
STATUTORY INSTRUMENTS

1998 No. 2070

MERCHANT SHIPPING

The Merchant Shipping (Radio Installations) Regulations 1998

<i>Made</i>	- - - -	<i>20th August 1998</i>
<i>Laid before Parliament</i>		<i>28th August 1998</i>
<i>Coming into force</i>	- -	<i>28th September 1998</i>

The Secretary of State for the Environment, Transport and the Regions, after consulting the persons referred to in section 86(4) of the Merchant Shipping Act 1995⁽¹⁾, in exercise of the powers conferred by sections 85(1)(a) and (b), (3) (5) to (7) and 86(1) of that Act⁽²⁾ and of all other powers enabling him in that behalf, hereby makes the following Regulations:

PART I
GENERAL

Citation, commencement and revocation

1.—(1) These Regulations may be cited as the Merchant Shipping (Radio Installations) Regulations 1998 and shall come into force on 28th September 1998.

(2) The Merchant Shipping (Radio Installations) Regulations 1992⁽³⁾ are hereby revoked.

Interpretation

2. In these Regulations—

“1984 Regulations” means the Merchant Shipping (Passenger Ship Construction and Survey) Regulations 1984⁽⁴⁾;

“cargo ship” means a ship other than a passenger ship;

“certificated radio operator” means a person qualified as specified in regulation 19(3), as a VHF radiotelephone operator, radiotelephone operator or radio officer;

⁽¹⁾ 1995 c. 21.

⁽²⁾ Sections 85 and 86 were amended by the Merchant Shipping and Maritime Security Act 1997 (c. 28), section 8.

⁽³⁾ S.I. 1992/3, as amended by S.I. 1995/1210.

⁽⁴⁾ S.I. 1984/1216, to which there are amendments not relevant to these Regulations.

“EEA Agreement” means the Agreement on the European Economic Area signed at Oporto on 2nd May 1992 as adjusted by the Protocol signed at Brussels on 17th March 1993⁽⁵⁾;

“EEA State” means a State which is a Contracting Party to the EEA Agreement;

“first periodical survey” means the periodical survey required by regulation 4 of the Merchant Shipping (Survey and Certification) Regulations 1995⁽⁶⁾ to renew the ship’s Passenger Ship Safety Certificate or Passenger Certificate within the meaning of those Regulations;

“general radiotelecommunications” means operational and public correspondence traffic, other than distress, urgency and safety messages, conducted by radio;

“GMDSS” means the Global Maritime Distress and Safety System;

“GMDSS ship” means a ship to which Part II of these Regulations applies;

“interference” has the same meaning as in the Wireless Telegraphy Act 1949⁽⁷⁾;

“Maritime and Coastguard Agency” means the Maritime and Coastguard Agency, an executive agency of the Department of the Environment, Transport and the Regions;

“Merchant Shipping Notice” means a Notice described as such, issued by the Maritime and Coastguard Agency, and includes a reference to any such document amending or replacing that Notice;

“non-GMDSS ship” means any ship other than a GMDSS ship;

“Organisation” means the International Maritime Organisation;

“passenger ship” means a ship certified to carry more than 12 passengers;

“pleasure vessel” means—

(a) any vessel which at the time it is being used is—

(i) (a) in the case of a vessel wholly owned by an individual, or individuals, used only for the sport or pleasure of the owner or the immediate family or friends of the owner; or

(b) in the case of a vessel owned by a body corporate, used only for sport or pleasure and on which the persons are employees or officers of the body corporate, or their immediate family or friends; and

(ii) on a voyage or excursion which is one for which the owner does not receive money for or in connection with operating the vessel or carrying any person, other than as a contribution to the direct expenses of the operation of the vessel incurred during the voyage or excursion; or

(b) any vessel wholly owned by or on behalf of a members' club formed for the purpose of sport or pleasure which, at the time it is being used, is used only for the sport or pleasure of members of that club or their immediate family or friends; and

(c) in the case of any vessel referred to in paragraphs (a) or (b) above no other payments are made by or on behalf of users of the vessel, other than by the owner.

In this definition “immediate family” means in relation to an individual, the husband or wife of the individual, and a relative of the individual or the individual’s husband or wife, and “relative” means brother, sister, ancestor or lineal descendant;

“radio installation” means any radio installation provided on board a ship in compliance with these Regulations, including its associated antennas, interconnecting circuits and, where appropriate, sources of electrical energy;

⁽⁵⁾ Cmnd. 2073.

⁽⁶⁾ S.I. 1995/1210, amended by S.I. 1996/2418.

⁽⁷⁾ 1949 c. 54.

“Radio Regulations” means the Radio Regulations annexed to, or regarded as being annexed to, the International Telecommunication Convention 1994⁽⁸⁾ and includes any amendment thereto which the Secretary of State considers relevant from time to time and specifies in a Merchant Shipping Notice;

“Safety Convention” means the International Convention for the Safety of Life at Sea 1974⁽⁹⁾;

“similar stage of construction” means the stage at which—

- (a) construction identifiable with a specific ship begins; and
- (b) assembly of that ship has commenced comprising at least 50 tons or 1% of the estimated mass of all structural material, whichever is less;

“tons” means gross tons; and a ship to which regulation 12 of the Merchant Shipping (Tonnage) Regulations 1997⁽¹⁰⁾ refers may continue to use the gross tonnage additionally ascertained in accordance with the provisions of Schedule 5 and appendices 1 to 4 thereto of the Merchant Shipping (Tonnage) Regulations 1982⁽¹¹⁾.

Application

3.—(1) Subject to the following provisions of this regulation, these Regulations apply to—

- (a) sea-going United Kingdom ships wherever they may be except while they are within the Great Lakes of North America and their connecting and tributary waters as far east as the lower exit of the St Lambert Lock at Montreal in the Province of Quebec, Canada; and
- (b) other seagoing ships while they are within United Kingdom waters.

(2) These Regulations shall not apply to—

- (a) troopships not registered in the United Kingdom;
- (b) ships not propelled by mechanical means;
- (c) pleasure vessels;
- (d) fishing vessels;
- (e) cargo ships of less than 300 tons; and
- (f) craft to which the Merchant Shipping (High-Speed Craft) Regulations 1996⁽¹²⁾ apply.

(3) Every ship the keel of which was laid or which was at a similar stage of construction before 1st February 1995 shall—

- (a) subject to paragraph (6) below, until the 1st February 1999 comply with either—
 - (i) the requirements of Part II of these Regulations, or
 - (ii) the requirements of Part III of these Regulations, regulations 11(1)(d) (NAVTEX) and 11(1)(f) (satellite EPIRB), and the requirements of the Merchant Shipping (Life-Saving Appliances) Regulations 1980⁽¹³⁾ or the Merchant Shipping (Life-Saving Appliances) Regulations 1986⁽¹⁴⁾ (as appropriate) relating to the carriage of radar transponders; and
- (b) on or after 1st February 1999 comply with the requirements of Part II of these Regulations.

⁽⁸⁾ Cmnd. 3447.

⁽⁹⁾ Cmnd. 7874.

⁽¹⁰⁾ S.I. 1997/1510.

⁽¹¹⁾ S.I. 1982/841; these Regulations have been revoked by S.I. 1997/1510 but the Secretary of State may permit certain ships to continue to use the gross tonnage additionally ascertained under Schedule 5 thereto, see regulation 12.

⁽¹²⁾ S.I. 1996/3188.

⁽¹³⁾ S.I. 1980/538, relevant amendments are S.I. 1991/1300.

⁽¹⁴⁾ S.I. 1986/1066, relevant amendments are S.I. 1991/1300.

(4) Subject to paragraph (6) below, every ship the keel of which was laid or which was at a similar stage of construction on or after 1st February 1995 shall comply with the requirements of Part II of these Regulations.

(5) Subject to paragraph (6) below, regulations 10, 11(4) and 19(2)(a) below shall apply to only United Kingdom passenger ships of Classes I, II and II(A) within the meaning of the 1984 Regulations wherever they may be and other passenger ships of those Classes while they are within United Kingdom waters.

(6) Any passenger ship the keel of which was laid or which was at a similar stage of construction before 1st July 1997 to which regulations 10 or 11(4) below apply need not comply with the requirements of those regulations (as applicable) until the date of the first periodical survey after the date these Regulations come into force in respect of the ship.

Ships and persons in distress

4. Nothing in these Regulations shall prohibit any ship, survival craft or person in distress from using any means at their disposal to attract attention, make known their position or obtain help.

Equivalents and exemptions

5.—(1) Where these Regulations require that a particular fitting, material, appliance or apparatus, or type thereof, shall be fitted or carried in a ship, or that any particular provision shall be made, the Secretary of state may permit any other fitting, material, appliance or apparatus or type thereof to be fitted or carried, or any other provision to be made in that ship if he is satisfied by trial thereof or otherwise that such other fitting, material, appliance or apparatus, or type thereof, or provision, is at least as effective as that required by these Regulations.

(2) For the purpose of these Regulations, the results of verifications and tests carried out by the bodies and laboratories of any other EEA State offering suitable and satisfactory guarantees of technical and professional competence shall be accepted.

(3) The Secretary of State may exempt any individual ship or class or description of ships from any of the provisions of Part II or Part III of these Regulations, on such terms (if any) as he may specify and may, on reasonable notice, alter or cancel any such exemption.

Performance standards

6.—(1) Equipment required to be provided under these Regulations shall—

- (a) conform to performance standards adopted by the Organisation and specified in Merchant Shipping Notice No. M 1714 as having been so adopted;
- (b) subject to paragraph (2) below, be of a type approved by the Secretary of State; and
- (c) in the case of United Kingdom ships, in addition conform to appropriate performance standards specified in Merchant Shipping Notice No. M 1714,

and those standards and specifications shall include any amendment thereto which the Secretary of State considers relevant from time to time and specifies in a Merchant Shipping Notice.

(2) In respect of a ship registered in a State party to the Safety Convention, sub-paragraph (b) above shall not apply to equipment of a type approved by the Administration of that State.

(3) Any approval given pursuant to this regulation shall be given in writing and shall specify the date on which it takes effect and the conditions (if any) on which it is given.

