

Procedure for responding to Distress Message

Providing assistance to any person in distress at sea is a legal requirement under international maritime law. Ship Master's are obligated to assist others in distress at sea whenever they can safely do so. The responsibility of the Master and the crew is to maintain the safety and, as far as practicable, ensure the humane treatment of rescued people, and co-operate in their disembarkation at a place of safety.

Distress message received by voice (R/T) on VHF in area A1 or on MF area in areas A1-2

- Commence log keeping and transcribe the message
- Inform Master/Skipper
- Maintain radio watch on appropriate channel (VHF Ch16, MF 2182 kHz)
- Wait a short interval (~5 minutes) for a Coast Station / MRCC to acknowledge the message
- If a Coast Station / RCC acknowledged and relayed, send Received Mayday to the Coast Station / RCC
- Otherwise acknowledge by voice directly to the ship in distress if you are able to assist
- Then send Mayday Relay by voice using VHF Ch16, or MF 2182 kHz, depending on area
- If you cannot send Mayday Relay by voice for whatever reason you may as a last resort send it on DSC to a designated Coast Station / RCC (VHF Ch70 working on CH 16, or MF 2187.5 kHz working on 2182 kHz)
- Gather as much information about the vessel in distress as possible:
 - Position of distressed craft
 - Distressed craft's identity, call sign, and name
 - Number of POBs (People on Board)
 - Nature of the distress or casualty
 - Type of assistance required
 - Number of victims, if any
 - Distressed craft's course and speed
 - Type of craft, and cargo carried
 - Any other pertinent information that might facilitate the rescue
- Head at the safest possible speed in the direction of the causality

Distress message received by voice (R/T) on VHF in area A2-4 or on MF in area A3-4

- Commence log keeping and transcribe the message
- Inform Master/Skipper
- Maintain radio watch on appropriate channel (VHF Ch16, MF 2182 kHz)
- Acknowledge **immediately** by voice to the ship in distress if you are able to assist. This is because a Coast Station / RCC won't be able to pick up the distress
- Then send Mayday Relay by voice using VHF Ch16, or MF 2182 kHz, depending on area
- If you cannot send it by voice for whatever reason you may as a last resort send DSC Mayday Relay to a designated Coast Station / RCC (VHF Ch70 working on CH 16, MF 2187.5 kHz working on 2182 kHz)
- In area A3 you should in addition relay using Inmarsat C, in area A4 using HF
- Gather as much information about the vessel in distress as possible
- Head at the safest possible speed in the direction of the causality

Distress received by other means (e.g. red flare, AIS SART) and no distress signal by DSC or R/T

Proceed to the distress and relay ashore:

- (Take bearing of the red flare) and commence log keeping
- Inform Master/Skipper
- Try to establish contact on VHF Ch16
- Then send Mayday Relay by voice. You may send Mayday Relay on DSC only as a last resort
- Head at the safest possible speed in the direction of the causality

On passage to the incident:

- Head at the safest possible speed in the direction of the causality
- Maintain a continuous watch on appropriate distress frequencies (VHF Ch16, MF 2182 kHz)
- Establish communications with the RCC and/or On-Scene Co-ordinator (OSC) and other SAR units as appropriate, and continue regular communication to ensure that all parties to the rescue operation are updated and aware of any change in conditions or circumstances
- Monitor X-Band radar and AIS for SART signals as appropriate
- When in close proximity, post additional look-outs with binoculars
- Brief the crew
- Get the rescue team mustered (VHF, lifejackets, binoculars, floodlights, survival suits etc.)
- Prepare for recovery of persons from the water (in accordance with your ship specific plan for recovery), e.g. get the rescue boat and specific MOB recovery kit ready (LSA), bring medical first aid kit on deck, prepare food, water, clothing, scrambling nets, hauling lines, line-throwing apparatus, pilot ladders etc.
- Maintain log/record of events and decisions
- Consider on-scene conditions, the number of people and the condition they may be in
- Assess the best point of entry into the ship with the prevailing conditions in mind
- Advise RCC and/or OSC of your expected recovery capability
- Brief crew and any passengers on board
- Prepare recovery equipment, including control and safety measures
- Prepare additional life-saving equipment in case of accidents during recovery
- Prepare reception facilities for those recovered
- Assign crew to: handling the vessel, lookout duties, recovery, care of survivors

