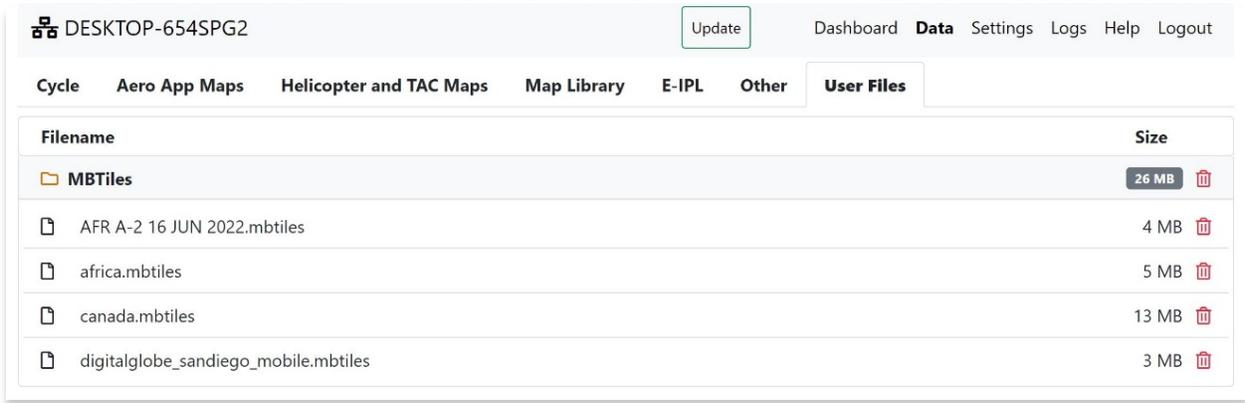
NOTE: A progress bar is displayed at the top of the Dashboard view when downloading data. The progress bar depicts the action it is performing (e.g., downloading, importing, or converting), file name, and its extension.

6. To verify if User Files have been imported into ADS, click **Data** on the Main Menu.



NOTE: In the event of duplicate file names, the most recently added file will be appended with an underscore following the format of <Original File Name>_<New File Type>).

7. Select the **User Files** tab. The imported user files will be listed below.



The screenshot shows a web interface for a user named 'DESKTOP-654SPG2'. At the top, there is an 'Update' button and a navigation menu with 'Dashboard', 'Data', 'Settings', 'Logs', 'Help', and 'Logout'. Below this is a horizontal menu with tabs for 'Cycle', 'Aero App Maps', 'Helicopter and TAC Maps', 'Map Library', 'E-IPL', 'Other', and 'User Files'. The 'User Files' tab is active, displaying a table with the following data:

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 on the document icon next to the PDF.



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

9 Convert to MBTiles

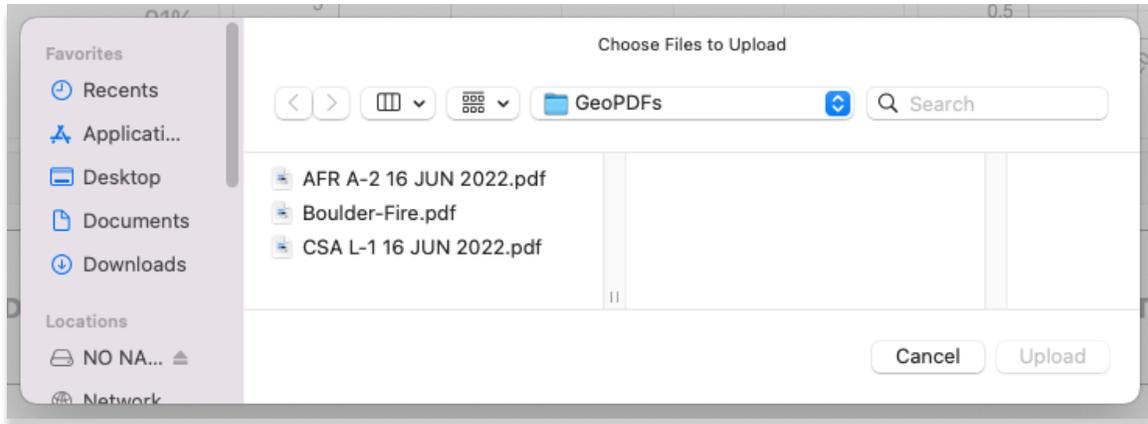
The Convert to MBTiles section enables users to convert files such as GeoPDF, GeoTIFF, or launch the Georeference tool on ADS. Users can use the drag and drop feature or click to import desired files. Only one file can be converted at a time.

9.1 GeoPDF

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

1. Click **Dashboard** on the Main Menu.
2. Navigate to the *Convert to MBTiles* section then select **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.