PART II

GMDSS SHIP REQUIREMENTS

Interpretation of Part II

7. In this Part—

“Admiralty List of Radio Signals” means the document so entitled published by the Hydrographer of the Navy and any subsequent List containing the like information which the Hydrographer of the Navy 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 Hydrographer of the Navy considers relevant from time to time;

“area A1 ship” means a ship which goes to sea in sea area A1 only;

“area A2 ship” means a ship which goes to sea in sea area A2 only, or in sea areas A1 and A2;

“area A3 ship” means a ship which goes to sea in sea area A3 only, or in sea area A3 and also in sea area A1 or A2 or both those sea areas;

“area A4 ship” means a ship which goes to sea in sea area A4 only, or in sea area A4 and also in one or more of sea areas A1, A2 and A3;

“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;

“EPIRB” means an emergency position indicating radiobeacon capable of transmitting a distress alert either through the COSPAS/SARSAT polar orbiting satellite service operating in the 406 MHz band or through the INMARST geostationary satellites operating in the 1.6 MHz band;

“GMDSS general operator’s certificate” and “GMDSS restricted operator’s certificate” mean the certificates respectively so called in the Radio Regulations, 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 section 7(2) of the Wireless Telegraphy Act 1949⁽¹⁵⁾;

“HF” means the frequency spectrum between 3000 kHz and 30 Mhz;

“INMARSAT” means the Organisation established by the Convention on the International Maritime Satellite Organisation (INMARSAT) adopted on 3rd September 1976;

“International NAVTEX service” means the co-ordinated broadcast and automatic reception on 518 kHz of maritime safety information by means of narrow-band direct-printing telegraphy using the English language;

(15) 1949 c. 54.

“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 radiocommunication 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 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;

“radar transponder” means a survival craft radar transponder for search and rescue between ships or aircraft and survival craft;

“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 regulation 20;

“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;

“sea area A2” means an area specified as sea area A2 in the Admiralty List of Radio Signals;

“sea area A3” means an area, excluding sea areas A1 and A2, within the coverage of an INMARSAT geostationary satellite in which continuous alerting is available;

“sea area A4” means any area of the sea which is not sea area A1, A2 or A3;

“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;

Functional Requirements

8. Every ship, while at sea, shall be capable of—

- (a) transmitting ship-to-shore distress alerts by at least two separate and independent means, using a different radiocommunication service, other than by the means provided for in regulations 12(1)(a) and 14(1)(d)(iii) Alternative A above;
- (b) receiving shore-to-ship distress alerts;
- (c) transmitting and receiving ship-to-shore distress alerts;
- (d) transmitting and receiving search and rescue co-ordinating communications;
- (e) transmitting and receiving on-scene communications;

- (f) transmitting and, as required by regulation 3(4)(b) and (8) of the Merchant Shipping (Navigational and Equipment) Regulations 1993(16), receiving signals for locating;
- (g) transmitting and receiving maritime safety information;
- (h) transmitting and receiving general radiocommunications to and from shore-based radio systems or networks;
- (i) transmitting and receiving bridge-to-bridge communications.

Installation, location and control of radio equipment

9.—(1) Every radio installation shall—

- (a) 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;
- (b) be so located as to ensure the greatest possible degree of safety and operational availability;
- (c) be protected against harmful effects of water, extremes of temperature and other adverse environmental conditions;
- (d) 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
- (e) be clearly marked with the call sign, the ship station identity and other codes as applicable for the use of the radio installation.

(2) Control of the VHF radiotelephone channels shall be immediately available on the navigating bridge convenient to the position from which the ship is normally navigated; where appropriate, facilities shall be available to permit radiocommunications from the wings of the navigating bridge; portable VHF equipment may be used to meet the latter provision.

(3) Each radio transmitter and receiver fitted in accordance with these Regulations shall be provided with a suitable antenna or antennas. The antennas shall be so constructed and sited as to enable each transmitter and receiver to perform its intended communication function effectively.

Installation of a distress panel

10.—(1) In every passenger ship to which this regulation applies a distress panel shall be installed at the conning position.

(2) A distress panel shall—

- (a) contain either—
 - (i) a single button for all radio communication installations on board; or
 - (ii) a separate button for each radio communication installation on board, which, when pressed, initiates a distress alert using all radio communication installations required on board for that purpose;
- (b) clearly and visually indicate whenever any such button or buttons mentioned in subparagraph (a) above have been pressed; and
- (c) 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.

(3) Means shall be provided to prevent inadvertent activation of the button or buttons on the distress panel.

(4) If the satellite EPIRB is used as the secondary means of initiating a distress alert pursuant to these Regulations and is not capable of being remotely activated, an additional EPIRB shall be installed in the wheelhouse near the conning position.

(5) Information on the ship's position shall 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.

Radio equipment to be provided for all sea areas

11.—(1) Every ship shall be provided with—

- (a) a VHF radio installation capable of transmitting and receiving—
 - (i) DSC on the frequency 156.525 MHz (channel 70). Means shall be provided to initiate the transmission of distress alerts on channel 70 from the position from which the ship is normally navigated; and
 - (ii) radiotelephony on the frequencies 156.300 MHz (channel 6), 156.650 MHz (channel 13) and 156.800 MHz (channel 16);
- (b) 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 paragraph (a)(i) of this regulation;
- (c) a radar transponder capable of operating in the 9 GHz band, which—
 - (i) shall be so stowed that it can be easily utilised; and
 - (ii) may be one of those required for a survival craft in accordance with the Merchant Shipping (Life-Saving Appliances) Regulations 1980⁽¹⁷⁾ or the Merchant Shipping (Life-Saving Appliances) Regulations 1986⁽¹⁸⁾;
- (d) 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;
- (e) if the ship is at sea in any area of INMARSAT coverage but in which an international NAVTEX service is not provided, a radio facility for reception of maritime safety information by the INMARSAT enhanced group calling system;
- (f) subject to the provisions of regulation 12(3) a satellite EPIRB complying with the requirements of Schedule I.

(2) From the coming into force of these Regulations until the 1st February 1999 every ship shall, in addition, be fitted with a radio installation consisting of a radiotelephone distress frequency watch receiver capable of operating on 2,182 kHz.

(3) From the coming into force of these Regulations until the 1st February 1999 every ship shall, unless it is an A1 area ship, be fitted with a device for generating the radiotelephone alarm signal on the frequency 2,182 kHz.

(4) Every passenger ship to which this paragraph applies shall 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.

⁽¹⁷⁾ S.I. 1980/538, relevant amendments are S.I. 1991/1300.

⁽¹⁸⁾ S.I. 1986/1066, relevant amendments are S.I. 1991/1300.

Additional radio equipment to be provided for area A1 ships

12.—(1) In addition to meeting the requirements of regulation 11, every A1 area ship shall 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—

- (a) on VHF using DSC; this requirement may be fulfilled by the VHF EPIRB required by paragraph (3) of this regulation if it is installed close to, or capable of remote activation from, the position from which the ship is normally navigated;
- (b) through the polar orbiting-satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by regulation 11(1)(f) if it is installed close to, or capable of remote activation from, the position from which the ship is normally navigated;
- (c) if the ship is at sea within coverage of MF coast stations equipped with DSC, on MF using DSC;
- (d) on HF using DSC; or
- (e) through the INMARSAT geostationary satellite service; this requirement may be fulfilled by—
 - (i) an INMARSAT ship earth station; or
 - (ii) the satellite EPIRB, required by regulation 11(1)(f) if it is installed close to, or capable of remote activation from, the position from which the ship is normally navigated.

(2) The VHF radio installation, required by regulation 11(1)(a) shall also be capable of transmitting and receiving general radiocommunications using radiotelephony.

(3) Area A1 ships may, in lieu of being provided with the satellite EPIRB required by regulation 11(1)(f), be provided with an EPIRB which is—

- (a) capable of transmitting a distress alert using DSC on VHF channel 70 and providing for locating by means of a radar transponder operating in the 9 GHz band;
- (b) installed in an easily accessible position;
- (c) ready to be manually released and capable of being carried by one person into a survival craft;
- (d) capable of floating free if the ship sinks;
- (e) capable of being activated manually; and
- (f) automatically activated when afloat.

Additional radio equipment to be provided for area A2 ships

13.—(1) In addition to meeting the requirements of regulation 11, every area A2 ship shall be provided with—

- (a) an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies—
 - (i) 2,187.5 kHz using DSC; and
 - (ii) 2,182 kHz using radiotelephony;
- (b) 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 paragraph (a)(i) of this regulation; and
- (c) means of initiating the transmission of ship-to-shore distress alerts by a radio service other than MF operating either—

- (i) through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by regulation 11(1)(f) if it is installed close to, or capable of remote activation from, the position from which the ship is normally navigated;
- (ii) on HF using DSC; or
- (iii) through the INMARSAT geostationary satellite service; this requirement may be fulfilled by—
 - (a) the equipment specified in paragraph (3)(b) of this regulation; or
 - (b) the satellite EPIRB, required by regulation 11(1)(f) if it is installed close to, or capable of remote activation from, the position from which the ship is normally navigated.

(2) Means shall be provided to initiate transmission of distress alerts by the radio installations specified in paragraphs (1)(a) and (1)(c) of this regulation from the position from which the ship is normally navigated.

(3) The ship shall, in addition, be capable of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy by either—

- (a) 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 (1)(a) of this regulation; or
- (b) an INMARSAT ship earth station.

