

S.I. No. 544/1998 — Fishing Vessel (Radio Installations) Regulations, 1998.

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S.I. No. 544 of 1998.

FISHING VESSEL (RADIO INSTALLATIONS) REGULATIONS, 1998

I, Michael Woods, Minister for the Marine and Natural Resources, in exercise of the powers conferred on me by section 19 of the Merchant Shipping Act, 1992 (No. 2 of 1992), and the Marine (Alteration of Name of Department and Title of Minister) Order, 1997 (S.I. No. 301 of 1997), hereby make the following Regulations:-

PART 1 GENERAL

Citation, commencement, revocation and application.

1. (1) These Regulations may be cited as the Fishing Vessel (Radio Installations) Regulations, 1998, and shall come into operation on the 1st day of January, 1999.

(2) The fishing vessels to which these Regulations apply shall be classified as follows for the purposes of these Regulations:

Class I - Fishing vessels of 24 metres or more in length.

Class II- Fishing vessels of 17 metres or more and less than 24 metres in length.

Class III- Fishing vessels of 12 metres or more and less than 17 metres in length.

Class IV- Fishing vessels of less than 12 metres in length.

(3) These Regulations apply to all fishing vessels as follows:

(a) Every new fishing vessel shall comply fully with all of the Regulations applicable to the particular Class of fishing vessel.

(b) Every existing fishing vessel shall comply fully with all of the Regulations applicable to the particular Class of fishing vessel in accordance with the Schedule outlined in Regulation 1 (4).

(4) Every existing fishing vessel shall comply with these Regulations as follows:

- Class I - Every existing fishing vessel of 45 metres or more in length shall comply with all the Regulations specified in Part 2 of these Regulations with effect from 1 February, 1999;
- Every existing fishing vessel of 24 metres or more but under 45 metres in length shall comply with the following Regulations :-
 - Regulation 6(1)(a)(ii) - (VHF Radio installation)
 - Regulation 6 (1)(f) - (Satellite EPIRB)
 - Regulation 12 - (Sources of Energy)
 with effect from 31 March 1999 and shall comply fully with all of the Regulations specified in Part 2 of these Regulations with effect from 1 January, 2000.
- Class II- Every existing fishing vessel of this Class shall

comply with the following Regulations

Regulation 19(1)(a) (VHF radio installation)

(ii) -

Regulation 19 (d) - (Satellite EPIRB)

Regulation 23 - (Sources of energy);

with effect from 31 March, 1999 and shall

comply fully with all of the Regulations

specified in Part 3 of these Regulations with

effect from 1 January, 2000.

Class III- Every existing fishing vessel of this Class shall comply with the following Regulations

Regulation 30(1)(a) (VHF radio installation)

(ii) -

Regulation 30(1)(d) - (Satellite EPIRB)

Regulation 33 - (Sources of energy);

with effect from 31 March, 1999 and shall

comply fully with all of the Regulations

specified in Part 4 of these Regulations with

effect from 1 January, 2000.

Class IV- Every existing fishing vessel of this Class shall comply with the following Regulations

Regulation 40(1)(a) - (VHF radio
installation)

Regulation 40(1)(b) - (Satellite EPIRB)

Regulation 43 - (Sources of energy);

with effect from 31 March, 1999 and shall

comply fully with all of the Regulations

specified in Part 5 of these Regulations with

effect from 1 January, 2000

(5) Part 2 of these Regulations shall apply to:

All Class I fishing vessels

(6) Part 3 of these Regulations shall apply to

All Class II fishing vessels

(7) Part 4 of these Regulations shall apply to:

All Class III fishing vessels

(8) Part 5 of these Regulations shall apply to:

All Class IV fishing vessels

(9) No provision in these Regulations shall prevent the use by any vessel, survival craft or person in distress, of any means at their disposal to attract attention, make known their position and obtain help.

Interpretation

2. (1) In these Regulations:-

"*assigned frequency*" means the centre of a frequency band assigned in accordance with the Radio Regulations;

"*bridge-to-bridge communications*" means communications between vessels from the positions from which the vessels are normally navigated;

"*Consolidated Text*" means the Consolidated text of the regulations annexed to the Torremolinos International Convention for the Safety of Fishing Vessels, 1977, as modified by the Torremolinos Protocol of 1993 relating thereto, as reproduced in the publication "1993 Torremolinos Protocol and Torremolinos International Convention for the Safety of Fishing Vessels, Consolidated Edition, 1995"; published by the International Maritime Organisation, London, 1995;

"*continuous watch*" means a radio watch that is not interrupted or is interrupted only for brief intervals when the vessels receiving capability is impaired or blocked by its own communications or when the facilities are under periodical maintenance or checks;

"*digital selective calling*" and "DSC" mean a technique using digital codes which enables a radio station to establish contact with, and transfer information to, another station or group of stations, and complying with the relevant recommendations as specified by the Minister for Transport, Energy and Communications;

"*direct-printing telegraphy*" means automated telegraphy techniques which comply with the relevant recommendations as specified by the Department of Transport, Energy and Communications;

"*fishing vessel*" or "*vessel*" means any vessel equipped or used commercially for catching fish or other living resources of the sea;

"*new fishing vessel*" means a fishing vessel which is registered for the first time under the Merchant Shipping Acts, 1894 to 1998 on or after 1 January, 1999;

"*existing fishing vessel*" means a fishing vessel which is not a new fishing vessel

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

"*High Frequency*" and "*HF*" mean the frequency spectrum between 3000 kHz and 30 MHz;

"*INMARSAT*" means the Organization established by the Convention on the International Maritime Satellite Organization (INMARSAT) done in London on the 3rd day of September, 1976;

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

"*length*" means unless provided otherwise, 96% of the total length on a waterline at 85% of the least moulded depth measured from the keel line, or the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that be greater. In vessels designed with rake of keel the waterline on which this length is measured shall be parallel to the designed waterline;

"*locating*" means the finding of ships, aircraft, units or persons in distress;

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

"*Medium Frequency*" and "*MF*" mean the frequency spectrum between 300 kHz and 3000 kHz;

"*Marine Notice*" means a Notice described as such, issued by the Department of the Marine and Natural Resources;

