INTERNATIONAL MARITIME ORGANIZATION

E

4 ALBERT EMBANKMENT
LONDON SE1 7SR
Telephone: +44 (0)20 7735 7611 Fax: +44 (0)20 7587 3210

COMSAR.1/Circ.37/Rev.1
28 May 2021

GUIDANCE ON MINIMUM COMMUNICATION NEEDS OF MARITIME RESCUE COORDINATION CENTRES (MRCCs)

1 The Sub-Committee on Navigation, Communications, and Search and Rescue (NCSR), at its eighth session (19 to 23 April 2021), revised COMSAR/Circ.37 on *Guidance on minimum communication needs of Maritime Rescue Coordination Centres (MRCCs)*, as set out in the annex.

2 Member Governments are invited to bring the annexed guidance to the attention of their SAR Authorities for appropriate action.

3 This circular revokes COMSAR/Circ.37.

***

ANNEX

GUIDANCE ON MINIMUM COMMUNICATION NEEDS OF MARITIME RESCUE COORDINATION CENTRES (MRCCs)

1 Introduction

1.1 General

1.1.1 The purpose of this guidance is to assist national Authorities who envisage creating a maritime rescue coordination centre (MRCC), by suggesting the basic equipment that an MRCC should possess and the minimum communication facilities that it should be able to provide.

1.1.2 This circular is only an introductory document which cannot replace the Organization's other relevant documents (in particular chapter 4 of the International Aeronautical and Maritime Search and Rescue Manual – volume 1: Organization and Management) or the user guides for systems in use or the technical manuals for installed equipment.

1.2 Objective

1.2.1 In terms of communications, an MRCC should be capable of:

.1 receiving distress calls by the most rapid means available (if possible directly from ships at sea) in their area of responsibility and acknowledge receipt[1];

.2 alerting and activating search and rescue facilities;

.3 coordinating operations; and

.4 receiving information from (and transmitting information to) anybody or person concerned, including in the form of maritime safety information (MSI) and SAR related information.[2]

2 ESSENTIAL FACILITIES

2.1 Telephone links

2.1.1 A connection to the general telephone network is essential. Depending on the centre's volume of activity, it may be desirable to have several lines. When the MRCC is incorporated into a larger complex (government building, naval base, harbour master's office, etc.), it is strongly recommended that the centre should have its own telephone lines, not going through a switchboard. In any case, the line, the number of which is published to the public and in IMO documents to ensure that distress-calls come straight to the centre, must go direct to the continuously manned operational centre.

---

1 In the case of alerts received by radio, the MRCC must acknowledge receipt such that the calling ship and all other ships concerned know that the MRCC has actually received the distress call and is dealing with it. The acknowledgement is generally made by the same system (but not necessarily on the same frequency or the same channel) as the one by which the distress call was received, except for Cospas-Sarsat where that is not possible. In the latter case, the most appropriate means is used.

2 Depending on the areas involved, MSI is transmitted either via the International SafetyNET Service (see 2.3 and 3.2) or by NAVTEX which is a dedicated MF NBDP system. NAVTEX transmitting stations can be accessed by fax or telex or any other means according to operational arrangements with the station. Due to the fact that a large number of vessels not subject to the SOLAS Convention are not GMDSS equipped, MSI has still to be transmitted orally by HF, MF and VHF in certain areas.

2.1.2 An ordinary telephone line clearly allows contact with any telephone subscriber in the world. It also allows automatic access to a number of means of communication which allow contact with ships provided that the characteristic number of the called ship is known.

2.2 Fax links

2.2.1 A separate fax connection to the general telephone network is also essential for an MRCC in order to operate a fax machine. The usefulness of such a machine should be emphasized, since with a simple telephone line it allows instant written communication, which facilitates understanding between people who do not speak the same language. It is easier to translate a written text from a foreign language than to understand a speaker using the same foreign language on the telephone. Moreover, fax allows transmission of any sketch, drawing, map, etc.

2.3 Telex link

2.3.1 A connection to the public telex network allows access to the Inmarsat-C system which allows text conversations with an appropriately equipped ship. Inmarsat-C is mandatory for all ships subject to the 1974 SOLAS Convention in an A3 sea area, i.e. not covered by VHF or MF, if shipborne HF equipment is not installed. Messages via the International SafetyNET, the Inmarsat safety network, are transmitted via Inmarsat-C. MRCCs are authorized (subject to registration as "information providers", see below) to transmit free of charge such messages which allow them to call all ships in a given area. Telex equipment is therefore necessary in an RCC covering an A3 sea area[3].

2.4 VHF and MF with DSC

2.4.1 If the Government concerned so decides, A1 or A2 sea areas (i.e. covered by VHF or MF respectively) may be created along coasts, by setting up the necessary installations with digital selective calling (DSC). The MRCC normally keeps watch on VHF channel 70 and/or the frequency 2187.5 kHz MF. Alerts are received in written form (printer or screen).

2.4.2 Although this solution is less satisfactory, watch can however be kept by a radio station on behalf of the MRCC.

2.4.3 Either directly or via a radio station, the MRCC must be able to converse, by voice, VHF and/or MF as applicable, with the ships involved in search and rescue operations. The available frequencies must be at least VHF channel 16 and/or 2182 kHz MF (which must be monitored as soon as the centre receives an alert on channel 70 or frequency 2187.5 kHz). The availability of other channels or frequencies is recommended so as to have alternative channels or frequencies.