Additional radio equipment to be provided for area A3 ships

14.—(1) In addition to meeting the requirements of regulation 11, every area A3 ship shall be provided with either the following equipment—

ALTERNATIVE A

- (a) an INMARSAT ship earth station capable of—
 - (i) transmitting and receiving distress and safety communications using direct printing telegraphy;
 - (ii) initiating and receiving distress priority calls;
 - (iii) maintaining watch for shore-to-ship distress alerts, including those directed to specifically defined geographical areas;
 - (iv) transmitting and receiving general radiocommunications, using either radiotelephony or direct-printing telegraphy;
- (b) an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies—
 - (i) 2,187.5 kHz using DSC; and
 - (ii) 2,182 kHz using radiotelephony;
- (c) 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 paragraph (b) (i) of this regulation; and
- (d) means of initiating the transmission of ship-to-shore distress alerts by a radio service operating either—

- (i) through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by regulation 11(1)(f) if it is installed close to, or capable of remote activation from, the position from which the ship is normally navigated;
- (ii) on HF using DSC; or
- (iii) through the INMARSAT geostationary satellite service, either by an additional ship earth station or by the satellite EPIRB required by regulation 11(1)(f) if it is installed close to, or capable of remote activation from, the position from which the ship is normally navigated,

or the following equipment—

ALTERNATIVE B

- (a) 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—
 - (i) using DSC;
 - (ii) using radiotelephony; and
 - (iii) using direct-printing telegraphy;
 - (b) 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 shall be such that it shall 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 paragraph (a) above;
 - (c) means of initiating the transmission of ship-to-shore distress alerts by a radiocommunication service other than HF operating either—
 - (i) through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by regulation 11(1)(f) if it is installed close to, or capable of remote activation from, the position from which the ship is normally navigated; or
 - (ii) through the INMARSAT geostationary satellite service; this requirement may be fulfilled by—
 - (a) an INMARSAT ship earth station; or
 - (b) the satellite EPIRB, required by regulation 11(1)(f) if it is installed close to, or capable of remote activation from, the position from which the ship is normally navigated; and
 - (d) in addition, means of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy shall 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 paragraph (a) above.
- (2) Means shall be provided to initiate transmissions of distress alerts from the position from which the ship is normally navigated by the radio installations specified in paragraphs (a), (b) and (d) of ALTERNATIVE A and (a) and (c) of ALTERNATIVE B of this regulation.

Additional radio equipment to be provided for area A4 ships

15. In addition to meeting the requirements of regulation 11, every area A4 ship shall be provided with the radio installations and equipment specified in ALTERNATIVE B in regulation 14(1), except

that the equipment required by (c)(ii) of ALTERNATIVE B shall not be accepted as an alternative to that required by regulation (c)(i) of ALTERNATIVE B, which shall always be provided. Such ships shall in addition comply with the requirements of regulation 14(2).

Radio watches

16.—(1) Every ship while at sea shall maintain a continuous watch—

- (a) on VHF DSC channel 70, if the ship, in accordance with the requirements of regulation 11(1)(b), is fitted with VHF radio installation;
- (b) on the distress and safety DSC frequency 2, 187.5 kHz, if the ship, in accordance with the requirements of regulation 13(1)(b) or paragraph (c) of ALTERNATIVE A in regulation 14, is fitted with an MF radio installation;
- (c) on the distress and safety DSC frequencies 2,187.5 kHz and 8,414.5 kHz, 6,312 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 paragraph (b) of ALTERNATIVE B in regulation 14 or 15, is fitted with an MF/HF radio installation; this watch may be kept by means of a scanning receiver;
- (d) for satellite shore-to-ship distress alerts, if the ship, in accordance with the requirements of paragraph (a) ALTERNATIVE A in regulation 14, is fitted with an INMARSAT ship earth station.

(2) Every ship while at sea shall 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.

(3) From the coming into force of these Regulations until the 1st February 2005 every ship while at sea shall maintain, when practicable, a continuous listening watch on VHF channel 16; such watch shall be kept at the position from which the ship is normally navigated.

(4) From the coming into force of these Regulations until the 1st February 1999 every ship required to carry a radiotelephone watch receiver shall maintain while at sea a continuous watch on the radiotelephone distress frequency 2,182 kHz; such watch shall be kept at the position from which the ship is normally navigated.

Sources of energy

17.—(1) There shall be available at all times while the ship is at sea 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.

(2) A reserve source or sources of energy shall 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 shall be capable of simultaneously operating the VHF radio installation required by regulation 11(1)(a) and, as appropriate for the sea area or sea areas for which the ship is equipped, either the MF radio installation required by regulation 13(1)(a), the MF/HF radio installation required by subparagraph (a) of ALTERNATIVE B in regulation 14 or regulation 15, or the INMARSAT ship earth station required by subparagraph (a) of ALTERNATIVE A in regulation 14 and any of the additional loads mentioned in paragraphs (5), (6) and (9) of this regulation for a period of at least—

- (a) one hour on ships provided with an emergency source of electrical power; or
- (b) six hours on ships not provided with an emergency source of electrical power,

if such source of power complies with all relevant provisions of the 1984 Regulations or the Merchant Shipping (Cargo Ship Construction) Regulations 1997⁽¹⁹⁾, as appropriate, including the supply of such power to the radio installations.

(3) The reserve source or sources of energy need not be capable of supplying independent HF and MF radio installations simultaneously.

(4) The reserve source or sources of energy shall be independent of the propelling power of the ship and the ship's electrical system.

(5) Where, in addition to the VHF installation, two or more of the other radio installations, referred to in paragraph (2) of this regulation, can be connected to the reserve source or sources of energy, such sources shall be capable of simultaneously supplying, for the period specified, as appropriate, in subparagraphs (2)(a) or (2)(b) of this regulation the VHF radio installation and either—

- (a) all other radio installations which can be connected to the reserve source or sources of energy at the same time; or
- (b) 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.

(6) The reserve source or sources of energy may be used to supply the electrical lighting required by regulation 9(1)(d).

(7) Where a reserve source of energy consists of a rechargeable accumulator battery or batteries—

- (a) a means of automatically charging such batteries shall be provided which shall be capable of recharging them to minimum capacity requirements within 10 hours; and
- (b) the capacity of the battery or batteries shall be checked, using an appropriate method, at intervals not exceeding 12 months when the ship is not at sea.

(8) The siting and installation of accumulator batteries which provide a reserve source of energy shall be such as to ensure—

- (a) the highest degree of service;
- (b) a reasonable lifetime;
- (c) reasonable safety;
- (d) that battery temperatures remain within the manufacturer's specifications whether under charge or idle; and
- (e) that when fully charged, the batteries will provide at least the minimum required hours of operation under all weather conditions.

(9) If an uninterrupted input of information from the ship's navigational or other equipment to a radio installation required by this Part is needed to ensure its proper performance, means shall 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.

(10) For the purpose of calculating the required capacity of the reserve source of energy, the total current used in calculations shall 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—

- (a) the current consumption of the VHF receiver;
- (b) one fifth of the current consumption of the VHF transmitter;

(19) S.I. 1997/1509.

- (c) 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;
- (d) 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;
- (e) the current consumption of an INMARSAT ship earth station when it is receiving transmissions;
- (f) one quarter of the current which may be drawn by an INMARSAT ship earth station when it is transmitting in the mode at which the current consumption is at a maximum; and
- (g) the total current consumption of all additional loads to which the reserve source may supply energy in times of distress or emergency.

Serviceability and maintenance requirements

18.—(1) The equipment used pursuant to these Regulations shall be so designed that the main units can be replaced readily, without elaborate recalibration or readjustment.

(2) Where appropriate, equipment shall be so constructed and installed that it is readily accessible for inspection and on-board maintenance purposes.

(3) Adequate information shall be provided on board the ship to enable the equipment to be properly operated and maintained.

(4) Adequate tools and spares shall be provided on board the ship to enable the equipment to be maintained.

(5) Radio equipment required by this Part shall be maintained to meet the recommended performance standards of such equipment.

(6) On ships while at sea the availability of equipment shall be ensured, as required in Merchant Shipping Notice No. M 1475.

(7) In all United Kingdom ships to which these Regulations apply a person nominated by the Master, normally the person qualified under regulation 19(3), shall, while the ship is at sea, carry out the appropriate tests and checks specified in Schedule 2 to these Regulations. If any of the radio installations required by these Regulations are not in working order, the nominated person shall inform the Master and record details of the deficiencies in the Radio Log referred to in regulation 20(1) below.

Radio personnel

19.—(1) Every ship shall carry a person or persons qualified for distress and safety radio communication purposes as specified in paragraph (3) or (4) (as appropriate) of this regulation. Such person or persons shall be holders of certificates specified in the Radio Regulations as appropriate.

- (a) (2) (a) In the case of passenger ships to which this sub-paragraph applies, at least one such person as mentioned in paragraph (1) above shall be assigned by the master to perform only radio communication duties during distress incidents.
- (b) In the case of all other ships one such person as mentioned in paragraph (1) above shall be designated by the master to have primary responsibility for radio communications during distress incidents.

(3) On area A1 ships the person qualified as mentioned in paragraph (1) above shall hold at least a GMDSS restricted operator's certificate issued in accordance with subsection D of Section IIIA of Article 55 of the Radio Regulations.

(4) On area A2, area A3 and area A4 ships the person qualified as mentioned in paragraph (1) above shall hold at least a GMDSS general operator's certificate issued in accordance with subsection C of Section IIIA of Article 55 of the Radio Regulations, or equivalent.

Radio records

20.—(1) A record (hereinafter referred to as “the GMDSS Radio Log”) shall be kept of the matters specified in Schedule 3.

(2) The Master shall inspect and sign each day's entries in the GMDSS Radio Log.

(3) The GMDSS Radio Log shall be available for inspection by officers authorised by the Secretary of State to make such inspection.

(4) Regulation 9 of the Merchant Shipping (Official Log Books) Regulations 1981⁽²⁰⁾ shall apply to the GMDSS Radio Log as it applies to the official log book.

PART III

NON-GMDSS SHIP REQUIREMENTS

Interpretation

21. In this Part—

“connected” means electrically connected;

“existing installation” means—

- (a) an installation wholly installed before 25th May 1980; and
- (b) an installation, part of which was installed before the said date and the rest of which consists of parts installed in replacement of identical parts or parts which comply with the relative requirements of this Part;

“maintenance” means any activity intended to keep a radio installation in satisfactory working condition and includes tests, measurements, replacements, adjustments and repair;

“member State” means a member State of the European Community as defined in Part II of Schedule 1 to the European Communities Act 1972⁽²¹⁾;

“mile” means the international nautical mile of 1,852 metres;

“new installation” means any installation which is not an existing installation;

“new ship” means a ship the keel of which is laid or which is at a similar stage of construction on or after 25th May 1980;

“operating position”, in relation to any equipment, means the position normally occupied by a person when operating that equipment;

“radio officer” means a person holding a valid maritime radiocommunication general certificate, first class radiotelegraph operator's certificate or second class radiotelegraph operator's certificate issued in each case in accordance with the Radio Regulations who is employed in the radiotelegraph station of a ship which is provided with such a station in accordance with this Part;

“radio operator” means a person who has had experience at sea as an operator of radiotelegraph apparatus on board a fishing vessel or a ship to which this Part does not apply;

⁽²⁰⁾ S.I. 1981/569, amended by S.I. 1991/ .

