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Government Notice

MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION

No. 19

1998

MERCHANT SHIPPING ACT, 1951: MERCHANT SHIPPING (RADIO INSTALLATIONS) REGULATIONS

The Minister of Works, Transport and Communication has under section 356 of the Merchant Shipping Act, 1951 (Act 57 of 1951) -

- (a) made the regulations as set out in the Schedule; and
- (b) repealed the Merchant Shipping Radio Regulations promulgated under Government Notice R.140 of 2 February 1968 and the Merchant Shipping Radio Regulations promulgated under Government Notice R.140 of 15 February 1968.

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PART I GENERAL

Definitions

1. In these regulations any word or expression to which a meaning has been assigned in the Merchant Shipping Act, 1951 (Act No.57 of 1951) shall bear that meaning and, unless the context otherwise indicates -

"1974 SOLAS Convention" means the International Convention for Safety of Life at Sea done at London on 1 November 1974, and the Protocol;

"cargo ship" means any ship other than a passenger ship or a fishing vessel;

"coast" means the land and water landward of the baselines from which the breadth of territorial waters is measured;

"coast station" means a land station in the maritime service approved by the Permanent Secretary and which maintains a continuous watch;

"constructed", in relation to a ship, means having its keel laid or being at a similar stage of construction;

"continuous watch" means an uninterrupted radio watch, but for brief intervals when the receiving capability of such radio watch is impaired or blocked by own communications or periodical maintenance or checks;

"defined fishing zone" means the exclusive economic zone of Namibia as defined in the Territorial Sea and Exclusive Economic Zone of Namibia Act, 1990 (Act No. 3 of 1990); "EPIRB" means an emergency position-indicating radio beacon stationed in a mobile service, the emissions of which are intended to facilitate search and rescue operations;

"fishing vessel" means any of the following classes of vessels used for catching fish or other living resources of the sea for financial gain or reward:

Class A: a fishing vessel of 45 metres or more in length operating outside the defined fishing zone and all other fishing vessels of 75 meters or more in length

Class B: a fishing vessel of less than 45 metres in length operating outside the defined fishing zone

Class C: a fishing vessel of less than 75 metres in length operating solely within the defined fishing zone

Class D: a fishing vessel operating solely within 40 nautical miles of a coast station, whether or not such coast station is a remote-controlled coast station;

"GMDSS" means the global maritime distress and safety system;

"GMDSS ship" means a ship provided with a GMDSS installation in accordance with the provisions of Parts I and II of these regulations;

"length", in relation to a ship, means the registered length which is recorded on the relevant International Tonnage Certificate, the Namibian Tonnage Certificate and Certificate of Registry;

"maintenance", in relation to a radio installation, means any activity intended to keep such installation in satisfactory working condition, and includes tests, measurements, replacements, adjustments and repairs;

"maritime service" means a maritime service as defined in the Radio Regulations;

"maritime mobile service" means a maritime mobile service as defined in the Radio Regulations;

"Ministry" means the Ministry of Works, Transport and Communication;

"mobile service" means a mobile service as defined in the Radio Regulations;

"Non-GMDSS ship" means a ship provided with a radiotelephone installation or a radiotelegraph installation in accordance with the provisions of Parts I and III of these regulations;

"Organization" means the International Maritime Organization;

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"radio installation," in relation to a ship, means any radio installation provided on board a ship in accordance with these regulations, including its associated antennae, inter-connecting circuits and, where appropriate, sources of energy;

"radio log" means the diary of the radio service;

"Radio Regulations" means the regulations annexed to the International Telecommunication Union Convention:

"satellite EPIRB" means an earth station in the mobile-satellite service, the emissions of which are intended to facilitate search and rescue operations;

"ship station" means a mobile station, other than a survival craft station, in the maritime mobile service located on board a ship that is not permanently moored;

"survival craft station" means a mobile station in the maritime mobile service intended solely for survival purposes and located on any lifeboat, life-raft, or other survival equipment;

"the Act" means the Merchant Shipping Act, 1951 (Act No. 57 of 1951), and includes the regulations made thereunder;

"tons", in relation to a ship, means the gross tonnage units which are recorded on the relevant International Tonnage Certificate or the Namibian Tonnage Certificate.

Application of regulations

- **2.** (1) Subject to subregulation (2), these regulations shall apply to Namibian ships and to every ship which is not of Namibian nationality but which is chartered or operated by Namibians or Namibian companies, as follows:
 - (a) Every foreign-going passenger ship, every cargo ship of 300 tons or more and every Class A fishing vessel of which the keel was laid on or before 31 January 1995 shall comply -
 - (i) until 31 January 1999-
 - (aa) with Part II; or
 - (bb) with regulations 9 (1) (c), (d), (f) and (g) of Part II and Part III; and
 - (ii) from 1 February 1999, with Part II only.
 - (b) Every foreign-going passenger ship, every cargo ship of 300 tons or more and every Class A fishing vessel of which the keel was laid on or
 - after 1 February 1995 shall comply with Part II.

- (c) Every passenger ship other than a foreign-going passenger ship, every cargo ship of 25 tons or more but less than 300 tons, and every Class B, C and D fishing vessel shall comply with either Part II or III.
- (2) These regulations shall not apply to a ship to which the 1974 SOLAS Convention does not apply, if such ship is in Namibia or its territorial sea as defined in section 2 of the Territorial Sea and Exclusive Economic Zone of Namibia Act, 1990(Act 3 of 1990), because of stress of weather or any circumstances that the owner, master, or charterer could not have prevented.

Exemptions and equivalents

- 3. (1) The Permanent Secretary, or a staff member in the Ministry authorised by him or her, may, with or without conditions, in writing exempt any ship or class or description of ship from any provision of these regulations and may, subject to giving reasonable notice, amend or cancel any such exemption.
- (2) Without limiting the generality of subregulation (1), where these regulations require that a particular fitting, material, appliance, apparatus, item of equipment or type thereof shall be fitted or carried in a ship, or that any particular provision shall be made, or any procedure or arrangement shall be complied with, the Permanent Secretary, or a staff member in the Ministry authorised by him or her, may in writing permit any other fitting, material, appliance, apparatus, item of equipment or type thereof to be fitted or carried, or any other provision, procedure or arrangement to be made in that ship, if he or she is satisfied by trial thereof or otherwise that such fitting, material, appliance, apparatus, item of equipment or type thereof, or that any particular provision, procedure or arrangement is at least as effective as that which is required by these regulations.

Ships and persons in distress

4. Nothing in these regulations shall prevent the use by any ship, survival craft, or persons in distress of any means at their disposal to attract attention, make known their position and obtain help.

Performance standards and satellite EPIRB registration

- 5. (1) Equipment required by these regulations shall conform -
- (a) to performance standards not inferior to the performance standards adopted from time to time by the Organization; and
- (b) for ships referred to in regulation 2(1), to the performance specifications published from time to time by notice in the Gazette by the Permanent
- Secretary.

- (2) The owner of a ship referred to in regulations 2(1) and 47(1) -
- (a) that is required by these regulations to carry a satellite EPIRB; or
- (b) that is not so required, but on which a satellite EPIRB is carried,

shall register the particulars of that satellite EPIRB with the Ministry in the form prescribed in Annexure 1.

PART II GMDSS SHIP REQUIREMENTS

Definitions

6. In this Part, unless the context otherwise indicates -

"bridge-to-bridge communications" means safety communications between ships from the position from which such ships are normally navigated;

"DSC" means a digital selective calling technique using digital codes that enables a radio station to establish contact with and transfer information to another radio station or group of radio stations;

"direct-printing telegraphy" means automated telegraphy techniques;

"enhanced group calling" means a system providing a simple and automated means of receiving marine safety information on board a ship at sea and in coastal waters;

"general radiocommunications" means operational and public correspondence traffic, other than distress, urgency and safety messages, conducted by radio;

"GMDSS general operator's certificate" means the GMDSS general operator's certificate issued or recognised by the authority empowered to issue or recognise such certificates;

"GMDSS restricted operator's certificate" means the GMDSS restricted operator's certificate issued or recognised by the authority empowered to issue or recognise such certificates:

"HF" means the frequency spectrum between 3 000 kHz and 30 MHz;

"INMARSAT" means the Organization established by the Convention on the International Maritime Satellite Organization;

"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;

"locating," in relation to ships, aircraft, or persons in distress, means the finding of such ships, aircraft, or persons;

"maritime safety information" means navigational warnings, meteorological forecasts or reports and other urgent safety-related messages broadcast to ships;

"MF" means the frequency spectrum between 300 kHz and 3 000 kHz;

"polar orbiting satellite service" means a service that is based on polar orbiting satellites that receive and relay distress alerts from satellite EPIRBs;

"sea area A1" means an area within the radiotelephone coverage of at least one VHF coast station in which continuous DSC alerting is available;

"sea area A2" means an area, excluding sea area A1, within the radiotelephone coverage of at least one MF coast station in which continuous DSC alerting is available:

"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 an area outside sea areas A1, A2 and A3;

"SART" means a survival craft search and rescue radar transponder for search and rescue between ships or aircraft and survival craft;

"ship earth station" means a mobile earth station in the maritime mobile-satellite service located on board a ship;

"VHF" means the frequency spectrum between 30 MHz and 300 MHz.