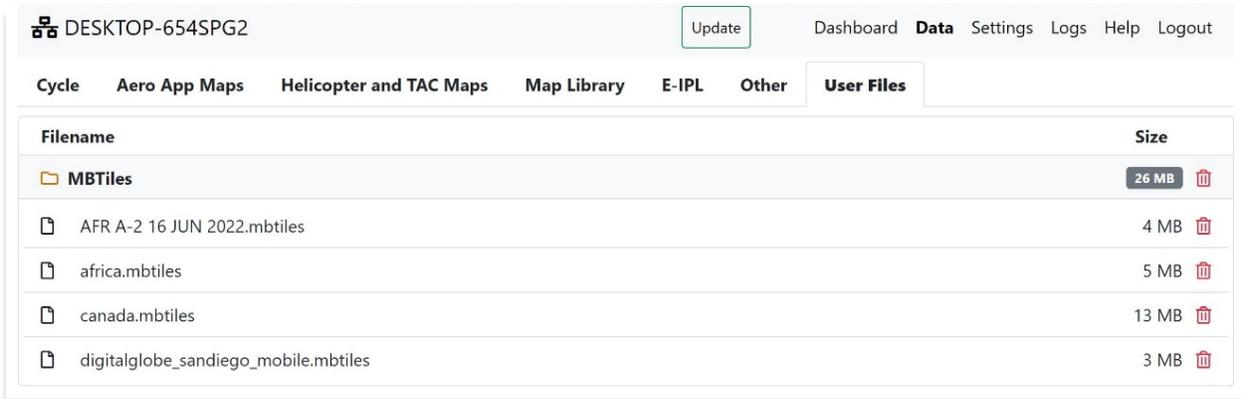
NOTE: A progress bar is displayed at the top of the Dashboard view when downloading data. The progress bar depicts the action it is performing (e.g., downloading, importing, or converting), file name, and its extension.

7. To verify if the imported GeoPDF file has been converted to a MBTiles file format, click **Data** on the Main Menu.



NOTE: In the event of duplicate file names, the most recently added file will be appended with an underscore following the format of <Original File Name>_<New File Type>).

8. Select 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

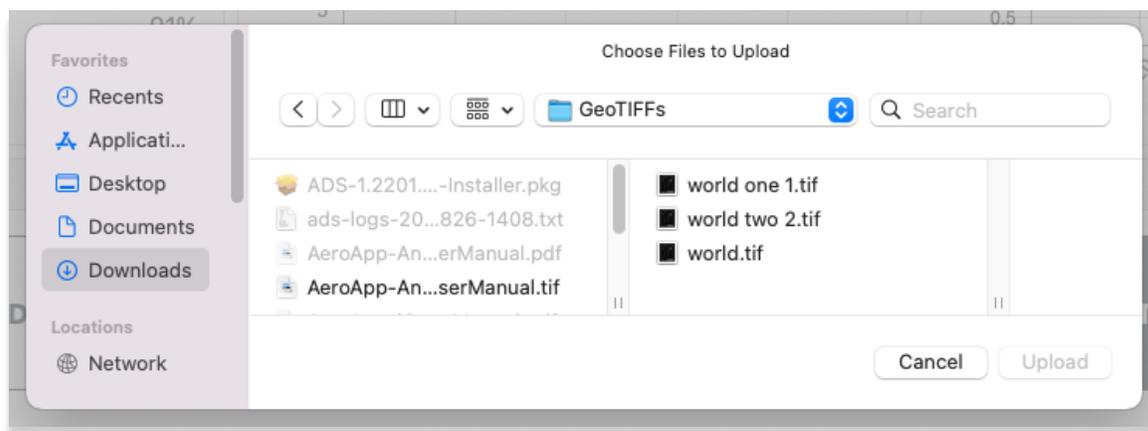


NOTE: Alternatively, users can drag and drop GeoPDF files into ADS.

9.2 GeoTIFF

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

1. Click **Dashboard** on the Main Menu.
2. Navigate to the *Convert to MBTiles* section then select **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**.



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



NOTE: A progress bar is displayed at the top of the Dashboard view when downloading data. The progress bar depicts the action it is performing (e.g., downloading, importing, or converting), file name, and its extension.

- To verify if the imported GeoTIFF file has been converted to a MBTiles file format, click **Data** on the Main Menu.



NOTE: In the event of duplicate file names, the most recently added file will be appended with an underscore following the format of <Original File Name>_<New File Type>).

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

Filename	Size
<div style="display: flex; justify-content: space-between; align-items: center;"> DESKTOP-654SPG2 Update Dashboard Data Settings Logs Help Logout </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> Cycle Aero App Maps Helicopter and TAC Maps Map Library E-IPL Other User Files </div>	
<div style="display: flex; justify-content: space-between; align-items: center;"> MBTiles 26 MB 🗑️ </div>	
<div style="display: flex; justify-content: space-between; align-items: center;"> AFR A-2 16 JUN 2022.mbtiles 4 MB 🗑️ </div>	
<div style="display: flex; justify-content: space-between; align-items: center;"> africa.mbtiles 5 MB 🗑️ </div>	
<div style="display: flex; justify-content: space-between; align-items: center;"> canada.mbtiles 13 MB 🗑️ </div>	
<div style="display: flex; justify-content: space-between; align-items: center;"> digitalglobe_sandiego_mobile.mbtiles 3 MB 🗑️ </div>	

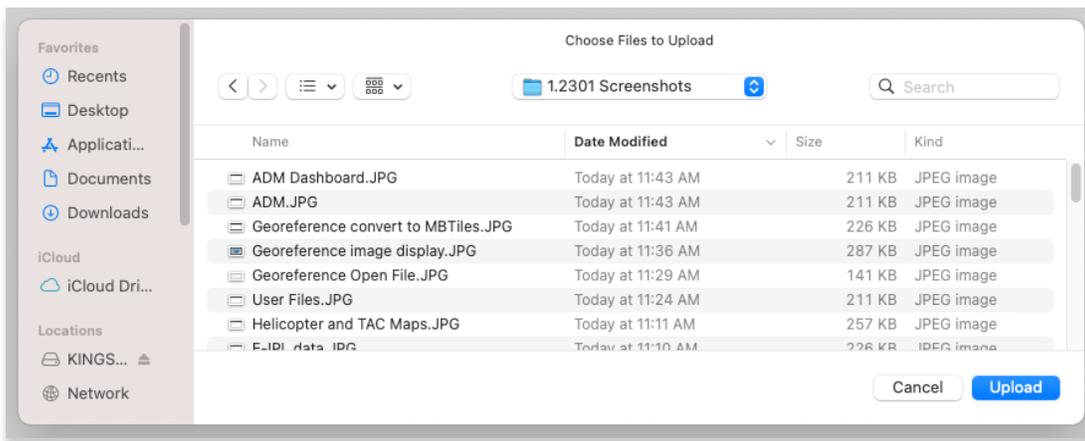


NOTE: Alternatively, users can drag and drop GeoTIFF files into ADS.

