

LEGAL NOTICE NO.....

MERCHANT SHIPPING ACT, 2009
(No. 4 of 2009)

MERCHANT SHIPPING (RADIOCOMMUNICATIONS) REGULATIONS, 2022

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MERCHANT SHIPPING ACT, 2009
(No. 4 of 2009)

IN EXERCISE of the powers conferred by section 8, 232 and 450 of the Merchant Shipping Act, the Minister for Transport makes the following Regulations –

MERCHANT SHIPPING (RADIOCOMMUNICATIONS) REGULATIONS, 2022

PART I

GENERAL

Title	Regulation	Rationale
Short Title	1. These Regulations shall be cited as the Merchant Shipping (Radio Communications) Regulations, 2022.	To give effect to Section 8, 232 and Section 450 of the Merchant Shipping Act
Interpretation	<p>2. (1) In these regulations unless the context otherwise requires –</p> <p><i>Admiralty List of Radio Signals</i>" means the document so entitled published by the United Kingdom Hydrographer of the Navy and any subsequent List containing the like information which the Hydrographer of the Navy considers relevant from time to time which replaces the Admiralty List of Radio Signals or replaces any subsequent list containing the like information; and any reference to any such List includes a reference to any United Kingdom Admiralty Notice to Mariners amending the same which the Hydrographer of the Navy considers relevant from time to time.</p> <p><i>Area A1 ship</i>" means a ship which goes to sea in sea area A1 only and includes Cargo ships of less than 300 GT, pleasure vessels not engaged in trade and fishing vessels.</p>	<p>To define terms used in these Regulations</p> <p>Gives effect to Regulation 2 of Chapter IV.</p>

