



Iridium GMDSS

MSIP Web Portal Manual

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1. Iridium GMDSS Web Portal

The Iridium GMDSS Web Portal is the web interface to the Iridium GMDSS system. The primary users of this Web Portal are Rescue Coordination Centers (RCCs) and Maritime Safety Information Providers (MSIPs). The web portal allows the RCCs to send, relay, receive, cancel and archive Distress Alerts (DAs), Distress Alert Relays (DARs), Search & Rescue coordination information (SARs) and Maritime Safety Information (MSIs) as applicable to each situation. It also allows communication with individual vessels via what is referred to a Safety Messages(SM) as opposed to a SafetyCast Message (SCM) which are broadcast to multiple vessels at once. Not all functions are available to all users as there are two main types of users: RCCs and MSIPs. Throughout the document the word message will be used to refer to any of a DA, DAR, SAR, MSI or Safety message and the exact meaning can be derived from the context of the text.

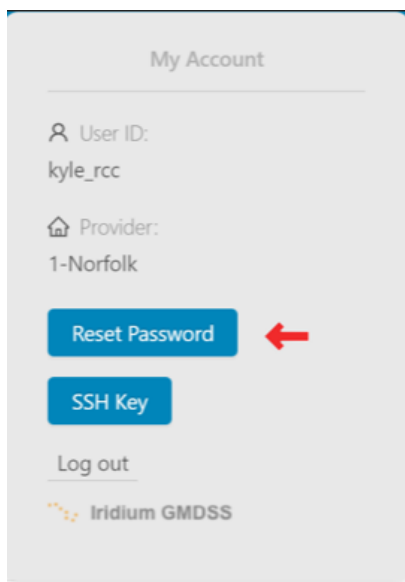
The Iridium GMDSS Web Portal supports only the following browsers: Chrome, Internet Explorer, Microsoft Edge and Firefox. It utilizes a persistent session-based architecture. As long as the user is logged into the portal, their session with the portal is maintained. The user's session is closed only when they log out of the system or when their browser has exited. As long as the user is logged in and running the browser, the sessions do not time out. A user can only be logged in once. Any attempt to log in a second time will cause the older session to be closed.

Membership and Passwords

Users need to be pre-registered with the system before access can be granted.

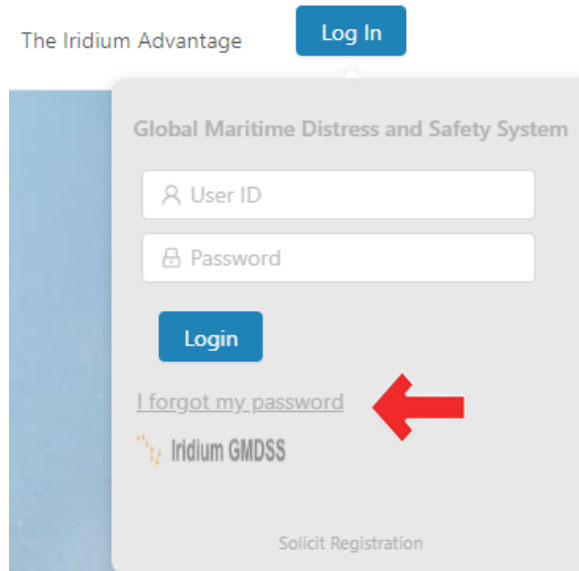
Passwords can be reset once the user has logged into the system. Click on "My Profile" at the top right section of the portal to bring up the My Account dialog and click on the Reset Password button as shown below. The Attention icon  will appear if password rule guidelines are not satisfied. Clicking on it will provide information on the password rules.

There is also an SSH option covered in a later chapter for SFTP access.





Passwords can also be reset if the user has forgotten their passwords. On the Login dialog, a forgot my password link will send a reset link to the user’s email associated with the userid and user’s name provided. The user’s name in this case is the legal name of the user that was provided at time of setup and is case sensitive



Provider Roles Within the Web Portal

There are three primary roles that a provider can have. The three main roles are **SAR Coordination as an RCC, Navigational Coordinator and Meteorological Coordinator as an MSIP**. Individual users can be created under a parent provider for individual access and the users will be limited in their functionality access to the role assigned to their parent provider.

SAR Coordination	The user with this role will have primary responsibility of the SAR coordination, relaying distress alerts, creating new distress alert relays and SAR related Safety Messages.
Navigational Warning	The user with this role has capabilities to create and broadcast Navigational Messages.
Meteorological Services	The user with this role has capabilities to create and broadcast Meteorological Messages.

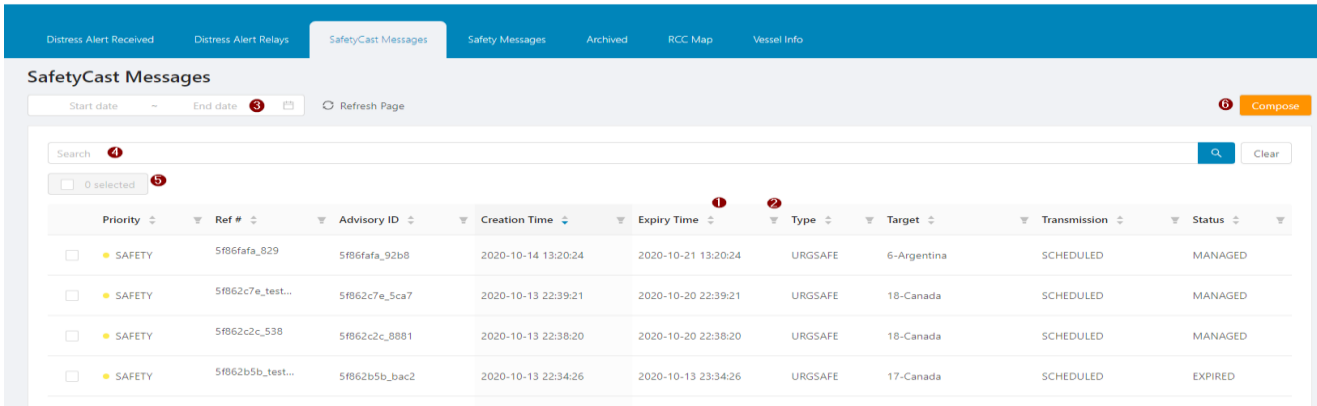
2. The MSIP User Role

The user with this role will be able to broadcast Maritime Safety Information messages (MSIs) to their areas of responsibilities either for NAVAREAS, METAREAS or Coastal Areas depending on the provider account setup.

The SafetyCast Messages Tab

The SafetyCast tab allows the user to broadcast a SafetyCast message to all the vessels on the Iridium GMDSS system that are present in the selected/designated area at the time the SafetyCast message is created. Other conditions relating to the broadcast of messages apply but are outside of the scope of this document. Refer to the Iridium GMDSS User guide for more detail.

The user can initiate the broadcast via the Compose button. After creation, a summary of the SafetyCast messages sent by the provider to whom the user belongs is displayed on the home page of the tab.



Priority	Ref #	Advisory ID	Creation Time	Expiry Time	Type	Target	Transmission	Status
SAFETY	5f86fafa_829	5f86fafa_92b8	2020-10-14 13:20:24	2020-10-21 13:20:24	URGSAFE	6-Argentina	SCHEDULED	MANAGED
SAFETY	5f862c7e_test...	5f862c7e_sca7	2020-10-13 22:39:21	2020-10-20 22:39:21	URGSAFE	18-Canada	SCHEDULED	MANAGED
SAFETY	5f862c2c_538	5f862c2c_8881	2020-10-13 22:38:20	2020-10-20 22:38:20	URGSAFE	18-Canada	SCHEDULED	MANAGED
SAFETY	5f862b5b_test...	5f862b5b_bac2	2020-10-13 22:34:26	2020-10-13 23:34:26	URGSAFE	17-Canada	SCHEDULED	EXPIRED

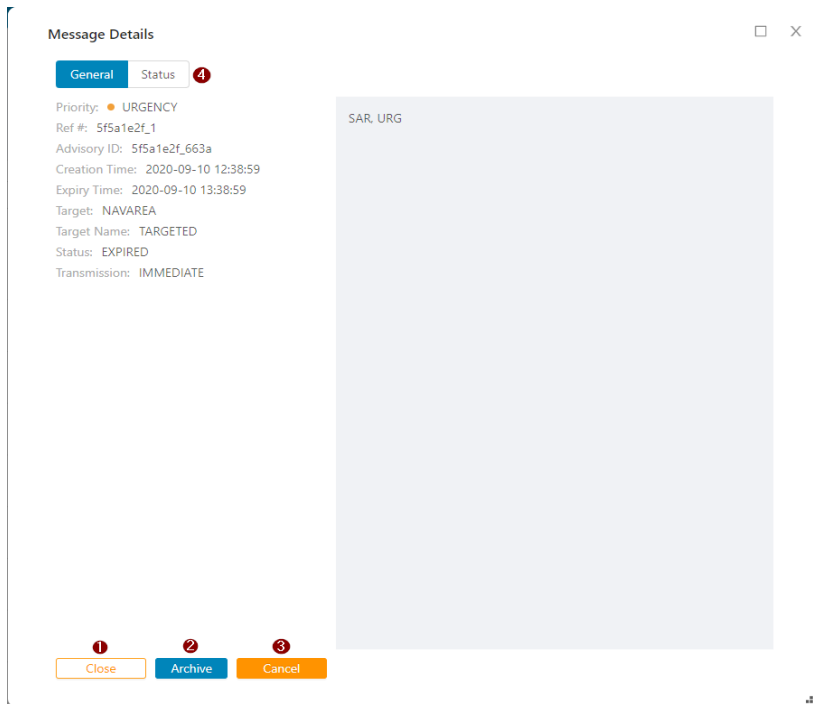
The controls are similar to those on the Distress Alert Relay tab.

Controls

1. A sort icon next to each field allows the user to sort the rows based on the particular field's values.
2. A filter icon next to each field allows the user to filter the rows based on a specific value of that field.
3. A global Date Range control that allows the user to display only the DAs that fall within the specified date range.
4. A search function that will filter for any string in any field displayed and list only the rows that contain that string.
5. Buttons for archiving or cancelling are available from the details window as well once a row radio button is selected.

Displaying Details of SafetyCast Message

To display the details of a specific message, click an entry row from the list and a window with all the available details will be generated.

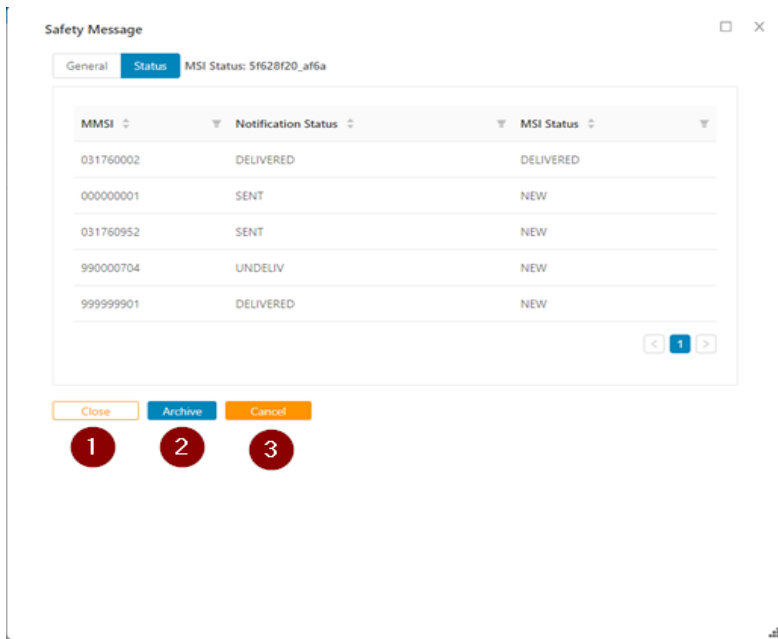


Controls

1. Button to close the pop up
2. Button to archive the particular message. Similar to the archiving under the tab home page.
3. Button to broadcast a Cancellation message to all vessels that received the original broadcast.
4. Button to display the delivery status of the message for each vessel.

