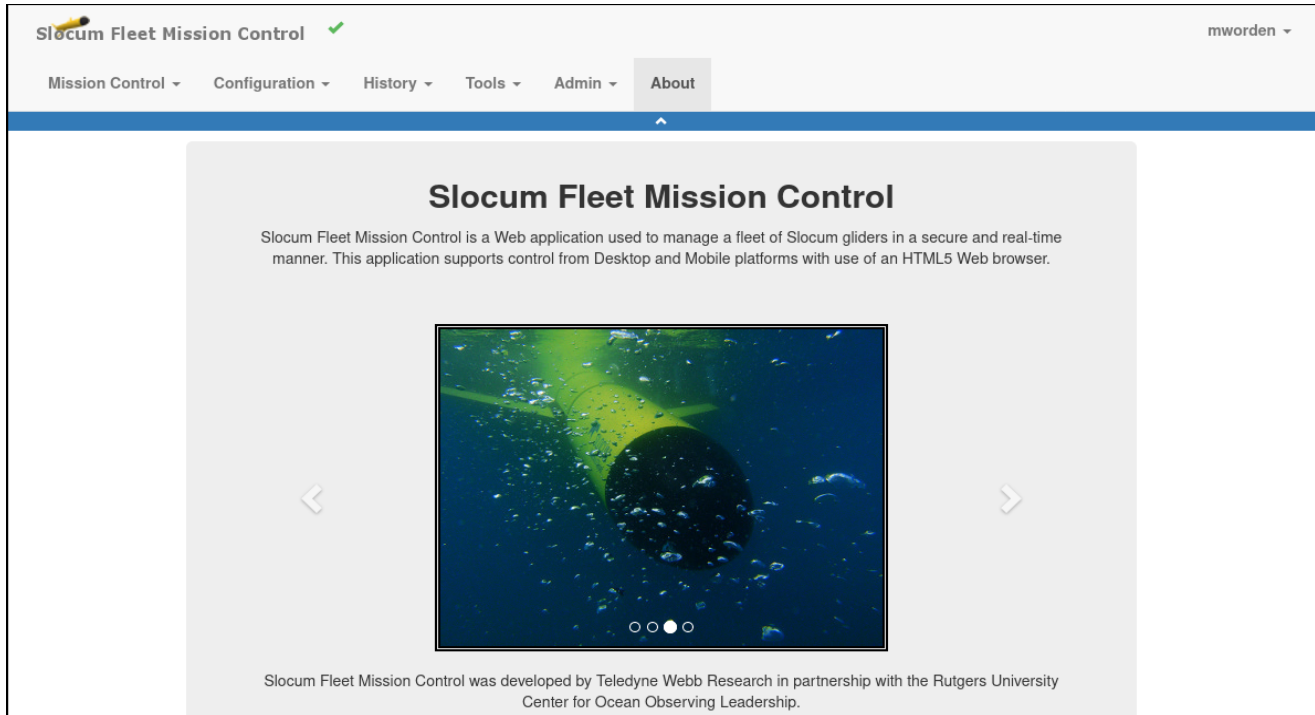


# Slocum Fleet Mission Control

## User Manual

P/N M313834-NFC, Rev. A  
Software Version 8.6



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**Refer to the applicable parts of this user manual before connecting to and using the SFMC web application.**

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## Preface

Teledyne Webb Research Slocum Fleet Mission Control (SFMC) is a collection of software services that enables tracking of Teledyne Webb Research Slocum gliders, displaying their reported data, and creating mission plans for them using a standard HTML5-supported Web browser.

## Conventions Used in This Publication

### Safety Symbols

Where applicable, safety information is presented as follows:



#### Note

Identifies information of particular interest that the reader must be aware of, a referral to another part of this manual, or a referral to another manual.



#### CAUTION

Identifies a potential hazard that could result in damage to equipment or loss of data.



#### WARNING

Identifies a potential hazard that could result in injury or death to the operator or to other personnel.

Other symbols include:



A referral to: another part of this manual, an external reference, or general information applicable to Slocum Fleet Mission Control.

### Menu Options and Paths

Menu options are in bold type. Rather than writing out "From the **Admin** menu, select **User Administration**, then select **Users**," angle brackets are used to show the next menu level down or menu option:

Select **Admin > User Administration > Users**.

## File Types and Extensions

File names are written as `file.typ`, where **file** is the descriptor and **typ** is the extension.

- When the text mentions a specific file name, it is written as `sfmc.xml` or something similar.
- When the text mentions file types in general, it is written using the extension in all caps without the period before it; for example, INI files or XML files.

## Typographical Conventions

| Font                          | Description   |
|-------------------------------|---|
| <b>Bold</b>                   | The name of a folder, node, path, menu option, or icon.   |
| <i>Italic</i>                 | The name of a window, page, tab, dialog box, panel, area, field, button, or drop-down list within the software interface. |
| <b>[blue square brackets]</b> | The label of a physical key on the computer's keyboard or device's keypad.  |
| Monospace                     | A system value or text displayed by the screen or computer.   |
| <b>Monospace Bold</b>         | A user value or text the user enters.   |

## Customer Service

We welcome your comments and suggestions for improving our products and documentation as well as developing better ways of serving you. Should you require service or support for SFMC, contact Teledyne Webb Research customer service using any of the following means:

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 Email support: [glidersupport@teledyne.com](mailto:glidersupport@teledyne.com)

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To request an RMA for repair of any Webb Research products:

1. Please follow the link below.  
[RMA Request Form Link](#)
2. Complete all information in the form and select SUBMIT.
3. You will receive an automated confirmation that your form has been received.
4. We will respond within 24–48 hours to provide your RMA number and shipping instructions.

Please do not ship any goods until you have received the RMA number.

5. Please mark the shipment clearly with the provided RMA number.

# 1 Introduction

Teledyne Webb Research Slocum Fleet Mission Control (SFMC) is a Web-based software suite that is used to communicate with and manage deployments for Teledyne Webb Research Slocum gliders deployed worldwide.

SFMC communicates with the gliders over an Iridium satellite telephone link. For local, short range deployments, SFMC can communicate using a FreeWave radio frequency (RF) link.

SFMC provides a Web user interface that enables users who are logged in to perform tasks in accordance with the user's assigned role, where a role defines specific user privileges. Depending on a user's assigned role, the tasks that can be performed with SFMC include the following:

- Create and view user accounts and groups and assign roles.
- Monitor system status.
- Register gliders.
- Create and view projects.
- View reports.
- View glider reported data as plots on a graph.
- View and manage active glider deployments.
- View and manage archived glider deployments.
- Create mission plans for the gliders.
- Exchange files with gliders and assign and run scripts.
- Configure surface sensor threshold settings for alerts.
- Create and view log notes.
- Create and view map settings.
- Configure glider event subscriptions for specific events.
- View glider events.



## Note

Only users who have completed a Slocum Glider training course should use SFMC to communicate with gliders.

## 2 SFMC Basics

This chapter describes:

- The Slocum Fleet Mission Control screen
- The screen's menus
- User accounts and their associated groups, roles, and projects
- Active, recovered, and archived glider deployments

In addition, instructions are provided on how to:

- View the SFMC version number
- Update the user profile
- Change the password of the currently logged in user account
- View the system status

At the end of this chapter, some common questions and their answers regarding the use of SFMC are presented.

### Slocum Fleet Mission Control Screen Layout

The Slocum Fleet Mission Control screen, shown in Figure 2-1 below, is composed of the Menu bar, the *[User Account]* menu, and the *Page* area.

Figure 2-1 shows the Dashboard, as it appears after you have opened the SFMC site and logged in:

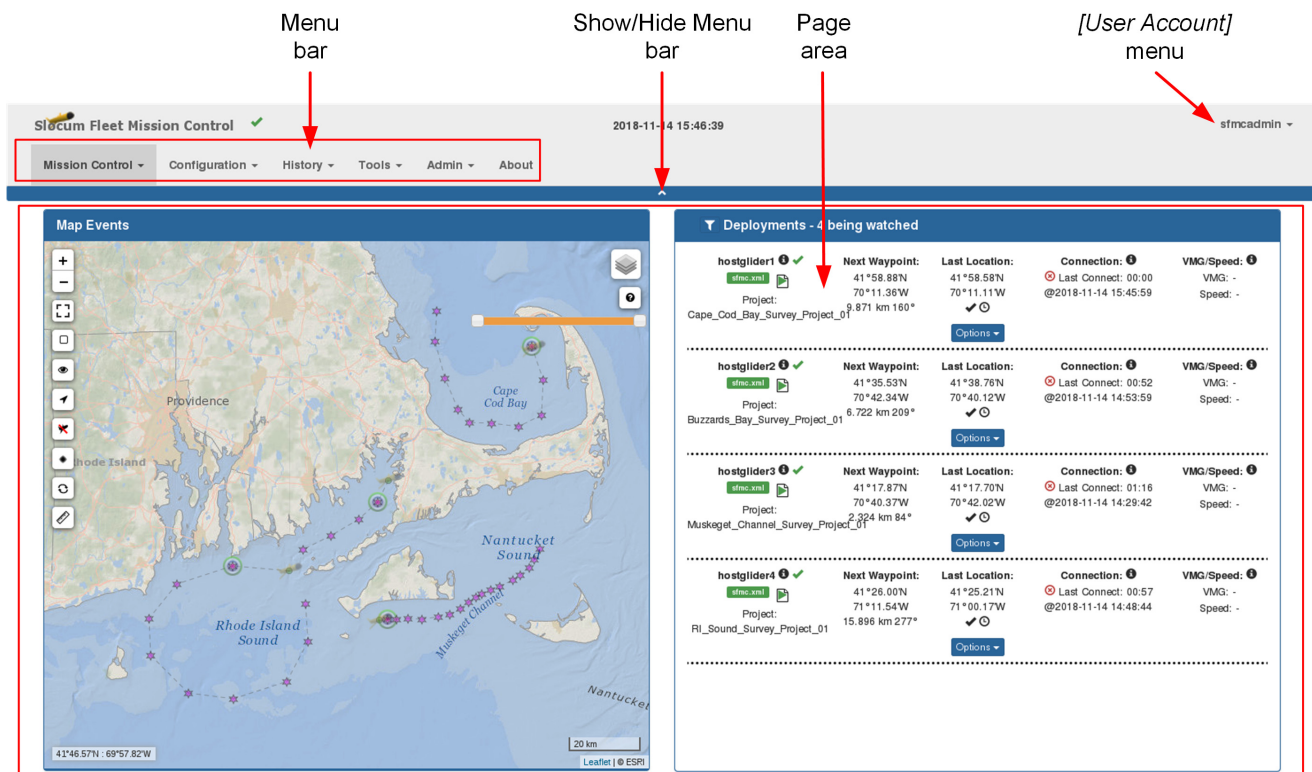


Figure 2-1 Slocum Fleet Mission Control screen: Dashboard.

To toggle the Menu bar between being hidden or shown, select the *Show/Hide Menu bar* button just above the *Page area* (see Figure 2-1 on page 2-2). Hiding the Menu bar exposes more of the *Page area* on the screen.

Logging in to SFMC makes available all of the items on the Menu bar that allowed by the user account's privilege level. For instructions on how to start and log in to SFMC, refer to Chapter 3, "Getting Started."

## Menu Bar

The Menu bar is composed of pull-down menus containing menu options to access all the features of SFMC. The actual number of menus shown on the Menu bar depends on the user account that is logged in. For information on user accounts and their associated groups, projects, and roles, refer to "User Accounts" on page 2-6.

The Menu bar also displays the Slocum Fleet Mission Control application name and the Coordinated Universal Time (UTC) date and time. An icon next to the name indicates the status of the SFMC application services, which are the:

- Dock Server
- Data Server
- ActiveMQ

It also displays an icon that indicates whether enough disk space is available. When the icon is a:

- Green check mark — All the services are running and there is enough disk space.
- Red "X" icon — One or more of the services are not running or there is not enough disk space, or both.
- Brown triangle icon — An Administrator message has been posted. Selecting the icon displays the message.

To open a menu from the Menu bar, select its name. To choose an item from an open menu, select the item.

The SFMC menus and their items are the following:

**Home** — Use this menu to log in to SFMC. The system opens it automatically when you launch SFMC.

**Mission Control** — Use this menu to select four menu options:

- *Dashboard*

This menu item displays a list of watched active glider deployments and a map that enables monitoring of the current and recent progress of the gliders.

From the Dashboard, details about each deployment, such as the date and time of the deployment, the distance traveled by the glider, the connect and disconnect times of the glider, and other information can be easily viewed. In addition, the Dashboard includes buttons that enable access to many of the features of SFMC.

- *Active Deployments*

This menu item displays a list of active glider deployments, gliders that are active and currently deployed.

- *Recovered Deployments*

This menu item displays a list of recovered glider deployments, gliders that have been recovered and are no longer active.

- *Glider Terminal Access*

This menu item opens Glider Terminal which enables the sending of commands to gliders, the uploading of files to and the downloading of files from gliders, and the selecting and running of scripts.

**Configuration** — Use this menu to select eight menu items:

- *Gliders Menu*

This menu item enables the viewing, registering and transferring of gliders. A glider is registered by naming it and assigning it to a group. When transferring a glider, it is transferred from one group to another.

- *Projects Menu*

This menu item enables the viewing, the creating, the editing, and the deleting of projects. A project is created by naming it and associating it with a group. Optionally, a project description can also be entered.

- *Sensor Thresholds* Menu  
This menu item enables the viewing and the setting of the surface sensor thresholds.
- *Mission Planning* Menu  
This menu item enables the creating, the viewing, the editing, the cloning, and the deleting of mission plans, each of which is composed of a waypoint plan, a surface plan, a yo plan, a sampling plan, a mission sensor plan, an abort plan, and a data transmission plan.
- *Scripts*  
This menu item enables the viewing and the assigning of factory, default and user generated scripts.
- *Cache Files*  
This menu item enables the viewing and transferring of cache files.
- *Sensor Types*  
This menu item enables importing of a masterdata file containing all of the current sensor types.
- *System Status*  
This menu item enables the viewing of system status.

**History** — Use this menu to view and delete archived glider deployments.

**Tools** — Use this menu to access the Sensor Data File Tool.

**Admin** — Use this menu to select four menu items:

- *User Administration* Menu  
This menu item enables the viewing, the creating, the modifying, and the deleting of user accounts as well as the resetting of passwords.
- *Group Administration* Menu  
This menu item enables the viewing, creating and deleting of groups.
- *Reports*  
This menu item enables the viewing of the association of users, gliders and groups, logged in users, and glider event subscriptions.
- *Admin Message Management*  
This menu item enables the creation of public messages.



## [User Account] Menu

The [User Account] menu, the displayed name of the logged in user account, enables the performance of user-specific tasks in SFMC, including:

- Logging in and out of SFMC
- Updating the user profile
- Changing the user password
- Configuring the map and audio settings
- Reading the glider event subscriptions
- Managing the sensor plot types
- Generating a KMZ access token that is associated with your user account
- Configuring API Access

## Page Area & Page Scrollers

The Page area displays the various pages provided by SFMC.

Some pages also include a **page scroller** at its bottom right corner, as shown in Figure 2-2:



Figure 2-2 Example of a page scroller.

## Glider Deployments

There are three types of glider deployments:

- **Active**  
An active glider deployment consists of the current deployment details for a glider. An active glider deployment record is created when a glider first connects to the SFMC Dock Server.
- **Recovered**  
A recovered glider deployment is an active deployment that has been recovered. It is no longer active and will not be displayed on the Dashboard.



### Note

Only one active or recovered deployment can exist for a glider.

- **Archived**

An archived glider deployment is a set of historical deployment details for a glider and is created when a user archives an active or recovered deployment. Archiving an active or recovered deployment captures the data associated with the glider's deployment into a consolidated historical record.

There can be many archived deployments for a glider.

## User Accounts

SFMC uses both user accounts and a login feature to control access to glider deployments and data. Any number of user accounts can be created. When you create a user account, it must be assigned either as an **administrator** account or as a **user** account with one or more group/role associations. For every group membership, there is one and only one assigned role.

An Administrator account enables access to all SFMC functions, including creating, editing, and deleting user accounts and groups. When first installed, SFMC includes one user account, an Administrator account named **sfmadmin**. The overall organizational structure of a user account is illustrated in Figure 2-3:

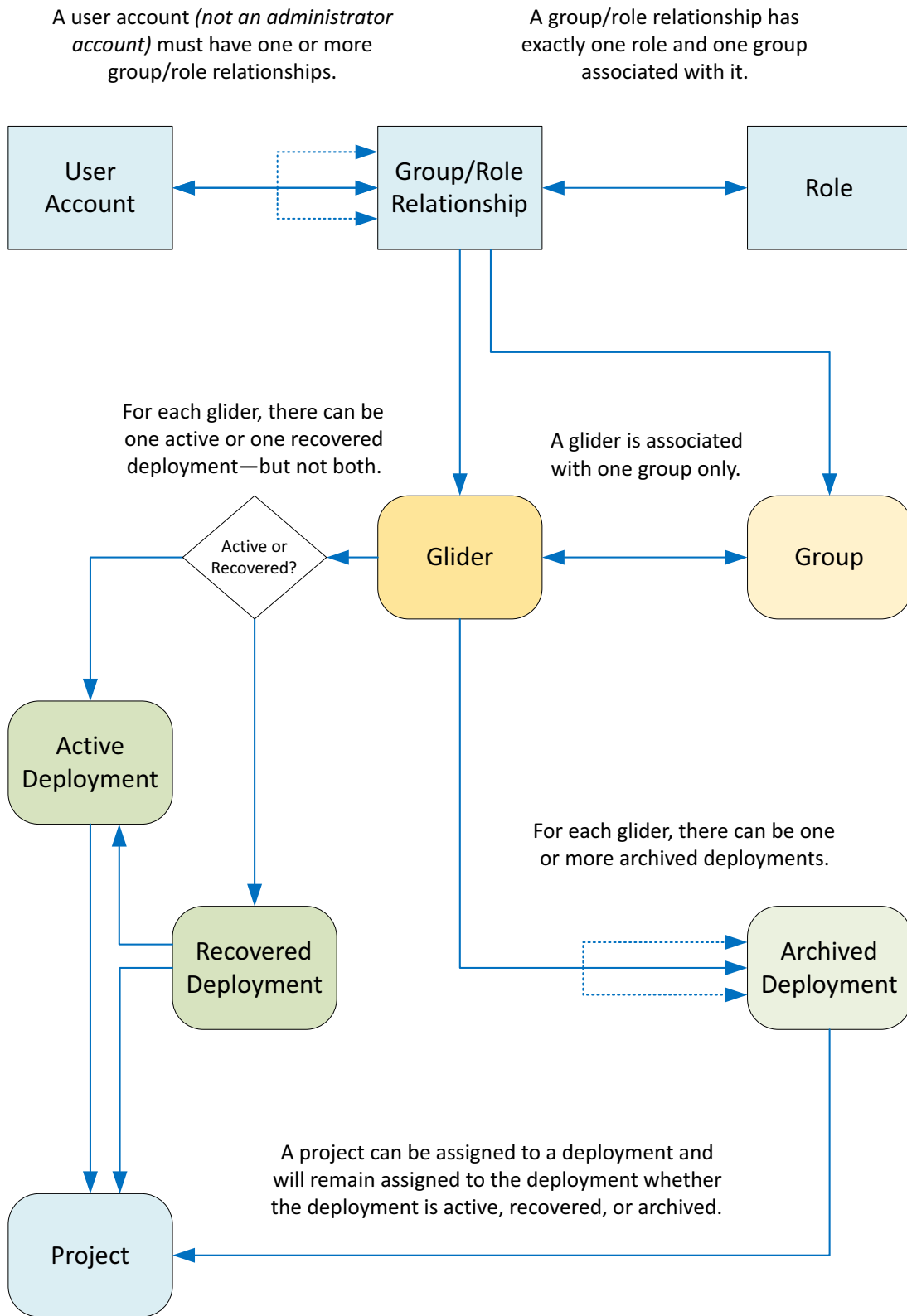


Figure 2-3 User Account overall organizational structure.

An Administrator account can be used to do the following:

- View, create, edit, and delete user accounts, assign their roles and group associations and reset their passwords.
- View, create, and delete groups.
- Specify what groups a user account with the Group Level Administrator role is allowed to administrate.
- View, create, edit, and delete projects and assign any one or more active glider deployments to them.
- View, delete, and archive all active and recovered glider deployments, and view and delete archived glider deployments.
- View, create, clone, and delete mission plans.
- View, create, and assign scripts.
- View registered gliders as well as register, backup, and transfer gliders.
- View and transfer cache files.
- View and configure surface sensor threshold settings for all gliders.
- View, create, edit, and delete map settings.
- View administration reports and create public messages.
- View system status.

## Roles

There are three role types:

- Group Level Administrator
- Glider Pilot
- Viewer

A Group Level Administrator role is associated with the greatest number of privileges; a Viewer role is associated with the least number of privileges.

- **Group Level Administrator**

This role is associated with privileges below that of an Administrator account but above that of the Glider Pilot role.

Except for the management of groups, the transfer of gliders, the viewing of administration reports, and the creation of public messages, a user account with a Group Level Administrator role carries the same privileges as that of an Administrator account but only for the allowed groups.

A user account with a Group Level Administrator role can be used to do the following for the allowed groups:

- View, create, edit, and delete user accounts, assign their roles and group associations and reset their passwords.

- View, create, edit, and delete projects and assign any one or more active glider deployments to them.
- View, delete, and archive all active and recovered glider deployments, and view and delete archived glider deployments.
- View, create, clone, and delete mission plans.
- View, create, and assign scripts.
- View registered gliders.
- Register and back up gliders.
- View and transfer cache files.
- View and Configure surface sensor threshold settings for all gliders.
- View, create, edit, and delete map settings.
- View system status.

- **Glider Pilot**

This role is associated with privileges below that of the Group Level Administrator role but above that of the Viewer role and only for the allowed groups.

A user account with a Glider Pilot role can be used to do the following for the allowed groups:

- View projects.
- View registered gliders.
- View and transfer cache files.
- View active, recovered, and archived glider deployments.
- View, create, clone, and delete mission plans.
- View, create, and assign scripts.
- View surface sensor threshold settings.
- View, create, edit, and delete map settings.
- View system status.

- **Viewer**

This role is associated with privileges below that of the Glider Pilot role and **only** for the allowed groups.

A user account with a Viewer role can be used to do the following for the allowed groups:

- View projects.
- View registered gliders.
- View cache files.
- View active, recovered, and archived glider deployments.
- View mission plans.
- View scripts.
- View surface sensor threshold settings.

- View, create, edit, and delete map settings.
- View system status.

## Groups

A group provides access to all deployments and gliders that are associated with the group.

With a user account and a membership in one or more groups, a user can do anything allowed within the privilege level of the assigned role for the user account but for **only** those groups for which the user is a member.

When first installed, SFMC includes one group named **default**. This group cannot be deleted.

## Projects

SFMC enables any one or more active glider deployments to be associated with an event or geographical location by creating a project for the deployments.

A project is created by naming it and assigning it to the group that is associated with the deployments.

For example, an event could be a hurricane. Gliders could be deployed to collect data from the hurricane, and these deployments could be assigned to a project named "hurricane."

Although only active deployments can be assigned to a project, once an active deployment is made an archived deployment, the project remains associated with it.

## Viewing the SFMC Version Number

To view the SFMC version number and other information about SFMC, select the **About** menu option.

The system displays the *About* page, as shown in Figure 2-4:

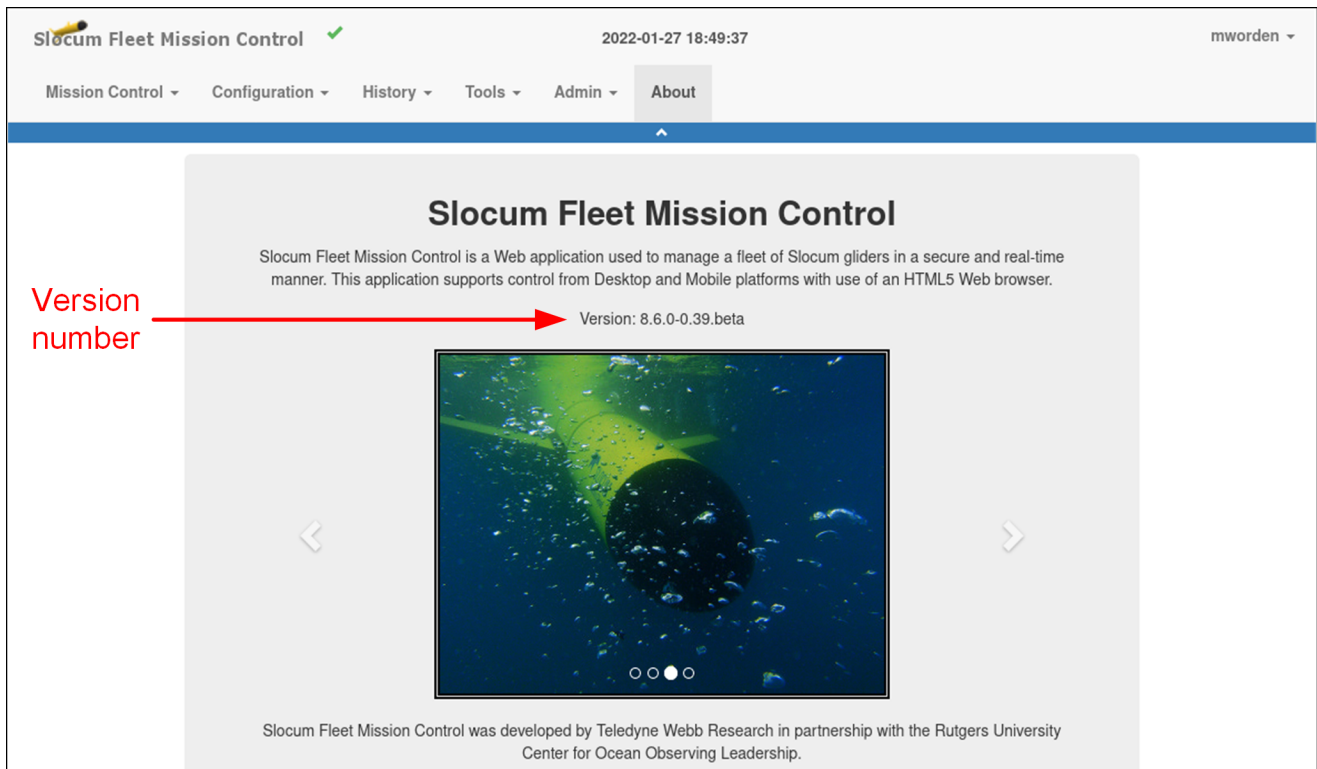


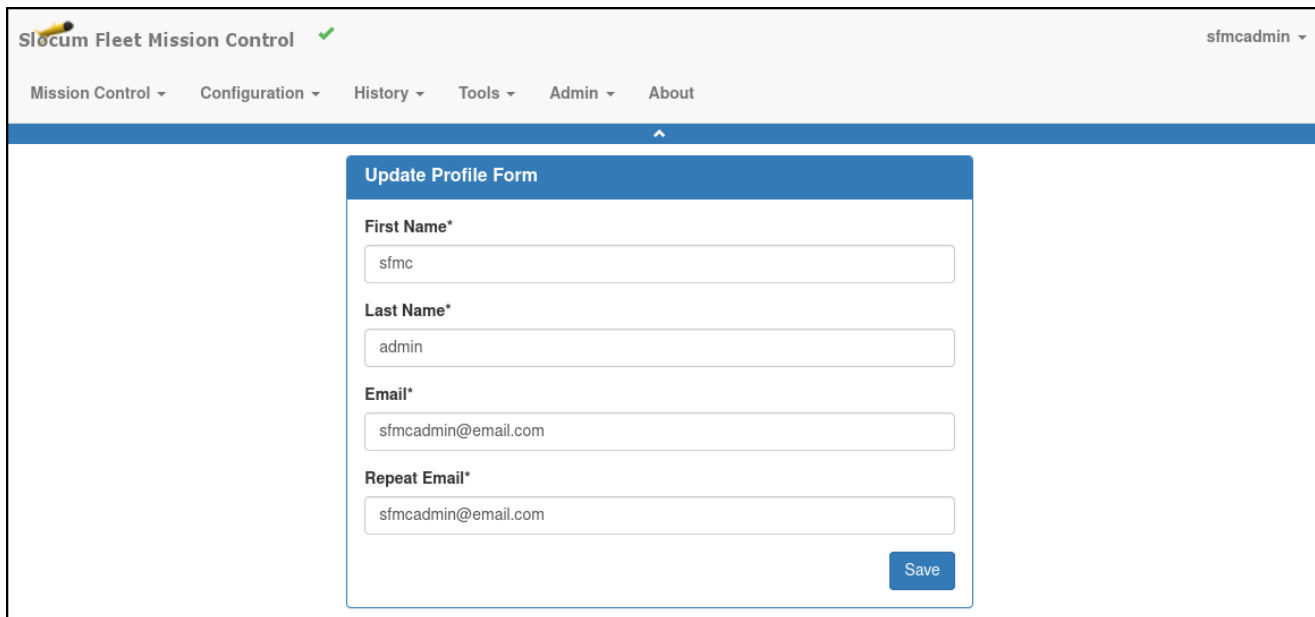
Figure 2-4 The About page and SFMC version number.

## Updating the User Profile

The profile of the currently logged in user can be updated at any time. The profile is composed of the first and last names and the e-mail address of the user.

To update the user profile:

1. From the top right corner of the page, select **[User Account] > Update Profile**. The system displays the *Update Profile Form* panel, as shown in Figure 2-5:



The screenshot shows the 'Update Profile Form' panel in the Sløcum Fleet Mission Control interface. The panel has a blue header with the title 'Update Profile Form'. Below the header, there are four text input fields, each with a label and an asterisk indicating it is required: 'First Name\*' (containing 'sfmc'), 'Last Name\*' (containing 'admin'), 'Email\*' (containing 'sfmcadmin@email.com'), and 'Repeat Email\*' (containing 'sfmcadmin@email.com'). A blue 'Save' button is positioned at the bottom right of the form. The background of the interface shows a navigation menu with items like 'Mission Control', 'Configuration', 'History', 'Tools', 'Admin', and 'About', and a user profile indicator 'sfmcadmin' in the top right corner.

Figure 2-5 Update Profile Form panel.

2. If required, edit the first and last names in the *First Name* and *Last Name* text boxes.
3. If required, edit the e-mail address in the *Email* and *Repeat Email* text boxes.
4. Select **Save**.

The user profile is updated.

## Changing the User Password

The password of the currently logged in user can be changed at any time.

To change the user password:

1. From the *[User Account]* menu, select **Change Password**.

The system displays the *Change Password Form* panel, as shown in Figure 2-6:



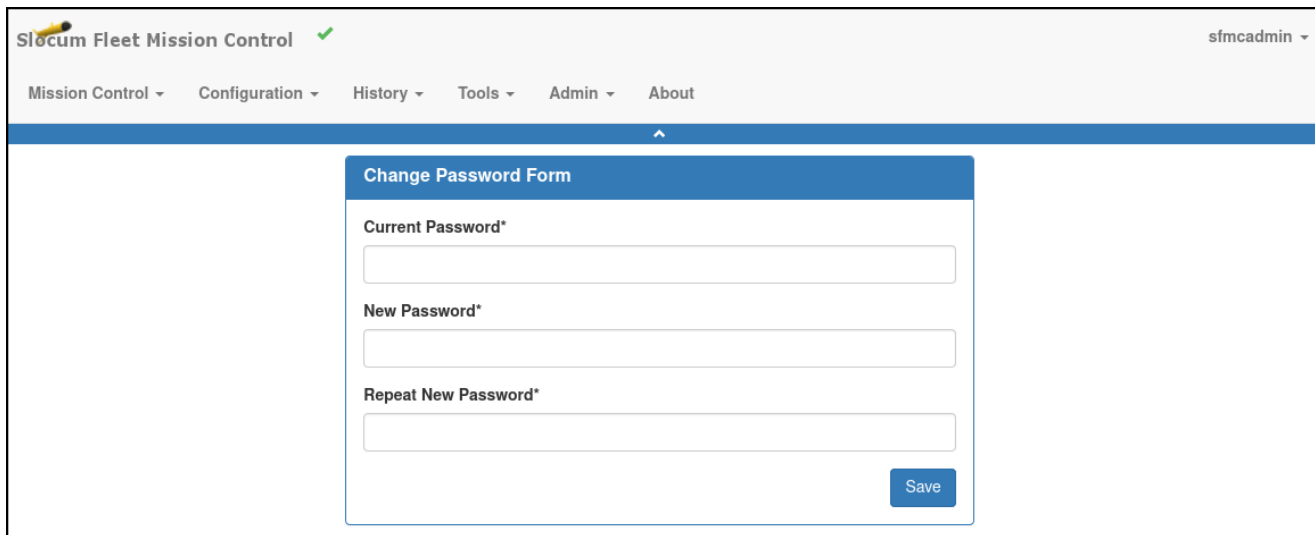


Figure 2-6 Change Password Form panel.

2. Enter the current password in the *Current Password* text box.
3. Enter the new password in the *New Password* text box.  
The password must be 10–12 characters long and must include one or more lower case, upper case, numerical, and special characters.
4. Re-enter the new password in the *Repeat New Password* text box.
5. Select **Save**.  
The password is changed. All the text boxes are cleared, which enables you to change your password again, if desired.

## Checking the System Status

To check the system status:

1. Select the **Configuration > System Status** menu option.  
The system displays the *System Status* page, as shown in Figure 2-7 on page 2-14.
2. To update the *System Status* page while it is open, press **[F5]**.

**Slocum Fleet Mission Control** sfmadmin ▾

Mission Control ▾ **Configuration ▾** History ▾ Tools ▾ Admin ▾ About

---

**System Status**

| Service Name | Service Status | Service Control   |
|--------------|----------------|---|
| Dock Server  | Online         | <span>Start</span> <span>Stop</span> <span>Restart</span> |
| Data Server  | Online         | <span>Start</span> <span>Stop</span> <span>Restart</span> |
| ActiveMQ     | Online         | <span>Start</span> <span>Stop</span> <span>Restart</span> |

| Disk Path | Size      | Used     | Available | Percent Used |
|-----------|-----------|----------|-----------|--------------|
| /var      | 216.97 GB | 26.50 GB | 190.47 GB | 13%          |

**Dock Server Ports**

| Port Name | Port Configuration | Open                                      | Connected                   | Connected Glider | RD                                  | CTS                                 | DSR                                 | DTR                                 | RI                                  | RTS                                 | Baud Rate | Data Bits | Stop Bits |
|-----------|--------------------|---|-----------------------------|------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-----------|-----------|-----------|
| net/0     | network            | <input checked="" type="checkbox"/> Close | <input type="checkbox"/> >_ | None             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | N/A       | N/A       | N/A       |
| net/1     | network            | <input checked="" type="checkbox"/> Close | <input type="checkbox"/> >_ | None             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | N/A       | N/A       | N/A       |
| net/2     | network            | <input checked="" type="checkbox"/> Close | <input type="checkbox"/> >_ | None             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | N/A       | N/A       | N/A       |
| net/3     | network            | <input checked="" type="checkbox"/> Close | <input type="checkbox"/> >_ | None             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | N/A       | N/A       | N/A       |
| net/4     | network            | <input checked="" type="checkbox"/> Close | <input type="checkbox"/> >_ | None             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | N/A       | N/A       | N/A       |
| net/5     | network            | <input checked="" type="checkbox"/> Close | <input type="checkbox"/> >_ | None             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | N/A       | N/A       | N/A       |
| net/6     | network            | <input checked="" type="checkbox"/> Close | <input type="checkbox"/> >_ | None             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | N/A       | N/A       | N/A       |
| net/7     | network            | <input checked="" type="checkbox"/> Close | <input type="checkbox"/> >_ | None             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | N/A       | N/A       | N/A       |
| net/8     | network            | <input checked="" type="checkbox"/> Close | <input type="checkbox"/> >_ | None             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | N/A       | N/A       | N/A       |
| net/9     | network            | <input checked="" type="checkbox"/> Close | <input type="checkbox"/> >_ | None             | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | N/A       | N/A       | N/A       |

**Data Server Status**

| Group Name | Date Time of Last Update | # of Files to Process | Message  |
|------------|--------------------------|-----------------------|--|
| default    | 2022-01-24 13:05:05      | 0                     | Finished processing file glider01-2021-362-3-0.sbd for glider glider01 |
| group1     | 2022-01-27 19:13:33      | 0                     |  |
| group2     | 2022-01-27 19:13:57      | 0                     |  |
| group3     | 2022-01-27 19:14:01      | 0                     |  |

Figure 2-7 System Status page.

The *System Status* page includes the following fields and information:

|                          |   |
|--------------------------|---|
| Service Name             | The name of the installed applications, which are Dock Server, Data Server, and ActiveMQ.   |
| Service Status           | The status of the installed applications. <ul style="list-style-type: none"> <li>• If the application is running, the indication is <b>Online</b> with a green background.</li> <li>• If the application is not running for any reason, the indication is <b>Offline</b> with a red background.</li> </ul>  |
| Service Control          | Enables starting/stopping/restarting the Dock Server service, the Data Server service, and the ActiveMQ service. A user account with the Administrator role is required to perform these functions. <ul style="list-style-type: none"> <li>• Select <b>Start</b> to start the service if it is not running.</li> <li>• Select <b>Stop</b> to stop the service if it is running. <b>Offline</b> with a red background indicates the Service Status.</li> <li>• Select <b>Restart</b> to restart the service if it is running.</li> </ul> |
| Disk path                | The path to the var disk partition which contains data. The amount of data is expected to shrink and grow, and therefore should be monitored.   |
| Size                     | The total amount of space in gigabytes of the var disk partition.   |
| Used                     | The amount of space in gigabytes that is currently being used in the var disk partition.  |
| Available                | The amount of space in gigabytes that is currently available in the var disk partition.   |
| Percent Used             | The percent of the total space of the var disk partition that is currently being used. <ul style="list-style-type: none"> <li>• The indicator has a green background when the percent used is safe.</li> <li>• The indicator has a red background if the percent used is high enough to be of concern.</li> </ul>   |
| Group Name               | Visible only when the Data Server service is running. This is the group that is associated with the Data Server, where there is one Data Server per group.  |
| Date Time of Last Update | Visible only when the Data Server service is running. This is the date and time at which the Data Server last completed an action for the group.  |
| # of Files to Process    | Visible only when the Data Server service is running. This is the number of files the Data Server is to process.  |
| Message                  | Visible only when the Data Server service is running. This is the last file the Data Server processed or the file currently being processed.  |
| Port Name                | The name for the specific device port.  |

|                    |  |
|--------------------|--|
| Port Configuration | <p>The configuration of the port: direct, modem, FreeWave, or network.</p> <p>A user account with the Administrator role can change the port configuration. The port first needs to be closed before changing the port configuration.</p>  |
| Open               | <p>Indicates whether the port is open or closed and enables an administrator to open or close the port. Green indicates the port is open; red indicates the port is closed.</p> <p>A user account with the Administrator role can open a closed port by selecting Open, or closed an open port by selecting Close.</p> |
| Connected          | <p>Indicates whether a glider is connected to the port. Green indicates that a glider is connected. The associated button provides access to Glider Terminal for that port.</p>  |
| Connected Glider   | <p>The name of the connected glider if it has identified itself. If no glider is connected, the system displays None instead.</p> <p>A user account with the Administrator role is required to view this information.</p>  |
| RD                 | <p><i>Received Data</i>. Indicates whether data are being received over the port. Green indicates that data are being received; red indicates that no data are being received.</p>   |
| CTS                | <p><i>Clear to Send</i>. Indicates whether the port is ready to accept data. Green indicates that it is ready to accept data; red indicates that it is not ready to accept data.</p>   |
| DSR                | <p><i>Data Set Ready</i>. Indicates whether the port is ready for commands to be sent. Green indicates that it is ready; red indicates that it is not ready.</p>   |
| DTR                | <p><i>Data Terminal Ready</i>. Indicates whether the port is ready to receive, initiate or continue a call. Green indicates that it is ready; red indicates that it is not ready.</p>  |
| RI                 | <p><i>Ring Indicator</i>. Indicates whether the port has detected an incoming ring signal on the line. Green indicates that it has; red indicates that it has not.</p>   |
| RTS                | <p><i>Request to Send</i>. Indicates whether the port is ready to transmit data. Green indicates that it is ready; red indicates that it is not ready.</p>   |
| Baud Rate          | <p>The configured baud rate for the port in bits per second. Applies only if the port is configured for direct, modem, or FreeWave.</p>  |
| Data Bits          | <p>The number of data bits for the data portion of the bits sent or received over the port. Applies only if the port is configured for direct, modem, or FreeWave.</p>   |
| Stop Bits          | <p>The number of bits expected to be sent or received after the data bits. Applies only if the port is configured for direct, modem, or FreeWave.</p>  |

## Common Questions about SFMC

Below are answers to some common questions about SFMC.

### Why Create Additional User Accounts?

If the plan is to have a single person manage all gliders and their deployments, the **sfmadmin** user account is sufficient. However, if the plan is to employ more than one person to manage gliders and their deployments, creating user accounts for each individual is recommended.

### Why Create Additional Groups?

If the plan is to manage gliders for different organizations where each organization might be a different customer, creating a group for each organization is recommended. Gliders can then be assigned to each group.

For example, if you deploy gliders for multiple universities doing research, you can create a separate group for each university. You can then assign gliders to each group. You can also assign specific users to each group so that they can only access those gliders and their deployment records and data.

If the plan does not involve managing gliders for different organizations, using only the **default** group is sufficient; creating additional groups is not necessary.

### Why Register a Glider?

The first time a glider connects to the SFMC Dock Server, the glider will be automatically registered and assigned to the **default** group. However, the glider can be transferred to any other group at any time.

If a glider has not connected, it can be registered by naming it and assigning it to any group.

### How is an Active Glider Deployment Created?

SFMC creates an active deployment record for a glider when it first connects to the SFMC Dock Server. In addition, if the active deployment for a glider is archived, a new active deployment record will be created the next time the glider connects to the SFMC Dock Server.

Only one active deployment can exist for a glider.

## Why Recover a Glider Deployment?

When recovering a deployed glider, it should also be “recovered” in SFMC. After an active glider deployment is marked as recovered, new location details for the glider deployment will no longer be captured and displayed on any map views.

Additionally, SFMC will retain all of the glider files and no longer display the deployment on the Dashboard as the deployment is no longer active.

Using the recover deployment feature still allows you to view all of the glider files generated from the deployment.

## Why Archive a Glider Deployment?

The Dashboard displays active glider deployments associated with the groups for which the logged in user is a member.

If active deployments are never archived, the Dashboard could become filled with too many of them. An active deployment should be archived when the goal for a given active deployment has been met and the glider has been recovered.

At the time of active deployment archival:

- A compressed TAR archive file can be created containing the contents of the glider folders.
- The system clears the glider folders for the next active deployment.

## Why Create Projects?

One or more active glider deployments can be assigned to a project. If you want to deploy one or more gliders to a specific location over a period of time for a specific purpose, it is recommended that you create a project for that purpose.

The Dashboard can filter the active deployments by project to enable you to view the deployments for one or more specific projects.

In addition, when an active deployment is archived, the project association remains attached to it. This is useful for the times you want to examine the archived deployments for a given project.

# 3 Getting Started

This chapter provides instructions on how to start and exit SFMC. It also serves as a reference on how to import glider data from another Dock Server.

## Installing SFMC

Refer to the *Slocum Fleet Mission Control Installation Guide* for detailed instructions on how to install SFMC.

SFMC runs on CentOS 7, RockyLinux 8, RHEL 7.x, and Ubuntu 18/20 platforms.

An HD resolution monitor (1920 x 1080) is recommended for Web browser viewing.

## Starting and Logging in to SFMC

To start and log in to SFMC:

1. Double-select the *Local SFMC Web Access* icon on the desktop.

The system opens the Slocum Fleet Mission Control screen to the *Login Form* panel on the *Home* page, as shown in Figure 3-1:

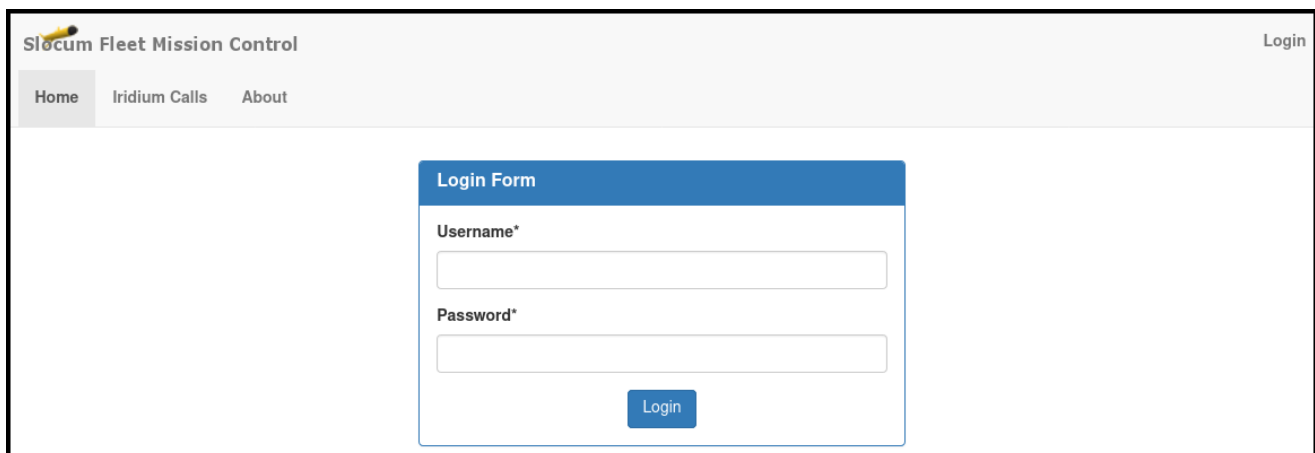
The image shows a web browser window displaying the Slocum Fleet Mission Control interface. At the top left, there is a logo and the text "Slocum Fleet Mission Control". To the right of the logo is a "Login" link. Below the logo, there is a navigation menu with three items: "Home", "Iridium Calls", and "About". The "Home" item is highlighted. In the center of the page, there is a "Login Form" panel. The panel has a blue header with the text "Login Form". Below the header, there are two text input fields: "Username\*" and "Password\*". Below the "Password\*" field, there is a blue "Login" button.

Figure 3-1 Login Form panel.

2. Enter the username in the *Username* text box.
3. Enter the password in the *Password* text box.
4. Select the **Login** button.

The *Login Form* panel closes, and the Dashboard opens, as shown in Figure 3-2:

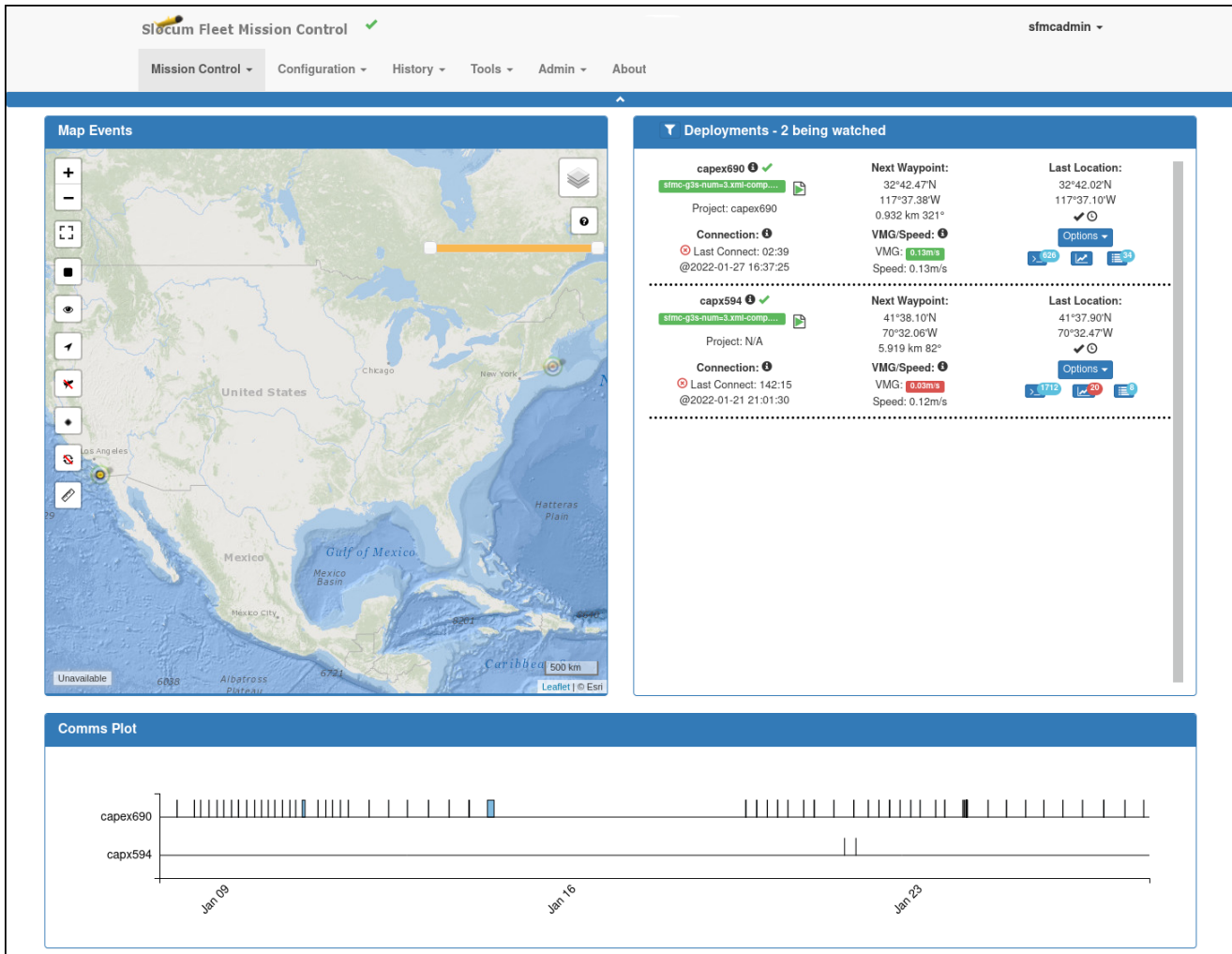


Figure 3-2 The Dashboard after logging in to SFMC.

## Exiting from and Logging out of SFMC

To exit from and log out of SFMC, select the close button of the Web browser.



### Note

To log out of SFMC without exiting, select your *<username>* drop-down list in the upper right corner of the *Home* page and select **Logout**.



# 4 Managing Users, Gliders, & Projects

Setting up SFMC encompasses the creation of groups and user accounts, the registering of gliders, and optionally, the creation of projects and the assigning of active glider deployments to them as follows:

- Create one or more groups or use the default group.
- Create one or more user accounts, make each a member of one or more groups with one assigned role for each, and optionally restrict for any one or more groups the glider or gliders that can be accessed.
- Register one or more gliders and assign each of them to a group.
- [optional] Create one or more projects for each group.
- [optional] Assign one or more active glider deployments to each project.

Once created, groups can be deleted, user accounts and projects can be modified or deleted, and registered gliders can be transferred to other groups.

## Creating and Managing Groups & User Accounts

A user account other than an Administrator account must be assigned to at least one group, and each glider must be assigned to one and only one group. Creating a user account requires assigning a name and a password to the account along with at least one group and an associated role.

If only the default group is to be used, no groups need to be created when creating a user account.

### Creating a Group

To create a group:

1. Log in to a user account as an Administrator.
2. Select **Admin > Group Administration Menu > Create Group**.  
The system displays the *Create Group* page, as shown in Figure 4-1 on page 4-2.
3. Enter the group name in the *Group Name* text box.  
The group name must begin with a lowercase alpha character followed by at least 2 but no more than 15 lowercase alpha or numeric characters.
4. Select the *Create* button.  
The system creates the group and clears the *Create Group Form* panel, which enables you to create another group, if desired.

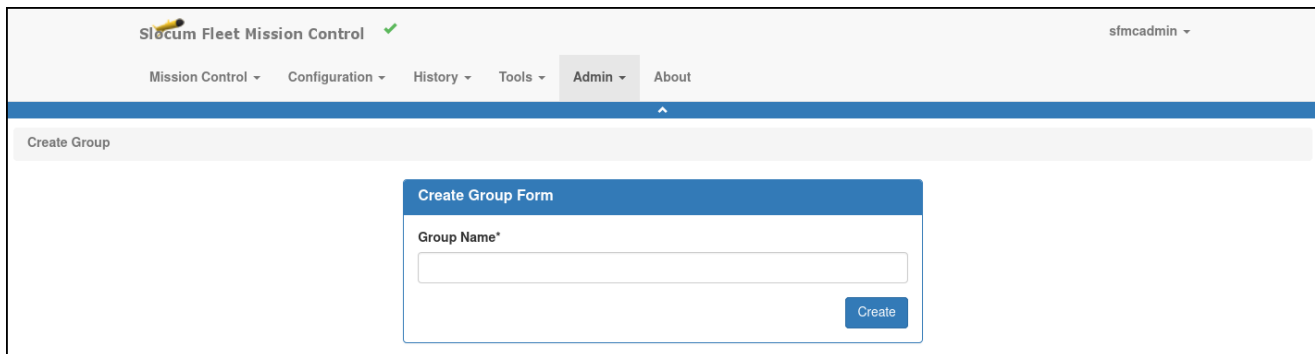


Figure 4-1 Create Group Form panel.

## Deleting a Group

To delete a group:

1. Log in to a user account as an Administrator.
2. Select **Admin > Group Administration Menu > Groups**.

The system displays the *Groups* page, as shown in Figure 4-2:

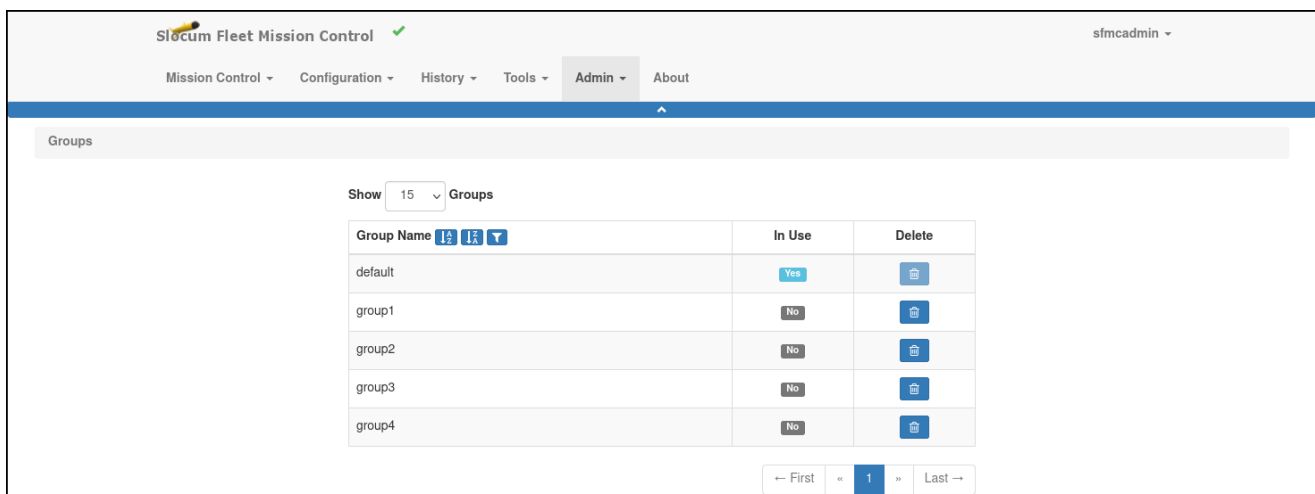


Figure 4-2 Groups page.

Groups that are not in use are the only ones that can be deleted. The default group is always in use and can never be deleted.

To display more groups on a single page, select the number to display from the *Show Groups* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. Select the *Delete* button for the group that you want to delete.

The system displays the *Delete Group* dialog box, as shown in Figure 4-3:

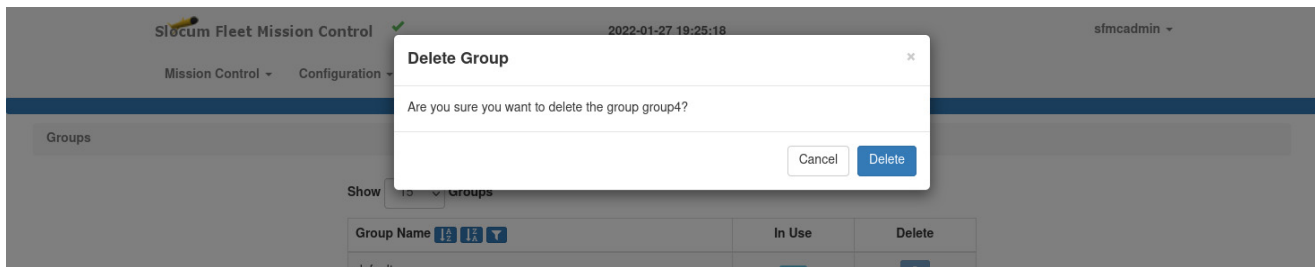


Figure 4-3 Delete Group dialog box.

4. Select the *Delete* button.

The system deletes the group and closes the *Delete Group* dialog box.

## Creating a User Account

When creating a user account for the Glider Pilot or Viewer role, you can optionally restrict the glider or gliders that can be accessed for each assigned group.

Administrators can access all gliders.

The Group Level Administrator role can access all gliders in their allowed groups only.

To create a user account:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator role.
2. Select **Admin > Group Administration Menu > Create User**.  
The system displays the *Create User* page, as shown in Figure 4-4 on page 4-4.
3. Enter the username for the user account in the *Username* text box.  
The username must begin with a lowercase alpha character followed by at least 2 but no more than 15 lowercase alpha or numeric characters.
4. Enter the first and last names of the user in the *First Name* and *Last Name* text boxes, respectively.
5. Enter the e-mail address of the user in the *Email* text box.  
The system will email the user password to this address.

The screenshot shows the 'Create User' page in the Slocum Fleet Mission Control interface. The page has a header with the logo and navigation menu. The main content area contains a 'Create User Form' with the following fields and options:

- Username\***: Text input field.
- First Name\***: Text input field.
- Last Name\***: Text input field.
- Email\***: Text input field.
- Administrator**: Check box.
- Group**: Drop-down menu with "-- select an option --".
- Role**: Drop-down menu with "-- select an option --".
- Activated**: Check box.
- Create**: Button.

Figure 4-4 Create User page.

6. To make the user an administrator, select the *Administrator* check box and go directly to Step 11; otherwise, continue to Step 7.
7. Select the group for this user account from the *Group* drop-down list.
8. Select the role within the selected group from the *Role* drop-down list.
9. [For *Glider Pilot and View roles only*] To allow the user account access to only specific gliders:
  - a. Select the *Restrict Access to Specific Gliders* check box.
  - b. Select the glider or gliders from the *Restricted Glider Access* drop-down list. This check box and drop-down list is shown only if the *Glider Pilot* or *View* role is selected.
  - c. To select more than one glider, hold down the **[Ctrl]** key while selecting them one at a time.
10. [optional] Repeat Step 7 through Step 9 for one or more additional group/role associations.
11. Select the *Activated* check box to activate the user account.
12. Select the *Create* button.

The system creates the user account and clears the *Create User Form* panel. You can create another user account, if desired.

## Modifying a User Account

To modify a user account:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator role.
2. Select **Admin > User Administration Menu > Users**.

The system displays the *Users* page, as shown in Figure 4-5:

| Username  | Email                    | Admin | Groups            | Role                              | Reset Password | Modify | Delete |
|-----------|--------------------------|-------|-------------------|-----------------------------------|----------------|--------|--------|
| bwilliams | bill.williams@pepzap.com | No    | group2<br>group4  | Viewer<br>Glider Pilot            |                |        |        |
| jdoe      | john.doe@pepzap.com      | No    | default<br>group3 | Viewer<br>Glider Pilot            |                |        |        |
| msmith    | michaelsmith@pepzap.com  | No    | group1<br>group2  | Glider Pilot<br>Group Level Admin |                |        |        |

← First 1 Last →

Figure 4-5 Users page.

To display more users on a single page, select the number to display from the *Show Users* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by username, e-mail, administrators, groups, or roles or any combination of these items by selecting the associated filter icon, and sort the list by username by selecting the sort icon.
4. Select the *Modify* button for the user account that you want to modify.  
The system displays the *Modify User Form* panel, as shown in Figure 4-6 on page 4-6.
5. On the *Modify User Form* panel, make the required changes, then select *Save*.  
The system modifies and saves the user account.

The screenshot shows the 'Modify User Form' panel in the Slocum Fleet Mission Control interface. The form is titled 'Modify User Form' and contains the following fields and options:

- Username\***: jdoe
- First Name\***: John
- Last Name\***: Doe
- Email\***: john.doe@pepzap.com
- Administrator**
- Group** and **Role** table:
 

|                          | Group   | Role         |
|--------------------------|---------|--------------|
| <input type="checkbox"/> | group3  | Glider Pilot |
| <input type="checkbox"/> | default | Viewer       |
| <input type="checkbox"/> |         |              |
- Restrict Access to Specific Gliders**
- Restricted Glider Access\***:
  - fiorshheim\_200
  - glider01
  - unknown
- Activated**
- Save** button

Figure 4-6 Modify User Form panel.

## Resetting a User Account Password

To reset a user account password:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator role.
2. Select **Admin > User Administration Menu > Users**.

The system displays the *Users* page, as shown in Figure 4-5 on page 4-5.

To display more users on a single page, select the number to display from the *Show Users* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by username, e-mail, administrators, groups, or roles or any combination of these items by selecting the associated filter icon, and sort the list by username by selecting the sort icon.
4. Select the *Reset Password* button for the user account needs its password reset. A new randomly selected password is e-mailed to the user.

## Deleting a User Account

To delete a user account:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator role.
2. Select **Admin > User Administration Menu > Users**.  
The system displays the *Users* page, as shown in Figure 4-5 on page 4-5.  
To display more users on a single page, select the number to display from the *Show Users* drop-down list.  
To display the next/specific/previous page, select it from the page scroller.
3. [optional] Filter the list by username, e-mail, administrators, groups, or roles or any combination of these items by selecting the associated filter icon, and sort the list by username by selecting the sort icon.
4. Select the *Delete* button for the user account that you want to delete.  
The system displays the *Delete User* dialog box, as shown in Figure 4-7:

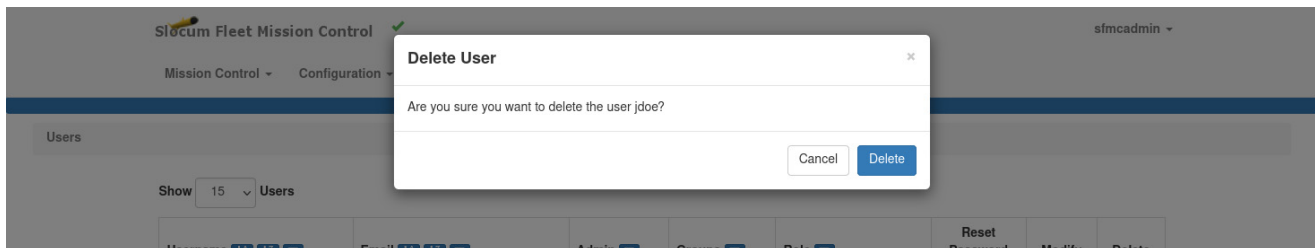


Figure 4-7 Delete User dialog box.

5. Select the *Delete* button.  
The system deletes the user account and closes the *Delete User* dialog box.

## Registering and Managing Gliders

All gliders must be registered in SFMC. A glider is registered by naming it and assigning it to one and only one group. Any number of gliders can be assigned to the same group.



## Note

When an unregistered glider connects, SFMC automatically registers the glider by entering its name and assigning it to the default group.

The Registered Gliders view allows you to view the list of registered gliders. An administrative user can transfer registered gliders from one group to another group.

## Viewing Registered Gliders

To view registered gliders:

1. Log in as an Administrator or any user role.
  - Administrators can view all registered gliders.
  - Group Level Administrator, Glider Pilot, and Viewer roles can view the gliders assigned to their allowed groups only.
2. Select **Configuration > Gliders Menu > Gliders**.

The system displays the *Gliders* page, as shown in Figure 4-8:

| Glider        | Connection Status | Associated Group | # Deployments | Total Distance Traveled (in km) | View Glider Configuration | Terminal | Transfer |
|---------------|-------------------|------------------|---------------|---------------------------------|---------------------------|----------|----------|
| florsheim_200 | ⊗                 | default          | 2             | 9.469                           | 👁                         | >_       | ⇄        |
| glider01      | ⊗                 | default          | 1             | 8.311                           | 👁                         | >_       | ⇄        |
| glider02      | ⊗                 | group2           | 0             | 0.000                           | 👁                         | >_       | ⇄        |
| glider03      | ⊗                 | group3           | 0             | 0.000                           | 👁                         | >_       | ⇄        |
| glider04      | ⊗                 | group4           | 0             | 0.000                           | 👁                         | >_       | ⇄        |

Figure 4-8 Gliders page.

To update the page while it is open, press **[F5]**.

To display more gliders on a single page, select the number to display from the *Show Gliders* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by gliders, groups, or both by selecting the associated filter icon, and sort the list by glider by selecting the sort icon.



The *Gliders* page includes the following fields and information:

|                                 |   |
|---------------------------------|---|
| Glider                          | The name of the glider.   |
| Connection Status               | Connected gliders are shown with a green check mark icon. Gliders that are not connected are shown with a red "X" icon. |
| Associated Group                | The group that is associated with the glider. There can be only one group.  |
| # Deployments                   | The total number of deployments for the glider. For a newly registered glider, it is 0.                                 |
| Total Distance Traveled (in km) | The total distance in kilometers the glider has traveled during all of its deployments.                                 |

## Viewing a Glider Configuration

The installed devices, sensor settings, enabled proglers, and imported configuration files of a glider can be viewed.

To view a glider configuration:

- Log in as an Administrator or any user role.
  - Administrators can view all registered gliders.
  - Group Level Administrators, Glider Pilots, and Viewers can view the gliders assigned to the allowed groups only.
- Select **Configuration > Gliders Menu > Gliders**.  
 The system displays the *Gliders* page, as shown in Figure 4-8 on page 4-8.  
 To update the page while it is open, press **[F5]**.  
 To display more gliders on a single page, select the number to display from the *Show Gliders* drop-down list.
- [*optional*] Filter the list by gliders, groups, or both by selecting the associated filter icon, and sort the list by glider by selecting the sort icon.
- Select *View Glider Configuration* for the appropriate glider to view its configuration.  
 The system displays the *Glider Configuration* page for the glider, as shown in Figure 4-9 below.
- To view the glider configuration for a different glider, select the glider from the drop-down list at the top of the *Glider Configuration* page.

The screenshot shows the Slocum Fleet Mission Control web interface. At the top, the title is "Slocum Fleet Mission Control" with a green checkmark. The user is logged in as "sfmadmin". The navigation menu includes "Mission Control", "Configuration", "History", "Tools", "Admin", and "About". The current page is "Glider Configuration" for "glider01".

Below the navigation, there is a breadcrumb "Glidens / glider01 / Options" and a dropdown menu for "glider01". A message states: "In order to produce glider configuration details, one needs to drag and drop the most recent copy of the following glider files into the 'Config File Drop Zone': 'autoexec.mi', 'longterm.sta', and 'progllets.dat'."

The main content area is divided into several panels:

- Installed Devices:** A list of installed devices including air\_pump, altimeter, attitude\_rev, battery, buoyancy\_pump, and coulomb.
- Sensor Settings:** A table of sensor settings:
 

|                              |                 |
|------------------------------|-----------------|
| f_max_working_depth          | 31 m            |
| f_coulomb_calibration_factor | 0.05 %          |
| m_avg_climb_rate             | -0.1827 m/s     |
| m_avg_speed                  | 0.313802 m/s    |
| m_avg_upward_inflection_time | 7.944645 sec    |
| m_battery                    | 13.121563 volts |
- Enabled Progllets:** An empty list.
- Imported Config Files:** A list of imported files: autoexec.mi and longterm.sta.
- Config File Drop Zone:** A dashed box labeled "Config File Drop Zone" for dragging files.
- Import From-Glider Config Files:** A button to import files from the glider's folder.

Figure 4-9 Glider Configuration page.

## Configuring a Glider

A glider should be configured before a mission plan can be created for it. To configure a glider:

1. Refer to "Viewing a Glider Configuration" on page 4-9.
2. Open the *Glider Configuration* page for the glider.
3. Perform one of the following:
  - Drag-and-drop the *autoexec.mi*, *longterm.sta*, and *progllets.dat* files for the glider, one at a time, into the *Config File Drop Zone* panel.  
—or—
  - Select the *Import From-Glider Config Files* button.  
The button is enabled when one or more of the *autoexec.mi*, *longterm.sta*, or *progllets.dat* files exist in the glider's **from-glider** folder on the Dock Server.
4. The glider is now configured.

The installed devices, sensor settings, and enabled progllets will be displayed on the Installed Devices, Sensor Settings, and Enabled Progllets panels, respectively.

## Registering a Glider

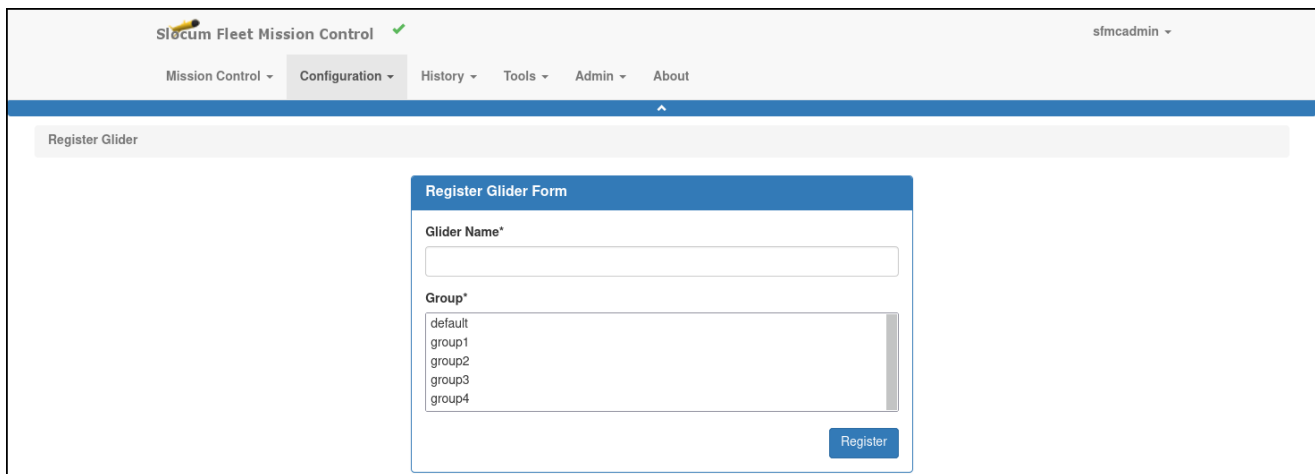
To register a glider:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator role.

The Group Level Administrator role can register a glider to an allowed group only.

2. Select **Configuration > Gliders Menu > Register Glider**.

The system displays the *Register Glider* page, as shown in Figure 4-10:



The screenshot shows the Slocum Fleet Mission Control interface. At the top, there is a navigation bar with 'Mission Control', 'Configuration', 'History', 'Tools', 'Admin', and 'About' menus. The 'Configuration' menu is selected. Below the navigation bar, the page title is 'Register Glider'. The main content area features a 'Register Glider Form' with a blue header. The form contains a 'Glider Name\*' text box and a 'Group\*' drop-down list with options: 'default', 'group1', 'group2', 'group3', and 'group4'. A blue 'Register' button is positioned at the bottom right of the form.

Figure 4-10 Register Glider page.

3. Enter the name of the glider in the *Glider Name* text box.
4. Select the group to which the glider is to be assigned from the *Group* drop-down list. Only one group can be selected.

5. Select *Register*.

The glider is registered.

## Transferring a Registered Glider to Another Group

A registered glider can be transferred from the group it is currently associated with to any other group. This function can be used when, for example, it is desired to transfer the glider out of the default group, which is the group that the glider is assigned to if it is automatically registered by SFMC. Gliders that are connected cannot be transferred.

To transfer a registered glider to another group:

1. Log in to a user account as an Administrator.

2. Select **Configuration > Gliders Menu > Gliders**.

The system displays the *Gliders* page, as shown in Figure 4-8 on page 4-8.

To update the page while it is open, press **[F5]**.

To display more gliders on a single page, select the number to display from the *Show Gliders* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by gliders, groups or both by selecting the associated filter icon, and sort the list by glider by selecting the sort icon.

4. Select the *Transfer* button for the glider that you want to transfer. Only gliders that are not connected can be selected.

The system displays the *Transfer Glider Form* page, as shown in Figure 4-11:

The screenshot shows the 'Transfer Glider Form' page. At the top, there is a navigation bar with 'Mission Control', 'Configuration', 'History', 'Tools', 'Admin', and 'About'. Below this is a breadcrumb trail 'Gliders > glider02'. The main content area contains a form with the following fields:

- Glider Name\***: A text input field containing 'glider02'.
- Current Group\***: A text input field containing 'group2'.
- New Group\***: A list box with the following options: 'default', 'group1', 'group3', and 'group4'.

A blue 'Transfer' button is positioned at the bottom right of the form.

Figure 4-11 Transfer Glider Form page.

5. Select the group to which the glider is to be transferred from the *New Group* drop-down list. Only one group can be selected.

6. Select *Transfer*.

The glider is transferred.

## Creating and Managing Projects

Creating projects is optional. A project is created by naming it and assigning it to one and only one group, but any number of projects can be assigned to the same group. A description for the project is optional. Created projects can be viewed, edited, and deleted. In addition, one or more active deployments can be assigned to a project.

To be able to assign an active deployment to a project, the registered glider and the project must be assigned to the same group.

For instructions on how to assign an active deployment to a project or to remove it from a project if it is assigned to it, refer to "Assigning and Unassigning an Active Glider Deployment to a Project" on page 9-12.

## Viewing Projects

To view projects:

1. Log in to a user account as either an Administrator or one with any role.
2. Select **Configuration > Projects Menu > Projects**.

The system displays the *Projects* page, as shown in Figure 4-12:

| Name                      | Associated Group | Original Author | Date Time Created | Last Edited By | Date Time Last Modification | Edit | Delete |
|---------------------------|------------------|-----------------|-------------------|----------------|-----------------------------|------|--------|
| Buzzards_Bay_Survey       | group3           | sfmcadmin       | 2022-01-27 20:49  | N/A            | N/A                         |      |        |
| Cape_Cod_Bay_Survey       | group1           | sfmcadmin       | 2022-01-27 20:49  | N/A            | N/A                         |      |        |
| Nantucket_Sound_Survey    | default          | sfmcadmin       | 2022-01-27 20:50  | N/A            | N/A                         |      |        |
| Rhode_Island_Sound_Survey | group2           | sfmcadmin       | 2022-01-27 20:50  | N/A            | N/A                         |      |        |

Figure 4-12 Projects page.

To display more projects on a single page, select the number to display from the *Show Projects* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by projects, groups or both by selecting the associated filter icon, and sort the list by projects by selecting the sort icon.

The *Projects* page includes the following fields and information:

|                          |  |
|--------------------------|--|
| <b>Name</b>              | The name of the project.   |
| <b>Description</b>       | The description of the project if a description was entered for it.          |
| <b>Associated Group</b>  | The group with which the project is associated. There can be only one group. |
| <b>Original Author</b>   | The user account that was used to create the project.                        |
| <b>Date Time Created</b> | The date and time the project was created.                                   |

|                             |  |
|-----------------------------|--|
| Last Edited By              | The user account that was used to last edit the project. |
| Date Time Last Modification | The date and time the project was last edited.           |

## Creating a Project

To create a project:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator role.

The Group Level Administrator role can create projects for their allowed groups only.

2. Select **Configuration > Projects Menu > Create Project**.

The system displays the *Create Project* page, as shown in Figure 4-13:

Figure 4-13 Create Project page.

3. Enter the name of the project in the *Project Name* text box.
4. [optional] Enter a project description in the *Project Description* text box.
5. Select the group to which this project is to be assigned from the *Group* drop-down list. Only one group can be selected.
6. Select *Create*.

The system creates the project and clears the *Create Project Form* panel, which enables you to create another project.

## Editing a Project

To edit a project:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator role.  
The Group Level Administrator role can edit projects for their allowed groups only.
2. Select **Configuration > Projects Menu > Projects**.  
The system displays the *Projects* page, as shown in Figure 4-12 on page 4-13.  
To display more projects on a single page, select the number to display from the *Show Projects* drop-down list.  
To display the next/specific/previous page, select it from the page scroller.
3. [optional] Filter the list by projects, groups or both by selecting the associated filter icon, and sort the list by projects by selecting the sort icon.
4. Select the *Edit* button for the project that you want to edit.  
The system displays the *Modify Project* page, as shown in Figure 4-14:

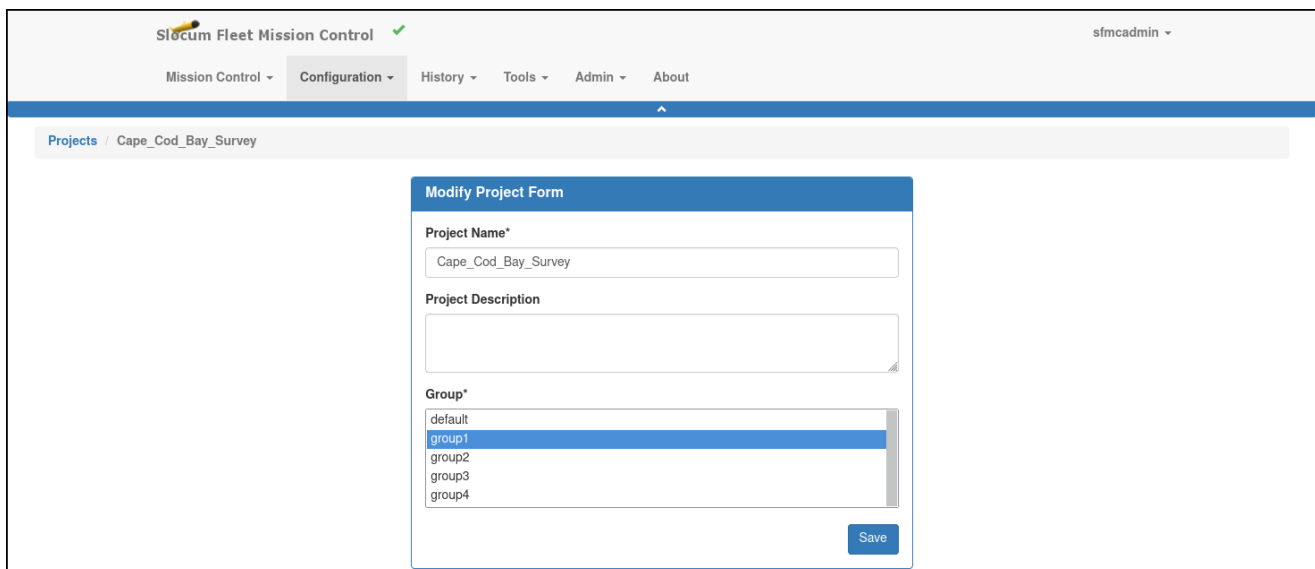


Figure 4-14 Modify Project page.

5. Make the required changes, then select the *Save* button.  
The system saves the edited project information.

## Deleting a Project

To delete a project:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator role.  
The Group Level Administrator role can delete projects for their allowed groups only.
2. Select **Configuration > Projects Menu > Projects**.

The system displays the *Projects* page, as shown in Figure 4-12 on page 4-13.

To display more projects on a single page, select the number to display from the *Show Projects* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by projects, groups or both by selecting the associated filter icon, and sort the list by projects by selecting the sort icon.
4. Select the *Delete* button for the project that you want to delete.

The system displays the *Delete Project* dialog box, as shown in Figure 4-15:

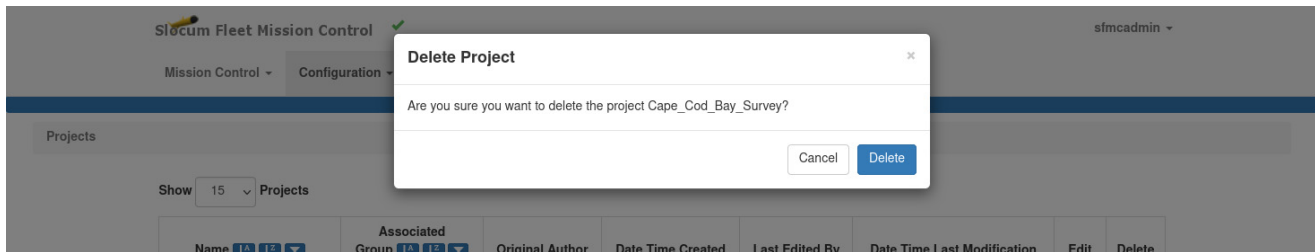


Figure 4-15 Delete Project dialog box.

5. Select the *Delete* button.

The system deletes the project and closes the *Delete Project* dialog box.



# 5 The Dashboard

To open the Dashboard, select **Mission Control > Dashboard** from the main menu.

The Dashboard's *Page* area includes a *Map Events* panel, a *Deployments* panel, and a *Comms Plot* panel, as shown in Figure 5-1:

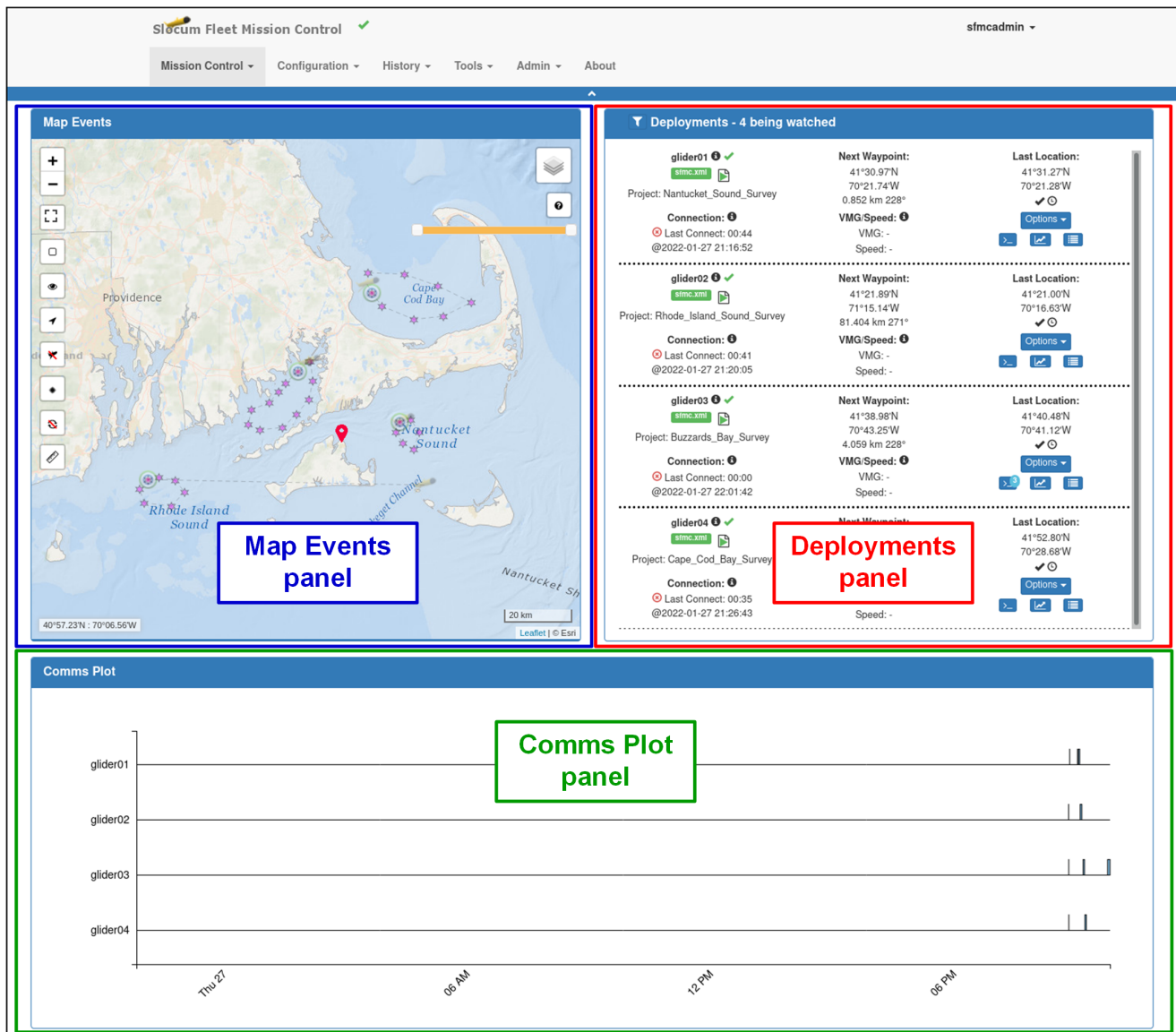


Figure 5-1 Dashboard and the panels of the *Page* area.

The *Map Events* panel includes a map and an overlay. On the overlay, the following types of data are displayed:

- Each of the watched deployments

- The historical and intended glider tracks
- The planned and acquired waypoints
- The glider surfacings
- Optionally at each surfacing:
  - The glider surface drift positions
  - The depth averaged current vectors

The watched deployments are listed on the *Deployments* panel. It provides detailed information about the last location, the next waypoint, the connection status, and the speed of the glider for each deployment. Icons on the *Map Events* panel and on the *Deployments* panel provide additional information when resting the pointer over them.

To zoom into and display a specific deployment on the map, select it from the Deployments panel as shown in Figure 5-2:

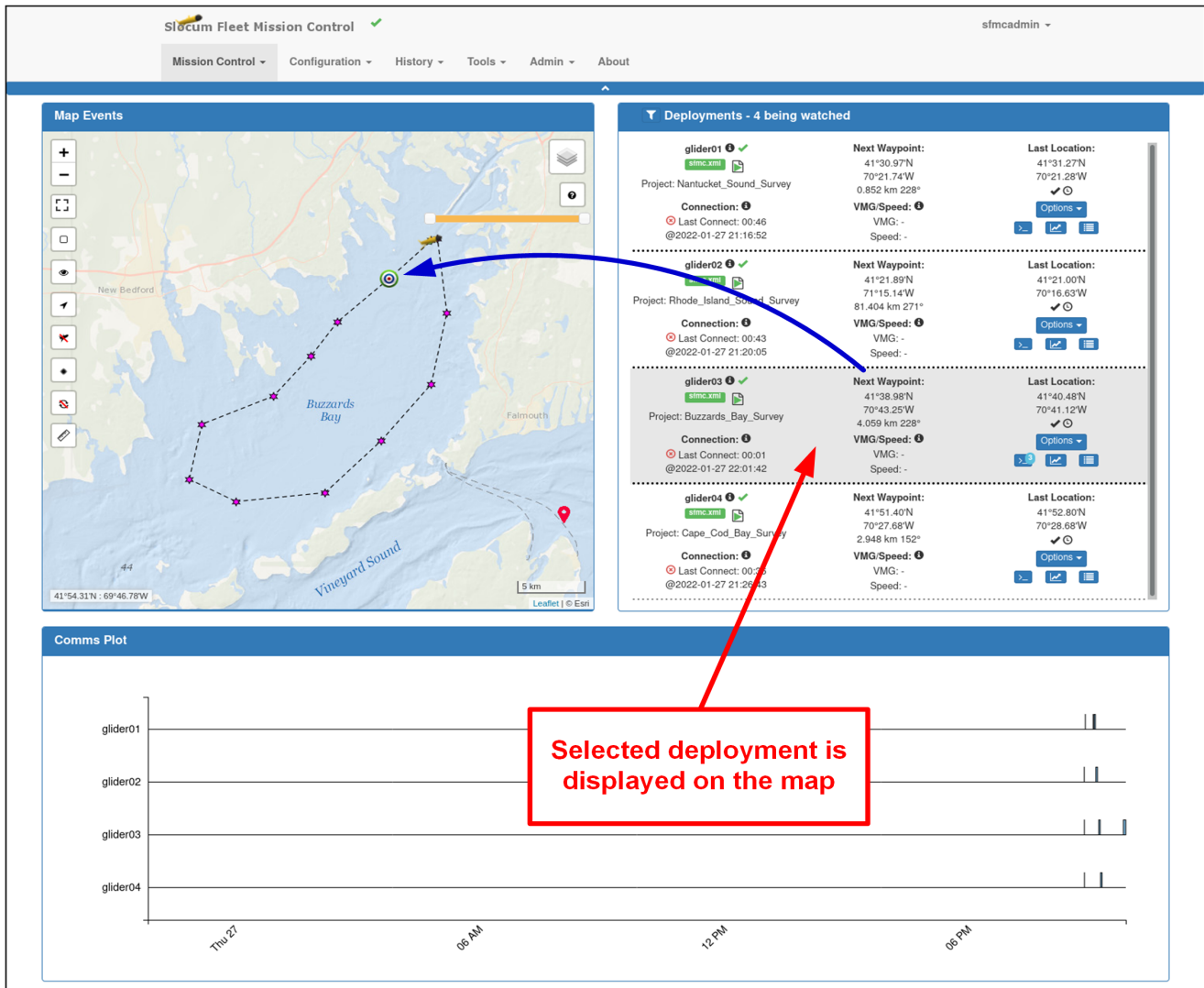


Figure 5-2 Dashboard: Selecting a specific deployment to display on the map.

The *Comms Plot* panel displays the glider connections timeline for the watched deployments. In addition, it displays additional information about the connection and the associated glider dialog for it.

## Dashboard Layout

The *Map Events* panel is shown in Figure 5-3. It is composed of a map tile layer that can be any one of a number of types: charts, road maps, satellite imagery, and more.

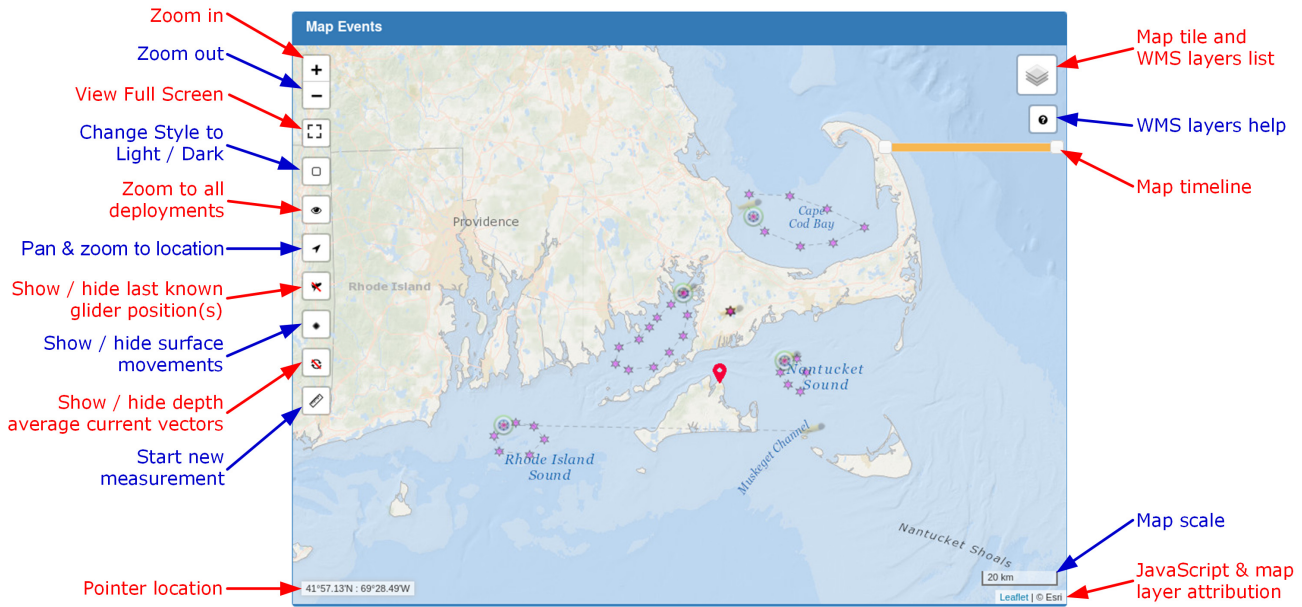


Figure 5-3 Map Events panel details.

Optionally, one or more Web Map Service (WMS) layers can be displayed, including weather maps, wind maps, wave height maps, and others.

The map tile and WMS layers can be chosen directly from the map once the map layer settings are created, as described in "Creating the Map Settings" on page 14-4.

Once created, these settings can be viewed, edited, and deleted. To move around the map, select-and-drag from anywhere inside it.

