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## **GENERAL GUIDANCE RELATING TO RADIOCOMMUNICATIONS UNDER CHAPTER IV OF THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974**

**Notice to all Shipowners, Masters, Shipbuilders, and seafarers**

*This notice should be read with S.I. 2021/xxx ?.*

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### **Summary**

This Note has been given force of law by legislation (SI 2021/XXXX).

This Marine Guidance Note (MGN) is to be read alongside the Merchant Shipping (Radiocommunications) (Amendment) Regulations 2021 (the “2021 Regulations”) (SI 2021/XXXX), which implement into United Kingdom (UK) law the requirements on ships in accordance with Chapter IV of the International Convention for the Safety of Life at Sea, 1974 (SOLAS) in its most recently amended form.

Future amendments to Chapter IV of SOLAS will have effect in the UK by virtue of the ambulatory reference provision in the 2021 Regulations.

### **Key provisions:**

1. Introduction
2. Recognised satellite service provider
3. Radio installation
4. Sources of energy
5. Performance standards
6. Maintenance requirements of radio equipment
7. Radio personnel
8. Radio records



## **1. Introduction**

- 1.1 Chapter IV of the Annex to the International Maritime Organization's (IMO) International Convention for the Safety of Life at Sea, 1974 (SOLAS) addresses radio communications for ships to which the Convention applies.
- 1.2 The Merchant Shipping (Radiocommunications) (Amendment) Regulations 2021 (the "2021 Regulations") directly impose the requirements of Chapter IV of the Annex to SOLAS. Future amendments to Chapter IV will be given the direct legal effect in the UK by means of the ambulatory reference provision in regulation 6. This provision ensures that when amendments come into force internationally, they will at the same time take effect in UK law.
- 1.3 This Note refers to ships to which Chapter IV of SOLAS applies, as set out in regulation 3 of the 2021 Regulations; unless there is express provision to the contrary, each provision will apply to all ships. As the 2021 Regulations refer the reader directly to Chapter IV, this Note is intended to compliment the 2021 Regulations by clarifying aspects of the Chapter IV requirements; only reference to those requirements that need further explanation will be found here.

## **2. Recognised satellite service provider – Regulation 2 of Chapter IV of SOLAS**

- 2.1 All UK ships should note for the purpose of regulatory compliance that when choosing a recognised mobile satellite service (as defined in Regulation 2.1.17) of Chapter IV of SOLAS) that the service should:
  - 2.1.1 be recognised by the IMO;
  - 2.1.2 be the subject of a letter of compliance from International Mobile Satellite Organisation (IMSO); and
  - 2.1.3 have achieved Full Operational Capability (FOC).
- 2.2 A non-UK ship may use satellite service providers that have been recognised by their flag state which fulfil the relevant functional requirements as outlined in Chapter IV of SOLAS.

## **3. Radio Installation – Regulation 6 of Chapter IV**

- 3.1 Installations on UK ships should at least follow the IMO COMSAR Circ.32 (as amended) 'Harmonisation of GMDSS requirements for radio installations on board SOLAS ships. The harmonised guidelines give an unambiguous interpretation of the radio installation requirements in Chapter IV of SOLAS.
- 3.2 Regulation 6.2.5 of Chapter IV refers to the marking of radio installations; consideration should be given to times of distress or urgent communications where relevant ships identities would be required. This could include, but not be limited to, EPIRB hex identification, AIS SART, MMSI, ship IMO number and satellite communication numbers.
- 3.3 Mandatory handheld GMDSS VHF can be used to fulfil the requirements for handheld VHF transceivers and communications from the wings of the navigation bridge as mentioned in Regulation 6.3 of Chapter IV and COM/Circ.105. Alternatively, a simplex VHF transceiver (single frequency only) or a remote-controlled unit with optional channel selector, loudspeaker and microphone may be installed in these positions. Remote-controlled units with no channel selector will have a channel selector convenient to the conning position.



