First Edition

Published in October 2018
By Inmarsat Maritime Safety Services
Inmarsat Global Ltd
99 City Road
London EC1Y 1AX
United Kingdom

Document History

1th Edition (PDF), October 2018

Whilst every effort has been made to ensure that the information contained in this handbook is correct, neither the authors nor Inmarsat Global Ltd. can accept responsibility for errors, or omissions, or for any consequences resulting therefrom.

All rights reserved.
1. Introduction .................................................................5
2. System Overview ..........................................................5
3. Interface Access ............................................................7
   3.1. Login .................................................................7
   3.2. Password Recovery ..................................................7
   3.3. Navigating RescueNET ............................................8
   3.4. Customize Desktop ..................................................10
   3.5. Change Password ....................................................11
4. RescueNET Functionalities ...............................................12
   4.1. Priority Message ....................................................12
   4.2. Search and Rescue (SAR) Broadcast ..........................14
   4.3. Sending a SAR Broadcast .........................................15
   4.4. View Broadcasts & Status .........................................20
   4.5. Cancel SAR Broadcast .............................................21
   4.6. SAR Broadcast Data Export .......................................22
   4.7. SAR Broadcast Report .............................................24
   4.8. RCC Database .....................................................26
   4.9. Vessel Database ....................................................26
   4.10. View Maritime Safety Terminal (MST) .........................28
   4.11. Distress Chat .....................................................28
5. Receiving Distress Alert and Coordination of SAR ...............30
   5.1. Receiving a Distress Alert ........................................31
   5.1.1. Reply ..........................................................32
   5.1.2. Chat ..........................................................32
   5.1.3. Nearby Vessels ................................................32
   5.1.4. Maritime Safety Information (MSI) .........................32
6. Customer Support ...........................................................33
Figure 1 RescueNET overview ................................................................. 6
Figure 2 Login ....................................................................................... 7
Figure 3 Password Recovery ................................................................. 8
Figure 4 RescueNET display window .................................................... 9
Figure 5 Maximise and minimise display ............................................. 9
Figure 6 Open workspace tabs ............................................................... 9
Figure 7 Window Prioritisation .............................................................. 9
Figure 8 Customize desktop window .................................................... 10
Figure 9 Change Password window ..................................................... 11
Figure 10 Select Priority Message ....................................................... 12
Figure 11 Create Priority Message ....................................................... 13
Figure 12 Receiving Priority Message ................................................ 14
Figure 13 Select SAR Broadcast Message .......................................... 15
Figure 14 Select MSI type .................................................................... 15
Figure 15 Select type of SAR Broadcast .............................................. 16
Figure 16 Select type of SAR Broadcast .............................................. 16
Figure 17 Select Priority ...................................................................... Error! Bookmark not defined.
Figure 18 Select area of broadcast ..................................................... 17
Figure 19 Select Broadcast date / time ................................................. 18
Figure 20 Enter Broadcast text ............................................................. 19
Figure 21 Message confirmation .......................................................... 19
Figure 22 SAR Broadcast list ............................................................... 20
Figure 23 Cancel SAR Broadcast ........................................................ 21
Figure 24 Cancel SAR Broadcast ........................................................ 21
Figure 25 SAR Broadcast export data ............................................... 22
Figure 26 SAR Broadcast export data ............................................... 23
Figure 27 SAR Broadcast repetition creation ..................................... 24
Figure 28 SAR Broadcast report example ......................................... 25
Figure 29 View RCCs ......................................................................... 26
Figure 30 Vessel database selection .................................................. 27
Figure 31 Vessel database view ........................................................... 27
Figure 32 Filter vessel results ............................................................. 27
Figure 33 Distress Chat Room Name .................................................. 28
Figure 34 Distress Chat select MST / RCC ......................................... 29
Figure 35 Distress Chat select MST / RCC ......................................... 29
Figure 36 Distress Chat interface ....................................................... 30
Figure 37 Distress Alert ..................................................................... 31
Figure 38 Nearby Vessel map .............................................................. 32
1. Introduction

This document provides a description of the RescueNET system, which is part of the Inmarsat Maritime Safety Services offering. This Handbook is intended for Maritime Rescue Coordination Centres ((M)RCCs) and provides a high-level description of the features available.

(M)RCCs have many functions and responsibilities that have been taken into account in the design of the RescueNET system. RescueNET is a bespoke system that can be customised to meet the (M)RCC's needs. If a (M)RCC is certified to broadcast Enhanced Group Call (EGC) messages, such as Distress Alert Relay and Search and Rescue (SAR) communications over the Inmarsat network, this can be included in the user account. Alternatively, if the (M)RCC is not certified to broadcast EGC messages, this function can be disabled from the user account.