	<p><i>"Area A2 ship"</i> means a ship which goes to sea in sea area A2 only, or in sea areas A1 and A2.</p> <p><i>Area A3 ship</i>" means a ship which goes to sea in sea area A3 only, or in sea area A3 and also in sea area A1 or A2 or both those sea areas.</p> <p><i>Area A4 ship</i>" means a ship which goes to sea in sea area A4 only, or in sea area A4 and also in one or more of sea areas A1, A2 and A3.</p> <p><i>"Bridge-to-bridge communications"</i> means safety communications between ships from the position from which the ships are normally navigated.</p> <p><i>Conning position</i>" means the place on the bridge with a commanding view of the ship and its position used by navigators when commanding manoeuvring and controlling the ship.</p> <p><i>"Continuous watch"</i> means that the radio watch concerned shall not be interrupted other than for brief intervals when the ship' s receiving capability is impaired or blocked by its own communications or when the facilities are under periodical maintenance or checks.</p> <p><i>"COSPAS-SARSAT satellite service"</i> means a satellite aided search and rescue system designed to locate distress beacons transmitting in the 406 MHz band and on other frequencies;</p> <p><i>"Digital selective calling (DSC)"</i> means a technique using digital codes which enables a radio station to establish contact with, and transfer information to, another station or group of stations, and complying with the relevant recommendations of the International Radio Consultative Committee (CCIR).</p>	
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	<p>“<i>Direct-printing telegraphy</i>” means automated telegraphy techniques which comply with the relevant recommendations of the International Radio Consultative Committee (CCIR).</p> <p>“<i>DSC watch</i>” means listening for an audible alarm from a ship's DSC equipment on the designated VHF, MF and HF frequencies</p> <p>“<i>EPIRB</i>” means an emergency locator beacon to alert search and rescue services in case of an emergency at sea capable of transmitting a distress through 406 MHz, 1.6GHz or any other similar means.</p> <p>“<i>General radio communications</i>” means operational and public correspondence traffic, other than distress, urgency and safety messages, conducted by radio.</p> <p>“<i>GMDSS</i>” means the Global Maritime Distress and Safety System.</p> <p>“<i>INMARSAT</i>” means the Organisation established by the Convention on the International Maritime Satellite Organisation (INMARSAT) adopted on 3 September 1976 as amended.</p> <p>“<i>International NAVTEX Service</i>” 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.</p> <p>“<i>Locating</i>” means the finding of ships, aircraft, units or persons in distress.</p> <p>“<i>Maritime Safety Information</i>” means navigational and meteorological warnings, meteorological forecasts and other urgent safety related messages broadcast to ships.</p>	
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	<p><i>“Maintenance”</i> means any activity intended to keep a radio installation in efficient working condition, and includes tests, measurements, replacements, adjustments and repairs.</p> <p><i>“Mobile satellite service”</i> means a radiocommunications service between mobile earth stations and one or more space stations, or between space stations used by this service or mobile earth stations by means of one or more space stations and this service may also include feeder links necessary for its operation.</p> <p><i>“Polar orbiting satellite”</i> service means a service which is based on polar orbiting satellites which receive and relay distress alerts from satellite EPIRBs and which provides their position.</p> <p><i>“Radio Regulations”</i> means the Radio Regulations annexed to, or regarded as being annexed to, the most recent International Telecommunication Convention which is in force at any time.</p> <p><i>“Radar transponder”</i> means a survival craft radar transponder for search and rescue between ships or aircraft and survival craft.</p> <p><i>“Sea area A1”</i> means a defined area within the radiotelephone coverage of at least one VHF coast station in which continuous DSC alerting is available.</p> <p><i>“Sea area A2”</i> means a defined area, excluding sea area A1, within the radiotelephone coverage of at least one MF coast station in which continuous DSC alerting is available.</p> <p><i>“Sea area A3”</i> means a defined area, excluding sea areas A1 and A2, within the coverage of an INMARSAT geostationary satellite in which continuous alerting is available.</p>	
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	<p>“<i>Sea area A4</i>” means an area outside sea areas A1, A2 and A3.</p> <p>"<i>Ship earth station</i>" means a mobile earth station in the maritime mobile-satellite service located on board ship;</p> <p>"<i>ship station</i>" means a mobile station in the maritime mobile-satellite service located on board a vessel which is not permanently moored, other than a survival craft station;</p> <p>"<i>survival craft</i>" means a vessel that is capable of sustaining the lives of persons in distress after abandoning ship;</p> <p>"<i>survival craft station</i>" means a mobile station in the maritime mobile-satellite service intended solely for survival purposes and located on any lifeboat, life-raft or other survival equipment.</p> <p>"<i>Global maritime distress and safety system (GMDSS) identities</i>" means maritime mobile services identity, the ship's call sign, recognized mobile satellite service identities and serial number identity which may be transmitted by the ship's equipment and used to identify the ship.</p> <p>"<i>Recognized mobile satellite service</i>" means any service which operates through a satellite system and is recognized by the Organization, for use in the global maritime distress and safety system (GMDSS).</p> <p>All other terms and abbreviations which are used in these regulations and which are defined in the Radio Regulations shall have the meanings as defined in those Regulations.</p>	
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	<p>(3) In these Regulations, any reference to Chapter IV of the Safety Convention is to be construed—</p> <p>(a) as a reference to Chapter IV as modified from time to time; and</p> <p>(b) as, if Chapter IV is replaced, a reference to the replacement.</p>	
Application	<p>3. (1) Unless expressly provided otherwise, these Regulations apply to all ships to which the Safety Convention applies and to cargo ships of 300 gross tonnage and upwards.</p> <p>(2) Notwithstanding sub regulation (1), regulation 5 shall apply to all ships on all voyages</p> <p>(3) No provision in these regulations shall prevent the use by any ship, survival craft or person in distress, of any means at their disposal to attract attention, make known their position and obtain help.</p>	Gives effect to Regulation 1 of Chapter IV.
Exemptions	<p>4. (1) The Director General may grant partial or conditional exemptions to individual ships from the requirements of Regulations 9 to 13 provided:</p> <p>(a) such ships comply with the functional requirements of regulation 5; and</p> <p>(b) he/she has taken into account the effect such exemptions may have upon the general efficiency of the service for the safety of all ships.</p> <p>(2) An exemption may be granted under sub regulation (1) only:</p> <p>(a) if the conditions affecting safety are such as to render the full application of regulations 9 to 13 unreasonable or unnecessary;</p> <p>(b) in exceptional circumstances, for a single voyage outside the sea area or sea areas for which the ship is equipped.</p>	Gives effect to Regulation 3 of Chapter IV.
Functional requirements	<p>5. (1) Except as provided in regulations 10(1)(a) and 12(1)(b)(iii) every ship, while at sea, shall be capable of:</p>	Gives effect to Regulation 4 of Chapter IV.