9.3 Georeference Image

The Georeference Image tool enables users to georeference various image formats, such as JPG, PDF, and PNG to ensure your images are accurately positioned on a map. The georeferenced image will be converted to MBTile format.

1. Click **Dashboard** on the Main Menu.
2. Navigate to the *Convert to MBTiles* section then select **Georeference Image**.
3. The Georeference Image popup will display. To select an image, click **Open**.
4. Locate source (DVD, USB, or Computer) and select desired image following the formats JPG, PDF, or PNG.
5. Click **Upload**.



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

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

9. 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		Open	Convert
Latitude	Longitude	Latitude	Longitude	Clear	Cancel
40 28.87	-107 13.06	39 17.30	-103 14.82		



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

10. Click **Clear** to clear the designated placement for point A and point B.
11. Click **Cancel** to void the action and return to the Dashboard.
12. Click **Convert** to georeference the image.

13. The Georeference popup will dismiss.



NOTE: A progress bar is displayed at the top of the Dashboard view when downloading data. The progress bar depicts the action it is performing (e.g., downloading, importing, or converting), file name, and its extension

14. To verify if the image has been georeferenced, click **Data** on the Main Menu.



NOTE: In the event of duplicate file names, the most recently added file will be appended with an underscore following the format of <Original File Name>_<New File Type>).

15. Select the **User Files** tab. The georeferenced image(s) 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 serves as the central hub for managing all downloaded, imported, and converted data. Users can navigate through tabs to access individual pages for each data type, which are categorized 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 selected region.
- **Helicopter and TAC Maps** – contains Helicopter and Terminal Area charts.
- **Map Library** – files are stored and placed in folders that can be expanded or collapsed to reveal or hide files, respectively. Users can click on the date column header to browse, and view Created, Effective, or Expiration dates of a file.
- **E-IPL** – contains charts for the selected region.
- **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 PDF files.

10.1 Deleting Files

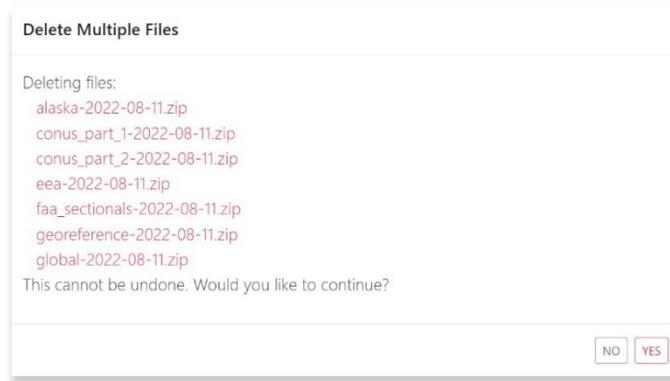
Data files are divided into their respective types. Each data type contains categorized folders that store related files for ease of access. Click on the folder header to show or hide its respective files. Each folder and individual file have a designated delete button. Users have the option to permanently delete files individually or in bulk.

1. Click the **delete** button of the individual file that you wish to delete.
2. Click **YES** on the confirmation popup to permanently delete the selected individual file.



Multiple files can be deleted in bulk. The steps in achieving this are as follows:

3. Click the **delete** button of the folder that you wish to delete.
4. Click **YES** on the confirmation popup to permanently delete multiple files of the selected folder.



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 with the ability to display options to modify and set various settings. The Settings menu includes 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

Office Server Enabled

Next Update Core Data Options

03:30 PM 12 hr Full & Deltas

Cycle Options Aero App Upload

Current & Next Disabled

HTTPS Only Certificate

No Change Remove

Designate this server as containing SECRET material

Auto Update

Aero User Database
GEOAxIS

Username

Password

Partner Select Partner

No partner selected

Save Credentials Auto Purge

Yes Clear Yes

Login Credentials

Username

Password Confirm Password

Internet Connectivity

Host or IP address to Ping

Frequency Check (seconds)

11.1 Server

The Server section includes various server setting options such as 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 field allows users to modify the server's name to a desired name.

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



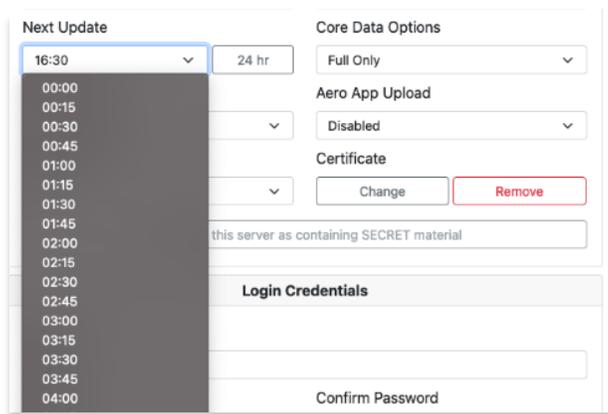
3. To verify if the name has changed, locate the main menu and the new server's name will display on the upper-left side of the screen.