The RescueNET service links Inmarsat C, Mini C and Fleet Safety for the EGC broadcast service, as well as enables (M)RCCs to communicate directly with Fleet Safety terminals for Distress Alert and SAR coordination.

2. System Overview

RescueNET enables (M)RCCs to perform swift, reliable and approved SAR communications in both Ship-to-Shore and Shore-to-Ship directions. These services include:

- Reception of Distress Alerts (Fleet Safety to RescueNET)
- Broadcast of Distress Alert Relay (Shore-to-Ship Distress Alert) to Inmarsat C, Mini C and Fleet Safety terminals
- Broadcast Search and Rescue Co-ordination messages to Rectangular or Circular area to Inmarsat C, Mini C and Fleet Safety terminals
- Priority Messaging (Ship-to-Shore and Shore-to-Ship)
- RCC look-up
- Vessel look-up
- Distress Chat

Note: The (M)RCC is responsible for providing reliable communication links to the system’s network for efficient handling of shore-to-ship Distress Alert Relays and distress traffic, preferably via dedicated communication links in-line with IMO Resolution A.1001(25).
Figure 1 RescueNET overview
3. **Interface Access**

3.1. **Login**

To access the RescueNET service, you must use a recognised Web Browser such as Google Chrome or Firefox. The Web Browser must be up to date with the latest software release.

From the chosen Web Browser, go to [https://msds.inmarsat.com/msds/](https://msds.inmarsat.com/msds/).

The following login box will appear where you can enter your “Login” and “Password”.

![Login Box](image)

**Figure 2 Login**

**Note:** this is a https:// secure login. If your web browser returns "page unavailable" information, ensure you enter https:// before msds.inmarsat.com/msds.

3.2. **Password Recovery**

If you lose or forget your password to RescueNET, the system allows you to reset your password through the registered e-mail address of your account.

> Select “Forgot Password”
> The system generates a token and sends it to the registered e-mail address
> You can define a new password by inserting Token
  > Username
  > New password / confirm password
3.3. Navigating RescueNET

The main RescueNET application window is very similar to a Microsoft Windows desktop and contains:

- **Workspace**: the main area where all windows are displayed.
- **Taskbar**: a toolbar on the bottom, containing the start menu, labels for all open windows, and the system clock.
- **Start Menu**: a menu with all operations available to you.
- **System Clock**: displays the current UTC timestamp.
- **Windows**: windows display different types of information and allows you to execute operations.
Windows are displayed in the workspace and can be reloaded, resized, moved, minimized and closed.

The taskbar displays the names of all open windows. By clicking the corresponding button, the window will be selected and showed on top. Minimized windows can be restored using the same procedure.

The taskbar sorts multiple opened windows based on their priority. High priority windows requiring immediate user assistance, such as an incoming Distress Alert, will always be displayed first.
3.4. **Customize Desktop**

You can customize your desktop screen by:

- Selecting from a number of different desktop backgrounds
- Adding icons on main screen rather than from the start menu
- Adding customer logo

Go to "**Start**" > "**Control Panel**" > "**Customize Desktop menu**"

![Customize Desktop window](image)

Figure 8 Customize desktop window
3.5. **Change Password**

Inmarsat recommends changing your password regularly and in-line with your company cyber security policies. By clicking the “Change Password” button on the start menu, you can change the password and set-up a new one by entering your old password followed by the new password and confirming the new password.

![Figure 9 Change Password window](image)

Figure 9 Change Password window
4. RescueNET Functionalities

4.1. Priority Message

A “Priority Message” can be sent from RescueNET to any Fleet Safety terminal, or from the Fleet Safety terminal to a (M)RCC logged in to RescueNET.

These messages have priority on the Inmarsat network and can have priority “Safety”, “Urgency”, or “Distress”. All SAR communications should have “Distress” or “Urgency” priority.

> “Distress” and “Urgency” message activate an audio and visual alarm on the Fleet Safety and RescueNET display. All “Urgency” or “Distress” priority messages will automatically be printed on the dedicated printer connected to the Fleet Safety terminal.

> On reading the message, an acknowledgement will be sent to the originator.

Go to "Start" > "Priority Messages" gives the option to “Send Message” or “View Messages”.

> “View Messages” then displays historic messages that have been sent or received.

> “Send Messages” will display a message format form.

