Thuraya SatTrack

Thuraya MarineStar

End User Manual
V1.0

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1. Introducing Thuraya SatTrack

Thuraya SatTrack is a software-based tracking system designed for Thuraya MarineStar. It provides vessel tracking and monitoring to support operations and voyage planning, benefiting vessel owners and operators.

When you subscribe to a Thuraya SatTrack package and receive confirmation of your MSISDN being set up, a simple initial setup is required on the terminal to start tracking. Please refer to your MarineStar user guide on how to set up the terminal for tracking. You will be able to use this software to view your own vessel locations.

Thuraya SatTrack software can be accessed at https://sattrack.thuraya.com using a latest web-browser using a laptop or computer

The SatTrack portal will plot the reported locations of all your active vessels on a map. It also enables you to receive alerts, when a vessel enters and exists certain areas, download tracking history, send notifications and remotely configure specific settings on the terminal.

2. Setup

Thuraya SatTrack is automatically associated with one or more Thuraya SIMs at the time of purchase.

A software account will be set up and you will be provided with a license key by your provider - to view your vessels.

2.1 Pre-requisites for Thuraya SatTrack setup

1. SatTrack portal access
   a. Steady internet access
   b. Laptop/Computer with latest web-browser
   c. Ensure open firewall access to https://sattrack.thuraya.com/
2. Thuraya MarineStar
   a. Active SIM-card subscribed to SatTrack portal
   b. Sim-card tray to be used which is provided in the MarineStar packaging [Thuraya Nano-sim fixed on the tray]
   c. Terminal powered by a reliable power supply with specs: 24V/1.8A or 12V/3.6A
   d. Clear line of sight with signal strength showing min. 4 bars and GPS location acquisition until the entire setup is completed without any interruptions [Refer to Thuraya MarineStar user manual]
   e. Test call and SMS prior as a recommendation

2.2 Initial setup

Access admin mode
• Security -> Administrator function-> OK -> Administrator mode->OK->ON->OK->Password – 00000000 -> OK->Back

Perform Factory default
• Security -> Factory reset -> OK -> Password – 0000 -> Reset "YES"->OK. The terminal will restart -> OK.

Setup wizard
• Wizard setting 1,Time >OK->DATE->OK->Auto update ->ON ->OK-> Next -> Select correct timezone of terminal location (GMT +/-) -> OK->BACK

2.3 Link MarineStar to SatTrack

Access admin mode
- Security -> Administrator function -> OK -> Administrator mode -> OK -> ON -> OK -> Password – 00000000 -> OK -> Back

Program the config server
- Location -> Settings -> Config server – input number "1002" -> Save -> Back

2.4 Program default tracking values for SatTrack compatibility

Input tracking by Distance
- Location ->Tracking->Tracking by Distance -> OK -> input values for Tracking Distance: "999.99 km" -> Time interval: "10 days", "00 hours", "00 minutes" -> SAVE -> Move down to configure SPEED

Input tracking by Speed
- Speed-> input values: "Upper speed –> 200km/hr", "Lower limit – 0km/hr", Time interval: "10 days", "00 hours", "00 minutes" -> SAVE -> Move down to configure TIME

Input tracking by Time
- Time -> input values: "10 days", "00 hours", "00 minutes" -> Options -> SAVE

Enable and Save Tracking info
- -> Check ☐ distance, speed and time tracking types -> Options -> SAVE **(Very important)** ☐ Press END button on the Marinestar

2.5 Start tracking

Admin mode disable
- Security -> Administrator function -> OK -> Administrator mode -> OK -> OFF -> OK -> Back.

Start tracking
- Long press the CONTACTS button. Popup of "Tracking activated" & arrow blinking is shown. The terminal is now fully programmed.

2.6 SatTrack initial setup

Creating an account

- Logon to https://sattrack.thuraya.com/
- In the create account section, enter Full name, email (should be unique for every license key), enter password, and enter license key provided by your Thuraya service provider
- Click create account -> the OTP shall be sent to the email ID registered
- Input the OTP in the portal wizard (Your account is now created)

Recommended setup

- In vessel menu, click on 3 dots on the right side of the respective vessel/MSISDN -> Select terminal alert settings -> Tick mark on Power cycle -> Send to terminal
- You can continue programming the other details like vessel details, tracking options etc.,

Check for link completion

- Open notification assistant to see the transactions
- Click on 3 dots on the right side of the respective vessel/MSISDN -> Select Tracking -> Tracking history tab (You should see some tracking reports have been recorded)
- You can now track, monitor and program required functionality on the respective online MSISDN-MarineStar terminal

Important notes:

1. The portal supports only the GNSS co-ordinate format DD.ddddd. Please make sure that the terminal is set up to send location co-ordinates in this format.

2. The portal is set up with English language.

3. The time shown in the assistant 🔵 is the local PC time (i.e. the time on the end user's PC).

4. The incoming, outgoing and missed calls are in the time zone the terminal is in at the time of making the calls.

5. All other times are in GMT (indicated with a "GMT" tag in the column header).

2.7 SMS usage

The Thuraya SatTrack software communicates with the terminal using Thuraya track and monitor plans.

The following types of messages will be deducted from your Thuraya track and monitor plans:
1.Responses sent by the terminal to the Thuraya SatTrack portal
E.g. Reporting tracking information, terminal alerts, success/fail acknowledgment from the terminal for the configuration from the portal.

3. The Map Area

The map will display the positions of the vessels you are tracking, and a trail of their most recent positions. By default, the trail reflects reporting events of the last seven days. Please refer to Map view config in this document to learn how to change the trail duration.
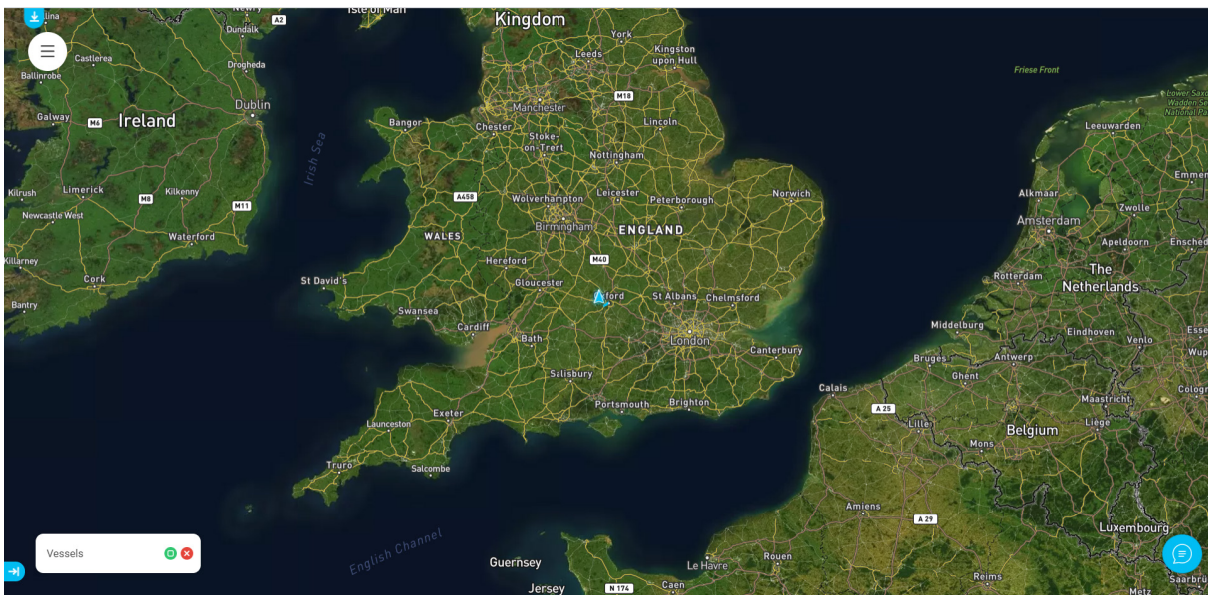
You can scroll the map by clicking and using your mouse/touchscreen
You can zoom in and out [use your mouse scroll wheel, pinch zoom on your touchscreen or touchpad of your laptop or computer].
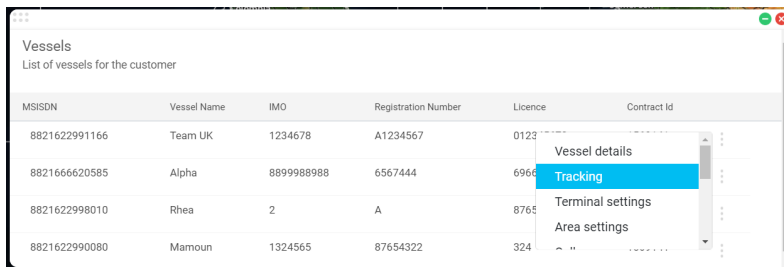
Option 1: To view individual vessels

To find a vessel on the map and zoom in on it, you can follow the below steps:

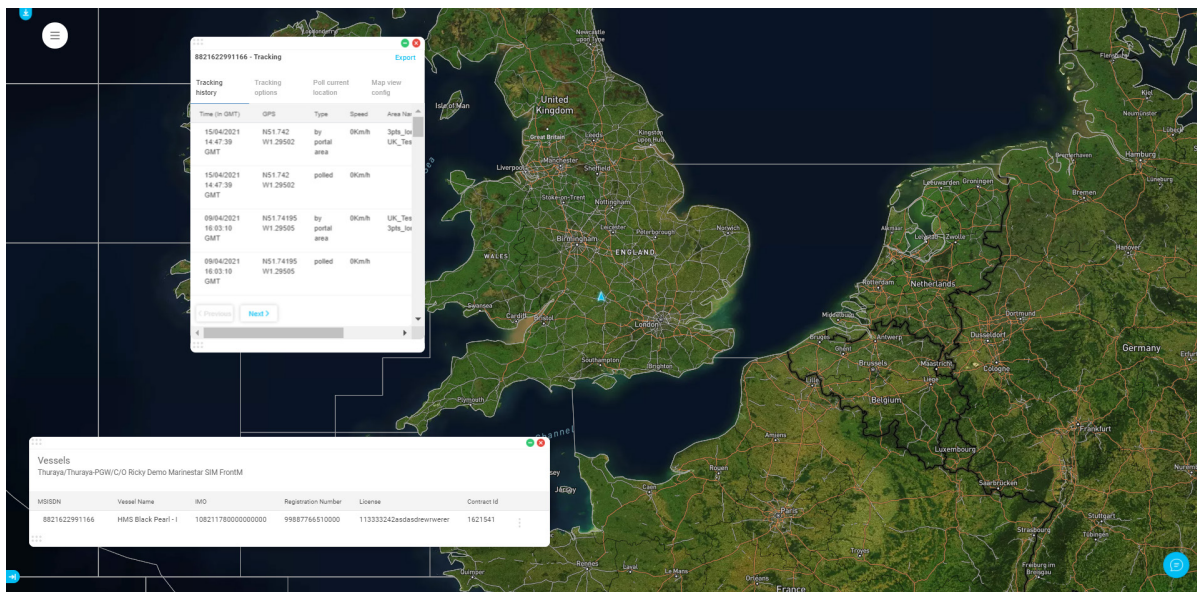**Step 1:** Click on the button in the respective MSISDN row:

This opens up the Vessel menu
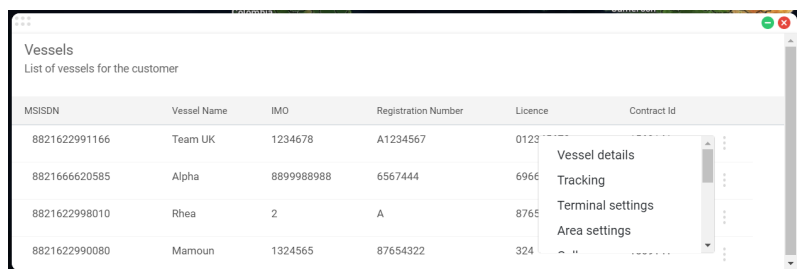
Step 2: Click on the Tracking option from the menu

Step 3: The vessel and its trail for the last 7 days is visible on the map. The trail for the last 7 days is also available in the Tracking history tab of the Tracking dialog box.

Option 2: All vessels in the portal

Step 1: Click on the menu button at the top left corner of the map

Step 2: Select the "Show my vessels" option from the drop down menu.
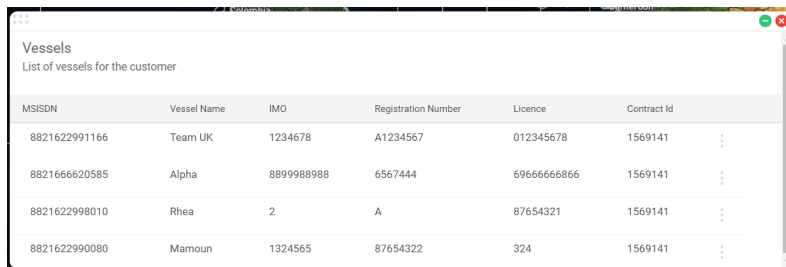
Option 3 - All vessels in a fleet

Please refer to Viewing vessels from a fleet in this document to learn how to view all the vessels of your fleet.