Functional requirements

- 7. While at sea, a ship shall have the capacity -
- (a) subject to regulations 10(1)(a) and 12(2)(a)(d)(iii), of transmitting shipto-shore distress alerts by at least two separate and independent means, each using a different radiocommunication service;
- (b) of receiving shore-to-ship distress alerts;
- (c) of transmitting and receiving ship-to-ship distress alerts;
- (d) of transmitting and receiving search and rescue co-ordinating communications;
- (e) of transmitting and receiving on-scene communications;

- (f) of transmitting and receiving signals for locating;
- (g) of transmitting and receiving maritime safety information;
- (h) subject to regulation 16(8), of transmitting and receiving general radiocommunications to and from shore-based radio systems or networks; and
- (i) of transmitting and receiving bridge-to-bridge communications.

Radio installations

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- **8.** (1) Every radio installation referred to in regulations 9,10, 11 and 12 shall -
 - (a) be installed in such a way that no harmful interference of mechanical, electrical or other origin affects its proper use, and to ensure electromagnetic compatibility and avoidance of harmful interaction with other equipment and systems and the greatest possible degree of safety and operational availability;
 - (b) be protected against the harmful effects of water, extremes of temperature and other adverse environmental conditions:
 - (c) be provided with reliable, permanently-arranged electrical lighting, independent of the main and emergency sources of electrical energy, for the adequate illumination of the radio controls for operating such radio installation; and
 - (d) be clearly marked with the call sign, the ship station identity and such other codes as are applicable for the use of that radio installation.
- (2) Control of the VHF radiotelephone channels required for navigational safety shall be immediately available on the navigating bridge, convenient to the conning position and where necessary facilities, including portable VHF equipment, shall be available to permit radiocommunications from the wings of the navigating bridge.
- (3) Every transmitter and receiver fitted in accordance with this Part shall be provided with a suitable antennae, so constructed and sited to enable each item of radio equipment to perform its intended communication function effectively.
 - (4) (a) Where wire transmitting antennae are provided as part of the radio installation-
 - (i) it shall be fitted with suitable insulators;

- (ii) which are suspended between supports liable to whipping, they shall be protected against breakage; and
- (iii) a spare antenna, completely assembled for rapid placement, shall be carried.
- (b) Where MF and MF/HF radio installations are provided with a transmitting antenna that is not a supported wire antenna, a spare antenna of similar electrical characteristics shall be carried.

Radio equipment: General

- 9. (1) A ship shall be fitted with -
- (a) a VHF radio installation capable of transmitting and receiving -
 - (i) DSC on 156.525 MHz (channel 70), whereby it shall be possible to initiate the transmission of distress alerts on that channel from the position from which the ship is normally navigated; and
 - (ii) radiotelephony on 156.300 MHz (channel 6), 156.650 MHz (channel 13) and 156.800 MHz (channel 16);
- (b) a radio installation capable of maintaining a continuous DSC watch on VHF channel 70, which may be separate from or combined with the radio installation required by paragraph (a)(i);
- (c) (i) one SART, capable of operating in the 9 GHz band, carried on either side of the bridge and stowed so as to enable rapid placement in a survival craft in respect of cargo ships of 300 tons or more but less than 500 tons; and
 - (ii) two SART's, capable of operating in the 9 GHz band, carried on both sides of the bridge and stowed so as to enable rapid placement in a survival craft in respect of cargo ships of 500 tons or more and all passenger ships;
- (d) a receiver capable of receiving international NAVTEX service broadcasts, if the ship is engaged on voyages in any area in which an international NAVTEX service is provided;
- (e) a radio facility for the reception of maritime safety information by the INMARSAT enhanced group calling system, if the ship is engaged on voyages in any area of INMARSAT coverage but in which an international NAVTEX service is not provided: Provided that this provision shall not apply to a ship engaged on a voyage in an area where an HF direct-printing telegraphy maritime safety information service is

provided and such ship is fitted with equipment capable of receiving such service;

- (f) subject to regulation 10(3), a satellite EPIRB that is -
 - (i) capable of transmitting a distress alert through either the polar orbiting satellite service operating in the 406 MHz band or, if the ship is engaged only on voyages within areas of INMARSAT coverage, the INMARSAT geostationary satellite service operating in the 1.6 GHz band;
 - (ii) installed in an easily accessible position;
 - (iii) capable of being manually released and carried by one person into a survival craft;
 - (iv) capable of floating free if the ship sinks, and of being automatically activated when afloat; and
 - (v) capable of being activated manually; and
- (g) (i) at least three portable two-way VHF radiotelephone apparatuses in respect of a cargo ship of 500 tons or more and a passenger ship; and
 - (ii) at least two portable two-way VHF radiotelephone apparatuses in respect of a cargo ship of 300 tons or more but less than 500 tons and a fishing vessel of 24 metres or more in length.
- (2) Until 31 January 1999, a ship shall -
- (a) be fitted with a radio installation consisting of a radiotelephone distress frequency watch receiver capable of operating on 2 182 kHz; and
- (b) unless the ship is engaged on voyages in sea area A1 only, be fitted with a device for generating the radiotelephone alarm signal on 2 182 kHz.

Radio equipment: Sea area A1

- **10.** (1) In addition to meeting the requirements of regulation 9, a ship engaged on voyages exclusively in sea area A1 shall be fitted with a radio installation capable of initiating the transmission of ship-to-shore distress alerts from the position from which the ship is normally navigated, operating -
 - (a) on VHF using DSC, which requirement may be met by the EPIRB specified in subregulation (3), by installing such EPIRB close to the

- position from which the ship is normally navigated or by remote activation of the EPIRB from that position; or
- (b) through the polar orbiting satellite service on 406 MHz, which requirement may be met by the satellite EPIRB referred to in regulation 9(1)(f), either by installing the satellite EPIRB close to the position from which the ship is normally navigated or by remote activation of the satellite EPIRB from that position; or
- (c) if the ship is engaged on voyages within areas of coverage of MF coast stations fitted with DSC, on MF using DSC; or
- (d) on HF using DSC; or
- (e) through the INMARSAT geostationary satellite service, which requirement may be met by -
 - (i) an INMARSAT ship earth station, which requirement may be met by such stations capable of two-way communications, such as Standard A or C ship earth stations; or
 - (ii) the satellite EPIRB referred to in regulation 9(1)(f), either by installing the satellite EPIRB close to the position from which the ship is normally navigated or by remote activation of the satellite EPIRB from that position.
- (2) The VHF radio installation required by regulation 9(1)(a) shall have the capacity of also transmitting and receiving general radiocommunications using radiotelephony.
- (3) Ships engaged on voyages exclusively in sea area A1 may carry, in lieu of the satellite EPIRB required by regulation 9(1)(f), an EPIRB that is -
 - (a) capable of transmitting a distress alert using DSC on VHF channel 70 and providing locating by means of a SART operating in the 9 GHz band;
 - (b) installed in an easily accessible position;
 - (c) capable of being manually released and carried by one person into a survival craft;
 - (d) capable of floating free if the ship sinks, and of being automatically activated when afloat; and
 - (e) capable of being activated manually.

Radio equipment: Sea areas A1 and A2

- 11. (1) A ship engaged on voyages beyond sea area A1, but remaining within sea area A2, shall be fitted with -
 - (a) an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on -
 - (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 2 187.5 kHz, which may be separate from or combined with the radio installation required by paragraph (a)(i); and
 - (c) means of initiating the transmission of ship-to-shore distress alerts by a radio service, other than MF, operating -
 - (i) through the polar orbiting satellite service on 406 MHz, which requirement may be met by the satellite EPIRB referred to in regulation 9(1)(f), either by installing the satellite EPIRB close to the position from which the ship is normally navigated or by remote activation of the satellite EPIRB from that position; or
 - (ii) on HF using DSC; or
 - (iii) through the INMARSAT geostationary satellite service, which requirement may be met by -
 - (aa) the equipment prescribed by subregulation (3)(b); or
 - (bb) the satellite EPIRB referred to in regulation 9(1)(f), either by installing the satellite EPIRB close to the position from which the ship is normally navigated or by remote activation of the satellite EPIRB from that position.
- (2) The radio installations required by subregulations (1)(a) and (c) shall have the capability of transmitting and receiving distress alerts from the position from which the ship is normally navigated.
- (3) A ship referred to in subregulation (1) shall be capable of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy by -
 - (a) a radio installation operating on frequencies between 1 605 kHz and 4 000 kHz or between 2 000 kHz and 27 500 kHz, which requirement may

be met by the equipment referred to in subregulation (1)(a); or

(b) an INMARSAT ship earth station.