"*the Minister*" means the Minister for the Marine and Natural Resources;

"*polar orbiting satellite service*" means a service which is based on polar orbiting satellites which receive and relay distress alerts from satellite emergency position-indicating radiobeacons (satellite EPIRBs) and which provides their position;

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

"*radio communication*" means telecommunication by means of radio waves;

"*radio communication service*" means a service as defined in the Radio Regulations involving the transmission, emission and/or reception of radio waves for specific telecommunication purposes;

"*Radio Regulations*" means the Radio Regulations annexed to, or regarded as being annexed to, the most recent International Telecommunication Convention for the time being in force;

"*satellite emergency position-indicating radio beacon*" and "satellite EPIRB" mean an earth station in the mobile-satellite service the emissions of which are intended to facilitate search and rescue operations;

"*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, as may be defined in a Marine Notice;

"*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;

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

"*Very High Frequency*" and "*VHF*" mean the frequency spectrum between 30 MHz and 300 MHz;

(2) In these Regulations, a reference to a regulation, paragraph or subparagraph is to the regulation, paragraph or subparagraph of the provision in which the reference occurs, unless it is indicated that reference to some other provision is intended.

(3) A term or abbreviation which is used in these Regulations and is defined in the Radio Regulations shall have in these Regulations the meaning that it has in those Regulations.

Equivalents and exemptions.

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

(2) The Minister may exempt any individual vessel which complies with certain criteria specified by him or any class or description of vessels from any of the provisions of Regulations 5 to 16, Regulations 18 to 25, Regulations 27 to 36 and Regulations 40 to 46, subject to such conditions as he may think fit.

PART 2 CLASS I FISHING VESSEL REQUIREMENTS

Functional requirements.

4. Every Class I fishing vessel, and all other fishing vessels to which Part 2 of these Regulations apply, while at sea, shall be capable:

- (a) except as provided in Regulations 7(1)(a) and 9(1)(d)(iii), of transmitting ship-to-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*) of transmitting and receiving general radiocommunications to and from shore-based radio systems or networks subject to regulation 14(8), and

(*i*) of transmitting and receiving bridge-to-bridge communications.

Installation, location and control of radio equipment.

5. (1) Every vessel shall be provided with radio installations capable of complying with the functional requirements prescribed by regulation 4 throughout its intended voyage and, unless exempted under regulation 3, complying with the requirements of regulation 6 and, as appropriate for the sea area or areas through which it will pass during its intended voyage, the requirements of either regulation 7, 8, 9 or 10.

(2) Every radio installation shall:

(*a*) be so located that no harmful interference of mechanical, electrical or other origin affects its proper use, and so as to ensure electromagnetic compatibility and avoidance of harmful interaction with other equipment and systems;

(*b*) be so located as to ensure the greatest possible degree of safety and operational availability;

(*c*) be protected against harmful effects of water, extremes of temperature and other adverse environmental conditions;

(*d*) be provided with reliable, permanently arranged electrical lighting, independent of the main and emergency sources of electrical power, for the adequate illumination of the radio controls and 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.

(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.

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

(5) (*a*) Where wire antennas are provided as part of a radio installation they shall be fitted with suitable insulators and, if suspended between supports liable to whipping, be protected against breakage. In addition, a spare wire antenna completely assembled for rapid replacement shall be carried.

(*b*) Where MF and MF/HF radio installations are provided with an antenna which is not a supported wire antenna, a spare antenna of similar electrical characteristics shall be carried.

Radio equipment to be provided for all sea areas.

6. (1) Every vessel shall be provided with:

- (a) a VHF radio installation capable of transmitting and receiving :
 - (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 vessel is normally navigated; and
 - (ii) radiotelephony on the frequencies 156.300 MHz (channel 6), 156.650 MHz (channel 13) and 156.800 MHz (channel 16);
- (b) a radio installation capable of maintaining a continuous DSC watch on VHF channel 70 which may be separate from, or combined with, that required by subparagraph (a)(i);
- (c) a radar transponder capable of operating in the 9 GHz band, which:
 - (i) shall be so stowed that it can be easily utilized.
- (d) a receiver capable of receiving International NAVTEX service broadcasts if the vessel is engaged on voyages in any area in which an International NAVTEX service is provided;
- (e) a radio facility for reception of maritime safety information by the INMARSAT enhanced group calling system¹ if the vessel is engaged on voyages in any area of INMARSAT coverage in which an international NAVTEX service is not provided. The Minister may exempt a vessel from this requirement if he is satisfied that the vessel shall be engaged on voyages exclusively in areas where an HF direct-printing telegraphy maritime safety information service is provided and that the vessel is fitted with equipment capable of receiving such service.

¹ See "Carriage of Inmarsat Enhanced Group Call SafetyNET receivers under the Global Marine^o Distress and Safety System (GMDSS)" adopted by the International Maritime Organisation by resolution A. 701 (17)

- (f) subject to the provisions of regulation 7(3), a satellite emergency position-indicating radio beacon (satellite EPIRB) which shall be:
 - (i) capable of transmitting a distress alert either through the polar orbiting satellite service operating in the 406 MHz and 121.5 MHz bands or, in Sea Areas A1, A2 and A3 only, through the INMARSAT geostationary satellite service operating in the 1.6 GHz 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 vessel sinks and of being automatically activated when afloat; and

(v) capable of being activated manually.

Additional radio equipment to be provided for sea area A1.

7. (1) In addition to meeting the requirements of regulation 6, every vessel 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 vessel is normally navigated, operating either:

(a) on VHF using DSC; this requirement may be fulfilled by the EPIRB prescribed by paragraph (3), either by installing the EPIRB close to, or by remote activation from, the position from which the vessel 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 6(1)(f) either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; or

(c) if the vessel 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 the INMARSAT geostationary satellite service; this requirement may be fulfilled by:

(i) an INMARSAT ship earth station; or

(ii) the satellite EPIRB, required by regulation 6(1)(f), either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated.

(2) On every vessel engaged on voyages exclusively in sea area A1 the VHF radio installation, required by regulation 6(1)(a), shall also be capable of transmitting and receiving general radiocommunications using radiotelephony.