## Map Events Panel

The Map Events panel provides the following buttons and displays:

|                            |   |
|----------------------------|---|
| Zoom in                    | Zooms in on the map.  |
| Zoom out                   | Zooms out of the map.   |
| View full screen           | Expands the map to fill the computer screen. Press <b>[Esc]</b> to return the map to its original size.   |
| Change style to light/dark | Changes the displayed glider track and the surface drift positions from light to dark or from dark to light. The button has a black square to indicate that they will change from light to dark. It has a white square to indicate that they will change from dark to light |
| Zoom to all deployments    | Zooms in or out as needed to capture all of the watched deployments.  |

|  |  |
|--|--|
| Pan and zoom to location                 | Pans and zooms to a specific location as specified by an entered latitude and longitude in the Pan to Coordinates Form dialog box.   |
| Show/hide last known glider position(s)  | Hides the last known glider position by hiding the glider icon. If there is more than one position shown, they are all hidden. This feature is useful when a glider icon is directly over a target or surfacing icon, for it allows the pointer to be rested over the target or surfacing icon, enabling the display of the target or surfacing information.   |
| Show/hide surface movements              | Shows surface positions due to surface drift and is especially useful for tracking a glider during deployment and recovery.  |
| Show/hide depth averaged current vectors | Shows averaged currents as vectors on the map. The vectors are displayed as red lines for each surfacing. When resting the pointer over a vector, current speed and direction information is displayed.  |
| Start new measurement                    | Enables the measurement of distance in kilometers on the map by selecting at the start point and double-selecting at the end point.  |
| Pointer location                         | Displays the latitude and longitude in degrees and decimal minutes of the location of the pointer on the map.  |
| Map tile and WMS layers list             | Displays a list of map tile and WMS layers. One map tile layer must be selected; one or more WMS layers can also be selected.  |
| WMS Layers help                          | Displays the legends for the selected WMS layers.  |
| Map timeline                             | A slider that contains right and left scroll boxes. Sliding the left scroll box to the right hides the earliest surfacings. Sliding the right scroll box to the left hides the latest surfacings. Sliding both scroll boxes together zooms in on any group of contiguous surfacings. The date and time are displayed under the scroll boxes, corresponding to the earliest and latest times for the left and right scroll boxes. |
| Map scale                                | The map scale as indicated by the length of the box and the displayed range in meters. The length of the box and the displayed range varies with the zoom level.   |
| Java script and map layer attribution    | Credits the sources for the java script and the map layers.  |

On the map and for all watched deployments, the following icons and line types can be displayed:

|             |   |
|-------------|---|
| Glider icon | Indicates the last known glider surface position.                         |
| Target icon | Indicates the next waypoint the glider is to go to.                       |
| Star icon   | Indicates a waypoint other than the next waypoint the glider is to go to. |

|                                |   |
|--------------------------------|---|
| Solid yellow circle icon       | Indicates a glider surface position other than at a waypoint or an abort.   |
| Solid green circle icon        | Indicates a glider surface position at a waypoint.  |
| Solid red circle icon          | Indicates a glider surface position as a result of an abort.  |
| Solid black/white diamond icon | Indicates a glider surface position as a result of surface drift. The black or white setting is in accordance with the Change style to light/dark button on the Map Events panel. |
| Solid black/white line         | Indicates the historical track of the glider. The black or white setting is in accordance with the Change style to light/dark button on the Map Events panel.                     |
| Dashed black/white line        | Indicates the intended glider track. The black or white setting is in accordance with the Change style to light/dark button on the Map Events panel.                              |
| Solid red line                 | Indicates current vectors when selected with the Show depth averaged current vectors button on the Map Events panel.  |

## Deployments Panel

Deployments being watched are displayed on the *Deployments* panel on the Dashboard, as shown in Figure 5-4:

The screenshot shows the 'Deployments - 5 being watched' panel. It lists four glider deployments, each with a set of data fields and an 'Options' menu. Annotations include:

- Project filter:** Points to the dropdown arrow on the panel title.
- Options menu:** Points to the 'Options' button for the first deployment.
- Glider name:** Points to the name 'florsheim\_200'.
- Active script indicator:** Points to the green 'sfmc.xml' icon.
- Project the glider is assigned to, if any:** Points to the 'Project: N/A' text.

| Glider Name   | Project                   | Next Waypoint                              | Last Location            | Connection                                   | VMG/Speed          |
|---------------|---------------------------|--|--------------------------|--|--------------------|
| florsheim_200 | N/A                       | Not yet known                              | 41°37.83'N<br>70°32.11'W | Last Connect: 576:27<br>@2022-01-03 21:15:41 | VMG: -<br>Speed: - |
| glider01      | Nantucket_Sound_Survey    | 41°30.97'N<br>70°21.74'W<br>0.852 km 228°  | 41°31.27'N<br>70°21.28'W | Last Connect: 00:26<br>@2022-01-27 21:16:52  | VMG: -<br>Speed: - |
| glider02      | Rhode_Island_Sound_Survey | 41°21.89'N<br>71°15.14'W<br>81.404 km 271° | 41°21.00'N<br>70°16.63'W | Last Connect: 00:23<br>@2022-01-27 21:20:05  | VMG: -<br>Speed: - |
| glider03      | Buzzards_Bay_Survey       | 41°40.58'N<br>70°41.02'W<br>0.581 km 195°  | 41°40.88'N<br>70°40.91'W | Last Connect: 00:19<br>@2022-01-27 21:23:55  | VMG: -<br>Speed: - |

Figure 5-4 Deployments panel details.

For each deployment listed, some of the more frequently monitored details about the deployment are provided along with the glider connection status and the project that the deployment is associated with, if any.

In addition, resting the pointer over any of the icons provides additional information about the deployment. Selecting inside an entry in the list will highlight it and zoom in to that deployment on the map. The *Deployments* panel includes the following fields and information:

|               |   |
|---------------|---|
| Next Waypoint | The coordinates of the waypoint in latitude and longitude degrees and decimal minutes that the glider is to go to next. The range to the waypoint in kilometers and the bearing in degrees are also displayed.  |
| Last Location | The last known surface location of the glider in latitude and longitude degrees and decimal minutes.  |
| Connection    | The date/time in year-month-day and hours:minutes:seconds the glider connected, as well as the elapsed time in hours:minutes from when it connected.<br>-or-<br>The date in year-month-day the glider disconnected, as well as the elapsed time in hours:minutes from when it disconnected. |
| VMG/Speed     | The VMG (velocity made good) is the velocity of the glider relative to its next waypoint, based on its range and bearing as determined from its last two surfacings. The speed in meters per second.  |

In addition, the *Deployments* panel:

- Enables filtering of the deployments to watch by groups and projects
- Provides access for each deployment to the **Options** menu specific for that deployment

## Comms Plot Panel

The glider connections timeline is displayed as a graph on the *Comms Plot* panel on the Dashboard, as shown in Figure 5-5:

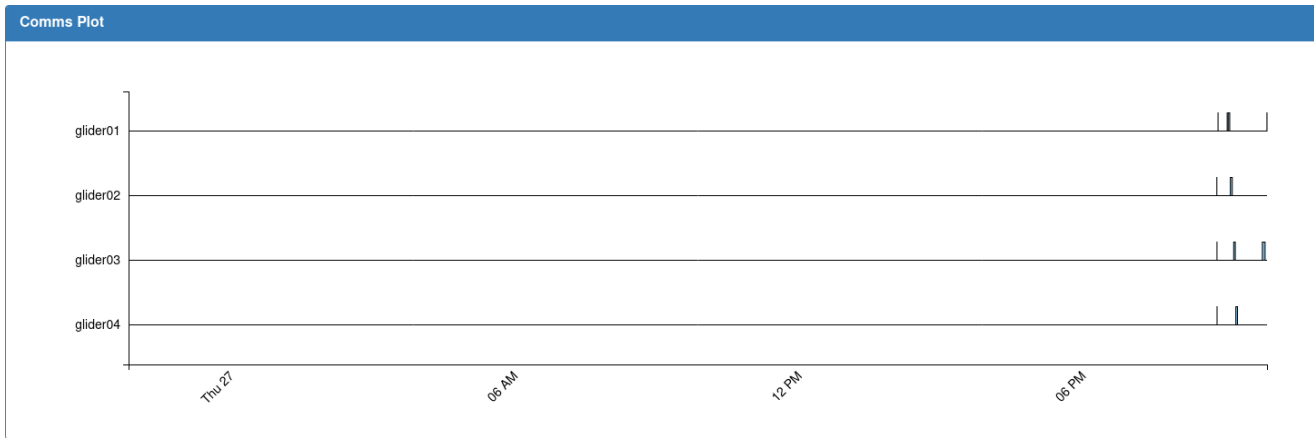


Figure 5-5 Comms Plot panel.

Connections are indicated as bars for each deployment.

- Hovering the pointer over a bar provides more information about the connection.
- Selecting a bar provides access to the glider dialog for that connection, as shown in Figure 5-6 below. You can view and save the dialog.

The horizontal scale of the graph can be set in the *Dashboard Content Filter* box as described in "Filtering the Deployments to Watch by Groups and Projects" below.

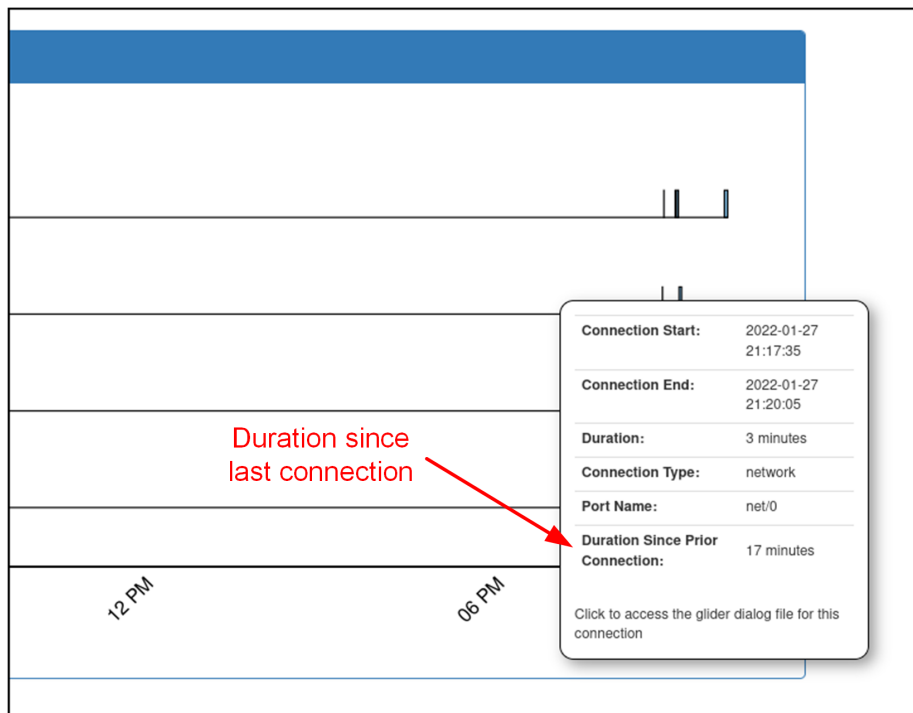


Figure 5-6 Comms Plot details.



## Filtering the Deployments to Watch by Groups and Projects

The deployments on the *Map* and *Deployment* panels can be filtered, displaying only those deployments associated with one or more specific groups or a specific combination of groups and projects.

In addition, you can select the number of most recent days over which to display the surfacings on the map. Doing so also sets the scale of the timeline on the horizontal scale of the *Comms Plot* panel.

To filter the watched deployments by groups and projects:

1. Select the filter icon on the *Deployments* panel (see Figure 5-4 on page 5-6).  
The system displays the *Dashboard Content Filter* dialog box, as shown in Figure 5-7:

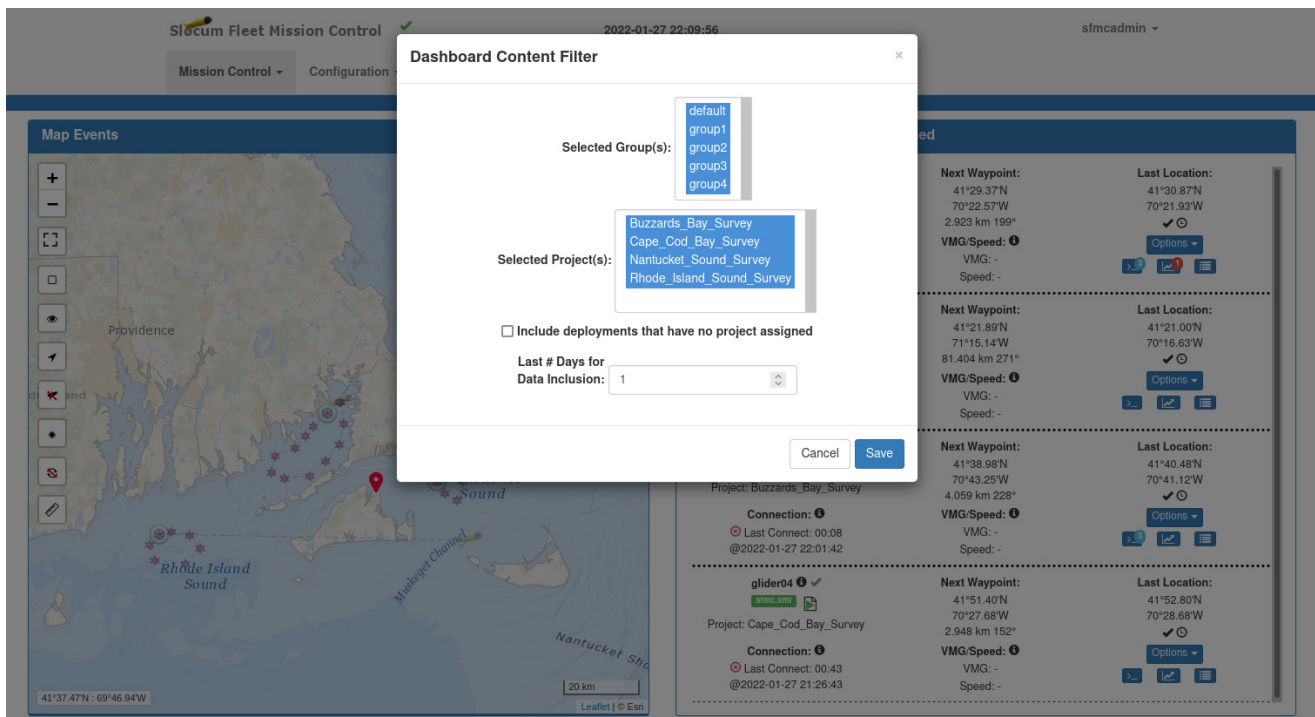


Figure 5-7 Dashboard Content Filter dialog box.

2. Select the group or groups you wish to view from the *Selected Group(s)* list.  
To select more than one item, hold down the **[Ctrl]** key while selecting each one. This is true for the *Selected Project(s)* list, also.
3. Select the project or projects for which the deployments you wish to view are associated from the *Selected Project(s)* list.
4. To include deployments with no projects assigned, select the *Include deployments that have no project assigned* check box.

5. In the *Last # Days for Data Inclusion* field, select how many of the most recent days you want to include in the results.

Selecting the number of days also sets the scale of the horizontal timeline on the *Comms Plot* panel. Displayed surfacings prior to this range of time will be removed from the map.

6. Select *Save*.

The *Dashboard Content Filter* dialog box closes and the selected deployments are displayed.

## 6 User Glider Terminal

The SFMC Glider Terminal provides a convenient means for users to access their Teledyne Webb Research Slocum gliders to send commands, to upload/download files, and to select and run scripts.

### Opening Glider Terminal

To open Glider Terminal:

1. Log in to a user account as either an Administrator or one with any role.  
Administrators can access all gliders.  
Group Level Administrator and Glider Pilot roles can access all gliders in their allowed groups only.
2. From the main menu, select **Mission Control > Glider Terminal Access**.  
The system displays the *Glider Terminal Access* page, as shown in Figure 6-1:

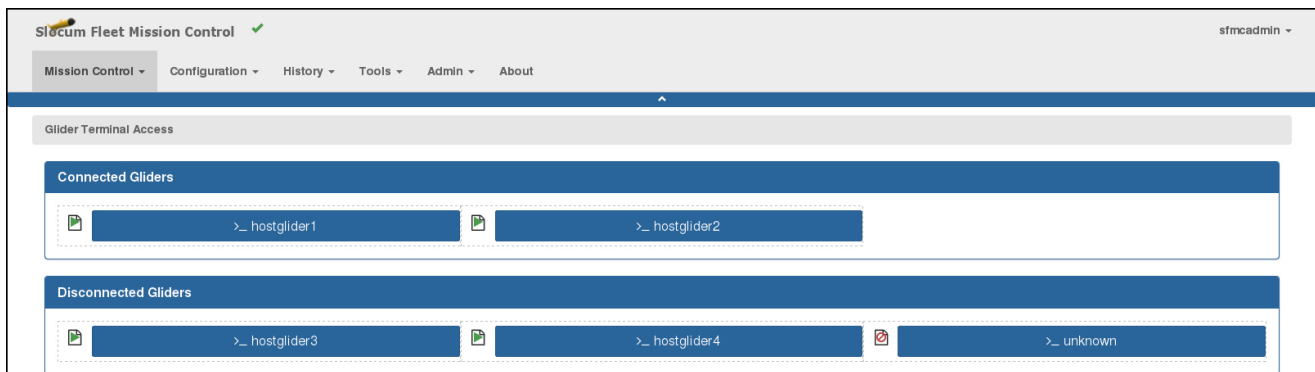


Figure 6-1 *Glider Terminal Access* page.

The *Glider Terminal Access* page lists all of the registered gliders.

- Those gliders that are connected are listed on the *Connected Gliders* panel.
- Those that are disconnected are listed on the *Disconnected Gliders* panel.

An icon on the page next to each glider name indicates whether it has an assigned script running.

3. Select the name of glider that you want access.  
Glider Terminal launches the *Glider Terminal* page, as shown in Figure 6-2 below. All Glider Terminal functions are performed from this page:

Sifcum Fleet Mission Control sfmcadmin

Mission Control - Configuration - History - Tools - Admin - About

---

Terminal for Glider: glider01 / Options

Other Connected Gliders

Other Disconnected Gliders

- glider01
- glider02
- glider03
- glider04
- unknown

00:04 Terminal for Glider: glider01

```

3067 behavior surface_5: c_pitch_value(K)=0.453800
3067 behavior surface_5: printout_cycle_time(sec)=60.000000
3067 behavior surface_5: STATE Uninitd -> Waiting for Activation
3067 behavior surface_5: argument: args_from_file = 1.000000 enum
3067 behavior surface_5: argument: start_when = 8.000000 enum
3067 behavior surface_5: argument: when_secs = 1200.000000 sec
3067 behavior surface_5: argument: when_wpt_dist = 10.000000 m
3067 behavior surface_5: argument: end_action = 1.000000 enum
3067 behavior surface_5: argument: report_all = 0.000000 bool
3067 behavior surface_5: argument: gps_wait_time = 300.000000 sec
3067 behavior surface_5: argument: keystroke_wait_time = 300.000000 sec
3067 behavior surface_5: argument: end_wpt_dist = 0.000000 m
3067 behavior surface_5: argument: c_use_bpump = 2.000000 enum
3067 behavior surface_5: argument: c_bpump_value = 1000.000000 X
3067 behavior surface_5: argument: c_use_pitch = 3.000000 enum
3067 behavior surface_5: argument: c_pitch_value = 0.453800 X
3067 behavior surface_5: argument: c_stop_when_air_pump = 0.000000 bool
3067 behavior surface_5: argument: c_use_thruster = 0.000000 enum
3067 behavior surface_5: argument: c_thruster_value = 0.000000 X
3067 behavior surface_5: argument: printout_cycle_time = 60.000000 sec
3067 behavior surface_5: argument: gps_postfix_wait_time = 60.000000 sec
3067 behavior surface_5: argument: force_latitude_use = 0.000000 nodia
3067 behavior surface_5: argument: min_time_between_gps_fixes = 300.000000 sec
3067 behavior surface_5: argument: sensor_input_wait_time = 10.000000 sec
3067 behavior surface_5: argument: when_utc_min = -1.000000 min
3067 behavior surface_5: argument: when_utc_hour = -1.000000 hour
3067 behavior surface_5: argument: when_utc_day = -1.000000 day
3067 behavior surface_5: argument: when_utc_month = -1.000000 month
3067 behavior surface_5: argument: when_utc_on_surface = 0.000000 bool
3067 behavior surface_5: argument: strobe_on = 0.000000 bool
3067 behavior surface_5: argument: thruster_burst = 0.000000 bool
3071 68 behavior sample_9: SUBSTATE 4 -> 1 : Diving
                    
```

> enter-command-here ^C ^E ^F ^P ^R ^T ^W

Script: sfmc.xml Script State: sendModem

Files

- from-glider
- to-glider
- To Glider File Drop Zone
- to-science
- To Science File Drop Zone
- logs
- archive

Recent Commands Submitted

Show human user commands only

| Resend | Command             | Submission Time     | Submitter |
|--------|---------------------|---------------------|-----------|
|        | Ctrl-R              | 2022-01-27 22:07:09 | N/A       |
|        | Ctrl-W              | 2022-01-27 22:07:04 | N/A       |
|        | ldockszr -archive * | 2022-01-27 22:06:04 | N/A       |
|        | ldockzr -archive *  | 2022-01-27 22:05:05 | N/A       |
|        | s "sbd ".ibd        | 2022-01-27 22:04:01 | N/A       |

Mission Details

Name: sfmc.ml Segment: 0198.0001 glider01-2022-026-0-1

Duration (Secs): 3047 Surface Reason: N/A

Location: 41°30.87'N 70°21.93'W Next Waypoint: 41°29.37'N 70°22.57'W

Time MAFILES Last Read: 2022-01-27 21:16:16

File Transfers

Connection Start: 2022-01-27 22:04:00 Connection End: 2022-01-27 22:07:27

**Uploads**

| File Name               | Start Time | Time of Last Update | Status | Bytes Transferred |
|-------------------------|------------|---------------------|--------|-------------------|
| Total Bytes Uploaded: 0 |            |                     |        |                   |

**Downloads**

| File Name                      | Start Time          | Time of Last Update | Status    | Bytes Transferred |
|--------------------------------|---------------------|---------------------|-----------|-------------------|
| 01980000.sbd                   | 2022-01-27 22:04:08 | 2022-01-27 22:04:09 | Completed | 90420             |
| 01970000.sbd                   | 2022-01-27 22:04:09 | 2022-01-27 22:04:15 | Completed | 81920             |
| 01960065.sbd                   | 2022-01-27 22:04:15 | 2022-01-27 22:04:15 | Completed | 1143              |
| Total Bytes Downloaded: 173483 |                     |                     |           |                   |

Figure 6-2 Glider Terminal page.

## Glider Terminal Page

The *Glider Terminal* page includes four panels:

- **Terminal for Glider**

This panel displays the communications dialog between the glider and SFMC and provides the means to send commands to the glider.

- **Recent Commands Submitted**

This panel lists some or all of the commands that have been sent to the glider from Glider Terminal.

- **Mission Details**

This panel displays the:

- Mission name, segment, and duration
- Last known glider location
- Waypoint location the glider is to go to next
- Reason for the last surfacing

- **File Transfers**

This panel displays what files have been uploaded to the glider and downloaded from the glider, and it enables saving of the log file associated with each connection.

The *Glider Terminal* page also includes the:

- *Files* area

Use this area to view & transfer files to/from the glider, and view & save logs and archive files.

- *Other Connected Gliders* area

- *Other Disconnected Gliders* area

Use these two areas to select a different glider for an active deployment.

## Terminal for Glider Panel

The *Terminal for Glider* panel displays all communications dialog for the selected glider in Terminal displays that are on tabs, one tab for each network port the glider has connected to since the *Terminal for Glider* panel was opened.

The tab name is the network port name, and selecting the tab name opens the tab. Only one tab can be open at a time.

An icon next to each tab name indicates whether the glider is currently connected to that port:

- When the icon is a green check mark, the glider is connected.
- When a red X mark icon is displayed instead, the glider is no longer connected to that port.

On the right side of the *Terminal for Glider* panel title bar is a User Count icon. The displayed number indicates how many user accounts have Glider Terminal open for the selected glider. Resting the pointer over the icon displays which user accounts.



### Note

Pressing **[F5]** refreshes the *Glider Terminal* page by removing all the tabs except the one associated with the network port the glider is currently connected to, if any.



### Note

A glider can be connected to only one network port at a time. Should the glider connect to a different network port, a new tab will open with a new Terminal display.

Commands can be sent to a connected glider by entering them in the *enter-command-here* text box at the bottom of a tab. Frequently used commands can be entered by selecting the control key character buttons to the right of the text box.

## Recent Commands Submitted Panel

The *Recent Commands Submitted* panel displays a list of up to ten of the last commands sent to the glider upon opening the *Glider Terminal* page. Once opened, any new commands sent to the glider will be prepended to the list. The commands are those sent from all user accounts that are open to the *Glider Terminal* page for the glider.

The *Recent Commands Submitted* panel includes the following fields and information:

|                 |   |
|-----------------|---|
| Command         | The commands that have been sent to the glider.     |
| Submission Time | The date and time the commands were sent.           |
| Submitter       | The user account from which the commands were sent. |

To display only the commands issued by the user to the glider, select the *Show human user commands only* check box. Clear the check box to display these commands plus the commands issued to the glider by the Dock Server using Dock Server scripts.

## Mission Details Panel

The Mission Details panel displays the following:

|                |   |
|----------------|---|
| Name           | The name of the mission.  |
| Location       | The latitude and longitude in degrees and decimal minutes of the last known glider location.  |
| Segment        | The mission segment short name and long name. <ul style="list-style-type: none"> <li>The short name is in xxxx.yyyy format, where xxxx is the mission number and yyyy is the mission segment.</li> <li>The long name is composed of the glider name followed by the year of the mission start, the day of the year of the mission start, the n-1th mission of the day, and the n-1th segment of the mission.</li> </ul> |
| Next Waypoint  | The coordinates of the waypoint, in latitude and longitude degrees and decimal minutes, that the glider was to go to next, or is to go to next if it is the most recent surfacing.  |
| Duration       | The time in seconds since the mission began.  |
| Surface Reason | The reason for the surfacing. <ul style="list-style-type: none"> <li>A green banner is shown when the glider surfaced because it hit a waypoint.</li> <li>A red banner is shown if the mission was aborted for some reason.</li> <li>A yellow banner is shown for other reasons.</li> </ul>   |

## File Transfers Panel

The File Transfers panel displays the following for each connection:

|                        |   |
|------------------------|---|
| File Name              | The name of the file, including the extension.  |
| Start Time             | The date and time of the start of the file transfer.  |
| Time of Last Update    | The date and time at which the file being uploaded or downloaded was most recently updated or at which the upload or download was completed. Once completed, the date and time will no longer change.<br>The system displays it in <b>yyyy-mm-dd hh:mm:ss</b> format. |
| Status                 | The status of the file transfer: Started, In Progress, Incomplete, Completed, or Canceled.  |
| Bytes Transferred      | The bytes transferred for the file.   |
| Total Bytes Uploaded   | The total number of bytes that have been transferred to the glider from SFMC.   |
| Total Bytes Downloaded | The total number of bytes that have been transferred from the glider to SFMC.   |

To display the transferred files for the next or previous connection, select the *Go to next connection* or *Go to prior connection* button, respectively.

To display the transferred files for the first connection or the last connection, select the *Go to first connection* or *Go to last connection* button, respectively

In addition to the files transferred, the *File Transfer* panel enables saving of the communications log file for the connection. To save the log file, select the *Access glider dialog for this connection* button and save the file. The system automatically generates the name and saves it as a LOG file.

## Files Area

The *Files* area includes the following buttons and drop zones for accessing and transferring files to and from the glider:

|                          |   |
|--------------------------|---|
| From-Glider              | <p>Selecting <i>from-glider</i> provides access to the files in the <b>From-Glider</b> folder. A <i>File Count</i> icon indicates how many files are in the folder.</p> <p>These files have been downloaded from the glider to SFMC while the glider was connected, either as a result of running a script, such as the factory script <code>sfmc.xml</code>, or by sending a file transfer command to the glider.</p> <p>The files can include SBD, DBD, MBD, INI, DAT, MLG, and other types, depending on what files were actually downloaded. None of the files can be deleted; however, they are removed when the active deployment for the glider is archived.</p>   |
| To-Glider                | <p>Selecting <i>to-glider</i> provides access to the files in the <b>To-Glider</b> folder. A <i>File Count</i> icon indicates how many files are in the folder.</p> <p>These files will be uploaded to the glider from SFMC while the glider is connected, either as a result of running a script, such as the factory script <code>sfmc.xml</code>, or by sending a file transfer command to the glider.</p> <p>The files determine the glider behavior and can be created directly by a user or created automatically by SFMC from a mission plan. The file types can include MA, MI, CFG, and others.</p> <p>User-created files to be uploaded must first be transferred to SFMC by dragging and dropping them into the <i>To Glider File Drop Zone</i>. Any file that has not been uploaded to the glider can be deleted. Once uploaded, the files are moved to the <b>Archive</b> folder as Archive files.</p> |
| To Glider File Drop Zone | <p>Dragging and dropping a file into the <i>To Glider File Drop Zone</i> transfers the file to SFMC and enables the file to be uploaded to the glider from SFMC either as a result of running a script, such as the factory script <code>sfmc.xml</code>, or when sending a file transfer command to the glider.</p>  |



|                           |   |
|---------------------------|---|
| To-Science                | <p>Selecting <i>to-science</i> provides access to the files in the <b>To-Science</b> folder. A <i>File Count</i> icon indicates how many files are in the folder. These files will be uploaded to the glider from SFMC when sending a file transfer command.</p> <p>The files determine the glider science processing behavior and can include INI, DAT and other files.</p> <p>The files to be uploaded must first be transferred to SFMC by dragging and dropping them into the <i>To Science File Drop Zone</i>. Any file that has not been uploaded to the glider can be deleted. Once uploaded, the files are moved to the <b>Archive</b> folder as Archive files.</p> |
| To Science File Drop Zone | <p>Dragging and dropping a file into the <i>To Science File Drop Zone</i> transfers the file to SFMC and enables the file to be uploaded to the glider from SFMC when sending a file transfer command to the glider.</p>  |
| Logs                      | <p>Selecting Logs provides access to the files in the <b>Logs</b> folder. A <i>File Count</i> icon indicates how many files are in the folder. These files contain all the communications dialogs between the glider and SFMC for all the glider connections.</p> <p>None of the files can be deleted; however, they are removed when the active deployment for the glider is archived.</p>   |
| Archive                   | <p>Selecting Archive provides access to the files in the <b>Archive</b> folder. A <i>File Count</i> icon indicates how many files are in the folder. These files have been uploaded to the glider as a result of an <b>-archive</b> option, such as when uploading <b>To-Glider</b> files.</p> <p>None of the files can be deleted; however, they are removed when the active deployment for the glider is archived.</p>  |

## Other Gliders Area

This area enables access to a different glider while open to the *Glider Terminal* page. To access a different glider, select its name. The list of gliders includes all the registered and unknown gliders whether they are connected to SFMC or not. However, the currently selected glider is not included.

*Glider Connection Status* and *Script Status* icons next to each glider name indicate whether the glider is connected to SFMC and whether it has an assigned script running. Additional information is provided when resting the pointer over these icons.

## Other Glider Terminal Page Functions

Buttons on the *Glider Terminal* page enable activation of additional Glider Terminal functions, and displays provide information on any running script.

The *Glider Terminal* page provides the following buttons and displays:

|   |  |
|---|--|
| Script  | Displays the currently selected script if any. An icon next to the display indicates whether it is a factory or a user script when resting the pointer over it.  |
| Change active script                                  | Opens the <i>Script Selection for Glider &lt;Glider Name&gt;</i> dialog box which enables the selection of a script or the selection of a different script for the glider. The dialog box also enables the selection of no script. |
| Rewind the active script                              | Rewinds the active script.   |
| Pause current script                                  | Pauses the current script if it is running. The button is available only when the script is running.   |
| Time in minutes to resume active script after pausing | The time in minutes after which the active script will resume if it was paused. Select the time from the drop-down list.   |
| Resume current script                                 | Resumes the running of the current script if it has been paused. The button is available only when the script has been paused.   |
| Script State  | Displays the current state of the running script.  |

## Controlling Scripts

From the *Glider Terminal* page, scripts can be:

- assigned and automatically run
- unassigned and automatically stopped
- paused
- resumed

For instructions on how to manage scripts, refer to Chapter 7, “Managing Dock Server Scripts.”

## Assigning and Unassigning Scripts

To assign and unassign scripts:

1. Select the *Change active script* button.

The system displays the *Script Selection for Glider <Glider Name>* dialog box, as shown in Figure 6-3.

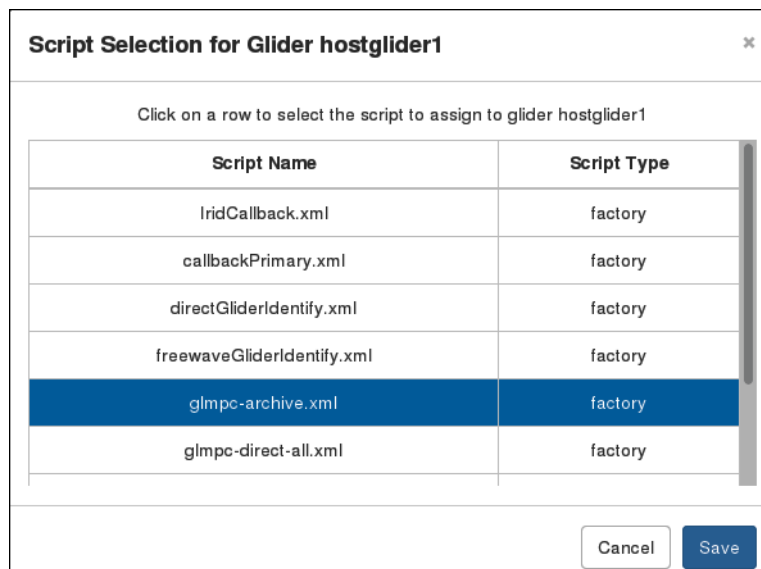


Figure 6-3 Script Selection for Glider <Glider Name> dialog box.

2. Do one of the following:
  - Select the script that you want to assign.  
The system highlights the script.
  - Select the highlighted script to unassign it.  
The system unhighlights the script.
3. Select *Save*.

If a script was assigned, its name will be displayed in the *Script* display, and it will automatically run. In addition, the state of the script will be displayed in the *Script State* display.

If a script was unassigned, the *Script* and *Script State* displays will be cleared, and the script will automatically stop if it was running.

## Pausing and Resuming Scripts

To pause a running script, select the *Pause current script* button. Pausing a running script is recommended to establish full control of a glider's output and what commands are sent to the glider.

To resume a paused script, select the *Resume current script* button or wait for the time to expire as selected by the *Time in minutes to resume active script after pausing* setting.

## Uploading, Viewing, Saving, and Deleting Files

When you access the folders in the *Files* area of the *Glider Terminal* page, you can:

- View and save files that have been downloaded from the glider to SFMC
- Select files to be uploaded from SFMC to the glider when the glider connects

You can also view, save, and delete files to be uploaded.

### Viewing and Saving From-Glider Files

**From-Glider** files that have been downloaded from the glider to SFMC can be viewed and saved. The files to be saved can be selected in one of the following ways:

- One at a time
- In specific groups
- All at once

To view and save From-Glider files:

1. Select from-glider in the Files area of the *Glider Terminal* page.

The system displays the *From-Glider Files for Glider <Glider Name>* dialog box, as shown in Figure 6-4:

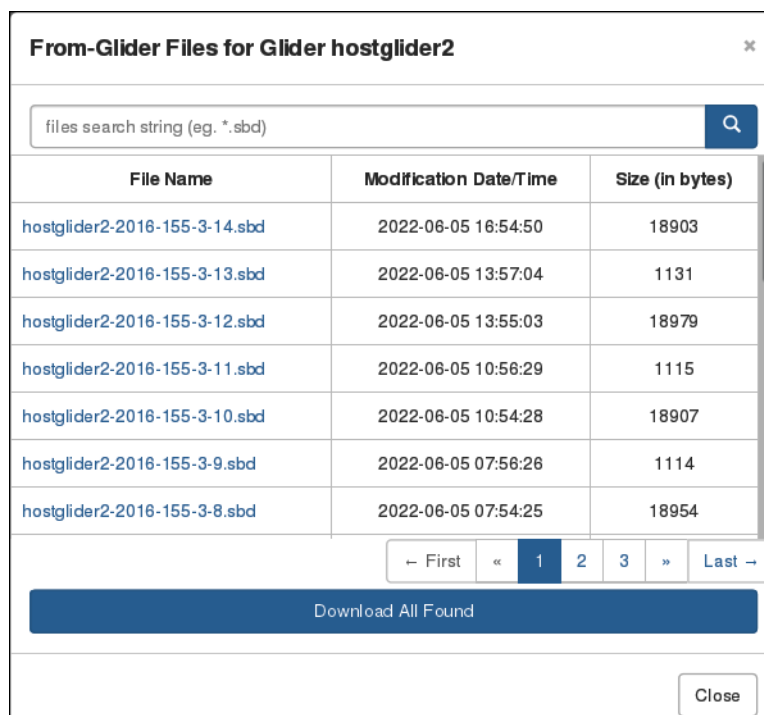


Figure 6-4 *From-Glider Files for Glider <Glider Name>* dialog box.

2. To filter the From-Glider files to view or save:
  - a. Enter the characters common to each file name in the text box and an asterisk (\*) for each single or a group of contiguous uncommon characters.
  - b. Select the *Search* button.
3. Do one of the following:
  - Select the file that you want to view, and then open the file.
  - Select the file that you want to save, and then save the file.
  - Select Download All Found and save all the files.

## Uploading, Viewing, Saving, and Deleting To-Glider Files

To-Glider files to be uploaded from SFMC to the glider when the glider connects must be added to the **To-Glider** folder. The files can be added with any user account that is open to the *Glider Terminal* page and has access to the glider.

To add the files to the To-Glider folder, drag-and-drop the files into the To Glider File Drop Zone. Once in the folder, any file can be viewed, saved or deleted if it has not been uploaded to the glider.

To view, save, and delete To-Glider files:

1. Select to-glider in the Files area of the *Glider Terminal* page.  
The system displays the *To-Glider Files for Glider <Glider Name>* dialog box, as shown in Figure 6-5:

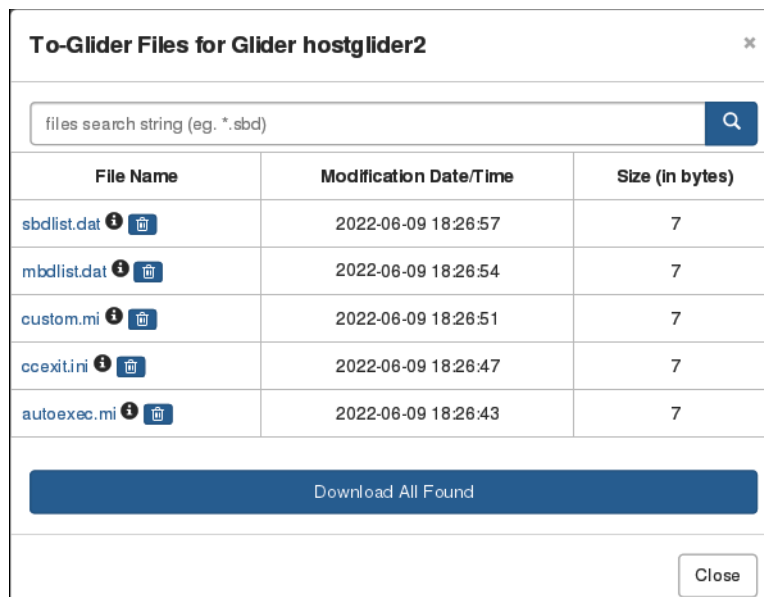


Figure 6-5 To-Glider Files for Glider <Glider Name> dialog box.

2. To filter the To-Glider files to view, save, or delete:
  - a. Enter the characters common to each file name in the text box and an asterisk (\*) for each single or a group of contiguous uncommon characters.
  - b. Select the *Search* button.
3. Do one of the following:
  - Select the file that you want to view, and then open the file.
  - Select the file that you want to save, and then save the file.
  - Select Download All Found and save all the files.
  - Select the Delete button of any files that you want to delete.

## Uploading, Viewing, Saving, and Deleting To-Science Files

To-Science Files to be uploaded from SFMC to the glider when the glider connects must be added to the **To-Science** folder. The files can be added with any user account that is open to the *Glider Terminal* page and has access to the glider.

To add the files to the **To-Science** folder, drag-and-drop the files into the *To Science File Drop Zone*. Once in the folder, any file can be viewed, saved or deleted from the folder if it has not been uploaded to the glider.

To view, save, and delete To-Science files:

1. On the *Glider Terminal* page, in the *Files* area, select *to-science*.  
The system displays the *To-Science Files for Glider <Glider Name>* dialog box, as shown in Figure 6-6:

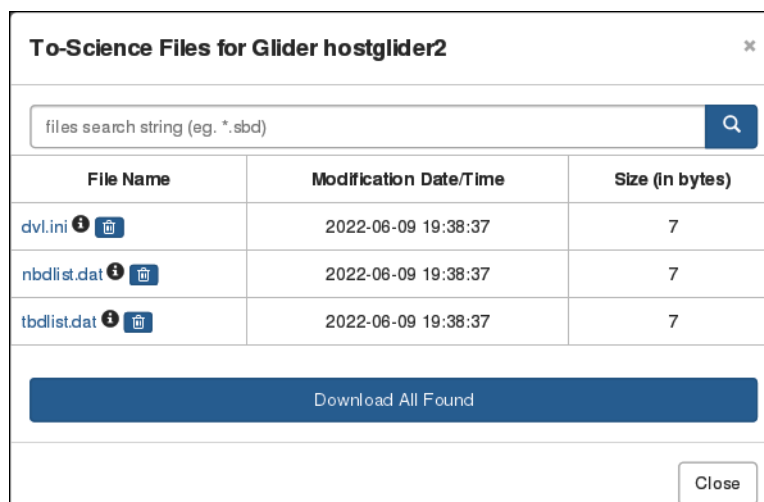


Figure 6-6 *To-Science Files for Glider <Glider Name>* dialog box.

2. To filter the To-Science files to view, save, or delete:

- a. Enter the characters common to each file name in the text box and an asterisk (\*) for each single or a group of contiguous uncommon characters.
  - b. Select the *Search* button.
3. Select one of the following:
    - The file that you want to view, and then open the file.
    - The file that you want to save, and then save the file.
    - *Download All Found* and save all the files.
    - The *Delete* button of any files that you want to delete.

## Viewing and Saving Logs Files

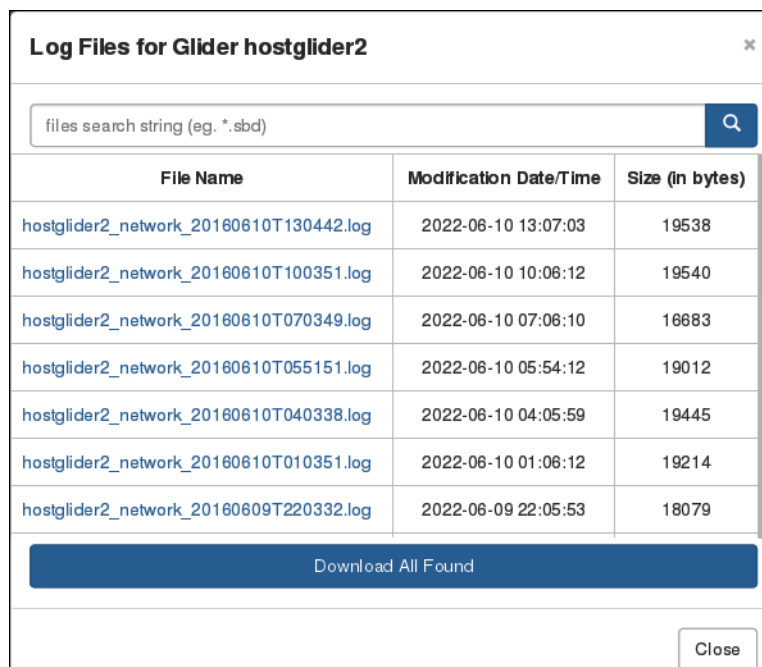
Logs files that have been downloaded from the glider to SFMC can be viewed and saved if the active deployments for them have not been archived.

The files to be saved can be selected one at a time, in specific groups or all at once.

To view and save Logs files:

1. Select logs in the Files area of the *Glider Terminal* page.

The system displays the *Logs Files for Glider <Glider Name>* dialog box, as shown in Figure 6-7:



| File Name                               | Modification Date/Time | Size (in bytes) |
|---|------------------------|-----------------|
| hostglider2_network_20160610T130442.log | 2022-06-10 13:07:03    | 19538           |
| hostglider2_network_20160610T100351.log | 2022-06-10 10:06:12    | 19540           |
| hostglider2_network_20160610T070349.log | 2022-06-10 07:06:10    | 16683           |
| hostglider2_network_20160610T055151.log | 2022-06-10 05:54:12    | 19012           |
| hostglider2_network_20160610T040338.log | 2022-06-10 04:05:59    | 19445           |
| hostglider2_network_20160610T010351.log | 2022-06-10 01:06:12    | 19214           |
| hostglider2_network_20160609T220332.log | 2022-06-09 22:05:53    | 18079           |

Figure 6-7 *Log Files for Glider <Glider Name>* dialog box.

2. To filter the Logs files to view or save:
  - a. Enter the characters common to each file name in the text box and an asterisk (\*) for each single or a group of contiguous uncommon characters.
  - b. Select the *Search* button.
3. Select one of the following:
  - The file that you want to view, and then open the file.
  - The file that you want to save, and then save the file.
  - *Download All Found* and save all the files.

## Viewing and Saving Archive Files

Archive files that have been downloaded from the glider to SFMC can be viewed and saved if the active deployments for them have not been archived.

The files to be saved can be selected one at a time, in specific groups or all at once.

To view and save Archive files:

1. Select archive in the *Files* area of the *Glider Terminal* page.

The system displays the *Archive Files for Glider <Glider Name>* dialog box, as shown in Figure 6-8:

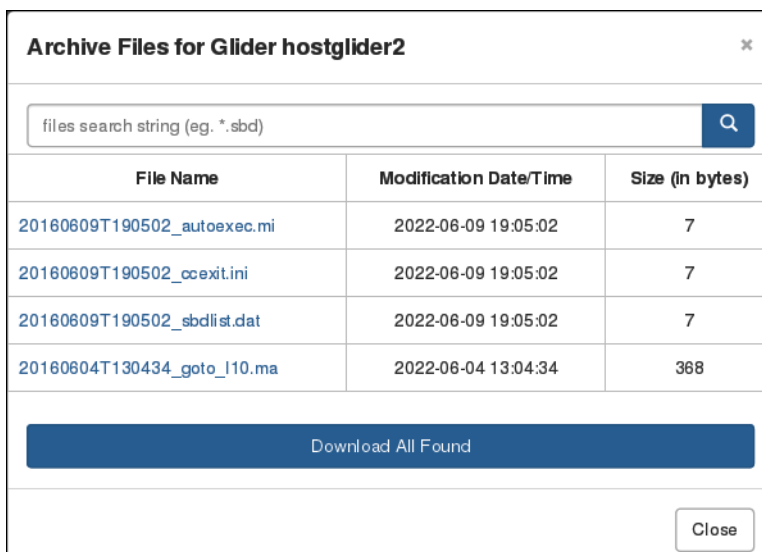


Figure 6-8 Archive Files for Glider <Glider Name> dialog box.

2. To filter the Archive files to view or save:
  - a. Enter the characters common to each file name in the text box and an asterisk (\*) for each single or a group of contiguous uncommon characters.
  - b. Select the *Search* button.



3. Select one of the following:
  - The file that you want to view, and then open the file.
  - The file that you want to save, and then save the file.
  - *Download All Found* and save all the files.

## Importing Glider Data from another Dock Server

SFMC provides the ability to import glider data from another Dock Server. For instructions on how to import the data, refer to Appendix C, "Importing Glider Data."

# 7 Managing Dock Server Scripts

SFMC includes a number of factory scripts that you can assigned anytime to an active glider deployment. You can also view, edit and delete any user script for the glider.

Moreover, instead of a factory script, you can assign a user generated script (as long as the glider belongs to an allowed group for the user account).



## Note

For instructions on how to assign & automatically run, unassign & automatically stop, pause, and resume scripts, refer to “Controlling Scripts” on page 6-8.

## The Dock Server Scripts Page

Scripts are managed from the *Dock Server Scripts* page. To open the page, go to the main menu and select **Configuration > Scripts**. An example is shown in Figure 7-1 on page 7-2.

The *Dock Server Scripts* page includes four panels:

- **Factory Scripts** — lists all of the available factory scripts
- **User Scripts** — lists all of the available user scripts for each allowed group
- **User Scripts Drop Zone** — enables the transferring of user scripts to SFMC
- **Default Scripts Assignments** — enables the automatic assignment of a default script for a newly registered glider

Each one is explained in the next four sections.

### Factory Scripts Panel

This panel lists all available factory scripts and whether each script is in use.

To view a factory script, select it from the list. However, you cannot change or delete a factory script.

### User Scripts Panel

This panel lists all available user scripts and whether each script is in use (for each allowed group, according to your user account and role).

To view a user script, select it from the list. Once selected, you can then edit-and-save the script or edit-and-save-as to a new file name.

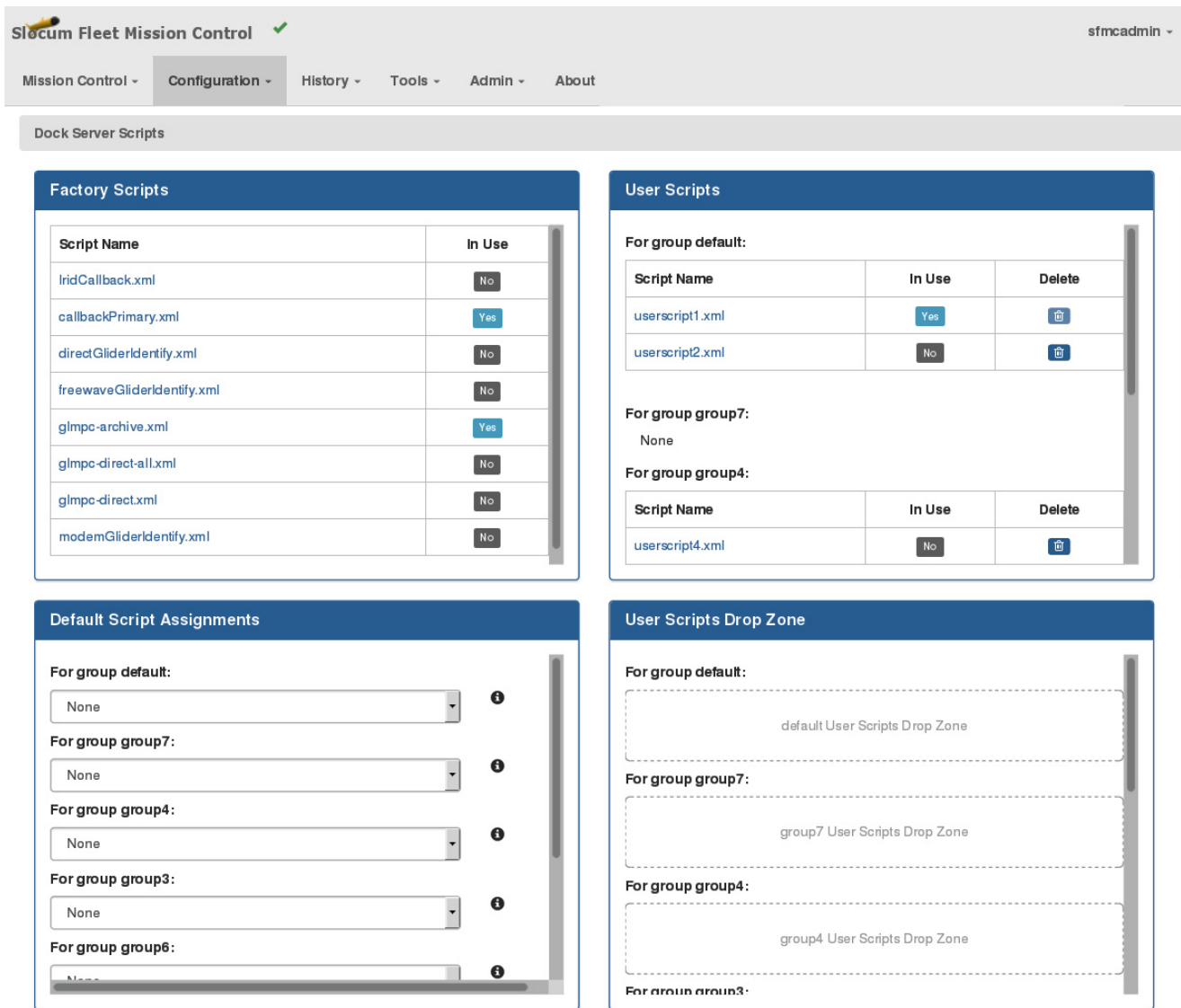


Figure 7-1 Dock Server Scripts page.

You can delete any script that is not in use.

You can add a script to the *User Scripts* panel by dragging and dropping the script file into the drop zone for the group on the *User Scripts Drop Zone* panel.

## User Scripts Drop Zone Panel

This panel lets you transfer user script files to the list of available user scripts for each allowed group on the *User Scripts* panel.

To transfer a file, drag-and-drop it into the drop zone for the appropriate group.

## Default Scripts Assignments Panel

This panel provides drop-down lists of all available scripts, both factory and user, for each allowed group.

Use a group's drop-down list to select a script that will be automatically assigned to and run on any glider that you register to that group.

For any of the allowed groups, you can select **None** for no script.

Any unregistered glider that connects is automatically registered to the default group. In this case The script selected for the default group, if any, is assigned and run on that glider.

## Transferring a User Script File to SFMC

To transfer a user script file to SFMC:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator role.  
The Group Level Administrator role can transfer scripts to allowed groups only.
2. Drag-and-drop the script file into the drop zone for the group on the *User Scripts Drop Zone* panel.  
The script is displayed for the group on the *User Scripts* panel.

## Assigning a Default Script

A default script is automatically assigned to a glider when that glider first connects and is registered. However, a different default script can assigned.

To assign a default script:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator role.  
The Group Level Administrator role can assign default scripts for the allowed groups only.
2. Go to the *Default Script Assignments* panel.
3. Use the drop-down list for the appropriate group to select the appropriate factory or user script.

## Deleting a User Script

Any user script that is not being used can be deleted.

To delete a user script:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator role.  
The Group Level Administrator role can delete script files for their allowed groups only.
2. Select the *Delete* button for the script on the *User Scripts* panel.  
The system displays the *Delete User Script* dialog box, as shown in Figure 7-2:

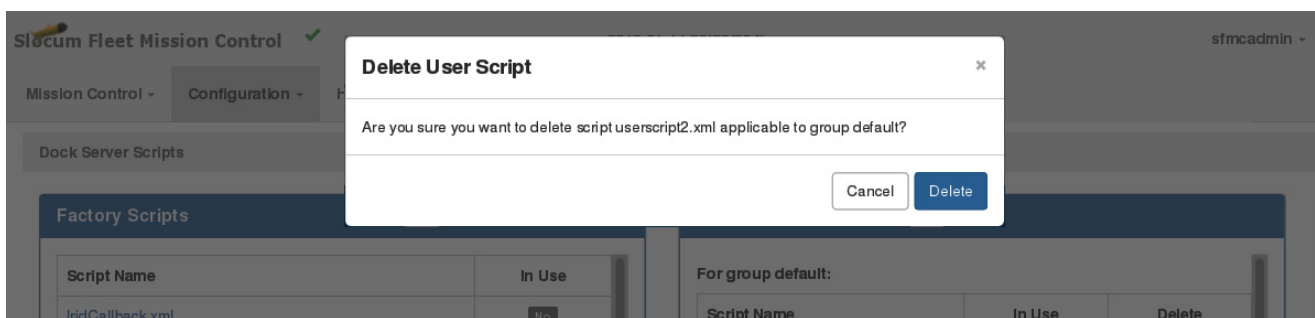


Figure 7-2 Delete User Script dialog box.

3. Select *Delete*.  
The system deletes the user script and closes the *Delete User Script* dialog box.

# 8 Managing Mission Plans

A mission plan is composed of the following seven mission plan parts:

- **Waypoint plan**

A list of waypoints that determine a glider's intended track.

- **Surface plan**

A list of permanently enabled rules plus one or more optionally enabled priority ordered rules; together, these rules dictate the conditions for when a glider surfaces.

- **Yo plan**

Determines the dive and climb behavior of the glider.

A *yo* is one dive-and-climb cycle a glider performs.

A plan includes the number of yos, the dive and climb target depths, the dive and climb angles, the dive target altitude, and either the dive and climb buoyancy pump volumes or the speed control.

- **Sampling plan**

Determines which glider sensors are to be sampled versus time or depth; when they are to be sampled, such as when diving, hovering, climbing, or at the surface; or a combination of any two or more of these states.

It also determines: during which yos or half-yos they are to be sampled; the time between samples; and the maximum and minimum depths at which to sample.

- **Mission Sensor plan**

Configures the header sensors on the glider, such as power modes, minimum altimeter depth, and flight and science transmit header options.

- **Abort plan**

Specifies the minimum battery voltage. The mission aborts when the battery voltage goes below that point.

- **Data Transmission plan**

Determines what sensor data are saved in SBD and TBD files, which are the recommended files to transmit during the surfacings. If enabled, the `sfmc.xml` script requests these files at the surfacings.

Allows you to specify when the data to be transmitted are collected, such as when diving, hovering, climbing, or at the surface, or a combination of any two or more of these states; at what intervals the data to be transmitted are collected; and during which yos or half-yos the data to be transmitted are collected.

Each mission plan part is created for a specific group and therefore can only be assigned to those gliders in that group. Mission plan parts can be viewed, edited, cloned, and deleted.

Once a set of seven mission plan parts are created for the same group, one or more mission plans can be completed for that group as described in "Managing a Mission Plan" on page 8-76.

When installed, SFMC provides the **SFMC Stock Ashumet** stock mission plan, which can be cloned and renamed as a basis for a new mission plan.

## Managing a Waypoint Plan

Waypoint plans can be viewed, created, edited, cloned, and deleted.

### Viewing a Waypoint Plan

To view a waypoint plan:

1. Log in to a user account as either an Administrator or one with any role.  
Administrators can view all waypoint plans.  
Group Level Administrator, Glider Pilot, and Viewer roles can view waypoint plans for their allowed groups only.
2. From the main menu, select **Configuration > Mission Planning Menu > Waypoint Plans Menu > Waypoint Plans**.

The system displays the *Waypoint Plans* page, as shown in Figure 8-1:

| Waypoint Plan Name                      | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date  | In Use | View | Edit | Clone | Delete |
|---|------------------|------------|------------------|------------------|---------------------|--------|------|------|-------|--------|
| Buzzards_Bay_Mission_01_Waypoint_01     | group2           | sfmadmin   | 2017-12-28 19:56 | sfmadmin         | 2017-12-29 18:53:27 | No     |      |      |       |        |
| Cape_Cod_Bay_Mission_01_Waypoint_01     | group1           | sfmadmin   | 2017-12-28 19:35 | sfmadmin         | 2017-12-28 19:36:23 | No     |      |      |       |        |
| Muskeget_Channel_Mission_01_Waypoint_01 | default          | sfmadmin   | 2018-01-04 14:42 | sfmadmin         | 2018-01-06 21:32:40 | No     |      |      |       |        |
| RI_Sound_Mission-01_Waypoint_01         | default          | sfmadmin   | 2017-12-29 18:05 | sfmadmin         | 2017-12-29 18:06:41 | No     |      |      |       |        |

Figure 8-1 *Waypoint Plans* page.

To display more waypoint plans on a single page, select the number to display from the *Show Waypoint Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by waypoint plan name, groups, or both by selecting the associated filter icon, and sort the list by waypoint plan name by selecting the sort icon.
4. Select the *View* button for the waypoint plan that you want to view.

The system opens the *Waypoint Plan* panel where the waypoint plan specifies, along with the waypoint latitude and longitude coordinates, as well as the waypoint locations on the map, as shown in Figure 8-2:

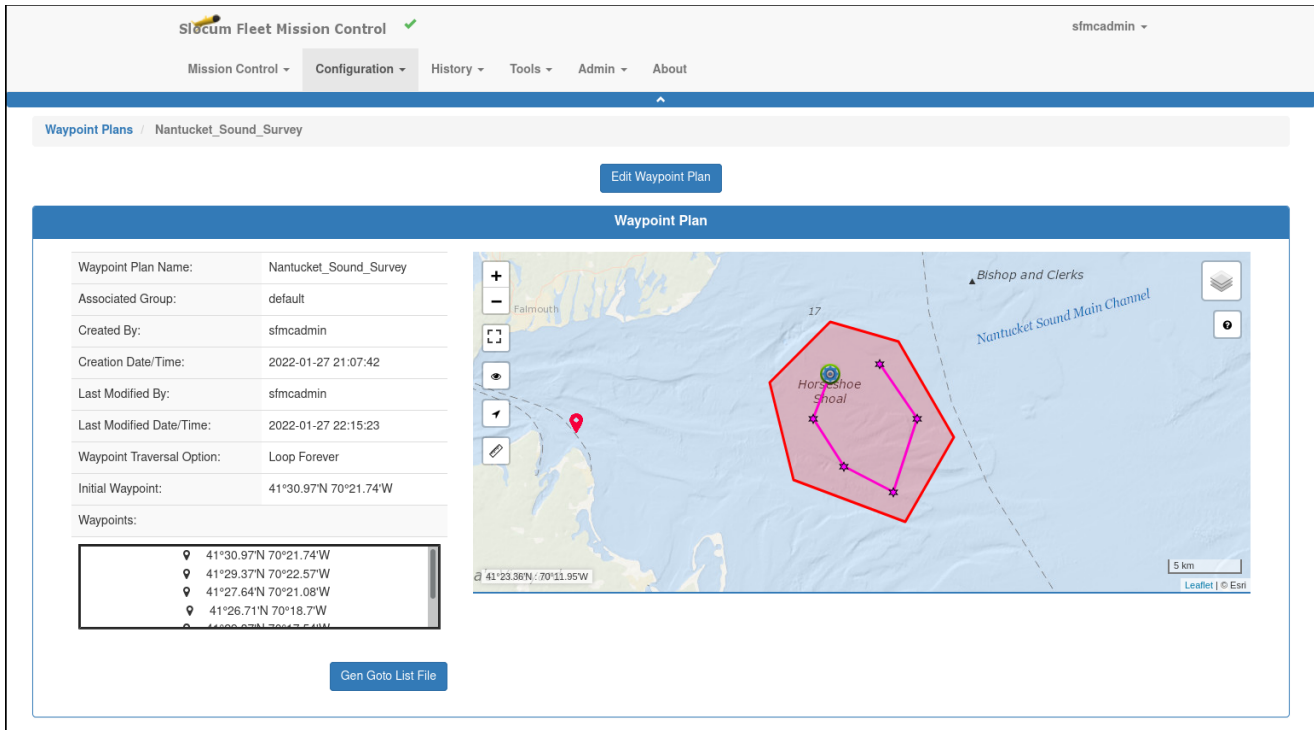


Figure 8-2 Waypoint Plan details and map.

The *Waypoint Plan* panel includes the following fields and information:

|                           |  |
|---------------------------|--|
| Waypoint Plan Name        | The name of the waypoint plan.   |
| Associated Group          | The group associated with the waypoint plan. The waypoint plan can be assigned and deployed for only those gliders in the group.             |
| Created By                | The user account that was used to create the waypoint plan.  |
| Creation Date/Time        | The date and time the waypoint plan was created.   |
| Last Modified By          | The user account that was last used to edit the waypoint plan. N/A indicates that the waypoint plan has never been edited.                   |
| Last Modified Date/Time   | The date and time the waypoint plan was last edited. N/A indicates that the waypoint plan has never been edited.                             |
| Waypoint Traversal Option | Displays whether the glider is to traverse the waypoints in the specified order only once or to traverse the waypoints in a continuous loop. |



|                  |   |
|------------------|---|
| Initial waypoint | The latitude and longitude of the location of the first waypoint. |
| Waypoints        | The latitude and longitude of the locations of all the waypoints. |



## Note

If you would like to generate a `goto list` file from the waypoint plan without generating a full mission plan:

- On the *Waypoint Plan* panel, select the *Gen Goto List File* button.  
The system displays the *Gen Goto List File* dialog box.
- Enter a two-digit mission number that will be made a part of the `goto list` file name; for example, type **10** for the mission number and the file name will be **goto110.ma** (or something similar).

## Creating a Waypoint Plan

To create a waypoint plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can create waypoint plans for any group.

The Group Level Administrator and Glider Pilot roles can create waypoint plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning Menu > Waypoint Plans Menu > Create Waypoint Plan**.

The system displays the *Create Waypoint Plan* page, as shown in Figure 8-3:

Figure 8-3 *Create Waypoint Plan* page.

- In the *Waypoint Plan Name* text box, enter a unique name for the waypoint plan, as shown in Figure 8-4 below. The name must begin with an alpha character followed by at least 4 but no more than 49 alphanumeric or special characters:

Figure 8-4 Waypoint plan name entered.

- To assign this waypoint plan to a group, select a value from the *Group* drop-down list. This drop-down list is displayed only if the user account is associated with more than one group.
- Select *Next*.

The system displays the *Waypoint Plan* panel, as shown in Figure 8-5:

Figure 8-5 Waypoint Plan panel.

The *Waypoint Plan* panel is composed of a:

- Form on the left for entering the waypoint parameters
- Map on the right for waypoint planning

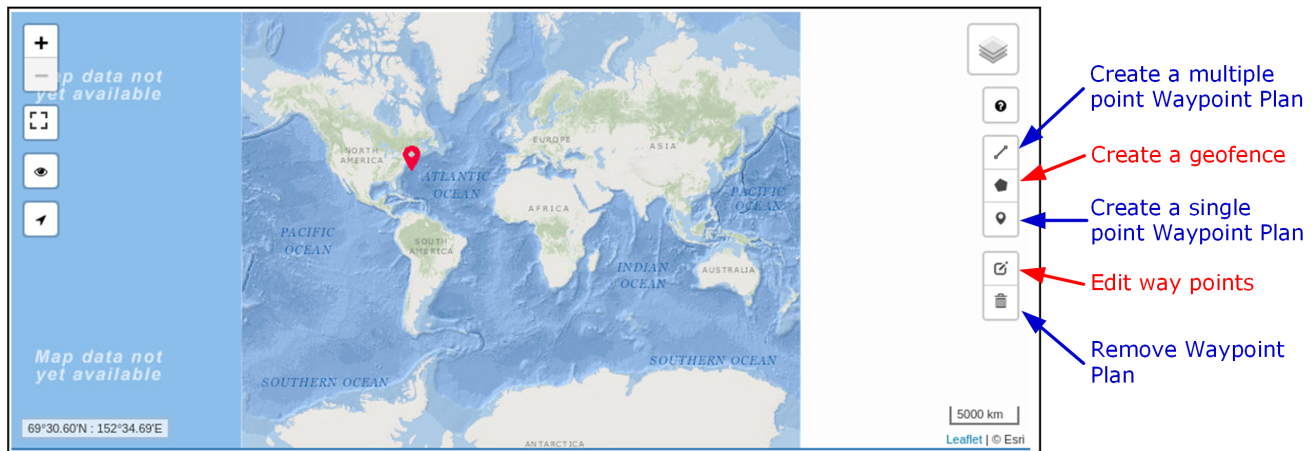


Figure 8-6 Waypoint map and waypoint planning buttons.



**Note**

For a description of the other buttons and displays on the *Map Events* panel, refer to “Map Events Panel” on page 5-4.

The buttons called out in Figure 8-6 are specific to waypoint planning only:

|                                       |  |
|---------------------------------------|--|
| Create a multiple point waypoint plan | Enables the creation of a waypoint plan containing multiple waypoints. |
| Create a single point waypoint plan   | Enables the creation of a waypoint plan containing only one plan.      |
| Edit waypoints                        | Enables the editing of the displayed waypoint plan.                    |
| Remove waypoint plan                  | Enables the deletion of the displayed waypoint plan.                   |

6. [optional] Do one of the following:

- Specified Location
  - Select *Pan to a Specified Location* to pan to a specific location on the map. The system displays the *Pan to Coordinates Form* dialog box.
  - Enter the latitude and longitude in degrees and decimal minutes of the location to which to pan in the Latitude (DDM) and Longitude (DDM) text boxes.
  - Select *Submit*.  
The map will pan to that location.

- Last Location
  - i. Select *Pan to Glider's Last Location* to pan to the last known location of the glider of an active deployment.
 

This enables you to create a new waypoint plan for the deployment. The glider must be in the same group associated with the waypoint plan.

The system displays the *Select Glider for Location Form* dialog box.
  - ii. Select the glider associated with the active deployment from the drop-down list.
  - iii. Select *Apply*.

The map will pan to the last known location of that glider.

7. Alternately, select the *Zoom in/Zoom out* button and select-and-drag on the map to go to the initial waypoint region, as shown in Figure 8-7:

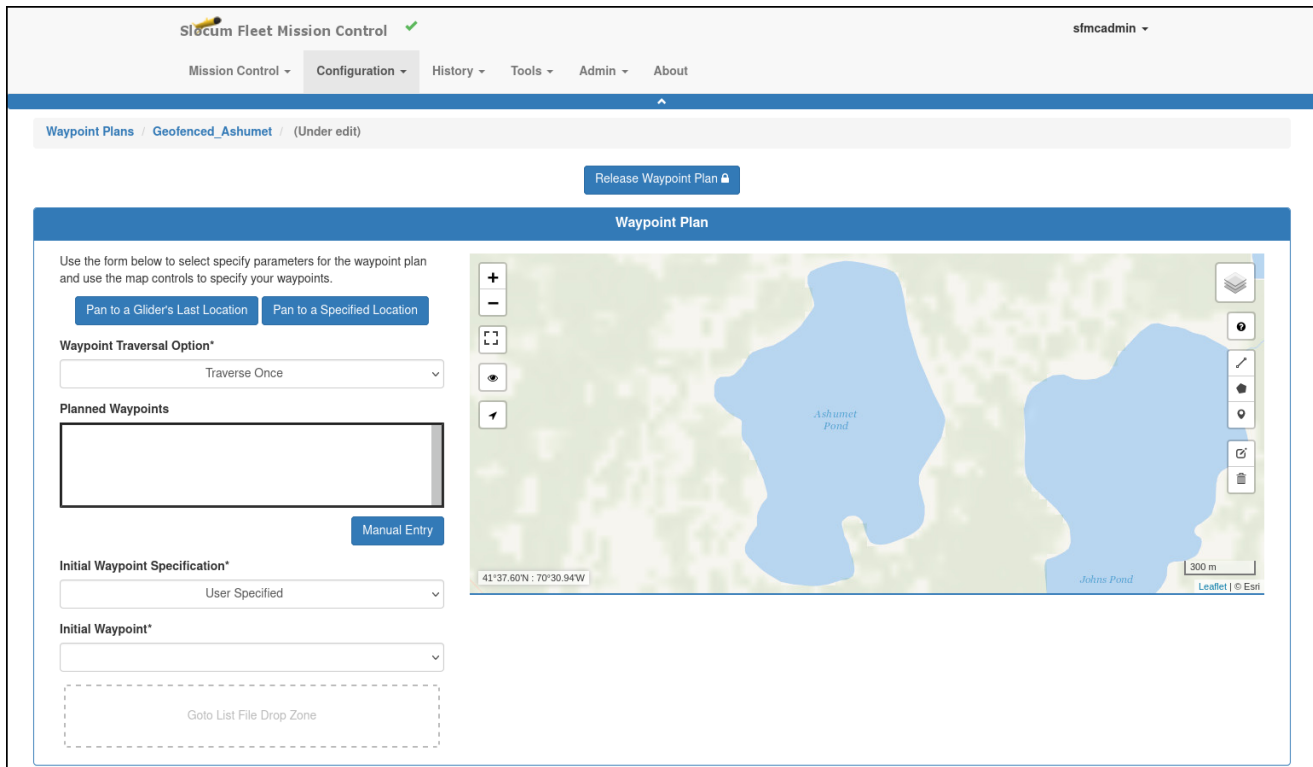


Figure 8-7 Initial waypoint region.



## Note

If a `goto_I10.ma` file is available for the desired waypoint plan, you can drag-and-drop the file into the *Goto List File Drop Zone* on the *Waypoint Plan* panel, and then go directly to Step 9.

## 8. Do one of the following:

- For a waypoint plan containing multiple waypoints:
  - i. Select the *Create a multiple point waypoint plan* button on the map.
  - ii. Select the location of the initial waypoint on the map followed by the locations of every other waypoint.
  - iii. Double-select the last one to finish.
- For a single point waypoint plan:
  - i. Select the *Create a single point waypoint plan* button.
  - ii. Select in the map at the waypoint location.

The initial waypoint location in latitude and longitude degrees and decimal minutes is displayed in the *Initial Waypoint* text box, as shown in Figure 8-8:

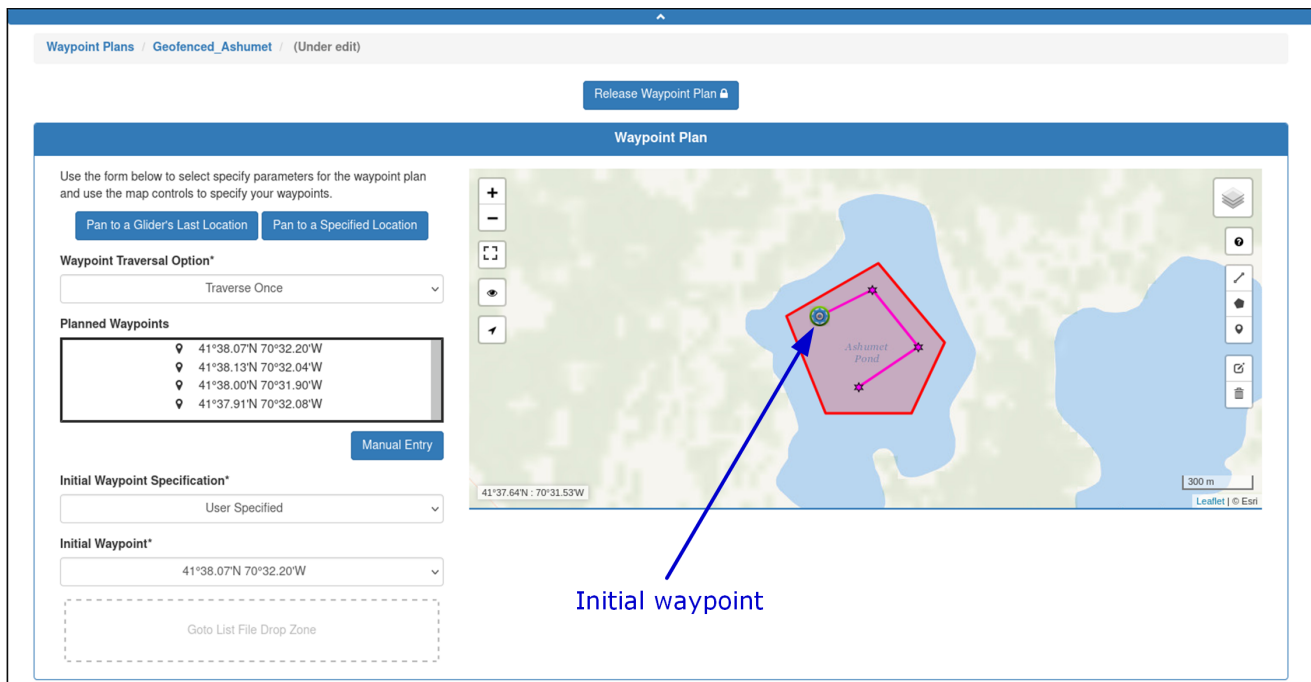


Figure 8-8 Initial waypoint displayed.

All the waypoint locations are listed in the *Planned Waypoints* drop-down list. The initial waypoint location is displayed on the map as a target icon, and the others, as star icons.

9. From the *Waypoint Traversal Option* drop-down list, select one of the following:

- *Traverse Once* to instruct glider to traverse the waypoints only once in the specified order
  - or –
- *Loop Forever* to instruct the glider to traverse the waypoints in a continuous loop

10. From the *Initial Waypoint Specification* drop-down list, select one of the following:
- **User Specified** — to specify that the glider is to go to the operator specified initial waypoint
  - **Closest** — to specify that the glider is to go to the closest waypoint first when deployed
  - **One After Last Achieved** — to specify that if a waypoint in the list is the one that the glider last achieved, the glider is to go to the next planned waypoint

The system automatically saves the waypoint plan.

11. [optional] Select inside the *Initial Waypoint* text box to open a drop-down list, then select a different initial waypoint location. This drop-down list is only available when *User Specified* is selected from the *Initial Waypoint Specification* drop-down list.

The new initial waypoint is displayed on the map, as shown in Figure 8-9:

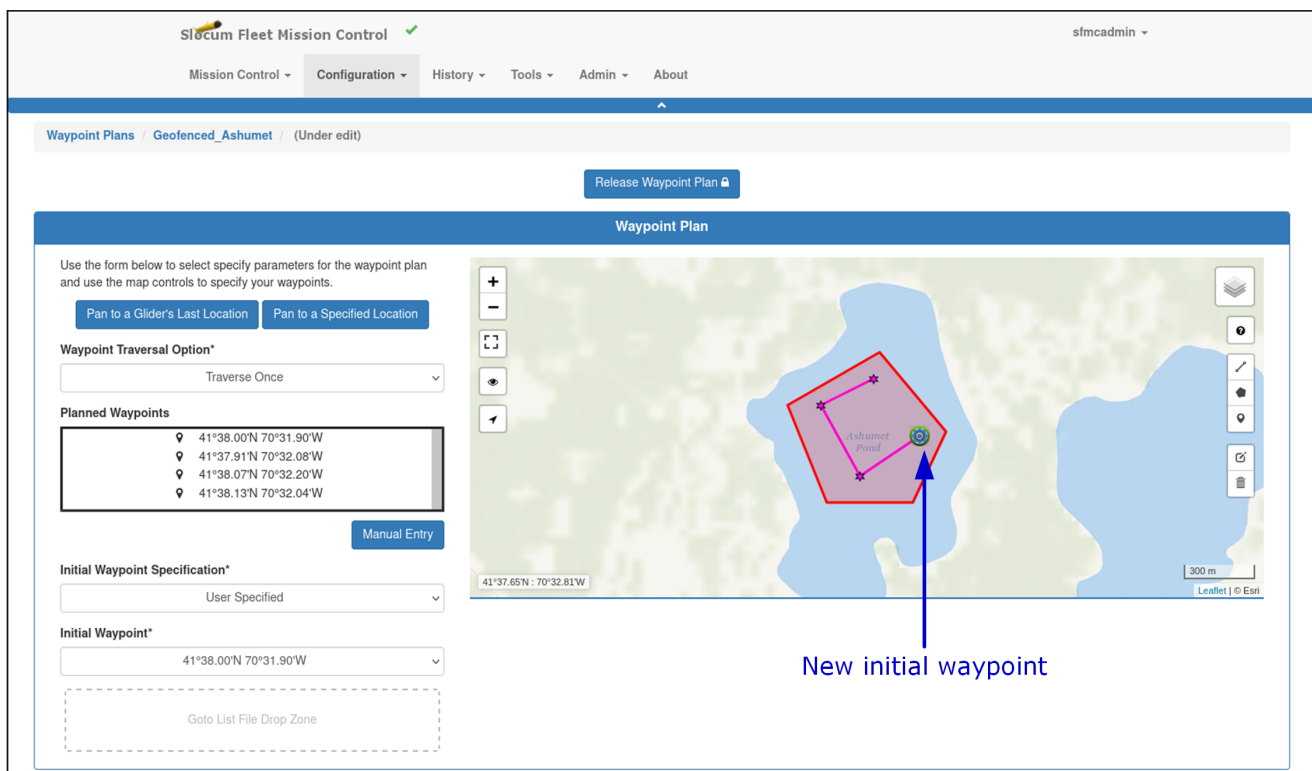


Figure 8-9 New initial waypoint selected.

The system automatically saves the waypoint plan.

12. [optional] Select *Release Waypoint Plan*.

The system releases the waypoint plan and displays the edited waypoint plan details in the *Waypoint Plan* panel. You can also select *Edit Waypoint Plan* and make and save additional edits.

## Editing a Waypoint Plan

Once saved, a waypoint plan can be edited at any time to include moving, adding, and deleting waypoints.

You can begin editing a waypoint plan directly from the *Waypoint Plans* page or when viewing the waypoint plan as described in “Viewing a Waypoint Plan” on page 8-2.

While editing a waypoint plan, it is locked to all other user accounts until the editing is completed. However, a locked waypoint plan can be cloned, as described in “Cloning a Waypoint Plan” on page 8-16, and then edited.

If the waypoint plan is associated with an active deployment, the mission plan for the deployment must be processed and the mission files regenerated for the edited waypoint plan to be uploaded to the glider when it next connects and if the script `sfmc.xml` is enabled.

For instructions on how to process a mission plan and generate the files, refer to “Assigning a Mission Plan to an Active Deployment” on page 9-15.

To edit a waypoint plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot roles.  
Administrators can edit waypoint plans for any group.  
Group Level Administrator and Glider Pilot roles can edit waypoint plans for the allowed groups only.
2. From the main menu, select **Configuration > Mission Planning Menu > Waypoint Plans Menu > Waypoint Plans**.

The system displays the *Waypoint Plans* page (see Figure 8-1 on page 8-2).

To display more waypoint plans on a single page, select the number to display from the *Show Waypoint Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by waypoint plan name, groups, or both by selecting the associated filter icon, and sort the list by waypoint plan name by selecting the sort icon.
4. Select the:
  - *Edit* button for the waypoint plan that you want to edit
  - or–
  - *View* button to look at the waypoint plan first, then select the *Edit Waypoint Plan* button just above the *Waypoint Plan* panel

The *Waypoint Plans* page opens to the *Waypoint Plan* panel of the waypoint plan to be edited, as shown Figure 8-10:

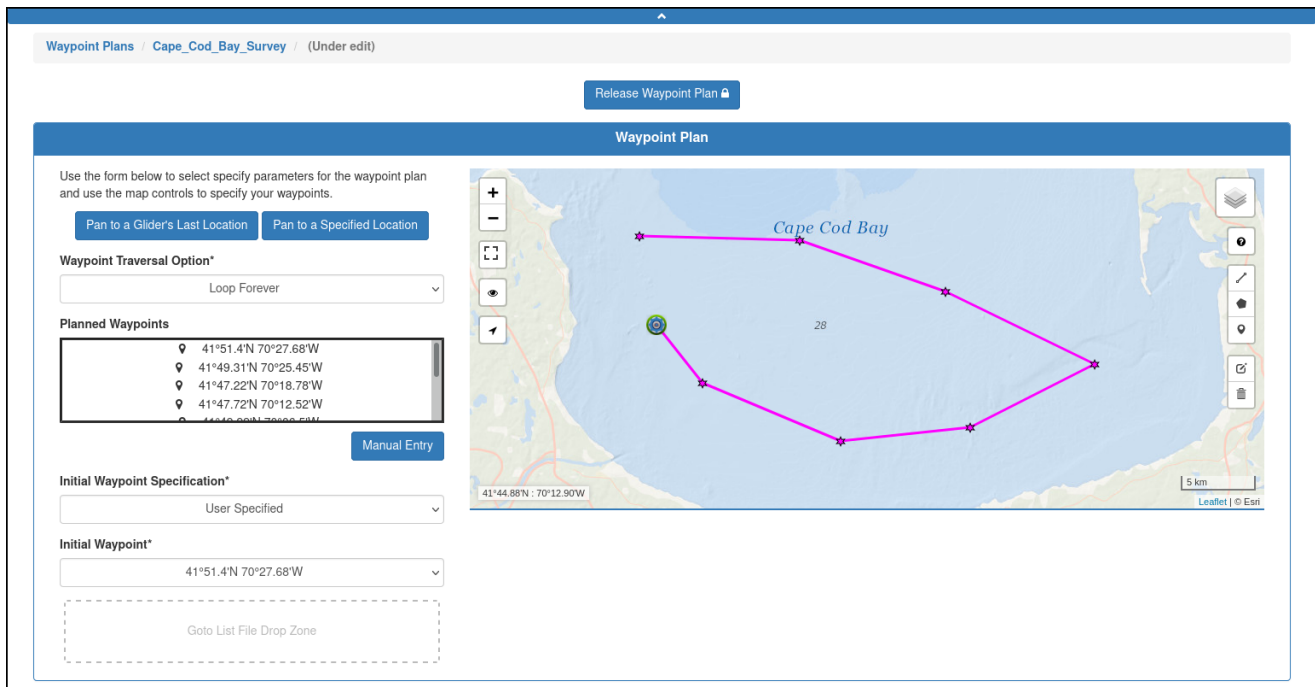


Figure 8-10 Waypoint plan to be edited.

The waypoint plan also becomes locked for editing by any other user account.

5. Select the *Edit waypoints* button on the right side of the map.

The lines connecting the waypoints become dashed, white drag handles mark the waypoint locations, and clear drag handles mark the center of the path between each waypoint location.

All these are shown in Figure 8-11:



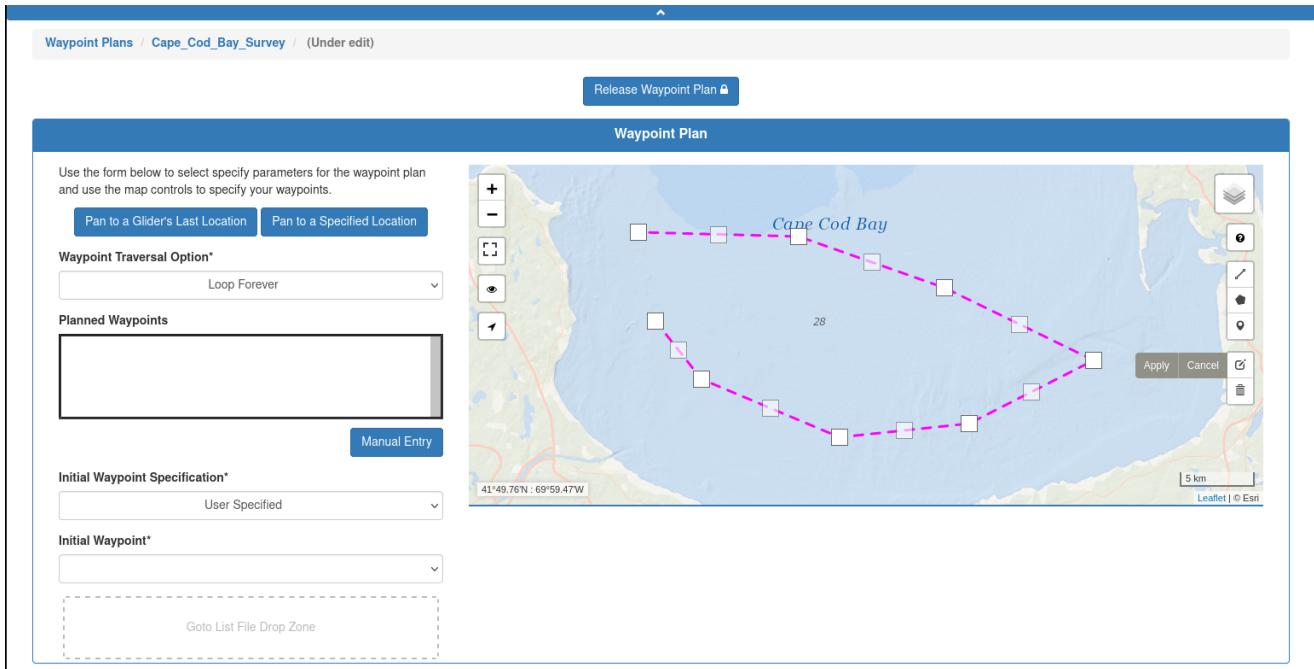


Figure 8-11 Waypoint plan drag handles added for editing.

6. Do any one or more of the following:

- To move a waypoint, select-and-drag its white drag handle to the new location as shown in Figure 8-12:

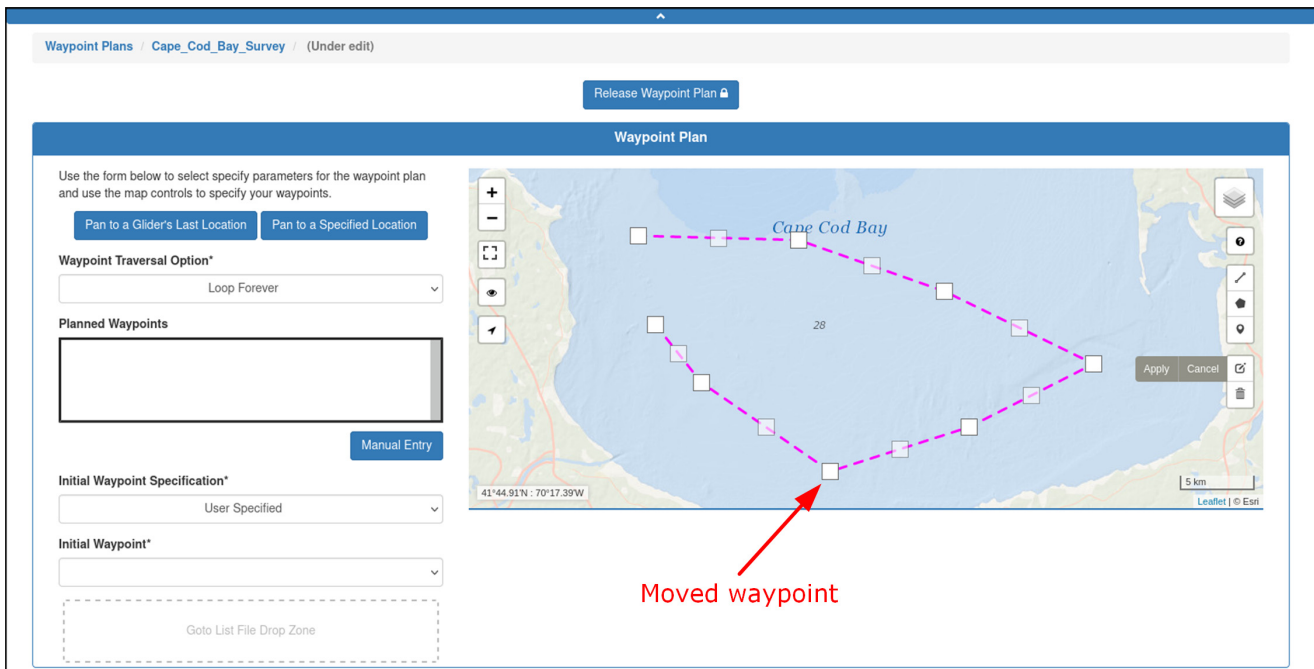


Figure 8-12 A single waypoint moved.

- To add a waypoint, select-and-drag a clear center drag handle to the waypoint location as shown in Figure 8-13:

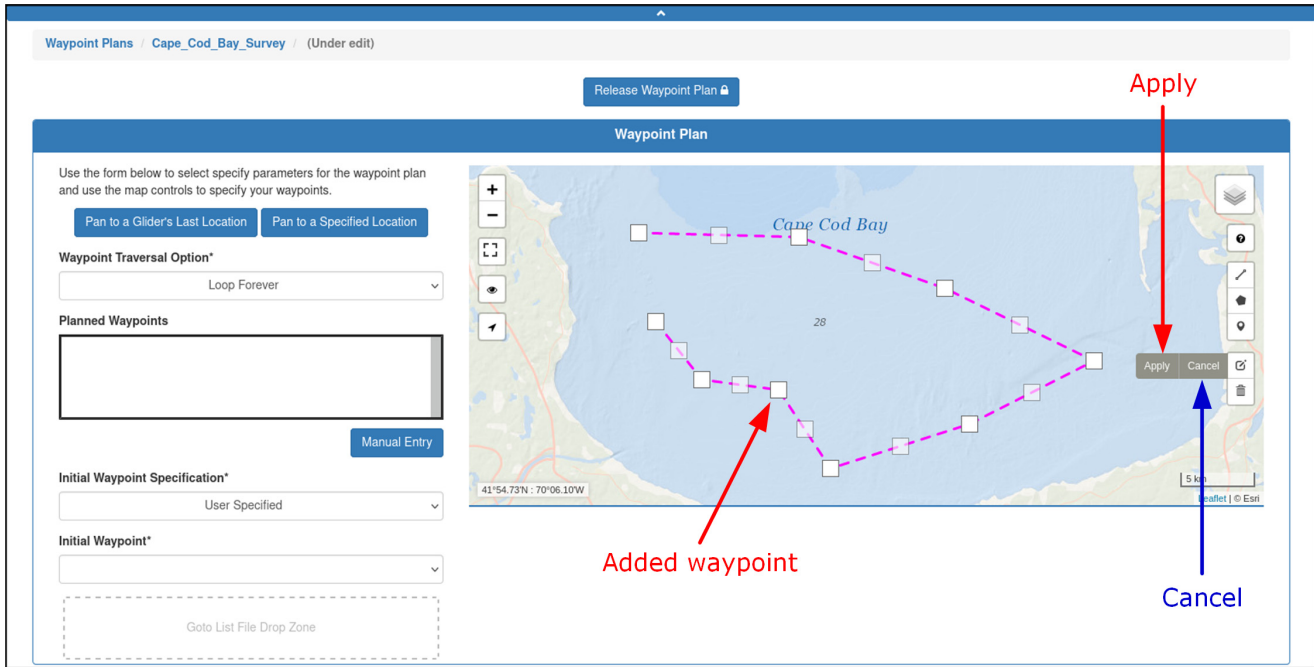


Figure 8-13 A single waypoint added.