Radio equipment: Sea area A3

- **12.** (1) A ship engaged on voyages beyond sea areas A1 and A2, but remaining within sea area A3, shall comply with either subregulation (2) or (3).
- (2) Subject to subregulation (1), a ship referred to in that subregulation shall be fitted with -
 - (a) an INMARSAT ship earth station capable of -
 - (i) transmitting and receiving distress and safety communications using direct-printing telegraphy;
 - (ii) initiating and receiving priority distress calls;
 - (iii) maintaining watch for shore-to-ship distress alerts, including those transmitted to specifically defined geographical areas; and
 - (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 -
 - (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 2 187.5 kHz, which may be separate from or combined with the radio installation required by paragraph (b)(i) of this paragraph; and
 - (d) means of initiating the transmission of ship-to-shore distress alerts by a radio service operating -
 - (i) through the polar orbiting satellite service on 406 MHz, which requirement may be met by the satellite EPIRB referred to in regulation 9(1)(f), either by installing the satellite EPIRB close to the position from which the ship is normally navigated or by remote activation of the satellite EPIRB from that position; or
 - (ii) on HF using DSC; or

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- (iii) through the INMARSAT geostationary satellite service, by an additional ship earth station or by the satellite EPIRB referred to in regulation 9(1)(f), either by installing the satellite EPIRB close to the position from which the ship is normally navigated or by remote activation of the satellite EPIRB from that position.
- (3) Subject to subregulation (1), a ship referred to in that subregulation shall be fitted with -
 - (a) a 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 using -
 - (i) DSC;
 - (ii) radiotelephony; and
 - (iii) direct-printing telegraphy;
 - (b) equipment, which may be separate from or combined with the radio installation required by paragraph (a), 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, 6 312 kHz, 12 577 kHz or 16 804.5 kHz, frequencies which shall be possible to select at any time; and
 - (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, which requirement may be met by the satellite EPIRB referred to in regulation 9(1)(f), either by installing the satellite EPIRB close to the position from which the ship is normally navigated or by remote activation of the satellite EPIRB from that position; or
 - (ii) through the INMARSAT geostationary satellite service, which requirement may be met by -
 - (aa) an INMARSAT ship earth station; or
 - (bb) the satellite EPIRB referred to in regulation 9(1)(f), either by installing the satellite EPIRB close to the position from which the ship is normally navigated or by remote activation of the satellite EPIRB from that position; and

- (d) equipment capable of transmitting and receiving general radiocommunications using radiotelephony or direct-printing telegraphy 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 kHz and 27 500 kHz, which requirement may be met by equipment required by paragraph (a).
- (4) The radio installations required by subregulations (2)(a), (b) and (d) and (3)(a) and (c) shall have the capacity to be able to initiate the transmission of distress alerts from the position from which the ship is normally navigated.

Radio equipment: Sea area A4

- 13. Ships engaged on voyages in sea area A4 shall -
- (a) be provided with equipment and radio installations required by regulations 12(3)(a), (b), (c)(i) and (d); and
- (b) comply with regulation 12(4).

Radio watches

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- 14. (1) A ship, while at sea, shall maintain a continuous radio watch -
- (a) on VHF DSC channel 70, if the ship is fitted with a VHF radio installation in accordance with regulation 9(1)(b);
- (b) on the distress and safety DSC frequency 2 187.5 kHz, if the ship is fitted with an MF radio installation as required by regulation 11(1)(b) or 12(2)(c);
- on the distress and safety DSC frequencies 2 187.5 kHz and 8 414.5 kHz and also on at least one of the distress and safety DSC frequencies 4 207.5 kHz, 6 312 kHz, 12 577 kHz or 16 804.5 kHz, appropriate to the time of day and the geographical position of the ship, if the ship is fitted with an MF/HF radio installation in accordance with regulation 12(3)(b) or 13, which watch may be kept by means of a scanning receiver;
- (d) for satellite shore-to-ship distress alerts, if the ship is fitted with an INMARSAT ship earth station in accordance with regulation 12(2)(a).
- (2) A ship, while at sea, shall maintain a radio watch for broadcasts of maritime safety information on the appropriate frequency on which such information is broadcast for the area in which the ship is navigating.

- (3) Until 31 January 1999, a ship shall, while at sea and from the position from which the ship is normally navigated -
 - (a) maintain, when practicable, a continuous watch on VHF channel 16; and
 - (b) if required to carry a radiotelephone watch receiver, maintain a continuous watch on the radiotelephone distress frequency 2 182 kHz.

Source of energy

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- 15. (1) A source of energy sufficient to operate the radio installations required by this Part and to charge any batteries used as part of a reserve source of energy for such installations shall be available at all times while the ship is at sea, and at all reasonable times where it is in port.
- (2) On a ship whose keel was laid on or after 31 January 1995 an emergency source of energy complying with regulation II 1/42 or II 1/43 of the 1974 Solas Convention shall be available at all times while such ship is at sea, and at all reasonable times where it is in port.
- (3) A ship shall, in the event of failure of its main and emergency sources of electrical power, be fitted with a reserve source of energy to supply radio installations referred to in subregulation (4) with energy to conduct distress and safety radiocommunications
- (4) A reserve source of energy contemplated in subregulation (3) shall be capable of simultaneously operating the VHF radio installation required by regulation 9(1)(a) and, as appropriate for the sea area or sea areas for which the ship is fitted, either the MF radio installation required by regulation 11(1)(a), the MF/HF radio installation required by regulation 12(3)(a) or 13 or the INMARSAT ship earth station required by regulation 12(2)(a), and any of the additional requirements specified in subregulations (6), (7) and (10) of this regulation -
 - (a) on a ship whose keel was laid on or after 1 February 1995, for a period of at least one hour;
 - (b) on a ship whose keel was laid on or before 31 January 1995-
 - (i) if the emergency source of electrical energy complies with the relevant provisions of regulation 11-1/42 or 43 of the 1974 SOLAS Convention, including the supply of such energy to the radio installations, for a period of at least one hour; or
 - (ii) if the said source is not provided or does not so comply, for a period of at least six hours.

- (5) The reserve source or sources of energy referred to in subregulation (4) -
- (a) need not supply independent HF and MF radio installations simultaneously; and
- (b) shall be independent of the ship's propelling power and main electrical system.
- (6) Where, in addition to the VHF radio installation, two or more of the other radio installations specified in subregulation (4) can be connected to the reserve source of energy referred to in that subregulation, it shall be capable of simultaneously supplying, for the period specified in paragraph (a) or (b) of that subregulation, as the case may be, the VHF radio installation and -
 - (a) all other radio installations that can be connected to the reserve source of energy at the same time; or
 - (b) if only one of such other radio installations can be connected to the reserve source of energy at the same time as the VHF radio installation, whichever of the other radio installations that consumes the most power.
- (7) The reserve source of energy referred to in subregulation (4) may be used to supply the electrical lighting required by regulation 8(2)(c).
- (8) Where a reserve source of energy consists of rechargeable accumulator batteries -
 - (a) a means of automatically charging such batteries, capable of recharging them to minimum capacity requirements within 10 hours, shall be provided; and
 - (b) the capacity of such battery or batteries shall be checked when the ship is not at sea, using an appropriate method, at intervals not exceeding 12 months.
- (9) The siting and installation of accumulator batteries that provide a reserve source of energy shall be located above the uppermost continuous deck and shall be readily accessible from the open deck, and in such installation it shall be ensured that -
 - (a) the degree of service specified by the manufacturer is not impaired;
 - (b) the lifetime specified by the manufacturer is not negatively affected;
 - (c) the safety precautions specified by the manufacturer are followed;

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(d) battery temperatures remain within the manufacturer's specifications, whether under charge or idle; and

- (e) when fully charged, the batteries provide at least the minimum number of hours of operation specified by the manufacturer, under all weather conditions.
- (10) 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 the proper performance of such equipment, means shall be provided to ensure a continuous supply of such information in the event of failure of the ship's main or emergency source of electrical energy.
- (11) For the purpose of calculating the required capacity of the reserve source of energy, the total current used in the calculation shall be equal to the sum of the total current consumption of all the radio installations that can be connected simultaneously to the source of energy, calculated by adding -
 - (a) the current consumption of the VHF receiver;
 - (b) one fifth of the current consumption of the VHF transmitter;
 - (c) the current consumption of an MF/HF receiver and of the transmitter when operation of the "press to transmit" switch will make it ready for immediate transmission;
 - (d) one third of the current that may be drawn by an MF/HF transmitter for speech transmission on the frequency at which the current consumption of the transmitter is at its maximum;
 - (e) the current consumption of an INMARSAT ship earth station when it is receiving transmissions;
 - (f) one quarter of the current that may be drawn by an INMARSAT ship earth station when it is transmitting in the mode in which the current consumption is at its 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.

Maintenance requirements

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- **16**. (1) For the purposes of this regulation "equipment" mean all radio equipment necessary for providing general radiocommunications as required by this Part.
- (2) Any equipment shall be designed in such a way that the main units can be replaced readily, without elaborate recalibration or readjustment.