11.1.2 Next Update

The Next Update feature allows automatic download of the latest Aero App data at the scheduled time.

1. Navigate to the **Next Update** feature in 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 select a time from the list of options, which are in 15-minute intervals.



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

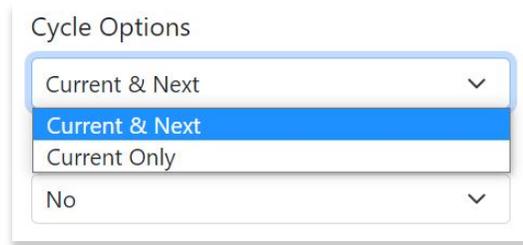


NOTE: The time selected for the next update reflects the local time of the server.

11.1.3 Cycle Options

The Cycle Options feature enables users to select their preferred cycle for downloading. The options include Current & Next or Current Only cycles.

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



NOTE: The Current & Next option is selected by default.

11.1.4 HTTPS Only

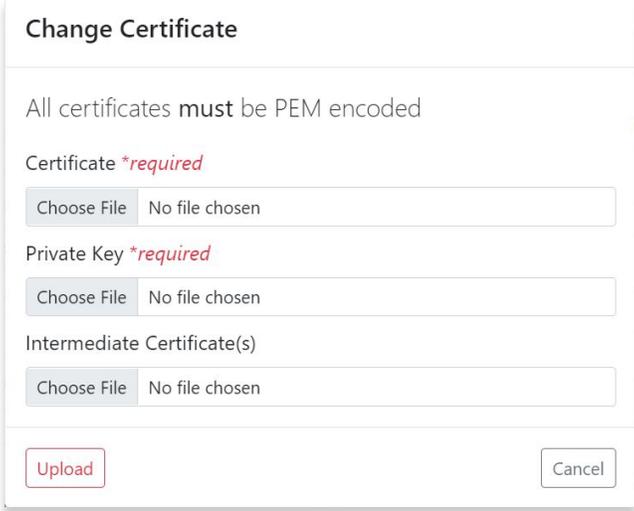
The HTTPS Only feature allows users to store ADS on a secure network. To make ADS secure, users will need to upload a Secure Sockets Layer (SSL) certificate, which a Systems Admin or IT Department can provide. Otherwise, a user would have to obtain a certificate from a Certificate Authority (CA). Below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

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:

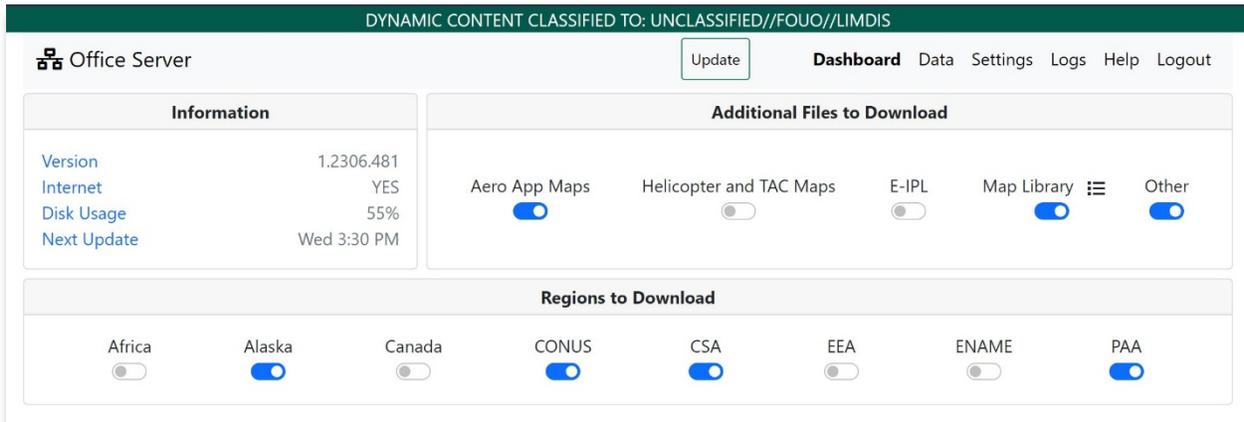
Internet Connectivity

Host or IP address to Ping:

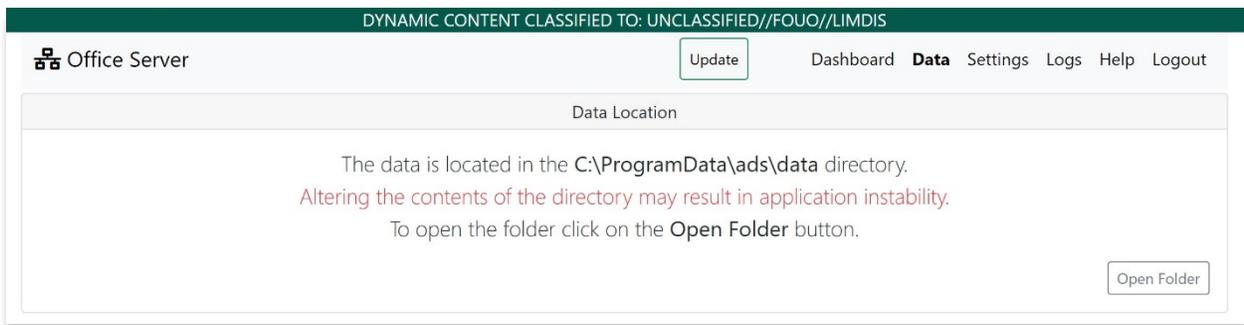
Frequency Check (seconds):

4. Navigate to the **Share with Devices** feature in the **Server** section.
5. Click the drop-down to expand options then 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**.