### 3.1 Customer/Vessels

3.1.1 List of Vessels

The main display shows your vessels. It will list them by MSISDN, vessel name, IMO, Registration number, License and Thuraya Service Partner / Contract ID.

Additionally, Vessel name, Registration number, IMO and License can also be configured as a one-time setup from Thuraya SatTrack portal. Please refer to Vessel details in this document to learn how to configure these.

This button next to each MSISDN will bring up the Vessel Menu, which allows you to see the vessel on the map and view and remotely program the terminal.
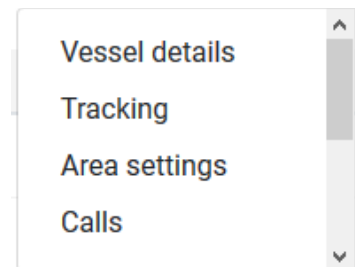
3.2 Vessel menu

This includes the options below. These are described in more detail in the following sections.

The table below shows the various options available and whether they are configurable through the portal or not.

Important note:

1.Any configuration changes sent from the Thuraya SatTrack portal will overwrite the existing settings on the terminal.
2.Please refer to Permissions in section 7 of this document to view the options available to you.

Retrieve - manual retrieve only, unless it is in response to a poll command.

| Menu	Option	Configure on the portal	Retrieve from the terminal
Vessel Details	MSISDN	N	NA
	All other fields (other than MSISDN)	Y	Y
Tracking	Tracking options	Y	N
	Poll current location	NA	Y
	Map view config	Y	NA
	Tracking history	NA	NA
Area settings	Radio Silence	Y	N
	Restricted Zone	Y	N
	Portal tracking areas	Y	N
Calls	Incoming	NA	Y
	Outgoing	NA	Y
	Missed	NA	Y
Notification	Send notification	Y	N
	Notification log	NA	NA
Terminal settings	Speed dial	Y	N
	Crew calling	Y	N
	Blacklist/Whitelist settings	Y	N
	Whitelist	Y	Y
	Blacklist	Y	Y
GPIO Settings	GPIO settings	Y	Y (Functions only)
	GPIO settings history	NA	NA
Fish catch reporting	Catch reports	NA	Y
	Fish types	NA	Y
	Fishing gear	NA	Y
	Configure (Fish Type and Fish gear)	Y	N
Terminal alert settings	Configure	Y	Y
	History	NA	NA
Security settings	Captain password	Y	N
	Reporting server settings	Y (except Reporting server)	N
SOS settings	SOS settings	Y	N
	SOS history	NA	NA
Weather	Weather	NA	NA

Tips:

1.For every configuration setting sent to the terminal from the portal (except Notifications), the acknowledgement received from the terminal will be shown in the assistant at the bottom right corner of the map.

2.The assistant can be opened and the notifications can be viewed by clicking on the at the bottom right corner of the map area.

3.Before sending any new configuration setting, make sure that the acknowledgement for the previous setting was received.

3.2.1 Vessel details

This function enables you to update or retrieve from the terminal, the vessel name, IMO, Registration and License numbers, Vessel Type and also additional data [for example: you can use the Additional Data 1 and Additional Data 2 fields to provide information like Captains name, number of crew onboard, etc].

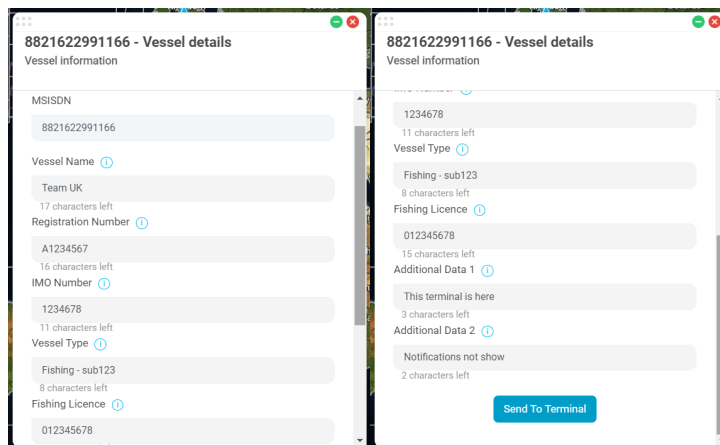**Retrieving the information from the terminal:**
Click on the **Retrieve from Terminal** button on top of the form:
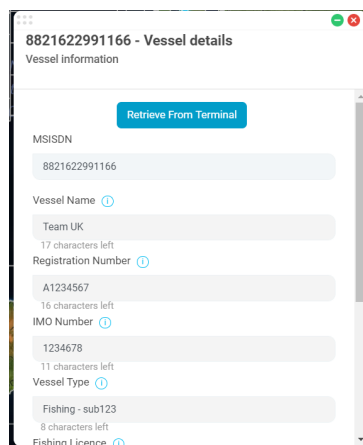
Once the response is received from the terminal, updated data will be reflected on this form.

Updating the data:
Step 1: Enter/Modify the Vessel name, Registration Number, IMO Number, Fishing License (Vessel name is mandatory).

Step 2: Once you update the required details in the fields. Click on the Send to Terminal button to save all the changes.

Tip:

Enter as many details as you have at one time and click on **Send to terminal**. This will update all the details using one single SMS.

3.2.2 Tracking

Click on 'Tracking' on the menu next to a vessel to open the tracking options. It also centres the vessel on the map.

3.2.2.1 Tracking history

Tracking history will display the history and the number of times the vessel has been tracked with its locations at those moments. It will also display the type of tracking alert received (polled, tracking by time, tracking by speed and tracking by distance), the speed of the vessel and the area that it moved in or out of.
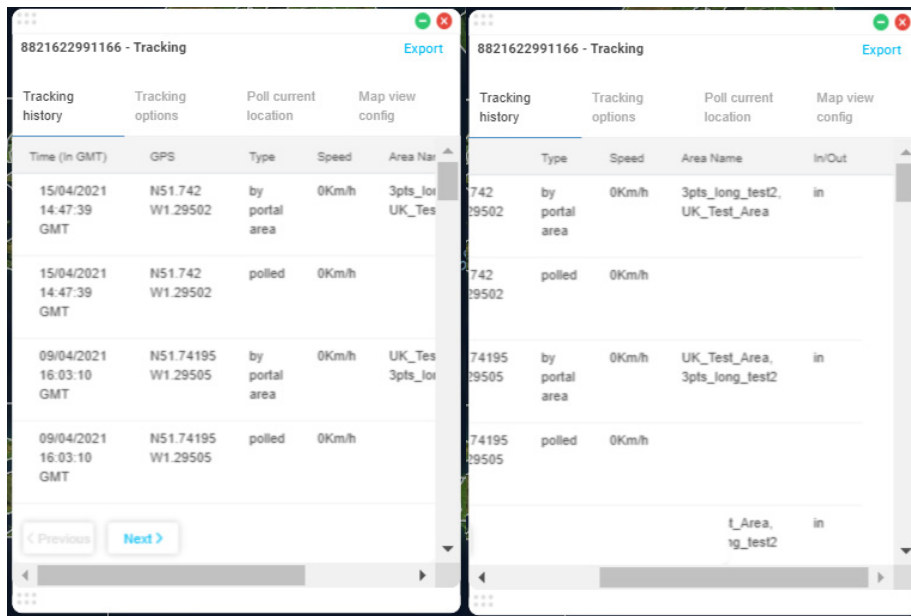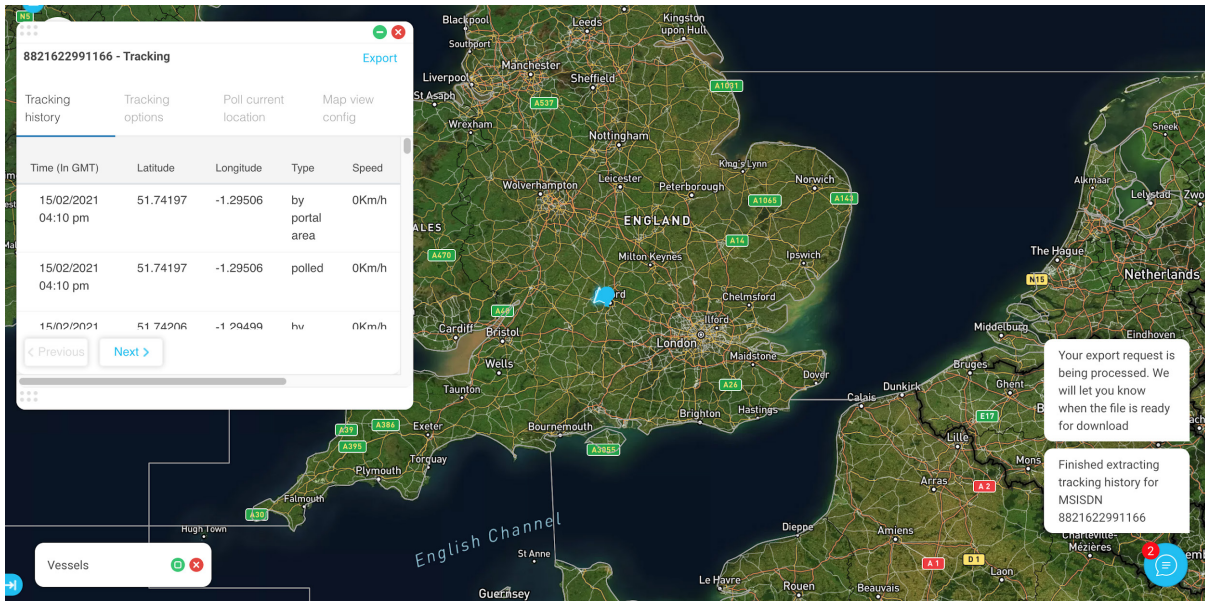

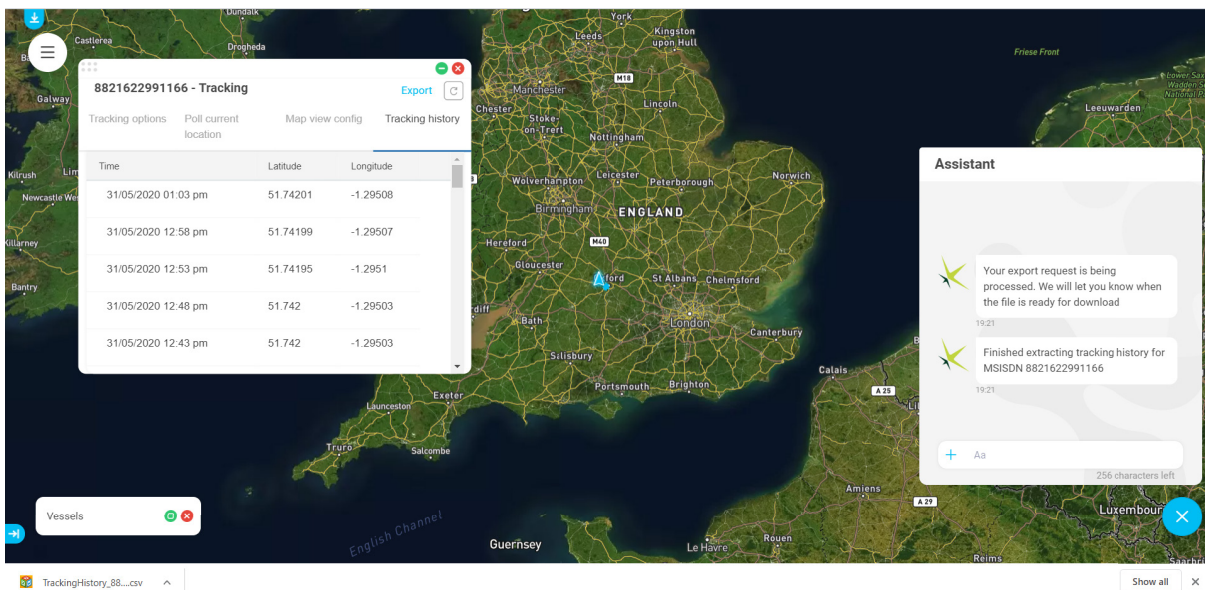This tracking history can be exported to a .csv format using the button.

Exporting the tracking data into a .csv file:

Step 1: Click on the Export button.

Step 2: A notification will show up in the assistant that the file export is in progress.