(3) Vessels engaged on voyages exclusively in sea area A1 may carry, in lieu of the satellite EPIRB required by regulation 6(1)(f), an EPIRB which shall be:

(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 vessel sinks and being automatically activated when afloat; and

(e) capable of being activated manually.

Additional radio equipment to be provided for sea areas A1 and A2.

8. (1) In addition to meeting the requirements of regulation 6, every vessel engaged on voyages beyond sea area A1, but remaining within sea area A2, shall be provided with:

(a) an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies:

(i) 2,187.5 kHz (assigned frequency) 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 (assigned frequency) which may be separate from, or combined with, that required by subparagraph (a)(i); and

(c) means of initiating the transmission of ship-to-shore distress alerts by a radio service other than MF operating either:

(i) through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by regulation 6(1)(f), either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; or

(ii) on HF using DSC; or

(iii) through the INMARSAT geostationary satellite service; this requirement may be fulfilled by:

(a) the equipment specified in paragraph (3)(b); or

(b) the satellite EPIRB, required by regulation 6(1)(f) either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated.

(2) It shall be possible to initiate transmission of distress alerts by the radio installations specified in paragraphs (1)(a) and (1)(c) from the position, from which the vessel is normally navigated.

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

(a) a radio installation operating on working frequencies in the bands between 1,605 kHz and 4,000 kHz or between 4,000 kHz and 27,500 kHz. This requirement may be fulfilled by the addition of this capability in the equipment required by paragraph (1)(a); or

(b) an INMARSAT ship earth station.

(4) The Minister may exempt vessels constructed before 1 February 1997 which are engaged exclusively on voyages within sea area A2, from the requirements of regulation 6(1)(a)(i) and 6(1)(b) provided such vessels

maintain, when practicable, a continuous listening watch on VHF channel 16. This watch shall be kept at the position from which the vessel is normally navigated.

Additional radio equipment to be provided for sea areas A1, A2 and A3

9. (1) In addition to meeting the requirements of regulation 6, every vessel 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 paragraph (2) be provided 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 distress priority calls;
- (iii) maintaining watch for shore-to-ship distress alerts, including those directed to specifically defined geographical areas;
- (iv) transmitting and receiving general radiocommunications, using either radiotelephony or direct-printing telegraphy; and

(b) an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies

- (i) 2,187.5 kHz (assigned frequency) 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 (assigned frequency) which may be separate from or combined with that required by subparagraph (b)(i); and

(d) means of initiating the transmission of ship-to-shore distress alerts by a radio service operating either:

- (i) through the polar orbiting satellite service on 406 MHz; this requirement may be fulfilled by the satellite EPIRB, required by regulation 6(1)(f), either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; or
- (ii) on HF using DSC; or
- (iii) through the INMARSAT geostationary satellite service, by an additional ship earth station or by the satellite EPIRB required by regulation 6(1)(f), either by installing the satellite EPIRB close to, or by remote activation from the position from which the vessel is normally navigated;

(2) In addition to meeting the requirements of regulation 6, every vessel 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 paragraph (1) be provided with:

(a) an MF/HF radio installation capable of transmitting and receiving, for distress and safety purposes, on all distress and safety frequencies in the bands between 1,605 kHz and 4,000 kHz and between 4,000 kHz and 27,500 kHz :

- (i) using DSC;
- (ii) using radiotelephony; and
- (iii) using direct-printing telegraphy; and

(b) equipment capable of maintaining DSC watch on 2,187.5 kHz, 8,414.5 kHz (assigned frequencies) 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 (assigned frequencies); 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 subparagraph (a); 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; this requirement may be fulfilled by the satellite EPIRB, required by regulation 6(1)(f), either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated; or
- (ii) through the INMARSAT geostationary satellite service; this requirement may be fulfilled by:

(a) an INMARSAT ship earth station; or

(b) the satellite EPIRB, required by regulation 6(1)(f), either by installing the satellite EPIRB close to, or by remote activation from, the position from which the vessel is normally navigated.

(d) in addition, vessels shall be 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. This requirement may be fulfilled by the addition of this capability in the equipment required by subparagraph (a).

(3) It shall be possible to initiate transmission of distress alerts by the radio installations specified in 9(1) and 9(2), subparagraphs (1)(a), (1)(b), (1)(d), (2)(a) and (2)(c) from the position, from the position from which the vessel is normally navigated.

(4) The Minister may exempt vessels constructed before 1 February 1997 which are engaged exclusively on voyages within sea area A2 and A3, from the requirements of regulation 6(1)(a)(i) and 6(1)(b) provided such vessels maintain, when practicable, a continuous listening watch on VHF channel 16. This watch shall be kept at the position from which the vessel is normally

navigated.

Additional radio equipment to be provided for sea areas A1, A2, A3 and A4.

10. (1) In addition to meeting the requirements of regulation 6, vessels engaged on voyages in all sea areas shall be provided with the radio installations and equipment required by regulation 9(2), except that the equipment required by regulation 9(2)(c)(ii) shall not be accepted as an alternative to that required by regulation 9(2)(c)(i), which shall always be provided. In addition, vessels engaged on voyages in all sea areas shall comply with the requirements of regulation 9(3).

(2) The Minister may exempt vessels constructed before 1 February 1997 which are engaged exclusively on voyages within sea area A2, A3 and A4, from the requirements of regulation 6(1)(a)(i) and 6(1)(b) provided such vessels maintain, when practicable, a continuous listening watch on VHF channel 16. This watch shall be kept at the position from which the vessel is normally navigated.

Radio watches

11. (1) Every vessel while at sea shall maintain a continuous watch:

(a) on VHF DSC channel 70, if the vessel, in accordance with the requirements of regulation 6(1)(b), is fitted with a VHF radio installation;

(b) on the distress and safety DSC frequency 2,187.5 kHz (assigned frequency), if the vessel, in accordance with the requirements of regulation 8(1)(b) or 9(1)(c), is fitted with an MF radio installation;

(c) on the distress and safety DSC frequencies 2,187.5 kHz and 8,414.5 kHz (assigned frequencies) 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 (assigned frequencies), appropriate to the time of day and the geographical position of the vessel, if the vessel, in accordance with the requirements of regulation 9(2)(b) or 10 (1), is fitted with an MF/HF radio installation. This watch may be kept by means of a scanning receiver;

(d) for satellite shore-to-ship distress alerts, if the vessel, in accordance with the requirements of regulation 9(1)(a), is fitted with an INMARSAT ship earth station.

