# MERCHANT SHIPPING NOTICE



# MSN 1903 (M)

# The Global Maritime Distress and Safety System (GMDSS) Ship Requirements

Notice to all Shipowners, Masters, Shipbuilders and all Seafarers

This notice supersedes MSN 1714

# Summary

This Notice has been given force of law by legislation (SI 1998/2070).

This Merchant Shipping Notice (MSN) 1903(M) supersedes MSN 1714(M) and should be read alongside the Merchant Shipping (Radio Installation) Regulations 1998 ("the 1998 Regulations").

The 1998 Regulations are amended by the Merchant Shipping (Radiocommunications) (Amendment) Regulations 2021. This Notice outlines the GMDSS installation requirements for United Kingdom ships, and other ships in United Kingdom waters, to which Chapter IV of the International Convention for the Safety of Life at Sea, 1974 (SOLAS) does not apply. It also updates test standards for radio equipment required to be fitted to United Kingdom ships.

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#### 1. Introduction and Definitions

- 1.1 The Merchant Shipping (Radiocommunications) (Amendment) Regulations 2021 give effect in UK law to the outstanding amendments to Chapter IV of the International Convention for the Safety of Life at Sea,1974 (SOLAS). The ambulatory reference provision in regulation 6 provides for UK law to be amended in line with changes to Convention provisions without the need for further legislation.
- 1.2 The Merchant Shipping (Radio Installations) Regulations 1998 ("the 1998 Regulations") remain in force but no longer apply to ships to which Chapter IV of SOLAS applies. Therefore, any reference to United Kingdom ships in this Notice relates only to ships to which SOLAS chapter IV does not apply, such as cargo ships of not less than 300 gross tonnage on domestic voyages and passenger ships of classes VI and VI(A) made from glass reinforced plastics or wood.

#### 1.3 In this Notice:

- 1.3.1 Unless a term is defined in paragraph 1.4, it has the same meaning as that set out in regulation 2 of the 1998 Regulations;
- 1.3.2 a reference to a numbered section is, unless otherwise stated, a reference to the relevant section in this Notice;
- 1.3.3 a reference to a numbered paragraph is, unless otherwise stated, a reference to a numbered paragraph in this Notice.
- 1.4 The following definitions are used in this Notice:
  - "Admiralty List of Radio Signals" means the document so entitled published by the
    United Kingdom Hydrographic Office and any subsequent List containing the like
    information which the United Kingdom Hydrographic Office considers relevant from
    time to time which replaces the Admiralty List of Radio Signals or replaces any
    subsequent List containing the like information; and a reference to any such List
    includes a reference to any Admiralty Notice to Mariners amending the same which the
    United Kingdom Hydrographic Office considers relevant from time to time;
  - **bridge-to-bridge communications**" means safety communications between ships from the position from which the ships are normally navigated;
  - "conning position" means the place on the bridge with a commanding view of the ship and its position used by navigators when commanding, manoeuvring and controlling the ship;
  - "continuous watch" means a radio watch which is not interrupted other than for brief
    intervals when the ship's receiving capability is impaired or blocked by its own
    communications or when the facilities are under periodical maintenance or checks;
  - "direct-printing telegraphy" means an automated telegraphy technique which complies with the relevant recommendations specified in a Merchant Shipping Notice;
  - "DSC" means Digital Selective Calling being a technique using digital codes which enables a radio station to establish contact with, and transfer information to, another station or group of stations, and complying with the relevant recommendations as specified in a Merchant Shipping Notice;