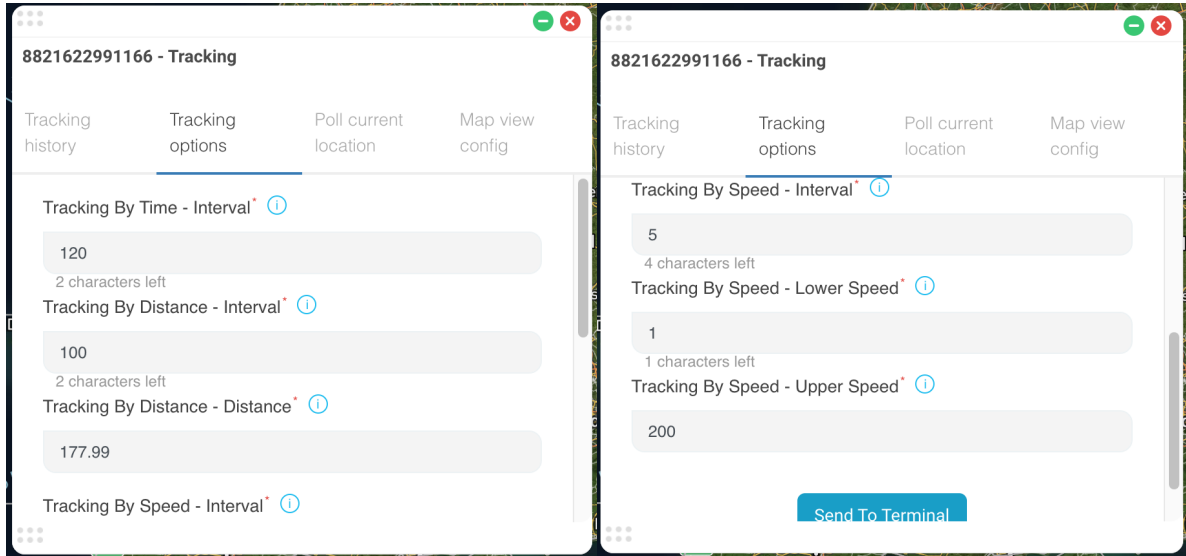**Step 3:** After the export is complete, a notification will show up in the assistant.

The file will be downloaded to your computer. It will be available in the **Downloads** folder in your computer.

Tip:
If you are opening the downloaded .csv file in excel, ensure that you are setting the format of the "MSISDN" column to text. This will ensure that the MSISDN shows up correctly.

3.2.2.2 Tracking options

There are four types of tracking available – by time, distance, speed and portal. The Tracking Options tab enables you to set up any combination of these tracking parameters (except portal tracking areas).

Possible values

Time interval	Allows you to change the tracking interval, which can be from 3 minutes to 14400 min (10 days)

Distance	This tracks the vessel's progress over a certain distance – which can be from 0 – 999 km
	This option has 2 parameters that can be configured:
	   1. Tracking by distance - interval
	      This defines the intervals at which the terminal will check the distance travelled.
	   2. Tracking by distance - distance
	      This defines the distance to be covered before sending out the next location tracking message.

Speed	This allows you to input an upper and lower speed limit.
	   1. Tracking by speed - interval
	      This defines the intervals at which the terminal will check the speed.
	   2. Lower speed limit can be between 0 and 99 km/h
	   3. Upper speed limit can be between the lower speed limit and 999 km/h
	This option, once set, will trigger a notification from the terminal whenever the vessel speed falls below the lower limit or breaches the upper limit.

Entering the desired values and clicking on Send to terminal will save these settings to the terminal.

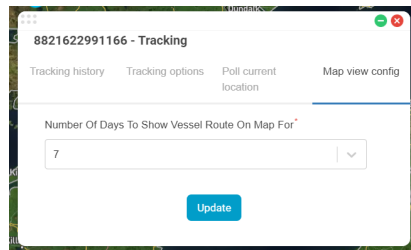### 3.2.2.3 Poll current location
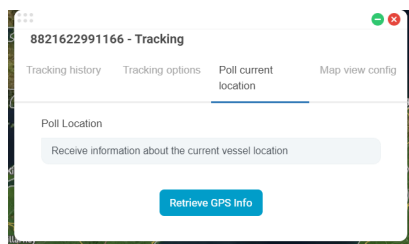
Click on the Retrieve GPS Info button to get the current location from the terminal. This is an on-demand request for a vessel's location.

Important note:

The terminal should be on and active on the Thuraya network to be able to send back a response.

3.2.2.4 Map view config

The **Map view config ta**b allows you to select the duration of the tracking trail that you want to display on the map for a vessel.
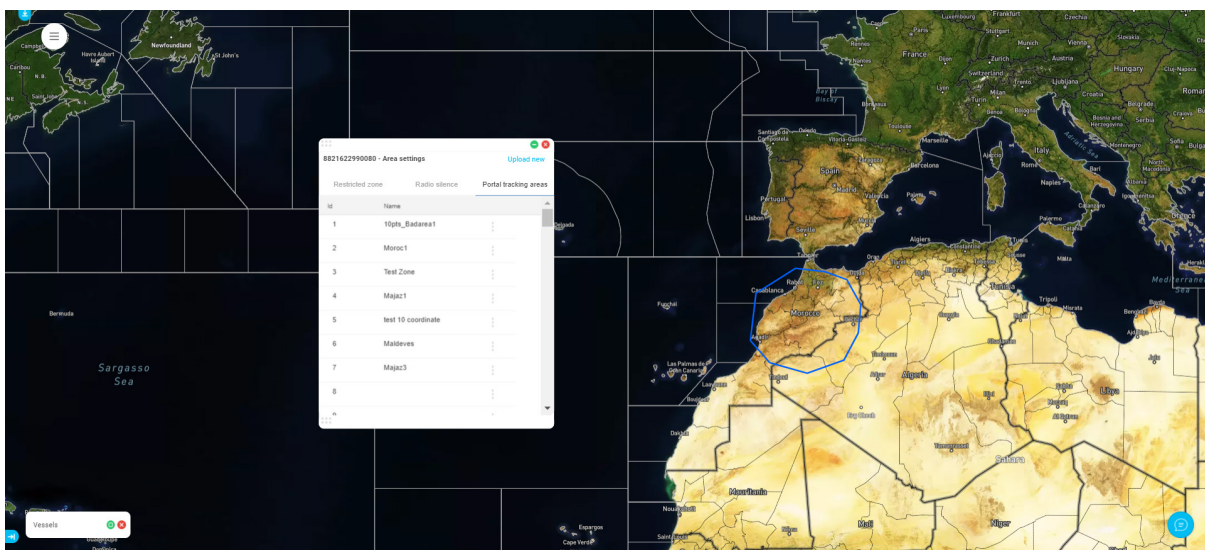
The possible values are: 1 day, 7 days, 30 days and 90 days.

Step 1: Select the duration from the drop down

Step 2: Click on Update.

This will save the setting and reflect the trail for the selected days on the map.

3.2.3 Area settings

Areas can be defined on the map for tracking purposes. For example, they can alert you if you are close to your country's maritime borders, if you are entering a different fishing zone, or if you are close to port. You can also configure the areas to stop transmissions from the terminal when it is entering a radio silence zone.

The Thuraya Tracker terminal stores area settings for two different purposes, represented by the two tabs at the top
- Areas [geofences] saved under Restricted Zone will sound an alarm on the terminal when the vessel enters them.
- Areas [geofences] saved under Radio Silence turn off the transmission from the terminal when the vessel enters this area.
- Additionally, the Thuraya SatTrack portal allows a user to add up to 100 tracking areas on the portal. These are not configured onto the terminal, but used on the portal only for tracking. Tracking by portal areas is dependent on the location reported by the terminal (mainly tracking by time). Based on the latest location reported by the terminal, the SatTrack portal will flag the tracking alert as "portal area" if it is within one of the configured portal tracking areas.

Please refer to the Thuraya MarineStar user manual for more information.

The display for each of these menus is similar, and shows the restricted zone areas or radio silence areas sprogrammed successfully on the MarineStar terminal using the SatTrack portal.

The portal allows up to 10 areas of each type (restricted zones and radio silence zones) with 10 geo-coordinates each to be saved on the terminal. Areas saved to the terminal are displayed on the restricted zones and radio silence zones tabs.

The portal also allows up to 100 areas of more than 10 co-ordinates to be saved onto the portal tracking areas.
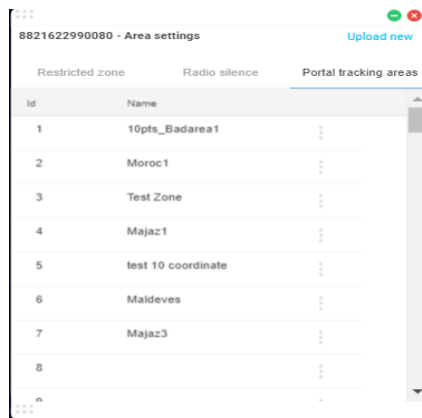
Restricted zone: This tab shows all the areas that are set up as restricted zones on the terminal.
Radio silence: This tab shows all the areas set up as radio silence zones on the terminal.
Portal tracking areas: This tab shows all the areas set up as portal tracking areas.

Note:
Tracking by portal areas is dependent on the location reported by the terminal. Based on the latest location reported by the terminal, the SatTrack portal will flag the tracking alert as "portal area" if it is within one of the configured portal tracking areas.

3.2.3.1 Creating an Area file for import

The file should be created and saved in .csv format – the Area name can be entered while importing it.

You can create and edit these on a spreadsheet program like Microsoft Excel, or a plain-text tool like notepad. The file should have two columns and up to 10 rows.

The first row should be the header (latitude, longitude).

Latitude in a decimal degrees format with the following prefix: (i) – to denote S (ii) no prefix for N e.g. 37.47775 09.56486 -66.43152 -05.65735	Longitude in a decimal degrees format with the following prefix: (i) – to denote W (ii) no prefix for E eg. 023.88643 126.88161 -033.98412 -003.78432

Each row represents a corner of the boundary of the area to be defined on the terminal. These should be sequentially ordered, so Point 00 is joined to point 01, point 01 to point 02 etc.

The last geo point is joined to the first geo point to draw an enclosed shape.

Important notes:

1. If you open the file in a spreadsheet software like excel, the leading zeroes will be removed (i.e. it will become 1.54675,23.52134 instead of 01.54675,023.52134), which will cause the file to error when uploading onto the portal.
You can fix this by either changing the cell to a "text" format in the spreadsheet or opening the file in a plain text tool to ensure the leading zeroes are not removed.
2. Only areas with less than or equal to 10 co-ordinates can be assigned to "Radio Silence" and "Restricted Zones".
3. Areas with more than 10 co-ordinates can be assigned to "Portal tracking areas" only.

Tips:

1. If the points are not sequentially ordered, it will error out and the area will not be loaded onto the portal.
2. The latitude should always be 2 digits (25 ,02, etc) and the longitude should always be 3 digits (,012 ,005 123, etc) before the decimal point.
3. If the precision for Latitude/Longitude is less than or more than 5 digits after decimal, it will error   out and the area will not be loaded onto the portal.

Sample file:
latitude, longitude
001.93881-,52.17176
002.01022-,50.60889
50.85228,001.18129
52.31639,001.24721

3.2.3.2 Creating a new area

A new area can be created by
    1. importing a .csv file and storing it on the portal.
   2. drawing an area on the map and storing it on the portal
This area can then be assigned to the respective slots.

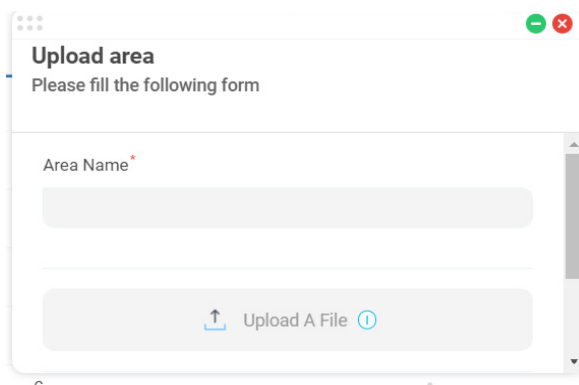**To import a .csv file to create a tracking area:**
Step 1: Create and save the .csv file

Step 2: In Thuraya SatTrack, open the Vessel Menu for the vessel you wish to change the area settings for. Choose the "Area Settings" menu option.
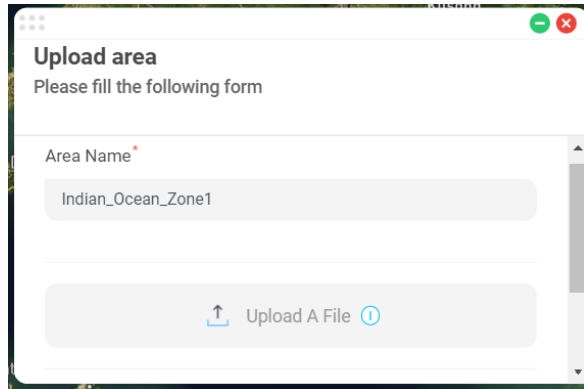
Step 3: In the dialog box, click on the "Upload new" button at the top.
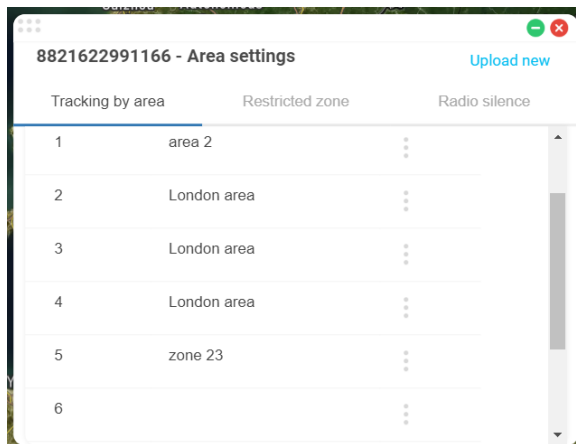
Step 4: An "Upload area" form appears:

Step 5: Fill in the name (as you would want it to appear in the list) and upload the file using the "Upload a file" button.