(2) Every vessel, 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 vessel is navigating.

(3) Every vessel 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 vessel is normally navigated.

Sources of energy.

12. (1) There shall be available at all times, while the vessel is at sea, a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source or sources of energy for the radio installations.

(2) A reserve source or sources of energy shall be provided on every vessel, to supply radio installations, for the purpose of conducting distress and safety radiocommunications, in the event of failure of the vessel'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 6(1)(a) and, as appropriate for the sea area or sea areas for which the vessel is equipped, either the MF radio installation required by regulation 8(1)(a), the MF/HF radio installation required by regulation 9(2)(a) or 10 (1), or the INMARSAT ship earth station required by regulation 9(1)(a) and any of the additional loads mentioned in paragraph (5), (6) and (9) for a period of at least;

(a) on new vessels:

(i) 3 hours, or.

(ii) 1 hour, if the emergency source of electrical power complies fully with all relevant requirements of the Consolidated Text including the requirements to supply the radio installations and is capable of serving for a period of at least 6 hours;

(b) on existing vessels:

(i) 6 hours, if the emergency source of electrical power is not provided or does not comply fully with all the relevant requirements of the Consolidated Text including the requirements to supply the radio installations¹; or

¹ For guidance, the following formula is recommended for determining the electrical load to be supplied by the reserve source of energy for each radio installation required for distress conditions: $\frac{1}{2}$ of the current consumption necessary for transmission + the current consumption necessary for reception + current consumption of any additional loads.

(ii) 3 hours, if the emergency source of electrical power complies fully with all relevant requirements of the Consolidated Text including the requirements to supply the radio installations; or

(iii) 1 hour, if the emergency source of electrical power complies fully with all the relevant requirements of the Consolidated Text including the requirements to supply the radio installations and is capable of serving for a period of at least 6 hours.

(3) The reserve source or sources of energy need not supply independent HF and MF radio installations at the same time.

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

(5) Where, in addition to the VHF installation, two or more of the other radio installations, referred to in paragraph (2), 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 paragraph (2) the VHF radio installation and :

(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.

(6) The reserve source or sources of energy may be used to supply the electrical lighting required by regulation 5(2)(d).

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

(a) a means of automatically charging such batteries shall be provided which shall be capable of recharging them to minimum capacity requirements within 10 hours; and

(b) the capacity of the battery or batteries shall be checked, using an appropriate method, at intervals not exceeding 12 months, when the ship is not at sea.

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

(a) the highest degree of service;

(b) a reasonable lifetime;

(c) reasonable safety;

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

(e) that when fully charged, the batteries will provide at least the minimum required hours of operation under all weather conditions; and

(f) that the batteries are situated in the upper part of the fishing vessel.

(9) If an uninterrupted input of information from the ship's navigational or other equipment to a radio installation required by these Regulations 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.

Performance standards.

13. Equipment required to be provided under these Regulations and radio equipment required for Life Saving shall:

(1) comply with the requirements specified in Council Directive 96/98/EC of 20 December, 1996¹, and

¹ OJ No. 46, 17.2.97, p.25

(2) conform to appropriate performance specifications issued by the Director of Telecommunications Regulation, and the references to those standards and specifications shall be deemed to include references to any standards or specifications set out in any document amending the same which is considered by the Director to be relevant from time to time.

Serviceability and maintenance requirements.

14. (1) Equipment shall be so designed that the main units can be replaced readily, without elaborate recalibration or readjustment.

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

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

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

(5) Radio equipment required by these Regulations shall be maintained to provide the availability of the functional requirements specified in regulation 4 and to meet the recommended performance standards of such equipment.

(6) On vessels 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 approved by the Minister.

(7) On vessels 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 approved by the Minister. However, the Minister may exempt a vessel from the requirement of using two methods and allow the use of one method, taking account of the type of vessel and its mode of operation.

(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 4, malfunction of the equipment for providing the general radiocommunications required by regulation 4(h) shall not be considered as a contravention of regulation 4 (h), or of making a ship unseaworthy or as a reason for delaying a vessel in a port where repair facilities are not readily available, provided the vessel is capable of performing all distress and safety functions.

(9) In all vessels registered in the State, a person nominated by the Skipper shall, while the vessel is at sea, carry out the appropriate tests and checks specified in Schedule I to these Regulations. If any of the radio installations required by these Regulations is not in a working order, the Skipper shall be informed and the details recorded in the Radio Log.

Radio personnel.

15. (1) Every vessel shall carry personnel qualified for distress and safety radio communication purposes as specified in paragraph (2) of this regulation. The personnel shall be holders of certificates specified in the Radio Regulations as

appropriate, one of whom shall be designated to have primary responsibility for radio communications during distress incidents, and be holders of an authorization granted by the Director of Telecommunications Regulation to operate a radio station established in a vessel under a licence granted by the said Director.

(2) The personnel of stations on board vessels which operate in sea area A1 shall hold at least a GMDSS Restricted Operators Certificate (ROC). The personnel of stations on board vessels which sail in any other sea area shall hold at least a GMDSS General Operator Certificate (GOC).

Radio records.

16. A record shall be kept, as specified in Schedule II and as required by the Radio Regulations, of all incidents connected with the radiocommunication service which appear to be of importance to safety of life at sea.

PART 3 CLASS II FISHING VESSEL REQUIREMENTS

Functional requirements.

17. Every Class II fishing vessel, while at sea, shall be capable:

- (a) of transmitting ship-to-shore distress alerts
- (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) of transmitting and receiving bridge to bridge communications.

Installation, location and control of radio equipment

18. (1) Every vessel shall be provided with radio installations capable of complying with the functional requirements prescribed by regulation 17 throughout its intended voyage unless exempted under regulation 3.