The Status view button displays status information in the same format as the view tab in the Distress Alert Relay tab. The action buttons are also the same as the ones available in the DAR detail window. Refer to the DAR section for more information.

Below is a the detail window of a SafetyCast message listing all the Vessels that were identified to receive the SafetyCast message.



For completeness, the notification table is recaptured here as the SafetyCast messages have three additional states that do not apply to DARs. Messages statuses are identical.

Table of Notification Status Values and Their Respective Meanings

Value	Meaning
DELIVERED	Message and Validation message showing "Delivered" to Network
MANUAL	Active validation not needed as this is a vessels request for external message
NEW	New message, active validation pending
ALREADYTAPPED	Message Sent but active validation already underway
EXPIRED	Active validation could not be completed (vessel switched off)
SENT	New message, active validation underway
UNDELIV	Message notification not deliverable (Vessel is provisioned but not commissioned yet)
SCHEDMSI	Active validation not needed at this stage as this is a scheduled message

Composing a New SafetyCast Message

To create a new SafetyCast message, the compose button triggers a new input window for the user to fill in the SafetyCast parameters.

The first parameter is the Message type. A drop down will show: SAR COORDINATION TRAFFIC, NAVIGATIONAL, METEOROLOGICAL, URGENCY & SAFETY TRAFFIC or COASTAL WARNING for



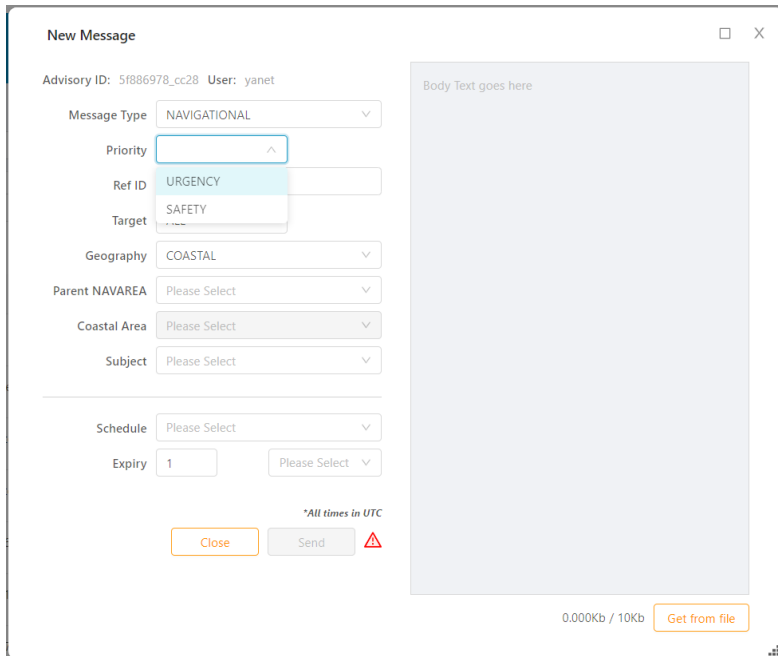
Message Type. Note that not all these options may be present and depend on the user and parent provider profile. If there are any expected types that do appear then the user needs to contact the site administrator to review the profile settings.

The next parameter is the priority. There are three priorities to choose from DISTRESS, URGENCY or SAFETY (2). Note that the list of available priorities changes with the type of message selected in the first step.

Ref ID (3), the ref id is made up of a first part generated by the Iridium GMDSS system and a second part to be provided by the user that would assist the user to track and correlate the message being created with identifiers external to the Iridium GMDSS system, if none are available it can be any unique value such as a date in the format of YYYYMMDDHHMISS.

The next two screenshots demonstrate the Message type and Priority selection steps.

The screenshot shows a 'New Message' form. At the top, it displays 'Advisory ID: 5f886978_cc28' and 'User: yanet'. The 'Message Type' dropdown menu is open, showing four options: 'NAVIGATIONAL', 'METEOROLOGICAL', 'URGENCY & SAFETY TRAFFIC', and 'COASTAL WARNING'. Below this, there are fields for 'Priority', 'Ref ID', and 'Target', each with a 'Please Select' dropdown. The 'Schedule' field also has a 'Please Select' dropdown. The 'Expiry' field contains the number '1' and a 'Please Select' dropdown. At the bottom, there are 'Close' and 'Send' buttons, with a warning icon next to 'Send'. A note below the buttons states '*All times in UTC'. At the bottom right, there is a file upload section showing '0.000Kb / 10Kb' and a 'Get from file' button. The main body of the form is a large text area labeled 'Body Text goes here'.



New Message

Advisory ID: 5f886978_cc28 User: yanet

Message Type: NAVIGATIONAL

Priority: [^]

Ref ID: URGENCY

Target: SAFETY

Geography: COASTAL

Parent NAVAREA: Please Select

Coastal Area: Please Select

Subject: Please Select

Schedule: Please Select

Expiry: 1 [Please Select]

*All times in UTC

Close Send ⚠

0.000Kb / 10Kb Get from file

Target input is always ALL meaning all vessels in the selected geography.

Geography is one of NAVAREA, METAREA, RECTANGULAR AREA, CIRCULAR AREA or COASTAL AREA for Geography. Note again that the list of options depends on the message type. Each of these selections affects the next choice.

The NAVAREA and METAREA cause a list of NAVAREAS or METAREAS to choose from to be presented in the drop downs. The actual choices are determined by the user and parent profile setup. Any missing areas must be addressed with the site administrator.

Rectangular and Circular areas operate the same as in the DAR tab. Please see that section for more detail.

Coastal Areas are only available for some NAVAREAS and require selection of a parent NAVAREA, a Coastal area and a Subject.

New Message □ ×

Advisory ID: 5f886aa3_3f55 User: kyle_rcc

Message Type: SAR coordination traffic

Priority: DISTRESS

Ref ID: 5f886aa3_

Target: ALL ❶

Geography: ⌵ ❷

Schedule: RECTANGULAR

Expiry: 1 Please Select

**All times in UTC*

Close Send ⚠

Body Text goes here

0.000Kb / 10Kb Get from file

NAVAREA Screenshot

New Message □ ×

Advisory ID: 5f886aa3_3f55 User: kyle_rcc

Message Type: URGENCY & SAFETY TRAFFIC

Priority: URGENCY

Ref ID: 5f886aa3_

Target: ALL

Geography: NAVAREA ❶

NAVAREA: ⌵ ❷

Schedule: 1-United Kingdom

Expiry: 2-France

3-Greece/Spain

4-United States

5-Brazil

6-Argentina

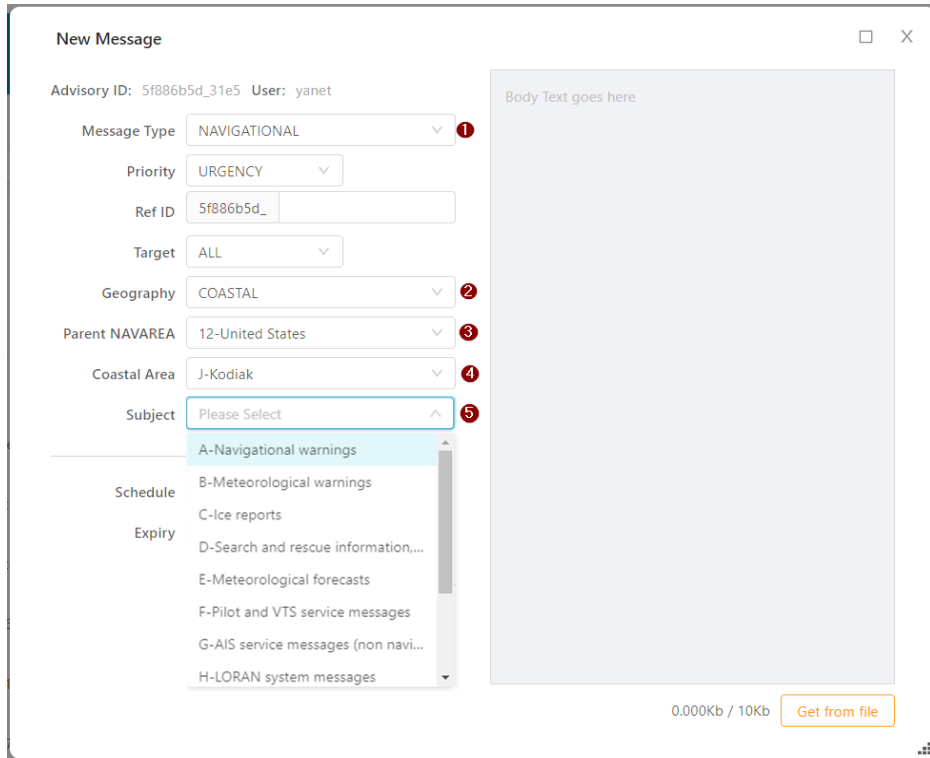
7-South Africa

8-India

Body Text goes here

0.000Kb / 10Kb Get from file

Coastal Area Screenshot



New Message

Advisory ID: 5f886b5d_31e5 User: yanet

Message Type: NAVIGATIONAL

Priority: URGENCY

Ref ID: 5f886b5d_

Target: ALL

Geography: COASTAL

Parent NAVAREA: 12-United States

Coastal Area: J-Kodiak

Subject: Please Select

Schedule: B-Meteorological warnings

Expiry: C-Ice reports

D-Search and rescue information...

E-Meteorological forecasts

F-Pilot and VTS service messages

G-AIS service messages (non navi...)

H-LORAN system messages

Body Text goes here

0.000Kb / 10Kb [Get from file](#)

The Schedule parameter determines the timing of broadcast of the new message. Three options are available: IMMEDIATE, SCHEDULED, SCHEDULED START. When the priority selected is DISTRESS, then the user can only choose a schedule value of IMMEDIATE meaning the broadcast will go as soon as the user presses the Send button.

A schedule value of SCHEDULED means the message will not be broadcast until the published broadcast times for that NAVAREA or METAREA.

A scheduled value of SCHEDULED START means the message will not be broadcasted until the start time selected by the user occurs and will continue to broadcast until the end time selected by the user.

The user must also select an expiry time to be assigned to the message. This is an expiry that relates to the validity period of the message. Not to be confused with when to stop broadcasting the message.

Schedule ▾

Expiry **1** **2**

- Hours
- Days

Schedule ▾

Expiry **1** **2**

- Hours
- Days

Schedule ▾

Start Datetime **1**

End Datetime **2**

Repetitions **3**

Interval hours **4**

Interval minutes **5**




And finally the user must paste the message body or select a file from which to grab the body. The body of the message must contain only characters that are part of the ISO-8859-1 set.


The message body provides a character count with the maximum size. The warning icon will provide hints on errors and will remain displayed until all input values are valid. Only then will the Send button be activated. One common error is to include non-ISO-8859-1 characters in the body. This will prevent the Send button from being enabled and must be corrected. The illegal characters will be highlighted in grey.

Once the Send button is pressed the message will be processed and a confirmation email will be sent to the email configured during provider account setup. An example of the email follows next.