	<ul style="list-style-type: none"> (a) transmitting ship-to-shore distress alerts by at least two separate and independent means, each using a different radiocommunication service; (b) receiving shore-to-ship distress alerts; (c) transmitting and receiving ship-to-ship distress alerts; (d) transmitting and receiving search and rescue co-ordinating communications; (e) transmitting and receiving on-scene communications; (f) transmitting and, as required by regulation V/19.2.3.2 of the Safety Convention, receive signals for locating; (g) transmitting and receiving maritime safety information; (h) transmitting and receiving general radio communications to and from shore-based radio systems or networks subject to regulation 17(8); and (i) transmitting and receiving bridge-to-bridge communications. 	
PART II: UNDERTAKINGS BY CONTRACTING GOVERNMENTS		
Provision of Radiocommunication services	6. The Director General shall make available, as he or she may deem practical and necessary either individually or in co-operation with other Contracting Governments party to the Safety Convention, appropriate shore-based facilities for space and terrestrial radiocommunication services prescribed in the Safety Convention.	Gives effect to Regulation 5 of Chapter IV.
Global Maritime Distress and Safety System identities	7. The Director General shall ensure that suitable arrangements are made for registering all Global Maritime Distress and Safety System (GMDSS) identities and make information on these identities available to rescue co-ordination centres on a 24-hour basis. Where appropriate, international organizations maintaining a registry of these identities shall be notified by the Director General of these assignments.	Gives effect to Regulation 5-1 of Chapter IV.
PART III: SHIP REQUIREMENTS		

Radio installations	<p>8. (1) Every ship shall be provided with radio installations capable of complying with the functional requirements prescribed by regulation 5 throughout its intended voyage and, unless exempted under regulation 4, complying with the requirements of regulation 9 and, as appropriate for the sea area or areas through which it will pass during its intended voyage, the requirements of either regulation 10, 11, 12 or 13.</p> <p>(2) Every radio installation shall:</p> <ul style="list-style-type: none"> (a) be so located that no harmful interference of mechanical, electrical or other origin affects its proper use, and so as to ensure electromagnetic compatibility and avoidance of harmful interaction with other equipment and systems; (b) be so located as to ensure the greatest possible degree of safety and operational availability; (c) be protected against harmful effects of water, extremes of temperature and other adverse environmental conditions; (d) be provided with reliable, permanently arranged electrical lighting independent of the main and emergency sources of electrical power for the adequate illumination of the radio controls for operating the radio installation; and (e) be clearly marked with the call sign, the ship station identity and other codes as applicable for the use of the radio installation. <p>(3) 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 should be available to permit radiocommunications from the wings of the navigating bridge. Portable VHF equipment may be used to meet the latter provision.</p> <p>(4) In passenger ships, a distress panel shall be installed at the conning position. This panel shall contain either one single button which, when pressed, initiates a distress alert using all radiocommunication installations required on board for that purpose or one button for each individual installation. The panel shall clearly and visually indicate whenever any button or buttons have been pressed. Means shall be provided to</p>	Gives effect to Regulation 6 of Chapter IV.
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	<p>prevent inadvertent activation of the button or buttons. If the satellite EPIRB is used as the secondary means of distress alerting and is not remotely activated, it shall be acceptable to have an additional EPIRB installed in the wheelhouse near the conning position.</p> <p>(5) In passenger ships, information on the ship's position shall be continuously and automatically provided to all relevant radiocommunication equipment to be included in the initial distress alert when the button or buttons on the distress panel is pressed.</p> <p>(6) In passenger ships, a distress alarm panel shall be installed at the conning position. The distress alarm panel shall provide visual and aural indication of any distress alert or alerts received on board and shall also indicate through which radiocommunication service the distress alerts have been received.</p>	
Radio equipment - General	<p>9. (1) Every ship shall be provided with:</p> <p>(a) A VHF radio installation capable of transmitting and receiving:</p> <ul style="list-style-type: none"> (i) DSC on the frequency 156.525 MHz (channel 70). It shall be possible to initiate the transmission of distress alerts on channel 70 from the position from which the ship is normally navigated; and (ii) Radiotelephony on the frequencies 156.300 MHz (channel 6), 156.650 MHz (channel 13) and 156.800 MHz (channel 16); <p>(b) a radio installation capable of maintaining a continuous DSC watch on VHF channel 70 which may be separate from, or combined with, that required by sub regulation 1(a)(i);</p> <p>(c) a search and rescue locating device capable of operating either in the 9 GHz band or on frequencies dedicated for AIS, which:</p> <ul style="list-style-type: none"> (i) shall be so stowed that it can be easily utilized; and 	Gives effect to Regulation 7 of Chapter IV.