(2) Every radio installation shall :

- (a) be so located that no harmful interference of mechanical, electrical or

other origin affects its proper use, and so as to ensure electromagnetic compatibility and avoidance of harmful interaction with other equipment and systems;

(b) be so located as to ensure the greatest possible degree of safety and operational availability;

(c) be protected against harmful effects of water, extremes of temperature and other adverse environmental conditions;

(d) be provided with reliable, permanently arranged electrical lighting, independent of the main and emergency sources of electrical power, for the adequate illumination of the radio controls and 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.

(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.

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

(5) (a) Where wire antennas are provided as part of a radio installation they shall be fitted with suitable insulators and, if suspended between supports liable to whipping, be protected against breakage. In addition, a spare wire antenna completely assembled for rapid replacement shall be carried.

(b) Where MF and MF/HF radio installations are provided with an antenna which is not a supported wire antenna, a spare antenna of similar electrical characteristics shall be carried.

Radio equipment to be provided for all sea areas.

19. (1) Every Class II fishing vessel shall be provided with:

(a) a VHF radio installation capable of transmitting and receiving :

(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 vessel is normally navigated; and

(ii) radiotelephony on the frequencies 156.300 Mhz (channel 6) 156.650 Mhz (channel 13), and 156.800 Mhz (channel 16)

(b) a 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-paragraph (a)(i);

(c) a radar transponder capable of operating in the 9GHz band, which shall be stowed so that it can be easily utilized.

(d) a satellite emergency position-indicating radio beacon (satellite EPIRB) which shall be:

- (i) capable of transmitting a distress alert either through the polar orbiting satellite service operating in the 406 Mhz and 121.5 Mhz bands, or in sea areas A1, A2 and A3 only, through the INMARSAT Geostationary Satellite Service operating in the 1.6 GHz band;
- (ii) installed in a readily 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 vessel sinks and of being automatically activated when afloat; and
- (v) capable of being activated manually.

(e) a receiver capable of receiving International NAVTEX service broadcasts if the vessel is engaged on voyages in any area in which an International NAVTEX service is provided.

(f) a radio facility for the reception of maritime safety information by the Inmarsat enhanced group calling system if the vessel is engaged on voyages in any area of Inmarsat coverage in which an International NAVTEX service is not provided.

(g) a portable VHF radiotelephone which shall:

- (i) be waterproof, and capable of transmitting and receiving radiotelephony on the frequencies 156.300 MHz (Channel 6), 156.650 MHz (Channel 13) and 156.800 Mhz (Channel 16),
- (ii) be located in a readily accessible position in the wheelhouse,
- (iii) have a fully charged power pack available at all times while the vessel is at sea.

Additional radio equipment to be provided for sea areas A1 and A2

20. In addition to meeting the requirements of Regulation 19, every vessel engaged on voyages beyond Sea Areas A1, but remaining within Sea Area A2, shall be provided with:

(a) an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies:

- (i) 2187.5 kHz (assigned frequency) using DSC; and
- (ii) 2182 KHz using radiotelephony; and,

(b) a radio installation capable of maintaining a continuous DSC watch on the

frequency 2,187.5 KHz (assigned frequency) which may be separate from, or combined with, that required by subparagraph (a) (i).

Additional radio equipment to be provided for sea areas A1, A2 and A3

21. (1) In addition to meeting the requirements of Regulation 19 and 20, every Class II fishing vessel engaged on occasional voyages beyond Sea Areas A1 and A2, but remaining within Sea Area A3, shall be provided 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 distress priority calls;

(iii) maintaining watch for shore-to-ship distress alerts, including those directed to specifically defined geographical areas;

(iv) transmitting and receiving general radiocommunications, using either radiotelephony or direct-printing telegraphy; or

(b) an MF/HF radio installation capable of transmitting and receiving, for distress and safety purposes, on all distress and safety frequencies in the bands between 1,605 KHz and 4,000 KHz and between 4,000 KHz and 27,500 KHz:

(i) using DSC;

(ii) using radiotelephony.

(c) equipment capable of maintaining DSC watch on 2,187.5 KHz, 8,414.5 KHz (assigned frequencies) 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 (assigned frequencies); 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 regulation 20(a) and (b).

(2) It shall be possible to initiate transmission of distress alerts by the radio installations specified in regulation 19(1)(a), regulation 20(a)(i) and regulation 21(1)(a) and regulation 21(1)(b)(i) from the position from which the vessel is normally navigated.

Radio watches

22. (1) Every vessel while at sea shall maintain a continuous watch:

(a) on VHF DSC channel 70, if the vessel, in accordance with the requirements of regulation 19 (1) (b), is fitted with a VHF radio installation;

(b) on the distress and safety DSC frequency 2187.5 kHz, if the vessel, in accordance with the requirements of regulation 20 (1) (b), is fitted with an MF radio installation;

(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 geographical position of the vessel, if the vessel, in accordance with regulation 21(1)(c) is fitted with an MF/HF radio installation. This watch may be kept by means of a scanning receiver;

(d) for satellite shore-to-ship distress alerts, if the vessel, in accordance with the requirements of regulation 21(1)(a) (iii), is fitted with an INMARSAT ship earth station.

(2) Every vessel, 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 vessel is navigating.

(3) Until February 2005, every vessel 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 vessel is normally navigated.

Sources of energy

23. (1) There shall be available at all times, while the vessel is at sea, a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source or sources of energy for the radio installations.

(2) A reserve source or sources of energy shall be provided on every vessel, to supply radio installations, for the purpose of conducting distress and safety radiocommunications, in the event of failure of the vessel's main source of electrical power. The reserve source or sources of energy shall be capable of simultaneously operating the VHF radio installation required by Regulation 19, and any of the additional loads mentioned in Regulation 20 and Regulation 21 for a period of at least six hours:

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

(4) The reserve source or sources of energy may be used to supply the electrical lighting required by regulation 18(d)

(5) Where a reserve source of energy consists of a rechargeable accumulator battery or batteries:

(a) a means of automatically charging such batteries shall be provided which shall be capable of recharging them to minimum capacity requirements within 10 hours; and

(b) the capacity of the battery or batteries shall be checked, using an appropriate method, at intervals not exceeding 12 months, when the vessel is not at sea.