Approaching the scene:

- Post additional lookouts, well-briefed and in communication with the bridge
- Have recovery team standing by, well-briefed, equipped with personal protective equipment (PPE), and in communication with the bridge
- Assess your vessel's manoeuvrability and recovery capability in the prevailing conditions
- Prepare to launch rescue craft if conditions permit
- Prepare to receive craft and/or people alongside
- Think about your best approach
- Advise RCC and/or OSC of your arrival and capabilities
- Consider that people who have been in the water should be lifted in a horizontal or near-horizontal position if possible
- A crew member wearing personal protective equipment may be able to go down with the lift to assist those incapable of helping themselves

During the recovery operation:

- Continue your risk assessment, including your own ongoing recovery capability, the survival chances of those not yet recovered, and the availability of other recovery resources
- Keep RCC and/or OSC advised of your progress and future capability

Initial procedure to follow if shore authority appointed you to be on scene co-ordinator

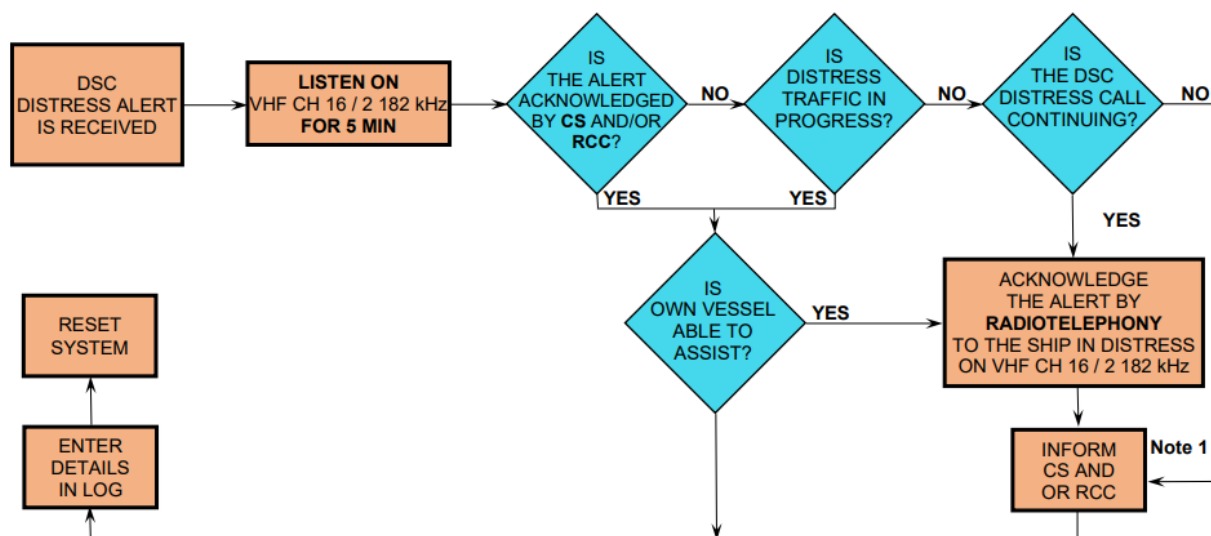
- Coordinate operations of all SAR facilities on-scene
- Receive the search action plan from RCC or make a plan if not plan is provided
- You may need to send DSC Distress Relay Alert to All Stations using VHF Ch70 working on Ch16, or MF addressed to a geographic area on 2187.5 kHz working on 2182 kHz. Followed by Mayday Relay message by voice on VHF Ch16, or MF 2182 kHz
- Coordinate on-scene communications
- Monitor the performance of other participating facilities
- Ensure operations are conducted safely
- Make periodic SITREPs to the RCC
- Maintain a detailed record of operation
- Advise the RCC to release facilities no longer required
- Report the number and names of survivors, and on which facility, to the RCC
- Request additional RCC assistance, when necessary

Procedure for responding to DSC Distress Alert

MSC.1/Circ.1657
Annex, page 3

FLOW DIAGRAM 1

ACTIONS BY SHIPS UPON RECEPTION OF A VHF / MF DSC DISTRESS ALERT



REMARKS:

Note 1: Appropriate or relevant RCC and/or coastal station should be informed accordingly. If further DSC distress alerts are received from the same source and the ship in distress is beyond doubt in the vicinity, a DSC acknowledgement may, after consultation with an RCC or coastal station, be sent to terminate the call.