	<p>(ii) may be one of those required by regulation III/6.2.2 of the Safety Convention for a survival craft;</p> <p>(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;</p> <p>(e) a radio facility for reception of maritime safety information by a recognized mobile satellite service enhanced group calling system if the ship is engaged in voyages in sea area A1, or A2 or A3 but in which an international NAVTEX service is not provided. However, ships engaged exclusively in voyages in areas where an HF direct-printing telegraphy maritime safety information service is provided and fitted with equipment capable of receiving such service, may be exempt from this requirement.</p> <p>(f) subject to the provisions of regulation 10(3), a satellite emergency position-indicating radio beacon (satellite EPIRB) which shall be:</p> <ul style="list-style-type: none"> (i) capable of transmitting a distress alert through the polar orbiting satellite service operating in the 406 MHz band; (ii) installed in an easily accessible position; (iii) ready to be manually released and capable of being 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. <p>(2) Every passenger ship shall be provided with means for two-way on-scene radiocommunications for search and rescue purposes using the aeronautical frequencies 121.5 MHz and 123.1 MHz from the position from which the ship is normally navigated.</p>	
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Radio equipment Sea area A1	<p>10. (1) In addition to meeting the requirements of regulation 9, every ship engaged on voyages exclusively in sea area A1 shall be provided 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 either:</p> <ul style="list-style-type: none"> (a) on VHF using DSC; this requirement may be fulfilled by the EPIRB prescribed by sub regulation (3), either by installing the EPIRB close to, or by remote activation from, the position from which the ship is normally navigated; or (b) through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by regulation 9(1)(f), either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated; or (c) if the ship is engaged on voyages within coverage of MF coast stations equipped with DSC, on MF using DSC; or (d) on HF using DSC; or (e) through a recognized mobile satellite service; this requirement may be fulfilled by: <ul style="list-style-type: none"> (i) a ship earth station; or (ii) the satellite EPIRB, required by regulation 9(1)(f), either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated. <p>(2) The VHF radio installation, required by regulation 9(1)(a), shall also be capable of transmitting</p>	Gives effect to Regulation 8 of Chapter IV.
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	<p>and receiving general radio communications using radiotelephony.</p> <p>(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 which shall be:</p> <ul style="list-style-type: none"> (a) capable of transmitting a distress alert using DSC on VHF channel 70 and providing for locating by means of a radar transponder operating in the 9 GHz band; (b) installed in an easily accessible position; (c) ready to be manually released and capable of being carried by one person into a survival craft; (d) capable of floating free if the ship sinks and being automatically activated when afloat; and (e) capable of being activated manually. 	
Radio equipment - Sea areas A1 and A2	<p>11. (1) In addition to meeting the requirements of regulation 9, every ship engaged on voyages beyond sea area A1, but remaining within sea area A1 and A2, shall be provided with:</p> <ul style="list-style-type: none"> (a) an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies: <ul style="list-style-type: none"> (i) 2,187.5 kHz using DSC; and (ii) 2,182 kHz using radiotelephony; (b) a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 kHz which may be separate from, or combined with, that required by sub-regulation (1)(a) (i) and (c) means of initiating the transmission of ship-to-shore distress alerts by a radio service other than MF operating either: <ul style="list-style-type: none"> (i) through the polar orbiting satellite service on 406 MHz; this requirement 	Gives effect to Regulation 9 of Chapter IV.