⁽²¹⁾ 1972 c. 68.

“radiotelegraph ship” means a ship, being a passenger ship or a cargo ship of 300 tons and upwards to which this Part applies, which is provided with a radiotelegraph installation in compliance with this Part;

“radiotelephone operator” means a person holding a valid appropriate certificate issued in accordance with the Radio Regulations;

“radiotelephone ship” means a cargo ship, being a ship to which this Part applies, of not less than 300 tons but less than 1,600 tons, which is provided with a radiotelephone installation in compliance with this Part;

“radiotelephone station” and “radiotelephone installation” relate to the equipment operating within the frequency band 1605—3800 kHz;

“radio watch”, in the case of radiotelegraph ships, means listening on the international distress frequencies of 500 kHz and 2182 kHz and in the case of radiotelephone ships means listening on the international distress frequency of 2182 kHz;

“silence period” means the period of 3 minutes beginning at 15 minutes and at 45 minutes past each hour, on the frequency of 500 kHz, and at each hour and at 30 minutes past each hour, on the frequency of 2182 kHz;

“VHF radiotelephone station” and “VHF radiotelephone installation” relate to the equipment operating within the frequency band 156.025—162.025 MHz.

Provision of radio installations

22.—(1) Subject to the provisions set out below, every cargo ship of 300 tons or more but less than 1,600 tons shall be provided with—

- (a) a radiotelephone installation which shall include a transmitter, receiver, radiotelephone distress frequency watch receiver or radiotelephone auto alarm, and radiotelephone alarm signal generating device; or
- (b) a radiotelephone installation which shall include—
 - (i) a main installation comprising a main transmitter, main receiver radiotelegraph automatic alarm signal keying device, radiotelephone distress frequency watch receiver or radiotelephone auto alarm, radiotelephone distress frequency transmitter, radiotelephone alarm signal generating device and, when provided, a radiotelegraph auto alarm; and
 - (ii) subject to paragraph (2) below, a reserve installation comprising a reserve transmitter and a reserve receiver.

(2) In any cargo ship of 300 tons or more but less than 1,600 tons where a radiotelegraph installation is provided pursuant to sub-paragraph (b) above, a reserve transmitter need not be provided if the main transmitter complies with requirements of these Regulations for reserve transmitters.

(3) Subject to the provisions set out below every cargo ship of 1,600 tons or more and every passenger ship shall be provided with a radiotelegraph installation which shall include—

- (a) a main installation comprising a main transmitter, main receiver, radiotelegraph automatic alarm signal keying device, radiotelephone distress frequency watch receiver or radiotelephone auto alarm, radiotelephone distress frequency transmitter, radiotelephone alarm signal generating device and, when provided, a radiotelegraph auto alarm; and
- (b) a reserve installation comprising a reserve transmitter and reserve receiver.

(4) Every cargo ship of 300 tons or more, in addition to the requirements of paragraphs (1) and (3) above, and every passenger ship shall be provided with a VHF radiotelephone installation which shall include a transmitter and receiver.

Interference with reception and with other installations

23.—(1) At no time while the ship is at sea shall any interference or mechanical noise produced by any radio installation required by this Part be such as to prevent the efficient operation of any other equipment installed on the ship.

(2) At no time while the ship is—

(a) at sea; or

(b) in port when a watch is required by the master,

shall any interference or mechanical noise produced by any equipment in the ship be sufficient to prevent the effective reception of radio signals by means of the radio installation.

(3) Any ship to which this Part applies in respect of which it is impracticable to erect efficient and properly installed antennas for broadcast receivers which do not interfere with the efficiency of the radio installation shall be provided with a communal antenna system for broadcast receivers.

Testing of equipment

24.—(1) In all ships to which this Part applies, a radio officer in the case of a radiotelegraph ship, or a radiotelephone operator in the case of a radiotelephone ship shall, while at sea, carry out the appropriate equipment tests and battery and reserve power checks specified in Schedule 4 to these Regulations. Where more than one radio officer or more than one radiotelephone operator is carried on a ship, the Master shall designate an officer or operator as the case may be to carry out those checks and the duty shall be upon the officer or operator so designated.

(2) If any of the radio equipment required by this Part is not in working order, the radio officer or radiotelephone operator discovering the deficiency shall report that fact to the Master and record the details in the radio log.

Charging of batteries

25.—(1) If batteries are provided as a source of electrical energy for any part of the equipment required by this Part, means shall be provided on board every ship to which this Part applies, for the charging of such batteries from the ship's main source of electrical energy. The charging facilities shall be adequate to ensure that the batteries can be fully charged within a period of not more than 16 hours:

Provided that where more than one battery is provided and each has sufficient capacity to comply with regulation 36(1) or 44(3) of this Part, as the case may be, the charging facilities shall be adequate to ensure that each battery can be fully charged within a period of 16 hours but it shall not be necessary for both batteries to be charged simultaneously.

(2) Where practicable, the batteries shall be fully charged on every occasion immediately before the ship leaves port.

(3) When the ship is at sea—

(a) the batteries forming part of—

(i) the main radiotelegraph installation, radiotelephone installation or VHF radiotelephone installation; and

(ii) in the case of a radiotelegraph ship, the reserve radiotelegraph installation, shall be brought up to the fully-charged condition daily;

(b) the batteries forming part of—

(i) the motor life-boat fixed radio equipment; and

(ii) the survival craft portable radio equipment if of a type which requires charging, shall be brought up to the fully-charged condition weekly; and

- (c) the batteries forming part of the survival craft two-way radiotelephone apparatus, if of a type which require charging, shall be brought up to the normal fully-charged condition whenever necessary and at least at intervals not exceeding one week.

Spare parts, tools and testing equipment

26. Sufficient spare parts, tools and testing equipment appropriate to the ship to enable the radio installation to be maintained in an efficient working condition while at sea, shall be provided.

Serviceability and maintenance of radio installation

27.—(1) Each radio installation shall be in a satisfactory working condition—

- (a) whenever the ship goes to sea; and
- (b) at all times when the ship is at sea, unless there is a defect in the radio installation and maintenance is being carried out or such maintenance is not practicable.

(2) If an additional radio equipment which is not required by this Part is provided, that equipment shall be of such design that any malfunction of any part of it shall not adversely affect the operation of the radio installation required by this Part.

(3) All equipment forming part of each radio installation shall be reliable and shall be so constructed and installed that it is readily accessible for maintenance purposes.

(4) Adequate information and instructions in English as to the use and maintenance of each installation shall be provided and shall be available for use when the radio installation is being operated, tested or serviced.

(5) In all United Kingdom ships to which this Part applies there shall be available on board and, on radiotelegraph ships, in a radiotelegraph operating room—

- (a) a rigging plan of the fitted antennas showing—
 - (i) elevation and plan views of the antennas and on radiotelegraph ships their disposition on the ship relative to the radiotelegraph operating room;
 - (ii) the dimensions of transmitting antennas; and
 - (iii) the vertical distance from the load line indicating the greatest depth to which the ship may at any time or any place be submerged to the base of each radiotelegraph and radiotelephone transmitting antenna; and
- (b) complete information on the wiring of the radio installation, except for existing installations on radiotelephone ships, showing all cable interconnections and terminations.

VHF radiotelephone station

28.—(1) The VHF radiotelephone installation carried pursuant to these Regulations shall be in the upper part of the ship and control of the VHF channels shall be immediately available on the bridge convenient to the place from which the ship is normally navigated.

(2) A card of instructions giving a clear summary of the distress, urgency and safety procedures shall be displayed at each VHF operating position.

(3) On United Kingdom radiotelegraph ships, means shall be provided in new installations to enable reception by the VHF radiotelephone installation to be monitored in the radio room during distress incidents.

Provision of antennas

29. Every ship to which this Part applies shall be provided with antennas suitable for the efficient radiation and reception of signals in the band 156.025—162.025 MHz. The antennas shall be vertically polarised and, so far as practicable, have an unobstructed view in all directions.

Supply of electrical energy

30.—(1) At all times while a ship to which this Part applies is at sea and at all reasonable times when she is in port, there shall be available a source of energy sufficient to operate the VHF radiotelephone installation at its nominal rated output power. If batteries are provided they shall have sufficient capacity and shall be maintained at all times while at sea in such condition as to be able to supply continuously for at least six hours a total current equal to the sum of—

- (a) the current consumption of the VHF radiotelephone receiver and;
- (b) one fifth of the current consumption of the VHF radiotelephone transmitter.

(2) In respect of—

- (a) new installations in all cargo ships of 300 tons or more but less than 500 tons; and
- (b) new and existing installations in all cargo ships of 500 tons or more and passenger ships,

means shall be provided to operate the VHF radiotelephone installation from an alternative source of electrical energy situated in the upper part of the ship unless the source of energy required by paragraph (1) of this regulation is situated there. The source of energy in the upper part of the ship may be the reserve source of energy required by regulation 36(2) or 44(2) of these Regulations, in which case the VHF usage of such reserve source of energy shall be limited to distress, urgency and safety communications.

(3) Where provision is made for operating the VHF radiotelephone installation from alternative sources of electrical energy, means shall be provided for rapidly changing from one source of energy to the other.

Radiotelephone operators using the VHF radiotelephone installation

31. Every radiotelephone operator using the VHF radiotelephone installation shall have practical knowledge of operating the VHF equipment and general knowledge of the Radio Regulations applying to VHF radiotelephone communications and specifically of that part of those Regulations relating to distress signals and traffic, alarm, urgency and safety signals.

VHF radio watch

32.—(1) Each ship which is fitted with a VHF radiotelephone installation in accordance with this Part shall, while at sea, maintain a continuous listening watch on the navigating bridge on 156.8 MHz (VHF Channel 16).

(2) This listening watch may be discontinued—

- (a) when the receiver is being used for traffic on a frequency other than 156.8 MHz;
- (b) when the vessel is maintaining a watch on a frequency other than 156.8 MHz for the purpose of a port operation, ship movement or safety of navigation service;
- (c) when, on the direction of the Master, the watch is being maintained elsewhere in the ship; or
- (d) when, in the opinion of the Master, the watch is prejudicial to the safety of the ship.

(3) Where the listening watch is discontinued pursuant to paragraph (2)(c) or (d), entries shall be made in the ship's official log book of the times and duration for which the listening watch on

the navigating bridge was discontinued and of the circumstances in which the watch was transferred elsewhere or in which the safety of the ship was prejudiced as the case may be.