Message 5f88c17d_1e66 was created successfully



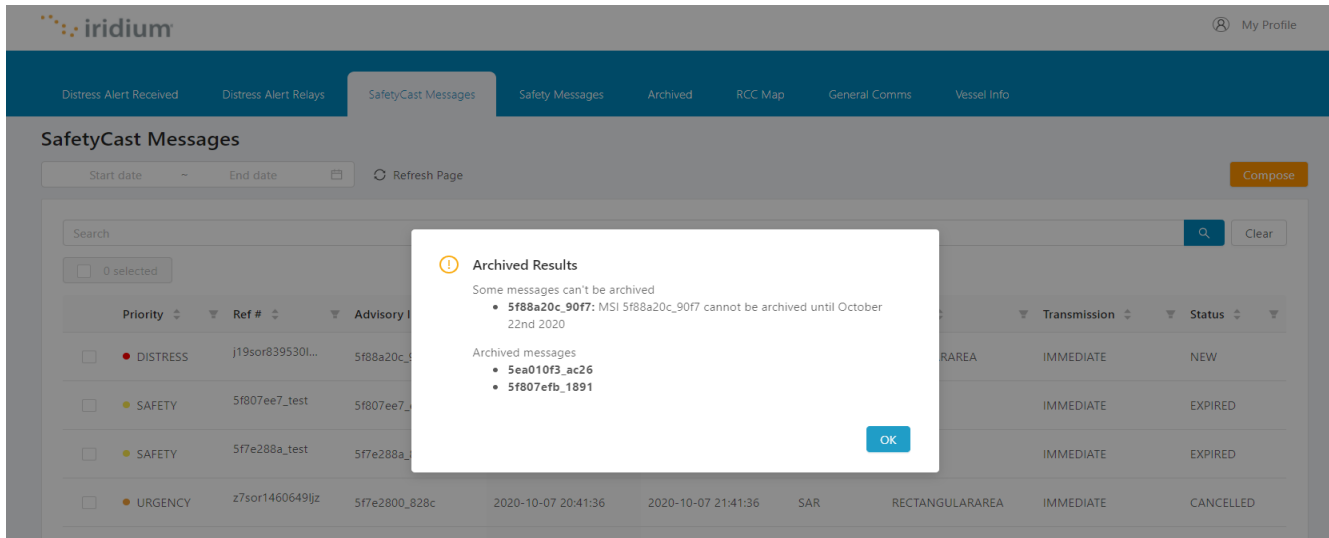
gmdsstrunk@gmail.com
To  Maricruz Barraza Favela

 Reply

Advisory ID: 5f88c17d_1e66
User ID: maricruz
Priority: 2 (URGENCY)
Message Type: SAR
Ref ID: 5f88c17d_y736
Creation Time: Thu Oct 15 2020 21:39:37 GMT+0000 (Coordinated Universal Time)
Expiry Time: Thu Oct 15 2020 22:39:37 GMT+0000 (Coordinated Universal Time)
Status: NEW
Transmission: IMMEDIATE
Message Body: Body Test
Target: RECTANGULARAREA
Target SW Corner: 23° 1.99980' N / 22° 1.99980' W
Target Extend Width: 1.67 degrees
Target Extend Height: 1.67 degrees

SafetyCast messages home tab also has the same Cancel and Archive actions. In this case only expired or cancelled SafetyCast messages can be archived. These actions work the same way as cancellation and archiving of DARs covered in the earlier section.

If there are any error cancelling or archiving, the user will get a status message as in the next screen shot.



The screenshot shows the 'SafetyCast Messages' tab in the Iridium interface. A popup window titled 'Archived Results' is displayed in the center. The popup contains the following text:

Archived Results
 Some messages can't be archived

- 5f88a20c_90f7: MSI 5f88a20c_90f7 cannot be archived until October 22nd 2020

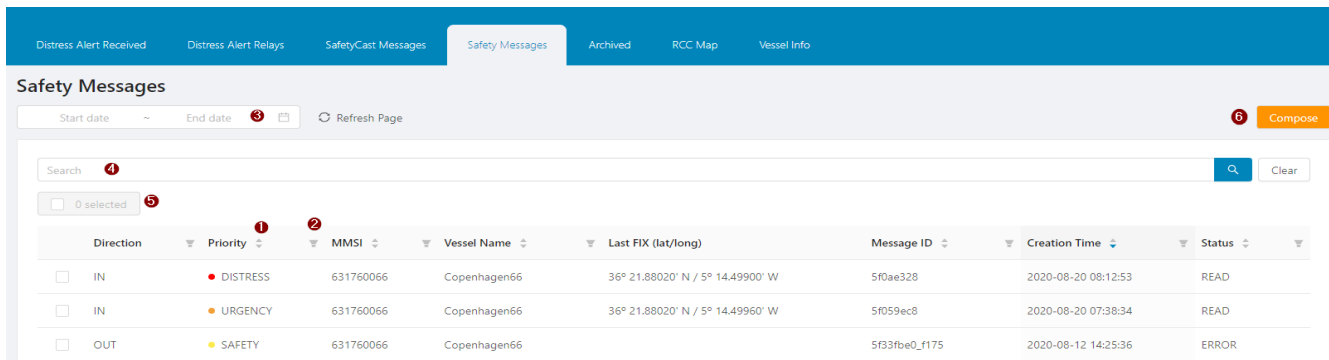
Archived messages

- Sea010f3_ac26
- 5f807efb_1891

An 'OK' button is located at the bottom right of the popup. In the background, a table of messages is visible with columns for Priority, Ref #, Advisory, Transmission, and Status.

The Safety Messages Tab

This tab provides the RCC a two-way communication path between an RCC and a specific vessel. These are called Safety Messages as opposed to SafetyCast messages that go to areas and end up being broadcast to multiple vessels at once. The tab lists the history of all Safety Messages exchanged between a vessel and the logged in RCC. It also allows the RCC user to send messages directly to a ship (via MMSI) or MSISDN.



The screenshot shows the 'Safety Messages' tab in the Iridium interface. The page title is 'Safety Messages'. There are search and filter options at the top. Below the search bar is a table with the following columns: Direction, Priority, MMSI, Vessel Name, Last FIX (lat/long), Message ID, Creation Time, and Status. The table contains three rows of data:

Direction	Priority	MMSI	Vessel Name	Last FIX (lat/long)	Message ID	Creation Time	Status
IN	DISTRESS	631760066	Copenhagen66	36° 21.88020' N / 5° 14.49900' W	5f0ae328	2020-08-20 08:12:53	READ
IN	URGENCY	631760066	Copenhagen66	36° 21.88020' N / 5° 14.49960' W	5f059ec8	2020-08-20 07:38:34	READ
OUT	SAFETY	631760066	Copenhagen66		5f33fbe0_f175	2020-08-12 14:25:36	ERROR

This tab has the same filtering and sorting options as the Distress Alert tab and SafetyCast tabs. Safety messages can only be archived in the same way as described earlier for DARs and SCMs. Safety messages cannot be cancelled.

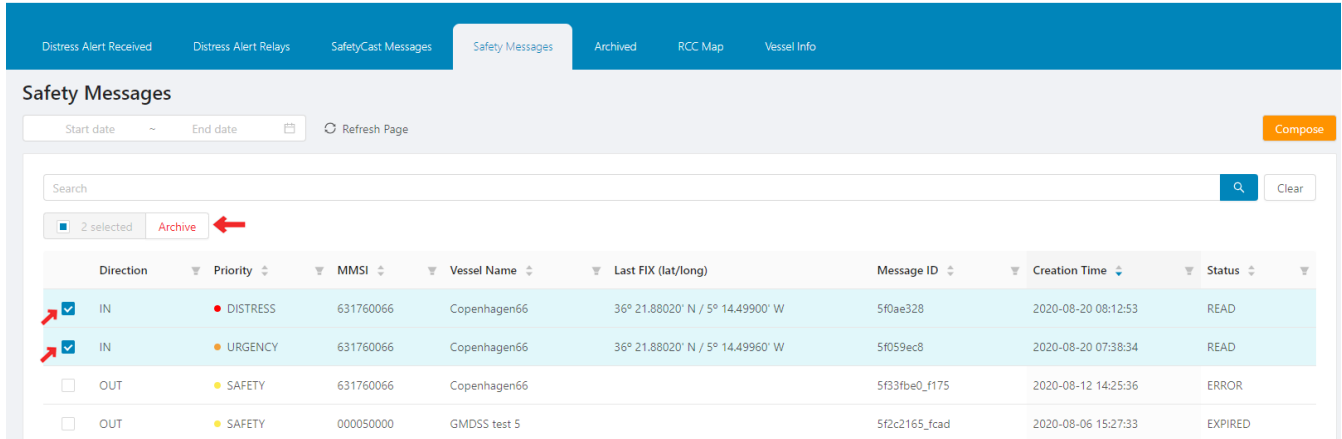
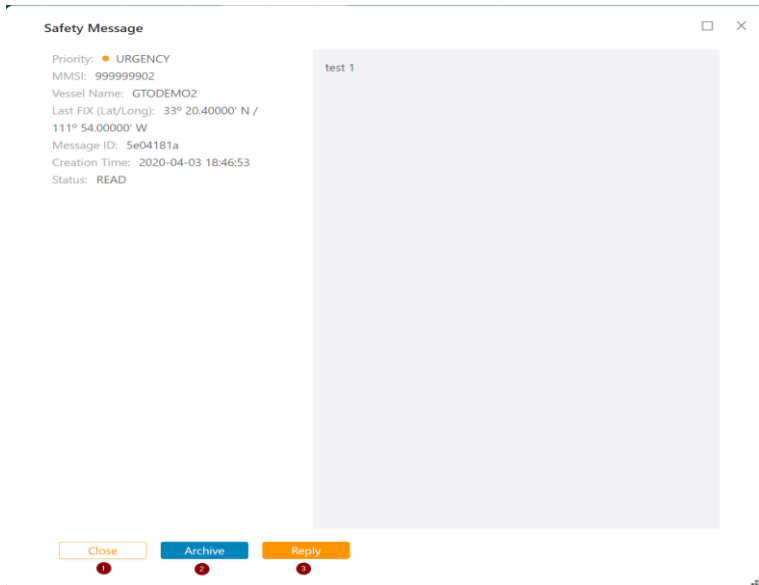
Displaying Details for a Specific Safety Message

To display the details for a specific Safety Message, just click on the specific row entry within the list, the example popup below will be brought up displaying the details of the Safety Message. The Close button (1) can be used to close the pop up and Archive (2) button can be used to archive the particular Safety Message. Use the Reply (3) button to reply to the specific message. Safety Messages can also



be archived directly from the tab by selecting any number of messages. The selection will activate the Archive button.

All Safety messages are individually identified by a unique message id. To review a thread the user should use the filter option to filter on the MMSI and get a full thread sequence.