Note 2: In no case is a ship permitted to transmit a DSC distress alert relay on receipt of a DSC distress alert on either VHF channel 70 or MF channel 2 187.5 kHz.

CS = coastal station

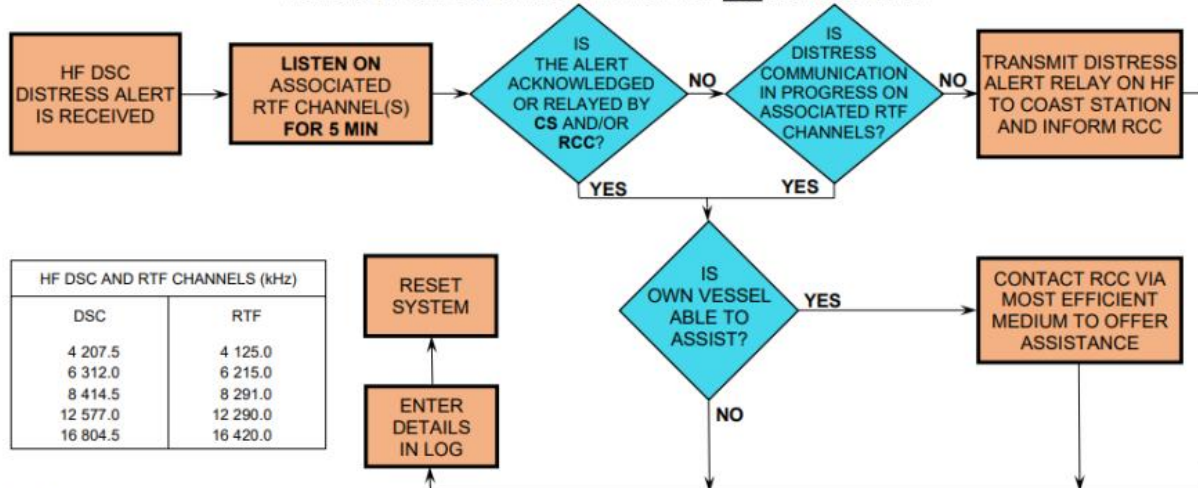
RCC = rescue coordination centre

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MSC.1/Circ.1657
Annex, page 4

FLOW DIAGRAM 2

ACTIONS BY SHIPS UPON RECEPTION OF A HF DSC DISTRESS ALERT



HF DSC AND RTF CHANNELS (kHz)	
DSC	RTF
4 207.5	4 125.0
6 312.0	6 215.0
8 414.5	8 291.0
12 577.0	12 290.0
16 804.5	16 420.0

REMARKS:

NOTE 1: If it is clear the ship or persons in distress are not in the vicinity and/or other crafts are better placed to assist, superfluous communications which could interfere with search and rescue activities are to be avoided. Details should be recorded in the appropriate logbook.

NOTE 2: The ship should establish communications with the station controlling the distress as directed and render such assistance as required and appropriate.

NOTE 3: Distress alert relays should be initiated manually.

CS = coastal station

RCC = rescue coordination centre

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Ships in area A1 that receive a DSC Distress alert on Channel 70 (DSC) should:

- Commence log keeping
- Inform Master/Skipper
- Set watch on VHF Channel 16
- Listen for 5 minutes to receive Mayday by voice (R/T) and for a Coast Station / RCC to acknowledge. Never acknowledge DSC as it cancels the distress.
- If a Coast Station / RCC acknowledged and relayed, send Received Mayday to the Coast Station / RCC
- Otherwise acknowledge by voice directly to the ship in distress if you are able to assist
- And send Mayday Relay by voice using VHF Ch16.
- If you cannot send Mayday Relay by voice for whatever reason you may as a last resort send it on DSC to a designated Coast Station / RCC (VHF Ch70 working on CH 16)

Ships in area A2 or A3 that receive a DSC Distress alert on Channel 70 (DSC) should:

- Commence log keeping
- Inform Master/Skipper
- Set watch on VHF Channel 16
- Listen for 5 minutes to receive Mayday by voice (R/T).
- Note that Coast Station / RCC won't be able to pick up VHF alert or message from area A2-3
- Therefore, acknowledge by voice to the ship in distress **immediately** if you are able to assist
- Then send Mayday Relay by voice using VHF Ch16, or better MF 2182 kHz
- If you cannot send Mayday Relay by voice for whatever reason you may as a last resort send it on DSC to a designated Coast Station / RCC (VHF Ch70 working on CH 16, or MF 2187.5 kHz working on 2182 kHz)
- In area A3 you should in addition relay using Inmarsat C to be able reach a Coast Station / RCC

Ships in area A2 that receive a DSC Distress alert on MF (2187.5 kHz) should:

- Commence log keeping
- Inform Master/Skipper
- Set watch on MF 2182 kHz
- Listen for 5 minutes to receive Mayday by voice (R/T) and for a Coast Station / RCC to acknowledge
- If a Coast Station / RCC acknowledged and relayed, send Received Mayday to the Coast Station / RCC
- Otherwise acknowledge by voice directly to the ship in distress if you are able to assist
- Then send Mayday Relay by voice using MF 2182 kHz
- If you cannot send Mayday Relay by voice for whatever reason you may as a last resort send it on DSC to a designated Coast Station / RCC (MF 2187.5 kHz working on 2182 kHz)

Ships in area A3 that receive a DSC Distress alert on MF (2187.5 kHz) should:

- Commence log keeping
- Inform Master/Skipper
- Set watch on MF 2182 kHz
- Listen for 5 minutes to receive Mayday by voice (R/T).
- Note that Coast Station / RCC won't be able to pick up MF alert or message from area A3
- Therefore, acknowledge by voice to the ship in distress **immediately** if you are able to assist
- Then send Mayday Relay by voice using MF 2182 kHz
- If you cannot send Mayday Relay by voice for whatever reason you may as a last resort send it on DSC to a designated Coast Station / RCC (MF 2187.5 kHz working on 2182 kHz)
- You should in addition relay using Inmarsat C to be able reach a Coast Station / RCC

Ships receiving a DSC Distress alert from another ship on HF should:

- Commence log keeping
- Inform Master/Skipper
- Set watch on the appropriate R/T or Telex frequency in the same HF band. Frequency in the 8 MHz band (8291 kHz) may in many cases be an appropriate first choice

- Listen for 5 minutes to receive Mayday by voice (R/T) and for a Coast Station / RCC to acknowledge
- If a Coast Station / RCC acknowledged and relayed, send Received Mayday to the Coast Station / RCC
- Otherwise contact a Coast Station / RCC via most efficient medium to offer assistance

Additional notes:

- No DSC relay call to shipping generally on VHF or MF is ever permitted in response to a DSC alert. It must be sent by R/T (voice). This is to avoid the alerts to be cascading in an endless loop.
- A DSC relay call addressed directly to a Coast Station / RCC should only be made if there is no possibility to make a distress relay call using R/T.
- You can find list of Coast Stations / RCC (MMSIs) in ADMIRALTY List of Radio Signals, Volume 5

Sea areas:

- **A1:** Within range of at least one VHF Coast Station in which continuous DSC alerting is available (20-50 NM)
- **A2:** An area excluding Sea Area A1, with the radiotelephone range of at least one MF Coast Station in which continuous DSC alerting is available (50-250 NM)
- **A3:** An area excluding Sea Areas A1 and A2 within the coverage of a geostationary Inmarsat satellite in which continuous DSC alerting is available (76° N-76° S)
- **A4:** An area outside Sea Areas A1, A2, and A3. North of ~76° N or South of ~76° S

Radar SART

The purpose of a Radar SART is to indicate the position of persons or vessels in distress on a marine Radar. When switched on it will only transmit signals when triggered into operation by the Radar transmission from an external ship's Radar operating in the 9-10 GHz, X (3 cm) Band.

If you see a SART on your Radar screen, head towards it, set watch on Ch16 and relay ashore by any means. The radar should be set to 6-12 M range to help distinguish the line of SART response dots from other targets.

The range of a SART is not very great. Typically, when held upright by a person standing in a liferaft, it will produce a maximum useful range of approximately 6 miles for a ship and 40 M for a SAR Helicopter. Once interrogated, 12 distinctive dots appear on the rescuer's Radar screen, the dot nearest the centre of the screen is the SART. When the SART is at 1 M range the dots become arcs and eventually form concentric circles at close range.