Step 6: Click on "Send" to upload the file and save it on the portal.
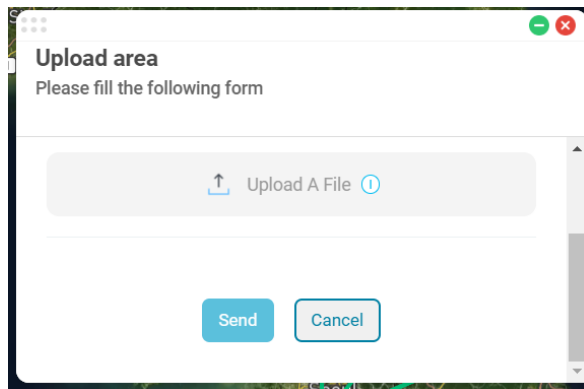
To draw an area on the map:

Step 1: Select the Create Area option on the top menu

Step 2: A Create geofence window will show up:

a. Enter the Name and Description.
b. Choose a shape to start drawing the area. When you choose a shape, a polygon of that shape will appear on the map. You can then add points or change the position of points on the polygon to create the area.
c. Choose the colour you want the area to show up in, while drawing it.
d. The coordinates will be picked up using the polygon on the map. You cannot manually enter those.
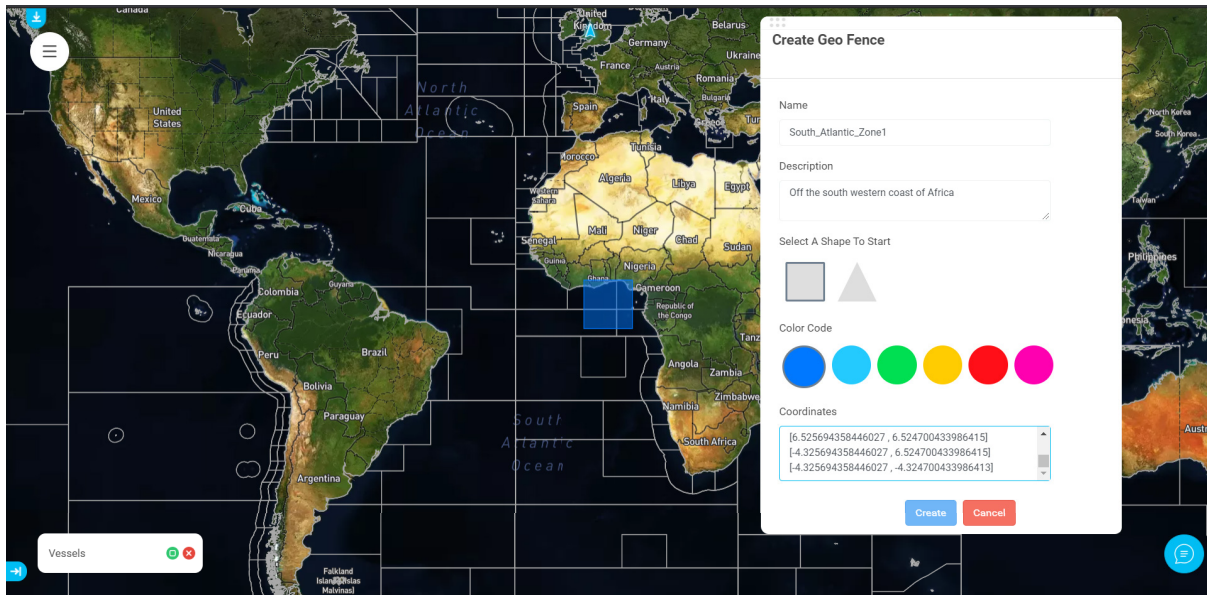
Important note:

Clicking on "Create" will create the area with the co-ordinates shown. Do not click on "Create" till you have changed the polygon to cover the area you wanted.

Step 3: Click along the lines of the polygon to create new points. The points are highlighted in yellow. You can drag the points to define new co-ordinates. You can also drag the area to a different location.
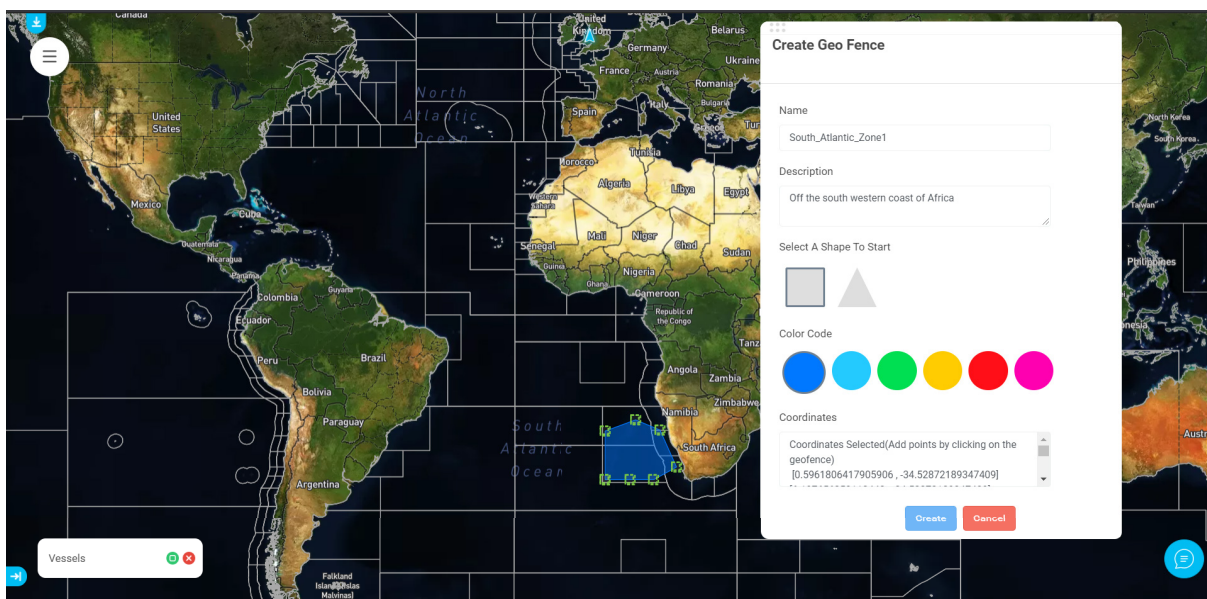
Step 4: Once you have designed the area, click on "create". The area is created and saved on the portal.

### 3.2.3.3 Assigning a new tracking area

This option is used for assigning a new tracking area for Geo-fencing (Restricted zone or Radio Silence) or Portal tracking areas:

Step 1: In Thuraya SatTrack, open the Vessel Menu for the vessel you wish to change the area settings for. Choose the "Area Settings" menu option.

Step 2: Select the right tab corresponding to the type of area (Restricted zone, Radio Silence, Portal tracking areas).

Step 3: In the slots 10-1 (for Restricted zones) or slots 10-3 (for Radio Silence zones) or slots 90-1 (for portal tracking areas), select the one that you want to assign a new area to.

Step 4: Right click on the menu next to the slot that you want to configure:
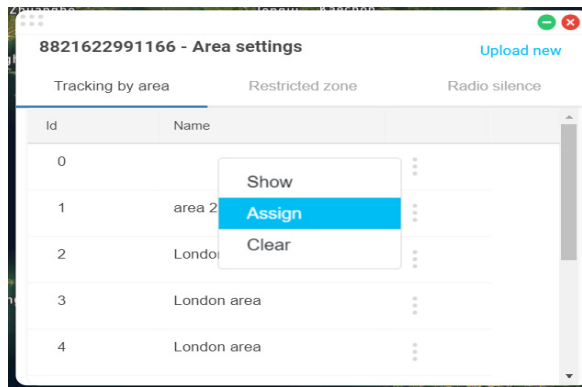
Step 5: Choose "Assign" if you want to assign a new area to this slot. If there is already a geofence in that slot, you will overwrite it, so be careful.
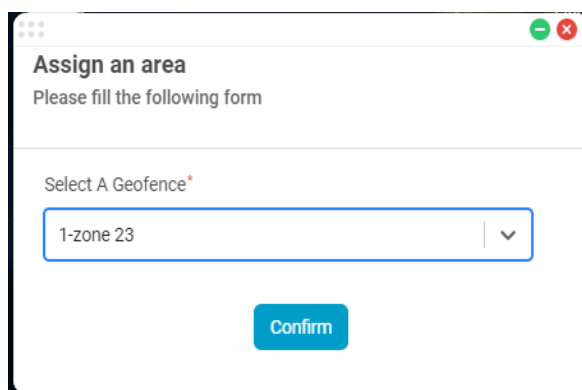
Note: The "Clear" option here removes the tracking area currently assigned to this slot.

Step 6: The below dialog box opens up:
 Step 7: Select one of the tracking areas available by clicking on the field under the "Select a geofence" title. Click on Confirm.

Note: this list will show all the tracking areas that have been setup on the portal using the Creating a new tracking area feature.

Step 8: After you have assigned the area, click on the "Send to Terminal" button to upload the areas to the terminal.

Important notes:

1. The first 2 slots for Radio silence zones (slots 1 and 2) are pre-configured on the terminal. They are not editable. Hence you will only see slots 10-3 on the radio silence tab.
2. Only areas with less than or equal to 10 co-ordinates can be assigned to "Radio Silence" and "Restricted Zones".
3. Areas with more than 10 co-ordinates can be assigned only to "Portal tracking areas."
4. Geo-fencing internal checks on the terminal are done every 15 minutes from the time it is set.
5. To track by the "portal tracking areas," "tracking by time" should be enabled.
6. Each type of area will appear in different colours on the map:
   Restricted zone - **red colour** - areas that are set up as restricted zones on the terminal
   Radio silence zone - yellow colour - areas set up as radio silence zones on the terminal
   Portal tracking areas - blue colour - areas set up as portal tracking areas

3.2.4 Calls

Select the 'Calls' menu to view the call history of the MarineStar terminal on board a particular vessel. Different tabs display outgoing calls made from the terminal, incoming calls received by the terminal and calls missed by the terminal.
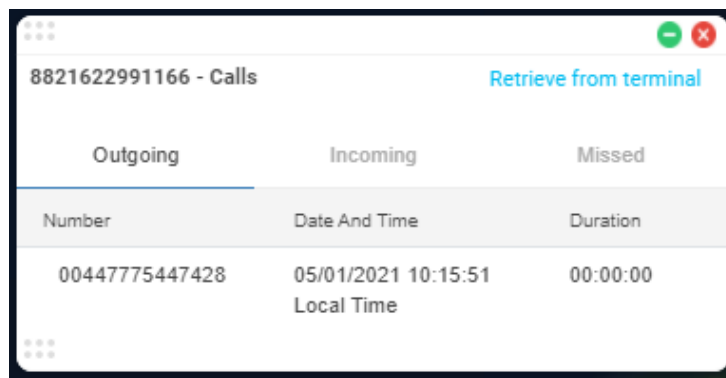
Clicking on the Retrieve from terminal button will send a request to the terminal for the latest call data.

The terminal may take up to a minute to respond with the data.