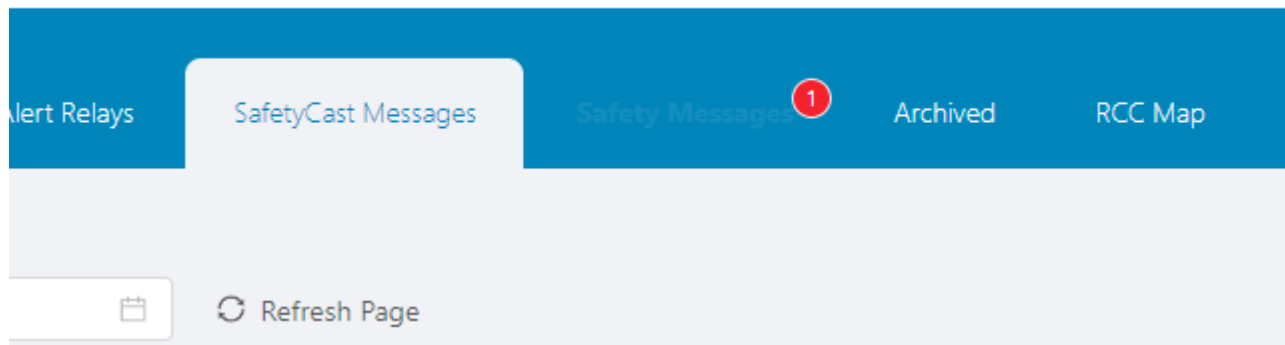


Creating a Safety Message

To initiate an SM to a vessel, the compose button will launch an input window to provide the MSISDN or MMSI of the destination vessel, the priority of the message and the body of the message. The body of the message is limited to 1000 characters. See next screenshot for an example.



When the user is not on the Safety message tab and a Safety Message arrives, the Safety Message tab will start to flash and show an additional icon with the number of unread Safety messages as in the screenshot below.



If the SM arriving is of priority DISTRESS, the system will trigger a popup alert similar to when a Distress Alert comes in for immediate attention.

The Archived Tab

This tab allows the user to navigate through and review messages that have been archived in the past. Only messages that are less than 6 months old are accessible online. After that, the system will archive offline anything older than 6 months.

Below is a screenshot of the Archive tab. It has the same controls for ordering(1) and filtering(2), Filtering by date range(3) and Searching(4).

The tab has two sub-tabs a Sent and a Received. All traffic from the DA, DAR, SafetyCast and Safety tab when archived can be viewed under either the Sent or Received tab depending on the direction of the message.

Distress Alert Received Distress Alert Relays SafetyCast Messages Safety Messages **Archived** RCC Map General Comms Vessel Info

Archived

Start date ~ End date **3** Refresh Page

↓
Sent Received G. Comms

Search **4**

0 selected

Priority	Ref #	Advisory ID	Creation Time	Expiry Time	Type	Target	Transmission	Status
<input type="checkbox"/> URGENCY	v13sor924255ff	5f7ccd2e_417c	2020-10-06 20:01:50	2020-10-06 21:01:50	SAR	RECTANGULARAREA	IMMEDIATE	EXPIRED
<input type="checkbox"/> URGENCY	5f761824_test...	5f761824_d322	2020-10-01 17:56:26	2020-10-02 05:00:00	SAR	RECTANGULARAREA	IMMEDIATE	EXPIRED

Distress Alert Received Distress Alert Relays SafetyCast Messages Safety Messages **Archived** RCC Map General Comms Vessel Info

Archived

Start date ~ End date **3** Refresh Page

Sent ↓
Received G. Comms

Search **4**

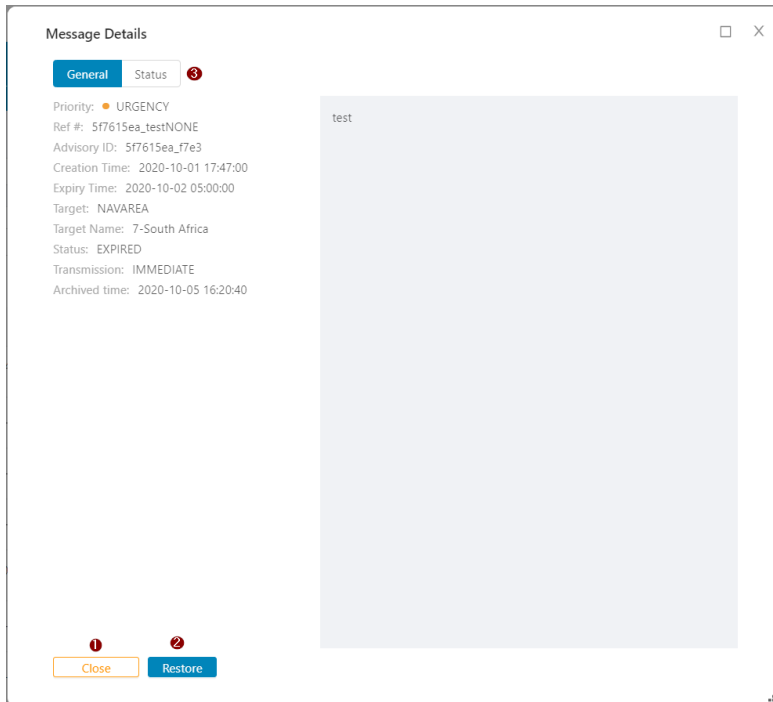
0 selected

Priority	Distress Type	MMSI	Vessel Name	FIX (Lat/Long)	Advisory ID	Creation Time	RCC Status
<input type="checkbox"/> DISTRESS	Piracy / armed robbery attack	000000001		33° 0.00000' N / 170° 0.00000' W	5f0e7954	2020-09-07 14:38:16	RCCCCANCEL
<input type="checkbox"/> DISTRESS	Piracy / armed robbery attack	000000001		33° 0.00000' N / 110° 0.00000' W	5f094445	2020-08-25 21:38:34	RCCCCANCEL

Displaying Details of a Sent or Received Message

Details of each message can be reviewed by clicking on the specific row message which will cause a detail window to display as in the next screenshot. The window has a Close button and a Restore button. The Restore button can be used to unarchive a message.

The General view shows details of the message. The Status view shows information about the delivery of the message. The delivery status interpretation is similar to the status view presented in the SafetyCast section.



3. Sending Message to the Iridium GMDSS Web Portal via Emails or SFTP

The Iridium GMDSS system has implemented an interface to be able to inject into the systems Maritime Safety Information(MSI) via email and SFTP and bypass the web GUI entry method.

These messages use C-codes as defined in the IMO MSC.1/Circ 1364 Rev.1 document.

Due to limitations in the C-Codes, some C-code values are ambiguous and the resulting MSI category generated is determined by the user preferences setup during the user's account creation.

Sending Messages via Emails

To inject a maritime message of type MSI into the system via email, the user and the parent provider must have signed up for email access.

The procedure consists of sending an email to the destination msi@gmdss.iridium.com. The email subject must follow precise formatting rules to be accepted and processed successfully. The Iridium GMDSS system will send a successful confirmation or failure confirmation to the source email. Note that no MSI is generated if the confirmation of success is not received and the user must follow up if the situation is urgent.

The body of the email can contain the details of the message formatted per the users' needs. The body in this case is also limited to ISO-8859-1 character set and any non-compliant character will result in a failure email.



The table below details the email formatting rules and provides more details about the subject format

Field	Value	Description
TO	msi@gmdss.iridium.com	Email address to send Messages to
FROM	anyemail@domain.com	The source email address. The domain.com must match the domain that was provided during account setup. And the any email must match an email of a configured user.
SUBJECT	Codes	<p>[text] < C₀,C₁,C₂,C₃,C₄,C₅ > [ref=dddddddd] [id=userid] [key=key] [text]</p> <p>Where:</p> <p>[text] is optional text</p> <p>< C₀,C₁,C₂,C₃,C₄,C₅ > mandatory C-Codes per the IMO MSC.1/Circ 1364 Rev.1.</p> <p>C₀ is always set to 9 or handled as a 9 because the Iridium system is a global system.</p> <p>C₁ priority 1 for Safety, 2 for Urgency, 3 for Distress.</p> <p>C₂ Service Code. Ambiguous codes 04,13,24 and 31 are resolved by examining the optional key value when present or default to the user account's setting at account setup time.</p> <p>C₃ address code. Cardinal direction N,S,E, and W must always be capitalized.</p> <p>C₄ repetition code. All C4 values will result in an expiry date set on the message of one year as of the time of writing of this guide.</p> <p>C₅ Presentation Code always 00.</p> <p>[ref=dddddddd] is the optional RefID. This is an additional identifier to help the user identify a message across platforms limited to letters, numbers and the minus sign with a maximum of 20 characters.</p> <p>[id=userid] is the optional userid same as the one used when login into the GMDSS Web portal.</p> <p>[key=key] is the optional key value of</p> <ul style="list-style-type: none"> <input type="checkbox"/> MSI for SafetyCast <input type="checkbox"/> NAVWARN for Navigational Warning <input type="checkbox"/> METWARN for Meteorological Warning



		<input type="checkbox"/> PIRWARN for Piracy Warning <input type="checkbox"/> SAR for Search and Rescue <p>And is used to resolve the ambiguous C-codes and override the account default when necessary. For an ambiguous C-code value, the system will look to resolve the ambiguity by looking at the key value, if the key value was not provided, the system will look at the parent account NAV vs MET associated with the userid or the source email address used to inject the MSI.</p>
BODY	Message	The actual message limited to ISO-8859-1 character set.

Example 1:

TO: msi@gmdss.iridium.com

FROM: red123@domain.com

SUBJECT: EGC 1,1,31,01,01,0 ref=234567 id=red123 key=METWARN

STORM WARNING AT 010000UTC, LOW 51 NORTH 39 WEST 1006 EXPECTED 63 NORTH 20 WEST 982 BY 020000UTC. WINDS ARE EXPECTED TO REACH STORM FORCE 10 BETWEEN 50 AND 300 MILES OF THE CENTRE IN THE EASTERN, SOUTHERN AND WESTERN QUADRANTS FROM 011500UTC, PERHAPS VIOLENT STORM FORCE 11 FROM 012200UTC

Common Error and Expected Behavior When Using Email

Scenario 1

Email is sent into Web Portal to create Message. No reply nor confirmation reply is received by the sender. On the Web Portal, no new Message is created for the specific email that was sent.

Cause – The source address used by the sender is not provisioned in the system. In this case, the system does not reply either way to avoid future spam.

Scenario 2

Email is sent into the Web Portal and a reply containing *Error: Invalid Code* is returned.

Cause – The C-code encoding contains a syntax error.

Scenario 3

Email is sent into the Web Portal and a reply containing a user role error, parameter error or geographical error.

Cause – The user is using the correct C-Code formats but is trying to sent a maritime message for which he is not configured such as trying to send NAV warning when the account is a MET account, trying to send to a NAV area that is outside the user’s area of responsibility and so on.



Scenario 4 – Email is sent into the Web Portal and a reply with the subject of *Error: Your email access does not allow the creation of a Message with the information specified in the Code. Please contact an administrator for more information.*

Cause – The user account associated with the source email does not have email privileges.

Sending Message via SFTP

The Iridium GMDSS system supports a third way of sending maritime messages to vessels via SFTP using the same login credentials setup for the web access or using SSH keys.

The steps to send a message via SFTP are as follows:

1. Obtain an SFTP client. Mac, Linux, and recent updated versions of Windows 10 systems all have OpenSSH enabled natively. If your system does not, we recommend OpenSSH.
2. Create your Message in a text file and name the file using this filename format **<key>_<dddddddd>_C0_C1_C2_C3_C4_C5>.txt** where both **key** and **dddddddd** are required.

Key is one of MSI, NAVWARN, PIRWARN, METWARN, or SAR. It is used the same way as the key in the email method except there is one additional value of MSI available that is used to let the system use the user account profile to resolve any C-code ambiguity. Otherwise to explicitly indicate or override, use one of the other values.

ddddddd is the Refid. See email section for usage.