“Priority” allows you to set the priority as “Safety”, “Urgency” or “Distress”. Each priority is categorized by a different colour.

“Call Sign” gives you a search capability for vessel’s Call Sign and automatically completes the “Reference Number” and vessel details.
Click on “Send” to transmit the message directly to the vessel’s Fleet Safety terminal.

![Send Message interface](image)

**Figure 11 Create Priority Message**

When you receive a Priority Message from a Fleet Safety terminal, you will be alerted by:

- **Audio notifications**
- **Visual notifications**: message windows are displayed with different colours depending on the message priority:
  - Blue: Safety
  - Green: Urgency
  - Red: Distress
- **Additional Vessel Information** will be displayed if available.
4.2. Search and Rescue (SAR) Broadcast

The Inmarsat Maritime Safety Servers (MSS) act as a single platform that are used to transmit Maritime Safety Information (MSI), generally known as EGCs (SafetyNET messages), to both Fleet Safety Terminals and Inmarsat C terminals simultaneously via the RescueNET system.

(M)RCCs is no longer be required to choose what satellites to broadcast over, the system does this automatically.

Broadcast messages with “Distress” and “Urgency” priority received onboard will activate an audio and visual alarm, as well as request a read acknowledgement if requested by the transmitting RescueNET user. Search and Rescue Broadcast messages have priority on the Inmarsat network and are free of charge to both (M)RCC and vessel.

RescueNET offers you the options to:

- View previously transmitted broadcast messages and to cancel any scheduled messages.
- Export data of your sent broadcasts in CSV or PDF format as well as run 30-day reports on all your broadcasts.
4.3. Sending a SAR Broadcast

To create a SAR broadcast go to “Start” > “SAR Broadcast Messages” > “New SAR Broadcast Message”.

Figure 13 Select SAR Broadcast Message

Select “Search and Rescue”:

Figure 14 Select MSI type
Select “Service Code” for the type of SAR broadcast required, e.g. SAR coordination to a Circular Area:

![Image of New MSI Message interface with Service Code selection]

Figure 15 Select type of SAR Broadcast

Select “Priority” of your broadcast. Note: SAR broadcast should only be “Distress” or “Urgency”.

![Image of New MSI Message interface with Priority selection]

Figure 16 Select Priority
Select a “Broadcast Area type”, i.e. Circular, Rectangular or NAV/METAREA.

![New MSI Message](image)

Figure 17 Select area of broadcast

Input the centre of the Circular area. The system specifies the GPS coordinates in several formats:

- Latitude (degrees°|d|:) (minutes'||:|´) (seconds"|´´) (N/S)
- Longitude (degrees°|d|:) (minutes'||:|´) (seconds"|´´) (E/W)

For example, all the following GPS positions are allowed:

- 20N 30E
- 20 30 (positive numbers are North and East)
- 20°N 30°10′20″E
- 20°N 30°10′20″
- 20°N 30E10,20
- 20°N 30E10:20
- 20S 30W
- -20 -30 (Negative numbers are South and West)

Select “Radius” in Nautical Miles up to 999.
Select "Start date/time and End date/time". If this is left blank, the message will be broadcast immediately.

Figure 18 Select Broadcast date / time

Set the "Repetition Code" for the message.

Figure 19 Set Repetition code
Enter Text by either copy or pasting a text or by selecting file to be uploaded.

**Note:** The system only allows valid IA5 characters in the payload message inserted directly in the form or uploaded by file. Any invalid character will be notified to you, but not replaced. You should correct the text and resubmit the form.

![Image of New MSI Message](image)

**Figure 20 Enter Broadcast text**

Confirm message parameters are correct and click “Finish” to broadcast the message to both Fleet Safety, Inmarsat C and Mini C terminals. Each MSI will have a unique message reference number.

![Image of New MSI Message](image)

**Figure 21 MSI Overview**
4.4. View Broadcasts & Status

You can view all your SAR Broadcast, including the broadcast information and status, by going to “View SARs”. This information is available on RescueNET for 30 days after the last repetition and stored on the Inmarsat servers for 3 years.

To view the SAR broadcasts go to “SAR Broadcast Messages” > “View SARs”

This view will show the message: Reference Number, Type of message, Service Code, Area type, Area address, Priority, Repetition Code, Size, Start and End date, Status and EGC ID.