- "GMDSS General Operator's Certificate (GMDSS GOC)" and "GMDSS Restricted Operator's Certificate (GMDSS ROC)" mean the certificates respectively so called in the Radio Regulations<sup>1</sup>, issued in accordance with those Regulations, and in relation to a United Kingdom ship, associated with an authority from the Secretary of State issued under Part 2 of the Wireless Telegraphy Act 2006;
- "HF" means the frequency spectrum between 3000 kHz and 30 MHz;
- "International NAVTEX service" means the co-ordinated broadcast and automatic reception on 518 kHz of maritime safety information by means of narrow-band directprinting telegraphy using the English language;
- "locating" means the finding of ships, aircraft, units or persons in distress;
- "maritime safety information" means navigational and meteorological warnings, meteorological forecasts and other urgent safety related messages broadcast to ships;
- "mobile-satellite service" means a radio communication service between
  - a. mobile earth stations and one or more space stations, or between space stations used by this service; or
  - b. mobile earth stations by means of one or more space stations; and
  - c. this service may also include feeder links necessary for its operation;
- "MF" means the frequency spectrum between 300 kHz and 3000 kHz;
- "polar orbiting satellite service" means a service which is based on polar orbiting satellites which receive and relay distress alerts from satellite EPIRBs and which provides their position;
- "radio communication" means telecommunication by means of radio waves;
- "radio communications service" means a service as defined in the Radio Regulations involving the transmission, emission and/or reception of radio waves for specific telecommunication purposes;
- "radio log" means the record required to be kept by section 15;
- "Recognised mobile satellite service" means any service which operates through a satellite system and is recognised by the Organization, for use in the global maritime distress and safety system (GMDSS)
- "Satellite EPIRB" means an EPIRB which is in the mobile-satellite service:
- "sea area A1" means an area specified as sea area A1 in the Admiralty List of Radio Signals;

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<sup>&</sup>lt;sup>1</sup> The Radio Regulations are made at a World Radio-communication Conference in accordance with Article 13 of the International Telecommunication Convention; the existing Radio Regulations were published in 2016 and may found on the International Telecommunications Union website at https://www.itu.int/pub/R-REG-RR-2016. Chapter IX of the Radio Regulations contains provision governing maritime services; article 47 contains provision in relation to operator's certificates.

- "sea area A2" means an area specified as sea area A2 in the Admiralty List of Radio Signals;
- "sea area A3" means an area, specified as sea area A3 in the Admiralty List of Radio Signals;
- "sea area A4" means an area, specified as sea area A4 in the Admiralty List of Radio Signals;
- "service" means, in relation to a reference to any particular type of radio service, a reference to that service as defined in the Radio Regulations;
- "ship earth station" means a mobile earth station in the maritime mobile-satellite service located on board ship;
- "ship station" means a mobile station in the maritime mobile-satellite service located on board a vessel which is not permanently moored, other than a survival craft station;
- "survival craft station" means a mobile station in the maritime mobile-satellite service intended solely for survival purposes and located on any lifeboat, life-raft or other survival equipment.

#### 2 Performance Standards

- 2.1 Every new radio installation on board United Kingdom ships to which this Notice applies must-
  - 2.1.1 comply with the performance standards and type approval specified in the Merchant Shipping (Marine Equipment) Regulations 2016 (SI 2016/1025) and any subsequent amendments to that instrument; and
  - 2.1.2 conform to test standards described in section 5 of Annex 1 to the Merchant Shipping Notice (MSN) 1874 (M+F) Amendment 3.
- 2.2 An approved/certified existing radio installation placed on board United Kingdom ships to which this Notice applies will continue to be accepted provided 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 Merchant Shipping Notice (MSN) 1874 (M+F) Amendment 3.

# 3 Functional Requirements

- 3.1 Every ship, while at sea, must be capable of
  - 3.1.1 transmitting ship-to-shore distress alerts by at least two separate and independent means, each using a different radio communication service;
  - 3.1.2 receiving shore-to-ship distress alerts;
  - 3.1.3 transmitting and receiving ship-to-ship distress alerts;
  - 3.1.4 transmitting and receiving search and rescue co-ordinating communications;
  - 3.1.5 transmitting and receiving on-scene communications;



- 3.1.6 transmitting and, as required by Regulation 5(1) of the Merchant Shipping (Safety of Navigation) Regulations 2020 (SI 2020/673) (or equivalent provision in any regulations which replace this instrument), receiving signals for locating;
- 3.1.7 transmitting and receiving maritime safety information;
- 3.1.8 transmitting and receiving general radiocommunications to and from shore-based radio systems or networks;
- 3.1.9 transmitting and receiving bridge-to-bridge communications.