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

(a) the highest degree of service;

(b) a reasonable lifetime;

(c) reasonable safety;

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

(e) that when fully charged, the batteries will provide at least the minimum required hours of operation under all weather conditions.

(f) that the batteries are situated in the upper part of the fishing vessel.

(7) If an uninterrupted input of information from the ship's navigational or other equipment to a radio installation required by these Regulations 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.

(8) For the purpose of calculating the required capacity of the reserve source or sources of energy, the following formula is recommended for determining the electrical load to be supplied by the reserve source or sources of energy for each radio installation required for distress conditions:

- $\frac{1}{2}$ of the current consumption necessary for transmission + the current consumption necessary for reception + the current consumption of any additional loads.

Performance standards

24. Equipment required to be provided under these Regulations shall conform to appropriate performance specifications issued by the Director of Telecommunications Regulation, and the references to those specifications shall be deemed to include references to any specifications set out in any document amending the same which is considered by the Director to be relevant from time to time.

Serviceability and maintenance requirements

25. (1) Equipment shall be so designed that the main units can be replaced readily, without elaborate recalibration or readjustment.

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

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

(4) In all vessels registered in the State, a person nominated by the Master shall, while the vessel is at sea, carry out the appropriate tests and checks specified in Schedule I to these Regulations. If any of the radio installations required by these Regulations is not in a working order, the Master shall be informed and the details recorded in the Radio Log.

Radio personnel

26. (1) Every vessel shall carry personnel qualified for distress and safety radio

communication purposes as specified in paragraph (2) and (3) of this regulation.

(2) The personnel of stations on board vessels which operate in sea area A1 shall hold at least the Radio Operator's Short Range Certificate granted by the Director of Telecommunications Regulation, or an equivalent certificate recognised by the Director as being equivalent, and be the holder of an authorization granted by the Director of Telecommunications Regulation to operate a radio station established in a vessel under a licence granted by the said Director.

(3) The personnel of stations on board vessels which operate in sea areas A2 and A3 shall hold at least the Radio Operator's Long Range Certificate granted by the Director of Telecommunications Regulation, or an equivalent certificate recognised by the Director as being equivalent, and be the holders of an authorization granted by the Director of Telecommunications Regulation to operate a radio station established in a vessel under a licence granted by the said Director.

Radio records

27. A record shall be kept, as specified in Schedule II and as required by the Radio Regulations, of all incidents connected with the radiocommunication service which appear to be of importance to safety of life at sea.

PART 4 CLASS III FISHING VESSEL REQUIREMENTS.

Functional requirements.

28. Every Class III fishing vessel, while at sea, shall be capable:

- (a) of transmitting ship-to-shore alerts
- (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) of transmitting and receiving bridge to bridge communications.

Installation, location and control of radio equipment

29. (1) Every vessel shall be provided with radio installations capable of complying with the functional requirements prescribed by Regulation 28 throughout its intended voyage unless exempted under Regulation 3.

(2) Every radio installation shall:

(a) be so located that no harmful interference of mechanical, electrical or other origin affects its proper use, and so as to ensure electromagnetic compatibility and avoidance of harmful interaction with other equipment and systems;

(b) be so located as to ensure the greatest possible degree of safety and operational availability;

(c) be protected against harmful effects of water, extremes of temperature and other adverse environmental conditions;

(d) be provided with reliable, permanently arranged electrical lighting, independent of the main and emergency sources of electrical power, for the adequate illumination of the radio controls and 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.

(3) Control of the VHF radiotelephone channels, required for navigational safety, shall be immediately available in the wheelhouse, convenient to the conning position.

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

(5) Where wire antennas are provided as part of a radio installation they shall be fitted with suitable insulators and, if suspended between supports liable to whipping, be protected against breakage.

Radio equipment to be provided for all sea areas.

30. (1) Every Class III fishing vessel shall be provided with:

(a) a VHF radio installation capable of transmitting and receiving:

(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 vessel is normally navigated; and

(ii) radiotelephony on the frequencies 156.300 MHz (channel 6), 156.650 MHz (channel 13), and 156.800 MHz (channel 16).

(b) a 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-paragraph (a)(i);

(c) a radar transponder capable of operating in the 9 GHz band, which:

(i) shall be stowed so that it can be easily utilised.

(d) a satellite emergency position-indicating radio beacon (satellite EPIRB) which shall be:

(i) capable of transmitting a distress alert either through the polar orbiting satellite service operating in the 406MHz and 121.5MHz bands;

(ii) installed in a readily 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 vessel sinks and of being automatically activated when afloat; and

(v) capable of being activated manually.

(e) a receiver capable of receiving International NAVTEX service broadcasts

Additional radio equipment to be provided for Sea Areas A1 and A2.

31. In addition to meeting the requirements of Regulation 30, every Class III fishing vessel engaged on occasional voyages beyond Sea Area A1 but remaining within sea area A2 shall be provided with:

(a) an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies:

(i) 2187.5 KHz (assigned frequency) using DSC; and

(ii) 2182 kHz using radiotelephony;

(b) a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 kHz (assigned frequency) which may be separate from, or combined with, that required by subparagraph (a)(i);

(c) a portable VHF radiotelephone which shall:

(i) be waterproof, and capable of transmitting and receiving radiotelephony on the frequencies 156.300MHz (Channel 6), 156.650MHz (Channel 13) and 156.800 MHz (Channel 16);

(ii) be located in a readily accessible position in the wheelhouse; and

(iii) have a fully charged power pack available at all times while the vessel is at sea.

Radio Watches.

32. (1) Every vessel while at sea shall maintain a continuous watch:

- (a) on VHF DSC channel 70 if the vessel, in accordance with the requirements of Regulation 30, is fitted with a VHF radio installation;
 - (b) on the distress and safety DSC frequency 2,187.5kHz, if the vessel, in accordance with the requirements of Regulation 31 is fitted with an MF radio installation;
- (2) Every vessel, 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 vessel is navigating;
- (3) Until February, 2005, every vessel while at sea shall maintain, where practicable, a continuous watch on VHF channel 16. This watch shall be kept at the position from which the vessel is normally navigated.

Sources of energy.