(4) A written summary shall be maintained of all communications relating to distress, urgency and safety traffic received or transmitted on the VHF radiotelephone installation during the watch.

Radiotelephone station

33.—(1) The radiotelephone station shall be in the upper part of the ship and so sited that it is protected to the greatest possible extent from interference and noise which might impair the correct reception of messages and signals.

(2) There shall be an efficient means of two-way communication, independent of the ship's main communication system and the main source of electrical energy, between the place at which the radiotelephone installation is fitted and any other place from which the ship is normally navigated.

(3) A reliable clock shall be securely mounted in such a position that the entire dial can be easily observed from the radiotelephone operating position. The marking of the silence periods shall be clearly visible.

(4) A reliable emergency light shall be provided, independent of the system which supplies the normal lighting of the radiotelephone installation, and permanently arranged so as to be capable of providing adequate illumination of the operating controls of the radiotelephone installation, of the clock required by paragraph (3) of this regulation and of the card of instructions required by paragraph (6) of this regulation. The emergency light shall be controlled by two-way switches, clearly labelled to indicate their purpose, placed respectively near an entrance to the room in which the radiotelephone installation is fitted and at the operating position in that room:

provided that where the radiotelephone installation is fitted on the bridge, only the switch at the operating position need to be provided.

(5) Where a source of energy consists of a battery or batteries, the radiotelephone station shall be provided with a means of indicating continuously whether the battery voltage is adequate to supply energy for the radiotelephone installation.

(6) A card of instructions in English giving a clear summary of the radiotelephone distress, urgency and safety procedures shall be displayed at each radiotelephone operating position.

(7) Means shall be provided at the radiotelephone station for checking the proper functioning of—

- (a) the radiotelephone alarm signal generating device, by ensuring that the device can modulate satisfactorily the radiotelephone transmitter. The radiotelephone transmitter shall not radiate signals during such checking; and
- (b) the muting circuits of the radiotelephone distress frequency watch receiver or the radiotelephone auto alarm.

Provision of antennas

34.—(1) Every radiotelephone ship to which this Part applies shall be provided and fitted with suitable antennas and insulators. Where wire antennas are suspended between supports liable to whipping, they shall be protected against breakage. In addition, every such ship shall carry—

- (a) if the radiotelephone antenna is a supported wire antenna, a spare antenna completely assembled for rapid replacement of the radiotelephone antenna; or
- (b) if the radiotelephone antenna is not a supported wire antenna, a spare antenna of similar electrical characteristics,

and the necessary means to erect an antenna.

(2) A suitable antenna shall be provided for, and shall normally be connected to, the radiotelephone distress frequency watch receiver or the radiotelephone auto alarm.

Range of radiotelephone transmitter

35. The normal range of the radiotelephone transmitter provided in accordance with this Part shall not be less than 150 miles. The range of a radiotelephone transmitter for the purpose of this Part shall normally be determined by calculation of the metre-amperes. Where an antenna arrangement causes difficulties in determining the range of a transmitter by calculation, the range shall be determined by test.

Supply of electrical energy

36.—(1) At all times while a radiotelephone ship is at sea, and all reasonable times while she is in port, there shall be available a main source of energy sufficient to operate the installation over the normal range of not less than 150 miles. If batteries are provided they shall have sufficient capacity and shall be maintained at all times while at sea in such condition as to be able to supply continuously for at least six hours a total current equal to the sum of—

- (a) the current consumption of the radiotelephone receiver and of the transmitter when it is in a condition that operation of the “press to transmit” switch will make it ready for the immediate transmission of speech;
- (b) one third of the current which may be drawn by the radiotelephone transmitter for speech transmission on the frequency at which the current consumption of the transmitter is at a maximum;
- (c) the current consumption of all additional loads to which the battery may supply energy in time of distress or emergency; and
- (d) where the source of energy is also used by the VHF radiotelephone installation, the current consumption of the VHF radiotelephone receiver and one fifth of the current consumption of the VHF radiotelephone transmitter.

(2) In respect of installations in United Kingdom cargo ships of 300 tons or more, and other cargo ships of 500 tons or more, but in any case less than 1,600 tons, the keel of which was laid or which was at a similar stage of construction on or after 19th November 1952, a reserve source of energy shall be provided in the upper part of the ship unless the main source of energy is situated there.

(3) The reserve source of energy, if provided, may be used only to supply—

- (a) the radiotelephone installation;
- (b) the emergency light specified in regulation 33(4) of this Part;
- (c) the device for generating the radiotelephone alarm signal by automatic means;
- (d) the VHF installation;
- (e) the direction-finder (if fitted); and
- (f) a reasonable number of low-power emergency circuits which are wholly confined to the upper part of the ship, such as emergency lighting on the boat deck. Such reasonable number of circuits shall be adequately fused and capable of being readily disconnected from the reserve source of energy.

Radiotelephone operators

37.—(1) Every radiotelephone ship which is fitted with a radiotelephone station in accordance with this Part shall carry the number of radiotelephone operators specified in paragraph (2) of this

regulation. If he is the holder for the time being of a valid certificate for radiotelephony, the master, an officer or a member of the crew may be a radiotelephone operator.

(2) The specified number of radiotelephone operators shall be—

- (a) on ships of 300 tons and more, but less than 500 tons, at least one operator; and
- (b) on ships of 500 tons and more, but less than 1,600 tons, at least two operators,

provided that if a ship carries one radiotelephone operator exclusively employed for duties related to radiotelephony, it shall not be necessary to carry a second radiotelephone operator.

(3) For the purposes of these Regulations no person shall be qualified to be a radiotelephone operator on board a United Kingdom ship unless he is the holder of—

- (a) a valid certificate of competency in radiotelephony or radiotelegraphy issued by the Secretary of State or by an authority empowered in that behalf by the laws of some part of the Commonwealth or a member State and recognised by the Secretary of State as the equivalent of such a certificate; and
- (b) authority granted by the Secretary of State under section 7 of the Wireless Telegraphy Act 1949⁽²²⁾ to operate a radiotelegraph station or a radiotelephone station established in a ship under a licence issued by him,

provided that the holder of the certificate specified in sub-paragraph (a) issued on or after 28th April 1984 shall not be so qualified unless he is in addition the holder of a valid certificate issued by the Secretary of State or a person authorised by him stating that the holder has satisfied the additional knowledge and training requirements set out in Schedule 5 to these Regulations or a document recognised by the Secretary of State as the equivalent of such a certificate and issued by an authority empowered in that behalf by the laws in some part of the Commonwealth or a member State.

(4) For the purposes of this Part no person shall be deemed to be a radiotelephone operator onboard a ship registered in a country other than the United Kingdom unless he holds a valid certificate of competency in radiotelephony or radiotelegraphy issued by an authority empowered or recognised in that behalf by the law of the country in which the ship is registered and issued in accordance with the Radio Regulations.

Radio watch

38. Every radiotelephone ship which is fitted with a radiotelephone station in accordance with this Part shall, while at sea, maintain continuous watch on the radiotelephone distress frequency at the place on board from which the ship is normally navigated, by use of a radiotelephone distress frequency watch receiver or radiotelephone auto alarm.

Radio log—radiotelephone ship

39.—(1) The radio log (diary of the radio service) required by the Radio Regulations for a ship which is fitted with a radiotelephone installation in accordance with this Part shall be kept at the place where listening watch is maintained during the voyage.

(2) Every radiotelephone operator and every master, officer or crew member when carrying out a listening watch in accordance with regulation 38 of these Regulations shall enter in the radio log information specified in Schedule 6 Part A and in the form specified in Part B of Schedule 5 to these Regulations.

(3) The radiotelephone operator or, if there is more than one, the one designated by the Master, shall inspect and sign each day the entries for that day in the radio log, confirming that the requirements of this Part have been met.

(22) 1949 c. 54.

- (4) The Master of the ship shall inspect and sign each day's entries in the radio log.
- (5) The radio logs shall be available for inspection by officers authorised by the Secretary of State to make such an inspection.
- (6) Regulation 9 of the Merchant Shipping (Official Log Books) Regulations 1981⁽²³⁾ shall apply to the Radio Log as it applies to the official log book.

Radiotelegraph station

40.—(1) The radiotelegraph installation shall be installed in such a manner that it will be protected against the harmful effects of water and extremes of temperature and shall be readily accessible both for immediate use in case of distress and for repair.

(2) Every radiotelegraph ship shall be provided with a radiotelegraph operating room. Means shall be provided to operate the main and the reserve radiotelegraph apparatus from the radiotelegraph operating room.

(3) The main and reserve radiotelegraph apparatus provided on board a radiotelegraph ship shall be electrically separate and electrically independent of each other.

(4) Calibration tables or calibration curves shall be available in the radiotelegraph operating room for each transmitter and receiver forming part of the radiotelegraph installation except for those transmitters and receivers which are directly calibrated.

(5) The sleeping accommodation of at least one radio officer shall be situated as near as practicable to the radiotelegraph operating room.

Radiotelegraph operating rooms

41. Radiotelegraph operating rooms shall—

- (a) be in such positions that no interference from extraneous mechanical or other noise will be caused to the proper reception of radio signals;
- (b) be placed as high in the ship as is practicable;
- (c) be of sufficient size and of adequate ventilation to enable the main and reserve radiotelegraph installations to be operated efficiently;
- (d) not be used for any purpose which would interfere with the operation of the installation;
- (e) be provided with an efficient two-way system for calling and voice communication with the bridge and any other place from which the ship is normally navigated. Such means of communication shall be independent of the main communication system on the ship and of the ship's main source of electrical energy;
- (f) be provided with a reliable clock, the face of which shall be marked to indicate the silence periods, with a dial of not less than 125 millimetres (5 inches) in diameter and a concentric seconds hand. It shall be securely mounted in the radiotelegraph operating room in such a position that the entire dial can be easily and accurately observed by the radio officer from the radiotelegraph operating position and from the position for testing the radiotelegraph auto alarm equipment;
- (g) be provided with a reliable emergency light consisting of an electric lamp, operated from the reserve source of electrical energy, permanently arranged so as to provide satisfactory illumination of the operating controls of the main and reserve radiotelegraph installation and of the clock required by subparagraph (f) of this regulation and controlled by two-way switches placed near the main entrance to the radiotelegraph operating room and at

(23) [S.I. 1981/569](#), amended by [S.I. 1991/](#).

the radiotelegraph operating position. These switches shall be clearly labelled to indicate their purpose;

- (h) be provided with an electric inspection lamp complete with a flexible lead of adequate length and operated from the reserve source of electrical energy. A serviceable flashlight shall also be provided and kept in the radiotelegraph operating room;
- (i) be provided with a chair capable of being fixed at the radiotelegraph operating position; and
- (j) on any United Kingdom ship which is a new ship, be provided with alternative means of exit and be of sufficient size to enable the equipment installed in the room to be properly maintained.