#### 4 Installation, location and control of radio equipment

- 4.1 Every radio installation must
  - 4.1.1 be so located that no harmful interference of mechanical, electrical or other origin affects its proper use, and so as to ensure electromagnetic compatibility and avoidance of harmful interaction with other equipment and systems;
  - 4.1.2 be so located as to ensure the greatest possible degree of safety and operational availability;
  - 4.1.3 be protected against harmful effects of water, extremes of temperature and other adverse environmental conditions:
  - 4.1.4 be provided with reliable, permanently arranged electrical lighting, independent of the main and emergency sources of electrical power, for the adequate illumination of the radio controls for operating the radio installation; and
  - 4.1.5 be clearly marked with the call sign, the ship station identity and other codes as applicable for the use of the radio installation.
- 4.2 Control of the VHF radiotelephone channels required for navigational safety must be immediately available on the navigation bridge convenient to the position from which the ship is normally navigated; where appropriate, facilities must be available to permit radiocommunications from the wings of the navigation bridge (portable VHF equipment may be used to fulfil this provision).
- 4.3 Each radio transmitter and receiver fitted in accordance with this Notice must be provided with a suitable antenna or antennas. The antennas must be so constructed and sited as to enable each transmitter and receiver to perform its intended communication function effectively.

#### 5. Installation of a Distress Panel

- 5.1 In every passenger ship to which this Notice applies, a distress panel must be installed at the conning position.
- 5.2 A distress panel must
  - 5.2.1 contain either -
    - 5.2.1.1 a single button for all radio communication installations on board; or
    - 5.2.1.2 a separate button for each radio communication installation on board,



- 5.2.2 which, when pressed, initiates a distress alert using all radio communication installations required on board for that purpose;
- 5.2.3 clearly and visually indicate whenever any such button or buttons mentioned in subparagraph 5.2.1 above have been pressed; and
- 5.2.4 provide visual and aural indication of any distress alert or alerts received on board and indicate through which radio communication service the distress alert or alerts have been received.
- 5.3 Means must be provided to prevent inadvertent activation of the button or buttons on the distress panel.
- 5.4 If the satellite EPIRB is used as the second means of initiating a distress alert to shore pursuant to this MSN and is not capable of being remotely activated, an additional satellite EPIRB must be installed in the wheelhouse near the conning position.
- 5.5 Information on the ship's position must be continuously and automatically provided to all relevant radio communication equipment included in the initial distress alert when the button or buttons on the distress panel is pressed.

# 6 Radio Equipment to be provided for all Sea Areas

- 6.1 Every ship must be provided with -
  - 6.1.1 a VHF radio installation capable of transmitting and receiving
    - 6.1.1.1 DSC on the frequency 156.525 MHz (channel 70). Means must be provided to initiate the transmission of distress alerts on channel 70 from the position from which the ship is normally navigated; and
    - 6.1.1.2 radiotelephony on the frequencies 156.300 MHz (channel 6), 156.650 MHz (channel 13) and 156.800 MHz (channel 16);
  - 6.1.2 a VHF radio installation capable of maintaining a continuous DSC watch on channel 70 which may be separate from, or combined with, that required by subparagraph 6.1.1.1 of this section;
  - 6.1.3 a search and rescue locating device capable of operating in the 9 GHz band or on frequencies dedicated for AIS, which
    - 6.1.3.1 must be so stowed that it can be easily utilised; and
    - 6.1.3.2 may be one of those required for a survival craft in accordance with the Merchant Shipping (Life-Saving Appliances and Arrangements) Regulations 2020 (SI 2020/501);
  - 6.1.4 if the ship is at sea in any area in which an international NAVTEX service is provided, a receiver capable of receiving international NAVTEX service broadcasts;
  - 6.1.5 a radio facility for reception of maritime safety information by a recognised mobile satellite service enhanced group calling system, if the ship is at sea in any area of a recognised mobile satellite service coverage but in which an international NAVTEX service is not provided.
- 6.2 A satellite EPIRB provided pursuant to this Notice must be –



- 6.2.1 capable of transmitting a distress alert through the Cospas-Sarsat satellite distress alerting service on 406 MHz band:
- 6.2.2 installed in an easily accessible position;
- 6.2.3 ready to be manually released and capable of being carried by one person into a survival craft;
- 6.2.4 capable of floating free if the ship sinks;
- 6.2.5 capable of being activated manually; and
- 6.2.6 automatically activated when afloat.
- 6.3 Every passenger ship to which this paragraph applies must be provided with means for two-way on-scene radio communications for search and rescue purposes capable of operating solely on the aeronautical frequencies 121.5 MHz and 123.1 MHz from the position from which the ship is normally navigated.