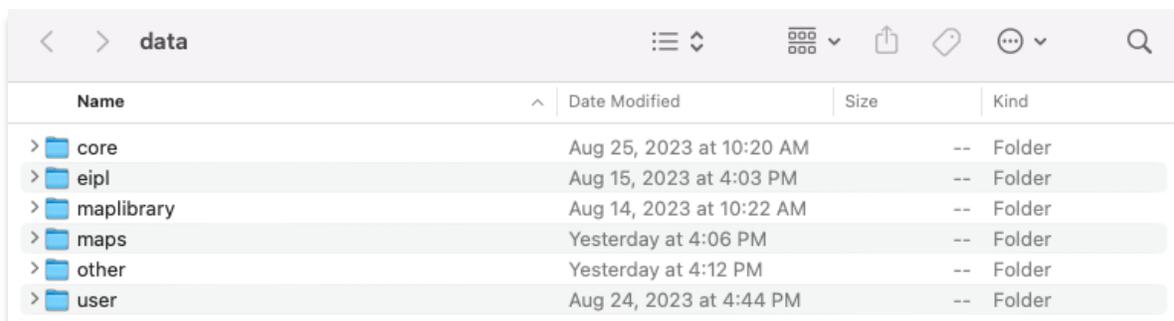
- To include additional files such as **Aero App Maps, Helicopter and TAC Maps, E-IPL, Map Library,** and **Other** data such as **Giant Reports, Earth Base Map, Terrain Coloring, and Terrain Analysis** select the desired options under **Additional Files to Download**.



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



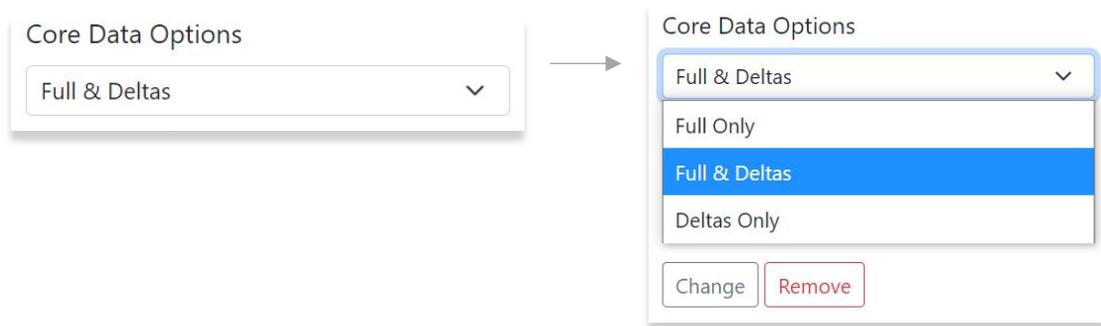
- To begin the sideload, navigate to the folder where your files are located. Once located, select the files you want to transfer to your device.



11.1.6 Core Data Options

The Core Data Options feature allows users to select their preferred core data for download. The options include Full Only, Full & Deltas, or Deltas Only.

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



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

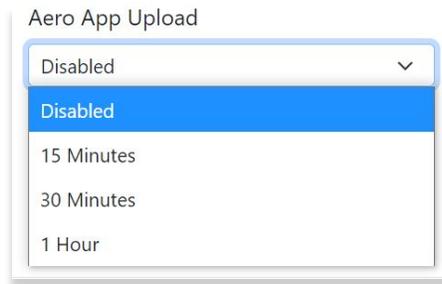


NOTE: Deltas only consist of Global, Georeference, FAA Sectionals, and all Core Data Delta files.

11.1.7 Aero App Upload

The Aero App Upload feature enables users to make their server visible to others who plan to upload to the server.

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



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

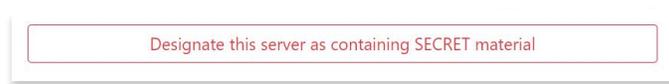


NOTE: Preloading data on ADS is not required. However, to access ADS from Aero App, users must have global loaded in Aero App.

11.1.8 Set ADS to SECRET

Aero Data Server enables users to classify ADS as 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 the **Aero App Upload** feature in 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



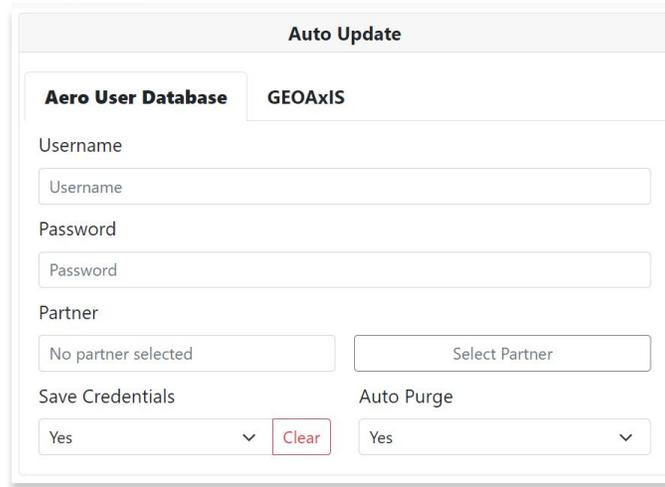
NOTE: UNCLASSIFIED is the default setting.