The drag handle turns into a waypoint and two new drag handles are added.

- To remove a waypoint, just select its white drag handle.

- Select *Apply* next to the *Edit waypoints* button on the map to save the edits, as shown in Figure 8-13 above. Select *Cancel* to ignore all changes.

The lines connecting the waypoints become solid again, as shown in Figure 8-14:

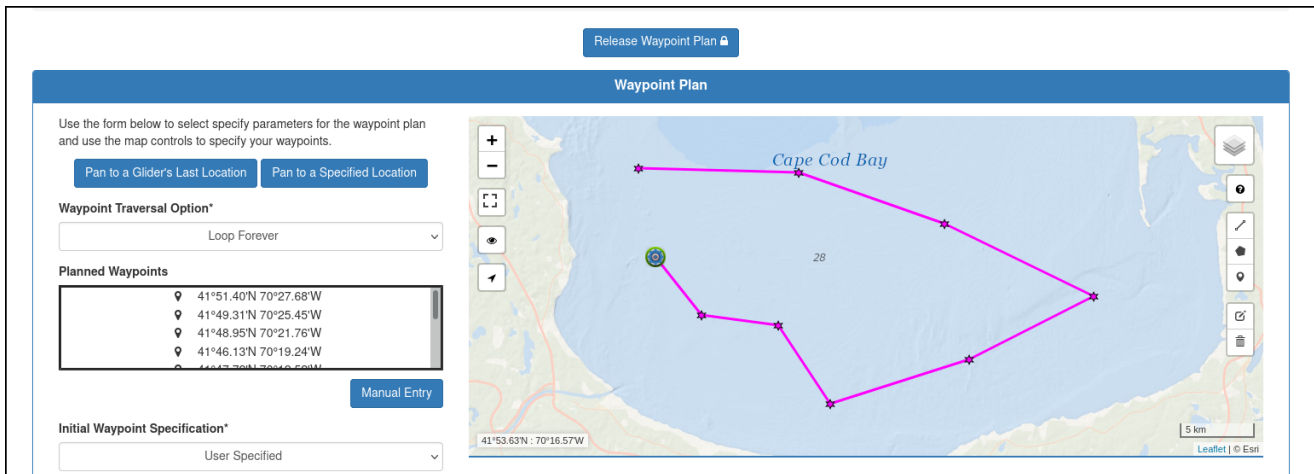


Figure 8-14 The edited and saved waypoint plan.

8. [optional] Make any other changes.  
See "Adding a Waypoint Geofence" below, if desired.  
The waypoint plan is automatically saved.
9. [optional] Select *Release Waypoint Plan*.  
The system releases the waypoint plan and displays the edited waypoint plan details.  
You can also select *Edit Waypoint Plan* to make and save additional edits.

## Adding a Waypoint Geofence

To add a waypoint geofence:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.  
Administrators can delete waypoint plans for any group.  
Group Level Administrator and Glider Pilot roles can delete waypoint plans for the allowed groups only.
2. From the main menu, select **Configuration > Mission Planning Menu > Waypoint Plans Menu > Waypoint Plans**.

The system displays the *Waypoint Plans* page, as shown in Figure 8-15 below:

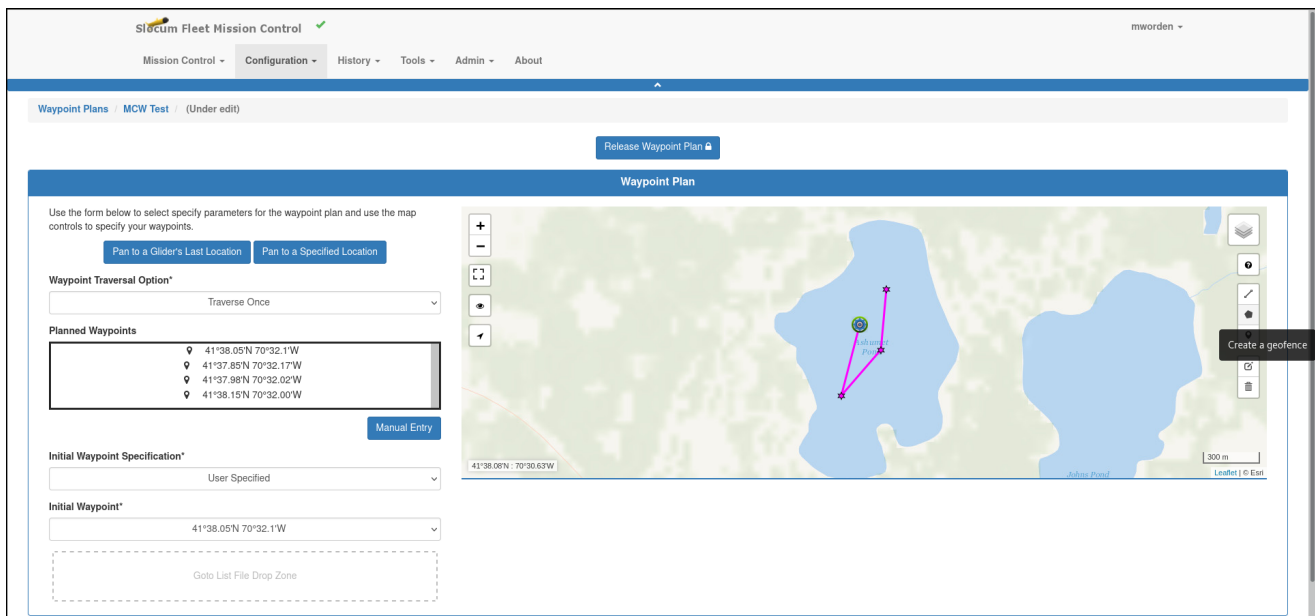


Figure 8-15 Adding a Waypoint geofence.

3. Select the **Geofence** icon on the right side, as shown in Figure 8-15 above.
4. Using the cursor, point-and-click to choose locations outside of the Waypoint Plan, as shown in Figure 8-16 below:

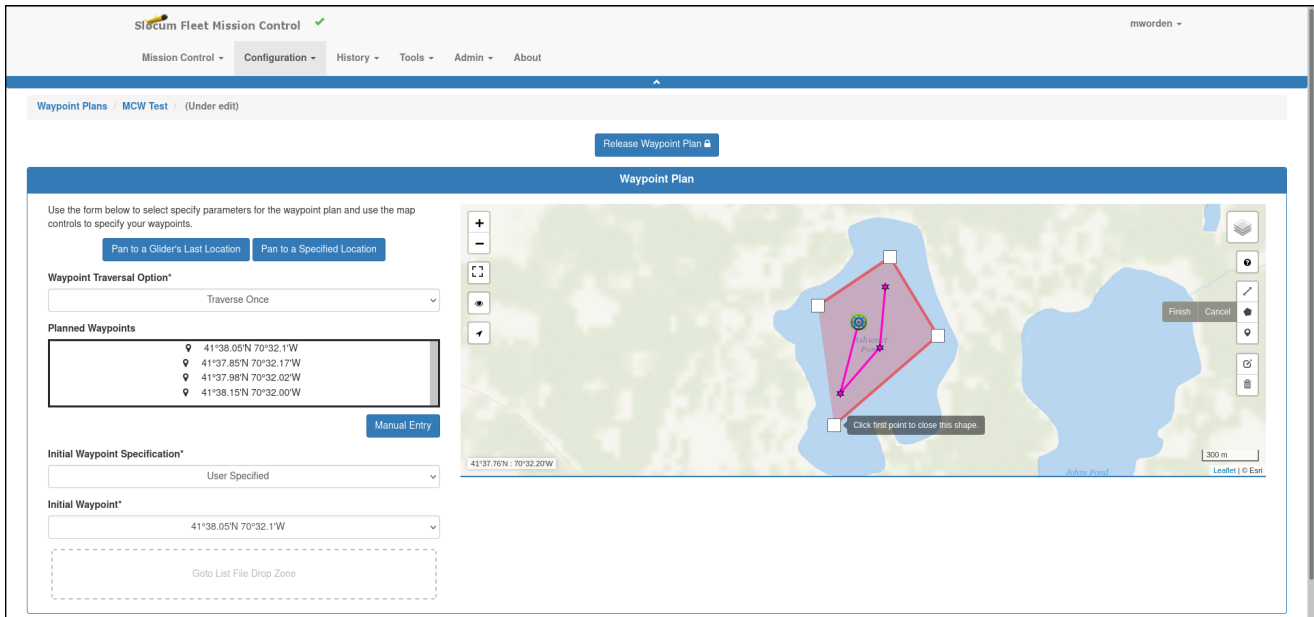


Figure 8-16 Creating and finishing a Waypoint geofence.

- 5. To close the geofence shape you have created, click the first point.
- 6. Select the *Finish* option next to the **Geofence** icon, as shown in Figure 8-16 above. The system displays the complete geofence around the Waypoint plan, as shown in Figure 8-17:

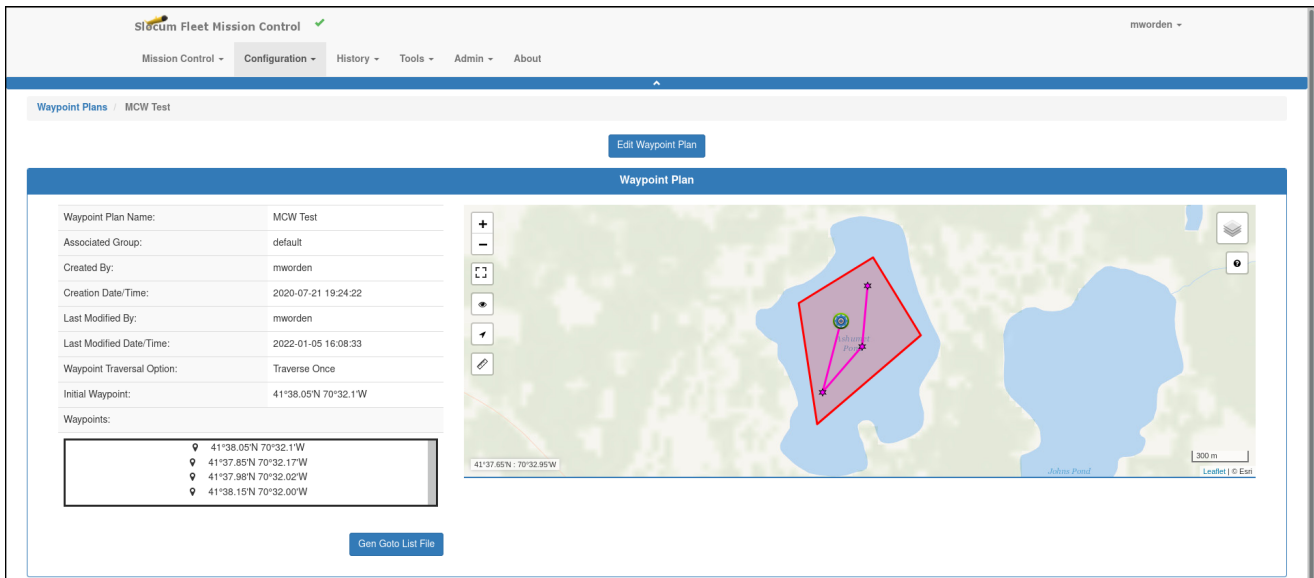


Figure 8-17 Waypoint geofence applied.

- 7. You can later create or select an event subscription for when the glider goes outside of the geofence you created in Figure 1 through Figure 6, as show in Figure 8-18:

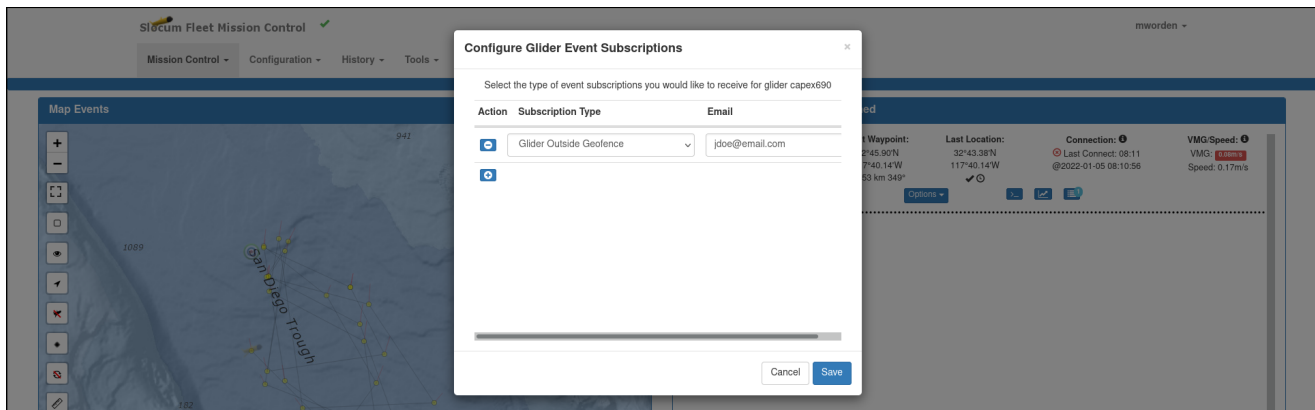


Figure 8-18 Subscribing to be notified if the glider leaves the Waypoint geofence.

For more information about event subscriptions, see “Managing Glider Event Subscriptions” on page 14-25.

## Cloning a Waypoint Plan

A waypoint plan can be cloned. Cloning provides an efficient means to create one or more similar waypoint plans from the original one which can then be edited.

To clone a waypoint plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.  
Administrators can clone waypoint plans for any group.  
Group Level Administrator and Glider Pilot roles can clone waypoint plans for the allowed groups only.
2. From the main menu, select **Configuration > Mission Planning Menu > Waypoint Plans Menu > Waypoint Plans**.

The system displays the *Waypoint Plans* page (see Figure 8-1 on page 8-2).

To display more waypoint plans on a single page, select the number to display from the *Show Waypoint plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by waypoint plan name, groups, or both by selecting the associated filter icon, and sort the list by waypoint plan name by selecting the sort icon.
4. Select the *Clone* button for the waypoint plan that you want to clone.  
The *Clone Waypoint Plan* dialog box opens.
5. Enter a name for the waypoint plan in the *Waypoint plan Name* text box, select the group from the *Group* drop-down list, and then select *Clone*.

The *Waypoint Plans* page opens to the *Waypoint Plan* panel of the waypoint plan to be cloned.

6. [optional] Make any required changes.
7. [optional] Select *Release Waypoint Plan*.

The system releases the waypoint plan and displays the edited waypoint plan details. You can also select *Edit Waypoint Plan* and make and save additional edits.

## Deleting a Waypoint Plan

To be able to delete a waypoint plan, it must not be in use.

To delete a waypoint plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.  
Administrators can delete waypoint plans for any group.  
Group Level Administrator and Glider Pilot roles can delete waypoint plans for the allowed groups only.
2. From the main menu, select **Configuration > Mission Planning Menu > Waypoint Plans Menu > Waypoint Plans**.

The system displays the *Waypoint Plans* page, as shown in Figure 8-19 below.

To display more waypoint plans on a single page, select the number to display from the *Show Waypoint Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

Waypoint Plans

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show 15 Waypoint Plans

| Waypoint Plan Name        | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date  | Associated Mission Plans  | In Use | View | Edit | Clone | Delete |
|---------------------------|------------------|------------|------------------|------------------|---------------------|---------------------------|--------|------|------|-------|--------|
| Ashumet Geofenced         | default          | sfmcadmin  | 2022-01-06 22:10 | sfmcadmin        | 2022-01-06 22:11:12 |                           | No     |      |      |       |        |
| Buzzards_Bay_Survey       | group3           | sfmcadmin  | 2022-01-27 20:57 | sfmcadmin        | 2022-01-27 20:59:00 | Buzzards_Bay_Survey       | Yes    |      |      |       |        |
| Cape_Cod_Bay_Survey       | group1           | sfmcadmin  | 2022-01-27 21:04 | sfmcadmin        | 2022-01-28 15:09:25 | Cape_Cod_Bay_Survey       | Yes    |      |      |       |        |
| Geofenced_Ashumet         | default          | sfmcadmin  | 2022-01-27 22:18 | sfmcadmin        | 2022-01-28 14:17:43 |                           | No     |      |      |       |        |
| Nantucket_Sound_Survey    | default          | sfmcadmin  | 2022-01-27 21:07 | sfmcadmin        | 2022-01-27 22:15:23 | Nantucket_Sound_Survey    | Yes    |      |      |       |        |
| Rhode_Island_Sound_Survey | group2           | sfmcadmin  | 2022-01-27 21:09 | sfmcadmin        | 2022-01-27 21:10:15 | Rhode_Island_Sound_Survey | Yes    |      |      |       |        |
| SFMC Stock Ashumet        | default          | install    | 2021-12-17 19:22 | N/A              | N/A                 | SFMC Stock Ashumet        | Yes    |      |      |       |        |

← First 1 Last →

Figure 8-19 A Waypoint plan available for deletion.

3. [optional] Filter the list by waypoint plan name, groups, or both by selecting the associated filter icon, and sort the list by waypoint plan name by selecting the sort icon.
4. Select the *Delete* button for the waypoint plan that you want to delete. This button is available only for waypoint plans that are not in use.

The system displays the *Delete Waypoint Plan* dialog box, as shown in Figure 8-20:

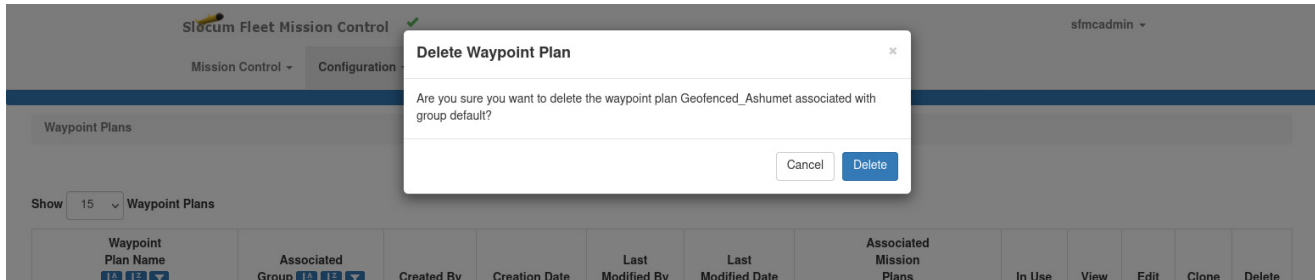


Figure 8-20 *Delete Waypoint Plan* dialog box.

5. Select *Delete*.

The system deletes the waypoint plan and closes the *Delete Waypoint Plan* dialog box.

## Managing a Surface Plan

Surface plans can be viewed, created, edited, cloned, and deleted.

### Viewing a Surface Plan

To view a surface plan:

1. Log in to a user account as either an Administrator or one with any role.  
Administrators can view surface plans for any group.  
Group Level Administrator, Glider Pilot, and Viewer roles can view surface plans for their allowed groups only.
2. From the main menu, select **Configuration > Mission Planning Menu > Surface Plans Menu > Surface Plans**.

The system displays the *Surface Plans* page, as shown in Figure 8-21:

Surface Plans

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show 15 Surface Plans

| Surface Plan Name<br>[Filter] [Sort] | Associated Group<br>[Filter] [Sort] | Created By | Creation Date    | Last Modified By | Last Modified Date | Associated Mission Plans  | In Use | View   | Edit   | Clone   | Delete   |
|--------------------------------------|-------------------------------------|------------|------------------|------------------|--------------------|---------------------------|--------|--------|--------|---------|----------|
| Ashumet Geofenced                    | default                             | sfmcadmin  | 2022-01-06 22:10 | N/A              | N/A                |                           | No     | [View] | [Edit] | [Clone] | [Delete] |
| Buzzards_Bay_Survey                  | group3                              | sfmcadmin  | 2022-01-27 20:57 | N/A              | N/A                | Buzzards_Bay_Survey       | Yes    | [View] | [Edit] | [Clone] | [Delete] |
| Cape_Cod_Bay_Survey                  | group1                              | sfmcadmin  | 2022-01-27 21:04 | N/A              | N/A                | Cape_Cod_Bay_Survey       | Yes    | [View] | [Edit] | [Clone] | [Delete] |
| Nantucket_Sound_Survey               | default                             | sfmcadmin  | 2022-01-27 21:07 | N/A              | N/A                | Nantucket_Sound_Survey    | Yes    | [View] | [Edit] | [Clone] | [Delete] |
| Rhode_Island_Sound_Survey            | group2                              | sfmcadmin  | 2022-01-27 21:09 | N/A              | N/A                | Rhode_Island_Sound_Survey | Yes    | [View] | [Edit] | [Clone] | [Delete] |
| SFMC Stock Ashumet                   | default                             | install    | 2021-12-17 19:22 | N/A              | N/A                | SFMC Stock Ashumet        | Yes    | [View] | [Edit] | [Clone] | [Delete] |

← First 1 Last →

Figure 8-21 Surface Plans page.

To display more surface plans on a single page, select the number to display from the *Show Surface Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

- [optional] Filter the list by surface plan name, groups, or both by selecting the associated filter icon, and sort the list by surface plan name by selecting the sort icon.
- Select the *View* button for the surface plan that you want to view.

The *Surface Plan Details* panel opens where the surface plan details are displayed as shown in Figure 8-22:



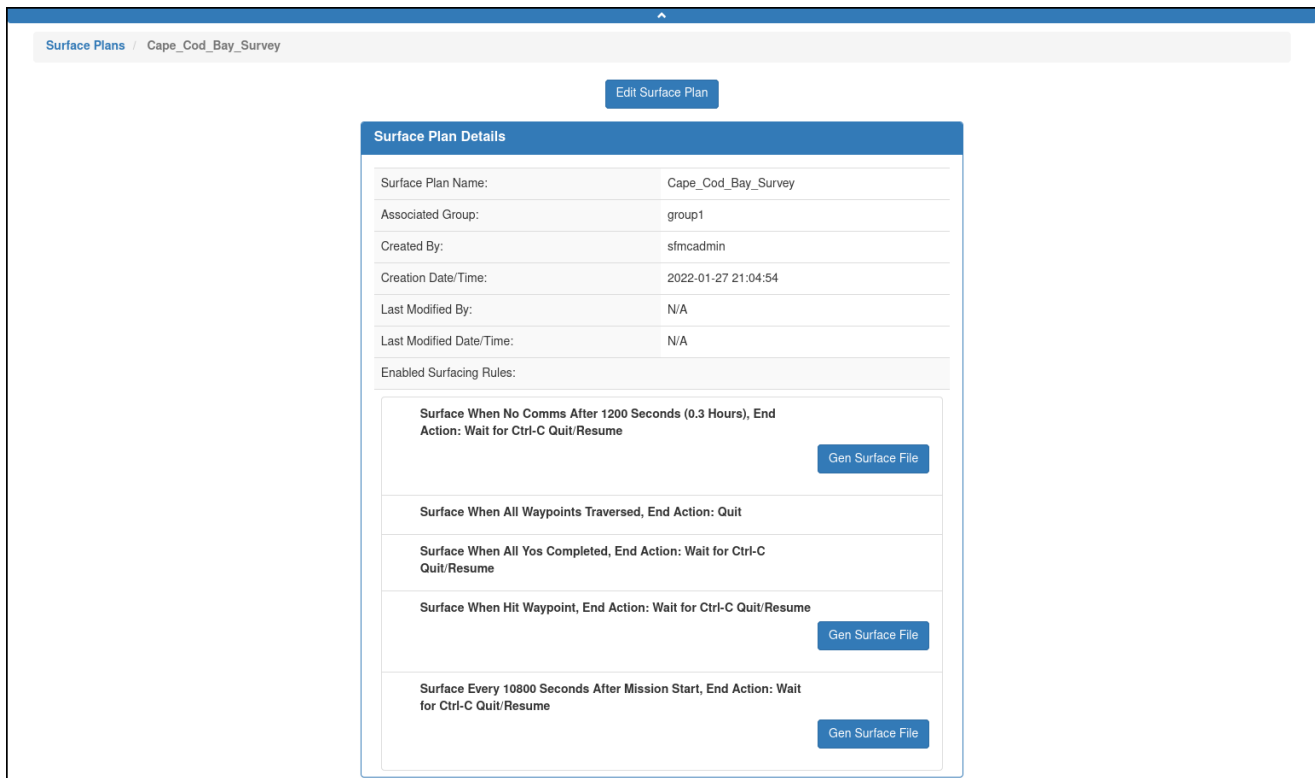


Figure 8-22 Surface Plan Details panel.

The *Surface Plan Details* panel includes the following fields and information:

|                         |  |
|-------------------------|--|
| Surface Plan Name       | The name of the surface plan.  |
| Associated Group        | The group associated with the surface plan. The surface plan can be assigned and deployed for only those gliders in the group. |
| Created By              | The user account that was used to create the surface plan.   |
| Creation Date/Time      | The date and time the surface plan was created.  |
| Last Modified By        | The user account that was last used to edit the surface plan. N/A indicates that the surface plan has never been edited.       |
| Last Modified Date/Time | The date and time the surface plan was last edited. N/A indicates that the surface plan has never been edited.                 |
| Enabled Surfacing Rules | Displays a list of enabled surface plan rules.   |
| Gen Surface File        | Use these buttons to generate surface files.   |

## Creating a Surface Plan

A surface plan is created on the *Surface Plan* panel of the *Surface Plans* page which is shown in Figure 8-25 on page 8-22. The *Surface Plan* panel is composed of:

- A *Surface Plan Rule Options* area on the left that provides a list of optional surface plan rules that can be enabled
- An *Enabled Surface Plan Rules* area on the right that provides a list of enabled surface plan rules

To create a surface plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can edit surface plans for any group.

Group Level Administrator and Glider Pilot roles can edit surface plans for the allowed groups only.

2. From the main menu, select **Configuration > Mission Planning Menu > Surface Plans Menu > Create Surface Plan**.

The system displays the *Create Surface Plan* panel, as shown in Figure 8-23:

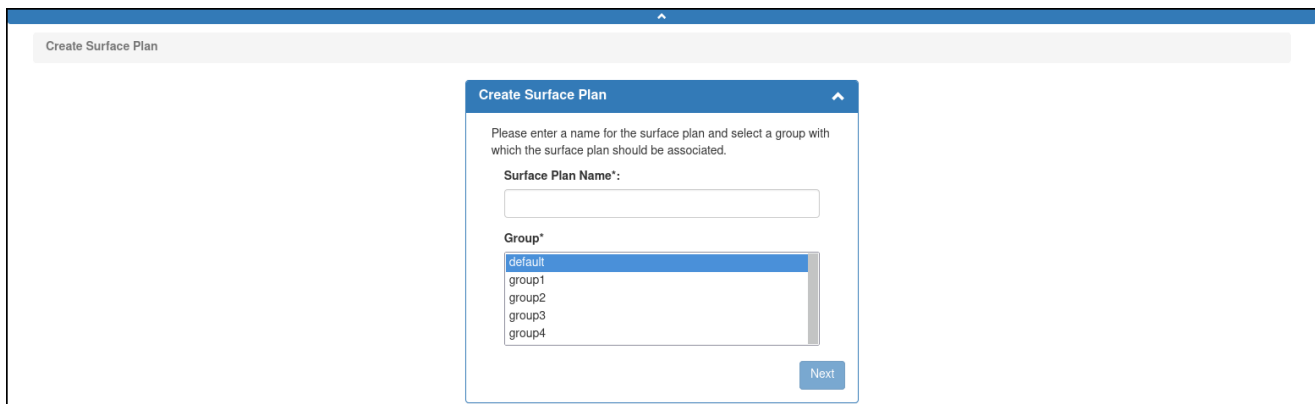


Figure 8-23 *Create Surface Plan* panel.

3. Enter a unique name for the surface plan in the *Surface Plan Name* text box, as shown in Figure 8-24. The name must begin with an alpha character followed by at least 4 but no more than 49 alphanumeric or special characters:

Create Surface Plan

Please enter a name for the surface plan and select a group with which the surface plan should be associated.

Surface Plan Name\*:

Group\*  
 default  
 group1  
 group2  
 group3  
 group4

Next

Figure 8-24 Surface plan name entered.

4. Select the group to associate with the surface plan from the *Group* drop-down list. This drop-down list is shown only if the user account is associated with more than one group.
5. Select *Next*.

The system displays the *Surface Plan* panel, as shown in Figure 8-25:

Surface Plans / Ashumet\_SP\_01 (Under edit)

Release Surface Plan

Surface Plan

Use the form below to configure the surface plan.

**Surface Plan Rule Options**

The available surface plan rule options are listed below. The 'when all waypoints are traversed' and 'when all yos are completed' surface conditions are enabled by default.

Surface When Hit Waypoint +

Surface Every So Many Seconds After Mission Start +

Surface at UTC Time +

Surface File Drop Zone

**Enabled Surface Plan Rules**

Surface rules enabled for this surface plan. Select the edit button to modify the rule.

Surface When No Comms After 43200 Seconds (12.0 Hours), End Action: Wait for Ctrl-C Quit/Resume

Surface When All Waypoints Traversed, End Action: Quit

Surface When All Yos Completed, End Action: Wait for Ctrl-C Quit/Resume

For any surface rules below, select the minus button to remove the surface rule. Drag and drop them to rearrange priority order.

Figure 8-25 Surface Plan panel.

6. [optional] In the *Surface Plan Rule Options* area of the *Surface Plan* panel, select the *Add this surface rule* button.
7. Select one or more optional surface plan rules by following these sub-steps:

a. **Option 1**

- i. Select *Surface When Hit Waypoint* to have the glider surface when it hits a waypoint.

The system displays the *Hit Waypoint Rule Form* dialog box, as shown in Figure 8-26:

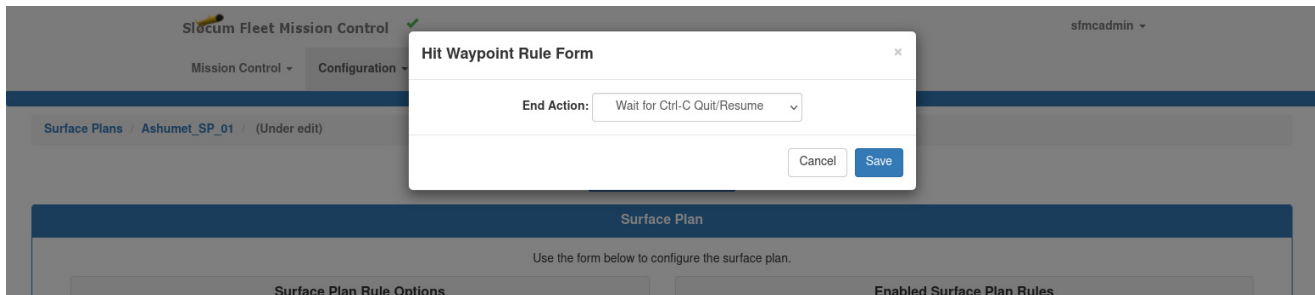


Figure 8-26 *Hit Waypoint Rule Form* dialog box.

- ii. Select the rule from the *End Action* drop-down list.

b. **Option 2**

- i. Select *Surface Every So Many Seconds After Mission Start* to have the glider surface every fixed number of seconds after the start of the mission.

The system displays the *Every So Many Seconds After Mission Start Rule Form* dialog box, as shown in Figure 8-27 below:

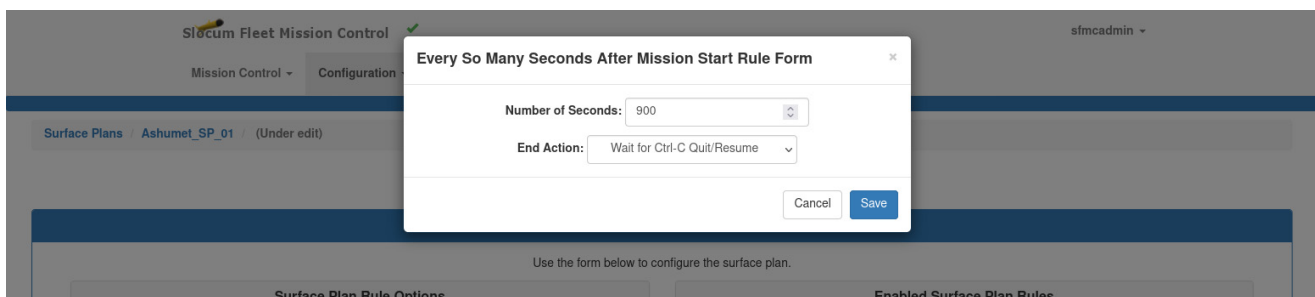


Figure 8-27 *Every So Many Seconds After Mission Start Rule Form* dialog box.

- ii. Enter or select the time in seconds in the *Number of Seconds* spin box.
- iii. Select the rule from the *End Action* drop-down list.

c. **Option 3**

- i. Select *Surface at UTC Time* to have the glider surface at a specific date and UTC time.
- ii. The system displays the *At UTC Time Rule Form* dialog box, as shown in Figure 8-28 below:

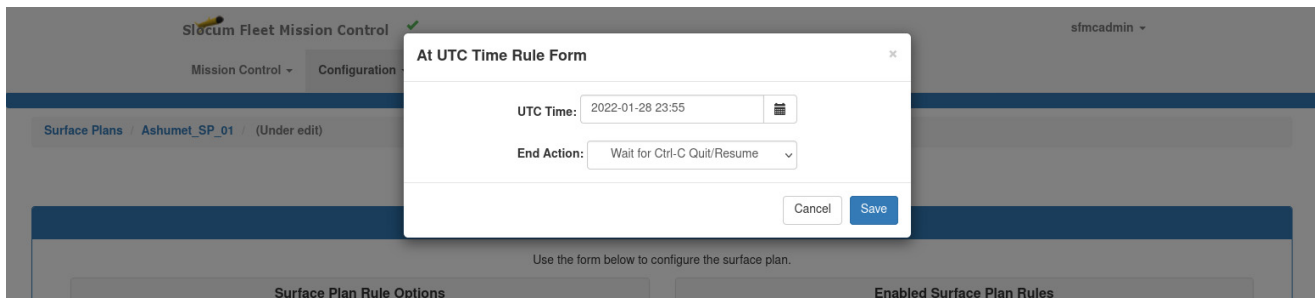


Figure 8-28 At UTC Time Rule Form dialog box.

- iii. Enter either:
  - The date and the UTC time in the *UTC Time* text box in yyyy-mm-dd hh:mm format
  - or–
  - Just the time, then select the calendar icon to the right of the text box and select the date
- iv. Select the rule from the *End Action* drop-down list.
- d. [if applicable] Choose one of the two options below from the *End Action* drop-down list for each, and then select **Save**:
  - **Quit** — to have the glider quit the mission.
  - **Wait for Ctrl-C Quit/Resume** — to require the operator to enter Ctrl-C to end the mission or to do nothing to have the glider continue the mission.

Do not select the other options in the drop-down list.

All the saved optional selections are listed in the *Enabled Surface Plan Rules* area as shown in Figure 8-29 where they can be edited or removed:

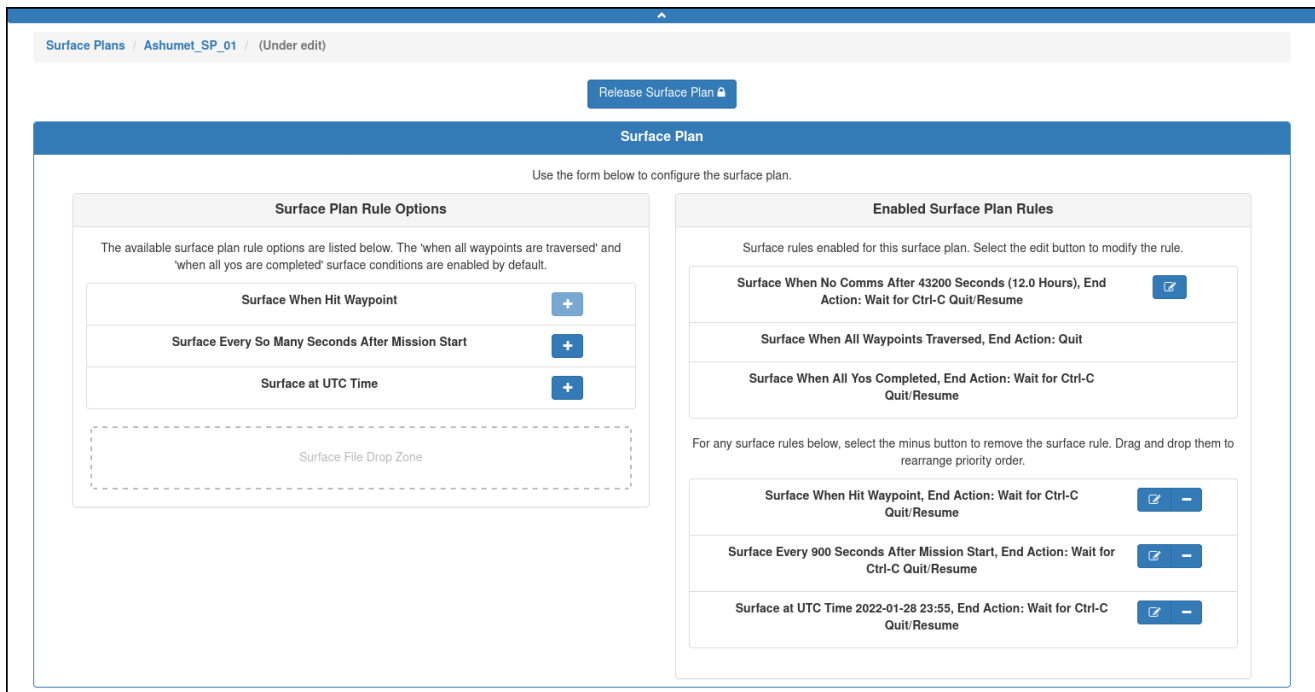


Figure 8-29 *Surface Plan* page after adding Surface Plan rule options.

8. [optional] If more than one optional surface plan rule is selected, drag-and-drop the selections, one at a time, to order them such that the priority is top down.  
The surface plan is automatically saved.
9. [optional] Select *Release Surface Plan*.  
The system releases the surface plan and displays the surface plan details in the *Surface Plan Details* panel.

## Editing a Surface Plan

Once saved, a surface plan can be edited at any time to include modifying, adding, and deleting the surface plan rules.

You can begin editing a surface plan directly from the *Surface Plans* page or when viewing the surface plan as described in “Viewing a Surface Plan” on page 8-18.

While editing a surface plan, it is locked to all other user accounts until the editing is completed. However, the surface plan can be cloned as described in “Cloning a Surface Plan” on page 8-28, and then edited.

If the surface plan is associated with an active deployment, the mission plan for the deployment must be processed and the mission files regenerated for the edited surface plan to be uploaded to the glider when it next connects and if the script `sfmc.xml` is enabled.

For instructions on how to process a mission plan and generate the files, refer to "Assigning a Mission Plan to an Active Deployment" on page 9-15.

To edit a surface plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can edit surface plans for any group.

Group Level Administrator and Glider Pilot roles can edit surface plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning Menu > Surface Plans Menu > Surface Plans**.

The system displays the *Surface Plans* page (see Figure 8-21 on page 8-19).

To display more surface plans on a single page, select the number to display from the *Show Surface Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by surface plan name, groups, or both by selecting the associated filter icon, and sort the list by surface plan name by selecting the sort icon.
4. Perform the following:
  - a. [optional] Select the *View* button to view the surface plan first (see "Viewing a Surface Plan" on page 8-18).
  - b. Select the *Edit* button in the surface plan line item you want to edit.

The *Surface Plan Details* panel opens where the surface plan details are displayed as shown in Figure 8-22 on page 8-20.
  - c. Select the *Edit Surface Plan* button just above the *Surface Plan* panel.

The system locks the surface plan to prevent editing by another user account.  
The system opens the *Surface Plans* page of the chosen surface plan, as shown in Figure 8-30:

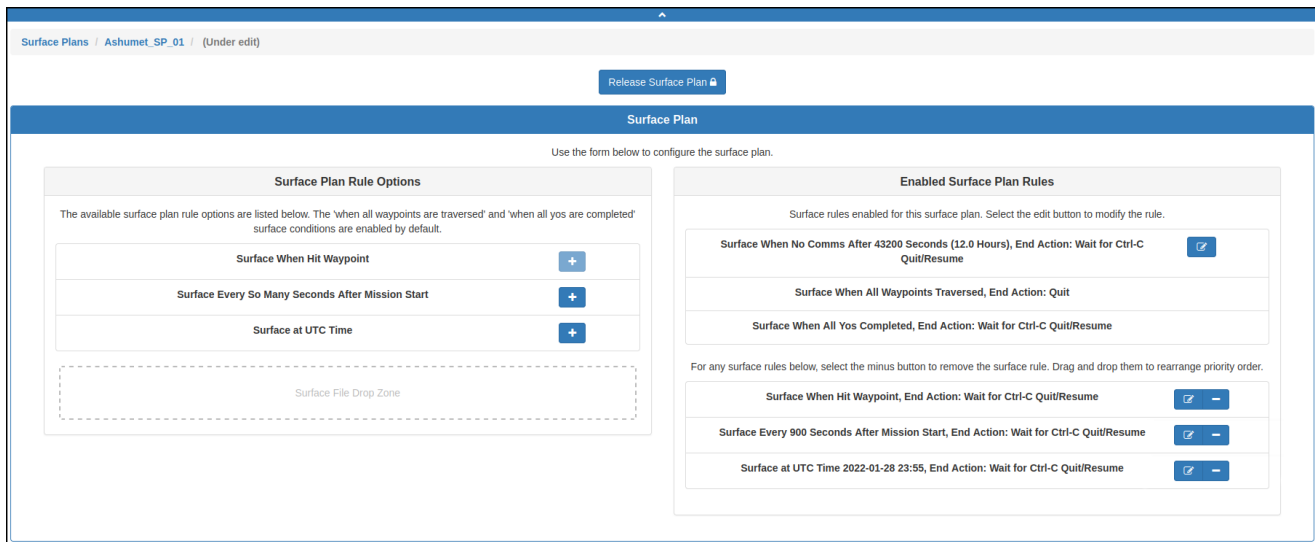


Figure 8-30 Surface plan to be edited.

5. In the *Enabled Surface Plan Rules* area of the *Surface Plan* panel, select the *Modify the settings for this surface rule* button for each surface plan rule that you want to edit.
6. To change the priority of a surface plan rule, drag-and-drop it up or down within the list.
7. To add a surface plan rule:
  - a. In the *Surface Plan Rule Options* area, find the rule you want to add.
  - b. Select the *Add this surface rule* button for that rule.
8. To remove a surface plan rule:
  - a. In the *Enable Surface Plan Rules* area, find the rule you want to remove.
  - b. Select the *Remove this surface rule* button for that rule, as shown in Figure 8-31:



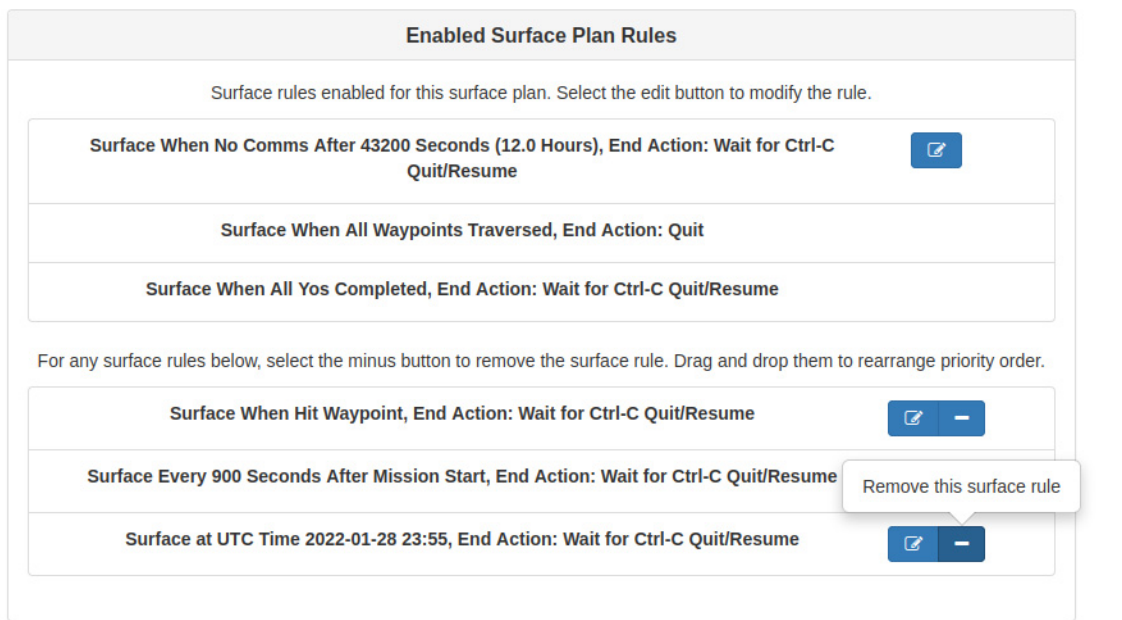


Figure 8-31 The *Remove this surface rule* button.

The system displays the *Delete Surface Plan Rule* dialog box, as shown in Figure 8-32:

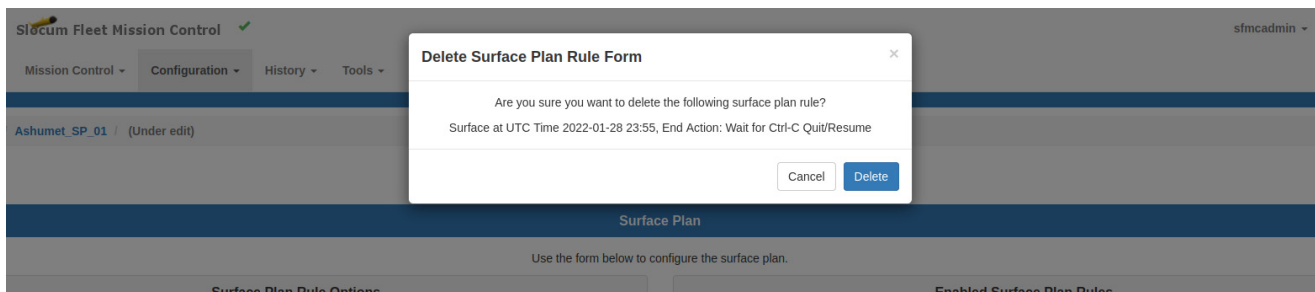


Figure 8-32 *Delete Surface Plan Rule Form* dialog box.

- c. Select *Delete*.

The system automatically saves the surface plan.

9. [optional] Select the *Release Surface Plan* button just above the *Surface Plan* panel. The system releases the surface plan and displays the edited surface plan details. You can also select *Edit Surface Plan* and make and save additional edits.

## Cloning a Surface Plan

A surface plan can be cloned. Cloning provides an efficient means to create one or more similar surface plans from the original one which can then be edited.

To clone a surface plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can clone surface plans for any group.

Group Level Administrator and Glider Pilot roles can clone surface plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning Menu > Surface Plans Menu > Surface Plans**.

The system displays the *Surface Plans* page (see Figure 8-21 on page 8-19).

To display more surface plans on a single page, select the number to display from the *Show Surface Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by surface plan name, groups, or both by selecting the associated filter icon, and sort the list by surface plan name by selecting the sort icon.

4. Select the *Clone* button for the surface plan that you want to clone.

The system displays the *Clone Surface Plan* dialog box.

5. Perform the following:

- a. Enter a name for the surface plan in the *Surface Plan Name* text box.

- b. Select the group from the *Group* drop-down list.

- c. Select *Clone*.

The system displays the surface plan to be cloned on the *Surface Plan* panel.

6. Make any required changes, if there are any.

7. Select *Save*.

The system saves the surface plan.

8. [optional] Select *Release Surface Plan*.

The system releases the surface plan and displays the edited surface plan details on the *Surface Plan Details* panel. You can also select *Edit Surface Plan* and make and save additional edits.

## Deleting a Surface Plan



### Note

To be able to delete a surface plan, it must not be in use.

To delete a surface plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can delete surface plans for any group.

Group Level Administrator and Glider Pilot roles can delete surface plans for their allowed groups only.

- From the main menu, select **Configuration > Mission Planning Menu > Surface Plans Menu > Surface Plans**.

The system displays the *Surface Plans* page, as shown in Figure 8-33:

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show 15 Surface Plans

| Surface Plan Name         | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date  | Associated Mission Plans  | In Use | View | Edit | Clone | Delete |
|---------------------------|------------------|------------|------------------|------------------|---------------------|---------------------------|--------|------|------|-------|--------|
| Ashumet Geofenced         | default          | sfmcadmin  | 2022-01-06 22:10 | N/A              | N/A                 |                           | No     |      |      |       |        |
| Ashumet_SP_01             | default          | sfmcadmin  | 2022-01-28 15:50 | sfmcadmin        | 2022-01-28 15:56:32 |                           | No     |      |      |       |        |
| Buzzards_Bay_Survey       | group3           | sfmcadmin  | 2022-01-27 20:57 | N/A              | N/A                 | Buzzards_Bay_Survey       | Yes    |      |      |       |        |
| Cape_Cod_Bay_Survey       | group1           | sfmcadmin  | 2022-01-27 21:04 | N/A              | N/A                 | Cape_Cod_Bay_Survey       | Yes    |      |      |       |        |
| Nantucket_Sound_Survey    | default          | sfmcadmin  | 2022-01-27 21:07 | N/A              | N/A                 | Nantucket_Sound_Survey    | Yes    |      |      |       |        |
| Rhode_Island_Sound_Survey | group2           | sfmcadmin  | 2022-01-27 21:09 | N/A              | N/A                 | Rhode_Island_Sound_Survey | Yes    |      |      |       |        |
| SFMC Stock Ashumet        | default          | install    | 2021-12-17 19:22 | N/A              | N/A                 | SFMC Stock Ashumet        | Yes    |      |      |       |        |

Navigation: -- First 1 Last --

Figure 8-33 Surface plan available for deletion.

To display more surface plans on a single page, select the number to display from the *Show Surface Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

- [optional] Filter the list by surface plan name, groups, or both by selecting the associated filter icon, and sort the list by surface plan name by selecting the sort icon.
- Select the *Delete* button for the surface plan that you want to delete. This button is available only for surface plans that are not in use.

The system displays the *Delete Surface Plan* dialog box, as shown in Figure 8-34:

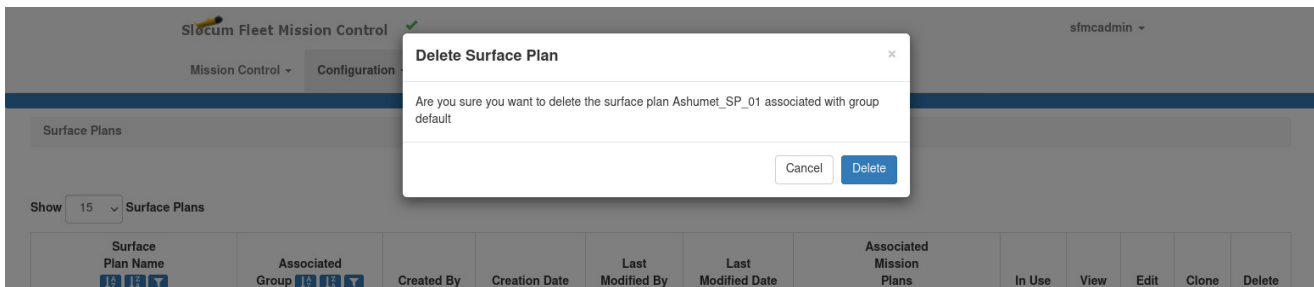


Figure 8-34 Delete Surface Plan dialog box.

## 5. Select *Delete*.

The system deletes the surface plan and closes the *Delete Surface Plan* dialog box.

# Managing a Yo Plan

Yo plans can be viewed, created, edited, cloned, and deleted.

## Viewing a Yo Plan

To view a yo plan:

### 1. Log in to a user account as either an Administrator or one with any role.

Administrators can view yo plans for any group.

Group Level Administrator, Glider Pilot, and Viewer roles can view yo plans for their allowed groups only.

### 2. From the main menu, select **Configuration > Mission Planning Menu > Yo Plans Menu > Yo Plans**.

The system displays the *Yo Plans* page, as shown in Figure 8-35:

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show 15 Yo Plans

| Yo Plan Name              | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date | Associated Mission Plans  | In Use | View | Edit | Clone | Delete |
|---------------------------|------------------|------------|------------------|------------------|--------------------|---------------------------|--------|------|------|-------|--------|
| Ashumet Geofenced         | default          | sfmadmin   | 2022-01-06 22:10 | N/A              | N/A                |                           | No     |      |      |       |        |
| Buzzards_Bay_Survey       | group3           | sfmadmin   | 2022-01-27 20:57 | N/A              | N/A                | Buzzards_Bay_Survey       | Yes    |      |      |       |        |
| Cape_Cod_Bay_Survey       | group1           | sfmadmin   | 2022-01-27 21:04 | N/A              | N/A                | Cape_Cod_Bay_Survey       | Yes    |      |      |       |        |
| Nantucket_Sound_Survey    | default          | sfmadmin   | 2022-01-27 21:07 | N/A              | N/A                | Nantucket_Sound_Survey    | Yes    |      |      |       |        |
| Rhode_Island_Sound_Survey | group2           | sfmadmin   | 2022-01-27 21:09 | N/A              | N/A                | Rhode_Island_Sound_Survey | Yes    |      |      |       |        |
| SFMC Stock Ashumet        | default          | install    | 2021-12-17 19:22 | N/A              | N/A                | SFMC Stock Ashumet        | Yes    |      |      |       |        |

← First 1 Last →

Figure 8-35 *Yo Plans* page.

To display more yo plans on a single page, select the number to display from the *Show Yo Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

- [optional] Filter the list by yo plan name, groups, or both by selecting the associated filter icon, and sort the list by yo plan name by selecting the sort icon.
- Select the *View* button for the yo plan that you want to see.

The *Yo Plan Details* panel opens where the yo plan details are displayed, as shown in Figure 8-36:

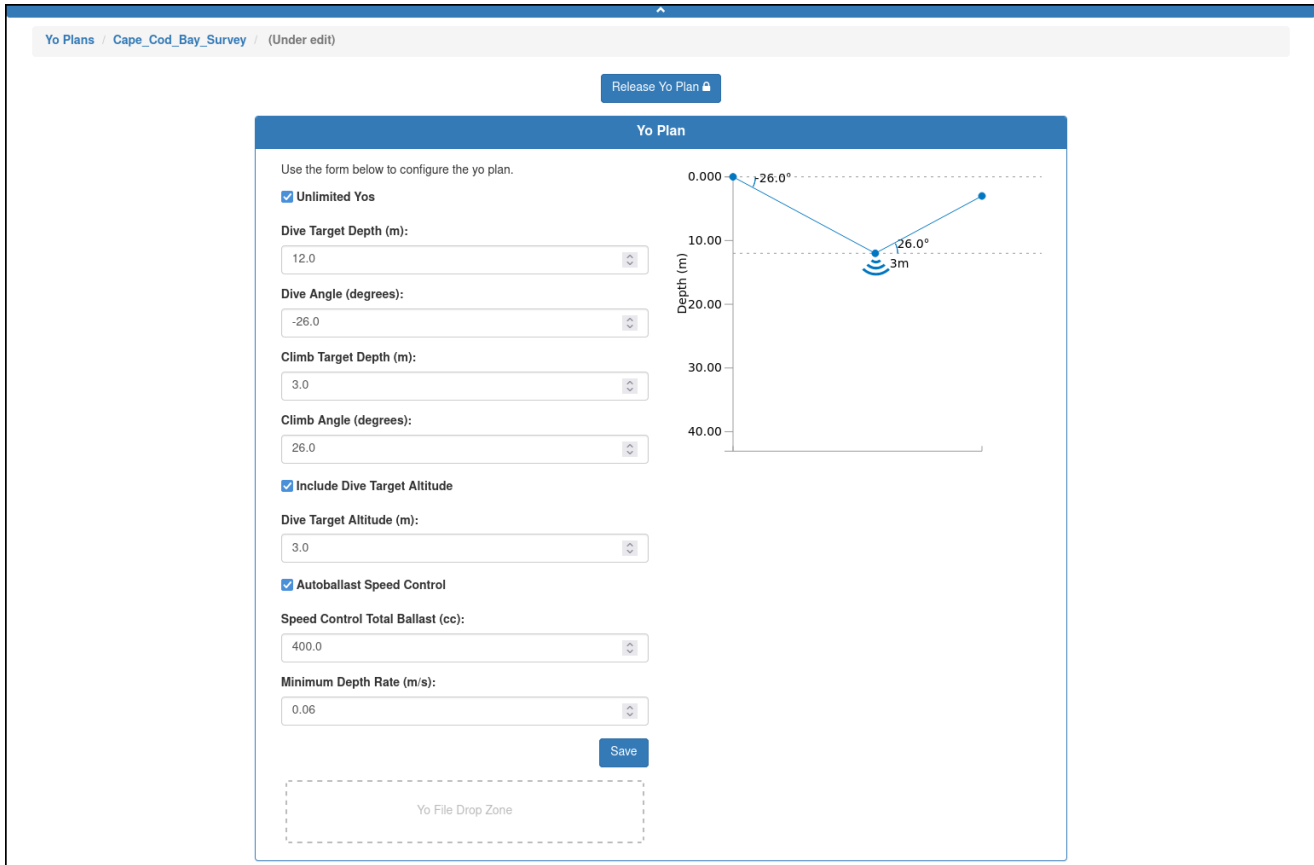


Figure 8-36 *Yo Plan Details* panel.

The *Yo Plan Details* panel includes the following fields and information:

|                         |  |
|-------------------------|--|
| Yo Plan Name            | The name of the yo plan.   |
| Associated Group        | The group associated with the yo plan. The yo plan can be assigned and deployed for only those gliders in the group. |
| Created By              | he user account that was used to create the yo plan.   |
| Creation Date/Time      | The date and time the yo plan was created.   |
| Last Modified By        | The user account that was last used to edit the yo plan.<br>N/A indicates that the yo plan has never been edited.    |
| Last Modified Date/Time | The date and time the yo plan was last edited. N/A indicates that the yo plan has never been edited.                 |
| Number of Yos           | The number of yos the glider is to run.  |
| Dive Target Depth       | The depth in meters to which the glider is to dive.  |
| Dive Target Altitude    | The altitude in meters to which the glider is to dive.   |

|                             |  |
|-----------------------------|--|
| Dive Angle                  | The angle in degrees relative to the surface that the glider is to dive.   |
| Climb Target Depth          | The depth in meters to which the glider is to climb.   |
| Climb Angle                 | The angle in degrees relative to the horizontal that the glider is to climb.   |
| Autoballast/Speed Control   | When enabled, the buoyancy pump volume is automatically controlled to minimize the volume used, thereby reducing energy consumption while maintaining a minimum vertical speed.<br>When disabled, the buoyancy pump volume is specified directly with the Speed Control Total Ballast setting, and the vertical speed with the Minimum Depth Rate setting. |
| Speed Control Total Ballast | The amount to which to reduce the buoyancy pump volume in cc of the glider when Autoballast/Speed Control is enabled.  |
| Minimum Depth Rate          | The slowest vertical speed in meters per second allowed while attempting to reduce the volume specified by the Speed Control Total Ballast setting when Autoballast/Speed Control is enabled.  |
| Dive Buoyancy Pump Volume   | The dive buoyancy pump volume in cc of the glider when Autoballast/Speed Control is not enabled.   |
| Climb Buoyancy Pump Volume  | The dive buoyancy pump volume in cc of the glider when Autoballast/Speed Control is not enabled.   |
| Gen Yo File                 | Use this button to generate a yo file.   |

## Creating a Yo Plan

The Yo Plan panel is composed of a:

- Form for entering the yo plan parameters
- Graphic that depicts the descent and ascent angles of the glider in accordance with the entered parameter values

To create a yo plan:

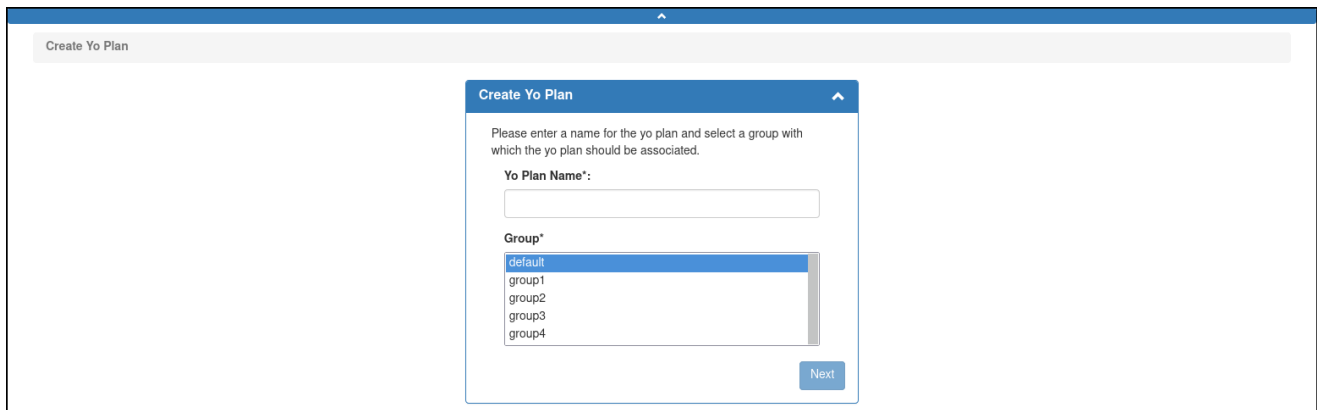
1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can create yo plans for any group.

The Group Level Administrator and Glider Pilot role scan create yo plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning > Yo Plans > Create Yo Plan**.

The system displays the *Create Yo Plan* panel, as shown in Figure 8-37:



Create Yo Plan

Please enter a name for the yo plan and select a group with which the yo plan should be associated.

Yo Plan Name\*:

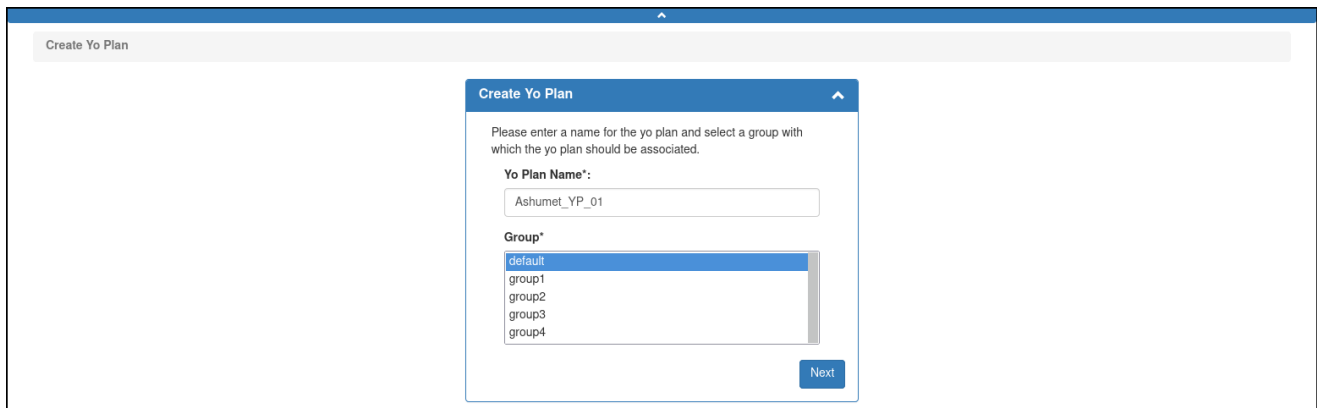
Group\*

default  
group1  
group2  
group3  
group4

Next

Figure 8-37 Create Yo Plan panel.

3. On the *Create Yo Plan* panel, in the *Yo Plan Name* text box, enter a unique name for the yo plan as shown in Figure 8-38 below. The name must begin with an alpha character, followed by at least 4 but no more than 49 alphanumeric or special characters:



Create Yo Plan

Please enter a name for the yo plan and select a group with which the yo plan should be associated.

Yo Plan Name\*:

Ashumet\_YP\_01

Group\*

default  
group1  
group2  
group3  
group4

Next

Figure 8-38 Yo plan name entered.

4. From the *Group* drop-down list, select the group to associate with the yo plan. This drop-down list is shown only if the user account is associated with more than one group.
5. Select *Next*. The system displays the *Yo Plan* panel, as shown in Figure 8-39:

Yo Plans / Ashumet\_YP\_01 / (Under edit)

Release Yo Plan

**Yo Plan**

Use the form below to configure the yo plan.

Unlimited Yos

Dive Target Depth (m): 12.0

Dive Angle (degrees): -26.0

Climb Target Depth (m): 3.0

Climb Angle (degrees): 26.0

Include Dive Target Altitude

Autoballast Speed Control

Speed Control Total Ballast (cc): 400.0

Minimum Depth Rate (m/s): 0.06

Save

Yo File Drop Zone

Depth (m)

0.000

10.00

20.00

30.00

40.00

26.0°

26.0°

Figure 8-39 After saving the Yo Plan name and group.

6. On the *Yo Plan* panel, make the settings in accordance with those described in "Viewing a Yo Plan" on page 8-25.
  - a. To enter a fixed number of yos, clear the *Unlimited Yos* check box and enter/select the setting in the *# Yos spin* box.  
To enter an unlimited number of yos, select the *Unlimited Yos* check box.
  - b. To enter a dive target altitude, select the *Include Dive Target Altitude* check box and enter/select the setting in the *Dive Target Altitude spin* box.  
Otherwise, leave the *Include Dive Target Altitude* check box cleared.
  - c. To disable autoballast, clear the *Autoballast Speed Control* check box and enter/select the dive and climb buoyancy pump settings in the *Dive Buoyancy Pump Volume* and *Climb Buoyancy Pump Volume spin* boxes.  
Otherwise, leave the *Autoballast Speed Control* check box selected and enter/select the buoyancy pump volume in the *Speed Control Total Ballast spin* box and the vertical speed in the *Minimum Depth Rate spin* box.
7. Select *Save*.  
The system saves the yo plan.
8. [optional] Select *Release Yo Plan*.



The system releases the yo plan and displays the yo plan details on the *Yo Plan Details* panel.

## Editing a Yo Plan

Once saved, a yo plan can be edited at any time to include modifying, adding, and deleting the yo plan parameters.

You can begin editing a yo plan directly from the *Yo Plans* page or when viewing the yo plan as described in “Viewing a Yo Plan” on page 8-31.

While editing a yo plan, it is locked to all other user accounts until the editing is completed. However, the yo plan can be cloned as described in “Cloning a Yo Plan” on page 8-37, and then edited.

If the yo plan is associated with an active deployment, the mission plan for the deployment must be processed and the mission files regenerated for the edited yo plan to be uploaded to the glider when it next connects and if the script `sfmc.xml` is enabled.

For instructions on how to process a mission plan and generate the files, refer to “Assigning a Mission Plan to an Active Deployment” on page 9-15.

To edit a yo plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can edit yo plans for any group.

The Group Level Administrator and Glider Pilot roles can edit yo plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning Menu > Yo Plans > Yo Plans**.

The system displays the *Yo Plans* page (see Figure 8-35 on page 8-31).

To display more yo plans on a single page, select the number to display from the *Show Yo Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by yo plan name, groups, or both by selecting the associated filter icon, and sort the list by yo plan name by selecting the sort icon.

4. Select the *Edit* button for the yo plan that you want to edit, or select the *View* button for it to view the yo plan first, and then select the *Edit Yo Plan* button just above the *Yo Plan* panel.

The *Yo Plans* page opens to the *Yo Plan* panel of the yo plan to be edited, as shown Figure 8-40:

Figure 8-40 Yo plan to be edited.

The yo plan also becomes locked for editing by any other user account.

5. Make the required changes, and then select *Save*.  
The system saves the yo plan.
6. [optional] Select *Release Yo Plan*.  
The system releases the yo plan and displays the edited yo plan details on the *Yo Plan* panel.
7. [optional] To make and save additional edits, select *Edit Yo Plan* again.

## Cloning a Yo Plan

A yo plan can be cloned. Cloning provides an efficient means to create one or more similar yo plans that can then be edited.

To clone a yo plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can clone yo plans for any group.

Group Level Administrator and Glider Pilot roles can clone yo plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning > Yo Plans > Yo Plans**.

The system displays the *Yo Plans* page (see Figure 8-29 on page 8-25).

To display more yo plans on a single page, select the number to display from the *Show Yo Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by yo plan name, groups, or both by selecting the associated filter icon, and sort the list by yo plan name by selecting the sort icon.
4. Select the *Clone* button for the yo plan that you want to clone.  
The system opens the *Clone Yo Plan* dialog box.
5. In the *Yo Plan Name* text box, enter a name for the yo plan.
6. From the *Group* drop-down list, select the appropriate group.
7. Select *Clone*.  
The system opens the *Yo Plans* page and the *Yo Plan* panel of the yo plan to be cloned.
8. [optional] Make any required changes, and then select *Save*.  
The system saves the yo plan.
9. [optional] Select *Release Yo Plan*.  
The system releases the yo plan and displays the *Yo Plan* panel to the edited yo plan details.
10. To make and save additional edits, select *Edit Yo Plan*.

## Deleting a Yo Plan



### Note

To be able to delete a yo plan, that plan must not be in use.

To delete a yo plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.  
Administrators can delete yo plans for any group.  
The Group Level Administrator and Glider Pilot roles can delete yo plans for their allowed groups only.
2. From the main menu, select **Configuration > Mission Planning > Yo Plans > Yo Plans**.

The system displays the *Yo Plans* page, as shown in Figure 8-41 below.

To display more yo plans on a single page, select the number to display from the *Show Yo Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

Yo Plans

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show 15 Yo Plans

| Yo Plan Name              | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date | Associated Mission Plans  | In Use | View | Edit | Clone | Delete |
|---------------------------|------------------|------------|------------------|------------------|--------------------|---------------------------|--------|------|------|-------|--------|
| Ashumet Geofenced         | default          | sfmcadmin  | 2022-01-06 22:10 | N/A              | N/A                |                           | No     |      |      |       |        |
| Ashumet_YP_01             | default          | sfmcadmin  | 2022-01-28 16:07 | N/A              | N/A                |                           | No     |      |      |       |        |
| Buzzards_Bay_Survey       | group3           | sfmcadmin  | 2022-01-27 20:57 | N/A              | N/A                | Buzzards_Bay_Survey       | Yes    |      |      |       |        |
| Cape_Cod_Bay_Survey       | group1           | sfmcadmin  | 2022-01-27 21:04 | N/A              | N/A                | Cape_Cod_Bay_Survey       | Yes    |      |      |       |        |
| Nantucket_Sound_Survey    | default          | sfmcadmin  | 2022-01-27 21:07 | N/A              | N/A                | Nantucket_Sound_Survey    | Yes    |      |      |       |        |
| Rhode_Island_Sound_Survey | group2           | sfmcadmin  | 2022-01-27 21:09 | N/A              | N/A                | Rhode_Island_Sound_Survey | Yes    |      |      |       |        |
| SFMC Stock Ashumet        | default          | install    | 2021-12-17 19:22 | N/A              | N/A                | SFMC Stock Ashumet        | Yes    |      |      |       |        |

-- First 1 Last --

Figure 8-41 Yo plan available for deletion.

- [optional] Filter the list by yo plan name, groups, or both by selecting the associated filter icon, and sort the list by yo plan name by selecting the sort icon.
- Select the *Delete* button for the yo plan that you want to delete. This button is available only for yo plans that are not in use.

The system displays the *Delete Yo Plan* dialog box, as shown in Figure 8-42:

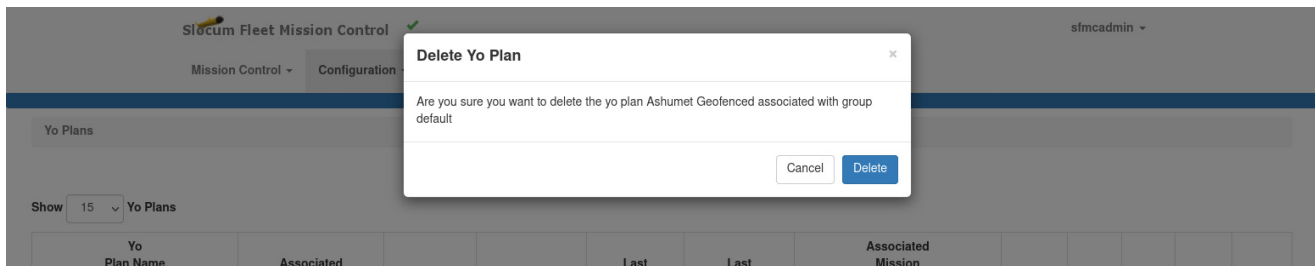


Figure 8-42 Delete Yo Plan dialog box.

- Select *Delete*.

The system deletes the yo plan and closes the *Delete Yo Plan* dialog box.

## Managing a Sampling Plan

Sampling plans can be viewed, created, edited, cloned, and deleted.

## Viewing a Sampling Plan

To view a sampling plan:

- Log in to a user account as either an Administrator or one with any role.  
Administrators can view sampling plans for any group.  
The Group Level Administrator, Glider Pilot, and Viewer roles can view sampling plans for their allowed groups only.
- From the main menu, select **Configuration > Mission Planning > Sampling Plans > Sampling Plans**.  
The system displays the *Sampling Plans* page, as shown in Figure 8-43.  
To display more sampling plans on a single page, select the number to display from the *Show Sampling Plans* drop-down list.  
To display the next/specific/previous page, select it from the page scroller.
- [optional] Filter the list by sampling plan name, groups, or both by selecting the associated filter icon, and sort the list by sampling plan name by selecting the sort icon.

| Sampling Plan Name        | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date | Associated Mission Plans  | In Use | View | Edit | Clone | Delete |
|---------------------------|------------------|------------|------------------|------------------|--------------------|---------------------------|--------|------|------|-------|--------|
| Ashumet Geofenced         | default          | sfmcadmin  | 2022-01-06 22:10 | N/A              | N/A                |                           | No     |      |      |       |        |
| Buzzards_Bay_Survey       | group3           | sfmcadmin  | 2022-01-27 20:57 | N/A              | N/A                | Buzzards_Bay_Survey       | Yes    |      |      |       |        |
| Cape_Cod_Bay_Survey       | group1           | sfmcadmin  | 2022-01-27 21:04 | N/A              | N/A                | Cape_Cod_Bay_Survey       | Yes    |      |      |       |        |
| Nantucket_Sound_Survey    | default          | sfmcadmin  | 2022-01-27 21:07 | N/A              | N/A                | Nantucket_Sound_Survey    | Yes    |      |      |       |        |
| Rhode_Island_Sound_Survey | group2           | sfmcadmin  | 2022-01-27 21:09 | N/A              | N/A                | Rhode_Island_Sound_Survey | Yes    |      |      |       |        |
| SFMC Stock Ashumet        | default          | install    | 2021-12-17 19:22 | N/A              | N/A                | SFMC Stock Ashumet        | Yes    |      |      |       |        |

Figure 8-43 Sampling Plans page.

- Select the *View* button for the sampling plan that you want to view.  
The system opens the *Sampling Plan Details* panel where the sampling plan details are displayed, as shown in Figure 8-44:

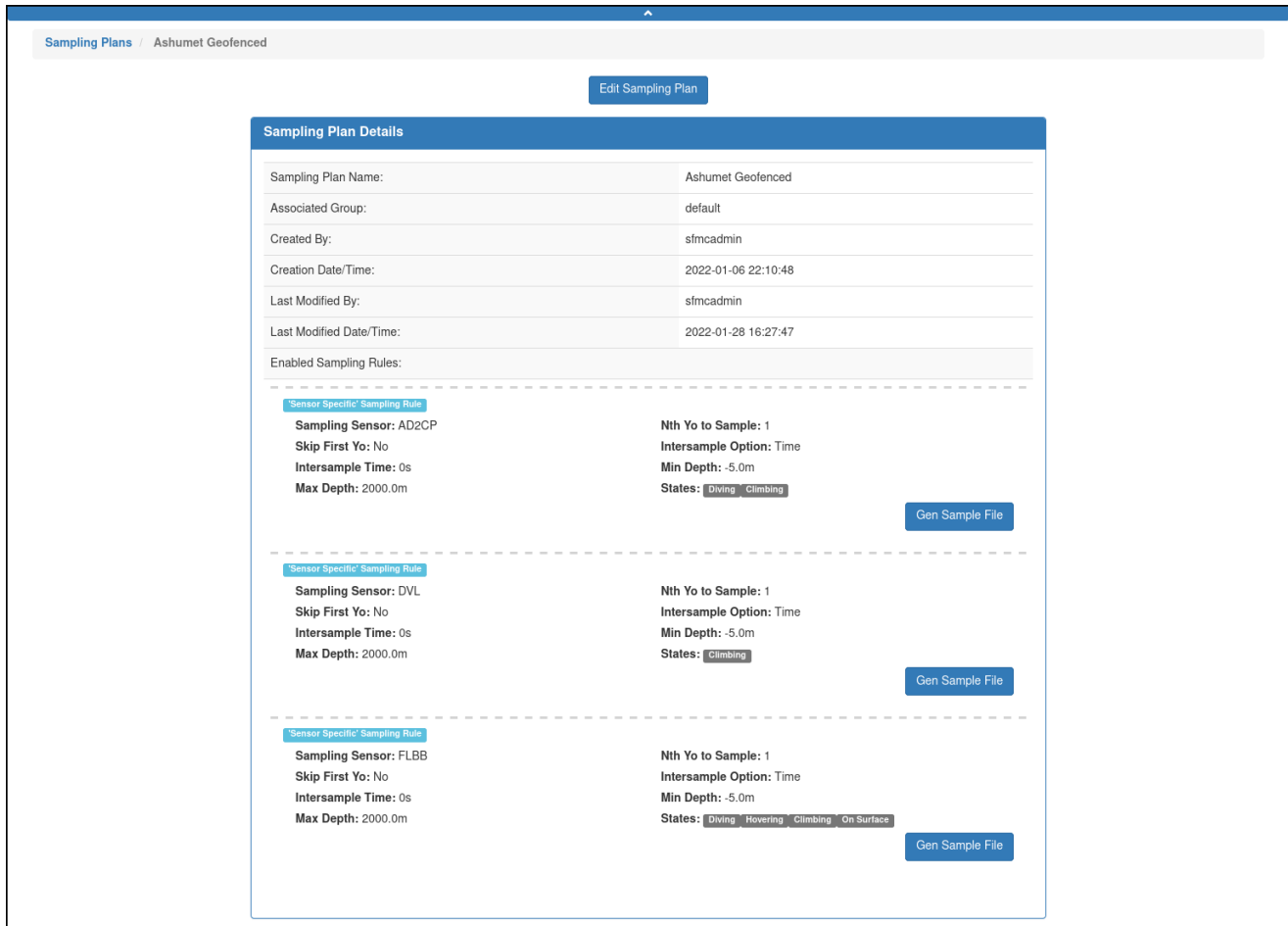


Figure 8-44 Sampling Plan Details panel.

The *Sampling Plan Details* panel includes the following fields and information:

|                         |  |
|-------------------------|--|
| Sampling Plan Name      | The name of the sampling plan.   |
| Associated Group        | The group associated with the sampling plan. The sampling plan can be assigned and deployed for only those gliders in the group. |
| Created By              | The user account that was used to create the sampling plan.  |
| Creation Date/Time      | The date and time the sampling plan was created.   |
| Last Modified By        | The user account that was last used to edit the sampling plan. N/A indicates that the sampling plan has never been edited.       |
| Last Modified Date/Time | The date and time the sampling plan was last edited. N/A indicates that the sampling plan has never been edited.                 |
| Enabled Sampling Rules  | Displays a list of enabled sampling rules.   |
| Gen Sample File         | Use these buttons to generate a sample file.   |

## Creating a Sampling Plan

The *Sampling Plans* panel is composed of:

- A *Sampling Plan Rule Creation* area on the left that provides a choice between creating the same sampling plan rule for all the sensors or creating a separate sampling plan rule for specific sensors
- An *Enabled Sampling Plan Rules* area on the right that provides a list of enabled sampling plan rules

To create a sampling plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.  
Administrators can create sampling plans for any group.  
The Group Level Administrator and Glider Pilot roles can create sampling plans for their allowed groups only.
2. From the main menu, select **Configuration > Mission Planning > Sampling Plans > Create Sampling Plan**.

The system displays the *Create Sampling Plan* panel, as shown in Figure 8-45:

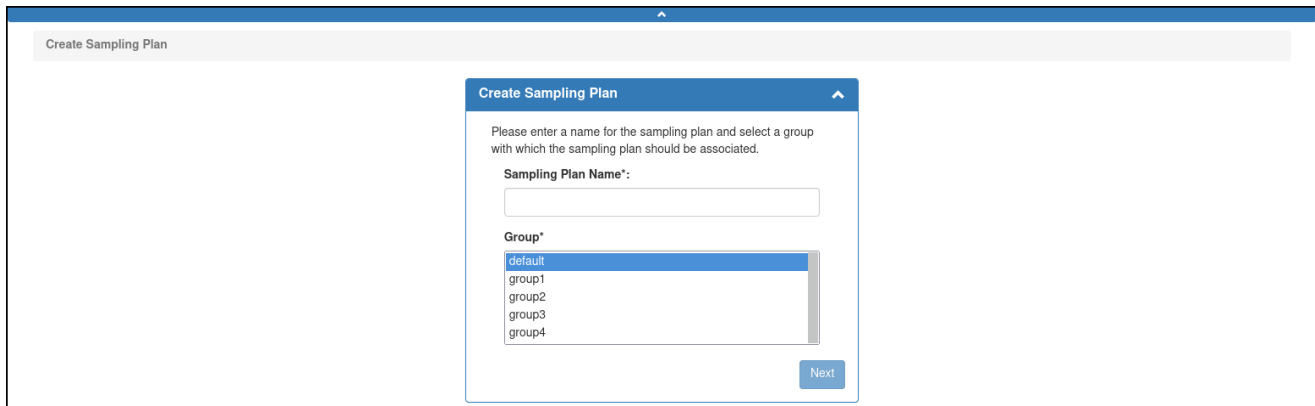


Figure 8-45 *Create Sampling Plan* panel.

3. In the *Create Sampling Plan* panel, enter a unique name for the sampling plan in the *Sampling Plan Name* text box, as shown in Figure 8-46 below. The name must begin with an alpha character followed by at least 4 but no more than 49 alphanumeric or special characters:

Figure 8-46 Sampling Plan name entered.

4. From the *Group* drop-down list, select the group to associate with the sampling plan. This drop-down list will only be shown if the user account is associated with more than one group.
5. Select *Next*.

The system displays the *Sampling Plan* panel, as shown in Figure 8-47:

Figure 8-47 Sampling Plan panel.

6. From the *Sampling Plan Rule Creation* area of the *Sampling Plan* panel, do one of the following:
  - Select *Add All Sensors Sampling Rule* to add the same sampling rule for all the sensors.

The system displays the *Create Sampling Rule* dialog box, as shown in Figure 8-48:



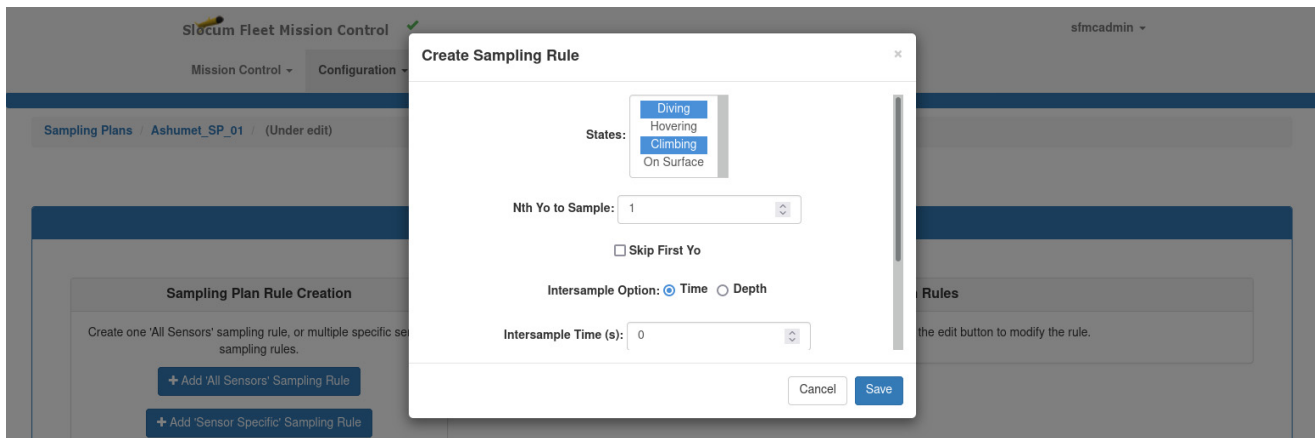


Figure 8-48 Create Sampling Rule dialog box for all sensors.

-or-

- Select *Add Sensor Specific Sampling Rule* to add a sampling rule for a specific sensor.

The system displays the *Create Sampling Rule* dialog box, as shown in Figure 8-49:

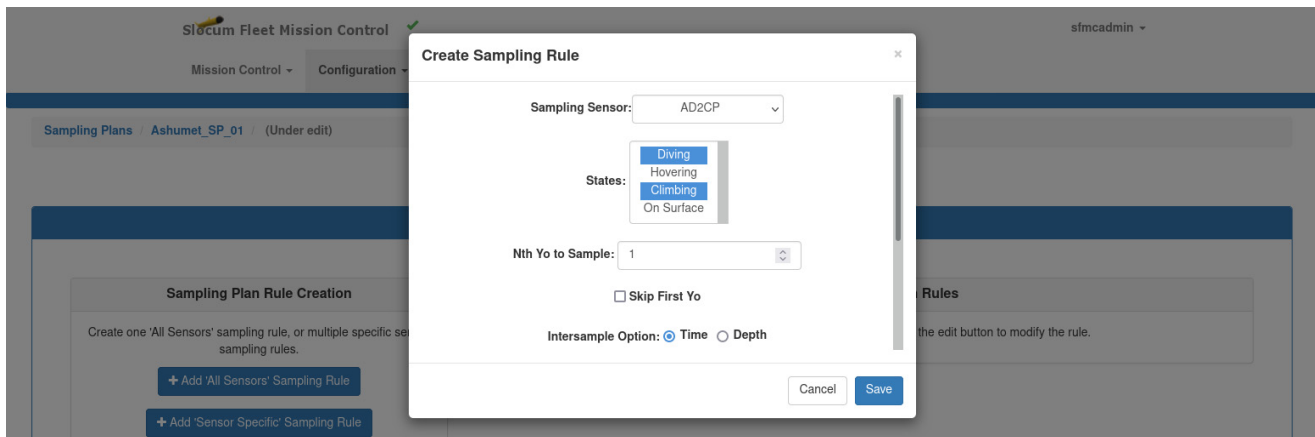


Figure 8-49 Create Sampling Rule dialog box for a specific sensor.

7. For the sensor specific sampling rule choice only, select the sensor for sampling from the *Sampling Sensor* drop-down list.
8. From the *States* drop-down list, select the state or states to sample. To select more than one state, hold down the **[Ctrl]** key while selecting them one at a time.
9. In the *Nth Yo to Sample* spin box, enter/select the yo to sample. For an entry of **1**, sampling will be performed during every yo; for an entry of **2**, during every second yo; for an entry of **3**, during every third, and so on.
10. [optional] Select the *Skip First Yo* check box to ignore sampling during the first yo.
11. Do one of the following:

- For the *Intersample Option*, select the **Time** option to sample based on time, then enter/select the time in seconds in the *Intersample Time* spin box.
  - For the *Intersample Option*, select the **Depth** option to sample based on depth, then enter/select the depth in meters in the *Intersample Depth* spin box.
12. In the *Min Depth* spin box, enter/select the minimum depth in meters at which to sample.
  13. In the *Max Depth* spin box, enter/select the maximum depth in meters at which to sample.
  14. Select *Save*.  
The system saves the sampling plan.
  15. [optional] Select *Release Sampling Plan*.  
The system releases the sampling plan and displays the sampling plan details on the *Sampling Plan Details* panel.

## Editing a Sampling Plan

Once saved, a sampling plan can be edited at any time to include modifying, adding, and deleting the sampling plan parameters.

You can begin editing a sampling plan directly from the *Sampling Plans* page or when viewing the sampling plan as described in “Viewing a Sampling Plan” on page 8-40.

While editing a sampling plan, it is locked to all other user accounts until the editing is completed. However, the sampling plan can be cloned as described in “Cloning a Sampling Plan” on page 8-47, and then edited.

If the sampling plan is associated with an active deployment, the mission plan for the deployment must be processed and the mission files regenerated for the edited sampling plan to be uploaded to the glider when it next connects and if the script `sfmt.xml` is enabled.

For instructions on how to process a mission plan and generate the files, refer to “Assigning a Mission Plan to an Active Deployment” on page 9-15.

To edit a sampling plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.  
Administrators can edit sampling plans for any group.  
The Group Level Administrator and Glider Pilot roles can edit sampling plans for their allowed groups only.
2. From the main menu, select **Configuration > Mission Planning > Sampling Plans > Sampling Plans**.  
The system displays the *Sampling Plans* page (see Figure 8-43 on page 8-40).  
To display more sampling plans on a single page, select the number to display from the *Show Sampling Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by sampling plan name, groups, or both by selecting the associated filter icon, and sort the list by sampling plan name by selecting the sort icon.
4. Do one of the following:
  - Select the *Edit* button for the sampling plan that you want to edit, –or–
  - Select the *View* button for it to view the sampling plan before editing.
5. Just above the *Sampling Plan* panel, select the *Edit Sampling Plan* button.

The system opens the *Sampling Plans* page to the *Sampling Plan* panel of the sampling plan to be edited, as shown Figure 8-50:

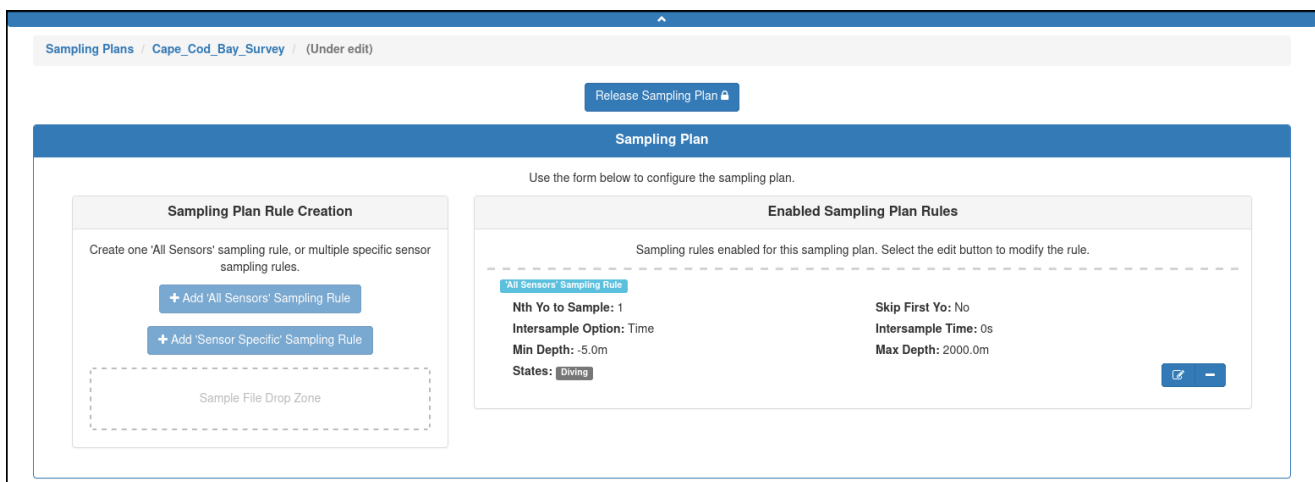


Figure 8-50 Sampling plan to be edited.

The sampling plan also becomes locked for editing by any other user account.