# 7 Additional Radio Equipment to be provided for Area A1

- 7.1 In addition to meeting the requirements of section 6, every ship on voyages exclusively in sea area A1 must be provided with a radio installation capable of initiating the transmission of ship-to-shore distress alerts by operation from the position from which the ship is normally navigated, operating either -
  - 7.1.1 on VHF using DSC; or
  - 7.1.2 a satellite EPIRB, using the Cospas-Sarsat satellite distress alerting service on 406 MHz; as required by section 6.2 if it is installed close to, or capable of remote activation from, the position from which the ship is normally navigated; or
  - 7.1.3 if the ship is at sea within coverage of MF coast stations equipped with DSC, on MF using DSC; or
  - 7.1.4 on HF using DSC; or
  - 7.1.5 through a recognised mobile satellite service; this requirement may be fulfilled by:
    - 7.1.5.1 a ship earth station; or
    - 7.1.5.2 the satellite EPIRB, required by section 6.2, either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated.
- 7.2 The VHF radio installation required by section 6.1.1 must also be capable of transmitting and receiving general radiocommunications using radiotelephony.

#### 8 Additional Radio Equipment to be provided for Area A2

- 8.1 In addition to meeting the requirements of section 6, every ship engaged on voyages beyond sea area A1 but remaining within sea area A2, must be provided with
  - 8.1.1 an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies
    - 8.1.1.1 2,187.5 kHz using DSC; and



- 8.1.1.2 2,182 kHz using radiotelephony;
- 8.1.2 a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 kHz; such installation may be separate from, or combined with, that required by subparagraph 8.1.1.1 of this section; and
- 8.1.3 means of initiating the transmission of ship-to-shore distress alerts by a radio service other than MF operating either
  - 8.1.3.1 a satellite EPIRB using the Cospas-Sarsat satellite distress alerting service on 406 MHz; required by section 6.2 if it is installed close to, or capable of remote activation from, the position from which the ship is normally navigated; or
  - 8.1.3.2 on HF using DSC; or
  - 8.1.3.3 through a recognised mobile satellite service by a ship earth station.
- 8.2 Means must be provided to initiate transmission of distress alerts by the radio installations specified in paragraphs 8.1.1 and 8.1.3 of this section from the position from which the ship is normally navigated.
- 8.3 The ship must, in addition, be capable of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy by either
  - 8.3.1 a radio installation operating on working frequencies in the bands between 1,605 kHz and 4,000 kHz or between 4,000 kHz and 27,500 kHz; this requirement may be fulfilled by the addition of this capability to the equipment required by paragraph 8.1.1 of this section; or
  - 8.3.2 a recognised mobile satellite service ship earth station.

# 9 Additional Radio Equipment to be provided for Area A3

9.1 In addition to meeting the requirements of section 6, every ship engaged on voyages beyond sea areas A1 and A2, but remaining within sea area A3, must be provided with either the following equipment –

#### Alternative A

- 9.1.1 a recognised mobile satellite service ship earth station capable of -
  - 9.1.1.1 transmitting and receiving distress and safety communications using direct printing telegraphy;
  - 9.1.1.2 initiating and receiving distress priority calls;
  - 9.1.1.3 maintaining watch for shore-to-ship distress alerts, including those directed to specifically defined geographical areas;
  - 9.1.1.4 transmitting and receiving general radiocommunications, using either radiotelephony or direct-printing telegraphy; and
- 9.1.2 an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies –



- 9.1.2.1 2,187.5 kHz using DSC; and
- 9.1.2.2 2,182 kHz using radiotelephony; and
- 9.1.3 a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 kHz which may be separate from or combined with that required by subparagraph 9.1.2.1 of this section; and
- 9.1.4 means of initiating the transmission of ship-to-shore distress alerts by a radio service operating either –
  - 9.1.4.1 a satellite EPIRB using the Cospas-Sarsat satellite distress alerting service on 406 MHz; required by section 6.2 if it is installed close to, or capable of remote activation from, the position from which the ship is normally navigated; or
  - 9.1.4.2 on HF using DSC; or
  - 9.1.4.3 through a recognised mobile satellite service by an additional ship earth station.