	<p>may be fulfilled by the satellite EPIRB, required by regulation 9(1)(f), either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated; or</p> <p>(ii) on HF using DSC; or</p> <p>(iii) through a recognized mobile satellite service by a ship earth station.</p> <p>(2) It shall be possible to initiate transmission of distress alerts by the radio installations specified in sub-regulation (1)(a) and (1)(c) from the position from which the ship is normally navigated.</p> <p>(3) The ship shall, in addition, be capable of transmitting and receiving general radio communications using radiotelephony or direct-printing telegraphy by either:</p> <p>(a) a radio installation operating on working frequencies in the bands between 1,605 kHz and 4,000 kHz or between 4,000 kHz and 27,500 kHz. This requirement may be fulfilled by the addition of this capability in the equipment required by sub-regulation (1) or</p> <p>(b) a recognized mobile satellite service ship earth station.</p> <p>(4) The Director General may exempt ships constructed before 1 February 1997, which are engaged exclusively on voyages within sea area A2, from the requirements of regulations 9(1)(a)(i) and 9(1)(b) provided such ships maintain, when practicable, a continuous listening watch on VHF channel 16. This watch shall be kept at the position from which the ship is normally navigated.</p>	
Radio equipment - Sea areas A1, A2 and A3	12. (1) In addition to meeting the requirements of regulation 9, every ship engaged on voyages beyond sea areas A1 and A2, but remaining within sea area A3,	Gives effect to Regulation 10 of Chapter IV.