Provision of antennas

42.—(1) Every radiotelegraph ship to which this Part applies shall be provided and fitted with suitable transmitting and receiving antennas and insulators. Where wire antennas are suspended between supports liable to whipping, they shall be protected against breakage.

(2) The performance of the radiotelegraph installation required by this Part shall not be adversely affected by the connection of any other equipment to the antennas.

(3) The main transmitting antenna and a reserve transmitting antenna shall be fitted, provided that the Secretary of State may exempt any ship from the provision of a reserve transmitting antenna if he is satisfied that the fitting of such an antenna is impracticable or unreasonable. Any ship so exempted shall carry—

- (a) if the main transmitting antenna is a supported wire antenna, a spare antenna completely assembled for rapid replacement of the main antenna; or
- (b) if the main transmitting antenna is not a supported wire antenna, a spare antenna of similar electrical characteristics, complete with the necessary materials and other means to enable it to be rapidly erected while the ship is at sea.

(4) Every radiotelegraph ship shall also be provided with sufficient antenna wire, insulators and other means necessary to enable a suitable transmitting antenna to be erected.

(5) The main transmitting antenna and the reserve transmitting antenna (if any) shall, where practicable, be so rigged that damage to the one will not affect the efficiency of the other.

(6) Means shall be provided for quickly connecting—

- (a) the main transmitting antenna and the reserve transmitting antenna (if any) to the main transmitter and, separately, to the reserve transmitter; and
- (b) the main and reserve receivers to any antenna with which they may need to be used.

(7) Suitable antennas shall be provided for, and shall normally be connected to, the radiotelegraph auto alarm and the radiotelephone distress frequency watch receiver or the radiotelephone auto alarm.

Range of radiotelegraph transmitter

43.—(1) The main and reserve transmitter shall, when connected to the main antenna, have a minimum normal range as specified in the Table below, that is to say, they must be capable of transmitting clearly perceptible signals from ship to ship by day and under normal conditions and circumstances over the ranges there specified—

TABLE

	<i>Minimum normal range in miles</i>	
	<i>Main transmitter</i>	<i>Reserve transmitter</i>
All passenger ships, and cargo ships of 1,600 tons and upwards	150	100
Cargo ships below 1,600 tons	100	75

(2) The range of a radiotelegraph transmitter for the purposes of this Part shall normally be determined by calculation of the metre-amperes. Where an antenna arrangement causes difficulty in determining the range of a transmitter by calculation, the range shall be determined by test.

Supply of electrical energy

44.—(1) While a radiotelegraph ship is at sea and at all reasonable times when she is in port there shall be available a supply of electrical energy sufficient to operate the main installation over the normal range required by regulation 43 of these Regulations as well as for the purpose of charging any batteries forming part of the radiotelegraph installation.

(2) The reserve installation shall be provided with a source of energy independent of the propelling power of the ship and of the ship's main electrical system. Means for bringing the reserve source of energy into immediate operation shall be provided and shall be situated in a radiotelegraph operating room or, if this is not possible, close thereto, and be provided with an electric lamp for illumination.

(3) The reserve source of energy shall—

- (a) preferably consist of batteries, provided that such batteries shall not be fitted in the same space as the means for bringing the reserve source of energy into immediate operation;
- (b) under all circumstances be capable of being put into operation rapidly;
- (c) be of such capacity and shall be maintained at all times when at sea in such condition as to be able to supply continuously for at least six hours a total current equal to the sum of—
 - (i) one-half of the reserve transmitter current consumption with the key down (mark);
 - (ii) one-half of the reserve transmitter current consumption with the key up (space);
 - (iii) the current required to operate the reserve receiver; and
 - (iv) the current consumption of the additional circuits connected to the reserve source of energy specified in paragraphs (4) and (5) of the regulation;
- (d) where the VHF radio installation is capable of being connected to the reserve source of energy, be of sufficient capacity to operate simultaneously the reserve radiotelegraph transmitter and the VHF radio installation unless means are provided to ensure that such simultaneous operation is not possible. For the purposes of this Part, the current consumption of the VHF radio installation shall be a total current equal to the sum of the current consumption of the VHF radiotelephone receiver and one-fifth of the current consumption of the VHF radiotelephone transmitter; and
- (e) be placed as high in the ship as is practicable and readily accessible to the radio officer.

(4) The reserve source of energy shall be used to supply the reserve installation and the automatic alarm signal keying device if it is electrically operated and, subject to the provisions of paragraph (5) of this regulation, the reserve source of energy shall not be used other than for the purposes specified below, that is to say, to supply—

- (a) the radiotelegraph auto alarm;
- (b) the emergency light specified in regulation 41(g) of these Regulations;
- (c) the direction-finder;
- (d) the VHF installation;
- (e) the device for generating the radiotelephone alarm signal by automatic means; and
- (f) any device specified in the Radio Regulations to permit changeover from transmission to reception or from reception to transmission.

(5) Notwithstanding the provisions of paragraph (4) above, in cargo ships the reserve source of energy may be used to provide energy for a number of low-power emergency circuits which are wholly confined to the upper part of the ship, such as emergency lighting on the boat deck, on condition that such circuits are adequately fused and can be readily disconnected and that the source of energy is of sufficient capacity to carry the additional load.

Radio officers

45.—(1) Every radiotelegraph ship which is provided with a radiotelegraph auto-alarm shall, upon proceeding to sea, be provided with radio officers as follows—

- (a) two radio officers on each passenger ship carrying or certified to carry more than 250 passengers and engaged on a voyage exceeding 16 hours' duration; or
- (b) one radio officer on all other radiotelegraph ships.

(2) Every United Kingdom radiotelegraph ship which is not provided with a radiotelegraph auto-alarm shall, upon proceeding to sea, be provided with radio officers as follows—

- (a) three radio officers if at sea for more than 48 hours between consecutive ports;
- (b) two radio officers if at sea for more than 12 hours but not more than 48 hours between consecutive ports; or
- (c) one radio officer if at sea for not more than 12 hours between consecutive ports.

(3) The chief radio officer on board a United Kingdom radiotelegraph ship shall be a person who has had experience at sea as a radio officer for a total of not less than—

- (a) two years in the case of a United Kingdom passenger ship in respect of which there is in force a certificate to the effect that it is fit to carry more than 250 passengers;
- (b) one year in the case of any other passenger ship; or
- (c) six months in the case of a cargo ship.

(4) Subject to paragraph (5) below, for the purpose of this Part, no person shall be qualified to be a radio officer on board a United Kingdom ship unless he is the holder of—

- (a) a valid certificate of competency issued by the Secretary of State in the form of—
 - (i) a Maritime Radiocommunication General Certificate;
 - (ii) a First or Second Class Certificate of Competency in Radiotelegraphy; or
 - (iii) a valid Certificate of Competency granted by an authority empowered in that behalf by the laws of a Commonwealth country or a member State and recognised by the Secretary of State as the equivalent of a certificate specified in subparagraph (i) or (ii) above; and
- (b) an authority granted by the Secretary of State under section 7 of the Wireless Telegraphy Act 1949⁽²⁴⁾ (a) to operate a wireless telegraphy station established on a United Kingdom ship under a licence issued by the Secretary of State:

(24) 1949 c. 54.

Provided that the holder of a certificate specified in subparagraph (a) issued on or after 28th April 1984 shall not be so qualified unless he is in addition the holder of a valid certificate issued by the Secretary of State or a person authorised by him stating that the holder has satisfied the additional knowledge and training requirements set out in Schedule 5 to these Regulations or a document recognised by the Secretary of State as the equivalent of such a certificate and issued by an authority empowered in that behalf by the laws of some part of the Commonwealth or a member State.

(5) In the case of the chief radio officer on board a United Kingdom passenger ship the Certificate required under paragraph (4)(a) above shall be either a Maritime Radiocommunication General Certificate, or a First Class Certificate of Competency in Radiotelegraphy or certificate equivalent thereto granted in accordance with paragraph (4)(a)(iii) above.

(6) For the purposes of paragraph (4) above no certificate of competency shall be deemed to be valid on any date if granted more than 2 years before that date and either—

- (a) the holder's period, aggregate of periods, of experience on that date is less than three months; or
- (b) the holder last had experience at a time earlier than 2 years before that date, unless he can satisfy the Secretary of State by re-examination or otherwise that he still possesses all the qualifications described in his certificate and that his experience with modern equipment is adequate.

For the purpose of this paragraph the expression "experience" means experience as the operator of radiotelegraph apparatus—

- (i) at sea, as a radio officer or a radiotelegraph operator; or
- (ii) on land, as an operator at a radiotelegraph station maintained on land by the Post Office or British Telecommunications for communication with ships.

(7) For the purposes of this Part no person shall be deemed to be a radio officer on board a ship registered outside the United Kingdom unless he holds a valid Certificate of Competency in radiotelegraphy granted by an authority empowered or recognised in that behalf by the laws of the country in which the ship is registered and issued in accordance with the Radio Regulations.

Radio watch

46.—(1) Each ship which in accordance with this Part is fitted with a radiotelegraph installation shall, while at sea, maintain continuous watch on—

- (a) the radiotelephone distress frequency at the place on board from which the ship is normally navigated by use of a radiotelephone distress frequency watch receiver; and
- (b) the radiotelegraph distress frequency by means of a radio officer using headphones or a loudspeaker:

Provided that if the ship is provided with a radiotelegraph auto alarm and the means to cause an audible warning to be given in the radiotelegraph operating room, in the radio officer's sleeping accommodation and on the bridge when the radiotelegraph auto alarm is activated by a radiotelegraph alarm signal, such watch may be kept by the radiotelegraph auto alarm—

- (i) at all times except during the working hours specified in the Radio Regulations to be maintained by the appropriate category of ship station; and
- (ii) subject to paragraph (6) below, on all occasions during the working hours specified in the Radio Regulations to be maintained by the appropriate category of ship station when the radio officer is performing other duties in accordance with the provisions of paragraph (3) of this regulation and it is impracticable to listen by headphones or loudspeaker.