or the following equipment -

#### Alternative B

- 9.1.5 an MF/HF radio installation capable of transmitting and receiving, for distress and safety purposes, on all distress and safety frequencies in the bands between 1,605 kHz and 4,000 kHz and between 4,000 kHz and 27,500 kHz —
  - 9.1.5.1 using DSC;
  - 9.1.5.2 using radiotelephony; and
  - 9.1.5.3 using direct-printing telegraphy; and
- 9.1.6 equipment capable of maintaining DSC watch on 2,187.5 kHz, 8,414.5 kHz and on at least one of the distress and safety DSC frequencies 4,207.5 kHz, 6312 kHz, 12,577 kHz or 16,804.5 kHz; the equipment must be such that it must be possible at any time to select any of these DSC distress and safety frequencies. This equipment may be separate from, or combined with, the equipment required by subparagraph 9.1.5 above;
- 9.1.7 means of initiating the transmission of ship-to-shore distress alerts by a radiocommunication service other than HF operating either
  - 9.1.7.1 a satellite EPIRB through using the Cospas-Sarsat satellite distress alerting service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by section 6.2 if it is installed close to, or capable of remote activation from, the position from which the ship is normally navigated; or
  - 9.1.7.2 through a recognised mobile satellite service by a ship earth station; and
- 9.1.8 in addition, means of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy must be provided by an MF/HF radio installation operating on working frequencies in the bands between 1,605 kHz and 4,000 kHz and between 4,000 and 27,500 kHz; this requirement may be fulfilled by



the addition of this capability in the equipment required by subparagraph 9.1.5 above.

9.2 Means must be provided to initiate transmissions of distress alerts from the position from which the ship is normally navigated by the radio installations specified in subparagraphs 9.1.1, 9.1.2 and 9.1.4 of ALTERNATIVE A and 9.1.5 and 9.1.7 of ALTERNATIVE B of this section.

# 10 Additional Radio Equipment to be provided for Area A4

10.1 In addition to meeting the requirements of section 6, ships engaged on voyages in all sea areas must be provided with the radio installations and equipment specified in ALTERNATIVE B in section 9.1, except that the equipment required by subparagraph 9.1.7.2 of ALTERNATIVE B must not be accepted as an alternative to that required by subparagraph 9.1.7.1 of ALTERNATIVE B, which must always be provided. Such ships must in addition comply with the requirements of section 9.2.

#### 11 Radio watches

- 11.1 Every ship while at sea must maintain a continuous watch -
  - 11.1.1 on VHF DSC channel 70, if the ship, in accordance with the requirements of section 6.1.2, is fitted with VHF radio installation;
  - 11.1.2 on the distress and safety DSC frequency 2, 187.5 kHz, if the ship, in accordance with the requirements of section 8.1.2 or section 9.1.3 is fitted with an MF radio installation;
  - 11.1.3 on the distress and safety DSC frequencies 2,187.5 kHz and 8,414.5 kHz, and also on at least one of the distress and safety DSC frequencies 4,207.5 kHz, 6,312 kHz, 12,577 kHz or 16,804.5 kHz, appropriate to the time of day and the geographical position of the ship, if the ship, in accordance with the requirements of section 9.1.6 or section 10, is fitted with an MF/HF radio installation; this watch may be kept by means of a scanning receiver;
  - 11.1.4 for satellite shore-to-ship distress alerts, if the ship, in accordance with the requirements in section 9.1.1 is fitted with a recognised mobile satellite service ship earth station.
- 11.2 Every ship while at sea must maintain a radio watch for broadcasts of maritime safety information on the appropriate frequency or frequencies on which such information is broadcast for the area in which the ship is navigating.

# 12 Sources of energy

- 12.1 While the ship is at sea, there must be available at all times, a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source or sources of energy for the radio installations.
- 12.2 A reserve source or sources of energy must be provided on every ship, to supply radio installations, used for the purpose of conducting distress and safety radiocommunications, in the event of failure of the ship's main and emergency sources of electrical power. The reserve source or sources of energy must be capable of simultaneously operating the VHF radio installation required by section 6.1.1 and, as appropriate for the sea area or sea areas for which the ship is equipped, either the MF radio installation required by Section 8.1.1, the MF/HF radio installation required by section 9.1.5 or section 10, or the ship earth



station required by section 9.1.1 and any of the additional loads mentioned in paragraphs 12.5, 12.6 and 12.9 of this section for a period of at least –