#### **4. Sources of energy – Regulation 13 of Chapter IV**

- 4.1 For the purpose of calculating the required capacity of the reserve source of energy, the total current used in calculations should be equal to the highest sum of all the radio installations which simultaneously can be connected to the source of energy, based on the following -
- 4.1.1 the current consumption of the VHF receiver;
  - 4.1.2 one fifth of the current consumption of the VHF transmitter;
  - 4.1.3 the current consumption of a MF or MF/HF receiver and of the transmitter when it is in condition that operation of the "press to transmit" switch will make it ready for immediate transmission;
  - 4.1.4 one third of the current which may be drawn by a MF or MF/HF transmitter for speech transmission on the frequency at which the current consumption of the transmitter is at a maximum;
  - 4.1.5 the current consumption of a ship earth station when it is receiving transmissions;
  - 4.1.6 one quarter of the current which may be drawn by a ship earth station when it is transmitting in the mode at which the current consumption is at a maximum; and
  - 4.1.7 the total current consumption of all additional loads to which the reserve source may supply energy in times of distress or emergency.
- 4.2 The following formula is recommended for determining the electrical load to be supplied by the reserve source of energy for each radio installation required for distress conditions:  $\frac{1}{2}$  of the current consumption necessary for transmission + the current consumption necessary for reception + the current consumption of any additional loads.
- 4.3 An appropriate method of checking the capacity of an accumulator battery is to fully discharge and recharge the battery, using normal operating current and period (e.g. 10 h). Assessment of the charge condition can be made at any time, but it should be done without significant discharge of the battery when the ship is at sea.
- 4.4 Guidelines on the configuration of the reserve source or sources of energy used to supply radio installations on GMDSS ships are found in COMSAR/Circ.16.

#### **5. Performance Standards – Regulation 14 of Chapter IV**

- 5.1 For all new radio installations on board a UK ship, in accordance with Regulation 8 of the Merchant Shipping (Radiocommunications) (Amendment) Regulations 2021, the performance and test standards for GMDSS radio-communication equipment are set out in Section 5 of Annex 1 to the Merchant Shipping Notice (MSN) 1874 (M+F) Amendment 3.
- 5.2 All approved existing radio installations on board a UK ship will continue to be accepted providing equipment continues to operate in accordance with this existing approval. The replacement of equipment from an existing radio installation should comply with Section 3.2 of MSN 1874 (M+F) Amendment 3.
- 5.3 Performance standards for non-UK ships in UK waters will be to the satisfaction of the ships flag state, but not inferior to those adopted by the International Maritime Organization.



## **6. Maintenance Requirements – Regulation 15 of Chapter IV**

- 6.1 There are three methods of ensuring availability of GMDSS radio installations:
- 6.1.1 At sea electronic maintenance;
  - 6.1.2 Shore-based maintenance; and
  - 6.1.3 Duplication.
- 6.2 Maintenance of a ship's radio installation can be carried out by a qualified person at sea, by shore-based maintenance or a mixture of both. IMO Resolution A.702(17) gives guidelines for GMDSS radio maintenance in sea areas A3 and A4. All ships that rely upon at-sea maintenance must carry adequate information, tools and spares for equipment to be properly operated and maintained while the ship is at sea.
- 6.3 At sea maintenance of radio communication installations is to be carried out by qualified personnel such as an Electro-Technical Officer (ETO) or other appropriate qualifications that meets the requirements of Chapter III/6 STCW 1978, such as a GMDSS radio maintenance course.
- 6.4 If availability is ensured by using shore-based maintenance as part of a combination of methods, an arrangement acceptable to the MCA should be established to ensure adequate support of the ship for the maintenance and repair of its radio installations.
- 6.5 Acceptable arrangements are –
- 6.5.1 A signed declaration from the owner or his representatives setting out the arrangement with a company or companies for covering the trading area of the ship to provide maintenance and repair facilities on a call-out basis;
  - 6.5.2 Provision of facilities at the main base of ships engaged on a regular trading pattern.
- 6.6 Duplication ensures availability in case of failure of one of the radio installations while the ship is at sea. Duplication would mean an uninterrupted service ensuring compliance with Regulation 4 of Chapter IV of SOLAS.

## **7. Radio Personnel – Regulation 16 of Chapter IV**

- 7.1 In accordance with MSN 1864(M) and STCW Code [B-IV/2], all personnel designated to perform functions of a GMDSS radio operator on board UK ships must be qualified. The MCA currently issues the following certificates through the Association of Marine Electronic and Radio Colleges (AMERC):
- 7.1.1 General operator's certificate (GOC);
  - 7.1.2 Restricted operator's certificate (ROC).
- 7.2 An officer or member of crew holding an equivalent radio operator's certificate that is recognised by the MCA will be deemed qualified.



## **8. Radio Records - Regulation 17 of Chapter IV**

- 8.1 All ships to which the Convention apply, are required to carry a radio log in accordance with Regulation 17 of Chapter IV of SOLAS.
- 8.2 The GMDSS radio log must be available for inspection by any person authorised by the Secretary of State in accordance with Regulation 9 of the Merchant Shipping (Official Log Books) Regulations 1981.
- 8.3 Completed logs should be retained on board ship for a minimum period of at least one year. After this period the MCA recommends that they are kept for a total period of seven years, on board or ashore.
- 8.4 MGN 530 (M+F) details the matters required to be recorded in the radio log and information relating to purchasing of the MCA official GMDSS radio log.

## **More Information**

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