3. Open an SFTP session to the Iridium GMDSS Web Portal server at gmdss.iridium.com
 - a. Windows example using an SFTP password: `sftp <username>@gmdss.iridium.com`
 - b. Windows example using SSH keys: `sftp -i C:\Users\mywinid\.ssh\ecdsa_id.ppk <username>@gmdss.iridium.com`
4. Upload the above newly created message text file onto the server. For example,

```
put MSI_154566789_1_1_31_01_01_0.txt
```

IMPORTANT NOTE: Method a) will always prompt for the user password which is the same password as for the web login. Method b) will attempt to use the user's pre-stored SSH key. If the user's SSH public key is not stored in the Web Portal or is not paired with the user's SSH private key, the system will prompt for a password during the login stage of the process.


See Appendix A for information on how to create the SSH key.


Once the key has been created it can be uploaded to the Iridium GMDSS web portal using the SSH Key button under the

My Account Button.


 My Profile

My Account


 User ID:
kyle_rcc

 Provider:
1-Norfolk

[Reset Password](#)

[SSH Key](#) 

[Log out](#)

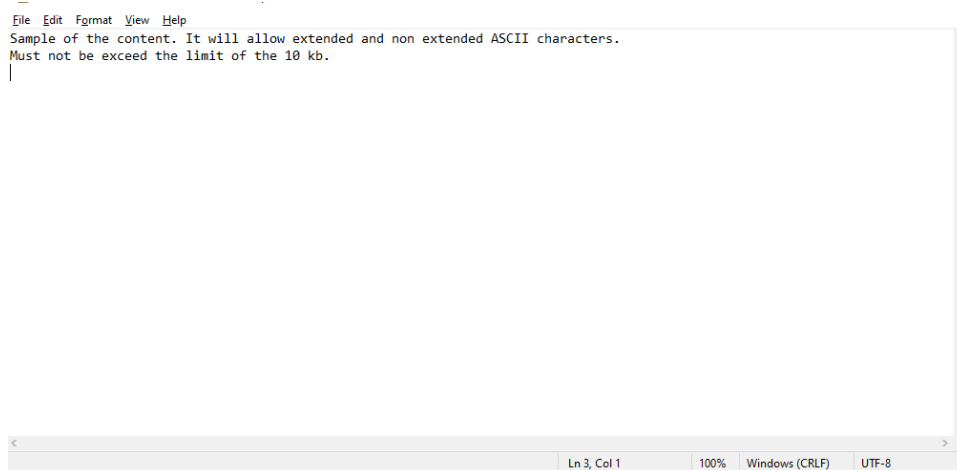
 **Iridium GMDSS**



Example Scenarios for Sending Messages Via SFTP

Scenario of Sending a Message Into the Web Portal Via SFTP Protocol

Step 1: Create a text file containing the message, not to exceed a limit of 10 kilobytes of text:



The name of the Message file should follow this standard:

`<key>_<ddddddd>_<C0_C1_C2_C3_C4_C5>.file_extension`

where:

*`<C0_C1_C2_C3_C4_C5>`: Ccode string. Mandatory

IMPORTANT NOTE: when using Cardinal Points (N, S, E, W) in CCode, they have to be in uppercase or the user will receive an error.

*`<ddddddd>`: It's a string of 8 digits or less. It's an external refid the user provides.

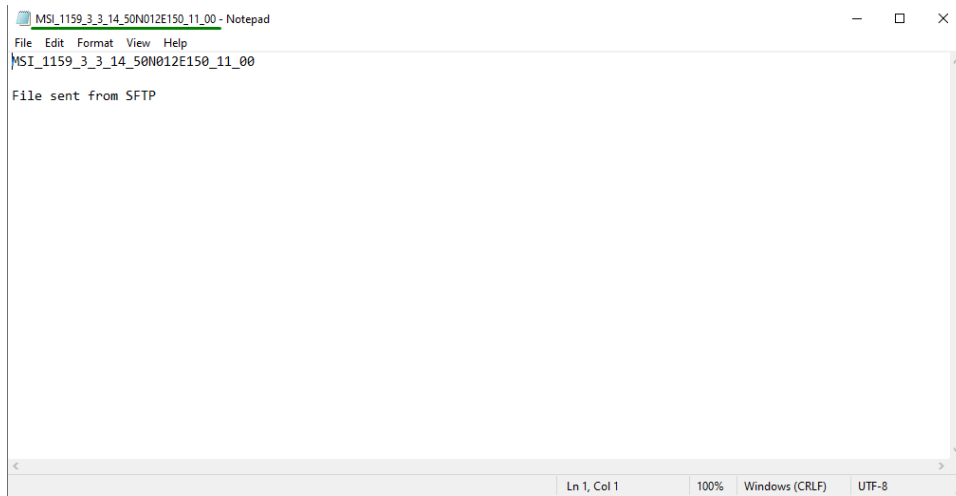
*`<key>`: It's one of these values: NAVWARN, METWARN, PIRWARN or SAR (as in the `mts_advparms` table) or MSI. Mandatory

Samples of valid names:

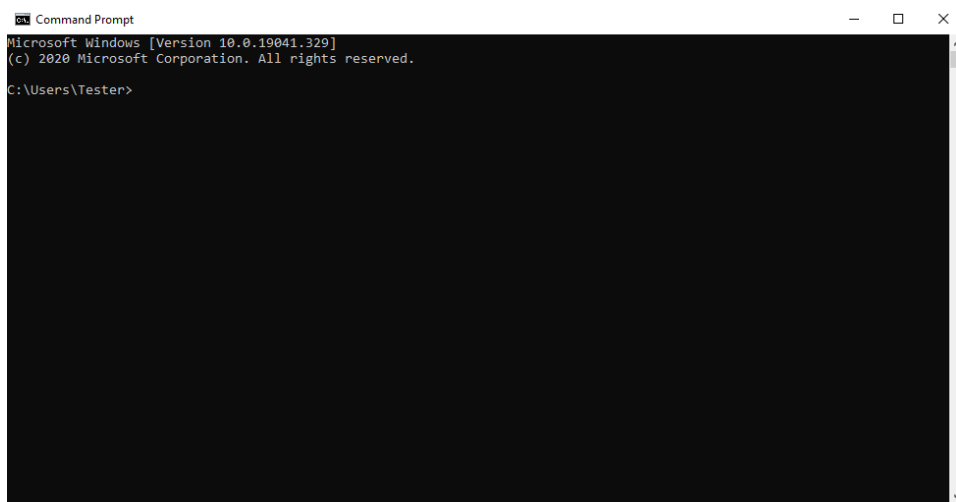
MSI_1159_3_3_14_50N012E150_11_00

SAR_1257_3_2_34_23N039W01001_23_00

Step 2: Edit and save the file:



Step 3: Open a terminal window:



Step 4: Go to where the text file is saved:


```
Command Prompt
Microsoft Windows [Version 10.0.19041.329]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\Tester>cd Desktop
C:\Users\Tester\Desktop>
```

Step 5: Type the commands to establish the SFTP connection, then press enter:

Eg. Sftp [user@domain.com](#) 2222, enter “y” to continue.

```
Command Prompt - sftp maricruz@gmdss-dev.iridium.com 2222
Microsoft Windows [Version 10.0.19041.329]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\Tester>cd Desktop
C:\Users\Tester\Desktop>sftp maricruz@gmdss-dev.iridium.com 2222
Warning: the RSA host key for 'gmdss-dev.iridium.com' differs from the key for the IP address '208.25.12.149'
Offending key for IP in C:\Users\Tester/.ssh/known_hosts:1
Matching host key in C:\Users\Tester/.ssh/known_hosts:3
Are you sure you want to continue connecting (yes/no)?
```

Step 6: Enter the password for the user and press enter. NOTE: The user is the same that is used to access the web portal. The connection must be established before continuing:



```
Command Prompt - sftp maricruz@gmdss-dev.iridium.com 2222
Microsoft Windows [Version 10.0.19041.329]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\Tester>cd Desktop

C:\Users\Tester\Desktop>sftp maricruz@gmdss-dev.iridium.com 2222
Warning: the RSA host key for 'gmdss-dev.iridium.com' differs from the key for the IP address '208.25.12.149'
Offending key for IP in C:\Users\Tester/.ssh/known_hosts:1
Matching host key in C:\Users\Tester/.ssh/known_hosts:3
Are you sure you want to continue connecting (yes/no)?
maricruz@gmdss-dev.iridium.com's password:
Connected to maricruz@gmdss-dev.iridium.com.
sftp>
```

Step 7: To send the Message from SFTP, type the “Put filename.txt” command:

Eg. Put MSI_1159_3_3_14_50N012E150_11_00.txt, press enter and Success message should be displayed.

```
Command Prompt - sftp maricruz@gmdss-dev.iridium.com 2222
Microsoft Windows [Version 10.0.19041.329]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\Tester>cd Desktop

C:\Users\Tester\Desktop>sftp maricruz@gmdss-dev.iridium.com 2222
Warning: the RSA host key for 'gmdss-dev.iridium.com' differs from the key for the IP address '208.25.12.149'
Offending key for IP in C:\Users\Tester/.ssh/known_hosts:1
Matching host key in C:\Users\Tester/.ssh/known_hosts:3
Are you sure you want to continue connecting (yes/no)?
maricruz@gmdss-dev.iridium.com's password:
Connected to maricruz@gmdss-dev.iridium.com.
sftp> put MSI_2137_3_3_34_50N012W30025_00_00.txt
Uploading MSI_2137_3_3_34_50N012W30025_00_00.txt to ./MSI_2137_3_3_34_50N012W30025_00_00.txt
MSI_2137_3_3_34_50N012W30025_00_00.txt                               100% 57  0.2KB/s  00:00
Couldn't write to remote file "./MSI_2137_3_3_34_50N012W30025_00_00.txt": Failure
sftp> put MSI_2137_9_2_34_50N012W30025_00_00.txt
Uploading MSI_2137_9_2_34_50N012W30025_00_00.txt to ./MSI_2137_9_2_34_50N012W30025_00_00.txt
MSI_2137_9_2_34_50N012W30025_00_00.txt                          100% 57  0.2KB/s  00:00
Couldn't write to remote file "./MSI_2137_9_2_34_50N012W30025_00_00.txt": Failure
sftp> put MSI_1159_3_3_14_50N012E150_11_00.txt
Uploading MSI_1159_3_3_14_50N012E150_11_00.txt to ./MSI_1159_3_3_14_50N012E150_11_00.txt
MSI_1159_3_3_14_50N012E150_11_00.txt                           100% 55  0.1KB/s  00:00
sftp>
```

Code 14 in C2 field means that the message is created as a distress:


Priority	MSI Ref #	Advisory ID	Distress Time	Expiry Time	Distressed MMSI	Distress Location (lat/long)	Status
● DISTRESS	5f165617_1159	5f165617_6b83	2020-07-21 02:42:31	2020-07-21 03:42:31	UNKNOWN	50° 0.00000' N / 12° 0.00000' E	NEW
● DISTRESS	5eb31265_cas...	5f10a5fa_ed00	2020-07-16 19:09:50	2020-08-15 19:09:50	UNKNOWN	50° 49.15020' N / 12° 29.29020' E	NEW
● DISTRESS	5f0a86a6	5f10a5e3_c807	2020-07-16 19:09:31	2020-08-15 19:09:31	000000001	33° 0.00000' N / 0° 10.73400' W	NEW
● DISTRESS	5eb1e7cd_2a2...	5f10a5bb_7a13	2020-07-16 19:08:47	2020-08-15 19:08:47	333333333	14° 13.12320' N / 35° 19.12320' W	NEW
● DISTRESS	5eb1e7cd_2a2...	5f108634_7eaa	2020-07-16 16:54:17	2020-08-15 16:54:17	333333333	14° 13.12320' N / 35° 19.12320' W	NEW
● DISTRESS	5eb1e7cd_2a2...	5f1085f4_857b	2020-07-16 16:53:16	2020-08-15 16:53:16	333333333	14° 13.12320' N / 35° 19.12320' W	NEW
● DISTRESS	5eb31265_cas...	5f1085e2_be40	2020-07-16 16:52:58	2020-08-15 16:52:58	UNKNOWN	50° 49.15020' N / 12° 29.29020' E	NEW
● DISTRESS	5eb1e7cd_2a2...	5f10665a_e8ab	2020-07-16 14:38:24	2020-08-15 14:38:24	333333333	14° 13.12320' N / 35° 19.12320' W	NEW

The data in pop up should match the SFTP message:

Distress Alert Relay Details

Status View
Map View
Distressed Vessel Info

MMSI: [dropdown] Notification Status: [dropdown] Distress Alert Status: [dropdown]



No Data

Priority: ● DISTRESS

MSI Ref#: 5f165617_1159

Advisory ID: 5f165617_6b83

Distress Time: 2020-07-21 02:42:31

Expiry Time: 2020-07-21 03:42:31

MSI Type: RELAYX

Target: CIRCAREA

Transmission: IMMEDIATE

Status: NEW

Geography: CIRCULAR AREA

Center: 50° 0.00000' N / 12° 0.00000' E

Radius: 150.00 NM (277.8Km)

RCC/MSIP: NorfolkTEST:United States

MSI_1159_3_3_14_50N012E150_11_00

File sent from SFTP

Close
Archive
Cancel

Second scenario using SFTP to send a SafetyCast message into the web portal.