- 12.2.1 one hour on ships provided with an emergency source of electrical power; or
- 12.2.2 six hours on ships not provided with an emergency source of electrical power,
- 12.2.3 if such source of power complies with all relevant provisions of the Merchant Shipping (Passenger Ship Construction: Ships of Classes I, II and II(A)) Regulations 1998 (SI 1998/2514) or the Merchant Shipping (Cargo Ship Construction) Regulations 1997 (SI 1997/1509) (or equivalent provision in any regulations which amend or replace these instruments from time to time), as appropriate, including the supply of such power to the radio installations.
- 12.3 The reserve source or sources of energy need not be capable of supplying independent HF and MF radio installations simultaneously.
- 12.4 The reserve source or sources of energy must be independent of the propelling power of the ship and the ship's electrical system.
- 12.5 Where, in addition to the VHF installation, two or more of the other radio installations, referred to in paragraph 12.2 of this section, can be connected to the reserve source or sources of energy, such sources must be capable of simultaneously supplying, for the period specified, as appropriate, in paragraphs 12.2.1 or 12.2.2 of this section the VHF radio installation and either
  - 12.5.1 all other radio installations which can be connected to the reserve source or sources of energy at the same time; or
  - 12.5.2 if only one of the other radio installations can be connected to the reserve source or sources of energy at the same time as the VHF radio installation, whichever of the other radio installations will consume the most power.
- 12.6 The reserve source or sources of energy may be used to supply the electrical lighting required by section 4.1.4.
- 12.7 Where a reserve source of energy consists of a rechargeable accumulator battery or batteries—
  - 12.7.1 a means of automatically charging such batteries must be provided which must be capable of recharging them to minimum capacity requirements within 10 hours; and
  - 12.7.2 the capacity of the battery or batteries must be checked, using an appropriate method, at intervals not exceeding 12 months when the ship is not at sea.
- 12.8 The siting and installation of accumulator batteries which provide a reserve source of energy must be such as to ensure
  - 12.8.1 the highest degree of service;
  - 12.8.2 a reasonable lifetime;
  - 12.8.3 reasonable safety;
  - 12.8.4 that battery temperatures remain within the manufacturer's specifications whether under charge or idle; and



- 12.8.5 that when fully charged, the batteries will provide at least the minimum required hours of operation under all weather conditions.
- 12.9 If an uninterrupted input of information from the ship's navigational or other equipment to a radio installation required by this section is needed to ensure its proper performance, means must be provided to ensure the continuous supply of such information in the event of failure of the ship's main or emergency source of electrical power.
- 12.10 For the purpose of calculating the required capacity of the reserve source of energy, the total current used in calculations must 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
  - 12.10.1 the current consumption of the VHF receiver;
  - 12.10.1 one fifth of the current consumption of the VHF transmitter;
  - 12.10.3 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:
  - 12.10.4 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;
  - 12.10.5 the current consumption of a ship earth station when it is receiving transmissions;
  - 12.10.6 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
  - 12.10.7 the total current consumption of all additional loads to which the reserve source may supply energy in times of distress or emergency.

#### 13 Serviceability and maintenance requirements

- 13.1 The equipment used pursuant to this Notice must be so designed that the main units can be replaced readily, without elaborate recalibration or readjustment.
- 13.2 Where appropriate, equipment must be so constructed and installed that it is readily accessible for inspection and on-board maintenance purposes.
- 13.3 Adequate information must be provided on board the ship to enable the equipment to be properly operated and maintained.
- 13.4 Adequate tools and spares must be provided on board the ship to enable the equipment to be maintained.
- 13.5 Radio equipment required by this Notice must be maintained to meet the recommended performance standards of such equipment.
- 13.6 On ships while at sea the availability of equipment must be ensured, as required in Merchant Shipping Notice (MSN) 1690(M) Amendment 1.
- 13.7 Satellite EPIRBs must be -



- 13.7.1 annually tested for all aspects of operational efficiency, with special emphasis on checking the emission on operational frequencies, coding and registration, at intervals as specified below:
  - 13.7.1.1 on passenger ships, within 3 months before the expiry date of the Passenger Ship Safety Certificate; and
  - 13.7.1.2 on cargo ships, within 3 months before the expiry date, or 3 months before or after the anniversary date, of the Cargo Ship Safety Radio Certificate. The test may be conducted on board the ship or at an approved testing station; and
- 13.7.2 subject to maintenance at intervals not exceeding five years, to be performed at an approved shore-based maintenance facility.
- 13.8 In all United Kingdom ships to which this Section applies, a person nominated by the Master, normally the person qualified under section 14.3 or section 14.4 as appropriate, must, while the ship is at sea, carry out the appropriate tests and checks specified in Annex 1 of this Notice. If any of the radio installations required by the 1998 Regulations are not in working order, the nominated person must inform the Master and record details of the deficiencies in the Radio Log referred to in section 15.1 below.