- (3) Where applicable, equipment shall be constructed and installed in such a way so as to be readily accessible for inspection and on-board maintenance purposes.
- (4) Adequate information shall be readily available to properly operate and maintain equipment.
- (5) Adequate tools and spare parts shall be provided by the owner to maintain equipment.
- (6) On ships engaged on voyages in sea areas A1 and A2, compliance with regulation 7 shall be ensured by using such methods as duplication of equipment, shore-based maintenance or at-sea electronic maintenance capability, or a combination of these.
- (8) On ships engaged on voyages in sea areas A3 and A4, compliance with regulation 7 shall be ensured by using a combination of at least two of the methods referred to in subregulation (6).
- (9) A ship shall not be unseaworthy by reason of a malfunction of the equipment for providing general radiocommunications as required by regulation 7(h), nor shall it be a reason for delaying a ship in a port where repair facilities are not readily available, provided that the ship is capable of performing all distress and safety radiocommunication functions.
- (10) While a ship is at sea, the master of such ship shall designate a person to carry out the appropriate tests and checks specified in Annexure 2 and, if any radio installation is not in working order, such person shall inform the master thereof and enter the relevant details in the radio log.

Radio personnel

17. A GMDSS ship shall carry the number of GMDSS operators required by the Radio Regulations.

Radio records

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18. The master shall keep a radio log or cause a radio log to be kept by a radio officer or radiotelephone operator, as the case may be, setting out the particulars prescribed by Annexure 3 of all incidents connected with the radiocommunication service that appear to be of importance to the safety of life at sea.

PART III

NON-GMDSS SHIP REQUIREMENTS

DIVISION A: GENERAL

Definitions

19. In this Part, unless the context otherwise indicates -

"existing installation" means -

- (a) an installation wholly installed before the commencement of these regulations; or
- (b) an installation part of which was installed before the said commencement and the rest of which consists of parts installed in replacement of identical parts or of parts that comply with the relevant provisions of this Part;

"new installation" means any installation that is not an existing installation;

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

"radio installation" means a radiotelegraph installation or a radiotelephone installation, as the case may be;

"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 by an authority authorised to issue or recognise such certificate and who is employed in the radiotelegraph station of a radiotelegraph ship;

"radiotelegraph ship" means a ship fitted with a radiotelegraph installation in accordance with Part I and this Part;

"radiotelegraph station" means the radiotelegraph operating room on a ship

"radiotelephone installation" means the equipment operating in the frequency bands 1605 kHz - 4 500 kHz and 156.025 MHz - 162.025 Mhz;

"radiotelephone operator" means a person holding a valid appropriate certificate issued or recognised by the relevant authority authorised to issue or recognise such certificate;

"radiotelephone ship" means a ship fitted with a radiotelephone installation in accordance with Part I and this Part;

"radiotelephone station" means the location of a radiotelephone installation on a ship;

"radio watch", in relation to -

- (a) a radiotelegraph ship, means listening on the international distress frequencies 500 kHz, 2 182 kHz and 156.800 MHz;
- (b) a radiotelephone ship, means listening on the international distress frequency 2 182 kHz and 156.800 Mhz; and
- (c) a VHF radiotelephone ship, means listening on the international distress channel 16 (156.800 MHz);

"silence period" means a period of 3 minutes beginning at 15 minutes and at 45 minutes past every hour on 500 kHz, and at every hour and at 30 minutes past every hour on 2 182 kHz;

"VHF radiotelephone installation" means the equipment operating in the frequency band 156.025 MHz -162.025 Mhz,

"VHF radiotelephone ship" means a ship fitted only with a VHF radiotelephone installation in accordance with Part I and this Part; and

"VHF radiotelephone station" means the location of a VHF radiotelephone installation on a ship.

Provision of radiotelephone or radiotelegraph installations

- **20.** (1) A passenger ship, other than a foreign-going passenger ship, a cargo ship of 100 tons or more but less than 1 600 tons, and a Class A, B and C fishing vessel shall be fitted with -
 - (a) a radiotelephone installation that includes a transmitter, a receiver, a 2 182 kHz radiotelephone distress frequency watch receiver or radiotelephone auto alarm, a radiotelephone alarm signal generating device and a NAVTEX receiver; or
 - (b) a radiotelegraph installation that includes -

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(i) a main installation comprising a main transmitter, a main receiver, a radiotelegraph automatic alarm signal keying device, a 2 182 kHz radiotelephone distress watch keeping receiver, or radiotelephone automatic alarm receiver, a radiotelephone distress frequency transmitter, a radiotelephone alarm signal generating device and a NAVTEX receiver; and

- (ii) a reserve installation comprising a reserve transmitter and a reserve receiver: Provided that in ships of less than 1 600 tons, if the main transmitter complies with all the requirements for the reserve transmitter, such a reserve transmitter need not be provided.
- (2) A foreign-going passenger ship, a cargo ship of 1 600 tons or more and a fishing vessel of 75 metres and more in length shall be fitted with a radiotelegraph installation that includes -
 - (a) a main installation comprising a main transmitter, a main receiver, a radiotelegraph automatic alarm signal keying device, radiotelegraph automatic alarm receiver and selector, a 2182 kHz radiotelephone distress frequency watchkeeping receiver or radiotelephone automatic alarm receiver, a radiotelephone distress frequency transmitter, a radiotelephone alarm signal generating device and a NAVTEX receiver; and
 - (b) a reserve installation comprising a reserve transmitter and a reserve receiver.
- (3) Every ship of 1 600 tons or more shall be fitted with a direction-finder installation, unless a global positioning system is fitted.
 - (4) (a) A passenger ship and a cargo ship of 500 tons or more shall be fitted with at least three portable two-way VHF radiotelephone transceivers.
 - (b) A cargo ship of 300 tons or more but less than 500 tons and a fishing vessel of 24 metres or more in length shall be fitted with at least two portable two-way VHF radiotelephone transceivers.
- (5) Every ship of 25 tons *or* more shall be fitted with a VHF radiotelephone installation that includes a transmitter and a receiver.
- (6) A ship of 25 tons or more that proceeds beyond 40 nautical miles of a coast station shall be fitted with a radiotelephone installation required by subregulation (1)(a).
- (7) From 1 February 1999 a ship of 25 tons or more that proceeds beyond 40 nautical miles of a coast station shall be fitted with at least *one* SART capable of operating in the 9 GHz band carried on either side of the bridge and stowed in such a manner so as to enable rapid placement in a survival craft.

Interference with reception and with other installations

21. (1) Any interference or mechanical noise produced by -

- (a) a radio installation, shall, while the ship in question is at sea, at no time interfere with the efficient operation of any other equipment installed in that ship;
- (b) any equipment in such ship, shall, while such ship is at sea or in a port where the master has required a radio watch, at no time prevent the effective reception of radio signals by means of any such radio installation.
- (2) Where it is impracticable to erect efficient and properly installed antennae for broadcast receivers that do not interfere with the efficiency of the radio installation, the ship shall be provided with a communal antenna system for broadcast receivers.

Testing of equipment

- 22. (1) While a ship is at sea, the radio officer, in the case of a radiotelegraph ship, and the radiotelephone operator, in the case of a radiotelephone ship, shall carry out the appropriate equipment tests and battery and reserve power checks prescribed by Annexure 4.
- (2) Where more than one radio officer or more than one radiotelephone operator is carried on the ship, the master shall designate the officer or operator for the purposes of subregulation (1).
- (3) If any of the equipment required by Division A in this Part is not in a satisfactory working condition, the radio officer or radiotelephone operator who discovers the deficiency shall, without delay, report such fact to the master and enter the details in the radio log.

Charging of batteries

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- 23. (1) Where batteries are provided as a source of energy for any part of the equipment required by Division A in this Part, means shall be provided on board the ship for recharging such batteries from the ship's main source of electrical energy, and the charging facilities shall be adequate to ensure that the batteries can be fully charged within a period of 16 hours.
- (2) Where more than one battery contemplated in subregulation (1) are provided, and each has sufficient capacity to comply with regulation 34(1) or 42(3), as the case may be, the charging facilities contemplated in subregulation (1) shall be adequate to ensure that each battery can be fully charged within a period of 16 hours, but not necessarily simultaneously.
- (3) Where practicable, the batteries referred to in subregulation (1) shall be fully charged on every occasion immediately before the ship leaves port.

- (4) While the ship is at sea, the batteries forming part of -
 - (a) the main radiotelegraph installation, radiotelephone installation or VHF radiotelephone installation and, in the case of a radiotelegraph ship, the reserve radiotelegraph installation, shall be brought to the normal fully-charged condition daily;
 - (b) the motor lifeboat fixed radiotelegraph installation and the survival craft portable radio equipment, if of a type requiring charging, shall be brought to the normal fully-charged condition weekly; and
 - (c) the survival craft two-way VHF radiotelephone apparatus, if of a type requiring charging, shall be brought to the normal fullycharged condition whenever necessary and at least at intervals not exceeding one week.