	<p>shall, if it does not comply with the requirements of sub-regulation (2), be provided with:</p> <ul style="list-style-type: none"> (a) a recognized mobile satellite service ship earth station capable of: <ul style="list-style-type: none"> (i) transmitting and receiving distress and safety communications using direct-printing telegraphy; (ii) initiating and receiving distress priority calls; (iii) maintaining watch for shore-to-ship distress alerts, including those directed to specifically defined geographical areas; (iv) transmitting and receiving general radio communications, using either radiotelephony or direct-printing telegraphy; and (b) an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies: <ul style="list-style-type: none"> (i) 2,187.5 kHz using DSC; and (ii) 2,182 kHz using radiotelephony; and (c) a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 kHz which may be separate from or combined with that required by sub-regulation (1)(b)(i); and (d) means of initiating the transmission of ship-to-shore distress alerts by a radio service operating either: <ul style="list-style-type: none"> (i) through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by regulation 9(1)(f), either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated; or (ii) on HF using DSC; or (iii) through the a recognized mobile satellite service by an additional ship earth station. <p>(2) In addition to meeting the requirements of regulation 9, every ship engaged on voyages beyond sea areas A1 and A2, but remaining within sea area A3, shall, if it does not comply with the requirements of sub-regulation (1), be provided with:</p>	
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	<p>(a) an MF/HF radio installation capable of transmitting and receiving, for distress and safety purposes, on all distress and safety frequencies in the bands between 1,605 kHz and 4,000 kHz and between 4,000 kHz and 27,500 kHz:</p> <ul style="list-style-type: none"> (i) using DSC; (ii) using radiotelephony; and (iii) using direct-printing telegraphy; and <p>(b) equipment capable of maintaining DSC watch on 2,187.5 kHz, 8,414.5 kHz and on at least one of the distress and safety DSC frequencies 4,207.5 KHz, 6312 kHz, 12,577 kHz or 16,804.5 kHz; at any time, it shall be possible to select any of these DSC distress and safety frequencies. This equipment may be separate from, or combined with, the equipment required by sub-regulation (1); and</p> <p>(c) means of initiating the transmission of ship-to-shore distress alerts by a radio communication service other than HF operating either:</p> <ul style="list-style-type: none"> (i) through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by regulation 9(1)(f), either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated; or (ii) through a recognized mobile satellite service by a ship earth station; and <p>(aa) an INMARSAT ship earth station; or</p> <p>(bb) the satellite EPIRB, required by regulation 9(1)(f), either by installing the satellite EPIRB close to, or by remote activation from, the position from which the ship is normally navigated; and</p> <p>(d) in addition, ships shall be capable of transmitting and receiving general radio communications 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. This requirement may be fulfilled by the addition of</p>	
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	<p>this capability in the equipment required by sub-regulation (1)</p> <p>(3) It shall be possible to initiate transmission of distress alerts by the radio installations specified in sub-regulations (1)(a), (1)(b), (1)(d), (2)(a), and (2)(c) from the position from which the ship is normally navigated.</p> <p>(4) The Director General may exempt ships constructed before 1 February 1997, and engaged exclusively on voyages within sea areas A2 and A3, from the requirements of regulations 9(1)(a)(i) and 9(1)(b) provided such ships maintain, when practicable, a continuous listening watch on VHF channel 16. This watch shall be kept at the position from which the ship is normally navigated.</p>	
Radio equipment - Sea areas A1, A2, A3 and A4	<p>13. (1) In addition to meeting the requirements of regulation 9, ships engaged on voyages in all sea areas shall be provided with the radio installations and equipment required by regulation 12(2), except that the equipment required by regulation 12(2)(c)(ii) shall not be accepted as an alternative to that required by regulation 12(2)(c)(i), which shall always be provided. In addition, ships engaged on voyages in all sea areas shall comply with the requirements of regulation 12(3)</p> <p>(2) The Director General may exempt ships constructed before 1 February 1997, and engaged exclusively on voyages within sea areas A2, A3 and A4, from the requirements of regulations 9(1)(a) and 9(1)(b) provided such ships maintain, when practicable, a continuous listening watch on VHF channel 16. This watch shall be kept at the position from which the ship is normally navigated</p>	Gives effect to Regulation 1 of Chapter IV.
Watches	<p>14. (1) Every ship, while at sea, shall maintain a continuous watch:</p> <p>(a) on VHF DSC channel 70, if the ship, in accordance with the requirements of regulation 9(1)(b), is fitted with a VHF radio installation;</p> <p>(b) on the distress and safety DSC frequency 2,187.5 kHz, if the ship, in accordance with the requirements of regulation 11(1)(b) or</p>	Gives effect to Regulation 1 of Chapter IV.