6. In the *Enabled Sampling Plan Rules* area of the *Sampling Plan* panel, select the *Modify the settings for this sampling rule* button for any sampling plan rule you want to modify.
  - To remove a sampling plan rule, select the *Remove this sampling rule* button for it, then select *Delete* in the *Delete Sampling Plan Rule Form* dialog box.
  - To add a sampling plan rule, select the *Add All Sensors Sampling Rule* button or the *Add Sensor Specific Sampling Rule* button (whichever one is available) in the *Sampling Plan Rule Creation* area of the *Sampling Plan* panel.

The system automatically saves the sampling plan.

7. [optional] Select *Release Sampling Plan*.

The system releases the sampling plan and displays the edited sampling plan details on the *Sampling Plan Details* panel.

8. To make and save additional edits, select *Edit Sampling Plan*.

## Cloning a Sampling Plan

A sampling plan can be cloned. Cloning provides an efficient means to create one or more similar sampling plans from the original one which can then be edited.

To clone a sampling plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.  
Administrators can clone sampling plans for any group.  
The Group Level Administrator and Glider Pilot roles can clone sampling plans for their allowed groups only.
2. From the main menu, select **Configuration > Mission Planning > Sampling Plans > Sampling Plans**.  
The system displays the *Sampling Plans* page (see Figure 8-43 on page 8-40).  
To display more sampling plans on a single page, select the number to display from the *Show Sampling Plans* drop-down list.  
To display the next/specific/previous page, select it from the page scroller.
3. [optional] Filter the list by sampling plan name, groups, or both by selecting the associated filter icon, and sort the list by sampling plan name by selecting the sort icon.
4. Select the *Clone* button for the sampling plan that you want to clone.  
The system opens the *Clone Sampling Plan* dialog box.
5. In the *Sampling Plan Name* text box, enter a name for the sampling plan.
6. From the *Group* drop-down list, select the group.
7. Select *Clone*.  
The system opens the *Sampling Plans* page to the *Sampling Plan* panel of the sampling plan to be cloned.
8. [optional] Make any required changes.  
The system automatically saves the sampling plan.
9. [optional] Select *Release Sampling Plan*.  
The system releases the sampling plan and the Sampling Plan Details panel displays the edited sampling plan details.
10. You can also select *Edit Sampling Plan* and make and save additional edits.

## Deleting a Sampling Plan

To be able to delete a sampling plan, it must not be in use.

To delete a sampling plan:

- Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.  
Administrators can delete sampling plans for any group.  
The Group Level Administrator and Glider Pilot roles can delete sampling plans for their allowed groups only.
- From the main menu, select **Configuration > Mission Planning > Sampling Plans > Sampling Plans**.  
The system displays the *Sampling Plans* page, as shown in Figure 8-51:

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show 15 Sampling Plans

| Sampling Plan Name        | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date  | Associated Mission Plans  | In Use | View | Edit | Clone | Delete |
|---------------------------|------------------|------------|------------------|------------------|---------------------|---------------------------|--------|------|------|-------|--------|
| Ashumet Geofenced         | default          | sfmcadmin  | 2022-01-06 22:10 | sfmcadmin        | 2022-01-28 16:27:47 |                           | No     |      |      |       |        |
| Ashumet_SP_01             | default          | sfmcadmin  | 2022-01-28 16:31 | sfmcadmin        | 2022-01-28 16:34:25 |                           | No     |      |      |       |        |
| Buzzards_Bay_Survey       | group3           | sfmcadmin  | 2022-01-27 20:57 | N/A              | N/A                 | Buzzards_Bay_Survey       | Yes    |      |      |       |        |
| Cape_Cod_Bay_Survey       | group1           | sfmcadmin  | 2022-01-27 21:04 | N/A              | N/A                 | Cape_Cod_Bay_Survey       | Yes    |      |      |       |        |
| Nantucket_Sound_Survey    | default          | sfmcadmin  | 2022-01-27 21:07 | N/A              | N/A                 | Nantucket_Sound_Survey    | Yes    |      |      |       |        |
| Rhode_Island_Sound_Survey | group2           | sfmcadmin  | 2022-01-27 21:09 | N/A              | N/A                 | Rhode_Island_Sound_Survey | Yes    |      |      |       |        |
| SFMC Stock Ashumet        | default          | install    | 2021-12-17 19:22 | N/A              | N/A                 | SFMC Stock Ashumet        | Yes    |      |      |       |        |

← First 1 Last →

Figure 8-51 Sampling plan available for deletion.

To display more sampling plans on a single page, select the number to display from the *Show Sampling Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

- [optional] Filter the list by sampling plan name, groups, or both by selecting the associated filter icon, and sort the list by sampling plan name by selecting the sort icon.
- Select the *Delete* button for the sampling plan that you want to delete. This button is available only for sampling plans that are not in use.

The system displays the *Delete Sampling Plan* dialog box, as shown in Figure 8-52:

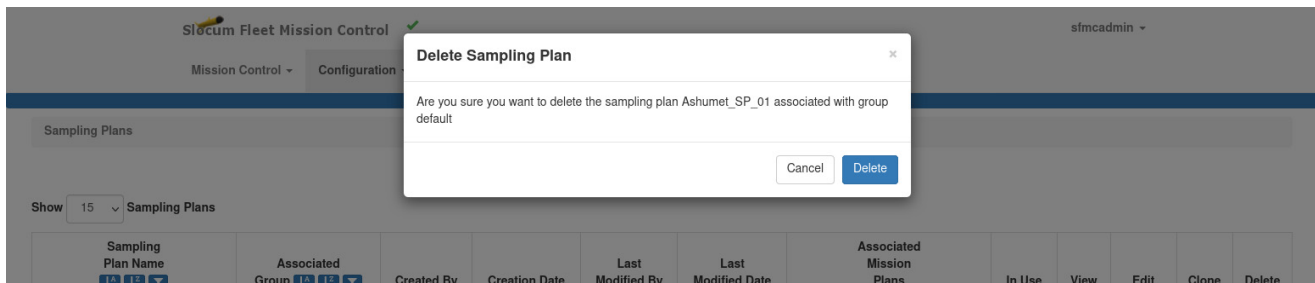


Figure 8-52 Delete Sampling Plan dialog box.

5. Select *Delete*.

The system deletes the sampling plan and the *Delete Sampling Plan* dialog box closes.

## Managing a Mission Sensor Plan

Mission sensor plans can be viewed, created, edited, cloned, and deleted.

### Viewing a Mission Sensor Plan

To view a mission sensor plan:

1. Log in to a user account as either an Administrator or one with any role.  
Administrators can view mission sensor plans for any group.  
The Group Level Administrator and Glider Pilot roles can view mission sensor plans for their allowed groups only.
2. From the main menu, select **Configuration > Mission Planning > Mission Sensor Plans > Mission Sensor Plans**.

The system displays the *Mission Sensor Plans* page, as shown in Figure 8-53:

Mission Sensor Plans

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show 15 Mission Sensor Plans

| Mission Sensor Plan Name  | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date | Associated Mission Plans  | In Use | View | Edit | Clone | Delete |
|---------------------------|------------------|------------|------------------|------------------|--------------------|---------------------------|--------|------|------|-------|--------|
| Ashumet Geofenced         | default          | sfmcadmin  | 2022-01-06 22:10 | N/A              | N/A                |                           | No     |      |      |       |        |
| Buzzards_Bay_Survey       | group3           | sfmcadmin  | 2022-01-27 20:57 | N/A              | N/A                | Buzzards_Bay_Survey       | Yes    |      |      |       |        |
| Cape_Cod_Bay_Survey       | group1           | sfmcadmin  | 2022-01-27 21:04 | N/A              | N/A                | Cape_Cod_Bay_Survey       | Yes    |      |      |       |        |
| Nantucket_Sound_Survey    | default          | sfmcadmin  | 2022-01-27 21:07 | N/A              | N/A                | Nantucket_Sound_Survey    | Yes    |      |      |       |        |
| Rhode_Island_Sound_Survey | group2           | sfmcadmin  | 2022-01-27 21:09 | N/A              | N/A                | Rhode_Island_Sound_Survey | Yes    |      |      |       |        |
| SFMC Stock Ashumet        | default          | install    | 2021-12-17 19:22 | N/A              | N/A                | SFMC Stock Ashumet        | Yes    |      |      |       |        |

← First 1 Last →

Figure 8-53 Mission Sensor Plans page.

To display more mission sensor plans on a single page, select the number to display from the *Show Mission Sensor Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

- [optional] Filter the list by mission sensor plan name, groups, or both by selecting the associated filter icon, and sort the list by mission sensor plan name by selecting the sort icon.
- Select the *View* button for the mission sensor plan that you want to view.

The *Mission Sensor Plan Details* panel opens where the mission sensor plan details are displayed as shown in Figure 8-54:

Mission Sensor Plans / Cape\_Cod\_Bay\_Survey

Edit Mission Sensor Plan

| Mission Sensor Plan Details                           |  |
|---|--|
| Mission Sensor Plan Name:                             | Cape_Cod_Bay_Survey                      |
| Associated Group:                                     | group1                                   |
| Created By:   | sfmadmin                                 |
| Creation Date/Time:                                   | 2022-01-27 21:04:54                      |
| Last Modified By:                                     | N/A                                      |
| Last Modified Date/Time:                              | N/A                                      |
| Flight Low Power Mode:                                | Disabled                                 |
| Power Down Science When Not Sampling:                 | Yes                                      |
| # Seconds Prior to Infection for Powering up Science: | 30                                       |
| Use Current Correction:                               | Enabled                                  |
| Min Altimeter Depth:                                  | 2.0m                                     |
| Flight Transmit Sensor Header Option:                 | Transmit On Initial Mission Segment Only |
| Science Transmit Sensor Header Option:                | Transmit On Initial Mission Segment Only |

Figure 8-54 Mission Sensor Plan Details panel.

The *Mission Sensor Plan Details* panel includes the following fields and information:

|                                  |   |
|----------------------------------|---|
| Mission Sensor Plan Name         | The name of the mission sensor plan.  |
| Associated Group                 | The group associated with the mission sensor plan. The mission sensor plan can be assigned and deployed for only those gliders in the group.  |
| Created By                       | The user account that was used to create the mission sensor plan.   |
| Creation Date/Time               | The date and time the mission sensor plan was created.  |
| Last Modified By                 | The user account that was last used to edit the mission sensor plan. N/A indicates that the mission sensor plan has never been edited.  |
| Last Modified Date/Time.         | The date and time the mission sensor plan was last edited. N/A indicates that the mission sensor plan has never been edited.  |
| Flight Low Power Mode            | When enabled, the glider will go into low power mode for the period specified by the Flight Low Power Mode Cycle Time setting when not performing any operations. When not enabled, the glider will never go into low power mode. |
| Flight Low Power Mode Cycle Time | When Flight Low Power Mode is enabled, the number of seconds during which the glider will remain in low power mode when not performing any operations.  |



|   |   |
|---|---|
| Power Down Science When Not Sampling                  | When selected, sensor power is switched off when the sensors are not being sampled and switched on in accordance with the # Seconds Prior to Inflection for Powering up Science setting. When cleared, the sensor power is on at all times. |
| # Seconds Prior to Inflection for Powering up Science | When Power Down Science When Not Sampling is enabled, the time in seconds prior to ending a dive and starting a climb at which to power up the sensors.   |
| Use Current Correction                                | When enabled, the glider will include the depth averaged current vectors when navigating and steering. When not enabled, the glider will not include these parameters when navigating and steering.   |
| Min Altimeter Depth                                   | When diving, the minimum water depth in meters before enabling the altimeter.   |
| Flight Transmit Sensor Header Option                  | Indicates if and when flight data headers are transmitted.  |
| Science Transmit Sensor Header Option                 | Indicates if and when science data headers are transmitted.   |

## Creating a Mission Sensor Plan

A mission sensor plan is created on the Mission Sensor Plan panel of the *Mission Sensor Plans* page which is shown in Figure 8-51 on page 8-46.

The Mission Sensor Plan panel is composed of a form for entering the mission sensor plan parameters.

To create a mission sensor plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can edit mission sensor plans for any group.

The Group Level Administrator and Glider Pilot roles can edit mission sensor plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning > Mission Sensor Plans > Create Mission Sensor Plan**.

The system displays the *Create Mission Sensor Plan* panel, as shown in Figure 8-55:

Figure 8-55 Create Mission Plan panel.

3. On the *Create Mission Sensor Plan* panel, in the *Mission Sensor Plan Name* text box, enter a unique name for the mission sensor plan, as shown in Figure 8-56 below. The name must begin with an alpha character followed by at least 4 but no more than 49 alphanumeric or special characters:

Figure 8-56 Mission sensor plan name entered.

4. From the *Group* drop-down list, select the group to associate with the mission sensor plan. This drop-down list will only be shown if the user account is associated with more than one group.
5. Select *Next*.

The system displays the *Mission Sensor Plan* panel, as shown in Figure 8-57:

Mission Sensor Plans / Ashumet\_MSP\_01 / (Under edit)

Release Mission Sensor Plan

**Mission Sensor Plan**

Use the form below to configure the mission sensor plan.

Flight Low Power Mode Enabled

Power Down Science When Not Sampling

# Seconds Prior to Inflection for Powering up Science:

30

Use Current Correction

Min Altimeter Depth (m):

2.0

Flight Transmit Sensor Header Option\*:

Transmit On Initial Mission Segment Only

Science Transmit Sensor Header Option\*:

Transmit On Initial Mission Segment Only

Save

Figure 8-57 Mission Sensor Plan panel.

6. In the *Mission Sensor Plan* panel, make the settings in accordance with those described in “Viewing a Mission Sensor Plan” on page 8-49.
  - To enable flight low power mode, select the *Flight Low Power Mode* check box. To disable flight low power mode, clear the check box.
  - To power down the sensors when not sampling them, select the *Power Down Science When Not Sampling* check box. To keep the sensors powered on at all times, clear the check box.
  - To use the depth averaged current vectors when navigating and steering, select the *Use Current Connection* check box. Clear the check box to not use them.
7. For both the *Flight Transmit Sensor Header Option* and the *Science Transmit Sensor Header Option* drop-down lists, do one of the following:
  - Select *Transmit On Initial Mission Segment Only* to transmit flight/science sensor header data files during the glider’s first mission segment only.
  - Select *Always Transmit* to transmit flight/science sensor header data files during all mission segments.
  - Select *Transmit If Glider Has Never Sent It* to transmit flight/science sensor header data files during a mission segment if they have not been transmitted.
  - Select *Never Transmit On Initial Mission Segment Only* to never transmit flight/science sensor header data.
8. Select *Save*.  
The mission sensor plan is saved.
9. [optional] Select *Release Mission Sensor Plan*.

The system releases the mission sensor plan and the *Mission Sensor Plan Details* panel displays the mission sensor plan details.

## Editing a Mission Sensor Plan

Once saved, a mission sensor plan can be edited at any time to include modifying, adding, and deleting the mission sensor plan parameters.

You can begin editing a mission sensor plan directly from the *Mission Sensor Plans* page or when viewing the mission sensor plan as described in “Viewing a Mission Sensor Plan” on page 8-49.

While editing a mission sensor plan, it is locked to all other user accounts until the editing is completed. However, the mission sensor plan can be cloned as described in “Cloning a Mission Sensor Plan” on page 8-56, and then edited.

If the mission sensor plan is associated with an active deployment, the mission sensor plan for the deployment must be processed and the mission files regenerated for the edited mission sensor plan to be uploaded to the glider when it next connects and if the script `sfmc.xml` is enabled.

For instructions on how to process a mission plan and generate the files, refer to “Assigning a Mission Plan to an Active Deployment” on page 9-15.

To edit a mission sensor plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can edit mission sensor plans for any group.

The Group Level Administrator and Glider Pilot roles can edit mission sensor plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning > Mission Sensor Plans > Mission Sensor Plans**.

The system displays the *Mission Sensor Plans* page (see Figure 8-53 on page 8-50).

To display more mission sensor plans on a single page, select the number to display from the *Show Mission Sensor Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by mission sensor plan name, groups, or both by selecting the associated filter icon, and sort the list by mission sensor plan name by selecting the sort icon.
4. Select either the:
  - a. *Edit* button for the mission sensor plan that you want to edit
  - or–
  - b. *View* button to view the mission sensor plan first
5. Just above the *Mission Sensor Plan* panel, select the *Edit Mission Sensor Plan* button.

The system opens to the *Mission Sensor Plan* panel of the mission sensor plan to be edited, as shown Figure 8-58:

Figure 8-58 Mission sensor plan to be edited.

The mission sensor plan also becomes locked for editing by any other user account.

6. Make the required changes.
7. Select *Save*.

The system saves the mission sensor plan.

8. [optional] Select *Release Mission Sensor Plan*.

The system releases the mission sensor plan and displays the edited sampling plan details on the *Mission Sensor Plan Details* panel.

9. You can also select *Edit Mission Sensor Plan* to make and save additional edits.

## Cloning a Mission Sensor Plan

Cloning provides an efficient means to create one or more similar mission sensor plans from an original one. You can edit the clone(s) afterward.

To clone a mission sensor plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can clone mission sensor plans for any group.

The Group Level Administrator and Glider Pilot roles can clone mission sensor plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning > Mission Sensor Plans > Mission Sensor Plans**.

The system displays the *Mission Sensor Plans* page (see Figure 8-53 on page 8-50).

To display more mission sensor plans on a single page, select the number to display from the *Show Mission Sensor Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by mission sensor plan name, groups, or both by selecting the associated filter icon, and sort the list by mission sensor plan name by selecting the sort icon.
4. Select the *Clone* button for the mission sensor plan that you want to clone.  
The system opens the *Clone Mission Sensor Plan* dialog box.
5. Enter a name for the mission sensor plan in the *Mission Sensor Plan Name* text box.
6. Select the group from the *Group* drop-down list.
7. Select *Clone*.

The *Mission Sensor Plans* page opens to the Mission Sensor Plan panel of the mission sensor plan to be cloned.

8. [optional] Make any required changes, and then select *Save*.

The system saves the mission sensor plan.

9. [optional] Select *Release Mission Sensor Plan*.

The system releases the mission sensor plan and displays the edited mission sensor plan details on the *Mission Sensor Plan Details* panel.

## Deleting a Mission Sensor Plan

To be able to delete a mission sensor plan, it must not be in use.

To delete a mission sensor plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can delete mission sensor plans for any group.

The Group Level Administrator and Glider Pilot roles can delete mission sensor plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning > Mission Sensor Plans > Mission Sensor Plans**.

The system displays the *Mission Sensor Plans* page, as shown in Figure 8-59:

Mission Sensor Plans

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show 15 Mission Sensor Plans

| Mission Sensor Plan Name  | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date | Associated Mission Plans  | In Use | View | Edit | Clone | Delete |
|---------------------------|------------------|------------|------------------|------------------|--------------------|---------------------------|--------|------|------|-------|--------|
| Ashumet Geofenced         | default          | sfmcadmin  | 2022-01-06 22:10 | N/A              | N/A                |                           | No     |      |      |       |        |
| Ashumet_MSP_01            | default          | sfmcadmin  | 2022-01-28 16:52 | N/A              | N/A                |                           | No     |      |      |       |        |
| Buzzards_Bay_Survey       | group3           | sfmcadmin  | 2022-01-27 20:57 | N/A              | N/A                | Buzzards_Bay_Survey       | Yes    |      |      |       |        |
| Cape_Cod_Bay_Survey       | group1           | sfmcadmin  | 2022-01-27 21:04 | N/A              | N/A                | Cape_Cod_Bay_Survey       | Yes    |      |      |       |        |
| Nantucket_Sound_Survey    | default          | sfmcadmin  | 2022-01-27 21:07 | N/A              | N/A                | Nantucket_Sound_Survey    | Yes    |      |      |       |        |
| Rhode_Island_Sound_Survey | group2           | sfmcadmin  | 2022-01-27 21:09 | N/A              | N/A                | Rhode_Island_Sound_Survey | Yes    |      |      |       |        |
| SFMC Stock Ashumet        | default          | install    | 2021-12-17 19:22 | N/A              | N/A                | SFMC Stock Ashumet        | Yes    |      |      |       |        |

-- First 1 Last --

Figure 8-59 Mission sensor plan available for deletion.

To display more mission sensor plans on a single page, select the number to display from the *Show Mission Sensor Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

- [optional] Filter the list by mission sensor plan name, groups, or both by selecting the associated filter icon, and sort the list by mission sensor plan name by selecting the sort icon.
- Select the *Delete* button for the mission sensor plan that you want to delete. This button is available only for mission sensor plans that are not in use.

The system displays the *Delete Mission Sensor Plan* dialog box, as shown in Figure 8-60:

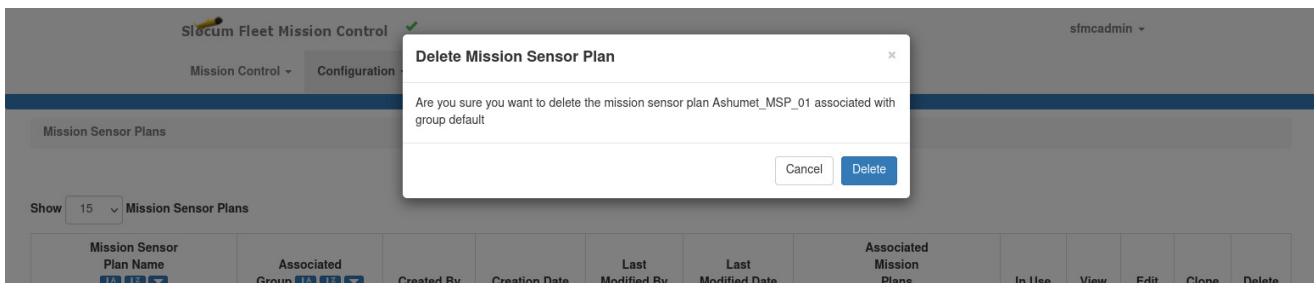


Figure 8-60 Delete Mission Plan dialog box.

- Select *Delete*. The system deletes the mission sensor plan and closes the *Delete Mission Sensor Plan* dialog box.

## Managing an Abort Plan

Abort plans can be viewed, created, edited, cloned, and deleted.

### Viewing an Abort Plan

To view an abort plan:

- Log in to a user account as either an Administrator or one with any role.  
Administrators can view abort plans for any group.  
The Group Level Administrator, Glider Pilot, and Viewer roles can view abort plans for their allowed groups only.
- From the main menu, select **Configuration > Mission Planning > Abort Plans > Abort Plans**.  
The system displays the *Abort Plans* page, as shown in Figure 8-61 below.  
To display more abort plans on a single page, select the number to display from the *Show Abort Plans* drop-down list.  
To display the next/specific/previous page, select it from the page scroller.
- [*optional*] Filter the list by abort plan name, groups, or both by selecting the associated filter icon, and sort the list by abort plan name by selecting the sort icon.

| Abort Plan Name           | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date | Associated Mission Plans  | In Use | View | Edit | Clone | Delete |
|---------------------------|------------------|------------|------------------|------------------|--------------------|---------------------------|--------|------|------|-------|--------|
| Ashumet Geofenced         | default          | sfmadmin   | 2022-01-06 22:10 | N/A              | N/A                |                           | No     |      |      |       |        |
| Buzzards_Bay_Survey       | group3           | sfmadmin   | 2022-01-27 20:57 | N/A              | N/A                | Buzzards_Bay_Survey       | Yes    |      |      |       |        |
| Cape_Cod_Bay_Survey       | group1           | sfmadmin   | 2022-01-27 21:04 | N/A              | N/A                | Cape_Cod_Bay_Survey       | Yes    |      |      |       |        |
| Nantucket_Sound_Survey    | default          | sfmadmin   | 2022-01-27 21:07 | N/A              | N/A                | Nantucket_Sound_Survey    | Yes    |      |      |       |        |
| Rhode_Island_Sound_Survey | group2           | sfmadmin   | 2022-01-27 21:09 | N/A              | N/A                | Rhode_Island_Sound_Survey | Yes    |      |      |       |        |
| SFMC Stock Ashumet        | default          | install    | 2021-12-17 19:22 | N/A              | N/A                | SFMC Stock Ashumet        | Yes    |      |      |       |        |

Figure 8-61 *Abort Plans* page.

- Select the *View* button for the abort plan that you want to view.  
The system opens the *Abort Plan Details* page where the abort plan details are displayed, as shown in Figure 8-62:



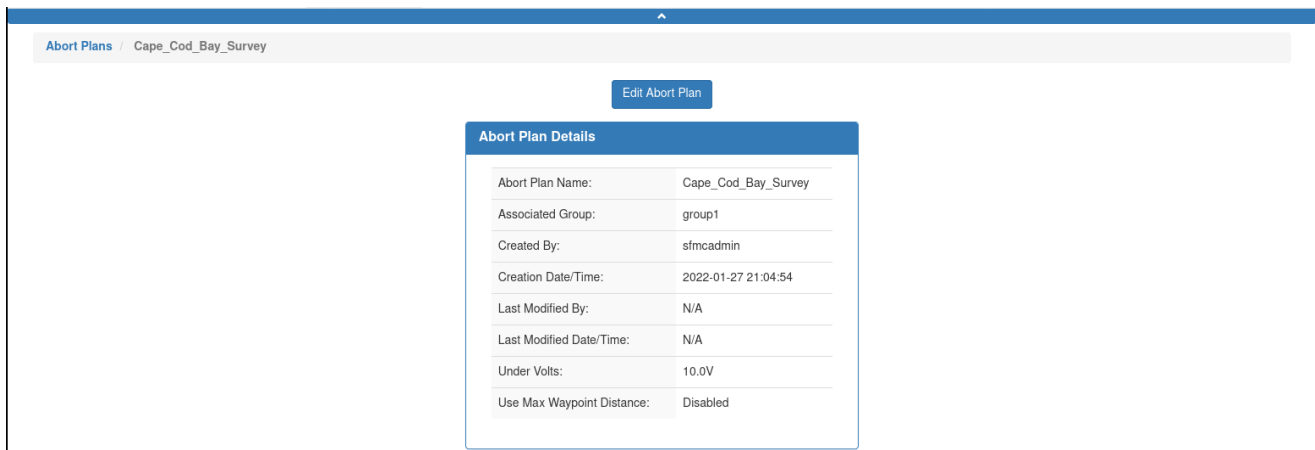


Figure 8-62 *Abort Plan Details* page.

The *Abort Plan Details* panel includes the following fields and information:

|                           |  |
|---------------------------|--|
| Abort Plan Name           | The name of the abort plan.  |
| Associated Group          | The group associated with the abort plan. The abort plan can be assigned and deployed for only those gliders in the group. |
| Created By                | The user account that was used to create the abort plan.   |
| Creation Date/Time        | The date and time the abort plan was created.  |
| Last Modified By          | The user account that was last used to edit the abort plan. N/A indicates that the abort plan has never been edited.       |
| Last Modified Date/Time   | The date and time the abort plan was last edited. N/A indicates that the abort plan has never been edited.                 |
| Under Volts               | The battery voltage in volts under which will cause the mission to abort.  |
| Use Max Waypoint Distance | The maximum distance between any two consecutive waypoints, which if exceeded, the mission will be aborted.                |

## Creating an Abort Plan

To create an abort plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can create abort plans for any group.

The Group Level Administrator and Glider Pilot roles can create abort plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning > Abort Plans > Create Abort Plan**.

The system displays the *Create Abort Plan* page, as shown in Figure 8-63:

Figure 8-63 *Create Abort Plan* page.

- In the *Create Abort Plan* panel, enter a unique name for the abort plan in the *Abort Plan Name* text box, as shown in Figure 8-64 below. The name must begin with an alpha character followed by at least 4 but no more than 49 alphanumeric or special characters:

Figure 8-64 Abort plan name entered.

- From the *Group* drop-down list, select the group to associate with the abort plan. This drop-down list will only be shown if the user account is associated with more than one group.
- Select *Next*.

The system displays the *Abort Plan* panel, as shown in Figure 8-65:

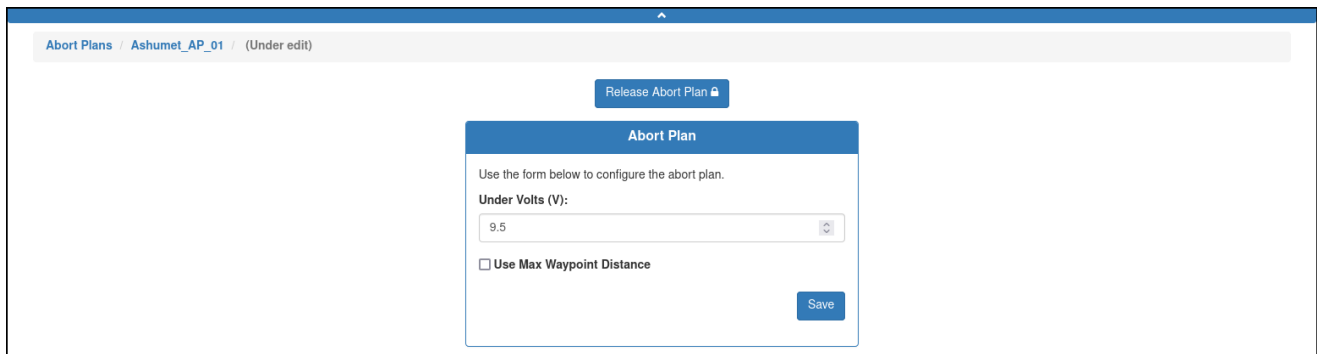


Figure 8-65 *Abort Plan* panel.

6. In the *Abort Plan* panel, enter/select the battery voltage in volts under which to abort the mission in the *Under Volts* text box.
7. [optional] Select the *Use Max Waypoint Distance* check box, then enter/select the maximum distance between two consecutive waypoints in meters over which, if exceeded, the mission is to be aborted.
8. Select *Save*.  
The system saves the abort plan.
9. [optional] Select *Release Abort Plan*.  
The system releases the abort plan and displays the abort plan details on the *Abort Plan Details* panel.

## Editing an Abort Plan

Once saved, an abort plan can be edited at any time by modifying the abort plan parameter.

You can begin editing an abort plan directly from the *Abort Plans* page or when viewing the abort plan as described in “Viewing an Abort Plan” on page 8-59.

While editing an abort plan, it is locked to all other user accounts until the editing is completed. However, the abort plan can be cloned as described in “Cloning an Abort Plan” on page 8-63, and then edited.

If the abort plan is associated with an active deployment, the mission plan for the deployment must be processed and the mission files regenerated for the edited abort plan to be uploaded to the glider when it next connects and if the script `sfmc.xml` is enabled.

For instructions on how to process a mission plan and generate the files, refer to “Assigning a Mission Plan to an Active Deployment” on page 9-15.

To edit an abort plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can edit abort plans for any group.

The Group Level Administrator and Glider Pilot roles can edit abort plans for their allowed groups only.

- From the main menu, select **Configuration > Mission Planning > Abort Plans > Abort Plans**.

The system displays the *Abort Plans* page (see Figure 8-61 on page 8-59).

To display more abort plans on a single page, select the number to display from the *Show Abort Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

- [*optional*] Filter the list by abort plan name, groups, or both by selecting the associated filter icon, and sort the list by abort plan name by selecting the sort icon.
- Select the Edit button for the abort plan that you want to edit, or select the View button for it to view the abort plan first, and then select the Edit Abort Plan button just above the Abort Plan panel.

The *Abort Plans* page opens to the *Abort Plan* panel of the abort plan to be edited, as shown Figure 8-66:

Figure 8-66 Abort plan to be edited.

The system locks the abort plan to prevent editing by any other user account.

- Make the required changes.
- Select *Save*.
- [*optional*] Select *Release Abort Plan*.

The system releases the abort plan and displays the edited abort plan details.

- You can select *Edit Abort Plan* to make and save additional edits.

## Cloning an Abort Plan

Cloning provides an efficient means to create one or more similar abort plans from the original one which can then be edited.

To clone an abort plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can clone abort plans for any group.

The Group Level Administrator and Glider Pilot roles can clone abort plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning > Abort Plans > Abort Plans**.

The system displays the *Abort Plans* page (see Figure 8-61 on page 8-59).

To display more abort plans on a single page, select the number to display from the *Show Abort Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by abort plan name, groups, or both by selecting the associated filter icon, and sort the list by abort plan name by selecting the sort icon.

4. Select the Clone button for the abort plan that you want to clone.

The Clone Abort Plan dialog box opens.

5. Enter a name for the abort plan in the Abort Plan Name text box, select the group from the *Group* drop-down list, and then select Clone.

The *Abort Plans* page opens to the Abort Plan panel of the abort plan to be cloned.

6. [optional] Make any required changes, and then select Save.

The abort plan is saved.

7. [optional] Select Release Abort Plan.

The Abort Plan Details panel displays the edited abort plan details, and the mission sensor plan is released.

## Deleting an Abort Plan

To be able to delete an abort plan, it must not be in use.

To delete an abort plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can delete abort plans for any group.

The Group Level Administrator and Glider Pilot roles can delete abort plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning > Abort Plans > Abort Plans**.

The system displays the *Abort Plans* page, as shown in Figure 8-67:

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show 15 Abort Plans

| Abort Plan Name           | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date | Associated Mission Plans  | In Use | View | Edit | Clone | Delete |
|---------------------------|------------------|------------|------------------|------------------|--------------------|---------------------------|--------|------|------|-------|--------|
| Ashumet_AP_01             | default          | sfmcadmin  | 2022-01-28 18:44 | N/A              | N/A                |                           | No     |      |      |       |        |
| Ashumet Geofenced         | default          | sfmcadmin  | 2022-01-06 22:10 | N/A              | N/A                |                           | No     |      |      |       |        |
| Buzzards_Bay_Survey       | group3           | sfmcadmin  | 2022-01-27 20:57 | N/A              | N/A                | Buzzards_Bay_Survey       | Yes    |      |      |       |        |
| Cape_Cod_Bay_Survey       | group1           | sfmcadmin  | 2022-01-27 21:04 | N/A              | N/A                | Cape_Cod_Bay_Survey       | Yes    |      |      |       |        |
| Nantucket_Sound_Survey    | default          | sfmcadmin  | 2022-01-27 21:07 | N/A              | N/A                | Nantucket_Sound_Survey    | Yes    |      |      |       |        |
| Rhode_Island_Sound_Survey | group2           | sfmcadmin  | 2022-01-27 21:09 | N/A              | N/A                | Rhode_Island_Sound_Survey | Yes    |      |      |       |        |
| SFMC Stock Ashumet        | default          | install    | 2021-12-17 19:22 | N/A              | N/A                | SFMC Stock Ashumet        | Yes    |      |      |       |        |

-- First 1 Last --

Figure 8-67 Abort plan available for deletion.

To display more abort plans on a single page, select the number to display from the *Show Abort Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

- [optional] Filter the list by abort plan name, groups, or both by selecting the associated filter icon, and sort the list by abort plan name by selecting the sort icon.
- Select the *Delete* button for the abort plan that you want to delete.

This button is available only for abort plans that are not in use.

The system displays the *Delete Abort Plan* dialog box, as shown in Figure 8-68:

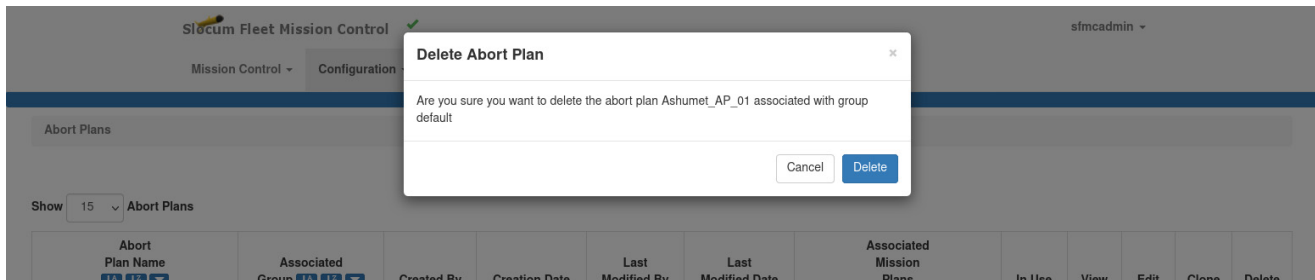


Figure 8-68 Delete Abort Plan dialog box.

- Select *Delete*.

The system deletes the abort plan and closes the *Delete Abort Plan* dialog box.

# Managing a Data Transmission Plan

Data transmission plans can be viewed, created, edited, cloned, and deleted.

## Viewing a Data Transmission Plan

To view a data transmission plan:

1. Log in to a user account as either an Administrator or one with any role.  
Administrators can view data transmission plans for any group.  
The Group Level Administrator, Glider Pilot, and Viewer roles can view data transmission plans for their allowed groups only.
2. From the main menu, select **Configuration > Mission Planning > Data Transmission Plans > Data Transmission Plans**.

The system displays the *Data Transmission Plans* page, as shown in Figure 8-69:

| Data Transmission Plan Name | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date | Associated Mission Plans  | In Use | View | Edit | Clone | Delete |
|-----------------------------|------------------|------------|------------------|------------------|--------------------|---------------------------|--------|------|------|-------|--------|
| Ashumet Geofenced           | default          | sfmcadmin  | 2022-01-06 22:10 | N/A              | N/A                |                           | No     | View | Edit | Clone | Delete |
| Buzzards_Bay_Survey         | group3           | sfmcadmin  | 2022-01-27 20:57 | N/A              | N/A                | Buzzards_Bay_Survey       | Yes    | View | Edit | Clone | Delete |
| Cape_Cod_Bay_Survey         | group1           | sfmcadmin  | 2022-01-27 21:04 | N/A              | N/A                | Cape_Cod_Bay_Survey       | Yes    | View | Edit | Clone | Delete |
| Nantucket_Sound_Survey      | default          | sfmcadmin  | 2022-01-27 21:07 | N/A              | N/A                | Nantucket_Sound_Survey    | Yes    | View | Edit | Clone | Delete |
| Rhode_Island_Sound_Survey   | group2           | sfmcadmin  | 2022-01-27 21:09 | N/A              | N/A                | Rhode_Island_Sound_Survey | Yes    | View | Edit | Clone | Delete |
| SFMC Stock Ashumet          | default          | install    | 2021-12-17 19:22 | N/A              | N/A                | SFMC Stock Ashumet        | Yes    | View | Edit | Clone | Delete |

Figure 8-69 Data Transmission Plans page.

To display more data transmission plans on a single page, select the number to display from the *Show Data Transmission Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by data transmission plan name, groups, or both by selecting the associated filter icon, and sort the list by data transmission plan name by selecting the sort icon.
4. Select the *View* button for the data transmission plan that you want to view.  
The system opens the *Data Transmission Plan Details* panel where the data transmission plan details are displayed, as shown in Figure 8-70:

The screenshot shows a web interface for managing data transmission plans. At the top, there is a breadcrumb trail: "Data Transmission Plans / Cape\_Cod\_Bay\_Survey". Below this is a button labeled "Edit Data Transmission Plan". The main content area is titled "Data Transmission Plan Details" and contains the following information:

- Data Transmission Plan Name:** Cape\_Cod\_Bay\_Survey
- Associated Group:** group1
- Created By:** sfmcadmin
- Creation Date/Time:** 2022-01-27 21:04:54
- Last Modified By:** N/A
- Last Modified Date/Time:** N/A
- Enabled Data Transmission Rules:**
  - Sensor:** c\_wpt\_lat  
**# of Half Yos:** ALL  
**States:** Diving, Hovering, Climbing, On Surface  
**Interval:** As fast as possible  
**Nth Yo to Sample:** 1
  - Sensor:** c\_wpt\_lon  
**# of Half Yos:** ALL  
**States:** Diving, Hovering, Climbing, On Surface  
**Interval:** As fast as possible  
**Nth Yo to Sample:** 1
  - Sensor:** m\_depth  
**# of Half Yos:** ALL  
**States:** Diving, Hovering, Climbing, On Surface  
**Interval:** 15s  
**Nth Yo to Sample:** 1
  - Sensor:** m\_gps\_lat  
**# of Half Yos:** ALL  
**States:** Diving, Hovering, Climbing, On Surface  
**Interval:** As fast as possible  
**Nth Yo to Sample:** 1

At the bottom of the panel, there are two buttons: "Gen SBD List File" and "Gen TBD List File".

Figure 8-70 Data Transmission Plan Details panel.

The *Data Transmission Plan Details* panel includes the following fields and information:

|  |  |
|--|--|
| <b>Data Transmission Plan Name</b>     | The name of the data transmission plan.  |
| <b>Associated Group</b>                | The group associated with the data transmission plan. The data transmission plan can be assigned and deployed for only those gliders in the group.   |
| <b>Created By</b>                      | The user account that was used to create the data transmission plan.   |
| <b>Creation Date/Time</b>              | The date and time the data transmission plan was created.  |
| <b>Last Modified By</b>                | The user account that was last used to edit the data transmission plan. N/A indicates that the data transmission plan has never been edited.   |
| <b>Last Modified Date/Time</b>         | The date and time the data transmission plan was last edited. N/A indicates that the data transmission plan has never been edited.   |
| <b>Enabled Data Transmission Rules</b> | Displays a list of enabled data transmission rules. <ul style="list-style-type: none"> <li>• Sensor:</li> <li>• Nth Yo to Sample —</li> <li>• Interval:</li> <li>• States —</li> <li>• # of Half Yos:</li> </ul> |



|                   |  |
|-------------------|--|
| Gen SBD List File | Use this button to generate an SBD (Small Binary Data) List file.            |
| Gen TBD List File | Use this button to generate a TBD (Small Binary Data for science) List file. |

## Creating a Data Transmission Plan

A data transmission plan is created on the Data Transmission Plan panel of the *Data Transmission Plans* page which is shown in Figure 8-67 on page 8-61.

The *Data Transmission Plan* panel is composed of the:

- *Data Transmission Plan Rule Creation* area on the left, which allows you to create a separate data transmission plan rule for specific sensors
- *Enabled Data Transmission Plan Rules* area on the right, which provides a list of enabled data transmission plan rules

The data transmission plan applies to each mission segment, where a segment is typically the glider diving, climbing, or floating at the surface.

To create a data transmission plan:

1. Log in to a user account as either an Administrator or one with any role.  
Administrators can create data transmission plans for any group.  
The Group Level Administrator, Glider Pilot, and Viewer roles can create data transmission plans for their allowed groups only.
2. From the main menu, select **Configuration > Mission Planning > Data Transmission Plans > Create Data Transmission Plan**.

The system displays the *Create Data Transmission Plan* panel, as shown in Figure 8-71:

Figure 8-71 *Create Data Transmission Plan* panel.

- On the *Create Data Transmission Plan* panel, in the *Data Transmission Plan Name* text box, enter a unique name for the data transmission plan, as shown in Figure 8-72 below.

The name must begin with an alpha character followed by at least 4 but no more than 49 alphanumeric or special characters:

Figure 8-72 Data transmission plan name entered.

- From the *Group* drop-down list, select the group to associate with the data transmission plan.  
This drop-down list will only be shown if the user account is associated with more than one group.
- Select *Next*.  
The system displays the *Data Transmission Plan* panel, as shown in Figure 8-73:

Figure 8-73 Data Transmission Plan panel.

- From the *Data Transmission Plan Rule Creation* area of the *Data Transmission Plan* panel, select *Add New Data Transmission Rule* to add a data transmission rule.

The system displays the *Create Data Transmission Rule* dialog box, as shown in Figure 8-74:

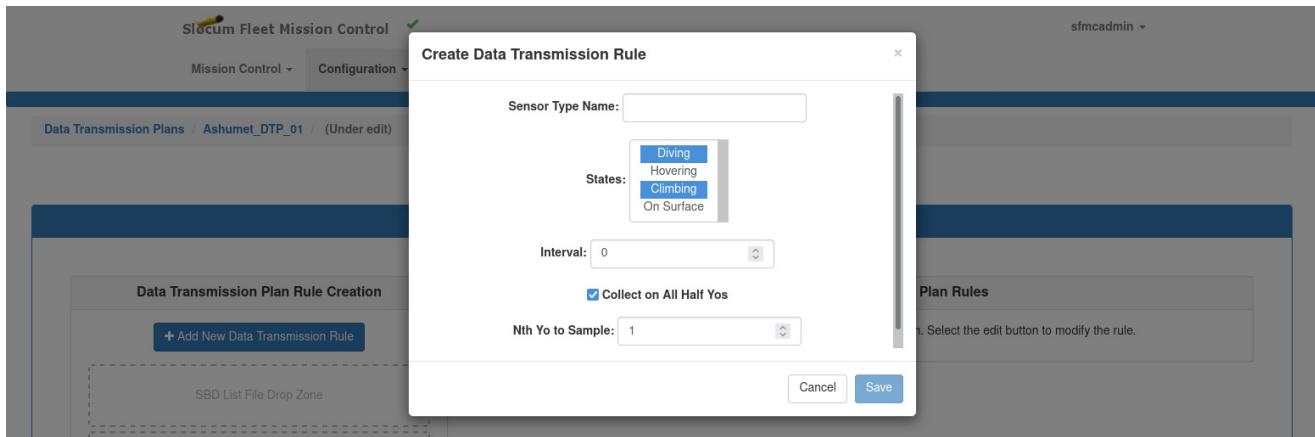


Figure 8-74 *Create Data Transmission Rule* dialog box.

7. Enter the sensor name in the *Sensor Type Name* text box.  
You can also enter just the first two characters of the sensor name. The system displays a list of sensors beginning with these characters. If the sensor you are looking for is not in the list, continue entering the characters for it until it does. Then select the sensor from this list.
8. From the *States* drop-down list, select the state or states to sample. To select more than one state, hold down the **[Ctrl]** key while selecting them one at a time.
9. Enter/select the interval in seconds between samples in the *Interval* spin box.
10. Select the *Collect on All Half Yos* check box to transmit data for every half yo.  
Clear the check box to transmit data for a specific number of yos during each mission segment, then enter/select the number of yos in the *# of Half Yos* spin box that opens.
11. If the:
  - *Collect on All Half Yos* check box is selected — Enter/select the yos during which to sample from the *Nth Yo to Sample* spin box.  
For example, for a mission segment, if the value of *Nth Yo to Sample* is:
    - **1** – data transmission will be performed during every yo
    - **2** – during every second yo
    - **3** – during every third yo, and so on
  - *Collect on All Half Yos* check box is cleared — The total number of yos is limited by the *# of Half Yos* setting for each mission segment.
12. Select *Save*.  
The system saves the data transmission plan.
13. [optional] Select *Release Data Transmission Plan*.

The system releases the data transmission plan and the *Data Transmission Plan Details* panel displays the data transmission plan details.

## Editing a Data Transmission Plan

Once saved, a data transmission plan can be edited at any time to include modifying, adding, and deleting the data transmission plan parameters.

You can begin editing a data transmission plan directly from the *Data Transmission Plans* page or when viewing the data transmission plan as described in “Viewing a Data Transmission Plan” on page 8-66.

While editing a data transmission plan, it is locked to all other user accounts until the editing is completed. However, the data transmission plan can be cloned as described in “Cloning a Data Transmission Plan” on page 8-73, and then edited.

If the data transmission plan is associated with an active deployment, the mission plan for the deployment must be processed and the mission files regenerated for the edited data transmission plan to be uploaded to the glider when it next connects and if the script `sfmc.xml` is enabled.

For instructions on how to process a mission plan and generate the files, refer to “Assigning a Mission Plan to an Active Deployment” on page 9-15.

To edit a data transmission plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can edit data transmission plans for any group.

The Group Level Administrator and Glider Pilot roles can edit data transmission plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning > Data Transmission Plans > Data Transmission Plans**.

The system displays the *Data Transmission Plans* page (see Figure 8-69 on page 8-66).

To display more data transmission plans on a single page, select the number to display from the *Show Data Transmission Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [*optional*] Filter the list by data transmission plan name, groups, or both by selecting the associated filter icon, and sort the list by data transmission plan name by selecting the sort icon.
4. Select either the:
  - *Edit* button for the data transmission plan that you want to edit
  - or–
  - *View* button for it to view the data transmission plan before editing

- Select the *Edit Data Transmission Plan* button just above the *Data Transmission Plan* panel.

The system opens the *Data Transmission Plans* page to the *Data Transmission Plan* panel of the data transmission plan to be edited, as shown Figure 8-75:

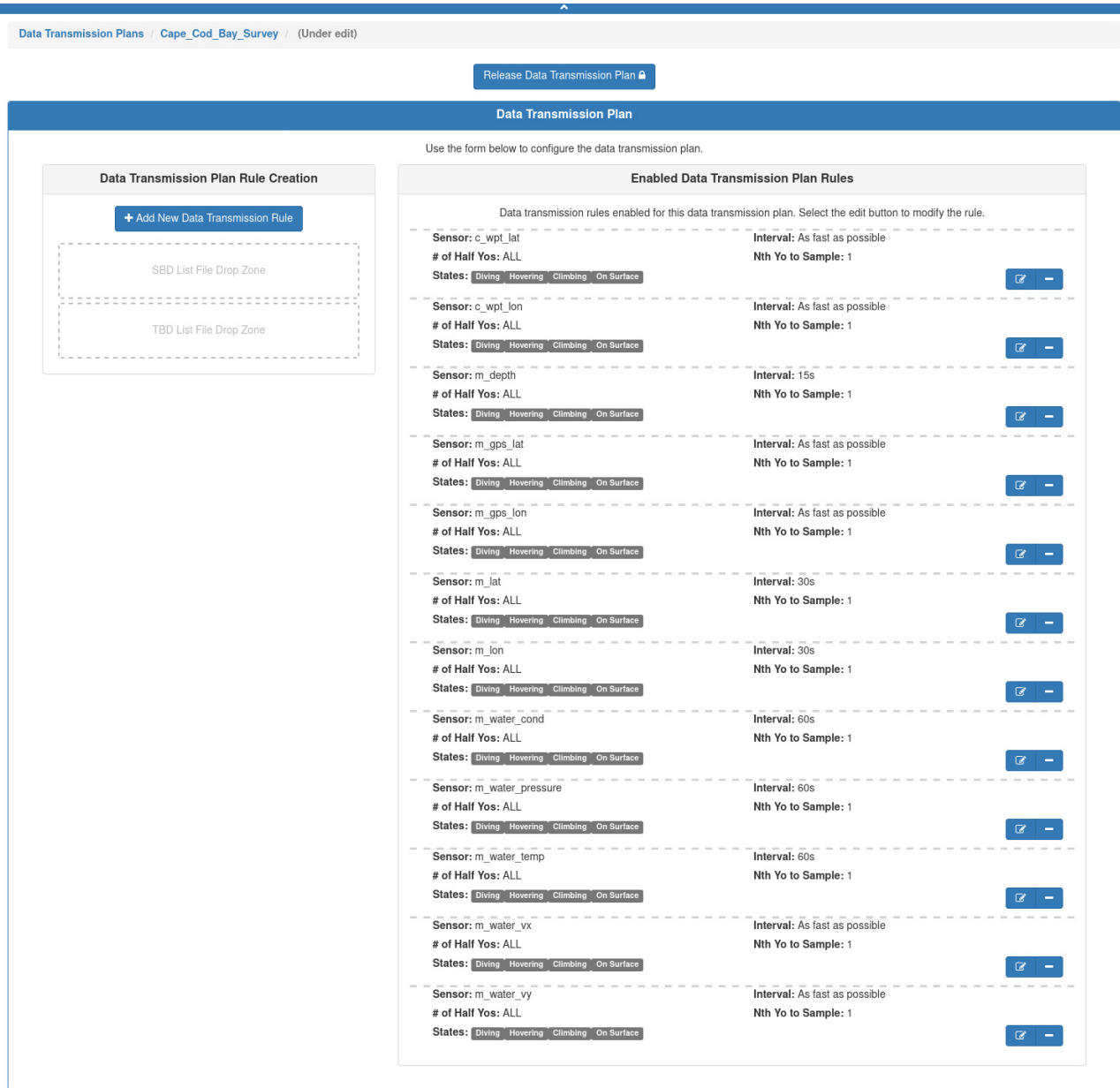


Figure 8-75 Data transmission plan to be edited.

The system locks the data transmission plan to prevent editing by any other user account.

6. On the *Data Transmission Plan* panel, in the *Enabled Data Transmission Plan Rules* area, select the *Modify the settings for this data transmission rule* button for each data transmission plan rule that you want to modify.
  - To remove a data transmission plan rule: Select the *Remove this data transmission rule* button for the particular rule, then select *Delete* in the *Delete Data Transmission Plan Rule Form* dialog box.
  - To add a data transmission plan rule: Select the *Add New Data Transmission Rule* button in the *Data Transmission Plan Rule Creation* area of the *Data Transmission Plan* panel.
7. Make any required changes, if there are any.
8. Select *Save*.

The system saves the mission data transmission plan.
9. [optional] Select *Release Data Transmission Plan*.

The system releases the data transmission plan and the *Data Transmission Plan Details* panel displays the edited data transmission plan details.
10. You can also select *Edit Data Transmission Plan* and make and save additional edits.

## Cloning a Data Transmission Plan

Cloning provides an efficient means to create one or more similar data transmission plans from an original one, after which you can edit the cloned plans.

To clone a data transmission plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can clone data transmission plans for any group.  
The Group Level Administrator and Glider Pilot roles can clone data transmission plans for their allowed groups only.
2. From the main menu, select **Configuration > Mission Planning > Data Transmission Plans > Data Transmission Plans**.

The system displays the *Data Transmission Plans* page (see Figure 8-69 on page 8-66).  
To display more data transmission plans on a single page, select the number to display from the *Show Data Transmission Plans* drop-down list.  
To display the next/specific/previous page, select it from the page scroller.
3. [optional] Filter the list by data transmission plan name, groups, or both by selecting the associated filter icon, and sort the list by data transmission plan name by selecting the sort icon.
4. Select the *Clone* button for the data transmission plan that you want to clone.

The system opens the *Clone Data Transmission Plan* dialog box.

5. In the *Data Transmission Plan Name* text box, enter a name for the data transmission plan.
6. From the *Group* drop-down list, select the group.
7. Select *Clone*.  
The system opens the *Data Transmission Plans* page to the *Data Transmission Plan* panel of the data transmission plan to be cloned.
8. Make any required changes, if there are any.
9. Select *Save*.  
The system saves the data transmission plan.
10. [optional] Select *Release Data Transmission Plan*.  
The system releases the data transmission plan and the *Data Transmission Plan Details* panel displays the edited data transmission plan details.

## Deleting a Data Transmission Plan

To be able to delete a data transmission plan, it must not be in use.

To delete a data transmission plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.  
Administrators can delete data transmission plans for any group.  
The Group Level Administrator and Glider Pilot roles can delete data transmission plans for their allowed groups only.
2. From the main menu, select **Configuration > Mission Planning > Data Transmission Plans > Data Transmission Plans**.  
The system displays the *Data Transmission Plans* page, as shown in Figure 8-76:

Data Transmission Plans

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show 15 Data Transmission Plans

| Data Transmission Plan Name | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date  | Associated Mission Plans  | In Use | View | Edit | Clone | Delete |
|-----------------------------|------------------|------------|------------------|------------------|---------------------|---------------------------|--------|------|------|-------|--------|
| Ashumet_DTP_01              | default          | sfmadmin   | 2022-01-28 18:58 | sfmadmin         | 2022-01-28 19:01:01 |                           | No     |      |      |       |        |
| Ashumet Geofenced           | default          | sfmadmin   | 2022-01-06 22:10 | N/A              | N/A                 |                           | No     |      |      |       |        |
| Buzzards_Bay_Survey         | group3           | sfmadmin   | 2022-01-27 20:57 | N/A              | N/A                 | Buzzards_Bay_Survey       | Yes    |      |      |       |        |
| Cape_Cod_Bay_Survey         | group1           | sfmadmin   | 2022-01-27 21:04 | N/A              | N/A                 | Cape_Cod_Bay_Survey       | Yes    |      |      |       |        |
| Nantucket_Sound_Survey      | default          | sfmadmin   | 2022-01-27 21:07 | N/A              | N/A                 | Nantucket_Sound_Survey    | Yes    |      |      |       |        |
| Rhode_Island_Sound_Survey   | group2           | sfmadmin   | 2022-01-27 21:09 | N/A              | N/A                 | Rhode_Island_Sound_Survey | Yes    |      |      |       |        |
| SFMC Stock Ashumet          | default          | install    | 2021-12-17 19:22 | N/A              | N/A                 | SFMC Stock Ashumet        | Yes    |      |      |       |        |

← First 1 Last →

Figure 8-76 Data transmission plan available for deletion.

To display more data transmission plans on a single page, select the number to display from the *Show Data Transmission Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

- [optional] Filter the list by data transmission plan name, groups, or both by selecting the associated filter icon, and sort the list by data transmission plan name by selecting the sort icon.
- Select the *Delete* button for the data transmission plan that you want to delete.

This button is available only for data transmission plans that are not in use.

The system displays the *Delete Data Transmission Plan* dialog box, as shown in Figure 8-77:

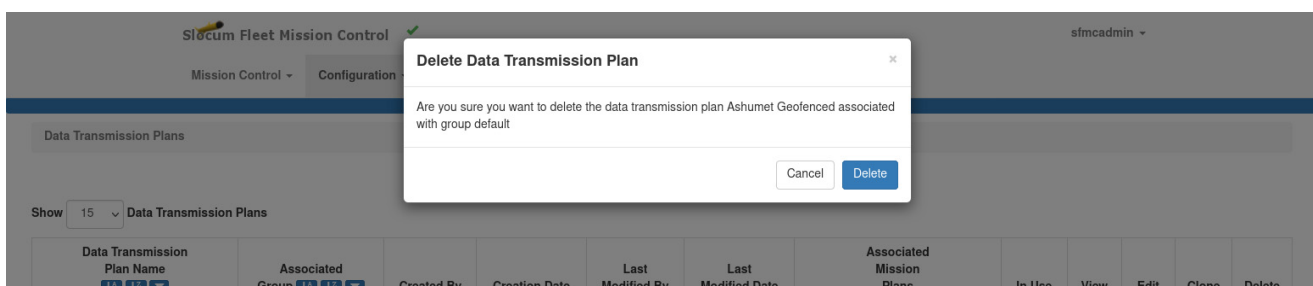


Figure 8-77 Delete Data Transmission Plan dialog box.

- Select *Delete*.

The system deletes the data transmission plan and closes the *Delete Data Transmission Plan* dialog box.



## Managing a Mission Plan

When all of the mission plan parts have been created, one or more mission plans can be created for a specific group and therefore will apply only to those gliders in that group.

Once created, mission plans can be viewed, assigned to active deployments, edited, cloned, and deleted for any one or more gliders in the group.

A mission plan can only be created after the seven mission plan parts have been created.

Once assigned to an active deployment, a mission plan is automatically uploaded to the glider when the glider connects.

In addition, the following must be true:

- There must be an active deployment for the associated glider, whether it is currently connected or not.
- The associated glider must have been configured.
- All seven of the mission plan parts must be in the same group.
- The glider must be in the same group as the mission plan parts.

## Viewing a Mission Plan

Viewing a mission plan encompasses viewing its individual mission plan parts.

To view a mission plan:

1. Log in to a user account as either an Administrator or one with any role.  
Administrators can view mission plans for any group.  
The Group Level Administrator, Glider Pilot, and Viewer roles can view mission plans for their allowed groups only.
2. From the main menu, select **Configuration > Mission Planning > Mission Plans > Mission Plans**.

The system displays the *Mission Plans* page, as shown in Figure 8-78:

Mission Plans

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show 15 Mission Plans

| Mission Plan Name         | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date | In Use | View | Edit | Clone | Delete |
|---------------------------|------------------|------------|------------------|------------------|--------------------|--------|------|------|-------|--------|
| Buzzards_Bay_Survey       | group3           | sfmcadmin  | 2022-01-27 20:57 | N/A              | N/A                | Yes    |      |      |       |        |
| Cape_Cod_Bay_Survey       | group1           | sfmcadmin  | 2022-01-27 21:04 | N/A              | N/A                | Yes    |      |      |       |        |
| Nantucket_Sound_Survey    | default          | sfmcadmin  | 2022-01-27 21:07 | N/A              | N/A                | Yes    |      |      |       |        |
| Rhode_Island_Sound_Survey | group2           | sfmcadmin  | 2022-01-27 21:09 | N/A              | N/A                | Yes    |      |      |       |        |
| SFMC Stock Ashumet        | default          | install    | 2021-12-17 19:22 | N/A              | N/A                | Yes    |      |      |       |        |

← First 1 Last →

Figure 8-78 Mission Plans page.

To display more mission plans on a single page, select the number to display from the *Show Mission Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

- [optional] Filter the list by mission plan name, groups, or both by selecting the associated filter icon, and sort the list by mission plan name by selecting the sort icon.
- Select the *View* button for the mission plan that you want to view.

The system displays the *Waypoint* tab, as shown in Figure 8-79:

Mission Plans / Cape\_Cod\_Bay\_Survey

Edit Mission Plan

Waypoint Surface Yo Sampling Mission Sensor Abort Data Transmission

Waypoint Plan

|                            |  |
|----------------------------|--|
| Waypoint Plan Name:        | Cape_Cod_Bay_Survey  |
| Associated Group:          | group1   |
| Created By:                | sfmcadmin  |
| Creation Date/Time:        | 2022-01-27 21:04:54  |
| Last Modified By:          | sfmcadmin  |
| Last Modified Date/Time:   | 2022-01-28 15:09:25  |
| Waypoint Traversal Option: | Loop Forever   |
| Initial Waypoint:          | 41°51.4'N 70°27.68'W   |
| Waypoints:                 | <ul style="list-style-type: none"> <li>41°51.4'N 70°27.68'W</li> <li>41°49.31'N 70°25.45'W</li> <li>41°48.95'N 70°21.76'W</li> <li>41°46.13'N 70°19.24'W</li> <li>41°47.38'N 70°19.58'W</li> </ul> |

Gen Goto List File

Figure 8-79 Waypoint tab.

A different tab could open depending on which tab was opened last.

5. To view the other mission plan parts, select their associated tabs.

## Creating a Mission Plan

To create a mission plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can create mission plans for any group.

The Group Level Administrator and Glider Pilot roles can create mission plans for their allowed groups only.

2. From the main menu, select **Configuration > Mission Planning > Mission Plans > Create Mission Plan**.

The system displays the *Create Mission Plan* panel, as shown in Figure 8-80:

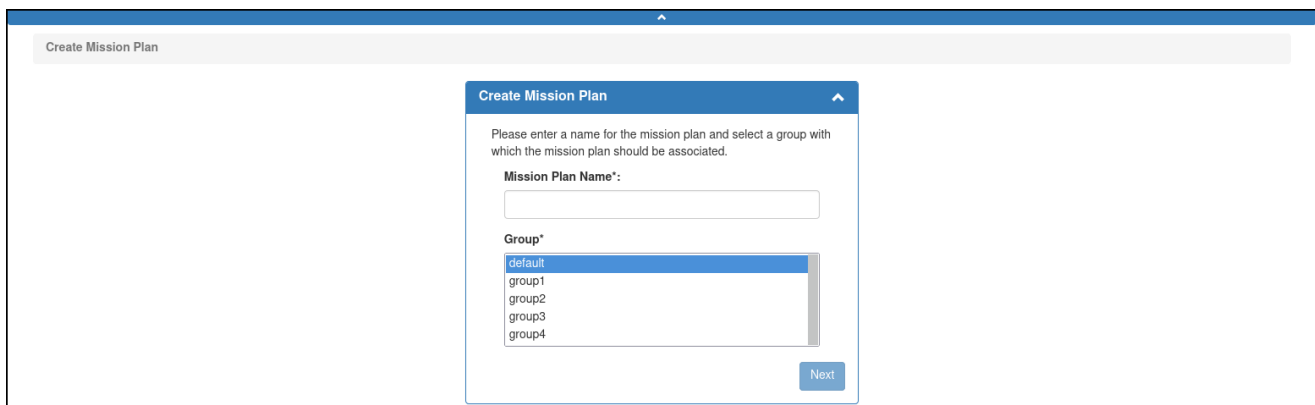


Figure 8-80 *Create Mission Plan* panel.

3. In the *Create Mission Plan* panel, enter a unique name for the mission plan in the Mission Plan Name text box as shown in Figure 8-81 below. The name must begin with an alpha character followed by at least 4 but no more than 49 alphanumeric or special characters:

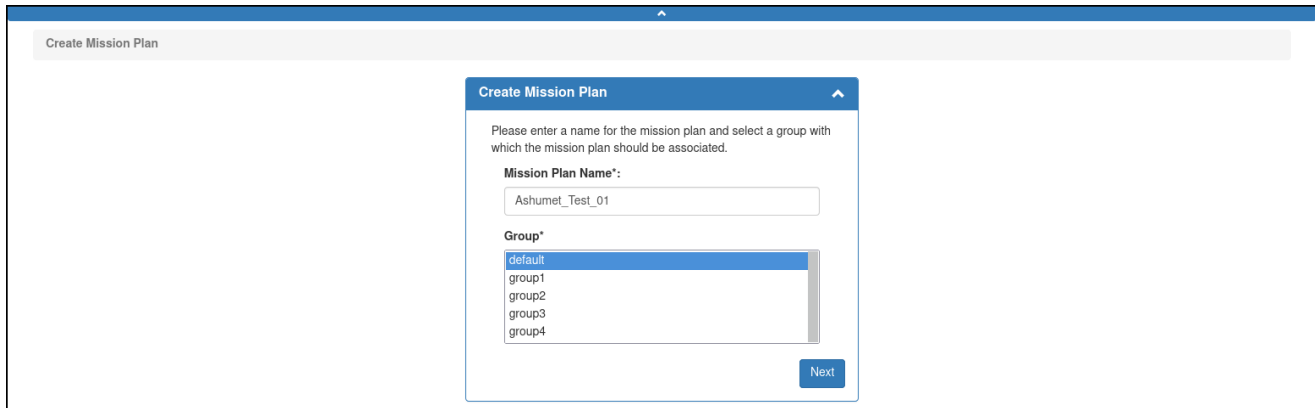


Figure 8-81 Mission plan name entered.

4. From the *Group* drop-down list, select the group to associate with the mission plan. This drop-down list will only be shown if the user account is associated with more than one group.
5. Select *Next*.  
The *Waypoint* tab opens to the *Waypoint Plan* panel, as shown in Figure 8-82:

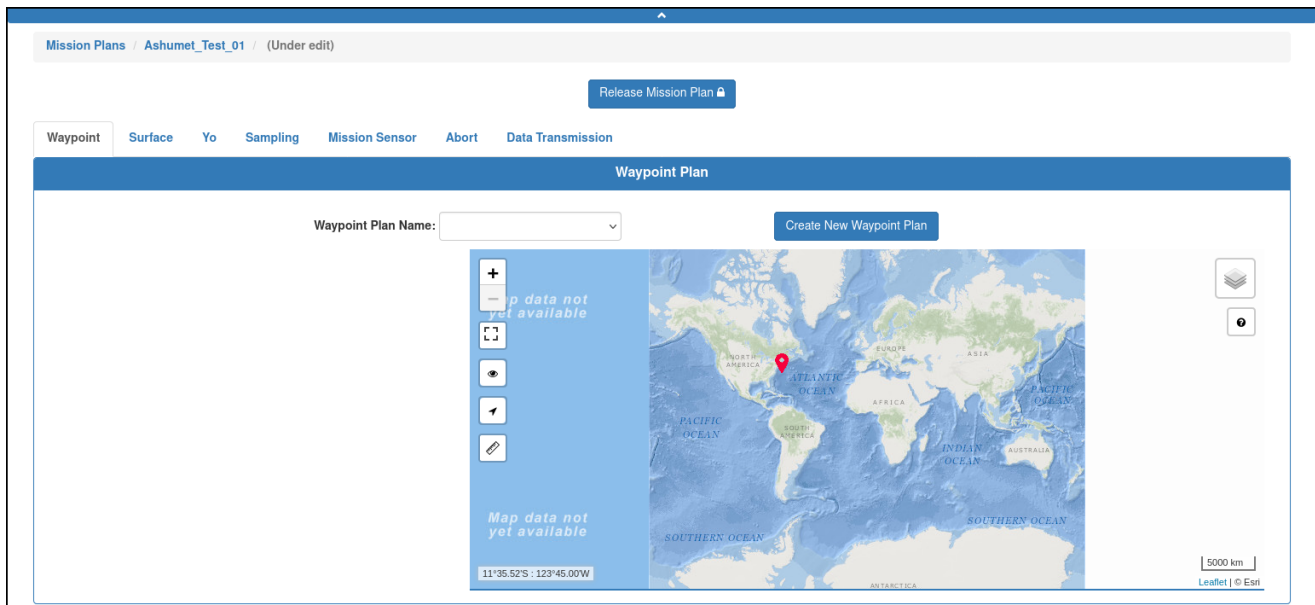


Figure 8-82 *Waypoint* tab selected.

6. From the *Waypoint Plan Name* drop-down list, select the waypoint plan to assign to the mission plan as shown in Figure 8-83 below:

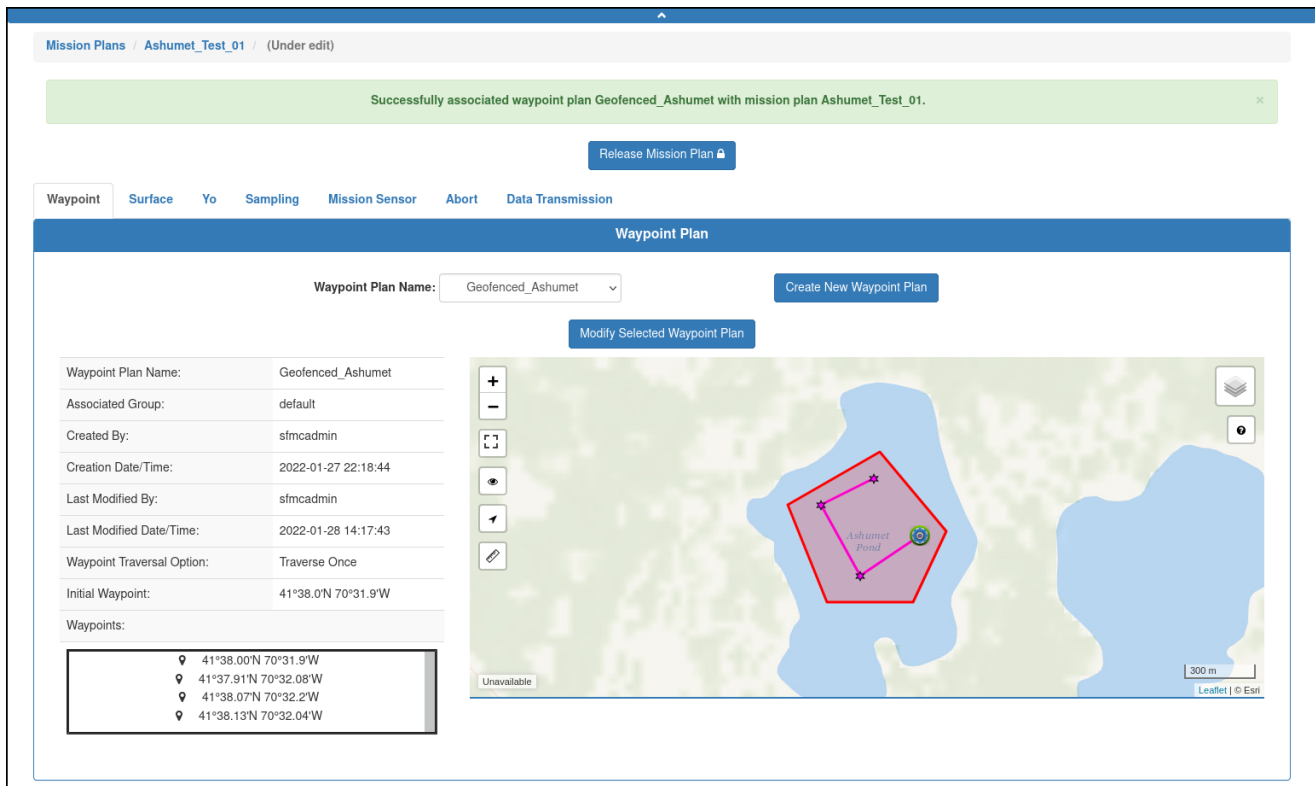


Figure 8-83 Waypoint plan assigned.

Only those waypoint plans for the selected group are available.

7. Select the *Surface* tab.

The *Surface* tab opens to the *Surface Plan* panel, as shown in Figure 8-84:

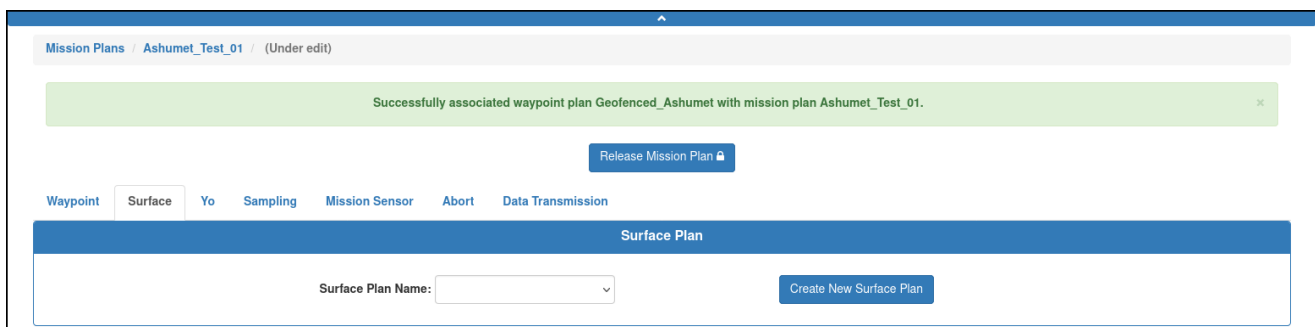


Figure 8-84 *Surface* tab selected.

8. From the *Surface Plan Name* drop-down list, select the surface plan to assign to the mission plan, as shown in Figure 8-85:

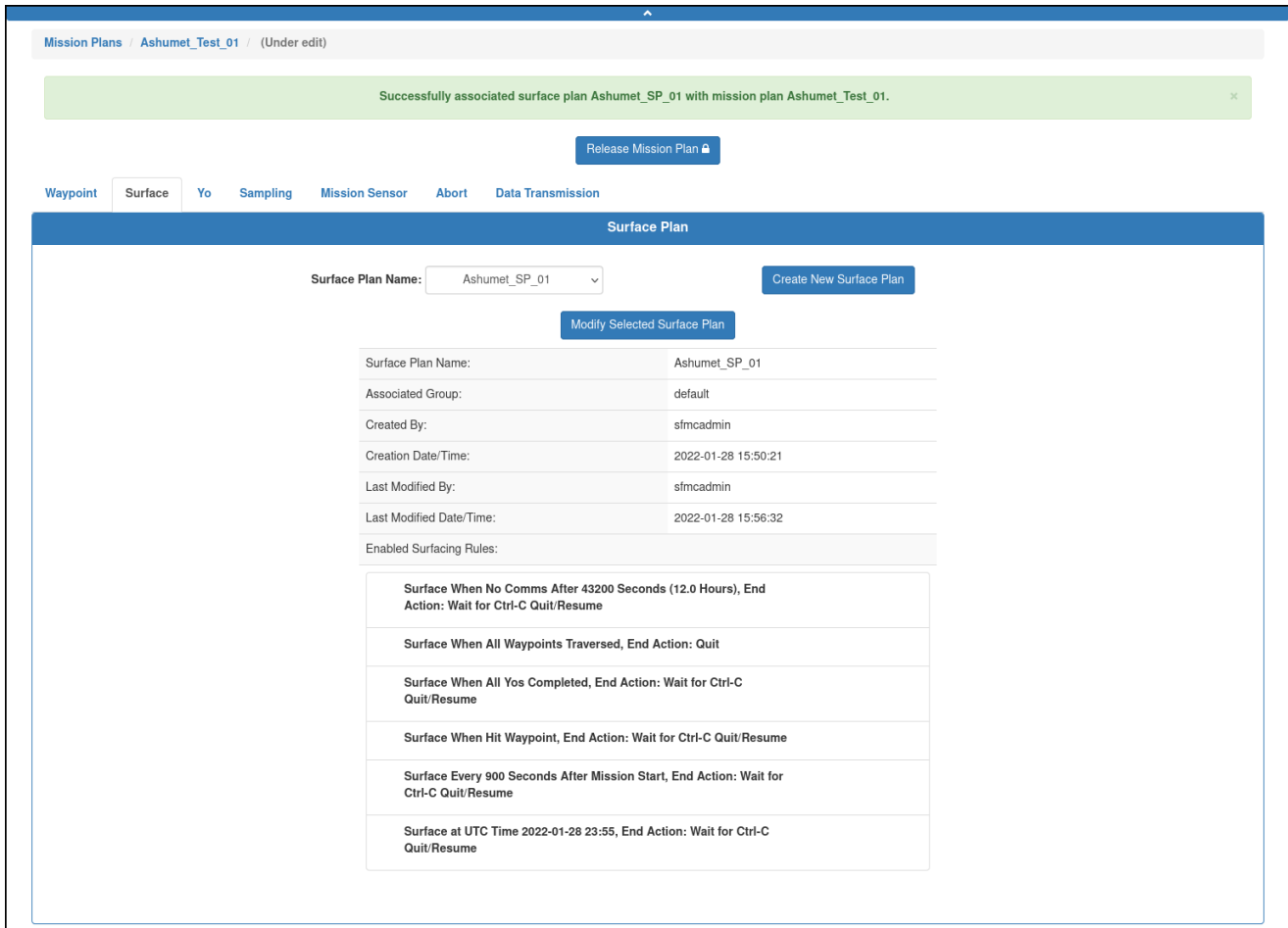


Figure 8-85 Surface plan assigned.

Only those surface plans for the selected group are available.

- 9. Select the *Yo* tab.

The *Yo* tab opens to the *Yo Plan* panel, as shown in Figure 8-86:

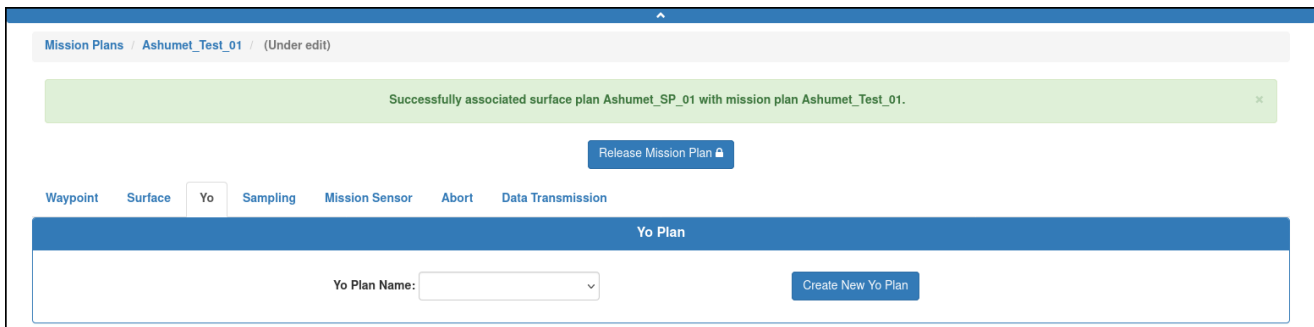


Figure 8-86 *Yo* tab selected.

- From the *Yo Plan Name* drop-down list, select the yo plan to assign to the mission plan, as shown in Figure 8-87:

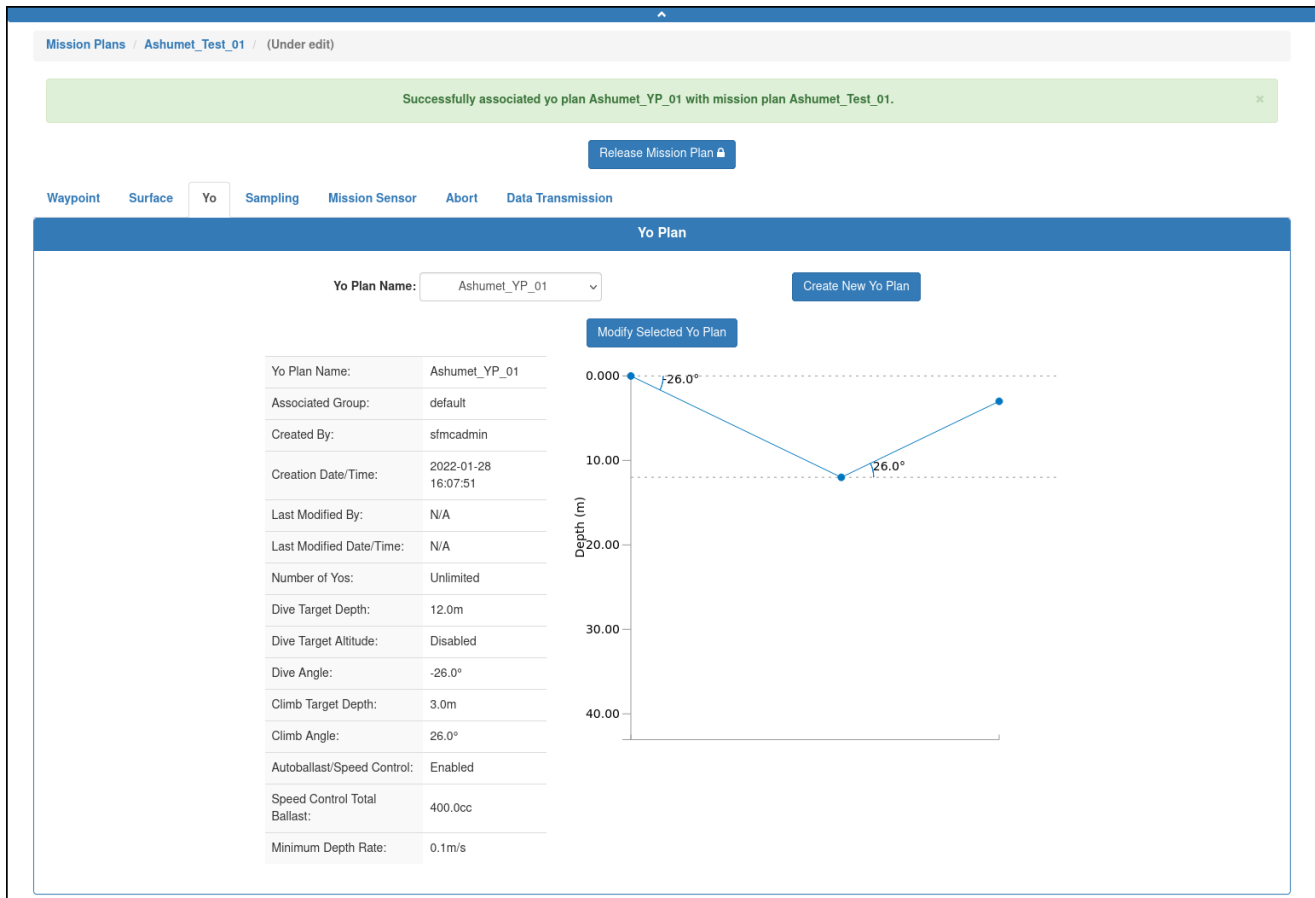


Figure 8-87 Yo plan assigned.

Only those yo plans for the selected group are available.

- Select the *Sampling* tab.

The system opens the *Sampling* tab to the *Sampling Plan* panel, as shown in Figure 8-88:

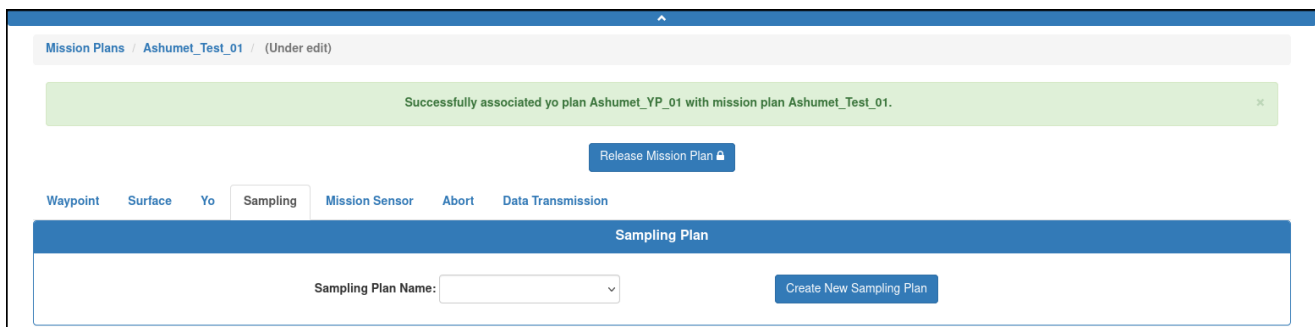


Figure 8-88 Sampling tab selected.

12. From the *Sampling Plan Name* drop-down list, select the sampling plan to assign to the mission plan, as shown in Figure 8-89:

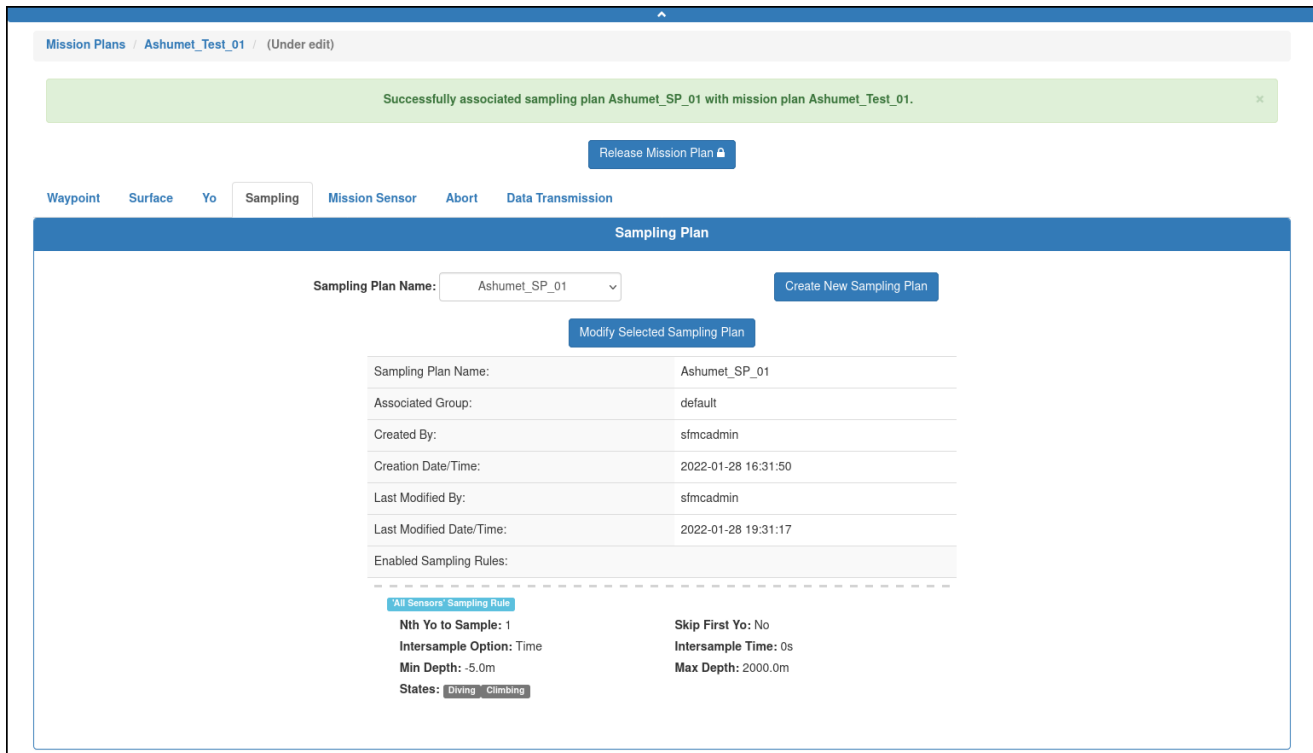


Figure 8-89 Sampling plan assigned.

Only those sampling plans for the selected group are available.

13. Select the *Mission Sensor* tab.

The system opens the Mission Sensor tab to the *Mission Sensor Plan* panel, as shown in Figure 8-90:

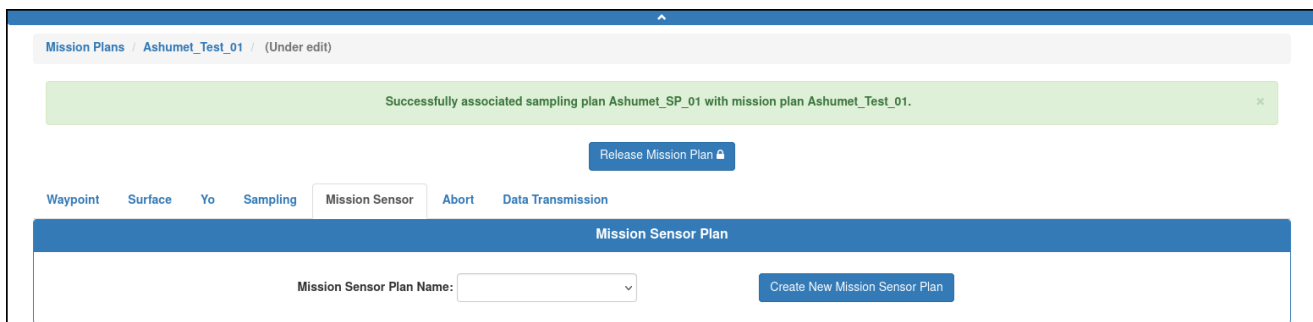


Figure 8-90 Mission Sensor tab selected.

14. From the *Mission Sensor Plan Name* drop-down list, select the mission sensor plan to assign to the mission plan, as shown in Figure 8-91:



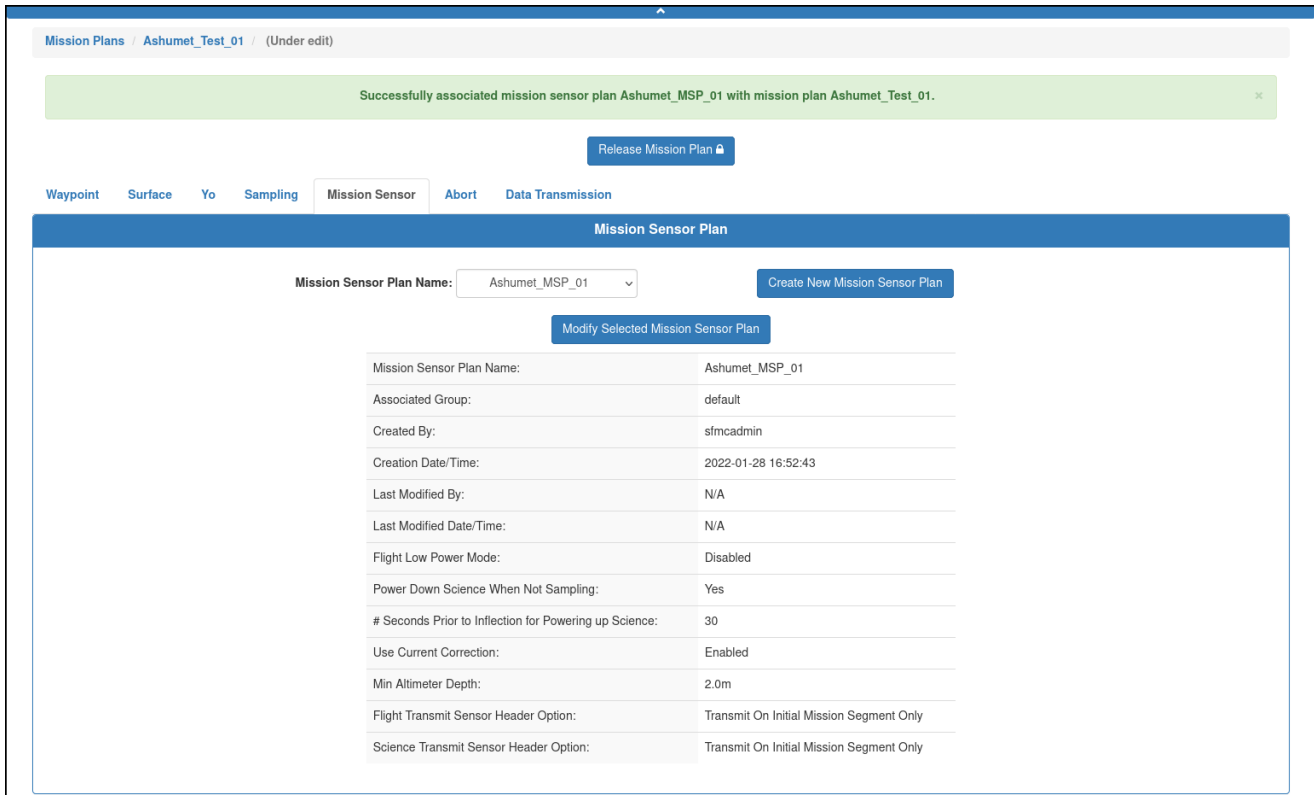


Figure 8-91 Mission sensor plan assigned.