# 14 Radio personnel

- 14.1 Every ship must carry a person or persons qualified for distress and safety radio communication purposes as specified in paragraph 14.3 or 14.4 (as appropriate) of this Section. Such person or persons must be holders of certificates specified in the Radio Regulations as appropriate.
- 14.2 In the case of -
  - 14.2.1 passenger ships to which this paragraph applies, at least one such person as mentioned in paragraph 14.1 above must be assigned by the master to perform only radio communication duties during distress incidents.
  - 14.2.2 all other ships one such person as mentioned in paragraph 14.1 above must be designated by the master to have primary responsibility for radio communications during distress incidents.
- 14.3 For ships operating in sea area A1, the person qualified as mentioned in paragraph 14.1 above must hold at least a GMDSS Restricted Operator's Certificate issued in accordance with the Radio Regulations.
- 14.4 For ships operating in sea area A2, area A3 and area A4 ships, the person qualified as mentioned in paragraph 14.1 above must hold at least a GMDSS General Operator's Certificate issued in accordance with the Radio Regulations, or equivalent.

# 15 Radio records

- 15.1 A record (hereinafter referred to as "the GMDSS Radio Log") must be kept of the matters specified as they occur, specifically
  - 15.1.1 a summary of communications relating to distress, urgency and safety traffic and the time such communications occurred:
  - 15.1.2 a record of important incidents connected with the radio service and the time such incidents occurred; and



- 15.1.3 where appropriate, the position of the ship at least once a day and the time at which the ship was in that position.
- 15.2 The Master must inspect and sign each day's entries in the GMDSS Radio Log.
- 15.3 The GMDSS Radio Log must be available for inspection by officers authorised by the Secretary of State to make such inspection.
- 15.4 Regulation 9 of the Merchant Shipping (Official Log Books) Regulations 1981 (SI 1981/569) applies to the GMDSS Radio Log as it applies to the Official Log Book.

# 16 Position updating

16.1 All two-way communication equipment carried on board a ship to which this notice applies which is capable of automatically including the ship's position in the distress alert shall be automatically provided with this information from an internal or external navigation receiver, if either is installed. If such a receiver is not installed, the ship's position and the time at which the position was determined shall be manually updated at intervals not exceeding 4 hours, while the ship is under way, so that it is always ready for transmission by the equipment.



#### **More Information**

UK Technical Services Navigation Maritime and Coastguard Agency Bay 2/25 Spring Place 105 Commercial Road Southampton SO15 1EG

Tel: +44 (0) 203 8172000

e-mail: navigationsafety@mcga.gov.uk

Website Address: www.gov.uk/government/organisations/maritime-and-coastguard-agency

General Enquiries: <a href="mailto:infoline@mcga.gov.uk">infoline@mcga.gov.uk</a>

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#### Section 13

# Equipment tests and reserve power checks

- 1. At least once every day—
  - (a) the proper functioning of the DSC facilities must be tested, without radiation of signals, by use of the means provided on the equipment;
  - (b) batteries providing a source of energy for any part of the radio installations must be tested and, where necessary, brought up to the fully charged condition.
- 2. Subject to paragraph (3), at least once every week—
  - (a) the proper operation of the DSC facilities must be tested by means of a test call, when within communication range of a coast station fitted with DSC equipment;
  - (b) where the reserve source of energy is not a battery (for example, a motor generator), the reserve source of energy must be tested.
- 3. Where a ship has been out of communication range of a coast station fitted with DSC equipment for a period of longer than one week, a test call must be made on the first opportunity that the ship is within communication range of such a coast station.
- 4. At least once every month—
  - (a) each satellite EPIRB must be examined to determine its capability to operate properly, particularly its ability to float free (where required to do so) in the event of the ship sinking, its security and for signs of damage;
  - (b) each search and rescue locating device (Radar or AIS) must be checked for security and signs of damage;
  - (c) each survival craft two-way VHF equipment must be tested on a frequency other than 156.8 MHz (VHF Channel 16);
  - (d) a check must be made on-
    - (i) the security and condition of all batteries providing a source of energy for any part of a radio installation; and
    - (ii) the battery connections and compartment.
- 5. In this Annex—

"EPIRB" means an emergency position indicating radio beacon capable of transmitting a distress alert either through the COSPAS/SARSAT polar orbiting satellite service operating in the 406 MHz band.