Spare parts, tools and testing equipment

24. Sufficient spare parts, tools and testing equipment appropriate to the ship, but at least those prescribed by Annexure 5, shall be provided to enable the radio installation to be maintained in a satisfactory working condition while the ship is at sea.

Maintenance requirements

- **25.** (1) A radio installation shall be in a satisfactory working condition whenever a ship goes to sea.
- (2) Where any additional radio equipment not required by Division A in this Part is provided on a ship, that equipment shall be of such a design that any malfunction of any part thereof will not adversely affect the operation of any radio installation required by this Part.
- (3) A radio installation shall be in a satisfactory working condition at all times while a ship is at sea, unless there is a defect in the radio installation or maintenance is being carried out.
- (4) All equipment forming part of a radio installation shall be, as far as is ascertainable, reliable and shall be constructed and installed in such a manner that it is readily accessible for maintenance purposes.
- (5) The owner of the ship shall provide adequate information and instructions for the use and maintenance of each radio installation, and such information shall be available for use when the radio installation is being operated, tested or serviced.

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- (6) There shall be available on board a Namibian ship and in the radiotelegraph station of a radiotelegraph ship -
 - (a) a rigging plan of the fitted antennae showing -
 - (i) elevation and plan views of the antennae and, on a radiotelegraph ship, its position on the ship relative to the radiotelegraph operating room;
 - (ii) the dimensions of transmitting antennae; and
 - (iii) the vertical distance from the load line or deck line indicating the greatest depth to which the ship may at any time or any place be submerged to the base of each radiotelegraph transmitting antennae, or the height of the antenna above the lead-out insulator in respect of a radiotelephone transmitter; and
 - (b) complete information on the wiring of the radio installations, except for existing installations on radiotelephone ships, showing all cable interconnections, terminations and voltages and sources of energy.

DIVISION B: VHF RADIOTELEPHONY

VHF radiotelephone station

- **26.** (1) The VHF radiotelephone installation shall be in the upper part of the ship and control of the VHF channels required for navigational safety shall be immediately available on the navigating bridge convenient to the conning position and, where necessary, facilities shall be available to permit radiocommunications from the wings of the navigating bridge.
- (2) A notice of instructions giving a clear summary of the distress, urgency and safety procedures shall be displayed in full view of each VHF radiotelephone operating position.
- (3) In radiotelegraph ships means shall be provided in new installations for reception by the VHF radiotelephone installation to be monitored in the radiotelegraph station during distress incidents.

Provision of antennae

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27. (1) A ship fitted with a VHF radiotelephone installation shall be provided with an antenna suitable for the efficient radiation and reception of signals in the frequency band 156.025 MHz - 162.025 MHz.

(2) An antenna referred to in subregulation (1) shall be vertically polarised and, so far as practicable, have an unobstructed view in all directions.

Sources of energy

- **28.** (1) While the ship is at sea, and at all reasonable times while it is in port, a source of energy sufficient to operate the VHF radiotelephone installation at its nominal rated output power shall at all times be available.
- (2) Where batteries are provided as a source of energy for any part of the equipment required by Division B in this Part, such batteries shall have the capacity required by subregulation (1), and shall, while the ship is at sea, be maintained at all times in a condition 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.
 - (3) (a) In passenger ships, in cargo ships of 300 tons or more and in fishing vessels of 24 metres or more in length, the VHF radiotelephone installation shall, where practicable, also be capable of being operated from an alternative source of energy situated in the upper part of the ship, unless the source of energy required by subregulation (1) is situated there.
 - (b) The alternative source of energy referred to in paragraph (a) may be the reserve source of energy required by regulation 34(2) or 42(2), in which case the VHF usage thereof shall be limited to distress, urgency and safety communications.
- (4) Where provision has been made for operating the VHF radiotelephone installation from alternative sources of energy, clearly indicated means shall be provided for the quick changing from one source of energy to another.

Use of VHF radiotelephone installation

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29. The VHF radiotelephone installation shall be operated only by or under the supervision of a radiotelephone operator, and such radiotelephone operator shall ensure that persons using the installation have practical knowledge of operating the VHF equipment and general knowledge of the Radio Regulations applying to VHF radiotelephone communications and specifically of those relating to distress, urgency and safety signals.

VHF radio watch

- **30.** (1) While at sea, a ship provided with a VHF radiotelephone installation shall maintain a continuous watch on the navigating bridge on 156.8 MHz (VHF channel 16).
 - (2) A watch referred to in subregulation (1) may be discontinued when -
 - (a) the receiver is being used for traffic on a frequency other than 156.8 MHz (VHF channel 16);
 - (b) the ship is maintaining a radio watch on a frequency other than the said VHF channel 16 for the purpose of a port operation, ship movement, or safety of navigation service;
 - (c) at the direction of the master, the watch is being maintained elsewhere in the ship; or
 - (d) in the opinion of the master, the watch is prejudicial to the safety of the ship.
- (3) Where a watch has been discontinued as contemplated in subregulation (2)(c) or (d), entries shall be made in the ship's radio log of the times and duration for which the watch on the navigating bridge was so 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) During a watch referred to in subregulation (1) a written summary shall be maintained of all communications relating to distress, urgency and safety traffic received or transmitted on the VHF radiotelephone installation.
- (5) While at sea, a ship shall maintain a radio watch for broadcasts of maritime safety information on the appropriate channel or channels on which such information are broadcast for the area in which the ship is navigating.

DIVISION C: RADIOTELEPHONY

Radiotelephone station

- 31. (1) Where a ship has been fitted with a radiotelephone station such station shall be situated in the upper part of such ship and in such a way that it is protected to the greatest possible extent from interference and noise that might impair the accurate reception of messages and signals.
- (2) There shall be an efficient two-way means of communication, independent of the ship's main communication system and main source of electrical

energy, between the radiotelephone station and any other place from which the ship is normally navigated, except where the radiotelephone installation is located within normal voice range of the place from which the ship is normally navigated.

- (3) A reliable clock on which the marking of the silence periods are clearly visible, shall be securely mounted in such a position that the entire dial, of not less than 125 millimetres in diameter and a concentric second-hand, can be easily and accurately observed from the radiotelephone operating position.
 - (4) (a) A reliable emergency light, independent of the system that supplies the normal lighting of the radiotelephone installation, shall be provided and permanently arranged to provide adequate illumination of the operating controls of the radiotelephone installation, the clock required by subregulation (3), and the notice of instructions required by subregulation (6).
 - (b) The emergency light referred to in paragraph (a) shall be controlled by two-way switches, which shall be clearly labelled to indicate its purpose, placed 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 shall be provided.
- (5) Where the source of energy for a radiotelephone installation consists of a battery or batteries, means shall be provided at the radiotelephone station for assessing the charge condition, charging rate and voltage.
- (6) A notice of instructions giving a clear summary of the radiotelephone distress, urgency and safety procedures shall be displayed in full view of each radiotelephone operating position.
- (7) Means shall be provided at the radiotelephone station for testing the proper functioning of -
 - (a) the radiotelephone alarm signal generating device, by ensuring that the device can modulate the radiotelephone transmitter satisfactorily and that the transmitter in question does not radiate signals during such testing; and
 - (b) the muting circuits of the radiotelephone distress frequency watch receiver or the radiotelephone auto alarm.

Provision of antennae

32. (1) A radiotelephone ship shall be provided with suitable transmitting and receiving antennae and insulators.

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- (2) Where wire antennae are suspended between supports liable to whipping, they shall be protected against breakage.
 - (3) A radiotelephone ship shall carry -
 - (a) if the radiotelephone antenna is a supported wire antenna, a spare antenna completely assembled for rapid replacement of such antenna;
 - (b) if the radiotelephone antenna is not a supported wire antenna, a spare antenna of similar electrical characteristics as such antenna, complete with the necessary materials and other means to be rapidly erected while at sea.
- (4) A suitable antenna shall be provided for, and normally be connected to, the radiotelephone distress frequency watch receiver or the radiotelephone auto alarm.

Range of radiotelephone transmitter

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- **33.** (1) The normal range of a radiotelephone transmitter shall not be less than 150 nautical miles on 2 182 kHz from ship to ship between sunrise and sunset and under normal propagation conditions.
 - (2) (a) Subject to subregulation (3), the range of a radiotelephone transmitter referred to in subregulation (1) shall be determined by calculating the metre-amperes (which is the product of the maximum height of the antenna in metres, measured from the lead-out insulator and the current in amperes, measured at the base of the antenna).
 - (b) A radiotelephone transmitter shall comply with subregulation (1), if the product calculated in accordance with paragraph (a) is not less than -
 - (i) 7.5 metre-amperes, in the case of an antenna which has a horizontal top-length of not less than 50 per cent of its maximum height, measured from the lead-out insulator; or
 - (ii) 12.8 metre-amperes, in the case of any other antenna.
- (3) If an antenna arrangement causes difficulties in determining the range of the radiotelephone transmitter by calculation, its range shall be determined by trial.
- (4) A radiotelephone transmitter referred to in subregulation (1) shall have a minimum rated power output of not less than 100 watts peak envelope power (PEP), measured between the transmitter final stage and the antenna tuning unit (ATU).