Only those mission sensor plans for the selected group are available.

15. Select the *Abort* tab.

The system opens the *Abort* tab to the *Abort Plan* panel, as shown in Figure 8-92:

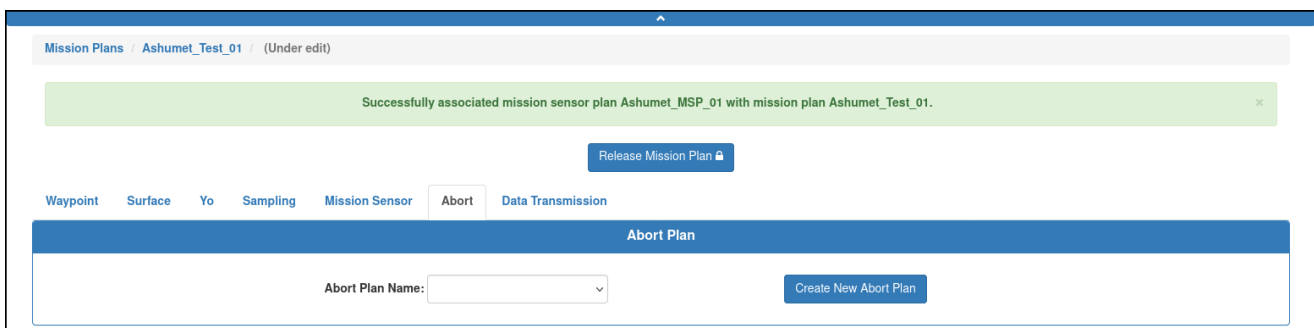


Figure 8-92 *Abort* tab selected.

16. From the *Abort Plan Name* drop-down list, select the abort plan to assign to the mission plan as shown in Figure 8-93:

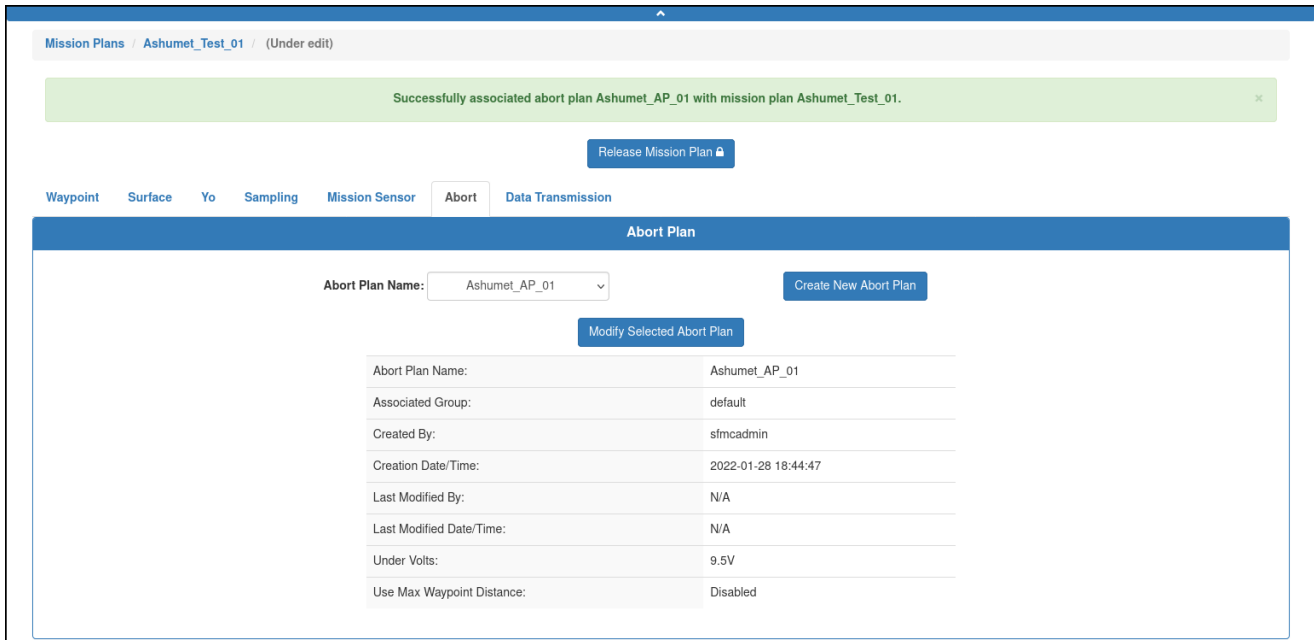


Figure 8-93 Abort plan assigned.

Only those abort plans for the selected group are available.

- 17. Select the *Data Transmission* tab.

The system opens the *Data Transmission* tab to the *Data Transmission Plan* panel, as shown in Figure 8-94:

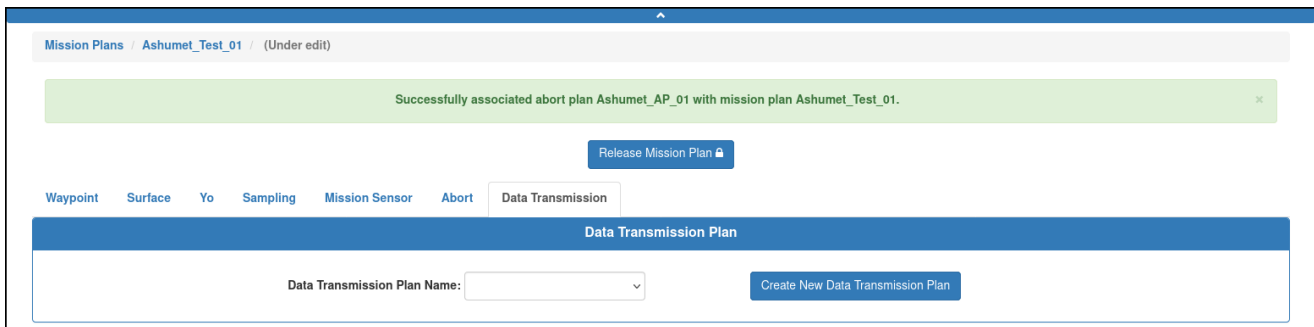


Figure 8-94 *Data Transmission* tab selected.

- 18. From the *Data Transmission Plan Name* drop-down list, select the data transmission plan to assign to the mission plan, as shown in Figure 8-95:

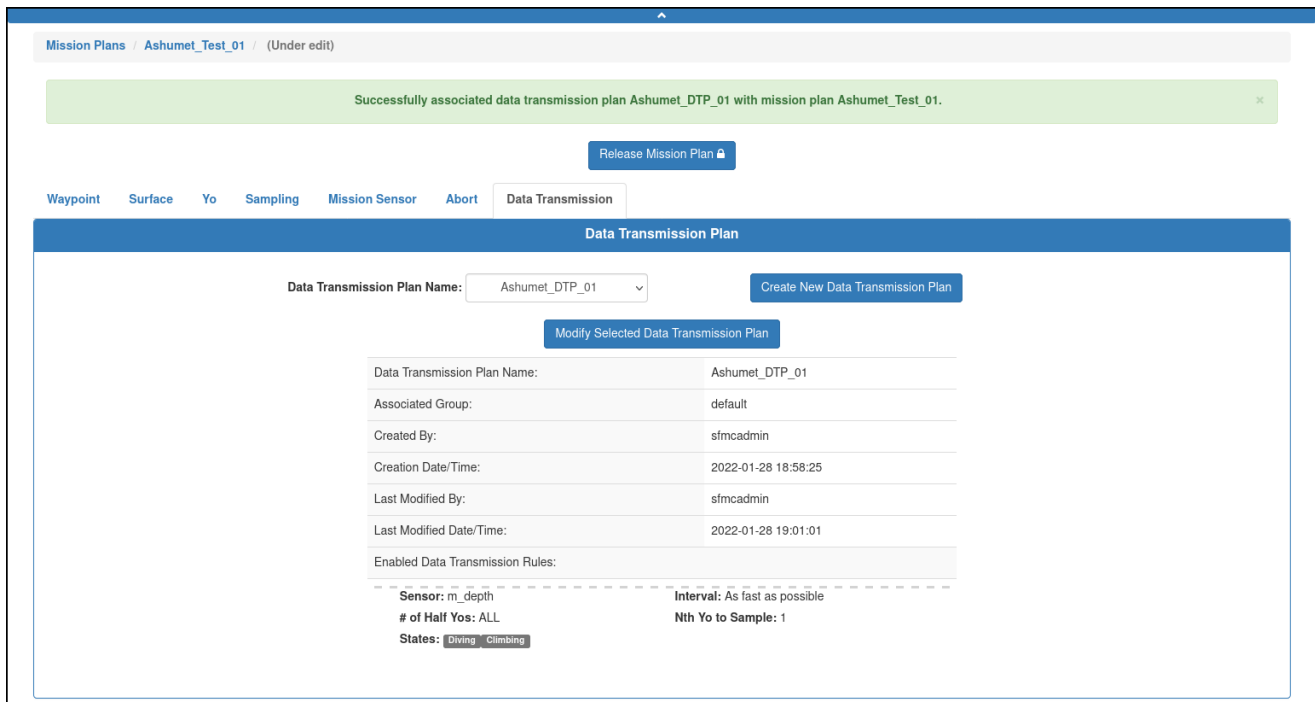


Figure 8-95 Data transmission plan assigned.

Only those data transmission plans for the selected group are available.

## Editing a Mission Plan

Once saved, a mission plan can be edited at any time to include changing the mission plan parts selections.

You can begin editing a mission plan directly from the *Mission Plans* page or when viewing the mission plan as described in “Viewing a Mission Plan” on page 8-76.

While editing a mission plan, it is locked to all other user accounts until the editing is completed. However, the mission plan can be cloned as described in “Cloning a Mission Plan” on page 8-88, and then edited.

If the mission plan is associated with an active deployment, it must be processed and the mission files regenerated for the edited mission plan to be uploaded to the glider when it next connects and if the script `sfmc.xml` is enabled.

For instructions on how to process a mission plan and generate the files, refer to “Assigning a Mission Plan to an Active Deployment” on page 9-15.

To edit a mission plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can edit mission plans for any group.

The Group Level Administrator and Glider Pilot roles can edit mission plans for their allowed groups only.

- From the main menu, select **Configuration > Mission Planning > Mission Plans > Mission Plans**.

The system displays the *Mission Plans* page (see Figure 8-78 on page 8-77).

To display more mission plans on a single page, select the number to display from the *Show Mission Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

- [optional] Filter the list by mission plan name, groups, or both by selecting the associated filter icon, and sort the list by mission plan name by selecting the sort icon.
- Select either the:
  - Edit* button for the mission plan that you want to edit
  - or–
  - View* button for it to view the mission plan before editing
- At the top of the *Mission Plans* page, select the *Edit Mission Plan* button.

The system opens the *Mission Plans* page to the *Waypoint* tab of *Waypoint Plan* panel of the mission plan to be edited, as shown Figure 8-96:

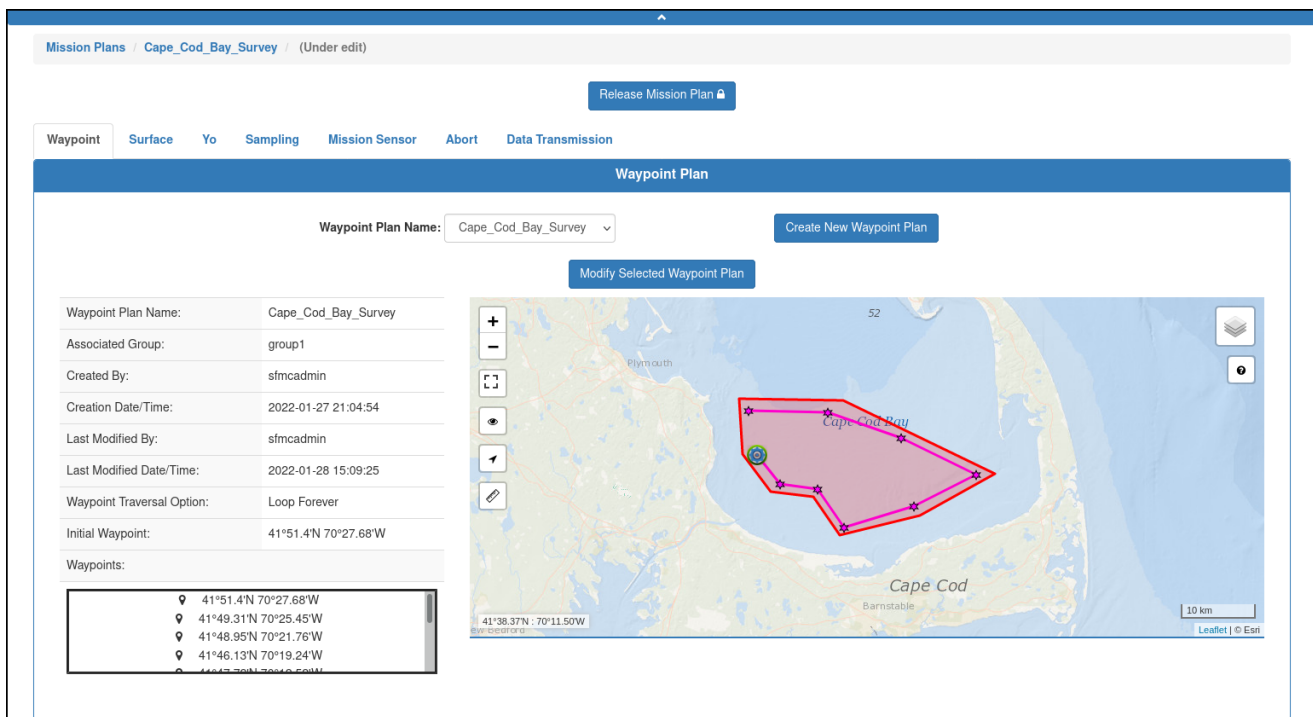


Figure 8-96 Mission plan to be edited or cloned.

A different tab may open if it was selected in a previous edit.

The system locks the mission plan to prevent editing by any other user account.

6. [optional] Select a different waypoint plan. You can instead create a new one by selecting Create New Waypoint Plan.
7. Repeat for any other mission plan part by first selecting the appropriate tab.
8. [optional] Select *Release Mission Plan*.

The system releases the mission plan and displays the *Mission Plans* page displays the details for mission plan part last selected.

## Cloning a Mission Plan

Cloning provides an efficient means to create one or more similar mission plans from an original one. You can edit the clone(s) afterward.

To clone a mission plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.  
Administrators can clone mission plans for any group.  
The Group Level Administrator and Glider Pilot roles can clone mission plans for their allowed groups only.
2. From the main menu, select **Configuration > Mission Planning > Mission Plans > Mission Plans**.  
The system displays the *Mission Plans* page (see Figure 8-78 on page 8-77).  
To display more mission plans on a single page, select the number to display from the *Show Mission Plans* drop-down list.  
To display the next/specific/previous page, select it from the page scroller.
3. [optional] Filter the list by mission plan name, groups, or both by selecting the associated filter icon, and sort the list by mission plan name by selecting the sort icon.
4. Select the *Clone* button for the mission plan that you want to clone.  
The system opens the *Clone Mission Plan* dialog box.
5. Enter a name for the mission plan in the *Mission Plan Name* text box.
6. Select the group from the *Group* drop-down list.
7. Select *Clone*.  
The system opens the *Mission Plans* page.
8. [optional] Make any required changes by selecting one or more tabs and selecting a different plan for each. For any tab you can edit the plan part or create a new one.  
The system automatically saves the mission plan.
9. [optional] Select *Release Mission Plan*.  
The system releases the mission plan and the *Mission Plans* page displays the details for the mission plan part last selected.

## Deleting a Mission Plan

To be able to delete a mission plan, it must not be in use.

To delete a mission plan:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator or Glider Pilot role.

Administrators can delete mission plans for any group.

The Group Level Administrator or Glider Pilot roles can delete mission plans for the allowed groups only.

2. From the main menu, select **Configuration > Mission Planning > Mission Plans Menu > Mission Plans**.

The system displays the *Mission Plans* page, as shown in Figure 8-97:

Mission Plans

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show 15 Mission Plans

| Mission Plan Name         | Associated Group | Created By | Creation Date    | Last Modified By | Last Modified Date  | In Use | View | Edit | Clone | Delete |
|---------------------------|------------------|------------|------------------|------------------|---------------------|--------|------|------|-------|--------|
| Ashumet_Test_01           | default          | sfmcadmin  | 2022-01-28 19:20 | sfmcadmin        | 2022-01-28 19:36:22 | No     |      |      |       |        |
| Buzzards_Bay_Survey       | group3           | sfmcadmin  | 2022-01-27 20:57 | N/A              | N/A                 | Yes    |      |      |       |        |
| Cape_Cod_Bay_Survey       | group1           | sfmcadmin  | 2022-01-27 21:04 | N/A              | N/A                 | Yes    |      |      |       |        |
| Nantucket_Sound_Survey    | default          | sfmcadmin  | 2022-01-27 21:07 | N/A              | N/A                 | Yes    |      |      |       |        |
| Rhode_Island_Sound_Survey | group2           | sfmcadmin  | 2022-01-27 21:09 | N/A              | N/A                 | Yes    |      |      |       |        |
| SFMC Stock Ashumet        | default          | install    | 2021-12-17 19:22 | N/A              | N/A                 | Yes    |      |      |       |        |

← First 1 Last →

Figure 8-97 Mission plans available for deletion.

To display more mission plans on a single page, select the number to display from the *Show Mission Plans* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Filter the list by mission plan name, groups, or both by selecting the associated filter icon, and sort the list by mission plan name by selecting the sort icon.
4. Select the *Delete* button for the mission plan that you want to delete.

This button is available only for mission plans that are not in use.

The system displays the *Delete Mission Plan* dialog box, as shown in Figure 8-98:

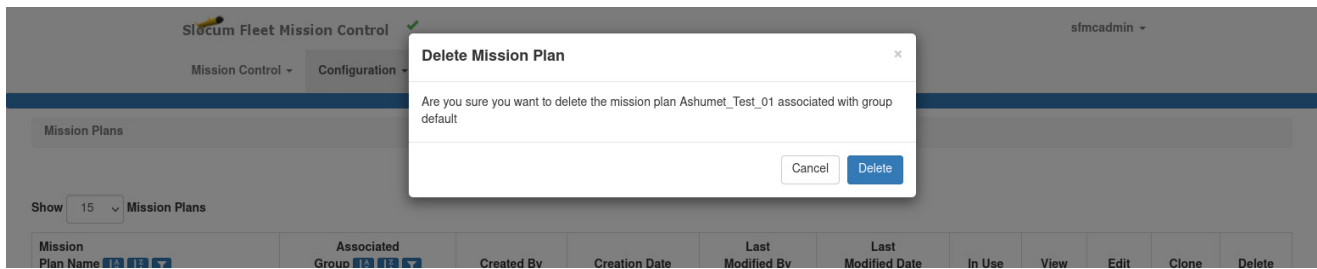


Figure 8-98 Delete Mission Plan dialog box.

5. Select *Delete*.

The system deletes the mission plan and closes the *Delete Mission Plan* dialog box.

## 9 Managing Active Deployments

An active glider deployment is created when a glider first connects to the Dock Server. It remains an active deployment until it is recovered or archived.



### Note

Active deployments can exist only one at a time for a glider.

Once an active deployment is created, you can assign it to a project, assign a mission plan to it, and view the glider's reported data.

### Viewing Active Glider Deployments

To view active glider deployments:

1. Log in to a user account as either an Administrator or one with any role. Administrators can view active deployment plans for any group. Group Level Administrator, Glider Pilot, and Viewer roles can view active deployments for their allowed groups only.
2. From the main menu, select **Mission Control > Active Deployments**. The system displays the *Active Deployments* page, as shown in Figure 9-1:

Active Deployments

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show 15 Active Deployments

| Deployment Name           | Glider   | Associated Group | Project                   | Deployed            | Connection Status             | Location                 | Days Deployed | Distance (km) |
|---------------------------|----------|------------------|---------------------------|---------------------|-------------------------------|--------------------------|---------------|---------------|
| glider01-2022-01-27T21:01 | glider01 | default          | Nantucket_Sound_Survey    | 2022-01-27<br>21:01 | Disconnected<br>1 hrs 26 mins | 41°28.46'N<br>70°21.44'W | 5             | 30.454        |
| glider02-2022-02-02T18:06 | glider02 | group2           | Rhode_Island_Sound_Survey | 2022-02-02<br>18:06 | Disconnected<br>1 hrs 19 mins | 41°21.26'N<br>71°16.63'W | < 1           | 0.000         |
| glider03-2022-01-27T21:00 | glider03 | group3           | Buzzards_Bay_Survey       | 2022-01-27<br>21:00 | Disconnected<br>1 hrs 24 mins | 41°29.61'N<br>70°51.47'W | 5             | 32.848        |
| glider04-2022-01-27T21:00 | glider04 | group1           | Cape_Cod_Bay_Survey       | 2022-01-27<br>21:00 | Disconnected<br>1 hrs 23 mins | 41°47.67'N<br>70°12.52'W | 5             | 24.770        |
| glider05-2022-02-02T19:28 | glider05 | default          | N/A                       | 2022-02-02<br>19:28 | Connected                     | Not yet known            | < 1           | 0.000         |

-- First 1 Last --

Figure 9-1 Active Deployments page.



Press **[F5]** to update the page while it is open.

To display more active deployments on a single page, select the number to display from the *Show Active Deployments* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Sort or filter the list by deployment name, glider, groups, or projects by selecting the associated sort or filter icon.
4. [optional] Sort the list by deployment date by selecting the deployed sort icon.
5. Select the *Deployment Name* for the active deployment that you want to view.

Detailed information about the active deployment, including a map, is displayed on the *Active Deployment Detail* page, which is explained in the next section below.

The *Active Deployments* page (Figure 9-1) includes the following fields and information:

|                   |   |
|-------------------|---|
| Deployment Name   | The name of the active deployment.  |
| Glider            | The name of the glider.   |
| Associated group  | The group that is associated with the glider. There can be only one group.  |
| Project           | The project that the glider is associated with, if any. There can be only one project.  |
| Deployed          | The date and time of the start of the active deployment.  |
| Connection Status | The status of the glider connection to the Dock Server. <ul style="list-style-type: none"> <li>• If the glider is connected, the indication is <b>Connected</b> with a green background.</li> <li>• If the glider is not connected, the indication is <b>Disconnected</b> with a red background. The elapsed time since the glider disconnected is also displayed.</li> </ul> |
| Location          | The latitude and longitude in degrees, minutes and seconds of the current location of the glider.   |
| Days deployed     | The number of days the glider has been deployed.  |
| Distance (km)     | The distance in kilometers the glider has traveled during this deployment.  |



## Note

Hovering the pointer over an icon on the *Active Deployments* page displays additional information about the deployment.

## Active Deployment Detail Page

To open this page, refer to “Viewing Active Glider Deployments” on page 9-1.

The system displays detailed information, both current and historical, for any of the active deployments on the *Active Deployment Detail* page, as shown in Figure 9-2 below and Figure 9-3 on page 9-4.

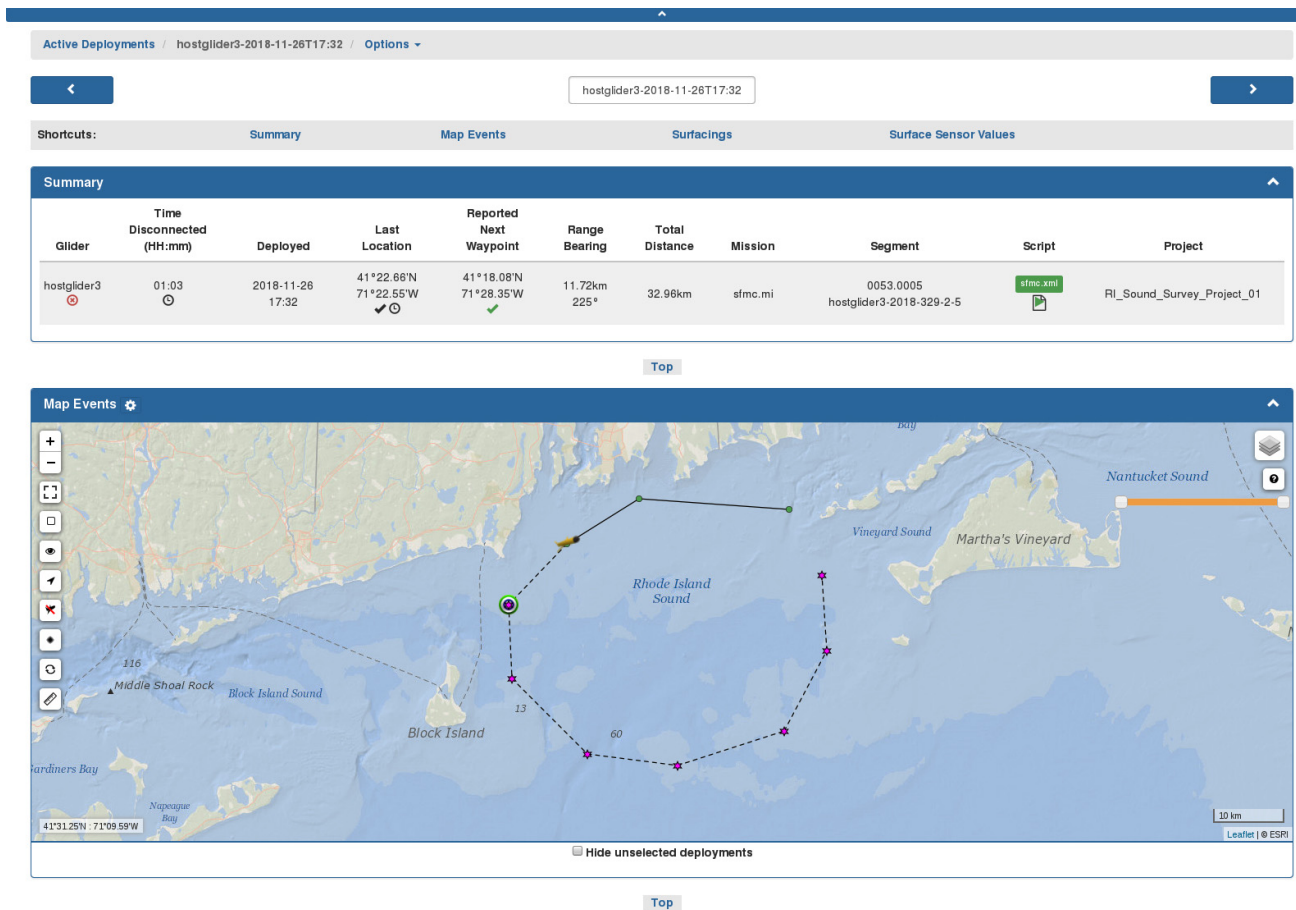


Figure 9-2 Active Deployment Detail page (Summary & Map Events panels).

The *Active Deployment Detail* page includes the following five panels.

The first two panels are seen at the top of the page, as shown in Figure 9-2 above:

- **Summary** — provides the most current information about the deployment
- **Map Events** — includes the same map as that provided on the Dashboard

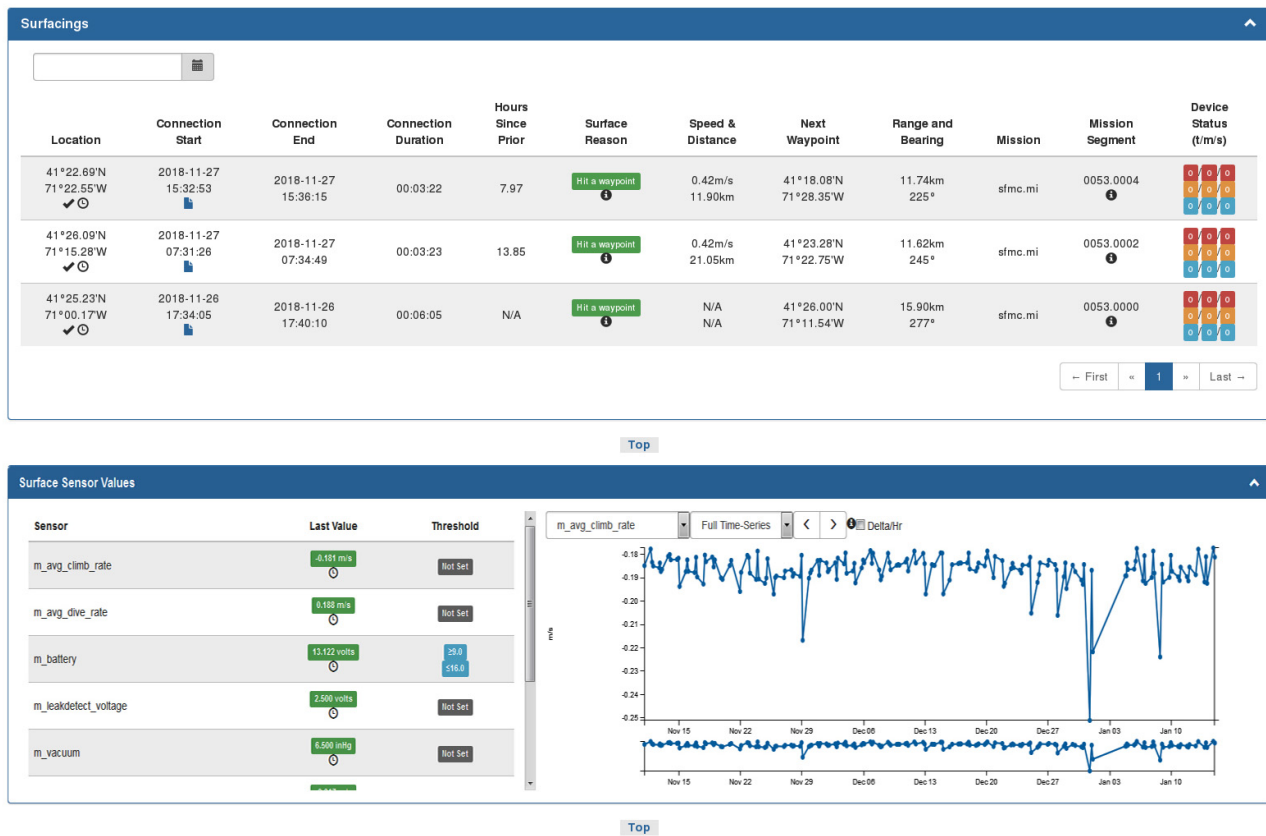


Figure 9-3 Active Deployment Detail page (Surfacing & Surface Sensor Values panels).

The next two panels are seen in the middle of the page, as shown in Figure 9-3 above:

- **Surfacings** — displays information about each surface event
- **Surface Sensor Values** — displays the surface sensor data reported by the glider at each surfacing

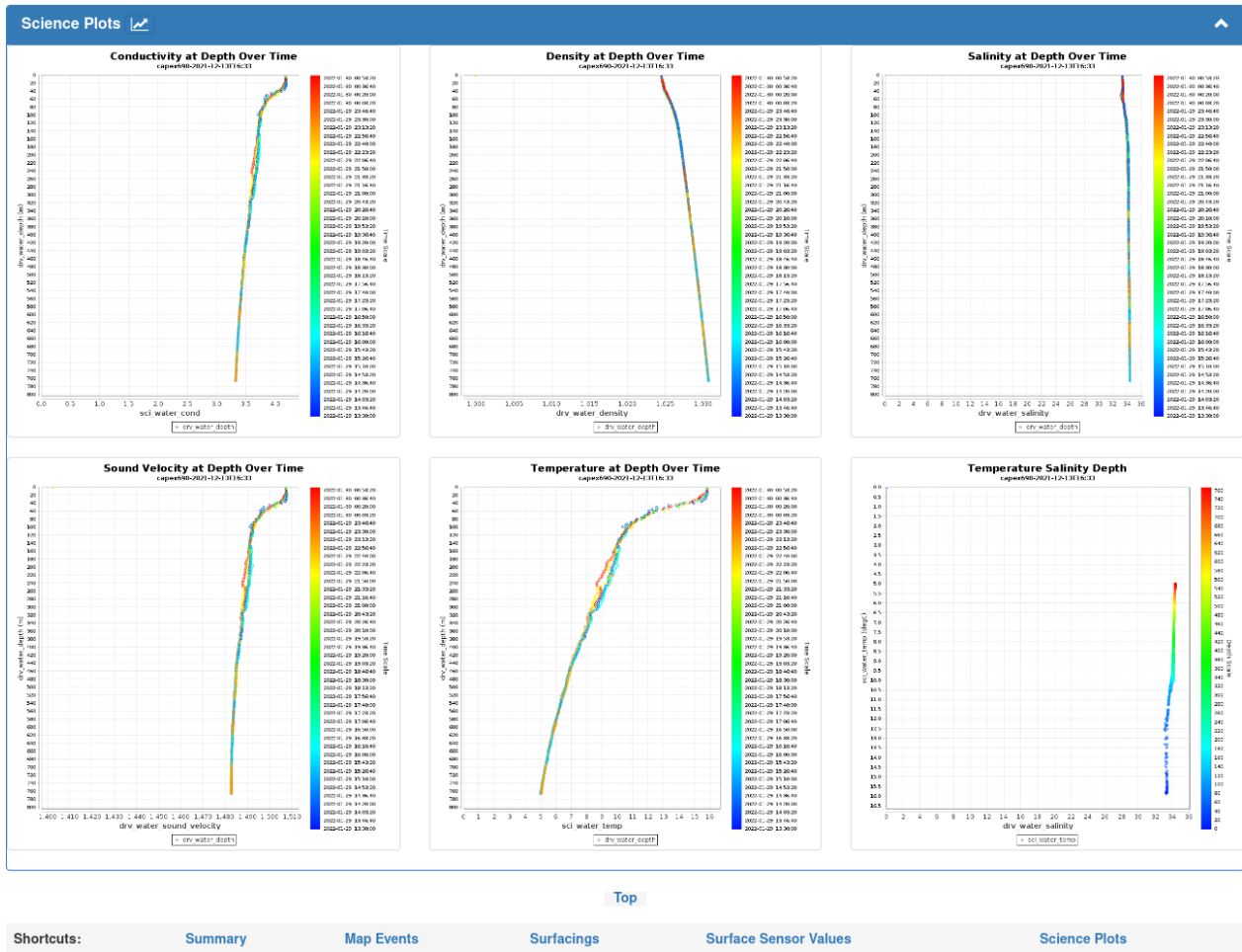


Figure 9-4 Active Deployment Detail page (Science Plots panel).

The last panel is seen at the bottom of the page, as shown in Figure 9-4 above:

- **Science Plots** — displays several surface sensor data plots over time

The science plots are displayed only on the *Active Deployment Details* and *Recovered Deployment Details* pages, as shown in Figure 9-5 and Figure 9-6 on the next page.

They are configurable via an **Options** menu item.

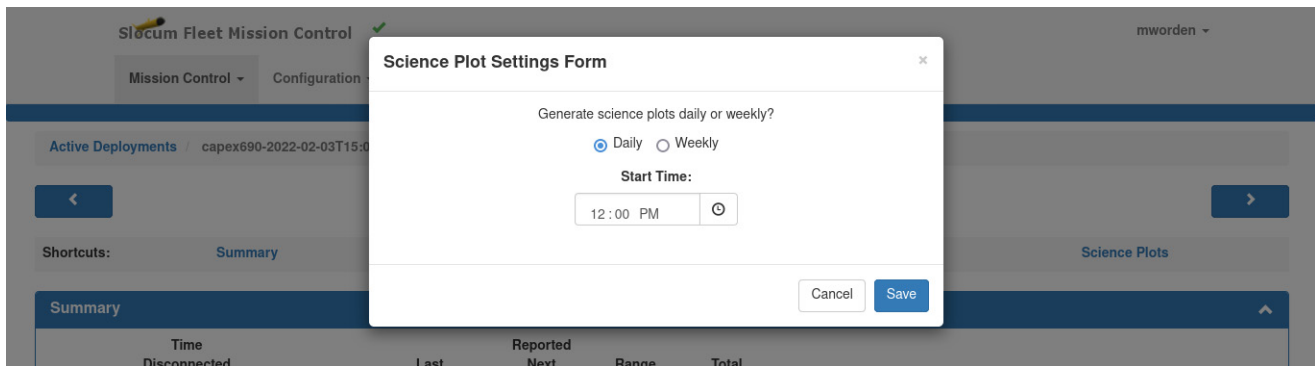


Figure 9-5 Active Deployment Detail page, Science Plot Settings dialog for **Daily**.

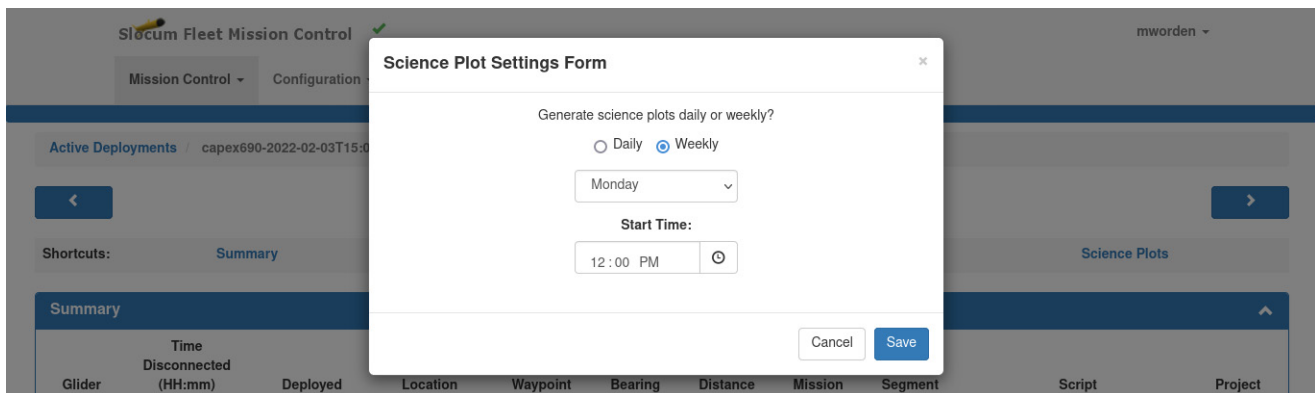


Figure 9-6 Active Deployment Detail page, Science Plot Settings dialog for **Weekly**.

You can generate them daily or weekly, and generate them on-demand via the button to the right of *Science Plots* panel title.

When configured as a weekly generated plot, you select the day of the week. But in both cases, you select the start time.

You can customize the *Active Deployment Detail* page to display any one or more of these panels. Shortcuts to these panels are provided at the top and bottom of the *Active Deployment Detail* page.

You can also select a different glider for which to view the *Active Deployment Detail* page from the drop-down list above the shortcuts at the top.

In addition, hovering the cursor over any of the icons provides additional information about the deployment.

## Selecting the Panels to View

To select which panels you want to view on the *Active Deployment Detail* page:

1. From the breadcrumbs at the top of the page, select **Options > Customize Active Deployment Details**.
2. From the *Active Deployment Details Customization* dialog box, select the panels. The system always displays the *Summary* panel; therefore, it is not available to select.
3. Select the *Apply* button.

## Summary Panel

The current information pertaining to the deployment is provided on the *Summary* panel as shown in Figure 9-7:

| Glider      | Time Disconnected (HH:mm) | Deployed            | Last Location            | Reported Next Waypoint   | Range Bearing   | Total Distance | Mission | Segment                               | Script   | Project                    |
|-------------|---------------------------|---------------------|--------------------------|--------------------------|-----------------|----------------|---------|---------------------------------------|----------|----------------------------|
| hostglider3 | 01:03                     | 2022-11-26<br>17:32 | 41°22.66'N<br>71°22.55'W | 41°18.08'N<br>71°28.35'W | 11.72km<br>225° | 32.96km        | sfmc.mi | 0053.0005<br>hostglider3-2022-329-2-5 | sfmc.xml | RI_Sound_Survey_Project_01 |

Figure 9-7 Summary panel: Active Deployment.

The *Summary* panel includes the following fields and information:

|                                    |  |
|------------------------------------|--|
| <b>Glider</b>                      | The name of the glider.  |
| <b>Time Connected/Disconnected</b> | The time in hours and minutes since the glider connected if it is connected, or the time in hours and minutes since it disconnected if it is not connected.  |
| <b>Deployed</b>                    | The date in year, month and day and the time of day in hours and minutes that the glider first connected for this deployment.  |
| <b>Last Location</b>               | The last known surface location of the glider in latitude and longitude degrees and decimal minutes.   |
| <b>Reported Next Waypoint</b>      | The coordinates of the reported next waypoint, in latitude and longitude degrees and decimal minutes, that the glider is to go to next.  |
| <b>Range and Bearing</b>           | The range to the next waypoint in kilometers and the bearing in degrees.   |
| <b>Total Distance</b>              | The total distance in kilometers that the glider has traveled since its deployment.<br>The total distance will continue to accrue until the deployment is archived, regardless how many times the glider may have been recovered from the water. |

|         |   |
|---------|---|
| Mission | The mission file associated with the current mission.   |
| Segment | The mission segment associated with the current mission in <b>xxxx.yyyy</b> format, where xxxx is the mission number and yyyy is the mission segment.   |
| Script  | The script that is currently running, if any.   |
| Project | The project association for the deployment, if any. N/A indicates that the deployment is not associated with a project.<br><br>For instructions on how to create a project, refer to "Creating a Project" on page 4-14. |

## Map Events Panel

The *Map Events* panel provides the same map as the Dashboard. The map includes the same buttons and displays, as shown in Figure 9-8:

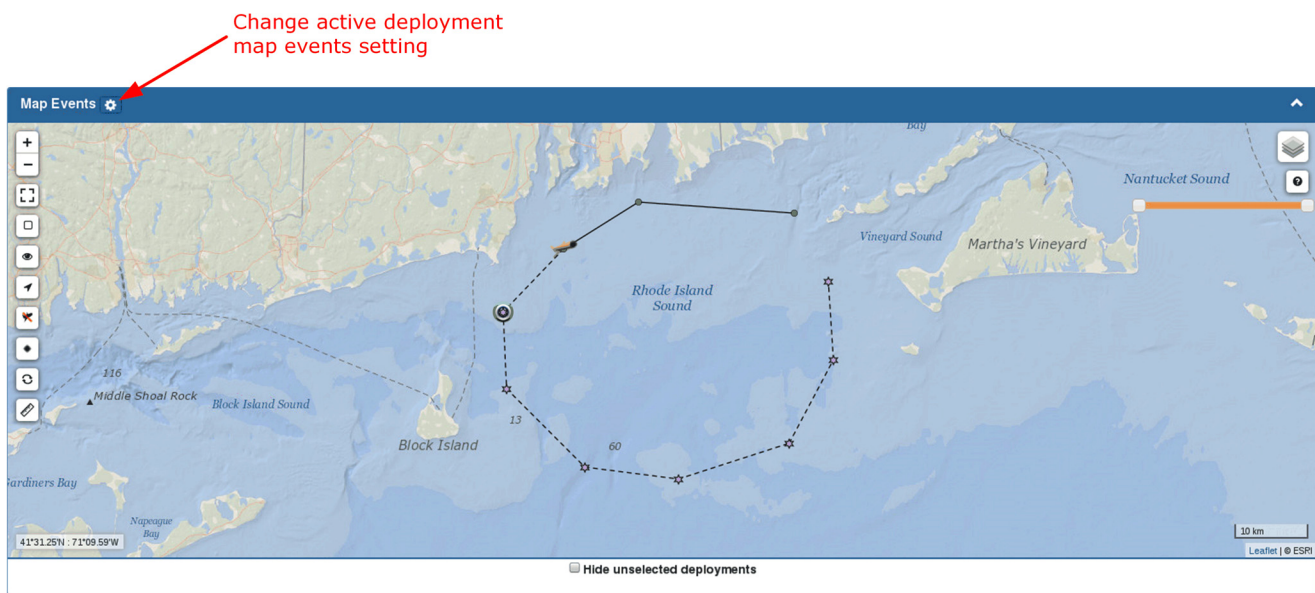


Figure 9-8 Map Events panel: Active Deployment.

Immediately below the map is the *Hide Unselected Deployments* check box. Select this check box to show only the selected deployment. All the other deployments are hidden when this box is checked.

For information about the map, refer to Chapter 5, "The Dashboard."

Select the *Change active deployment map events setting* button on the *Map Events* panel title bar, as shown in Figure 9-8, to open the *Configure Active Deployment Last X Days Map Events Setting* dialog box.

Use the *Last X Days* spin box that dialog box to enter or select the last number of days' events to display on the map.

## Surfacings Panel

Information pertaining to the glider surfacings is provided on the *Surfacings* panel, as shown in Figure 9-9, with the most recent surfacing listed first:

| Location                       | Connection Start       | Connection End         | Connection Duration | Hours Since Prior | Surface Reason | Speed & Distance   | Next Waypoint            | Range and Bearing | Mission | Mission Segment | Device Status (t/m/s)   |
|--------------------------------|------------------------|------------------------|---------------------|-------------------|----------------|--------------------|--------------------------|-------------------|---------|-----------------|-------------------------|
| 41°22.69'N<br>71°22.55'W<br>✓⊙ | 2022-11-27<br>15:32:53 | 2022-11-27<br>15:36:15 | 00:03:22            | 7.97              | Hit a waypoint | 0.42m/s<br>11.90km | 41°18.08'N<br>71°28.35'W | 11.74km<br>225°   | sfmc.mi | 0053.0004       | 0 0 0<br>0 0 0<br>0 0 0 |
| 41°26.09'N<br>71°15.28'W<br>✓⊙ | 2022-11-27<br>07:31:26 | 2022-11-27<br>07:34:49 | 00:03:23            | 13.85             | Hit a waypoint | 0.42m/s<br>21.05km | 41°23.28'N<br>71°22.75'W | 11.62km<br>245°   | sfmc.mi | 0053.0002       | 0 0 0<br>0 0 0<br>0 0 0 |
| 41°25.23'N<br>71°00.17'W<br>✓⊙ | 2022-11-26<br>17:34:05 | 2022-11-26<br>17:40:10 | 00:06:05            | N/A               | Hit a waypoint | N/A<br>N/A         | 41°26.00'N<br>71°11.54'W | 15.90km<br>277°   | sfmc.mi | 0053.0000       | 0 0 0<br>0 0 0<br>0 0 0 |

Figure 9-9 Surfacings panel: Active Deployment.

A text box in the upper left of the panel allows you to select a specific day to view.

You can also select the calendar icon to the right of the text box to select the date or enter the date directly in **mm/dd/yy** format.

Clearing the text box selects all the days. When clearing the text box, select outside the box after clearing it. Up to five surface events are listed on a page.

To display the next/specific/previous page, select it from the page scroller.

The *Surfacings* panel (Figure 9-9) includes the following fields and information:

|                     |  |
|---------------------|--|
| Location            | The surface location of the glider in latitude and longitude degrees and decimal minutes.  |
| Connection Start    | The date in year, month and day and the time of day in hours, minutes and seconds at which the glider connected for this surfacing.  |
| Connection End      | The date in year, month and day and the time of day in hours, minutes and seconds since the glider disconnected, or if it is still connected, <b>Not yet ended</b> is displayed. |
| Connection Duration | The time in hours and minutes since the glider connected if it is still connected, or the time in hours, minutes and seconds that it was connected if it has disconnected.       |



|                       |   |
|-----------------------|---|
| Hours Since Prior     | The time in hours and decimal minutes since the last surfacing.   |
| Surface Reason        | The reason for the surfacing. <ul style="list-style-type: none"> <li>• A green banner is shown when the glider surfaced because it hit a waypoint.</li> <li>• A red banner is shown if the mission was aborted for some reason.</li> <li>• A yellow banner is shown for other reasons.</li> </ul>   |
| Speed & Distance      | The speed of the glider in meters per second and the distance in kilometers the glider has traveled between the last surfacing to the current surfacing.  |
| Next Waypoint         | The coordinates of the waypoint in latitude and longitude degrees and decimal minutes that the glider was to go to next, or is to go to next if it is the most recent surfacing.  |
| Range and Bearing     | The range to the waypoint in kilometers and the bearing in degrees that the glider was to go to, or is to go to if it is the most recent surfacing.   |
| Mission               | The mission file associated with the surfacing.   |
| Mission Segment       | The mission segment associated with the surfacing in <b>xxxx.yyyy</b> format, where <b>xxxx</b> is the mission number and <b>yyyy</b> is the mission segment.   |
| Device Status (t/m/s) | Indicates the total ( <b>t</b> ), mission ( <b>m</b> ) and mission segment ( <b>s</b> ) errors, warning and oddities detected by the glider for this deployment. <ul style="list-style-type: none"> <li>• Red indicators are the errors.</li> <li>• Yellow indicators are the warnings.</li> <li>• Blue indicators are the oddities.</li> </ul> |

## Surface Sensor Values Panel

Each glider is factory configured to report selected sensor data at each surfacing. The data for these sensors are referred to as "surface sensor data."

You can view the surface sensor data for all the factory configured sensors on the glider, one at a time, on the *Surface Sensor Values* panel. The system displays surface sensor data for the most recent surfacing in a list and for all the surfacings as a graphical plot.

An example of the *Surface Sensor Values* panel is shown in Figure 9-10:

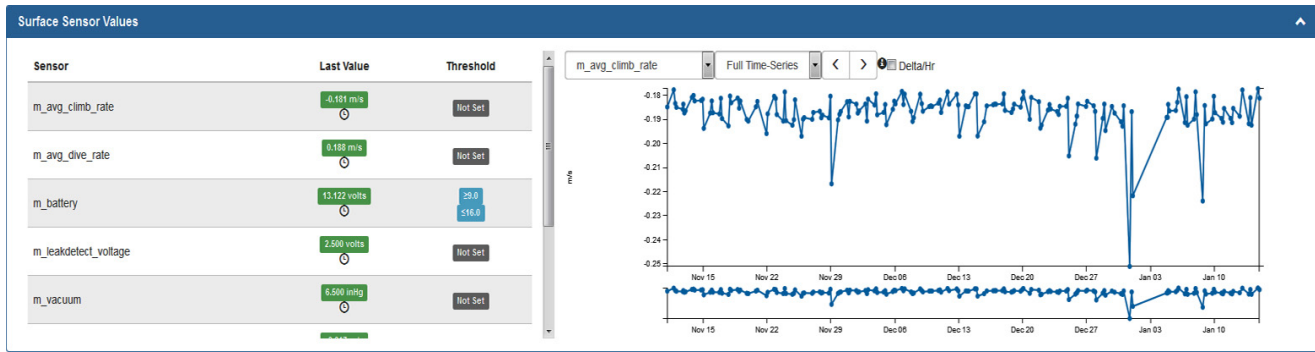


Figure 9-10 Surface Sensor Values panel: Active Deployment.

This panel also indicates whether any thresholds have been exceeded for the sensors for the most recent surfacing. For instructions on how to view and set the thresholds for the included sensors, refer to Chapter 12, “Managing Surface Sensor Thresholds.”

The sensor data are reported by the glider at each surfacing. The configured sensors are listed on the left side of the Surface Sensor Values panel. If there are more sensors that can be displayed at once, a scroll box will be visible which can be dragged up or down to display more sensors.

The listed information for the configured sensors includes the following:

|            |  |
|------------|--|
| Sensor     | The sensor name.   |
| Last Value | The value of the sensor output last reported by the glider. A red banner is displayed if the sensor threshold is exceeded, otherwise the banner is green.                          |
| Threshold  | The minimum and maximum thresholds set for the sensor, if any. If no threshold is set, a <b>Not Set</b> indication is displayed with a black banner, otherwise the banner is blue. |

The surface sensor data reported by the glider for each surfacing are automatically stored and can be viewed as a plot on a time series graph. The graph is on the right side of the *Surface Sensor Values* panel.

1. Select the sensor data to plot from the drop-down list to the left and above the graph.
2. Select the time over which to plot the data from drop-down list just above the graph. You can also quickly scroll through the sensor data to plot by selecting the left or right arrows.
3. Select the *Delta/Hr* check box provides a second plot on the main graph in red that indicates the value change per hour.

The scale units for this plot are to the right of the graph.

In addition, under the graph is a second graph with a compressed vertical axis.

1. Selecting on the plot on this graph and dragging to the right or to the left will create a zoom box which contracts or expands the horizontal axis of the main graph in accordance with the box width, thus zooming in or out of the plot.
2. Selecting inside this box and dragging it to the right or to the left will pan the horizontal axis of the main graph.  
The units shown to the left of the main graph always remain fixed, but the horizontal scale and units adjust automatically in accordance with the zoom level.
3. To return the main graph to its original state, select anywhere inside the lower graph.

## Assigning and Unassigning an Active Glider Deployment to a Project

To be able to assign an active glider deployment to a project, the registered glider and the project must be assigned to the same group.

To assign and unassign an active glider deployment to a project:

1. Log in to a user account as an Administrator or a user account with the Group Level Administrator role.  
The Group Level Administrator role can only active deployments for the allowed groups can be assigned or unassigned.
2. From the main menu, select **Mission Control > Active Deployments**.  
The system displays the *Active Deployments* page, as shown in Figure 9-1 on page 9-2.  
To update the page while it is open, press **[F5]**.  
To display more active deployments on a single page, select the number to display from the *Show Active Deployments* drop-down list.  
To display the next/specific/previous page, select it from the page scroller.
3. [*optional*] Sort or filter the list by deployment name, glider, groups, or projects by selecting the associated sort or filter icon.
4. [*optional*] Sort the list by deployment date by selecting the deployed sort icon.
5. Select the deployment name for the active deployment that you want to assign to or unassign from a project.  
The system displays the *Active Deployment Detail* page, as shown in Figure 9-2 on page 9-4.
6. From the *Active Deployment Detail* page, select the **Options** button > **Configure Project Assignment**.  
The system displays the *Edit Deployment Project Association* dialog box, as shown in Figure 9-11:

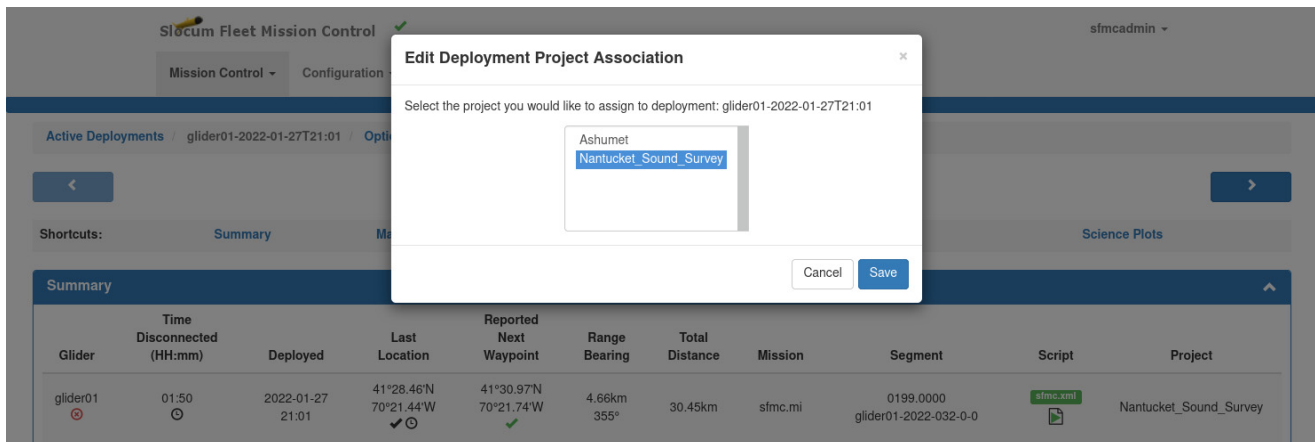


Figure 9-11 Edit Deployment Project Association dialog box.

7. Do one of the following:

- Select the project that you want to assign. The project will be highlighted. If another project was highlighted, it will be unhighlighted.
- or–
- Select the highlighted project to unassign it. The project will be unhighlighted.

8. Select *Save*.

The project name is displayed in the *Project* column on the *Active Deployment Detail* page.

If the project was unassigned, *N/A* is displayed instead.

## Deleting an Active Glider Deployment

To delete an active glider deployment:

1. Log in to a user account as an Administrator or a user account with the Group Level Administrator role.  
The Group Level Administrator role can delete active deployments for the allowed groups only.
2. From the main menu, select **Mission Control > Active Deployments**.  
The system displays the *Active Deployments* page, as shown in Figure 9-1 on page 9-2.  
To update the page while it is open, press **[F5]**.  
To display more active deployments on a single page, select the number to display from the *Show Active Deployments* drop-down list.  
To display the next/specific/previous page, select it from the page scroller.
3. [optional] Sort or filter the list by deployment name, glider, groups, or projects by selecting the associated sort or filter icon.

4. [optional] Sort the list by deployment date by selecting the deployed sort icon.
5. Select the deployment name for the active deployment that you want to delete. The system displays the *Active Deployment Detail* page.
6. From the *Active Deployment Detail* page, select the **Options** button > **Delete Deployment**.  
The system displays the *Delete Deployment* dialog box, as shown in Figure 9-12:

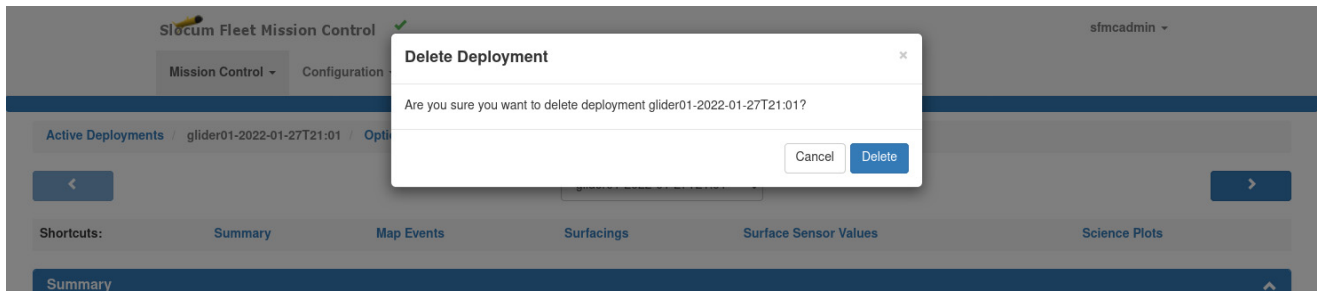


Figure 9-12 *Delete Deployment* dialog box.

7. Select *Delete*.  
The system deletes the active deployment and closes the *Delete Deployment* dialog box.

## Configuring the Maximum Hours Between Call-ins

You can configure the maximum time in hours between which a glider is expected to connect to the SFMC Dock Server.

If the glider does not connect during one of these periods, an alert is provided and a "Glider Missed Last Call-In" notification is sent to all the e-mail addresses that are subscribed to this subscription type.

For instructions on how to configure glider event subscriptions, refer to "Managing Glider Event Subscriptions" on page 13-17.

For the alert to appear, the active deployment must be listed on the *Deployments* panel on the Dashboard.

To configure the maximum hours between call-ins:

1. Log in to a user account as an Administrator or a user account with the Group Level Administrator role.  
The Group Level Administrator role can assign or unassign active deployments for the allowed groups only.
2. From the main menu, select **Mission Control > Active Deployments**.

The system displays the *Active Deployments* page, as shown in Figure 9-1 on page 9-2.

To update the page while it is open, press **[F5]**.

To display more active deployments on a single page, select the number to display from the *Show Active Deployments* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. Select the deployment name for the active deployment for which you want to configure the maximum hours between call-ins.

The system displays the *Active Deployment Detail* page, as shown in Figure 9-2 on page 9-4.

4. From the *Active Deployment Detail* page, select the **Options** button > **Configure Last Call-in Alert Setting**.

The system displays the *Configure Max Hours Between Call-Ins* dialog box, as shown in Figure 9-13:

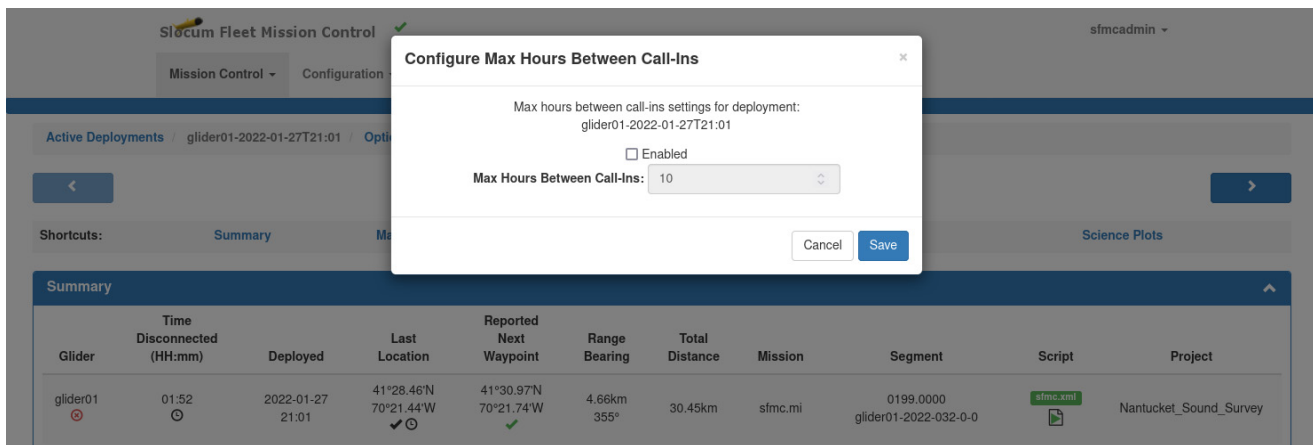


Figure 9-13 *Configure Max Hours Between Call-Ins* dialog box.

5. Select the *Enabled* check box.
6. Enter or select the number of hours in the *Max Hours Between Call-Ins* spin box.
7. Select *Save*.

The system saves the “maximum hours between call-ins” setting and closes the *Configure Max Hours Between Call-Ins* dialog box.

## Assigning a Mission Plan to an Active Deployment

Before a mission plan can be assigned to a deployment, the mission plan must have been created and the glider must have been configured. For instructions on how to create a mission plan, refer to Chapter 8, “Managing Mission Plans.”

To select and process a mission plan and assign it to a deployment:

1. From the main menu, select one of the following:
  - **Mission Control > Dashboard > Options** button for active deployment > **Access Mission Plan**.
  - **Mission Control > Active Deployments > the deployment name > Options** button > **Access Mission Plan**.
  - **Mission Control > Glider Terminal Access > the associated glider > Options** button > **Access Mission Plan**.

The system displays the *Mission Plan* panel, as shown in Figure 9-14:

The screenshot displays the 'Mission Plan' interface for the deployment 'glider01-2022-01-27T21:01'. The main heading is 'Mission Plan: Nantucket\_Sound\_Survey'. A yellow notification bar states: 'Mission plan updates have been made and are ready to be processed. There are missing details for the glider configuration. The mission will not be able to be validated.' Below this, the 'Selected Mission Plan' is 'Nantucket\_Sound\_Survey'. The interface includes tabs for 'Waypoint', 'Surface', 'Yo', 'Sampling', 'Mission Sensor', 'Abort', and 'Data Transmission'. The 'Waypoint Plan' section includes a metadata table and a map showing a survey loop around 'Horseshoe Shoal' in Nantucket Sound. The 'Summary' table at the bottom provides the following data:

| Glider   | Time Disconnected (HH:mm) | Deployed         | Last Location         | Reported Next Waypoint | Range Bearing | Total Distance | Mission | Segment                         | Script   | Project                |
|----------|---------------------------|------------------|-----------------------|------------------------|---------------|----------------|---------|---------------------------------|----------|------------------------|
| glider01 | 01:54                     | 2022-01-27 21:01 | 41°28.46'N 70°21.44'W | 41°30.97'N 70°21.74'W  | 4.664km 355°  | 30.454km       | sfmc.mi | 0199.0000 glider01-2022-032-0-0 | sfmc.xml | Nantucket_Sound_Survey |

Figure 9-14 Deployment Mission Plan panel.

2. From the *Selected Mission Plan* drop-down list, select a mission plan. Only those mission plans for the selected group are available.
  - To modify the selected mission plan, select *Modify Selected Mission Plan* and make the changes.
  - To create an entirely new mission plan, select *Create New Mission Plan* and create it. Then return to the *Mission Plan* panel, press **[F5]**, and select the plan.
3. Select *glider configuration* and verify that the glider is configured correctly.
4. Select *Process*.

All the mission plan parts should be valid, as shown in Figure 9-15:

The screenshot displays the 'Mission Processing Results' page. At the top, there are navigation tabs: 'Shortcuts', 'Validation Results', 'Mission Plan', and 'Deployment Summary'. The 'Validation Results' tab is active, showing a green message: 'All mission plan parts are valid.' Below this, there are input fields for 'Mission File Name' (sfmc) and 'File Number' (00), along with buttons for 'New Mission File Name' and 'Generate Files'. A 'Top' button is also visible.

The 'Mission Plan' tab is also shown, with sub-tabs for 'Waypoint', 'Surface', 'Yo', 'Sampling', 'Mission Sensor', 'Abort', and 'Data Transmission'. The 'Waypoint' sub-tab is active, displaying a 'Waypoint Plan - Includes Events from Last 5 Days'. On the left, there is a table with mission details:

|                            |   |
|----------------------------|---|
| Waypoint Plan Name:        | Nantucket_Sound_Survey  |
| Created By:                | sfmcadmin   |
| Creation Date/Time:        | 2022-01-27 21:07:42   |
| Last Modified By:          | sfmcadmin   |
| Last Modified Date/Time:   | 2022-01-27 22:15:23   |
| Waypoint Traversal Option: | Loop Forever  |
| Initial Waypoint:          | 41°30.97'N 70°21.74'W   |
| Waypoints:                 | <ul style="list-style-type: none"> <li>📍 41°30.97'N 70°21.74'W</li> <li>📍 41°29.37'N 70°22.57'W</li> <li>📍 41°27.64'N 70°21.08'W</li> <li>📍 41°26.71'N 70°18.7'W</li> </ul> |

On the right, a map shows the Nantucket Sound area with a pink polygonal mission plan overlaid. The map includes labels for 'Bishop and Clerks', 'Nantucket Sound Main Channel', and 'Horseshoe Shoal'. A scale bar indicates 5 km. The map also shows a 'Hide unselected deployments' checkbox.

Figure 9-15 All Mission Plan parts are valid.

5. Do one of the following:

### Option 1

Keep the default mission name and number shown in the *Mission File Name* and *File Number* text boxes.

### Option 2

Enter the mission name and number in the *Mission File Name* and *File Number* text boxes.

### Option 3



- a. Select *New Mission File Name* to open the *New Mission File* dialog box.
  - b. Enter the mission file name and number in the *Mission File Name* and *File Number* text boxes.
  - c. Select *Apply*.
6. Select *Generate Files*.
- The system displays the *Generate Mission Files Form* dialog box, as shown in Figure 9-16.

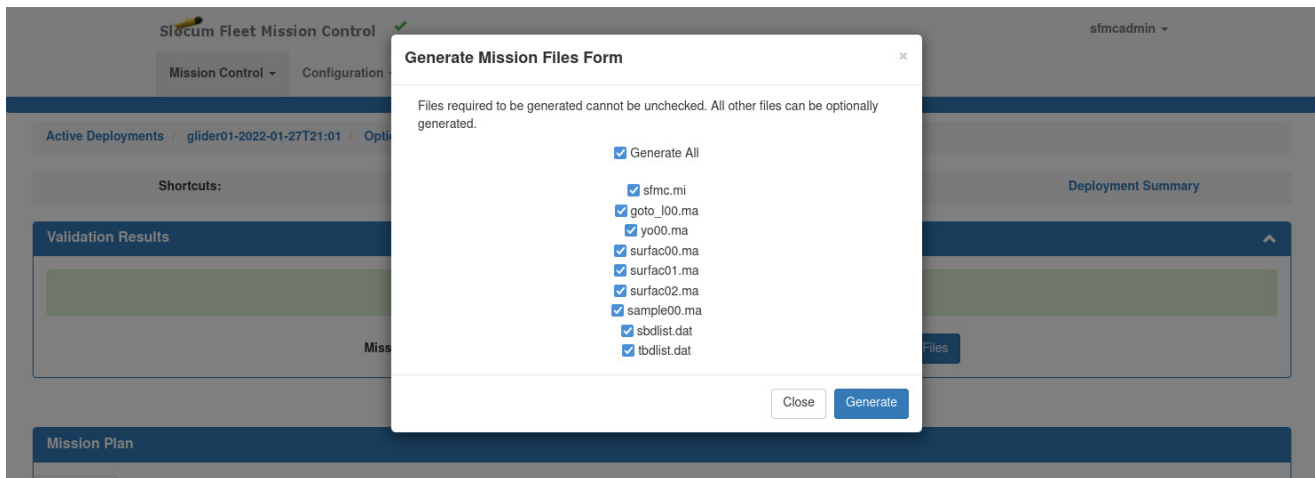


Figure 9-16 *Generate Mission Files Form* dialog box: all files selected.

All the check boxes are selected by default.

7. Clear the check boxes for those mission files you do not want to generate.
8. Ensure the check boxes of all the mission files you want to generate are selected.
9. Select *Generate*.

The mission files are generated, as shown in Figure 9-17, and the mission plan is processed:

The screenshot displays the 'Validation Results' section at the top, indicating 'All mission plan parts are valid.' Below this, there are input fields for 'Mission File Name' (sfmc), 'File Number' (00), and buttons for 'New Mission File Name' and 'Generate Files'. A 'Top' button is also present.

The 'Mission Plan' section features a tabbed interface with 'Waypoint' selected. It shows a 'Waypoint Plan - Includes Events from Last 5 Days' for 'Nantucket\_Sound\_Survey'. The plan details include:

- Waypoint Plan Name: Nantucket\_Sound\_Survey
- Created By: sfmcadmin
- Creation Date/Time: 2022-01-27 21:07:42
- Last Modified By: sfmcadmin
- Last Modified Date/Time: 2022-01-27 22:15:23
- Waypoint Traversal Option: Loop Forever
- Initial Waypoint: 41°30.97'N 70°21.74'W

A list of waypoints is shown below:

|                       |
|-----------------------|
| 41°30.97'N 70°21.74'W |
| 41°29.37'N 70°22.57'W |
| 41°27.64'N 70°21.08'W |
| 41°26.71'N 70°18.7'W  |

The map shows a mission path around 'Horseshoe Shoal' in Nantucket Sound, with a scale bar of 5 km and a 'Hide unselected deployments' checkbox.

Figure 9-17 All specified mission files generated.

If the script `sfmc.xml` is enabled, the mission plan is uploaded to the glider the next time it connects.

## Using Data Visualizer for an Active Deployment

Data Visualizer for an active deployment enables the viewing of glider-reported data as plots on a graph versus the date and time of the samples. The data to view can be selected from a list of plot types or sensor types.

For the sensor types, up to five can be selected to view on a single graph. In addition, a graph can include the data from only the last leg of the current mission, the data from a specific number of the last legs of the current mission, the data over a specific date range, the data for all the legs of the current mission, or the data from all the legs of all the missions.

Each mission leg is associated with a data file, and Data Visualizer lists all of the data files associated with the mission with the displayed ones highlighted.

Data Visualizer also displays missing data as a result of the glider connecting to a different SFMC Dock Server service.

When a large amount of data for plotting are requested, such as from all the legs of all the missions, the data are decimated, which reduces the amount of data transferred. However, when zooming into smaller sections of a graph of the data, more data are transferred for that selected region.

## Opening Data Visualizer for an Active Deployment

To display the Data Visualizer for an active deployment, use the Options button that is available on multiple pages in SFMC.

To open *Data Visualizer* for an active deployment, do one of the following:

- **Mission Control > Dashboard > Options** button for the active deployment > **View Data Visualizations**.
- **Mission Control > Active Deployments >** the deployment name > **Options** button > **View Data Visualizations**.
- **Mission Control > Glider Terminal Access >** the associated glider > **Options** button > **View Data Visualizations**.

The system displays the *Data Visualizations* page for the active deployment, as shown in Figure 9-18:



Figure 9-18 Data Visualizations page: Active Deployment.

## Data Visualizations Page for an Active Deployment

The *Data Visualizations* page for an active deployment includes a graph and three panels:

- Data Files panel
- Sensor Data File & Cache File Drop Zone panel
- Data Files Unable to Process panel

Also included are drop-down lists for selecting:

- A different active deployment
- The time frame of the graph
- A spin box for entering or selecting the number of legs of data to display

## Graph

All data are displayed on a graph in which the vertical units are automatically labeled and scaled to fit. Under this graph is a second graph with a compressed vertical axis.

Selecting the plot on this graph and dragging to the right or to the left creates a zoom box that contracts or expands the horizontal axis of the main graph in accordance with the box width, thus zooming in or out of the plot.

Selecting inside this box and dragging it to the right or to the left pans the horizontal axis of the main graph. The horizontal scale and units adjust automatically in accordance with the zoom level.

To return the main graph to its original state, select anywhere inside the lower graph.

Each plot on the graph is shown in a different color. Color swatches and scale legends below the graph indicate which color applies to which sensor, and the total span of the data for the sensor.

Color swatches are toggles: selecting a color swatch hides the plot; selecting it again shows the plot. For line/scatter and scatter plots only, the color swatch displays the symbol that marks each point on the plot.

When hovering over a point on the plot, the date and time of the data are displayed along with the source file and the sample value.

## Data Files Panel

This panel provides a list of data files that together contain all of the glider reported data, one file for each leg of the mission. Files that contain data currently being displayed are highlighted.

## Sensor Data File & Cache File Drop Zone Panel

This panel provides a drag-and-drop zone that allows you to add missing files to the list on the panel.

For example, the glider connected to a different Dock Server, and the files were downloaded using its SFMC Dock Server service. To add these files, you can drag and drop them into the *Sensor Data File & Cache File Drop Zone*.

Select the refresh button to add the files to the list.

## Data Files Unable to Process Panel

This panel lists files that SFMC is unable to process.

For example, before connecting to a particular Dock Server, a required cache file was downloaded to a different Dock Server. The missing cache file results in a displayed warning and is added to the list mentioned above.

To import the missing cache file, refer to “Importing a Missing Cache File” on page 9-26.

## Viewing Data by Plot Name

Data can be viewed as a line plot, a scatter plot, or both, by selecting a plot name, such as **SFMC - CTD**, **SFMC - Heading**, **SFMC - Depth** (and many others), and selecting the type of plot.

Samples that are considered outliers can be automatically excluded in the plot in accordance with a known standard algorithm.

To view data by plot name:

1. Select the *Plot Name* option.  
The system displays the *Plot Name* drop-down list.
2. Select the plot name from that drop-down list.
3. Select *Configure Plot Settings*.  
The system displays the *Plot Settings Form* dialog box.
4. Use the *Line/Scatter* drop-down list to select the type of plot.
5. Select *Apply*.
6. From the *Timeframe* drop-down list, select one of the following:
  - **Last Leg** — Display data from the last leg of the current mission.
  - **Last N Legs** — Display data from a specific number of the last legs of the current mission, then enter or select the number of legs from the *Data # Legs* spin box.  
The total number of legs in the current mission is displayed in the *Total # Legs* text box.
  - **Date Range** — Display data within a selected start and end date and time range.  
Select the calendar that appears. In the *Date Range Selection* dialog box that opens, enter the start and end dates and times in the *Start Date* and *End Date* text boxes in **yyyy-mm-dd hh:mm** format, or select the calendar icon to the right of the text boxes and select the date and times.
  - **Current Mission** — Display data from all the legs of the current mission.
  - **Full Time Series** — Display data from all the legs of all the missions.
7. [*optional*] Select the *Exclude Outliers* check box to exclude samples that are considered outliers.

## Viewing Data by Sensor Selections

Data can be viewed for specific sensors, up to five at a time. The system can display the data as either a line or a scatter plot, or both.

In addition, the selected sensors can be given a plot name and added to the *Plot Name* drop-down list, enabling them to be easily selected as a group.

Samples that are considered outliers can be automatically excluded in the plot in accordance with a known standard algorithm.

To view data by sensor selections:

1. Select the *Sensor Selections* option.

The system displays the *Configure Sensor Visualizations* button.

2. Select that button.

The system displays the *Sensor Selections Form* dialog box, as shown in Figure 9-19:

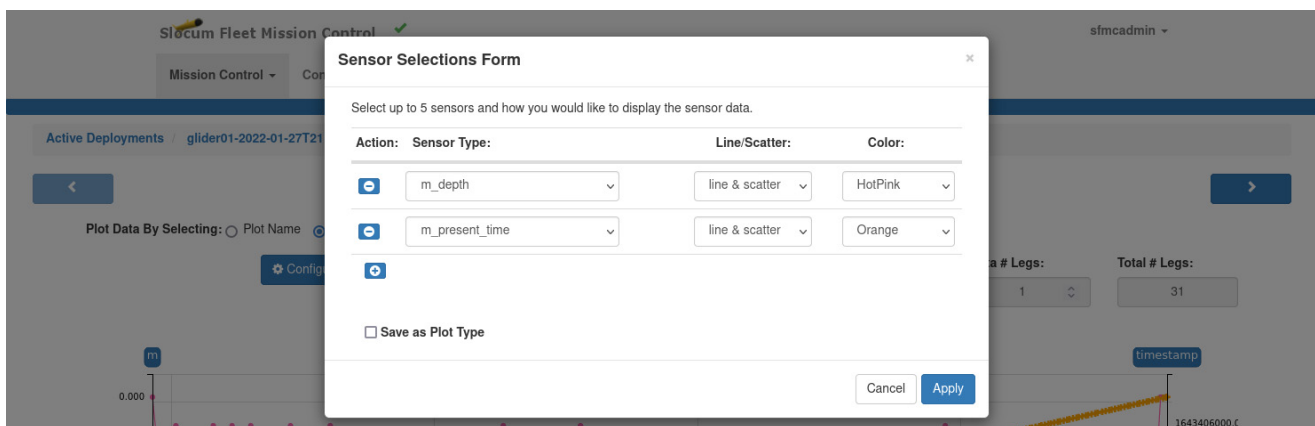


Figure 9-19 *Sensor Selections Form* dialog box.

3. Select the *Action* button.
4. Select a sensor from the *Sensor Type* drop-down list.
5. Select the plot type from the *Line/Scatter* drop-down list.
6. Select the color from the *Color* drop-down list
7. [optional] Repeat Step 3 through Step 6 to add another sensor. Up to five sensors can be selected.

To delete a sensor, select the *Action* button for it.

8. [optional] Select the *Save as Plot Type* check box, then enter a name for the plot in the *Plot Name* text box to add the sensor selections to the *Plot Name* drop-down list.
9. Select *Apply*.
10. From the *Timeframe* drop-down list, select one of the following:
  - **Last Leg** — Display data from the last leg of the current mission.
  - **Last N Legs** — Display data from a specific number of the last legs of the current mission, then enter or select the number of legs from the *Data # Legs* spin box. The total number of legs in the current mission is displayed in the *Total # Legs* text box.

- **Date Range** — Display data within a selected start and end date and time range.
  - **Current Mission** — Display data from all the legs of the current mission.
  - **Full Time Series** — Display data from all the legs of all the missions.
11. [optional] Select the *Exclude Outliers* check box to exclude samples that are considered outliers.

## Setting the Vertical Axis Minimum and Maximum Values

A *vertical axis dimension* button is located at the top of the vertical axis or each vertical axis if more than one sensor was selected. Selecting this button allows you to set the minimum and maximum values for this axis.

Its default setting is the data minimum and maximum values.

To set the vertical axis minimum and maximum values:

1. Select the vertical axis dimension button for the axis that you want to set the minimum and maximum value.

The system displays the *Configure Y <dimension> Axis Range* dialog box, as shown in Figure 9-20:

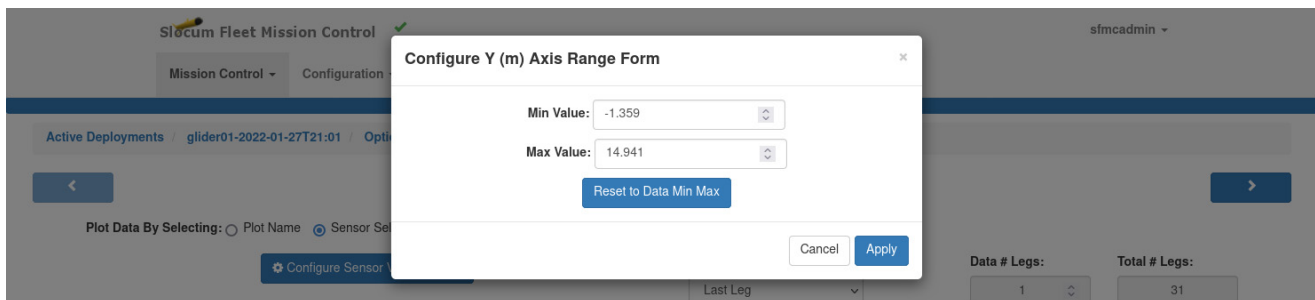


Figure 9-20 *Configure Y <dimension> Axis Range* dialog box.

2. Perform one of the following:
    - Enter or select the minimum value in the *Min Value* spin box and the maximum value in the *Max Value* spin box.
    - or–
    - Select *Reset to Data Min Max* to set the minimum and maximum scale to that of the data minimum and maximum if they were previously changed.
  3. Select *Apply*.
- The vertical axis minimum and maximum values are set and displayed accordingly.



## Exporting Plots

Plots can be exported as PNG and ASCII files from the *Data Visualizations* page for an active deployment:

- To export a plot as a PNG file, select **Option** button > **Export Plot to PNG** > **Save File**.
- To export a plot as an ASCII file, select **Option** button > **Export Plot Data to Ascii File** > **Save File**.

## Importing a Missing Cache File

If the *Data Files Unable to Process* panel indicates there are cache files missing, these files can be imported.

To import a missing cache file:

1. Log in to a user account as an Administrator or a user account with a Group Level Administrator or Glider Pilot role.  
Administrators can import missing cache files for any group.  
The Group Level Administrator and Glider Pilot roles can import missing cache files for their allowed groups only.
2. From the main menu, select **Configuration** > **Cache Files**.  
The system displays the *Cache Files* page, as shown in Figure 9-21:

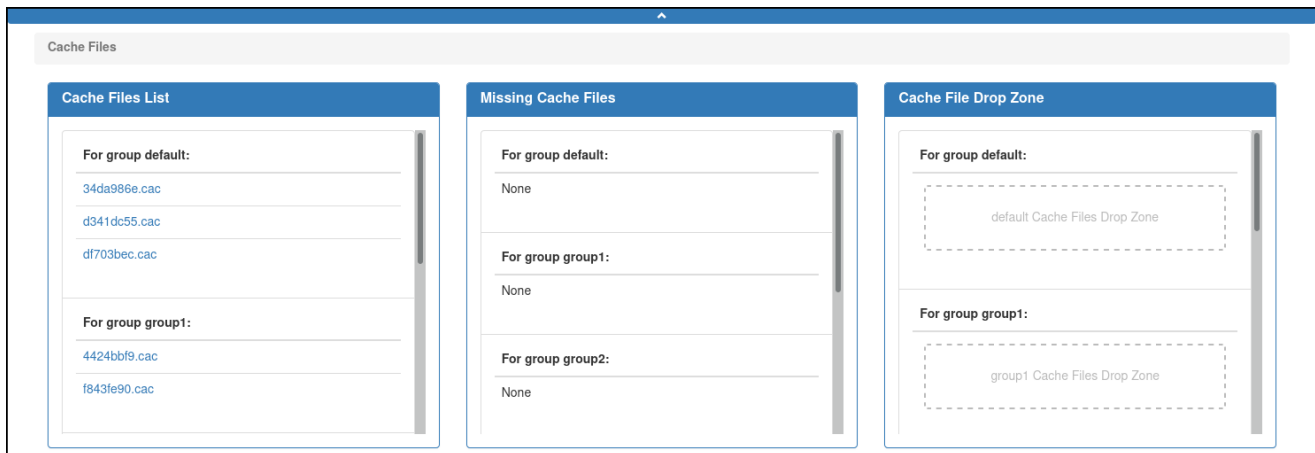


Figure 9-21 Cache Files page.

3. Drag-and-drop the cache file into the *Cache File Drop Zone* for the associated group.  
The cache file is imported.

## Importing Sensor Types

As new sensors are created for the gliders, they are stored in a masterdata file. This file can be imported into SFMC to update and configure the available sensor types.

These sensor types can also be searched for and listed by name in SFMC.

To import sensor types:

1. Log in to a user account as either an Administrator or one with any role.
2. From the main menu, select **Configuration > Sensor Types**.

The system displays the *Sensor Types* page, as shown in Figure 9-22:

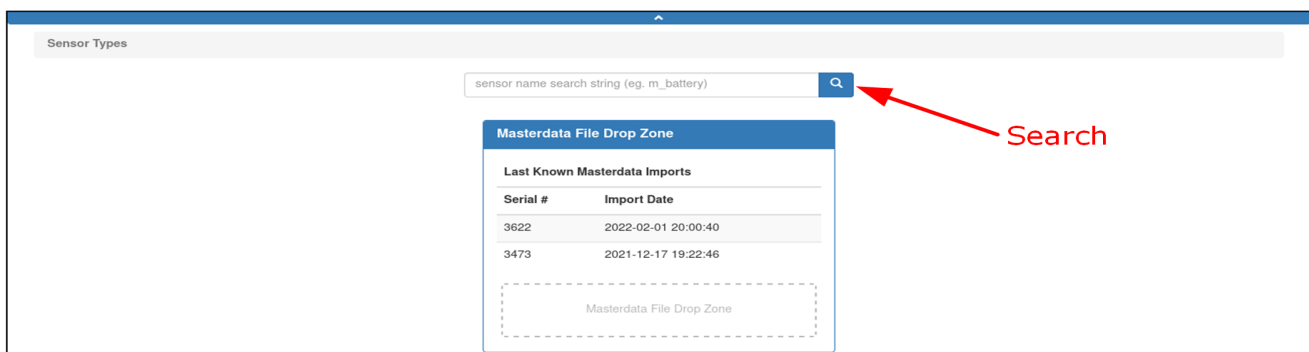


Figure 9-22 *Sensor Types* page.

3. Select and then drag-and-drop the masterdata file into the *Masterdata File Drop Zone*. The serial number of the masterdata file is displayed in the drop zone.
4. To search for and view a list of sensor types:
  - a. Enter the first several characters of the sensor name in the text box above the *Masterdata File Drop Zone* panel.
  - b. Select the *Search* button.

## Exporting Map Events

All the map events of an active deployment between specified dates and times can be exported to a KMZ file which can then be opened in Google Earth or any other program that can display the data from a KMZ file.

To export map events:

1. Log in to a user account as either an Administrator or one with any role.
2. From the main menu, select **Mission Control > Active Deployments**.

The system displays the *Active Deployments* page, as shown in Figure 9-1 on page 9-2.

To update the page while it is open, press **[F5]**.

To display more active deployments on a single page, select the number to display from the *Show Active Deployments* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Sort or filter the list by deployment name, glider, groups, or projects by selecting the associated sort or filter icon.
4. [optional] Sort the list by deployment date by selecting the deployed sort icon.
5. Select the deployment name for the active deployment for which you want to export the map events.
6. Select the **Options** button > **Export Map Events to KMZ**.

The system displays the *Export Map Events to KMZ* dialog box, as shown in Figure 9-23:

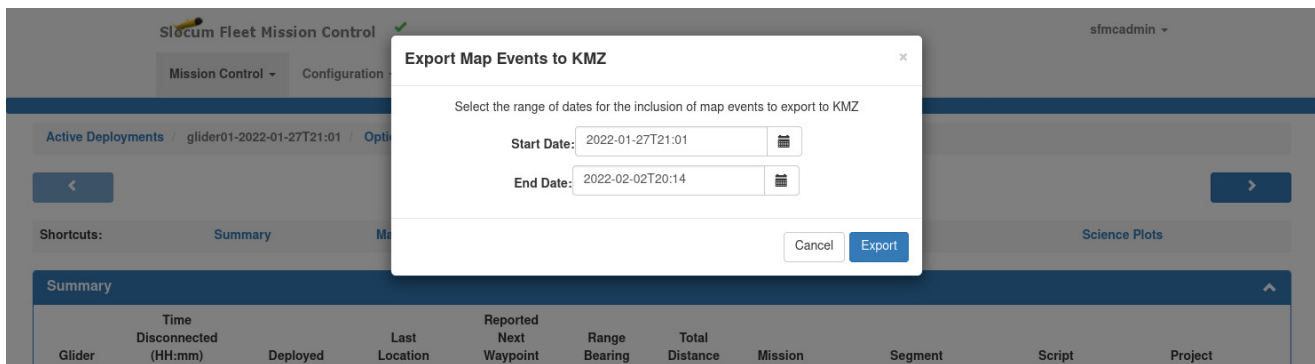


Figure 9-23 *Export Map Events to KMZ* dialog box.

7. If a different start date and time than the one shown is desired:
  - Enter the start date and time in the *Start Date* text box in **yyyy-mm-dd hh:mm** format.
  - or–
  - Select the calendar icon to the right of the text box, select the date, and then enter the time.
8. If a different end date and time than the one shown is desired:
  - Enter the end date and time in the *End Date* text box in **yyyy-mm-dd hh:mm** format.
  - or–
  - Select the calendar icon to the right of the text box, select the date, and then enter the time.
9. Select *Export*.
10. Save the file.

The system automatically generates the file name, giving it an KMZ extension.

## Exporting Surface Sensor Data

All the surface sensor data of an active deployment between specified dates and times can be exported to a CSV file which can then be opened in a text editor.

To export surface sensor data:

1. Log in to a user account as either an Administrator or one with any role.
2. From the main menu, select **Mission Control > Active Deployments**.

The system displays the *Active Deployments* page, as shown in Figure 9-1 on page 9-2.

To update the page while it is open, press **[F5]**.

To display more active deployments on a single page, select the number to display from the *Show Active Deployments* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Sort or filter the list by deployment name, glider, groups, or projects by selecting the associated sort or filter icon.
4. [optional] Sort the list by deployment date by selecting the deployed sort icon.
5. Select the deployment name for the active deployment for which you want to export the surface sensor data.
6. Select the **Options** button > **Export Surface Sensor Data**.  
The system displays the *Export Surface Sensor Data* dialog box, as shown in Figure 9-24:

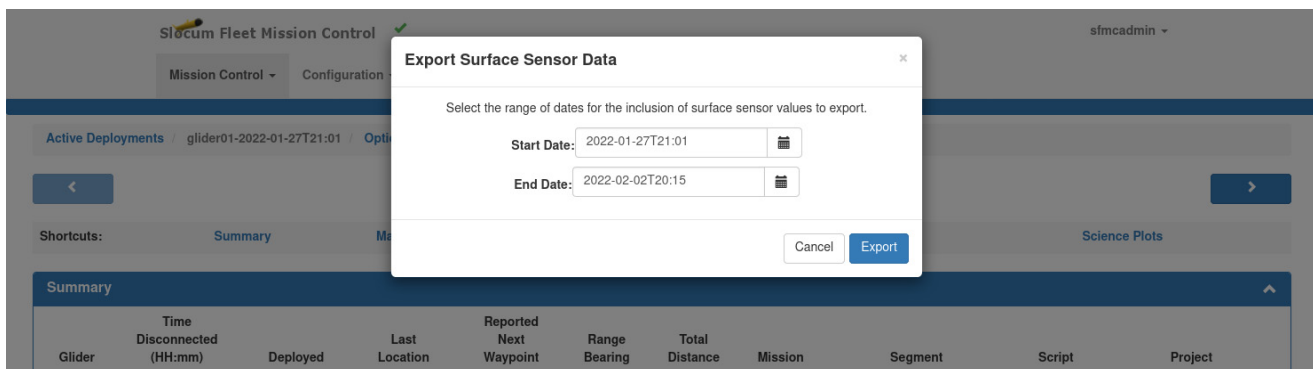


Figure 9-24 *Export Surface Sensor Data* dialog box.

7. If a different start date and time than the one shown is desired:
  - Enter the start date and time in the *Start Date* text box in **yyyy-mm-dd hh:mm** format.
  - or–
  - Select the calendar icon to the right of the text box, select the date, and then enter the time.

8. If a different end date and time than the one shown is desired:
    - Enter the end date and time in the *End Date* text box in **yyyy-mm-dd hh:mm** format.
    - or–
    - Select the calendar icon to the right of the text box, select the date, and then enter the time.
  9. Select *Export*.
  10. Save the file.
- The system automatically generates the file name, giving it an CSV extension.

## Exporting Glider Commands

All the glider commands of an active deployment between specified dates and times can be exported to a XLS file which can then be opened in a spreadsheet program.

To export glider commands:

1. Log in to a user account as either an Administrator or one with any role.
2. From the main menu, select **Mission Control > Glider Terminal Access**.  
The system displays the *Glider Terminal Access* page.
3. Select the name of glider that you want access.  
The system displays the *Glider Terminal* page.
4. Select the **Options** button > **Export Glider Commands**.  
The system displays the *Export Glider Commands* dialog box, as shown in Figure 9-25.