Step 1: Repeat step 1-7 of the above test scenario.

Step 2: Create a text file with this filename: SAR_1257_3_2_34_23N039W01001_23_00, save the text file:



```
SAR_1621_9_2_34_23N039W05005_23_00 - Notepad
File Edit Format View Help
SAR_1257_3_2_34_23N039W01001_23_00

Test File sent from SFTP

Ln 1, Col 1 100% Windows (CRLF) UTF-8
```

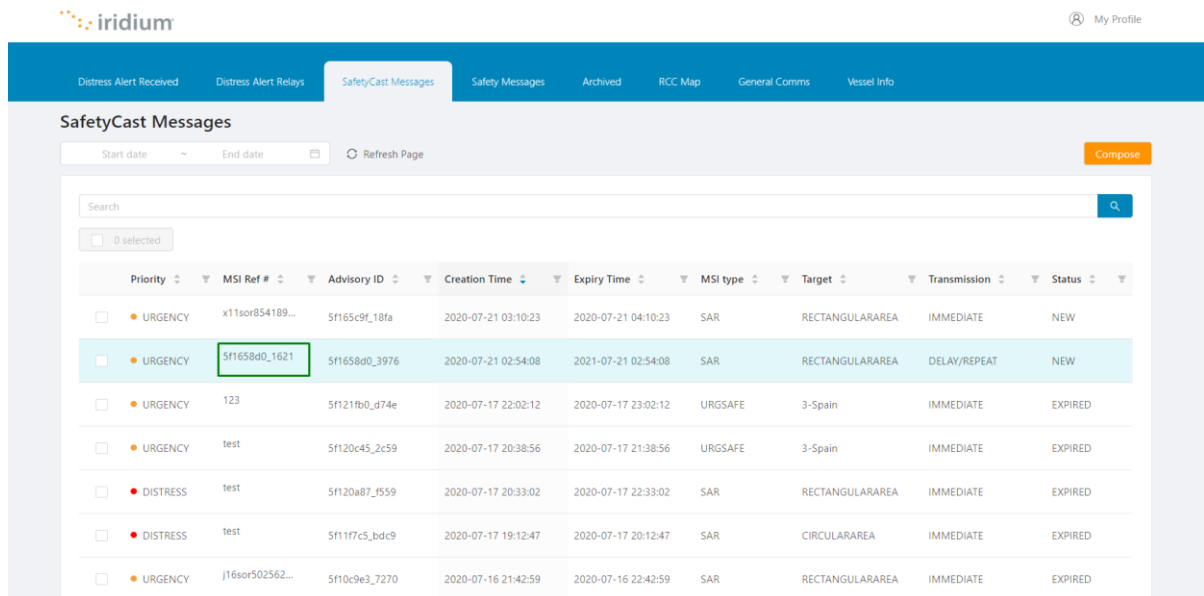
Step 3 – 6: Same as scenario above.

Step 7: Send text file via SFTP:

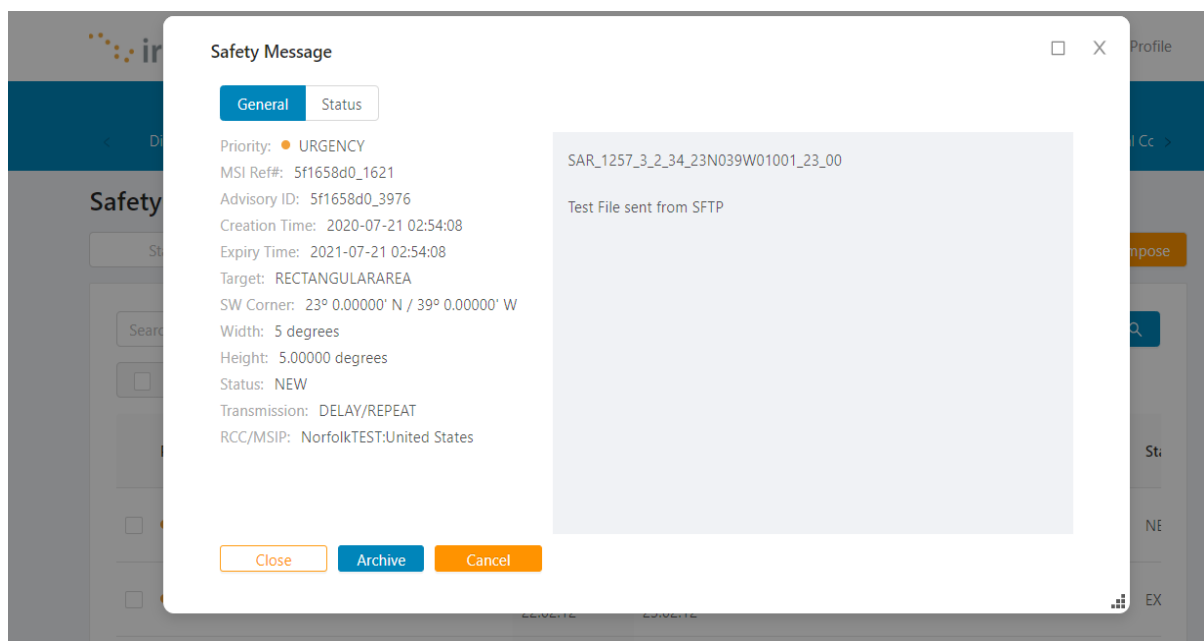
```
Command Prompt - sftp maricruz@gmdss-dev.iridium.com 2222
Microsoft Windows [Version 10.0.19041.329]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\Tester>cd Desktop
C:\Users\Tester\Desktop>sftp maricruz@gmdss-dev.iridium.com 2222
Warning: the RSA host key for 'gmdss-dev.iridium.com' differs from the key for the IP address '208.25.12.149'
Offending key for IP in C:\Users\Tester\.ssh\known_hosts:1
Matching host key in C:\Users\Tester\.ssh\known_hosts:3
Are you sure you want to continue connecting (yes/no)?
maricruz@gmdss-dev.iridium.com's password:
Connected to maricruz@gmdss-dev.iridium.com.
sftp> put MSI_2137_3_3_34_50N012W30025_00_00.txt
Uploading MSI_2137_3_3_34_50N012W30025_00_00.txt to ./MSI_2137_3_3_34_50N012W30025_00_00.txt
MSI_2137_3_3_34_50N012W30025_00_00.txt 100% 57 0.2KB/s 00:00
Couldn't write to remote file "./MSI_2137_3_3_34_50N012W30025_00_00.txt": Failure
sftp> put MSI_2137_9_2_34_50N012W30025_00_00.txt
Uploading MSI_2137_9_2_34_50N012W30025_00_00.txt to ./MSI_2137_9_2_34_50N012W30025_00_00.txt
MSI_2137_9_2_34_50N012W30025_00_00.txt 100% 57 0.2KB/s 00:00
Couldn't write to remote file "./MSI_2137_9_2_34_50N012W30025_00_00.txt": Failure
sftp> put MSI_1159_3_3_14_50N012E150_11_00.txt
Uploading MSI_1159_3_3_14_50N012E150_11_00.txt to ./MSI_1159_3_3_14_50N012E150_11_00.txt
MSI_1159_3_3_14_50N012E150_11_00.txt 100% 55 0.1KB/s 00:00
sftp> put SAR_1621_9_2_34_23N039W05005_23_00.txt
Uploading SAR_1621_9_2_34_23N039W05005_23_00.txt to ./SAR_1621_9_2_34_23N039W05005_23_00.txt
SAR_1621_9_2_34_23N039W05005_23_00.txt 100% 64 0.2KB/s 00:00
sftp>
```

Step 8: Log into the web portal, SafetyCast Messages tab. The Message will be displayed with the data sent in the filename. NOTE: An email will be sent to the user with the same information:



Priority	MSI Ref #	Advisory ID	Creation Time	Expiry Time	MSI type	Target	Transmission	Status
URGENCY	x11sor854189...	5f165c9f_18fa	2020-07-21 03:10:23	2020-07-21 04:10:23	SAR	RECTANGULARAREA	IMMEDIATE	NEW
URGENCY	5f1658d0_1621	5f1658d0_3976	2020-07-21 02:54:08	2021-07-21 02:54:08	SAR	RECTANGULARAREA	DELAY/REPEAT	NEW
URGENCY	123	5f121fb0_d74e	2020-07-17 22:02:12	2020-07-17 23:02:12	URGSAFE	3-Spain	IMMEDIATE	EXPIRED
URGENCY	test	5f120c45_2c59	2020-07-17 20:38:56	2020-07-17 21:38:56	URGSAFE	3-Spain	IMMEDIATE	EXPIRED
DISTRESS	test	5f120a87_f559	2020-07-17 20:33:02	2020-07-17 22:33:02	SAR	RECTANGULARAREA	IMMEDIATE	EXPIRED
DISTRESS	test	5f117c5_bdc9	2020-07-17 19:12:47	2020-07-17 20:12:47	SAR	CIRCULARAREA	IMMEDIATE	EXPIRED
URGENCY	J16sor502562...	5f10c9e3_7270	2020-07-16 21:42:59	2020-07-16 22:42:59	SAR	RECTANGULARAREA	IMMEDIATE	EXPIRED



Safety Message

General | Status

Priority: ● URGENCY
 MSI Ref#: 5f1658d0_1621
 Advisory ID: 5f1658d0_3976
 Creation Time: 2020-07-21 02:54:08
 Expiry Time: 2021-07-21 02:54:08
 Target: RECTANGULARAREA
 SW Corner: 23° 0.00000' N / 39° 0.00000' W
 Width: 5 degrees
 Height: 5.00000 degrees
 Status: NEW
 Transmission: DELAY/REPEAT
 RCC/MSIP: NorfolkTEST:United States