	<p>12(1)(c), is fitted with an MF radio installation;</p> <p>(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, in accordance with the requirements of regulation 12(2)(b) or 13(1), is fitted with an MF/HF radio installation. This watch may be kept by means of a scanning receiver;</p> <p>(d) for satellite shore-to-ship distress alerts, if the ship, in accordance with the requirements of regulation 12(1)(a), is fitted with a recognized mobile satellite service ship earth station.</p> <p>(2) Every ship, while at sea, shall maintain a radio watch for broadcasts of maritime safety information on the appropriate frequency or frequencies on which such information is broadcast for the area in which the ship is navigating.</p> <p>(3) Every ship while at sea shall maintain, when practicable, a continuous listening watch on VHF channel 16. This watch shall be kept at the position from which the ship is normally navigated.</p>	
Sources of energy	<p>15. (1) There shall be available at all times, while the ship is at sea, a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source or sources of energy for the radio installations.</p> <p>(2) A reserve source or sources of energy shall be provided on every ship, to supply radio installations, for the purpose of conducting distress and safety radio communications, in the event of failure of the ship's main and emergency sources of electrical power. The reserve source or sources of energy shall be capable of simultaneously operating the VHF radio installation required by regulation 9(1)(a) and, as appropriate for the sea area or sea areas for which the ship is equipped, either the MF radio installation required by regulation 11(1)(a), the MF/HF radio installation required by regulation 12(2)(a) or 13(1), or the ship earth station required by regulation 12(1)(a)</p>	Gives effect to Regulation 1 of Chapter IV.

	<p>and any of the additional loads mentioned in sub-regulation (4), (5) and (8) for a period of at least:</p> <ul style="list-style-type: none"> (a) one hour on ships provided with an emergency source of electrical power, if such source of power complies fully with all relevant provisions of regulation II-1/42 or 43 of the Safety Convention, including the supply of such power to the radio installations; and (b) six hours on ships not provided with an emergency source of electrical power complying fully with all relevant provisions of regulation II-1/42 or 43 of the Safety Convention, including the supply of such power to the radio installations. <p>(3) The reserve source or sources of energy shall be independent of the propelling power of the ship and the ship's electrical system.</p> <p>(4) Where, in addition to the VHF radio installation, two or more of the other radio installations, referred to in sub-regulation (2), can be connected to the reserve source or sources of energy, they shall be capable of simultaneously supplying, for the period specified, as appropriate, in sub-regulation(2)(a) or (2)(b), the VHF radio installation and:</p> <ul style="list-style-type: none"> (a) all other radio installations which can be connected to the reserve source or sources of energy at the same time; or (b) whichever of the other radio installations will consume the most power, if only one of the other radio installations can be connected to the reserve source or sources of energy at the same time as the VHF radio installation. <p>(5) The reserve source or sources of energy may be used to supply the electrical lighting required by regulation 8(2)(d).</p> <p>(6) Where a reserve source of energy consists of a rechargeable accumulator battery or batteries:</p> <ul style="list-style-type: none"> (a) a means of automatically charging such batteries shall be provided which shall be capable of recharging them to minimum capacity requirements within 10 hours; and 	
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	<p>(b) the capacity of the battery or batteries shall be checked, using an appropriate method, at intervals not exceeding 12 months, when the ship is not at sea.</p> <p>(7) The siting and installation of accumulator batteries which provide a reserve energy shall be such as to ensure:</p> <ul style="list-style-type: none"> (a) the highest degree of service; (b) a reasonable lifetime; (c) reasonable safety; (d) that battery temperatures remain within the manufacturer's specifications whether under charge or idle; and (e) that when fully charged, the batteries will provide at least the minimum required hours of operation under all weather conditions. <p>(8) If an uninterrupted input of information from the ship's navigational or other equipment to a radio installation required by these regulations, including the navigation receiver referred to in regulation 20, is needed to ensure its proper performance, means shall be provided to ensure the continuous supply of such information in the event of failure of the ship's main or emergency source of electrical power.</p>	
Performance standards	<p>16. All equipment to which these regulations apply shall be of a type approved by the Director General. Such equipment shall conform to appropriate performance standards not inferior to those adopted by the Organisation.</p>	Gives effect to Regulation 1 of Chapter IV.
Maintenance requirements	<p>17. (1) Equipment shall be so designed that the main units can be replaced readily, without elaborate recalibration or readjustment.</p> <p>(2) Where applicable, equipment shall be so constructed and installed that it is readily accessible for inspection and on-board maintenance purposes.</p> <p>(3) Adequate information shall be provided to enable the equipment to be properly operated and maintained, taking into account the recommendations of the Organisation.</p> <p>(4) Adequate tools and spares shall be provided to enable the equipment to be maintained.</p> <p>(5) The Director General shall ensure that radio equipment required by these regulations is</p>	Gives effect to Regulation 1 of Chapter IV.