Source of energy

- **34.** (1) At all times while a radiotelephone ship is at sea, and at all reasonable times when it is in port, a main source of energy, sufficient to operate the radiotelephone installation over the normal range required by regulation 33, shall be available.
- (2) Where the source of energy referred to in subregulation (1) are batteries, such batteries shall have the capacity required by that subregulation, and, while the ship is at sea, be maintained 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 transmitter, where operation of the "press to transmit" switch will make it ready for the immediate transmission of speech;
 - (b) one third of the current that 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.
- (3) In respect of radiotelephone installations in cargo ships of Namibian nationality of 300 tons or more, ships of 300 tons or more but less than 1 600 tons and fishing vessels of 24 metres or more in length, a reserve source of energy shall be provided in the upper part of the ship, unless the main source of energy is situated there.
- (4) The reserve source of energy referred to in subregulation (3) shall be used only to supply -
 - (a) the radiotelephone installation;
 - (b) the emergency light required by regulation 31(4);
 - (c) the device for generating the radiotelephone alarm signal by automatic means;
 - (d) the VHF radiotelephone installation;
 - (e) the direction-finder (if fitted) or GPS;

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- (f) a number of low-power emergency circuits that are wholly confined to the upper part of the ship, on condition that such circuits are adequately fused and capable of being readily disconnected and that such source has sufficient capacity to carry the additional load; and
- (g) a NAVTEX receiver.

Radiotelephone operators

35. A radiotelephone ship shall carry the number of radiotelephone operators required by the Radio Regulations.

Radio watch

36. While at sea, a radiotelephone ship shall maintain a continuous watch on the radiotelephone distress frequency from the place from which the ship is normally navigated, by use of a radiotelephone distress frequency watch receiver or a radiotelephone auto alarm.

Radio log: Radiotelephone ship

- 37. (1) The radio log required by the Radio Regulations for a radiotelephone ship shall be kept at the place where radio watch is maintained during the voyage.
- (2) Where a radio watch is carried out in accordance with regulation 36, the radiotelephone operator, master, officer or crew member concerned, as the case may be, shall enter in the radio log the particulars prescribed by Annexure 6.
- (3) The radiotelephone operator or, if there is more than one such operator, the operator designated by the master shall daily inspect and sign the entries for that day in the radio log, certifying that the requirements of this Part have been complied with.
- (4) The master shall daily inspect and sign the entries for that day in the radio log.
- (5) The radio logbooks shall be available for inspection by officers authorised by the Permanent Secretary to make such an inspection.
- (6) The radio log forms part of the official logbook required by the Act, but shall be kept separate from the official logbook and is a document relating to the navigation of the ship for the purposes of the Act.

DIVISION D: RADIOTELEGRAPHY

Radiotelegraph station

- **38.** (1) Where a ship has been fitted with a radiotelegraph installation such installation shall be installed in such a way that it is protected against the harmful effect of water and extremes of temperature and readily accessible for immediate use in case of distress and for repair.
- (2) A radiotelegraph ship shall be provided with a radiotelegraph station from where the main and reserve radiotelegraph installation shall be operated.
- (3) Subject to regulation 42, the main and reserve radiotelegraph installations of a radiotelegraph ship shall be electrically separate and electrically independent of each other.
- (4) Calibration tables and 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 that are directly calibrated.
- (5) The sleeping accommodation of at least one radio officer shall be situated as near as practicable to the radiotelegraph station.

Requirements for radiotelegraph stations

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- **39.** A radiotelegraph station shall -
- (a) be so located that no interference from extraneous mechanical or other noise will be caused to the proper reception of radio signals;
- (b) be located as high in the ship as is practicable;
- (c) be of sufficient size and have adequate ventilation to enable the main and reserve radiotelegraph installations to be operated efficiently and maintained properly;
- (d) not be used for any purpose that would interfere with the operation of the installation;
- (e) be provided with an efficient two-way means of communication between the bridge and any other place from which the ship is normally navigated, independent of the ship's main communication system and main source of electrical energy;
- (f) be provided with a reliable clock, on which the marking of silence periods are clearly indicated, and which shall be securely mounted in such a

position that the entire dial, of not less than 125 millimetres in diameter and a concentric second-hand, 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, independent of the system that supplies the normal lighting to the radiotelegraph installation, consisting of an electric lamp operating from the reserve source of energy and permanently arranged to provide adequate illumination of the operating controls of the main and reserve radiotelegraph installations and the clock required by paragraph (f), and such emergency light shall be controlled by two-way switches, which shall be clearly labelled to indicate its purpose, placed near the main entrance to the room in which the radiotelegraph installation is fitted and at the radiotelegraph operating position;
- (h) be provided with an electric inspection lamp complete with a flexible lead of adequate length and operated from the reserve source of energy, and a serviceable flashlight;
- (i) be provided with a chair capable of being fixed at the radiotelegraph operating position; and
- (ii) be provided with an alternative means of exit where the ship is a Namibian ship.

Provision of antennae

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- **40.** (1) A radiotelegraph ship shall be provided with suitable *main and reserve* transmitting and receiving antennae and insulators.
- (2) Where wire antennae are suspended between supports liable to whipping, they shall be protected against breakage.
- (3) The performance of the radiotelegraph installation shall not be adversely affected by the connection of any other equipment to the antennae.
- (4) A radiotelegraph ship exempted under regulation 3 from carrying a reserve transmitting antenna, shall carry -
 - (a) if the main transmitting antenna is a supported wire antenna, a spare antenna completely assembled for rapid placement;
 - (b) if such antenna is not a supported wire antenna, a spare antenna of similar electrical characteristics as such antenna, complete with the necessary materials and other means to be rapidly erected at sea.

- (5) To erect a suitable reserve transmitting antenna, a radiotelegraph ship shall be provided with sufficient antenna wire, insulators and other necessary means.
- (6) The main transmitting antenna and the reserve transmitting antenna shall, where practicable, be so rigged that damage to the one will not affect the efficiency of the other.
 - (7) Means shall be provided for quickly connecting -
 - (a) the main transmitting antenna and the reserve transmitting antenna (if fitted) 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.
- (8) A suitable antennae shall be provided for, and normally be connected to, the radiotelegraph auto alarm and the radiotelephone distress frequency watch receiver or the radiotelephone auto alarm.

Range of radiotelegraph transmitter

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41. (1) The main and reserve transmitters shall, where connected to the main antenna, have the minimum normal range on 500 kHz as set out in Table 1 from ship to ship between sunrise and sunset and under normal propagation conditions.

Table 1

	Minimum normal range in nautical miles	
	Main transmitter	Reserve transmitter
All passenger ships and ships of 1 600 tons or more and fishing vessels 75 metres and over in length	150	100
Ships of less than 1 600 tons and fishing vessels less than 75 metres in length	100	75

- (2) (a) Subject to subregulation (3), the range of the radiotelegraph transmitter shall be determined by calculating the metre-amperes (which is the product of the maximum height of the antenna in metres, measured from the load water-line indicating the greatest depth to which the ship may at any time or at any place be submerged and the RMS current (in amperes), measured at the base of the antenna).
 - (b) A radiotelegraph transmitter shall comply with subregulation (1) if the product calculated in accordance with paragraph (a) is not less than the appropriate value specified in Table 2 or 3, as the case may be.

Table 2 Table 3

Antennae other than self-supporting		Self-supporting and vertical wire antennae		
Metre-ampere	Normal range in nautical miles	Metre-ampere		
76	150	150		
45	100	85		
34	75	60		
	Metre-ampere 76 45	Metre-ampere Normal range in nautical miles 76 150 45 100		

(3) If an antenna arrangement causes difficulties in determining the range of a transmitter by calculation, its range shall be determined by trial.