11.2 Auto Update

The Auto Update section comprises the Aero User Database (AUD) and GEOAxis login options.

11.2.1 Aero User Database

1. Click **Settings** on the Main Menu.
2. Navigate to the *Auto Update* section then click the **Aero User Database** tab, if necessary.
3. Log in with Aero User Database credentials.



The screenshot shows a window titled "Auto Update" with two tabs: "Aero User Database" (selected) and "GEOAxis". The "Aero User Database" tab contains the following fields and controls:

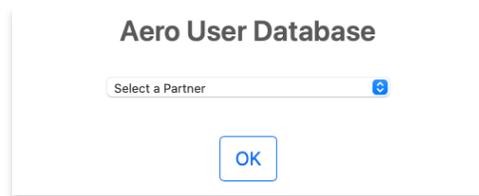
- Username:** A text input field with the placeholder text "Username".
- Password:** A text input field with the placeholder text "Password".
- Partner:** A dropdown menu showing "No partner selected" and a "Select Partner" button.
- Save Credentials:** A dropdown menu set to "Yes" with a "Clear" button next to it.
- Auto Purge:** A dropdown menu set to "Yes".



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

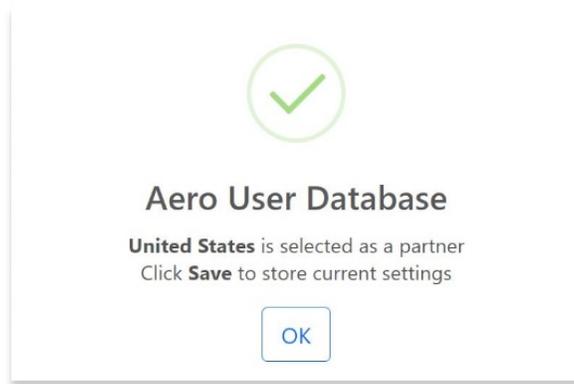
11.2.1.1 Partner

1. Navigate to the **Partner** option in 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" with a text input field containing "Select a Partner" and a blue search icon. Below the input field is an "OK" button.

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

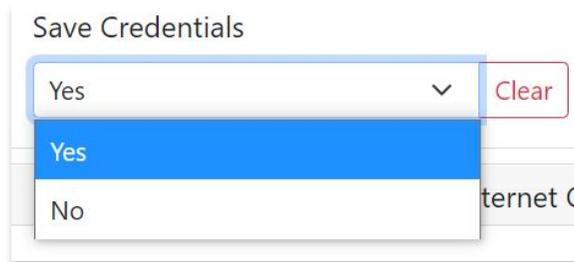


- Click **OK** to close the popup.
- Click **Save** to apply changes.

11.2.1.2 Save Credentials

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

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

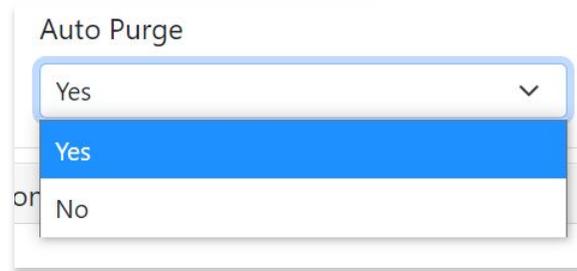


NOTE: Yes, is the default option for Save Credentials.

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.

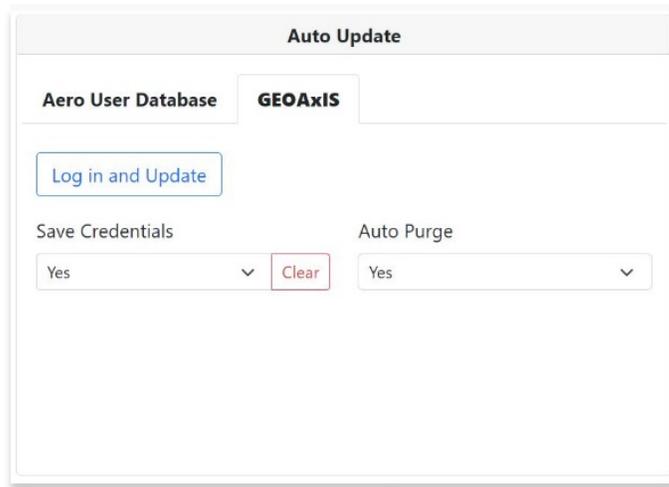
1. Navigate to the **Auto Purge** option in the *Auto Update* section.
2. Click the drop-down and select from **Yes** or **No**.
3. Click **Save** to apply changes.



NOTE: Yes, is the default option for Auto Purge.

11.2.2 GEOAxis

1. Click **Settings** on the Main Menu.
2. Navigate to the *Auto Update* section then click **Log in and Update**. 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" being the active tab. Below the tabs is a blue button labeled "Log in and Update". Underneath, there are two sections: "Save Credentials" with a dropdown menu set to "Yes" and a red "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.