![Figure 22 SAR Broadcast list](image)

The Status of the broadcast will show as:

- **Active**: the message has multiple repetitions that have already started to be broadcast but not reached the final broadcast date/time/cancellation.
- **Scheduled**: the broadcast is scheduled for a date/time in the future.
- **Finished**: the broadcast has completed all of its transmissions.
- **Cancelled**: the operator has manually cancelled any further broadcasts of this message.

Clicking on a message will display the broadcast text in the lower details bar.
4.5. **Cancel SAR Broadcast**

If a SAR Broadcast is scheduled to be broadcast or has outstanding repetitions pending, you can cancel the broadcast at any time.

Select “**SAR Broadcast Messages**” > “**View SARs**”

Select the message you wish to cancel and click the **Cancel** button.

![Figure 23 Cancel SAR Broadcast](image)

![Figure 24 Cancel SAR Broadcast](image)

The “Status” will then change to “**Cancelled**” and the message will no longer be broadcast.
4.6. **SAR Broadcast Data Export**

RescueNET offers two data export functions:

1. **Export to CSV**: this will export the information of ALL SAR Broadcasts created by your account that are listed in the SAR Broadcast list i.e. past 30-days in CSV format.

2. **Export MSI to PDF**: this will export the data relating to the selected message from the SAR Broadcast list in a PDF format.

![SAR Broadcast export data](image)

**Figure 25 SAR Broadcast export data**
Figure 26 SAR Broadcast export data
4.7. SAR Broadcast Report

RescueNET enables you to create a report of all your SAR Broadcast of a selectable period up to 30 days with the option to include repetitions.

From “SAR Broadcast Messages” > “View SARs” you can select “Generate Report” that will display "Additional Parameters" screen in which you can select “Start Date” and “End Date” and choose to include "Repetitions" if required.

Figure 27 SAR Broadcast repetition creation
After selecting the parameters of the report, click on “OK” to run the report:

Figure 28 SAR Broadcast report example
4.8. RCC Database

RescueNET offers the capability to view other (M)RCCs that are using the RescueNET system along with their contact details and online status. “Select Start” > “RCCs” > “View RCCs”

![RCCs View](image)

This will display all the (M)RCCs who have access to the RescueNET system with the following information:

- **Name**: (M)RCC Name.
- **Available**: green tag shows they are currently online.
- **Primary**: this shows if the (M)RCC is registered on the Inmarsat system as a primary (M)RCC.
- **Phone number**: emergency contact number for the (M)RCC.
- **Additional Information**: additional information provided by the (M)RCC such as e-mail, fax, address and additional phone numbers.

4.9. Vessel Database

RescueNET gives you access to multiple vessel databases including:

- **ESAS**: Existing and Evolved Inmarsat services such as Inmarsat C, Mini C and Fleet 77 terminals.
- **BSS**: BGAN services such as FleetBroadband.
- **MST**: all Fleet Safety equipped vessels.
- **View Vessels**: full list of BSS and ESAS vessels combined.
As a default, the vessel database shows the type, vessel name, IMO, Call Sign, MMSI, Flag, Vessel Type, Tonnage, Number of people, IMSI, MSISDN, IMN and Service Code. By selecting the drop down from the information tab, you can filter and search results and add extra information tabs such as Owner, Address, and e-mail.

To search for a specific vessel by listed details, click on the data tab you wish to search and enter the requested vessel information i.e. select “Call Sign” and filter for a known vessel “Call Sign”. The Vessel List this will show all Inmarsat BSS and ESAS terminals onboard that vessel, including the contact details.
4.10. View Maritime Safety Terminal (MST)

The “View MST” function offers you the additional capability to search by Circular or Rectangular defined areas within a determined radius. All vessels equipped with a Fleet Safety Terminal (MST) equipped within this area will be shown.

![MST List](image)

Figure 32 View MST defined area

**Note:** It is the responsibility of the vessel owner / Inmarsat partner to keep this information updated and not the responsibility of Inmarsat. Information contained in these databases must only be used for Search and Rescue operations.

4.11. Distress Chat

The “Distress Chat” function allows (M)RCCs to utilise a chat interface to connect directly to multiple vessels and/or (M)RCCs simultaneously in real-time. This can be initiated from the Start menu or directly from a Distress Alert received.

Go from **"Start Menu" > "Create Chat Room"**

When creating a Chat Room, you will first need to enter a Chat Room Name related to the SAR operation.

![Room name](image)

Figure 33 Distress Chat Room Name

Once the room is created you can invite multiple (M)RCCs and/or vessels to join the Chat Room. Click on “Invite RCC or MST”. Note: MST are Fleet Safety terminals.
Select required (M)RCCs and Vessel.