SAR_1257_3_2_34_23N039W01001_23_00
 Test File sent from SFTP

Close | Archive | Cancel



Message 5f7e2479_25ea was created successfully



To: gmdsstrunk@gmail.com

Reply

Advisory ID: 5f7e2479_25ea
User ID: maricruz
Priority: 2 (URGENTY)
Message Type: SAR
Ref ID: 5f7e2479_1548
Creation Time: Wed Oct 07 2020 20:26:33 GMT+0000 (Coordinated Universal Time)
Expiry Time: Wed Oct 07 2020 21:26:33 GMT+0000 (Coordinated Universal Time)
Status: NEW
Transmission: IMMEDIATE
Message Body: SAR_1548_9_2_34_23N039W02033_11_00
° degrees from sftp file

Target: RECTANGULARAREA
Target SW Corner: 23° 0.00000' N / 39° 0.00000' W
Target Extend Width: 2.00 degrees
Target Extend Height: 33.00 degrees

NOTE: the filename used for the SFTP process is very critical to follow the specification or an error message will be generated. For example, if you omit the <ddddddd> of the filename, an error will be generated as shown in the example below:

Using a wrong filename of SAR_9_2_34_23N039W05005_23_00, an error will be generated:

```
Command Prompt - sftp maricruz@gmdss-dev.iridium.com 2222
Are you sure you want to continue connecting (yes/no)?
maricruz@gmdss-dev.iridium.com's password:
Connected to maricruz@gmdss-dev.iridium.com.
sftp> put MSI_2137_3_3_34_50N012W30025_00_00.txt
Uploading MSI_2137_3_3_34_50N012W30025_00_00.txt to ./MSI_2137_3_3_34_50N012W30025_00_00.txt
MSI_2137_3_3_34_50N012W30025_00_00.txt 100% 57 0.2KB/s 00:00
Couldn't write to remote file ".\\MSI_2137_3_3_34_50N012W30025_00_00.txt": Failure
sftp> put MSI_2137_9_2_34_50N012W30025_00_00.txt
Uploading MSI_2137_9_2_34_50N012W30025_00_00.txt to ./MSI_2137_9_2_34_50N012W30025_00_00.txt
MSI_2137_9_2_34_50N012W30025_00_00.txt 100% 57 0.2KB/s 00:00
Couldn't write to remote file ".\\MSI_2137_9_2_34_50N012W30025_00_00.txt": Failure
sftp> put MSI_1159_3_3_14_50N012E150_11_00.txt
Uploading MSI_1159_3_3_14_50N012E150_11_00.txt to ./MSI_1159_3_3_14_50N012E150_11_00.txt
MSI_1159_3_3_14_50N012E150_11_00.txt 100% 55 0.1KB/s 00:00
sftp> put SAR_1621_9_2_34_23N039W05005_23_00.txt
Uploading SAR_1621_9_2_34_23N039W05005_23_00.txt to ./SAR_1621_9_2_34_23N039W05005_23_00.txt
SAR_1621_9_2_34_23N039W05005_23_00.txt 100% 64 0.2KB/s 00:00
sftp> put SAR_9_2_34_23N039W05005_23_00.txt
Uploading SAR_9_2_34_23N039W05005_23_00.txt to ./SAR_9_2_34_23N039W05005_23_00.txt
remote open(".\\SAR_9_2_34_23N039W05005_23_00.txt"): Failure
sftp>
```



Scenario of Sending Messages Into the Web Portal Via Email

Step 1: Go into your email client.

Step 2: Create a new message address to gmdsstrunk@gmail.com with the subject containing this sequence of text: : <c0,c1,c2,c3,c4,c5> [ref=dddddddd] [id=userid] [key=key] [some words] where:

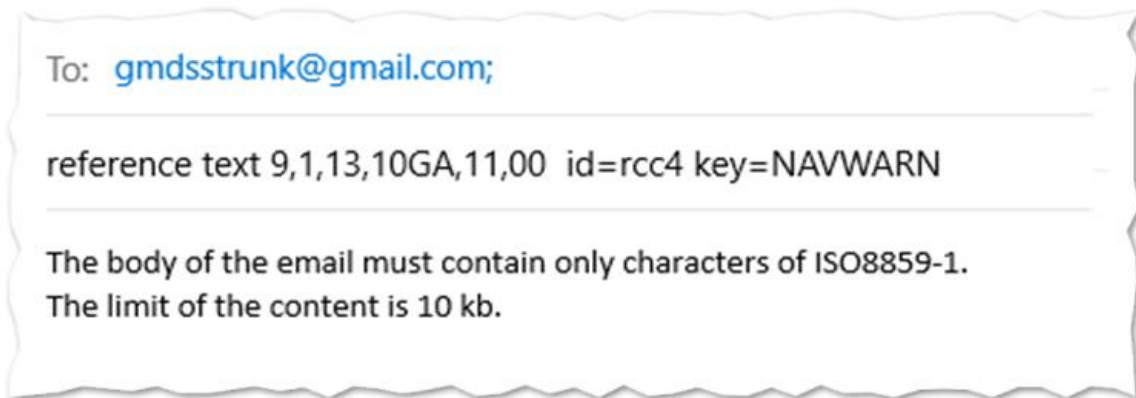
*<C0_C1_C2_C3_C4_C5>: Ccode string.

IMPORTANT NOTE: when using Cardinal Points (N, S, E, W) in CCode, they have to be in uppercase or the user will receive an error.

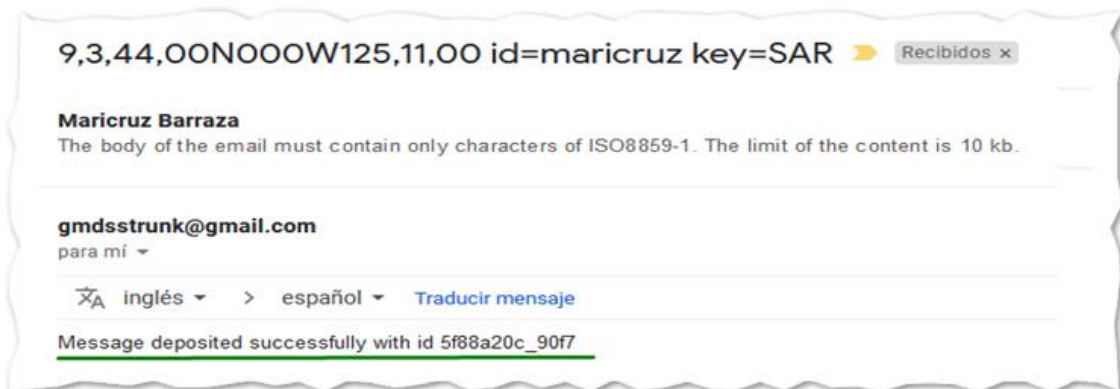
*<dddddddd>: It's a string of 8 digits or less. It's an external refid the user provides.

*<key>: It's one of these values: NAVWARN,METWARN, PIRWARN or SAR (as in the mts_advparms table) or MSI. Mandatory

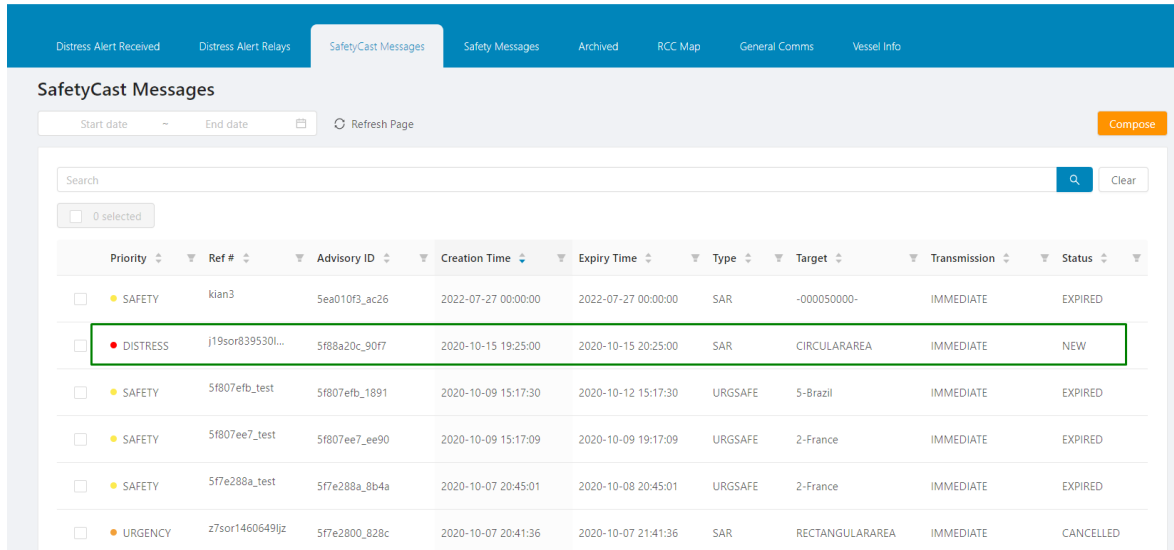
For example (To, Subject and Body text):



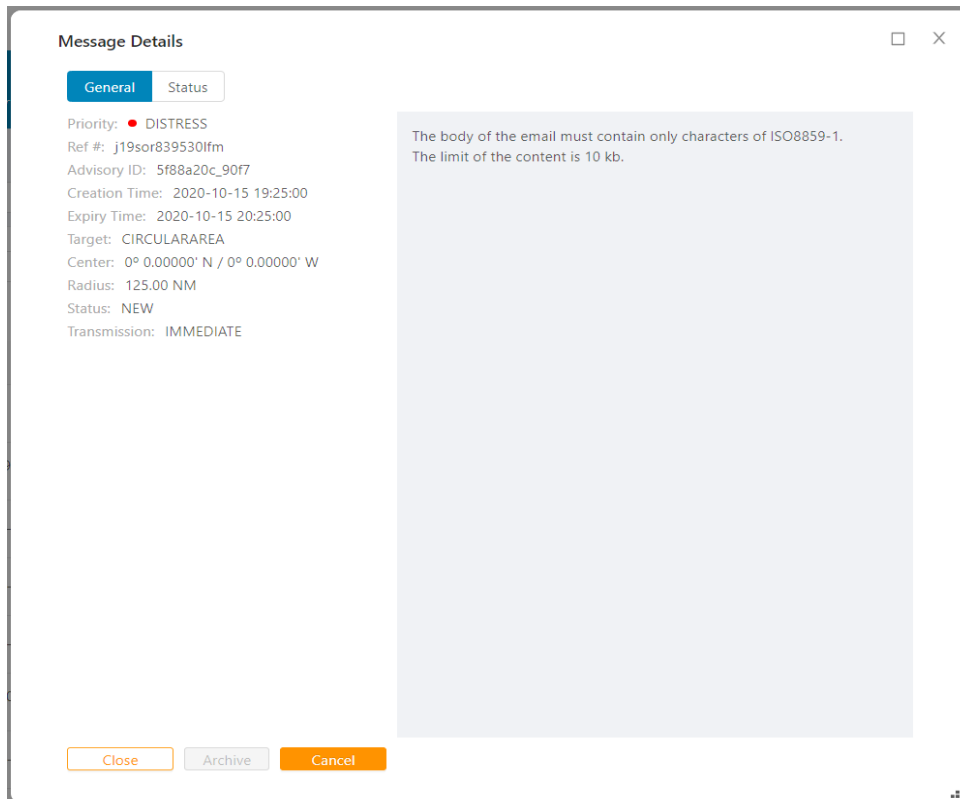
Step 3: Once the message is sent into the web portal, a successful reply will be returned:



Step 4: Go into the web portal, SafetyCast Messages tab and see the Message created. Note the information from the subject field will be displayed in the Message pop up.