Source of energy

- **42.** (1) At all times while the ship is at sea, and at all reasonable times when it is in port, a main source of energy, sufficient to operate the main radiotelegraph installation over the normal range required by regulation 41 and to charge any batteries forming part of the radiotelegraph installation, shall be available.
- (2) The reserve radiotelegraph installation shall be provided with a source of energy independent of the ship's propelling power and main electrical system.
- (3) Means shall be provided for bringing the source of energy for the reserve radiotelegraph installation into immediate operation and shall be situated in the radiotelegraph station or, if it is not possible, in a place close thereto, and such place shall be provided with an electric lamp.
 - (4) The source of energy for the reserve radiotelegraph installation shall -
 - (a) where possible, consist of batteries, but such batteries shall not be fitted in the place where the means contemplated in subregulation (3) for

bringing such source of energy into immediate operation has been placed;

- (b) under all circumstances, be capable of being put into operation rapidly;
- (c) be of sufficient capacity, and, while the ship is at sea, be maintained 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 radiotelegraph transmitter current consumption with the key down (mark);
 - (ii) one half of the reserve radiotelegraph transmitter consumption with the key up (space);
 - (iii) the current required to operate the reserve radiotelegraph receiver, and
 - (iv) the current consumption of the additional circuits connected to the reserve source of energy specified in subregulations (5) and (6);
- (d) where the VHF radiotelephone installation is capable of being connected to the reserve source of energy, be of sufficient capacity to operate the reserve radiotelegraph transmitter and the VHF radiotelephone installation simultaneously, unless means are provided to ensure that such simultaneous operation is not possible;
- (e) be placed as high in the ship as is practicable and shall be readily accessible to the radio officer.
- (5) Subject to subregulation (6), the source of energy referred to in subregulation (2) shall be used only to supply -
 - (a) the reserve radiotelegraph installation;
 - (b) the automatic alarm signal keying device (if it is electrically operated);
 - (c) the radiotelegraph auto alarm;
 - (d) the emergency light required by regulation 39(g);
 - (e) the direction-finder or GPS;
 - (f) the VHF radiotelephone installation;
 - (g) the device for generating the radiotelephone alarm signal by automatic means; and

- (h) any device specified in the Radio Regulations to permit changeover from transmission to reception or from reception to transmission.
- (6) Notwithstanding subregulation (5), in ships other than passenger ships the source of energy referred to in that subregulation may be used to provide energy for low-power emergency circuits that are wholly confined to the upper part of the ship, on condition that such circuits are adequately fused and can be readily disconnected and that the said source is of sufficient capacity to carry the additional load.
- (7) For the purposes of this Part, the current consumption of the VHF radiotelephone installation shall be the 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.

Radio officers

43. A radiotelegraph ship shall carry the number of radio officers prescribed by the Radio Regulations.

Radio watch

- **44.** (1) While at sea, a radiotelegraph ship shall maintain a continuous watch on -
 - (a) the radiotelephone distress frequency at the place 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 has a radiotelegraph auto alarm and the means to cause an audible warning to be given in the radiotelegraph station, 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 working hours prescribed in the Radio Regulations for such category of ship station; and
- (ii) on all occasions during the working hours prescribed in the Radio Regulations for such category of ship station and when the radio officer is performing other duties in accordance with subregulation (3) and it is impracticable to listen by headphones or loudspeaker, but the radio watch shall during the silence periods in working hours be maintained on 500

kHz by a radio officer using headphones or loudspeaker;

- (c) the VHF radiotelephony distress channel 16, at the place where the ship is normally navigated.
- (2) While at sea, a radiotelegraph ship shall maintain in the radiotelegraph station the working hours prescribed in the Radio Regulations for ship stations -
 - (a) of the first category as defined in those Regulations, in respect of ships not provided with a radiotelegraph auto alarm;
 - (b) of the second category as so defined, in respect of passenger ships provided with a radiotelegraph auto alarm and carrying or certificated to carry more than 250 passengers and engaged on a voyages exceeding 16 hours' duration between consecutive ports;
 - (c) of the third category as so defined, in respect of all other radiotelegraph ships provided with a radiotelegraph auto alarm.
- (3) (a) Subject to subregulation (5), where a radio officer is required by this regulation to listen on the radiotelegraph distress frequency, such radio officer may, if it is impracticable to listen by split headphones or loudspeaker, discontinue listening on that frequency for such period as he or she is handling traffic on other frequencies or performing other essential radio duties.
 - (b) In addition to the provisions of paragraph (a), on ships other than multiradio officer passenger ships, the radio officer may, when it is impractical to listen by split headphones or loudspeaker, discontinue such listening by order of the master, in order to carry out maintenance required to prevent imminent malfunction of equipment for radiocommunication used for safety, radio navigational equipment, or other electronic navigational equipment, including its repair: Provided that -
 - (i) the radio officer is appropriately qualified to perform such duties; and
 - (ii) the ship is fitted with a Radiotelegraph Automatic Alarm Receiver.
- (4) While a ship fitted with a radiotelegraph auto alarm is at sea, such an alarm shall be in operation whenever there is no radio watch being kept on the radiotelegraph distress frequency by a radio officer using headphones or a loudspeaker and, whenever practicable, during direction-finding operations.
- (5) For the purposes of subregulation (3)(a), the term "essential radio duties" includes urgent repairs of -

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- (a) equipment for radiocommunication used for safety; or
- (b) radio navigational equipment by order of the master.

Radio log: Radiotelegraph ships

- **45.** (1) The radio log required by the Radio Regulations for a radiotelegraph ship shall be kept in the radiotelegraph station during the voyage.
- (2) Every radio officer on board a radiotelegraph ship shall, when on duty, enter in the radio log the particulars prescribed by Annexure 7.
- (3) The radio officer, or if there is more than one radio officer, the chief radio officer, shall daily inspect and sign the entries for that day in the radio log, certifying that the requirements of this Part have been met.
- (4) The master of the ship shall daily inspect and sign the entries for that day in the radio log.
- (5) The radio logbooks shall be available for inspection by officers authorised by the Permanent Secretary to make such an inspection.
- (6) The radio log forms part of the official logbook required by the Act, but shall be kept separate from the official logbook, and is a document relating to the navigation of the ship for the purposes of the Act.

DIVISION E: RADIO EQUIPMENT FOR LIFEBOATS AND SURVIVAL CRAFT

Radio equipment for lifeboats and survival craft

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- **46.** (1) The motor lifeboat fixed radiotelegraph installation, the portable radio equipment for survival craft, the two-way VHF radiotelephone apparatus for survival craft, and the survival craft EPIRBs required by or under the Act shall comply with the appropriate performance standards as prescribed by regulation 5(1) and shall be tested in accordance with regulation 22(1).
- (2) The battery included in motor lifeboat fixed radio equipment shall be used only for the operation of such equipment and searchlight.

DIVISION F: SUPPLEMENTARY

Supplementary requirements for ships of 25 tons or more but less than 300 tons

- **47.** (1) Every ship of 25 tons or more but less than 300 tons that proceeds beyond the defined fishing zone from the coast shall comply with regulations 5(2) and 9(1)(f).
 - (2) (a) Within one year from the commencement of these regulations, a ship referred to in subregulation (1) shall be provided with a portable two-way VHF radiotelephone apparatus capable of being used for on-scene communication between survival craft, survival craft and the ship, and survival craft and rescue units.
 - (b) An apparatus referred to in paragraph (a) -
 - (i) may be used for on-board communication, if it is capable of operating on appropriate frequencies; and
 - (ii) shall be made watertight either through integral design or by other suitable means.

PART IV PENALTIES

Detention

48. A ship that does not comply with these regulations may be detained in pursuance of section 243 of the Act.

Penalties and defences

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- **49.** (1) The master or owner of a ship to which these regulations apply and who fails to comply with or contravenes regulation 2(1), 5, 7,8,9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 46 or 47 shall be guilty of an offence, and on conviction be liable to a fine not exceeding N\$ 400 or to imprisonment for a period not exceeding one year, or to both such fine and such imprisonment.
- (2) A radio officer who contravenes regulation 18, 22, 44 or 45 shall be guilty of an offence, and on conviction be liable to a fine not exceeding N\$400 or to imprisonment for a period not exceeding one year, or to both such fine and such imprisonment.

- (3) A radiotelephone operator who contravenes regulation 18, 22, 29, 30, 36 or 37 shall be guilty of an offence, and on conviction be liable to a fine not exceeding N\$400 or to imprisonment for a period not exceeding one year, or to both such fine and such imprisonment.
- (4) A person charged under this regulation may, as a good defence, show that he or she took all reasonable precautions to avoid the commission of the offence.

Short title

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50. These regulations shall be called the Merchant Shipping (Radio Installations) Regulations.

Annexure 1 - Satellite (406 MHz) EPIRB registration (regulation 5(2))

NAMIBIA MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION DIRECTORATE: MARITIME AFFAIRS MERCHANT SHIPPING ACT, 1951 (ACT NO. 57 OF 1951)

SATELLITE (406 MHz) EPIRB REGISTRATION

Please complete this form in duplicate and return one copy to the Ministry of Works, Transport and Communications, Directorate: Maritime Affairs, Private Bag 13341, WINDHOEK, Namibia and the other copy to the Namibian Search and Rescue Organisation, c/o The Port Captain, P.O. Box 361, WALVIS BAY, Namibia, (facsimile number 064-208246).

1.	VESSEL'S PAF	RTICULARS:	1.1	Name:	
1.2	Flag state:		1.3	Length:	
1.4	Call sign:		1.5	Colour of hull:	
1.6	Port of registry	or home port:			
1.7	Colour of supers	structure:	•••••		
1.8	Capacity of persons on board:				
1.9 1.10	Ship's radio installation: Inmarsat A, B, C or M/MF-HF/VHF/etc. Other, please specify: Ship type: * Tug/General purpose/Bulk carrier/Tanker/Container/Passenger/Fishing/Trawling/Ferry/ Drilling platform/Mining exploration/Research/Ro-Ro/Cabin cruiser/Sloop/Yawl/Schooner				
	Other please sp			alcovico-reo/ caom craiser/group/ raws sensoner	
2.	EPIRB PARTIC	·		Class of EPIRB: Class 2/Category 1/Category 2	
2.	EIIWIAKIIC	ODAKS.	2.1	Other, please specify:	
2.2	Manufacturer: .				
2.3	Unique or MMS	I number:			
3.	OWNER'S PAR	TICULARS:	3.1	Name:	
3.2	Name, address and telephone number of emergency contact (include area code)				
				Telephone по:	
				Work:	
				Home:	
3.3		our emergency contact:			
	Name :				
	Telephone no.: (Work) (Home)			ne)	

^{*} Circle the appropriate class or type

Annexure 2 - Equipment tests and reserve power checks: GMDSS ships (regulation 16(10))

1. Daily

- (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 to a fully charged condition.