3.2.5 Notifications

Thuraya SatTrack has a notification interface to send notifications to and receive messages from Thuraya terminals.
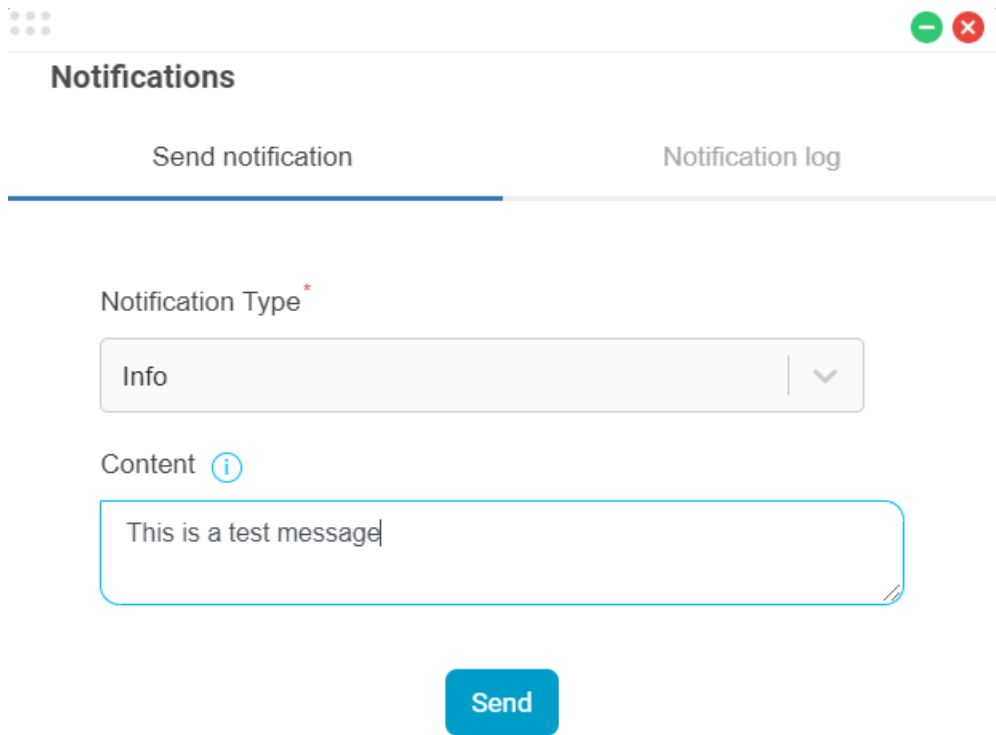
Notifications can be used to send weather, emergency, news and information updates from the portal to the terminal as an incoming SMS.
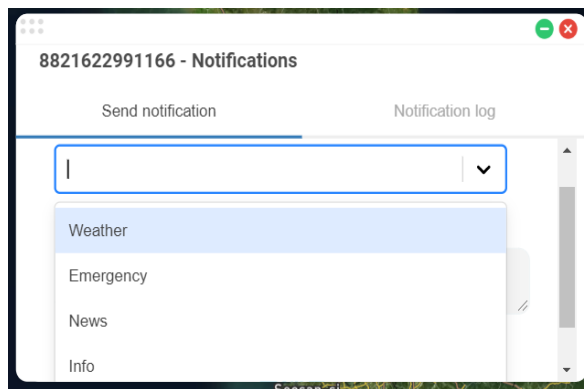
3.2.5.1 Send notification

Step 1: Click the icon next to the vessel you would like to send a notification to, and select Notifications on the menu.
This will open the notifications pane.

Step 2: Select a notification type from the drop down

This changes the notification sound the terminal will make when the notification is received on the vessel - E.g. when you send the Emergency notification from the portal and it is received on the Thuraya MarineStar terminal, it emits a loud alarm.

Step 3: Type your message in the main box. Note that your message is limited to 155 characters – slightly shorter than an SMS message.
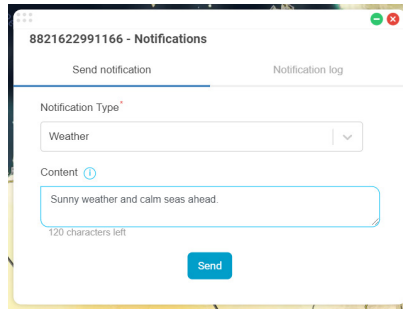
Step 4: Click the "Send" button to send the notification to the terminal.

Important notes:

1. The notification on the terminal will show the following header for the different message types:
    NFSA: WEATHER
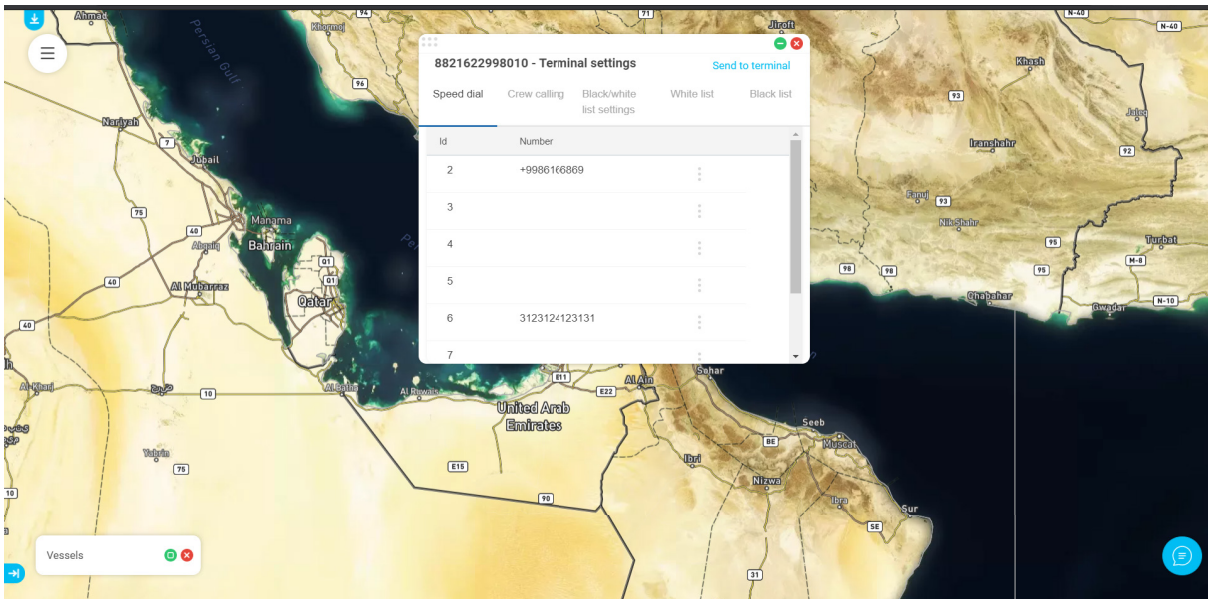   NFSB: EMERGENCY
    NFSC: NEWS
    NFSD: INFO

3.2.5.2 Notification log

The **"Notification log"** tab shows a history of all the notifications sent from the portal to the terminal.
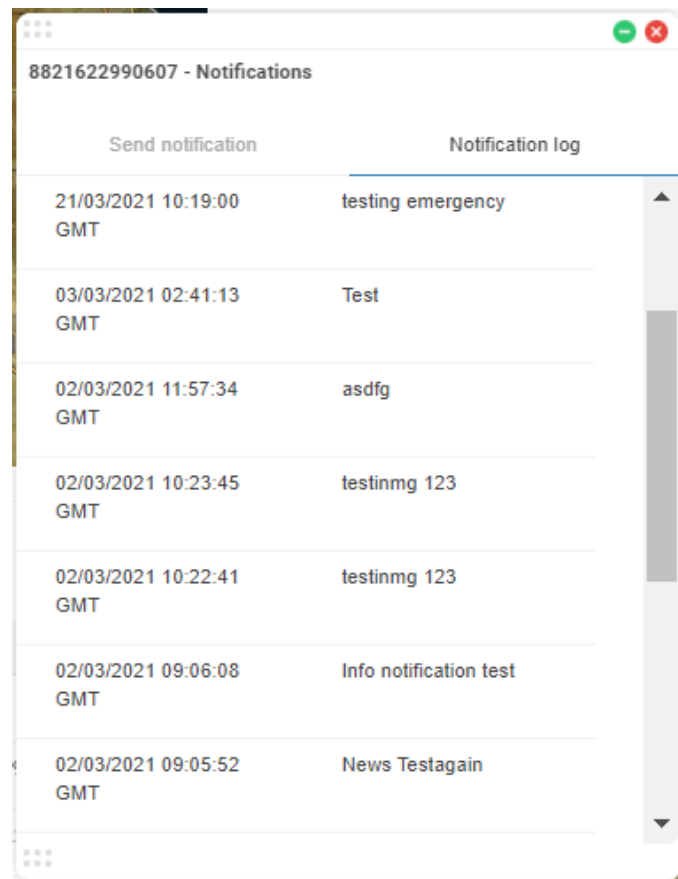
3.2.6 Terminal settings

Click on the Terminal settings menu item to open up this window:


3.2.6.1 Speed dial

The speed dial tab allows you to change the numbers of the speed dial on the terminal, which stores up to 9 telephone numbers for easy access. This overwrites any speed dial numbers already set on the terminal – so be careful when changing it.
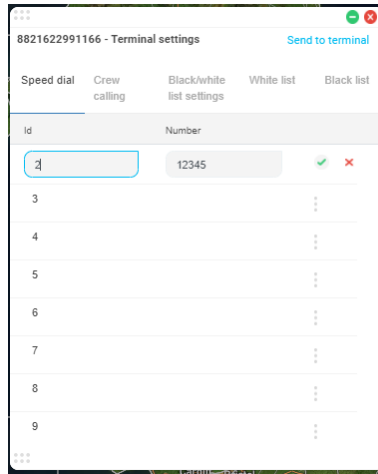
Editing the speed dial number:

Step 1: Click on the menu beside the number that you want to create as a speed dial or edit in the speed dial list.

Step 2: Choose the "Edit" option.
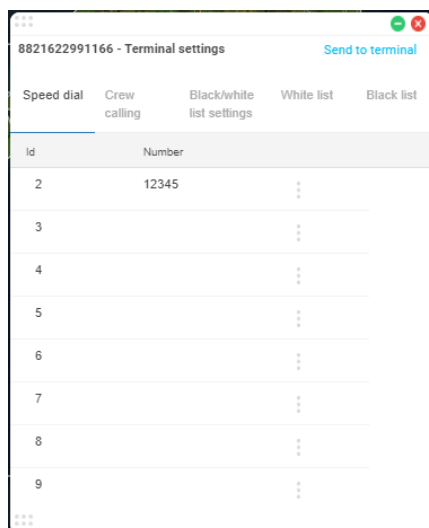
Step 3: Enter the new or modified number and click on the green tick   to save the new or modified number to the portal.

Step 4: Once you have made all the changes you want, click on the "Send to Terminal" button to update the changes on to the terminal.

Important note:

1. Ensure that every time you edit a number in the speed dial list, you wait for a "List modified" confirmation to appear in the assistant before you edit/delete the next number.
2. The first speed dial number (1) is always configured to the voice message (123). Hence only speed dials - 2 9 are configurable.
3. Speed dial numbers are limited to a maximum of 32 digits only (including the leading +)

Tip:
PSTN numbers can be entered with a prefix of 00 before the country code or a prefix of + before the country code.

3.2.6.2 Crew Calling

You can use the toggle button under Crew Calling to enable or disable the crew from making calls.
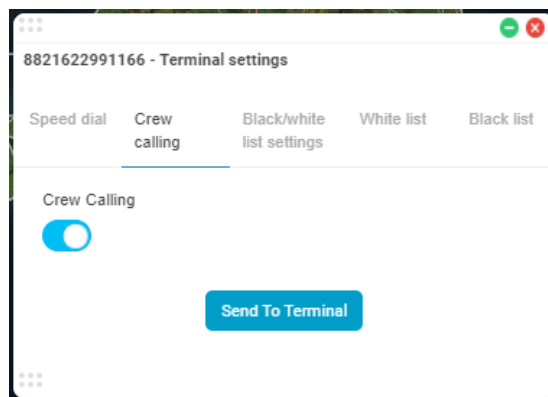
To enable/disable the crew calling on the terminal:

Step 1: Use the toggle button under the "Crew Calling" to enable ( ) or disable ( ) crew calling.

Step 2: Click on the "Send To" Terminal button to save and send the configuration to the terminal.

3.2.6.3 Black/Whitelist settings

Whitelisting a number will allow the terminal to only trasnmit (outgoing call and SMS) and receive (incoming call and SMS) from that number.

Blacklisting a number will not allow the terminal to either receive (incoming call and SMS) or transmit (outgoing call and SMS) to that number.

The Black/Whitelist settings allows you to Enable/Disable Black/Whitelists on the terminal.