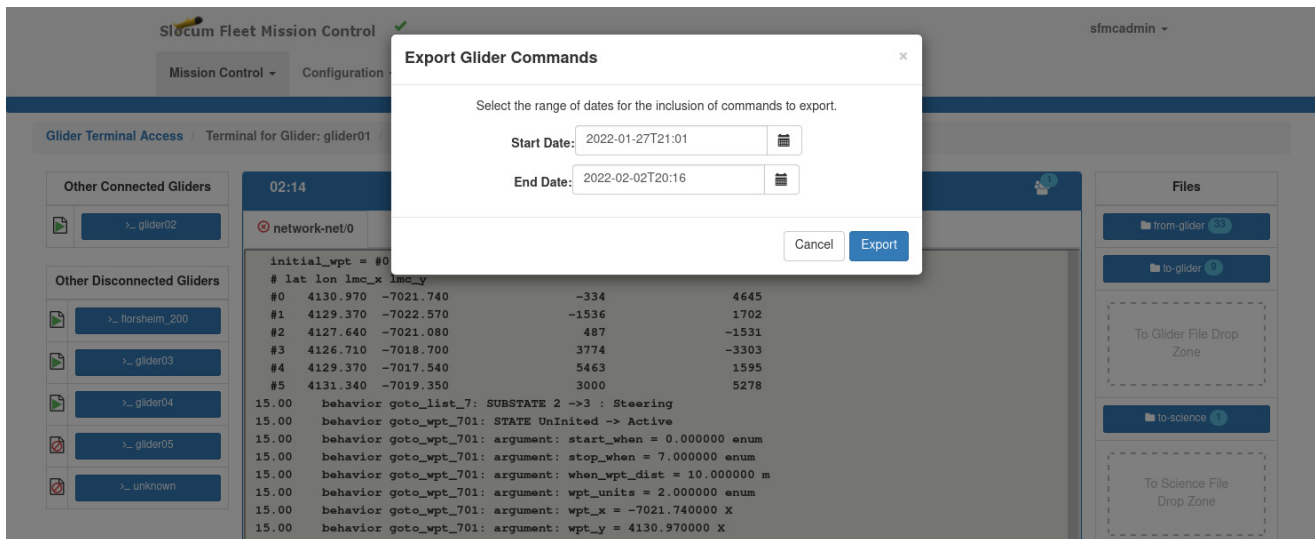


Figure 9-25 *Export Glider Commands* dialog box.

5. If a different start date and time than the one shown is desired:
  - Enter the start date and time in the *Start Date* text box in **yyyy-mm-dd hh:mm** format.  
-or-
  - Select the calendar icon to the right of the text box, select the date, and then enter the time.
6. If a different end date and time than the one shown is desired:
  - Enter the end date and time in the *End Date* text box in **yyyy-mm-dd hh:mm** format.  
-or-
  - Select the calendar icon to the right of the text box, select the date, and then enter the time.
7. Select *Export*.
8. Save the file.

The system automatically generates the file name, giving it an XLS extension.



# 10 Managing Recovered Deployments

A recovered glider deployment is one based on an active glider deployment that you have recovered (pulled from the water). The recovered deployment can be either unrecovered or archived.

You can unrecover a deployment; for example, you recover the glider from the water in the middle of an active deployment, make some necessary adjustments, the re-launch the glider into the water and continue the active deployment.

The glider remains an active deployment until it is recovered and/or archived.



## Note

Only one recovered deployment can currently exist for a glider.

Recovered deployments are not shown on the dashboard, listed in Active Deployments, and its Map Events and Surfacings are no longer recorded. All this is reversed if you unrecover the deployment; the glider is returned to active deployment.

## Recovering an Active Glider Deployment

To recover an active glider deployment:

1. Log in to a user account as an Administrator or a user account with the Group Level Administrator or Pilot role.  
The Group Level Administrator and Pilot roles can recover deployments for the allowed groups only.
2. From the main menu, select **Mission Control > Active Deployments**.  
The system displays the *Active Deployments* page, as shown in Figure 9-1 on page 9-2.  
To update the page while it is open, press **[F5]**.  
To display more active deployments on a single page, select the number to display from the *Show Active Deployments* drop-down list.  
To display the next/specific/previous page, select it from the page scroller.
3. *[optional]* Sort or filter the list by deployment name, glider, groups, or projects by selecting the associated sort or filter icon.
4. *[optional]* Sort the list by deployment date by selecting the deployed sort icon.
5. Select the deployment name for the active deployment that you want to delete.  
The system displays the *Active Deployment Detail* page.



- From the *Active Deployment Detail* page, select the **Options** button > **Recover Deployment**.

The system displays the *Recover Deployment* dialog box, as shown in Figure 10-1:

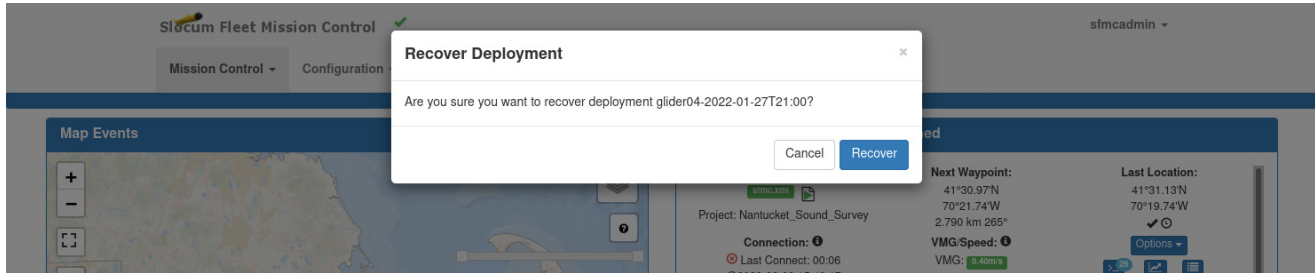


Figure 10-1 Recover Deployment dialog box.

- Select *Recover*.

The system displays the *Recovered Deployments* page, as shown in Figure 10-2:

Recovered Deployments

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show  Recovered Deployments

| Deployment Name                           | Glider   | Associated Group | Project             | Deployed            | Connection Status              | Location                 | Days Deployed | Distance (km) |
|---|----------|------------------|---------------------|---------------------|--------------------------------|--------------------------|---------------|---------------|
| <a href="#">glider04-2022-01-27T21:00</a> | glider04 | group1           | Cape_Cod_Bay_Survey | 2022-01-27<br>21:00 | Disconnected<br>21 hrs 44 mins | 41°47.67'N<br>70°12.52'W | 6             | 24,770        |

Navigation: -- First | 1 | Last --

Figure 10-2 Recovered Deployments page.

- Select the appropriate link under the *Deployment Name* column.

The system displays the *Recovered Deployment Details* dialog box, as shown in Figure 10-3:

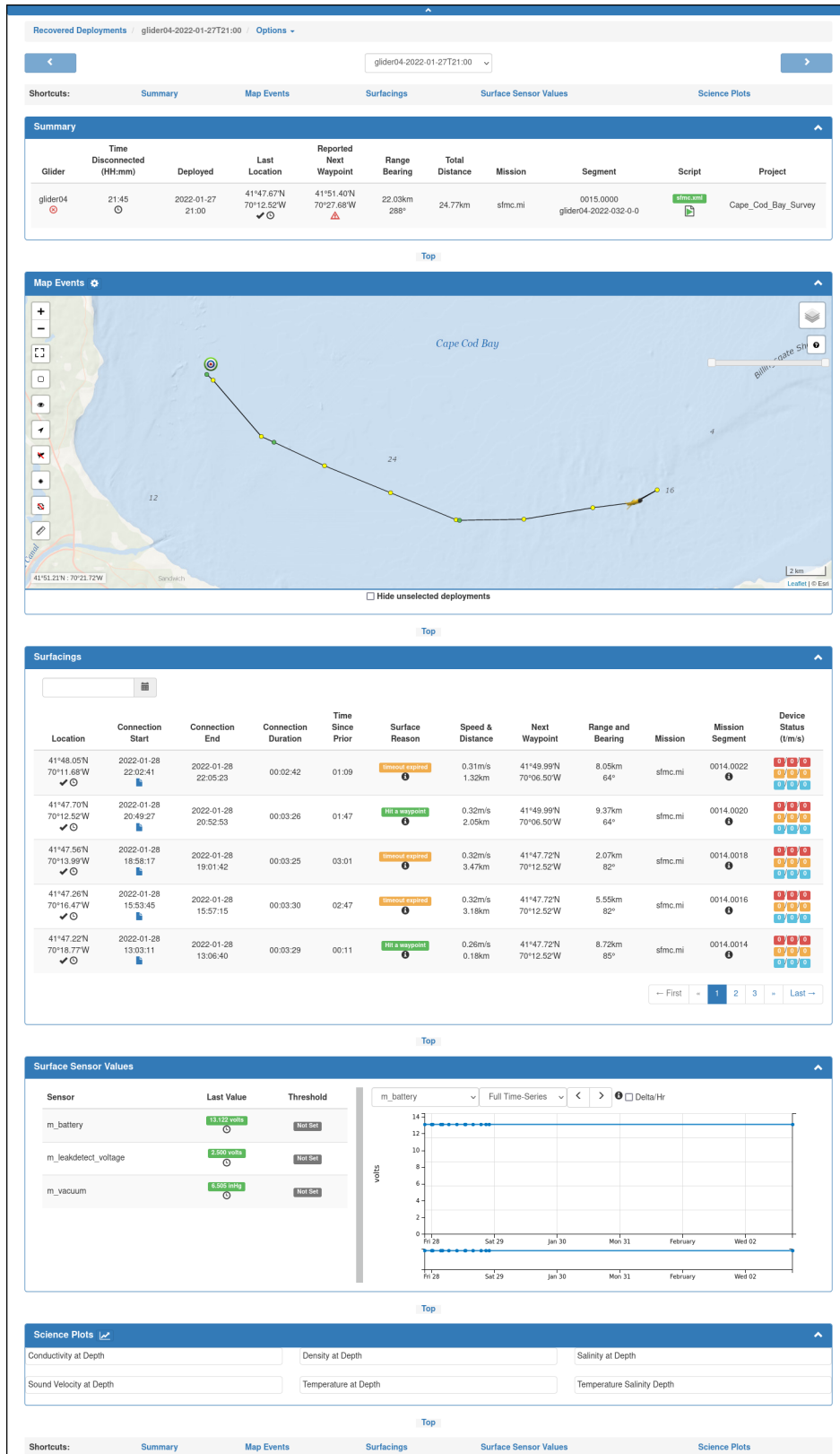


Figure 10-3 Recovered Deployment Details page.

The panels on this page are still active except for:

- Map Events
- Surfacings

## Unrecovering an Recovered Glider Deployment

To unrecover a recovered deployment:

1. From the main menu, select **Mission Control > Recovered Deployments**.  
The system displays the *Recovered Deployments* page.
2. Select the appropriate recovered deployment.
3. Select **Options**.

The page displays the *Options* menu, as shown in Figure 10-4:

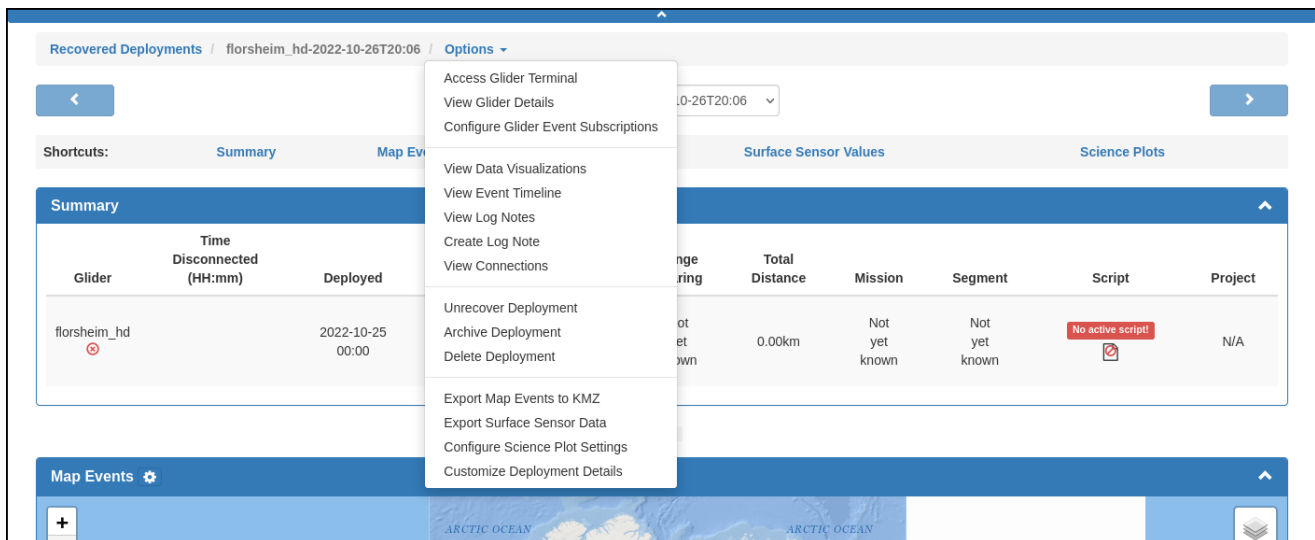


Figure 10-4 Recovered Deployment *Options* menu.

4. Select **Unrecover Deployment**.

The system displays the *Unrecover Deployment* dialog box, as shown in Figure 10-5:

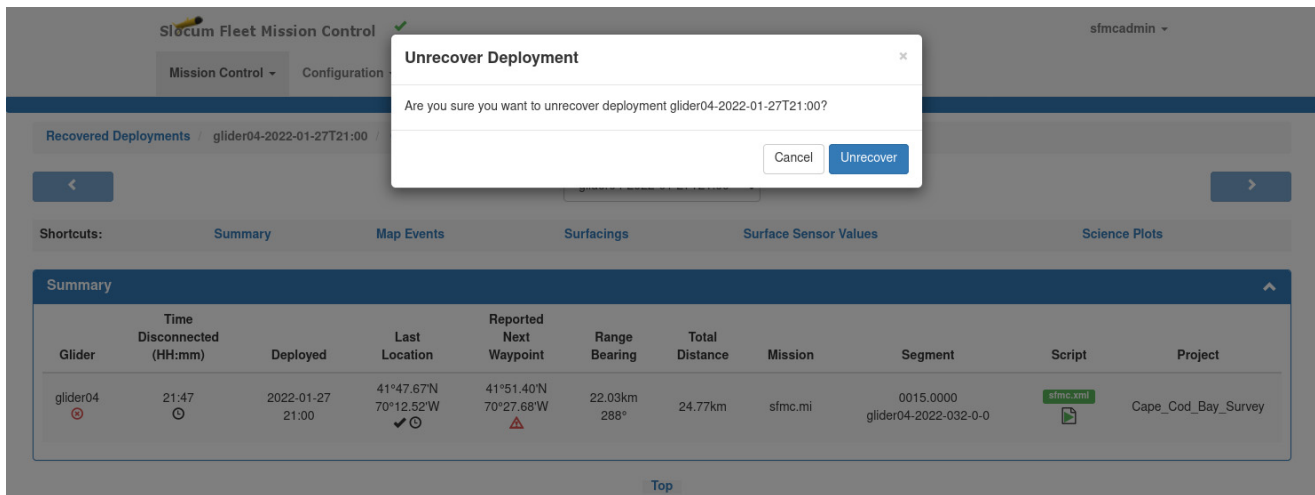


Figure 10-5 Unrecover Deployment dialog box.

5. Select *Unrecover*.

The deployment reverts to an active deployment.

## Opening Data Visualizer for a Recovered Deployment

To display the Data Visualizer for a recovered deployment: use the Options button that is available on multiple pages in SFMC.

To open *Data Visualizer* for an active deployment, select **Mission Control > Recovered Deployments >** the deployment name **> Options** button **> View Data Visualizations**.

The system displays the *Recovered Deployment* page, *Data Visualizations* option, as shown in Figure 10-6:



Figure 10-6 Recovered Deployment page, Data Visualization option.

This Data Visualization page operates just like an active deployment. For more information, see "Data Visualizations Page for an Active Deployment" on page 9-21.

# 11 Managing Archived Deployments

An active glider deployment can be archived. This is typically done when the glider is removed from the water, but it can be at any time for any reason. A glider can have any number of archived deployments, each having occurred over a different period.

## Viewing Archived Deployments

To view archived deployments:

1. Log in to a user account as either an Administrator or one with any role.  
Administrators can view all archived deployments.  
Group Level Administrator, Glider Pilot, and Viewer roles can view the archived deployments for their allowed groups only.
2. From the main menu, select **History > Archived Deployments**.  
The system displays the *Archived Deployments* page, as shown in Figure 11-1:

| Deployment Name                | Glider        | Associated Group | Project                   | Deployed         | Archived         | Days Deployed | Distance (km) |
|--------------------------------|---------------|------------------|---------------------------|------------------|------------------|---------------|---------------|
| florsheim_200-2021-12-17T19:31 | florsheim_200 | default          | N/A                       | 2021-12-17 19:31 | 2021-12-27 21:58 | 10            | 9.469         |
| glider01-2022-12-29T13:27      | glider01      | default          | N/A                       | 2021-12-29 13:27 | 2022-01-14 21:07 | 16            | 8.311         |
| glider02-2022-01-27T21:00      | glider02      | group2           | Rhode_Island_Sound_Survey | 2022-01-27 21:00 | 2022-01-28 13:50 | < 1           | 4.672         |
| glider02-2022-01-28T13:51      | glider02      | group2           | Rhode_Island_Sound_Survey | 2022-01-28 13:51 | 2022-02-02 18:05 | 5             | 0.000         |
| unknown-2021-12-21T13:17       | unknown       | default          | N/A                       | 2021-12-21 13:17 | 2021-12-27 22:00 | 6             | 0.000         |

Figure 11-1 Archived Deployments page.

To update the page while it is open, press **[F5]**.

To display more archived deployments on a single page, select the number to display from the *Show Archived Deployments* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

The *Archived Deployments* page includes the following fields and information:

|                 |   |
|-----------------|---|
| Deployment Name | The name of the archived glider deployment. |
| Glider          | The name of the glider.                     |

|                  |  |
|------------------|--|
| Associated Group | The group that is associated with the glider. There can be only one group.             |
| Project          | The project that the glider is associated with, if any. There can be only one project. |
| Deployed         | The date and time of the start of the active deployment.                               |
| Archived         | The date and time the deployment was archived.   |
| Days deployed    | The number of days the glider was deployed.  |
| Distance (km)    | The distance in kilometers the glider traveled during the deployment.                  |

3. [*optional*] Sort or filter the list by deployment name, glider, groups, or projects by selecting the associated sort or filter icon.
4. [*optional*] Sort the list by deployment date or archived date by selecting the deployed or archived sort icon.
5. Select the deployment name for the archived deployment that you want to view.  
Detailed information about the archived deployment, including a map, is displayed on the *Archived Deployment Detail* page, which is explained in the next section below.

## Archived Deployment Detail Page

To open this page, refer to “Viewing Archived Deployments” on page 11-1.

Detailed information can be viewed for any of the archived deployments on the *Archived Deployment Detail* page, which is shown in Figure 11-2 on page 11-3.

The *Archived Deployment Detail* page includes four panels:

- **Summary** — Provides the most current information about the deployment  
See “Summary Panel” on page 11-4.
- **Map Events** — Includes the same map as that is provided on the Dashboard  
See “Map Events Panel” on page 11-5.
- **Surfacings** — Displays information about each surface event  
See “Surfacings Panel” on page 11-5.
- **Surface Sensor Values** — Displays the surface sensor data reported by the glider at each surfacing  
See “Surface Sensor Values Panel” on page 11-7.

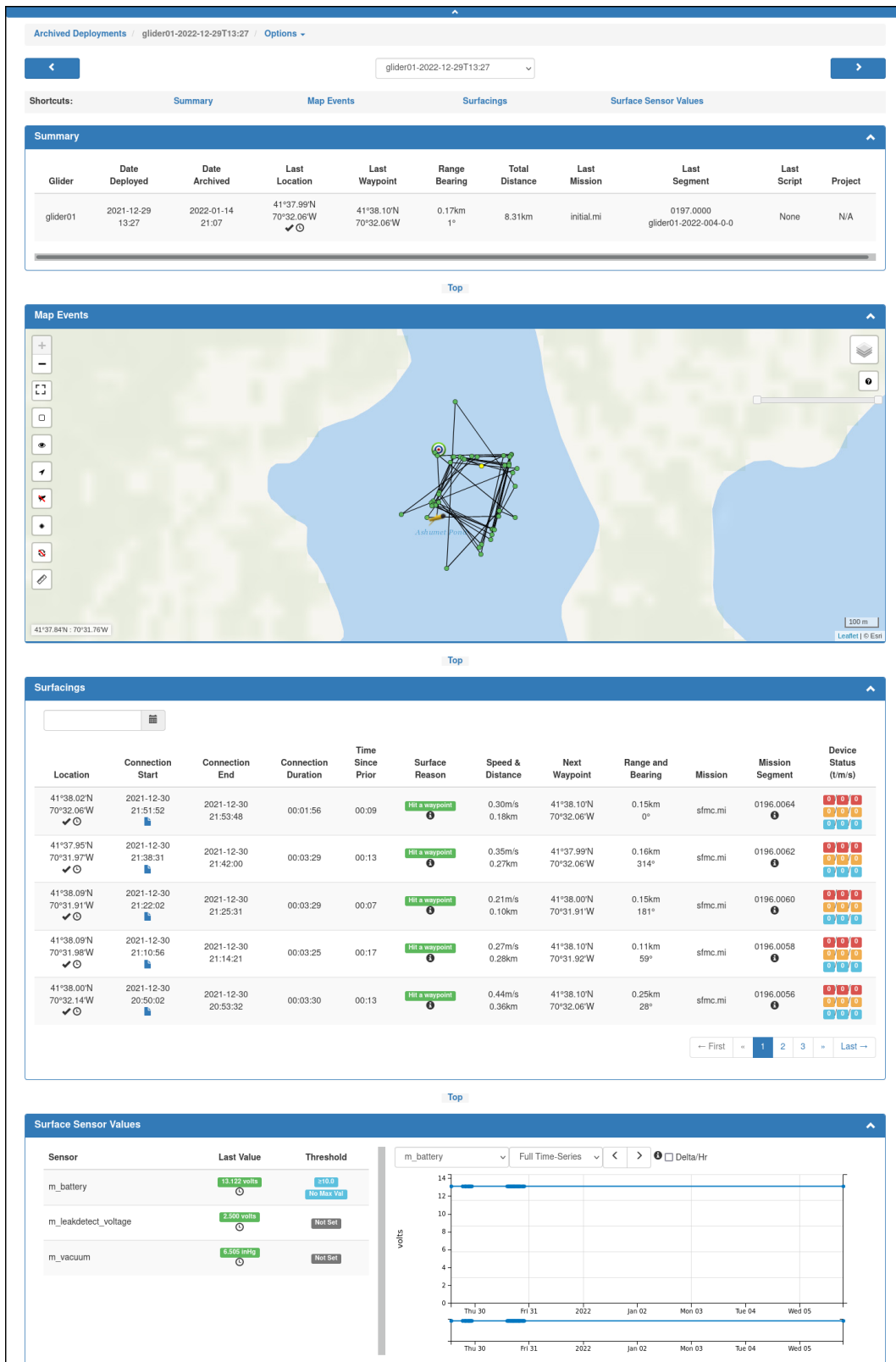


Figure 11-2 Archived Deployment Detail page (all panels)



Shortcuts to these panels are provided at the top and bottom of the *Archived Deployment Detail* page. You can select a different glider from the drop-down list above the shortcuts at the top.

In addition, when you can hover the pointer over any of the icons, the system displays additional information about the deployment.

## Summary Panel

The recorded information pertaining to the deployment is provided on the *Summary* panel as shown in Figure 11-3:

| Summary  |                     |                     |                                 |                          |               |                |              |                                    |             |         |
|----------|---------------------|---------------------|---------------------------------|--------------------------|---------------|----------------|--------------|------------------------------------|-------------|---------|
| Glider   | Date Deployed       | Date Archived       | Last Location                   | Last Waypoint            | Range Bearing | Total Distance | Last Mission | Last Segment                       | Last Script | Project |
| glider01 | 2021-12-29<br>13:27 | 2022-01-14<br>21:07 | 41°37.99'N<br>70°32.06'W<br>✓ ⓘ | 41°38.10'N<br>70°32.06'W | 0.17km<br>1°  | 8.31km         | initial.mi   | 0197.0000<br>glider01-2022-004-0-0 | None        | N/A     |

Figure 11-3 Summary panel: Archived Deployment.

The *Summary* panel includes the following fields and information:

|                          |  |
|--------------------------|--|
| <b>Glider</b>            | The name of the glider.  |
| <b>Date Deployed</b>     | The date in year, month and day and the time of day in hours and minutes that the glider first connected for this deployment.                                    |
| <b>Date Archived</b>     | The date in year, month and day and the time of day in hours and minutes that the active deployment was archived.  |
| <b>Last Location</b>     | The last recorded surface location of the glider in latitude and longitude degrees and decimal minutes.  |
| <b>Last Waypoint</b>     | The coordinates of the waypoint, in latitude and longitude degrees and decimal minutes, that the glider went to last.  |
| <b>Range and Bearing</b> | The last recorded range to the next waypoint in kilometers and the bearing in degrees.   |
| <b>Total Distance</b>    | The total distance in kilometers that the glider traveled since its deployment.  |
| <b>Last Mission</b>      | The mission file associated with the last mission.   |
| <b>Last Segment</b>      | The mission segment associated with the last mission in <b>xxxx.yyyy</b> format, where <b>xxxx</b> is the mission number and <b>yyyy</b> is the mission segment. |

|             |  |
|-------------|--|
| Last Script | The script that was run last, if any.  |
| Project     | The project that the deployment is associated with if any. <b>N/A</b> indicates that the deployment was not associated with a project. |

## Map Events Panel

The Map Events panel, shown in Figure 11-4, provides the same map as that on the Dashboard:

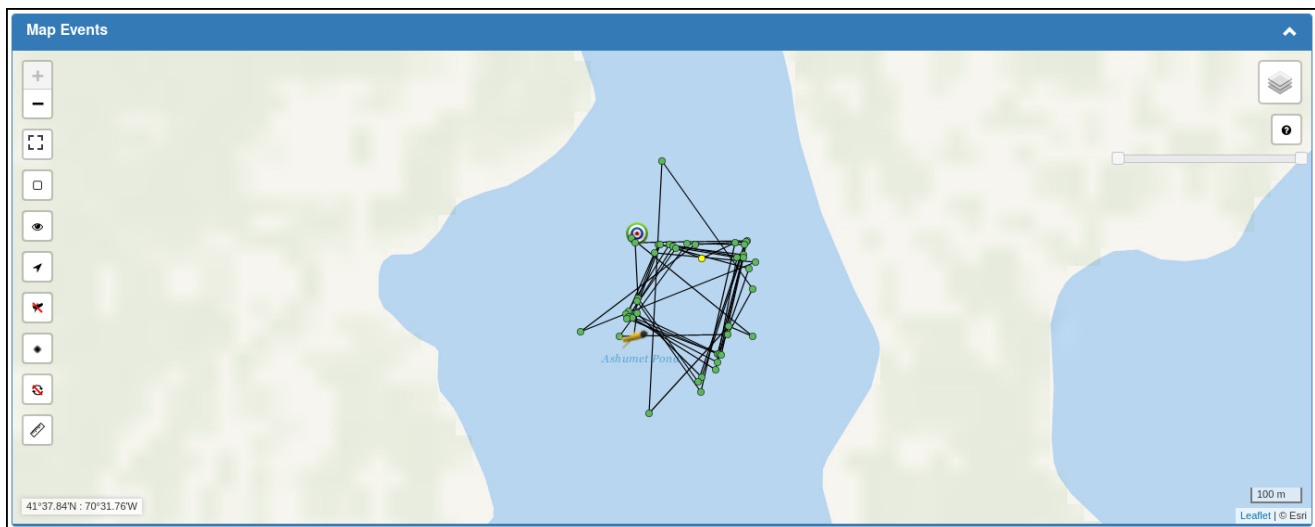


Figure 11-4 Map Events panel: Archived Deployment.

The map also includes the same buttons and displays. For information about the map, refer to Chapter 5, “The Dashboard.”

## Surfacings Panel

Recorded information pertaining to the glider surfacings is provided on the *Surfacings* panel, as shown in Figure 11-5 on page 11-6, with the most recent surfacing listed first.

Up to five surface events are listed on a page.

An unmarked text box in the upper left of the panel enables selecting a specific day to view the surfacings. You can select the calendar icon to the right of the text box to select the date or enter the date directly in **mm/dd/yy** format.

Clearing the text box selects all the days. When clearing the text box, select outside the box after clearing it.

To display the next/specific/previous page, select it from the page scroller at the bottom of the panel.

| Location                      | Connection Start       | Connection End         | Connection Duration | Time Since Prior | Surface Reason | Speed & Distance  | Next Waypoint            | Range and Bearing | Mission | Mission Segment | Device Status (t/m/s)   |
|-------------------------------|------------------------|------------------------|---------------------|------------------|----------------|-------------------|--------------------------|-------------------|---------|-----------------|-------------------------|
| 41°38.02'N<br>70°32.06'W<br>✔ | 2021-12-30<br>21:51:52 | 2021-12-30<br>21:53:48 | 00:01:56            | 00:09            | Hit a waypoint | 0.30m/s<br>0.18km | 41°38.10'N<br>70°32.06'W | 0.15km<br>0°      | sfmc.mi | 0196.0064       | 0/0/0<br>0/0/0<br>0/0/0 |
| 41°37.95'N<br>70°31.97'W<br>✔ | 2021-12-30<br>21:38:31 | 2021-12-30<br>21:42:00 | 00:03:29            | 00:13            | Hit a waypoint | 0.35m/s<br>0.27km | 41°37.99'N<br>70°32.06'W | 0.16km<br>314°    | sfmc.mi | 0196.0062       | 0/0/0<br>0/0/0<br>0/0/0 |
| 41°38.09'N<br>70°31.91'W<br>✔ | 2021-12-30<br>21:22:02 | 2021-12-30<br>21:25:31 | 00:03:29            | 00:07            | Hit a waypoint | 0.21m/s<br>0.10km | 41°38.00'N<br>70°31.91'W | 0.15km<br>181°    | sfmc.mi | 0196.0060       | 0/0/0<br>0/0/0<br>0/0/0 |
| 41°38.09'N<br>70°31.98'W<br>✔ | 2021-12-30<br>21:10:56 | 2021-12-30<br>21:14:21 | 00:03:25            | 00:17            | Hit a waypoint | 0.27m/s<br>0.28km | 41°38.10'N<br>70°31.92'W | 0.11km<br>59°     | sfmc.mi | 0196.0058       | 0/0/0<br>0/0/0<br>0/0/0 |
| 41°38.00'N<br>70°32.14'W<br>✔ | 2021-12-30<br>20:50:02 | 2021-12-30<br>20:53:32 | 00:03:30            | 00:13            | Hit a waypoint | 0.44m/s<br>0.36km | 41°38.10'N<br>70°32.06'W | 0.25km<br>28°     | sfmc.mi | 0196.0056       | 0/0/0<br>0/0/0<br>0/0/0 |

Figure 11-5 Surfacing panel: Archived Deployment.

The Surfacing panel includes the following fields and information:

|                     |  |
|---------------------|--|
| Location            | The surface location of the glider in latitude and longitude degrees and decimal minutes.  |
| Connection Start    | The date in year, month and day and the time of day in hours, minutes and seconds at which the glider connected for this surfacing.  |
| Connection End      | The date in year, month and day and the time of day in hours, minutes and seconds since the glider disconnected.   |
| Connection Duration | The time in hours, minutes and seconds that the glider was connected.  |
| Hours Since Prior   | The time in hours and decimal minutes since the last surfacing.  |
| Surface Reason      | <p>The reason for the surfacing.</p> <ul style="list-style-type: none"> <li>• A green banner is shown when the glider surfaced because it hit a waypoint.</li> <li>• A red banner is shown if the mission was aborted for some reason.</li> <li>• A yellow banner is shown for other reasons.</li> </ul> |
| Speed & Distance    | The speed of the glider in meters per second and the distance in kilometers the glider has traveled between the last surfacing to the current surfacing.   |
| Next Waypoint       | The coordinates of the waypoint, in latitude and longitude degrees and decimal minutes that the glider was to go to next.  |

|                       |  |
|-----------------------|--|
| Range and Bearing     | The range to the waypoint in kilometers and the bearing in degrees that the glider was to go to next.  |
| Mission               | The mission file associated with the surfacing.  |
| Mission Segment       | The mission segment associated with the surfacing in <b>xxxx.yyyy</b> format, where xxxx is the mission number and yyyy is the mission segment.  |
| Device Status (t/m/s) | Indicates the total ( <b>t</b> ), mission ( <b>m</b> ) and mission segment ( <b>s</b> ) errors, warning and oddities detected by the glider for this deployment, where the: <ul style="list-style-type: none"> <li>• Red indicators are the errors</li> <li>• Yellow indicators are the warnings</li> <li>• Blue indicators are the oddities.</li> </ul> |

## Surface Sensor Values Panel

Each glider is factory configured to report selected sensor data at each surfacing. The data for these sensors are referred to as "surface sensor data."

The surface sensor data for all the factory configured sensors on the glider can be viewed, one at a time, on the *Surface Sensor Values* panel for the most recent surfacing in a list and for all the surfacings as a graphical plot.

The *Surface Sensor Values* panel is shown in Figure 11-6:

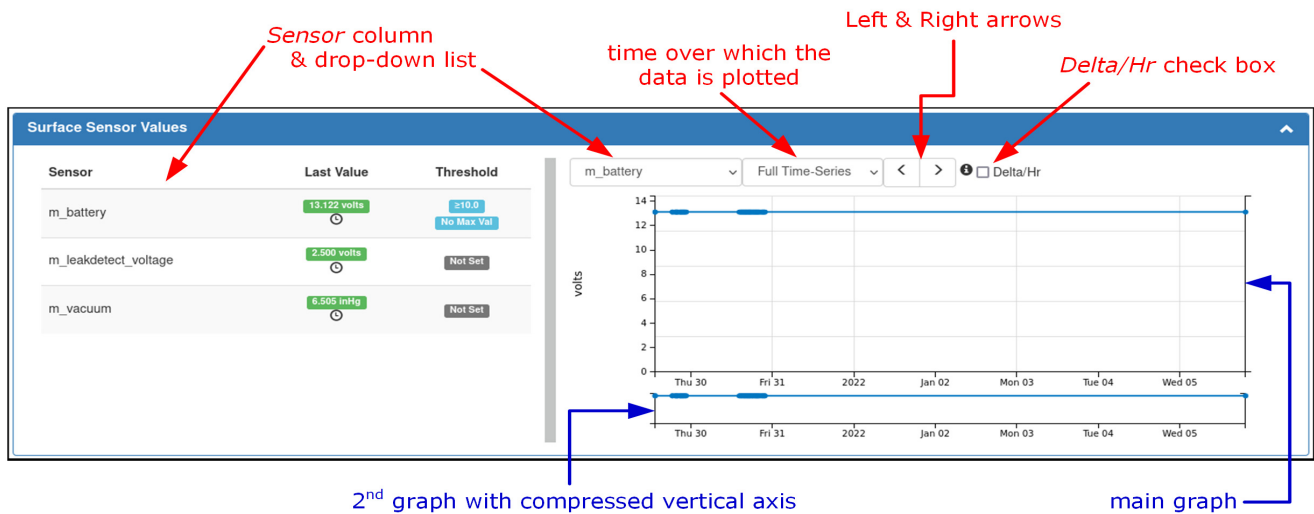


Figure 11-6 *Surface Sensor Values* panel: Archived Deployment.

This panel also indicates whether any thresholds have been exceeded for the sensors for the most recent surfacing.

For instructions on how to view and set the thresholds for the included sensors, refer to Chapter 12, "Managing Surface Sensor Thresholds."

The sensor data are reported by the glider at each surfacing. The configured sensors are listed on the left side of the *Surface Sensor Values* panel.

If there are more sensors that can be displayed at once, a scroll box will be visible which can be dragged up or down to display more sensors.

The columns on the left side of the *Surface Sensor Values* panel for the configured sensors (Figure 11-6 on page 11-7) are listed below:

|            |  |
|------------|--|
| Sensor     | The sensor name.   |
| Last Value | The value of the sensor output last reported by the glider. A red banner is displayed if the sensor threshold was exceeded, otherwise the banner is green.                   |
| Threshold  | The minimum and maximum thresholds set for the sensor, if any. If no threshold is set, a Not Set indication is displayed with a black banner; otherwise, the banner is blue. |

The surface sensor data reported by the glider for each surfacing can be viewed as a plot on a time series graph on the right side of the *Surface Sensor Values* panel (Figure 11-6 on page 11-7).

On the panel, you can perform the following:

- Select the sensor data to plot from the left-most drop-down list above the main graph.
- Select the time over which the data is plotted from the right-most drop-down list above the graph.
- You can quickly scroll through the sensor data to plot by selecting the left or right arrows located to the left of the *Delta/Hr* check box.
  - If you select the *Delta/Hr* check box, the system displays a second plot on the main graph in red that indicates the value change per hour.
  - The scale units for this plot are to the right of the graph.
- In addition, is a 2nd graph with a compressed vertical axis below the main graph:
  - You can select a data point on the plot on the 2nd graph and drag to the right or to the left.  
Doing so creates a zoom box that contracts or expands the horizontal axis of the main graph according to the box width, and thereby zooms in or out of the plot.
  - You can select inside the zoom box and drag it to the right or to the left.  
Doing so pans the horizontal axis of the main graph.  
The units shown to the left of the main graph always remain fixed, but the horizontal scale and units adjust automatically according to the zoom level.
- To return the main graph to its original state, select anywhere inside the lower graph.

## Archiving an Active Deployment

To archive an active deployment:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator role.

Administrators can archive all active deployments.

The Group Level Administrator role can archive active deployments that are assigned to the allowed groups only.

2. From the main menu, select **Mission Control > Active Deployments**.

The system displays the *Active Deployments* page, as shown in Figure 11-7 on page 11-9.

To update the page while it is open, press **[F5]**.

To display more active deployments on a single page, select the number to display from the *Show Active Deployments* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

Active Deployments

Please note that this page does not update in real-time. Perform a refresh to see updates.

Show 15 Active Deployments

| Deployment Name           | Glider   | Associated Group | Project                   | Deployed            | Connection Status             | Location                 | Days Deployed | Distance (km) |
|---------------------------|----------|------------------|---------------------------|---------------------|-------------------------------|--------------------------|---------------|---------------|
| glider01-2022-01-27T21:01 | glider01 | default          | Nantucket_Sound_Survey    | 2022-01-27<br>21:01 | Disconnected<br>1 hrs 26 mins | 41°28.46'N<br>70°21.44'W | 5             | 30.454        |
| glider02-2022-02-02T18:06 | glider02 | group2           | Rhode_Island_Sound_Survey | 2022-02-02<br>18:06 | Disconnected<br>1 hrs 19 mins | 41°21.26'N<br>71°16.63'W | < 1           | 0.000         |
| glider03-2022-01-27T21:00 | glider03 | group3           | Buzzards_Bay_Survey       | 2022-01-27<br>21:00 | Disconnected<br>1 hrs 24 mins | 41°29.61'N<br>70°51.47'W | 5             | 32.848        |
| glider04-2022-01-27T21:00 | glider04 | group1           | Cape_Cod_Bay_Survey       | 2022-01-27<br>21:00 | Disconnected<br>1 hrs 23 mins | 41°47.67'N<br>70°12.52'W | 5             | 24.770        |
| glider05-2022-02-02T19:28 | glider05 | default          | N/A                       | 2022-02-02<br>19:28 | Connected                     | Not yet known            | < 1           | 0.000         |

-- First 1 Last --

Figure 11-7 Active Deployments page.

3. [optional] Sort or filter the list by deployment name, glider, groups, or projects by selecting the associated sort or filter icon.
4. [optional] Sort the list by deployment date by selecting the deployed sort icon.
5. Select the deployment name for the active deployment that you want to archive. The system displays the *Archive Deployment Detail* page, as shown in Figure 11-2 on page 11-3.
6. From the main menu, select **Options > Archive Deployment**.

The system displays the *Archive Deployment* dialog box, as shown in Figure 11-8:

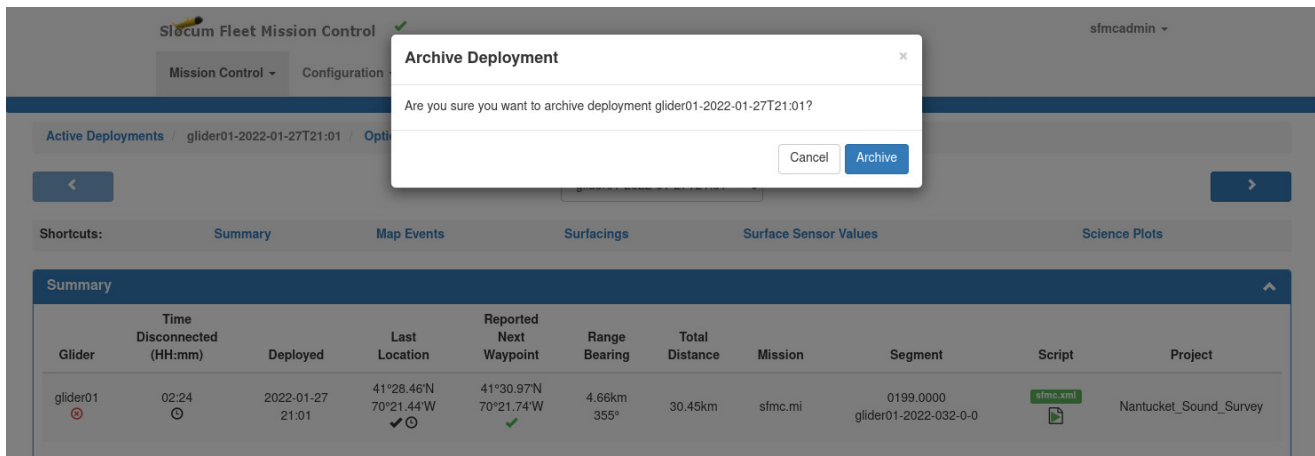


Figure 11-8 *Archive Deployment* dialog box.

## 7. Select *Archive*.

The system archives the active deployment and closes the *Archive Deployment* dialog box.

## Deleting an Archived Deployment

To delete an archived deployment:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator role.

Administrators can delete all archived deployments.

The Group Level Administrator role can delete archived deployments that are assigned to the allowed groups only.

2. From the main menu, select **History > Archived Deployments**.

The system displays the *Archived Deployments* page, as shown in Figure 10-1 on page 10-2. To update the page while it is open, press **[F5]**.

To display more archived deployments on a single page, select the number to display from the *Show Archived Deployments* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

3. [optional] Sort or filter the list by deployment name, glider, groups, or projects by selecting the associated sort or filter icon.
4. [optional] Sort the list by deployment date or archived date by selecting the deployed or archived sort icon.
5. Select the deployment name for the archived deployment that you want to delete.

The system displays the *Archive Deployment Detail* page, as shown in Figure 11-2 on page 11-3.

6. Select **Options** button > **Delete Deployment**.

The system displays the *Delete Deployment* dialog box, as shown in Figure 10-9:

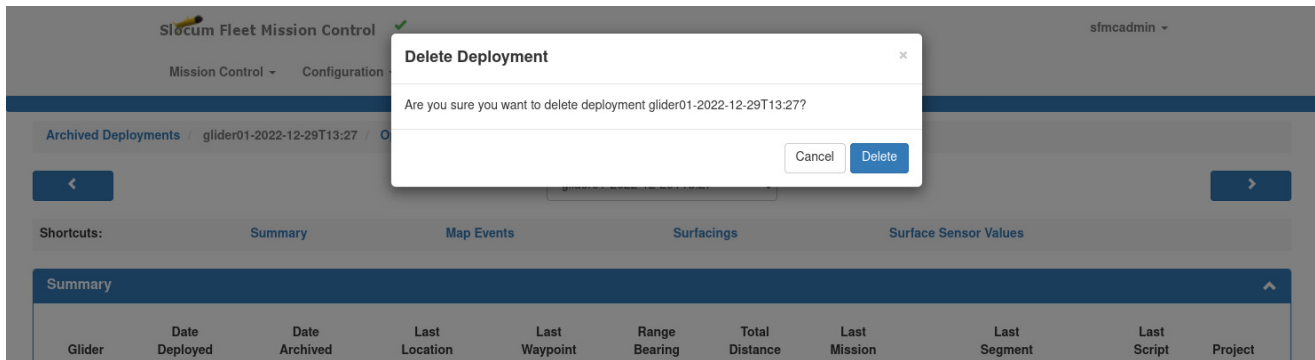


Figure 11-9 *Delete Deployment* dialog box.

7. Select *Delete*.

The system deletes the archived deployment and closes the *Delete Deployment* dialog box.

## Using Data Visualizer for an Archived Deployment

You can use the Data Visualizer to view the glider reported data for an archived deployment as plots on a graph. The data to view are selected from a list of plot types and are displayed for all the missions.

When a large amount of data for plotting are requested, such as from all the legs of all the missions, the data are decimated which reduces the amount of data transferred. However, when zooming into smaller sections of a graph of the data, more data are transferred for that selected region.

### Opening Data Visualizer for an Archived Deployment

To open Data Visualizer for an archived deployment, from the main menu, select **History** > **Archived Deployments** > the deployment name > **Options** button > **View Data Visualizations**.

The system displays the *Data Visualizations* page for an archived deployment, as shown in Figure 11-10:



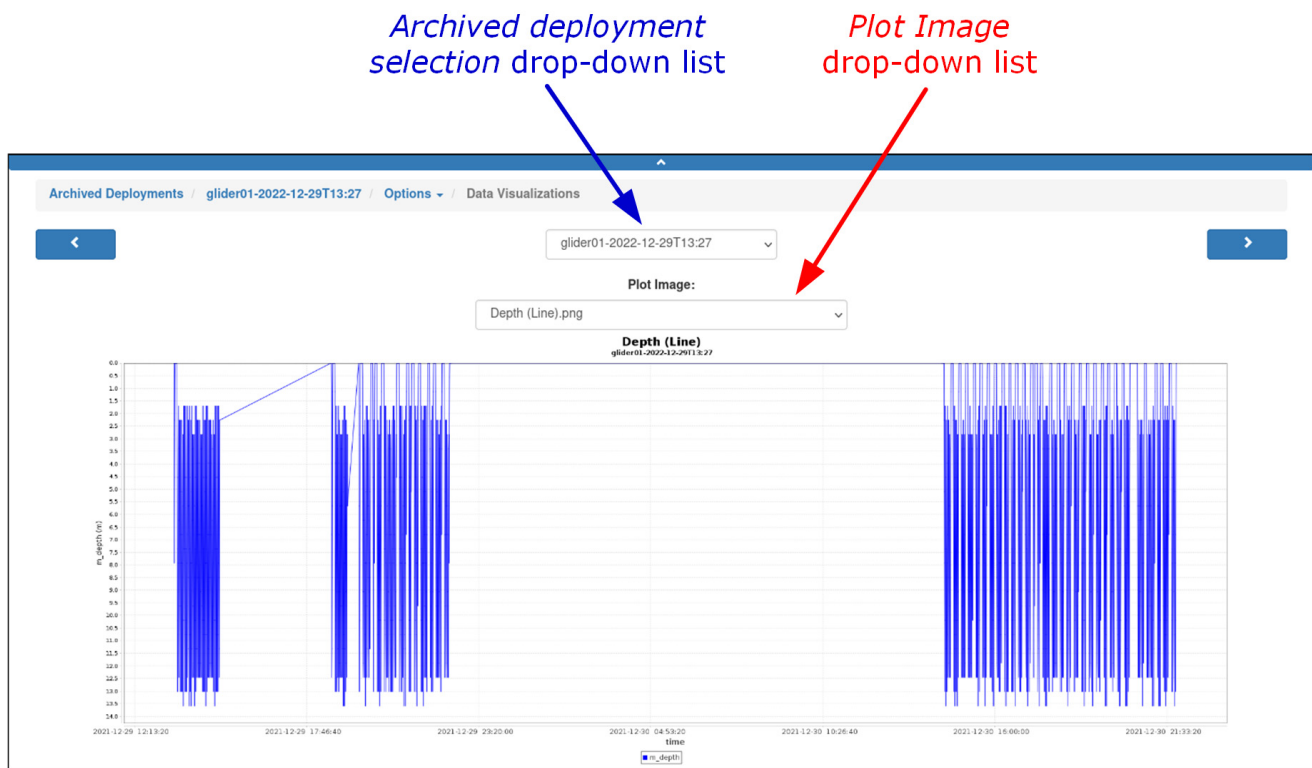


Figure 11-10 *Data Visualizations* page: Archived Deployment.

## Data Visualizations Page for an Archived Deployment

The *Data Visualizations* page for an archived deployment includes a:

- Single graph to view glider-reported data as plots on the graph versus the date and time of the samples.
- Drop-down list for selecting a different archived deployment.

All data are displayed on a graph for which both the vertical and horizontal units are automatically labeled and scaled to fit.

For plots of data from multiple sensors, each plot on the graph is shown in a different color. A color legend below the graph indicates which sensor a color applies to.

To view the data for an archived deployment, select the plot image from the *Plot Image* drop-down list.

## Creating and Downloading a Compressed Tar Archive File

SMFC enables you to generate and download a compressed TAR archive file for an archived deployment. This file has a `.tar.gz` file extension. It contains all of the files for the active deployment, bundled together from the following folders prior to archiving:

- **From-Glider**
- **To-Glider**
- **To Science**
- **Logs**
- **Archive**

It also includes the `autoexec.mi`, `longterm.sta`, and `proglets.dat` files that are in the **Configuration** folder for the glider. All the folders and files can be individually extracted and viewed.

To create and download a compressed TAR archive file of an archived deployment:

1. Log in to a user account as either an Administrator or one with any role.  
Administrators can create a compressed tar archive file for any archived deployment. Group Level Administrator, Glider Pilot, and Viewer roles can create a compressed tar archive file for the archived deployments for the allowed groups only.
2. From the main menu, select **History > Archived Deployments**.  
The system displays the *Archived Deployments* page, as shown in Figure 10-1 on page 10-2.  
To update the page while it is open, press **[F5]**.  
To display more archived deployments on a single page, select the number to display from the *Show Archived Deployments* drop-down list.  
To display the next/specific/previous page, select it from the page scroller.
3. *[optional]* Sort or filter the list by deployment name, glider, groups, or projects by selecting the associated sort or filter icon.
4. *[optional]* Sort the list by deployment date or archived date by selecting the deployed or archived sort icon.
5. Select the deployment name for the archived deployment that you want to create and download a compressed tar archive file.  
The system displays the *Archive Deployment Detail* page, as shown in Figure 10-2 on page 10-3.
6. Select the **Options** button > **Download Glider Folder Archive Tar Ball**.
7. Save the file.  
The file name is automatically generated by SFMC. It is in the following format:  
`yyyymmddThhmmss_<glider name>.tar.gz`

# 12 Managing Surface Sensor Thresholds

SFMC provides visual and audio alerts for an active deployment when a surface sensor threshold is exceeded for a connected glider.

To enable an alert to occur, a minimum/maximum/both setting for the threshold must be set.

SFMC allows you to view and set the surface sensor thresholds for specific gliders and specific groups.

However, the settings for a specific group are not shown when viewing the settings for a glider that is assigned to that group. The settings for the glider take precedence over the settings of the group; therefore, you can view only the settings for the glider.

## Viewing the Surface Sensor Threshold Settings

To view the surface sensor threshold settings:

1. Log in to a user account as either an Administrator or one with any role.  
Administrators can view all the surface threshold settings.  
Group Level Administrator, Glider Pilot, and Viewer roles can view the surface sensor threshold settings for their allowed groups only.
2. From the main menu, select **Configuration > Sensor Thresholds > View Sensor Threshold Settings**.

The system displays the *Surface Sensor Threshold Settings* page, as shown in Figure 12-1:

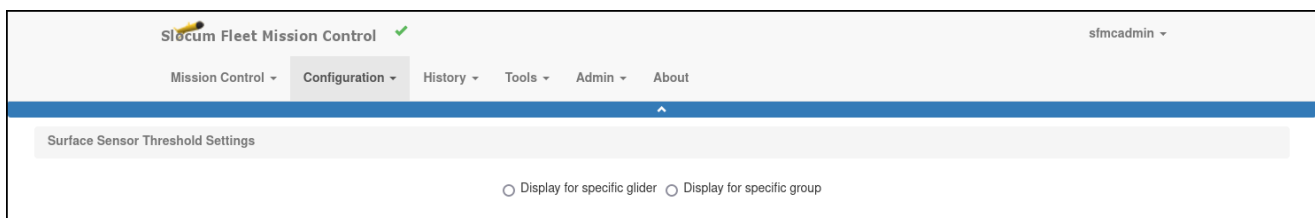


Figure 12-1 Surface Sensor Threshold Settings page.

3. Perform one of the following:
  - a. Select *Display for specific glider* to display the surface sensor threshold settings for a specific glider.  
The system opens a drop-down list from which you can select the glider, as shown in Figure 12-2:

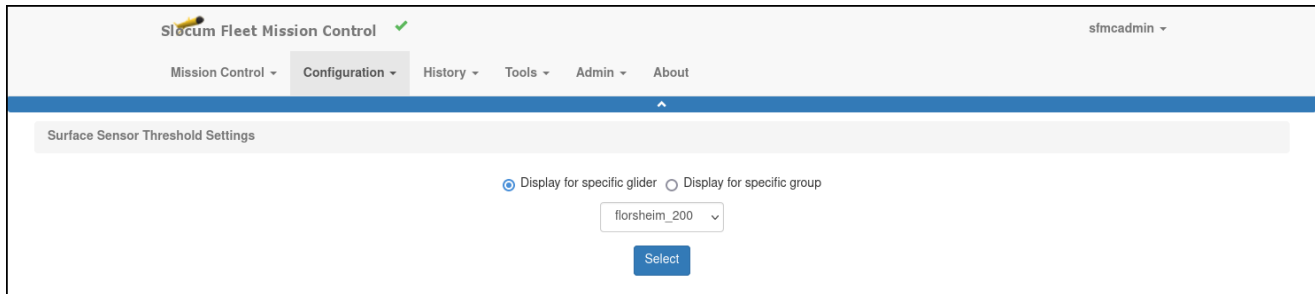


Figure 12-2 Surface Sensor Threshold page: Glider Selection drop-down list.

- b. Select *Display for specific group* to display the settings for a specific group. The system opens a drop-down list from which you can select the group, as shown in Figure 12-3:

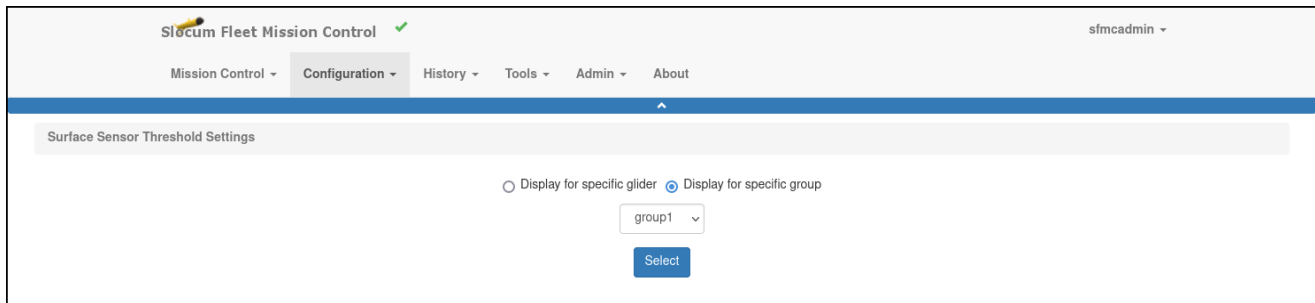


Figure 12-3 Surface Sensor Threshold page: Group Selection drop-down list.

4. Select the appropriate glider or group from the drop-down list.
5. Select the *Select* button.

The system displays the surface sensor threshold settings for the selected:

- Glider are displayed, as shown in Figure 12-4 on page 12-3
- or–
- Group are displayed, as shown in Figure 12-5 on page 12-3

To display more settings on a single page, select the number to display from the *Show* drop-down list.

To display the next/specific/previous page, select it from the page scroller.

| Sensor Name                       | Min Value | Max Value |
|-----------------------------------|-----------|-----------|
| m_battery                         | 10.0      | Not Set   |
| m_lithium_battery_relative_charge | 20.0      | 100.0     |
| m_leakdetect_voltage              | 2.3       | 2.6       |

Figure 12-4 Glider Threshold Settings displayed.

| Sensor Name           | Min Value | Max Value |
|-----------------------|-----------|-----------|
| m_coulomb_amphr_total | 0.0       | 650.0     |
| m_battery             | 9.0       | Not Set   |
| m_vacuum              | 4.0       | 12.0      |

Figure 12-5 Group Threshold Settings displayed.

## Setting the Surface Sensor Thresholds

To set the surface sensor thresholds:

1. Log in to a user account as either an Administrator or one with the Group Level Administrator role.  
Administrators can set all the surface threshold settings.  
The Group Level Administrator role can set the surface sensor thresholds for the allowed groups only.
2. From the main menu, select **Configuration > Sensor Thresholds > Set Sensor Threshold Settings**.

The system displays the *Set Surface Sensor Threshold Setting* page, as shown in Figure 12-6:

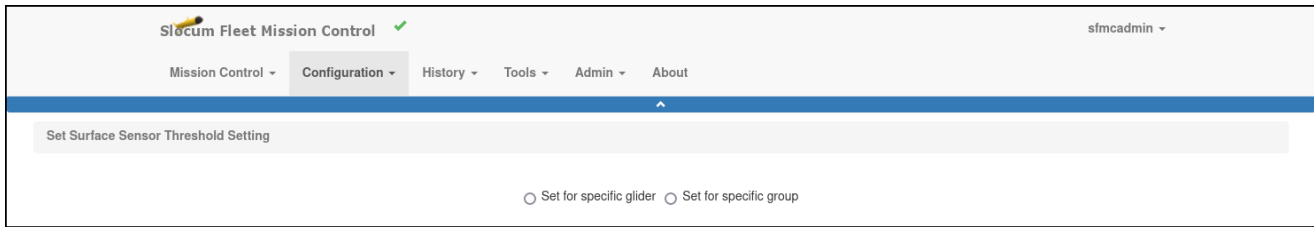


Figure 12-6 Set Surface Sensor Threshold Setting page.

3. Select one of the following:
  - a. *Display for specific glider* to set the surface sensor threshold settings for a specific glider.  
The system opens a drop-down list from which you can select the glider, as shown in Figure 12-7:

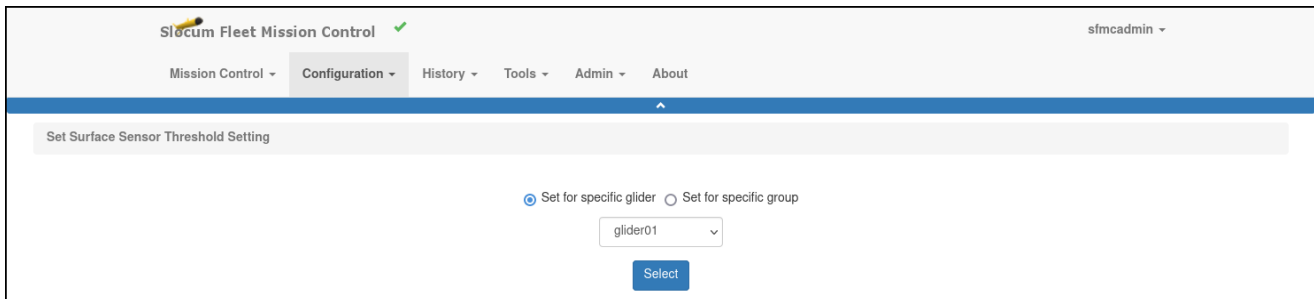


Figure 12-7 Set Surface Sensor Threshold page: Glider Selection drop-down list.

- b. *Display for specific group* to set the thresholds for a specific group.  
The system opens a drop-down list from which you can select the group, as shown in Figure 12-8:

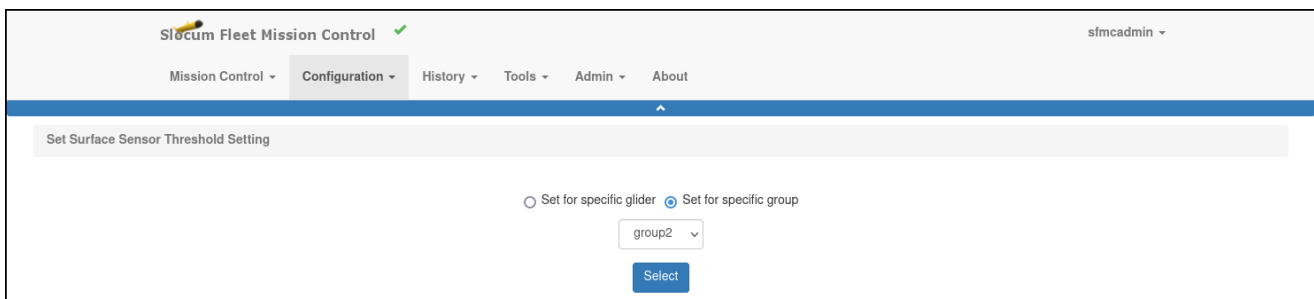


Figure 12-8 Set Surface Sensor Threshold page: Group Selection drop-down list.

4. Select the appropriate glider or group from the drop-down list.
5. Select the *Select* button.  
The system displays the available surface sensor threshold settings for the selected:

- Glider, as shown in Figure 12-9:

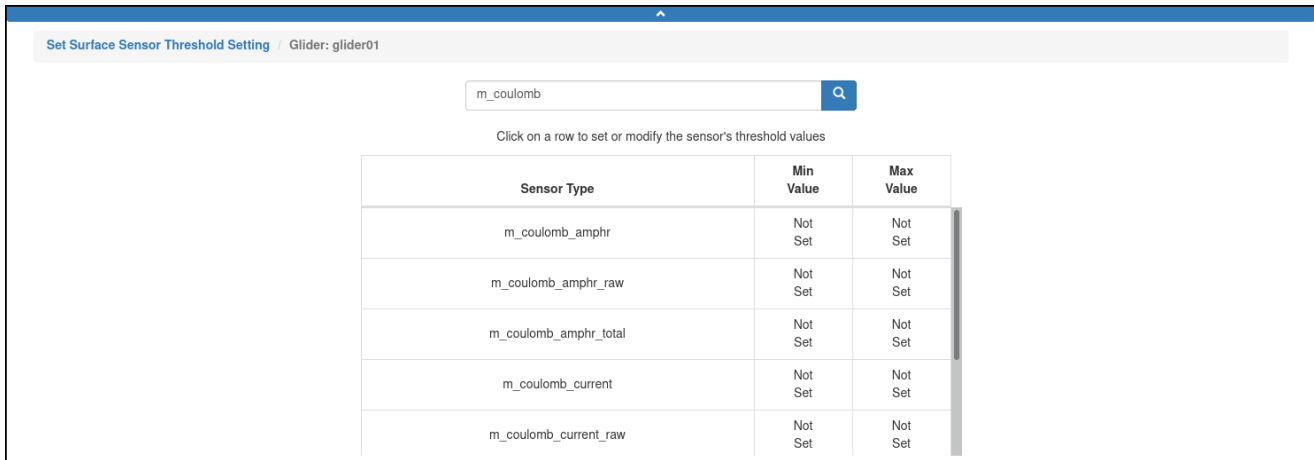


Figure 12-9 Set Surface Sensor Threshold page: Glider Threshold Settings displayed.

–or–

- Group, as shown in Figure 12-10 on page 12-5

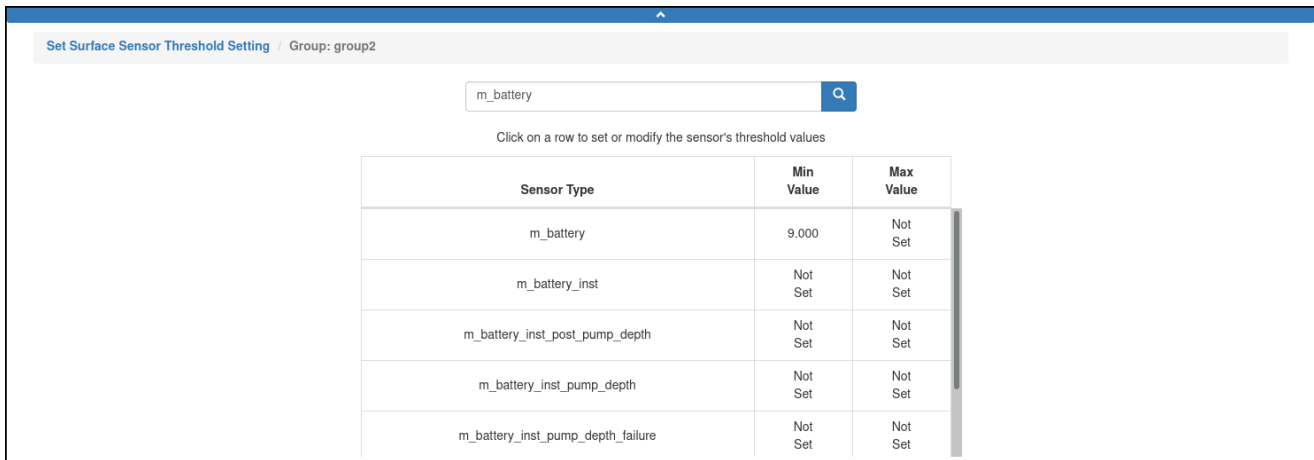


Figure 12-10 Surface Sensor Threshold page: Group Threshold Settings displayed.

To scroll through the settings, select the up or the down arrow or drag the scroll box up or down.

6. Select the sensor type to set its threshold setting.

The row is highlighted, and the system displays the *Sensor Threshold Settings Form* dialog box, as shown in Figure 12-11:

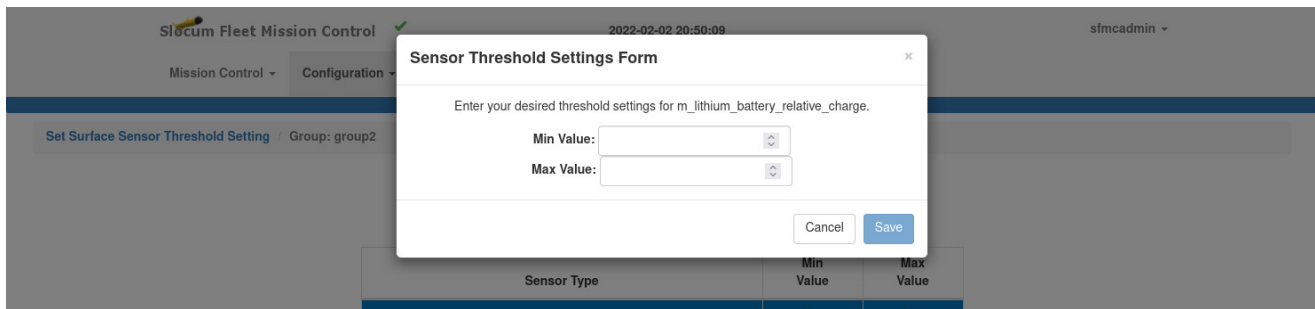


Figure 12-11 *Sensor Threshold Settings Form* dialog box.

The dialog box is the same for both gliders and groups.

7. Enter the:

- a. Minimum threshold value in the *Min Value* text box.
- b. Maximum threshold value in the *Max Value* text box.

For some sensors only a minimum or a maximum threshold setting is available.

8. Select *Save*.

The system saves the threshold setting and closes the *Sensor Threshold Settings Form* dialog box.



# 13 Managing Log Notes

SFMC allows you to enter, edit, and delete log notes for any active or archived deployment.

The log notes can be entered from the:

- *Deployments* panel on the Dashboard
- Glider Terminal
- *Active Deployments* page
- *Archived Deployments* page

Log notes can be shared between users.

## Viewing Log Notes

There is a separate *Log Notes* page for an active deployment and for an archived deployment. They are opened separately from the Options menu which is available on multiple pages in SFMC.

### Viewing the Log Notes for an Active Deployment

To view the log notes for an active deployment:

1. Log in to a user account as either an Administrator or one with any role.
2. Perform one of the following. From the main menu, select:
  - **Mission Control > Dashboard > Options** button (for the active deployment) > **View Log Notes**.
  - **Mission Control > Active Deployments** > the deployment name > **Options** button > **View Log Notes**.
  - **Mission Control > Glider Terminal Access** > the associated glider > **Options** button > **View Log Notes**.

The system displays the *Log Notes for Active Deployments* page, as shown in Figure 13-1:

| Creation Date Time  | Last Modification | Note  | Author   | Controls |
|---------------------|-------------------|---|----------|----------|
| 2022-02-02 20:52:00 | N/A               | Altered the mission plan. Set some different waypoint and configured a geofence | sfmadmin |          |
| 2022-02-02 20:51:29 | N/A               | Re-configured the config.srf to report additional surface sensors               | sfmadmin |          |

Figure 13-1 Log Notes for Active Deployments page.

## Viewing the Log Notes for an Archived Deployment

To view the log notes for an archived deployment:

1. Log in to a user account as either an Administrator or one with any role.
2. From the main menu, select **History > Archived Deployments >** the deployment name **> Options** button **> View Log Notes**.

The system displays the *Log Notes for Archived Deployments* page, as shown in Figure 13-2:

| Time of Note        | Last Modification   | Note  | Author   | Controls |
|---------------------|---------------------|---|----------|----------|
| 2022-01-14 21:16:33 | 2022-02-02 20:53:35 | Archived for historical purposes                        | sfmadmin |          |
| 2022-01-14 21:13:47 | 2022-02-02 20:53:56 | Recovered the glider deployment after testing in ashmet | sfmadmin |          |

Figure 13-2 Log Notes for Archived Deployments page.

## Creating a Log Note

To create a log note:

1. Log in to a user account as either an Administrator or one with any role.
2. Perform one of the following. From the main menu, select:
  - **Mission Control > Dashboard > Options** button (for the active deployment) **> Create Log Note**.
  - **Mission Control > Active Deployments >** the deployment name **> Options** button **> Create Log Note**.

- **Mission Control > Glider Terminal Access > the associated glider > Options button > Create Log Note.**
- **History > Archived Deployments > the deployment name > Options button > Create Log Note.**

The system displays the *Log Note Form* dialog box, as shown in Figure 13-3:

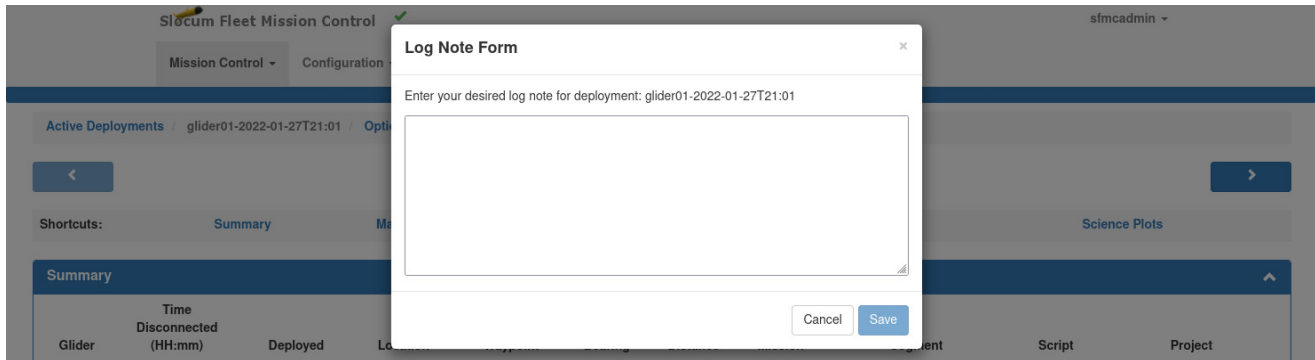


Figure 13-3 *Log Note Form* dialog box: Creating a Log Note.

3. Enter the log note in the text box.
4. Select *Save*.

The system saves the log note and closes the *Log Note Form* dialog box.

## Editing a Log Note

To edit a log note:

1. View the log notes as instructed in “Viewing Log Notes” on page 12-1.
2. Select the *Edit log note* button for the appropriate log note.

The system displays the *Log Note Form* dialog box for editing, as shown in Figure 13-4:

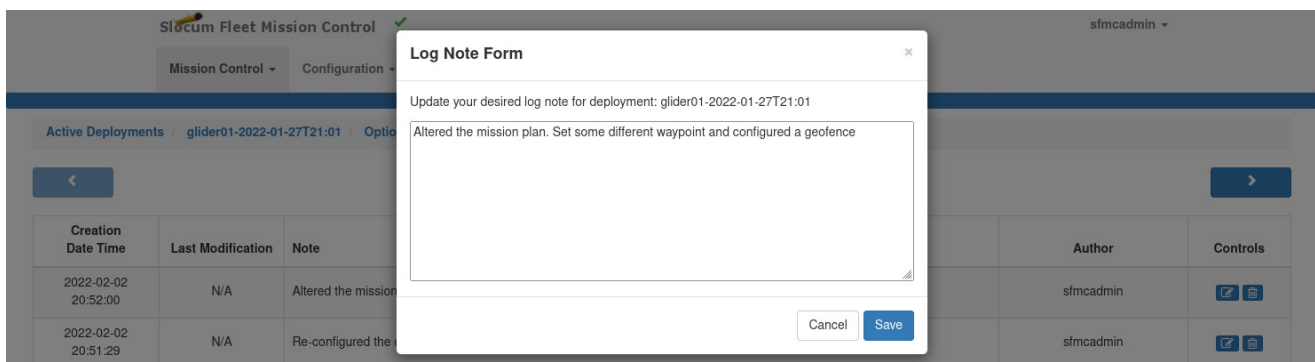


Figure 13-4 *Log Note Form* dialog box: Editing a Log Note.

3. Make the required changes in the text box.
4. Select *Save*.

The system saves the changes and closes the *Log Note Form* dialog box.

## Deleting a Log Note

To delete a log note:

1. View the log notes as instructed in “Viewing Log Notes” on page 12-1.
2. Select the *Delete log note* button for the log note to be deleted.

The system displays the *Delete Log Note Form* dialog box, as shown in Figure 13-5:

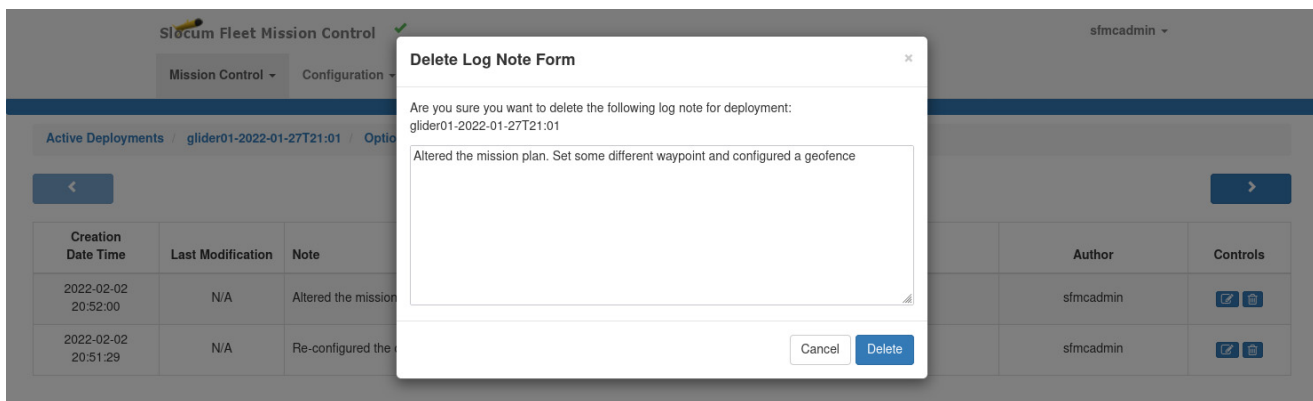


Figure 13-5 *Delete Log Note Form* dialog box.

3. Select *Delete*.

The system deletes the log note and closes the *Delete Log Note Form* dialog box.

# 14 Managing User Settings

The SFMC user settings include:

- Map settings
- Audio settings
- Glider event subscriptions
- User sensor plot types

## Managing Map Settings

The map on the Dashboard is composed of a map tile layer and, optionally, one or more WMS layers. These layers are obtained from the SFMC map settings that are created by downloading them to SFMC from sources on the Internet.

The map settings are specific to the user account but can be shared with other users and groups.

Once created, the layers can be made available on the map tile and WMS layers list on the map.

The map settings can be viewed, created, edited, exported, imported, deleted, and shared when logged in to a user account as an Administrator or a user account with any role.

A KMZ access token can also be created, and a KMZ file can be downloaded.

## Viewing the Map Settings

To view the map settings, select **[User Account] > Map Settings**.

The system displays the *Map Layer Settings* page, as shown in Figure 14-1:

Map Layer Settings ⌵

Map Tile Layer Settings

| Name                 | URL Template   | TMS   | Attrib.                    | Use                                 | Edit              | Delete            | Share             |
|----------------------|--|-------|----------------------------|-------------------------------------|-------------------|-------------------|-------------------|
| Arcgis Ocean Basemap | https://services.arcgisonline.com/ArcGIS/rest/services/Ocean_Basemap/MapServer/tile/{z}/{y}/{x}.png        | false | © Esri                     | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| Arcgisonline Ocean   | https://server.arcgisonline.com/arcgis/rest/services/Ocean/World_Ocean_Base/MapServer/tile/{z}/{y}/{x}.png | false | © Esri                     | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| Ashumet              | /sfmc/static/maps/ashumet/{z}/{y}.jpg  | false | © OpenStreetMap            | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| NASA Blue Marble     | /sfmc/static/maps/world.topo.bathy/{z}/{y}/{x}.png   | true  | © NASA's Earth Observatory | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| NIWA                 | https://gis.niwa.co.nz/arcgis/rest/services/Reference/BathymetryWebMercAux/MapServer/tile/{z}/{y}/{x}.png  | false | © NIWA                     | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |

[Create Map Tile Layer Setting](#)

WMS Layer Settings

Drag and drop the WMS layer setting table rows to re-order.

| Name  | URL  | Layers                                | Format    | Transpar ent | Opacity | WMS Ver. | Attrib.     | Use                                 | Edit              | Delete            | Share             |
|---|--|---------------------------------------|-----------|--------------|---------|----------|-------------|-------------------------------------|-------------------|-------------------|-------------------|
| 1-Hr Precip in Inches                             | https://nowcast.noaa.gov/arcgis/services/nowcast/analysis_meteohydro_slc_qpe_time/MapServer/WmsServer                    | 1                                     | image/png | false        | 1.0     | 1.3.0    | © NOAA      | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| 24-Hr Precip in Inches                            | https://nowcast.noaa.gov/arcgis/services/nowcast/analysis_meteohydro_slc_qpe_time/MapServer/WmsServer                    | 17                                    | image/png | true         | 1.0     | 1.3.0    | © NOAA      | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| 3-Hr Precip in Inches                             | https://nowcast.noaa.gov/arcgis/services/nowcast/analysis_meteohydro_slc_qpe_time/MapServer/WmsServer                    | 5                                     | image/png | true         | 1.0     | 1.3.0    | © NOAA      | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| Climate 6-10 Day Outlook                          | https://idpgis.ncep.noaa.gov/arcgis/services/NWS_Climate_Outlooks/cpc_6_10_day_outlk/MapServer/WMSServer                 | 1                                     | image/png | true         | 1.0     | 1.3.0    | © NOAA      | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| Crowdmag  | http://maps.ngdc.noaa.gov/arcgis/services/web_mercator/crowdmag/MapServer/WmsServer                                      | Y,Z,Intensit y                        | image/png | true         | 1.0     | 1.3.0    | © NOAA      | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| goto_calc_ruisin2018_0531_pts                     | https://www.webapps.nwsc.noaa.gov/server/services/SWFSC/SWFSCCruiseTest/MapServer/WMSServer                              | goto_calc_ruisin2018_0531_pts         | image/png | true         | 1.0     | 1.3.0    | © NOAA      | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| likenevirasto                                     | https://extranet.likenevirasto.fi/inspirepalvelu/avoim/wms   | vaylat,vayl aalueet                   | image/png | true         | 1.0     | 1.3.0    | © CHANGE ME | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| Marine Trackline Surveys: Bathymetry              | http://maps.ngdc.noaa.gov/arcgis/services/web_mercator/trackline_combined_dynamic/MapServer/WmsServer                    | Marine Trackline Surveys: Bathymetr y | image/png | true         | 1.0     | 1.3.0    | © NOAA      | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| NOAA_RNC  | https://seamlessmc.nauticalcharts.noaa.gov/arcgis/services/RNC/NOAA_RNC/MapServer/WMSServer                              | 0,1,2,3                               | image/png | true         | 0.2     | 1.3.0    | © NOAA      | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| nzbathy_2016_WebMercAux.tif                       | https://gis.niwa.co.nz/arcgis/services/Reference/BathymetryWebMercAux/MapServer/WmsServer                                | 0                                     | image/png | true         | 1.0     | 1.3.0    | © NIWA      | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| Significant Wave Height (feet) (+66 hrs)          | https://nowcast.noaa.gov/arcgis/services/nowcast/forecast_meteoceanhydro_slc_ndfd_signwaveht_offsets/MapServer/WmsServer | 5                                     | image/png | true         | 1.0     | 1.3.0    | © NOAA      | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| Significant Wave Height (feet) (+6 hrs)           | https://nowcast.noaa.gov/arcgis/services/nowcast/forecast_meteoceanhydro_slc_ndfd_signwaveht_offsets/MapServer/WmsServer | 45                                    | image/png | true         | 1.0     | 1.3.0    | © NOAA      | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| Significant Wave Height (feet) (+72 hrs)          | https://nowcast.noaa.gov/arcgis/services/nowcast/forecast_meteoceanhydro_slc_ndfd_signwaveht_offsets/MapServer/WmsServer | 1                                     | image/png | true         | 1.0     | 1.3.0    | © NOAA      | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |
| Surface (10m AGL) Wind Velocity (Knots) (+72 hrs) | https://nowcast.noaa.gov/arcgis/services/nowcast/forecast_meteoceanhydro_slc_ndfd_windvel_offsets/MapServer/WmsServer    | 1                                     | image/png | true         | 1.0     | 1.3.0    | © NOAA      | <input checked="" type="checkbox"/> | <a href="#">✎</a> | <a href="#">✖</a> | <a href="#">🔗</a> |

[Create WMS Layer Setting](#)

Map Layer Settings Drop Zone

Map Settings Drop Zone

Figure 14-1 Map Layer Settings page.

The *Map Settings* page provides a list of map tile and WMS layer settings that have been created in SFMC.

- The map tile layer settings are listed on the *Map Tile Layer Settings* panel.
- The WMS layer settings are listed on the *WMS Layer Settings* panel.

None or one or more map tile layers can be chosen when viewing the map; a WMS layer is optional, and multiple WMS layers can be chosen.

The layers to display are chosen directly from the map tile and WMS layers list on the map.

The *Map Tile Layer Settings* panel includes the following fields and information:

|              |  |
|--------------|--|
| Name         | The name of the map tile layer. The name is listed with others, if any, on the map tile and WMS layers list on the map.                |
| URL Template | The global address of the map tile layer on the World Wide Web.<br>Allows for complex URLs.  |
| TMS          | The Tile Map Service, where <b>true</b> specifies TMS services are to be used and inverses the Y axis numbering on the map tile layer. |
| Attrib       | The attribution, which is the source of the map tile layer. The attribution is also displayed on the map in the lower right corner.    |
| Use          | Select to include the map tile layer on the map tile and WMS layers list on the map making it an available choice.                     |

The *WMS Layer Settings* panel includes the following fields and information:

|             |  |
|-------------|--|
| Name        | The name of the WMS layer. The name is listed with others, if any, on the map tile and WMS layers list on the map. |
| URL         | The global address of the WMS layer on the World Wide Web.   |
| Layers      | The WMS layer names, each separated by a comma if there is more than one.  |
| Format      | The image format of the WMS layer, either JPEG, PNG or SVG.  |
| Transparent | <b>true</b> specifies that the WMS service will return images with transparency.                                   |
| Opacity     | The level of translucence for the specific WMS layer.  |
| WMS Ver     | The version number of the WMS service.   |

|        |  |
|--------|--|
| Attrib | The attribution, which is the source of the WMS layer. The attribution is also displayed on the map in the lower right corner. |
| Use    | Select to include the WMS layer on the map tile and WMS layers list on the map making it an available choice.                  |

To sort the WMS layer settings, drag-and-drop the entries in the desired order.

## Creating the Map Settings

To create map settings:

1. From the **[User Account]** menu, select **Map Settings**.  
The *Map Layers Settings* page, as shown in Figure 14-1 on page 14-2.
2. Select **Create Map Tile Layer Setting**.  
The system displays the *Create Map Tile Layer Setting* page, as shown in Figure 14-2:

Figure 14-2 Create Map Tile Layer Setting page.

3. In the *Map Tile Layer Name* text box, enter a name for the map tile layer.
4. [optional] Select the *TMS* check box to inverse the Y axis numbering on the map tile layer.
5. In the *URL Template* text box, enter the URL for the map tile layer.  
This field allows complex URLs; for example, using an IP and port, as shown here:  
[https://23.65.229.87:443/ArcGIS/rest/services/Ocean\\_Basemap/MapServer/tile/{z}/{y}/{x}.png](https://23.65.229.87:443/ArcGIS/rest/services/Ocean_Basemap/MapServer/tile/{z}/{y}/{x}.png)
6. In the *Attribution* text box, enter the attribution.
7. Select *Create*.  
The system creates and lists the map tile layer.
8. Select *Create WMS Layer Setting*.



The system displays the *Create WMS Layer Setting* page, as shown in Figure 14-3:

The screenshot shows a web browser window with the address bar displaying 'Map Layer Settings / Create WMS Layer Setting'. The main content area is a form titled 'Create WMS Layer Setting Form'. The form contains the following fields and controls:

- WMS Layer Name\***: A text input field.
- URL\***: A text input field.
- Layers\***: A text input field.
- Format\***: A drop-down menu with 'image/png' selected.
- Transparent**: A checked checkbox.
- Opacity:**: A text input field with '1.0' and a spinner control.
- WMS Version\***: A text input field with '1.3.0'.
- Attribution\***: A text input field with '&copy; CHANGEME'.
- Create**: A blue button at the bottom right of the form.

Figure 14-3 *Create WMS Layer Setting* page.

9. In the *WMS Layer Name* text box, enter a name for the WMS layer.
10. In the *URL* text box, enter the URL for the WMS layer.
11. In the *Layers* text box, enter the layer name or names.  
If you enter multiple layer names, separate them by commas.
12. Select the image format from the *Format* drop-down list, either JPEG, PNG, or SVG.
13. Select the *Transparent* check box if you want to return images with transparency.
14. In the *Opacity* text box, enter the opacity, from **0.0** to **1.0**.
15. In the *WMS Version* text box, enter the version of the WMS service.
16. In the *Attribution* text box, enter the attribution.
17. Select *Create*.

The system creates and lists the WMS layer.

## Editing the Map Settings

Any map tile or WMS layer setting that is not in use can be edited.

To edit a map setting:

1. From the **[User Account]** menu, select **Map Settings**.

The system displays the *Map Settings* page, as shown in Figure 14-1 on page 14-2.

2. Select the *Edit* button for the map tile or WMS layer setting you want to edit.  
For a map tile layer, the system displays the *Edit Map Tile Layer Setting* page, as shown in Figure 14-4:

The screenshot shows a web browser window with the breadcrumb 'Map Layer Settings / Create Map Tile Layer Setting'. The main content is a form titled 'Create Map Tile Layer Setting Form'. The form contains the following elements:

- A text input field for 'Map Tile Layer Name\*'.
- A checkbox labeled 'TMS'.
- A text input field for 'URL Template\*'.
- A text input field for 'Attribution\*' containing the placeholder text '&copy; CHANGEME'.
- A blue 'Create' button at the bottom right of the form.

Figure 14-4 Edit Map Tile Layer Setting page.

For a WMS layer, the system displays the *Edit WMS Layer Setting* page, as shown in Figure 14-5:

The screenshot shows a web browser window with the breadcrumb 'Map Layer Settings / Create WMS Layer Setting'. The main content is a form titled 'Create WMS Layer Setting Form'. The form contains the following elements:

- A text input field for 'WMS Layer Name\*'.
- A text input field for 'URL\*'.
- A text input field for 'Layers\*'.
- A dropdown menu for 'Format\*' with 'image/png' selected.
- A checked checkbox labeled 'Transparent'.
- A text input field for 'Opacity:' with the value '1.0' and a small dropdown arrow on the right.
- A text input field for 'WMS Version\*' with the value '1.3.0'.
- A text input field for 'Attribution\*' containing the placeholder text '&copy; CHANGEME'.
- A blue 'Create' button at the bottom right of the form.

Figure 14-5 Edit WMS Layer Setting page.

3. On the *Edit Map Tile Layer Setting Form* panel or the *Edit WMS Layer Setting Form* panel, make the required changes.

4. Select *Save*.

The system saves the edited map settings.

## Exporting the User Configured Map Settings

All of the user configured map settings can be exported by downloading them to a single file with the JSON file extension, where the file name is automatically generated by SFMC.

The map settings provided with SFMC cannot be exported.

Once saved to this file, authorized users can import the file to any other computer running SFMC on a different server.

To export the user configured map settings:

1. From the **[User Account]** menu, select **Map Settings**.

The system displays the *Map Settings* page, as shown in Figure 14-1 on page 14-2.

2. From the *Map Tile Layer Settings* panel title bar, select the *Download map settings* button.

3. Save the file.

The system automatically generates the file name. SFMC saves it in the format:  
**[User Account]-map-settings.json**

## Importing User Configured Map Settings

User configured map settings can be imported by dragging and dropping one or more files that were exported from another computer running SFMC on a different server. These files have the JSON extension and contain map settings.

To import user configured map settings:

1. From the *[User Account]* menu, select *Map Settings*.

The system displays the *Map Settings* page, as shown in Figure 14-1 on page 14-2.

2. Drag-and-drop the map settings JSON file into the *Map Settings Drop Zone* on the *Map Settings Drop Zone* panel.

The map settings are imported and appear on the *Map Tile Layer Settings* and *WMS Layer Settings* panels.

## Deleting a Map Setting

Any map tile or WMS layer setting that is not in use can be deleted.

To delete a map setting:

1. From the **[User Account]** menu, select **Map Settings**.

The system displays the *Map Settings* page, as shown in Figure 14-1 on page 14-2.

2. Select the *Delete* button for the map tile or WMS layer setting you want to delete.  
For a map tile layer, the system displays the *Delete Map Tile Layer Setting* dialog box, as shown in Figure 14-6:

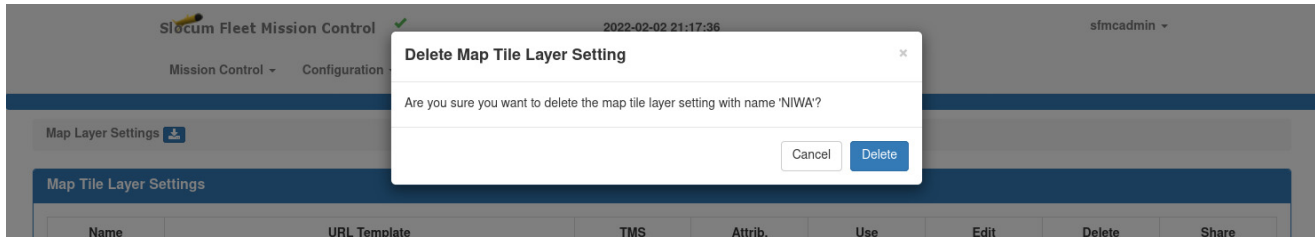


Figure 14-6 *Delete Map Tile Layer Setting* dialog box.

For a WMS layer, the system displays the *Delete WMS Layer Setting* dialog box, as shown in Figure 14-7:

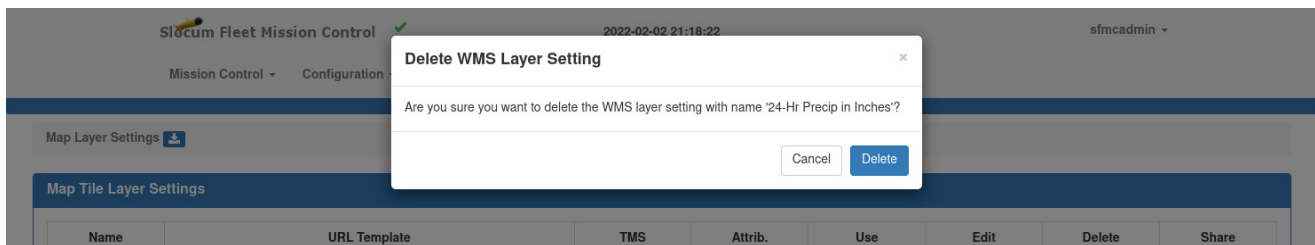


Figure 14-7 *Delete WMS Layer Setting* dialog box.