- 33.** (1) There shall be available at all times, while the vessel is at sea, a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source or sources of energy for the radio installations.
- (2) A reserve source or sources of energy shall be provided on every vessel, to supply radio installations, for the purpose of conducting distress and safety radiocommunications, in the event of failure of the vessel'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 30, and any of the additional loads mentioned in Regulation 31 for a period of at least six hours.
- (3) The reserve source or sources of energy shall be independent of the propelling power of the vessel and the vessel's electrical system.
- (4) The reserve source or sources of energy may be used to supply the electrical lighting required by Regulation 29 (2)(d).
- (5) Where a reserve source of energy consists of a rechargeable accumulator battery or batteries:
- (a) a means of automatically charging such batteries shall be provided which shall be capable of recharging them to minimum capacity requirements within 10 hours; and
 - (b) the capacity of the battery or batteries shall be checked, using an appropriate method, at intervals not exceeding 12 months, when the vessel is not at sea
- (6) The siting and installation of accumulator batteries which provide a reserve source of energy shall be such as to ensure:
- (a) the highest degree of service;
 - (b) a reasonable lifetime;
 - (c) reasonable safety;

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

(e) that when fully charged, the batteries will provide at least the minimum required hours of operation under all weather conditions.

(f) that the batteries are situated in the upper part of the vessel.

(7) If an uninterrupted input of information from the vessel's navigational or other equipment to a radio installation required by these Regulations 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 vessel's main or emergency source of electrical power.

(8) For the purpose of calculating the required capacity of the reserve source or sources of energy, the following formula is recommended for determining the electrical load to be supplied by the reserve source or sources of energy for each radio installation required for distress conditions:

- $\frac{1}{2}$ of the current consumption necessary for transmission + the current consumption necessary for reception + the current consumption of any additional loads.

Performance standards.

34. Equipment required to be provided under these Regulations shall conform to appropriate performance specifications issued by the Director of Telecommunications Regulation, and the references to those specifications shall be deemed to include references to any specifications set out in any document amending the same which is considered by the Director to be relevant from time to time.

Serviceability and maintenance requirements.

35. (1) Equipment shall be so designed that the main units can be replaced readily, without elaborate recalibration or adjustment.

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

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

(4) On all vessels a member of the crew, nominated by the Skipper shall, while the vessel is at sea, carry out the appropriate tests and checks specified in Schedule I to these Regulations. If any of the radio installations required by these Regulations is not in a working order, the Skipper shall be informed and the details recorded in the Radio Log.

Radio personnel.

36. (1) Every vessel shall carry personnel qualified for distress and safety radio communication purposes as specified in paragraph (2) and (3) of this Regulation.

(2) The personnel of stations on board vessels which operate in sea area A1

shall hold at least the Radio Operator's Short Range Certificate granted by the Director of Telecommunications Regulation, or an equivalent certificate recognised by the Director as being equivalent, and be the holders of an authorization granted by the Director of Telecommunications Regulations to operate a radio station established in a vessel under a licence granted by the said Director.

(3) The personnel of stations on board vessels which operate in sea areas A2 and A3 shall hold at least the Radio Operator's Long Range Certificate granted by the Director of Telecommunications Regulation, or an equivalent certificate recognised by the Director as being equivalent, and be the holders of an authorization granted by the Director of Telecommunications Regulation to operate a radio station established in a vessel under a licence granted by the said Director.

Radio records.

37. A record shall be kept, as specified in Schedule II and as required by the Radio Regulations, of all incidents connected with the radiocommunication service which appear to be of importance to safety of life at sea.

PART 5 CLASS IV FISHING VESSEL REQUIREMENTS

Functional requirements.

38. Every Class IV fishing vessel, while at sea, shall be capable:

- (a) of transmitting ship-to-shore alerts
- (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 maritime safety information;
- (g) of transmitting and receiving ship to ship communications.

Installation, location and control of radio equipment.

39. (1) Every vessel shall be provided with radio installations capable of complying with the functional requirements prescribed by Regulation 38 throughout its intended voyage unless exempted under Regulation 3.

(2) Where, in the opinion of the Minister, it is feasible to comply with the functional requirements prescribed by Regulation 38 by means of a fixed installation, every radio installation shall:

- (a) be so located that no harmful interference of mechanical, electrical or other origin affects its proper use, and so as to ensure electromagnetic compatibility and avoidance of harmful interaction with other equipment and systems;
- (b) be so located as to ensure the greatest possible degree of safety and operational availability;
- (c) be protected against harmful effects of water, extremes of temperature and other adverse environmental conditions;
- (d) be clearly marked with the call sign, the ship station identity and other codes as applicable for the use of the radio installation.

(3) Control of the VHF radiotelephone channels, required for navigational safety, shall be immediately available in the wheelhouse, convenient to the conning position.

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

(5) Where, in the opinion of the Minister, it is not feasible to comply with the requirements prescribed by Regulation 38 by means of a fixed installation, every radio installation shall:

- (a) be an approved portable waterproof transmitter and receiver;
- (b) be provided with a suitable antenna; and
- (c) be provided with a fully charged sealed reserve power pack at all times while the vessel is at sea.

Radio equipment to be provided for all sea areas.

40. Every Class IV fishing vessel shall be provided with:

(a) a VHF radio installation capable of transmitting and receiving radiotelephony on the frequencies 156.300 MHz (channel 6), 156.650 MHz (channel 13), and 156.800 MHz (channel 16).

(b) a satellite emergency position-indicating radio beacon (satellite EPIRB) which shall be :-

- (i) capable of transmitting a distress alert either through the polar orbiting satellite service operating in the 406MHz and 121.5 MHz bands, or the 1.6 GHz band;
- (ii) installed in a readily 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 vessel sinks and of being automatically activated when afloat; or

(v) capable of being activated manually.

Additional radio equipment to be provided for sea areas A1 A2.

41. In addition to meeting the requirements of Regulation 40, every Class IV fishing vessel engaged on voyages beyond Sea Area A1, but remaining within Sea Area A2, shall be provided with:

(a) a VHF radio installation capable of transmitting and receiving

(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 vessel is normally navigated; and

(ii) radiotelephony on the frequencies 156.300 MHz (Channel 6) , 156.650 MHz (Channel 13), and 156.800 MHz (Channel 16).