2.5 Ordinary VHF

2.5.1 The MRCC may cover an area close to the coast crossed by a large number of vessels equipped only with radio installations that do not meet GMDSS standards, such as ordinary VHF without DSC. It would, therefore, be useful in this case for the MRCC to be equipped (or have access to) radio installations which allow them to cover all or part of the area in question. In that case, it is recommended that watch should be kept by the MRCC (or a body which immediately informs it of alerts) on channel 16 (for the quoted example).

---

[3] Unless the MRCC is linked to an X.25 data transmission network which also allows it to access the Inmarsat-C network.

2.6 Cospas-Sarsat satellite alert system

2.6.1 Alerts coming from the Cospas-Sarsat satellite system are transmitted to the MRCC mainly by Aeronautical Fixed Telecommunication Network (AFTN)[4], telex or fax either from an MCC (Cospas-Sarsat mission control centre), or from a SPOC (SAR point of contact), or from another RCC[5].

3 ADDITIONAL MEASURES TO BE CONSIDERED

3.1 Special networks

3.1.1 The authority responsible for setting up the rescue organization, in the light of the local context of the country concerned, should examine the possibility of linking, often quite cheaply, with existing networks (Administration, armed forces telephone networks), in particular the AFTN, which provides the link with the aeronautical rescue organization.

3.2 Monitoring Enhanced Group Call (EGC) MSI and SAR related information broadcasts

3.2.1 MRCCs that originate Enhanced Group Call (EGC) broadcasts should be provided with an appropriate recognized satellite service receiver or have another arrangement to monitor the broadcasts they originate to confirm that the messages are transmitted and received correctly.

4 ACTIONS TO BE TAKEN BY THE AUTHORITY RESPONSIBLE FOR SETTING UP AN MRCC

4.1 Telephone, fax and telex links

4.1.1 Obtain the necessary number of subscriber lines from the local network operator. Lease or buy the necessary equipment.

4.2 GMDSS Satellite Service Links

4.2.1 Contact the GMDSS satellite service provider (the Chair of the IMO EGC Coordinating Panel) to request the certificates which will be issued so that the RCC can be considered as "information provider" and have access to the satellite service provider's network for the purpose of search and rescue.

4.2.2 If available, ask the local GMDSS satellite service(s) land-earth station operator in the country concerned about means of calling subscribers on the network.

---

4 AFTN is being phased out by ICAO and already has been in some parts of the world, its replacement is AMHS (Air Traffic Services (ATS) Message Handling Services).

5 There are in the world a number of receiving stations (LUT) which receive satellite information and transmit it to Cospas-Sarsat mission control centres (MCCs). Each of these centres is responsible for distributing alerts to SAR services in its service area. When in a particular country which does not have an MCC, there are several maritime and/or aeronautical rescue co-ordination centres, one of the RCCs should be designated as the SAR point of contact (SPOC) for Cospas-Sarsat alerts with responsibility to further distribute the alerts to the various RCCs in the country.

4.3 VHF and/or MF radio

4.3.1 Obtain authorizations to set up a radio station (or stations) from the competent national body. Buy and install the necessary equipment. Train the staff responsible for operating it.

4.3.2 Alternatively, conclude a contract with an operating agency able to provide the services in question.

4.3.3 It is recommended to arrange for each station to have several transmitter-receivers, or at least one specialized receiver to monitor the distress channel, while having the capacity to converse on another channel.

4.4 Cospas-Sarsat[6]

4.4.1 If the country concerned has already designated a SPOC, it is sufficient to define internal data transmission procedures between the country's SPOC and the MRCC.

4.4.2 If the country concerned so wishes, it may designate the MRCC (or one of the MRCCs if it has several) as a SPOC to the Cospas-Sarsat Secretariat[6] and to the supporting MCC. That country should also co-ordinate the procedures for distributing alerts with the MCC.

4.4.3 If it does not designate a SPOC, the MCC that services the area in which the distress occurred provides alert information to the most suitable MRCC for further action. The country concerned may ask the MRCC of the country where the MCC is located to transmit information to it.

4.5 Additional means listed in section 3

4.5.1 For special networks, contact the network operators.

5 MARITIME RESCUE SUB-CENTRES (MRSCs)

5.1 Depending on the importance of a maritime rescue sub-centre (MRSC), the tasks assigned to it, the area covered, the degree of autonomy granted to it, the responsible authority may if appropriate reduce the equipment provided to it in relation to that described above.

5.2 With respect to connection to the general telephone network, one line for a telephone and one for a fax is a minimum.

6 JOINT AERONAUTICAL AND MARITIME RESCUE CENTRES (JRCCs AND JRSCs)

6.1 Everything that is envisaged in this circular applies to JRCCs (and if applicable JRSCs, taking into account section 5 above), subject to being complemented by means of communications specific to the aeronautical rescue organization.

---

[6] Irrespective of the alert transmission procedures described in the text, the State concerned must also install a body to register emergency position-indicating radio beacons (EPIRBs), which must be capable of being continuously interrogated. This body, which may be an MRCC, is called a SAR Data Provider (SDP).