2. Weekly

- (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, but where a ship has been out of communication range of a coast station fitted with DSC equipment for a period longer than one week, a test call shall be made at the first opportunity once the ship is within communication range of such a coast station.
- (b) Where the reserve source of energy is not a battery, the reserve source of energy shall be tested weekly.

3. Monthly

- (a) Each EPIRB and satellite EPIRB shall be tested at least once a month to determine its capability to operate properly using the means provided on the device and without using the satellite system and have their source of energy and hydrostatic release units replaced when necessary.
- (b) Each SART shall be checked at least once a month for security and signs of damage and have their source or energy replaced when necessary.
- (c) A test shall be performed at least once a month on the security and condition of the battery connections, the battery compartment and all batteries providing a source of energy for any part of a radio installation.

Annexure 3 - Radio log: GMDSS ships (regulation 18)

In accordance with regulation 18, the following shall be entered in the radio log:

- (a) Particulars of communications relating to distress, urgency and safety traffic, and the time of occurrence;
- (b) particulars of important service incidents, and the time of occurrence;
- (c) particulars of maintenance checks required by regulation 16(10), and the time of occurrence;
- (d) the position of the ship at least once a day;
- (e) particulars of the ship, including call sign, ship station identity numbers, gross tonnage, registered length, official number, owner's name and address; and
- (f) particulars of the primary operator, including his or her name, certificate number and category and period employed as the primary operator.

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Annexure 4 - Equipment tests and battery and reserve power checks: Non-GMDSS ships (regulation 22(1))

1. Daily

- (a) A radio officer who finds any radiotelegraph auto alarm equipment in operation when going on duty shall test the efficiency of the audible alarm system.
- (b) A radio officer who leaves any radiotelegraph auto alarm equipment in operation when going off duty shall test the efficiency of the audible alarm system.
- (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 once 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 31(7), 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 to a fully charged condition.

2. Weekly

- (a) The reserve radiotelegraph transmitter shall be tested at least once every seven days using the main antenna and, if provided, the reserve antenna.
- (b) The radiotelegraph alarm signal keying device shall be tested at least once every seven days using a transmitter set to low power, tuned to a frequency other than the radiotelegraph distress frequency and connected to a suitable artificial antenna.
- (c) The radiotelephone alarm signal generating device shall be tested at least once every seven days using the means provided in accordance with regulation 31(7)(a).

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- (d) Motor lifeboat fixed radiotelegraph installations and portable radio equipment for survival craft shall be tested at least once every seven days using suitable artificial antennae.
- (e) Batteries forming part of a motor lifeboat fixed radiotelegraph installation and survival craft portable radio equipment shall be tested weekly and, where appropriate, brought to a 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 inspected and the batteries replaced when necessary.
- (f) Batteries forming part of a two-way VHF radiotelephone apparatus for survival craft shall be tested weekly and, where appropriate, brought to a fully charged condition. Where non-rechargeable batteries are provided as a source of energy the batteries shall be tested and replaced if necessary.
- (g) Where the reserve source of energy is not a battery, the reserve source of energy shall be tested weekly.

3. *Monthly*

- (a) Motor lifeboat 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 lifeboat fixed radiotelegraph installations, the test shall, where practicable, be carried out with the lifeboat 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 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 of the condition of the battery and its compartment.
- c) Each EPIRB and satellite EPIRB shall be tested at least once a month to determine its capability to operate properly using the means provided on the device and without using the satellite system and have their source of energy and hydrostatic release units replaced when necessary.
- (d) Each SART shall be checked at least once a month for security and signs of damage and have their source or energy replaced when necessary.

4. Recording of results

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Results of the inspections, tests and replacements specified in this Annexure shall be entered in the radio log or battery log, as appropriate.

Annexure 5 - Spare parts, tools and testing equipment (regulation 24)

(A) Radiotelegraph ships:

Tools

- 1 15 cm smooth file
- 1 jointing knife
- 1 pair 18 cm wireman's insulated pliers
- 1 pair 15 cm insulated long-nose pliers
- 1 pair 15 cm insulated side cutters
- set each insulated flat-head and cross-head screwdrivers (suitable for use on radiotelegraph equipment)
- 1 set watchmaker's screwdrivers
- set each of spanners (flat and box) (suitable for use on the radiotelegraph equipment)
- 1 adjustable spanner with 25 mm gap
- 1 hand drill with 8 mm chuck
- set high-speed twist drill bits to suit hand drill
- 1 clamp vice
- electric soldering iron (to suit ship's voltage) with a power consumption of not less than 75 watts or more than 125 watts
- electric soldering iron (to suit ship's voltage) with a power consumption of not more than 30 watts
- 1 dusting brush
- 1 300 g ball-pane hammer
- 1 hacksaw and spare blades to suit
- lockable tool-box or compartment (for containing the above-mentioned tools)

Measuring instruments

1 hydrometer

An analogue or digital multimeter capable of measuring direct current from 1 to 500 milliamperes, AC and DC voltage from 1 to 1 000 volts, and resistance from 10 to 20 000 ohms.

Spare parts

- 5 fuses for each type and rating of fuse in use
- safety loop (if main or reserve antenna is a supported wire type and fitted with safety loops)
- bulldog grips to suit the antenna wire
- telephone handset with leads, and plugs if used, for each type of handset in use
- 1 emergency lamp with spare bulb

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- spare bulb for the emergency light required by regulation 39(g)
- 50 per cent of the number of insulators in use (excluding lead-out insulators)
- 100 per cent of the number of shackles and thimbles in use

One valve for every two, or part thereof, of each type of valve in use

Miscellaneous items

- 1 pack carborandum paper (assorted grades)
- 1 large roll of insulating tape
- 1 can general purpose lubricating oil
- 1 can proprietary brand contact cleaner
- 2 rolls of NAVTEX paper

¹/₂ litre lubricating oil (if a machine lubricated with oil forms part of the installation)

10 metres flexible wire (5 amp rating) for adjustable connections

250 g petroleum jelly

500 g general purpose grease

500 g resin-cored solder

5 litres of distilled water

(B) Radiotelephone ships

Tools

- 1 15 cm smooth file
- 1 jointing knife
- pair 18 cm insulated wireman's pliers with side cutters
- set each insulated flat-head and cross-head screwdrivers (suitable for use on radiotelephone equipment)
- 1 adjustable spanner with 25 mm gap
- 1 hacksaw and spare blades to suit
- lockable tool box or compartment (for containing the above-mentioned tools)

Measuring instruments

1 hydrometer

Spare parts and miscellaneous items

- 5 fuses for each type and rating of fuse in use
- spare bulb for the emergency light required by regulation 31(4)
- 2 rolls of NAVTEX paper

250 g petroleum jelly or general purpose grease

5 litres of distilled water

On all ships where special nuts and/or screws are used for fastening, suitable tools must be provided in addition to those specified in (A) and (B) above.

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Annexure 6 - Radio log: Radiotelephone ships (regulation 37(2))

The radiotelephone logbook is obtainable from the offices of the Directorate: Maritime Affairs, Ministry of Works, Transport and Communication, and is compiled in two sections that shall be completed as follows:

Section A - Particulars of the radiotelephone operators on board and the name of the radio-operator delegated by the master as having primary responsibility for radio communications during distress incidents.

Section B - Diary of the radio service.

A radiotelephone operator shall, when keeping radio watch, enter in the radio log -

- (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, the reason for its discontinuation and the time at which radio watch is resumed;
- 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, that 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 22(1);
- (g) the position of the ship at least once a day; and
- (h) the time of arrival at, and departure from, the port and the name of the port.

Annexure 7 - Radio log: Radiotelegraph ships (regulation 45(2))

The radiotelegraph logbook is obtainable from the offices of the Directorate: Maritime Affairs, Ministry of Works, Transport and Communication, and is compiled in two parts that must be completed as follows:

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

A 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, the reason for its discontinuation 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 installation and the VHF radiotelephone installation, that may appear to be of importance to the safety of life at sea;
- (h) details of the tests and checks required by regulation 22(1);

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- (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 Co-ordinated Universal Time and any correction made in respect of that clock, and the local time in use by the ship must be recorded daily;
- (j) the position of the ship at least once a day and preferably at midday; and
- (k) the time of arrival at, departure from, and name of, the port.