3. Select *Delete*.

The system deletes the map setting and closes the *Delete Map Tile Layer Setting* or *Delete WMS Layer Setting* dialog box.

## Sharing a Map Setting

Any map tile or WMS layer setting that is not in use can be shared.

To share a map setting:

1. From the **[User Account]** menu, select **Map Settings**.  
The system displays the *Map Settings* page, as shown in Figure 14-1 on page 14-2.
2. Select the *Share* button for the map tile or WMS layer setting that you want to share.  
For a map tile layer, the system displays the *Share Map Tile Layer Setting Form* panel, as shown in Figure 14-8:

The screenshot shows a web interface for configuring map tile layers. At the top, a breadcrumb trail reads "Map Layer Settings / Share Map Tile Layer Setting 'NIWA'". Below this is a form titled "Share Map Tile Layer Setting Form". The form contains several sections: "Map Tile Layer Name" with a text input field containing "NIWA"; a checkbox for "TMS" which is unchecked; "URL Template" with a text input field containing "https://gis.niwa.co.nz/arcgis/rest/services/Reference/BathymetryWebMercAux/MapServer/tile/{z}/{y}/{x}.png"; "Attribution" with a text input field containing "© NIWA"; "Groups With Which to Share Map Setting" with a list box containing "default", "group1", "group2", "group3", and "group4"; and "Users With Which to Share Map Setting" with a list box containing "bwilliams", "jdoe", and "msmith". A blue "Share" button is located at the bottom right of the form.

Figure 14-8 Share Map Tile Setting Form panel.

For a WMS layer, the system displays the *Share WMS Layer Setting Form* panel, as shown in Figure 14-9:

Map Layer Settings / Share WMS Layer Setting 'Marine Trackline Surveys: Bathymetry'

**Share WMS Layer Setting Form**

**WMS Layer Name**  
Marine Trackline Surveys: Bathymetry

**URL**  
http://maps.ngdc.noaa.gov/arcgis/services/web\_mercator/trackline\_combined\_dynamic/MapServer/WmsServer

**Layers**  
Marine Trackline Surveys: Bathymetry

**Format**  
image/png

**Transparent**

**Opacity:**  
1.0

**WMS Version**  
1.3.0

**Attribution**  
© NOAA

**Groups With Which to Share Map Setting**  
default  
group1  
group2  
group3  
group4

**Users With Which to Share Map Setting**  
bwilliams  
jdoe  
msmith

Share

Figure 14-9 Share WMS Layer Setting Form panel.

3. Do one or both of the following:

**Group**

- Select the group or groups with which to share the map setting from the *Groups With Which to Share Map Setting* drop-down list.
- To select more than group, hold down the **[Ctrl]** key while selecting them one at a time.

The users with which to share the map setting are selected automatically from the *Users With Which to Share Map Setting* drop-down list.

**User**

- Select the user or users with which to share the map setting from the *Users With Which to Share Map Setting* drop-down list.
- To select more than one user, hold down the **[Ctrl]** key while selecting them one at a time.

If all the users in a group are selected, the group will be selected automatically.

4. Select *Share*.

The map setting is shared, and the Share Map Tile Layer Setting Form or Share WMS Layer Setting Form panel closes.

## Working with Map Markers

Use Map Markers to mark a location on the map that you want to be visible while managing a glider deployment.

### Adding a Map Marker

1. From the **[User Account]** menu, select **Map Settings > Map Marker Settings**. The system opens the *Configured Map Markers* page, as shown in Figure 14-10:

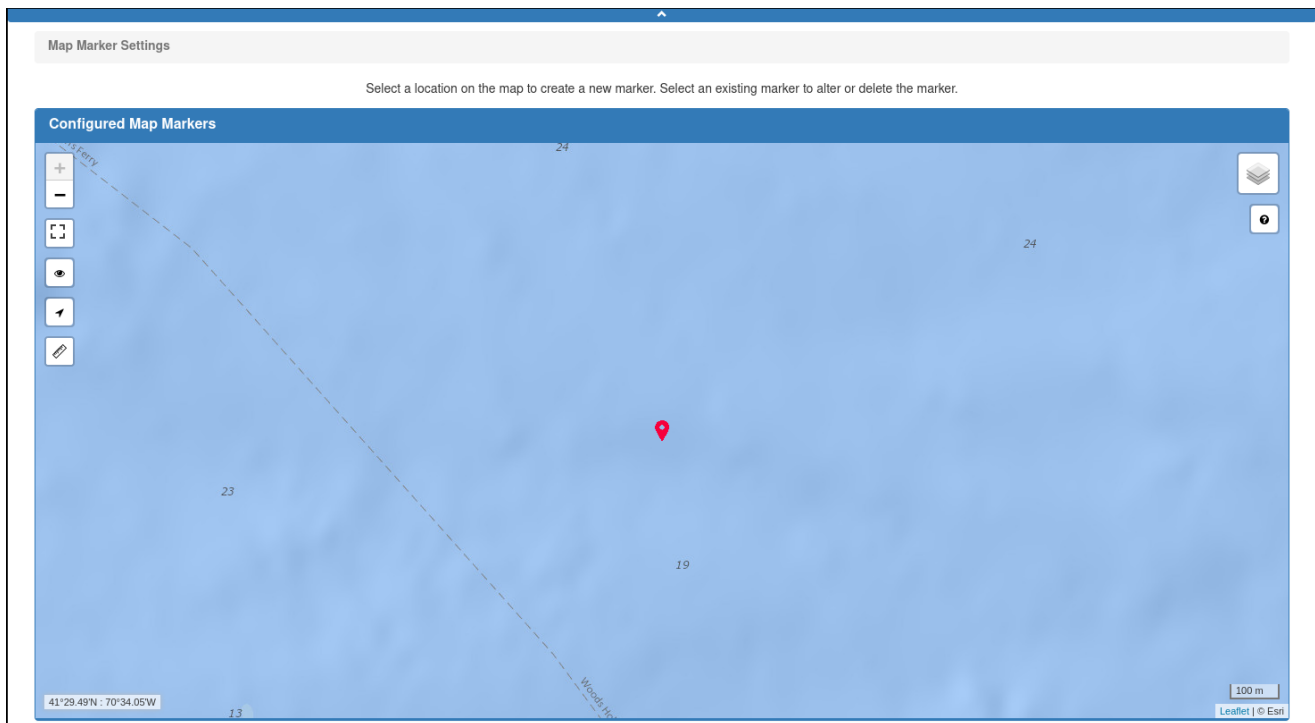


Figure 14-10 *Configured Map Markers* page.

2. To add a Map Marker, select a location anywhere on the map. The system opens the *Add Map Marker* dialog box, as shown in Figure 14-11. It displays the coordinates of the point on the map you selected.

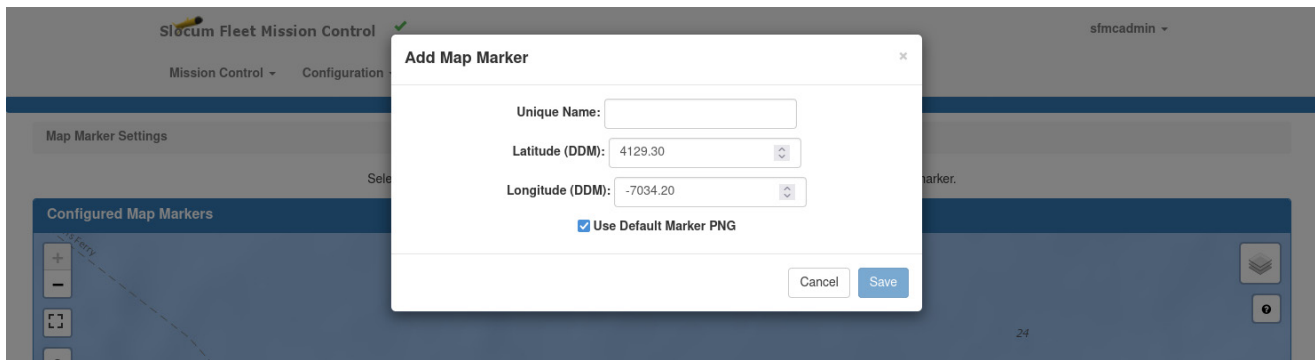


Figure 14-11 Add Map Marker dialog box.

3. Enter a name in the *Unique Name* text box.
4. [optional] Change the values of the Latitude (DDM) and Longitude (DDM) fields.
5. [optional] Enable *User Default Marker PNG* to use any PNG file you own as your default map marker.
6. Select *Save*.

## Modifying a Map Marker

1. From the **[User Account]** menu, select **Map Settings > Map Marker Settings**. The system opens the *Configured Map Markers* page, as shown in Figure 14-10 on page 14-11.
2. Select the particular Map Marker you wish to change. The system displays the Map Marker menu for that point, as shown in Figure 14-12:

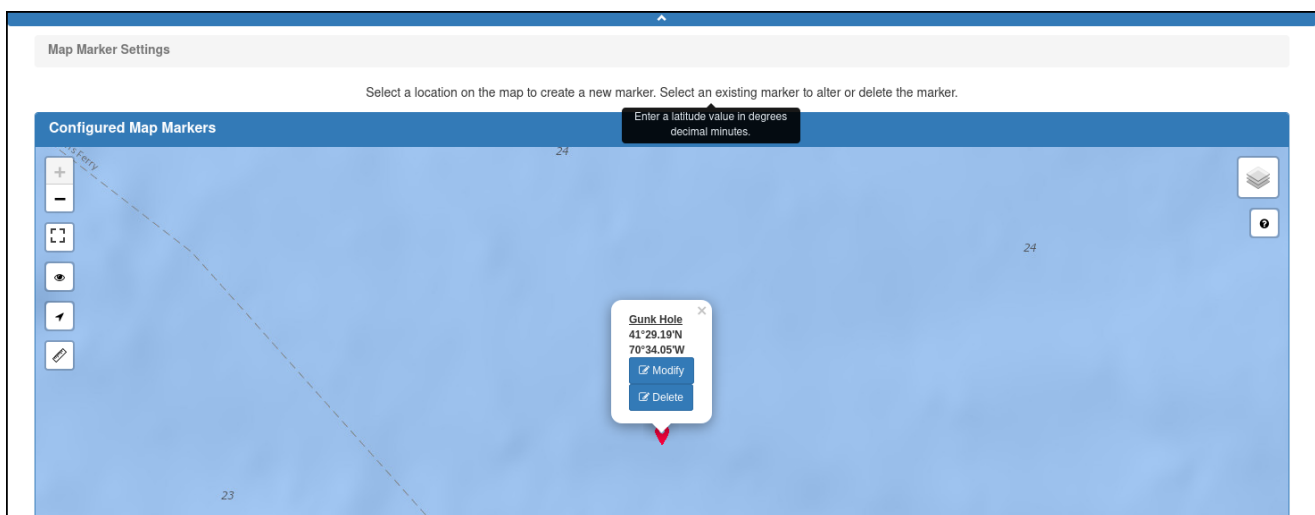


Figure 14-12 Map Marker menu.



3. Select *Modify*.

The system opens the *Modify Map Marker* dialog box, as shown in Figure 14-13:

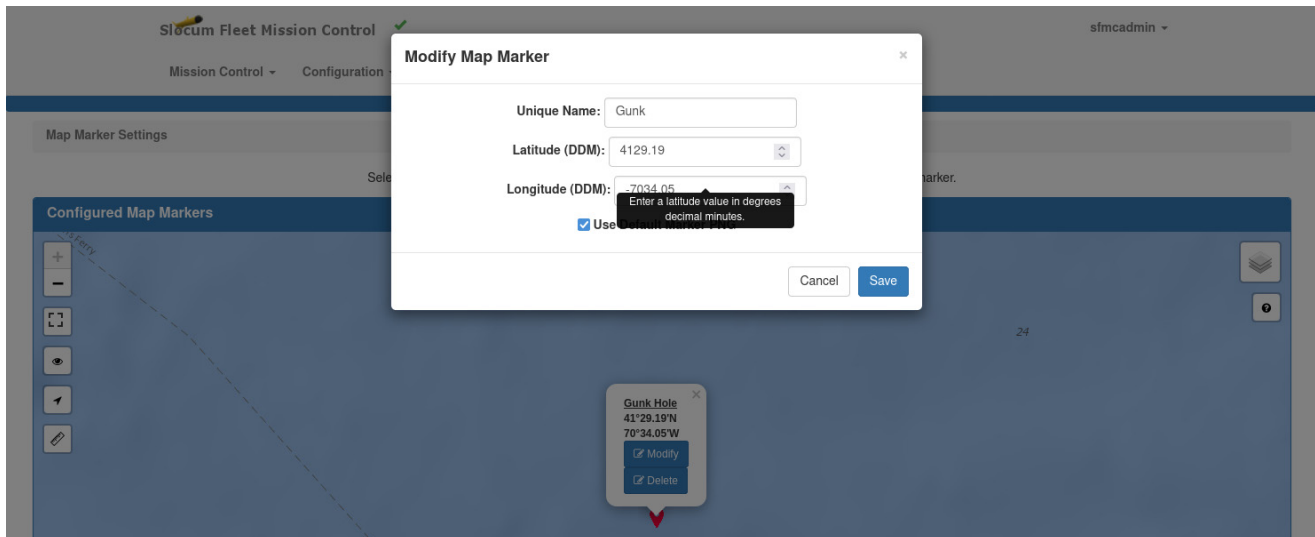


Figure 14-13 *Modify Map Marker* dialog box.

4. [optional] Change the value of the Unique Name field, as desired.
5. [optional] Change the values of the Latitude (DDM) and Longitude (DDM) fields.
6. [optional] Enable *User Default Marker PNG* to use any PNG file you own as your default map marker.
7. [optional] Disable *User Default Marker PNG* to use the system's default map marker.
8. Select *Save*.

## Deleting a Map Marker

1. From the **[User Account]** menu, select **Map Settings > Map Marker Settings**.  
The system opens the *Configured Map Markers* page, as shown in Figure 14-10 on page 14-11.
2. Select the particular Map Marker you wish to remove.  
The system displays the Map Marker menu for that point, as shown in Figure 14-12 on page 14-12.  
Select *Delete*.  
The system opens the *Delete Map Marker* dialog box, as shown in Figure 14-20:

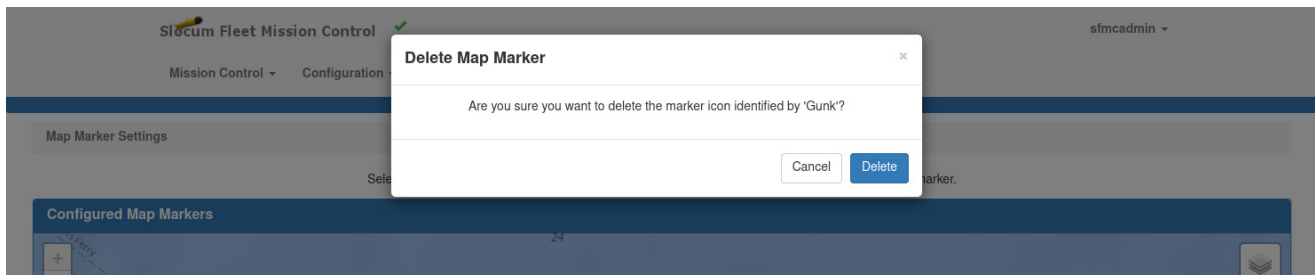


Figure 14-14 Delete Map Marker dialog box.

3. Select *Delete*.

## Adding a Map KML

1. From the **[User Account]** menu, select **Map Settings > Map KML Settings**. The system opens the *Configured KMLs* page, as shown in Figure 14-15:

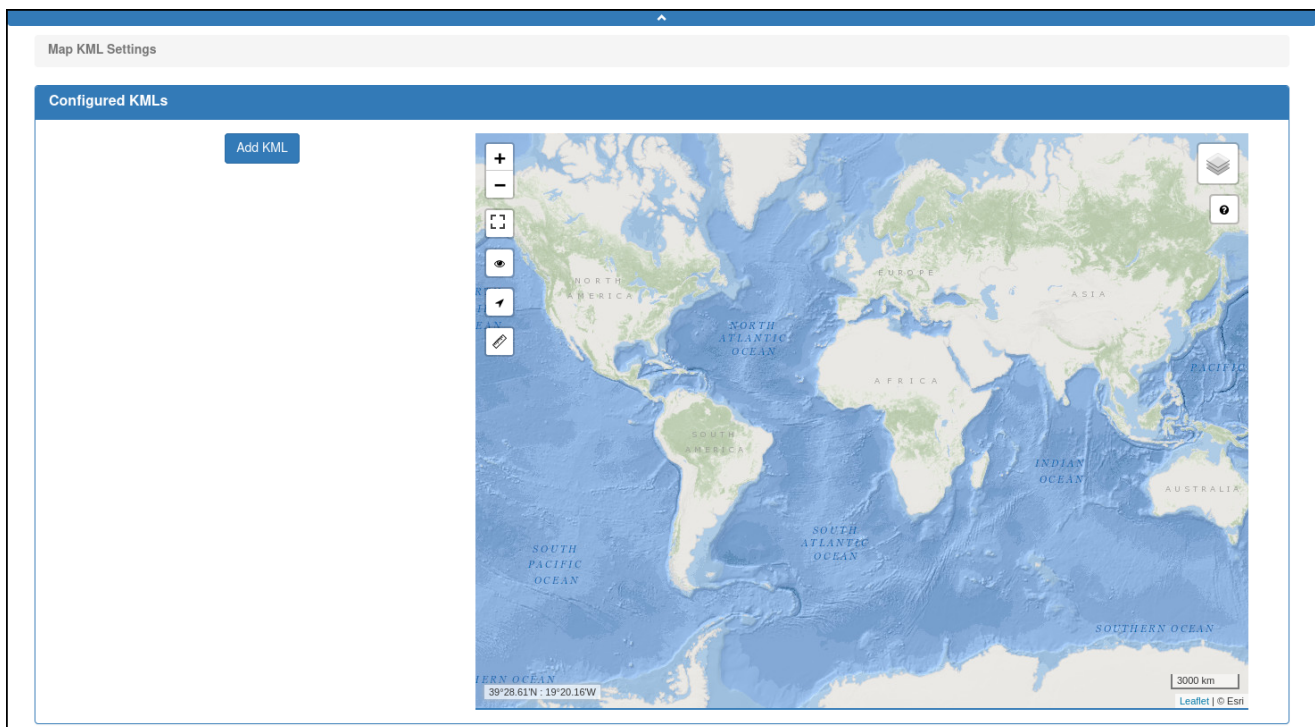


Figure 14-15 Configured KMLs page.

2. To add a Map KML, select a location anywhere on the map. The system opens the *Add Map KML* dialog box, as shown in Figure 14-16:

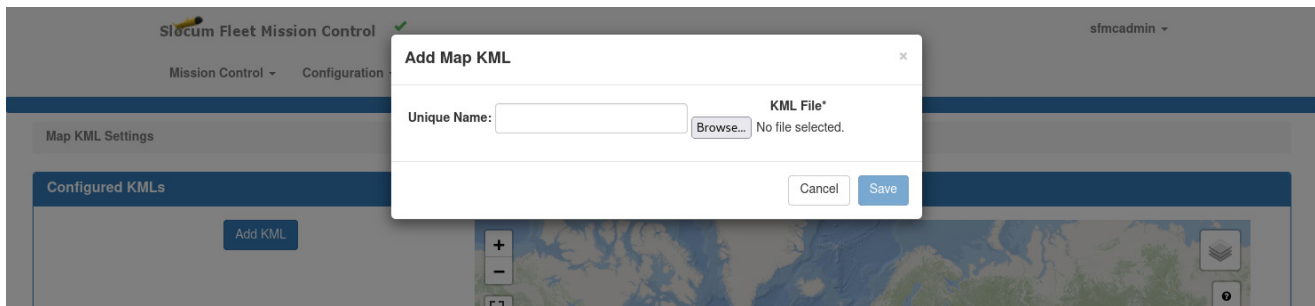


Figure 14-16 Add Map KML dialog box.

3. Enter a name in the *Unique Name* text box.
4. Select *Browse* to find and import the appropriate KML file on your hard drive or network.

An example of the results are shown in Figure 14-17:

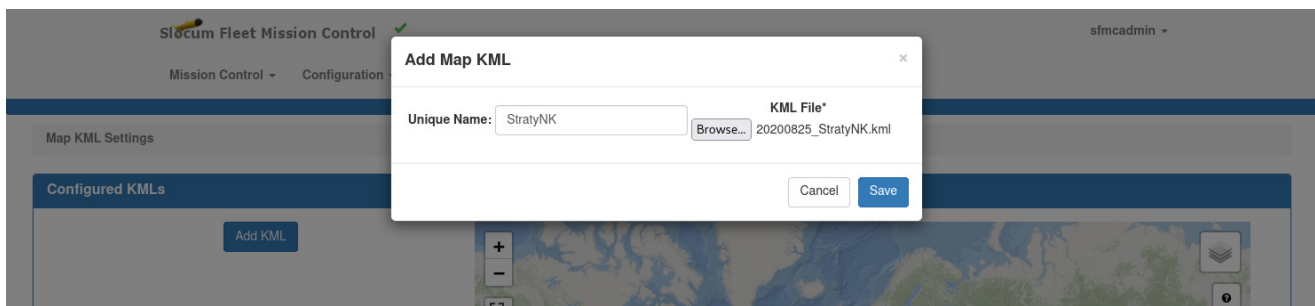


Figure 14-17 Name entered in *Unique Name* field and KML file selected.

5. Select *Save*.
- The system re-displays the *Configured KMLs* page with the saved Map KML, as shown in Figure 14-18:

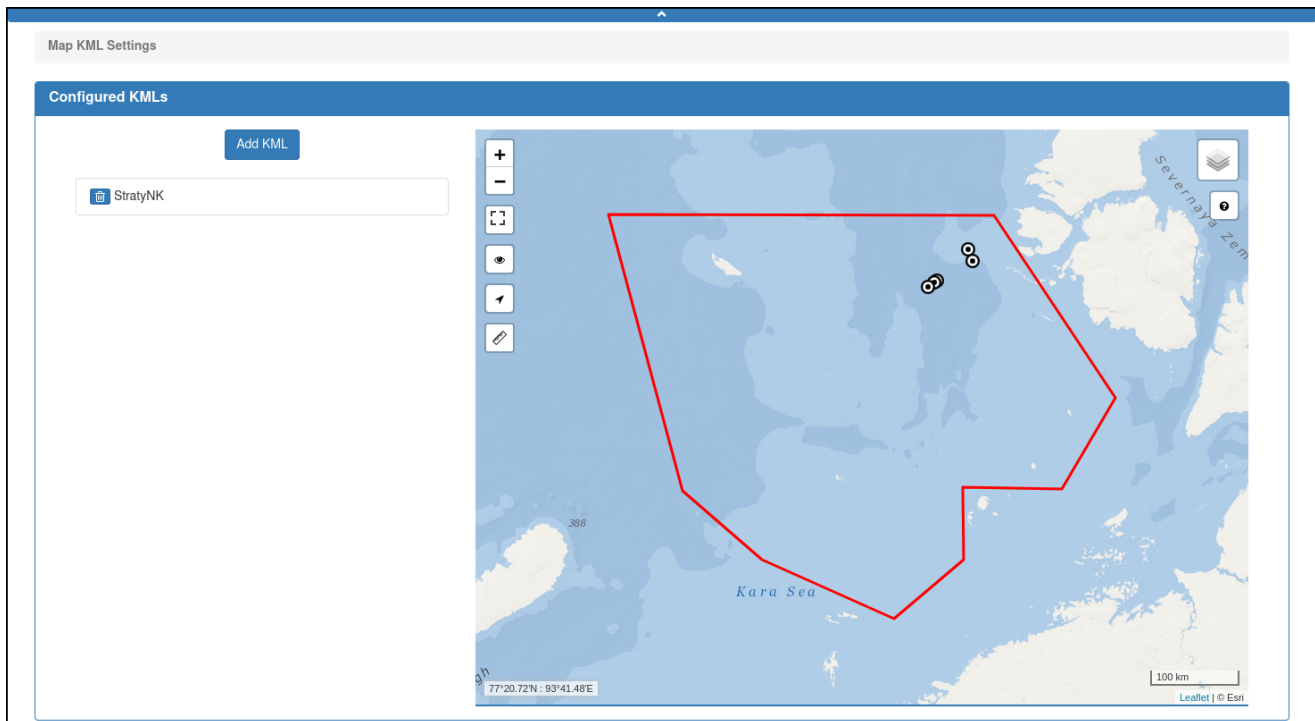


Figure 14-18 Saved Map KML.

## Deleting a Map KML

1. From the **[User Account]** menu, select **Map Settings > Map KML Settings**.  
The system opens the *Configured KMLs* page, as shown in Figure 14-15 on page 14-14.
2. Select the particular Map KML you wish to remove.  
The system displays the *Delete Map KML* dialog box, as shown in Figure 14-20:

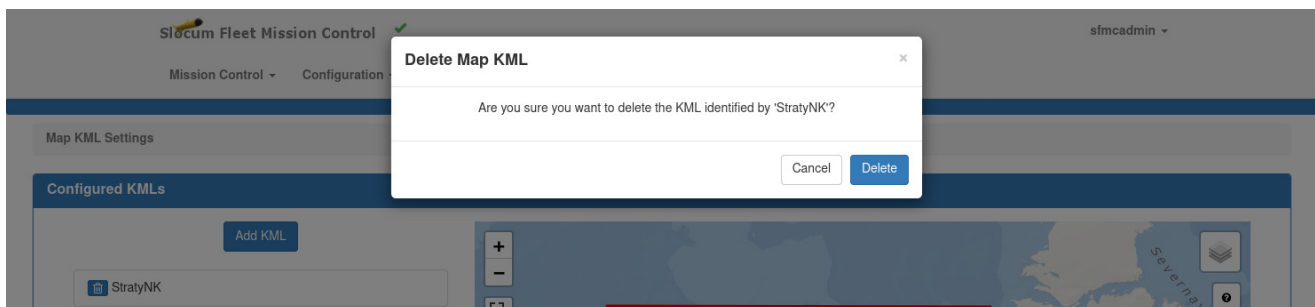


Figure 14-19 Delete Map KML dialog box.

3. Select *Delete*.

## Creating a KMZ Access Token and Downloading a KMZ File

SFMC enables you to generate a KMZ access token that is associated with your user account.

With this token, you can access the active deployment without logging in to SFMC. You download a KMZ file for the deployment, then open it in Google Earth or any other program that can display the data from a KMZ file.

The KMZ file using the KMZ access token polls the SFMC server periodically, unlike exporting all the map events for a specific deployment (see “Exporting Map Events” on page 9-26).

To create a KMZ Access token and download a KMZ file:

1. From the **[User Account]** menu, select **KMZ Access**.

The system opens the *KMZ Access* page, as shown in Figure 14-20:

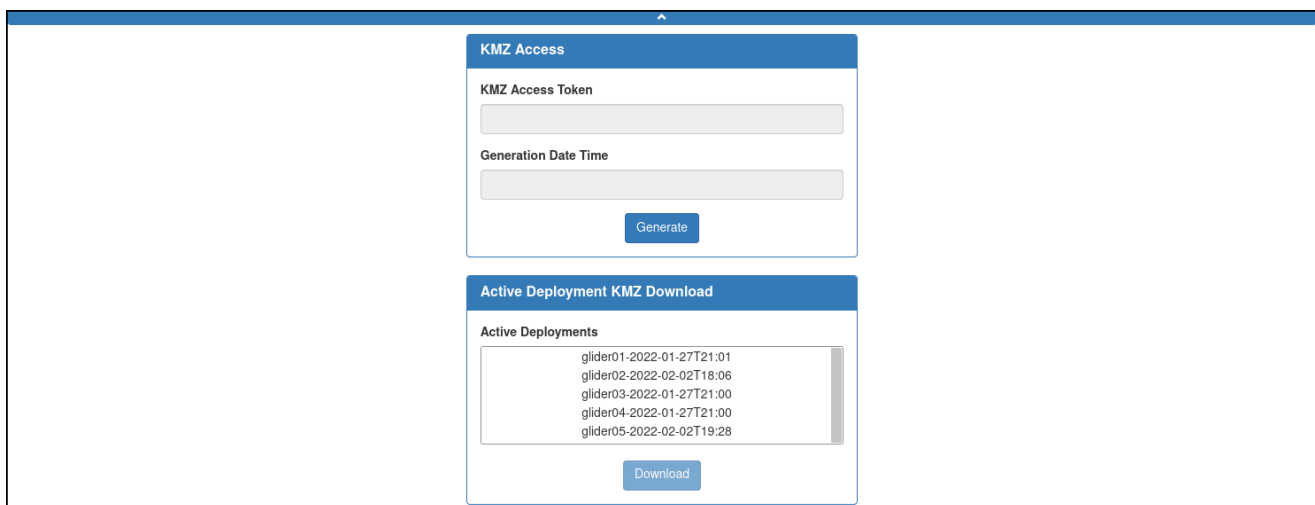


Figure 14-20 KMZ Access page.

2. Select *Generate*.

The system generates the KMZ access token and displays it in the *KMZ Access Token* text box. The system also displays the date and time the token was created in the *Generation Date Time* text box.

3. On the *Active Deployment KMZ Download* panel, select an active deployment from the *Active Deployments* drop-down list.
4. Select *Download*.
5. Select where to save the file.

## Managing Audio Settings

Both glider- and group-specific audio settings are available. These settings determine which of four separately selectable audio files SFMC will automatically play when one of four types of glider events occur for a specific glider or a specific group: Glider Abort, Glider General Error, Glider Started Last Gasp, and Glider Surface.

When you are logged in to a user account as an Administrator or to a user account with any role, the audio settings can be viewed, created, edited, deleted, enabled, disabled, and played.

### Viewing the Audio Settings



#### Note

A group-specific setting applies to a specific glider in the group only when there is no glider-specific setting for that glider.

To view the audio settings:

1. From the **[User Account]** menu, select **Audio Settings**.

The system displays the *Audio Settings* page, as shown in Figure 14-21:

Audio Settings

**Glider Specific Audio Settings**

| Glider   | Event          | Date Time of Creation | Date Time of Last Modification | Enabled                             | Audio | Edit | Delete |
|----------|----------------|-----------------------|--------------------------------|-------------------------------------|-------|------|--------|
| glider02 | Glider Surface | 2022-01-31 19:55:02   | 2022-01-31 21:10:33            | <input checked="" type="checkbox"/> |       |      |        |

[Create Glider Specific Audio Setting](#)

**Group Specific Audio Settings**

| Group   | Event                          | Date Time of Last Modification | Enabled                             | Audio | Edit |
|---------|--------------------------------|--------------------------------|-------------------------------------|-------|------|
| default | Glider Abort                   | N/A                            | <input checked="" type="checkbox"/> |       |      |
| default | Glider General Error           | N/A                            | <input checked="" type="checkbox"/> |       |      |
| default | Glider Started Initial Mission | N/A                            | <input checked="" type="checkbox"/> |       |      |
| default | Glider Started Last Gasp       | N/A                            | <input checked="" type="checkbox"/> |       |      |
| default | Glider Outside Geofence        | N/A                            | <input checked="" type="checkbox"/> |       |      |
| default | Glider Surface                 | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group1  | Glider Abort                   | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group1  | Glider General Error           | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group1  | Glider Started Initial Mission | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group1  | Glider Started Last Gasp       | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group1  | Glider Outside Geofence        | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group1  | Glider Surface                 | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group2  | Glider Abort                   | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group2  | Glider General Error           | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group2  | Glider Started Initial Mission | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group2  | Glider Started Last Gasp       | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group2  | Glider Outside Geofence        | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group2  | Glider Surface                 | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group3  | Glider Abort                   | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group3  | Glider General Error           | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group3  | Glider Started Initial Mission | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group3  | Glider Started Last Gasp       | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group3  | Glider Outside Geofence        | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group3  | Glider Surface                 | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group4  | Glider Abort                   | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group4  | Glider General Error           | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group4  | Glider Started Initial Mission | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group4  | Glider Started Last Gasp       | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group4  | Glider Outside Geofence        | N/A                            | <input checked="" type="checkbox"/> |       |      |
| group4  | Glider Surface                 | N/A                            | <input checked="" type="checkbox"/> |       |      |

Figure 14-21 Audio Settings page.

The *Glider Specific Audio Settings* panel includes the following fields and information:

|                                |   |
|--------------------------------|---|
| Glider                         | The name of the glider.   |
| Event                          | The event type name, which is Glider Abort, Glider General Error, Glider Started Last Gasp, or Glider Surface.                    |
| Date Time of Creation          | The date and time the audio setting was created.  |
| Date Time of Last Modification | The date and time the audio setting was last edited.  |
| Enabled                        | When selected, the automatic audio playback of the sound file is enabled. When cleared, the automatic audio playback is disabled. |

The *Group Specific Audio Settings* panel includes the following fields and information:

|                                |   |
|--------------------------------|---|
| Group                          | The group associated with the audio file.   |
| Event                          | The event type name, which is Glider Abort, Glider General Error, Glider Started Last Gasp, or Glider Surface.                    |
| Date Time of Last Modification | The date and time the audio setting was last edited.  |
| Enabled                        | When selected, the automatic audio playback of the sound file is enabled. When cleared, the automatic audio playback is disabled. |

The *Audio Settings* page provides a list of the current glider-specific and group-specific audio settings:

- Glider-specific audio settings are operator selected for specific gliders; if any have been selected, the system lists them on the *Glider Specific Audio Settings* panel. Glider-specific audio settings can be created, edited, deleted, enabled, and disabled.
- Group specific audio settings, which are selected by SFMC only, are listed on the *Group Specific Audio Settings* panel. Group-specific audio settings can be edited, enabled and disabled only.
- You can download custom audio files and manually play any audio file in SFMC.

## Creating a Glider-Specific Audio Setting

To create a glider specific audio setting:

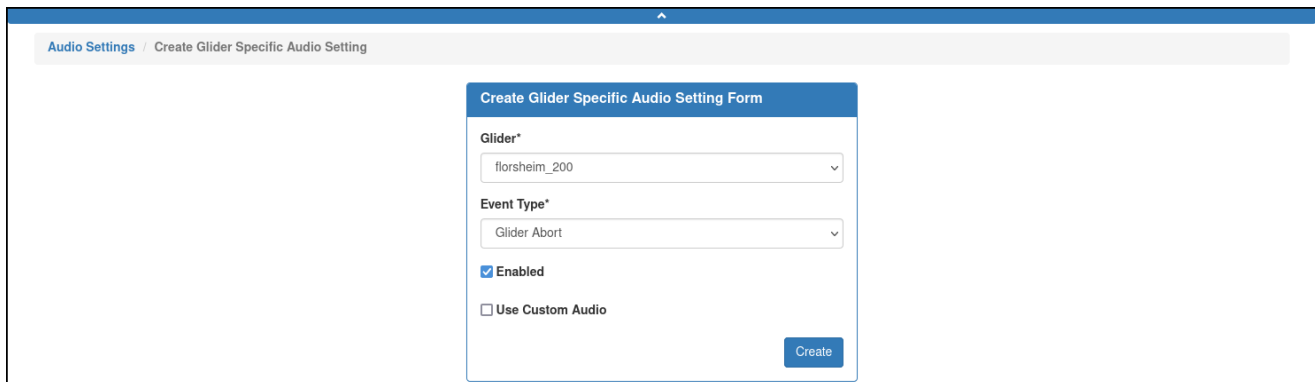
1. From the **[User Account]** menu, select **Audio Settings**.

The system displays the *Audio Settings* page (see Figure 13-11 on page 13-12).

2. Select *Create Glider Specific Audio Setting*.

The system displays the *Create Glider Specific Audio Setting Form* panel, as shown in Figure 14-22:





Audio Settings / Create Glider Specific Audio Setting

Create Glider Specific Audio Setting Form

Glider\*  
florsheim\_200

Event Type\*  
Glider Abort

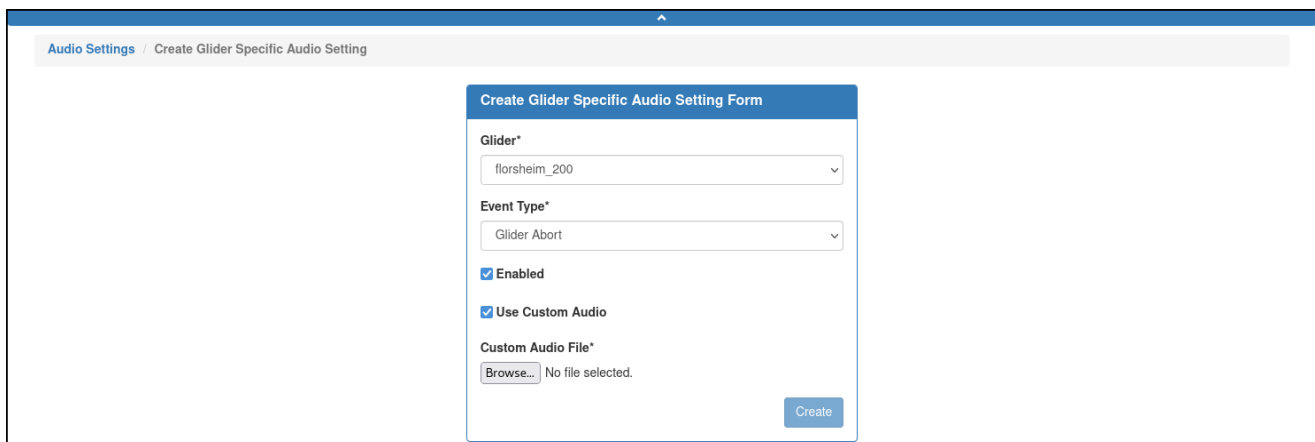
Enabled

Use Custom Audio

Create

Figure 14-22 Create Glider Specific Audio Setting Form panel.

3. From the *Glider* drop-down list, select the appropriate glider.
4. From the *Event Type* drop-down list, select the event type.
5. Select the *Enabled* check box to enable the audio file.  
To disable it, clear the check box.  
The audio files do not automatically play when disabled but can be played manually.
6. [optional] Select the *Use Custom Audio* check box to select a different audio file.  
The system makes the *Browse* button available, as shown in Figure 14-23:



Audio Settings / Create Glider Specific Audio Setting

Create Glider Specific Audio Setting Form

Glider\*  
florsheim\_200

Event Type\*  
Glider Abort

Enabled

Use Custom Audio

Custom Audio File\*  
Browse... No file selected.

Create

Figure 14-23 Use Custom Audio enabled, Browse button displayed.

7. Select *Browse* and select an audio file that has the WAV extension.  
When selected, the *Audio* button on the *Glider Specific Audio Settings* panel turns white.
8. Select *Create*.  
The system creates the glider-specific audio setting.

## Editing a Glider-Specific Audio Setting

To edit a glider specific audio setting:

1. From the **[User Account]** menu, select **Audio Settings**.  
The system displays the *Audio Settings* page (see Figure 13-11 on page 13-12).
2. On the *Glider Specific Audio Settings* panel, select the *Edit* button for the glider.  
The system displays the *Edit Glider Specific Audio Setting* page, as shown in Figure 14-24:

Figure 14-24 *Edit Glider Specific Audio Setting* page.

3. [optional] You can:
  - a. Select the *Use Custom Audio* check box to select a different audio file.  
The *Browse* button becomes available, as shown in Figure 14-25:

Figure 14-25 *Use Custom Audio* enabled, *Browse* button displayed.

- b. Select *Browse* and select the audio file. Your selection must be a WAV file.  
The *Audio* button on the *Glider Specific Audio Settings* panel turns white.

4. Make the required changes.
5. Select *Save*.  
The system saves the edited glider-specific audio setting.

## Deleting a Glider-Specific Audio Setting

To delete a glider specific audio setting:

1. From the **[User Account]** menu, select **Audio Settings**.  
The system displays the *Audio Settings* page (see Figure 13-11 on page 13-12).
2. On the *Glider Specific Audio Settings* panel, select the *Delete* button for the glider.  
The system displays the *Delete Glider Specific Audio Event Setting* dialog box, as shown in Figure 14-7:

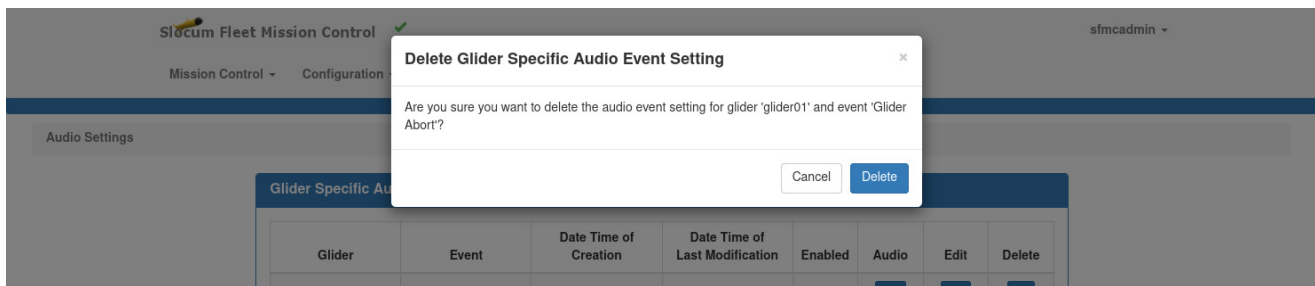


Figure 14-26 *Delete Glider Specific Audio Event Setting* dialog box.

3. Select *Delete*.  
The system deletes the glider-specific audio setting.

## Editing a Group-Specific Audio Setting

To edit a group-specific audio setting:

1. From the **[User Account]** menu, select **Audio Settings**.  
The system displays the *Audio Settings* page (see Figure 13-11 on page 13-12).
2. On the *Glider Specific Audio Settings* panel, select the *Edit* button for the glider.  
The system displays the *Edit Group Specific Audio Setting* page, as shown in Figure 14-27:

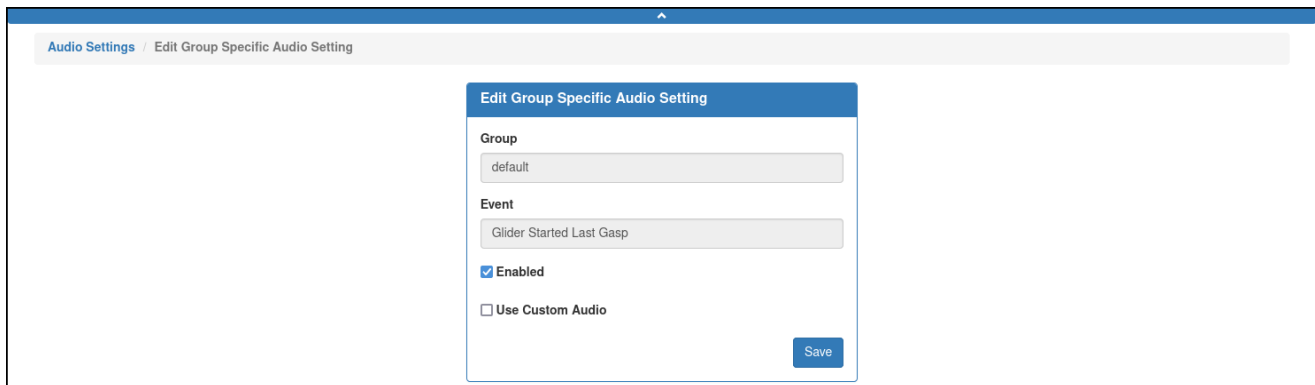


Figure 14-27 *Edit Group Specific Audio Setting* page.

3. [optional] You can:
  - a. Select the *Use Custom Audio* check box to select a different audio file. The *Browse* button becomes available as shown in Figure 14-28:

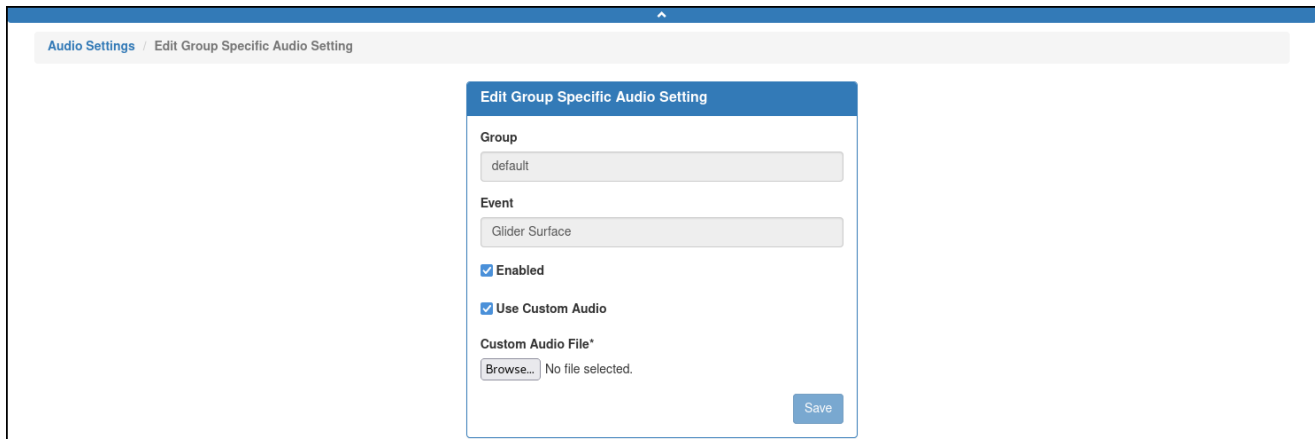


Figure 14-28 *Use Custom Audio* enabled, *Browse* button displayed.

- b. Select *Browse* and select the audio file. Your selection must be a WAV file. The *Audio* button on the *Group Specific Audio Settings* panel turns white.
4. Make the required changes.
5. Select *Save*.  
The system saves the edited group-specific audio setting.

## Enabling or Disabling an Audio Setting

Both glider- and group-specific audio settings can be enabled or disabled. The audio file will not automatically play when disabled but can be played manually.

To enable or disable an audio setting:

1. From the **[User Account]** menu, select **Audio Settings**.  
The system displays the *Audio Settings* page (see Figure 13-11 on page 13-12).
2. Select or clear the *Enable* check box for the glider on the *Glider Specific Audio Settings* panel or for the group on the *Group Specific Audio Settings* panel, as required.

## Playing an Audio Setting

Both glider and group specific audio settings can be played.

To play an audio setting:

1. From the **[User Account]** menu, select **Audio Settings**.  
The system displays the *Audio Settings* page (see Figure 13-11 on page 13-12).
2. Select the *Audio* button for the glider on the *Glider Specific Audio Settings* panel or for the group on the *Group Specific Audio Settings* panel, as required.

## Managing Glider Event Subscriptions

SFMC can provide a notification each time one or more specific types of events occur. Each notification is provided as an e-mail to a specified e-mail address.

To send these e-mails, you must configure the glider event subscriptions. This requires selecting the events for which notifications will be sent and the associated e-mail address for each.

The glider event subscription can be selected, edited, and deleted when logged in to a user account as an Administrator or to a user account with any role.

## Selecting Glider Event Subscriptions

To select glider event subscriptions:

1. From the **[User Account]** menu, select **Glider Event Subscriptions**.  
The system displays the *User Glider Event Subscriptions* page and lists all of the registered gliders, as shown in Figure 14-29:

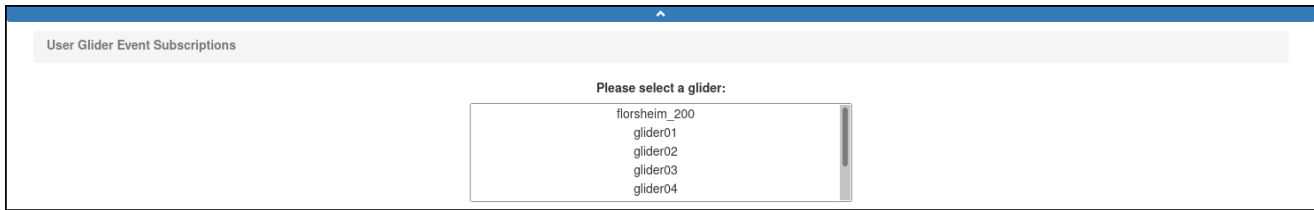


Figure 14-29 User Glider Event Subscriptions page: all registered gliders listed.

2. Select the glider from the *Please Select a Glider* drop-down list.  
The system displays the *Subscriptions for Glider <Selected Glider>* panel, as shown in Figure 14-30:

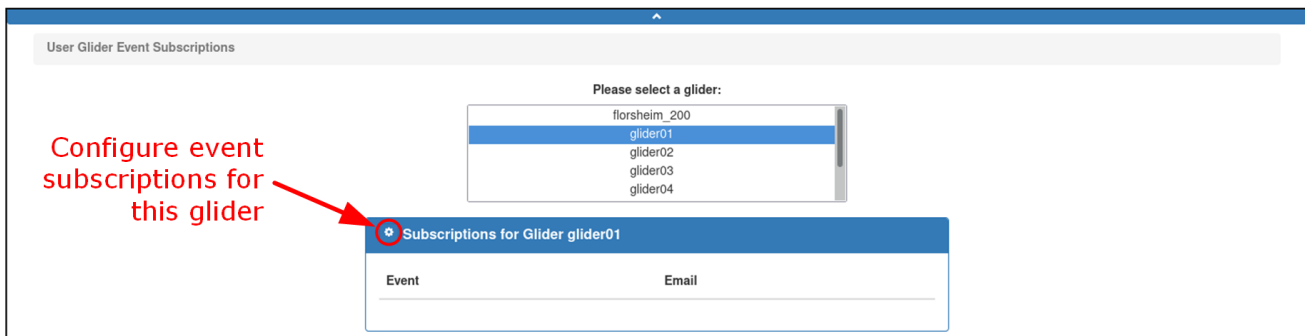


Figure 14-30 Subscriptions for Glider <Selected Glider> panel.

3. Select the Configure event subscriptions icon for this glider button (pointed out in Figure 14-30) on the *Subscriptions for Glider <Selected Glider>* panel title bar.  
The system displays the *Configure Glider Event Subscriptions* dialog box, as shown in Figure 14-31:

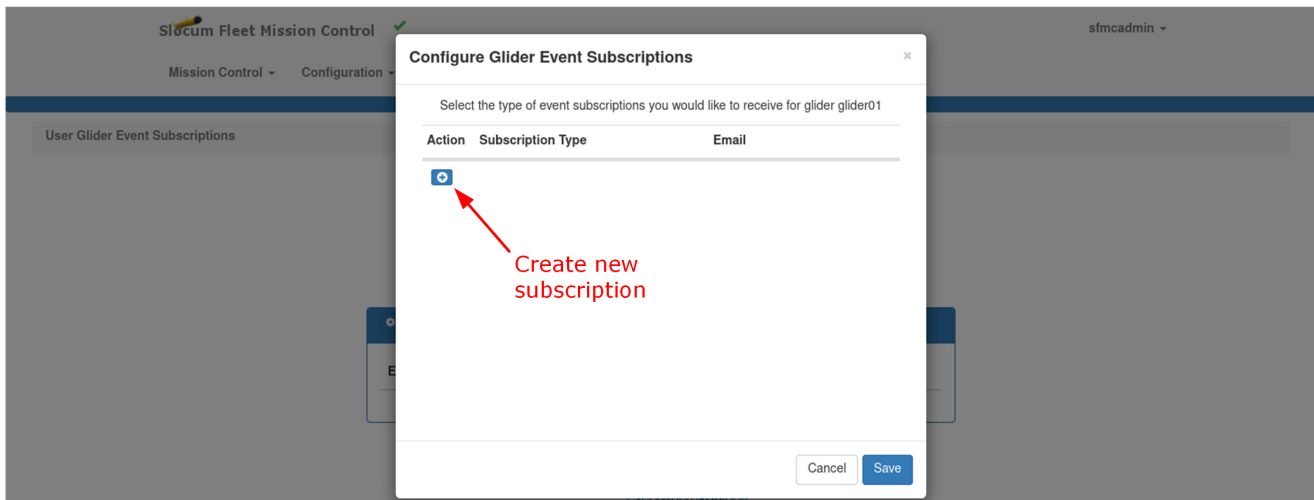


Figure 14-31 Configure Glider Event Subscriptions dialog box.

4. Select the *Create new subscription* button.

The system displays a new line item, as shown in Figure 14-32:

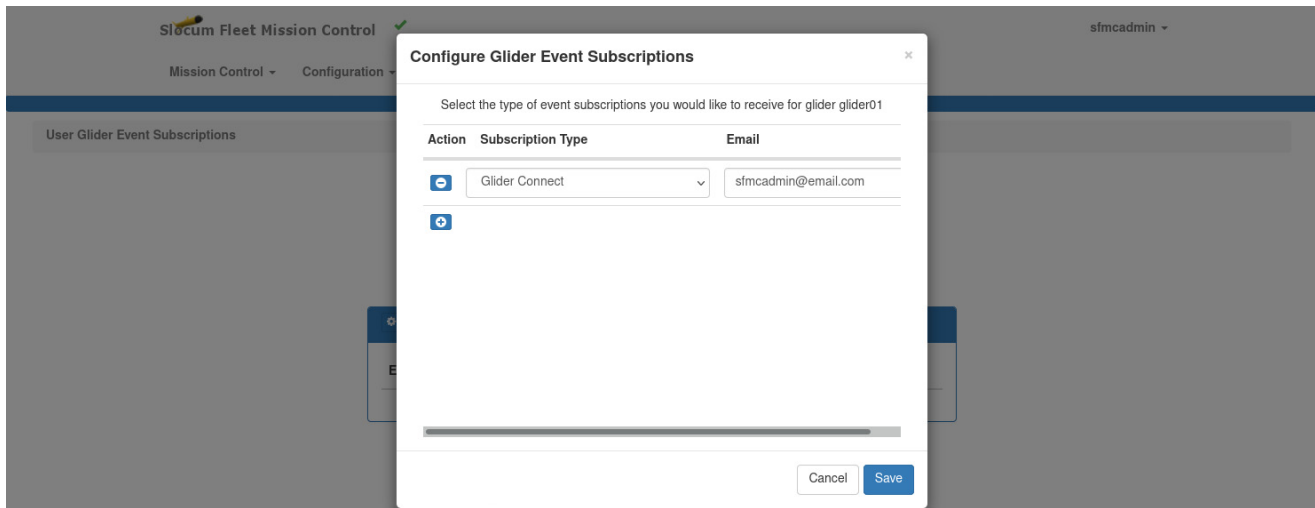


Figure 14-32 A new Glider Event subscription line item.

The *Subscription Type* drop-down list contains a list of subscription types, and the *Email* text box defaults to the currently logged in user account e-mail address.

5. From the *Subscription Type* drop-down list, select the subscription type.
6. Enter the e-mail address in the corresponding *Email* text box, if different.
7. Repeat Step 4–Step 6 for any additional glider event subscription types.
8. Select *Save*.

The system saves the glider event subscription(s) and closes the *Configure Glider Event Subscriptions* dialog box.

## Editing Glider Event Subscriptions

To edit glider event subscriptions:

1. From the **[User Account]** menu, select **Glider Event Subscriptions**.

The system displays the *User Glider Event Subscriptions* page (see Figure 14-29 on page 14-26), which lists all of the registered gliders.

2. From the *Please Select a Glider* drop-down list, select the appropriate glider.

The system displays the *Subscriptions for Glider <Selected Glider>* panel, as shown in Figure 14-33, with all of the current subscriptions for the glider listed:

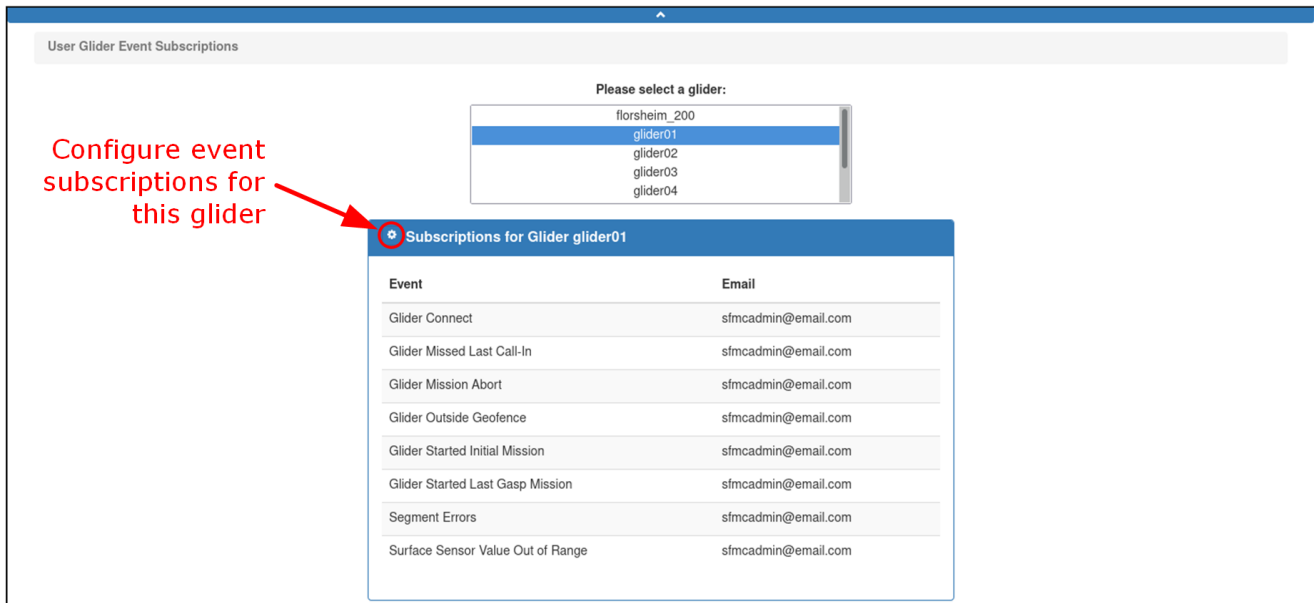


Figure 14-33 Page with current glider subscriptions listed.

3. On the *Subscriptions for Glider <Selected Glider>* panel title bar, select the *Configure event subscriptions for this glider* button pointed out in Figure 14-33.

The system displays the *Configure Glider Event Subscriptions* dialog box, as shown in Figure 14-34, with all current subscriptions to the glider listed:

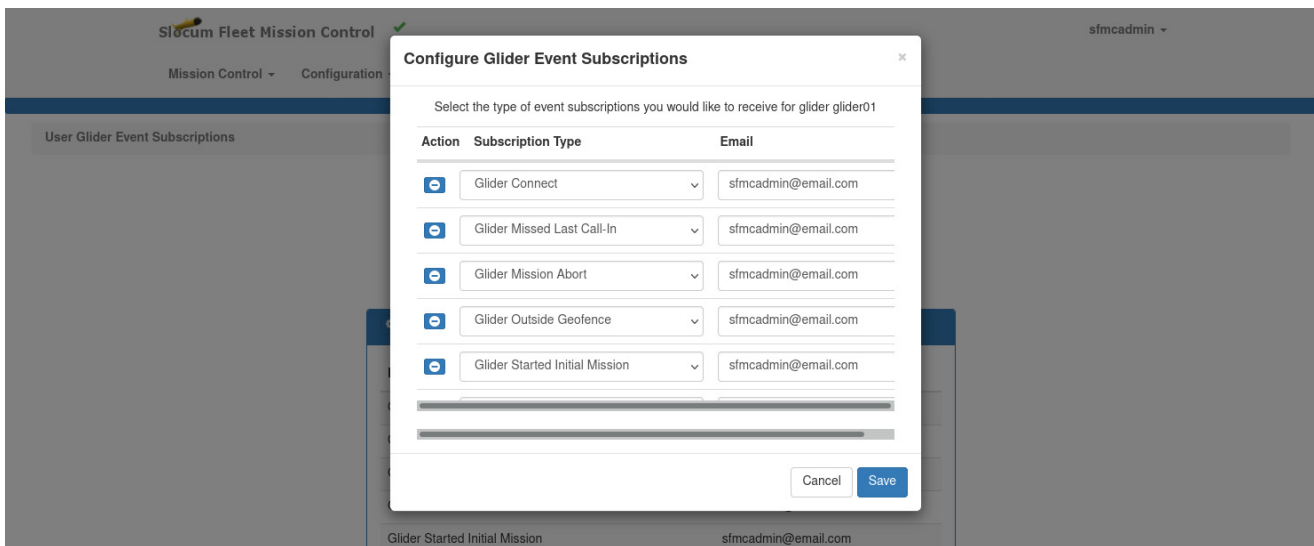


Figure 14-34 Dialog box with all current glider subscriptions listed.

4. From the *Subscription Type* drop-down list of the subscription type that you want to edit, select the new subscription type.
5. Enter the e-mail address in the corresponding *Email* text box if different.



- Repeat Step 4 and Step 5 for any additional glider event subscriptions.
- Select *Save*.  
The system saves the glider event subscriptions and closes the *Configure Glider Event Subscriptions* dialog box.

## Deleting Glider Event Subscriptions

To delete glider event subscriptions:

- From the **[User Account]** menu, select **Glider Event Subscriptions**.  
The system displays the *User Glider Event Subscriptions* page (see Figure 14-29 on page 14-26), which lists all of the registered gliders.
- From the *Please Select a Glider* drop-down list, select the appropriate glider.  
The system displays the *Subscriptions for Glider <Selected Glider>* panel with all of the current subscriptions for the glider listed (see Figure 14-33 on page 14-28).
- On the *Subscriptions for Glider <Selected Glider>* panel title bar, select the *Configure event subscriptions for this glider* button.  
The system displays the *Configure Glider Event Subscriptions* dialog box, as shown in Figure 14-35 with all of the current subscriptions for the glider listed:

| Action | Subscription Type                 | Email              |
|--------|-----------------------------------|--------------------|
|        | Glider Abort                      | sfmadmin@email.com |
|        | Glider Connect                    | sfmadmin@email.com |
|        | Surface Sensor Value Out of Range | sfmadmin@email.com |
|        |                                   |                    |

Figure 14-35 Deleting a subscription.

- Select the *Delete this subscription* button for the subscription you want to delete.  
The system deletes the subscription.

5. Select *Save*.

The system saves the glider event subscriptions and closes the *Configure Glider Event Subscriptions* dialog box.

## Managing User Sensor Plot Types

Sensor plot types can be created that are specific to the user account from which they were created. They can only be viewed and managed from this user account.

The sensor plots are created from the *Data Visualization* page which is accessible with any user account. For instructions on how to open the *Data Visualizations* page, refer to "Opening Data Visualizer for an Active Deployment" on page 9-18.

Once created, the plot types are listed in the *Plot Name* drop-down list on the *Data Visualizations* page. For instructions on how to view the data, refer to "Viewing Data by Plot Name" on page 9-21.

The user sensor plot types can be viewed, created, edited, deleted, and shared when logged in to a user account as an Administrator or to a user account with any role.

## Viewing a User Sensor Plot Type

To view a user sensor plot type:

1. Open the *Data Visualizations* page for an active deployment (see "Opening Data Visualizer for an Active Deployment" on page 9-20).
2. Select **Options** button > **Manage User Sensor Plot Types**.

The system displays the *User Sensor Plot Types* page, as shown in Figure 14-36:

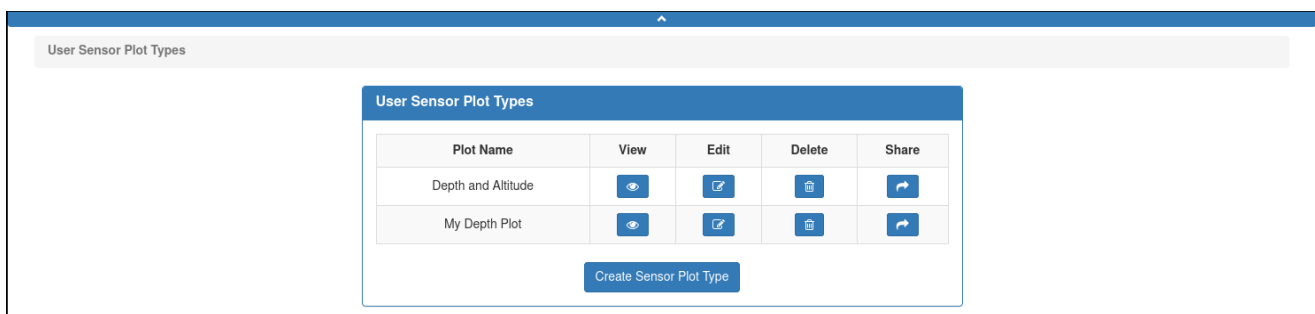


Figure 14-36 *User Sensor Plot Types* page.

3. Select the *View* button for the plot type you want to view.

The system displays the *Details for User Sensor Plot Type <Plot Name>* panel, as shown in Figure 14-37 which lists the sensor names for the plot type and the plot color:

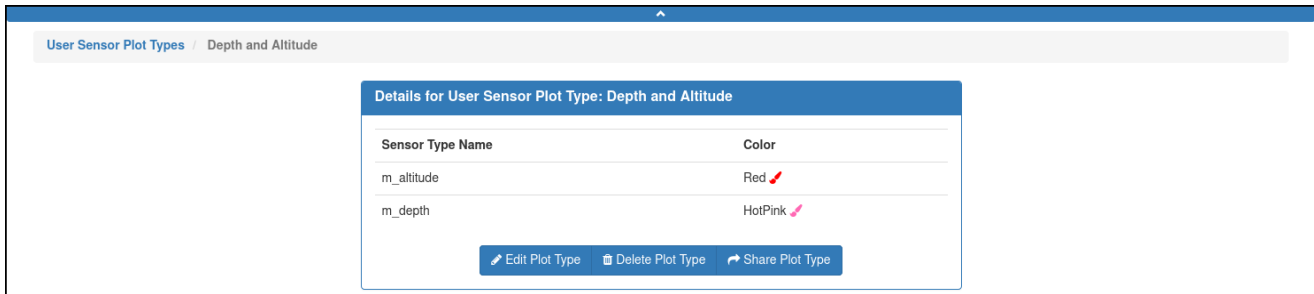


Figure 14-37 Details for User Sensor Plot Type <Plot Name> panel.

## Creating a User Sensor Plot Type

To create a user sensor plot type:

1. Open the *Data Visualizations* page for an active deployment (see “Opening Data Visualizer for an Active Deployment” on page 9-20).
2. Select the **Options** button > **Manage User Sensor Plot Types**.

The system displays the *User Sensor Plot Types* panel, as shown in Figure 14-38:

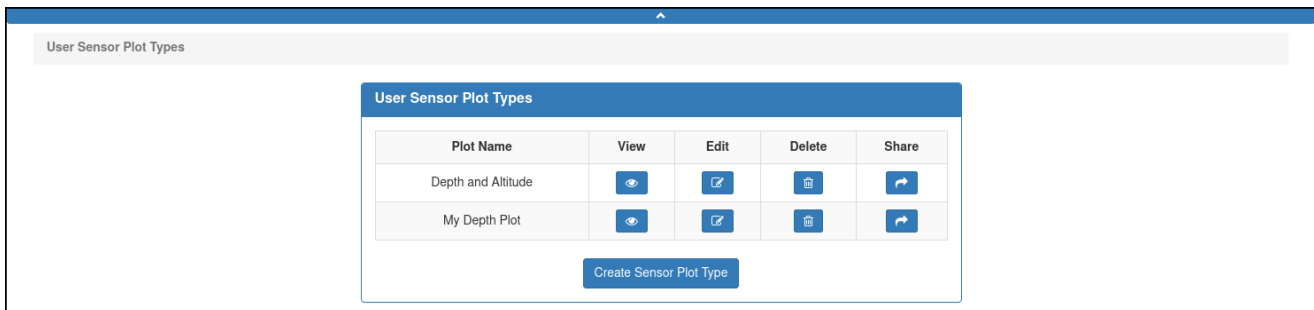


Figure 14-38 User Sensor Plot Types panel.

3. Select the *Create Sensor Plot Type* button.

The system displays the *Create User Sensor Plot Type* panel, as shown in Figure 14-39:

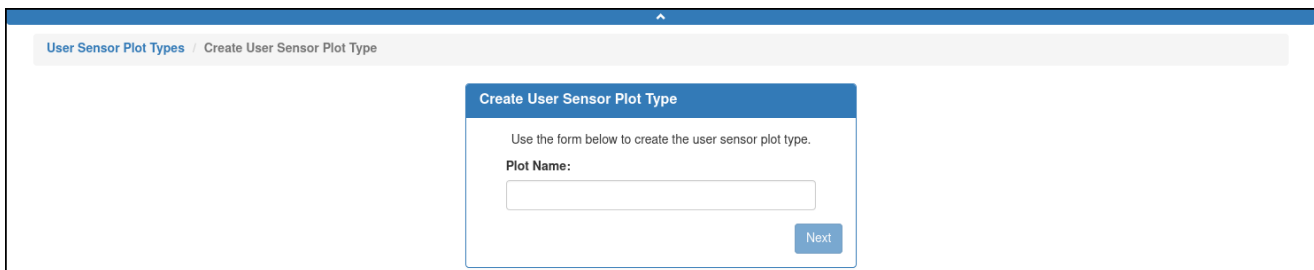


Figure 14-39 Create User Sensor Plot Type panel.

- Enter a name for the user sensor plot type in the *Plot Name* text box, as shown in Figure 14-40:

Figure 14-40 Create User Sensor Plot Type name entered.

- Select *Next*.

The system displays the *Edit User Sensor Plot Type <Plot Name>* panel, as shown in Figure 14-41:

Figure 14-41 Edit User Sensor Plot Type <Plot Name> panel (no Sensor Plot Settings added yet).

## Editing a User Sensor Plot Type

To edit a user sensor plot type:

- Open the *Data Visualizations* page for an active deployment (see “Opening Data Visualizer for an Active Deployment” on page 9-20).
- Select **Options** button > **Manage User Sensor Plot Types**.  
The system displays the *User Sensor Plot Types* panel (see Figure 14-36 on page 14-30).
- Select one of the following:
  - Select:
    - The *View* button for the user defined plot that you want to edit
    - Edit Plot Type* in the *Details for User Sensor Plot Type <Plot Name>* panel
 –or–
  - Select the *Edit* button for the user defined plot that you want to edit.

The *Edit User Sensor Plot Type* <Plot Name> panel opens to the user-defined plot you want to edit, as shown in Figure 14-42:

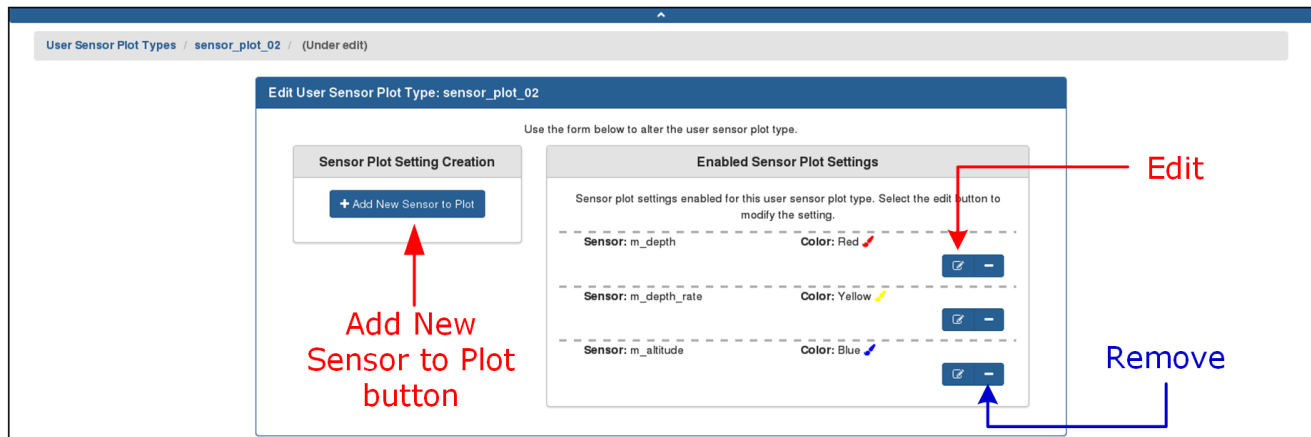


Figure 14-42 *Edit User Sensor Plot Type* <Plot Name> panel (with a few Sensor Plot Settings).

4. From this panel, you can:

In the *Enabled Sensor Plot Settings* area of the panel, select the *Modify the parameters for this sensor plot setting* button for each sensor plot setting that you want to edit and make the changes.

- To add a sensor plot type setting; see “Adding a User Sensor Plot Setting” below.
- To edit a sensor plot type setting, see “Editing a User Sensor Plot Setting” on page 14-34.
- To remove a sensor plot setting; see “Removing a User Sensor Plot Setting” on page 14-35.

## ***Adding a User Sensor Plot Setting***

From Figure 14-42 above:

1. In the *Sensor Plot Setting Creation* area, select the *Add New Sensor to Plot* button. The system displays the *Create Sensor Plot Setting* dialog box, as shown in Figure 14-43:

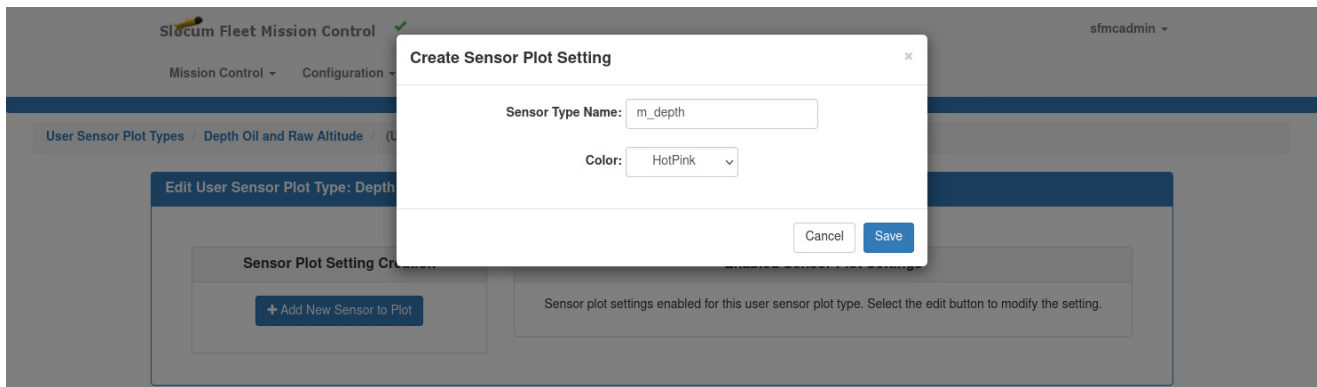


Figure 14-43 Create Sensor Plot Setting dialog box.

2. Enter the sensor name (or enter just the first two characters of the sensor name) in the *Sensor Type Name* text box.  
The system displays a list of sensors.  
If the sensor you are looking for is not in the list, continue entering the characters for it until it does.
3. Select the sensor from this list.
4. From the *Color* drop-down list, select the color of the plot.
5. Select *Save*.
6. [optional] To add up to four more sensors, repeat Step 1 through Step 5.

### **Editing a User Sensor Plot Setting**

From Figure 14-42 above:

1. In the *Enable Sensor Plot Settings* area, select a sensor's *Edit* icon.  
The system displays *Modify Sensor Plot Setting* dialog box, as shown in Figure 14-43:

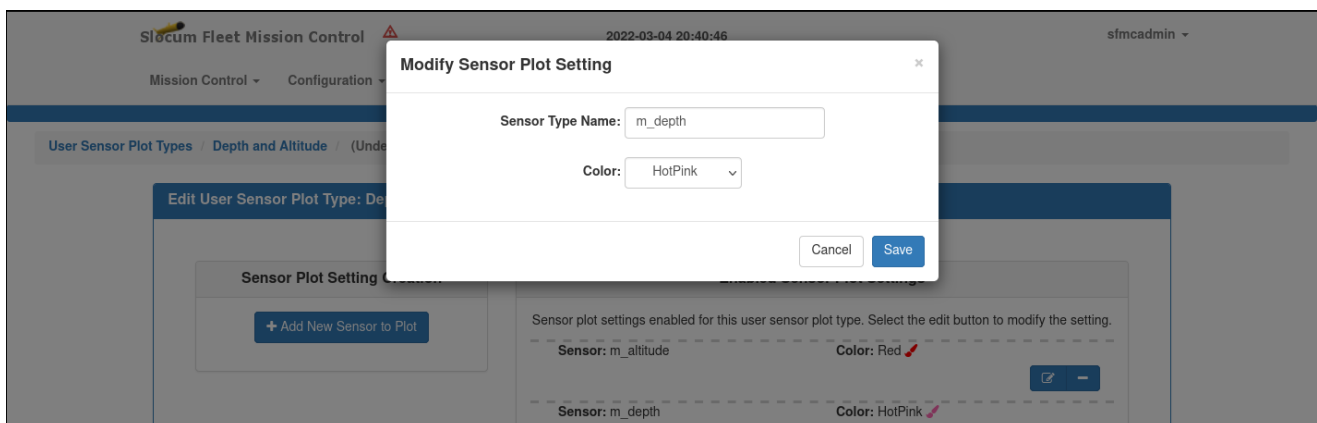


Figure 14-44 Modify Sensor Plot Setting dialog box.

2. Enter the sensor name (or enter just the first two characters of the sensor name) in the *Sensor Type Name* text box.  
The system displays a list of sensors.  
If the sensor you are looking for is not in the list, continue entering the characters for it until it does.
3. Select the sensor from this list.
4. From the *Color* drop-down list, select the color of the plot.
5. Select *Save*.
6. [optional] To edit other sensors, repeat Step 1 through Step 5.

## Removing a User Sensor Plot Setting

From Figure 14-42 above:

1. In the *Enable Sensor Plot Settings* area, select a sensor's *Remove* icon.  
The system displays the *Delete Sensor Plot Setting* dialog box for that specific sensor, as shown in Figure 14-45:

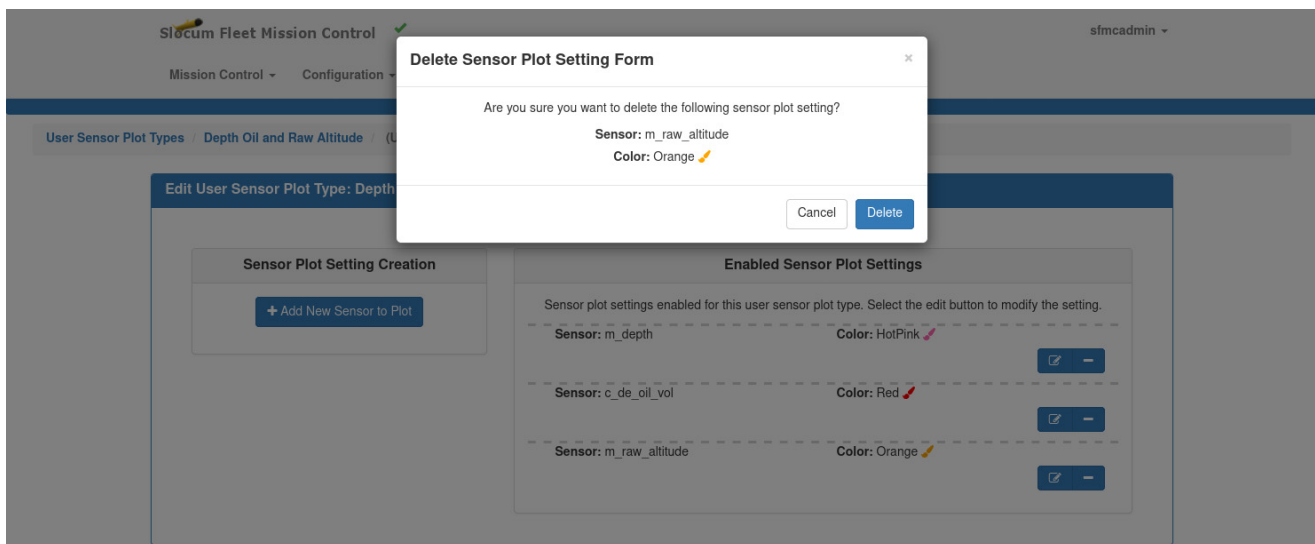


Figure 14-45 Delete Sensor Plot Setting dialog box.

2. Select *Delete*.
3. [optional] To edit other sensors, repeat Step 1 through Step 2.

## Deleting a User Defined Plot Type

To delete a user defined plot type:

1. Open the *Data Visualizations* page for an active deployment (see “Opening Data Visualizer for an Active Deployment” on page 9-20).
2. Select **Options** button > **Manage User Sensor Plot Types**.  
The system displays the *User Sensor Plot Types* panel (see Figure 14-36 on page 14-30).
3. Select one of the following:
  - Select:
    - i. The *View* button for the user defined plot that you want to edit
    - ii. *Delete Plot Type* in the *Details for User Sensor Plot Type <Plot Name>* panel
  - Select the *Delete* button for the user defined plot that you want to delete.

The system displays the *Delete User Defined Plot* dialog box, as shown in Figure 14-46:

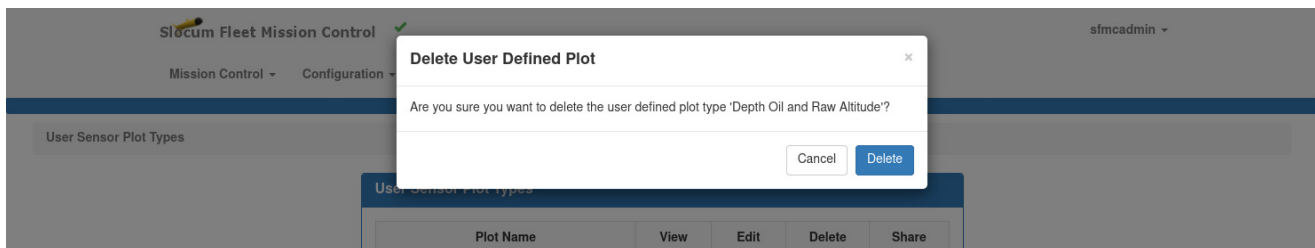


Figure 14-46 *Delete User Defined Plot* dialog box.

4. Select *Delete*.  
The system deletes the user-defined plot and closes the *Delete User Defined Plot* dialog box.

## Sharing a User Sensor Plot Type

To share a user sensor plot type:

1. Open the *Data Visualizations* page for an active deployment (see “Opening Data Visualizer for an Active Deployment” on page 9-20).
2. Select **Options** button > **Manage User Sensor Plot Types**.  
The system displays the *User Sensor Plot Types* panel (see Figure 14-36 on page 14-30).
3. Select one of the following:
  - Select:
    - i. The *View* button for the user defined plot that you want to share
    - ii. *Share Plot Type* in the *Details for User Sensor Plot Type <Plot Name>* panel
  - Select the *Share* button for the user defined plot that you want to share.



The system displays the *Share User Sensor Plot Type <Plot Name>* panel, as shown in Figure 14-47:

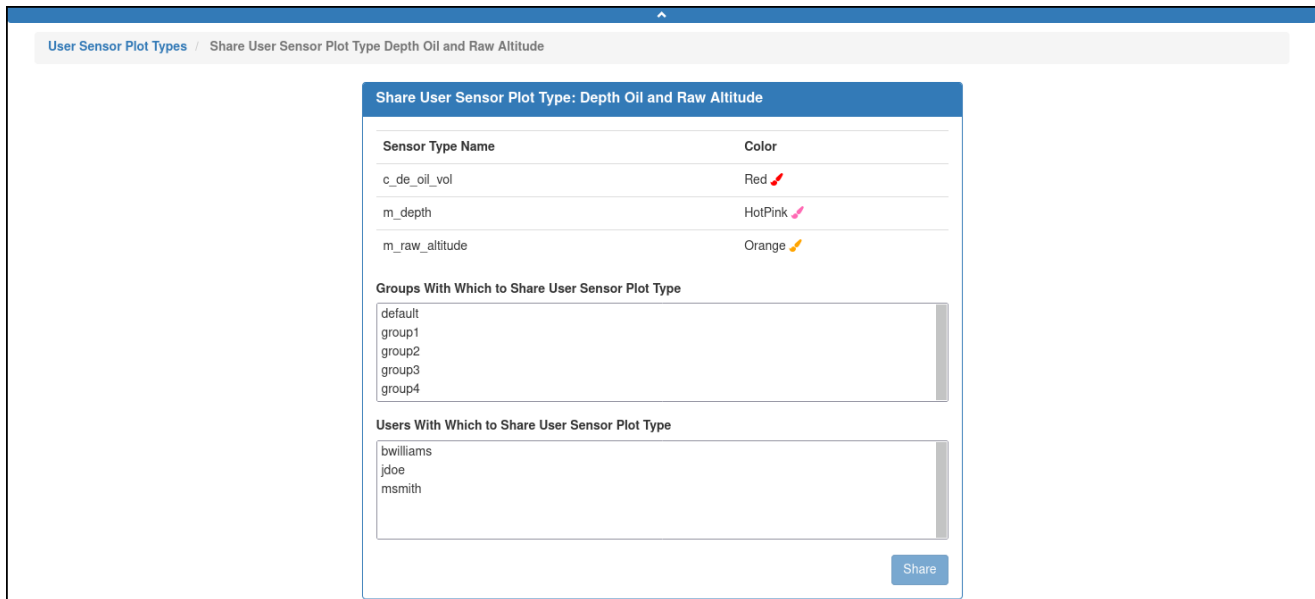


Figure 14-47 *Share User Sensor Plot Type <Plot Name>* panel.

4. Do one or both of the following:

#### Groups

- Select the group or groups with which to share the user sensor plot type from the *Groups With Which to Share User Sensor Plot Type* drop-down list.
- The system automatically selects the associated users.
- To select more than one group, hold down the **[Ctrl]** key while selecting them one at a time.

#### Users

- Select the user or users with which to share the user sensor plot type from the *Users With Which to Share User Sensor Plot Type* drop-down list.
- To select more than one user, hold down the **[Ctrl]** key while selecting them one at a time.
- If all the users in a group are selected, the system automatically selects the group.

5. Select *Share*.

The system shares the user sensor plot type.

# 15 Viewing the Event Timeline

The event timeline enables the viewing of glider events, including those initiated automatically by the glider and manually by the operator.

A user account with any role can be used to view the event timeline.

For each event, the following are displayed, as applicable:

- The UTC date and time of the event
- A short description of the event
- The mission segment during which the event occurred
- The location of the event if it occurred at the surface
- What user account was used to initiate the event

## Viewing the Event Timeline

There is a separate *Event Timeline* page for an active deployment and for an archived deployment. They are opened separately from the Options menu which is available on multiple pages in SFMC.

## Viewing the Event Timeline for an Active Deployment

To view the event timeline for an active deployment, Log in to a user account as either an Administrator or one with any role and do one of the options below.

From the main menu, select:

- **Mission Control > Dashboard > Options** button for the active deployment > **View Event Timeline**.
- **Mission Control > Active Deployments >** the deployment name > **Options** button > **View Event Timeline**.
- **Mission Control > Glider Terminal Access >** the associated glider > **Options** button > **View Event Timeline**.

The system displays the *Event Timeline for Active Deployments* page, as shown in Figure 14-1:

| Date Time           | Event   | Mission                | Location                   | User |
|---------------------|---|------------------------|----------------------------|------|
| 2022-02-03 12:35:01 | Glider disconnected from Dock Server on port net/0  | glider01-2022-032-0-21 | N/A                        | N/A  |
| 2022-02-03 12:34:38 | Dock server script factory /opt/sfmc-dockserver/factory-scripts/sfmc.xml submitted command to glider: Ctrl-R              | glider01-2022-032-0-21 | N/A                        | N/A  |
| 2022-02-03 12:34:33 | Dock server script factory /opt/sfmc-dockserver/factory-scripts/sfmc.xml submitted command to glider: Ctrl-W              | glider01-2022-032-0-21 | N/A                        | N/A  |
| 2022-02-03 12:33:33 | Dock server script factory /opt/sfmc-dockserver/factory-scripts/sfmc.xml submitted command to glider: ldocksrz -archive * | glider01-2022-032-0-21 | N/A                        | N/A  |
| 2022-02-03 12:32:34 | Dock server script factory /opt/sfmc-dockserver/factory-scripts/sfmc.xml submitted command to glider: ldockzr -archive *  | glider01-2022-032-0-21 | N/A                        | N/A  |
| 2022-02-03 12:32:32 | Glider started mission segment: 0199.0021   | glider01-2022-032-0-21 | N/A                        | N/A  |
| 2022-02-03 12:31:40 | ZModem file download complete. Filename: 01990019.sbd   | glider01-2022-032-0-20 | N/A                        | N/A  |
| 2022-02-03 12:31:39 | ZModem file download complete. Filename: 01990020.sbd   | glider01-2022-032-0-20 | N/A                        | N/A  |
| 2022-02-03 12:31:32 | Dock server script factory /opt/sfmc-dockserver/factory-scripts/sfmc.xml submitted command to glider: s *.sbd *.tbd       | glider01-2022-032-0-20 | N/A                        | N/A  |
| 2022-02-03 12:31:31 | Glider surfacing, reason: timeout expired   | glider01-2022-032-0-20 | 41°29.727'N<br>70°17.993'W | N/A  |
| 2022-02-03 12:31:31 | Glider connected to Dock Server on port net/0   | glider01-2022-032-0-19 | N/A                        | N/A  |
| 2022-02-03 12:31:31 | Glider started mission segment: 0199.0020   | glider01-2022-032-0-20 | N/A                        | N/A  |
| 2022-02-03 11:45:51 | Glider disconnected from Dock Server on port net/0  | glider01-2022-032-0-19 | N/A                        | N/A  |
| 2022-02-03 11:45:28 | Dock server script factory /opt/sfmc-dockserver/factory-scripts/sfmc.xml submitted command to glider: Ctrl-R              | glider01-2022-032-0-19 | N/A                        | N/A  |
| 2022-02-03 11:45:24 | Dock server script factory /opt/sfmc-dockserver/factory-scripts/sfmc.xml submitted command to glider: Ctrl-W              | glider01-2022-032-0-19 | N/A                        | N/A  |
| 2022-02-03 11:44:24 | Dock server script factory /opt/sfmc-dockserver/factory-scripts/sfmc.xml submitted command to glider: ldocksrz -archive * | glider01-2022-032-0-19 | N/A                        | N/A  |
| 2022-02-03 11:43:24 | Dock server script factory /opt/sfmc-dockserver/factory-scripts/sfmc.xml submitted command to glider: ldockzr -archive *  | glider01-2022-032-0-19 | N/A                        | N/A  |

Figure 15-1 Event Timeline for Active Deployments page.

## Viewing the Event Timeline for a Recovered Deployment

To view the event timeline for a recovered deployment:

1. Log in to a user account as either an Administrator or one with any role.
2. From the main menu, select **History > Recovered Deployments >** the deployment name **> Options** button **> View Event Timeline**.

The system displays the *Event Timeline for Recovered Deployments* page, as shown in Figure 14-2:

| Date Time           | Event  | Mission                | Location | User      |
|---------------------|--|------------------------|----------|-----------|
| 2022-02-03 15:48:42 | Glider deployment set to recovered   | N/A                    | N/A      | N/A       |
| 2022-02-03 15:48:41 | Mission plan unassigned from glider deployment. Mission plan name: Cape_Cod_Bay_Survey | glider04-2022-032-0-0  | N/A      | N/A       |
| 2022-02-02 19:49:25 | User uploaded file config.srf to folder to-glider                                      | glider04-2022-032-0-0  | N/A      | sfmcadmin |
| 2022-02-02 18:04:41 | Glider disconnected from Dock Server on port net/1                                     | glider04-2022-032-0-0  | N/A      | N/A       |
| 2022-02-02 18:04:18 | Glider started mission segment: 0015.0000  | glider04-2022-032-0-0  | N/A      | N/A       |
| 2022-02-02 18:04:18 | Glider started mission: sfmc.mi  | glider04-2022-026-0-23 | N/A      | N/A       |
| 2022-02-02 18:04:17 | User submitted command to glider: run sfmc.mi  | glider04-2022-026-0-23 | N/A      | sfmcadmin |
| 2022-02-02 18:04:04 | User submitted command to glider: loadmission loadsim.mi                               | glider04-2022-026-0-23 | N/A      | sfmcadmin |
| 2022-02-02 18:03:59 | User submitted command to glider: Ctrl-C   | glider04-2022-026-0-23 | N/A      | sfmcadmin |
| 2022-02-02 18:03:51 | Glider connected to Dock Server on port net/1  | glider04-2022-026-0-23 | N/A      | N/A       |

Figure 15-2 Event Timeline for Recovered Deployments page.

## Viewing the Event Timeline for an Archived Deployment

To view the event timeline for an archived deployment:

1. Log in to a user account as either an Administrator or one with any role.
2. From the main menu, select **History > Archived Deployments >** the deployment name **> Options** button **> View Event Timeline**.