(2) Each radiotelegraph ship shall while at sea maintain the working hours specified in the Radio Regulations for ship stations—

- (a) of the first category in respect of ships not provided with a radio telegraph auto alarm;
 - (b) of the second category in respect of passenger ships provided with a radiotelegraph auto alarm and carrying or certified to carry more than 250 passengers and engaged on a voyage exceeding 16 hours' duration between consecutive ports; or
 - (c) of the third category in respect of all other radiotelegraph ships provided with a radiotelegraph auto alarm.
- (3) Subject to paragraphs (4) and (6) below, during the period when a radio officer is required by this regulation to listen on the radiotelegraph distress frequency, the radio officer may discontinue such listening—
- (a) in the case of all ships, during the time when he is handling traffic on other frequencies or performing other essential radio duties; and
 - (b) in the case of ships which are required to carry only one radio officer pursuant to regulation 45(1) or (2) above, by order of the master of the ship in order to carry out maintenance required to prevent imminent malfunction of—
 - (i) equipment for radio communication used for safety;
 - (ii) radio navigational equipment; and
 - (iii) other electronic navigational equipment
- (4) A radio officer may only discontinue listening to the radiotelegraph distress frequency as provided in sub-paragraphs (a) and (b) of paragraph (3) above if:
- (a) it is impracticable to listen to the radiotelegraph distress frequency on split headphones or loudspeaker;
 - (b) he is appropriately qualified to perform the other duty he is required to undertake pursuant to sub-paragraph (a) or (b) (as appropriate) of paragraph (3) above; and
 - (c) the ship is fitted with a receiving selector which complies with the requirements of the Radio Regulations.
- (5) In this regulation “essential radio duties” includes urgent repairs of—
- (a) equipment for radiocommunication used for safety; and
 - (b) radio navigational equipment, when ordered to be to be repaired by the master.
- (6) In the circumstances referred to in paragraph (1)(ii) above and notwithstanding paragraph (3), the listening watch shall always be maintained during working hours by a radio officer using headphones or loudspeaker during the silence periods on the frequency of 500 kHz.
- (7) In all ships fitted with a radiotelephone auto alarm, that alarm shall, while the ship is at sea, be in operation whenever there is no listening watch being kept on the radiotelegraph distress frequency by a radio officer using headphones or a loudspeaker.

Radio log—radiotelegraph ship

- 47.—(1) The radio log required by the Radio Regulations for a ship which is fitted with a radiotelegraph station in accordance with this Part shall be kept in the radiotelegraph operating room during the voyage.
- (2) Every radio officer on board such a ship shall, when on duty, enter in the radio log the information specified in Schedule 7 Part A in the form specified in Schedule 6 Part B to these Regulations.
- (3) The radio officer, or if there is more than one, the chief radio officer, shall inspect and sign each day the entries for that day in the radio log confirming that the requirements of this Part have been met.

(4) The Master of the ship shall inspect and sign each day's entries in the radio log.

(5) The radio log shall be available for inspection by officers authorised by the Secretary of State to make such an inspection.

(6) Regulation 9 of the Merchant Shipping (Official Log Books) Regulations 1981 shall apply to the Radio Log as it applies to the official log book.

Radio equipment for lifeboats and survival craft

48.—(1) The motor life-boat fixed radiotelegraph installation, the portable radio equipment for survival craft, the two-way radiotelephone apparatus for survival craft and the survival craft emergency position-indicating radio beacons required to be provided in pursuance of regulations as to life-saving appliances made under sections 85 and 86 of the Merchant Shipping Act 1995 shall comply with the appropriate performance specifications and shall be tested in accordance with regulation 24(1) of these Regulations.

(2) The battery included in motor life-boat fixed radio equipment shall not be used for any purpose other than the operation of such equipment and the searchlight provided in compliance with the Regulations as to life-saving appliances.

PART IV

ENFORCEMENT

Power to detain

49.—(1) Subject to paragraph (2) below, in any case where a ship to which these Regulations apply, does not comply with the requirements of these Regulations, the ship shall be liable to be detained and section 284 of the Merchant Shipping Act 1995 (which relates to the detention of a ship) shall have effect in relation to the ship as if for the words "this Act" wherever they appear, there were substituted the words "the Merchant Shipping (Radio Installations) Regulations 1998".

(2) A ship shall not be detained in a port where repair facilities are not readily available by reason of malfunction of the equipment for providing general radiocommunications referred to in regulation 8(h) above if the ship is capable of performing all other distress and safety functions as required by the said regulation 8.

Penalties

50.—(1) If a radiotelephone operator or radio officer or a person nominated under regulation 18(7) of these Regulations contravenes any provision of these Regulations imposing a duty on him, he shall be guilty of an offence punishable on summary conviction to a fine not exceeding level 2 on the standard scale; and if any person, being the owner or master of the ship, permits such a contravention, he shall be guilty of an offence punishable on summary conviction to a fine not exceeding the statutory maximum or, on conviction on indictment, to imprisonment for a term not exceeding 2 years or a fine, or both.

(2) If these Regulations are contravened in any other respect in relation to any ship, the owner and master of the ship shall each be guilty of an offence punishable on summary conviction to a fine not exceeding the statutory maximum or, on conviction on indictment, to imprisonment for a term not exceeding 2 years or a fine, or both.

Defence

51. It shall be a defence for a person charged under these Regulations to show that he took all reasonable precautions to avoid the commission of the offence.

Signed by authority of the Secretary of State for the Department of the Environment, Transport and the Regions

Nick Raynsford
Parliamentary Under-Secretary of State,
Department of the Environment, Transport and
the Regions

20th August 1998

SCHEDULE 1

Regulation 11(1)(f)

SATELLITE EPIRBs

Every satellite EPIRB provided pursuant to these Regulations shall be—

(1) capable of transmitting a distress alert either through the polar orbiting satellite service operating in the 406 MHz band or, alternatively, in sea areas A1, A2 and A3 only, through the INMARSAT geostationary satellite service operating in the 1.6 GHz band;

- (2) installed in an easily accessible position;
- (3) ready to be manually released and capable of being carried by one person into a survival craft;
- (4) capable of floating free if the ship sinks;
- (5) capable of being activated manually; and
- (6) automatically activated when afloat.

SCHEDULE 2

Regulation 18(7)

EQUIPMENT TESTS AND RESERVE POWER CHECKS

1 Daily

- (a) (a) The proper functioning of the DSC facilities shall be tested at least once each day, 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 shall be tested daily and, where necessary, brought up to the fully charged condition.

2 Weekly

- (a) (a) The proper operation of the DSC facilities shall be tested at least once a week by means of a test call, when within communication range of a coast station fitted with DSC equipment. 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 shall be made on the first opportunity that the ship is within communication range of such a coast station.
- (b) Where the reserve source of energy is not a battery (for example, a motor generator), the reserve source of energy shall be tested weekly.

3 Monthly

- (a) (a) Each EPIRB and satellite EPIRB shall be examined at least once a month 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 radar transponder shall be checked at least once a month for security and signs of damage.
- (c) Each survival craft two-way VHF equipment shall be tested at least once a month on a frequency other than 156.8 MHz (VHF Channel 16).
- (d) A check shall be made at least once a month on the security and condition of all batteries providing a source of energy for any part of a radio installation. The battery connections and compartment shall also be checked.

SCHEDULE 3

Regulation 20(1)

GMDSS RADIO LOG

The following shall be recorded in the GMDSS Radio Log as they occur—

- (a) a summary of communications relating to distress, urgency and safety traffic and the time such communications occurred;
- (b) a record of important incidents connected with the radio service and the time such incidents occurred; and
- (c) where appropriate, the position of the ship at least once a day and the time at which the ship was in that position.

SCHEDULE 4

Regulation 24(1)

EQUIPMENT TESTS AND BATTERY RESERVE POWER CHECKS**1 Daily**

- (a) (a) Every radio officer who finds any radiotelegraph auto-alarm equipment in operation when going on duty shall test the efficiency of the audible alarm system in the radiotelegraph operating room.
- (b) Every radio officer who leaves any radiotelegraph auto-alarm equipment in operation when going off duty shall test the efficiency of the audible alarm system in the radiotelegraph operating room.
- (c) The proper functioning of the radiotelegraph auto-alarm installation shall be tested at least once each day by listening to signals and comparing them with similar signals received on the radiotelegraph distress frequency on another receiver, and by operating the complete audible alarm system.
- (d) The reserve radiotelegraph transmitter, if not used for communications, shall be tested at least one each day using a suitable artificial antenna.
- (e) The radiotelephone distress frequency watch receiver shall be tested at least once each day using the means provided in accordance with regulation 33(7)(b), and by listening to signals and, where practicable, comparing them with similar signals received on the radiotelephone distress frequency on another receiver.
- (f) Batteries providing a source of energy for any part of the radio installation shall be tested daily and, where necessary, brought up to the fully charged condition.
- (g) Where the reserve source of energy is not a battery (for example, a motor generator), the reserve source of energy shall be tested daily.

2 Weekly

- (a) (a) The reserve radiotelegraph transmitter shall be tested at least once every week using the main antenna and, if provided, the reserve antenna.
- (b) The radiotelegraph alarm signal keying device shall be tested at least once every week using a transmitter set to low power, tuned to a frequency other than the radiotelephone distress frequency and connected to a suitable artificial antenna.
- (c) The radiotelephone alarm signal generating device shall be tested at least once every week using the means provided in accordance with regulation 33(7)(a).

- (d) Motor life-boat fixed radiotelegraph installations and portable radio equipment for survival craft shall be tested at least once every week using suitable artificial antennas.
- (e) Batteries forming part of a motor life-boat fixed radiotelegraph installation and survival craft portable radio equipment shall be tested weekly and, where necessary, brought up to the fully charged condition. Where non-rechargeable batteries are provided in survival craft portable radio equipment as a source of energy, the expiry date of the batteries shall be checked and the batteries replaced when necessary.
- (f) Batteries forming part of a two-way radiotelephone apparatus for survival craft shall be tested weekly and, where necessary, brought up to the fully charged condition. Where non-rechargeable batteries are provided as a source of energy the batteries shall be checked and replaced if necessary.