Step 1: Select the toggle buttons under the Enable Whitelist / Enable Blacklist option to enable or disable the setting on the terminal.
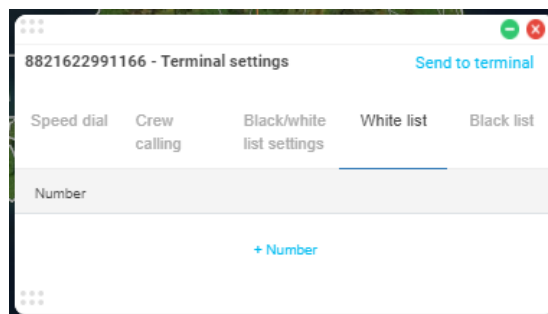
Step 2: Click on the Send to Terminal button to save the settings onto the terminal.
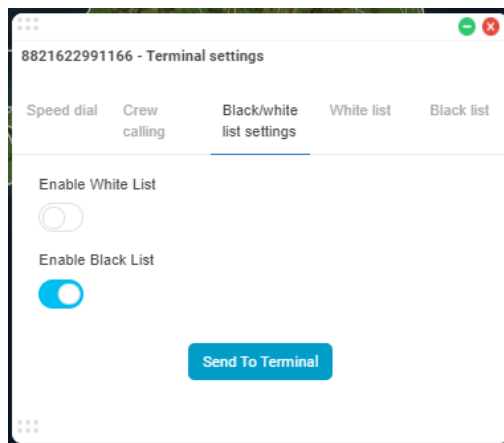
3.2.6.4 Whitelist

The **Whitelist tab** allows you to allow only a restricted list of numbers to call and SMS the terminal or for the terminal to call and SMS [whitelist].
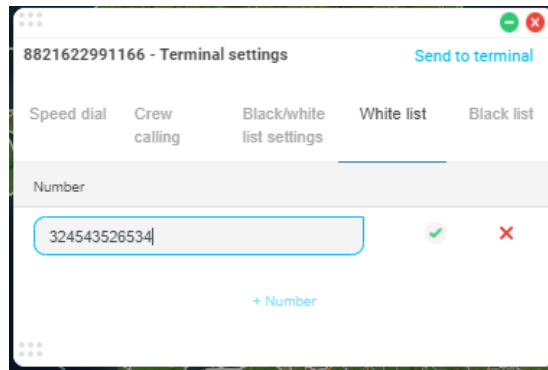In other words, incoming calls to the terminal and outgoing calls from the terminal are only allowed to this/ these number(s).

Adding a new Whitelist number:

Step 1: Click on the button.
It will create a new row in the table:

Step 2: Enter the number to be whitelisted and click on to save the number to the portal.

Step 3: Once you have added all the numbers you want, click on the "Send to Terminal" button to update the changes onto the terminal.

Important notes:

1. Ensure that every time you edit/delete a number in the whitelist, you wait for a "List modified" or "Number removed" confirmation to appear in the assistant before you edit/delete the next number.
2. A maximum of 25 numbers can be whitelisted.
3. The first whitelisted number is 1002, hence user can only configure 24 numbers on the portal.
4. Whitelist numbers added on the terminal directly cannot be retrieved by the portal. They will be overwritten by the numbers added on the portal.

Tip:
PSTN numbers can be entered with a prefix of 00 before the country code or a prefix of + before the country code.
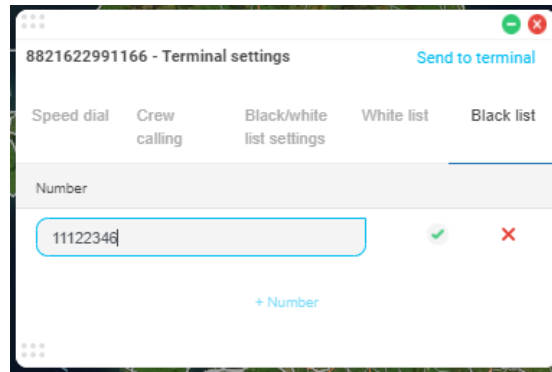
3.2.6.5 Black list

The **Blacklist tab** allows you to block certain numbers from calling and sending SMS to the terminal or the terminal calling and sending SMS to the number [blacklist].
In other words, incoming calls and SMS to the terminal and outgoing calls and SMS from the terminal are not allowed to this/these number(s).

Adding a new Blacklist number:
Step 1: Click on the + Number button.
It will create a new row in the table:

Step 2: Enter the number to be blacklisted and click on   to save the number to the portal.

Step 3: Once you have made all the changes you want, click on the Send to Terminal button to update the changes onto the terminal.

Important notes:

1. Ensure that every time you edit/delete a number in the black list, you wait for a "List modified" or "Number removed" confirmation to appear in the assistant before you edit/delete the next number.
2. Do not add 1002 as a blacklist number.
3. A maximum of 25 numbers can be blacklisted.
4. Blacklist numbers added on the terminal directly cannot be retrieved by the portal. They will be overwritten by the numbers added on the portal.

Tip:
PSTN numbers can be entered with a prefix of 00 before the country code or a prefix of + before the country code.

3.2.7 GPIO settings

The GPIO settings tab is for third-party devices which may be connected to your Thuraya terminal.

The exact function of the switches will depend on how your system is set up – speak to your Thuraya Service Partner to learn more

GPIO3 and GPIO4 can be remotely toggled from the Thuraya SatTrack software – changing this will affect the relay switch.
By default, GPIO 1 switch is an SOS alarm and GPIO3 sets off a buzzer on the terminal. These defaults can be switched to another function using the dropdown

By default, the GPIO4 switch performs no action – unless your Thuraya Service Partner has configured it to connect to something.

3.2.7.1 GPIO settings
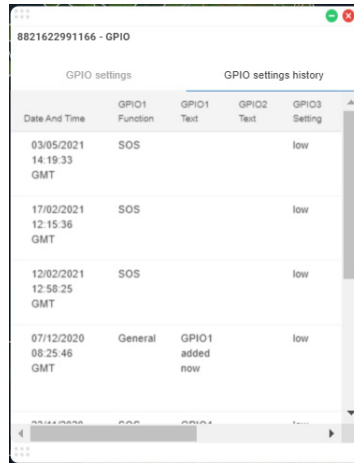
Retrieving the information from the terminal:
Click on the "Retrieve from Terminal" button on top of the form:
The data, once response from the terminal is received, is updated into this form.

Updating the data:
Step 1: You can select the functions for GPIO1 and GPIO3.
GPIO1 functions can be "SOS" or "General"
GPIO3 functions can be "Buzzer" or "General"

**Step 2:** You can select the controls for GPIO3 and GPIO4.
GPIO3 controls can be set to High or Low
GPIO4 controls can be set to High or Low

Step 3: The additional text fields available for each of the GPIO functions can be used to share any additional information required.

Step 4: Once you update the required details in the fields, clicking on the Send to Terminal button will save all the changes to the terminal.

3.2.7.2 GPIO settings history

The **"GPIO settings history"** tab shows a history of all the changes in the GPIO settings sent to the terminal.
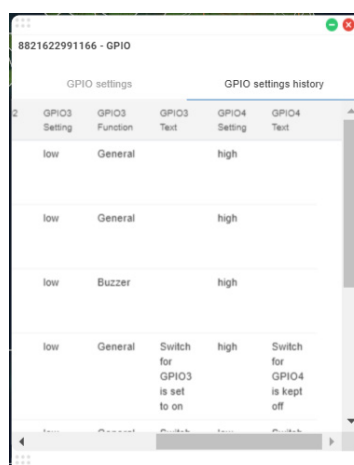
3.2.8 Fish catch reporting

The system provides a way for you to
1. retrieve fish catch reports entered into the terminal and show fish catch reports sent by the terminal
2. retrieve the fishing gear from the terminal and
3. configure the fish types and net types onto the terminal

Important note:

3.2.8.1 Catch reports

The Catch Reports tab shows the catch reports submitted by the terminal. It displays the time the report was submitted, the fish type and the catch weight if entered by the terminal (normally entered in kilograms).


There are two kinds of fish catch reports.
1. Reports retrieved from the terminal:
    These reports show up with the Source as "polled"
    Use the "Retrieve from Terminal" button to get the latest catch reports from the terminal.
2. Reports sent from the terminal (as a push from the terminal)
    These reports show up with the Source as "terminal"
    Reports automatically refresh in this table when a fish catch report is received from the terminal.

Important notes:

1. Please ensure that you configure the Fish types and Fish gears before retrieving the fish catch report on the portal or sending the fish catch report from the terminal.
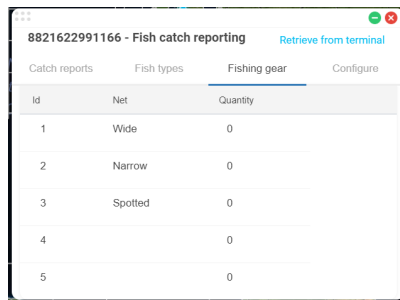
3.2.8.2 Fish types

The **Fishing types** tab displays the fish types your vessel can fish and report.
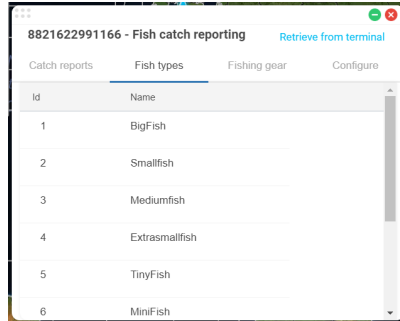
Use the "Retrieve from terminal" button to get the Fish types from the terminal.

3.2.8.3 Fishing gear

The Fishing gear tab displays the net types your vessel carries.

Use the "Retrieve from terminal" button to get the Fishing gear from the terminal.

3.2.8.4 Configure

The Configure tab allows the changing of default settings on the terminal and allows you to save up to 10 fish names and up to 5 fish types.

Step 1: Entering the new names in the fields for Fish type and Fish net

**Step 2:** Click on Send to Terminal to save the settings on to the terminal.
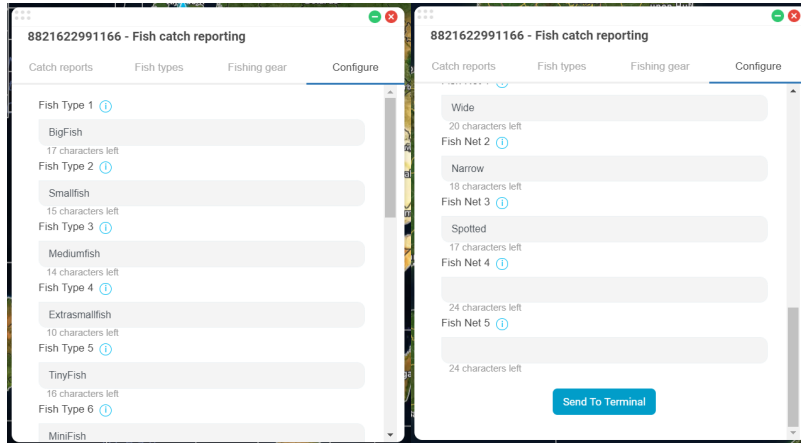
For more information on using the MarineStar terminal to submit catch reports, see the MarineStar terminal user guide.

Example:

1. Option 1 (Recommended) - Program the fish types from the portal and user inputs the weight in the terminal and sends the information to the portal without any fish type changes. You will see the full fish catch report in the portal.
2. Option 2 - Fish type and weight being manually entered on the terminal and sent to the portal. You need to poll fish types after receiving a fish catch report to view full details.

3.2.9 Terminal alert settings
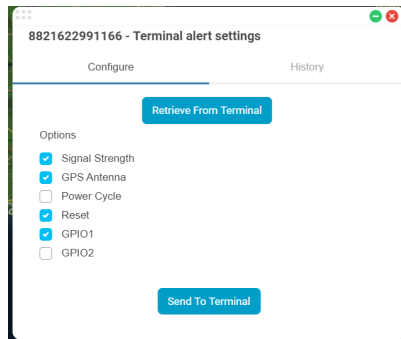
The terminal can be configured to send alerts notifying you to changes to the terminal environment, like the signal strength going from 0 to 1 or the terminal being reset.

The **Configure** tab enables you to choose which activities send alerts and the **History** tab shows you which alerts have been activated.

Retrieving the information from the terminal:
Click on the **Retrieve from Terminal** button on top of the form to retrieve the alert settings from the terminal.

Updating the alert settings on the terminal:
Step 1: Select all the events that you want to be alerted for.
Step 2: Click on the **Send to terminal** button to send the settings to the terminal.

Tip:
1. It is recommended that the Power cycle alert should be set during setup.
2. Please refer to the Thuraya MarineStar user manual for terminal generated alerts

3.2.10 Security settings

Clicking on the Security settings menu opens the security settings screen.
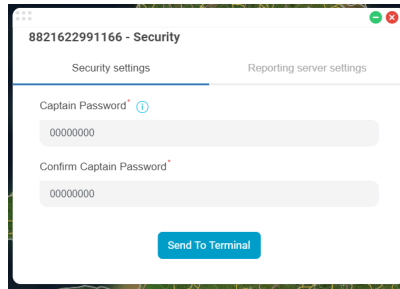

3.2.10.1 Security settings

To remotely change the **Captain's Password** for the terminal:
Step 1: Enter the new password in the field under the Captain password title.
Step 2: Enter the same password in the field under the Confirm captain password title.
Step 3: Click on Send to terminal. This will send a request to your provider for an approval to change the captain password.
Step 4: Once your provider approves the request, the new password will be sent to the terminal.
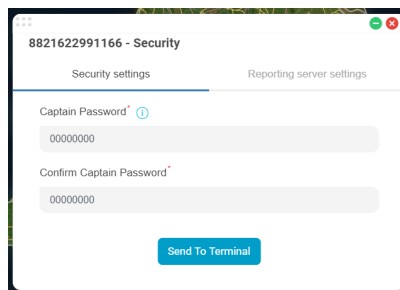
Note: Once you change the Captain password, you will need to manually let the captain know of the change in password.