The system displays the *Event Timeline for Archived Deployments* page, as shown in Figure 14-2:

| Date Time           | Event  | Mission               | Location | User     |
|---------------------|--|-----------------------|----------|----------|
| 2022-02-02 20:53:56 | User updated log note. New text: Recovered the glider deployment after testing in ashumet    | N/A                   | N/A      | sfmadmin |
| 2022-02-02 20:53:35 | User updated log note. New text: Archived for historical purposes                            | N/A                   | N/A      | sfmadmin |
| 2022-01-27 21:05:09 | Glider deployment archive completed  | N/A                   | N/A      | N/A      |
| 2022-01-27 21:02:19 | Glider deployment archive plots created  | N/A                   | N/A      | N/A      |
| 2022-01-27 21:01:57 | Glider deployment archive tar ball created   | N/A                   | N/A      | N/A      |
| 2022-01-27 21:01:40 | Glider deployment archive started  | N/A                   | N/A      | N/A      |
| 2022-01-27 21:01:32 | Glider disconnected from Dock Server on port net/0   | N/A                   | N/A      | N/A      |
| 2022-01-27 21:01:12 | Glider connected to Dock Server on port net/0  | N/A                   | N/A      | N/A      |
| 2022-01-27 20:43:48 | User uploaded file longterm.sta to folder configuration                                      | N/A                   | N/A      | sfmadmin |
| 2022-01-27 20:43:39 | User uploaded file autoexec.mi to folder configuration                                       | N/A                   | N/A      | sfmadmin |
| 2022-01-14 21:16:33 | User created log note. Text: test2   | N/A                   | N/A      | sfmadmin |
| 2022-01-14 21:13:47 | User created log note. Text: test  | N/A                   | N/A      | sfmadmin |
| 2022-01-14 21:07:51 | Glider deployment set to recovered   | N/A                   | N/A      | N/A      |
| 2022-01-14 21:07:51 | Mission plan unassigned from glider deployment. Mission plan name: Ashumet Geofenced         | glider01-2022-004-0-0 | N/A      | N/A      |
| 2022-01-14 21:05:34 | User delete log note. Deleted text: Test   | glider01-2022-004-0-0 | N/A      | sfmadmin |
| 2022-01-14 21:05:25 | User created log note. Text: Test  | glider01-2022-004-0-0 | N/A      | sfmadmin |
| 2022-01-06 22:15:46 | User cleared initial mission entry alert. Time of initial mission start: 2022-01-05 19:20:59 | glider01-2022-004-0-0 | N/A      | sfmadmin |

Figure 15-3 Event Timeline for Archived Deployments page.

## Event Timeline for Active, Recovered, and Archived Deployment Pages

The following pages include the information that follows:

- *Event Timeline for Active Deployments*
- *Event Timeline for Recovered Deployments*
- *Event Timeline for Archived Deployments*

|           |   |
|-----------|---|
| Date Time | The UTC date and time the event occurred. |
| Event     | A short description of the event.         |

|          |  |
|----------|--|
| Mission  | The mission segment long name which is composed of the glider name followed by the year of the mission start, the day of the year of the mission start, the n-1th mission of the day and the n-1th segment of the mission. |
| Location | The latitude and longitude in degrees and decimal minutes of the location of the event if it occurred at the surface. N/A indicates that the event was not a surface event.  |
| User     | The user account that was used to initiate the event if it was initiated by a user. N/A indicates that the event was initiated automatically.  |

Also included on the top of those three pages is a drop-down list for selecting a different active, recovered, or archived deployment, respectively.

# 16 Administrative Functions

Administrative functions include:

- Viewing reports

The reports are:

- **Group Membership**

This report lists the users, gliders, scripts, mission plans, and mission plan parts and the number of each for specific groups.

- **Logged-in Users**

This report lists the logged-in users and the number of each.

- **Glider Event Subscriptions**

This report lists the glider event subscriptions and the associated e-mail addresses for specific gliders or the glider event subscriptions and the associated gliders and e-mail addresses for specific users.

- **User's Last Login**

This report lists the date and time of the last login for all current and past users.

- **User Access**

This report lists the gliders, scripts, mission plans, and mission plan parts and the number of each for each group associated with a specific current or past user.

- Managing administrator messages

The messages can be viewed at any time with any user account and are displayed automatically when starting SFMC.

Only Administrator user accounts can view reports and manage administrator messages.

## Viewing Reports

All the reports are accessed from the *Admin Reports* page, as shown in Figure 16-1:

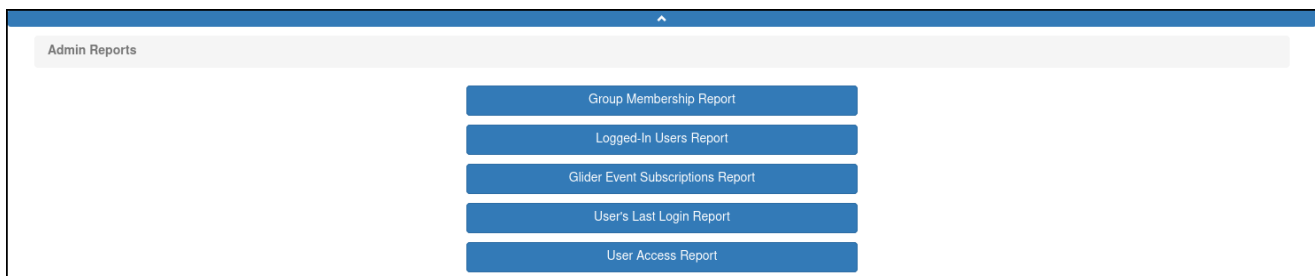


Figure 16-1 *Admin Reports* page.

## Viewing the Group Membership Report

To view the Group Membership report:

1. From the main menu, select **Admin > Reports**.  
The system displays the *Admin Reports* page, as shown in Figure 16-1 above.
2. Select *Group Membership Report*.  
The system displays the *Group Membership Report* page, as shown in Figure 16-2.

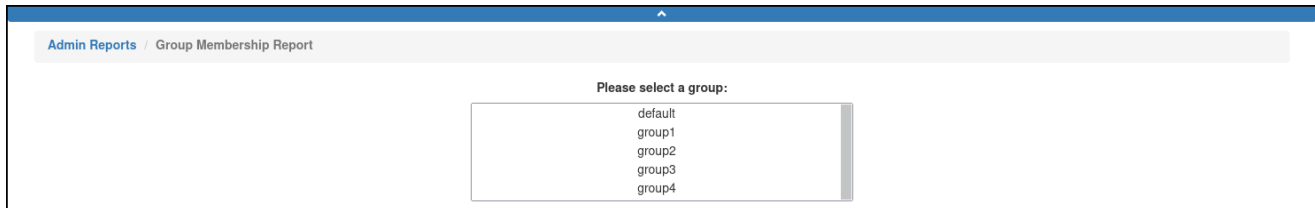


Figure 16-2 Group Membership Report page.

3. From the *Please select a group* drop-down list, select the group you want to view the Group Membership report.  
The system displays the *Group Membership Report* page, as shown in Figure 16-3:  
The system displays the list of associated users and gliders and the number of each for the group, along with the associated scripts and mission plan parts and the number of each.

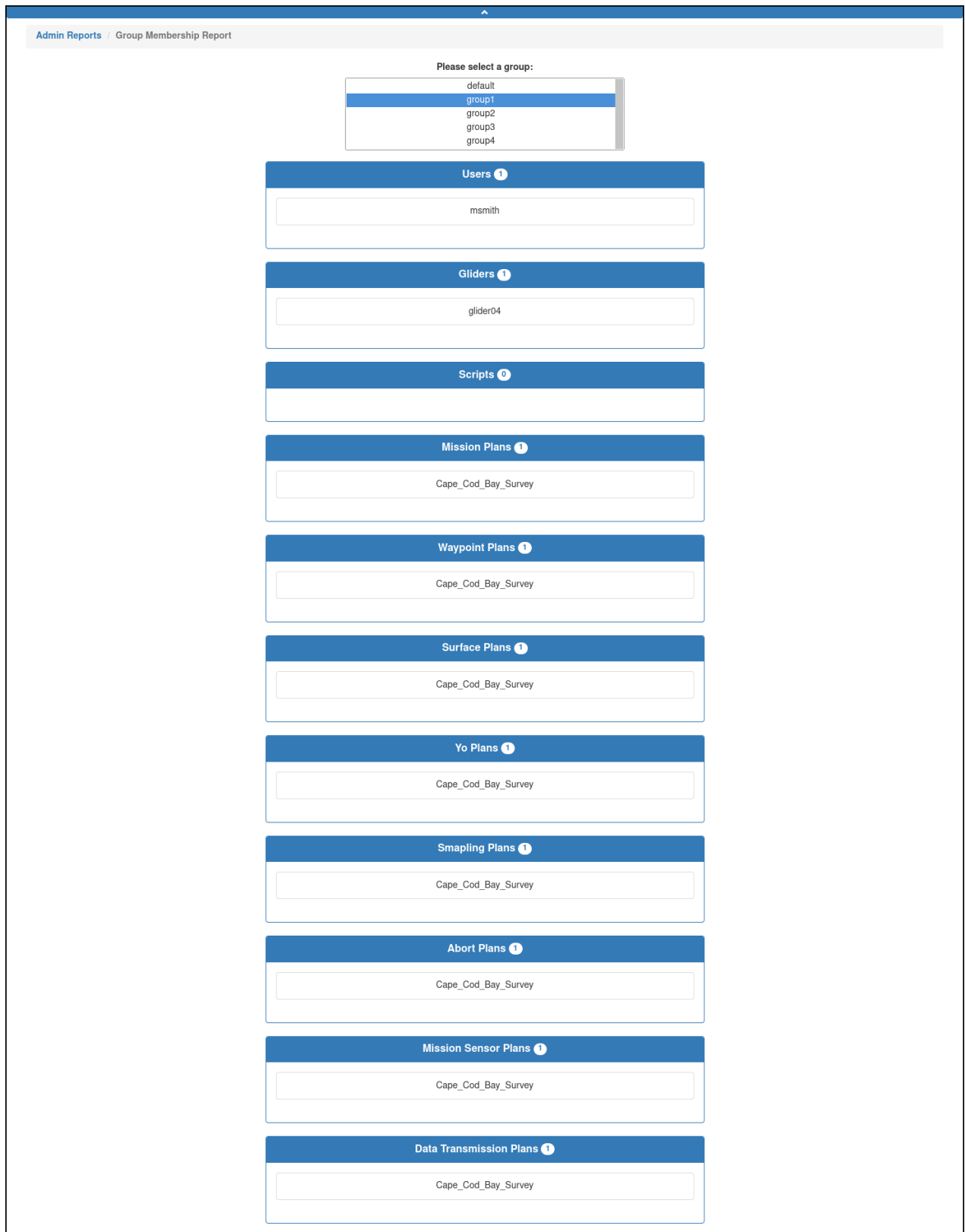


Figure 16-3 Group Membership Report page.



4. Select *Glider Event Subscriptions Report*.

The system displays the *Glider Event Subscriptions Report* page, as shown in Figure 16-4.

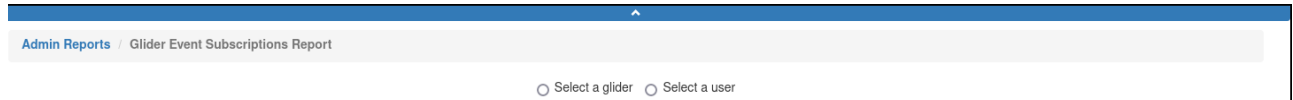


Figure 16-4 *Glider Event Subscriptions Report* page.

5. Select either a:

- Glider to view the event subscriptions for a specific glider
  - or–
  - User to view the subscriptions for a specific user
- a. If you select the *Select a glider* option, the system displays the *Please select a glider* drop-down list, as shown in Figure 16-5:

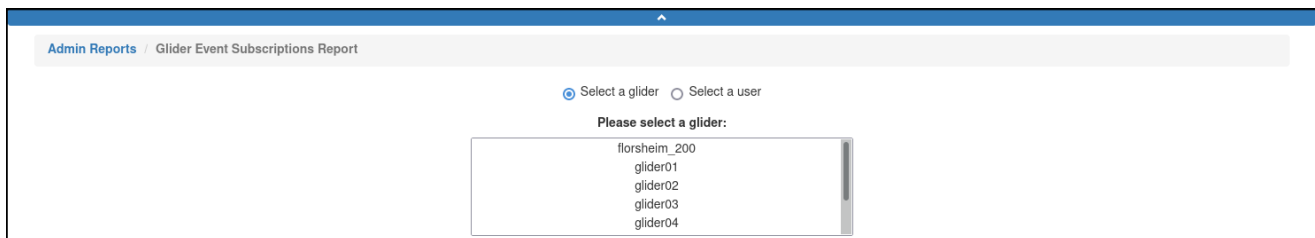


Figure 16-5 *Please Select a Glider* drop-down list.

Use the *Please select a glider* drop-down list to select the appropriate glider.

The system displays the *Subscriptions for Glider <Glider Name>* panel, as shown in Figure 16-6:

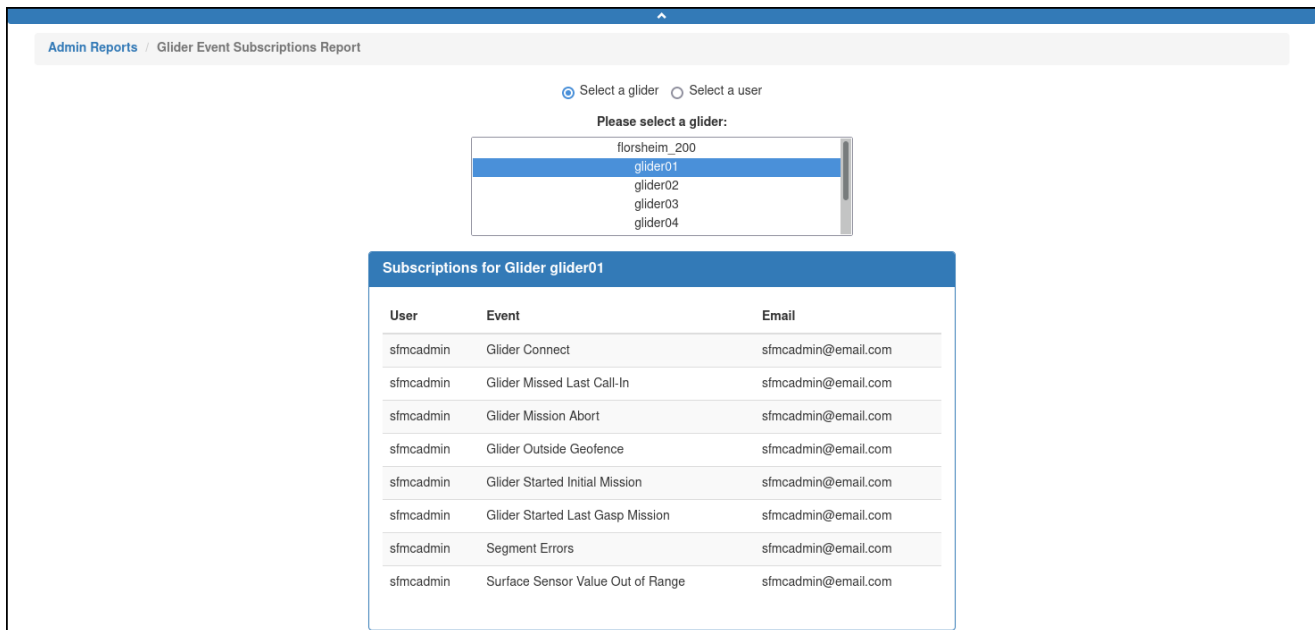


Figure 16-6 Subscriptions for Glider <Glider Name> panel.

- b. If you select the *Select a user* option, the system displays the *Please select a user* drop-down list, as shown in Figure 16-7:

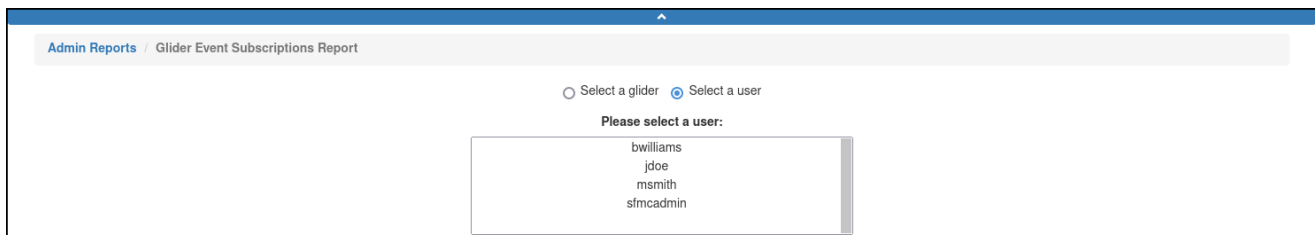


Figure 16-7 Please Select a User drop-down list.

Use the *Please select a user* drop-down list to select the appropriate user.

The system displays the *User <User Name>* panel, as shown in Figure 16-8:

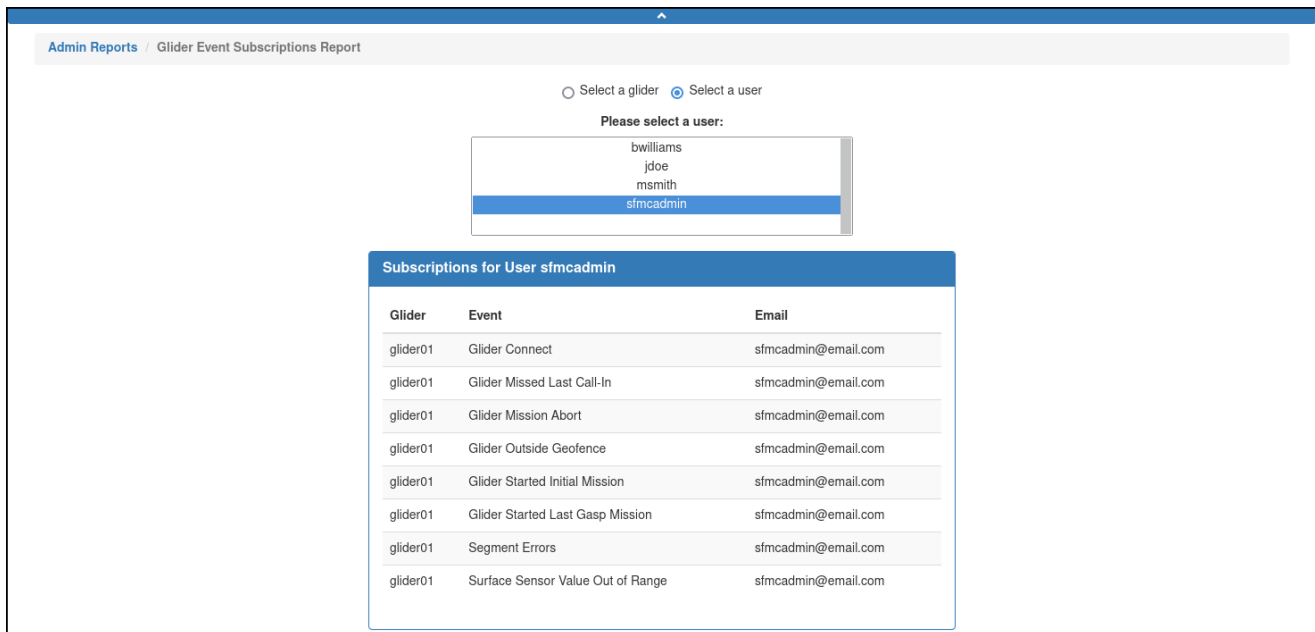


Figure 16-8 Subscriptions for User <User Name> panel.

## Viewing the User’s Last Login Report

To view the User’s Last Login report:

1. From the main menu, select **Admin > Reports**.  
The system displays the *Admin Reports* page, as shown in Figure 15-1 on page 15-1.
2. Select *User’s Last Login Report*.  
The system displays the *User’s Last Login Report* page, as shown in Figure 16-9:

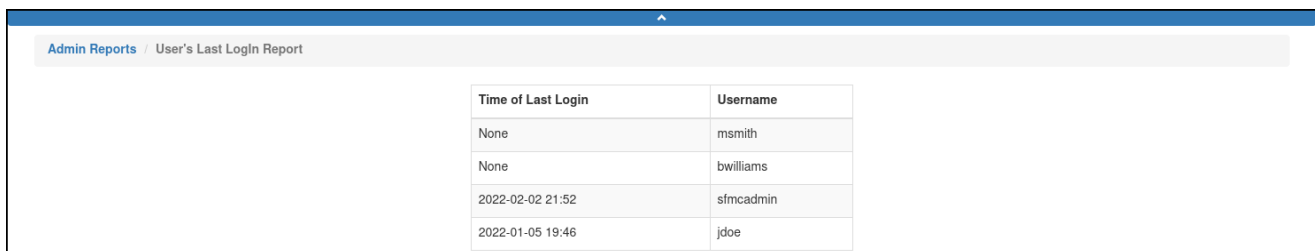


Figure 16-9 Users Last Login Report page.

The system displays the date and time of the last login for both current and past users.

## Viewing the User Access Report

To view the User Access report:

1. From the main menu, select **Admin > Reports**.

The system displays the *Admin Reports* page, as shown in Figure 15-1 on page 15-1.

2. Select *User Access Report*.

The system displays the *User Access Report* page, as shown in Figure 16-10:

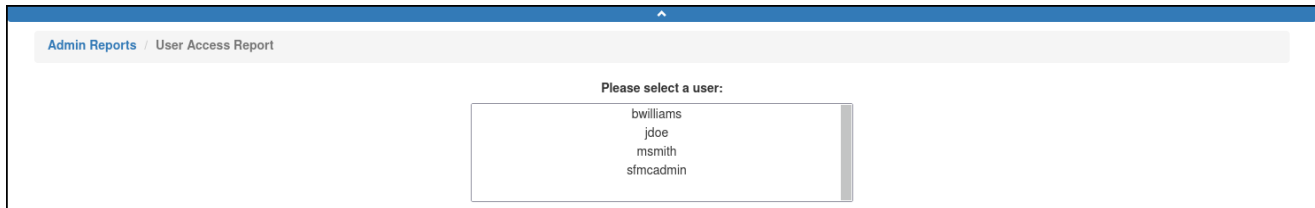


Figure 16-10 *User Access Report* page.

3. From the *Please select a user* drop-down list, select the user for which you want to view the User Access report.

The system displays the *User Access Report* page, as shown in Figure 16-11 below.

The User Access Report displays everything to which a specific user has access, including: gliders, dock server scripts, mission plans, and mission plan parts for each group in which the user is a member.

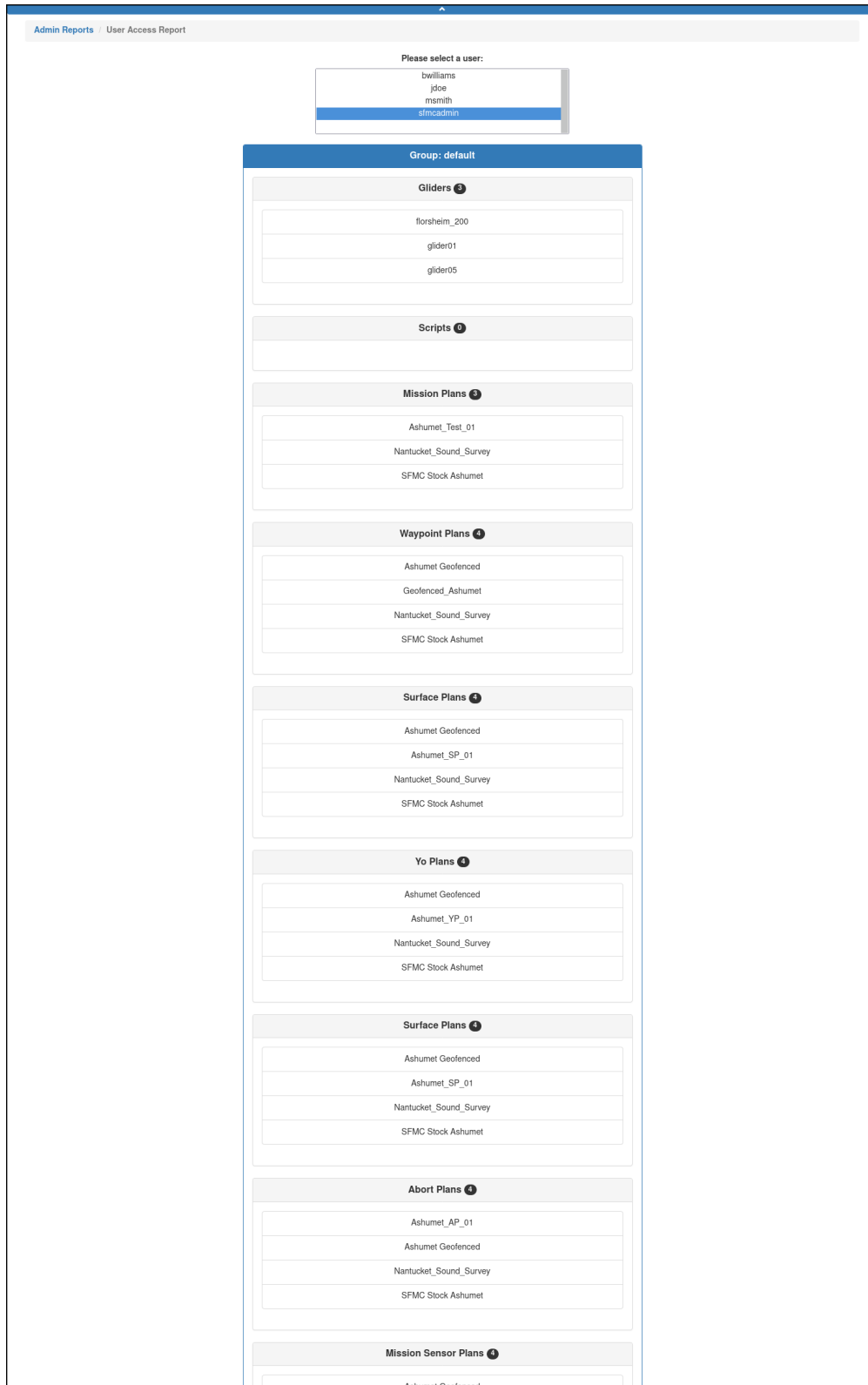


Figure 16-11 Beginning of User Access Report for a specific user, by group.

# Managing Administrator Messages

A user account with the administrator role can be used to post messages for all users to view. These messages can also be created, edited and deleted in SFMC.

## Viewing Administrator Messages

When administrator messages are available for viewing, an icon appears above the Menu bar on the Fleet Mission Control screen, as shown in Figure 16-12:

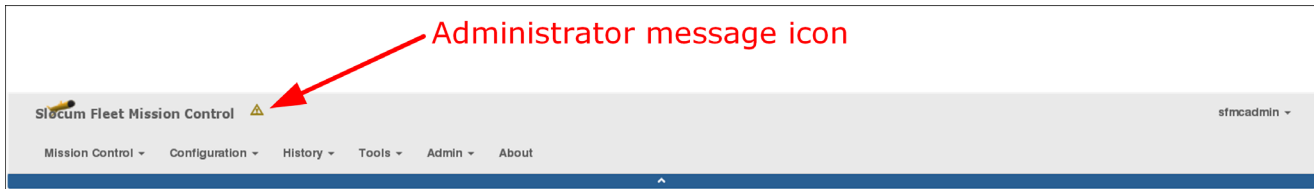


Figure 16-12 Fleet Mission Control Screen—Administrator Messages icon.

Selecting this icon opens the *System Status* page where the messages are displayed at the top, as shown in Figure 16-13:

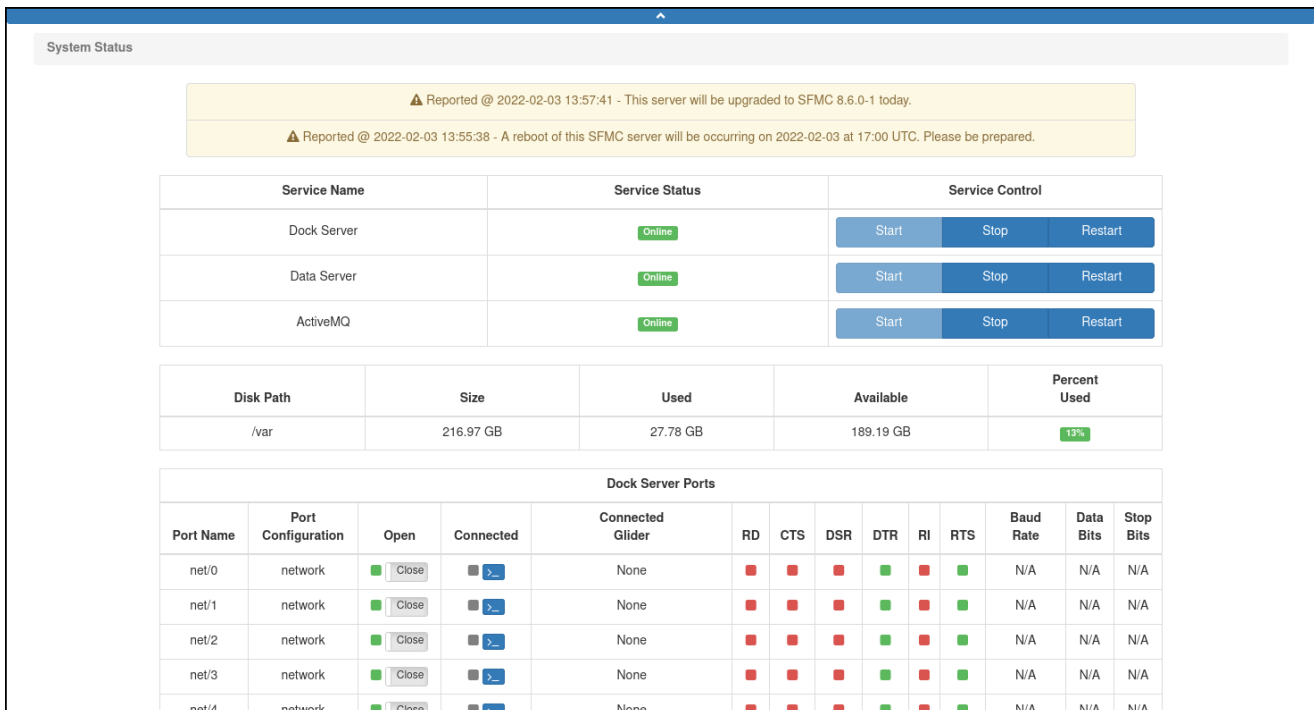


Figure 16-13 System Status page displaying administrator messages.

Messages that are marked public are displayed automatically above the *Login Form* panel when starting SFMC as shown in Figure 16-14:

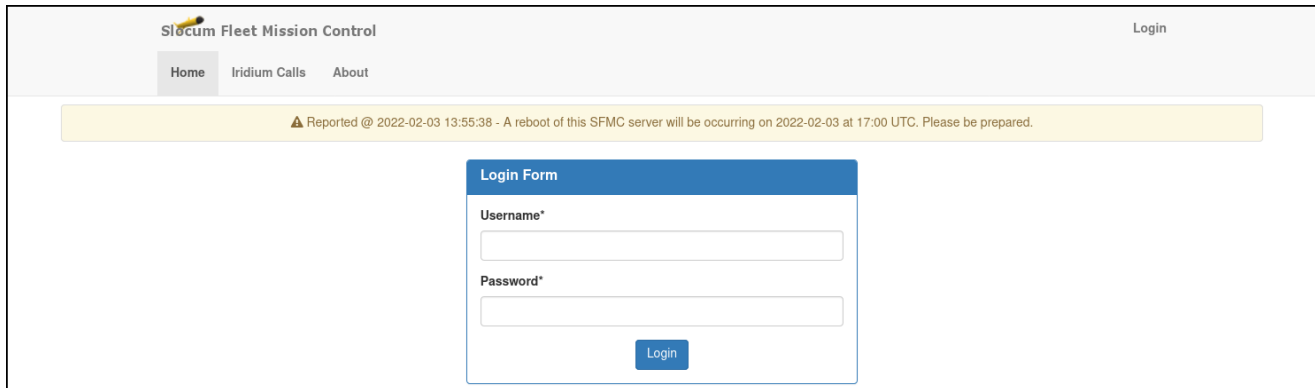


Figure 16-14 Administrator message displayed above *Login Form* panel.

## Creating an Administrator Message

To create an administrator message:

1. From the main menu, select **Admin > Admin Messages Management**.  
The system displays the *Admin Message Management* page, as shown in Figure 16-15:

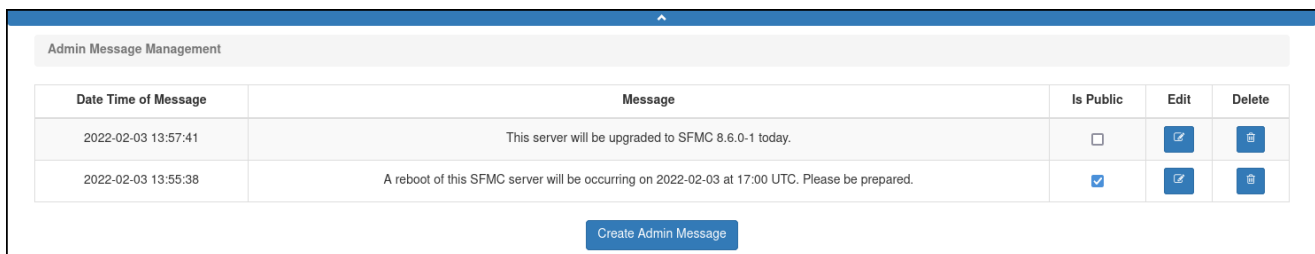


Figure 16-15 *Admin Message Management* page.

2. Select *Create Admin Message*.  
The system displays the *Create Admin Message Form* dialog box, as shown in Figure 16-16:

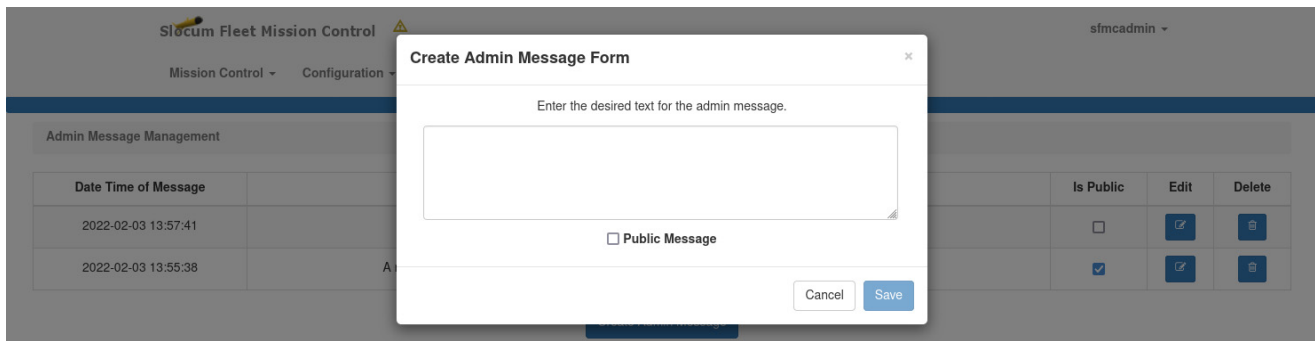


Figure 16-16 Create Admin Message Form dialog box.

3. Enter the text of the message in the text box.
4. Select the *Public Message* check box to display the message above the *Login Form* panel after launching SFMC, but before you have logged into SFMC.  
If this check box is not selected, a user must be logged in to view the message, as described in “Viewing Administrator Messages” on page 15-8.
5. Select *Save*.  
The system saves the message.

## Editing an Administrator Message

To edit an administrator message:

1. From the main menu, select **Admin > Admin Messages Management**.  
The *Admin Message Management* page opens with all of the current messages listed as shown in Figure 16-17:

| Admin Message Management |  |                                     |      |        |
|--------------------------|--|-------------------------------------|------|--------|
| Date Time of Message     | Message  | Is Public                           | Edit | Delete |
| 2022-02-03 13:57:41      | This server will be upgraded to SFMC 8.6.0-1 today.  | <input type="checkbox"/>            |      |        |
| 2022-02-03 13:55:38      | A reboot of this SFMC server will be occurring on 2022-02-03 at 17:00 UTC. Please be prepared. | <input checked="" type="checkbox"/> |      |        |

[Create Admin Message](#)

Figure 16-17 Current messages listed.

2. Select the *Edit* button for the message that you want to edit.  
The system displays the *Modify Admin Message Form* dialog box, as shown in Figure 16-18:



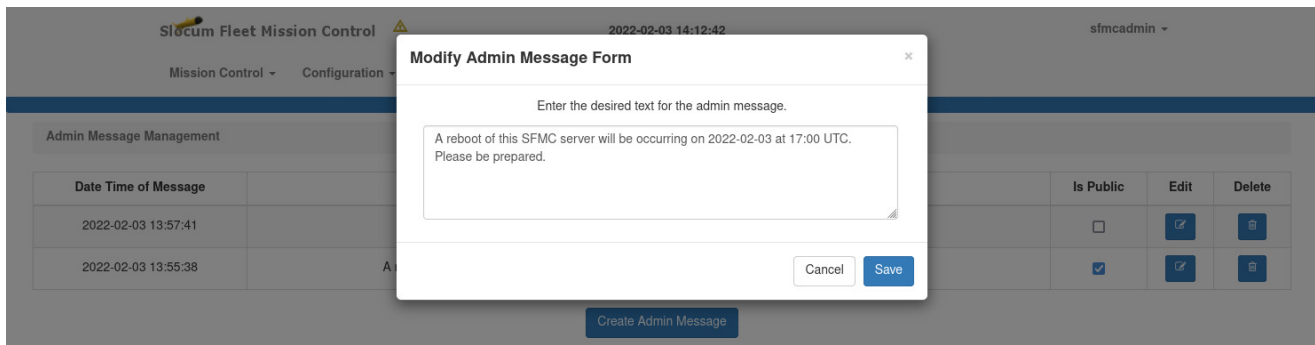


Figure 16-18 Modify Admin Message Form dialog box.

3. Edit the message as required.
4. Select *Save*.  
The system saves the message.

## Deleting an Administrator Message

To delete an administrator message:

1. From the main menu, select **Admin > Admin Messages Management**.  
The *Admin Message Management* page opens with all of the current messages listed, as shown in Figure 15-18 above.
2. Select the *Delete* button for the message that you want to delete.  
The system displays the *Delete Admin Message* dialog box, as shown in Figure 16-19:

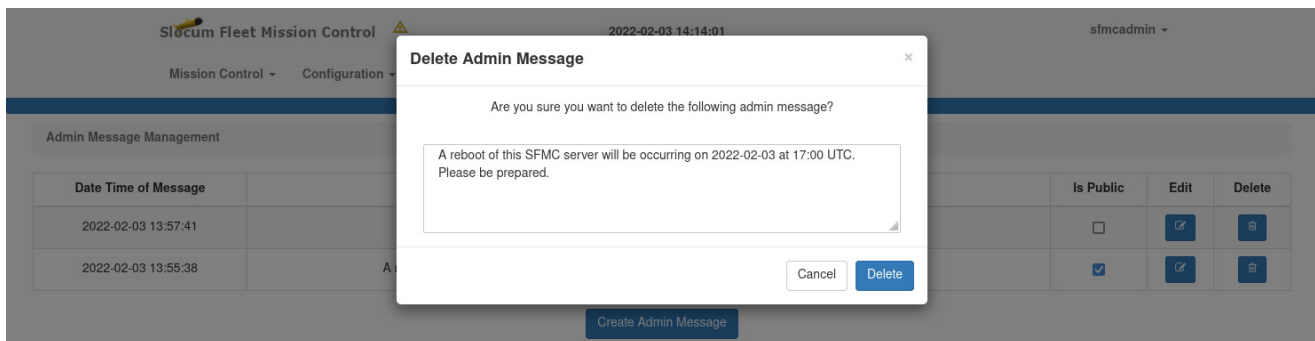


Figure 16-19 Delete Admin Message dialog box.

3. Select *Delete*.  
The system deletes the message.

# 17 Tools

SFMC tools are available on the **Tools** menu.

## Reports

The following time reports help you understand how much time the glider has been connected for each connection type and the median time between each connection. The subjects of the reports are:

- Creating a Glider Connection Time
- Glider Mean Time Between Connections

The reports are available when logged in to a user account as an Administrator or a user account with any role.

## Creating a Glider Connection Time Report

To create a Glider Connection Time report:

1. Log in to a user account as either an Administrator or one with any role.  
Administrators can generate this report for all gliders.  
Group Level Administrator, Glider Pilot, and Viewer roles can generate this report for gliders in their allowed groups.
2. From the main menu, select **Tools**.  
The system displays the *Tools Reports* page, as shown in Figure 17-5:

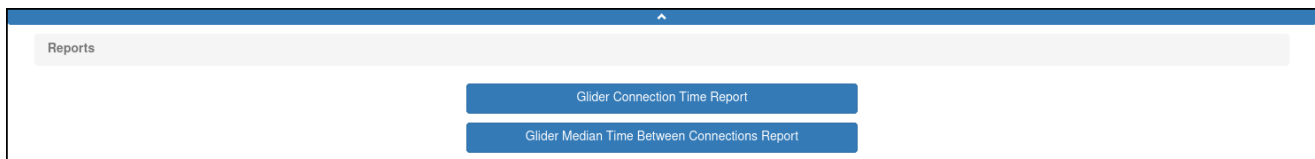


Figure 17-1 *Tools Reports* page.

3. Select the **Glider Connection Time Report** button.  
The system displays the *Glider Connection Time Report* page, as shown in Figure 17-2:

Start Date\*

2022-01-10 14:15

End Date\*

2022-02-03 14:15

Please select a glider:

florsheim\_200

glider01

glider02

glider03

glider04

glider01

| Comms Type | Minutes |
|------------|---------|
| direct     | 0       |
| freewave   | 0       |
| network    | 81      |

Figure 17-2 Glider Connection Time Report page.

- In the *Start Date* field, enter the date in **yyy-mm-dd hh:mm** format or select the date from the associated calendar icon.
- Similarly, in the *End Date* field, enter/select the date.
- In the *Please select a glider* drop-down list, select the appropriate glider. SFMC displays the amount of time the glider was connected for each communication type.

## Creating a Glider Mean Time Between Connections Report

To create a Glider Mean Time Between Connections report:

- Log in to a user account as either an Administrator or one with any role. Administrators can generate this report for all gliders. Group Level Administrator, Glider Pilot, and Viewer roles can generate this report for gliders in their allowed groups only.
- From the main menu, select **Tools**. The system displays the *Tools Reports* page, as shown in Figure 17-3:

Reports

Glider Connection Time Report

Glider Median Time Between Connections Report

Figure 17-3 Tools Reports page.

3. Select the **Glider Mean Time Between Connections Report** button.

The system displays the *Glider Mean Time Between Connections Report* page, as shown in Figure 17-4:

| glider01         |                                 |
|------------------|---------------------------------|
| # of Connections | Median Time Disconnected (mins) |
| 32               | 81                              |

Figure 17-4 *Glider Mean Time Between Connections Report* page.

4. In the *Start Date* field, enter the date in **yyy-mm-dd hh:mm** format or select the date from the associated calendar icon.
5. Similarly, in the *End Date* field, enter/select the date.
6. In the *Please select a glider* drop-down list, select the appropriate glider.  
SFMC displays the number of connections by the glider and the mean time between each connection.

## Sensor Data File Tool

The Sensor Data File tool helps you save sensor data that are not glider- or deployment-specific in operator created folders. The system provides up to 100 MB of space for each group just for this purpose.

When saved, the data can be parsed and then viewed as ASCII files or as plots on a graph, up to five sensors on a single plot.

The Sensor Data File tool is available when logged in to a user account as an Administrator or a user account with any role.

## Creating a Sensor Data Folder

To create a sensor data folder:

1. From the main menu, select **Tools > Sensor Data File Tool**.

The system displays the *SDF Tool* page, as shown in Figure 17-5:

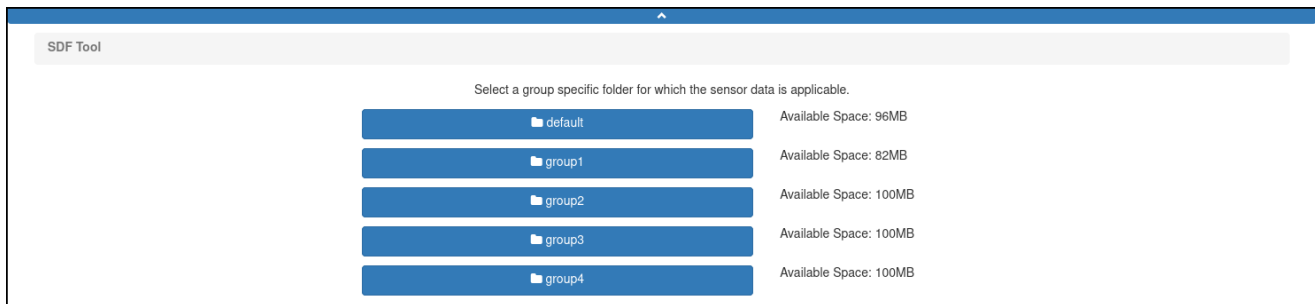


Figure 17-5 *SDF Tool* page.

Only those groups associated with the user account are displayed.

If the user account is associated only with the default group, the *Existing Folders* panel opens instead, as shown in Figure 17-6; skip to Step 3.

2. Select the group for which the sensor data applies.

The system displays the *Existing Folders* panel, as shown in Figure 17-6:

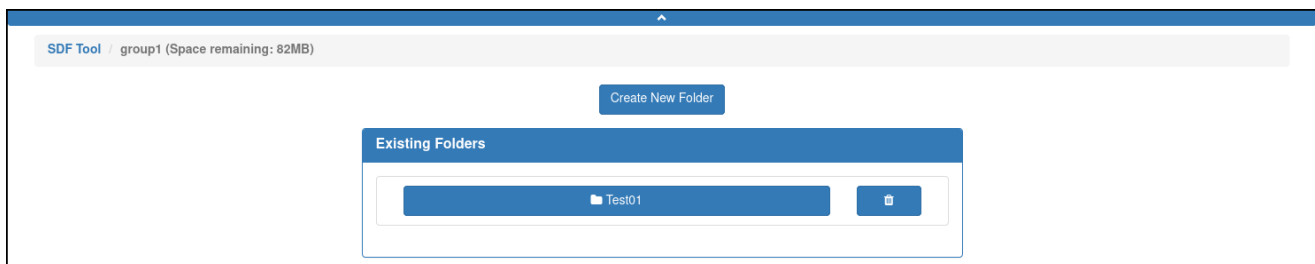


Figure 17-6 *Existing Folders* panel.

3. Select **Create New Folder**.

The system displays the *Create New SDF Folder Form* dialog box, as shown in Figure 17-7:

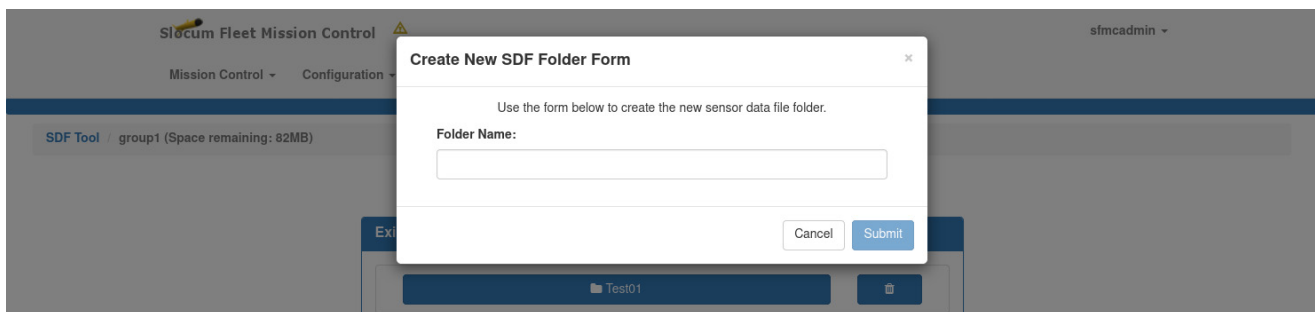


Figure 17-7 *Create New SDF Folder Form* dialog box.

4. Enter a name for the folder in the *Folder Name* text box, as shown in Figure 17-8:

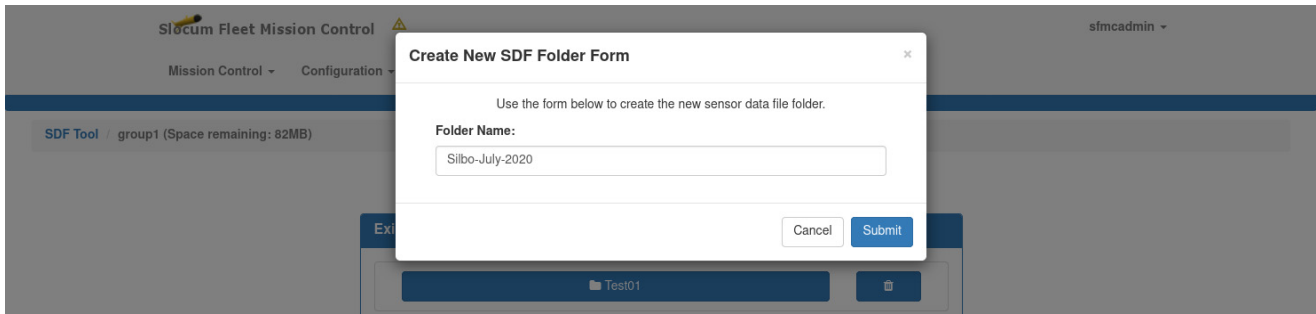


Figure 17-8 Folder name entered.

5. Select *Submit*.

The system adds the folder, as shown in Figure 17-9:

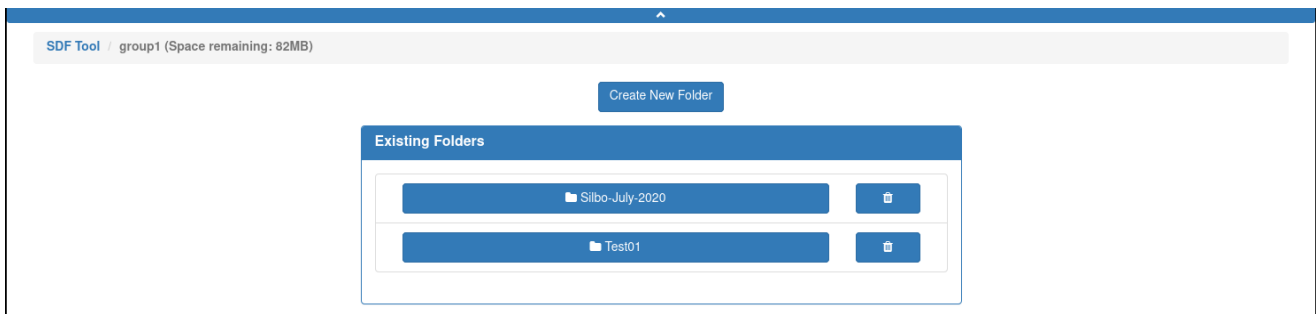


Figure 17-9 Existing Folders panel with folder added.

## Adding Files to a Sensor Data Folder

To add files to a sensor data folder:

1. From the main menu, select **Tools > Sensor Data File Tool**.  
The system displays the *SDF Tool* page, as shown in Figure 17-5 on page 17-4 where only those groups associated with the user account will be displayed.  
If the user account is associated only with the default group, the *Existing Folders* panel opens instead as shown in Figure 16-2 on page 16-2; skip to Step 3.
2. Select the group for which the sensor data applies.  
The system displays the *Existing Folders* panel, as shown in Figure 17-6 on page 17-4.
3. Select the folder that you want to add files to.  
The system displays the *Existing Sensor Data Files* panel, as shown in Figure 17-10:

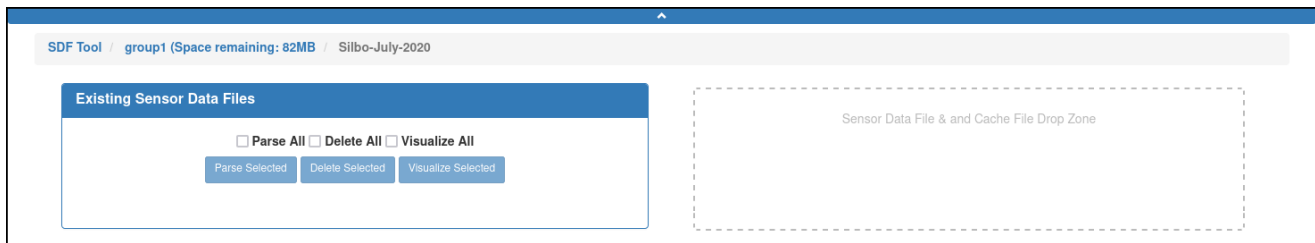


Figure 17-10 Existing Sensor Data Files panel.

4. Drag-and-drop the files that you want to add to the folder into the *Sensor Data File and Cache File Drop Zone*.

Files that can be dragged and dropped are those with extensions SBD, TBD, MBD, NBD, DBD, and EBD, plus cache files, files with extension CAC.

The files appear on the *Existing Sensor Data Files* panel, as shown in Figure 17-11:

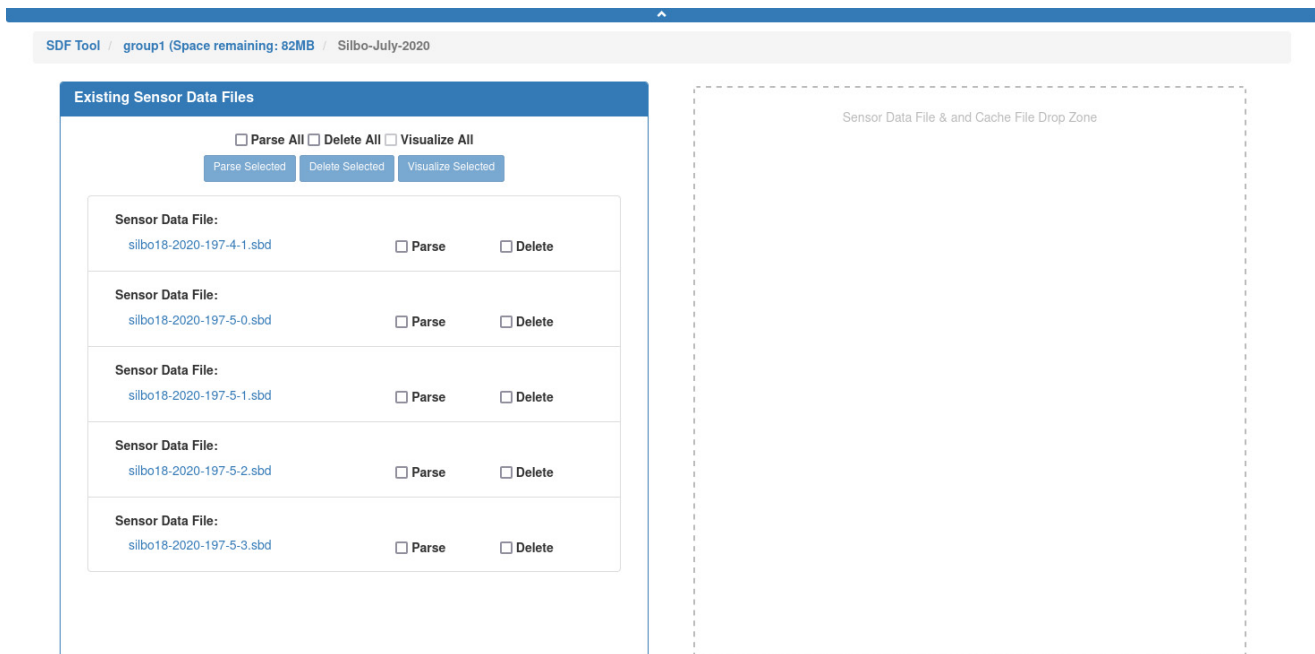


Figure 17-11 Existing Sensor Data Files panel with files added.

## Parsing Sensor Data File Data

Before you can view the data in a sensor data file, either as ASCII characters or as plots on a graph, the data must first be parsed.

To parse sensor data file data:

1. From the main menu, select **Tools > Sensor Data File Tool**.

The system displays the *SDF Tool* page, as shown in Figure 17-5 on page 17-4 where only those groups associated with the user account will be displayed.

If the user account is associated only with the default group, the *Existing Folders* panel opens instead as shown in Figure 16-2 on page 16-2.

2. Select the group for which the sensor data applies.  
The system displays the *Existing Folders* panel, as shown in Figure 17-6 on page 17-4.
3. Select the folder containing the data that you want to parse.  
The system displays the *Existing Sensor Data Files* panel, as shown in Figure 17-11 above.
4. Select the *Parse* check box for each data file that you want to parse or select the *Parse All* check box to parse all the data files.
5. Select *Parse Selected*.

The system parses the sensor data. For each parsed sensor data file, the data becomes available for viewing as an ASCII file as shown in Figure 17-12:

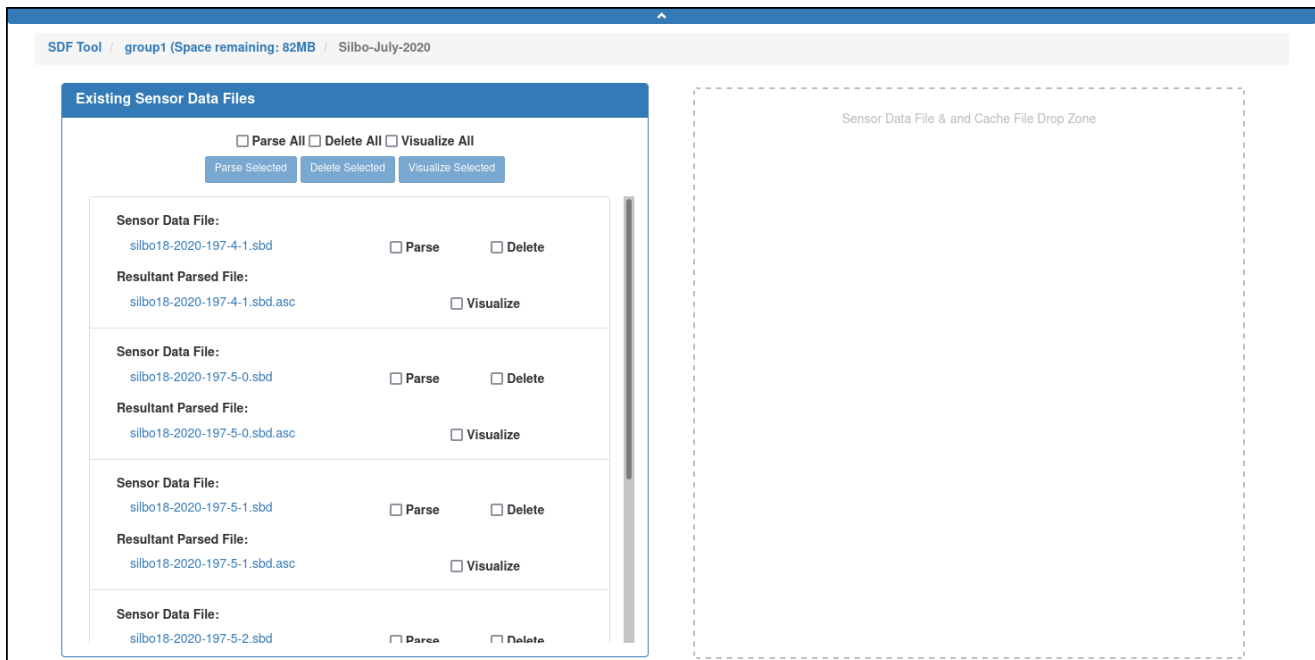


Figure 17-12 Selected files parsed.

In addition, the *Visualize* check box appears so you can view the data as plots on a graph.



## Note

The sensor data file requires a cache file to parse the data. If the cache file is missing, drag-and-drop the cache file into the *Sensor Data File and Cache File Drop Zone*.



## Viewing Sensor File Data as ASCII Files

To view sensor file data as ASCII files:

1. Refer to "Parsing Sensor Data File Data" on page 16-4 and parse each sensor data file that you want to view as an ASCII file.
2. One at a time select the parsed files to save them to the *Downloads* folder of the Web browser as ASCII files which can be opened and viewed in any text editor.

## Viewing Sensor File Data as Plots on a Graph

To view sensor file data as plots on a graph:

1. Refer to "Parsing Sensor Data File Data" on page 17-6 and parse the sensor file data that you want to view as plots on a graph.
2. Select the *Visualize* check box for each data file that you want to view or select the *Visualize All* check box to visualize all the data files.
3. Select *Visualize Selected*.

The system displays the *Applicable Files* panel, as shown in Figure 17-13 that lists the selected data files:

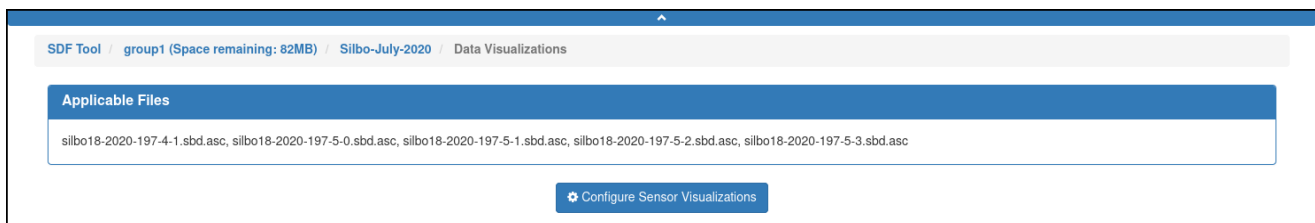


Figure 17-13 *Applicable Files* panel.

4. Select *Configure Sensor Visualizations*.

The system displays the *Sensor Selections Form* dialog box, as shown in Figure 17-14:

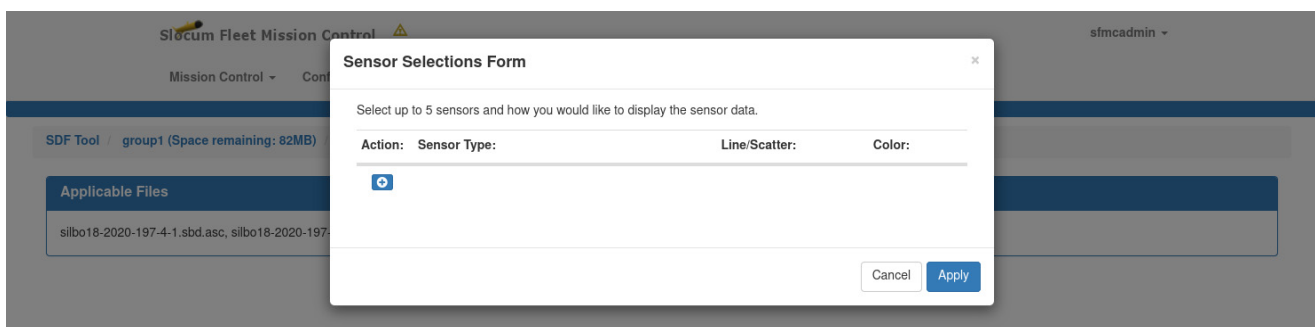


Figure 17-14 *Sensor Selections Form* dialog box.

5. Select the *Action* button.

The system displays the *Sensor Selections Form*, as shown in Figure 17-15:

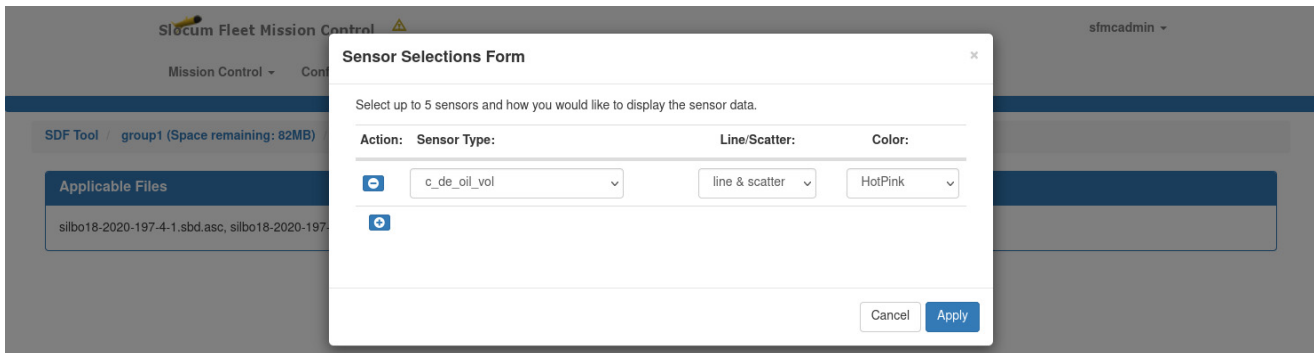


Figure 17-15 After using the drop-down lists.

6. Select a sensor from the *Sensor Type* drop-down list.
7. Select the plot type from the *Line/Scatter* drop-down list.
8. Select the color from the *Color* drop-down list.
9. [optional] Repeat Step 5 through Step 8 to add another sensor. You can select up to five sensors.

Three are selected in the example in Figure 17-16:

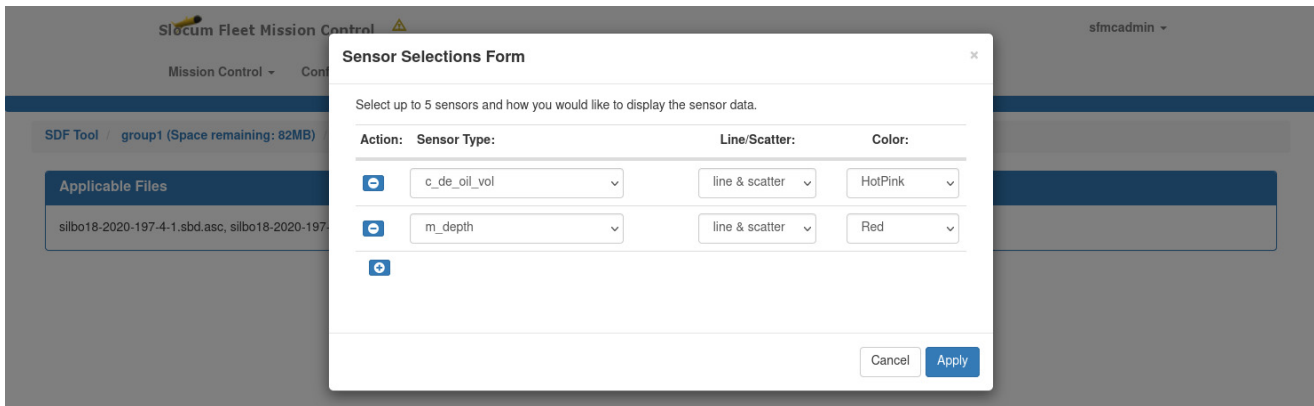


Figure 17-16 Sensors, plot types, and colors selected.

To delete a sensor, select the *Action* button for it.

10. Select *Apply*.

The system displays the data visualizations plot, as shown in Figure 17-17:



Figure 17-17 Data Visualizations plot.

11. [optional] Perform the steps in one or more of the following options:

### Option 1

- Select a color swatch to hide the plot.
- Select it again to show the plot.

For line/scatter and scatter plot types only, the color swatch displays the symbol that marks each point on the plot.

Also, when hovering over a point on the plot, the date and time of the data are displayed, along with the source file and the sample value.

The color swatches also include a scale legend and the total span of the associated plot.

### Option 2

- Select a vertical axis dimension button to change the minimum and maximum vertical axis values.

A button is located at the top of the vertical axis or at the top of each vertical axis if you selected more than one sensor.

The system displays the *Configure Y <dimension> Axis Range Form* dialog box, as shown in Figure 17-18:

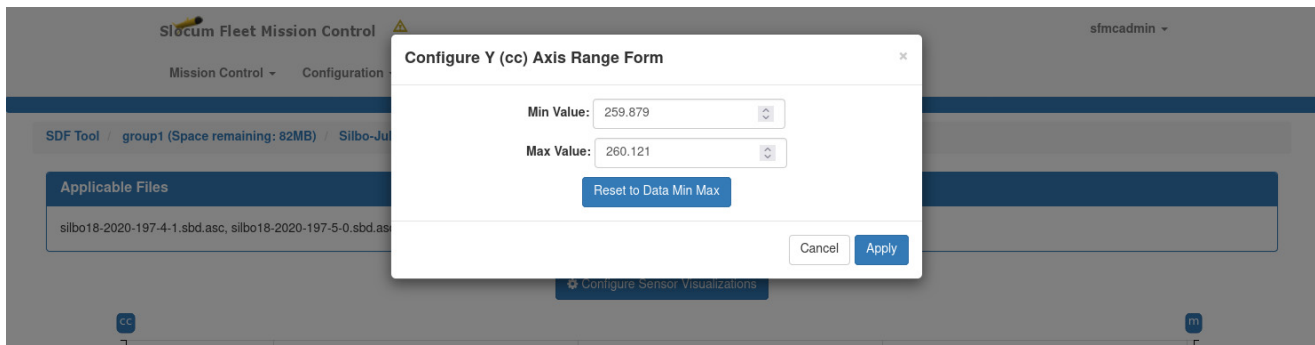


Figure 17-18 Configure Y <dimension> Axis Range dialog box.

- b. Perform one of the following:
  - i. Enter or select the minimum and maximum vertical axis values in the *Min Value* and *Max Value* spin boxes.
  - or–
  - ii. Select *Reset to Data Min Max* to set the minimum and maximum scale to that of the data minimum and maximum if the scales were previously changed.
- c. Select *Apply*.

### Option 3

- a. Select *Configure Sensor Visualizations* to open the *Sensor Selections Form* dialog box again.
- b. Change the sensor selections, plot types, and colors.

### Option 4

- a. Select the plot on the lower graph.
- b. Drag it to the right or left to create a zoom box that will contract or expand the horizontal axis of the main graph in accordance with the box width, thus zooming in or out of the plot.

The horizontal scale and units will adjust automatically in accordance with the zoom level.

Selecting inside the box and dragging it to the left or to the right will pan the horizontal axis of the main graph.

- c. To return the graph to its original state, select inside the lower graph once.

## Deleting a Sensor Data Folder

To delete a sensor data folder:

1. From the main menu, select **Tools > Sensor Data File Tool**.

The system displays the *SDF Tool* page, as shown in Figure 17-5 on page 17-4 where only those groups associated with the user account will be displayed.

If the user account is associated only with the default group, the *Existing Folders* panel opens instead as shown in Figure Figure 17-6 on page 17-4; skip to Step 3.

2. Select the group for which the sensor data applies.  
The system displays the *Existing Folders* panel, as shown in Figure 17-6 on page 17-4.
3. Select the *Delete* button for the sensor data folder that you want to delete.
4. In the *Delete SDF Folder Form* dialog box, select *Delete*.  
The system deletes the folder and all its files.

## Deleting a Sensor Data File

To delete a sensor data file:

1. From the main menu, select **Tools > Sensor Data File Tool**.  
The system displays the *SDF Tool* page, as shown in Figure 17-5 on page 17-4 where only those groups associated with the user account will be displayed.  
If the user account is associated only with the default group, the *Existing Folders* panel opens instead as shown in Figure Figure 17-6 on page 17-4; skip to Step 3.
2. Select the group for which the sensor data applies.  
The system displays the *Existing Folders* panel, as shown in Figure 17-6 on page 17-4.
3. Select the folder that contains the sensor data file to be deleted.  
The system displays the *Existing Sensor Data Files* panel, as shown in Figure 16-7 on page 16-4.
4. Select either the:
  - *Delete* check box for each data file that you want to delete
  - or–
  - Select the *Delete All* check box to delete all the data files
5. Select *Delete Selected*.  
The sensor data file is deleted.

# A Abbreviations and Acronyms

This appendix includes the abbreviations and acronyms pertaining to Slocum gliders.

| Abbreviation or Acronym | Description  |
|-------------------------|--|
| AC or ac                | Alternating Current  |
| ASSY                    | Assembly   |
| BAM                     | Beam Attenuation Meter   |
| CTD                     | Conductivity/Temperature/Depth   |
| COTS                    | Commercial Off-the-Shelf   |
| DC or dc                | Direct Current   |
| DDM                     | Degrees Decimal Minutes<br>Latitude/Longitude format displayed as: -70° 34.50' W       |
| DG                      | Dangerous Goods  |
| DMS                     | Degrees Minutes Seconds<br>Latitude/Longitude format displayed as: -70° 34' 29.9776" W |
| GLMPC                   | Glider Mission Planning and Control  |
| GMC                     | Glider Mission Control   |
| GPS                     | Global Positioning System  |
| IR                      | Infrared   |
| ISO                     | International Organization for Standardization   |
| ISU                     | Iridium Subscriber Unit  |
| LNA                     | Low Noise Amplifier  |
| MS Plug                 | Military Standard Plug   |
| MSDS                    | Material Safety Data Sheet   |
| OC                      | Operations Center  |
| OEM                     | Original Equipment Manufacturer  |
| QCP                     | Quality Control Process  |
| PPE                     | Personal Protective Equipment  |
| RHEL                    | Red Hat Enterprise Linux   |
| RHN                     | Red Hat Network  |
| RUDICS                  | Router-based Unrestricted Digital Internetworking Connectivity System                  |
| SE                      | Systems Engineering  |
| SHCS                    | Socket Head Cap Screw  |
| SN                      | Serial Number  |
| SOP                     | Standard Operating Procedure   |

| Abbreviation or Acronym | Description  |
|-------------------------|--|
| SSL                     | Secure Sockets Layer<br>A security protocol that creates an encrypted link between a web server and a web browser. |
| STE                     | Secure Telephone Equipment   |
| TWR                     | Teledyne Webb Research   |
| U.S.                    | United States  |
| USB                     | Universal Serial Bus   |
| UUV                     | Unmanned Undersea Vehicle  |
| VAC                     | Volts Alternating Current  |

# B SFMC Dock Server Folders

## The `/var/opt/gmc/` Folder

The `/var/opt/gmc` folder represents the `/var/opt/sfmc-dockserver/stations/default` folder.

The `/var/opt/sfmc-dockserver/stations` folder includes all of the group-specific `<groupName>` folders, including the `default` group folder:

- `/var/opt/sfmc-dockserver/stations/default`
- `/var/opt/sfmc-dockserver/stations/group1`, `group2`, and so on

In each group folder are the following:

- `<groupName>.xml` — An XML file that must **not** be modified.
- `scripts` — A folder that can contain Dock Server scripts for the group.
- `maps` — A folder that can contain maps for the group.
- `gliders` — A folder that contains a list of folders for each glider registered in the group.
- `backups` — A folder that contains archives of specific glider folders that have been backed up by users.

## The `/var/opt/sfmc-dockserver/stations/<groupName>/gliders` Folder

The folder `/var/opt/sfmc-dockserver/stations/<groupName>/gliders` contains one or more glider folders, each named `<gliderName>` and each representing the glider as in the following examples:

- `/var/opt/sfmc-dockserver/stations/default/gliders/hostglider1`
- `/var/opt/sfmc-dockserver/stations/group1/gliders/hostglider4`
- `/var/opt/sfmc-dockserver/stations/group2/gliders/hostglider5`

In each glider folder are the following:

- `archive` — A folder that stores archived files associated with `dockzr` command executions for the glider.
- `configuration` — A folder that contains mission planner files to be transferred to the glider.
- `from-glider` — A folder that contains files transferred from the glider.



- **logs** — A folder that contains Dock Server created log files capturing glider dialog for each communication session with the glider.
- **to-glider** — A folder that contains flight files to be sent to the glider.
- **to-science** — A folder that contains science files to be sent to the glider.

# C Importing Glider Data

SFMC provides the ability to import glider data from glider dialog files. These files contain the output from and the input to the glider, where the source glider dialog files were obtained from another SFMC Dock Server or from a Teledyne Webb legacy Dock Server.

Importing glider data from a legacy Dock Server enables displaying of glider deployments in SFMC. However, there is currently no Web user interface to import glider data. Importing glider data into SFMC requires a local login to an SFMC system as the **localuser**.

To import glider data:

1. Place all of the glider data files to be imported into a single folder that is accessible by SFMC.



## Note

The glider data files to be imported must not already exist in the SFMC **/var/opt/gmc** folder of the system into which the data files are being imported.

2. Log in to your computer using your local user account. Do not log in to SFMC.
3. Run the SFMC glider import tool command:

```
/opt/sfmc-toolbox/bin/import-dialogs.sh <folder-path-containing-glider-data-files>
```

The SFMC glider data import tool imports the data from each file and reports SUCCESS or FAILURE for each.

When the tool has finished importing all the files, the SFMC glider import tool exits and returns to the Linux command prompt.



## Note

If the glider data being imported was generated within the same timeframe for

- an existing active deployment for the glider, –or–
- a glider that has no current active deployment,

the system generates data for the active deployment resulting in many notifications on the Dashboard.

Therefore, it is recommended that you close the Dashboard before importing glider data.

# D Viewing Glider Data on Other Devices

SFMC can be viewed on a smartphone or a tablet. Examples of the Dashboard and the *Glider Terminal Access* page are shown in Figure D-1 through Figure D-4:

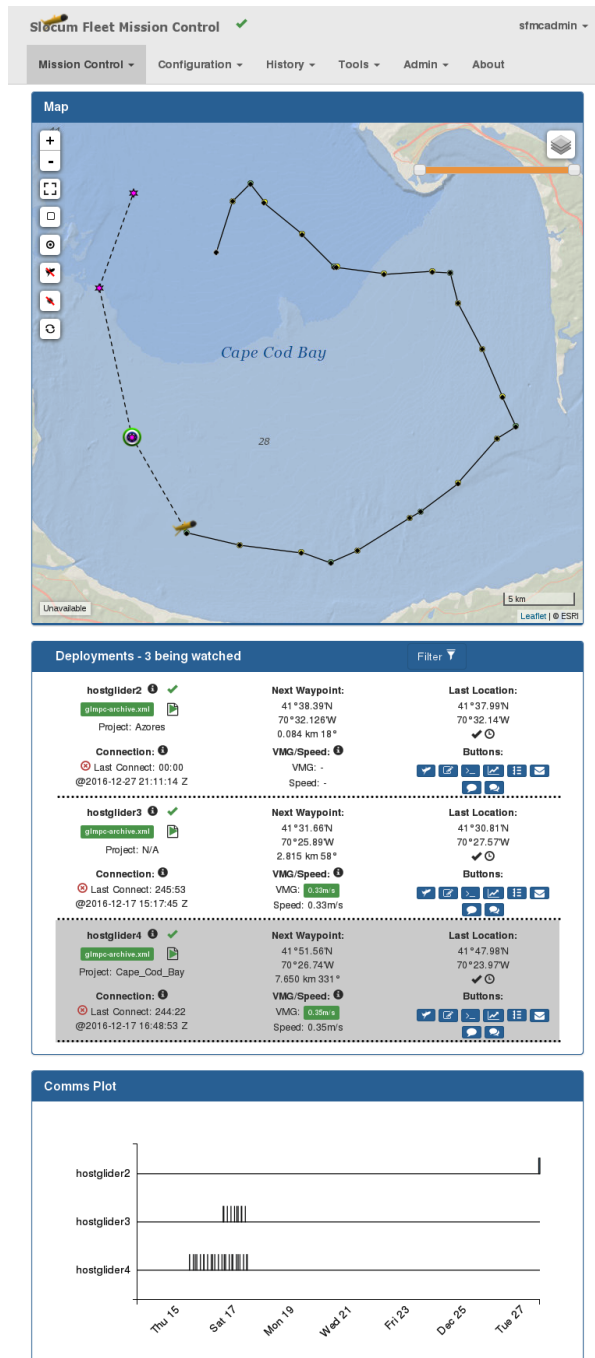


Figure D-1 Dashboard, tablet (continuous scroll).

**Slocum Fleet Mission Control** ✔ 2016-12-27 20:20:07 Z sfmadmin ▾

Mission Control ▾ Configuration ▾ History ▾ Tools ▾ Admin ▾ About

Glider Terminal Access / Terminal for Glider: hostglider3

Script:  Script State:

**Terminal for Glider: hostglider3**

**hostglider3 network-net/0**

```
ontrol-R to RESUME the mission, i.e. dive!
Hit Control-C to END the mission, i.e. GliderDos
Hit Control-E to extend surface time by 5 minutes.
Hit Control-W to get device warning reports.
Hit Control-F to re-read yo, goto_l, surface, sample, drift_mafiles.
Hit S [-f={rf}]{irid} [-num=<n>] [-t=<s>] [filespec ...] to send log files
Hit ! <GliderDos cmd> to execute <GliderDos cmd>
Hit Control-T to consci to science computer when comms ready:
... communications NOT ready for consci.
... because: sci_m_science_on = 0

Water Velocity Calculations waiting for final gps fix (ideally -1 secs)
Waypoint: (4131.6600,-7025.8900) Range: 2804m, Bearing: 58deg, Age: 3:29hm
Time until diving is: 248 secs

<dockserver command="!dockzr -archive **">
not found*<
[dockzr | dockszr] [?][-v N][-nosmartdir][-f rf | irid][-cd dir][-noremove] [-archive]
[-d <path1>] <file11> <file12> ... <file1N>
[[-d <path2>] <file21> <file22> ... <file2N>] ... ]
</dockserver>
```

> enter-command-here ^C ^E ^F ^P ^R ^T ^W

**Recent Commands Submitted**

| Command      | Submission Time     | Submitter |
|--------------|---------------------|-----------|
| run stock.mi | 2016-12-14 15:10:30 | sfmadmin  |
| dockzr **    | 2016-12-14 15:10:08 | sfmadmin  |

**Other Gliders**

- ⊗ >\_hostglider1
- ✔ >\_hostglider2
- ⊗ >\_hostglider4
- ⊗ >\_unknown

**Files**

- 📁 from-glider 20
- 📁 to-glider 0
- To Glider File Drop Zone
- 📁 to-science 0
- To Science File Drop Zone
- 📁 logs 10
- 📁 archive 0



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Figure D-2 Glider Terminal Access page, tablet (continuous scroll).

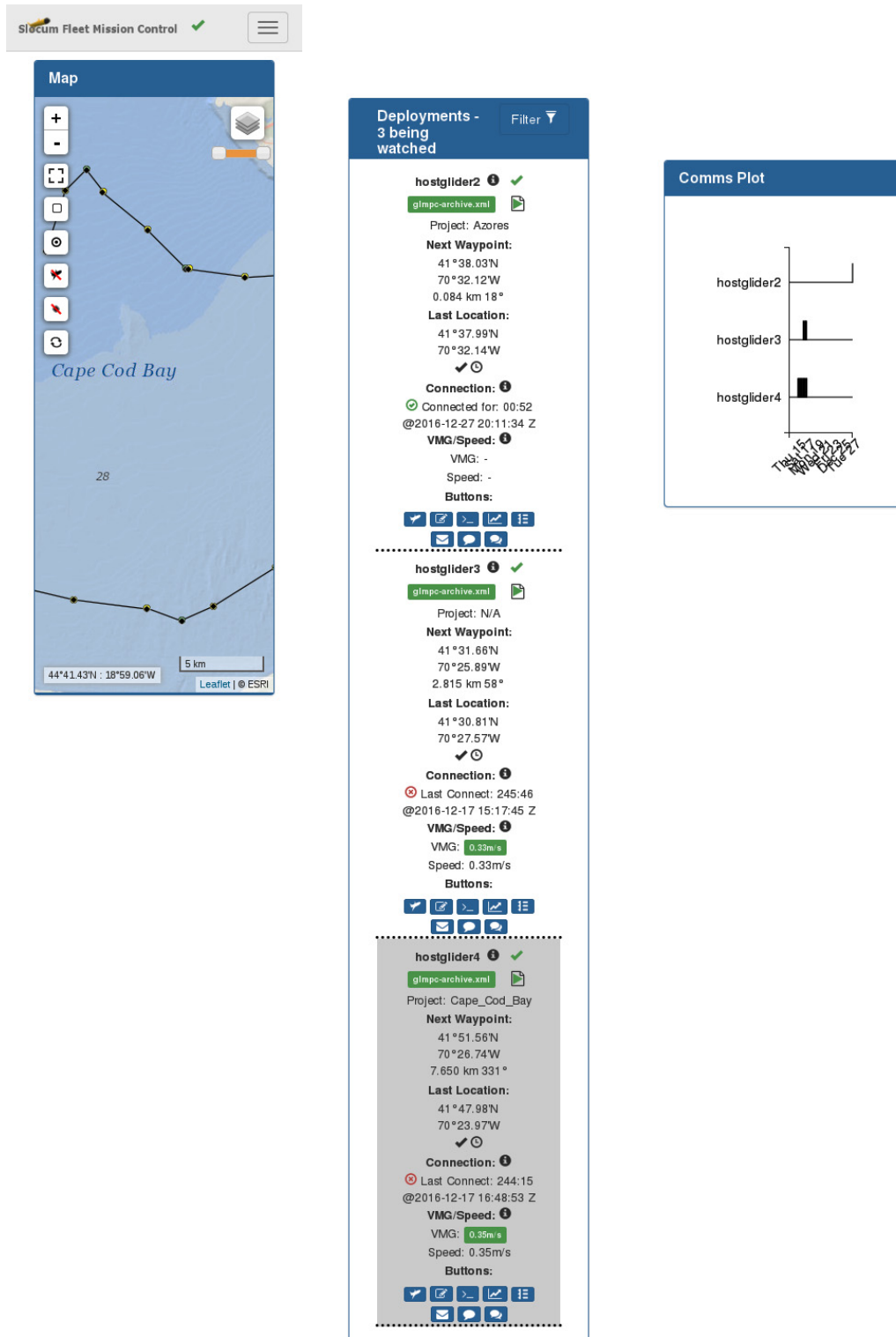


Figure D-3 Dashboard, smart phone (continuous scroll shown in 3 columns).

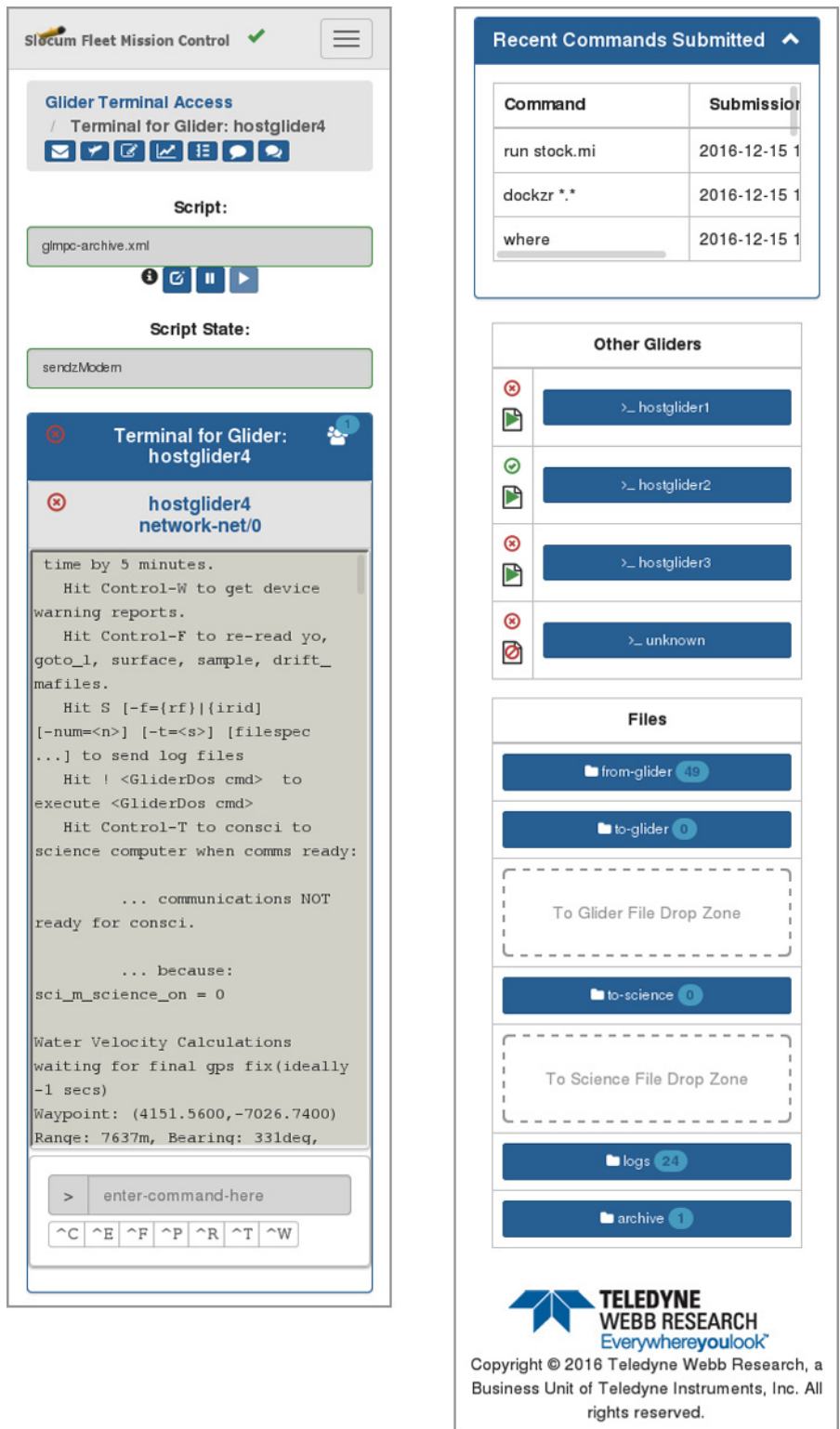


Figure D-4 Glider Terminal Access page, smart phone (continuous scroll shown in 2 columns).

# E Using the NodeJS REST API Programs

## How to Use the REST API-based Programs

1. Log in to SFMC instance, and access user menu item **API Access**.
2. On the API Access page, select the Generate button.
3. Record the Client ID and Secret values.

## Installation

4. Install npm (NodeJS Package Manager)
  - On CentOS:

```
sudo yum install nodejs
```
  - On Ubuntu:

```
sudo apt install nodejs
```
5. Create a new folder to hold the **nodejs** REST API-based programs. Use lowercase letters for its name (for example, **sfmc-rest-programs**).
6. Change directory to that folder.
7. In the command line, run the command below and press **[Enter]** until you get back to the command line:

```
npm init
```
8. Run the command below:

```
npm install /opt/sfmc-toolbox/sfmc-nodejs-rest-lib/sfmc.tgz
```
9. Copy all **/opt/sfmc toolbox/sfmc-nodejs-rest-programs/\*.js** files to the folder you created in Step 5.
10. Run the command below:

```
mkdir config
```
11. Copy the template file **local.json** from **opt/sfmc-toolbox/sfmc-nodejs-rest-config** and place it in the **config** folder.

12. Edit the **config/local.json** file, replacing the following entries with the appropriate values:
  - <SFMC HOSTNAME OR IP>
  - <CLIENT ID>
  - <SECRET>
  - <PATH\_TO\_LOCATION\_OF\_FILE\_DOWNLOADS>
13. Run any of the REST API-based programs supplying the correct arguments.

## Glider Deployment Details

- get\_active\_deployment\_details.js

## Available Scripts for Glider

- get\_available\_glider\_scripts.js

## Glider File Access & Update

- add\_files\_glider\_folder.js
- get\_glider\_folder\_listing.js
- download\_glider\_files.js

## Glider Mission Plan Queries

- get\_abort\_plan.js
- get\_mission\_sensor\_plan.js
- get\_surface\_plan.js
- get\_yo\_plan.js
- get\_data\_transmission\_plan.js
- get\_sampling\_plan.js
- get\_waypoint\_plan.js



## Altering Glider Mission Plan

- delete\_at\_utc\_time\_surface\_plan\_rules.js
- delete\_hit\_waypoint\_surface\_plan\_rule.js
- deploy\_goto\_file.js
- deploy\_sbd\_list\_file.js
- deploy\_tbd\_list\_file.js
- update\_flight\_dt\_plan.js
- update\_science\_dt\_plan.js
- update\_waypoint\_plan.js
- delete\_every\_secs\_surface\_plan\_rules.js
- delete\_sampling\_plan\_rules.js
- deploy\_sample\_files.js
- deploy\_surface\_files.js
- deploy\_yo\_file.js
- update\_sampling\_plan.js
- update\_surface\_plan.js
- update\_yo\_plan.js

## Asynchronous Glider DS Connections

- output\_glider\_connection\_events.js

## Asynchronous Glider Dialog Output

- output\_glider\_dialog\_data.js

## Asynchronous Glider DS Script Events

- output\_glider\_script\_events.js

## Sending Commands to a Glider

- send\_command.js

## Control DS Scripts

- set\_assigned\_script.js
- pause\_assigned\_script.js
- rewind\_assigned\_script.js
- clear\_assigned\_script.js
- resume\_assigned\_script.js

## SFMC System Mgmt

- register\_glider.js
- add\_cache\_files.js