AIS SART

The purpose of an AIS SART is to indicate the position course and speed of persons or vessels in distress on suitably enabled electronic navigation equipment such as a stand-alone unit, an ECDIS (Electronic Chart Display and Information System) or a chart plotter integrated with AIS overlays/inputs. AIS SARTs send a direct wave operate on two frequencies in the Marine VHF Band and should not be confused with Radar SARTs.

If you see AIS SART on your navigation equipment screen (e.g. chartplotter), head towards it, set watch on Ch16 and relay ashore by any means.

AIS SARTs have built in MMSI numbers beginning with 970, the remaining digits indicate the manufacturer and the serial number of the AIS SART, e.g., 970 000 099. AIS SARTs has greater detection ranges than Radar SARTS. Approximately 10 M for a ship and 130 M for a SAR Helicopter.

DISTRESS ACKNOWLEDGMENT

Coast Station in receipt of Distress alert will route the alert to an MRCC as soon as possible. Ships receiving a DSC Distress alert from another ship should defer the R/T (voice) acknowledgment of the alert for a short interval (5 minutes), if the ship is within an area covered by one or more Coast Stations. The Coast Station would acknowledge by DSC, which will also be received by all ships in range. A Coast Station or MRCC having received and acknowledged a terrestrial DSC distress alert, will normally re-transmit the information received as a DSC distress alert relay. Ships receiving a DSC distress alert relay from a Coast Station on VHF Ch70 addressed to all ships should not acknowledge by DSC but should acknowledge by R/T on Ch16 by sending RECEIVED MAYDAY message. If there is no Coast Station involvement and the ship needs to acknowledge, it should be by R/T.

As per SOLAS conventions you are **legally obliged to render assistance to a vessel in distress**. You should therefore not simply turn off your radio. You should note down the details of the distress and assess whether you are in a position to offer help. You can use this time to get closer to the vessel in distress if you are able to help. If the coastguard later asks for help you can then offer your assistance.

MAYDAY

3x NAME OF VESSEL IN DISTRESS (or Coast Station relaying the alert)

THIS IS (*repeat name of your vessel 3 times*)

CALL SIGN **MMSI** (*of your vessel*)

RECEIVED MAYDAY

Any additional information ... (i.e. your position, speed, range, bearing, assistance to offer etc.)

OVER

MAYDAY RELAY MESSAGE

IF YOU SEE OR HEAR A PERSON OR VESSEL IN DISTRESS, I.E. THERE IS A GRAVE AND IMMINENT DANGER TO A VESSEL OR PERSONS SUCH AS FIRE, SINKING, MAN OVERBOARD etc.

- When a DSC radio receives a Distress Alert and there is no DSC acknowledgement after a short interval (**5 minutes**) from a Coast Station / RCC then, if you are able to offer assistance, acknowledge and then relay it by voice on Channel 16 (VHF) or 2182 kHz (MF).
- If you receive DSC Distress alert relay from a Coast Station / RCC, then if you are able to offer assistance, acknowledge by voice by sending **RECEIVED MAYDAY** message.
- You must relay immediately for a vessel that is unable to send a distress themselves, or when you consider further help is required.
- If you are appointed On-Scene-Coordinator (OSC) by MRCC, you should send Distress Relay DSC alert to a geographic area followed by R/T message

Distress Relay message:

MAYDAY RELAY, MAYDAY RELAY, MAYDAY RELAY
ALL STATIONS, ALL STATIONS, ALL STATIONS

(or individual Coast Station 3x)

THIS IS (repeat name of your vessel 3 times)

CALL SIGN **MMSI** (of your vessel)

MAYDAY (Name of vessel in distress)

CALL SIGN **MMSI** (of vessel in distress)

IN POSITION

(Latitude and Longitude, alternatively a true bearing and distance from a known point)

AT **UTC** (time the distress was received or sighted, if known)

..... (nature of distress)

..... **PERSONS ON BOARD** (if known)

Any other vital information (i.e. type of vessel, hull colour, if abandoning to liferaft etc.)

OVER

Release Transmit button. The coastguard should respond and take over distress working and co-ordinate the assistance. If you hear nothing for about 2 minutes repeat the distress relay voice call.