(b) a 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-paragraph (a)(i).

(c) an MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies:

(i) 2187.5 kHz (assigned frequency) using DSC; and

(ii) 2182 KHz using radiotelephony; and,

(d) a radio installation capable of maintaining a continuous DSC watch on the frequency 2,187.5 KHz (assigned frequency) which may be separate from, or combined with, that required by subparagraph (c) (i);

Radio Watches.

42. (1) Every vessel while at sea shall maintain a continuous watch:

(i) on VHF channel 16;

(ii) on VHF DSC channel 70, if the vessel, in accordance with the requirements of Regulation 41 (1) (a) (i) , is fitted with a VHF installation.

(iii) on the distress and safety DSC frequency 2187.5 kHz (assigned frequency), if the vessel, in accordance with the requirements of Regulation 41 (1) (c) (i), is fitted with an MF radio installation

(2) Every vessel, 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 vessel is navigating.

Sources of energy.

43. (1) There shall be available at all times, while the vessel is at sea, a supply of electrical energy sufficient to operate the radio installations and to charge any batteries used as part of a reserve source or sources of energy for the radio installations.

(2) A reserve source or sources of energy shall be provided on every vessel complying with the provisions of Regulation 40, to supply radio installations, for the purpose of conducting distress and safety radiocommunications, in the event of failure of the vessel's main source of electrical power. The reserve source or sources of energy shall be capable of simultaneously operating the VHF radio installation required by Regulation 40, and any of the additional loads mentioned in Regulation 41 for a period of at least six hours.

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

(4) Where a reserve source of energy consists of a rechargeable accumulator battery or batteries:

(a) a means of automatically charging such batteries shall be provided which shall be capable of recharging them to minimum capacity requirements within 10 hours; and

(b) the capacity of the battery or batteries shall be checked, using an appropriate method, at intervals not exceeding 12 months, when the vessel is not at sea

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

(a) the highest degree of service;

(b) a reasonable lifetime;

(c) reasonable safety;

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

(e) that when fully charged, the batteries will provide at least the minimum required hours of operation under all weather conditions; and

(f) that the batteries are situated in the upper part of the vessel.

(6) If an uninterrupted input of information from the vessel's navigational or other equipment to a radio installation required by these Regulations 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 vessel's main or emergency source of electrical power.

(7) For the purpose of calculating the required capacity of the reserve source or sources of energy, the following formula is recommended for determining the electrical load to be supplied by the reserve source or sources of energy for each radio installation required for distress conditions:

- $\frac{1}{2}$ of the current consumption necessary for transmission + the current consumption necessary for reception + the current consumption of any additional loads.

Performance standards.

44. Equipment required to be provided under these Regulations shall conform to appropriate performance specifications issued by the Director of Telecommunications Regulation, and the references to those specifications shall be deemed to include references to any specifications set out in any document amending the same which is considered by the Director to be relevant from time to time.

Serviceability and maintenance requirements.

45. (1) Equipment shall be so designed that the main units can be replaced readily, without elaborate recalibration or readjustment.

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

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

Radio personnel.

46. (1) Every vessel shall carry personnel qualified for distress and safety radio communication purposes as specified in paragraphs (2), and (3) of this Regulation.

(2) In the case of fishing vessels complying with the requirements of Regulation 41, the personnel shall be holders of at least the Restricted Certificate of Competency in Radiotelephony (VHF) granted by the Director of Telecommunications Regulation, or an equivalent certificate recognised by the Director of Telecommunications Regulation as being equivalent, and be the holders of an authorization granted by the Director of Telecommunications Regulation to operate a radio station established in a vessel under a licence granted by the said Director.

(3) In the case of fishing vessels complying with the additional requirements of Regulation 41, the personnel shall be holders of at least the Radio Operator's Long Range Certificate granted by the Director of Telecommunications Regulation, or an equivalent certificate recognised by the Director of Telecommunications Regulation as being equivalent, and be the holders of an authorization granted by the Director of Telecommunications Regulation to operate a radio station established in a vessel under a licence granted by the said Director.

SCHEDULE I

EQUIPMENT TESTS AND RESERVE POWER CHECKS

1. Daily

- (a) The proper functioning of the DSC facilities shall be tested at least once daily without radiation of signals, by use of the means provided by the equipment.
- (b) Batteries providing a source of energy for any part of the radio installations shall be tested daily and, where necessary, brought up to the fully charged condition.
- (c) Where the reserve source of energy is not a battery (for example, a motor generator), the reserve source of energy shall be tested daily.

2. Weekly

The proper operation of the DSC facilities shall be tested at least once each week by means of a test call, when within communication range of a coast radio station fitted with DSC equipment. Where a ship has been out of communication range of a coast radio station fitted with DSC equipment for a period of longer than one week, a test call shall be made on the first occasion that the ship is within communication range of such a coast radio station.

3. Monthly

- (a) Each EPIRB and satellite EPIRB shall be tested at least once each month to determine its capability to operate properly using the means provided on the device and without using the satellite system.
- (b) Each search and rescue radar transponder shall be checked at least once each month for security and signs of damage.
- (c) Each survival craft two-way VHF equipment shall be tested at least once each month on a frequency other than 156.800 MHz (VHF channel 16)
- (d) A check shall be made at least once each month on the security and condition of all batteries providing a source of energy for any part of a radio installation. The battery connections and compartment shall also be checked.

SCHEDULE II

RADIO LOG

The following shall be recorded in the Radio Log:

- (a) the time and source of each communication relating to distress, urgency and safety traffic and a summary of its contents,
- (b) the occurrence and time of important service incidents,
- (c) the position of the ship at, at least, one given time each day,

and the recording shall be made as soon as may be after the event concerned.

Given under my Official Seal, this 22 nd day of December, 1998

Michael Woods

Minister for Marine and Natural Resources

EXPLANATORY NOTE

These Regulations prescribe the radio equipment to be carried on board all fishing vessels for the purpose of safety and distress communications and alerting.

They implement the provisions of EU Council Directive 97/70/EC of 11 December, 1997¹ in relation to such equipment to be carried on board fishing vessels of 24 metres and over.

¹ OJ No. L34, 9.2.98, p.1