![Image of Distress Chat select MST / RCC](image)

Figure 34 Distress Chat select MST / RCC

The invited (M)RCCs or Vessel will receive an invitation to join or to decline the Chat Room you created. If they decline the Distress Chat request, they must input a reason why before they can continue to use the system. The decline reason is sent to all participants in the Distress Chat session.

![Image of Distress Chat select MST / RCC](image)

Figure 35 Distress Chat select MST / RCC

All chat participants will be able to chat in real-time with full “Distress” priority over the Inmarsat ground and satellite infrastructure. If joining the chat after the initial request, new participants will automatically see the full chat history.

Distress Chat can only be initiated by (M)RCC RescueNET users and not by Fleet Safety vessel users. The RescueNET user who creates the Distress Chat room is the “controlling station”. Only the “controlling station” can invite other chat members, remove members, and terminate the chat session.
If the “controlling station” wishes to hand over control to another (M)RCC in the Distress Chat, they should select the required (M)RCC and click “Handover”. An invitation to accept or decline will be sent to the new (M)RCC to take control of the Distress Chat session.

5. Receiving Distress Alert and Coordination of SAR

(M)RCC's using the RescueNET system do not automatically receive Distress Alerts from the Fleet Safety system. If an RCC is “Primary” and wishes to receive Distress Alerts, they should contact Inmarsat Maritime Safety on maritime.safety@inmarsat.com to request this service. Each (M)RCC can highlight their area of responsibility to be included in the Inmarsat network routing of Distress communications.

Fleet Safety terminals have the capability to send Undesignated Distress Alerts and Designated Distress Alerts as well as to set a Preferred (M)RCC or use a geographically defined default (M)RCC for reception of their Distress Alerts. Please refer to the Fleet Safety Manual for more information.
5.1. Receiving a Distress Alert

Upon receiving a Distress Alert from a Fleet Safety terminal, you will be notified by:

- Audio notification
- Visual notification: message window is displayed with red colour
- Additional Vessel Information

On Receiving the Distress Alert, the Distress Alert will be displayed showing the Vessel Name, Call Sign, IMSI, Vessel Position, Time the position was acquired, Speed, Course, Nature of Distress, People on Board (if added by vessel), Date and Time message was received and other information made available from the BSS i.e. IMO, MMSI, type of vessel and owner.

![Distress Alert](image)

Figure 37 Distress Alert

On receiving a Distress Alert, you should acknowledge the alert within 60 seconds by clicking the "Acknowledge button"; this will send an acknowledgment back to the vessel in distress.
If the Inmarsat system does not see an acknowledgement within 60 seconds, it will forward the Distress Alert to other active RescueNET users until the message is successfully acknowledged.

5.1.1. **Reply**

The "Reply Button" opens-up the Priority Message interface in Distress Priority, with the vessels details already entered. The (M)RCC can simply type their message and send this with full "Distress” priority direct to the vessel in distress. The Fleet Safety terminal onboard the vessel has the capability to reply to the (M)RCC with Priority Messaging.

5.1.2. **Chat**

The Chat option will automatically send a Distress Chat request to the vessel in distress with no need to input or search for the vessels details.

5.1.3. **Nearby Vessels**

When clicking “Nearby Vessels” from a received Distress Alert or Priority Message, it is possible to view nearby vessels equipped with Fleet Safety terminals on a map interface and to define a search radius.

![Nearby Vessel map](image)

Figure 38 Nearby Vessel map

5.1.4. **Maritime Safety Information (MSI)**

Selecting the "MSI button” automatically preformats a SAR Broadcast message with the coordinates of the vessel in distress, minimizing the chance of incorrect position entry. You can
then type the Distress Alert Relay message or SAR coordination message and send to it a Circular area around the vessel in distress. As default, this message is broadcast to a 600 Nautical Mile radius but can be changed by clicking the “Back” key and by entering a new radius value.

6. Customer Support

Inmarsat provides 365x24x7 Customer Support through its regional Support Centres with teams of specialists to provide resolution of customer issues. Inmarsat Customer Support is the single point of contact for you for all issues pertaining to RescueNET.

Please contact Inmarsat Global Operations Centre:

Tel: +1 709-748-4226 Worldwide

Fax: +1 709-748-4320 Worldwide

Tel: +1 800-563-2255 Toll free in North America

Fax: +1 877-748-4320 Toll free in North America

E-mail: GlobalCustomerSupport@inmarsat.com

Alternatively, you can contact the Maritime Safety Team on maritime.safety@inmarsat.com