	<p>maintained to provide the availability of the functional requirements specified in regulation 5 and to meet the recommended performance standards of such equipment.</p> <p>(6) On ships engaged on voyages in sea areas A1 and A2, the availability 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, as may be approved by the Director General.</p> <p>(7) On ships engaged on voyages in sea areas A3 and A4, the availability shall be ensured by using a combination of at least two methods such as duplication of equipment, shore-based maintenance or at-sea electronic maintenance capability, as may be approved by the Director General, taking into account the recommendations of the Organisation</p> <p>(8) While all reasonable steps shall be taken to maintain the equipment in efficient working order to ensure compliance with all the functional requirements specified in regulation 5, malfunction of the equipment for providing the general radio communications required by regulation 5(1)(h) shall not be considered as making a ship unseaworthy or as a reason for delaying the ship in ports where repair facilities are not readily available, provided the ship is capable of performing all distress and safety functions.</p> <p>(9) Satellite EPIRBs shall be annually tested for all aspects of operational efficiency, with special emphasis on checking the emission on operational frequencies, coding and registration, at intervals as specified below:</p> <ul style="list-style-type: none"> (a) on passenger ships, within 3 months before the expiry date of the Passenger Ship Safety Certificate; and (b) on cargo ships, within 3 months before the expiry date, or 3 months before or after the anniversary date, of the Cargo Ship Safety Radio Certificate. (c) The test referred to in sub regulation (9) may be conducted on board the ship or at an approved testing station; and 	
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	<p>(i) tested at intervals not exceeding 12 months for all aspects of operational efficiency with particular emphasis on checking the emission on operational frequencies, coding and registration. However, in cases where it appears proper and reasonable, the Administration may extend this period to 12 +/- 3 months. The test may be conducted on board the ship or at an approved testing station; and</p> <p>(ii) subject to maintenance at intervals not exceeding five years, to be performed at an approved shore- based maintenance facility.</p>	
Radio personnel	<p>18. (1) Every ship shall carry personnel qualified for distress and safety radiocommunication purposes as prescribed in the Merchant Shipping (Training and Certification) Regulations</p> <p>(2) In passenger ships, at least one person qualified in accordance with Sub- regulation (1) shall be assigned to perform only radiocommunication duties during distress incidents.</p>	Gives effect to Regulation 1 of Chapter IV.
Radio records	19. The Master shall keep a record, to the satisfaction of the Director General and as required by the Radio Regulations, of all incidents connected with the radio communication service which appear to be of importance to safety of life at sea.	Gives effect to Regulation 1 of Chapter IV.
Position Updating	20. All two-way communication equipment carried on board a ship to which this chapter applies which is capable of automatically including the ship's position in the distress alert shall be automatically provided with this information from an internal or external navigation receiver, if either is installed. If such a receiver is not installed, the ship's position and the time at which the position was determined shall be manually updated at intervals not exceeding four hours, while the ship is underway, so that it is always ready for transmission by the equipment.	Gives effect to Regulation 1 of Chapter IV.
PART IV: ENFORCEMENT		
Power to issue shipping circulars	21. The Director General may issue shipping circulars and/ or directions for implementation of these Regulations.	Enable full implementation of the Convention

Offences and penalty	(1) Any person who contravenes any of these regulations commits an offence and shall be liable on conviction to the penalty stipulated in section 412A of the Act.	Deterrence for future offenders
Savings and transitions	22. Any licence or approval in force at the date of entry into force of these Regulations shall remain valid unless revoked, replaced, rescinded by legislation, licences, certificates or any other administrative orders, directions or instructions made or issued under the Merchant Shipping Act or subsidiary legislations.	To preserve certificates, licences and any other administrative action taken prior to these Regulations