Important notes:

1. Please reach out to your Thuraya Service Partner to request for the admin password.
2. All configurations should be managed through the portal. Please do not change any configurations manually on the terminal. If you would like to change the Admin password and Remote server authentication pin, please inform your service provider and it will be changed remotely. Please ensure that the terminal and SIM are online.
3. After the engineer completes the activity on the terminal onboard, he will have to request the Thuraya customer care to reset the admin password.

3.2.10.2 Reporting server settings

This allows you to set the reporting server and the recipients for the terminal.
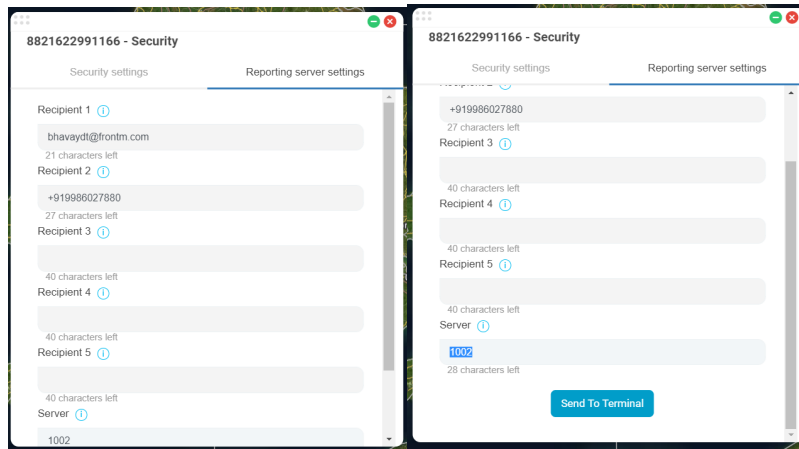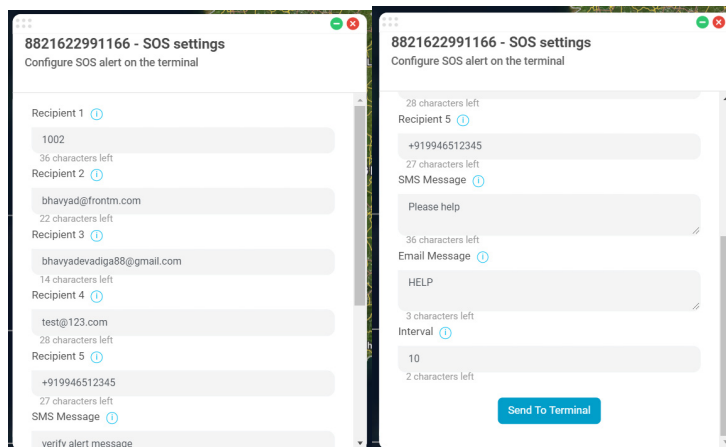

Updating the Reporting server settings on the terminal:
Step 1: Update the required data in the recipient fields (you can enter an email or phone number).
Step 2: Click on Send to terminal to save the changes onto the terminal.

Tips:
1. The first recipient in the Reporting server settings will be set to 1002. It cannot be changed.
2. You will not be able to update the reporting server. It will be set to 1002.
3. The recipient can be an email id or a phone number.

3.2.11 SOS settings

This allows you to set the SOS recipients and messages on the terminal.

Updating the SOS settings on the terminal:
Step 1: Update the required data in the recipient fields (you can enter an email or phone number).
Step 2: Update the SMS Message and Email Message in the fields.
Step 3: Update the time interval in the Interval field.
Step 2: Click on Send to terminal to save the changes onto the terminal.

Tips:
1. The first recipient will always be set to 1002. You will not be able to edit it.
2. The recipient can be an email id or a phone number.

3.2.12 Weather

Clicking on the weather menu will show you weather and sea conditions local to the vessel.

Weather
Weather

Summary	Partly Cloudy
Temperature	28 Celsius
Humidity	63%
Precipitation	0.0 Mm
Visibility	10 Km
Pressure	1010 HPa
Wind Speed	5 Km/h
Wind Direction*	354 Degrees
Wind Gust	6 Km/h
Significant Wave Height	0.9 Meters
Swell Height	0.8 Meters
Swell Period	10.1 Seconds
Swell Direction	110 Degrees
Water Temperature	29 Celsius

Refresh

4. Fleet Management

An end user can create groups of fleets of their vessels for ease of operations.
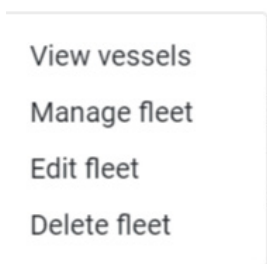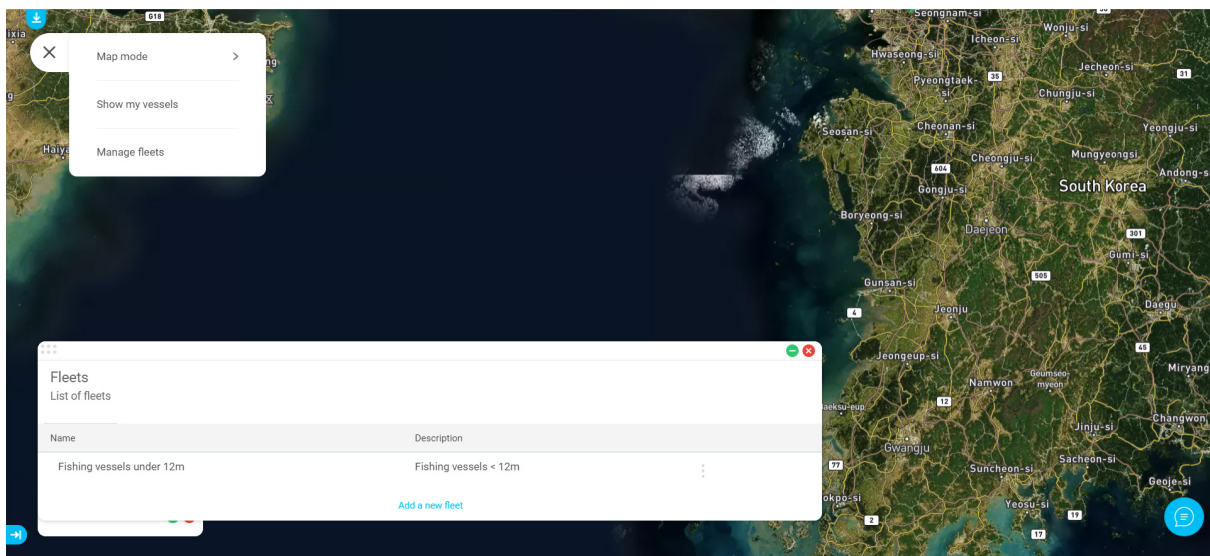Note: The use is currently for viewing individual fleet locations.

4.1 Fleets list

Step 1: Click on the menu button at the top left corner of the map

**Step 2:** Select the **fleet option** from the drop down menu.

All the fleets that are created by you will be visible in the List of fleets.

The button next to each fleet will open the fleet menu which will allow you to perform functions such as View vessels, manage fleet, Edit fleet and Delete fleet.
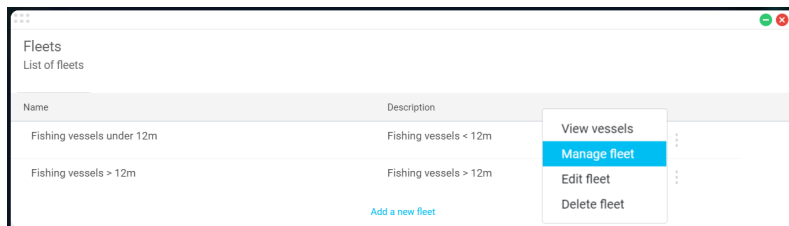
4.2 Adding a new fleet

Add a new fleet Clicking on this button at the bottom of the Fleet list will allow you to create a new fleet. A new row is added to the table. Fill in the details into the new row.
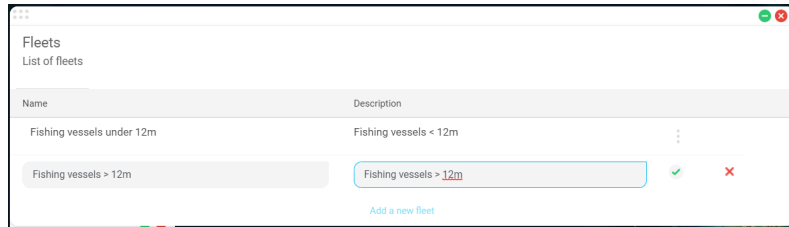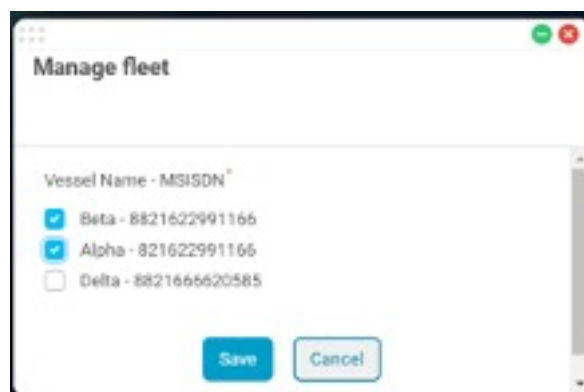

Click on the ✔ button to save the fleet.

4.3 Adding/removing vessels to/from the fleet

Step 1: Click on the **Manage fleet** option in the fleet menu.
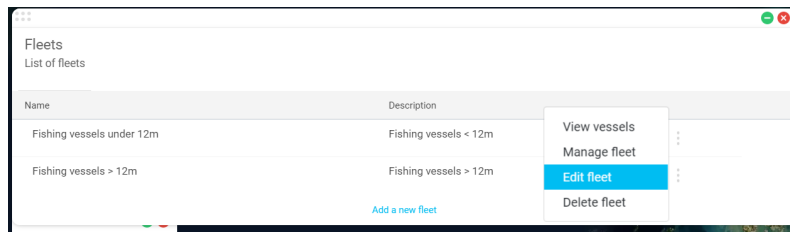

Step 2: In the **Manage fleet dialog box**, select all the vessels that you want to add to this fleet (or deselect the vessels you want to remove from the fleet).
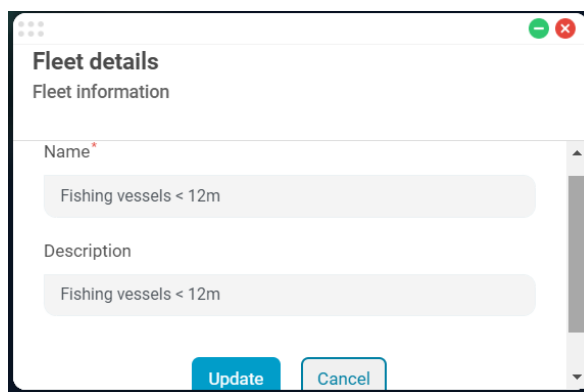

Step 3: Click on **save**.

4.3 Edit fleet name and description

Step 1: Click on the **Edit fleet** option in the fleet menu.
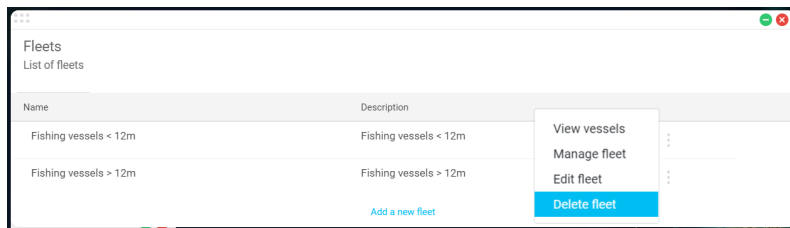

Step 2: In the **Fleet details** box, modify the details and click on **Update** button.
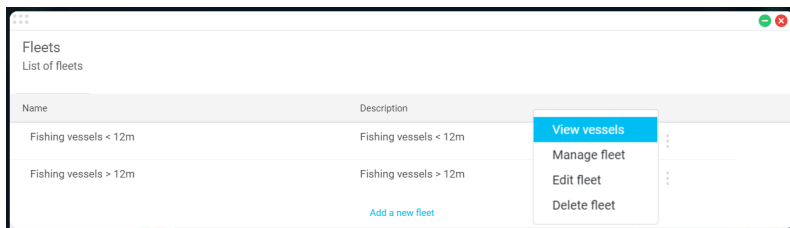

4.4 Deleting a fleet

Select the **Delete fleet** option from the fleet menu.