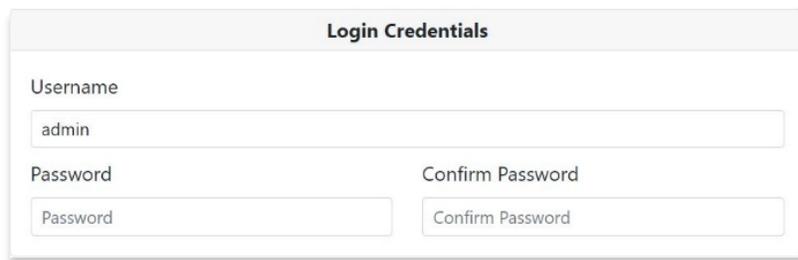


NOTE: GEOAxis OAuth is not supported by Safari. It is recommended to use Firefox instead, which supports GEOAxis OAuth for users running ADS on a Mac computer.

11.3 Login Credentials

The Login Credentials section enables users to change the default “admin” credentials to their preferred credentials.

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

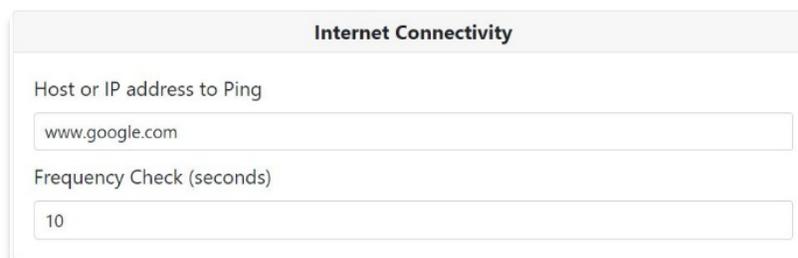


The screenshot shows a settings window titled "Login Credentials". It contains three input fields: "Username" with the value "admin", "Password" with the value "Password", and "Confirm Password" with the value "Confirm Password".

11.4 Internet Connectivity

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

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



The screenshot shows a settings window 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 contains detailed information about your server activities. The option to download logs is available.

1. Click **Logs** on the Main Menu.
2. Your ADS log history will display. Click **Download** to view logs on a text document.

The screenshot shows the 'Office Server' interface with a navigation menu including 'Update', 'Dashboard', 'Data', 'Settings', 'Logs', 'Help', and 'Logout'. The 'Logs' section is active, displaying a list of server activities. The logs include various HTTP requests and responses, such as GET requests to '/settings', '/logs', '/auth/login', and '/health', and POST requests to '/auth/login' and '/settings/clear'. There are also error messages and file verification logs. A 'Download' button is located at the bottom right of the log list.

Download
button

3. Your logs are downloaded and displayed on a text file.

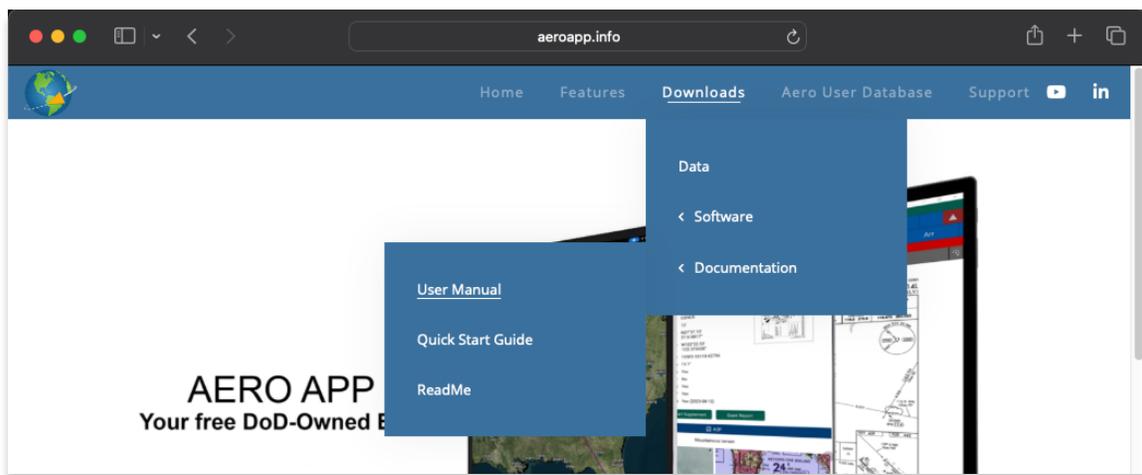
```

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
  
```

13 Help

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

1. Click **Help** on the Main Menu.
2. Click the **aeroapp.info** link and you will be redirected to the Aero App homepage.
3. Hover over Downloads. The option placement will vary depending on display size.
 - On larger 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 Manual**.
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. Click **Logout** on the Main Menu.
2. Click **Logout** and you will be logged out of Aero Data Server.