3 Monthly

- (a) (a) Motor life-boat fixed radiotelegraph installations and portable radio equipment for survival craft shall be tested at least once a month using an antenna provided with the installations or equipment. In the case of motor life-boat fixed radiotelegraph installations, the test shall, where practicable, be carried out with the life-boat floating in the sea.
- (b) Batteries providing a source of energy for any part of the radio installation shall be tested at least once a month by means of a hydrometer where practicable, or where a hydrometer cannot be used, by a suitable load test. A check shall also be made of the security of the battery and its connections and the condition of the battery and its compartment.

4 Annually

4. Survival craft emergency position-indicating radio beacons shall be inspected, tested and, if necessary, have their source of energy replaced at least once every twelve months. The interval may be extended to a maximum of seventeen months to permit the inspection to take place concurrently with a radio survey.

SCHEDULE 5

Regulations 37(3) and 45(4)

ADDITIONAL KNOWLEDGE AND TRAINING REQUIREMENTS FOR RADIOTELEPHONE OPERATORS AND RADIO OFFICERS

- (a) The provision of radio services in emergencies including—
 - (i) abandon ship;
 - (ii) fire aboard ship; and
 - (iii) partial or full breakdown of the radio station.
- (b) The operation of lifeboats, liferafts, buoyant apparatus and their equipment, with special reference to portable and fixed lifeboat radio apparatus and emergency position-indicating radio beacons.
- (c) Survival at sea.
- (d) First aid.
- (e) Fire prevention and fire-fighting with particular reference to the radio installation.
- (f) Preventive measures for the safety of ship and personnel in connection with hazards related to radio equipment including electrical, radiation, chemical and mechanical hazards.

Status: This is the original version (as it was originally made).

- (g) The use of the Organisation's Merchant Ship Search and Rescue Manual (MERSAR) published in January 1981 (including any document amending the Manual which is considered by the Secretary of State to be relevant from time to time and is specified in a Merchant Shipping Notice) with particular reference to radiocommunications.
- (h) Ship position-reporting systems and procedures.
- (i) The use of the International Code of Signals and the Standard Marine Navigational Vocabulary.
- (j) Radio medical systems and procedures.

SCHEDULE 6

Regulation 39(2)

RADIO LOG—RADIOTELEPHONE SHIP

PART A

The radio log book, the form of which is at Part B below, is compiled in two sections which shall be completed in accordance with the following—

Section A—Particulars of the radiotelephone operators on board.

Section B—Diary of the radio service which shall specify:

- (a) the name of the radiotelephone operator and the times at which the watch commences and ends;
- (b) the times at which radio watch is for any reason discontinued, together with the reason and the time at which radio watch is resumed;
- (c) a summary of communications exchanged between the ship station and coast stations or other ship stations, including the serial numbers and the dates of any messages passed;
- (d) a summary of all communications relating to distress, urgency and safety traffic;
- (e) a record of all incidents connected with the radio service, including the radiotelephone installation and the VHF radiotelephone installations, which occur during the watch and appear to be of importance to safety of life at sea;
- (f) details of the tests and checks required by regulation 24(1);
- (g) if the ship's rules permit, the position of the ship at least once a day.

PART B

FORM OF RADIOTELEPHONE LOG-BOOK RADIOTELEPHONE LOG

<i>Name of ship and Official Number</i>	<i>Maritime Mobile Service Identity and International Call Sign</i>	<i>Port of Registry</i>	<i>Gross Tonnage</i>

Traffic Accounting Authority.....

Period covered by Log: From to

Delivered to the Superintendent of the Mercantile Marine Office at the Port of

..... on the day of 19

Countersigned Master

..... Superintendent Address

SECTION A—PARTICULARS OF RADIOTELEPHONE OPERATORS

<i>Name</i>	<i>Home Address</i>	<i>Certificate Number and Class</i>

S.S.
M.V.

SECTION B—DIARY OF THE RADIOTELEPHONE SERVICE

<i>Date and Time (G.M.T.)</i>	<i>Station From</i>	<i>Station To</i>	<i>Frequency Used</i>	<i>Record of Working</i>

SCHEDULE 7

Regulation 47(2)

RADIO LOG—RADIOTELEGRAPH SHIP**PART A**

The radio log book, the form of which is at Part B below, is compiled in two parts which shall be completed in accordance with the following—

PART I

- (a) Section A: Particulars of the radio officers on board.
- (b) Section B: Particulars of all batteries on board used as a source of energy for any part of the radio installation.
- (c) Section C: A daily record of the off-load and on-load voltage condition of each battery listed in Section B and details of charging and maintenance, including replacement, of each such battery.
- (d) Section D: A monthly record of a full examination of each battery listed in Section B, including where appropriate, the condition of each cell.

PART II

Every radio officer shall, when keeping radio watch, enter in the radio log—

- (a) the name of the radio officer and the times at which the watch commences and ends;
- (b) the times at which radio watch is for any reason discontinued, together with the reason and the time at which radio watch is resumed;
- (c) details of the watch kept on the international radiotelegraph distress frequency during silence periods;
- (d) all communications relating to distress traffic in full;
- (e) details of urgency and safety communications;
- (f) a summary of communications exchanged between the ship station and coast stations or other ship stations, including the serial numbers and the dates of any messages passed;
- (g) a record of all incidents connected with the radio service, including the radiotelegraph and the VHF radiotelephone installation which may appear to be of importance to safety of life at sea;
- (h) details of the tests and checks required by regulation 24(1)
- (i) at least once a day when the station is open, a record of the time shown by the clock in each radiotelegraph room in comparison with Greenwich Mean Time and any correction made in respect of that clock. In addition the local time in use by the ship shall be recorded daily; and
- (j) if the ship's rules permit, the position of the ship at least once a day, preferably at midday.

PART B**FORM OF RADIOTELEPHONE LOG-BOOK****RADIOTELEPHONE LOG**

*Status: This is the original version (as it was originally made).***PART 1**

<i>Name of Ship and Official Number</i>	<i>Maritime Mobile Service Identity and International Call Sign</i>	<i>Port of Registry</i>	<i>Gross Tonnage</i>

Traffic Accounting Authority

<i>Port at which and date when voyage commenced</i>	<i>Nature of the voyage or employment</i>	<i>Port at which and date when voyage terminated</i>
Date		Date
Port		Port

Delivered to the Superintendent of the Mercantile Marine Office at the Port of
..... on the day of 19

together with Radiotelegraph Log Part II, serial numbers
to

Countersigned Master

..... Superintendent Address

SECTION A—PARTICULARS OF RADIO STAFF

<i>Name</i>	<i>Home Address</i>	<i>Certificate Number and Class</i>

Status: This is the original version (as it was originally made).

SECTION B—PARTICULARS OF BATTERIES ON BOARD

<i>Battery Number</i>	<i>Number of Cells</i>	<i>Type</i>	<i>Date Supplied</i>	<i>Voltage and Ampere-hour Capacity</i>	<i>Purpose for which used</i>

SECTION C—DAILY EXAMINATION OF BATTERIES

<i>Date</i>	<i>Battery Number</i>	<i>Voltage off Load</i>	<i>Voltage on Load</i>	<i>Remarks</i>

SECTION D—MONTHLY REPORT OF BATTERIES

<i>Date</i>	<i>Battery Number and Cell Number</i>	<i>Results of load test or Specific Gravity as measured</i>		<i>Remarks</i>	<i>Date</i>	<i>Battery Number and Cell Number</i>	<i>Results of load test or Specific Gravity as measured</i>		<i>Remarks</i>
		<i>Before charge</i>	<i>After charge</i>				<i>Before charge</i>	<i>After charge</i>	

RADIOTELEGRAPH LOG**PART II**

<i>Name of Ship and Official Number</i>	<i>Maritime Mobile Service Identity and International Call Sign</i>	<i>Port of Registry</i>	<i>Gross Tonnage</i>

Serial No. from to

Traffic Accounting Authority

S.S.

M.V.

DIARY OF THE RADIOTELEGRAPH SERVICE

<i>Date and Time (G.M.T.)</i>	<i>Station From</i>	<i>Station To</i>	<i>Full Details of Calls, Signals and Distress Working</i>	<i>Frequency</i>

EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations revoke and replace, with amendments, the Merchant Shipping (Radio Installations) Regulations 1992.

They give effect to Chapter IV of the International Convention for the Safety of Life at Sea 1974 (SOLAS), including amendments adopted by states party to that Convention at a Conference on the Global Maritime Distress and Safety Systems (GMDSS) on 11 November 1988 and at Conferences

on 11 December 1992 and 29 November 1995. GMDSS is the International Maritime Organisation's world-wide network of automated emergency communications for vessels at sea.

In addition to minor drafting amendments, the changes of substance to the 1992 Regulations require that ships of Class I, II or II(A) have a distress panel on board located at the conning position (regulation 10), that means be provided for two-way on-scene radio communications for search and rescue purposes (regulation 11(4)) and that at least one person qualified for distress and safety radio communications be assigned to perform only radio communication duties during distress incidents (regulation 19(2)(a)).

Part II contains the GMDSS provisions. It requires new ships to carry new types of radio equipment including equipment for satellite communication, emergency radio beacons (EPIRBs) and other items. The carriage requirements depend on the ship's area of operations. For this purpose the world is divided up under the GMDSS into four sea areas: area A1 which is within range of VHF coastal radio; area A2 which is within range of MF coastal radio; area A3 which is within coverage of geostationary satellites; and area A4 which covers the remainder of the world. The requirements for maintenance of the equipment carried permit some flexibility: maintenance may be achieved by duplication of equipment by shore-based maintenance or by an at-sea maintenance capability.

A compliance cost assessment has been produced and a copy laid in the library of each House of Parliament. Copies may be obtained from the Maritime and Coastguard Agency, Spring Place, 105 Commercial Road, Southampton SO15 1EG (telephone: 01703 329134).

Copies of SOLAS may be obtained from the International Maritime Organisation, 4 Albert Embankment, London SE1 7SR. Merchant Shipping Notices may be obtained from Eros Marketing Support Services, Unit B, Imber Court Trading Estate, Orchard Lane, East Molesey, Surrey KT8 0BN (telephone number 0181 957 5028).