4.5 Viewing the vessels from a fleet on the map

Select the **View vessels** option from the fleet menu. The vessels that are part of the fleet will be displayed on the map.
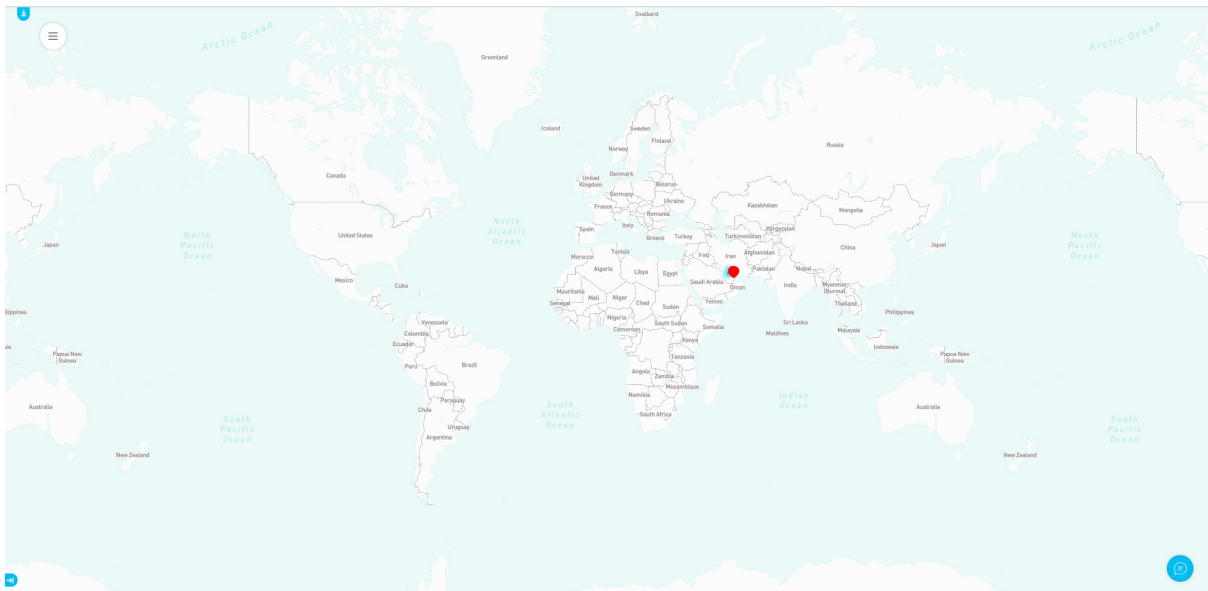
5. Map Display Options

There are two types of map options available - Satellite and Basic vector.
Click on the menu button at the top left corner of the map to open the menu.

Select the option "Satellite" for Satellite map and "Vector" for Basic vector map. The displayed map will be updated.
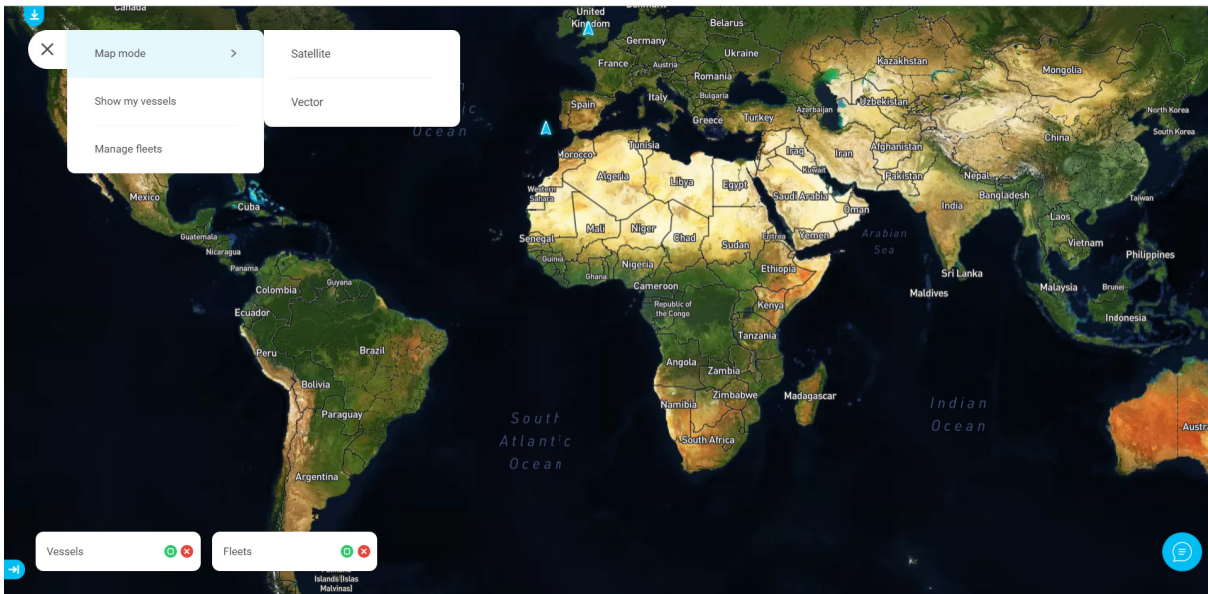
[Satellite map]

[Vector map]
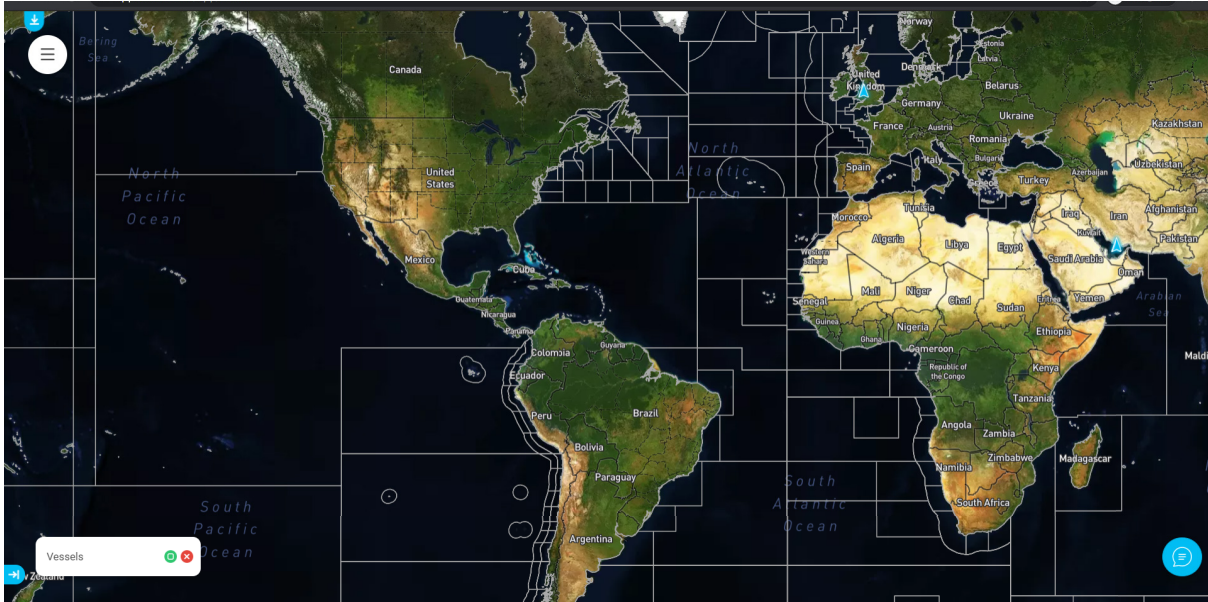
6. FAO Overlay

The FAO zones (Food and Agriculture organization defined zones for fisheries) are available as an overlay on the map.

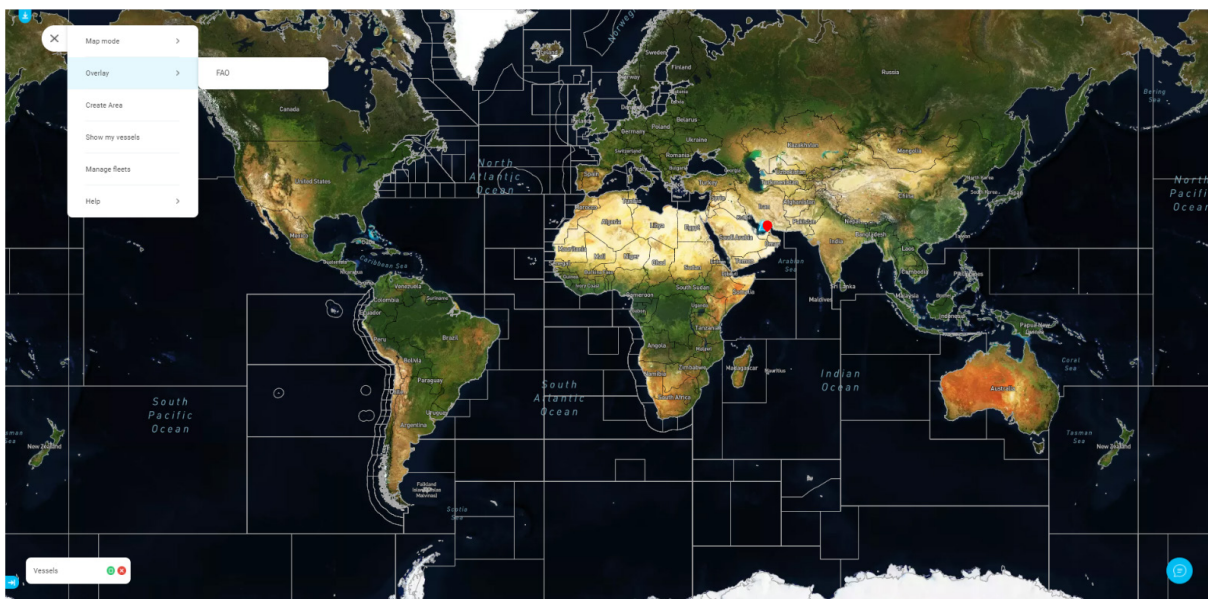The FAO Zones are displayed as thin grey lines on the map.

Turning the FAO Zones overlay off:
Step 1: Select the "Overlay" option from the drop down menu.
Step 2: Select the "FAO" option. It will turn the FAO Zones on or off.

FAO zones on

FAO zones off

7. Permissions

You will have the permissions to remotely programme or retrieve data from the terminal (notifications and request for information from the portal to the terminal, reporting from the terminal to the portal and configuring the terminal)

Note: If you request to change the Captain password, your request will be routed to the immediate next level (SP/Reseller) for approval.

Table legend:

Y - User has the permission to Retrieve the data from the terminal or Modify the data/capability

N - User does not have the permission to Retrieve the data from the terminal or Modify the data/capability

NA - The capability is not available to the End User or the capability does not support retrieval or modification.

Menu	Portal capability	Ability to change	Approval required?
Vessel details	MSISDN	N	NA
	All other fields (other than MSISDN)	Y	N
	.		
Tracking	Tracking options	Y	N
	Poll current location	Y (can retrieve data)	NA
	Map view config	Y	N
	Tracking history	NA	NA
Area settings	Radio Silence	Y	N
	Restricted Zone	Y	N
	Portal tracking areas	Y	N

Calls	Incoming	Y (can retrieve data)	N
	Outgoing	Y (can retrieve data)	N
	Missed	Y (can retrieve data)	N
Notification	Send notification	Y	N
	Notification log	NA	NA
Terminal settings	Speed Dial	Y	N
	Crew calling	Y	N
	Black/Whitelist settings	Y	N
	Whitelist	Y	N
	Blacklist	Y	N
GPIO settings	GPIO Settings	Y	N
	GPIO Settings History	NA	NA
Fish catch reporting	Catch reports	Y (can retrieve data)	N
	Fish types	Y (can retrieve data)	N
	Fishing gear	Y (can retrieve data)	N
	Configure (Fish Type and Fish gear)	Y	N
Terminal alert settings	Terminal alert setttings	Y	N
	History	NA	NA
Security settings	Captain password	Y	Y
	Reporting Server Settings	Y (only recipients)	N
SOS settings	SOS Settings	Y	N
	SOS History	NA	NA
Weather	Weather	Y (can retrieve data)	NA

8. Help (On Portal)

There is a help menu available on the portal. On clicking the menu at the top left, a "Help" menu is available. This menu has the following sub menus:

1. FAQ's
2. Support

8.1 FAQ's

Click on FAQ's menu to open the Thuraya MarineStar FAQ's page in a new tab.

8.2 Support

Click on the Support menu to access information about the modes of availing support. For further assistance, please reach out to your Thuraya service provider.