15 Map Tile Server

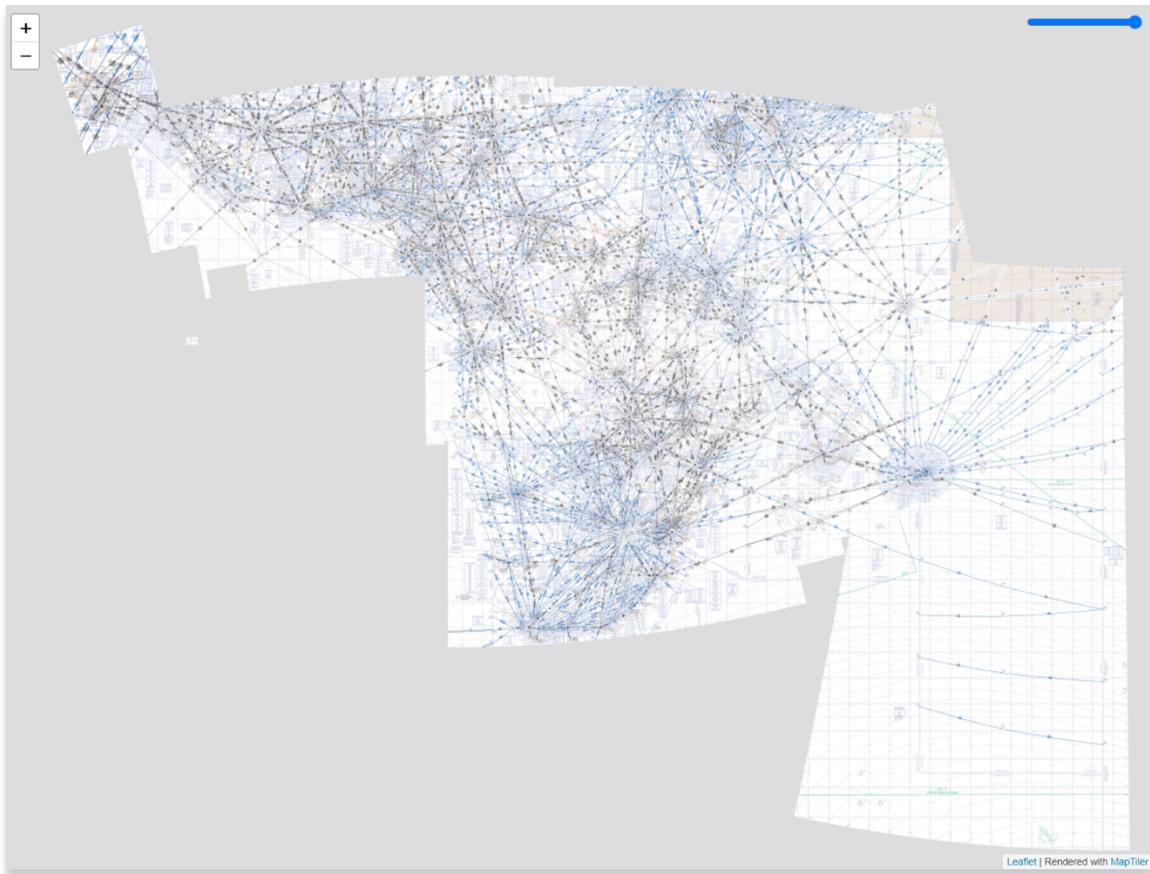
Aero Data Server has a built-in map tile server. Users can request tiles from maps by passing in an IP address, port number, and an *ID*. To obtain a list of map *IDs* use the following URL format:

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

Ensure you 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.

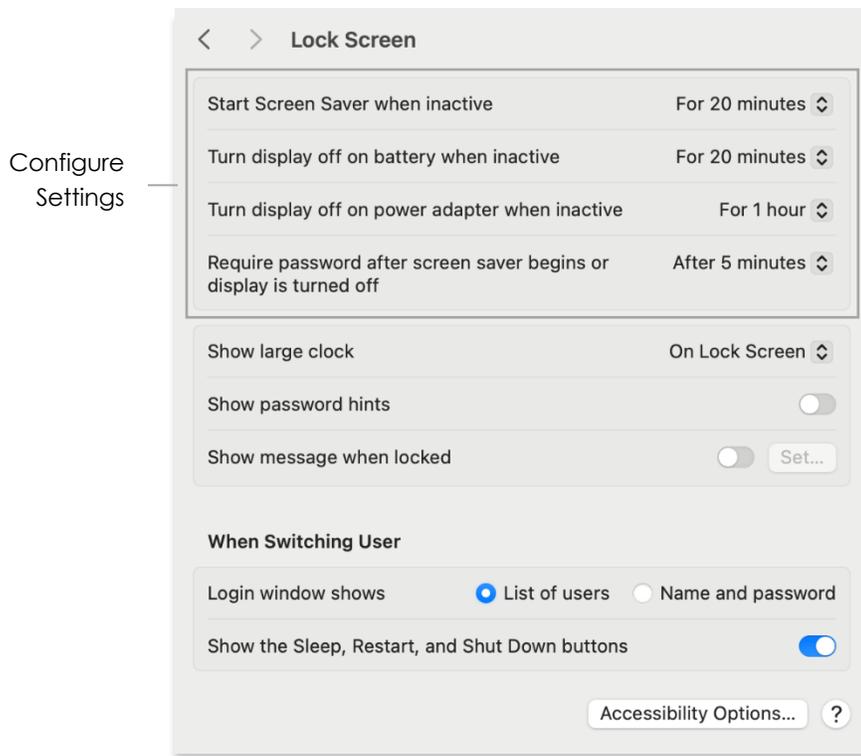


NOTE: Some map tiles are very small and often cannot be spotted at first glance; Therefore, users must zoom into the screen to view the image.

16 Appendix A | Prevent the Computer from Sleeping

To ensure optimal performance during the loading process, we advise adjusting your computer settings to prevent it from entering sleep mode. The following instructions apply to computers running macOS.

1. Go to **System Settings** on your computer.
2. Select **Lock Screen** from the sidebar.
3. The Lock Screen page will appear. Configure the settings to choose how long you want your device to remain idle before it goes into sleep mode.



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 effective, and expiration FLIPs 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	Megabits per second
MBTiles	File format for storing map tiles in a single file

UNCLASSIFIED

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