Priority	Ref #	Advisory ID	Creation Time	Expiry Time	Type	Target	Transmission	Status
SAFETY	kian3	5ea010f3_ac26	2022-07-27 00:00:00	2022-07-27 00:00:00	SAR	-000050000-	IMMEDIATE	EXPIRED
DISTRESS	j19sor8395301...	5f88a20c_90f7	2020-10-15 19:25:00	2020-10-15 20:25:00	SAR	CIRCULARAREA	IMMEDIATE	NEW
SAFETY	5f807efb_test	5f807efb_1891	2020-10-09 15:17:30	2020-10-12 15:17:30	URGSAFE	5-Brazil	IMMEDIATE	EXPIRED
SAFETY	5f807ee7_test	5f807ee7_ee90	2020-10-09 15:17:09	2020-10-09 19:17:09	URGSAFE	2-France	IMMEDIATE	EXPIRED
SAFETY	5f7e288a_test	5f7e288a_8b4a	2020-10-07 20:45:01	2020-10-08 20:45:01	URGSAFE	2-France	IMMEDIATE	EXPIRED
URGENCY	z7sor1460649jz	5f7e2800_828c	2020-10-07 20:41:36	2020-10-07 21:41:36	SAR	RECTANGULARAREA	IMMEDIATE	CANCELLED



Message Details

General Status

Priority: ● DISTRESS
 Ref #: j19sor8395301fm
 Advisory ID: 5f88a20c_90f7
 Creation Time: 2020-10-15 19:25:00
 Expiry Time: 2020-10-15 20:25:00
 Target: CIRCULARAREA
 Center: 0° 0.00000' N / 0° 0.00000' W
 Radius: 125.00 NM
 Status: NEW
 Transmission: IMMEDIATE

The body of the email must contain only characters of ISO8859-1.
 The limit of the content is 10 kb.

Close Archive Cancel

Second scenario of sending a message via email into the web portal. In this case, an intentional error condition is generated when the wrong subject key values are used.



Step 1 – 3 is a repeat of the above scenario.

Step 2, enter in this subject field value with the following value in order to get an error condition:

Subject: reference text error 9,3,34,23N039W99099,01,00 id=Maricruz

gmdsstrunk@gmail.com

reference text error 9,3,34,23N039W99099,01,00 id=maricruz

This Message should return an error

Appendix A: SSH Keys

A.1 Windows – Using PuTTYgen¹ (Figure 7)

1. Generate SSH Keys
 - a. Open PuTTYgen
 - b. Select key type ECDSA or RSA, unless using SSHv1 then choose RSA
 - c. Click Generate, and move mouse around to generate randomness
2. Save Public Key
 - a. Copy public key from box labelled, “Public key for pasting into OpenSSH authorized_keys file:”
 - b. Paste into a file of your choice, and save (Figure 8)
3. Save Private Key
 - a. Click “Save private key” button
 - b. Select 'No' on popup, “Are you sure you want to save this key without a passphrase to protect it?”
 - c. Navigate to location of your choice and save as a .ppk file (Figure 9)

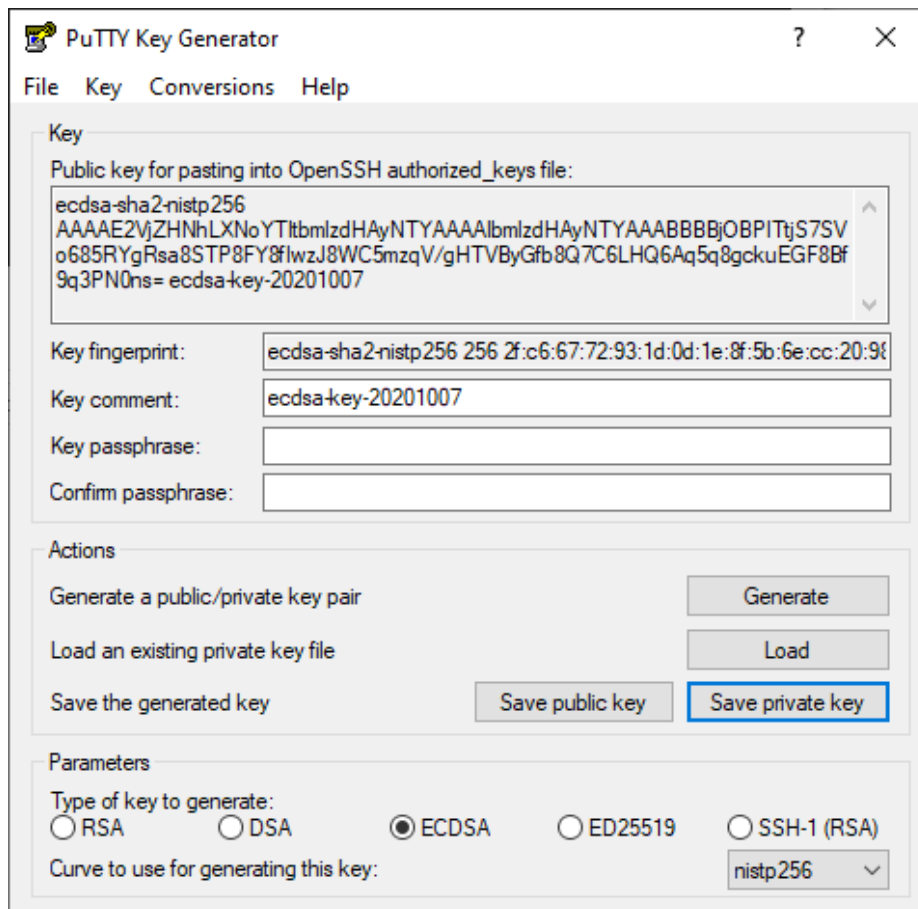


Figure 1 – PuTTY Key Generator

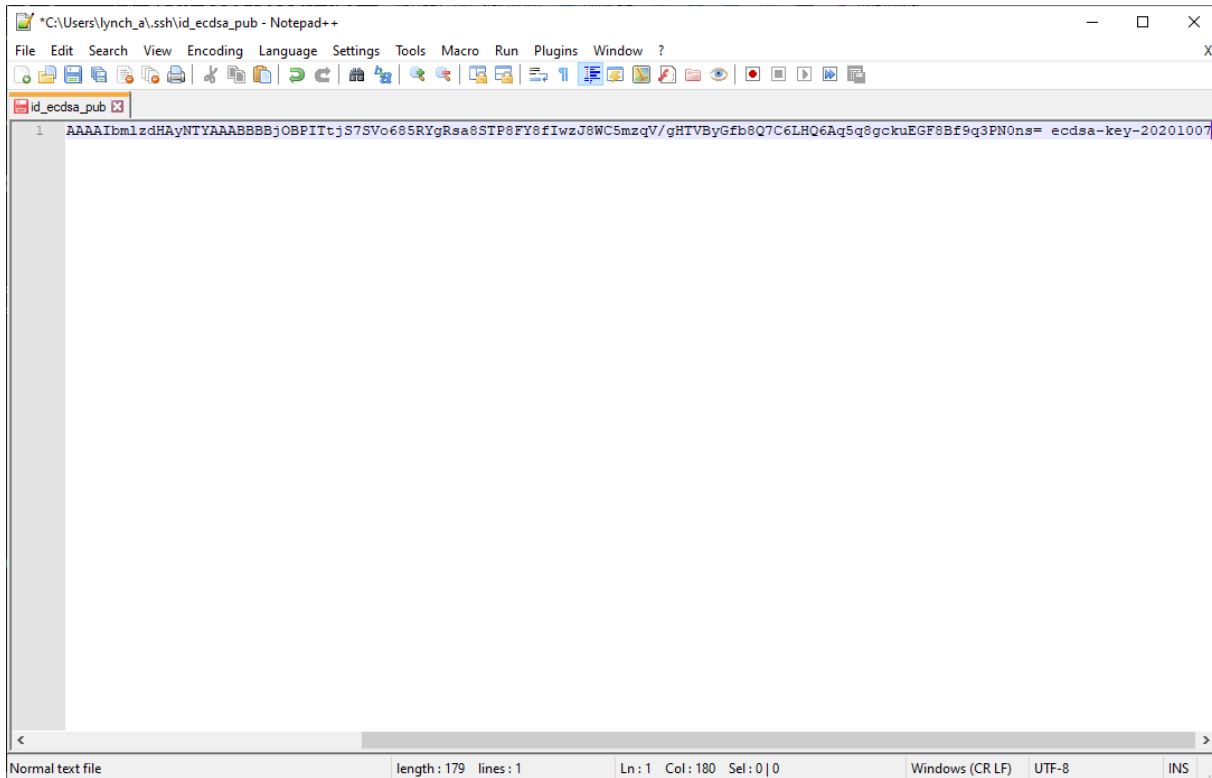


Figure 2 – Public SSH Key

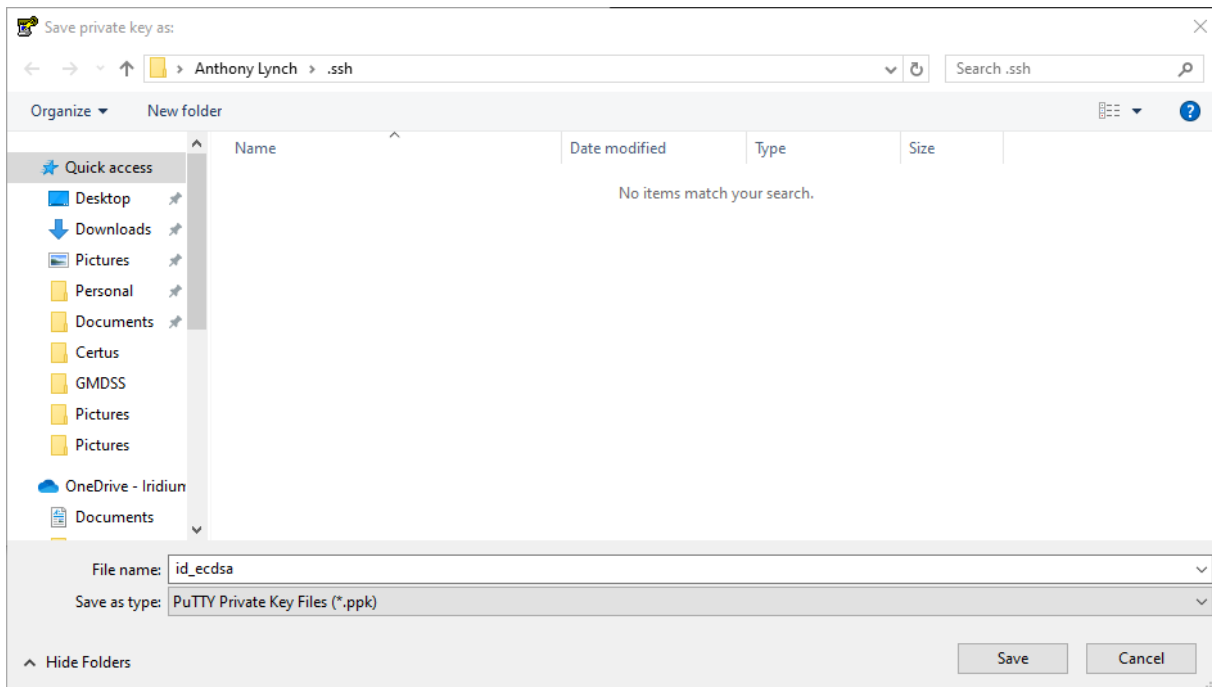


Figure 3 - Private SSH Key



¹ PuTTYgen may be downloaded from <https://www.chiark.greenend.org.uk/~sgtatham/putty/>.